

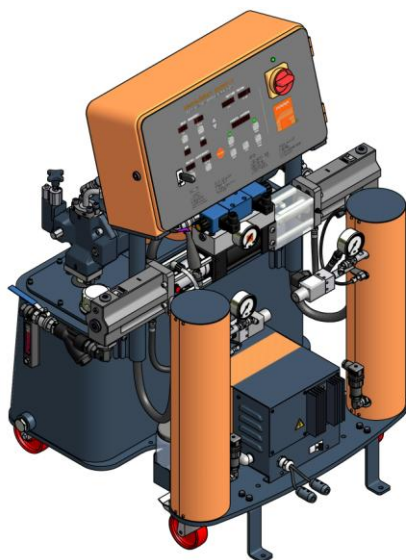


Parts Manual

Proportioning Unit

evolution G-50 H

Issue 2.6 24/10/12
Ref. NR-00041-ENG



Before installing the unit and starting it up, carefully read all the technical and safety documentation included in this manual. Pay special attention to the information to know and understand the handling and the conditions of use of the unit. All of the information is aimed at enhancing User Safety and avoiding possible breakdowns derived from the incorrect use of the unit.



WARRANTY

GARRAF MAQUINARIA, S. A. (hereinafter "GAMA") provides this **LIMITED WARRANTY** (hereinafter "Warranty") to the original purchaser (hereinafter "Customer") covering this equipment and the original GAMA manufactured accessories delivered with the equipment (hereinafter "Product") against defects in material or workmanship of the Product (hereinafter "Defect" or "Defective") for a period of two (2) years from the date of first purchase as shown on the original GAMA invoice (hereinafter "Warranty Period").

If during the Warranty Period under normal use, the Product is suspected by Customer to be Defective in material or workmanship, it is Customer's responsibility to contact GAMA and return the Product to GAMA as directed by GAMA, freight prepaid. If GAMA determines that the Product is Defective and that such Defect is covered by this Warranty, GAMA will credit Customer for the reasonable freight charges incurred by Customer in returning the Defective Product to GAMA, and GAMA (or its authorized agent) will, at GAMA's option, repair or replace the Product, subject to the following:

Original Invoice: The original invoice must be kept as proof of the date of first sale and the Product serial number. The Warranty does not cover any Product if the Original Invoice appears to have been modified or altered, or when the serial number on the Product appears to have been altered or defaced.

Product Maintenance: It is the Customer's responsibility to maintain the Product properly. See your maintenance schedule and owner's manual for details. The Warranty does not cover an improperly maintained Product.

Non-GAMA Components and Accessories: Non-GAMA manufactured components and accessories that are used in the operation of the Product are not covered by this Warranty. Such components and accessories shall be subject to the warranty offered to the Customer, if any, by the original manufacturer of such component or accessory.

Other Warranty Exclusions: The Warranty does not cover any Product that GAMA determines has been damaged or fails to operate properly due to misuse, negligence, abuse, carelessness, neglect, or accident. By way of example only, this includes:

- Normal wear and tear.
- Improper or unauthorized installation, repair, alteration, adjustment or modification of the Product.
- Use of heating devices, pumping equipment, dispensers, or other parts or accessories with the Product that have not been approved or manufactured by GAMA.
- Failure to follow the operating instructions and recommendations provided by GAMA.
- Cosmetic damage.
- Fire, flood, "acts of God," or other contingencies beyond the control of GAMA.

THE WARRANTY DESCRIBED HEREIN IS THE EXCLUSIVE REMEDY FOR THE CUSTOMER AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, AND THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES ARE HEREBY DISCLAIMED. TO THE FULLEST EXTENT PERMITTED BY LAW, GAMA SHALL NOT BE RESPONSIBLE, WHETHER BASED IN CONTRACT, TORT (INCLUDING, WITHOUT LIMITATION, NEGLIGENCE), WARRANTY OR ANY OTHER LEGAL OR EQUITABLE GROUNDS, FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, LOST PROFITS, SPECIAL, PUNITIVE OR EXEMPLARY DAMAGES, WHETHER TO PERSON OR PROPERTY, ARISING FROM OR RELATING TO THE PRODUCT, EVEN IF GAMA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES OR DAMAGES.

Non-Warranty Service by GAMA: If GAMA determines that the suspected Defect of the Product is not covered by this Warranty, disposition of the Product will be made pursuant to the terms and conditions of GAMA's written estimate on a time and materials basis.

Continuing Warranty for Products Repaired or Replaced under Warranty: Following the repair or replacement of a Product covered by this Warranty, such Product will continue to be subject to the original Warranty for the remainder of original Warranty Period or for three (3) months from the repair or replacement date, whichever is longer.

No Rights Implied: Nothing in the sale, lease or rental of any Product by GAMA shall be construed to grant any right, interest or license in or under any patent, trademark, copyright, trade secret or other proprietary right or material owned by anyone; nor does GAMA encourage the infringement of same.

Exclusive Warranty: This writing is the final, complete, and exclusive expression of the Warranty covering the Product. Any statements made by GAMA, its employees or agents that differ from the terms of this Warranty shall have no effect. It is expressly understood that Customer's acceptance of this Warranty, by performance or otherwise, is upon and subject solely to the terms and conditions hereof, and any additional or different terms and conditions proposed or expressed by Customer or anyone, whether in writing or otherwise, are null and void unless specifically agreed to in writing by an Officer of GAMA.

PROPORTIONING UNIT evolution G-50 H MODEL

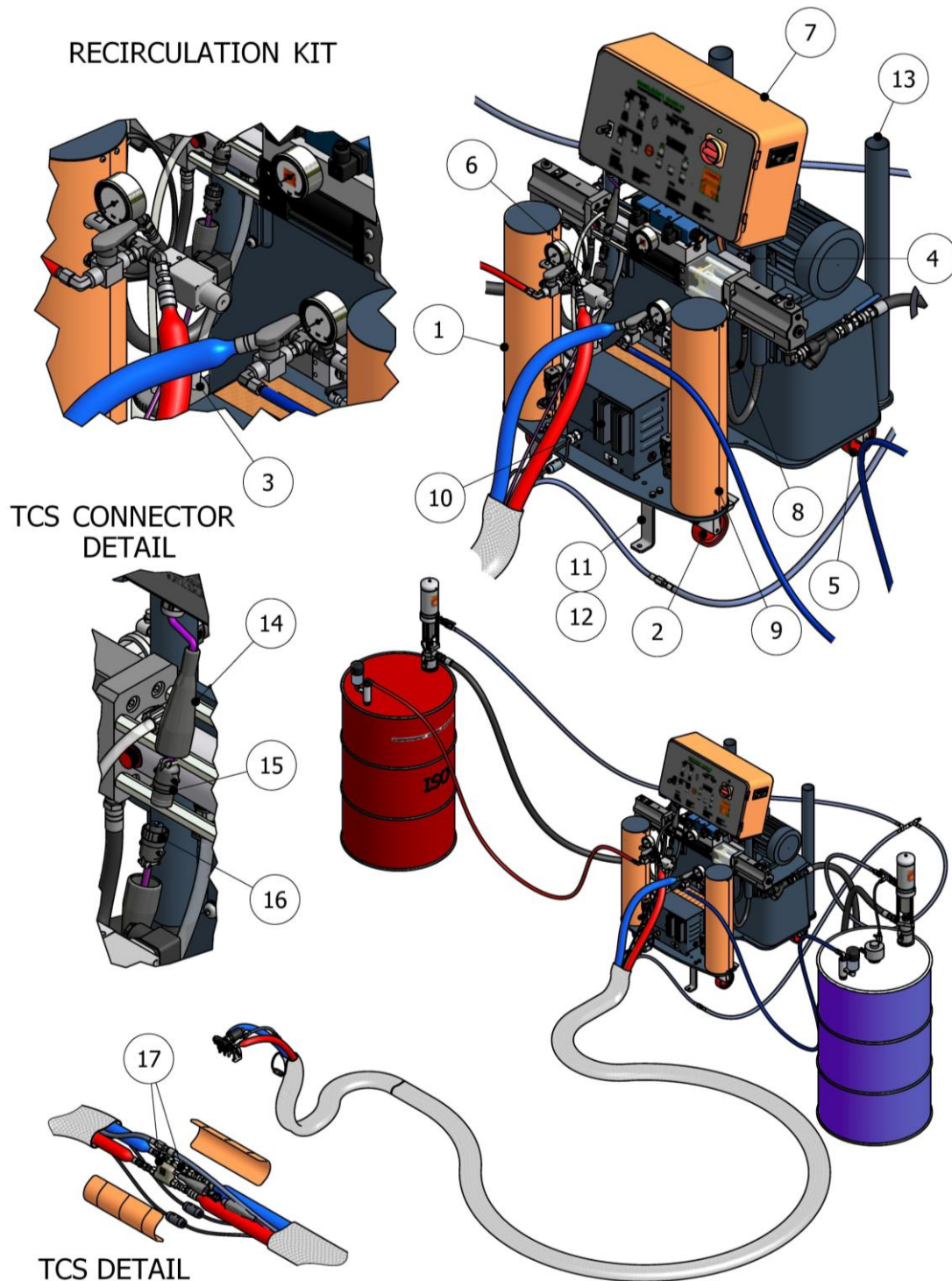


Figure 1. Proportioning Unit Evolution G-50 H Model



Table 1. Proportioning Unit Evolution G-50 H Model, Parts List

Ref.	Description	Part Number	Qty.
1	A Primary Heater	See Table 2	1
2	Front Wheel With Brake	MQ-01002	2
3	Lube Reservoir Bracket	MQ-01008	1
4	Electrical Console Support and Pump Line	MQ-01004-06	1
5	Back Wheel	MQ-01016	2
6	A Pump/Heater Hose Assy.	MA-00120	1
7	Electrical Console Assy.	See Table 4	1
8	R Pump/Heater Hose Assy.	MA-00120	1
9	R Primary Heater	See Table 3	1
10	Hose Transformer	See Table 5	1
11	"Z" Bracket with Transfer Pump Bracket	MQ-01017	2
12	"Z" Bracket without Transfer Pump Bracket	MQ-02014	2
13	Transfer Pump Bracket	MQ-01015-00	2
14	Connector Sensor Cover	EL-00096-21	1
15	Connector Sensor Male	EL-00096-19	1
16	Connector Sensor Female	EL-00096-20	1
17	Temperature Control Sensor	EL-00051-00	1

Table 2. A-Primary Heater Reference List

Part Number	Description
CL-01001-00G	A Primary Heater 250 bar / 3500 psi 9000 watts 400 v.



Table 3. R-Primary Heater Reference List

Part Number	Description
CL-01002-00G	R Primary Heater 250 bar / 3500 psi 9000 watts 400 v.

Table 4. Electrical Console Reference List

Part Number	Description
EL-00191-00	Electrical Console Assy.(3x 400v.Without NEUTRAL 50/60 Hz)

Table 5. Hose Transformer Reference List

Part Number	Description
EL-00127-15	Hose Transformer Assy (3x400v – NEUTRAL)

ELECTRICAL CONSOLE

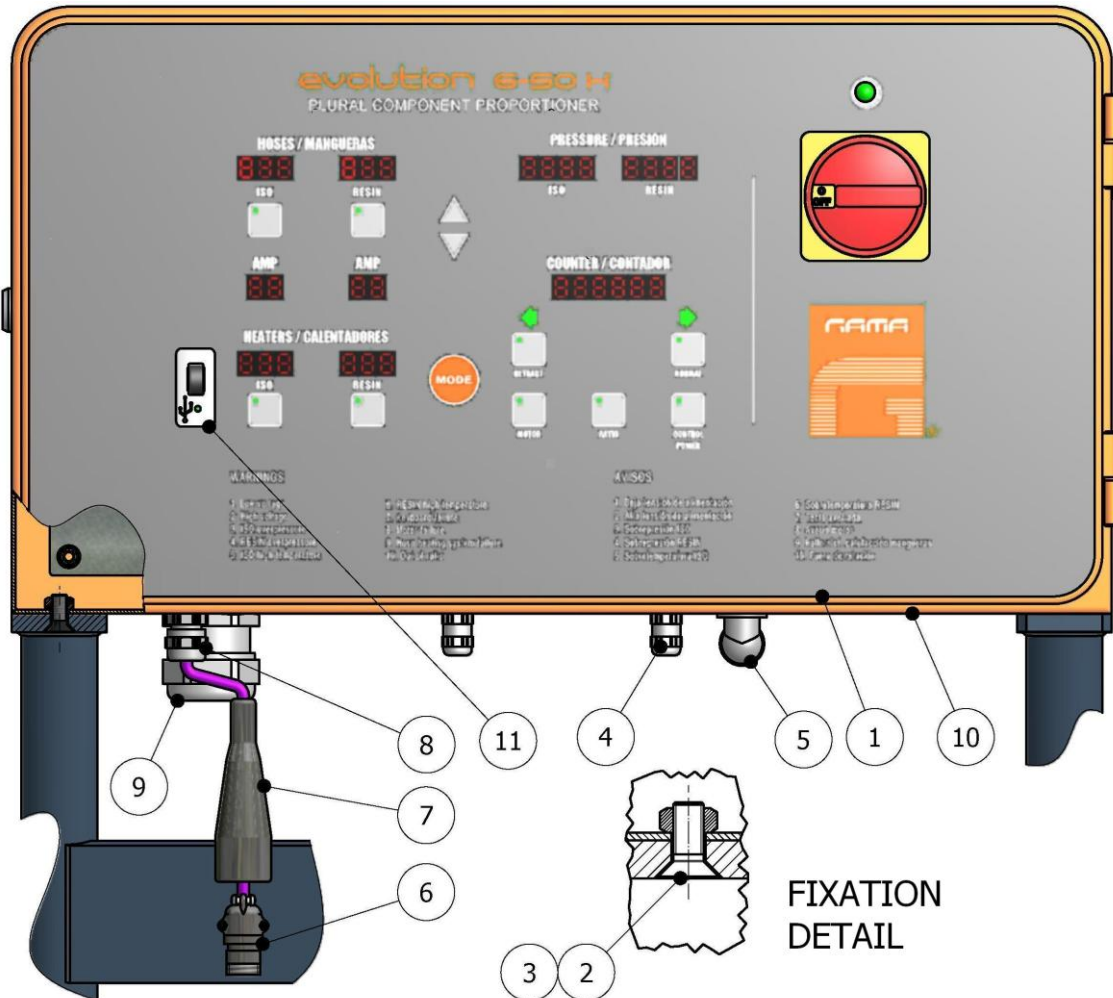


Figure 2. Electrical Console evolution G-50 H



Table 6. Electrical Console, Parts List

Ref.	Description	Part Number	Qty.
1	Bezel & Electric Circuit Assembly	See Table 7	1
2	Screw	TN-00233	4
3	Conical Washer	TN-00296	4
4	Directional Valve Connector	EL-00088-00	3
5	Motor Conduit Connector	EL-00087-00	1
6	Connector TCS Male	EL-00096-19	1
7	Connector TCS Cover	EL-00096-21	1
8	TCS Conduit Connector	EL-00088-05	1
9	Cable Connector	EL-00088-04	1
10	Electrical Console	EL-00193-01	1
11	USB Port (Included in Ref. 1)	See Table 7	1
12	Pen Drive 1 GB (Included in Ref. 1), not showed	See Table 7	1

