EM binder labels. 30mm Halfwidth *Note! This page is generated* ***automatically.***
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648160-010V
Issue 9810 Doc No. EM-82149-0109

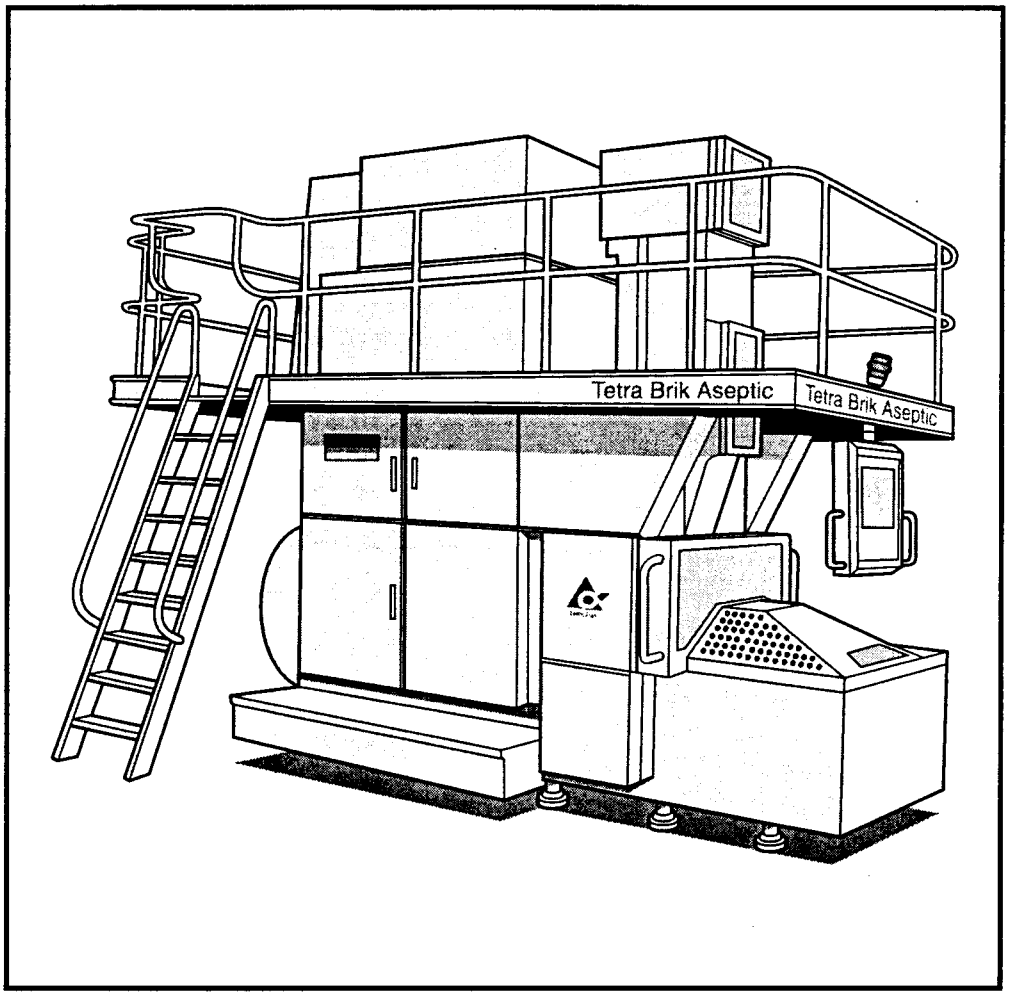
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648160-010V
Issue 9810 Doc No. EM-82149-0109

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Issue 9810 Doc No. EM-82149-0109

EM

Electrical Manual

TBA/19 010V



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Tetra Pak

Doc No. EM-82149-0109

This document is valid for:

Series No/ Machine No Sign.

Tetra Brik Aseptic TBA/19 648160-010V

El. ECN No.:
71701

Valid from Series No.:
20697 (Italy) except 20699
after 981013 (Sweden)

1 Introduction
(1-82455-0102)

2 Safety precautions
(2-82456-0102)

3 Electrical system description
(3-82457-0102)

4 Component location
(EM-82149-0109)

5 Circuit diagrams
(EM-82149-0109)

6 Connections diagrams
(EM-82149-0109)

7 Mains connections diagrams
(EM-82149-0109)

8 Program documents
(EM-82149-0109)

9 BE-list, CE-lists and terminals
(EM-82149-0109)

10 Optional equipment and kits
(EM-82149-0109)

11 Other information
(EM-82149-0109)

Issue 9810

Doc No. EM-82149-0109

Tetra Pak

Tetra Brik Packaging Systems

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1 Introduction

To ensure maximum safety, always read the *Safety precautions* section before doing any work on the equipment or making any adjustments.

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Machine orientation 1-24

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Equipment information

Purpose

The purpose of this Tetra Pak equipment is to pack liquid food products.

Manufacturer

This Tetra Pak equipment has been manufactured by:

Tetra Brik Packaging Systems AB
Ruben Rausings gata
221 86 LUND
Sweden

or by:

Tetra Brik Packaging Systems S.p.A.
Via Delfini 1
411 00 MODENA
Italy

Service

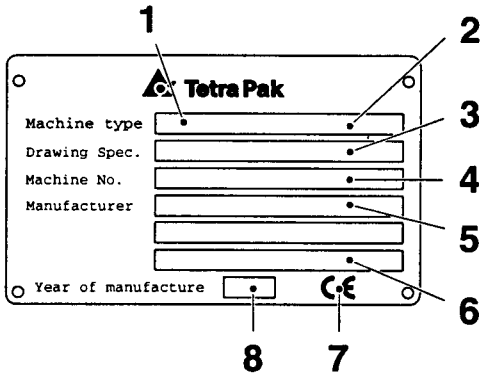
Contact the nearest Tetra Pak service station.

Identification

The figure shows an example of the equipment sign. The sign carries data needed when contacting Tetra Pak concerning this specific equipment.

CE marking

This equipment complies with the basic health and safety regulations of the European Economic Area (EEA).



1 Machine type
2 Volume
3 Drawing specifications
4 Machine serial number
5 Manufacturer
6 (Designed by)
7 CE mark
8 Year of manufacture

EM1.182455012int.fm

Document information

Purpose of Electrical Manual (EM)

The purpose of this Electrical Manual is to provide service technicians and electricians with all information on the electrical equipment required for service and maintenance of this Tetra Pak equipment.

It is important to:

- keep the manual for the life of the equipment,
- pass the manual on to any subsequent holder or user of the equipment.

Design modifications

The directives in this document are in accordance with the design and construction of the equipment at the time it was delivered from the Tetra Pak production plant.

Technical publications

The technical publications for this equipment are:

- Electrical Manual (EM)
- Installation Manual (IM)
- Maintenance Manual (MM)
- Operation Manual (OM)
- Spare Parts Catalogue (SPC)

Additional copies can be ordered from the nearest Tetra Pak service station. When ordering technical publications, always quote the **document number**.

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How to use the EM

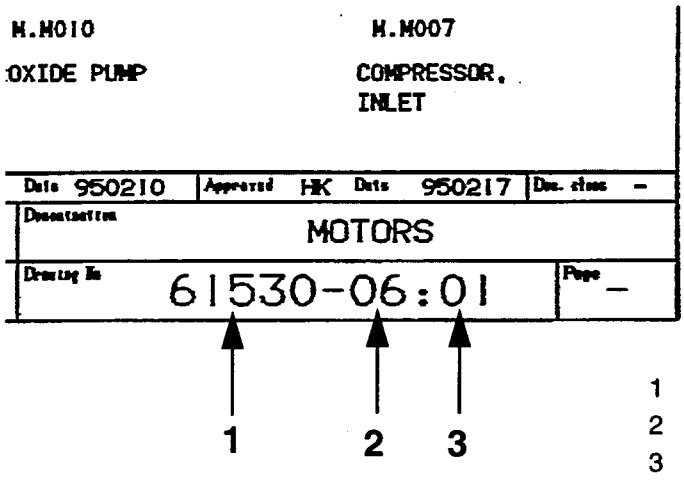
General

How to use the EM is an explanation of how to find your way through the chapters **Circuit diagrams, Component location, Connection diagrams, Mains connection diagrams** and **Program documents** in the EM.

The first page in each chapter is always a Table of Contents, listing all drawings included in the chapter.

The documents in the above-mentioned chapters are identified by:

- a main number (1)
- a sheet number (2)
- a version number (3)



1 Main number
2 Sheet number
3 Version number

The sheet number is the consecutive numbering of the sheets which belong to the main number and is used as a reference in the diagrams.

In the **Circuit diagrams**, the sheet(s):

- 5–88 are the drawings
- 89 is the earth summary
- 90 is the line summary
- 91 is the terminal summary
- 99 is the list of alteration messages

(Cont'd)

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(Cont'd)

The **Mains connection** diagram (the second connection diagram) shows how the machine should be connected to the local supply, the dimensions of the connection cable and the connection of the matching transformer (when used).

Caution! Always follow local regulations regarding the dimensions of the connection cable.

The PLC-listing in the section **Program documents** consists of a ladder diagram, a cross reference list, a variant depending document and a sequence diagram.

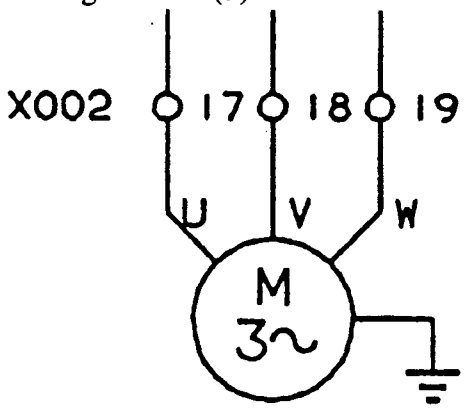
Enclosed are some examples of how to use the EM.

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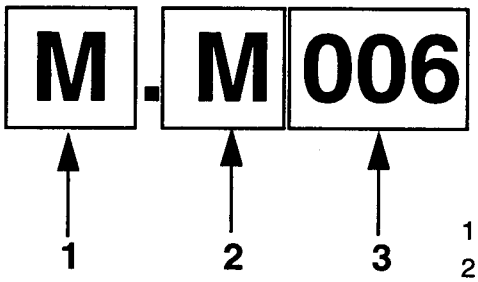
Numbering system for components

The position number is divided into three parts:

- prefix (1)
- function designation (2)
- running number (3)



M.M006



1 Prefix
2 Function designation
3 Running number

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Prefix (1)

The prefix shows the location of the component. Position numbers without a prefix indicate that the component is fitted in the electrical cabinet.

- the prefix M indicates that the component is fitted on the machine, outside the electrical cabinet
- the prefix P indicates that the component is fitted on a separate control panel

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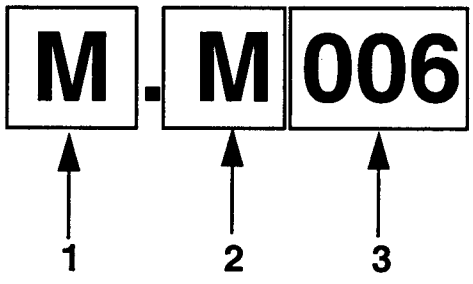
Function designation (2)

The function designation is indicated in accordance with international standards, see table below.

Designation	Signification in electrical diagram
A	Assemblies, Subassemblies
B	Transducers
C	Capacitors
D	Binary element, Delay devices, Storage devices
E	Miscellaneous
F	Protective devices
G	Generators, Power supplies
H	Signalling devices
K	Relays, Contactors
L	Inductors, Reactors
M	Motors
N	Analogue elements
P	Measuring equipment, Testing equipment
Q	Switching devices for power circuits
R	Resistors
S	Switching devices for control circuits selectors
T	Transformers
U	Modulators, Changers
V	Tubes, Semiconductors
W	Transmission paths, Waveguide aerials
X	Terminals, Plugs, Sockets
Y	Electrically operated mechanical devices
Z	Terminations, Hybrids, Filters, Equalizers, Limiters

Running number (3)

The electrical components are given numbers in a consecutive non-logical order.



1 Prefix
2 Function designation
3 Running number

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How to trace a cable

Example: How to trace cable No. 5

a) Go to the **Connection diagrams** chapter.

b) Find cable No. 5.

c) Note the component connected to the cable (M.M004).

d) Go to the **Circuit diagrams** chapter.

e) Go to the **Position summary** (first page(s) in the **Circuit diagrams**).

f) The sheet No. is located opposite the component No. (pos. M.M004). This tells you on which sheet in the **Circuit diagrams** the connection is shown.

g) Go to sheet 11 in the **Circuit diagrams**.

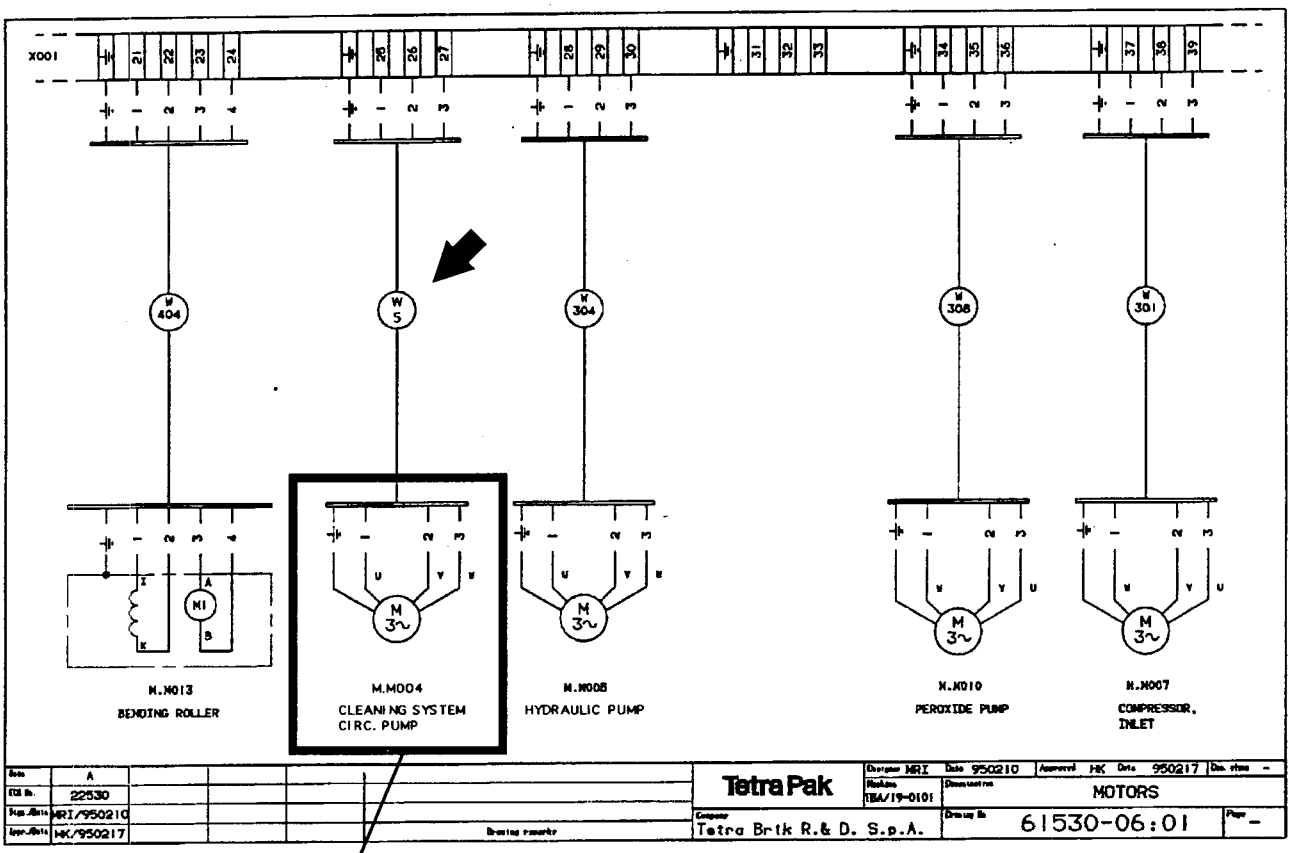
h) Find the component (M.M004).

i) If the component, as in this example, is controlled by a separate component, the sheet reference for this component (sheet 62) is found in the **Circuit diagrams**.

(Cont'd)

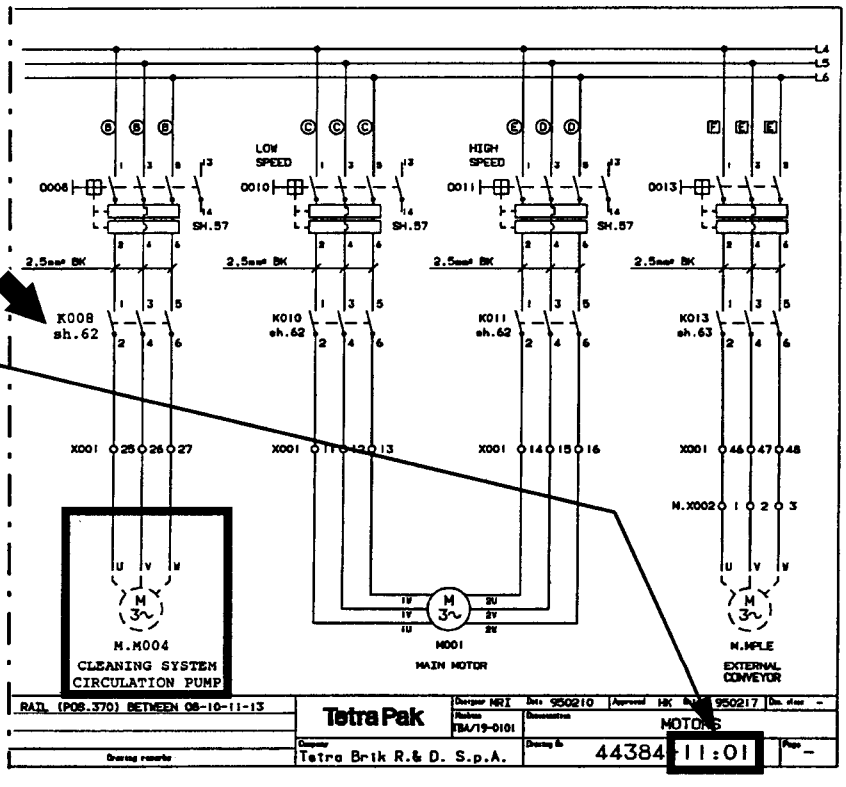
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Sheet	Position	Sheet
62:01	K206	08:02
63:01		
62:01	L001	06:02
62:01	M.L001	14:03
65:01	L002	06:02
63:01	M.L002	14:03
65:01	M.L003	15:01
65:01	L004	06:02
65:01	L005	06:02
64:02		
65:01	M.MPLE	11:01
62:01	M001	11:01
67:01	M002	32:03
66:01		
66:01	M.M004	11:01
67:01		
66:01	M.M006	12:01
66:01	M.M007	10:02
66:01	M.M010	10:02
66:01	M.M013	12:01
67:01	M.M014	10:02
67:01	M016	10:02
32:03	M.M017	10:02
67:01	M.M018	74:01
08:02		
08:02	P002	62:01
08:02	P003	72:01
08:02	P.P004	74:01
08:02	P005	06:02
32:03		

POSITION SUMMARY



(Cont'd)

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(Cont'd)

j) Go to sheet 62 in the **Circuit diagrams**.

k) Find the controlling component. (K008)

l) The figures 11 is a reference back to sheet 11.

m) The output (Q016) is a reference to the PLC-listing in the **Program documents** chapter.

n) Go to the **Program documents** chapter to see the use in the program.

o) Go to the cross reference list at the beginning of the PLC-listing and find the output (Q016).

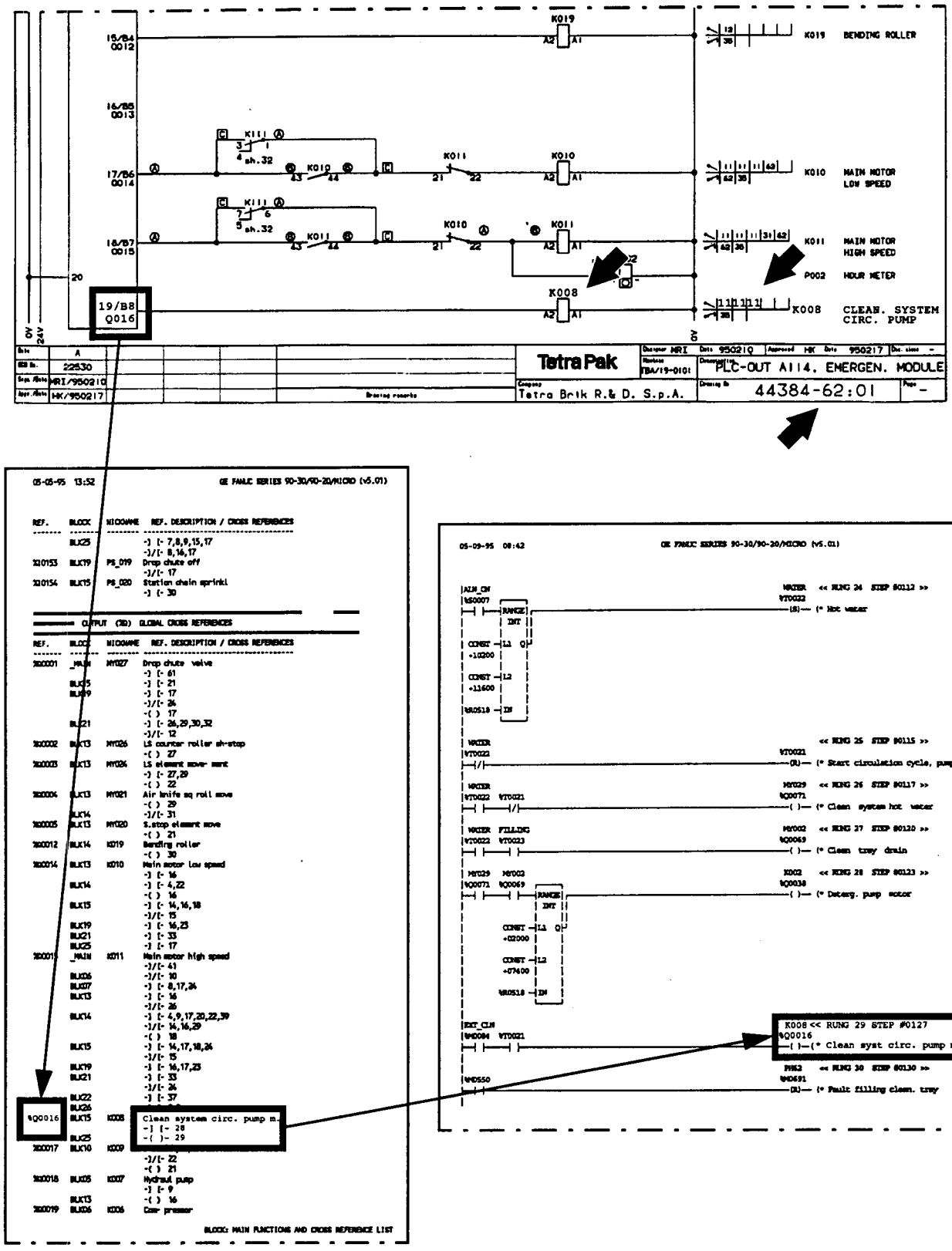
p) Note the rung Nos. in which the output is used (for example rung 29).

q) Go to the PLC-listing and find rung 29.

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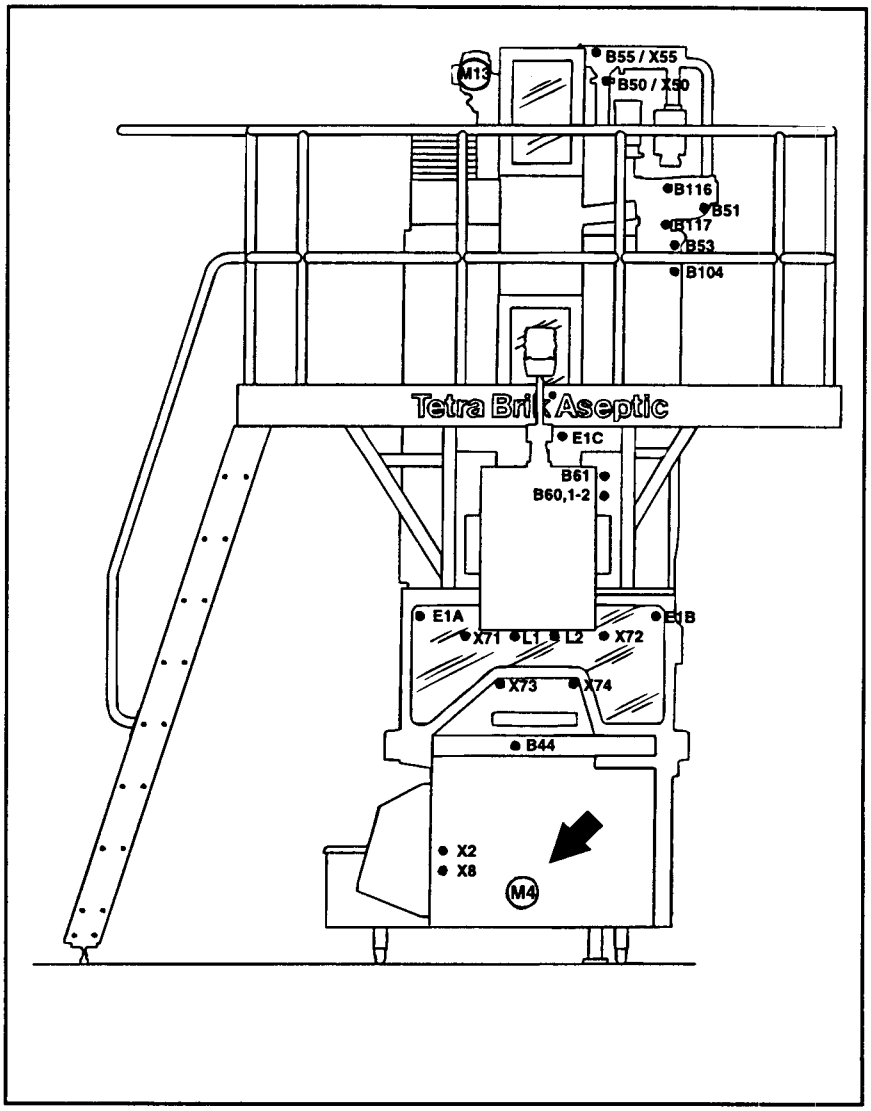


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(Cont'd)

r) The prefix M indicates that the component is fitted on the machine.

s) Go to the **Component location** chapter to find the position of the component (M004).



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How to trace a component

Example: How to trace sensor M.B104

a) Go to the **Circuit diagrams** chapter.

b) Go to the **Position summary** (first page(s) in the **Circuit diagrams**).

c) The sheet No. (sh.41) is located opposite the component No. (pos M.B104). This tells you on which sheet in the **Circuit diagrams** the connection is shown.

d) Go to sheet 41 in the **Circuit diagrams**.

e) Find the component (M.B104).

f) Note the connections (X001, 463-465).

g) Go to the **Connection diagrams** chapter.

h) Find the connection (X001, 463-465).

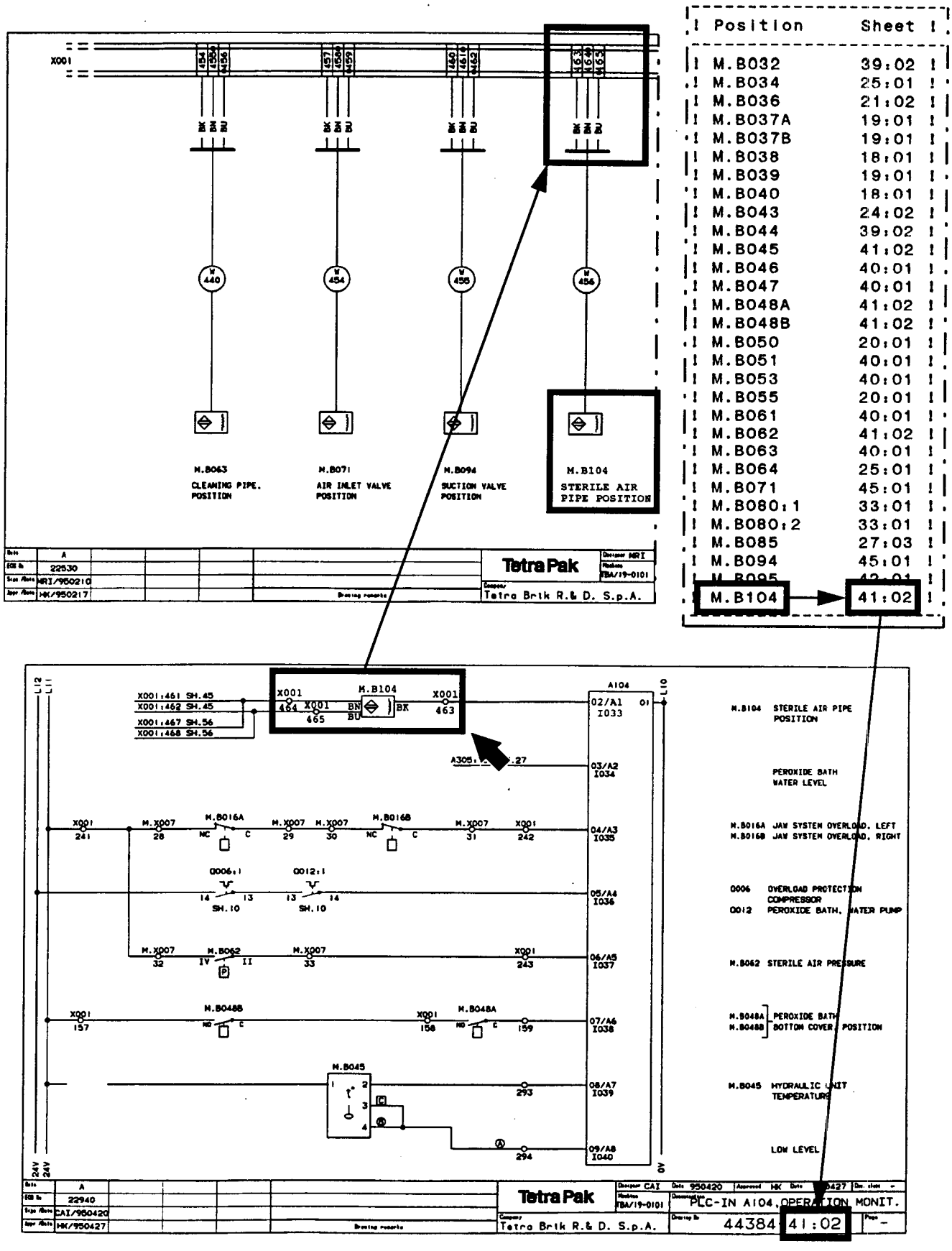
i) The **Connection diagram** shows how the sensor is connected (in this case via a connection box).

j) The input (I033) is a reference to the PLC-listing in chapter **Program documents**.

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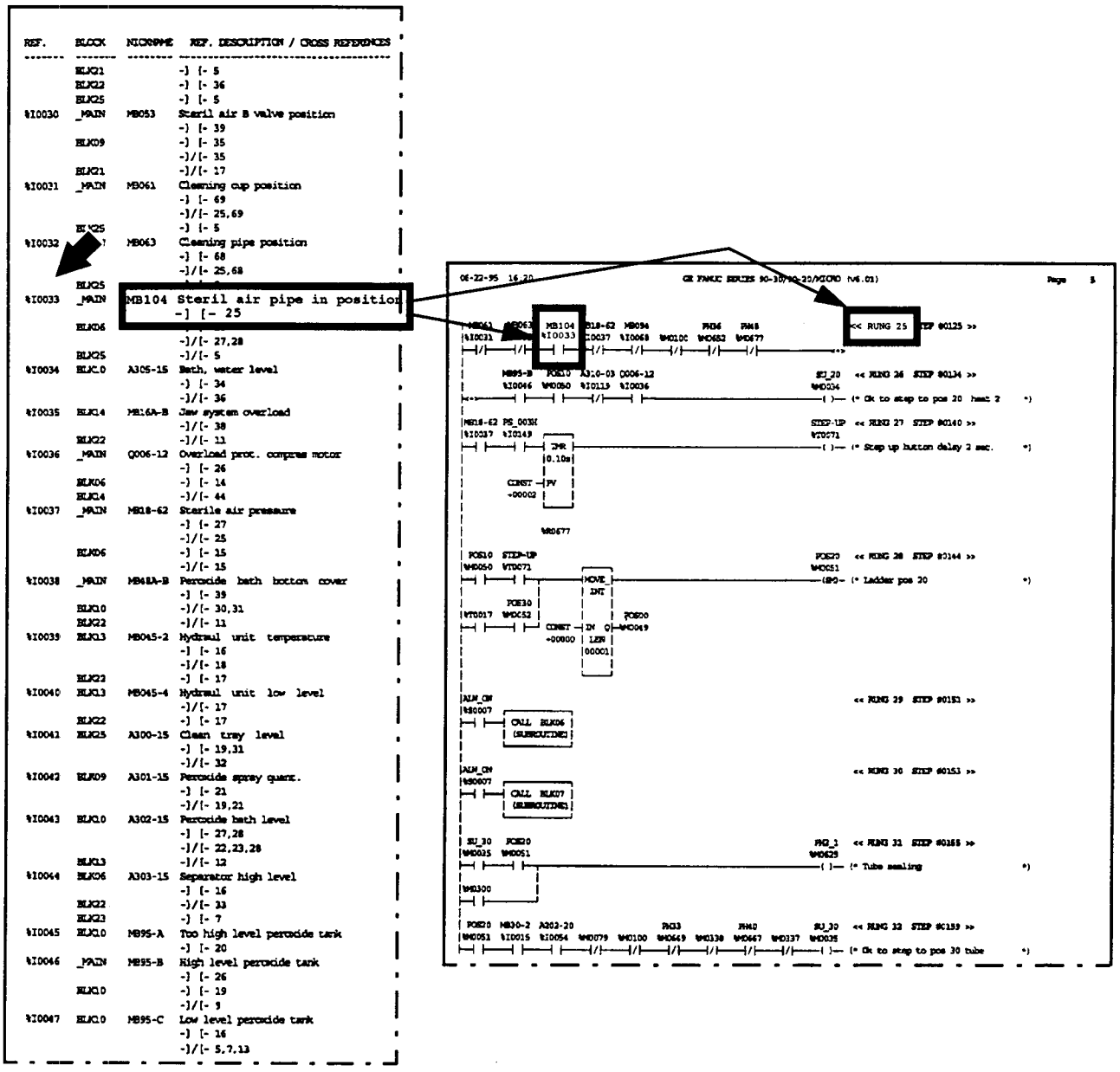
(Cont'd)

k) Go to the **Program documents** chapter to see the use in the program.

l) Go to the cross reference list at the end of the PLC-listing and find the input (I0033).

m) Note the rung Nos. of the block in which the inputs are used (for example rung 25).

n) Go to the PLC-listing and find rung 25.



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Supply voltage/Line connection order

The supply voltage in the electrical cabinet is named:

- L01 - L09: Power voltage
- L10 -: Control voltage

L10 is reserved for 0V, control voltage.

L11 is reserved for 24V, control voltage.

L20 is reserved for 0V, safety circuits.

L21 is reserved for 24V safety circuits.

L30 is reserved for 0V, safety circuits.

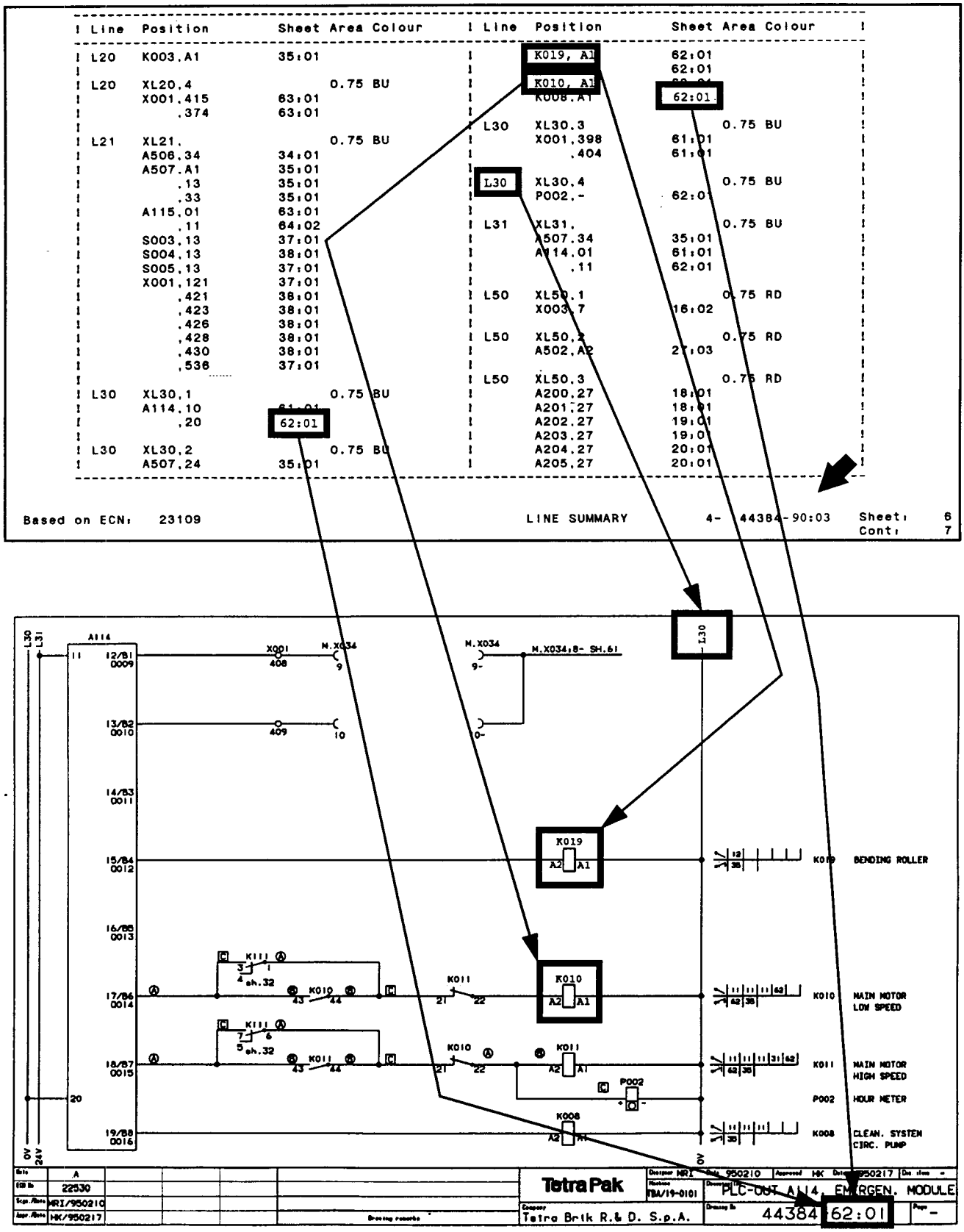
L31 is reserved for 24V, safety circuits.

In the **Circuit diagrams** chapter the line connection order is shown in the **Line summary** (sheet 90).

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How to trace a terminal

Example: Connection in connection terminal box M.X007, block 14-15

a) Go to the **Connection diagrams** chapter.

b) Find the connection box (M.X007 terminal block 14–15).

c) Note the component connected (M.Y043).

d) Go to the **Circuit diagrams** chapter.

e) Go to the **Terminal summary** (after the Circuit diagram drawings).

f) The sheet No. (sh.71) is located opposite the terminal No. (pos. M.X007, terminal block 14-15). This tells you on which sheet in the **Circuit diagrams** the connection is shown.

g) Go to sheet 71 in the **Circuit diagrams**.

h) Find the component (M.Y043).

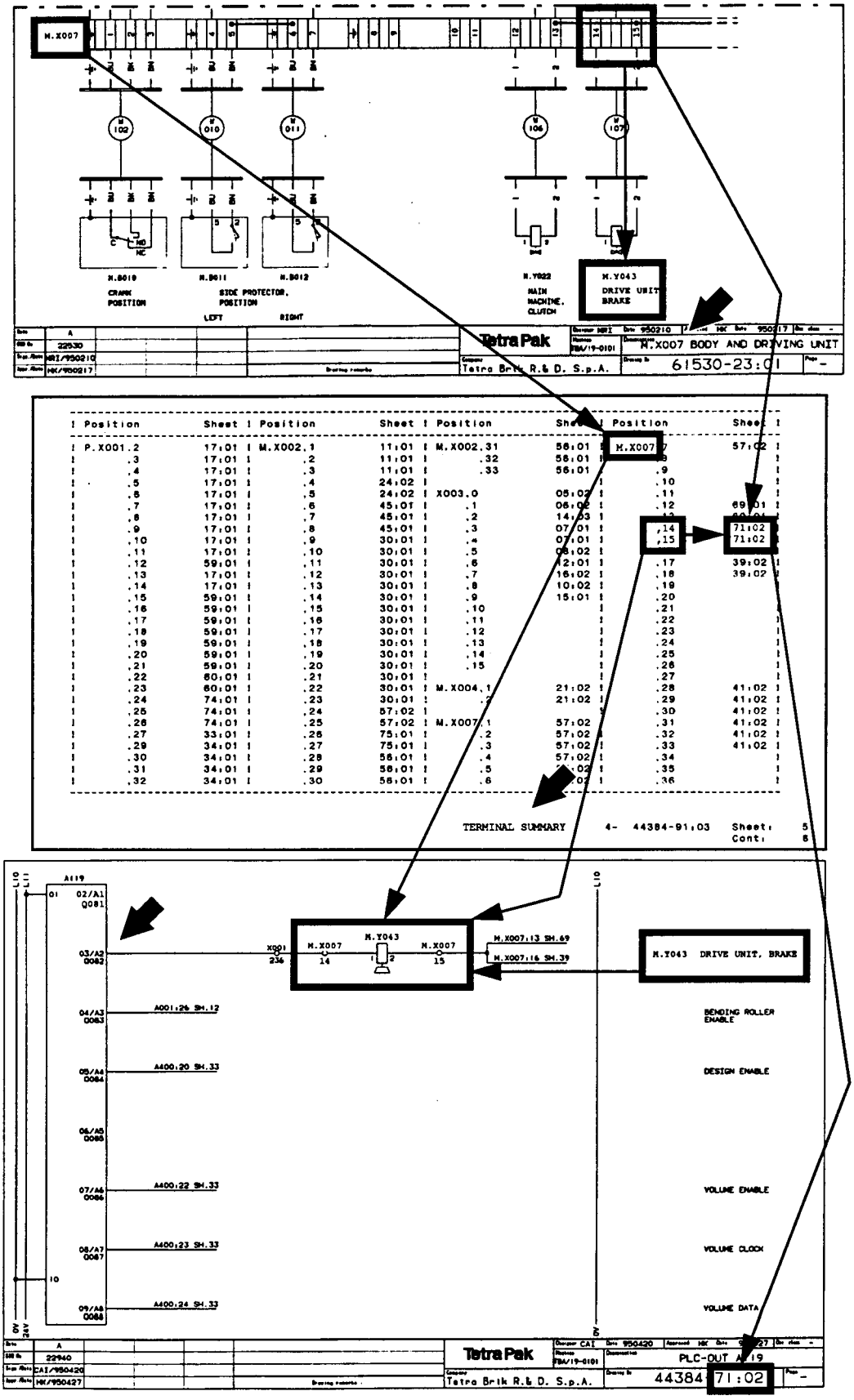
i) Note the connections (X007, 14-15).

j) The output (%Q082) is a reference to the PLC-listing in the **Program documents** chapter.

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(Cont'd)



(Cont'd)

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k) The prefix M indicates that the component is fitted on the machine.

l) Go to the **Component location** chapter to find the position of the component (Y043) on the machine.

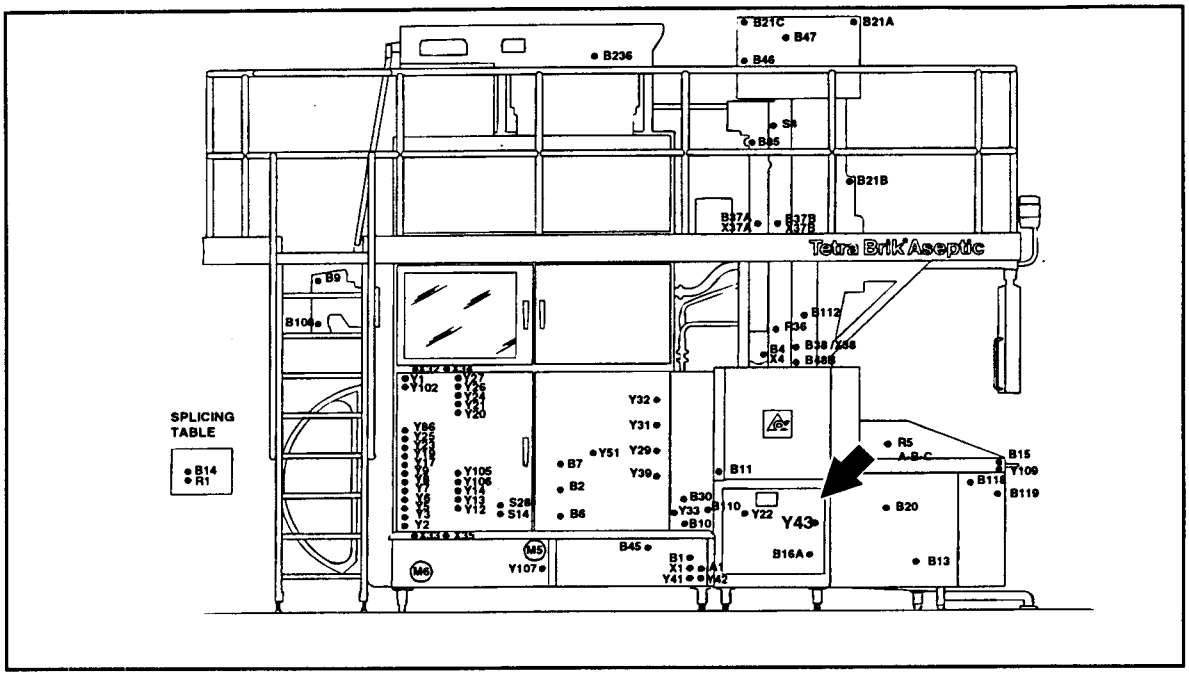
m) Go to the **Program documents** chapter to see the use in the program.

n) Go to the cross reference list at the end of the PLC-listing and find the output (%Q0082).

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(Cont'd)



REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-( ) 9
%I00075	BLK09	MY004	Spray peroxid air blowing
			-( ) 20
%I00076	BLK13	MY039	Tube flush
			-( ) 29
%I00077	BLK15	MY041	Pull down device
			-( ) 26
%I00078	BLK10	MY018	Top fil valve perox. bath
			-( ) 24
			-(S) 25
%Q0082	BLK14	MY043	Drive unit brake
			-( ) 28
%I00083	BLK14	A001-26	Enable bending roller
			-(/) 31

```
05-09-95  08:37          GE FANUC SERIES 90-30/90-20/MICRO (v5.01)          Page    5

%M0338
 ---| |---[ GE_ ]-------------------------------------------( )--- (* Delay brake on *)
          [ INT ]                                                %T0087  << RUNG 26  STEP #0110 >>
%R0049 ---[I1  Q]
 CONST ---[I2  ]
 +00008   [    ]

%T0006
 ---|/|-------------------------------------------------------( )--- (* Pulsing brake *)
                                                                %T0006  << RUNG 27  STEP #0113 >>
SHORTS                                  X01-230
%M0082  %T0006  %M0305  %M0306  %I0132
 ---| |---| |---| |---|/|---|/|-------------------------------( )--- (* Drive unit brake *)
                                                                MY043 <<RUNG 28 STEP #0115 >>
%T0062                                                          %Q0082
 ---| |---
```

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Abbreviations and terminology

Abbreviations and terminology used in this manual.

Abbreviation	Explanation
AB	Aseptic Brik (Step Production)
AP	Aseptic Product
CIP	Cleaning In Place
CPU	Central Processing Unit
ECN	Engineering Change Notice
FF	Final Folder
HF	High Frequency
IH	Induction Heating
LRF	Level Regulated Filling
LS	Longitudinal Seal(ing)
MM	Main Motor
PLC	Programmable Logic Controller
PLE	Packaging Line Equipment (Distribution Equipment)
RP	Remspåläggare (Strip Applicator)
SA	Strip Applicator
SASP	Sales Administration Spare Parts
SS	Short Stop
SU	Splicing Unit
TB	Tetra Brik
TBA	Tetra Brik Aseptic
TMCC	Tetra Pak Multipurpose Compact Controller
TPIH	Tetra Pak Induction Heating
TS	Transversal Seal(ing)
WEAC	Work Environment Aseptic Chamber

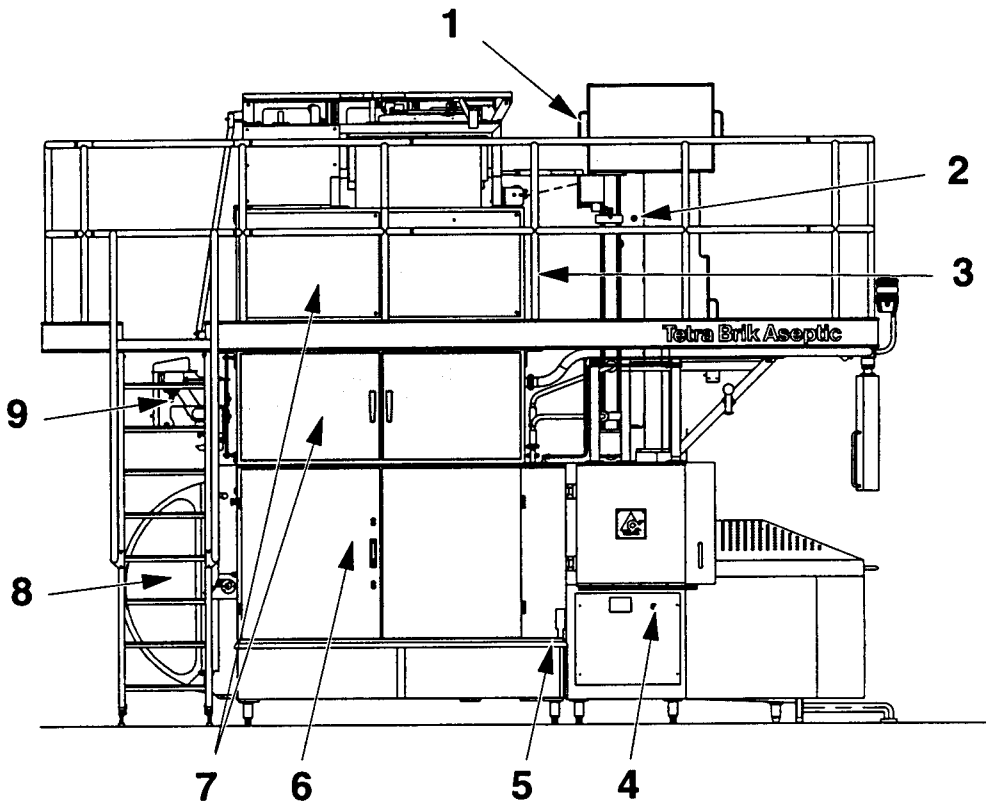
BE-List: A highest level bill of material in the electrical design structure, but which comes under and is specified in the A-list. The BE-list presents the next lowest level electrical design level (earlier referred to as the A-list).

CE-List: A bill of material under the BE-level in electrical documentation which presents all the parts or groups included in the groups (the C-group).

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Machine orientation

LH side of machine



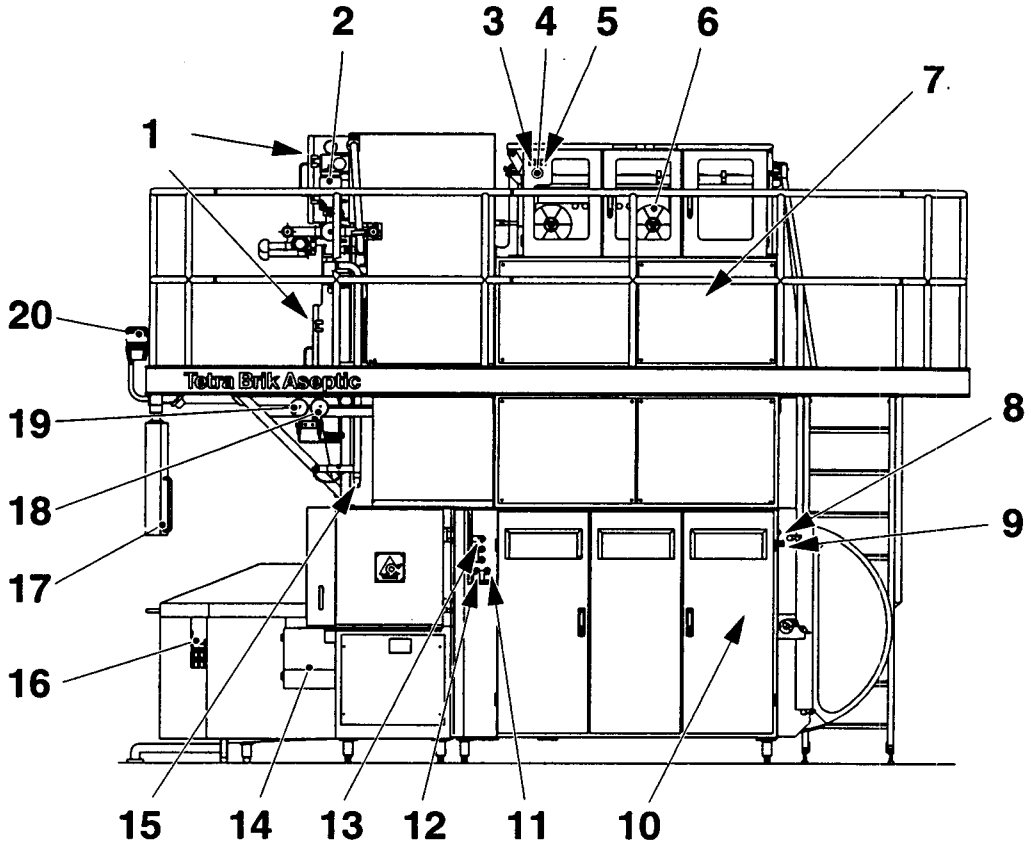
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1 Door of aseptic chamber
2 Emergency stop button
3 Main switch
4 Position for crank
5 Crank switch
6 Cabinet with valve panel
7 Electrical cabinet
8 Packaging material magazine
9 Dating unit

(Cont'd)

(Cont'd)

RH side of machine



1 Door of aseptic chamber
2 Product valve
3 Short stop button
4 Emergency stop button
5 Manual strip splice button
6 SA
7 TPIH generator
8 Short stop button
9 Emergency stop button
10 Cabinet with hydrogen peroxide container
11 Hot water inlet
12 Air inlet
13 Cold water inlet
14 Chute (discarded packages outlet)
15 CIP drainage
16 External conveyor
17 Operator panel
18 Pressure gauge, air pressure LS short stop
19 Pressure gauge, air pressure LS
20 Warning beacon

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2 Safety precautions

To ensure maximum safety, always read this section carefully before doing any work on the equipment or making any adjustments.

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Hazard information

General



Failure to observe information marked "DANGER!" **puts your life in danger.**



Failure to observe information marked "WARNING!" can result in **personal injury and/or serious damage to or destruction of equipment.**

Caution! Failure to observe information marked "Caution!" can result in **damage to equipment.**

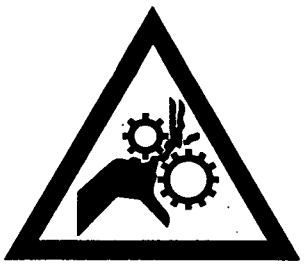
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Mandatory signs

 Wear eye protection	 Wear hearing protection
 Wear head protection	 Wear protective gloves
 Disinfect hands/gloves	

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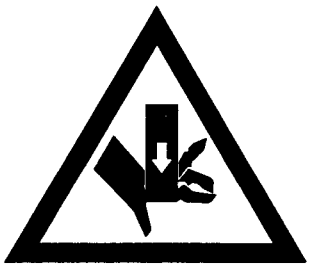
Danger and warning signs



Risk of entanglement!



Risk of corrosion!



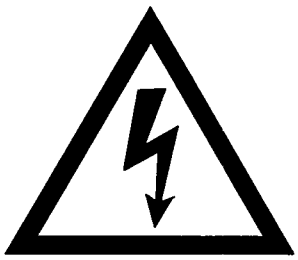
Risk of crushing!



Risk of cutting/amputation!



Risk of burns!



Risk of electrocution!

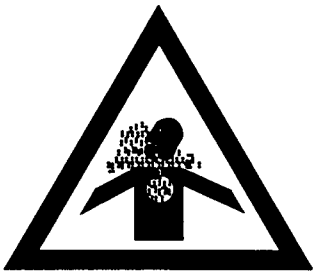
(Cont'd)

EM1.182456012sp.fm

(Cont'd)



Risk of crushing!



Risk of intoxication!



Risk of falling!

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Personnel

Only skilled or instructed persons are allowed to work on the equipment.

The manufacturer declines all responsibility for injury or damage if the instructions in this manual are not followed.

Personnel are responsible for:

- the equipment and the work area around the equipment
- all personnel in the vicinity of the equipment
- making sure that all safety devices are fully operational

Personnel must regard all electrical equipment as live. Before carrying out maintenance or repair work, switch the equipment off at the mains power and padlock the switch.

Electricians should be certified according to local regulations and have experience of similar types of installations, proven skills in reading and working from drawings and cable lists, and knowledge of local safety regulations regarding power and automation. Work with the electrical equipment must be performed only by skilled or instructed technicians.

According to EN 60204-1, 3.30 an instructed person is:

– *An individual adequately advised or supervised by a skilled person to enable that individual to avoid hazards which electricity can create (e.g. operating and maintenance staff).*

According to EN 60204-1, 3.55 a skilled person is:

– *An individual with technical knowledge or sufficient experience to enable that individual to avoid hazards which electricity can create.*

EM1.182456012sp.fm



General safety precautions

Wear hearing protection while the equipment is running.

Hygiene

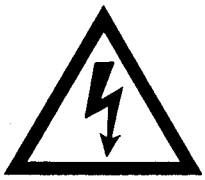
It is important to keep hands and/or gloves clean.

Disinfect hands and/or gloves before touching the packaging material, the strip(s) or any other equipment part that may come into contact with the product.

Clean the platforms, the ladder and the area around the equipment.

To avoid production faults, it is important that the packaging material and the strip(s) never touch the floor, the platform or the area around the equipment.

High voltage



Work with parts marked with this symbol must be performed by **skilled or instructed** persons **only**.

Make sure that the mains power is disconnected before starting any work on electrical equipment marked with this symbol.

In case of accident, call for medical attention immediately.

EM1.182456012sp.fm

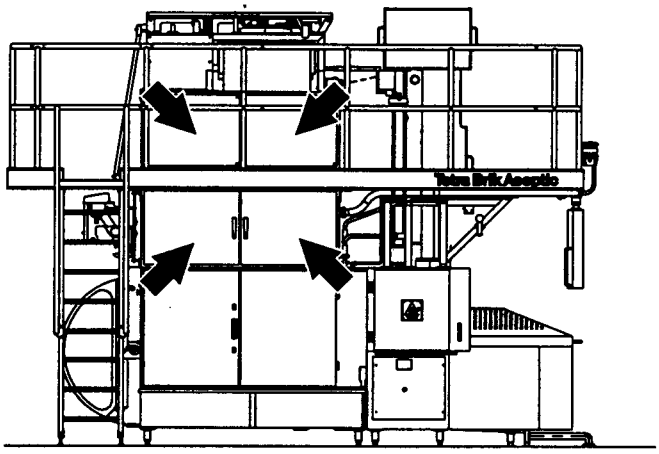
Electrical cabinet



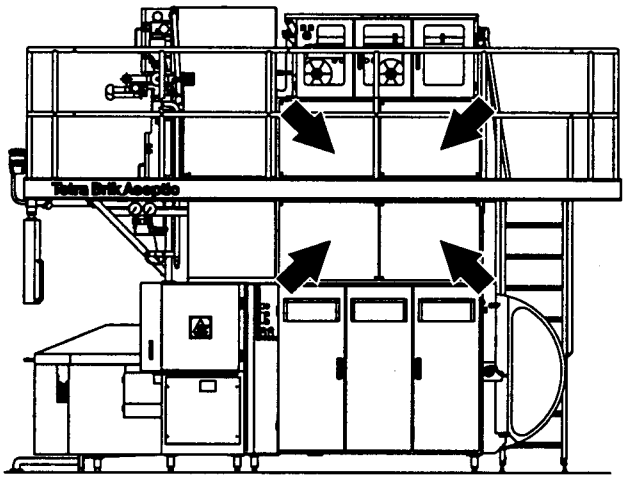
There is high voltage in the electrical cabinet (up to 400 V).

Work inside the electrical cabinet must be performed by skilled or instructed persons only.

Electrical cabinet doors locked with screws may be opened only by skilled or instructed persons.



LH side



RH side

EM1.182456012sp.fm

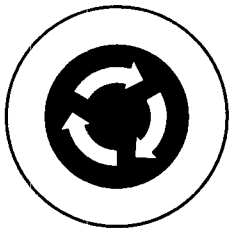
Machine safety devices

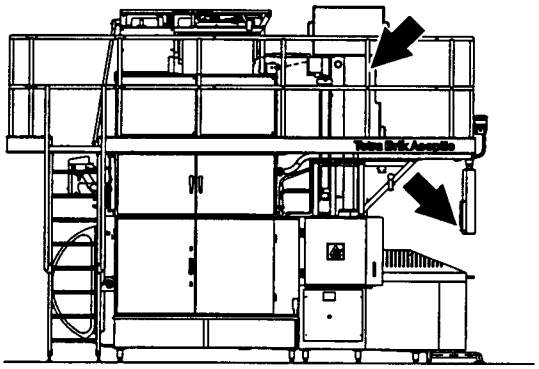
Emergency stop buttons

Learn the position of the **Emergency stop** buttons in order to stop the equipment immediately in case of danger to people or damage to the equipment.

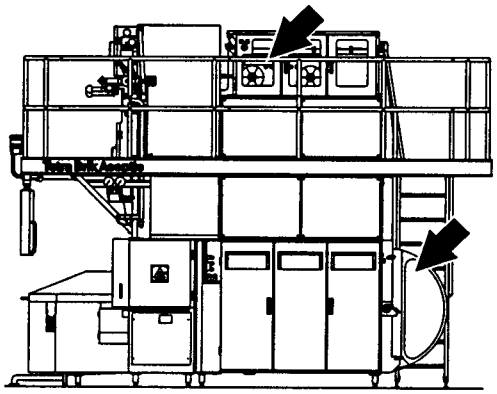
The **Emergency stop** buttons do not switch off the power at the mains power switch.

Pushing the **Emergency stop** buttons will reset the equipment program to **Zero** position and deactivate all pneumatic cylinders.





LH side



RH side

EM1.182456012sp.fm

Doors, covers and guards





Make sure that all doors, covers and guards are in place and functioning.

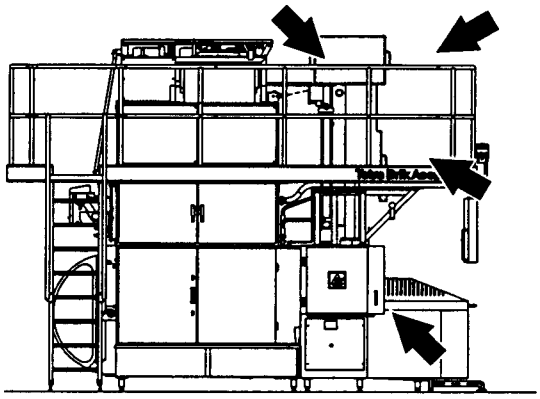
Never remove covers or guards while the equipment is operating.

Certain doors, covers and guards are fitted with safety switches. These switches are part of the safety system and must **never** be bridged, by-passed or otherwise made non-operational.

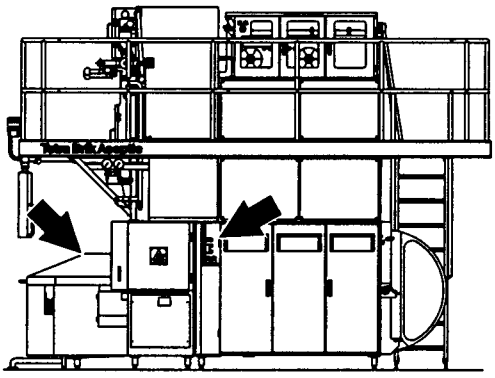
Never stop the equipment by opening a door or cover with a safety switch.

The equipment may perform a reciprocating movement during the first few seconds after a stop. Some equipment parts may also be hot.

In case of accident, call for medical attention.



LH side



RH side

EM1.182456012sp.fm

Chemical products



Risk of personal injury!
Certain chemical products are toxic and/or inflammable.
Carefully follow the instructions on the container label.

Follow the supplier's instructions for handling and disposal of the chemical products.

Personal protective equipment

- **Safety goggles**, TP No. 779130-102
- **Apron**, TP No. 90303-5
- **Shoes** made of PVC, PE plastic or rubber
- **Protective gloves** made of neoprene, TP No. 90303-4

Before starting work with any chemical products, make sure that:

- the showers work
- a portable, TP No. 90303-6, or wall-mounted eyewash device is available at or near each machine site
- there are additional washing facilities



General emergency procedures

If you accidentally **swallow** chemical products, drink large amounts of lukewarm water.

If you get splashes or vapour from chemical products in your **eyes**, wash your eyes thoroughly with lukewarm water for 15 minutes (keeping eyelids wide apart).

If chemical products come into contact with **skin** or **clothes**:

- rinse immediately with plenty of water
- if skin burns appear, call for medical attention immediately
- thoroughly wash clothes before wearing them again

If you experience irritation or pain due to having **inhaled** chemical products vapour:

- leave the affected area and get some fresh air
- if the symptoms get worse, call for medical attention

EM1.182456012sp.fm

Hydrogen peroxide

The liquid used for sterilising the packaging material consist of 35% hydrogen peroxide (H_2O_2).



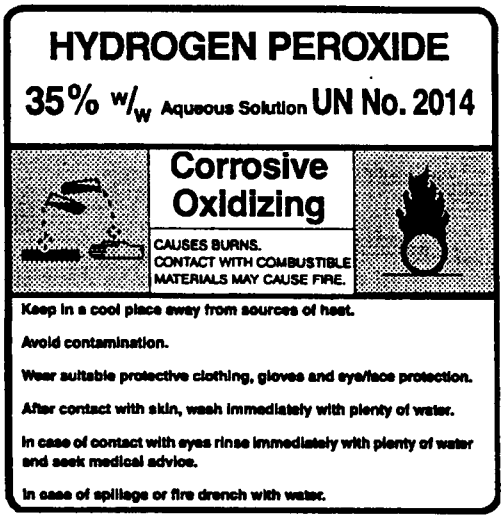
Hydrogen peroxide in liquid and gas form can cause irritation and injury if it comes into contact with the skin, mucous membranes, the eyes or clothes. Carefully follow the instructions on the can label.

Hydrogen peroxide can

HYDROGEN PEROXIDE:

- 35% w/w Aqueous Solution UN No. 2014
- Corrosive
- Oxidizing
- Causes burns. Contact with combustible materials may cause fire
- Keep in a cool place away from sources of heat
- Avoid contamination
- Wear suitable protective clothing, gloves, and eye/face protection
- After contact with skin, wash immediately with plenty of water and call for medical attention
- In case of contact with eyes, rinse immediately with plenty of water and call for medical attention
- In case of spillage or fire, drench with water

Reference: TP document No. M 1751.80



Example of can label

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EM1.182456012sp.fm

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Storage of hydrogen peroxide

Make sure that the area or room used for storage is:

- cool, clean and well ventilated
- shielded from direct sunlight
- free from combustible materials

Hydrogen peroxide must be stored only in its **original container** as delivered by the suppliers.

Keep the container upright and closed with a **proper ventilation cap** which allows oxygen to escape.

Pumps and other equipment used for hydrogen peroxide must be used **for this purpose only**.

Never put used hydrogen peroxide back into storage.

Disposal of hydrogen peroxide

Hydrogen peroxide should be sent for destruction by waste disposal specialists.



Risk of explosion!
Do not pour surplus hydrogen peroxide back into its original container. Hydrogen peroxide may decompose. In case of accident, call for medical attention immediately.

In some countries it is permitted to dilute hydrogen peroxide with water to a concentration below 1% and to dispose of it in the normal waste water drain. Hydrogen peroxide with a concentration below 1% is considered harmless.

EM1.182456012sp.fm

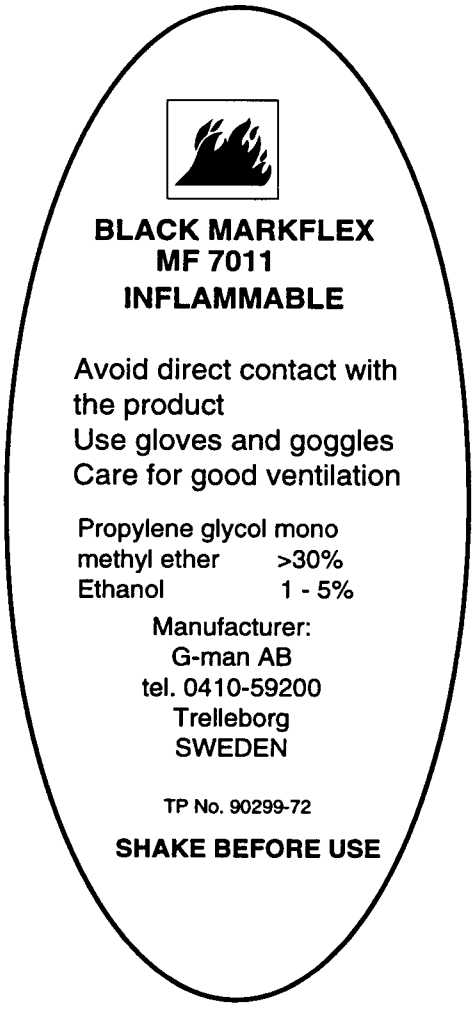
Ink



Risk of personal injury!
Ink is inflammable and can be harmful if it comes into contact with the eyes or skin. Carefully follow the instructions on the container label.

Ink container

- INFLAMMABLE
- Avoid direct contact with the product
- Use gloves and goggles
- Care for good ventilation
- Propylene glycol mono methyl ether >30%
- Ethanol 1-5%
- SHAKE BEFORE USE



EM1.182456012sp.fm

Equipment for lifting and moving loads



WARNING!

Make sure that the capacity of the lifting equipment is adeguate and that the equipment itself is in good working order.

If lifting tackle has to be joined to make up the necessary lenghts, make sure that the joins are secure and have the same lifting capacity as the rest of the tackle.

Always engage the safety clip on lifting hooks to prevent the tackle from slipping off.

Use ropes or poles to steady and manoeuvre loads. Do **not** use hands or feet.

Make sure that the route and the destination are free from obstacles before moving a suspended load. It must be possible to lower the load to the floor quickly and safely in an emergency.

When depositing loads, keep the lifting equipment in place until the stability of the load has been checked.

EM1.182456012sp.fm

3 Electrical system description

EM1.182457012en.fm

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Safety system **3-3**

EM1.182457012en.fm

Safety system

The safety system is controlled by two safety relay modules. When the modules are not in an safety condition, the two outputs are logically true.

An emergency condition is created by pressing the emergency buttons. An safety condition is created by opening doors fitted with safety switches, see section *Safety precautions.*

To reset the machine from the emergency condition, release the emergency stop buttons, push **Alarm reset** and wait for the PLC to perform a reset.

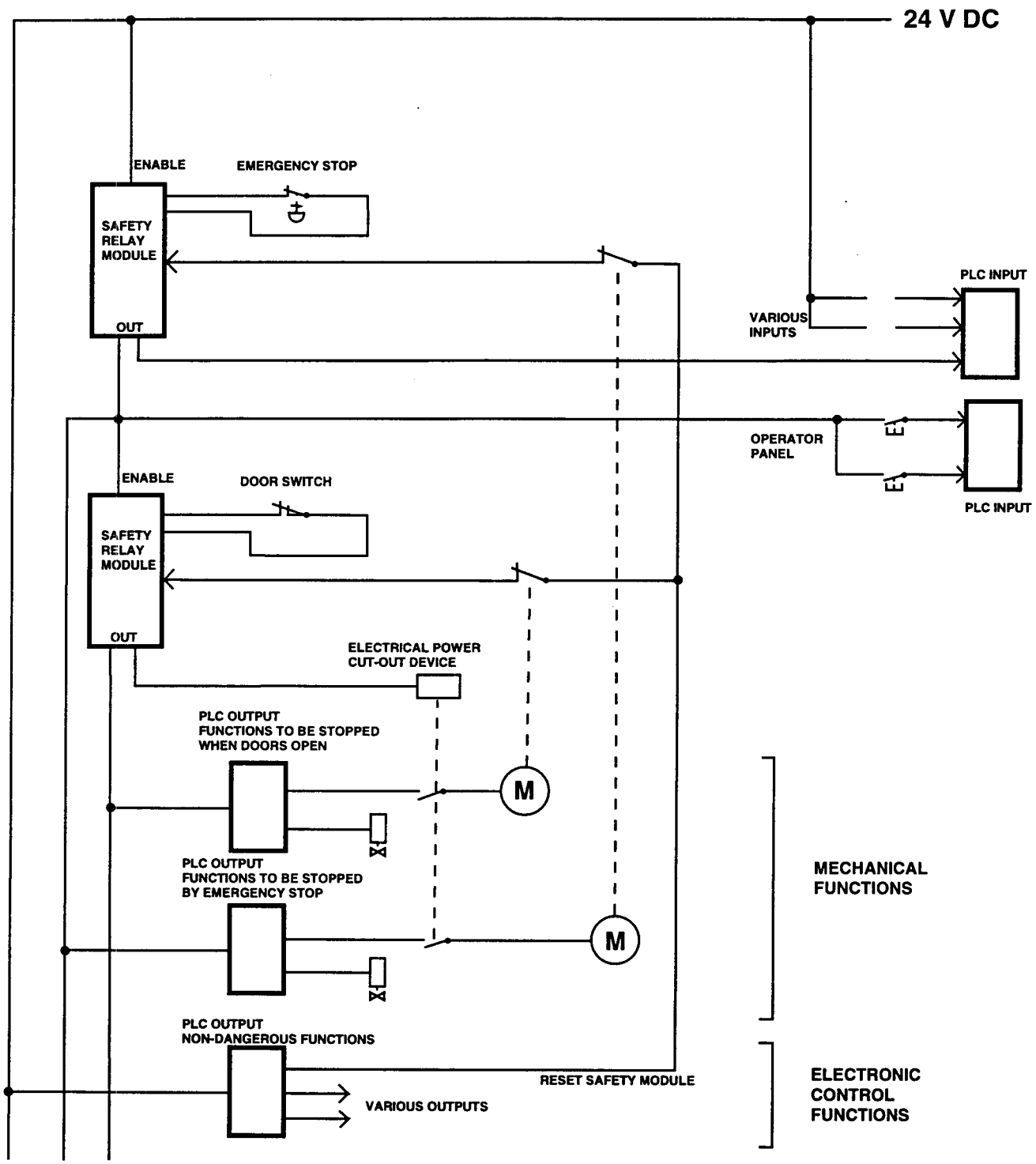
To reset the machine from the safety condition, correct the causes (for example close the door), push **Alarm reset** and wait for the PLC to perform a reset.

Some motors are provided with the double safety feature of electronic and electromechanical cutouts.

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EM1.182457012en.lm

4 Component location

2.2TB041499en.fm

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Components in the electrical cabinet. 4-3

RH side . . . . . .(ECN 71701) 52710-07:12

LH side. . . . . (ECN 71701) 52710-08:12

LH door . . . . . .(ECN 71535) 52710-09:10

Rack 010 . . . . . (ECN 70019) 52710-10:06

Rack 020 . . . . . (ECN 71701) 52710-11:12

Rack 030 . . . . . .(ECN 70019) 52710-12:06

Q001 . . . . . .(ECN 22817) 52710-13:04

Delivered design . . . . . .(ECN 70256) 52710-14:07

Components on the operator panel 4-8

Operator panel, front view . . . . . (ECN 22817) 52710-20:04

Rear view, open cover . . . . . (ECN 22530) 52710-21:01

Components on the machine 4-9

LH side of machine . . . . . .(ECN 70943) 52710-40:09

RH side of machine . . . . . .(ECN 71535) 52710-41:10

Front view of machine . . . . . .(ECN 22530) 52710-42:01

Cable inlets . . . . . .

RH side, bottom right . . . . . (ECN 70943) 1279813

RH side, bottom left . . . . . (ECN 70486) 1279814

Front side plate . . . . . (ECN 70486) 1279815

Back side plate. . . . . .(ECN 71701) 1279816

2.2TB041499en.fm

Components in the electrical cabinet

Comp.	Description	Drawing No.
A001	Motor drive control PME1302	52710-07:12
A100	Baseplate 10-slot CPU	52710-08:12
A101	Baseplate 10-slot expansion 1	52710-08:12
A102	Machine control/operation monitor input module 16-P	52710-08:12
A103	Operation monitor input module	52710-08:12
A104	Operation monitor/multifunction input module	52710-08:12
A105	Multifunction input module 16-P	52710-08:12
A106	Fast scan input module 16-P	52710-08:12
A107	Fast scan output module 16-P	52710-08:12
A111	Multifunction input module 16-P	52710-08:12
A112	Multifunction/Machine control input module	52710-08:12
A113	Panel interface input module 16-P	52710-08:12
A114	Valves/multifunction output module 16-P	52710-08:12
A115	Multifunction output module 16-P	52710-08:12
A116	Contactors/relays output module 16-P	52710-08:12
A117	Relays/valves output module 16-P	52710-08:12
A118	Valves output module 16-P	52710-08:12
A119	Valves/multifunction output module 16-P	52710-08:12
A120	Multifunction output module 16-P	52710-08:12
A121	Multifunction output module 16-P	52710-08:12
A135	Baseplate 10-slot expansion 2	52710-08:12
A200	Presteriliser valve temperature regulator	52710-09:10
A201	Peroxide bath water temperature regulator	52710-09:10
A202	LS temperature regulator	52710-09:10
A203	Air superheater temperature regulator	52710-09:10
A204	Air knives temperature regulator	52710-09:10
A205	Steam temperature regulator	52710-09:10
A206	Peroxide bath peroxide temperature regulator	52710-09:10
A207	Splice unit temperature regulator	52710-09:10
A300	Cleaning tray level regulator	52710-08:12
A301	Spray tank level regulator	52710-08:12
A302	Peroxide bath level regulator	52710-08:12
A303	Water separator level regulator	52710-08:12
A305	Bath water level monitor	52710-08:12
A307	Membrane leakage level regulator	52710-08:12
A310	Product filling level regulator	52710-09:10
A400	Design correction system TMCC	52710-07:12
A402	Motor drive controlPME 1302	52710-07:12
A500	TPIH 2000 generator TS sealing module	52710-07:12
A501	TPIH 2000 generator SA sealing module	52710-07:12
A502	LS short stop element current relay	52710-07:12

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Comp.	Description	Drawing No.
A503	Package production counter opto-relay	52710-07:12
A504	Package infeed counter opto-relay	52710-07:12
A506	Emergency stop relay	52710-07:12
A507	Safety stop relay	52710-07:12
A508	TPIH 2000 generator TS sealing switch	52710-07:12
D100	CPU on PLC	52710-08:12
E004	Cabinet lighting lamp, right	52710-07:12
E005	Cabinet lighting lamp, left	52710-08:12
F001	Light fixtures / splicer automatic fuse	52710-08:12
F002	LS short stop automatic fuse	52710-08:12
F003	Flap sealing automatic fuse	52710-08:12
F004	Detergent pump automatic fuse	52710-08:12
F005	Control voltage L51 (230 V a.c.) automatic fuse	52710-08:12
F006A	Control voltage L11 (24 V d.c.) automatic fuse	52710-08:12
F006B	Control voltage L12 (24 V d.c.) automatic fuse	52710-08:12
F006C	Control voltage L13 (24 V d.c.) automatic fuse	52710-08:12
F007	Top flap sealing automatic fuse	52710-08:12
F008	Bottom flap sealing automatic fuse	52710-08:12
F009	Paper supply unreeling motor automatic fuse	52710-08:12
F100A	Peroxide bath water heater cartridge fuse	52710-08:12
F100B	Peroxide bath water heater cartridge fuse	52710-08:12
F100C	Peroxide bath water heater cartridge fuse	52710-08:12
F101A	Air super heater cartridge fuse	52710-08:12
F101B	Air super heater cartridge fuse	52710-08:12
F101C	Air super heater cartridge fuse	52710-08:12
F102A	TS sealing cartridge fuse	52710-08:12
F102B	TS sealing cartridge fuse	52710-08:12
F102C	TS sealing cartridge fuse	52710-08:12
F103A	SA sealing cartridge fuse	52710-08:12
F103B	SA sealing cartridge fuse	52710-08:12
F103C	SA sealing cartridge fuse	52710-08:12
F104	Longitudinal sealing cartridge fuse	52710-08:12
F105	Alarm beacon cartridge fuse	52710-07:12
G100	PLC baseplate CPU power supply unit	52710-08:12
G101	PLC baseplate expansion 1 power supply unit	52710-08:12
G102	PLC baseplate expansion 2 power supply unit	52710-08:12
K001	Splicer control voltage contactor	52710-07:12
K002	Detergent pump contactor	52710-07:12

2.2TB041499en.fm

Comp.	Description	Drawing No.
K003	Contactor to ensure redundancy	52710-07:12
K004	IH-unit TS sealing power contactor	52710-07:12
K005	LS element preheating contactor	52710-07:12
K006	Compressor contactor	52710-07:12
K007	Hydraulic pump contactor	52710-07:12
K008	Cleaning system circulation pump contactor	52710-07:12
K009	Peroxide pump contactor	52710-07:12
K010	Main motor low speed contactor	52710-07:12
K011	Main motor high speed contactor	52710-07:12
K012	Peroxide bath water pump contactor	52710-07:12
K013	Conveyor start contactor	52710-07:12
K014	IH-unit strip applicator power contactor	52710-07:12
K015	Peroxide bath element contactor	52710-07:12
K016	Air superheater contactor	52710-07:12
K017	Paper supply unreeling motor contactor	52710-07:12
K018	FF flap-sealing element preheating contactor	52710-07:12
K019	Bending roller contactor	52710-07:12
K100	Peroxide bath preheating/production relay	52710-08:12
K101	LS sealed tube relay	52710-08:12
K102	Air superheater preheating/production relay	52710-08:12
K103	Sterile parameter relay	52710-08:12
K104	Signal to CIP relay	52710-08:12
K105	Ready for production relay	52710-08:12
K106	AB production relay	52710-08:12
K107	Filling relay	52710-08:12
K108	CIP recording relay	52710-08:12
K110	Operational parameter relay	52710-08:12
K111	Inching and step up auxiliary relay	52710-08:12
K113	Auxiliary reset relay	52710-08:12
K200	LS sealing solid-state relay	52710-08:12
K201	Peroxide bath water heater solid-state relay	52710-08:12
K202	Peroxide bath water heater solid-state relay	52710-08:12
K203	Air super heater solid-state relay	52710-08:12
K204	Air super heater solid-state relay	52710-08:12
K205	Alarm beacon opto switch	52710-08:12
K206	Strip splicing unit solid-state relay	52710-08:12
L001	Left/right jaw system lighting ballast coil	52710-07:12
L002	Front jaw system lighting ballast coil	52710-07:12
L004	Left cabinet lighting lamp ballast coil	52710-07:12
L005	Right cabinet lighting lamp ballast coil	52710-07:12
M002	Cooling fan solid state motor	52710-08:12

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Comp.	Description	Drawing No.
M003	Cooling fan solid state motor	52710-08:12
P002	General hour meter	52710-09:10
P003	Package production counter	52710-09:10
P005	Time recorder	52710-09:10
P016	Process recorder	52710-09:10
Q001	Main switch	52710-08:12
Q002	Main power supply overload relay	52710-08:12
Q003	Main switch on contactor to enable redundancy	52710-08:12
Q004	Electrical cabinet cooling unit motor switch	52710-08:12
Q005	Control voltage motor switch	52710-08:12
Q006	Compressor motor switch	52710-08:12
Q007	Hydraulic pump motor switch	52710-08:12
Q008	Cooling system circulation pump motor switch	52710-08:12
Q009	Peroxide pump motor switch	52710-08:12
Q010	Main motor low speed motor switch	52710-08:12
Q011	Main motor high speed motor switch	52710-08:12
Q012	Peroxide bath water pump motor switch	52710-08:12
Q013	External conveyor motor switch	52710-08:12
R001	TS sealing potentiometer, left	52710-09:10
R002	TS sealing potentiometer, right	52710-09:10
R003	Inductor strip applicator potentiometer	52710-09:10
S003	Clean through steam barrier push-button switch	52710-09:10
S004	Service switch	52710-09:10
S005	Level regulated filling new product values push-button switch	52710-09:10
T001	Control voltage transformer	52710-07:12
T002	Flap sealing transformer	52710-07:12
T003	LS short stop transformer	52710-07:12
V001	Control voltage 3-phase rectifier	52710-08:12
X001	Main cabinet terminal block	52710-07:12/ 52710-08:12
X003	Neutral terminal block	52710-08:12
X9	Diode terminal block	52710-07:12
X011	Ground connection terminal block	52710-08:12
X016	Process recorder terminal block	52710-09:10
X017	Time recorder socket	52710-09:10
X019	Time recorder socket	52710-09:10

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Comp.	Description	Drawing No.
X021	Ballast coil terminal block	52710-07:12
X24	Right cabinet lamp terminal block	52710-07:12
X25	Left cabinet lamp terminal block	52710-08:12
X100	IH generator terminal block	52710-07:12
X300	Power terminal block below main switch	52710-08:12
XL1-3	Power terminal block	52710-08:12
XL10	0V distribution terminal block	52710-07:12
XL11	Distribution terminal block for line L11	52710-07:12
XL12	Distribution terminal block for line L12	52710-07:12
XL20	Distribution terminal block for line L20	52710-07:12
XL30	Distribution terminal block for line L30	52710-07:12
XL50	Distribution terminal block for line L50	52710-07:12
XL51	Distribution terminal block for line L51	52710-07:12
Z001	Mains power supply overload protection	52710-08:12
Z002	Mains power supply filter	52710-08:12
Z003	Z001 alarm signal filter	52710-08:12
0080	Cable guide	52710-08:12

2.2TB041499en.fm

Components on the operator panel

Comp.	Description	Drawing No.
P.A100	Multiplexer card	52710-21:01
P.A.101	Multiplexer card	52710-21:01
P.A.400	Printed design correction potentiometer	52710-20:04
P.A.200	Operator panel display	52710-21:01
P.H001:1	Preheating I lamp	52710-21:01
P.H001:2	Preheating II lamp	52710-21:01
P.H002:1	Tube sealing lamp	52710-21:01
P.H002:2	Presterilising lamp	52710-21:01
P.H003:1	Spraying lamp	52710-21:01
P.H003:2	Drying lamp	52710-21:01
P.H004:1	Signal to steriliser lamp	52710-21:01
P.H004:2	Signal from steriliser lamp	52710-21:01
P.H005:1	Start sequence lamp	52710-21:01
P.H005:2	Drive motor on lamp	52710-21:01
P.H006:1	Filling lamp	52710-21:01
P.H006:2	Production lamp	52710-21:01
P.H007:1	No production allowed lamp	52710-21:01
P.H007:2	Production finished lamp	52710-21:01
P.H008:1	Work environment aseptic chamber lamp	52710-21:01
P.H008:2	WEAC ready for door opening lamp	52710-21:01
P.H009:1	Preparation of machine lamp	52710-21:01
P.H009:2	Preparation for cleaning of valve lamp	52710-21:01
P.H010:1	Machine cleaning lamp	52710-21:01
P.H010:2	Valve cleaning lamp	52710-21:01
P.P004	Package counter	52710-20:04
P.S1	Emergency stop switch	52710-20:04
P.S2H	Luminous inching push-button switch	52710-20:04
P.S3H	Luminous step up push-button switch	52710-20:04
P.S4H	Luminous step down push-button switch	52710-20:04
P.S6H	Luminous short stop push-button switch	52710-20:04
P.S7	Selector switch	52710-20:04
P.S11H	Luminous alarm reset push-button switch	52710-20:04
P.S12	Lamp test push-button switch	52710-20:04
P.S19	Drop chute off push-button switch	52710-20:04
P.S20	Station chain sprinkler push-button switch	52710-20:04
P.X001	Operator panel terminal block	52710-21:01

2.2TB041499en.fm

Components on the machine

Comp.	Description	Drawing No.
A1	Angle display	see comp. B1
B1	Main machine angle encoder	52710-40:09
B2	Main air pressure switch	52710-40:09
B4	Peroxide bath temperature thermocouple	52710-40:09
B6	Lubrication oil pressure switch	52710-40:09
B7	Cool water pressure switch	52710-40:09
B8	Paper supply photocell transmitter/receiver	52710-41:10
B9	Paper web inductive sensor	52710-40:09
B10	Crank position guard contact	52710-40:09
B11	Side protector left position limit switch	52710-40:09
B12	Side protector right position limit switch	52710-41:10
B13	Cleaning tray level sensor	52710-40:09
B14	Splicer temperature thermostat	52710-40:09
B15	Front hood position limit switch	52710-40:09
B16A	Jaw system overload guard contact, left	52710-40:09
B16B	Jaw system overload guard contact, right	52710-41:10
B20	Final folder chain position inductive sensor	52710-40:09
B21A	Superstructure doors position guard contact	52710-40:09
B21B	Superstructure doors position guard contact	52710-40:09
B21C	Superstructure doors position guard contact	52710-40:09
B24	Unreeling motor speed control inductive sensor	52710-41:10
B25	Unreeling motor guard inductive sensor	52710-41:10
B30	Lubrication oil level monitor	52710-40:09
B32	Strip magazine 1 inductive sensor	52710-41:10
B34	Peroxide bath level sensor	52710-41:10
B36	Strip splice element temperature thermocouple	52710-41:10
B37A	LS sealed tube temperature thermocouple	52710-40:09
B37B	LS-element temperature thermocouple	52710-40:09
B38	Peroxide bath water temperature thermocouple	52710-40:09
B39	Air superheater temperature thermocouple	52710-41:10
B40	Presteriliser temperature thermocouple	52710-41:10
B43	Spray tank level sensor	52710-41:10
B44	Infeed congestion inductive sensor	52710-42:01
B45	Hydraulic unit temperature regulator	52710-40:09
B46	Squeezer roller position inductive sensor	52710-40:09
B47	Air knife position inductive sensor	52710-40:09
B48A	Peroxide bath bottom cover position guard contact	52710-41:10
B48B	Peroxide bath bottom cover position guard contact	52710-40:09
B50	Steam temperature thermocouple	52710-42:01
B51	Product pipe position inductive sensor	52710-42:01

2.2TB041499en.fm

Comp.	Description	Drawing No.
B53	Sterile air valve position inductive sensor	52710-42:01
B55	Air knife temperature thermocouple	52710-42:01
B61	Cleaning cup position inductive sensor	52710-42:01
B62	Sterile air pressure switch	52710-41:10
B63	Cleaning pipe position inductive sensor	52710-41:10
B64	Water separator suction level sensor	52710-41:10
B71	Air inlet valve position inductive sensor	52710-41:10
B80:1	Photocell transmitter/receiver for printed design correction data, right	52710-42:01
B80:2	Photocell transmitter/receiver for printed design correction clock, left	52710-42:01
B85	Bath water low level sensor	52710-40:09
B94	Suction valve position inductive sensor	52710-41:10
B95	Peroxide tank level monitor	52710-41:10
B104	Sterile air pipe position inductive sensor	52710-42:01
B108	Date unit door position guard contact	52710-40:09
B109	Strip rotation guard inductive sensor	52710-41:10
B110	Paper magazine limit switch	52710-40:09
B111	Strip magazine 2 inductive sensor	52710-41:10
B112	Product filling level detector	52710-40:09
B113	Splice unit doors guard contact	52710-41:10
B114	Splice unit doors guard contact	52710-41:10
B116	Membrane leakage sensor	52710-42:01
B117	Regulating valve open position inductive sensor	52710-42:01
B118	Pusher overload protection inductive sensor	52710-40:09
B119	Outfeeder overload protection inductive sensor	52710-40:09
B236	Paper splice inductive sensor	52710-40:09
E1A	Jaw system lighting fluorescent lamp, left	52710-42:01
E1B	Jaw system lighting fluorescent lamp, right	52710-42:01
E1C	Jaw system lighting fluorescent lamp, front	52710-42:01
E3	S.U. lighting fluorescent lamp	52710-41:10
H31	Alarm beacon	52710-41:10
L1	TS left inductor	52710-42:01
L2	TS right inductor	52710-42:01
L3	Strip applicator inductor	52710-41:10
M1	Main motor	52710-41:10
M4	Cleaning system circulation pump motor	52710-42:01
M5	Hydraulic pump motor	52710-40:09
M6	Detergent pump motor	52710-40:09
M7	Compressor motor	52710-41:10

2.2TB041499en.fm

Comp.	Description	Drawing No.
M10	Peroxide pump motor	52710-41:10
M13	Bending roller motor	52710-42:01
M14	Paper supply unreeling motor	52710-41:10
M16	Electrical cabinet cooling unit motor	52710-40:09
M17	Peroxide bath water pump motor	52710-41:10
M18	Peroxide tank filling motor	52710-41:10
R1	Splicer paper heating element	52710-40:09
R5A	Bottom flap sealing heating element	52710-40:09
R5B	Top flap sealing heating element	52710-40:09
R5C	Top flap sealing heating element	52710-40:09
R31	Strip splicing unit (SU) heating element	52710-41:10
R32	Air super heater heating element	52710-41:10
R35	Longitudinal sealing (LS) heating element	52710-41:10
R36	Peroxide bath water heating element	52710-40:09
R37	LS short stop heating element	52710-41:10
S1	Emergency stop push-button located on rear of machine	52710-41:10
S2	Short stop push-button located on rear of machine	52710-41:10
S4	Emergency stop push-button located on tower	52710-40:09
S5	Emergency stop push-button located on strip applicator	52710-41:10
S14	Manual lubrication push-button switch	52710-40:09
S28	Light switch	52710-40:09
S33	Strip splicing drop chute push-button switch	52710-41:10
S35	Short stop push-button located on strip applicator	52710-41:10
X1	Angle module terminal board	52710-40:09
X2	External conveyor terminal board	52710-42:01
X4	Peroxide bath temperature thermocouple connector	see comp. B4
X7	Main motor zone terminal board	52710-41:10
X8	Flap sealing terminal board	52710-42:01
X31	Strip splicing unit terminal board	52710-41:10
X32	Valve panel terminal board	52710-40:09
X33	Valve panel terminal board	52710-40:09
X34	Valve panel terminal board	52710-40:09
X35	Valve panel terminal board	52710-40:09
X36	Strip splice element temperature thermocouple connector	B36
X37A	LS sealed tube temperature thermocouple connector	B37A
X37B	LS element temperature thermocouple connector	B37B
X38	Peroxide bath water temperature thermocouple connector	B38
X39	Air superheater temperature thermocouple connector	B39
X40	Presteriliser temperature thermocouple connector	B37B
X50	Steam temperature thermocouple connector	B50

2.2TB041499en.fm

Comp.	Description	Drawing No.
X55	Air knife temperature thermocouple connector	B55
X71	TS sealing connector, 1st section, left	52710-42:01
X72	TS sealing connector, 1st section, right	52710-42:01
X73	TS sealing connector, 2nd section, left	52710-42:01
X74	TS sealing connector, 2nd section, right	52710-42:01
X75	Strip applicator inductor connector	52710-41:10
X95	Peroxide tank level connector	52710-41:10
Y1	Flap sealing air solenoid-operated valve	52710-40:09
Y2	Cleaning tray draining solenoid-operated valve	52710-40:09
Y3	Waste packages air blowing solenoid-operated valve	52710-40:09
Y4	Spray tank air entry solenoid-operated valve	52710-41:10
Y5	Peroxide bath draining solenoid-operated valve	52710-40:09
Y6	Peroxide bath filling/draining solenoid-operated valve	52710-40:09
Y7	Steam barrier solenoid-operated valve	52710-40:09
Y8	Sterile air solenoid-operated valve	52710-40:09
Y9	Product solenoid-operated valve	52710-40:09
Y12	Printed design pre-correction solenoid-operated valve	52710-40:09
Y13	Printed design correction left solenoid-operated valve	52710-40:09
Y14	Printed design correction right solenoid-operated valve	52710-40:09
Y17	Central lubrication pump solenoid-operated valve	52710-40:09
Y19	Air inlet solenoid-operated valve	52710-40:09
Y20	Short stop element movement solenoid-operated valve	52710-40:09
Y21	Air knife Squee-gee roller solenoid-operated valve	52710-40:09
Y22	Main machine clutch	52710-40:09
Y23	Suction solenoid-operated valve	52710-40:09
Y24	LS-element movement solenoid-operated valve	52710-40:09
Y25	Heat exchanger solenoid-operated valve	52710-40:09
Y26	LS counter roller short stop solenoid-operated valve	52710-40:09
Y27	Drop chute solenoid-operated valve	52710-40:09
Y29	Cleaning system hot water solenoid-operated valve	52710-40:09
Y31	Final folder sprinkler solenoid-operated valve	52710-40:09
Y32	Compressor water solenoid-operated valve	52710-40:09
Y33	Cooling water solenoid-operated valve	52710-40:09
Y34	Spray tank filling solenoid-operated valve	52710-41:10
Y35	Spray tank peroxide discharge solenoid-operated valve	52710-41:10
Y39	Tube flushing solenoid-operated valve	52710-40:09
Y41	Pull down device solenoid-operated valve	52710-40:09
Y42	Pressure device solenoid-operated valve	52710-40:09
Y43	Drive unit brake	52710-40:09
Y51	Cooling water air injection solenoid-operated valve	52710-40:09
Y86	Vacuum solenoid-operated valve	52710-40:09
Y102	Main air solenoid-operated valve	52710-40:09

2.2TB041499en.fm

Comp.	Description	Drawing No.
Y105	LS strip splice solenoid-operated valve	52710-40:09
Y106	Strip magazine solenoid-operated valve	52710-40:09
Y107	I/P transducer solenoid-operated valve	52710-40:09
Y108	Peroxide bath top filling solenoid-operated valve	52710-41:10
Y109	Front hood locker	52710-40:09

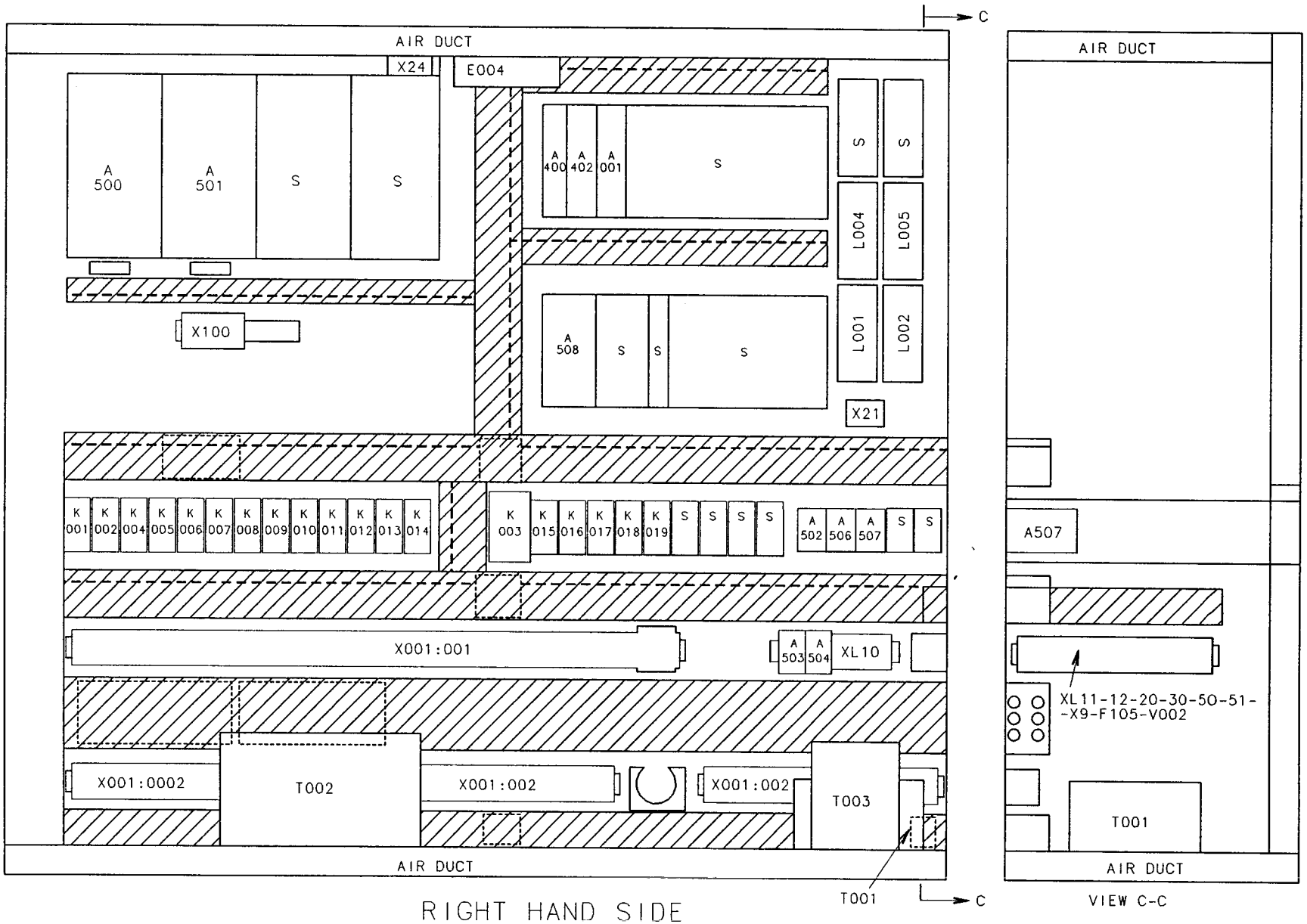
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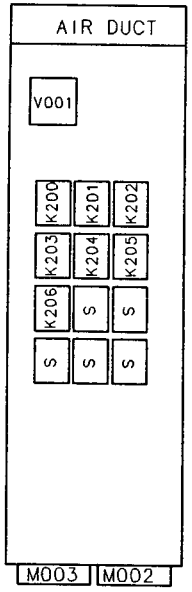
RIGHT HAND SIDE

VIEW C-C

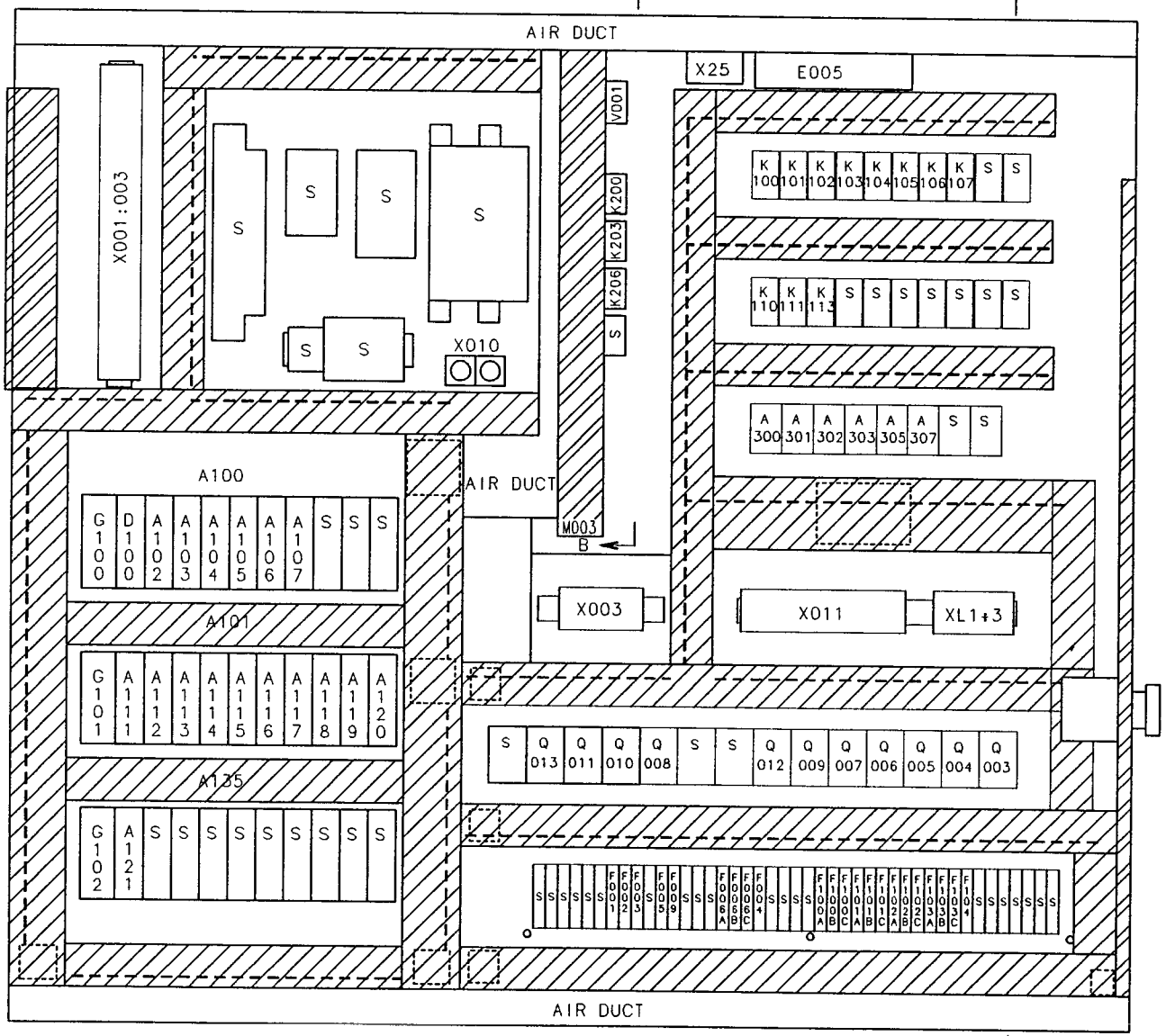
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ECN No.	71701						Machine TBA/19-0101	Denomination MOUNTING DRAWING, EL. CABINET		
Sign./Date	ALPO/980930						Company Tetra Brik R.& D. S.p.A.	Drawing No 52710-07:12		Page –
Appr./Date	AIR/980930				Drawing remarks					

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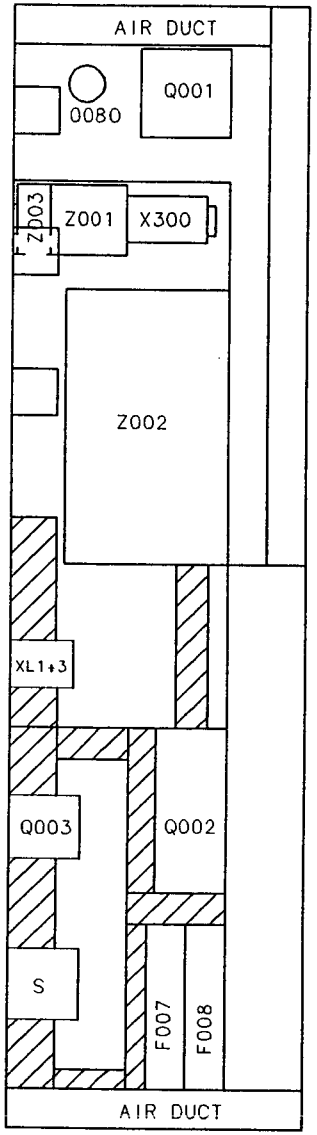
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VIEW B-B



LEFT HAND SIDE

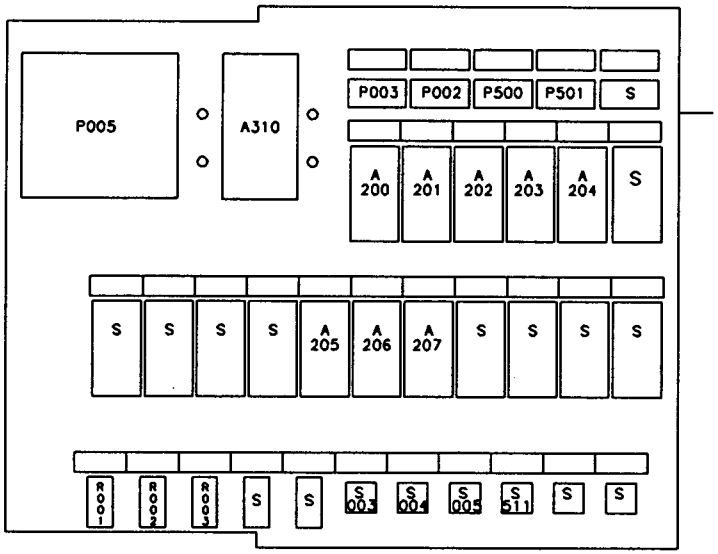


VIEW A-A

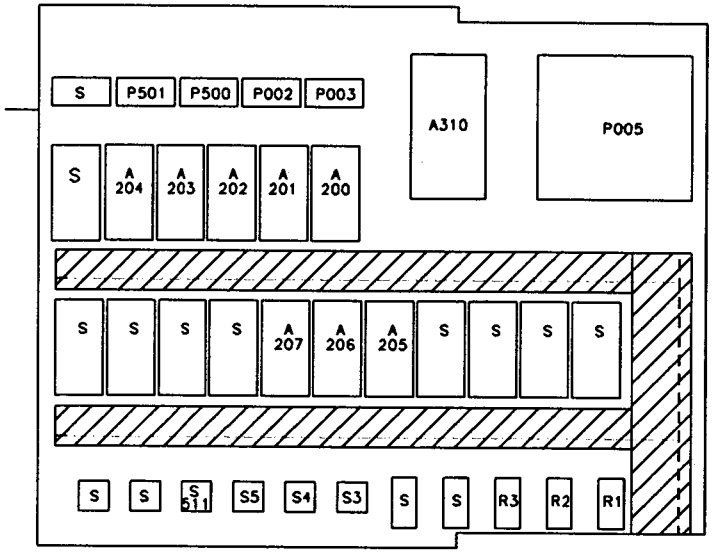
Note	A				1 FUNS MUST BE MOUNTED TO HAVE AIR FLOW TOWARD THE BOTTOM OF THE CABINET.	Tetra Pak	Designer ALPO Date 980930	Approved AIR Date 980930 Doc. class –
ECN No.	71701						Machine TBA/19-0101	Denomination MOUNTING DRAWING, EL. CABINET
Sign./Date	ALPO/980930						Company Tetra Brik R.& D. S.p.A.	Drawing No 52710-08:12 Page –
Appr./Date	AIR/980930				Drawing remarks			

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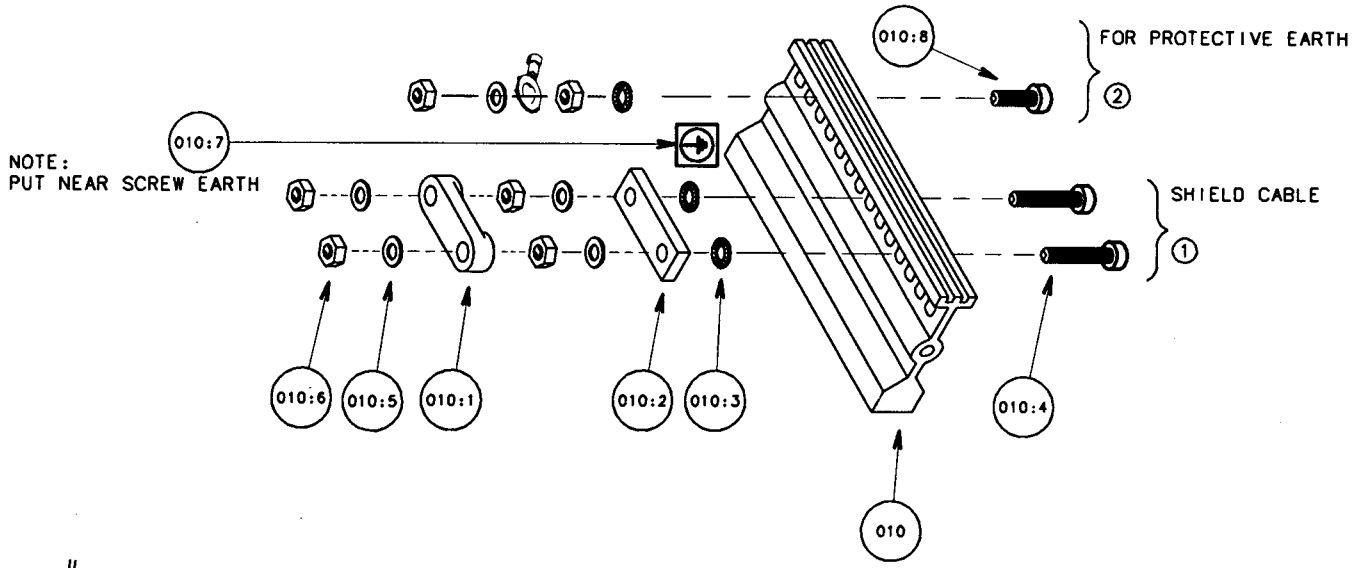
LEFT HAND DOOR, FRONT VIEW

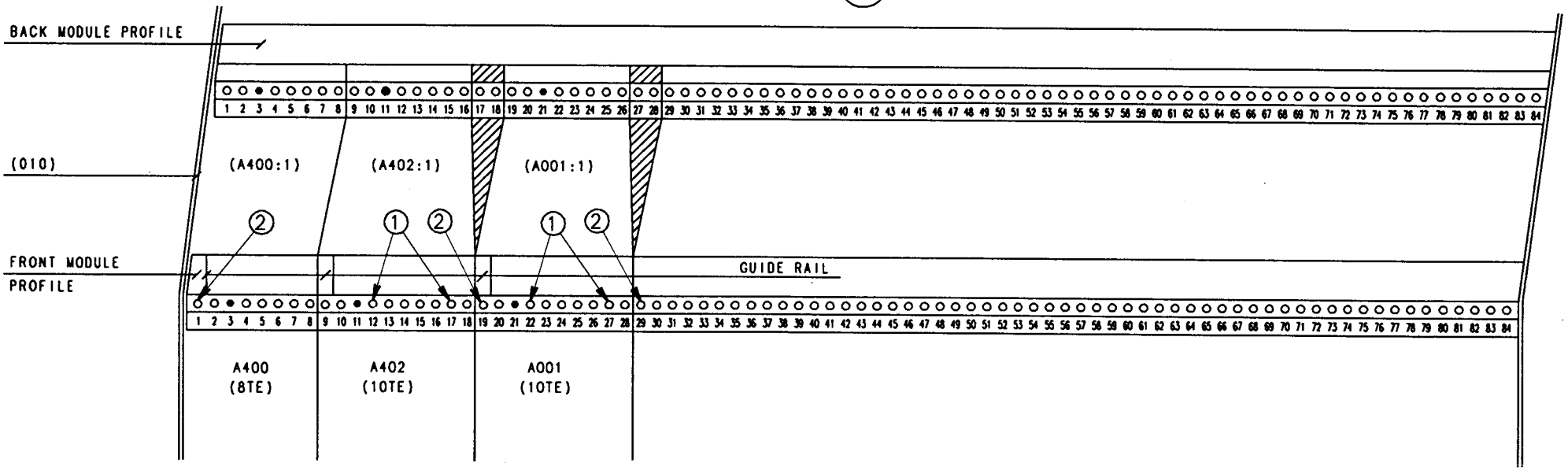


LEFT HAND DOOR, INSIDE VIEW

Note	A				① EXTRA EQUIPMENT	Tetra Pak	Designer ALPO Date 980420	Approved AIR Date 980420	Doc. class –
ECN No.	71535						Machine TBA/19-0101	Description MOUNTING DRAWING, EL. CABINET	
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.	Drawing No 52710-09:10		Page –
Appr./Date	AIR/980420				Drawing remarks				

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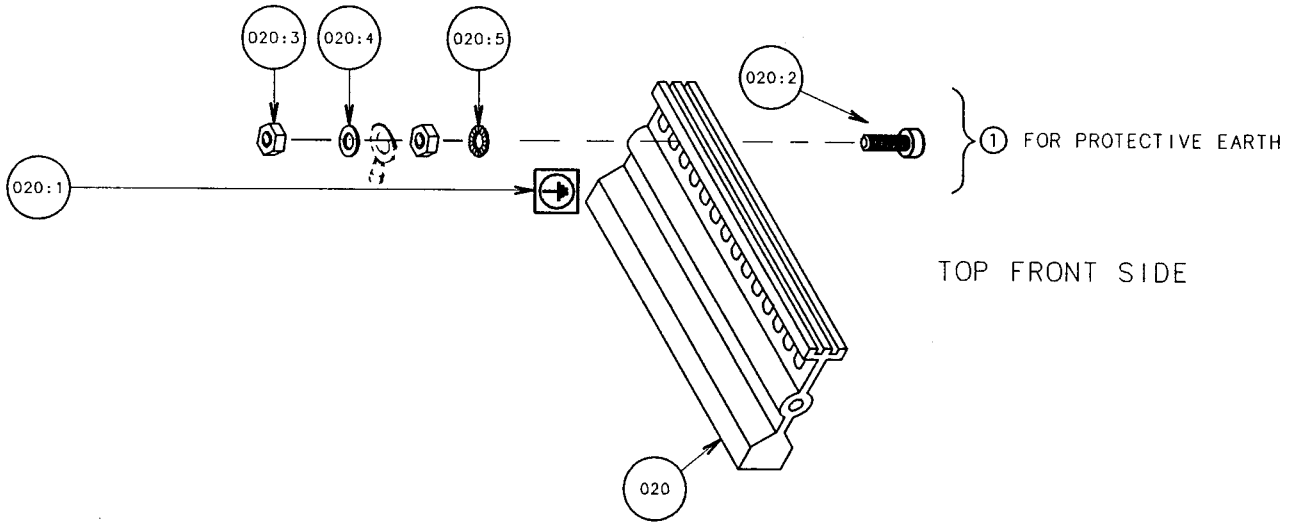


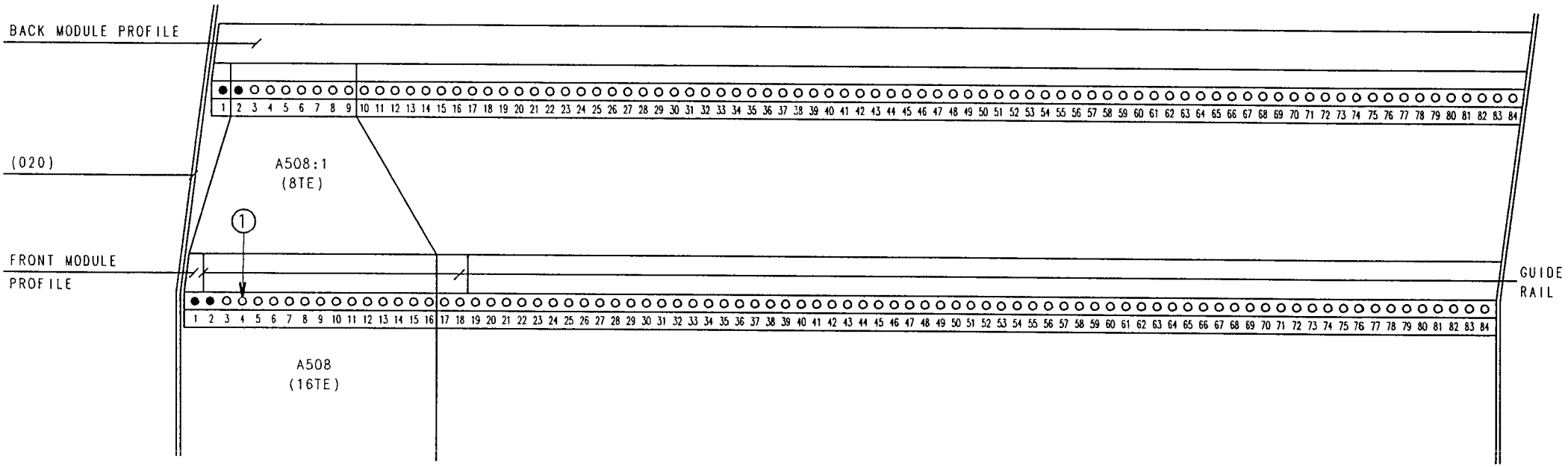
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ECR No.	70019						Machine TBA/19-0101	Denomination MOUNTING DRAWING, RACK 010	
Sign./Date	PRI/960220						Company Tetra Brik R.& D. S.p.A.	Drawing No 52710-10:06	Page –
Appr./Date	SB/960220				Drawing remarks				

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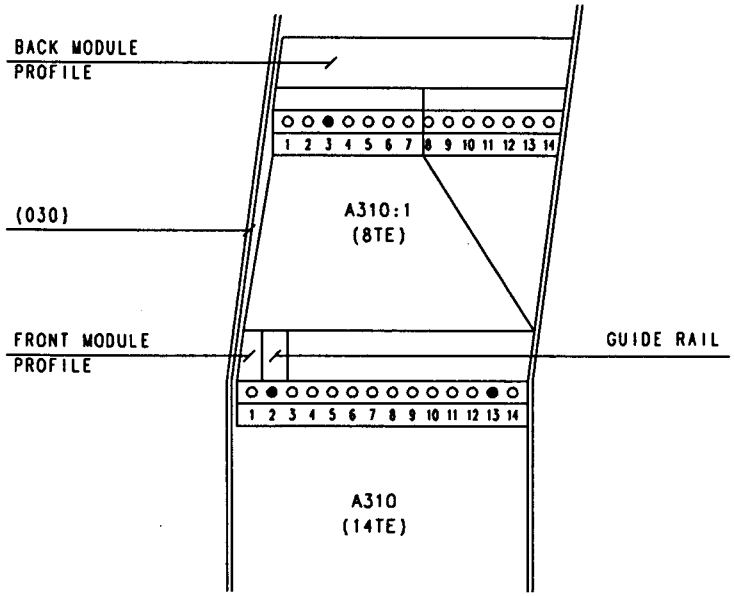


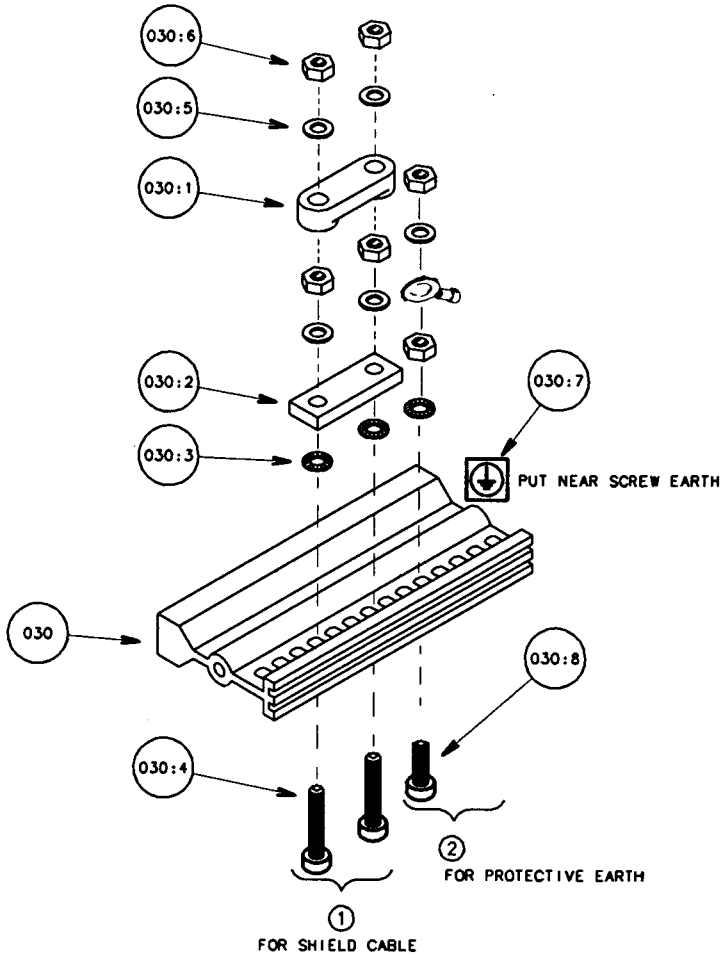


Note	A					Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class –
ECN No.	71701					Machine TBA/19-0101	Denomination MOUNTING DRAWING, RACK 020			
Sign./Date	ALPO/980930					Company Tetra Brik R.& D. S.p.A.	Drawing No 52710-11:12			Page –
Appr./Date	AIR/980930				Drawing remarks					

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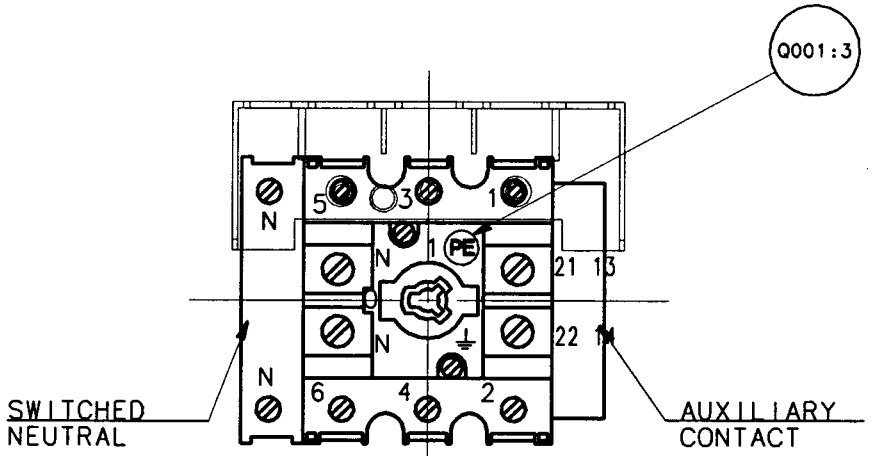


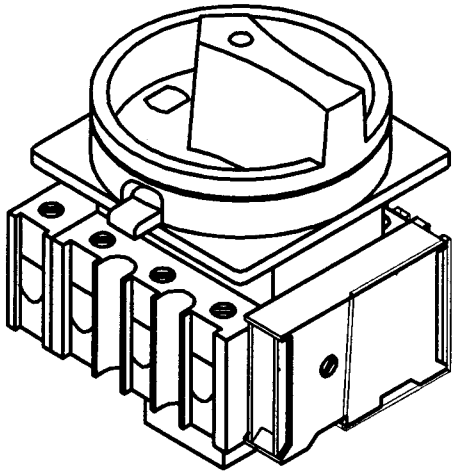


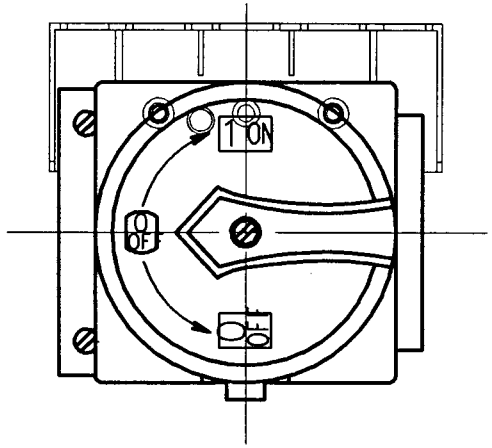
BOTTOM BACK SIDE

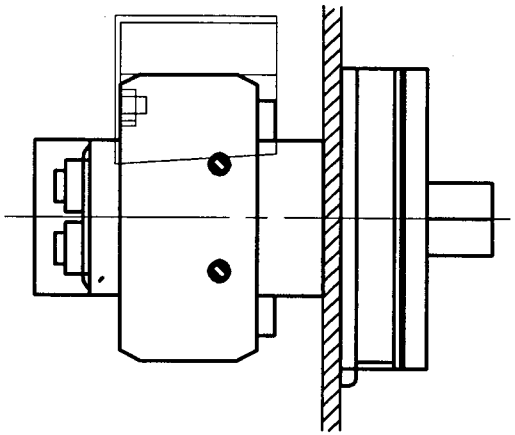
Note	A				① MORE INFORMATIONS ON KA2 2776.30	Tetra Pak	Designer PRI	Date 960222	Approved SB Date 960222	Doc. class –
ECR No.	70019						Machine TBA/19-0101	Denomination MOUNTING DRAWING, RACK 030		
Sign./Date	PRI/960222					Company Tetra Brik R.& D. S.p.A.	Drawing No 52710-12:06			Page –
Appr./Date	SB/960222				Drawing remarks					

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Rele	A					Tetra Pak	Designer PRI	Date 950830	Approved HK Date 950830	Doc. class –
ECN No.	22817						Machine TBA/19-0101	Denomination MOUNTING DRAWING, Q001		
Sign./Date	PRI/950830					Company Tetra Brik R.& D. S.p.A.		Drawing No 52710-13:04		Page –
Appr./Date	HK/950830				Drawing remarks					

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DELIVERED DESIGN ①

VOLTAGE:	230/400~	LARGEST SINGLE CURRENT:	22A
PHASES:	3	SHORT-CIRCUIT CAPACITY:	22 KA
FREQUENCY:	②	ELECTRICAL DIAGRAM:	649452-010V
CURRENT:	②		

REGISTERED ALTERATIONS

ECN	REBUILDING KIT OR VARIANT	MACHINE DEV.	TECHNICAL BULLETIN	REMARK	MANUFACTURED BY	DATE	SIGN.
③					③	③	

① SELF ADHESIVE SIGN ACCORDING TO TP DRAWING 90194-0133
BLACK PRINTING ON WHITE.

② FREQUENCY AND CURRENT DATA HAVE TO BE FILLED IN BY THE PRODUCTION.

③ VALID DATA TO BE COMPILED.

Date	A				
ECN No.	70256				
Sign./Date	PRI/960605				
Appr./Date	SB/960605				Drawing remarks

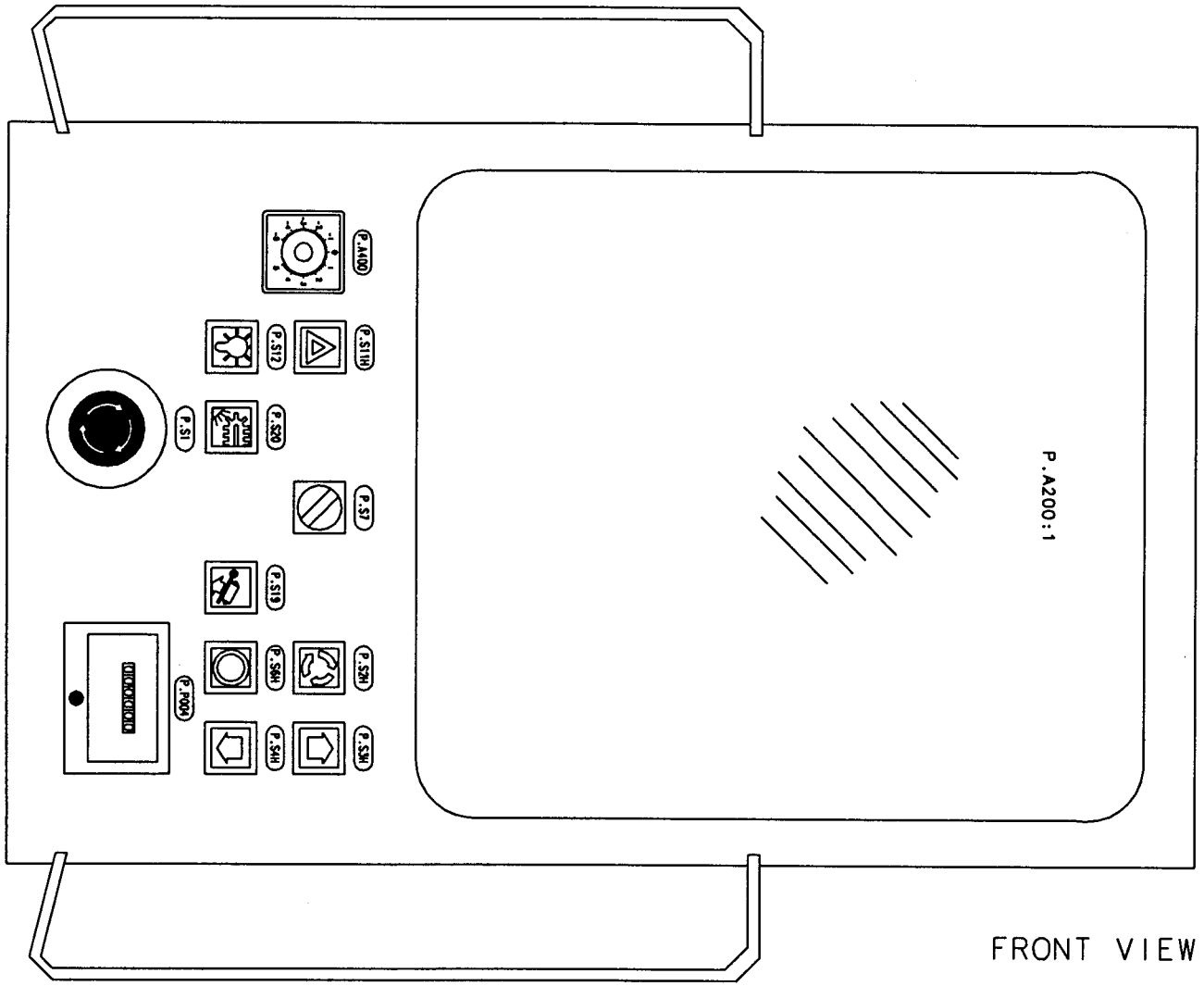
Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer PRI	Date 960605	Approved SB	Date 960605	Doc. class –	
Machine TBA/19-0101	Denomination MOUNT. DRAW., DELIVERED DESIGN				
Drawing No 52710-14:07				Page –	

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FRONT VIEW

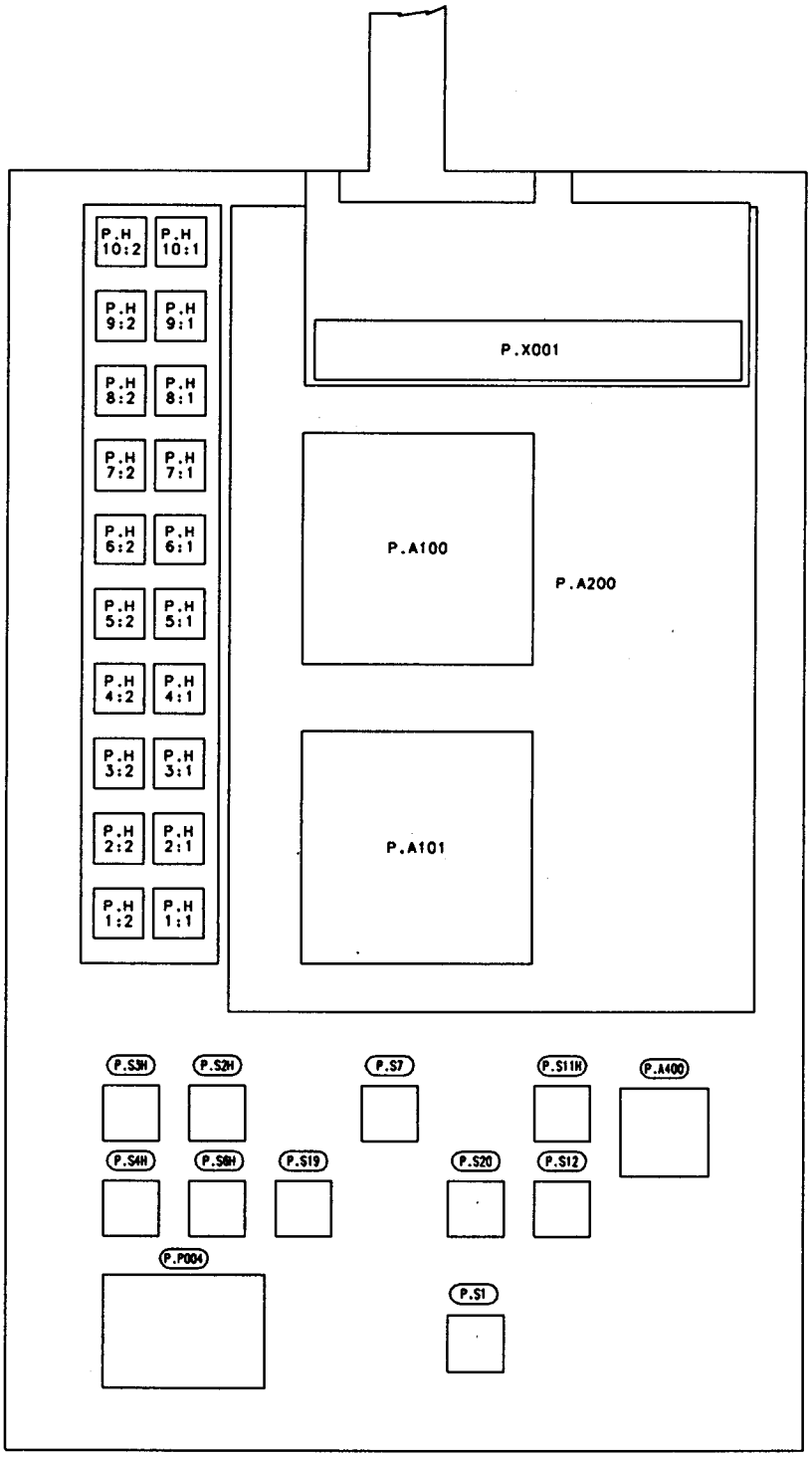
Note	A				
ECN No.	22817				
Sign./Date	PRI/950823				
Appr./Date	HK/950824				Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer PRI	Date 950823	Approved HK	Date 950824	Doc. class –
Machine TBA/19-0101	Designation MOUNTING DRAWING, CONTROL PAN.			
Drawing No 52710-20:04				Page –

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REAR VIEW, OPEN COVER

Rele	A						
ECN No.	22530						
Sign./Date	MRI/950210						
Appr./Date	HK/950217						

Tetra Pak

Designer MRI Date 950210 | Approved HK Date 950217 | Doc. class -

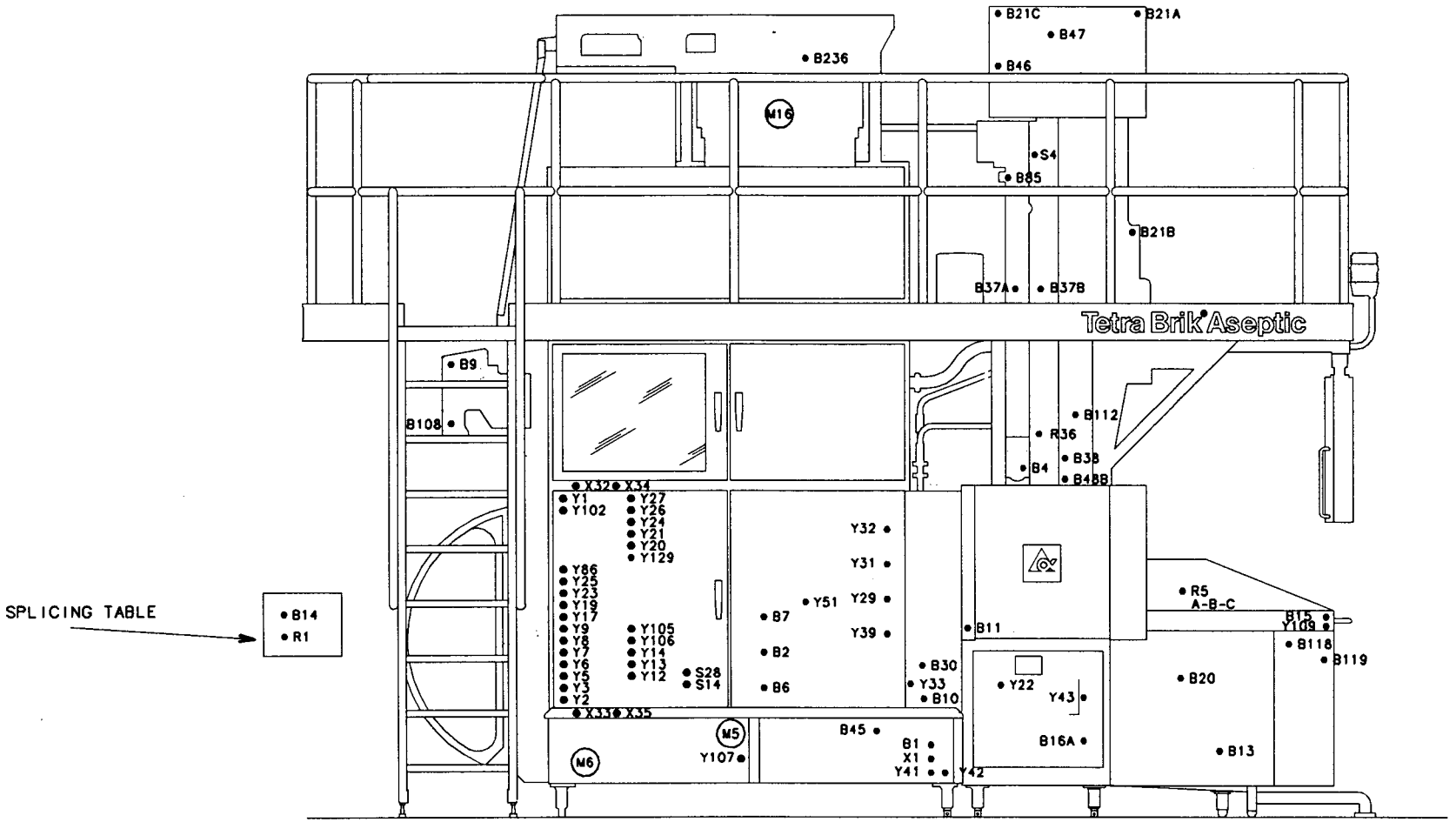
Machine TBA/19-0101 | Designation MOUNTING DRAWING, CONTROL PAN.

Company Tetra Brik R.& D. S.p.A. | Drawing No 52710-21:01 | Page -

Drawing remarks

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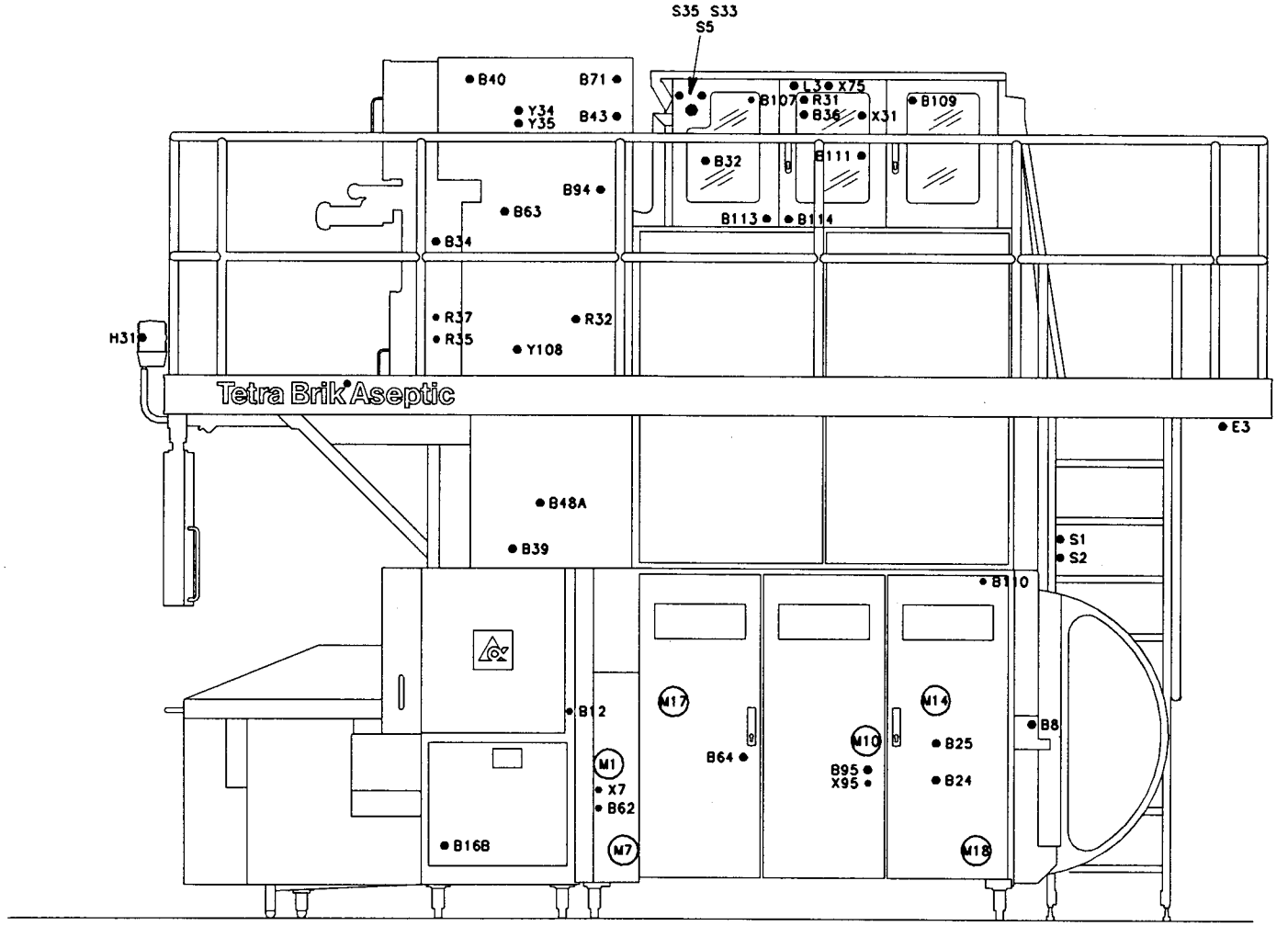


LEFT VIEW

Note	A					Tetra Pak	Designer PRI	Date 970908	Approved SB	Date 970915	Doc. class –
ECN No.	70943						Machine TBA/19-0101	Designation MOUNTING DRAWING, MACHINE		
Sign./Date	PRI/950908					Company Tetra Brik R.& D. S.p.A.	Drawing No 52710-40:09			Page –
Appr./Date	SB/970915				Drawing remarks					

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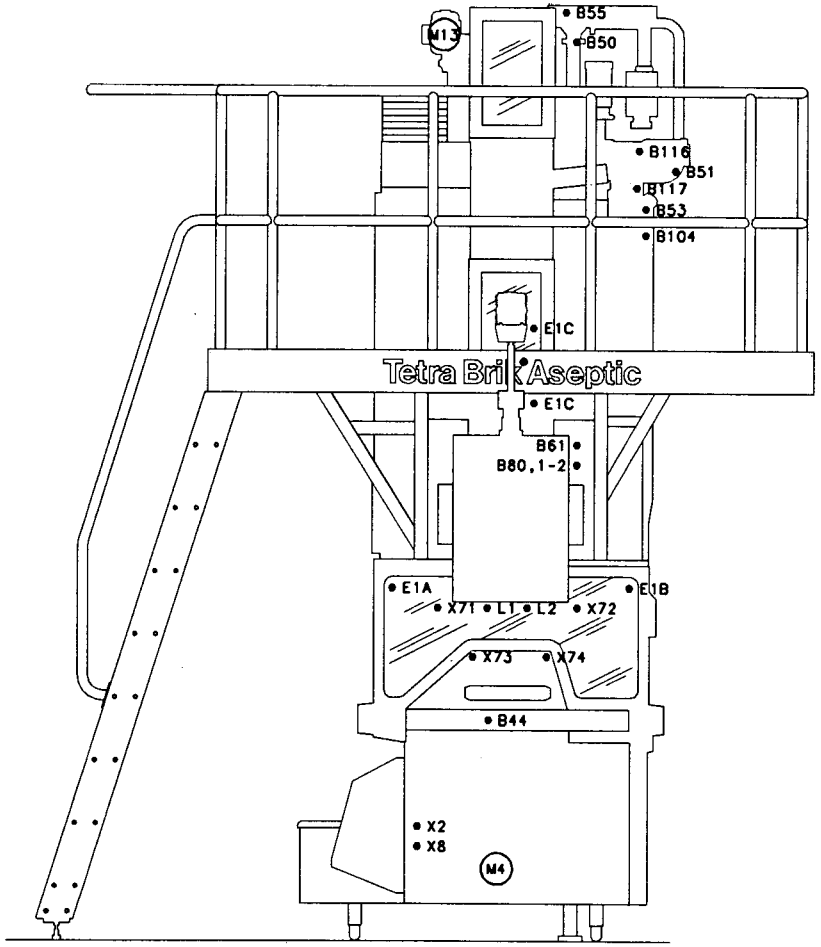


RIGHT VIEW

Note	A					Tetra Pak	Designer ALPO Date 980420	Approved AIR Date 980420	Doc. class –	
ECN No.	71535						Machine TBA/19-0101	Denomination MOUNTING DRAWING, MACHINE		
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.	Drawing No 52710-41:10		Page –	
Appr./Date	AIR/980420				Drawing remarks					

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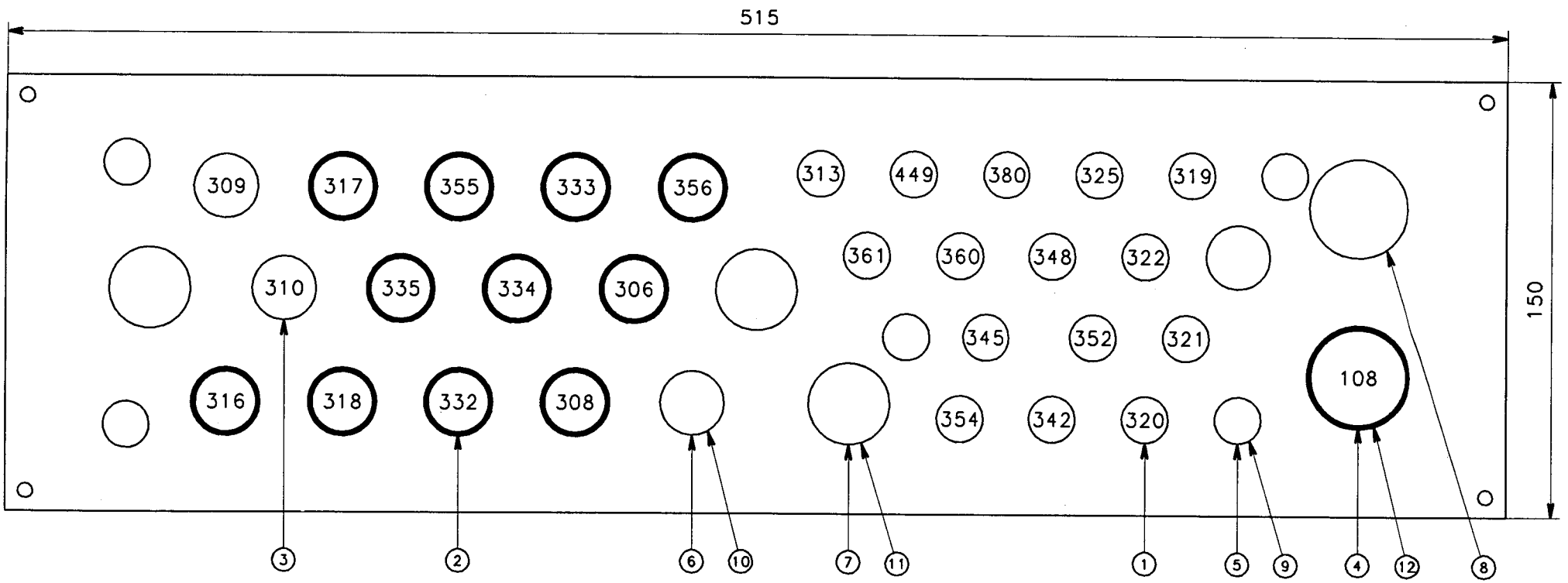
12:41 20/11/98



FRONT VIEW

Note	A					Tetra Pak	Designer MRI	Date 950210	Approved HK	Date 950217	Doc. class –
ECN No.	22530						Machine TBA/19-0101	Denomination MOUNTING DRAWING, MACHINE			
Sign./Date	MRI/950210					Company Tetra Brik R.& D. S.p.A.		Drawing No 52710-42:01			Page –
Appr./Date	HK/950217				Drawing remarks						

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RIGHT HAND SIDE, BOTTOM

Note	AA	AB	AC		THIS VIEW IS SEEN FROM INSIDE CABINET
ECN No.	70486	70486	70943		
Sign./Date	RAI/961118	RAI/961118	PRI/970925		
Appr./Date	SB/961118	SB/961118	SB/970925		Drawing remarks

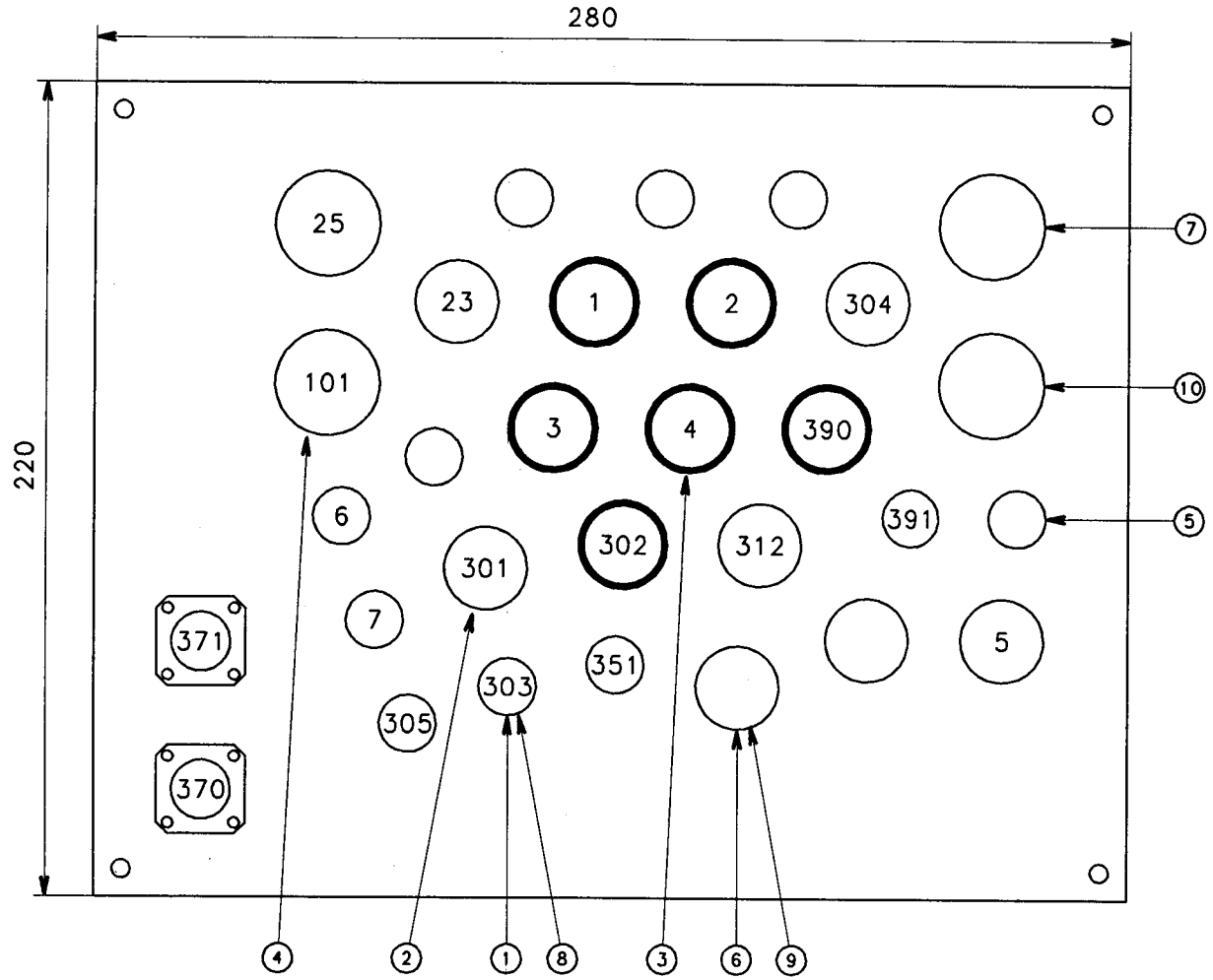
Tetra Pak

Designer PRI	Date 970925	Approved SB	Date 970925
Machine TBA/19-0101	Denomination CABLES INLETS, RIGHT BOTTOM		Doc. class –
Company Tetra Brik R.& D. S.p.A.	Drawing No 1279813		Page –

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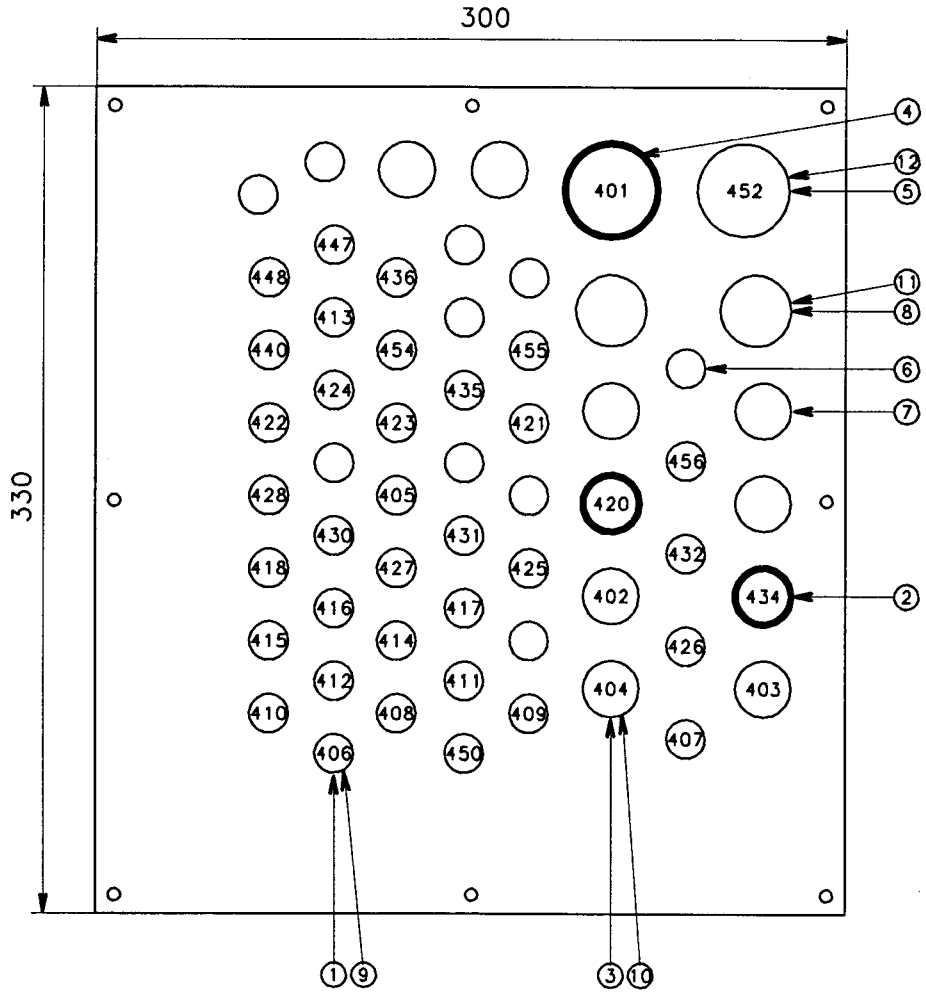


RIGHT HAND SIDE, BOTTOM

Note	AA				THIS VIEW IS SEEN FROM INSIDE CABINET	Tetra Pak	Designer RAI	Date 961119	Approved SB	Date 961119	Doc. class –
ECR No.	70486						Machine TBA/19-0101	Description CABLES INLETS, RIGHT BOTTOM			
Sign./Date	RAI/961119					Company Tetra Brik R.& D. S.p.A.		Drawing No 1279814			Page –
Appr./Date	SB/961119				Drawing remarks						

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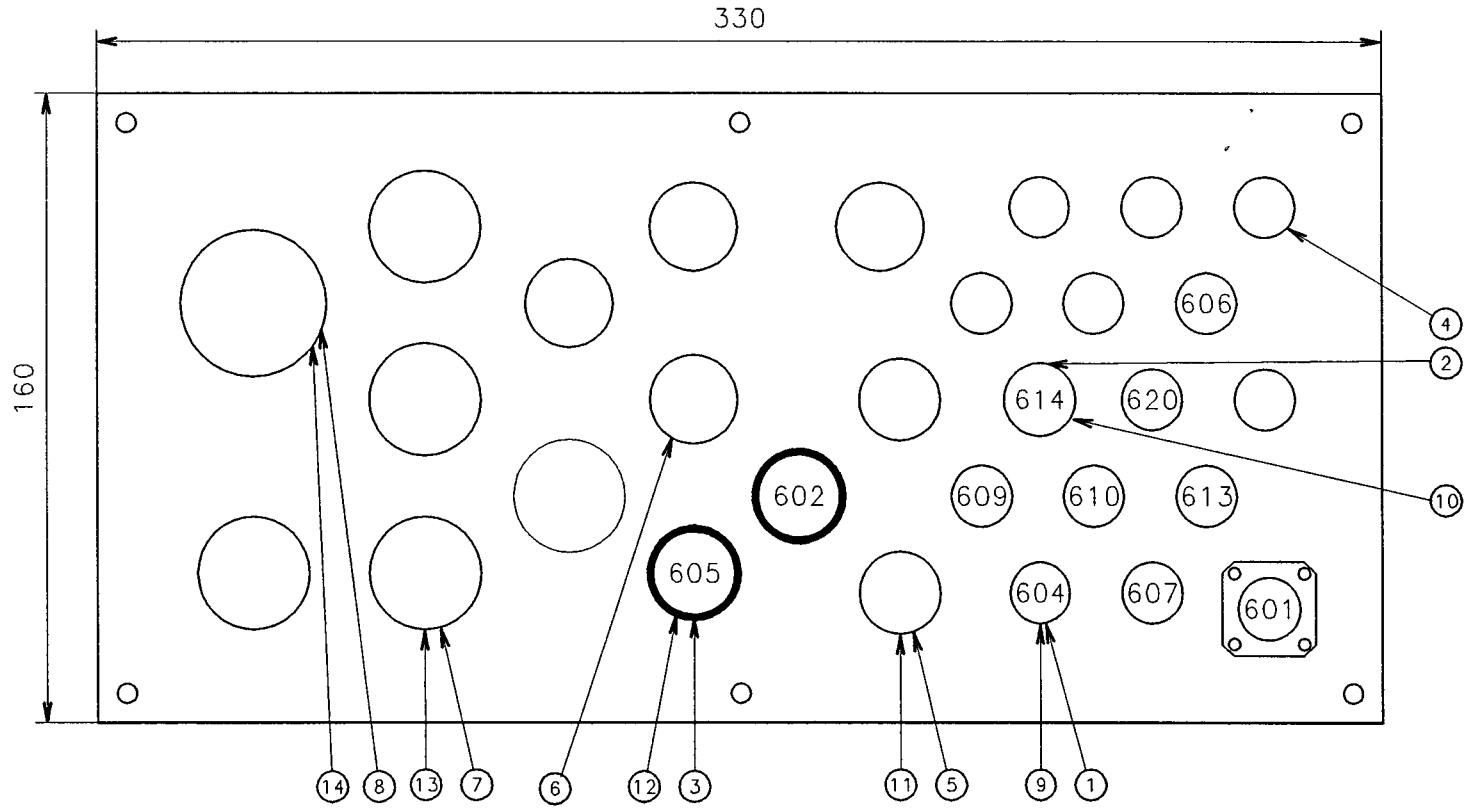


FRONT SIDE PLATE

Note	AA	AB			THIS VIEW IS SEEN FROM INSIDE CABINET	Tetra Pak	Designer RAI	Date 961119	Approved SB	Date 961119	Doc. class –
ECN No.	70486	70486					Machine TBA/19-0101	Designation CABLES INLETS, FRONT SIDE PLATE			
Sign./Date	RAI/961119	RAI/961119				Company Tetra Brik R.& D. S.p.A.		Drawing No 1279815			Page –
Appr./Date	SB/961119	SB/961119			Drawing remarks						

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CABLES GLANDS ARE INSTALLED ON THE OUTSIDE OF THE CABINET.

