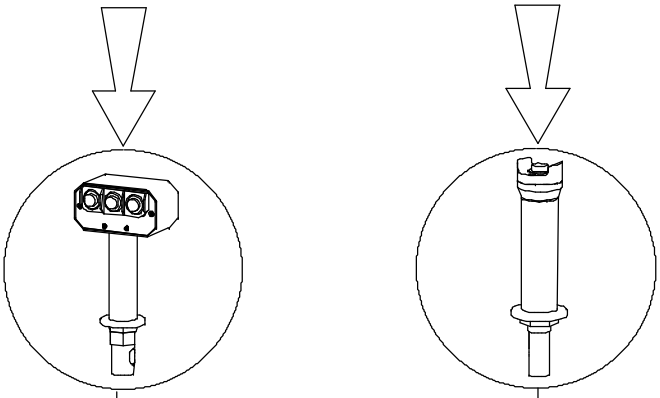
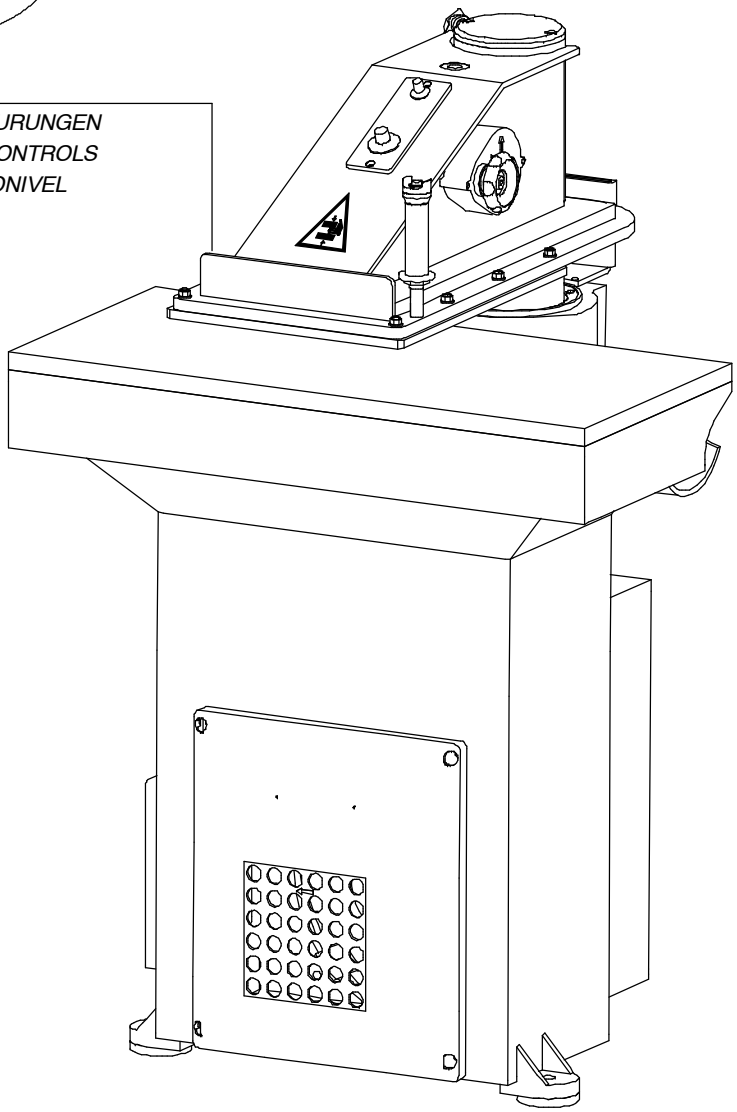
S100 Series **SE Series**



COMANDI DISPONIBILI - VERFÜGBARE STEUERUNGEN
COMMANDES DISPONIBLES - AVAILABLE CONTROLS
MANDOS DISPONIBLES - COMANDO DISPONIVEL



I- FUSTELLATRICE A BRACCIO ROTANTE

GB-CUTTING PRESS WITH TURNING ARM

F-PRESSE A DECOUPER A BRAS TOURNANT

D-STANZMASCHINE MIT SCHWENKARM

E-CORTADORA A TROQUEL CON BRAZO GIRATORIO

P-PRENSA HIDRÁULICA COM BRAÇO GIRATÓRIO

S/SE108/116/120C/120/122 /124C/124/125C/125/125L

GB Important notice

The **AUTOMATIC** cutting stroke-end device as well as the double control push-button with single potentiometer (**SE Series**) or the three push-button cutting power selector with double potentiometer (**S100 Series**) are the main features of the clicking presses with turning arm **SE Series** and **S100 Series.**

This clicking press can be used to cut natural or synthetic leather/hide, cloth, cardboard, etc. No metallic materials or materials having metals inside, as well as materials which could be prejudicial to operator's health (i.e. asbestos) should be cut.

The machine must not be used in an explosive environment or to cut materials with hazard of explosion.

The machine must be used by A SINGLE OPERATOR at a time. Therefore delimit a security area around the machine with YELLOW paint, inside which only the operator can work. To define this area refer to the page stating machine overall dimensions.

ATOM S.p.A. expect you may utilize the product at the best with your full satisfaction.
For any doubt or further advice, do not hesitate to contact ATOM S.p.A.

GB Overall dimensions

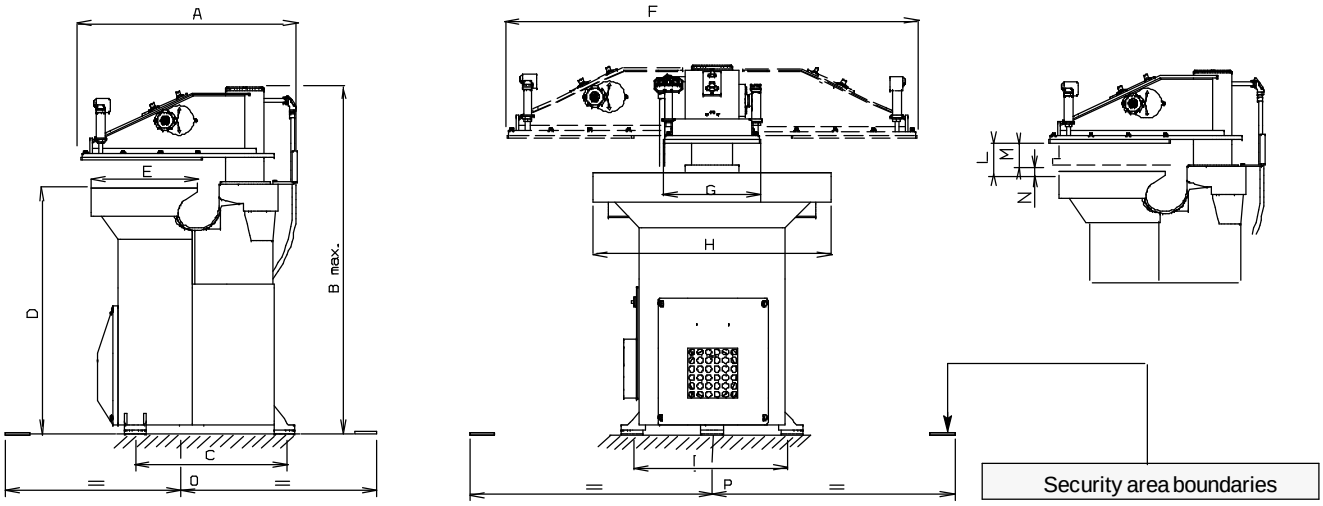


Fig. 1

	S108	S116	S120C	S120	S122	S124C	S124	S125C	S125	S125L
A	690	870	870	960	1030	960	1010	960	1030	1030
B	1330	1400	1400	1425	1425	1425	1425	1425	1425	1425
C	530	600	600	763	768	763	768	763	768	768
D	960	985	985	960	960	960	960	960	960	960
E	300	400	430	450	500	450	500	450	500	500
F	1100	1320	1320	1440	1580	1440	1550	1440	1580	1580
G	305	370	370	370	500	370	370	500	500	610
H	600	800	900	900	1200	900	1000	900	1000	1000
I	500	605	605	715	815	715	815	715	815	815
L	115 (0/-5)	130 (0/-5)	130 (0/-5)	130 (0/-5)	130 (0/-5)	130 (0/-5)	130 (0/-5)	130 (0/-5)	130 (0/-5)	130 (0/-5)
M	90	90	90	90	90	90	90	90	90	90
N	25	35	35	40	40	40	40	40	40	40
O	1100	1450	1450	1560	1600	1560	1560	1600	1600	1600
P	1500	1820	1820	2000	2200	2000	2000	2000	2150	2200

GB Machine transport and displacement

The machine can be delivered on pallet or packed in crate or in seaworthy case. On receipt of machine, provide for removing the eventual packing as well as the screws fixing it to the packing, as indicated in the picture (left Fig. 2).

If the machine is supplied packed in crate or case, use proper lifting systems (chains, ropes, etc.) and bridle the packing **(the weight is written on) just in the points indicated in the picture (Fig. 2) to safely move.**

It is also possible to use a fork lift truck, as shown below (right Fig. 2).

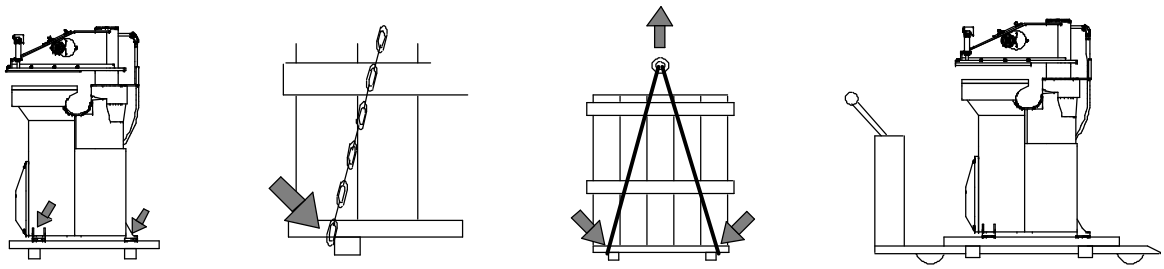


Fig. 2

GB Machine lifting (S/SE116/120C)

To fit in two iron bars into the holes made in the machine back room accomodation and lift the machine by two suitable safety slings (see Fig. 3).
We recommend not to lift the machine more than 50 cm. (~ 20 in.) max. Avoid that people not in charge stand close to the machine.

