

NOVA SOCIMEC S.A.
28190 COURVILLE SUR EURE



DEAR CUSTOMER

We thank you for the confidence you have expressed in choosing our own manufactured equipment.

We think this is an excellent choice, considering you have now an equipment of which the consisting parts have been purposely over dimensioned and made out of first class quality materials.

We endeavour to simplify the functions of this machine as much as possible for the operator's work and in order to excel its exceptional performance.

This machine is therefore designed to give you total satisfaction and to serve you without defiance, on condition that the enclosed technical instructions are carefully followed.

If these conditions are respected, your machine will live a long life and your maintenance expenses will be reduced.

Further, our after-sales service stays permanently at your disposal for any enquiry or breakdown.

Please do not hesitate to contact us.

"NOVA SOCIMEC" AT YOUR SERVICE

CLARENDON

NOVA SOCIMEC S.A.
4, Rue Jules Ferry - B.P. n° 9
28190 COURVILLE SUR EURE (FRANCE)

Tel. : 37 23 21 15
Telex : 780165
Fax : 37 23 76 91

"MK III"

| | | | |
|-------------|--------|------|--------|
| UNIT | - TYPE | - N° | 180/44 |
| FILLER UNIT | - TYPE | - N° | 1443 |
| | | - N° | 1444 |

DATE OF STARTING UP : 22 NOVEMBRE 1995

GUARANTEE :

All the equipment supplied is guaranteed for 12 months against all manufacturing defects. This guarantee only covers the faulty parts which will be shipped back to the manufacturer.

- All shipment and labour expenses are to be paid by the client.
- Guarantee for all accessories, which are not manufactured by the company, is that of the manufacturer.
- The guarantee does not cover normal wear and tear or damages resulting from insufficient maintenance or misuse.

ARE NOT INCLUDED IN THIS GUARANTEE :

- Normal wear and tear, breakdown resulting from lack of maintenance, misuse and lack of a 100 micron filter (largest mesh dimension) upstream of the filling unit.
- All damages resulting from the use of products which are not those for which the equipment is made.

In this case it is advisable to ask for the assistance of the technical department of "NOVA SOCIMEC".

NOVA SOCIMEC
P. J. President Directeur Général
Colbert

SUMMARY

I. TECHNICAL INSTRUCTIONS

- INSTALLATION
- CONTROL BOARD
- MAINTENANCE
- INCIDENT

II. TORQUE LIMITER INSTRUCTIONS

III. MECHANICAL LAY-OUTS

IV. PNEUMATIC LAY-OUTS

V. ELECTRIC LAY-OUTS

VI. TECHNICAL INSTRUCTIONS

- INDEXOR

INSTRUCTION DETAILS FOR MK III FILLER

INSTALLATION OF THE MACHINE

Position in suitable building to avoid sudden temperature changes.

Ensure of the machine level by adjusting the appropriate feet.

Electricity connection should be made to a fused isolator switch situated within one metre of the normal machine operating position.

POWER REQUIRED :

380 three phase + Earth

Power - 1 kw

Ensure satisfactory earth

**Air supply - 13 to 20 m³/hour
(depending on accessories fitted)**

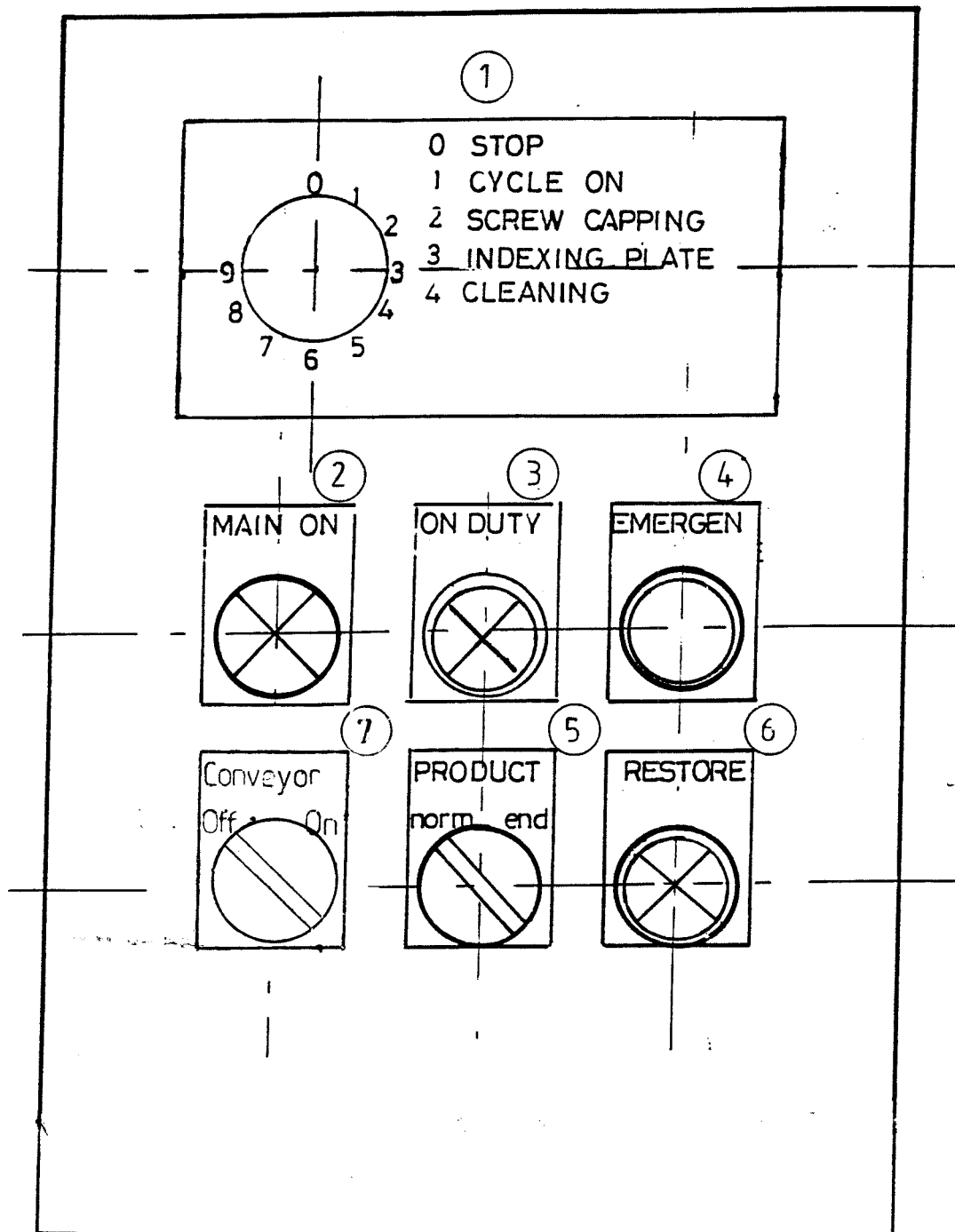
at 5 bars pressure minimum.

Connect the product liquid supply to the machine inlet by a suitable pipe. The machine is self-priming.

WARNING

IT IS RECOMMENDED TO INSTALL A MOISTURE FILTER WITH DRAIN TAP TO ALLOW DRAINING PRIOR TO EVERY START.

PANEL CONTROL



NOTICE MK III
PANEL CONTROL

1° - Nine position selector

Selects the operation mode and the position to be operatively set.

2° Mains on

Indicates that power is on.

3° Push button with light "on duty"

Provides the power to the operators after setting on the power supply or after an emergency stop (380 volts three phases + Neutral + Lubricated air).

4° Emergency stop push button

Stops instantly the current cycle operation
Stops the power supply (380 volts + Lubricated air).

5° PRODUCTION NORM END

Position Normal : allows the normal operation only if accumulating bottle on the entry conveyor is sufficient.

Position End : machine does not control the level of accumulating bottle.

6° PUSH BUTTON "RESTORE"

Switch 1 is on the cycle or another position.
An impulse selects the operation.

7° CONVEYOR OFF - ON

Position on the conveyor run.

- MK III -

PRIOR TO THE FIRST COMMISSIONING

- 1° - Check if the lubricator (fig 2) is filled with oil.
- 2° - Take off the carrousel in order to check manually if the bottle is correctly located under the following stations.
 - a) Bottle's top neck 5 to 7 mm beneath the filling nozzle.
 - b) Neck centring adjustable curved rail at the correct height.
 - c) If the machine is supplied with a cap's chute, check if the bottle's top neck is correctly positioned so that the cap is correctly picked up during the bottle's transfer.
- 3° - Start compressor and/or open compressed air valve if the machine is directly connected to your air supply.
- 4° - Open the filling pump feeding valve to allow product to flow to the product cylinder.
- 5° - Prime the filling pump as follows :
 - a) Set current on
 - . Set the disconnecting switch to position I
 - . The "MAINS ON" visual button must light.
 - . Check that the "EMERGENCY STOP" button is not pressed on.
 - b) Set the machine on duty
 - . Press on the "ON DUTY".
 - . The "ON DUTY" visual button must light.

- 6°
- a) Set the selector in "CYCLE ON" mode.
 - b) Press on the "RESTORE".
 - c) Put a cleaning nozzle if necessary.
 - d) Set the selector in "cleaning" mode.
 - . Press on the "RESTORE"
 - . Stop when the pump is fired.
 - e) Put a dosing nozzle if necessary.
- 7° - Check the volume supplied by the filling pump and adjust it if necessary.

A - VOLUME ADJUSTMENT FOR FILLING

- . a) Machine being on cycle (see § 6).
- . b) Set the switch "VOLUME CHANGE" to position "ON".
 - Insert a bottle in the carrousel
 - The machine stops after complete filling which will position the two pistons at the top of their stroke
 - Low down the pumps bottom microvalves
 - Unscrew the metering rod lock nuts

To decrease the volume : raise the nuts

To increase the volume : lower the nuts.

- Insure that the metering rods are adjusted on the same level.
 - Secure lock nuts and relocate the pistons stroke controller by setting the switch "VOLUME CHANGE" to position "OFF"
 - Lift the pumps bottom microvalves to touch the movable stops (pusher penetration depth : 3 mm).
- . c) Re-check quantity of product in bottles ; repeat procedure until required volume is achieved.

B - PRESET METERING RODS CHANGE WHEN HANDLING ANOTHER BOTTLES' SIZE

- a) Machine being set on cycle (see § 6).
- b) Set the switch "VOLUME CHANGE" to position "ON".
 - Insert a bottle in the carrousel
 - The machine stops after complete filling which will position the two pistons at the top of their stroke
 - Low down the pumps bottom microvalves
 - Pull off the metering rods and replace the metering rods corresponding to the new required volume
 - Low down the pumps by setting the switch "VOLUME CHANGE" to position "OFF".
 - Readjust the pumps bottom microvalves in order to touch the movable stops
(pusher penetration depth : 3 mm).

BOTTLES PRESENCE ON THE INLET CONVEYOR

The cell sensor is set on the conveyor guide in order to keep the minimum number of bottles on the conveyor, otherwise the bottles do not come into a carrousel.

If should no bottle be contacted by the cell after one second then the machine stops.

- One dozen of bottles stand on the machine at the end of the production.

These last bottles are filled by keeping pressed on the button "END OF PRODUCTION" until the last bottle is out of the carrousel.

Set the selector in stop position, then the machine stops.

STARTING THE NOVA FILLER

- Ensure an adequate quantity of caps are in the dispenser.
- Draining an air filter.
- A pump connected product liquid supply to a pump.
- Put a bottle on conveyor.
- Run the machine by set the selector in "CYCLE ON" mode and press the "RESTORE"

NOTE :

An EMERGENCY "STOP" button is situated on control panel which should be depressed in an emergency situation. To re-start the machine push ON DUTY then CYCLE ON buttons and wait for machine operation to commence.

MAINTENANCE SCHEDULE

IMPORTANT - DISCONNECT ANY POWER SUPPLY TO THE MACHINE BEFORE ADJUSTMENT AND MAINTENANCE WORK IS CARRIED OUT.

DAILY

Remove the outlet dosing nozzle and wash in a suitable receptacle.

Attach a flexible pipe to the washing nozzle provided and fit it to the machine.

Attach a flexible pipe to the lower washing port situated at the bottom of the cylinder.

Insert the suction pipe and the pipe fitted to the bottom of the cylinder into a receptacle of cold water.

Turn the appropriate switch on the control panel to "CLEAN" (P3 - 5°) and allow at least 20 litres of cold water to flush through the machine.

Repeat the same with hot water (max. 60° C) with normal dairy detergent but this time insert the third pipe (the one attached to the pump outlet washing nozzle) into the receptacle so that the washing water is recirculated.

Allow this sequence to continue for five minutes.

Upon completion rinse the machine thoroughly with cold water.

Remove washing nozzle and replace outlet dosing nozzle. Do not forget to insert anti-foam filters (6) in position.

Lubricate the piston rod with silicone grease.

Clean the heat sealing iron by wiping with a cloth, never use an abrasive material or tool.

EVERY 3 DAYS

- . Dismantle and clean ball valves and all upper cylinder parts.

WEEKLY MAINTENANCE

- . Grease the advancing wheel and plungers located in the cabinet of the machine.
- . Lubricate all piston and cylinder rods with silicone grease.
- . Lubricate other moving parts with a light oil.
- . Check the level of oil in carrousel shock absorber reservoir and fill it in if necessary.
- . Check compressed air lubrication oil level.

If oil level does not fall regularly, adjust screw at the top of the glass so that one drop of oil falls for every three pumps of the cylinder.

Strip down and thoroughly clean piston and ball valve assembly taking care of reassembling correctly.

MK III

INCIDENTS

The incidents can be classified into seven groups :

- a. Carrousel movement incidents
- b. Bottle neck center incidents (optional)
- c. Dosing incidents
- d. Cap distribution incidents
- e. Heat sealing incidents (optional).

But before anything else carefully check :

- a. The electrical section : Check the general power supply and the fuses in the remote control cubicle.
- b. The mechanical section : Check the pressure on the pressure gauge outside the machine (pressure 5 kg), set if required using the button located on the pressure reducer filter.

Check that there is no water or oil piled up in the compressed air circuit.

If this is the case, each tube must be dis-assembled separately in order to drain them.

Check that the compressor is regularly drained.

FEED MOVEMENT INCIDENTS

On starting up
The plate fails to turn

Check that the compressed air is connected.

Check the pressure on the pressure gauge
4 to 6 bar.

Check the emergency stop button (in pulled
position in normal operating).

If you are on emergency stop, it is necessary to push
"ON DUTY" the "CYCLE ON" buttons and push
"RESTORE".

CARROUSEL ROTATION PROBLEMS

EITHER THE CARROUSEL DOES NOT ROTATE SMOOTHLY OR STOPS AT AN
INCORRECT POSITION.

Both of the above malfunctions are caused by the cam situated below the carrousel drive
motor being out of adjustment. In order to correct proceed as follows :

1. Switch on power supply and check that the "MAINS ON" indicator is illuminated.
2. Start machine by pressing "ON DUTY" button and ensure that the indicator
light illuminates.
3. Do NOT place bottles in carrousel.
4. Set "CYCLE ON" button to start carrousel rotating and push "RESTORE".
5. Set "CYCLE OFF" button while the carrousel is in motion.

***IF THE CARROUSEL STOPS IN ITS CORRECT POSITION AND THEN MOVES
ON AGAIN SLIGHTLY, PROCEED AS FOLLOWS :***

1. Unscrew the cam locking screw.
2. Turn the cam in a clockwise direction just a small amount and re-lock the cam
locking screw.
3. Restart the carrousel and stop again as previously detailed.

Re-adjust cam if necessary by trial and error until the problem is solved.

If the cam is too far advanced the carrousel will not move smoothly and stop before its correct position. It also starts again before filling is complete, causing milk to go outside of the bottle.

TO CORRECT PROCEED AS FOLLOWS :

1. Unscrew the cam locking screw.
2. Turn cam anti-clockwise about 1/8th of a turn.
3. Re-lock the cam locking screw.
4. Re-check performance and re-adjust if necessary.

MK III

DOSING INCIDENTS

Dosing is constant but not to the volume required

- . The machine being under pressure, lock the piston at the top and then proceed according to the instructions provided (page 2) to set the dosing.

