# FX-10 instruction manual



## SEMI-AUTOMATIC LABELLING MACHINE FOR SELF-ADHESIVE LABELS

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## Section 1 General information

## **1.1 Introduction**

This manual contains the necessary instruction to use and maintain correctly the FX-10 labelling machine.

To not observe all the dispositions included in this manual may compromise the fuctioning of the labellers and cause the loss of the warranty.

The symbols here represented call the attention of the operator in front of possible dangers o faults.

Symbols are or three different types:

- a) TRIANGLE indicates DANGER
- b) CIRCLE indicates **PROHIBITION or OBLIGATION**

c) **HAND** indicates **CAUTION** for particular operations

SYMBOL	ТҮРЕ	MEANING
$\triangle$	DANGER	General danger
	DANGER	Danger coming from electrical power
	DANGER	Danger coming from moving parts
$\bigcirc$	PROHIBITON/OBLIGATION	General prohibition/obligation
	CAUTION	Indication to be followed with attention

#### 1.1.1 Use of the machine

The FX-10 is among the smallest semi-automatic labelling machines of our production range. The machine allows to label glass and plastic containers (pots and bottles) of cylindrical, light tapered and square shape.

They must be able to resist to the pressure operated by the upper roller (12 N power).

#### 1.1.2 Instruction manual

The manual must be explained and given (eventually in copy) to the operator that will keep it.

#### 1.1.3 Testing

The machine, once positioned and connected, will be tested from the people of the Producer Company. The signature at the end of the Testing Certificate means that the testing has been positive.

The customer will verify at the delivery if the machine and the other possible options are corresponding to the order. The possible missing options that are not written in the bill of lading must be ordered apart.

Eventual claims due to faults not seen during the testing must be written to the Producer before 8 days after the date of the testing.

#### 1.1.4 Warranty

The warranty is valid for 24 months after the testing date.

It includes the repair or the change without charge of the mechanical or electrical parts that may be defective after a careful control of the Producer.

The warranty doesn't cover the parts that may be damaged during the transport; in this case it is necessary to communicate it to the Producer.

The warranty doesn't include the direct and indirect damages and it is not valid when the faulty parts have been broken or repaired by the Customer.

#### **1.1.5** People who are authorized to use the machine

The use of the labelling machine is reserved to the people who have been correctly taught. The setting and service operations must be done by qualified people.

#### 1.1.6 Conformity and regulations

The Declaration of Conformity EC is positioned in the cover of this manual.

#### 1.1.7 Attached documents

At the end of the manual there are all the tables with the drawings of the spare parts and the electrical scheme.

## **1.2** Description of the machine

FX-10 is a semi-automatic table top labelling machine with one single station.

The standard version allows the labelling of cylindrical or small tapered containers (conicity 1°30'). It is possible to label also square containers with a suitable option. The possible options are listed in chapter 2.2.

## 1.3 Technical details

#### 1.3.1 Labelling

Production mod. FX-10	600 bott/h

Dimensions of round bottles	Dimensions of square bottles	
Minimum diameter 60 mm	Minimum side 45 mm	
Maximal diameter 120 mm	Maximum side 80 mm	
Dimensions of the labels		
Max. length of the label (without back label)	280 mm	
Max. height of the paper (standard rollers)	145 mm	
Max. height of the paper (high rollers)	180 mm	
Minimum label height	15 mm	
Max. distance of label and back label from paper low	er side 18 mm (fig. 1)	



#### fig.1

#### 1.3.2 Weight

The labellers, in the standard version, weights 60 kg.

#### 1.3.3 Dimensions

Dimensi	ons of the standard version	Dimensioni versione con timbro	
Width	0,700 m	Width	1 m
Height	0,615 m	Height	0,670 m
Depth	0,480 m	Depth	0,470 m

#### 1.3.4 Electrical supply

Voltage	230 V MONOFASE
Installed power FX-10	0,2 KW

#### 1.3.5 Pneumatic supply

Air consumption of the printing unit	0,1 dm <sup>3</sup> /min
Pressure	2,5 bar

The standard machine needs a minimum of 0,6  $dm^3/min$  with 4 bar pressure in case of stamping unit.