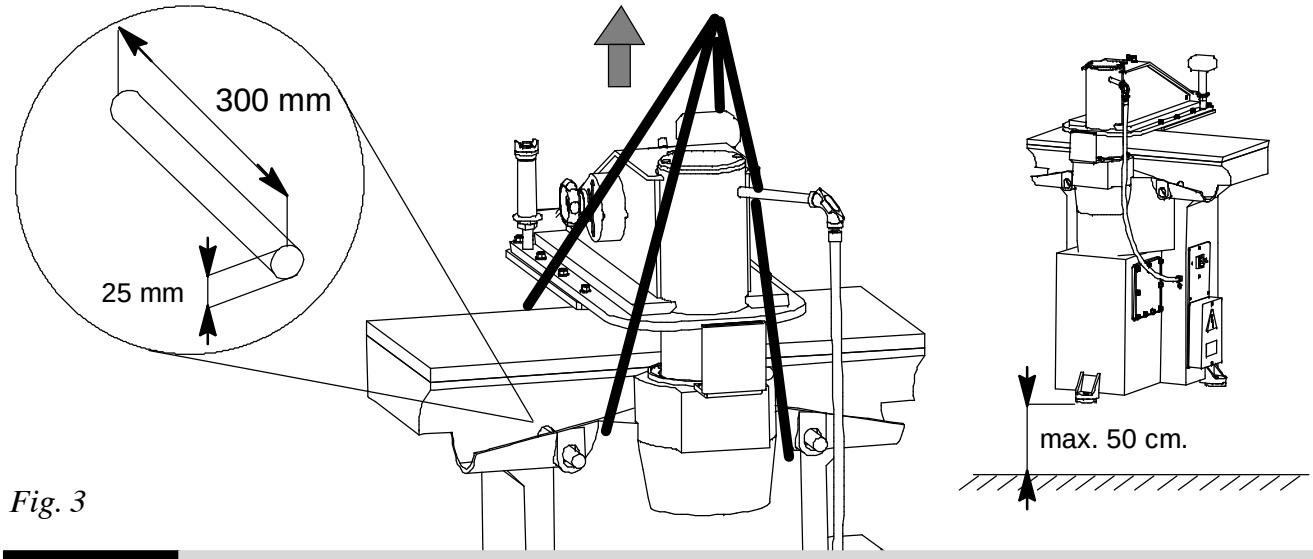


Fig. 3

GB Machine lifting (S/SE108/120/122/124C/124/125C/125/125L)

Hook it through the suitable hooking plates located on the sides of the cutting table with the FOUR screws, tightly clamped. In case of eyebolts, these are located in the machine back room accomodation. To avoid damages to the machines base, slowly lift it up because it will quickly take an inclined position (centre Fig. 4). **We recommend not to lift the machine more than 50 cm. (~ 20 in.) max.** In both cases avoid that people not in charge stand close to the machine.
To avoid sudden and dangerous displacements of the arm which could damage the ropes during lifting, stop the arm in central position by means of wedges to be taken away **only** on switching on the machine (left Fig. 4).

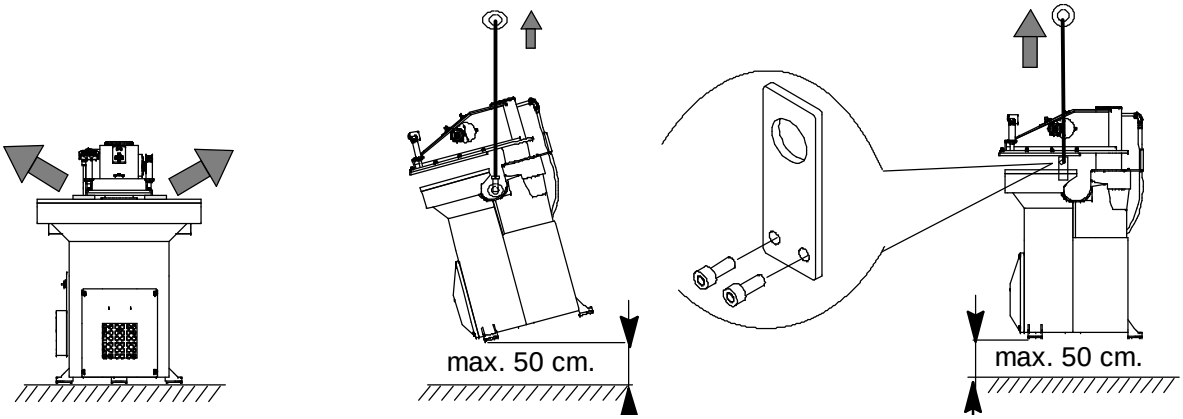


Fig. 4

GB Machine positioning

Before putting down the machine, check that the surface, which will support it, is flat and without flammable and/or viscous liquids (gasoline, oil, etc.) on it. The clicking press needs no special anchoring to the ground; it is sufficient to insert the shock absorbers, delivered along with the machine, into the holes suitably drilled in the machine base (Fig. 5).

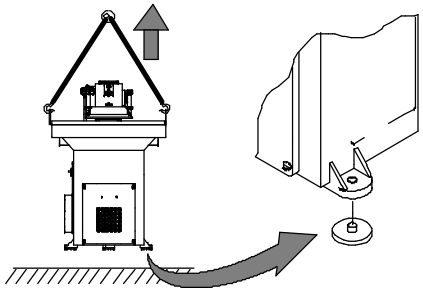


Fig. 5

GB Machine connection

For obvious reasons of possible incompatibility, the connecting plug is not mounted on the machine electric cable. Therefore it is necessary to mount the correct plug.
Before connecting up the machine, ensure that the factory voltage corresponds to the one indicated on the label fixed on the front part of the machine base (Fig. 6).
If, for any reason, the voltage of the motor should be changed, it is imperative to adapt the transformer voltage to the desired one.
Carry out this operation with the machine completely disconnected from the electric network!

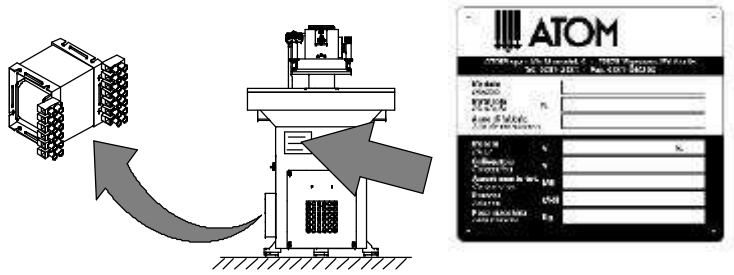


Fig. 6

GB Machine setting up (filled with oil)

The machine is usually delivered with the right quantity of oil and the motor connected to the requested voltage.
The rotation direction is correct if, when switching on the motor through the main switch, the arm moves upward (Fig. 7).

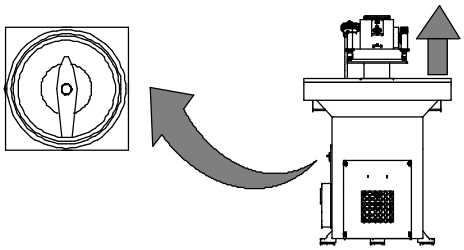


Fig. 7

GB SINGLE PHASE MOTOR

WARNING: when the machine is equipped with a single phase motor it is VERY IMPORTANT that a two-minutes break AT LEAST elapses between a switching on and the next one in order to avoid an excessive winding overheating which may cause damages to the electric motor.

WARNING: in order to avoid serious damages to the winding of the electric motor WE SUGGEST YOU that a three-seconds break AT LEAST elapses between a die cutting operation and the next one.

GB Machine setting up (delivered without oil)

In this case, fill the tank through the suitable lateral opening, strictly following the below procedure:

- Fill in the oil till reaching the maximum level red line (Fig. 8).
- Switch on the motor through the main switch, and immediately check the pump rotation direction, as described in the previous paragraph. Turn the arm adjusting handwheel counter clockwise, till it stops: in this way the arm will move upward to its limit (Fig. 8).

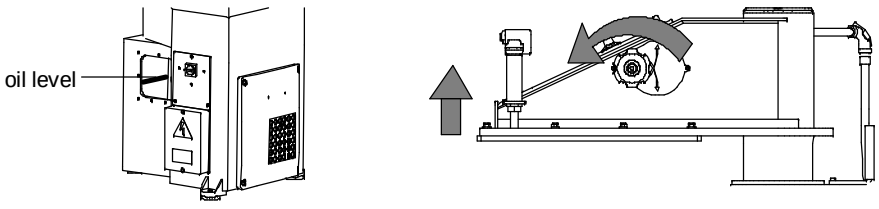


Fig. 8

- Place a wooden piece or another resistant spacer 2 cm thick between the cutting board and the turning arm and run the machine for a few minutes by pressing **simultaneously** the push-button on the right handle and one of the three push-buttons on the left handle. Carry out this operation in order to exhaust all the air from the cylinder pipes. Remove the spacer and being sure that nothing is on the working surface, slowly turn the hand-wheel clockwise till the arm is 1 cm from the cutting table (Fig. 9). At this point check the oil level in the tank and if necessary re-fill it, till reaching the maximum level red line (right Fig. 9). Only in this way you will be sure that there is the exact quantity of oil in the tank.

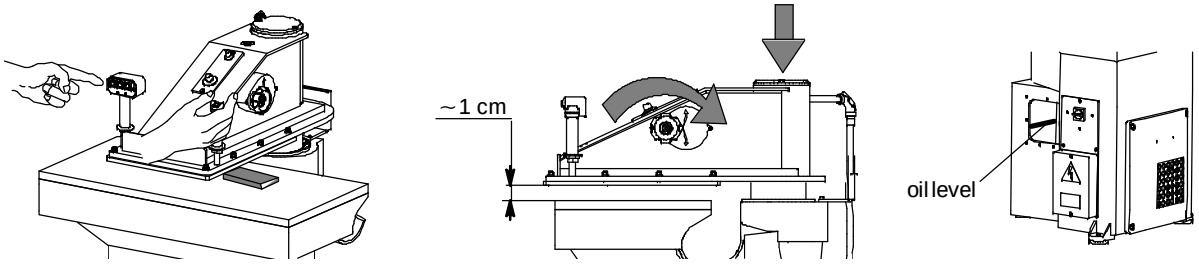


Fig. 9

GB Function of the machine control devices

Operate the devices ONLY with the machine ON!

a) The handwheel located on the right side of the arm is used to adjust the turning arm stroke. By turning it clockwise, as indicated by the arrow in Fig. 10, the arm moves downward; counter clockwise, the arm moves upward.

RESIDUAL RISK:

Every time you adjust the handwheel, be sure that no strange object (apart from the cutting- die and the material to be cut) is between the cutting table and the arm. Bear in mind that this handwheel, by mechanically acting on the hydraulic distributor, can cause the machine to exert its maximum pressure.

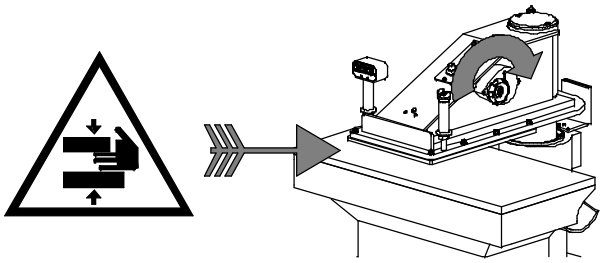


Fig. 10

b) The arm can be moved both to the left and to the right (with a total rotation of 180° about) by means of the two handles. On the right one there is the 2-hand control push-button (Fig. 11).

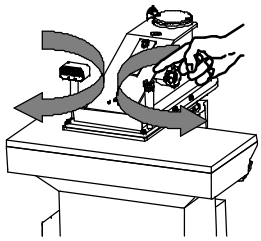


Fig. 11

Machine equipped with three-pushbutton cutting power selector and two potentiometers (S100 Series)

c) On the left handle there is a push-button box with three push-buttons: the No.1, the No.2 and the No.3; these act as power selectors and the operator has not to adjust the power each time he changes the cutting-die size. The push-button no. 1 (Fig. 12), on the left, is used to cut soft materials by means of tools with a small linear development. It is possible to gradually increase its value by means of the potentiometer shown in Fig. 12 till nearly reaching the power of push-button no. 2.

