

Lubricators

Installation Manual

Use and Maintenance

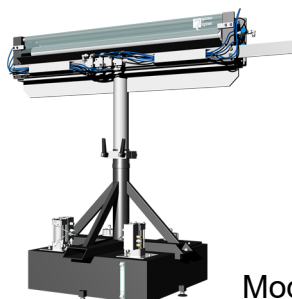
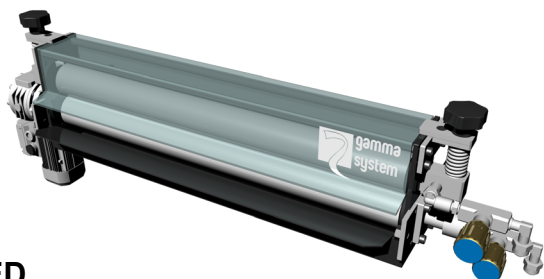
Spare Parts



Model **STANDARD**



Model **POWERED**



Model **HEAVY DUTY**

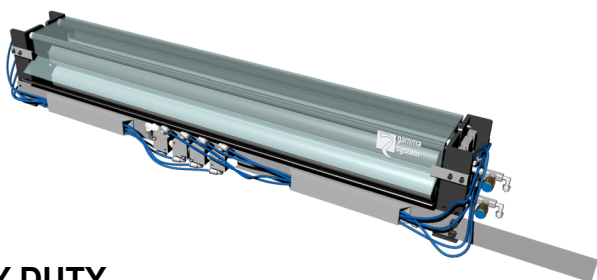


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1. RULES AND GENERAL WARNINGS

1.1 Foreword

This manual is intended to provide all the information necessary to properly install, use and maintain the equipment by qualified personnel.

Before each operation, you should carefully read the instructions, as they provide essential guidance regarding the installation, connection and operation of the system.

THE MANUFACTURER DISCLAIMS ANY LIABILITY' FROM MISUSE OF THE PRODUCT. REPRODUCTION, EVEN IN PART, OF THIS MANUAL IS PROHIBITED.

1.2 General safety standards

The manufacturer denies any responsibility for any operation carried out on the equipment, disregarding the instructions on the manual.

1.2 Applications, designated use

Gamma System lubricators are intended for use in production contexts that require the lubrication of the paper before being processed on shearing presses and drawing.

They allow the homogeneous lubrication of the sheet, both on double and on single side.

Adjustments are provided to allow the correct quantity of lubricant to be distributed on the material being processed.

The modularity of the groups and the flexibility of the adjustments, allow the possibility of matching directly on presses or on any automatic power supplies provided by the production context, excluding the use of plant support.

The lubricators allow the possibility of having an autonomous supply of lubricants or of being combined with existing circuits.

The equipment includes the possibility of using two types of pumps, providing interchangeability according to need.

The conveyor sheet is lubricated when passing through two idle rollers (Fig. 1) which, through the oil channeling, lubricate the sheet with the correct quantity.

The rotation of rollers by dragging the sheet.

The excess oil is channeled through a specific path and recovered in the tank. So that it can be reused.

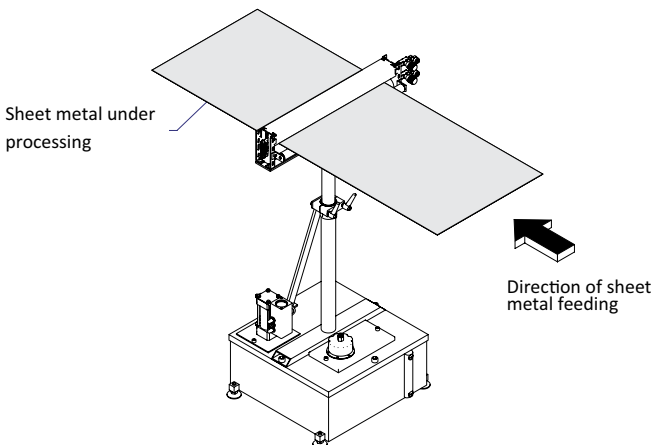


Fig. 1

2. TECHNICAL DATA

2.1 Technical features

Model STANDARD

- Oil tank capacity:	27 lt
- Width min./max. worked plate:	from 50 mm a 1.000 mm
- Adjustable height:	from 800 mm a 1.150 mm
- Workable thickness plate:	≤ 4 mm
- Pneumatic pump for medium dense oils:	Supply. 6 bar
- Consumption pneumatic power supply:	0,40 NL (normal liters) cycle

EQUIPMENT VARIANTS:

- Pneumatic rollers raise:	For thicknesses ≤ 9 mm
- Centrifugal pump for chemical waters:	140W - 220/380v 50Hz
- Supply of lubricator (without upright) for direct mounting on the press.	

Model POWERED

- Oil tank capacity:	27 lt
- Width min./max. worked plate:	from 500 mm a 800 mm
- Adjustable height:	from 800 mm a 1.150 mm
- Workable thickness plate:	≤ 4 mm
- Pneumatic pump for medium dense oils:	Supply. 6 bar
- Consumption pneumatic power supply:	0,40 NL (normal liters) cycle
- Rollers rotation motor:	220/380V - 50Hz - 0,12HP
- Reducer ratio:	1/15
- Travelling speed:	13 mtl/min.

EQUIPMENT VARIANTS:

- Centrifugal pump for chemical waters:	140W - 220/380v 50Hz
- Supply of lubricator (without upright) for direct mounting on the press	

Model HEAVY DUTY

- Oil tank capacity:	60 lt
- Width min./max. worked plate:	to a 2.000 mm
- Adjustable height:	from 800 mm a 1.150 mm
- Workable thickness plate:	≤ 9 mm
- 2 pneumatic pumps for medium dense oils:	Supply 6 bar
- Consumption pneumatic power supply:	0,40 NL (normal liters) cycle
- Pneumatic rollers raise:	For thicknesses ≤ 9 mm

EQUIPMENT VARIANTS:

- Centrifugal pump for chemical waters:	140W - 220/380v 50Hz
- Supply of lubricator (without upright) for direct mounting on the press.	

2.2 Main groups

Model STANDARD

- 1 - Rollers group
- 2 - Variant pneumatic rollers raise
- 3 - Command pneumatic rollers raise
- 4 - Oil pipes
- 5 - Oil recovery pipes
- 6 - Plug load with filter
- 7 - Cover inspection
- 8 - Level indicator
- 9 - Adjustable pins
- 10 - Tank
- 11 - Pneumatic pump
- 12 - Variant centrifugal pump
- 13 - Stand (Fixed part)
- 14 - Telescopic stand (Mobile part)

Nominal width	Useful width	A	B
150 mm	160	268	207
200 mm	210	318	257
300 mm	310	418	357
400 mm	410	518	457
500 mm	510	618	557
600 mm	610	718	657
700 mm	710	818	757
800 mm	810	918	857
900 mm	910	1018	957
1.000 mm	1010	1118	1057

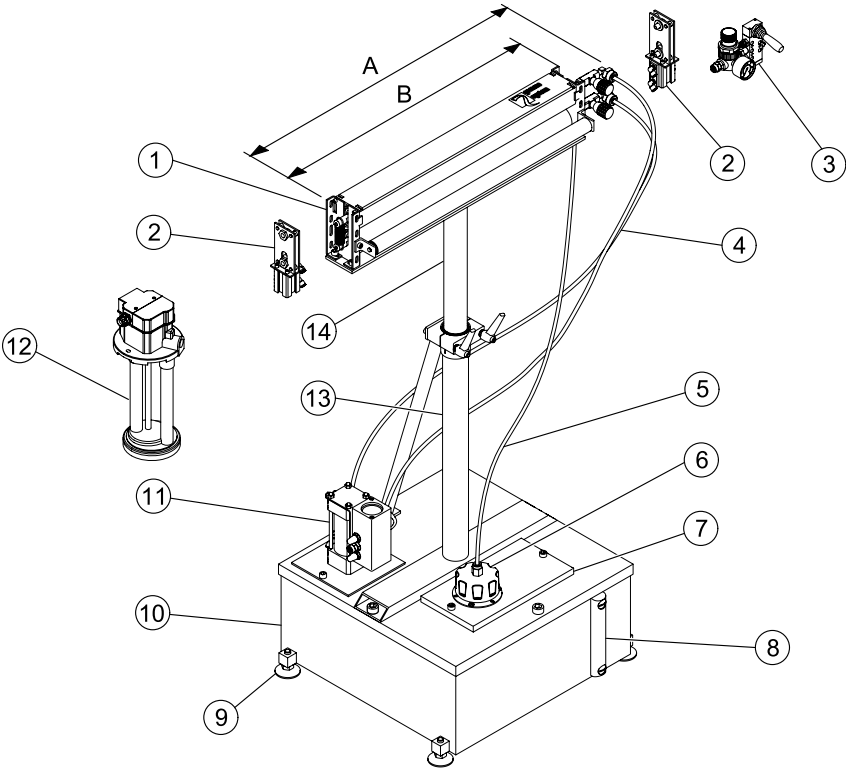


Fig. 2

Model POWERED

- 1 - Rollers group
- 2 - Roller conveyor
- 3 - Oil pipes
- 4 - Oil recovery pipes
- 5 - Plug load with filter
- 6 - Cover inspection
- 7 - Level indicator
- 8 - Adjustable pins
- 9 - Tank
- 10 - Pneumatic pump
- 11 - Variant centrifugal pump
- 12 - Stand (Fixed part)
- 13 - Telescopic stand (Mobile part)
- 14 - Geared motor