The liquid flows out too slowly from the spout.

The liquid flows out suddenly from the dosing spout producing foam, or flows out more slowly during fabrication.

- . Check the compressed air pressure.
- . Check the correct choice of die.
- . Check that the pressure regulator die and that all the grids delivered with the machine are in a right place.

Dosing is very irregular.

- . Check that the liquid feed is correct.
- . Check the clamping of the couplings on all the supply piping.
- . In the event of hose piping, check that it is not flattened.
- . Check that all the seals are in a right place.
- . Check the condition of the ball seats and that of the balls.
- . Check the condition of the piston and replace it if required.
- . Check that the pressure regulator die together with the foam-prevention grids are not obstructed.

The pump remains blocked in the high position.

- . Check the blocking of the rubber piston inside the pump cylinder.
- . Check the bearing on the upper microvalve.

MK III

DOSING INCIDENTS

When a machine is operating normally the pump does not start, or with a delay time

- . Check that the operating of the feeler arm; when the bottles pass, drives sufficiently in the microvalve plunger.

Otherwise check that the feeler is not blocked under the plate or under the belt.

- . Check that the pump piston has descended onto its stop on the bottom, and bears on the pum's low microvalve.

- . Check whether the plate can be driven manually, if so check the mechanism locking the carrousel.

The piston descends too slowly.

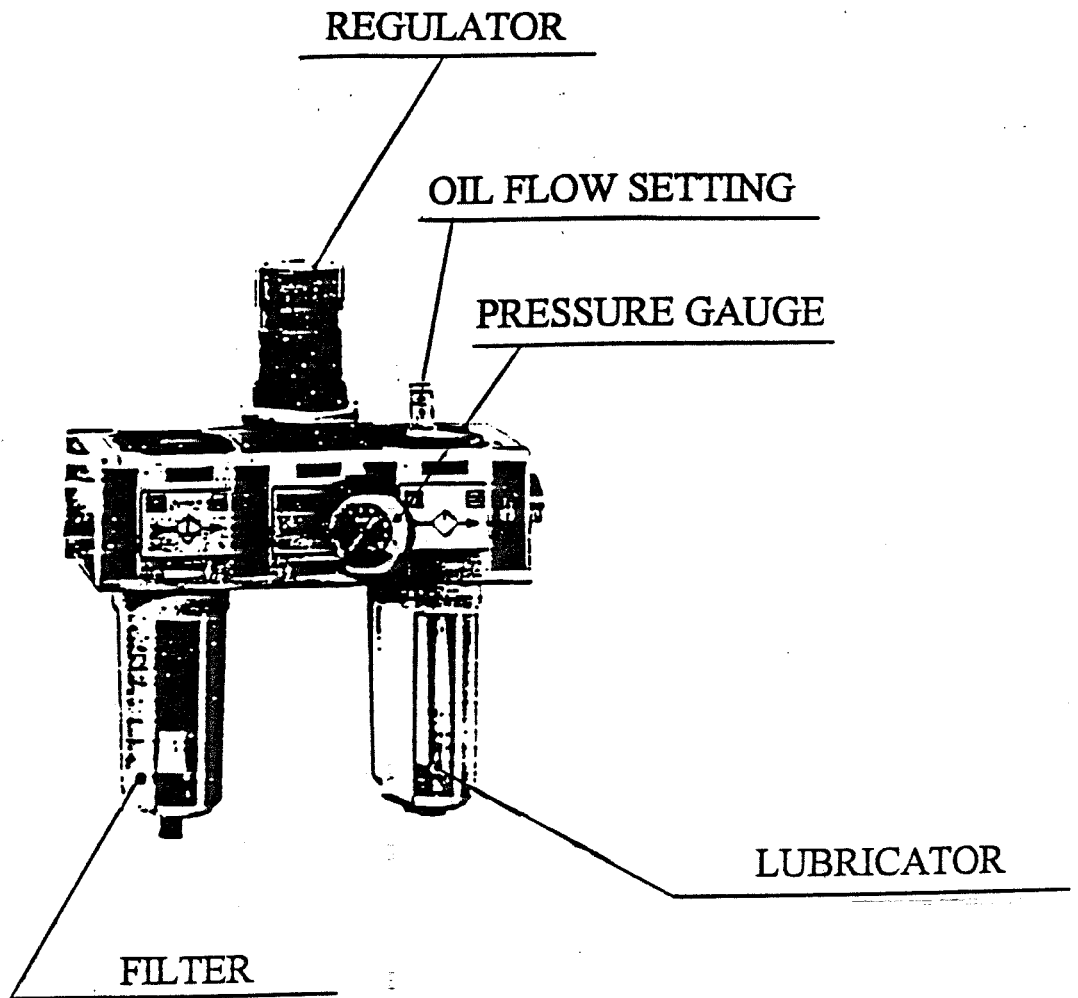
- . The piston should firstly descend rapidly and finish its travel slowly.

- . The speeds can be set via the regulators mounted on the distributor 71D (see diagram).

NOVA MK III

CHANGE IN VOLUME

1. Lock the pump at the top.
2. Remove the pump spout.
3. Retract the different optional items (distributor, cap, screwing machine, thermo, etc...).
4. Remote the plate used for the bottles in the previous volume after having removed the outlet guide.
5. Remove the counter-belt.
6. Place the corresponding belt securing it to the original belt.
7. Install the new plate.
8. Set the clamping of the plate nut (see FEED INCIDENT paragraph 13).
9. Replace the outlet guide.
10. Set the bottle neck center (optional).
11. Replace the different components referred to in(3) in the correct position.
12. Change the stops.
13. Lower the pump and set the pump's low microvalve.
14. Replace the appropriate pump spout.

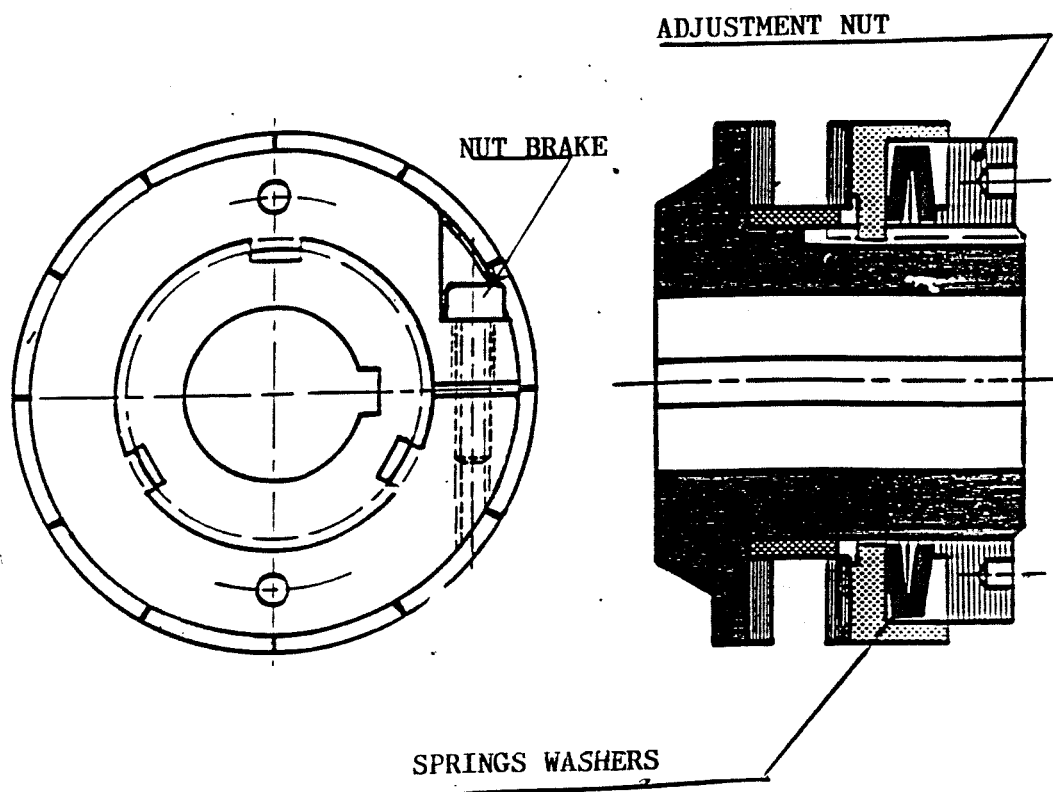


LUBRICATOR OIL

| ANTAR | BP | MOBIL | SHELL | TOTAL |
|---------------------------|------------------------|------------------|--------------|--------------|
| SPECIAL CONTINU 3 A | BP ENERGOL HL 50 | VELOCITE N° 6 | TELLUS 21 | AZOLLA 10 |

FIG. 2

The adjustment's nuts have drillings on their periphery and on their exterior face. This allows the use of snugs keys. So the clamping of the nuts is easier.



The sliding housing of these apparatus present on its periphery 12 equidistant engraving.

- Screw by hand the adjustment's nut til it comes on contact with the springs wachers.
- Screw the nuts of relative value of the torque requested, then tighten the blocking screw.

FRICION TORQUE LIMITER

PRINCIPLE - OPERATION

The torque limiter is an adjustable device integrated in a mechanical assembly which allows the transmission of the movement and the normal operation of the machine.

In case of anomalies (clamping, jamming) carrying along abnormal efforts, then an overhauling of the adjustable coupling, the limiter releases instantly the driven part from the driving part, it's preventing the breakdown of the weakest device.

The torque limiter slides between the friction faces.

ADVANTAGES OF THE FRICION TORQUE LIMITER

. LOW COST

. INSTANT AND ABSOLUTE DISENGAGING OF THE TRANSMISSION

In case of overhauling, the driven part is immediately and fully insulated from the driving part. Then the driving part can prevent the whole energy kinetics included, without any damage for the installation.

. LACK OF RESET

After the suppression of the anomaly which has initiated the overhauling, the torque limiter restarts immediately without any human attendance, as soon as the machine is reset.

. NO DAMAGE OF THE LIMITER DURING THE OVERHAULINGS

The torque limiter provides to the problems of torque control a much better solution than a shearing pin which replacement after breaking needs time and important dismountings.

. PERMANENT VISUAL CONTROL

When overhauling appears, the immobilization of the driven part warns immediately.

SPECIFIC ADVANTAGES OF THE LIMITER

. QUICK AND EASY ADJUSTMENT

The couple adjustment is controlled by a simple severing of a nut and does not need any special measurement device.

. PRECISE ADJUSTMENT

In most part of the range, graduations located on the housing allow a precise adjustment can be made in continuous operation on 360° of the nut rotation.

. RELIABILITY OF THE ADJUSTMENT

The adjustment's nut have a brake which forbid all incidental clamping and, after, all untimely reduction of the transmissible couple. The nut's braking operate without damage of the hub's screwing.

. RELIABILITY OF THE SYSTEM OF PROTECTION

The initial adjustment made by our technician with a spanner wrench, no further attendance by an unskilled operator must be feared.

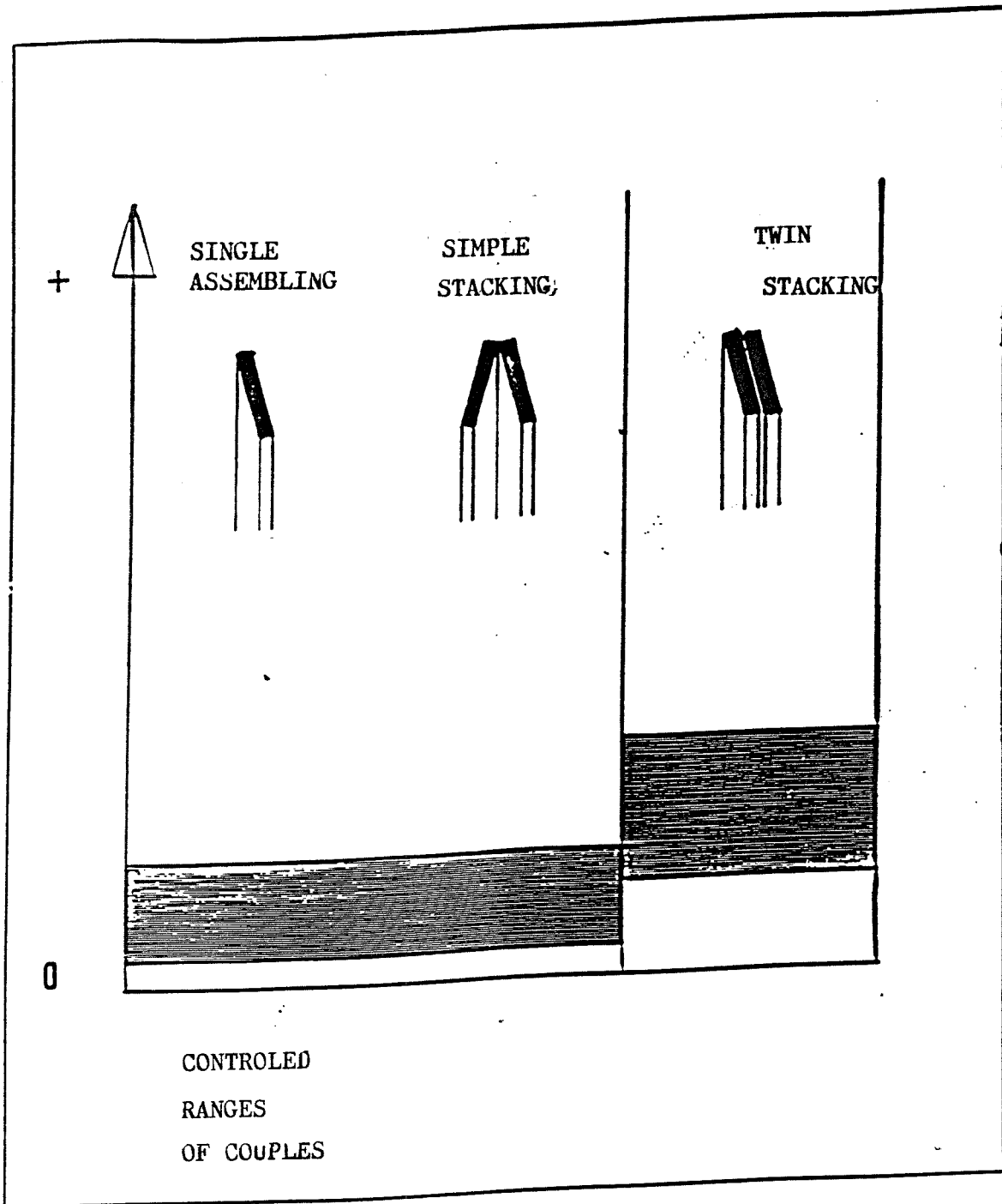
. NO MECHANICAL DAMAGE HAPPENS IN CASE OF OVERHAULING

The revolving is centered on the self lubricated ring which prevents from jamming.

. ADJUSTMENT

Several possibilities of adjustment are available in accordance with the model of device and the result requested.

The springs washers can be assembled in various ways, which allowing each device to cover a large range of couples.

