

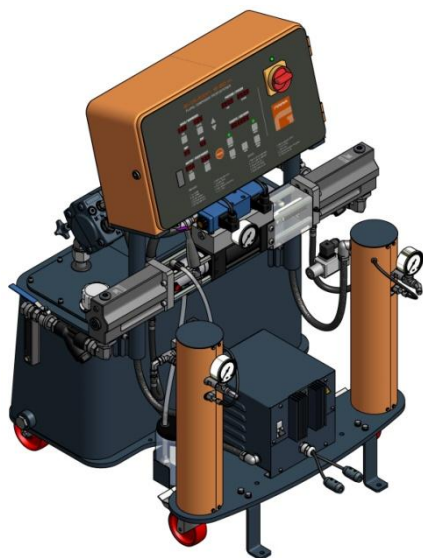


# Parts Manual

## Proportioning Unit

### evolution G-35 H

Issue 1.6 18/02/2019  
Ref. NR-00102-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

HI-TECH SPRAY EQUIPMENT, S. A. (hereinafter "HI-TECH") provides this **LIMITED WARRANTY** (hereinafter "Warranty") to the original purchaser (hereinafter "Customer") covering this equipment and the original HI-TECH 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 HI-TECH 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 HI-TECH and return the Product to HI-TECH as directed by HI-TECH, freight prepaid. If HI-TECH determines that the Product is Defective and that such Defect is covered by this Warranty, HI-TECH will credit Customer for the reasonable freight charges incurred by Customer in returning the Defective Product to HI-TECH, and HI-TECH (or its authorized agent) will, at HI-TECH'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-HI-TECH Components and Accessories: Non-HI-TECH 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 HI-TECH 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 HI-TECH.
- Failure to follow the operating instructions and recommendations provided by HI-TECH.
- Cosmetic damage.
- Fire, flood, "acts of God," or other contingencies beyond the control of HI-TECH.

**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, HI-TECH 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 HI-TECH HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES OR DAMAGES.**

Non-Warranty Service by HI-TECH: If HI-TECH 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 HI-TECH'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 HI-TECH 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 HI-TECH 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 HI-TECH, 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 HI-TECH.



### PROPORTIONING UNIT evolution G-35 H MODEL

RECIRCULATION KIT  
(OPTIONAL)