To connect the machine, please use a standard joint of  $\emptyset$  8 mm.

If you use a rapid joint, it must be at least of Ø 8 mm.

#### 1.3.6 Capacity

Production mod. FX-10	600 bott/h

#### 1.3.7 Environment

The machine is set to work in industrial indoor places without condensation. It is suggested to avoid temperatures under  $10^{\circ}$ C and over  $40^{\circ}$ C. The light of the environment must be about 200-250 lumen.

#### 1.3.8 Loudness

Sound level in the position of the operator: 50dB (A). The environment might change this value.

## 1.4 Safety

#### 1.4.1 Emergency stop

The use of the labelling machine, both in production and in setting, is reserved to expert people. If used correctly and following the instruction, the machine does not give any danger to the operator.

In case of service on the electrical or mechanical parts, it is compulsory to stop the electrical power working on the general switch. On the control panel there is a red emergency button with a yellow circle around it. If used, you have to turn and pull it.

#### 1.4.2 Protection of electrical parts

The parts with electrical power are isolated by a protection that is removable with keys. On the protection there is the symbol of electrical danger.



## The connections, including earthing and the connection to the protection conductor, must be in conformity with the local provisions and will need to be made by a qualified electrician.

The protection equipments for direct contacts must be chosen according to the electricity distribution system.

For TT systems the machine should be connected to the earthing system and must be placed under a differential switch; for TN systems there must be a thermo-magnetic switch such that its action respects the time/current safety curve. The machine impedance is less than 0.26 ohm. The alternate current power supply must have no high inductive loads, which must be less than 5 KVA.

Make sure that the alternating current has no high and low voltages, momentary overvoltage or overcurrent. In these cases, a separate power supply is therefore recommended. It is important for the supplied current to be clean and the machine to be properly connected.



#### **Caution**

Before making any electrical connection, turn off the main switch above the machine's power cable, which must be adequate in accordance with the local regulations.

Please check that the main voltage and frequency are those relative to the machine anf that the connection between the protection circuit and the machine is effective.

#### **CONTROLS OF THE ELECTRICITY CABLE**



When the machine is supplied by a free cable, like when the machine is on wheels to be transported, please check that the power socket is suitable and that there are regular protection, able to trip in case of indirect contacts.

Any extension of the electrical cable must have plugs/sockets with earthing as required by the standards. Use only admitted and marked cables. Never use the cable to pull out the plug.

Periodically check the integrity of the cable; replace it if it is not good: this should be done by specialized personnel.

Protect the cable from high temperatures, sharp corners, lubrificants.

Do not let children or extraneous people touch the cable.

#### 1.4.3



## Protection of pneumatic parts

Important

Please check that the oil is at the right level in the tank 1 (fig. 1/a) and that there is no water in the condensate tank 2 (fig. 1/a). Turn the knob 6 (fig. 6) in the direction of the arrow if you wish to have the automatic water draining. To open the air pull sleeve 5 (fig.1/a) upwards. To adjust the pressure pull knob 3 (fig.1/a) upwards and turn it, read the pressure on the gauge 4 (fig.1/a) and set it to 4 bar (4 atm). Mobil DTE light oil or the equivalent should be used.

fig.1/a

#### **1.4.4 Protection of moving parts**

The reducer connected to the motor is fully closed. The driving rollers of bottle and paper do not give any problem of pressing or hurting because the upper roller makes a small pression of 15 kg with a spring.

## **Section 2** Instruction for the operator

## 2.1 How to use the machine

The labelling machine is semi-automatic.

In the standard version it is possible to label cylindrical or small tapered bottles.