Table 7. Bezel & Electric Circuit Assy., Parts List

Version	Bezel 1x	Circuit 1x	Main Switch 1x	Spacer 9x	USB Port 1x	“Pen Drive” 1x
3x 400v.sN 50/60 Hz	EL-00192	EL-00019-07	EL-00107-02	EL-00019-03	EL-00078-04	EL-00078-05

HYDRAULIC MANIFOLD WITH 28 CC. PUMP

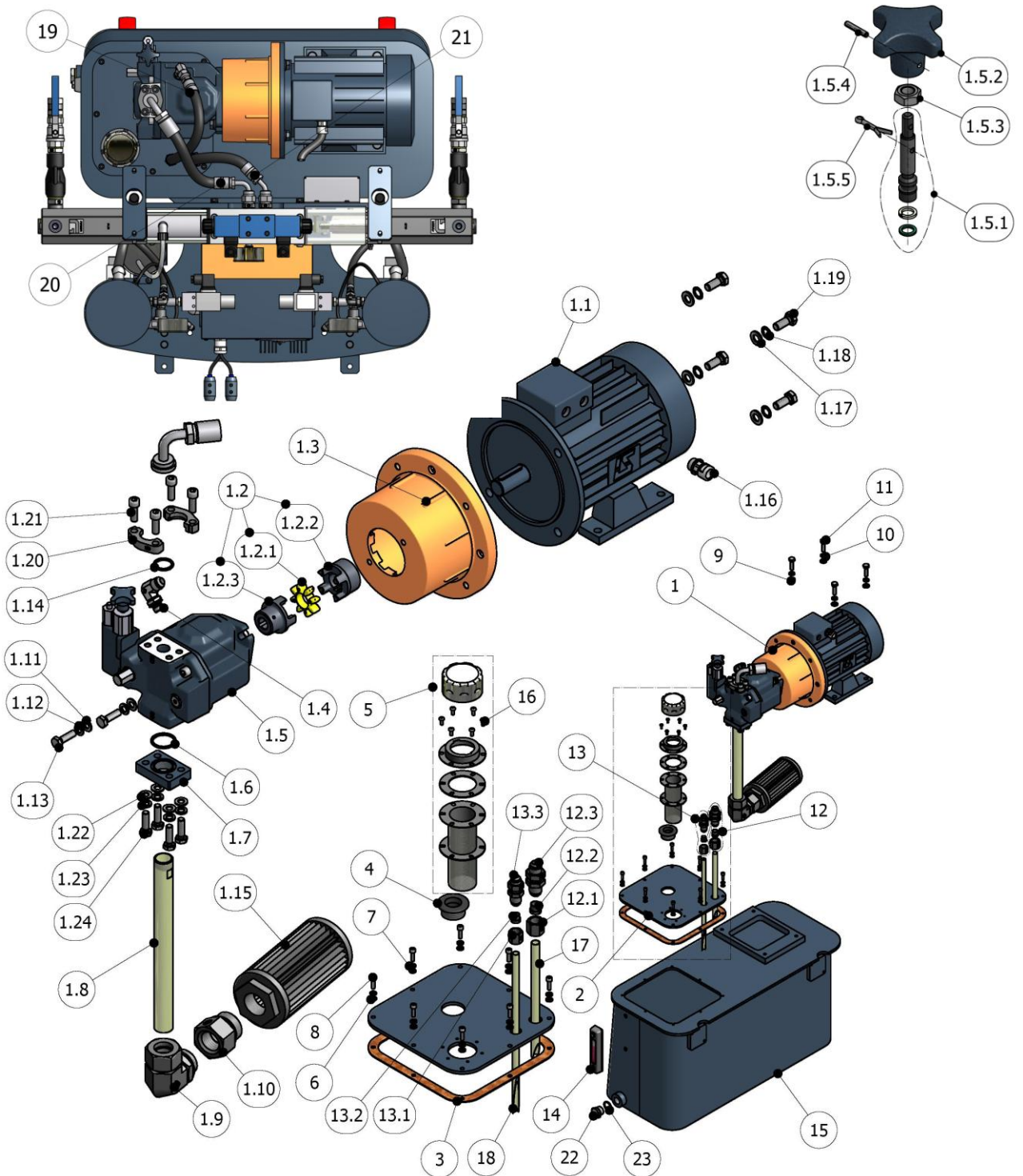


Figure 3. Hydraulic Manifold with 28 cc. Pump, Exploded View



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Table 8. Hydraulic Manifold with 28 cc. Pump, Parts List

Ref.	Description	Part Number	Qty.
1	Motor/Pump Line Assembly	See Table 9	1
1.1	Electric Motor	See Table 9	1
1.2	Coupler Assembly	See Table 10	1
1.2.1	Alignment Spidex	See Table 10	1
1.2.2	Spidex Motor	See Table 10	1
1.2.3	Spidex Pump	See Table 10	1
1.3	Bell Housing	See Table 11	1
1.4	Hose Elbow	RA-00058	1
1.5	HYD Pump Assembly	See Table 9	1
1.5.0	Limitter Assy (it includes of Pos.1.5.1 to 1.5.5)	HI-00102-00	1
1.5.1	Limitter Bolt	HI-00102-01	1
1.5.2	Limitter Knob	HI-00102-02	1
1.5.3	Nut (It is provided with the Hydraulic Pump)	-	1
1.5.4	Elastic Pin	TN-00072	1
1.5.5	Fins Pin	TN-00077	1
1.6	O-Ring	OR-00029	1
1.7	Suction Plate	HI-00081-01	1
1.8	Suction Tube	HI-00009-01	1
1.9	Street Elbow	RA-00030	1
1.10	Thread Reducer	RA-00031	1
1.11	Washer	TN-00040	2
1.12	Lock Washer	TN-00039	2
1.13	Socket Head Cap Screw	TN-00060	2
1.14	O-Ring	OR-00083	1
1.15	Cartridge Strainer	HI-00003	1
1.16	Bushing	EL-00087-00	1
1.17	Washer	TN-00040	4
1.18	Lock Washer	TN-00039	4
1.19	Socket Head Cap Screw	TN-00060	4
1.20	SAE Flange	RA-00266	1
1.21	Socket Head Cap Screw	TN-00253	4



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Ref.	Description	Part Number	Qty.
1.22	Washer	TN-00040	4
1.23	Lock Washer	TN-00039	4
1.24	Socket Head Cap Screw	TN-00254	4
2	Reservoir Cover Plate	HI-00039-04B	1
3	Reservoir Cover Plate Gasket	HI-00014-03	1
4	Rubber Grommet	HI-00017	1
5	HYD-Oil Filler	HI-00002	1
6	Washer	TN-00025	8
7	Lock Washer	TN-00024	8
8	Socket Head Cap Screw	TN-00026	8
9	Washer	TN-00162	4
10	Lock Washer	TN-00087	4
11	Socket Head Cap Screw	TN-00163	4
12	Adapters Bulkhead Union Assy	RA-00059	1
12.1	Nut	RA-00171	1
12.2	Ferule	RA-00169	1
12.3	Adapters Bulkhead Union	RA-00170	1
13	Adapters Bulkhead Union Assy	RA-00060	1
13.1	Nut	RA-00174	1
13.2	Ferule	RA-00173	1
13.3	Adapters Bulkhead Union	RA-00172	1
14	Thermometer and Fluid Level Gauge	HI-00001	1
15	Oil Tank	HI-00037-01	1
16	ULS Screw	TN-00166	6
17	Return Tube	HI-00051	1
18	Return Tube	HI-00010	1
19	Drain Hose Pump	HI-00053-02	1
20	P-Port Hose. Pump	HI-00087-01	1
21	T-Port Hose	HI-00024	1
22	Plug	RA-00022	1
23	O-Ring	OR-00082	1



Table 9. Specific Hydraulic Components, Parts List

Flow	Motor/Pump Line Assy	Electric Motor	Hydraulic Pump
40 Lts./min	HI-00039-07	EL-00138-01	HI-00081 (28 cc.)

Table 10. Coupler Assembly as Pump, Part List

Pump Size	Coupler Assembly Ref. 1.2	Spidex Pump Ref. 1.2.3	Spidex Motor Ref. 1.2.2	Alignment Spidex Ref. 1.2.1
28 cc.	HI-00006-00	HI-00006-03	HI-00006-02	HI-00006-01

Table 11. Bell Housing as Pump & Motor type, Parts List

	28 cc. Pump
EI-00138-01 Motor 5.5 Kw	HI-00086

REVERSING SWITCH

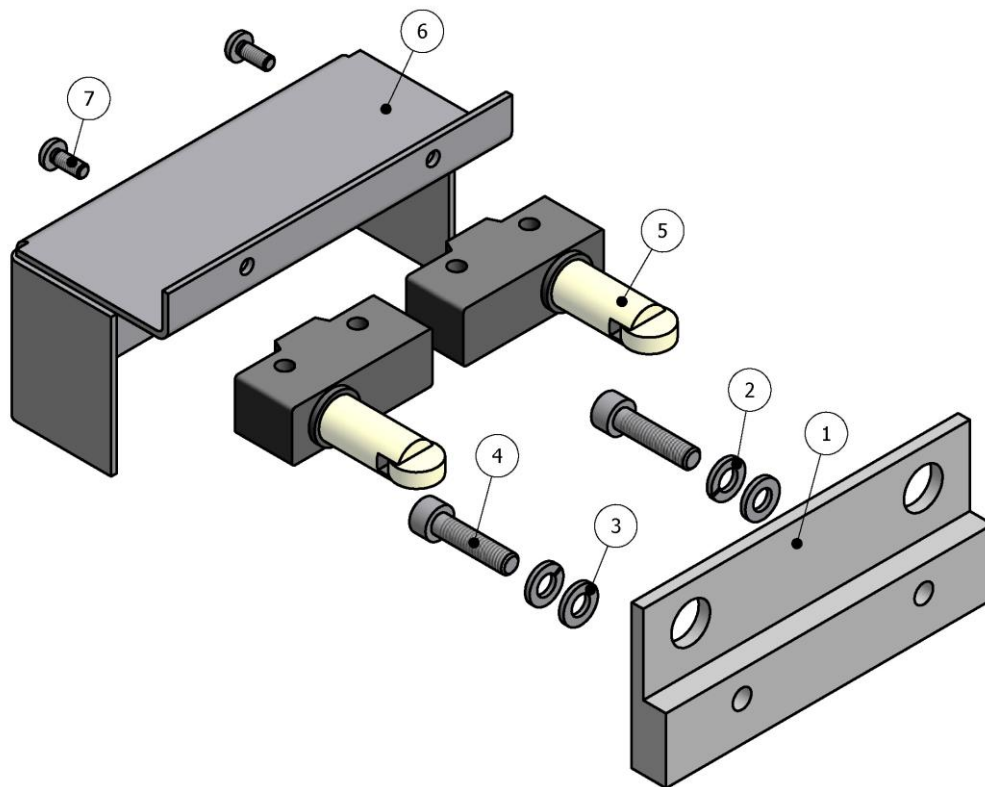


Figure 4. Reversing Switch Assy., Exploded View.