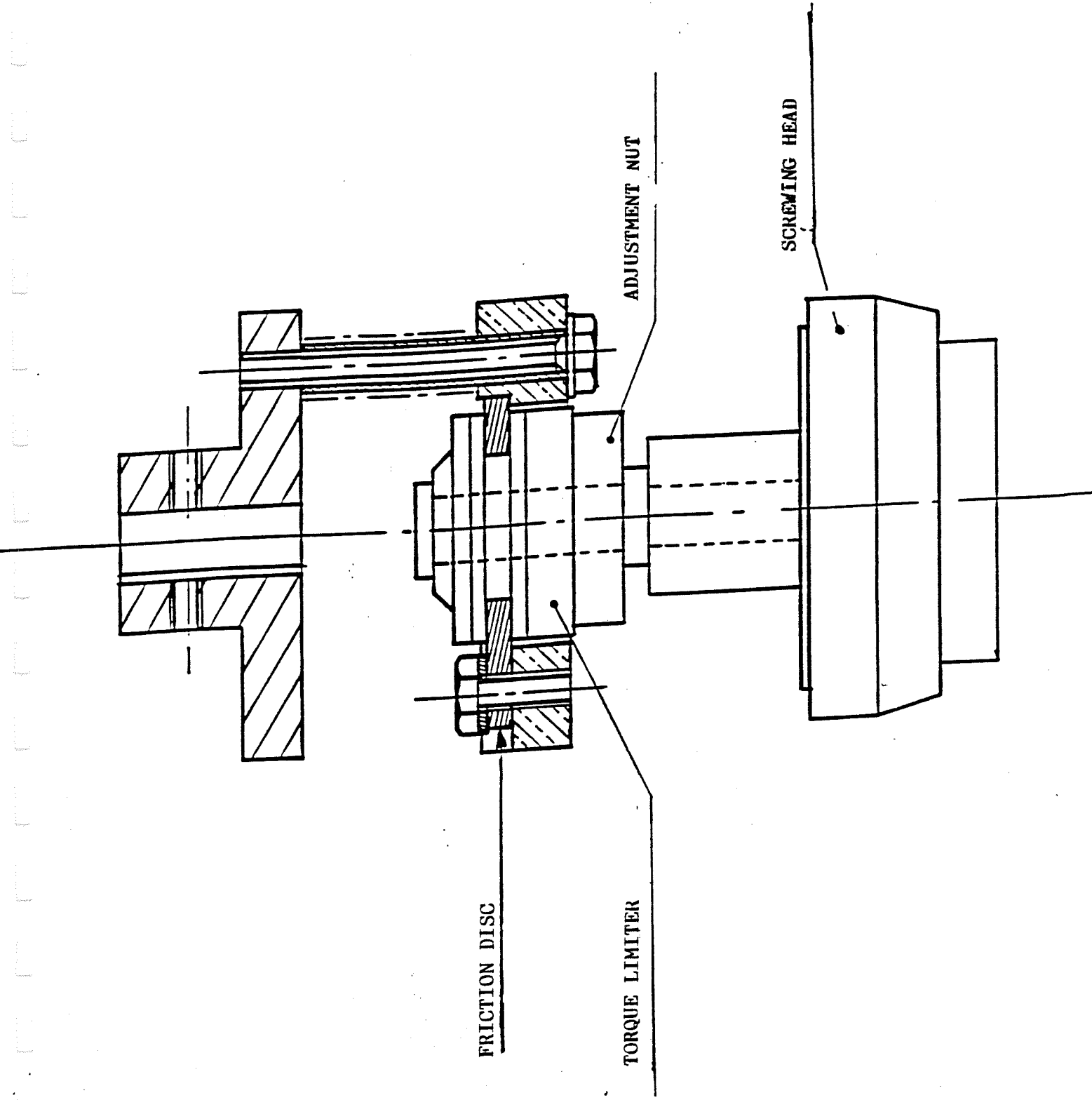


The bottom range couples are secured with springs washers assembled by one or by means of a simple stacking.

The top range couples are secured with a double stacking.
These abilities must be turned to account as follows:

Reduced couples at high speed with frequent overhauls:
the limiters must be fitted with simple stacking

Raised couples at moderate speed and sliding:
the limiters must be fitted with a double stacking.

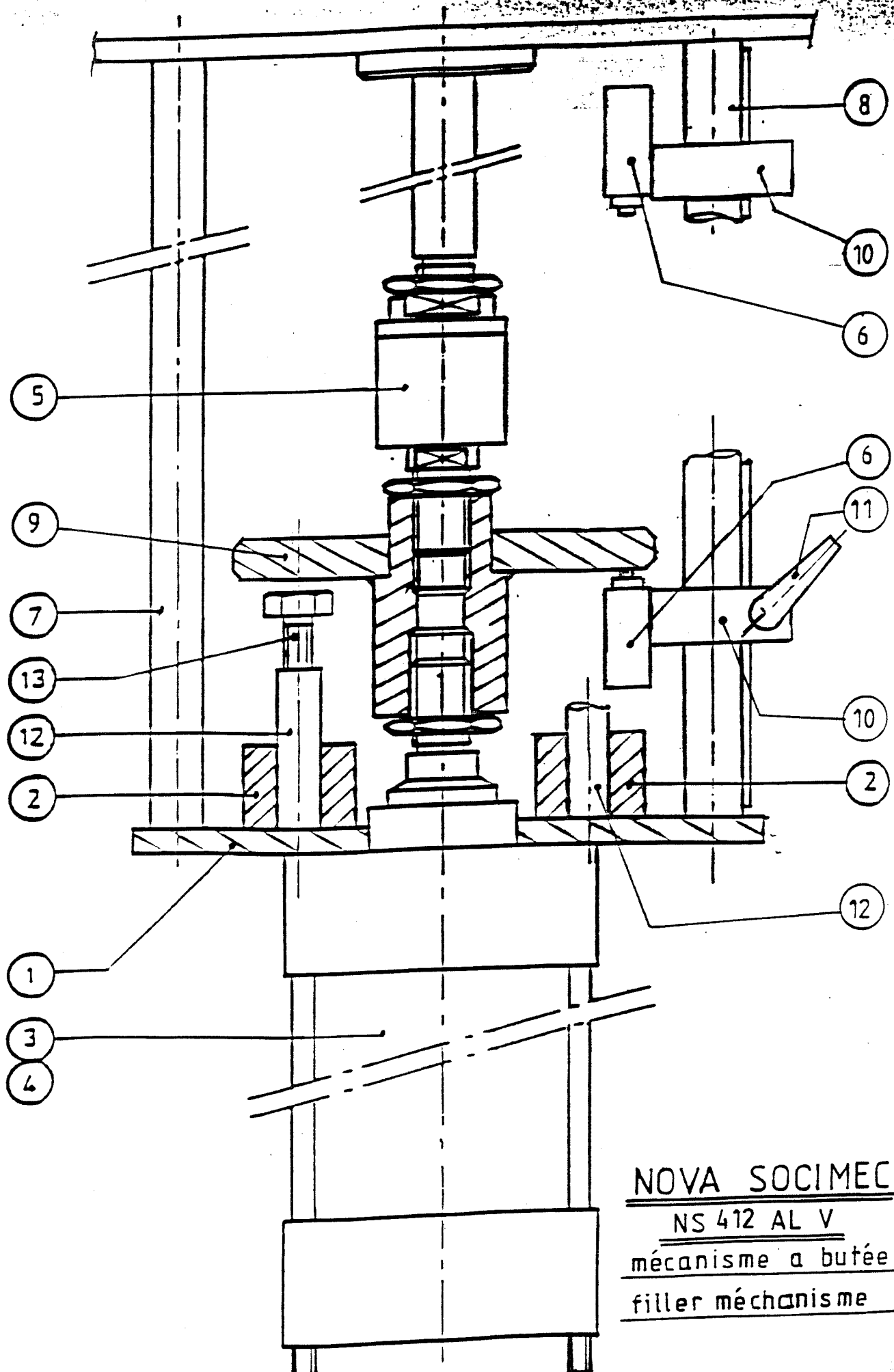


FRICTION DISC

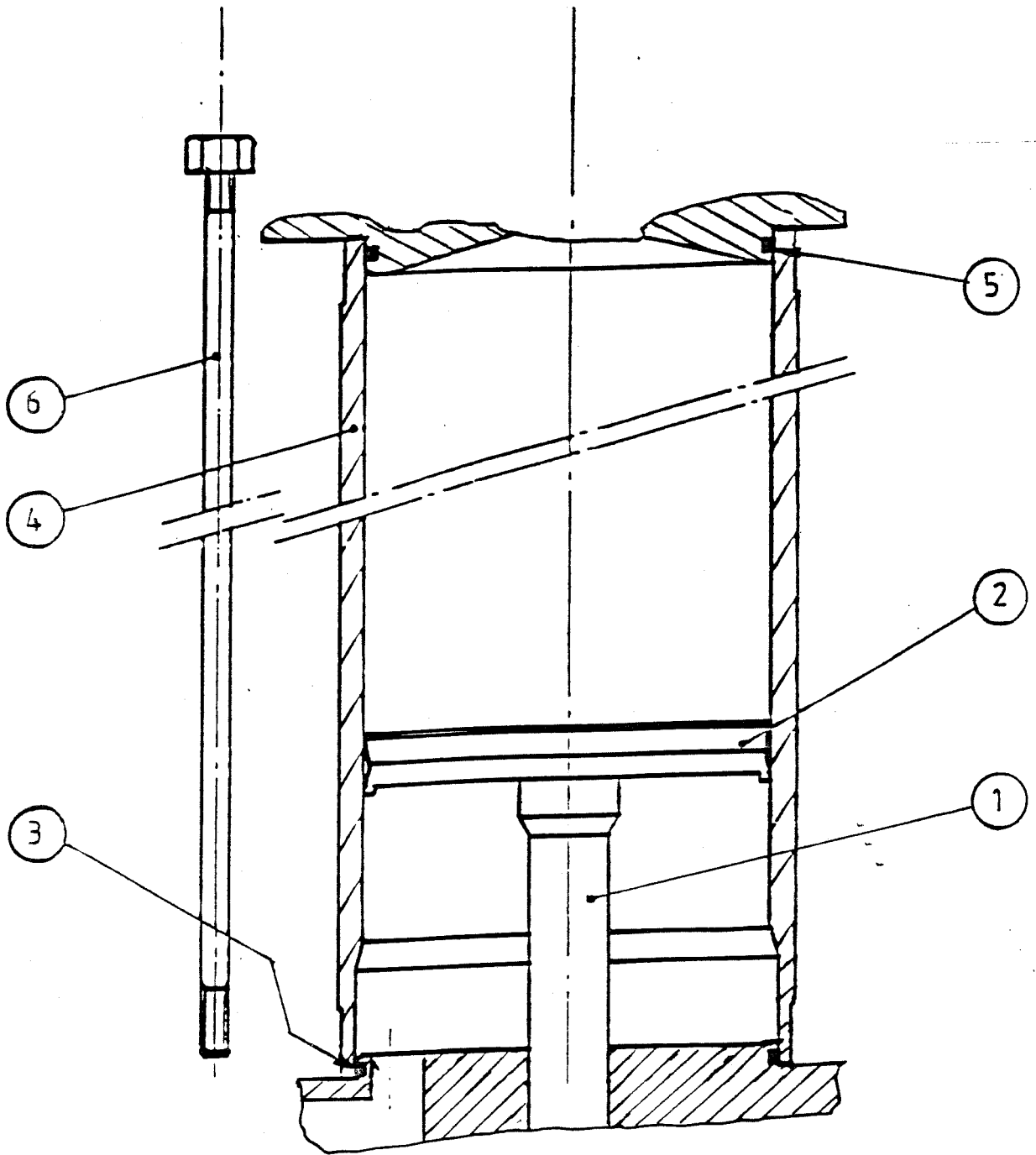
TORQUE LIMITER

ADJUSTMENT NUT

SCREWING HEAD



NOVA SOCIMEC
NS 412 AL V
mécanisme a butée
filler mécanisme

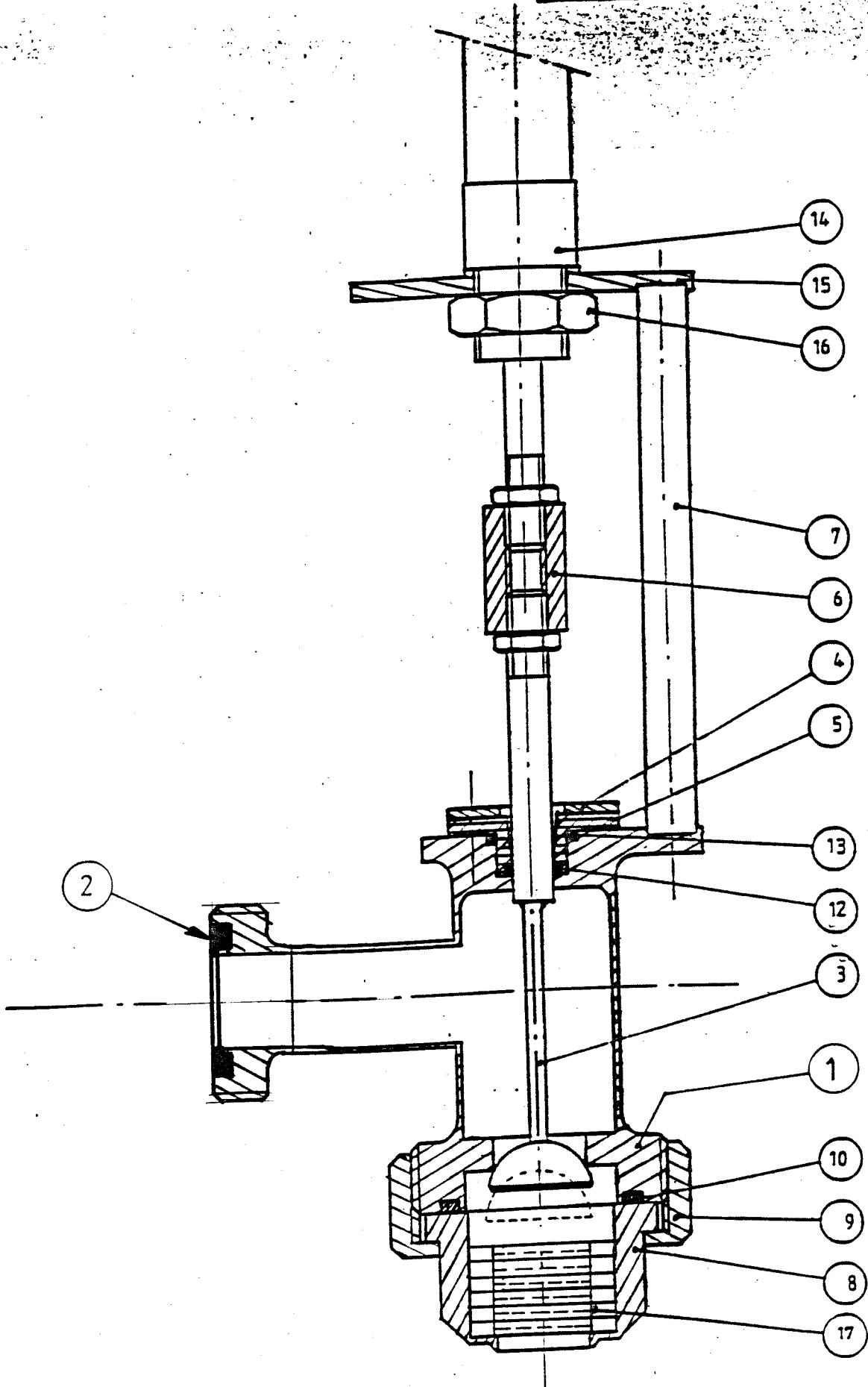


NOVA SOCIMEC

NS 412 AL

cylindre produit

product cylinder

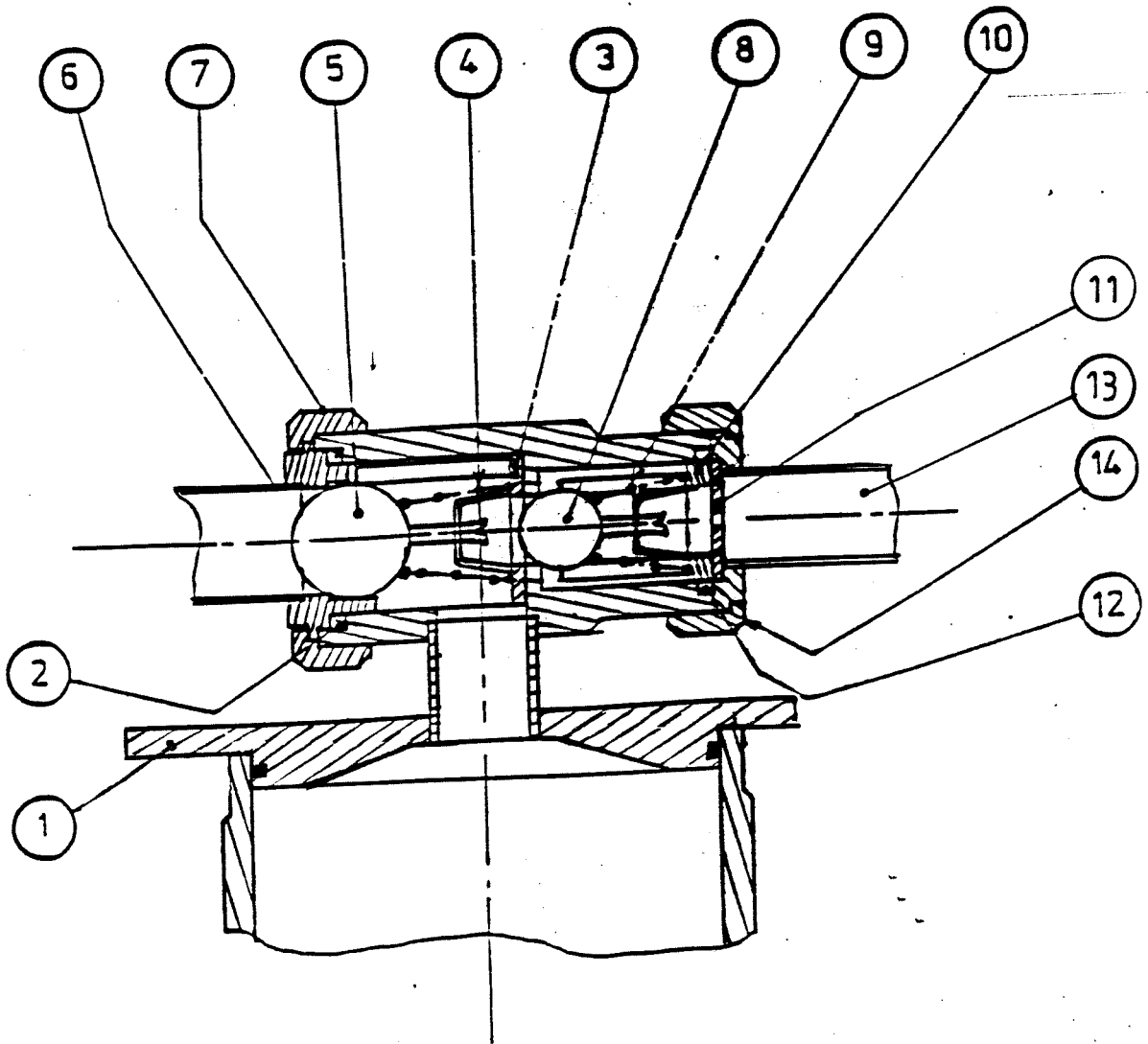


NOVA SOCIMEC

Pompe type NS Al.