## 2.2 List of the options

On request there can be following options:

Label and back-label. If you have a spool with alternate label and back-label, the machine
can apply and centre both labels in one cycle (just for cylindrical containers).
Square bottles. With this option the machine can apply one label on one side. The option can
be removed to work with cylindrical shapes.
Ink stamping unit with pneumatic movement (3 bar, 50 lt). Character dimensions: 3 mm x 3
mm. Printing area: 39 mm x 39 mm. Total: 13 characters per line. Max. 4 lines.
High rollers with paper height until 190 mm, inclusive blade support and rollers to stop the
bottle. Price valid only at the moment of the order of the machine.
Bottom reference mark searching unit (not for demijohns).
Photocell for recognising edge of a front label, collar or foil with tie reference. Price valid only
at the moment of the order of the machine.
Photocell to read spots on capsules of wine.
Photocell for detecting a distance between paper and label side until 35 mm.
Option to label bottles until $\emptyset$ 35 mm (minimum), including pressing roller connection and
reinforcement for the rollers.
Voltages different from the standard (220 V).
Version with 60 Hz motor.
Wooden case.
Photocell for reading transparent labels.
Electrical digital panel.

## 2.3 Operator

People who are not expert cannot use the machine.

People under 18 years cannot touch or use the machine, and the same is valid for people who don't have good health conditions. They cannot even sty near the machine.

#### 2.3.1 Position

The operator works alone standing in front of the machine.

#### 2.3.2 Clothing

The right clothing is a work suit with sleeve closed at the wrist..



Since the machine is working with moving parts, you are asked not to use jewellery and flying clothes. Long hair must be tied up with a protection.

## 2.4 Controls

#### 2.4.1 Control panel

The machine has a unique control panel on which there are all the controls (fig. 2).



fig. 2

On the control panel there are

- 1. network pilot light (ATTENTION: when the light is on, there is electricity inside);
- 2. STOP emergency button;
- 3. back label disabling switch;
- 4. potentiometer to regulate the position of the back label respect to the front label;
- 5. switch to enable/disable the photocell or spot detection;
- 6. potentiometer to regulate the position of the label according to the spot detection;
- 7. selector for round/square bottles;
- 8. general switch.

To give tension to the machine, please turn the general switch 8 on the position 1 (ON). There will be the network power line (1). To take tension away, please press the switch 2 and turn to 0 (OFF) the general switch 8.

#### To unlock the emergency button 2 you have to turn it clockwise and pull it outside.

The switch 3 is used to enable (position 1) or disable (position 0) the labelling of the back label. In case of enabling, you can regulate the position of the back label with the potentiometer 4 (see the apposite paragraph).

The switch 5 is used to able (position 1) or disable (position 0) the back labelling if there are reference or spot detection micro. In case of enabling, you can regulate the position of the back label with the potentiometer 6 (see the apposite paragraph).

The switch 7 is used to chose the type of bottle that has to be labelled: if you have round bottle, put the switch on the position "tonde" (position 1); oterwise put it on the position "quadre" (position 0).

## 2.5 First regulations

#### 2.5.1 Installation of the support of the paper spool guide supports

- Position the guide 1 (fig. 3) on the pivot 2, so that the distance between the support and the vertical plane of the machine is 80 mm.
- Screw with the opposite key the screw 10 to lock the support 1 in such position.

#### 2.5.2 Installation of the label spool





- After having installed the inferior support and having checked his position, insert the label spool in the pivot 2 (fig. 3), putting it on the ring 19. Then put the other support 20, so that the ring goes inside the hole of the spool.
- Unwrap the paper and let it go around the pivots, following the way that is indicated in the drawing attached on the machine) and arriving near the photocell 4 (fig. 3).
- Insert the paper in the slot of the photocell 4 and pass on the blade 22.
- Pull with hands the part of the paper that goes on the blade, in order to take away labels until the paper arrives at the roller 5 (fig. 3).



fig. 4

- Unlock the roller that presses the paper (15) and pull it up. Then let the paper go between it and the rubber roller 23. Arrive until pivot 5.
- Remove the fork 6 from pivot 5 and wind the paper base once around it.
- Lock the paper on the pivot with the tool 6: in order to fix the paper, it must be under the arms of the fork.