TCS CONNECTOR  
DETAIL

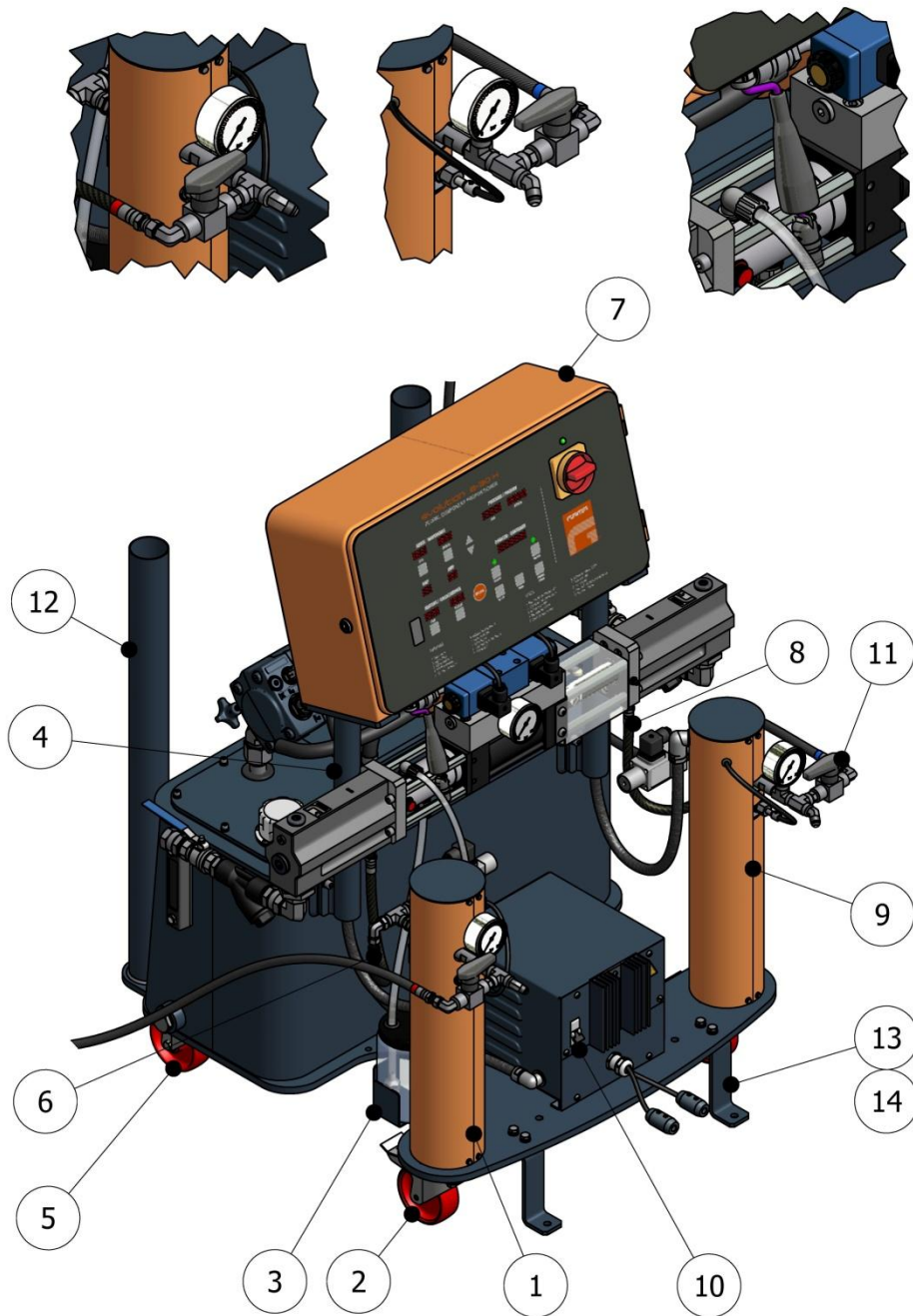


Figure 1. Proportioning Unit evolution G-35 H Model

**Table 1. Proportioning Unit Evolution G-35 H Model, Parts List**

Ref.	Description	Part Number	Qty.
1	A Primary Heater	See Table 3	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	2
7	Electrical Console Assy.	See Table 5	1
8	R Pump/Heater Hose Assy.	MA-00120	1
9	R Primary Heater	See Table 4	1
10	Hose Transformer	See Table 2	1
11	Recirculation KIT	KT-00038	1
12	Transfer Pump Bracket	MQ-01015-00	2
13	"Z" Bracket without Transfer Pump Bracket (optional)	MQ-01017	2
14	"Z" Bracket with Transfer Pump Bracket (optional)	MQ-02014	2

**Table 2. Hose Transformer Reference List**

Reference	Description
EL-00127-20	Hose Transformer 3x400v Version
EL-00127-06	Hose Transformer 3x230v Version



**Table 3. A-Primary Heater Reference List**

Reference		Description
CLH-03001-00G	400 v	A Primary Heater 6000 w for 200 bar (standard)
CLH-03001-00GT		A Primary Heater 6000 w with Transducer for 200 bar (optional)
CLH-03001-00IT		A Primary Heater 5000 w with Transducer for 200 bar (optional)
CLH-03001-00H		A Primary Heater 6000 w for 300 bar (optional)
CLH-03001-00HT		A Primary Heater 6000 w with Transducer for 300 bar (optional)
CLH-03001-00B	230 v	A Primary Heater 6000 w for 200 bar (standard)
CLH-03001-00BT		A Primary Heater 6000 w with Transducer for 200 bar (optional)
CLH-03001-00D		A Primary Heater 6000 w for 300 bar (optional)
CLH-03001-00DT		A Primary Heater 6000 w with Transducer for 300 bar (optional)