Bec a clapet

valve nozzle



NOVA SOCIMEC

NS 427 AL V

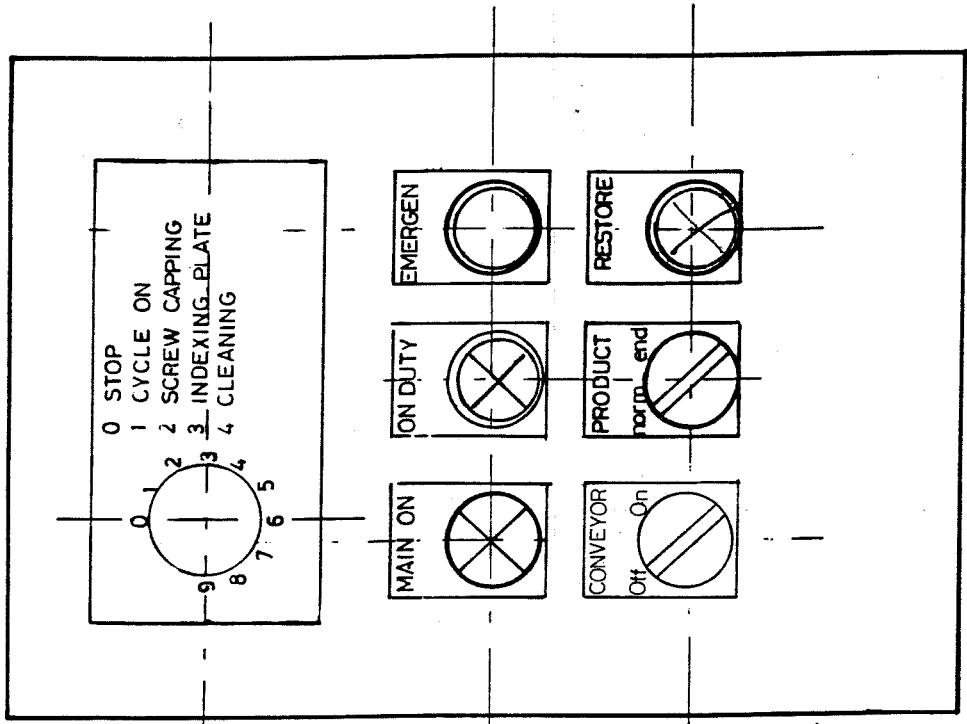
vanne a bille

ball valve

| N° Folio | Description | N° Folio | Description |
|----------|-------------------------------|----------|----------------------------|
| 0 | Summary | 31 | |
| 1 | Panel control | 32 | Input PLC IO, 0 to IO, 12 |
| 2 | Supply 24 V DC | 33 | Input PLC IO, 13 to IO, 25 |
| 3 | | 34 | |
| 4 | | 35 | |
| 5 | | 36 | Output PLC 0Ø, Ø to 0Ø, 8 |
| 6 | | 37 | Output PLC 0Ø, 9 to 0Ø, 15 |
| 7 | | 38 | |
| 8 | | 39 | |
| 9 | | 40 | |
| 10 | Plug and cabinet Blower | 41 | |
| 11 | | 42 | |
| 12 | | 43 | |
| 13 | | 44 | |
| 14 | Conveyor | 45 | |
| 15 | | 46 | |
| 16 | Indexing plate and screw caps | 47 | |
| 17 | | 48 | |
| 18 | | 49 | |
| 19 | | 50 | Diagrams information |
| 20 | On Duty | 51 | |
| 21 | | 52 | |
| 22 | CONTROL CONVEYOR | 53 | |
| 23 | | 54 | |
| 24 | Connecting panel control | 55 | |
| 25 | | 56 | Item list |
| 26 | | 57 | Item list |
| 27 | | 58 | Item list |
| 28 | VOLUME CHANGE | 59 | Item list |
| 29 | | 60 | Item list |
| 30 | | | |

| | | | |
|----------------------|--------------|--------------------|----------|
| Customer : Clarendon | | Summary electrical | |
| D | | Diagrams | |
| C | code : 12542 | | |
| B | | | |
| A | | | |
| DESSINE | DATE | IND | DATE |
| | | | 1/03 /95 |

| | |
|---------------------------------------|---------|
| NOVA SOCIMEC S.A. 4, rue Jules Ferry | |
| 28190 COURVILLE SUR EURE | |
| Tél : 37 23 21 15 * Fax : 37 23 76 91 | |
| NOVA MK 3 | FOLIO 0 |



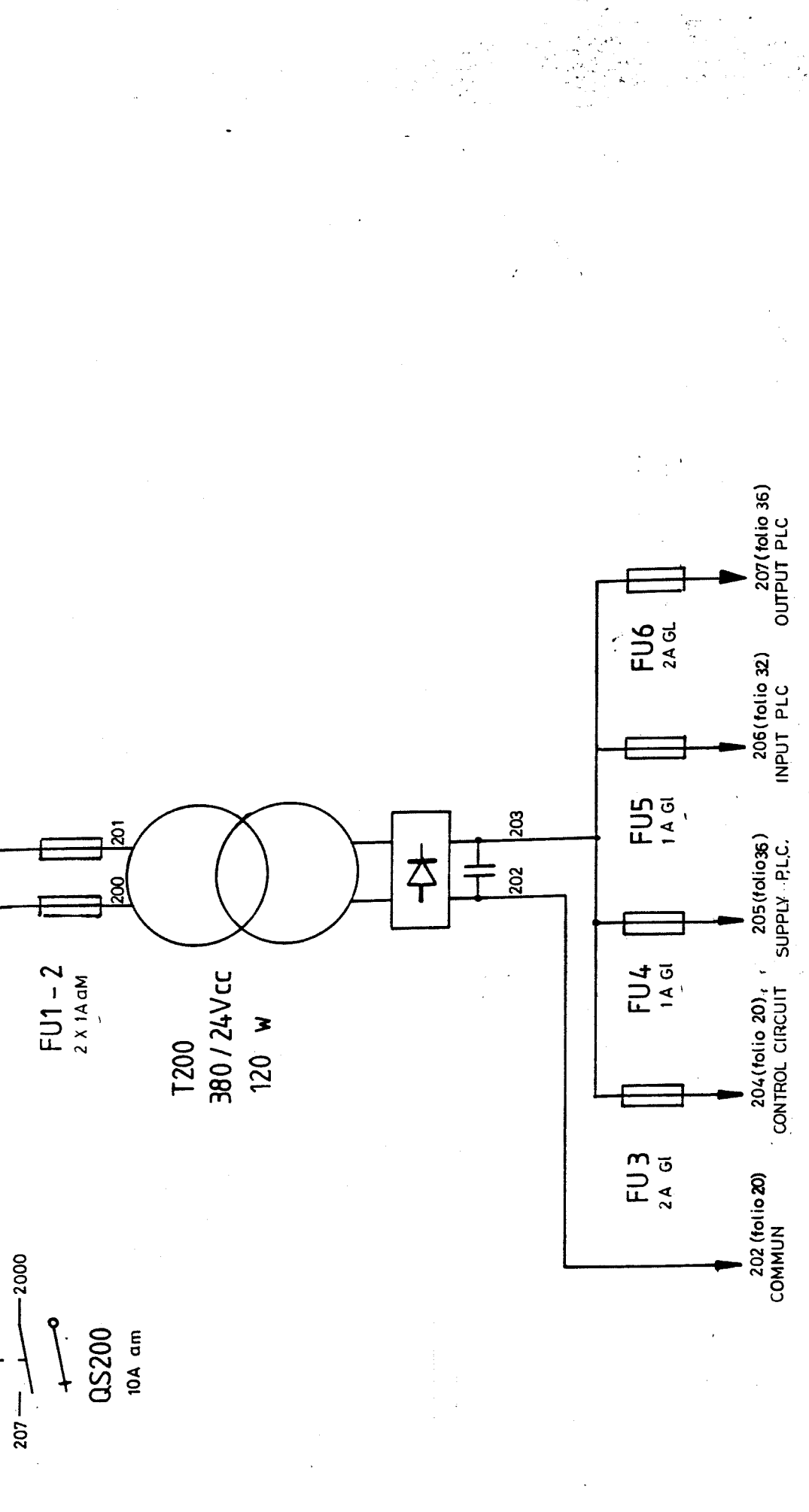
NOVA SOCINEC S.A.
 4 RUE JULES FERRY
 28150 COURVILLE SUR EURE
 TEL : 37 23 21 13



PANEL CONTROL

| MODIFICATION | DATE | DESIGNE | INDI DATE |
|--------------|------|---------|-----------|
| D | | | 1/02/05 |
| C | | | |
| B | | | |
| A | | | |

PE
 L30
 L20 (FOLIO 10)
 L10
 N10
 207
 2000
 QS200
 10A am



NOVA SOCINEC S.A.
 28190 COURVILLE SUR YVRE
 TEL. 37 23 21 13

NOVA

NOVA MK3

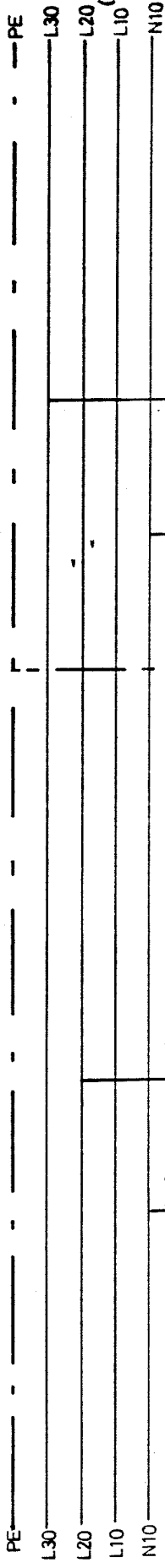
FOLIO 2

SUPPLY 24Vdc

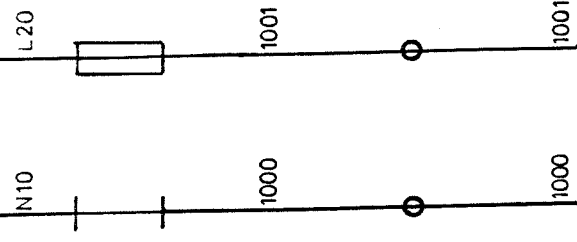
| MODIFICATION | DATE | DESSINE | IND | DATE |
|--------------|------|---------|-----|---------|
| D | | | | 1/03/95 |
| C | | | | |
| B | | | | |
| A | | | | |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

FOLIO 2)

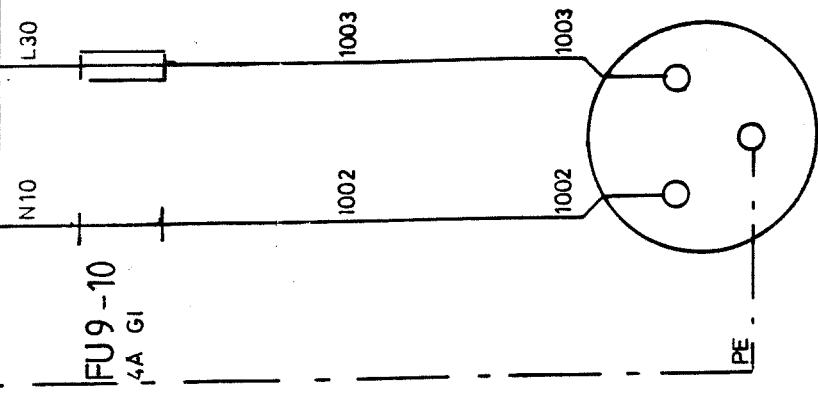


FU7 -8
1A GI



Cabinet blower

FU9 -10
4A GI



Plug

WARNING 4A MAX

| MODIFICATION | DATE | DESSINE | IND | DATE |
|--------------|------|---------|-----|---------|
| | | | A | 1/03/95 |
| | | | B | |
| | | | C | |
| | | | D | |

