

# ***SX Series***

**SX-140-R**

***EUROFINS***

***N° 1907061-2***

**USER MANUAL**

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## 1. Foreword

Thank you for your confidence in DARA for the acquisition of your pharmaceutical packaging machine. DARA applies the state-of-the-art technology for the design and manufacture of its machine, using materials of the best quality in them. Likewise, our machines include the best finishing fulfilling the demanding requirements of pharmaceutical industry.

This manual includes the description, installation, operation and other technical instructions required for a good knowledge of the machine, for a proper operation and to accomplish the best performance of it, always considering the safety of the user.

Therefore, **it is mandatory to read paying attention and understand the instructions contained in this manual before installing, starting up or using this machine.** When the reading is finished, keep the manual on a safe place.

The Documentation Department of **DARA** is at your disposal to clarify any doubt arisen from the reading of the manual, thanking in advance any suggestion to improve it.

**DARA** reserves the right to modify with no warnings the features of its machines, whenever they are taken to improve the performance, reliability or operation of them.

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**Maq. Ind. DARA, S.L.**  
**Polig. Ind. Coll de la Manya – Galileo Galilei 5-19**  
**08403 – GRANOLLERS (Barcelona) - Spain**  
**Tel.: 93 871 87 84 Fax: 93 871 83 75**

## 2. Safety

The **SX Series** Bench Top **DARA** machines are designed and constructed in accordance with the currently applicable European legislation and complies with all the pertinent safety regulations:

- **Safe start and stop devices**, which allow any servicing during automatic or manual cycle, when they are carried out after a cycle stop during an acknowledged stable stop status.
- **Emergency Stop Pushbuttons** with mechanical lock, located in the areas where operator is most commonly placed.
- **Electric and Pneumatic supply switch off devices**, which allow to carry out cleaning, maintenance and repair works with safety.
- **Fixed covers**, which require a tool to be opened, and must be only opened by authorized maintenance or repair personnel, and locked again after these operations.
- **Warning signals** about remaining risks around the machine and its covers.

All these safety devices form an integral part of the machine. Modification, removal or failure to maintain any of these items increases the risk of accidents and entails infringement of **Directive 2009/104/EC** on the use of work equipment.

The manufacturer declines all responsibility for damages arising from use of the machine with any modification, deletion or failure to maintain its components made without the express prior approval of the manufacturer.

Any repairs must be performed by qualified technicians. Inexpert repairs may entail serious risks for users.

HIT THE FRONT EMERGENCY PUSHBUTTON IN THE EVENT OF ANY EMERGENCY, ACCIDENT OR INCIDENT WITH THE MACHINE. IT WILL STOP INSTANTLY AT ANY POINT IN THE SEQUENCE.

THIS METHOD OF STOPPING THE MACHINE MUST ONLY BE USED IN EMERGENCIES, NEVER AS A NORMAL WAY TO STOP THE MACHINE.

TO RETURN TO NORMAL OPERATION, RESET THE PUSHBUTTON BY ROTATING THE RED KNOB ONE TURN IN A CLOCKWISE DIRECTION ONCE THE EMERGENCY SITUATION HAS BEEN RESOLVED.



## 2.1. Safety Signals and their Meaning



EAR PROTECTION



RISK OF INHALATION



HAND FLATTENING OUT



FINGERS TRAPPING



ROLLERS HAND TRAPPING



HAND TRAPPING IN PULLEY AND BELT



HOT SURFACE



HAND TRAPPING



HIGH VOLTAGE



UNDETERMINED RISK



HIGH VOLTAGE

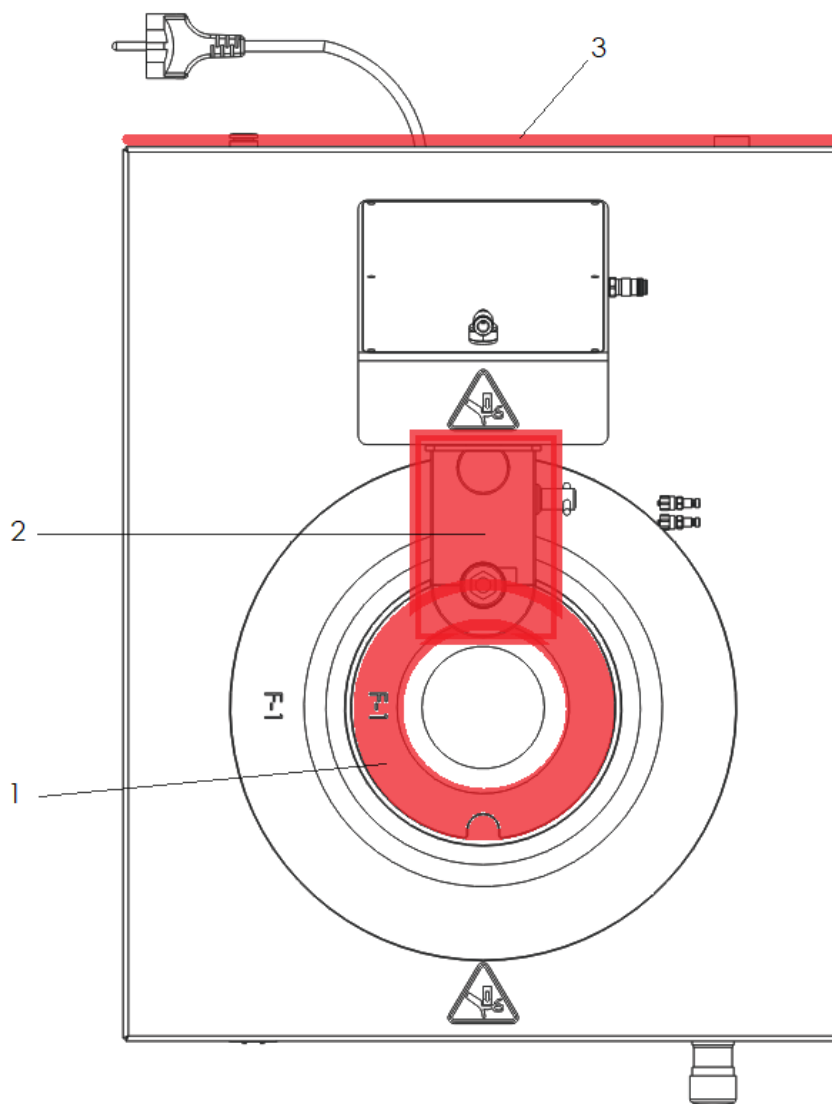


DANGER AREA

**NOTE** These are general signals. Your machine can include some of them, not all.

## 2.2. Danger areas

These areas which are to be specified next are the ones that during normal operation of the machine, for Manual or Automatic Mode, may represent a risk for the operator.



1. Dividing plate area. Rotary move of the dividing plate, with a fixed outer guide. Fingers, hair or dressing sleeves trapping risk.
2. Containers closing area. Downwards move. Hands or fingers crushing risk.
3. Electric area. High voltage risk.

### 3. General Information

#### 3.1. Functional Presentation

The SX Series Table top machines are basically composed by a frame where the containers are placed on a turning pneumatic tray (starwheel) and a closing station column.

The operation of all work stations is by request with bimanual pushbuttons. When giving the order, it makes a 180° turn and closes the container. This equipment is designed and built for the closing of the format samples supplied by the customer.

#### 3.2. Use and Limitations

The **SX Series** machines are designed and constructed exclusively for the automatic or manual filling (SX-100), closing (SX-140) and filling/closing (SX-200) of containers. These can be made from glass, plastic or metal.

This machine is specially designed and constructed for the closing of containers with caps as defined in your order.

**DARA** manufactures several versions of machine, always suited for the different requirements according the products and containers to be produced.

Before using this machine for the filling or closing of other containers, different that the ones it was designed for, please get in touch with the manufacturer.

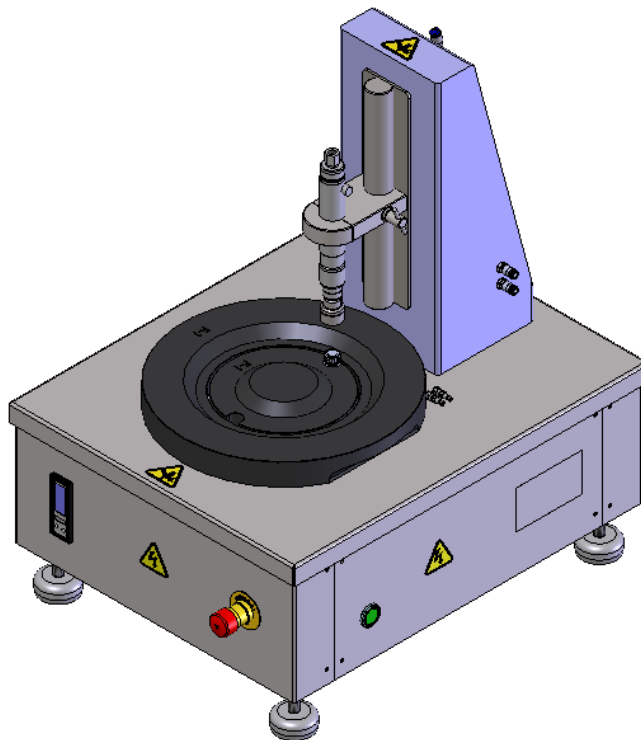


Figure: SX-140-R overview



### 3.2.1. Format Tables

		Recipe	A
<b>Element</b>	4ML BOTTLE		
<b>Format mark</b>	F-1		
<b>Manufacturer</b>	IMMUNO-CELL		
<b>Manuf.'s ref.</b>	PSZ-004		
<b>Dara's ref.</b>	Ft1		
<b>Material</b>	HDPE		
<b>Weight</b>			
<b>Note:</b> BLACK COLOR			
<b>Element</b>	SCREW CAP		
<b>Format mark</b>	F-1		
<b>Manufacturer</b>	IMMUNO-CELL		
<b>Manuf.'s ref.</b>	PSZ-C15		
<b>Dara's ref.</b>	Cp1		
<b>Material</b>	PP		
<b>Note:</b> BLACK COLOR			
<b>Recipe</b>	<b>Dose</b>	<b>Product</b>	<b>Tested on</b>
<b>CUSTOMER'S APPROVAL</b> (Date, Name, Signature)  12/03/2019		<b>Name</b> F. IBAÑEZ <b>Date</b> 11/03/2019	
<b>Customer</b> EUROFINIS 1047 Budapest, P.O. Box 150 H-1147 Budapest, Hungary Tel: +36 1 269 7990-244 Fax: +36 1 269 7990-245	<b>Approved Name</b> L.FERNANDEZ	<b>Number</b> 19070612CUST	<b>Rev.</b> Page 1/7
All dimensions are in mm. This drawing is property of Dara and it is bonded and protected by Law.		ISO: OT-FOR-024_V01	

Figure: F-1 Format Table

		<b>Recipe</b>		<b>B</b>	
<b>Element</b>	20ML BOTTLE				
<b>Format mark</b>	F-2				
<b>Manufacturer</b>	IMMUNO-CELL				
<b>Manuf.'s ref.</b>	PSZ-020				
<b>Dara's ref.</b>	Ft2				
<b>Material</b>	HDPE				
<b>Weight</b>					
<b>Note:</b> BLACK COLOR					
<b>Element</b>	SCREW CAP				
<b>Format mark</b>	F-2				
<b>Manufacturer</b>	IMMUNO-CELL				
<b>Manuf.'s ref.</b>	PSZ-C22				
<b>Dara's ref.</b>	Cp2				
<b>Material</b>	PP				
<b>Note:</b> BLACK COLOR					
<b>Recipe</b>	<b>Dose</b>	<b>Product</b>		<b>Tested on</b>	
<b>CUSTOMER'S APPROVAL</b> (Date, Name, Signature)		<b>Name</b>	<b>Date</b>		
 12/03/2019 F. IBAÑEZ		<b>Drawn</b>	11/03/2019		
 L. FERNANDEZ		<b>Approved</b>			
<b>Customer</b>	<b>EUROFINS</b>	<b>Name</b>	<b>FORMAT TABLE</b>		<b>Number</b> <b>19070612CUST</b>
1047 Budapest, Könyves Kálmán tér 5-7. Tel: +36 (0)1 25917990-2-4. Fax: +36 (0)1 25917990-3-4. Email: info@eurofins.com				<b>Rev.</b>	
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Figure: F-2 Format Table

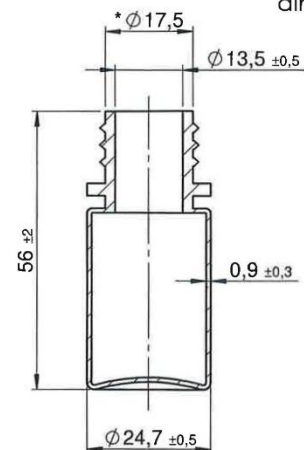
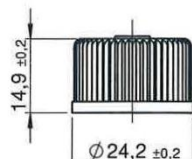

		Recipe	C
<b>Element</b>	15ML BOTTLE	<p>* Approximate dimensions</p> 	
<b>Format mark</b>	F-3		
<b>Manufacturer</b>	VWR		
<b>Manuf.'s ref.</b>	215-3426S		
<b>Dara's ref.</b>	Ft3		
<b>Material</b>	PP		
<b>Weight</b>			
<b>Note:</b> TRANSLUCENT			
<b>Element</b>	SCREW CAP		
<b>Format mark</b>	F-3		
<b>Manufacturer</b>	VWR		
<b>Manuf.'s ref.</b>	215-3426S		
<b>Dara's ref.</b>	Cp3		
<b>Material</b>	PP		
<b>Note:</b> TRANSLUCENT			
<b>Recipe</b>	<b>Dose</b>	<b>Product</b>	<b>Tested on</b>
<b>CUSTOMER'S APPROVAL</b> (Date, Name, Signature) 		<b>Name</b> F. IBAÑEZ	<b>Date</b> 14/03/2019
<b>Customer</b> EUROFINS Adóstatl. 1590689-241 11-09-299676 UGYVÉZŐ		<b>Approved</b> L.FERNANDEZ	<b>Date</b> 14/03/2019
		<b>Name</b> FORMAT TABLE	<b>Number</b> 19070612CUST
			<b>Rev.</b> REV01
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		Page 3/7	

Figure: F-3 Format Table

		Recipe	D
<b>Element</b>	30ML BOTTLE	<p>* Approximate dimensions</p>	
<b>Format mark</b>	F-4		
<b>Manufacturer</b>	VWR		
<b>Manuf.'s ref.</b>	215-3443S		
<b>Dara's ref.</b>	Ft4		
<b>Material</b>	HDPE		
<b>Weight</b>			
<b>Note:</b> AMBER			
<b>Element</b>	SCREW CAP		
<b>Format mark</b>	F-4		
<b>Manufacturer</b>	VWR		
<b>Manuf.'s ref.</b>	215-3443S		
<b>Dara's ref.</b>	Cp4		
<b>Material</b>	PP		
<b>Note:</b> AMBER			
<b>Recipe</b>	<b>Dose</b>	<b>Product</b>	<b>Tested on</b>
<b>CUSTOMER'S APPROVAL</b> (Date, Name, Signature)		<b>Name</b> F. IBÁÑEZ	<b>Date</b> 14/03/2019
EUROFINs Technologies Hungary Kft. 1048 Budapest, P.O. Box 415 Hungary Tel: +36 21 299676 Fax: +36 21 299675 Email: info@eurofins.com		<b>Drawn</b> L.FERNANDEZ	<b>Approved</b> L.FERNANDEZ
<b>Customer</b> EUROFINs		<b>Number</b> 19070612CUST	
<b>FORMAT TABLE</b>		<b>Rev.</b> REV01	
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		<b>Page</b> 4/7	

Figure: F-4 Format Table

		<b>Recipe</b>		<b>E</b>	
<b>Element</b>	60ML BOTTLE	<p>* Approximate dimensions</p>			
<b>Format mark</b>	F-5				
<b>Manufacturer</b>	THERMO FISHER SCIENTIFIC				
<b>Manuf.'s ref.</b>	312187-0002				
<b>Dara's ref.</b>	Ft5				
<b>Material</b>	PP				
<b>Weight</b>					
<b>Note:</b> TRANSLUCENT					
<b>Element</b>	SCREW CAP				
<b>Format mark</b>	F-5				
<b>Manufacturer</b>	THERMO FISHER SCIENTIFIC				
<b>Manuf.'s ref.</b>	712150-0280				
<b>Dara's ref.</b>	Cp5				
<b>Material</b>	PP				
<b>Note:</b> TRANSLUCENT					
<b>Recipe</b>	<b>Dose</b>	<b>Product</b>		<b>Tested on</b>	
<b>CUSTOMER'S APPROVAL</b> (Date, Name, Signature)		<b>Name</b>	<b>Date</b>		
<p>12/03/2019</p> <p><i>[Signature]</i></p> <p>Customer: <b>EUROFINS</b></p>		<b>Drawn</b> F. IBÁÑEZ	11/03/2019		
		<b>Approved</b> L.FERNANDEZ		<b>Number</b>	<b>Rev.</b>
		<b>Name</b>	<b>FORMAT TABLE</b>	<b>19070612CUST</b>	
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Figure: F-5 Format Table

<table border="1"> <tr> <td><b>Element</b></td> <td>10ML VIAL</td> </tr> <tr> <td><b>Format mark</b></td> <td>F-5</td> </tr> <tr> <td><b>Manufacturer</b></td> <td>ORIGIN</td> </tr> <tr> <td><b>Manuf.'s ref.</b></td> <td>TSV3220010C</td> </tr> <tr> <td><b>Dara's ref.</b></td> <td>Ft6</td> </tr> <tr> <td><b>Material</b></td> <td>GLASS</td> </tr> <tr> <td><b>Weight</b></td> <td></td> </tr> </table> <p><b>Note:</b> TRANSPARENT GLASS VIAL + GREY STOPPER</p>		<b>Element</b>	10ML VIAL	<b>Format mark</b>	F-5	<b>Manufacturer</b>	ORIGIN	<b>Manuf.'s ref.</b>	TSV3220010C	<b>Dara's ref.</b>	Ft6	<b>Material</b>	GLASS	<b>Weight</b>		<table border="1"> <tr> <td><b>Recipe</b></td> <td><b>F</b></td> </tr> </table>		<b>Recipe</b>	<b>F</b>
<b>Element</b>	10ML VIAL																		
<b>Format mark</b>	F-5																		
<b>Manufacturer</b>	ORIGIN																		
<b>Manuf.'s ref.</b>	TSV3220010C																		
<b>Dara's ref.</b>	Ft6																		
<b>Material</b>	GLASS																		
<b>Weight</b>																			
<b>Recipe</b>	<b>F</b>																		
<table border="1"> <tr> <td><b>Element</b></td> <td>SCREW CAP</td> </tr> <tr> <td><b>Format mark</b></td> <td>F-6</td> </tr> <tr> <td><b>Manufacturer</b></td> <td>ORIGIN</td> </tr> <tr> <td><b>Manuf.'s ref.</b></td> <td>422CPPW</td> </tr> <tr> <td><b>Dara's ref.</b></td> <td>Cp6</td> </tr> <tr> <td><b>Material</b></td> <td>PP</td> </tr> </table> <p><b>Note:</b> WHITE COLOR</p>		<b>Element</b>	SCREW CAP	<b>Format mark</b>	F-6	<b>Manufacturer</b>	ORIGIN	<b>Manuf.'s ref.</b>	422CPPW	<b>Dara's ref.</b>	Cp6	<b>Material</b>	PP						
<b>Element</b>	SCREW CAP																		
<b>Format mark</b>	F-6																		
<b>Manufacturer</b>	ORIGIN																		
<b>Manuf.'s ref.</b>	422CPPW																		
<b>Dara's ref.</b>	Cp6																		
<b>Material</b>	PP																		
<b>Recipe</b>	<b>Dose</b>	<b>Product</b>	<b>Tested on</b>																
<b>CUSTOMER'S APPROVAL</b> 12/03/2019 (Date, Name, Signature)  EUROFINS Technologies Hungary Kft. 1047 Budapest, Váci út 146-148. Tel: +36 1 259 7990-241 Fax: +36 1 259 7990-242 Email: info@eurofins.hu www.eurofins.hu		<table border="1"> <tr> <td><b>Name</b></td> <td><b>Date</b></td> </tr> <tr> <td><b>Drawn</b> F. IBAÑEZ</td> <td>11/03/2019</td> </tr> <tr> <td><b>Approved</b> L.FERNANDEZ</td> <td></td> </tr> </table>	<b>Name</b>	<b>Date</b>	<b>Drawn</b> F. IBAÑEZ	11/03/2019	<b>Approved</b> L.FERNANDEZ												
<b>Name</b>	<b>Date</b>																		
<b>Drawn</b> F. IBAÑEZ	11/03/2019																		
<b>Approved</b> L.FERNANDEZ																			
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*Figure: F-6 Format Table*



		Recipe	G
<b>Element</b>	25ML VIAL		
<b>Format mark</b>	F-7		
<b>Manufacturer</b>	ORIGIN		
<b>Manuf.'s ref.</b>	TSV3220025C		
<b>Dara's ref.</b>	Ft7		
<b>Material</b>	GLASS		
<b>Weight</b>			
<b>Note:</b> TRANSPARENT GLASS VIAL + GREY STOPPER			
<b>Element</b>	SCREW CAP		
<b>Format mark</b>	F-7		
<b>Manufacturer</b>	ORIGIN		
<b>Manuf.'s ref.</b>	422CPPW		
<b>Dara's ref.</b>	Cp6		
<b>Material</b>	PP		
<b>Note:</b> WHITE COLOR			
<b>Recipe</b>	<b>Dose</b>	<b>Product</b>	<b>Tested on</b>
<b>CUSTOMER'S APPROVAL</b> 12/03/2019 <small>(Date, Name, Signature)</small> 		<b>Drawn</b> F. IBAÑEZ <b>Approved</b> L. FERNANDEZ	
<b>Customer</b> <b>EUROFINS</b> <small>1047 Budapest, Forat 56. sz. 1047 Budapest, Forat 56. sz. 1047 Budapest, Forat 56. sz.</small>	<b>FORMAT TABLE</b>		<b>Number</b> <b>19070612CUST</b>
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Figure: F-7 Format Table