Nominal width	Useful width	A
500 mm	510	720
800 mm	810	1020

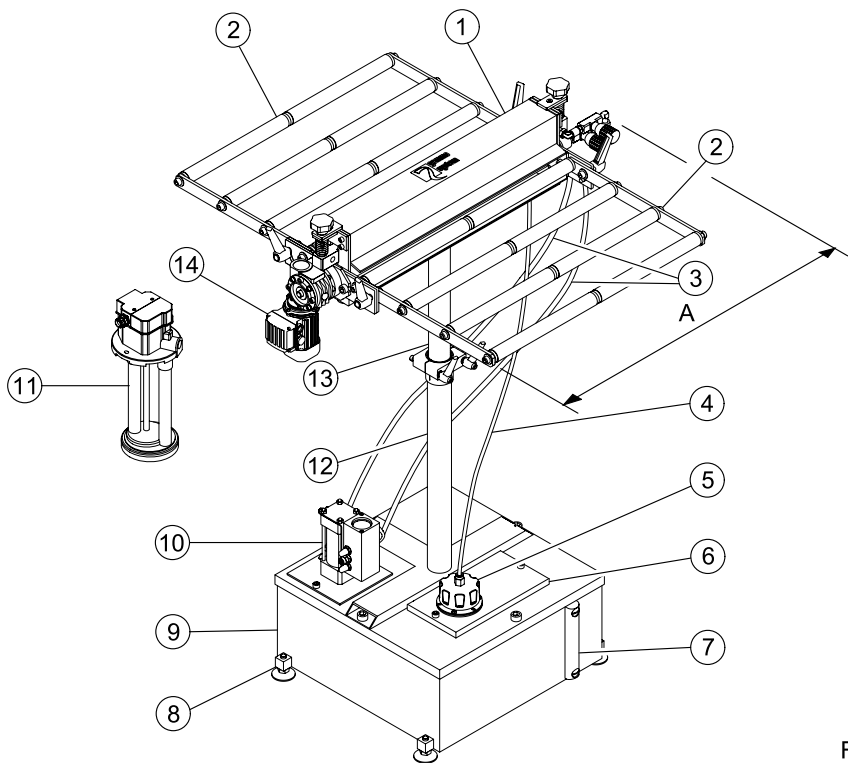


Fig. 3

Model HEAVY DUTY

- 1 - Rollers group
- 2 - Pneumatic rollers raise
- 3 - Telescopic stand (Mobile part)
- 4 - Stand (Fixed part)
- 5 - Pneumatic pump
- 6 - Variant centrifugal pump
- 7 - Level indicator
- 8 - Adjustable pins
- 9 - Tank
- 10 - Cover inspection
- 11 - Plug load with filter
- 12 - Command pneumatic rollers raise

Nominal width	Useful width	A
500 mm	540	640
1000 mm	1040	1140
1500 mm	1540	1640

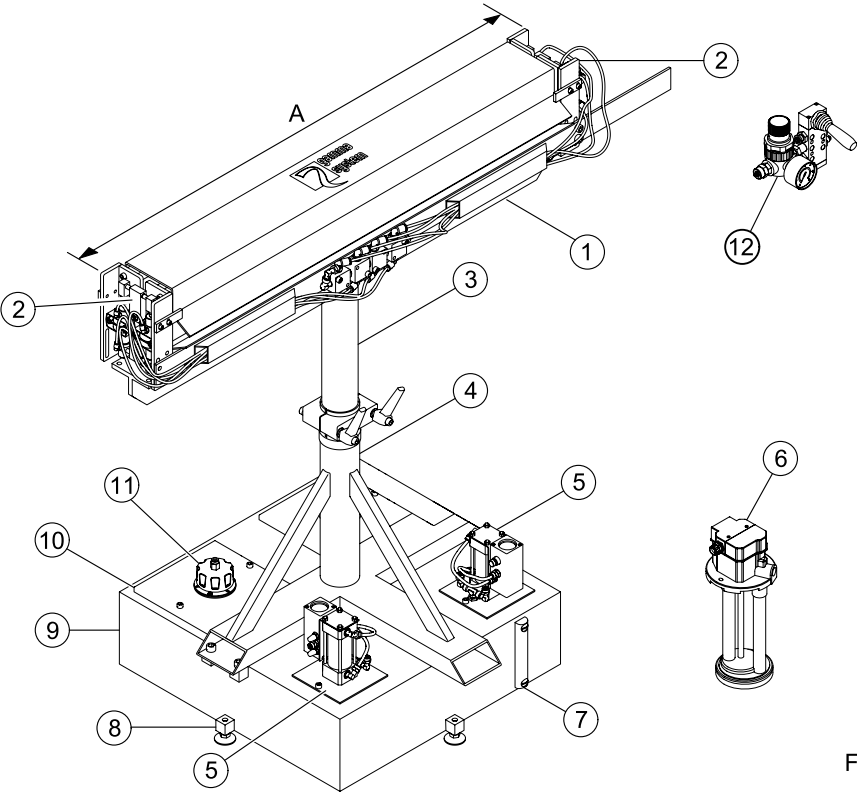


Fig. 4

3. INSTALLATION AND OPERATION

3.1 Installation and operating

After unpacking, the lubricant is placed on the ground.

Act on the four adjusting feet (Fig. 5), in case it is necessary to level it.

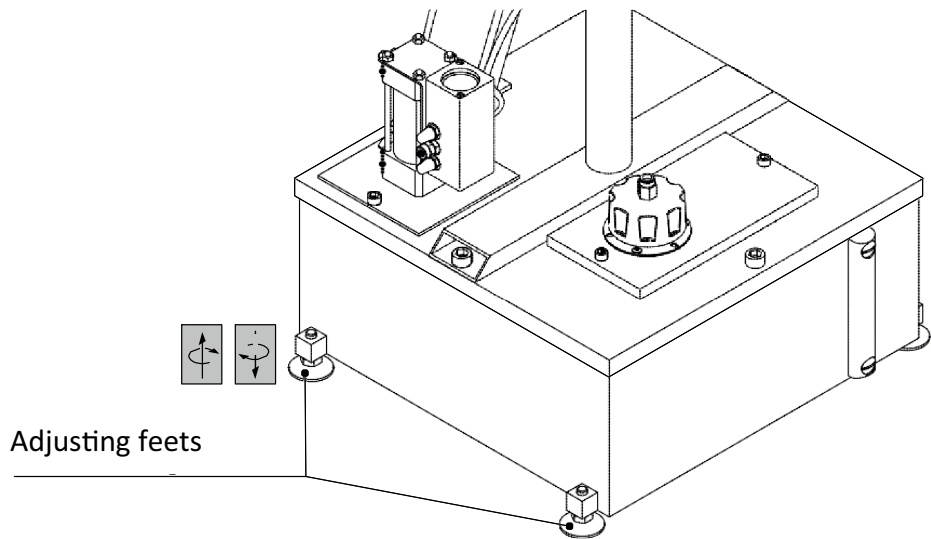


Fig. 5

Fill the tank with lubricating liquid (Fig.6) to the maximum permitted level (see level indicator).

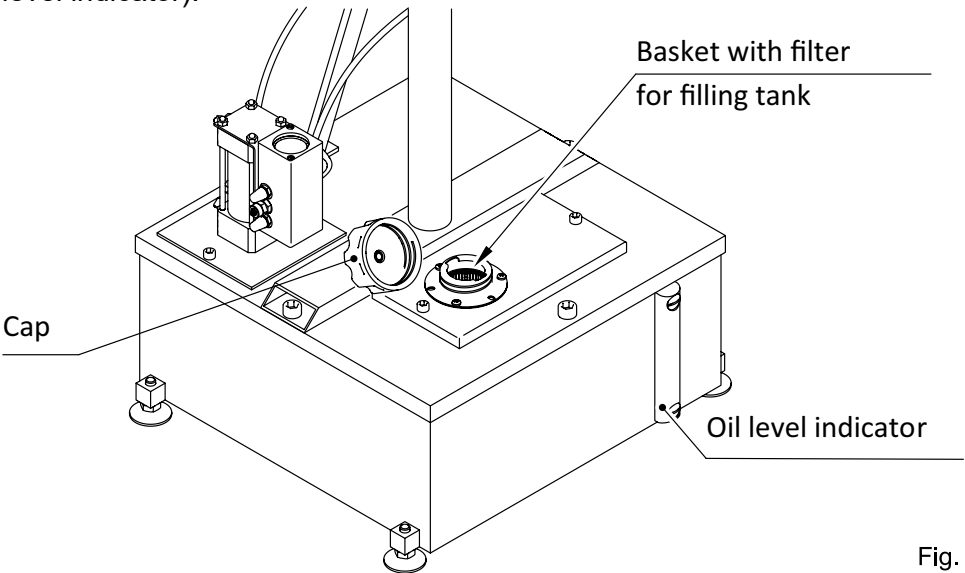


Fig. 6

Connect the air supply pipe (Fig.7) between the lubricator pump and the plant in the working area.

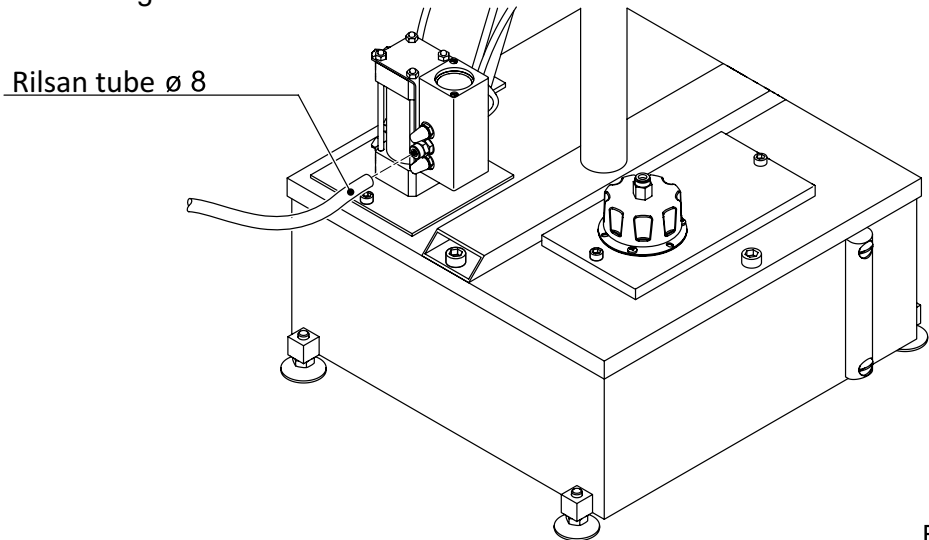


Fig. 7

Proceed with the connection of the 2 pipes (Fig.8) for the passage of the lubricant, between pump and rollers unit. Reverse the positioning of the piping on the 2 inputs, does not compromise the proper functioning of the lubricator.