#### CAUTION



The paper must be wrapped around the pivot 11 in the direction indicated by the label on the front side of the machine. If the sense of the wrapping is wrong, the paper will not wind well.

#### 2.5.3 Regulation of the label spending

To regulate the output of the labels, please proceed as following:

- act on pin 5 turning it manually in anti-clockwise direction, after having checked that the paper-pressing roller 15 is up. This causes the coming off of the labels from the paper;
- stop when the label is about 5 mm out of the blade (fig.4);
- block the paper turning the roller 15 against the rubber roller 23;
- loosen the screws 8 and 9 and position the photocell at about 10-15 mm beyond the first space between the labels in the direction of the driving roller (fig.5): this is a rough regulation;
- make some labelling tests on samples;
- check that the label is about 5 mm out of the blade:
  - if it comes out less, loosen the screws 8 and 9 (fig. 3) and then move the photocell 4 (fig.3) putting it near the blame;
  - if it comes out more, make the contrary.

If you have regulated the position of the the photocell, it is necessary to turn the machine on again and to verify that the label comes out for about 5 mm out of the blade. The regulation of the photocell must be done until the label is 5 mm out of the blade.\_



fig.5

#### 2.5.4 Regulation of the distance between label and bottle bottom

To regulate the distance between the label and the bottom of the bottle, make as following:

- loosen the screw 11 (fig. 3) that locks the the bottle retainer 7;
- put the bottle on the rollers 24 and move the retainer 7 until the label is at the required height;
- lock the retainer 7 in this position, turning again the screw 11;
- attached to the bottle retainer 7 there is a ruler that may be used as reference to regulate the same retainer.

## 2.6 Before starting the machine

#### 2.6.1 Regulation of the position of the photocell that stops the label

- Turn off the general switch 26 (fig. 3) that is on the electrical panel of the labellers;
- pass one hand in front of the sensor 17 (fig. 3). It cause the exit of one label;
- check that the label is about 5 mm out of the blade: if it comes out less, loosen the screws 12 (fig. 3) and then move the photocell 5 (fig.3) putting it near the blame; if it comes out more, make the contrary.

#### 2.6.2 Regulation of the roller that presses the bottle

- Press the bottle retainer 7. The machine makes one cycle and the upper roller stops in the higher position.
- Position the left switch on the OFF position.
- Put the key in the pivot 10 (fig. 2) and turn it anti-clockwise to loose it and to move the roller 25.
- Introduce the bottle between the rollers 24 and move the roller 25 so to leave just 15 mm space between it and the bottle. Lock the pivot 10 in this position turning the key clockwise.
- Position the switch 17 on OFF if there's just the label and on ON if there's also the back label.

## 2.7 Starting the machine

- Turn off the main switch 26 (fig. 3);
- insert the bottle between the rollers paying attention that the switch 7 is activated;
- release the bottle and it will be labelled with pressure of the upper roller.

## 2.8 Paper

#### 2.8.1 Paper quality

If the paper quality is not good for self-adhesive labels, they will easily wrap when they come out of the blade (fig. 6) and they will cause a bas functioning of the machine.



It is suggested to send to the Producer some samples of paper to be tried. In this way you can avoid future problems. We will try if the paper is good and if the result will be satisfactory.





#### 2.8.2 Paper wrapping direction

The spools of label and back-label must be wrapped like in fig. 7 for round bottles and like in fig. 7/a for square bottles (traditional system).



fig. 7/a

fig. 7

If label and back label are on the same spool, the distance between the two basis don't have to be more than 18 mm (fig. 8).



fig. 8

## 2.9 Regulation of the sensibility of the photocell

The machine is already regulated when it comes out from the company.

If it is necessary to regulate again the photocell because of the use of other labels, do as following:

- loose the paper that is between the spool and the blade;
- put in the reading zone of photocell the space that is between two labels (fig. 9);



fig. 9

- with the paper in that position turn the potentiometer 2 anti-clockwise with a small screwdriver (fig. 10), until the yellow led 1 is on;
- move the labels so that in the reading zone there is a label and not the space between them. Then turn the potentiometer clockwise until the led is off, counting the necessary turns to switch it off;
- turn anti-clockwise the potentiometer for half the number of turns just done clockwise.