### 3.2.2. Drawings supplied by the costumer

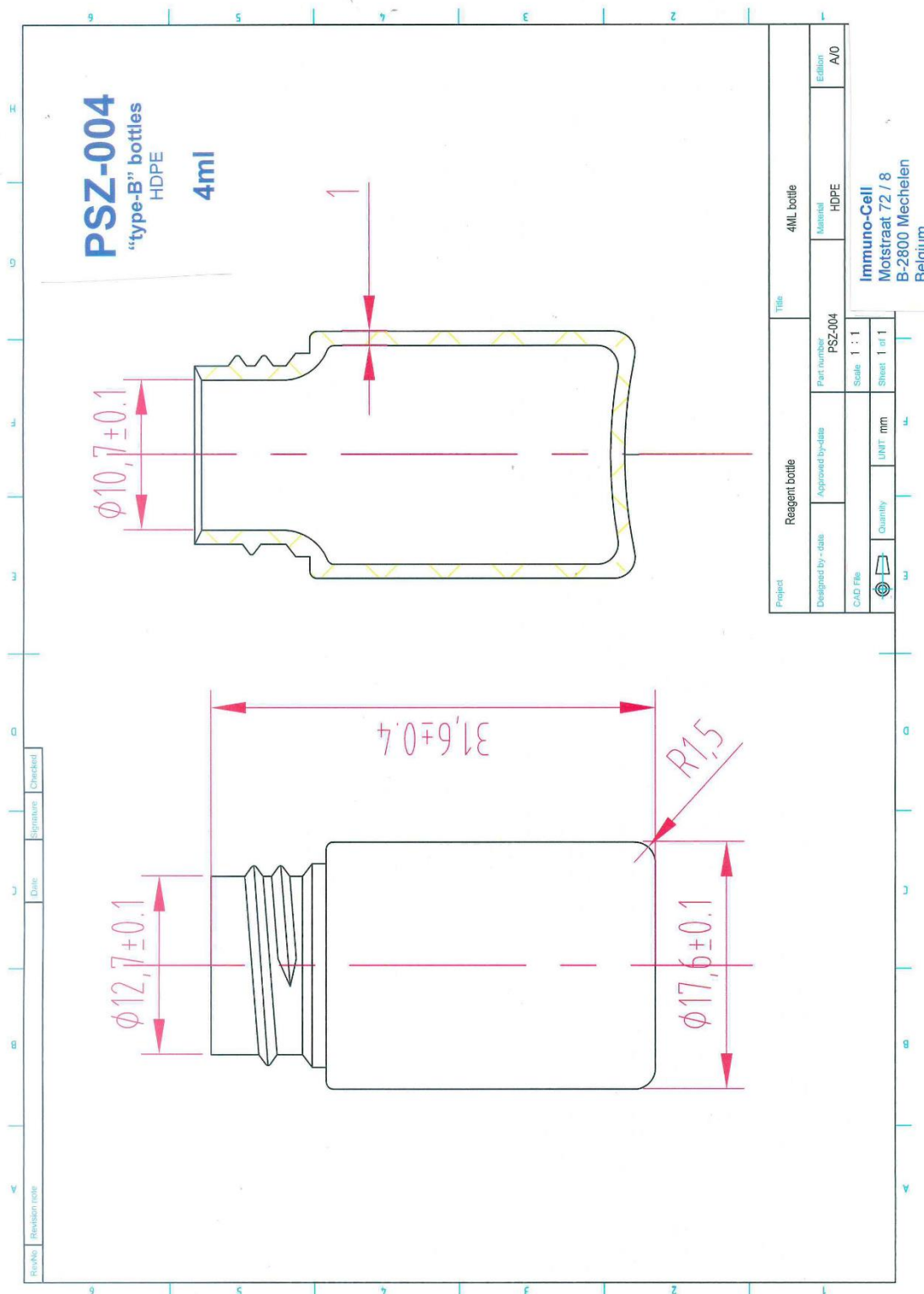


Figure: PSZ-004 drawing



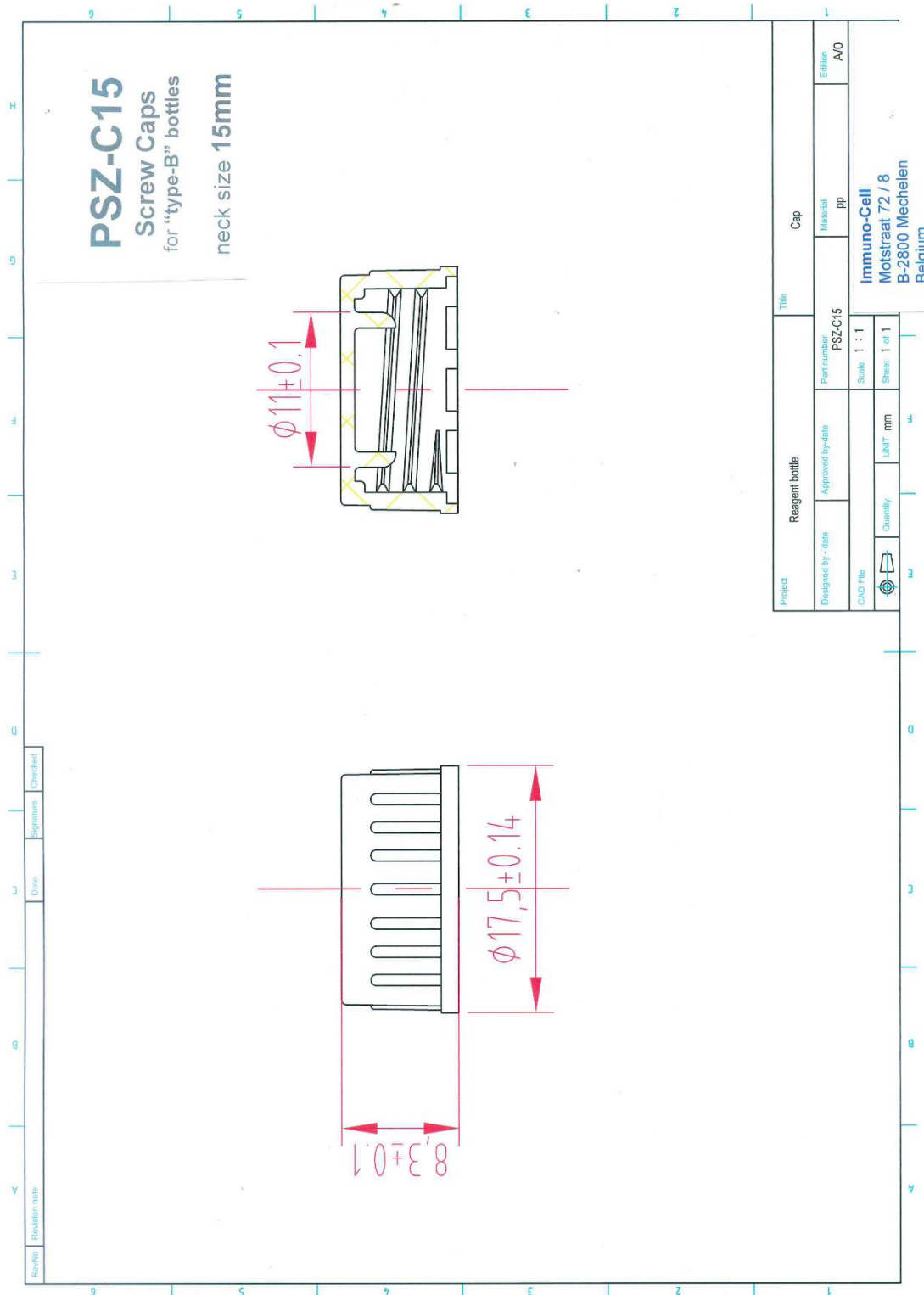


Figure: PSZ-C15 drawing

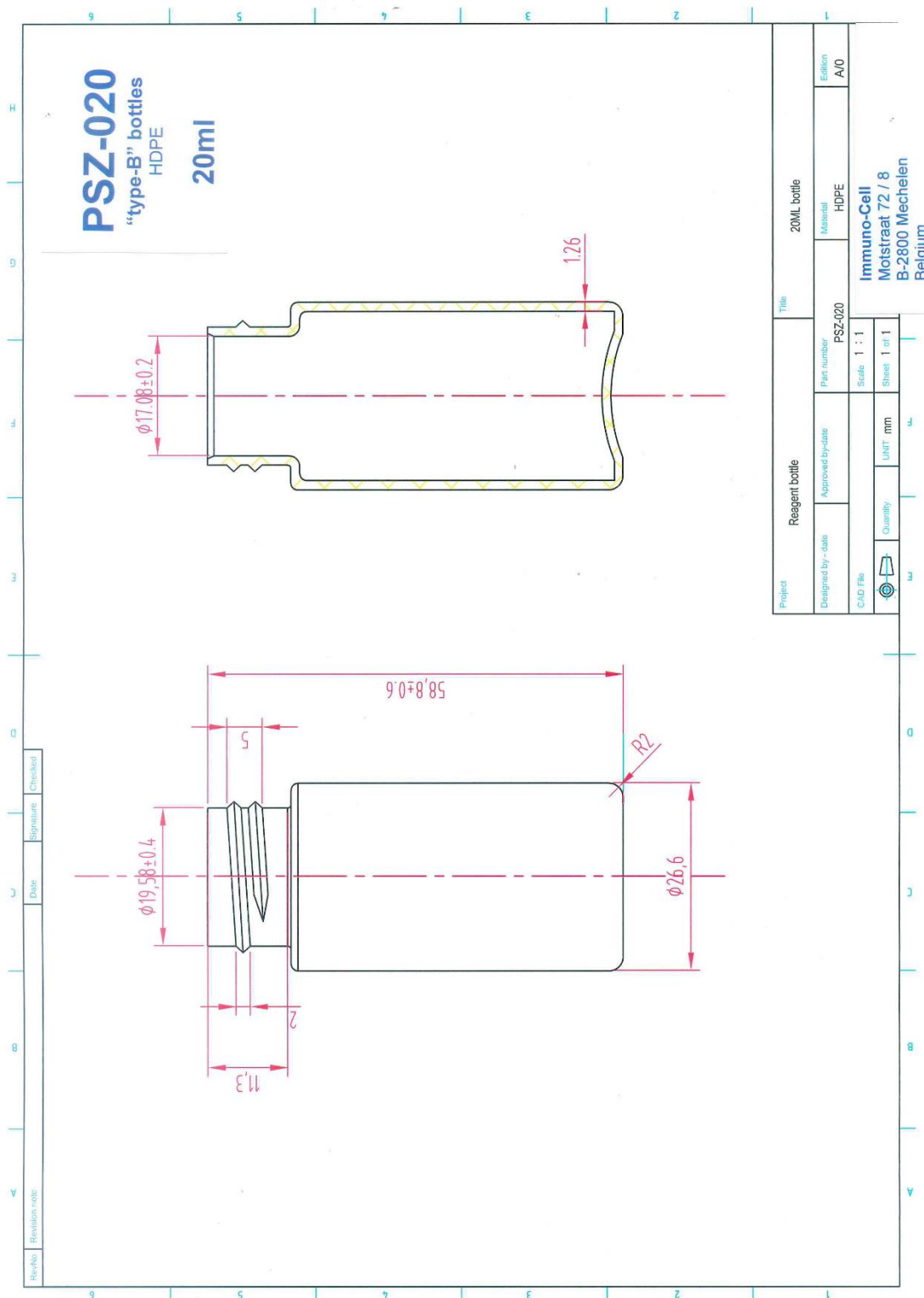


Figure: PSZ-020 drawing

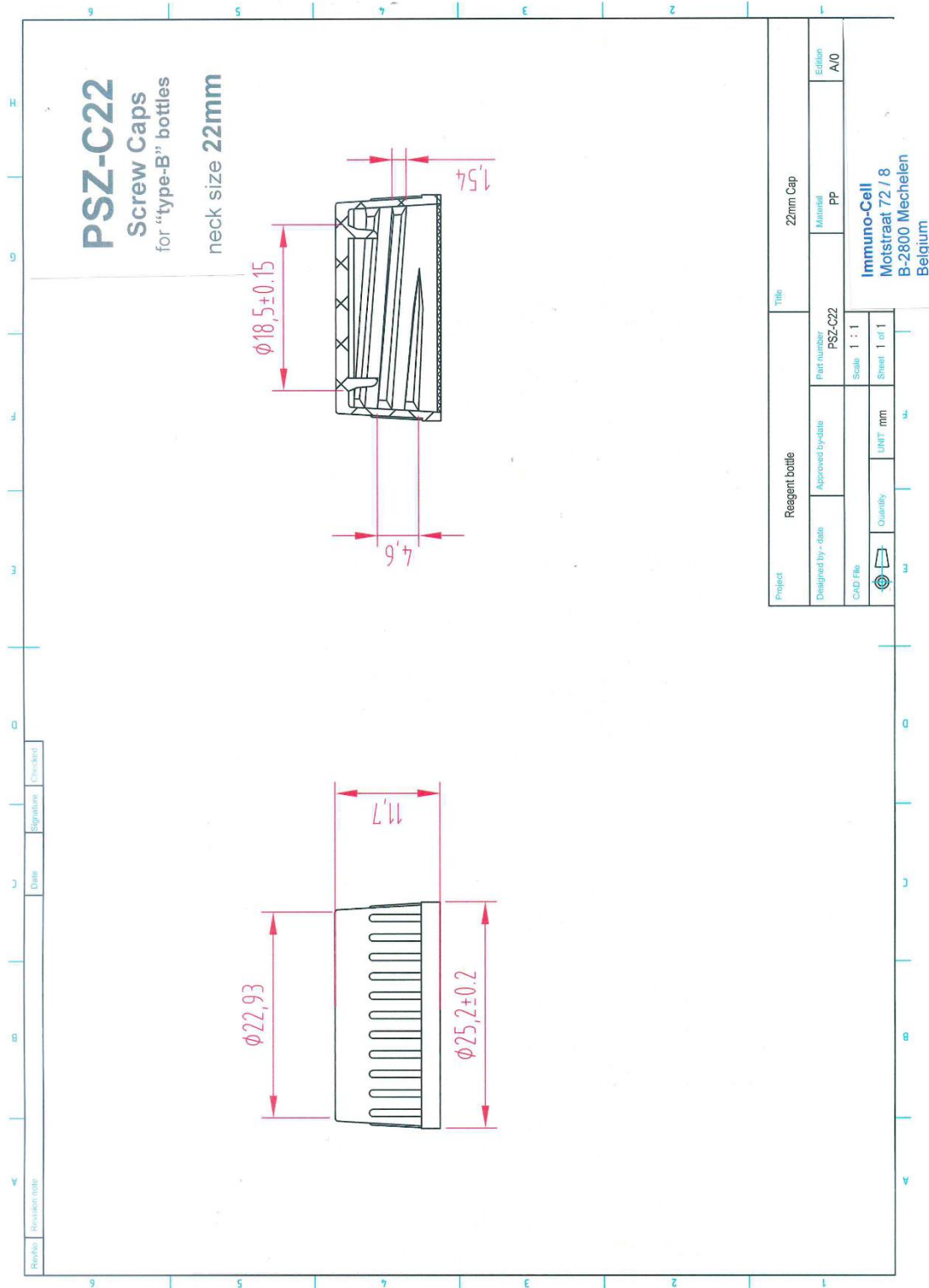
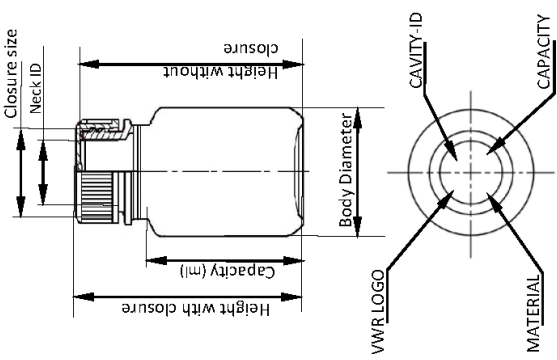


Figure: PSZ-C22 drawing

									
Capacity (ml)	MA Catalog #	Europe Cat#	MA Catalog #	Europe Cat#	MA Catalog #	Europe Cat#	MA Catalog #	Europe Cat#	MA Catalog #
30	414004-104	215-3401	8022-1548	215-3401S	8022-1548	215-3401S	8022-1548	215-3401S	8022-1548
100	414004-106	215-3402	8022-1549	215-3402S	8022-1549	215-3402S	8022-1549	215-3402S	8022-1549
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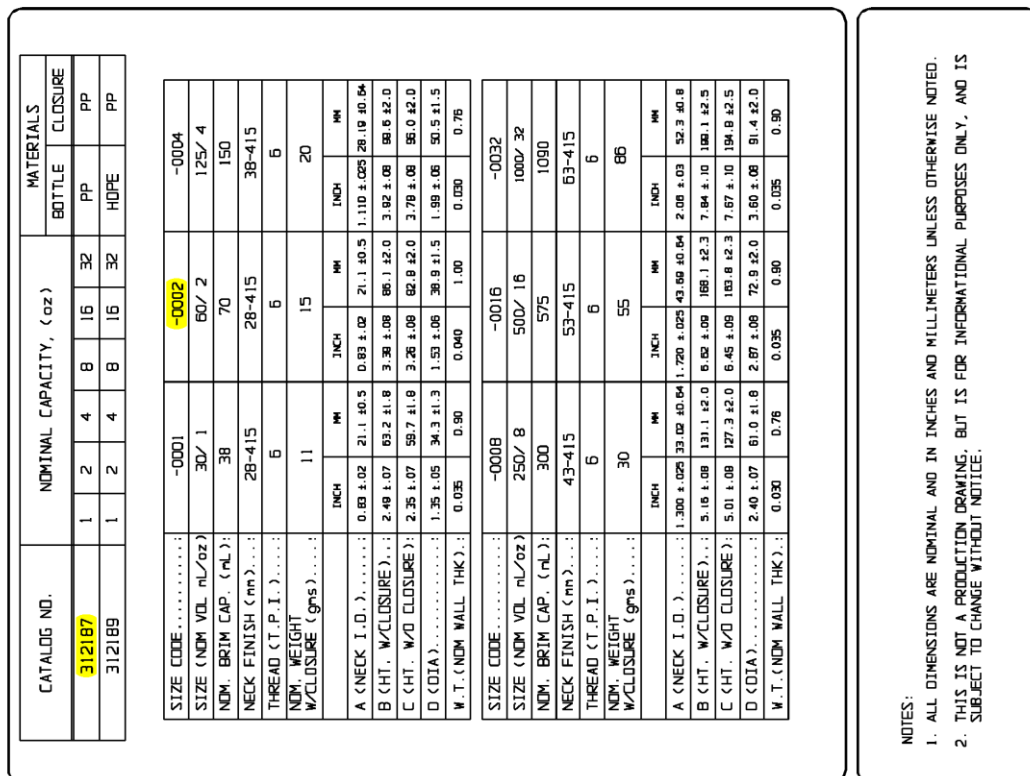
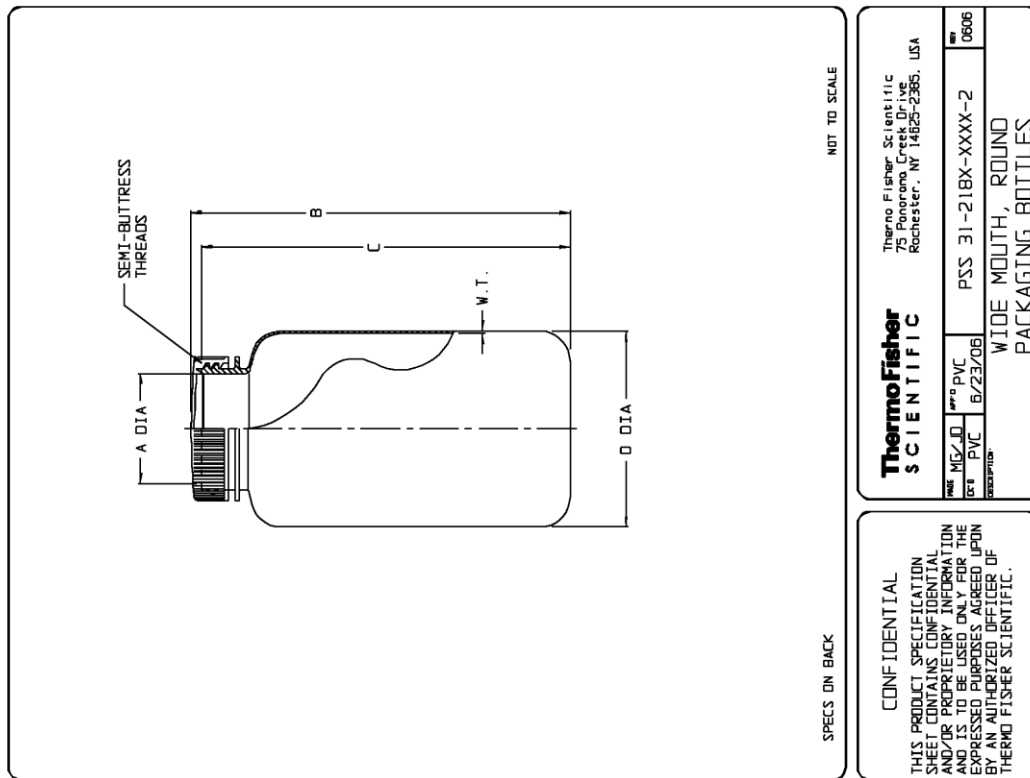