CABINET BLOWER &
PLUG

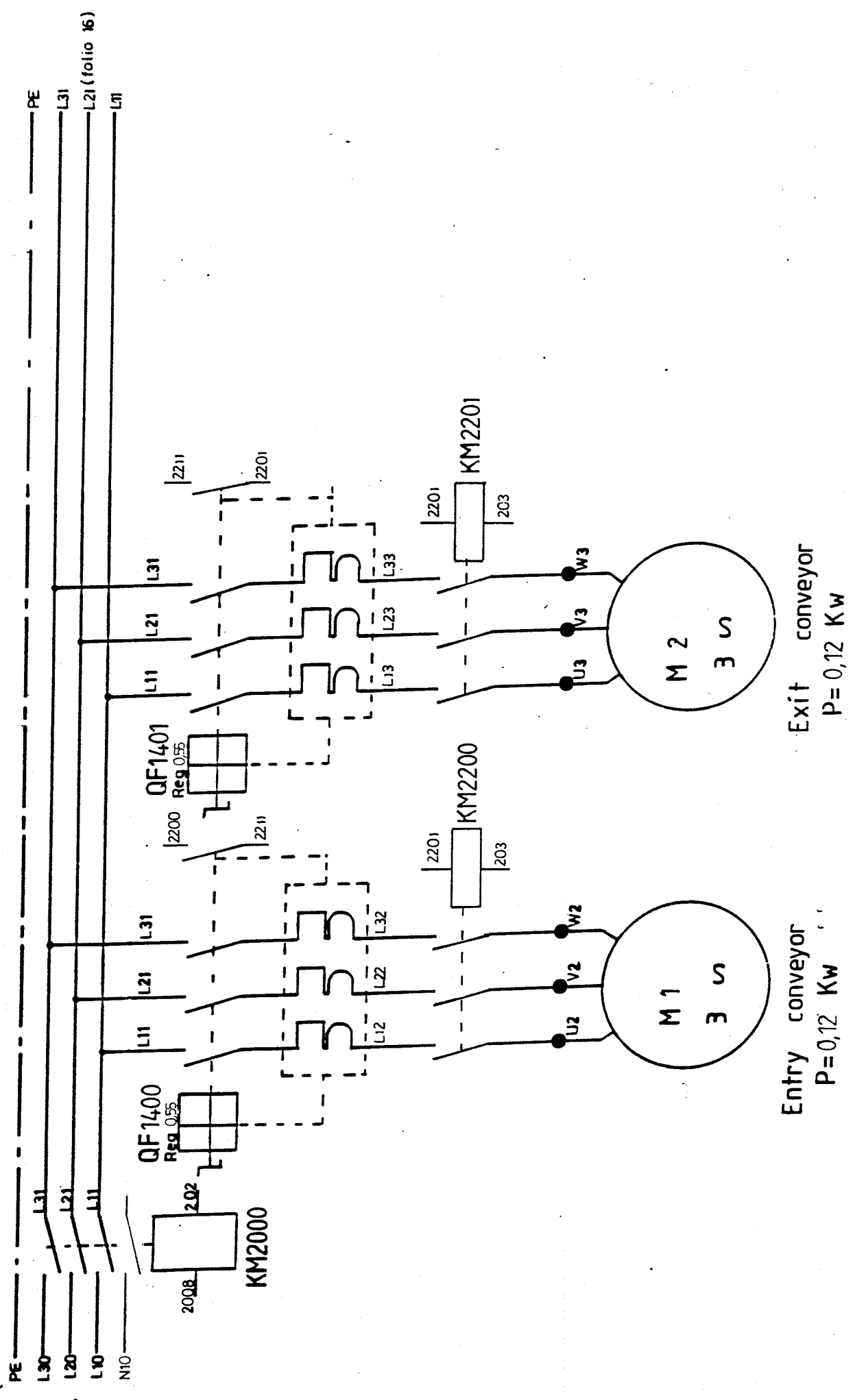


NOVA MK3

NOVA SOCLINEC S.A.
4 RUE JULES FERRY
28190 COUVILLE
TEL 02 37 71 11 11

FOLIO 10

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



Exit conveyor
P=0,12 Kw

Entry conveyor
P=0,12 Kw

NOVA SOCINEL S.A.
4 RUE WILHELM STRASSE
28196 COUNVILLE SUR MER
TEL. 33 57 23 21 18



NOVA MK3

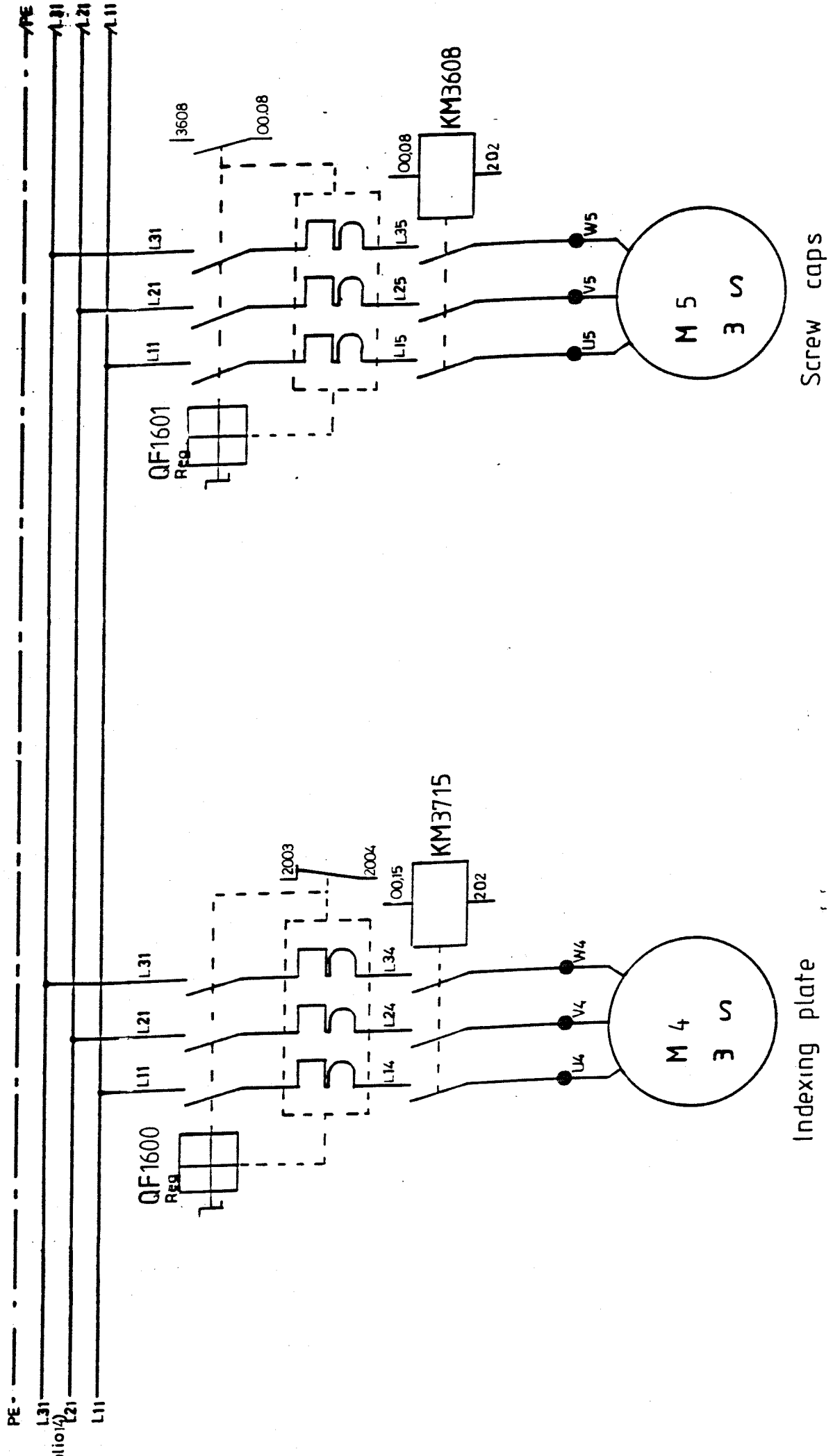
CONVEYOR

IND. DATE : 1/03/95

| MODIFICATION | DATE | DESSINE | IND. DATE |
|--------------|------|---------|-----------|
| | | | A |
| | | | B |
| | | | C |
| | | | D |

FOLIO 14

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1



Indexing plate

Screw caps

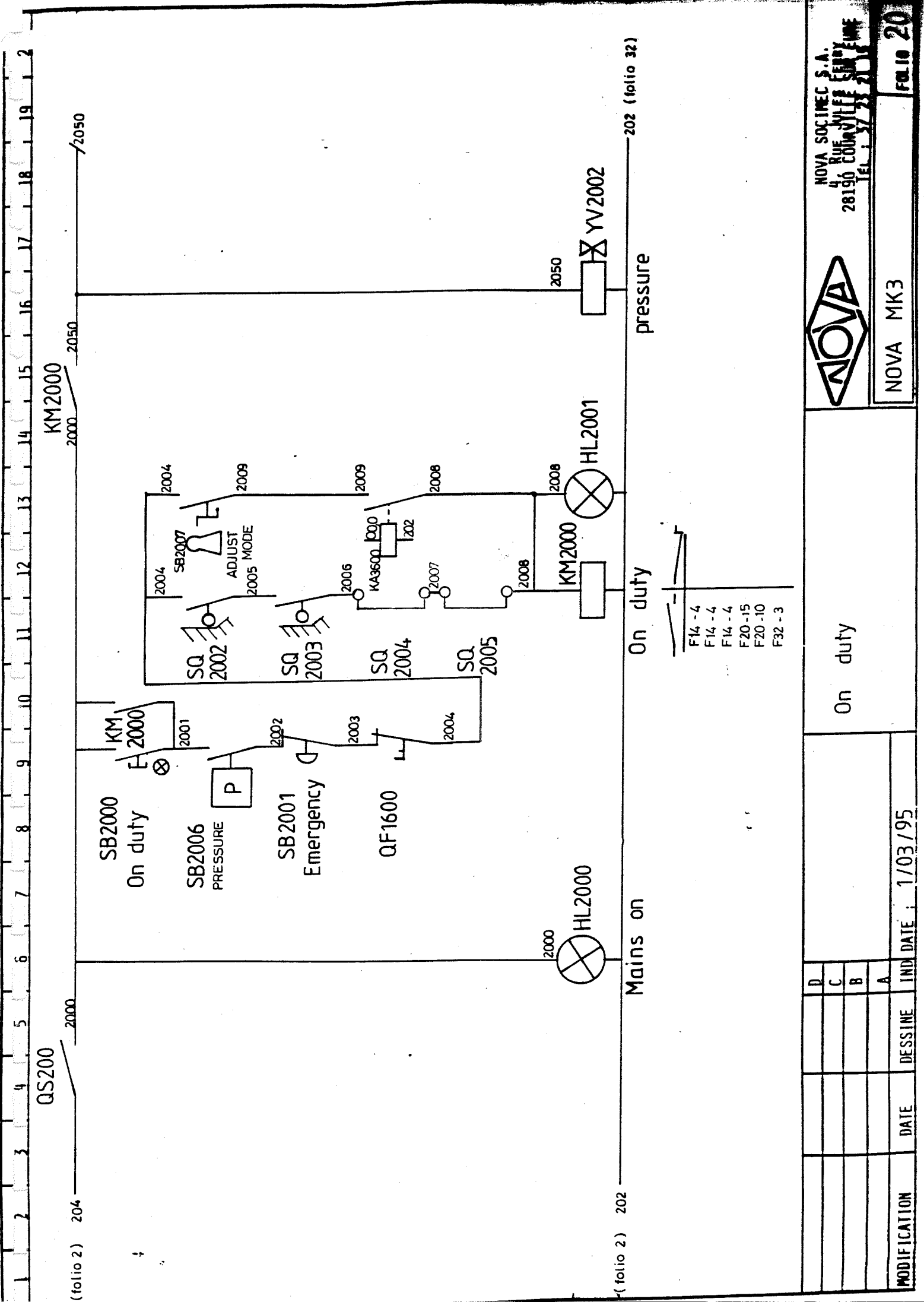
| MODIFICATION | DATE | DESSINE | IND DATE |
|--------------|------|---------|----------|
| | | | 1/03/95 |
| | | | |
| | | | |
| | | | |

Indexing plate & screw cap motors



NOVA MK3

NOVA SOC INEC S.A.
4 RUE WILFRED BRUYER
28190 COURVILLE SUR EURE
TEL : 57 23 21 15



QS200

KM2000

(folio 2) 204

2050

2050

2000

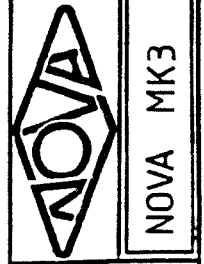
(folio 2) 202

202 (folio 32)

- F14 - 4
- F14 - 4
- F14 - 4
- F20 - 15
- F20 - 10
- F32 - 3

| MODIFICATION | DATE | DESSINE | IND | DATE |
|--------------|------|---------|-----|------|
| | | | A | |
| | | | B | |
| | | | C | |
| | | | D | |

On duty

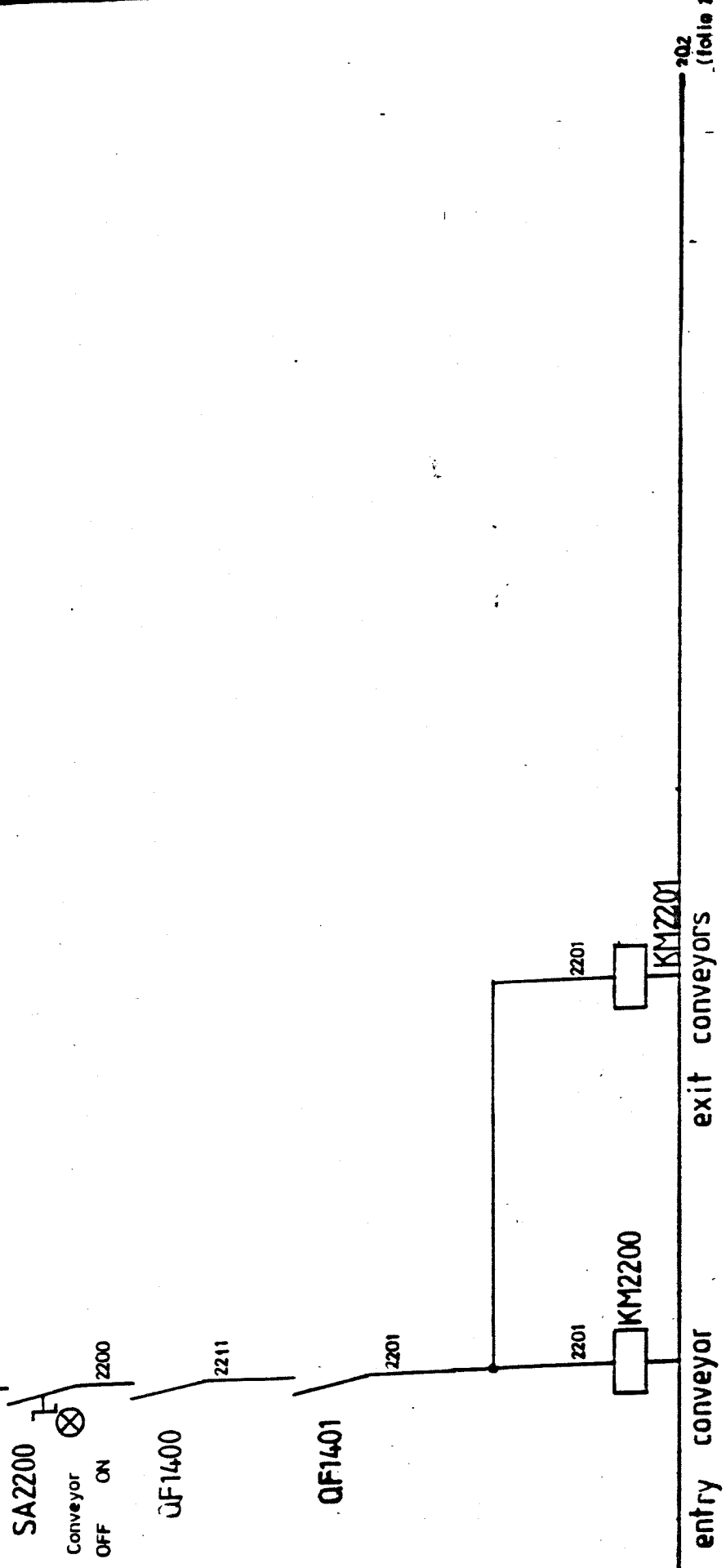


NOVA SOCINEC S.A.
 4, RUE WILLY BRUNY
 28190 COUVAYILLE SUR MER
 TEL: 37 33 21 11 11

NOVA MK3

Folio 20

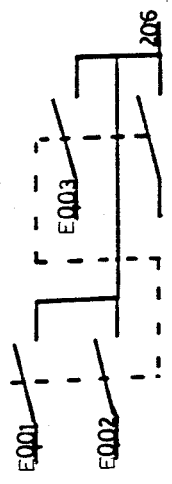
IND DATE : 1/03/95



| MODIFICATION | DATE | DESSINE | IND |
|----------------|---------|---------|-----|
| | | | D |
| | | | C |
| | | | B |
| | | | A |
| | 7 06 95 | | |
| DATE: 17/10/94 | | | |

| | |
|--|----------|
| Conveyors Control | |
| NOVA SOCIMEC S.A. 4, rue Jules Ferry 26190 COURVILLE SUR SEURE Tel: 37 23 21 15 * Fax: 37 23 79 91 | NOVA MK3 |
| FOLIO 22 | |