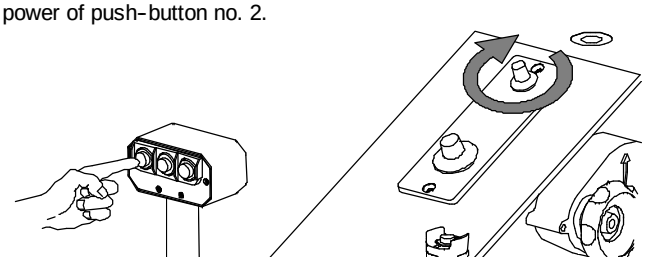


Fig. 12

d) The pushbutton No.2 (Fig. 13), in the centre, is used to cut semi-hard materials by means of tools with a medium linear development.

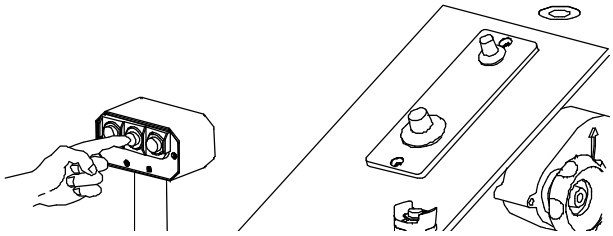


Fig. 13

e) The pushbutton No.3 (Fig. 14), on the right, is used to cut materials particularly difficult to cut by means of tools with a great linear development. Furthermore it is possible to gradually increase its value by means of the potentiometer shown in the picture till reaching the maximum power of the machine.

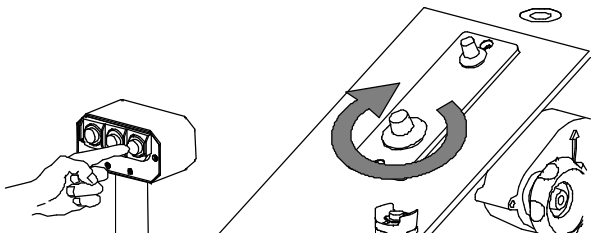


Fig. 14

Machine equipped with control pushbuttons and potentiometer (SE Series)

To set the machine in motion press the two pushbuttons **simultaneously** (left Fig. 15), being the machine equipped with an electric synchrotemporisation device (≈3/10 seconds). Release the pushbuttons only when the arm begins to move upward. The potentiometer is used to adjust the cutting power (right Fig. 15).

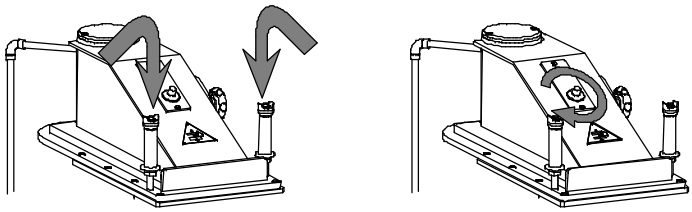


Fig. 15

GB Cutting operation

WARNING: At any starting up to run the machine arm to no end in order to exhaust all the air from the cylinders.

Equipped with an automatic stroke-end, this machine allows the operator to cut with cutting-dies of different heights without any adjustment. The cutting operation is simply carried out as follows:

- lay the material on the cutting table and place the cutting-die on it (left Fig. 16)

- after adjusting the stroke through the hanwheel (we suggest a stroke of 7÷8 mm), **simultaneously** press the push-button on the right handle and the most suitable one among those of the left handle (right Fig. 16) compared with the linear development of the cutting-die, by acting also on the potentiometers connected to the push-buttons No.1 and No.3, if necessary. In this way you can get the maximum cutting accuracy with the minimum cutting-board wear.

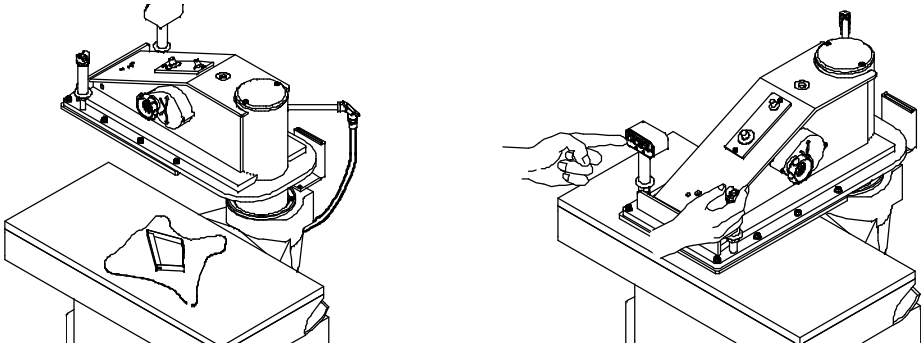


Fig. 16

WARNING: in order to avoid wrong cuttings or the cutting- die to be thrown out in the surroundings causing damages, be sure that the arm always covers the whole cutting- die before pressing the push- buttons (Fig. 17).

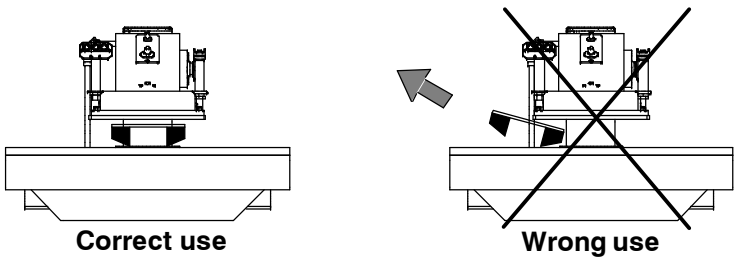


Fig. 17

GB RESIDUAL RISK on machine switching off

In case of an electric black- out, as well as on machine turning off, the hydraulic pump stops completely in 40 seconds approx. and the rotating arm begins its slow descent (Fig. 18). Therefore it is necessary that in such events the operator takes care not to leave any part of his body or any other object between the cutting table and the turning arm.

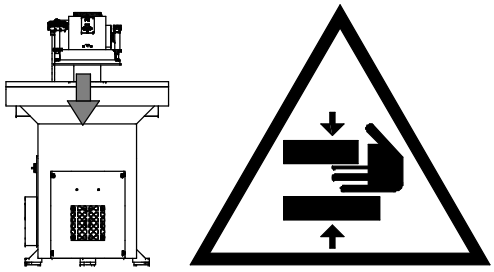


Fig. 18

GB Cutting Emergency

The **Cutting Emergency** device times the cutting stroke, and it is recommended just in case the automatic stroke end is damaged or when very small cutting dies are used.

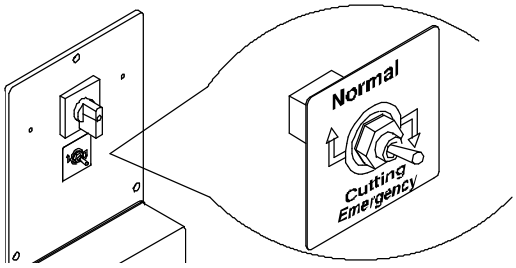


Fig. 19

Device activation:

1) Lower the switch lever, placed on the electrical equipment box, to the Cutting Emergency position (Fig. 19).

In case of clicking presses equipped with a single potentiometer (SE Series):

2) Reset the potentiometer and, after having placed the cutting die on the machine cutting table without any material in between, by means of the turning arm adjustment wheel place the turning arm at 15 ÷ 20 mm from the cutting die.

3) By means of the potentiometer gradually increase the value till when it is possible to carry our the cutting phase by pressing the push-buttons at the same time.

In case of clicking presses equipped with the three- push- button- unit and two potentiometers (S100 Series):

4) Reset the values of both potentiometers and, after having positioned the die on the machine cutting table without any material in between, by means of the turning arm adjustment wheel, place the turning arm at 15 ÷ 20 mm from the cutting die.

5) By means of the potentiometer connected to push-button 1 gradually increase the value till when it is possible to carry our the cutting phase by pressing at the same time this push-button and the single push-button on the right-hand side of the arm.

6) In both previous cases the set value can change according to the material or when a cutting die is used, which has a different size, but the SAME HEIGHT.

7) If cutting dies are used, having a different height in comparison with the die used for the starting adjustment, it is necessary to repeat the operations previously described at points 2 - 3 or 4 - 5.

8) Move the switch lever to NORMAL position when the clicking press uses the standard AUTOMATIC STROKE END.

GB Periodical maintenance

For a good machine efficiency it is advisable to carry out the following maintenance operations periodically:

a) turn upside-down the cutting pad (for S/SE108: code 02001164; for S/SE116: code 02001209; for S/SE120C: code 02001185; for S/SE120/124C/125C: code 02002625; for S124/125/125L: code 02001186; for S122: code 02001563, tav. 1) every week and plane it whenever there are wears or sinkings of approx. 2 mm;

b) turn upside-down and front-back the aluminium plate on the arm (for S/SE108: code 01002056; for S/SE116/120C/120/124C: code 01011453; for S/SE124: code 01001587; for S/SE122/125: code 01001588; for S/SE125C: code 01011490; for S125L: code 01001601, tav. 3) at least every 3 months to guarantee the flatness of the contact surface and its gradual wear;

c) clean with a cloth (which leaves no thread) the seal collar on the column (for S/SE108: code 01002005; for S/SE116/120C: code 01010413; for S/SE120/122/124C/124/125C/125/125L: code 01001367, tav. 1) from residuals and dusts of cut materials every month (Fig. 20);

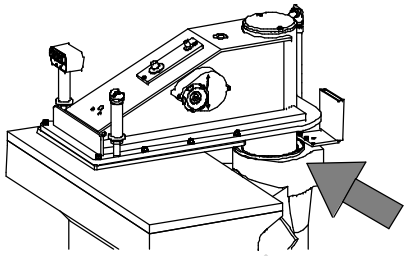


Fig. 20

d) replace the hydraulic oil and relevant filter (code 01000133, tav. 4-5-6) every 8000 working hours (Fig. 21);

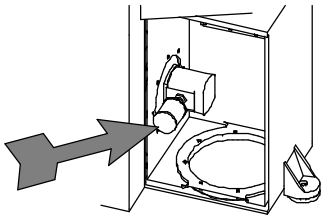


Fig. 21

e) the hydraulic oil must have the following chemical-physical features: ISO 46, 3.5° - 4° Engler at 50° C - for instance:

- SHELL Tellus 46; - ESSO Nuto H 46; - TOTAL Azolla 46; - AGIP Oso 46.

f) we recommend to collect the burnt oils in the suitable tanks to be delivered to the companies entitled for their collection.

GB Troubleshooting

1º TROUBLE: On pressing the push- button the arm does not come down:

a) Check the lighting up of the leds D25 and D28 on the printed circuit card (code 02E03947, tav. 7). If not, check the fuses F2 and F3 on the printed circuit board (Fig. 22).