Table 12. Reversing Switch Assy., Parts List

Ref.	Description	Part Number	Qty.
1	Reversing Switch Support	MQ-01005	1
2	Washer	TN-00025	2
3	Lock Washer	TN-00024	2
4	Socket Head Cap Screw	TN-00169	2
5	Pump Reversing Switch	EL-00020	2
6	Reversing Switch Cover	MQ-01006	1
7	ULS Screw	TN-00159	2

LUBE RESERVOIR HOSE ASSEMBLY

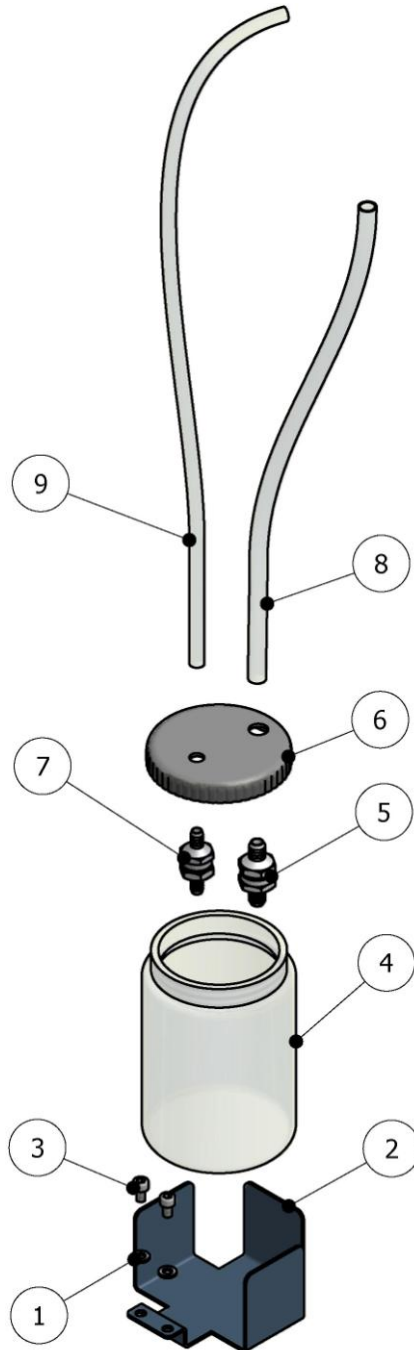


Figure 5. Lube Reservoir Hose Assembly, Exploded View



Table 13. Lube Reservoir Hose Assembly, Parts List

Ref.	Description	Part Number	Qty.
1.1	Washer	TN-00024	2
1.2	Washer	TN-00025	2
2	Lube Reservoir Bracket	MQ-01008	1
3	Socket Head Cap Screw	TN-00248	2
4	Lube Reservoir Bottle	MQ-01009-01	1
5	Lube Reservoir Check Valve for Pipe 12x1	RA-00068	1
6	Lube Reservoir Bottle Cap	MQ-01009-02	1
7	Lube Reservoir Check Valve for Pipe 10x1	RA-00283	1
8	Supply Line	MA-00025	1
9	Return Line	MA-00024	1

N.B.:

When are ordered as spare parts, the references 4 and 6 are not given separately.

PUMP LINE ASSEMBLY

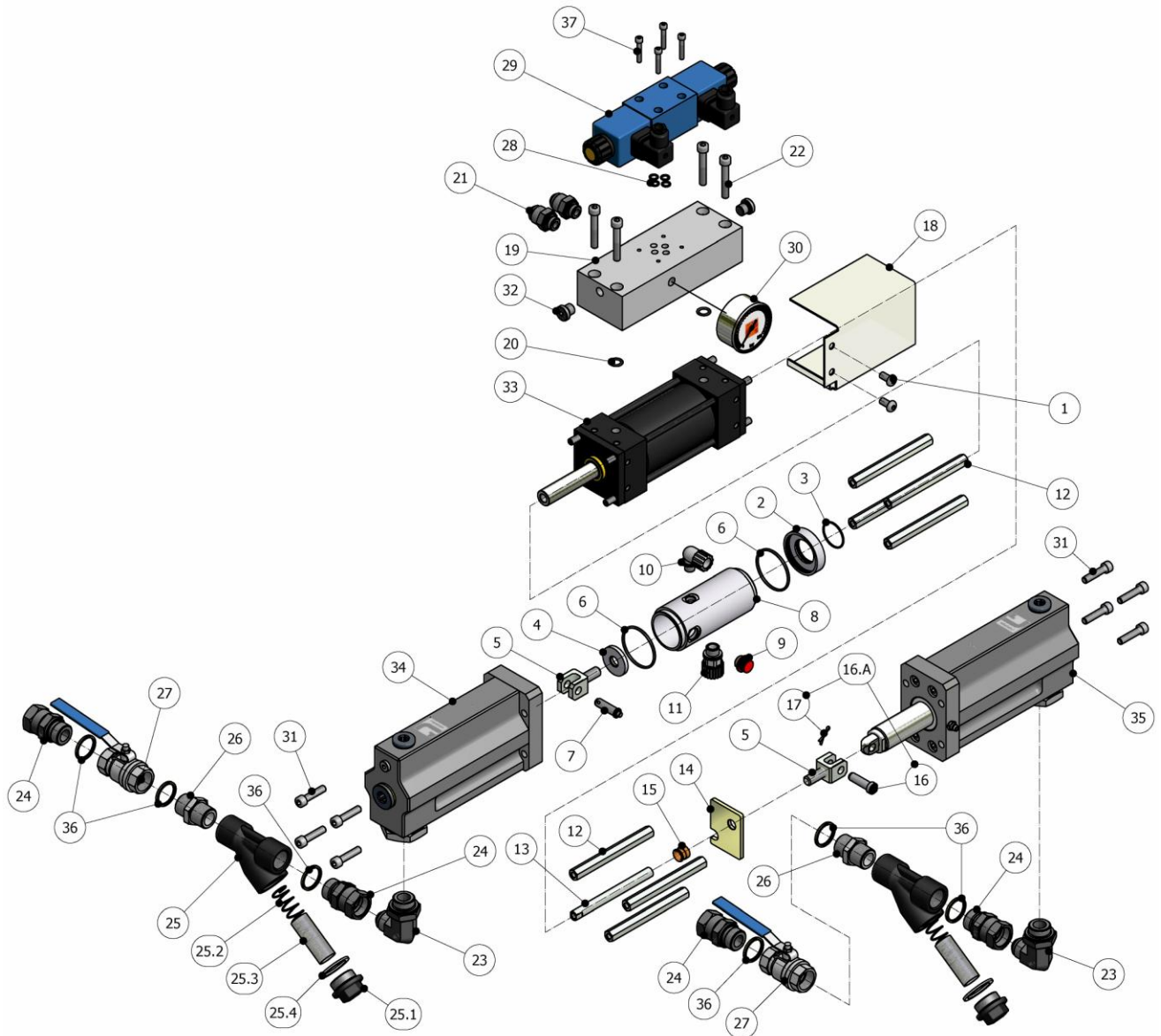


Figure 6. Pump Line Assembly, Exploded View



Table 14. Pump Line Assembly, Parts List

Ref.	Description	Part Number	Qty.
1	Socket Head Cap Screw	TN-00135	2
2	Lube Cylinder Adapter Plate	PU-01021	1
3	O-Ring	OR-00021	1
4	Baffle	PU-01019	1
5	Hydraulic Cylinder Clevis	PU-01043	2
6	Lube Cylinder O-Ring	OR-00020	2
7	"A" Clevis Pin Assembly (Include Ref. 7.1 & 7.2)	PU-01044-00	1
7.1	Clevis Pin (included in Ref. 7)	PU-01044-01M	1
7.2	Clevis Pin Clip (included in Ref. 7)	TN-00136	1
7.3	Arandela (included in Ref. 7)	TN-00024	1
8	Lube Cylinder	PU-01018	1
9	Polyethylene Pipe Plug	RA-00116	1
10	Lube Cylinder Elbow	RA-00066	1
11	Lube Cylinder fitting	RA-00067	1
12	Proportioning Pump Spacer	PU-01025	7
13	Reversing Switch Pump Spacer	PU-01026	1
14	Reversing Switch Activate Plate	PU-01023	1
15	Bronze Bushing	PU-01022	1
16	"R" Clevis Pin	PU-01045-01	1
17	Pin	TN-00077	1
16A	"R" Clevis Pin Assembly (includes Ref. 16 & 17)	PU-01045-00	1
18	Activator Plate Cover	PU-01027	1
19	Hydraulic Manifold	MQ-01007	1
20	O-Ring	OR-00019	2
21	Hex nipple	RA-00062	2
22	Socket Head Cap Screw	TN-00090	4
23	Street Elbow	RA-00072	2
24	Swivel Union	RA-00073	4
25	Y-Strainer	RA-00074-00	2
25.1	Filter Plug	RA-00074-01	2
25.2	Filter Spring	SP-00017	2



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Ref.	Description	Part Number	Qty.
25.3	Filter	RA-00074-03-30	2
25.4	Filter Gasket	OR-00082	2
26	Hex Nipple	RA-00143	2
27	Ball Valve	RA-00078	2
28	Junta Tórica	OR-00035	4
29	Directional valve	HI-00054	1
30	Hydraulic Gauge	HI-00078	1
31	Socket Head Cap Screw	TN-00125	8
32	Plug	RA-00013	2
33	Hydraulic Cylinder With Spacers	HI-00101	1
34	"A" Proportioning Pump Assembly	See Table 15	1
35	"R" Proportioning Pump Assembly	See Table 15	1
36	Gasket	OR-00082	6
37	Screw	TN-00148	4

Table 15. Proportioning Pump Size, Parts

SIZE	Proportioning Pump Size	
	34 A-Proportioning Pump Assy.	35 R-Proportioning Pump Assy.
1.20 (*)	PU-06101-012	PU-06102-012

Note: (*) The standard proportioning pump size is #1.20. Different sizes are available under order. For delivery time, please consult with Marketing department.

HYDRAULIC CYLINDER WITH SPACERS

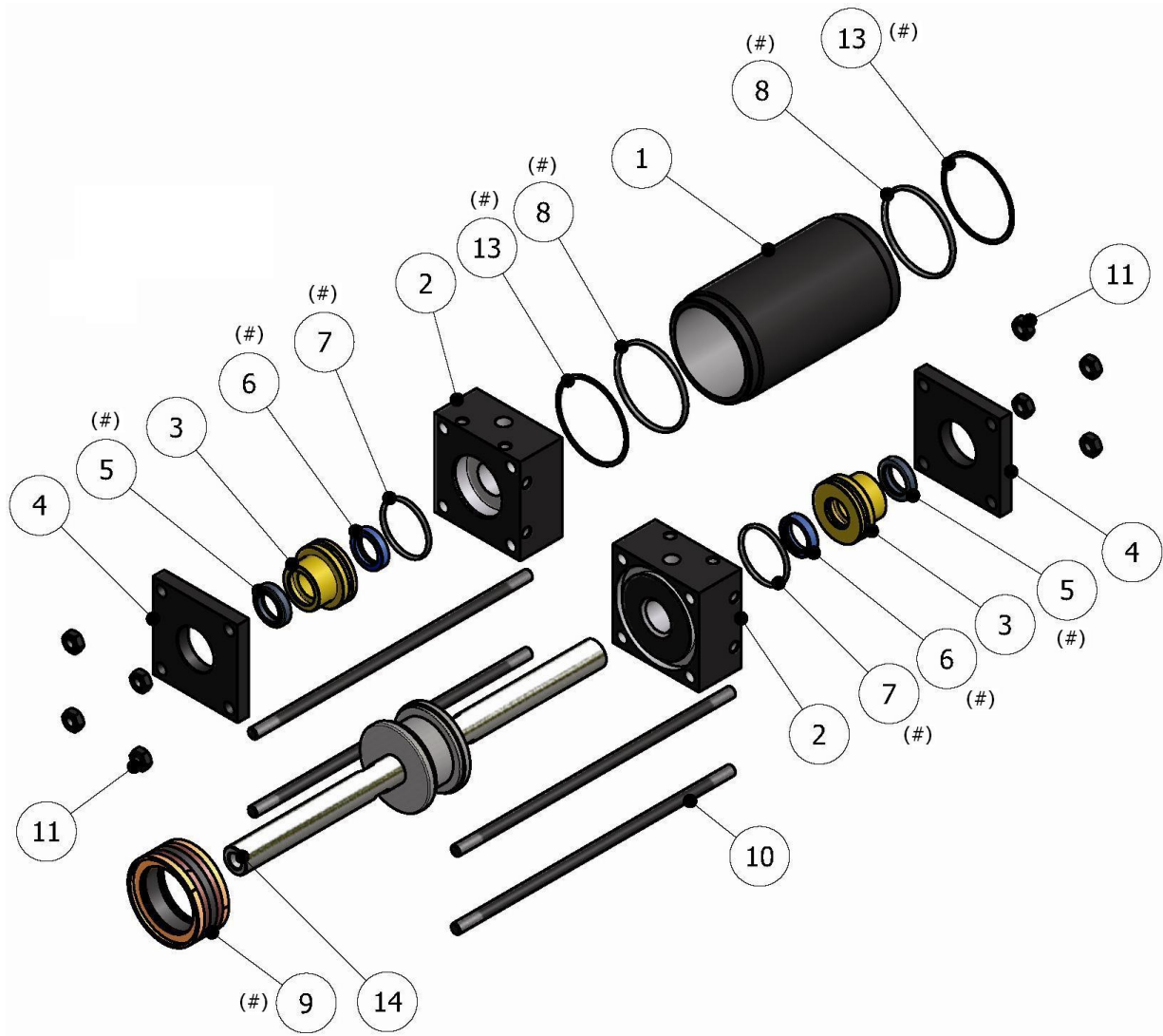


Figure 7. Hydraulic Cylinder with Spacers, Exploded View

N.B.: The indicated parts (#) are included in the repair seal kit KT-00010-01.



Table 16. Hydraulic Cylinder with Spacers, Parts List

Ref.	Description	Part Number	Qty.
1	Cylinder Body	HI-00025-05	1
2	Port Block	HI-00101-04	2
3	Rod Bushing	HI-00101-03	2
4	U-Cap	HI-00025-02	2
5	Rod Wiper	OR-00095	2 (#)
6	Shaft Seal	OR-00096	2 (#)
7	O-Ring	OR-00039	2 (#)
8	O-Ring	OR-00040	2 (#)
9	Piston O-ring	OR-00041-00	1 (#)
10	Hydraulic Cylinder Tie Rod	HI-00025-06	4
11	Nut (*)	TN-00029	8
13	O-Ring Anti Extrusion	OR-00063	2 (#)
14	Piston	HI-00101-01	1

() Only when the Cylinder is supplied as a spare part, (not included in the Pump Line fitted in the machine)*

The indicated parts (#) are included in the repair seal kit KT-00010-01.