Figure: 31287-0002 drawing

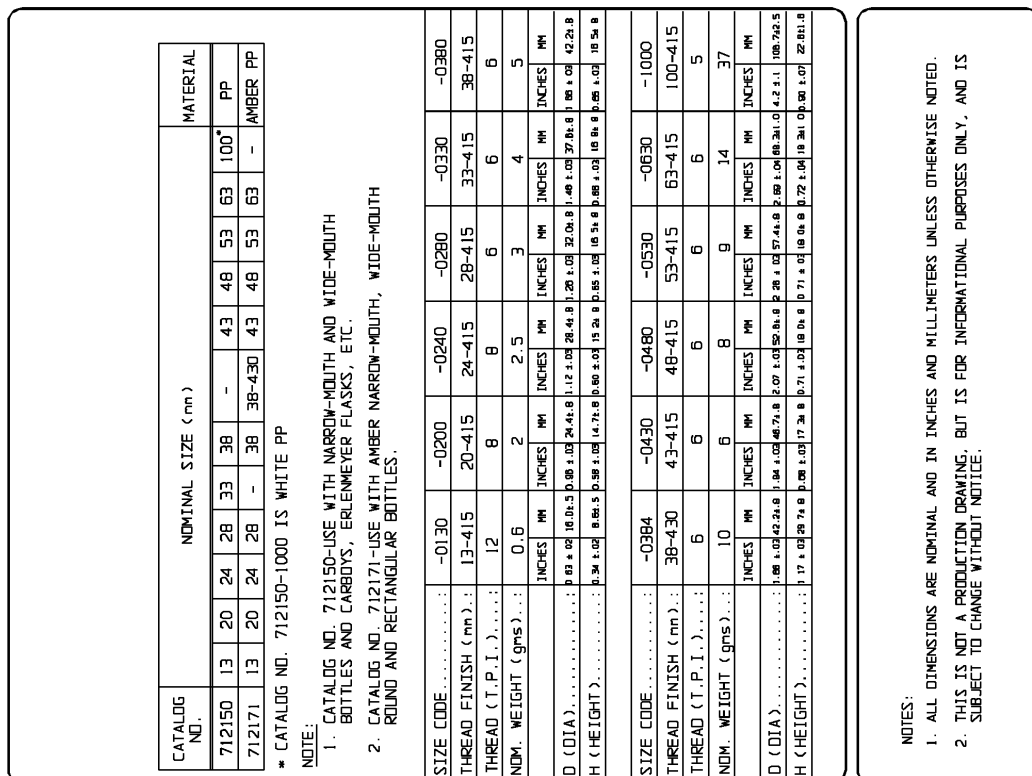
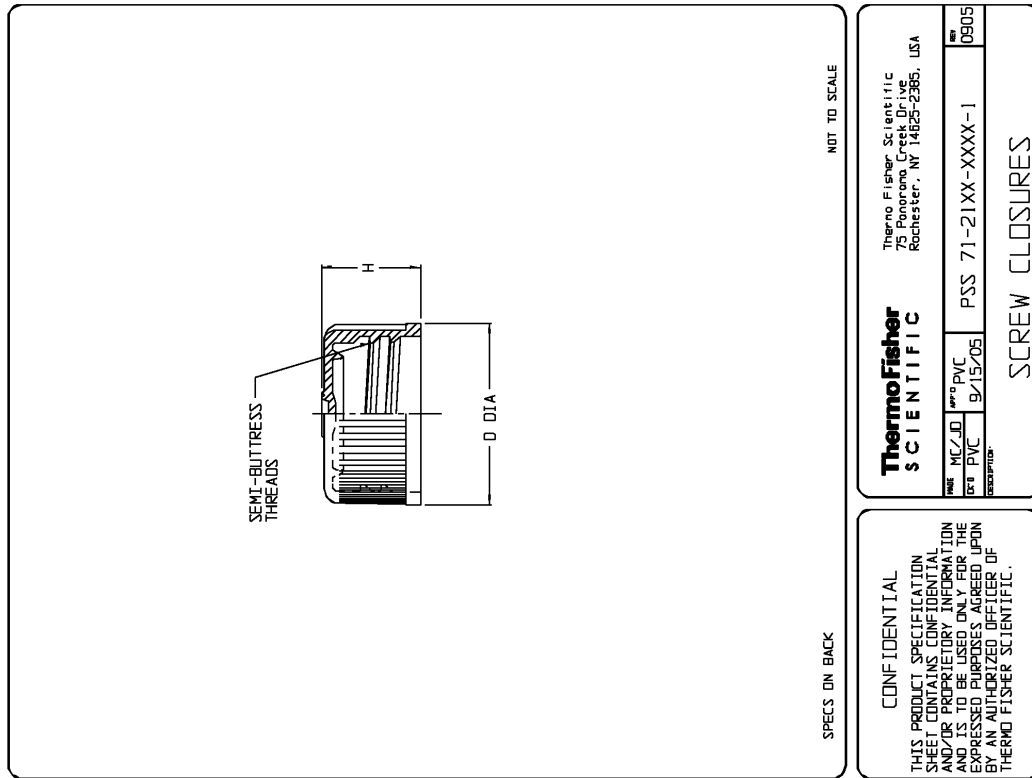
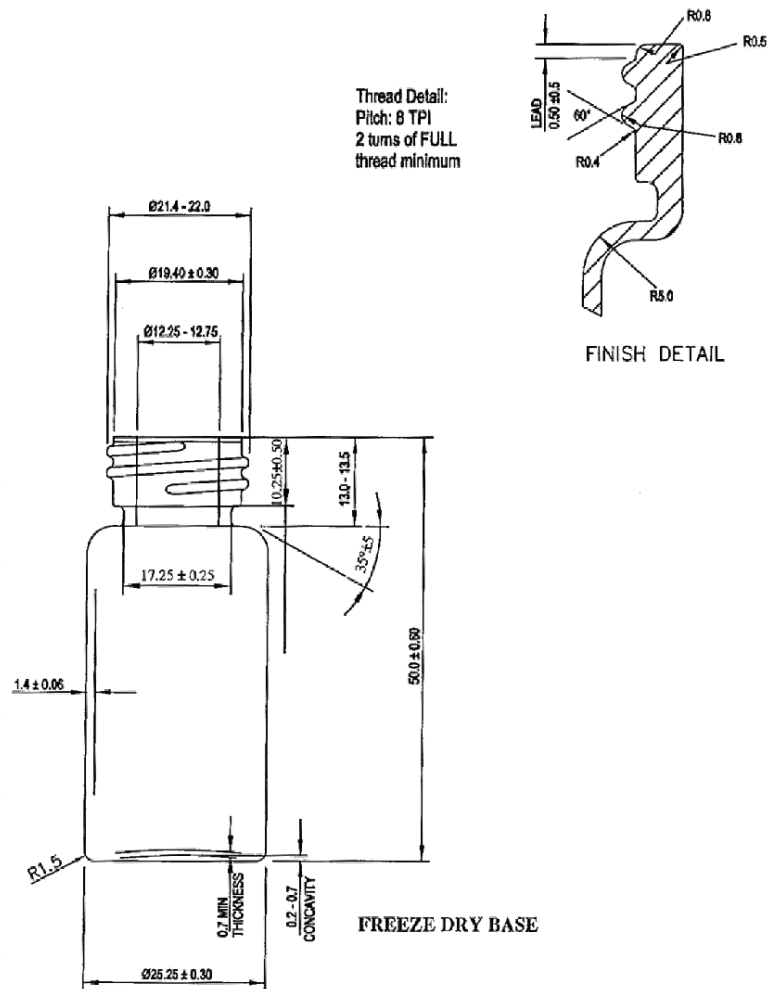


Figure: 712150-0280 drawing

**ORIGIN**  
SPECIFICATION SHEET

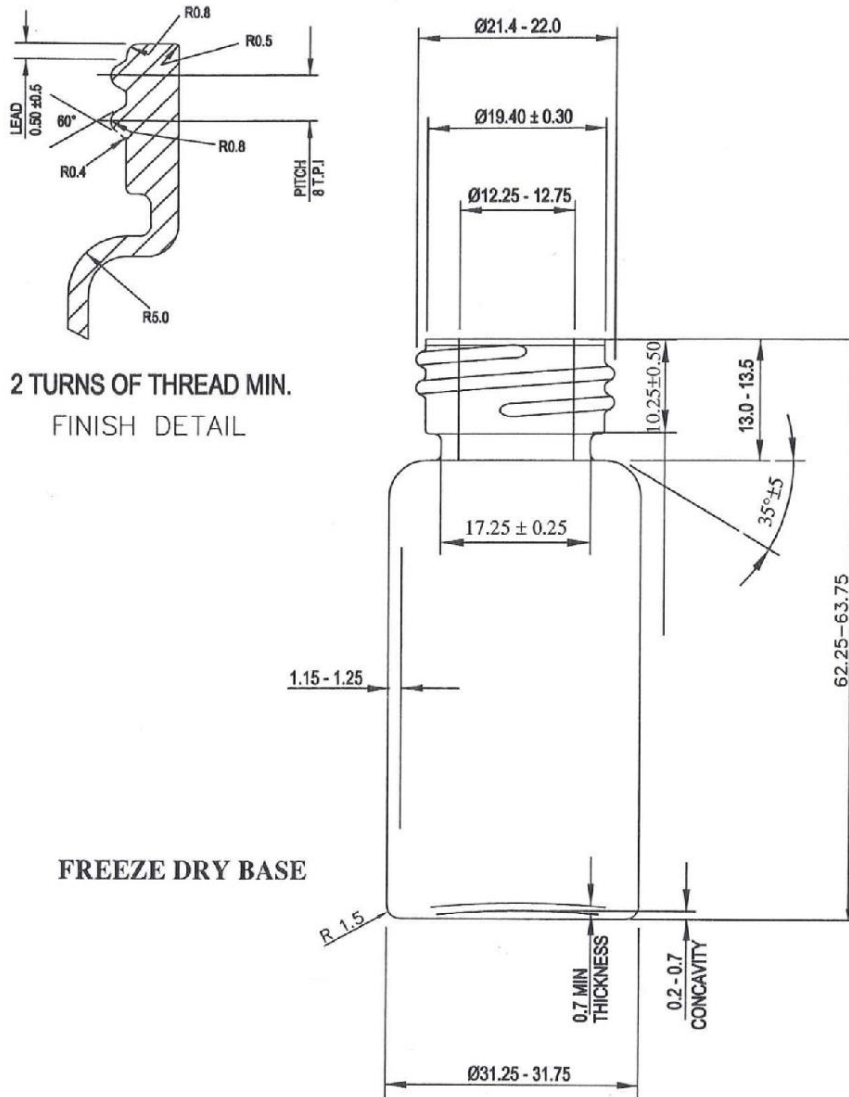


**TSV3220010C**

10ml Clear Tubular Diagnostic Screw Neck Vial

Figure: TSV3220010C drawing

**ORIGIN**  
SPECIFICATION SHEET



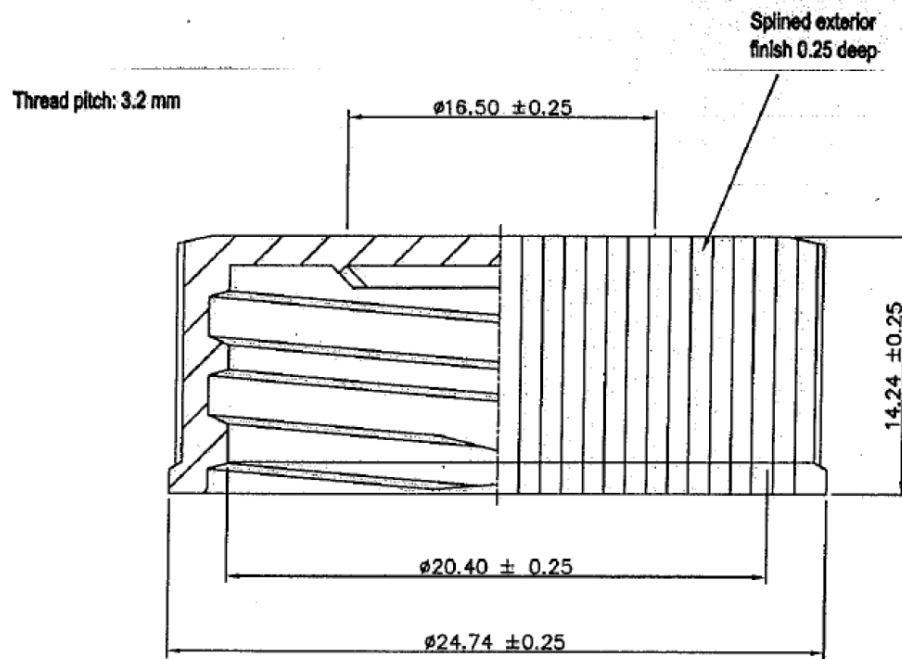
**TSV3220025C**

25ml Clear Tubular Diagnostic Screw Neck Vial

Figure: TSV3220025C drawing



**ORIGIN**  
SPECIFICATION SHEET



General Tolerance : +/-0.25mm

**422CPPW**

22mm Polypropylene white cap

*Figure: 422CPPW drawing*

**3.3. Machine Layout**

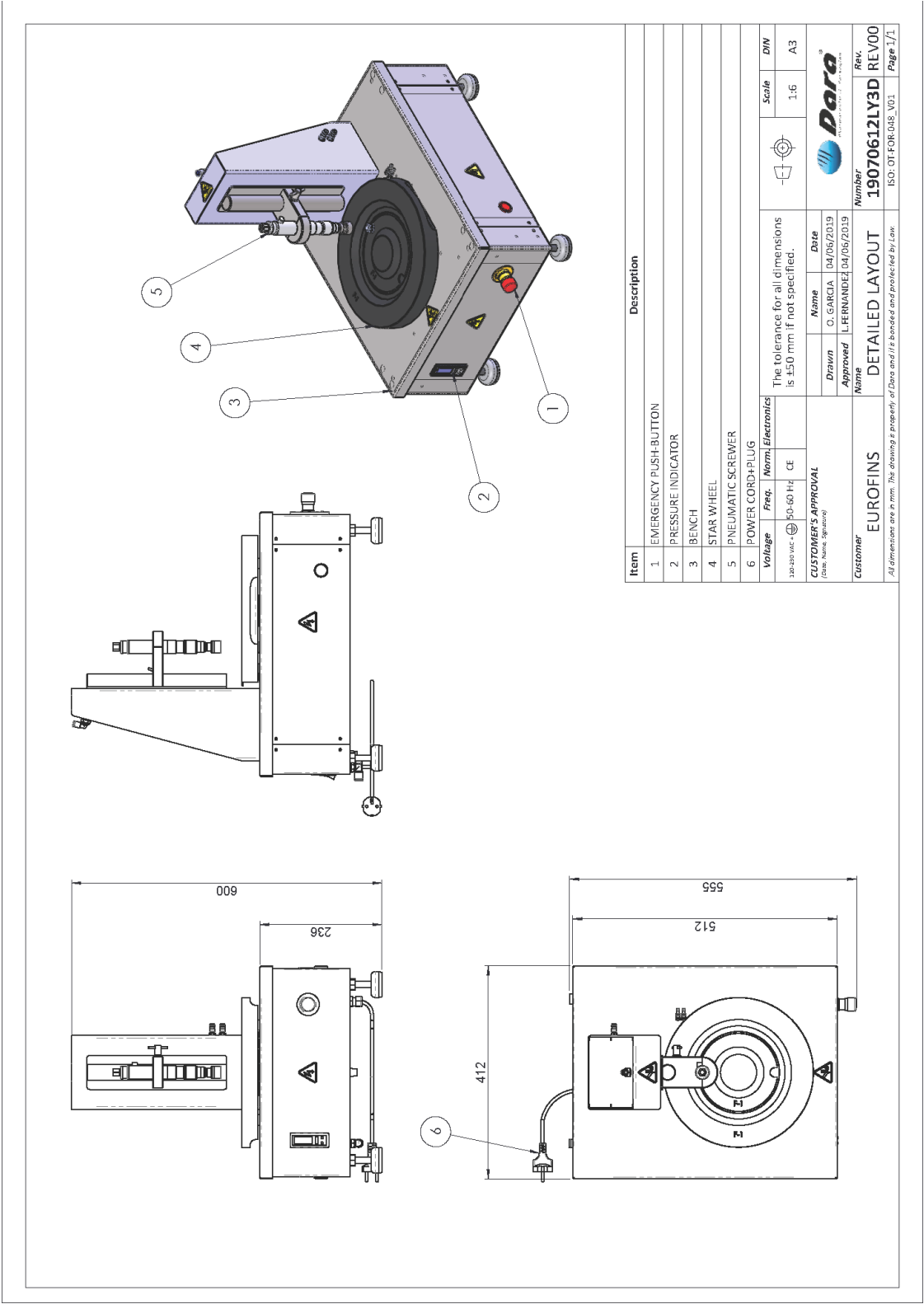


Figure: Machine Layout

### 3.4. Identification plate

The machine is identified by a features plate located on the side frame of the machine.

This plate shows the Number, Model and Year of manufacture.

			
Serial number / year:	1907061-2/19		
Type - model:	SX-140-R		
Electrical supply:	120-230 VAC + ⊕	50-60 Hz	0,15 kW
<b>Maquinaria Industrial Dara SL</b> Polígono Industrial Coll de la Manyà - C/ Galileu Galilei, 5-19 08403 Granollers (Barcelona) SPAIN - <a href="http://www.dara-pharma.com">www.dara-pharma.com</a>			
			

*Figure: Identification plate*

### 3.5. CE Conformity Declaration



Maquinaria Industrial DARA, S.L.  
Polig. Ind. Coll de la Manyà - Galileo Galilei 5-19  
08403 - GRANOLLERS (Barcelona) - Spain

#### EU DECLARATION OF CONFORMITY

We declare, under our sole responsibility that the machine:

Type:	TABLE TOP
Model:	SX-140-R
Serial N°:	1907061-2
Year of Manufacture:	2019

Conforms the following European Directives:

Machinery Directive (2006/42/CE)  
Low Tension Directive (2014/35/UE)  
Electromagnetic Compatibility Directive (2014/30/UE)

the transposition regulation and provisions of the following applied rules:

<u>Stand.</u>	<u>Title</u>	<u>Edition/ Date of publication</u>
EN-ISO-12100:2012	Safety of machinery. General principles of design. Risk assessment and risk reduction.	2012
EN-ISO-14120:2016	Safety of machinery. Guards. General requirements for the design and construction of fixed and moveable guards.	2016
EN-894-3	Safety of machinery. Ergonomics requirements for the design of displays and control actuators. Part 3: Control Actuators.	2001+A1:2009
EN-ISO-13849-1	Safety of machinery. Safety related parts of control systems. Part 1: General principles of design.	2016
EN-574	Safety of machinery. Two-hand control devices. Functional aspects. Principles for design.	1997+A1:2008
EN-ISO-13850	Safety of machinery. Emergency stop function. Principles for design.	2016
EN-60204-1:2007/ A1:2009	Safety of machinery. Electrical equipment of machines. Part 1: General requirements.	2007

This declaration is only valid for machines in the conditions and at the moment when they were commercialized, being expressly uncovered any possible future changes made by the final user.

Granollers, June 7<sup>th</sup> 2019

**Roberto Calvo**  
Technical Manager

## 4. Technical Features

### 4.1. Electric Features

Voltage (Power)	230 VAC
Maneuver Coils Voltage	24 V. C.C.
Control Voltage	24 V. C.C.

### 4.2. Pneumatic Features

Operation (Range)	6 bar
Minimum value that causes an emergency	4,5 bar
Main Inlet	Ø 10 mm

### 4.3. Functional Features

#### 4.3.1. Environment Conditions

- Temperature: from 5 ÷ 50°C.
- Humidity: from 30 ÷ 90% without condensation.

**Fire protection:** The possible type of fire should be considered before selecting the type of fire extinguisher to be used. It is recommended to use fire extinguish systems that could not damage electronic circuits. (CO<sub>2</sub> dry ice extinguisher).

#### 4.3.2. Noise

Continue acoustic pressure level average equalled A:

$$L_{eq} = 71,7 \text{ dB(A)}$$

### 4.4. Accessories

Crimp Close Unit	—
Screw Close Unit	X
Pressure Closing Head	—

## **5. Transport and Handling**

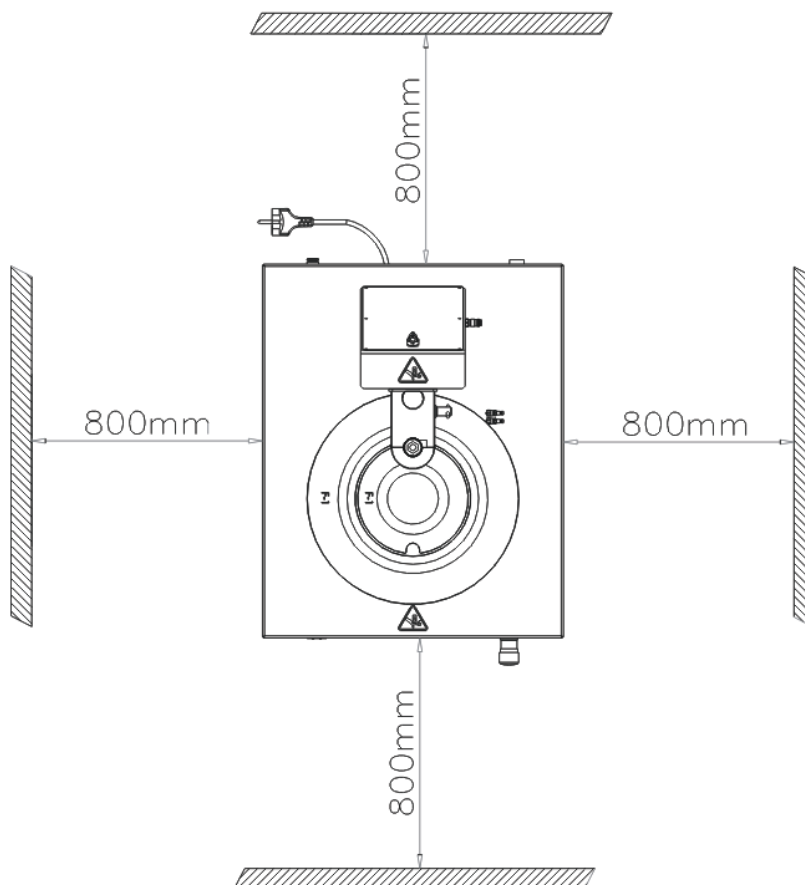
To handle the machine once it has been unpacked, a fork truck or transpalette must be used, according to the following instructions:

1. Check that the power supply has been switched off. All access and handling area must be cleared.
2. Unplug the supply wire of the machine.
3. Disassemble all the equipments which are not fastened to the machine (i.e. peristaltic pump) in case it is necessary.
4. Insert the forks of the truck or *transpalette* below the frame of the machine, or push the frame after unblocking the wheels.
5. Place the machine in its final position.
6. Block the wheels to operate the machine (if the machine has them).

## 6. Installation and Start-up

### 6.1. Placement of Machine

The room required for the placement of the Monobloc must be wide enough for the user to carry out the works and see the indicators of the machine, as well as to carry out maintenance operations. A distance of 800mm is recommended.



*Figure: Layout for machine placement*

## 6.2. Connections

**Warning:** Liability of **DARA** begins at the power supply connection terminals of the machine. Protection against isolation failures, shortcuts and overcharge in connections before power supply connection terminals, is a full liability of the customer.

Before connecting the machine to power supply, the customer has to check the features of electric protection devices on his electric installation and the section of power supply wires arriving to connection terminals according to the maximum use intensity as shown in this manual, in order to insure the protection of persons and goods.