**Table 4. R-Primary Heater Reference List**

Reference		Description
CLH-03002-00G	400 v	R Primary Heater 6000 w for 200 bar (standard)
CLH-03002-00GT		R Primary Heater 6000 w with Transducer for 200 bar (optional)
CLH-03002-00IT		R Primary Heater 5000 w with Transducer for 200 bar (optional)
CLH-03002-00H		R Primary Heater 6000 w for 300 bar (optional)
CLH-03002-00HT		R Primary Heater 6000 w with Transducer for 300 bar (optional)
CLH-03002-00B	230 v	R Primary Heater 6000 w for 200 bar (standard)
CLH-03002-00BT		R Primary Heater 6000 w with Transducer for 200 bar (optional)
CLH-03002-00D		R Primary Heater 6000 w for 300 bar (optional)
CLH-03002-00DT		R Primary Heater 6000 w with Transducer for 300 bar (optional)



**Table 5. Electrical Console Reference List**

Reference	Description
EL-00059-10	Electrical Console Assy. (3x400v. w/o N, with III phases Motor & without Logger) Standard Version.
EL-00059-11	Electrical Console Assy. (3x400v. w/o N, with III phases Motor & Logger) Optional Version.
EL-00059-14	Electrical Console Assy. (3x230v. w/o N, with III phases Motor & without Logger) Standard Version..
EL-00059-13	Electrical Console Assy. (3x230v. w/o N, with III phases Motor & Logger) Optional Version.