"A" PROPORTIONING PUMP ASSEMBLY

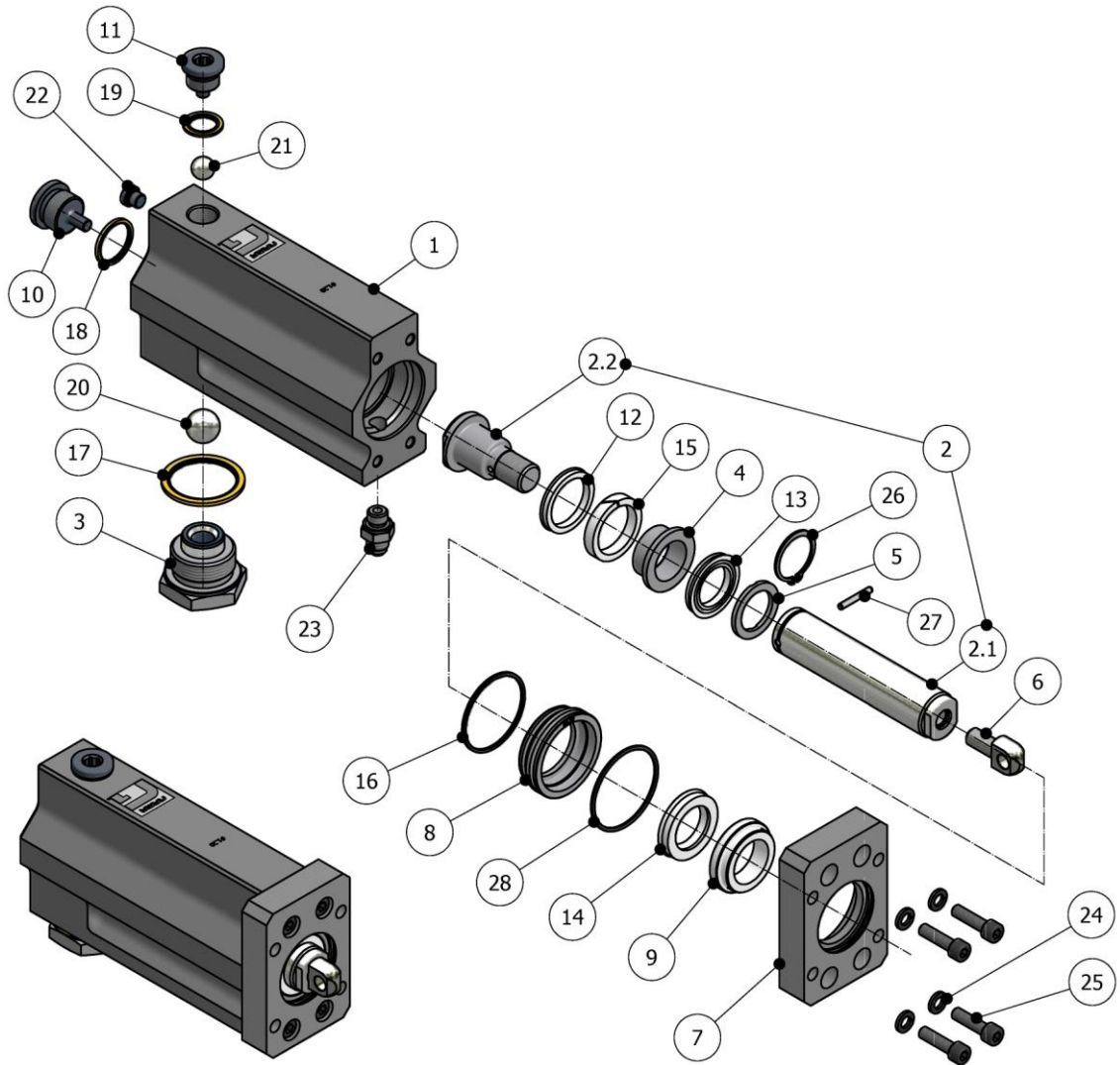


Figure 8. "A" Proportioning Pump Assembly, Exploded View



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Table 17. "A" Proportioning Pump Assembly, Parts List

item.	Description	Part Number	Qty.
1	Body Pump with Check Valve Seat	See Table 18	1
2	Piston Rod Assembly (Only item. 2.1 y 2.2)	See Table 18	1
2.1	Piston Rod (Included in item 2)	See Table 18	1 (#)
2.2	Piston Head (Included in item 2)	See Table 18	1 (#)
3	Inlet Ball Seat Assembly	PU-01003-0J	1
4	Piston Seal Support	See Table 18	1
5	Piston Seal	See Table 18	1
6	Pump Clevis	PU01042	1
7	Monoblock Flange Pump – ISO	PU-06004	1
8	Seat Seal – ISO	See Table 18	1
9	Bearing ISO	See Table 19	1 (*)
10	Plug Side Pump	PU-01003-0E	1
11	Upper Plug Pump	PU-01003-0F	1
12	Piston Seal Wiper Ring	See Table 19	1 (*)
13	Piston Seal	See Table 19	1 (*)
14	Cylinder Seal	See Table 19	1 (*)
15	Piston Guide	See Table 19	1 (*)
16	O-Ring	OR-00009	1 (*)
17	Metallic Ring	OR-00088	1
18	Metallic Ring	OR-00082	1
19	Metallic Ring	OR-00023	1
20	Lower Ball	TN-00013	1
21	Upper Ball	TN-00012	1
22	Plug	RA-00211	1
23	Output Elbow	RA-00145	1
24	Washer	TN-00028	4
25	Allen Screw	TN-00062	4
26	Seeger Ring	See Table 18	1
27	Pin	See Table 18	1
28	O-Ring	OR-00115	1 (*)

N.B.: The parts marked with (*), are included in the repair seal kit of "A" pump (see Table 20).

The parts marked with (#), are not supplied separately.



Table 18. "A" Proportioning Pump Assembly, Parts List

Pump	Item 1	Item 2 (2.1 + 2.2)	Item 2.1	Item 2.2	Item 4
1.20 (*)	PU-06101-012	PU-01006-012	PU-01007-012	PU-01008-012	PU-01009-012

Pump	Item 5	Item 8	Item 26	Item 27
1.20 (*)	PU-01010-012	PU-06009-012	TN-00070	TN-00086

Table 19. Seals Monoblock "A" Pump

item	#1.2
9	PU-06007-012
12	PU-01015-012
13	PU-01016-012
14	PU-01017-012
15	PU-01014-012
28	OR-00115

Table 20. Repair Seal Kit "A" Pump

Pump	Item
1.20 (#)	KT-00095-012

N.B :

(#) The standard proportioning pump sizes is #1.20. Different sizes are available under order. For delivery time, please consult with Marketing department.

The Repair seal kit include the parts indicated (*) in the Table 17.

“R” PROPORTIONING PUMP ASSEMBLY

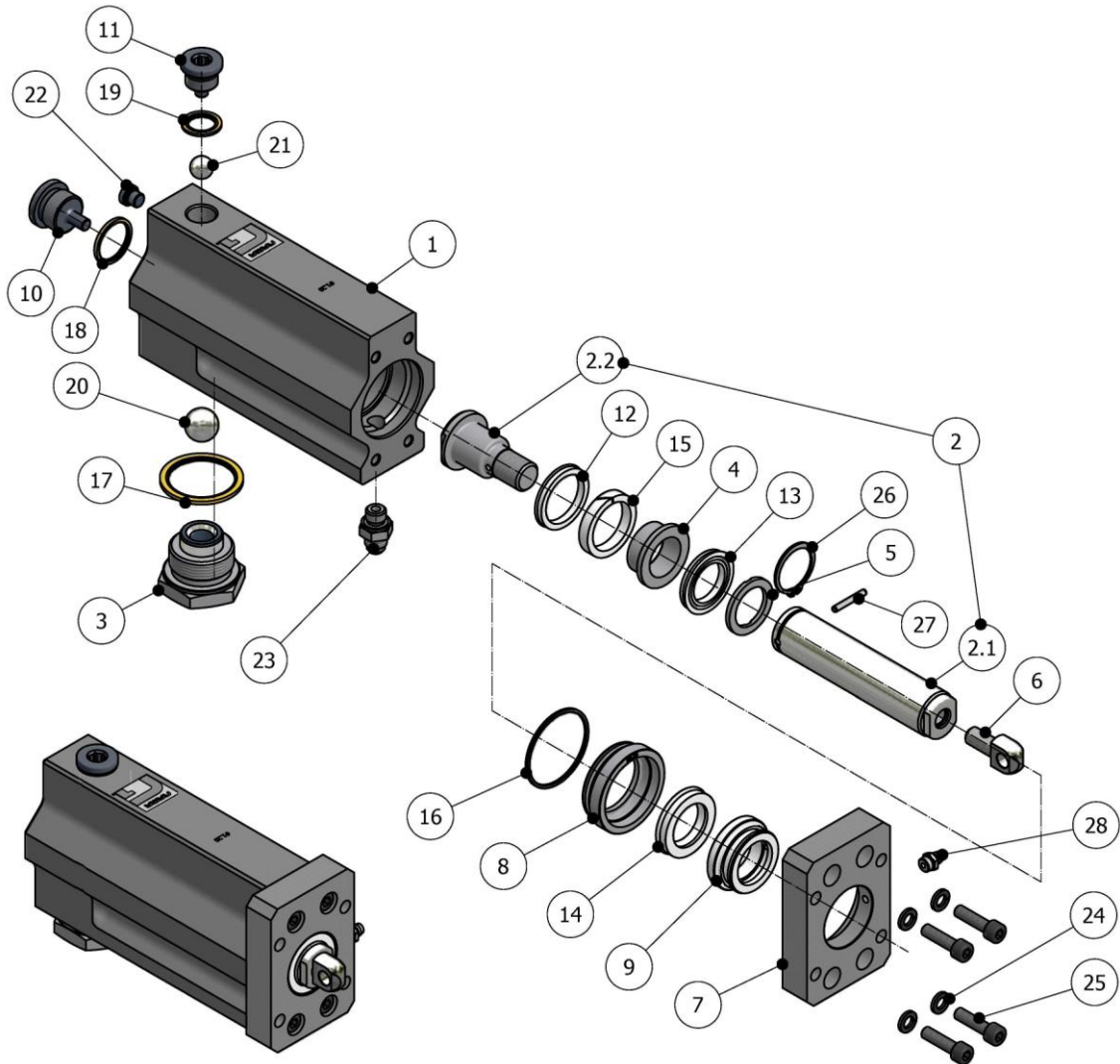


Figure 9. “R” Proportioning Pump Assembly, Exploded View



Table 21. “R” Proportioning Pump Assembly, Parts List

item.	Description	Part Number	Qty.
1	Body Pump with Check Valve Seat	See Table 22	1
2	Piston Rod Assembly (Only item. 2.1 y 2.2)	See Table 22	1
2.1	Piston Rod (Included in item 2)	See Table 22	1 (#)
2.2	Piston Head (Included in item 2)	See Table 22	1 (#)
3	Inlet Ball Seat Assembly	PU-01003-0J	1
4	Piston Seal Support	See Table 22	1
5	Piston Seal	See Table 22	1
6	Pump Clevis	PU01042	1
7	Monoblock Flange Pump – POL	PU-06005	1
8	Seat Seal – POL	See Table 22	1
9	Bearing ISO	See Table 23	1 (*)
10	Plug Side Pump	PU-01003-0E	1
11	Upper Plug Pump	PU-01003-0F	1
12	Piston Seal Wiper Ring	See Table 23	1 (*)
13	Piston Seal	See Table 23	1 (*)
14	Cylinder Seal	See Table 23	1 (*)
15	Piston Guide	See Table 23	1 (*)
16	O-Ring	OR-00009	1 (*)
17	Metallic Ring	OR-00088	1
18	Metallic Ring	OR-00082	1
19	Metallic Ring	OR-00023	1
20	Lower Ball	TN-00013	1
21	Upper Ball	TN-00012	1
22	Plug	RA-00211	1
23	Exit Elbow	RA-00145	1
24	Washer	TN-00028	4
25	Allen Screw	TN-00062	4
26	Seeger Ring	See Table 22	1
27	Pin	See Table 22	1
28	Grease Fiting	TN-00073	1

N.B.: The parts marked with (*), are included in the repair seal kit of “R” pump (see Table 24).

The parts marked with (#), are not supplied separately.



Table 22. “R” Proportioning Pump Assembly, Parts List

Pump	Item 1	Item 2 (2.1 + 2.2)	Item 2.1	Item 2.2	Item 4
1.20 (*)	PU-06101-012	PU-01006-012	PU-01007-012	PU-01008-012	PU-01009-012

Pump	Item 5	Item 8	Item 26	Item 27
1.20 (*)	PU-01010-012	PU-06006-012	TN-00070	TN-00086

Table 23. Seals Monoblock “R” Pump

Pump	Item 9	Item 12	Item 13	Item 14	Item 15
1.20 (*)	PU-06008-012	PU-01015-012	PU-01016-012	PU-01017-012	PU-01014-012

Table 24. Repair Seal Kit “R” Pump

Pump	Item
1.20 (#)	KT-00096-012

N.B :

(#) The standard proportioning pump size is #0.80 & #1.20. Different sizes are available under order. For delivery time, please consult with Marketing department.