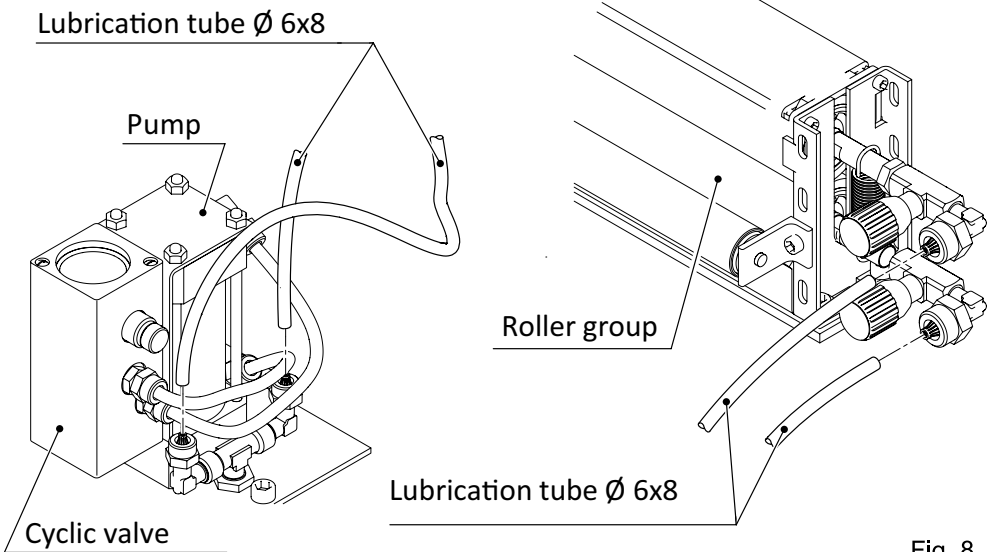


Fig. 8

Adjust the correct flow rate according to the fluidity of the lubricant, acting on the adjusting screw placed in the valve, the same determines the cycle time (Fig. 9). To perform the adjustment you have to unscrew the protective cap (1) on the screw (2) with the key, unscrewing the locking nut (3). When set, return the locking nut (3) to the closing position and restart the protective cap (1).

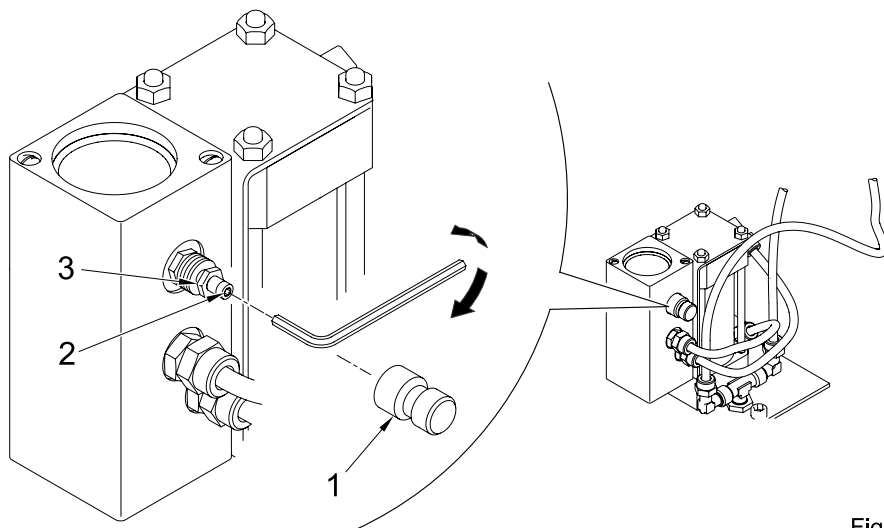


Fig. 9

The valve, in the first installation, already has the factory standard adjustment, which allows immediate use with medium density lubricants. Proceed with the insertion of the sheet metal tape between the 2 felt rollers and perform calibration of taps (see Section 3.3 of this manual).

3.2 Regulations

Acting on the taps at the end of the rollers adjusts the quantity of the desired lubricant (Fig. 10).

To exclude lubrication from one of the two rollers, it is necessary to carry the relative one tap in the zero position.

A low deposit of lubricant in the recovery tank is the signal of correct adjustment.

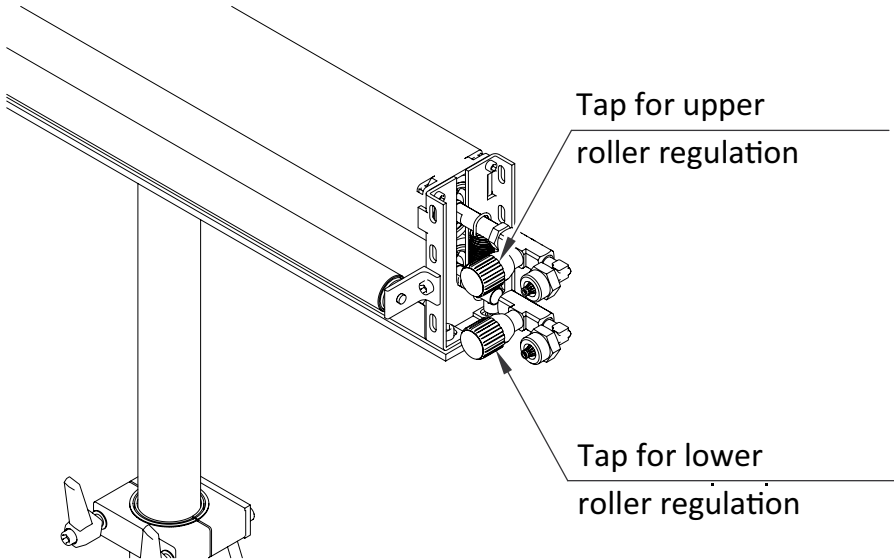


Fig. 10

4. MAINTENANCE

4.1 Ordinary maintenance of pneumatic pump

The pneumatic pump must be checked periodically (Fig.11).

The checks foreseen are:

- Correct cleaning of the delivery filter and possible replacement.
- Check the correct functionality of the delivery valves.
- Seals seal check .

If replacement of the parts is necessary, refer to the spare parts section of this manual

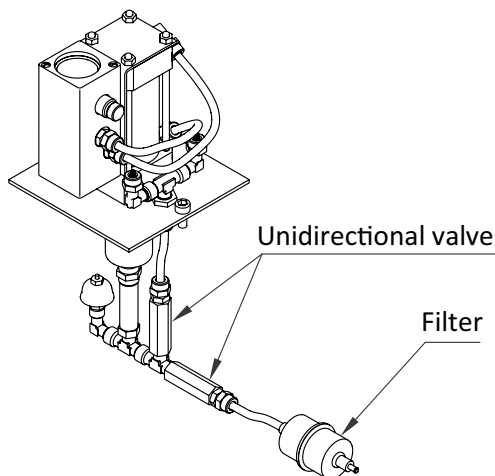


Fig.11

4.2 Ordinary maintenance of centrifugal pump

The centrifugal pump must be checked periodically (Fig.12).

The checks foreseen are:

- Correct cleaning of the suction zone of the lubricant.

If replacement of the parts is necessary, refer to the spare parts section of this manual

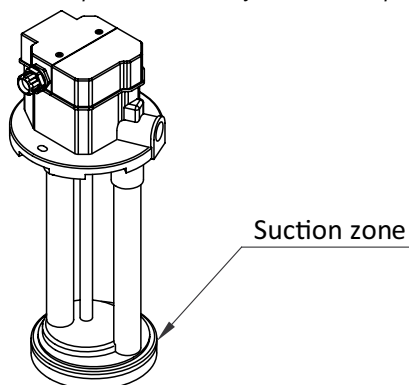


Fig.12

4.2 Ordinary maintenance of rollers group

The roller unit must be checked periodically (Fig.13).

The checks foreseen are:

- Homogeneous lubrication on the sheet.
- Integrity of o.ring seal on roller bearing shafts.

It's recommends the replacement of felts every 1000 hours of work, or when after a visually check there is an evident reduction in diameter or excessive surface wear.

If necessary replace some parts of pneumatic pump, refer to spare part list attached at this manual.