## ELECTRICAL CONSOLE

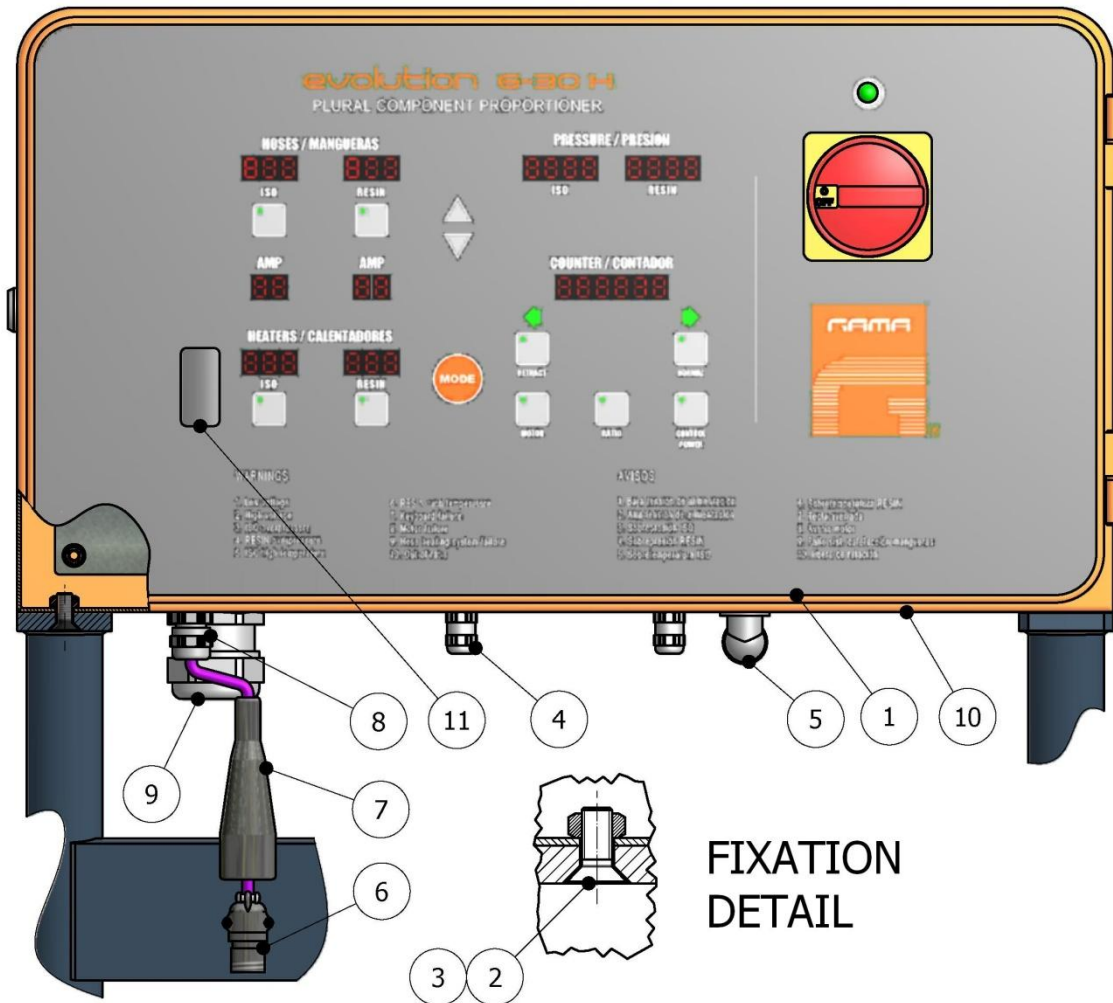


Figure 2. Electrical Console evolution G-35 H



**Table 6. Electrical Console evolution G-35 H Model, Parts List**

Ref.	Description	Part Number	Qty.
1	Bezel & Electronic Circuit	See Table 7	1
2	Screw	TN-00233	4
3	Conical Washer	TN-00296	4
4	Directional Valve Connector	EL-00088-00	2
5	Motor Conduit Connector	EL-00087-01	1
6	Connector Sensor Male	EL-00096-19	1
7	Connector Sensor 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	Cover Plug, included in Ref. 1 (standard)	See Table 7	1
12 (*)	USB Port, Included in Ref. 1 (optional)	See Table 7	1
13 (*)	USB Memory 4 GB, included in Ref. 1 (optional)	See Table 7	1