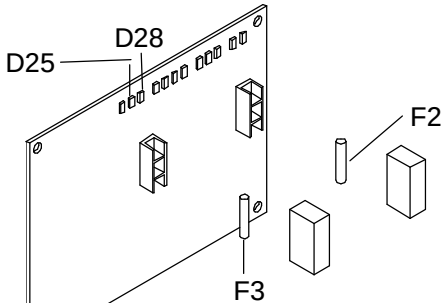


Fig. 22

b) If the leds D25 and D28 light up regularly, check the lighting up of the led D37 on the printed circuit board (code 02E03947, tav. 7). If the led D37 lights up regularly, check the wiring between the electromagnet and the printed circuit board as well as the electromagnet (02001746, tav. 4-5-6) Check the correct voltage of 40/45V arrives at the electromagnet (Fig. 23).

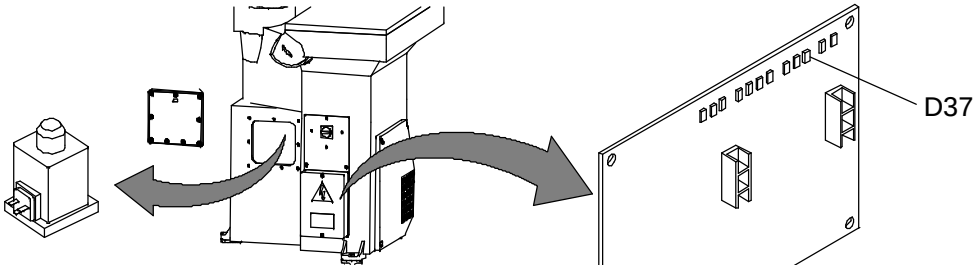


Fig. 23

Machine equipped with three pushbuttons cutting power selector and two potentiometers (S100 Series)

c) If the led DL5 does not light up, but the leds D37 (corresponding to the microswitch of the right handle) and the led corresponding to the push-button pressed on the left box (D29 or D30 or D31) light up regularly check and if necessary replace the fuse (code 02001434, tav. 7) and at last the printed circuit board (code 02E03947, tav. 7). If the leds D29, D30, D31 and D27 do not light up regularly, check the wiring between the push-button micro switches and the printed circuit board as well as the microswitches (code 02E03927, tav. 2) (Fig. 24).

Machine equipped with pushbuttons and potentiometer (SE Series)

c) If the led D37 does not light up, but the leds D27 and D31 light up regularly, check and if necessary replace the fuse (code 02001434, tav. 7) and at last the printed circuit board (code 02E03947, tav. 7). If the led D27 and D31 do not light up regularly, check the wiring as well as the micro switches (code 02E03927, tav. 2) (Fig. 24).

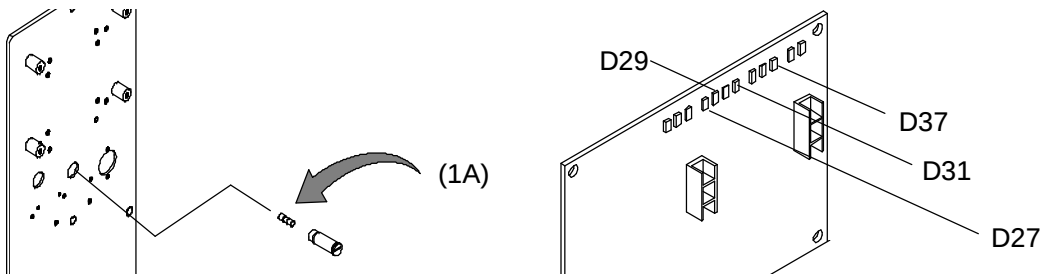


Fig. 24

2º TROUBLE: Irregular die incision on the pad between two cuts

a) Check the correct functioning of the hydraulic distributor's valve stems (codes: 01011904+01011909, tav. 4-5-6). Check also that there is no dirt preventing good functioning. Check the intervention of the pressure switch (code 02003639, tav. 4-5-6) (Fig. 25).

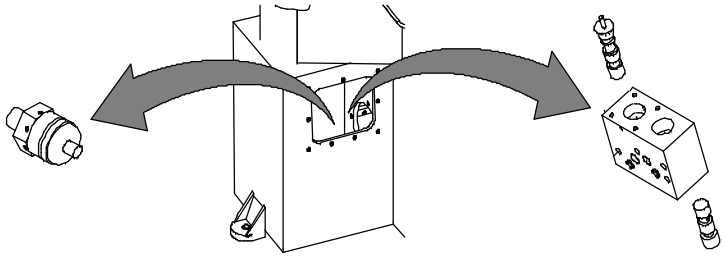


Fig. 25

3º TROUBLE: Breaking of the cable setting arm ascent/descent

a) The breaking of the steel cable (code 01001567, tav.4-5-6) causes the immediate ascent of the arm beyond the maximum limit (Fig. 26). **Immediately switch off the motor, to avoid its burning out, and replace the damaged part.**

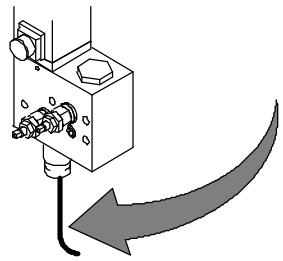


Fig. 26

4º TROUBLE: The rotating arm moves down but does not cut

a) Check that there is no leakage under pressure from the delivery pipe (code 02003636, tav. 4-5-6) and from the pertinent mechanic fittings while the machine is trying to cut (left Fig. 27).

b) Also check if there is any oil leakage under pressure from the pump (for S/SE108: code 02001196 (50Hz) - code 02001162 (60Hz); for S/SE116/120C: code 02003899 (50 Hz) - code 02003898 (60 Hz); for S/SE120/122/124C/124/125C/125/125L: code 02003900 (50 Hz) - code 02003899 (60 Hz), tav. 4-5-6) (right Fig. 27).

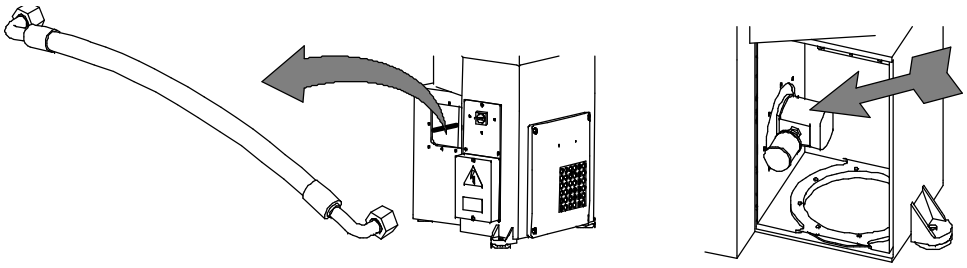


Fig. 27

GB Technical data

		S 108	S 116	S120C	S120	S122	S124C	S124	S125C	S125	S125L
Maximum cutting power	ton kN	8 78	20 196	20 196	22 216	22 216	25 245	25 245	25 245	25 245	25 245
Cutting table	mm	600x300	800x400	900x430	900x450	1200x500	900x450	1000x500	900x450	1000x500	1000x500
Useful area	%	99	97	98	94	94	94	95	98	97	97
Arm width	mm	300	370	370	370	500	370	370	500	500	610
Arm speed: approach cut ascent	mm/s	 140 45 63	 146 51 79		 197 53 71	 124 45 71					
Motor power	HP kW	1 0.75									
Weight (with oil)	Kg	430	610	630	880	1060	880	990	900	1030	1050
Weight (with pallet)	Kg	450	630	650	910	1090	910	1020	920	1060	1080
Weight (with sea packing)	Kg	500	725	745	1000	1200	1000	1120	1020	1160	1180
Dynamic overload	Kg	+ 75									
Hydraulic oil	Kg	~ 24	~ 25		~ 38						

GB Acoustic emission of the machine

Features of working and **NOT OPERATIVE** machine

Leq < 70 dB (A)

Lpc < 130 dB (C)

Features of working and **OPERATIVE** machine:

1) Hide, thickness 1.5 mm at 10 SPM
with 1 layer **Leq** = 75 dB (A) and **Lpc** < 130 dB (C)

2) Imitation leather, thickness 1.5 mm at 10 SPM
with 4 layers **Leq** = 77 dB (A) and **Lpc** < 130 dB (C)

NOTE

The index level depends on the carrying out working (as well as on the machine setting up conditions); the index levels of any working are reported as an example.

CAPTION

Leq: equivalent continuous level of acoustic pressure at operator site

Lpc: level of sound pressure peak at operator site

GB Optional accessories

The machine can be equipped with the following **optional accessories:**

cutting complement: Identicut
simple cut-counting device
programmed cut-counting device
complete kit of wrenches and tools
side tables

GB Recommended spare parts

On completion we also advise the following list of spare parts (**according to decreasing priority**):

- n. 2 push-button micro switches (code 02E03927);
- n. 2 push-button cover (code 02E03986);
- n. 1 printed circuit board (code 02E03947);
- n. 1 potentiometer push-button No.1 (code 02001422);
- n. 1 potentiometer push-button No.3 (code 02001422);
- n. 1 insert for joint (code 02003628);
- n. 1 electromagnet (code 02001746);
- n. 1 oil flexible pipe (code 02003636);
- n. 1 set of piston ram seals (for S/SE108: codes 02001782+02001784+02001150);
  (for S/SE116/120C: codes 02001154 + 02001155 + 02001210);
  (for S/SE120: codes 02002099 + 02000789 + 02002098);
  (for S/SE122/124C/124/125C/125/125L: codes 02001223 + 02001222 + 02001236);
- n. 1 gear pump (for S/SE108: code 02001196 (50Hz) - code 02001162 (60Hz));
  (for S/SE116/120C: code 02003899 (50 Hz) - code 02003898 (60 Hz));
  (for S/SE120/122/124C/124/125C/125/125L: code 02003900 (50 Hz) - code 02003899 (60 Hz));
- n. 1 oil filter (code 01000133);

and the following **wear material**:

- n. 1 cutting board (for S/SE108: code 02001164);
  (for S/SE116: code 02001209);
  (for S/SE120C: code 02001185);
  (for S/SE120/124C/125C: code 02002625);
  (for S/SE124/125/125L: code 02001186);
  (for S/SE122: code 02001563);
  n.1 arm plate (for S/SE108: code 01002056);
  (for S/SE116/120C/120/124C: code 01011453);
  (for S/SE124: code 01001587);
  (for S/SE125C: code 01011490);
  (for S122/125: code 01001588);
  (for S125L: code 01001601);
- n.12 screws (for S/SE108/116/120C/120/124C: code 02000526);
  (for S/SE122/124/125C/125/125L: code 02000585);
- n.12 washers (code 02000338);
- n.12 nuts (code 02000121).

GB Instructions for spare parts request

IMPORTANT: in order to guarantee the perfect efficiency of the machine it is imperative to use ATOM original spare parts.

For a quick supply of parts the following information is requested:

- **a**) required quantity;
- **b**) part number (as shown in the following *Spare Parts* pages);
- **c**) type of machine;
- **d**) serial number of the machine.