The connections to carry out for the installation of SX-140, is as follows:

### 6.2.1. Power supply

**Line:** See Technical Features  
**Power:** 0,15 kW.  
**Wiring:** Section of wires 1,5 mm<sup>2</sup>  
**Location of connection:** Bottom rear panel plug (included)

(\*) See electric drawings

### 6.2.2. Pneumatic supply

**Main Inlet:** Ø10 mm  
**Operation Range:** 6 bar (Minimum value that causes an emergency stop = 4.5 bar).  
**Compressed Air Consumption:** 1,3 L/cycle  
**Location of connection:** Bottom rear panel plug (included)

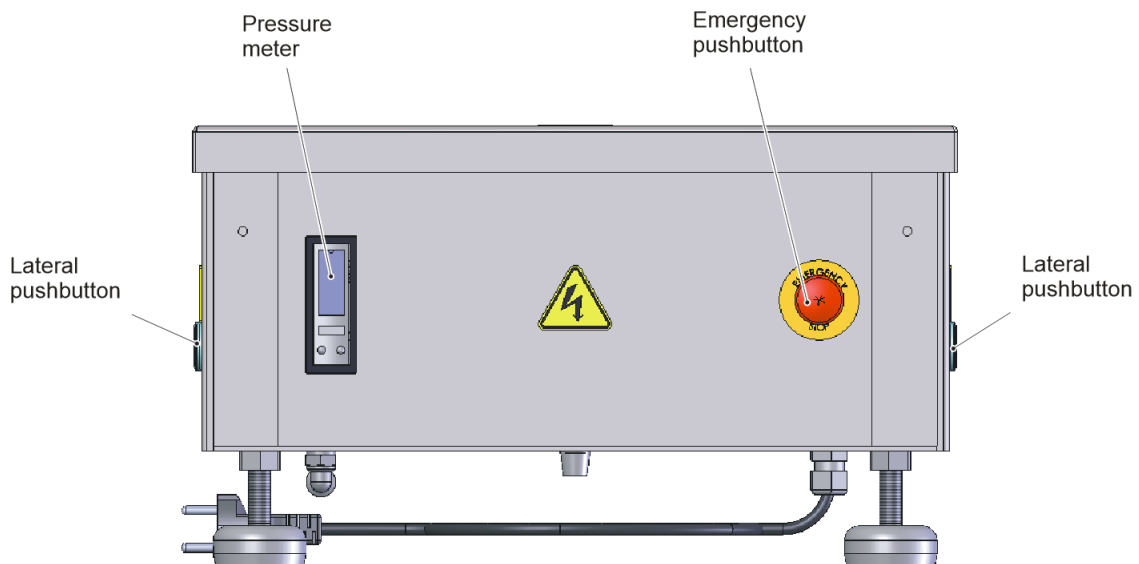
(\*) See pneumatic drawings



## 7. Operation

### 7.1. Control Panel

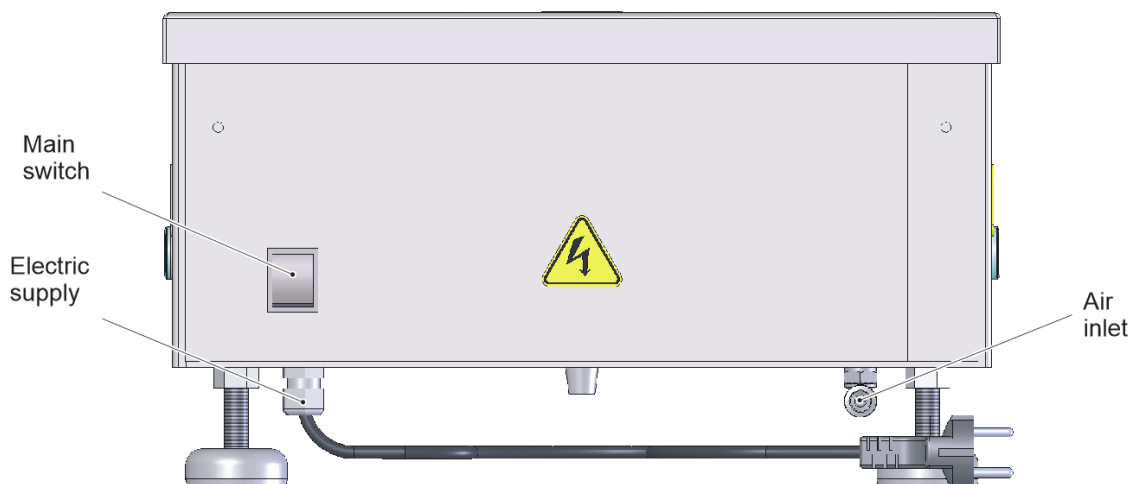
The controls are located in the main panel. This panel is in front of the normal working place. They are composed by an Emergency pushbutton (stop), a digital pressure meter and two pushbuttons to start the machine.



*Figure: Front control panel*

**Lateral pushbuttons:** The machine executes the operating sequences when both pushbuttons are pressed simultaneously. When the operator stops pressing the pushbuttons, the machine remains in the last sequence.

The rear panel includes the main switch. Below the machine, there are the air pressure inlet and power supply cord.



*Figure: Rear control panel*

### 7.1.1. Emergency Pushbutton

This is the strictest and shortest safety. When the pushbutton is pressed, all the power of the machine including air supply and electric systems power is cut.

## 7.2. Main Description

Prior to start operating the machine, if different formats must be produced, the necessary adjustments for the container to produce must be carried out. These are mainly the change of the dividing plate, the outer guide and the cone cap for those ones corresponding to the desired format.

In the front panel unlock the Emergency Pushbutton, so the machine waits for a first bimanual push.

The container must be inserted in the dividing plate, with the cap in position. Once it is inserted, the operator must press the bimanual control to start the cycle.

The dividing plate turns 180° taking the container with the cap above it. Over the stop of the inlet guide there is a fiberoptics detector that starts the pneumatic turn cylinder to place the containers under the closing head.

Once the pneumatic polyurethane brake is activated, the containers are locked and the closing starts.

In the front panel, there is an Emergency pushbutton. When it is pushed by the operator, the machine is suddenly stopped at any part of the cycle.

This must be ONLY used as an emergency stop, not as a normal stop for the machine.

## 7.3. Description of the Program

The program of the PLC rules the machine through the digital Inputs and Outputs as specified in the included Electrical drawings.

The digital inputs are 24VDC PNP signals that can be checked by its correspondent led in the CPU (see Inputs drawing). There are several inputs which are only used to activate some alarms, while others are used for the sequential automation of the machine.

The digital outputs are 24VDC PNP signals that can also be checked through their led in the CPU (see Outputs drawing). There are outputs which are only used for the sequential automation of the machine.

As it has been explained, there are several statuses for the machine which must be known:

- |                           |  |
|---------------------------|--|
| 1.- Machine with no power | - No air supply.   |
| 2.- EMERGENCY             | - There is current in the machine, but no power or air supply. |
| 3.- AUTOMATIC/MANUAL      | - Production mode.   |

The machine is purely sequential. No step is executed unless the previous one is fulfilled.

### **7.3.1. Sequence of Closing Program**

The main sequence will be:

1. Switch on power supply.
2. Switch on air supply (6 bars).
3. Unlock EMERGENCY STOP.
4. The air flows in progressively.
5. The closing slide rises.
6. The machine waits until 4 bars are reached.
7. The machine waits until the dividing plate (or starwheel) is in any of the two possible positions.
8. The machine checks that the closing slide is in the top position.
9. The machine checks if the bimanual is pressed.
10. The machine turns the dividing plate (or starwheel) to the side opposite where it is.
11. The machine waits until the plate is in the correct position.
12. The closing slide lowers.
13. The brake is activated (only for screw close mode).
14. The machine waits for the closing slide in the lower position or low pressure.
15. The machine activates the closing head.
16. The closing slide rises.
17. The machine checks that the closing slide is in the top position.
18. The rubber brake is unlocked.
19. The machine turns the dividing plate.
20. The machine checks that the dividing plate has turned.

## 7.4. Cycles Programming

The machine performs a sequential cycle if both lateral pushbuttons (bimanual control) are pressed.

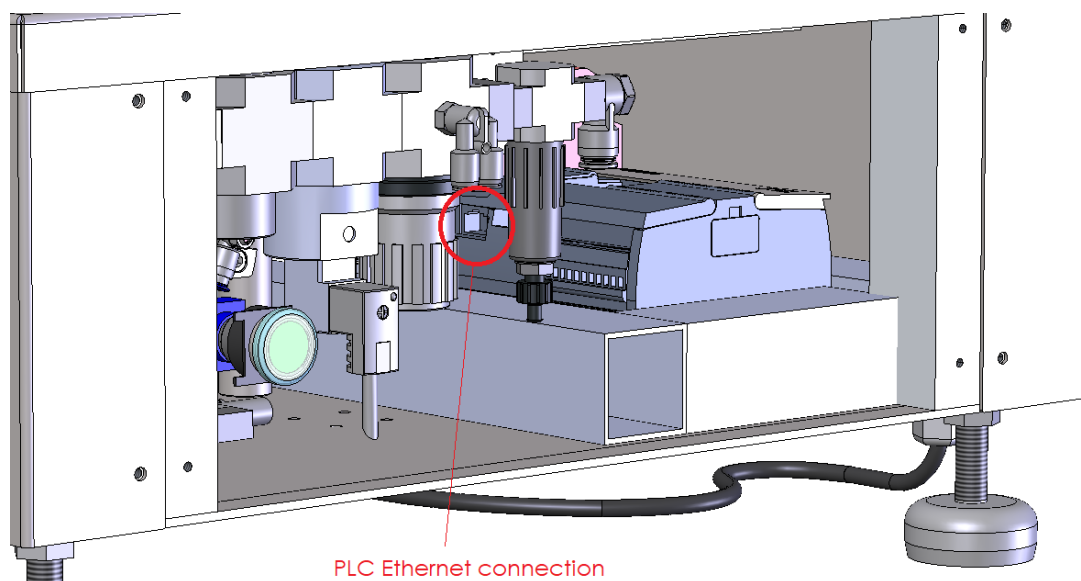
The start cycle is:

- 1- Switch on power supply.
- 2- Switch on air supply.
- 3- Wait until pressure meter indicates more than 4,5 bar.
- 4- Press simultaneously both lateral pushbuttons (bimanual control) to start the cycle.

### Programming/Modification actions

Working times set up can be modified since a web server. The steps to access to the web are:

- 1- Switch off power supply.
- 2- Unscrew the right-side cover (the one that have the identification plate).
- 3- Switch on power supply.
- 4- Connect the machine to the computer with an Ethernet wire. See connection in the picture:



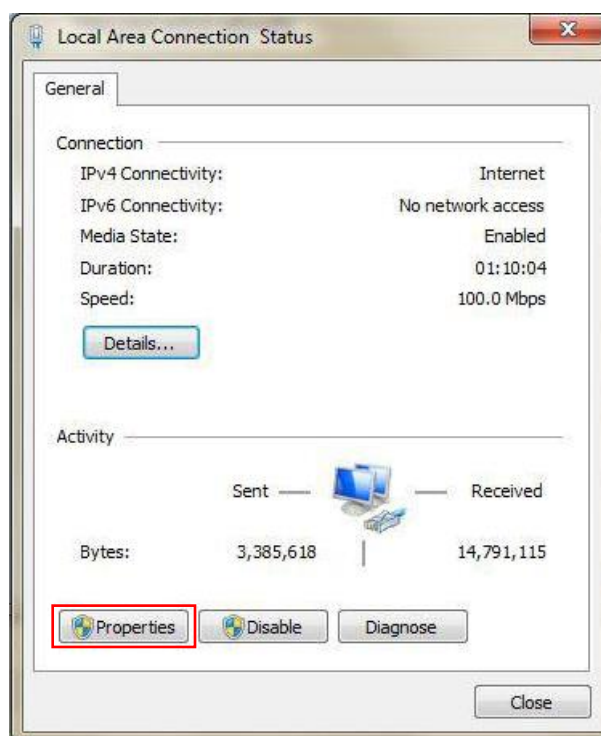
- 5- Once connected, access to *Red connections*.

6- Go to *Open Network and Sharing Center* (see image below).

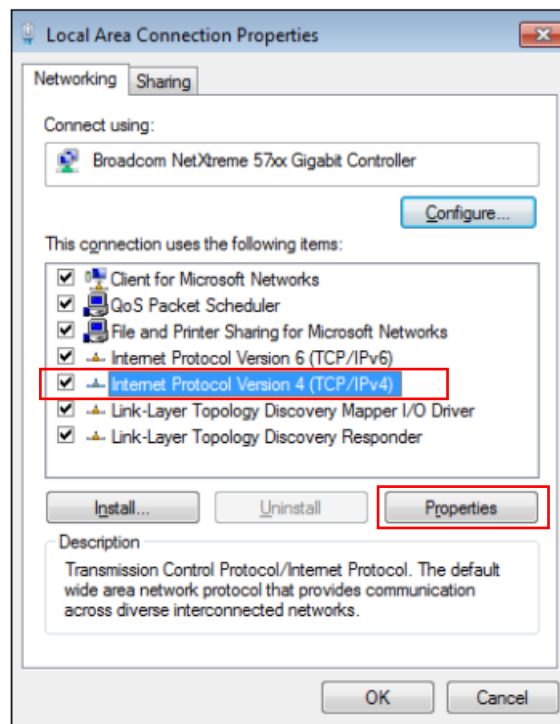


7- *Type of Access – Internet / Connections – Local area connection. Open Local area connection Status.*

8- A *Local Area Connection Status* window will open. Go to *Properties*.



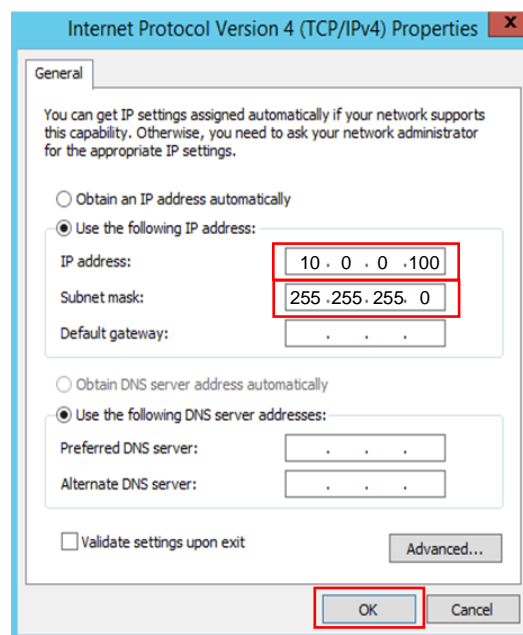
9- Select *Internet Protocol Version 4 (TCP / IPv4)* and press the *Properties* button.



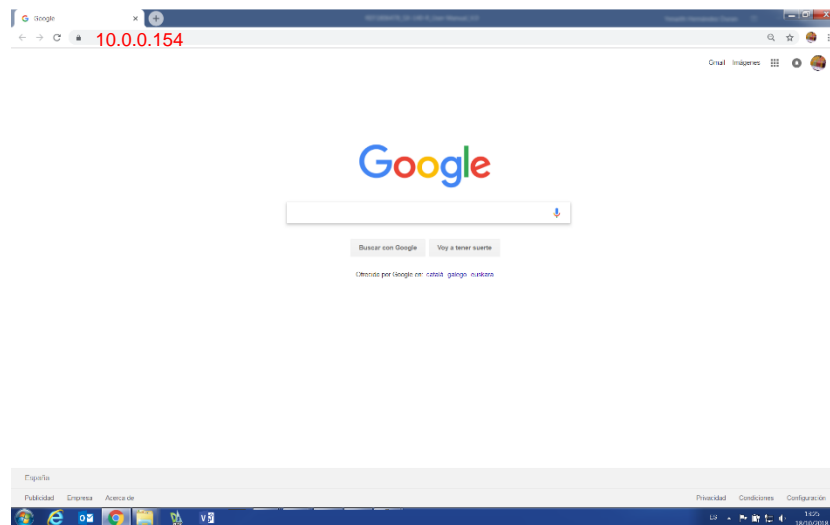
10- In *General* tab, check the option *Use the following IP address*. Write in it the work IP. In this case:

- IP address: 10.0.0.100
- Subnet Mask: 255.255.255.0

11- Press *OK*.



12- Open the internet browser and put the IP of the automaton, replacing the value 100 with the value 154.

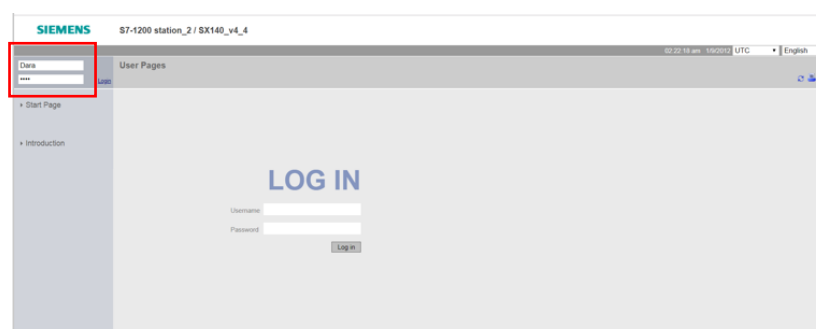


13- This address takes to a screen created for the modification of the parameters. Press *Intro*.

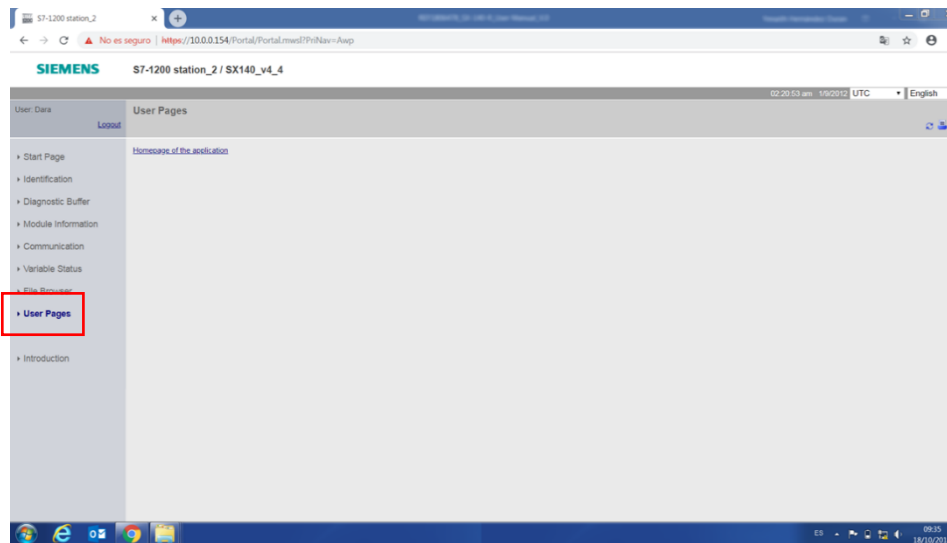


14- Introduce the User Name and the Password.

<b>User Name</b>	Dara
<b>Password</b>	8784



- 15- After Login, a warning screen appears. Click *Go to this website (Not recommended)*.  
 16- Go to *User Pages*.



- 17- The following table of parameter appears.

TIEMPOS / TIME	VALOR DE FORZADO VALUE TO FORCE	VALOR DE VISUALIZACION DISPLAY VALUE
RETRASO ACT.FRENO BREAK ACTIVATION DELAY	<input type="text"/> Set a new Time	150 ms
RETRASO CERRADOR ABAJO DOWN CLOSER DELAY	<input type="text"/> Set a new Time	200 ms
RETRASO PARA SUBIR UP DELAY	<input type="text"/> Set a new Time	250 ms
T.PINZA CERRADA GRIPPER CLOSER TIME	<input type="text"/> Set a new Time	1500 ms
T.CICLO AUTOMAT. AUTOMATIC CICLE DELAY	<input type="text"/> Set a new Time	2000 ms

CONCEPTO / CONCEPT	INTERRUPTOR / SWITCH	ESTADO / STATE
BAJAR GIRANDO ROTATING LOWER	<input type="text"/> Set a new Value	1 Bool
FRENO FRASCO BOTTLE BREAK	<input type="text"/> Set a new Value	1 Bool
BAJADA POR PRESION LOWERED BY PRESSURE	<input type="text"/> Set a new Value	0 Bool
BIMANUAL BIMANUAL	<input type="text"/> Set a new Value	0 Bool
FRENAR ABAJO BRAKE LOWER	<input type="text"/> Set a new Value	0 Bool
POT.EXTERNO EXTERNAL POT.	<input type="text"/> Set a new Value	0 Bool

All the parameters have been duly adjusted by Dara and they must remain intact. The only parameter that could be changed is the *Automatic Cycle Delay*.

If a change in the value is necessary, introduce the number in the blank box and press *Set a new Time*. It is possible to adjust the value during a cycle.

**NOTE:** If the web page doesn't work, press the button to go back to the previous page. This action may be performed several times.



## 8. Adjustments and Change of Format

### **DANGER**

Before starting any maintenance or service procedure in the machine ensure that the electric power of the machine and air supply are cut. This is valid for the machine itself and for the external feeders, conveyors or any other peripheral device which may interact with the main machine at any time. Dara accepts no liabilities on personal injuries or damages to the machine, arisen from the unfulfillment of this basic rule.

### **WARNING**

The operations required for setting up, servicing and maintenance of the machine and its peripherals must be only undertaken by specially trained personnel who are aware of the functioning and potential dangers of the machine. Dara accepts no liabilities on personal injuries or damages to the machine, arisen from the unfulfillment of this requirement.

In order to produce the different formats for which the machine has been designed, it is necessary to replace some parts and to adjust the position of others.

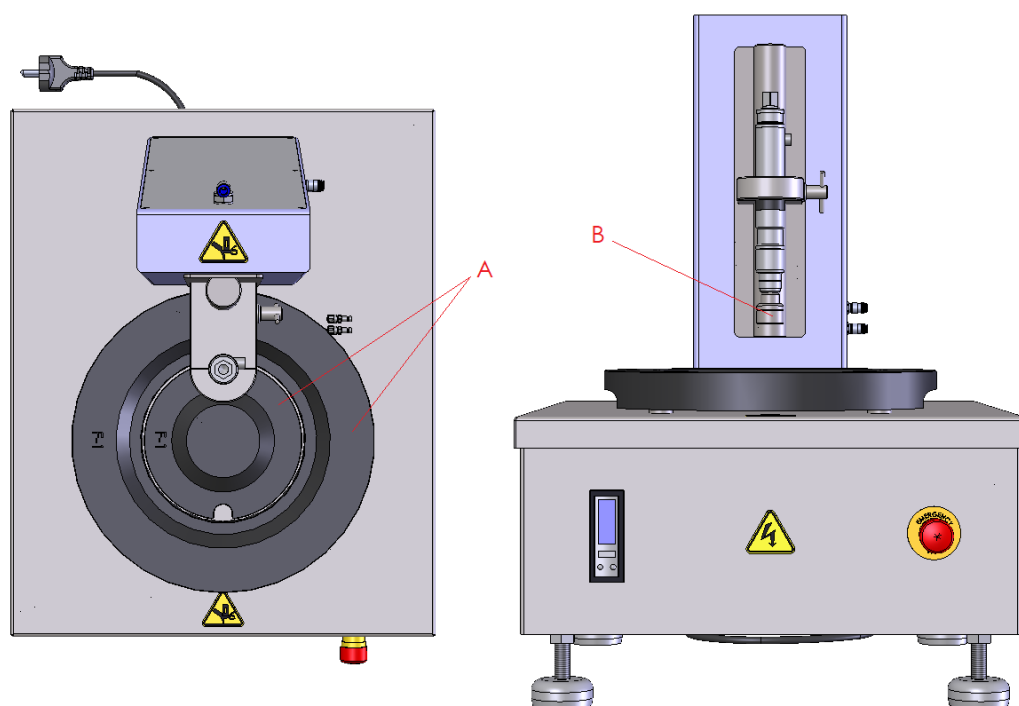
In the first case, the parts to replace are indicated below, specifically for each format, together with an explanation on how to disassemble or re-assemble the new component.

Please, notice that each format component (those that require to be replaced) is engraved with the number of format (or formats) it is used for. Therefore, in case of doubt, checking the formats that a certain component is designed for will help for the configuration of the machine to produce a new format.

To complement and understand the following information, it is necessary to check the table of formats to relation each packaging component with the format it is used for, and determine which will be the stations that perform each step of the packaging process.

## 8.1. Format components

In the following image a top and a front view of the components that must be changed or adjusted is shown. Further indications for their assembling and disassembling can be found below.



*Figure: Top and front view*

### **WARNING:**

Always check that there are not vials in the machine before starting it again after the change of format.