The Repair seal kit include the parts indicated (*) in the Table 21.

“A” PRIMARY HEATER

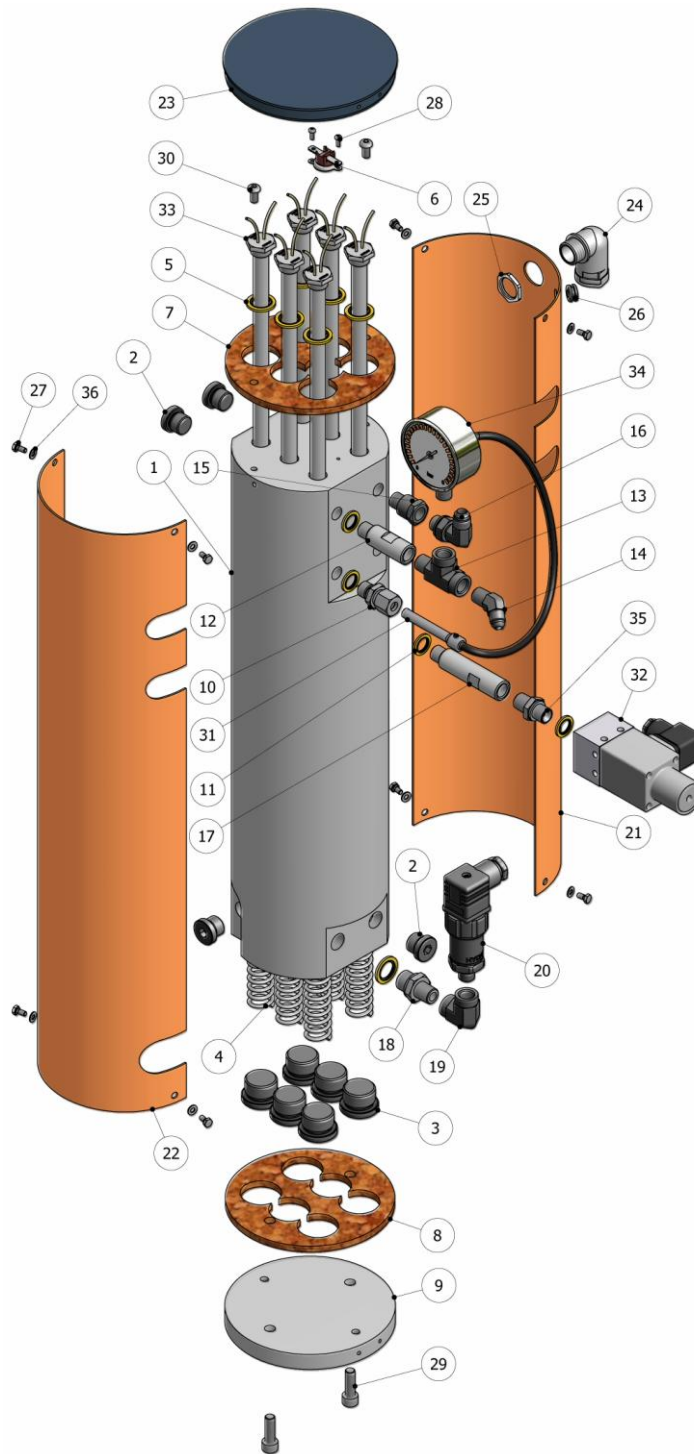


Figure 10. “A” Primary Heater, Exploded View



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Table 25. "A" Primary Heater, Parts List

Ref.	Description	Part Number	Qty.
1	Heat Block	CL-01001-01A	1
2	Pipe Plug	RA-00049	4
3	Pipe Plug	RA-00012	6
4	Spring	SP-00009	6
5	Seal	OR-00018	7
6	Thermal Limit Switch	EL-00006	1
7	Top Insulate Plate	CL-01001-04	1
8	Bottom Insulate Plate	CL-01001-03	1
9	Bottom Cap	CL-01001-02	1
10	Thermocouple Nipple	RA-00231	1
11	Seal	OR-00054	4
12	Swivel Union	RA-00100	1
13	Pipe Tee	RA-00018	1
14	Hose Nipple	RA-00017	1
15	Swivel Union	RA-00077	1
16	Elbow Fitting	RA-00050	1
17	Swivel Union	RA-00101	1
18	Adapters Union	RA-00160	1
19	Male Elbow	RA-00105	1
20	Pressure Transducer	HI-00033	1
21	Heater Cover	CL-01001-05	1
22	Heater Cover	CL-01001-06	1
23	Top Cap	CL-01001-07	1
24	Conduit Connector	EL-00087-02	1
25	Nut	EL-00090-01	1
26	Rubber Grommet	EL-00095-00	1
27	Screw	TN-00317	8
28	Screw	TN-00128	2
29	Screw	TN-00027	2
30	Screw	TN-00170	2
31	Thermocouple	EL-00146-00	1



Parts Manual

Ref.	Description	Part Number	Qty.
32	Pressure Switch	HI-00021	1
33	Heat Resistance	See Table 26	6
34	Liquid Fill Gauge	See Table 26	1
35	Union	RA-00138	1
36	Washer	TN-00104	8

Table 26. Parts List for each model of "A" Heater

Part Number	Description	Ref. 33	Ref. 34
CL-01001-00G	A-Heater 250 bar / 3500 psi 9000 w / 400 v.	EL-00179	HI-00035

“R” PRIMARY HEATER

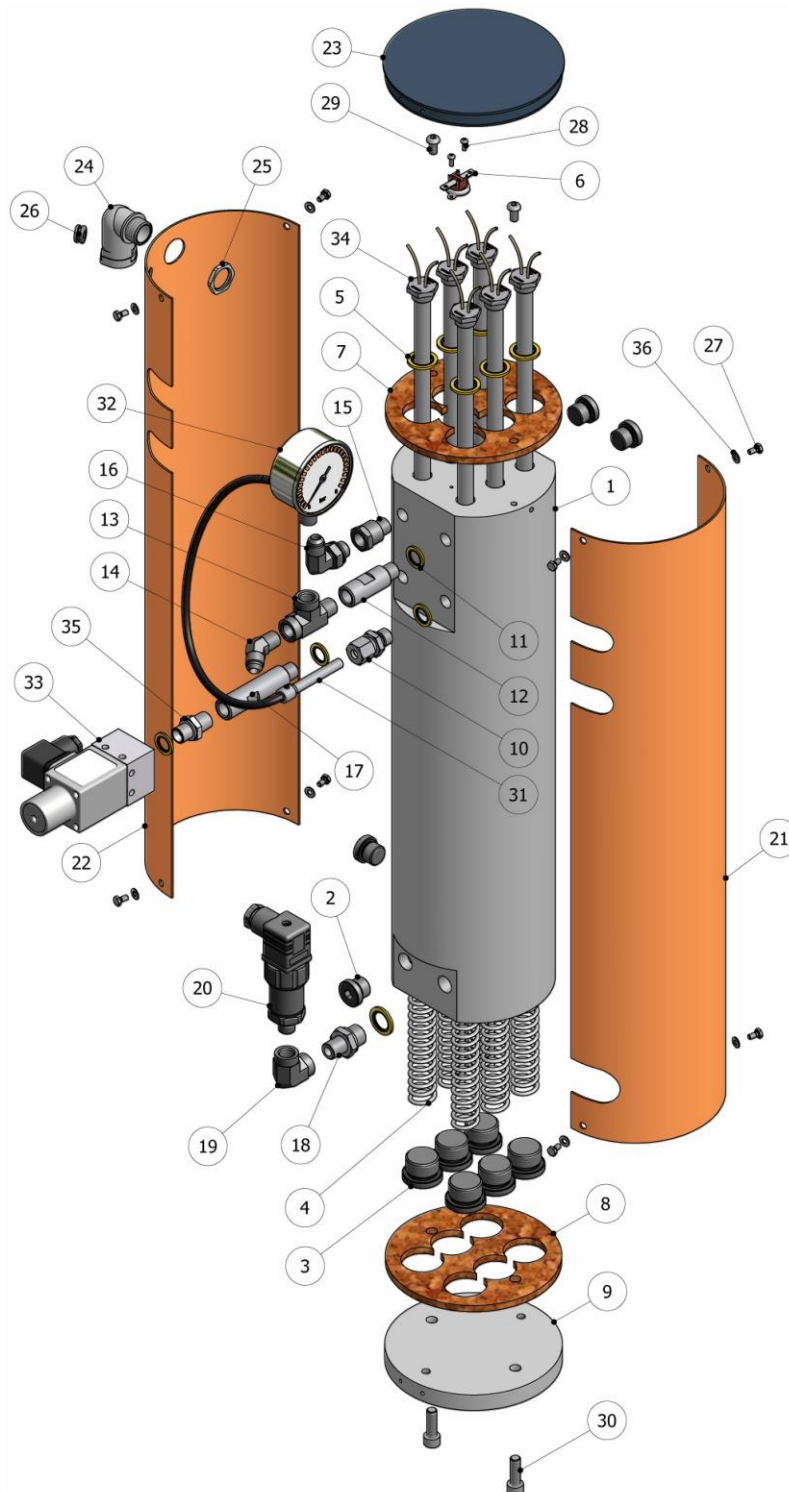


Figure 11. “R” Primary Heater, Exploded View



Table 27. "R" Primary Heater, Parts List

Ref.	Description	Part Number	Qty.
1	Heat Block	CL-01001-01A	1
2	Pipe Plug	RA-00049	4
3	Pipe Plug	RA-00012	6
4	Spring	SP-00009	6
5	Seal	OR-00018	7
6	Thermal Limit Switch	EL-00006	1
7	Top Insulate Plate	CL-01001-04	1
8	Bottom Insulate Plate	CL-01001-03	1
9	Bottom Cap	CL-01001-02	1
10	Thermocouple Nipple	RA-00231	1
11	Seal	OR-00054	4
12	Swivel Union	RA-00100	1
13	Pipe Tee	RA-00018	1
14	Hose Nipple	RA-00043	1
15	Swivel Union	RA-00077	1
16	Elbow Fitting	RA-00050	1
17	Swivel Union	RA-00101	1
18	Adapters Union	RA-00160	1
19	Male Elbow	RA-00105	1
20	Pressure Transducer	HI-00033	1
21	Heater Cover	CL-01002-05	1
22	Heater Cover	CL-01002-06	1
23	Top Cap	CL-01001-07	1
24	Conduit Connector	EL-00087-02	1
25	Nut	EL-00090-01	1
26	Rubber Grommet	EL-00095-00	1
27	Screw	TN-00317	8
28	Screw	TN-00128	2
29	Screw	TN-00170	2
30	Screw	TN-00027	2
31	Thermocouple	EL-00146-00	1



Parts Manual

Ref.	Description	Part Number	Qty.
32	Liquid Fill Gauge	See Table 28	1
33	Pressure Switch	HI-00021	1
34	Heat Resistance	See Table 28	6
35	Union	RA-00138	1
36	Washer	TN-00104	8

Table 28. Parts List for each model of "R" Heater

Part Number	Description	Ref. 34	Ref. 32
CL-02001-00G	R-Heater 250 bar / 3500 psi 9000 w / 400 v.	EL-00179	HI-00035

RECIRCULATION KIT P#: KT-00038

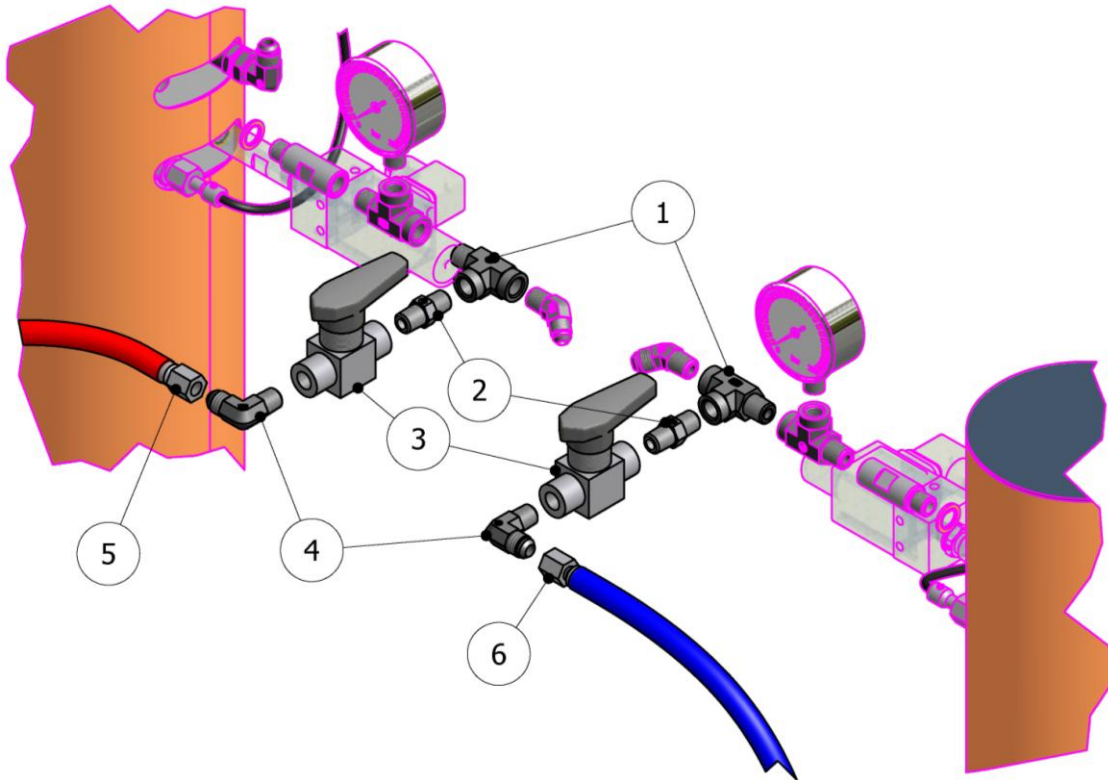


Figure 12. Recirculation Kit P#: KT-00038, Exploded View

Table 29. Recirculation Kit #KT-00038, Parts List

Ref.	Description	Part Number	Qty.
1	Pipe Tee	RA-00018	2
2	Swivel Union	RA-00188	2
3	Ball Valve	RA-00189	2
4	Elbow ISO	RA-00254	1
	Elbow POL	RA-00044	1
5	A-Hose	MA-00050-01	1
6	R-Hose	MA-00050-00	1