## 2.10 Use of possible options

#### 2.10.1 Back label

If there is the back label on the paper, it is necessary to regulate its position in relation to the label.



To do this you have to work on the potentiometer as following: if looking the bottle form the front side the space between label and back label is smaller on the left, turn the potentiometer clockwise. If it is bigger, turn it anti-clockwise.

Repeat the operation until the difference is about 2-3 mm. The machine cannot improve: this is its tolerance.

#### 2.10.2 Label reference to other label or bottom mark

To put a back label according to an already attached label, you need the option photocell like in fig. 4/a or a micro-switch to read the reference mark on the bottom of the bottle.

If the machine has such options, first put the back label spool and do all operations that are indicated, then:

- put the switch on OFF;
- put the switch on ON;
- regulate the position with the potentiometer (fig. 14).



fig. 14





fig. 15



fig. 16

The machine can put labels on square bottles. It is possible with the suitable options. The machine has two parts (n° 5 in fig. 15 and 16) to support the system that labels the square bottles.

The option is removable and it is installed just for this type of bottles. To label round bottles, you have to take the option away.

#### 2.10.3.1 Positioning the station

To position the station, please do as following:

- close the general switch (pos. ON) on the left side of the machine;
- press manually the device 19 (fig. 15); the machine makes one cycle and then stops with roller 14 in the higher position;
- open the general switch (pos. OFF) and take the current away from the machine, disconnecting the plug;
- loose the screw 11 and move completely backwards the starting device 19; then screw again;
- loose the pivot 15 and put it in the roller 14 in the higher point;
- position the group 1 so that the screws 2 go in the holes 3 of the upports 5; then screw n°4 in the screws 2 in order to lock the group, parallel to the machine (use an opposite instrument to check it!): the exterior border of the n°17 must leave outside the same number of lines of both supports.

#### 2.10.3.2 Regulating the station

Once you have positioned the group, you have to regulate it.

- Put a bottle on the left side of the plate 17 of the group and after having loosen the screws 12, put the part 13 on the bottle, so that between it and the bottle there is a space of 1 mm (the bottle can run easily without any empty space). Do the same for the part 22, putting the bottle on the right side of the plate 17.
- Put the bottle like in fig. 16, and so on the two sponge rollers. Loose the pivot 15 and position the roller 14 at about **3 mm** from the bottle; fix again the pivot 15.
- Regulate the holder 6 so that the distance between it and the pivot 15 is about 5 mm and anyway bigger than the distance between roller 14 and the bottle.





- Start (pos.1) the function SQUARE BOTTLE with the switch 5 (fig. 17).
- Regulate the switch 8 loosing the screw 9, so that the roller 7 (fig.15) is completely pressed by the bottle when it is in the group (like in the picture). Fix again the screw 9.
- Take the bottle away and install the label spool. Close the switch, insert a bottle and make one labelling cycle.

#### 2.10.3.3 Regulation of the container

The position of the label on the bottle must be regulated both in height and in middle line of the bottle.

- If the bottle is like in fig. 11, you have to unscrew and move the group 1 towards the front side of the machine. Make another bottle and repeat until the right position is reached. Write down that measure for following uses.
- If the container is like in fig. 12 put the group 1 far from the front side and work like already said.
- If the bottle is like in fig. 13 (too high label), unscrew and move towards right the support of the micro-switch for as many mm as the desired position of the labe; repeat the operation until the required position. If the label is too down, move the support towards left and do as already said above.



#### 2.10.3.4 Round bottles re-setting

To re-settle the machine for round bottles, after having taken away the electricity, you have to:

- Take away the screw 9 that fixes the part 10 of the switch 8 (fig.15) and position the part 10 and the switch 8 on the upper left side of the machine, using the screw 9.
- Take away the nuts, that fix the group 1.
- Position the holder 19 in the precedent position and switch off the option "square bottle" putting the switch 5 in the position 0 (fig. 17).