VIEW FROM THE INSIDE OF THE CABINET.

BACK SIDE PLATE

Note	AA	AB	AC		
ECN No.	70486	71535	71701		
Sign./Date	RAI/961220	ALPO/980420	ALPO/980930		
Appr./Date	SB/961220	AIR/980420	AIR/980930	Drawing remarks	

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class –
Machine: TBA/19-0101	Denomination: CABLE INLETS, BACK SIDE PLATE			
Drawing No: 1279816				Page: –

5 Circuit diagrams

EM1.1TB051499en.fm

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Tetra Pak

POSITION SUMMARY "O" Date: 98-10-15

Machine: 649452

ECN 71701 'O'
19981012 AIR

Position	Sheet	Position	Sheet	Position	Sheet	Position	Sheet	Position	Sheet
A001	12:10	A116	66:09	A402	10:10	M.B025	39:02	M.B093B	30:10
M.A001	36:01	A117	67:09	A500	14:06	M.B030	38:06	M.B094	45:06
A100	17:12	A117	68:04	A501	15:06	M.B032	39:02	M.B095	42:08
P.A100	17:12	A118	69:01	A502	27:03	M.B034	25:01	M.B104	41:02
A101	17:12	A118	70:06	A503	30:10	M.B036	21:09	M.B107	40:10
P.A101	17:12	A119	71:02	A504	30:10	M.B037A	19:09	M.B108	57:09
A102	37:06	A119	72:06	A506	34:01	M.B037B	19:09	M.B109	40:10
A102	38:06	A120	73:10	A507	35:07	M.B038	18:05	M.B110	57:09
A103	39:02	A120	74:12	A508	14:06	M.B039	19:09	M.B110	64:06
A103	40:10	A121	75:09			M.B040	18:05	M.B111	39:02
A104	41:02	A121	76:01	M.B001	36:01	M.B043	24:02	M.B112	23:05
A104	42:08	A135	17:12	M.B002	38:06	M.B044	39:02	M.B113	75:09
A105	43:01	A200	18:05	M.B004	21:09	M.B045	41:02	M.B114	75:09
A105	44:10	A201	18:05	M.B006	38:06	M.B046	40:10	M.B115	33:12
A106	45:06	A202	08:09	M.B007	38:06	M.B047	40:10	M.B116	27:03
A106	46:06	A202	19:09	M.B008	39:02	M.B048A	41:02	M.B117	56:09
A107	47:02	A203	19:09	M.B009	39:02	M.B048B	41:02	M.B118	56:09
A107	48:01	A204	20:10	M.B010	57:09	M.B050	20:10	M.B119	56:09
A111	55:01	A205	20:10	M.B011	57:09	M.B051	40:10	M.B236	45:06
A111	56:09	A206	21:09	M.B012	57:09	M.B053	40:10		
A112	56:09	A207	21:09	M.B013	24:02	M.B055	20:10	D100	17:12
A112	57:09	A300	24:02	M.B014	06:12	M.B061	40:10		
A112	58:01	A301	24:02	M.B015	57:09	M.B062	41:02	M.E001A	06:12
A113	59:12	A302	25:01	M.B016A	41:02	M.B063	40:10	M.E001B	06:12
A113	60:12	A303	25:01	M.B016B	41:02	M.B064	25:01	M.E001C	06:12
A114	61:09	A305	27:03	M.B020	45:06	M.B071	45:06	M.E003	06:12
A114	62:09	A307	27:03	M.B021A	57:09	M.B080:1	33:12	E004	06:12
A115	63:07	A310	23:05	M.B021B	57:09	M.B080:2	33:12	E005	06:12
A115	64:06	A400	33:12	M.B021C	57:09	M.B085	27:03		
A116	65:09	P.A400	33:12	M.B024	39:02	M.B093A	30:10	F001	06:12

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Machine: 649452

ECN 71701 'O'
19981012 AIR

Position	Sheet	Position	Sheet	Position	Sheet	Position	Sheet	Position	Sheet
F002	07:06	P.H001:1	17:12	K004	65:09	K203	08:09	P.P004	74:12
F003	07:06	P.H001:2	17:12	K005	65:09	K204	08:09	P005	31:10
F004	12:10	P.H002:1	17:12	K006	63:07	K205	32:12	P500	72:06
F005	16:10	P.H002:2	17:12	K007	63:07	K206	08:09	P501	72:06
F006A	16:10	P.H002S	17:12	K008	62:09				
F006B	16:10	P.H003:1	17:12	K009	63:07	L001	06:12	Q001	05:12
F006C	16:10	P.H003:2	17:12	K010	62:09	M.L001	14:06	Q002	05:12
F007A	07:06	P.H003S	17:12	K011	62:09	L002	06:12	Q003	11:07
F007B	07:06	P.H004:1	17:12	K012	65:09	M.L002	14:06	Q003:1	57:09
F008A	07:06	P.H004:2	17:12	K013	63:07	M.L003	15:06	Q004	10:10
F008B	07:06	P.H004S	17:12	K014	65:09	L004	06:12	Q005	16:10
F009	10:10	P.H005:1	17:12	K015	65:09	L005	06:12	Q006	10:10
F100A	08:09	P.H005:2	17:12	K016	65:09			Q006:1	41:02
F100B	08:09	P.H006:1	17:12	K017	64:06	M.MPLE	11:07	Q007	10:10
F100C	08:09	P.H006:2	17:12	K018	65:09	M.M001	11:07	Q007:1	57:09
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F101B	08:09	P.H007:1	17:12	K100	67:09	M003	32:12	Q008:1	57:09
F101C	08:09	P.H007:2	17:12	K101	66:09	M.M004	11:07	Q009	10:10
F102A	14:06	P.H008:1	17:12	K102	66:09	M.M005	10:10	Q009:1	57:09
F102B	14:06	P.H008:2	17:12	K103	67:09	M.M006	12:10	Q010	11:07
F102C	14:06	P.H009:1	17:12	K104	66:09	M.M007	10:10	Q010:1	57:09
F103A	15:06	P.H009:2	17:12	K105	66:09	M.M010	10:10	Q011	11:07
F103B	15:06	P.H010:1	17:12	K106	66:09	M.M013	12:10	Q011:1	57:09
F103C	15:06	P.H010:2	17:12	K107	66:09	M.M014	10:10	Q012	10:10
F104	08:09	P.H011S	17:12	K110	67:09	M016	10:10	Q012:1	41:02
F105	32:12	M.H031	32:12	K111	32:12	M.M017	10:10	Q013	11:07
				K113	67:09	M.M018	74:12		
G100	17:12	K001	65:09	K200	08:09			R001	14:06
G101	17:12	K002	65:09	K201	08:09	P002	62:09	M.R001	06:12
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Machine: 649452

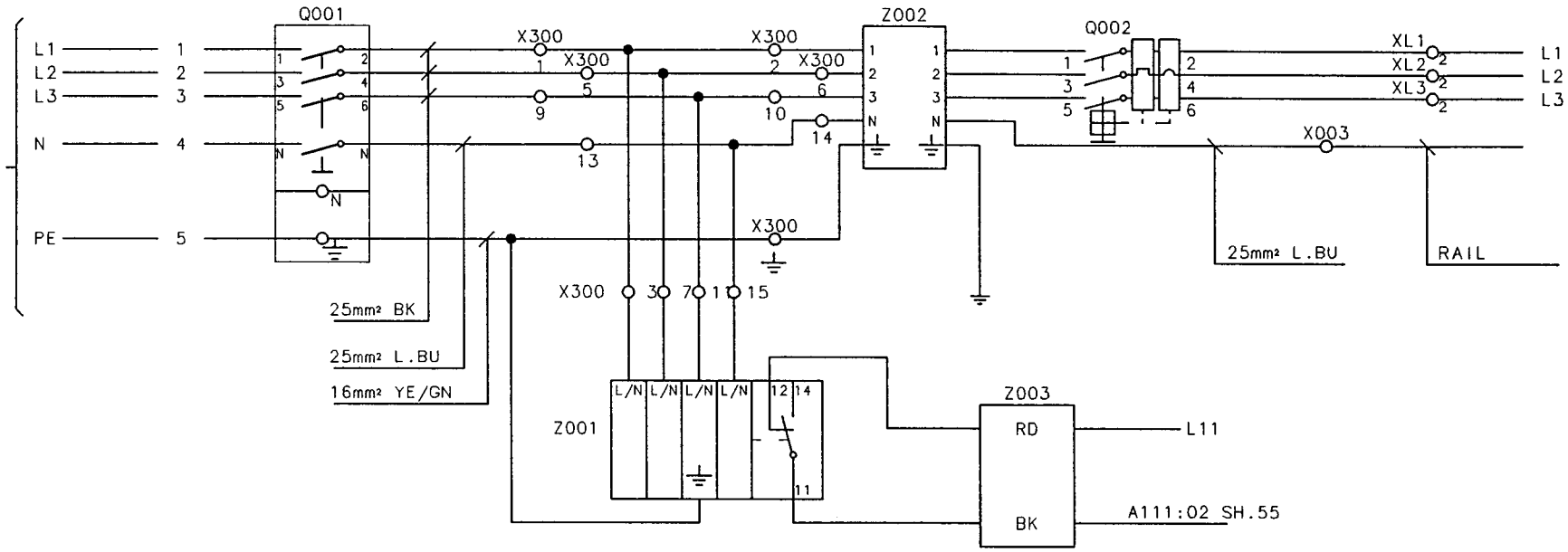
ECN 71701 'O'
19981012 AIR

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M.R005A	07:06	S511	38:06	M.Y002	69:01	M.Y043	71:02		
M.R005B	07:06			M.Y003	69:01	M.Y051	68:04		
M.R005C	07:06	T001	16:10	M.Y004	70:06	M.Y086	68:04		
M.R031	08:09	T002	07:06	M.Y005	69:01	M.Y102	63:07		
M.R032	08:09	T003	07:06	M.Y006	69:01	M.Y105	75:09		
M.R035	08:09			M.Y007	69:01	M.Y106	75:09		
M.R036	08:09	V001	16:10	M.Y008	68:04	M.Y107	23:05		
M.R037	07:06	V002	32:12	M.Y009	68:04	M.Y108	70:06		
				M.Y012	33:12	M.Y109	75:09		
M.S001	34:01	W031	14:06	M.Y013	33:12	M.Y129	61:09		
P.S001	34:01	W032	14:06	M.Y014	33:12				
M.S002	37:06	W033	18:05	M.Y017	68:04	Z001	05:12		
P.S002H	59:12	W034	18:05	M.Y019	68:04	Z002	05:12		
S003	37:06	W035	19:09	M.Y020	61:09	Z003	05:12		
P.S003H	59:12	W036	19:09	M.Y021	61:09				
S004	38:06	W037	19:09	M.Y022	69:01				
M.S004	34:01	W038	20:10	M.Y023	68:04				
P.S004H	59:12	W039	20:10	M.Y024	61:09				
S005	37:06	W040	21:09	M.Y025	68:04				
M.S005	34:01	W041	21:09	M.Y026	61:09				
P.S006H	59:12	W044	15:06	M.Y027	61:09				
P.S007	59:12	W045	14:06	M.Y029	69:01				
P.S011H	59:12	W049	19:09	M.Y031	69:01				
P.S012	59:12	W050	17:12	M.Y032	63:07				
M.S014	38:06	W051	17:12	M.Y033	70:06				
P.S019	60:12			M.Y034	70:06				
P.S020	60:12	M.X001	36:01	M.Y035	70:06				
M.S028	06:12	X010	06:12	M.Y039	70:06				
M.S033	37:06			M.Y041	70:06				

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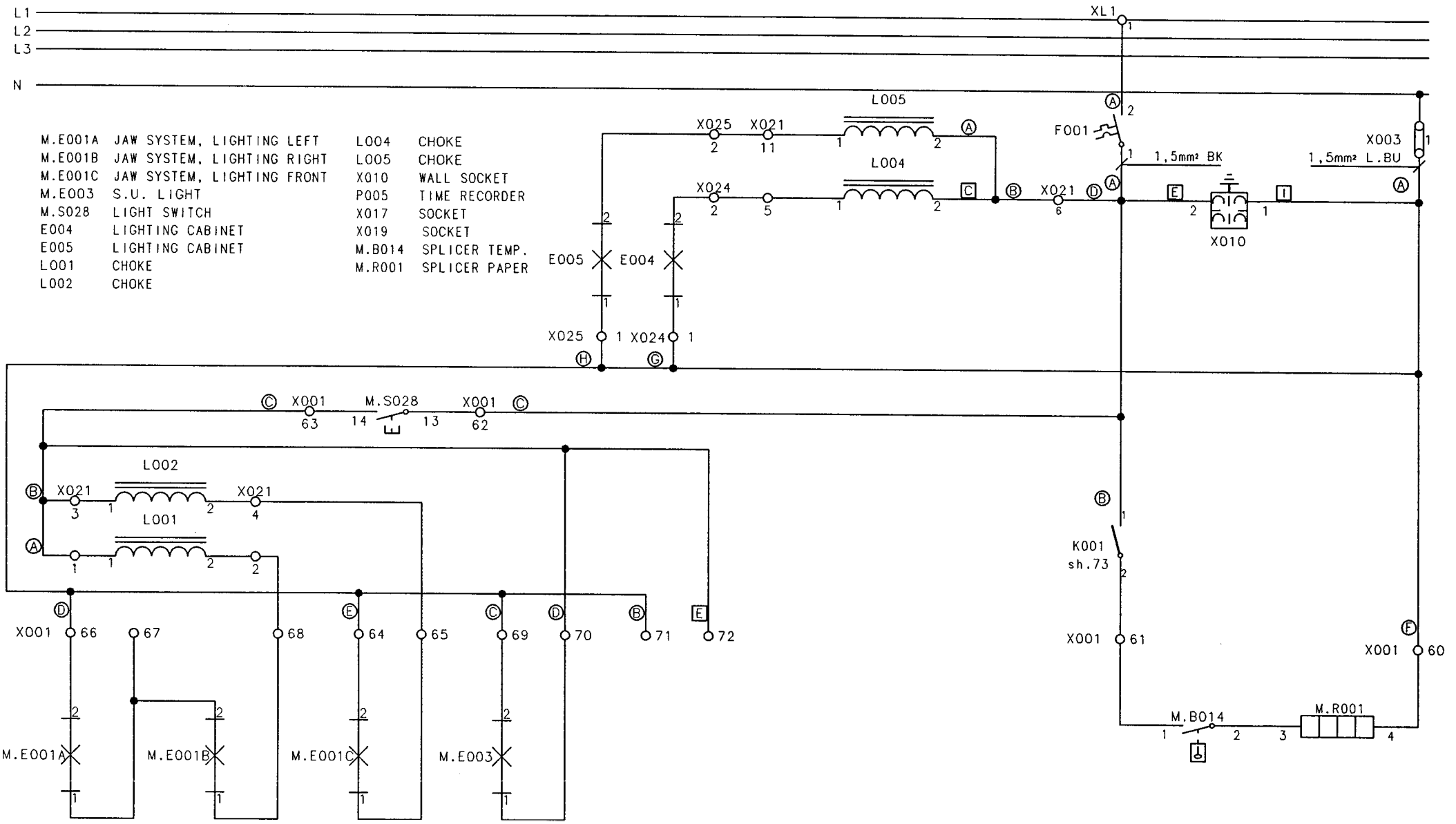
FOR TYPE OF WIRE,WIRING INSTRUCTIONS ETC.
SEE SPECIFICATION FOR SUBSUPPLIERS TPUS 3502.22

WHERE NOTHING ELSE IS SAID
OR LINE SUMMARY IS VALID:0.75 mm² BU
STAR OR BLUE MARKING MUST BE USED
FOR SHOWING CONTINUOUS WIRE

Note	A					Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class –
ECN No.	71701						Machine TBA/19-0101	Denomination MAINS CONNECTION		
Sign./Date	ALPO/980930					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-05:12		Page –
Appr./Date	AIR/980930				Drawing remarks					

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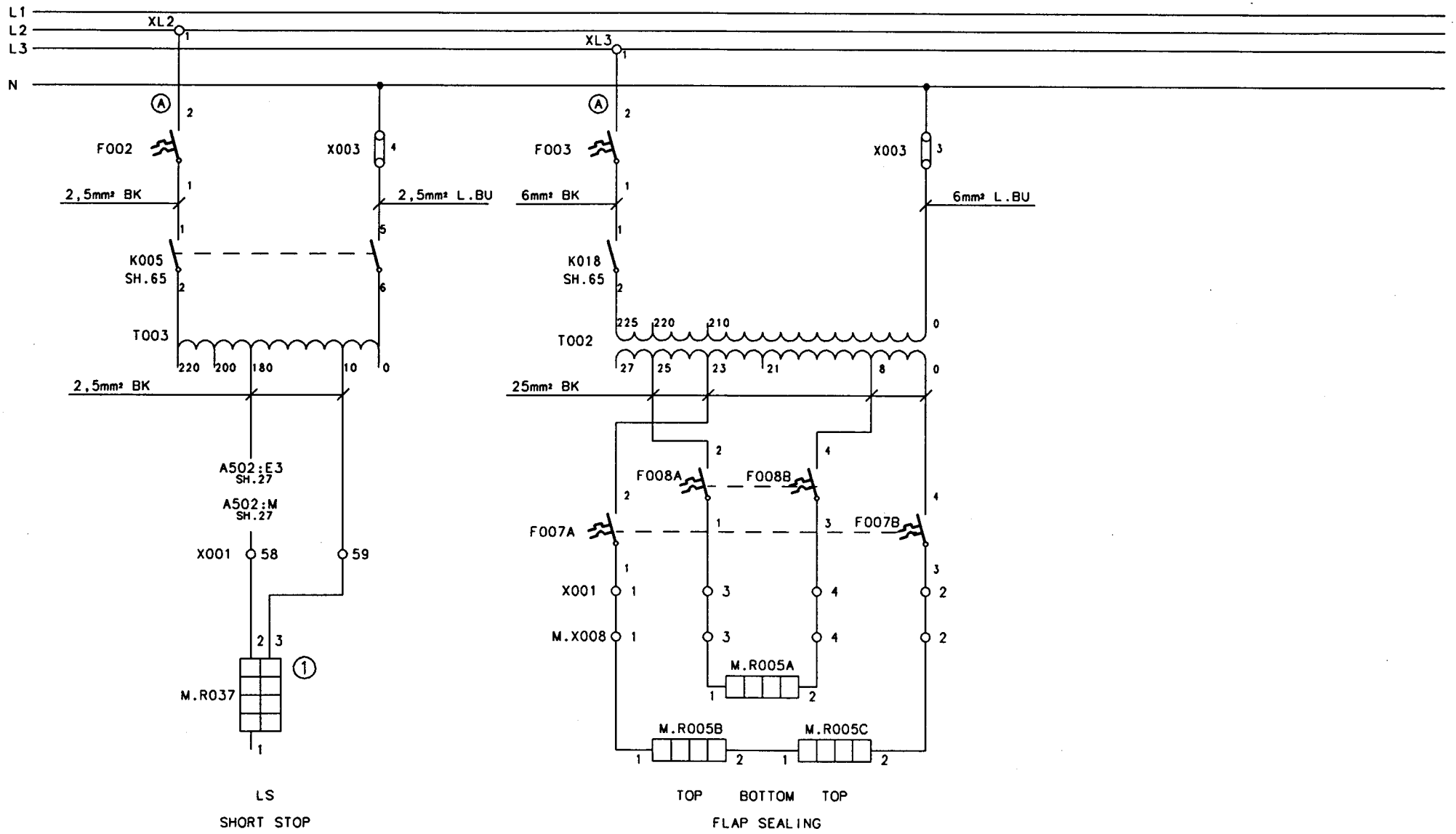
12:41 20/11/98



Note	A				RAIL (POS.340) BETWEEN F1-2-3-5-9-10-13	Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class –
ECN No.	71701						Machine TBA/19-0101	Denomination LIGHT FIXTURES, SPLICER		
Sign./Date	ALPO/980930					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-06:12			Page –
Appr./Date	AIR/980930				Drawing remarks					

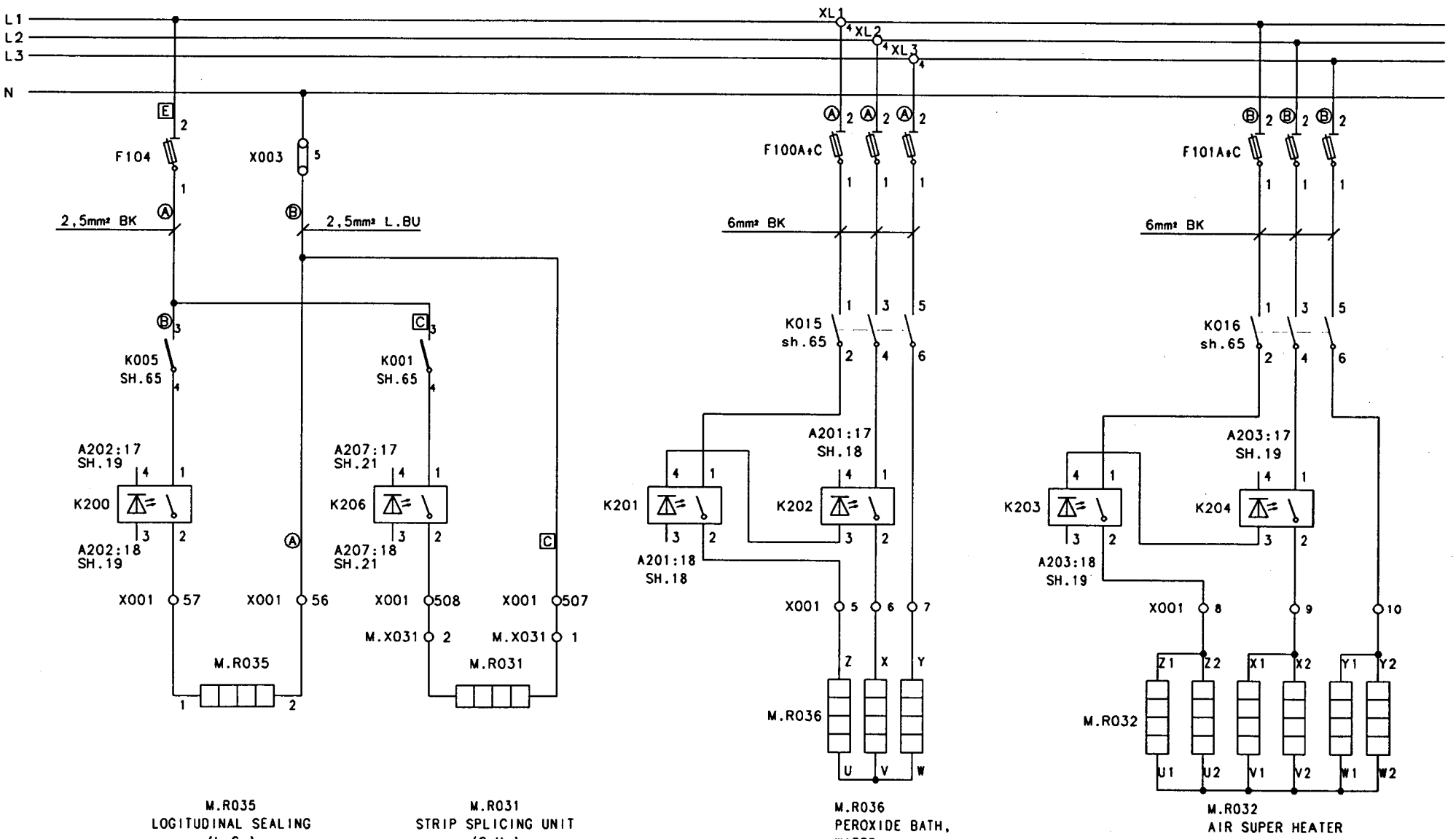
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Note	A				ELEMENT PIN CONFIGURATION	Tetra Pak	Designer PRI	Date 960219	Approved SB Date 960219	Doc. class –
ECN No.	70019				① 1-2= 1200W 1-3= 700W 2-3= 450W		Machine TBA/19-0101	Denomination ELEMENTS		
Sign./Date	PRI/960219					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-07:06		Page –
Appr./Date	SB/960219				Drawing remarks					

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M.R035
LOGITUDINAL SEALING
(L.S.)

M.R031
STRIP SPLICING UNIT
(S.U.)

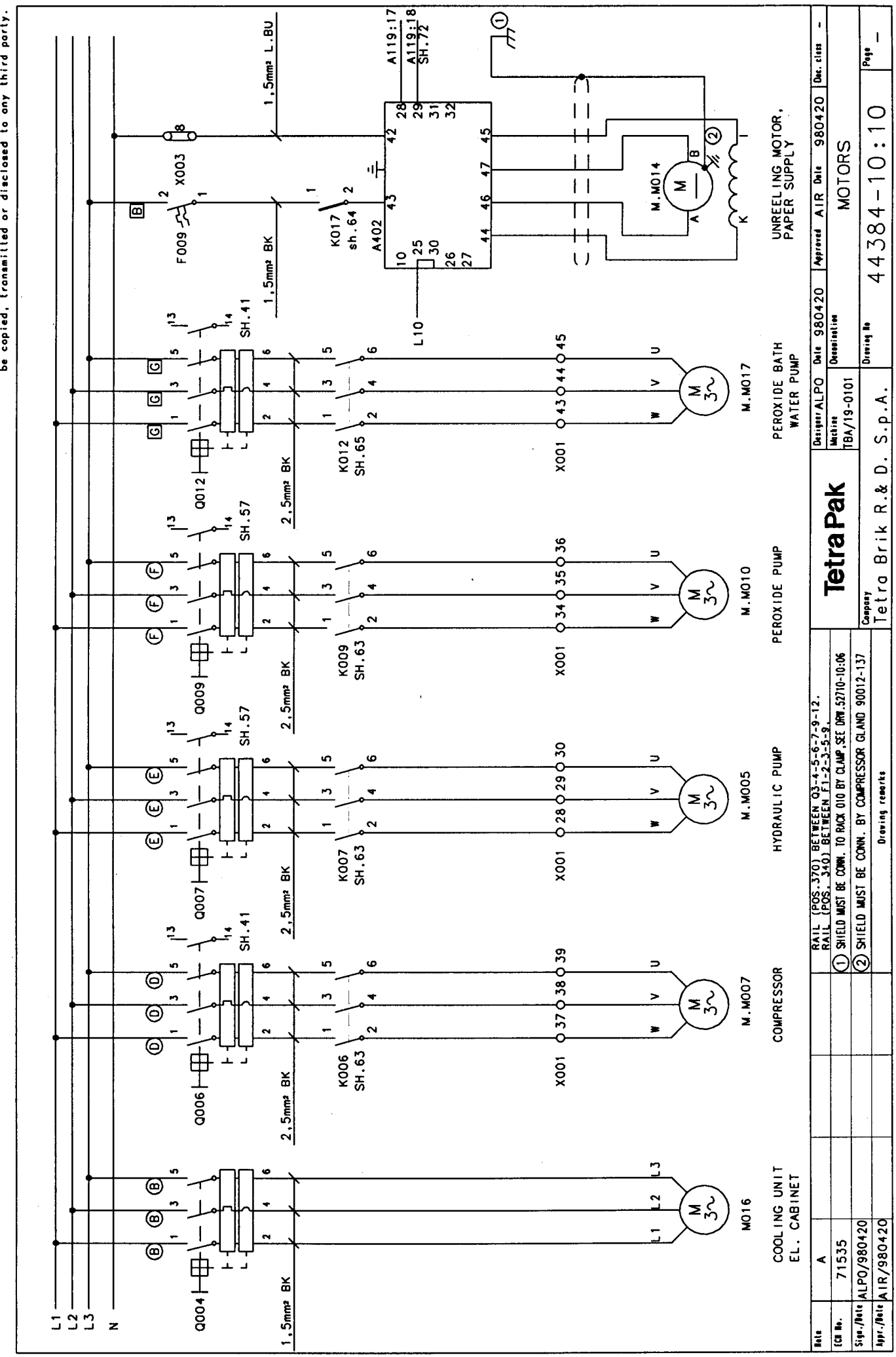
M.R036
PEROXIDE BATH,
WATER

M.R032
AIR SUPER HEATER

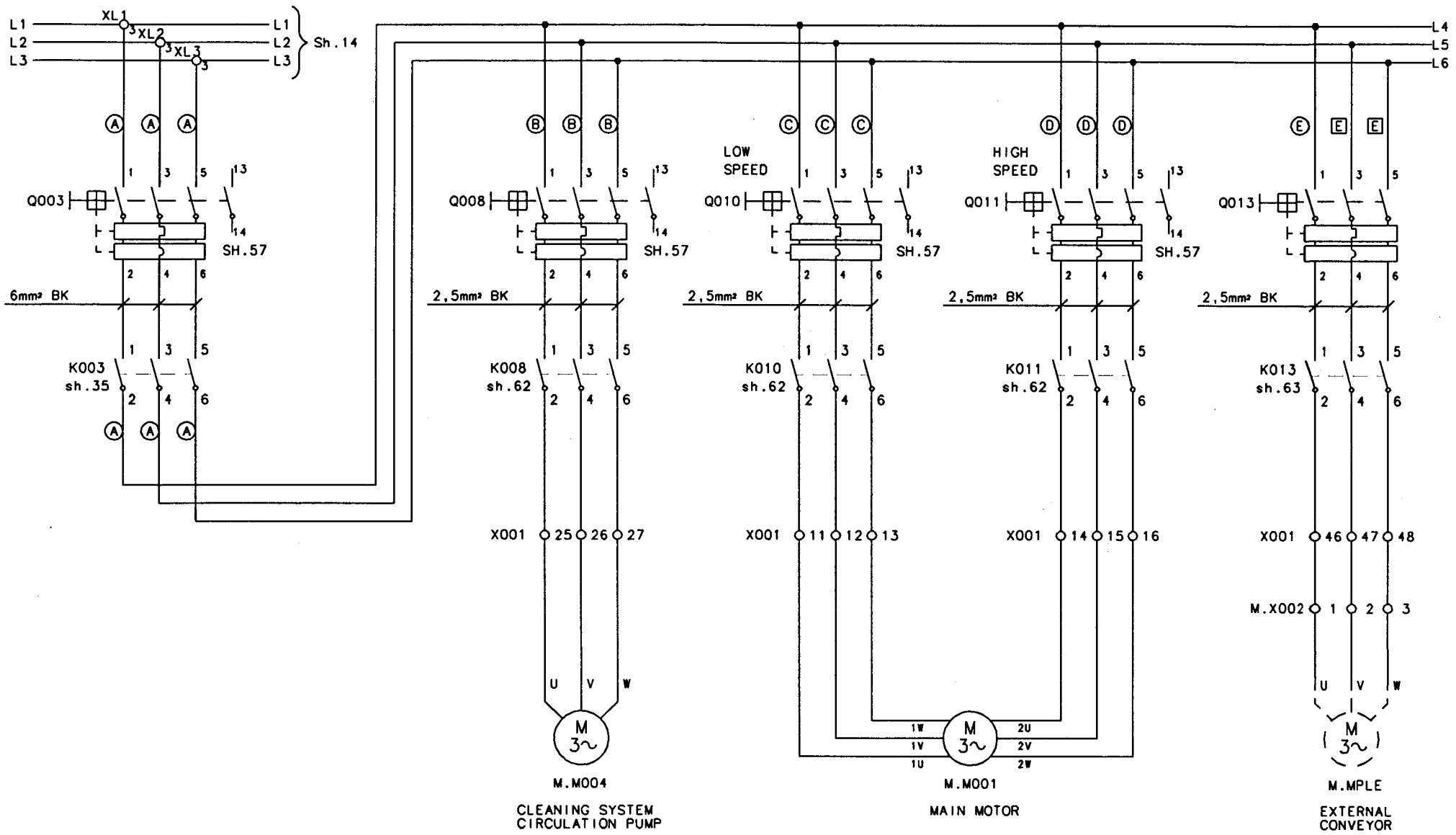
Note	A				RAIL (POS. 330,335 MECH.LIST 971257-010V) BETWEEN F100-101-102-103-104.	Tetra Pak	Designer PRI	Date 970908	Approved SB Date 970915	Doc. class -
ECR No.	70943						Machine TBA/19-0101	Denomination ELEMENTS		
Sign./Date	PRI/970908					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-08:09			Page -
Appr./Date	SB/970915				Drawing remarks					

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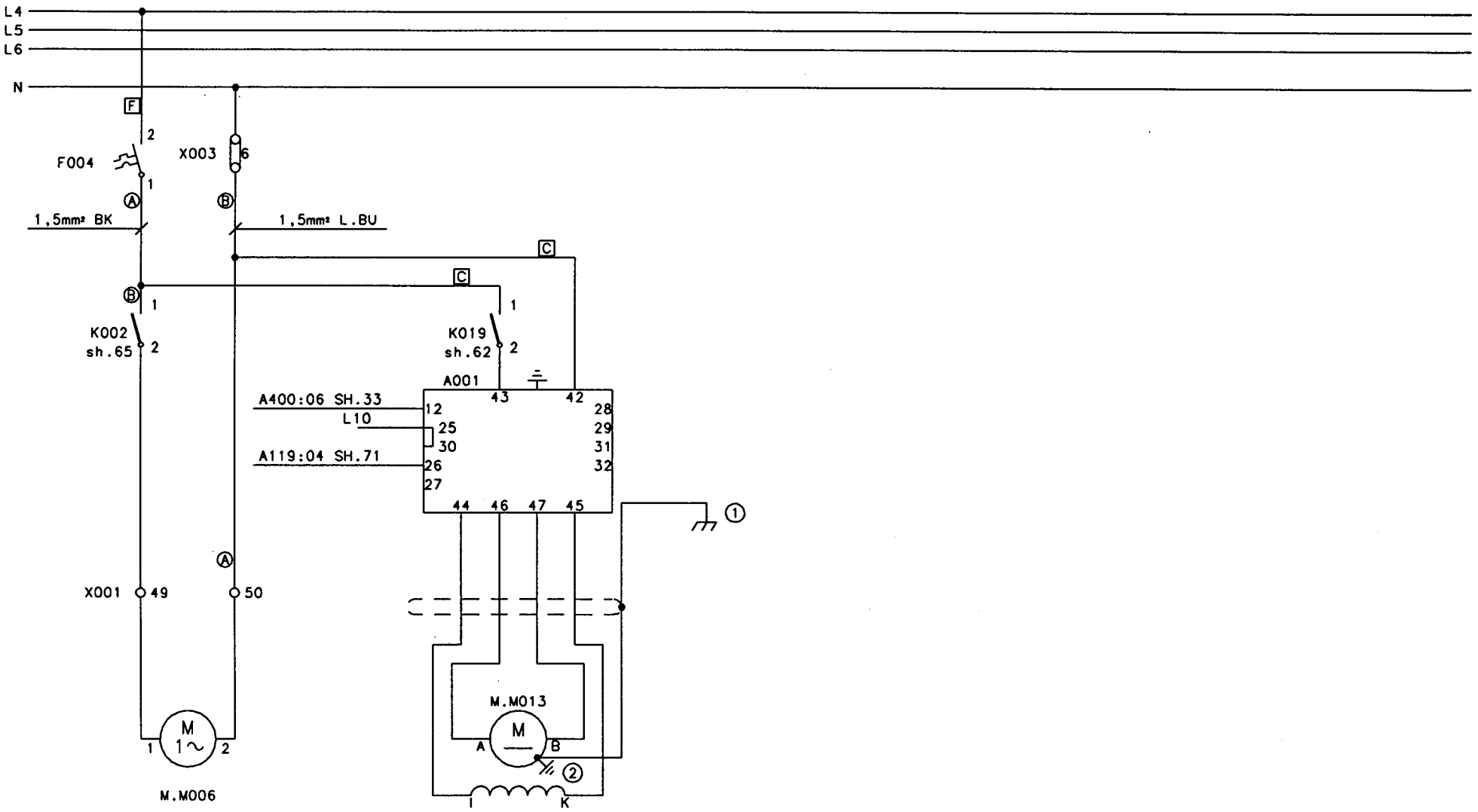


Note	A				RAIL (POS.370) BETWEEN Q8-10-11-13	Tetra Pak	Designer PRI	Date 960808	Approved SB	Date 960808	Doc. class –
ECN No.	70256						Machine TBA/19-0101	Denomination MOTORS			
Sign./Date	PRI/960808						Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-11:07			Page –
Appr./Date	SB/960808				Drawing remarks						

12:41 20/11/98

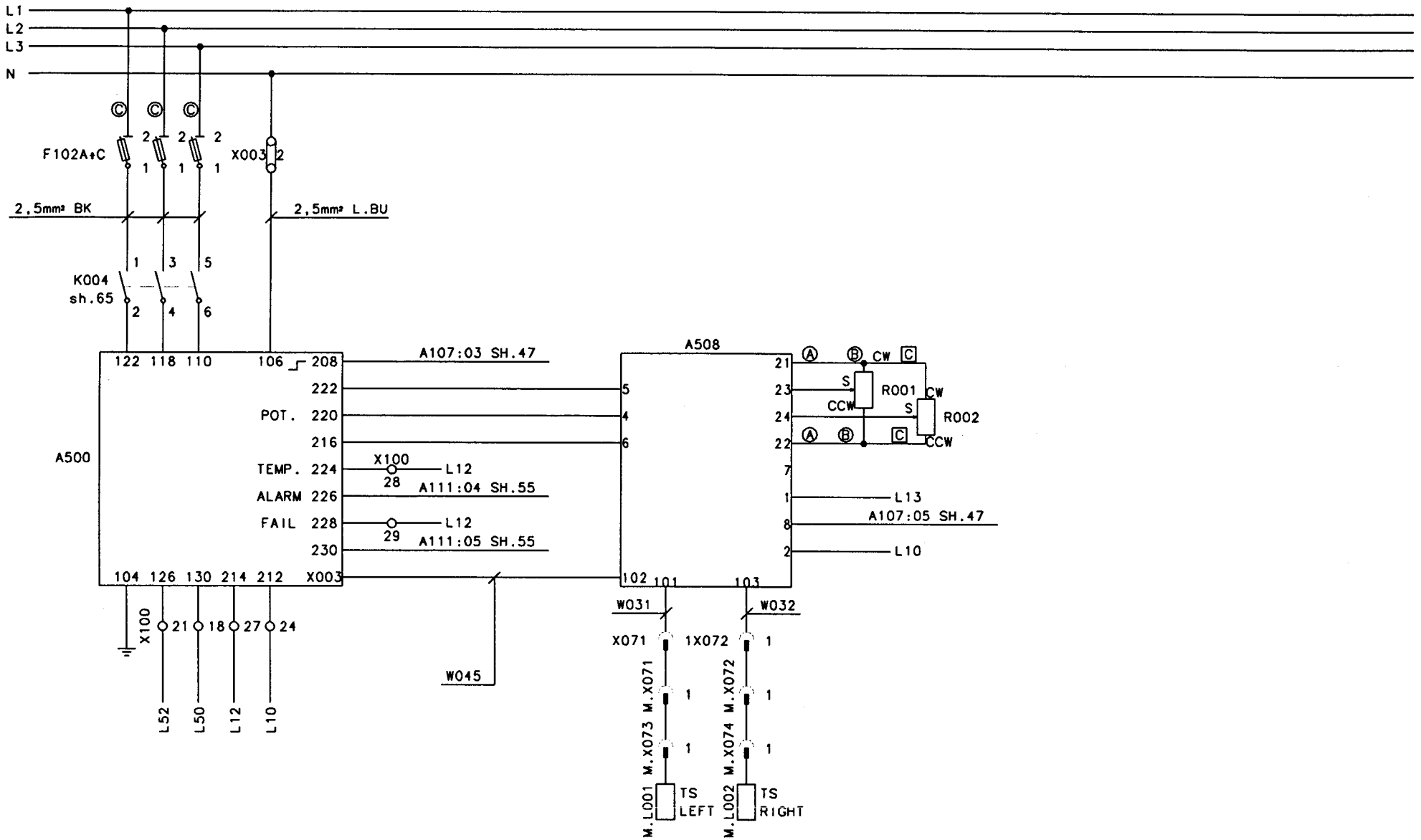
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Note	A				① SHIELD MUST BE CONN. TO RACK 010 BY CLAMP, SEE DRW. 52710-10:06	Tetra Pak	Designer ALPO	Date 980420	Approved AIR Date 980420	Doc. class –
ECN No.	71535				② SHIELD MUST BE CONN. BY COMPRESSOR GLAND 90012-137		Machine TBA/19-0101	Denomination MOTORS		
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-12:10		Page –
Appr./Date	AIR/980420				Drawing remarks					

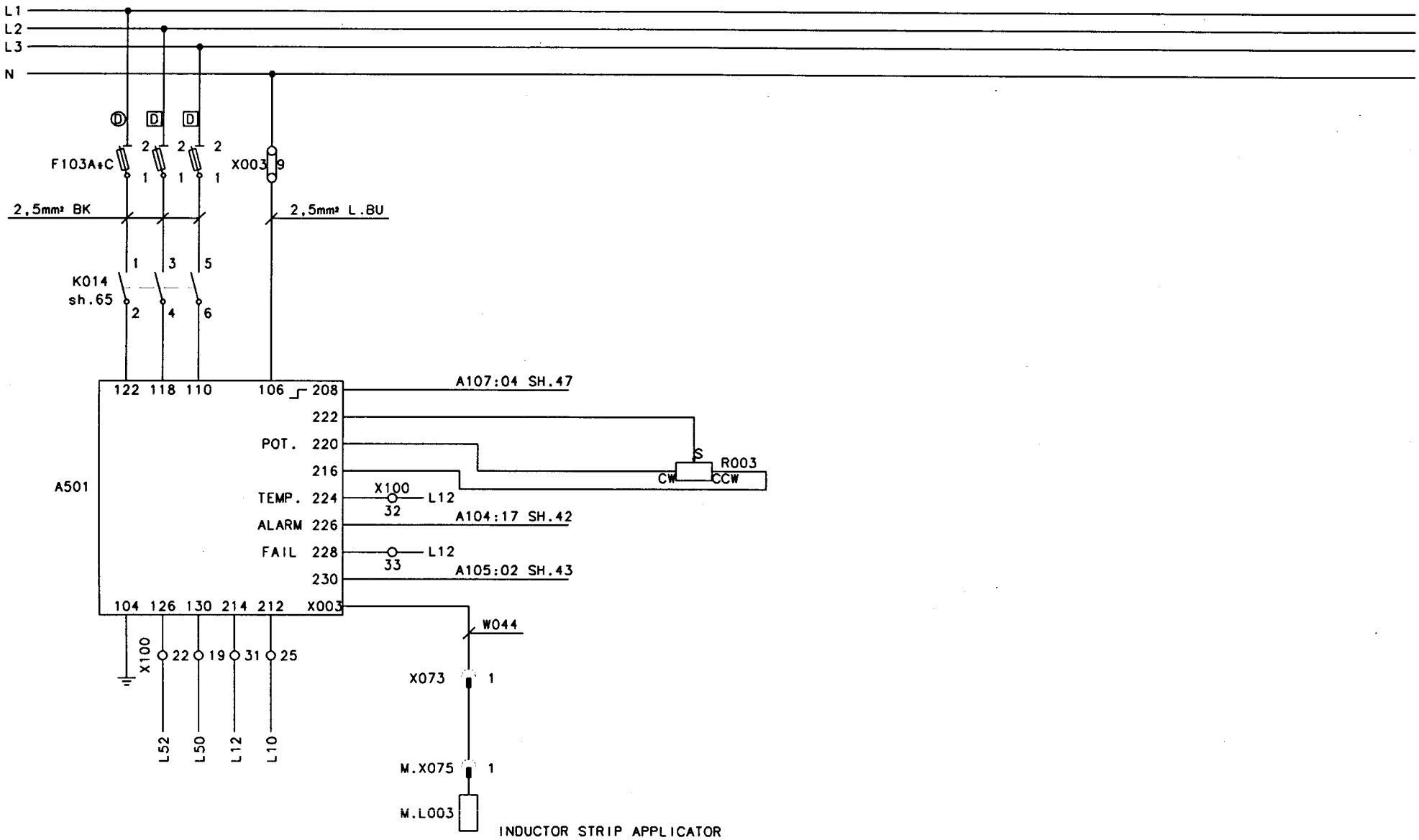
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Note	A				RAIL (POS. 330,335 MECH.LIST 971257-010V) BETWEEN F100-101-102-103-104	Tetra Pak	Designer PRI Date 960219	Approved SB Date 960219	Doc. class -
ECN No.	70019						Machine TBA/19-0101	Description IH GENERATOR - TS SEALING	
Sign./Date	PRI/960219					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-14:06		Page -
Appr./Date	SB/960219				Drawing remarks				

12:41 20/11/98

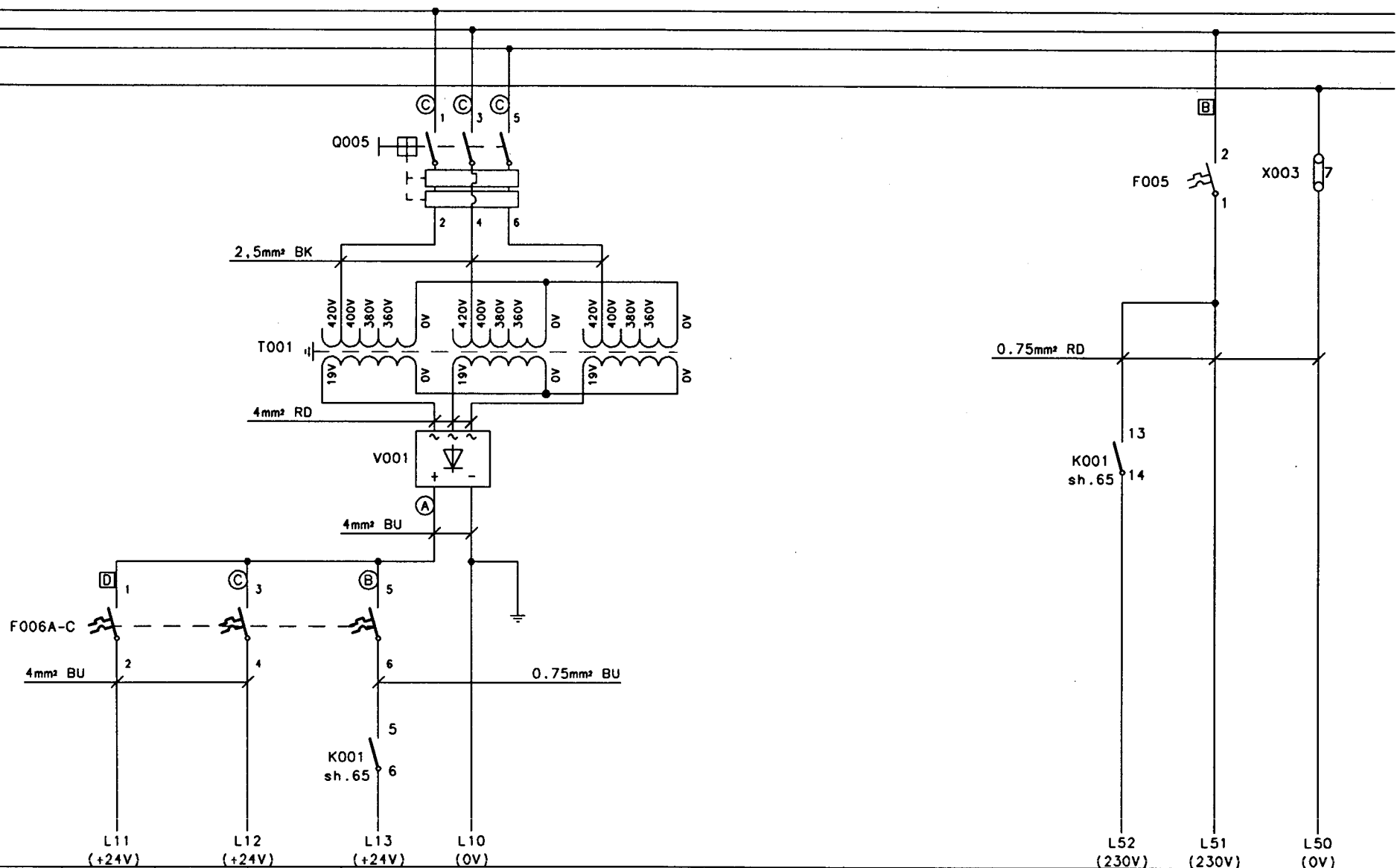
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Note	A				RAIL (POS. 330,335 MECH.LIST 971257-010V) BETWEEN F100-101-102-103-104	Tetra Pak	Designer PRI	Date 960219	Approved SB	Date 960219	Doc. class -
ECN No.	70019						Machine TBA/19-0101	Denomination IH GENERATOR - S.A. SEALING			
Sign./Date	PRI/960219						Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-15:06			Page -
Appr./Date	SB/960219				Drawing remarks						

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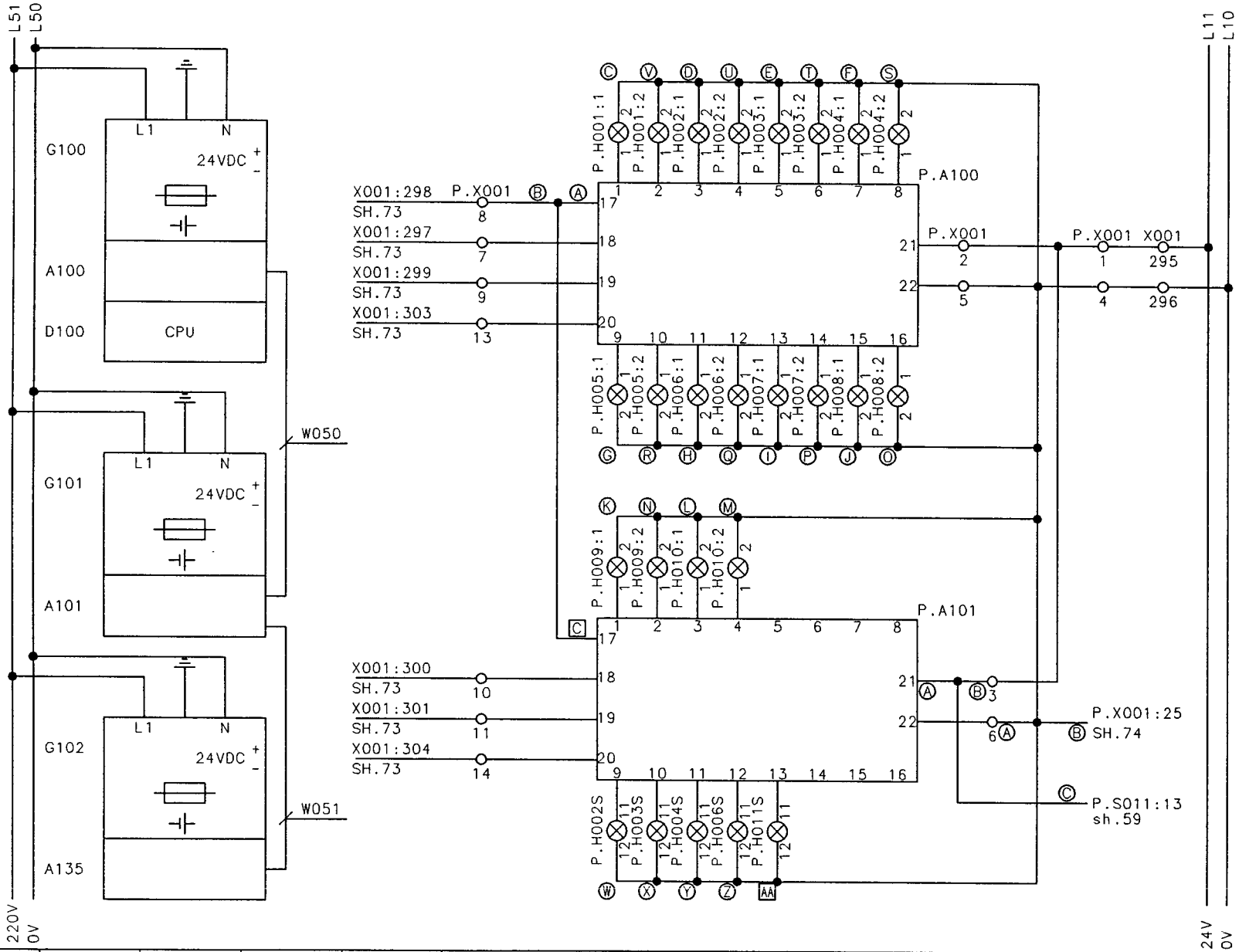
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Note	A				RAIL (POS. 370) BETWEEN Q3-4-5-6-7-9-12	Tetra Pak	Designer ALPO	Date 980420	Approved AIR Date 980420	Doc. class –
ECN No.	71535						Machine TBA/19-0101	Denomination CONTROL VOLTAGE		
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-16:10			Page –
Appr./Date	AIR/980420				Drawing remarks					

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G100-102	POWER UNIT
D100	CPU
P.A100	CIRCUIT BOARD
P.A101	CIRCUIT BOARD

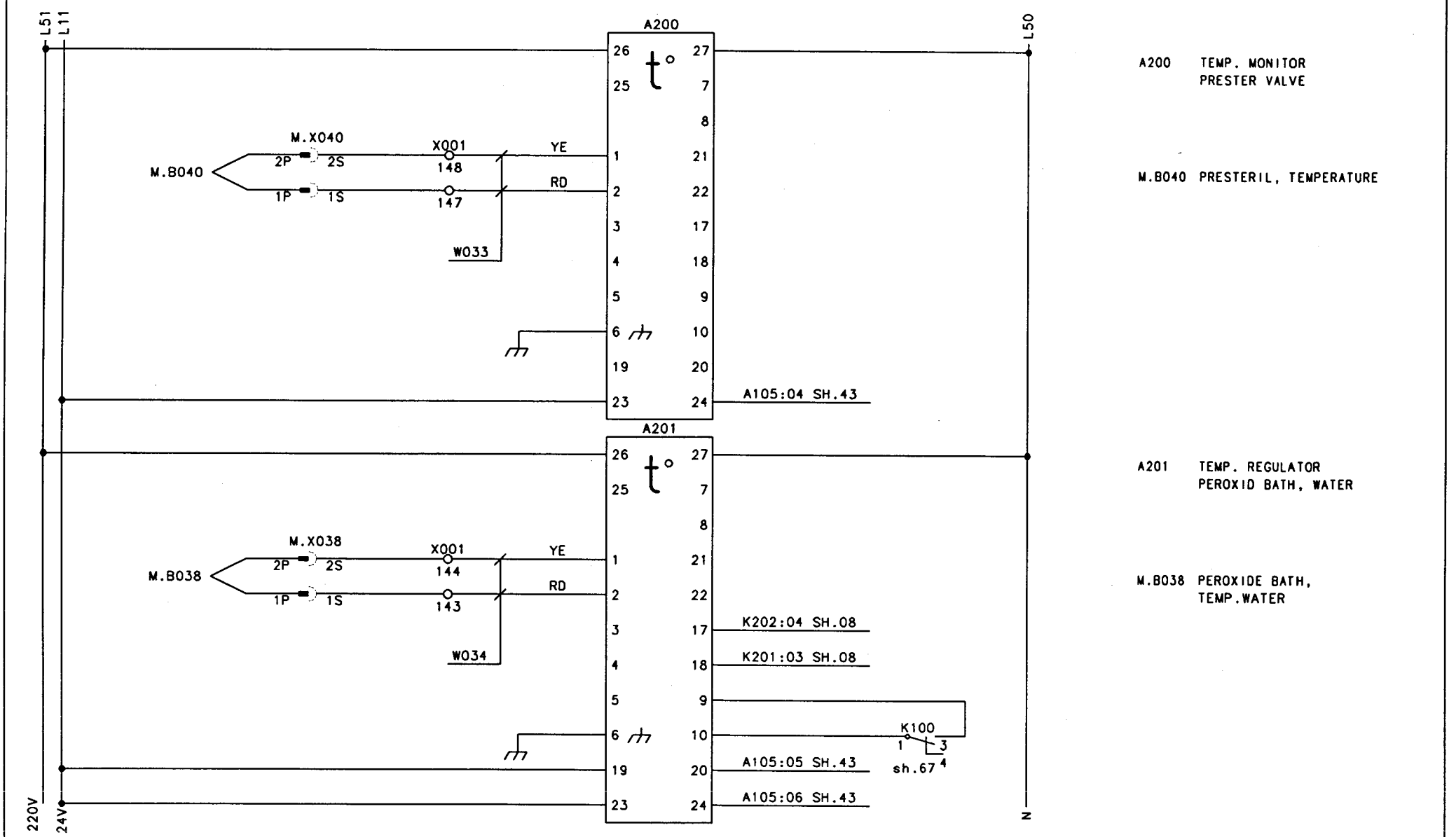
A100, A101 — RACK

A135

P.H001:1	PREHEATING I
P.H001:2	PREHEATING II
P.H002:1	TUBE SEALING
P.H002:2	PRESTERILIZING
P.H003:1	SPRAYING
P.H003:2	DRYING
P.H004:1	SIGNAL TO STERILIZER
P.H004:2	SIGNAL FROM STERILIZER
P.H005:1	START SEQUENCE
P.H005:2	DRIVE MOTOR ON
P.H006:1	FILLING
P.H006:2	PRODUCTION
P.H007:1	NO PRODUCTION ALLOWED
P.H007:2	PRODUCTION FINISHED
P.H008:1	WORK ENVIROMENT ASEPTIC CHAMBER
P.H008:2	WEAC READY FOR DOOR OPENING
P.H009:1	PREPARATION FOR MACHINE
P.H009:2	PREPARATION FOR CLEANING OF VALVE
P.H010:1	CLEANING MACHINE
P.H010:2	CLEANING VALVE
P.H002S	INCHING
P.H003S	STEP UP
P.H004S	STEP DOWN
P.H006S	SHORT STOP
P.H011S	ALARM RESET

Note	A					Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class	-
ECN No.	71701					Machine TBA/19-0101	Denomination PLC, PANEL INTERFACE				
Sign./Date	ALPO/980930					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-17:12			Page	-
Appr./Date	AIR/980930				Drawing remarks						

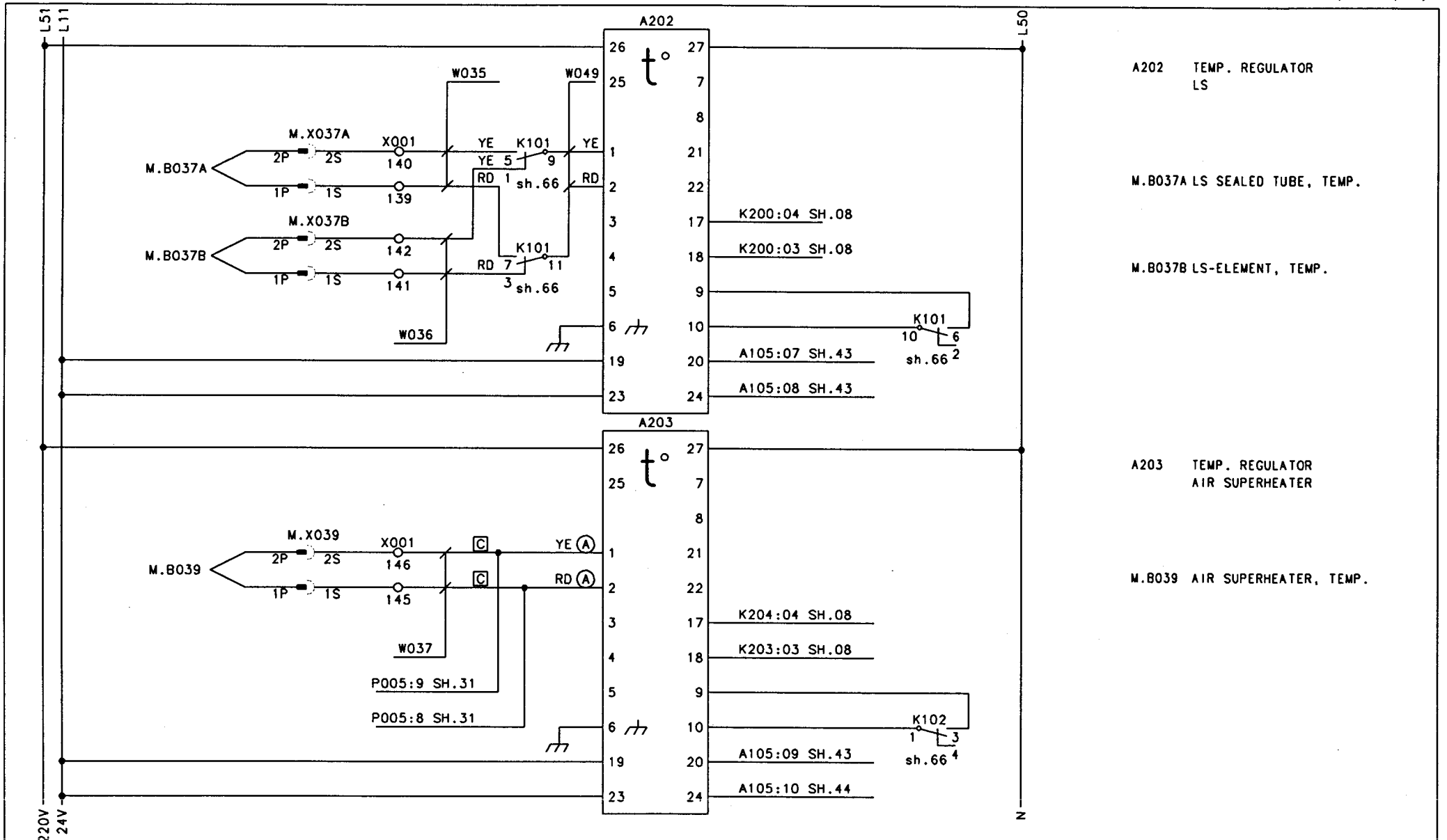
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Note	A					Tetra Pak	Designer PRI	Date 951128	Approved MAC Date 951128	Doc. class -
ECR No.	22893						Machine TBA/19-0101	Denomination REGULATORS		
Sign./Date	PRI/951128					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-18:05		Page -
Appr./Date	MAC/951128				Drawing remarks					

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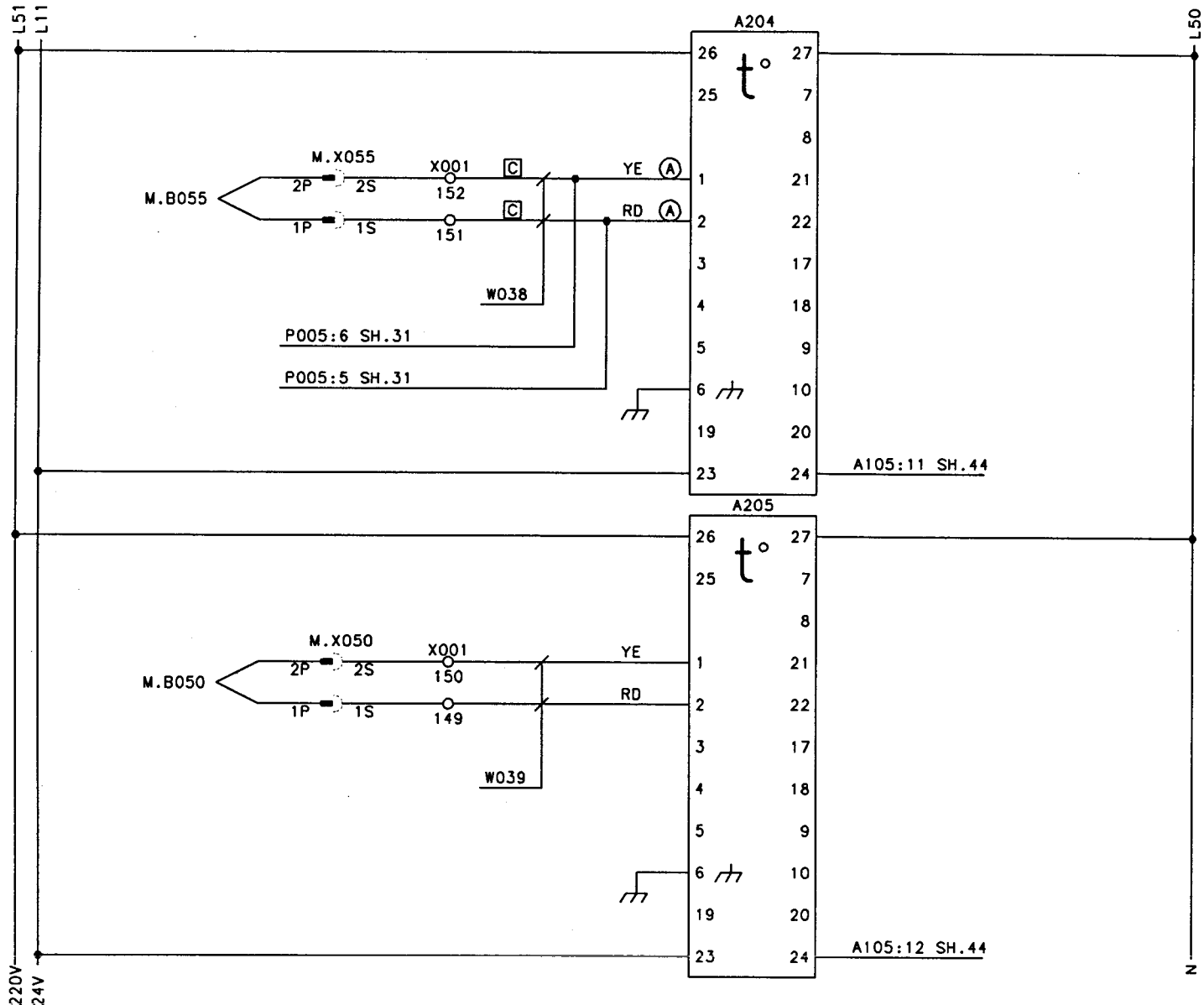
This drawing must not without the consent of Tetro Pok: be copied, transmitted or disclosed to any third party.



Date	A					Tetra Pak	Designer PRI	Date 970908	Approved SB	Date 970915	Doc. class –
ECN No.	70943						Machine TBA/19-0101	Denomination REGULATORS			
Sign./Date	PRI/970908						Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-19:09			Page –
Appr./Date	SB/970915					Drawing remarks					

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A204 TEMP. MONITOR AIR KNIVES

M.B055 AIR KNIFE TEMPERATURE

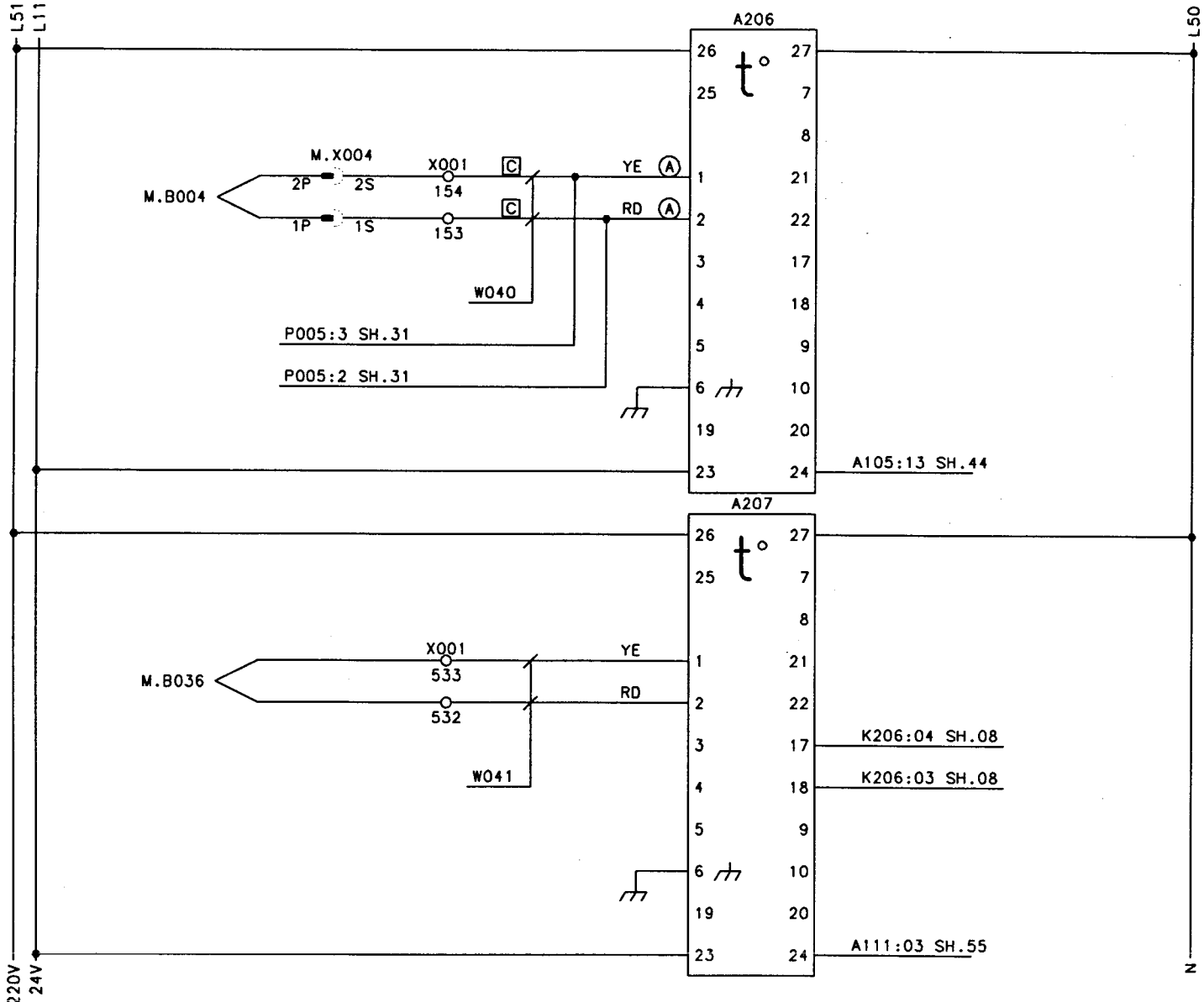
A205 TEMP. MONITOR STEAM

M.B050 STEAM TEMP

Note	A					Designer ALPO	Date 980420	Approved AIR	Date 980420	Doc. class –
ECR No.	71535				Tetra Pak	Machine TBA/19-0101	Denomination REGULATORS			
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-20:10			Page –
Appr./Date	AIR/980420				Drawing remarks					

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A206 TEMP. MONITOR
PEROXIDE BATH, PEROXIDE

M.B004 PEROXIDE BATH
TEMPERATURE PEROXIDE

A207 TEMP. REGULATOR
SPLICE UNIT

M.B036 STRIP SPLICE
ELEMENT TEMPERATURE

Note	A				
ECN No.	70943				
Sign./Date	PRI/970908				
Appr./Date	SB/970915				Drawing remarks

Tetra Pak

Designer PRI	Date 970908	Approved SB	Date 970915	Doc. class –
Machine TBA/19-0101	Denomination REGULATORS			
Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-21:09			Page –

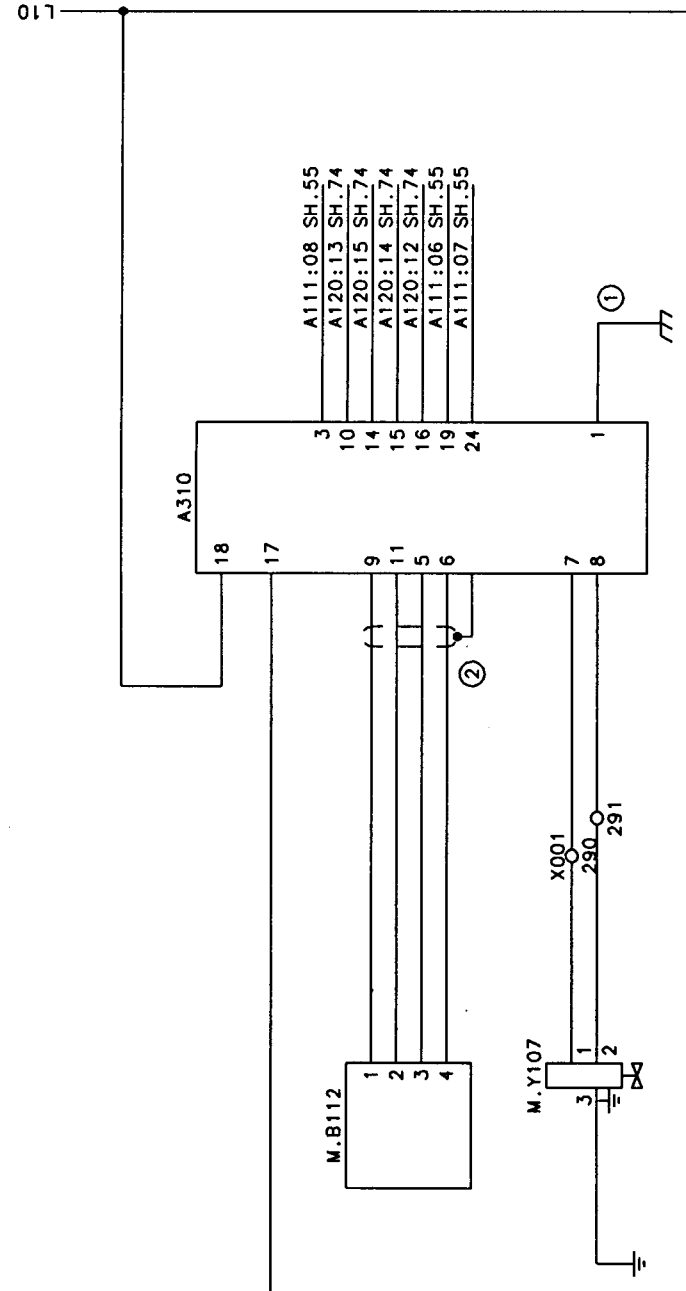
12:41 20/11/98

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A310 LEVEL REGULATOR

M.B112 LEVEL DETECTOR

M.Y107 I/P TRANSDUCER



① TO BE CONNECTED TO THE CHASSIS

② TO THE MOUNTING RACK CHASSIS FRAME BY CABLE CLAMPS SEE MOUNTING DRAWING 52710-12:02

Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer PRI | Date 951128 | Approved MAC Date 951128 | Doc. class -

Machine: TBA/19-0101

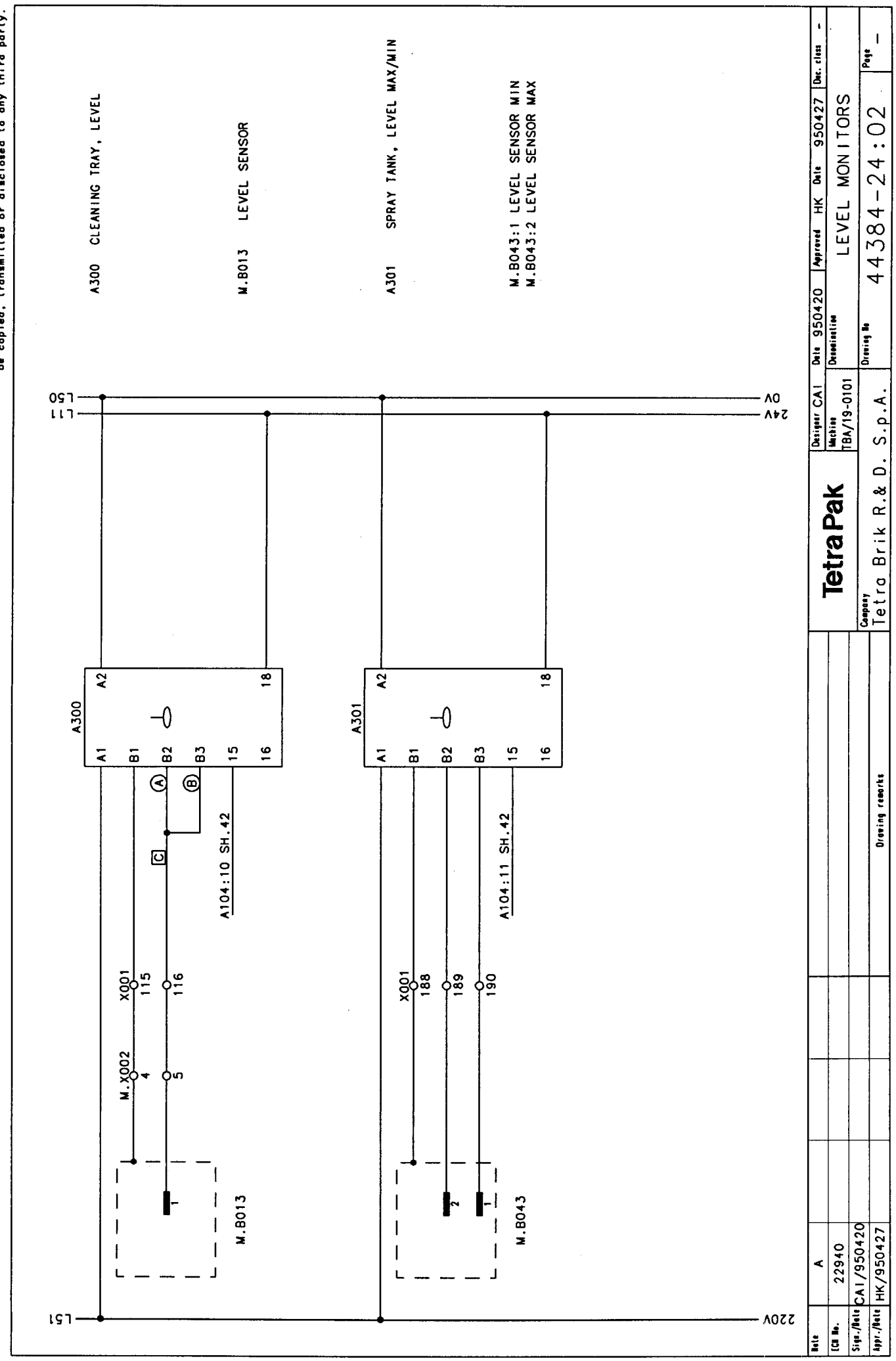
Description: LEVEL REGULATED FILLING

Drawing No: 44384-23:05

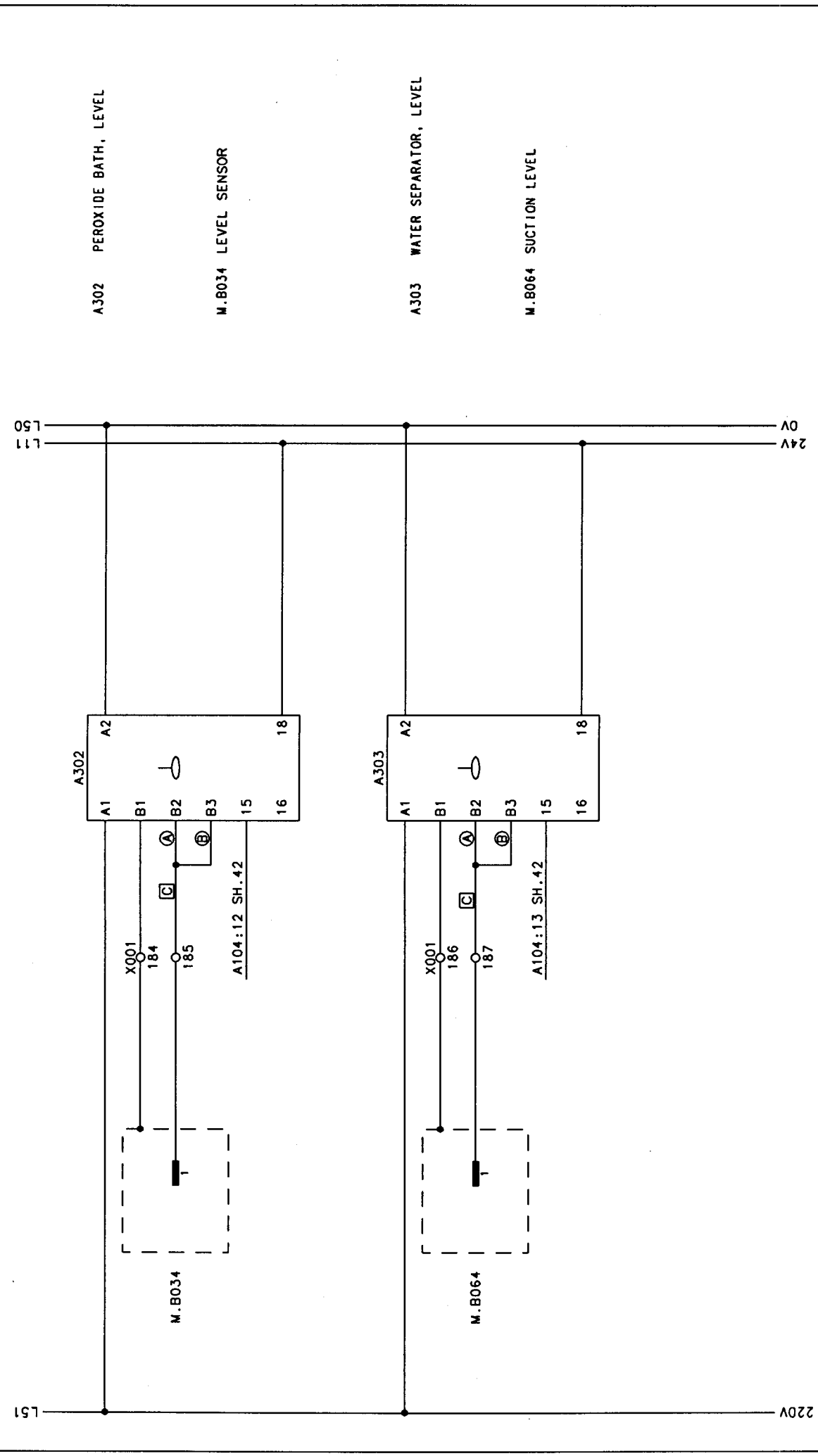
Page -

Date	A				
ECN No.	22893				
Sign./Date	PRI/951128				
Appr./Date	MAC/951128				

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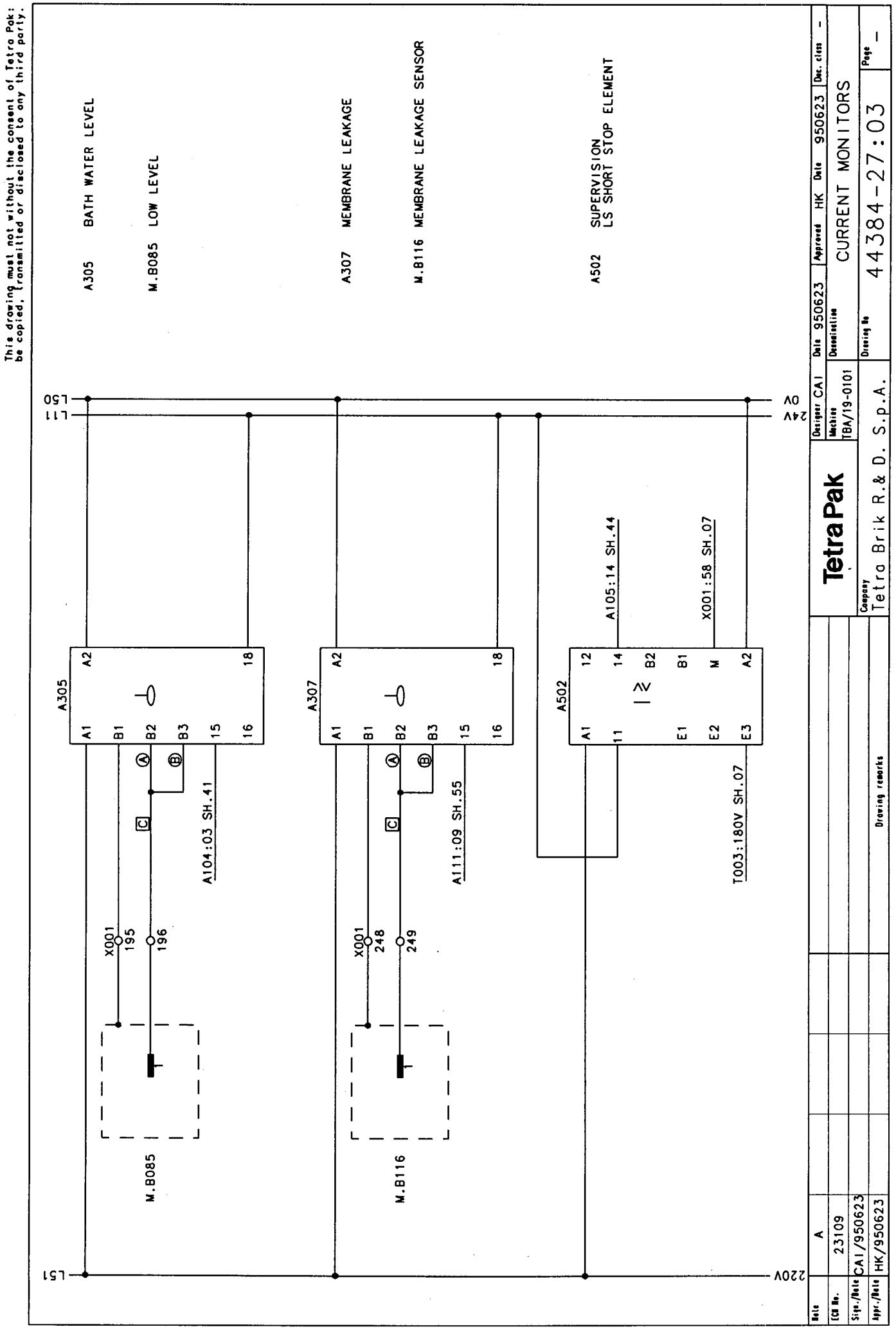


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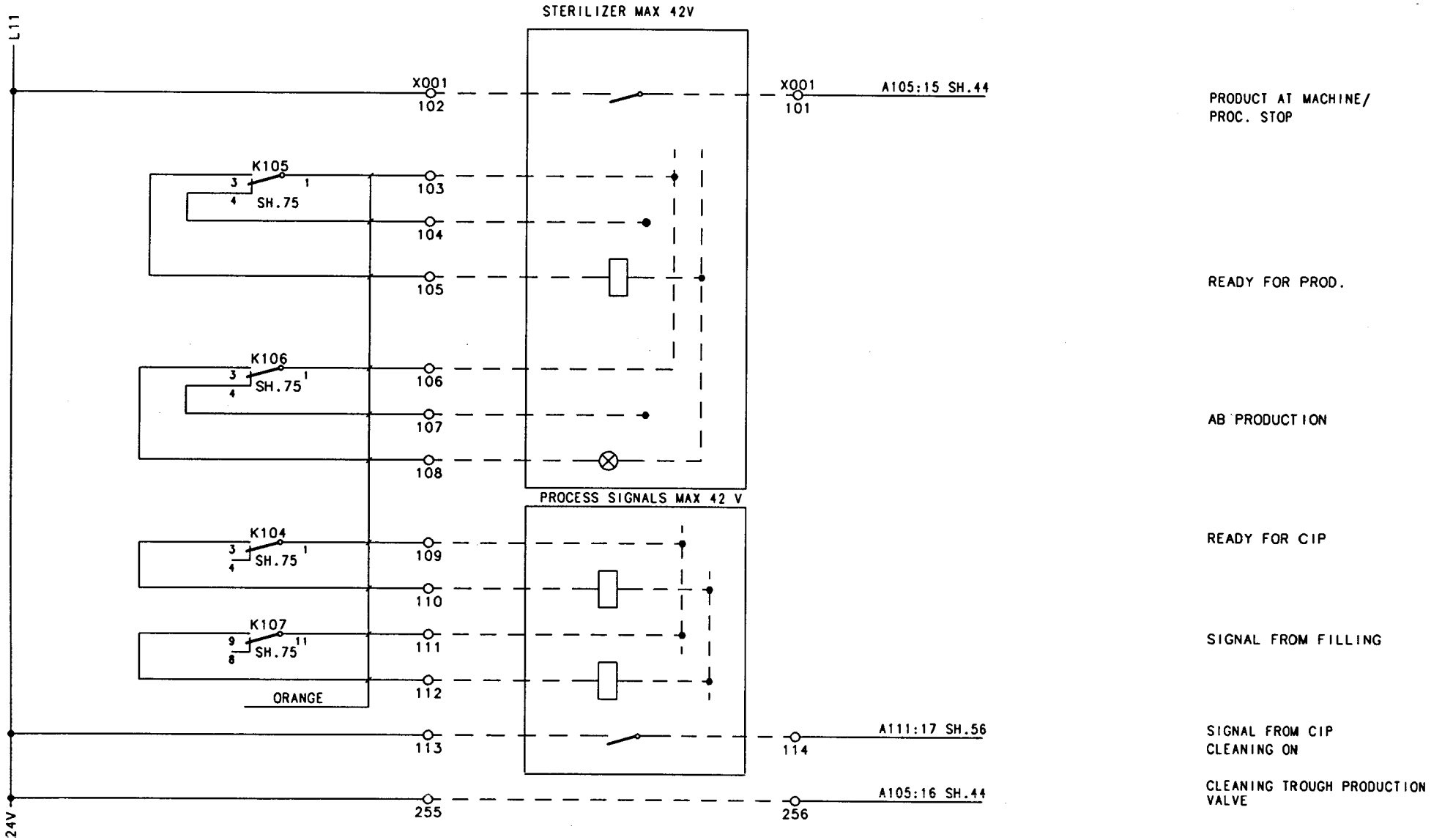


Tetra Pak			Designer MRI	Date 950210	Approved HK	Date 950217	Doc. class -
			Machine TBA/19-0101	Denomination LEVEL MONITORS			
Company Tetra Brik R.& D. S.p.A.			Drawing No 44384-25:01				Page -
Drawing remarks							
Date	A						
ECR No.	22530						
Sign./Date	MRI/950210						
Appr./Date	HK/950217						

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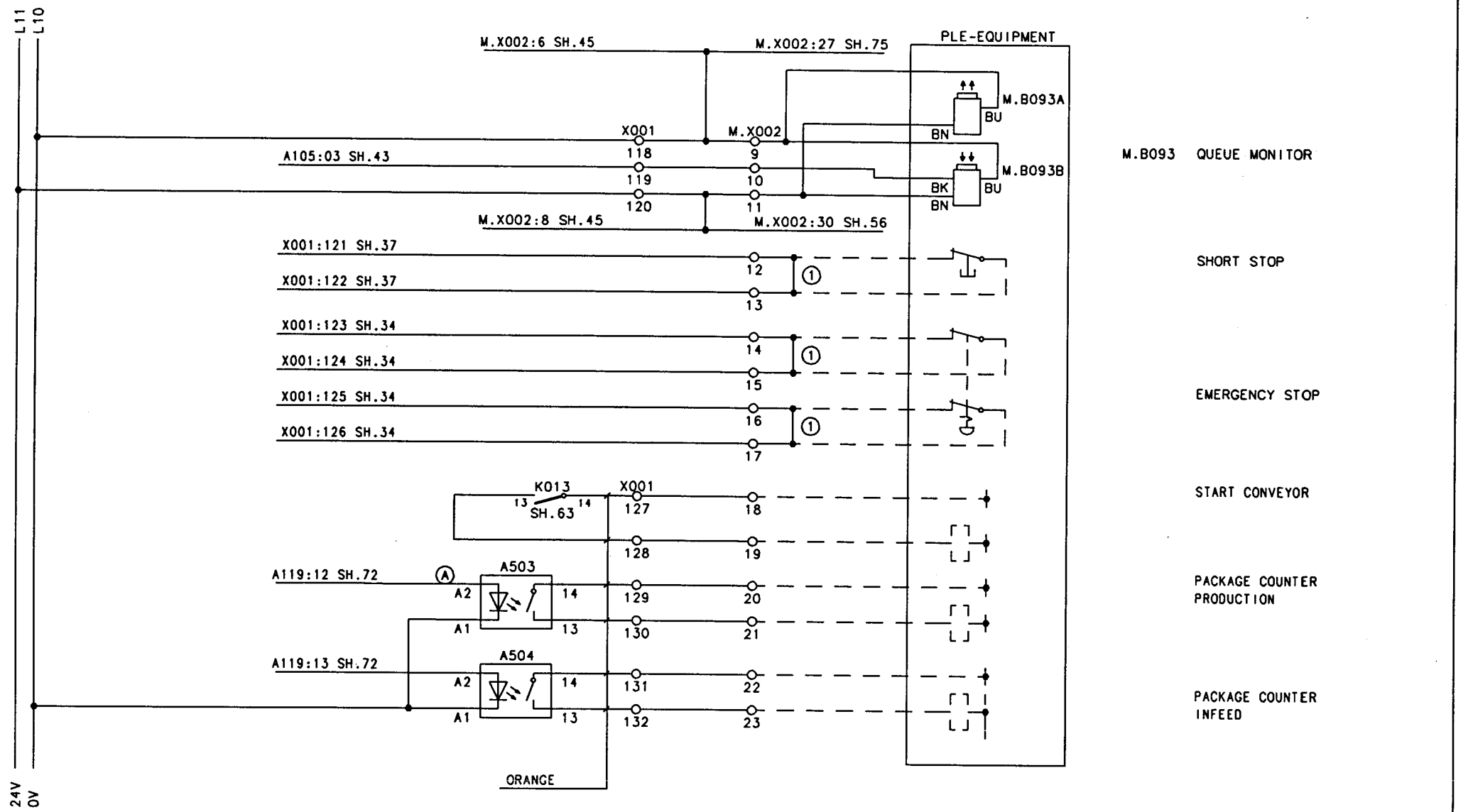
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Note	A					Tetra Pak	Designer ALPO	Date 980420	Approved AIR	Date 980420	Doc. class –
ECN No.	71535						Machine TBA/19-0101	Denomination STERILIZER			
Sign./Date	ALPO/980420										
Appr./Date	AIR/980420				Drawing remarks	Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-29:10			Page –

12:41 20/11/98

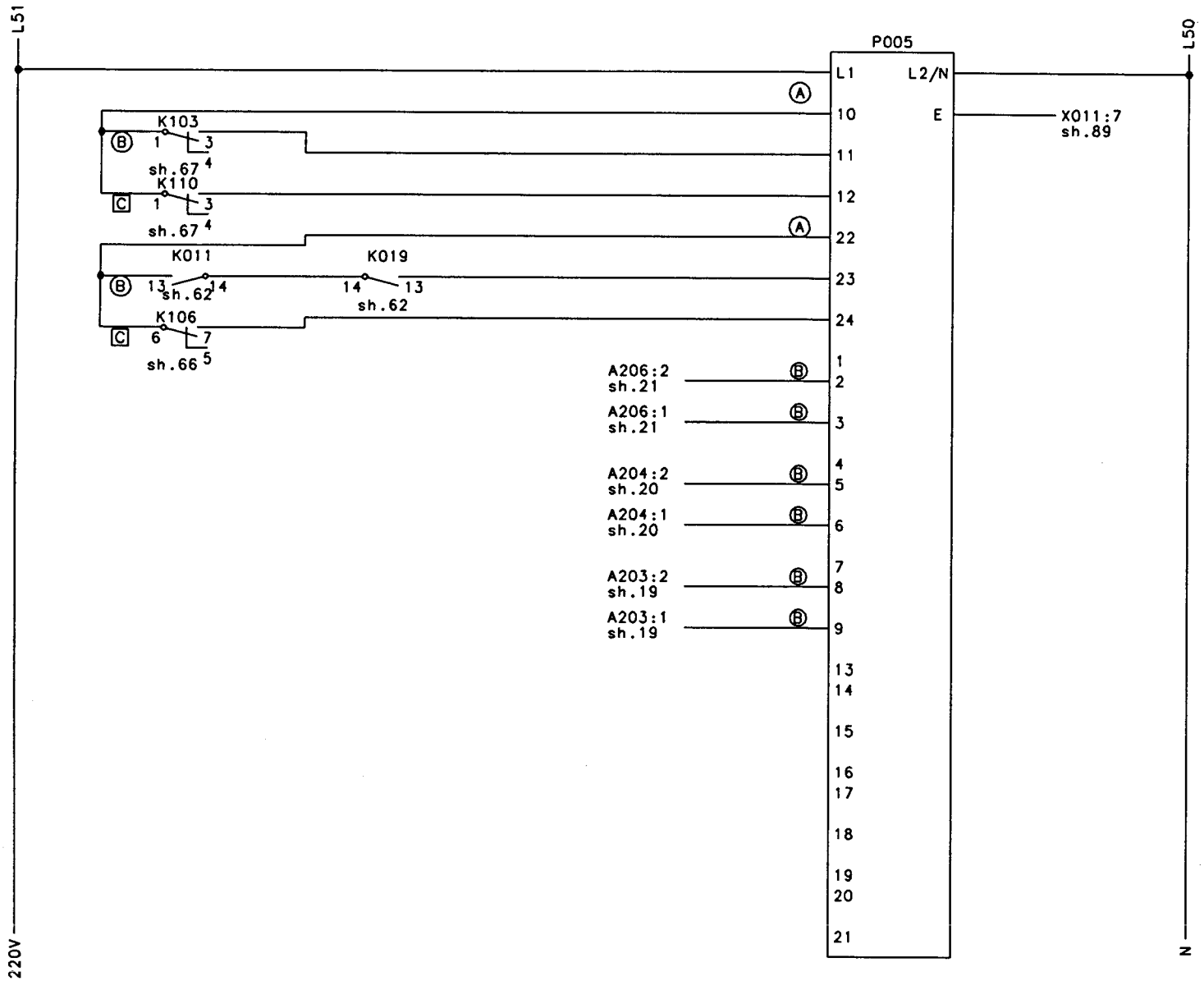
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Note	A				① REMOVE BRIDGE CONNECTION WHEN PLE-EQUIPMENT IS INSTALLED	Tetra Pak	Designer ALPO	Date 980420	Approved AIR	Date 980420	Doc. class –
ECN No.	71535						Machine TBA/19-0101		Denomination PLE		
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.			Drawing No 44384-30:10		Page –
Appr./Date	AIR/980420				Drawing remarks						

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P005 RECORDER

CHANNEL 1=STERILE PARAMETER

CHANNEL 2= OPERATIONAL PARAMETER

CHANNEL 3= MAIN MOTOR ON

CHANNEL 4= PRODUCTION

ANALOG CHANNEL 1 = TEMPERATURE PEROXIDE BATH

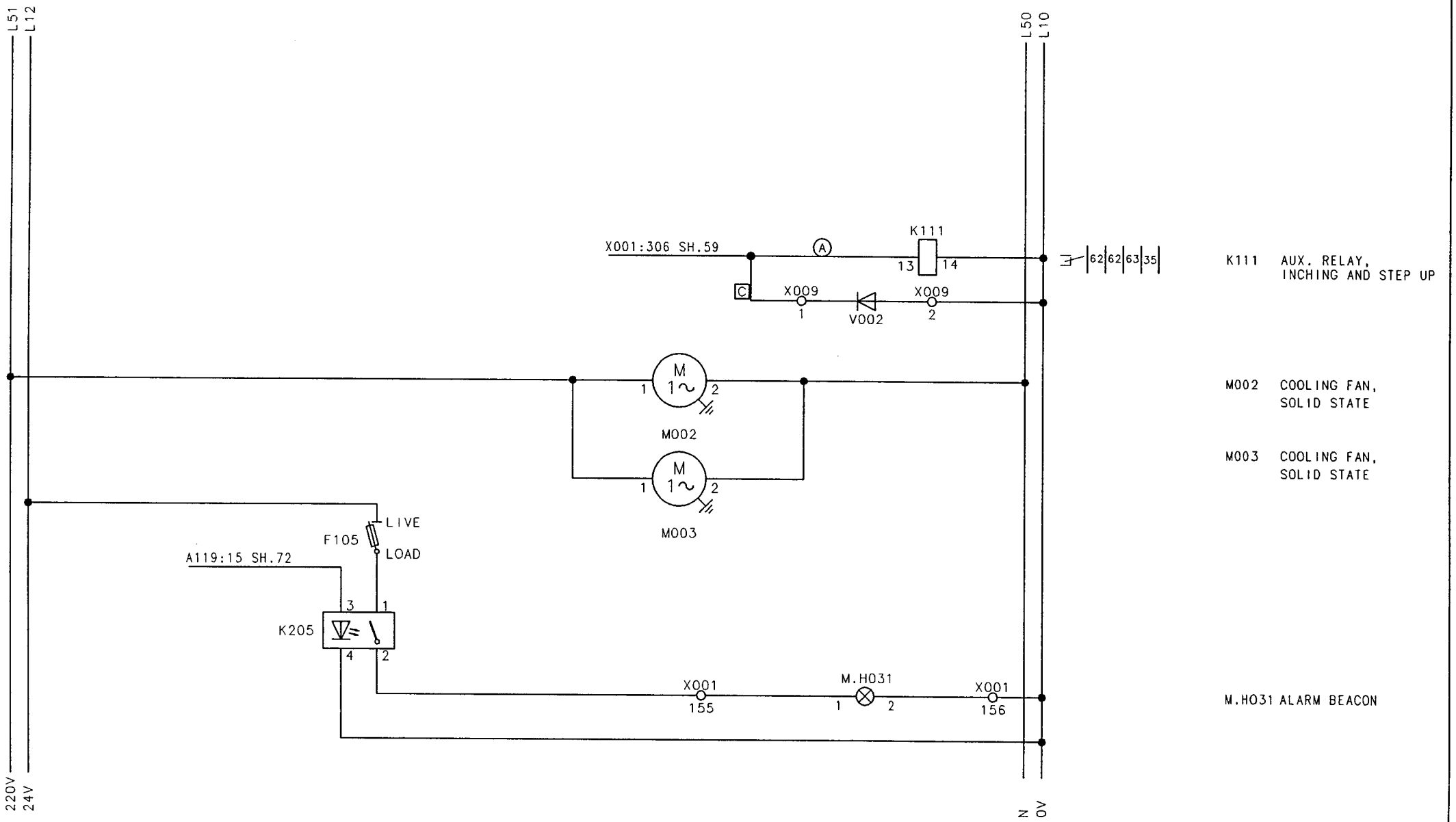
ANALOG CHANNEL 2 = TEMPERATURE AIR KNIFE

ANALOG CHANNEL 3 = TEMPERATURE STERILE AIR

Note	A					Tetra Pak	Designer ALPO	Date 980420	Approved AIR Date 980420	Doc. class –
ECN No.	71535						Machine TBA/19-0101	Denomination PROCESS RECORDER		
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-31:10		Page –
Appr./Date	AIR/980420					Drawing remarks				

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K111 AUX. RELAY, INCHING AND STEP UP

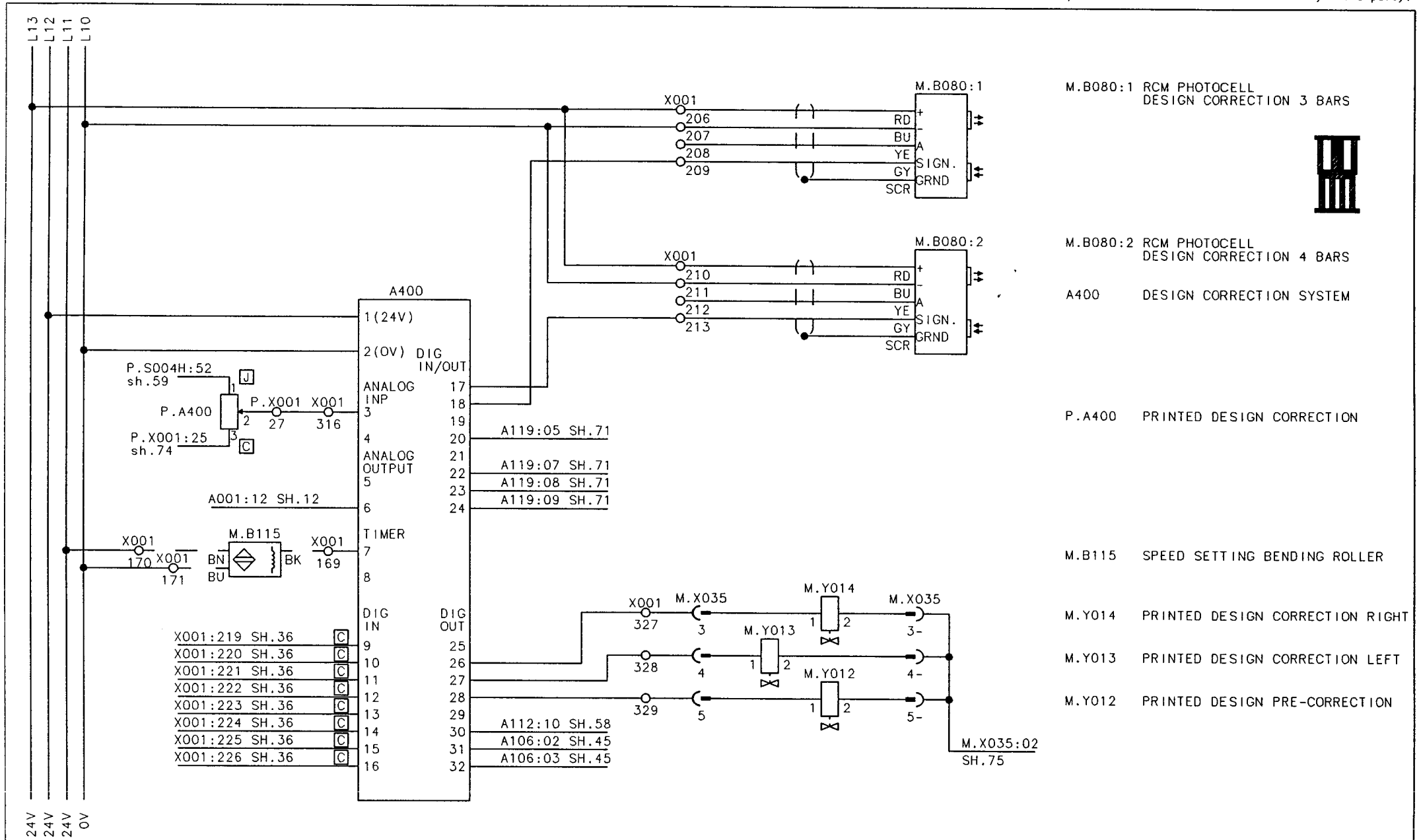
M002 COOLING FAN, SOLID STATE

M003 COOLING FAN, SOLID STATE

M.H031 ALARM BEACON

Note	A					Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class –
ECN No.	71701						Machine TBA/19-0101	Denomination AUXILIARY RELAYS		
Sign./Date	ALPO/980930					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-32:12		Page –
Appr./Date	AIR/980930				Drawing remarks					

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M.B080:1 RCM PHOTOCELL DESIGN CORRECTION 3 BARS

M.B080:2 RCM PHOTOCELL DESIGN CORRECTION 4 BARS

A400 DESIGN CORRECTION SYSTEM

P.A400 PRINTED DESIGN CORRECTION

M.B115 SPEED SETTING BENDING ROLLER

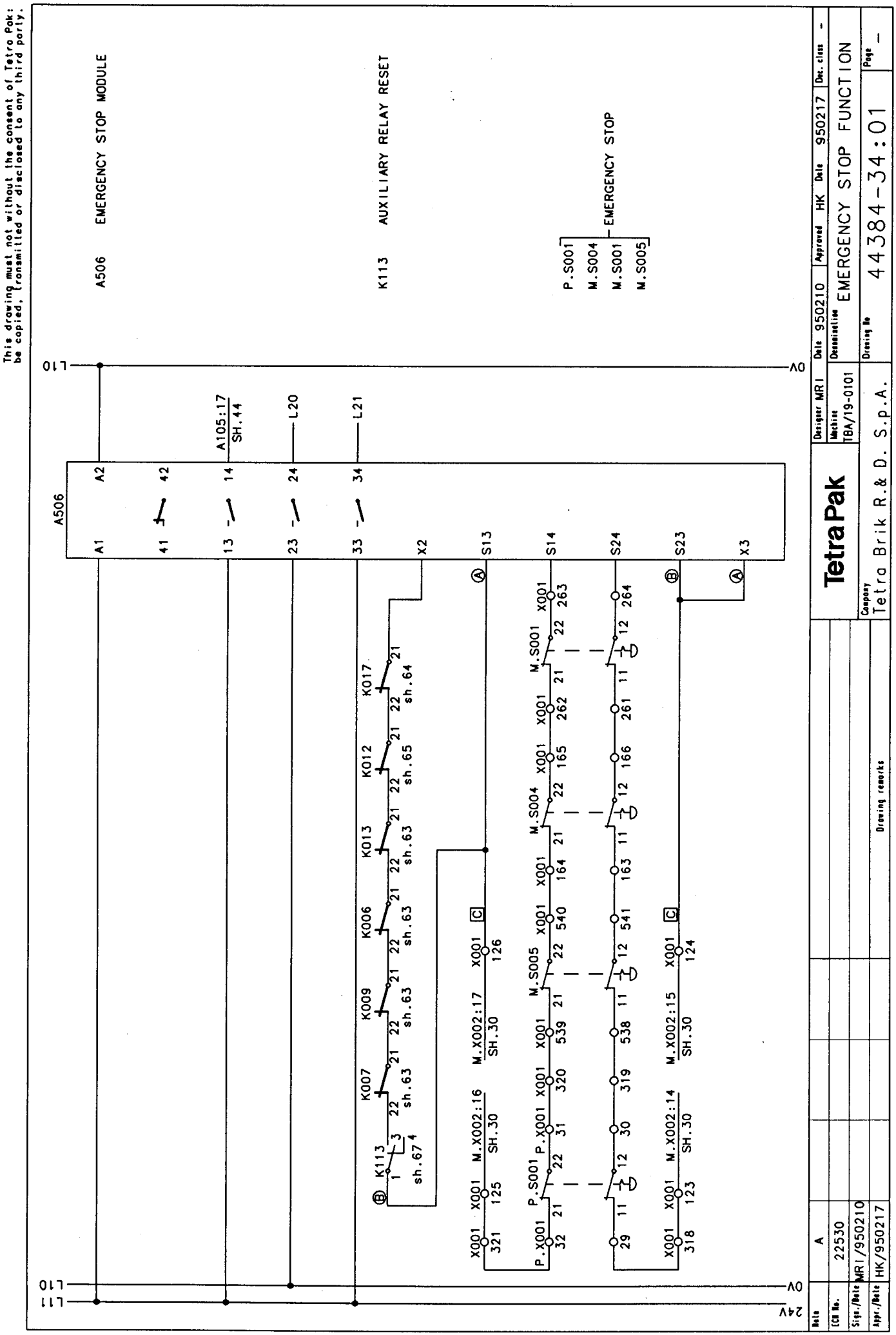
M.Y014 PRINTED DESIGN CORRECTION RIGHT

M.Y013 PRINTED DESIGN CORRECTION LEFT

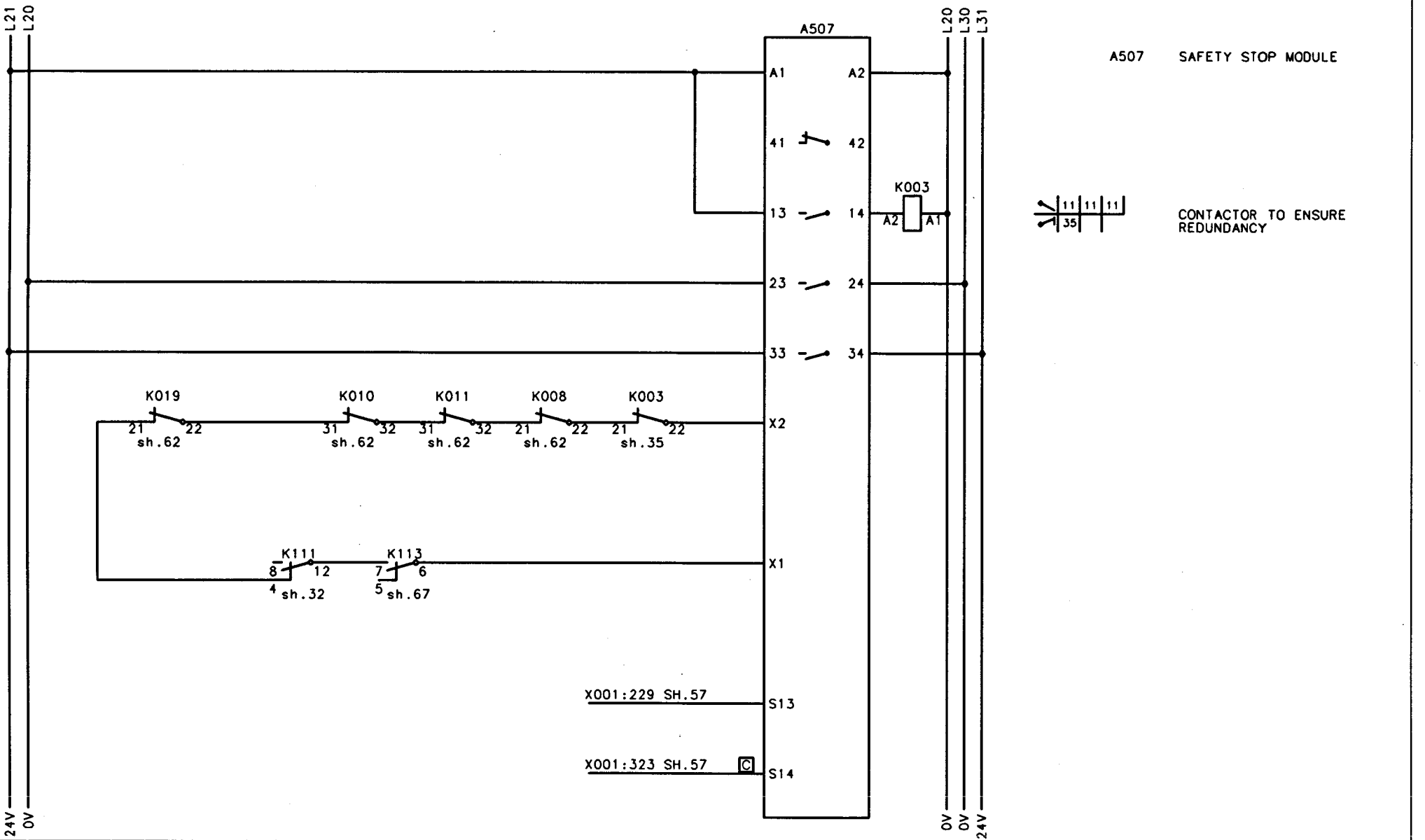
M.Y012 PRINTED DESIGN PRE-CORRECTION

Note	A					Tetra Pak	Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class –
ECN No.	71701						Machine TBA/19-0101	Denomination PRINTED DESIGN CORRECTION		
Sign./Date	ALPO/980930						Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-33:12		Page –
Appr./Date	AIR/980930				Drawing remarks					

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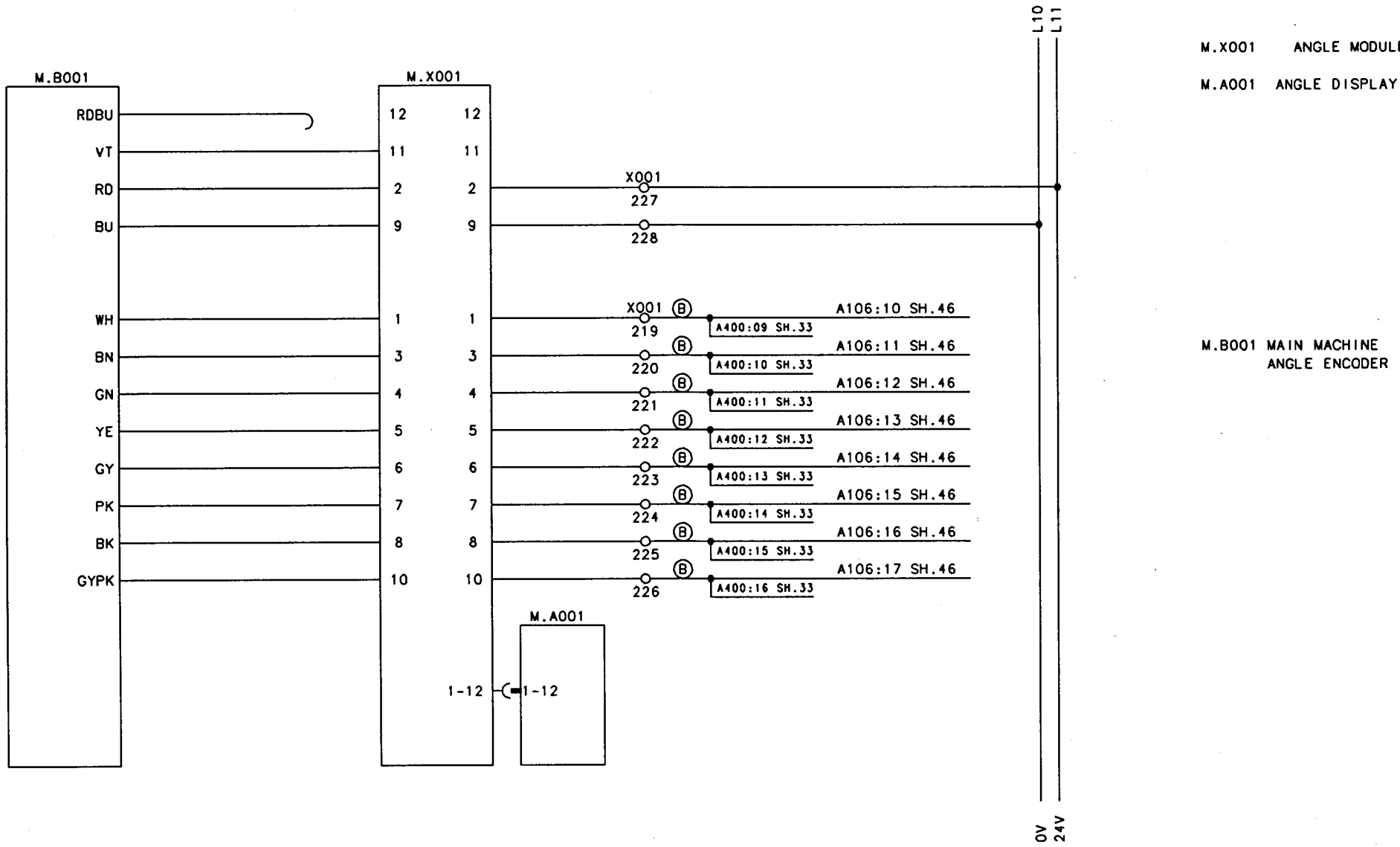


Note	A					Tetra Pak	Designer PRI	Date 960605	Approved SB Date 960605	Doc. class -
ECR No.	70256						Machine TBA/19-0101	Denomination SAFETY STOP FUNCTION		
Sign./Date	PRI/960605					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-35:07		Page -
Appr./Date	SB/960605				Drawing remarks					

12:41 20/11/98

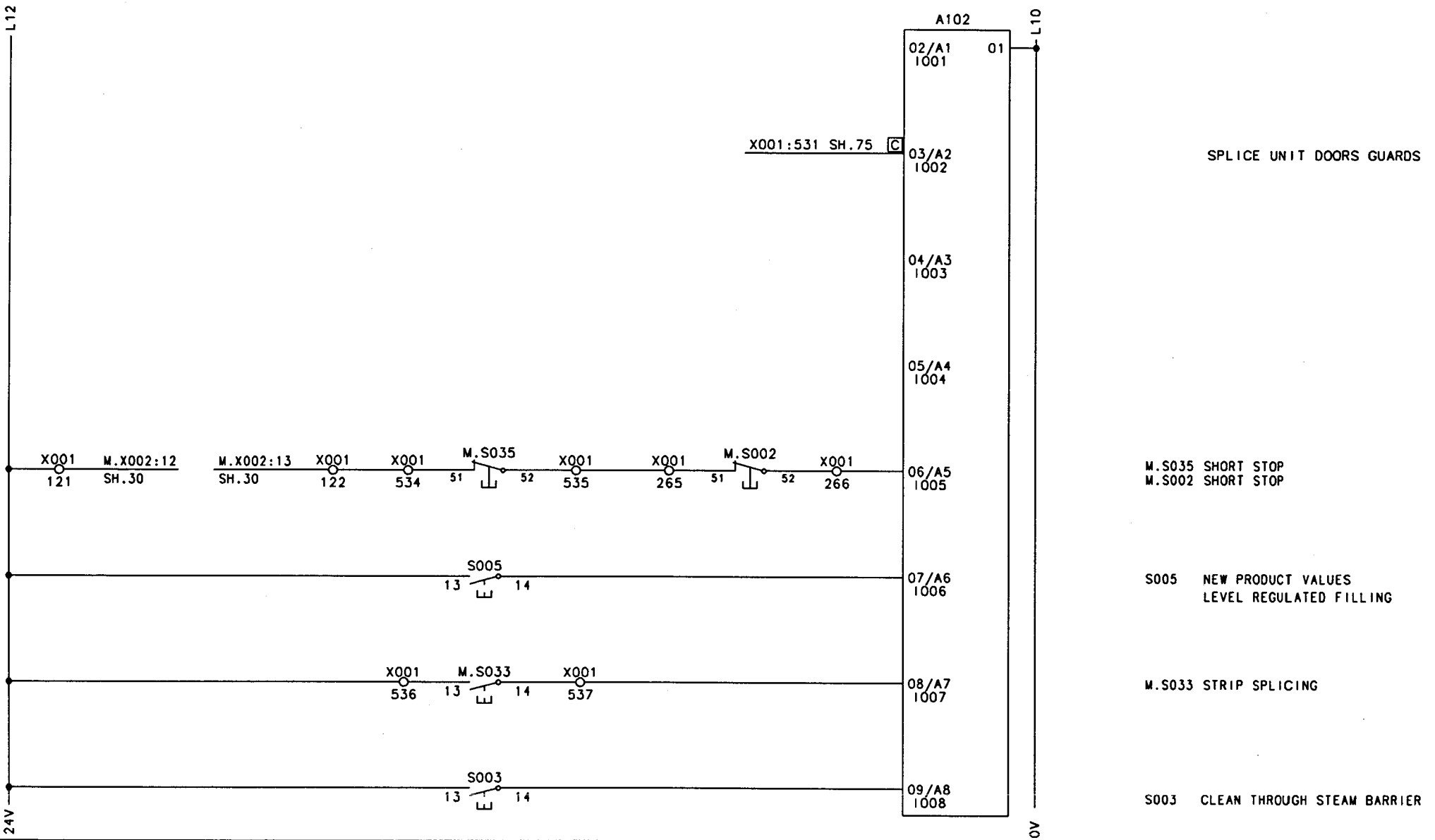
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Note	A					Tetra Pak	Designer MRI	Date 950210	Approved HK Date 950217 Doc. class -
ECN No.	22530						Machine TBA/19-0101	Description ANGLE ENCODER, MAIN MACHINE	
Sign./Date	MRI/950210					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-36:01		Page -
Appr./Date	HK/950217				Drawing remarks				

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SPLICE UNIT DOORS GUARDS

M.S035 SHORT STOP
M.S002 SHORT STOP

S005 NEW PRODUCT VALUES
LEVEL REGULATED FILLING

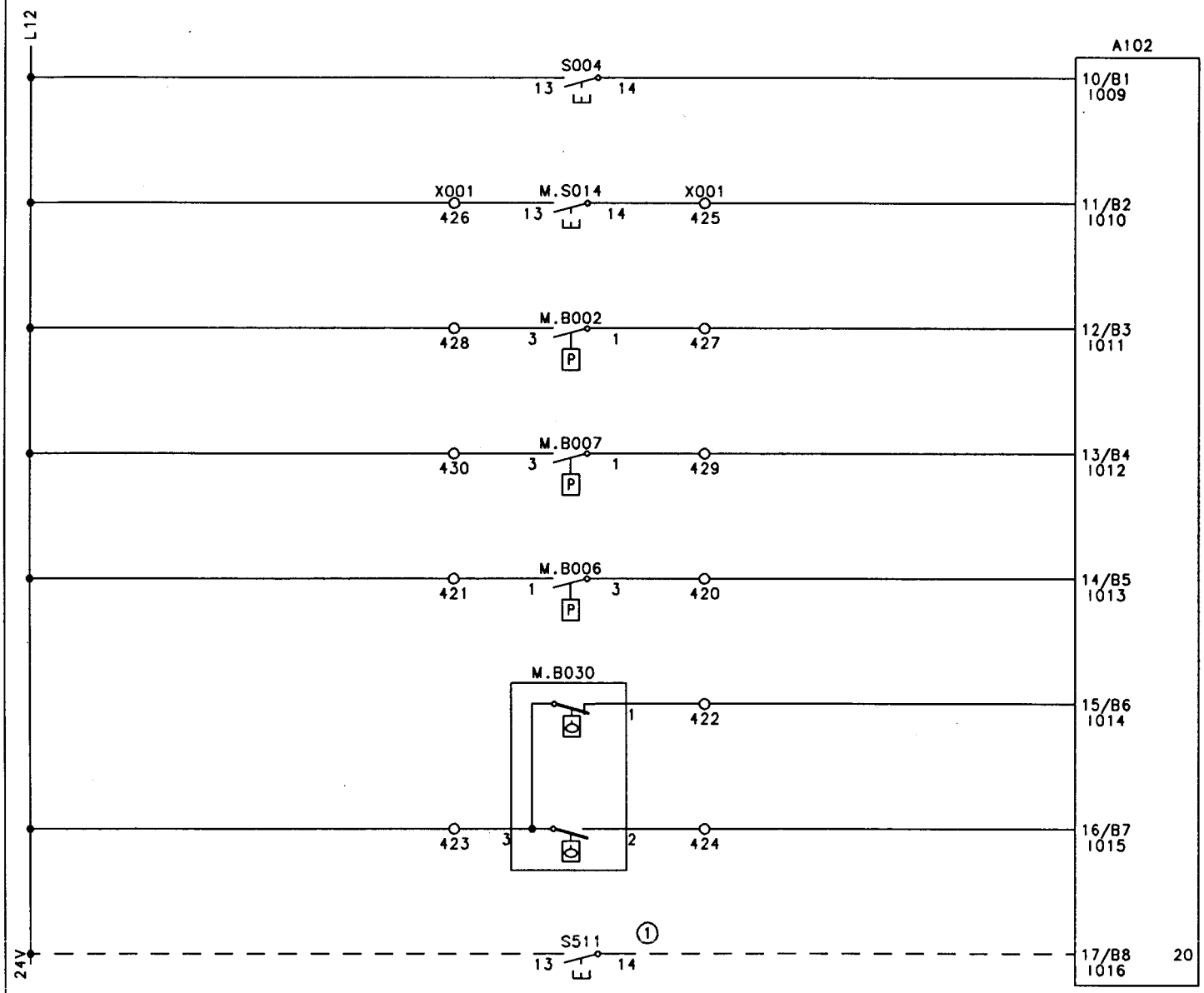
M.S033 STRIP SPLICING

S003 CLEAN THROUGH STEAM BARRIER

Note	A					Tetra Pak	Designer PRI	Date 960311	Approved SB	Date 960311	Doc. class -
ECN No.	70019						Machine TBA/19-0101	Description PLC-IN A102, MACHINE CONTROL			
Sign./Date	PRI/960311					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-37:06			Page -
Appr./Date	SB/960311					Drawing remarks					

12:41 20/11/98

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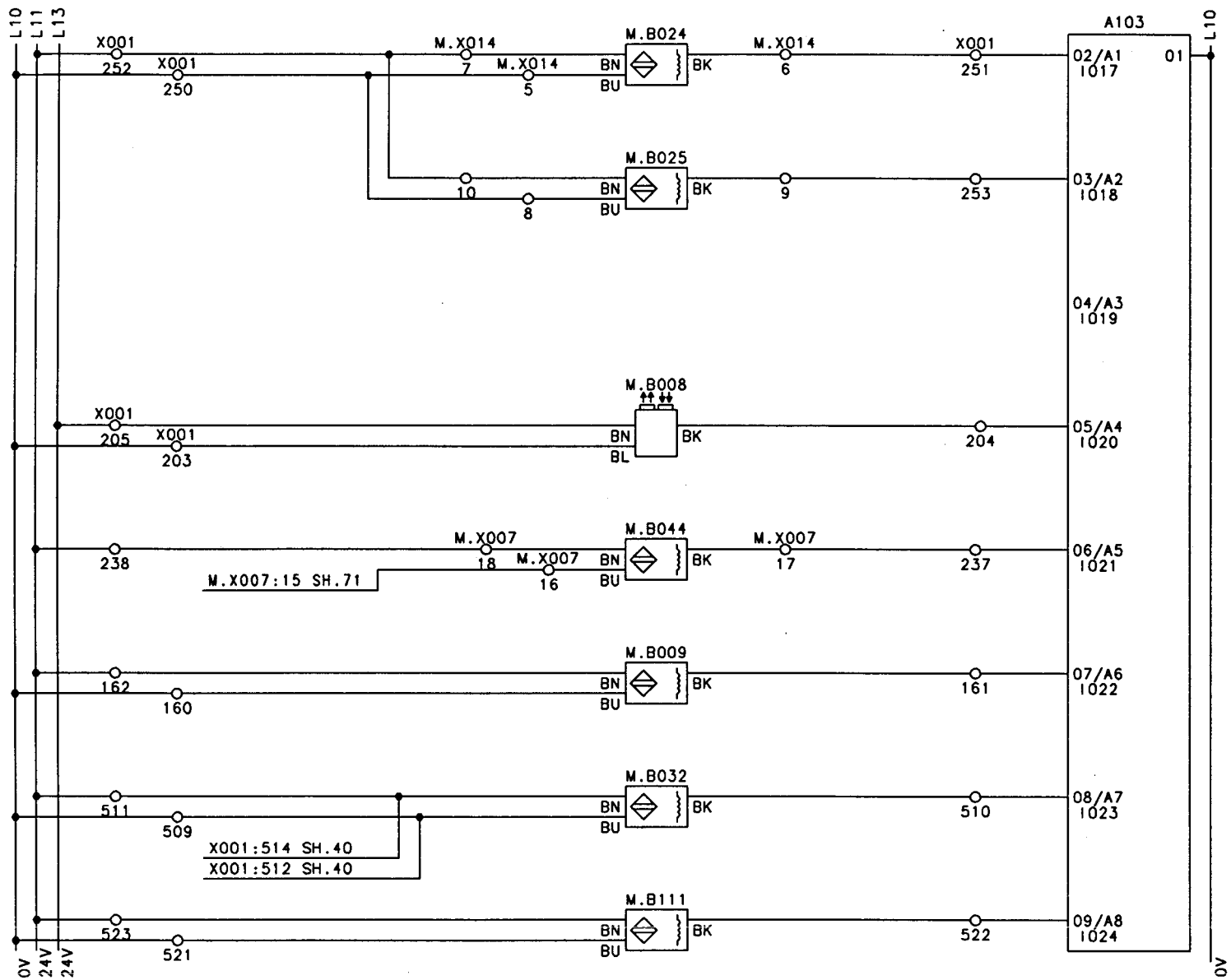


S004	SERVICE SWITCH
M.S014	MANUAL LUBRICATION
M.B002	MAIN AIR, PRESSURE
M.B007	COOL WATER, PRESSURE
M.B006	LUBRICATION OIL PRESSURE
M.B030	LUBRICATION OIL -HIGH LEVEL -LOW LEVEL
S511	SELECTOR VOLUME OFF=SMALL VOLUME ON =BIG VOLUME

Note	A				① EXTRA EQUIPMENT	Tetra Pak	Designer PRI	Date 960311	Approved SB	Date 960311	Doc. class –
ECR No.	70019						Machine TBA/19-0101	Description PLC-IN A102, OPERATION MONIT.			
Sign./Date	PRI/960311										
Appr./Date	SB/960311				Drawing remarks	Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-38:06			Page –

12:41 20/11/98

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M.B024 UNREELING MOTOR, CONTROL SPEED

M.B025 UNREELING MOTOR, GUARD

M.B008 PAPER SUPPLY

M.B044 INFEED, CONGESTION

M.B009 PAPER WEB

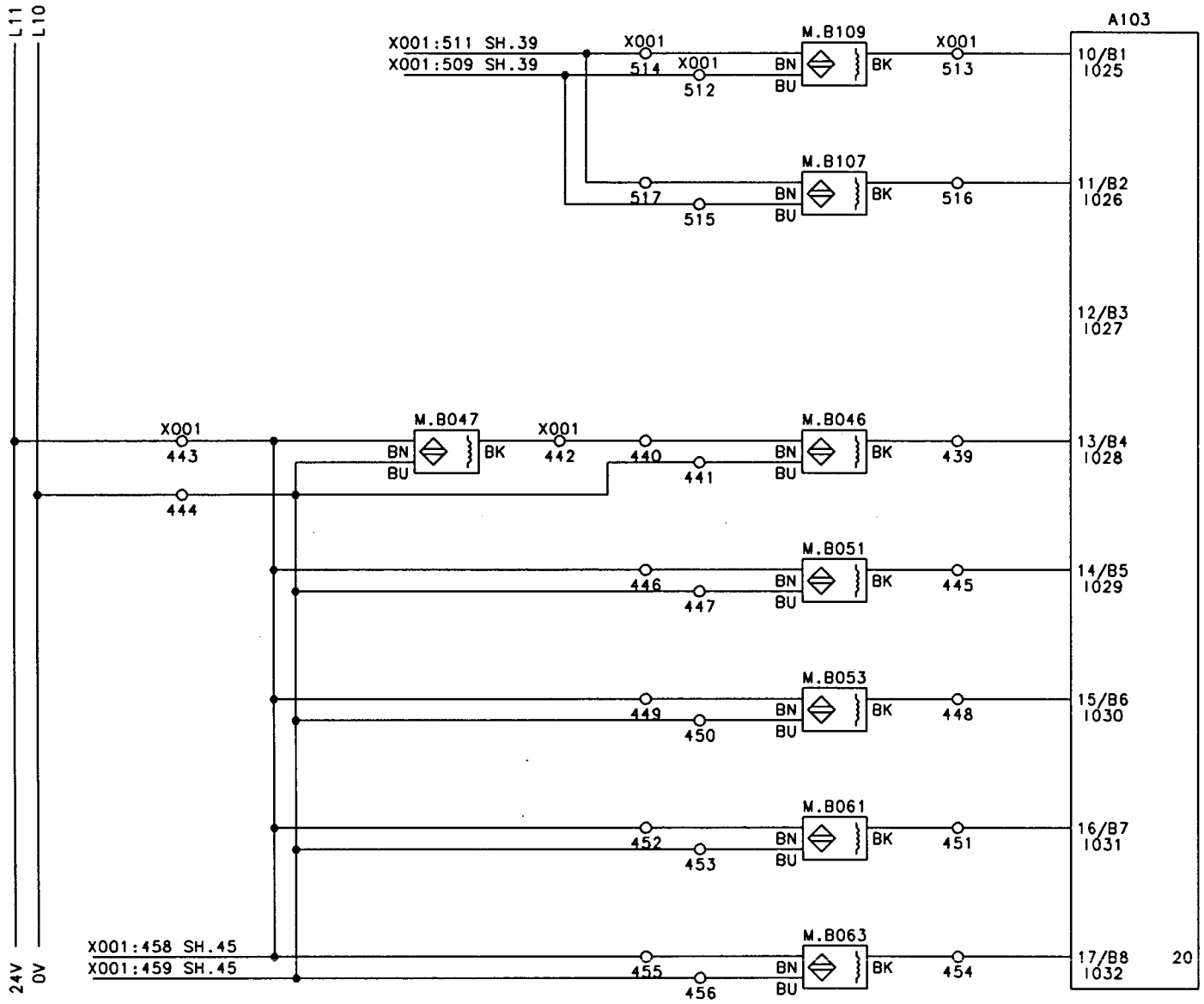
M.B032 STRIP MAGAZINE 1

M.B111 STRIP MAGAZINE 2

Note	A					Tetra Pak	Designer CAI	Date 950420	Approved HK Date 950427	Doc. class –
ECN No.	22940						Machine TBA/19-0101	Designation PLC-IN A103, OPERATION MONIT.		
Sign./Date	CAI/950420					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-39:02			Page –
Appr./Date	HK/950427				Drawing remarks					

12:41 20/11/98

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M.B109 STRIP ROTATION GUARD

M.B107 RESET STRIP

M.B046 SQUEEZER ROLLER, POSITION
M.B047 AIR KNIFE, POSITION

M.B051 PRODUCT PIPE, POSITION

M.B053 STERILE AIR (B) VALVE POSITION

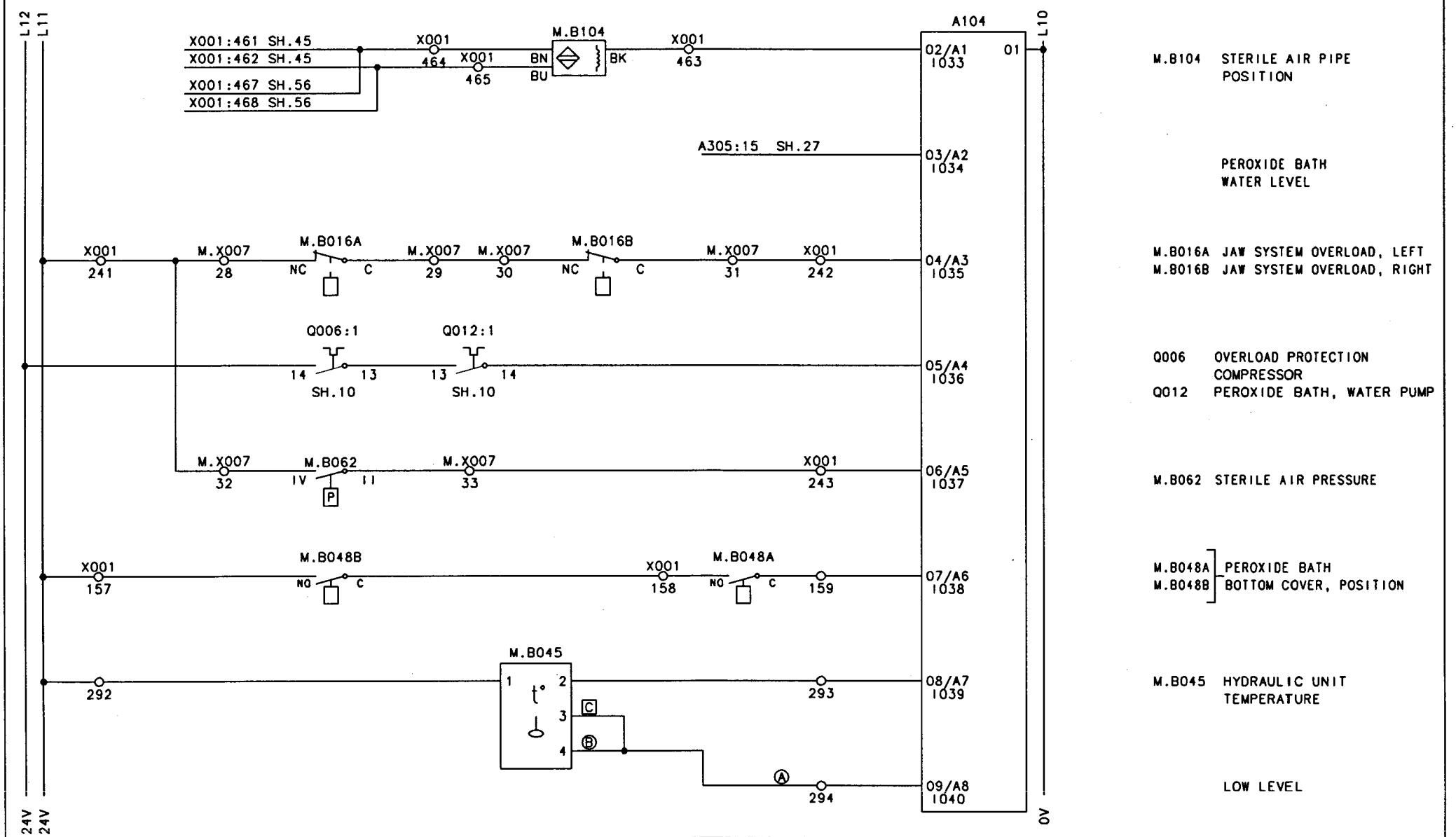
M.B061 CLEANING CUP, POSITION

M.B063 CLEANING PIPE, POSITION

Note	A					Designer ALPO	Date 980420	Approved AIR	Date 980420	Doc. class –
ECR No.	71535				Tetra Pak	Machine TBA/19-0101	Description PLC-IN A103, OPERATION MONIT.			
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-40:10			Page –
Appr./Date	AIR/980420				Drawing remarks					

12:41 20/11/98

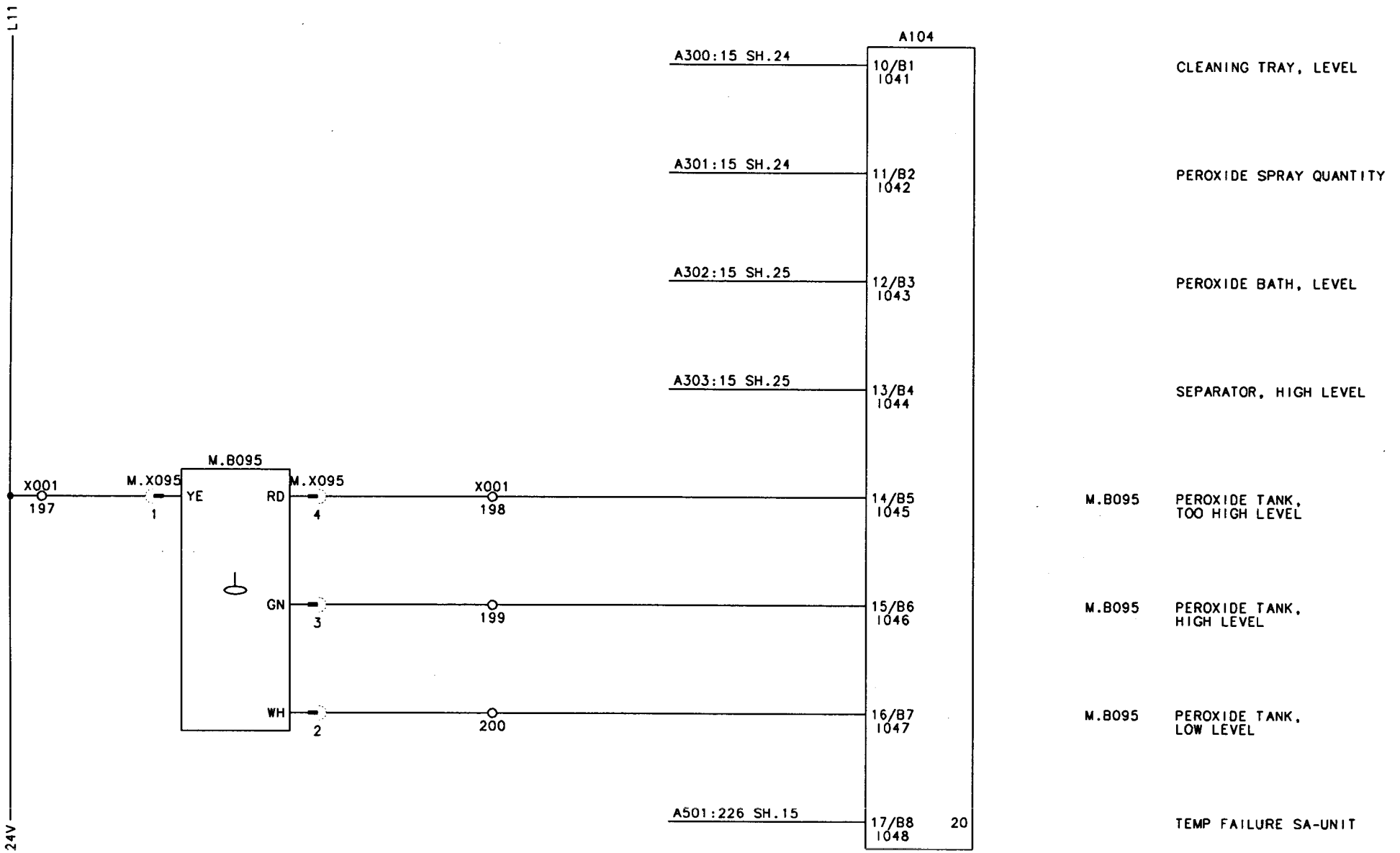
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Note	A					Tetra Pak	Designer CAI	Date 950420	Approved HK Date 950427	Doc. class –
ECN No.	22940						Machine TBA/19-0101	Description PLC-IN A104, OPERATION MONIT.		
Sign./Date	CAI/950420					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-41:02			Page –
Appr./Date	HK/950427				Drawing remarks					

12:41 20/11/98

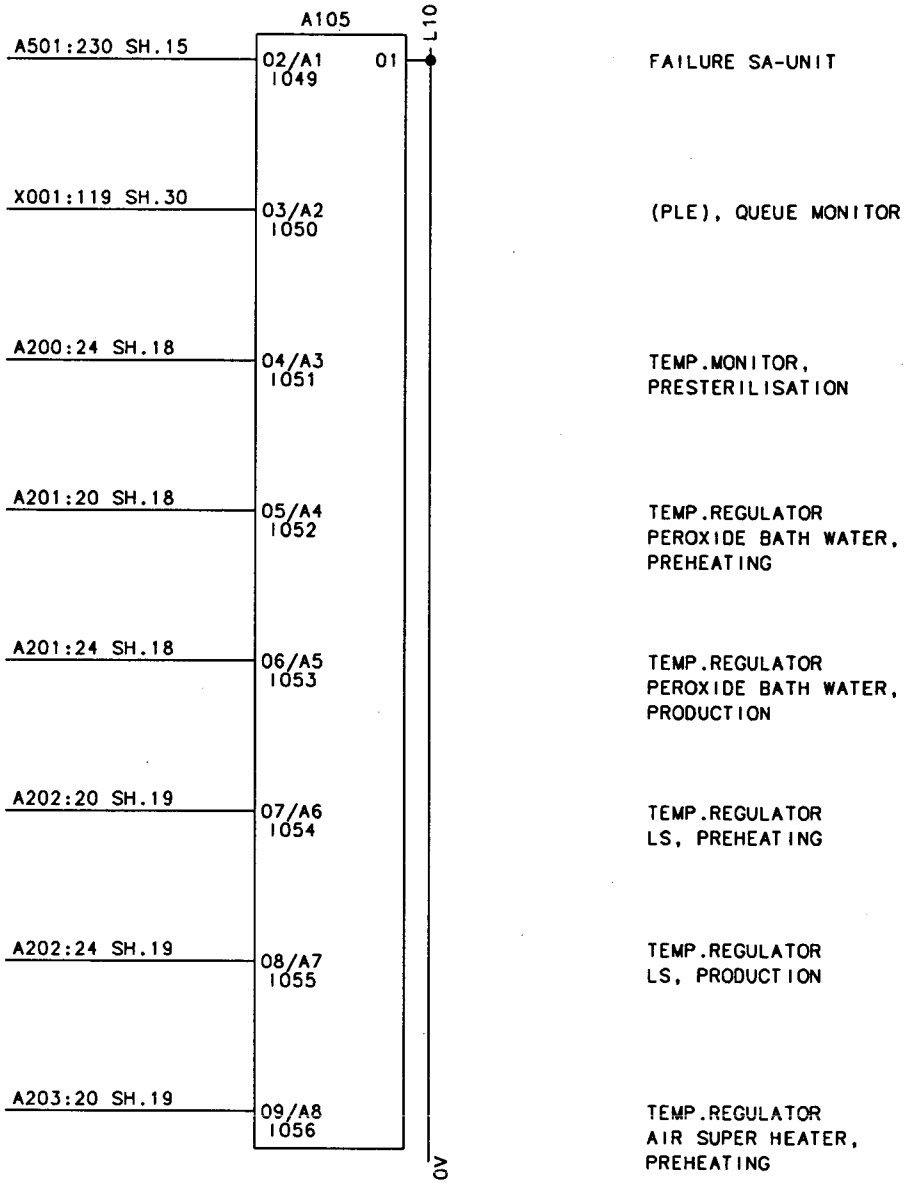
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Note	A					Designer PRI	Date 970410	Approved SB	Date 970410	Doc. class	-
ECN No.	70486					Machine TBA/19-0101	Description PLC-IN A104				
Sign./Date	PRI/970410					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-42:08			Page	-
Appr./Date	SB/970410				Drawing remarks						

12:41 20/11/98

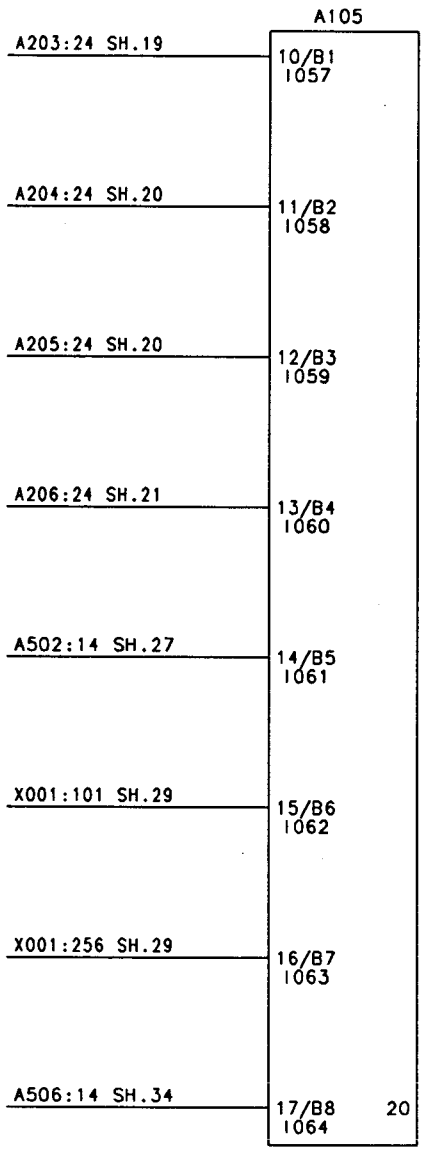
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Rele	A					Tetra Pak	Designer MRI	Date 950210	Approved HK	Date 950217	Doc. class –
ECN No.	22530						Machine TBA/19-0101	Denomination PLC-IN A105			
Sign./Date	MRI/950210						Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-43:01			Page –
Appr./Date	HK/950217				Drawing remarks						

12:41 20/11/98

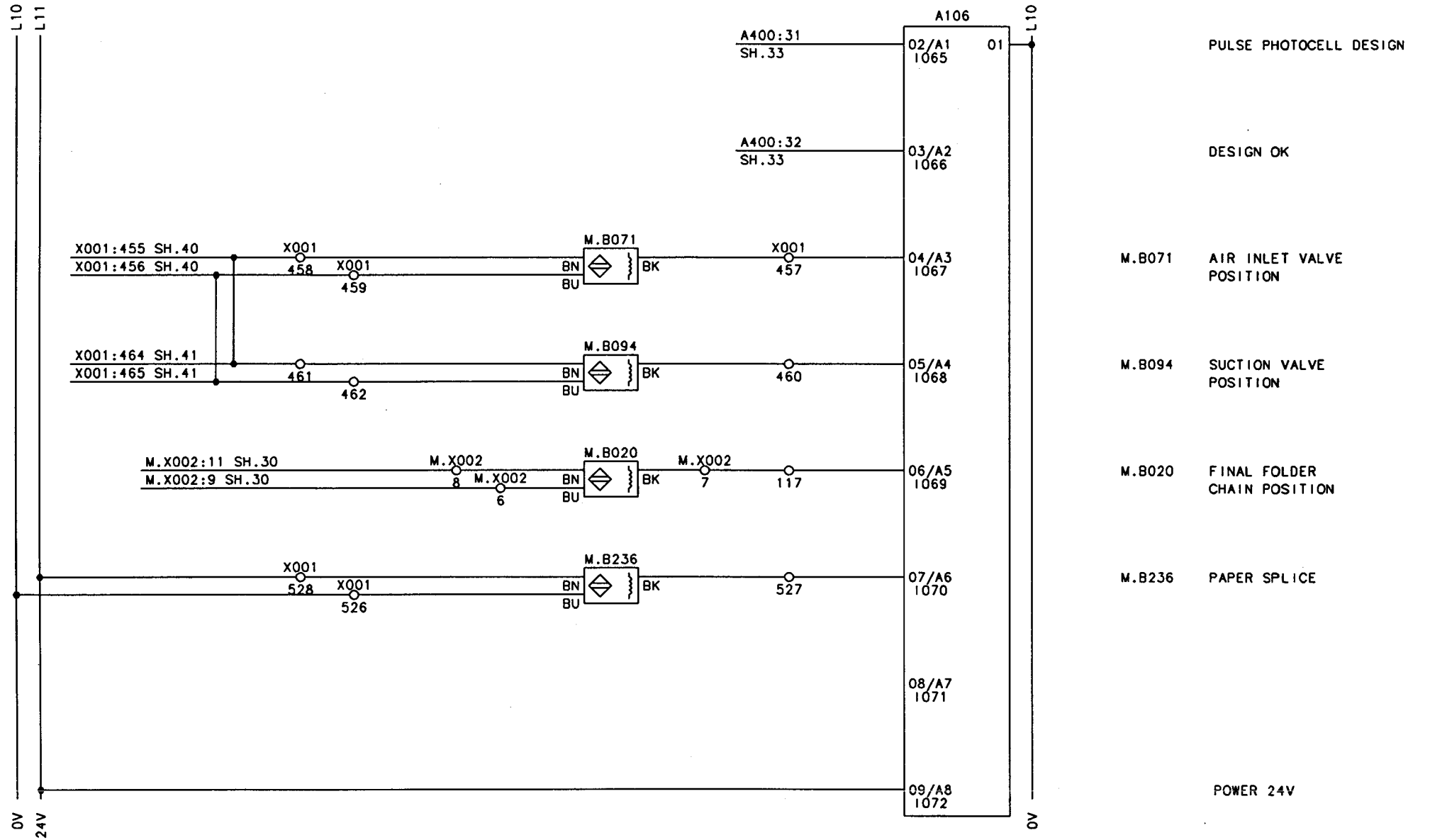
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Date	A					Tetra Pak	Designer ALPO	Date 980420	Approved AIR Date 980420	Doc. class –
ECN No.	71535						Machine TBA/19-0101	Denomination PLC-IN A105		
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-44:10		Page –
Appr./Date	AIR/980420				Drawing remarks					

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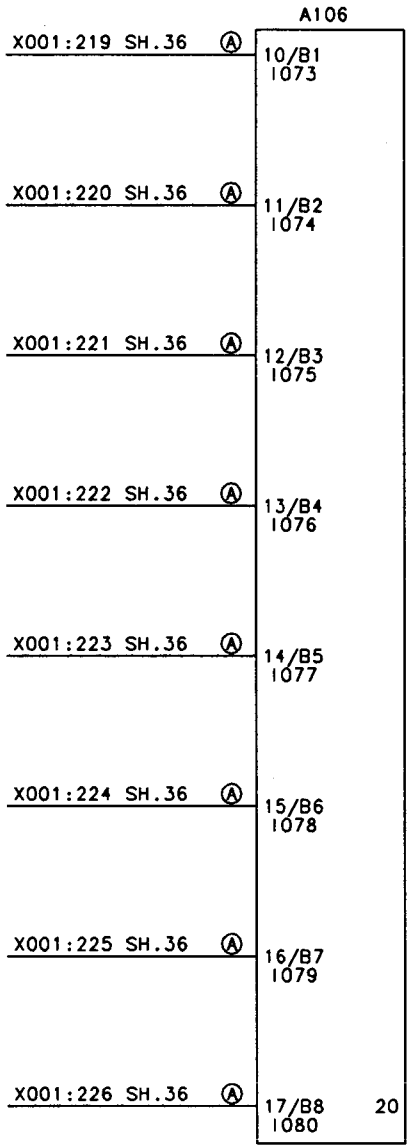


Note	A					Designer PRI	Date 960219	Approved SB	Date 960219	Doc. class –
ECR No.	70019					Machine TBA/19-0101	Denomination PLC-IN A106, FAST SCAN			
Sign./Date	PRI/960219					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-45:06			Page –
Appr./Date	SB/960219				Drawing remarks					

Tetra Pak

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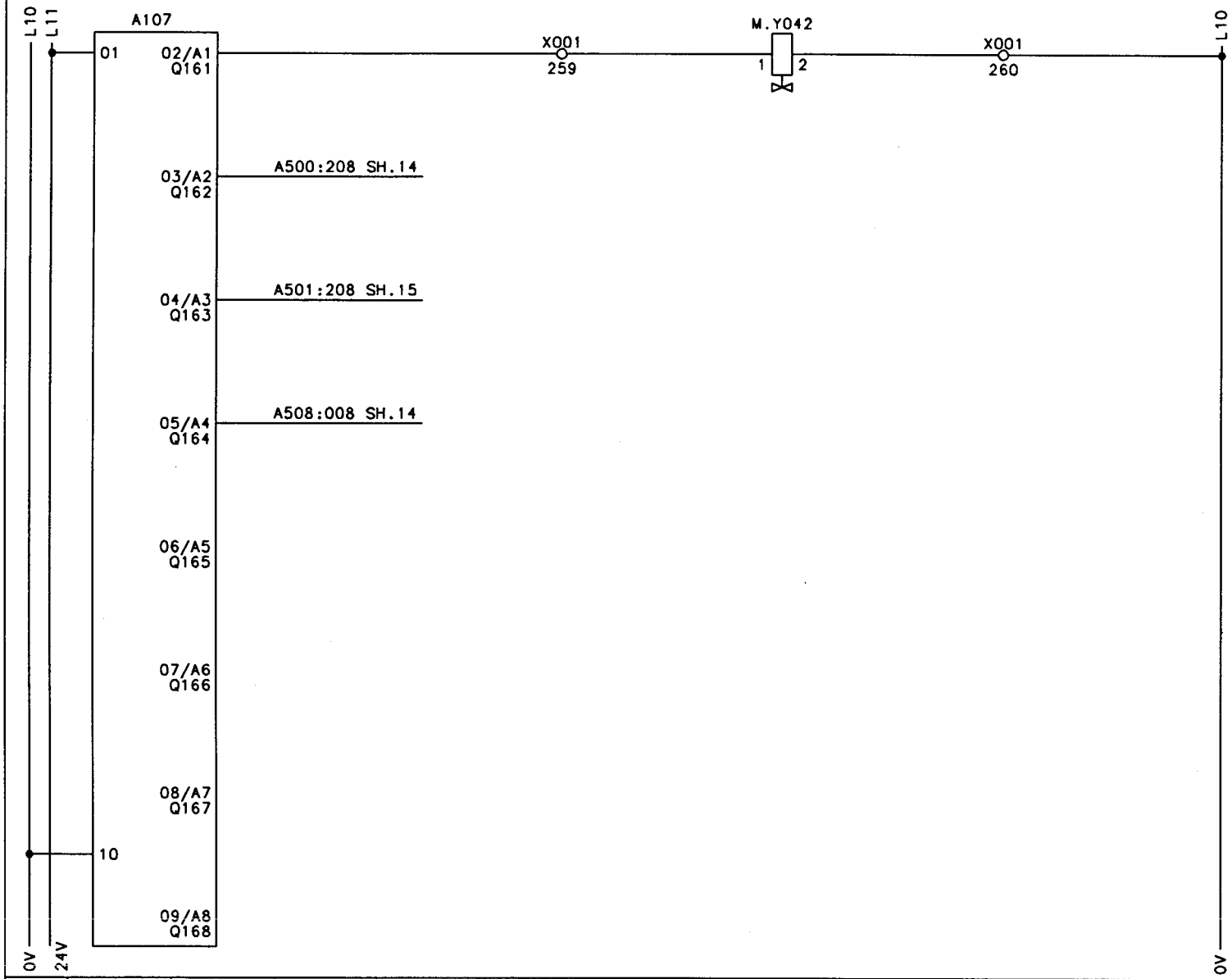
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Rele	A					Tetra Pak	Designer PRI	Date 960318	Approved SB	Date 960318	Doc. class –
ECR No.	70019						Machine TBA/19-0101	Denomination PLC-IN A106, FAST SCAN			
Sign./Date	PRI/960318					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-46:06			Page –
Appr./Date	SB/960318				Drawing remarks						

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M.Y042 PRESSURE DEVICE

SEALING PULSE TS,

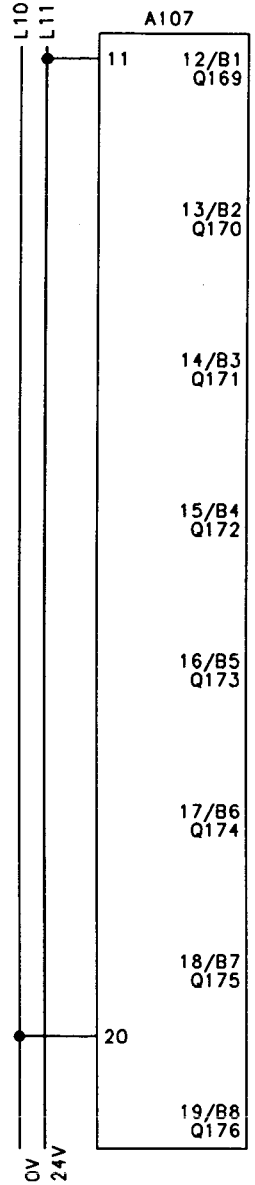
SEALING PULSE S.A.

IH-SWITCH SELECTION
LEFT/RIGHT

Note	A					Tetra Pak	Designer CAI	Date 950420	Approved HK	Date 950427	Doc. class –
ECN No.	22940						Machine TBA/19-0101	Denomination PLC-OUT A107, FAST SCAN			
Sign./Date	CAI/950420					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-47:02			Page –	
Appr./Date	HK/950427				Drawing remarks						

12:41 20/11/98

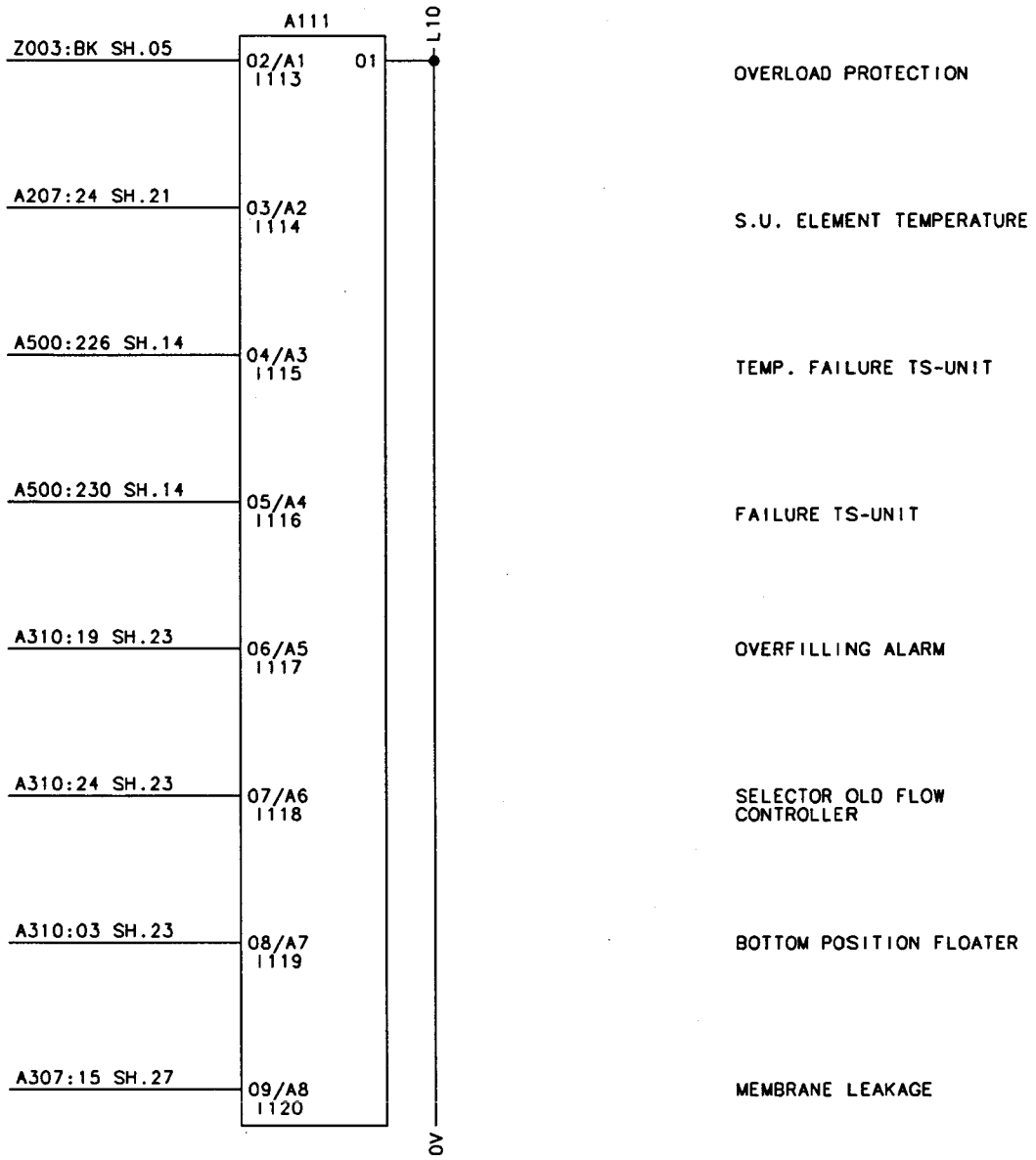
This drawing must not without the consent of Tetra Pak:
be copied, transmitted or disclosed to any third party.