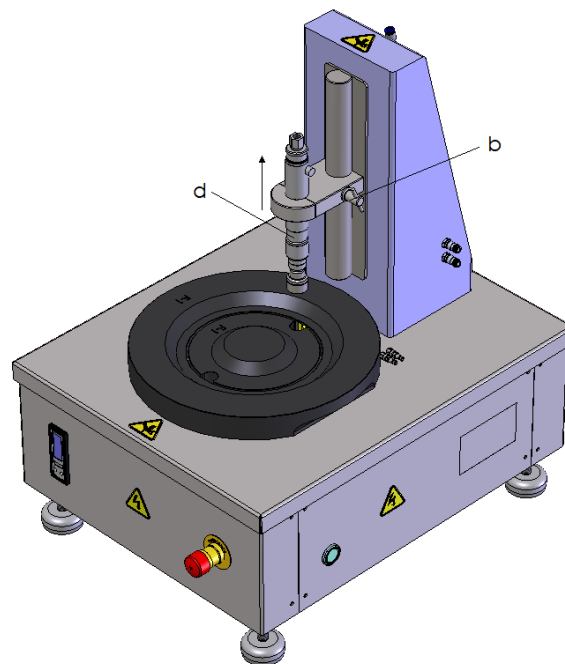
Some images in this point must be considered as a guide.

### 8.1.1. (A) Dividing plate and outer guide

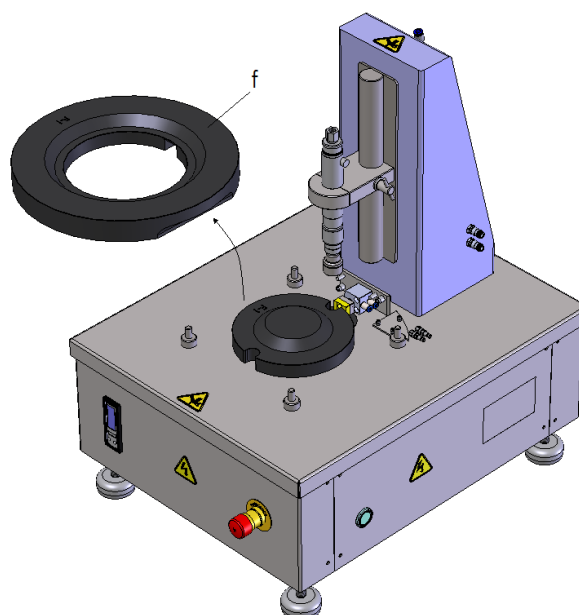
The change of format involves the replacement of the dividing plate and the outer guide by the ones corresponding to the new format. It may be also necessary to adjust the height of the closing head.

The steps to follow to remove the diving plate and the outer guide are:

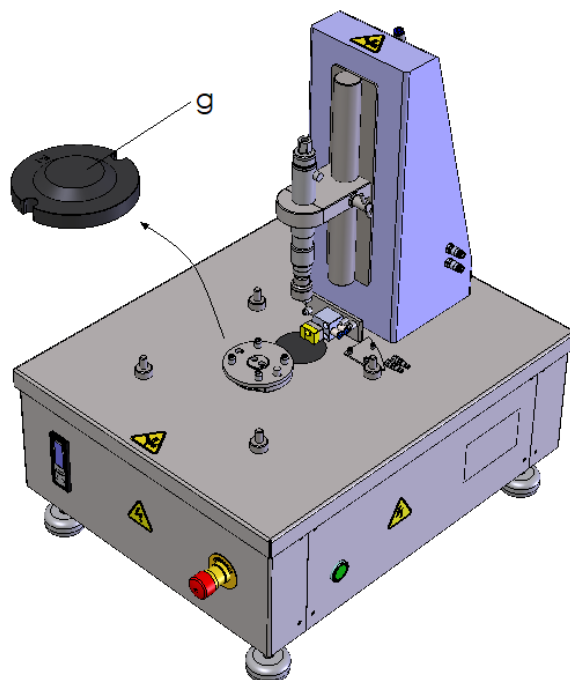
- 1- Switch off the machine by pressing the Emergency pushbutton.
- 2- Remove any container from the machine.
- 3- Loosen the closing head handle **(b)**, while holding the closing head **(d)** with left hand. Raise the closing head **(d)** to the top and tighten the closing head handle **(b)** again.



- 4- Grasp with both hands the outer guide **(f)** and pull it up firmly.



- 5- Grasp with both hands the division plate **(g)** and pull it out from its positioning pins.



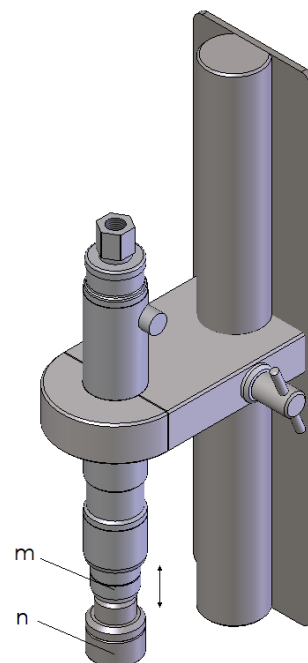
- 6- Insert the new dividing plate and the new outer guide in reverse mode.  
7- Loosen the closing head handle **(b)**, position the closing head **(d)** to the height corresponding to the new format and tighten the closing head handle **(b)** again.

### 8.1.2. (B) Cone cap

The change of format involves the replacement of the cone cap.

The steps to follow to remove the cone cap are:

- 1- Switch off the machine by pressing the Emergency pushbutton.
- 2- Remove any container from the machine.
- 3- Take the gear casing **(m)** down.
- 4- Pull the cone cap **(n)** out.
- 5- To insert the new cone cap is necessary to take the gear casing **(m)** down again.



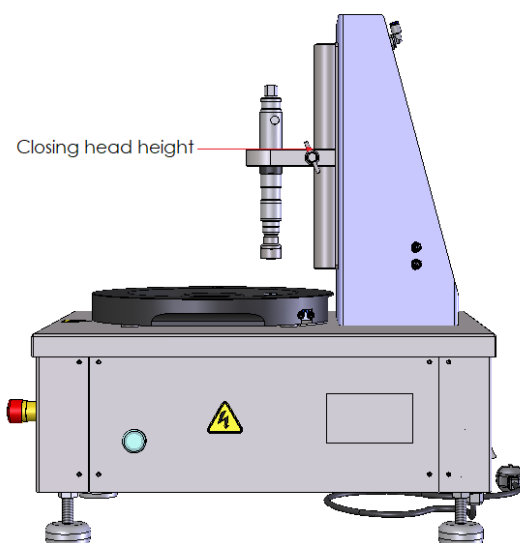
## 8.2. Adjustments

### 8.2.1. Closing head height

Depending on the format to produce, the height of the closing head must be adjusted according to the following table:

FORMAT	CLOSING HEAD HEIGHT (mm)*
F-1	107
F-2	139
F-3	121
F-4	137
F-5	150
F-6	110
F-7	138

*\*Read since the higher side of the support:*



## 9. Cares and Maintenance

It is recommended to maintain all mechanisms, frame and outer coatings of the machine in perfect clean conditions. This benefits the conservation of polished or sanded surfaces and the lifetime of the machine.

**This machine requires a reduced time for the maintenance and cleaning. Please pay attention to it.**

These indications are given for normal operation conditions. For a continuous or intensive use, or in a dusty environment increase the suggested frequencies.

A careful maintenance allows to reduce to a minimum no-production times, thus accomplishing a better performance.

### 9.1. Maintenance Operations

The maintenance operations to be carried out by the customer are these:

Group N°	Description	Check (*)		
		1	3	6
<b>1- Driving Group</b>				
Dividing plate	Centring	x		
<b>2- Closing group</b>				
	Screw Close Unit	x		
<b>3- Sensors</b>				
	Sensors (Check operation)			x

(\*) Frequency in months.

### 9.2. Maintenance of Pneumatic Screw Unit

The pneumatic screw unit requires periodic lubrication:

*Supply light turbine oil correctly through the air inlet or in the online lubricator, always before and at the end of operation. For instance, Mobil #32, Shell #32 oil and/or equivalents.*

*For gears and bearings: Supply high quality grease (for instance Shell Alvania #2, Mobilplex #2 and/or equivalents) once each three months or when the machine is disassembled.*

### 9.3. Daily Cleaning of Working Areas

The cleaning of working areas should be performed daily, with power switched off.

Make the cleaning of:

- Containers inlet and out dividing plate.
- Fixed and moveable guards.

Carry out the cleaning with degreasing products and wipe with a dry rag. To clean transparent guards (if it applies), use anti-static products. The use of solvents, petrol, alcohol, etc. can damage them.



## 10. After Sales Service

If a failure occurs and no solution is found in this User Manual, please get in touch with our After Sales service.

Whenever a query about the machine is necessary:

- About operation
- To order spare parts

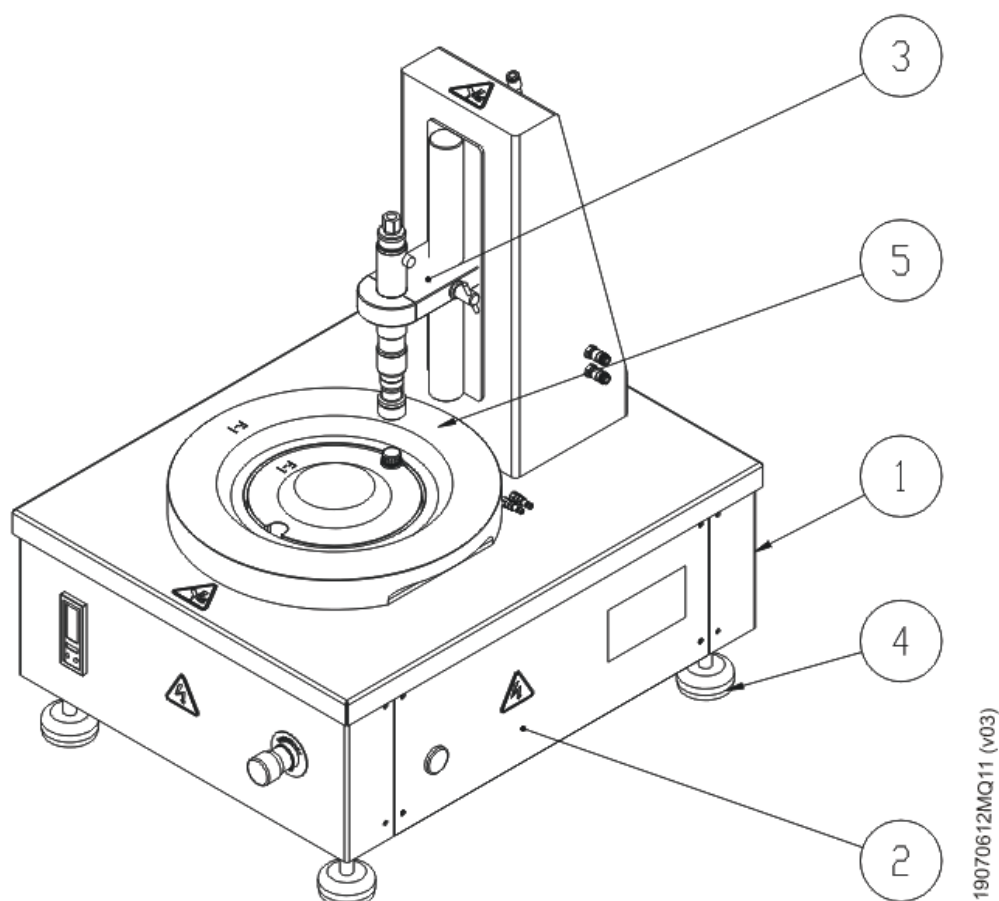
**PLEASE ALWAYS REFER THE MODEL AND MANUFACTURING NUMBER**

This information is essential and allows the After Sales Service to prepare the spare parts conveniently, so the machine could be repaired if necessary in the first visit of the service team.

Always head for our factory After Sales Service, or to an authorised workshop.  
Only the **DARA** original spare parts fulfil the necessary requirements !

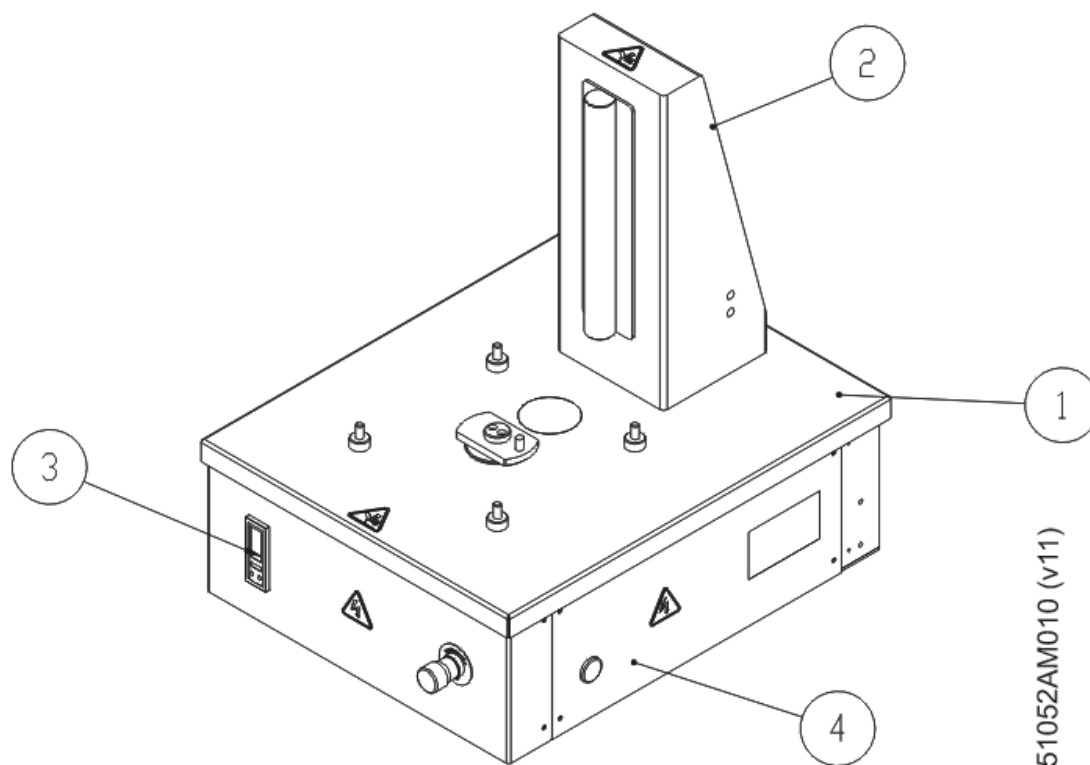
## 11. Spare Parts

### 11.1. SX-140 MACHINE GROUP (19070612MQ11-V3)



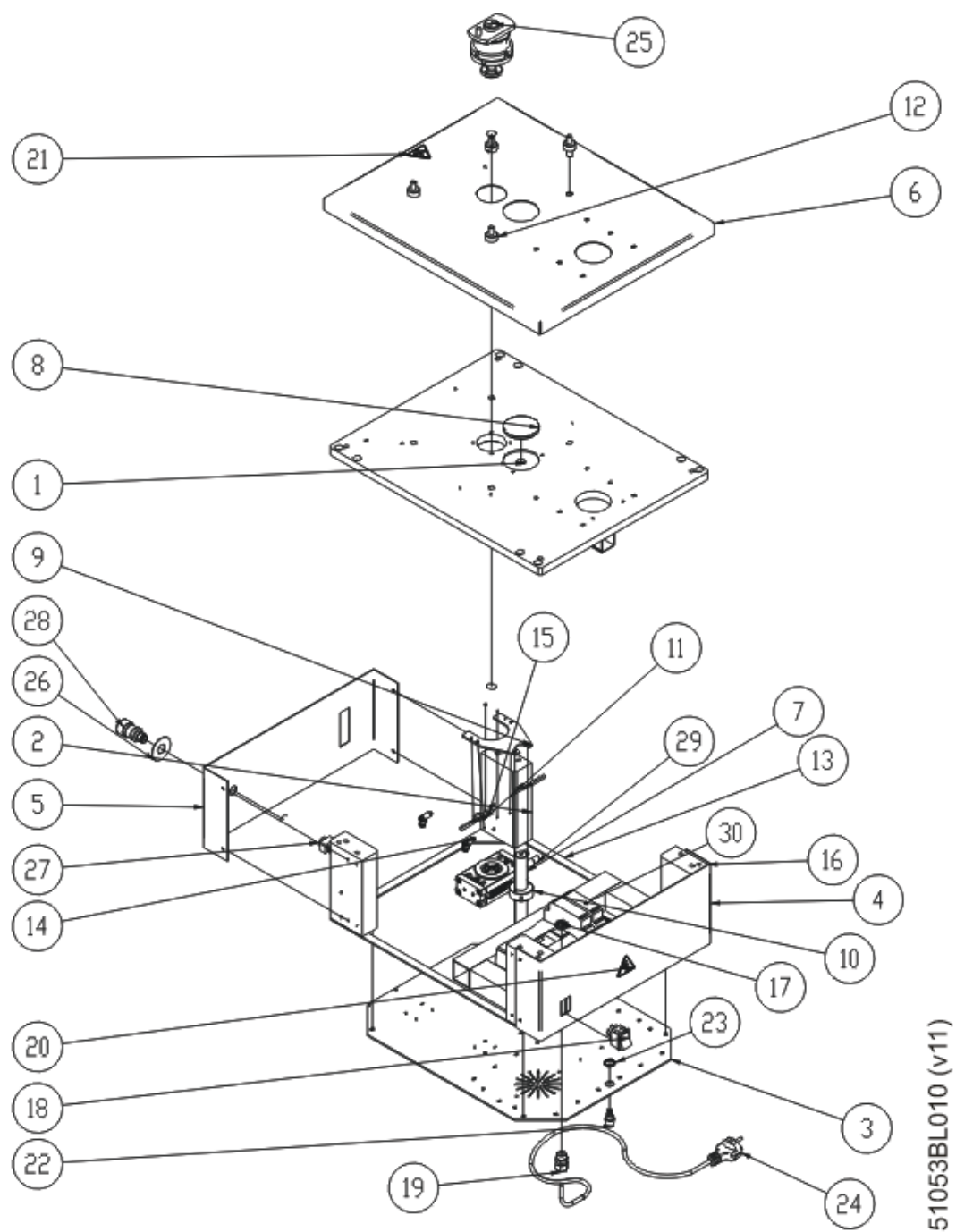
SX-140 MACHINE GROUP			
Pos.	Description	Qty.	Ref. N°
1	SX-140 BASE MACHINE GROUP	1	51052AM010
2	BIMANUAL START PUSH BUTTON	1	51053AW000
3	PNEUMATIC THREAD	1	51037AA000
4	TABLE FEET	1	51057AB000
5	F-1 FORMAT GROUP	1	19070612FM11

### 11.1.1. SX-140 MACHINE BASE GROUP (51052AM010-V11)



SX-140 MACHINE BASE GROUP			
Pos.	Description	Qty.	Ref. N°
1	SX-140 FRAME GROUP	1	51053BL010
2	SX-140 CLOSED TURRET	1	51002AK010
3	SX-140 PNEUMATIC GROUP	1	51054AA000-REV3
4	BIMANUAL START PUSH BUTTON	1	51053BP010

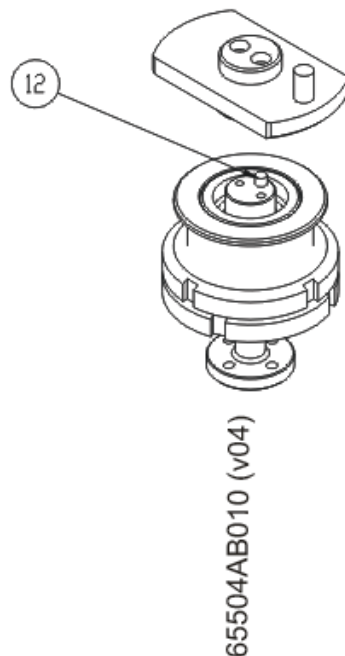
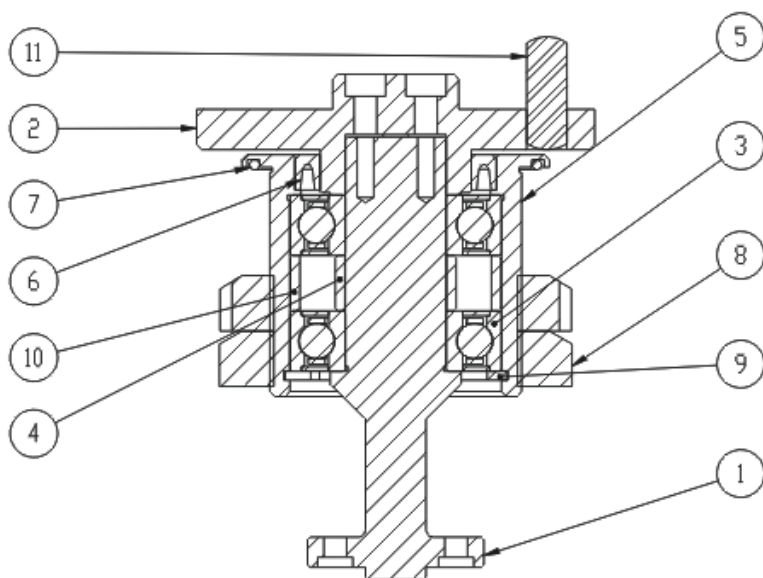
### 11.1.1.1 SX-140 FRAME GROUP (51053BL010-V11)



<b>SX-140 FRAME GROUP</b>			
<b>Pos.</b>	<b>Description</b>	<b>Qty.</b>	<b>Ref. N°</b>
1	SX-140 UPPER PLATE	1	50264GH002
2	SX-140 FRAME GROUP RIB	2	50779CR002
3	SX-60 FRAME GROUP LOWER PLATE	1	50653AE002
4	SX-140 BACK PLATE	1	50640AV002
5	SX-140 FRONTAL PLATE	1	50640AW002
6	SX-140 UPPER FRAME GROUP PLATE (BIG FORMATS)	1	50636AD002
7	FRAME GROUP SUPPORT	1	50820AA072
8*	DOLLY	1	55008AC122
9	TORSION ARM	1	50652AD012
10	NON-SPIN BUSHING	1	55466AA002
11	CABLE	2	800204196
12	EXTERNAL SHAFT SUPPORT	4	55438AJ002
13	SX-140 FRAME GROUP LOWER MARK	1	50654AB002
14	THROTTLE	2	730209019
15*	PROXIMITY SENSOR	2	800703002
16	SX-140 FRAME GROUP RIB	2	50779CS002
17	SHORT NUT	2	700204016
18	BLACK SWITCH	1	800119001
19	GLAND	1	800107005
20	LABEL, HAZARD, ELECTRIC SHOCK	2	800306018
21	LABEL, HAZARD, HAND CRUSH	1	800306021
22	CONNECTOR	1	800108003
23	NUT	1	800107092
24*	CABLE 2 m + DETECTOR	1	800206012
25	SX-140 STAR SUPPORT GROUP	1	65504AB010
26	EMERGENCY DISK	1	800119013
27*	2 CONTACT EMERGENCY BUTTON CAMERA	1	800119005
28*	EMERGENCY BUTTON	1	800119004
29*	TURN DRIVE	1	730501013
30*	EMERGENCY RELAY SECURITY	1	800101036