#### 2.10.4 Square bottle (pneumatic system)

See attached document n°1.

#### 2.10.5 Digital electrical panel

See attached document n°2.

#### 2.10.6 Ink pneumatic stamping unit

See attached document n°3.

## 2.11 Regulation of the stopping micro-switch



This regulation must be done after a period of about 100 hours of work and then repeated time to time.

This regulation is necessary because the reducers in the machine after the first hours of use may be more free. This higher freedom may cause a later stop of the cycle, when the upper roll is already going down. This may create a reduction of the space where the bottle is inserted: it is then better to regulate the micro-switch as following.

- Switch off the electricity with the left switch.
- Take the back part of the structure of the machine away.
- When the machine stops at the end of the cycle, the roller 25 (fig. 3) that presses the bottle, must have a distance of 15 mm from the bottle. The part 7 (tab. 2) must be so in the higher point of the wheel 8 (tab. 2). If the position of the wheel 7 doesn't allow this, it is necessary to regulate the position of the part 5 (tab. 2) that activate the switch 18 (tab. 2).
- Loosen the screw of the parts 8 and 5 and turn the part 5 clockwise for about 4-5 mm. Then fasten again the screw.
- Check if the situation has improved making one cycle. If it has not improved, please do the same adjustment again. At the end put again the back structure at its position.

## Sezione 3 Technical manual

## 3.1 Transport and installation

#### 3.1.1. Moving



The machine has two strong lateral handles, that allow to transport it manually. The transport of the machine must be done by two people.

Put the machine as nearer as possible to the working place before removing the pallet and the packing. Near the working place there must be electricity and also <u>pneumatic air if the</u>

Near the working place there must be electricity and also <u>pneumatic air if the</u> <u>machine has the ink stamping unit.</u>

#### 3.1.2. Installation

The machine must be used on a desk or a trolley.

Every flooring is good, but it must be flat and without holes.

The light of the environment must be about 200-250 lumen.

On the machine shadow zones should be avoided, in order to read always easily the controls.

#### 3.1.3. Supply

#### 3.1.3.1 Electrical



The connections, including earthing and the connection to the protection conductor, must be in conformity with the local provisions and will need to be made by a qualified electrician.

The protection equipments for direct contacts must be chosen according to the electricity distribution system.

For TT systems the machine should be connected to the earthing system and must be placed under a differential switch; for TN systems there must be a thermo-magnetic switch such that its action respects the time/current safety curve. The machine impedance is less than 0.26 ohm. The alternate current power supply must have no high inductive loads, which must be less than 5 KVA.

Make sure that the alternating current has no high and low voltages, momentary overvoltage or overcurrent. In these cases, a separate power supply is therefore recommended. It is important for the supplied current to be clean and the machine to be properly connected.



#### **Caution**

Before making any electrical connection, turn off the main switch above the machine's power cable, which must be adequate in accordance with the local regulations.

Please check that the main voltage and frequency are those relative to the machine and that the connection between the protection circuit and the machine is effective.

#### 3.1.3.2 Pneumatic

The standard machine needs a minimum of 0.6 dm<sup>3</sup> /min with 4 bar pressure <u>if there is the ink</u> stamping unit. To connect the machine please use a standard joint of  $\emptyset$  8 mm. If you use a rapid joint, it must be at least of  $\emptyset$  8 mm.



#### **Important**

Please check that the oil is at the right level in the tank 1 (fig. 1/a) and that there is no water in the condensate tank 2 (fig. 1/a). Turn the knob 6 (fig. 6) in the direction of the arrow if you wish to have the automatic water draining. To open the air pull sleeve 5 (fig.1/a) upwards. To adjust the pressure pull knob 3 (fig.1/a) upwards and turn it, read the pressure on the gauge 4 (fig.1/a) and set it to 4 bar (4 atm). Mobil DTE light oil or the equivalent should be used.



fig.18

#### 3.1.4. Service

#### 3.1.4.1 Ordinary service

It is not necessary an ordinary service, but just a normal cleaning.