Example: ***No. 2 pieces, code 02E03927, cutting press mod. S 120, S/No. .....***

Legenda schema oleodinamico

Rif.	Denominazione componente
1	Cilindro di taglio
2	Valvola limitatrice alta pressione
3	Pressostato
4	Valvola di sequenza pilotata
5	Valvola di comando
6	Motore elettrico
7	Pompa oleodinamica ad ingranaggi
8	Filtro di aspirazione
9	Serrbatoio olio

Oildynamic diagram nomenclature

Ref.	Component description
1	Cutting cylinder
2	High pressure relief valve
3	Pressure switch
4	Piloted sequence valve
5	Control valve
6	Pump motor
7	Gear pump
8	Suction filter
9	Oil tank

Nomenclature schéma huiledynamique

Ref.	Dénomination composants
1	Vérin de découpe
2	Valve limitation haute pression
3	Pressostat
4	Valve de séquence pilotée
5	Valve de commande
6	Moteur pompe
7	Pompe à engrenages
8	Filtre en aspiration
9	Réservoir huile

Legende Öldynamischen Kreislaufs

Bezug	Beschreibung der Komponenten
1	Stanzzylinder
2	Hochdruck-Minderventil
3	Druckwächter
4	Vorsteuer-Zuschaltventil
5	Steuerventil
6	Elektromotor
7	Zahnradpumpe
8	Ansaugfilter
9	Ölbehälter

Leyenda diagrama oleodinámico

Ref.	Descripción de los componentes
1	Cilindro de corte
2	Válvula limitadora de alta presión
3	Manóstato
4	Válvula de secuencia piloteada
5	Válvula de mando
6	Motor eléctrico
7	Bomba a engranajes
8	Filtro de aspiración
9	Depósito aceite

Legenda circuito hidráulico

Ref.	Descripción de los componentes
1	Cilindro de corte
2	Válvula limitadora de alta pressão
3	Pressóstato (aparelho que mede a pressão dos fluidos)
4	Válvula de sequência pilotada
5	Válvula de comando
6	Motor eléctrico
7	Bomba hidráulica a engrenagens
8	Filtro de sugção
9	Reservatório do óleo

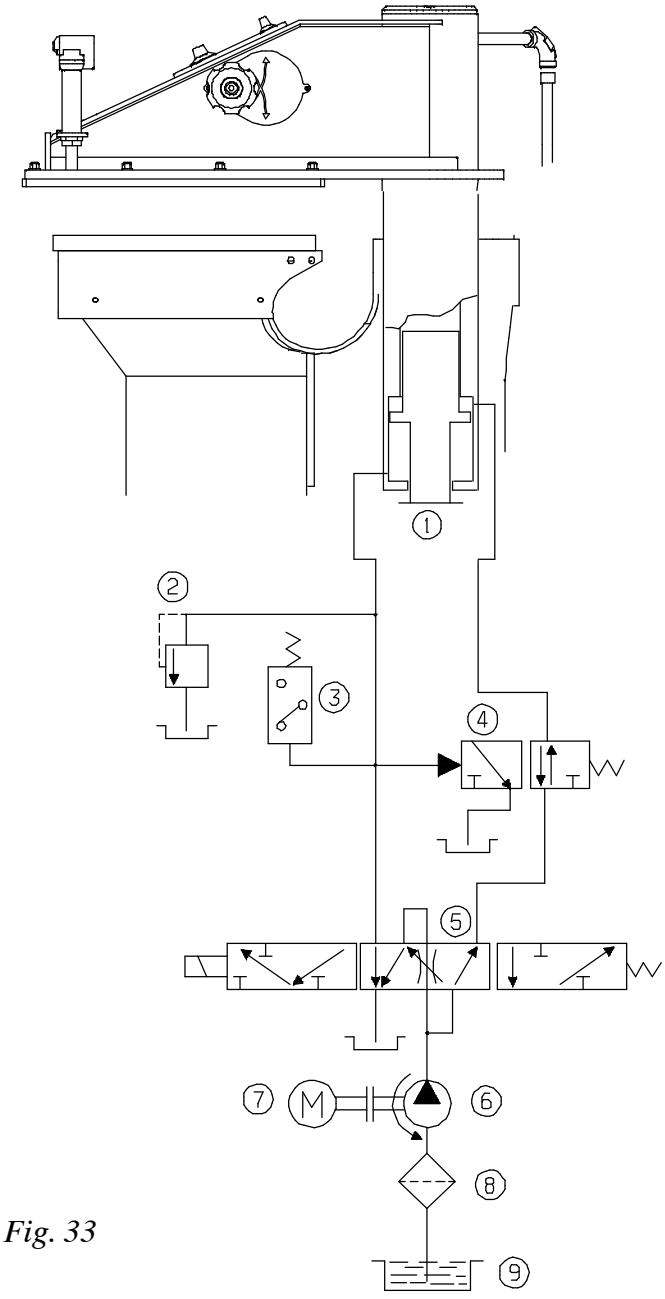
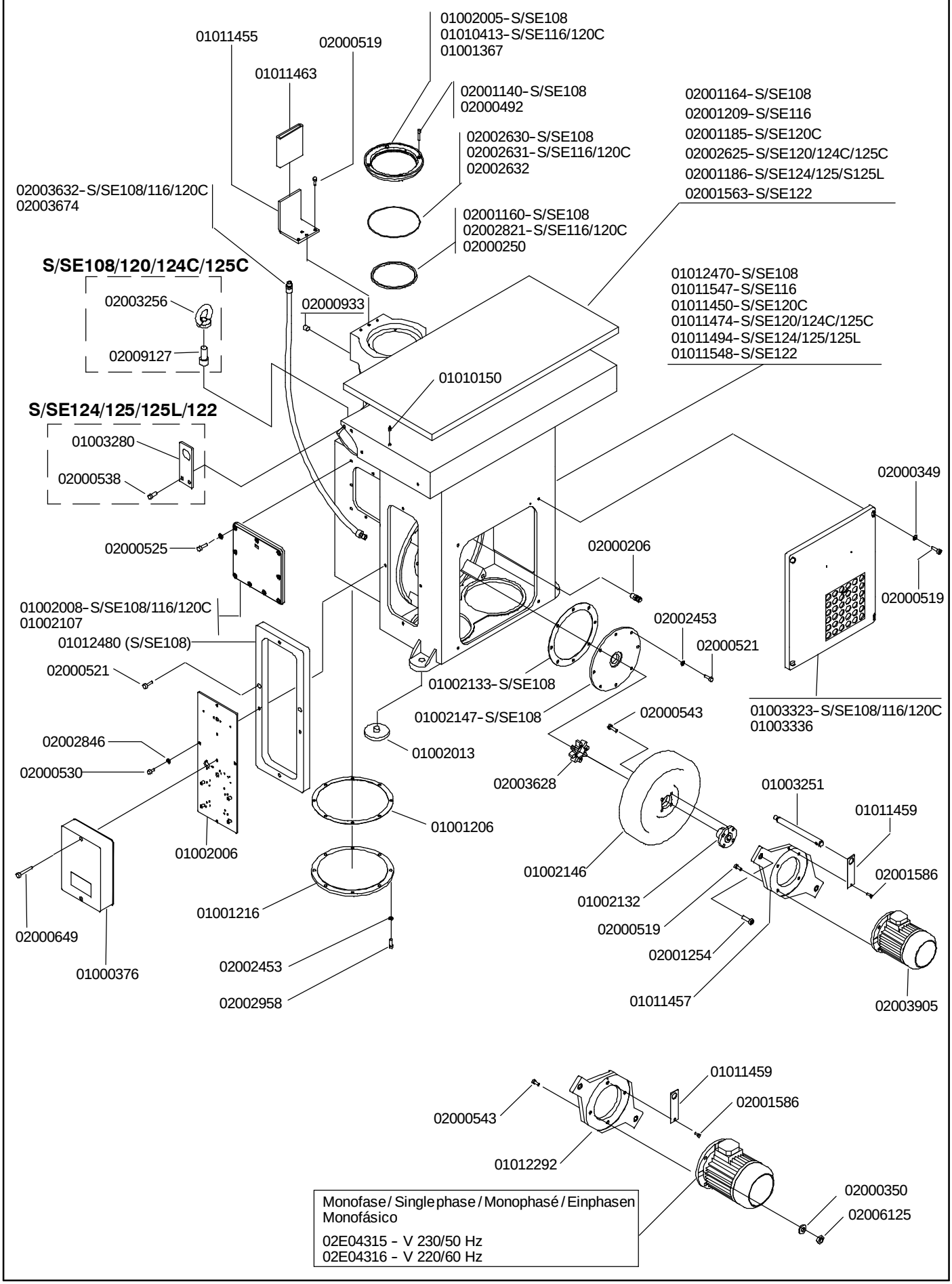


Fig. 33

S/SE108/116/120C/120/122/124C/124/125C/125/125L

Dall'equipm. N. all'equipm. N. ; Data apert. tav.14/4/04 data chius. tav.

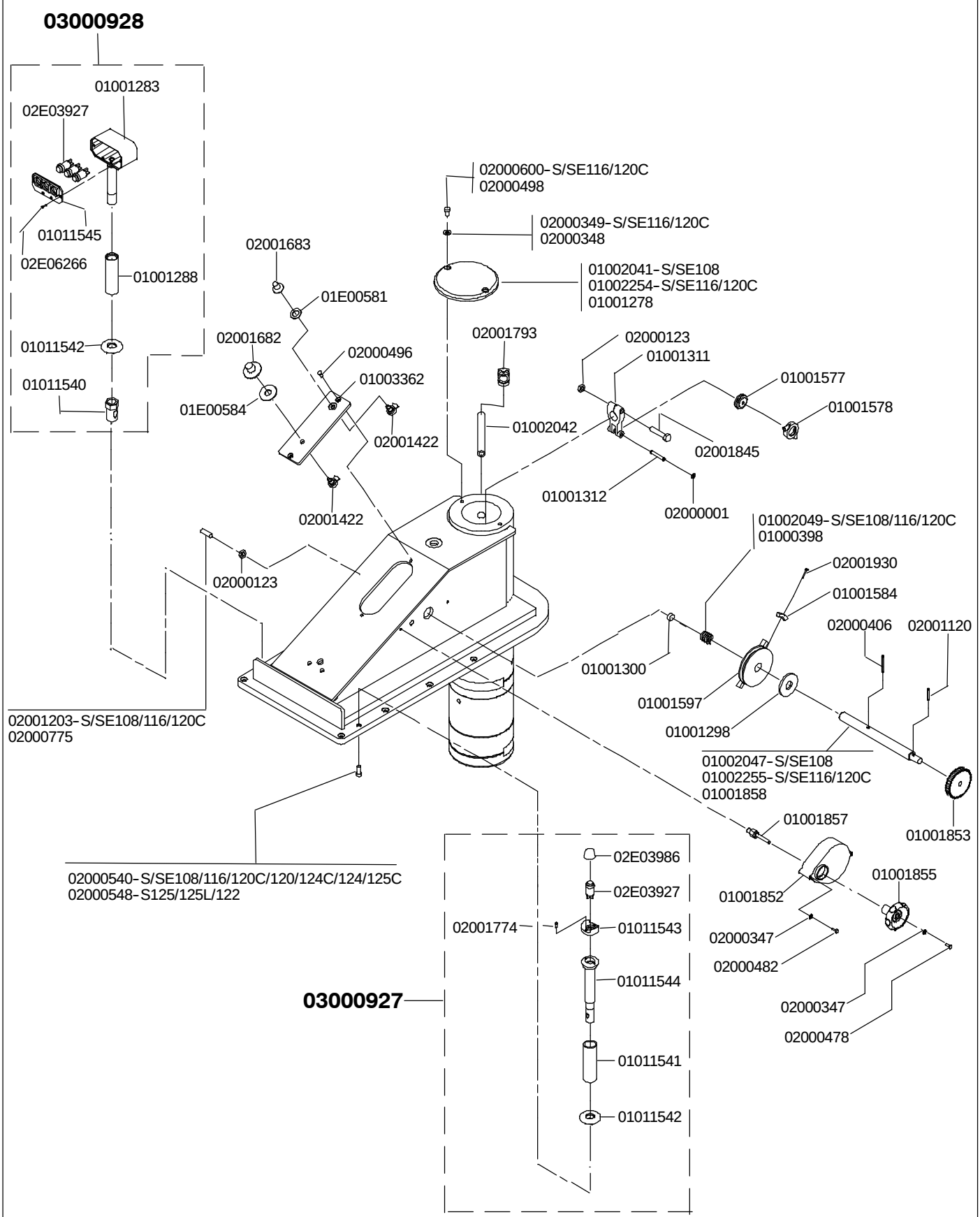
Tav. 1



S/SE108/116/120C/120/122/124C/124/125C/125/125L

Dall'equipm. N. all'equipm. N. ; Data apert. tav.14/3/03 data chius. tav.