Rele	A					Tetra Pak	Designer MRI	Date 950210	Approved HK	Date 950217	Doc. class –
ECN No.	22530						Machine TBA/19-0101	Denomination PLC-OUT A107, FAST SCAN			
Sign./Date	MRI/950210										
Appr./Date	HK/950217				Drawing remarks		Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-48:01			Page –

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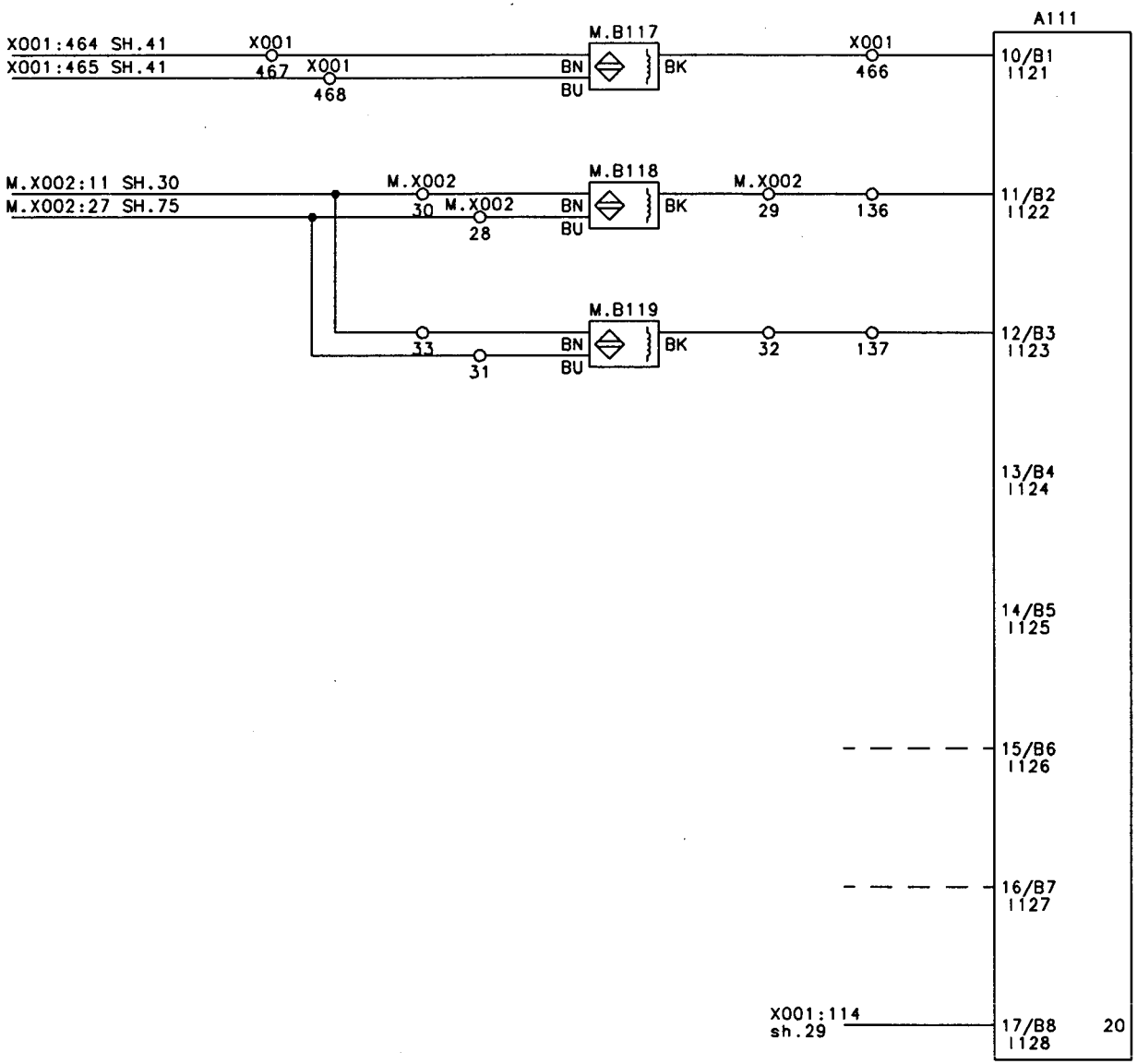
This drawing must not without the consent of Tetra Pak:
be copied, transmitted or disclosed to any third party.



Note	A					Tetra Pak	Designer MRI	Date 950210	Approved HK Date 950217	Doc. class –
ECN No.	22530						Machine TBA/19-0101	Denomination PLC-IN A111		
Sign./Date	MRI/950210					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-55:01		Page –
Appr./Date	HK/950217				Drawing remarks					

12:41 20/11/98

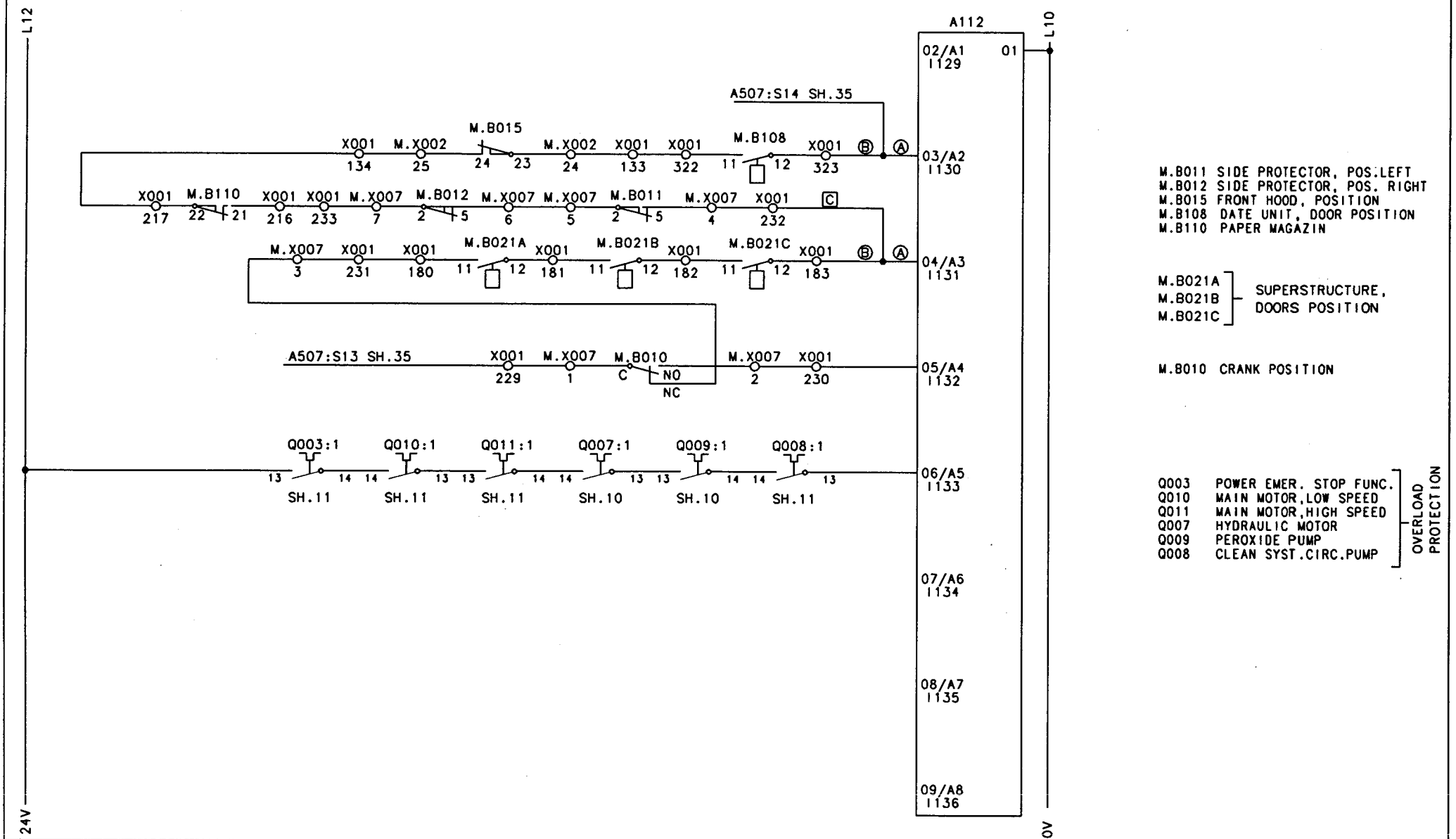
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Note	A					Tetra Pak	Designer PRI	Date 970908	Approved SB Date 970915	Doc. class –
ECN No.	70943						Machine TBA/19-0101	Denomination PLC-IN A111		
Sign./Date	PRI/970908					Company Tetra Brik R.& D. S.p.A.	Drawing No 44348-56:09			Page –
Appr./Date	SB/970915				Drawing remarks					

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M.B011 SIDE PROTECTOR, POS.LEFT
M.B012 SIDE PROTECTOR, POS. RIGHT
M.B015 FRONT HOOD, POSITION
M.B108 DATE UNIT, DOOR POSITION
M.B110 PAPER MAGAZIN

M.B021A, M.B021B, M.B021C — SUPERSTRUCTURE, DOORS POSITION

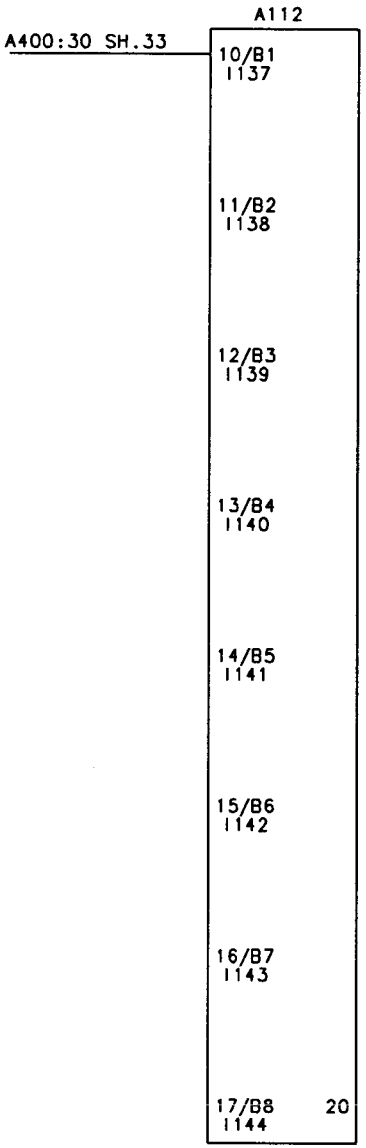
M.B010 CRANK POSITION

OVERLOAD PROTECTION:
Q003 POWER EMER. STOP FUNC.
Q010 MAIN MOTOR,LOW SPEED
Q011 MAIN MOTOR,HIGH SPEED
Q007 HYDRAULIC MOTOR
Q009 PEROXIDE PUMP
Q008 CLEAN SYST.CIRC.PUMP

Note	A					Tetra Pak	Designer PRI	Date 970908	Approved SB	Date 970915	Doc. class –
ECN No.	70943						Machine TBA/19-0101	Designation PLC-IN A112, MACHINE CONTROL			
Sign./Date	PRI/970908					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-57:09			Page –	
Appr./Date	SB/970915				Drawing remarks						

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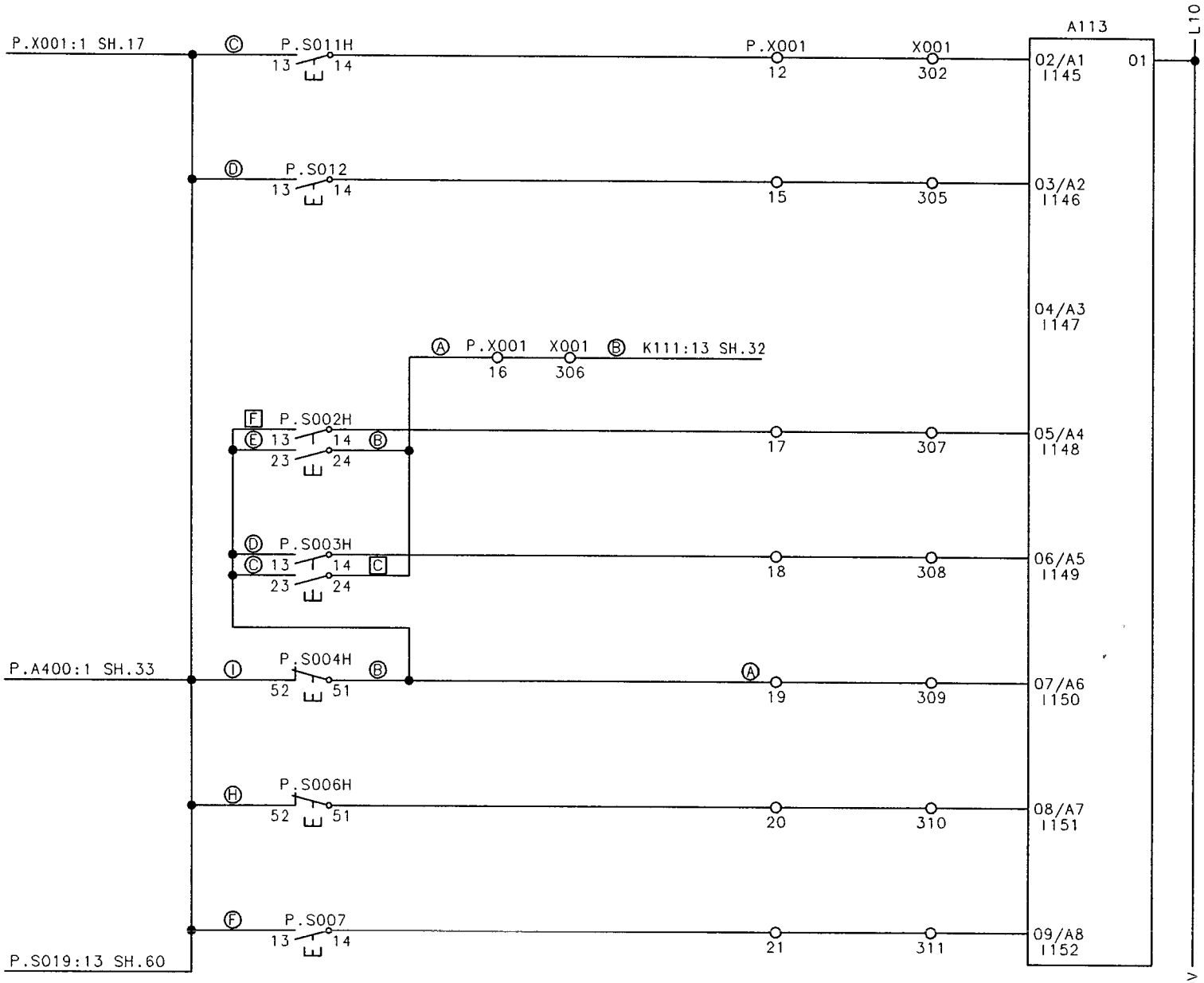


REQUESTE VOLUMES VALUES

Rele	A					Tetra Pak	Designer MRI	Date 950210	Approved HK	Date 950217	Doc. class –
ECN No.	22530						Machine TBA/19-0101	Denomination PLC-IN A112			
Sign./Date	MRI/950210					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-58:01			Page –
Appr./Date	HK/950217				Drawing remarks						

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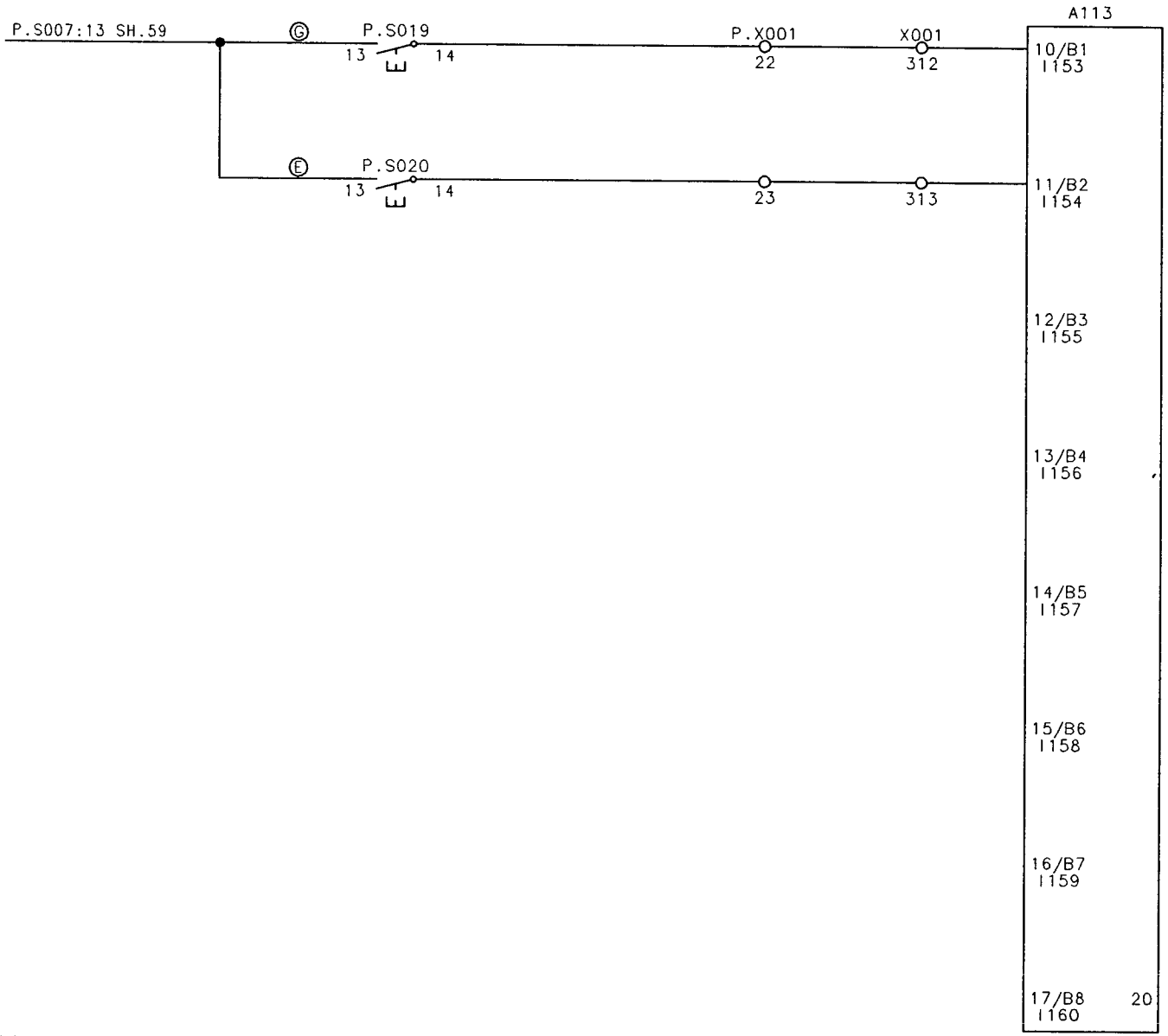


Note	A					Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class –
ECN No.	71701				Tetra Pak	Machine TBA/19-0101	Denomination PLC-IN A113, PANEL INTERFACE			
Sign./Date	ALPO/980930					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-59:12			Page –
Appr./Date	AIR/980930				Drawing remarks					

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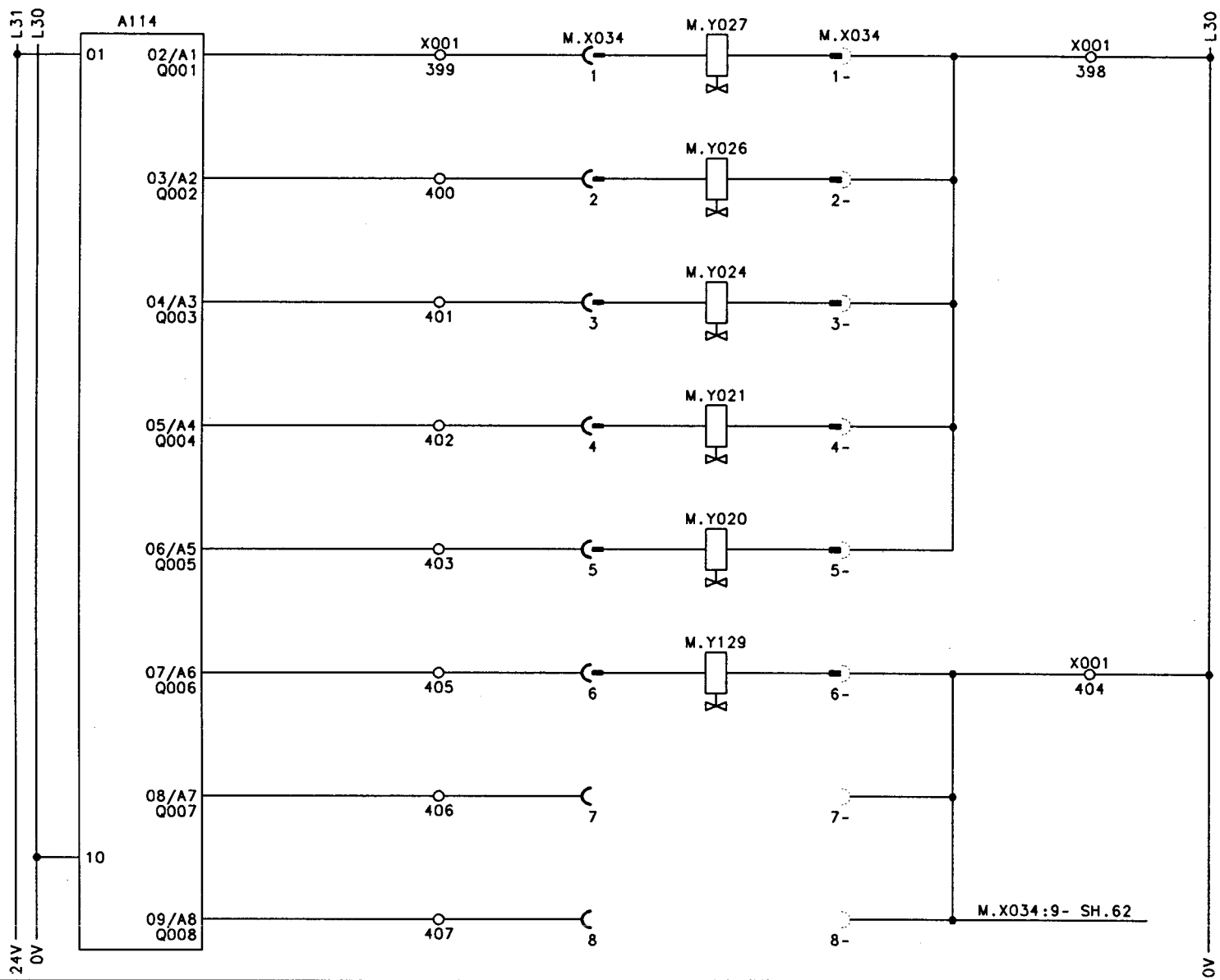


P.S019 DROP CHUTE OFF

P.S020 STATION CHAIN SPRINKLER

Note	A					Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class –
ECN No.	71701						Machine TBA/19-0101	Denomination PLC-IN A113, PANEL INTERFACE		
Sign./Date	ALPO/980930					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-60:12		Page –
Appr./Date	AIR/980930				Drawing remarks					

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M.Y027 DROP CHUTE

M.Y026 LS COUNTER ROLLER SHORT STOP

M.Y024 LS-ELEMENT, MOVEMENT

M.Y021 AIR KNIFE, SQUEEZER ROLLER

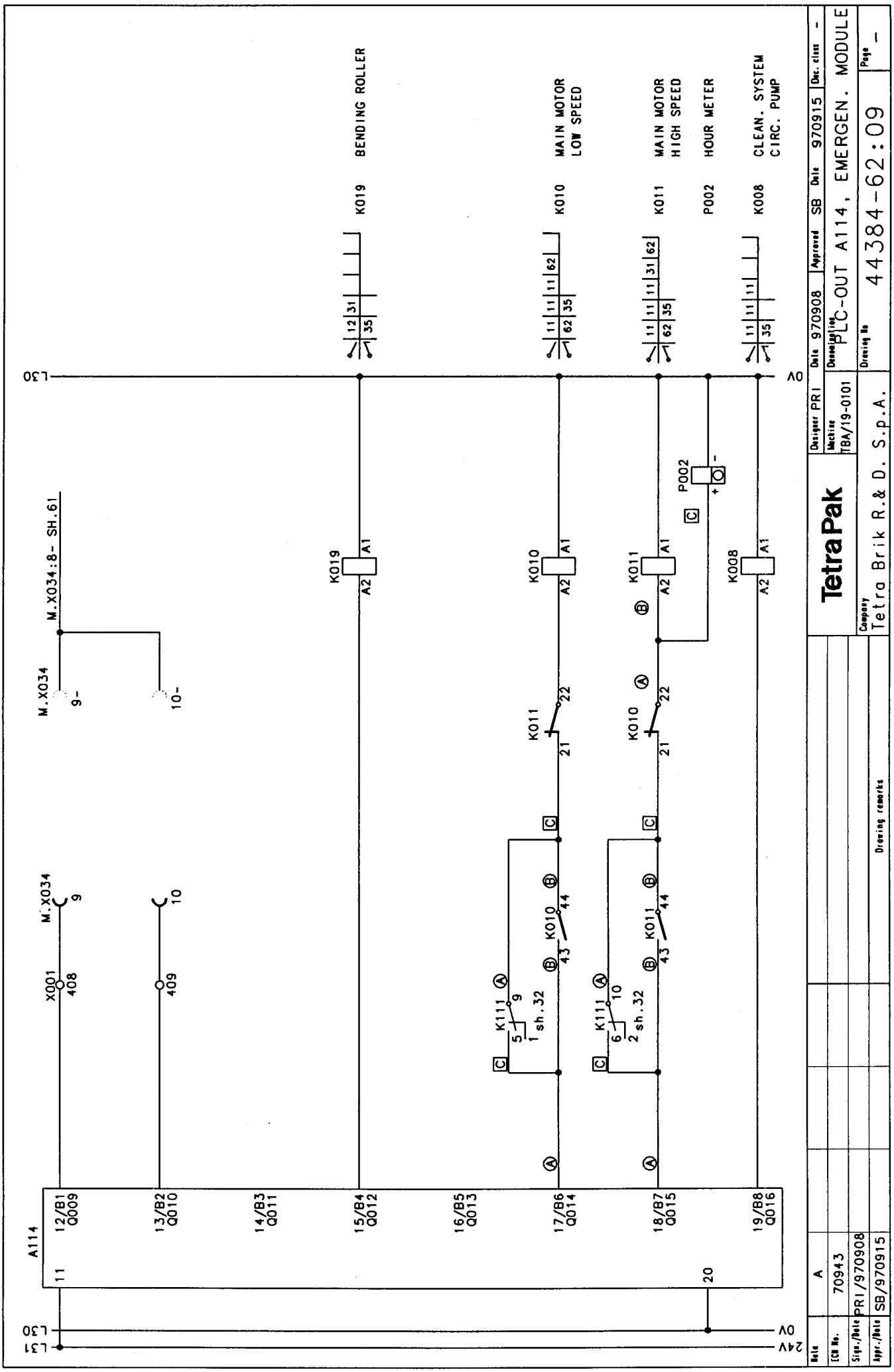
M.Y020 SHORT STOP, ELEMENT, MOVEMENT

M.Y129 AIR BLOWING BOTTOM FLAPS

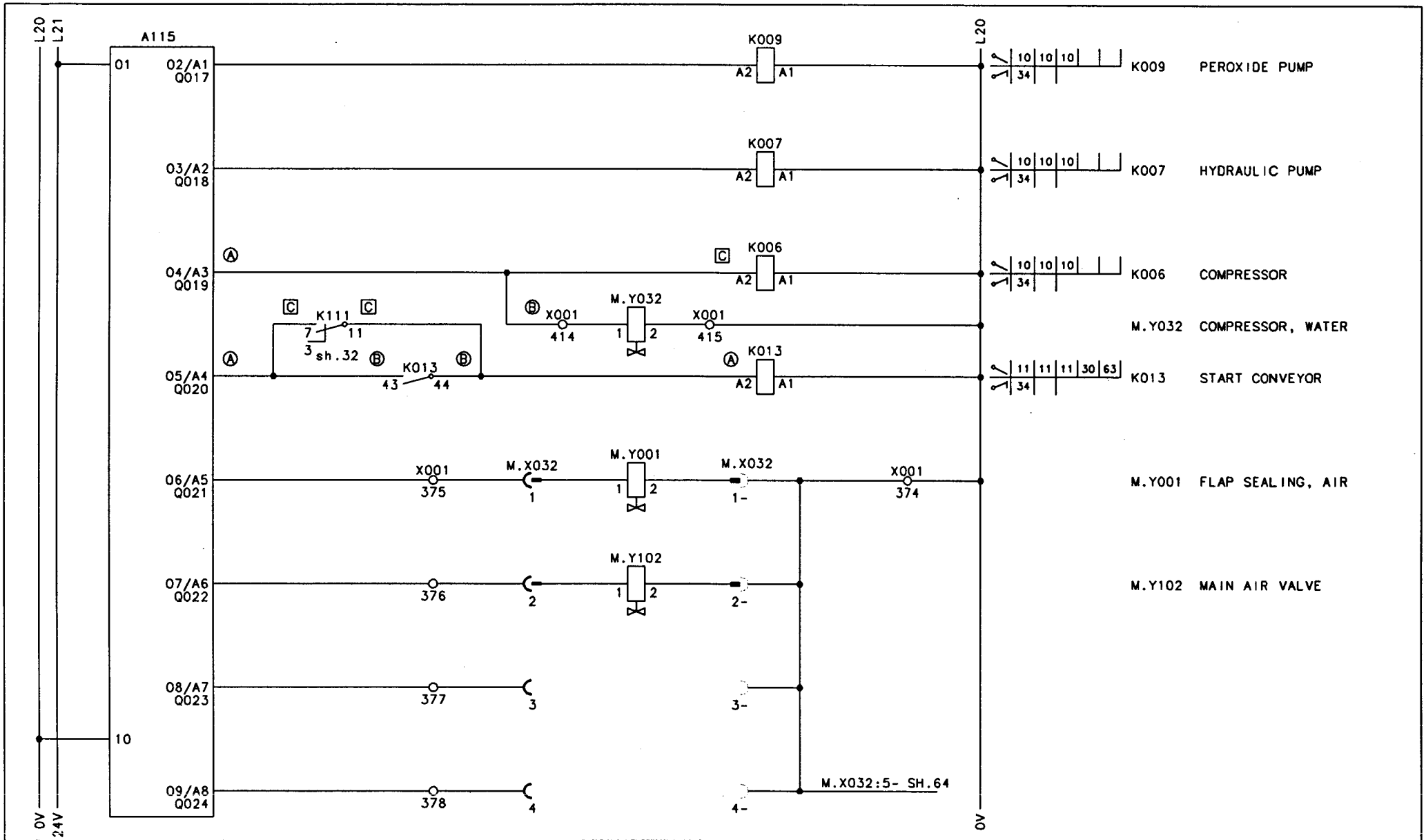
Note	A					Tetra Pak	Designer PRI	Date 970908	Approved SB	Date 970915	Doc. class -
ECN No.	70943						Machine TBA/19-0101	Denomination PLC-OUT A114, VALVES			
Sign./Date	PRI/970908						Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-61:09			Page -
Appr./Date	SB/970915					Drawing remarks					

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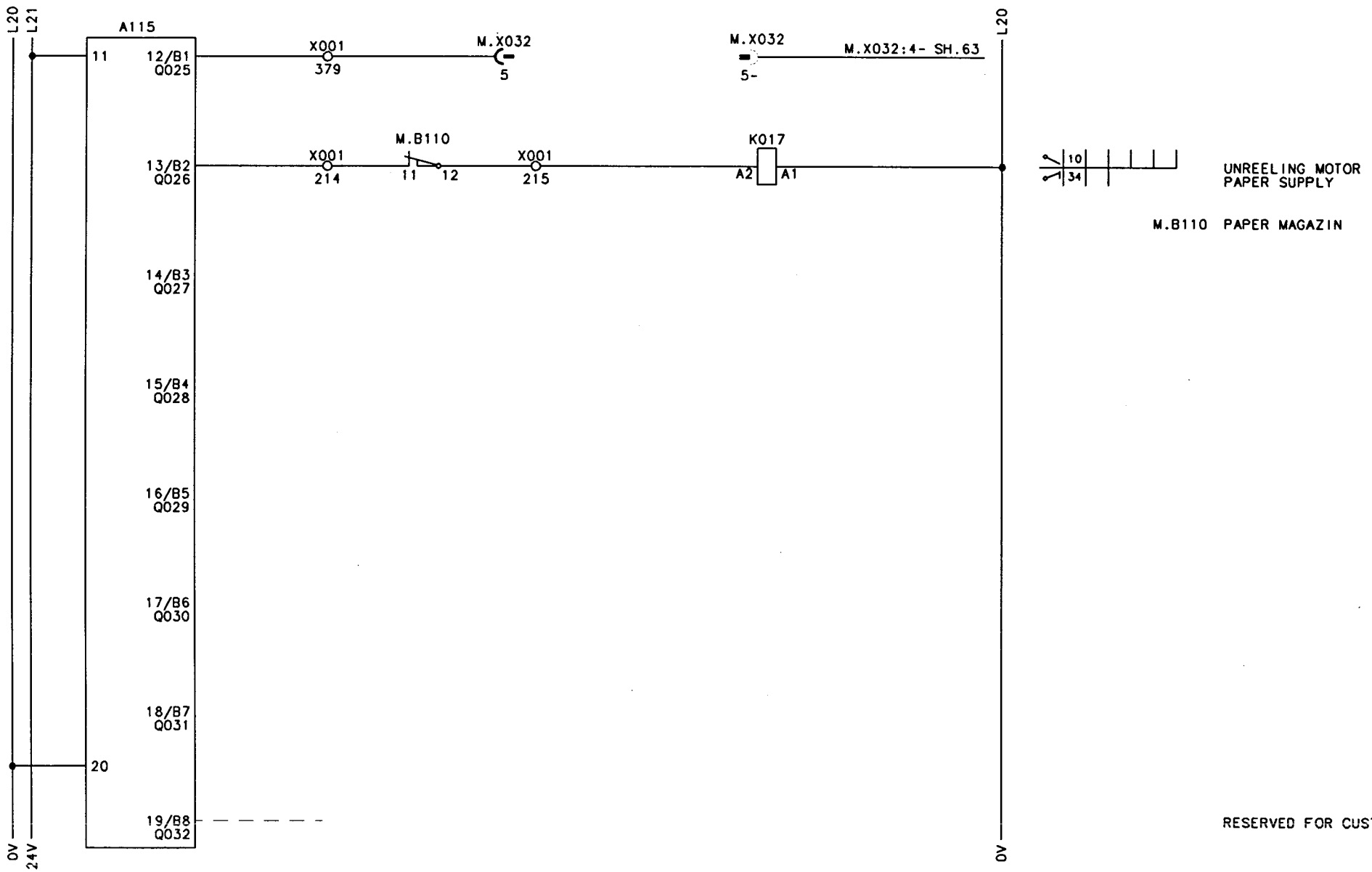
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Note	A					Tetra Pak	Designer PRI	Date 960605	Approved SB	Date 960605	Doc. class –
ECN No.	70256						Machine TBA/19-0101	Description PLC-OUT A115			
Sign./Date	PRI/960605					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-63:07				Page –
Appr./Date	SB/960605				Drawing remarks						

12:41 20/11/98

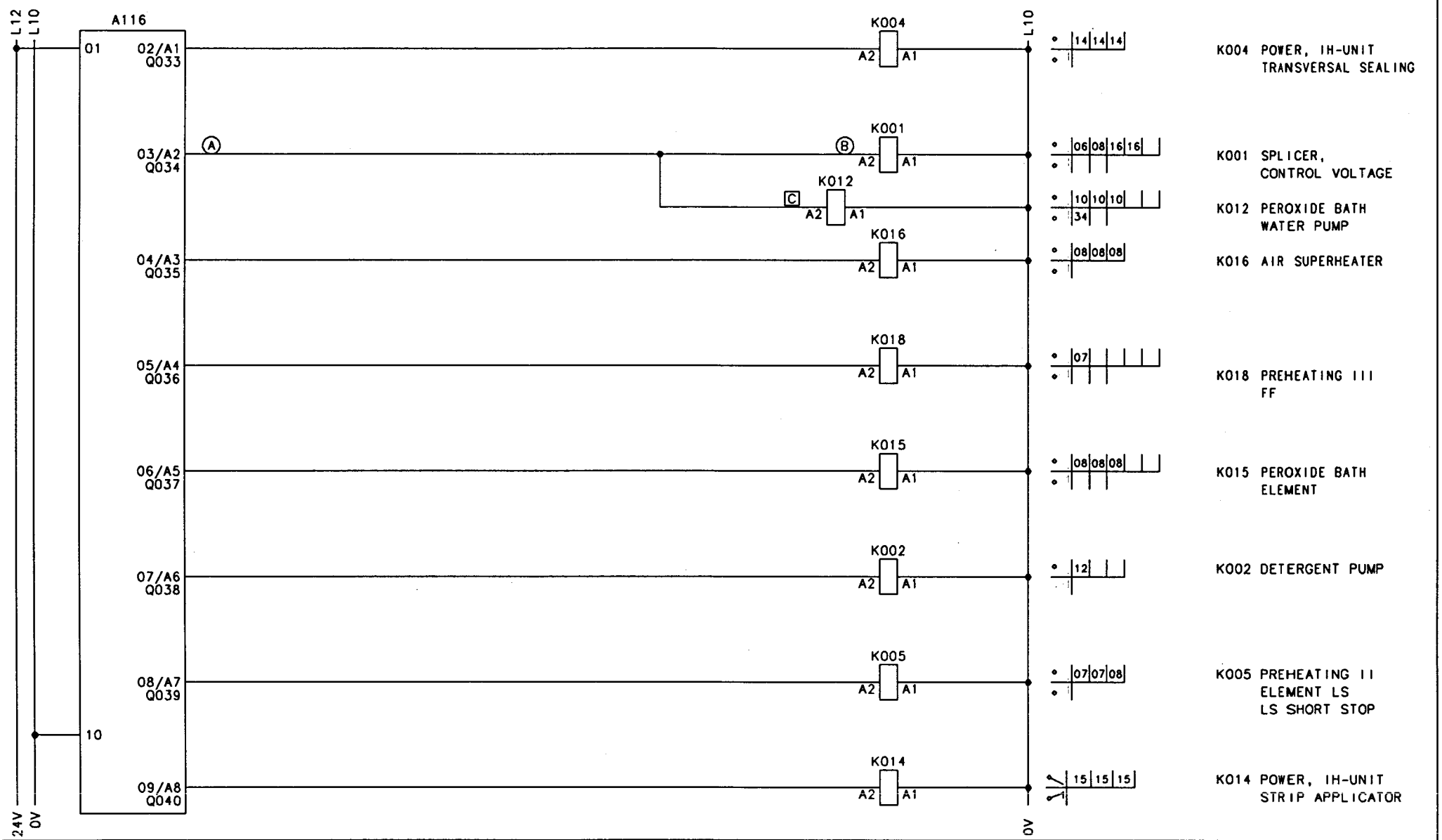
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Note	A					Tetra Pak	Designer PRI	Date 960219	Approved SB	Date 960219	Doc. class –
ECN No.	70019						Machine TBA/19-0101	Denomination PLC-OUT A115			
Sign./Date	PRI/950420					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-64:06			Page –
Appr./Date	SB/960219				Drawing remarks						

12:41 20/11/98

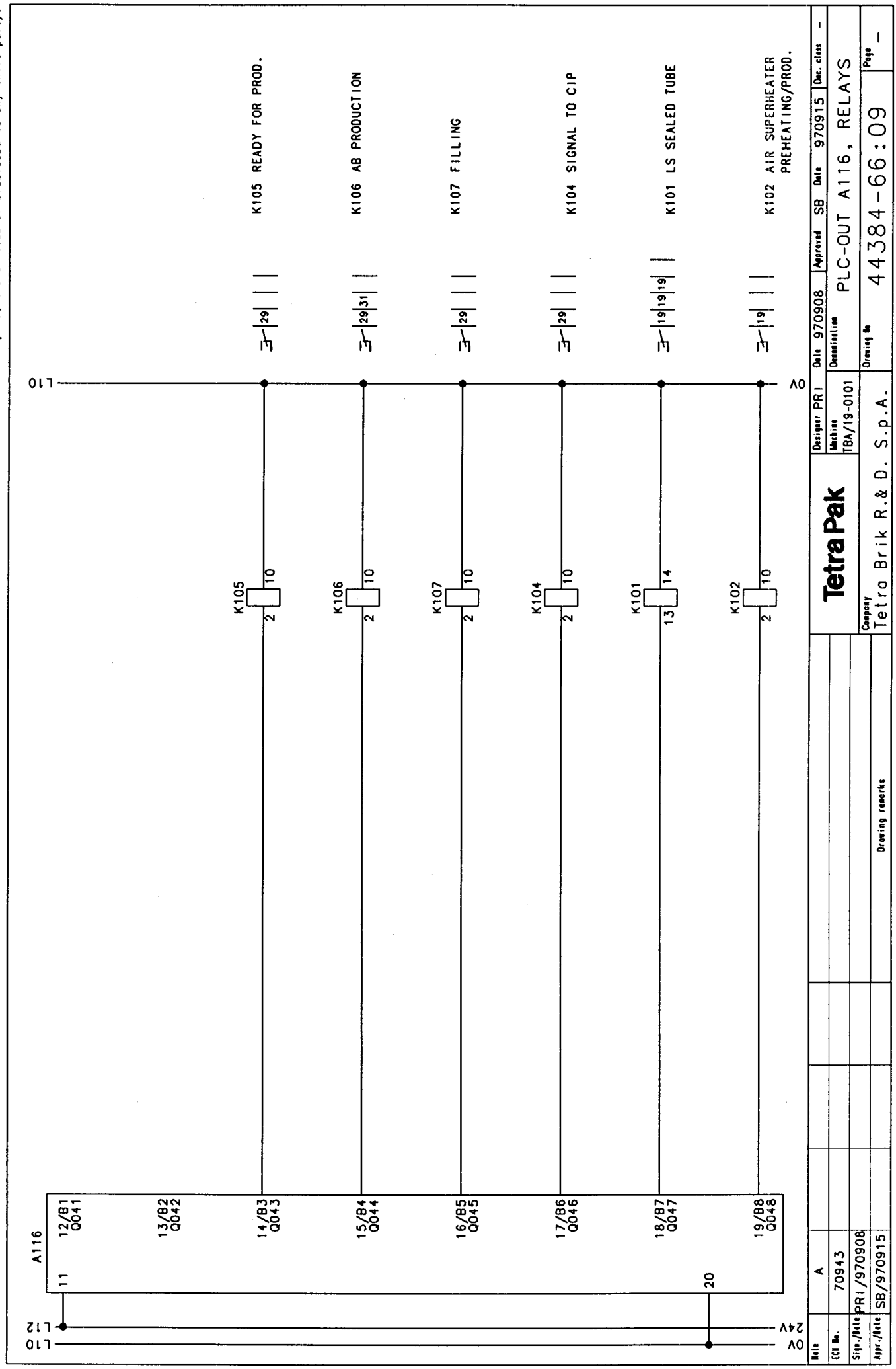
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



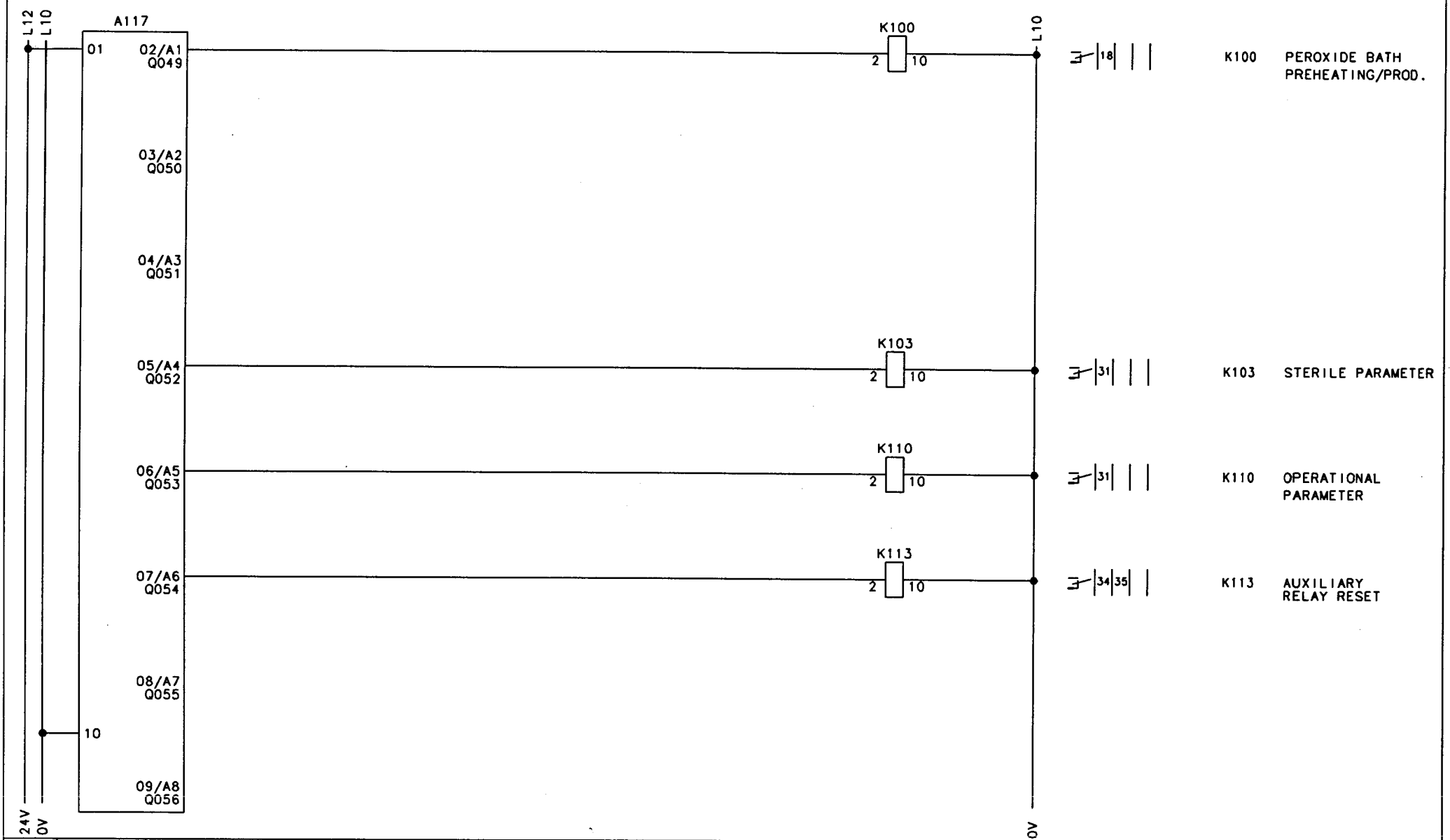
Note	A					Tetra Pak	Designer PRI	Date 970908	Approved SB	Date 970915	Doc. class -
ECN No.	70943						Machine TBA/19-0101	Description PLC-OUT A116, CONTACTORS			
Sign./Date	PRI/970908					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-65:09			Page -
Appr./Date	SB/970915				Drawing remarks						

12:41 20/11/98

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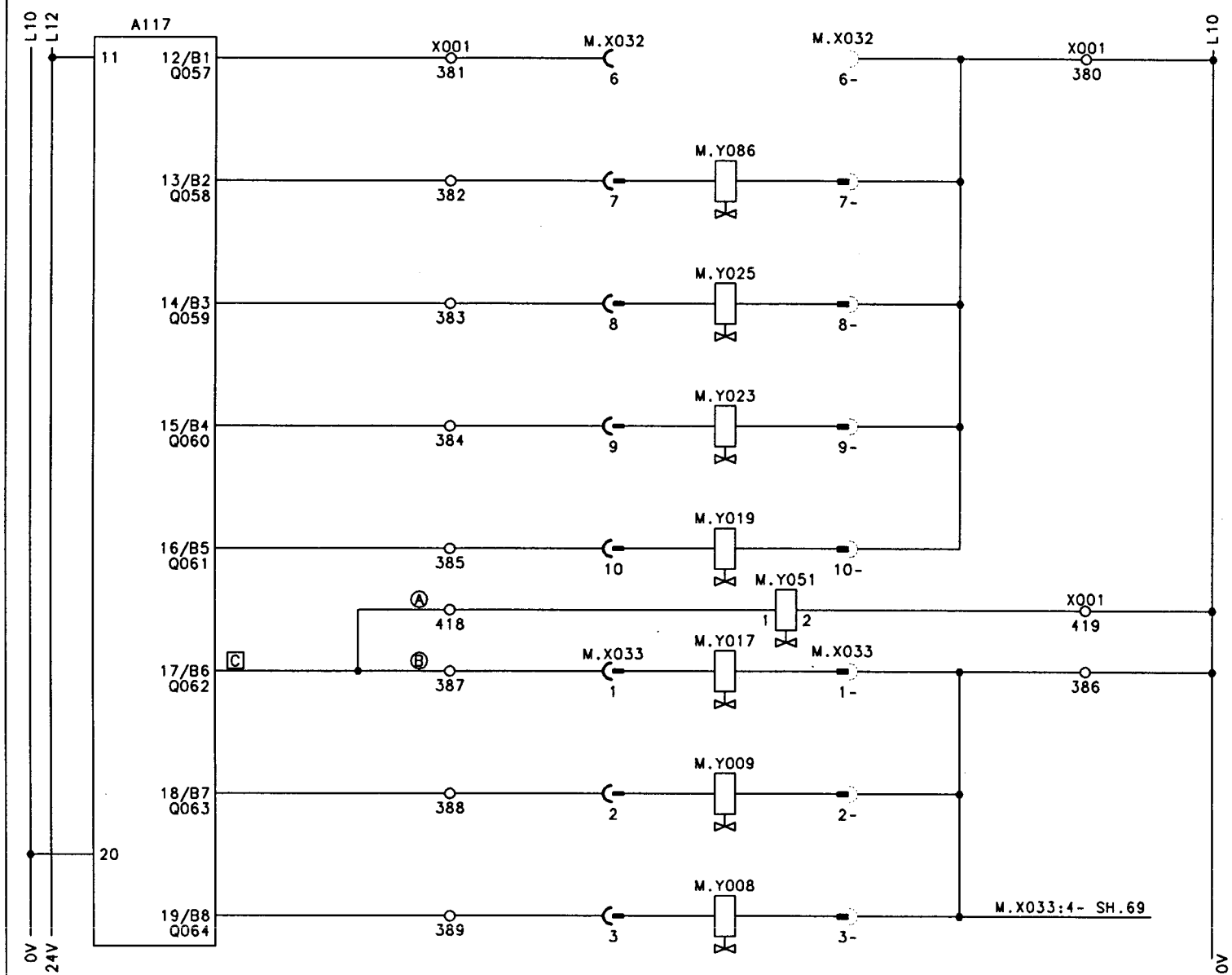
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Note	A					Tetra Pak	Designer PRI	Date 970908	Approved SB	Date 970915	Doc. class –
ECR No.	70943						Machine TBA/19-0101	Denomination PLC-OUT A117, RELAYS			
Sign./Date	PRI/970908					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-67:09				Page –
Appr./Date	SB/970915					Drawing remarks					

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M.Y086 VACUUM VALVE

M.Y025 HEAT EXHANGER VALVE

M.Y023 SUCTION VALVE

M.Y019 AIR INLET VALVE

M.Y051 AIR INJECTION, COOLING WATER

M.Y017 CENTRAL LUBRIFICATION, PUMP

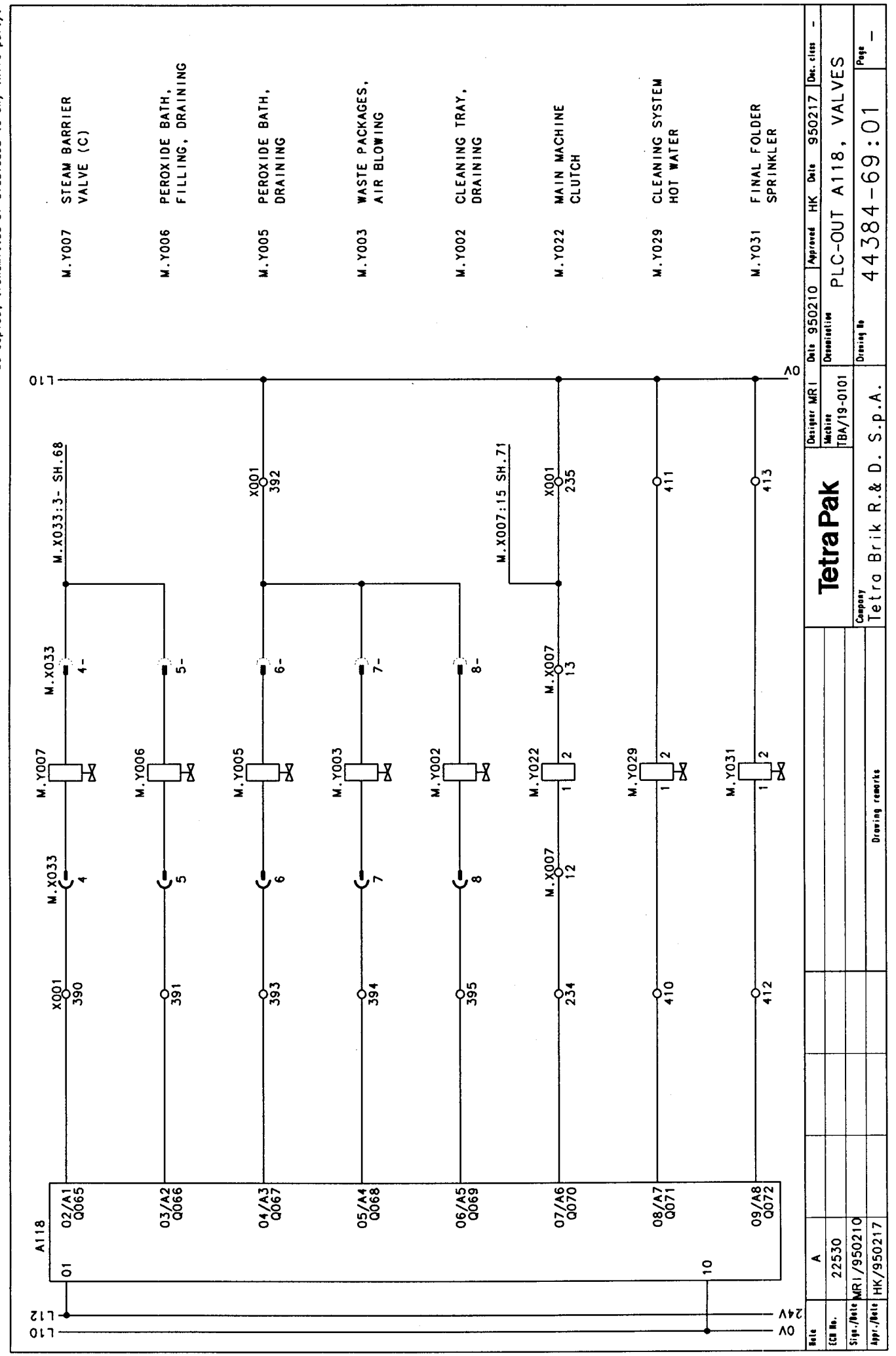
M.Y009 PRODUCT, VALVE (A)

M.Y008 STERILE AIR, VALVE (B)

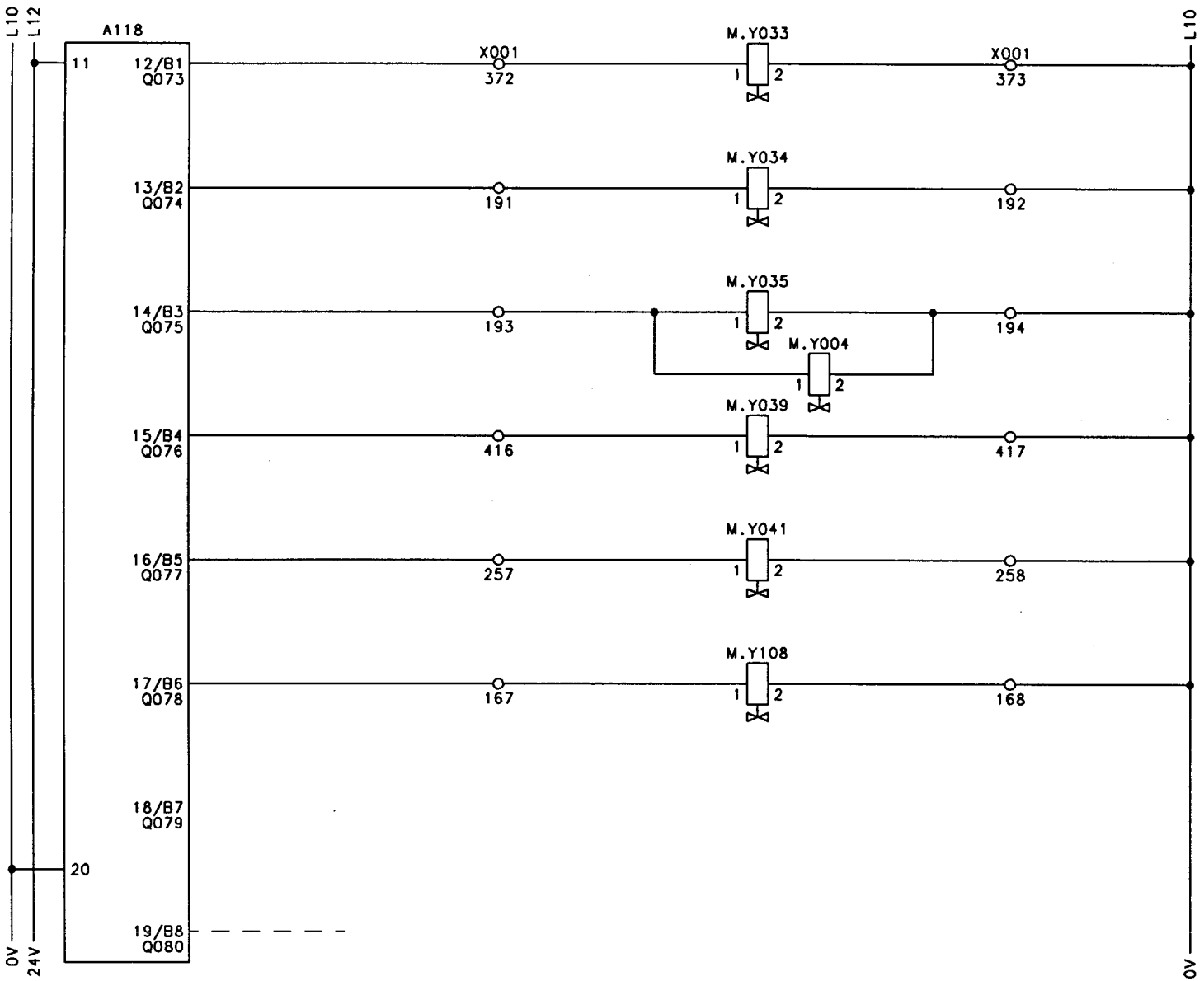
Note	A					Tetra Pak	Designer PRI	Date 950823	Approved HK	Date 950824	Doc. class –
ECR No.	22817						Machine TBA/19-0101	Denomination PLC-OUT A117, VALVES			
Sign./Date	PRI/950823					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-68:04			Page –	
Appr./Date	HK/950824				Drawing remarks						

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M.Y033	COOLING WATER
M.Y034	SPRAY TANK FILLING
M.Y035	SPRAY TANK, SPRAYING PEROXIDE
M.Y004	SPRAY TANK, AIR
M.Y039	TUBE FLUSHING
M.Y041	PULL DOWN DEVICE
M.Y108	TOP FILLING VALVE PEROXIDE BATH

RESERVED FOR CUSTOMER

Note	A					
ECR No.	70019					
Sign./Date	PRI/960219					
Appr./Date	SB/960219					
					Drawing remarks	

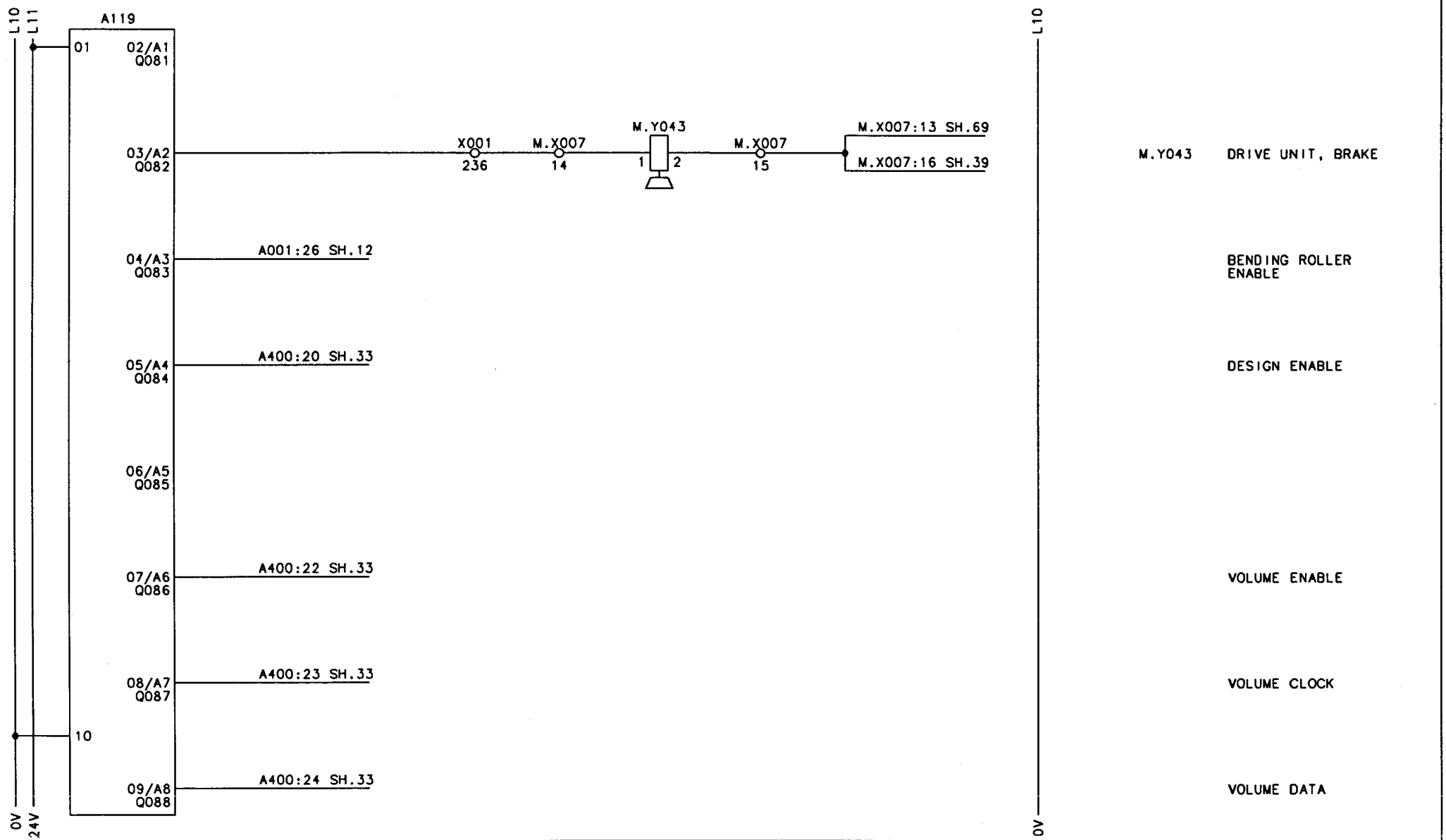
Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer PRI	Date 960219	Approved SB	Date 960219	Doc. class	-
Machine TBA/19-0101	Denomination PLC-OUT A118, VALVES				
Drawing No 44384-70:06				Page	-

12:41 20/11/98

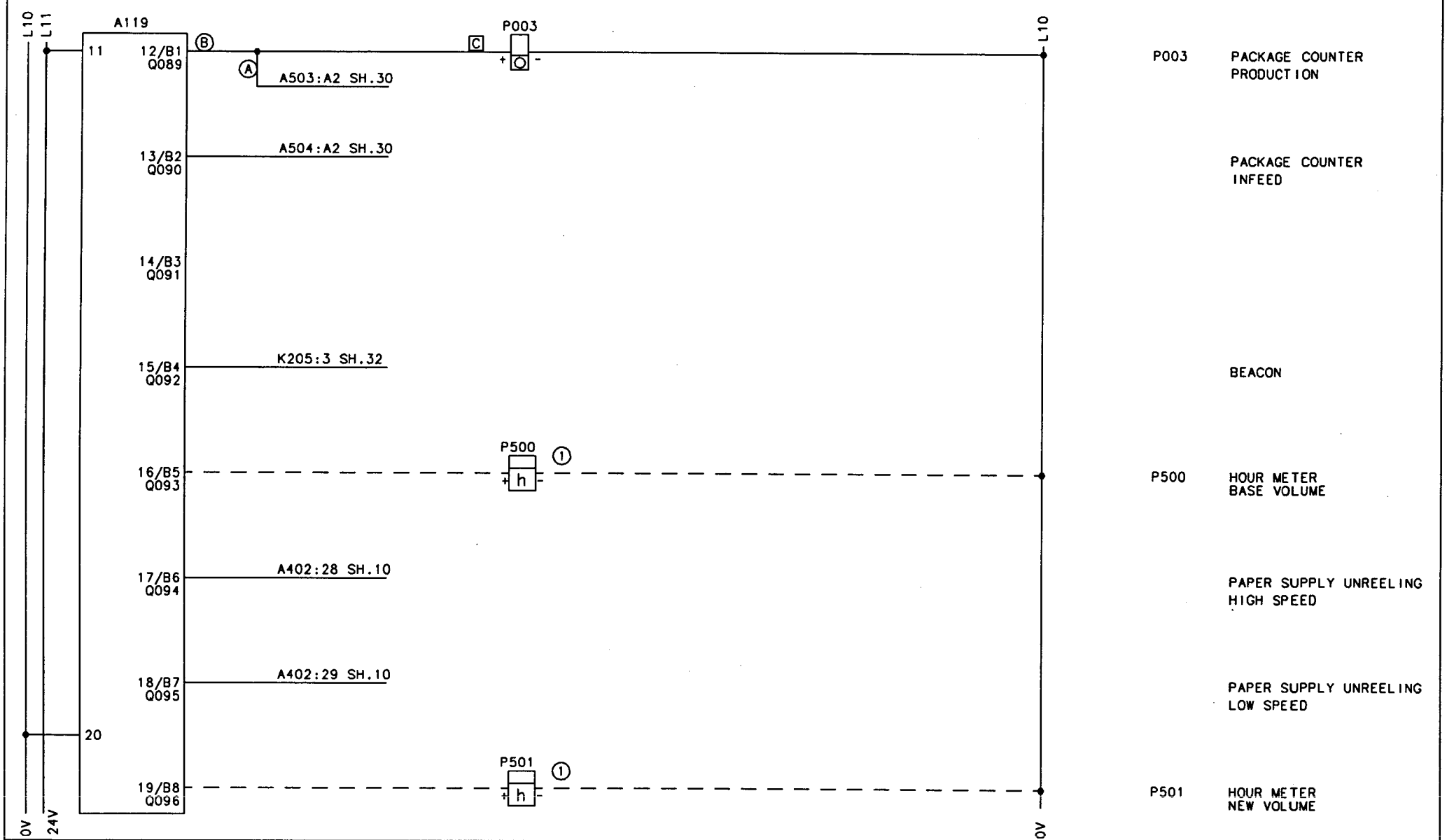
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Note	A					Tetra Pak	Designer CAI	Date 950420	Approved HK	Date 950427	Doc. class –
ECR No.	22940						Machine TBA/19-0101	Denomination PLC-OUT A119			
Sign./Date	CAI/950420					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-71:02			Page –
Appr./Date	HK/950427				Drawing remarks						

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Note	A				1 EXTRA EQUIPMENT	Tetra Pak	Designer PRI	Date 960318	Approved SB	Date 960318	Doc. class –
ECN No.	70019						Machine TBA/19-0101	Denomination PLC-OUT A119			
Sign./Date	PRI/960318					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-72:06			Page –
Appr./Date	SB/960318				Drawing remarks						

12:41 20/11/98

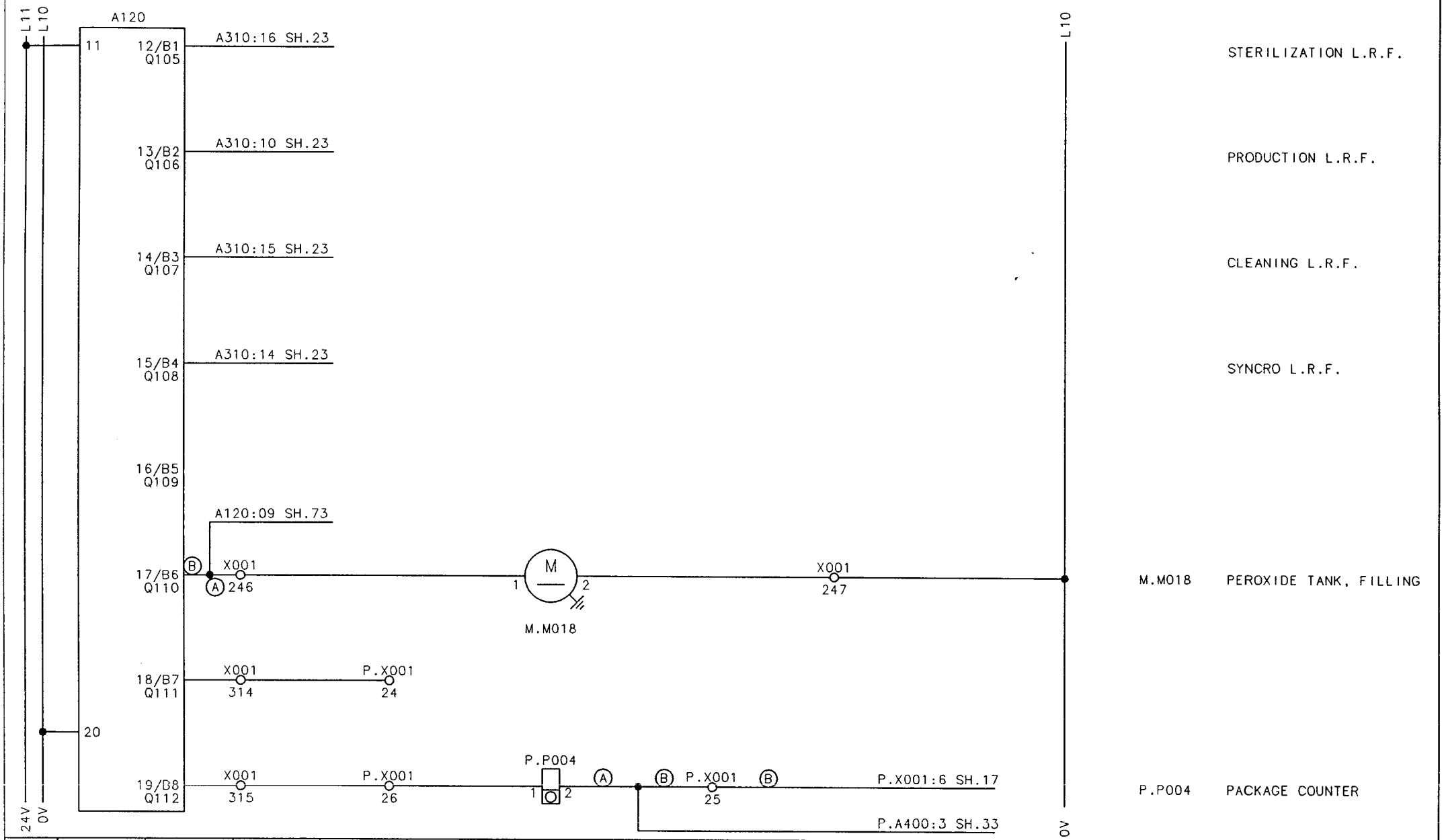
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Rele	A					Tetra Pak	Designer ALPO	Date 980420	Approved AIR Date 980420	Doc. class –
ECR No.	71535						Machine TBA/19-0101	Denomination PLC-OUT A120		
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-73:10			Page –
Appr./Date	AIR/980420				Drawing remarks					

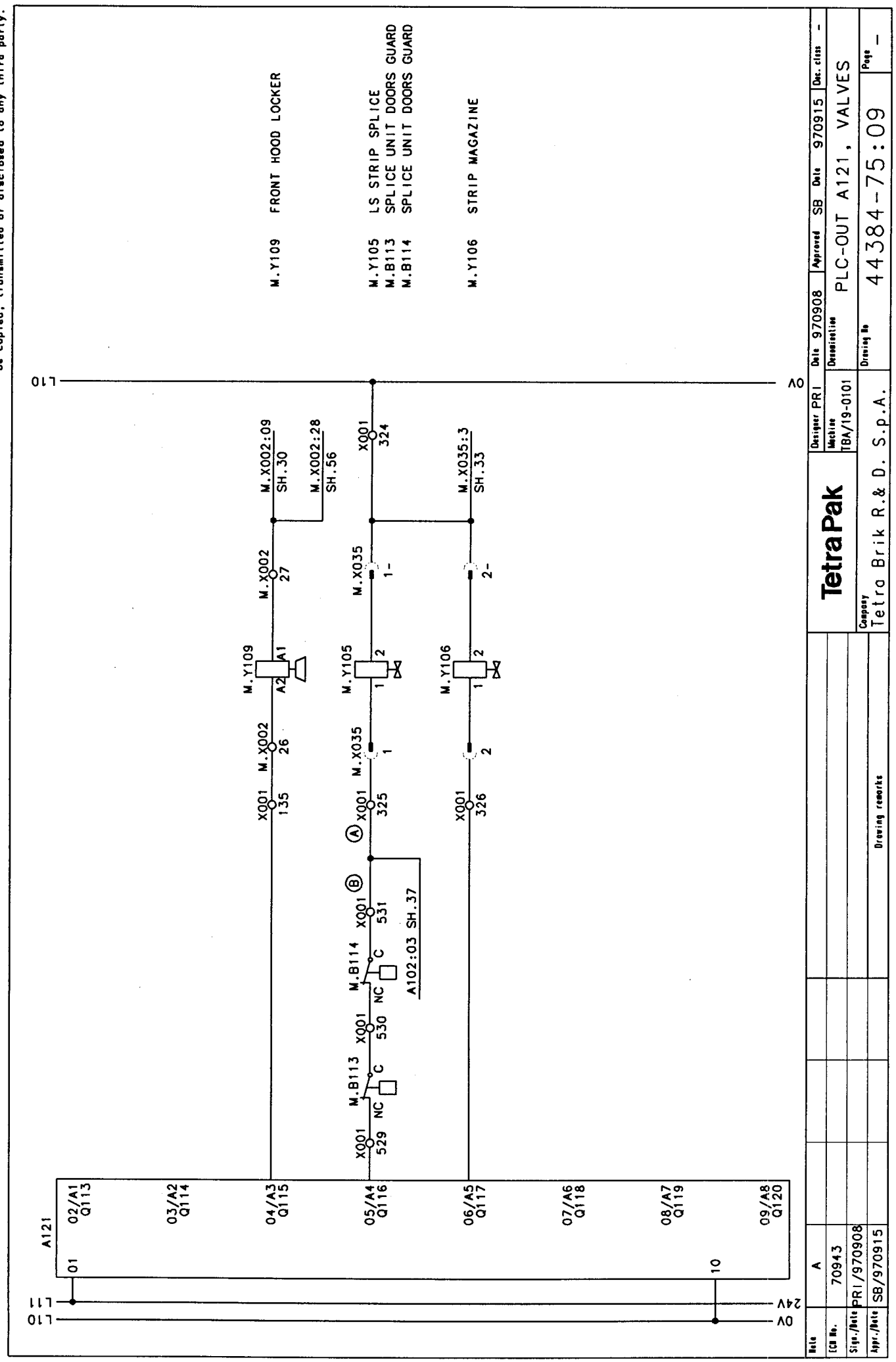
12:41 20/11/98

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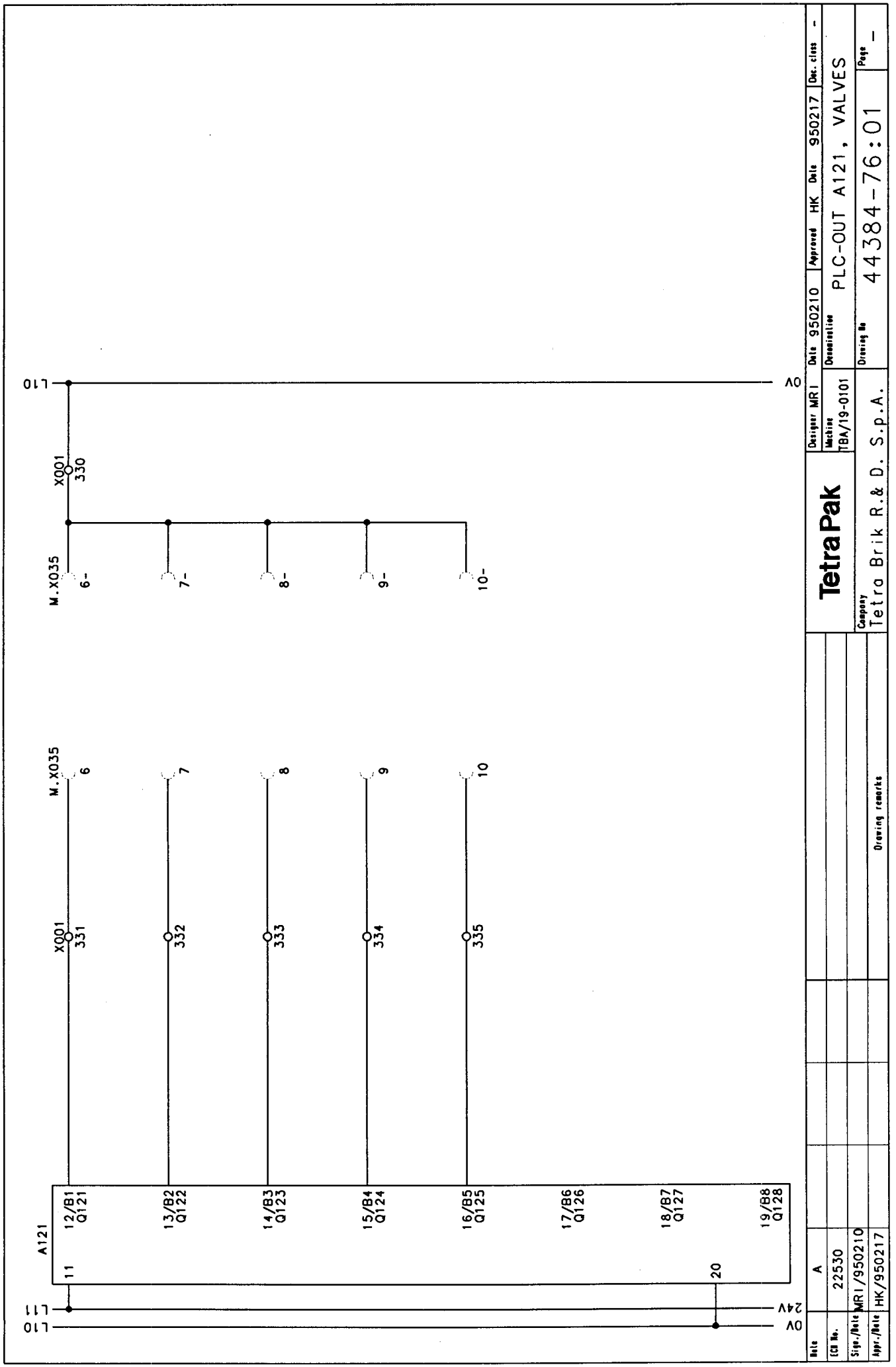


Note	A					Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class –
ECM No.	71701						Machine TBA/19-0101	Denomination PLC-OUT A120		
Sign./Date	ALPO/980930					Company Tetra Brik R.& D. S.p.A.		Drawing No 44384-74:12		Page –
Appr./Date	AIR/980930				Drawing remarks					

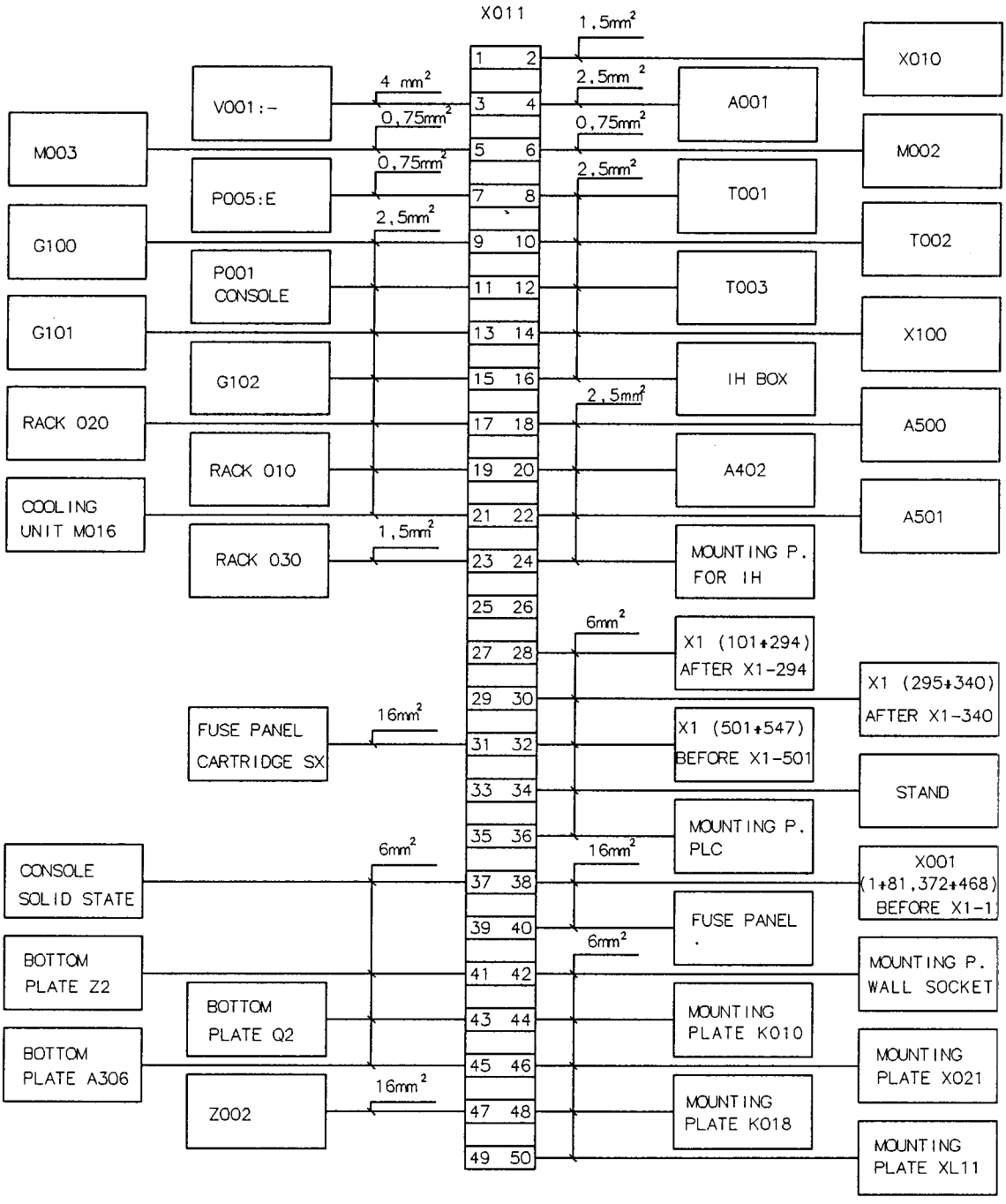
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Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO | Date 980930 | Approved AIR | Date 980930 | Doc. class -

Machine TBA/19-0101

Denomination: GROUND CONNECTION CONTROL CAB

Drawing No: 44384-89:12 | Page -

Drawing remarks

Note	A			
ECN No.	71701			
Sign./Date	ALPO/980930			
Appr./Date	AIR/980930			

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ECN 71701 'O'
19981012 AIR

Line	Position	Sheet Area Colour
L10	XL10,1	4 BU
	V001,-	16:10
L10	XL10,2	0.75 BU
	A001,25	12:10
	A400,2	33:12
	A402,25	10:10
L10	XL10,3	0.75 BU
	X100,24	14:06
	,25	15:06
L10	XL10,4	0.75 BU
	X001,444	40:10
	,419	68:04
	,417	70:06
	,413	69:01
	,411	69:01
	,392	69:01
	,386	68:04
	,380	68:04
	,373	70:06
L10	XL10,5	0.75 BU
	X001,156	32:12
	,171	33:12
	,207	33:12
	,211	33:12
L10	XL10,6	0.75 BU
	X009,2	32:12
L10	XL10,7	0.75 BU
	K205,4	32:12
L10	XL10,8	0.75 BU
	K100,10	67:09
	K101,14	66:09
	K102,10	66:09
	K103,10	67:09
L10	XL10,9	0.75 BU
	K104,10	66:09
	K105,10	66:09
	K106,10	66:09
	K107,10	66:09
L10	XL10,10	0.75 BU
	K110,10	67:09
	K111,14	32:12
	K113,10	67:09
L10	XL10,11	0.75 BU
	K004,A1	65:09
	K002,A1	65:09
	K001,A1	65:09
	X001,118	30:10
L10	XL10,12	0.75 BU
	K014,A1	65:09

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19981012 AIR

Line	Position	Sheet Area Colour	Line	Position	Sheet Area Colour
L10	K012,A1	65:09		,192	70:06
	K005,A1	65:09		,194	70:06
	X001,203	39:02		,228	36:01
	,250	39:02		,235	69:01
	,258	70:06		,247	74:12
	,260	47:02		,324	75:09
	,296	17:12		,330	76:01
L10	XL10,13	0.75 BU	L10	XL10,19	0.75 BU
	K015,A1	65:09		P003,-	72:06
	K016,A1	65:09		P500,-	72:06
	K018,A1	65:09		P501,-	72:06
L10	XL10,14	0.75 BU	L10	XL10,20	0.75 BU
	A508,2	14:06		A103,01	39:02
L10	XL10,15	0.75 BU	L10	XL10,22	0.75 BU
	A310,18	23:05		A104,01	41:02
L10	XL10,16	0.75 BU	L10	XL10,23	0.75 BU
	A503,A1	30:10		A105,01	43:01
	A504,A1	30:10	L10	XL10,24	0.75 BU
L10	XL10,17	0.75 BU		A106,01	45:06
	A506,A2	34:01	L10	XL10,25	0.75 BU
	,23	34:01		A111,01	55:01
L10	XL10,18	0.75 BU	L10	XL10,26	0.75 BU
	X001,160	39:02		A116,10	65:09
	,168	70:06			

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Line	Position	Sheet Area Colour
L10	A116,20	66:09
L10	XL10,27	0.75 BU
	A117,10	67:09
	,20	68:04
L10	XL10,28	0.75 BU
	A118,10	69:01
	,20	70:06
	A102,01	37:06
L10	XL10,29	0.75 BU
	A119,10	71:02
	,20	72:06
L10	XL10,30	0.75 BU
	A113,01	59:12
L10	XL10,31	0.75 BU
	A120,10	73:10
	,20	74:12
L10	XL10,32	0.75 BU
	A121,10	75:09
	,20	76:01
L10	XL10,33	0.75 BU
	A112,01	57:09
L10	XL10,34	0.75 BU
	X001,509	39:02
	,521	39:02
	,526	45:06
L10	XL10,35	0.75 BU
	A107,10	47:02
	,20	48:01
L11	XL11,1	4 BU
	F006A,2	16:10
L11	XL11,2	0.75 BU
	A310,17	23:05
L11	XL11,3	0.75 BU
	X001,102	29:10
	,113	29:10
	,120	30:10
	,157	41:02
	,162	39:02
	,170	33:12
	,197	42:08
	,227	36:01
L11	XL11,4	0.75 BU
	X001,238	39:02
	,241	41:02
	,252	39:02
	,255	29:10
	,292	41:02

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ECN 71701 'O'
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Line	Position	Sheet Area Colour	Line	Position	Sheet Area Colour
L11	X001,295	17:12		A207,23	21:09
L11	XL11,5	0.75 BU	L11	XL11,13	0.75 BU
	Z003,RD	05:12		A119,01	71:02
				,11	72:06
L11	XL11,7	0.75 BU			
	A506,A1	34:01	L11	XL11,14	0.75 BU
	,13	34:01		A120,01	73:10
	,33	34:01		,11	74:12
	A502,11	27:03			
			L11	XL11,15	0.75 BU
L11	XL11,8	0.75 BU		A121,01	75:09
	A300,18	24:02		,11	76:01
	A301,18	24:02			
	A302,18	25:01	L11	XL11,16	0.75 BU
	A303,18	25:01		X001,511	39:02
	A305,18	27:03		,523	39:02
	A307,18	27:03		,528	45:06
				A106,09	45:06
L11	XL11,9	0.75 BU			
	A200,23	18:05	L11	XL11,17	0.75 BU
	A201,19	18:05		X001,443	40:10
	,23	18:05			
	A202,19	19:09	L11	XL11,18	0.75 BU
	,23	19:09		A107,01	47:02
	A203,19	19:09		,11	48:01
	,23	19:09			
	A204,23	20:10	L12	XL12,1	4 BU
	A205,23	20:10		F006B,4	16:10
	A206,23	21:09			

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ECN 71701 'O'
19981012 AIR

Line	Position	Sheet Area Colour	Line	Position	Sheet Area Colour
L12	XL12,3	0.75 BU		S004,13	38:06
	Q006:1,14	41:02		S005,13	37:06
	Q003:1,13	57:09		S511,13	38:06
				X001,121	37:06
L12	XL12,4	0.75 BU		,421	38:06
	X100,27	14:06		,423	38:06
	,28	14:06		,426	38:06
	,29	14:06		,428	38:06
	,31	15:06		,430	38:06
	,32	15:06		,536	37:06
	,33	15:06			
			L13	XL13,	0.75 BU
L12	XL12,5	0.75 BU		K001,6	16:10
	F105,LIV	32:12		X001,205	39:02
				,206	33:12
L12	XL12,6	0.75 BU		,210	33:12
	A400,1	33:12		A508,1	14:06
L12	XL12,7	0.75 BU	L20	XL20,1	0.75 BU
	A116,01	65:09		A507,A2	35:07
	,11	66:09		A506,24	34:01
				A507,23	35:07
L12	XL12,8	0.75 BU			
	A117,01	67:09	L20	XL20,2	0.75 BU
	,11	68:04		A115,10	63:07
				,20	64:06
L12	XL12,9	0.75 BU			
	A118,01	69:01	L20	XL20,3	0.75 BU
	,11	70:06		K017,A1	64:06
	S003,13	37:06		K013,A1	63:07

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ECN 71701 'O'
19981012 AIR

Line	Position	Sheet Area Colour	Line	Position	Sheet Area Colour
L20	K009,A1	63:07		,404	61:09
	K007,A1	63:07			
	K006,A1	63:07	L30	XL30,4	0.75 BU
	K003,A1	35:07		P002,-	62:09
L20	XL20,4	0.75 BU	L31	XL31,	0.75 BU
	X001,415	63:07		A507,34	35:07
	,374	63:07		A114,01	61:09
				,11	62:09
L21	XL21,	0.75 BU			
	A506,34	34:01	L50	XL50,1	0.75 RD
	A507,A1	35:07		X003,7	16:10
	,13	35:07			
	,33	35:07	L50	XL50,2	0.75 RD
	A115,01	63:07		A502,A2	27:03
	,11	64:06			
			L50	XL50,3	0.75 RD
L30	XL30,1	0.75 BU		A200,27	18:05
	A114,10	61:09		A201,27	18:05
	,20	62:09		A202,27	19:09
				A203,27	19:09
L30	XL30,2	0.75 BU		A204,27	20:10
	A507,24	35:07		A205,27	20:10
	K019,A1	62:09		A206,27	21:09
	K011,A1	62:09		A207,27	21:09
	K010,A1	62:09		P005,L2/	31:10
	K008,A1	62:09			
			L50	XL50,4	0.75 RD
L30	XL30,3	0.75 BU		A300,A2	24:02
	X001,398	61:09		A301,A2	24:02

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19981012 AIR

Line	Position	Sheet Area Colour	Line	Position	Sheet Area Colour
L50	A302,A2	25:01		A206,26	21:09
	A303,A2	25:01		A207,26	21:09
	A305,A2	27:03			
	A307,A2	27:03	L51	XL51,3	0.75 RD
				A300,A1	24:02
L50	XL50,5	0.75 RD		A301,A1	24:02
	G100,N	17:12		A302,A1	25:01
	G101,N	17:12		A303,A1	25:01
	G102,N	17:12		A305,A1	27:03
				A307,A1	27:03
L50	XL50,6	0.75 RD			
	X100,18	14:06	L51	XL51,4	0.75 RD
	,19	15:06		A502,A1	27:03
				K001,13	16:10
L50	XL50,7	0.75 RD		P005,L1	31:10
	M002,2	32:12			
			L51	XL51,5	0.75 RD
L50	XL50,8	0.75 RD		G100,L1	17:12
	M003,2	32:12		G101,L1	17:12
				G102,L1	17:12
L51	XL51,1	0.75 RD			
	F005,1	16:10	L51	XL51,6	0.75 RD
				M002,1	32:12
L51	XL51,2	0.75 RD			
	A200,26	18:05	L51	XL51,7	0.75 RD
	A201,26	18:05		M003,1	32:12
	A202,26	19:09			
	A203,26	19:09	L52	XL52,	0.75 RD
	A204,26	20:10		K001,14	16:10
	A205,26	20:10		X100,21	14:06

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Line	Position	Sheet Area Colour	Line	Position	Sheet Area Colour
L52	X100,22	15:06			

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19981012 AIR

Position	Sheet	Position	Sheet	Position	Sheet	Position	Sheet
X001,1	07:06	X001,31		X001,61	06:12	X001,110	29:10
,2	07:06	,32		,62	06:12	,111	29:10
,3	07:06	,33		,63	06:12	,112	29:10
,4	07:06	,34	10:10	,64	06:12	,113	29:10
,5	08:09	,35	10:10	,65	06:12	,114	29:10
,6	08:09	,36	10:10	,66	06:12	,115	24:02
,7	08:09	,37	10:10	,67	06:12	,116	24:02
,8	08:09	,38	10:10	,68	06:12	,117	45:06
,9	08:09	,39	10:10	,69	06:12	,118	30:10
,10	08:09	,40		,70	06:12	,119	30:10
,11	11:07	,41		,71	06:12	,120	30:10
,12	11:07	,42		,72	06:12	,121	37:06
,13	11:07	,43	10:10	,73		,122	37:06
,14	11:07	,44	10:10	,74		,123	34:01
,15	11:07	,45	10:10	,75		,124	34:01
,16	11:07	,46	11:07	,76		,125	34:01
,17		,47	11:07	,77		,126	34:01
,18		,48	11:07	,78		,127	30:10
,19		,49	12:10	,79		,128	30:10
,20		,50	12:10	,80		,129	30:10
,21		,51		,81		,130	30:10
,22		,52		,101	29:10	,131	30:10
,23		,53		,102	29:10	,132	30:10
,24		,54		,103	29:10	,133	57:09
,25	11:07	,55		,104	29:10	,134	57:09
,26	11:07	,56	08:09	,105	29:10	,135	75:09
,27	11:07	,57	08:09	,106	29:10	,136	56:09
,28	10:10	,58	07:06	,107	29:10	,137	56:09
,29	10:10	,59	07:06	,108	29:10	,138	
,30	10:10	,60	06:12	,109	29:10	,139	19:09

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19981012 AIR

Position	Sheet	Position	Sheet	Position	Sheet	Position	Sheet
X001,140	19:09	X001,170	33:12	X001,200	42:08	X001,230	57:09
,141	19:09	,171	33:12	,201		,231	57:09
,142	19:09	,172		,202		,232	57:09
,143	18:05	,173		,203	39:02	,233	57:09
,144	18:05	,174		,204	39:02	,234	69:01
,145	19:09	,175		,205	39:02	,235	69:01
,146	19:09	,176		,206	33:12	,236	71:02
,147	18:05	,177		,207	33:12	,237	39:02
,148	18:05	,178		,208	33:12	,238	39:02
,149	20:10	,179		,209	33:12	,239	
,150	20:10	,180	57:09	,210	33:12	,240	
,151	20:10	,181	57:09	,211	33:12	,241	41:02
,152	20:10	,182	57:09	,212	33:12	,242	41:02
,153	21:09	,183	57:09	,213	33:12	,243	41:02
,154	21:09	,184	25:01	,214	64:06	,244	
,155	32:12	,185	25:01	,215	64:06	,245	
,156	32:12	,186	25:01	,216	57:09	,246	74:12
,157	41:02	,187	25:01	,217	57:09	,247	74:12
,158	41:02	,188	24:02	,218		,248	27:03
,159	41:02	,189	24:02	,219	36:01	,249	27:03
,160	39:02	,190	24:02	,220	36:01	,250	39:02
,161	39:02	,191	70:06	,221	36:01	,251	39:02
,162	39:02	,192	70:06	,222	36:01	,252	39:02
,163	34:01	,193	70:06	,223	36:01	,253	39:02
,164	34:01	,194	70:06	,224	36:01	,254	
,165	34:01	,195	27:03	,225	36:01	,255	29:10
,166	34:01	,196	27:03	,226	36:01	,256	29:10
,167	70:06	,197	42:08	,227	36:01	,257	70:06
,168	70:06	,198	42:08	,228	36:01	,258	70:06
,169	33:12	,199	42:08	,229	57:09	,259	47:02

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19981012 AIR

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Position	Sheet	Position	Sheet	Position	Sheet	Position	Sheet
X001,260	47:02	X001,290	23:05	X001,320	34:01	X001,381	68:04
,261	34:01	,291	23:05	,321	34:01	,382	68:04
,262	34:01	,292	41:02	,322	57:09	,383	68:04
,263	34:01	,293	41:02	,323	57:09	,384	68:04
,264	34:01	,294	41:02	,324	75:09	,385	68:04
,265	37:06	,295	17:12	,325	75:09	,386	68:04
,266	37:06	,296	17:12	,326	75:09	,387	68:04
,267		,297	73:10	,327	33:12	,388	68:04
,268		,298	73:10	,328	33:12	,389	68:04
,269		,299	73:10	,329	33:12	,390	69:01
,270		,300	73:10	,330	76:01	,391	69:01
,271		,301	73:10	,331	76:01	,392	69:01
,272		,302	59:12	,332	76:01	,393	69:01
,273		,303	73:10	,333	76:01	,394	69:01
,274		,304	73:10	,334	76:01	,395	69:01
,275		,305	59:12	,335	76:01	,396	
,276		,306	59:12	,336		,397	
,277		,307	59:12	,337		,398	61:09
,278		,308	59:12	,338		,399	61:09
,279		,309	59:12	,339		,400	61:09
,280		,310	59:12	,340		,401	61:09
,281		,311	59:12	,372	70:06	,402	61:09
,282		,312	60:12	,373	70:06	,403	61:09
,283		,313	60:12	,374	63:07	,404	61:09
,284		,314	74:12	,375	63:07	,405	61:09
,285		,315	74:12	,376	63:07	,406	61:09
,286		,316	33:12	,377	63:07	,407	61:09
,287		,317		,378	63:07	,408	62:09
,288		,318	34:01	,379	64:06	,409	62:09
,289		,319	34:01	,380	68:04	,410	69:01

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ECN 71701 'O'
19981012 AIR

Position	Sheet	Position	Sheet	Position	Sheet	Position	Sheet
X001,411	69:01	X001,441	40:10	X001,503		X001,533	21:09
,412	69:01	,442	40:10	,504		,534	37:06
,413	69:01	,443	40:10	,505		,535	37:06
,414	63:07	,444	40:10	,506		,536	37:06
,415	63:07	,445	40:10	,507	08:09	,537	37:06
,416	70:06	,446	40:10	,508	08:09	,538	34:01
,417	70:06	,447	40:10	,509	39:02	,539	34:01
,418	68:04	,448	40:10	,510	39:02	,540	34:01
,419	68:04	,449	40:10	,511	39:02	,541	34:01
,420	38:06	,450	40:10	,512	40:10	,542	
,421	38:06	,451	40:10	,513	40:10	,543	
,422	38:06	,452	40:10	,514	40:10	,544	
,423	38:06	,453	40:10	,515		,545	
,424	38:06	,454	40:10	,516		,546	
,425	38:06	,455	40:10	,517		,547	
,426	38:06	,456	40:10	,518			
,427	38:06	,457	45:06	,519		M.X001,1	36:01
,428	38:06	,458	45:06	,520		,2	36:01
,429	38:06	,459	45:06	,521	39:02	,3	36:01
,430	38:06	,460	45:06	,522	39:02	,4	36:01
,431		,461	45:06	,523	39:02	,5	36:01
,432		,462	45:06	,524		,6	36:01
,433		,463	41:02	,525		,7	36:01
,434		,464	41:02	,526	45:06	,8	36:01
,435		,465	41:02	,527	45:06	,9	36:01
,436		,466	56:09	,528	45:06	,10	36:01
,437		,467	56:09	,529	75:09	,11	36:01
,438		,468	56:09	,530	75:09	,12	36:01
,439	40:10	,501		,531	75:09		
,440	40:10	,502		,532	21:09	P.X001,1	17:12

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Machine: 649452

ECN 71701 'O'
19981012 AIR

Position	Sheet	Position	Sheet	Position	Sheet	Position	Sheet
P.X001,2	17:12	M.X002,1	11:07	M.X002,31	56:09	M.X007,7	57:09
,3	17:12	,2	11:07	,32	56:09	,8	
,4	17:12	,3	11:07	,33	56:09	,9	
,5	17:12	,4	24:02			,10	
,6	17:12	,5	24:02	X003,0	05:12	,11	
,7	17:12	,6	45:06	,1	06:12	,12	69:01
,8	17:12	,7	45:06	,2	14:06	,13	69:01
,9	17:12	,8	45:06	,3	07:06	,14	71:02
,10	17:12	,9	30:10	,4	07:06	,15	71:02
,11	17:12	,10	30:10	,5	08:09	,16	39:02
,12	59:12	,11	30:10	,6	12:10	,17	39:02
,13	17:12	,12	30:10	,7	16:10	,18	39:02
,14	17:12	,13	30:10	,8	10:10	,19	
,15	59:12	,14	30:10	,9	15:06	,20	
,16	59:12	,15	30:10	,10		,21	
,17	59:12	,16	30:10	,11		,22	
,18	59:12	,17	30:10	,12		,23	
,19	59:12	,18	30:10	,13		,24	
,20	59:12	,19	30:10	,14		,25	
,21	59:12	,20	30:10	,15		,26	
,22	60:12	,21	30:10			,27	
,23	60:12	,22	30:10	M.X004,1	21:09	,28	41:02
,24	74:12	,23	30:10	,2	21:09	,29	41:02
,25	74:12	,24	57:09			,30	41:02
,26	74:12	,25	57:09	M.X007,1	57:09	,31	41:02
,27	33:12	,26	75:09	,2	57:09	,32	41:02
,29	34:01	,27	75:09	,3	57:09	,33	41:02
,30	34:01	,28	56:09	,4	57:09	,34	
,31	34:01	,29	56:09	,5	57:09	,35	
,32	34:01	,30	56:09	,6	57:09	,36	

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ECN 71701 'O'
19981012 AIR

Position	Sheet	Position	Sheet	Position	Sheet	Position	Sheet
M.X007,37		X011,5	89:09	X011,35	89:09	X021,1	06:12
,38		,6	89:09	,36	89:09	,2	06:12
,39		,7	89:09	,37	89:09	,3	06:12
,40		,8	89:09	,38	89:09	,4	06:12
,41		,9	89:09	,39	89:09	,5	06:12
,42		,10	89:09	,40	89:09	,6	06:12
,43		,11	89:09	,41	89:09	,7	
,44		,12	89:09	,42	89:09	,8	
,45		,13	89:09	,43	89:09	,9	
,46		,14	89:09	,44	89:09	,10	
,47		,15	89:09	,45	89:09	,11	06:12
		,16	89:09	,46	89:09	,12	
M.X008,1	07:06	,17	89:09	,47	89:09		
,2	07:06	,18	89:09	,48	89:09	X024,1	06:12
,3	07:06	,19	89:09	,49	89:09	,2	06:12
,4	07:06	,20	89:09	,50	89:09		
		,21	89:09			X025,1	06:12
X009,1	32:12	,22	89:09	M.X014,1		,2	06:12
,2	32:12	,23	89:09	,2			
,3		,24	89:09	,3		M.X031,1	08:09
,4		,25	89:09	,4		,2	08:09
,5		,26	89:09	,5	39:02	,3	
,6		,27	89:09	,6	39:02	,4	
,7		,28	89:09	,7	39:02	,5	
,8		,29	89:09	,8	39:02	,6	
		,30	89:09	,9	39:02		
X011,1	89:09	,31	89:09	,10	39:02	M.X032,1	63:07
,2	89:09	,32	89:09	,11		,1-	63:07
,3	89:09	,33	89:09	,12		,2	63:07
,4	89:09	,34	89:09	,13		,2-	63:07

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Position	Sheet	Position	Sheet	Position	Sheet	Position	Sheet
M.X032,3	63:07	M.X033,7-	69:01	M.X035,1-	75:09	M.X039,2	19:09
,3-	63:07	,8	69:01	,2	75:09		
,4	63:07	,8-	69:01	,2-	75:09	M.X040,1	18:05
,4-	63:07	,9		,3	33:12	,2	18:05
,5	64:06	,9-		,3-	33:12		
,5-	64:06	,10		,4	33:12	M.X050,1	20:10
,6	68:04	,10-		,4-	33:12	,2	20:10
,6-	68:04			,5	33:12		
,7	68:04	M.X034,1	61:09	,5-	33:12	M.X055,1	20:10
,7-	68:04	,1-	61:09	,6	76:01	,2	20:10
,8	68:04	,2	61:09	,6-	76:01		
,8-	68:04	,2-	61:09	,7	76:01	X071,1	14:06
,9	68:04	,3	61:09	,7-	76:01		
,9-	68:04	,3-	61:09	,8	76:01	M.X071,1	14:06
,10	68:04	,4	61:09	,8-	76:01		
,10-	68:04	,4-	61:09	,9	76:01	X072,1	14:06
		,5	61:09	,9-	76:01		
M.X033,1	68:04	,5-	61:09	,10	76:01	M.X072,1	14:06
,1-	68:04	,6	61:09	,10-	76:01		
,2	68:04	,6-	61:09			X073,1	15:06
,2-	68:04	,7	61:09	M.X037A,1	19:09		
,3	68:04	,7-	61:09	,2	19:09	M.X073,1	14:06
,3-	68:04	,8	61:09				
,4	69:01	,8-	61:09	M.X037B,1	19:09	M.X074,1	14:06
,4-	69:01	,9	62:09	,2	19:09		
,5	69:01	,9-	62:09			M.X075,1	15:06
,5-	69:01	,10	62:09	M.X038,1	18:05		
,6	69:01	,10-	62:09	,2	18:05	M.X095,1	42:08
,6-	69:01					,2	42:08
,7	69:01	M.X035,1	75:09	M.X039,1	19:09	,3	42:08

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Position	Sheet	Position	Sheet	Position	Sheet	Position	Sheet
M.X095,4	42:08	X100,29	14:06				
		,30					
X100,1		,31	15:06				
,2		,32	15:06				
,3		,33	15:06				
,4		,34					
,5							
,6		X300,PE	05:12				
,7		,1	05:12				
,8		,2	05:12				
,9		,3	05:12				
,10		,4					
,11		,5	05:12				
,12		,6	05:12				
,13		,7	05:12				
,14		,8					
,15		,9	05:12				
,16		,10	05:12				
,17		,11	05:12				
,18	14:06	,12					
,19	15:06	,13	05:12				
,20		,14	05:12				
,21	14:06	,15	05:12				
,22	15:06	,16					
,23							
,24	14:06						
,25	15:06						
,26							
,27	14:06						
,28	14:06						

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AM-NO	DRAWING-NO.	ALTERATIONS
22530	BE-649452-010V	DOCUMENTATION RELEASED.
22940	FOR CHANGES ON LISTS, SEE APPENDIX.	
	44384-02:02	POSITION SUMMARY CHANGED ACCORDING TO CIRCUIT DIAGRAM.
	44384-05:02	1)TEXT IS CHANGED FROM 61404-05:01 TO 61531-05:01 AND 61404-06:01 TO 61531-06:01. NOTE 61531-07:01 IS ADDED. 2)COLOR NEUTRAL CABLE IS CHANGED TO L.BLU. 3)Q001 ELECTRICAL SYMBOL IS UPDATED.
	44384-06:02	L003 NOTE IS REMOVED. L050 NOTE IS CHANGED TO L005.
	44384-08:02	K200 PIN 4: A202:18 REFERENCE IS CHANGED TO A202:17.
	44384-10:02	M.M016 NOTE IS CHANGED TO M016.
	44384-16:02	A, B, C NOTES UNDER F005 ARE REMOVED.
	44384-21:02	A105:14 REFERENCE IS CHANGED TO A105:13.
	44384-24:02	M.B043 PIN IS ADDED. M.B043:1 AND :2 DESCRIPTIONS ARE EXCHANGED.
	44384-29:02	STERILIZER CIRCUIT DIAGRAM IS UPDATED.
	44384-32:02	M.E011 NOTE IS REMOVED.
	44384-39:02	ALL INPUT NUMBER ARE CHANGED IN THREE DIGIT. M.B008 WIRING COLOR ARE CHANGED.
	44384-41:02	A305:151 REFERENCE IS CHANGED TO A305:15.
	44384-47:02	SHEET DENOMINATION IS CHANGED.

AM-NO	DRAWING-NO.	ALTERATIONS
	44384-57:02	MOTOR SWITCH AUXILIARY CONTACT REFERENCES ARE ADDED.
	44384-64:02	M.B110 DESCRIPTION IS ADDED.
	44384-71:02	SHEET DENOMINATION IS CHANGED.
	44384-90:02	LINE SUMMARY CHANGED ACCORDING TO CIRCUIT DIAGRAM.
	44384-91:02	TERMINAL SUMMARY CHANGED ACCORDING TO CIRCUIT DIAGRAM.
	44384-99:02	ALTERATION MESSAGES IS UPDATED: PAG.1 : THE PAGE IS CHANGED. PAG.2,3: THE PAGES ARE ADDED.
	47820-01:02	NEW CROSS REFERENCE LIST
	47820-03:02	VOLUME ADAPTION IS UPDATED: PAG.1 : 250cc AND 250cc S SETTINGS FOR SPEED 6000 P/H ARE INTRODUCED. PAG.2 : 250cc AND 250cc S SETTINGS FOR SPEED 6000 P/H ARE INTRODUCED. PAG.3 : 250cc SETTINGS FOR SPEED 7500 P/H ARE INTRODUCED. IN 200cc S SPEED 7500 P/H THE LAST FOUR SETTINGS (0,4,0,0) BECOME 0000H,0001H,0083H, 0064H. IN 250cc S SPEED 7500 P/H THE LAST THREE SETTINGS (0004H,0000H,0000H) BECOME 0001H, 0083H,0064H. PAG.4 : 250cc SETTINGS FOR SPEED 7500 P/H ARE INTRODUCED. IN 200cc S AND 250cc S SPEED 7500 P/H, FIRST SETTINGS (260 AND 235) BECOME 280 AND 255. 200cc S AND 250cc S SPEED 7500 P/H, ARE ADDED RUNG 8 REFERENCE INSTRUCTIONS R744 AND R745 SETTINGS 4 AND 12.

Note	A				Drawing remarks
ECN No.	71701				
Sign./Date	ALPO/980930				
Appr./Date	AIR/980930				

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO Date 980930 | Approved AIR Date 980930 | Doc. class –

Machine: TBA/19-0101

Denomination: ALTERATION MESSAGES

Drawing No: 44384-99:12

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AM-NO	DRAWING-NO.	ALTERATIONS
	47820-05:02	RUNG 4: REMOVED RUNG 5: %M0033 REPLACED BY %S0001, OFF %M0033 ADDED IN PARALLEL WITH %I0149, -(R) %Q0022 REPLACED BY -(/).
	47820-06:02	RUNG 10: ON %Q0015 INTODUCED IN PARALLEL WITH %M0081.
	47820-07:02	RUNG 27: RANGE VALUES ALTERED CONST0004 AND CONST0012 TO %R0744 AND %R0745.
	47820-13:02	RUNG 22: ON %T0058 IN SERIES WITH ON %Q0070 ADDED IN PARALLEL WITH %T0009, %T0093 REPLACED BY %Q0003. RUNG 23: REMOVED.
	47820-14:02	RUNG 8: %I0130 REMOVED. RUNG 23: CONSTANT 100 CHANGED TO %R0014. RUNG 30: %T0058, %Q0070, %M0057 AND %T0009 REPLACED BY OFF % Q0004. RUNG 31: CONSTANT 131 CHANGED TO %R0013.
	47820-21:02	RUNG 7: ON %M0056 INTODUCED IN PARALLEL WITH %M0055. RUNG 33: ON %I0022 INTRODUCED, ON %M0320 REMOVED.
	47820-22:02	RUNG 18: %T0012 REPLACED BY %M0081. RUNG 19: REMOVED. RUNG 20: REMOVED. RUNG 21: %M0081 REPLACED BY %S0007. RUNG 22: ON %M0072 INTRODUCED IN SERIES WITH RANGE. RUNG 28: %M0073 REMOVED. RUNG 35: OFF %M0073 INTRODUCED IN SERIES WITH %M0672.
	47820-25:02	RUNG 5: MOVED TO NEW RUNG 11. RUNG 6: ON %I0157 REMOVED. RUNG 8: ON %I0152 INTRODUCED. RUNG 9: REMOVED. RUNG 10: OFF %M0351, %M0354, %I0120 REMOVED AND ON %IT0016, %I0152, %I0150, %Q0046, %M0355, OFF %I0052 INTRODUCED. RUNG 20: GREATER/EQUAL %R0737 -CONST110 INTRODUCED BEFORE TMR%R0575.

AM-NO	DRAWING-NO.	ALTERATIONS
	47820-26:02	RUNG 5: %T0041 REMOVED. NEW RUNG AFTER 5 INTRODUCED: ON %M0084, EQUAL %R0518 CONST11600, -(SM) %M0106.
	47820-35:02	RUNG 5: IN5/%R0008 ALTERED TO 1 (WAS 8), IN6/%R0008 NEW VALUE 83, IN7/%R0008 NEW VALUE 64, GREATER/EQUAL %R0737 -CONST110 INTRODUCED RUNG 8: EDITED NEW RUNG.
	52710-12:02	IN VIEW HOW TO CONNECT THE CABLE TO THE RACK, THE PRESSOR GLAND IS MOVED RIGHT OF THREE HOLES.
	61530-12:02	STERILIZER CIRCUIT DIAGRAM IS UPDATED.
	61530-19:02	M.B043 PIN IS ADDED. M.B043:1 AND :2 DESCRIPTIONS ARE EXCHANGED.
	61530-21:02	W313 IS CHANGED ACCORDING TO CIRCUIT DIAGRAM.
	61530-23:02	W108 CABLE N.6 IS CONNECTED TO M.X007:12.
	61530-24:02	W108 CABLE N.11 IS CONNECTED TO M.X007:19 AND N.12 IS CONNECTED TO M.X007:27.
	61530-27:02	EARTH BEFORE X001:275 AND X001:279 ARE DELETED.
	61530-30:02	1)EARTH BEFORE X001:322 IS DELETED. 2)M.B108 PIN NUMBERING IS CORRECTED ACCORDING TO CIRCUIT DIAGRAM.
	61530-32:02	EARTH BEFORE X001:336 IS MOVED AFTER X001:340.
	61530-52:02	CABLES CONNECTIONS TO M.S005 ARE CORRECTED ACCORDING TO CIRCUIT DIAGRAM
	61531-06:02	NOTE ABOUT F001 IS ADDED.

Note	A				
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Tetra Pak

Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class -
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Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-99:12			Page 2/15

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AM-NO	DRAWING-NO.	ALTERATIONS
	582127-0001	EARTH TERMINAL ARE ADDED BETWEEN 385 AND 386, BETWEEN 397 AND 398, BETWEEN 409 AND 410, AFTER 438. EARTH TERMINAL ARE REMOVED BETWEEN 432 AND 433, BETWEEN 434 AND 435, BETWEEN 436 AND 437. ENDPLATE POS.25 IS REMOVED. MATERIAL CHANGE ACCORDING TO THIS MODIFICATION.
	582132	NEW POSITIONING OF MOTOR SWITCH DUE TO: NEW Q011 ON OLD Q012, NEW Q010 ON OLD Q011, NEW Q008 ON OLD Q010, OLD Q009 AND Q008 SPARE, NEW Q012 ON OLD Q012, NEW Q009 AFTER OLD Q007, NEW Q007 BEFORE Q006. ECN NUMBER REFRENCE IS UPDATING.
23109	FOR CHANGES ON LISTS, SEE APPENDIX.	
	44384-02:03	POSITION SUMMARY CHANGED ACCORDING TO CIRCUIT DIAGRAM.
	44384-14:03	R001 AND R002 PIN'S NOTES ARE ADDED.
	44384-27:03	X001:195 AND X001:196 ARE EXCHANGED.
	44384-32:03	ELECTRICAL "CADEX" ATTRIBUTE UNDER R005 IS CHANGED.
	44384-89:03	X011:28 CABLE TEXT IS CHANGED.
	44384-90:03	LINE SUMMARY CHANGED ACCORDING TO CIRCUIT DIAGRAM.
	44384-91:03	TERMINAL SUMMARY CHANGED ACCORDING TO CIRCUIT DIAGRAM.
	44384-99:03	ALTERATION MESSAGES IS UPDATED: PAG.1,2: NEW VOLUME 200cc S IS ADDED. PAG.3,4: NEW VOLUME 125cc S IS ADDED.

AM-NO	DRAWING-NO.	ALTERATIONS
	47820-01:03	NEW CROSS REFERENCE LIST
	47820-03:03	VOLUME ADAPTION IS UPDATED: PAG.1,2: THE PAGES FRAME IS CHANGED ACCORDING TO NEW PART NUMBER. PAG.3 : 125cc S SETTINGS FOR SPEED 7500 P/H ARE INTRODUCED. PAG.4 : 125cc S SETTINGS FOR SPEED 7500 P/H ARE INTRODUCED. ADDED RUNG 8 REFERENCE INSTRUCTION R0743 SETTING 14 (125cc), 10 (200cc S), 10 (250cc), 10 (250cc S).
	47820-07:03	RUNG 8: %Q0015 REPLACED BY %T0058.
	47820-09:03	RUNG 7: %M0083 REPLACED BY %M0416.
	47820-10:03	RUNG 24: ON %Q0015 IN SERIES WITH ON %Q0070 ADDED IN SERIES WITH %M0421.
	47820-17:03	RUNG 6: UPCOUNTER PV CONSTANT 10 CHANGED TO %R0743.
	47820-21:03	RUNG 37: RUNG COMPLITELY UPDATED; NEW RUNG IS: ON %Q0053 SERIES WITH OFF %I0149, OFF %I0058 SERIES WITH OFF %M0083 AND ON %M0069, ON %T0002 SERIES WITH OFF %I0028, ARE IN PARALLEL WITH ON %M0681, %T0054 AND ON %Q0046; THIS PARALLEL IS IN SERIES WITH OFF %I0009 AND OFF %T0063: %Q0053. RUNG 38: %M0103 REPLACED BY %Q0053. RUNG 39: REMOVED.
	47820-35:03	RUNG 8: MOVE CONST10 -%R0743 INTRODUCED.
	582132	F104 TEXT IS CHANGED TO "STRIP SPLICE".

Note	A				
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Appr./Date	AIR/980930				Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class -
Machine TBA/19-0101	Denomination ALTERATION MESSAGES			
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AM-NO	DRAWING-NO.	ALTERATIONS
22817	FOR CHANGES ON LIST: SEE APPENDIX	
	44384-02:04	IT'S UPDATED.
	44384-07:04	CONNECTION REFERENCE IS ADDED ON F003
	44384-10:04	ΩHE LETTER OF CONNECTION REFERENCE ON Q004:5 Q006:5,Q007:5, Q009:5, Q012:5 IS CHANGED.
	44384-11:04	THE LETTER OF CONNECTION REFERENCE ON Q011:1 Q013:1 IS CHANGED.
	44384-12:01	THE LETTER OF CONNECTION REFERENCE ON F004:2 IS CHANGED.
	44384-14:04	THE LETTER OF CONNECTION REFERENCE ON F102-C:2 IS CHANGED.
	44384-17:04	CONNECTIONS REFERENCE ARE CHANGED.
	44384-23:04	NUMBER IN NOTE 2 IS CHANGED.
	44384-45:04	CONNECTION REFERENCE ON INPUT 65 IS DELETED.
	44384-63:04	THE DESCRIPTION OF K013 IS RENAMED.
	44384-68:04	THE DESCRIPTION OF M.Y017 IS CORRECTED.
	44384-73:04	THE DENOMINATION OF THE PAGE IS CORRECTED.
	44384-90:04	IT'S UPDATED.
	44384-91:04	IT'S UPDATED.
	44384-99:04	ALTERATION MESSAGE IS UPDATED. PAGE 4 IS ADDED AND THE PAGES ARE RENAMBERED
	47820-03:04	PAG. 1,2: NEW VOLUME 125CC S AND 200CC FOR 6000 P/H ARE ADDED.
		PAG. 3 1 VALUE, IN VOL.125CC FOR 7500 P/H IS CHANGED

AM-NO	DRAWING-NO.	ALTERATIONS
	52710-13:04	THIS PAGE IS ADDED.
	52710-20:04	THE REFERENCE OF PACKAGE COUNTER IS CORRECTED.
	52710-40:04	LAMP E3 AND M.B233 ARE DELETED.
	52710-41:04	X76 RENAMED IN X75; E4 IS RENAMED IN E3; X8 IS DELATED.
	52710-50:04	THICKNESS OF CIRCLE OF CABLE 108 IS CHANGED.
	52710-52:04	THICKNESS OF CIRCLES OF CABLES 404 AND 434 ARE CHANGED.
	61530-21:04	TERMINAL BLOCK 200 IS DELATED.
	61530-44:04	EARTH TERMINAL BLOCK IS DELATED.
	61530-51:04	BRIDGE ARE ADDED.
	582130	THE LENGHT OF POSITION 16 IS CHANGED.
22893	FOR CHANGES ON LIST: SEE APPENDIX	
	44384-02:04	LINE SUMMARY IS UPDATED.
	44384-05:05	SECTION OF NEUTRAL WIRE IS ADDED.
	44384-10:05	CONNECTION OF UNREELING MOTOR ARE CHANGED; NOTES ARE ADDED.
	44384-12:05	CONNECTION OF BENDING ROLLER ARE CHANGED; NOTES ARE ADDED.
	44384-17:05	FERRITE POS.Z004-Z005-Z006 ARE ADDED ON POWER SUPPLY OF POWER UNITS.

Note	A				
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Appr./Date	AIR/980930				Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class -
Machine TBA/19-0101	Denomination ALTERATION MESSAGES			
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AM-NO	DRAWING-NO.	ALTERATIONS
	44384-18:05	CONNECTION TO EARTH IS ADDED ON A200 AND A201
	44384-19:05	CONNECTION TO EARTH IS ADDED ON A202 AND A203
	44384-20:05	CONNECTION TO EARTH IS ADDED ON A204 AND A205
	44384-21:05	CONNECTION TO EARTH IS ADDED ON A206 AND A207
	44384-23:05	EARTH SYMBOL IS CHANGED
	44384-37:05	TEXT 1007 IS CORRECTED.
	44384-89:05	TEXT RECTANGLES RACK 010 AND RACK 020 ARE CORRECTED.
	44384-90:05	NUMBER VERSION OF THE LINE SUMMARY IS UPDATED
	44384-91:05	TERMINAL SUMMARY IS UPDATED.
	44384-99:05	ALTERATION MESSAGE IS UPDATED. PAGE 5 IS ADDED AND THE PAGES ARE RENUMBERED
	52710-10:05	THE SHIELD CONNECTION IS SHOWN.
	61530-05:05	M.M014 CONNECTIONS AND M.X014 ARE DELETED.
	61530-06:05	M.M013 CONNECTIONS ARE DELETED.
	61530-25:05	TERMINAL BLOCKS OF M.X014 ARE ADDED.
	61530-52:05	COLOR OF CABLE W620 ARE CORRECTED AND THE CABLE NUMBERS ON W605 ARE CORRECTED
	61530-55:05	NEW PAGE
	582127-0001	NINE TERMINAL BLOCKS WDU 2,5 MM ARE REPLACED WITH WDU 4MM.
70019	44384-02:06	POSITION SUMMARY IS UPDATING.
	44384-05:06	TEXT ABOUT WIRE IS CHANGED.
	44384-06:06	NOTE IN DRAW. REMARKS IS ADDED.
	44384-07:06	1 CONTACT OF CONTACTOR K5 IS ADDED
	44384-08:06	NOTE IN DRAW. REMARK IS CORRECTED.
	44384-10:06	NOTE IN DRAW. REMARK IS CORRECTED.
	44384-12:06	SYMBOL EARTH CHANGE TO EARTH TO CHASSIS
	44384-14:06	NOTE IN DRAW. REMARK IS CORRECTED.
	44384-15:06	NOTE IN DRAW. REMARK IS CORRECTED.
	44384-21:06	M.X036 IS DELETED.
	44384-37:06	L20 AND L21 CHANGE TO L10 AND L12. NEW INPUT 1002 IS USED.
	44384-38:06	L21 IS CHANGED TO L12. S511 IS ADDED LIKE EXTRA EQUIPMENT.
	44384-45:06	NEW IMPUT 1072 IS USED.
	44384-46:06	DESCRIPTION OF INPUTS ARE ADDED.
	44384-56:06	1126 AND 1127 ARE RESERVED FOR CUSTOMER.
	44384-64:06	Q032 IS RESERVED FOR CUSTOMER.
	44384-65:06	PAGE NOTE OF K005 IS ADDED.
	44384-70:06	Q080 IS RESERVED FOR CUSTOMER.
	44384-72:06	P500 AND P501 ARE ADDED LIKE EXTRA EQUIPMENT.
	44384-73:06	DESCRIPTION OF OUTPUT ARE ADDED.
	44384-75:06	NEW CONNECTIONS ON CHAIN OF SPLICE UNIT DOORS IS ADDED.
	44384-90:06	LINE SUMMARY IS UPDATED.
	44394-91:06	TERMINAL SUMMARY IS UPDATED.
	44384-99:06	ALTERATION MESSAGE IS UPDATED,PAGE 6 IS ADDED

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Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO Date 980930 | Approved AIR Date 980930 | Doc. class -

Machine: TBA/19-0101

Denomination: ALTERATION MESSAGES

Drawing No: 44384-99:12

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AM-NO	DRAWING-NO.		ALTERATIONS
	47820-		RUNGS, FUNCTION AND TEXT ALTERED IN FOLLOWING BLOCKS:01,05,06,07,09,10,13,14,15, 17,18,19,21,22,23,26 AND 35. TEXT CHANGES IN FOLLOWING BLOCKS:02,11,25 AND 30.
	47820-03:06		DOCUMENT IS DELETED AND CHANGE NUMBER TO 90.
	47820-04:06		DOCUMENT IS DELETED AND CHANGE NUMBER TO 91.
	47820-90:06		NEW LAYOUT WITH ALL VOLUME; VOLUMES DATA ARE UPDATE.
	47820-91:06	SH.03	FUNCTION OF K005, Y26, Y102 ARE CHANGED.
		SH.04	Q16 CHANGED TO Q61; K102 IS DELETED AND FUNCTION OF K004,K014,K100 ARE CHANGED.
		SH.05	FUNCTION OF K009,Y5,Y6,Y108,K015 ARE CHANGED
	52710-09:06		LAYOUTH IS CHANGED AND P500,P501,S511 ARE SHOWN LIKE EXTRA EQUIPMENT.
	52710-10:06		SCREWS OF PROTECTIVE EARTH AND THE CONNECTION ARE CHANGED.
	52710-11:06		PICTURE SHOWN THE CONNECTION OF PROTECTIVE EARTH IS ADDED.
	52710-12:06		THE CONNECTION OF PROTECTIVE EARTH IS ADDED.
	52710-53:06		CABLE 600 IS CHANGED TO 601.
	61530-21:06		WIRE TO TERMINAL BLOK 203 IS CORRECTED.
	61530-31:06		NOTE OF Y012 IS CORRECTED.
	61530-52:06		WIRE TO TERMINAL BLOK 528 IS CORRECTED.
	61530-54:06		CONNECTORS OF A508 ARE CORRECTED.
	61531-05:06		NOTE UNDER TRASFORMER IS CORRECTED.
	582132		NOTE F103C IS CORRECTED, LAYOUT IS CHANGED AND NOTE OF EXTRA EQUIPMENT IS ADDED.
	582136		ALL POSITION ARE RENUMBERED, AND THE TP NUMBER OF Z001 IS LISTED IN EL. CABINET.
	582137		TP NUMBER OF POS. :4 IS CHANGED.
	979968		NEW DRAWING.
70256	44384-02:07		POSITION SUMMARY IS UPDATED.
	44384-10:07		IN NOTE 1 CHANGE 52722 TO 52710.
	44384-11:07		CONNECTION REFERENCE FROM Q0013 TO L4 IS CHANGED.
	44384-12:07		CONNECTION REFERENCE BETWEEN F004 TO L4 IS CHANGED. NOTE 1 CHANGED.
	44384-17:07		NOTE 1 IS ADDED.
	44384-19:07		THE CONTACTS OF K101 ARE CHANGED.
	44384-32:07		K111 CHANGED.
	44384-35:07		ONE CONTACT OF K111 IS ADDED.
	44384-57:07		ELECTRICAL SYMBOL ON LINE OF 1130 ARE REDRAWN
	44384-59:07		LINE REFERENCE OF X001:306 IS CHANGED.
	44384-62:07		THE CONTACTS OF K111 ARE CHANGED.
	44384-63:07		THE CONTACTS OF K111 ARE CHANGED.
	44384-66:07		K101 CHANGED.
	44384-99:07		ALTERATION MESSAGES IS UPDATEDPAGE 7 IS ADDED
	47820-01:07		NEW CROSS REFERENCE LIST. RUNG 9: %M0480 IS ADDED. RUNG 49: %M0320 AND %T0059 ARE ADDED.RUNG 58: IS MOVED AFTER RUNG 55 RUNG 57: %I0149 CHANGED TO %T0016. RUNG 63: %M0050 REPLACED BY %M0049 AND %M0065
	47820-06:07		RUNG 8: %I0054 CHANGED TO %I0055. RUNG 14: %Q0019 CHANGED TO %M0067. RUNG 28: %M0057 IS ADDED.
	47820-07:07		RUNG 06: %M0654 AND.%M0656 ARE ADDED. RUNG 13-14-15-16-17-18 ARE DELETED. NEW RUNG 13: (P-) %T0098 IS ADDED. NEW RUNG 14: (P+) %T0099 IS ADDED. RUNG 15: %T0099 CHANGED TO %T0098.
	47820-10:07		RUNG 22: %M0689 AND %M0550 ARE DELETED. %M0420,%Q0104 AND %T0102 ARE ADDED.
	47820-11:07		RUNG 4: %M0054 AND %M0320 ARE ADDED. RUNG 7: %M0082 IS DELETED. RUNG 11: %M0082 IS ADDED. RUNG 14: %M0053 AND %Q0065 ARE ADDED

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AM-NO	DRAWING-NO.	ALTERATIONS
	47820-13:07	RUNG 12: %480 IS ADDED.
	47820-14:07	RUNG 14: CONSTANT 300 CHANGED TO 700. RUNG 17: %M0168 AND %M0054 IS ADDED. RUNG 42: %M0065 AND %T0042 ARE ADDED. RUNG 43: OFF %I0020IS ADDED BEFORE %M0049.
	47820-15:07	RUNG 29: %Q0072 IS DELETED; MOVE_INT IS ADDED,CONST.00000 AND Q %R0065. NEW RUNG 30: (S)%M0075 IS ADDED.
	47820-17:07	RUNG 13: %M0684 CHANGETO %M0107. NEW RUNG 14: %M0684 IS ADDED.
	47820-18:07	RUNG 4: ()%Q0105 COMPLETELY CHANGED. RUNG 5: COMMENT IS ADDED. RUNG 6: OFDT%R0297 IS ADDED. RUNG 7: %I0062, %M0167 AND %M0057 ARE ADDED. RUNG 8: CONST. 00140 CHANGED TO 00160, COIL DESCRIPTION CHANGED. NEW RUNGS: 19,20,21,22 ARE ADDED.
	47820-19:07	RUNG 24: COST.00116 CHANGED TO 00095. RUNG 25: LE__INT IS ADDED.
	47820-21:07	RUNG 5 COMPLETELY CHANGED. RUNG 17: %M0338 MOVED. RUNG 21: CONST. 00080 CHANGED TO 00110
	47820-22:07	RUNG 37: %M0684 CHANGED TO %M0107 AND %T0015 REMOVED. RUNG 47: %I0032, %M0051 AND %M0052 ARE ADDED
	47820-30:07	RUNG 127: %T0052 CHANGED TO OFF %M1004; AFTER OFF %M0550 IS ADDED. RUNG 128 IS ADDED.
	47820-35:07	RUNG 8: MOVE_INT IS ADDED. RUNG 14: MOVE_INT IS ADDED.

AM-NO	DRAWING-NO.	ALTERATIONS
	47820-90:07SH. 1/4	125S: R170 IN3,R8 IN1,R8 IN4 ARE CHANGED. 200B,200S,250B,250S: R170 IN3 IS CHANGED.
	SH. 2/4	125S,200B,200S,250B,250S:R270 CONST. IS CHANGED AND R298 CONST. IS ADDED.
	SH. 3/4	100B,125S,160S,200B,200S,250B,250S,284B,300S, 330S:R170 IN3 IS CHANGED.100B:R8 IN1 IS CHANGED. 125S:R8 IN1 AND R8 IN4 ARE CHANGED. 160S:R1IN7,R8 IN3 AND R8 IN4 ARE CHANGED.250S R1 IN3 IS CHANGED.
	SH. 4/4	160S:R178 CONST. AND R270 CONST. ARE CHANGED. 100B,125S,200B,200S,250B,250S,284B,300S,330S: R270 CONST. IS CHANGED AND R298 IS ADDED.
	52710-07:07	LAYOUT OF THE CHASSIS A508 IS CHANGED.
	52710-08:07	ONE CABLE DUCT IS ADDED CLOSE TO X001:3. M003 AND M002 CHANGE POSITION INTO THE LAYOUT.
	52710-09:07	NOTE 2 AND RELATIVE ELEMENT ARE ADDED.
	52710-14:07	THIS PAGE IS ADDED.
	52710-41:07	POS. B110 IS ADDED AND R37,R35 ARE REPOSITIONED.
	52710-50:07	TWO NOTES ARE ADDED AND ONE PG9 CHANGE TO PG16. THE QUANTITY OF POS.5 AND 6 ARE CORRECTED.
	52710-51:07	TWO NOTES ARE ADDED.
	52710-52:07	TWO NOTES ARE ADDED.
	52710-53:07	THE LAIOUTH OF PLATE IS CHANGED; AND TWO NOTES ARE ADDED.
	61530-25:07	WIRES BETWEEN 5 TO 11 ARE SHOWN (CABLE 310).
	582127-0001	POS 5 IS CORRECTED.
	582127-0002	POS 4 IS CORRECTED.
	582127-0003	POS 7 IS CORRECTED.
	582131	POS. 4 IS CORRECTED.
	582132	THE NOTE OF F104 IS CORRECTED.
70486	FOR CHANGES ON LISTS,	SEE APPENDIX. THE BIGGEST MODIFICATION ARE DUE TO ELECTRICAL RESTRUCTURING, ACCORDING TO "R/3 BILL OF MATERIALS RESTRUCTURING GUIDELINE", ISSUE 96/10/11.
	44384-02:08	IT IS UPDATED.

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Company: Tetra Brik R.& D. S.p.A.

Designer ALPO Date 980930 | Approved AIR Date 980930 | Doc. class -

Machine: TBA/19-0101

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AM-NO	DRAWING-NO.		ALTERATIONS
	44384-42:08		CONNECTOR ON M.B095 IS ADDED.
	44384-90:08		IT IS UPDATED.
	44384-91:08		IT IS UPDATED.
	44384-99:08		ALTERATION MESSAGES IS UPDATED:
		PAG.7	: THE PAGE IS CHANGED.
		PAG.8	: THE PAGE IS ADDED.
		PAG.9	THE PAGE IS ADDED.
	47820-01:08	RUNG 26	%I0011 IS ADDED.
		RUNG 35	IT IS REMOVED;(OLD36) TMR536 REMOVED,%M097 AND RANGE ADDED.
		RUNG 66	(OLD67) %M0057 ADDED.
	47820-02:08	RUNG 19	NEW RUNG 19 IS ADDED.
	47820-05:08	RUNG 10	NE_INT ADDED.
		RUNG 11	IT IS NEW,%M0100,GE_INT %M0095 ADDED.
	47820-13:08	RUNG 06	%M0082 ADDED.
	47820-17:08	RUNG 4	GE_INT ADDED.
		RUNG 7	%Q0084 REMOVED%M0056 ADDED.
		RUNG 13	%T0015 REMOVED %M0300 ADDED.
		RUNG 14	%M0056 ADDED,CONST 2 ALTERED TO CONST. 3.
		RUNG 15	IT IS NEW; %M0056,%M0018,GE_INT,%M0064 ADDED
	47820-19:08	RUNG 05	OR %R0083 REMOVED, %T0016,%M0300 AND <+> ADDED.
		RUNG 06	REMOVED. (OLD7) %M0027REMOVED,<+>,OR %R0083 ADDED.
		RUNGS7-10	BEFORE (OLD 8) ADDED.
		RUNG 21	(OLD 18) %M0300 AND TMR %494 CONST. 65 ADDED
		RUNGS22-25	NEWS RUNGS ADDED (BEFORE OLD 19).
		RUNG 29	(OLD 22) %M0510,%M0510 AND %T0136 ADDED.
	47820-21:08	RUNG 21	%M0300 ADDED.
		RUNG 22	NEW RUNG ADDED.

AM-NO	DRAWING-NO.		ALTERATIONS
	47820-22:08	RUNG 30	%M0338 ADDED.
		RUNG 32	%M0338 ADDED.
		RUNG 37	%I0130,%I0133,%M0690 AND %M0664 REMOVED. %M0095 AND %T0015 ADDED.
	47820-35:08	RUNG 06	CONST.340 ALTERED TO 145 %R0537 NEW FUNCTION.
		RUNG 12	CONST.340 ALTERED TO 145 %R0537 NEW FUNCTION.
		RUNGS16-17	NEW RUNGS ADDED.
	47820-90:08	SH.1/6	125S: R170-IN1/IN2 ARE CHANGED;R001-IN1.
		SH.2/6	R121 IN1 TO R128 IN3 ARE ADDED.
		SH.3/6	RENUMBERED AND R128 IN4 IS ADDED.
		SH.4/6	VOLUME 200M IS ADDED.
		SH.5/6	VOLUME 200M AND R121IN1 TO R128 IN3 ARE ADDED.
		SH.6/6	IT IS ADDED. R128 IN4 IS ADDED.
	52710-41:08		M.X95 IS ADDED.
	52710-50:07		BECOME NEW 1279813,AB
	52710-51:07		BECOME NEW 1279814,AA
	52710-52:07		BECOME NEW 1279815,AB
	52710-53:07		BECOME NEW 1279816,AA DELETED POS.3.
	61530-20:08		OLD SENSOR DASHED, NEW WITH CONNECTOR ON.
	582127-0001		BECOME NEW 1279810,AA
	582127-0002		BECOME NEW 1279811,AA
	582127-0003		BECOME NEW 1279812,AA
	582128,AB		REDRAWN DUE TO ELECTRICAL RESTRUCTURING.
	582129,AB		REDRAWN DUE TO ELECTRICAL RESTRUCTURING.
	582130,AC		REDRAWN DUE TO ELECTRICAL RESTRUCTURING.

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AM-NO	DRAWING-NO.	ALTERATIONS
	582131,AC	REDRAWN DUE TO ELECTRICAL RESTRUCTURING.
	582136,AC	REDRAWN DUE TO ELECTRICAL RESTRUCTURING.
	582137,AC	REDRAWN DUE TO ELECTRICAL RESTRUCTURING.
	1279810,AA	IT WAS OLD 582127-0001; REDRAWN DUE TO ELECTRICAL RESTRUCTURING.
	1279811,AA	IT WAS OLD 582127-0002; REDRAWN DUE TO ELECTRICAL RESTRUCTURING.
	1279812,AA	IT WAS OLD 582127-0003; REDRAWN DUE TO ELECTRICAL RESTRUCTURING.
	1279813,AB	IT WAS OLD 52710-50:07; REDRAWN DUE TO ELECTRICAL RESTRUCTURING.
	1279814,AA	IT WAS OLD 52710-51:07; REDRAWN DUE TO ELECTRICAL RESTRUCTURING.
	1279815,AB	IT WAS OLD 52710-52:07; REDRAWN DUE TO ELECTRICAL RESTRUCTURING.
	1279816,AA	IT WAS OLD 52710-53:07; REDRAWN DUE TO ELECTRICAL RESTRUCTURING.
	582132,AE	UPDATED ACCORDING ASU REQUIREMENTS.
70943	FOR CHANGE ON LISTES,	SEE APPENDIX.
	44384-02:09	IT IS UPDATE.
	44384-06:09	P005, X017, X018 AND CHANGE CONTACT OF K107 AND K108 ARE REMOVED;CONNECTION REFERENCE ARE UPDATED.
	44384-08:09	CHANGED FOR P-CADEX CLEANING.
	44384-19:09	REFERENCE X016:15 AND X016:14 ARE CHANGED TO P005:9 AND P005:8.
	44384-20:09	REFERENCE X016:13 AND X016:12 ARE CHANGED TO P005:6 AND P005:5.
	44384-21:09	REFERENCE X016:11 AND X016:10 ARE CHANGED TO P005:3 AND P005:2.
	44384-29:09	REFERENCE K108:2 IS CHANGEG TO A111:17; REFERENCE A117:04 IS DELETED AND TERMINAL X001:113 IS CONNECTED TO L11.
	44384-31:09	P16, CONTACT OF K103, K104 AND K015 ARE DELETED; P005 AND CONTACT OF K019 AND K106 ARE ADDED; CONNECTION OF K103, K110 AND K011 ARE CHANGED.
	44384-32:09	REFERENCE 0V ABOUT L50 IS CHANGED TO N.
	44384-33:09	ARE UPDATE M.B080:1 AND M.B080:2 DESCRIPTION; REFERENCE A001:10 SH.12 IS CORRECTED TO A001:12 SH.12.
	44384-56:09	CONNECTION OF A111:17 AND REFERENCE X001:114 SH.33 ARE ADDED.
	44384-57:09	PIN NUMERATION 11 AND 12 OF M.B015 ARE CHANGED TO 23 AND 24.
	44384-61:09	M.Y129 IS ADDED.
	44384-62:09	SHEET 31 OF K019 SHEET REFERENCE IS ADDED.
	44384-65:09	SHEET 31 OF K015 SHEET REFERENCE IS DELETED.
	44384-66:09	SHEET 31 K106 OF SHEET REFERENCE IS ADDED; SHEET 31 OF K104 SHEET REFERENCE IS DELETED; SHEET 6 OF K107 SHEET REFERENCE IS DELETED.
	44384-67:09	K108 AND SHEET 35 OF K103 SHEET REFERENCE ARE DELETED.
	44384-75:09	PIN NUMERATION 3 AND 4 OF M.Y109 ARE CHANGED TO A2 AND A1.

Note	A				Drawing remarks
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AM-NO	DRAWING-NO.	ALTERATIONS
	44384-89:09	REFERENCE X016:1 IS CHANGED TO P005:GRND.
	44384-90:09	IT IS UPDATE.
	44384-91:09	IT IS UPDATE.
	44384-99:09	ALTERATION MESSAGES IS UPDATE: PAG. 9 :THE PATE IS CHANGED. PAG. 10 :THE PATE IS ADDED. PAG. 11 :THE PATE IS ADDED.
	47820-01:09	CROSS REFERENCE IS CHANGED. RUNG 34 :%I0149 IS INSERTED AND %Q0015 IS ADDED.
	47820-05:09	RUNG 13 :CONST IS CHANGED, %T0064 IS CHANGED TO %M0077. RUNG 14 :A NEW RUNG IS INSERTED.
	47820-07:09	Rung 13 :%M0076 IS REMOVED. RUNG 16 :A NEW RUNG IS INSERTED AND %M0076 IS REMOVED
	47820-10:09	RUNG 26 :A NEW RUNG IS INSERTED.
	47820-14:09	RUNG 30 :%Q0034 IS CHANGED TO %M0320 AND %Q0083 IS ADDED.
	47820-15:09	RUNG 34 :A NEW RUNG IS INSERTED.
	47820-17:09	RUNG 7 :%M0057 IS REMOVED.
	47820-21:09	RUNG 28 IS CHANGED. RUNG 34 THRE NEW RUNGS ARE INSERTED AND %M0112 IS ADDED. RUNG 35 IS CHANGED RUNG 36 IS CHANGED. RUNG 37 IS CHANGED. RUNG 38 FIVE NEW RUNGS ARE INSERTED.
	47820-22:09	RUNG 37 :%I0131 AND %M0082 ARE REMOVED. RUNG 39 :%M0077 AND %M0141 ARE INTRODUCED. RUNG 47 :%I0131 IS INSERTED, %M0065 AND %M0086 ARE ADDED AND %M0540 IS REMOVED. RUNG 48 :%M0540 IS INSERTED.
	47820-35:09	RUNG 4 :COMMENT IS CHANGED. RUNG 10 :COMMENT IS CHANGED.
	47820-90:09	PAG. 1 :RUNGS NUMBER 11 ARE ADDED AND VALUS 250B IS CHANGED. PAG. 2 :RUNGS NUMBER 12, 13, 14 AND 15 ARE ADDED AND THE VALUS 250B IS CHANGED. PAG. 3 :RUNGS NUMBER 11 ARE ADDED. PAG. 4 :RUNGS NUMBER 12, 13, 14 AND 15 ARE ADDED.
	47820-91:09	PAG.1 : MACHINE MODE OF POS. LADDER 00050 IS CHANGED, STATUS ON AND OFF OF FUNCTION Q062 AND Q084 ARE INVERTED, POSITION LADDER BETWEEN 00060 AND 00070 OF SAME FUNCTION IS CHANGED AND FUNCTION Q006 POS. LADDED 00070 IS ADDED. PAG.2 : MACHINE MODE OF POS. LADDER 00050 IS CHANGED. PAG.3 : MACHINE MODE OF POS. LADDER 00050 IS CHANGED. PAG.4 : MACHINE MODE OF POS. LADDER 00050 IS CHANGED AND FUNCTION Q61 BETWEEN 00010 AND 00020 IS CHANGED. PAG.5 : MACHINE MODE OF POS. LADDER 00050 IS CHANGED. PAG.6 : THE FUNCTION Q065 IS CHANGED BETWEEN POSITION LADDER 00060 AND 00080; THE FUNCTION Q105 IS CHANGED BETWEEN POS. LADDER 00020 AND 00060; POS. LADDER 00060 IS CORRECTED; MACHINE MODE OF POS.LADDER 00050 IS CORRECTED.
	52710-08:09	MISSING CABLE DUCT SEPARETORS ARE ADDED; K108 IS CHANGED TO SPARE AND VIEV A-A IS CORRECTED.
	52722-09:04	P005 IS MOVED; P016, X016, X017, X019 AND BALL 2 AND IT REFERENCE ARE DELETED; FOUR ARE ADDED.
	52710-40:09	M.Y129 IS ADDED.

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AM-NO	DRAWING-NO.	ALTERATIONS
	61530-14:09	PIN NUMERATION 11 AND 12 OF M.B015 ARE CHANGED TO 23 AND 24; PIN NUMERATION 3 AND 4 OF M.Y109 ARE CHANGED TO A2 AND A1: W025 ARE CHANGED FROM 27x0,75 TO 25x0,75.
	61530-19:09	EARTH CONNECTION OF M.B043 IS CORRECTED.
	61530-21:09	ARE UPDATE M.B080:1 AND M.B080:2 DESCRIPTION
	61530-23:09	M.Y022 SYMBOL IS CORRECTED.
	61530-24:09	W108 IS CHANGED FROM 27x0,75 TO 25X0,75.
	61530-39:09	M.Y129 IS ADDED.
	582132,AF	THREE SPARE ARE ADDED ON THE LEFT OF F001 FOR HVA KIT.
	1279813	IS CHANGED.
71535	FOR CHANGES ON LISTS, SEE APPENDIX.	
	44384-02:10	POSITION SUMMARY IS CHANGED ACCORDING TO THE CIRCUIT DIAGRAM.
	44384-10:10	CONNECTION REFERENCE REGARDING Q012 AND F009 CORRECTED.
	44384-12:10	CHANGED FOR P-CADEX CLEANING.
	44384-16:10	THE PAGE IS CHANGED FOR P-CADEX CLEANING.
	44384-20:10	THE CONNECTIONS OF A204,26 A204,27, A205,26 AND A205,27 ARE CORRECTED.
	44384-29:10	DRAWING RAPRESENTATION OF CONNECTION BETWEEN X001:255 AND X001:256 AND NOTE RELATED ARE CORRECTED.
	44384-30:10	PHOTOCELLES M.B093 "QUEUE MONITOR" ARE INCLUDED INTO THE STANDARD MACHINE, AND DRAWING RAPRESENTATION OF PLE-EQUIPMENT IS CHANGED.
	44384-31:10	REFERENCE OF CONNECTION OF K011, K103, K106, K110 AND P005 ARE ADDED.

AM-NO	DRAWING-NO.	ALTERATIONS
	44384-40:10	SENSOR M.B107 "RESET STRIP" IS ADDED,BECAUSE THE ASSU KIT IS INCLUDED INTO THE MACHINE.
	44384-44:10	NOTE CONCERNING A105:16 IS CHANGED.
	44384-73:10	NOTES ARE CHANGED.
	44384-90:10	XL20:1 IS CHANGED.
	44384-91:10	TERMINAL SUMMARY IS CHANGED ACCORDING TO THE CIRCUIT DIAGRAM.
	44384-99:10	ALTERATION MESSAGES IS CHANGED.
	47820-01:10	CROSS REFERENCE IS CHANGED. %Q0020,%Q0097,%Q0100,%Q0107,%M0167,%M0168, %M0169,%M0543,%M0639,%M0639,%M0640,%M0664, %M0665,%M0666,%M0692,%M0873,%M0874,%M0875, %M0876,%T0088,%T0147,%R0106,%R0155,%R0291 DESCRIPTION ARE CHANGED. %R0112,%R0114, %R0362,%R0368,%R0591 DESCRIPTION ARE ADDED. %I0026,%M0071,%M0419,%0200T,%R0365,%R0512 ARE ADDED. RUNG 62: OFF %M0057 ADDED AFTER %M0049, AND OFF %I0063 ADDED AFTER %I0032 IN BRANCH.
	47820-07:10	RUNG 16: %M0550 CHANGED TO %I0026.
	47820-09:10	RUNG 31: CONST 10800 IS CHANGED TO CONST 10200. RUNG 34: %M0416 DELETED, %M0407 AND %M0416 ARE ADDED IN BRANCH.
	47820-10:10	RUNG 05: CONST 3000 ARE CHANGED TO 3600 AND %R0509 IS CHANGED TO %R0500. RUNG 06: IS CHANGED. RUNG 07: A NEW RUNG IS INSERTED. RUNG 21: CONST 3000 ARE CHANGED TO 3600 AND %R0509 IS CHANGED TO %R0500. RUNG 24: A NEW RUNG IS INSERTED. RUNG 25: %I0043 CHANGED TO %M0419, CONST 10 IS CHANGED TO CONST 0 AND CONST 95 IS CHANGED TO CONST 98. RUNG 26: CONST 14 IS CHANGED TO CONST 4. RUNG 27: A NEW RUNG IS INSERTED. RUNG 28: IS CHANGED. RUNG 29: A NEW RUNG IS INSERTED.

Note	A					Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class -
ECN No.	71701					Machine TBA/19-0101	Denomination ALTERATION MESSAGES			
Sign./Date	ALPO/980930					Company Tetra Brik R.& D. S.p.A.	Drawing No 44384-99:12			Page 11/15
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AM-NO	DRAWING-NO.	ALTERATIONS
	47820-13:10	RUNG 21:5T0007 CHANGED TO %T0009; OFDT REMOVED. RUNG 28:%Q0076 REMOVED. RUNG 29:NEW RUNG INSERTED. RUNG 29:%T0009 CHANGED TO %T0051. RUNG 30:CHANGED. RUNG 31:THREE NEW RUNGS INSERTED.
	47820-14:10	RUNG 17:%M0168 AND %Q0015 ARE REMOVED. RUNG 19:THE RUNG IS DELETED. RUNG 20:THE RUNG IS DELETED. RUNG 21:THREE NEW RUNGS INSERTED. RUNG 41:COMMENT CHANGED.
	47820-18:10	RUNG 4 :THE RUNG IS CHANGED. RUNG 7 :THE RUNG IS CHANGED. RUNG 14:%Q0105,%Q0106,%Q0107 AND %Q0121 ARE ADDED. RUNG 19:THE RUNG IS CHANGED. RUNG 20:THE RUNG IS DELETED. RUNG 21:THE RUNG IS CHANGED. RUNG 22:THE RUNG IS DELETED. RUNG 23:THREE NEW RUNGS INSERTED.
	47820-19:10	RUNG 15:COMMENT CHANGED. RUNG 17:%R12 ADDED INTO COMMENT. RUNG 18:<+> ADDED AT THE END OF THE RUNG. RUNG 19:RUNG COMMENT REMOVED. RUNG 20:%T0099 IS CHANGED TO <+> AT THE BEGINNING OF THE RUNG.
	47820-21:10	RUNG 5 :%M0169 IS REMOVED. RUNG 6 :NEW RUNG INSERTED. RUNG 7 :THE RUNG IS CHANGED. RUNG 14:%R0590 IS CHANGED TO %R0587 AND %Q0063 IS INSERTED. RUNG 30:%I0009 ADDED. RUNG 31:%I0009 ADDED. RUNG 42:CONST 6 CHANGED TO 10. RUNG 43:CONST 250 CHANGED TO 246.
	47820-22:10	RUNG 31:%M0543 CHANGED TO PH42. RUNG 47:%I0131, POS30, MCPOS80 ARE REMOVED.
	47820-23:10	RUNG 12:%M0109 IS ADDED. RUNG 13:THE RUNG IS CHANGED.

AM-NO	DRAWING-NO.	ALTERATIONS
	47820-25:10	RUNG 4 : THE RUNG IS DELETED. RUNG 5 : %I0029 CHANGED TO %I0032 AND %I0063 ADDED IN BRANCH; %I0031 CHANGED TO %I0029 AND %I0032 CHANGED WITH %I0031. RUNG 7 : %M0666 DESCRIPTION IS CHANGED. RUNG 9 : %M0639 DESCRIPTION IS CHANGED. RUNG 14: THE RUNG IS DELETED. RUNG 15: %M0640 DESCRIPTION IS CHANGED. RUNG 16: %M0665 DESCRIPTION IS CHANGED. RUNG 27: THE RUNG IS DELETED.
	47820-26:10	RUNG 4 : THE RUNG IS DELETED.
	47820-30:10	RUNG 197:%Q0097 DESCRIPTION IS CHANGED. RUNG 198:%Q0100, %R0106 DESCRIPTIONS ARE CHANGED. RUNG 201:%R0112 DESCRIPTION IS ADDED. RUNG 202:%R0114 DESCRIPTION IS ADDED.
	47820-35:10	RUNG 5 : %R0107-IN7 CONST 40 IS CHANGED TO CONST 0. RUNG 6 : CONST 260 IS CHANGED TO CONST 285. RUNG 11: %R0107-IN7 CONST 40 IS CHANGED TO CONST 0. RUNG 12: CONST 260 IS CHANGED TO CONST 285.
	47820-90:10	SHEET 1: VALUES REFERD TO 200S, R170-IN1 AND R170-IN2 ARE CHANGED. ALL VALUES REFERED TO R170-IN7 ARE CHANGED. SHEET 2: ALL VALUES REFERED TO R510 ARE CHANGED.VALUE 20 REFERED TO R298 FOR THE VOLUME 200S IS ADDED. SHEET 3: VALUES REFERD TO 200S, R170-IN1 AND R170-IN2 ARE CHANGED. ALL VALUES REFERED TO R170-IN7 ARE CHANGED. SHEET 4: ALL VALUES REFERED TO R510 ARE CHANGED.
	47820-91:10	SHEET 1 TIMING OF Y39 IS CHANGED. SHEET 2 TIMING OF Y2, K013 ARE CHANGED. SHEET 3 TIMING OF Y20, Y24, Y26, Y21 ARE CHANGED. SHEET 4 UPDATED TO ECN 71535 SHEET 5 TIMING OF K009, Y5, Y6, Y108 ARE CHANGED. SHEET 6 TIMING OF Y7, Y9, A310-10, A310-16, A310-15 ARE CHANGED.

Note	A					Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class -
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AM-NO	DRAWING-NO.	ALTERATIONS
	52710-07:10	VIEW C-C IS CHANGED.
	52710-08:10	TWO SPARE OF RELAYS AND THREE SPARE OF FUSES ARE ADDED AND ONE SPARE OF OVERLOADS IS DELETED.
	52710-09:10	DRAWING RAPRESENTATION OF CABLE DUCTS ARE CORRECTED AND NOTES S TO INDICATE SPARE ARE ADDED BECAUSE WAS MISSING.
	52710-41:10	SENSOR M.B107 IS ADDED BECAUSE THE ASSU KIT IS INCLUDED INTO THE MACHINE.
	1279816, AB	THE CABLE GLAND FOR ASSU EQUIPMENT IS SHOVED; THE NUMBER IS 606.
	61530-07:10	DRAWING RAPRESENTATION OF W305 IS CORRECTED.
	61530-12:10	EARTH WIRE OF SIGNAL FROM CIP-CLEANING ON'S CABLE IS SHOWED, AND DRAWING RAPRESENTATION OF EXTRA EQUIPMENT IS CHANGED.
	61530-13:10	PHOTOCELLES M.B093A AND M.B093B ARE INCLUDED INTO THE STANDARD MACHINE, AND CABLE W013 IS CHANGED FROM 2x0.75 TO 3x0.75. DRAWING RAPRESENTATION OF PLE IS CHANGED.
	61530-15:10	CABLE W008 IS CHANGED FROM 2x0.75 TO 3x0.75, AND DRAWING RAPRESENTATION OF CABLE W408 IS CORRECTED.
	61530-19:10	CABLES W416, W417, W418, W427 AND W303 ARE CHANGED FROM 2x0.75 TO 3x0.75.
	61530-20:10	CABLE W428 IS CHANGED FROM 2x0.75 TO 3x0.75.
	61530-21:10	EARTH WIRE IS SHOWED IN THE CABLE W449.
	61530-25:10	CABLE W405 IS CHANGED FROM 2x0.75 TO 3x0.75.
	61530-30:10	CABLE W612 IS CHANGED FROM 2x0.75 TO 3x0.75, AND CABLE W018 IS CHANGED FROM 37x0.75 TO 34x0.75.
	61530-40:10	ALL CABLES ARE CHANGED FROM 2x0.75 TO 3x0.75.
	61530-41:10	CABLE W319, W320 AND W321 ARE CHANGED FROM 2x0.75 TO 3x0.75.
	61530-50:10	DRAWING RAPRESENTATION OF W602 IS CORRECTED.
	61530-51:10	M.B107 IS ADDED BECAUSE ASSU KIT IS INCLUDED INTO THE MACHINE.
	61530-52:10	CABLES W613 AND W614 ARE CHANGED FROM 2x0.75 TO 3x0.75.
	61530-54:10	THE WIRE OF CABLE W420 ISN'T A EARTH WIRE BUT IT'S SCREEN.
	61531-05:10	NOTE IS CHANGED.
	61531-06:10	NOTE IS CHANGED.
ECN 71784		FOR CHANGES ON LISTS, SEE THE PAGE "CHANGED BILL OF MATERIAL" ON THE ECN AND THE "CHANGES STATUS" AND THE "INFORMATION VALID TO" IN THEV BOTTOM OF SPECIFIC LISTS.
	44384-99:11	ALTERATION MESSAGE IS CHANGED.
	47820-01:11	CROSS REFERENCE IS CHANGED. %M0149, %M0154, %M0692, %T0096, %T0097 ARE ADDED. %R0344 IS CHANGED.
	47820-14:11	RUNG 7 :CONST IS CHANGED AND %M0692 IS CHANGED TO %M0149. RUNG 8 :THE RUNG IS ADDED.
	47820-15:11	RUNG 21 :FOUR RUNGS ARE ADDED. RUNG 21 :%I0123 IS DELETED.

Note	A					Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class -
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AM-NO	DRAWING-NO.	ALTERATIONS
	47820-18:11	RUNG 19 :CONST IS CHANGED FROM 1 TO 4. RUNG 20 :CONST IS CHANGED FROM 4 TO 8. RUNG 22 :CONST IS CHANGED FROM 11 TO 21.
	47820-22:11	RUNG 41 :%M0154 IS ADDED.
71701		FOR CHANGES ON LISTS, SEE THE PAGE "CHANGED BILL OF MATERIAL" ON THE ECN AND THE "CHANGES STATUS" AND THE "INFORMATION VALID TO" IN THEV BOTTOM OF SPECIFIC LISTS.
	44384-02:12	POSITION SUMMARY IS CHANGED ACCORDING TO THE CIRCUIT DIAGRAM.
	44384-05:12	THE AREA OF NEUTRAL WIRE CONNECTED BETWEEN Z002:N AND X003:0 IS CORRECTED.
	44384-06:12	TERMINALS X001 ARE REALIGNED.
	44384-17:12	Z004, Z005 AND Z006 ARE DELETED.
	44384-32:12	R005 IS DELETED.
	44384-33:12	CONNECTION REFERENCE OF P.A400 IS CHANGED.
	44384-59:12	CONNECTIONS REFERENCE OF P.S011H, P.S012, P.S004H, P.S006H, P.S007 ARE CHANGED.
	44384-60:12	CONNECTIONS REFERENCE OF P.S019, P.S020 ARE CHANGED.
	44384-74:12	CONNECTION REFERENCE OF P.X025 IS CHANGED.
	44384-89:12	CONNECTION BETWEEN X001:1 AND X017 IS DELETED. CONNECTION BETWEEN X011 AND X001 ARE CHANGED.
	44384-90:12	LINE SUMMARY IS CHANGED ACCORDING TO THE CIRCUIT DIAGRAM.
	44384-91:12	TERMINAL SUMMARY IS CHANGED ACCORDING TO THE CIRCUIT DIAGRAM.
	44384-99:12	ALTERATION MESSAGE IS CHENGED.