Table 30. Recirculation Kit #KT-00038-01, Parts List

Ref.	Description	Part Number	Qty.
1	Pipe Tee	RA-00018	2
2	Swivel Union	RA-00188	2
3	Ball Valve	RA-00189	2
4	Elbow ISO	RA-00254	1
	Elbow POL	RA-00044	1
5	A-Hose	MA-00050-01	1
6	R-Hose	MA-00050-00	1
7	Assy. Connection to Tank with Filter	MQ-05009-00	2
7.1	Body Connection	MQ-05010	1 (*)
7.2	Connection Tanck	MQ-05009	1 (*)
7.3	Pipe	HI-00075	1 (*)
7.4	Extension	RA-00256	1 (*)
7.5	Elbow	RA-00257	1 (*)
7.6	Elbow for Pipe	RA-00200	1 (*)
7.7	O-Ring	OR-00055	2 (*)
7.8	O-Ring	OR-00011	1 (*)
7.9	Dehumidifier Filter	NE-00045	1 (*)

N.B.:

(*) Unitary Quantities included in 1 set Ref. 7

RECIRCULATION KIT P# KT-00038-03

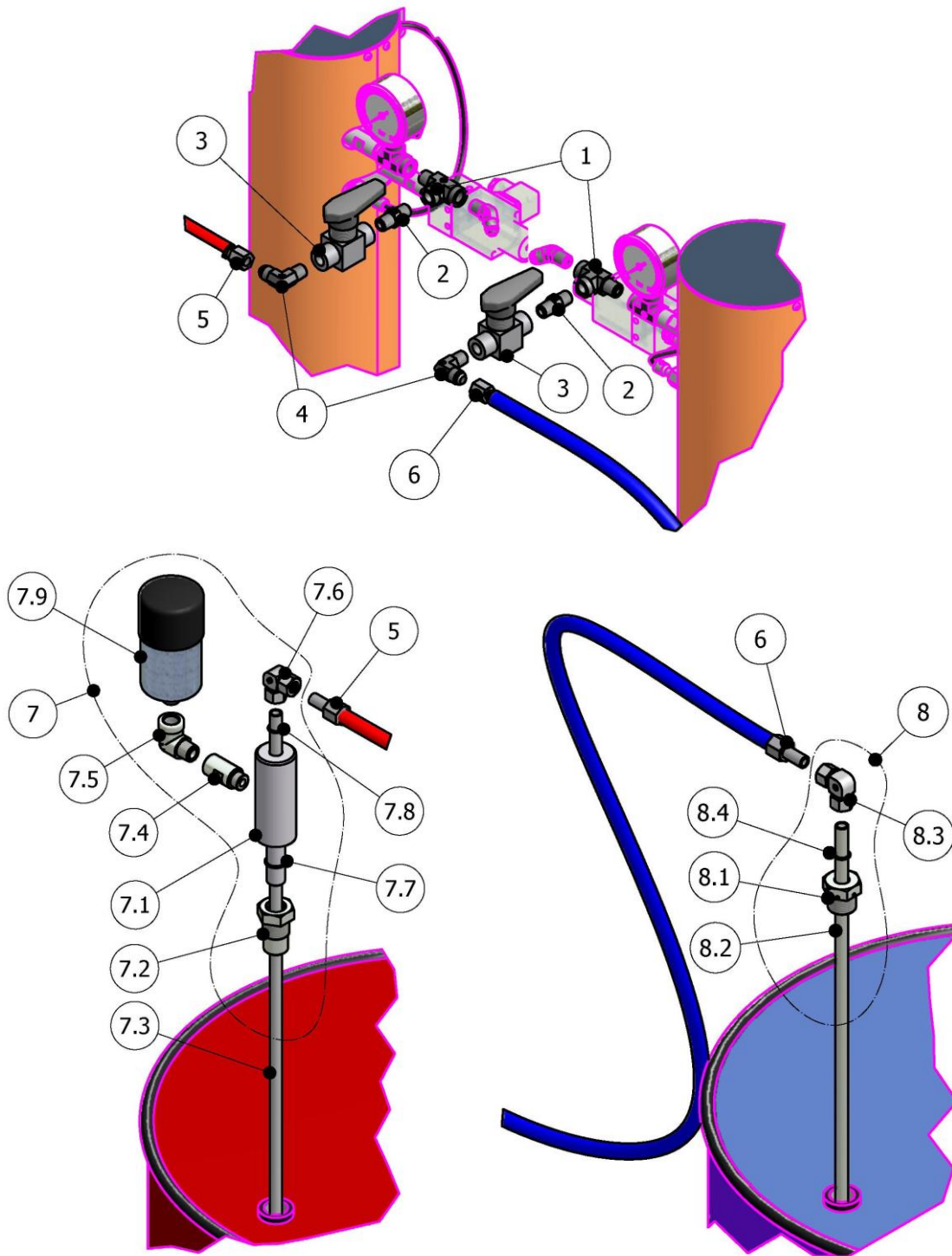


Figure 14. Recirculation Kit P#: KT-00038-03, Exploded View



Table 31. Recirculation Kit #KT-00038-03, Parts List

Ref.	Description	Part Number	Qty.
1	Pipe Tee	RA-00018	2
2	Swivel Union	RA-00188	2
3	Ball Valve	RA-00189	2
4	Elbow ISO	RA-00254	1
	Elbow POL	RA-00044	1
5	A-Hose	MA-00050-01	1
6	R-Hose	MA-00050-00	1
7	Assy. Connection to Tank with Filter	MQ-05009-00	1
7.1	Body Connection	MQ-05010	1 (*)
7.2	Connection Tank	MQ-05009	1 (*)
7.3	Pipe	HI-00075	1 (*)
7.4	Extension	RA-00256	1 (*)
7.5	Elbow	RA-00257	1 (*)
7.6	Elbow for Pipe	RA-00200	1 (*)
7.7	O-Ring	OR-00055	2 (*)
7.8	O-Ring	OR-00011	1 (*)
7.9	Dehumidifier Filter	NE-00045	1 (*)
8	Assy. Connection to Tank without Filter	MQ-05010-00	1
8.1	Connection Tank	MQ-05009-A	1 (#)
8.2	Pipe	HI-00075	1 (#)
8.3	Elbow for Pipe	RA-00200	1 (#)
8.4	O-Ring	OR-00011	1 (#)

N.B.:

(*) Unitary Quantities included in 1 set Ref. 7

(#) Unitary Quantities included in 1 set Ref. 8

ELECTRICAL SCHEMATIC DIAG. 3x 400 v. WITHOUT N 50/60Hz

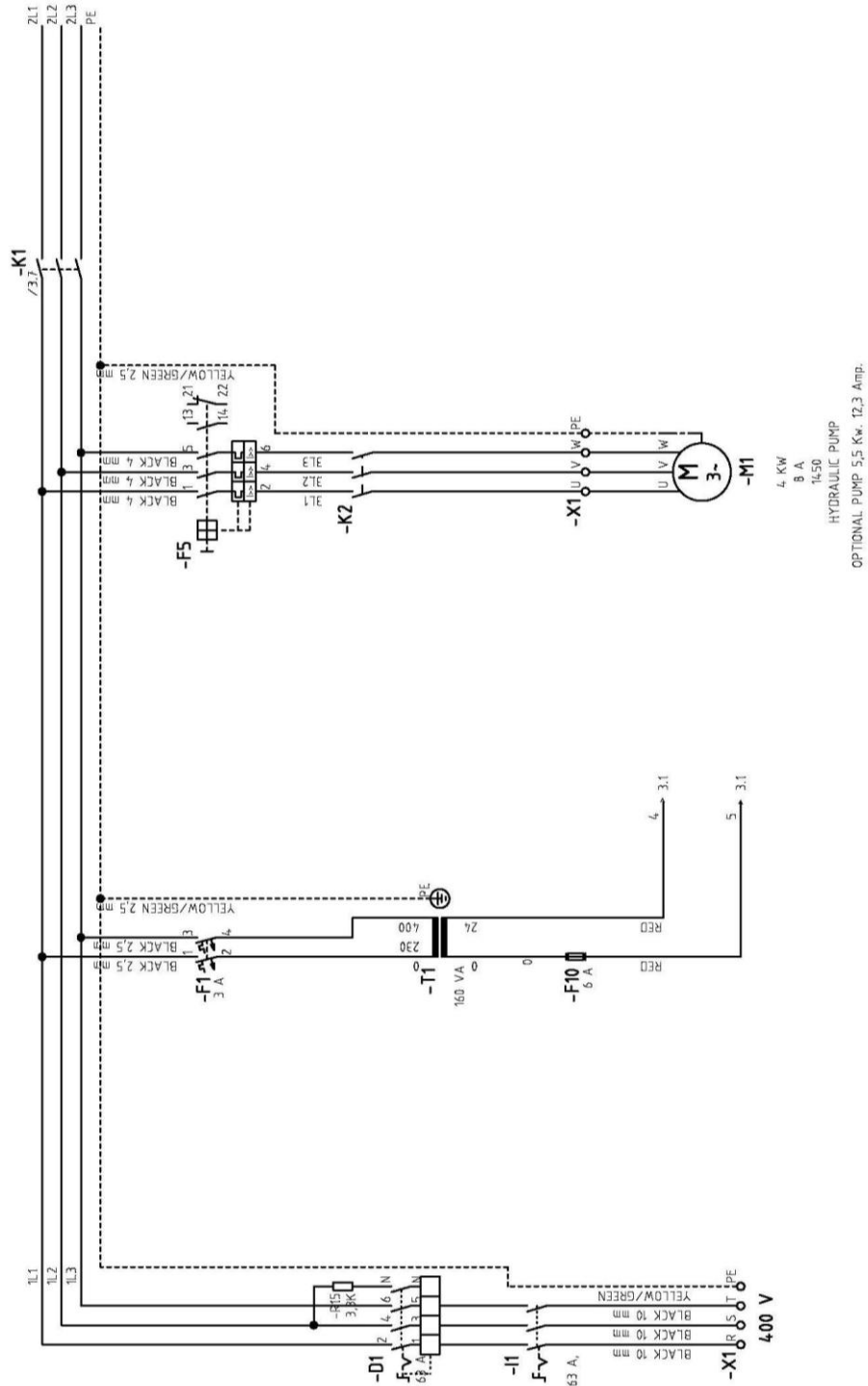


Figure 15. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 1 de 7

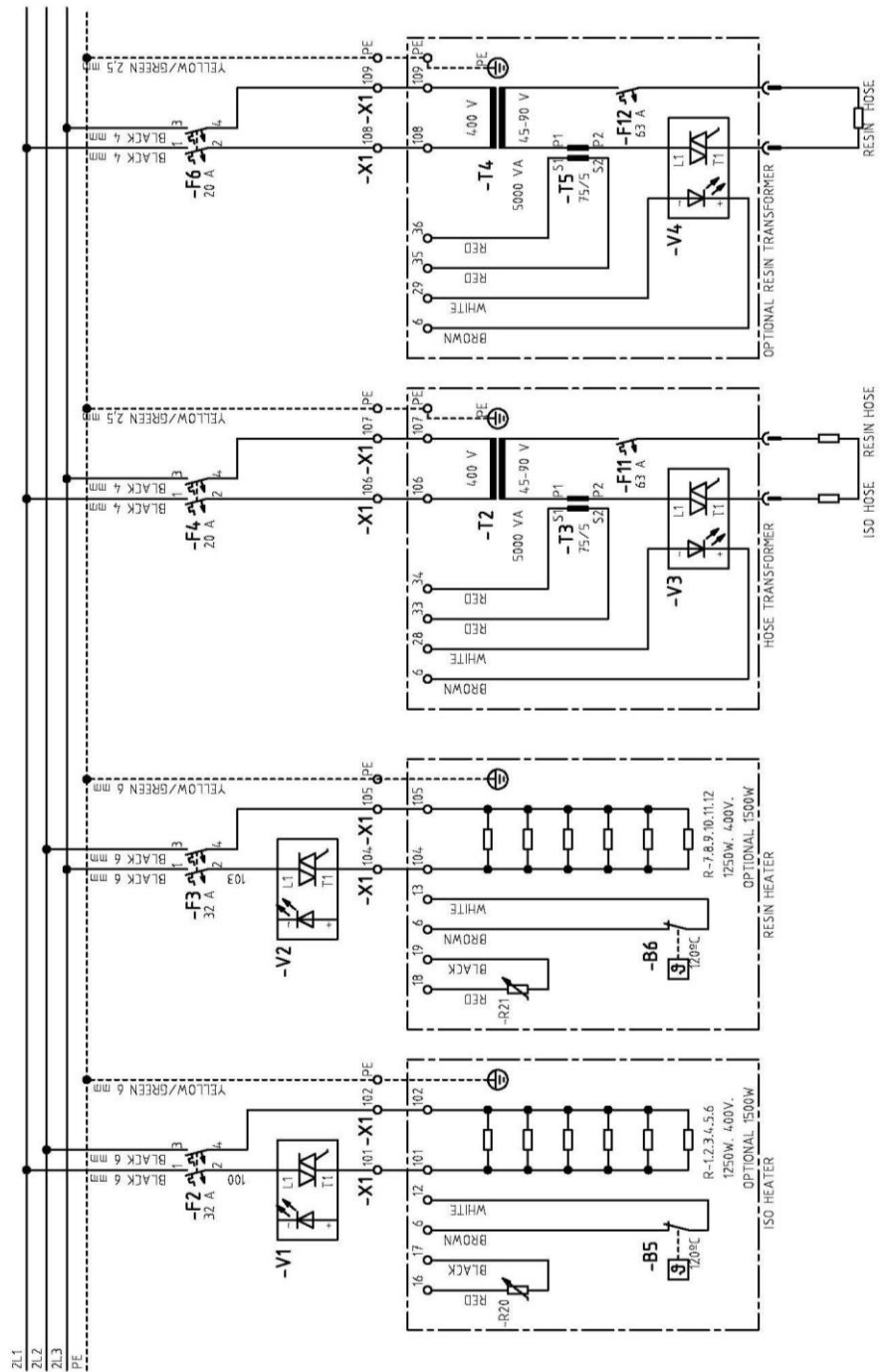


Figure 16. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 2 de 7

Parts Manual

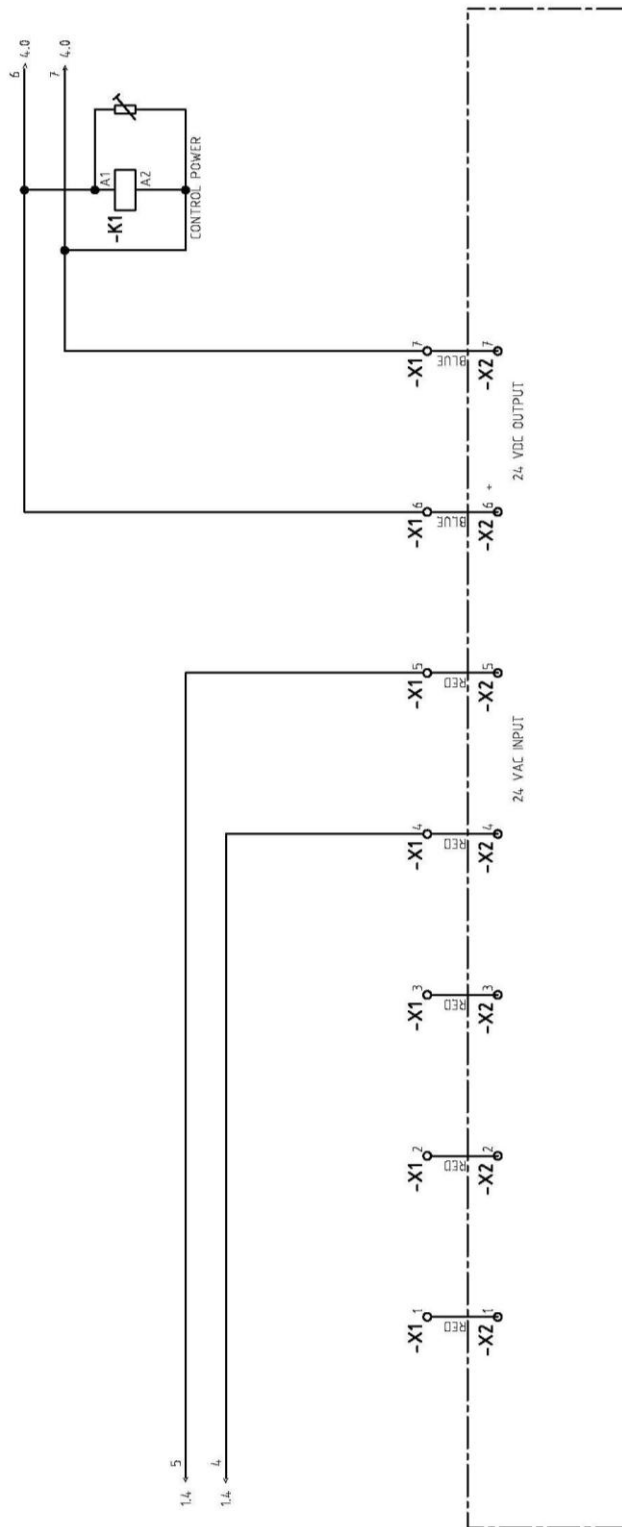


Figure 17. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 3 de 7

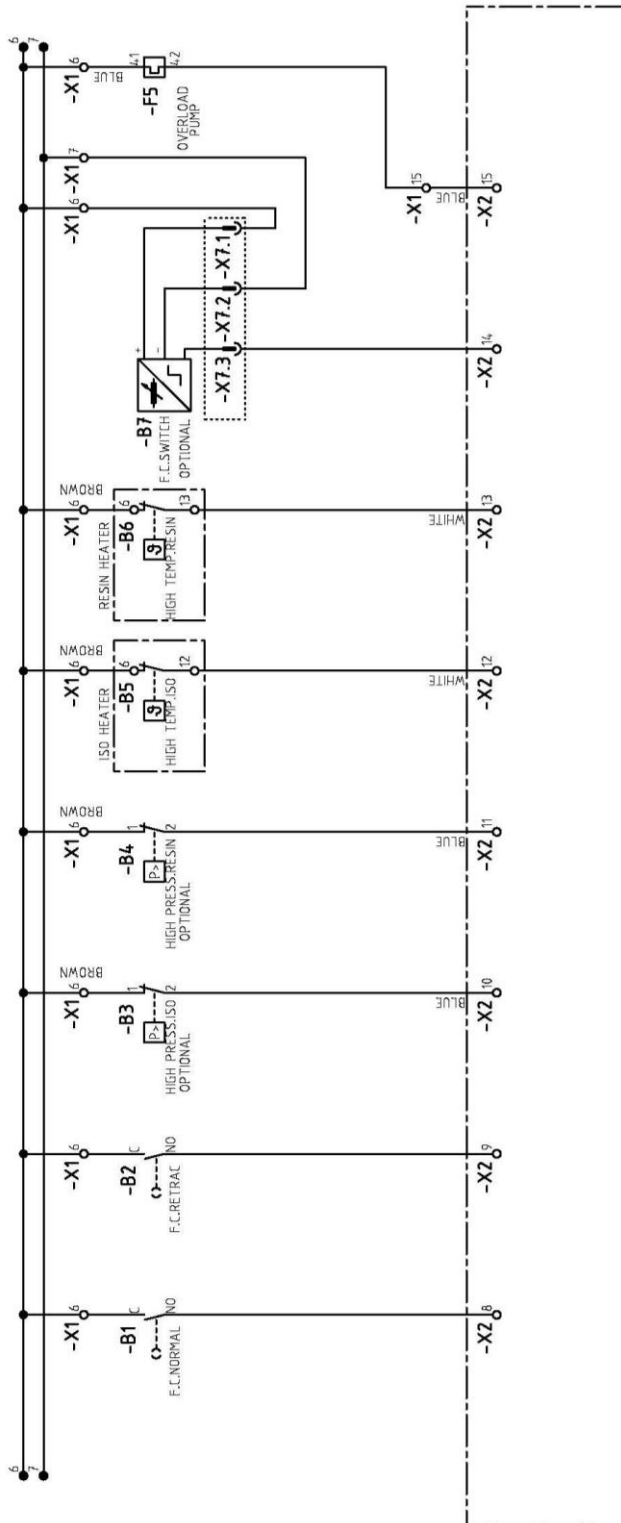


Figure 18. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 4 de 7

Parts Manual

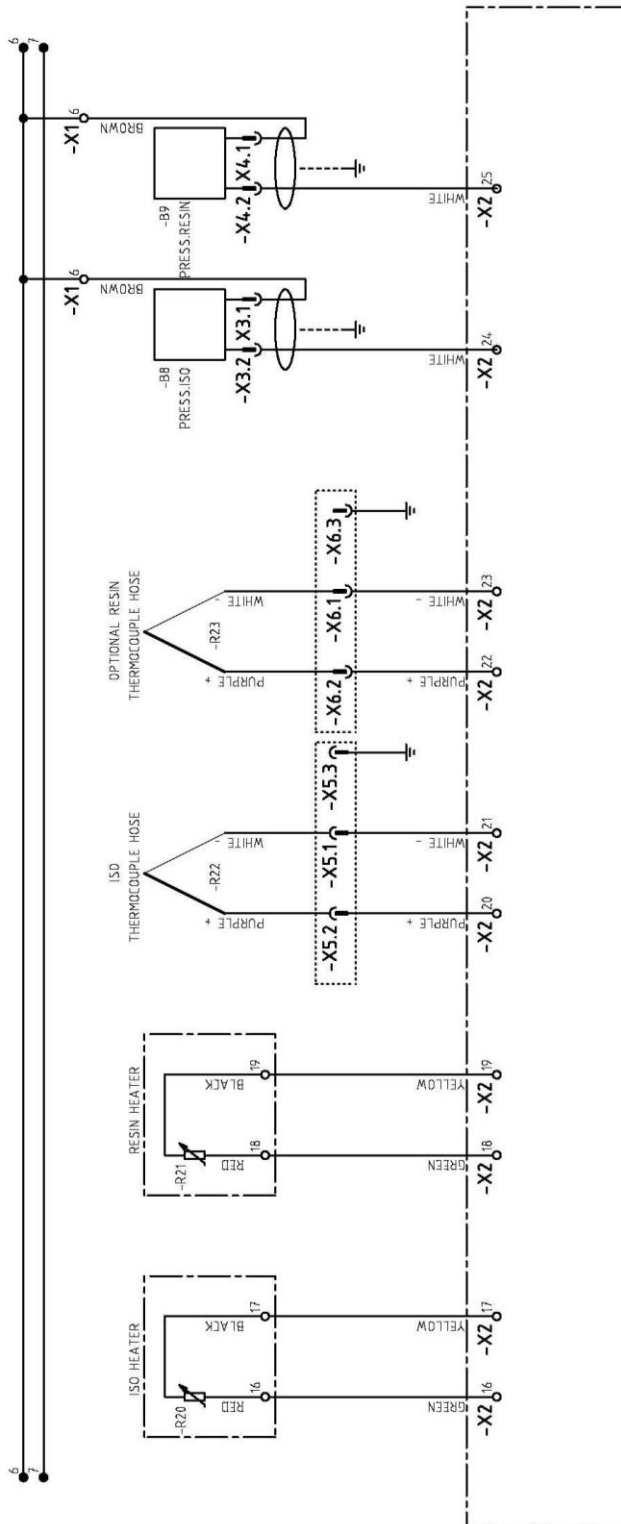


Figure 19. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 5 de 7

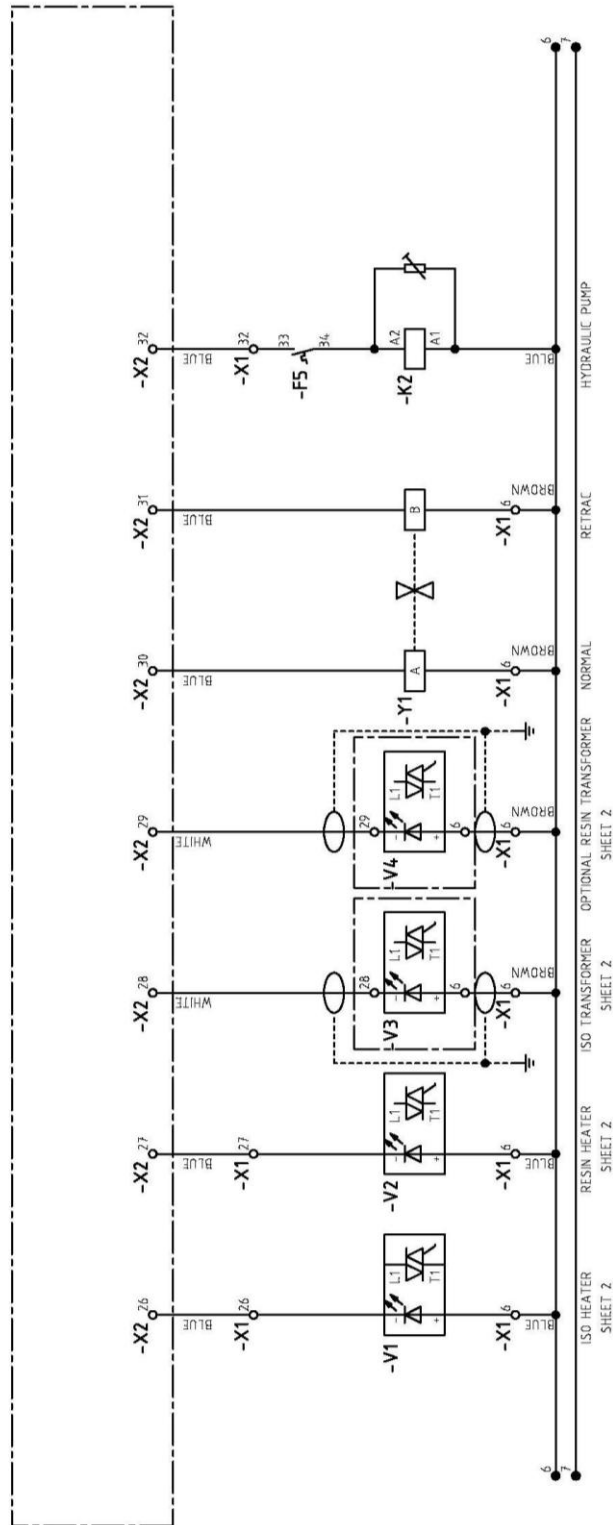


Figure 20. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 6 de 7

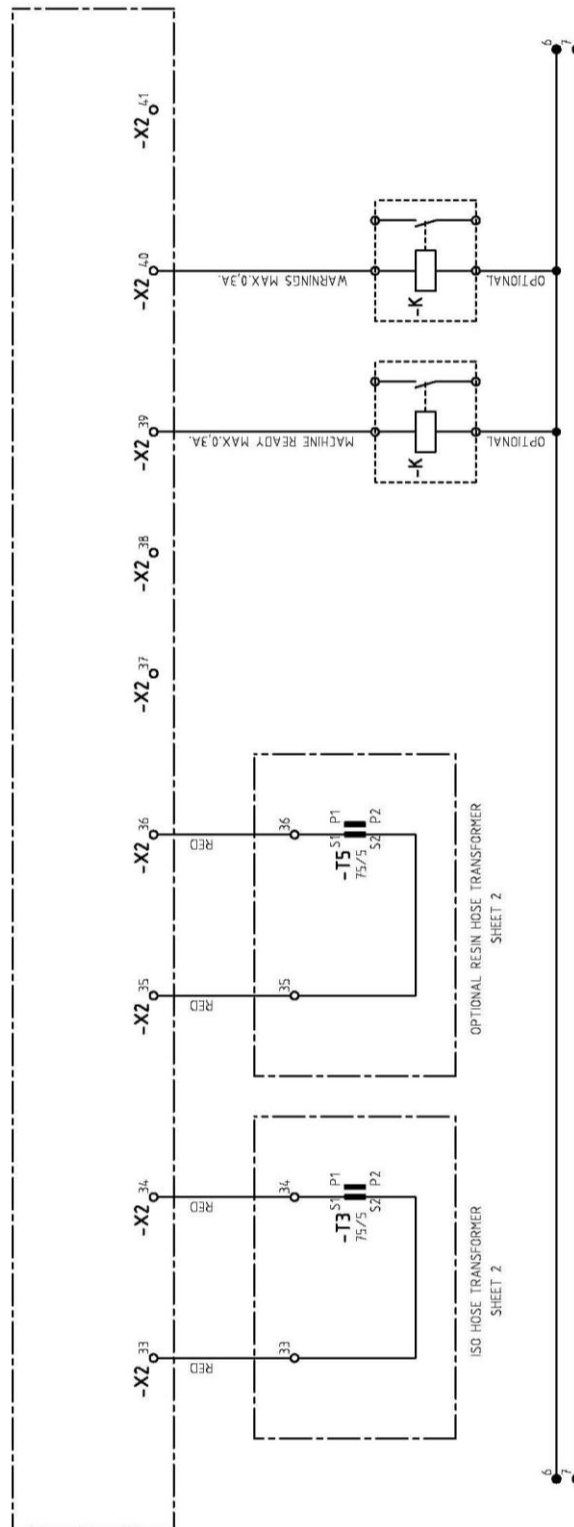


Figure 21. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 7 de 7



**Table 32. Electrical Schematic Diagram 3 x 400 v without Neutral 50/60Hz,
Parts List**