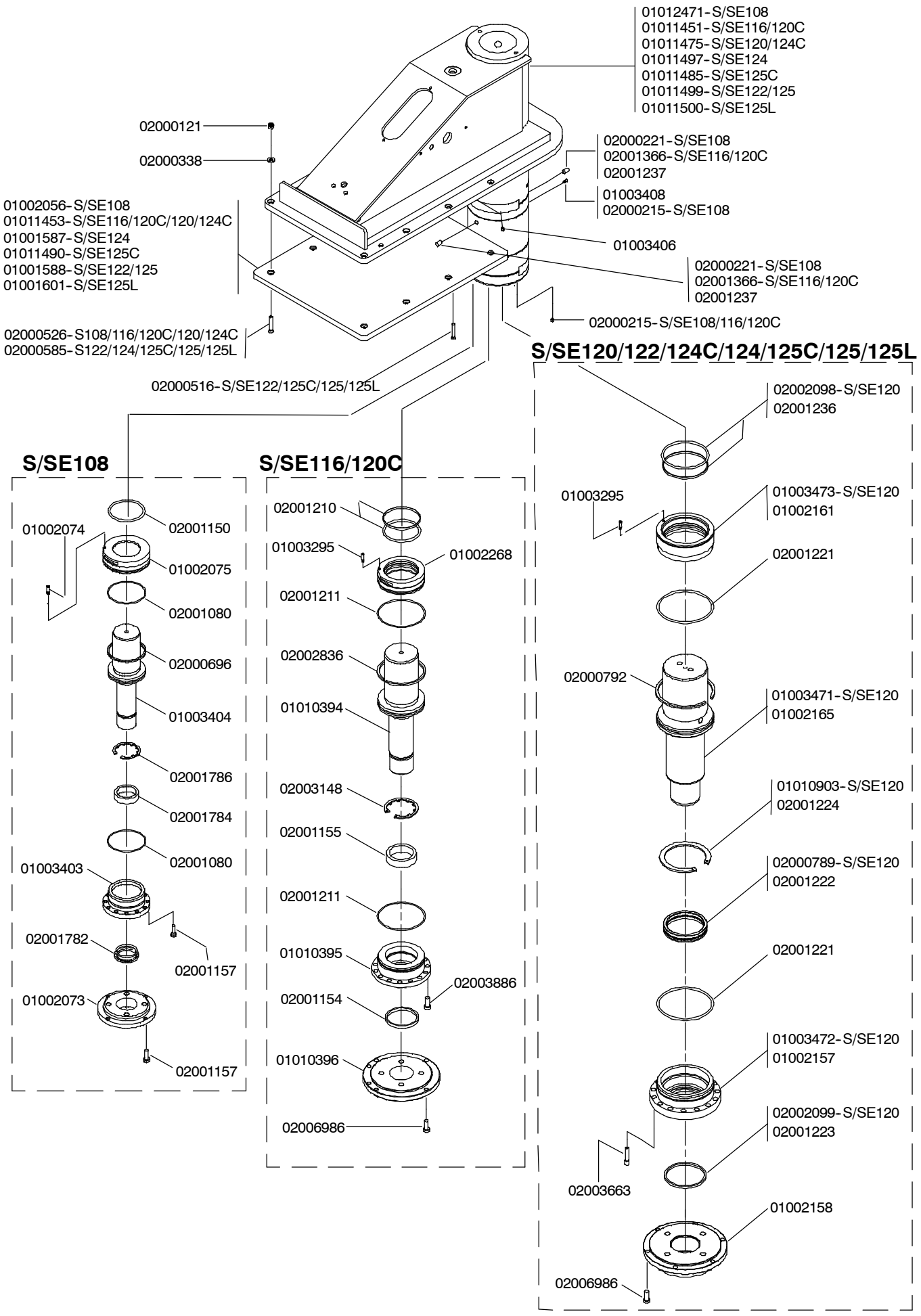
Tav. 2



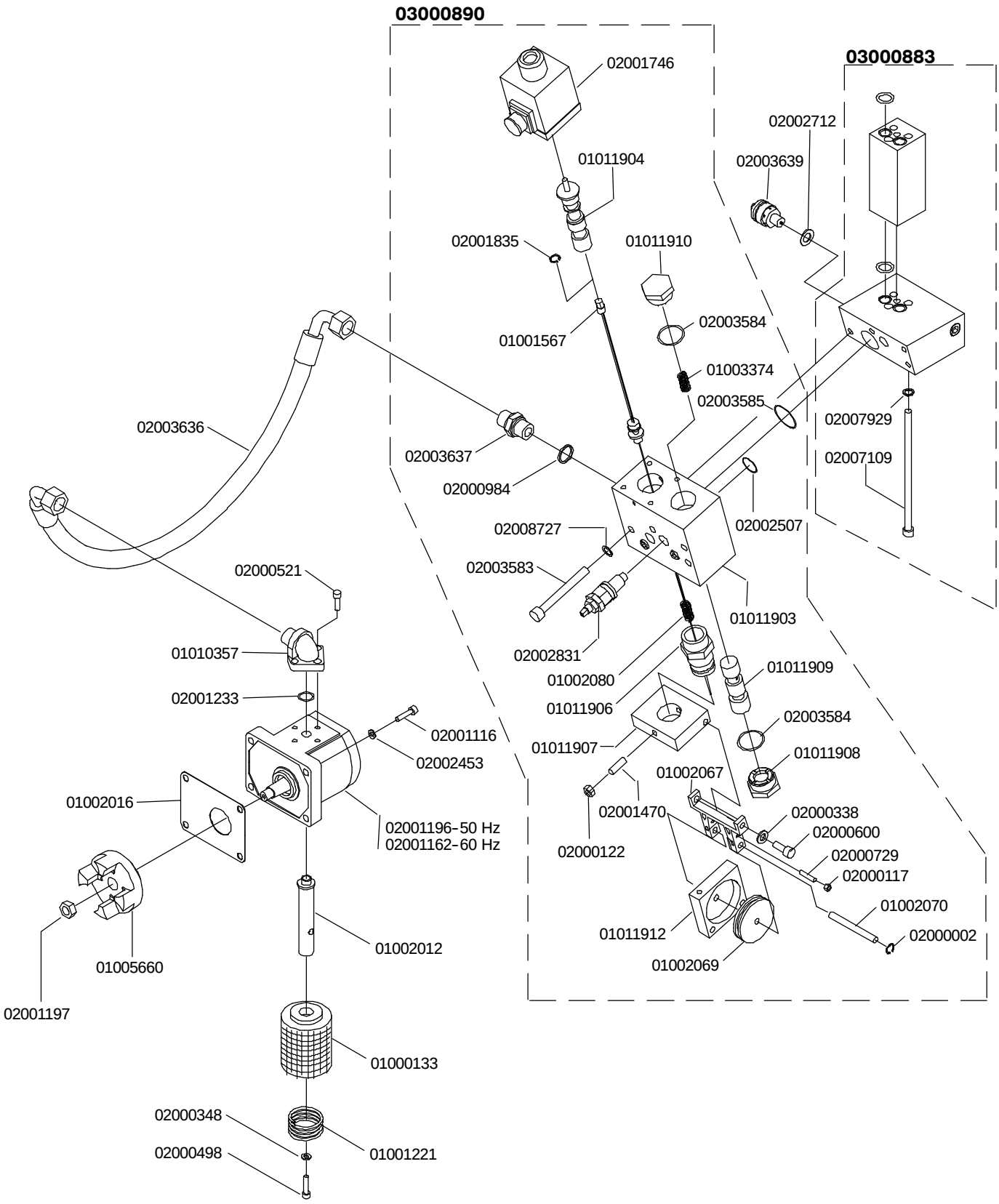
S/SE108/116/120C/120/122/124C/124/125C/125/125L

Dall'equipm. N. all'equipm. N. ; Data apert. tav.14/3/03 data chius. tav.