AM-NO	DRAWING-NO.	ALTERATIONS
	52710-07:12	SPARE AT THE LEFT OF A508 ARE SHOWED. A502, A506 AND A507 ARE MOVED LEFT. HOLES IN THE CABLES DUCT ARE SHOWED.
	52710-08:12	THE LAY-OUT OF SERVO MOTOR AREA AND OF FUSE AREA IS CHANGED. HOLE IN THE CABLES DUCT ARE SHOWED.
	52710-11:12	A508 CORRECTED TO 16TE, AND THE RACK IS CHANGED TO 84TE.
	1279816, AC	THE CABLE GLAND FOR THE CABLE W611 IS CHANGED FROM PG9 TO PG11.
	1349489, AA	NEW PAGE IS INSERTED.
	61530-13:12	EARTH TERMINAL BETWEEN X001:177 AND 118 IS PUT BEFORE X001:115, AND WIRE COLOR OF CABLE W028 IS CORRECTED.
	61530-26:12	CABLE W391 AND EARTH TERMINAL IS MOVED TO PAGE 28.
	61530-28:12	EARTH TERMINAL IS MOVED AND CABLE W391 AND ITS CONNECTION IS IMPORTED FROM PAGE 26.
	61530-31:12	EARTH TERMINAL IS MOVED TO PAGE 32.
	61530-32:12	EARTH TERMINAL IS IMPORTED FROM PAGE 31.
	61530-37:12	EARTH TERMINAL IS MOVED TO PAGE 39.
	61530-38:12	EARTH TERMINAL IS MOVED TO PAGE 39.
	61530-39:12	EARTH TERMINALS ARE IMPORTED FROM PAGE 37 AND 38.
	61530-53:12	EARTH TERMINAL BETWEEN X001:544 AND 545 IS PUT BETWEEN X001:543 AND 544, AND TERMINAL 546 IS SHOWED.

Note	A					Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class –
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AM-NO	DRAWING-NO.	ALTERATIONS
	1279810, AB	SOME EARTH TERMINAL ARE MOVED AND SOME TERMINAL BLOCK ARE CHANGED. POSITIONS ARE CHANGED. END BRAKE IS CHANGED.
	1279811, AB	SOME EARTH TERMINAL ARE MOVED AND SOME TERMINAL BLOCK ARE CHANGED. POSITIONS ARE CHANGED.
	1279812, AB	EARTH TERMINAL BETWEEN 544 AND 545 IS PUT BETWEEN 543 AND 544. END BRAKE IS CHANGED. BRIDGES DRAWING RAPRESENTATION IS CHANGED. POSITIONS ARE CHANGED.
	582158, AC	BRIDGES DRAWING RAPRESENTATION IS CHANGED. END BRAKE ARE CHANGED. POSITIONS ARE CHANGED
	582159, AC	BRIDGES DRAWING RAPRESENTATION IS CHANGED. END BRAKE ARE CHANGED. POSITIONS ARE CHANGED
	582130, AD	TERMINAL NUMBER 0 IS DELETED AND TERNMINAL NAMBER 16 IS INSERTED. POSITIONS ARE CHANGED
	582131, AD	BRIDGES DRAWING RAPRESENTATION IS CHANGED. END BRAKE ARE CHANGED. POSITIONS ARE CHANGED.
	582136, AD	END BRAKE AND POSITIONS ARE CHANGED.
	582132, AG	THE PAGE LAY-OUT IS CHANGED. THE FUSES FOR THE HVA KIT ARE SHOWED.

AM-NO	DRAWING-NO.	ALTERATIONS

Note	A				
ECN No.	71701				
Sign./Date	ALPO/980930				
Appr./Date	AIR/980930				Drawing remarks

Tetra Pak

Designer ALPO Date 980930 | Approved AIR Date 980930 | Dec. class -

Machine TBA/19-0101

Denomination ALTERATION MESSAGES

Company Tetra Brik R.& D. S.p.A.

Drawing No 44384-99:12

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6 Connection diagrams

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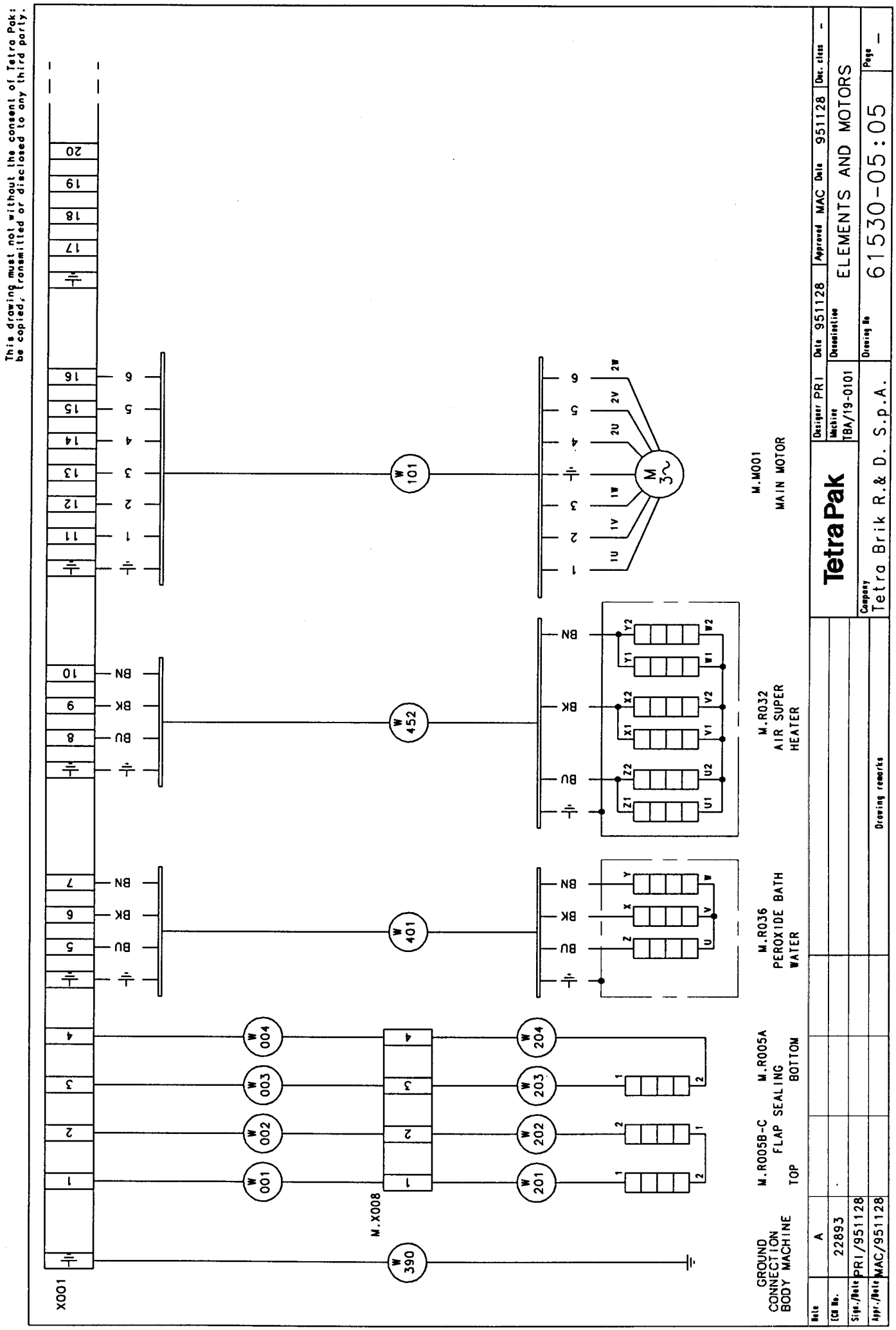
Connection drawing 61530-50:10
Connection drawing 61530-51:10
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Connection drawing 61530-55:05

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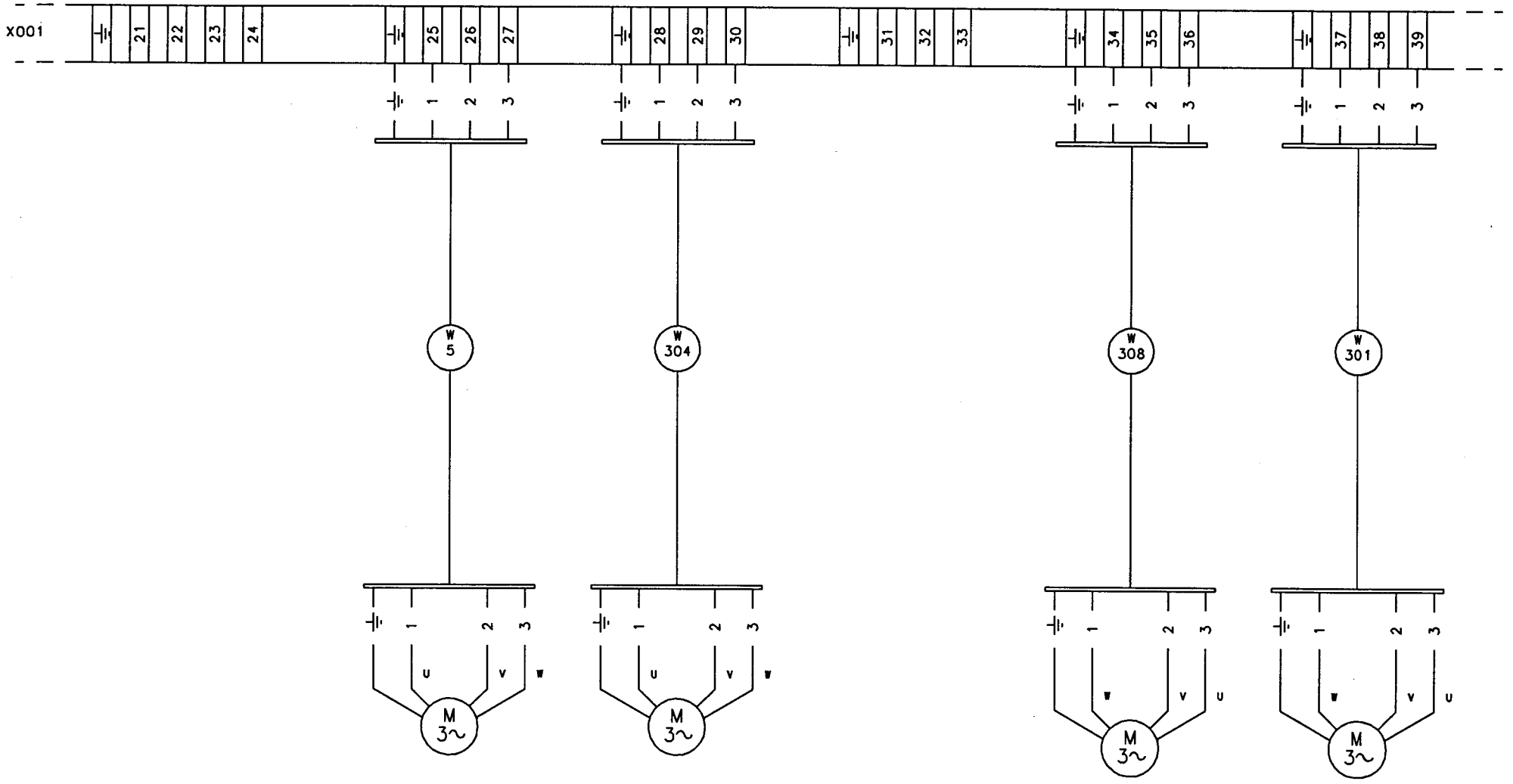
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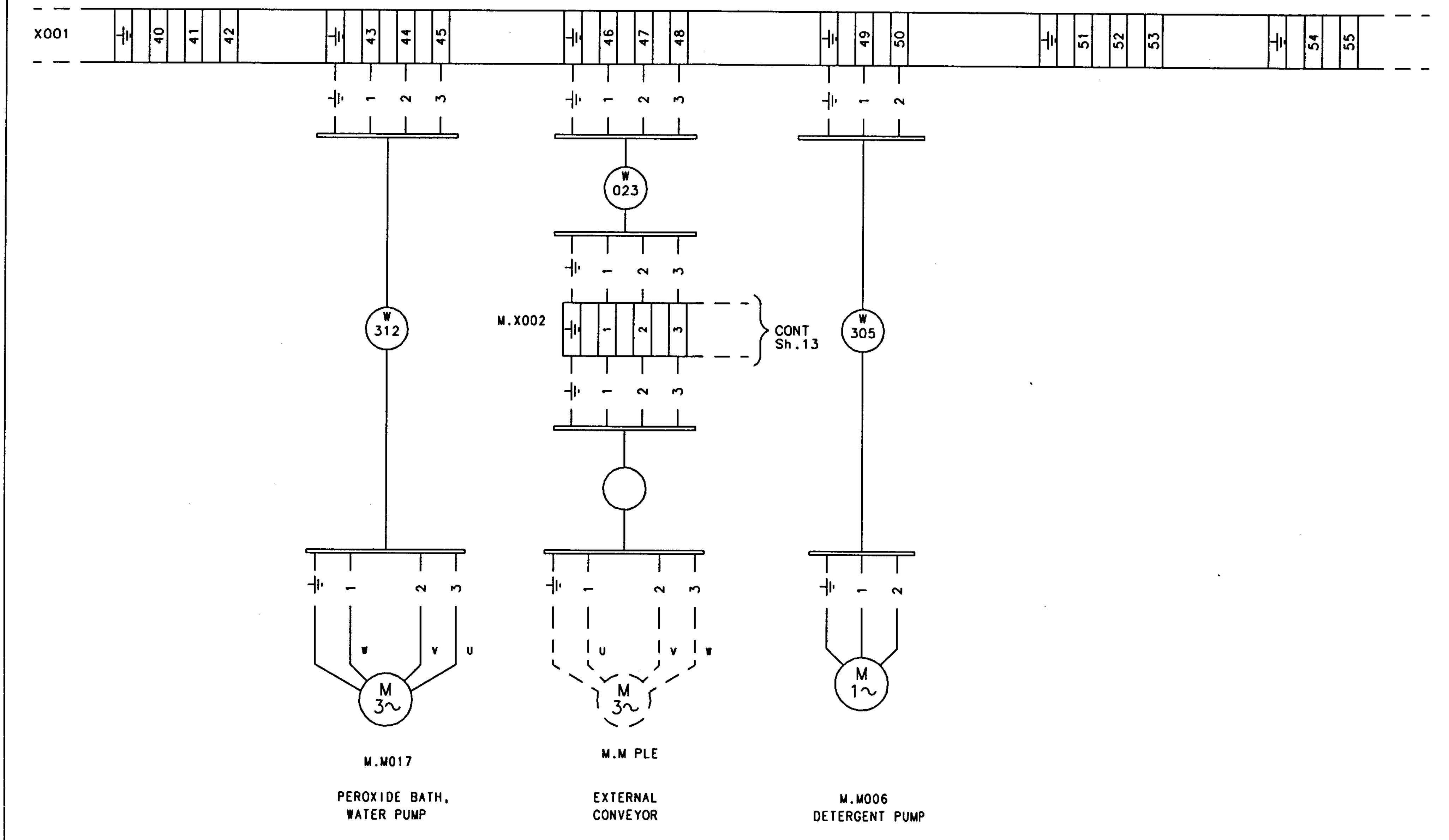
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Appr./Date	MAC/951128				Drawing remarks

Tetra Pak

Designer PRI	Date 951128	Approved MAC	Date 951128	Doc. class –
Machine TBA/19-0101	Denomination MOTORS			
Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-06:05			Page –

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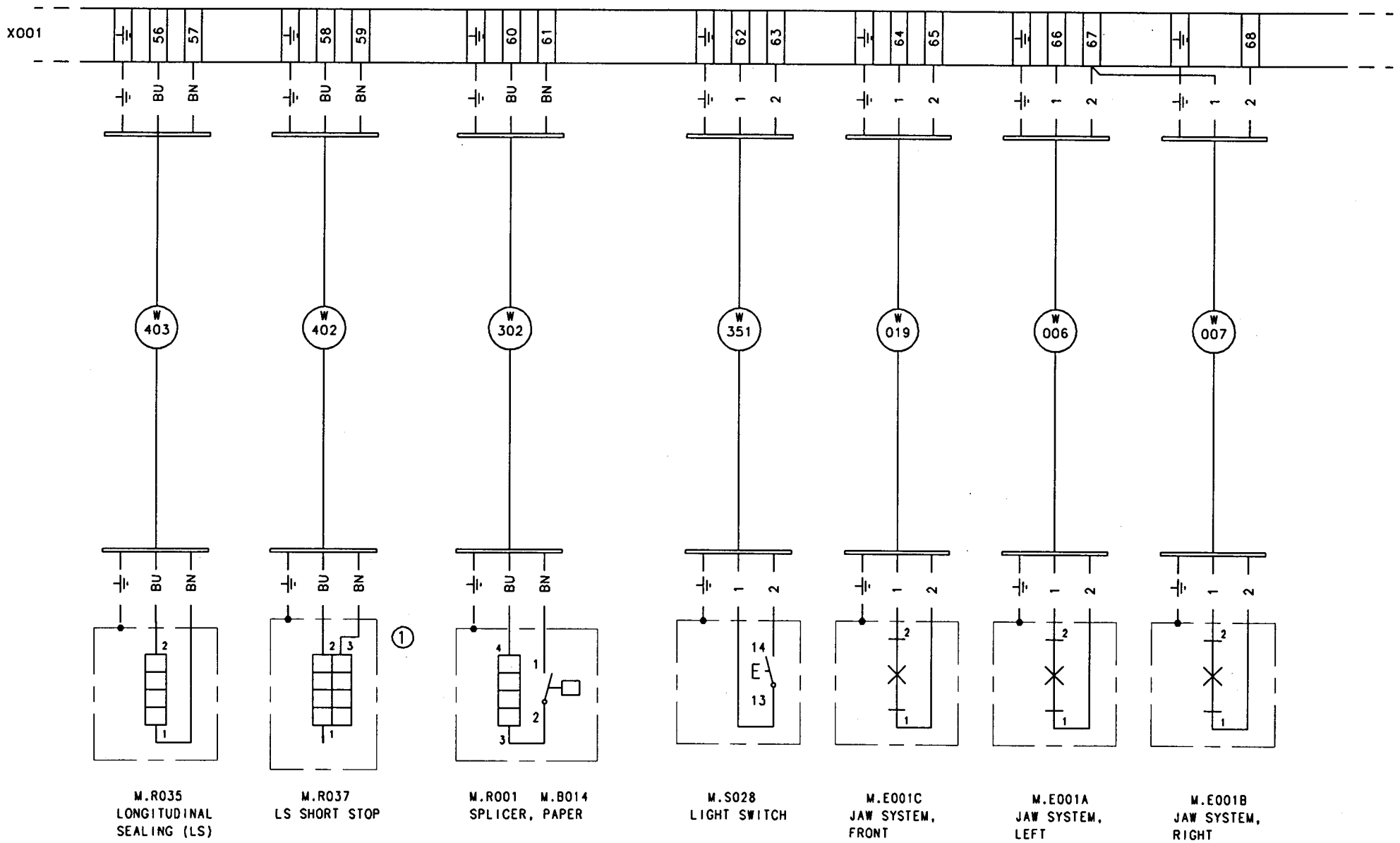
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Note	A					
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Sign./Date	ALPO/980420					
Appr./Date	AIR/980420				Drawing remarks	

Tetra Pak	Designer ALPO Date 980420	Approved AIR Date 980420	Doc. class –
	Machine TBA/19-0101	Denomination MOTORS	
Company Tetra Brik R.& D. S.p.A.		Drawing No 61530-07:10	Page –

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M.R035
LONGITUDINAL
SEALING (LS)

M.R037
LS SHORT STOP

M.R001 M.B014
SPLICER, PAPER

M.S028
LIGHT SWITCH

M.E001C
JAW SYSTEM,
FRONT

M.E001A
JAW SYSTEM,
LEFT

M.E001B
JAW SYSTEM,
RIGHT

Date	A			
ECN No.	22530			
Sign./Date	MRI/950210			
Appr./Date	HK/950217			

ELEMENT PIN CONFIGURATION

① 1-2 = 1200W
1-3 = 700W
2-3 = 450W

Drawing remarks

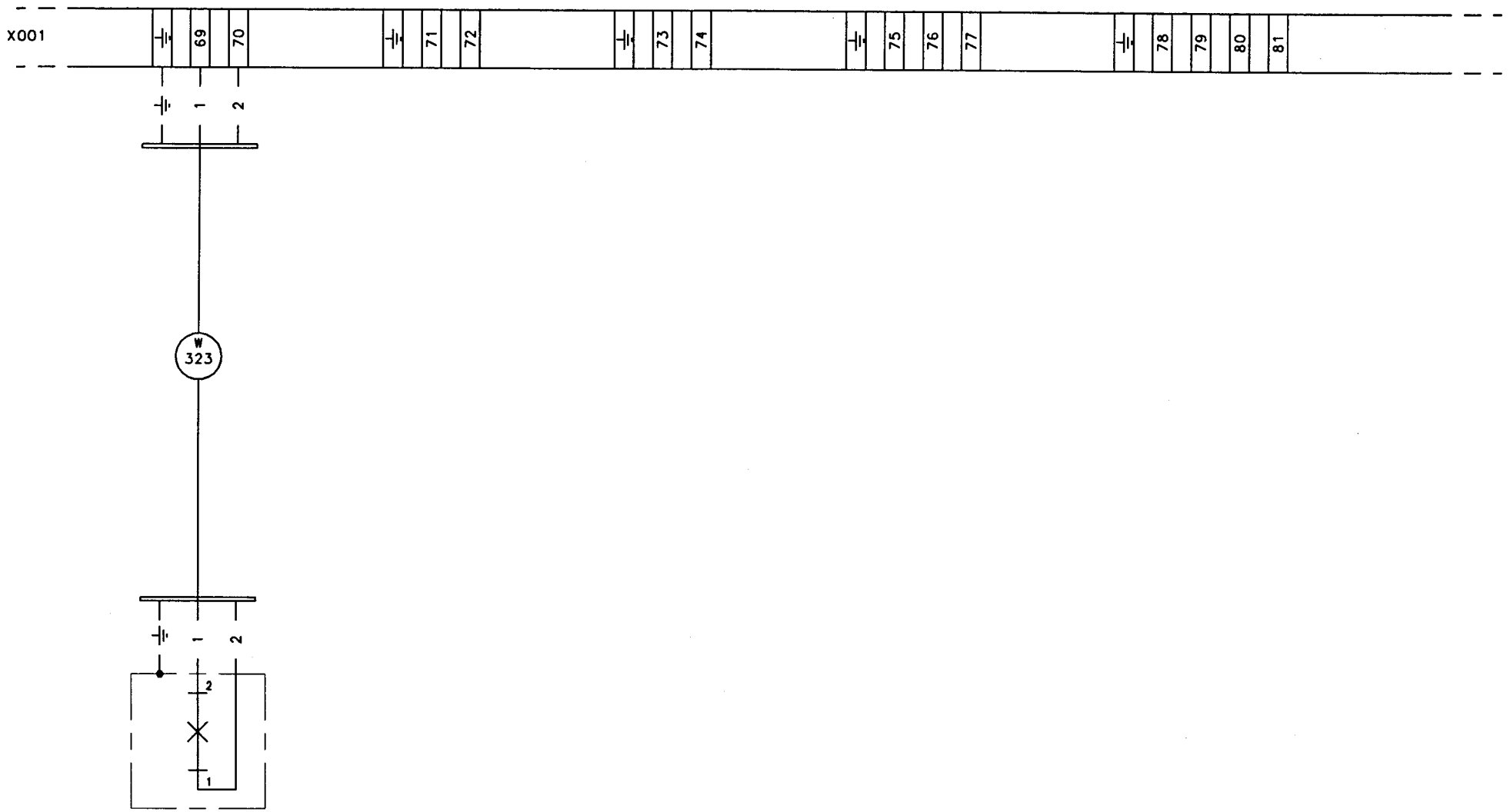
Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer MRI	Date 950210	Approved HK	Date 950217	Doc. class –
Machine TBA/19-0101	Denomination ELEMENTS AND LIGHTING			
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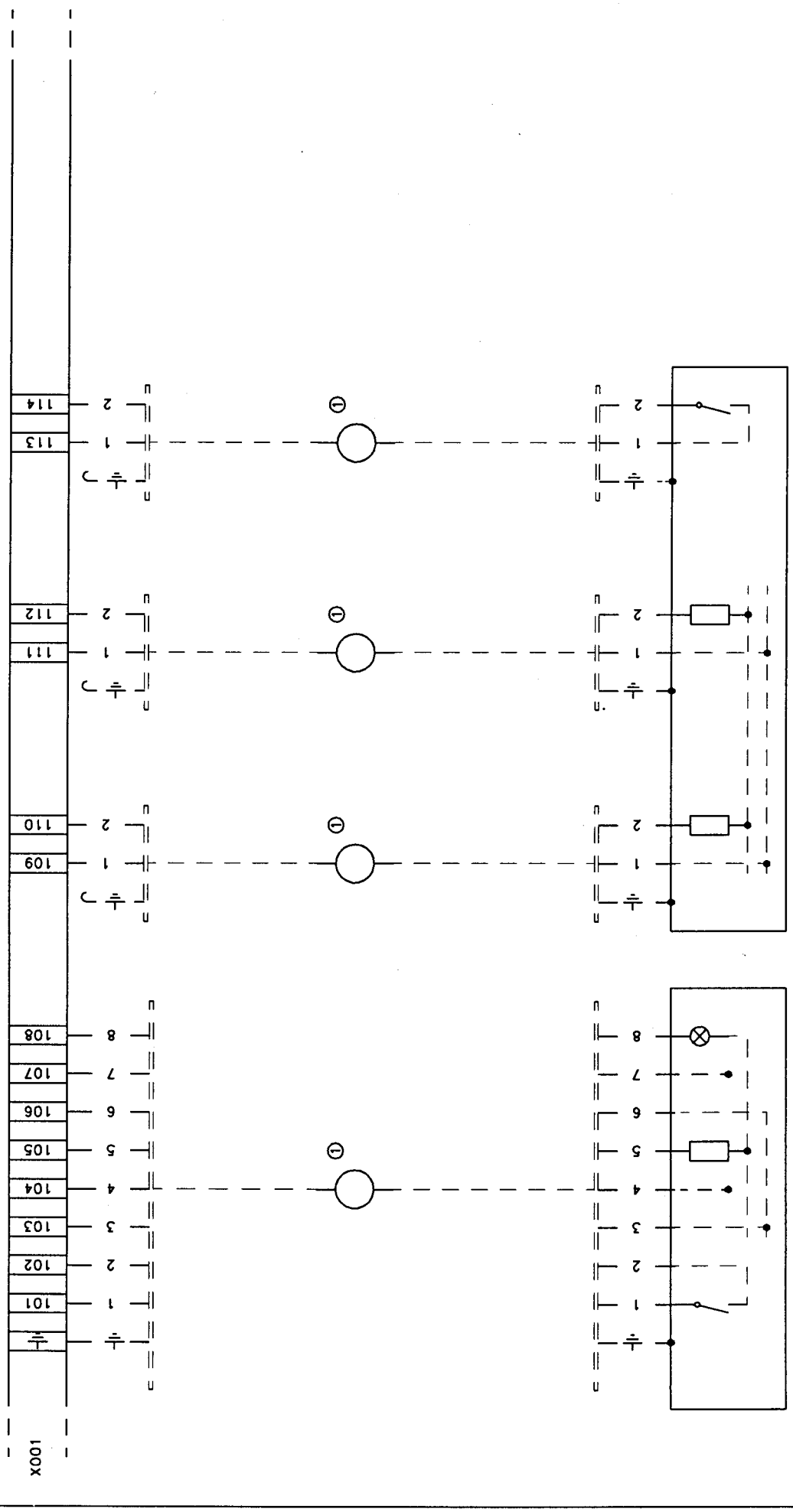
M.E003

SPLICING UNIT
LIGHT

Note	A					Tetra Pak	Designer MRI	Date 950210	Approved HK	Date 950217	Doc. class –
ECN No.	22530						Machine TBA/19-0101	Denomination LIGHTING			
Sign./Date	MRI/950210					Company Tetra Brik R.& D. S.p.A.		Drawing No 61530-09:01			Page –
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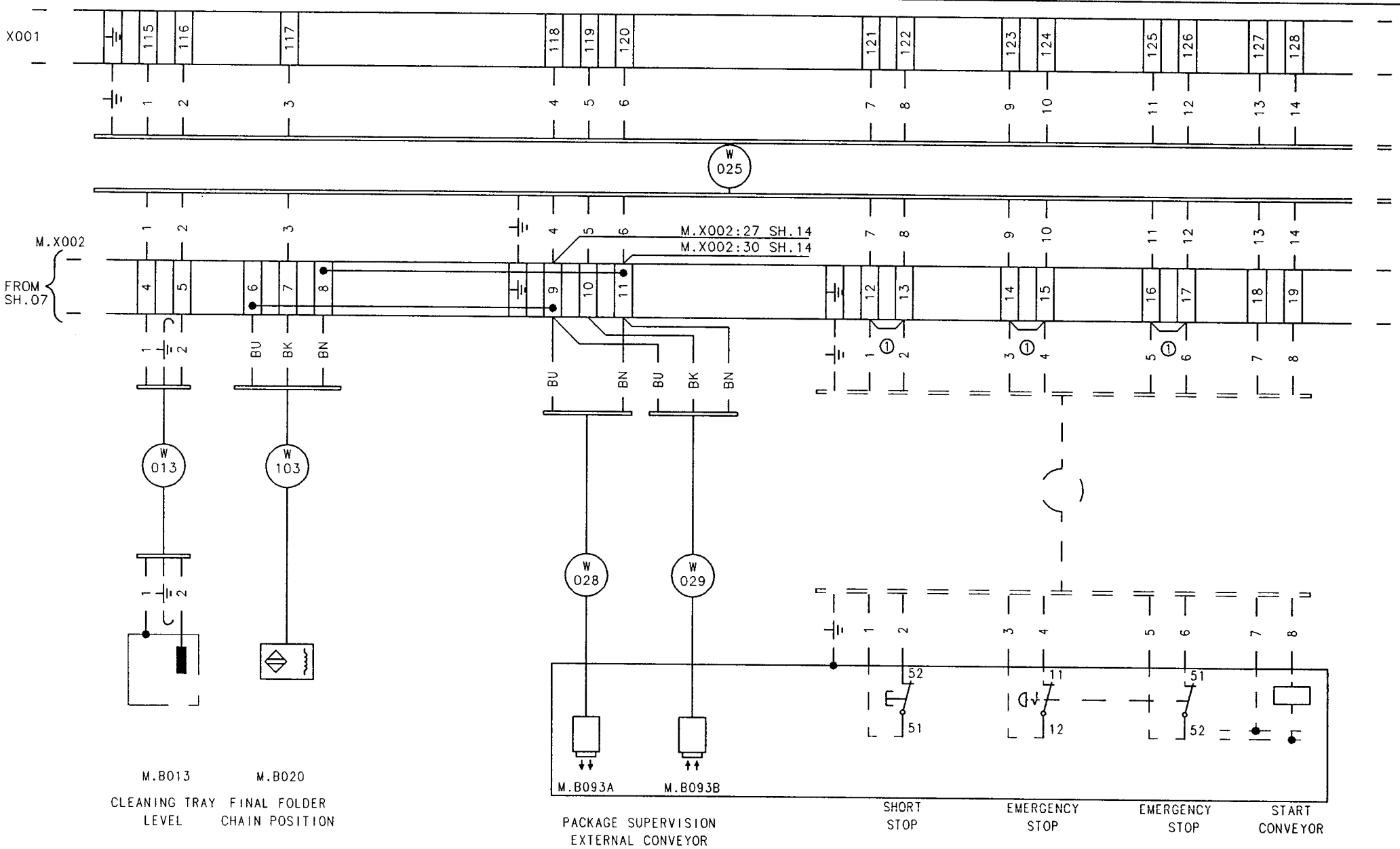
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Note	A				① REMOVE WHEN PLE IS INSTALLED
ECN No.	71701				
Sign./Date	ALPO/980930				
Appr./Date	AIR/980930				Drawing remarks

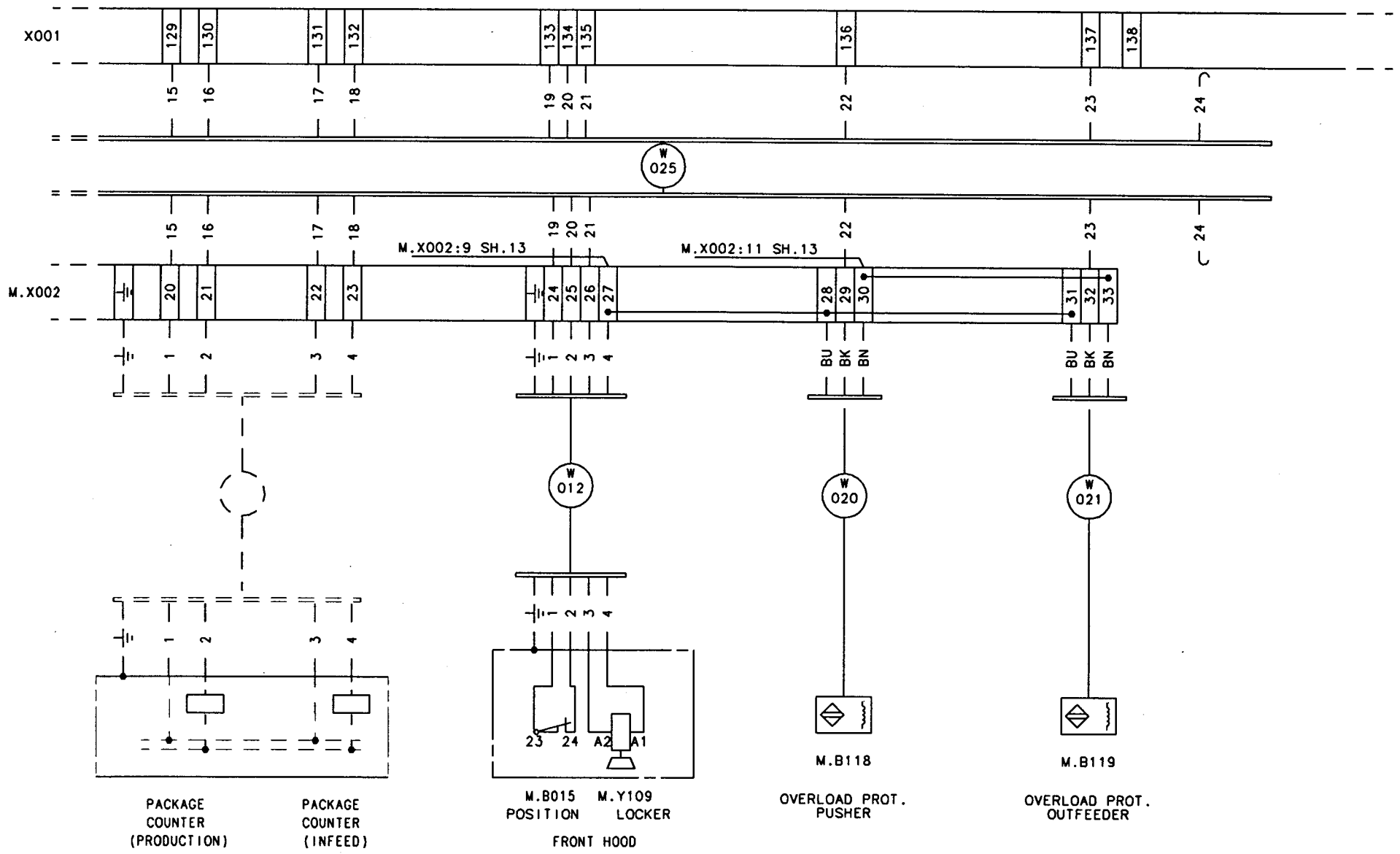
Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO	Date 980930	Approved AIR	Date 980930
Machine TBA/19-0101		Denomination	M.X002 FINAL FOLDER UNIT
Drawing No	61530-13:12	Page	-

Dec. class -

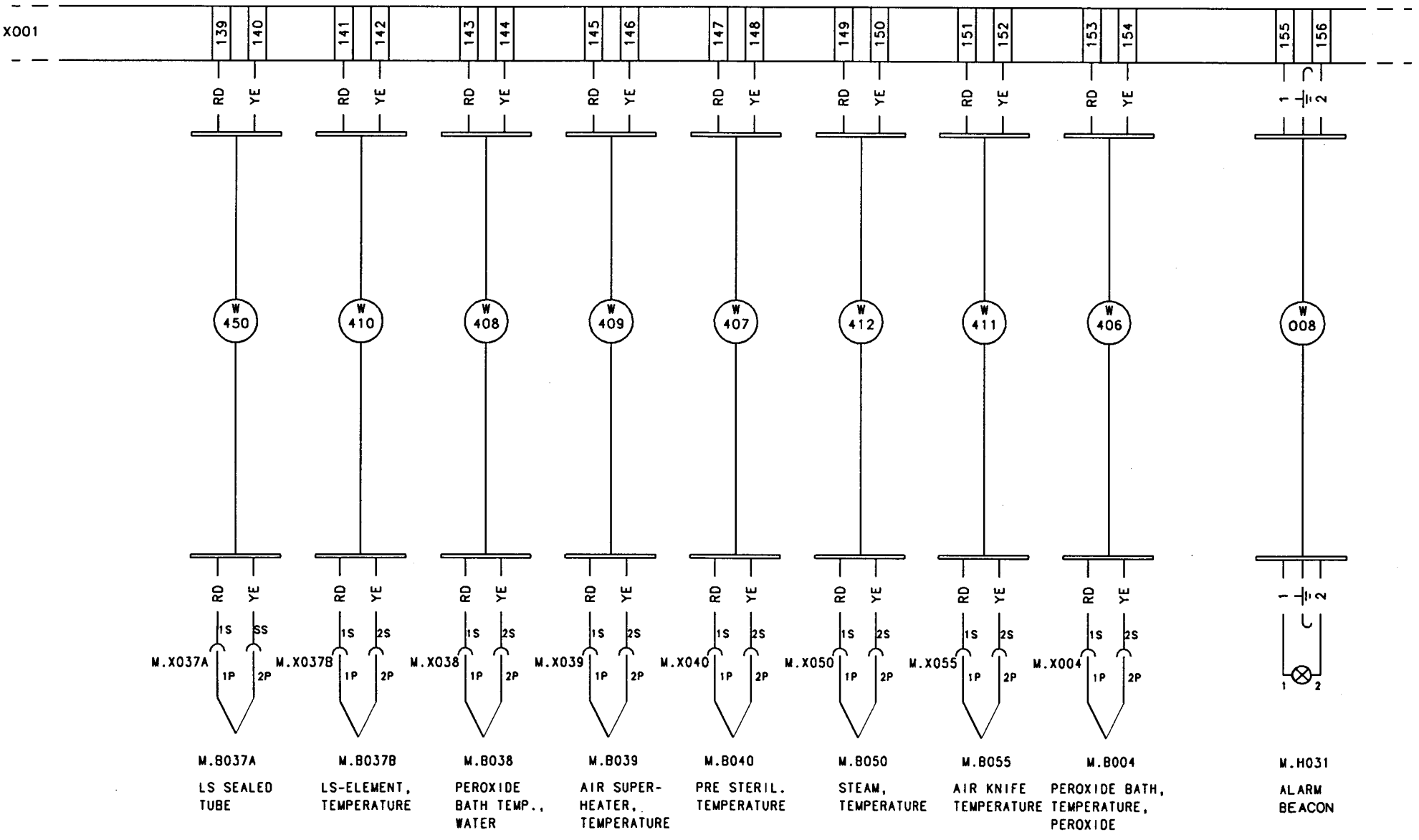
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Note	A					Tetra Pak	Designer PRI	Date 970908	Approved SB Date 970915	Doc. class –
ECN No.	70943						Machine TBA/19-0101	Denomination M.X002 FINAL FOLDER UNIT		
Sign./Date	PRI/970908					Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-14:09			Page –
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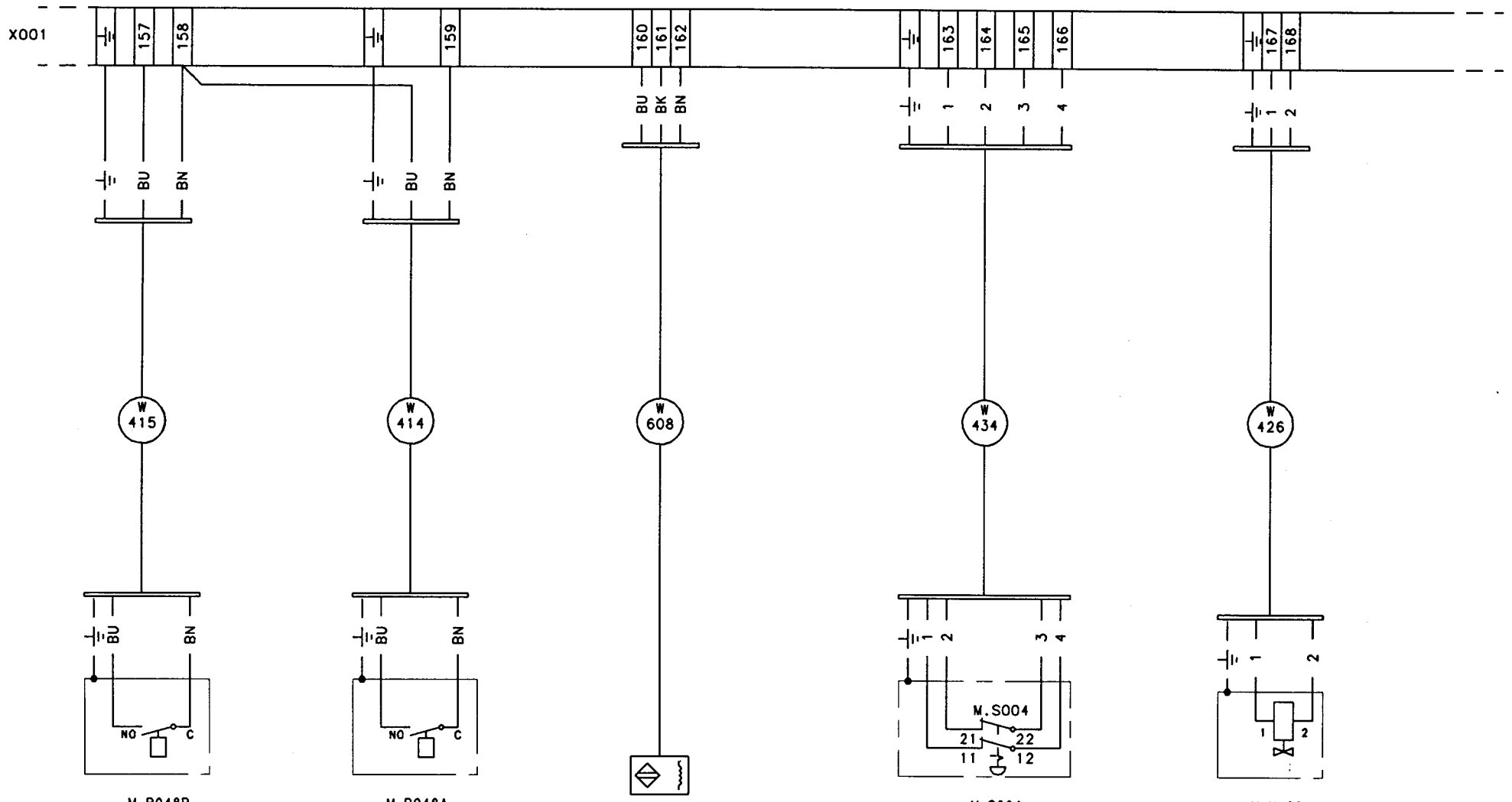
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Note	A					Tetra Pak	Designer ALPO	Date 980420	Approved AIR	Date 980420	Doc. class –
ECN No.	71535						Machine TBA/19-0101	Description THERMO ELEMENTS AND ALARM		
Sign./Date	ALPO/980420									
Appr./Date	AIR/980420				Drawing remarks		Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-15:10		Page –

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M.B048B

M.B048A

PEROXIDE BATH
BOTTOM COVER POS.

REAR

FRONT

M.B009

PAPER WEB

M.S004

EMERGENCY
STOP

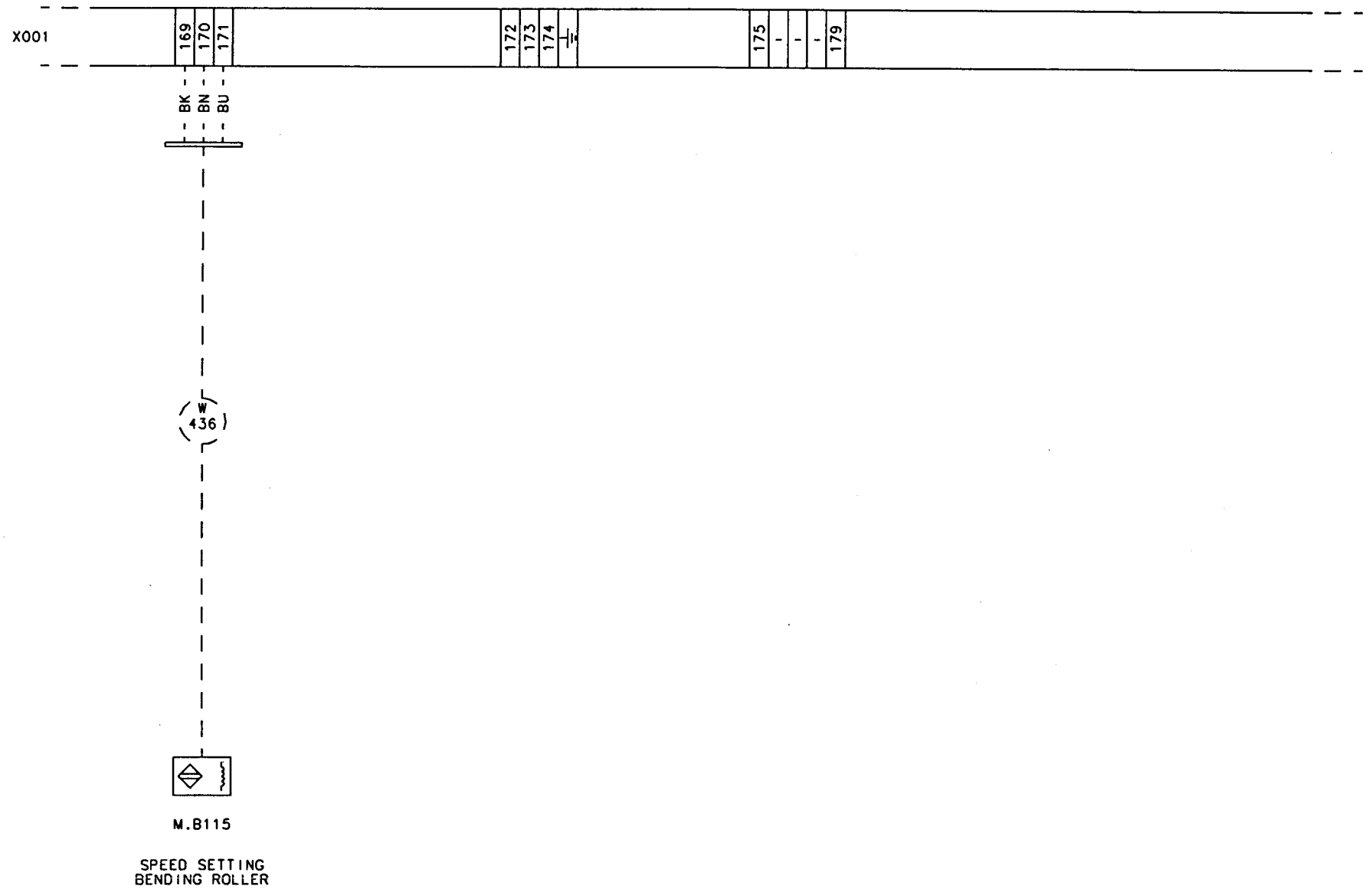
M.Y108

TOP FILLING VALVE,
PEROXIDE BATH

Note	A					Tetra Pak	Designer MRI	Date 950210	Approved HK	Date 950217	Doc. class –
ECN No.	22530						Machine TBA/19-0101	Denomination TOWER AND PAPER WEB			
Sign./Date	MRI/950210					Company Tetra Brik R.& D. S.p.A.		Drawing No 61530-16:01			Page –
Appr./Date	HK/950217				Drawing remarks						

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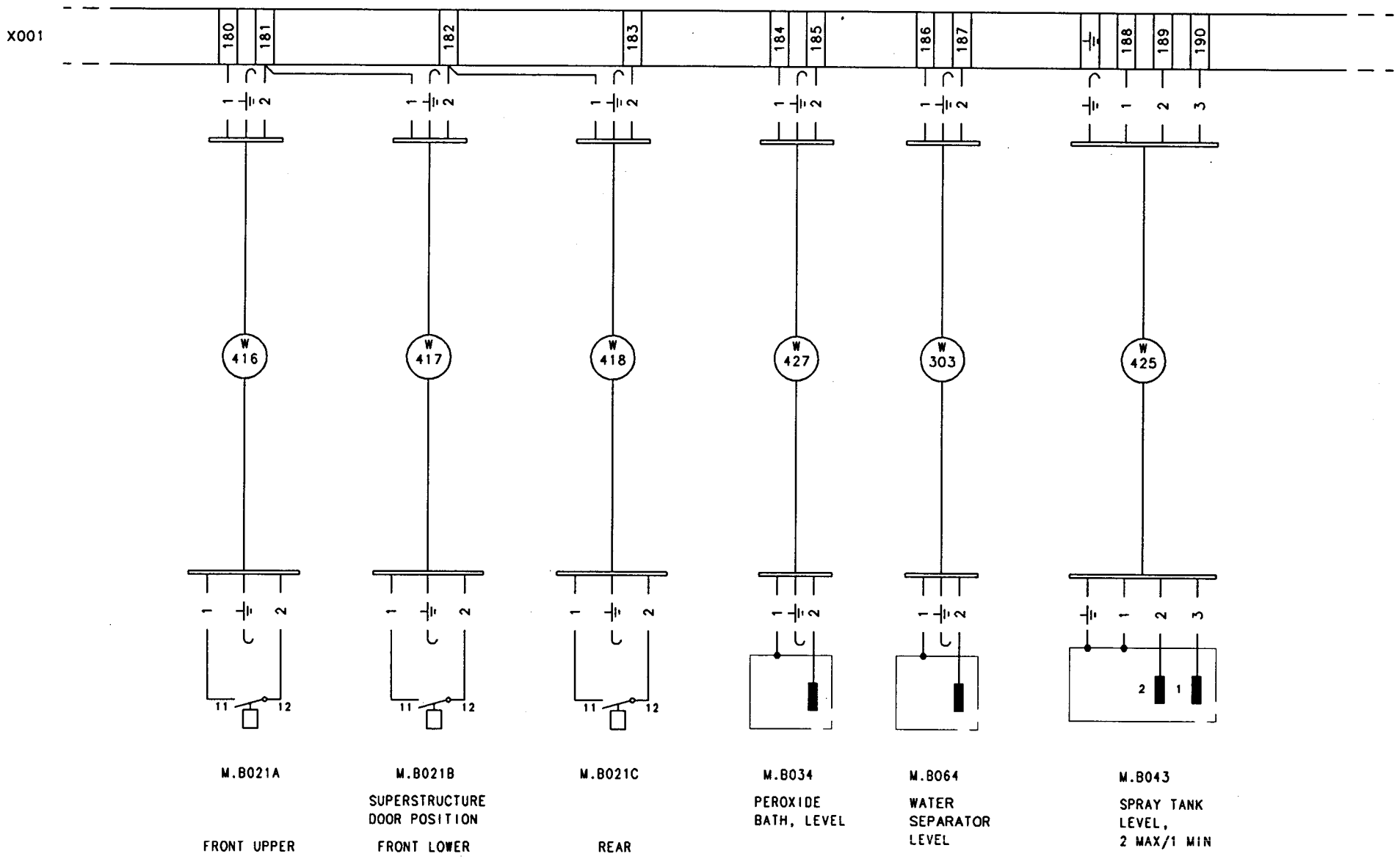
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Note	A					Tetra Pak	Designer MRI	Date 950210	Approved HK	Date 950217	Doc. class –
ECN No.	22530						Machine TBA/19-0101	Description TOWER			
Sign./Date	MRI/950210					Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-17:01				Page –
Appr./Date	HK/950217				Drawing remarks						

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M.B021A

FRONT UPPER

M.B021B

SUPERSTRUCTURE DOOR POSITION

FRONT LOWER

M.B021C

REAR

M.B034

PEROXIDE BATH, LEVEL

M.B064

WATER SEPARATOR LEVEL

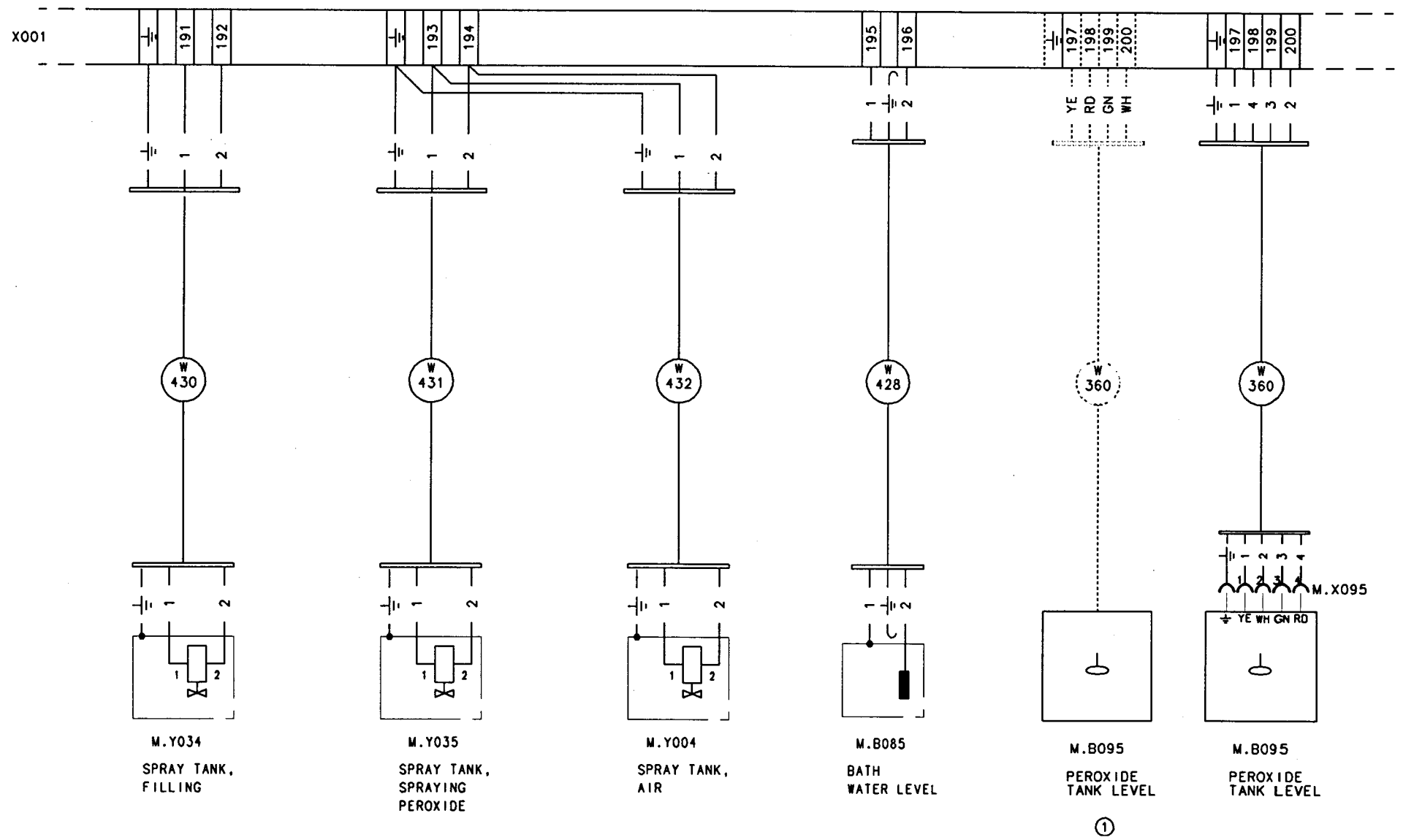
M.B043

SPRAY TANK LEVEL, 2 MAX/1 MIN

Note	A					Tetra Pak	Designer ALPO	Date 980420	Approved AIR Date 980420	Doc. class –
ECN No.	71535						Machine TBA/19-0101	Denomination TOWER AND LEVEL SENSOR		
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-19:10			Page –
Appr./Date	AIR/980420				Drawing remarks					

12:41 20/11/98

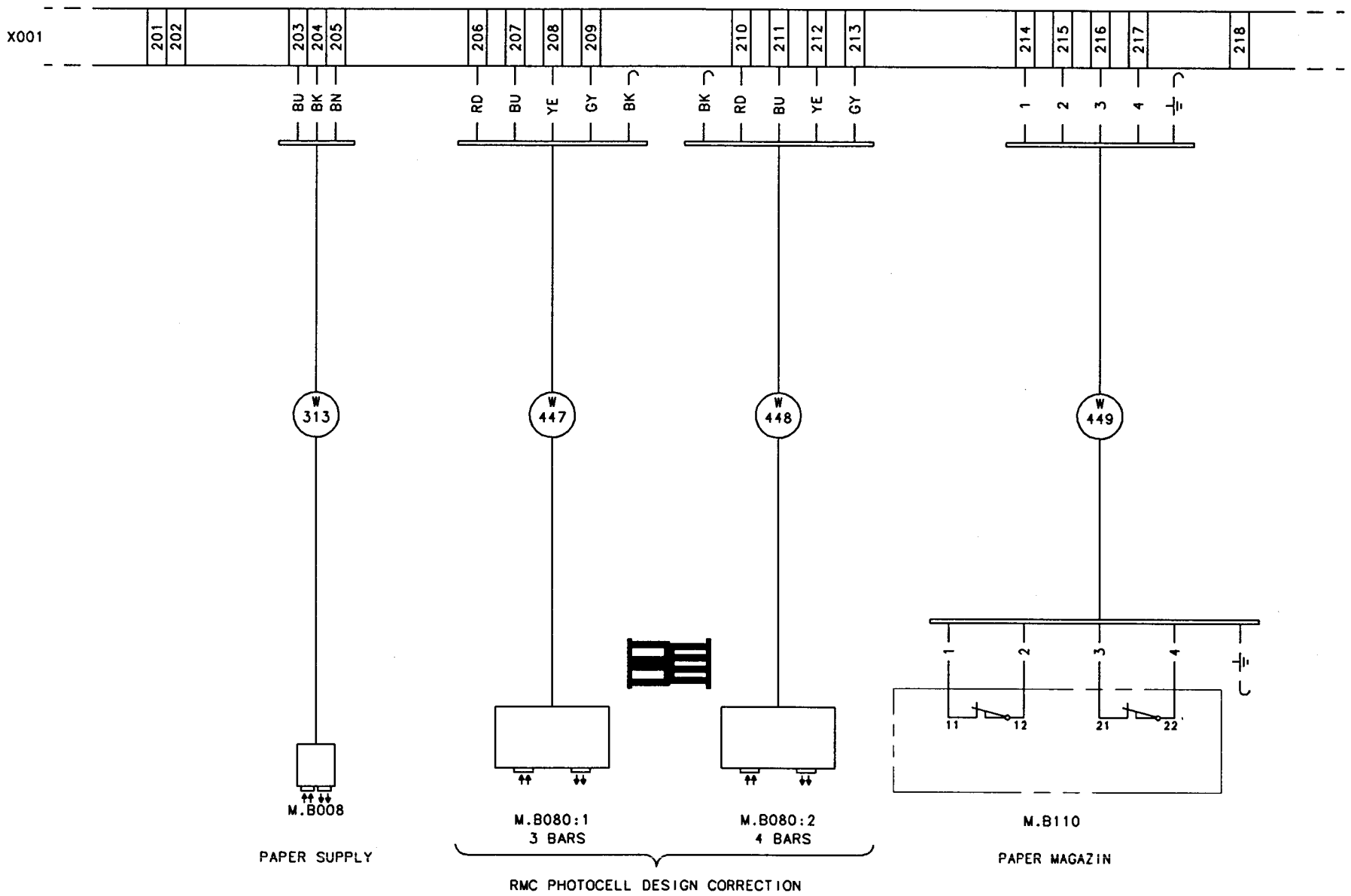
This drawing must not without the consent of Tetra Pak: be copied, transmitted or disclosed to any third party.



Note	A				① OLD VERSION	Tetra Pak	Designer ALPO	Date 980420	Approved AIR Date 980420	Doc. class –
ECN No.	71535						Machine TBA/19-0101	Denomination TOWER AND PEROXIDE TANK		
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-20:10			Page –
Appr./Date	AIR/980420				Drawing remarks					

12:41 20/11/98

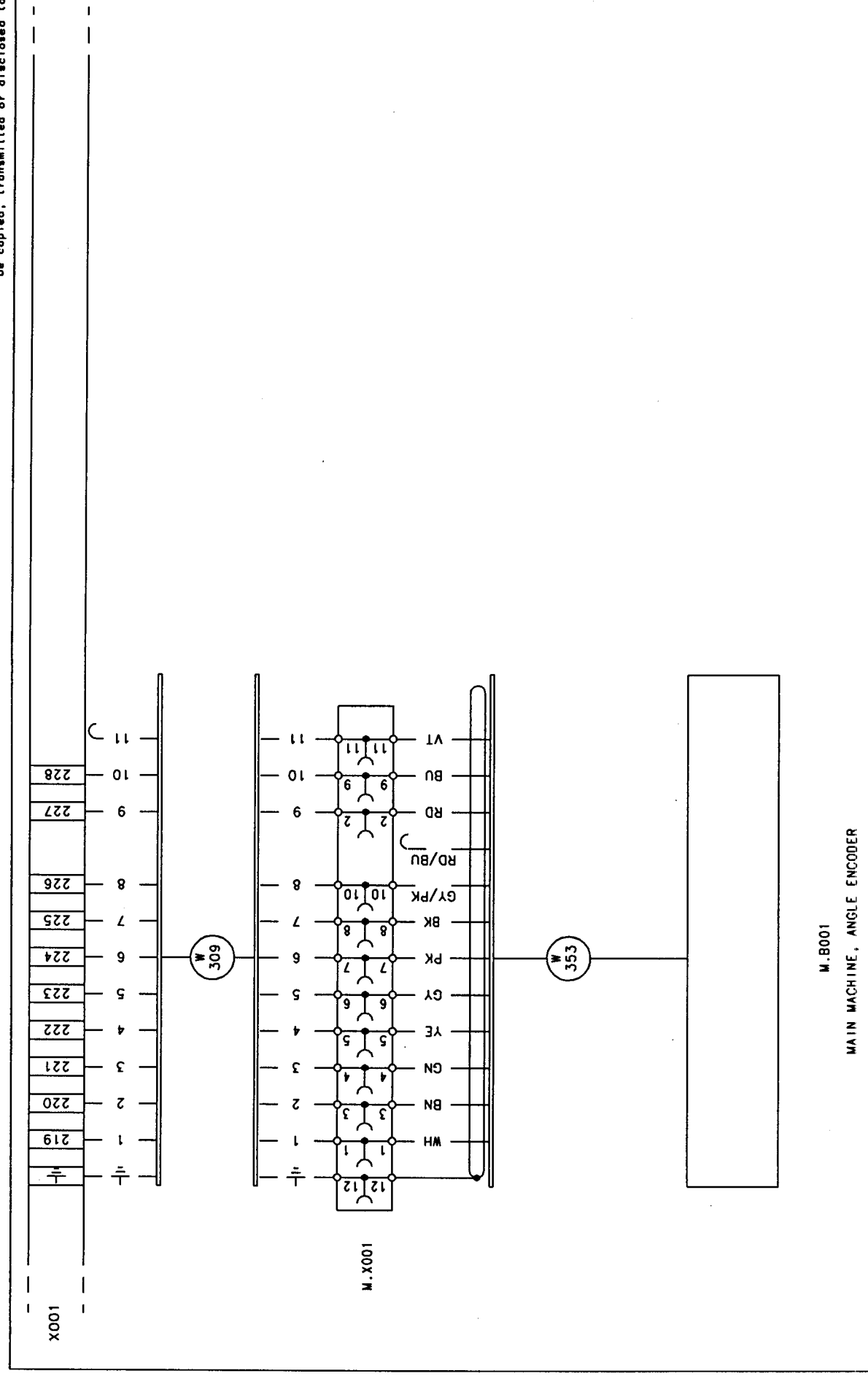
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Note	A					Tetra Pak	Designer ALPO Date 980420	Approved AIR Date 980420	Doc. class –	
ECN No.	71535						Machine TBA/19-0101	Description PAPER SUPPLY AND TOWER		
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-21:10		Page –	
Appr./Date	AIR/980420				Drawing remarks					

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Note	A								
ECN No.	22530								
Sign./Date	MRI/950210								
Appr./Date	HK/950217								
					Drawing remarks				

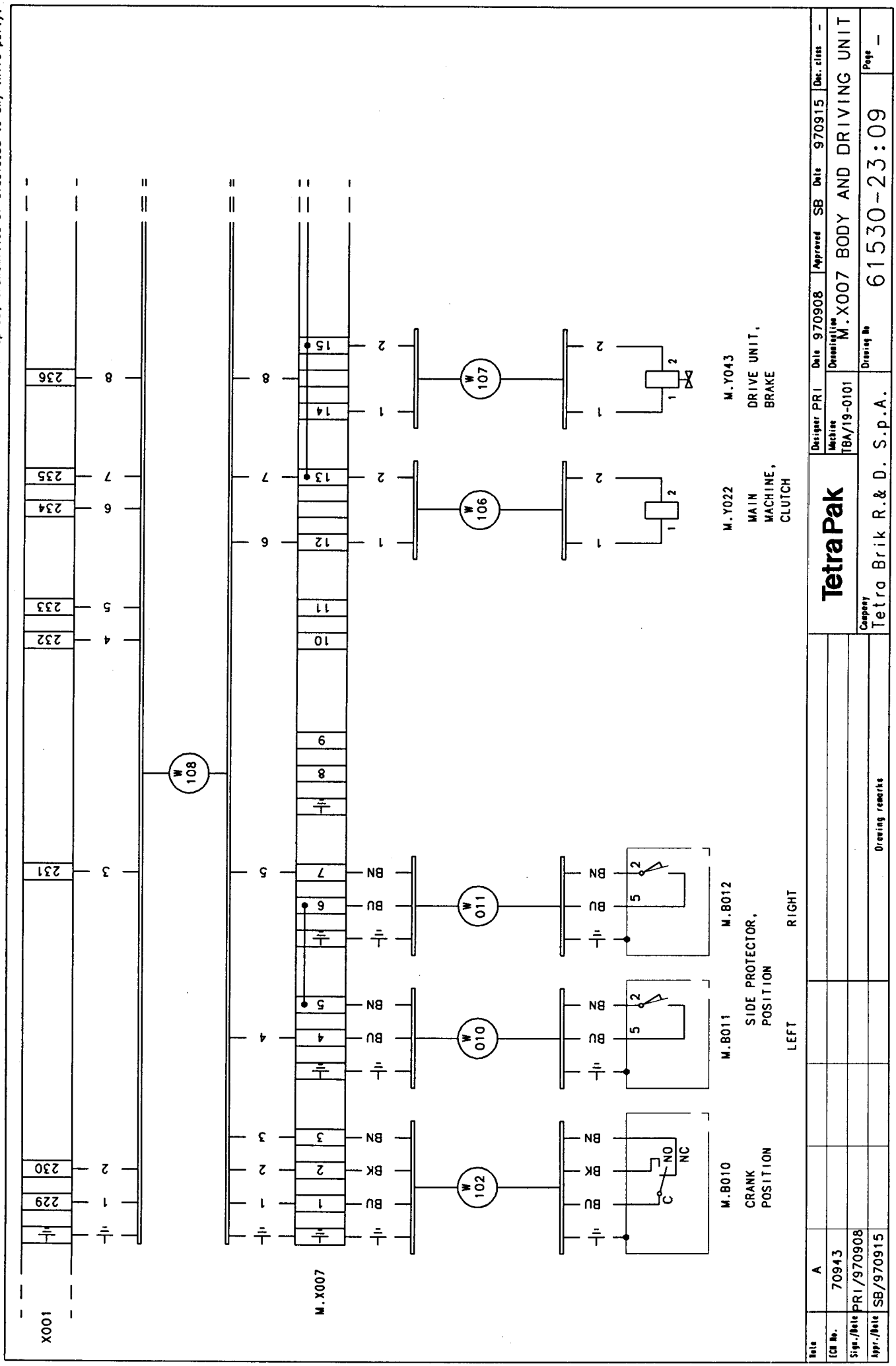
Tetra Pak

Designer MRI Date 950210 | Approved HK Date 950217 | Doc. class -

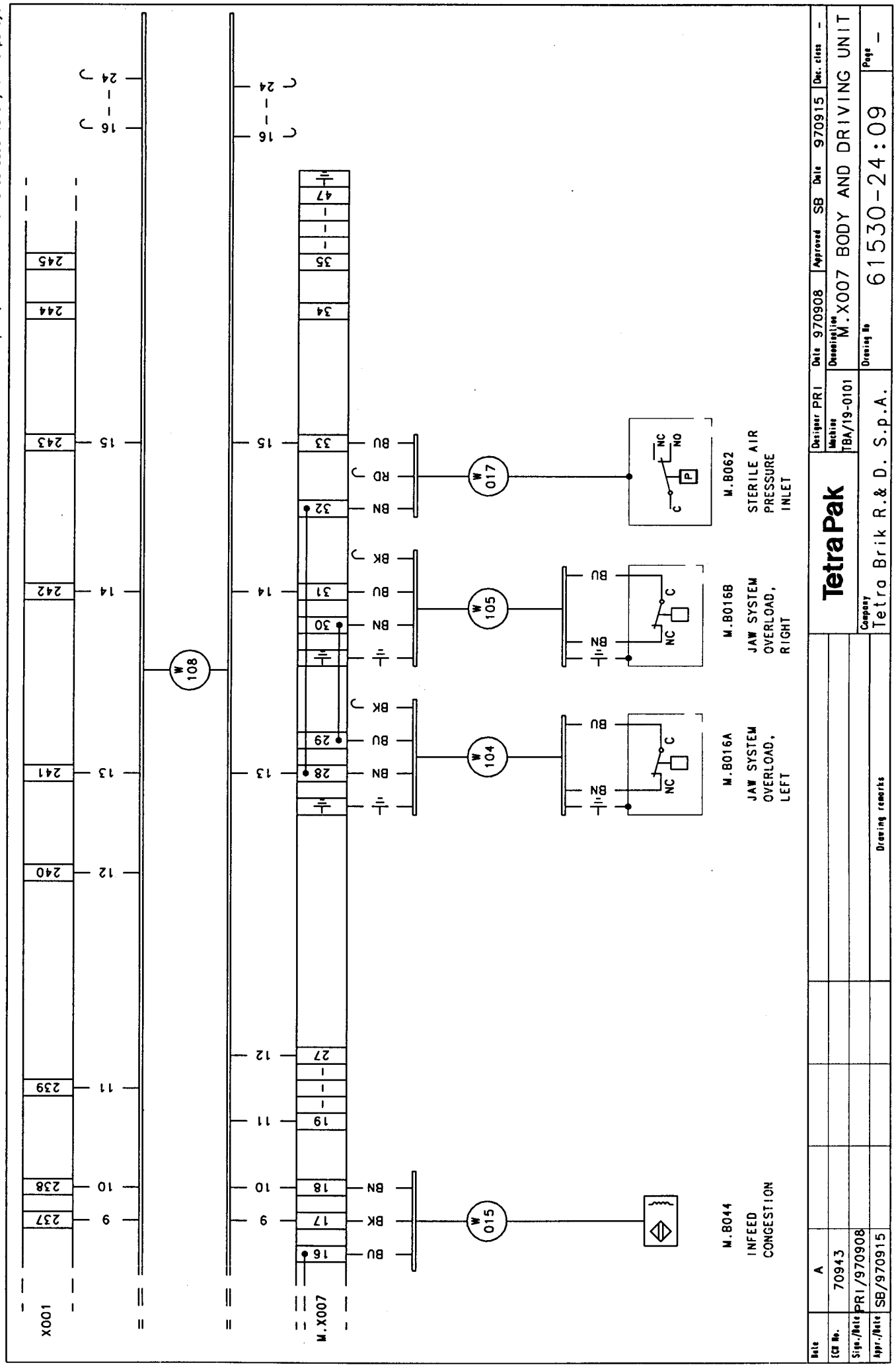
Machine TBA/19-0101 | Designation MAIN MACHINE, ANGLE ENCODER

Company Tetra Brik R.& D. S.p.A. | Drawing No 61530-22:01 | Page -

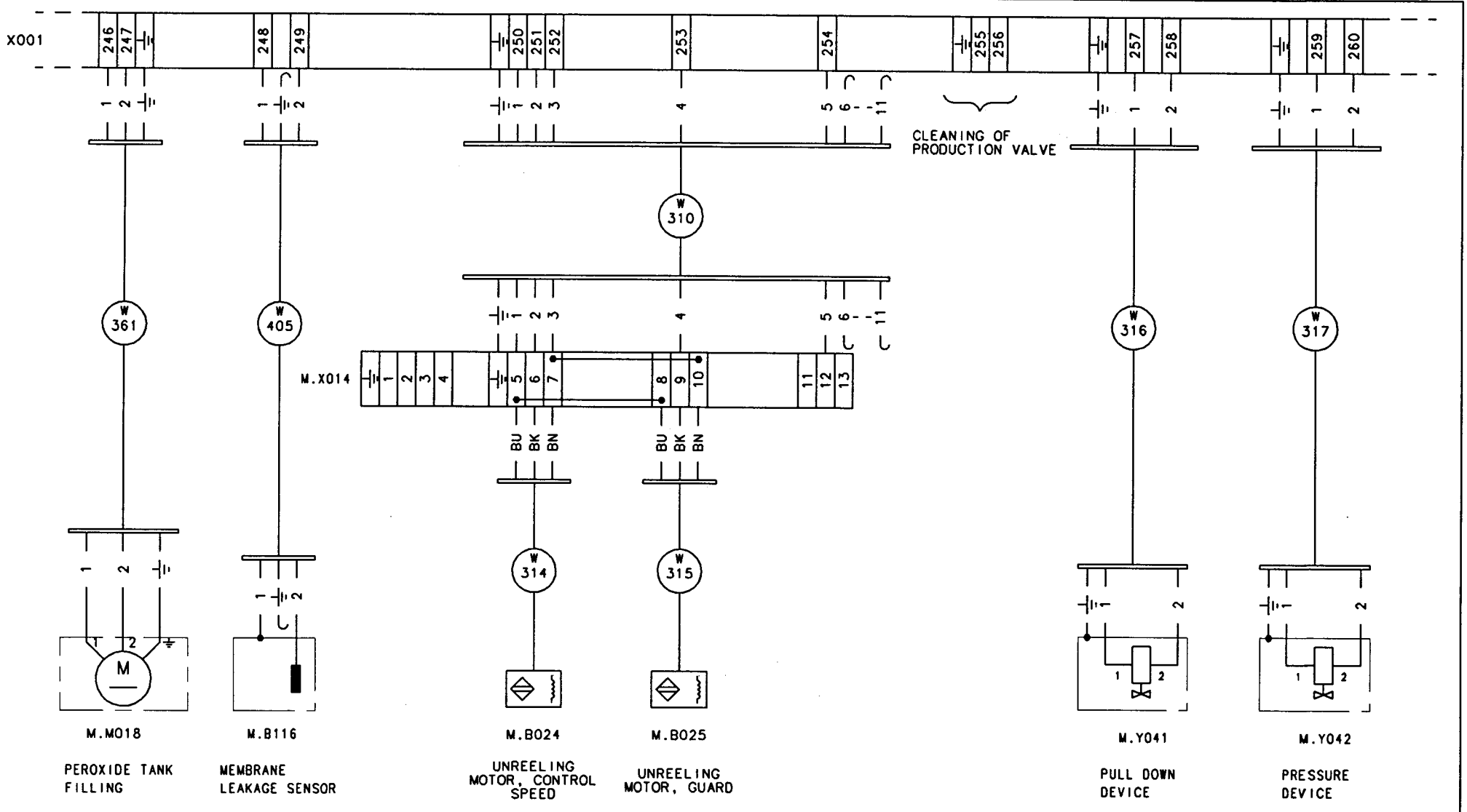
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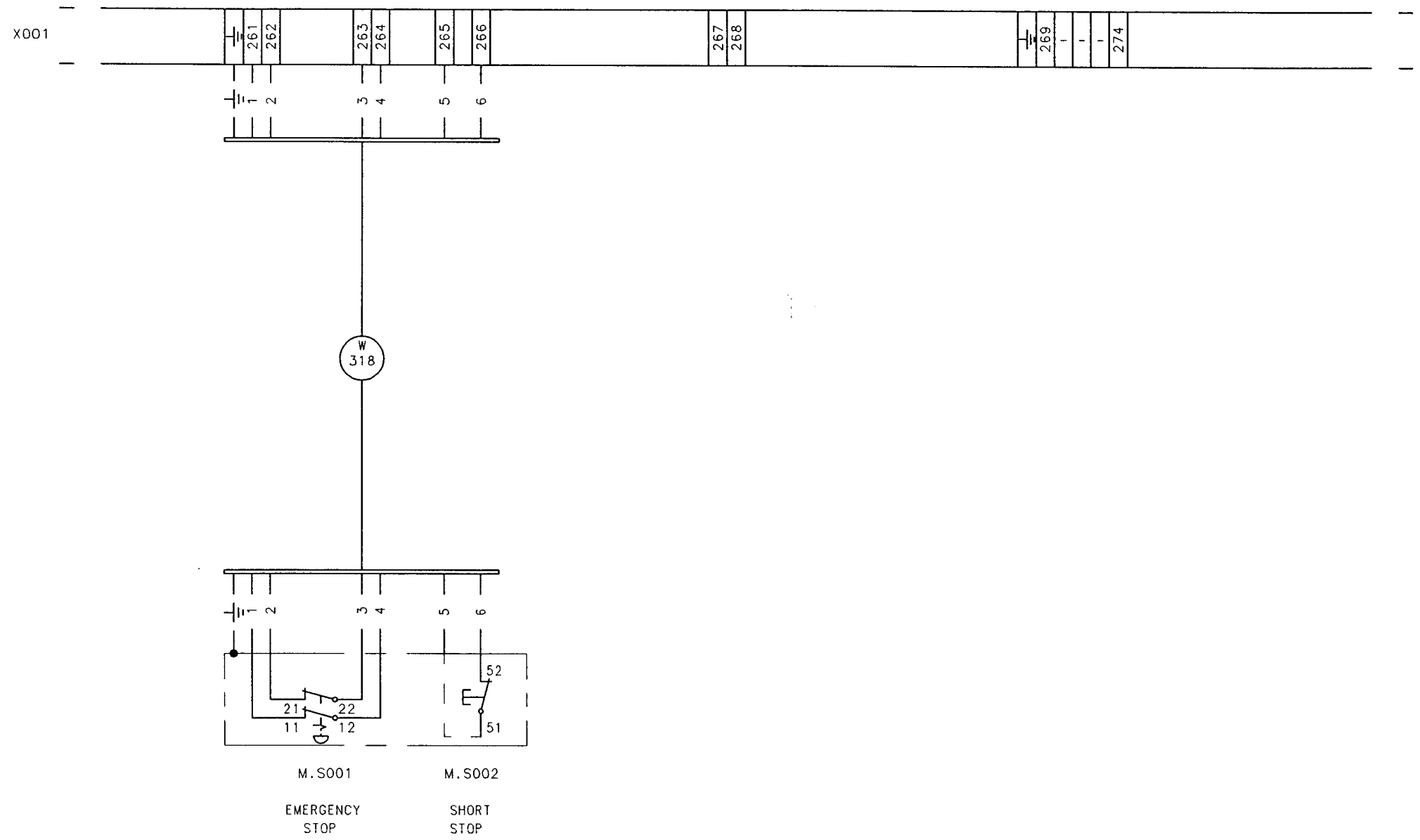
Note	A				
ECN No.	71535				
Sign./Date	ALPO/980420				
Appr./Date	AIR/980420				Drawing remarks

Tetra Pak

Designer ALPO	Date 980420	Approved AIR	Date 980420	Doc. class –
Machine TBA/19-0101	Description LEAKAGE SENSOR AND SERV. UNIT			
Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-25:10			Page –

12:41 20/11/98

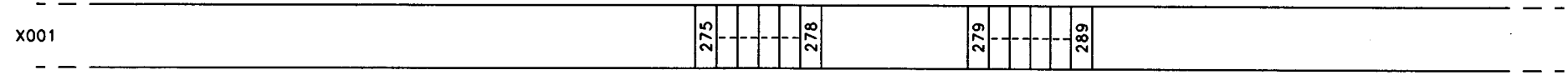
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Note	A					Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class –
ECN No.	71701						Machine TBA/19-0101	Denomination SERVICE UNIT, EMERGENCY STOP		
Sign./Date	ALPO/980930					Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-26:12			Page –
Appr./Date	AIR/980930				Drawing remarks					

12:41 20/11/98

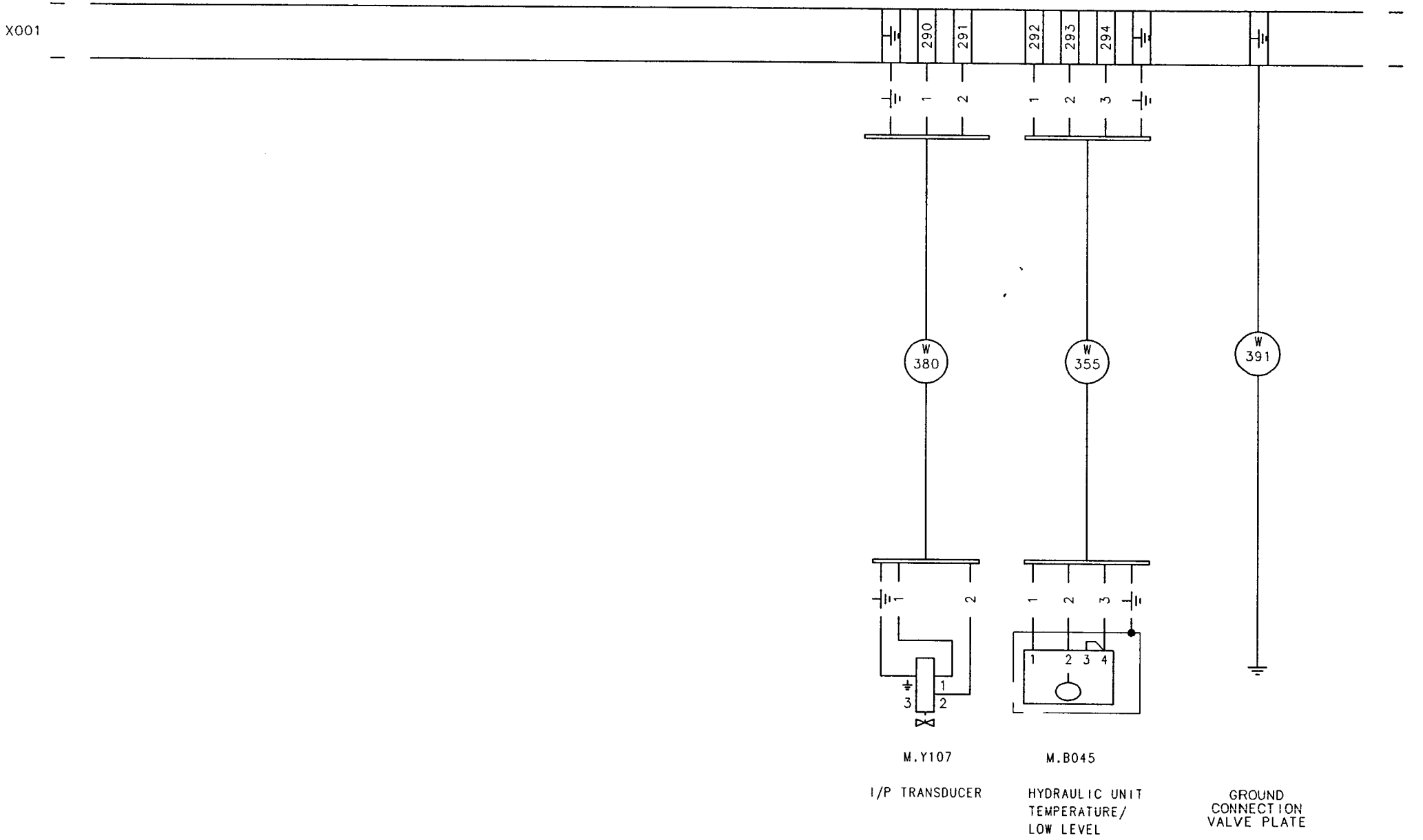
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Date	A					Tetra Pak	Designer CAI	Date 950420	Approved HK	Date 950427	Doc. class –
ECN No.	22940						Machine TBA/19-0101	Denomination SPARE			
Sign./Date	CAI/950420					Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-27:02				Page –
Appr./Date	HK/950427				Drawing remarks						

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Note	A				
ECN No.	71701				
Sign./Date	ALPO/980930				
Appr./Date	AIR/980930				Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO Date 980930 | Approved AIR Date 980930 | Dec. class –

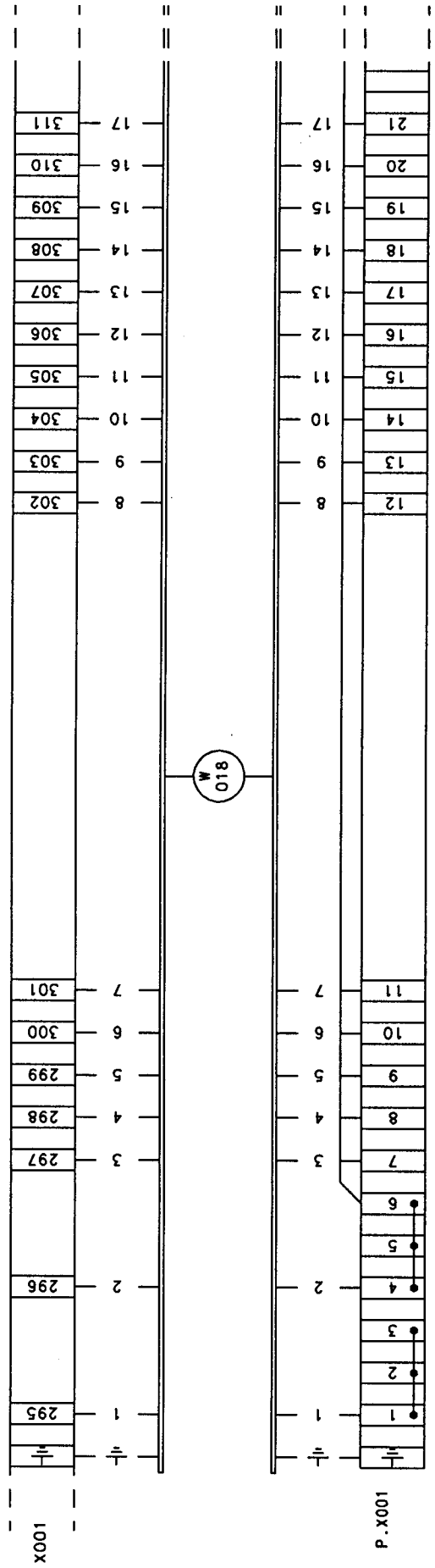
Machine: TBA/19-0101

Denomination: SERVICE UNIT

Drawing No: 61530-28:12

Page –

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Mole	A								
ECR No.	22530								
Sign./Date	MR1/950210								
Appr./Date	HK/950217								

Drawing remarks

Company: Tetra Brik R.& D. S.p.A.

Tetra Pak

Designer MR1 Date 950210 | Approved HK Date 950217 | Doc. class -

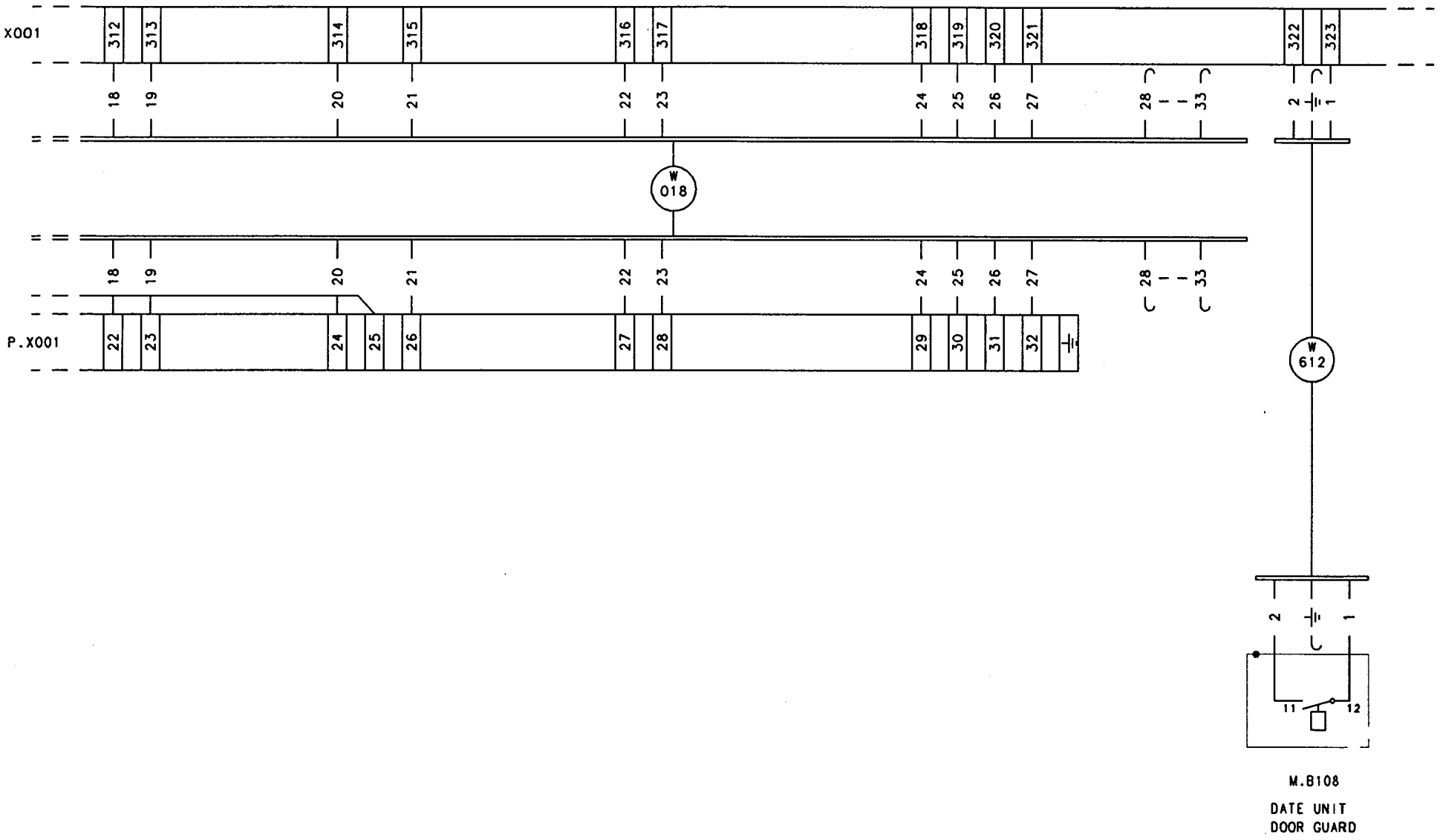
Machine: TBA/19-0101

Description: P.X001 PANEL INTERFACE

Drawing No: 61530-29:01

Page -

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M.B108

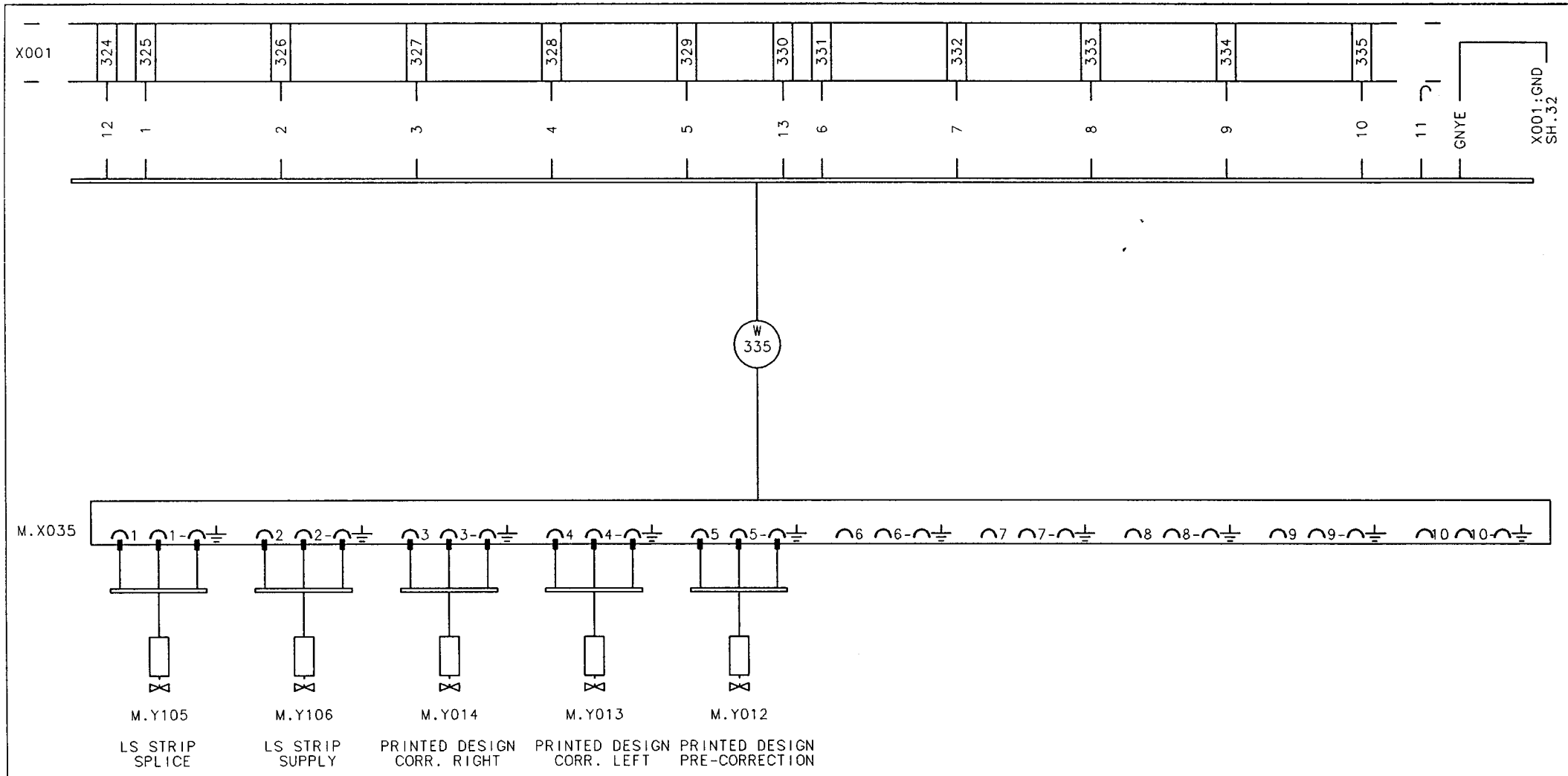
DATE UNIT
DOOR GUARD

Note	A					Tetra Pak	Designer ALPO	Date 980420	Approved AIR	Date 980420	Doc. class –
ECN No.	71535						Machine TBA/19-0101	Designation P.X001 PANEL INT.AND DATE UNIT			
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-30:10			Page –	
Appr./Date	AIR/980420				Drawing remarks						

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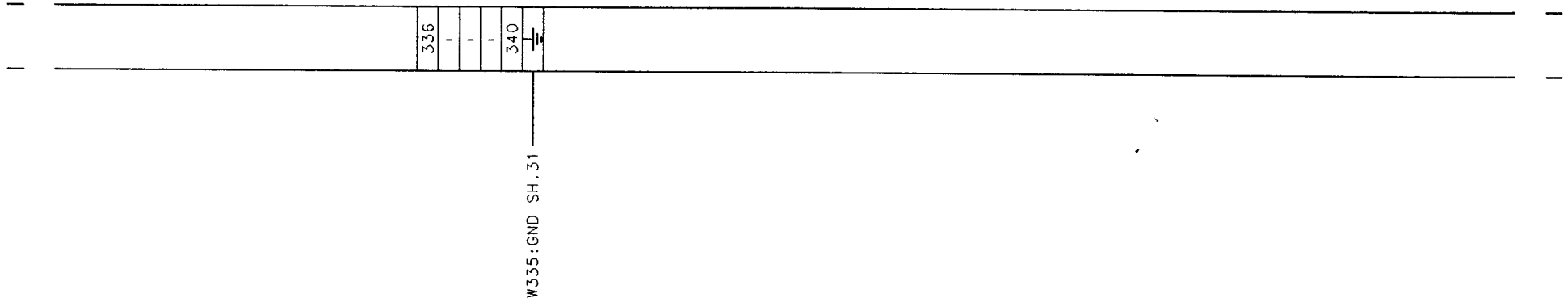
Note	A				
ECN No.	71701				
Sign./Date	ALPO/980930				
Appr./Date	AIR/980930				Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class –
Machine TBA/19-0101	Denomination M.X035 VALVE PANEL			
Drawing No 61530-31:12				Page –

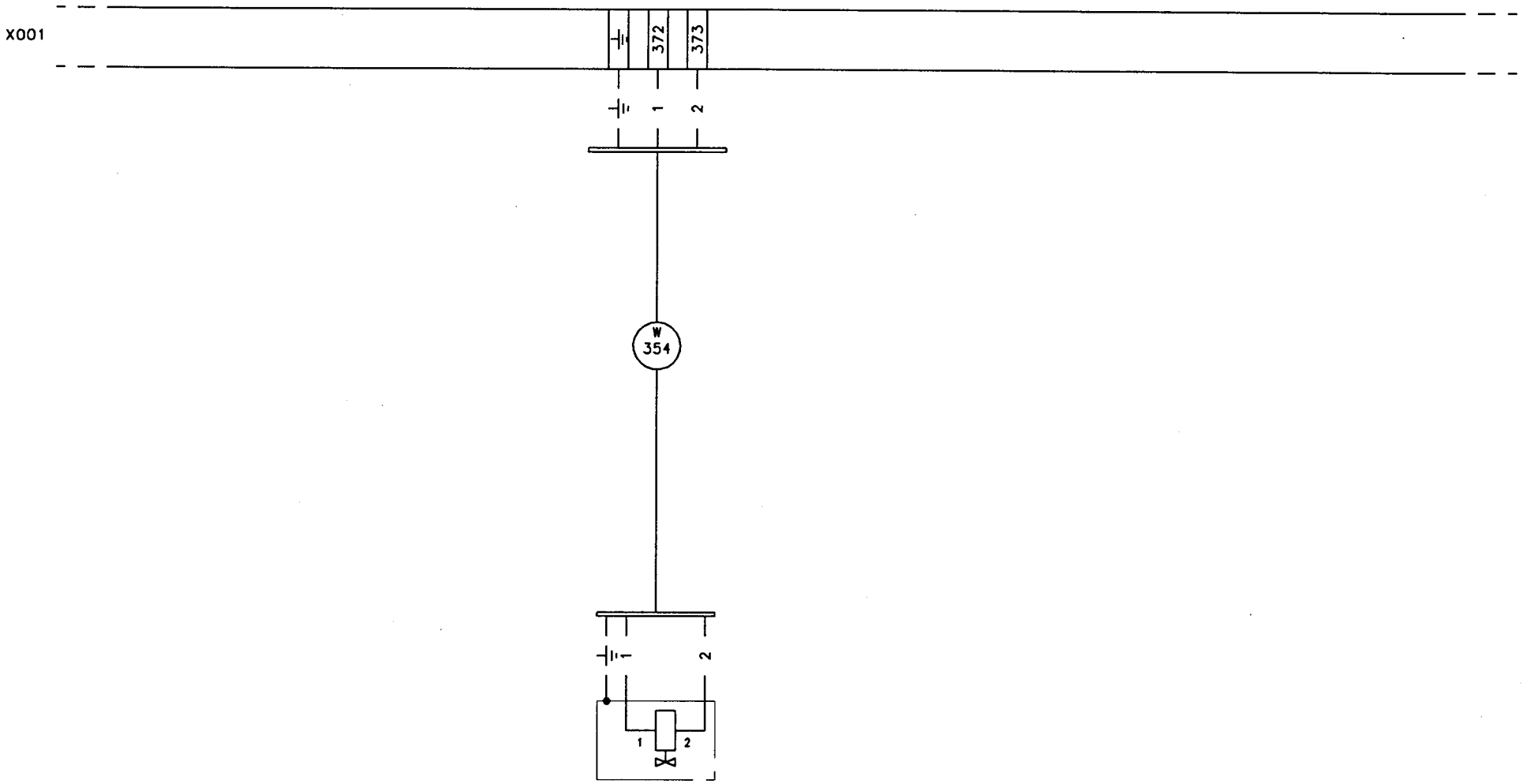
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Note	A					Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class -	
ECN No.	71701					Machine TBA/19-0101	Denomination SPARE			
Sign./Date	ALPO/980930					Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-32:12		Page -	
Appr./Date	AIR/980930				Drawing remarks					

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M.Y033

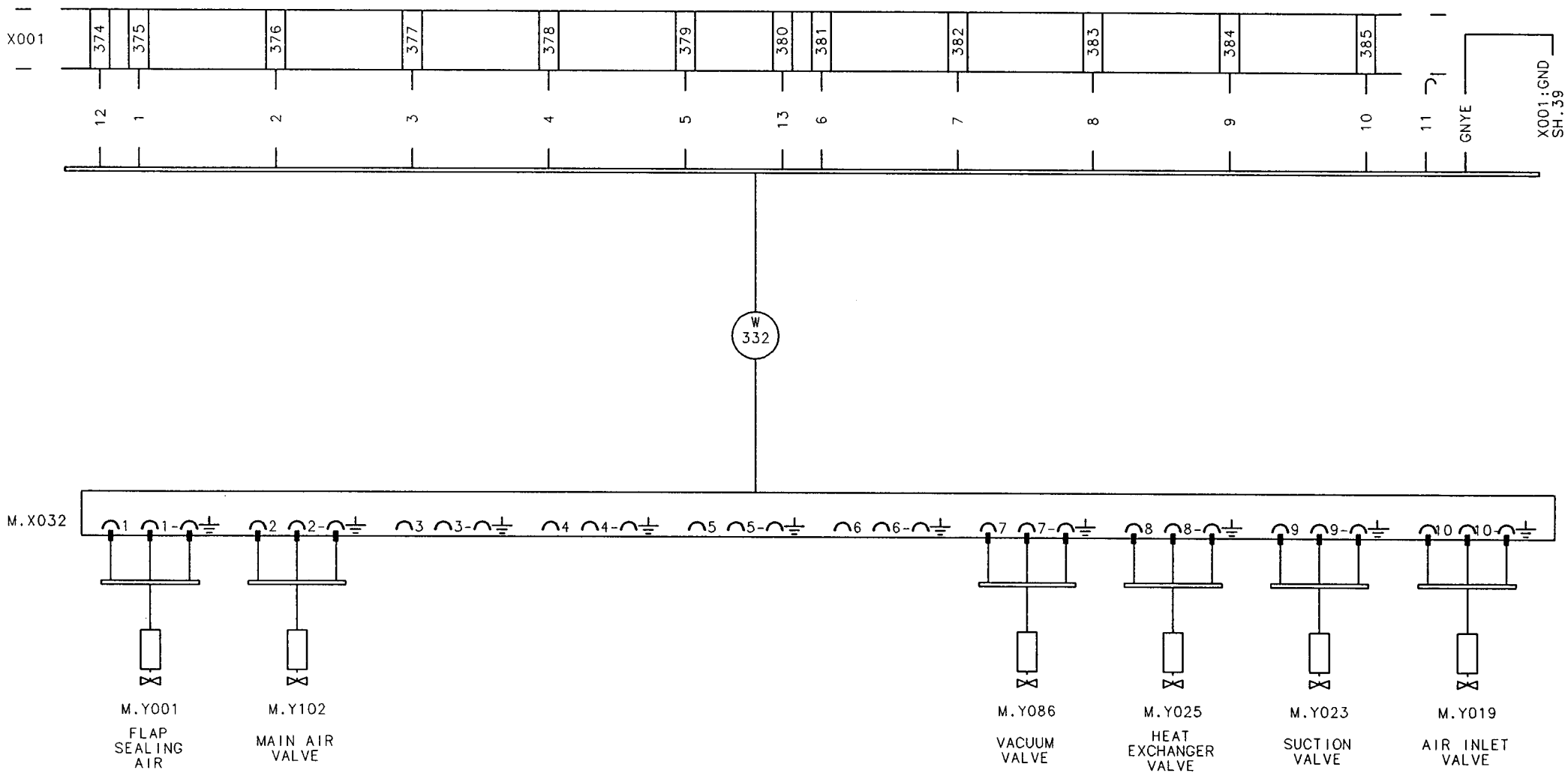
COOLING
WATER

Note	A					Tetra Pak	Designer MRI	Date 950210	Approved HK	Date 950217	Doc. class –
ECN No.	22530						Machine TBA/19-0101	Description SERVICE UNIT			
Sign./Date	MRI/950210					Company Tetra Brik R.& D. S.p.A.		Drawing No 61530-36:01			Page –
Appr./Date	HK/950217				Drawing remarks						

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Note	A				
ECN No.	71701				
Sign./Date	ALPO/980930				
Appr./Date	AIR/980930				Drawing remarks

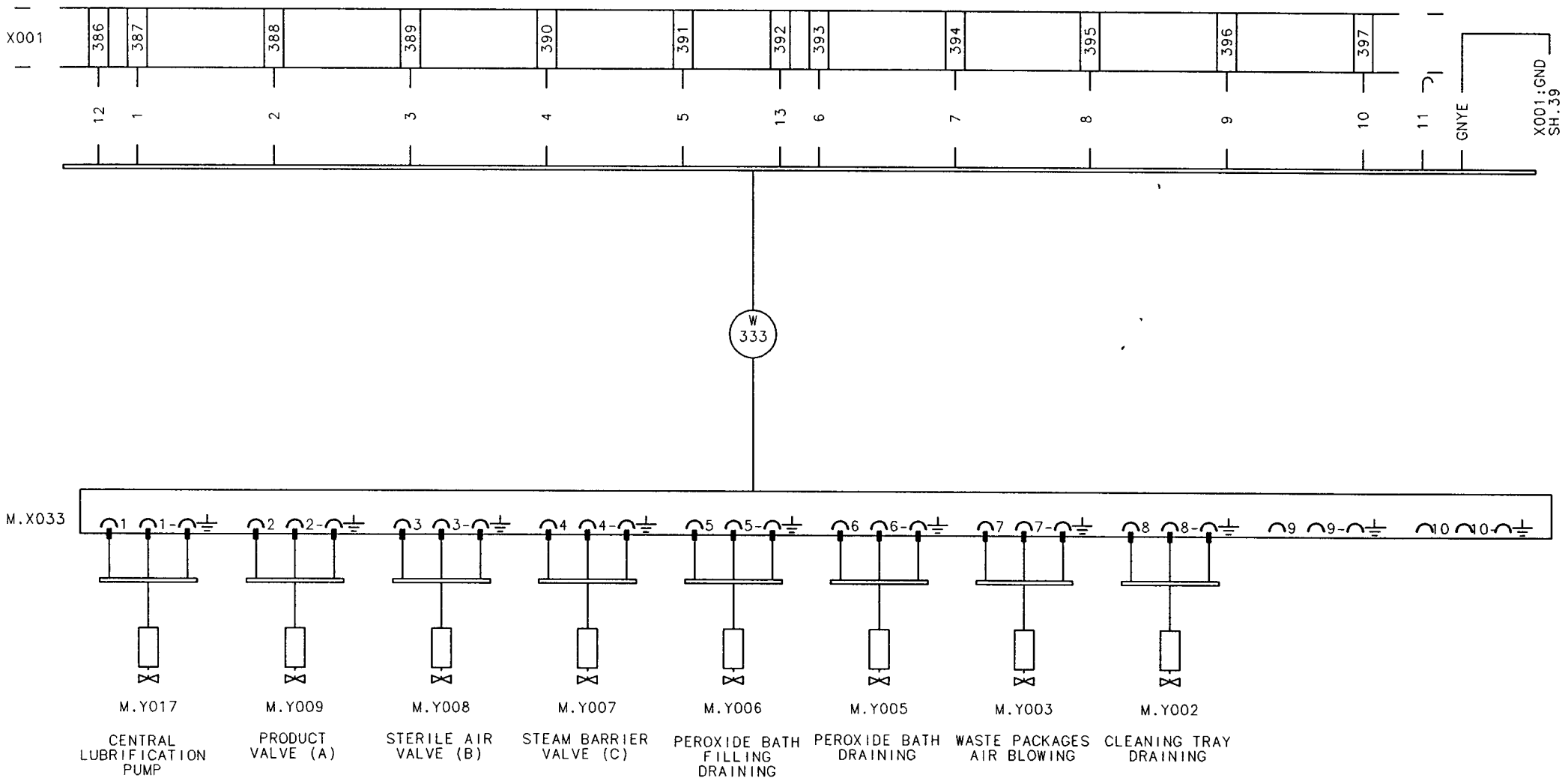
Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class –
Machine TBA/19-0101	Denomination M.X032 VALVE PANEL			
Drawing No 61530-37:12				Page –

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Note	A				
ECN No.	71701				
Sign./Date	ALPO/980930				
Appr./Date	AIR/980930				Drawing remarks

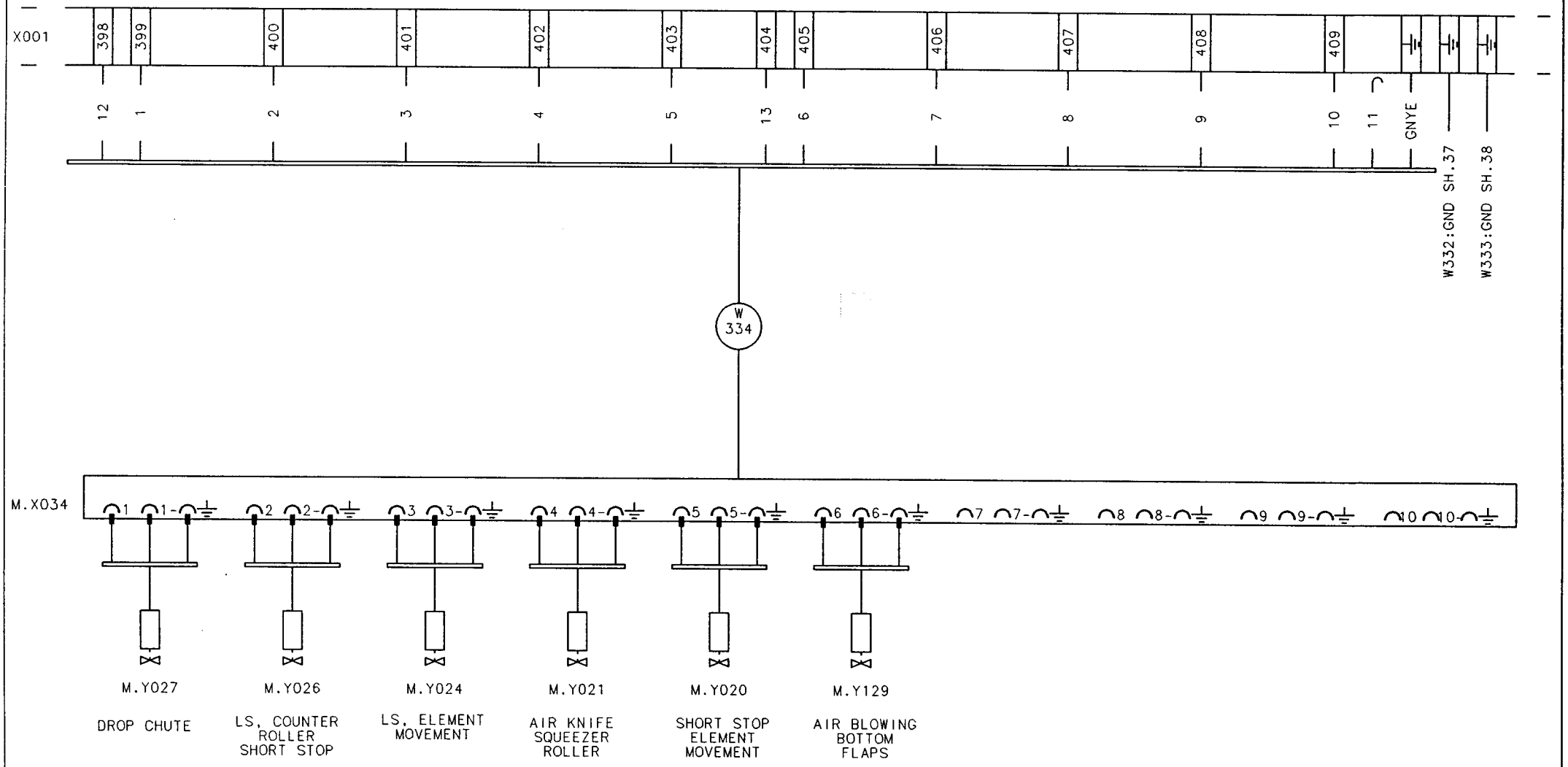
Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class –
Machine TBA/19-0101	Denomination M.X033 VALVE PANEL			
Drawing No 61530-38:12				Page –

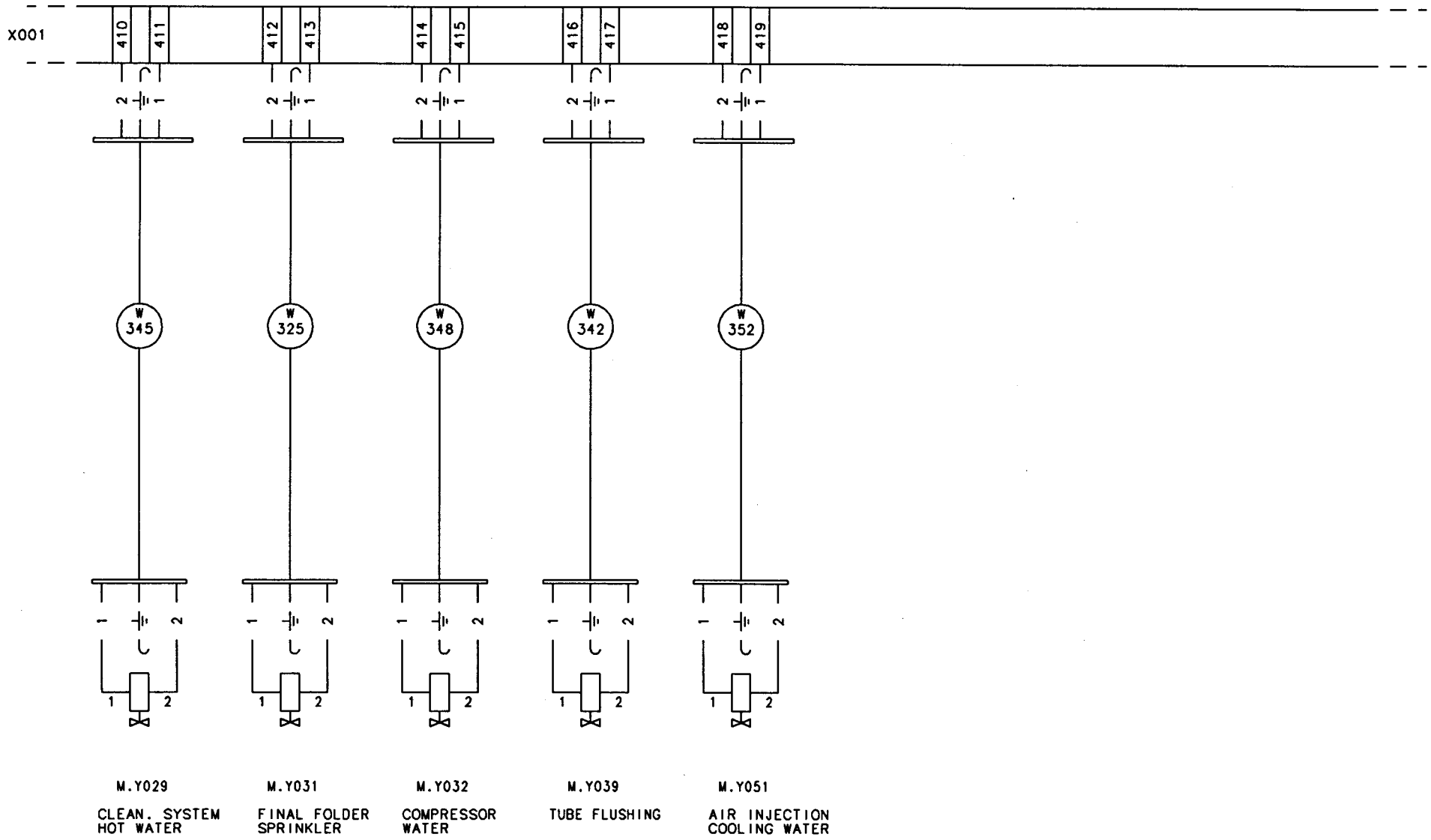
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Note	A					Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class –
ECN No.	71701						Machine TBA/19-0101	Denomination M.X034 VALVE PANEL		
Sign./Date	ALPO/980930						Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-39:12		Page –
Appr./Date	AIR/980930				Drawing remarks					

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Date	A				
ECR No.	71535				
Sign./Date	ALPO/980420				
Appr./Date	AIR/980420				Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO Date 980420 | Approved AIR Date 980420 | Doc. class -

Machine: TBA/19-0101

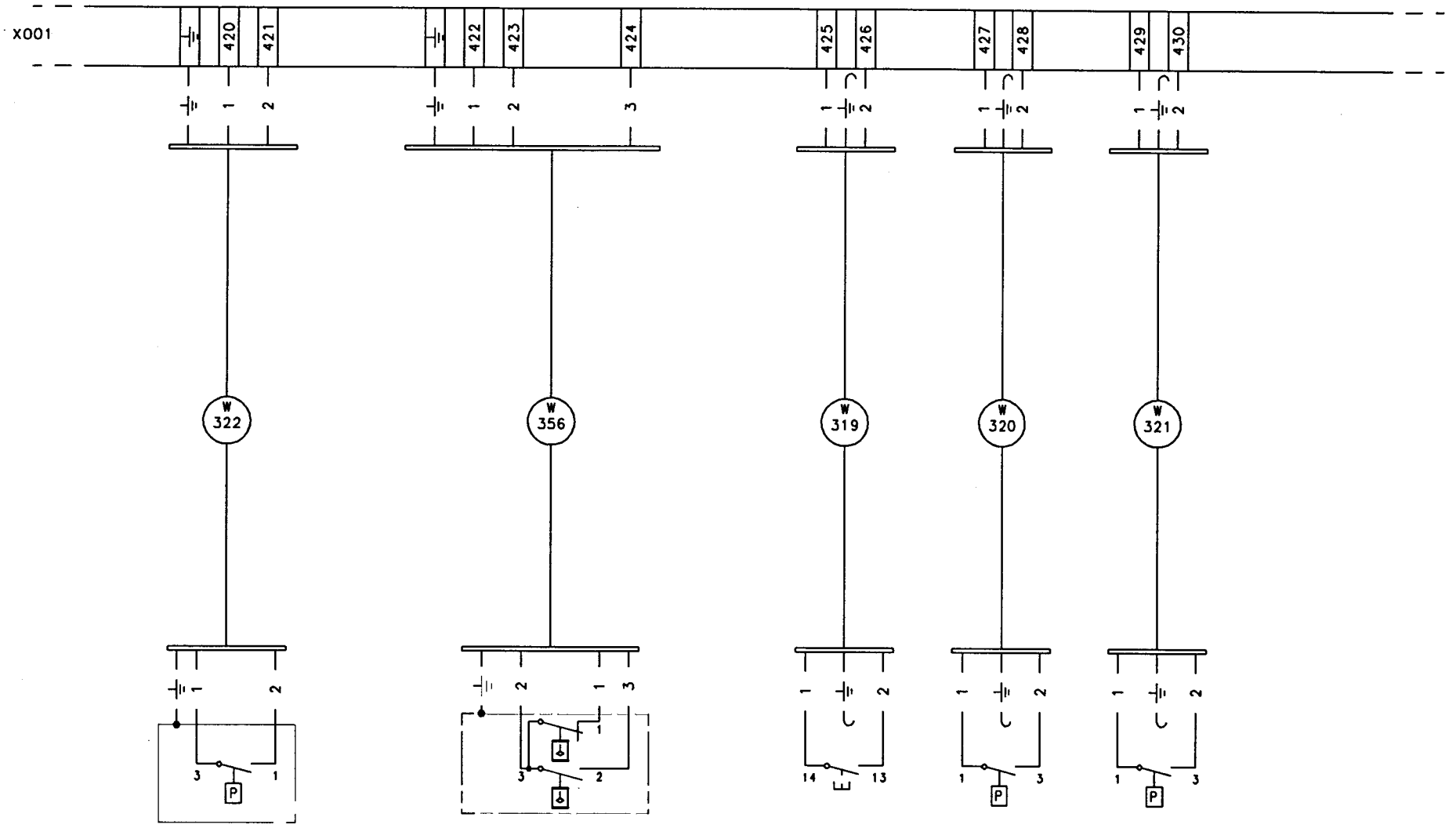
Denomination: SERVICE UNIT, VALVES

Drawing No: 61530-40:10

Page -

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M.B006
LUBR, OIL PRESSURE

M.B030
LUBRICATION OIL LOW/HIGH LEVEL

M.S014
MANUAL LUBRICATION

M.B002
MAIN AIR, PRESSURE

M.B007
COOL WATER PRESSURE

Note	A				
ECN No.	71535				
Sign./Date	ALPO/980420				
Appr./Date	AIR/980420				Drawing remarks

Tetra Pak

Designer ALPO Date 980420 | Approved AIR Date 980420 | Doc. class –

Machine TBA/19-0101

Denomination SERVICE UNIT

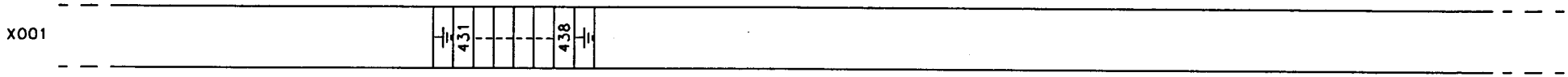
Company Tetra Brik R.& D. S.p.A.

Drawing No 61530-41:10

Page –

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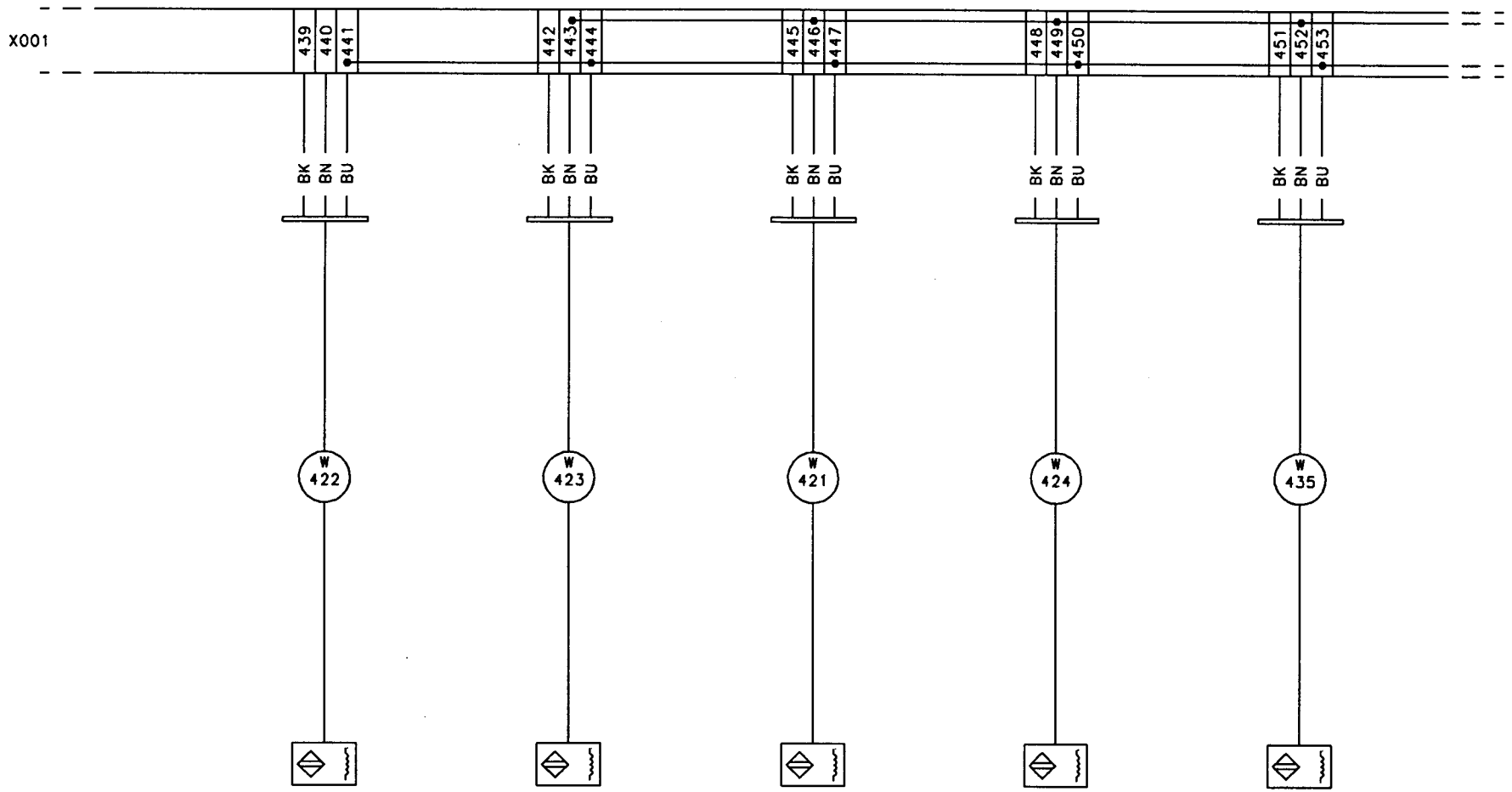
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Note	A					Tetra Pak	Designer MRI	Date 950210	Approved HK	Date 950217	Doc. class –
ECN No.	22530						Machine TBA/19-0101	Denomination SPARE			
Sign./Date	MRI/950210					Company Tetra Brik R.& D. S.p.A.		Drawing No 61530-42:01			Page –
Appr./Date	HK/950217				Drawing remarks						

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M.B046
SQUEEZER ROLLER, POSITION

M.B047
AIR KNIFE, POSITION

M.B051
PRODUCT PIPE, POSITION

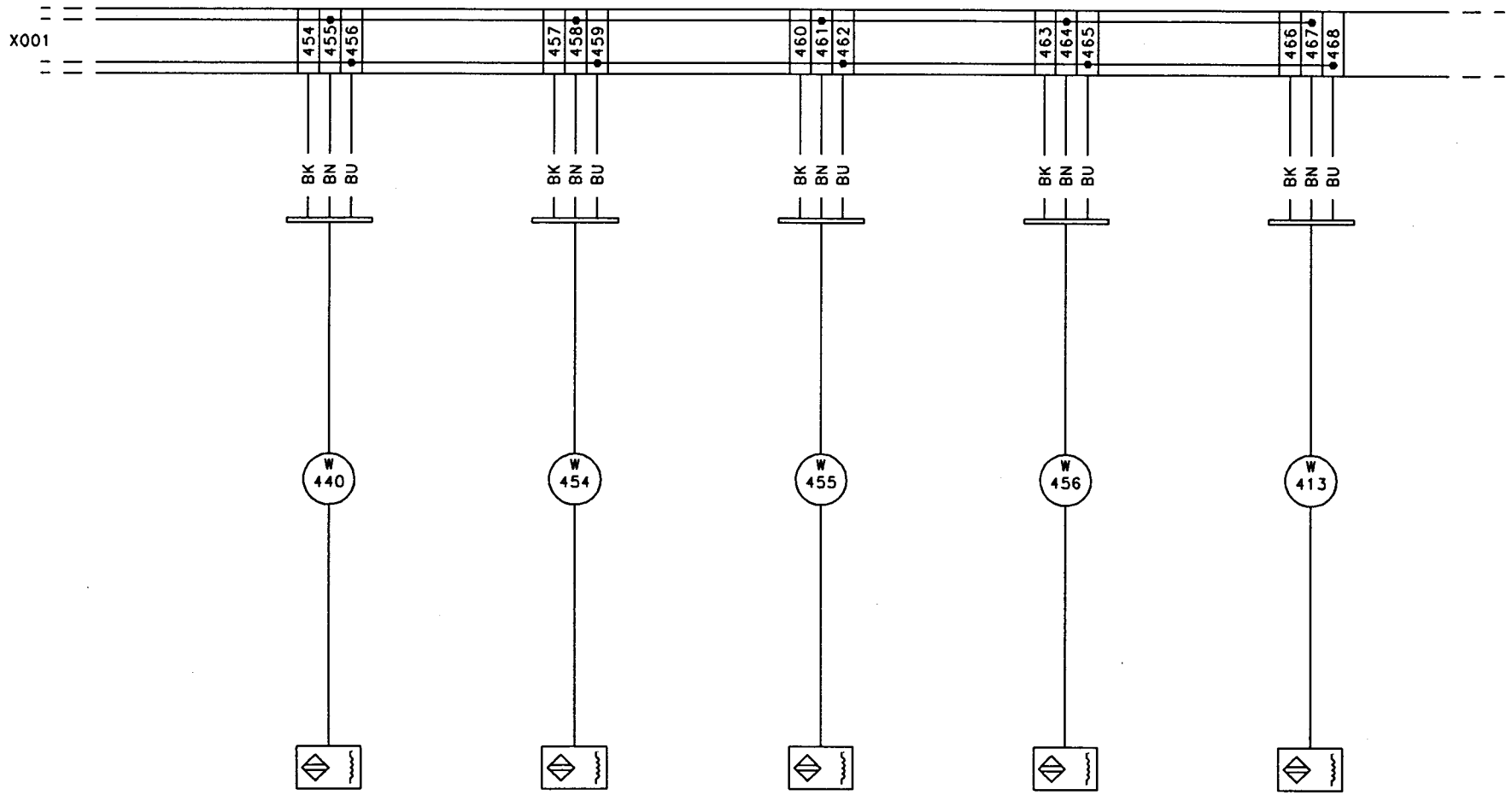
M.B053
STERILE AIR B-VALVE POSITION

M.B061
CLEANING CUP POSITION

Note	A					Tetra Pak	Designer MRI	Date 950210	Approved HK	Date 950217	Doc. class –
ECN No.	22530						Machine TBA/19-0101	Denomination TOWER, INDUCTIVE SENSOR			
Sign./Date	MRI/950210					Company Tetra Brik R.& D. S.p.A.		Drawing No 61530-43:01			Page –
Appr./Date	HK/950217				Drawing remarks						

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M.B063
CLEANING PIPE, POSITION

M.B071
AIR INLET VALVE POSITION

M.B094
SUCTION VALVE POSITION

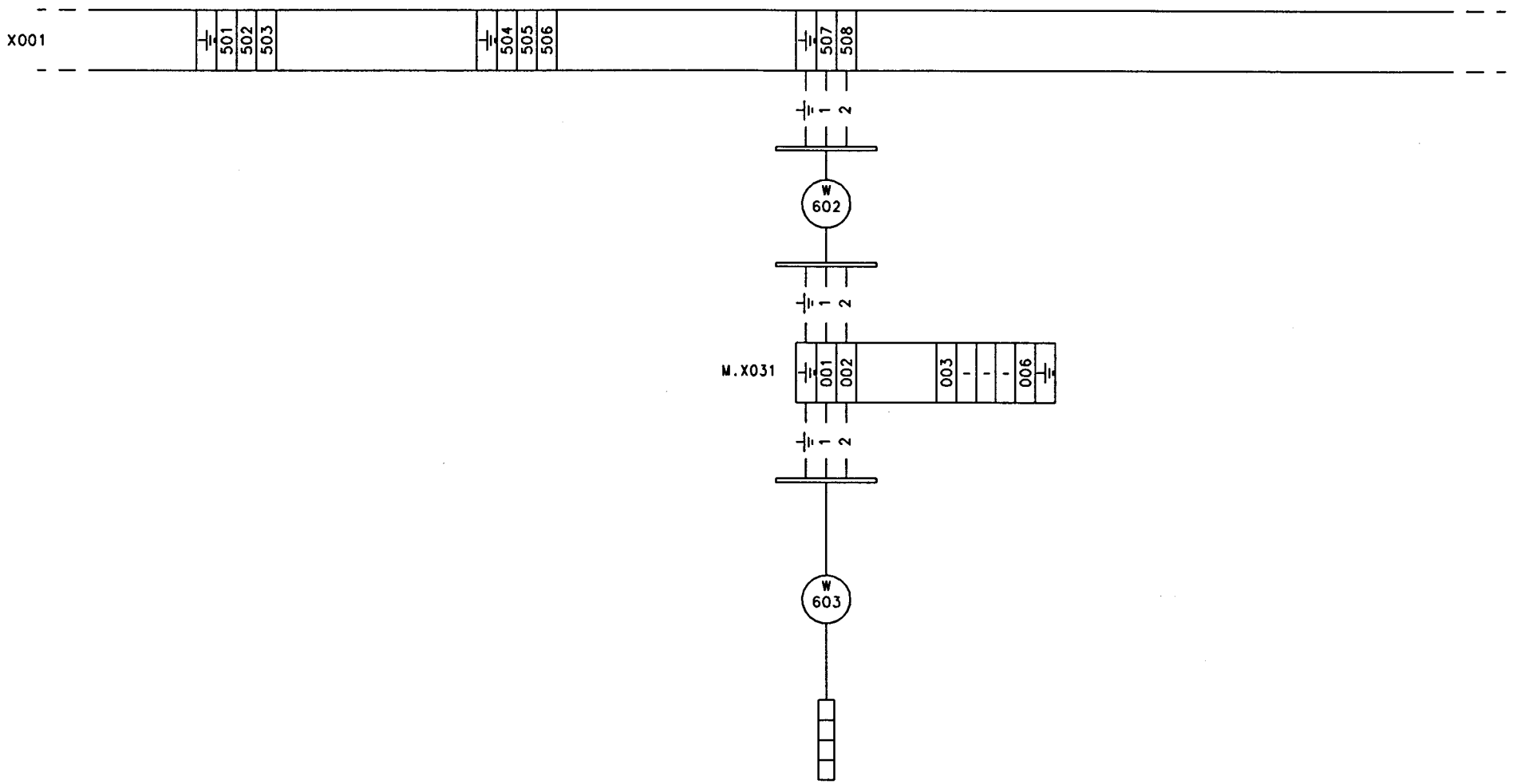
M.B104
STERILE AIR PIPE POSITION

M.B117
REGULATING VALVE OPEN POSITION

Note	A					Tetra Pak	Designer PRI	Date 950829	Approved HK	Date 950830	Doc. class –
ECN No.	22817						Machine TBA/19-0101	Description TOWER, INDUCTIVE SENSORS			
Sign./Date	PRI/950829					Company Tetra Brik R.& D. S.p.A.		Drawing No 61530-44:04			Page –
Appr./Date	HK/950830				Drawing remarks						

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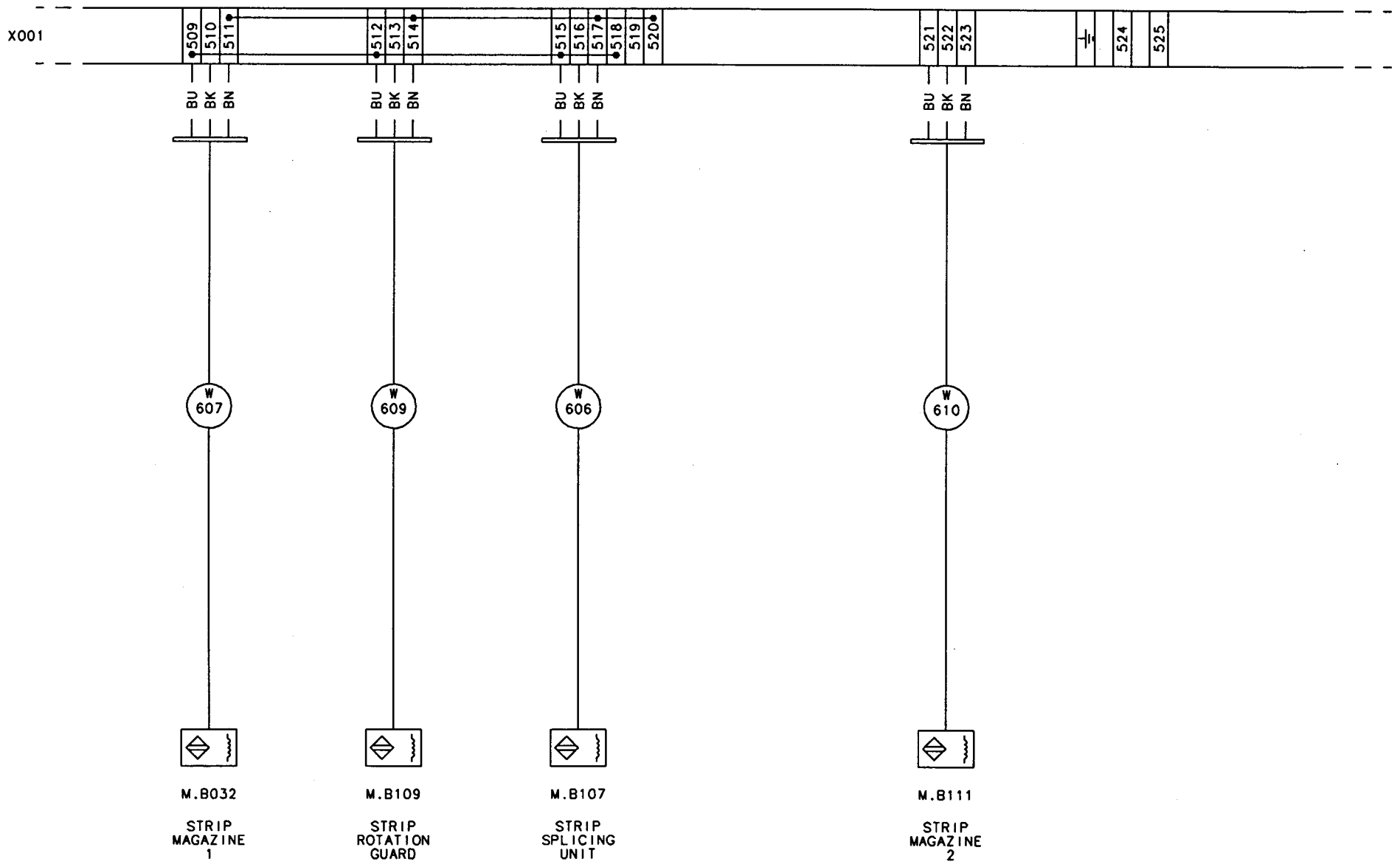
M.R031

STRIP SPLICING UNIT

Note	A					Tetra Pak	Designer ALPO	Date 980420	Approved AIR Date 980420	Doc. class –
ECN No.	71535						Machine T8A/19-0101	Denomination STRIP APPLICATOR, ELEMENT		
Sign./Date	ALPO/980420									
Appr./Date	AIR/980420				Drawing remarks	Company Tetra Brik R.& D. S.p.A.		Drawing No 61530-50:10		Page –

12:41 20/11/98

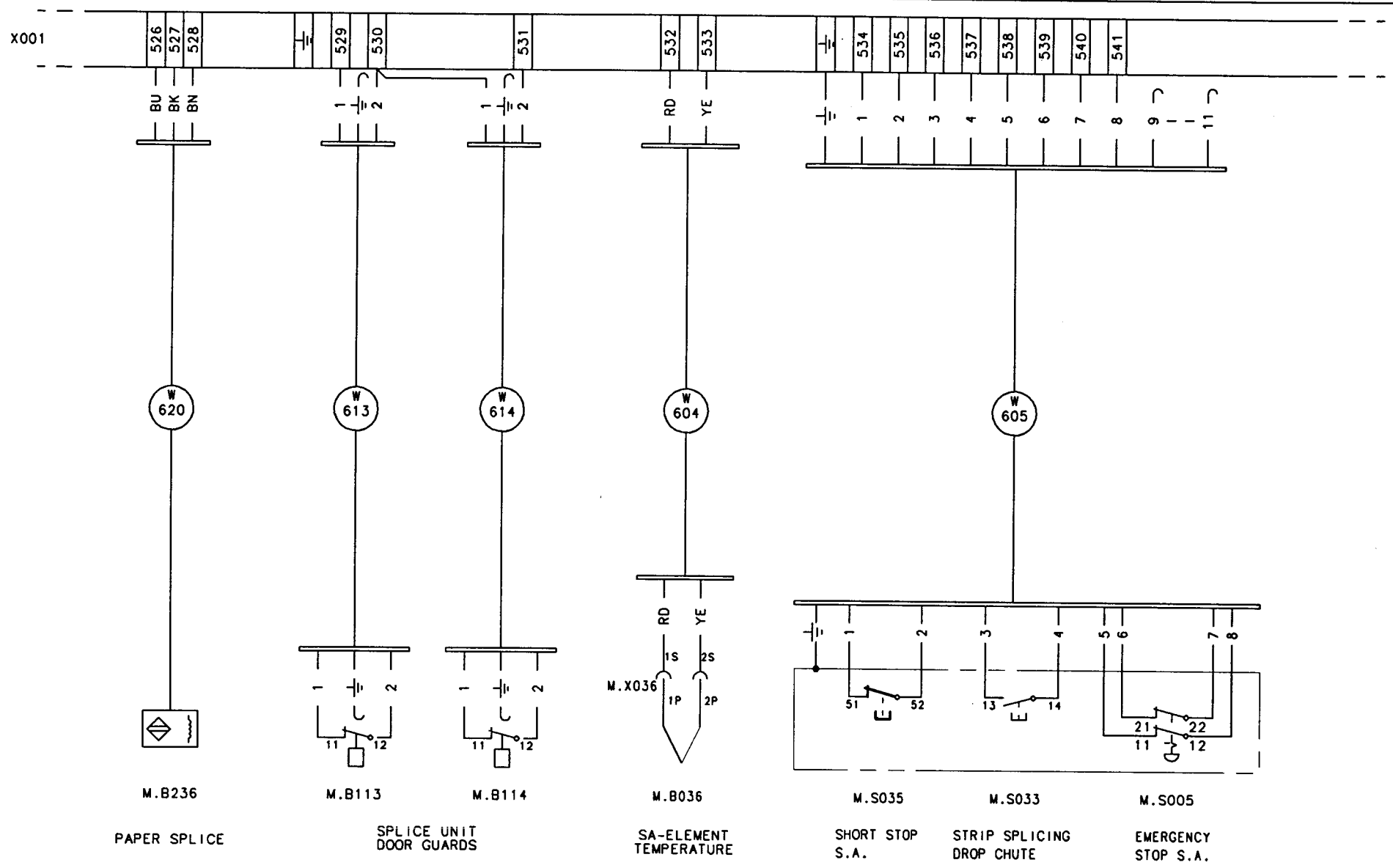
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Note	A					Tetra Pak	Designer ALPO	Date 980420	Approved AIR Date 980420	Doc. class –
ECN No.	71535						Machine TBA/19-0101	Denomination STRIP APPLICATOR		
Sign./Date	ALPO/980420						Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-51:10		Page –
Appr./Date	AIR/980420				Drawing remarks					

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Note	A					Tetra Pak	Designer ALPO	Date 980420	Approved AIR Date 980420	Doc. class –
ECN No.	71535						Machine TBA/19-0101	Denomination STRIP APPLICATOR		
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.		Drawing No 61530-52:10		Page –
Appr./Date	AIR/980420				Drawing remarks					

12:41 20/11/98

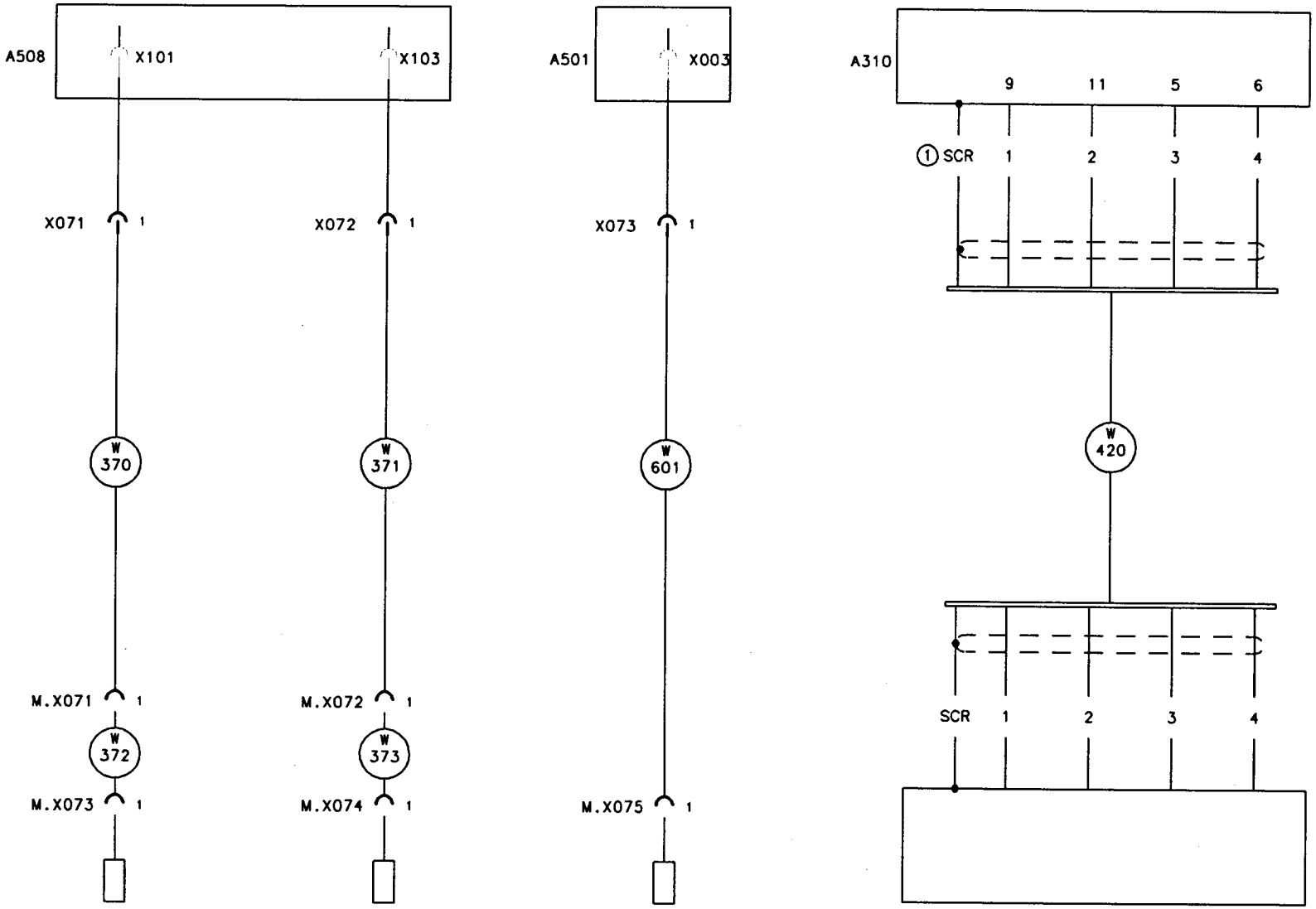
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Note	A					Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class –	
ECN No.	71701					Machine TBA/19-0101	Denomination SPARE			
Sign./Date	ALPO/980930					Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-53:12		Page –	
Appr./Date	AIR/980930				Drawing remarks					

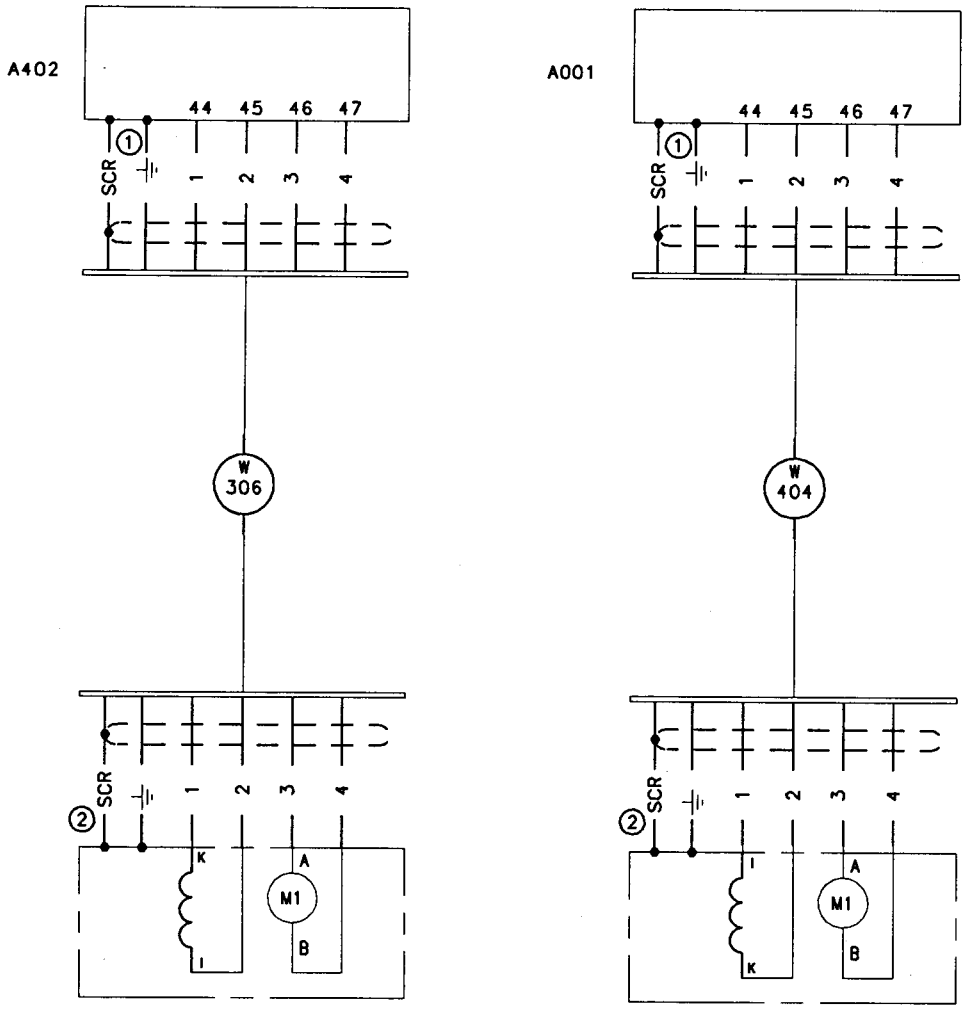
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Note	A				1 TO THE MOUNTING RACK CHASSIS FRAME BY CABLE	Tetra Pak	Designer ALPO	Date 980420	Approved AIR Date 980420	Doc. class –
ECR No.	71535				CLAMPS, SEE MOUNTING DRAWING 52710-12:02.		Machine TBA/19-0101	Denomination SEALINGS, LEVEL REG. FILLING		
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.	Drawing No 61530-54:10		Page –	
Appr./Date	AIR/980420				Drawing remarks					

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M.M014

UNREELING MOTOR, PAPER SUPPLY

M.M013

BENDING ROLLER

Rele	A				① SHIELD MUST BE CONN. TO RACK 010 BY CLAMP, SEE DRW. 52710-10:05	Tetra Pak	Designer PRI	Date 951206	Approved MAC Date 951206	Doc. class –
ECN No.	22893				② SHIELD MUST BE CONN. BY COMPRESSOR GLAND 90012-137		Machine TBA/19-0101	Denomination MOTORS		
Sign./Date	PRI/951206					Company Tetra Brik R.& D. S.p.A.		Drawing No 61530-55:05		Page –
Appr./Date	MAC/951206				Drawing remarks					

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7 Mains connection diagrams

EM1.1TB071499en.fm

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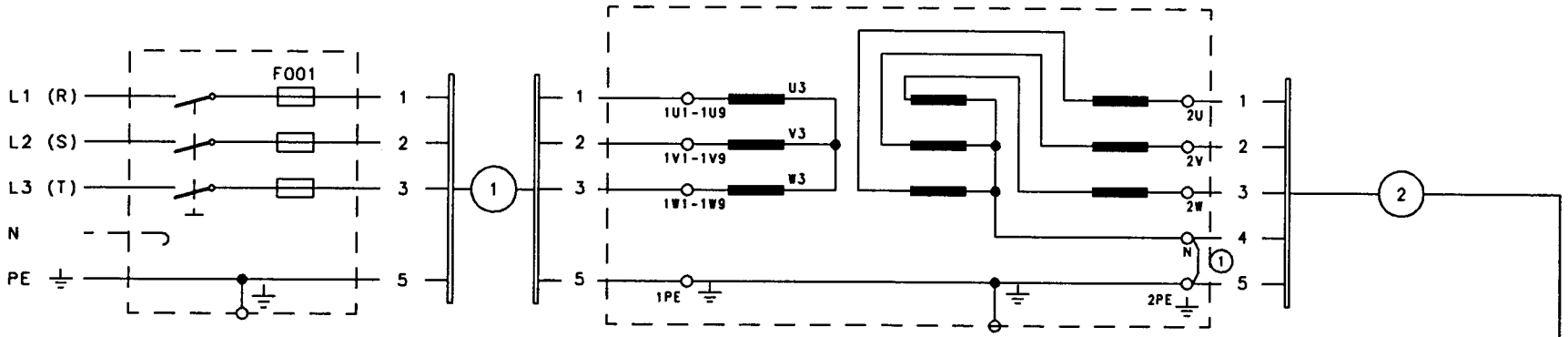
Mains connection 61531-05:10
Mains connection 61531-06:10
Mains connection 61531-07:01

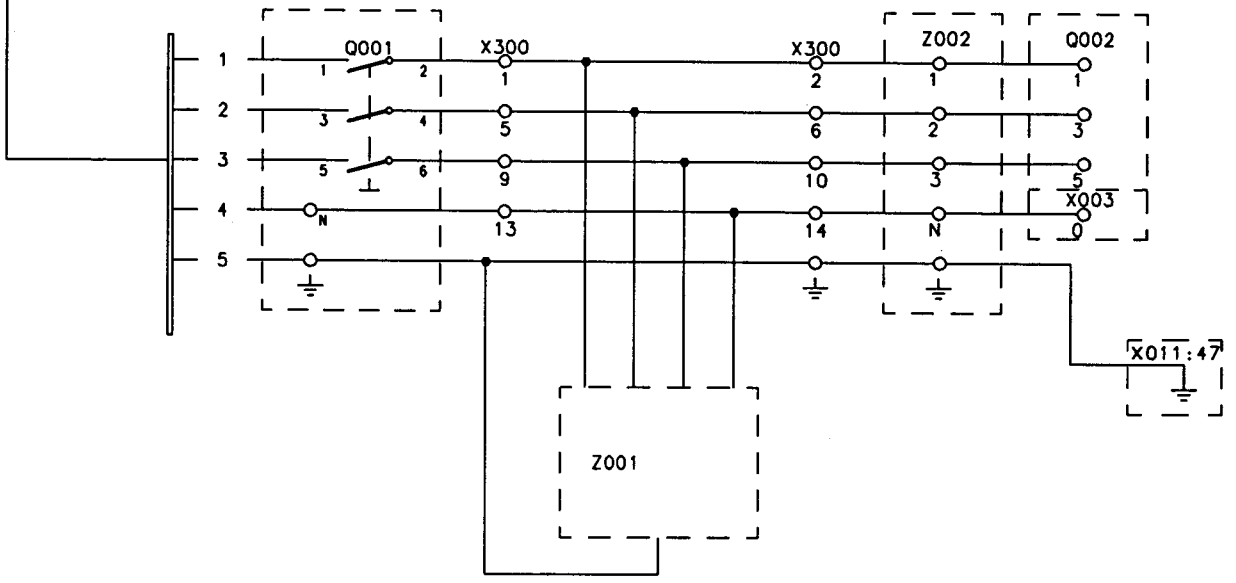
EM1.1TB071499en.fm

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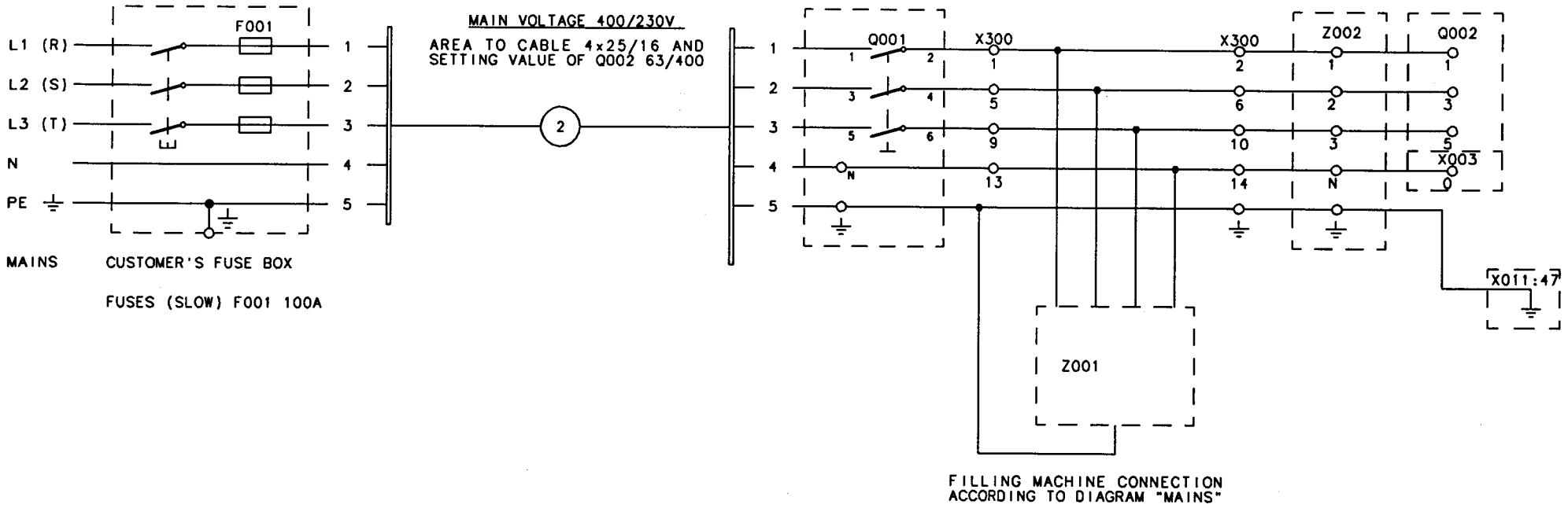
MAIN VOLTAGE 200-600V EXCEPT 400/230V





Note	A				CAUTION: THE PROTECTIVE EARTH CONNECTION	Tetra Pak	Designer ALPO	Date 980420	Approved AIR	Date 980420	Doc. class –
ECN No.	71535				MUST BE DONE ACCORDING TO THE LOCAL RULES.		Machine TBA/19-0101	Denomination MAINS CONNECTION			
Sign./Date	ALPO/980420				(1) MAKE THE BRIDGE USING A CONNECTION AREE NOT LESS THE 16mm.	Company Tetra Brik R.& D. S.p.A.		Drawing No 61531-05:10			Page –
Appr./Date	AIR/980420				Drawing remarks						

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Note	A				CAUTION: THE PROTECTIVE EARTH CONNECTION	Tetra Pak	Designer ALPO Date 980420	Approved AIR Date 980420	Doc. class –
ECN No.	71535				MUST BE DONE ACCORDING TO THE LOCAL RULES.		Machine TBA/19-0101	Denomination MAINS CONNECTION	
Sign./Date	ALPO/980420					Company Tetra Brik R.& D. S.p.A.	Drawing No 61531-06:10		Page –
Appr./Date	AIR/980420				Drawing remarks				

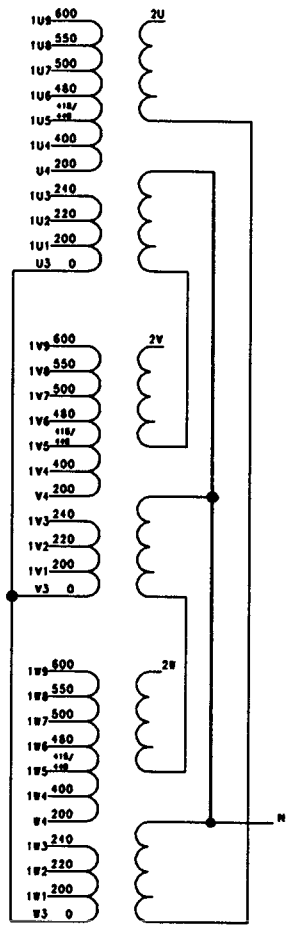
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MAIN VOLTAGE	FUSES (SLOW) ①F001	AREA TO CU CABLES NO. 1	AREA TO CU CABLES NO. 2	SETTING VALUE Q002	CONNECTIONS ON MATCHING TRANSFORMER		
					MAINS	TAP	CONNECT
V	A	mm²	mm²	A			
600/347 3x600	100	3x16/16	4x25/16	63/400	PHASE L1 PHASE L2 PHASE L3 N N GROUND PE	1U9 1V9 1W9 N ⏚	1U3 - U4 1V3 - V4 1W3 - W4
550/318 3x550	100	3x16/16	4x25/16	63/400	PHASE L1 PHASE L2 PHASE L3 N N GROUND PE	1U8 1V8 1W8 N ⏚	1U3 - U4 1V3 - V4 1W3 - W4
500/289 3x500	125	3x25/16	4x25/16	63/400	PHASE L1 PHASE L2 PHASE L3 N N GROUND PE	1U7 1V7 1W7 N ⏚	1U3 - U4 1V3 - V4 1W3 - W4
480/277 3x480	125	3x25/16	4x25/16	63/400	PHASE L1 PHASE L2 PHASE L3 N N GROUND PE	1U6 1V6 1W6 N ⏚	1U3 - U4 1V3 - V4 1W3 - W4
440/254 3x440	125	3x25/16	4x25/16	63/400	PHASE L1 PHASE L2 PHASE L3 N N GROUND PE	1U5 1V5 1W5 N ⏚	1U2 - U4 1V2 - V4 1W2 - W4
415/240 3x415	125	3x25/16	4x25/16	63/400	PHASE L1 PHASE L2 PHASE L3 N N GROUND PE	1U5 1V5 1W5 N ⏚	1U1 - U4 1V1 - V4 1W1 - W4
3x400 [3x380]	160	3x25/16	4x25/16	63/400	PHASE L1 PHASE L2 PHASE L3 N N GROUND PE	1U4 1V4 1W4 N ⏚	1U1 - U4 1V1 - V4 1W1 - W4
240/140 3x240	250	3x70/35	4x25/16	63/400	PHASE L1 PHASE L2 PHASE L3 N N GROUND PE	1U3 1V3 1W3 N ⏚	U3 - U4 1U3-1U6 V3 - V4 1V3-1V6 W3 - W4 1W3-1W6
220/127 3x220	250	3x70/35	4x25/16	63/400	PHASE L1 PHASE L2 PHASE L3 N N GROUND PE	1U2 1V2 1W2 N ⏚	U3 - U4 1U2-1U5 V3 - V4 1V2-1V5 W3 - W4 1W2-1W5
200/115 3x200	315	3x95/50	4x25/16	63/400	PHASE L1 PHASE L2 PHASE L3 N N GROUND PE	1U1 1V1 1W1 N ⏚	U3 - U4 1U1-1U4 V3 - V4 1V1-1V4 W3 - W4 1W1-1W4

MATCHING TRANSFORMER
90245-0024

Y/Z II-WIRED



Note	A				① RECOMMENDED MAINS FUSE TO ACHIEVE SELECTIVITY	Tetra Pak	Designer MRI	Date 950210	Approved HK Date 950217	Doc. class –
ECN No.	22530						Machine TBA/19-0101	Description MATCHING TRANSFORMER		
Sign./Date	MRI/950210						Company Tetra Brik R.& D. S.p.A.	Drawing No 61531-07:01		Page –
Appr./Date	HK/950217				Drawing remarks					

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8 Program documents

EM1.1TB0814 99en.fm

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PLC program list 47820-10:10
PLC program list 47820-11:07
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EM1.1TB081499en.fm

Tetra Brik Packaging Systems

RACK 0

PS	1	2	3	4	5	6	7	8	9	10
PROGRAMMED CONFIGURATION										
PWR321	CPU341	MDL645	MDL645	MDL645	MDL645	MDL646	MDL742			
		I DC16	I DC16	I DC16	I DC16	I DC16	Q DC16			
		RefAdr %I0001	RefAdr %I0017	RefAdr %I0033	RefAdr %I0049	RefAdr %I0065	RefAdr %Q0161			