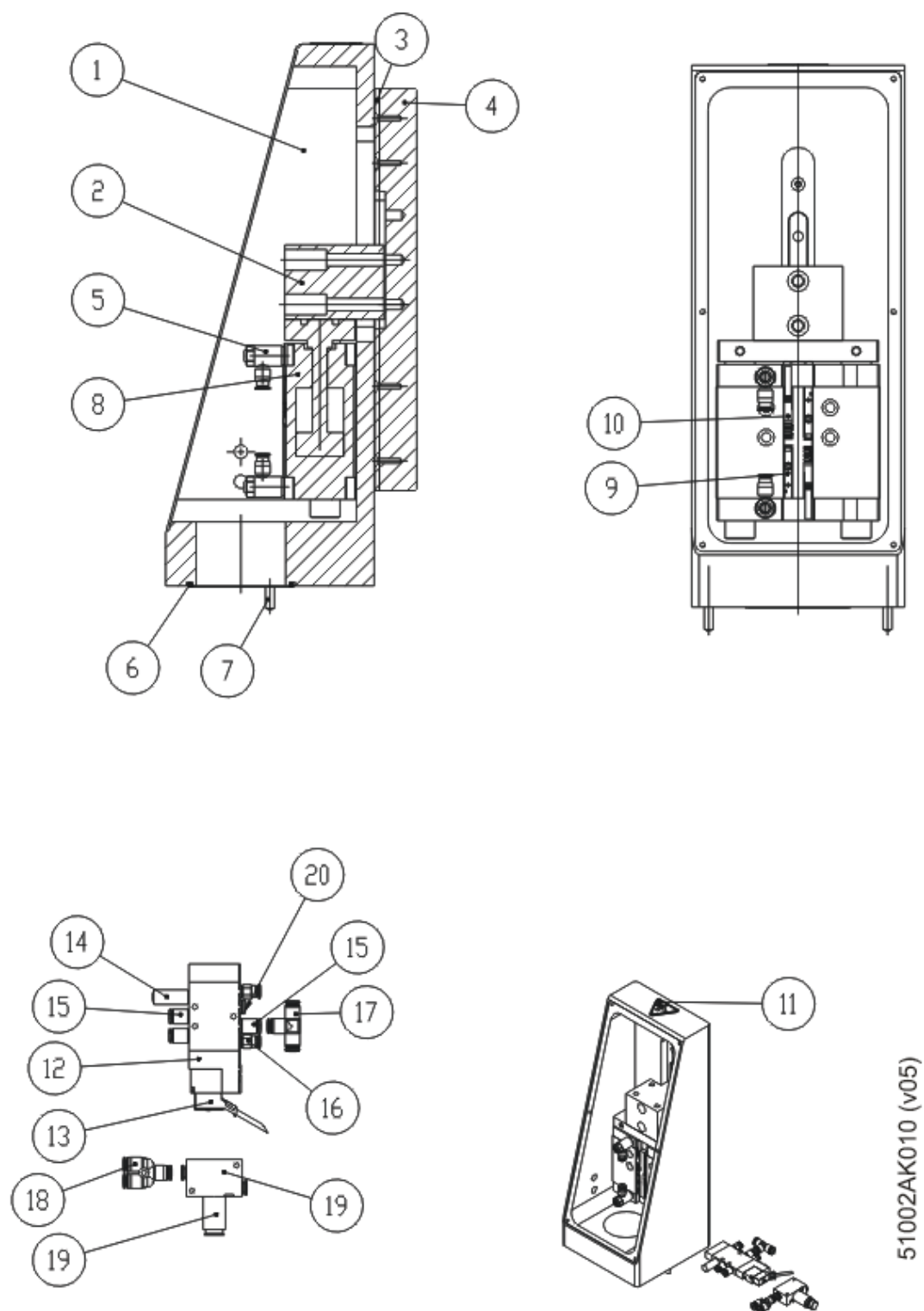
\*RECOMMENDED SPARE PART

### 11.1.1.1.1 SX-140 STAR SUPPORT GROUP (65504AB010-V4)



SX-140 STAR SUPPORT GROUP			
Pos.	Description	Qty.	Ref. N°
1	SX-140 STAR SHAFT	1	55396AP002
2	STAR DRIVE SUPPORT	1	55462AT002
3	BEARING	2	720101019
4	SPACER	1	50387MA612
5	STAR SHAFT BEARING SUPPORT	1	55410AG002
6	STOPPER	1	750103069
7	VITON O-RING	1	750101471
8	NUT	2	700207031
9	ELASTIC RING	1	700502005
10	SPACER	1	50387MA602
11	PIN	1	700401033
12	PIN	1	700401071

### 11.1.1.2 SX-140 CLOSING COLUMN (51002AK010-V5)

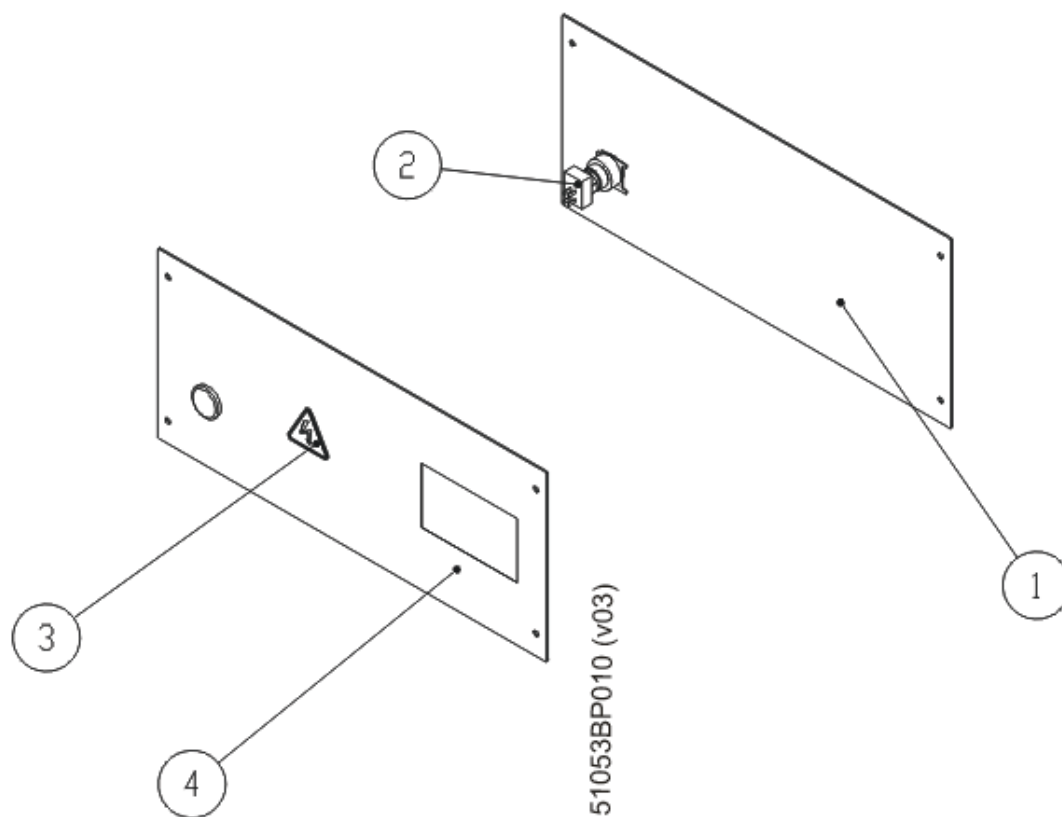


<b>SX-140 CLOSING COLUMN</b>			
<b>Pos.</b>	<b>Description</b>	<b>Qty.</b>	<b>Ref. Nº</b>
1	SUPPORT COLUMN	1	55399AE002
2	FLANGE FIXER	1	999.1648B
3	COLUMN FRONT CLOSING	1	999.1649A
4	THREAD SHAFT	1	999.1542D
5	THROTTLE	2	730209017
6	VITON O-RING	1	750101036
7	PIN	2	700401018
8*	LINEAR ACTUATOR	1	730301011
9*	PROXIMITY SENSOR	2	800703002
10	STRAIGHT FEMALE CONNECTOR	2	800204005
11	LABEL, HAZARD, HAND CRUSH	1	800306021
12*	ELECTROVALVE	1	730206034
13	CABLE	1	800204007
14	SILENCER	1	730905014
15	PLUG	3	730901317
16	PLUG	2	730901076
17	T PLUG	1	730907026
18	Y PLUG	1	730907020
19	FLOW CONROLLER	1	730103008
20	BLIND CAP	1	730908010

\*RECOMMENDED SPARE PART

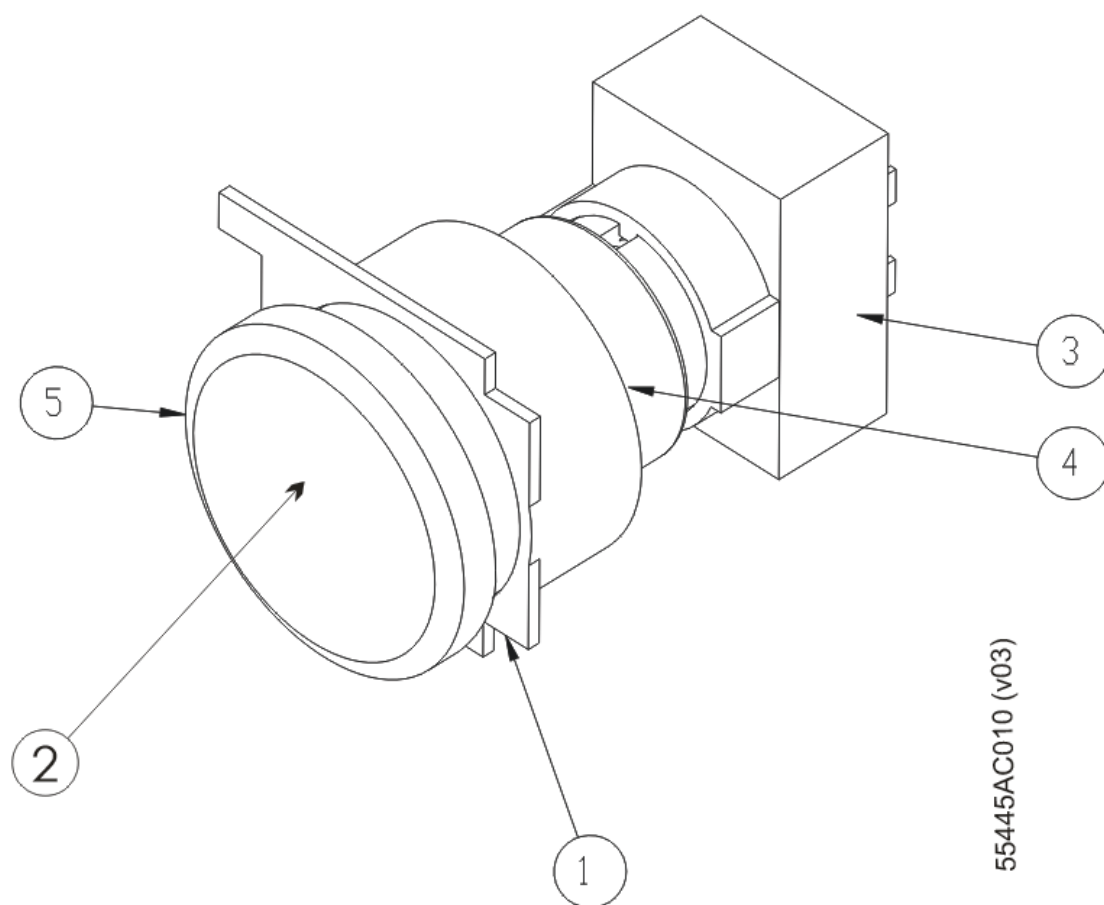


### 11.1.1.3 BIMANUAL PUSHER BUTTON GROUP (51053BP010-V3)



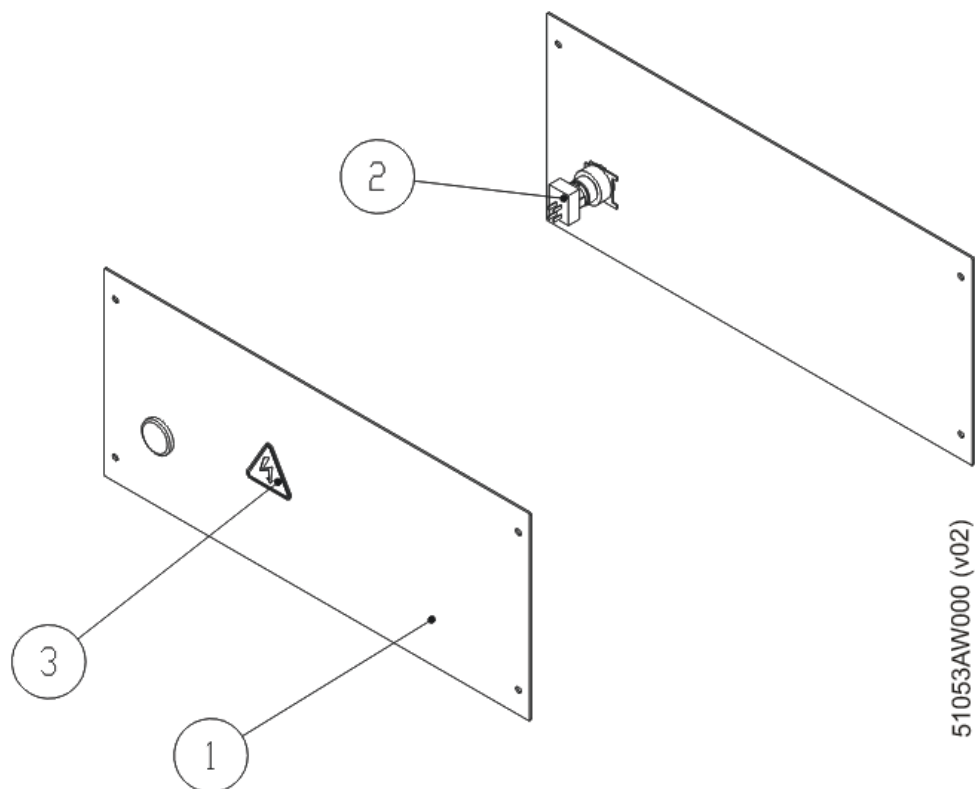
BIMANUAL PUSHER BUTTON GROUP			
Pos.	Description	Qty.	Ref. N°
1	SIDE COVER	1	50644AR002
2	GREEN START BUTTON GROUP	2	55445AC010
3	"DANGER" WARNING TRIANGLE	2	800306018
4	SIDE COVER	1	50644BB002

### 11.1.1.3.1 GREEN START BUTTON GROUP (55445AC010-V3)



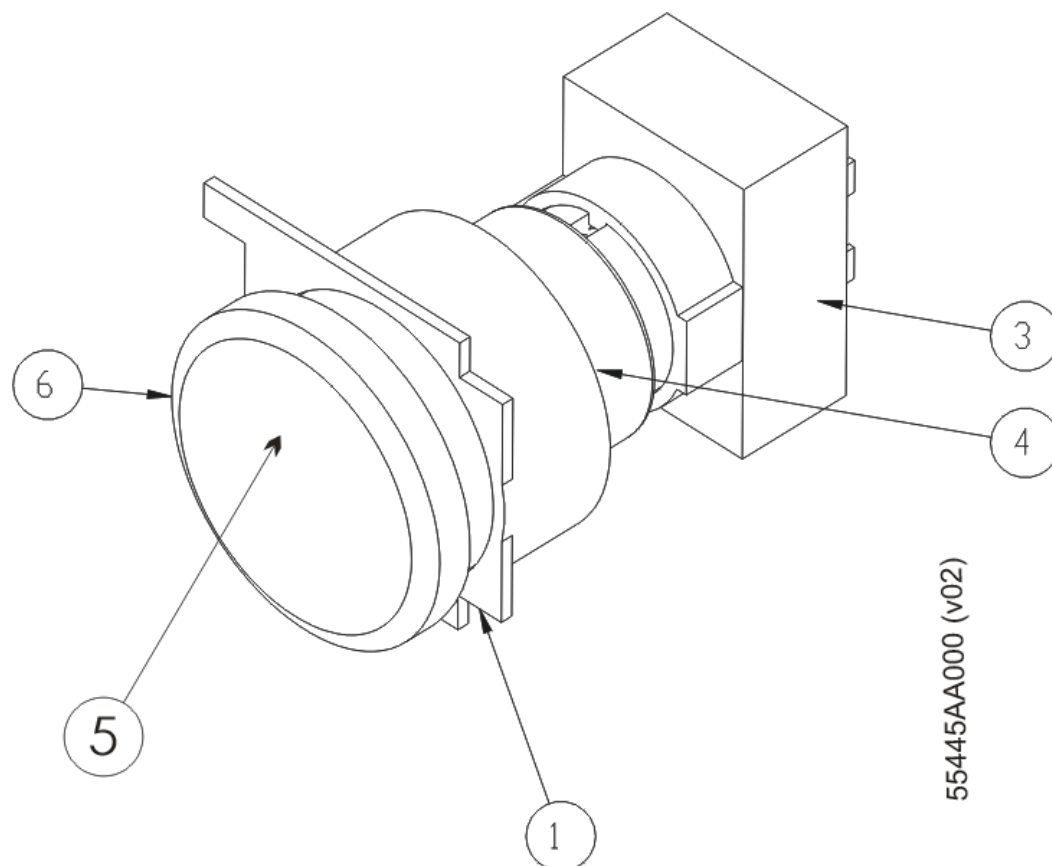
GREEN START BUTTON GROUP			
Pos.	Description	Qty.	Ref. N°
1	PLASTIC MODULE + PLASTIC FITTING FOR PUSH BUTTON	1	800119028
2	GREEN LUMINOUS CAP	1	800119035
3	2 POSITIONS SELECTOR CAMERA	1	800119015
4	LUMINOUS PUSH BUTTON BODY	1	800119034
5	PUSH BUTTON PLASTIC MEMBRANE	1	800119033

### 11.1.2. BIMANUAL PUSHER BUTTON GROUP (51053AW000-V2)



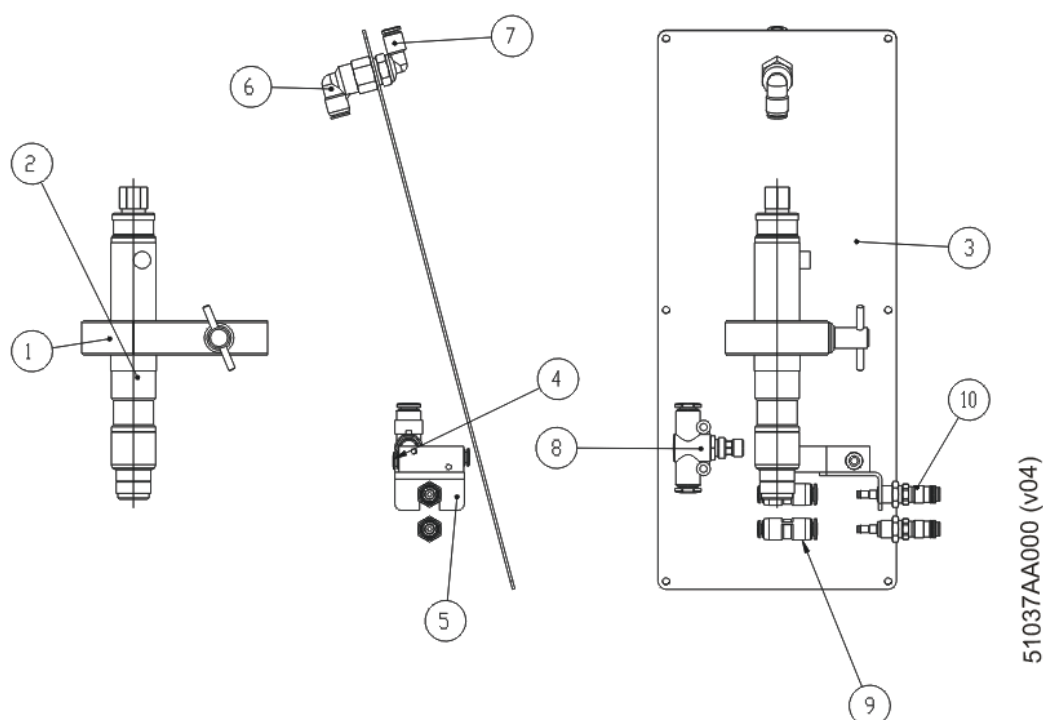
BIMANUAL PUSHER BUTTON GROUP			
Pos.	Description	Qty.	Ref. N°
1	SIDE COVER	2	50644AR002
2	GREEN START BUTTON GROUP	2	55445AA000
3	"DANGER" WARNING TRIANGLE	2	800306018

### 11.1.2.1 GREEN START BUTTON GROUP (55445AA000-V2)



GREEN START BUTTON GROUP			
Pos.	Description	Qty.	Ref. N°
1	PLASTIC MODULE + PLASTIC FITTING FOR PUSH BUTTON	1	800119028
2	GREEN LUMINOUS CAP	1	800119035
3	2 POSITIONS SELECTOR CAMERA	1	800119015
4	LUMINOUS PUSH BUTTON BODY	1	800119034
5	GREEN LUMINOUS LED PUSHER	1	800119053
6	PLASTIC MEMBRANE	1	800119033

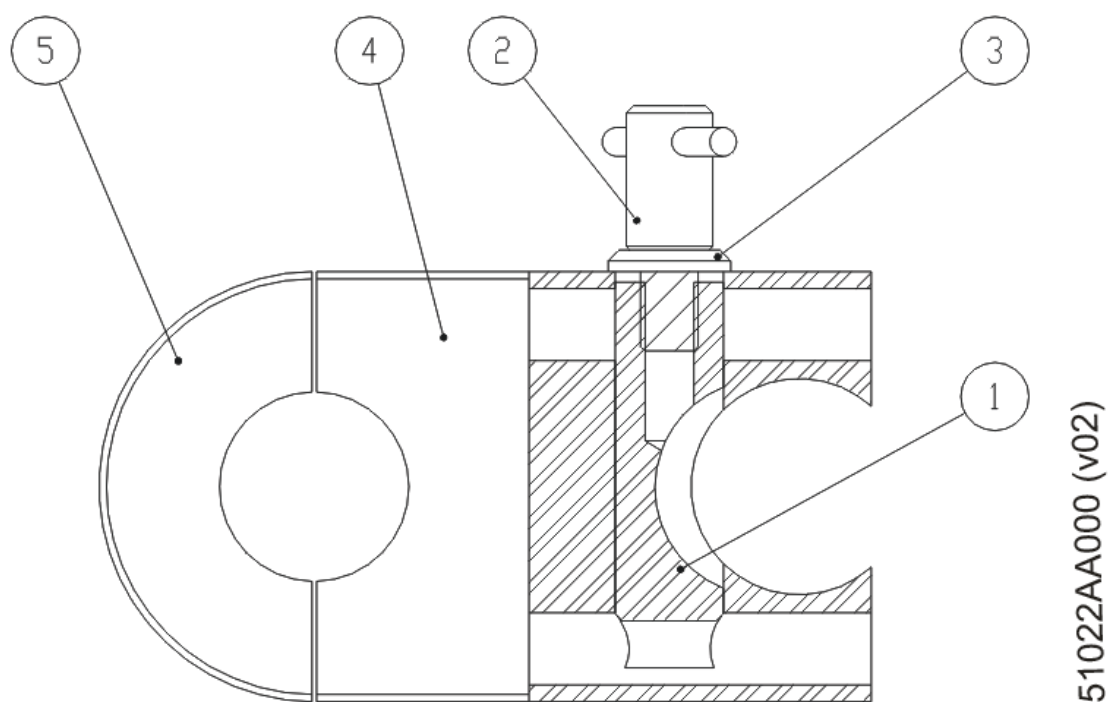
### 11.1.3. PNEUMATIC THREADED GROUP (51037AA000-V4)