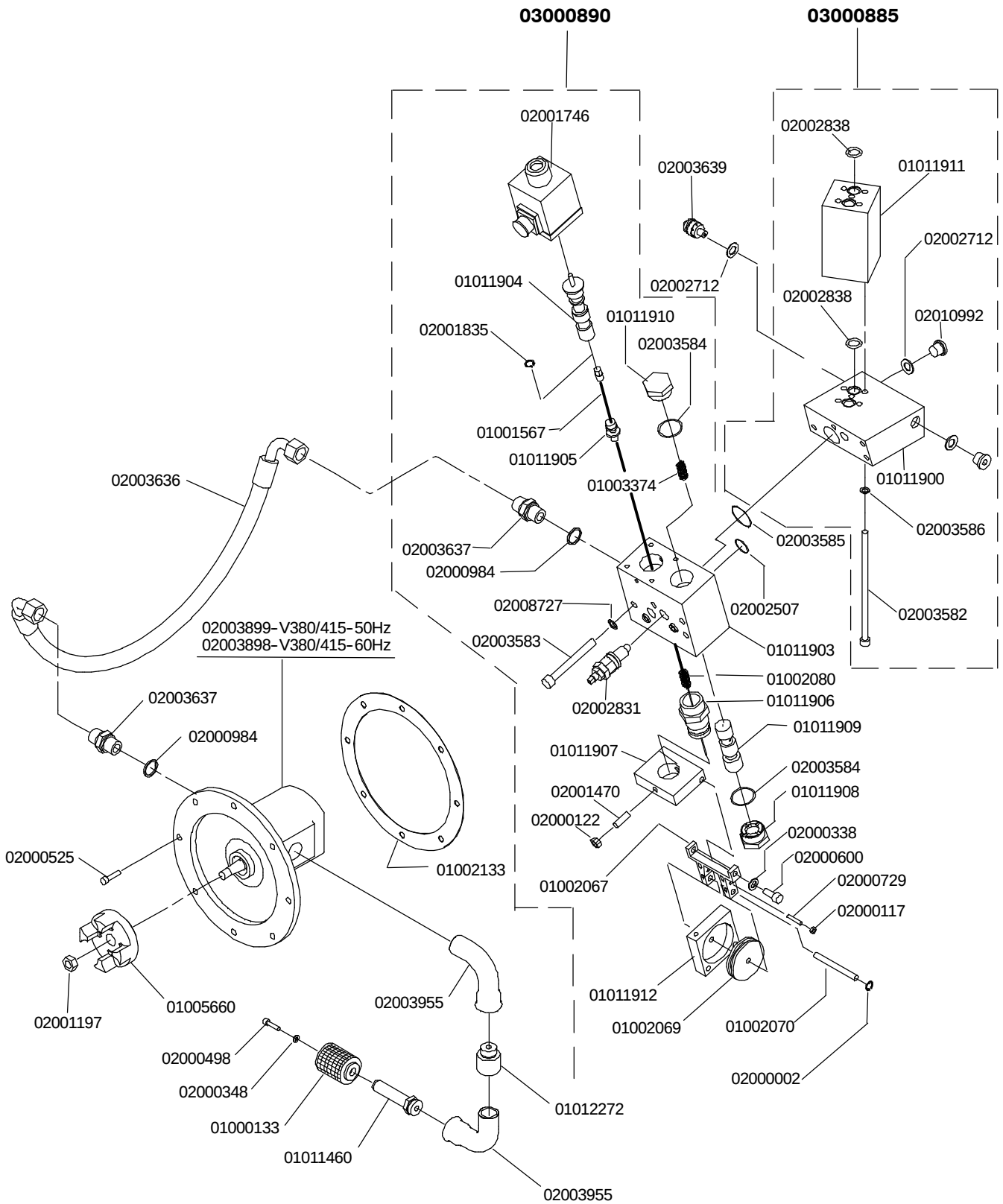
Tav. 3

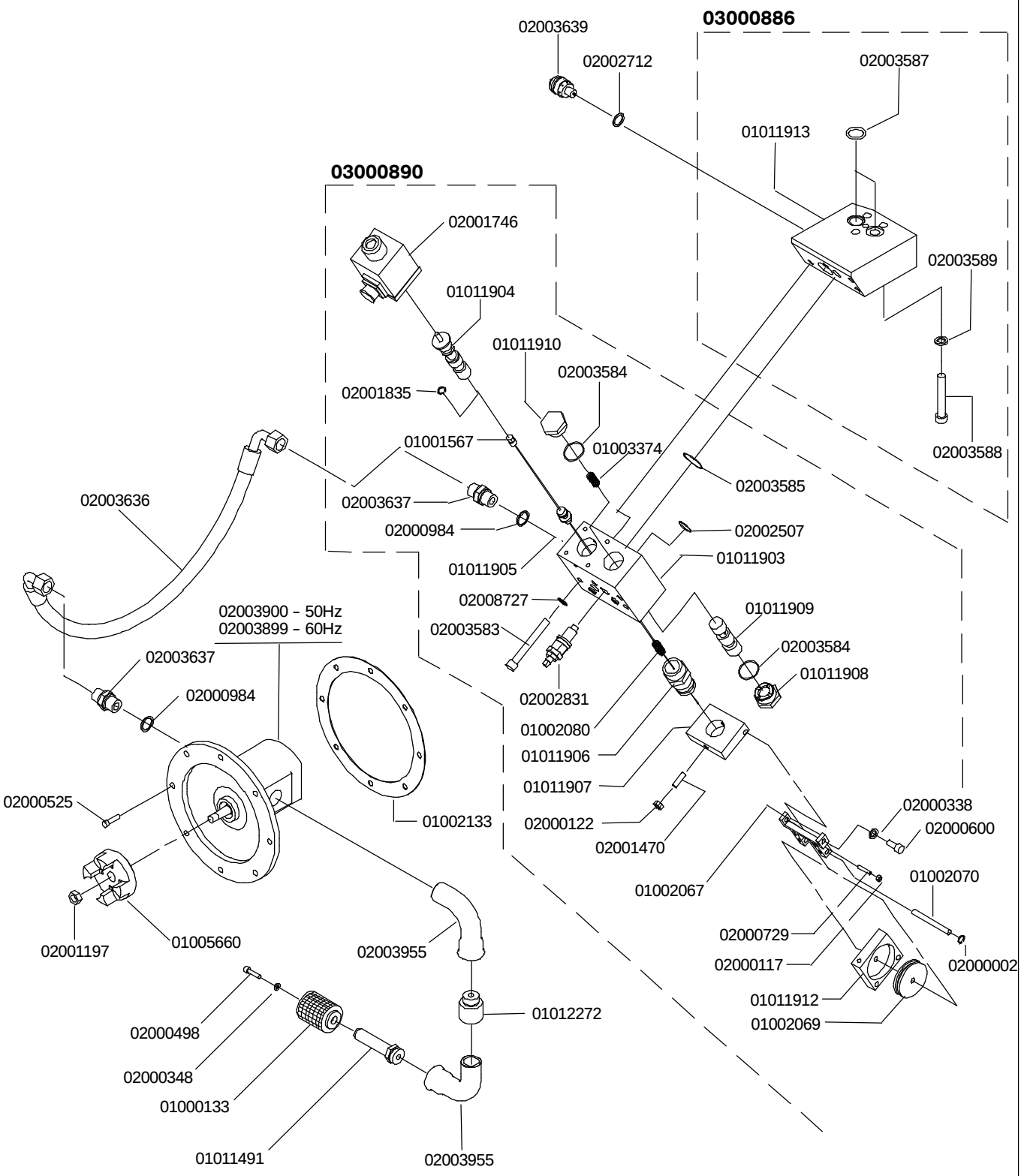


S/SE108	Tav. 4
Dall'equipm. N. all'equipm. N. ; Data apert. tav.14/03/03 data chius. tav.	



S/SE116/120C	Tav. 5
Dall'equipm. N. all'equipm. N. ; Data apert. tav.14/03/03 data chius. tav.	

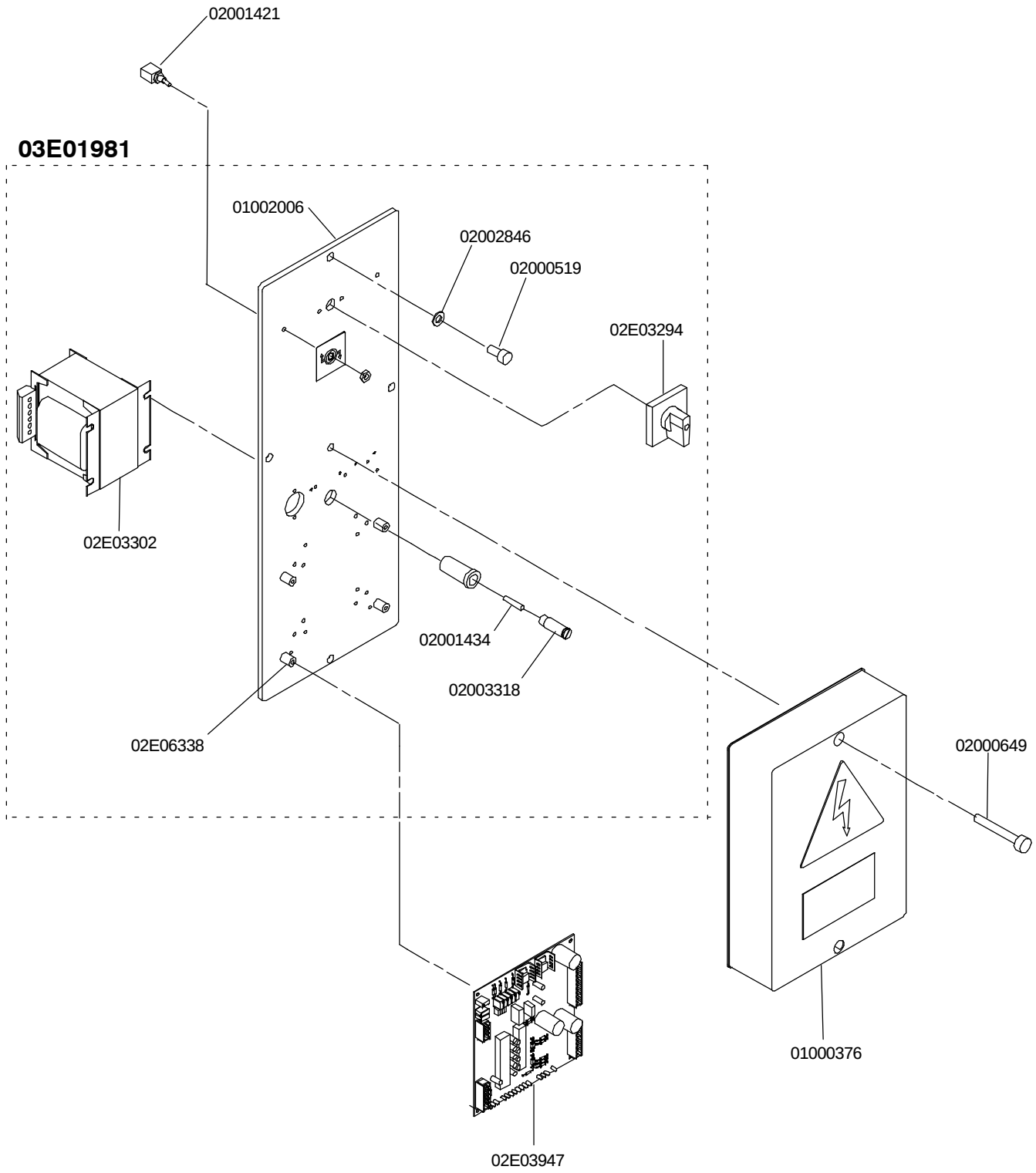



03000886
03000890
02003639
02002712
02003587
01011913
02001746
02003589
01011904
01011910
02003584
02001835
01001567
01003374
02003588
02003585
02003636
02003637
02000984
02002507
01011905
01011903
02008727
01011909
02003900 - 50Hz
02003899 - 60Hz
02003583
02003584
02003637
01011908
02000984
02002831
01002080
01011906
01011907
02000525
02000338
02000600
02000122
02001470
01002133
01002067
01002070
02001197
01005660
02003955
02000729
02000117
02000002
01011912
01002069
01012272
02000498
02000348
01000133
01011491
02003955

S/SE108/116/120C/120/122/124C/124/125C/125/125L

Tav. 7

Dall'equipm. N. all'equipm. N. ; Data apert. tav.14/03/03 data chius. tav.



Motore trifase e selettore di potenza / Three- phase motor and cutting power selector / Moteur triphasé et sèlecteur de puissance / Dreiphasenmotor und Dreifache Druckknöpfe / Motor trifásico y selector de pressión / Motor trifásico e quadro com três botões.