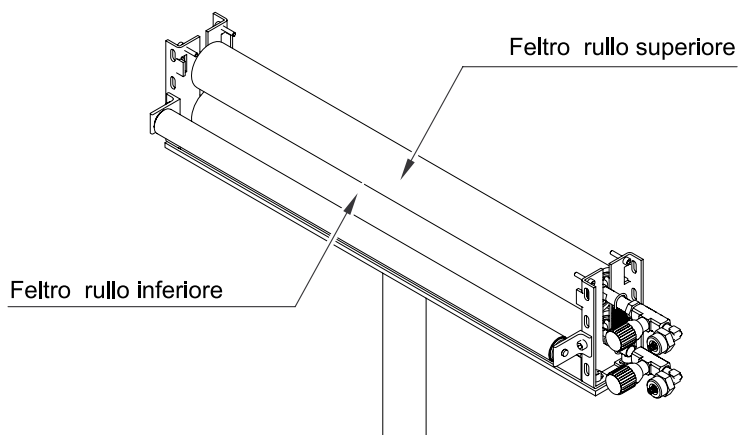


Fig. 13

4.2.1 Replacement of felt rolls (Standard Model)

For the correct replacement procedure of felt rollers follow the procedure below and relative illustration:

- Disconnect the pneumatic and electric power supply.
- Unscrew the screw (1) and slip of the motor(2).
- Unscrew the handbill (3) and screws (4), lift the brackets (5) to free the roller cover (6).
- Disassembly the positioning rods (9) of the cover (6) removing the rods (8) locked with the screws (7).
- Lift upper the two rollers (10) to extract from the roller holding tanks.
- Disassembly the bearing brackets (12) and the bracket on lower roller unscrew the 8 screws (11).
- Remove the two felt (13) removing them from the rollers, if necessary if necessary cut them, being careful don't damaging the steel roller (10).
- Clean the steel roller from residual lubricant.
- Replace the O.ring - 6162 (15) of each roller.
- Insert the new rollers slipping on the steel roller, without use tools that can damaged the rollers
- Insert the rollers in the roller holding tanks.
- Reassemble the remaining parts following the procedure reversed as described in the disassembly procedure.
- Connect the pneumatic and electric power supply.
- Open the tap in the chosen position for the correct lubrication of the sheet metal.

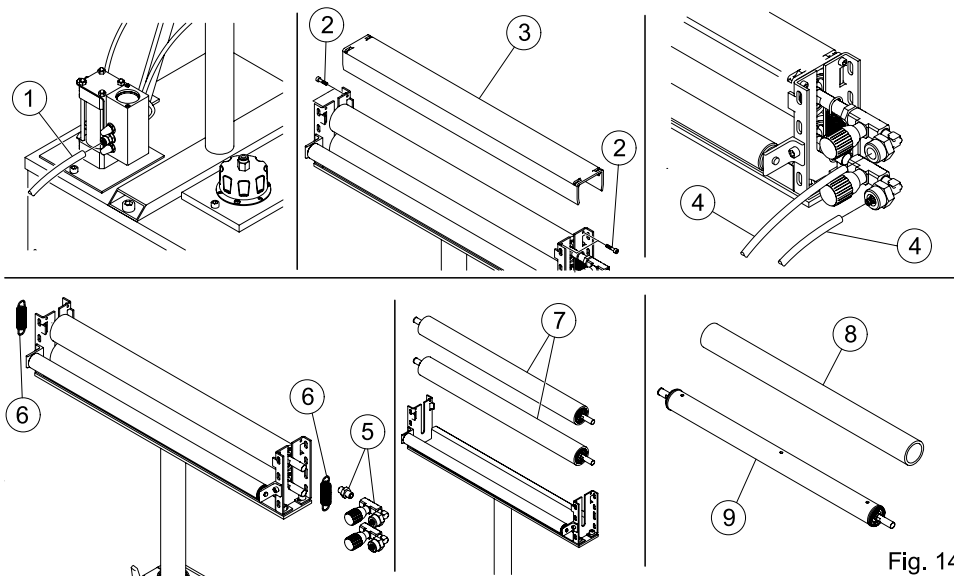


Fig. 14

4.2.1 Replacing felt rollers (Motorized Model)

For the correct procedure for replacing felt rollers, follow the procedure described below with relative illustration:

- Disconnect the electrical and pneumatic supply.
- Unscrew the screws (1) and remove the motor (2).
- Unscrew the handwheels (3) and the screws (4), lift the brackets (5) to free the roller cover (6).
- Remove the tie rods (9) for positioning the cover (6) by removing the brackets (8) held by the screws (7).
- Lift the 2 rollers (10) upwards to remove them from the roller holder.
- Remove the bearing bracket (12) and the bracket on the lower roller by unscrewing the 8 screws (11).
- Remove the two felts (13) by sliding them off the rollers, cutting them if necessary, taking care not to damage the steel rollers (10).
- Clean the steel rollers from the lubricant residues.
- Replace the O.ring - 6162 (15) of each roller.
- Insert the new faced felts without slipping, without using tools that can tear the fabric of the rollers themselves.
- Insert the rollers mounted in the roller tray.
- Reassemble the remaining parts following the procedure reversed as described in the disassembly procedure.
- Connect the pneumatic and electric power supply.
- Open the taps in the chosen position for the correct lubrication of the sheet.

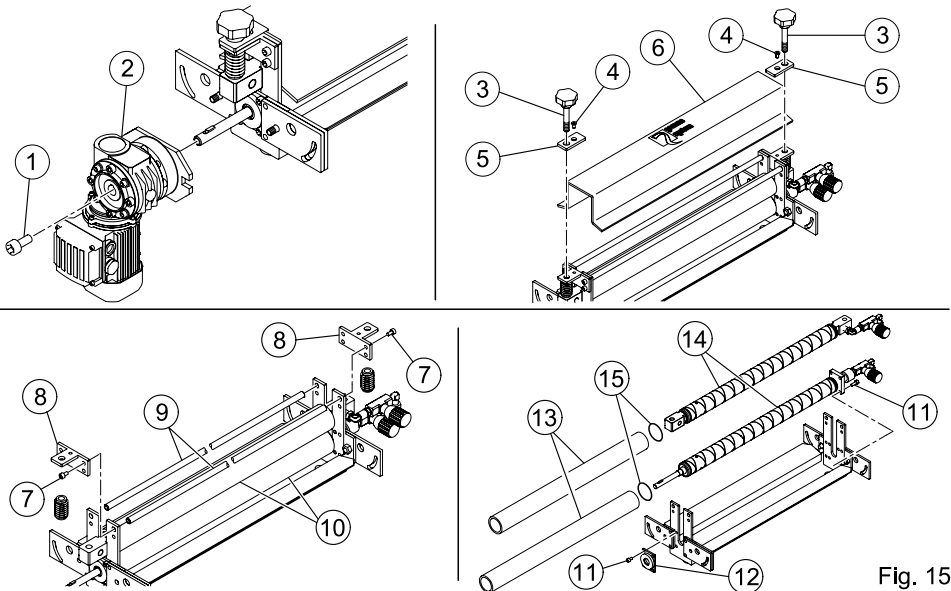


Fig. 15

4.2.1 Replacing felt rollers (Heavy Model)

For the correct procedure for replacing felt rollers, follow the procedure described below with relative illustration:

Disconnect the pneumatic supply.

- Remove the brackets (1) by unscrewing the relative fixing screws (2).
- Lift up the cover (3)
- Disconnect the air supply pipes (4) on the lift (5) on both sides of the lubricator.
- Disconnect the oil delivery pipes (6).
- Remove the two oil flow taps (7) with relative fittings.
- Remove the roller assembly (8) by unscrewing the screws (9) and the two collars (10).
- On the opposite side, remove the two plugs (11) and then the pneumatic lift (12) by removing the screws (13) and the two collars (14).
- Lift the two complete rollers upwards to remove them from the roller carrier.
- Remove the o.ring (16) from the rollers only one side of the same.
- Remove the two felts (15) sliding from rollers, if necessary cut them, being careful don't damaging the steel roller (17).
- the steel roller (17) from residual lubricant.
- Insert the new felt rollers (16) slipping on the steel roller, without use tools that can damaged the rollers.
- Remount the two o ring (15) and insert the rollers in the roller holding tanks, paying attention to the position of the grooves on the guides.
- Reassemble the remaining parts following the procedure reversed as described in the disassembly procedure.
- Connect the pneumatic (4) and oil supply (6) to the two taps (7).
- Open the tap (7) in the chosen position for the correct lubrication of the sheet metal.

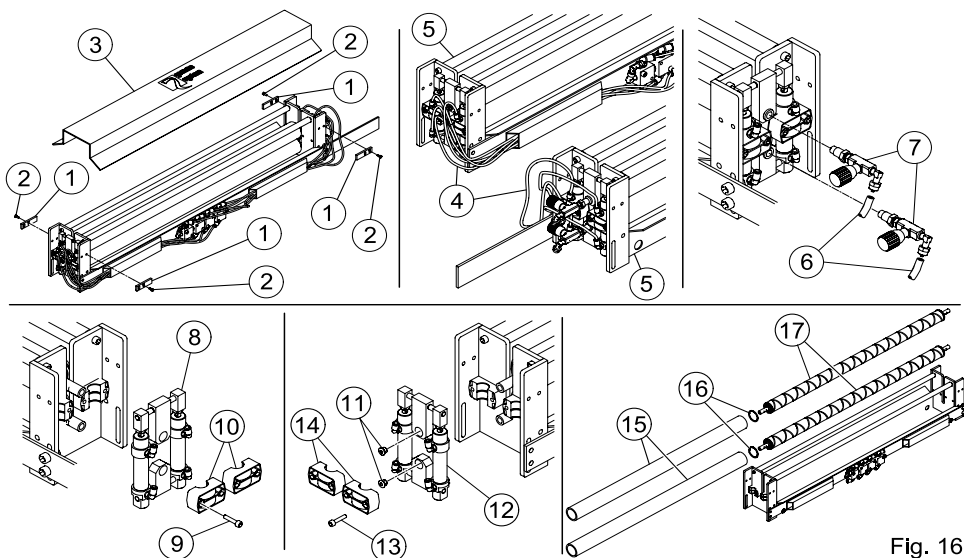


Fig. 16

5. DIMENSIONS AND ENCUMBRANCES

5.1 Dimension of standard model

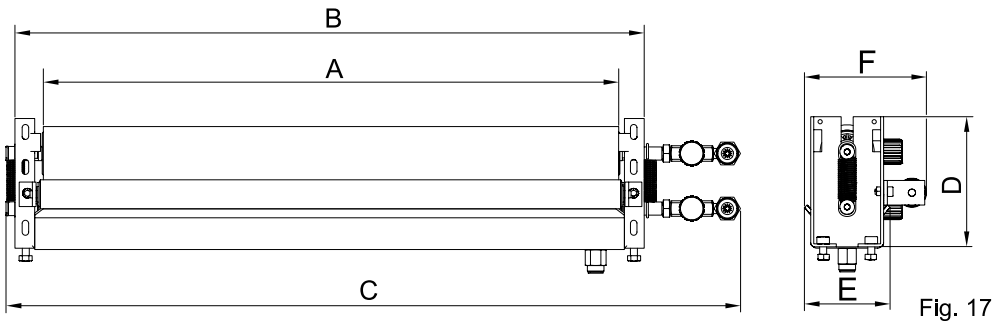


Fig. 17

A Nominal lenght (mm)	B Tank lenght (mm)	C MAX lenght (mm)	D Height (mm)	E Tank width (mm)	F MAX width (mm)
500	557	618	135	90	130
600	657	718	135	90	130
800	857	918	135	90	130
1000	1057	1118	135	90	130
1500	1557	1618	135	90	130