PNEUMATIC THREADED GROUP			
Pos.	Description	Qty.	Ref. Nº
1	PNEUMATIC SCREWDRIVER SUPPORT GROUP	1	51022AA000
2*	PNEUMATIC SCREWDRIVER	1	710104002
3	COLUMN BACK PLATE	1	50378AA002
4	FLOW CONTROLLER	1	730103008
5	FIX MARK	1	999.3400A
6	ELBOW PLUG	1	730901035
7	ELBOW PLUG	1	730901079
8	FLOW CONTROLLER	1	730209026
9	QUICK START PLUG	2	730901137
10	FEMALE QUICK START PLUG	2	730907041

\*RECOMMENDED SPARE PART

### 11.1.3.1 PNEUMATIC SCREWING GROUP (51022AA000-V2)



PNEUMATIC SCREWING GROUP			
Pos.	Description	Qty.	Ref. N°
1	FLANGE	1	50443AA052
2	KNOB	1	50218AB012
3	FLAT WASHER	1	50190AA032
4	SCREWDRIVER SUPPORT FLANGE	1	50982AA012
5	SCREWDRIVER SUPPORT FLANGE	1	50983AA012

#### 11.1.4. TABLE FOOT GROUP (51057AB000-V2)

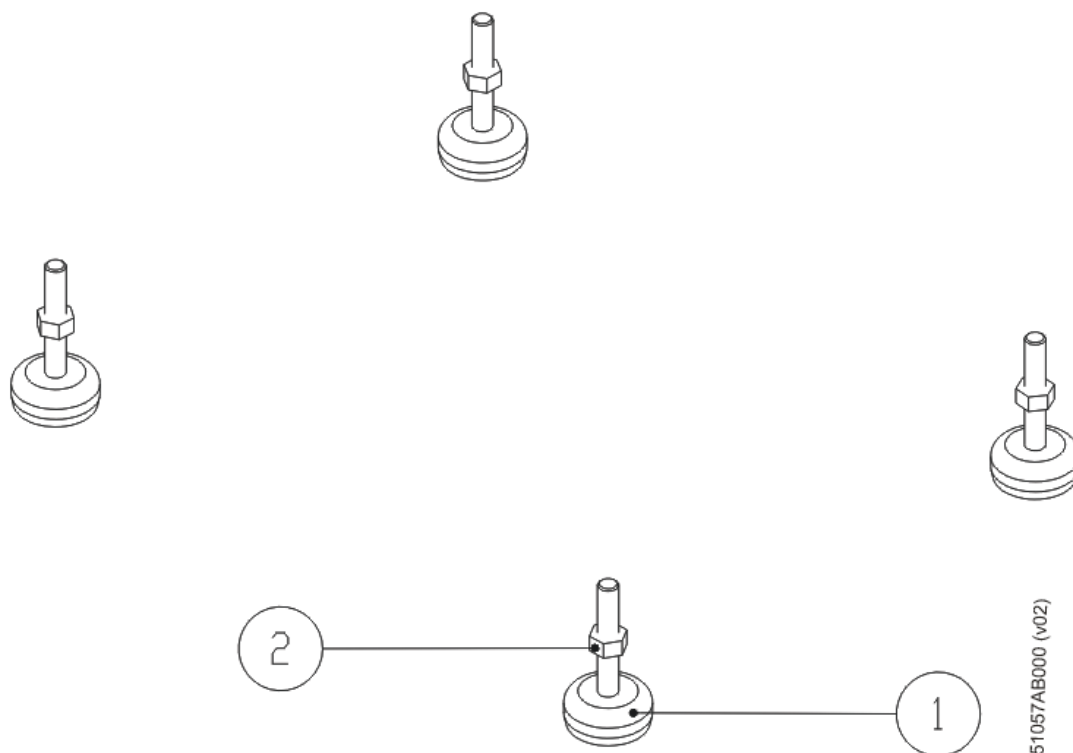
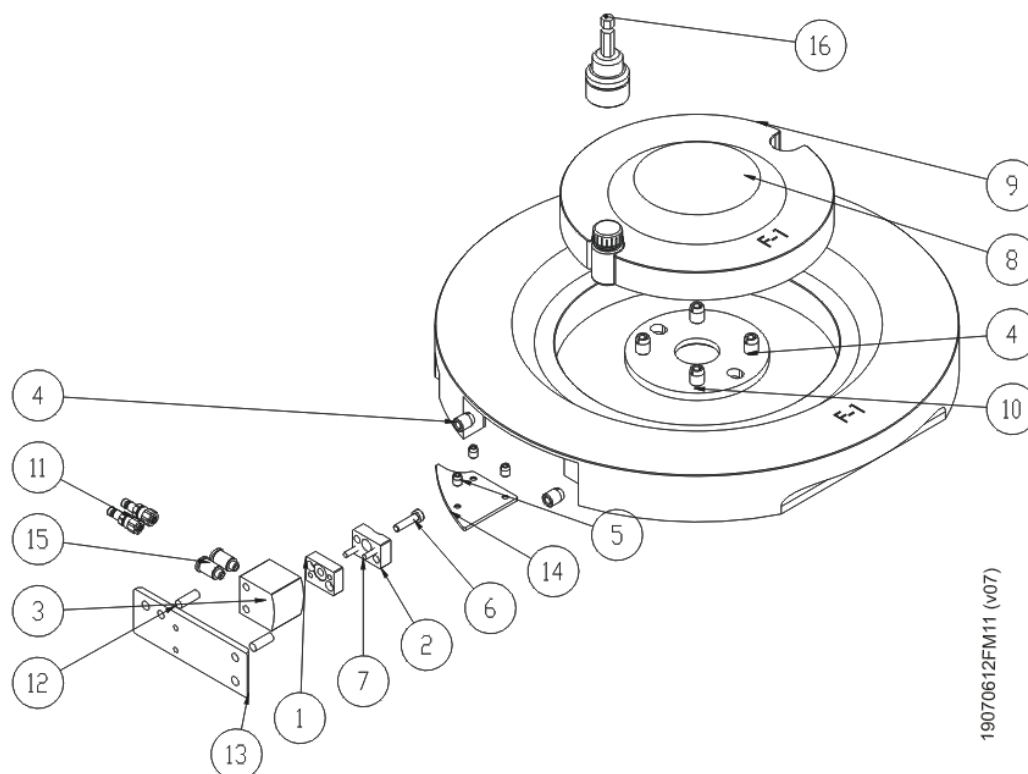


TABLE FOOT GROUP			
Pos.	Description	Qty.	Ref. N°
1	FOOT	4	740301002
2	NUT	4	700201011

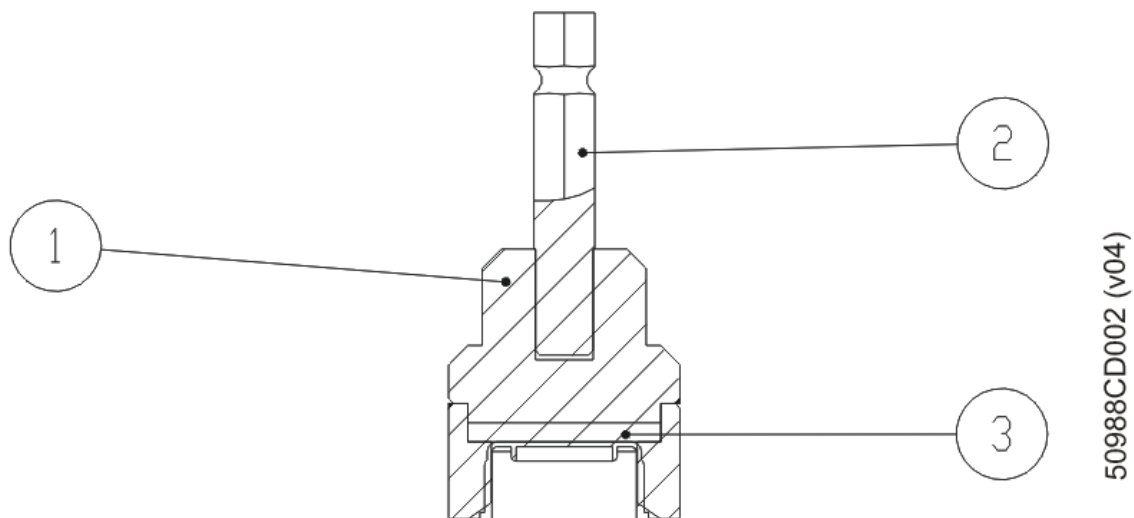
**11.1.5. F-1 FORMAT GROUP (19070612FM11-V7)**


<b>F-1 FORMAT GROUP</b>			
<b>Pos.</b>	<b>Description</b>	<b>Qty.</b>	<b>Ref. N°</b>
1	BRAKE FIXER	1	50136BJ062
2*	BRAKE SX-140	1	55687EB082
3*	CYLINDER	1	730303053
4	THREADED INSERT	6	700110002
5	THREADED INSERT	5	700110005
6	SCREW	1	700103031
7	PIN	2	700401038
8	EXTERNAL GUIDE F-1	1	57623XY002
9	INSIDE GUIDE F-1	1	50333WL002
10	STAR SPIN SUPPORT	1	55462AM002
11	MALE QUICK START PLUG	2	730907038
12	PIN	2	700401071
13	PISTON SUPPORT CAP	1	55828DT002
14	PISTON SUPPORT CAP	1	55828DS002
15	QUICK START PLUG	2	730901046
16	F-1 CONE CAP GROUP	1	50988CD002

\*RECOMMENDED SPARE PART

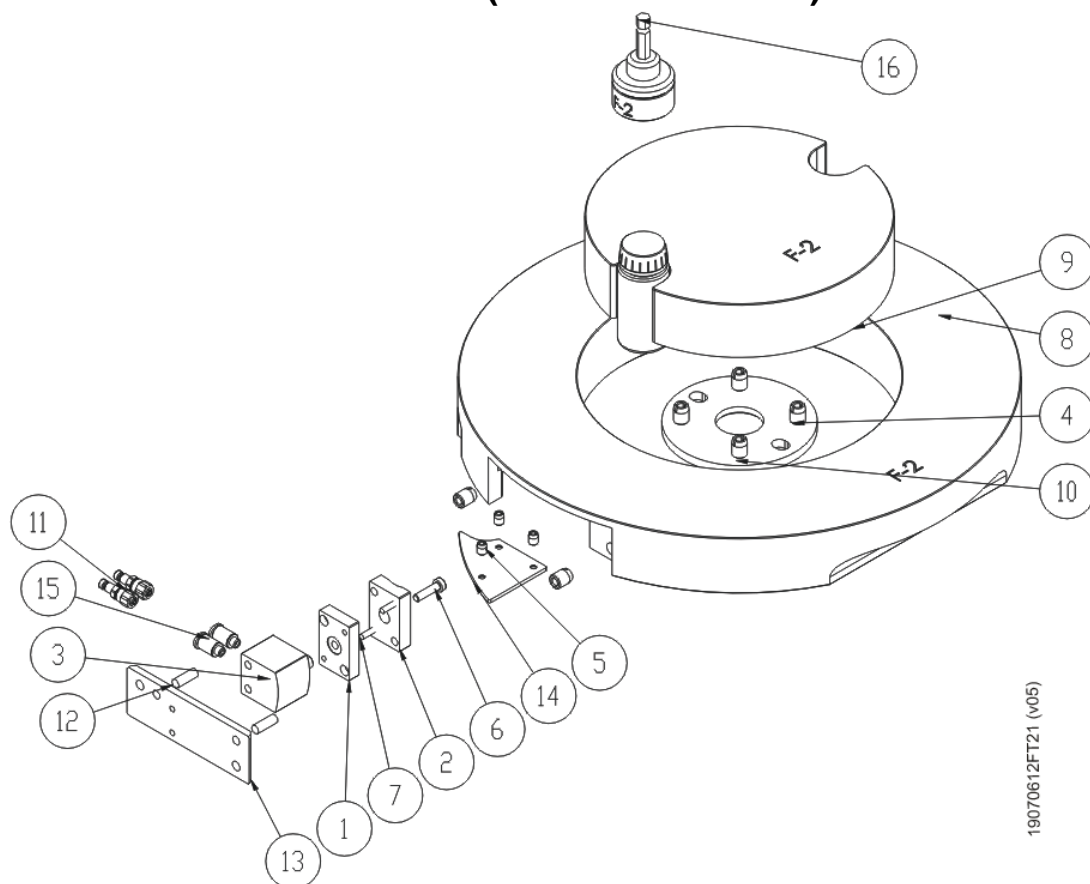


**11.1.5.1 F-1 CONE CAP GROUP (50988CD002-V4)**



F-1 CONE CAP GROUP			
Pos.	Description	Qty.	Ref. N°
1	F-1 MACHINE CAP CONE	1	50166GR002
2	CAP CONE SUPPORT SHAFT	1	50986AA003
3	SILICONE WASHER	1	56112AB102

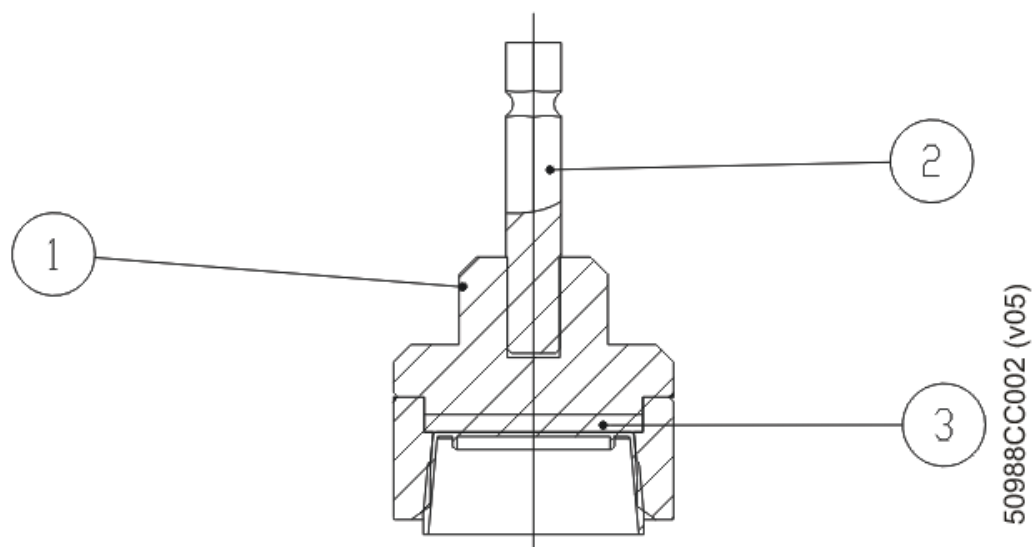
## 11.2. F-2 FORMAT GROUP (19070612FT21-V5)



F-2 FORMAT GROUP			
Pos.	Description	Qty.	Ref. N°
1	BRAKE FIXER	1	50136BJ042
2*	BRAKE SX-140	1	55687EB092
3*	CYLINDER	1	730303053
4	THREADED INSERT	6	700110002
5	THREADED INSERT	5	700110005
6	SCREW	1	700103031
7	PIN	2	700401038
8	EXTERNAL GUIDE F-2	1	57623XX002
9	INSIDE GUIDE F-2	1	50333WK002
10	STAR SPIN SUPPORT	1	55462AM002
11	MALE QUICK START PLUG	2	730907038
12	PIN	2	700401071
13	PISTON SUPPORT CAP	1	55828DT002
14	PISTON SUPPORT CAP	1	55828DS002
15	QUICK START PLUG	2	730901046
16	F-2 CONE CAP GROUP	1	50988CC002

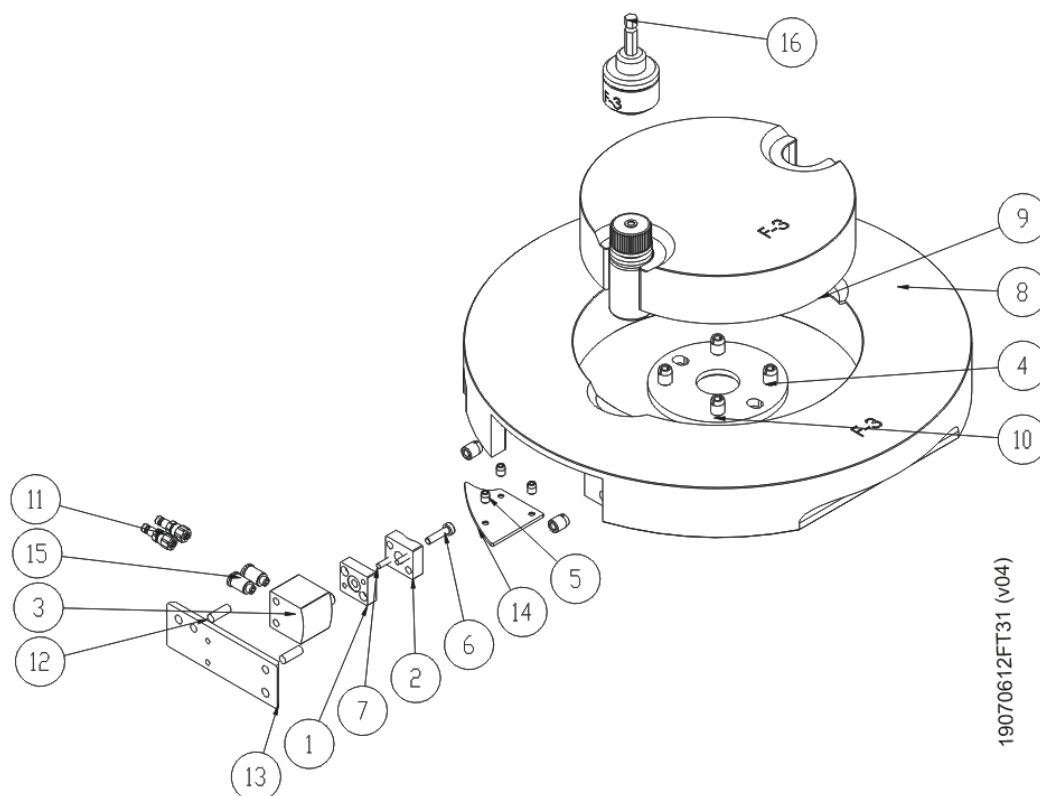
\*RECOMMENDED SPARE PART

### 11.2.1. F-2 CONE CAP GROUP (50988CC002-V5)



F-2 CONE CAP GROUP			
Pos.	Description	Qty.	Ref. N°
1	F-2 MACHINE CAP CONE	1	50166GQ002
2	CAP CONE SUPPORT SHAFT	1	50986AA003
3	SILICONE WASHER	1	56112AB092

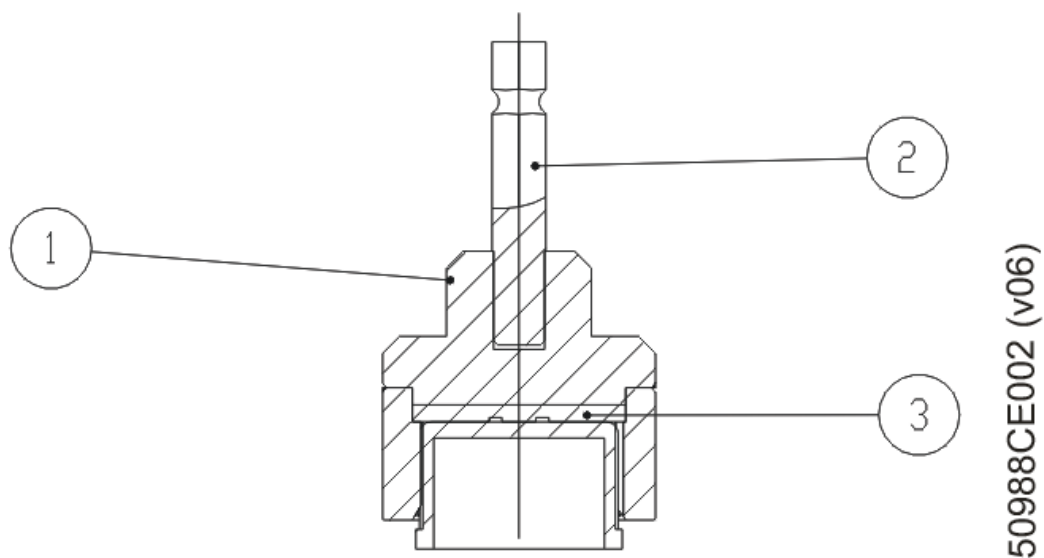
### 11.3. F-3 FORMAT GROUP (19070612FT31-V4)



F-3 FORMAT GROUP			
Pos.	Description	Qty.	Ref. N°
1	BRAKE FIXER	1	50136BJJ072
2*	BRAKE SX-140	1	55687EB102
3*	CYLINDER	1	730303053
4	THREADED INSERT	6	700110002
5	THREADED INSERT	5	700110005
6	SCREW	1	700103031
7	PIN	2	700401038
8	EXTERNAL GUIDE F-3	1	57623XZ002
9	INSIDE GUIDE F-3	1	50333WM002
10	STAR SPIN SUPPORT	1	55462AM002
11	MALE QUICK START PLUG	2	730907038
12	PIN	2	700401071
13	PISTON SUPPORT CAP	1	55828DT002
14	PISTON SUPPORT CAP	1	55828DS002
15	QUICK START PLUG	2	730901046
16	F-3 CONE CAP GROUP	1	50988CE002