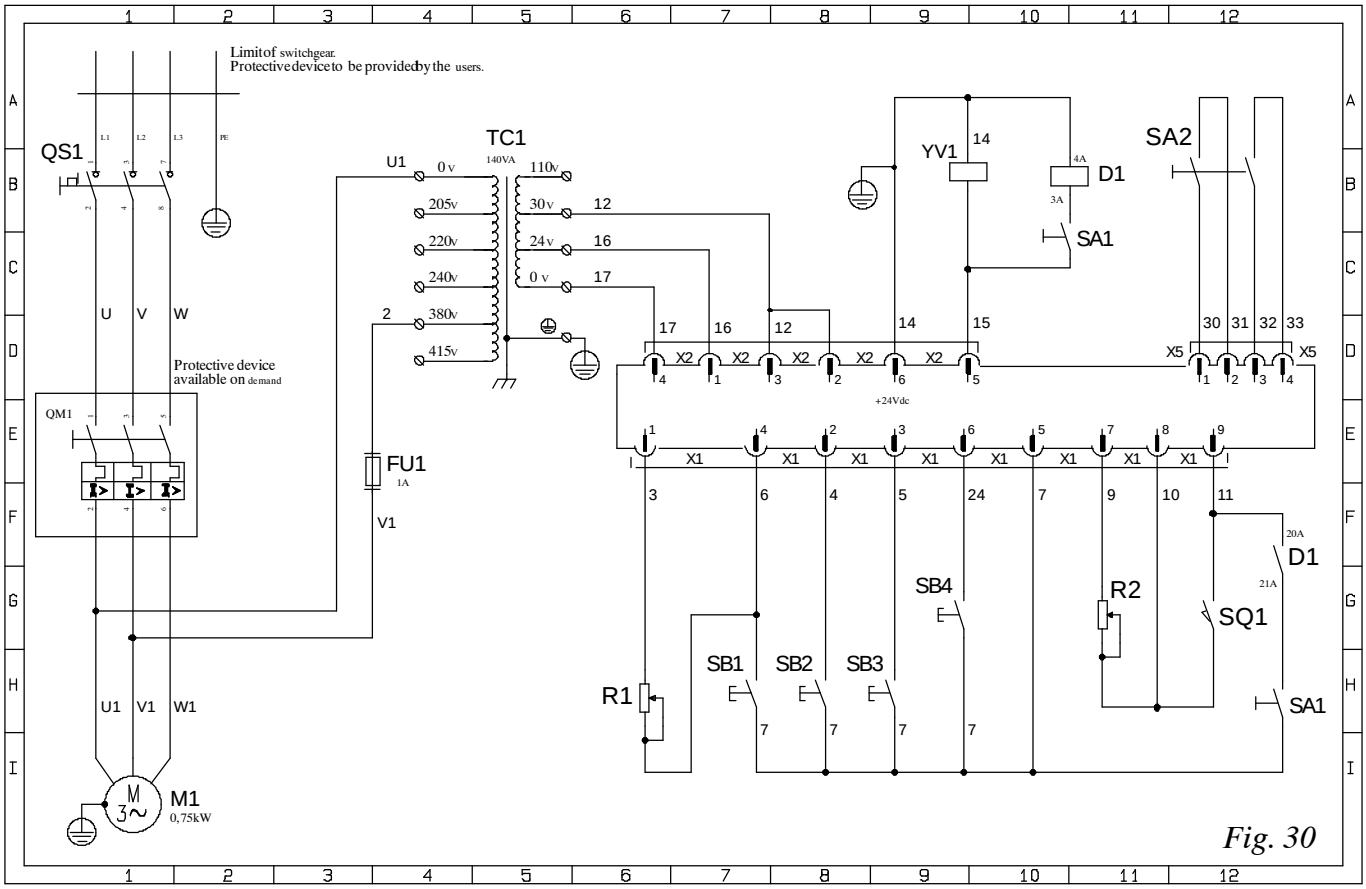


Fig. 30

Motore monofase e selettore di potenza / Single- phase motor and cutting power selector / Moteur monohasé et sèlecteur de puissance/ Einphasenmotor und Dreifache Druckknöpfe/ Motormonoásico y selector de pressión/ Motor monofásico e quadro com três botões.

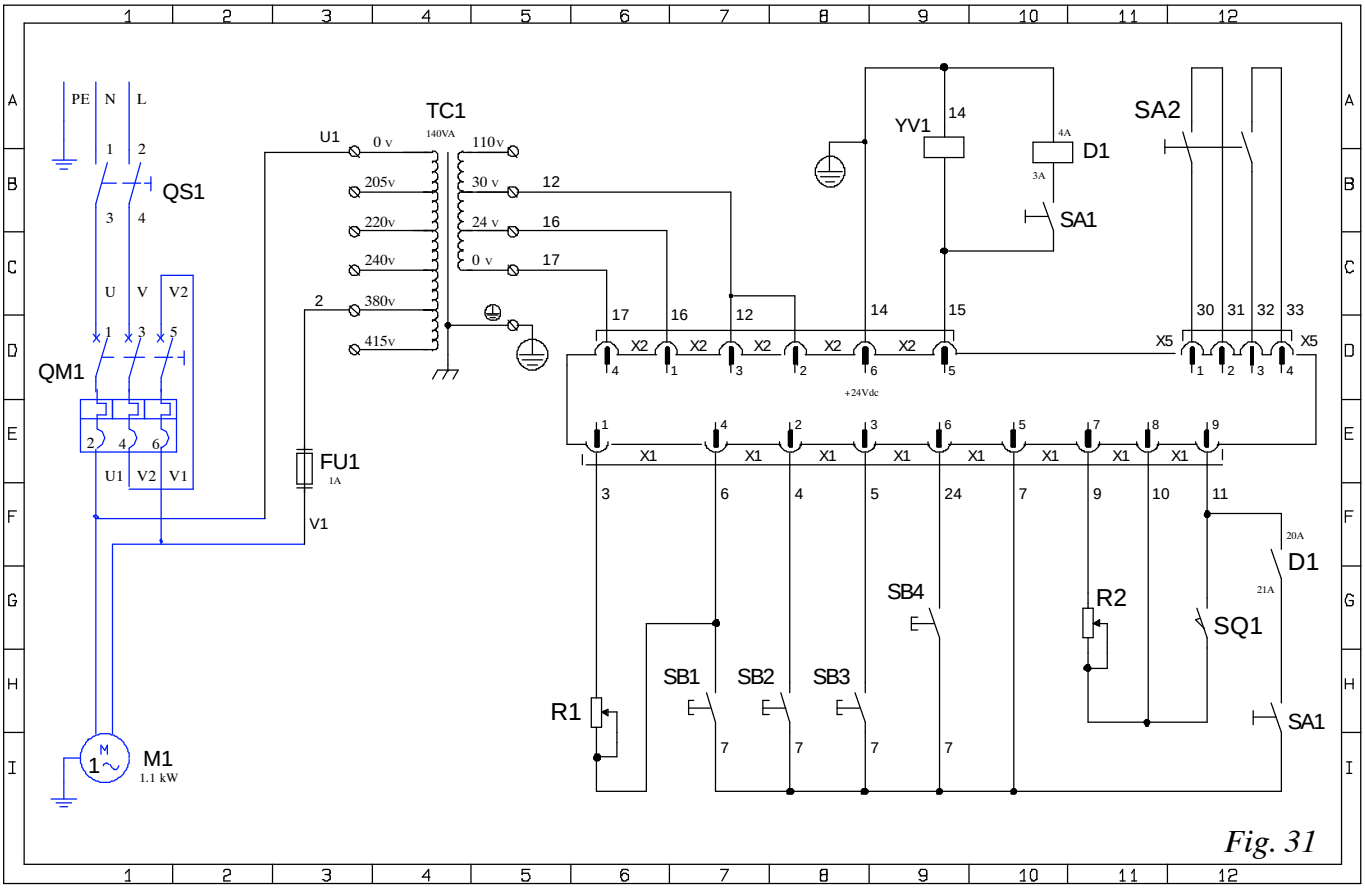


Fig. 31

Ref.	Component descrition	Ref.	Component description
AP1	Printed circuit board	**SA2**	***Cutting Emergency*** device switch
D1	24V DC counter (by request)	**SB1**	Push-button no. 1 microswitch
FU1	Transformer primary fuse (1 A)	**SB2**	Push-button no. 2 microswitch
M1	Pump motor	**SB3**	Push-button no. 3 microswitch
QM1	Pump motor magnetothermic switch (by request)	**SB4**	2-hand control push-button microswitch
QS1	Main switch	**SQ1**	Cutting stroke-end
R1	Push-button N.1 cutting pressure potentiometer	**TC1**	Transformer (140 VA)
R2	Push-button N.3 cutting pressure potentiometer	**YV1**	Cutting electro valve coil
SA1	Counter exclusion switch (by request)		

Description of led functions

D24 = $+5V_{cc}$ printed circuit board feeding signalling led

D25 = $+24V_{cc}$ printed circuit board feeding signalling led

D28 = $+45V_{cc}$ electro-valve feeding signalling led

D27 = Cutting 2 - hand control signalling led

D29 = Pushbutton 1 signalling led (S/SE)

D30 = Pushbutton 2 signalling led (S/SE)

D31 = Pushbutton 3 signalling led (MF/S/SE)

D26 = Arm descent/ascent signalling led
(ON during: arm stand by/descent/ascent phase)
(OFF during: cutting phase)

D36 = Printed circuit card operation

D37 = Cutting electro-valve operation signalling led

D34 = MF operation signalling led

D35 = S/SE operation signalling led

F2 = 1A protection fuse

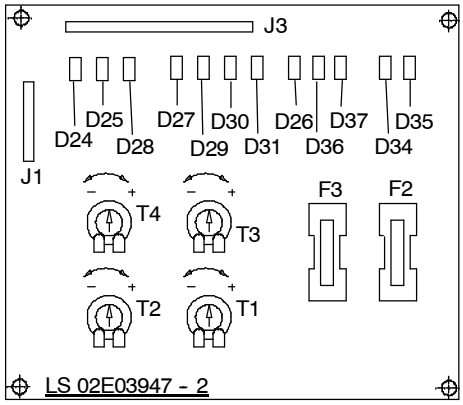
F3 = 6.3A protection fuse

T1 = Pushbutton 3 minimum pressure adjustment

T2 = Pushbutton 2 delay adjustment (applied to the printed circuit board)

T3 = Impulse suppressor adjustment (to zero)

T4 = General delay adjustment (pushbutton box)



Printed circuit board adjustments

In case of replacement of the printed circuit board it is necessary to make the following adjustments (Fig. 35):

1 - Before to set up the new printed circuit board to connect the A jumper to the pin 14-13 of the connector J3 in case the machine DOESN'T make use of the *Identicut* cutting device.

2 - To connect the B jumper of the connector J1 to the pin 1-2 when tha machine is a MF model or to the pin 2-3 when the machine is a S/SE model.

3 - To adjust the T3 trimmer

- to reset (complete anticlockwise rotation) when the machine is a MF model
- to rotate clockwise untill the swinging arm makes a correct cutting (uninterruptedly descent) when the machine is a S/SE model.

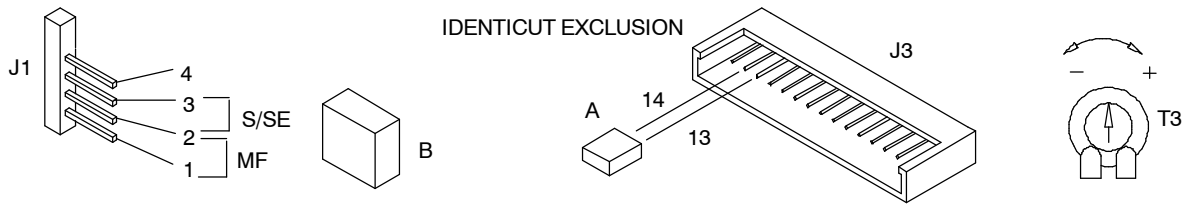


Fig. 35