**Notes: (\*) Parts not show in draw.**

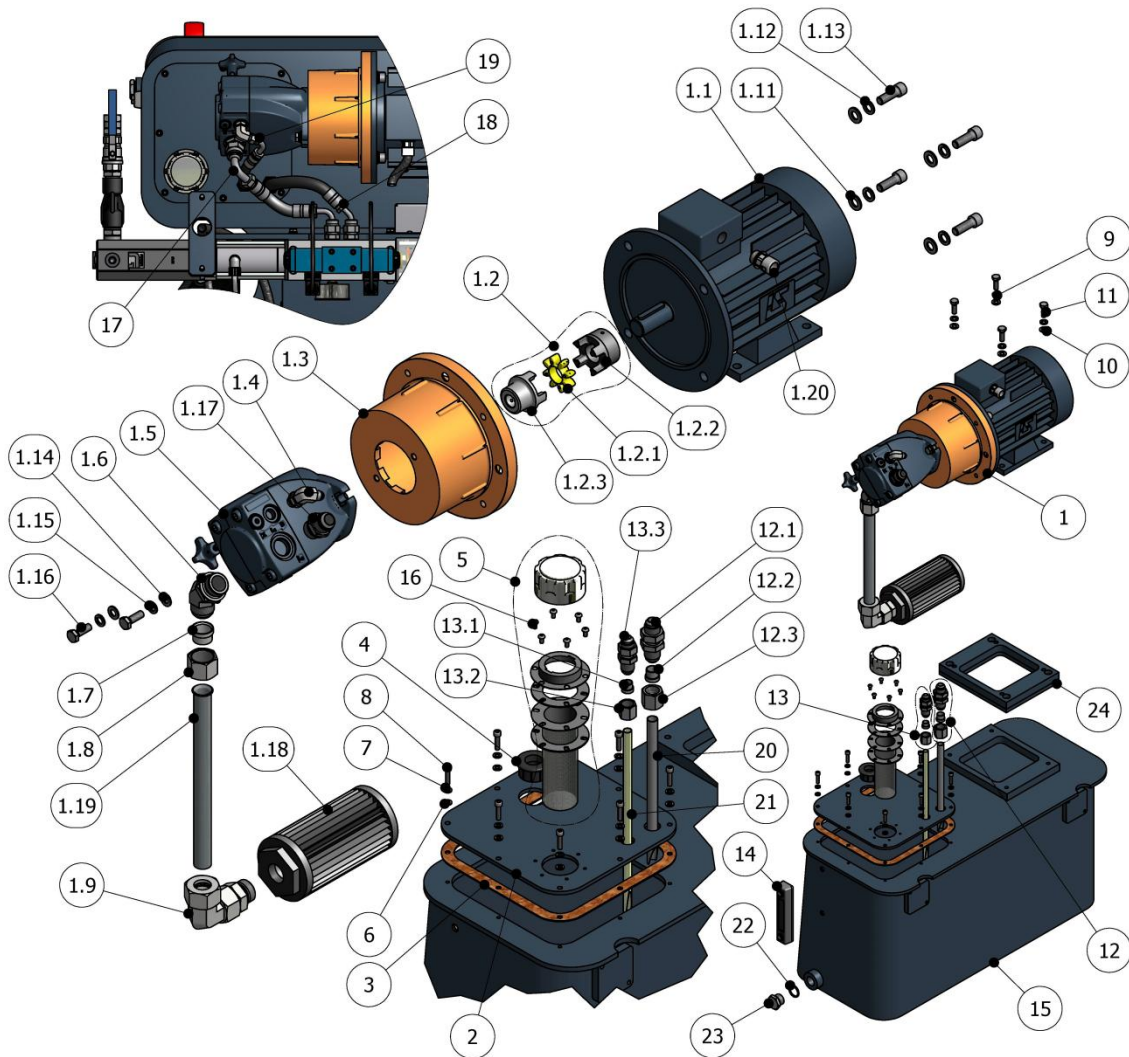
**Table 7. Bezel Components Assembly**

	3x 400v/230v.sN 50/60 Hz Without Logger (standard)	3x 400v/230v.sN 50/60 Hz With Logger (optional)
Bezel 1x	EL-00260	EL-00260
Circuit 1x	EL-00019-07	EL-00019-07
Switch 1x	EL-00107-02	EL-00107-02
Divider 9x	EL-00019-03	EL-00019-03
Cover Plug 1x	EL-00190	-
USB Port 1x	-	EL-00078-04
USB Memory 1x	-	EL-00078-05