COMMUT SA3201



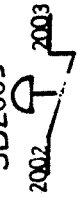
MAINS ON
HL2000



ON DUTY
SB2000



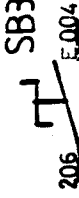
EMERGENCY STOP
SB2003



SB2800 VOLUM
CHG



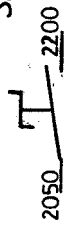
PRODUCTION
NORM



RESTORE
SL3205



CONVEYOR
OFF ON SA2200



E005

| MODIFICATION | DATE | DESSINE | IND | DATE |
|--------------|------|---------|-----|---------|
| | | | A | 1/03/95 |
| | | | B | |
| | | | C | |
| | | | D | |

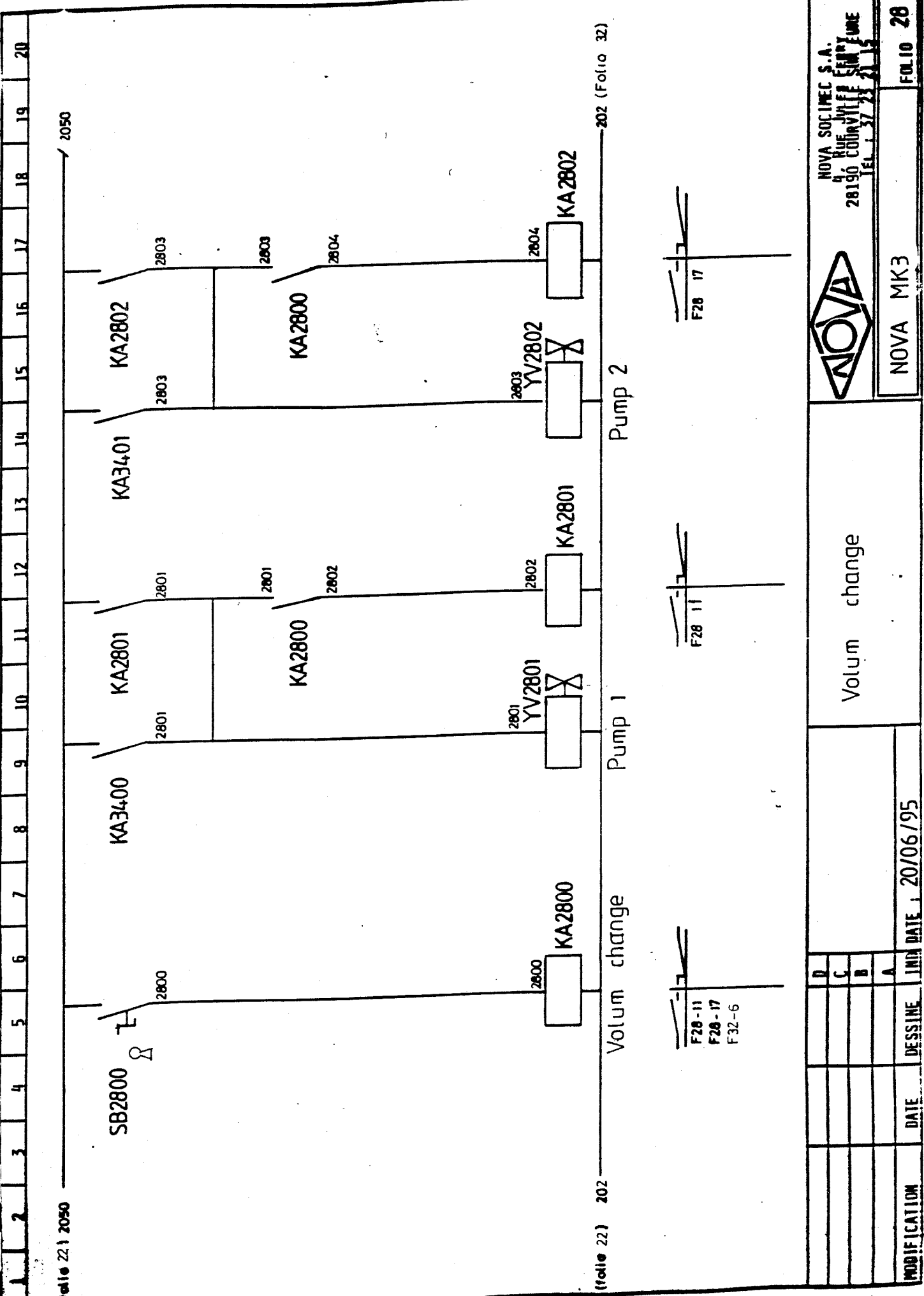
Panel wiring



NOVA SOC INEC S.A.
4 RUE WILLY FERRY
28190 COLLEVILLE FRANCE
TEL : 37 31 71 16

NOVA MK3

FOLIO 24



(Folio 21) 2050

(Folio 22) 202

202 (Folio 32)

| MODIFICATION | DATE | DESSINE | IMP | DATE |
|--------------|------|---------|-----|----------|
| | | | A | 20/06/95 |
| | | | B | |
| | | | C | |
| | | | D | |

Volum change

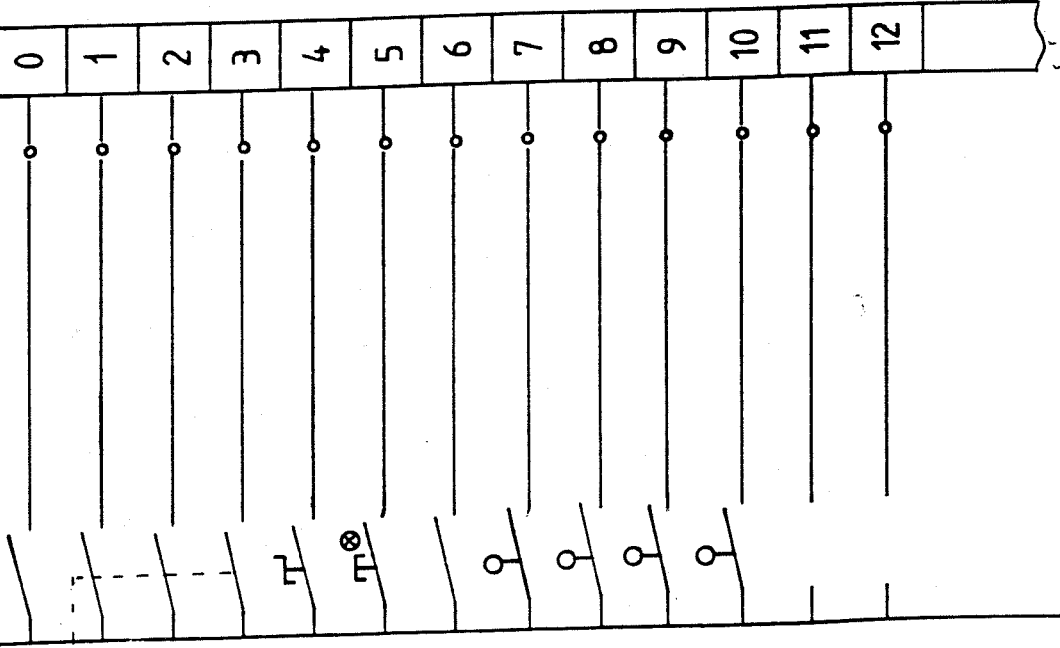
NOVA SOC IMEC S.A.
 4, RUE JULES FERRY
 28190 COURVILLE SUR EURE
 TEL: 37 33 21 15

NOVA MK3

FOLIO 28

(folio 2) 206

(folio 28) 202



E0,00 KM2000 On duty
 E0,01 SA3201 Commut 0 stop
 E0,02 SA3201 1 cycle on
 E0,03 SA3201 2 screw capping
 SB3204 3 indexing plate
 SB3204 4 cleaning
 SB3204 Production normal end
 SL3205 Restore
 KA2800 Volum change
 SQ3207 Bottle présence 1
 SQ3208 Bottle presence 2
 SQ3209 End of titration filler 1
 SQ3210 End of aspiration filler 1

202 206
 (folio 33)

| | | | |
|--------------|---------|-----------|---------|
| MODIFICATION | DATE | INDI DATE | 1/03/95 |
| | DESSINE | A | |
| | B | | |
| | C | | |

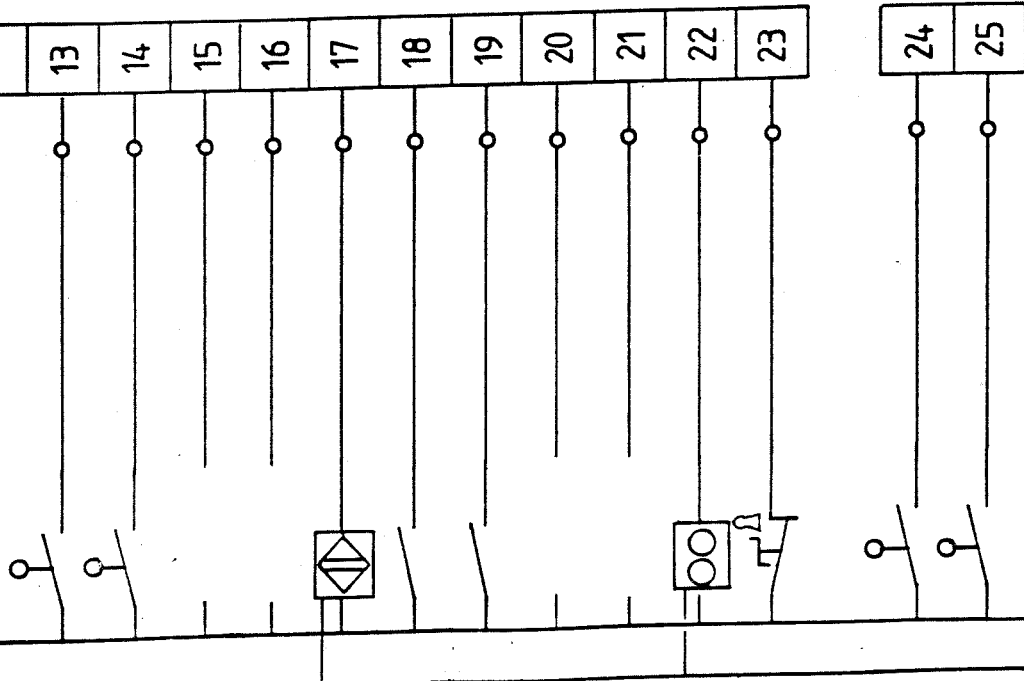
Input P.L.C
 I0,00 → I0,12



NOVA SOCIÉTÉ S.A.
 28190 COMBIVILLE
 TEL. 03 27 22 22 22

NOVA MK3

(folio 32)
202 206



202 206
(folio 36)

| | | |
|-------|--------|-----------------------------|
| E0,13 | SQ3313 | End of titration filler 2 |
| E0,14 | SQ3314 | End of aspiration filler 2 |
| E0,15 | | |
| E0,16 | | |
| E0,17 | SD3317 | Screw at the top |
| E0,18 | KT3709 | End of screw timer delay |
| E0,19 | KT3712 | End of let drop timer delay |
| E0,20 | | |
| E0,21 | | |
| E0,22 | SC3322 | Entry accumulating |
| E0,23 | SB2006 | Adjustement mode |
| E0,24 | SQ3324 | Stop Cams |
| E0,25 | SQ3325 | Operation Cams |

| MODIFICATION | DATE | DESSINE | IND | IND DATE |
|--------------|------|---------|-----|----------|
| | | | D | 1/03/95 |
| | | | C | |
| | | | B | |
| | | | A | |

Input P.L.C.
I0,13 → I0,25



NOVA SOCIETEC S.A.
4, RUE JULES FERRY
28190 COURVILLE SUR EURE
TEL : 37 23 21 15

NOVA MK3

FOLIO 33

19

18

17

16

15

14

13

12

11

10

9

8

7

6

5

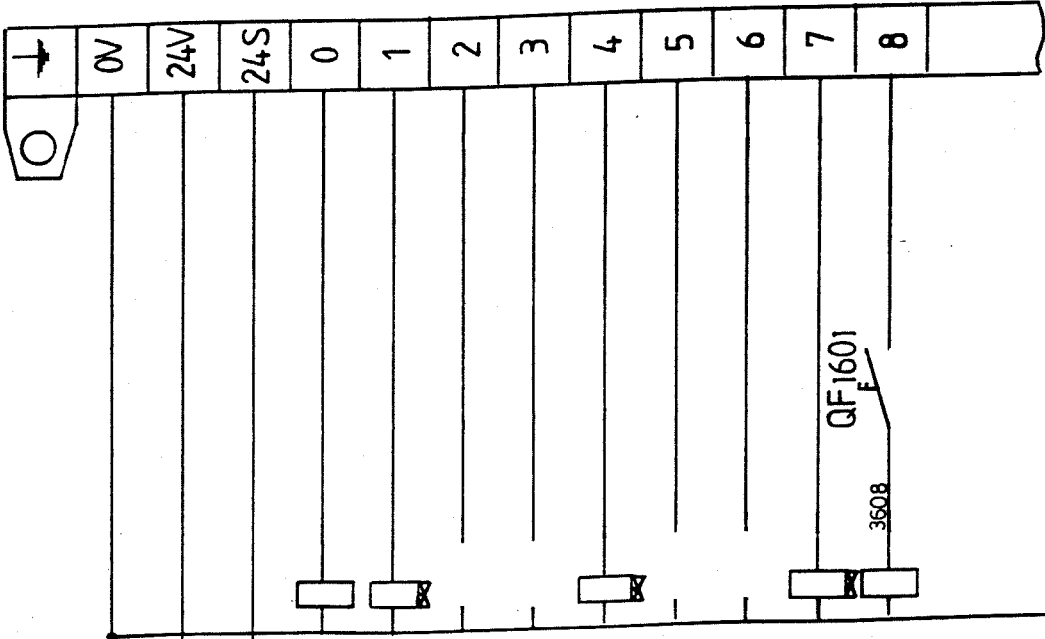
4

3

2

1

0



folio 33) 202
 folio 2) 205
 folio 2) 207

202
 (folio 37)

P.L.C SUPPLY 24Vcc

SUPPLY PLC OUTPUT

S0,00 KA360 P.L.C. Security NO F20-13

S0,01 KA3601 Titration filler 1 NO F28-9

S0,02

S0,03

S0,04 KA3604 Titration filler 2 NO F28-14

S0,05

S0,06

S0,07 YV3605 Advance of screw capping

S0,08 KM3608 Motor of screw capping NO F16-15 F16-16 F16-17

| MODIFICATION | DATE | DESSINE | IND | DATE |
|--------------|------|---------|-----|---------|
| | | | A | 1/03/95 |
| | | | B | |
| | | | C | |
| | | | D | |