Ref.	Description	Part Number	Qty.
	Fusible point	EL-00104-13	1
	Fuse	EL-00128-03	2
	Switch	EL-00107-02	1
	Transformer	EL-00127-15	1
	Differential Switch	EL-00108-01	1
	Circuit Breaker	EL-00109-00	1
	Circuit Breaker	EL-00116-00	1
	Circuit Breaker	EL-00116-00	1
	Circuit Breaker	EL-00113-00	1
	Circuit Breaker	EL-00119-01	1
	Auxiliary Contactor	EL-00119-00	1
	Intensity Transformer	EL-00127-03	1
	Static Relay	EL-00126-03	1
	Static Relay	EL-00126-03	1
	Triac	EL-00126-02	1
	Contactor	EL-00122-00	1
	Contactor	EL-00121-00	1
	Varistor	EL-00120-00	1
	Varistor	EL-00120-00	1
	Terminal Strip	EL-00105-01	1
	Conector	EL-00096-00	1
	Pins	EL-00096-02	3

PNEUMATIC SCHEMATIC DIAGRAM

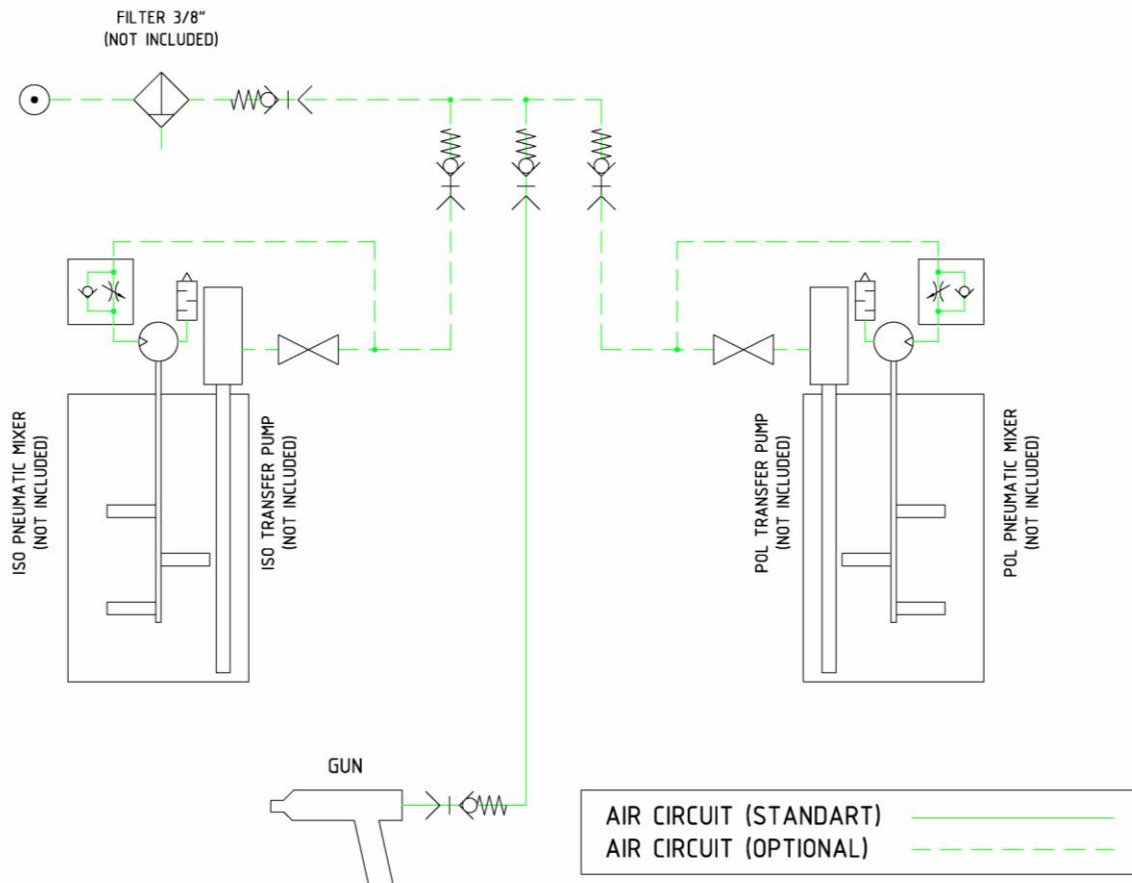


Figure 22. Pneumatic Schematic Diagram

HYDRAULIC SCHEMATIC DIAGRAM

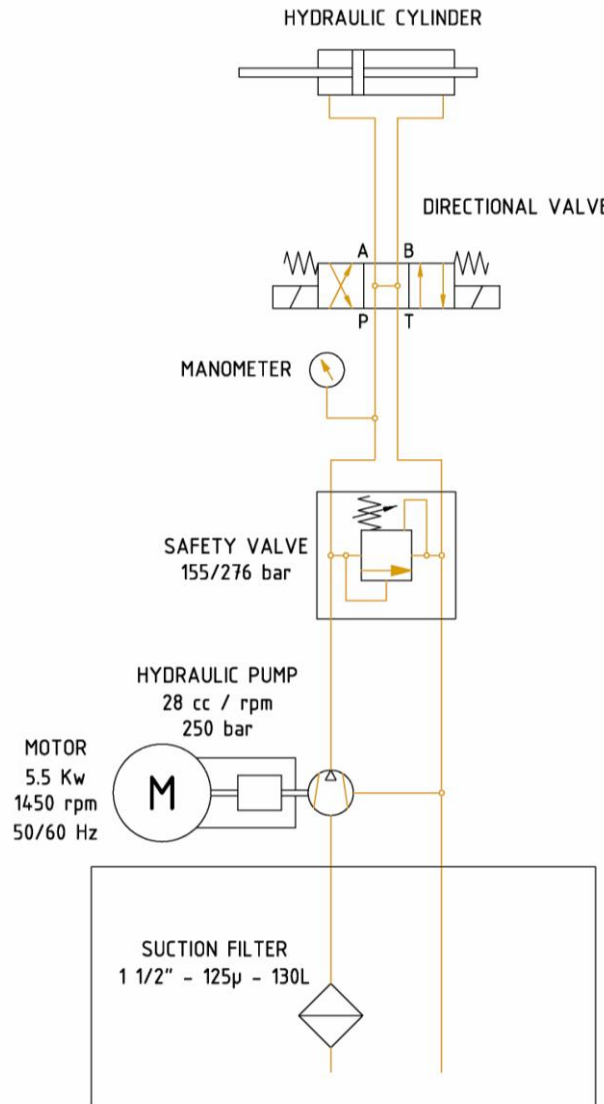


Figure 23. Hydraulic Schematic Diagram

FUNCTIONING SCHEMATIC DIAGRAM

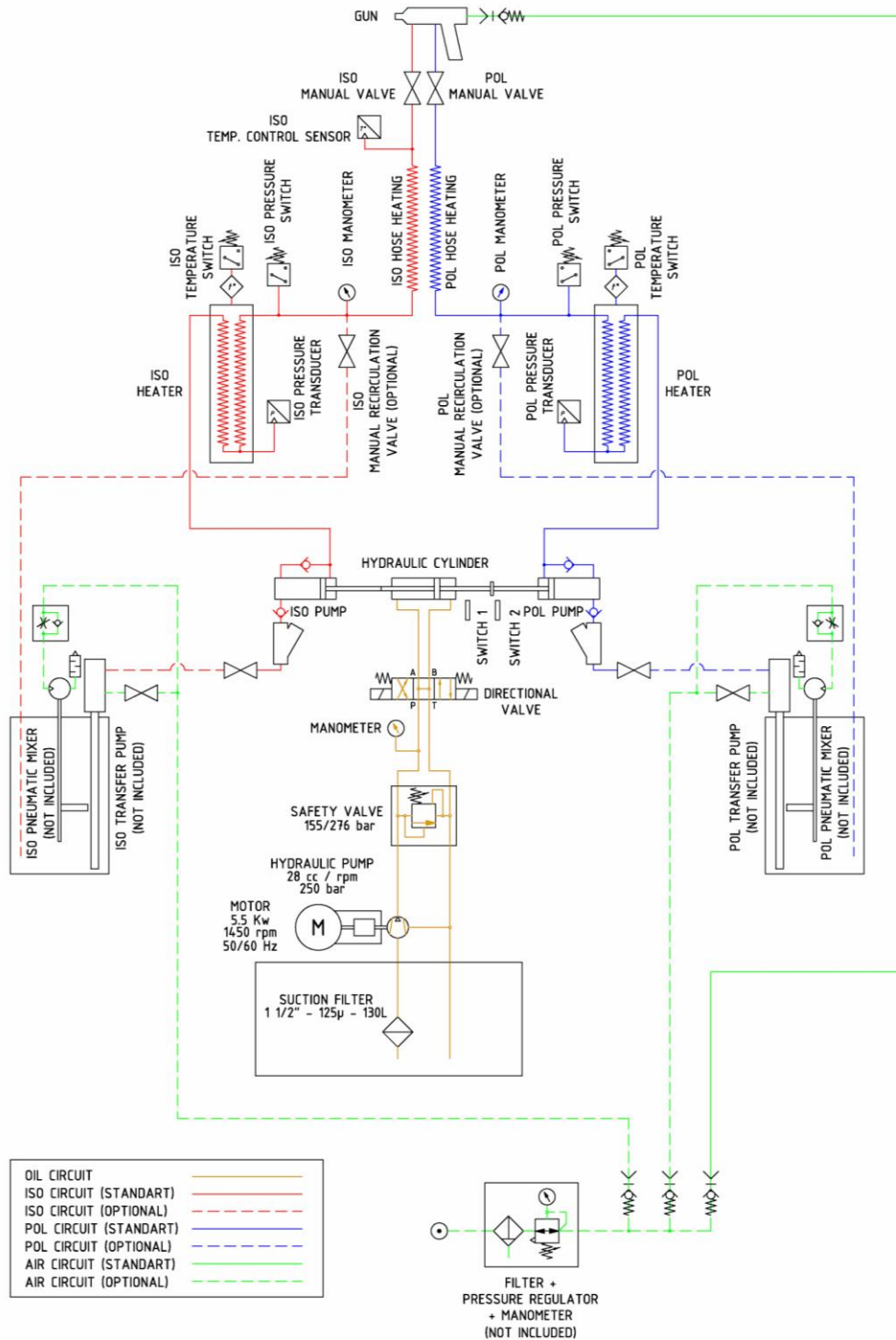


Figure 24. Functioning Schematic Diagram



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