RACK 1

PS	1	2	3	4	5	6	7	8	9	10
PROGRAMMED CONFIGURATION										
PWR321	MDL645	MDL645	MDL645	MDL742	MDL742	MDL742	MDL742	MDL742	MDL742	MDL742
	I DC16	I DC16	I DC16	Q DC16	Q DC16	Q DC16	Q DC16	Q DC16	Q DC16	Q DC16
	RefAdr %I0113	RefAdr %I0129	RefAdr %I0145	RefAdr %Q0001	RefAdr %Q0017	RefAdr %Q0033	RefAdr %Q0049	RefAdr %Q0065	RefAdr %Q0081	RefAdr %Q0097

RACK 2

PS	1	2	3	4	5	6	7	8	9	10
PROGRAMMED CONFIGURATION										
PWR321	MDL742									
	Q DC16									
	RefAdr %Q0113									

========== INPUT (%I) GLOBAL CROSS REFERENCES

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%I0002	BLK07	MB110	SA doors closed
			-] [- 14,19
%I0005	BLK22	MS2-35	Short stop push buttons
			-] [- 31,32
%I0006	BLK11	S005	New product value
			-] [- 13
%I0007	BLK07	MS033	Strip splice push buttom
			-]/[- 13
%I0008	_MAIN	S003	Clean through steam barrier
			-] [- 58
%I0009	_MAIN	S004	Service switch
			-] [- 36,39
	BLK05		-] [- 8
	BLK07		-]/[- 7
	BLK09		-] [- 7,23,33
			-]/[- 29,34
	BLK10		-] [- 39
	BLK11		-] [- 7,13
			-]/[- 8,9
	BLK13		-] [- 15
	BLK21		-]/[- 31,32,38,40
	BLK22		-] [- 5,8,31,37,44,47
			-]/[- 7,33
	BLK23		-] [- 7
	BLK26		-] [- 4
%I0010	BLK26	MS014	Manual lubrication
			-] [- 4
%I0011	_MAIN	MB002	Main air pressure
			-] [- 26
	BLK05		-] [- 7
			-]/[- 7
	BLK23		-]/[- 7
	BLK26		-] [- 4
%I0012	_MAIN	MB007	Cooling water pressure
			-] [- 24
	BLK05		-]/[- 12,13,14
%I0013	BLK26	MB006	Lubrication oil pressure
			-] [- 19,20
			-]/[- 19
%I0015	_MAIN	MB30-2	Lubrication oil low level
			-] [- 32
	BLK25		-] [- 14,15
	BLK26		-] [- 4,22
			-]/[- 21,22
%I0016	BLK14	S511	Selector small / big volume
			-] [- 51
			-]/[- 51
	BLK35		-] [- 11,12,13,14,15
			-]/[- 5,6,7,8,9
%I0017	BLK14	MB024	Unreeling motor control speed
			-] [- 11
			-]/[- 10,11,12
%I0018	BLK14	MB025	Unreeling motor guard
			-] [- 42
%I0020	BLK14	MB008	Paper supply
			-] [- 44
			-]/[- 44,45,46
%I0021	BLK15	MB044	Infeed congestion
			-] [- 19
%I0022	BLK14	MB009	Paper web monitor
			-] [- 38,39
	BLK21		-] [- 33
%I0023	BLK07	MB032	Strip magazin one
			-] [- 13
%I0024	BLK07	MB111	Strip magazin two
			-] [- 13
%I0025	BLK07	MB109	Strip rotation guard
			-] [- 20
%I0026	BLK07	MB107	Reset strip
			-] [- 16
%I0028	BLK13	MB46-47	Pos.squegee roller air knife
			-]/[- 30

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
	BLK21		-]/[- 40
%I0029	BLK06	MB051	Product pipe position
			-]/[- 26
	BLK21		-] [- 5
	BLK22		-] [- 47
	BLK25		-] [- 4
%I0030	_MAIN	MB053	Steril air B valve position
			-] [- 39
	BLK09		-] [- 35
			-]/[- 35
	BLK21		-]/[- 18
%I0031	_MAIN	MB061	Cleaning cup position
			-] [- 63
			-]/[- 26,63
	BLK25		-] [- 4
%I0032	_MAIN	MB063	Cleaning pipe position
			-] [- 62
			-]/[- 26,62
	BLK22		-]/[- 47
	BLK25		-] [- 4
%I0033	_MAIN	MB104	Steril air pipe in position
			-] [- 26
	BLK06		-] [- 28
			-]/[- 27,28
	BLK25		-]/[- 4
%I0034	BLK10	A305-15	Bath, water level
			-] [- 42
			-]/[- 45
%I0035	BLK14	MB16A-B	Jaw system overload
			-]/[- 40
%I0036	_MAIN	Q006-12	Overload prot. compres motor
			-] [- 27
	BLK06		-] [- 13
	BLK14		-]/[- 47
%I0037	_MAIN	MB062	Sterile air pressure
			-] [- 28
			-]/[- 26
	BLK06		-] [- 13,14,16
			-]/[- 14
%I0038	_MAIN	MB48A-B	Peroxide bath bottom cover
			-] [- 39
	BLK10		-]/[- 38,39
%I0039	BLK13	MB045-2	Hydraul unit temperature
			-] [- 15
			-]/[- 17
	BLK22		-] [- 29
%I0040	BLK13	MB045-4	Hydraul unit low level
			-]/[- 16
	BLK22		-] [- 29
%I0041	BLK25	A300-15	Clean tray level
			-] [- 17,28
			-]/[- 29
%I0042	BLK09	A301-15	Peroxide spray quant.
			-] [- 21
			-]/[- 19,21
%I0043	BLK10	A302-15	Peroxide bath level
			-] [- 25,29,35,36
			-]/[- 30,36
	BLK13		-]/[- 12
%I0044	BLK06	A303-15	Separator high level
			-] [- 15
	BLK23		-] [- 7
%I0045	BLK10	MB95-A	Too high level peroxide tank
			-] [- 24
%I0046	_MAIN	MB95-B	High level peroxide tank
			-] [- 27
	BLK10		-] [- 17,23
			-]/[- 14,15
%I0047	BLK10	MB95-C	Low level peroxide tank
			-] [- 20
			-]/[- 5,8,14
%I0048	BLK07	A501-26	Temp. failure IH SA-unit
			-]/[- 4
%I0049	BLK07	A501-30	Failure IH SA-unit
			-]/[- 4

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%I0050	BLK14	X01-119	Congestion FF
			-] [- 7
%I0051	_MAIN	A200-24	Temp. monitor pre- sterilisation
			-] [- 39
	BLK06		-]/[- 17
%I0053	BLK10	A201-24	Temp. peroxid bath w. product
			-]/[- 46
%I0054	_MAIN	A202-20	Temp LS seal preheat
			-] [- 32
	BLK06		-]/[- 8
%I0055	BLK06	A202-24	Temp LS seal prod.
			-]/[- 8,12
%I0056	BLK06	A203-20	Temp air heat preheat
			-]/[- 18
%I0057	BLK06	A203-24	Temp air heat prod.
			-]/[- 18,19
%I0058	BLK06	A204-24	Temp air knives
			-] [- 11
	BLK13		-]/[- 35
	BLK21		-]/[- 40
%I0059	BLK05	A205-24	Temp. monitor steam
			-]/[- 9
%I0060	BLK10	A206-24	Temp monitor peroxid bath
			-]/[- 37
%I0061	BLK06	A502-14	LS sh. stop element broken
			-] [- 9
			-]/[- 9
%I0062	BLK11	X01-101	Product at machine
			-] [- 5,13
			-]/[- 11,12
	BLK18		-]/[- 19
%I0063	_MAIN	X01-256	Clean of prod. valve
			-] [- 58
			-]/[- 62
	BLK09		-]/[- 34
	BLK21		-] [- 18
	BLK25		-] [- 4
%I0064	_MAIN	A506-42	Emerg. stop signal
			-]/[- 6
	BLK05		-] [- 14
	BLK10		-] [- 41
	BLK13		-] [- 12
	BLK14		-] [- 47
	BLK22		-] [- 48
			-]/[- 26
	BLK26		-] [- 19
%I0065	1T0001	A400-31	Pulse photoc.design
			FBIO 4
	BLK17		-] [- 5
%I0066	BLK17	A400-32	Design ok
			-] [- 9
			-]/[- 9
	BLK19		-]/[- 20
%I0067	BLK06	MB071	Air inlet valve pos.
			-] [- 22
			-]/[- 22
%I0068	_MAIN	MB094	Suction valve pos.
			-]/[- 26,44
	BLK06		-] [- 25
			-]/[- 25
%I0069	BLK15	MB020	Final folder chain pos.
			-] [- 4
%I0070	BLK19	MB236	Paper splice
			-]/[- 11
%I0072	_MAIN	L11_OK	Power L11 OK
			-] [- 24
			-]/[- 6
	BLK22		-]/[- 10,12
%I0073	1T0001	X01-219	Angle encoder bit 0
			-] [- 12
			-]/[- 12
%I0074	1T0001	X01-220	Angle encoder bit 1
			-] [- 11
			-]/[- 11
%I0075	1T0001	X01-221	Angle encoder bit 2

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-] [- 10
			-]/[- 10
%I0076	1T0001	X01-222	Angle encoder bit 3
			-] [- 9
			-]/[- 9
%I0077	1T0001	X01-223	Angle encoder bit 4
			-] [- 8
			-]/[- 8
%I0078	1T0001	X01-224	Angle encoder bit 5
			-] [- 7
			-]/[- 7
%I0079	1T0001	X01-225	Angle encoder bit 6
			-] [- 6
			-]/[- 6
	BLK21		-]/[- 21
%I0080	1T0001	X01-226	Angle encoder bit 7
			-] [- 5
			FBIO 4
	BLK22		-] [- 32
			-]/[- 32
%I0113	BLK21	Z001-11	Over- load main filter
			-] [- 29
%I0114	BLK07	A207-24	Temp strip app.
			-] [- 15
			-]/[- 12,15
%I0115	BLK21	A500-26	Temp. fault TS- units
			-]/[- 20
%I0116	BLK21	A500-30	Fault TS units
			-]/[- 20
%I0117	BLK18	A310-19	Overfil level filling system
			-] [- 18
%I0119	_MAIN	A310-03	Bottom pos. floater
			-]/[- 27
	BLK18		-] [- 17
%I0120	BLK18	A307-15	Membran leakage regulat valve
			-] [- 9
	BLK25		-]/[- 5
%I0121	_MAIN	MB117	Regulat valve open pos.
			-] [- 39
	BLK18		-] [- 12,14
			-]/[- 13,14,15
%I0122	BLK15	MB118	Over- load pusher FF
			-]/[- 25
%I0123	BLK15	MB119	Over- load outfeed FF
			-] [- 21,22
%I0128	BLK21	X01-114	Signal from CIP cleaning on
			-] [- 41
%I0130	_MAIN	DOORS	Side, FF, date, p.mag protect.
			-] [- 9,48
	BLK13		-] [- 9
	BLK22		-] [- 18,20,41
			-]/[- 18,24
%I0131	_MAIN	MB21	Super struct. door monitor
			-] [- 9,10,39,55
	BLK09		-] [- 25
			-]/[- 24,26
	BLK22		-] [- 18,21,24
			-]/[- 18
	BLK23		-] [- 7
			-]/[- 8
%I0132	BLK09	MB010	Crank position
			-] [- 24
			-]/[- 26
	BLK13		-]/[- 6
	BLK14		-]/[- 14,17,18,30
	BLK22		-] [- 18,22,24
			-]/[- 18
%I0133	BLK14	Q003-11	Over- load protec. motors
			-]/[- 47
	BLK22		-] [- 41
%I0137	BLK17	A400-30	Request volumes values
			-]/[- 20
%I0145	BLK09	PS_011H	Alarm reset push buttom
			-] [- 25
	BLK22		-] [- 23

```
REF.     BLOCK   NICKNAME  REF. DESCRIPTION / CROSS REFERENCES
-------  ------- --------  -----------------------------------
         BLK30             -] [- 5,206
%I0146   BLK30   PS_012    Lamp test
                           -] [- 207
%I0148   _MAIN   PS_002H   Inching
                           -] [- 48
                           -]/[- 9
         BLK13             -] [- 5,6,12
         BLK14             -]/[- 5,20
         BLK15             -]/[- 12
         BLK18             -]/[- 19
%I0149   _MAIN   PS_003H   Step up
                           -] [- 11,29,34,50
         BLK05             -]/[- 4
         BLK06             -] [- 13,20
                           -]/[- 21
         BLK13             -] [- 12
         BLK17             -] [- 20
         BLK21             -] [- 11
         BLK22             -]/[- 33
         BLK25             -] [- 15
         BLK26             -] [- 4
%I0150   _MAIN   PS_004H   Step down
                           -] [- 12,25,48
                           -]/[- 13,40,41
         BLK13             -] [- 5,9
         BLK21             -]/[- 12
         BLK22             -] [- 32
         BLK25             -] [- 7,15
%I0151   _MAIN   PS_006H   Short stop push buttom
                           -] [- 12
         BLK13             -] [- 5
         BLK22             -] [- 31,32
%I0152   _MAIN   PS_007    Select switch clean.
                           -] [- 9,56,62,63
                           -]/[- 9,25
         BLK05             -] [- 10
         BLK06             -] [- 28
                           -]/[- 4
         BLK07             -] [- 7
         BLK13             -] [- 6,9
                           -]/[- 9
         BLK14             -] [- 23
                           -]/[- 16
         BLK22             -] [- 32
                           -]/[- 32
         BLK25             -] [- 6,7,8,13,15
                           -]/[- 7,14,15
%I0153   BLK19   PS_019    Drop chute off
                           -]/[- 29
%I0154   BLK15   PS_020    Station chain sprinkl
                           -] [- 33

================================================================================
========== OUTPUT (%Q) GLOBAL CROSS REFERENCES
================================================================================
REF.     BLOCK   NICKNAME  REF. DESCRIPTION / CROSS REFERENCES
-------  ------- --------  -----------------------------------
%Q0001   _MAIN   MY027     Drop chute  valve
                           -] [- 56
         BLK15             -] [- 20,38
         BLK19             -] [- 29
                           -]/[- 25,30
                           -( )  29
         BLK21             -] [- 28,31,32
                           -]/[- 13
%Q0002   BLK13   MY026     LS counter roller sh-stop
                           -( )  26
%Q0003   BLK13   MY024     LS element move- ment
                           -] [- 26,28,29
                           -( )  21
%Q0004   BLK13   MY021     Air knife sq roll move
                           -( )  28
         BLK14             -]/[- 33
         BLK21             -] [- 40
%Q0005   BLK13   MY020     S.stop element move
```

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-( ) 20
%Q0006	BLK15	MY129	Air blowing bottom flaps
			-( ) 38
%Q0012	BLK14	K019	Bending roller
			-( ) 32
%Q0014	BLK07	K010	Main motor low speed
			-] [- 23
	BLK13		-] [- 15
	BLK14		-] [- 4,24
			-( ) 17
	BLK15		-] [- 13,15,17,23
			-]/[- 14
	BLK19		-] [- 30
	BLK21		-] [- 33
	BLK22		-]/[- 40,41
	BLK25		-] [- 15
%Q0015	_MAIN	K011	Main motor high speed
			-] [- 34
			-]/[- 41
	BLK07		-] [- 8,21
	BLK13		-] [- 15
			-]/[- 11,25
	BLK14		-] [- 4,10,24,41,49,50
			-]/[- 15,17,21,22,31
			-( ) 19
	BLK15		-] [- 13,16,17,23,27
			-]/[- 14
	BLK19		-] [- 29,30
			-]/[- 31
	BLK21		-] [- 33
			-]/[- 26,45
	BLK22		-] [- 32,44,48
			-]/[- 31,40,41
			-(R) 42
	BLK26		-] [- 7,8
%Q0016	BLK15	K008	Clean system circ. pump m.
			-] [- 31
	BLK25		-( ) 26
%Q0017	BLK10	K009	Peroxid pump
			-( ) 26
			-(R) 28,29
%Q0018	BLK05	K007	Hydraul pump
			-] [- 8
	BLK13		-( ) 15
%Q0019	BLK06	K006	Com- pressor
			-] [- 7,13,16
			-]/[- 14
			-( ) 13
	BLK23		-]/[- 9
%Q0020	BLK14	K013	Start conveyor
			-] [- 7
			-( ) 6
%Q0021	BLK05	MY001	Flap sealing air
			-]/[- 4
	BLK15		-] [- 32
			-( ) 31
%Q0022	BLK05	MY102	Main air valve
			-] [- 5
			-]/[- 6
			-(/) 4
%Q0026	BLK14	K017	Power unreel motor, paper
			-( ) 9
%Q0033	BLK21	K004	Power IH unit TS sealing
			-( ) 22
%Q0034	BLK05	K1-K12	Splicer contr./perox. water p
			-] [- 8
	BLK06		-] [- 13
	BLK10		-] [- 42
			-( ) 41
%Q0035	BLK06	K016	Air super heater
			-] [- 18
			-( ) 16
%Q0036	BLK15	K018	Preheat 3 final folder
			-( ) 32
%Q0037	BLK10	K015	Peroxid bath element

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-( ) 42
%Q0038	BLK25	K002	Deterg. pump motor
			-( ) 25
%Q0039	BLK06	K005	Preheat 2 LS element
			-] [- 9
			-]/[- 9
			-( ) 7
%Q0040	BLK07	K014	Power IH-unit Strip applic.
			-] [- 9
			-( ) 6
			-(S) 7,8
%Q0043	BLK11	K105	Ready for prod.
			-]/[- 6
			-( ) 8
%Q0044	BLK11	K106	Ab in product
			-( ) 9
%Q0045	BLK11	K107	Filling
			-( ) 10
%Q0046	_MAIN	K104	Signal to cip clean
			-]/[- 9,21
	BLK05		-] [- 10
	BLK09		-] [- 34
	BLK18		-] [- 7,10,13
	BLK21		-] [- 5,41
	BLK25		-] [- 6,7,9,10
			-]/[- 8,11
			-( ) 7
%Q0047	BLK06	K101	LS sealed tube
			-( ) 7
%Q0048	BLK06	K102	Air heat preheat prod.
			-( ) 17
%Q0049	BLK10	K100	Peroxid bath preheat prod.
			-( ) 42
%Q0051	BLK25	K108	Cip record
			-] [- 11,12
			-]/[- 10
			-( ) 12
%Q0052	BLK21	K103	Sterile parame.
			-] [- 35,36
			-(SM) 38
			-(RM) 35,36
%Q0053	BLK21	K110	Operat. param.
			-( ) 41
%Q0054	BLK22	K113	Aux. relay alarm reset
			-] [- 40,41
			-( ) 14
%Q0058	BLK23	MY086	Vacuum valve
			-( ) 18
%Q0059	BLK06	MY025	Heat exhang. valve
			-( ) 12
%Q0060	BLK06	MY023	Suction valve
			-] [- 25
			-]/[- 25
			-( ) 24
%Q0061	BLK06	MY019	Air inlet valve
			-] [- 7,22
			-]/[- 21,22
			-(/) 21
%Q0062	BLK05	MY51-17	Air inj cooling water- lubr.pu
			-] [- 8
	BLK26		-] [- 16,17,20
			-(/) 15
%Q0063	BLK11	MY009	Product valve A
			-] [- 10
	BLK18		-] [- 6,18
	BLK21		-] [- 15
			-( ) 18
%Q0064	BLK09	MY008	Sterile air valve B
			-] [- 35
			-]/[- 35
			-( ) 34
	BLK13		-]/[- 35
%Q0065	BLK09	MY007	Steam barrier valve C
			-]/[- 24
	BLK11		-] [- 14

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
	BLK21		-] [- 5
			-(M) 5
%Q0066	BLK10	MY006	Peroxidbath filling drain
			-] [- 33
			-]/[- 28
			-( ) 26
			-(R) 27
%Q0067	BLK10	MY005	Peroxid bath drain.
			-( ) 26
			-(R) 29
%Q0068	BLK19	MY003	Waste package air blowing
			-( ) 30
			-(S) 31
%Q0069	BLK13	MY002	Clean tray drain
			-( ) 34
	BLK15		-]/[- 37
	BLK25		-] [- 25
%Q0070	BLK07	MY022	Clutch main machine
			-] [- 7,8
	BLK13		-] [- 21
	BLK14		-] [- 10
			-]/[- 11
			-(/) 14
	BLK15		-] [- 13
			-]/[- 14
%Q0071	BLK25	MY029	Clean system hot water
			-] [- 25
			-]/[- 16
			-( ) 24
%Q0072	BLK15	MY031	Final folder sprinkl
			-] [- 34
			-( ) 36
			-(S) 37
%Q0073	BLK05	MY033	Cooling water
			-( ) 8
%Q0074	BLK09	MY034	Spray tank filling
			-( ) 9
%Q0075	BLK09	MY004	Spray peroxid air blowing
			-( ) 20
%Q0076	BLK13	MY039	Tube flush
			-]/[- 31,33,34
			-( ) 29
%Q0077	BLK15	MY041	Pull down device
			-( ) 29
%Q0078	BLK10	MY108	Top fil valve perox. bath
			-( ) 32
			-(S) 33
%Q0082	BLK14	MY043	Drive unit brake
			-( ) 30
%Q0083	BLK14	A001-26	Enable Bending Roller
			-] [- 32
			-(/) 33
%Q0084	BLK17	A400-20	Design Enable
			-( ) 4
%Q0086	BLK17	A400-22	Volume enable
			-] [- 16,18,21,24
			-( ) 20
%Q0087	BLK17	A400-23	Volume clock
			-] [- 18
			-]/[- 18
			-(/) 18
%Q0088	BLK17	A400-24	Volume data
			-( ) 27
%Q0089	BLK21	P003	Package counter prod.
			-( ) 31
			-(S) 32
%Q0090	BLK14	A504-A2	Package counter infeed
			-] [- 44
	BLK21		-( ) 33
%Q0092	BLK30	K205-3	Beacon
			-( ) 190
%Q0093	BLK14	P500	Hour meter small volume
			-( ) 51
%Q0094	BLK14	A402-28	High speed paper supply
			-( ) 12

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%Q0095	BLK14	A402-29	Low speed paper supply
			-( ) 11
%Q0096	BLK14	P501	Hour meter big volume
			-( ) 51
%Q0097	BLK30	PX01-07	Data out to PA100. 18
			-( ) 197
%Q0098	BLK30	PX01-08	Sync. pulse multip.
			-( ) 195
%Q0099	BLK30	PX01-09	Data out to PA100. 19
			-( ) 201
%Q0100	BLK30	PX01-10	Data out to PA101. 18
			-( ) 198
%Q0101	BLK30	PX01-11	Data out to PA101. 19
			-( ) 199
%Q0102	BLK30	PX01-13	Data out to PA100. 20
			-( ) 202
%Q0103	BLK30	PX01-14	Data out to PA101. 20
			-( ) 200
%Q0104	BLK10	MM018	Peroxid tank filling
			-] [- 23
			-( ) 10
%Q0105	BLK18	A310-16	Steril. signal for lev.reg
			-]/[- 14
			-( ) 4
%Q0106	BLK18	A310-10	Product signal for lev.reg
			-]/[- 14
			-( ) 6
%Q0107	BLK18	A310-15	Clean/Open signal for lev. reg
			-] [- 7
			-]/[- 14
			-( ) 7
	BLK21		-]/[- 6
%Q0110	BLK10	MM018	Peroxid tank filling
			-( ) 10
%Q0112	BLK21	PP004	Package counter product
			-( ) 31
			-(S) 32
%Q0115	BLK14	MY109	Front hood Locker
			-( ) 24
%Q0116	BLK07	MY105	Strip splice
			-( ) 18
%Q0117	BLK07	MY106	Strip magazin
			-] [- 19
			-( ) 19
%Q0161	1T0001	MY042	Pressur device
			FBIO 20
	BLK15		-] [- 28,29
			-]/[- 38
			-(SM) 27
			-(RM) 28
%Q0162	1T0001	A500-08	Sealing pulse TS
			-( ) 18
%Q0163	BLK07	A501-08	Sealing pulse SA
			-]/[- 10
			-( ) 10
%Q0164	BLK21	A508-07	Select left/ right IH swit
			-( ) 21
%Q0176	1T0001		FBIO 20

========== INTERNAL (%M) GLOBAL CROSS REFERENCES

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%M0001	1T0001	BIN0	Bit 0 LSB / Angle 0-255
			-( ) 12
			FBIO 13,19
	BLK19		FBIO 21,23
	BLK21		FBIO 43
%M0002	1T0001	BIN1	Binary digit bit 1
			-] [- 12
			-]/[- 12
			-( ) 11
%M0003	1T0001	BIN2	Binary digit bit 2
			-] [- 11

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-]/[- 11
			-( ) 10
%M0004	1T0001	BIN3	Binary digit bit 3
			-] [- 10
			-]/[- 10
			-( ) 9
%M0005	1T0001	BIN4	Binary digit bit 4
			-] [- 9
			-]/[- 9
			-( ) 8
%M0006	1T0001	BIN5	Binary digit bit 5
			-] [- 8
			-]/[- 8
			-( ) 7
%M0007	1T0001	BIN6	Binary digit bit 6
			-] [- 7
			-]/[- 7
			-( ) 6
%M0008	1T0001	BIN7	Binary digit bit 7
			-] [- 6
			-]/[- 6
			-( ) 5
%M0017	BLK19	CHUT_ON	Drop chute angle sector
			-] [- 29
			-(^) 25
%M0018	BLK14	NEWPACK	New Package / drop chute off
			-] [- 35
	BLK17		-] [- 13,14,15
	BLK18		-] [- 19
	BLK19		-] [- 27,28
			-]/[- 24,29
			-(^) 26
%M0019	_MAIN	FILL	Filling angle sector
			-] [- 53
	BLK21		-( ) 10
%M0021	BLK15	MM-FF	Sync. MM-FF control angle
			-]/[- 12
			-( ) 11
%M0023	BLK11		Mem signal reciev sterili
			-] [- 7
			-(SM) 5
			-(RM) 6
%M0024	BLK11		No product during prod.
			-( ) 11
	BLK22		-]/[- 37
%M0027	BLK13	SRT_P+	Start sequenc P+
			-(^) 13
	BLK15		-] [- 6
	BLK19		-] [- 5,7,9
%M0028	1T0001		TS sealing pulse
			-] [- 18
			-]/[- 17
			-( ) 16
%M0029	1T0001		TS sealing sector
			-] [- 15
			-]/[- 17
			-( ) 14
%M0030	1T0001		TS sealing on
			-] [- 16,17
			-]/[- 15
			-(SM) 15
			-(RM) 17
%M0031	BLK26		Check of 1st stroke jump
			-]/[- 19
			-(v) 18
%M0032	BLK22	LUB_TIM	Max run time lubric.fault
			-]/[- 30
	BLK26		-( ) 22
%M0033	_MAIN	SU_1080	Ok to step to p10/80 heat 1
			-] [- 25,56
			-]/[- 8
			-( ) 24
	BLK05		-]/[- 4
%M0034	_MAIN	SU_20	Ok to step to pos 20 heat 2
			-]/[- 8

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-( ) 27
	BLK06		-] [- 13
%M0035	_MAIN	SU_30	Ok to step to pos 30 tube
			-] [- 31,34
			-]/[- 8
			-( ) 33
%M0036	_MAIN	SU_40	Ok to step to pos 40 spray
			-] [- 40
			-]/[- 8
			-( ) 39
%M0037	_MAIN	SU_50	Ok to step to pos 50 steril
			-] [- 45
			-]/[- 8
			-( ) 44
%M0038	_MAIN	SU_60	Ok to step to pos 60 start
			-]/[- 8
			-( ) 48
	BLK13		-] [- 12
	BLK17		-] [- 20
%M0039	_MAIN	SU_70	Ok to step to pos 70 product
			-] [- 53
			-]/[- 8
			-( ) 52
%M0040	BLK30		Sync. puls to mux card
			-] [- 194,195
			-]/[- 193
			-( ) 193
			-(R) 192
%M0041	BLK30		Pause to mux card
			-] [- 4,194,204
			-]/[- 4
			-( ) 194
%M0049	_MAIN	POS00	Ladder pos 00
			-] [- 9,10,24,25,56,64
			-]/[- 15,17,23,62
			-(SM) 21
			FBIO 21,25,29,36,40,45,50,53,56
	BLK05		-] [- 4,14
	BLK06		-] [- 4,10
			-]/[- 28
	BLK09		-]/[- 35
	BLK10		-] [- 17
			-]/[- 41
	BLK11		-] [- 12
	BLK14		-]/[- 9,45,46
	BLK18		-] [- 9
	BLK21		-]/[- 20,33
	BLK22		-] [- 6
			-]/[- 24,32
	BLK23		-] [- 6
	BLK25		-] [- 8,13
	BLK26		-]/[- 19
	BLK30		-]/[- 190
%M0050	_MAIN	POS10	Ladder pos 10
			-] [- 9,21,27,29,63,66
			-]/[- 15,17
			-(SM) 25
	BLK05		-] [- 10
	BLK06		-] [- 5
			-]/[- 21
	BLK07		-] [- 4,12
	BLK10		-] [- 12,15
			-]/[- 23
	BLK13		-] [- 6
	BLK14		-]/[- 45,46
	BLK18		-] [- 17
	BLK21		-]/[- 20
	BLK30		-] [- 7
%M0051	_MAIN	POS20	Ladder pos 20
			-] [- 17,25,31,32,36
			-]/[- 15,16
			-(SM) 29
	BLK05		-]/[- 8
	BLK06		-] [- 5,7,8,11,12,17,24
			-]/[- 21

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
	BLK07		-] [- 4
	BLK09		-]/[- 23
	BLK13		-] [- 6
			-]/[- 26
	BLK22		-]/[- 47
	BLK26		-] [- 4
	BLK30		-] [- 8
%M0052	_MAIN	POS30	Ladder pos 30
			-] [- 29,37,39,40
			-]/[- 15,16
			-(SM) 36
	BLK05		-]/[- 8
	BLK06		-] [- 12,17
	BLK09		-] [- 5,15,16,17,24
			-]/[- 23
	BLK10		-] [- 35
	BLK18		-] [- 15
	BLK19		-] [- 31
	BLK22		-]/[- 47
%M0053	_MAIN	POS40	Machine ladder pos 40
			-] [- 41,44,45
			-]/[- 16
			-(SM) 40
	BLK06		-] [- 12
	BLK09		-] [- 6
	BLK11		-] [- 4,14
	BLK13		-] [- 6,35
	BLK14		-]/[- 13
	BLK15		-] [- 27
	BLK18		-] [- 15
	BLK22		-]/[- 32
	BLK23		-] [- 13
	BLK30		-] [- 11
%M0054	_MAIN	POS50	Machine ladder pos 50
			-] [- 40,47,48,50
			-]/[- 18
			-(SM) 45
	BLK10		-] [- 36
	BLK11		-] [- 4,7
	BLK13		-] [- 9,11,12
	BLK14		-] [- 7
	BLK17		-] [- 20
	BLK21		-]/[- 5,8
%M0055	_MAIN	POS60	Machine ladder pos 60
			-] [- 9,40,45,52
			-]/[- 18
			-(SM) 50
	BLK11		-] [- 11
	BLK13		-] [- 12
	BLK14		-] [- 4
			-]/[- 46
	BLK15		-] [- 35,36
	BLK17		-] [- 22
			-]/[- 12
	BLK21		-] [- 10,25
			-]/[- 11
	BLK22		-] [- 32
%M0056	_MAIN	POS70	Machine ladder pos 70
			-] [- 9,50,56
			-]/[- 18,40
			-(SM) 53
	BLK11		-] [- 9,11
	BLK13		-] [- 12
	BLK14		-] [- 35
			-]/[- 4,46
	BLK15		-] [- 20,35,36
	BLK17		-] [- 4,7,14
			-]/[- 7,9,10,12,15
	BLK19		-] [- 25
	BLK21		-] [- 12,13,18,24,28
	BLK22		-] [- 32
%M0057	_MAIN	POS80	Machine ladder pos 80
			-] [- 9,21,40,55,57,66
			-]/[- 19,61,62
			-(SM) 56

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
	BLK06		-]/[- 28
	BLK14		-]/[- 45,46
	BLK18		-] [- 9,13,19
			-]/[- 12
	BLK21		-]/[- 20
	BLK23		-] [- 6,19
%M0065	_MAIN	POS0030	Machine ladder pos 00-30
			-] [- 62
			-(/) 15
	BLK09		-] [- 7
	BLK14		-] [- 44
	BLK18		-]/[- 19
%M0066	_MAIN	POS2040	Machine ladder pos 20-40
			-(/) 16
	BLK06		-] [- 27
	BLK09		-] [- 34
	BLK18		-] [- 4
%M0067	_MAIN	POS2080	Machine ladder pos 20-80
			-] [- 17,39
			-]/[- 55
			-( ) 17
	BLK05		-] [- 8,10
	BLK06		-] [- 13,14,16
	BLK07		-] [- 12
	BLK09		-] [- 23
	BLK10		-] [- 14,26
	BLK13		-] [- 26
	BLK22		-]/[- 46
	BLK23		-]/[- 6
%M0068	_MAIN	POS5070	Machine pos 50-70
			-] [- 40
			-]/[- 19
			-(/) 18
	BLK06		-] [- 27
	BLK07		-] [- 4
	BLK10		-] [- 39
	BLK11		-] [- 8,13,14
	BLK13		-] [- 35
	BLK17		-]/[- 13
%M0069	_MAIN	POS5080	Machine ladder pos 50-80
			-(/) 19
	BLK15		-] [- 27
%M0071	BLK21		LRF valve moving time
			-] [- 8
			-( ) 6
%M0072	BLK14		Aux low speed paper supply
			-] [- 10,11
			-( ) 10
%M0074	BLK06		MEM. close heat ext v.
			-] [- 12
			-(SM) 10
			-(RM) 11
%M0075	BLK15		Sprinkler
			-] [- 35,36
			-( ) 33
			-(S) 34
%M0076	BLK07		Strip splice going on
			-] [- 17,18,19
			-(SM) 15
			-(RM) 16
%M0077	BLK05		Water pressure off >5,8 min.
			-( ) 12
	BLK22		-]/[- 39
%M0078	BLK10		Bath temp W2 select
			-] [- 42,43
			-(S) 44
			-(R) 43
%M0079	_MAIN		Low temp. strip splicer
			-]/[- 32
	BLK07		-( ) 15
	BLK22		-]/[- 29
%M0080	_MAIN		Step up conditions okey
			-] [- 9
			-]/[- 10
			-(/) 8

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%M0081	_MAIN		Short stop condit.
			-]/[- 9,33,48
	BLK13		-]/[- 9,12
	BLK22		-] [- 32
			-]/[- 31
			-(/) 31
%M0082	_MAIN	SHORTS	Machine pos. short stop
			-] [- 40
			-]/[- 56
	BLK11		-]/[- 9,11
	BLK13		-] [- 6,11,12
			-]/[- 12
	BLK14		-] [- 26
			-]/[- 13,27
	BLK15		-]/[- 20,35,36
	BLK21		-] [- 15
			-]/[- 13,28
	BLK22		-] [- 32,33,34,35
			-]/[- 33
			-( ) 32
%M0083	_MAIN	RDY_CLN	Machine pos ready for cleaning
			-] [- 9,21,62,63,64
			-]/[- 59
			-( ) 55
	BLK05		-] [- 10
	BLK06		-] [- 28
			-]/[- 13,28
	BLK07		-] [- 23
			-]/[- 7,8,21
	BLK09		-] [- 7
	BLK10		-]/[- 41
	BLK13		-] [- 6
			-]/[- 15
	BLK14		-]/[- 41
	BLK23		-] [- 7
			-]/[- 19
	BLK25		-] [- 4,8,13,14,15
			-]/[- 16
%M0084	_MAIN	EXT_CLN	Machine in pos. extern. clean
			-]/[- 9,21
	BLK13		-]/[- 6
	BLK14		-] [- 13,16
			-]/[- 4
	BLK15		-] [- 37
	BLK19		-]/[- 30
	BLK21		-]/[- 31,32
	BLK25		-] [- 14,15,16,26
			-]/[- 13
			-( ) 15
	BLK26		-] [- 5
%M0085	_MAIN	INT_CLN	Machine pos internal cleaning
			-(RM) 61
	BLK13		-]/[- 6
	BLK21		-] [- 18
	BLK25		-(SM) 7
%M0086	_MAIN	MCPOS80	Machine in pos.80 for >2 min
			-] [- 17
			-(/M) 57
	BLK18		-] [- 19
%M0087	BLK15		Ready for sync FF/MM
			-] [- 9
			-(SM) 8
			-(RM) 9
%M0088	BLK22		Aux.mem for delayed jump 0
			-] [- 45
			-(/) 44
%M0089	_MAIN		Clean steam barrier space
			-] [- 60
			-(SM) 58
			-(RM) 59
	BLK21		-] [- 5
%M0090	_MAIN		Machine to pos. 00 delayed
			-] [- 50
	BLK13		-]/[- 12
	BLK22		-]/[- 48

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-(SM) 45
			-(RM) 46
%M0091	_MAIN		Machine to pos 00
			-] [- 21
			-]/[- 24
	BLK21		-] [- 38
	BLK22		-(/) 48
%M0092	_MAIN		Step dwn from pos 40
			-] [- 21,41,42
			-( ) 41
%M0093	_MAIN		Manual stop filling
			-] [- 9,50
			-]/[- 52
	BLK21		-(S) 12
			-(R) 11
%M0094	BLK22		Bypass sterile condit. service
			-] [- 7
			-(SM) 5
			-(RM) 6
%M0095	BLK05	NO_STEM	Steam low temp 5 min
			-( ) 11
	BLK22		-]/[- 37
%M0096	BLK21		Valve A Opening after sh.stop
			-] [- 18
			-( ) 17
%M0097	_MAIN		TS sealing on
			-] [- 35
	1T0001		-] [- 14,18
	BLK21		-(S) 23,24
			-(R) 26
%M0098	BLK19		Paper splice detected
			-] [- 16
			-(SM) 12
			-(RM) 16
%M0099	BLK09		Spray malfunction
			-] [- 22
			-(SM) 21
			-(RM) 7
	BLK22		-]/[- 47
%M0100	_MAIN		Steam fault
			-]/[- 26,32,39
	BLK05		-] [- 10,11
			-( ) 9
	BLK09		-] [- 24
	BLK25		-]/[- 4
%M0101	BLK21		Valve A closing delay
			-] [- 18
			-( ) 15
%M0102	BLK07		Paper splice in LS sealer
			-] [- 10
			-( ) 27
%M0104	BLK07		Paper splice aux mem
			-] [- 24,25,27
			-( ) 24
%M0105	BLK07		Paper splice aux timer
			-]/[- 24
			-( ) 25
%M0106	BLK05		Long lubric.period ordered
			-]/[- 4,14
	BLK26		-] [- 6,7,8,9,10,11,12,18
			-(SM) 4,5
			-(RM) 14
%M0107	BLK17		Design reading fault 5 packages
			-( ) 13
	BLK22		-]/[- 37
%M0108	BLK06		Spray full filled
			-] [- 8,18,19
			-]/[- 12,18,21
	BLK09		-] [- 6,29,33
			-]/[- 5,20
			-(SM) 23
			-(RM) 7
	BLK15		-] [- 30,32
	BLK21		-] [- 5
	BLK30		-]/[- 11

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%M0109	_MAIN		Drying after spray- ing
			-] [- 40,44,45
	BLK09		-(SM) 33
			-(RM) 7
	BLK10		-] [- 46
			-]/[- 42
	BLK18		-] [- 7,9
			-]/[- 4,15
	BLK21		-] [- 36,37
	BLK23		-] [- 11,12
			-]/[- 13
%M0110	BLK14		Running time main motor
			-] [- 49
			-( ) 49
%M0111	BLK14		1 hour counter main motor
			-] [- 51
			-( ) 50
%M0112	BLK18		End drying P+
			-] [- 7
	BLK21		-] [- 38
			-(^) 37
%M0136	BLK21		Angle encoder correct value
			-]/[- 44,46
			-( ) 43
			-(S) 44,45
%M0141	BLK21		Angle encoder fault
			-] [- 46
			-]/[- 29
			-( ) 46
	BLK22		-]/[- 39
%M0149	BLK14		Queue conveyor memory
			-] [- 8
			-( ) 7
%M0154	BLK14		Overload outfeed FF
			-] [- 8
	BLK15		-(SM) 23
			-(RM) 24
	BLK22		-]/[- 41
%M0167	BLK18		LRF valve opening conditions
			-] [- 7,21
			-]/[- 23
			-( ) 19
%M0168	BLK18		"C" valve closing conditions
			-( ) 20
	BLK21		-]/[- 5
%M0169	BLK10		Top fil valve time
			-]/[- 31
			-( ) 31
%M0300	_MAIN		Tube sealing going on
			-] [- 31,34,35
			-]/[- 9,25
			-( ) 34
	BLK06		-]/[- 4,5
	BLK07		-] [- 7
	BLK09		-]/[- 34
	BLK13		-]/[- 6
	BLK14		-] [- 13,23
	BLK17		-]/[- 13
	BLK19		-] [- 5
			-]/[- 20
	BLK21		-] [- 22,23
	BLK26		-] [- 4
	BLK30		-] [- 9
%M0304	BLK14		Sync FF/MM at start prod.
			-] [- 13
			-]/[- 17
	BLK15		-] [- 11,12
			-]/[- 7
			-(SM) 9
			-(RM) 10
%M0305	BLK14		Brake at short stop
			-] [- 30
			-(SM) 26
			-(RM) 27
%M0306	BLK14		Aux. output clutch

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-] [- 13
			-]/[- 14,30
			-( ) 13
	BLK19		-] [- 30
%M0307	BLK07		Aux.output inching
			-] [- 7
	BLK13		-( ) 6
	BLK14		-] [- 13,16,23
%M0309	BLK07		Inch condi- tions
			-] [- 4
	BLK13		-] [- 9
			-( ) 6
%M0320	_MAIN	STARTQ	Start sequenc
			-] [- 48
	BLK06		-] [- 23
	BLK07		-] [- 6
	BLK10		-] [- 5,11,27,28,31,34
			-]/[- 13,14
	BLK11		-]/[- 4,7
	BLK13		-] [- 11,12,13,14,18,19,22,25,27,29
			-]/[- 24
			-( ) 12
	BLK14		-] [- 13,17,30,32
			-]/[- 21
	BLK15		-] [- 7
			-]/[- 10
	BLK18		-] [- 8
	BLK21		-] [- 5,17,22
%M0322	BLK13		LS roller out in start
			-] [- 24
			-]/[- 26
			-( ) 25
%M0324	BLK15	NO_PWR	Power failure
			-]/[- 31
	BLK21		-] [- 5
	BLK22		-] [- 11,13,48
			-(SM) 10
			-(RM) 11,12
%M0325	_MAIN	NOT_L11	Line L11-L10 not ok
			-] [- 13,17
	BLK06		-] [- 13
	BLK09		-]/[- 7,19
	BLK11		-]/[- 12
	BLK13		-]/[- 16,17
	BLK14		-]/[- 40,47
	BLK22		-] [- 14,46,48
			-(M) 13
%M0326	_MAIN	NOT_L21	Line L21-L20 not ok
			-(M) 6
	BLK05		-]/[- 7
	BLK06		-]/[- 13
	BLK09		-]/[- 26
	BLK10		-]/[- 26,41
	BLK13		-]/[- 15
	BLK14		-]/[- 6,17,19,32,47
	BLK22		-]/[- 7,8,24
	BLK26		-]/[- 21
%M0336	_MAIN		Jump to pos.40 str.seq enable
			-] [- 44
			-]/[- 40
	BLK22		-] [- 32
			-( ) 39
%M0337	_MAIN		Jaw alarm release clutch
			-]/[- 32,44
	BLK13		-]/[- 6
	BLK14		-] [- 30
			-]/[- 13
	BLK22		-]/[- 40
			-(/) 40
	BLK25		-]/[- 14,15
	BLK30		-] [- 190
			-]/[- 190
%M0338	_MAIN		M.Motor disable & keep clutch
			-]/[- 32,44
	BLK13		-]/[- 6

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
	BLK14		-] [- 28,30
			-]/[- 14,17,18
	BLK21		-]/[- 18
	BLK22		-] [- 32,42
			-]/[- 30,41
			-(/) 41
	BLK25		-]/[- 14,15
	BLK30		-] [- 190
			-]/[- 190
%M0348	BLK18		Wrong pos.reg valve
			-] [- 16
			-( ) 15
	BLK22		-]/[- 47
%M0350	BLK18		Start sequence 16 seconds
			-] [- 7
			-]/[- 18
			-(/) 8
	BLK21		-]/[- 5
%M0351	BLK18		Open pos.mem regul. valve
			-] [- 16
			-( ) 14
	BLK25		-]/[- 4
%M0352	BLK18		Mem.go to intern.clean.
			-] [- 14
			-(SM) 11
			-(RM) 12
%M0353	BLK18		Over- filling jump pos.40
			-( ) 18
	BLK22		-]/[- 38
%M0354	BLK18		Wrong pos.reg val.al. delay
			-] [- 13,16
			-( ) 13
	BLK25		-]/[- 5
%M0355	_MAIN	CLN_CON	OK for Clean. prod. valve
			-] [- 9
	BLK25		-] [- 6,7
			-( ) 5
%M0380	BLK19	REJECT	Package to be ejected
			-]/[- 29
			-(SM) 28
			-(RM) 27
%M0381	BLK30	NEW_ALM	New alarm present
			-] [- 190
			-]/[- 190
			-(/) 178
%M0382	BLK30	ACK_ALM	Acknow-ledged alarm present
			-] [- 190
			-(/) 188
%M0391	BLK17		Interrupt transmission
			-] [- 17
			-( ) 19
%M0392	BLK17	SC_TIME	Scan time
			-] [- 17,18,23
			-]/[- 16,18
			-( ) 16
%M0393	BLK17		Volume data bit nr.32
			-] [- 19
			-]/[- 17,20
			-( ) 17
%M0394	BLK17		Clock shift volume bits
			-] [- 28
			-(v) 23
%M0397	BLK17		Finish transmission
			-]/[- 20
			-( ) 22
%M0402	_MAIN		Mem. door monitor
			-] [- 9,10,55
	BLK23		-] [- 5,7
			-(SM) 8
			-(RM) 9
%M0404	BLK23		WEAC stop 5 or 15 minutes
			-] [- 5,8,18
			-( ) 17
%M0405	BLK23		WEAC stop 5 minutes
			-] [- 6

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-(SM) 11
			-(RM) 10
%M0407	BLK09		WEAC stop 15 minutes
			-] [- 34
	BLK23		-] [- 6
			-]/[- 11,17
			-(SM) 13
			-(RM) 12
%M0410	BLK23		WEAC 5 minutes
			-] [- 7,17
			-( ) 15
%M0411	BLK23		WEAC 15 minutes
			-] [- 17
			-( ) 16
%M0416	_MAIN		WEAC stop on
			-] [- 9,55
			-]/[- 10,24,55
	BLK05		-]/[- 4
	BLK06		-] [- 13
			-]/[- 7,16,21
	BLK09		-] [- 7,34
			-]/[- 20
	BLK10		-]/[- 41
	BLK14		-]/[- 9
	BLK23		-] [- 4,5,14,15,16,18
			-]/[- 10,12,19
			-(SM) 6
			-(RM) 7
%M0419	BLK10		Peroxide bath level delayed
			-]/[- 27
			-( ) 25
%M0420	BLK10		Refill peroxide tank, high level
			-] [- 10,16,23
			-]/[- 23
			-(S) 14,15
			-(R) 16,17
%M0421	BLK10		Restore level peroxid tank
			-] [- 8,10,18,21
			-]/[- 32
			-(SM) 9
			-(RM) 8
%M0422	BLK10		Peroxid bath full in steril.
			-] [- 36
			-( ) 35
	BLK22		-]/[- 48
%M0423	_MAIN		Drain peroxid bath
			-]/[- 24
	BLK10		-]/[- 14,15,26
			-( ) 13
%M0424	BLK10		Low lvl peroxid tank at product
			-]/[- 23
			-( ) 5
	BLK22		-]/[- 29
%M0425	BLK10		Low lvl peroxid tank no product
			-] [- 14,44
			-]/[- 23,26,43
			-( ) 14
	BLK22		-]/[- 38
%M0426	BLK10		Enable filling peroxid tank
			-] [- 8,9
			-( ) 6
			-(S) 7
%M0431	_MAIN		Packages wrong design position
			-] [- 50
	BLK17		-] [- 8
			-( ) 9
	BLK18		-] [- 17
	BLK22		-]/[- 37
%M0432	_MAIN		2.nd fill start attempt
			-]/[- 50
	BLK17		-]/[- 8
			-(S) 8
			-(R) 11,12
	BLK22		-]/[- 37
%M0480	_MAIN		LRF val for new product setted

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-] [- 9,48
	BLK11		-]/[- 14
			-(SM) 13
			-(RM) 12
	BLK13		-] [- 12
%M0510	1T0001		Drop chute enable
			-]/[- 19
	BLK17		-] [- 9
			-( ) 7
	BLK19		-] [- 28,29
			-]/[- 21,23,28
%M0525	BLK09		Spray finish
			-] [- 23
			-( ) 8
%M0526	BLK09		Maxfill time spray tank
			-] [- 19
			-( ) 18
%M0527	BLK09		Spray count control steam
			-] [- 20
			-( ) 10
%M0528	_MAIN		Spray tank filling fault
			-] [- 36
	BLK09		-] [- 22
			-( ) 19
%M0529	BLK06		Max empty time
			-]/[- 12
	BLK09		-] [- 21
			-( ) 11
%M0530	BLK09		Spray paus time
			-( ) 12
	BLK14		-]/[- 33
%M0531	BLK09		Minimum empty- ing time
			-] [- 21
			-( ) 13
%M0532	BLK06		Air inlet tower on
			-]/[- 7,21
	BLK09		-( ) 14
%M0535	BLK09		Dry time over
			-] [- 33
			-( ) 30
%M0536	BLK09		Close AP valve B
			-]/[- 34
			-( ) 31
%M0537	BLK09		Run time drying
			-( ) 32
	BLK14		-]/[- 33
%M0538	BLK09		Wrong cond. for spray
			-( ) 24
	BLK22		-]/[- 47
%M0539	BLK06		Low temp.in product
			-( ) 19
	BLK22		-]/[- 44
%M0540	BLK06		Steril air pipe missing
			-( ) 27
	BLK22		-]/[- 48
%M0541	BLK10		Bottom cover peroxid bath al
			-( ) 39
	BLK22		-]/[- 44
%M0542	BLK22		Bypass steril condit. alarm
			-]/[- 47
			-( ) 7
%M0543	BLK13		Memory for empting tube flush
			-] [- 33,34
			-(SM) 32
			-(RM) 33
%M0545	BLK14		Max run low paper supply
			-( ) 44
	BLK22		-]/[- 29
%M0546	BLK09	SPRY_TM	Spray timer enable
			-] [- 8,9,10,11,12,13,14,18,24
			-(/) 7
	BLK10		-] [- 39
%M0547	BLK06		Drying after spray- ing
			-] [- 6
	BLK09		-] [- 30,31,32

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-( ) 29
%M0550	BLK10	ALRES	Alarm reset P+
			-] [- 14,15
	BLK21		-]/[- 46
	BLK22		-] [- 14
	BLK25		-] [- 27
	BLK30		-] [- 6
			-]/[- 27,29,31,33,35,37,39,41,43,45,47,49,51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,81,83,85,87,89,91, 93,95,97,99,101,103,105,107,109,111,113,115,117,119,121,123,125,127,129,131,133,135,137,139,141, 143,145,147,149,151,153,155,157,159,161
			-(^) 5
%M0604	BLK30	PH65	For futur use
			-] [- 137,138
%M0605	BLK30	PH66	For futur use
			-] [- 139,140
%M0606	BLK30	PH67	For futur use
			-] [- 141,142
%M0607	BLK30	PH69	For futur use
			-] [- 145,146
%M0608	BLK30	PH70	For futur use
			-] [- 147,148
%M0609	BLK30	PH73	For futur use
			-] [- 153,154
%M0610	BLK05	PH10	Low press. main water
			-( ) 14
	BLK30		-] [- 27,28
%M0611	_MAIN	PH11	Low press. main air
			-]/[- 24
	BLK05		-( ) 7
	BLK22		-]/[- 47
	BLK30		-] [- 29,30
%M0612	BLK22	PH12	Safety monitor
			-] [- 24
			-]/[- 23,25
			-( ) 24
	BLK30		-] [- 31,32
%M0613	BLK22	PH13	Fault emerg. stop jaw rot
			-( ) 26
	BLK30		-] [- 33,34
%M0614	BLK09	PH14	Tower doors
			-] [- 26
			-]/[- 27
			-( ) 26
	BLK30		-] [- 35,36
%M0615	BLK14	PH15	Jaw sys. over- load.
			-( ) 40
	BLK22		-]/[- 38,40
	BLK30		-] [- 37,38
%M0616	BLK15	PH16	Alarm delay unsync. MM/FF
			-( ) 12
	BLK22		-]/[- 29
	BLK30		-] [- 39,40
%M0617	BLK30	PH17	For future use
			-] [- 41,42
%M0618	BLK14	PH18	Over- load motors
			-( ) 47
	BLK30		-] [- 43,44
%M0619	BLK22	PH19	Service switch
			-( ) 8
	BLK30		-] [- 45,46
%M0620	BLK22	PH20	Pressure fault lubric. oil
			-]/[- 30
	BLK26		-(SM) 19
			-(RM) 20
	BLK30		-] [- 47,48
%M0621	BLK26	PH21	Low level lubric. oil
			-( ) 21
	BLK30		-] [- 49,50
%M0622	BLK30	PH27	For futur use
			-] [- 61,62
%M0623	BLK30	PH28	For futur use
			-] [- 63,64
%M0624	BLK30	PH29	For futur use
			-] [- 65,66
%M0625	_MAIN	PH3S	Step up push buttom lamp

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-( ) 9
	BLK06		-] [- 4,5
	BLK09		-] [- 5
	BLK11		-] [- 4
	BLK30		-] [- 164
%M0626	_MAIN	PH4S	Step down p- buttom lamp
			-( ) 10
	BLK30		-] [- 165
%M0627	BLK06	PH1_1	Preheat 1
			-( ) 4
	BLK30		-] [- 7
%M0628	BLK06	PH1_2	Preheat 2
			-( ) 5
	BLK30		-] [- 8
%M0629	_MAIN	PH2_1	Tube sealing
			-( ) 31
	BLK30		-] [- 9
%M0630	_MAIN	PH2_2	Heating 3
			-( ) 37
	BLK30		-] [- 10
%M0631	BLK09	PH3_1	Spray
			-( ) 5
	BLK11		-] [- 7
	BLK30		-] [- 11
%M0632	BLK09	PH3_2	Steril- isation
			-( ) 6
	BLK30		-] [- 12
%M0633	BLK11	PH4_1	Signal to steri-lizer
			-( ) 4
	BLK30		-] [- 13
%M0634	BLK11	PH4_2	Signal from steri- lizer
			-( ) 7
	BLK30		-] [- 14
%M0635	BLK13	PH5_1	Start sequenc
			-( ) 11
	BLK30		-] [- 15
%M0636	BLK14	PH5_2	Drive motor on
			-( ) 4
	BLK30		-] [- 16
%M0637	BLK21	PH6-1	Filling on
			-( ) 13
	BLK30		-] [- 17
%M0638	BLK21	PH6_2	Machine in prod.
			-( ) 28
	BLK30		-] [- 18
%M0639	BLK25	PH9_2	Preparation for CIP, int. clean.
			-( ) 8
	BLK30		-] [- 24
%M0640	BLK25	PH9_1	Preparation for exter. cleaning
			-( ) 13
	BLK30		-] [- 23
%M0641	BLK06	PH68	LS sh. stop heat alarm
			-( ) 9
	BLK22		-]/[- 44
	BLK30		-] [- 143,144
%M0642	BLK13	PH22	Temp fault hydraul oil
			-( ) 17
	BLK30		-] [- 51,52
%M0643	BLK13	PH23	Low level hydraul oil
			-( ) 16
	BLK30		-] [- 53,54
%M0644	BLK14	PH24	Speed fault main motor
			-( ) 37
	BLK22		-]/[- 38
	BLK30		-] [- 55,56
%M0645	BLK21	PH25	PLC fault
			-(/) 29
	BLK30		-] [- 57,58
%M0646	BLK06	PH30	High level separat
			-( ) 15
	BLK22		-]/[- 44
	BLK30		-] [- 67,68
%M0647	BLK06	PH31	Low temp air heater
			-( ) 18
	BLK30		-] [- 69,70

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%M0648	BLK06	PH32	Low press. steril air
			-( ) 14
	BLK22		-]/[- 44
	BLK30		-] [- 71,72
%M0649	_MAIN	PH33	Suction valve wrong pos.
			-]/[- 32,39
	BLK06		-( ) 25
	BLK22		-]/[- 38
	BLK30		-] [- 73,74
%M0650	BLK09	PH34	Spray time out of limit
			-( ) 22
	BLK30		-] [- 75,76
%M0651	BLK13	PH35	Low temp air knife
			-( ) 35
	BLK22		-]/[- 31
	BLK30		-] [- 77,78
%M0652	_MAIN	PH36	Air inlet wrong pos.
			-]/[- 26
	BLK06		-( ) 22
	BLK22		-]/[- 44
	BLK30		-] [- 79,80
%M0653	BLK14	PH37	Paper supply low
			-] [- 44
			-( ) 45
			-(S) 46
	BLK30		-] [- 81,82
%M0654	BLK07	PH38	Paper web fault
			-]/[- 6
	BLK14		-( ) 42
	BLK22		-]/[- 38,40
	BLK30		-] [- 83,84
%M0655	BLK07	PH39	Low temp strip splice element
			-( ) 12
	BLK30		-] [- 85,86
%M0656	BLK07	PH74	Broken strip
			-]/[- 6
			-( ) 21
			-(S) 22
	BLK22		-]/[- 39,40
	BLK30		-] [- 155,156
%M0657	BLK07	PH41	Low strip supply
			-] [- 15,16
			-( ) 17
	BLK30		-] [- 89,90
%M0658	BLK13	PH42	Air knife sq.roll wrong pos.
			-( ) 30
	BLK22		-]/[- 31
	BLK30		-] [- 91,92
%M0659	BLK05	PH43	Steam temp. out of limit
			-( ) 10
	BLK30		-] [- 93,94
%M0660	_MAIN	PH44	Clean steam barrier
			-( ) 60
	BLK30		-] [- 95,96
%M0661	BLK23	PH7_2	Prod. finish
			-( ) 19
	BLK30		-] [- 20
%M0662	_MAIN	PH76	Too hi. level peroxid tank
			-]/[- 27
	BLK10		-]/[- 26
			-( ) 24
	BLK22		-]/[- 39
	BLK30		-] [- 159,160
%M0663	BLK06	PH64	Steril air pipe wrong posit.
			-( ) 28
	BLK30		-] [- 135,136
%M0664	BLK15	PH77	FF pusher
			-( ) 25
	BLK22		-]/[- 41
	BLK30		-] [- 161,162
%M0665	BLK25	PH10_1	External cleaning
			-( ) 14
	BLK30		-] [- 25
%M0666	BLK25	PH10_2	CIP, internal cleaning
			-( ) 6

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
	BLK30		-] [- 26
%M0667	BLK07	PH40	Fault IH unit S. A.
			-]/[- 6,7,8
			-( ) 4
	BLK13		-]/[- 6
	BLK22		-]/[- 38,40
	BLK30		-] [- 87,88
%M0668	BLK18	PH75	Floater / Design position fault
			-( ) 17
	BLK30		-] [- 157,158
%M0669	BLK22	PH6S	Lamp in short stop buttom
			-( ) 35
	BLK30		-] [- 166
%M0670	BLK13	PH02S	Lamp in inching buttom
			-( ) 9
	BLK30		-] [- 163
%M0671	BLK18	PH72	Wrong pos.reg valve alarm
			-(M) 16
	BLK30		-] [- 151,152
%M0672	_MAIN	PH71	Membran leakage alarm
			-]/[- 24
	BLK18		-( ) 9
	BLK22		-]/[- 44
	BLK30		-] [- 149,150
%M0673	BLK18	PH56	Overfil alarm
			-( ) 18
	BLK30		-] [- 119,120
%M0674	BLK11	PH45	No prod. from process
			-( ) 14
	BLK30		-] [- 97,98
%M0675	BLK06	PH46	Wrong posit. product pipe
			-( ) 26
	BLK30		-] [- 99,100
%M0676	_MAIN	PH47	Wrong posit. clean. pipe
			-( ) 62
	BLK30		-] [- 101,102
%M0677	_MAIN	PH48	Wrong pos. AP valve B
			-] [- 61
			-]/[- 26
	BLK09		-( ) 35
	BLK22		-]/[- 44
	BLK25		-]/[- 4
	BLK30		-] [- 103,104
%M0678	BLK10	PH49	Low level bath peroxid
			-( ) 36
	BLK22		-]/[- 29
	BLK30		-] [- 105,106
%M0679	_MAIN	PH50	Low level perox.b water
			-]/[- 24
	BLK10		-( ) 45
	BLK22		-]/[- 29
	BLK30		-] [- 107,108
%M0680	BLK06	PH51	Low tem ls elem
			-( ) 8
	BLK22		-]/[- 38
	BLK30		-] [- 109,110
%M0681	BLK10	PH52	Low temp. perox.
			-( ) 37
	BLK21		-] [- 40
	BLK22		-]/[- 31
	BLK30		-] [- 111,112
%M0682	BLK10	PH53	Low temp. perox.b water
			-( ) 46
	BLK22		-]/[- 37
	BLK30		-] [- 113,114
%M0683	BLK10	PH54	Bottom cover perox. bath
			-( ) 38
	BLK30		-] [- 115,116
%M0684	BLK17	PH55	Photocell malfunction
			-( ) 14
			-(S) 15
	BLK30		-] [- 117,118
%M0685	BLK30	PH26	For futur use
			-] [- 59,60
%M0686	_MAIN	PH57	Wrong pos. clean. cup

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-( ) 63
	BLK30		-] [- 121,122
%M0687	1T0001	PH58	Fault IH unit TS
			-]/[- 18
	BLK21		-( ) 20
	BLK22		-]/[- 39
	BLK30		-] [- 123,124
%M0688	BLK15	PH59	Final folder infeed congest
			-( ) 20
	BLK22		-]/[- 29
	BLK30		-] [- 125,126
%M0689	BLK10	PH60	Low level tank peroxid
			-(/) 23
	BLK30		-] [- 127,128
%M0690	BLK15	PH61	Rotat. fault FF
			-( ) 17
	BLK22		-]/[- 41
	BLK30		-] [- 129,130
%M0691	BLK25	PH62	Fault filling clean. tray
			-] [- 16
			-]/[- 14,15
			-(S) 28,29
			-(R) 27
	BLK30		-] [- 131,132
%M0692	BLK14	PH63	Queue conveyor and outfeeder
			-( ) 8
	BLK22		-]/[- 30
	BLK30		-] [- 133,134
%M0693	BLK23	PHB_1	WEAC on
			-( ) 4
	BLK30		-] [- 21
%M0694	BLK23	PHB_2	Ready for door opening
			-( ) 5
	BLK30		-] [- 22
%M0695	BLK22	PH7_1	Short stop
			-( ) 35
	BLK30		-] [- 19
%M0696	BLK30	PH11S	Reset alarm buttom
			-] [- 167
			-( ) 190
%M0697	BLK30		Memory to set alarm bit
			-] [- 28
			-]/[- 28,169
			-(SM) 27
			FBIO 6
%M0698	BLK30		Memory to set alarm bit
			-] [- 44
			-]/[- 44,169
			-(SM) 43
%M0699	BLK30		Memory to set alarm bit
			-] [- 30
			-]/[- 30,169
			-(SM) 29
%M0700	BLK30		Memory to set alarm bit
			-] [- 46
			-]/[- 46,169
			-(SM) 45
%M0701	BLK30		Memory to set alarm bit
			-] [- 32
			-]/[- 32,169
			-(SM) 31
%M0702	BLK30		Memory to set alarm bit
			-] [- 48
			-]/[- 48,169
			-(SM) 47
%M0703	BLK30		Memory to set alarm bit
			-] [- 34
			-]/[- 34,169
			-(SM) 33
%M0704	BLK30		Memory to set alarm bit
			-] [- 50
			-]/[- 50,169
			-(SM) 49
%M0705	BLK30		Memory to set alarm bit
			-] [- 36

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-]/[- 36,169
			-(SM) 35
%M0706	BLK30		Memory to set alarm bit
			-] [- 52
			-]/[- 52,170
			-(SM) 51
%M0707	BLK30		Memory to set alarm bit
			-] [- 60
			-]/[- 60,170
			-(SM) 59
%M0708	BLK30		Memory to set alarm bit
			-] [- 144
			-]/[- 144,170
			-(SM) 143
%M0709	BLK30		Memory to set alarm bit
			-] [- 62
			-]/[- 62,170
			-(SM) 61
%M0710	BLK30		Memory to set alarm bit
			-] [- 64
			-]/[- 64,170
			-(SM) 63
%M0711	BLK30		Memory to set alarm bit
			-] [- 58
			-]/[- 58,170
			-(SM) 57
%M0712	BLK30		Memory to set alarm bit
			-] [- 66
			-]/[- 66,170
			-(SM) 65
%M0713	BLK30		Memory to set alarm bit
			-] [- 56
			-]/[- 56,170
			-(SM) 55
%M0714	BLK30		Memory to set alarm bit
			-] [- 40
			-]/[- 40,171
			-(SM) 39
%M0715	BLK30		Memory to set alarm bit
			-] [- 54
			-]/[- 54,171
			-(SM) 53
%M0716	BLK30		Memory to set alarm bit
			-] [- 38
			-]/[- 38,171
			-(SM) 37
%M0720	BLK30		Memory to set alarm bit
			-] [- 138
			-]/[- 138,172
			-(SM) 137
%M0721	BLK30		Memory to set alarm bit
			-] [- 140
			-]/[- 140,172
			-(SM) 139
%M0722	BLK30		Memory to set alarm bit
			-] [- 142
			-]/[- 142,172
			-(SM) 141
%M0723	BLK30		Memory to set alarm bit
			-] [- 146
			-]/[- 146,172
			-(SM) 145
%M0724	BLK30		Memory to set alarm bit
			-] [- 148
			-]/[- 148,172
			-(SM) 147
%M0725	BLK30		Memory to set alarm bit
			-] [- 154
			-]/[- 154,172
			-(SM) 153
%M0729	BLK30		Memory to set alarm bit
			-] [- 68
			-]/[- 68,173
			-(SM) 67
%M0730	BLK30		Memory to set alarm bit

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-] [- 72
			-]/[- 72,173
			-(SM) 71
%M0731	BLK30		Memory to set alarm bit
			-] [- 76
			-]/[- 76,173
			-(SM) 75
%M0732	BLK30		Memory to set alarm bit
			-] [- 80
			-]/[- 80,173
			-(SM) 79
%M0733	BLK30		Memory to set alarm bit
			-] [- 84
			-]/[- 84,173
			-(SM) 83
%M0734	BLK30		Memory to set alarm bit
			-] [- 122
			-]/[- 122,173
			-(SM) 121
%M0735	BLK30		Memory to set alarm bit
			-] [- 126
			-]/[- 126,173
			-(SM) 125
%M0736	BLK30		Memory to set alarm bit
			-] [- 130
			-]/[- 130,173
			-(SM) 129
%M0737	BLK30		Memory to set alarm bit
			-] [- 134
			-]/[- 134,174
			-(SM) 133
%M0738	BLK30		Memory to set alarm bit
			-] [- 108
			-]/[- 108,174
			-(SM) 107
%M0739	BLK30		Memory to set alarm bit
			-] [- 110
			-]/[- 110,174
			-(SM) 109
%M0740	BLK30		Memory to set alarm bit
			-] [- 106
			-]/[- 106,174
			-(SM) 105
%M0741	BLK30		Memory to set alarm bit
			-] [- 132
			-]/[- 132,174
			-(SM) 131
%M0742	BLK30		Memory to set alarm bit
			-] [- 128
			-]/[- 128
			-(SM) 127
%M0743	BLK30		Memory to set alarm bit
			-] [- 124
			-]/[- 124,174
			-(SM) 123
%M0744	BLK30		Memory to set alarm bit
			-] [- 156
			-]/[- 156,174
			-(SM) 155
%M0745	BLK30		Memory to set alarm bit
			-] [- 82
			-]/[- 82,175
			-(SM) 81
%M0746	BLK30		Memory to set alarm bit
			-] [- 78
			-]/[- 78,175
			-(SM) 77
%M0747	BLK30		Memory to set alarm bit
			-] [- 74
			-]/[- 74,175
			-(SM) 73
%M0748	BLK30		Memory to set alarm bit
			-] [- 70
			-]/[- 70,175
			-(SM) 69

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%M0749	BLK30		Memory to set alarm bit
			-] [- 42
			-]/[- 42,175
			-(SM) 41
%M0750	BLK30		Memory to set alarm bit
			-] [- 136
			-]/[- 136,175
			-(SM) 135
%M0761	BLK30		Memory to set alarm bit
			-] [- 112
			-]/[- 112,176
			-(SM) 111
%M0762	BLK30		Memory to set alarm bit
			-] [- 116
			-]/[- 116,176
			-(SM) 115
%M0764	BLK30		Memory to set alarm bit
			-] [- 92
			-]/[- 92,176
			-(SM) 91
%M0765	BLK30		Memory to set alarm bit
			-] [- 96
			-]/[- 96,176
			-(SM) 95
%M0766	BLK30		Memory to set alarm bit
			-] [- 100
			-]/[- 100,176
			-(SM) 99
%M0767	BLK30		Memory to set alarm bit
			-] [- 104
			-]/[- 104,176
			-(SM) 103
%M0774	BLK30		Memory to set alarm bit
			-] [- 86
			-]/[- 86,177
			-(SM) 85
%M0775	BLK30		Memory to set alarm bit
			-] [- 102
			-]/[- 102,177
			-(SM) 101
%M0776	BLK30		Memory to set alarm bit
			-] [- 98
			-]/[- 98,177
			-(SM) 97
%M0777	BLK30		Memory to set alarm bit
			-] [- 94
			-]/[- 94,177
			-(SM) 93
%M0778	BLK30		Memory to set alarm bit
			-] [- 90
			-]/[- 90,177
			-(SM) 89
%M0779	BLK30		Memory to set alarm bit
			-] [- 118
			-]/[- 118,177
			-(SM) 117
%M0780	BLK30		Memory to set alarm bit
			-] [- 114
			-]/[- 114,177
			-(SM) 113
%M0781	BLK30		Memory to set alarm bit
			-] [- 160
			-]/[- 160,177
			-(SM) 159
%M0782	BLK30		Memory to set alarm bit
			-] [- 152
			-]/[- 152,178
			-(SM) 151
%M0783	BLK30		Memory to set alarm bit
			-] [- 150
			-]/[- 150,178
			-(SM) 149
%M0784	BLK30		Memory to set alarm bit
			-] [- 120
			-]/[- 120,178

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-(SM) 119
%M0785	BLK30		Memory to set alarm bit
			-] [- 158
			-]/[- 158,178
			-(SM) 157
%M0786	BLK30		Memory to set alarm bit
			-] [- 88
			-]/[- 88,178
			-(SM) 87
%M0787	BLK30		Memory to set alarm bit
			-] [- 162
			-]/[- 162,178
			-(SM) 161
%M0833	BLK30		Alarm word
			FBIO 205
%M0837	BLK30	PH_4-2	Signal from steril.
			-( ) 14
%M0838	BLK30	PH_4-1	Signal to steril.
			-( ) 13
%M0839	BLK30	PH_3-2	Drying
			-( ) 12
%M0840	BLK30	PH_3-1	Spray
			-( ) 11
%M0841	BLK30	PH_2-2	Heating 3
			-( ) 10
%M0842	BLK30	PH_2-1	Tube sealing
			-( ) 9
%M0843	BLK30	PH_1-2	Preheat 2
			-( ) 8
%M0844	BLK30	PH_1-1	Preheat 1
			-( ) 7
%M0845	BLK30	PH_8-2	Ready for door opening
			-( ) 22
%M0846	BLK30	PH_8-1	Weac on
			-( ) 21
%M0847	BLK30	PH_7-2	Prod. finish
			-( ) 20
%M0848	BLK30	PH_7-1	Short stop
			-( ) 19
%M0849	BLK30	PH_6-2	Machine in product
			-( ) 18
%M0850	BLK30	PH_6-1	Filling on
			-( ) 17
%M0851	BLK30	PH_5-2	Drive motor on
			-( ) 16
%M0852	BLK30	PH_5-1	Start sequenc
			-( ) 15
%M0873	BLK30	PH_10-2	Clean. of machine
			-( ) 26
%M0874	BLK30	PH_10-1	Clean. of valve
			-( ) 25
%M0875	BLK30	PH_9-2	Ready clean. of machine
			-( ) 24
%M0876	BLK30	PH_9-1	Ready clean. of valve
			-( ) 23
%M0880	BLK30	PH_11S	Reset alarm button
			-( ) 167
%M0881	BLK30	PH_6S	Short stop button
			-( ) 166
%M0882	BLK30	PH_4S	Step down button
			-( ) 165
%M0883	BLK13	PH_3S	Step up button
			-] [- 11
	BLK25		-] [- 8,13
	BLK30		-( ) 164
%M0884	BLK30	PH_2S	Inching button
			-( ) 163
%M0897	BLK30	PH_18	Overl. protect motor
			-]/[- 43,180
			-( ) 44
%M0898	BLK30	PH_19	Service switch
			-]/[- 45,180
			-( ) 46
%M0899	BLK30	PH_20	Low press. lubric. oil
			-]/[- 47,180

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-( ) 48
%M0900	BLK30	PH_21	Low level lubric. oil
			-]/[- 49,180
			-( ) 50
%M0901	BLK30	PH_22	Too hi.temp hydraul unit
			-]/[- 51,180
			-( ) 52
%M0902	BLK30	PH_23	Low lev oil on hydraul unit
			-]/[- 53,180
			-( ) 54
%M0903	BLK30	PH_24	Machine speed too high
			-]/[- 55,180
			-( ) 56
%M0904	BLK30	PH_25	PLC fault
			-]/[- 57,180
			-( ) 58
%M0905	BLK30	PH_26	Free
			-]/[- 59,180
			-( ) 60
%M0906	BLK30	PH_27	Free
			-]/[- 61,181
			-( ) 62
%M0909	BLK30	PH_17	Free
			-]/[- 41,181
			-( ) 42
%M0910	BLK30	PH_16	Unsync. MM-FF
			-]/[- 39,181
			-( ) 40
%M0911	BLK30	PH_15	Jaw system overloa
			-]/[- 37,181
			-( ) 38
%M0912	BLK30	PH_14	Tower doors
			-]/[- 35,181
			-( ) 36
%M0913	BLK30	PH_13	Emerg. stop activ.
			-]/[- 33,181
			-( ) 34
%M0914	BLK30	PH_12	Safety monitor off position
			-]/[- 31,181
			-( ) 32
%M0915	BLK30	PH_11	Low press. air supply
			-]/[- 29,182
			-( ) 30
%M0916	BLK30	PH_10	Low press. water supply
			-]/[- 27,182
			-( ) 28
%M0929	BLK30	PH_28	Free
			-]/[- 63,182
			-( ) 64
%M0930	BLK30	PH_29	Free
			-]/[- 65,182
			-( ) 66
%M0931	BLK30	PH_39	Low temp. S. A.
			-]/[- 85,182
			-( ) 86
%M0932	BLK30	PH_64	Steril.air pipe wrong posit.
			-]/[- 135,182
			-( ) 136
%M0933	BLK30	PH_65	Free
			-]/[- 137,182
			-( ) 138
%M0934	BLK30	PH_66	Free
			-]/[- 139,182
			-( ) 140
%M0935	BLK30	PH_67	Free
			-]/[- 141,183
			-( ) 142
%M0936	BLK30	PH_68	LS S.S. heat alarm
			-]/[- 143,183
			-( ) 144
%M0937	BLK30	PH_69	Free
			-]/[- 145,183
			-( ) 146
%M0938	BLK30	PH_70	Free
			-]/[- 147,183

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-( ) 148
%M0939	BLK30	PH_77	Congest outfeed final folder
			-]/[- 161,183
			-( ) 162
%M0940	BLK30	PH_76	Too hi. level perox. tank
			-]/[- 159,183
			-( ) 160
%M0941	BLK30	PH_75	Wrong pos. or missing floater
			-]/[- 157,183
			-( ) 158
%M0942	BLK30	PH_74	Strip broken
			-]/[- 155,183
			-( ) 156
%M0943	BLK30	PH_73	Free
			-]/[- 153,184
			-( ) 154
%M0944	BLK30	PH_72	Wrong posit. regul. valve
			-]/[- 151,188
			-( ) 152
%M0945	BLK30	PH_71	Membran leakage
			-]/[- 149,188
			-( ) 150
%M0961	BLK30	PH_38	Paper web fault
			-]/[- 83,184
			-( ) 84
%M0962	BLK30	PH_40	Fault IH unit S.A.
			-]/[- 87,184
			-( ) 88
%M0963	BLK30	PH_41	Strip supply too low
			-]/[- 89,184
			-( ) 90
%M0964	BLK30	PH_42	Wrong pos.air knife
			-]/[- 91,184
			-( ) 92
%M0965	BLK30	PH_43	Steam temp. out of limit
			-]/[- 93,184
			-( ) 94
%M0966	BLK30	PH_44	Clean. steam barr.
			-]/[- 95,184
			-( ) 96
%M0967	BLK30	PH_45	No product from process
			-]/[- 97,184
			-( ) 98
%M0968	BLK30	PH_46	Wrong posit. product pipe
			-]/[- 99,185
			-( ) 100
%M0969	BLK30	PH_47	Wrong pos. clean. pipe
			-]/[- 101,185
			-( ) 102
%M0970	BLK30	PH_48	Wrong pos. AP valve B
			-]/[- 103,185
			-( ) 104
%M0973	BLK30	PH_37	Supply of paper to low
			-]/[- 81,185
			-( ) 82
%M0974	BLK30	PH_36	Air inlet wrong pos.
			-]/[- 79,185
			-( ) 80
%M0975	BLK30	PH_35	Low temp. air Knife
			-]/[- 77,185
			-( ) 78
%M0976	BLK30	PH_34	Spray time out of limit
			-]/[- 75,185
			-( ) 76
%M0977	BLK30	PH_33	Wrong pos. of suction valve
			-]/[- 73,185
			-( ) 74
%M0978	BLK30	PH_32	Low pressur steril air
			-]/[- 71,186
			-( ) 72
%M0979	BLK30	PH_31	Low temp. air heater
			-]/[- 69,186
			-( ) 70
%M0980	BLK30	PH_30	High level separ.
			-]/[- 67,186

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-( ) 68
%M0993	BLK30	PH_49	Low level bath peroxid
			-]/[- 105,186
			-( ) 106
%M0994	BLK30	PH_50	Low level bath water
			-]/[- 107,186
			-( ) 108
%M0995	BLK30	PH_51	Low temp.LS element
			-]/[- 109,186
			-( ) 110
%M0996	BLK30	PH_52	Low temp. peroxid
			-]/[- 111,186
			-( ) 112
%M0997	BLK30	PH_53	low temp. water
			-]/[- 113,186
			-( ) 114
%M0998	BLK30	PH_54	Bottom cover peroxid bath
			-]/[- 115,187
			-( ) 116
%M0999	BLK30	PH_55	Fault printed design
			-]/[- 117,187
			-( ) 118
%M1000	BLK30	PH_56	Over- filling
			-]/[- 119,187
			-( ) 120
%M1001	BLK30	PH_57	Wrong posit. clean. cup
			-]/[- 121,187
			-( ) 122
%M1002	BLK30	PH_58	Fault IH unit transv. sealing
			-]/[- 123,187
			-( ) 124
%M1003	BLK30	PH_59	Infeed congest final folder
			-]/[- 125,187
			-( ) 126
%M1004	BLK30	PH_60	Low level tank peroxid
			-]/[- 127,187
			-( ) 128
%M1005	BLK30	PH_61	Rotat. fault final folder
			-]/[- 129,187
			-( ) 130
%M1006	BLK30	PH_62	Fault filling clean. tray
			-]/[- 131,188
			-( ) 132
%M1007	BLK30	PH_63	Queue convey.
			-]/[- 133,188
			-( ) 134

========== TEMPORARY (%T) GLOBAL CROSS REFERENCES

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%T0001	BLK10	DLY_20S	Start sequenc delay 20 sec.
			-] [- 33
	BLK13		-] [- 15
			-( ) 14
	BLK18		-] [- 7
%T0002	_MAIN	DLY_10S	Start sequenc delay 10 sec.
			-] [- 50
			-]/[- 9
	BLK10		-] [- 30
	BLK13		-( ) 22
	BLK14		-] [- 5,18,20,36
			-]/[- 35
	BLK18		-] [- 6,19
	BLK21		-] [- 40
	BLK22		-]/[- 32
%T0003	BLK10		Start sequenc P-
			-] [- 12
			-(v) 11
%T0005	BLK13		Delay counter roller on
			-] [- 23
			-]/[- 26
			-(S) 24
			-(R) 23

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%T0006	BLK14		Pulsing brake
			-] [- 30
			-]/[- 29
			-( ) 29
%T0007	BLK13	DLY_8S	Start sequenc delay 8sec
			-] [- 28
			-( ) 27
%T0008	BLK10	DLY_4S5	Start sequenc delay 4,5sec
			-] [- 33
	BLK13		-] [- 20
			-( ) 18
%T0009	BLK10	DLY_9S	Start sequenc delay 9sec
			-] [- 37
	BLK13		-] [- 21
			-]/[- 20
			-( ) 19
	BLK14		-]/[- 30
%T0012	BLK06		P+ step up
			-]/[- 21
			-(^) 20
%T0013	BLK22	SH-STOP	Short stop for >5 min.
			-]/[- 39
			-( ) 33
%T0014	BLK22	SHTSTOP	Short stop for >4 minutes
			-] [- 35
			-( ) 34
%T0015	_MAIN		Delay filling valve start
			-] [- 52
	BLK21		-( ) 8
	BLK22		-]/[- 37
%T0016	_MAIN		Step up P+
			-] [- 25,34,36,40,45,55,56,66
			-(^) 12
	BLK06		-] [- 13
	BLK10		-] [- 15,36
	BLK13		-] [- 12
	BLK19		-] [- 5
	BLK25		-] [- 7,15
%T0017	_MAIN		Step down P+
			-] [- 21,25,29,40,41,45
			-]/[- 34
			-(^) 13
	BLK10		-] [- 12
	BLK23		-] [- 7
%T0018	BLK26		Long lubr. ready pulse
			-] [- 14
			-(v) 13
%T0019	BLK25		CIP record- ing on
			-] [- 12
			-( ) 10
%T0020	BLK25		CIP record- ing off
			-]/[- 12
			-( ) 11
%T0021	BLK25		Start circulation cycle, pump
			-] [- 26
			-]/[- 18,24
			-(S) 17
			-(R) 23
%T0022	BLK13	WATER	Hot water
			-] [- 34
	BLK15		-] [- 37
	BLK25		-] [- 24
			-]/[- 18,23
			-( ) 19
			-(S) 20,21,22
%T0023	BLK13	FILLING	Filling check cleaning tray
			-] [- 34
	BLK25		-( ) 18
%T0024	BLK30		New value multip card
			-] [- 205,206,207
			-(v) 204
%T0026	BLK22		Pulse short stop
			-] [- 32
			-]/[- 31
			-(^) 28

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%T0027	_MAIN	DESIGNP	Output design puls
			-] [- 53
	BLK17		-] [- 7,9,13
			-(^) 5
	BLK19		-] [- 21,24
%T0028	BLK14	PAPER+	Output puls rotation paper web
			-]/[- 41
			-(^) 38
%T0029	BLK14	PAPER-	Output puls rotation paper web
			-]/[- 41
			-(v) 39
%T0030	BLK26	LUBPULS	Output puls long lubrication
			-] [- 7
			-(^) 6
%T0031	BLK15	CONGEST	Out puls infeed congestion
			-]/[- 20
			-(^) 19
%T0032	BLK07		Paper splice P-
			-] [- 24
	BLK19		-] [- 12
			-(^) 11
%T0033	BLK07		Strip guard 2.P+
			-] [- 22,23
			-( ) 23
%T0034	BLK10		Output pulse inching
			-] [- 36
	BLK13		-] [- 12
			-(^) 5
%T0035	BLK19		Load angle paper splice
			-] [- 16
			-(^) 14
%T0036	BLK18		One shot go to intern.clean.
			-] [- 11
			-(^) 10
%T0037	BLK17		Clock data move
			-] [- 26
			-(^) 24
%T0038	BLK17		Negativ pulse volume enable
			-] [- 22
			-(v) 21
%T0041	BLK25		Total ext. clean time
			-]/[- 14,15
			-( ) 16
%T0042	_MAIN		P+ Step up aux
			-] [- 12
			-(^) 11
	BLK14		-] [- 44
%T0044	_MAIN		Pulse pos. 50
			-]/[- 48
			-(^) 47
%T0045	BLK26		Time lubric. period
			-] [- 7
			-( ) 7
%T0046	BLK26		1-st stroke lubric. valve
			-] [- 18
			-]/[- 15
			-( ) 8
%T0047	BLK26		2-nd stroke lubric. valve
			-]/[- 15
			-( ) 9
%T0048	BLK26		3-rd stroke lubric. valve
			-]/[- 15
			-( ) 10
%T0049	BLK26		4-th stroke lubric. valve
			-]/[- 15
			-( ) 11
%T0050	BLK26		5-th stroke lubric. valve
			-] [- 13
			-]/[- 15
			-( ) 12
%T0051	BLK10	BTH-CHK	Peroxid bath lvl_chk 9.8 sec.
			-] [- 36
			-( ) 34
	BLK13		-] [- 30
%T0052	_MAIN	FLASH	Panel flash contact

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-] [- 10
	BLK11		-] [- 4
	BLK13		-] [- 8,9
	BLK22		-] [- 35
	BLK23		-] [- 5
	BLK25		-] [- 6,14
	BLK30		-] [- 4,7,8,9,11,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,64,66,68,70,72,74,76,78,80,82,84, 86,88,90,92,94,96,98,100,102,104,106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136, 138,140,142,144,146,148,150,152,154,156,158,160,162,164,190
			-]/[- 4
			-( ) 4
%T0054	BLK10		Low lvl peroxid bath at product
			-] [- 36
			-( ) 30
	BLK21		-] [- 40
%T0055	BLK10		Low lvl tank alarm in prod
			-]/[- 23
			-( ) 22
%T0056	BLK09		Spray tank evacuat pos 30
			-] [- 20
			-( ) 16
%T0057	_MAIN		Spray tank evacuat finish
			-] [- 39
	BLK09		-( ) 17
%T0058	_MAIN		Delayd start high speed
			-]/[- 40
	BLK13		-] [- 21
	BLK14		-] [- 13,17,19
			-( ) 18
%T0059	_MAIN		Off delay high speed
			-] [- 48
	BLK14		-] [- 16,17
			-( ) 15
	BLK19		-]/[- 31
%T0060	BLK14		Start delay low speed
			-] [- 17
			-( ) 16
%T0061	BLK14		Start delay high speed
			-] [- 18
			-( ) 23
%T0062	BLK14		Delay brake on
			-] [- 30
			-( ) 31
%T0063	BLK21		Operationel time record.
			-] [- 39,41
			-(S) 40
			-(R) 39
%T0064	BLK05		Water press. delayd
			-] [- 14
			-( ) 13
	BLK13		-]/[- 15
	BLK23		-] [- 7
%T0065	BLK23		Max. time WEAC on
			-] [- 7
			-( ) 14
%T0066	BLK15		Delay ready sync. MM/FF
			-] [- 8
			-( ) 7
%T0067	BLK07		Enable sealing pulse
			-] [- 10
			-( ) 9
%T0068	BLK07		Strip guard P+
			-] [- 22,23
			-]/[- 21
			-(^) 20
%T0071	_MAIN		Sterile air pressure P+
			-] [- 29
			-(^) 28
%T0072	_MAIN	TUB_RDY	Tube sealing ended
			-] [- 36
			-( ) 35
%T0073	BLK26		Check oilpressure off
			-] [- 19
			-(^) 16
%T0074	BLK26		Check oilpressure on

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-] [- 19
			-(v) 17
%T0075	BLK05		Main air pressur del. on
			-] [- 7
			-( ) 5
%T0076	BLK05		Main air pressur del off
			-] [- 7
			-( ) 6
%T0078	BLK10		Pulse level check p-tank
			-] [- 19
			-(^) 18
%T0079	BLK10		Level check p-tank
			-] [- 22
			-(S) 19
			-(R) 20
%T0080	BLK10		Level check p-tank
			-] [- 22
			-(v) 21
%T0081	BLK21		Delay TS off
			-] [- 26
			-( ) 25
%T0082	_MAIN	STEPIN	Step down delay 3 sec.
			-] [- 21
			-( ) 42
%T0083	BLK14		Paper web broken
			-] [- 42
			-( ) 41
%T0084	BLK14		To high speed main motor
			-] [- 37
			-( ) 35
%T0085	BLK14		Monitor machine speed
			-] [- 35,37
			-]/[- 36
			-( ) 36
%T0086	BLK14		FF chain P+
			-] [- 21
	BLK15		-] [- 8,12,27
			-]/[- 17
			-(^) 4
%T0087	BLK14		Delay brake on
			-] [- 30
			-( ) 28
%T0088	BLK14	DLY_30S	Conveyor delay off 30 sec.
			-] [- 6
			-( ) 5
%T0089	BLK14		Stop delay main motor
			-] [- 18
			-(S) 20
			-(R) 21,22
%T0090	BLK07		Delay rotat. monitor
			-] [- 21
	BLK14		-] [- 41
	BLK15		-] [- 17,23
			-]/[- 13,15,16
			-(S) 13
			-(R) 14
	BLK21		-]/[- 45
%T0091	BLK15	FLAPAIR	Flap sealing air dly off5min
			-] [- 31
			-( ) 30
%T0092	BLK06	SUC-VAL	Suction valve delay off 10s
			-] [- 24
			-( ) 23
%T0096	BLK15		Over-load outfeed FF P+
			-] [- 24
			-]/[- 23
			-(^) 21
%T0097	BLK15		Over-load outfeed FF P-
			-] [- 24
			-]/[- 23
			-(v) 22
%T0098	BLK07		Start Strip Splice
			-] [- 15
			-(v) 13
%T0099	BLK07		Strip Splice Started

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-(^) 14
	BLK19		-] [- 18
%T0100	_MAIN		Pulse signal to CIP off
			-] [- 63
	BLK25		-(v) 9
%T0101	_MAIN		Delay alarm indication
			-( ) 23
	BLK07		-] [- 4
%T0102	BLK10		Peroxide bath drain
			-] [- 13,23
			-( ) 12
%T0103	BLK09		Safety alarm
			-] [- 26
			-]/[- 26
	BLK22		-] [- 24
			-]/[- 24
			-( ) 19
%T0104	BLK22		Auxillary detection safety alarm
			-] [- 19
			-( ) 17
%T0105	BLK22		Detection of safety alarm
			-] [- 17,19
			-( ) 18
%T0106	BLK22		Side protection detected
			-] [- 18
			-]/[- 18
			-( ) 20
%T0107	BLK22		Tower doors detected
			-] [- 18
			-]/[- 18
			-( ) 21
%T0108	BLK22		Crank position detected
			-] [- 18
			-]/[- 18
			-( ) 22
%T0109	BLK09		Tower doors closed
			-( ) 27
	BLK30		-]/[- 178
%T0110	_MAIN		Auxillary tower doors alarm
			-]/[- 9
	BLK09		-] [- 27
			-(S) 26
			-(R) 25
	BLK30		-] [- 36
%T0111	BLK22		Side protection closed
			-( ) 25
	BLK30		-]/[- 178
%T0112	_MAIN		Auxillary side protection alarm
			-]/[- 9
	BLK09		-]/[- 26
	BLK22		-] [- 25
			-(S) 24
			-(R) 23
	BLK30		-] [- 32
			-]/[- 36
%T0113	BLK13		Pulse slow flash
			-] [- 7
			-]/[- 7
			-(^) 8
%T0114	BLK13		Slow flash
			-] [- 7,9
			-]/[- 7
			-( ) 7
%T0115	BLK06		Preheat LS element at drying
			-]/[- 7
			-( ) 6
%T0132	BLK22		Alarm reset safety relay
			-] [- 14,15
			-(S) 14
			-(R) 15
%T0133	1T0001		P+ New package
			-(S) 19
	BLK19		-] [- 23,24
			-(R) 24
%T0136	BLK19		New package detected

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			-] [- 24,28
			-( ) 24
%T0147	BLK18		Main Motor new stop delay value
			-] [- 22
			-(^) 21
%T0200	BLK13		Pulse for tube flush off
			-] [- 32
			-(^) 31

========== REGISTER (%R) GLOBAL CROSS REFERENCES

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%R0001	BLK19	VAR_D08	Package dump short stop
			FBIO 5
	BLK35		FBIO 5,11,18,19
%R0002	BLK19	VAR_D09	Package dump short stop
			FBIO 5
%R0003	BLK19	VAR_D10	Package dump short stop
			FBIO 6
%R0004	BLK19	VAR_D11	Package dump short stop
			FBIO 6
%R0005	BLK19	VAR_D12	Package dump short stop
			FBIO 6
%R0006	BLK19	VAR_D13	Package dump paper splice
			FBIO 16
%R0007	BLK19	VAR_D14	Package dump paper splice
			FBIO 16
%R0008	BLK19	VAR_D15	Package dump paper splice
			FBIO 16
	BLK35		FBIO 5,11
%R0009	BLK19	VAR_D16	Package dump strip splice
			FBIO 18
%R0010	BLK19	VAR_D17	Package dump strip splice
			FBIO 18
%R0011	BLK19	VAR_D18	Package dump strip splice
			FBIO 18
%R0012	BLK19	VAR_D19	Package dump strip splice
			FBIO 19
%R0013	BLK14	VAR_D20	Speed limit pack./min
			FBIO 35
%R0014	BLK14	VAR_D21	Start braking at short stop
			FBIO 26
%R0025	BLK10		Peroxid restore time
			FBIO 8,9
%R0028	BLK10		Low lvl tank product delay
			FBIO 5
%R0034	BLK10		Drain. bath time
			FBIO 12
	BLK13		FBIO 23
%R0037	BLK10		Max time perox. tank filling
			FBIO 16
%R0040	BLK10		Low lvl peroxid bath pr delay
			FBIO 30
%R0046	BLK09		Elapsed time POS30
			FBIO 15,16,17
%R0049	BLK14		Off delay high speed
			FBIO 15,28,31
	BLK19		FBIO 31
%R0052	BLK14		Monitor machine speed
			FBIO 36
%R0055	BLK14		Start delay high speed
			FBIO 23
%R0058	BLK14		Start delay low speed
			FBIO 16
%R0061	BLK14		Main motor, seconds
			FBIO 49,50
%R0064	BLK23		WEAC funct. on
			FBIO 14,15,16
%R0070	1T0001		Time TS sealing pulse
			FBIO 15,16
%R0078	BLK10		Bath temp W2 select
			FBIO 43
%R0081	BLK19		Package dump

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			FBIO 5,7,9,20,28
	BLK21		FBIO 23
%R0082	BLK19		Package dump
			FBIO 5,7,9
	BLK21		FBIO 23
%R0083	BLK19		Package dump
			FBIO 6,8,10,16
%R0084	BLK19		Package dump
			FBIO 6,8,10,16,18
%R0085	BLK19		Package dump
			FBIO 6,8,10,16,18
%R0086	BLK19		Package dump
			FBIO 18
%R0087	BLK19		Package dump
			FBIO 19
%R0100	_MAIN	SECTOR	Angle sector 0-127
			FBIO 35
	1T0001		FBIO 13,14
	BLK14		FBIO 26
	BLK15		FBIO 6,11
	BLK19		FBIO 7,9,14,25,26,30
	BLK21		FBIO 10,23,31,32
	BLK22		FBIO 28
%R0101	BLK30		Sync. pulse count to MIX.
			FBIO 192,194,195
%R0104	BLK30		Alarm bits to MIX. card100
			FBIO 197,205,207
%R0106	BLK30		Alarm bits to MIX. card101
			FBIO 198
%R0108	BLK30		Alarm bits to MIX. card101
			FBIO 199,206
%R0110	BLK30		Alarm bits to MIX. card101
			FBIO 200
%R0112	BLK30		Alarm bits to MIX. card100
			FBIO 201
%R0114	BLK30		Alarm bits to MIX. card100
			FBIO 202
%R0121	BLK19		+1 pack. dump before short stop
			FBIO 7
	BLK35		FBIO 18
%R0122	BLK19		+1 pack. dump before short stop
			FBIO 7
%R0123	BLK19		+1 pack. dump before short stop
			FBIO 8
%R0124	BLK19		+1 pack. dump before short stop
			FBIO 8
%R0125	BLK19		+1 pack. dump before short stop
			FBIO 8
%R0126	BLK19		+1 pack. dump after short stop
			FBIO 9
	BLK35		FBIO 19
%R0127	BLK19		+1 pack. dump after short stop
			FBIO 9
%R0128	BLK19		+1 pack. dump after short stop
			FBIO 10
%R0129	BLK19		+1 pack. dump after short stop
			FBIO 10
%R0130	BLK19		+1 pack. dump after short stop
			FBIO 10
%R0143	BLK21		Encoder previous value
			FBIO 43
%R0144	BLK21		Encoder increment /scan
			FBIO 43,44
%R0155	BLK14		Main Motor high speed delay
			FBIO 19
%R0170	BLK21	VAR_D01	Angle fill start
			FBIO 10
	BLK35		FBIO 5,11
%R0171	BLK21	VAR_D02	Angle fill start
			FBIO 10
%R0172	BLK21	VAR_D03	A-Valve close delay
			FBIO 15
%R0173	BLK21	VAR_D04	A-valve open delay
			FBIO 17
%R0174	BLK15	VAR_D05	Syncroniztion FF speed

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			FBIO 6
%R0175	BLK07	VAR_D06	Start heating SA unit prod.
			FBIO 6
%R0178	BLK19	VAR_D24	Load sector, paper splice
			FBIO 14
	BLK35		FBIO 6,12
%R0200	BLK05		Main air press. delay
			FBIO 5
%R0203	BLK05		Main air press. delay
			FBIO 6
%R0206	BLK05		Main air check delay
			FBIO 7
%R0215	BLK22		Delay check safety monitor
			FBIO 12
%R0221	BLK06		LS short stop heat ok
			FBIO 9
%R0227	_MAIN		Delay step up pulse
			FBIO 11
%R0250	BLK17		Counter bits volume data
			FBIO 17
%R0255	BLK17		Interrupt transm. time
			FBIO 19
%R0260	BLK17		Counter two transmission
			FBIO 22
%R0268	BLK17	VAR_D25	Repeat length register
			FBIO 26
	BLK35		FBIO 7,13
%R0269	BLK35	VAR_D26	Angle register
			FBIO 7,13
%R0270	BLK35	VAR_D27	Bending roller RPM precorrection
			FBIO 7,13
%R0271	BLK17		FBIO 26,27,28
%R0291	BLK10		Top fil valve time
			FBIO 6,7,31,32
%R0294	BLK18		Emptying tube
			FBIO 19,20
%R0297	BLK18		LRF closing delay
			FBIO 6
%R0298	BLK18	VAR_D32	LRF closing preset
			FBIO 6
	BLK35		FBIO 8,14
%R0300	BLK17		Counter design false in prod
			FBIO 8,9
%R0301	BLK17		Preset no of faulty packages
			FBIO 9,10,11
%R0344	BLK15		Delay overload outfeed FF
			FBIO 23
%R0353	BLK18		Delay wrong pos.reg val.al.
			FBIO 13
%R0356	BLK18		Delay open pos.reg valve
			FBIO 14
%R0362	BLK10		Delay of too high lev.perox.tank
			FBIO 24
%R0365	BLK10		Peroxide bath level delayed
			FBIO 25
%R0368	_MAIN		Delay alarm indication
			FBIO 23
%R0390	1T0001		Barcode missing ref. position
			FBIO 19
	BLK19		FBIO 21,23
%R0494	BLK19		Max design fault timer
			FBIO 20
%R0497	BLK22		Alarm reset
			FBIO 15
%R0500	BLK07		Start seq. for prod.
			FBIO 6
	BLK10		FBIO 5,22,27,28,29,34
	BLK13		FBIO 14,18,19,22,25,27
	BLK18		FBIO 8
	BLK21		FBIO 8,17
%R0506	BLK22		Time in short stop pos.
			FBIO 33,34
%R0510	BLK21	VAR_D23	A-valve delay preset sec*0.1
			FBIO 8
	BLK35		FBIO 6,12

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%R0512	BLK21		LRF valve moving time
			FBIO 6
%R0518	BLK15		Sq.ext.clean prg.
			FBIO 37
	BLK25		FBIO 16,19,20,21,22,25
	BLK26		FBIO 5
%R0524	BLK26		Timer sq. lubric.
			FBIO 7,8,9,10,11,12
%R0527	BLK07		Rotat. time
			FBIO 21
%R0530	BLK21		Delay record. steril param.
			FBIO 35,36
%R0533	BLK21		Opera- tionel time record
			FBIO 39
%R0536	BLK21		Tube sealing
			FBIO 23
%R0537	BLK19	VAR_D22	Package length precorrected
			FBIO 23
	BLK35		FBIO 6,12
%R0542	BLK07		Strip splace time
			FBIO 17,18,19
%R0548	BLK09		Spray peroxid
			FBIO 8,9,10,11,12,13,14,18
%R0551	BLK06		Drying after spray
			FBIO 6
	BLK09		FBIO 30,31,32
%R0554	BLK07		Delay enable sealing pulse
			FBIO 9
%R0560	BLK07		Sealing pulse off delay
			FBIO 8
%R0569	BLK14		Delay alarm paper
			FBIO 41
%R0572	BLK06		Alarm delay
			FBIO 22
%R0575	BLK25		Delay fill. clean. tray
			FBIO 17
%R0578	_MAIN		Delay ready for clean.
			FBIO 57
%R0581	BLK06		Delay stop suction valve
			FBIO 25
%R0584	BLK09		Delay B valve pos.
			FBIO 35
%R0587	BLK14		Stop con- veyor
			FBIO 5
	BLK15		FBIO 24
	BLK21		FBIO 15
%R0590	BLK14		Stop delay main motor
			FBIO 21
	BLK18		FBIO 22
%R0591	BLK14		PV Stop delay main motor
			FBIO 21
	BLK18		FBIO 22,23
%R0593	BLK15		Start delay rotat. monitor
			FBIO 13
%R0596	BLK15		FF rotat. monitor
			FBIO 17
%R0597	BLK15		Delay time FF rotat. monitor
			FBIO 15,16,17
%R0605	BLK05		Delay alarm water press.
			FBIO 12,13
%R0608	BLK21		Delay TS sealing off
			FBIO 22
%R0611	BLK21		Delay TS off
			FBIO 25
%R0614	BLK17		Missing design marks
			FBIO 13,14,15
%R0617	BLK17		Delay time FF.rot. monitor
			FBIO 4,7,11
%R0620	_MAIN		Stop delay from pos 40
			FBIO 42
%R0623	BLK26		Max.run time lubric. fault
			FBIO 22
%R0626	BLK15		Delay heating off FF
			FBIO 30
%R0629	BLK06		Suction valve hause bath

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
			FBIO 23
%R0632	BLK05		Delay steam monitor
			FBIO 9,10,11
%R0638	BLK13		Time of empting tube flush
			FBIO 33
%R0641	BLK06		Alarm delay paper supply
			FBIO 15
%R0659	BLK15		Delay congest monitor
			FBIO 20
%R0662	BLK15		Delay unsync. FF/MM
			FBIO 7
%R0665	BLK15		Sprinkler time
			FBIO 33,35,36
%R0674	BLK06		Sterile air press.
			FBIO 14
%R0725	BLK25		CIP record. going on
			FBIO 10
%R0728	BLK25		CIP record. off
			FBIO 11
%R0731	BLK14		Delay alarm conv. que.
			FBIO 7
%R0737	BLK25		Time clean tray fill.
			FBIO 17,18,28,29
%R0740	BLK22		Line L10 L11 not ok
			FBIO 11,13
%R0743	BLK17	VAR_D31	Drop chute enable
			FBIO 7
	BLK35		FBIO 9,15
%R0744	BLK07	VAR_D29	SA full power
			FBIO 27
	BLK35		FBIO 9,15
%R0745	BLK07	VAR_D30	SA full power
			FBIO 27
	BLK35		FBIO 9,15
%R0746	BLK07		Paper splice timer
			FBIO 25,27
%R1021	BLK14		To high speed main motor
			FBIO 35
%R1024	BLK14		Low supply paper
			FBIO 44,45
%R1025	BLK14	VAR_D28	Paper supply package counter
			FBIO 44
	BLK35		FBIO 8,14,17
%R1027	BLK15		Position FF msec
			FBIO 9
%R1030	BLK14		Paper supply, start count down
			FBIO 45
	BLK35		FBIO 17
%R1031	BLK15		Position MM msec
			FBIO 6
%R1032	BLK15		Syncronization position MM/FF
			FBIO 6,9
%R1036	BLK15		Press. d.off delay in FF
			FBIO 28,29

==========

========== SYSTEM REFERENCE (%S) GLOBAL CROSS REFERENCES

==========

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
%S0001	BLK05	FST_SCN	-]/[- 4
	BLK22	FST_SCN	-] [- 12
	BLK25	FST_SCN	-] [- 16
	BLK30	FST_SCN	-] [- 192
%S0005	BLK14	T_SEC	-] [- 49
	BLK22	T_SEC	-] [- 14
	BLK25	T_SEC	-] [- 18
	BLK26	T_SEC	-] [- 22
%S0007	_MAIN	ALW_ON	-] [- 22,30,38,43,46,49,51,54,65
	1T0001	ALW_ON	-] [- 4,13,20
	BLK10	ALW_ON	-] [- 6,7
	BLK17	ALW_ON	-] [- 11,27
	BLK18	ALW_ON	-] [- 20
	BLK19	ALW_ON	-] [- 14,26
			-]/[- 28

REF.	BLOCK	NICKNAME	REF. DESCRIPTION / CROSS REFERENCES
	BLK21	ALW_ON	-] [- 43
	BLK22	ALW_ON	-] [- 28
	BLK25	ALW_ON	-] [- 19,20,21,22
	BLK30	ALW_ON	-] [- 197,198,199,200,201,202
			-]/[- 197,198,199,200,201,202
	BLK35	ALW_ON	-] [- 17,18,19
			-]/[- 18
%S0008	BLK17	ALW_OFF	-] [- 28
%S0009	BLK21	SY_FULL	-]/[- 29
%S0011	BLK21	OVR_PRE	-]/[- 29
%S0014	BLK21	PLC_BAT	-]/[- 29

========== IDENTIFIER NAME GLOBAL CROSS REFERENCES

IDENTIFIER	BLOCK	REF. DESCRIPTION / CROSS REFERENCES
BLK05	_MAIN	COMMON SUPPLY FUNCTIONS
		CALL 22
BLK06	_MAIN	HEATING POS 10-20
		CALL 30
BLK07	_MAIN	APPLICATION & SPLICING OF STRIP
		CALL 30
BLK09	_MAIN	SPRAY SEQUENCE
		CALL 43
BLK10	_MAIN	PEROXIDE HANDLING
		CALL 38
BLK11	_MAIN	SIGNAL TO STERILIZER
		CALL 46
BLK13	_MAIN	START SEQUENCE
		CALL 49
BLK14	_MAIN	MAIN MOTOR, BENDING ROLLER ETC
		CALL 49
BLK15	_MAIN	FINAL FOLDER
		CALL 49
BLK17	_MAIN	DESIGN CORRECTION
		CALL 51
BLK18	_MAIN	LEVEL REGULATED FILLING
		CALL 51
BLK19	_MAIN	PACKAGE DUMPING
		CALL 54
BLK21	_MAIN	PRODUCTION (POSITION 70)
		CALL 54
BLK22	_MAIN	SHORT STOP
		CALL 54
BLK23	_MAIN	WORK ENVIRONMENT ASEPTIC CHAMBER
		CALL 54
BLK25	_MAIN	INTERNAL/EXTERNAL CLEANING
		CALL 64
BLK26	_MAIN	LUBRICATION
		CALL 65
BLK30	_MAIN	INDICATION & HANDLE OF ALARM
		CALL 65
BLK35	_MAIN	VOLUME DEPENDENT VALUES
		CALL 66

```
|[ START OF LD  PROGRAM EC71784 ]      (* TBA/19-0101 S.A.                *)
|
|[    VARIABLE DECLARATIONS     ]
|
|[      BLOCK DECLARATIONS      ]

                +--------+
.001 INIR 0001 |1T0001 |     LANG: LD  (* FAST SCAN, ENCODER AND SEALING  *)
                +--------+

                +--------+
      SUBR  2 | BLK05 |     LANG: LD  (* COMMON SUPPLY FUNCTIONS         *)
                +--------+

                +--------+
      SUBR  3 | BLK06 |     LANG: LD  (* HEATING POS 10-20              *)
                +--------+

                +--------+
      SUBR  4 | BLK07 |     LANG: LD  (* APPLICATION & SPLICING OF STRIP *)
                +--------+

                +--------+
      SUBR  5 | BLK09 |     LANG: LD  (* SPRAY SEQUENCE                 *)
                +--------+

                +--------+
      SUBR  6 | BLK10 |     LANG: LD  (* PEROXIDE HANDLING              *)
                +--------+

                +--------+
      SUBR  7 | BLK11 |     LANG: LD  (* SIGNAL TO STERILIZER           *)
                +--------+

                +--------+
      SUBR  8 | BLK13 |     LANG: LD  (* START SEQUENCE                 *)
                +--------+

                +--------+
      SUBR  9 | BLK14 |     LANG: LD  (* MAIN MOTOR, BENDING ROLLER ETC  *)
                +--------+

                +--------+
      SUBR 10 | BLK15 |     LANG: LD  (* FINAL FOLDER                   *)
                +--------+

                +--------+
      SUBR 11 | BLK17 |     LANG: LD  (* DESIGN CORRECTION              *)
                +--------+

                +--------+
      SUBR 12 | BLK18 |     LANG: LD  (* LEVEL REGULATED FILLING        *)
                +--------+

                +--------+
      SUBR 13 | BLK19 |     LANG: LD  (* PACKAGE DUMPING                *)
                +--------+

                +--------+
      SUBR 14 | BLK21 |     LANG: LD  (* PRODUCTION (POSITION 70)       *)
                +--------+

                +--------+
      SUBR 15 | BLK22 |     LANG: LD  (* SHORT STOP                     *)
                +--------+

                +--------+
      SUBR 16 | BLK23 |     LANG: LD  (* WORK ENVIRONMENT ASEPTIC CHAMBER *)
                +--------+

                +--------+
      SUBR 17 | BLK25 |     LANG: LD  (* INTERNAL/EXTERNAL CLEANING      *)
                +--------+

                +--------+
      SUBR 18 | BLK26 |     LANG: LD  (* LUBRICATION                    *)
                +--------+
```

```
          +--------+
SUBR 19 | BLK30 |      LANG: LD  (* INDICATION & HANDLE OF ALARM     *)
          +--------+

          +--------+
SUBR 21 | BLK35 |      LANG: LD  (* VOLUME DEPENDENT VALUES         *)
          +--------+

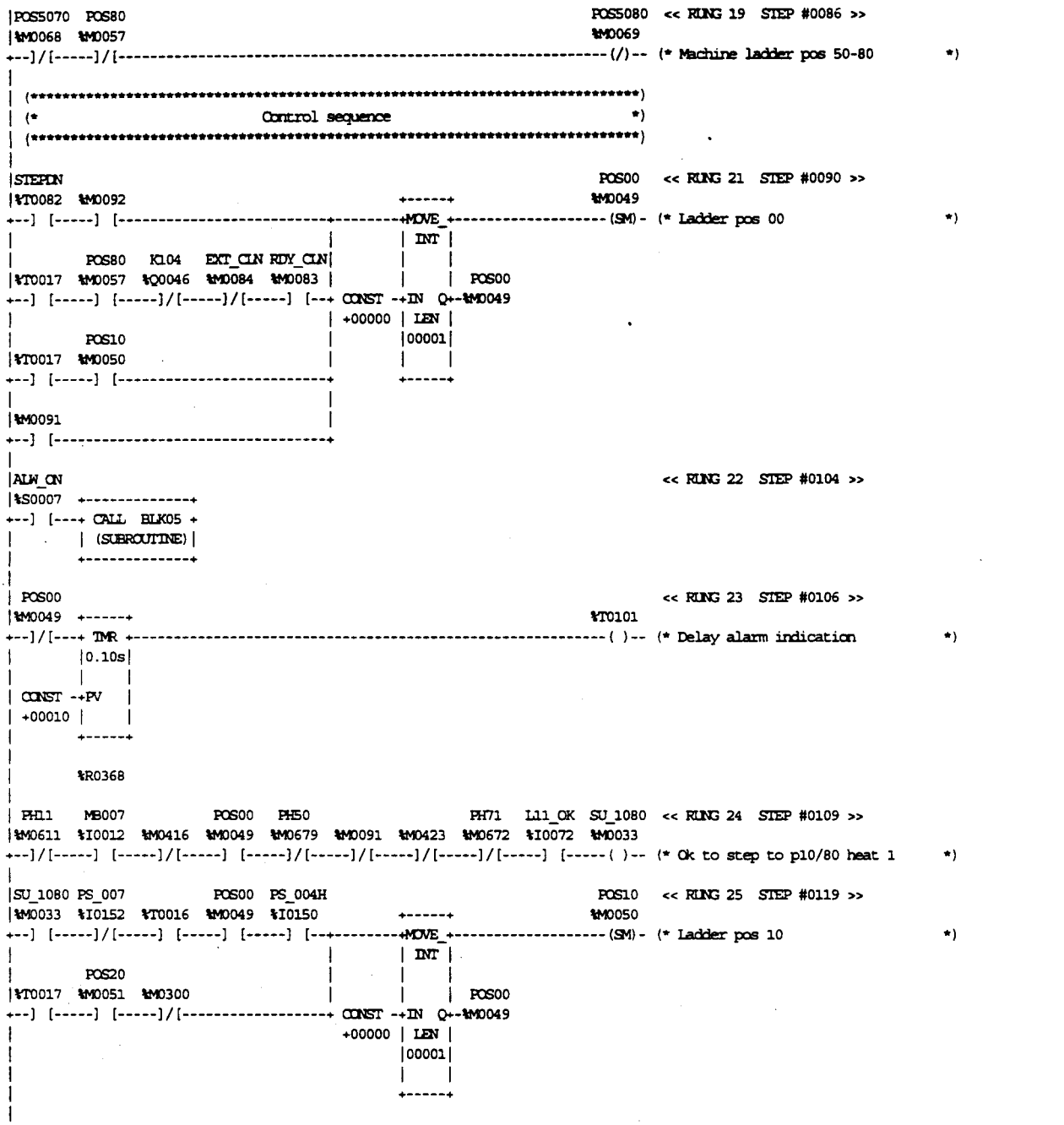
|[    START OF PROGRAM LOGIC    ]
|
| (*************************************************************************)
| (* Adresses reserved for customer: %I126, %I127, %Q32, %Q80, %M129-%M145,  *)
| (*                                  %T241-%T256, %R1100-%R1150.           *)
| (*                                                                        *)
| (*************************************************************************)
|
|A506-42                                                          NOT_L21  << RUNG 6  STEP #0003 >>
|%I0064                                                           %M0326
+--]/[--+-------------------------------------------------------------(M)-- (* Line L21-L20 not ok            *)
|       |
|L11_OK |
|%I0072 |
+--]/[--+
|
| (*************************************************************************)
| (*                      Step up step down push button                    *)
| (*************************************************************************)
|
|SU_1080  SU_20   SU_30   SU_40   SU_50   SU_60   SU_70                          << RUNG 8  STEP #0007 >>
|%M0033  %M0034  %M0035  %M0036  %M0037  %M0038  %M0039                 %M0080
+--]/[-----]/[-----]/[-----]/[-----]/[-----]/[-----]/[---------------------(/)-- (* Step up conditions okey       *)
|
|        DLY_10S          DOORS                 PS_002H                  PHBS    << RUNG 9  STEP #0015 >>
|%M0080  %T0002  %M0300  %I0130  %T0110  %T0112  %I0148                  %M0625
+--] [-----]/[-----]/[--+--] [-----]/[-----]/[--+--]/[---------------------( )-- (* Step up push buttom lamp      *)
|                       |                       |
|         POS60         | POS00                 |
|%M0093  %M0055         |%M0049                 |
+--] [-----] [----------+--] [------------------+
|                       |                       |
| POS70                 | POS10                 |
|%M0056  %M0081  %M0480 |%M0050                 |
+--] [-----]/[-----] [--+--] [------------------+
|                       |                       |
|RDY_CLN PS_007  EXT_CLN|                       |
|%M0083  %I0152  %M0084 |                       |
+--] [-----]/[-----]/[--+                       |
|                                               |
|RDY_CLN PS_007   K104   CLN_CON                |
|%M0083  %I0152  %Q0046  %M0355                 |
+--] [-----] [-----]/[-----] [------------------+
|                                               |
| POS80                  MB21                   |
|%M0057  %M0416  %M0402  %I0131                 |
+--] [-----] [-----] [-----] [------------------+
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0080		Step up conditions okey	%M0326	NOT_L21	Line L21-L20 not ok
%M0081		Short stop condit.	%M0625	PHBS	Step up push buttom lamp
%M0093		Manual stop filling	%M0049	POS00	Ladder pos 00
%M0300		Tube sealing going on	%M0050	POS10	Ladder pos 10
%M0402		Mem. door monitor	%M0055	POS60	Machine ladder pos 60
%M0416		WEAC stop on	%M0056	POS70	Machine ladder pos 70
%M0480		LRF val for new product setted	%M0057	POS80	Machine ladder pos 80
%T0110		Auxillary tower doors alarm	%I0148	PS_002H	Inching
%T0112		Auxillary side protection alarm	%I0152	PS_007	Select switch clean.
%I0064	A506-42	Emerg. stop signal	%M0083	RDY_CLN	Machine pos ready for cleaning
%M0355	CLN_CON	OK for Clean. prod. valve	%M0033	SU_1080	Ok to step to p10/80 heat 1
%T0002	DLY_10S	Start sequenc delay 10 sec.	%M0034	SU_20	Ok to step to pos 20 heat 2
%I0130	DOORS	Side, FF, date, p.mag protect.	%M0035	SU_30	Ok to step to pos 30 tube
%M0084	EXT_CLN	Machine in pos. extern. clean	%M0036	SU_40	Ok to step to pos 40 spray
%Q0046	K104	Signal to cip clean	%M0037	SU_50	Ok to step to pos 50 steril
%I0072	L11_OK	Power L11 OK	%M0038	SU_60	Ok to step to pos 60 start
%I0131	MB21	Super struct. door monitor	%M0039	SU_70	Ok to step to pos 70 product

BLOCK: MAIN FUNCTIONS AND CROSS REFERENCE LIST

```
|                      POS00                                    PH4S    << RUNG 10  STEP #0047 >>
|%M0416                %M0049  %M0080                           %M0626
+--]/[-------------------+--] [-----]/[-------------------------------------( )-- (* Step down p- buttom lamp        *)
|                       |
|        FLASH   MB21   |
|%M0402  %T0052  %I0131 |
+--] [-----] [-----] [--+
|
|PS_003H                                                                    << RUNG 11  STEP #0055 >>
|%I0149  +-----+                                                  %T0042
+--] [---+ TMR +-----------------------------------------------------------(^)-- (* P+ Step up aux                 *)
|        |0.10s|
|        |     |
| CONST -+PV   |
| +00007 |     |
|        +-----+
|
|        %R0227
|
|        PS_004H PS_006H                                                    << RUNG 12  STEP #0058 >>
|%T0042  %I0150  %I0151                                           %T0016
+--] [-----] [-----] [-----------------------------------------------------(^)-- (* Step up P+                     *)
|
|PS_004H                                                                    << RUNG 13  STEP #0062 >>
|%I0150                                                           %T0017
+--]/[--+-----------------------------------------------------------------(^)-- (* Step down P+                   *)
|       |
|NOT_L11|
|%M0325 |
+--] [--+
|
| (*************************************************************************)
| (*                          Position ladder                              *)
| (*************************************************************************)
|
| POS00   POS10   POS20   POS30                                   POS0030  << RUNG 15  STEP #0066 >>
|%M0049  %M0050  %M0051  %M0052                                   %M0065
+--]/[-----]/[-----]/[-----]/[-------------------------------------------(/)-- (* Machine ladder pos 00-30       *)
|
| POS20   POS30   POS40                                           POS2040  << RUNG 16  STEP #0071 >>
|%M0051  %M0052  %M0053                                           %M0066
+--]/[-----]/[-----]/[-----------------------------------------------------(/)-- (* Machine ladder pos 20-40       *)
|
| POS20  MCPOS80  POS00   POS10                                   POS2080  << RUNG 17  STEP #0075 >>
|%M0051  %M0086  %M0049  %M0050                                   %M0067
+--] [--+--] [--+--]/[-----]/[-------------------------------------------( )-- (* Machine ladder pos 20-80       *)
|       |       |
|POS2080|       |
|%M0067 |       |
+--] [--+       |
|               |
|NOT_L11        |
|%M0325         |
+--] [----------+
|
| POS50   POS60   POS70                                           POS5070  << RUNG 18  STEP #0082 >>
|%M0054  %M0055  %M0056                                           %M0068
+--]/[-----]/[-----]/[-----------------------------------------------------(/)-- (* Machine pos 50-70            *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0080		Step up conditions okey	%M0050	POS10	Ladder pos 10
%M0402		Mem. door monitor	%M0051	POS20	Ladder pos 20
%M0416		WEAC stop on	%M0066	POS2040	Machine ladder pos 20-40
%T0016		Step up P+	%M0067	POS2080	Machine ladder pos 20-80
%T0017		Step down P+	%M0052	POS30	Ladder pos 30
%T0042		P+ Step up aux	%M0053	POS40	Machine ladder pos 40
%R0227		Delay step up pulse	%M0054	POS50	Machine ladder pos 50
%T0052	FLASH	Panel flash contact	%M0068	POS5070	Machine pos 50-70
%I0131	MB21	Super struct. door monitor	%M0055	POS60	Machine ladder pos 60
%M0086	MCPOS80	Machine in pos.80 for >2 min	%M0056	POS70	Machine ladder pos 70
%M0325	NOT_L11	Line L11-L10 not ok	%I0149	PS_003H	Step up
%M0626	PH4S	Step down p- buttom lamp	%I0150	PS_004H	Step down
%M0049	POS00	Ladder pos 00	%I0151	PS_006H	Short stop push buttom
%M0065	POS0030	Machine ladder pos 00-30			



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0091		Machine to pos 00
%M0092		Step dwn from pos 40
%M0300		Tube sealing going on
%M0416		WEAC stop on
%M0423		Drain peroxid bath
%T0016		Step up P+
%T0017		Step down P+
%T0101		Delay alarm indication
%R0368		Delay alarm indication
%S0007	ALW_ON	
	BLK05	COMMON SUPPLY FUNCTIONS
%M0084	EXT_CLN	Machine in pos. extern. clean
%Q0046	K104	Signal to cip clean
%I0072	L11_OK	Power L11 OK
%I0012	MB007	Cooling water pressure

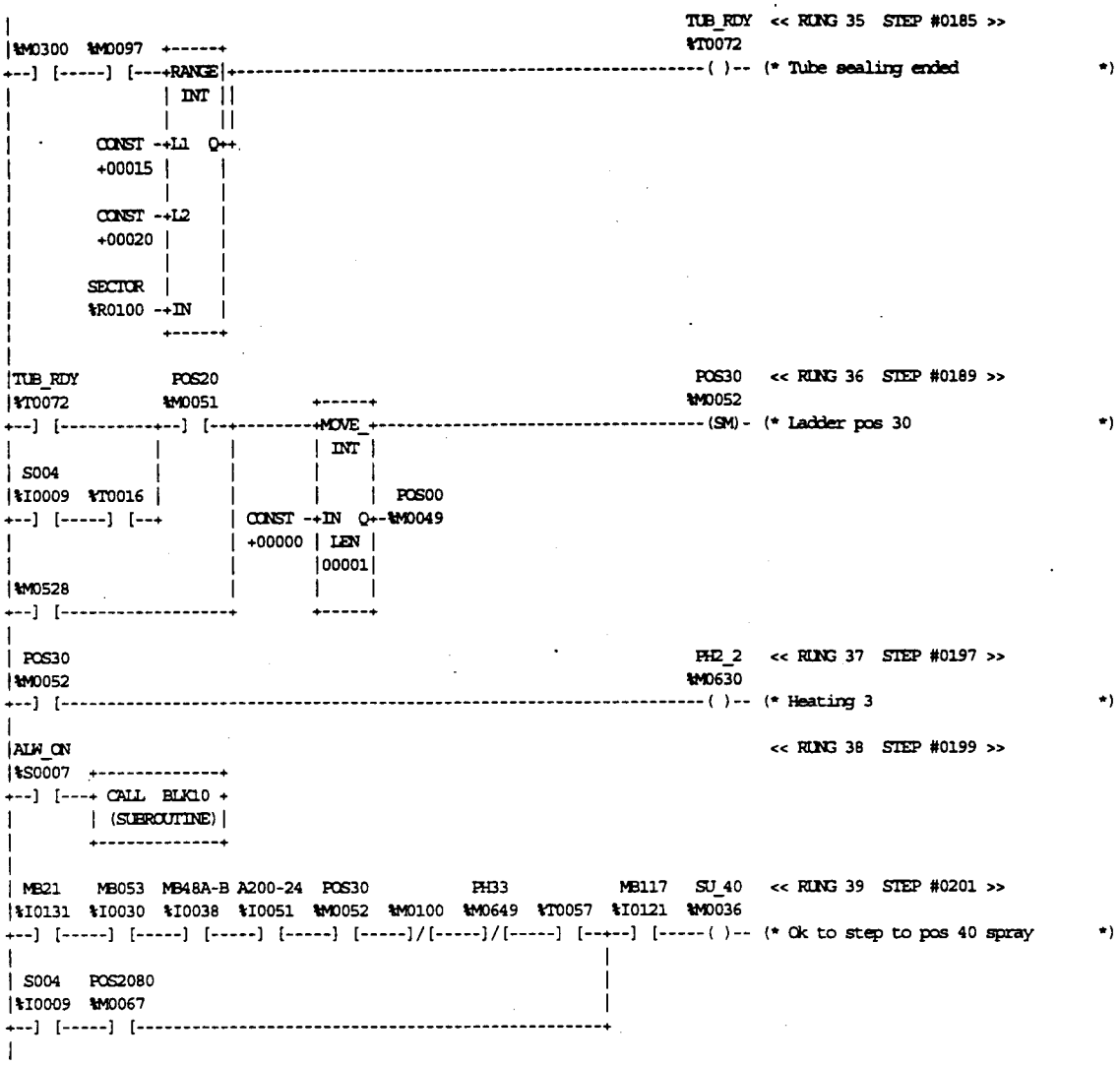
REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0611	PH11	Low press. main air
%M0679	PH50	Low level perox.b water
%M0672	PH71	Membran leakage alarm
%M0049	POS00	Ladder pos 00
%M0050	POS10	Ladder pos 10
%M0051	POS20	Ladder pos 20
%M0068	POS5070	Machine pos 50-70
%M0069	POS5080	Machine ladder pos 50-80
%M0057	POS80	Machine ladder pos 80
%I0150	PS_004H	Step down
%I0152	PS_007	Select switch clean.
%M0083	RDY_CLN	Machine pos ready for cleaning
%T0082	STEPIN	Step down delay 3 sec.
%M0033	SU_1080	Ok to step to p10/80 heat 1

BLOCK: MAIN FUNCTIONS AND CROSS REFERENCE LIST

```
| MB002   MB061   MB063   MB104   MB062   MB094          PH36    PH48          << RUNG 26  STEP #0130 >>
|%I0011  %I0031  %I0032  %I0033  %I0037  %I0068  %M0100  %M0652  %M0677
+--] [-----]/[-----]/[-----] [-----]/[-----]/[-----]/[-----]/[-----]/[-------<+>
|
|       MB95-B   POS10  A310-03 Q006-12  PH76                          SU_20   << RUNG 27  STEP #0140 >>
|       %I0046  %M0050  %I0119  %I0036  %M0662                        %M0034
+<+>-------] [-----] [-----]/[-----] [-----]/[------------------------------( )-- (* Ok to step to pos 20  heat 2     *)
|
| MB062                                                                        << RUNG 28  STEP #0147 >>
|%I0037                                                                 %T0071
+--] [-------------------------------------------------------------------(^)-- (* Sterile air pressure P+          *)
|
| POS10  PS_003H                                                        POS20   << RUNG 29  STEP #0149 >>
|%M0050  %I0149  %T0071          +------+                               %M0051
+--] [-----] [-----] [--+--------+MOVE_+-----------------------------------(SM)- (* Ladder pos 20                   *)
|                       |        | INT |
|         POS30         |        |     |
|%T0017  %M0052         |        |     |  POS00
+--] [-----] [----------+ CONST -+IN  Q+-%M0049
|                        +00000 | LEN |
|                               |00001|
|                               |     |
|                               +-----+
|
|ALW_ON                                                                        << RUNG 30  STEP #0157 >>
|%S0007  +--------------+ +--------------+
+--] [---+ CALL  BLK06 +-+ CALL  BLK07 +
|        | (SUBROUTINE)| | (SUBROUTINE)|
|        +--------------+ +--------------+
|
| SU_30   POS20                                                         PH2_1   << RUNG 31  STEP #0160 >>
|%M0035  %M0051                                                        %M0629
+--] [-----] [--+-------------------------------------------------------( )-- (* Tube sealing                      *)
|               |
|%M0300         |
+--] [----------+
|
| POS20  MB30-2  A202-20                PH33                                   << RUNG 32  STEP #0164 >>
|%M0051  %I0015  %I0054  %M0079  %M0100  %M0649  %M0338  %M0337
+--] [-----] [-----] [-----]/[-----]/[-----]/[-----]/[-----]/[---------------<+>
|
|                                                                       SU_30   << RUNG 33  STEP #0173 >>
|       %M0081                                                         %M0035
+<+>-------]/[-------------------------------------------------------------( )-- (* Ok to step to pos 30 tube       *)
|
|                      SU_30                                                   << RUNG 34  STEP #0176 >>
|%T0016          %T0017  %M0035                                        %M0300
+--] [-----------+--]/[-----] [-----------------------------------------( )-- (* Tube sealing going on           *)
|                |
|       PS_003H|
|%M0300  %I0149 |
+--] [--+--] [--+
|       |      |
|       | K011  |
|       |%Q0015 |
|       +--] [--+
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0079		Low temp. strip splicer	%I0032	MB063	Cleaning pipe position
%M0081		Short stop condit.	%I0068	MB094	Suction valve pos.
%M0100		Steam fault	%I0033	MB104	Steril air pipe in position
%M0300		Tube sealing going on	%I0015	MB30-2	Lubrication oil low level
%M0337		Jaw alarm release clutch	%I0046	MB95-B	High level peroxide tank
%M0338		M.Motor disable & keep clutch	%M0629	PH2_1	Tube sealing
%T0016		Step up P+	%M0649	PH33	Suction valve wrong pos.
%T0017		Step down P+	%M0652	PH36	Air inlet wrong pos.
%T0071		Sterile air pressure P+	%M0677	PH48	Wrong pos. AP valve B
%I0054	A202-20	Temp LS seal preheat	%M0662	PH76	Too hi. level peroxid tank
%I0119	A310-03	Bottom pos. floater	%M0049	POS00	Ladder pos 00
%S0007	ALW_ON		%M0050	POS10	Ladder pos 10
	BLK06	HEATING POS 10-20	%M0051	POS20	Ladder pos 20
	BLK07	APPLICATION & SPLICING OF STRIP	%M0052	POS30	Ladder pos 30
%Q0015	K011	Main motor high speed	%I0149	PS_003H	Step up
%I0011	MB002	Main air pressure	%I0036	Q006-12	Overload prot. compres motor
%I0031	MB061	Cleaning cup position	%M0034	SU_20	Ok to step to pos 20 heat 2
%I0037	MB062	Sterile air pressure	%M0035	SU_30	Ok to step to pos 30 tube

BLOCK: MAIN FUNCTIONS AND CROSS REFERENCE LIST



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0097		TS sealing on	%I0038	MB48A-B	Peroxide bath bottom cover
%M0100		Steam fault	%M0630	PH2_2	Heating 3
%M0300		Tube sealing going on	%M0649	PH33	Suction valve wrong pos.
%M0528		Spray tank filling fault	%M0049	POS00	Ladder pos 00
%T0016		Step up P+	%M0051	POS20	Ladder pos 20
%T0057		Spray tank evacuat finish	%M0067	POS2080	Machine ladder pos 20-80
%I0051	A200-24	Temp. monitor pre- sterilisation	%M0052	POS30	Ladder pos 30
%S0007	ALW_ON		%I0009	S004	Service switch
	BLK10	PEROXIDE HANDLING	%R0100	SECTOR	Angle sector 0-127
%I0030	MB053	Steril air B valve position	%M0036	SU_40	Ok to step to pos 40 spray
%I0121	MB117	Regulat valve open pos.	%T0072	TUB_RDY	Tube sealing ended
%I0131	ME21	Super struct. door monitor			

BLOCK: MAIN FUNCTIONS AND CROSS REFERENCE LIST

```
|        SU_40   POS30                                                  POS40   << RUNG 40  STEP #0214 >>
|%T0016  %M0036  %M0052                 +------+                       %M0053
+--] [-----] [-----] [--+--------+------+MOVE_+-------------------------(SM)- (* Machine ladder pos 40          *)
|                       |        |      | INT |
|        POS50          |        |      |     |
|%T0017  %M0054         |        |      |     | POS00
+--] [-----] [----------+        | CONST -+IN  Q+-%M0049
|                       |        | +00000 | LEN |
| POS60                 |        |        |00001|
|%M0055  %T0058         |        |        |     |
+--] [-----]/[----------+        |        +-----+
|                                 |
|       POS5070                   |
|%M0109  %M0068  %M0336           |
+--] [--+--] [--+--]/[----------+
|       |       |               |
|       |       | POS70  SHORTS |
|       |       |%M0056  %M0082 |
|       |       +--]/[-----] [--+
|       |                       |
|       |PS_004H  POS80         |
|       |%I0150  %M0057         |
|       +--]/[-----] [----------+
|
|        POS40   K011                                                          << RUNG 41  STEP #0237 >>
|%T0017  %M0053  %Q0015                                               %M0092
+--] [-----] [-----]/[--+-------------------------------------------------( )-- (* Step dwn from pos 40          *)
|                       |
|PS_004H                |
|%I0150  %M0092         |
+--]/[-----] [----------+
|
|                                                                     STEPDN   << RUNG 42  STEP #0244 >>
|%M0092  +------+                                                     %T0082
+--] [---+ TMR +-------------------------------------------------------( )-- (* Step down delay  3 sec.        *)
|        |0.10s|
|        |     |
| CONST -+PV   |
| +00030 |     |
|        +-----+
|
|        %R0620
|
|ALW_ON                                                                        << RUNG 43  STEP #0247 >>
|%S0007  +--------------+
+--] [---+ CALL  BLK09 +
|        | (SUBROUTINE)|
|        +--------------+
|
| MB094   POS40                                                        SU_50   << RUNG 44  STEP #0249 >>
|%I0068  %M0053  %M0336  %M0337  %M0338  %M0109                       %M0037
+--]/[-----] [-----] [-----]/[-----]/[-----] [-----------------------------( )-- (* Ok to step to pos 50 steril    *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0092		Step dwn from pos 40
%M0109		Drying after spray- ing
%M0336		Jump to pos.40 str.seq enable
%M0337		Jaw alarm release clutch
%M0338		M.Motor disable & keep clutch
%T0016		Step up P+
%T0017		Step down P+
%T0058		Delayd start high speed
%R0620		Stop delay from pos 40
%S0007	ALW_ON	
	BLK09	SPRAY SEQUENCE
%Q0015	K011	Main motor high speed
%I0068	MB094	Suction valve pos.

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0049	POS00	Ladder pos 00
%M0052	POS30	Ladder pos 30
%M0053	POS40	Machine ladder pos 40
%M0054	POS50	Machine ladder pos 50
%M0068	POS5070	Machine pos 50-70
%M0055	POS60	Machine ladder pos 60
%M0056	POS70	Machine ladder pos 70
%M0057	POS80	Machine ladder pos 80
%I0150	PS_004H	Step down
%M0082	SHORTS	Machine pos. short stop
%T0082	STEPDN	Step down delay 3 sec.
%M0036	SU_40	Ok to step to pos 40 spray
%M0037	SU_50	Ok to step to pos 50 steril

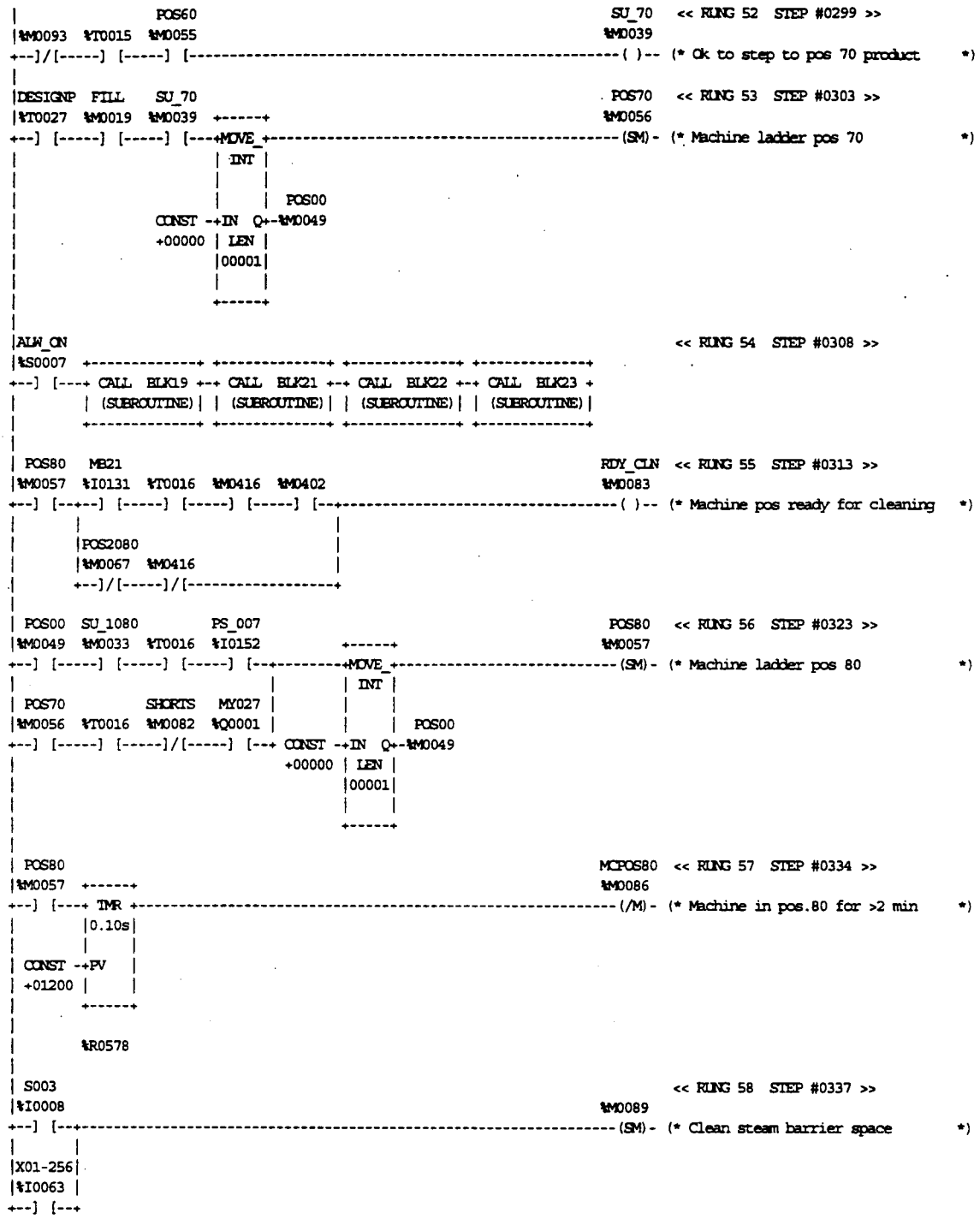
BLOCK: MAIN FUNCTIONS AND CROSS REFERENCE LIST

```
| SU_50   POS40                                                                  POS50   << RUNG 45  STEP #0256 >>
|%M0037  %M0053  %T0016  %M0109          +------+                               %M0054
+--] [-----] [-----] [-----] [--+--------+MOVE_+-------------------------(SM)- (* Machine ladder pos 50          *)
|                               |        | INT |
|         POS60                 |        |     |
|%T0017  %M0055                 |        |     |  POS00
+--] [-----] [-----------------+ CONST -+IN  Q+-%M0049
|                               +00000 | LEN |
|                                      |00001|
|                                      |     |
|                                      +-----+
|
|ALW_ON                                                                                << RUNG 46  STEP #0265 >>
|%S0007  +--------------+
+--] [---+ CALL  BLK11 +
|        | (SUBROUTINE)|
|        +--------------+
|
| POS50                                                                                << RUNG 47  STEP #0267 >>
|%M0054                                                                       %T0044
+--] [-------------------------------------------------------------------------(^)-- (* Pulse pos. 50              *)
|
|         DOORS  PS_004H  POS50                                                SU_60   << RUNG 48  STEP #0269 >>
|%M0480  %I0130  %I0150  %M0054  %M0081  %T0044  %T0059                       %M0038
+--] [--+--] [-----] [-----] [-----]/[-----]/[--+--] [--+-------------------( )-- (* Ok to step to pos 60 start     *)
|       |                                       |       |
|PS_002H|                                       |STARTQ |
|%I0148 |                                       |%M0320 |
+--] [--+                                       +--] [--+
|
|ALW_ON                                                                                << RUNG 49  STEP #0280 >>
|%S0007  +--------------+ +--------------+ +--------------+
+--] [---+ CALL  BLK13 +--+ CALL  BLK14 +--+ CALL  BLK15 +
|        | (SUBROUTINE)| | (SUBROUTINE)| | (SUBROUTINE)|
|        +--------------+ +--------------+ +--------------+
|
|PS_003H DLY_10S  POS50                                                        POS60   << RUNG 50  STEP #0284 >>
|%I0149  %T0002  %M0054          +------+                                      %M0055
+--] [-----] [-----] [--+--------+MOVE_+-----------------------------------(SM)- (* Machine ladder pos 60          *)
|                       |        | INT |
| POS70                 |        |     |
|%M0056  %M0431  %M0432 |        |     |  POS00
+--] [--+--] [-----]/[--+ CONST -+IN  Q+-%M0049
|       |               | +00000 | LEN |
|       |               |        |00001|
|       |%M0093         |        |     |
|       +--] [----------+        +-----+
|       |
|       |%M0090         |
|       +--] [----------+
|
|ALW_ON                                                                                << RUNG 51  STEP #0296 >>
|%S0007  +--------------+ +--------------+
+--] [---+ CALL  BLK17 +--+ CALL  BLK18 +
|        | (SUBROUTINE)| | (SUBROUTINE)|
|        +--------------+ +--------------+
|
```

REFERENCE NICKNAME		REFERENCE DESCRIPTION
%M0081		Short stop condit.
%M0090		Machine to pos. 00 delayed
%M0093		Manual stop filling
%M0109		Drying after spray- ing
%M0431		Packages wrong design position
%M0432		2.nd fill start attempt
%M0480		LRF val for new product setted
%T0016		Step up P+
%T0017		Step down P+
%T0044		Pulse pos. 50
%T0059		Off delay high speed
%S0007	ALW_ON	
	BLK11	SIGNAL TO STERILIZER
	BLK13	START SEQUENCE
	BLK14	MAIN MOTOR, BENDING ROLLER ETC
	BLK15	FINAL FOLDER

REFERENCE NICKNAME		REFERENCE DESCRIPTION
	BLK17	DESIGN CORRECTION
	BLK18	LEVEL REGULATED FILLING
%T0002	DLY_10S	Start sequenc delay 10 sec.
%I0130	DOORS	Side, FF, date, p.mag protect.
%M0049	POS00	Ladder pos 00
%M0053	POS40	Machine ladder pos 40
%M0054	POS50	Machine ladder pos 50
%M0055	POS60	Machine ladder pos 60
%M0056	POS70	Machine ladder pos 70
%I0148	PS_002H	Inching
%I0149	PS_003H	Step up
%I0150	PS_004H	Step down
%M0320	STARTQ	Start sequenc
%M0037	SU_50	Ok to step to pos 50 steril
%M0038	SU_60	Ok to step to pos 60 start

BLOCK: MAIN FUNCTIONS AND CROSS REFERENCE LIST



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0089		Clean steam barrier space	%M0086	MCPOS80	Machine in pos.80 for >2 min
%M0093		Manual stop filling	%Q0001	MY027	Drop chute valve
%M0402		Mem. door monitor	%M0049	POS00	Ladder pos 00
%M0416		WEAC stop on	%M0067	POS2080	Machine ladder pos 20-80
%T0015		Delay filling valve start	%M0055	POS60	Machine ladder pos 60
%T0016		Step up P+	%M0056	POS70	Machine ladder pos 70
%R0578		Delay ready for clean.	%M0057	POS80	Machine ladder pos 80
%S0007	ALW_ON		%I0152	PS_007	Select switch clean.
	BLK19	PACKAGE DUMPING	%M0083	RDY_CLN	Machine pos ready for cleaning
	BLK21	PRODUCTION (POSITION 70)	%I0008	S003	Clean through steam barrier
	BLK22	SHORT STOP	%M0082	SHORTS	Machine pos. short stop
	BLK23	WORK ENVIRONMENT ASEPTIC CHAMBER	%M0033	SU_1080	Ok to step to p10/80 heat 1
%T0027	DESIGNP	Output design puls	%M0039	SU_70	Ok to step to pos 70 product
%M0019	FILL	Filling angle sector	%I0063	X01-256	Clean of prod. valve
%I0131	MB21	Super struct. door monitor			

BLOCK: MAIN FUNCTIONS AND CROSS REFERENCE LIST

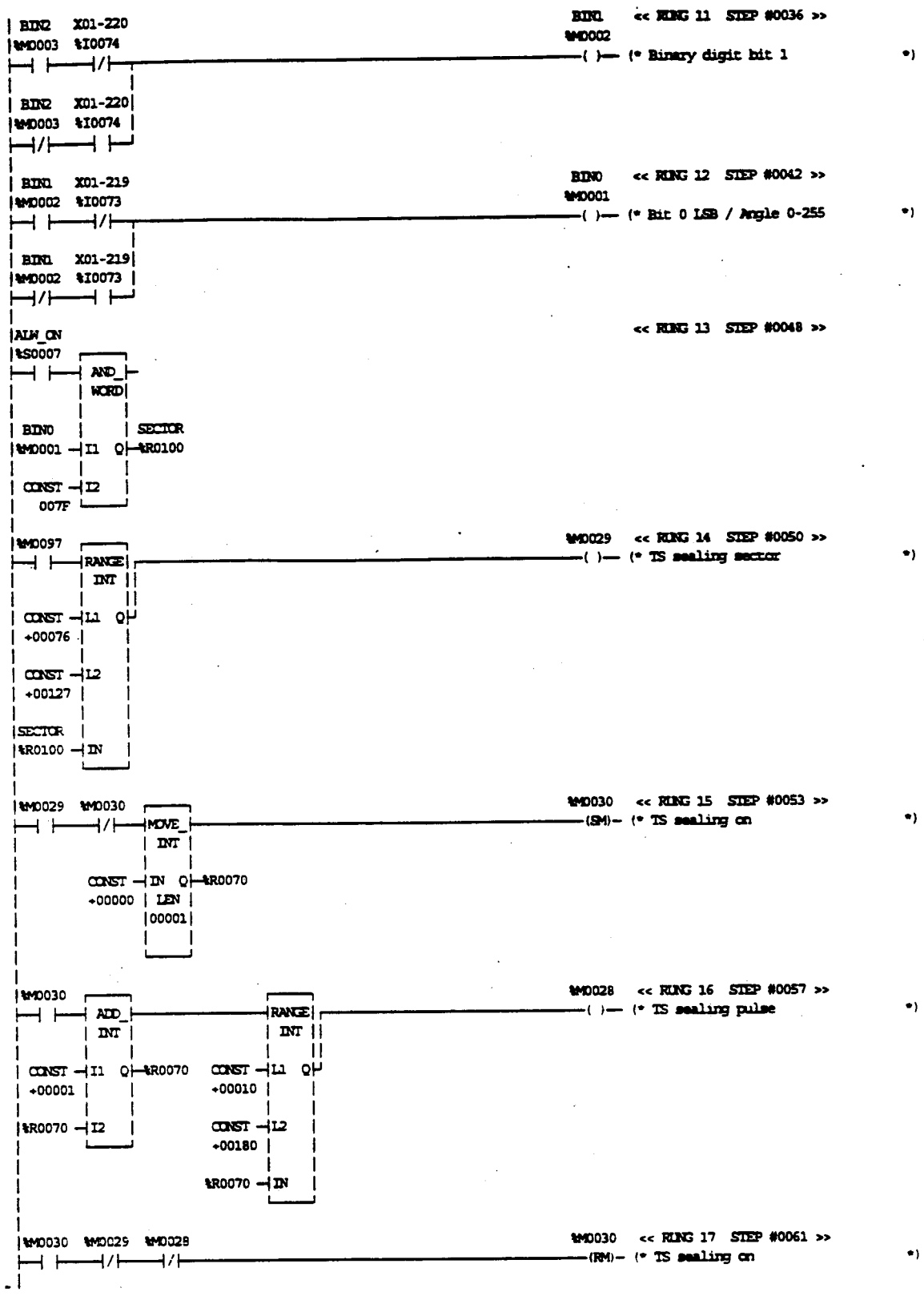
```
|RDY_CLN                                                                  << RUNG 59  STEP #0340 >>
|%M0083                                                          %M0089
+--]/[-------------------------------------------------------------(RM)- (* Clean steam barrier space      *)
|
|                                                                 PH44    << RUNG 60  STEP #0342 >>
|%M0089                                                          %M0660
+--] [-------------------------------------------------------------( )-- (* Clean steam barrier            *)
|
| POS80                                                          INT_CLN  << RUNG 61  STEP #0344 >>
|%M0057                                                          %M0085
+--]/[--+----------------------------------------------------------(RM)- (* Machine pos internal cleaning  *)
|       |
| PH48  |
|%M0677 |
+--] [--+
|
| POS00   POS80  POS0030  MB063                                   PH47    << RUNG 62  STEP #0347 >>
|%M0049  %M0057  %M0065  %I0032                                  %M0676
+--]/[-----]/[-----] [-----] [--+----------------------------------( )-- (* Wrong posit. clean. pipe      *)
|                               |
|RDY_CLN PS_007   MB063  X01-256|
|%M0083  %I0152  %I0032  %I0063 |
+--] [-----] [-----]/[-----]/[--+
|
| MB061  PS_007  RDY_CLN                                          PH57    << RUNG 63  STEP #0357 >>
|%I0031  %I0152  %M0083                                          %M0686
+--]/[--+--] [--+--] [--+------------------------------------------( )-- (* Wrong pos. clean. cup         *)
|       |      |       |
|       |%T0100 |       |
|       +--] [--+       |
|                       |
| MB061   POS10         |
|%I0031  %M0050         |
+--] [-----] [----------+
|
|RDY_CLN                                                                  << RUNG 64  STEP #0366 >>
|%M0083  +--------------+
+--] [--++ CALL  BLK25 +
|       || (SUBROUTINE)|
| POS00 |+--------------+
|%M0049 |
+--] [--+
|
|ALW_ON                                                                   << RUNG 65  STEP #0369 >>
|%S0007  +--------------+ +--------------+
+--] [---+ CALL  BLK26 +-+ CALL  BLK30 +
|        | (SUBROUTINE)| | (SUBROUTINE)|
|        +--------------+ +--------------+
|
|         POS10                                                         << RUNG 66  STEP #0372 >>
|%T0016  %M0050  +--------------+
+--] [--+--] [--++ CALL  BLK35 +
|       |       || (SUBROUTINE)|
|       | POS80 |+--------------+
|       |%M0057 |
|       +--] [--+
|
|[      END OF PROGRAM LOGIC      ]
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0089		Clean steam barrier space	%M0660	PH44	Clean steam barrier
%T0016		Step up P+	%M0676	PH47	Wrong posit. clean. pipe
%T0100		Pulse signal to CIP off	%M0677	PH48	Wrong pos. AP valve B
%S0007	ALW_ON		%M0686	PH57	Wrong pos. clean. cup
	BLK25	INTERNAL/EXTERNAL CLEANING	%M0049	POS00	Ladder pos 00
	BLK26	LUBRICATION	%M0065	POS0030	Machine ladder pos 00-30
	BLK30	INDICATION & HANDLE OF ALARM	%M0050	POS10	Ladder pos 10
	BLK35	VOLUME DEPENDENT VALUES	%M0057	POS80	Machine ladder pos 80
%M0085	INT_CLN	Machine pos internal cleaning	%I0152	PS_007	Select switch clean.
%I0031	MB061	Cleaning cup position	%M0083	RDY_CLN	Machine pos ready for cleaning
%I0032	MB063	Cleaning pipe position	%I0063	X01-256	Clean of prod. valve

BLOCK: MAIN FUNCTIONS AND CROSS REFERENCE LIST

```
|[ START LD SUBROUTINE 1T0001 ]
|
|[    VARIABLE DECLARATIONS    ]
|
|[  START OF SUBROUTINE LOGIC  ]
|
|ALW_ON                                                    << RUNG 4  STEP #0002 >>
|%S0007  ┌──────┐
├──┤ ├──┤DO_IO├─
|       |      |
|A400-31|      |
|%I0065 ┤ST    |
|       |      |
|X01-226|      |
|%I0080 ┤END   |
|       |      |
| CONST ┤ALT   |
|   0006└──────┘
|
|X01-226                                                   BIN7   << RUNG 5  STEP #0004 >>
|%I0080                                                    %M0008
├──┤ ├──────────────────────────────────────────────────────( )── (* Binary digit bit 7          *)
|
| BIN7   X01-225                                           BIN6   << RUNG 6  STEP #0006 >>
|%M0008  %I0079                                            %M0007
├──┤ ├────┤/├──────────────────────────────────────────────( )── (* Binary digit bit 6          *)
|        |
| BIN7   X01-225|
|%M0008  %I0079 |
├──┤/├────┤ ├──┘
|
| BIN6   X01-224                                           BIN5   << RUNG 7  STEP #0012 >>
|%M0007  %I0078                                            %M0006
├──┤ ├────┤/├──────────────────────────────────────────────( )── (* Binary digit bit 5          *)
|        |
| BIN6   X01-224|
|%M0007  %I0078 |
├──┤/├────┤ ├──┘
|
| BIN5   X01-223                                           BIN4   << RUNG 8  STEP #0018 >>
|%M0006  %I0077                                            %M0005
├──┤ ├────┤/├──────────────────────────────────────────────( )── (* Binary digit bit 4          *)
|        |
| BIN5   X01-223|
|%M0006  %I0077 |
├──┤/├────┤ ├──┘
|
| BIN4   X01-222                                           BIN3   << RUNG 9  STEP #0024 >>
|%M0005  %I0076                                            %M0004
├──┤ ├────┤/├──────────────────────────────────────────────( )── (* Binary digit bit 3          *)
|        |
| BIN4   X01-222|
|%M0005  %I0076 |
├──┤/├────┤ ├──┘
|
| BIN3   X01-221                                           BIN2   << RUNG 10  STEP #0030 >>
|%M0004  %I0075                                            %M0003
├──┤ ├────┤/├──────────────────────────────────────────────( )── (* Binary digit bit 2          *)
|        |
| BIN3   X01-221|
|%M0004  %I0075 |
├──┤/├────┤ ├──┘
|
```

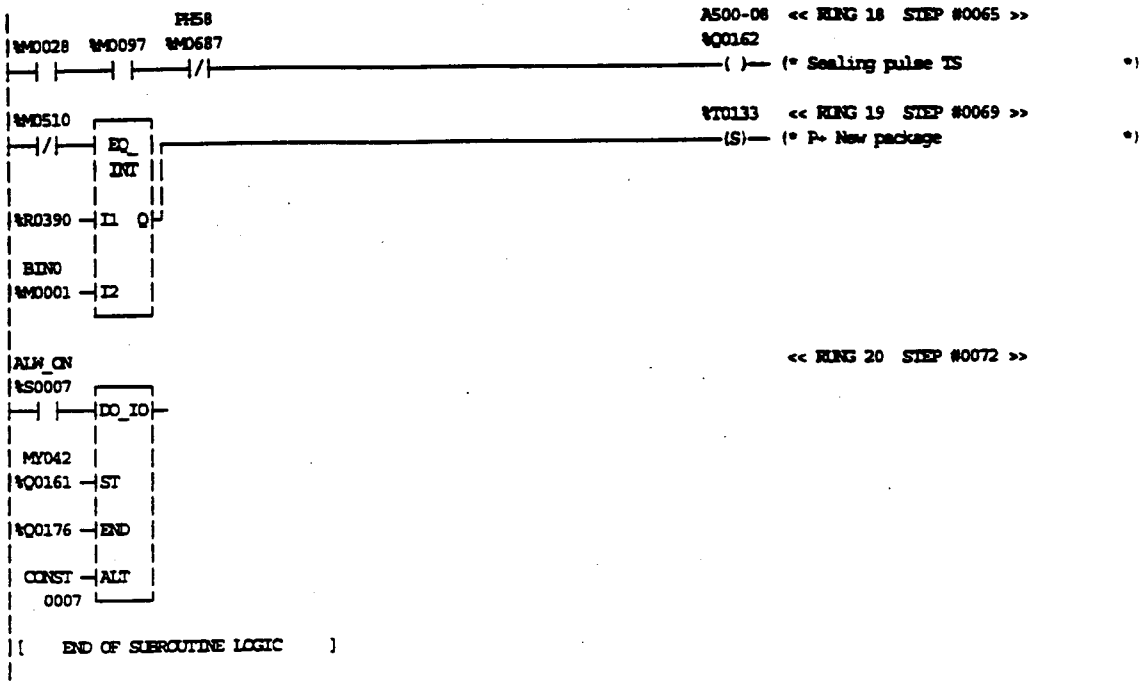
REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%I0065	A400-31	Pulse photoc.design.	%M0008	BIN7	Binary digit bit 7
%S0007	ALW_ON		%I0075	X01-221	Angle encoder bit 2
%M0003	BIN2	Binary digit bit 2	%I0076	X01-222	Angle encoder bit 3
%M0004	BIN3	Binary digit bit 3	%I0077	X01-223	Angle encoder bit 4
%M0005	BIN4	Binary digit bit 4	%I0078	X01-224	Angle encoder bit 5
%M0006	BIN5	Binary digit bit 5	%I0079	X01-225	Angle encoder bit 6
%M0007	BIN6	Binary digit bit 6	%I0080	X01-226	Angle encoder bit 7



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%MD028		TS sealing pulse
%MD029		TS sealing sector
%MD030		TS sealing on
%MD097		TS sealing on
%R0070		Time TS sealing pulse
%S0007	ALW_ON	

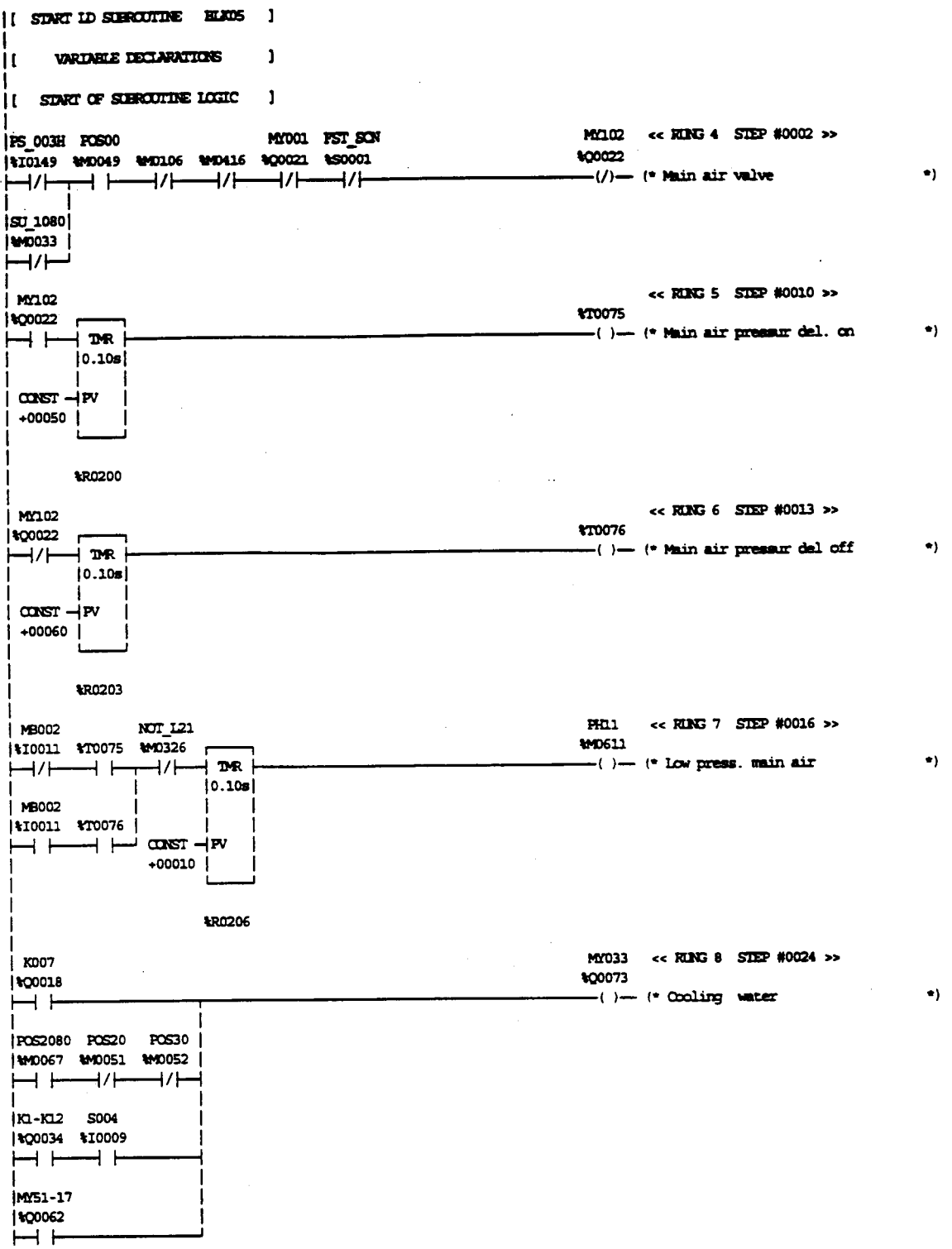
REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%MD001	BIN0	Bit 0 LSB / Angle 0-255
%MD002	BIN1	Binary digit bit 1
%MD003	BIN2	Binary digit bit 2
%R0100	SECTOR	Angle sector 0-127
%I0073	X01-219	Angle encoder bit 0
%I0074	X01-220	Angle encoder bit 1

BLOCK: 1T001 FAST SCAN, ENCODER AND SEALING



REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME		REFERENCE DESCRIPTION
%Q0176		%Q0162	A500-08	Sealing pulse TS
%MD028	TS sealing pulse	%S0007	ALW_ON	
%MD097	TS sealing on	%MD001	BIN0	Bit 0 LSB / Angle 0-255
%MD510	Drop chute enable	%Q0161	MY042	Pressur device
%T0133	P+ New package	%MD687	PH58	Fault IH unit TS
%R0390	Barcode missing ref. position			

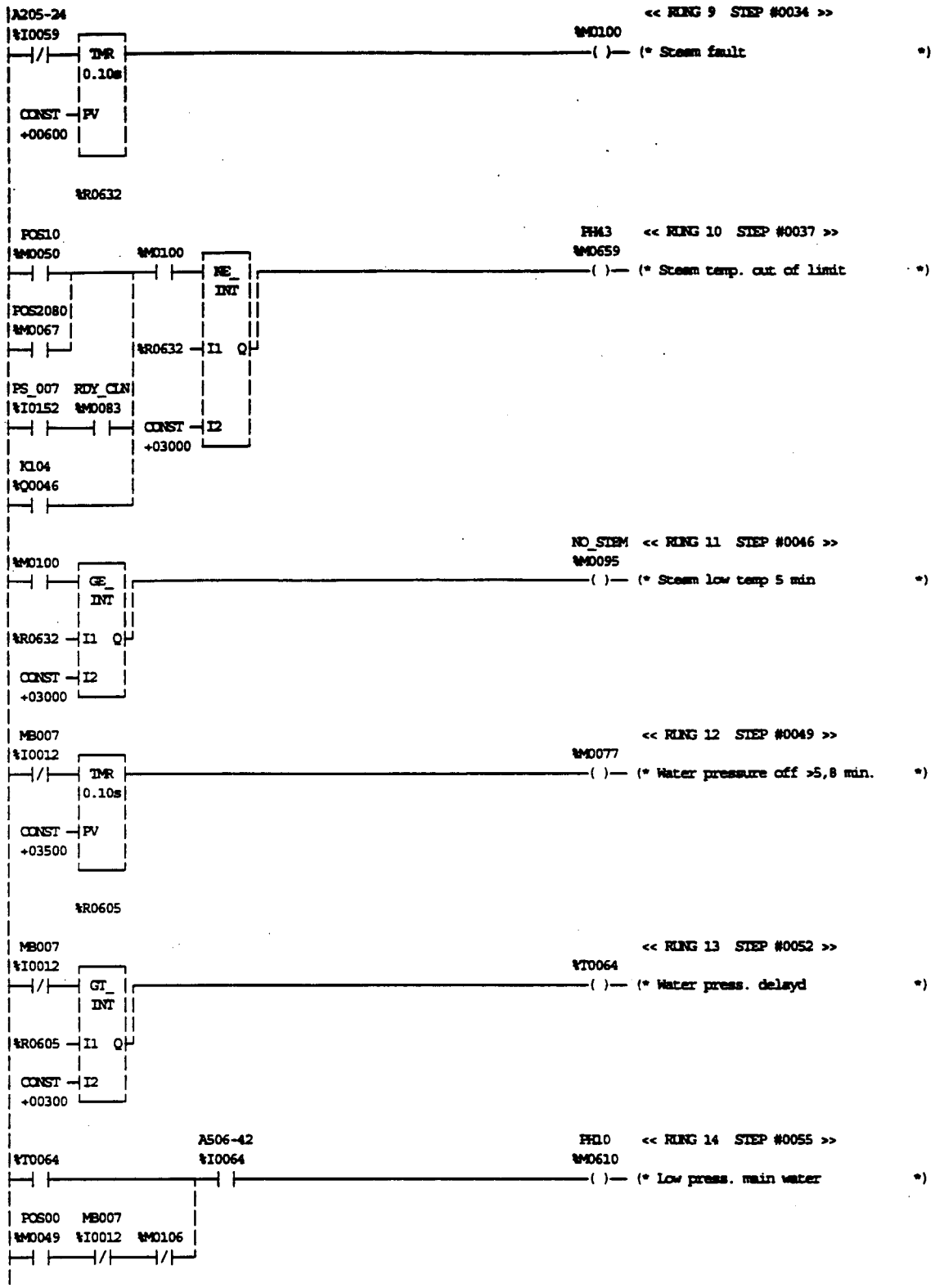
BLOCK: 1T001 FAST SCAN, ENCODER AND SEALING



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%MD106		Long lubric.period ordered
%MD416		WEAC stop on
%T0075		Main air pressur del. on
%T0076		Main air pressur del off
%R0200		Main air press. delay
%R0203		Main air press. delay
%R0206		Main air check delay
%S0001	FST_SCN	
%Q0018	K007	Hydraul pump
%Q0034	K1-K12	Splicer contr./perox. water p
%I0011	MB002	Main air pressure
%Q0021	MY001	Flap sealing air

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%Q0073	MY033	Cooling water
%Q0022	MY102	Main air valve
%Q0062	MY51-17	Air inj cooling water- lubr.pu
%MD326	NOT_L21	Line L21-L20 not ok
%MD611	PH11	Low press. main air
%MD049	POS00	Ladder pos 00
%MD051	POS20	Ladder pos 20
%MD067	POS2080	Machine ladder pos 20-80
%MD052	POS30	Ladder pos 30
%I0149	PS_003H	Step up
%I0009	S004	Service switch
%MD033	SU_1080	Ok to step to p10/80 heat 1

BLOCK: 05 COMMON SUPPLY FUNCTIONS



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0077		Water pressure off >5,8 min.	%I0012	MB007	Cooling water pressure
%M0100		Steam fault	%M0095	NO_STEM	Steam low temp 5 min
%M0106		Long lubric.period ordered	%M0610	PH10	Low press. main water
%T0064		Water press. delayd	%M0659	PH43	Steam temp. out of limit
%R0605		Delay alarm water press.	%M0049	POS00	Ladder pos 00
%R0632		Delay steam monitor	%M0050	POS10	Ladder pos 10
%I0059	A205-24	Temp. monitor steam	%M0067	POS2080	Machine ladder pos 20-80
%I0064	A506-42	Emerg. stop signal	%I0152	PS_007	Select switch clean.
%Q0046	K104	Signal to cip clean	%M0083	RDY_CLN	Machine pos ready for cleaning

BLOCK: 05 COMMON SUPPLY FUNCTIONS

|[END OF SUBROUTINE LOGIC]
|

```
[ START LD SUBROUTINE  BLK06 ]
[   VARIABLE DECLARATIONS    ]
[ START OF SUBROUTINE LOGIC  ]

 PH3S   PS_007   POS00                                    PH1_1   << RUNG 4  STEP #0002 >>
%MD625  %I0152  %MD049  %MD300                            %MD627
 ---| |----|/|----| |----|/|-------------------------------( )-- (* Preheat 1                *)

 PH3S    POS10                                             PH1_2   << RUNG 5  STEP #0007 >>
%MD625  %MD050  %MD300                                    %MD628
 ---| |----| |----|/|-------------------------------------( )-- (* Preheat 2                *)
            |
  POS20     |
 %MD051     |
 ---| |-----|

 %MD547                                                   %T0115  << RUNG 6  STEP #0012 >>
 ---| |---[ LE_ ]-------------------------------------------( )-- (* Preheat LS element at drying *)
          [ INT ]
          [     ]
%R0551 ---[I1  Q]
          [     ]
 CONST ---[I2    ]
 +03000   [     ]

 KD06    MY019                                            KD05    << RUNG 7  STEP #0015 >>
%Q0019  %Q0061  %MD416  %T0115  %MD532                    %Q0039
 ---| |----| |----|/|----|/|----|/|-------------------------( )-- (* Preheat 2 LS element  *)
                |
                |  POS20                                  K101
                | %MD051                                  %Q0047
                |---| |-------------------------------------( )-- (* LS sealed  tube       *)

A202-20  POS20                                            PH51    << RUNG 8  STEP #0025 >>
%I0054  %MD051                                            %MD680
 ---|/|----| |-------------------------------------------( )-- (* Low tem ls elem          *)
            |
A202-24     |
%I0055  %MD108 |
 ---|/|----| |-|

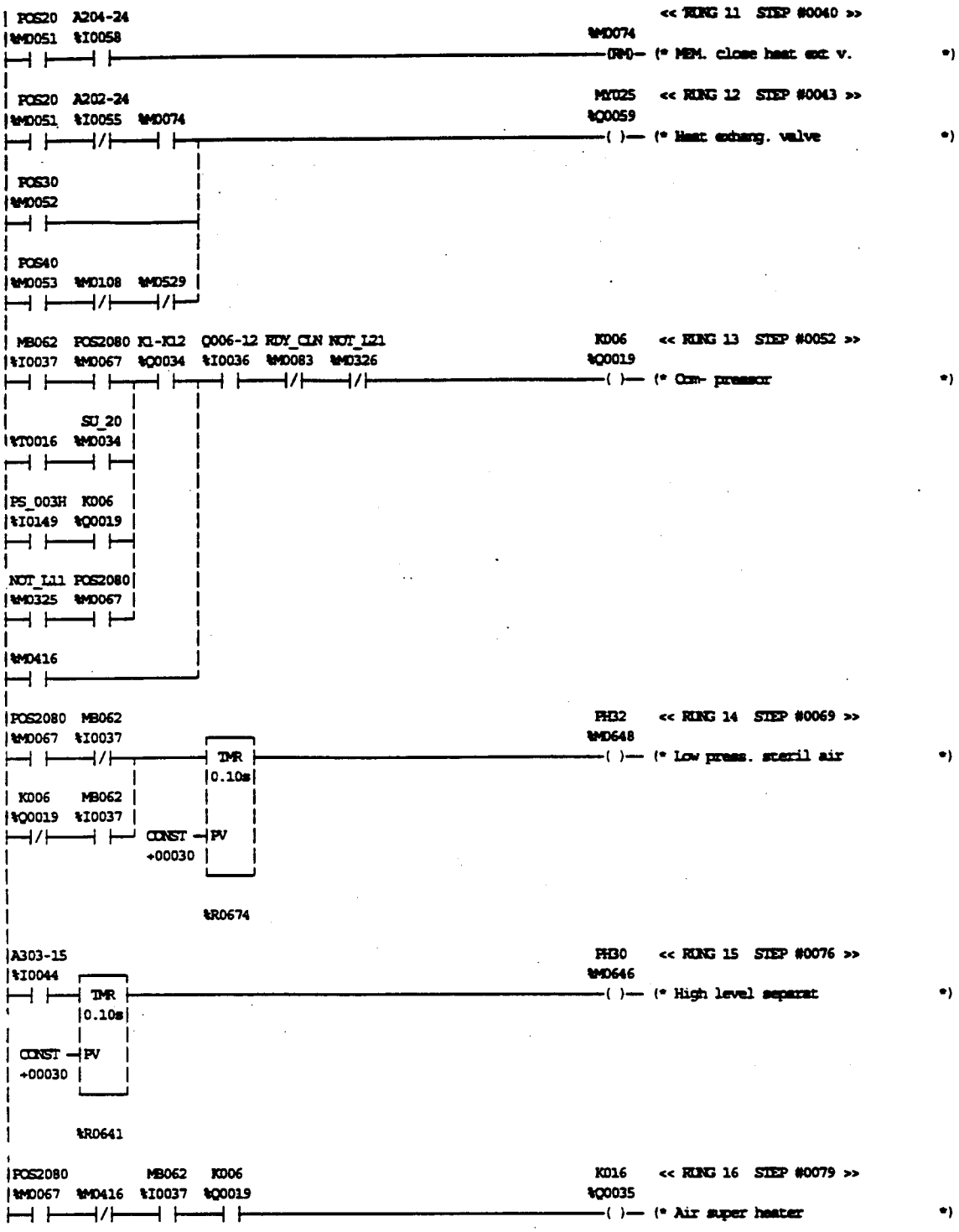
A502-14  KD05                                             PH68    << RUNG 9  STEP #0031 >>
%I0061  %Q0039                                            %MD641
 ---|/|----| |-------[ TMR ]-------------------------------( )-- (* LS sh. stop heat alarm  *)
                    [0.10s]
A502-14  KD05       [     ]
%I0061  %Q0039      [     ]
 ---| |----|/|-- CONST -[PV ]
                 +00020  [     ]
                         [     ]
                         [     ]
                        %R0221

 POS00                                                                << RUNG 10  STEP #0038 >>
%MD049                                                    %MD074
 ---| |-------------------------------------------------(SM)-- (* MEM. close heat ext v.  *)
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%MD074		MEM. close heat ext v.
%MD108		Spray full filled
%MD300		Tube sealing going on
%MD416		WEAC stop on
%MD532		Air inlet tower on
%MD547		Drying after spray- ing
%T0115		Preheat LS element at drying
%R0221		LS short stop heat ok
%R0551		Drying after spray
%I0054	A202-20	Temp LS seal preheat
%I0055	A202-24	Temp LS seal prod.
%I0061	A502-14	LS sh. stop element broken
%Q0039	KD05	Preheat 2 LS element

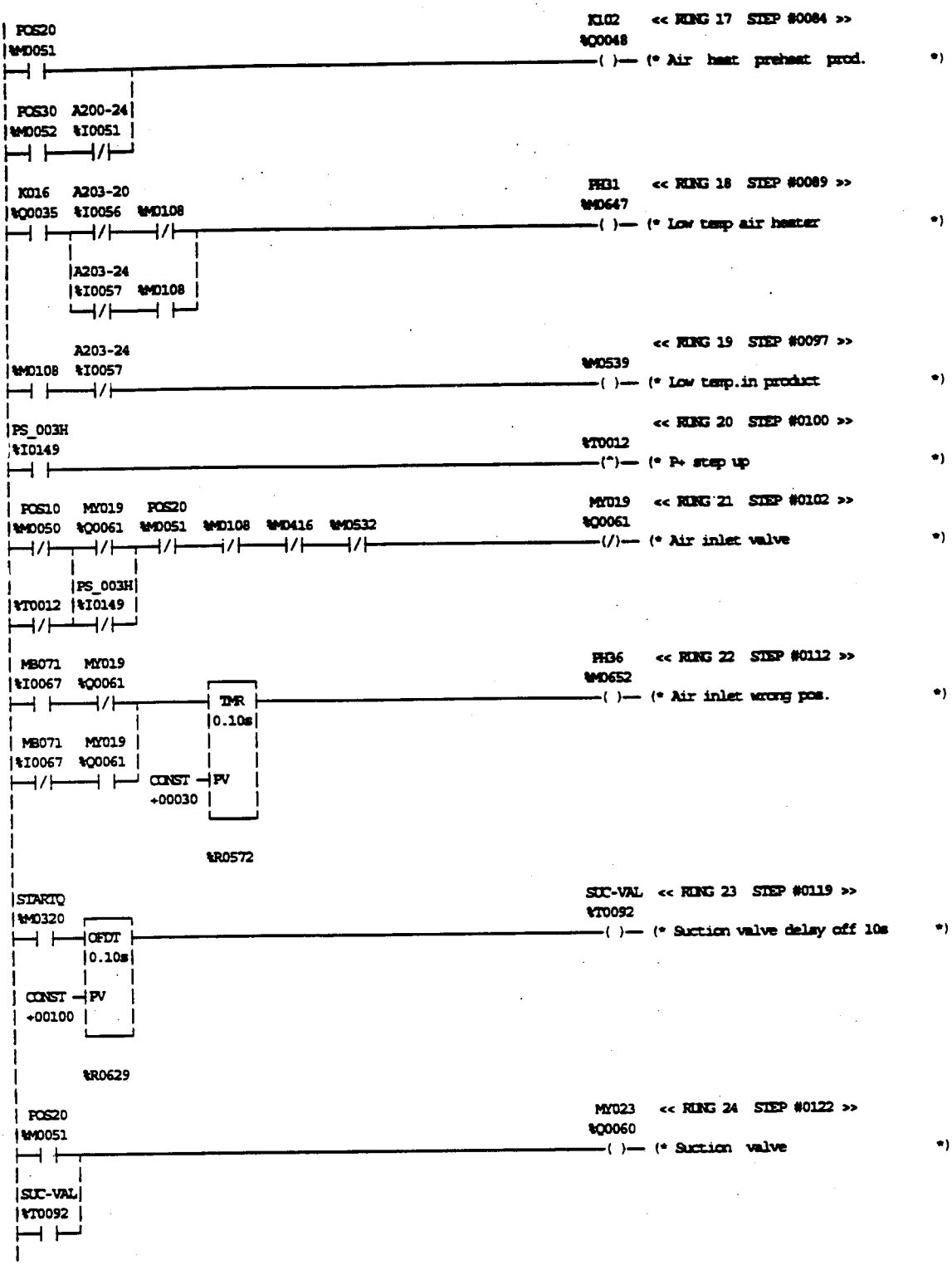
REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%Q0019	KD06	Com- pressor
%Q0047	K101	LS sealed tube
%Q0061	MY019	Air inlet valve
%MD627	PH1_1	Preheat 1
%MD628	PH1_2	Preheat 2
%MD625	PH3S	Step up push buttom lamp
%MD680	PH51	Low tem ls elem
%MD641	PH68	LS sh. stop heat alarm
%MD049	POS00	Ladder pos 00
%MD050	POS10	Ladder pos 10
%MD051	POS20	Ladder pos 20
%I0152	PS_007	Select switch clean.