5.2 Dimension of heavy model

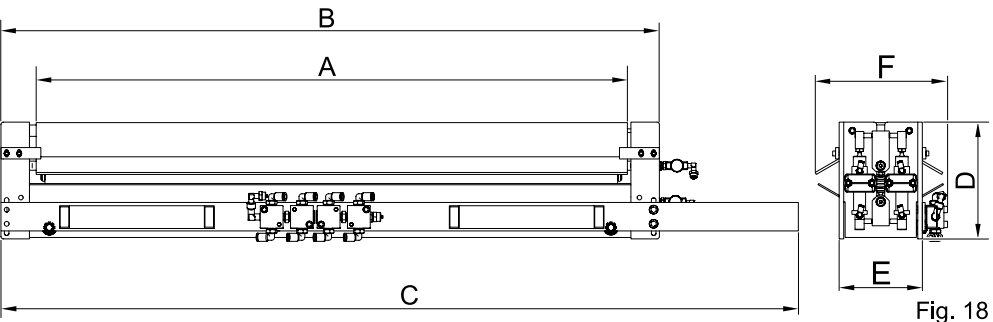


Fig. 18

A Lunghezza nominale (mm)	B Lunghezza vasca (mm)	C Lunghezza MAX (mm)	D Altezza (mm)	E Larghezza vasca (mm)	F Larghezza MAX (mm)
500	640	760	210	145	240
800	940	1060	210	145	240
1000	1140	1260	210	145	240
1500	1640	1760	210	145	240


6. SPARE PARTS

6.1 How to order spare parts

To order spare parts proceed as indicated below:

Check the part to be replaced and identify it inside the illustration.

Find the part number in the table below the graphic table to order and the relative position and communicate them during the order

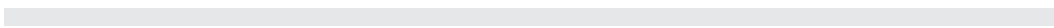
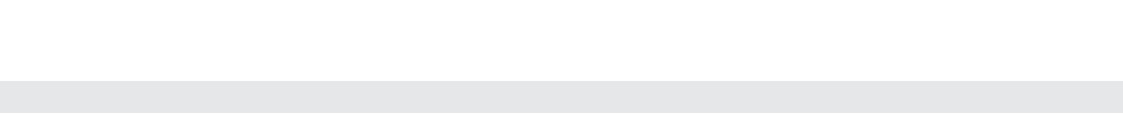
 Important: Before order the spare parts is necessary communicate the correct technical specification and dimension of lubricator.

Order the identified details at:

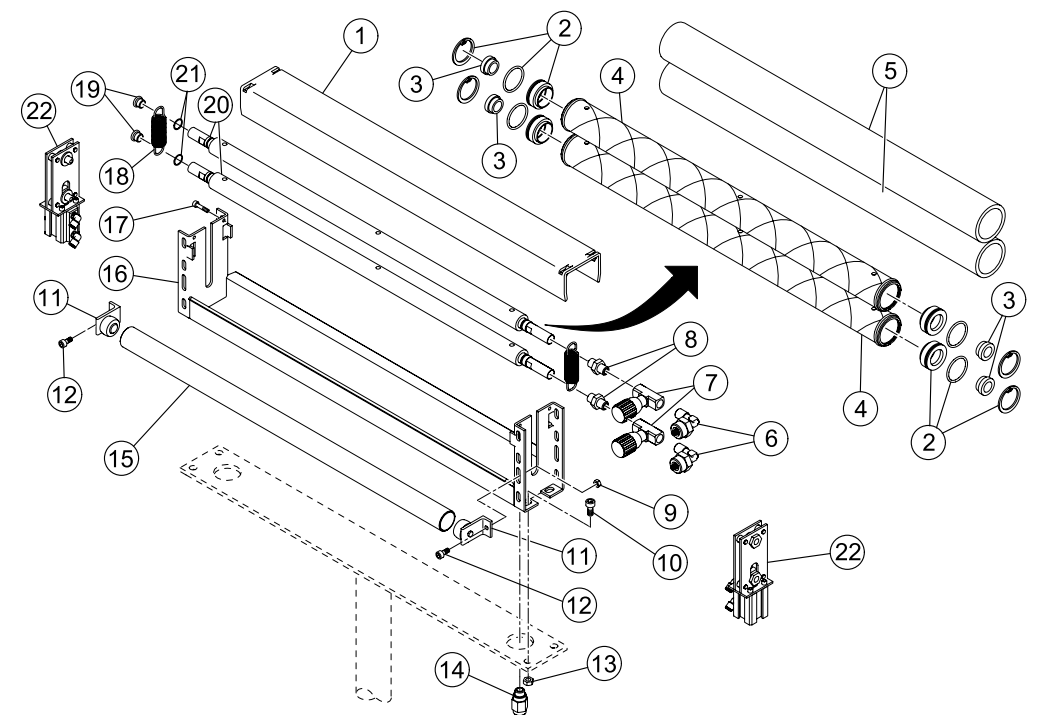
Gamma System Srl
info@gammasystem.com
Tel. +39.011.968.24.66

6.2 Illustrated catalog of spare parts

Tab. 1.0	Rollers and tray group - (Standard Model)
Tab. 1.1	Rollers and tray group - (Modello Motorizzato)
Tab. 1.2	Rollers and tray group - (Modello Pesante)
Tab. 2.0	Telescopic Pedestal - (Standard Model)
Tab. 2.1	Telescopic Pedestal - (Motorized Model)
Tab. 2.2	Telescopic Pedestal - (Heavy Model)
Tab. 3.0	Pneumatic Pump
Tab. 3.1	Centrifugal Pump
Tab. 4.0	Oil tank - (Standard and Motorized model)
Tab. 4.1	Oil tank - (Heavy Model)
Tab. 5.0	Rollers - (Motorized Model)
Tab. 6.0	Pneumatic Liftrollers

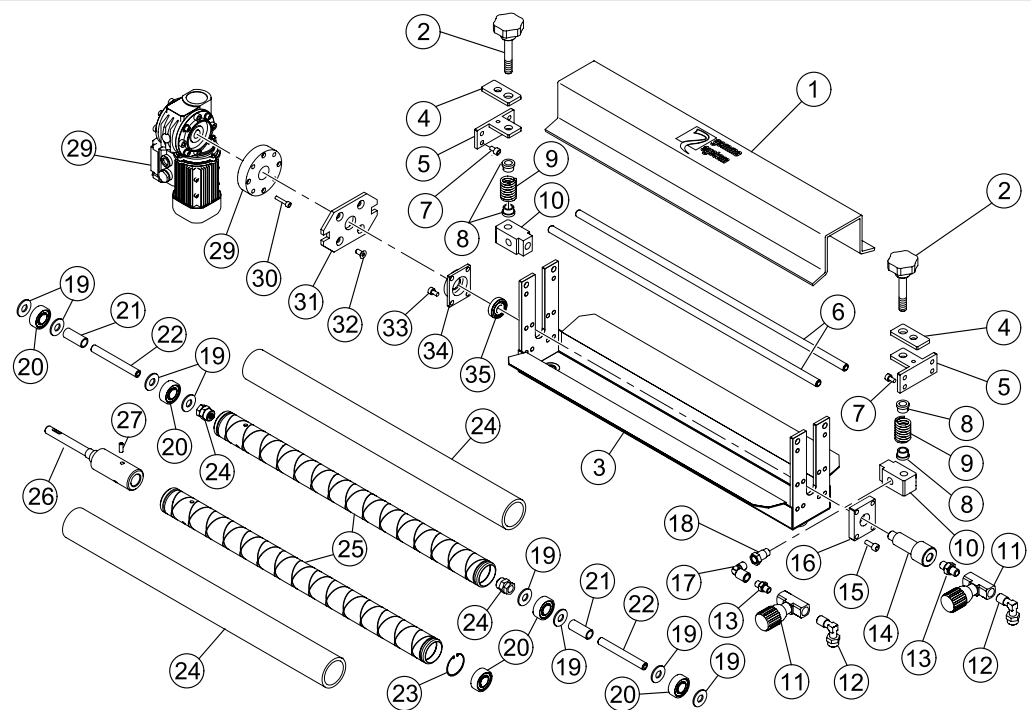


Tab. 1.0 Rollers and tray group - (Standard Model)