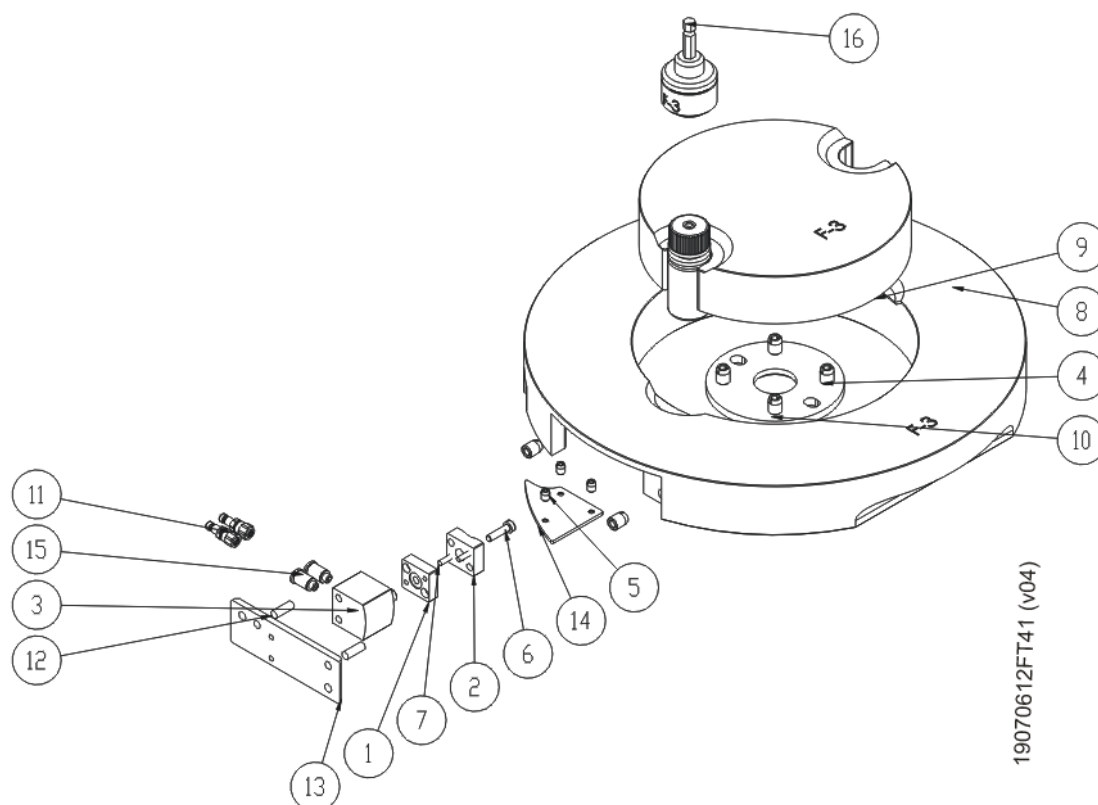
\*RECOMMENDED SPARE PART

### 11.3.1. F-3 CONE CAP GROUP (50988CE002-V6)



F-3 CONE CAP GROUP			
Pos.	Description	Qty.	Ref. N°
1	F-3 MACHINE CAP CONE	1	50166GS002
2	CAP CONE SUPPORT SHAFT	1	50986AA003
3	SILICONE WASHER	1	56112AB092

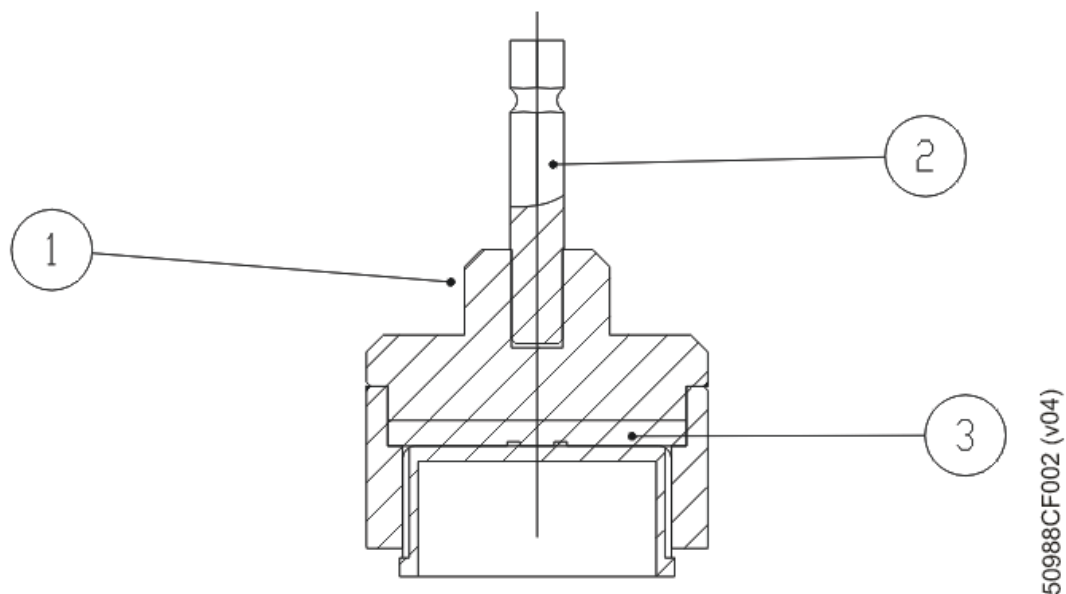
## 11.4. F-4 FORMAT GROUP (19070612FT41-V4)



F-4 FORMAT GROUP			
Pos.	Description	Qty.	Ref. N°
1	BRAKE FIXER	1	50136BJJ072
2*	BRAKE SX-140	1	55687EB102
3*	CYLINDER	1	730303053
4	THREADED INSERT	6	700110002
5	THREADED INSERT	5	700110005
6	SCREW	1	700103031
7	PIN	2	700401038
8	EXTERNAL GUIDE F-4	1	57623XZ002
9	INSIDE GUIDE F-4	1	50333WM002
10	STAR SPIN SUPPORT	1	55462AM002
11	MALE QUICK START PLUG	2	730907038
12	PIN	2	700401071
13	PISTON SUPPORT CAP	1	55828DT002
14	PISTON SUPPORT CAP	1	55828DS002
15	QUICK START PLUG	2	730901046
16	F-4 CONE CAP GROUP	1	50988CE002

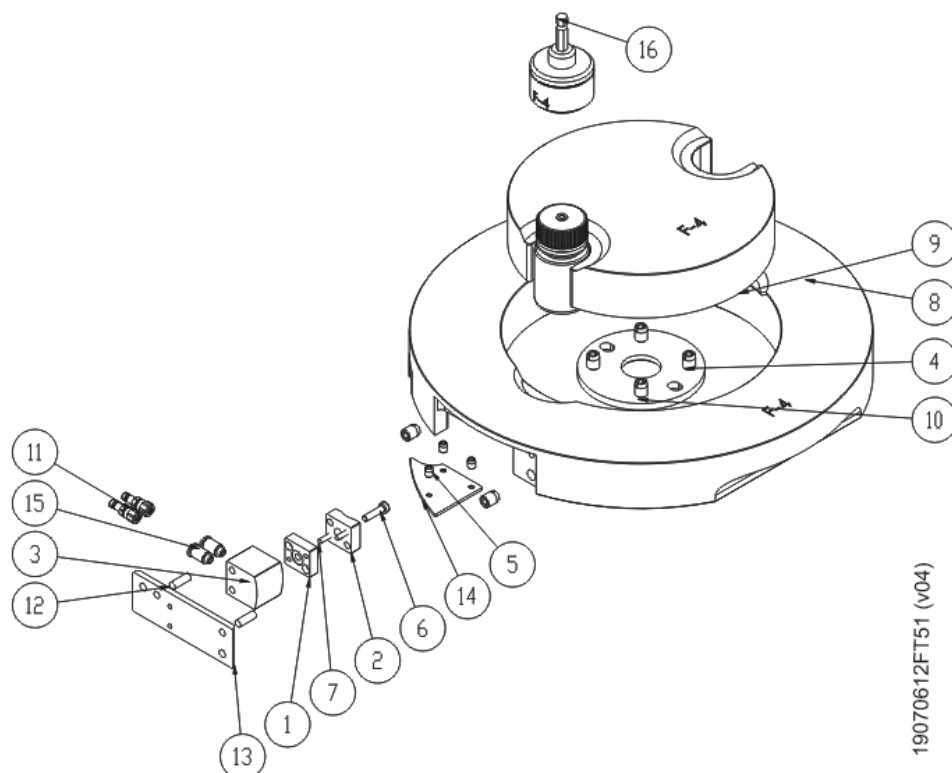
\*RECOMMENDED SPARE PART

### 11.4.1. F-4 CONE CAP GROUP (50988CF002-V4)



F-4 CONE CAP GROUP			
Pos.	Description	Qty.	Ref. N°
1	F-4 MACHINE CAP CONE	1	50166GT002
2	CAP CONE SUPPORT SHAFT	1	50986AA003
3	SILICONE WASHER	1	56112AB112

## 11.5. F-5 FORMAT GROUP (19070612FT51-V4)

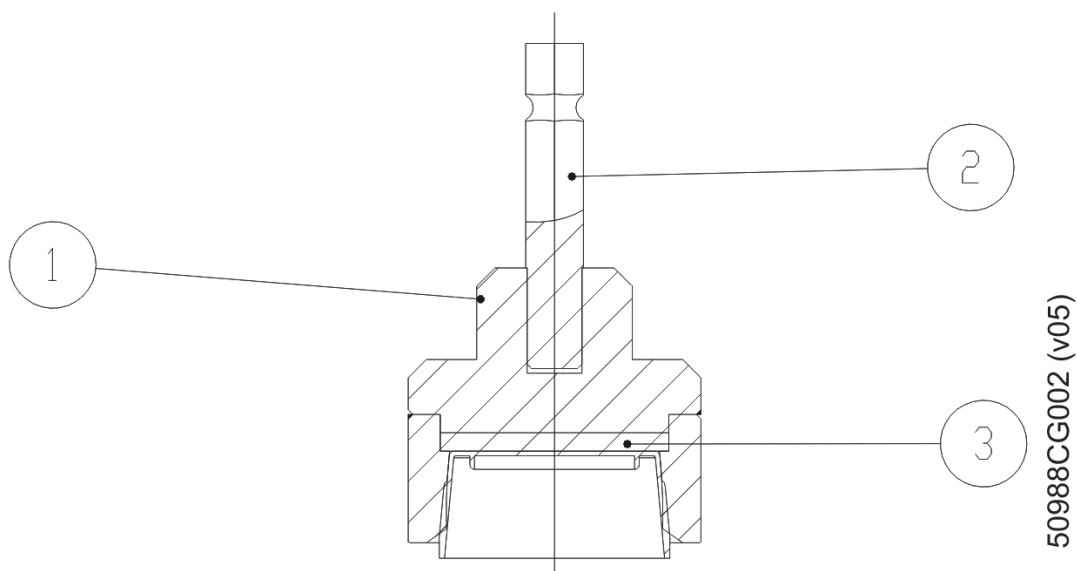


F-5 FORMAT GROUP			
Pos.	Description	Qty.	Ref. N°
1	BRAKE FIXER	1	50136BJJ072
2*	BRAKE SX-140	1	55687EB112
3*	CYLINDER	1	730303053
4	THREADED INSERT	6	700110002
5	THREADED INSERT	5	700110005
6	SCREW	1	700103031
7	PIN	2	700401038
8	EXTERNAL GUIDE F-5	1	57623YA002
9	INSIDE GUIDE F-5	1	50333WN002
10	STAR SPIN SUPPORT	1	55462AM002
11	MALE QUICK START PLUG	2	730907038
12	PIN	2	700401071
13	PISTON SUPPORT CAP	1	55828DT002
14	PISTON SUPPORT CAP	1	55828DS002
15	QUICK START PLUG	2	730901046
16	F-5 CONE CAP GROUP	1	50988CF002

\*RECOMMENDED SPARE PART

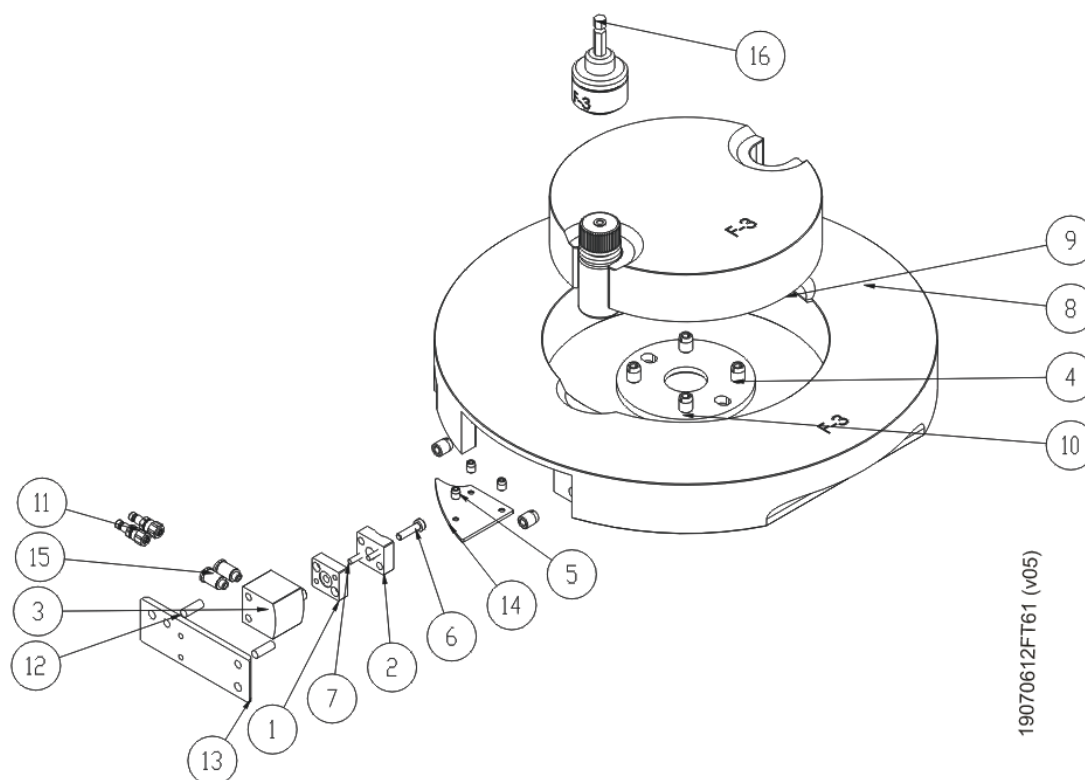


### 11.5.1. F-5 CONE CAP GROUP (50988CG002-V5)



F-5 CONE CAP GROUP			
Pos.	Description	Qty.	Ref. N°
1	F-5 MACHINE CAP CONE	1	50166GU002
2	CAP CONE SUPPORT SHAFT	1	50986AA003
3	SILICONE WASHER	1	56112AB112

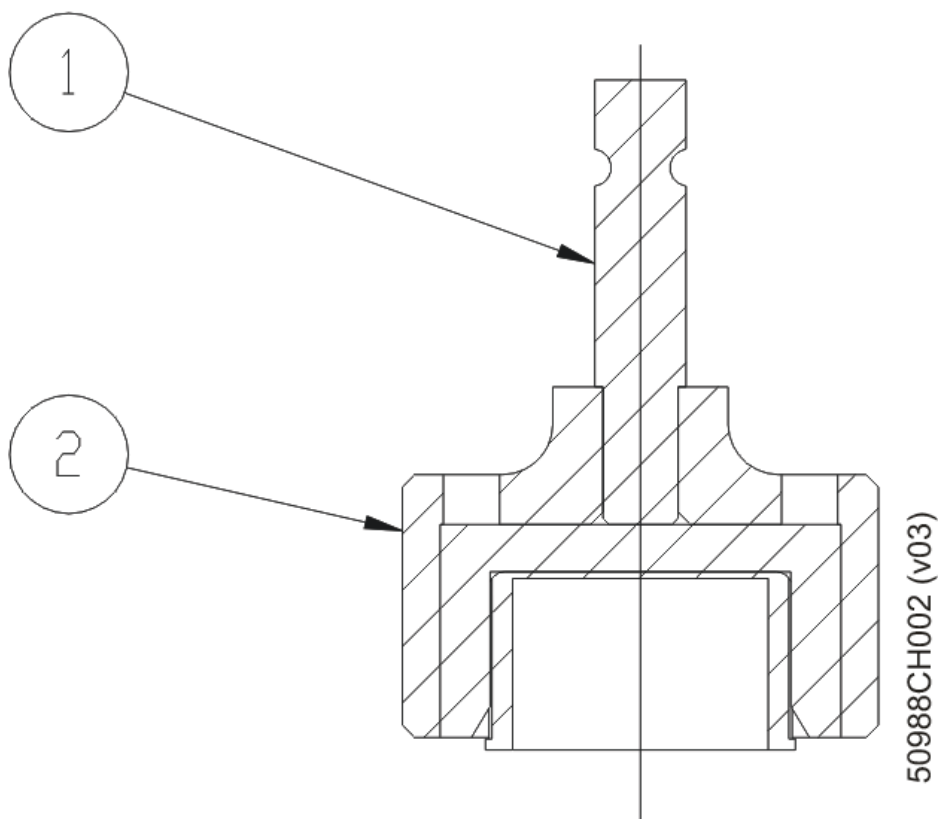
## 11.6. F-6 FORMAT GROUP (19070612FT61-V5)



F-6 FORMAT GROUP			
Pos.	Description	Qty.	Ref. N°
1	BRAKE FIXER	1	50136BJJ072
2*	BRAKE SX-140	1	55687EB102
3*	CYLINDER	1	730303053
4	THREADED INSERT	6	700110002
5	THREADED INSERT	5	700110005
6	SCREW	1	700103031
7	PIN	2	700401038
8	EXTERNAL GUIDE F-6	1	57623XZ002
9	INSIDE GUIDE F-6	1	50333WM002
10	STAR SPIN SUPPORT	1	55462AM002
11	MALE QUICK START PLUG	2	730907038
12	PIN	2	700401071
13	PISTON SUPPORT CAP	1	55828DT002
14	PISTON SUPPORT CAP	1	55828DS002
15	QUICK START PLUG	2	730901046
16	F-6/F-7 CONE CAP GROUP	1	50988CE002

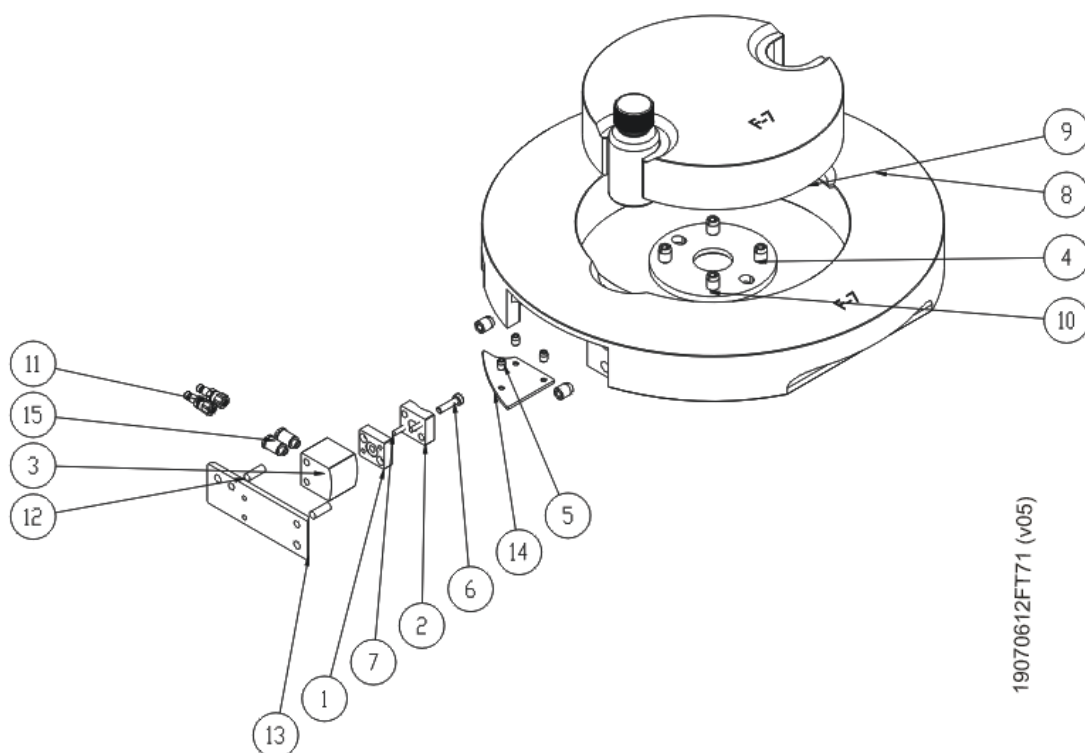
\*RECOMMENDED SPARE PART

**11.6.1. F-6/F-7 CONE CAP GROUP (50988CH002-V3)**



F-6 CONE CAP GROUP			
Pos.	Description	Qty.	Ref. N°
1	CAP CONE SUPPORT SHAFT	1	50986AA003
2	CAP CONE F-6/F-7	1	50985BJ003

## 11.7. F-7 FORMAT GROUP (19070612FT71-V5)



F-7 FORMAT GROUP			
Pos.	Description	Qty.	Ref. N°
1	BRAKE FIXER	1	50136BJJ072
2*	BRAKE SX-140	1	55687EB112
3*	CYLINDER	1	730303053
4	THREADED INSERT	6	700110002
5	THREADED INSERT	5	700110005
6	SCREW	1	700103031
7	PIN	2	700401038
8	EXTERNAL GUIDE F-7	1	57623YD002
9	INSIDE GUIDE F-7	1	50333WR002
10	STAR SPIN SUPPORT	1	55462AM002
11	MALE QUICK START PLUG	2	730907038
12	PIN	2	700401071
13	PISTON SUPPORT CAP	1	55828DT002
14	PISTON SUPPORT CAP	1	55828DS002
15	QUICK START PLUG	2	730901046

\*RECOMMENDED SPARE PART

## 12. WARRANTY



Maquinaria Industrial DARAS.L.  
Pol. Ind. Coll de la Manya - Galileu Galilei 5-19  
08403 - GRANOLLERS (Barcelona)- Spain

### WARRANTY

Maquinaria Industrial Dara SL warranties this machine for a period of 1 Year or 1.900 hours, since the Start-Up of the machine is acknowledged to our technician by the Customer, and when the following conditions have been fulfilled:

The machine has been used according the instructions provided in the User Manual and its limitations, especially for the type and size of containers the machine has been designed for. The customer acknowledges that the User Manual has been read and understood

- In case of malfunction or failure during the Warranty period, this must be reported to Maquinaria Industrial Dara SL before 72 hours since it appears.
- Any part which has been substituted or replaced within the Warranty period becomes a property of Maquinaria Industrial Dara SL.
- All the substituted or replaced parts will be original parts from Maquinaria Industrial Dara SL, or authorised by it. If the assembled part is not original, Warranty is invalidated
- If the malfunction or failure arises from a service not undertaken by the Technical Service from Maquinaria Industrial Dara SL, Warranty is invalidated.
- In case that the machine is transferred or transferred to another Customer, the new Customer has the subrogated rights of this Warranty, with the following conditions:
  - The former Customer must deliver all documenttion of the machine, specially the User Manual and the corresponding Certificates to the new Customer.
  - The new customer must report to Maquinaria Industrial Dara SL about such change before 72 hours. Maquinaria Industrial Dara SL will communicate to the new customer the conditions and remaining period of Warranty
- This Warranty covers the replacement or repair of parts, labour and taxes in all components that Maquinaria Industrial Dara SL considers essential for a correct operation of the machine.

Warranty does not cover:

- The replacement, repair or adjustment of components submitted to wear during the normal use of the machine.
- The periodic preventive maintenance procedures included in the User Manual.
- The fill of oil or periodic lubrication as specified by the User Manual.
- The failures or damages caused by an erroneous manoeuvre or collision, fire, explosion or vandalism.
- The replacement or repair of non-original assembled parts.
- Damages or failures caused by a lack of maintenance or lubrication.
- Damages or failures caused by non-compliance of safety standards or overriding of safety devices.

Maquinaria Industrial Dara SL recommends a preventive check of your machine by our Technical Service, after one year from the start up of the machine. If you wish to apply for this check, please contact to our Sales Department.

Granollers, ..... 201 .....



Dara stamp

Customer's signature