#### 3.1.4.2. Greasing

Use oil and fat that don't cause any chemical danger. Their discharge should be done respecting the actual regulations.

#### 3.1.4.3. Condensation draining

See 3.1.3.2.

#### 3.1.5 Spare parts

It is suggested to use original spare parts. To order them, please look at the attached tables with all the codes.

#### 3.1.6 Demolition and discharge

After having dismantled the labellers and separated the metal parts from the the rubber and PVC ones, please throw them as waste in the dedicated places, respecting the local regulations.

## **TABLES**



TABLE 1 - ROUND BOTTLE



REF. TABLE 1 - ROUND BOTTLE - FROM LEFT A-B-C

Table 1 Ref. A-B-C		
Standard rollers		
Position	Code	
1	L0074	
2	C0019	
3	L0075	
4	L0067	
5	C0014	
6	L0062	
7	L0068	
8	L0060	
11	C0017	
12	L0063	
13	TE 4x30	
14	L0065	
20	L0066	
21	L0089	
22	L0069	
24	L0059	
28	L0073	
29	L0055	
30	L0070	
31	L0061	
34		
35		
36		





REF. TABLE 1 - ROUND BOTTLE - FROM LEFT D-E

Table 1 Ref. D-E		
Standard roller		
9	C0005	
15	L0072	
16	Rubber brake	
17	L0074	
18	L0054	
19	L0087	
23	L0057	
25	L0056	
26	TS 5x16	
27	TCE 6x30	
32	L0073	
33	C0011	







REF. TABLE 1 - ROUND BOTTLE - FROM LEFT F-G-H

Table 1 Ref. F-G-H		
Standard rollers		
Position	Code	
1	L0091	
2	L0090	
3	L0092	
4	C0012	
5	L0058	
6	L0064	
7	L0094	
8	L0093	
9	L0086	
10	SEEGER	
11	L0072	
12	SEEGER	
13	L0051	
14	L0048	
15	L0026	
16	L0050	
17	20 MB	
18	L0024	
19	TE M10X30	
20	C0015	
21	L0052	
22	L0049	







REF. TABLE 1 - COMMON PARTS - FROM LEFT I-L-M

Table 1 Ref. I-L-M		
Standard rollers		
Position	Code	
1	L0096	
2	L0097	
3	TCE 6X15	
4	L0098	
5	TCE 6X20	
6	L0099	
7	L0100	
8	C0010A	
9	L0101	
10	L0102	
11	TCE 6X15	
12	L0071	
13	C0018	
14	L0046	
15	L0079	
16	L0096	
17	C0000D	
18	C0000C	
19	С0000В	



TABLE 2 - ROUND BOTTLES

Table 2 –	Table 2 – Back sight		
Round bottles			
Position	Code		
1	C0007		
2	L0034		
3	L0022		
4	TCE 6X15		
5	L0032		
6	TE 12X30		
7	C0003		
8	L0036		
9	TE 8X25		
10	C0006		
11	L0043		
12	\		
13	C0103		
14	C0020		
15	C0009		
16	C0007 + L0038		
17	L0033		
18	C0006		
19	L0040		
20	TE 6X15		
21	M 14		
22	TE 6X20		
23			
24	C0104		



TABLE 3 – ROUND BOTTLES

Table 3 – Upper sight		
Round bottles		
Position	Code	
1	C0001	
2	CHIAV 5X25	
3	TE 10X20	
4	L0026	
5	D. 10X21X2	
6	D. 12X36X3	
7	TE 12X2	
8	L0023	
9	L0031	
10	L0029	
11	L0039	
12	C0002	
13	L0034	
14	CHIAV 5X15	
15	M 14	
16	L0033	
17	M 6	
18	TCE 6X25	
19	CHIAV 6X40	
20	TE 10X20	
21	L0027	
22	L0030	
23	SEEGER	
24	L0021	
25	C0016	
26	L0025	
27	L0037	
28	L0038	



## **NOTES**