POS	DRAWING NR.	Q.TY	DESCRIPTION	NOTE
1	040802	1	Roller cap	
2	GSLUBVAR21	4	Complete header	
3	041207-1	4	Spacer	
4	GSLUBVAR	2	Holder felt rollers	
5	GSLUBFEL	2	Felt Rollers	*wool version: GSLUBFELLAN
6	041002-9	2	Quick coupling elbow fitting	
7	041301-2	2	Regulation tap	
8	041002-13	2	Straight nipple fitting con/con	
9		2	Hexagonal nut	
10		4	TCEI Screw	
11		2	Service rollers support	
12		2	TCEI Screws	
13		4	Hexagonal nut	
14	041002-24	1	Straight coupling with quick coupling	
15	GSLUBVAR	1	Service roller L=mm	
16	GSLUBVASPR	1	Holder roller tank L=mm	
17		4	TCEI Screw	
18	045005-1	2	Traction springs	
19	041002-25	2	Sealing cap 1/8	
20	GSLUBVAR	2	Internal roller L=MM	
21		2	O.ring	
22		2	Complete pneumatic lifter	See tab 6.0

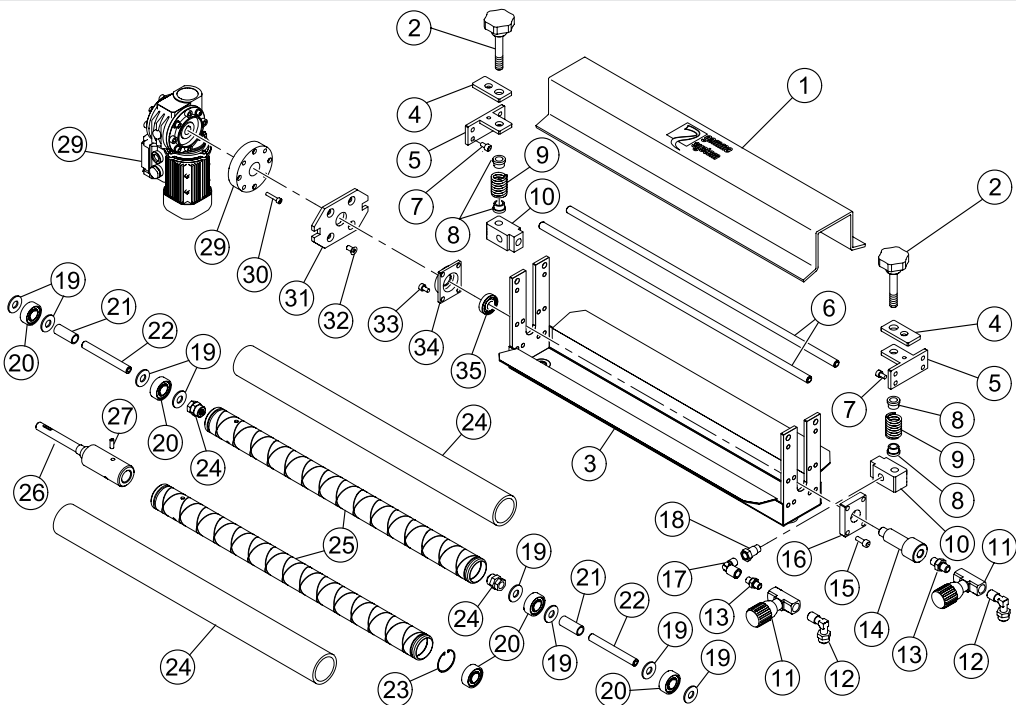
Tab. 1.1 (sheet 1/2) Rollers and tray group - (Motorized Model)



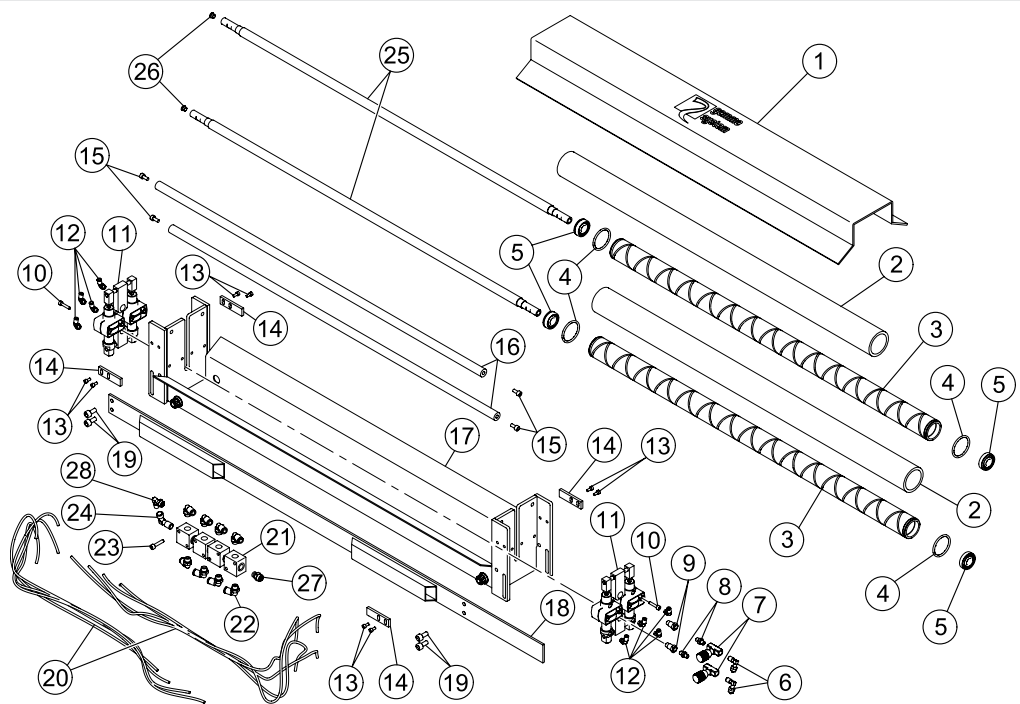
POS	DRAWING NR.	Q.TY	DESCRIPTION	NOTE
1	040802	1	Rollers cap	
2	041201.2	2	Female handwheel VC 192/60 BM10 Threaded	
3		1	Holder roller tank	
4	1674	2	Cover block plate	
5	1667	2	Contrast Bracket Spring	
6	1664	2	Tensioner for tank Ø.10	
7		8	Screw TCEI M6x15	
8		4	Nylon bush	
9	1665	2	Spring	
10	1659	2	Spring adjustment block	
11		2	Adjustment tap	
12		2	Angular connection1/8" M6x8	
13		2	Nipple 1/8"	
14		1	Shaft reducer for oil	
15		4	Screw TCEI M6x15	
16		1	Support for shaft	
17		1	Angular connection 1/8" M-F	
18		1	Extension cord1/8" L=20mm	
19		4	Flat washer Ø.10	
20		5	Bearing 30x10	
21		2	Threaded and drilled spacer M10	
22		2	Spacer	

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Tab. 1.1 (sheet 2/2) Rollers and tray group - (Motorized Model)

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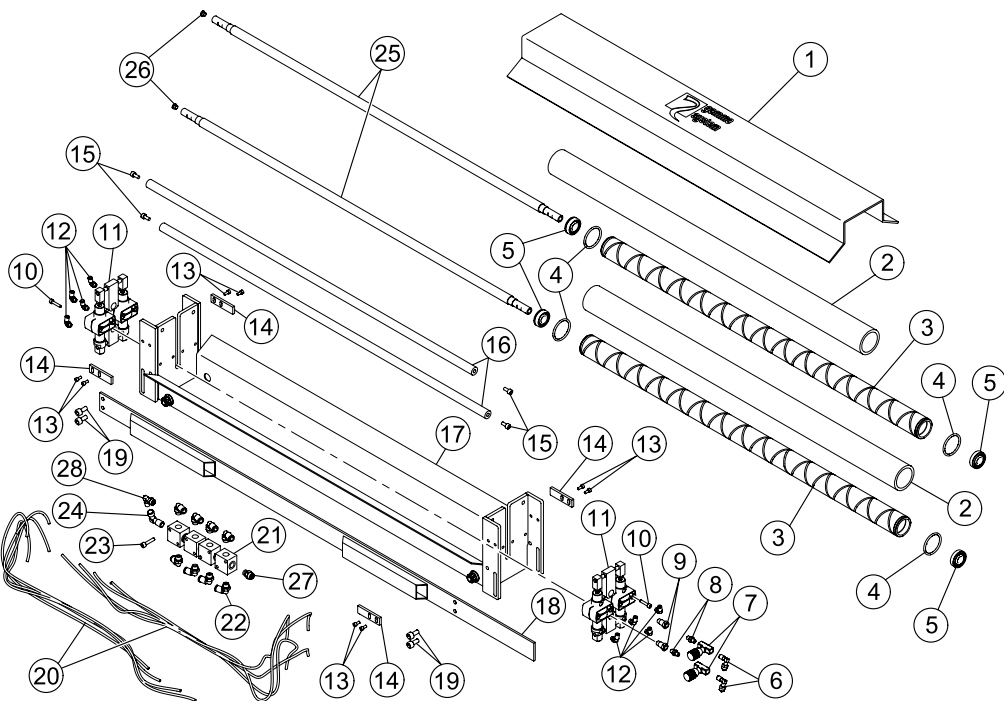
Tab. 1.2 (sheet 1/2) Rollers and tray group - (Heavy Model)