Output P.L.C
 00,00 → 00,08

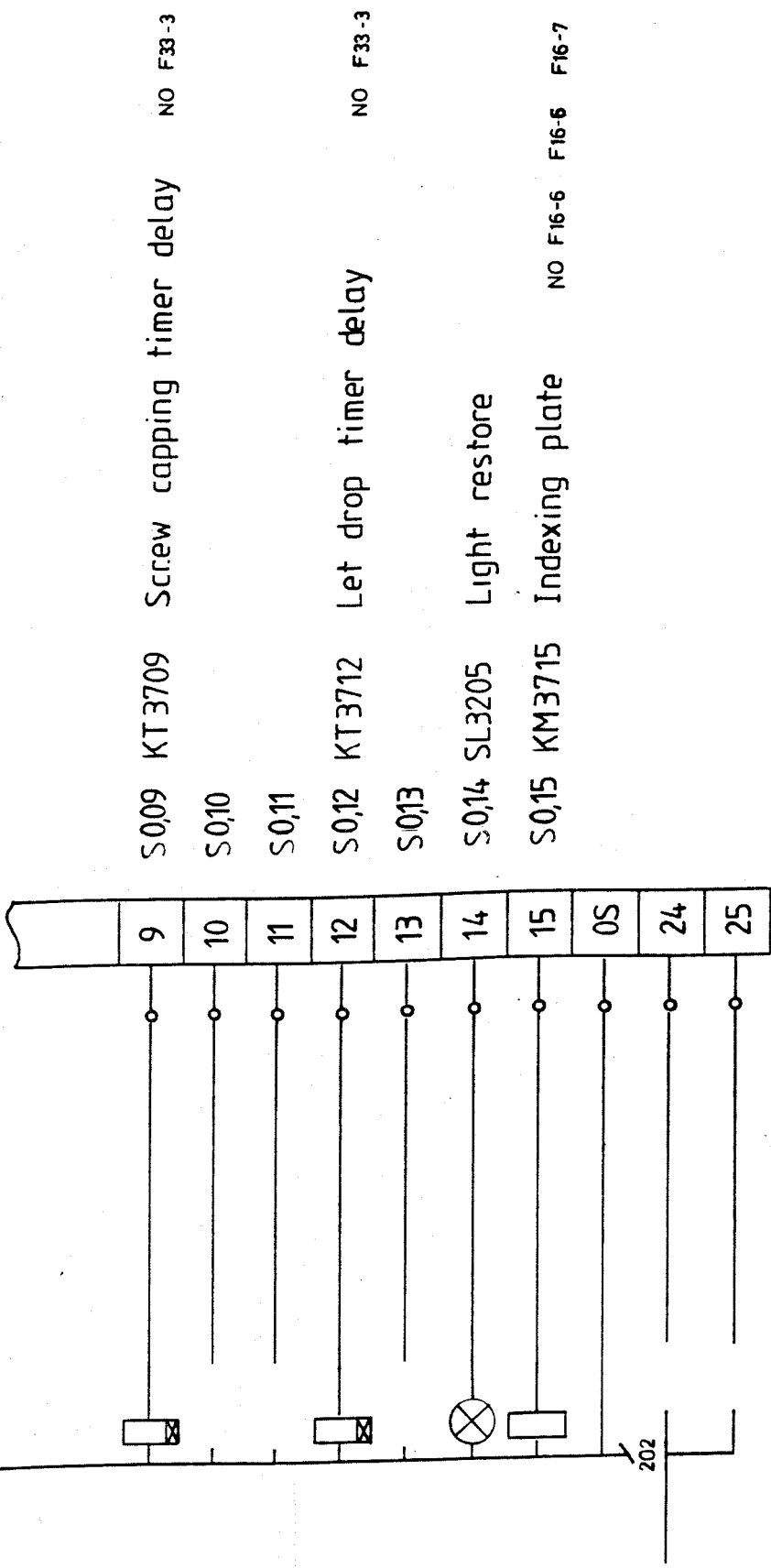


NOVA MK3

NOVA SOC INEC S.A.
 28190 - CASAVILLE - FRANCE
 TEL. 01 47 37 11 11

19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

(folio 36)
202



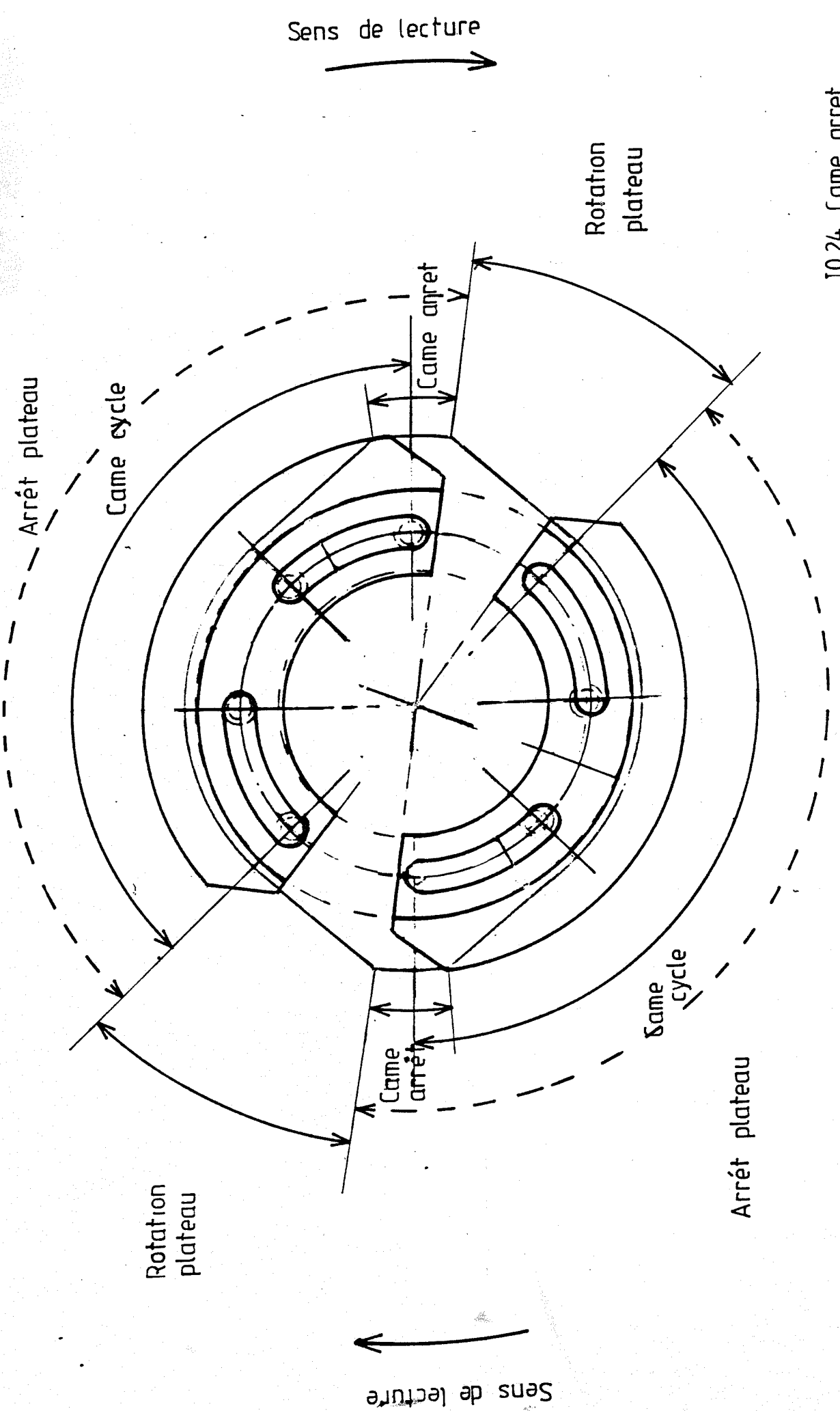
NOVA SOC. IMEL S.A.
28190. CUBATITZE
Tel. 4 77 33 80

NOVA MK3

Output P.L.C.
00,09 → 00,15

| MODIFICATION | DATE | DESSINE | IND | DATE |
|--------------|------|---------|-----|---------|
| | | | A | 1/03/95 |
| | | | B | |
| | | | C | |
| | | | D | |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



10,24 Came arrêt
10,25 Came cycle



NOVA SOCIMEC S.A.
4, RUE JULIEN
28190 COURVILLE SUR EURE
TEL. 37 23 21 15

NOVA MK3

EM 10 44

| MODIFICATION | DATE | REVISION | IND. DATE | | | |
|--------------|------|----------|-----------|---|---|--------------|
| | | | D | C | B | A |
| | | | | | | 10 / 07 / 05 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

CAMES

ITEM LIST

| NOVA MK3 | | S/E | ELECTRICAL | FOLIO N° 1 | |
|-----------|-----------------------|---------|--------------------------|------------------------|--|
| REF. | DESCRIPTION | BRAND | NOVA REF. | MANUF. REF. | |
| QS 200 | 25A SWITCH + NEUTRAL | TELE | 206 01 433 | LS1 D2531 A65 | |
| FU 1 - 2 | FUSE CARRIER | TELE | 206 01 861 | GK1 CD | |
| T 200 | SUPPLY 380/24 5A | LEGRAND | | 429 81 | |
| FU 3 | FUSE CARRIER | TELE | 206 02 016 | DF6 AB08 | |
| FU 4 | FUSE CARRIER | TELE | 206 02 016 | DF6 AB08 | |
| FU 5 | FUSE CARRIER | TELE | 206 02 016 | DF6 AB08 | |
| FU 6 | FUSE CARRIER | TELE | 206 02 016 | DF6 AB08 | |
| | | | | | |
| FU 7 - 8 | FUSE CARRIER | TELE | 206 01 861 | GK1 CD | |
| FU 9 - 10 | FUSE CARRIER | TELE | 206 02 016 | DF6 AB08 | |
| M 2 | MOTOR CABINET BLOWER | LEGRAND | 206 02 339 | 365 73 | |
| | | | | | |
| | | | | | |
| QF 1400 | MOTOR CIRCUIT BREAKER | TELE | 206 02 381 206 02 391 | GV2 M04 GV2 AD 0110 | |
| QF 1401 | MOTOR CIRCUIT BREAKER | TELE | 206 02 381 206 02 391 | GV2 M04 GV2 AD 0110 | |
| | | | | | |
| QF 1600 | MOTOR CIRCUIT BREAKER | TELE | 206 02 382 206 02 391 | GV2 M05 GV2 AD0110 | |
| QF 1601 | MOTOR CIRCUIT BREAKER | TELE | 206 02 380 206 02 391 | GV2 M03 GV2 AD0110 | |
| | | | | | |
| HL 2000 | LIGHT MAINS ON | TELE | 206 01 479 206 01 474 | ZB2 BV07 ZB2 BV06 | |
| SB 2000 | PUSH BUTTON ON DUTY | TELE | 206 01 860 206 01 866 | ZB2 BW33 ZB2 BW061 | |
| SB 2001 | PUSH BUTTON EMERGENCY | TELE | 205 07 019 206 01 471 | ZB2 BT4 ZB2 BZ102 | |

ITEM LIST

| NOVA MK3 | | S/E | ELECTRICAL | FOLIO N° 2 | |
|----------|---------------------------|--------|-------------------------|--------------------------------------|--|
| REF. | DESCRIPTION | BRAND | NOVA REF. | MANUF REF. | |
| SQ 2002 | SAFETY MICRO SWITCH GUARD | TROJAN | 206 02 224 | MSS 3 EMP 611 | |
| SQ 2003 | SAFETY MICRO SWITCH GUARD | TROJAN | 206 02 224 | MSS 3 EMP 611 | |
| SQ 2004 | SAFETY MICRO SWITCH GUARD | TROJAN | 206 02 224 | MSS 3 EMP 611 | |
| SQ 2005 | SAFETY MICRO SWITCH GUARD | TROJAN | 206 02 224 | MSS 3 EMP 611 | |
| SB 2006 | PRESSURE CONTROL | TELE | 205 13 71 | PS1 P1081 | |
| YV 2002 | ELECTROVALVE + SURPRESSOR | TELE | 205 07 84 205 12 58 | PVA F102B PVE ZF102B | |
| KM 2000 | GENERAL CONTACT | TELE | 206 02 293 | LP1 D09 10 + LA1 DN40 | |
| SB 2007 | TURNING BUTTON WITH KEY | TELE | | ZB2 BG 6 ZB2 BE 101 ZB2 BZ 102 | |
| | | | | | |
| KM 2200 | MOTOR CONTACTOR | TELE | 206 02 302 | LP1 ECO3B | |
| KM 2201 | MOTOR CONTACTOR | TELE | 206 02 302 | LP1 ECO3B | |
| KM 2800 | AUXILIARY RELAY | TELE | 206 01 958 | CA2 EN 240B | |
| KM 2801 | AUXILIARY RELAY | TELE | 206 02 284 | ABR1 S 618B | |
| KA 2802 | AUXILIARY RELAY | TELE | 206 02 284 | ABR1 S 618B | |
| | | | | | |
| SA 3201 | COMMUT 9 POSITION | TELE | 206 01 026 | XBC D19801 M12 | |
| SB 3204 | TURNING BUTTON | TELE | 205 07 20 206 01 470 | ZB2 BD2 ZB2 BZ102 | |
| SB 3205 | PUSH BUTTON | TELE | 205 07 16 206 01 470 | ZB2 BA2 ZB2 BZ 101 | |
| SB 3206 | TURNING BUTTON | TELE | 205 07 20 206 01 470 | ZB2 BD2 ZB2 BZ 102 | |
| | | | | | |
| | | | | | |

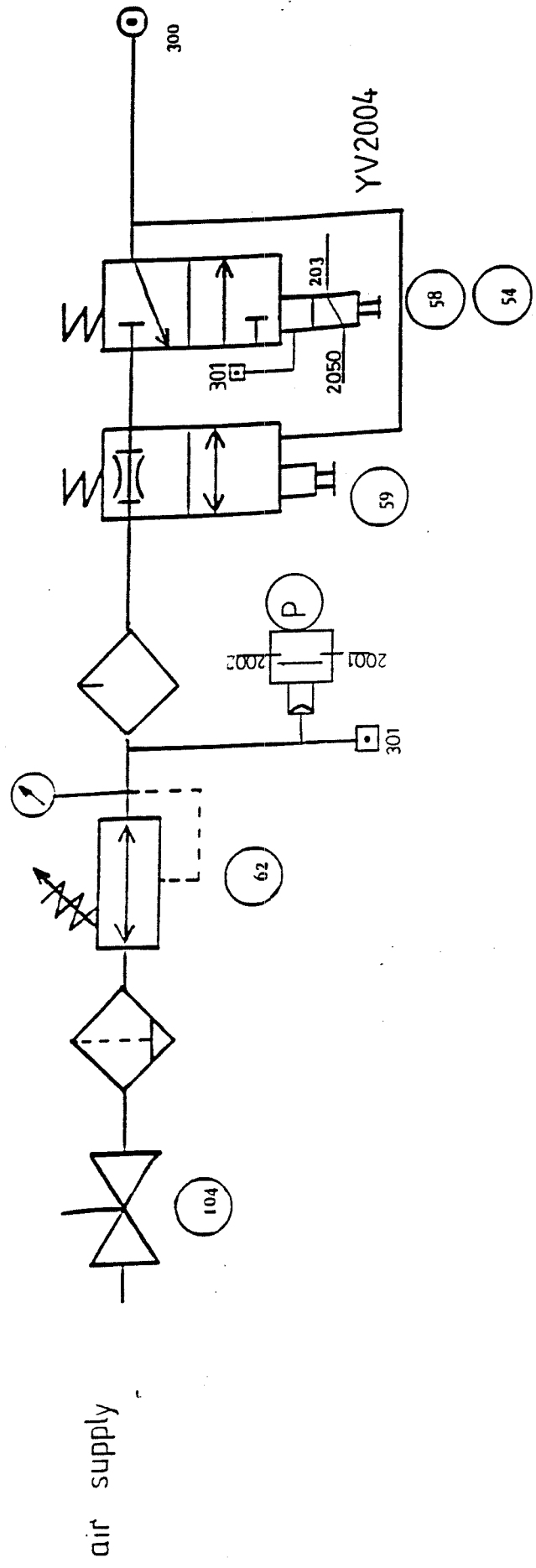
ITEM LIST

| NOVA MK3 | | S/E | ELECTRICAL | FOLIO N° 3 | |
|----------|-------------------------|---------|-------------------------|------------------------------|--|
| REF. | DESCRIPTION | BRAND | NOVA REF. | MANUF. REF | |
| SQ 3207 | MECHANICAL PUSH SWITCH | TELE | 206 01 508 | XCM A1155 | |
| SQ 3208 | MECHANICAL PUSH SWITCH | TELE | 206 01 508 | XCM A1155 | |
| SQ 3209 | MECHANICAL PUSH SWITCH | TELE | 206 01 505 | XCM A1105 | |
| SQ 3210 | MECHANICAL PUSH SWITCH | TELE | 206 01 505 | XCM A 1105 | |
| | | | | | |
| SQ 3313 | MECHANICAL PUSH SWITCH | TELE | 206 01 505 | XCM A 1105 | |
| SQ 3314 | MECHANICAL PUSH SWITCH | TELE | 206 01 505 | XCM A 1105 | |
| SD 3317 | MAGNETIC PUSH SWITCH | BOSCH | | 0830 100 366 1827 020 084 | |
| SQ 3322 | PHOTO CELL | TELE | 206 02 408 206 08 07 | XUB H02313 L05 XUZ C24 | |
| SQ 3324 | MECHANICAL PUSH SWITCH | TELE | 206 01 505 | XCM A1105 | |
| SQ 3325 | MECHANICAL PUSH SWITCH | TELE | 206 01 505 | XCM A1105 | |
| | | | | | |
| KA 3600 | AUXILIARY RELAY | TELE | 206 02 284 | ABR1 S 618B | |
| YV 3601 | ELECTROVALVE +SUPRESSOR | TELE | 206 02 284 | ABR1 S 618B | |
| YV 3604 | ELECTROVALVE +SUPRESSOR | TELE | 206 02 284 | ABR1 S 618B | |
| YV 3605 | ELECTROVALVE +SUPRESSOR | TELE | 205 07 84 205 12 58 | PVA F 102 B PVA ZF 102B | |
| K 3608 | MOTOR CONTACTOR | TELE | 206 02 302 | LP1 EC03B | |
| KT 3709 | TIMER DELAY | SYRELEC | | BAR U | |
| KM 3715 | MOTOR CONTACTOR | TELE | 206 02 302 | LP1 ECO3B | |
| KT 3712 | TIMER DELAY | SYRELEC | 206 02 342 | BAR U | |
| | | | | | |
| | | | | | |