BLOCK: 06 HEATING POSITION 10 TO 20



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%MD074		MEM. close heat exc v.	%Q0059	MY025	Heat exhang. valve
%MD108		Spray full filled	%MD325	NOT_L11	Line L11-L10 not ok
%MD416		WEAC stop on	%MD326	NOT_L21	Line L21-L20 not ok
%MD529		Max empty time	%MD646	PH30	High level separat
%T0016		Step up P+	%MD648	PH32	Low press. steril air
%RD641		Alarm delay paper supply	%MD051	POS20	Ladder pos 20
%RD674		Sterile air press.	%MD067	POS2080	Machine ladder pos 20-80
%I0055	A202-24	Temp LS seal prod.	%MD052	POS30	Ladder pos 30
%I0058	A204-24	Temp air knives	%MD053	POS40	Machine ladder pos 40
%I0044	A303-15	Separator high level	%I0149	PS_003H	Step up
%Q0019	KD06	Com- pressor	%I0036	Q006-12	Overload prot. compres motor
%Q0035	KD16	Air super heater	%MD083	RDY_CLN	Machine pos ready for cleaning
%Q0034	K1-K12	Splicer contr./perox. water p	%MD034	SU_20	Ok to step to pos 20 heat 2
%I0037	MB062	Sterile air pressure			

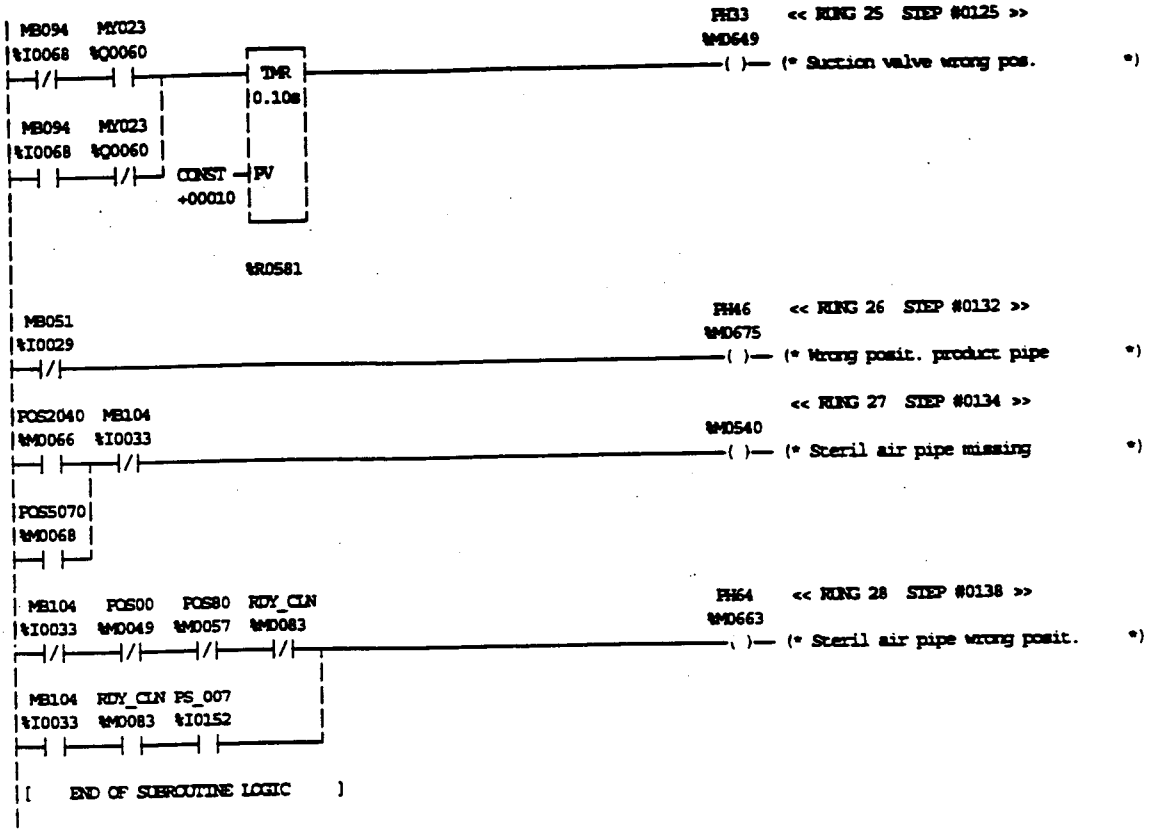
BLOCK: 06 HEATING POSITION 10 TO 20



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0108		Spray full filled
%M0416		MEAC stop on
%M0532		Air inlet tower on
%M0539		Low temp.in product
%T0012		P+ step up
%R0572		Alarm delay
%R0629		Suction valve house bath
%I0051	A200-24	Temp. monitor pre- sterilisation
%I0056	A203-20	Temp air heat preheat
%I0057	A203-24	Temp air heat prod.
%Q0035	K016	Air super heater
%Q0048	K102	Air heat preheat prod.

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%I0067	MB071	Air inlet valve pos.
%Q0061	MY019	Air inlet valve
%Q0060	MY023	Suction valve
%M0647	FH31	Low temp air heater
%M0652	FH36	Air inlet wrong pos.
%M0050	POS10	Ladder pos 10
%M0051	POS20	Ladder pos 20
%M0052	POS30	Ladder pos 30
%I0149	PS_003H	Step up
%M0320	STARTQ	Start sequenc
%T0092	SUC-VAL	Suction valve delay off 10s

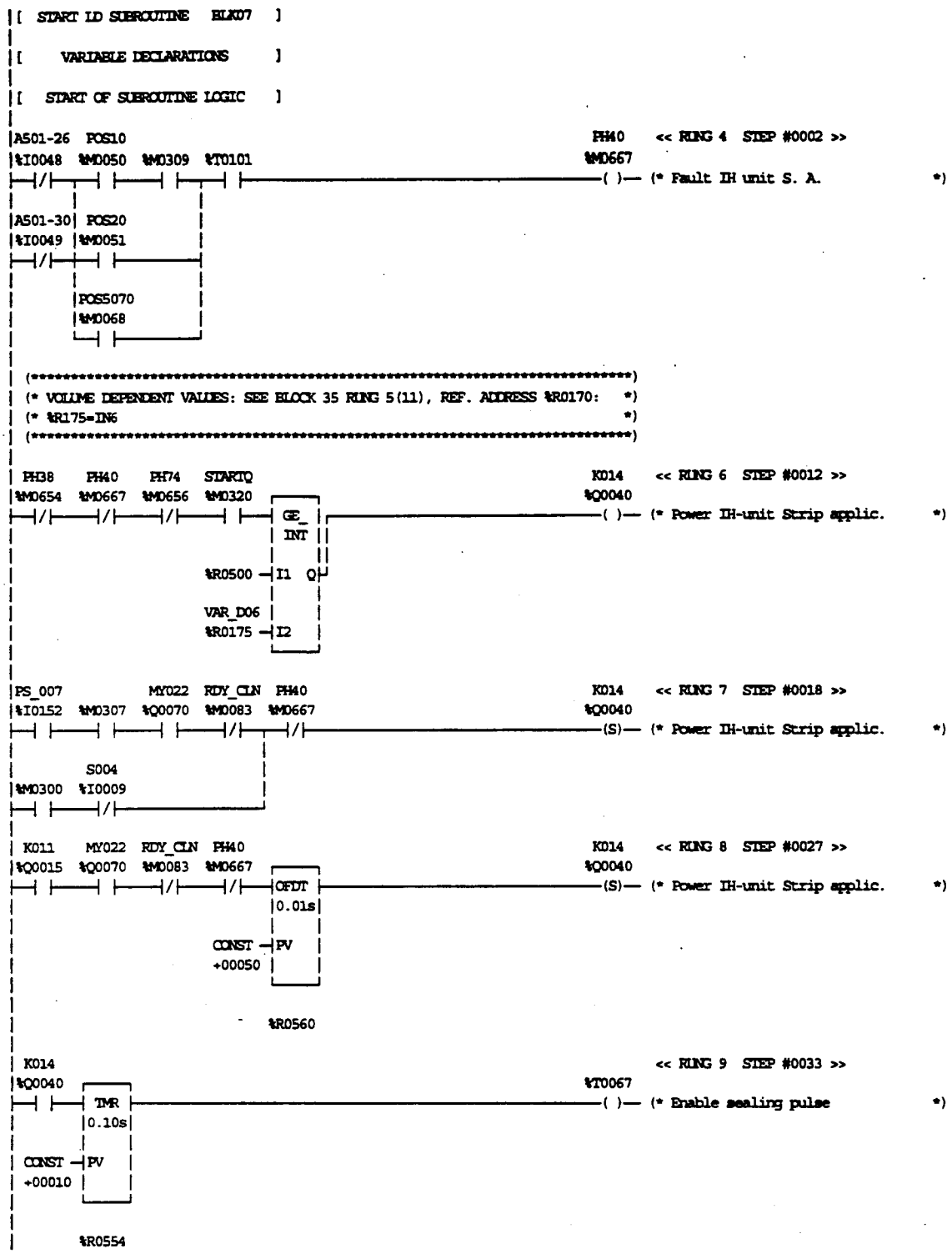
BLOCK: 06 HEATING POSITION 10 TO 20



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%MD540		Steril air pipe missing
%R0581		Delay stop suction valve
%I0029	MB051	Product pipe position
%I0068	MB094	Suction valve pos.
%I0033	MB104	Steril air pipe in position
%Q0060	MY023	Suction valve
%MD649	PH33	Suction valve wrong pos.
%MD675	PH46	Wrong posit. product pipe

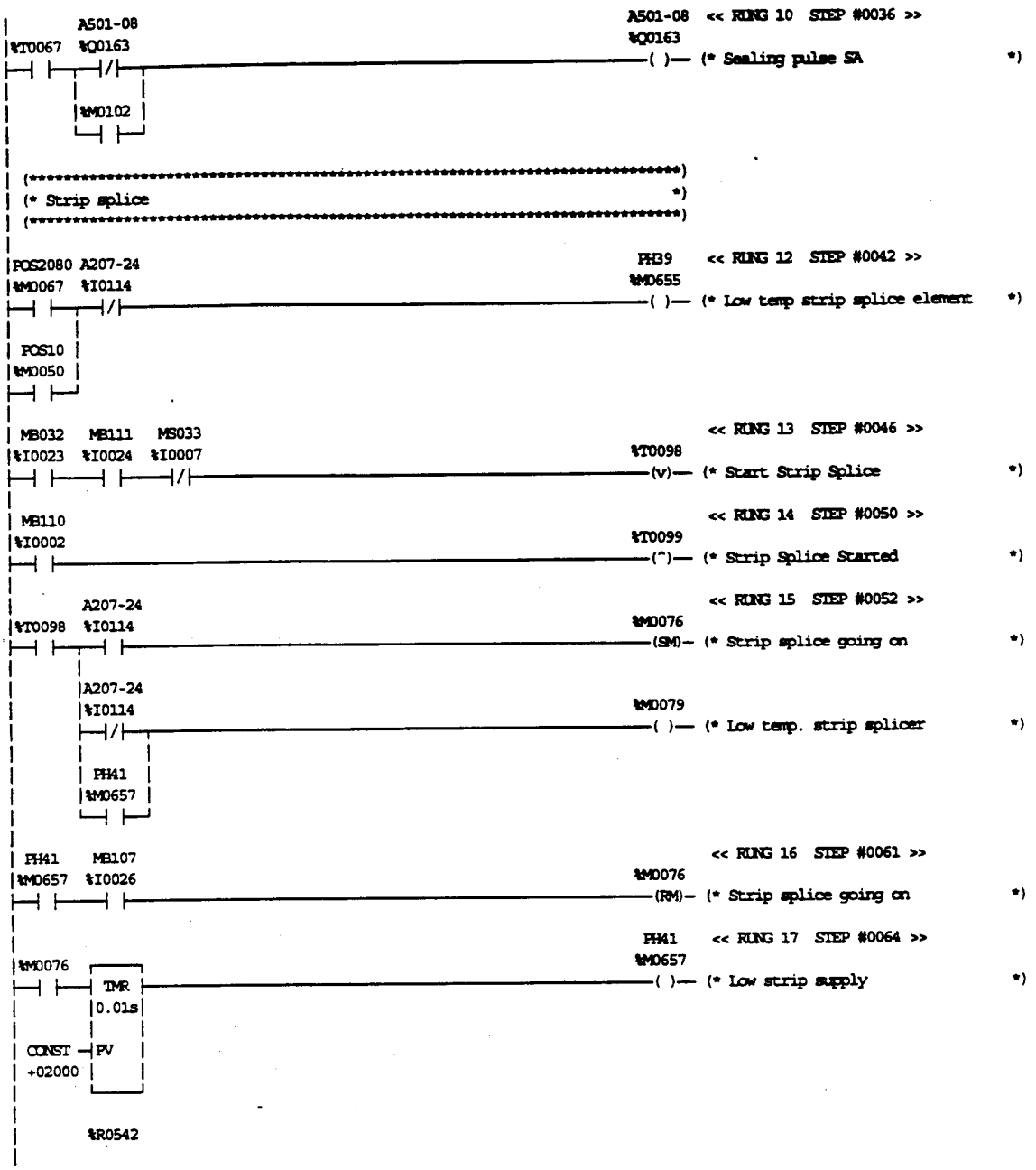
REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%MD663	PH64	Steril air pipe wrong posit.
%MD049	POS00	Ladder pos 00
%MD066	POS2040	Machine ladder pos 20-40
%MD068	POS5070	Machine pos 50-70
%MD057	POS80	Machine ladder pos 80
%I0152	PS_007	Select switch clean.
%MD083	RDY_CLN	Machine pos ready for cleaning

BLOCK: 06 HEATING POSITION 10 TO 20



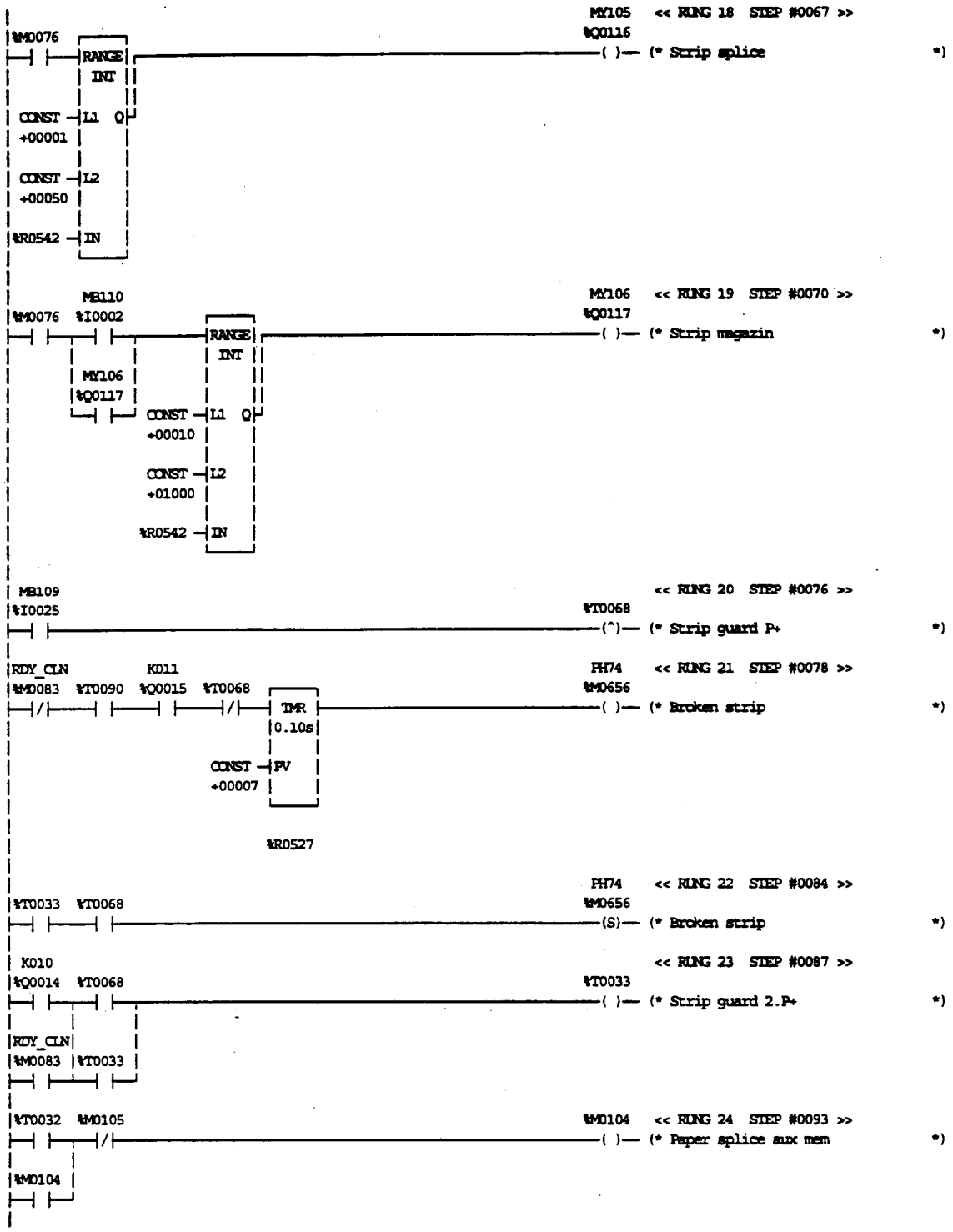
REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0300		Tube sealing going on	%Q0070	MY022	Clutch main machine
%M0307		Aux.output inching	%M0654	PH38	Paper web fault
%M0309		Inch condi- tions	%M0667	PH40	Fault IH unit S. A.
%T0067		Enable sealing pulse	%M0656	PH74	Broken strip
%T0101		Delay alarm indication	%M0050	POS10	Ladder pos 10
%R0500		Start seq. for prod.	%M0051	POS20	Ladder pos 20
%R0554		Delay enable sealing pulse	%M0068	POS5070	Machine pos 50-70
%R0560		Sealing pulse off delay	%I0152	PS_007	Select switch clean.
%I0048	A501-26	Temp. failure IH SA-unit	%M0083	RDY_CLN	Machine pos ready for cleaning
%I0049	A501-30	Failure IH SA-unit	%I0009	S004	Service switch
%Q0015	K011	Main motor high speed	%M0320	STARTQ	Start sequenc
%Q0040	K014	Power IH-unit Strip applic.	%R0175	VAR_D06	Start heating SA unit prod.

BLOCK: 07 APPLICATION AND SPLICING, STRIP



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0076		Strip splice going on
%M0079		Low temp. strip splicer
%M0102		Paper splice in LS sealer
%T0067		Enable sealing pulse
%T0098		Start Strip Splice
%T0099		Strip Splice Started
%R0542		Strip splace time
%I0114	A207-24	Temp strip app.
%Q0163	A501-08	Sealing pulse SA

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%I0023	MB032	Strip magazin one
%I0026	MB107	Reset strip
%I0002	MB110	SA doors closed
%I0024	MB111	Strip magazin two
%I0007	MS033	Strip splice push buttom
%M0655	PH39	Low temp strip splice element
%M0657	PH41	Low strip supply
%M0050	POS10	Ladder pos 10
%M0067	POS2080	Machine ladder pos 20-80



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0076		Strip splice going on
%M0104		Paper splice aux mem
%M0105		Paper splice aux timer
%T0032		Paper splice P-
%T0033		Strip guard 2.P+
%T0068		Strip guard P+
%T0090		Delay rotat. monitor
%R0527		Rotat. time
%R0542		Strip splace time

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%Q0014	K010	Main motor low speed
%Q0015	K011	Main motor high speed
%I0025	MB109	Strip rotation guard
%I0002	MB110	SA doors closed
%Q0116	MY105	Strip splice
%Q0117	MY106	Strip magazin
%M0656	PH74	Broken strip
%M0083	RDY_CLN	Machine pos ready for cleaning

BLOCK: 07 APPLICATION AND SPLICING, STRIP

```
|%M0104                                                    %M0105  << RUNG 25  STEP #0097 >>
|--| |--| TMR |-------------------------------------------( )-- (* Paper splice aux timer      *)
|         |0.10s|
|         |     |
| CONST --|PV   |
| +00040  |     |
|         |_____|
|
|        %R0746
|
| (*************************************************************************)
| (* VOLUME DEPENDENT VALUES: SEE BLOCK 35 RUNG 9 (15),                    *)
| (* %R744, %R745.                                                        *)
| (*************************************************************************)
|
|%M0104                                                    %M0102  << RUNG 27  STEP #0101 >>
|--| |--|RANGE|-------------------------------------------( )-- (* Paper splice in LS sealer    *)
|         | INT ||
|         |     ||
|VAR_D29  |     ||
|%R0744 --|L1  Q|
|         |     |
|VAR_D30  |     |
|%R0745 --|L2   |
|         |     |
|%R0746 --|IN   |
|         |_____|
|
|[    END OF SUBROUTINE LOGIC     ]
|
```

REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME		REFERENCE DESCRIPTION
%M0102	Paper splice in LS sealer	%R0746		Paper splice timer
%M0104	Paper splice aux mem	%R0744	VAR_D29	SA full power
%M0105	Paper splice aux timer	%R0745	VAR_D30	SA full power

BLOCK: 07 APPLICATION AND SPLICING, STRIP

```
[ START LD SUBROUTINE  BLK09  ]

[    VARIABLE DECLARATIONS    ]

[  START OF SUBROUTINE LOGIC  ]

 (*************************************************************************)
 (*                          Spray sequence                               *)
 (*************************************************************************)

 PH3S    POS30                                                PH3_1   << RUNG 5  STEP #0003 >>
%M0625  %M0052  %M0108                                       %M0631
 ---| |---| |---|/|-------------------------------------------( )--- (* Spray                    *)

 POS40                                                        PH3_2   << RUNG 6  STEP #0007 >>
%M0053  %M0108                                               %M0632
 ---| |---| |-------------------------------------------------( )--- (* Steril- isation          *)

NOT_L11 POS0030                                                      << RUNG 7  STEP #0010 >>
%M0325  %M0065                                               %M0099
 ---|/|---| |-------------------------------------------------(RM)--- (* Spray malfunction       *)
        |RDY_CLN|                                           SPRY_TM
        |%M0083 |                                           %M0546
        |---| |-------------------------------------------------(/)--- (* Spray timer enable    *)
        |%M0416 |                                           %M0108
        |---| |-------------------------------------------------(RM)--- (*  Spray full filled    *)
        | S004  |
        |%I0009 |                                           %M0109
        |---| |-------------------------------------------------(RM)--- (* Drying after spray- ing *)

SPRY_TM                                                              << RUNG 8  STEP #0020 >>
%M0546                                                       %M0525
 ---| |---|TMR|-------------------------------------------------( )--- (* Spray finish          *)
        |0.10s|
        |     |
 CONST -|PV   |
 +01120 |     |
        |_____|

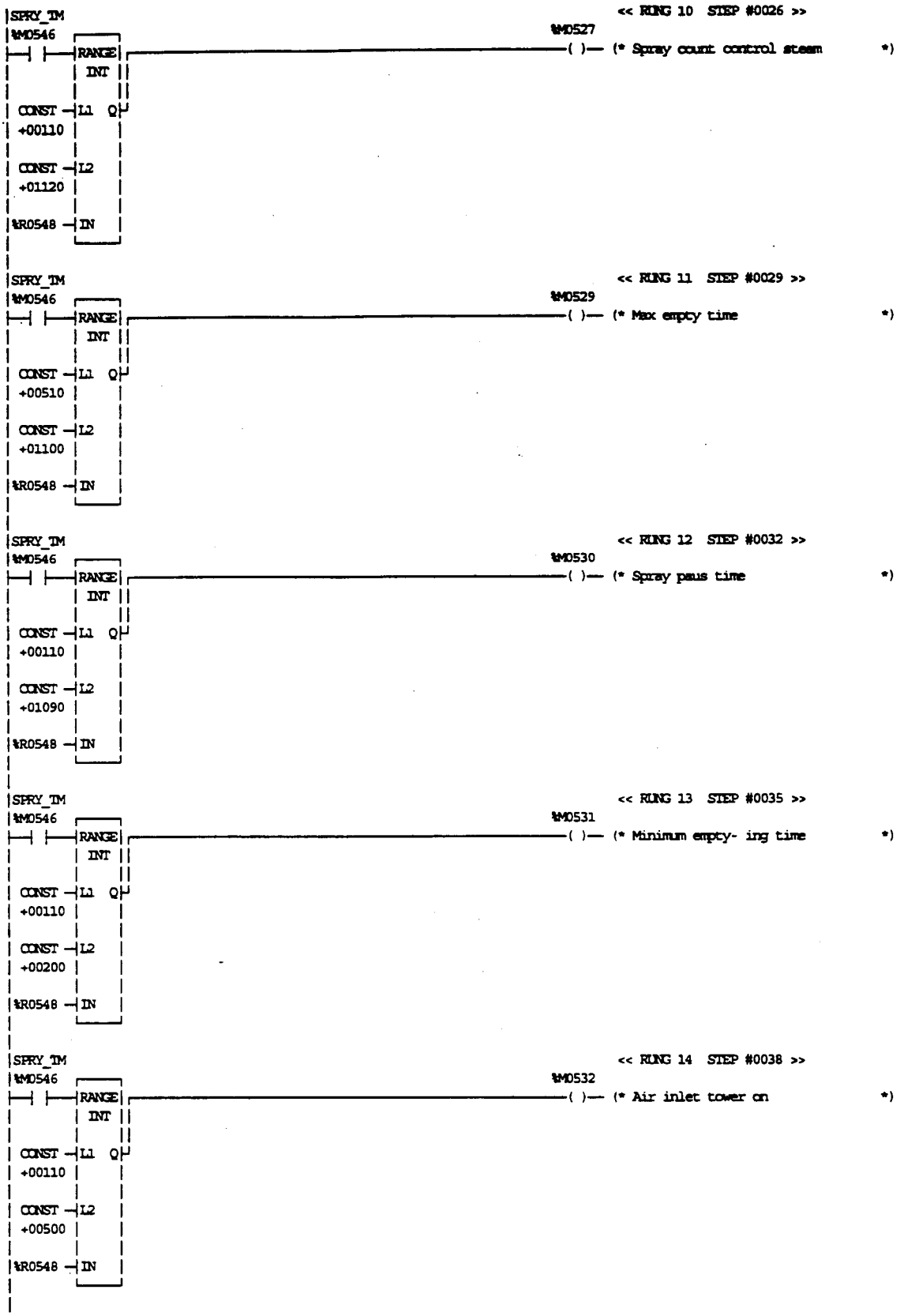
        %R0548

SPRY_TM                                                      MY034   << RUNG 9  STEP #0023 >>
%M0546                                                       %Q0074
 ---| |---|RANGE|-------------------------------------------------( )--- (* Spray tank filling   *)
        | INT ||
        |     ||
 CONST -|L1  Q|-
 +00030 |     |
        |     |
 CONST -|L2   |
 +00110 |     |
        |     |
%R0548 -|IN   |
        |_____|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0099		Spray malfunction
%M0108		Spray full filled
%M0109		Drying after spray- ing
%M0416		WEAC stop on
%M0525		Spray finish
%R0548		Spray peroxid
%Q0074	MY034	Spray tank filling
%M0325	NOT_L11	Line L11-L10 not ok
%M0625	PH3S	Step up push buttom lamp

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0631	PH3_1	Spray
%M0632	PH3_2	Steril- isation
%M0065	POS0030	Machine ladder pos 00-30
%M0052	POS30	Ladder pos 30
%M0053	POS40	Machine ladder pos 40
%M0083	RDY_CLN	Machine pos ready for cleaning
%I0009	S004	Service switch
%M0546	SPRY_TM	Spray timer enable

BLOCK: 09 SPRAY SEQUENCE



REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0527	Spray count control steam	%M0532	Air inlet tower on
%M0529	Max empty time	%R0548	Spray peroxid
%M0530	Spray paus time	%M0546 SPRY_TM	Spray timer enable
%M0531	Minimum empty- ing time		

BLOCK: 09 SPRAY SEQUENCE

<< RUNG 15 STEP #0041 >>

POS30
%M0052
TMR
0.10s
CONST +18000 PV

%R0046

<< RUNG 16 STEP #0043 >>

POS30
%M0052
RANGE INT
CONST +00001 L1
CONST +00900 L2
%R0046 IN
%T0056 ( ) (* Spray tank evacuat pos 30 *)

<< RUNG 17 STEP #0046 >>

POS30
%M0052
GE_INT
%R0046 I1
CONST +00910 I2
%T0057 ( ) (* Spray tank evacuat finish *)

<< RUNG 18 STEP #0049 >>

SPRY_TM
%M0546
EQ_INT
%R0548 I1
CONST +00110 I2
%M0526 ( ) (* Maxfill time spray tank *)

<< RUNG 19 STEP #0052 >>

A301-15
%I0042
%M0526
NOT_L11
%M0325
%M0528 ( ) (* Spray tank filling fault *)

<< RUNG 20 STEP #0056 >>

%T0056
%M0416
%M0108
%M0527
MY004
%Q0075 ( ) (* Spray peroxid air blowing *)

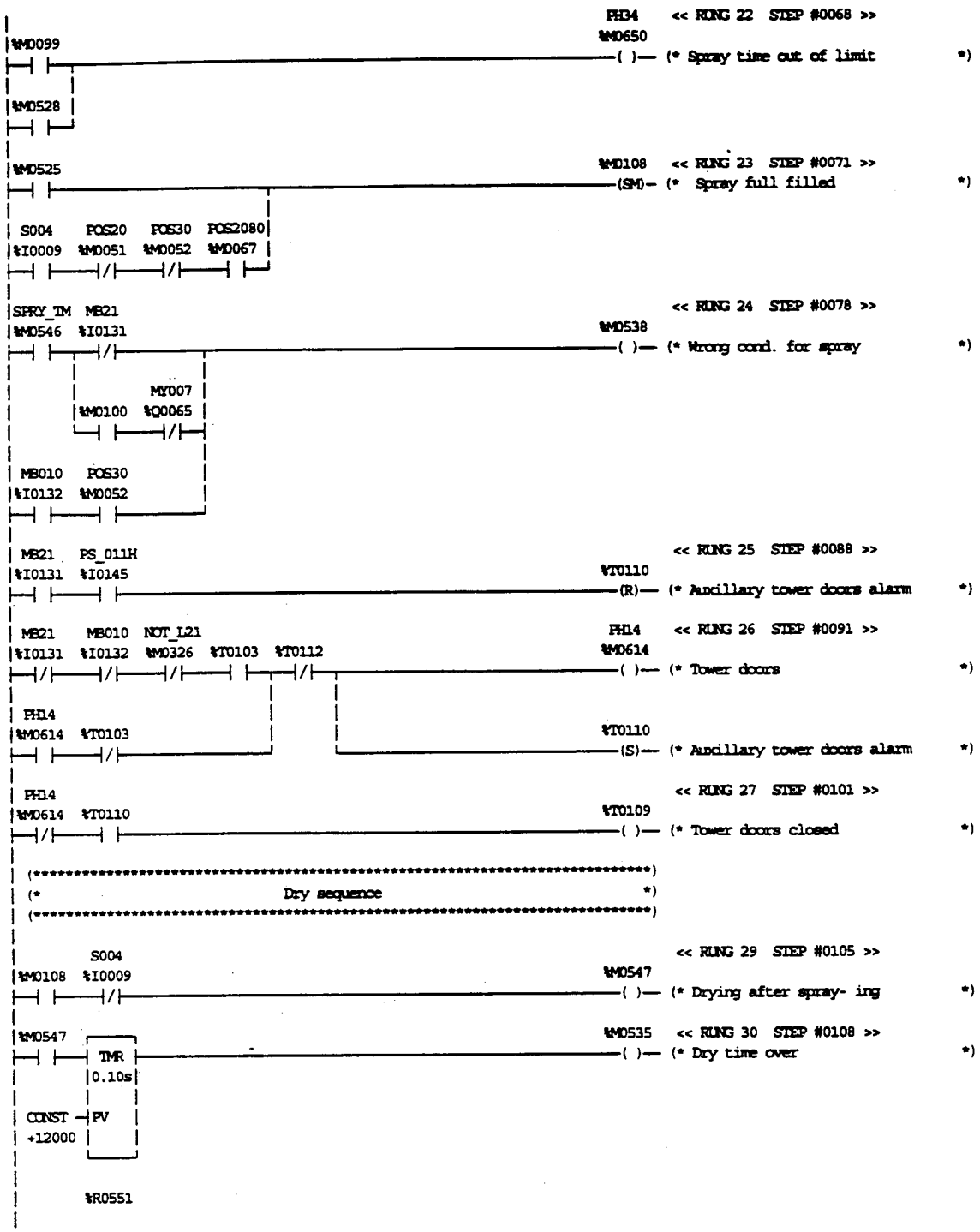
<< RUNG 21 STEP #0062 >>

A301-15
%I0042
%M0529
A301-15
%I0042
%M0531
%M0099 (SM) (* Spray malfunction *)

REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0099	Spray malfunction
%M0108	Spray full filled
%M0416	WEAC stop on
%M0526	Maxfill time spray tank
%M0527	Spray count control steam
%M0528	Spray tank filling fault
%M0529	Max empty time
%M0531	Minimum empty- ing time
%T0056	Spray tank evacuat pos 30

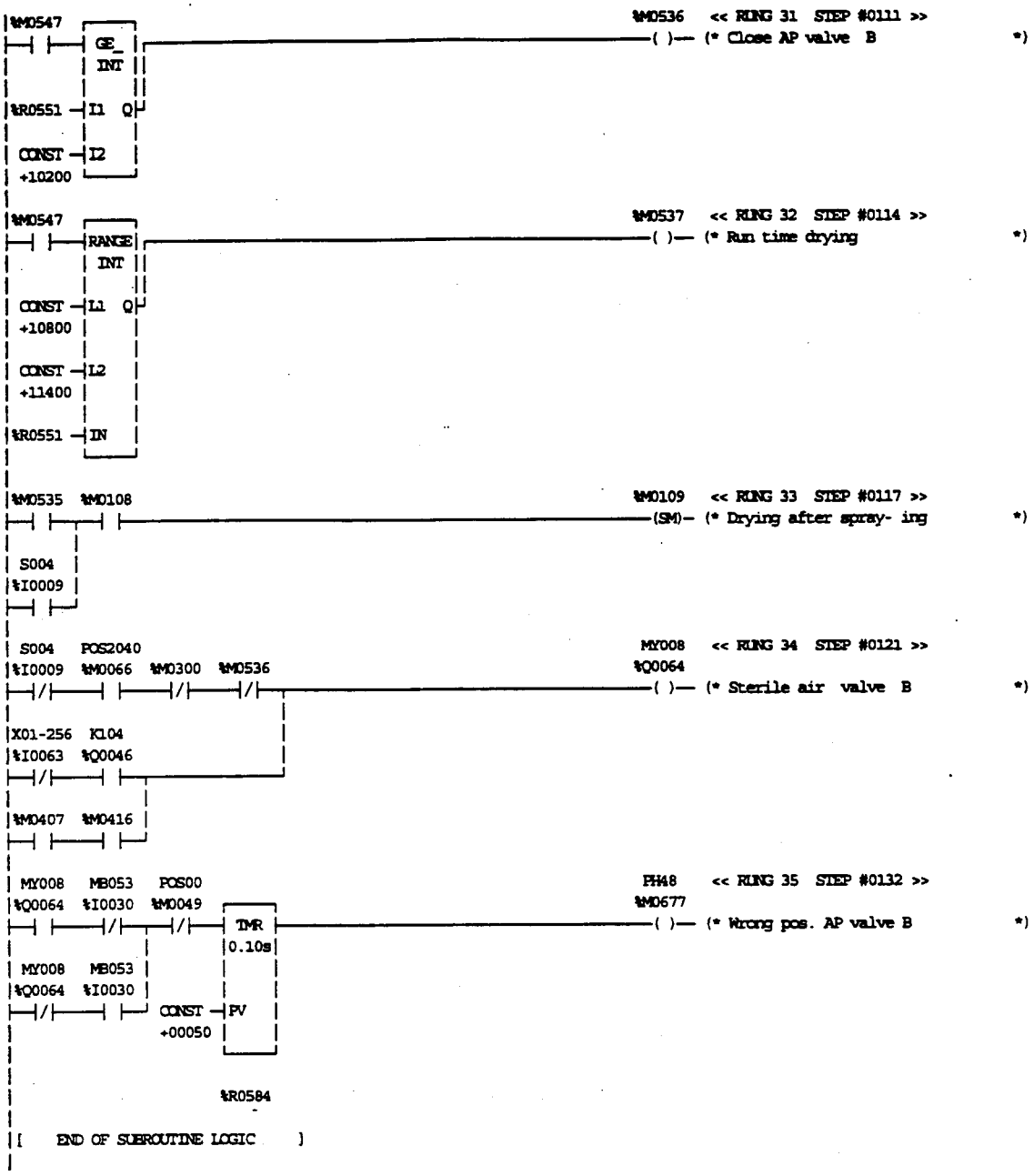
REFERENCE NICKNAME		REFERENCE DESCRIPTION
%T0057		Spray tank evacuat finish
%R0046		Elapsed time POS30
%R0548		Spray peroxid
%I0042	A301-15	Peroxide spray quant.
%Q0075	MY004	Spray peroxid air blowing
%M0325	NOT_L11	Line L11-L10 not ok
%M0052	POS30	Ladder pos 30
%M0546	SPRY_TM	Spray timer enable

BLOCK: 09 SPRAY SEQUENCE



REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0099	Spray malfunction	%I0132 MB010	Crank position
%M0100	Steam fault	%I0131 MB21	Super struct. door monitor
%M0108	Spray full filled	%Q0065 MY007	Steam barrier valve C
%M0525	Spray finish	%M0326 NOT_L21	Line L21-L20 not ok
%M0528	Spray tank filling fault	%M0614 PH14	Tower doors
%M0535	Dry time over	%M0650 PH34	Spray time out of limit
%M0538	Wrong cond. for spray	%M0051 POS20	Ladder pos 20
%M0547	Drying after spray- ing	%M0067 POS2080	Machine ladder pos 20-80
%T0103	Safety alarm	%M0052 POS30	Ladder pos 30
%T0109	Tower doors closed	%I0145 PS_011H	Alarm reset push buttom
%T0110	Ancillary tower doors alarm	%I0009 S004	Service switch
%T0112	Ancillary side protection alarm	%M0546 SPRY_TM	Spray timer enable
%R0551	Drying after spray		

BLOCK: 09 SPRAY SEQUENCE



REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0108	Spray full filled	%R0584	Delay B valve pos.
%M0109	Drying after spray- ing	%Q0046 K104	Signal to cip clean
%M0300	Tube sealing going on	%I0030 MB053	Steril air B valve position
%M0407	WEAC stop 15 minutes	%Q0064 MY008	Sterile air valve B
%M0416	WEAC stop on	%M0677 PH48	Wrong pos. AP valve B
%M0535	Dry time over	%M0049 POS00	Ladder pos 00
%M0536	Close AP valve B	%M0066 POS2040	Machine ladder pos 20-40
%M0537	Run time drying	%I0009 S004	Service switch
%M0547	Drying after spray- ing	%I0063 X01-256	Clean of prod. valve
%R0551	Drying after spray		

```
[ START LD SUBROUTINE  BLK10  ]
[    VARIABLE DECLARATIONS    ]
[  START OF SUBROUTINE LOGIC  ]
(*****************************************************************************)
(*                          Filling tank control.                            *)
(*****************************************************************************)
STARTQ  MB95-C                                                  << RUNG 5  STEP #0003 >>
%M0320  %I0047                                                          %M0424
 ---| |----|/|---| GE_ |-------------------------------------------( )-- (* Low lvl peroxid tank at product  *)
                 | INT |
                 |     |
        %R0500 --|I1  Q|---------| TMR |
                 |     |         |0.10s|
         CONST --|I2   |  CONST -|PV   |
         +03600  |     |  +03600 |     |
                 |     |         |     |
                 |     |         |     |
                                   %R0028

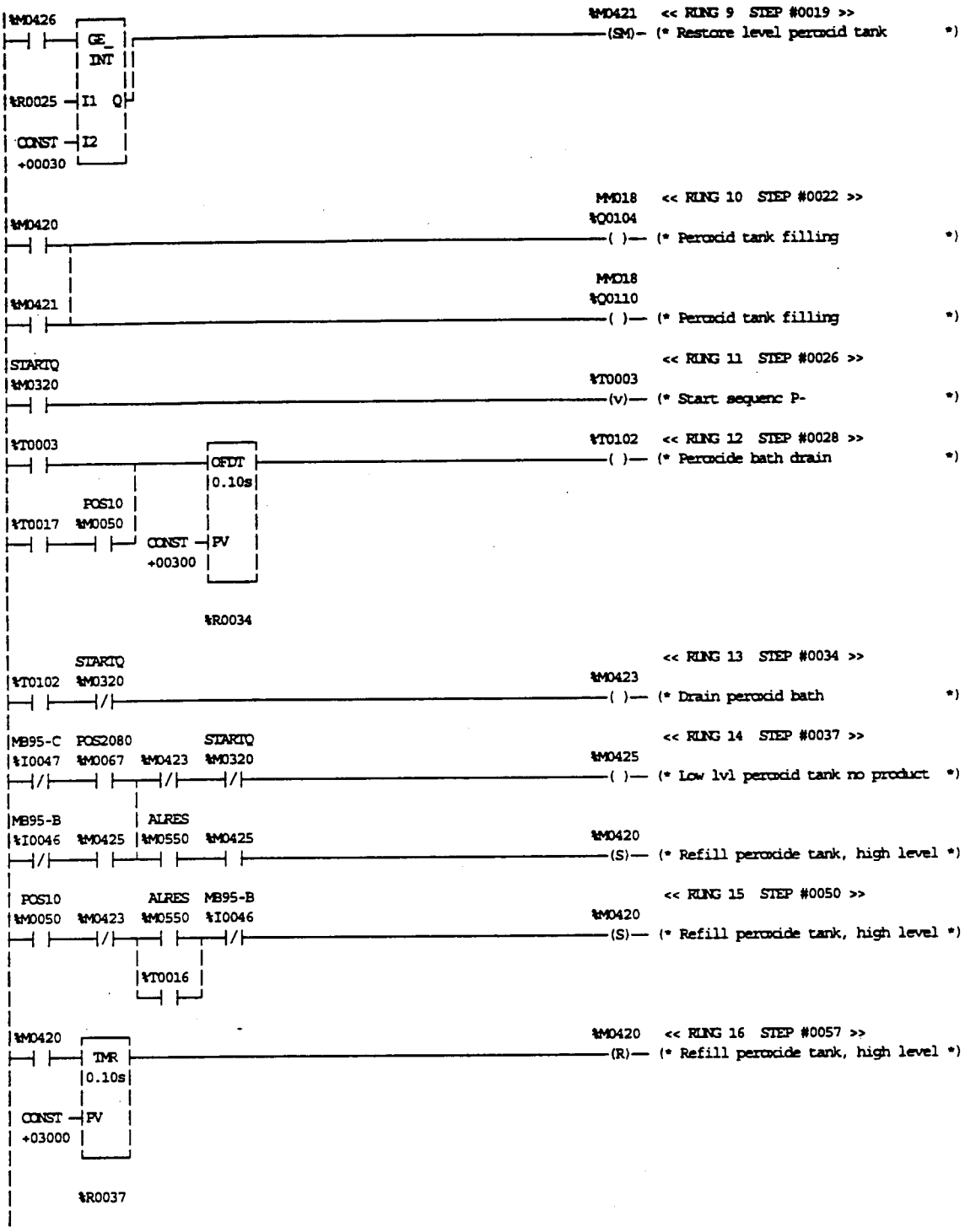
ALW_ON                                                          << RUNG 6  STEP #0008 >>
%S0007                                                                  %M0426
 ---| |----|RANGE|-------------------------------------------------( )-- (* Enable filling peroxid tank      *)
          | INT |
          |     |
 CONST --|L1  Q|
 +01100  |     |
         |     |
 CONST --|L2   |
 +01200  |     |
         |     |
%R0291 --|IN   |
         |     |

ALW_ON                                                          << RUNG 7  STEP #0011 >>
%S0007                                                                  %M0426
 ---| |----|RANGE|-------------------------------------------------(S)-- (* Enable filling peroxid tank      *)
          | INT |
          |     |
 CONST --|L1  Q|
 +02900  |     |
         |     |
 CONST --|L2   |
 +03000  |     |
         |     |
%R0291 --|IN   |
         |     |

MB95-C                                                          << RUNG 8  STEP #0014 >>
%I0047  %M0426                                                          %M0421
 ---|/|----| |-------| TMR |-------------------------------------(RM)-- (* Restore level peroxid tank      *)
                     |0.10s|
                     |     |
%M0421               |     |
 ---| |--------------|PV   |
          CONST -----|     |
          +00100     |     |
                     |     |
                      %R0025
```

REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0421	Restore level peroxid tank	%R0291	Top fil valve time
%M0424	Low lvl peroxid tank at product	%R0500	Start seq. for prod.
%M0426	Enable filling peroxid tank	%S0007 ALW_ON	
%R0025	Peroxid restore time	%I0047 MB95-C	Low level peroxide tank
%R0028	Low lvl tank product delay	%M0320 STARTQ	Start sequenc

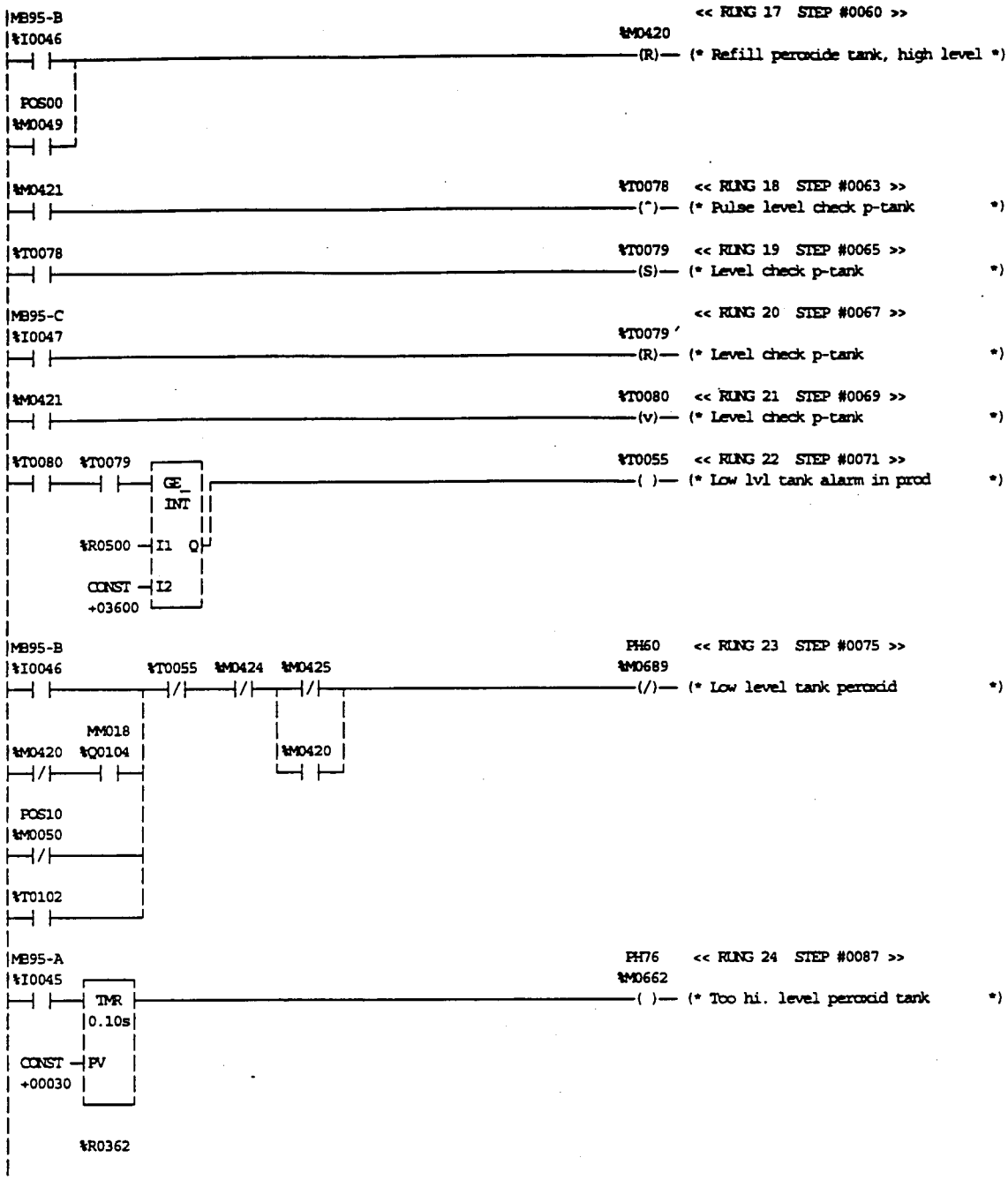
BLOCK: 10 PEROXIDE HANDLING



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0420		Refill peroxide tank, high level
%M0421		Restore level peroxid tank
%M0423		Drain peroxid bath
%M0425		Low lvl peroxid tank no product
%M0426		Enable filling peroxid tank
%T0003		Start sequenc P-
%T0016		Step up P+
%T0017		Step down P+
%T0102		Peroxide bath drain
%R0025		Peroxid restore time

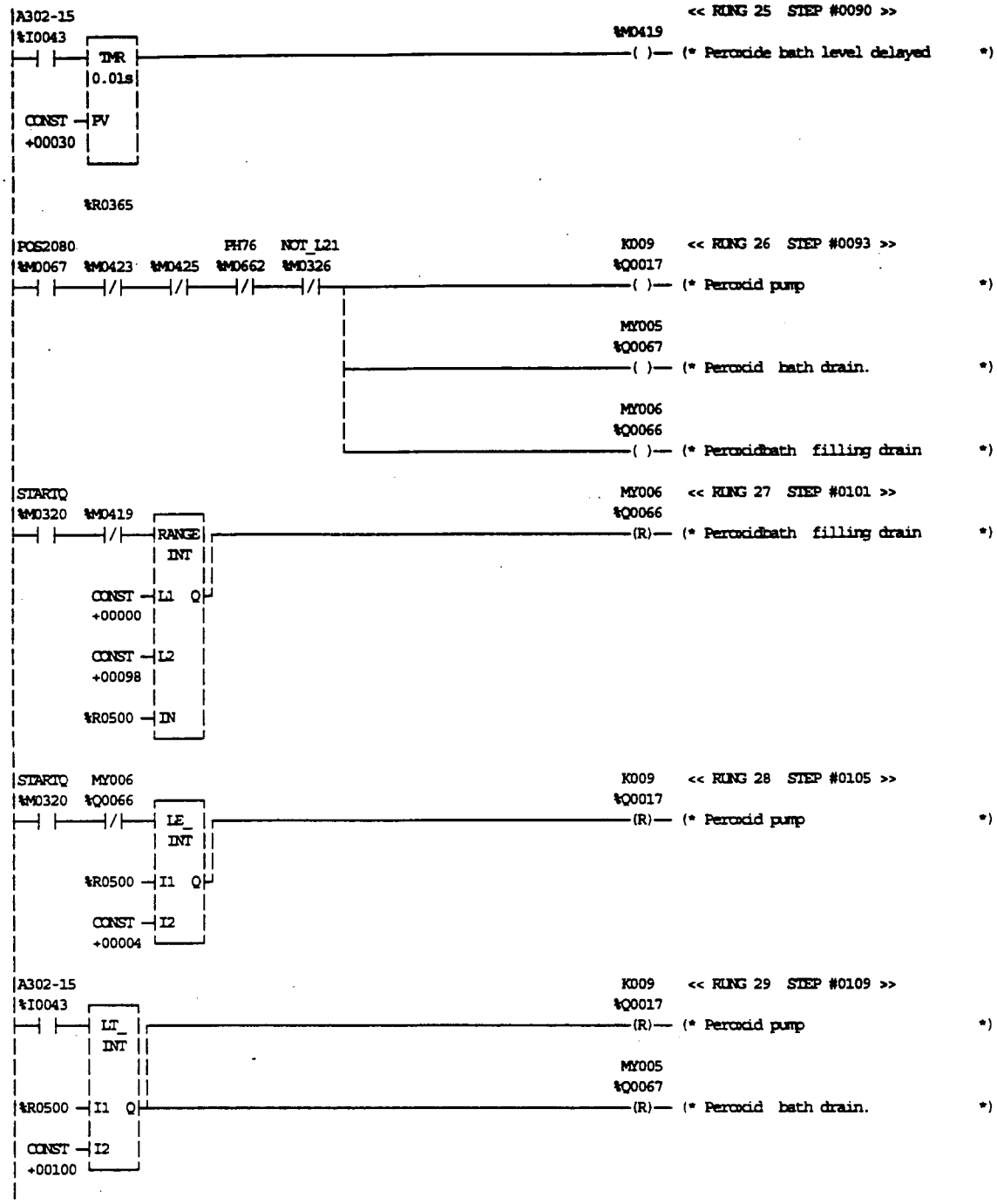
REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%R0034		Drain. bath time
%R0037		Max time perox. tank filling
%M0550	ALRES	Alarm reset P+
%I0046	MB95-B	High level peroxide tank
%I0047	MB95-C	Low level peroxide tank
%Q0104	MM018	Peroxid tank filling
%Q0110	MM018	Peroxid tank filling
%M0050	POS10	Ladder pos 10
%M0067	POS2080	Machine ladder pos 20-80
%M0320	STARTQ	Start sequenc

BLOCK: 10 PEROXIDE HANDLING

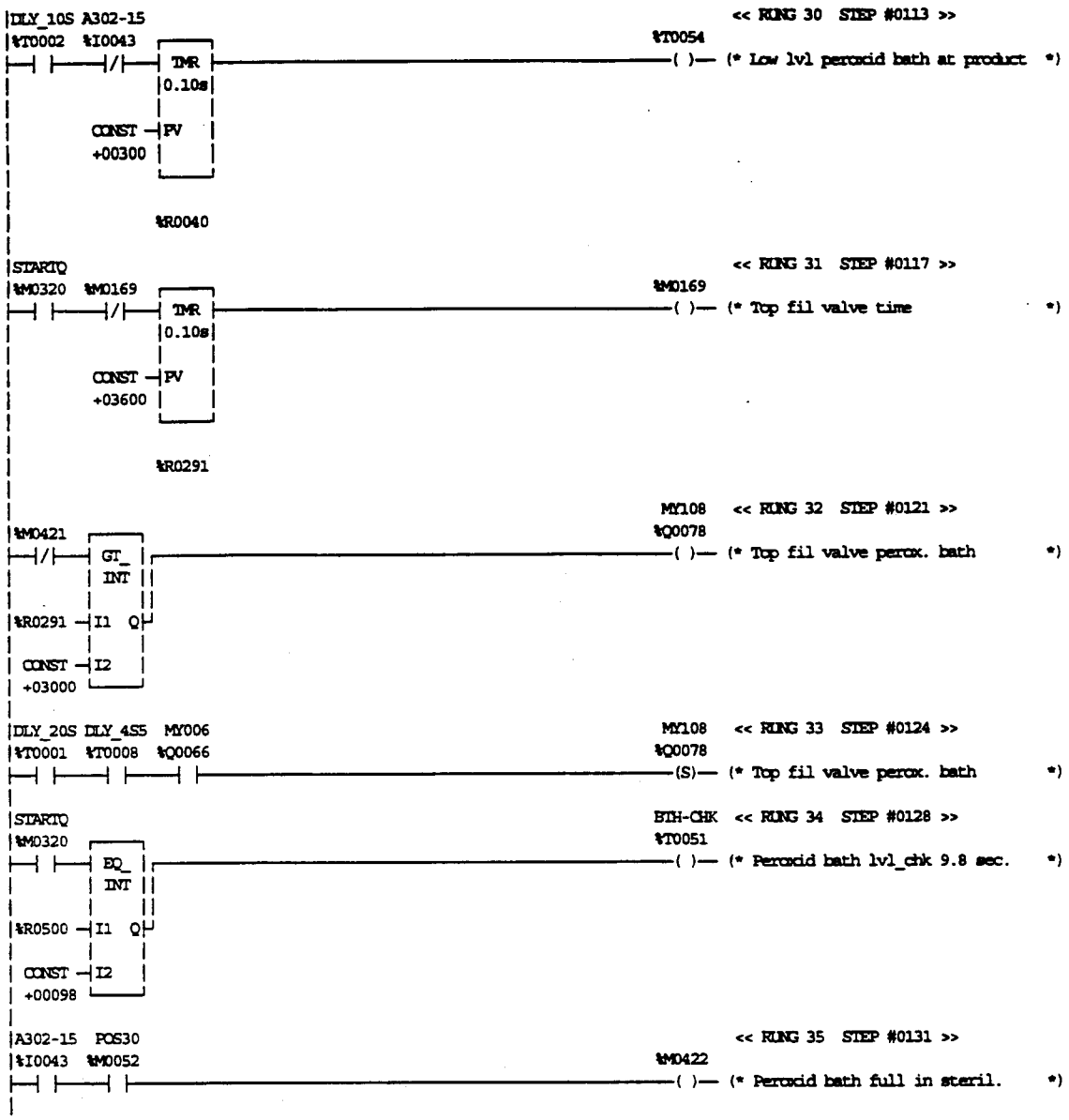


REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME		REFERENCE DESCRIPTION
%M0420	Refill peroxide tank, high level	%R0500		Start seq. for prod.
%M0421	Restore level peroxid tank	%I0045	MB95-A	Too high level peroxide tank
%M0424	Low lvl peroxid tank at product	%I0046	MB95-B	High level peroxide tank
%M0425	Low lvl peroxid tank no product	%I0047	MB95-C	Low level peroxide tank
%T0055	Low lvl tank alarm in prod	%Q0104	MM018	Peroxid tank filling
%T0078	Pulse level check p-tank	%M0689	PH60	Low level tank peroxid
%T0079	Level check p-tank	%M0662	PH76	Too hi. level peroxid tank
%T0080	Level check p-tank	%M0049	POS00	Ladder pos 00
%T0102	Peroxide bath drain	%M0050	POS10	Ladder pos 10
%R0362	Delay of too high lev.perox.tank			

BLOCK: 10 PEROXIDE HANDLING



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0419		Peroxide bath level delayed	%Q0067	MY005	Peroxid bath drain.
%M0423		Drain peroxid bath	%Q0066	MY006	Peroxidbath filling drain
%M0425		Low lvl peroxid tank no product	%M0326	NOT_L21	Line L21-L20 not ok
%R0365		Peroxide bath level delayed	%M0662	PH76	Too hi. level peroxid tank
%R0500		Start seq. for prod.	%M0067	POS2080	Machine ladder pos 20-80
%I0043	A302-15	Peroxide bath level	%M0320	STARTQ	Start sequenc
%Q0017	K009	Peroxid pump			



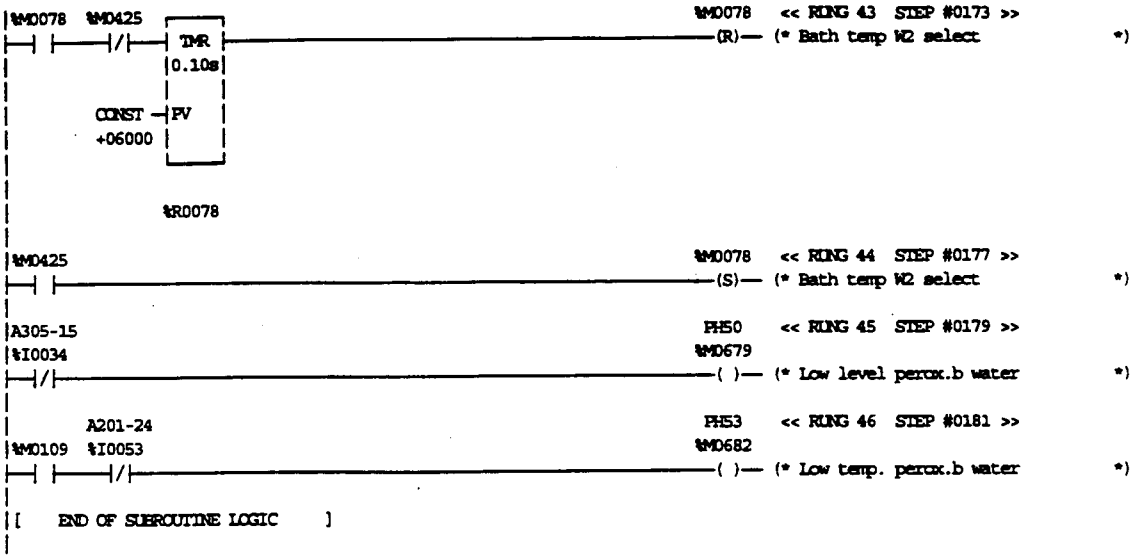
REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0169		Top fil valve time	%T0051	BTH-CHK	Peroxid bath lvl_chk 9.8 sec.
%M0421		Restore level peroxid tank	%T0002	DLY_10S	Start sequenc delay 10 sec.
%M0422		Peroxid bath full in steril.	%T0001	DLY_20S	Start sequenc delay 20 sec.
%T0054		Low lvl peroxid bath at product	%T0008	DLY_4S5	Start sequenc delay 4,5sec
%R0040		Low lvl peroxid bath pr delay	%Q0066	MY006	Peroxidbath filling drain
%R0291		Top fil valve time	%Q0078	MY108	Top fil valve perox. bath
%R0500		Start seq. for prod.	%M0052	POS30	Ladder pos 30
%I0043	A302-15	Peroxide bath level	%M0320	STARTQ	Start sequenc

BLOCK: 10 PEROXIDE HANDLING

```
                                                                    PH49    << RUNG 36  STEP #0134 >>
|%T0054                                                            %M0678
|--| |-------------------------------------------------------------( )-- (* Low level bath peroxid          *)
|                 |
|A302-15 BTH-CHK  |
|%I0043  %T0051   |
|--|/|-----| |--|  |
|                 |
|%M0422           |
|--| |------------|
|
| POS50           A302-15
|%M0054  %T0016   %I0043
|--| |-----| |-----| |--|
|        |
|        |%T0034
|        |--| |--|
|
|DLY_9S  A206-24                                                    PH52    << RUNG 37  STEP #0146 >>
|%T0009  %I0060                                                     %M0681
|--| |-----|/|-------------------------------------------------------( )-- (* Low temp. perox.              *)
|
|MB48A-B                                                            PH54    << RUNG 38  STEP #0149 >>
|%I0038                                                             %M0683
|--|/|-------------------------------------------------------------( )-- (* Bottom cover perox. bath       *)
|
|SPRY_TM          MB48A-B                                                   << RUNG 39  STEP #0151 >>
|%M0546           %I0038                                            %M0541
|--| |------------|/|-------------------------------------------------( )-- (* Bottom cover peroxid bath al  *)
|                 |
|POS5070  S004    |
|%M0068   %I0009  |
|--| |-----| |--|
|
| (*************************************************************************)
| (* Water control                                                         *)
| (*************************************************************************)
|
| POS00  RDY_CLN          A506-42 NOT_L21                           K1-K12  << RUNG 41  STEP #0158 >>
|%M0049  %M0083  %M0416   %I0064  %M0326                            %Q0034
|--|/|---|/|---|/|-------| |-----|/|-------------------------------( )-- (* Splicer contr./perox. water p  *)
|
|K1-K12  A305-15                                                    K015    << RUNG 42  STEP #0164 >>
|%Q0034  %I0034                                                     %Q0037
|--| |-----| |-------------------------------------------------------( )-- (* Peroxid bath element          *)
|                 |
|                 |                                                 K100
|                 |%M0109                                           %Q0049
|                 |--|/|-------------------------------------------( )-- (* Peroxid bath  preheat prod.  *)
|                 |        |
|                 |%M0078  |
|                 |--| |--|
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0078		Bath temp W2 select	%Q0037	K015	Peroxid bath element
%M0109		Drying after spray- ing	%Q0034	K1-K12	Splicer contr./perox. water p
%M0416		WEAC stop on	%Q0049	K100	Peroxid bath preheat prod.
%M0422		Peroxid bath full in steril.	%I0038	MB48A-B	Peroxide bath bottom cover
%M0541		Bottom cover peroxid bath al	%M0326	NOT_L21	Line L21-L20 not ok
%T0016		Step up P+	%M0678	PH49	Low level bath peroxid
%T0034		Output pulse inching	%M0681	PH52	Low temp. perox.
%T0054		Low lvl peroxid bath at product	%M0683	PH54	Bottom cover perox. bath
%I0060	A206-24	Temp monitor peroxid bath	%M0049	POS00	Ladder pos 00
%I0043	A302-15	Peroxide bath level	%M0054	POS50	Machine ladder pos 50
%I0034	A305-15	Bath, water level	%M0068	POS5070	Machine pos 50-70
%I0064	A506-42	Emerg. stop signal	%M0083	RDY_CLN	Machine pos ready for cleaning
%T0051	BTH-CHK	Peroxid bath lvl_chk 9.8 sec.	%I0009	S004	Service switch
%T0009	DLY_9S	Start sequenc delay 9sec	%M0546	SPRY_TM	Spray timer enable

BLOCK: 10 PEROXIDE HANDLING



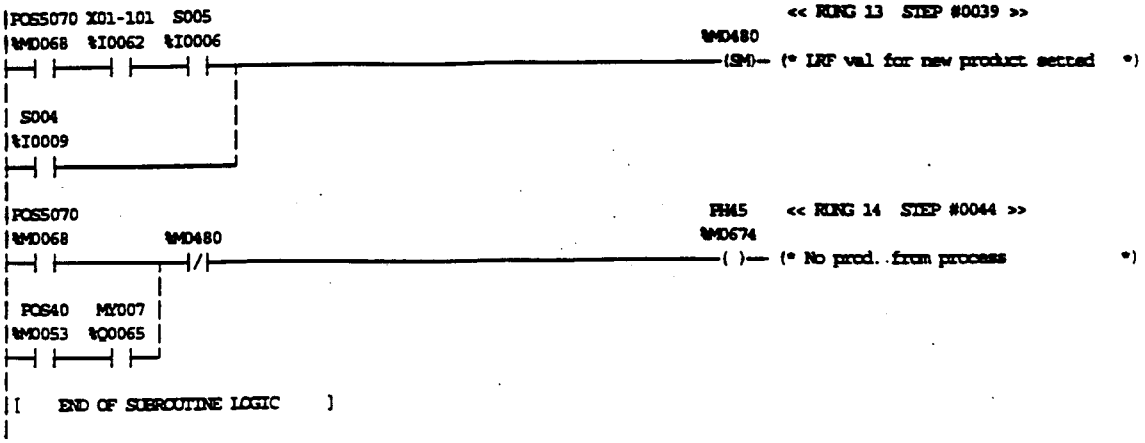
REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0078	Bath temp W2 select	%I0053	A201-24	Temp. peroxid bath w. product
%M0109	Drying after spray- ing	%I0034	A305-15	Bath, water level
%M0425	Low lvl peroxid tank no product	%M0679	PH50	Low level perox.b water
%R0078	Bath temp W2 select	%M0682	PH53	Low temp. perox.b water

BLOCK: 10 PEROXIDE HANDLING

```
|[ START LD SUBROUTINE  BLK11  ]
|
|[    VARIABLE DECLARATIONS    ]
|
|[  START OF SUBROUTINE LOGIC  ]
|
| PH3S    POS40   FLASH                                          PH4_1   << RUNG 4  STEP #0002 >>
|%MD625  %MD053  %T0052                                        %MD633
|--| |----| |----| |-------------------------------------------( )-- (* Signal to steri-lizer          *)
|                  |
| POS50  STARTQ    |
|%MD054  %MD320    |
|--| |----|/|------|
|
|X01-101                                                                << RUNG 5  STEP #0009 >>
|%I0062                                                          %MD023
|--| |-------------------------------------------------------------(SM)-- (* Man signal reciev sterili      *)
|
| K105                                                                  << RUNG 6  STEP #0011 >>
|%Q0043                                                          %MD023
|--|/|-------------------------------------------------------------(RM)-- (* Man signal reciev sterili      *)
|
| POS50                  STARTQ                                  PH4_2   << RUNG 7  STEP #0013 >>
|%MD054  %MD023          %MD320                                  %MD634
|--| |--+--| |----------+--|/|-------------------------------------( )-- (* Signal from steri- lizer       *)
|       |                |
|       | S004    PH3_1  |
|       |%I0009  %MD631  |
|       +--| |----| |---+
|
|POS5070  S004                                                          K105    << RUNG 8  STEP #0021 >>
|%MD068  %I0009                                                  %Q0043
|--| |----|/|-------------------------------------------------------( )-- (* Ready for prod.              *)
|
| S004    POS70  SHORTS                                           K106    << RUNG 9  STEP #0024 >>
|%I0009  %MD056  %MD082                                          %Q0044
|--|/|----| |----|/|-------------------------------------------------( )-- (* Ab in  product             *)
|
| MY009                                                                 K107    << RUNG 10  STEP #0028 >>
|%Q0063                                                          %Q0045
|--| |-------------------------------------------------------------( )-- (* Filling                     *)
|
| POS60  X01-101 SHORTS                                                 << RUNG 11  STEP #0030 >>
|%MD055  %I0062  %MD082                                          %MD024
|--| |--+--|/|----|/|-------------------------------------------------( )-- (* No product during prod.    *)
|       |
| POS70 |
|%MD056 |
|--| |--+
|
|X01-101 NOT_L11                                                        << RUNG 12  STEP #0035 >>
|%I0062  %MD325                                                  %MD480
|--|/|----|/|-------------------------------------------------------(RM)-- (* LRF val for new product setted *)
|
| POS00          |
|%MD049          |
|--| |-----------+
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%MD023		Man signal reciev sterili	%MD634	PH4_2	Signal from steri- lizer
%MD024		No product during prod.	%MD049	POS00	Ladder pos 00
%MD480		LRF val for new product setted	%MD053	POS40	Machine ladder pos 40
%T0052	FLASH	Panel flash contact	%MD054	POS50	Machine ladder pos 50
%Q0043	K105	Ready for prod.	%MD068	POS5070	Machine pos 50-70
%Q0044	K106	Ab in product	%MD055	POS60	Machine ladder pos 60
%Q0045	K107	Filling	%MD056	POS70	Machine ladder pos 70
%Q0063	MY009	Product valve A	%I0009	S004	Service switch
%MD325	NOT_L11	Line L11-L10 not ok	%MD082	SHORTS	Machine pos. short stop
%MD625	PH3S	Step up push buttom lamp	%MD320	STARTQ	Start sequenc
%MD631	PH3_1	Spray	%I0062	X01-101	Product at machine
%MD633	PH4_1	Signal to steri-lizer			

BLOCK: 11 SIGNAL TO STERILIZER



<< RUNG 13 STEP #0039 >>

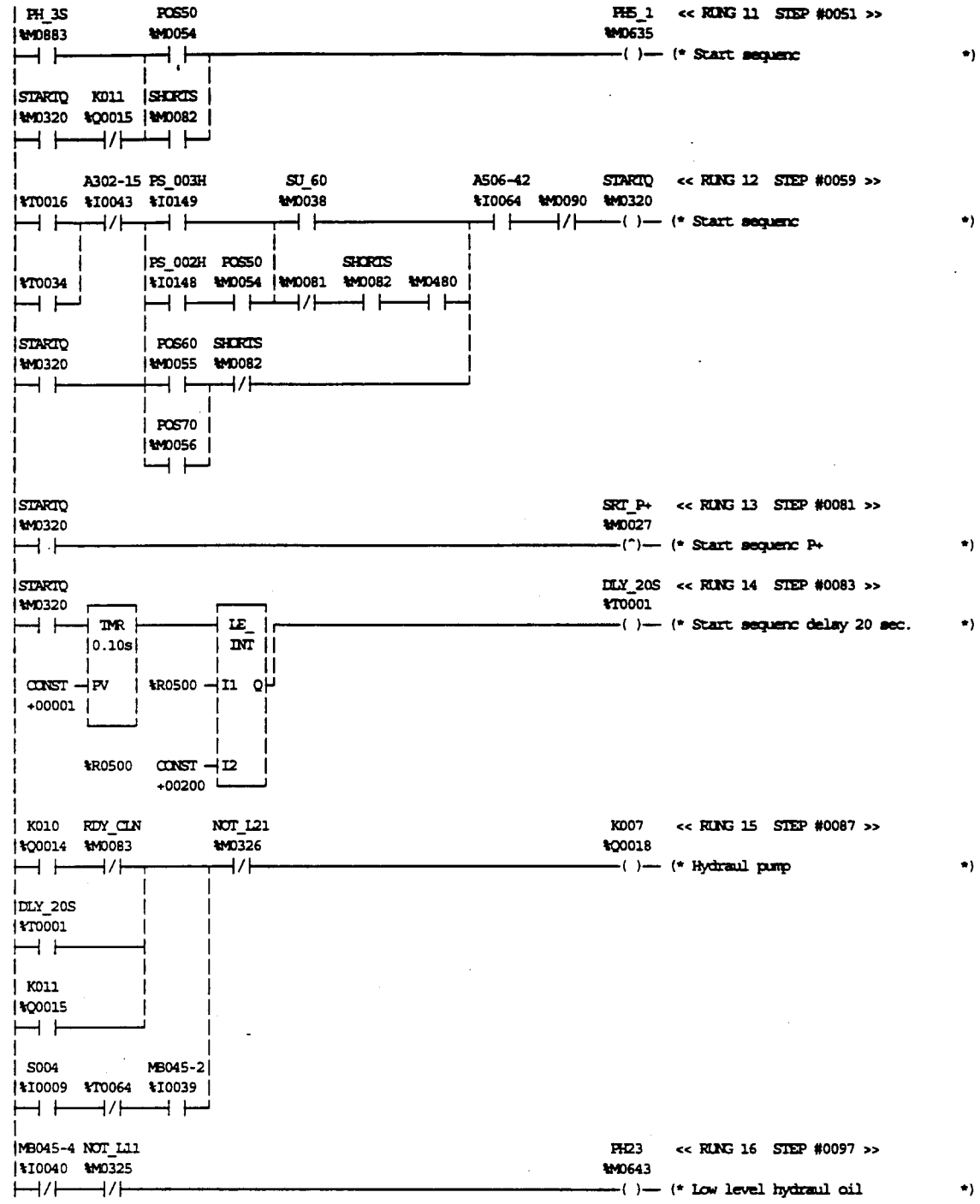
<< RUNG 14 STEP #0044 >>

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%MD480		LRF val for new product setted	%MD068	POS5070	Machine pos 50-70
%Q0065	MY007	Steam barrier valve C	%I0009	S004	Service switch
%MD674	PH45	No prod. from process	%I0006	S005	New product value
%MD053	POS40	Machine ladder pos 40	%I0062	X01-101	Product at machine

BLOCK: 11 SIGNAL TO STERILIZER

```
|[ START LD SUBROUTINE  BLK13  ]
|
|[    VARIABLE DECLARATIONS    ]
|
|[  START OF SUBROUTINE LOGIC  ]
|
| (*************************************************************************)
| (*                          Inching                                      *)
| (*************************************************************************)
|
|PS_002H PS_004H PS_006H                                          << RUNG 5  STEP #0003 >>
|%I0148  %I0150  %I0151                                    %T0034
|--| |----| |----| |-------------------------------------------(^)-- (* Output pulse inching      *)
|
| PH40    POS10                MB010        PS_002H               << RUNG 6  STEP #0007 >>
|%M0667  %M0050        %M0337  %I0132  %M0338  %I0148    %M0307
|--|/|---| |---------|/|-----|/|-----|/|---| |-----------------( )-- (* Aux.output inching      *)
|       |              |       |       |     |
|PS_007 | POS20        |       |       |     |
|%I0152 |%M0051  %M0300|       |       |     |              %M0309
|--| |---| |----|/|---|       |       |     |---------------( )-- (* Inch condi- tions        *)
|                      |       |       |
|RDY_CLN EXT_CLN INT_CLN|      |       |
|%M0083  %M0084  %M0085 |      |       |
|--| |----|/|----|/|---|      |       |
|                      |       |       |
| POS40                |       |       |
|%M0053                |       |       |
|--| |-------------------|       |       |
|                              |       |
|SHORTS                        |       |
|%M0082                        |       |
|--| |---------------------------|       |
|
|%T0113  %T0114                                    %T0114   << RUNG 7  STEP #0028 >>
|--| |----|/|-------------------------------------( )-- (* Slow flash              *)
|          |
|%T0113  %T0114 |
|--|/|----| |---|
|
| FLASH                                                     << RUNG 8  STEP #0034 >>
|%T0052                                            %T0113
|--| |-------------------------------------------------(^)-- (* Pulse slow flash       *)
|
|       PS_007   FLASH                              PH02S   << RUNG 9  STEP #0036 >>
|%M0309  %I0152  %T0052                            %M0670
|--| |---| |----| |-------------------------------( )-- (* Lamp in inching buttom    *)
|       |        |                 |
|       |PS_007  |                 |
|       |%I0152  %T0114 |          |
|       |---|/|----| |---|         |
|                                  |
| POS50   DOORS  PS_004H          FLASH |
|%M0054  %I0130  %I0150  %M0081  %T0052 |
|--| |----| |----| |----|/|----| |---|
|
| (*************************************************************************)
| (*                        Start Sequence.                                *)
| (*************************************************************************)
|
```

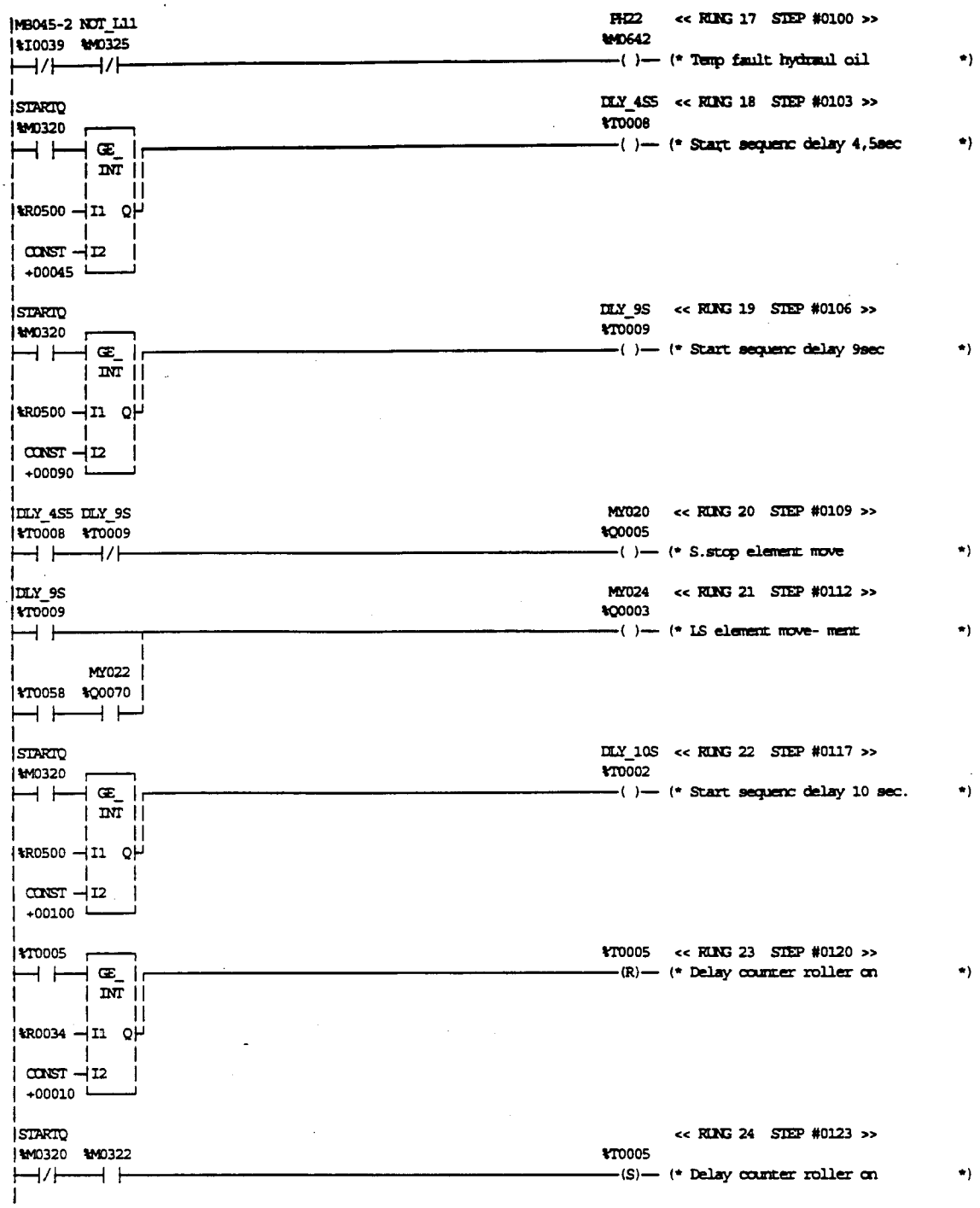
REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0081		Short stop condit.	%I0132	MB010	Crank position
%M0300		Tube sealing going on	%M0670	PH02S	Lamp in inching buttom
%M0307		Aux.output inching	%M0667	PH40	Fault IH unit S. A.
%M0309		Inch condi- tions	%M0050	POS10	Ladder pos 10
%M0337		Jaw alarm release clutch	%M0051	POS20	Ladder pos 20
%M0338		M.Motor disable & keep clutch	%M0053	POS40	Machine ladder pos 40
%T0034		Output pulse inching	%M0054	POS50	Machine ladder pos 50
%T0113		Pulse slow flash	%I0148	PS_002H	Inching
%T0114		Slow flash	%I0150	PS_004H	Step down
%I0130	DOORS	Side, FF, date, p.mag protect.	%I0151	PS_006H	Short stop push buttom
%M0084	EXT_CLN	Machine in pos. extern. clean	%I0152	PS_007	Select switch clean.
%T0052	FLASH	Panel flash contact	%M0083	RDY_CLN	Machine pos ready for cleaning
%M0085	INT_CLN	Machine pos internal cleaning	%M0082	SHORTS	Machine pos. short stop



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0081		Short stop condit.
%M0090		Machine to pos. 00 delayed
%M0480		LRF val for new product setted
%T0016		Step up P+
%T0034		Output pulse inching
%T0064		Water press. delayd
%R0500		Start seq. for prod.
%I0043	A302-15	Peroxide bath level
%I0064	A506-42	Emerg. stop signal
%T0001	DLY_20S	Start sequenc delay 20 sec.
%Q0018	K007	Hydraul pump
%Q0014	K010	Main motor low speed
%Q0015	K011	Main motor high speed
%I0039	MB045-2	Hydraul unit temperature
%I0040	MB045-4	Hydraul unit low level
%M0325	NOT_L11	Line L11-L10 not ok

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0326	NOT_L21	Line L21-L20 not ok
%M0643	PH23	Low level hydraul oil
%M0635	PH5_1	Start sequenc
%M0883	PH_3S	Step up button
%M0054	POS50	Machine ladder pos 50
%M0055	POS60	Machine ladder pos 60
%M0056	POS70	Machine ladder pos 70
%I0148	PS_002H	Inching
%I0149	PS_003H	Step up
%M0083	RDY_CLN	Machine pos ready for cleaning
%I0009	S004	Service switch
%M0082	SHORTS	Machine pos. short stop
%M0027	SRT_P+	Start sequenc P+
%M0320	STARTQ	Start sequenc
%M0038	SU_60	Ok to step to pos 60 start

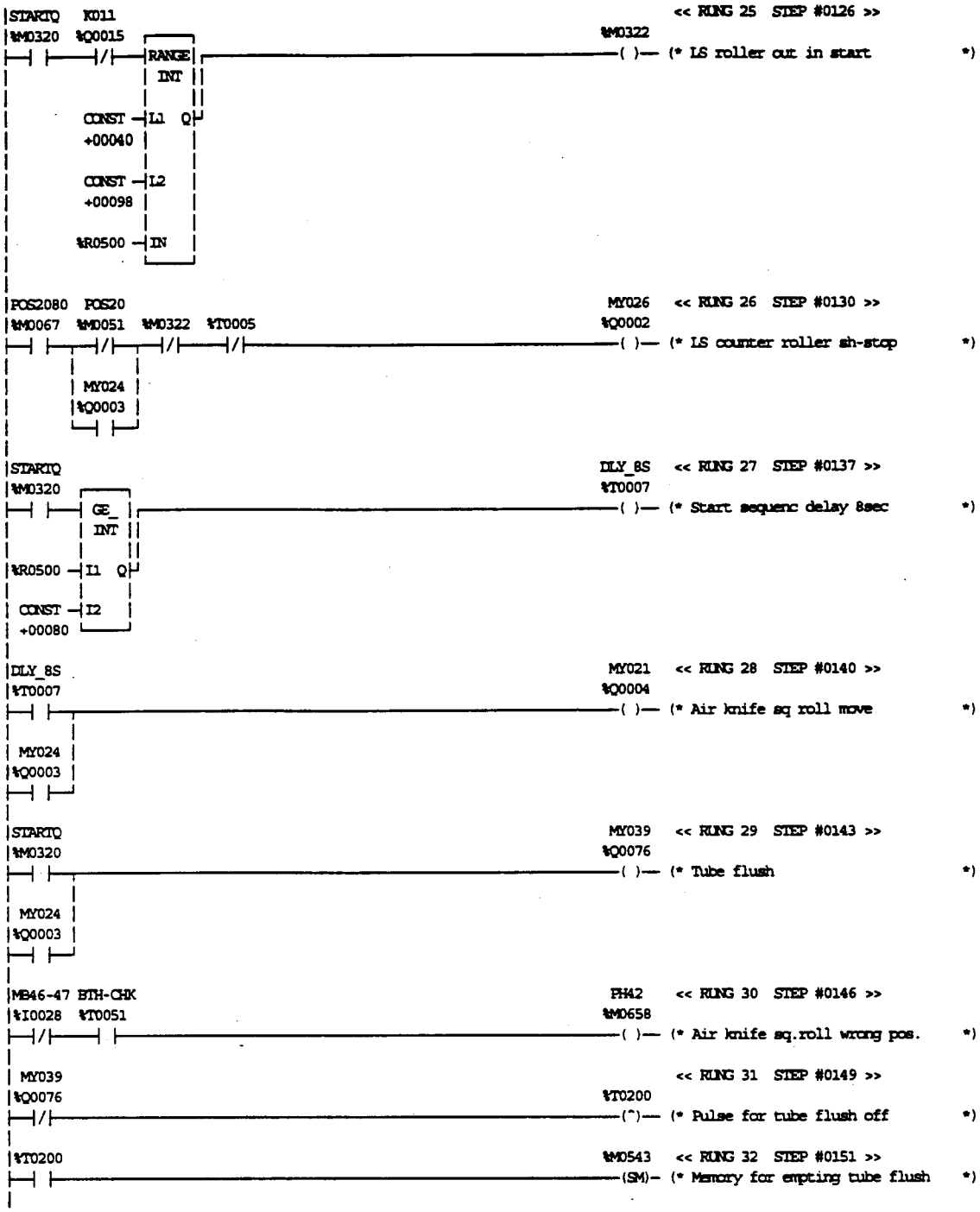
BLOCK: 13 START SEQUENCE



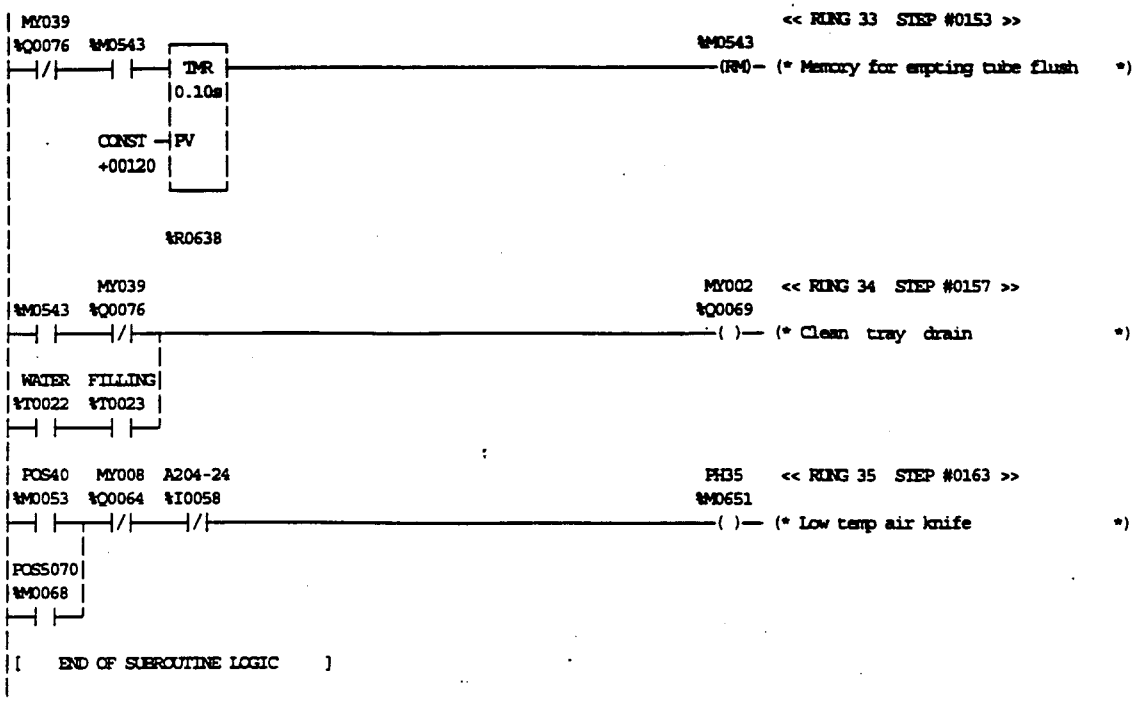
REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0322		LS roller out in start
%T0005		Delay counter roller on
%T0058		Delayd start high speed
%R0034		Drain. bath time
%R0500		Start seq. for prod.
%T0002	DLY_10S	Start sequenc delay 10 sec.
%T0008	DLY_4S5	Start sequenc delay 4,5sec
%T0009	DLY_9S	Start sequenc delay 9sec

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%I0039	MB045-2	Hydraul unit temperature
%Q0005	MY020	S.stop element move
%Q0070	MY022	Clutch main machine
%Q0003	MY024	LS element move- ment
%M0325	NOT_L11	Line L11-L10 not ok
%M0642	PH22	Temp fault hydraul oil
%M0320	STARTQ	Start sequenc

BLOCK: 13 START SEQUENCE



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0322		LS roller out in start	%Q0004	MY021	Air knife sq roll move
%M0543		Memory for empting tube flush	%Q0003	MY024	LS element move- ment
%T0005		Delay counter roller on	%Q0002	MY026	LS counter roller sh-stop
%T0200		Pulse for tube flush off	%Q0076	MY039	Tube flush
%R0500		Start seq. for prod.	%M0658	PH42	Air knife sq.roll wrong pos.
%T0051	BTH-CHK	Peroxid bath lvl_chk 9.8 sec.	%M0051	POS20	Ladder pos 20
%T0007	DLY_8S	Start sequenc delay 8sec	%M0067	POS2080	Machine ladder pos 20-80
%Q0015	K011	Main motor high speed	%M0320	STARTQ	Start sequenc
%I0028	MB46-47	Pos.squegee roller air knife			



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0543		Memory for empting tube flush	%Q0076	MY039	Tube flush
%R0638		Time of empting tube flush	%M0651	PH35	Low temp air knife
%I0058	A204-24	Temp air knives	%M0053	POS40	Machine ladder pos 40
%T0023	FILLING	Filling check cleaning tray	%M0068	POS5070	Machine pos 50-70
%Q0069	MY002	Clean tray drain	%T0022	WATER	Hot water
%Q0064	MY008	Sterile air valve B			

```
|[  START LD SUBROUTINE   BLK14   ]
|
|[     VARIABLE DECLARATIONS      ]
|
|[   START OF SUBROUTINE LOGIC    ]
|
| POS60                                                                PH5_2   << RUNG 4  STEP #0002 >>
|%M0055                                                               %M0636
+--] [------------------+-------------------------------------------( )-- (* Drive motor on                *)
|                       |
| POS70  EXT_CLN  K010  |
|%M0056  %M0084  %Q0014 |
+--]/[-----]/[--+--] [--+
|               |      |
|               | K011 |
|               |%Q0015|
|               +--] [--+
|
|DLY_10S PS_002H                                                       DLY_30S  << RUNG 5  STEP #0010 >>
|%T0002  %I0148  +------+                                             %T0088
+--] [-----]/[---+OFDT +-------------------------------------------( )-- (* Conveyor delay off 30 sec.    *)
|               |0.10s|
|               |     |
|        CONST -+PV   |
|        +00300 |     |
|               +-----+
|
|               %R0587
|
|DLY_30S NOT_L21                                                        K013    << RUNG 6  STEP #0014 >>
|%T0088  %M0326                                                       %Q0020
+--] [-----]/[-------------------------------------------------------( )-- (* Start conveyor              *)
|
| K013   X01-119                                                               << RUNG 7  STEP #0017 >>
|%Q0020  %I0050  +------+                                             %M0149
+--] [--+--] [---+ TMR +-------------------------------------------( )-- (* Queue conveyor memory        *)
|       |        |0.10s|
| POS50 |        |     |
|%M0054 |        |     |
+--] [--+ CONST -+PV   |
|        +00050 |     |
|               +-----+
|
|               %R0731
|
|                                                                      PH63    << RUNG 8  STEP #0022 >>
|%M0149                                                               %M0692
+--] [--+-------------------------------------------------------------( )-- (* Queue conveyor and outfeeder  *)
|       |
|%M0154 |
+--] [--+
|
| POS00                                                                K017    << RUNG 9  STEP #0025 >>
|%M0049  %M0416                                                       %Q0026
+--]/[-----]/[-------------------------------------------------------( )-- (* Power unreel motor, paper    *)
|
| MB024   K011    MY022                                                        << RUNG 10  STEP #0028 >>
|%I0017  %Q0015  %Q0070                                               %M0072
+--]/[--+--] [-----] [-------------------------------------------------( )-- (* Aux low speed paper supply    *)
|       |
|%M0072 |
+--] [--+
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0072		Aux low speed paper supply	%Q0026	K017	Power unreel motor, paper
%M0149		Queue conveyor memory	%I0017	MB024	Unreeling motor control speed
%M0154		Overload outfeed FF	%Q0070	MY022	Clutch main machine
%M0416		WEAC stop on	%M0326	NOT_L21	Line L21-L20 not ok
%R0587		Stop con- veyor	%M0636	PH5_2	Drive motor on
%R0731		Delay alarm conv. que.	%M0692	PH63	Queue conveyor and outfeeder
%T0002	DLY_10S	Start sequenc delay 10 sec.	%M0049	POS00	Ladder pos 00
%T0088	DLY_30S	Conveyor delay off 30 sec.	%M0054	POS50	Machine ladder pos 50
%M0084	EXT_CLN	Machine in pos. extern. clean	%M0055	POS60	Machine ladder pos 60
%Q0014	K010	Main motor low speed	%M0056	POS70	Machine ladder pos 70
%Q0015	K011	Main motor high speed	%I0148	PS_002H	Inching
%Q0020	K013	Start conveyor	%I0050	X01-119	Congestion FF

BLOCK: 14 MAIN MOTOR, BENDING ROLLER ETC.

```
| MB024                                                                  A402-29  << RUNG 11  STEP #0033 >>
|%I0017  %M0072                                                          %Q0095
+--] [-----] [--+-------------------------------------------------------( )-- (* Low speed paper supply          *)
|               |
| MB024   MY022 |
|%I0017  %Q0070 |
+--]/[-----]/[--+
|
| MB024                                                                  A402-28  << RUNG 12  STEP #0039 >>
|%I0017                                                                  %Q0094
+--]/[-------------------------------------------------------------------( )-- (* High speed paper supply         *)
|
|%M0300                 %M0337                                           %M0306   << RUNG 13  STEP #0041 >>
+--] [----------+-------+--]/[-----------------------------------------( )-- (* Aux. output clutch              *)
|               |       |
|STARTQ         |       |
|%M0320  %M0304 |       |
+--] [-----] [--+       |
|               |       |
|EXT_CLN        |       |
|%M0084         |       |
+--] [----------+       |
|                       |
|SHORTS   POS40         |
|%M0082  %M0053  %M0307 |
+--]/[-----]/[-----] [--+
|                       |
|SHORTS                 |
|%M0082  %M0306  %T0058 |
+--]/[-----] [-----] [--+
|
|                MB010                                                    MY022   << RUNG 14  STEP #0056 >>
|%M0306  %M0338  %I0132                                                   %Q0070
+--]/[-----]/[-----]/[-------------------------------------------------------(/)-- (* Clutch main machine          *)
|
| K011                                                                                  << RUNG 15  STEP #0060 >>
|%Q0015  +-----+                                                          %T0059
+--]/[---+ TMR +-------------------------------------------------------( )-- (* Off delay high speed           *)
|        |0.01s|
|        |     |
| CONST -+PV   |
| +00700 |     |
|        +-----+
|
|        %R0049
|
|        EXT_CLN                                                                        << RUNG 16  STEP #0063 >>
|%T0059  %M0084                +-----+                                    %T0060
+--] [--+--] [----------+-------+ TMR +-----------------------------------( )-- (* Start delay low speed         *)
|       |                |       |0.10s|
|       |PS_007          |       |     |
|       |%I0152  %M0307  |       |     |
|       +--]/[-----] [--+ CONST -+PV   |
|                       +00004 |     |
|                              +-----+
|
|                              %R0058
|
```

REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME		REFERENCE DESCRIPTION
%M0072	Aux low speed paper supply	%Q0094	A402-28	High speed paper supply
%M0300	Tube sealing going on	%Q0095	A402-29	Low speed paper supply
%M0304	Sync FF/MM at start prod.	%M0084	EXT_CLN	Machine in pos. extern. clean
%M0306	Aux. output clutch	%Q0015	K011	Main motor high speed
%M0307	Aux.output inching	%I0132	MB010	Crank position
%M0337	Jaw alarm release clutch	%I0017	MB024	Unreeling motor control speed
%M0338	M.Motor disable & keep clutch	%Q0070	MY022	Clutch main machine
%T0058	Delayd start high speed	%M0053	POS40	Machine ladder pos 40
%T0059	Off delay high speed	%I0152	PS_007	Select switch clean.
%T0060	Start delay low speed	%M0082	SHORTS	Machine pos. short stop
%R0049	Off delay high speed	%M0320	STARTQ	Start sequenc
%R0058	Start delay low speed			

BLOCK: 14 MAIN MOTOR, BENDING ROLLER ETC.

```
|              STARTQ   MB010          NOT_L21                          K010    << RUNG 17  STEP #0071 >>
|%T0059  %M0304  %M0320  %I0132  %M0338  %M0326                         %Q0014
+--] [--+--]/[-----] [--+--]/[-----]/[-----]/[-----------------------------( )-- (* Main motor low speed          *)
|       |                |
|       |%T0060          |
|       +--] [----------+
|       |                |
|       |         K011   |
|       |%T0058   %Q0015 |
|       +--] [-----]/[--+
|
|                MB010                                                    << RUNG 18  STEP #0083 >>
|%T0061  %M0338  %I0132                                                 %T0058
+--] [--+--]/[-----]/[-----------------------------------------------------( )-- (* Delayd start high speed        *)
|       |
|DLY_10S|
|%T0002 |
+--] [--+
|       |
|%T0089 |
+--] [--+
|
|       NOT_L21                                                          K011    << RUNG 19  STEP #0089 >>
|%T0058  %M0326  +-----+                                                 %Q0015
+--] [-----]/[---+ TMR +-----------------------------------------------( )-- (* Main motor high speed          *)
|               |.001s|
|               |     |
|         CONST -+PV   |
|         +00160 |     |
|                +-----+
|
|                %R0155
|
|DLY_10S PS_002H                                                                 << RUNG 20  STEP #0093 >>
|%T0002  %I0148                                                          %T0089
+--] [-----]/[-------------------------------------------------------------(S)-- (* Stop delay main motor          *)
|
|STARTQ                                                                          << RUNG 21  STEP #0096 >>
|%M0320  %T0086  +-----+                                                 %T0089
+--]/[-----] [---->UPCTR+-----------------------------------------------(R)-- (* Stop delay main motor          *)
|               |     |
| K011          |     |
|%Q0015         |     |
+--]/[----------+R    |
|               |     |
|        %R0591 -+PV   |
|               |     |
|               +-----+
|
|               %R0590
|
| K011                                                                           << RUNG 22  STEP #0101 >>
|%Q0015                                                                  %T0089
+--]/[-------------------------------------------------------------------(R)-- (* Stop delay main motor          *)
|
```

REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME		REFERENCE DESCRIPTION
%M0304	Sync FF/MM at start prod.	%R0590		Stop delay main motor
%M0338	M.Motor disable & keep clutch	%R0591		PV Stop delay main motor
%T0058	Delayd start high speed	%T0002	DLY_10S	Start sequenc delay 10 sec.
%T0059	Off delay high speed	%Q0014	K010	Main motor low speed
%T0060	Start delay low speed	%Q0015	K011	Main motor high speed
%T0061	Start delay high speed	%I0132	MB010	Crank position
%T0086	FF chain P+	%M0326	NOT_L21	Line L21-L20 not ok
%T0089	Stop delay main motor	%I0148	PS_002H	Inching
%R0155	Main Motor high speed delay	%M0320	STARTQ	Start sequenc

BLOCK: 14 MAIN MOTOR, BENDING ROLLER ETC.

```
|PS_007                                                                << RUNG 23  STEP #0103 >>
|%I0152  %M0307          +-----+                                %T0061
+--] [-----] [--+--------+ TMR +----------------------------------------( )-- (* Start delay high speed          *)
|               |        |0.10s|
|               |        |     |
|%M0300         |        |     |
+--] [----------+ CONST -+PV   |
|                 +00010 |     |
|                        +-----+
|
|                        %R0055
|
| K010                                                          MY109   << RUNG 24  STEP #0108 >>
|%Q0014                                                        %Q0115
+--] [--+-------------------------------------------------------------( )-- (* Front hood  Locker              *)
|       |
| K011  |
|%Q0015 |
+--] [--+
|
| (*************************************************************************)
| (* SPEED DEPENDENT VALUE: SEE BLOCK 35 RUNG 5(11), REFERENCE ADDRESS %R008: *)
| (* %R014=IN7                                                             *)
| (*************************************************************************)
|
|SHORTS                                                                  << RUNG 26  STEP #0112 >>
|%M0082  +-----+                                               %M0305
+--] [---+ GE_ |+-------------------------------------------------------(SM)- (* Brake at short stop           *)
|        | INT ||
|        |     ||
|SECTOR  |     ||
|%R0100 -+I1  Q++
|        |     |
|VAR_D21 |     |
|%R0014 -+I2   |
|        +-----+
|
|SHORTS                                                                  << RUNG 27  STEP #0115 >>
|%M0082                                                        %M0305
+--]/[-----------------------------------------------------------------(RM)- (* Brake at short stop           *)
|
|%M0338  +-----+                                               %T0087   << RUNG 28  STEP #0117 >>
+--] [---+ GE_ |+-------------------------------------------------------( )-- (* Delay brake on                *)
|        | INT ||
|        |     ||
|%R0049 -+I1  Q++
|        |     |
| CONST -+I2   |
| +00008 +-----+
|
|%T0006                                                        %T0006   << RUNG 29  STEP #0120 >>
+--]/[-----------------------------------------------------------------( )-- (* Pulsing brake                 *)
|
```

REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0300	Tube sealing going on
%M0305	Brake at short stop
%M0307	Aux.output inching
%M0338	M.Motor disable & keep clutch
%T0006	Pulsing brake
%T0061	Start delay high speed
%T0087	Delay brake on
%R0049	Off delay high speed

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%R0055		Start delay high speed
%Q0014	K010	Main motor low speed
%Q0015	K011	Main motor high speed
%Q0115	MY109	Front hood Locker
%I0152	PS_007	Select switch clean.
%R0100	SECTOR	Angle sector 0-127
%M0082	SHORTS	Machine pos. short stop
%R0014	VAR_D21	Start braking at short stop

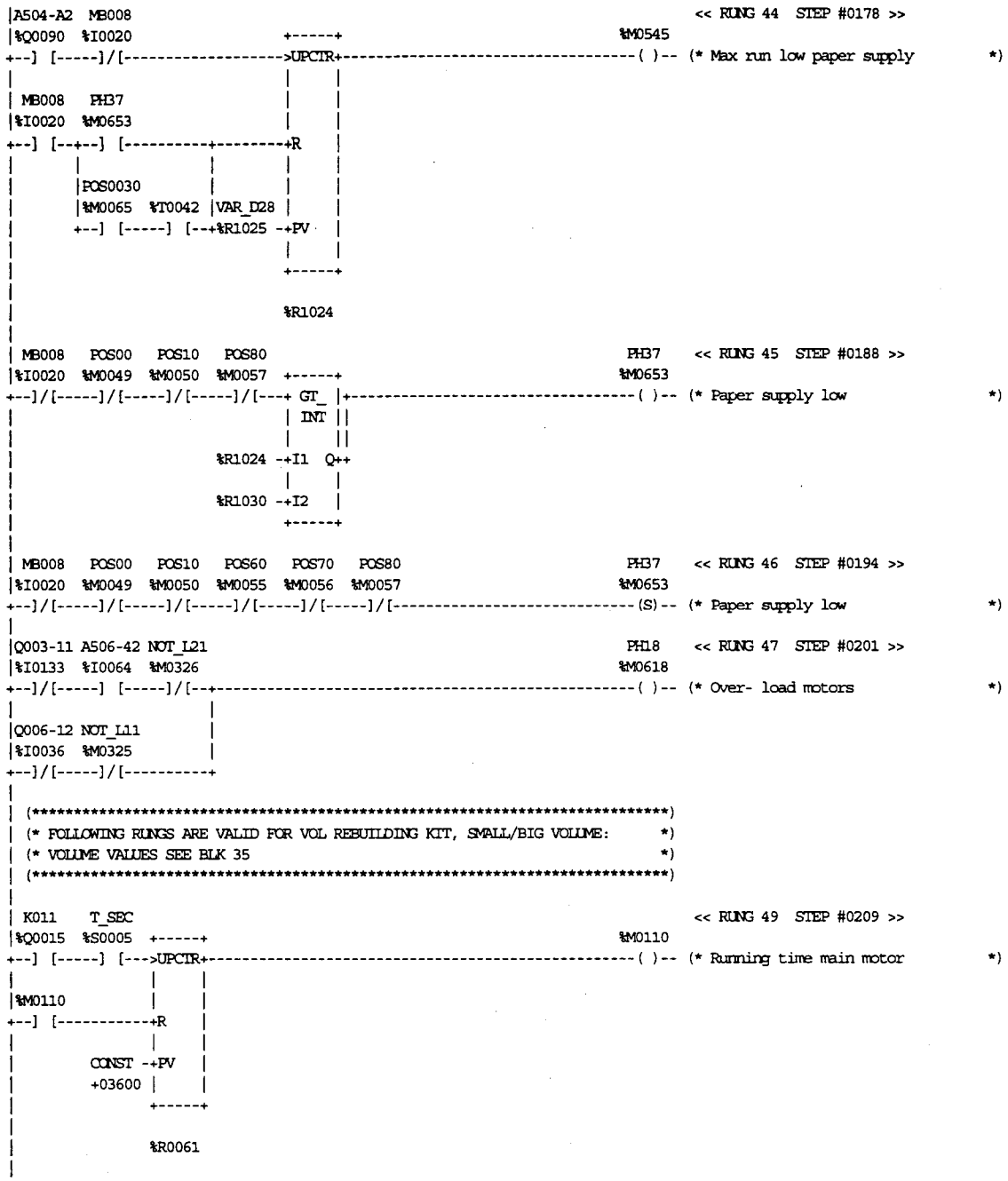
```
|                      MB010                                          MY043   << RUNG 30  STEP #0122 >>
|%M0305  %T0006  %M0306  %I0132                                      %Q0082
+--] [--+--] [--+--]/[--+--]/[-----------------------------------------( )-- (* Drive unit  brake              *)
|       |       |       |
|%M0337 |       |       |
+--] [--+       |       |
|               |       |
|%T0062         |       |
+--] [----------+       |
|                       |
|%M0338  %T0087         |
+--] [-----] [----------+
|                       |
|STARTQ  DLY_9S         |
|%M0320  %T0009         |
+--] [-----]/[----------+
|
| K011                                                                    << RUNG 31  STEP #0135 >>
|%Q0015  +-----+                                                        %T0062
+--]/[---+ GE_ |+-----------------------------------------------------------( )-- (* Delay brake on              *)
|        | INT ||
|        |     ||
|%R0049 -+I1  Q++
|        |     |
| CONST -+I2   |
| +00040 +-----+
|
|STARTQ  NOT_L21                                                         K019    << RUNG 32  STEP #0138 >>
|%M0320  %M0326                                                         %Q0012
+--] [--+--]/[-----------------------------------------------------------( )-- (* Bending roller               *)
|       |
|A001-26|
|%Q0083 |
+--] [--+
|
| MY021                                                                 A001-26  << RUNG 33  STEP #0142 >>
|%Q0004  %M0530  %M0537                                                 %Q0083
+--]/[-----]/[-----]/[-------------------------------------------------------(/)-- (* Enable Bending Roller       *)
|
| (*****************************************************************************)
| (* SPEED DEPENDENT VALUE: SEE BLOCK 35 RUNG 5(11), REFERENCE ADDRESS %R008: *)
| (* %R013=IN6                                                               *)
| (*****************************************************************************)
|
| POS70  NEWPACK                                                                  << RUNG 35  STEP #0147 >>
|%M0056  %M0018  +-----+                                                 %T0084
+--] [-----] [--->UPCTR+-----------------------------------------------------( )-- (* To high speed main motor    *)
|                |     |
|%T0085          |     |
+--] [--+--------+R    |
|       |        |     |
|DLY_10S|        |     |
|%T0002 |VAR_D20 |     |
+--]/[--+%R0013 -+PV   |
|                |     |
|                +-----+
|
|                %R1021
|
```

REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0305	Brake at short stop	%Q0083 A001-26	Enable Bending Roller
%M0306	Aux. output clutch	%T0002 DLY_10S	Start sequenc delay 10 sec.
%M0337	Jaw alarm release clutch	%T0009 DLY_9S	Start sequenc delay 9sec
%M0338	M.Motor disable & keep clutch	%Q0015 K011	Main motor high speed
%M0530	Spray paus time	%Q0012 K019	Bending roller
%M0537	Run time drying	%I0132 MB010	Crank position
%T0006	Pulsing brake	%Q0004 MY021	Air knife sq roll move
%T0062	Delay brake on	%Q0082 MY043	Drive unit brake
%T0084	To high speed main motor	%M0018 NEWPACK	New Package / drop chute off
%T0085	Monitor machine speed	%M0326 NOT_L21	Line L21-L20 not ok
%T0087	Delay brake on	%M0056 POS70	Machine ladder pos 70
%R0049	Off delay high speed	%M0320 STARTQ	Start sequenc
%R1021	To high speed main motor	%R0013 VAR_D20	Speed limit pack./min

BLOCK: 14 MAIN MOTOR, BENDING ROLLER ETC.

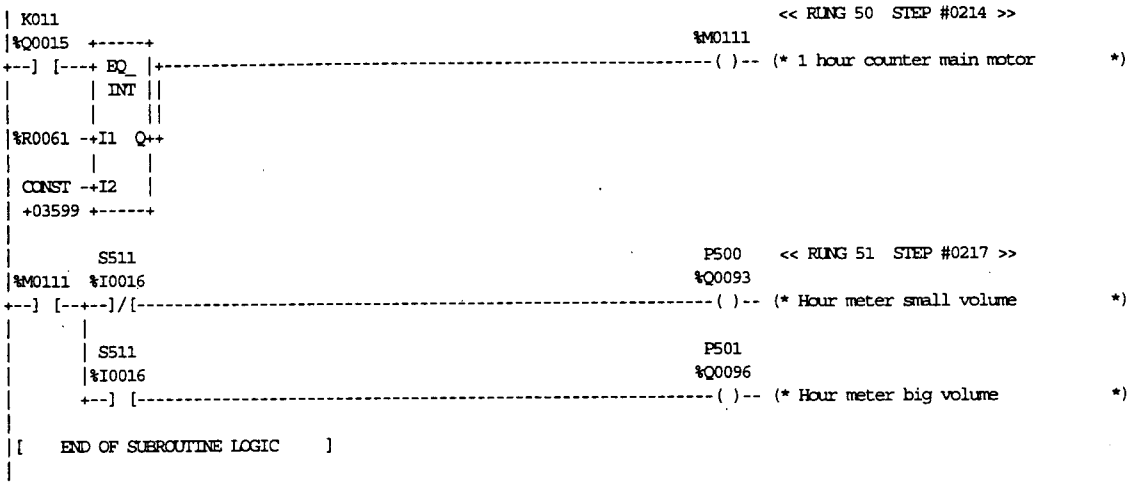
```
|DLY_10S                                                                  << RUNG 36  STEP #0153 >>
|%T0002  %T0085  +-----+                                          %T0085
+--] [-----]/[---+ TMR +-------------------------------------------( )-- (* Monitor machine speed          *)
|                |0.01s|
|                |     |
|         CONST -+PV   |
|         +05998 |     |
|                +-----+
|
|                %R0052
|
|                                                                   PH24   << RUNG 37  STEP #0157 >>
|%T0084  %T0085                                                    %M0644
+--] [-----] [-------------------------------------------------------( )-- (* Speed fault main motor          *)
|
| MB009                                                            PAPER+  << RUNG 38  STEP #0160 >>
|%I0022                                                            %T0028
+--] [-------------------------------------------------------------(^)-- (* Output puls rotation paper web  *)
|
| MB009                                                            PAPER-  << RUNG 39  STEP #0162 >>
|%I0022                                                            %T0029
+--] [-------------------------------------------------------------(v)-- (* Output puls rotation paper web  *)
|
|MB16A-B NOT_L11                                                    PH15   << RUNG 40  STEP #0164 >>
|%I0035  %M0325                                                    %M0615
+--]/[-----]/[-------------------------------------------------------( )-- (* Jaw sys. over- load.           *)
|
|RDY_CLN          K011   PAPER+  PAPER-                                   << RUNG 41  STEP #0167 >>
|%M0083  %T0090  %Q0015  %T0028  %T0029  +-----+                   %T0083
+--]/[-----] [-----] [-----]/[-----]/[---+ TMR +-------------------( )-- (* Paper web broken              *)
|                                        |0.10s|
|                                        |     |
|                                 CONST -+PV   |
|                                 +00007 |     |
|                                        +-----+
|
|                                        %R0569
|
|                                                                   PH38   << RUNG 42  STEP #0174 >>
|%T0083                                                            %M0654
+--] [--+-----------------------------------------------------------( )-- (* Paper web fault              *)
|       |
| MB025 |
|%I0018 |
+--] [--+
|
| (*************************************************************************)
| (* VOLUME DEPENDENT VALUE: SEE BLOCK 35 RUNG 8 (14).                    *)
| (*************************************************************************)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%T0083		Paper web broken	%I0018	MB025	Unreeling motor guard
%T0084		To high speed main motor	%I0035	MB16A-B	Jaw system overload
%T0085		Monitor machine speed	%M0325	NOT_L11	Line L11-L10 not ok
%T0090		Delay rotat. monitor	%T0028	PAPER+	Output puls rotation paper web
%R0052		Monitor machine speed	%T0029	PAPER-	Output puls rotation paper web
%R0569		Delay alarm paper	%M0615	PH15	Jaw sys. over- load.
%T0002	DLY_10S	Start sequenc delay 10 sec.	%M0644	PH24	Speed fault main motor
%Q0015	K011	Main motor high speed	%M0654	PH38	Paper web fault
%I0022	MB009	Paper web monitor	%M0083	RDY_CLN	Machine pos ready for cleaning



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0110		Running time main motor	%M0618	PH18	Over- load motors
%M0545		Max run low paper supply	%M0653	PH37	Paper supply low
%T0042		P+ Step up aux	%M0049	POS00	Ladder pos 00
%R0061		Main motor, seconds	%M0065	POS0030	Machine ladder pos 00-30
%R1024		Low supply paper	%M0050	POS10	Ladder pos 10
%R1030		Paper supply, start count down	%M0055	POS60	Machine ladder pos 60
%Q0090	A504-A2	Package counter infeed	%M0056	POS70	Machine ladder pos 70
%I0064	A506-42	Emerg. stop signal	%M0057	POS80	Machine ladder pos 80
%Q0015	K011	Main motor high speed	%I0133	Q003-11	Over- load protec. motors
%I0020	MB008	Paper supply	%I0036	Q006-12	Overload prot. compres motor
%M0325	NOT_L11	Line L11-L10 not ok	%S0005	T_SEC	
%M0326	NOT_L21	Line L21-L20 not ok	%R1025	VAR_D28	Paper supply package counter

BLOCK: 14 MAIN MOTOR, BENDING ROLLER ETC.

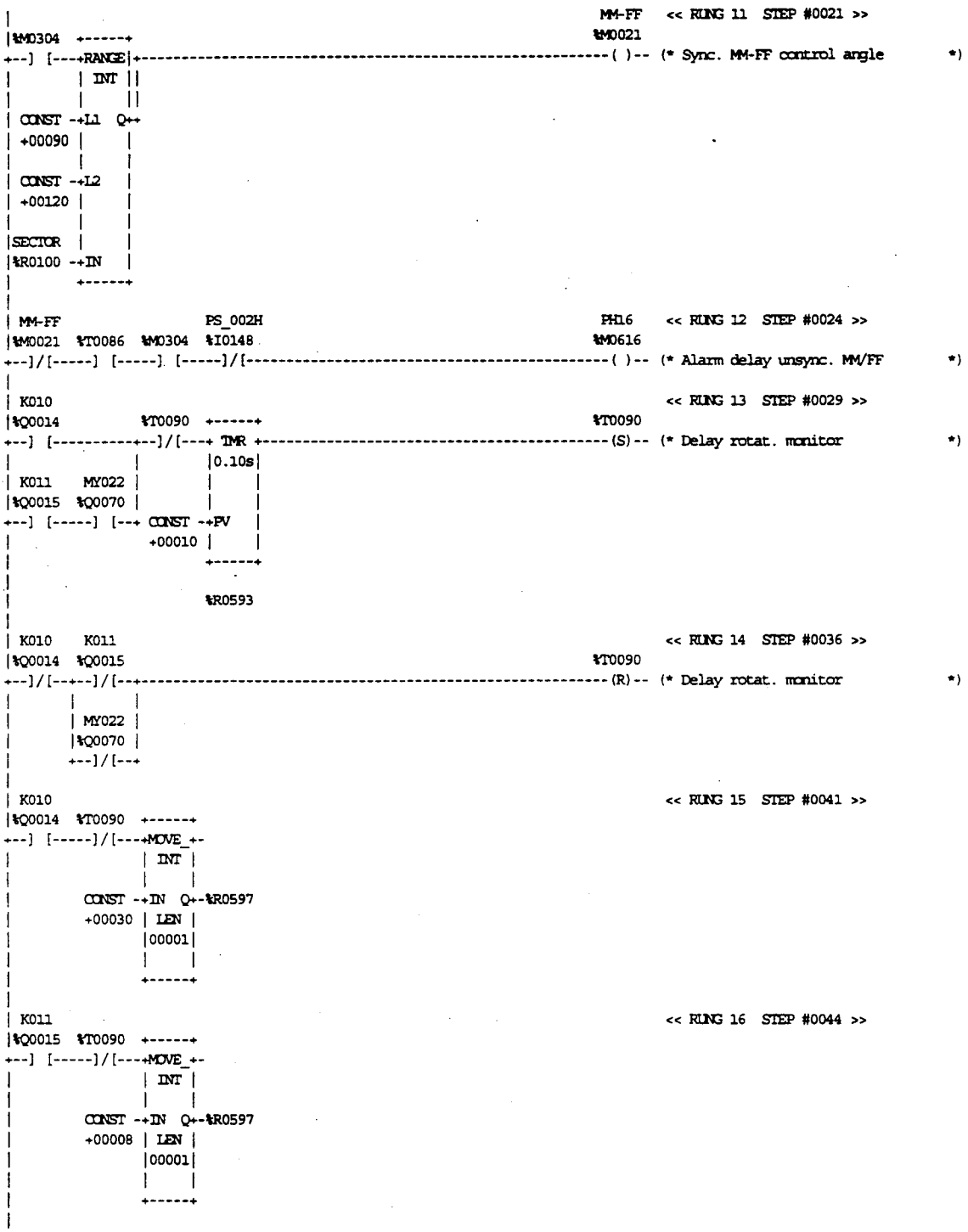


REFERENCE NICKNAME		REFERENCE DESCRIPTION	REFERENCE NICKNAME		REFERENCE DESCRIPTION
%M0111		1 hour counter main motor	%Q0093	P500	Hour meter small volume
%R0061		Main motor, seconds	%Q0096	P501	Hour meter big volume
%Q0015	K011	Main motor high speed	%I0016	S511	Selector small / big volume

BLOCK: 14 MAIN MOTOR, BENDING ROLLER ETC.

```
|[ START LD SUBROUTINE  BLK15  ]
|
|[    VARIABLE DECLARATIONS    ]
|
|[  START OF SUBROUTINE LOGIC  ]
|
| MB020                                                              << RUNG 4  STEP #0002 >>
|%I0069                                                        %T0086
+--] [-------------------------------------------------------------(^)-- (* FF chain P+                  *)
|
| (*************************************************************************)
| (* SPEED DEPENDENT VALUE: SEE BLOCK 35 RUNG 5(11), REF. ADDRESS %R0170:  *)
| (* %R0174=IN5                                                           *)
| (*************************************************************************)
|
|SRT_P+                                                              << RUNG 6  STEP #0005 >>
|%M0027  +------+                +------+
+--] [---+ MUL_+----------------+ ADD_+-
|        | INT |                | INT |
|        |     |                |     |
|SECTOR  |     |                |     |
|%R0100 -+I1  Q+-%R1031  %R1031 -+I1  Q+-%R1032
|        |     |                |     |
|VAR_D05 |     |                |     |
|%R0174 -+I2   |          CONST -+I2   |
|        +------+          +00300 +------+
|
|        STARTQ                                                      << RUNG 7  STEP #0008 >>
|%M0304  %M0320  +------+                                     %T0066
+--]/[-----] [---+ TMR +-------------------------------------------( )-- (* Delay ready sync. MM/FF      *)
|               |0.10s|
|               |     |
|         CONST -+PV   |
|         +00007 |     |
|                +------+
|
|                %R0662
|
|%T0066  %T0086                                               %M0087   << RUNG 8  STEP #0012 >>
+--] [-----] [-------------------------------------------------(SM)- (* Ready for sync  FF/MM          *)
|
|%M0087  +------+                                             %M0304   << RUNG 9  STEP #0015 >>
+--] [---+ TMR ++-------------------------------------------------(SM)- (* Sync FF/MM at start prod.     *)
|        |.001s||
|        |     ||
|        |     ||                                             %M0087
|%R1032 -+PV   |+-------------------------------------------------(RM)- (* Ready for sync  FF/MM          *)
|        |     |
|        +------+
|
|        %R1027
|
|STARTQ                                                              << RUNG 10  STEP #0019 >>
|%M0320                                                       %M0304
+--]/[-------------------------------------------------------------(RM)- (* Sync FF/MM at start prod.     *)
|
```

REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0087	Ready for sync FF/MM	%R1032	Syncronization position MM/FF
%M0304	Sync FF/MM at start prod.	%I0069 MB020	Final folder chain pos.
%T0066	Delay ready sync. MM/FF	%R0100 SECTOR	Angle sector 0-127
%T0086	FF chain P+	%M0027 SRT_P+	Start sequenc P+
%R0662	Delay unsync. FF/MM	%M0320 STARTQ	Start sequenc
%R1027	Position FF msec	%R0174 VAR_D05	Syncroniztion FF speed
%R1031	Position MM msec		



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0304		Sync FF/MM at start prod.	%Q0015	K011	Main motor high speed
%T0086		FF chain P+	%M0021	MM-FF	Sync. MM-FF control angle
%T0090		Delay rotat. monitor	%Q0070	MY022	Clutch main machine
%R0593		Start delay rotat. monitor	%M0616	PH16	Alarm delay unsync. MM/FF
%R0597		Delay time FF rotat. monitor	%I0148	PS_002H	Inching
%Q0014	K010	Main motor low speed	%R0100	SECTOR	Angle sector 0-127

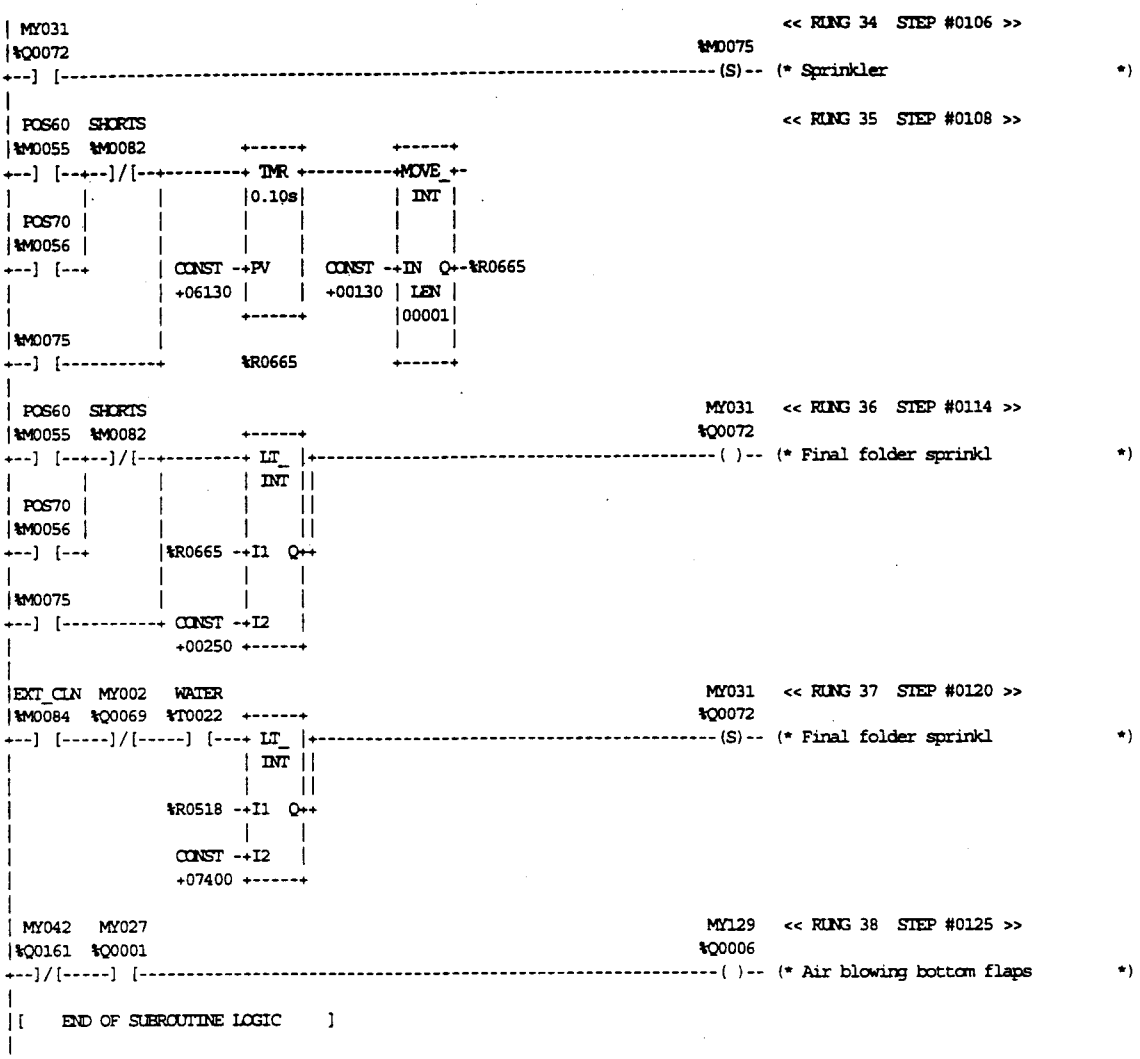
BLOCK: 15 FINAL FOLDER

```
| K010                                                                    PH61    << RUNG 17  STEP #0047 >>
|%Q0014  %T0090  %T0086  +------+                                        %M0690
+--] [--+--] [-----]/[---+ TMR +-----------------------------------------( )-- (* Rotat. fault FF              *)
|       |               |0.10s|
| K011  |               |     |
|%Q0015 |               |     |
+--] [--+       %R0597 -+PV   |
|                       |     |
|                       +-----+
|
|                       %R0596
|
| (*************************************************************************)
| (*                      Infeed & Outfeed Condition.                      *)
| (*************************************************************************)
|
| MB044                                                                   CONGEST  << RUNG 19  STEP #0054 >>
|%I0021                                                                   %T0031
+--] [-----------------------------------------------------------------(^)-- (* Out puls infeed congestion      *)
|
| POS70  SHORTS   MY027  CONGEST                                          PH59    << RUNG 20  STEP #0056 >>
|%M0056  %M0082  %Q0001  %T0031  +------+                                 %M0688
+--] [-----]/[-----] [-----]/[---+ TMR +-----------------------------------( )-- (* Final folder infeed congest  *)
|                                |0.10s|
|                                |     |
|                         CONST -+PV   |
|                         +00012 |     |
|                                +-----+
|
|                                %R0659
|
| MB119                                                                                   << RUNG 21  STEP #0062 >>
|%I0123                                                                   %T0096
+--] [-----------------------------------------------------------------(^)-- (* Over-load outfeed FF P+        *)
|
| MB119                                                                                   << RUNG 22  STEP #0064 >>
|%I0123                                                                   %T0097
+--] [-----------------------------------------------------------------(v)-- (* Over-load outfeed FF P-        *)
|
|                 K011                                                                    << RUNG 23  STEP #0066 >>
|%T0090  %T0096  %Q0015                 +------+                          %M0154
+--] [-----]/[--+--] [----------+--------+ TMR +-------------------------(SM)- (* Overload outfeed FF           *)
|               |                |        |0.01s|
|               | K010           |        |     |
|               |%Q0014  %T0097  |        |     |
|               +--] [-----]/[---+ CONST -+PV   |
|                                 +00070 |     |
|                                        +-----+
|
|                                        %R0344
|
|%T0096           +------+                                                %M0154   << RUNG 24  STEP #0075 >>
+--] [--+---------+ GE_  |+-----------------------------------------------(RM)- (* Overload outfeed FF           *)
|       |         | INT ||
|       |         |     ||
|%T0097 |         |     ||
+--] [--+%R0587 -+I1  Q++
|               |     |
|         CONST -+I2   |
|         +00015 +------+
|
| MB118                                                                   PH77    << RUNG 25  STEP #0079 >>
|%I0122                                                                   %M0664
+--]/[-----------------------------------------------------------------( )-- (* FF pusher                     *)
```

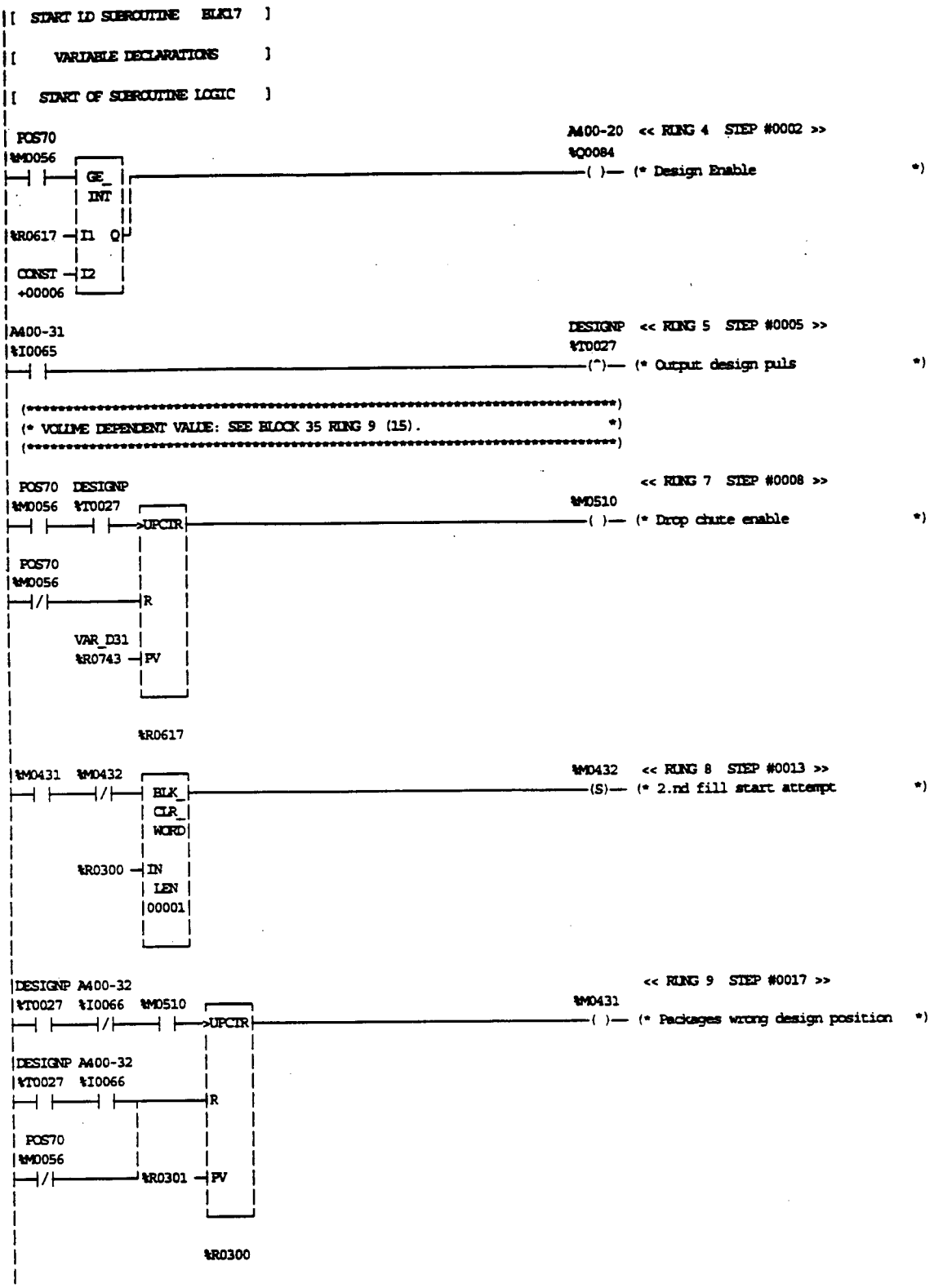
REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0154		Overload outfeed FF	%Q0014	K010	Main motor low speed
%T0086		FF chain P+	%Q0015	K011	Main motor high speed
%T0090		Delay rotat. monitor	%I0021	MB044	Infeed congestion
%T0096		Over-load outfeed FF P+	%I0122	MB118	Over- load pusher FF
%T0097		Over-load outfeed FF P-	%I0123	MB119	Over- load outfeed FF
%R0344		Delay overload outfeed FF	%Q0001	MY027	Drop chute valve
%R0587		Stop con- veyor	%M0688	PH59	Final folder infeed congest
%R0596		FF rotat. monitor	%M0690	PH61	Rotat. fault FF
%R0597		Delay time FF rotat. monitor	%M0664	PH77	FF pusher
%R0659		Delay congest monitor	%M0056	POS70	Machine ladder pos 70
%T0031	CONGEST	Out puls infeed congestion	%M0082	SHORTS	Machine pos. short stop

```
| (*************************************************************************)
| (*                          Flaps Handling.                              *)
| (*************************************************************************)
|
| POS40   K011                                                  MY042   << RUNG 27  STEP #0082 >>
|%M0053  %Q0015  %T0086                                        %Q0161
+--] [--+--] [-----] [-------------------------------------------------(SM)- (* Pressur device                *)
|       |
|POS5080|
|%M0069 |
+--] [--+
|
| MY042                                                         MY042   << RUNG 28  STEP #0087 >>
|%Q0161  +------+                                              %Q0161
+--] [---+ TMR +-------------------------------------------------------(RM)- (* Pressur device                *)
|        |0.01s|
|        |     |
| CONST -+PV   |
| +00027 |     |
|        +------+
|
|        %R1036
|
| MY042                                                         MY041   << RUNG 29  STEP #0090 >>
|%Q0161  +------+                                              %Q0077
+--] [---+ GE_  |+-------------------------------------------------------( )-- (* Pull down device             *)
|        | INT ||
|        |     ||
|%R1036 -+I1  Q++
|        |     |
| CONST -+I2   |
| +00015 +------+
|
|                                                               FLAPAIR  << RUNG 30  STEP #0093 >>
|%M0108  +------+                                              %T0091
+--] [---+OFDT +-------------------------------------------------------( )-- (* Flap sealing air dly off5min  *)
|        |0.10s|
|        |     |
| CONST -+PV   |
| +03000 |     |
|        +------+
|
|        %R0626
|
|FLAPAIR NO_PWR                                                 MY001   << RUNG 31  STEP #0096 >>
|%T0091  %M0324                                                %Q0021
+--] [--+--]/[-------------------------------------------------------( )-- (* Flap sealing air              *)
|       |
| K008  |
|%Q0016 |
+--] [--+
|
|         MY001                                                 K018    << RUNG 32  STEP #0100 >>
|%M0108  %Q0021                                                %Q0036
+--] [-----] [-------------------------------------------------------( )-- (* Preheat 3 final folder        *)
|
|PS_020                                                                 << RUNG 33  STEP #0103 >>
|%I0154  +------+                                              %M0075
+--] [---+MOVE_+-------------------------------------------------------( )-- (* Sprinkler                    *)
|        | INT |
|        |     |
| CONST -+IN  Q+-%R0665
| +00000 | LEN |
|        |00001|
|        |     |
|        +------+
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0075		Sprinkler	%Q0036	K018	Preheat 3 final folder
%M0108		Spray full filled	%Q0021	MY001	Flap sealing air
%T0086		FF chain P+	%Q0077	MY041	Pull down device
%R0626		Delay heating off FF	%Q0161	MY042	Pressur device
%R0665		Sprinkler time	%M0324	NO_PWR	Power failure
%R1036		Press. d.off delay in FF	%M0053	POS40	Machine ladder pos 40
%T0091	FLAPAIR	Flap sealing air dly off5min	%M0069	POS5080	Machine ladder pos 50-80
%Q0016	K008	Clean system circ. pump m.	%I0154	PS_020	Station chain sprinkl
%Q0015	K011	Main motor high speed			

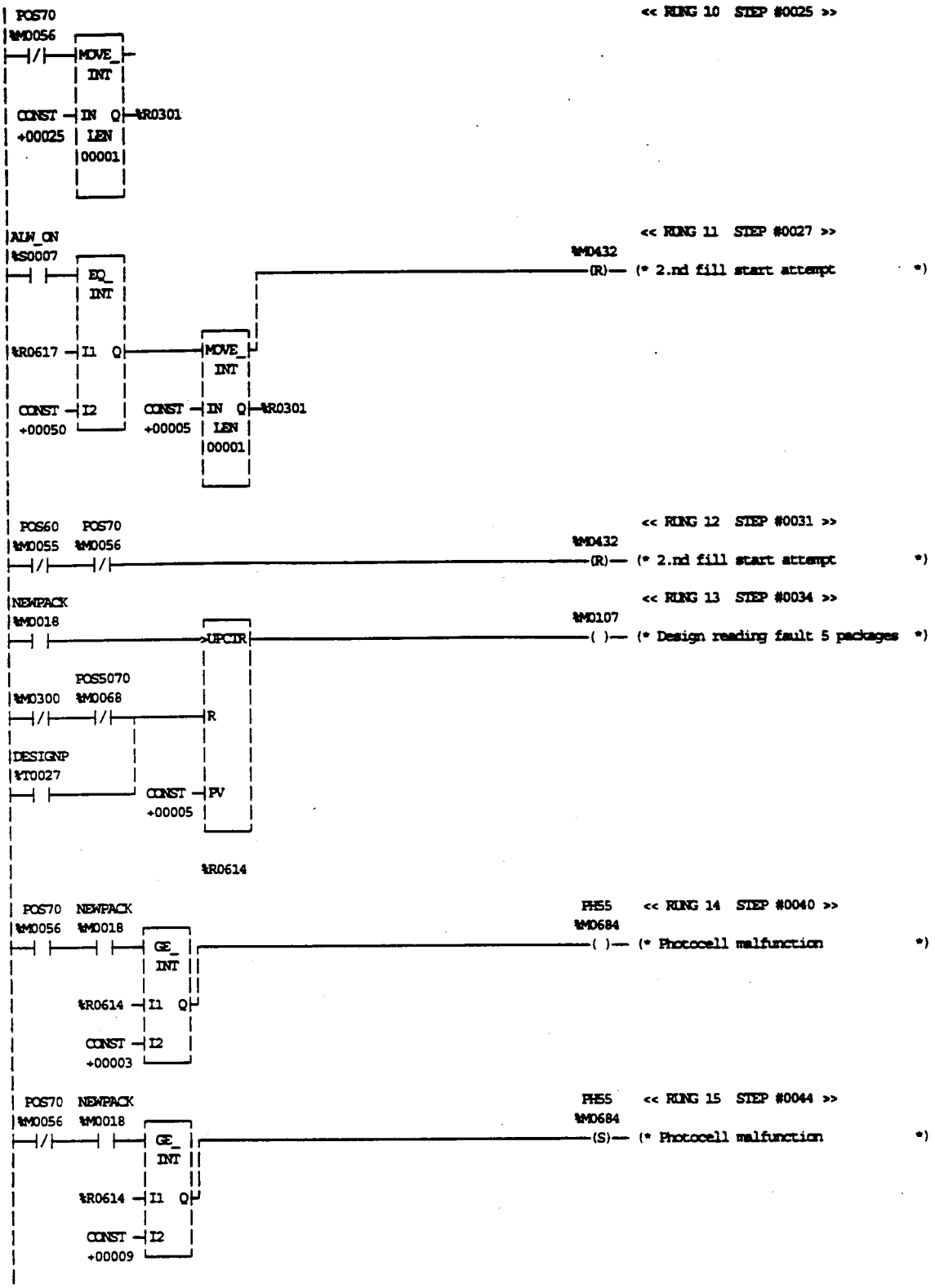


REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0075		Sprinkler
%R0518		Sq.ext.clean prg.
%R0665		Sprinkler time
%M0084	EXT_CLN	Machine in pos. extern. clean
%Q0069	MY002	Clean tray drain
%Q0001	MY027	Drop chute valve
%Q0072	MY031	Final folder sprinkl
%Q0161	MY042	Pressur device
%Q0006	MY129	Air blowing bottom flaps
%M0055	POS60	Machine ladder pos 60
%M0056	POS70	Machine ladder pos 70
%M0082	SHORTS	Machine pos. short stop
%T0022	WATER	Hot water



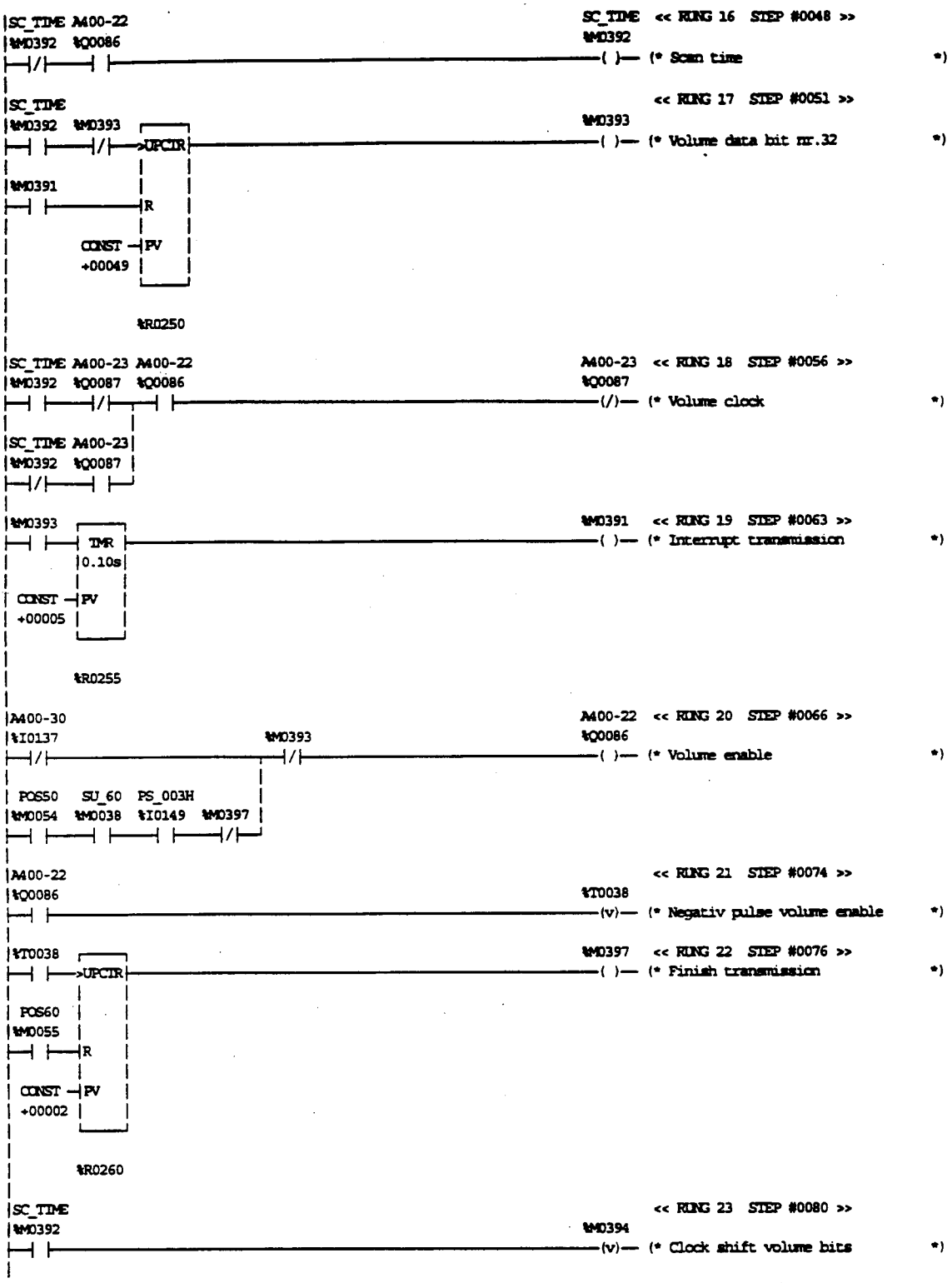
REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0431	Packages wrong design position	%Q0084	A400-20	Design Enable
%M0432	2.nd fill start attempt	%I0065	A400-31	Pulse photoc.design
%M0510	Drop chute enable	%I0066	A400-32	Design ok
%R0300	Counter design false in prod	%T0027	DESIGNP	Output design puls
%R0301	Preset no of faulty packages	%M0056	POS70	Machine ladder pos 70
%R0617	Delay time FF.rot. monitor	%R0743	VAR_D31	Drop chute enable

BLOCK: 17 DESIGN CORRECTION



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0107		Design reading fault 5 packages	%T0027	DESIGNP	Output design puls
%M0300		Tube sealing going on	%M0018	NEWPACK	New Package / drop chute off
%M0432		2.nd fill start attempt	%M0684	PH55	Photocell malfunction
%R0301		Preset no of faulty packages	%M0068	POS5070	Machine pos 50-70
%R0614		Missing design marks	%M0055	POS60	Machine ladder pos 60
%R0617		Delay time FF.rot. monitor	%M0056	POS70	Machine ladder pos 70
%S0007	ALW_ON				

BLOCK: 17 DESIGN CORRECTION



REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0391	Interrupt transmission	%Q0086	A400-22	Volume enable
%M0393	Volume data bit nr.32	%Q0087	A400-23	Volume clock
%M0394	Clock shift volume bits	%I0137	A400-30	Request volumes values
%M0397	Finish transmission	%M0054	POS50	Machine ladder pos 50
%T0038	Negativ pulse volume enable	%M0055	POS60	Machine ladder pos 60
%R0250	Counter bits volume data	%I0149	PS_003H	Step up
%R0255	Interrupt transm. time	%M0392	SC_TIME	Scan time
%R0260	Counter two transmission	%M0038	SU_60	Ok to step to pos 60 start