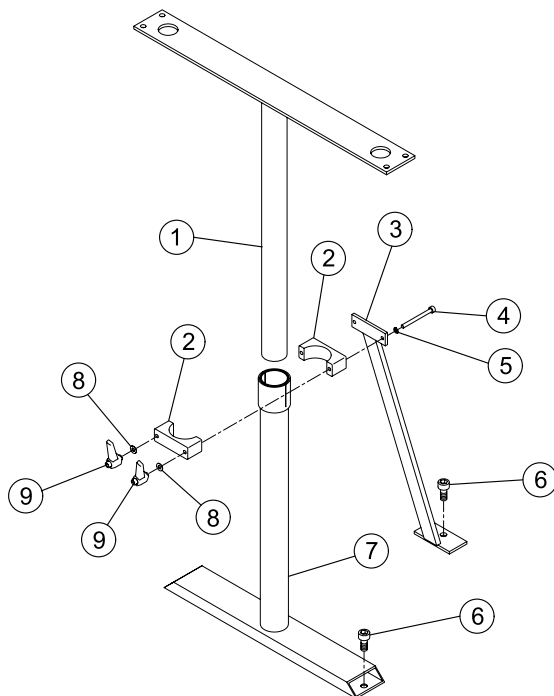
POS	DRAWING NR.	Q.TY	DESCRIPTION	NOTE
1	010.102.3	1	Seeger Ring	
2	GSLUB	2	Felt roller	
3	GSLUBVAR	2	Holder felt roller	
4	041303	4	O.ring 6162	
5	041303.2	4	Bearing 6203 2RS	
6	041002.9	4	Elbow fitting 1/8" 6x8	
7	041301.2	2	Adjusting tap	
8	041002.13	2	Straight connection	
9		8	Screw TCEI M6x30	
10	050407.2	8	Semicollali	
11		2	Pneumatic rollers	See Tab. 6.0
12	041002.12	16	Elbow junction 1/8" T.4	
13		8	Screw TCEI M6x15	
14	1762	4	Cover fixing bracket	
15		4	Screw TCEI M6x15	
16		2	Rod Ø20	
17	040802	1	Roll holder tank	
18		1	Divider support plate 400x60mm	
19		4	Screw TCEI M8x20	
20		mtl	Rilsan tube	
21	041005.3	4	4 way Divider 1/8"	
22		1	Pneumatic roller lifter control	

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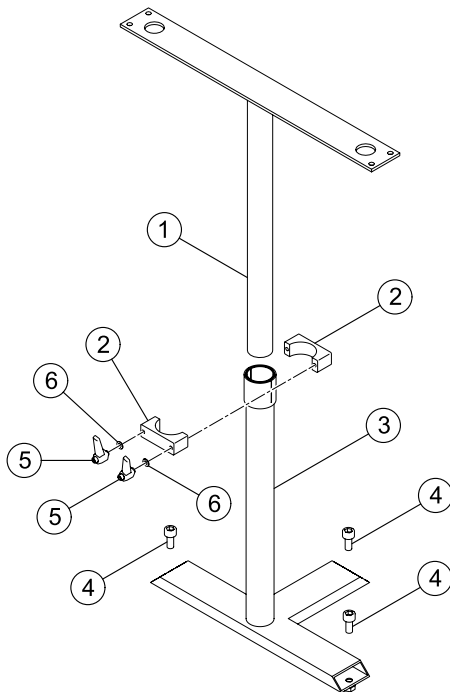
Tab. 1.2 (Sheet 2/2) Rollers and tray group - (Heavy Model)

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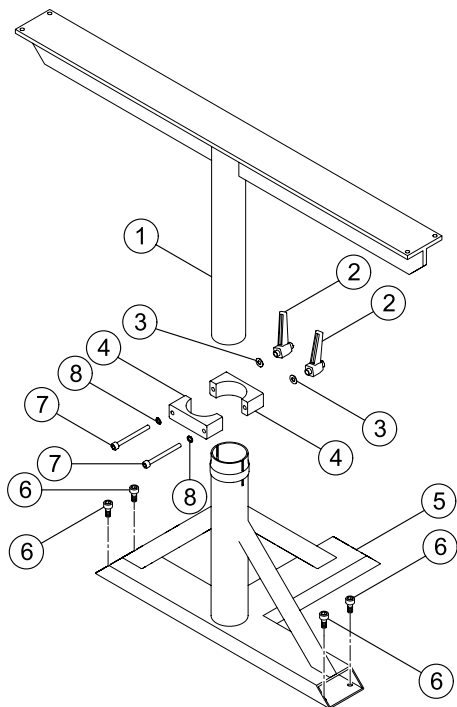
Tab. 2.0 Telescopic Pedestal - (Standard Model)

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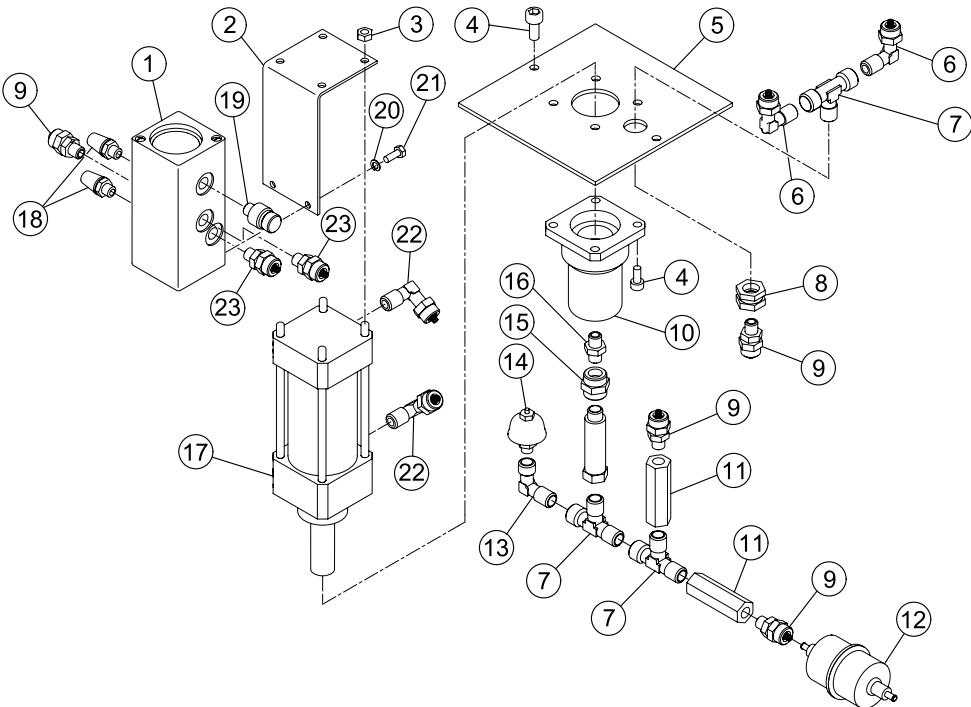
Tab. 2.1 Telescopic Pedestal - (Motorized Model)

[illegible]

Tab. 2.2 Telescopic Pedestal - (Heavy Model)

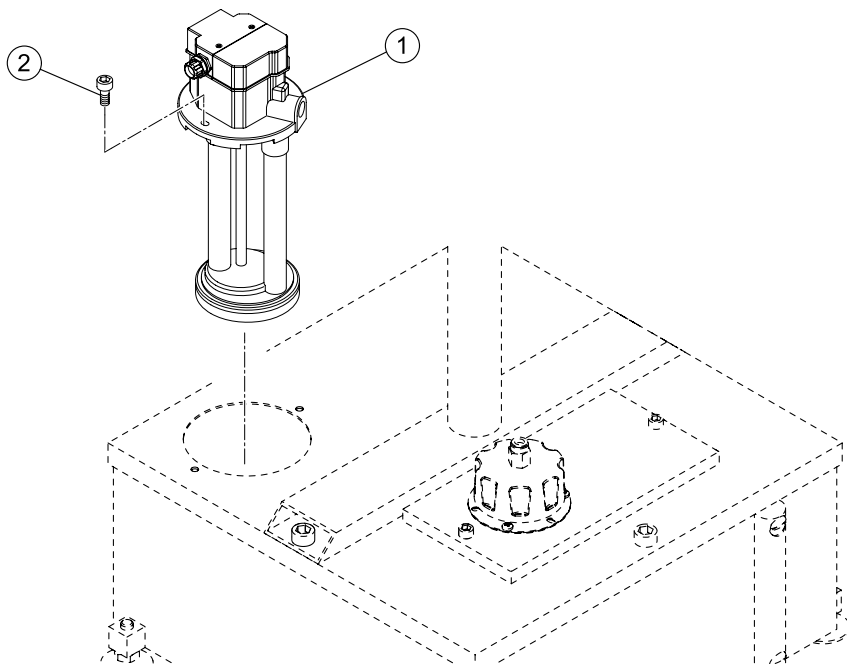
[illegible]