| N° Folio | Description | N° Folio | Description |
|----------|---------------|----------|-------------|
| 0 | Summary | 31 | |
| 1 | | 32 | |
| 2 | | 33 | |
| 3 | Air treatment | 34 | |
| 4 | | 35 | |
| 5 | | 36 | |
| 6 | Filler 1 | 37 | |
| 7 | Filler 2 | 38 | |
| 8 | | 39 | |
| 9 | Screw caps | 40 | |
| 10 | | 41 | |
| 11 | | 42 | |
| 12 | | 43 | |
| 13 | | 44 | |
| 14 | | 45 | |
| 15 | | 46 | |
| 16 | | 47 | |
| 17 | | 48 | |
| 18 | | 49 | |
| 19 | | 50 | |
| 20 | | 51 | |
| 21 | | 52 | |
| 22 | | 53 | |
| 23 | | 54 | |
| 24 | | 55 | |
| 25 | | 56 | |
| 26 | | 57 | |
| 27 | | 58 | |
| 28 | | 59 | |
| 29 | | 60 | |
| 30 | | | |

| | | | |
|---------------------|------|---------------------------------------|-------|
| Customer: Clarendon | | NOVA SOCIMEC S.A. 4, rue Jules Ferry | |
| cde : Cde 12542 | | 28190 COURVILLE SUR EURE | |
| | | Tél : 37 23 21 15 * Fax : 37 23 76 91 | |
| | | NOVA MK3 | |
| Summary | | NOVA SOCIMEC S.A. 4, rue Jules Ferry | |
| Pneumatic diagrams | | 28190 COURVILLE SUR EURE | |
| | | Tél : 37 23 21 15 * Fax : 37 23 76 91 | |
| | | NOVA MK3 | |
| MODIFICATION | DATE | DESSINE | FOLIO |
| | | | 0 |

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1



| MODIFICATION | DATE | DESSINE | IND | DATE |
|--------------|------|---------|-----|---------|
| | | | A | T/03/95 |
| | | | B | |
| | | | C | |
| | | | D | |

Air treatment

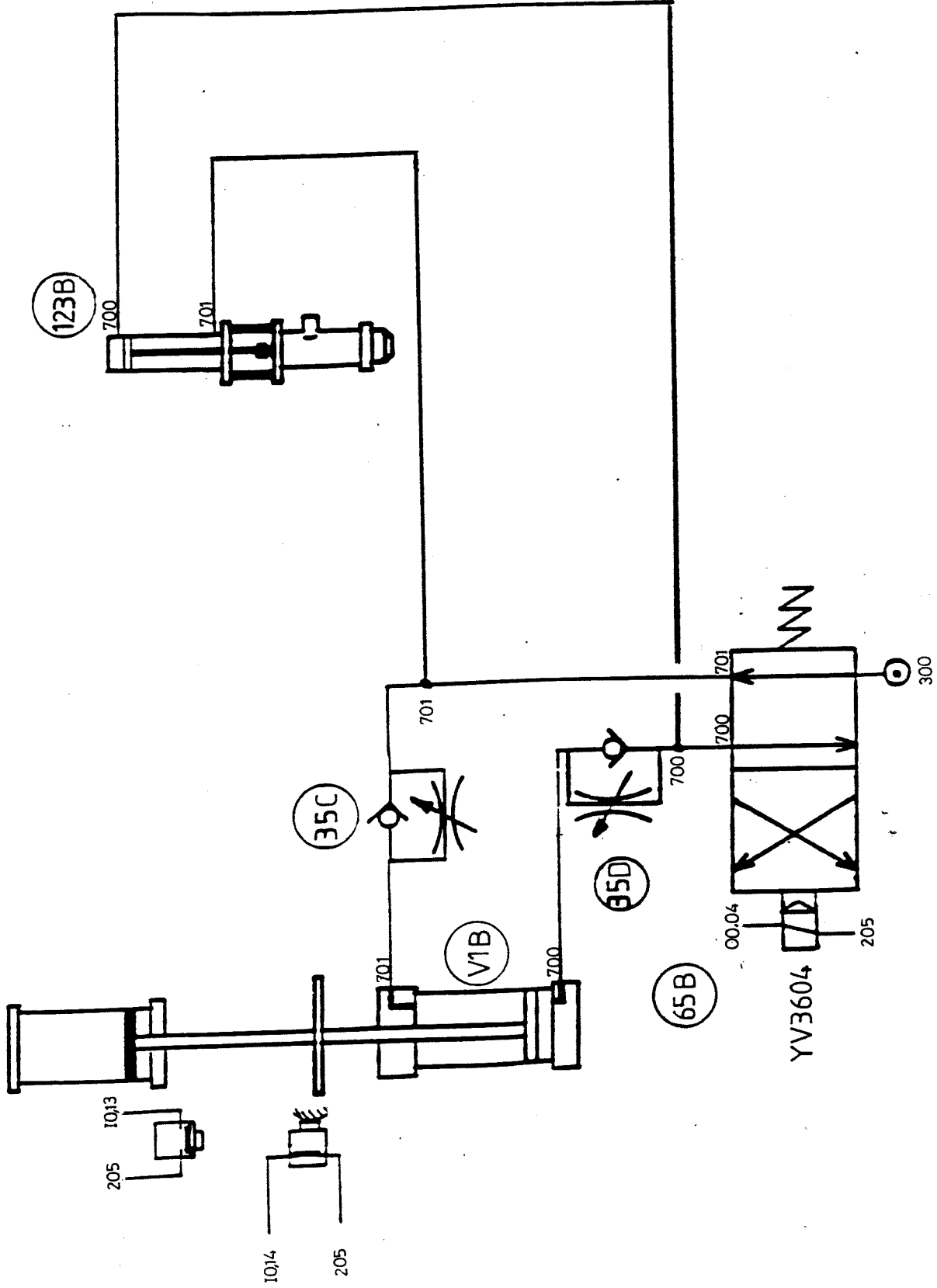


NOVA MK3

FOLIO 3

NOVA SOCINEC S.A.
 4 RUE JULIEN FERRY
 28190 COURVILLE SUR EURE
 TEL : 37 23 21 15

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



NOVA S.O.C.I.N.E.C. S.A.
 4 RUE WALTER SANDER
 28190 COMBAULT FRANCE
 TEL. 01 37 33 33 33

NOVA MK3

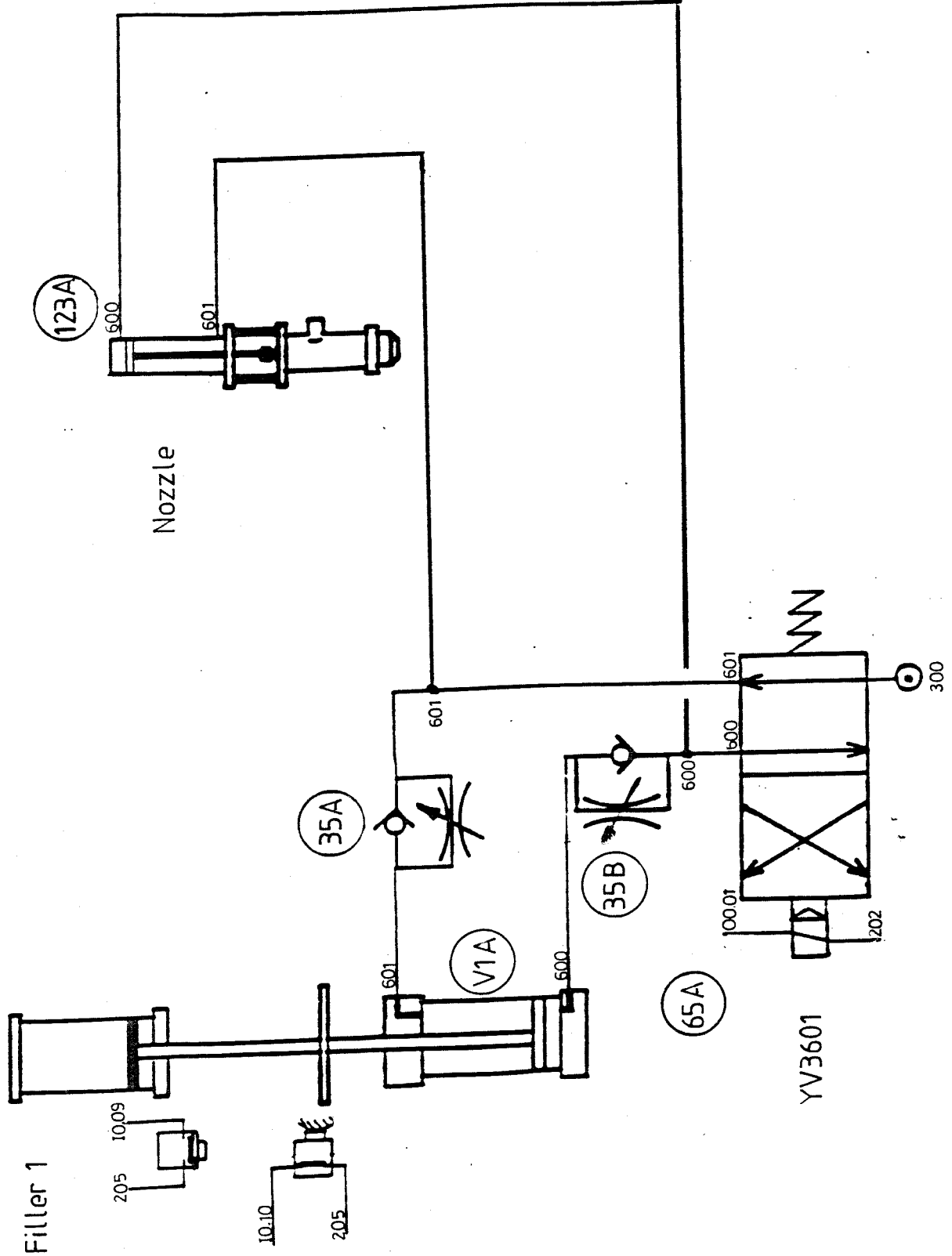
FILIO 7

Filler 2

| MODIFICATION | DATE | DESSINE | IND | DATE |
|--------------|------|---------|-----|------|
| D | | | | |
| C | | | | |
| B | | | | |
| A | | | | |

DATE : 1/03/95

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



NOVA SOC INEC S.A.
 4 RUE WYLER STRASS
 28190 COLMARVILLE FRANCE
 TEL: 33 39 33 31 11



NOVA MK 3

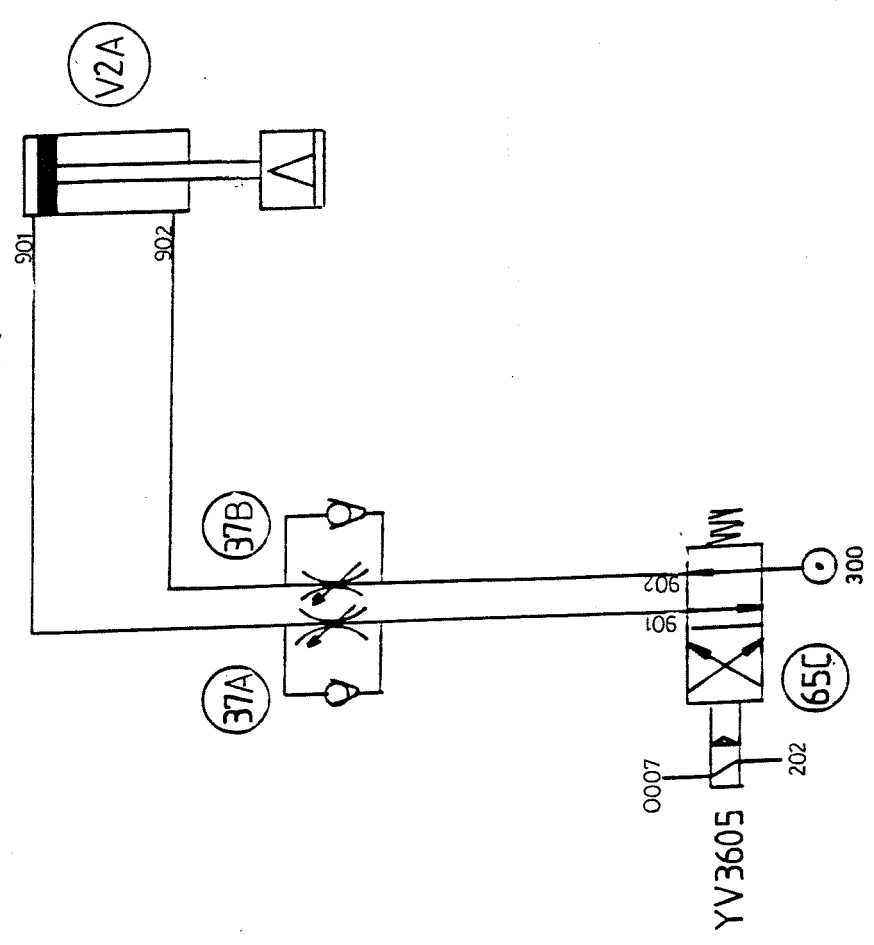
FILIO 6

Filler 1

| MODIFICATION | DATE | DESCRIPTION | IND. | DATE |
|--------------|------|-------------|------|------|
| D | | | | |
| C | | | | |
| B | | | | |
| A | | | | |

DATE: 1/03/95

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



Screw caps



NOVA SOCINEC S.A.
4 RUE JULIEN FERRY
28190 COURVILLE SUR EURE
TEL : 37 31 11 15

NOVA MK3

FOLIO 9

| MODIFICATION | DATE | DESSINE | IND | INDI | INDI | DATE |
|--------------|------|---------|-----|------|------|---------|
| | | | D | | | |
| | | | C | | | |
| | | | B | | | |
| | | | A | | | |
| | | | | | | 1/03/95 |

ITEM LIST

| NOVA MK III | | S/E : PNEUMATIC MATERIAL | DRAWING 1 | |
|-------------|-----------------------------------|--------------------------|-----------|----------------|
| ITEM | DESCRIPTION | NOVA NR | | REMARK |
| P | PRESSURE CONTROL | 205 07 49 | | PRE A10 |
| | | 205 06 75 | | PZU A12 |
| 35 | FLOW REGULATOR 1/4 | 205 10 86 | | 1/4 ERU 4186 |
| 37 | SPEED REGULATOR 1/4 Ø 8 | 205 07 68 | | PWR A 1489 |
| 54 | ELECTROVALVE | 205 08 12 | | PVA F 102 B |
| 58 | CUT-OFF 1/4 MONOSTABLE | 205 10 98 | | PVS C 331 229 |
| 59 | PROGRESSIVE STARTER 1/4 | 205 10 97 | | PVP C 32 12 29 |
| 62 | AIR TREATMENT ASS. V 15 SERIES | 205 12 84 | | PZD C 14 32 |
| 65 | DISTRIB. 4/2 P/R SIZE 1/4 | 205 08 50 | | PVD C34 12 29 |
| 123 | VERIN DOUBLE EFFET Ø 25 COURSE 10 | 205 15 24 | | DSNN 25 10 PA |
| V1 | AIR CYLINDER DIA. 80 STROKE 125 | | | 0822 354 005 |
| V2 | AIR CYLINDER DIA. 50 STROKE 50 | | | 0822 352 002 |
| | | | | |