BLOCK: 17 DESIGN CORRECTION

```
|A400-22                                                          << RUNG 24  STEP #0082 >>
|%Q0086                                                  %T0037
|--| |-------------------------------------------------------(^)-- (* Clock data move          *)
|
| (*************************************************************************)
| (* VOLUME DEPENDENT VALUES: SEE BLOCK 35 RUNG 7 (13)                     *)
| (* %R0268, %R0269, %R0270                                               *)
| (*************************************************************************)
|
|%T0037                                                           << RUNG 26  STEP #0085 >>
|--| |--|MOVE_|-
|          | INT |
|          |     |
|VAR_D25   |     |
|%R0268 --|IN  Q|--%R0271
|          | LEN |
|          |00003|
|          |     |
|          |_____|
|
|ALW_ON                                                   A400-24 << RUNG 27  STEP #0087 >>
|%S0007                                                   %Q0088
|--| |--| BIT_|-------------------------------------------( )-- (* Volume data            *)
|          |TEST_||
|          | WORD||
|          |     ||
|%R0271 --|IN  Q|-
|          | LEN |
|          |00001|
|          |     |
| CONST --|BIT  |
|  00001   |_____|
|
|%M0394                                                           << RUNG 28  STEP #0090 >>
|--| |--| SHR_|
|          | WORD|
|          |     |
|%R0271 --|IN B2|-
|          | LEN |
|          |00003|
|          |     |
| CONST --|N   Q|--%R0271
| +00001   |     |
|ALW_OFF   |     |
|%S0008    |     |
|--| |--|B1   |
|          |_____|
|
|[    END OF SUBROUTINE LOGIC     ]
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0394		Clock shift volume bits	%Q0088	A400-24	Volume data
%T0037		Clock data move	%S0008	ALW_OFF	
%R0271			%S0007	ALW_ON	
%Q0086	A400-22	Volume enable	%R0268	VAR_D25	Repeat length register

BLOCK: 17 DESIGN CORRECTION

```
|[ START LD SUBROUTINE   BLK18  ]
|
|[    VARIABLE DECLARATIONS     ]
|
|[  START OF SUBROUTINE LOGIC   ]
|
|POS2040                                                    A310-16  << RUNG 4  STEP #0002 >>
|%M0066  %M0109                                             %Q0105
+--] [-----]/[-----------------------------------------------------------( )-- (* Steril. signal for lev.reg      *)
|
| (*************************************************************************)
| (* VOLUME DEPENDENT VALUE: SEE BLOCK 35 RUNG 8 (14)                      *)
| (*************************************************************************)
|
| MY009  DLY_10S                                            A310-10  << RUNG 6  STEP #0006 >>
|%Q0063  %T0002  +------+                                   %Q0106
+--] [-----] [---+OFDT +-----------------------------------------------( )-- (* Product signal for lev.reg      *)
|                |0.01s|
|                |     |
|         VAR_D32|     |
|         %R0298 -+PV   |
|                |     |
|                +-----+
|
|                %R0297
|
| K104                                                      A310-15  << RUNG 7  STEP #0010 >>
|%Q0046                                                     %Q0107
+--] [-------------------+-----------------------------------------------( )-- (* Clean/Open signal for lev. reg  *)
|                        |
|%M0112           %M0109 |
+--] [--+--------+--] [---+
|       |        |
|%M0167 |        |
+--] [---+       |
|                |
|         A310-15|
|%M0350   %Q0107 |
+--] [--+---] [---+
|       |
|DLY_20S|
|%T0001 |
+--] [---+
|
|STARTQ                                                                 << RUNG 8  STEP #0020 >>
|%M0320  +------+                                           %M0350
+--] [---+ GE_  |+----------------------------------------------------------(/)-- (* Start sequence 16 seconds      *)
|        | INT ||
|        |     ||
|%R0500 -+I1  Q++
|        |     |
| CONST -+I2   |
| +00160 +------+
|
| POS80  A307-15                                             PH71    << RUNG 9  STEP #0023 >>
|%M0057  %I0120                                             %M0672
+--] [--+---] [-----------------------------------------------------------( )-- (* Membran leakage alarm          *)
|       |
|%M0109 |
+--] [---+
|       |
| POS00 |
|%M0049 |
+--] [---+
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0109		Drying after spray- ing	%T0002	DLY_10S	Start sequenc delay 10 sec.
%M0112		End drying P+	%T0001	DLY_20S	Start sequenc delay 20 sec.
%M0167		LRF valve opening conditions	%Q0046	K104	Signal to cip clean
%M0350		Start sequence 16 seconds	%Q0063	MY009	Product valve A
%R0297		LRF closing delay	%M0672	PH71	Membran leakage alarm
%R0500		Start seq. for prod.	%M0049	POS00	Ladder pos 00
%I0120	A307-15	Membran leakage regulat valve	%M0066	POS2040	Machine ladder pos 20-40
%Q0106	A310-10	Product signal for lev.reg	%M0057	POS80	Machine ladder pos 80
%Q0107	A310-15	Clean/Open signal for lev. reg	%M0320	STARTQ	Start sequenc
%Q0105	A310-16	Steril. signal for lev.reg	%R0298	VAR_D32	LRF closing preset

BLOCK: 18 LEVEL REGULATED FILLING

```
| K104                                                                                    << RUNG 10  STEP #0028 >>
|%Q0046                                                                          %T0036
+--] [-------------------------------------------------------------------------(^)-- (* One shot go to intern.clean.     *)
|
|%T0036                                                                          %M0352   << RUNG 11  STEP #0030 >>
+--] [-------------------------------------------------------------------------(SM)- (* Mem.go to intern.clean.         *)
|
| MB117                                                                                  << RUNG 12  STEP #0032 >>
|%I0121                                                                          %M0352
+--] [--+---------------------------------------------------------------------(RM)- (* Mem.go to intern.clean.         *)
|       |
| POS80 |
|%M0057 |
+--]/[--+
|
| MB117   K104                                                                           << RUNG 13  STEP #0035 >>
|%I0121  %Q0046                  +------+                                        %M0354
+--]/[--+--] [----------+--------+ TMR +-----------------------------------( )-- (* Wrong pos.reg val.al. delay      *)
|       |              |        |0.10s|
|       |         POS80 |        |     |
|       |%M0354  %M0057 |        |     |
|       +--] [-----] [--+ CONST -+PV   |
|                        +00600 |     |
|                               +------+
|
|                               %R0353
|
| MB117                                                                                  << RUNG 14  STEP #0043 >>
|%I0121  %M0352                         +------+                                 %M0351
+--]/[-----] [------------------+--------+ TMR +---------------------------( )-- (* Open pos.mem regul. valve        *)
|                               |        |0.10s|
| MB117  A310-16 A310-10 A310-15|        |     |
|%I0121  %Q0105  %Q0106  %Q0107 |        |     |
+--] [-----]/[-----]/[-----]/[--+ CONST -+PV   |
|                                +00020 |     |
|                                       +------+
|
|                                       %R0356
|
| POS30          MB117                                                                   << RUNG 15  STEP #0052 >>
|%M0052  %M0109  %I0121                                                          %M0348
+--] [--+--]/[-----]/[-------------------------------------------------------( )-- (* Wrong pos.reg valve              *)
|       |
| POS40 |
|%M0053 |
+--] [--+
|
|                                                                                 PH72   << RUNG 16  STEP #0057 >>
|%M0348                                                                          %M0671
+--] [--+-------------------------------------------------------------------(M)-- (* Wrong pos.reg valve alarm        *)
|       |
|%M0351 |
+--] [--+
|       |
|%M0354 |
+--] [--+
|
| POS10  A310-03                                                                  PH75   << RUNG 17  STEP #0061 >>
|%M0050  %I0119                                                                  %M0668
+--] [-----] [--+-------------------------------------------------------------( )-- (* Floater / Design position fault  *)
|               |
|%M0431         |
+--] [----------+
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0109		Drying after spray- ing	%Q0107	A310-15	Clean/Open signal for lev. reg
%M0348		Wrong pos.reg valve	%Q0105	A310-16	Steril. signal for lev.reg
%M0351		Open pos.mem regul. valve	%Q0046	K104	Signal to cip clean
%M0352		Mem.go to intern.clean.	%I0121	MB117	Regulat valve open pos.
%M0354		Wrong pos.reg val.al. delay	%M0671	PH72	Wrong pos.reg valve alarm
%M0431		Packages wrong design position	%M0668	PH75	Floater / Design position fault
%T0036		One shot go to intern.clean.	%M0050	POS10	Ladder pos 10
%R0353		Delay wrong pos.reg val.al.	%M0052	POS30	Ladder pos 30
%R0356		Delay open pos.reg valve	%M0053	POS40	Machine ladder pos 40
%I0119	A310-03	Bottom pos. floater	%M0057	POS80	Machine ladder pos 80
%Q0106	A310-10	Product signal for lev.reg			

BLOCK: 18 LEVEL REGULATED FILLING

```
|A310-19  MY009                                                          << RUNG 18  STEP #0065 >>
|%I0117  %Q0063  %M0350                                          %M0353
+--] [--+--] [-----]/[-----------------------------------------------( )-- (* Over- filling jump pos.40       *)
|       |
|       |                                                         PH56
|       |                                                         %M0673
|       +---------------------------------------------------------( )-- (* Overfil alarm                    *)
|
| POS80  MCPOS80 NEWPACK                                                  << RUNG 19  STEP #0072 >>
|%M0057  %M0086  %M0018          +------+                         %M0167
+--] [-----] [--+--] [-----------+UPCIR+-------------------------( )-- (* LRF valve opening conditions    *)
|               |                |      |
|X01-101 POS0030|                |      |
|%I0062  %M0065 |                |      |
+--]/[-----]/[--+       +--------+R     |
|                       |        |      |
|DLY_10S PS_002H        |        |      |
|%T0002  %I0148         |        |      |
+--] [-----]/[----------+ CONST -+PV    |
|                        +00004 |      |
|                               +------+
|
|                               %R0294
|
|ALW_ON                                                                   << RUNG 20  STEP #0082 >>
|%S0007  +------+                                                 %M0168
+--]  [---+ GE_ |+-----------------------------------------------------( )-- (* "C" valve closing conditions    *)
|         | INT ||
|         |     ||
|%R0294 -+I1  Q++
|         |     |
| CONST -+I2    |
| +00008 +------+
|
|%M0167                                                           %T0147  << RUNG 21  STEP #0085 >>
+--] [-----------------------------------------------------------------(^)-- (* Main Motor new stop delay value  *)
|
|%T0147  +------+                                                         << RUNG 22  STEP #0087 >>
+--] [---+ ADD_+-
|        | INT |
|        |     |
|%R0590 -+I1  Q+-%R0591
|        |     |
| CONST -+I2    |
| +00021 +------+
|
|%M0167  +------+                                                         << RUNG 23  STEP #0089 >>
+--]/[---+MOVE_+-
|        | INT |
|        |     |
| CONST -+IN  Q+-%R0591
| +00009 | LEN |
|        |00001|
|        |     |
|        +-----+
|
|[    END OF SUBROUTINE LOGIC     ]
|
```

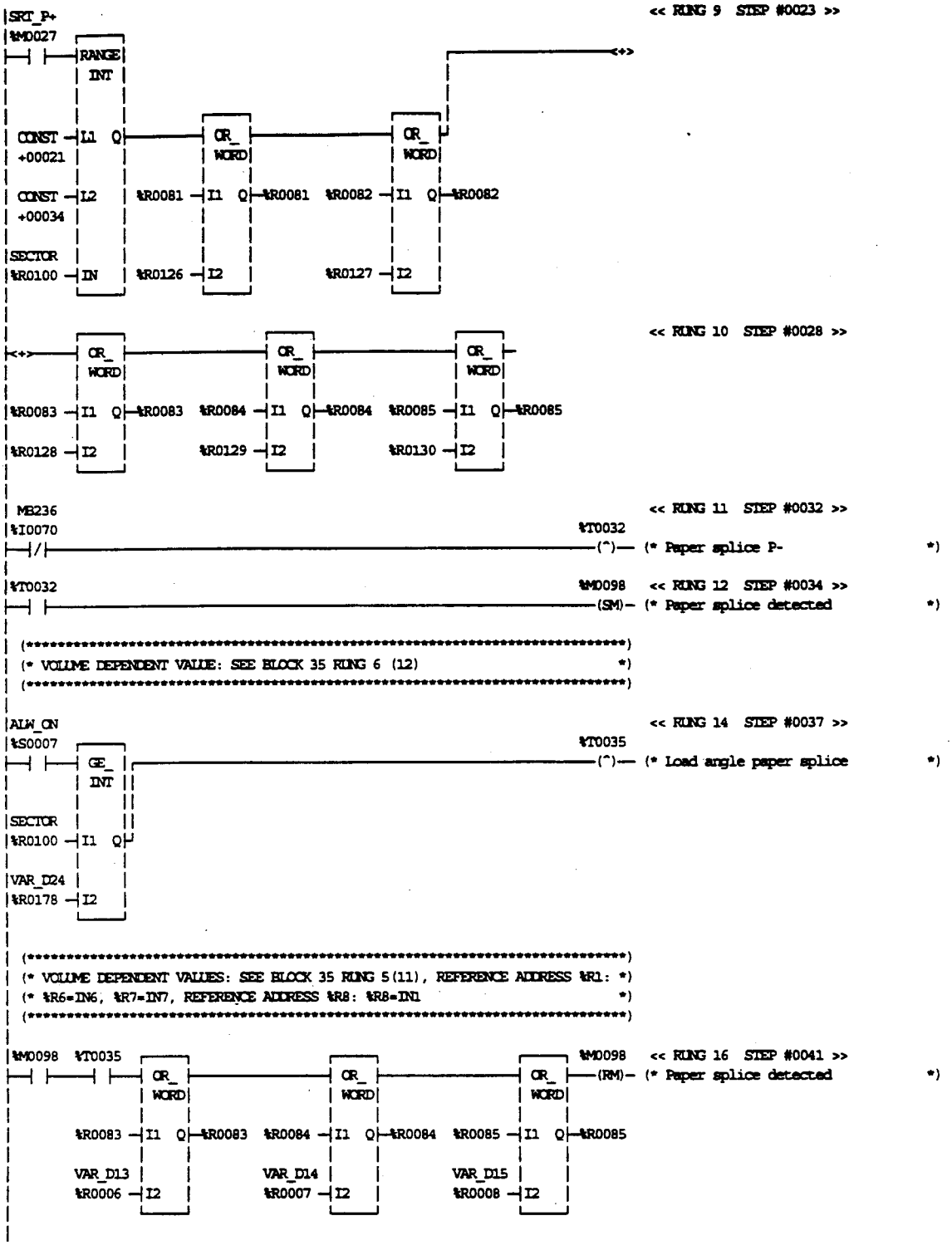
REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0167		LRF valve opening conditions	%T0002	DLY_10S	Start sequenc delay 10 sec.
%M0168		"C" valve closing conditions	%M0086	MCPOS80	Machine in pos.80 for >2 min
%M0350		Start sequence 16 seconds	%Q0063	MY009	Product valve A
%M0353		Over- filling jump pos.40	%M0018	NEWPACK	New Package / drop chute off
%T0147		Main Motor new stop delay value	%M0673	PH56	Overfil alarm
%R0294		Emptying tube	%M0065	POS0030	Machine ladder pos 00-30
%R0590		Stop delay main motor	%M0057	POS80	Machine ladder pos 80
%R0591		PV Stop delay main motor	%I0148	PS_002H	Inching
%I0117	A310-19	Overfil level filling system	%I0062	X01-101	Product at machine
%S0007	ALW_ON				

```
|[ START LD SUBROUTINE   BLK19  ]
|
|[    VARIABLE DECLARATIONS     ]
|
|[  START OF SUBROUTINE LOGIC   ]
|
| (*************************************************************************)
| (* VOLUME DEPENDENT VALUES: SEE BLOCK 35 RUNG 5(11), REFERENCE ADDRESS %R1: *)
| (* %R1=IN1, %R2=IN2, %R3=IN3, %R4=IN4, %R5=IN5.                          *)
| (*************************************************************************)
|
|SRT_P+                                                    << RUNG 5  STEP #0003 >>
|%M0027
|--| |-------------[OR_ WORD]-------------[OR_ WORD]-------------------------<+>
|                  |                      |
|%T0016  %M0300    |                      |
|--| |---| |--+--%R0081--|I1  Q|--%R0081  %R0082--|I1  Q|--%R0082
|             |          |                      |
|          VAR_D08        |                   VAR_D09
|          %R0001--|I2|   |                   %R0002--|I2|
|
|                                                          << RUNG 6  STEP #0010 >>
|<+>---[OR_ WORD]-------------[OR_ WORD]-------------[OR_ WORD]-|
|                  |                      |                    |
|%R0083--|I1  Q|--%R0083  %R0084--|I1  Q|--%R0084  %R0085--|I1  Q|--%R0085
|                  |                      |                    |
|VAR_D10           |                   VAR_D11              VAR_D12
|%R0003--|I2|     |                   %R0004--|I2|         %R0005--|I2|
|
|SRT_P+                                                    << RUNG 7  STEP #0014 >>
|%M0027
|--| |---[RANGE INT]-------------------------------------------------------<+>
|                  |                      |                    |
| CONST--|L1  Q|---|---[OR_ WORD]---------|---[OR_ WORD]-------|
| +00035           |                      |                    |
|                  |                      |                    |
| CONST--|L2       |  %R0081--|I1  Q|--%R0081  %R0082--|I1  Q|--%R0082
| +00127           |                      |                    |
|                  |                      |                    |
|SECTOR            |                      |                    |
|%R0100--|IN|      |  %R0121--|I2|        |  %R0122--|I2|      |
|
|                                                          << RUNG 8  STEP #0019 >>
|<+>---[OR_ WORD]-------------[OR_ WORD]-------------[OR_ WORD]-|
|                  |                      |                    |
|%R0083--|I1  Q|--%R0083  %R0084--|I1  Q|--%R0084  %R0085--|I1  Q|--%R0085
|                  |                      |                    |
|%R0123--|I2|     |                   %R0124--|I2|         %R0125--|I2|
|
```

REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0300	Tube sealing going on
%T0016	Step up P+
%R0081	Package dump
%R0082	Package dump
%R0083	Package dump
%R0084	Package dump
%R0085	Package dump
%R0121	+1 pack. dump before short stop
%R0122	+1 pack. dump before short stop
%R0123	+1 pack. dump before short stop

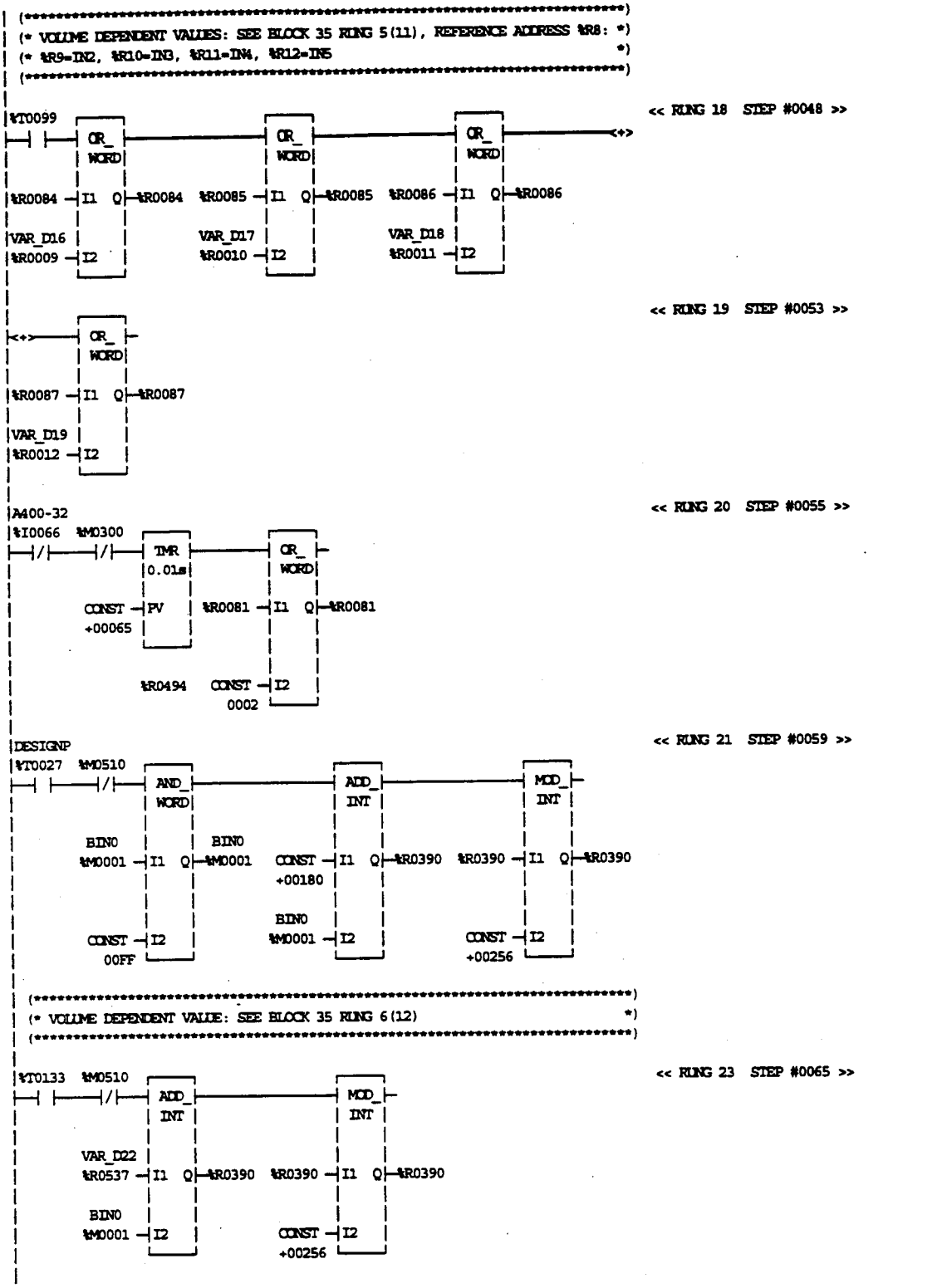
REFERENCE NICKNAME		REFERENCE DESCRIPTION
%R0124		+1 pack. dump before short stop
%R0125		+1 pack. dump before short stop
%R0100	SECTOR	Angle sector 0-127
%M0027	SRT_P+	Start sequenc P+
%R0001	VAR_D08	Package dump short stop
%R0002	VAR_D09	Package dump short stop
%R0003	VAR_D10	Package dump short stop
%R0004	VAR_D11	Package dump short stop
%R0005	VAR_D12	Package dump short stop

BLOCK: 19 PACKAGE DUMPING



REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0098	Paper splice detected	%R0129	+1 pack. dump after short stop
%T0032	Paper splice P-	%R0130	+1 pack. dump after short stop
%T0035	Load angle paper splice	%S0007 ALW_ON	
%R0081	Package dump	%I0070 ME236	Paper splice
%R0082	Package dump	%R0100 SECTOR	Angle sector 0-127
%R0083	Package dump	%M0027 SRT_P+	Start sequenc P+
%R0084	Package dump	%R0006 VAR_D13	Package dump paper splice
%R0085	Package dump	%R0007 VAR_D14	Package dump paper splice
%R0126	+1 pack. dump after short stop	%R0008 VAR_D15	Package dump paper splice
%R0127	+1 pack. dump after short stop	%R0178 VAR_D24	Load sector, paper splice
%R0128	+1 pack. dump after short stop		

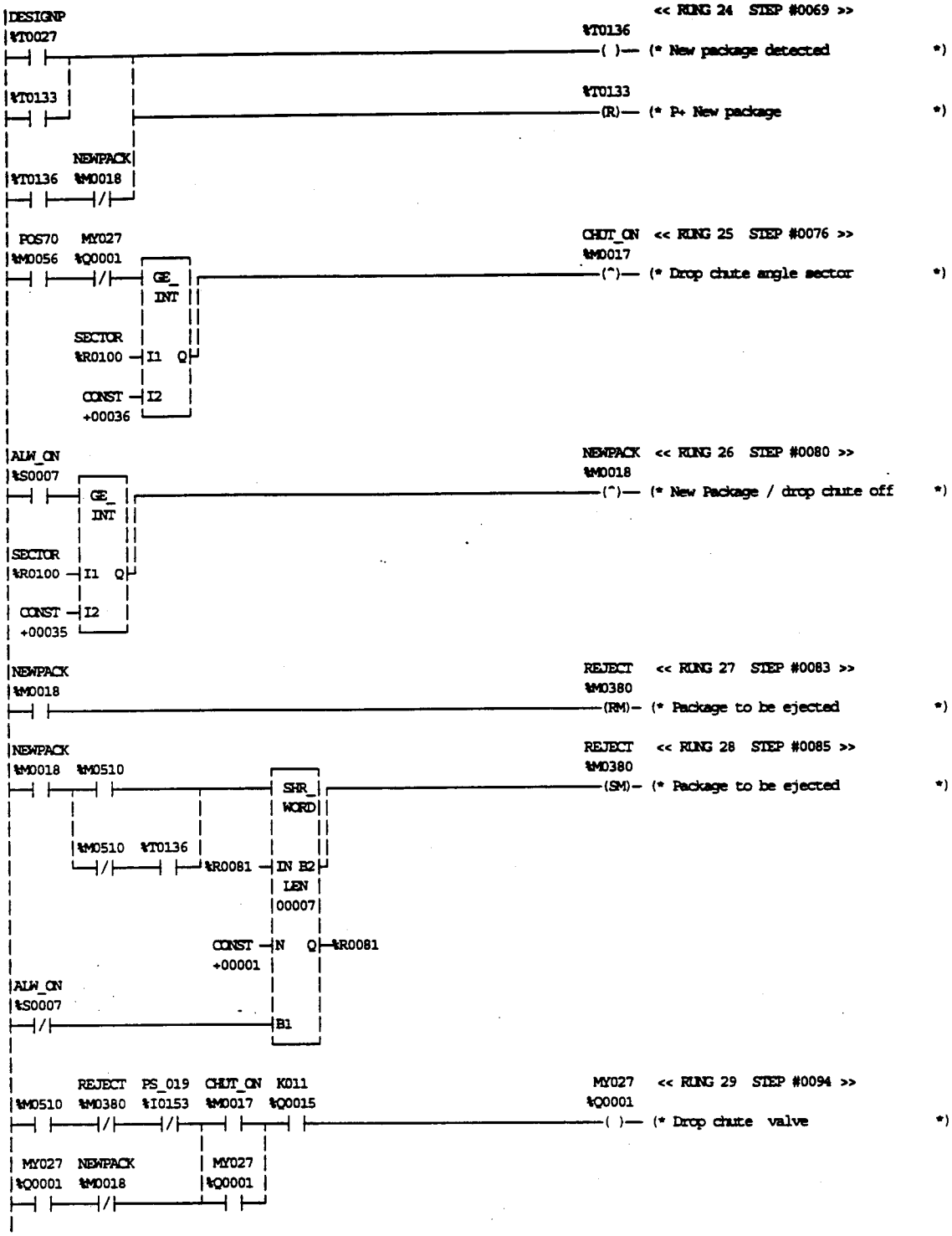
BLOCK: 19 PACKAGE DUMPING



REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0300	Tube sealing going on
%M0510	Drop chute enable
%T0099	Strip Splice Started
%T0133	P+ New package
%R0081	Package dump
%R0084	Package dump
%R0085	Package dump
%R0086	Package dump
%R0087	Package dump
%R0390	Barcode missing ref. position

REFERENCE NICKNAME		REFERENCE DESCRIPTION
%R0494		Max design fault timer
%I0066	A400-32	Design ok
%M0001	BIN0	Bit 0 LSB / Angle 0-255
%T0027	DESIGNP	Output design puls
%R0009	VAR_D16	Package dump strip splice
%R0010	VAR_D17	Package dump strip splice
%R0011	VAR_D18	Package dump strip splice
%R0012	VAR_D19	Package dump strip splice
%R0537	VAR_D22	Package length precorrected

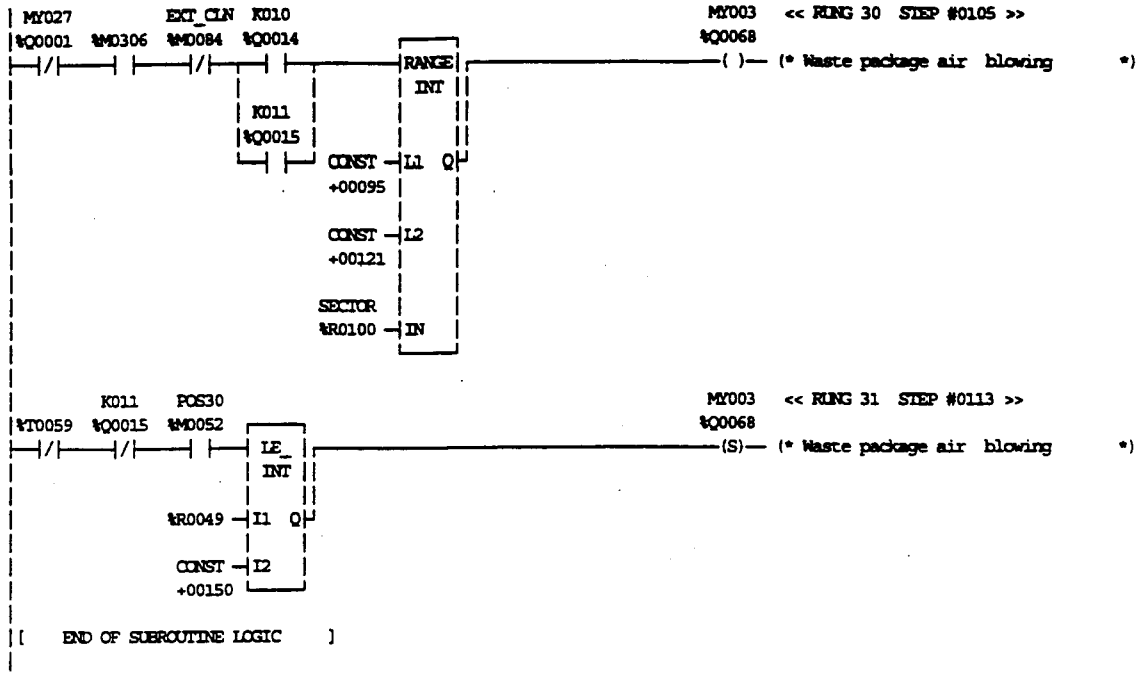
BLOCK: 19 PACKAGE DUMPING



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0510		Drop chute enable
%T0133		P+ New package
%T0136		New package detected
%R0081		Package dump
%S0007	ALW_ON	
%M0017	CHUT_ON	Drop chute angle sector
%T0027	DESIGNP	Output design puls

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%Q0015	K011	Main motor high speed
%Q0001	MY027	Drop chute valve
%M0018	NEWPACK	New Package / drop chute off
%M0056	POS70	Machine ladder pos 70
%I0153	PS_019	Drop chute off
%M0380	REJECT	Package to be ejected
%R0100	SECTOR	Angle sector 0-127

BLOCK: 19 PACKAGE DUMPING



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0306		Aux. output clutch	%Q0015	K011	Main motor high speed
%T0059		Off delay high speed	%Q0068	MY003	Waste package air blowing
%R0049		Off delay high speed	%Q0001	MY027	Drop chute valve
%M0084	EXT_CLN	Machine in pos. extern. clean	%M0052	POS30	Ladder pos 30
%Q0014	K010	Main motor low speed	%R0100	SECTOR	Angle sector 0-127

BLOCK: 19 PACKAGE DUMPING

```
[ START LD SUBROUTINE  BLK21  ]

[    VARIABLE DECLARATIONS    ]

[  START OF SUBROUTINE LOGIC  ]

(*************************************************************************)
(*                          Filling sequence                             *)
(*************************************************************************)

STARTQ          POS50          MB051                          MY007   << RUNG 5  STEP #0003 >>
%M0320  %M0350 %M0054 %M0108 %I0029                           %Q0065
--| |----|/|----|/|---| |---| |-------------------------------(M)-- (* Steam  barrier valve C          *)
                    |       |   |
 MY007              |       |NO_PWR
%Q0065  %M0168      |       |%M0324
--| |----|/|--------|       |--| |--
                    |       |
 K104               |       |
%Q0046  %M0089      |       |
--| |----| |--------|       |

A310-15                                                               << RUNG 6  STEP #0017 >>
%Q0107                                                        %M0071
--|/|--| TMR |-------------------------------------------------( )-- (* LRF valve moving time          *)
       |0.10s|
       |     |
 CONST-|PV   |
 +00020|     |
       |_____|

       %R0512

(*************************************************************************)
(* VOLUME DEPENDENT VALUE: SEE BLOCK 35 RUNG 6 (12).                     *)
(*************************************************************************)

        POS50                                                         << RUNG 8  STEP #0021 >>
%M0071  %M0054                                                %T0015
--| |----|/|--| GE_ |-------------------------------------------( )-- (* Delay filling valve start      *)
               | INT ||
               |     ||
       %R0500 -|I1  Q|-
               |     |
       VAR_D23 |     |
       %R0510 -|I2   |
               |_____|

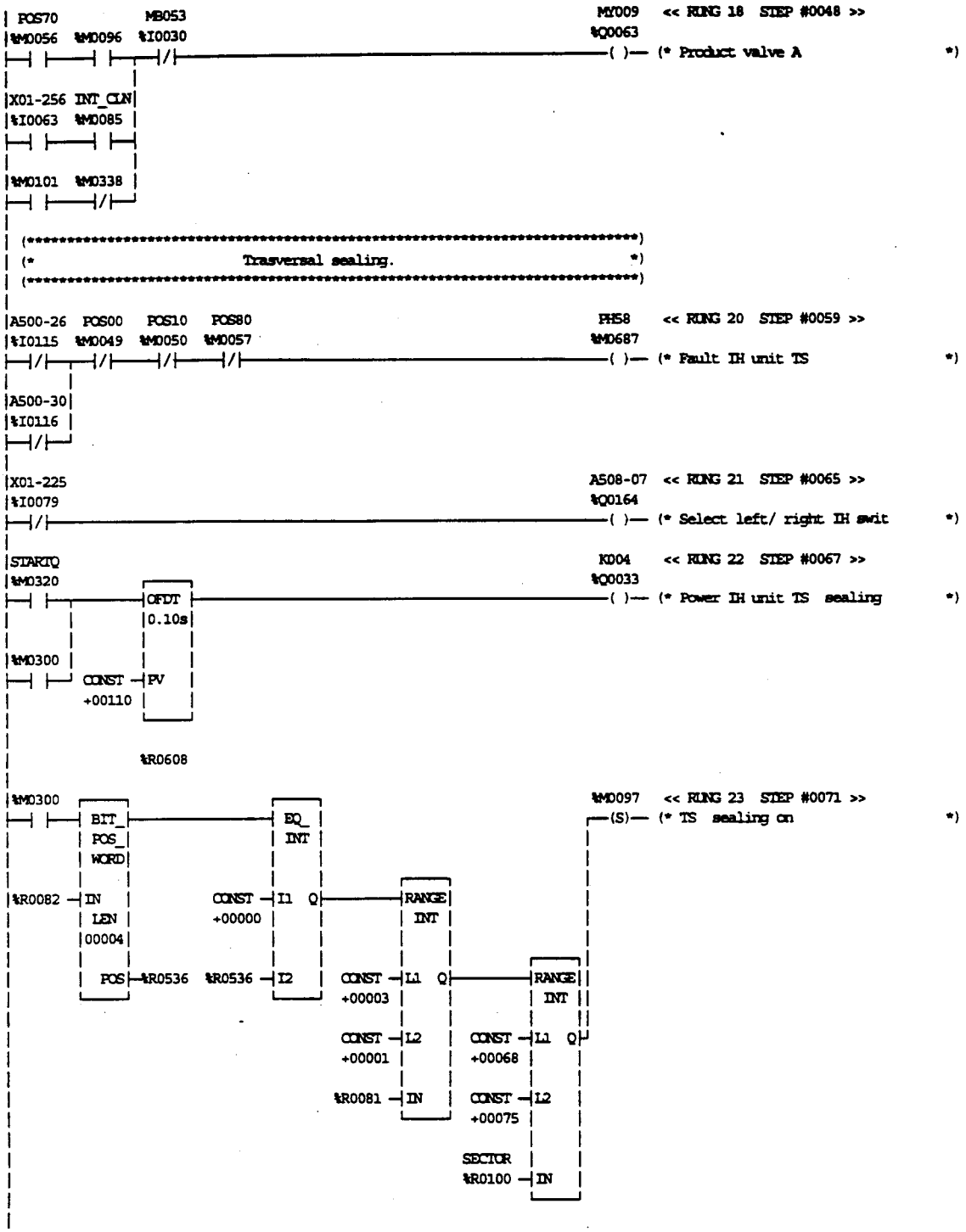
(*************************************************************************)
(* VOLUME DEPENDENT VALUES: SEE BLOCK 35 RUNG 5(11), REF. ADDRESS %R170:  *)
(* %R170=IN1, %R171=IN2                                                  *)
(*************************************************************************)
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0071		LRF valve moving time	%Q0107	A310-15	Clean/Open signal for lev. reg
%M0089		Clean steam barrier space	%Q0046	K104	Signal to cip clean
%M0108		Spray full filled	%I0029	MB051	Product pipe position
%M0168		"C" valve closing conditions	%Q0065	MY007	Steam barrier valve C
%M0350		Start sequence 16 seconds	%M0324	NO_PWR	Power failure
%T0015		Delay filling valve start	%M0054	POS50	Machine ladder pos 50
%R0500		Start seq. for prod.	%M0320	STARTQ	Start sequenc
%R0512		LRF valve moving time	%R0510	VAR_D23	A-valve delay preset sec*0.1

```
| POS60                                                                  FILL    << RUNG 10  STEP #0026 >>
|%M0055                                                                %M0019
|--| |--|RANGE|-------------------------------------------------------( )-- (* Filling angle sector          *)
|     | INT ||
|     |     ||
|VAR_D01      ||
|%R0170 --|L1  Q|
|             |
|VAR_D02      |
|%R0171 --|L2   |
|             |
|SECTOR       |
|%R0100 --|IN   |
|         |_____|
|
|PS_003H                                                                 << RUNG 11  STEP #0029 >>
|%I0149                                                                %M0093
|--| |-------------------------------------------------------------------(R)-- (* Manual stop filling          *)
|     |
|  POS60 |
|%M0055  |
|--|/|--|
|
|PS_004H  POS70                                                          << RUNG 12  STEP #0032 >>
|%I0150  %M0056                                                        %M0093
|--|/|----| |-------------------------------------------------------------(S)-- (* Manual stop filling          *)
|
|SHORTS   POS70   MY027                                                  PH6-1   << RUNG 13  STEP #0035 >>
|%M0082  %M0056  %Q0001                                                %M0637
|--|/|----| |----|/|-------------------------------------------------------( )-- (* Filling on                 *)
|
|  (*************************************************************************)
|  (* VOLUME DEPENDENT VALUE: SEE BLOCK 35 RUNG 5(11), REF. ADDRESS %R170:   *)
|  (* %R172=IN3                                                             *)
|  (*************************************************************************)
|
|SHORTS   MY009                                                          << RUNG 15  STEP #0040 >>
|%M0082  %Q0063                                                        %M0101
|--| |----| |--|RANGE|-------------------------------------------------( )-- (* Valve A closing delay        *)
|                | INT ||
|                |     ||
|          CONST --|L1  Q|
|          +00000  |     |
|                   |     |
|          VAR_D03  |     |
|          %R0172 --|L2   |
|                   |     |
|          %R0587 --|IN   |
|                   |_____|
|
|  (*************************************************************************)
|  (* VOLUME DEPENDENT VALUE: SEE BLOCK 35 RUNG 5(11), REF. ADDRESS %I70:    *)
|  (* %R173=IN4                                                             *)
|  (*************************************************************************)
|
|STARTQ                                                                  << RUNG 17  STEP #0045 >>
|%M0320                                                                %M0096
|--| |--| GE_ |-------------------------------------------------------( )-- (* Valve A Opening after sh.stop *)
|     | INT ||
|     |     ||
|%R0500 --|I1  Q|
|         |     |
|VAR_D04  |     |
|%R0173 --|I2   |
|         |_____|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0093		Manual stop filling	%M0056	POS70	Machine ladder pos 70
%M0096		Valve A Opening after sh.stop	%I0149	PS_003H	Step up
%M0101		Valve A closing delay	%I0150	PS_004H	Step down
%R0500		Start seq. for prod.	%R0100	SECTOR	Angle sector 0-127
%R0587		Stop con- veyor	%M0082	SHORTS	Machine pos. short stop
%M0019	FILL	Filling angle sector	%M0320	STARTQ	Start sequenc
%Q0063	MY009	Product valve A	%R0170	VAR_D01	Angle fill start
%Q0001	MY027	Drop chute valve	%R0171	VAR_D02	Angle fill start
%M0637	PH6-1	Filling on	%R0172	VAR_D03	A-Valve close delay
%M0055	POS60	Machine ladder pos 60	%R0173	VAR_D04	A-valve open delay

BLOCK: 21 PRODUCTION



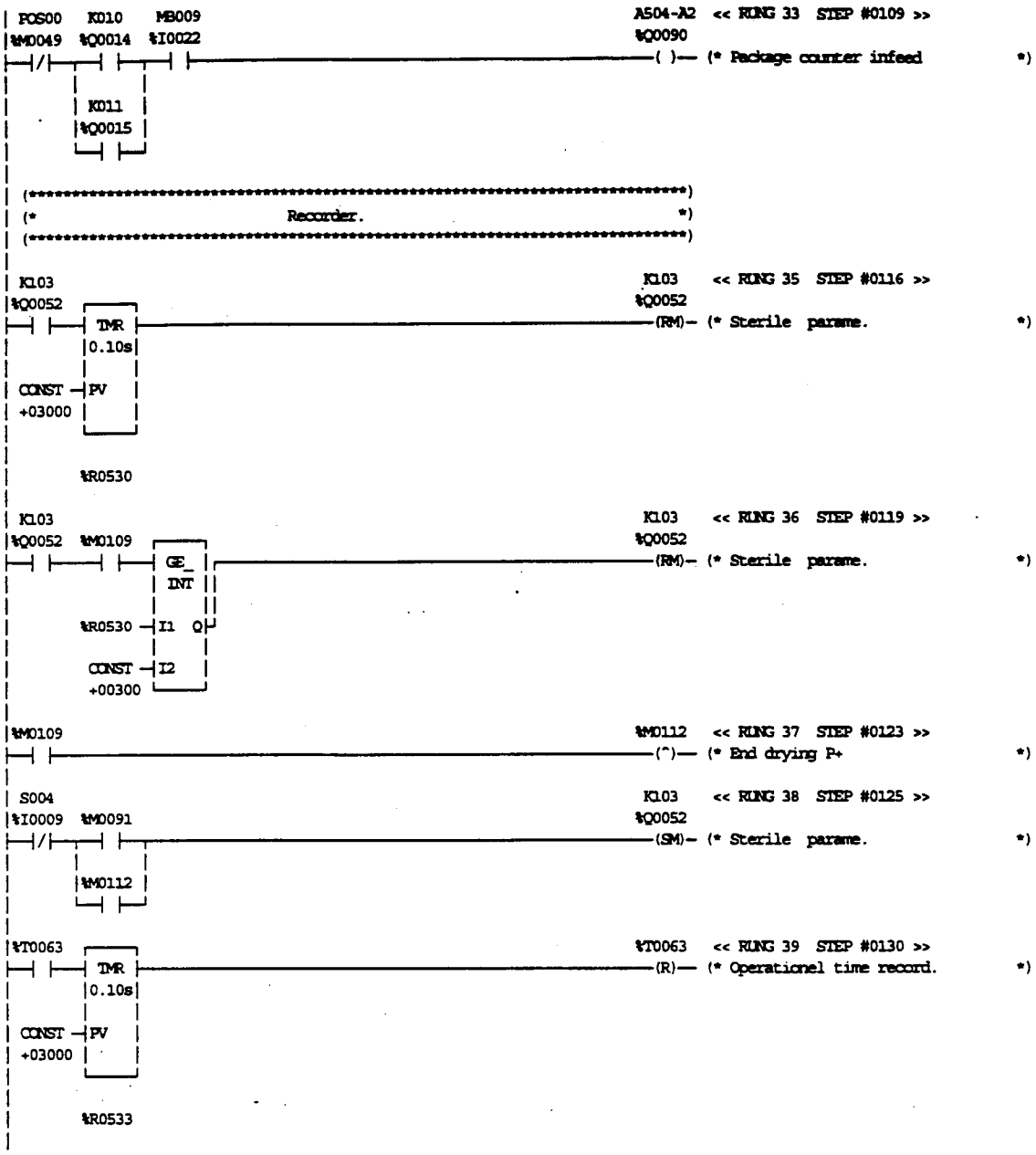
REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0096		Valve A Opening after sh.stop
%M0097		TS sealing on
%M0101		Valve A closing delay
%M0300		Tube sealing going on
%M0338		M.Motor disable & keep clutch
%R0081		Package dump
%R0082		Package dump
%R0536		Tube sealing
%R0608		Delay TS sealing off
%I0115	A500-26	Temp. fault TS- units
%I0116	A500-30	Fault TS units
%Q0164	A508-07	Select left/ right IH swit
%M0085	INT_CLN	Machine pos internal cleaning

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%Q0033	K004	Power IH unit TS sealing
%I0030	MB053	Steril air B valve position
%Q0063	MY009	Product valve A
%M0687	PH58	Fault IH unit TS
%M0049	POS00	Ladder pos 00
%M0050	POS10	Ladder pos 10
%M0056	POS70	Machine ladder pos 70
%M0057	POS80	Machine ladder pos 80
%R0100	SECTOR	Angle sector 0-127
%M0320	STARTQ	Start sequenc
%I0079	X01-225	Angle encoder bit 6
%I0063	X01-256	Clean of prod. valve

BLOCK: 21 PRODUCTION

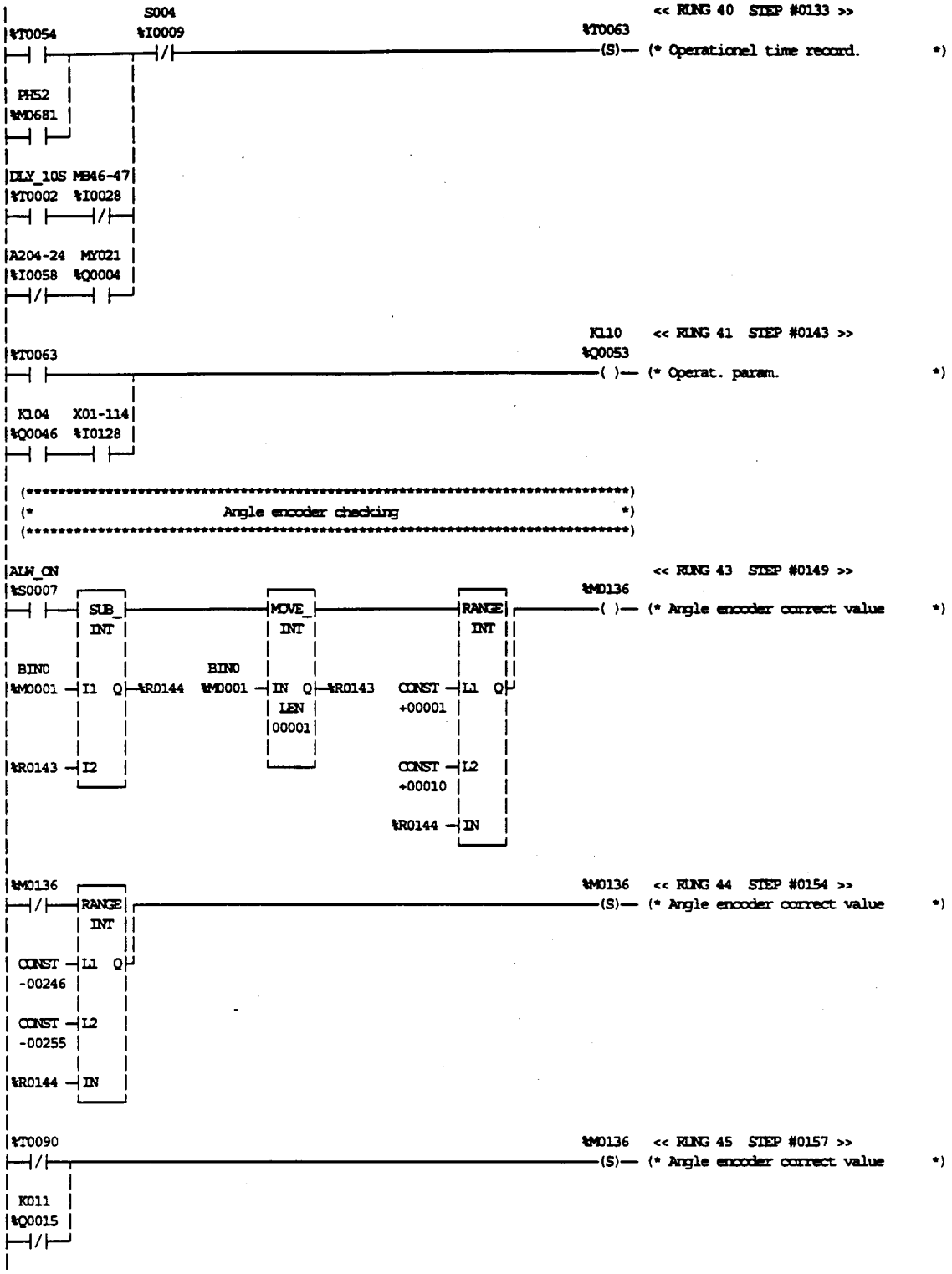
```
| POS70                                                                    << RUNG 24  STEP #0077 >>
|%M0056                                                          %M0097
|--| |-------------------------------------------------------------(S)-- (* TS  sealing on                *)
|
| POS60                                                                    << RUNG 25  STEP #0079 >>
|%M0055  ,-------,                                               %T0081
|--| |--| TMR |-------------------------------------------------( )-- (* Delay TS off                  *)
|       |0.10s|
|       |     |
| CONST -|PV   |
| +00100 |     |
|        `-----'
|
|       %R0611
|
| K011                                                                     << RUNG 26  STEP #0082 >>
|%Q0015                                                          %M0097
|--|/|-----------------------------------------------------------(R)-- (* TS  sealing on                *)
|     |
|%T0081 |
|--| |--'
|
| (*****************************************************************************)
| (*                          Production.                                      *)
| (*****************************************************************************)
|
|SHORTS   POS70   MY027                                          PH6_2   << RUNG 28  STEP #0086 >>
|%M0082  %M0056  %Q0001                                          %M0638
|--|/|----| |---| |-------------------------------------------------( )-- (* Machine in prod.           *)
|
|SY_FULL OVR_PRE Z001-11 PLC_BAT                                 PH25    << RUNG 29  STEP #0090 >>
|%S0009  %S0011  %I0113  %S0014  %M0141                          %M0645
|--|/|----|/|---| |---|/|---|/|-------------------------------------(/)-- (* PLC fault                 *)
|
| (*****************************************************************************)
| (*                          Package counter.                                 *)
| (*****************************************************************************)
|
| S004    MY027  EXT_CLN                                         P003    << RUNG 31  STEP #0097 >>
|%I0009  %Q0001  %M0084  ,-----,                                 %Q0089
|--|/|----| |---|/|---| GE_ |-------------------------------------( )-- (* Package counter prod.       *)
|                       | INT ||
|                       |     ||                               PP004
|               SECTOR  |     ||                               %Q0112
|               %R0100 -|I1  Q|-------------------------------( )-- (* Package counter product      *)
|                       |     |
|                CONST -|I2   |
|                +00115 `-----'
|
| S004    MY027  EXT_CLN                                         P003    << RUNG 32  STEP #0103 >>
|%I0009  %Q0001  %M0084  ,-----,                                 %Q0089
|--|/|----| |---|/|---| LE_ |-------------------------------------(S)-- (* Package counter prod.       *)
|                       | INT ||
|                       |     ||                               PP004
|               SECTOR  |     ||                               %Q0112
|               %R0100 -|I1  Q|-------------------------------(S)-- (* Package counter product      *)
|                       |     |
|                CONST -|I2   |
|                +00023 `-----'
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0097		TS sealing on	%M0638	PH6_2	Machine in prod.
%M0141		Angle encoder fault	%S0014	PLC_BAT	
%T0081		Delay TS off	%M0055	POS60	Machine ladder pos 60
%R0611		Delay TS off	%M0056	POS70	Machine ladder pos 70
%M0084	EXT_CLN	Machine in pos. extern. clean	%Q0112	PP004	Package counter product
%Q0015	K011	Main motor high speed	%I0009	S004	Service switch
%Q0001	MY027	Drop chute valve	%R0100	SECTOR	Angle sector 0-127
%S0011	OVR_PRE		%M0082	SHORTS	Machine pos. short stop
%Q0089	P003	Package counter prod.	%S0009	SY_FULL	
%M0645	PH25	PLC fault	%I0113	Z001-11	Over- load main filter



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0091		Machine to pos 00	%Q0014	K010	Main motor low speed
%M0109		Drying after spray- ing	%Q0015	K011	Main motor high speed
%M0112		End drying P+	%Q0052	K103	Sterile parame.
%T0063		Operationel time record.	%I0022	MB009	Paper web monitor
%R0530		Delay record. steril param.	%M0049	POS00	Ladder pos 00
%R0533		Opera- tionel time record	%I0009	S004	Service switch
%Q0090	A504-A2	Package counter infeed			

BLOCK: 21 PRODUCTION



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0136		Angle encoder correct value	%T0002	DLY_10S	Start sequenc delay 10 sec.
%T0054		Low lvl peroxid bath at product	%Q0015	K011	Main motor high speed
%T0063		Operationel time record.	%Q0046	K104	Signal to cip clean
%T0090		Delay rotat. monitor	%Q0053	K110	Operat. param.
%R0143		Encoder previous value	%I0028	MB46-47	Pos.squegee roller air knife
%R0144		Encoder increment /scan	%Q0004	MY021	Air knife sq roll move
%I0058	A204-24	Temp air knives	%MD681	PHS2	Low temp. perox.
%S0007	ALW_ON		%I0009	S004	Service switch
%M0001	BIN0	Bit 0 LSB / Angle 0-255	%I0128	X01-114	Signal from CIP cleaning on

BLOCK: 21 PRODUCTION

```
|        ALRES                                                    << RUNG 46  STEP #0160 >>
|%M0136  %M0550                                          %M0141
|--|/|---|/|-------------------------------------------------( )-- (* Angle encoder fault          *)
|        |
|%M0141  |
|--|  |--|
|
|[    END OF SUBROUTINE LOGIC     ]
|
```

REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0136	Angle encoder correct value	%M0550 ALRES	Alarm reset P+
%M0141	Angle encoder fault		

BLOCK: 21 PRODUCTION

```
|[ START LD SUBROUTINE   BLK22  ]
|
|[    VARIABLE DECLARATIONS     ]
|
|[  START OF SUBROUTINE LOGIC   ]
|
| (*************************************************************************)
| (*                          Service key handling                         *)
| (*************************************************************************)
|
| S004                                                          << RUNG 5  STEP #0003 >>
|%I0009                                                  %M0094
+--] [-------------------------------------------------------(SM)- (* Bypass sterile condit. service  *)
|
| POS00                                                         << RUNG 6  STEP #0005 >>
|%M0049                                                  %M0094
+--] [-------------------------------------------------------(RM)- (* Bypass sterile condit. service  *)
|
| S004          NOT_L21                                         << RUNG 7  STEP #0007 >>
|%I0009 %M0094  %M0326                                   %M0542
+--]/[-----] [-----]/[-------------------------------------------( )-- (* Bypass steril condit. alarm     *)
|
| S004  NOT_L21                                          PH19   << RUNG 8  STEP #0011 >>
|%I0009 %M0326                                           %M0619
+--] [-----]/[-------------------------------------------( )-- (* Service switch                *)
|
| (*************************************************************************)
| (*                         Power failure handling                        *)
| (*************************************************************************)
|
|L11_OK                                                  NO_PWR  << RUNG 10  STEP #0015 >>
|%I0072                                                  %M0324
+--]/[-------------------------------------------------------(SM)- (* Power failure                *)
|
|NO_PWR                                                  NO_PWR  << RUNG 11  STEP #0017 >>
|%M0324  +------+                                         %M0324
+--] [---+ TMR +-------------------------------------------(RM)- (* Power failure                *)
|        |0.10s|
|        |     |
| CONST -+PV   |
| +00100 |     |
|        +------+
|
|        %R0740
|
|L11_OK                                                  NO_PWR  << RUNG 12  STEP #0020 >>
|%I0072          +------+                +------+        +------+        %M0324
+--]/[--+--------+MOVE_+----------------+ SVC_+---------+ GT_ |+----------(RM)- (* Power failure                *)
|       |        | INT |                | REQ |         | INT ||
|FST_SCN|        |     |                |     |         |     ||
|%S0001 |        |     |                |     |         |     ||
+--] [--+ CONST -+IN  Q+-%R0215   CONST -+FNC  | %R0215 -+I1  Q++
|       +00000 | LEN |          00029 |     |         |     |
|              |00001|                |     |         |     |
|              |     |                |     |         |     |
|              +------+        %R0215 -+PARM |  CONST -+I2   |
|                               +------+  +00004 +------+
|
|NO_PWR                                                  NOT_L11 << RUNG 13  STEP #0026 >>
|%M0324  +------+                                         %M0325
+--] [---+ LT_ |+-----------------------------------------------(M)-- (* Line L11-L10 not ok        *)
|        | INT ||
|        |     ||
|%R0740 -+I1  Q++
|        |     |
| CONST -+I2   |
| +00050 +------+
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0094		Bypass sterile condit. service	%M0325	NOT_L11	Line L11-L10 not ok
%M0542		Bypass steril condit. alarm	%M0326	NOT_L21	Line L21-L20 not ok
%R0215		Delay check safety monitor	%M0324	NO_PWR	Power failure
%R0740		Line L10 L11 not ok	%M0619	PH19	Service switch
%S0001	FST_SCN		%M0049	POS00	Ladder pos 00
%I0072	L11_OK	Power L11 OK	%I0009	S004	Service switch

BLOCK: 22 SHORT STOP

```
| ALRES   T_SEC                                                    K113    << RUNG 14  STEP #0029 >>
|%M0550  %S0005                                                   %Q0054
+--] [--+--] [-----------------------------------------------------( )-- (* Aux. relay alarm reset          *)
|       |
|NOT_L11|
|%M0325 |                                                         %T0132
+--] [--+-----------------------------------------------------------(S)-- (* Alarm reset safety relay       *)
|       |
|%T0132 |
+--] [--+
|
|%T0132  +------+                                                  %T0132   << RUNG 15  STEP #0037 >>
+--] [---+ TMR +-----------------------------------------------------(R)-- (* Alarm reset safety relay       *)
|        |0.10s|
|        |     |
| CONST -+PV   |
| +00017 |     |
|        +-----+
|
|        %R0497
|
| (*************************************************************************)
| (*                          Safety handling                              *)
| (*************************************************************************)
|
|%T0105                                                            %T0104   << RUNG 17  STEP #0041 >>
+--] [-----------------------------------------------------------------( )-- (* Auxillary detection safety alarm *)
|
| DOORS          MB21           MB010                                      << RUNG 18  STEP #0043 >>
|%I0130  %T0106  %I0131  %T0107  %I0132  %T0108                    %T0105
+--] [-----] [--+--] [-----] [--+--] [-----] [--+-------------------( )-- (* Detection of safety alarm       *)
|               |              |               |
| DOORS         | MB21         | MB010         |
|%I0130  %T0106 |%I0131  %T0107 |%I0132  %T0108 |
+--]/[-----]/[--+--]/[-----]/[--+--]/[-----]/[--+
|
|%T0105  %T0104                                                    %T0103   << RUNG 19  STEP #0061 >>
+--] [-----] [-----------------------------------------------------( )-- (* Safety alarm                   *)
|
| DOORS                                                                    << RUNG 20  STEP #0064 >>
|%I0130                                                            %T0106
+--] [-----------------------------------------------------------------( )-- (* Side protection detected    *)
|
| MB21                                                                     << RUNG 21  STEP #0066 >>
|%I0131                                                            %T0107
+--] [-----------------------------------------------------------------( )-- (* Tower doors detected       *)
|
| MB010                                                                    << RUNG 22  STEP #0068 >>
|%I0132                                                            %T0108
+--] [-----------------------------------------------------------------( )-- (* Crank position detected    *)
|
| PH12   PS_011H                                                           << RUNG 23  STEP #0070 >>
|%M0612  %I0145                                                    %T0112
+--]/[-----] [-----------------------------------------------------(R)-- (* Auxillary side protection alarm *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%T0103		Safety alarm	%M0550	ALRES	Alarm reset P+
%T0104		Auxillary detection safety alarm	%I0130	DOORS	Side, FF, date, p.mag protect.
%T0105		Detection of safety alarm	%Q0054	K113	Aux. relay alarm reset
%T0106		Side protection detected	%I0132	MB010	Crank position
%T0107		Tower doors detected	%I0131	MB21	Super struct. door monitor
%T0108		Crank position detected	%M0325	NOT_L11	Line L11-L10 not ok
%T0112		Auxillary side protection alarm	%M0612	PH12	Safety monitor
%T0132		Alarm reset safety relay	%I0145	PS_011H	Alarm reset push buttom
%R0497		Alarm reset	%S0005	T_SEC	

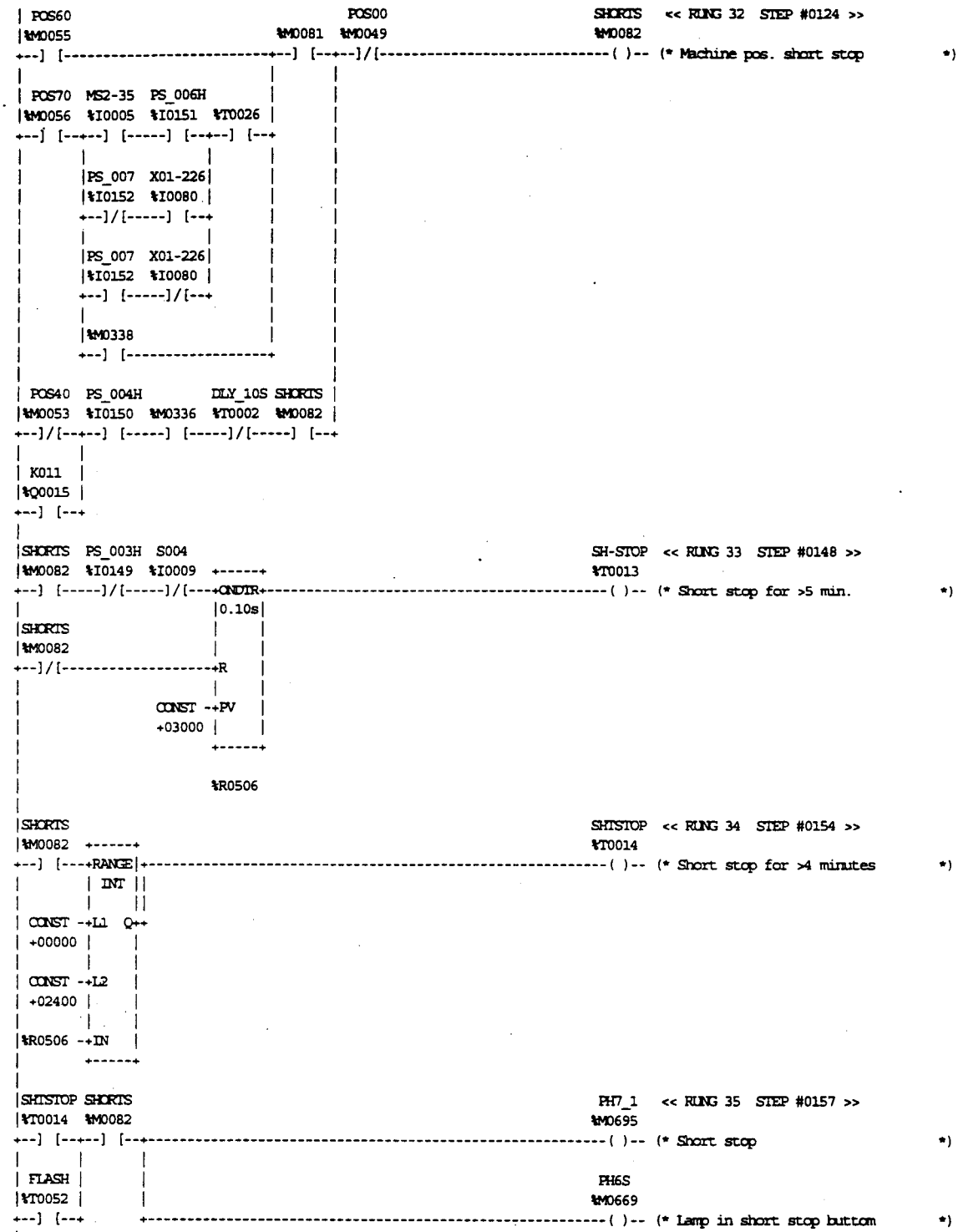
BLOCK: 22 SHORT STOP

```
|NOT_L21  DOORS   MB21    POS00                                          PH12    << RUNG 24  STEP #0073 >>
|%M0326  %I0130  %I0131  %M0049  %T0103                                 %M0612
+--]/[--+--]/[-----] [-----]/[--+--] [--+-----------------------------------( )-- (* Safety monitor                *)
|       |                       |       |
|       | MB010                 |       |
|       |%I0132                 |       |                                %T0112
|       +--] [------------------+       +-----------------------------------(S)-- (* Auxillary side protection alarm  *)
|                                       |
| PH12                                  |
|%M0612  %T0103                         |
+--] [-----]/[--------------------------+
|
| PH12                                                                                 << RUNG 25  STEP #0085 >>
|%M0612  %T0112                                                                       %T0111
+--]/[-----] [-------------------------------------------------------------------------( )-- (* Side protection closed          *)
|
|A506-42                                                                              PH13    << RUNG 26  STEP #0088 >>
|%I0064                                                                              %M0613
+--]/[-------------------------------------------------------------------------------( )-- (* Fault emerg. stop jaw rot       *)
|
| (*************************************************************************)
| (*                              Short stop                                 *)
| (*************************************************************************)
|
|ALW_ON                                                                                                    << RUNG 28  STEP #0091 >>
|%S0007  +------+                                                                    %T0026
+--] [---+ GE_ |+-----------------------------------------------------------(^)-- (* Pulse short stop               *)
|        | INT ||
|        |     ||
|SECTOR  |     ||
|%R0100 -+I1  Q++
|        |     |
| CONST -+I2   |
| +00008 +------+
|
|MB045-2 MB045-4          PH16    PH59                    PH49    PH50            << RUNG 29  STEP #0094 >>
|%I0039  %I0040  %M0545  %M0616  %M0688  %M0424  %M0079  %M0678  %M0679
+--] [-----] [-----]/[-----]/[-----]/[-----]/[-----]/[-----]/[-----]/[--------<+>
|
|        PH20   LUB_TIM  PH63                                                        << RUNG 30  STEP #0104 >>
|       %M0620  %M0032  %M0692  %M0338
+<+>-------]/[-----]/[-----]/[-----]/[---------------------------------------<+>
|
|        PH42    PH52    PH35   MS2-35  PS_006H                                    << RUNG 31  STEP #0110 >>
|       %M0658  %M0681  %M0651  %I0005  %I0151  %M0081                 %M0081
+<+>----+--]/[-----]/[-----]/[--+--] [-----] [--+--]/[--+-------------------(/)-- (* Short stop condit.            *)
|       |                       |              |       |
|       | S004                  |              | K011  |
|       |%I0009                 |%T0026        |%Q0015 |
|       +--] [------------------+--]/[----------+--]/[--+
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0079		Low temp. strip splicer
%M0081		Short stop condit.
%M0338		M.Motor disable & keep clutch
%M0424		Low lvl peroxid tank at product
%M0545		Max run low paper supply
%T0026		Pulse short stop
%T0103		Safety alarm
%T0111		Side protection closed
%T0112		Auxillary side protection alarm
%I0064	A506-42	Emerg. stop signal
%S0007	ALW_ON	
%I0130	DOORS	Side, FF, date, p.mag protect.
%Q0015	K011	Main motor high speed
%M0032	LUB_TIM	Max run time lubric.fault
%I0132	MB010	Crank position
%I0039	MB045-2	Hydraul unit temperature
%I0040	MB045-4	Hydraul unit low level
%I0131	MB21	Super struct. door monitor

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%I0005	MS2-35	Short stop push buttoms
%M0326	NOT_L21	Line L21-L20 not ok
%M0612	PH12	Safety monitor
%M0613	PH13	Fault emerg. stop jaw rot
%M0616	PH16	Alarm delay unsync. MM/FF
%M0620	PH20	Pressure fault lubric. oil
%M0651	PH35	Low temp air knife
%M0658	PH42	Air knife sq.roll wrong pos.
%M0678	PH49	Low level bath peroxid
%M0679	PH50	Low level perox.b water
%M0681	PH52	Low temp. perox.
%M0688	PH59	Final folder infeed congest
%M0692	PH63	Queue conveyor and outfeeder
%M0049	POS00	Ladder pos 00
%I0151	PS_006H	Short stop push buttom
%I0009	S004	Service switch
%R0100	SECTOR	Angle sector 0-127

BLOCK: 22 SHORT STOP



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0081		Short stop condit.
%M0336		Jump to pos.40 str.seq enable
%M0338		M.Motor disable & keep clutch
%T0026		Pulse short stop
%R0506		Time in short stop pos.
%T0002	DLY_10S	Start sequenc delay 10 sec.
%T0052	FLASH	Panel flash contact
%Q0015	K011	Main motor high speed
%I0005	MS2-35	Short stop push buttons
%M0669	PH6S	Lamp in short stop buttom
%M0695	PH7_1	Short stop
%M0049	POS00	Ladder pos 00

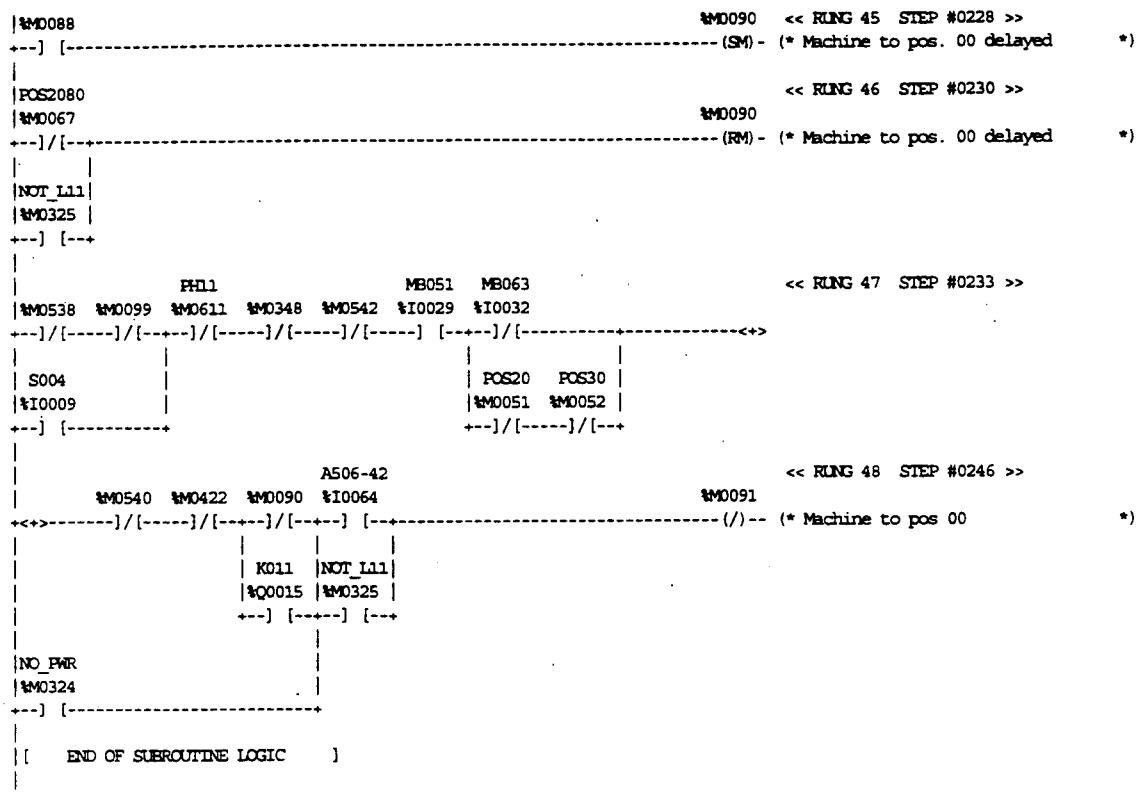
REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0053	POS40	Machine ladder pos 40
%M0055	POS60	Machine ladder pos 60
%M0056	POS70	Machine ladder pos 70
%I0149	PS_003H	Step up
%I0150	PS_004H	Step down
%I0151	PS_006H	Short stop push buttom
%I0152	PS_007	Select switch clean.
%I0009	S004	Service switch
%T0013	SH-STOP	Short stop for >5 min.
%M0082	SHORTS	Machine pos. short stop
%T0014	SHTSTOP	Short stop for >4 minutes
%I0080	X01-226	Angle encoder bit 7

BLOCK: 22 SHORT STOP

```
| (*************************************************************************)
| (*                              Jump pos.40                              *)
| (*************************************************************************)
|
|NO_STEM  PH53                                                    << RUNG 37  STEP #0163 >>
|%M0095  %M0682  %M0431  %M0107  %M0024
+--]/[-----]/[--+--]/[--+--]/[--+--]/[-------------------------------------<+>
|               |       |       |
| S004          |       |       |
|%I0009         |%M0432 |%T0015 |
+--] [----------+--]/[--+--]/[--+
|
|                        PH15    PH24    PH33    PH38    PH40    PH51     << RUNG 38  STEP #0174 >>
|        %M0353  %M0425  %M0615  %M0644  %M0649  %M0654  %M0667  %M0680
+<+>-------]/[-----]/[-----]/[-----]/[-----]/[-----]/[-----]/[-----]/[-------<+>
|
|         PH58    PH74    PH76   SH-STOP                                  << RUNG 39  STEP #0184 >>
|        %M0687  %M0656  %M0662  %T0013  %M0077  %M0141          %M0336
+<+>-------]/[-----]/[-----]/[-----]/[-----]/[-----]/[----------------( )-- (* Jump to pos.40 str.seq enable    *)
|
|                        PH15    PH40    PH38    PH74                     << RUNG 40  STEP #0192 >>
|%M0337                  %M0615  %M0667  %M0654  %M0656          %M0337
+--]/[------------------+--]/[-----]/[-----]/[-----]/[----------------(/)-- (* Jaw alarm release clutch         *)
|                       |
| K113    K010    K011  |
|%Q0054  %Q0014  %Q0015 |
+--] [-----]/[-----]/[--+
|
|                        DOORS  Q003-11  PH61    PH77                     << RUNG 41  STEP #0202 >>
|%M0338                  %I0130  %I0133  %M0690  %M0664  %M0154  %M0338
+--]/[------------------+--] [-----] [-----]/[-----]/[-----]/[----------(/)-- (* M.Motor disable & keep clutch    *)
|                       |
| K113    K010    K011  |
|%Q0054  %Q0014  %Q0015 |
+--] [-----]/[-----]/[--+
|
|                                                          K011    << RUNG 42  STEP #0213 >>
|%M0338                                                    %Q0015
+--] [-----------------------------------------------------------(R)-- (* Main motor high speed           *)
|
| (*************************************************************************)
| (*                              Jump pos.00                              *)
| (*************************************************************************)
|
|        PH48            PH30    PH32    PH36    PH71    PH68             << RUNG 44  STEP #0216 >>
|%M0539  %M0677  %M0541  %M0646  %M0648  %M0652  %M0672  %M0641  %M0088
+--]/[-----]/[--+--]/[-----]/[-----]/[-----]/[-----]/[--+--]/[--+----------(/)-- (* Aux.mem for delayed jump 0       *)
|               |                                       |       |
| S004          |                                       | K011  |
|%I0009         |                                       |%Q0015 |
+--] [----------+                                       +--] [--+
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0024		No product during prod.
%M0077		Water pressure off >5,8 min.
%M0088		Aux.mem for delayed jump 0
%M0107		Design reading fault 5 packages
%M0141		Angle encoder fault
%M0154		Overload outfeed FF
%M0336		Jump to pos.40 str.seq enable
%M0337		Jaw alarm release clutch
%M0338		M.Motor disable & keep clutch
%M0353		Over- filling jump pos.40
%M0425		Low lvl peroxid tank no product
%M0431		Packages wrong design position
%M0432		2.nd fill start attempt
%M0539		Low temp.in product
%M0541		Bottom cover peroxid bath al
%T0015		Delay filling valve start
%I0130	DOORS	Side, FF, date, p.mag protect.
%Q0014	K010	Main motor low speed
%Q0015	K011	Main motor high speed
%Q0054	K113	Aux. relay alarm reset
%M0095	NO_STEM	Steam low temp 5 min

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0615	PH15	Jaw sys. over- load.
%M0644	PH24	Speed fault main motor
%M0646	PH30	High level separat
%M0648	PH32	Low press. steril air
%M0649	PH33	Suction valve wrong pos.
%M0652	PH36	Air inlet wrong pos.
%M0654	PH38	Paper web fault
%M0667	PH40	Fault IH unit S. A.
%M0677	PH48	Wrong pos. AP valve B
%M0680	PH51	Low tem ls elem
%M0682	PH53	Low temp. perox.b water
%M0687	PH58	Fault IH unit TS
%M0690	PH61	Rotat. fault FF
%M0641	PH68	LS sh. stop heat alarm
%M0672	PH71	Membran leakage alarm
%M0656	PH74	Broken strip
%M0662	PH76	Too hi. level peroxid tank
%M0664	PH77	FF pusher
%I0133	Q003-11	Over- load protec. motors
%I0009	S004	Service switch
%T0013	SH-STOP	Short stop for >5 min.



[END OF SUBROUTINE LOGIC]

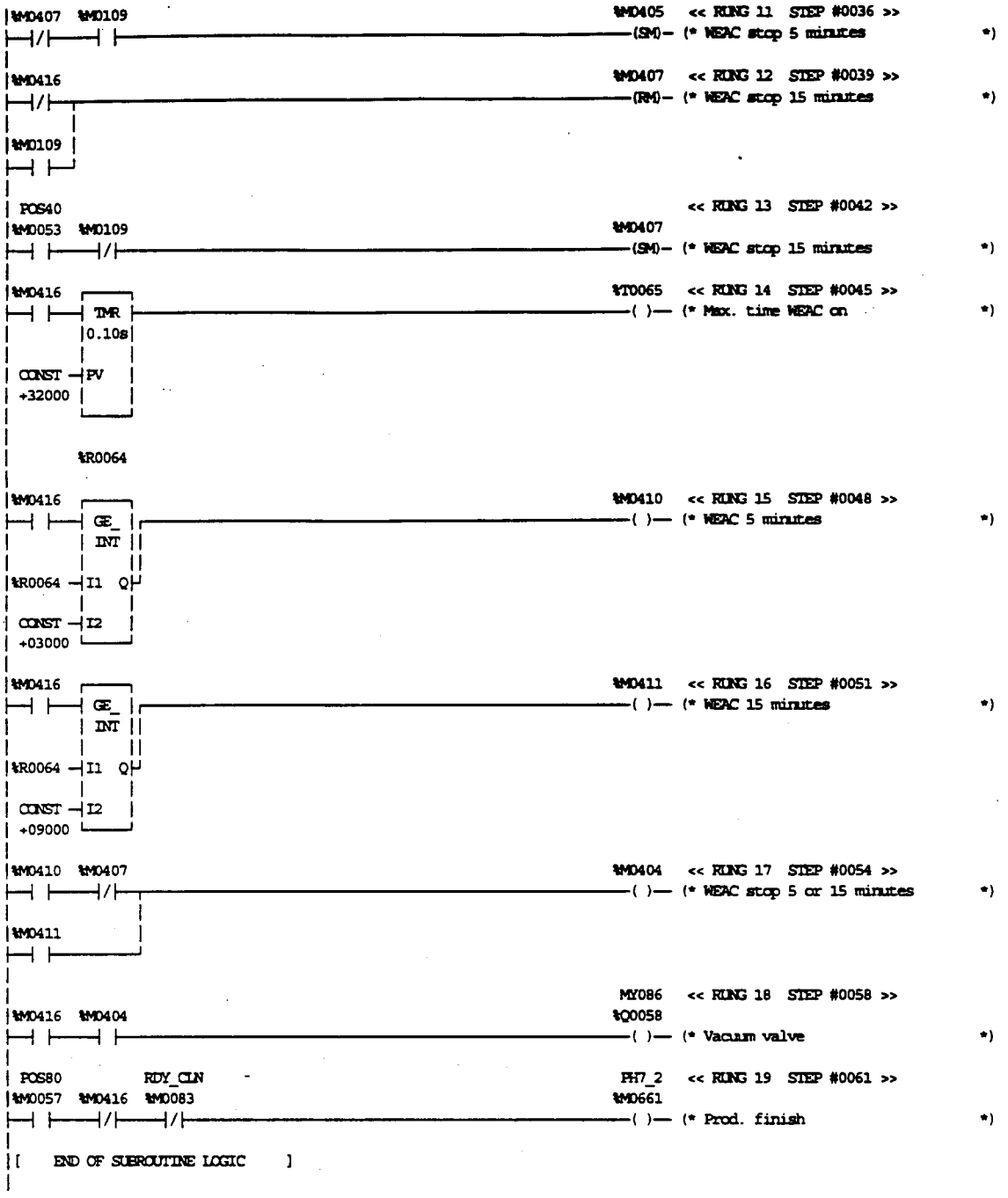
REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0088		Aux.mem for delayed jump 0	%Q0015	K011	Main motor high speed
%M0090		Machine to pos. 00 delayed	%I0029	MB051	Product pipe position
%M0091		Machine to pos 00	%I0032	MB063	Cleaning pipe position
%M0099		Spray malfunction	%M0325	NOT_L11	Line L11-L10 not ok
%M0348		Wrong pos.reg valve	%M0324	NO_PWR	Power failure
%M0422		Peroxid bath full in steril.	%M0611	PH11	Low press. main air
%M0538		Wrong cond. for spray	%M0051	POS20	Ladder pos 20
%M0540		Steril air pipe missing	%M0067	POS2080	Machine ladder pos 20-80
%M0542		Bypass steril condit. alarm	%M0052	POS30	Ladder pos 30
%I0064	A506-42	Emerg. stop signal	%I0009	S004	Service switch

```
|[ START LD SUBROUTINE  BLK23  ]
|
|[    VARIABLE DECLARATIONS    ]
|
|[  START OF SUBROUTINE LOGIC  ]
|
|                                                          PHB_1   << RUNG 4  STEP #0002 >>
|%M0416                                                    %M0693
|--| |-------------------------------------------------------( )-- (* WEAC  on                  *)
|
|                                                          PHB_2   << RUNG 5  STEP #0004 >>
|%M0402  %M0416  %M0404                                    %M0694
|--| |---| |---| |-------------------------------------------( )-- (* Ready for door opening  *)
|        |
| FLASH  |
|%T0052  |
|--| |---|
|
| POS00                                                            << RUNG 6  STEP #0009 >>
|%M0049          %M0405                                    %M0416
|--| |-----------| |-------------------------------------(SM)-- (* WEAC stop on              *)
|                |           |
| POS80  POS2080 |           |
|%M0057  %M0067  |%M0407     |
|--| |---|/|---| |---|       |
|
| MB21                                                             << RUNG 7  STEP #0017 >>
|%I0131  %T0017  %M0402                                    %M0416
|--| |---| |---| |-------------------------------------(RM)-- (* WEAC stop on              *)
|                |           |
| MB002          |           |
|%I0011          |           |
|--|/|-----------|           |
|                |           |
|A303-15         |           |
|%I0044          |           |
|--| |-----------|           |
|                |           |
|%T0064          |           |
|--| |-----------|           |
|                |           |
|RDY_CLN         |           |
|%M0083          |           |
|--| |-----------|           |
|                |           |
|%T0065          |           |
|--| |-----------|           |
|                |           |
|        S004    |           |
|%M0410  %I0009  |           |
|--| |---| |-----|           |
|
| MB21                                                             << RUNG 8  STEP #0029 >>
|%I0131  %M0404                                            %M0402
|--|/|---| |-------------------------------------------(SM)-- (* Mem. door monitor           *)
|
| K006                                                             << RUNG 9  STEP #0032 >>
|%Q0019                                                    %M0402
|--|/|-------------------------------------------------------(RM)-- (* Mem. door monitor      *)
|
|%M0416                                                    %M0405  << RUNG 10  STEP #0034 >>
|--|/|-------------------------------------------------------(RM)-- (* WEAC stop 5 minutes    *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0402		Mem. door monitor
%M0404		WEAC stop 5 or 15 minutes
%M0405		WEAC stop 5 minutes
%M0407		WEAC stop 15 minutes
%M0410		WEAC 5 minutes
%M0416		WEAC stop on
%T0017		Step down P+
%T0064		Water press. delayd
%T0065		Max. time WEAC on
%I0044	A303-15	Separator high level
%T0052	FLASH	Panel flash contact

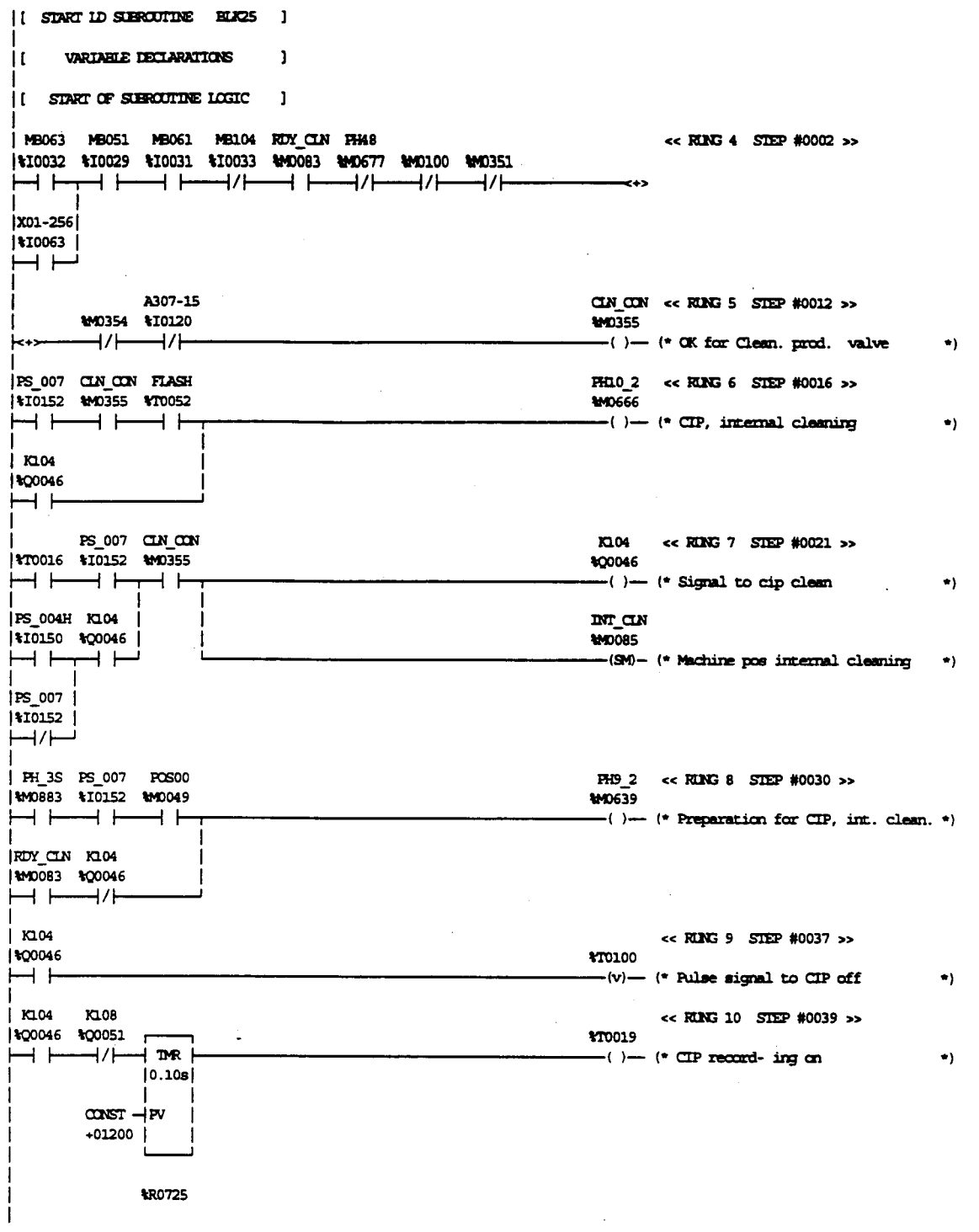
REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%Q0019	K006	Com- pressor
%I0011	MB002	Main air pressure
%I0131	MB21	Super struct. door monitor
%M0693	PHB_1	WEAC on
%M0694	PHB_2	Ready for door opening
%M0049	POS00	Ladder pos 00
%M0067	POS2080	Machine ladder pos 20-80
%M0057	POS80	Machine ladder pos 80
%M0083	RDY_CLN	Machine pos ready for cleaning
%I0009	S004	Service switch

BLOCK: 23 WORK ENVIRONMENT ASEPTIC CHAMBER



REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME		REFERENCE DESCRIPTION
%M0109	Drying after spray- ing	%T0065		Max. time WEAC on
%M0404	WEAC stop 5 or 15 minutes	%R0064		WEAC funct. on
%M0405	WEAC stop 5 minutes	%Q0058	MY086	Vacuum valve
%M0407	WEAC stop 15 minutes	%M0661	PH7_2	Prod. finish
%M0410	WEAC 5 minutes	%M0053	POS40	Machine ladder pos 40
%M0411	WEAC 15 minutes	%M0057	POS80	Machine ladder pos 80
%M0416	WEAC stop on	%M0083	RDY_CLN	Machine pos ready for cleaning

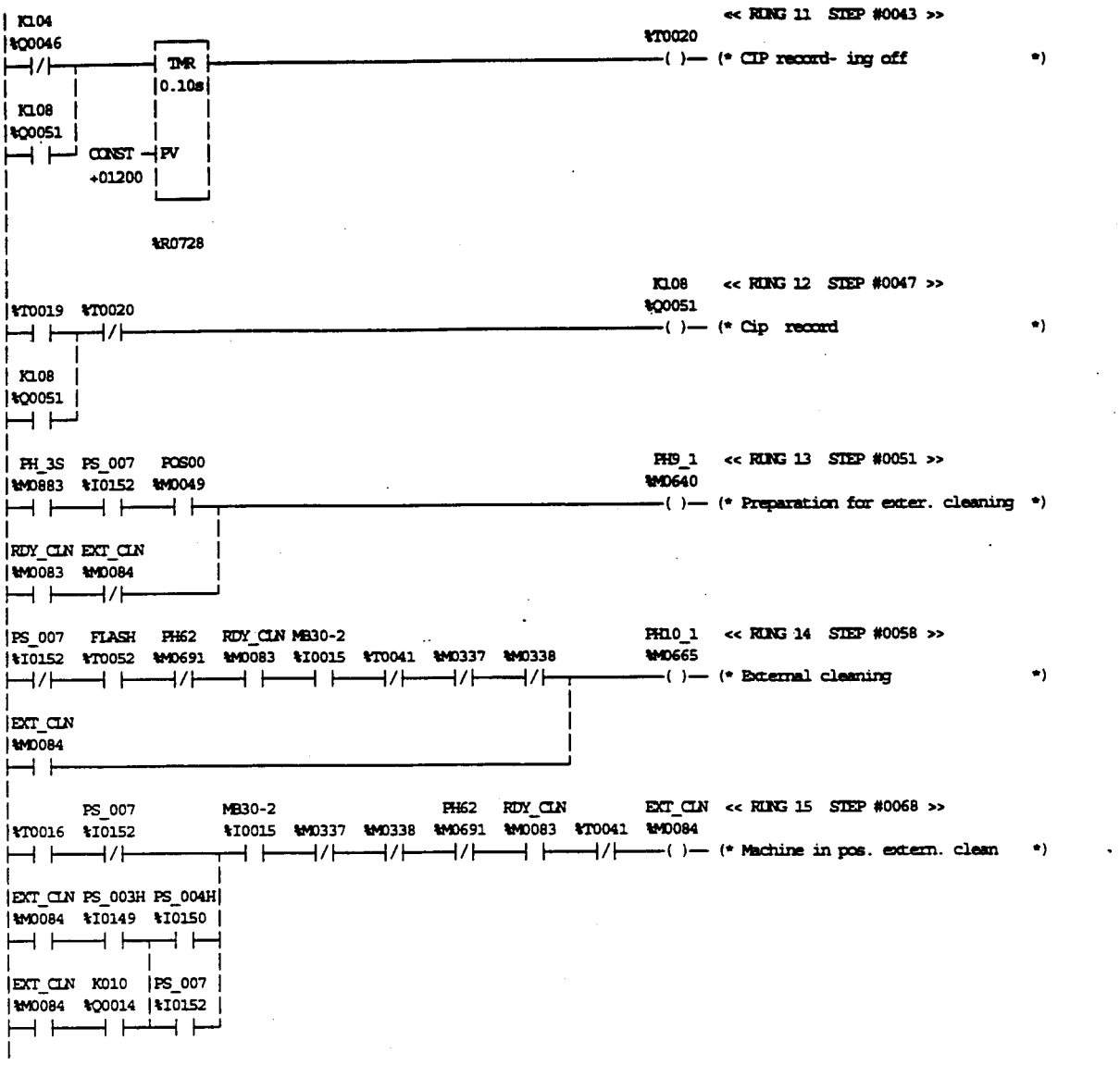
BLOCK: 23 WORK ENVIRONMENT ASEPTIC CHAMBER



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0100		Steam fault
%M0351		Open pos.mem regul. valve
%M0354		Wrong pos.reg val.al. delay
%T0016		Step up P+
%T0019		CIP record- ing on
%T0100		Pulse signal to CIP off
%R0725		CIP record. going on
%I0120	A307-15	Membran leakage regulat valve
%M0355	CLN_CON	OK for Clean. prod. valve
%T0052	FLASH	Panel flash contact
%M0085	INT_CLN	Machine pos internal cleaning
%Q0046	K104	Signal to cip clean
%Q0051	K108	Cip record

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%I0029	MB051	Product pipe position
%I0031	MB061	Cleaning cup position
%I0032	MB063	Cleaning pipe position
%I0033	MB104	Steril air pipe in position
%M0666	PH10_2	CIP, internal cleaning
%M0677	PH48	Wrong pos. AP valve B
%M0639	PH9_2	Preparation for CIP, int. clean.
%M0883	PH_3S	Step up button
%M0049	POS00	Ladder pos 00
%I0150	PS_004H	Step down
%I0152	PS_007	Select switch clean.
%M0083	RDY_CLN	Machine pos ready for cleaning
%I0063	X01-256	Clean of prod. valve

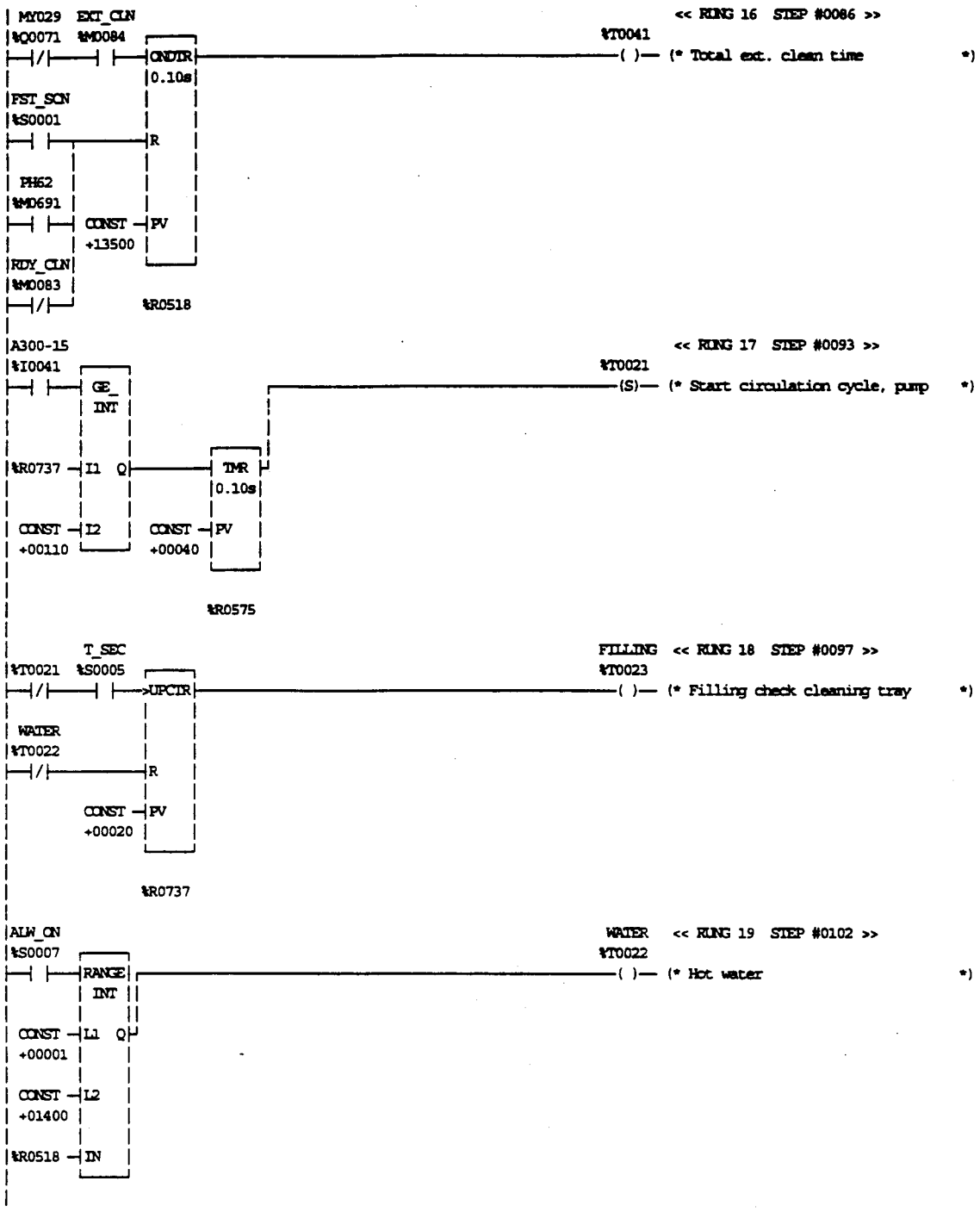
BLOCK: 25 INTERNAL/EXTERNAL CLEANING



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0337		Jaw alarm release clutch
%M0338		M.Motor disable & keep clutch
%T0016		Step up P+
%T0019		CIP record- ing on
%T0020		CIP record- ing off
%T0041		Total ext. clean time
%R0728		CIP record. off
%M0084	EXT_CLN	Machine in pos. extern. clean
%T0052	FLASH	Panel flash contact
%Q0014	K010	Main motor low speed
%Q0046	K104	Signal to cip clean

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%Q0051	K108	Cip record
%I0015	MB30-2	Lubrication oil low level
%M0665	PH10_1	External cleaning
%M0691	PH62	Fault filling clean. tray
%M0640	PH9_1	Preparation for exter. cleaning
%M0883	PH_3S	Step up button
%M0049	POS00	Ladder pos 00
%I0149	PS_003H	Step up
%I0150	PS_004H	Step down
%I0152	PS_007	Select switch clean.
%M0083	RDY_CLN	Machine pos ready for cleaning

BLOCK: 25 INTERNAL/EXTERNAL CLEANING



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%T0021		Start circulation cycle, pump
%T0041		Total ext. clean time
%R0518		Sq.ext.clean prg.
%R0575		Delay fill. clean. tray
%R0737		Time clean tray fill.
%I0041	A300-15	Clean tray level
%S0007	ALW_ON	
%M0084	EXT_CLN	Machine in pos. extern. clean

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%T0023	FILLING	Filling check cleaning tray
%S0001	FST_SCN	
%Q0071	MY029	Clean system hot water
%M0691	PH62	Fault filling clean. tray
%M0083	RDY_CLN	Machine pos ready for cleaning
%S0005	T_SEC	
%T0022	WATER	Hot water

BLOCK: 25 INTERNAL/EXTERNAL CLEANING

```
|ALW_ON                                                    WATER   << RUNG 20  STEP #0105 >>
|%S0007                                                   %T0022
|--| |--|RANGE|-------------------------------------------(S)-- (* Hot water                 *)
|        | INT ||
|        |     ||
| CONST -|L1  Q|-
| +02000 |     |
|        |     |
| CONST -|L2   |
| +07400 |     |
|        |     |
|%R0518 -|IN   |
|        |_____|
|
|ALW_ON                                                    WATER   << RUNG 21  STEP #0108 >>
|%S0007                                                   %T0022
|--| |--|RANGE|-------------------------------------------(S)-- (* Hot water                 *)
|        | INT ||
|        |     ||
| CONST -|L1  Q|-
| +08100 |     |
|        |     |
| CONST -|L2   |
| +09500 |     |
|        |     |
|%R0518 -|IN   |
|        |_____|
|
|ALW_ON                                                    WATER   << RUNG 22  STEP #0111 >>
|%S0007                                                   %T0022
|--| |--|RANGE|-------------------------------------------(S)-- (* Hot water                 *)
|        | INT ||
|        |     ||
| CONST -|L1  Q|-
| +10200 |     |
|        |     |
| CONST -|L2   |
| +11600 |     |
|        |     |
|%R0518 -|IN   |
|        |_____|
|
| WATER                                                                << RUNG 23  STEP #0114 >>
|%T0022                                                   %T0021
|--|/|-------------------------------------------------------(R)-- (* Start circulation cycle, pump  *)
|
| WATER                                                    MY029   << RUNG 24  STEP #0116 >>
|%T0022  %T0021                                           %Q0071
|--| |---|/|-------------------------------------------------( )-- (* Clean  system hot  water     *)
|
| MY029   MY002                                            K002    << RUNG 25  STEP #0119 >>
|%Q0071  %Q0069                                           %Q0038
|--| |---| |--|RANGE|-------------------------------------( )-- (* Deterg. pump  motor          *)
|             | INT ||
|             |     ||
|       CONST -|L1  Q|-
|       +02000 |     |
|              |     |
|       CONST -|L2   |
|       +07400 |     |
|              |     |
|      %R0518 -|IN   |
|              |_____|
|
|EXT_CLN                                                   K008    << RUNG 26  STEP #0123 >>
|%M0084  %T0021                                           %Q0016
|--| |---| |-------------------------------------------------( )-- (* Clean system  circ. pump m.  *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%T0021		Start circulation cycle, pump	%Q0016	K008	Clean system circ. pump m.
%R0518		Sq.ext.clean prg.	%Q0069	MY002	Clean tray drain
%S0007	ALW_ON		%Q0071	MY029	Clean system hot water
%M0084	EXT_CLN	Machine in pos. extern. clean	%T0022	WATER	Hot water
%Q0038	K002	Deterg. pump motor			

BLOCK: 25 INTERNAL/EXTERNAL CLEANING

```
| ALRES                                                          PH62    << RUNG 27  STEP #0126 >>
|%M0550                                                         %M0691
|--| |-------------------------------------------------------(R)-- (* Fault filling clean. tray      *)
|
|A300-15                                                        PH62    << RUNG 28  STEP #0128 >>
|%I0041  ,-------,                                              %M0691
|--| |--|RANGE  |-------------------------------------------(S)-- (* Fault filling clean. tray      *)
|       | INT   ||
|       |       ||
| CONST -|L1  Q  |
| +00100 |       |
|        |       |
| CONST -|L2     |
| +00110 |       |
|        |       |
|%R0737 -|IN     |
|        `-------'
|
|A300-15                                                        PH62    << RUNG 29  STEP #0131 >>
|%I0041  ,-------,                                              %M0691
|--|/|--| GE_   |-------------------------------------------(S)-- (* Fault filling clean. tray      *)
|       | INT   ||
|       |       ||
|%R0737 -|I1  Q  |
|        |       |
| CONST -|I2     |
| +00570 `-------'
|
|[    END OF SUBROUTINE LOGIC     ]
|
```

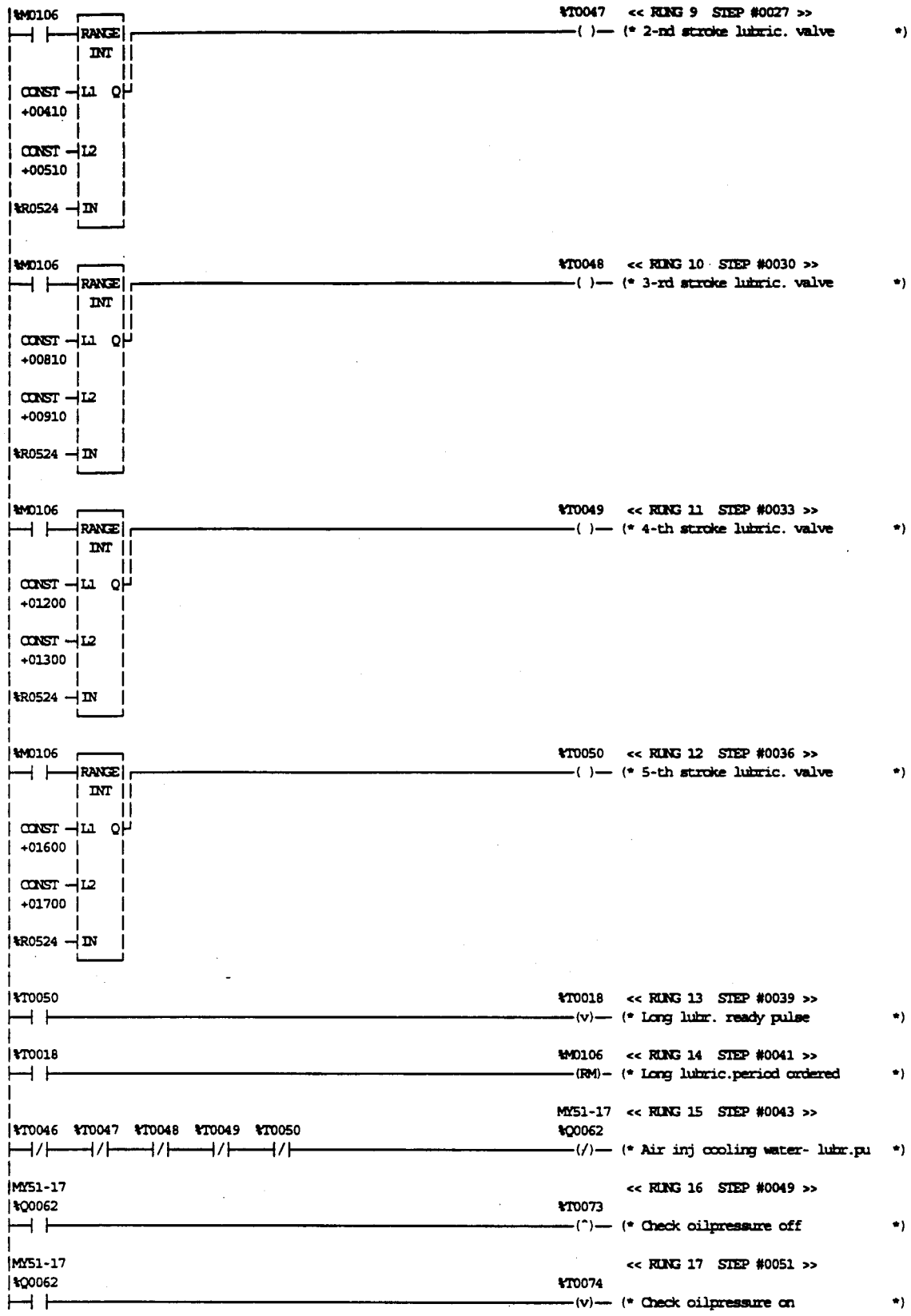
REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%R0737		Time clean tray fill.	%M0550	ALRES	Alarm reset P+
%I0041	A300-15	Clean tray level	%M0691	PH62	Fault filling clean. tray

```
|[ START LD SUBROUTINE   BLK26  ]
|
|[    VARIABLE DECLARATIONS     ]
|
|[  START OF SUBROUTINE LOGIC   ]
|
|PS_003H  POS20          MB30-2                                    << RUNG 4  STEP #0002 >>
|%I0149  %M0051  %M0300  %I0015                          %M0106
|--| |---| |---| |---| |-------------------------------------(SM)-- (* Long lubric.period ordered      *)
|                |  S004  |
|                |%I0009  |
|                |--| |--|
|                |        |
| MS014   MB002  |        |
|%I0010  %I0011  |        |
|--| |---| |-----|        |
|
|EXT_CLN                                                           << RUNG 5  STEP #0012 >>
|%M0084                                                  %M0106
|--| |--| EQ_ |-------------------------------------------(SM)-- (* Long lubric.period ordered      *)
|       | INT ||
|       |     ||
|%R0518 -|I1  Q|
|        |     |
| CONST -|I2   |
| +11600 |-----|
|
|                                                        LUBPULS  << RUNG 6  STEP #0015 >>
|%M0106                                                  %T0030
|--| |-------------------------------------------------(^)-- (* Output puls long lubrication   *)
|
|%M0106                  ,-------,                       %T0045  << RUNG 7  STEP #0017 >>
|--| |-------------------|ONDTR  |-------------------------( )-- (* Time lubric. period          *)
|       |                |0.10s  |
| K011  |                |       |
|%Q0015 |                |       |
|--| |--|                |       |
|       |          ,-----|R      |
|       |          |     |       |
|LUBPULS|          |     |       |
|%T0030 |          |     |       |
|--| |--|----------|     |       |
|       |  CONST -|PV    |       |
|       |  +09000 |      |       |
|       |         |      |       |
|%T0045 |         |      |       |
|--| |--|         %R0524  |       |
|
|%M0106                  ,-------,                       %T0046  << RUNG 8  STEP #0023 >>
|--| |-------------------| LE_   |-------------------------( )-- (* 1-st stroke lubric. valve     *)
|       |                | INT ||
| K011  |                |     ||
|%Q0015 |                |     ||
|--| |--|%R0524 -|I1  Q|
|          |     |
|          CONST -|I2   |
|          +00100 |-----|
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0106		Long lubric.period ordered
%M0300		Tube sealing going on
%T0045		Time lubric. period
%T0046		1-st stroke lubric. valve
%R0518		Sq.ext.clean prg.
%R0524		Timer sq. lubric.
%M0084	EXT_CLN	Machine in pos. extern. clean
%Q0015	K011	Main motor high speed

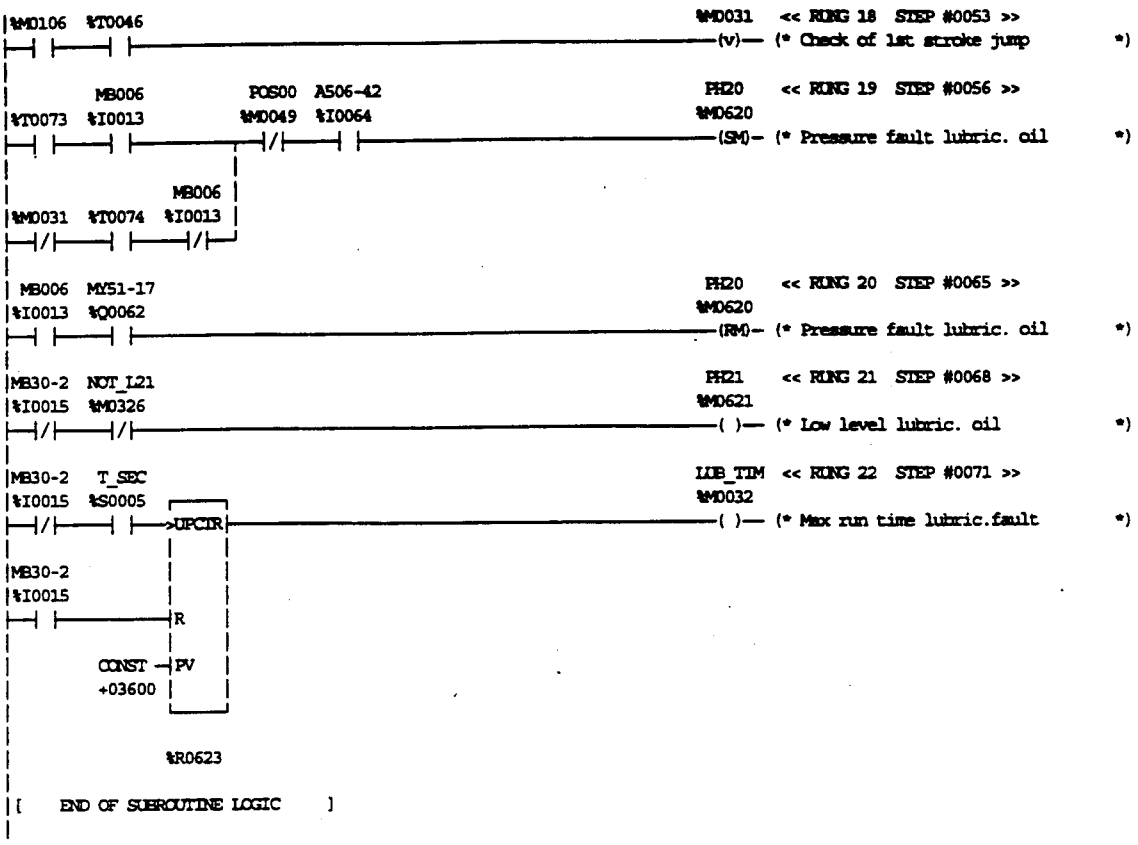
REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%T0030	LUBPULS	Output puls long lubrication
%I0011	MB002	Main air pressure
%I0015	MB30-2	Lubrication oil low level
%I0010	MS014	Manual lubrication
%M0051	POS20	Ladder pos 20
%I0149	PS_003H	Step up
%I0009	S004	Service switch

BLOCK: 26 LUBRICATION



REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0106	Long lubric.period ordered	%T0050	5-th stroke lubric. valve
%T0018	Long lubr. ready pulse	%T0073	Check oilpressure off
%T0046	1-st stroke lubric. valve	%T0074	Check oilpressure on
%T0047	2-nd stroke lubric. valve	%R0524	Timer sq. lubric.
%T0048	3-rd stroke lubric. valve	%Q0062 MY51-17	Air inj cooling water- lubr.pu
%T0049	4-th stroke lubric. valve		

BLOCK: 26 LUBRICATION



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0031		Check of 1st stroke jump
%M0106		Long lubric.period ordered
%T0046		1-st stroke lubric. valve
%T0073		Check oilpressure off
%T0074		Check oilpressure on
%R0623		Max.run time lubric. fault
%I0064	A506-42	Emerg. stop signal
%M0032	LUB_TIM	Max run time lubric.fault

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%I0013	MB006	Lubrication oil pressure
%I0015	MB30-2	Lubrication oil low level
%Q0062	MY51-17	Air inj cooling water- lubr.pu
%M0326	NOT_L21	Line L21-L20 not ok
%M0620	PH20	Pressure fault lubric. oil
%M0621	PH21	Low level lubric. oil
%M0049	POS00	Ladder pos 00
%S0005	T_SEC	

BLOCK: 26 LUBRICATION

```
|[ START LD SUBROUTINE  BLK30  ]
|
|[    VARIABLE DECLARATIONS    ]
|
|[  START OF SUBROUTINE LOGIC  ]
|
|        FLASH                                          FLASH   << RUNG 4  STEP #0002 >>
|%M0041  %T0052                                        %T0052
|--| |---|/|-------------------------------------------( )-- (* Panel flash contact          *)
|        |  |
|        FLASH |
|%M0041  %T0052 |
|--|/|---| |--|
|
|PS_011H                                                ALRES   << RUNG 5  STEP #0008 >>
|%I0145                                                 %M0550
|--| |-------------------------------------------------(^)-- (* Alarm reset P+              *)
|
| ALRES                                                       << RUNG 6  STEP #0010 >>
|%M0550  ,-------,
|--| |---|MOVE_|--
|        | INT |
|        |     |
| CONST -|IN  Q|--%M0697
| +00000 | LEN |
|        |00008|
|        |     |
|        '-----'
|
| PH1_1   FLASH                                         PH_1-1  << RUNG 7  STEP #0012 >>
|%M0627  %T0052                                         %M0844
|--| |---| |-------------------------------------------( )-- (* Preheat 1                  *)
|        |  |
| POS10  |  |
|%M0050  |  |
|--| |---|  |
|
| PH1_2   FLASH                                         PH_1-2  << RUNG 8  STEP #0016 >>
|%M0628  %T0052                                         %M0843
|--| |---| |-------------------------------------------( )-- (* Preheat 2                  *)
|        |  |
| POS20  |  |
|%M0051  |  |
|--| |---|  |
|
| PH2_1   FLASH                                         PH_2-1  << RUNG 9  STEP #0020 >>
|%M0629  %T0052                                         %M0842
|--| |---| |-------------------------------------------( )-- (* Tube sealing               *)
|        |  |
|%M0300  |  |
|--| |---|  |
|
| PH2_2                                                 PH_2-2  << RUNG 10  STEP #0024 >>
|%M0630                                                 %M0841
|--| |-------------------------------------------------( )-- (* Heating 3                  *)
|
| PH3_1   FLASH                                         PH_3-1  << RUNG 11  STEP #0026 >>
|%M0631  %T0052                                         %M0840
|--| |---| |-------------------------------------------( )-- (* Spray                      *)
|        |  |
| POS40  |  |
|%M0053  %M0108 |
|--| |---|/|--|
|
```

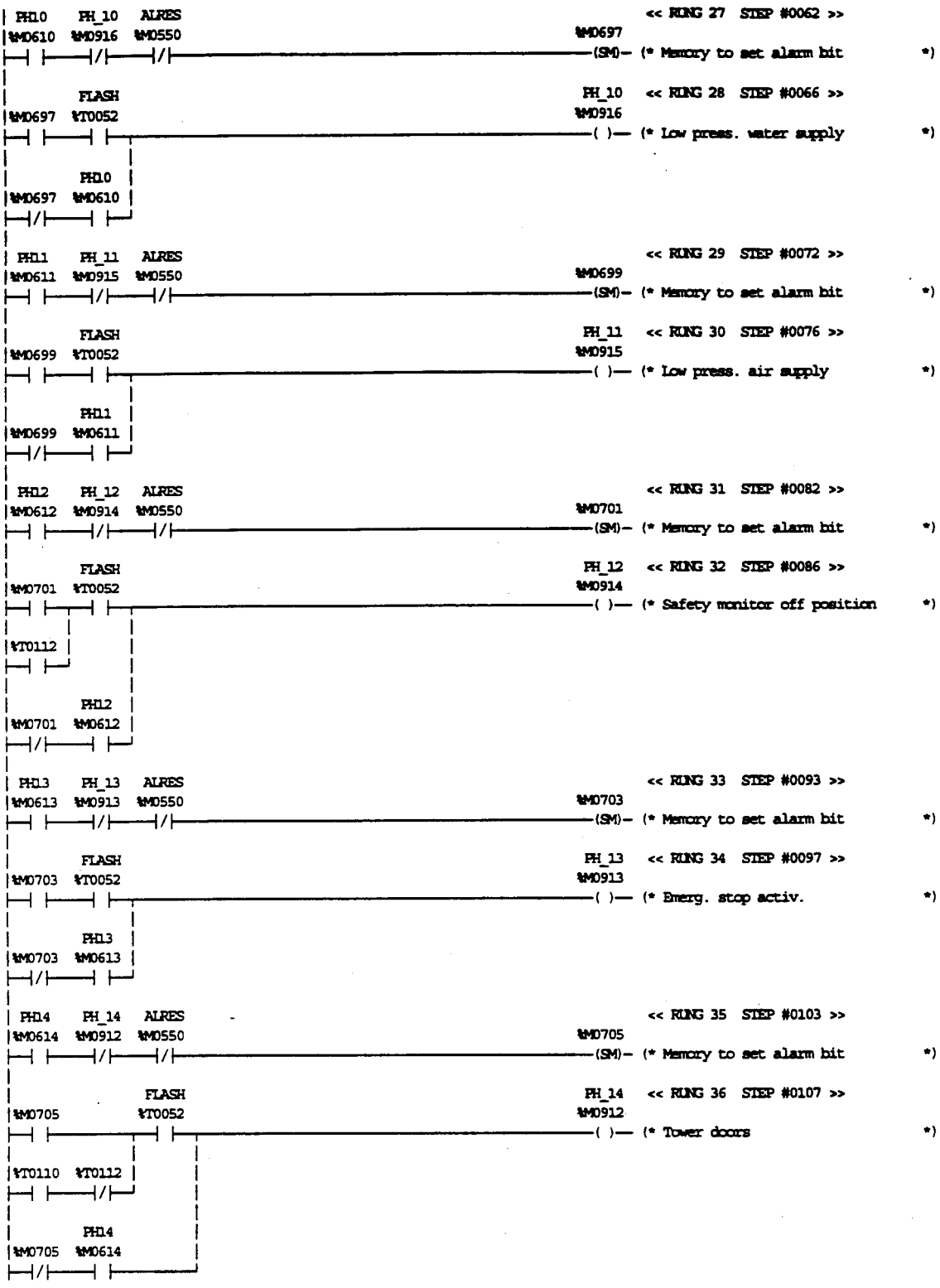
REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0041		Pause to mux card	%M0631	PH3_1	Spray
%M0108		Spray full filled	%M0844	PH_1-1	Preheat 1
%M0300		Tube sealing going on	%M0843	PH_1-2	Preheat 2
%M0697		Memory to set alarm bit	%M0842	PH_2-1	Tube sealing
%M0550	ALRES	Alarm reset P+	%M0841	PH_2-2	Heating 3
%T0052	FLASH	Panel flash contact	%M0840	PH_3-1	Spray
%M0627	PH1_1	Preheat 1	%M0050	POS10	Ladder pos 10
%M0628	PH1_2	Preheat 2	%M0051	POS20	Ladder pos 20
%M0629	PH2_1	Tube sealing	%M0053	POS40	Machine ladder pos 40
%M0630	PH2_2	Heating 3	%I0145	PS_011H	Alarm reset push buttom

BLOCK: 30 INDICATION AND HANDLE OF ALARM

```
| PH3_2                                                    PH_3-2  << RUNG 12  STEP #0032 >>
|%MD632                                                   %MD839
|--| |-------------------------------------------------------( )-- (* Drying                    *)
|
| PH4_1                                                    PH_4-1  << RUNG 13  STEP #0034 >>
|%MD633                                                   %MD838
|--| |-------------------------------------------------------( )-- (* Signal to steril.       *)
|
| PH4_2                                                    PH_4-2  << RUNG 14  STEP #0036 >>
|%MD634                                                   %MD837
|--| |-------------------------------------------------------( )-- (* Signal from steril.     *)
|
| PH5_1                                                    PH_5-1  << RUNG 15  STEP #0038 >>
|%MD635                                                   %MD852
|--| |-------------------------------------------------------( )-- (* Start sequenc          *)
|
| PH5_2                                                    PH_5-2  << RUNG 16  STEP #0040 >>
|%MD636                                                   %MD851
|--| |-------------------------------------------------------( )-- (* Drive motor on         *)
|
| PH6-1                                                    PH_6-1  << RUNG 17  STEP #0042 >>
|%MD637                                                   %MD850
|--| |-------------------------------------------------------( )-- (* Filling on             *)
|
| PH6_2                                                    PH_6-2  << RUNG 18  STEP #0044 >>
|%MD638                                                   %MD849
|--| |-------------------------------------------------------( )-- (* Machine in product     *)
|
| PH7_1                                                    PH_7-1  << RUNG 19  STEP #0046 >>
|%MD695                                                   %MD848
|--| |-------------------------------------------------------( )-- (* Short stop             *)
|
| PH7_2                                                    PH_7-2  << RUNG 20  STEP #0048 >>
|%MD661                                                   %MD847
|--| |-------------------------------------------------------( )-- (* Prod. finish           *)
|
| PH8_1                                                    PH_8-1  << RUNG 21  STEP #0050 >>
|%MD693                                                   %MD846
|--| |-------------------------------------------------------( )-- (* Weac on                *)
|
| PH8_2                                                    PH_8-2  << RUNG 22  STEP #0052 >>
|%MD694                                                   %MD845
|--| |-------------------------------------------------------( )-- (* Ready for door opening  *)
|
| PH9_1                                                    PH_9-1  << RUNG 23  STEP #0054 >>
|%MD640                                                   %MD876
|--| |-------------------------------------------------------( )-- (* Ready clean. of valve   *)
|
| PH9_2                                                    PH_9-2  << RUNG 24  STEP #0056 >>
|%MD639                                                   %MD875
|--| |-------------------------------------------------------( )-- (* Ready clean. of machine *)
|
|PH10_1                                                    PH_10-1 << RUNG 25  STEP #0058 >>
|%MD665                                                   %MD874
|--| |-------------------------------------------------------( )-- (* Clean. of valve         *)
|
|PH10_2                                                    PH_10-2 << RUNG 26  STEP #0060 >>
|%MD666                                                   %MD873
|--| |-------------------------------------------------------( )-- (* Clean. of machine       *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%MD665	PH10_1	External cleaning	%MD874	PH_10-1	Clean. of valve
%MD666	PH10_2	CIP, internal cleaning	%MD873	PH_10-2	Clean. of machine
%MD632	PH3_2	Steril- isation	%MD839	PH_3-2	Drying
%MD633	PH4_1	Signal to steri-lizer	%MD838	PH_4-1	Signal to steril.
%MD634	PH4_2	Signal from steri- lizer	%MD837	PH_4-2	Signal from steril.
%MD635	PH5_1	Start sequenc	%MD852	PH_5-1	Start sequenc
%MD636	PH5_2	Drive motor on	%MD851	PH_5-2	Drive motor on
%MD637	PH6-1	Filling on	%MD850	PH_6-1	Filling on
%MD638	PH6_2	Machine in prod.	%MD849	PH_6-2	Machine in product
%MD695	PH7_1	Short stop	%MD848	PH_7-1	Short stop
%MD661	PH7_2	Prod. finish	%MD847	PH_7-2	Prod. finish
%MD693	PH8_1	WEAC on	%MD846	PH_8-1	Weac on
%MD694	PH8_2	Ready for door opening	%MD845	PH_8-2	Ready for door opening
%MD640	PH9_1	Preparation for exter. cleaning	%MD876	PH_9-1	Ready clean. of valve
%MD639	PH9_2	Preparation for CIP, int. clean.	%MD875	PH_9-2	Ready clean. of machine

BLOCK: 30 INDICATION AND HANDLE OF ALARM



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0697		Memory to set alarm bit	%M0611	PH11	Low press. main air
%M0699		Memory to set alarm bit	%M0612	PH12	Safety monitor
%M0701		Memory to set alarm bit	%M0613	PH13	Fault emerg. stop jaw rot
%M0703		Memory to set alarm bit	%M0614	PH14	Tower doors
%M0705		Memory to set alarm bit	%M0916	PH_10	Low press. water supply
%T0110		Auxillary tower doors alarm	%M0915	PH_11	Low press. air supply
%T0112		Auxillary side protection alarm	%M0914	PH_12	Safety monitor off position
%M0550	ALRES	Alarm reset P+	%M0913	PH_13	Emerg. stop activ.
%T0052	FLASH	Panel flash contact	%M0912	PH_14	Tower doors
%M0610	PH10	Low press. main water			

BLOCK: 30 INDICATION AND HANDLE OF ALARM

```
| PH15    PH_15   ALRES                                          << RUNG 37  STEP #0116 >>
|%M0615  %M0911  %M0550                                %M0716
|--| |----|/|----|/|-------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                          PH_15   << RUNG 38  STEP #0120 >>
|%M0716  %T0052                                        %M0911
|--| |----| |-------------------------------------------( )-- (* Jaw system overloa          *)
|          |
|        PH15  |
|%M0716  %M0615|
|--|/|----| |--|
|
| PH16    PH_16   ALRES                                          << RUNG 39  STEP #0126 >>
|%M0616  %M0910  %M0550                                %M0714
|--| |----|/|----|/|-------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                          PH_16   << RUNG 40  STEP #0130 >>
|%M0714  %T0052                                        %M0910
|--| |----| |-------------------------------------------( )-- (* Unsync. MM-FF               *)
|          |
|        PH16  |
|%M0714  %M0616|
|--|/|----| |--|
|
| PH17    PH_17   ALRES                                          << RUNG 41  STEP #0136 >>
|%M0617  %M0909  %M0550                                %M0749
|--| |----|/|----|/|-------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                          PH_17   << RUNG 42  STEP #0140 >>
|%M0749  %T0052                                        %M0909
|--| |----| |-------------------------------------------( )-- (* Free                        *)
|          |
|        PH17  |
|%M0749  %M0617|
|--|/|----| |--|
|
| PH18    PH_18   ALRES                                          << RUNG 43  STEP #0146 >>
|%M0618  %M0897  %M0550                                %M0698
|--| |----|/|----|/|-------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                          PH_18   << RUNG 44  STEP #0150 >>
|%M0698  %T0052                                        %M0897
|--| |----| |-------------------------------------------( )-- (* Overl. protect motor        *)
|          |
|        PH18  |
|%M0698  %M0618|
|--|/|----| |--|
|
| PH19    PH_19   ALRES                                          << RUNG 45  STEP #0156 >>
|%M0619  %M0898  %M0550                                %M0700
|--| |----|/|----|/|-------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                          PH_19   << RUNG 46  STEP #0160 >>
|%M0700  %T0052                                        %M0898
|--| |----| |-------------------------------------------( )-- (* Service switch             *)
|          |
|        PH19  |
|%M0700  %M0619|
|--|/|----| |--|
|
| PH20    PH_20   ALRES                                          << RUNG 47  STEP #0166 >>
|%M0620  %M0899  %M0550                                %M0702
|--| |----|/|----|/|-------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0698		Memory to set alarm bit	%M0617	PH17	For future use
%M0700		Memory to set alarm bit	%M0618	PH18	Over- load motors
%M0702		Memory to set alarm bit	%M0619	PH19	Service switch
%M0714		Memory to set alarm bit	%M0620	PH20	Pressure fault lubric. oil
%M0716		Memory to set alarm bit	%M0911	PH_15	Jaw system overloa
%M0749		Memory to set alarm bit	%M0910	PH_16	Unsync. MM-FF
%M0550	ALRES	Alarm reset P+	%M0909	PH_17	Free
%T0052	FLASH	Panel flash contact	%M0897	PH_18	Overl. protect motor
%M0615	PH15	Jaw sys. over- load.	%M0898	PH_19	Service switch
%M0616	PH16	Alarm delay unsync. MM/FF	%M0899	PH_20	Low press. lubric. oil

BLOCK: 30 INDICATION AND HANDLE OF ALARM

```
|        FLASH                                                    PH_20   << RUNG 48  STEP #0170 >>
|%M0702  %T0052                                                  %M0899
|--| |----| |-------------------------------------------------------( )-- (* Low press. lubric. oil          *)
|           |
|        PH20 |
|%M0702  %M0620 |
|--|/|----| |--|
|
| PH21    PH_21   ALRES                                                 << RUNG 49  STEP #0176 >>
|%M0621  %M0900  %M0550                                          %M0704
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
|        FLASH                                                    PH_21   << RUNG 50  STEP #0180 >>
|%M0704  %T0052                                                  %M0900
|--| |----| |-------------------------------------------------------( )-- (* Low level lubric. oil          *)
|           |
|        PH21 |
|%M0704  %M0621 |
|--|/|----| |--|
|
| PH22    PH_22   ALRES                                                 << RUNG 51  STEP #0186 >>
|%M0642  %M0901  %M0550                                          %M0706
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
|        FLASH                                                    PH_22   << RUNG 52  STEP #0190 >>
|%M0706  %T0052                                                  %M0901
|--| |----| |-------------------------------------------------------( )-- (* Too hi.temp hydraul unit        *)
|           |
|        PH22 |
|%M0706  %M0642 |
|--|/|----| |--|
|
| PH23    PH_23   ALRES                                                 << RUNG 53  STEP #0196 >>
|%M0643  %M0902  %M0550                                          %M0715
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
|        FLASH                                                    PH_23   << RUNG 54  STEP #0200 >>
|%M0715  %T0052                                                  %M0902
|--| |----| |-------------------------------------------------------( )-- (* Low lev oil on hydraul unit     *)
|           |
|        PH23 |
|%M0715  %M0643 |
|--|/|----| |--|
|
| PH24    PH_24   ALRES                                                 << RUNG 55  STEP #0206 >>
|%M0644  %M0903  %M0550                                          %M0713
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
|        FLASH                                                    PH_24   << RUNG 56  STEP #0210 >>
|%M0713  %T0052                                                  %M0903
|--| |----| |-------------------------------------------------------( )-- (* Machine speed too high         *)
|           |
|        PH24 |
|%M0713  %M0644 |
|--|/|----| |--|
|
| PH25    PH_25   ALRES                                                 << RUNG 57  STEP #0216 >>
|%M0645  %M0904  %M0550                                          %M0711
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0702		Memory to set alarm bit	%M0642	PH22	Temp fault hydraul oil
%M0704		Memory to set alarm bit	%M0643	PH23	Low level hydraul oil
%M0706		Memory to set alarm bit	%M0644	PH24	Speed fault main motor
%M0711		Memory to set alarm bit	%M0645	PH25	PLC fault
%M0713		Memory to set alarm bit	%M0899	PH_20	Low press. lubric. oil
%M0715		Memory to set alarm bit	%M0900	PH_21	Low level lubric. oil
%M0550	ALRES	Alarm reset P+	%M0901	PH_22	Too hi.temp hydraul unit
%T0052	FLASH	Panel flash contact	%M0902	PH_23	Low lev oil on hydraul unit
%M0620	PH20	Pressure fault lubric. oil	%M0903	PH_24	Machine speed too high
%M0621	PH21	Low level lubric. oil	%M0904	PH_25	PLC fault

BLOCK: 30 INDICATION AND HANDLE OF ALARM

```
|        FLASH                                                    PH_25   << RUNG 58  STEP #0220 >>
|%M0711  %T0052                                                  %M0904
|--| |-----| |-------------------------------------------------( )-- (* PLC fault                    *)
|           |
|        PH25 |
|%M0711  %M0645 |
|--|/|-----| |--|
|
| PH26    PH_26   ALRES                                                 << RUNG 59  STEP #0226 >>
|%M0685  %M0905  %M0550                                          %M0707
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
|        FLASH                                                    PH_26   << RUNG 60  STEP #0230 >>
|%M0707  %T0052                                                  %M0905
|--| |-----| |-------------------------------------------------( )-- (* Free                       *)
|           |
|        PH26 |
|%M0707  %M0685 |
|--|/|-----| |--|
|
| PH27    PH_27   ALRES                                                 << RUNG 61  STEP #0236 >>
|%M0622  %M0906  %M0550                                          %M0709
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
|        FLASH                                                    PH_27   << RUNG 62  STEP #0240 >>
|%M0709  %T0052                                                  %M0906
|--| |-----| |-------------------------------------------------( )-- (* Free                       *)
|           |
|        PH27 |
|%M0709  %M0622 |
|--|/|-----| |--|
|
| PH28    PH_28   ALRES                                                 << RUNG 63  STEP #0246 >>
|%M0623  %M0929  %M0550                                          %M0710
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
|        FLASH                                                    PH_28   << RUNG 64  STEP #0250 >>
|%M0710  %T0052                                                  %M0929
|--| |-----| |-------------------------------------------------( )-- (* Free                       *)
|           |
|        PH28 |
|%M0710  %M0623 |
|--|/|-----| |--|
|
| PH29    PH_29   ALRES                                                 << RUNG 65  STEP #0256 >>
|%M0624  %M0930  %M0550                                          %M0712
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
|        FLASH                                                    PH_29   << RUNG 66  STEP #0260 >>
|%M0712  %T0052                                                  %M0930
|--| |-----| |-------------------------------------------------( )-- (* Free                       *)
|           |
|        PH29 |
|%M0712  %M0624 |
|--|/|-----| |--|
|
| PH30    PH_30   ALRES                                                 << RUNG 67  STEP #0266 >>
|%M0646  %M0980  %M0550                                          %M0729
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0707		Memory to set alarm bit	%M0622	PH27	For futur use
%M0709		Memory to set alarm bit	%M0623	PH28	For futur use
%M0710		Memory to set alarm bit	%M0624	PH29	For futur use
%M0711		Memory to set alarm bit	%M0646	PH30	High level separat
%M0712		Memory to set alarm bit	%M0904	PH_25	PLC fault
%M0729		Memory to set alarm bit	%M0905	PH_26	Free
%M0550	ALRES	Alarm reset P+	%M0906	PH_27	Free
%T0052	FLASH	Panel flash contact	%M0929	PH_28	Free
%M0645	PH25	PLC fault	%M0930	PH_29	Free
%M0685	PH26	For futur use	%M0980	PH_30	High level separ.

BLOCK: 30 INDICATION AND HANDLE OF ALARM

```
|        FLASH                                                    PH_30   << RUNG 68  STEP #0270 >>
|%M0729  %T0052                                                  %M0980
|--| |-----| |-------------------------------------------------( )--- (* High level separ.          *)
|          |
|        PH30 |
|%M0729  %M0646 |
|--|/|-----| |--|
|
| PH31    PH_31   ALRES                                                 << RUNG 69  STEP #0276 >>
|%M0647  %M0979  %M0550                                          %M0748
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit    *)
|
|        FLASH                                                    PH_31   << RUNG 70  STEP #0280 >>
|%M0748  %T0052                                                  %M0979
|--| |-----| |-------------------------------------------------( )--- (* Low temp. air heater       *)
|          |
|        PH31 |
|%M0748  %M0647 |
|--|/|-----| |--|
|
| PH32    PH_32   ALRES                                                 << RUNG 71  STEP #0286 >>
|%M0648  %M0978  %M0550                                          %M0730
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit    *)
|
|        FLASH                                                    PH_32   << RUNG 72  STEP #0290 >>
|%M0730  %T0052                                                  %M0978
|--| |-----| |-------------------------------------------------( )--- (* Low pressur steril air     *)
|          |
|        PH32 |
|%M0730  %M0648 |
|--|/|-----| |--|
|
| PH33    PH_33   ALRES                                                 << RUNG 73  STEP #0296 >>
|%M0649  %M0977  %M0550                                          %M0747
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit    *)
|
|        FLASH                                                    PH_33   << RUNG 74  STEP #0300 >>
|%M0747  %T0052                                                  %M0977
|--| |-----| |-------------------------------------------------( )--- (* Wrong pos. of suction valve *)
|          |
|        PH33 |
|%M0747  %M0649 |
|--|/|-----| |--|
|
| PH34    PH_34   ALRES                                                 << RUNG 75  STEP #0306 >>
|%M0650  %M0976  %M0550                                          %M0731
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit    *)
|
|        FLASH                                                    PH_34   << RUNG 76  STEP #0310 >>
|%M0731  %T0052                                                  %M0976
|--| |-----| |-------------------------------------------------( )--- (* Spray time out of limit    *)
|          |
|        PH34 |
|%M0731  %M0650 |
|--|/|-----| |--|
|
| PH35    PH_35   ALRES                                                 << RUNG 77  STEP #0316 >>
|%M0651  %M0975  %M0550                                          %M0746
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit    *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0729		Memory to set alarm bit	%M0648	PH32	Low press. steril air
%M0730		Memory to set alarm bit	%M0649	PH33	Suction valve wrong pos.
%M0731		Memory to set alarm bit	%M0650	PH34	Spray time out of limit
%M0746		Memory to set alarm bit	%M0651	PH35	Low temp air knife
%M0747		Memory to set alarm bit	%M0980	PH_30	High level separ.
%M0748		Memory to set alarm bit	%M0979	PH_31	Low temp. air heater
%M0550	ALRES	Alarm reset P+	%M0978	PH_32	Low pressur steril air
%T0052	FLASH	Panel flash contact	%M0977	PH_33	Wrong pos. of suction valve
%M0646	PH30	High level separat	%M0976	PH_34	Spray time out of limit
%M0647	PH31	Low temp air heater	%M0975	PH_35	Low temp. air Knife

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```
|        FLASH                                                    PH_35   << RUNG 78  STEP #0320 >>
|%M0746  %T0052                                                  %M0975
|--| |-----| |-------------------------------------------------( )-- (* Low temp. air Knife          *)
|                |
|        PH35    |
|%M0746  %M0651  |
|--|/|-----| |--|
|
| PH36    PH_36   ALRES                                                 << RUNG 79  STEP #0326 >>
|%M0652  %M0974  %M0550                                          %M0732
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                                    PH_36   << RUNG 80  STEP #0330 >>
|%M0732  %T0052                                                  %M0974
|--| |-----| |-------------------------------------------------( )-- (* Air inlet wrong pos.          *)
|                |
|        PH36    |
|%M0732  %M0652  |
|--|/|-----| |--|
|
| PH37    PH_37   ALRES                                                 << RUNG 81  STEP #0336 >>
|%M0653  %M0973  %M0550                                          %M0745
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                                    PH_37   << RUNG 82  STEP #0340 >>
|%M0745  %T0052                                                  %M0973
|--| |-----| |-------------------------------------------------( )-- (* Supply of paper to low        *)
|                |
|        PH37    |
|%M0745  %M0653  |
|--|/|-----| |--|
|
| PH38    PH_38   ALRES                                                 << RUNG 83  STEP #0346 >>
|%M0654  %M0961  %M0550                                          %M0733
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                                    PH_38   << RUNG 84  STEP #0350 >>
|%M0733  %T0052                                                  %M0961
|--| |-----| |-------------------------------------------------( )-- (* Paper web fault              *)
|                |
|        PH38    |
|%M0733  %M0654  |
|--|/|-----| |--|
|
| PH39    PH_39   ALRES                                                 << RUNG 85  STEP #0356 >>
|%M0655  %M0931  %M0550                                          %M0774
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                                    PH_39   << RUNG 86  STEP #0360 >>
|%M0774  %T0052                                                  %M0931
|--| |-----| |-------------------------------------------------( )-- (* Low temp. S. A.              *)
|                |
|        PH39    |
|%M0774  %M0655  |
|--|/|-----| |--|
|
| PH40    PH_40   ALRES                                                 << RUNG 87  STEP #0366 >>
|%M0667  %M0962  %M0550                                          %M0786
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0732		Memory to set alarm bit
%M0733		Memory to set alarm bit
%M0745		Memory to set alarm bit
%M0746		Memory to set alarm bit
%M0774		Memory to set alarm bit
%M0786		Memory to set alarm bit
%M0550	ALRES	Alarm reset P+
%T0052	FLASH	Panel flash contact
%M0651	PH35	Low temp air knife
%M0652	PH36	Air inlet wrong pos.

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0653	PH37	Paper supply low
%M0654	PH38	Paper web fault
%M0655	PH39	Low temp strip splice element
%M0667	PH40	Fault IH unit S. A.
%M0975	PH_35	Low temp. air Knife
%M0974	PH_36	Air inlet wrong pos.
%M0973	PH_37	Supply of paper to low
%M0961	PH_38	Paper web fault
%M0931	PH_39	Low temp. S. A.
%M0962	PH_40	Fault IH unit S.A.