Tab. 3.0 Pneumatic pump

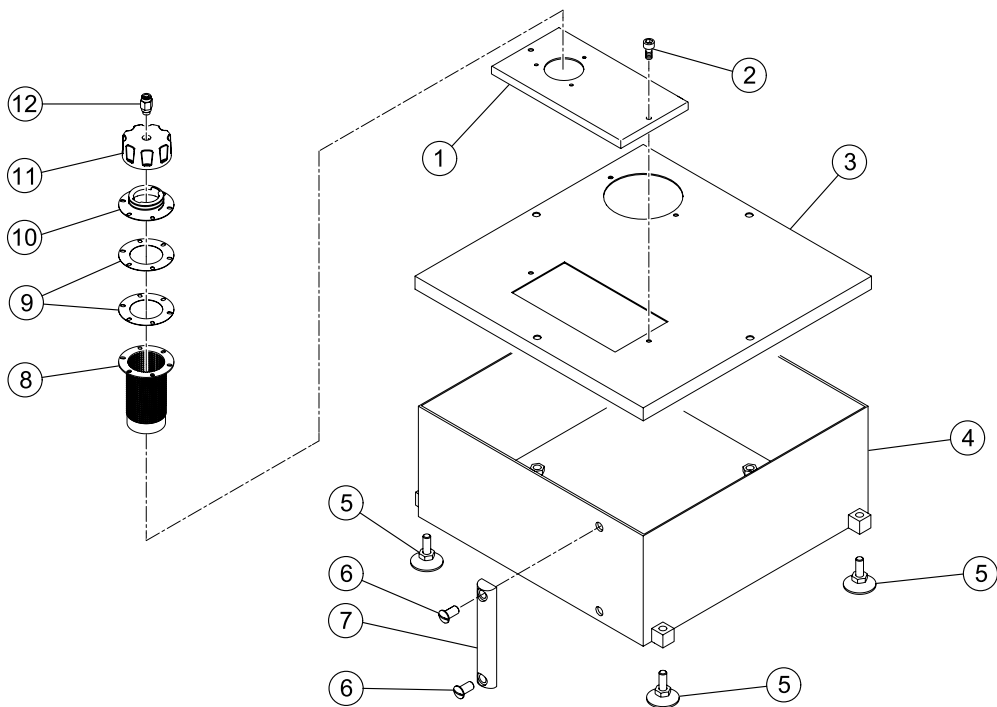


POS	DRAWING NR.	Q.TY	DESCRIPTION	NOTE
1	041003.8	1	Automatic valve pulse generator A1190	
2		1	Angular bracket	
3		1	Nut	
4		6	Screw TCEI M6x15	
5		1	Plate	
6		2	Elbow fitting 1/8" 6x8	
7		1	T fitting 1/8" F/M/F.	
8		1	Wall pass connection 3/8"M - 1/8" F	
9		4	Straight coupling with quick coupling 1/8 6x8	
10		1	Cylindrical tank for pump	
11	051003.01	2	Unidirectional valve 1/8"	
12	041003.08	1	Filter	
13		1	Elbow fitting 1/8" M/F	
14	041003.04	1	Safety valve 1/8	
15		1	Sleeve 1/8" F/F	
16		1	Nipple 1/8	
17	041001.01	1	Pump cylinder A1166	
18	041003.08	2	Vents 1/8	
19		1	Regulations valve A119040	
20		2	Plane washer Ø4	
21		2	Screw TE M4x50	
22		2	Elbow Fitting 1/8" 6x4	
23		2	Straight fitting 1/8" 6x4	

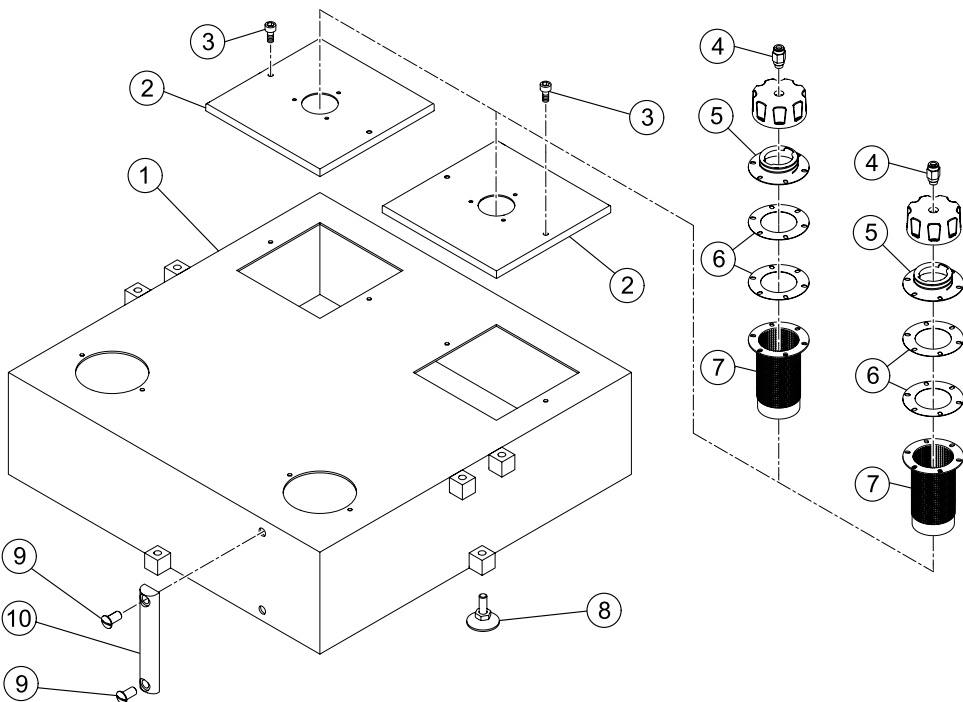
Tab. 3.1 Centrifugal Pump

[illegible]

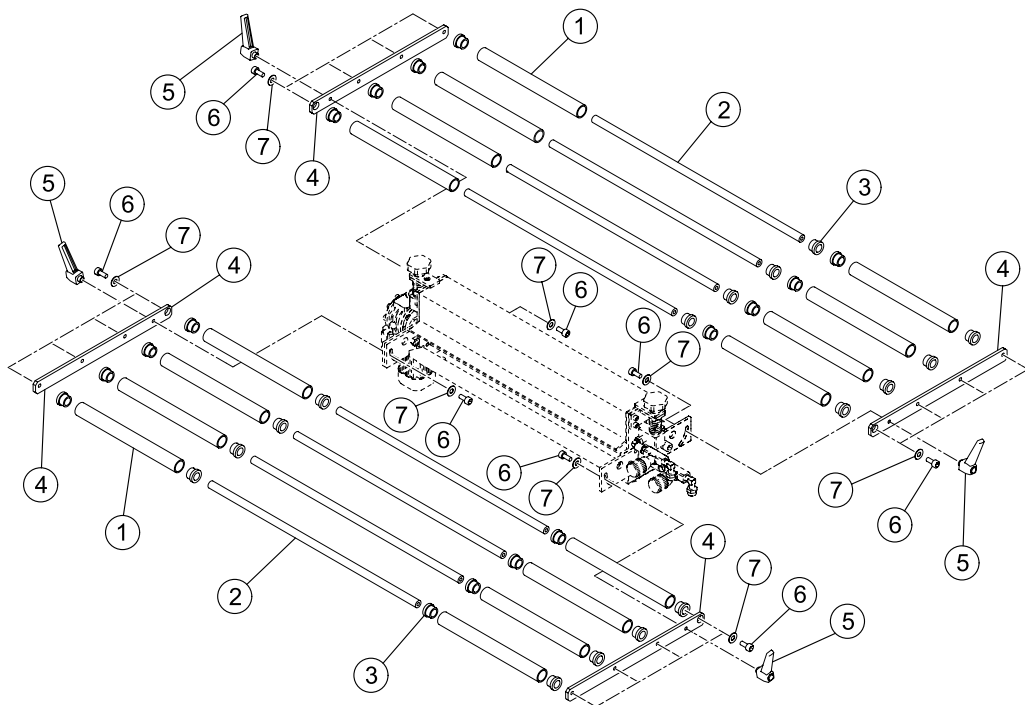
Tab. 4.0 Oil Tank - (Standard and Motorized Motor)

[illegible]

Tab. 4.1 Oil Tank - (Heavy Model)

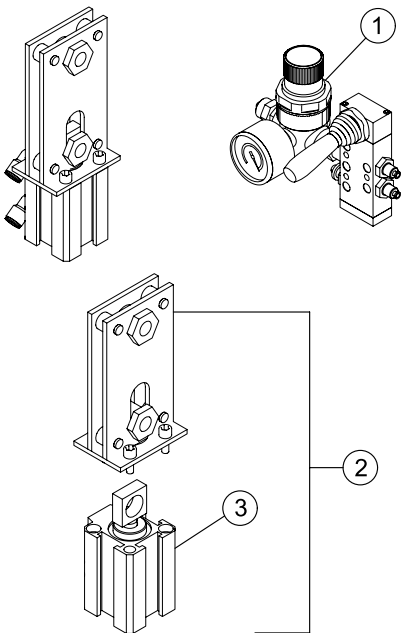
[illegible]

Tab. 5.0 Conveyor roller - (Motorized Model)

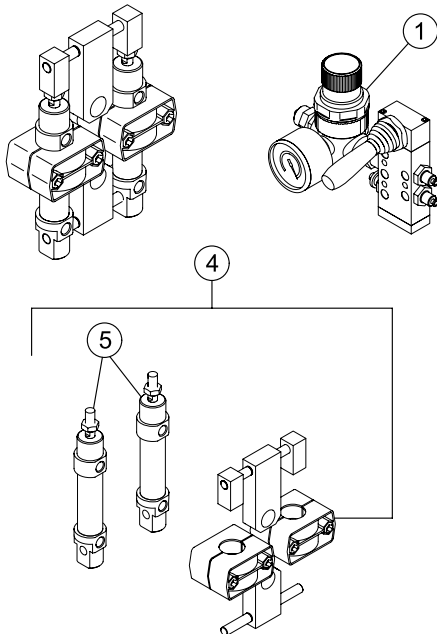
[illegible]

Tav. 6.0 Pneumatic roller lifter

ROLLER LIFTER FOR STANDARD VERSION



ROLLER LIFTER FOR HEAVY VERSION

[illegible]

7. WARRANTY AND DELIVERY CONDITIONS

7.1 Testing and Warranty

TESTING - The product is delivered after passing the visual and functional tests.

WARRANTY

Our obligation for the warranty on the equipment and the relative parts of our production has a duration of 1 year, from the date of the invoice and consists in the free supply of the parts to be replaced that, in our unquestionable judgment, turn out to be defective.

It will be the responsibility of the manufacturer to remove any faults and defects as long as the lubricator has been used correctly in compliance with the instructions given in the manual.

During the warranty period, the client will be responsible for the expenses related to the work, journeys or transfers, transport of the parts and any equipment to be replaced.

8. WASTE DISPOSAL

For the correct classification of oily waste or chemical water, refer to the safety data sheets to be requested from suppliers.

Waste or surplus materials, generated during maintenance operations, will be given to authorized plants in compliance with the regulations in force regarding disposal.



Gamma System reserves the right to change the characteristics of its products, without notice, in order to improve functionality.

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