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```
|        FLASH                                                    PH_40   << RUNG 88  STEP #0370 >>
|%M0786  %T0052                                                  %M0962
|--| |-----| |-------------------------------------------------------( )-- (* Fault IH unit S.A.          *)
|  |        |
|  |        |
|  |  PH40  |
|  |%M0786  %M0667 |
|  |--|/|---| |--|
|
| PH41    PH_41   ALRES                                                   << RUNG 89  STEP #0376 >>
|%M0657   %M0963  %M0550                                          %M0778
|--| |-----|/|-----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit    *)
|
|        FLASH                                                    PH_41   << RUNG 90  STEP #0380 >>
|%M0778  %T0052                                                  %M0963
|--| |-----| |-------------------------------------------------------( )-- (* Strip supply too low        *)
|  |        |
|  |        |
|  |  PH41  |
|  |%M0778  %M0657 |
|  |--|/|---| |--|
|
| PH42    PH_42   ALRES                                                   << RUNG 91  STEP #0386 >>
|%M0658   %M0964  %M0550                                          %M0764
|--| |-----|/|-----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit    *)
|
|        FLASH                                                    PH_42   << RUNG 92  STEP #0390 >>
|%M0764  %T0052                                                  %M0964
|--| |-----| |-------------------------------------------------------( )-- (* Wrong pos.air knife         *)
|  |        |
|  |        |
|  |  PH42  |
|  |%M0764  %M0658 |
|  |--|/|---| |--|
|
| PH43    PH_43   ALRES                                                   << RUNG 93  STEP #0396 >>
|%M0659   %M0965  %M0550                                          %M0777
|--| |-----|/|-----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit    *)
|
|        FLASH                                                    PH_43   << RUNG 94  STEP #0400 >>
|%M0777  %T0052                                                  %M0965
|--| |-----| |-------------------------------------------------------( )-- (* Steam temp. out of limit     *)
|  |        |
|  |        |
|  |  PH43  |
|  |%M0777  %M0659 |
|  |--|/|---| |--|
|
| PH44    PH_44   ALRES                                                   << RUNG 95  STEP #0406 >>
|%M0660   %M0966  %M0550                                          %M0765
|--| |-----|/|-----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit    *)
|
|        FLASH                                                    PH_44   << RUNG 96  STEP #0410 >>
|%M0765  %T0052                                                  %M0966
|--| |-----| |-------------------------------------------------------( )-- (* Clean. steam barr.          *)
|  |        |
|  |        |
|  |  PH44  |
|  |%M0765  %M0660 |
|  |--|/|---| |--|
|
| PH45    PH_45   ALRES                                                   << RUNG 97  STEP #0416 >>
|%M0674   %M0967  %M0550                                          %M0776
|--| |-----|/|-----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit    *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0764		Memory to set alarm bit	%M0658	PH42	Air knife sq.roll wrong pos.
%M0765		Memory to set alarm bit	%M0659	PH43	Steam temp. out of limit
%M0776		Memory to set alarm bit	%M0660	PH44	Clean steam barrier
%M0777		Memory to set alarm bit	%M0674	PH45	No prod. from process
%M0778		Memory to set alarm bit	%M0962	PH_40	Fault IH unit S.A.
%M0786		Memory to set alarm bit	%M0963	PH_41	Strip supply too low
%M0550	ALRES	Alarm reset P+	%M0964	PH_42	Wrong pos.air knife
%T0052	FLASH	Panel flash contact	%M0965	PH_43	Steam temp. out of limit
%M0667	PH40	Fault IH unit S. A.	%M0966	PH_44	Clean. steam barr.
%M0657	PH41	Low strip supply	%M0967	PH_45	No product from process

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```
|        FLASH                                                    PH_45   << RUNG 98  STEP #0420 >>
|%M0776  %T0052                                                  %M0967
|--| |----| |-------------------------------------------------------( )-- (* No product from process        *)
|                 |
|        PH45     |
|%M0776  %M0674   |
|--|/|----| |--|
|
| PH46    PH_46   ALRES                                                 << RUNG 99  STEP #0426 >>
|%M0675  %M0968  %M0550                                          %M0766
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
|        FLASH                                                    PH_46   << RUNG 100  STEP #0430 >>
|%M0766  %T0052                                                  %M0968
|--| |----| |-------------------------------------------------------( )-- (* Wrong posit. product pipe       *)
|                 |
|        PH46     |
|%M0766  %M0675   |
|--|/|----| |--|
|
| PH47    PH_47   ALRES                                                 << RUNG 101  STEP #0436 >>
|%M0676  %M0969  %M0550                                          %M0775
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
|        FLASH                                                    PH_47   << RUNG 102  STEP #0440 >>
|%M0775  %T0052                                                  %M0969
|--| |----| |-------------------------------------------------------( )-- (* Wrong pos. clean. pipe         *)
|                 |
|        PH47     |
|%M0775  %M0676   |
|--|/|----| |--|
|
| PH48    PH_48   ALRES                                                 << RUNG 103  STEP #0446 >>
|%M0677  %M0970  %M0550                                          %M0767
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
|        FLASH                                                    PH_48   << RUNG 104  STEP #0450 >>
|%M0767  %T0052                                                  %M0970
|--| |----| |-------------------------------------------------------( )-- (* Wrong pos. AP valve B          *)
|                 |
|        PH48     |
|%M0767  %M0677   |
|--|/|----| |--|
|
| PH49    PH_49   ALRES                                                 << RUNG 105  STEP #0456 >>
|%M0678  %M0993  %M0550                                          %M0740
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
|        FLASH                                                    PH_49   << RUNG 106  STEP #0460 >>
|%M0740  %T0052                                                  %M0993
|--| |----| |-------------------------------------------------------( )-- (* Low level bath peroxid         *)
|                 |
|        PH49     |
|%M0740  %M0678   |
|--|/|----| |--|
|
| PH50    PH_50   ALRES                                                 << RUNG 107  STEP #0466 >>
|%M0679  %M0994  %M0550                                          %M0738
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0738		Memory to set alarm bit	%M0676	PH47	Wrong posit. clean. pipe
%M0740		Memory to set alarm bit	%M0677	PH48	Wrong pos. AP valve B
%M0766		Memory to set alarm bit	%M0678	PH49	Low level bath peroxid
%M0767		Memory to set alarm bit	%M0679	PH50	Low level perox.b water
%M0775		Memory to set alarm bit	%M0967	PH_45	No product from process
%M0776		Memory to set alarm bit	%M0968	PH_46	Wrong posit. product pipe
%M0550	ALRES	Alarm reset P+	%M0969	PH_47	Wrong pos. clean. pipe
%T0052	FLASH	Panel flash contact	%M0970	PH_48	Wrong pos. AP valve B
%M0674	PH45	No prod. from process	%M0993	PH_49	Low level bath peroxid
%M0675	PH46	Wrong posit. product pipe	%M0994	PH_50	Low level bath water

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```
|        FLASH                                                    PH_50   << RUNG 108  STEP #0470 >>
|%M0738  %T0052                                                  %M0994
|--| |----| |-------------------------------------------------------( )-- (* Low level bath water          *)
|                |
|        PH50    |
|%M0738  %M0679  |
|--|/|----| |--|
|
| PH51   PH_51   ALRES                                                   << RUNG 109  STEP #0476 >>
|%M0680  %M0995  %M0550                                          %M0739
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                                    PH_51   << RUNG 110  STEP #0480 >>
|%M0739  %T0052                                                  %M0995
|--| |----| |-------------------------------------------------------( )-- (* Low temp.LS element          *)
|                |
|        PH51    |
|%M0739  %M0680  |
|--|/|----| |--|
|
| PH52   PH_52   ALRES                                                   << RUNG 111  STEP #0486 >>
|%M0681  %M0996  %M0550                                          %M0761
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                                    PH_52   << RUNG 112  STEP #0490 >>
|%M0761  %T0052                                                  %M0996
|--| |----| |-------------------------------------------------------( )-- (* Low temp. peroxid           *)
|                |
|        PH52    |
|%M0761  %M0681  |
|--|/|----| |--|
|
| PH53   PH_53   ALRES                                                   << RUNG 113  STEP #0496 >>
|%M0682  %M0997  %M0550                                          %M0780
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                                    PH_53   << RUNG 114  STEP #0500 >>
|%M0780  %T0052                                                  %M0997
|--| |----| |-------------------------------------------------------( )-- (* low temp. water             *)
|                |
|        PH53    |
|%M0780  %M0682  |
|--|/|----| |--|
|
| PH54   PH_54   ALRES                                                   << RUNG 115  STEP #0506 >>
|%M0683  %M0998  %M0550                                          %M0762
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
|        FLASH                                                    PH_54   << RUNG 116  STEP #0510 >>
|%M0762  %T0052                                                  %M0998
|--| |----| |-------------------------------------------------------( )-- (* Bottom cover peroxid bath     *)
|                |
|        PH54    |
|%M0762  %M0683  |
|--|/|----| |--|
|
| PH55   PH_55   ALRES                                                   << RUNG 117  STEP #0516 >>
|%M0684  %M0999  %M0550                                          %M0779
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit      *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0738		Memory to set alarm bit	%M0681	PH52	Low temp. perox.
%M0739		Memory to set alarm bit	%M0682	PH53	Low temp. perox.b water
%M0761		Memory to set alarm bit	%M0683	PH54	Bottom cover perox. bath
%M0762		Memory to set alarm bit	%M0684	PH55	Photocell malfunction
%M0779		Memory to set alarm bit	%M0994	PH_50	Low level bath water
%M0780		Memory to set alarm bit	%M0995	PH_51	Low temp.LS element
%M0550	ALRES	Alarm reset P+	%M0996	PH_52	Low temp. peroxid
%T0052	FLASH	Panel flash contact	%M0997	PH_53	low temp. water
%M0679	PH50	Low level perox.b water	%M0998	PH_54	Bottom cover peroxid bath
%M0680	PH51	Low tem ls elem	%M0999	PH_55	Fault printed design

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```
|        FLASH                                                    PH_55   << RUNG 118  STEP #0520 >>
|%M0779  %T0052                                                  %M0999
|--| |-----| |-------------------------------------------------( )-- (* Fault printed design          *)
|                |
|        PH55    |
|%M0779  %M0684  |
|--|/|-----| |--|
|
| PH56   PH_56   ALRES                                                 << RUNG 119  STEP #0526 >>
|%M0673  %M1000  %M0550                                          %M0784
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit       *)
|
|        FLASH                                                    PH_56   << RUNG 120  STEP #0530 >>
|%M0784  %T0052                                                  %M1000
|--| |-----| |-------------------------------------------------( )-- (* Over- filling               *)
|                |
|        PH56    |
|%M0784  %M0673  |
|--|/|-----| |--|
|
| PH57   PH_57   ALRES                                                 << RUNG 121  STEP #0536 >>
|%M0686  %M1001  %M0550                                          %M0734
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit       *)
|
|        FLASH                                                    PH_57   << RUNG 122  STEP #0540 >>
|%M0734  %T0052                                                  %M1001
|--| |-----| |-------------------------------------------------( )-- (* Wrong posit. clean. cup       *)
|                |
|        PH57    |
|%M0734  %M0686  |
|--|/|-----| |--|
|
| PH58   PH_58   ALRES                                                 << RUNG 123  STEP #0546 >>
|%M0687  %M1002  %M0550                                          %M0743
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit       *)
|
|        FLASH                                                    PH_58   << RUNG 124  STEP #0550 >>
|%M0743  %T0052                                                  %M1002
|--| |-----| |-------------------------------------------------( )-- (* Fault IH unit transv. sealing  *)
|                |
|        PH58    |
|%M0743  %M0687  |
|--|/|-----| |--|
|
| PH59   PH_59   ALRES                                                 << RUNG 125  STEP #0556 >>
|%M0688  %M1003  %M0550                                          %M0735
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit       *)
|
|        FLASH                                                    PH_59   << RUNG 126  STEP #0560 >>
|%M0735  %T0052                                                  %M1003
|--| |-----| |-------------------------------------------------( )-- (* Infeed congest final folder   *)
|                |
|        PH59    |
|%M0735  %M0688  |
|--|/|-----| |--|
|
| PH60   PH_60   ALRES                                                 << RUNG 127  STEP #0566 >>
|%M0689  %M1004  %M0550                                          %M0742
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit       *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0734		Memory to set alarm bit	%M0686	PH57	Wrong pos. clean. cup
%M0735		Memory to set alarm bit	%M0687	PH58	Fault IH unit TS
%M0742		Memory to set alarm bit	%M0688	PH59	Final folder infeed congest
%M0743		Memory to set alarm bit	%M0689	PH60	Low level tank peroxid
%M0779		Memory to set alarm bit	%M0999	PH_55	Fault printed design
%M0784		Memory to set alarm bit	%M1000	PH_56	Over- filling
%M0550	ALRES	Alarm reset P+	%M1001	PH_57	Wrong posit. clean. cup
%T0052	FLASH	Panel flash contact	%M1002	PH_58	Fault IH unit transv. sealing
%M0684	PH55	Photocell malfunction	%M1003	PH_59	Infeed congest final folder
%M0673	PH56	Overfil alarm	%M1004	PH_60	Low level tank peroxid

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```
|        FLASH                                                    PH_60   << RUNG 128  STEP #0570 >>
|%M0742  %T0052                                                  %M1004
|--| |---| |-------------------------------------------------------( )-- (* Low level tank peroxid          *)
|     |
|    PH60  |
|%M0742  %M0689 |
|--|/|---| |--|
|
| PH61   PH_61  ALRES                                                    << RUNG 129  STEP #0576 >>
|%M0690  %M1005 %M0550                                           %M0736
|--| |---|/|---|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
|        FLASH                                                    PH_61   << RUNG 130  STEP #0580 >>
|%M0736  %T0052                                                  %M1005
|--| |---| |-------------------------------------------------------( )-- (* Rotat. fault final folder      *)
|     |
|    PH61  |
|%M0736  %M0690 |
|--|/|---| |--|
|
| PH62   PH_62  ALRES                                                    << RUNG 131  STEP #0586 >>
|%M0691  %M1006 %M0550                                           %M0741
|--| |---|/|---|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
|        FLASH                                                    PH_62   << RUNG 132  STEP #0590 >>
|%M0741  %T0052                                                  %M1006
|--| |---| |-------------------------------------------------------( )-- (* Fault filling clean. tray      *)
|     |
|    PH62  |
|%M0741  %M0691 |
|--|/|---| |--|
|
| PH63   PH_63  ALRES                                                    << RUNG 133  STEP #0596 >>
|%M0692  %M1007 %M0550                                           %M0737
|--| |---|/|---|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
|        FLASH                                                    PH_63   << RUNG 134  STEP #0600 >>
|%M0737  %T0052                                                  %M1007
|--| |---| |-------------------------------------------------------( )-- (* Queue convey.                  *)
|     |
|    PH63  |
|%M0737  %M0692 |
|--|/|---| |--|
|
| PH64   PH_64  ALRES                                                    << RUNG 135  STEP #0606 >>
|%M0663  %M0932 %M0550                                           %M0750
|--| |---|/|---|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
|        FLASH                                                    PH_64   << RUNG 136  STEP #0610 >>
|%M0750  %T0052                                                  %M0932
|--| |---| |-------------------------------------------------------( )-- (* Steril.air pipe wrong posit.   *)
|     |
|    PH64  |
|%M0750  %M0663 |
|--|/|---| |--|
|
| PH65   PH_65  ALRES                                                    << RUNG 137  STEP #0616 >>
|%M0604  %M0933 %M0550                                           %M0720
|--| |---|/|---|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit        *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0720		Memory to set alarm bit
%M0736		Memory to set alarm bit
%M0737		Memory to set alarm bit
%M0741		Memory to set alarm bit
%M0742		Memory to set alarm bit
%M0750		Memory to set alarm bit
%M0550	ALRES	Alarm reset P+
%T0052	FLASH	Panel flash contact
%M0689	PH60	Low level tank peroxid
%M0690	PH61	Rotat. fault FF

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0691	PH62	Fault filling clean. tray
%M0692	PH63	Queue conveyor
%M0663	PH64	Steril air pipe wrong posit.
%M0604	PH65	For futur use
%M1004	PH_60	Low level tank peroxid
%M1005	PH_61	Rotat. fault final folder
%M1006	PH_62	Fault filling clean. tray
%M1007	PH_63	Queue convey.
%M0932	PH_64	Steril.air pipe wrong posit.
%M0933	PH_65	Free

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```
|        FLASH                                                    PH_65   << RUNG 138  STEP #0620 >>
|%M0720  %T0052                                                  %M0933
|--| |---| |-------------------------------------------------------( )-- (* Free                    *)
|   |      |
|   |      |
|        PH65 |
|%M0720  %M0604 |
|--|/|---| |-|
|
| PH66    PH_66   ALRES                                                 << RUNG 139  STEP #0626 >>
|%M0605  %M0934  %M0550                                          %M0721
|--| |---|/|---|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
|        FLASH                                                    PH_66   << RUNG 140  STEP #0630 >>
|%M0721  %T0052                                                  %M0934
|--| |---| |-------------------------------------------------------( )-- (* Free                    *)
|   |      |
|   |      |
|        PH66 |
|%M0721  %M0605 |
|--|/|---| |-|
|
| PH67    PH_67   ALRES                                                 << RUNG 141  STEP #0636 >>
|%M0606  %M0935  %M0550                                          %M0722
|--| |---|/|---|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
|        FLASH                                                    PH_67   << RUNG 142  STEP #0640 >>
|%M0722  %T0052                                                  %M0935
|--| |---| |-------------------------------------------------------( )-- (* Free                    *)
|   |      |
|   |      |
|        PH67 |
|%M0722  %M0606 |
|--|/|---| |-|
|
| PH68    PH_68   ALRES                                                 << RUNG 143  STEP #0646 >>
|%M0641  %M0936  %M0550                                          %M0708
|--| |---|/|---|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
|        FLASH                                                    PH_68   << RUNG 144  STEP #0650 >>
|%M0708  %T0052                                                  %M0936
|--| |---| |-------------------------------------------------------( )-- (* LS S.S. heat alarm       *)
|   |      |
|   |      |
|        PH68 |
|%M0708  %M0641 |
|--|/|---| |-|
|
| PH69    PH_69   ALRES                                                 << RUNG 145  STEP #0656 >>
|%M0607  %M0937  %M0550                                          %M0723
|--| |---|/|---|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
|        FLASH                                                    PH_69   << RUNG 146  STEP #0660 >>
|%M0723  %T0052                                                  %M0937
|--| |---| |-------------------------------------------------------( )-- (* Free                    *)
|   |      |
|   |      |
|        PH69 |
|%M0723  %M0607 |
|--|/|---| |-|
|
| PH70    PH_70   ALRES                                                 << RUNG 147  STEP #0666 >>
|%M0608  %M0938  %M0550                                          %M0724
|--| |---|/|---|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0708		Memory to set alarm bit	%M0606	PH67	For futur use
%M0720		Memory to set alarm bit	%M0641	PH68	LS sh. stop heat alarm
%M0721		Memory to set alarm bit	%M0607	PH69	For futur use
%M0722		Memory to set alarm bit	%M0608	PH70	For futur use
%M0723		Memory to set alarm bit	%M0933	PH_65	Free
%M0724		Memory to set alarm bit	%M0934	PH_66	Free
%M0550	ALRES	Alarm reset P+	%M0935	PH_67	Free
%T0052	FLASH	Panel flash contact	%M0936	PH_68	LS S.S. heat alarm
%M0604	PH65	For futur use	%M0937	PH_69	Free
%M0605	PH66	For futur use	%M0938	PH_70	Free

BLOCK: 30 INDICATION AND HANDLE OF ALARM

```
|        FLASH                                                    PH_70   << RUNG 148  STEP #0670 >>
|%M0724  %T0052                                                  %M0938
|--| |----| |-------------------------------------------------------( )-- (* Free                    *)
|          |
|        PH70 |
|%M0724  %M0608 |
|--|/|----| |--|
|
| PH71    PH_71   ALRES                                                  << RUNG 149  STEP #0676 >>
|%M0672  %M0945  %M0550                                          %M0783
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
|        FLASH                                                    PH_71   << RUNG 150  STEP #0680 >>
|%M0783  %T0052                                                  %M0945
|--| |----| |-------------------------------------------------------( )-- (* Membran leakage        *)
|          |
|        PH71 |
|%M0783  %M0672 |
|--|/|----| |--|
|
| PH72    PH_72   ALRES                                                  << RUNG 151  STEP #0686 >>
|%M0671  %M0944  %M0550                                          %M0782
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
|        FLASH                                                    PH_72   << RUNG 152  STEP #0690 >>
|%M0782  %T0052                                                  %M0944
|--| |----| |-------------------------------------------------------( )-- (* Wrong posit. regul. valve  *)
|          |
|        PH72 |
|%M0782  %M0671 |
|--|/|----| |--|
|
| PH73    PH_73   ALRES                                                  << RUNG 153  STEP #0696 >>
|%M0609  %M0943  %M0550                                          %M0725
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
|        FLASH                                                    PH_73   << RUNG 154  STEP #0700 >>
|%M0725  %T0052                                                  %M0943
|--| |----| |-------------------------------------------------------( )-- (* Free                    *)
|          |
|        PH73 |
|%M0725  %M0609 |
|--|/|----| |--|
|
| PH74    PH_74   ALRES                                                  << RUNG 155  STEP #0706 >>
|%M0656  %M0942  %M0550                                          %M0744
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
|        FLASH                                                    PH_74   << RUNG 156  STEP #0710 >>
|%M0744  %T0052                                                  %M0942
|--| |----| |-------------------------------------------------------( )-- (* Strip broken           *)
|          |
|        PH74 |
|%M0744  %M0656 |
|--|/|----| |--|
|
| PH75    PH_75   ALRES                                                  << RUNG 157  STEP #0716 >>
|%M0668  %M0941  %M0550                                          %M0785
|--| |----|/|----|/|-------------------------------------------------(SM)-- (* Memory to set alarm bit  *)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0724		Memory to set alarm bit	%M0671	PH72	Wrong pos.reg valve alarm
%M0725		Memory to set alarm bit	%M0609	PH73	For futur use
%M0744		Memory to set alarm bit	%M0656	PH74	Broken strip
%M0782		Memory to set alarm bit	%M0668	PH75	Floater / Design position fault
%M0783		Memory to set alarm bit	%M0938	PH_70	Free
%M0785		Memory to set alarm bit	%M0945	PH_71	Membran leakage
%M0550	ALRES	Alarm reset P+	%M0944	PH_72	Wrong posit. regul. valve
%T0052	FLASH	Panel flash contact	%M0943	PH_73	Free
%M0608	PH70	For futur use	%M0942	PH_74	Strip broken
%M0672	PH71	Membran leakage alarm	%M0941	PH_75	Wrong pos. or missing floater

BLOCK: 30 INDICATION AND HANDLE OF ALARM

```
|        FLASH                                                    PH_75   << RUNG 158  STEP #0720 >>
|%M0785  %T0052                                                  %M0941
|--| |-----| |-------------------------------------------------( )-- (* Wrong pos. or missing floater    *)
|           |
|        PH75 |
|%M0785  %M0668 |
|--|/|-----| |--|
|
| PH76    PH_76   ALRES                                                 << RUNG 159  STEP #0726 >>
|%M0662  %M0940  %M0550                                          %M0781
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit          *)
|
|        FLASH                                                    PH_76   << RUNG 160  STEP #0730 >>
|%M0781  %T0052                                                  %M0940
|--| |-----| |-------------------------------------------------( )-- (* Too hi. level perox. tank         *)
|           |
|        PH76 |
|%M0781  %M0662 |
|--|/|-----| |--|
|
| PH77    PH_77   ALRES                                                 << RUNG 161  STEP #0736 >>
|%M0664  %M0939  %M0550                                          %M0787
|--| |-----|/|-----|/|-------------------------------------------(SM)-- (* Memory to set alarm bit          *)
|
|        FLASH                                                    PH_77   << RUNG 162  STEP #0740 >>
|%M0787  %T0052                                                  %M0939
|--| |-----| |-------------------------------------------------( )-- (* Congest outfeed final folder      *)
|           |
|        PH77 |
|%M0787  %M0664 |
|--|/|-----| |--|
|
| PH02S                                                           PH_2S   << RUNG 163  STEP #0746 >>
|%M0670                                                          %M0884
|--| |-------------------------------------------------------( )-- (* Inching button                    *)
|
| PH3S    FLASH                                                   PH_3S   << RUNG 164  STEP #0748 >>
|%M0625  %T0052                                                  %M0883
|--| |-----| |-------------------------------------------------( )-- (* Step up button                   *)
|
| PH4S                                                            PH_4S   << RUNG 165  STEP #0751 >>
|%M0626                                                          %M0882
|--| |-------------------------------------------------------( )-- (* Step down button                 *)
|
| PH6S                                                            PH_6S   << RUNG 166  STEP #0753 >>
|%M0669                                                          %M0881
|--| |-------------------------------------------------------( )-- (* Short stop button                *)
|
| PH11S                                                           PH_11S  << RUNG 167  STEP #0755 >>
|%M0696                                                          %M0880
|--| |-------------------------------------------------------( )-- (* Reset alarm button               *)
|
| (*****************************************************************************)
| (* NEW ALARMS - MULTIPLEXER CARD 1                                          *)
| (*                                                                           *)
| (*                                                                           *)
| (*****************************************************************************)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0781		Memory to set alarm bit
%M0785		Memory to set alarm bit
%M0787		Memory to set alarm bit
%M0550	ALRES	Alarm reset P+
%T0052	FLASH	Panel flash contact
%M0670	PH02S	Lamp in inching buttom
%M0696	PH11S	Reset alarm buttom
%M0625	PH3S	Step up push buttom lamp
%M0626	PH4S	Step down p- buttom lamp
%M0669	PH6S	Lamp in short stop buttom
%M0668	PH75	Floater / Design position fault

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0662	PH76	Too hi. level peroxid tank
%M0664	PH77	FF pusher
%M0880	PH_11S	Reset alarm button
%M0884	PH_2S	Inching button
%M0883	PH_3S	Step up button
%M0882	PH_4S	Step down button
%M0881	PH_6S	Short stop button
%M0941	PH_75	Wrong pos. or missing floater
%M0940	PH_76	Too hi. level perox. tank
%M0939	PH_77	Congest outfeed final folder

BLOCK: 30 INDICATION AND HANDLE OF ALARM

```
|%M0697  %M0698  %M0699  %M0700  %M0701  %M0702  %M0703  %M0704  %M0705          << RUNG 169  STEP #0758 >>
|--|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----------<+>
|
|       %M0706  %M0707  %M0708  %M0709  %M0710  %M0711  %M0712  %M0713          << RUNG 170  STEP #0768 >>
|<+>----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----------<+>
|
|       %M0714  %M0715  %M0716                                                  << RUNG 171  STEP #0778 >>
|<+>----|/|----|/|----|/|--------------------------------------------------<+>
|
|       %M0720  %M0721  %M0722  %M0723  %M0724  %M0725                         << RUNG 172  STEP #0783 >>
|<+>----|/|----|/|----|/|----|/|----|/|----|/|--------------------------<+>
|
|       %M0729  %M0730  %M0731  %M0732  %M0733  %M0734  %M0735  %M0736          << RUNG 173  STEP #0791 >>
|<+>----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----------<+>
|
|       %M0737  %M0738  %M0739  %M0740  %M0741  %M0743  %M0744                  << RUNG 174  STEP #0801 >>
|<+>----|/|----|/|----|/|----|/|----|/|----|/|----|/|--------------------<+>
|
|       %M0745  %M0746  %M0747  %M0748  %M0749  %M0750                         << RUNG 175  STEP #0810 >>
|<+>----|/|----|/|----|/|----|/|----|/|----|/|--------------------------<+>
|
|       %M0761  %M0762  %M0764  %M0765  %M0766  %M0767                         << RUNG 176  STEP #0818 >>
|<+>----|/|----|/|----|/|----|/|----|/|----|/|--------------------------<+>
|
|       %M0774  %M0775  %M0776  %M0777  %M0778  %M0779  %M0780  %M0781          << RUNG 177  STEP #0826 >>
|<+>----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----------<+>
|
|                                                                 NEW_ALM  << RUNG 178  STEP #0836 >>
|       %M0782  %M0783  %M0784  %M0785  %M0786  %M0787  %T0109  %T0111  %M0381
|<+>----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----(/)-- (* New alarm present                *)
|
|  (*************************************************************************)
|  (* ACKNOWLEDGE ALARMS - MULTIPLEXER CARD 1                               *)
|  (*                                                                       *)
|  (*                                                                       *)
|  (*                                                                       *)
|  (*************************************************************************)
|
```

REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME	REFERENCE DESCRIPTION
%M0697	Memory to set alarm bit	%M0738	Memory to set alarm bit
%M0698	Memory to set alarm bit	%M0739	Memory to set alarm bit
%M0699	Memory to set alarm bit	%M0740	Memory to set alarm bit
%M0700	Memory to set alarm bit	%M0741	Memory to set alarm bit
%M0701	Memory to set alarm bit	%M0743	Memory to set alarm bit
%M0702	Memory to set alarm bit	%M0744	Memory to set alarm bit
%M0703	Memory to set alarm bit	%M0745	Memory to set alarm bit
%M0704	Memory to set alarm bit	%M0746	Memory to set alarm bit
%M0705	Memory to set alarm bit	%M0747	Memory to set alarm bit
%M0706	Memory to set alarm bit	%M0748	Memory to set alarm bit
%M0707	Memory to set alarm bit	%M0749	Memory to set alarm bit
%M0708	Memory to set alarm bit	%M0750	Memory to set alarm bit
%M0709	Memory to set alarm bit	%M0761	Memory to set alarm bit
%M0710	Memory to set alarm bit	%M0762	Memory to set alarm bit
%M0711	Memory to set alarm bit	%M0764	Memory to set alarm bit
%M0712	Memory to set alarm bit	%M0765	Memory to set alarm bit
%M0713	Memory to set alarm bit	%M0766	Memory to set alarm bit
%M0714	Memory to set alarm bit	%M0767	Memory to set alarm bit
%M0715	Memory to set alarm bit	%M0774	Memory to set alarm bit
%M0716	Memory to set alarm bit	%M0775	Memory to set alarm bit
%M0720	Memory to set alarm bit	%M0776	Memory to set alarm bit
%M0721	Memory to set alarm bit	%M0777	Memory to set alarm bit
%M0722	Memory to set alarm bit	%M0778	Memory to set alarm bit
%M0723	Memory to set alarm bit	%M0779	Memory to set alarm bit
%M0724	Memory to set alarm bit	%M0780	Memory to set alarm bit
%M0725	Memory to set alarm bit	%M0781	Memory to set alarm bit
%M0729	Memory to set alarm bit	%M0782	Memory to set alarm bit
%M0730	Memory to set alarm bit	%M0783	Memory to set alarm bit
%M0731	Memory to set alarm bit	%M0784	Memory to set alarm bit
%M0732	Memory to set alarm bit	%M0785	Memory to set alarm bit
%M0733	Memory to set alarm bit	%M0786	Memory to set alarm bit
%M0734	Memory to set alarm bit	%M0787	Memory to set alarm bit
%M0735	Memory to set alarm bit	%T0109	Tower doors closed
%M0736	Memory to set alarm bit	%T0111	Side protection closed
%M0737	Memory to set alarm bit	%M0381 NEW_ALM	New alarm present

BLOCK: 30 INDICATION AND HANDLE OF ALARM

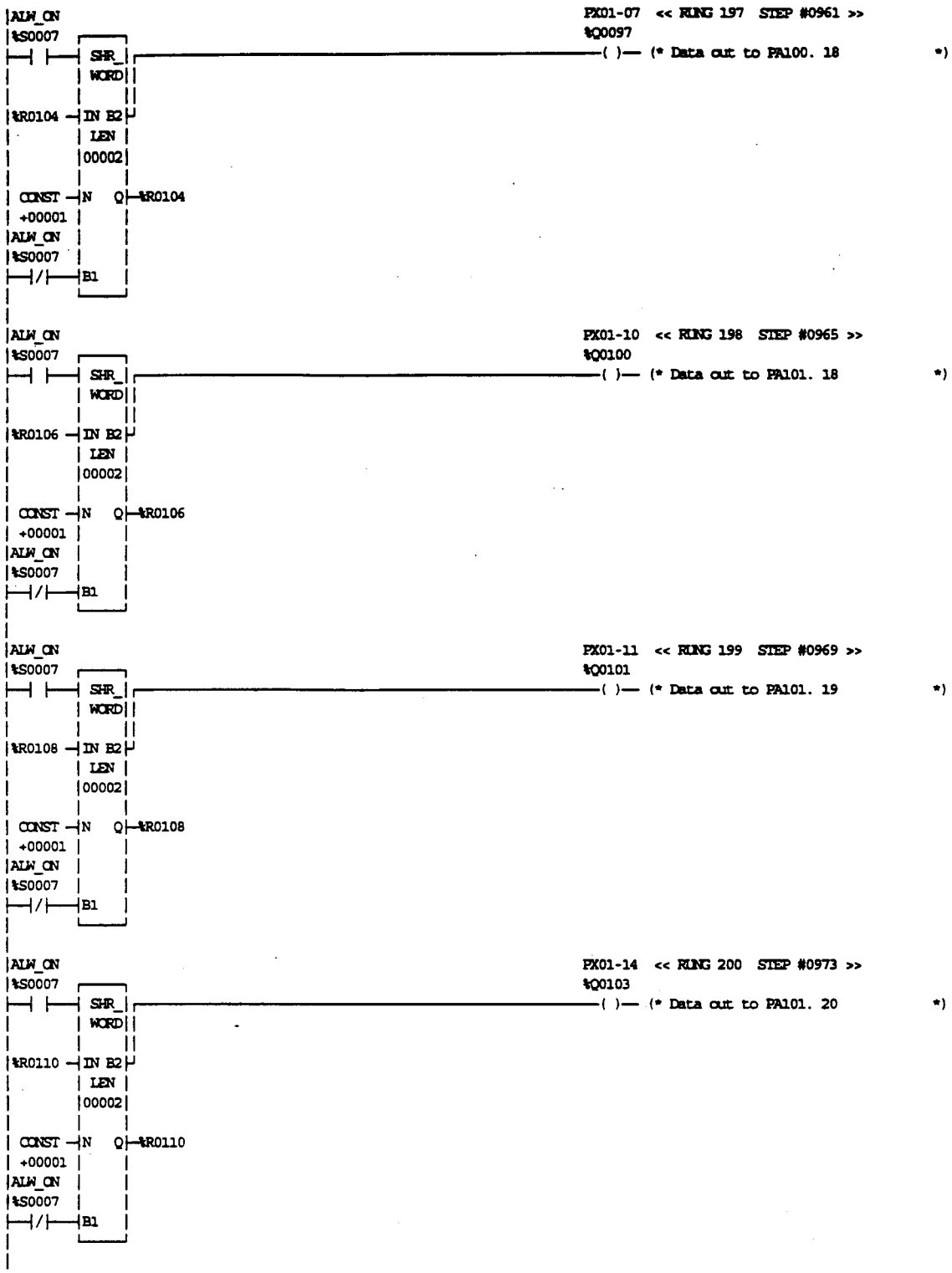
```
| PH_18   PH_19   PH_20   PH_21   PH_22   PH_23   PH_24   PH_25   PH_26          << RUNG 180  STEP #0847 >>
|%M0897  %M0898  %M0899  %M0900  %M0901  %M0902  %M0903  %M0904  %M0905
|--|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|-------<+>
|
|        PH_27   PH_17   PH_16   PH_15   PH_14   PH_13   PH_12                 << RUNG 181  STEP #0857 >>
|       %M0906  %M0909  %M0910  %M0911  %M0912  %M0913  %M0914
|<+>-----|/|----|/|----|/|----|/|----|/|----|/|----|/|-------------------<+>
|
|        PH_11   PH_10   PH_28   PH_29   PH_39   PH_64   PH_65   PH_66         << RUNG 182  STEP #0866 >>
|       %M0915  %M0916  %M0929  %M0930  %M0931  %M0932  %M0933  %M0934
|<+>-----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|-------<+>
|
|        PH_67   PH_68   PH_69   PH_70   PH_77   PH_76   PH_75   PH_74         << RUNG 183  STEP #0876 >>
|       %M0935  %M0936  %M0937  %M0938  %M0939  %M0940  %M0941  %M0942
|<+>-----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|-------<+>
|
|        PH_73   PH_38   PH_40   PH_41   PH_42   PH_43   PH_44   PH_45         << RUNG 184  STEP #0886 >>
|       %M0943  %M0961  %M0962  %M0963  %M0964  %M0965  %M0966  %M0967
|<+>-----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|-------<+>
|
|        PH_46   PH_47   PH_48   PH_37   PH_36   PH_35   PH_34   PH_33         << RUNG 185  STEP #0896 >>
|       %M0968  %M0969  %M0970  %M0973  %M0974  %M0975  %M0976  %M0977
|<+>-----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|-------<+>
|
|        PH_32   PH_31   PH_30   PH_49   PH_50   PH_51   PH_52   PH_53         << RUNG 186  STEP #0906 >>
|       %M0978  %M0979  %M0980  %M0993  %M0994  %M0995  %M0996  %M0997
|<+>-----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|-------<+>
|
|        PH_54   PH_55   PH_56   PH_57   PH_58   PH_59   PH_60   PH_61         << RUNG 187  STEP #0916 >>
|       %M0998  %M0999  %M1000  %M1001  %M1002  %M1003  %M1004  %M1005
|<+>-----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|----|/|-------<+>
|
|        PH_62   PH_63   PH_72   PH_71                                 ACK_ALM  << RUNG 188  STEP #0926 >>
|       %M1006  %M1007  %M0944  %M0945                                 %M0382
|<+>-----|/|----|/|----|/|----|/|-------------------------------------(/)--  (* Acknow-ledged alarm present      *)
|
| (*************************************************************************)
| (* PANEL ALARM LAMP AND BEACON                                           *)
| (*                                                                       *)
| (*************************************************************************)
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0382	ACK_ALM	Acknow-ledged alarm present	%M0966	PH_44	Clean. steam barr.
%M0916	PH_10	Low press. water supply	%M0967	PH_45	No product from process
%M0915	PH_11	Low press. air supply	%M0968	PH_46	Wrong posit. product pipe
%M0914	PH_12	Safety monitor off position	%M0969	PH_47	Wrong pos. clean. pipe
%M0913	PH_13	Emerg. stop activ.	%M0970	PH_48	Wrong pos. AP valve B
%M0912	PH_14	Tower doors	%M0993	PH_49	Low level bath peroxid
%M0911	PH_15	Jaw system overloa	%M0994	PH_50	Low level bath water
%M0910	PH_16	Unsync. MM-FF	%M0995	PH_51	Low temp.LS element
%M0909	PH_17	Free	%M0996	PH_52	Low temp. peroxid
%M0897	PH_18	Overl. protect motor	%M0997	PH_53	low temp. water
%M0898	PH_19	Service switch	%M0998	PH_54	Bottom cover peroxid bath
%M0899	PH_20	Low press. lubric. oil	%M0999	PH_55	Fault printed design
%M0900	PH_21	Low level lubric. oil	%M1000	PH_56	Over- filling
%M0901	PH_22	Too hi.temp hydraul unit	%M1001	PH_57	Wrong posit. clean. cup
%M0902	PH_23	Low lev oil on hydraul unit	%M1002	PH_58	Fault IH unit transv. sealing
%M0903	PH_24	Machine speed too high	%M1003	PH_59	Infeed congest final folder
%M0904	PH_25	PLC fault	%M1004	PH_60	Low level tank peroxid
%M0905	PH_26	Free	%M1005	PH_61	Rotat. fault final folder
%M0906	PH_27	Free	%M1006	PH_62	Fault filling clean. tray
%M0929	PH_28	Free	%M1007	PH_63	Queue convey.
%M0930	PH_29	Free	%M0932	PH_64	Steril.air pipe wrong posit.
%M0980	PH_30	High level separ.	%M0933	PH_65	Free
%M0979	PH_31	Low temp. air heater	%M0934	PH_66	Free
%M0978	PH_32	Low pressur steril air	%M0935	PH_67	Free
%M0977	PH_33	Wrong pos. of suction valve	%M0936	PH_68	LS S.S. heat alarm
%M0976	PH_34	Spray time out of limit	%M0937	PH_69	Free
%M0975	PH_35	Low temp. air Knife	%M0938	PH_70	Free
%M0974	PH_36	Air inlet wrong pos.	%M0945	PH_71	Membran leakage
%M0973	PH_37	Supply of paper to low	%M0944	PH_72	Wrong posit. regul. valve
%M0961	PH_38	Paper web fault	%M0943	PH_73	Free
%M0931	PH_39	Low temp. S. A.	%M0942	PH_74	Strip broken
%M0962	PH_40	Fault IH unit S.A.	%M0941	PH_75	Wrong pos. or missing floater
%M0963	PH_41	Strip supply too low	%M0940	PH_76	Too hi. level perox. tank
%M0964	PH_42	Wrong pos.air knife	%M0939	PH_77	Congest outfeed final folder
%M0965	PH_43	Steam temp. out of limit			

BLOCK: 30 INDICATION AND HANDLE OF ALARM

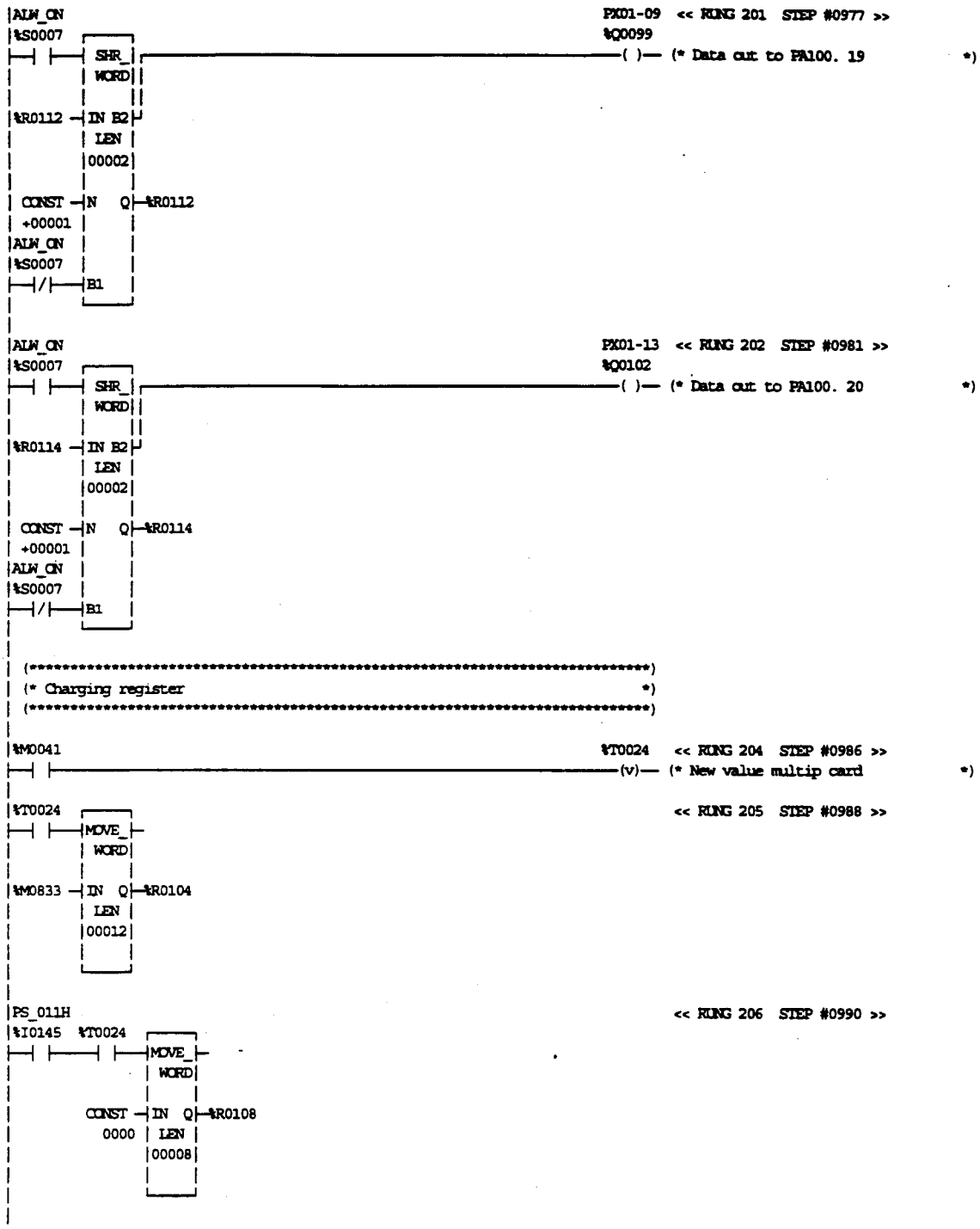
```
|NEW_ALM  FLASH                                                  PH11S   << RUNG 190  STEP #0933 >>
|%M0381  %T0052                                                 %M0696
|--| |---| |-------------------------------------------------------( )-- (* Reset alarm buttom          *)
|      |                        |
|      |                        | POS00                          K205-3
|%M0337 |                       |%M0049                          %Q0092
|--| |--|                       |--|/|-------------------------------( )-- (* Beacon                 *)
|      |
|%M0338 |
|--| |--'
|
|NEW_ALM                 ACK_ALM|
|%M0381  %M0337  %M0338  %M0382 |
|--|/|---|/|---|/|---| |--'
|
| (*************************************************************************)
| (* Clock generator                                                       *)
| (*************************************************************************)
|
|FST_SCN                                                                  << RUNG 192  STEP #0948 >>
|%S0001  ,-------,                                                        %M0040
|--| |---|MOVE_|-------------------------------------------------------(R)-- (* Sync.  puls to mux card  *)
|        | INT |
|        |     |
| CONST -|IN  Q|-%R0101
| +00016 | LEN |
|        |00001|
|        |     |
|        '-----'
|
|%M0040                                                                   %M0040   << RUNG 193  STEP #0951 >>
|--|/|-------------------------------------------------------------------( )-- (* Sync.  puls to mux card  *)
|
|%M0040  ,-------,                                                        %M0041   << RUNG 194  STEP #0953 >>
|--| |---|>UPCTR|-------------------------------------------------------( )-- (* Pause to mux card     *)
|        |      |
|%M0041  |      |
|--| |---|R     |
|        |      |
| CONST -|PV    |
| +00016 |      |
|        '------'
|
|        %R0101
|
|                                                                         PX01-08  << RUNG 195  STEP #0957 >>
|%M0040  ,-------,                                                        %Q0098
|--| |---| LE_ |-------------------------------------------------------( )-- (* Sync. pulse  multip.    *)
|        | INT ||
|        |     ||
|%R0101 -|I1  Q|-'
|        |     |
| CONST -|I2   |
| +00010 '-----'
|
| (*************************************************************************)
| (* Shift out signal                                                      *)
| (*************************************************************************)
|
```

REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%M0040		Sync. puls to mux card	%S0001	FST_SCN	
%M0041		Pause to mux card	%Q0092	K205-3	Beacon
%M0337		Jaw alarm release clutch	%M0381	NEW_ALM	New alarm present
%M0338		M.Motor disable & keep clutch	%M0696	PH11S	Reset alarm buttom
%R0101		Sync. pulse count to MUX.	%M0049	POS00	Ladder pos 00
%M0382	ACK_ALM	Acknow-ledged alarm present	%Q0098	PX01-08	Sync. pulse multip.
%T0052	FLASH	Panel flash contact			



REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%R0104		Alarm bits to MIX. card100	%Q0097	PX01-07	Data out to PA100. 18
%R0106		Alarm bits to MIX. card101	%Q0100	PX01-10	Data out to PA101. 18
%R0108		Alarm bits to MIX. card101	%Q0101	PX01-11	Data out to PA101. 19
%R0110		Alarm bits to MIX. card101	%Q0103	PX01-14	Data out to PA101. 20
%S0007	ALW_ON				

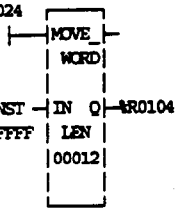
BLOCK: 30 INDICATION AND HANDLE OF ALARM



REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME		REFERENCE DESCRIPTION
%M0041	Pause to mux card	%R0114		Alarm bits to MUX. card100
%M0833	Alarm word	%S0007	ALW_ON	
%T0024	New value multip card	%I0145	PS_011H	Alarm reset push buttom
%R0104	Alarm bits to MUX. card100	%Q0099	PX01-09	Data out to PA100. 19
%R0108	Alarm bits to MUX. card101	%Q0102	PX01-13	Data out to PA100. 20
%R0112	Alarm bits to MUX. card100			

BLOCK: 30 INDICATION AND HANDLE OF ALARM

|PS_012 << RUNG 207 STEP #0993 >>



|[END OF SUBROUTINE LOGIC]

REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME	REFERENCE DESCRIPTION
%T0024	New value multip card	%I0146 PS_012	Lamp test
%R0104	Alarm bits to MIX. card100		

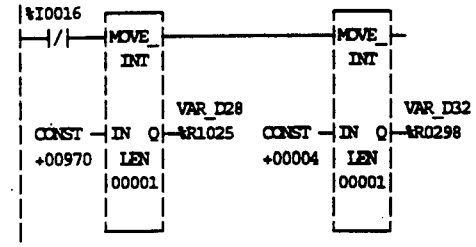
BLOCK: 30 INDICATION AND HANDLE OF ALARM

```
|[ START LD SUBROUTINE  BLK35  ]
|
|[    VARIABLE DECLARATIONS    ]
|
|[  START OF SUBROUTINE LOGIC  ]
|
| (*************************************************************************)
| (* VOLUME DEPENDENT VALUES: VALID FOR 200B                               *)
| (* FOR OTHER VOLUMES OR SMALL VOLUME AT VOLUME RK: SEE 47820-03:XX       *)
| (*************************************************************************)
|
| S511                                                    << RUNG 5  STEP #0003 >>
|%I0016
|--|/|--|BLKMV|-----------------|BLKMV|-----------------|BLKMV|-
|       | INT |                 | WORD |                | WORD |
|       |     |      VAR_D01    |      |      VAR_D08   |      |      VAR_D15
| CONST-|IN1 Q|-%R0170  CONST-|IN1 Q|-%R0001  CONST-|IN1 Q|-%R0008
| +00035|     |          0783 |     |          0000 |     |
| CONST-|IN2  |      CONST-|IN2  |      CONST-|IN2  |
| +00050|     |          E100 |     |          0000 |     |
| CONST-|IN3  |      CONST-|IN3  |      CONST-|IN3  |
| +00003|     |          FFFF |     |          0000 |     |
| CONST-|IN4  |      CONST-|IN4  |      CONST-|IN4  |
| +00097|     |          7807 |     |          001C |     |
| CONST-|IN5  |      CONST-|IN5  |      CONST-|IN5  |
| +00014|     |          0000 |     |          0000 |     |
| CONST-|IN6  |      CONST-|IN6  |      CONST-|IN6  |
| +00086|     |          0000 |     |          0083 |     |
| CONST-|IN7  |      CONST-|IN7  |      CONST-|IN7  |
| +00000|     |          7000 |     |          0064 |     |
|
| S511                                                    << RUNG 6  STEP #0007 >>
|%I0016
|--|/|--|MOVE_|-----------------|MOVE_|-----------------|MOVE_|-
|       | INT |                 | INT  |                | INT  |
|       |     |      VAR_D22    |      |      VAR_D23   |      |      VAR_D24
| CONST-|IN  Q|-%R0537  CONST-|IN  Q|-%R0510  CONST-|IN  Q|-%R0178
| +00145| LEN |          +00285| LEN |          +00042| LEN |
|       |00001|                |00001|                |00001|
|
| S511                                                    << RUNG 7  STEP #0011 >>
|%I0016
|--|/|--|MOVE_|-----------------|MOVE_|-----------------|MOVE_|-
|       | INT |                 | INT  |                | INT  |
|       |     |      VAR_D25    |      |      VAR_D26   |      |      VAR_D27
| CONST-|IN  Q|-%R0268  CONST-|IN  Q|-%R0269  CONST-|IN  Q|-%R0270
| +01400| LEN |          +00125| LEN |          +00085| LEN |
|       |00001|                |00001|                |00001|
|
```

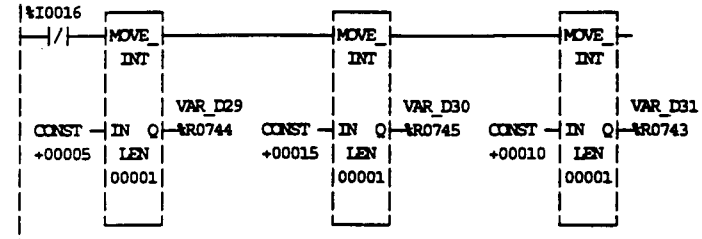
REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%I0016	S511	Selector small / big volume	%R0510	VAR_D23	A-valve delay preset sec*0.1
%R0170	VAR_D01	Angle fill start	%R0178	VAR_D24	Load sector, paper splice
%R0001	VAR_D08	Package dump short stop	%R0268	VAR_D25	Repeat length register
%R0008	VAR_D15	Package dump paper splice	%R0269	VAR_D26	Angle register
%R0537	VAR_D22	Package length precorrected	%R0270	VAR_D27	Bending roller RPM precorrection

BLOCK: 35 VOLUME DEPENDENT VALUES

S511 << RUNG 8 STEP #0015 >>

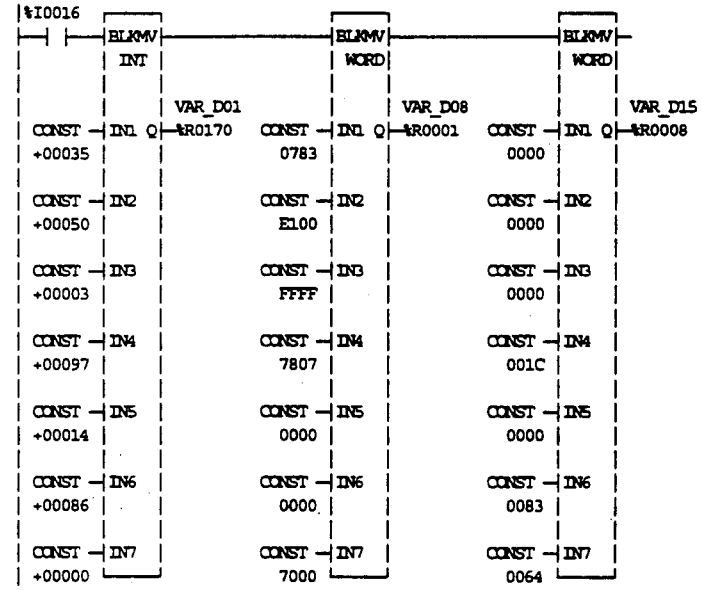


S511 << RUNG 9 STEP #0018 >>

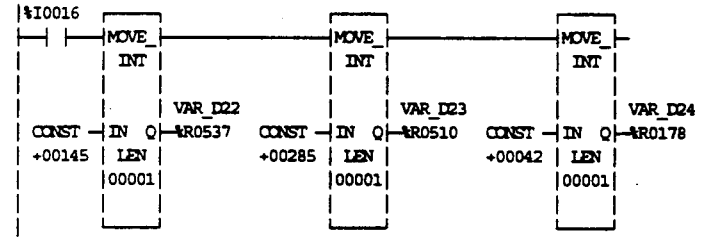



```
(*************************************************************************)
(* VOLUME DEPENDENT VALUES: VALID FOR 200B,                              *)
(* FOR BIG VOLUME AT VOLUME CONVERTING SEE 47820-03:XX                   *)
(*************************************************************************)
```

S511 << RUNG 11 STEP #0023 >>



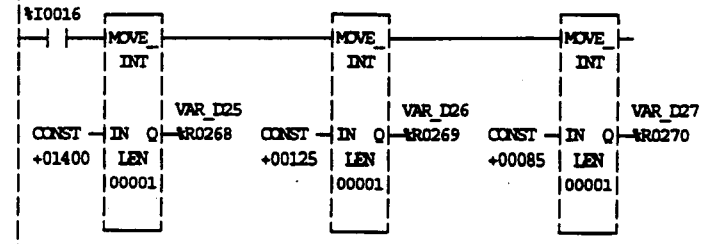
S511 << RUNG 12 STEP #0027 >>



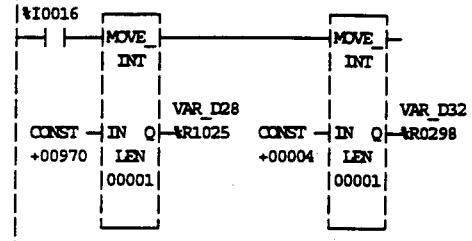
REFERENCE	NICKNAME	REFERENCE DESCRIPTION	REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%I0016	S511	Selector small / big volume	%R0178	VAR_D24	Load sector, paper splice
%R0170	VAR_D01	Angle fill start	%R1025	VAR_D28	Paper supply package counter
%R0001	VAR_D08	Package dump short stop	%R0744	VAR_D29	SA full power
%R0008	VAR_D15	Package dump paper splice	%R0745	VAR_D30	SA full power
%R0537	VAR_D22	Package length precorrected	%R0743	VAR_D31	Drop chute enable
%R0510	VAR_D23	A-valve delay preset sec*0.1	%R0298	VAR_D32	LRF closing preset

BLOCK: 35 VOLUME DEPENDENT VALUES

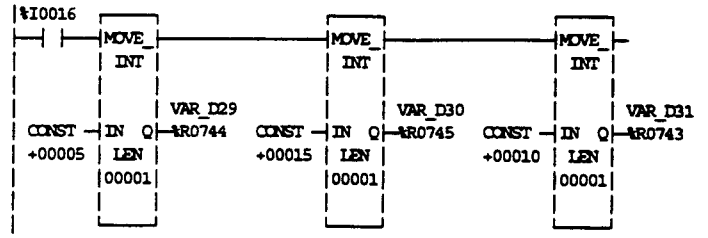
S511 << RUNG 13 STEP #0031 >>
%I0016



S511 << RUNG 14 STEP #0035 >>
%I0016

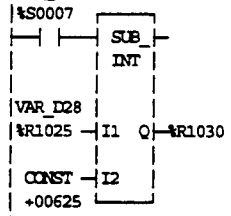


S511 << RUNG 15 STEP #0038 >>
%I0016

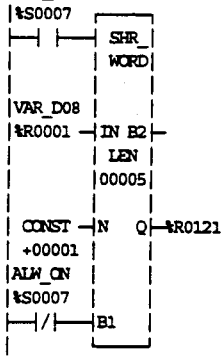



```
(*************************************************************************)
(* Initialisation:   Valid for any volume.                               *)
(*************************************************************************)
```

ALW_ON << RUNG 17 STEP #0043 >>
%S0007



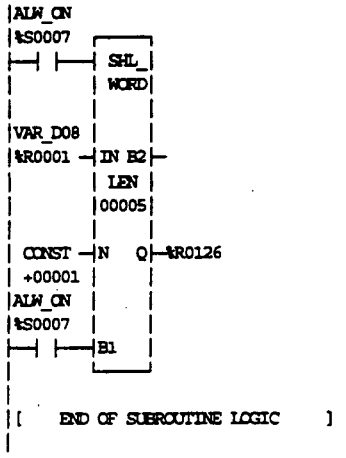
ALW_ON << RUNG 18 STEP #0045 >>
%S0007



REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%R0121		+1 pack. dump before short stop
%R1030		Paper supply, start count down
%S0007	ALW_ON	
%I0016	S511	Selector small / big volume
%R0001	VAR_D08	Package dump short stop
%R0268	VAR_D25	Repeat length register
%R0269	VAR_D26	Angle register

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%R0270	VAR_D27	Bending roller RPM precorrection
%R1025	VAR_D28	Paper supply package counter
%R0744	VAR_D29	SA full power
%R0745	VAR_D30	SA full power
%R0743	VAR_D31	Drop chute enable
%R0298	VAR_D32	LRF closing preset

BLOCK: 35 VOLUME DEPENDENT VALUES



<< RUNG 19 STEP #0048 >>

REFERENCE NICKNAME	REFERENCE DESCRIPTION	REFERENCE NICKNAME	REFERENCE DESCRIPTION
%R0126	+1 pack. dump after short stop	%R0001 VAR_D08	Package dump short stop
%S0007 ALW_ON			

BLOCK: 35 VOLUME DEPENDENT VALUES

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BLOCK-RUNG	REFERENCE INSTRUCTION	ADDRESS	SPEED 6000 PACKAGES/HOUR												
			100B	125S	160S	180B	200B	200M	200S	236B	250B	250S	284B	300S	330S
35-5,11	R170	IN1		40			35		60		80	110			
35-5,11	R170	IN2		55			50		75		95	125			
35-5,11	R170	IN3		3			3		3		3	3			
35-5,11	R170	IN4		97			97		97		97	97			
35-5,11	R170	IN5		18			18		18		18	18			
35-5,11	R170	IN6		80			86		80		84	80			
35-5,11	R170	IN7		0			0		0		0	0			
35-5,11	R001	IN1		0F07H			0783H		01C3H		03C3H	01C3H			
35-5,11	R001	IN2		8400H			E100H		FF90H		FE20H	FFC4H			
35-5,11	R001	IN3		FFFFH			FFFFH		81FFH		0FFFH	F07FH			
35-5,11	R001	IN4		807FH			7807H		0007H		0038H	0000H			
35-5,11	R001	IN5		0007H			0000H		0000H		0000H	0000H			
35-5,11	R001	IN6		0000H			0000H		0000H		0000H	E000H			
35-5,11	R001	IN7		0000H			7000H		0007H		0070H	0000H			
35-5,11	R008	IN1		000EH			0000H		0000H		0000H	0000H			
35-5,11	R008	IN2		0000H			0000H		0000H		0000H	C000H			
35-5,11	R008	IN3		0000H			0000H		001CH		01C0H	0001H			
35-5,11	R008	IN4		0E00H			001CH		0000H		0000H	0000H			
35-5,11	R008	IN5		0000H			0000H		0000H		0000H	0000H			
35-5,11	R008	IN6		0069H			0069H		0069H		0069H	0069H			
35-5,11	R008	IN7		0078H			0078H		0078H		0078H	0078H			
INTRODUCED ON ECN:	70019	70019		71535			71535		71535		71535	71535			

Rele	A				
ECN No.	71535				
Sign./Date	ALPO/980420				
Appr./Date	AIR/980420				
Drawing remarks					

Tetra Pak

Designer ALPO Date 980420 | Approved AIR Date 980420 | Doc. class –

Machine TBA/19-0101

Denomination VOLUME ADAPTION DOCUMENT

Company Tetra Brik R.& D. S.p.A.

Drawing No 47820-90:10

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BLOCK-RUNG	REFERENCE INSTRUCTION	ADDRESS	SPEED 6000 PACKAGES/HOUR												
			100B	125S	160S	180B	200B	200M	200S	236B	250B	250S	284B	300S	330S
35-6,12	R537	CONST.		144			145		137		139	135			
35-6,12	R510	CONST.		365			345		220		256	184			
35-6,12	R178	CONST.		64			42		64		32	65			
35-7,13	R268	CONST.		1300			1400		1733		1633	1850			
35-7,13	R269	CONST.		125			125		2		125	2			
35-7,13	R270	CONST.		80			90		100		90	100			
35-8,14	R1025	CONST.		1040			970		800		830	730			
35-8,14	R298	CONST.		20			25		20		30	10			
35-9,15	R744	CONST.		7			6		5		5	5			
35-9,15	R745	CONST.		21			19		16		17	15			
35-9,15	R743	CONST.		14			10		10		10	10			
INTRODUCED ON ECN:	71486	70486		71535			71535		71535		71535	71535			

Note	A														
ECR No.	71535														
Sign./Date	ALPO/980420														
Appr./Date	AIR/980420														

Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO Date 980420 | Approved AIR Date 980420 | Doc. class -

Machine: TBA/19-0101

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Drawing No: 47820-90:10

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BLOCK-RUNG	REFERENCE INSTRUCTION	ADDRESS	SPEED 7500 PACKAGES/HOUR												
			100B	125S	160S	180B	200B	200M	200S	236B	250B	250S	284B	300S	330S
35-5,11	R170	IN1	80	40	90		35	60	60		80	110	85	85	100
35-5,11	R170	IN2	95	55	105		50	75	75		95	125	100	100	115
35-5,11	R170	IN3	3	3	3		3	3	3		3	3	3	3	3
35-5,11	R170	IN4	97	97	97		97	97	97		97	97	97	97	97
35-5,11	R170	IN5	14	14	14		14	14	14		14	14	14	14	14
35-5,11	R170	IN6	80	80	84		86	84	80		84	80	80	80	89
35-5,11	R170	IN7	0	0	0		0	0	0		0	0	0	0	0
35-5,11	R001	IN1	1E07H	0F07H	0383H		0783H	03C3H	01C3H		03C3H	01C3H	01C3H	01C3H	00E3H
35-5,11	R001	IN2	4000H	8400H	E080H		E100H	FC20H	FF90H		FE20H	FFC4H	FFC8H	FFC8H	FFE4H
35-5,11	R001	IN3	FFF8H	FFFFH	FFFFH		FFFFH	1FFFH	81FFH		0FFFH	F07FH	81FFH	81FFH	381FH
35-5,11	R001	IN4	7FFFH	807FH	0700H		7807H	0078H	0007H		0038H	0000H	0003H	0003H	0000H
35-5,11	R001	IN5	1E00H	0007H	0000H		0000H	0000H	0000H		0000H	0000H	0000H	0000H	0000H
35-5,11	R001	IN6	0000H	0000H	0000H		0000H	0000H	0000H		0000H	E000H	8000H	8000H	3800H
35-5,11	R001	IN7	0000H	0000H	0E00H		7000H	00E0H	0007H		0070H	0000H	0003H	0003H	0000H
35-5,11	R008	IN1	3800H	000EH	0000H		0000H	0000H	0000H		0000H	0000H	0000H	0000H	0000H
35-5,11	R008	IN2	0000H	0000H	0000H		0000H	0000H	0000H		0000H	C000H	0000H	0000H	7000H
35-5,11	R008	IN3	0000H	0000H	C000H		0000H	0700H	001CH		01C0H	0001H	000EH	000EH	0000H
35-5,11	R008	IN4	0000H	0E00H	0001H		001CH	0000H	0000H		0000H	0000H	0000H	0000H	0000H
35-5,11	R008	IN5	00E0H	0000H	0000H		0000H	0000H	0000H		0000H	0000H	0000H	0000H	0000H
35-5,11	R008	IN6	0083H	0083H	0083H		0083H	0083H	0083H		0083H	0083H	0083H	0083H	0083H
35-5,11	R008	IN7	0064H	0064H	0064H		0064H	0064H	0064H		0064H	0064H	0064H	0064H	0064H
INTRODUCED ON ECN:	70019	70019	71535	71535	71535		71535	71535	71535		71535	71535	71535	71535	71535

Rels	A					
ECR No.	71535					
Sign./Date	ALPO/980420					
Appr./Date	AIR/980420					
					Drawing remarks	

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer: ALPO Date: 980420 | Approved: AIR Date: 980420 | Doc. class: -

Machine: TBA/19-0101

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Drawing No: 47820-90:10

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BLOCK-RUNG	REFERENCE INSTRUCTION	ADDRESS	SPEED 7500 PACKAGES/HOUR												
			100B	125S	160S	180B	200B	200M	200S	236B	250B	250S	284B	300S	330S
35-6,12	R537	CONST.	138	144	138		145	137	137		139	135	137	137	135
35-6,12	R510	CONST.	306	301	232		285	203	185		214	156	181	181	152
35-6,12	R178	CONST.	64	64	112		42	32	64		32	65	40	40	67
35-7,13	R268	CONST.	1133	1300	1475		1400	1600	1733		1633	1850	1767	1767	1933
35-7,13	R269	CONST.	10	125	10		125	125	2		125	2	125	125	127
35-7,13	R270	CONST.	95	90	90		85	90	90		80	90	90	90	95
35-8,14	R1025	CONST.	1150	1040	920		970	830	800		830	730	810	810	550
35-8,14	R298	CONST.	4	4	4		4	15	20		20	10	25	25	25
35-9,15	R744	CONST.	6	5	5		5	4	4		4	4	4	4	3
35-9,15	R745	CONST.	19	17	15		15	13	12		13	12	12	12	11
35-9,15	R743	CONST.	17	14	10		10	10	10		10	10	10	10	10
INTRODUCED ON ECN:	70486	70486	71535	71535	71535		71535	71535	71535		71535	71535	71535	71535	71535

Note	A														
ECN No.	71535														
Sign./Date	ALPO/980420														
Appr./Date	AIR/980420														
						Drawing remarks									

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Machine: TBA/19-0101

Denomination: VOLUME ADAPTION DOCUMENT

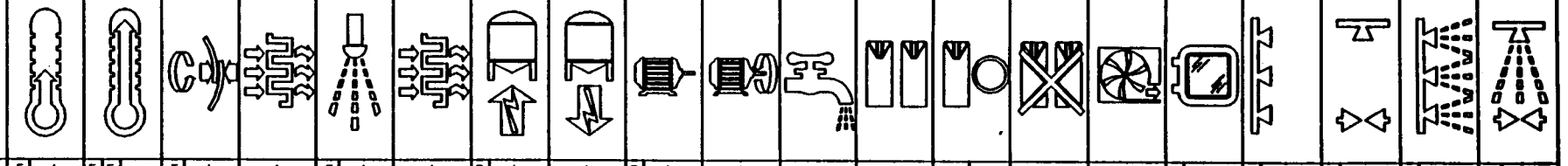
Drawing No: 47820-90:10

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LADDER SYMBOLS



LADDER SYMBOL LIGHTS	F	L	F	F		F	L	L	F	L	L	F	L	L	F	L	L	L	L	L	L	L	F	L	F	L	F	L	F	L	F	L
OPERATOR ACTIONS	⇧		↱			⇧			⇧			⇧			↱			◎	⇧	⇧					⇧		⇧		⇧		⇧	
MACHINE MODE	PRE-HEAT-ING 1		PRE-HEAT-ING 2			TIGHT TUBE	PREHEAT. III		FILLING	SPRAY	PAUSE	DRYING		SIGNAL TO STERILE	SIGNAL FROM STERILE	START SEQUENS	DRIVE MOTOR	FILLING	PROD-UCTION	SHORT STOP	PROD-UCTION	END OF PRODUCTION	WEAC		WEAC READY FOR DOOR OPENING		PREPARE FOR EXTERNAL CLEANING		PREPARE FOR VALVE CLEANING		EXTERNAL CLEANING		VALVE CLEANING A	B	C
									1s	5s	12	20 min				10 sec						2 min	5 min											
DRIVE MOTOR LOW K010																																		
ON OFF Q014																																		
DRIVE MOTOR HIGH K011																																		
ON OFF Q015																																		
MAIN MACH.CLUTCH Y22																																		
ON OFF Q070																																		
DRIVE UNIT.BRAKE Y43																																		
ON OFF Q82																																		
BENDING ROLLER K019																																		
ON OFF Q012																																		
ENABLE BENDING ROLLER A001-26																																		
ON OFF Q083																																		
PAPER SUPPLY MOTOR K017																																		
ON OFF Q013																																		
PAPER SUPPLY HIGH SPEED A408-28																																		
ON OFF Q094																																		
PAPER SUPPLY LOW SPEED A408-29																																		
ON OFF Q095																																		
TUBE FLUSHING Y39																																		
ON OFF Q076																																		
LUBR.AIR INJECTION Y17,Y51																																		
ON OFF Q062																																		
DESIGN ENABLE A400-20																																		
ON OFF Q084																																		
AIR BLOW.BOTT.FLAPS M.Y129																																		
OFF ON Q006																																		
ON OFF																																		
ON OFF																																		
ON OFF																																		
POSITION LADDER	0	00010		00020			00030			00040			00050				00060		00070				00080											

Note	A																																	
ECR No.	71535																																	
Sign./Date	AIR/980805																																	
Appr./Date	AIR/980805																																	

⇧ = NORMAL PRESS ↱ = LONG PRESS

▭ = ELECTRICALLY ACTIVATED

F = FLASHING LIGHT L = CONTINUOUS

Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer AIR Date 980805 Approved AIR Date 980805 Doc. class -

Machine: TBA/19-0101

Denomination: SEQUENCE DIAGRAM

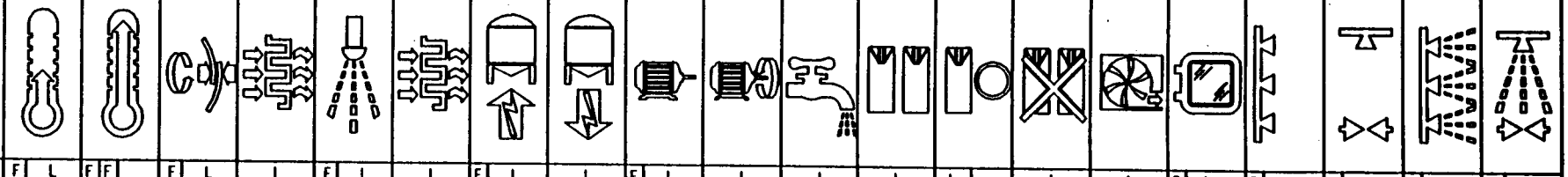
Drawing No: 47820-91:10

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LADDER SYMBOLS



LADDER SYMBOL LIGHTS	F	L	F	F		F	L	L	F	L	L	F	L	L	F	L	L	L	L	L	L	F	L	F	L	F	L	F	L	F	L
OPERATOR ACTIONS	⇧		↱			⇧			⇧			⇧			↷				◎ ⇧ ⇧				⇧		⇧		⇧		⇧		
MACHINE MODE	PRE-HEAT-ING 1		PRE-HEAT-ING 2			TIGHT TUBE	PREHEAT. III		FILLING	SPRAY	PAUSE	DRYING		SIGNAL TO STERILE	SIGNAL FROM STERILE	START SEQUENS	DRIVE MOTOR	FILLING	PROD-UCTION	SHORT STOP	PROD-UCTION	END OF PRODUCTION	WEAC	WEAC READY FOR DOOR OPENING		PREPARE FOR EXTERNAL CLEANING		PREPARE FOR VALVE CLEANING		EXTERNAL CLEANING		VALVE CLEANING	A	B	C
									1s	5s	12	20 min				10 sec					2 min	5 min											
CONVEYOR K013																																	
ON OFF Q020																																	
DROP CHUTE Y27																																	
ON OFF Q001																																	
AIR BLOWING WASTE Y3																																	
ON OFF Q068																																	
SPRINKLER.CHAIN Y31																																	
ON OFF Q072																																	
COOLING WATER Y33																																	
ON OFF Q073																																	
CIRC.PUMP.CLEANING K008																																	
ON OFF Q016																																	
DRAIN.CLEAN.TRAY Y2																																	
ON OFF Q069																																	
HOT WATER CLEAN. Y29																																	
ON OFF Q071																																	
PUMP.DETERGENT K002																																	
ON OFF Q038																																	
ON OFF																																	
OFF ON																																	
OFF ON																																	
OFF ON																																	
ON OFF																																	
ON OFF																																	
ON OFF																																	
POSITION LADDER	0	00010		00020			00030			00040			00050			00060		00070				00080										

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Drawing remarks

Note	A
ECR No.	71535
Sign./Date	AIR/980805
Appr./Date	AIR/980805

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer AIR Date 980805 Approved AIR Date 980805 Doc. class –

Machine: TBA/19-0101

Description: SEQUENCE DIAGRAM

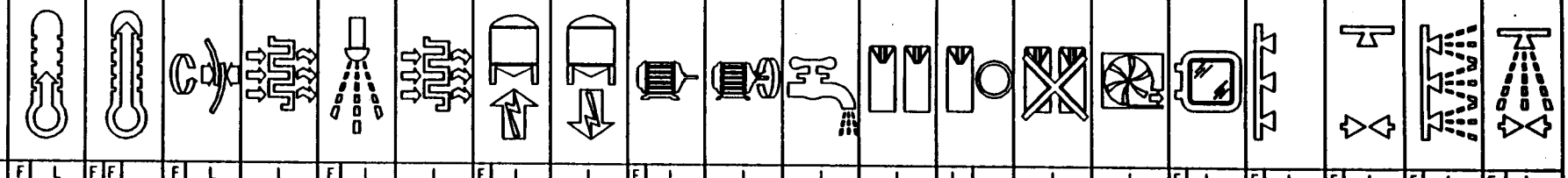
Drawing No: 47820-91:10

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LADDER SYMBOLS



LADDER SYMBOL LIGHTS	F	L	F	F		F	L	L	F	L	L	F	L	L	F	L	L	L	L	L	L	F	L	F	L	F	L	F	L	F	L
OPERATOR ACTIONS																															
MACHINE MODE	PRE-HEAT-ING 1			PRE-HEAT-ING 2		TIGHT TUBE		PREHEAT. III	FILLING	SPRAY	PAUSE	DRYING		SIGNAL TO STERILE	SIGNAL FROM STERILE	START SEQUENS	DRIVE MOTOR	FILLING	PROD-UCTION	SHORT STOP	PROD-UCTION	END OF PRODUCTION	WEAC	WEAC READY FOR DOOR OPENING		PREPARE FOR EXTERNAL CLEANING		PREPARE FOR VALVE CLEANING		EXTERNAL CLEANING		VALVE CLEANING		
									1s	5s	12	20 min				10 sec						2 min	5 min									A	B	C
SPLICER CONTROL VOLTAGE K001																															
ON OFF Q034																															
PREHEAT 2,LS/SH.ST. K005																															
ON OFF Q039																															
LS SEALED TUBE K101																															
ON OFF Q047																															
ON OFF																															
AIR FFU Y1																															
ON OFF Q021																															
PREHEAT 3, FFU K018																															
ON OFF Q036																															
PULL DOWN DEVICE,FFU Y41																															
ON OFF Q077																															
PRESS.DEVICE, FFU Y42																															
ON OFF Q161																															
MOVEM.,SH.STOP ELEM Y20																															
ON OFF Q005																															
MOVEM.,LS/SA ELEM. Y24																															
ON OFF Q003																															
LS COUNTER ROLLER Y26																															
OFF ON Q002																															
AIR KNIFE/SQUEEZE Y21																															
ON ROLLER Q004																															
MAIN AIR VALVE Y102																															
ON ON Q022																															
ON OFF																															
ON OFF																															
ON OFF																															
POSITION LADDER	0	00010		00020		00030			00040				00050				00060		00070				00080										

↑ = NORMAL PRESS ↷ = LONG PRESS

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Drawing remarks

Note	A
ECN No.	71535
Sign./Date	AIR/980805
Appr./Date	AIR/980805

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer AIR Date 980805 Approved AIR Date 980805 Doc. class -

Machine: TBA/19-0101

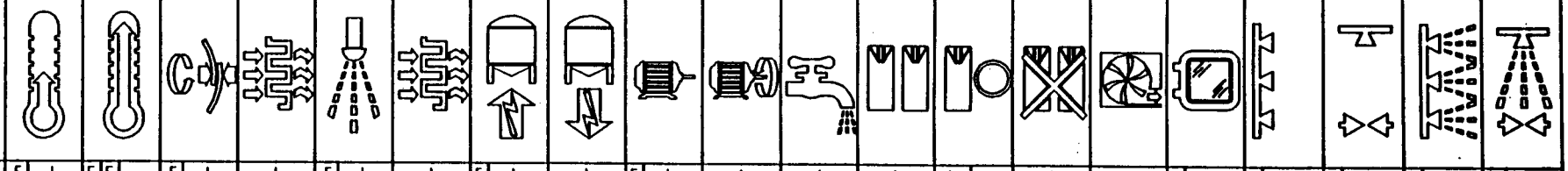
Denomination: SEQUENCE DIAGRAM

Drawing No: 47820-91:10

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LADDER SYMBOLS



LADDER SYMBOL LIGHTS	F	L	F	F		F	L	L	F	L	L	F	L	L	F	L	L	L	L	L	L	L	F	L	F	L	F	L	F	L	F	L
OPERATOR ACTIONS	⇧		↱			⇧			⇧			⇧			↷			◎	⇧	⇧					⇧		⇧		⇧		⇧	
MACHINE MODE		PRE-HEAT-ING 1			PRE-HEAT-ING 2		TIGHT TUBE	PREHEAT. III		FILLING 1s	SPRAY 0s	PAUSE 12	DRYING 20 min		SIGNAL TO STERILE	SIGNAL FROM STERILE		START SEQUENS 10 sec	DRIVE MOTOR	FILLING	PROD-UCTION	SHORT STOP	PROD-UCTION	END OF PRODUCTION 2 min	WEAC 5 min		WEAC READY FOR DOOR OPENING		PREPARE FOR EXTERNAL CLEANING		PREPARE FOR VALVE CLEANING		EXTERNAL CLEANING		VALVE CLEANING A	B	C
PUMP.HYDRAULIC	K007																																
ON OFF	Q018																																
POWER IH UNIT TS	K004																																
ON OFF	Q033																																
SEALING PULSE TS	A500																																
ON OFF	Q162																																
POWER IH UNIT SA	K014																																
ON OFF	Q040																																
SEALING PULSE SA	A501																																
ON OFF	Q163																																
COMPRESSOR INLET	K6,Y32																																
ON OFF	Q019																																
AIR INLET VALVE	Y19																																
SH BYPASS	Q61																																
SUCTION VALVE	Y23																																
SH BATH	Q060																																
HEAT EXCHANGER	Y25																																
ON	Q059																																
AIR SUPER HEATER	K016																																
BYPASS OFF	Q035																																
AIR SUPER HEAT.400c	K102																																
ON OFF	Q048																																
VACUUM VALVE	Y86																																
OFF ON	Q058																																
PEROX.BATH.PREH/PROD.	K100																																
ON OFF	Q049																																
ON OFF																																	
ON OFF																																	
ON OFF																																	
POSITION LADDER		0	00010		00020			00030		00040					00050				00060		00070				00080								

Note	A
ECR No.	71535
Sign./Date	AIR/980805
Appr./Date	AIR/980805

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Drawing remarks

Tetra Pak

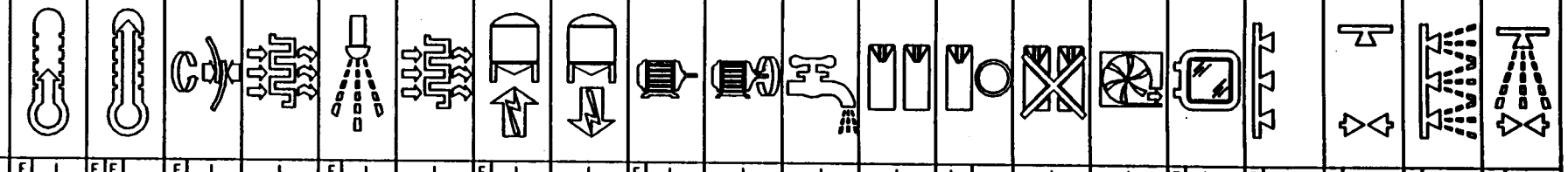
Company Tetra Brik R.& D. S.p.A.

Designer AIR	Date 980805	Approved AIR	Date 980805	Doc. class -	
Machine TBA/19-0101	Denomination SEQUENCE DIAGRAM				
Drawing No 47820-91:10				Page 4/6	

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LADDER SYMBOLS



LADDER SYMBOL LIGHTS	F	L	F	F		F	L	L	F	L	L	F	L	L	F	L	L	L	L	L	L	L	F	L	F	L	F	L	F	L
OPERATOR ACTIONS	⇧			↱			⇧			⇧			⇧			↱				▣	⇧	⇧				⇧		⇧		⇧	
MACHINE MODE	PRE-HEAT-ING 1			PRE-HEAT-ING 2		TIGHT TUBE	PREHEAT. III		FILLING	SPRAY	PAUSE	DRYING		SIGNAL TO STERILE	SIGNAL FROM STERILE		START SEQUENS	DRIVE MOTOR	FILLING	PROD-UCTION	SHORT STOP	PROD-UCTION	END OF PRODUCTION	WEAC	WEAC READY FOR DOOR OPENING		PREPARE FOR EXTERNAL CLEANING		PREPARE FOR VALVE CLEANING		EXTERNAL CLEANING		VALVE CLEANING		
									1s	1s	12	20 min					10 sec						2 min	5 min								A	B	C
PEROX.TANK FILLING M18																																	
ON OFF Q110/104	■																																
PEROX.BATH WATER PUMP K102																																	
ON OFF Q034	■			■		■	■		■	■	■	■		■	■		■	■	■	■	■	■	■	■									
PUMP. PEROXIDE K009																																	
ON OFF Q017				■		■	■		■	■	■	■		■	■		■	■	■	■	■	■	■	■									
PEROX.BATH DRAIN Y5																																	
OPEN CLOSED Q067				■		■	■		■	■	■	■		■	■		■	■	■	■	■	■	■	■									
PEROX.BATH FILL. Y6																																	
OPEN CLOSED Q066				■		■	■		■	■	■	■		■	■			■	■	■	■	■	■	■									
PEROX.BATH TOP FILL Y108																																	
OPEN CLOSED Q078																		■		■		■											
PEROX.BATH ELEMENT K015																																	
ON OFF Q037	■			■		■	■		■	■	■	■		■	■		■	■	■	■	■	■	■	■									
SPRAY TANK FILLING Y34																																	
OPEN CLOSED Q074									■																								
AIR SPRAY TANK Y4,Y35																																	
OPEN CLOSED Q075							■			■	■																						
ON OFF																																	
OFF ON																																	
OFF ON																																	
OFF ON																																	
ON OFF																																	
ON OFF																																	
ON OFF																																	
POSITION LADDER	0	00010		00020			00030			00040				00050				00060		00070				00080									

Note	A
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Drawing remarks

Tetra Pak

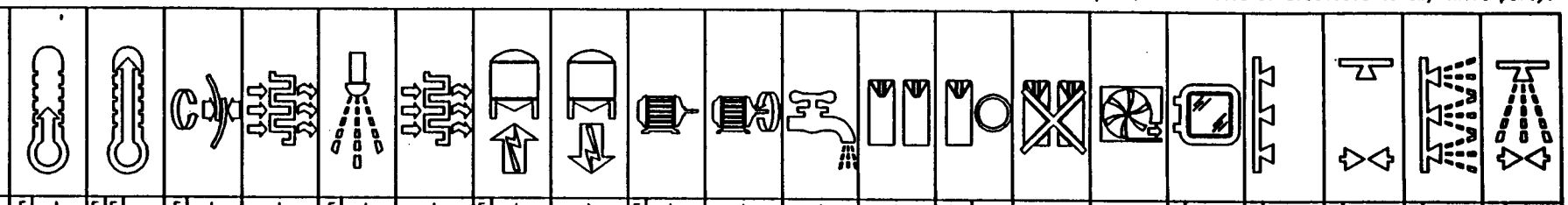
Company: Tetra Brik R.& D. S.p.A.

Designer AIR	Date 980805	Approved AIR Date 980805	Doc. class -
Machine TBA/19-0101	Denomination SEQUENCE DIAGRAM		
Drawing No 47820-91:10			Page 5/6

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LADDER SYMBOLS



LADDER SYMBOL LIGHTS	F	L	F	F		F	L	L	F	L	L	F	L	L	F	L	L	L	L	L	L	L	F	L	F	L	F	L	F	L	F	L
OPERATOR ACTIONS	⇧		↱			⇧			⇧			⇧			↷				◎	⇧	⇧				⇧		⇧		⇧		⇧	
MACHINE MODE		PRE-HEAT-ING 1			PRE-HEAT-ING 2		TIGHT TUBE	PREHEAT. III		FILLING	SPRAY	PAUSE	DRYING	SIGNAL TO STERILE	SIGNAL FROM STERILE	START SEQUENS	DRIVE MOTOR	FILLING	PROD-UCTION	SHORT STOP	PROD-UCTION	END OF PRODUCTION	WEAC	WEAC READY FOR DOOR OPENING	PREPARE FOR EXTERNAL CLEANING	PREPARE FOR VALVE CLEANING	EXTERNAL CLEANING	VALVE CLEANING			
										1s	1s	12	20 min			10 sec						2 min	5 min						A	B	C
STERILE AIR VALVE(B	Y8																															
OPEN CLOSED	Q064																															
STEAM BARRIER (C)	Y7																															
ON OFF	Q065																															
PRODUCTION (A)	Y9																															
ON OFF	Q063																															
READY FOR PRODUCT	K105																															
ON OFF	Q043																															
AB IN PRODUCTION	K106																															
ON OFF	Q044																															
FILLING SIGNAL	K107																															
ON OFF	Q045																															
PRODUCTION L.R.F.	A310-10																															
ON OFF	Q106																															
STERILIZATION L.R.F	A310-16																															
ON OFF	Q105																															
CLEANING L.R.F.	A310-15																															
ON OFF	Q107																															
SIGNAL TO CIP	K104																															
ON OFF	Q046																															
OFF ON																																
OFF ON																																
OFF ON																																
ON OFF																																
ON OFF																																
ON OFF																																
POSITION LADDER		0	00010		00020			00030		00040				00050			00060	00070				00080										

Note	A																															
ECR No.	71535																															
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Drawing remarks

Tetra Pak

Designer AIR Date 980805 Approved AIR Date 980805 Doc. class -

Machine TBA/19-0101

Description SEQUENCE DIAGRAM

Company Tetra Brik R.& D. S.p.A.

Drawing No 47820-91:10

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9 BE-list, CE-lists and terminals

EM1.1TB091499en.fm

Table of contents

BE-list

Electrical equipment . . . . . .(ECN 70486) BE-649452-010V

CE-lists

Electrical cabinet . . . . . .(ECN 71701) CE-42410-010V
Control panel . . . . . .(ECN 71535) CE-42411-010V
Machine . . . . . .(ECN 71701) CE-42412-010V
Standard equipment . . . . . .(ECN 71535) CE-42413-010V
Spare part kit . . . . . .(ECN 71535) CE-42415-010V
Electrical document . . . . . .(ECN 71701) CE-42416-010V

Terminals
CE-42416-010V

Terminal block X001:1 . . . . . .(ECN 71701) 1279810
Terminal block X001:2 . . . . . .(ECN 71701) 1279811
Terminal block X001:3 . . . . . .(ECN 71701) 1279812
Distribution terminals, 0V. . . . . .(ECN 71701) 582128
Distribution terminals and diodes. . . . . .(ECN 71701) 582129
Ground, neutral, power terminals. . . . . .(ECN 71701) 582130
Distribution terminals, HI . . . . . .(ECN 71701) 582131
Power terminals and filter . . . . . .(ECN 71701) 582136
Distribution terminals, panel. . . . . .(ECN 71701) 582137

Fuse panel label
CE-42416-010V

Fuse panel label. . . . . .(ECN 71701) 582132

Coaxial cable
CE-42416-010V

Coaxial cable . . . . . .(ECN 70256) 548770

EM1.1TB091499en.fm

ECN 70046 70562 70486
Release date 960626 961213 970414

Variant: **Column** **Global dependency**
ZA NOPT
ZB PT19

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
C	0010		EL. CABINET TBA/19-0101	X		42410-0100				PC	1	-	
C	0020		CONTROL PANEL TBA/19-0101	X		42411-0100				PC	1	-	
C	0030		MACHINE TBA/19-0101	X		42412-0100				PC	1	-	
C	0040		STANDARD EQU. TBA/19-0101	X		42413-0100				PC	1	-	
C	0060		SPARE PART K. TBA/19-0101	X		42415-0100				PC	1	-	
C	0070		EL. DOCUMENT TBA/19-0101	X		42416-0100				PC	1	-	
	0080		EL. CABINET TBA/19-0102	X		42444-0100				PC	-	1	
	0090		CONTROL PANEL TBA/19-0102	X		42445-0100				PC	-	1	
	0100		MACHINE TBA/19-0102	X		42446-0100				PC	-	1	
	0110		STANDARD EQU. TBA/19-0102	X		42447-0100				PC	-	1	
	0130		SPARE PART K. TBA/19-0102	X		42449-0100				PC	-	1	
	0140		EL. DOCUMENT TBA/19-0102	X		42450-0100				PC	-	1	

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Information 'valid to' 1997.04.14

Variant:	**Column**	**Global dependency**
	ZA	NOPT19
	ZB	PT19

Chg	**Position**	**Sp**	**Description**		**As**	**Size**	**Identity**	**DTp**	**Prt**	**Vs**	**Unit**	**Column quantity All**	**ZA**	**ZB**
C	0010		EL. CABINET	TBA/19-0101	X		42410-0100				PC	1	-	
C	0020		CONTROL PANEL	TBA/19-0101	X		42411-0100				PC	1	-	
C	0030		MACHINE	TBA/19-0101	X		42412-0100				PC	1	-	
C	0040		STANDARD EQU.	TBA/19-0101	X		42413-0100				PC	1	-	
D	0050		EXTRA EQUIPM.	TBA/19-0101	X		42414-0100				PC	1	-	
C	0060		SPARE PART K.	TBA/19-0101	X		42415-0100				PC	1	-	
C	0070		EL. DOCUMENT	TBA/19-0101	X		42416-0100				PC	1	-	
D	0120		EXTRA EQUIPM.	TBA/19-0102	X		42448-0100				PC	-	1	

Group	Specification		Plant	Created
649452-0101	Frequency	50 Hz	BM01	1997.03.04
	Opening device type	Without Opening Device	BM02	1997.03.04
649452-0102	Frequency	60 Hz	BM01	1997.03.04
	Opening device type	Without Opening Device	BM02	1997.03.04
649452-0103	Frequency	50 Hz	BM01	1997.03.04
	Opening device type	PT19	BM02	1997.03.04
649452-0104	Frequency	60 Hz	BM01	1997.03.04
	Opening device type	PT19	BM02	1997.03.04

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ECN 70019 70256 70531 70486 70943 71535 71701
Release date 960418 961031 961203 970414 971020 980811 981012

Variant: Column Global dependency
ZA 50HZ
ZB 60HZ

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
	0001		ELECTRICAL CABINET	X		971257-0100				PC	1		
			* EARTH BAR	X		1317783-0100							
	A310		LEVEL REGULATOR	X		42071-0200				PC	1		
			* MAIN BOARD	X		42442-0100							
			* AUXILIARY BOARD	X		42443-0100							
	Q001:2		SIGN "400/230V;50Hz;63A"		A4	359241-0297				PC		1	-
	Q001:2		SIGN "400/230V;60Hz;63A"		A4	359241-0298				PC		-	1
	0010		RACK WALLMOUNTED 84TE			67369-0102				PC	1		
	0010:1		CLAMP FOR SCR.CABLE 16MM		A4	90220-0302				PC	2		
	0010:2		CLAMP FOR SCR.CABLE 10MM		A3	90220-0304				PC	2		
	0010:3		LOCK WASHER AZ 3,2			90062-0058				PC	7		
	0010:4		SLOTTED CHEESE HEAD ISO 1207 M3X25 RFR			312125-0232				PC	4		
	0010:5		WASHERS,PLAIN ROUND 3,2X6			315105-0124				PC	11		
	0010:6		NUTS,HEXAGON,M3			312605-0310				PC	14		
	0010:7		SIGN "EARTH"		A4	90194-0152				PC	3		
	0010:8		SLOTTED CHEESE HEAD ISO 1207 M3X12 RFR			312125-0226				PC	3		
I	0020		RACK WALLMOUNTED 84TE			67369-0102				PC	1		
	0020:1		SIGN "EARTH"		A4	90194-0152				PC	1		
	0020:2		SLOTTED CHEESE HEAD ISO 1207 M3X12 RFR			312125-0226				PC	1		
	0020:3		NUTS,HEXAGON,M3			312605-0310				PC	2		

12:41 20/11/98

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
	0020:4		WASHERS,PLAIN ROUND 3,2X6			315105-0124				PC	1		
	0020:5		LOCK WASHER AZ 3,2			90062-0058				PC	1		
	0030		RACK FRONTMOUNTED 14TE			67388-0104				PC	1		
	0030:1		CLAMP FOE SCR.CABLE 10MM	A4		90220-0303				PC	1		
	0030:2		CLAMP FOR SCR.CABLE 10MM	A3		90220-0305				PC	1		
	0030:3		LOCK WASHER AZ 3,2			90062-0058				PC	3		
	0030:4		SLOTTED CHEESE HEAD ISO 1207 M3X25 RFR			312125-0232				PC	2		
	0030:5		WASHERS,PLAIN ROUND 3,2X6			315105-0124				PC	5		
	0030:6		NUTS,HEXAGON,M3			312605-0310				PC	6		
	0030:7		SIGN "EARTH"	A4		90194-0152				PC	1		
	0030:8		SLOTTED CHEESE HEAD ISO 1207 M3X12 RFR			312125-0226				PC	1		
	0040		SIGN HOLDER	A2		359240-0100				PC	33		
	0050		SIGN "IDENTIF. OF WIRING"	A3		90194-0080				PC	1		
	0070		SIGN,UNENGRAVED	A4		359240-0001				PC	13		
	0080		CABLE GLAND ST 36			352103-0122				PC	1		
	0090		BLIND PLUG D=22,5mm			90002-0014				PC	3		
	0101		SIGN "DELIVERED DESIGN" I t e m t e x t SEE DRAWING: 52710-14:07	A3		90194-0133				PC	1		
	0120		SIGN "FLASH SIGN" 50X50MM			90194-0016				PC	8		
	0130		CABLE AWM ORANGE 0,75			351180-0102				M	41		
	0140		CABLE AWM RED 0,75MM2	A4		351176-0102				M	76		
	0150		CABLE AWM RED 4MM2	A4		351176-0106				M	2		
	0160		CABLE AWM BLUE 0,75MM2	A4		351172-0102				M	718		
	0170		CABLE AWM BLUE 4MM2	A4		351172-0106				M	6		
	0180		CABLE AWM BLACK 1,5MM2	A4		351179-0104				M	58		

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
	0190		CABLE AWM BLACK 2,5MM2	A4		351179-0105				M	106		
	0200		CABLE AWM BLACK 6MM2	A4		351179-0107				M	32		
	0210		CABLE AWM BLACK 25MM2	A4		351179-0110				M	30		
	0220		CABLE AWM LIGTHBLUE 1,5MM2	A4		351173-0104				M	17		
	0230		CABLE AWM LIGHTBLUE 2,5 MM2	A4		351173-0105				M	11		
	0240		CABLE AWM LIGHTBLUE 6MM2	A4		351173-0107				M	4		
	0250		CABLE AWM LIGHTBLUE 25MM2	A4		351173-0110				M	3		
	0260		CABLE AWM YELL/GREEN 0,75MM2	A4		351175-0102				M	7		
	0270		CABLE AWM YELL/GREEN 1,5MM2	A4		351175-0104				M	10		
	0280		CABLE AWM YELL/GREEN 2,5MM2	A4		351175-0105				M	38		
	0290		CABLE AWM YELL/GREEN 4MM2	A4		351175-0106				M	6		
	0300		CABLE AWM YELL/GREEN 6MM2	A4		351175-0107				M	26		
	0310		CABLE AWM YELL/GREEN 16mm2	A4		351175-0109				M	5		
	0320		MACHINE PLATE 50X120MM	A4		27402-0000				PC	1		
	0340	D	3 POLE BUSBAR FOR ABB 280	A3		90007-0311				PC	1		
C	**0355**		GLAND FITTING PR22,5/PG16 Di=16mm			352136-0129				PC	**2**		

I t e m t e x t

****

1 FIXED TO THE COOLING UNIT.
1 FIXED UPPER THE CABINET FOR COOLING UNIT WIREING.

****

I n t e r n a l c o m m e n t

Not for new design

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
			Improved version exists										
C	0360		Spiral Conduit Di=16 mm	A4		352135-0106				MM	400		
			I t e m t e x t										
			FOR THE CONNECTION BETWEEN THE CABINET										
			AND THE COOLING UNIT.										
	0370	D	3 POLE BUSBAR K&M B3.1/5			90259-0311				PC	3		
I	0380		NUT PR 22,5 (PG16)			90099-0110				PC	2		
			I t e m t e x t										
			1 FOR THE GLAND FITTING RESERVED FOR COOLING UNIT.										
			1 FOR THE PLUG RESERVED FOR THE COOLING UNIT.										
I	0390		BLANK-OFF PLUG 22,5	A4		90002-0004				PC	1		
			I t e m t e x t										
			RESERVED FOR THE COOLING UNIT.										
	0410		TERMINAL BLOCK X001:1	Y	A4	1279810-0000				PC	1		
	0411		TERMINAL BLOCK X001:2	Y	A4	1279811-0000				PC	1		
	0412		TERMINAL BLOCK X001:3	Y	A4	1279812-0000				PC	1		
	0413		DISTRIBUTION TERMINAL, 0V	Y	A4	582128-0000				PC	1		
	0414		DISTRIB. TERM. AND DIODES	Y	A4	582129-0000				PC	1		
	0415		GROUND, NEUT., POWER TERM	Y	A4	582130-0000				PC	1		
	0416		DISTRIBUTION TERMINAL, IH	Y	A4	582131-0000				PC	1		
	0418		POWER TERM. AND FILTER	Y	A4	582136-0000				PC	1		
	0420		FUSE PANEL LABEL		A4	582132-0000				PC	1		
	0500		CABLE INLETS	Y	A4	1279813-0000				PC	1		
	0501		CABLE INLETS	Y	A4	1279814-0000				PC	1		
	0502		CABLE INLETS	Y	A4	1279815-0000				PC	1		
	0503		CABLE INLETS	Y	A4	1279816-0000				PC	1		
I	0504		CABLE INLETS	Y	A4	1349489-0000				PC	1		
	A001	K	MOTOR DRIVE		A3	90430-0067				PC	1		

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
			CONTROL PME 1802										
	A001:1	K	BACKPLANE 8TE(32 POLE)			67372-0101				PC	1		
	A100	K	Baseplate 10-Slot		A1	90031-0051				PC	1		
	A101	K	Baseplate,10-Slot		A1	90031-0053				PC	1		
	A102	K	PLC,Digital Input Module, 24VDC,16pt,+/-		A2	90031-0057				PC	1		
	A103	K	PLC,Digital Input Module, 24VDC,16pt,+/-		A2	90031-0057				PC	1		
	A104	K	PLC,Digital Input Module, 24VDC,16pt,+/-		A2	90031-0057				PC	1		
	A105	K	PLC,Digital Input Module, 24VDC,16pt,+/-		A2	90031-0057				PC	1		
	A106	K	PLC,Digital Input Module, ,16pt,+/-		A2	90031-0058				PC	1		
	A107	K	PLC,Digital Output Module ,24VDC,16pt,+/-		A2	90031-0059				PC	1		
	A111	K	PLC,Digital Input Module, 24VDC,16pt,+/-		A2	90031-0057				PC	1		
	A112	K	PLC,Digital Input Module, 24VDC,16pt,+/-		A2	90031-0057				PC	1		
	A113	K	PLC,Digital Input Module, 24VDC,16pt,+/-		A2	90031-0057				PC	1		
	A114	K	PLC,Digital Output Module ,24VDC,16pt,+/-		A2	90031-0059				PC	1		
	A115	K	PLC,Digital Output Module ,24VDC,16pt,+/-		A2	90031-0059				PC	1		
	A116	K	PLC,Digital Output Module ,24VDC,16pt,+/-		A2	90031-0059				PC	1		
	A117	K	PLC,Digital Output Module ,24VDC,16pt,+/-		A2	90031-0059				PC	1		
	A118	K	PLC,Digital Output Module		A2	90031-0059				PC	1		

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
			,24VDC,16pt,+/-										
	A119	K	PLC,Digital Output Module ,24VDC,16pt,+/-	A2		90031-0059				PC	1		
	A120	K	PLC,Digital Output Module ,24VDC,16pt,+/-	A2		90031-0059				PC	1		
	A121	K	PLC,Digital Output Module ,24VDC,16pt,+/-	A2		90031-0059				PC	1		
	A135	K	Baseplate,10-Slot	A1		90031-0053				PC	1		
	A200	F	TEMPERATURE REGULATOR KS40	A2		90410-0051				PC	1		
	A200:1	D	SIGN "PRESTERILISATION"			359241-0123				PC	1		
	A201	F	TEMPERATURE REGULATOR KS40	A2		90410-0051				PC	1		
	A201:1	D	SIGN "PEROXIDE WATER BATH"			359241-0141				PC	1		
	A202	F	TEMPERATURE REGULATOR KS40	A2		90410-0051				PC	1		
	A202:1	D	SIGN "LONGITUDINAL SEALING"			359241-0131				PC	1		
	A203	F	TEMPERATURE REGULATOR KS40	A2		90410-0051				PC	1		
	A203:1	D	SIGN "AIR SUPERHEATER"			359241-0130				PC	1		
	A204	F	TEMPERATURE REGULATOR KS40	A2		90410-0051				PC	1		
	A204:1	D	SIGN "TEMP.AIR KNIFE"			359241-0126				PC	1		
	A205	F	TEMPERATURE REGULATOR KS40	A2		90410-0051				PC	1		
	A205:1	D	SIGN "STEAM"			359241-0121				PC	1		
	A206	F	TEMPERATURE REGULATOR KS40	A2		90410-0051				PC	1		

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
	A206:1		SIGN "TEMP.PEROXIDE BATH"			359241-0125				PC	1		
	A207	F	TEMPERATURE REGULATOR KS40		A2	90410-0051				PC	1		
	A207:1		SIGN "INT.STRIP AUTO SPLICE"			359241-0144				PC	1		
	A300	K	Level control relay RM3		A3	90314-0038				PC	1		
	A301	K	Level control relay RM3		A3	90314-0038				PC	1		
	A302	K	Level control relay RM3		A3	90314-0038				PC	1		
	A303	K	Level control relay RM3		A3	90314-0038				PC	1		
	A305	K	Level control relay RM3		A3	90314-0038				PC	1		
	A307	K	Level control relay RM3		A3	90314-0038				PC	1		
	A310:1	K	BACKPLANE FRONT RACK 8TE			68262-0101				PC	1		
I	A400	K	TMCC			558230-0301				PC	1		
	A400:1	K	BACKPLANE 8TE(32 POLE)			67372-0101				PC	1		
C	A400:2	D	DCS19, Design Control System TBA/19	Y		47835-0200				PC	1		
	A402	K	MOTOR DRIVE CONTROL PME 1802		A3	90430-0067				PC	1		
	A402:1	K	BACKPLANE 8TE(32 POLE)			67372-0101				PC	1		
	A500	K	TPIH 2000 GENERATOR			67600-0501				PC	1		
	A500:1	D	FEMALECONT.15POLE HARTING			90110-0121				PC	2		
	A500:2	D	COVER HARTING			90110-0122				PC	2		
	A500:3		SIGN "TRANSVERSAL SEALING"			359241-0135				PC	1		
	A501	K	TPIH 2000 GENERATOR			67600-0501				PC	1		
	A501:1	D	FEMALECONT.15POLE HARTING			90110-0121				PC	2		
	A501:2	D	COVER HARTING			90110-0122				PC	2		
	A501:3		SIGN "STRIP APPLICATOR"			359241-0132				PC	1		
	A502	K	CURRENT RELAY SYRELEC		A3	90119-0077				PC	1		

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
	A506	K	SAFETY RELAY JSBR4		A2	90119-0072				PC	1		
	A507	K	SAFETY RELAY JSBR3		A2	90119-0080				PC	1		
	A508		TPIH-SWITCH			558321-0101				PC	1		
	A508:1	K	BACKPLANE 8TE(32 POLE)			67372-0101				PC	1		
	D100	K	PLC,Processors,Single Slot,CPU341		A2	90031-0018				PC	1		
	E004	K	HOLDING FIXTURE		A3	90164-0301				PC	1		
	E004:1	F	FLUORESCENT TUBE 11W			90297-0007				PC	1		
	E005	K	HOLDING FIXTURE		A3	90164-0301				PC	1		
	E005:1	F	FLUORESCENT TUBE 11W			90297-0007				PC	1		
	F001	K	FUSE ABB-STOTZ 1P 10A K		A3	90007-0129				PC	1		
	F002	K	FUSE ABB-STOTZ 1P 10A K		A3	90007-0129				PC	1		
	F003	K	FUSE ABB-STOTZ 1P 16A K		A3	90007-0131				PC	1		
	F004		FUSE 1P 6A K		A3	90007-0128				PC	1		
	F005		FUSE 1P 6A K		A3	90007-0128				PC	1		
	F006	K	FUSE ABB-STOTZ 3P 10A K		A3	90007-0147				PC	1		
	F007	K	FUSE H.MANN 2P 80A 2			90007-0118				PC	1		
	F008	K	FUSE H.MANN 2P 80A 2			90007-0118				PC	1		
	F009		FUSE 1P 6A K		A3	90007-0128				PC	1		
	F100		FUSE 16A FERRAZ10,3X38,2 I n t e r n a l c o m m e n t INDICATOR SEE 90233-305	Y	A4	90233-0027				PC	3		
	F100:1		FUSEHOLDER FERRAZ ST10		A3	90233-0303				PC	3		
	F101		FUSE 25A FERRAZ		A4	90233-0029				PC	3		
	F101:1		FUSEHOLDER FERRAZ ST10		A3	90233-0303				PC	3		
	F102		FUSE 10A FERRAZ		A4	90233-0028				PC	3		
	F102:1		FUSEHOLDER FERRAZ ST10		A3	90233-0303				PC	3		
	F103		FUSE 10A FERRAZ		A4	90233-0028				PC	3		

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
	F103:1		FUSEHOLDER FERRAZ ST10		A3	90233-0303				PC	3		
	F104		FUSE 16A FERRAZ10,3X38,2	Y	A4	90233-0027				PC	1		
			Internal comment										
			INDICATOR SEE 90233-305										
	F104:1		FUSEHOLDER FERRAZ ST10		A3	90233-0303				PC	1		
	G100	K	Power supply GE-Fanuc		A2	90031-0068				PC	1		
			High cap.240VAC										
	G101	K	Power supply GE-Fanuc		A2	90031-0068				PC	1		
			High cap.240VAC										
	G102	K	Power supply GE-Fanuc		A2	90031-0068				PC	1		
			High cap.240VAC										
	K001	K	CONTACTOR 4KW COIL 24VDC	Y	A2	90075-0124				PC	1		
	K002	K	CONTACTOR 4KW COIL 24VDC		A2	90075-0127				PC	1		
	K003	K	CONTACTOR 22KW COIL 24VDC	Y	A2	90075-0126				PC	1		
	K004	K	CONTACTOR		A2	90075-0128				PC	1		
			7,5KW COIL 24VDC										
	K005	K	CONTACTOR		A2	90075-0128				PC	1		
			7,5KW COIL 24VDC										
	K006	K	CONTACTOR	Y	A2	90075-0125				PC	1		
			7,5KW COIL 24VDC										
	K007	K	CONTACTOR 4KW COIL 24VDC	Y	A2	90075-0124				PC	1		
	K008	K	CONTACTOR	Y	A2	90075-0125				PC	1		
			7,5KW COIL 24VDC										
	K009	K	CONTACTOR 4KW COIL 24VDC	Y	A2	90075-0124				PC	1		
	K010	K	CONTACTOR 4KW COIL 24VDC	Y	A2	90075-0124				PC	1		
	K011	K	CONTACTOR	Y	A2	90075-0125				PC	1		
			7,5KW COIL 24VDC										
	K012	K	CONTACTOR 4KW COIL 24VDC	Y	A2	90075-0124				PC	1		
	K013	K	CONTACTOR 4KW COIL 24VDC	Y	A2	90075-0124				PC	1		
	K014	K	CONTACTOR		A2	90075-0128				PC	1		

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
			7,5KW COIL 24VDC										
	K015	K	CONTACTOR	Y	A2	90075-0125				PC	1		
			7,5KW COIL 24VDC										
	K016	K	CONTACTOR		A2	90075-0128				PC	1		
			7,5KW COIL 24VDC										
	K017	K	CONTACTOR 4KW COIL 24VDC	Y	A2	90075-0124				PC	1		
	K018	K	CONTACTOR	Y	A2	90075-0125				PC	1		
			7,5KW COIL 24VDC										
	K019	K	CONTACTOR	Y	A2	90075-0125				PC	1		
			7,5KW COIL 24VDC										
	K100	F	PLUG-IN RELAY 24VDC		A3	90119-0056				PC	1		
	K100:1	K	BASE 11 POLE		A3	90129-0006				PC	1		
	K101	F	RELAY OMRON 24VDC MY4		A4	90119-0086				PC	1		
	K101:1	K	BASE: OMRON TYPE PYF 14AE			90119-0309				PC	1		
	K101:2		CLAMP:OMRON TYPE PYC-A1			90119-0310				PC	1		
	K102	F	PLUG-IN RELAY 24VDC		A3	90119-0056				PC	1		
	K102:1	K	BASE 11 POLE		A3	90129-0006				PC	1		
	K103	F	PLUG-IN RELAY 24VDC		A3	90119-0056				PC	1		
	K103:1	K	BASE 11 POLE		A3	90129-0006				PC	1		
	K104	F	PLUG-IN RELAY 24VDC		A3	90119-0056				PC	1		
	K104:1	K	BASE 11 POLE		A3	90129-0006				PC	1		
	K105	F	PLUG-IN RELAY 24VDC		A3	90119-0056				PC	1		
	K105:1	K	BASE 11 POLE		A3	90129-0006				PC	1		
	K106	F	PLUG-IN RELAY 24VDC		A3	90119-0056				PC	1		
	K106:1	K	BASE 11 POLE		A3	90129-0006				PC	1		
	K107	F	PLUG-IN RELAY 24VDC		A3	90119-0056				PC	1		
	K107:1	K	BASE 11 POLE		A3	90129-0006				PC	1		
	K110	F	PLUG-IN RELAY 24VDC		A3	90119-0056				PC	1		

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
	K110:1	K	BASE 11 POLE		A3	90129-0006				PC	1		
	K111	F	RELAY OMRON 24VDC MY4		A4	90119-0086				PC	1		
	K111:1	K	BASE: OMRON TYPE PYF 14AE			90119-0309				PC	1		
	K111:2		CLAMP:OMRON TYPE PYC-A1			90119-0310				PC	1		
	K113	F	PLUG-IN RELAY 24VDC		A3	90119-0056				PC	1		
	K113:1	K	BASE 11 POLE		A3	90129-0006				PC	1		
	K200		SOLID-STATE RELAY H12WD		A3	90119-0067				PC	1		
	K201		SOLID-STATE RELAY H12WD		A3	90119-0067				PC	1		
	K202		SOLID-STATE RELAY H12WD		A3	90119-0067				PC	1		
	K203		SOLID-STATE RELAY H12WD		A3	90119-0067				PC	1		
	K204		SOLID-STATE RELAY H12WD		A3	90119-0067				PC	1		
	K205		OPTO RELAY 22DC 60S-3		A3	90119-0043				PC	1		
	K206		SOLID-STATE RELAY H12WD		A3	90119-0067				PC	1		
	L001	K	LIGHT FIXTURES,BALLAST COIL 50/60 HZ		A3	90297-0306				PC	1		
	L002	K	LIGHT FIXTURES,BALLAST COIL 50/60 HZ		A3	90297-0306				PC	1		
	L004	K	LIGHT FIXTURES,BALLAST COIL 50/60 HZ		A3	90297-0306				PC	1		
	L005	K	LIGHT FIXTURES,BALLAST COIL 50/60 HZ		A3	90297-0306				PC	1		
	M002	K	FAN 220V;13W;50/60HZ			90264-0025				PC	1		
	M003	K	FAN 220V;13W;50/60HZ			90264-0025				PC	1		
	M016		COOLING UNIT		A2	90422-0029				PC	1		
	P002	K	HOUR COUNTER BOWER B906.10		A3	90053-0031				PC	1		
	P002:1		SIGN "HOUR METER"		A4	359241-0201				PC	1		
	P003	K	Pack Counter 8 Digits IVO			90053-0029				PC	1		
	P003:1		SIGN"PRODUUKTION"			359241-0180				PC	1		

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
	P005		Recorder Honeywell	A2		90332-0020				PC	1		
	Q001		SWITCH	A2		90111-0135				PC	1		
	Q001:1		SIGN "MAIN SWITCH"			359241-0124				PC	1		
	Q001:3		"PE" SIGN	A4		90111-0344				PC	1		
	Q002	K	OVERLOAD RELAY 63-80A	A2		90259-0030				PC	1		
	Q003	K	OVERLOAD PROTECTION PKZM 25A	A2		90095-0080				PC	1		
	Q003:1	K	AUX. CONTACT K&M NHI21-PKZM0	A3		90259-0313				PC	1		
	Q004	K	OVERLOAD PROTECTION PKZM 10A	A2		90095-0077				PC	1		
	Q005	K	OVERLOAD PROTECTION PKZM 2,5A	A2		90095-0074				PC	1		
	Q006	K	OVERLOAD PROTECTION PKZM 10A	A2		90095-0077				PC	1		
	Q006:1	K	AUX. CONTACT K&M NHI21-PKZM0	A3		90259-0313				PC	1		
	Q007	K	OVERLOAD PROTECTION PKZM 4A	A2		90095-0075				PC	1		
	Q007:1	K	AUX. CONTACT K&M NHI21-PKZM0	A3		90259-0313				PC	1		
	Q008	K	OVERLOAD PROTECTION PKZM 10A	A2		90095-0077				PC	1		
	Q008:1	K	AUX. CONTACT K&M NHI21-PKZM0	A3		90259-0313				PC	1		
	Q009	K	OVERLOAD PROTECTION PKZM 1,6A	A2		90095-0073				PC	1		
	Q009:1	K	AUX. CONTACT K&M NHI21-PKZM0	A3		90259-0313				PC	1		
	Q010	K	OVERLOAD PROTECTION PKZM 10A	A2		90095-0077				PC	1		

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Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
	Q010:1	K	AUX. CONTACT K&M NHI21-PKZM0	A3		90259-0313				PC	1		
	Q011	K	OVERLOAD PROTECTION PKZM 16A	A2		90095-0078				PC	1		
	Q011:1	K	AUX. CONTACT K&M NHI21-PKZM0	A3		90259-0313				PC	1		
	Q012	K	OVERLOAD PROTECTION PKZM 1,6A	A2		90095-0073				PC	1		
	Q012:1	K	AUX. CONTACT K&M NHI21-PKZM0	A3		90259-0313				PC	1		
	Q013	K	OVERLOAD PROTECTION PKZM 1,6A	A2		90095-0073				PC	1		
	R001	K	POTENTIOMETER 10 KOHM			90130-0017				PC	1		
	R001:1	D	KNOB 3-DIGITS			90130-0301				PC	1		
	R001:2		SIGN "TS LEFT"			359241-0261				PC	1		
	R002	K	POTENTIOMETER 10 KOHM			90130-0017				PC	1		
	R002:1	D	KNOB 3-DIGITS			90130-0301				PC	1		
	R002:2		SIGN "TS RIGHT"			359241-0260				PC	1		
	R003	K	POTENTIOMETER 10 KOHM			90130-0017				PC	1		
	R003:1	D	KNOB 3-DIGITS			90130-0301				PC	1		
	R003:2		SIGN "POWER S.A"			359241-0256				PC	1		
	S003	K	KEY SWITCH 1NO,1NC Contact	A3		90111-0124				PC	1		
	S003:1		SIGN "Cl.of Steam Barrier"			359241-0122				PC	1		
	S004	K	KEY SWITCH 2 NO Contacts	A3		90111-0122				PC	1		
	S004:1		SIGN "SERVICE SWITCH"			359241-0133				PC	1		
	S005	K	PUSH BUTTON GREEN	A3		90064-0083				PC	1		
	S005:1		SIGN"VOLUMKYLT			359241-0221				PC	1		

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA	ZB
	T001	D	TRANSF.3Ph.750VA SEC.23A	A2		90245-0019				PC	1		
	T002	D	TRANSFORMER	A3		23118-0000				PC	1		
	T003	D	TRANSFORMER 1Ph. Auto 2,1 KVA	A3		23139-0000				PC	1		
	V001	K	RECTIFIER 50A	A3		90038-0024				PC	1		
	W031	D	COAXIAL CABLE L=2200 mm	A3		551969-0008				PC	1		
	W032	D	COAXIAL CABLE L=2200 mm	A3		551969-0008				PC	1		
	W033		CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	5000		
	W034		CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	5000		
	W035		CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	3600		
	W036		CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	2600		
	W037		CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	5000		
	W038		CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	5000		
	W039		CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	5000		
	W040		CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	5000		
	W041		CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	5000		
	W044	D	COAXIAL CABLE L=2200 mm	A3		551969-0008				PC	1		
	W045	D	COAXIAL CABLE L=2000 mm	A4		548770-0002				PC	1		
	W049		CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	2700		
	W050	K	I/O Expansion Cable 0,3 M	A2		90031-0305				PC	1		
	W051	K	I/O Expansion Cable 0,3 M	A2		90031-0305				PC	1		
	X010		Wall socket Outlet	A3		90001-0033				PC	1		
	X021		TERMINAL BK12 KRG 12-POLE			90195-0010				PC	1		
	X024		TERMINAL BK2 KRG 2-POLE	A4		90195-0020				PC	1		
	X025		TERMINAL BK2 KRG 2-POLE	A4		90195-0020				PC	1		
	Z002		FILTER 3-PH SIEMENS	A1		90024-0031				PC	1		
	Z003	K	FILTERED TERMINAL BLOCK	A3		90024-0036				PC	1		

Information 'valid to' 1998.10.12

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
D	0020		RACK WALLMOUNTED 28TE			67369-0103				PC	1
			Internal comment								
			RACK WALLMOUNTED 28 TE								
C	**0110**		GLAND FITTING PR22,5/PG16 Di=16mm			352136-0129				PC	**1**
			Internal comment								
			Not for new design								
			Improved version exists								
D	0350		CABLE GLAND;PR22,5(PG16)		A4	352137-0129				PC	1
C	0360		Spiral Conduit Di=16 mm		A4	352135-0106				MM	400
D	0390		CABLE GLAND ST 11			352103-0106				PC	3
D	0391		NUT PR 18,6 (PG11)			90099-0117				PC	3
D	A400	K	TMCC, CONTROLLER			558230-0101				PC	1
C	A400:2		DCS19, Design Control System TBA/19	Y		47835-0200				PC	1
D	R005	K	SHUNT RESISTOR FOR SSR			68444-0101				PC	1
D	Z004		EMI SUPPRESSION FERRITE		A4	90024-0047				PC	1
D	Z005		EMI SUPPRESSION FERRITE		A4	90024-0047				PC	1
D	Z006		EMI SUPPRESSION FERRITE		A4	90024-0047				PC	1

ECN 70531 71535
Release date 961203 980811

Variant: **Column** **Global dependency**
ZA NOPROTIMER

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA
C	0001		PANEL	X		971375-0100				PC		1
C	0040	K	LAMP HOLDER BA9S		A3	90124-0027				PC		20
C	0050	K	LIGHT BULB BA9S 28V			90036-0057				PC		20
C	0060	D	SIGN "FLASH SIGN" 50X50MM			90194-0016				PC		1
C	0100		DISTRIBUTION TERM., PANEL	Y	A4	582137-0000				PC		1
C	A100	K	MULTIPLEXER CARD 56LED			68699-0101				PC		1
C	A101	K	MULTIPLEXER CARD 56LED			68699-0101				PC		1
C	A200		CIRCUIT BOARD		A1	580095-0000				PC		1
C	A200:1		PANEL DISPLAY		A4	579571-0000				PC		1
C	A200:2		MACHINE DISPLAY CLICH\		A1	251051-0000				PC		1
C	A400	K	MULTI PURPOSE POTENTIOM.			558389-0101				PC		1
C	A400:1	D	LABEL,POTENTIOMETER DESIGN CORR.		A4	551922-0000				PC		1
C	P004	K	COUNTER			90053-0024				PC		1
C	P004:1	K	FRAME			90053-0305				PC		1
C	S001	K	SWITCH,EMERGENCY STOP		A3	90064-0124				PC		1
C	S001:1		SIGN "EMERGENCY STOP"		A4	486826-0001				PC		1
C	S002H	K	PUSH BUTTON GREEN	Y	A3	90064-0093				PC		1
C	S002H1		SIGN "INCHING"			359301-0090				PC		1
C	S003H	K	PUSH BUTTON GREEN	Y	A3	90064-0093				PC		1
C	S003H1		SIGN "UP"			359301-0001				PC		1
C	S004H	K	PUSH BUTTON WHITE	Y	A3	90064-0082				PC		1
C	S004H1		SIGN "DOWN"			359301-0005				PC		1

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Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ZA
C	S006H	K	PUSH BUTTON RED		A3	90064-0085				PC	1	
C	S006H1		SIGN "SHORT STOP"			359301-0110				PC	1	
C	S007	K	SWITCH 2 POS. EA OLTEN		A3	90111-0120				PC	1	
C	S011H	K	PUSH BUTTON CLEAR		A3	90064-0098				PC	1	
C	S011H1		SIGN "ALARM RESET"			359301-0105				PC	1	
C	S011H2	F	LIGHT BULB BA9S 28V			90036-0057				PC	1	
C	S012	K	PUSH BUTTON WHITE	Y	A3	90064-0082				PC	1	
C	S012:1		SIGN "LAMPTEST"			359301-0130				PC	1	
C	S019	K	PUSH BUTTON YELLOW		A3	90064-0084				PC	1	
C	S019:1	K	SIGN "DROP CHUTE"			359301-0050				PC	1	
C	S020	K	PUSH BUTTON YELLOW		A3	90064-0084				PC	1	
C	S020:1	K	SIGN "Manual Flushing FFU"			359301-0170				PC	1	

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Information 'valid to' 1998.08.11

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
C	0001		PANEL	X		971375-0100				PC	1
C	0040	K	LAMP HOLDER BA9S		A3	90124-0027				PC	20
C	0050	K	LIGHT BULB BA9S 28V			90036-0057				PC	20
C	0060	D	SIGN "FLASH SIGN" 50X50MM			90194-0016				PC	1
C	0100		DISTRIBUTION TERM., PANEL		A4	582137-0000				PC	1
C	A100	K	MULTIPLEXER CARD 56LED			68699-0101				PC	1
C	A101	K	MULTIPLEXER CARD 56LED			68699-0101				PC	1
C	A200		CIRCUIT BOARD		A1	580095-0000				PC	1
C	A200:1		PANEL DISPLAY		A4	579571-0000				PC	1
C	A200:2		MACHINE DISPLAY CLICH\		A1	251051-0000				PC	1
C	A400	K	MULTI PURPOSE POTENTIOM.			558389-0101				PC	1
C	A400:1	D	LABEL,POTENTIOMETER DESIGN CORR.		A4	551922-0000				PC	1
C	P004	K	COUNTER			90053-0024				PC	1
C	P004:1	K	FRAME			90053-0305				PC	1
C	S001	K	SWITCH,EMERGENCY STOP		A3	90064-0124				PC	1
C	S001:1		SIGN "EMERGENCY STOP"		A4	486826-0001				PC	1
C	S002H	K	PUSH BUTTON GREEN	Y	A3	90064-0093				PC	1
C	S002H1		SIGN "INCHING"			359301-0090				PC	1
C	S003H	K	PUSH BUTTON GREEN	Y	A3	90064-0093				PC	1
C	S003H1		SIGN "UP"			359301-0001				PC	1
C	S004H	K	PUSH BUTTON WHITE	Y	A3	90064-0082				PC	1
C	S004H1		SIGN "DOWN"			359301-0005				PC	1

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Information 'valid to' 1998.08.11

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
C	S006H	K	PUSH BUTTON RED		A3	90064-0085				PC	1
C	S006H1		SIGN "SHORT STOP"			359301-0110				PC	1
C	S007	K	SWITCH 2 POS. EA OLTEN		A3	90111-0120				PC	1
C	S011H	K	PUSH BUTTON CLEAR		A3	90064-0098				PC	1
C	S011H1		SIGN "ALARM RESET"			359301-0105				PC	1
C	S011H2	F	LIGHT BULB BA9S 28V			90036-0057				PC	1
C	S012	K	PUSH BUTTON WHITE	Y	A3	90064-0082				PC	1
C	S012:1		SIGN "LAMPTEST"			359301-0130				PC	1
C	S019	K	PUSH BUTTON YELLOW		A3	90064-0084				PC	1
C	S019:1	K	SIGN "DROP CHUTE"			359301-0050				PC	1
C	S020	K	PUSH BUTTON YELLOW		A3	90064-0084				PC	1
C	S020:1	K	SIGN "Manual Flushing FFU"			359301-0170				PC	1

General remark

I - THE FOLLOWING CABLES ARE PRE-WIRED COMPONENT CABLES:
W010,W011,W015,W017,W020,W021,W028,W029,
W102,W103,W104,W105,W106,W107,W201,W202,
W203,W204,W313,W314,W315,W332,W333,W334,
W335,W353,W413,W414,W415,W420,W421,W422,
W423,W424,W435,W440,W447,W448,W454,W455,
W456,W603,W604,W607,W608,W609,W610,W620.

ECN	70256	70943	71535	71701			
Release date	961031	971020	980811	981012			

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
	W001	D	CABLE AWM BLACK 25MM2	A4		351179-0110				MM	5500
	W002	D	CABLE AWM BLACK 25MM2	A4		351179-0110				MM	5500
	W003	D	CABLE AWM BLACK 25MM2	A4		351179-0110				MM	5500
	W004	D	CABLE AWM BLACK 25MM2	A4		351179-0110				MM	5500
	W005	D	CABLES,MULTI-CONDUCTOR 4X2,5 MM2	A4		351150-0418				MM	7000
	W006	D	CABLES,MULTI-CONDUCTOR 3X1,5 MM2	A4		351150-0412				MM	3500
	W007	D	CABLES,MULTI-CONDUCTOR 3X1,5 MM2	A4		351150-0412				MM	3000
	W008	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	6000
	W012	D	CABLE,OLFLEX 5x0,75 MM2	A4		351150-0405				MM	1850
	W013	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	1250
	W018	D	CABLES,MULTI-CONDUCTOR 34X0,75 MM2	A4		351150-0427				MM	6000
	W019	D	CABLES,MULTI-CONDUCTOR 3X1,5 MM2	A4		351150-0412				MM	6000
	W023	D	CABLES,MULTI-CONDUCTOR 4X2,5 MM2	A4		351150-0418				MM	6000

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Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
	W025	D	CABLES,MULTI-CONDUCTOR 25X0,75 MM2	A4		351150-0425				MM	6000
	W101	D	CABLES,MULTI-CONDUCTOR 7X2,5 MM2	A4		351150-0420				MM	3000
	W108	D	CABLES,MULTI-CONDUCTOR 25X0,75 MM2	A4		351150-0425				MM	4500
	W301	D	CABLES,MULTI-CONDUCTOR 4X2,5 MM2	A4		351150-0418				MM	3000
	W302	D	CABLE SIHF 3x1,5 MM2	A4		351120-0144				MM	7000
	W303	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	3000
	W304	D	CABLES,MULTI-CONDUCTOR 4X2,5 MM2	A4		351150-0418				MM	5000
	W305	D	CABLES,MULTI-CONDUCTOR 3X1,5 MM2	A4		351150-0412				MM	5000
	W306		CABLE,MULTI-CONDUCTOR,SCREENED 5X1,5 MM2	A4		90220-0108				M	10
	W308	D	CABLES,MULTI-CONDUCTOR 4X2,5 MM2	A4		351150-0418				MM	5000
	W309	D	CABLES,MULTI-CONDUCTOR 12X0,75 MM2	A4		351150-0407				MM	5000
	W310	D	CABLES,MULTI-CONDUCTOR 12X0,75 MM2	A4		351150-0407				MM	6000
	W312	D	CABLES,MULTI-CONDUCTOR 4X2,5 MM2	A4		351150-0418				MM	3000
	W316	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	5000
	W317	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	5000
	W318	D	CABLES,MULTI-CONDUCTOR 7X0,75 MM2	A4		351150-0406				MM	3000
	W319	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	5000
	W320	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	5000

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Chg	Position	Sp	Description	Asze	Identity	DTp	Prt	Vs	Unit	Column quantity All
	W321	D	CABLE OLFLEX 3x0,75 MM2	A4	351150-0403				MM	5000
	W322	D	CABLE OLFLEX 3x0,75 MM2	A4	351150-0403				MM	5000
	W323	D	CABLES,MULTI-CONDUCTOR 3X1,5 MM2	A4	351150-0412				MM	3500
	W325	D	CABLE OLFLEX 3x0,75 MM2	A4	351150-0403				MM	5000
	W342	D	CABLE OLFLEX 3x0,75 MM2	A4	351150-0403				MM	5000
	W345	D	CABLE OLFLEX 3x0,75 MM2	A4	351150-0403				MM	5000
	W348	D	CABLE OLFLEX 3x0,75 MM2	A4	351150-0403				MM	5000
	W351	D	CABLES,MULTI-CONDUCTOR 3X1,5 MM2	A4	351150-0412				MM	5000
	W352	D	CABLE OLFLEX 3x0,75 MM2	A4	351150-0403				MM	5000
	W354	D	CABLE OLFLEX 3x0,75 MM2	A4	351150-0403				MM	5000
	W355	D	CABLES,MULTI-CONDUCTOR 4X0,75 MM2	A4	351150-0404				MM	5000
	W356	D	CABLES,MULTI-CONDUCTOR 4X0,75 MM2	A4	351150-0404				MM	4000
	W360		CABLE,OLFLEX 5x0,75 MM2	A4	351150-0405				MM	3000
	W361	D	CABLE OLFLEX 3x0,75 MM2	A4	351150-0403				MM	3000
	W370		COAXIAL CABLE L=2500 mm	A3	551969-0004				PC	1
	W371		COAXIAL CABLE L=2500 mm	A3	551969-0004				PC	1
	W372		COAXIAL CABLE L=720 mm	A4	548770-0014				PC	1
	W373		COAXIAL CABLE L=720 mm	A4	548770-0014				PC	1
	W380	D	CABLE OLFLEX 3x0,75 MM2	A4	351150-0403				MM	5000
	W390	D	CABLE AWM YELL/GREEN 16mm2	A4	351175-0109				MM	2500
	W391	D	CABLE AWM YELL/GREEN 4MM2	A4	351175-0106				MM	5000
	W401	D	CABLE SIHF 4X6		351120-0167				MM	2400
	W402	D	CABLE SIHF 3x1,5 MM2	A4	351120-0144				MM	2300
	W403	D	CABLE SIHF 3x2,5 MM2	A4	351120-0145				MM	2800

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Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
	W404		CABLE,MULTI-CONDUCTOR,SCREENED 5X1,5 MM2	A4		90220-0108				MM	6000
	W405	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	3700
	W406	D	CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	2200
	W407	D	CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	3900
	W408	D	CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	2500
	W409	D	CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	2700
	W410	D	CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	2400
	W411	D	CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	3400
	W412	D	CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	3200
	W416	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	3900
	W417	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	3000
	W418	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	4000
	W425	D	CABLES,MULTI-CONDUCTOR 4X0,75 MM2	A4		351150-0404				MM	4200
	W426	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	2300
	W427	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	3100
	W428	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	3000
	W430	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	4100
	W431	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	4200
	W432	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	4200
	W434	D	CABLE,OLFLEX 5x0,75 MM2	A4		351150-0405				MM	2900
	W449	D	CABLE,OLFLEX 5x0,75 MM2	A4		351150-0405				MM	3000
	W450	D	CABLE CR/AL K 2X0,81 MM2			90220-0059				MM	2500
	W452	D	CABLE SIHF 4G10			351120-0168				MM	3500
	W601	D	COAXIAL CABLE L=2700 mm	A4		548770-0009				PC	1
	W602	D	CABLES,MULTI-CONDUCTOR 3X2,5 MM2	A4		351150-0417				MM	2850

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Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
	W605	D	CABLES,MULTI-CONDUCTOR 12X0,75 MM2	A4		351150-0407				MM	3800
	W612	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	3000
	W613	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	3500
	W614	D	CABLE OLFLEX 3x0,75 MM2	A4		351150-0403				MM	3300

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ECN	70019	70256	70943	71535
Release date	960418	961031	971020	980811

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
I	0010		PLC DISK	A4-		47820-0000	ELD	000	10		x

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Information 'valid to' 1998.08.11

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
D	0010		PLC DISK	A4-		47820-0000	ELD	000	09		x

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ECN 70256 70943 71535
Release date 961031 971020 980811

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
	0010		LIGHT BULB BA9S 28V			90036-0057				PC	10
	0015		RELAY OMRON 24VDC MY4		A4	90119-0086				PC	1
	0020		CONTACTOR 4KW COIL 24VDC		A2	90075-0127				PC	1
	0030		CONTACTOR 7,5KW COIL 24VDC		A2	90075-0128				PC	1
	0040		AUXILIARY CONTACT K&M 22 DILM.2NO;2NC		A3	90075-0313				PC	1
	0050		PLUG-IN RELAY 24VDC		A3	90119-0056				PC	1
	0060		Lamp Remover Olten No:700			90064-0315				PC	1
	0070		SOLID-STATE RELAY H12WD		A3	90119-0067				PC	1
	0080		PUSH BUTTON YELLOW		A3	90064-0084				PC	1
	0120		FUSE 16A FERRAZ10,3X38,2	Y	A4	90233-0027				PC	5
			I n t e r n a l c o m m e n t								
			INDICATOR SEE 90233-305								
	0130		FUSE 10A FERRAZ		A4	90233-0028				PC	5
	0140		FUSE 25A FERRAZ		A4	90233-0029				PC	5
	0150		RECORDER CHARTS		A4	90332-0325				PC	1
	0155		Ink wheel		A4	90332-0324				PC	1
	0160		PADLOCK			779910-0101				PC	1
I	0165		OVERVOLTOLTAGE PROTECTOR		A3	90082-0301				PC	1

Information 'valid to' 1998.08.11

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
D	0165		OVERVOLT.PROT.PU1 230V	A3		90082-0300				PC	1

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General remark

I - ALL DOCUMENTS HAVE TO BE DISTRIBUTED WITH SIZE A4. LIST 649452-0100 AND LIST 42416-0100 HAVE TO BE DELIVERED WITH THE BELOW MENTIONED DOCUMENTS.

ECN 70019 70256 70542 70486 70943 71535 71784 71701
Release date 960418 961031 961205 970414 971020 980811 980916 981012

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
	0005		ELECTRIC EQUIPMENT TBA/19	A4-		649452-0100	BOM	000	AB		x
I	0010		EL. CABINET TBA/19-0101	A4-		42410-0100	BOM	000	AD		x
	0020		CONTROL PANEL TBA/19-0101	A4-		42411-0100	BOM	000	AB		x
I	0030		MACHINE TBA/19-0101	A4-		42412-0100	BOM	000	AD		x
	0040		STANDARD EQU. TBA/19-0101	A4-		42413-0100	BOM	000	AC		x
	0060		SPARE PART K. TBA/19-0101	A4-		42415-0100	BOM	000	AB		x
I	0070		EL. DOCUMENT TBA/19-0101	A4-		42416-0100	BOM	000	AE		x
I	0102		POSITION SUMMARY	A4-		44384-0000	ELD	002	12		x
I	0105		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	005	12		x
I	0106		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	006	12		x
	0107		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	007	06		x
	0108		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	008	09		x
	0110		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	010	10		x
	0111		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	011	07		x
	0112		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	012	10		x
	0114		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	014	06		x
	0115		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	015	06		x
	0116		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	016	10		x
I	0117		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	017	12		x
	0118		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	018	05		x
	0119		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	019	09		x

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
	0120		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	020	10		x
	0121		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	021	09		x
	0123		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	023	05		x
	0124		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	024	02		x
	0125		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	025	01		x
	0127		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	027	03		x
	0129		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	029	10		x
	0130		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	030	10		x
	0131		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	031	10		x
I	0132		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	032	12		x
I	0133		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	033	12		x
	0134		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	034	01		x
	0135		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	035	07		x
	0136		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	036	01		x
	0137		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	037	06		x
	0138		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	038	06		x
	0139		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	039	02		x
	0140		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	040	10		x
	0141		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	041	02		x
	0142		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	042	08		x
	0143		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	043	01		x
	0144		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	044	10		x
	0145		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	045	06		x
	0146		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	046	06		x
	0147		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	047	02		x
	0148		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	048	01		x
	0155		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	055	01		x

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Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
	0156		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	056	09		x
	0157		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	057	09		x
	0158		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	058	01		x
I	0159		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	059	12		x
I	0160		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	060	12		x
	0161		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	061	09		x
	0162		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	062	09		x
	0163		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	063	07		x
	0164		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	064	06		x
	0165		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	065	09		x
	0166		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	066	09		x
	0167		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	067	09		x
	0168		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	068	04		x
	0169		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	069	01		x
	0170		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	070	06		x
	0171		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	071	02		x
	0172		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	072	06		x
	0173		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	073	10		x
I	0174		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	074	12		x
	0175		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	075	09		x
	0176		CIRCUIT DIAGRAM	A4-		44384-0000	ELD	076	01		x
I	0189		GROUND CONNECTION CABINET	A4-		44384-0000	ELD	089	12		x
I	0190		LINE SUMMARY	A4-		44384-0000	ELD	090	12		x
I	0191		TERMINAL SUMMARY	A4-		44384-0000	ELD	091	12		x
I	0199		ALTERATION MESSAGES	A4-		44384-0000	ELD	099	12		x
	0301		MAIN + CROSS REFERENCE	A4-		47820-0000	ELD	001	11		x
	0302		1T001 FAST SCAN	A4-		47820-0000	ELD	002	08		x

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
	0305		PLC PROGRAM LIST	A4-		47820-0000	ELD	005	09		x
	0306		PLC PROGRAM LIST	A4-		47820-0000	ELD	006	07		x
	0307		PLC PROGRAM LIST	A4-		47820-0000	ELD	007	10		x
	0309		PLC PROGRAM LIST	A4-		47820-0000	ELD	009	10		x
	0310		PLC PROGRAM LIST	A4-		47820-0000	ELD	010	10		x
	0311		PLC PROGRAM LIST	A4-		47820-0000	ELD	011	07		x
	0313		PLC PROGRAM LIST	A4-		47820-0000	ELD	013	10		x
	0314		PLC PROGRAM LIST	A4-		47820-0000	ELD	014	11		x
	0315		PLC PROGRAM LIST	A4-		47820-0000	ELD	015	11		x
	0317		PLC Program List	A4-		47820-0000	ELD	017	09		x
	0318		PLC PROGRAM LIST	A4-		47820-0000	ELD	018	11		x
	0319		PLC PROGRAM LIST	A4-		47820-0000	ELD	019	10		x
	0321		PLC PROGRAM LIST	A4-		47820-0000	ELD	021	10		x
	0322		PLC PROGRAM LIST	A4-		47820-0000	ELD	022	11		x
	0323		PLC PROGRAM LIST	A4-		47820-0000	ELD	023	10		x
	0325		PLC PROGRAM LIST	A4-		47820-0000	ELD	025	10		x
	0326		PLC PROGRAM LIST	A4-		47820-0000	ELD	026	10		x
	0330		PLC PROGRAM LIST	A4-		47820-0000	ELD	030	10		x
	0335		PLC PROGRAM LIST	A4-		47820-0000	ELD	035	10		x
	0390		VOLUME ADAPTION DOCUMENT	A4-		47820-0000	ELD	090	10		x
I	0391		MACHINE SEQUENCE DIAGRAM	A4-		47820-0000	ELD	091	10		x
I	0407		MOUNTING DRAW., CABINET	A4-		52710-0000	ELD	007	12		x
I	0408		MOUNTING DRAW., CABINET	A4-		52710-0000	ELD	008	12		x
	0409		MOUNTING DRAW., CABINET	A4-		52710-0000	ELD	009	10		x
	0410		MOUNTING DRAW., RACK 010	A4-		52710-0000	ELD	010	06		x
I	0411		MOUNTING DRAW., RACK 020	A4-		52710-0000	ELD	011	12		x
	0412		MOUNTING DRAW., RACK 030	A4-		52710-0000	ELD	012	06		x

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
	0413		MOUNTING DRAW., Q001	A4-		52710-0000	ELD	013	04		x
	0414		MOUNTING DRAW., DELIVERED DESIGN	A4-		52710-0000	ELD	014	07		x
	0420		MOUNTING DRAW., PANEL	A4-		52710-0000	ELD	020	04		x
	0421		MOUNTING DRAW., PANEL	A4-		52710-0000	ELD	021	01		x
	0440		MOUNTING DRAW., MACHINE	A4-		52710-0000	ELD	040	09		x
	0441		MOUNTING DRAW., MACHINE	A4-		52710-0000	ELD	041	10		x
	0442		MOUNTING DRAW., MACHINE	A4-		52710-0000	ELD	042	01		x
	0450		CABLE INLETS	A4-		1279813-0000	DRA	000	AC		x
	0451		CABLE INLETS	A4-		1279814-0000	DRA	000	AA		x
	0452		CABLE INLETS	A4-		1279815-0000	DRA	000	AB		x
I	0453		CABLE INLETS	A4-		1279816-0000	DRA	000	AC		x
I	0455		CABLE INLETS	A4-		1349489-0000	DRA	000	AA		x
	0605		CONNECTION DRAWING	A4-		61530-0000	ELD	005	05		x
	0606		CONNECTION DRAWING	A4-		61530-0000	ELD	006	05		x
	0607		CONNECTION DRAWING	A4-		61530-0000	ELD	007	10		x
	0608		CONNECTION DRAWING	A4-		61530-0000	ELD	008	01		x
	0609		CONNECTION DRAWING	A4-		61530-0000	ELD	009	01		x
	0612		CONNECTION DRAWING	A4-		61530-0000	ELD	012	10		x
I	0613		CONNECTION DRAWING	A4-		61530-0000	ELD	013	12		x
	0614		CONNECTION DRAWING	A4-		61530-0000	ELD	014	09		x
	0615		CONNECTION DRAWING	A4-		61530-0000	ELD	015	10		x
	0616		CONNECTION DRAWING	A4-		61530-0000	ELD	016	01		x
	0617		CONNECTION DRAWING	A4-		61530-0000	ELD	017	01		x
	0619		CONNECTION DRAWING	A4-		61530-0000	ELD	019	10		x
	0620		CONNECTION DRAWING	A4-		61530-0000	ELD	020	10		x
	0621		CONNECTION DRAWING	A4-		61530-0000	ELD	021	10		x
	0622		CONNECTION DRAWING	A4-		61530-0000	ELD	022	01		x

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
	0623		CONNECTION DRAWING	A4-		61530-0000	ELD	023	09		x
	0624		CONNECTION DRAWING	A4-		61530-0000	ELD	024	09		x
	0625		CONNECTION DRAWING	A4-		61530-0000	ELD	025	10		x
I	0626		CONNECTION DRAWING	A4-		61530-0000	ELD	026	12		x
	0627		CONNECTION DRAWING	A4-		61530-0000	ELD	027	02		x
I	0628		CONNECTION DRAWING	A4-		61530-0000	ELD	028	12		x
	0629		CONNECTION DRAWING	A4-		61530-0000	ELD	029	01		x
	0630		CONNECTION DRAWING	A4-		61530-0000	ELD	030	10		x
I	0631		CONNECTION DRAWING	A4-		61530-0000	ELD	031	12		x
I	0632		CONNECTION DRAWING	A4-		61530-0000	ELD	032	12		x
	0636		CONNECTION DRAWING	A4-		61530-0000	ELD	036	01		x
I	0637		CONNECTION DRAWING	A4-		61530-0000	ELD	037	12		x
I	0638		CONNECTION DRAWING	A4-		61530-0000	ELD	038	12		x
I	0639		CONNECTION DRAWING	A4-		61530-0000	ELD	039	12		x
	0640		CONNECTION DRAWING	A4-		61530-0000	ELD	040	10		x
	0641		CONNECTION DRAWING	A4-		61530-0000	ELD	041	10		x
	0642		CONNECTION DRAWING	A4-		61530-0000	ELD	042	01		x
	0643		CONNECTION DRAWING	A4-		61530-0000	ELD	043	01		x
	0644		CONNECTION DRAWING	A4-		61530-0000	ELD	044	04		x
	0650		CONNECTION DRAWING	A4-		61530-0000	ELD	050	10		x
	0651		CONNECTION DRAWING	A4-		61530-0000	ELD	051	10		x
	0652		CONNECTION DRAWING	A4-		61530-0000	ELD	052	10		x
I	0653		CONNECTION DRAWING	A4-		61530-0000	ELD	053	12		x
	0654		CONNECTION DRAWING	A4-		61530-0000	ELD	054	10		x
	0655		CONNECTION DRAWING	A4-		61530-0000	ELD	055	05		x
	0705		MAINS CONNECTION	A4-		61531-0000	ELD	005	10		x
	0706		MAINS CONNECTION	A4-		61531-0000	ELD	006	10		x

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
	0707		MAINS CONNECTION	A4		61531-0000	ELD	007	01		x
I	0800:1		TERMINAL BLOCK X001:1	A4		1279810-0000	DRA	000	AB		x
I	0800:2		TERMINAL BLOCK X001:2	A4		1279811-0000	DRA	000	AB		x
I	0800:3		TERMINAL BLOCK X001:3	A4		1279812-0000	DRA	000	AB		x
I	0801		DISTRIBUTION TERMINAL, 0V	A4		582128-0000	DRA	000	AC		x
I	0802		DISTRIB. TERM. AND DIODES	A4		582129-0000	DRA	000	AC		x
I	0803		GROUND, NEUT., POWER TERM	A4		582130-0000	DRA	000	AD		x
I	0804		DISTRIBUTION TERMINAL, HI	A4		582131-0000	DRA	000	AD		x
I	0806		POWER TERM. AND FILTER	A4		582136-0000	DRA	000	AD		x
	0807		DISTRIBUTION TERM., PANEL	A4		582137-0000	DRA	000	AC		x
I	0808		FUSE PANEL LABEL	A4		582132-0000	DRA	000	AG		x
	0820		COAXIAL CABLE	A4		548770-0000	DRA	000	AD		x
I	0830		COAXIAL CABLE	A3		551969-0000	DRA	000	AA		x

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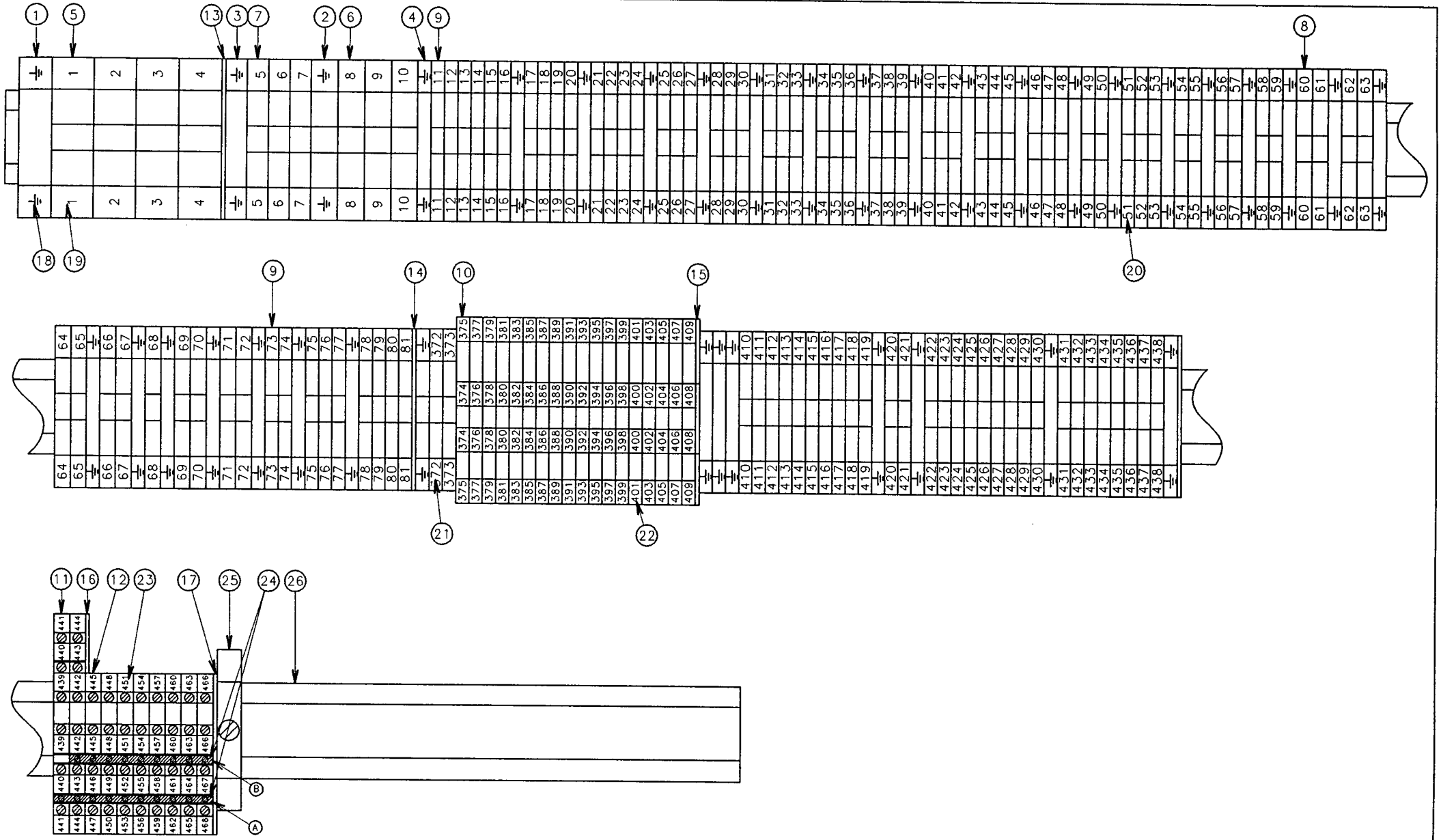
Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
D	0010		EL. CABINET TBA/19-0101	A4	-	42410-0100	BOM	000	AC		x
D	0030		MACHINE TBA/19-0101	A4	-	42412-0100	BOM	000	AC		x
D	0070		EL. DOCUMENT TBA/19-0101	A4	-	42416-0100	BOM	000	AD		x
D	0102		POSITION SUMMARY	A4	-	44384-0000	ELD	002	10		x
D	0105		CIRCUIT DIAGRAM	A4	-	44384-0000	ELD	005	06		x
D	0106		CIRCUIT DIAGRAM	A4	-	44384-0000	ELD	006	09		x
D	0117		CIRCUIT DIAGRAM	A4	-	44384-0000	ELD	017	07		x
D	0132		CIRCUIT DIAGRAM	A4	-	44384-0000	ELD	032	09		x
D	0133		CIRCUIT DIAGRAM	A4	-	44384-0000	ELD	033	09		x
D	0159		CIRCUIT DIAGRAM	A4	-	44384-0000	ELD	059	07		x
D	0160		CIRCUIT DIAGRAM	A4	-	44384-0000	ELD	060	01		x
D	0174		CIRCUIT DIAGRAM	A4	-	44384-0000	ELD	074	01		x
D	0189		GROUND CONNECTION CABINET	A4	-	44384-0000	ELD	089	09		x
D	0190		LINE SUMMARY	A4	-	44384-0000	ELD	090	10		x
D	0191		TERMINAL SUMMARY	A4	-	44384-0000	ELD	091	10		x
D	0199		ALTERATION MESSAGES	A4	-	44384-0000	ELD	099	11		x
D	0391		MACHINE SEQUENCE DIAGRAM	A4	-	47820-0000	ELD	091	09		x
D	0407		MOUNTING DRAW., CABINET	A4	-	52710-0000	ELD	007	10		x
D	0408		MOUNTING DRAW., CABINET	A4	-	52710-0000	ELD	008	10		x
D	0411		MOUNTING DRAW., RACK 020	A4	-	52710-0000	ELD	011	06		x
D	0453		CABLE INLETS	A4	-	1279816-0000	DRA	000	AB		x
D	0613		CONNECTION DRAWING	A4	-	61530-0000	ELD	013	10		x
D	0626		CONNECTION DRAWING	A4	-	61530-0000	ELD	026	01		x

Information 'valid to' 1998.10.12

Chg	Position	Sp	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All
D	0628		CONNECTION DRAWING	A4-		61530-0000	ELD	028	01		x
D	0631		CONNECTION DRAWING	A4-		61530-0000	ELD	031	06		x
D	0632		CONNECTION DRAWING	A4-		61530-0000	ELD	032	02		x
D	0637		CONNECTION DRAWING	A4-		61530-0000	ELD	037	01		x
D	0638		CONNECTION DRAWING	A4-		61530-0000	ELD	038	01		x
D	0639		CONNECTION DRAWING	A4-		61530-0000	ELD	039	09		x
D	0653		CONNECTION DRAWING	A4-		61530-0000	ELD	053	01		x
D	0800:1		TERMINAL BLOCK X001:1	A4-		1279810-0000	DRA	000	AA		x
D	0800:2		TERMINAL BLOCK X001:2	A4-		1279811-0000	DRA	000	AA		x
D	0800:3		TERMINAL BLOCK X001:3	A4-		1279812-0000	DRA	000	AA		x
D	0801		DISTRIBUTION TERMINAL, 0V	A4-		582128-0000	DRA	000	AB		x
D	0802		DISTRIB. TERM. AND DIODES	A4-		582129-0000	DRA	000	AB		x
D	0803		GROUND, NEUT., POWER TERM	A4-		582130-0000	DRA	000	AC		x
D	0804		DISTRIBUTION TERMINAL, HI	A4-		582131-0000	DRA	000	AC		x
D	0806		POWER TERM. AND FILTER	A4-		582136-0000	DRA	000	AC		x
D	0808		FUSE PANEL LABEL	A4-		582132-0000	DRA	000	AF		x

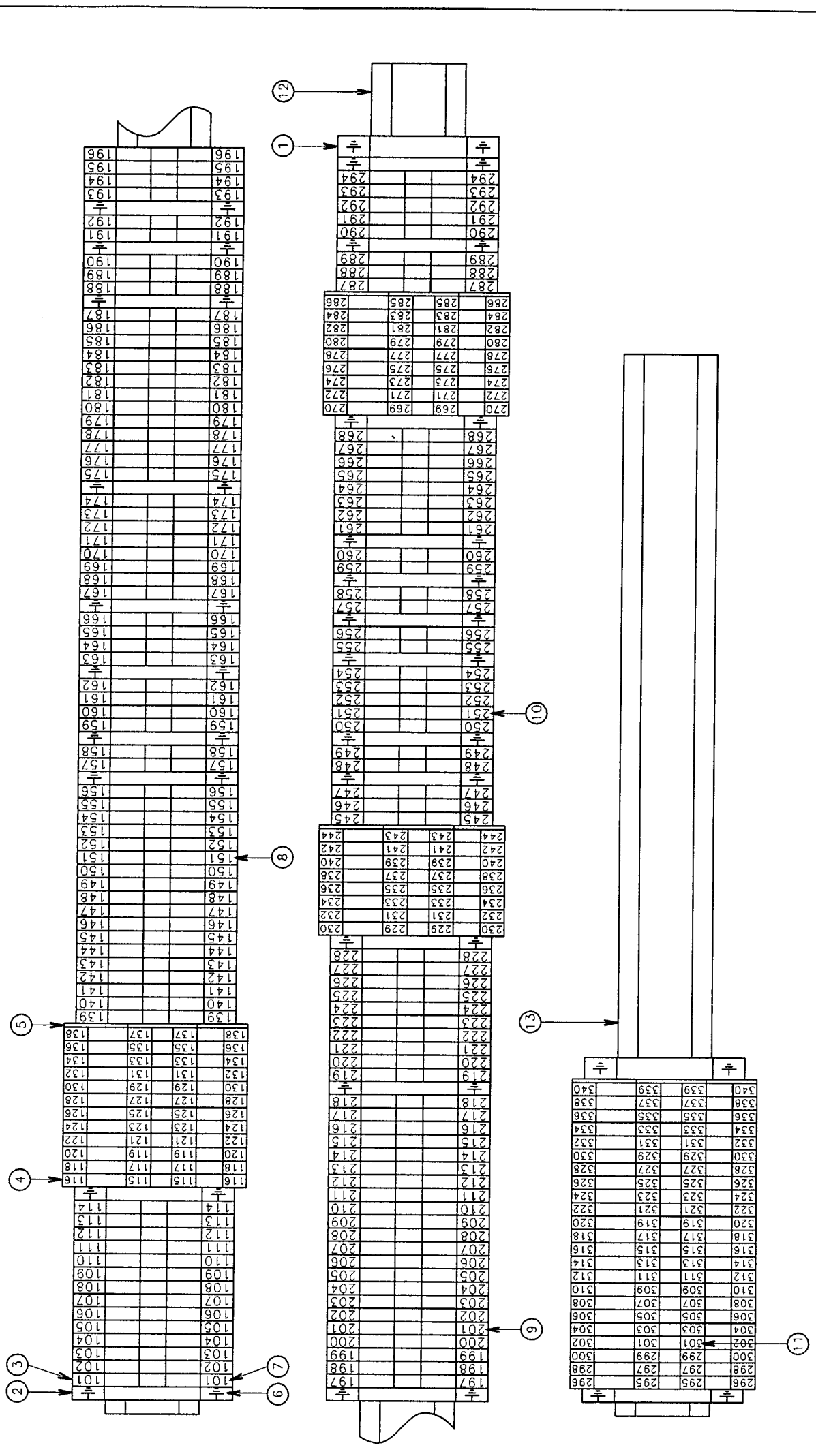
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Note	AA	AB			(A) BRIDGE BETWEEN 441 AND 468	Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class –
ECN No.	70486	71701			(B) BRIDGE BETWEEN 443 AND 467. IT MUST BE		Machine TBA/19-0101	Denomination TERMINAL BLOCK X001:1		
Sign./Date	RAI/961119	ALPO/980930			OBTAINED USING THE NR.353034-0404 AND CUTTING IT.					
Appr./Date	SB/961119	AIR/980930			Drawing remarks	Company Tetra Brik R.& D. S.p.A.		Drawing No 1279810		Page –

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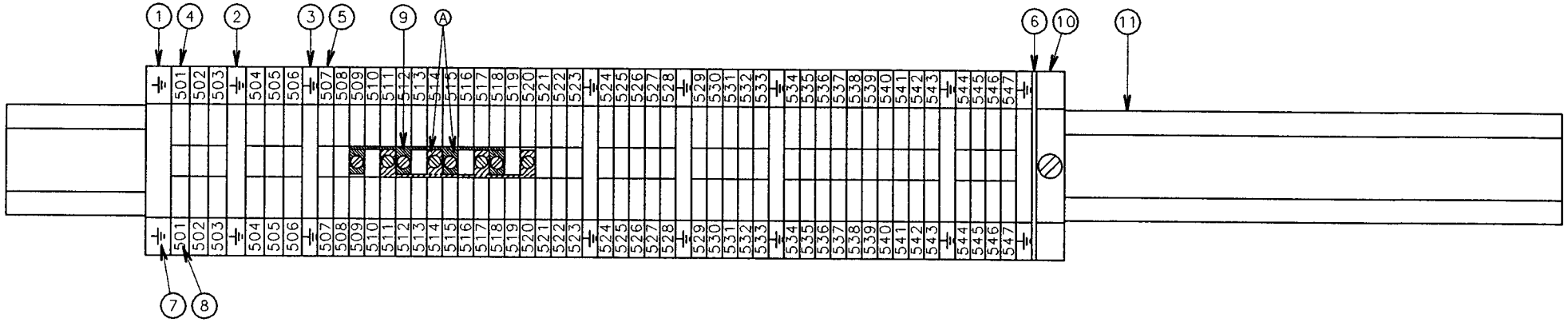


Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class -			
Machine BA/19-0101	Dimension	TERMINAL BLOCK X001:2					
Company Tetra Brik R.& D. S.p.A.	Drawing No	1279811		Page -			
Drawing remarks							

Note			
ECN No.	AA	AB	
	70486	71701	
Sign./Date	RAI/961119	ALPO/980930	
Appr./Date	SB/961119	AIR/980930	

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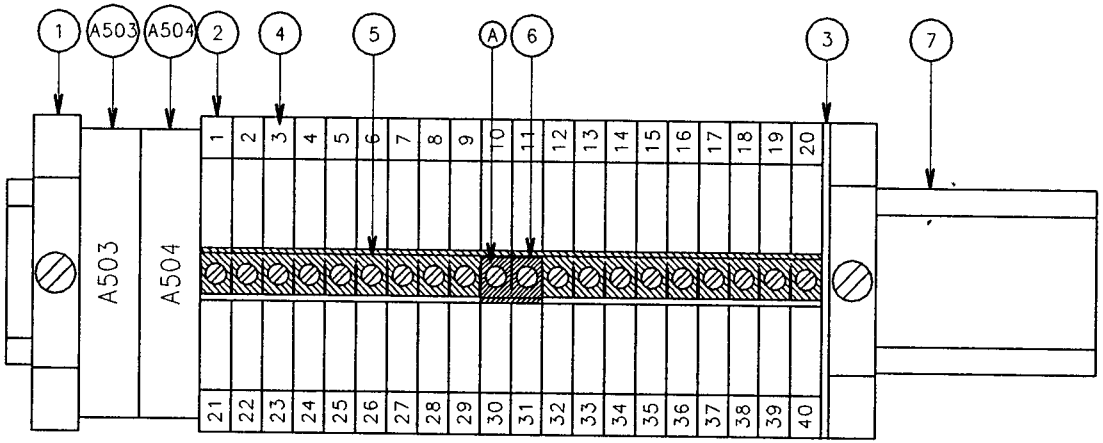
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Note	AA	AB			Ⓐ THE BRIDGE MUST BE OBTAINED USING THE	Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Dec. class –
ECN No.	70486	71701			NR.353034-0030 AND CUTTING IT.		Machine TBA/19-0101	Denomination TERMINAL BLOCK X001:3		
Sign./Date	RAI/961119	ALPO/980930				Company Tetra Brik R.& D. S.p.A.	Drawing No 1279812		Page –	
Appr./Date	SB/961119	AIR/980930			Drawing remarks					

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XL10

Note	A=AA	AB	AC	
ECN No.	22530	70486	71701	
Sign./Date	MRI/950210	RAI/961119	ALPO/980930	
Appr./Date	HK/950217	SB/961119	AIR/980930	

(A) THE BRIDGE MUST BE OBTAINED USING THE NR.353034-0039 AND CUTTING IT.

Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO | Date 980930 | Approved AIR | Date 980930 | Doc. class –

Machine: TBA/19-0101

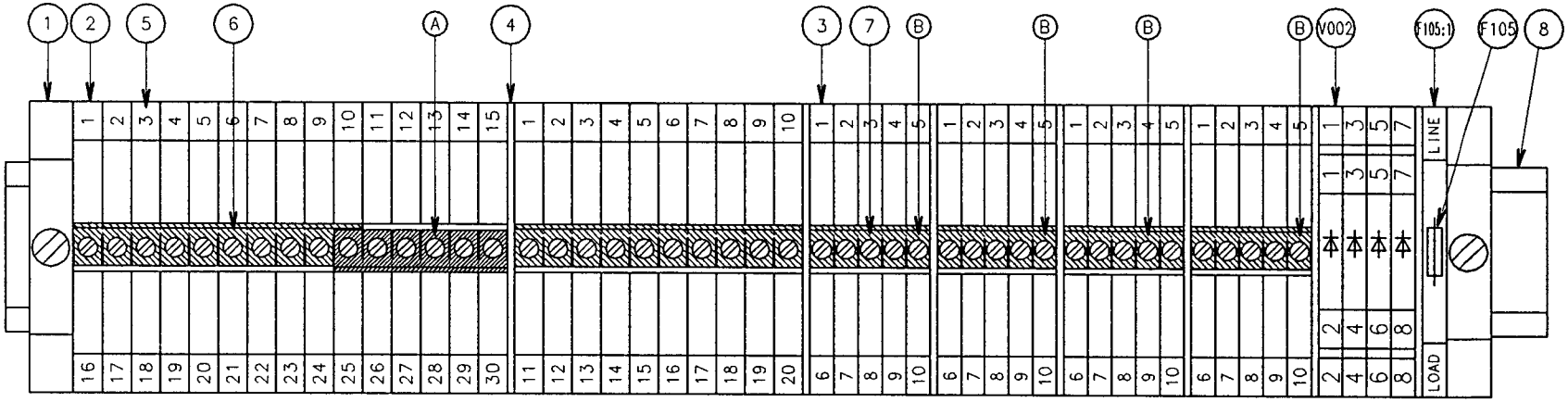
Denomination: DISTRIBUTION TERMINAL, OV

Drawing No: 582128

Page –

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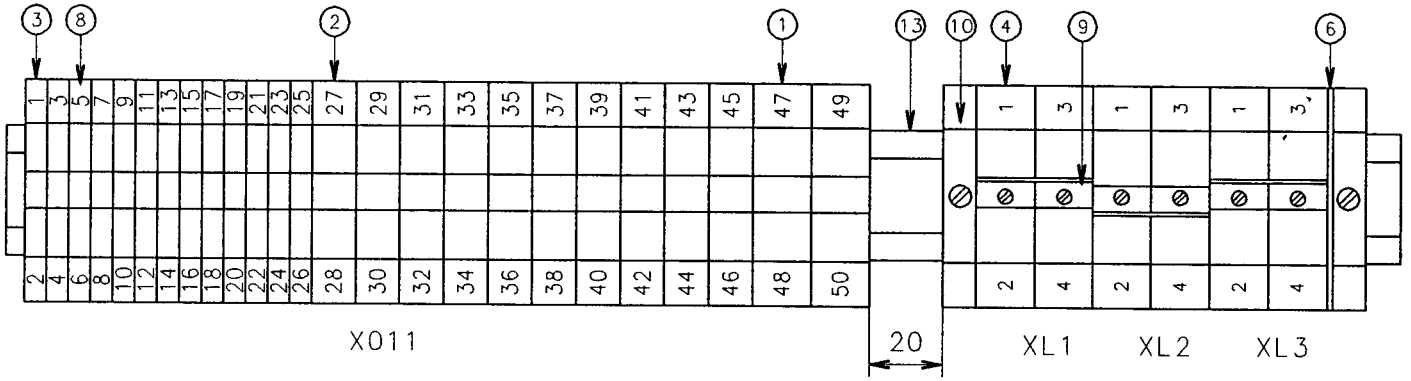
12:41 20/11/98

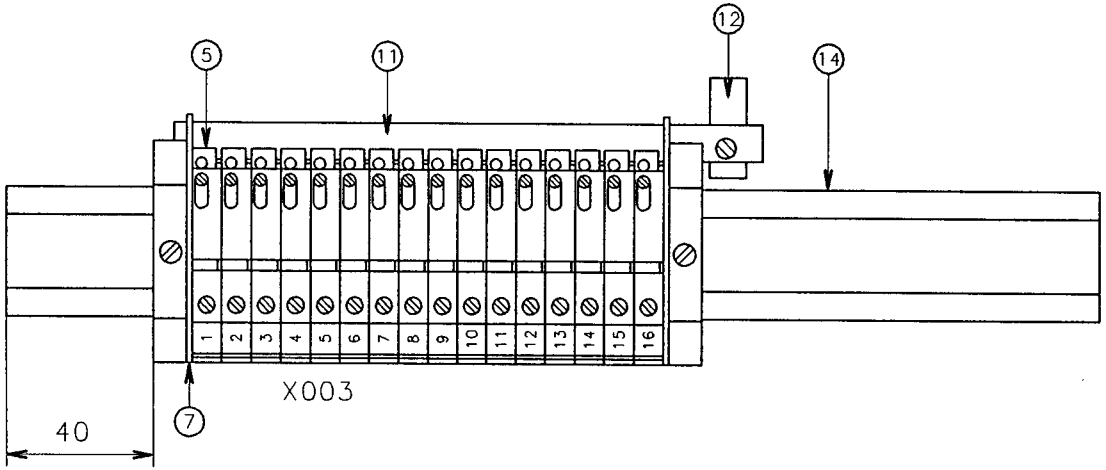


Note	A=AA	AB	AC		(A) THE BRIDGE MUST BE OBTAINED USING NR.353034-31 AND CUTTING IT.	Tetra Pak	Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class –
ECN No.	22530	70486	71701		(B) THE BRIDGE MUST BE OBTAINED USING NR.353034-30 AND CUTTING IT.		Machine TBA/19-0101	Denomination DISTRIBUTION TERM. AND DIODES		
Sign./Date	MRI/950210	RAI/961119	ALPO/980930				Company Tetra Brik R.& D. S.p.A.	Drawing No 582129		Page –
Appr./Date	HK/950217	SB/961119	AIR/980930		Drawing remarks					

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Note	A=AA	B=AB	AC	AD	
ECN No.	22530	22817	70486	71701	
Sign./Date	MRI/950210	PRI/950823	RAI/961120	ALPO/980930	
Appr./Date	HK/950217	HK/950824	SB/961120	AIR/980930	Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO Date 980930 | Approved AIR Date 980930 | Doc. class –

Machine: TBA/19-0101

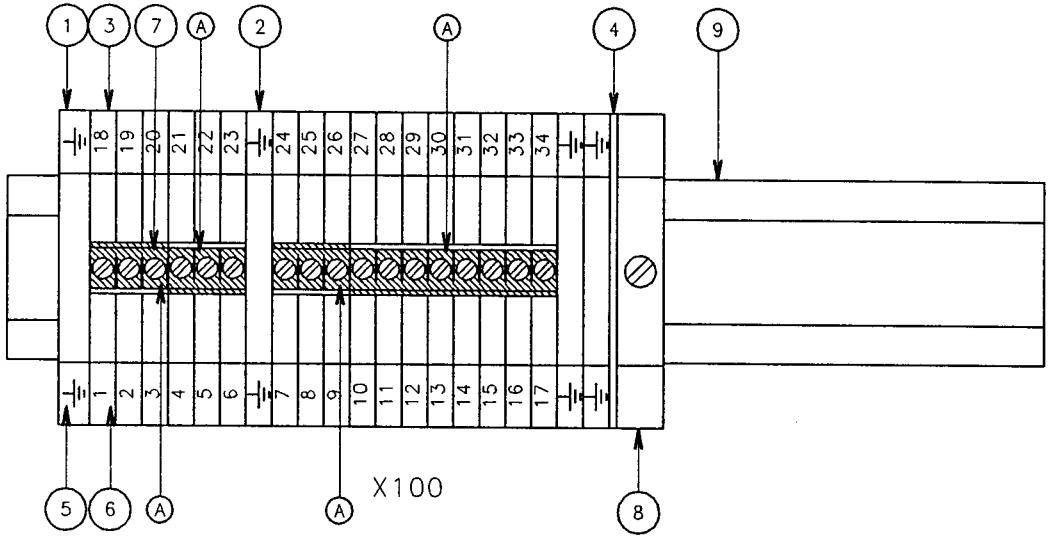
Denomination: GROUND, NEUTRAL AND POWER TER.

Drawing No: 582130

Page –

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Note	A=AA	AB	AC	AD	(A) THE BRIDGE MUST BE OBTAINED USING THE
ECN No.	22530	70256	70486	71701	NR.353034-0030 AND CUTTING IT.
Sign./Date	MRI/950210	PRI/960611	RAI/961120	ALPO/980930	
Appr./Date	HK/950217	SB/960611	SB/961120	AIR/980930	Drawing remarks

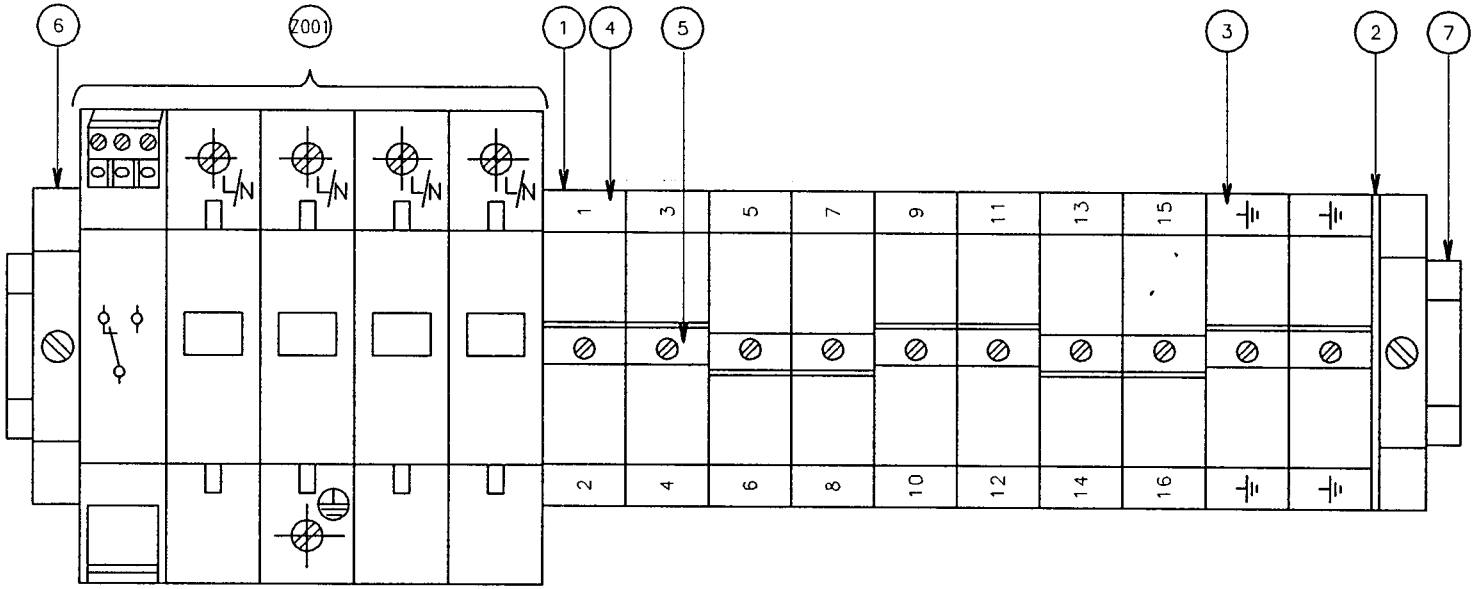
Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO	Date 980930	Approved AIR	Date 980930	Doc. class –
Machine TBA/19-0101	Denomination DISTRIBUTION TERMINAL, IH			
Drawing No 582131				Page –

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X300

Note	A=AA	AB	AC	AD	
ECN No.	22530	70019	70486	71701	
Sign./Date	MRI/950210	PRI/960220	RAI/961120	ALPO/980930	
Appr./Date	HK/950217	SB/960220	SB/961120	AIR/980930	Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer ALPO Date 980930 | Approved AIR Date 980930 | Dec. class –

Machine: TBA/19-0101

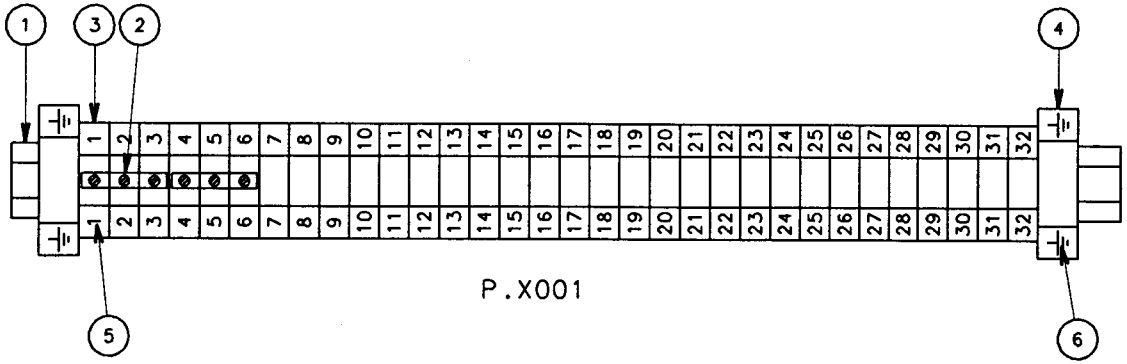
Denomination: POWER TERMINAL AND FILTER

Drawing No: 582136

Page: –

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P.X001

Note	A=AA	AB	AC		
ECN No.	22530	70019	70486		
Sign./Date	MRI/950210	PRI/960220	RAI/961120		
Appr./Date	HK/950217	SB/960220	SB/961120		Drawing remarks

Tetra Pak

Company: Tetra Brik R.& D. S.p.A.

Designer RAI	Date 961120	Approved SB	Date 961120	Doc. class –	
Machine TBA/19-0101	Description DISTRIBUTION TERMINAL, PANEL				
Drawing No 582137				Page –	

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582132

OVERLOAD PROTECTIONS

S	Q013	Q011	Q010	Q008	S	S	Q012	Q009	Q007	Q006	Q005	Q004	Q003

POS	SETTING	FUNCTION
Q003	50Hz-25A/40°C 60Hz-25A/40°C	MAIN POWER
Q004	50Hz-9,2A/40°C 60Hz-9,4A/40°C	COOLER
Q005	50Hz-2,0A/40°C 60Hz-2,0A/40°C	CONTROL TRANSFORMER
Q006	50Hz-9A /40°C 60Hz-8,5 /40°C	COMPRESSOR
Q007	50Hz-2,9A/40°C 60Hz-2,9A/40°C	HYDRAULIC PUMP

POS	SETTING	FUNCTION
Q008	50Hz-6.4A/40°C 60Hz-8,2A/40°C	CLEANING SYSTEM, CIRCULATION PUMP
Q009	50Hz-1,5A/40°C 60Hz-1,6A/40°C	PEROXIDE PUMP
Q010	50Hz-7,0A/40°C 60Hz-6,0A/40°C	MAIN MOTOR, LOW SPEED
Q011	50Hz-10A/40°C 60Hz-10A/40°C	MAIN MOTOR, HIGH SPEED
Q012	50Hz-1,0A/40°C 60Hz-1,2A/40°C	PEROXIDE BATH, WATER PUMP

POS	SETTING	FUNCTION
Q013	50Hz-1,2A/40°C 60Hz-1,3A/40°C	EXTERNAL CONVEYOR

MAX LOAD CIRCUIT BREAKER

Q002

POS	SETTING	MAGNETIC SETTING	FUNCTION
Q002	63A/55°C	400A/55°C	MAINS, EL CABINET

FUSE PANEL

			(1)	(1)	(1)					(2)	(2)										(1)																		(1)	(1)	(1)				
S	S	S	F551A	F551B	F551C	F001	F002	F003	S	F005	F009	S	S	S	F006A	F006B	F006C	F004	S	S	F015	S	F100A	F100B	F100C	F101A	F101B	F101C	F102A	F102B	F102C	F103A	F103B	F103C	F104	S	S	F016A	F016B	F016C	S	S		F007	F008

(1) EXTRA EQUIPMENT

(2) TO BE REMOVED WITH ASU

POS	SIZE	FUNCTION
F001	10A	TIME RECORDER, WALL SOCKET FAN MOTOR, SPLICER, LIGHT FIXTURES
F002	10A	LS, SHORT STOP
F003	16A	FLAP SEALING, TOP/BOTTOM
F004	6A	DETERGENT PUMP, BENDING ROLLER
F005	6A	CONTROL VOLTAGE, 220V AC PLC

POS	SIZE	FUNCTION
F006	10A	CONTROL VOLTAGE, 24V DC
F007	80A	FLAP SEALING, TOP
F008	80A	FLAP SEALING, BOTTOM
F009	6A	PAPER SUPPLY, UNREELING (2)
F015	16A	PAPER MAGAZINE ASU, UNREELING ASU (1)

POS	SIZE	FUNCTION
F016	10A	TPIH SEALING ASU (1)
F100	16A	PEROXIDE BATH, WATER
F101	25A	AIR SUPER HEATER
F102	10A	TPIH, T.S.
F103	10A	TPIH, S.A.

POS	SIZE	FUNCTION
F104	16A	LONGITUDINAL SEALING, STRIP SPLICE
F551	10A	HVA SERVO DRIVE UNIT (1)

TBA/19-0101 S.A. EC 71701

Note	AE	AF	AG	AD
ECN No.	70486	70943	71701	70256
Sign./Date	PRI/970110	PRI/970908	ALPO/980930	PRI/960823
Appr./Date	SB/970110	SB/970915	AIR/980930	SB/960823

Drawing remarks

Tetra Pak

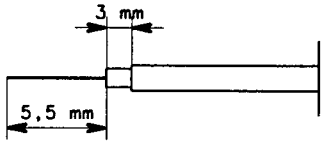
Company: Tetra Brik R.& D. S.p.A.

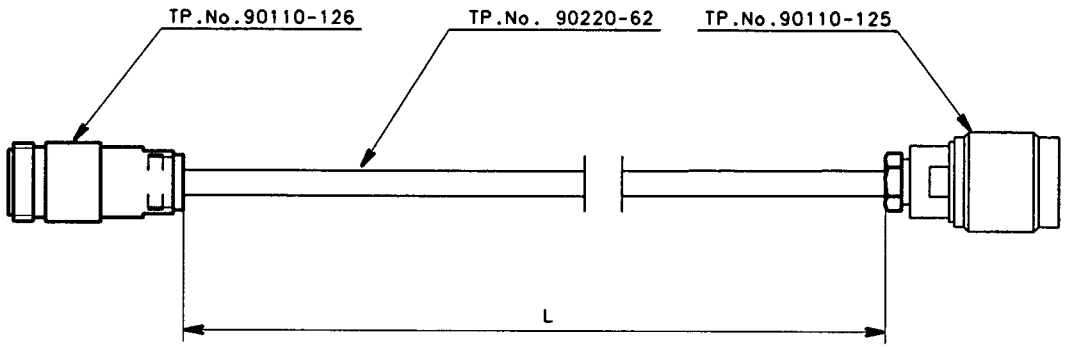
Designer ALPO	Date 980930	Approved AIR Date 980930	Doc. class -
Machine TBA/19-0101	Denomination FUSE PANEL LABEL		
Drawing No 582132			Page -

Tetra Pak
MODENA ITALY

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DRAWING No.	L. (mm)
548770-1	5000
548770-2	2000
548770-3	500
548770-4	7000
548770-5	400
548770-6	1200
548770-7	3000
548770-8	600
548770-9	2700
548770-10	3500
548770-11	6000
548770-12	700
548770-13	4000
548770-14	720
548770-15	11000





INTRODUCED WITH AM NO.	10732			DATE: 881201	SIGN. JT/RDA				
ISSUE	A	H=AC	I=AD	J					
AM NO.	15016	70018	70256	25740					
DATE	900528	960805	961021	971013					
SIGN.	SJS	SB/PRI	SB/PRI	CSI/APO					

DRAWING REMARKS

DESCRIPTION: COAXIAL CABLE

MACHINE:

548770-

ALTERATIONS ONLY IN CADAM

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10 Optional equipment and kits

EM1.1TB101499en.fm

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EM1.1TB101499en.fm

11 Other information

EM1.1TB111499en.fm

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Tetra Pak