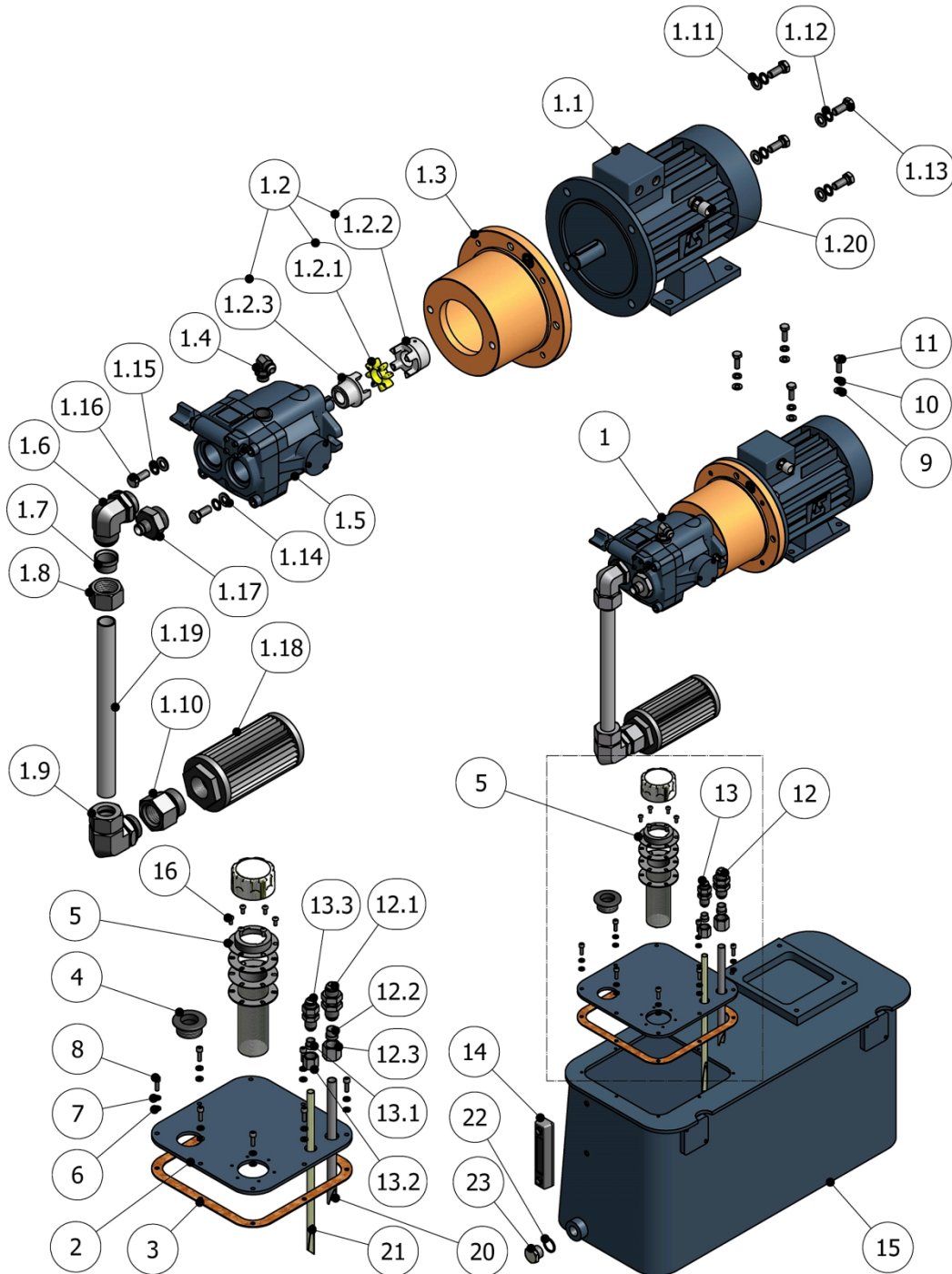


**HYDRAULIC MANIFOLD WITH MOTOR 3x400v/230v. 4KW  
50/60Hz (hyd. Pump 18 cc.)**



**Figure 3. Hydraulic Manifold 3x400v/230v. 4kW 50/60Hz (hyd. Pump 18 cc),  
Exploded View**

**HYDRAULIC MANIFOLD WITH MOTOR 3x400v/230v. 4KW  
50/60Hz (hyd. Pump 20 cc.)**



**Figure 4. Hydraulic Manifold 3x400v/230v. 4kW 50/60Hz (hyd. Pump 20 cc),  
Exploded View**



**Table 8. Hydraulic Manifold with Motor 3x400/230v.4kW 50/60Hz, Parts List**

Ref.	Description	Part Number	Qty.
1	Motor/Pump Line Assembly	HI-00040-03	1
1.1	Electric Motor 4Kw 50/60Hz	EL-00138-04	1
1.2	Coupler Assembly (18 cc)	HI-00046-00	1
	Coupler Assembly (20 cc)	HI-00006-00	
1.2.1	Alignment Spider (18 cc)	HI-00006-01	1
	Alignment Spider (20 cc)	HI-00006-01	
1.2.2	Motor Shaft Coupling (18 cc)	HI-00006-02	1
	Motor Shaft Coupling (20 cc)	HI-00006-02	
1.2.3	Pump Shaft Coupling (18 cc)	HI-00046-01	1
	Pump Shaft Coupling (20 cc)	HI-00006-03	
1.3	Bell Housing for 18 cc Pump	HI-00139	1
	Bell Housing for 20 cc Pump	HI-00005	
1.4	Hose Elbow (18 cc)	RA-00450	1
	Hose Elbow (20 cc)	RA-00058	
1.5	HYD Pump Assembly 18 cc.	HI-00134	1
	HYD Pump Assembly 20 cc.	HI-00038	
1.6	Street Elbow for 18 cc. Pump	RA-00449	1
	Street Elbow for 20 cc. Pump	RA-00027	
1.7	Ferrule for 18 cc. Pump	RA-00457	1
	Ferrule for 20 cc. Pump	RA-00029	
1.8	Nut for 18 cc. Pump	RA-00456	1
	Nut for 20 cc. Pump	RA-00028	
1.9	Street Elbow for 18 cc. Pump	RA-00455	1
	Street Elbow for 20 cc. Pump	RA-00030	

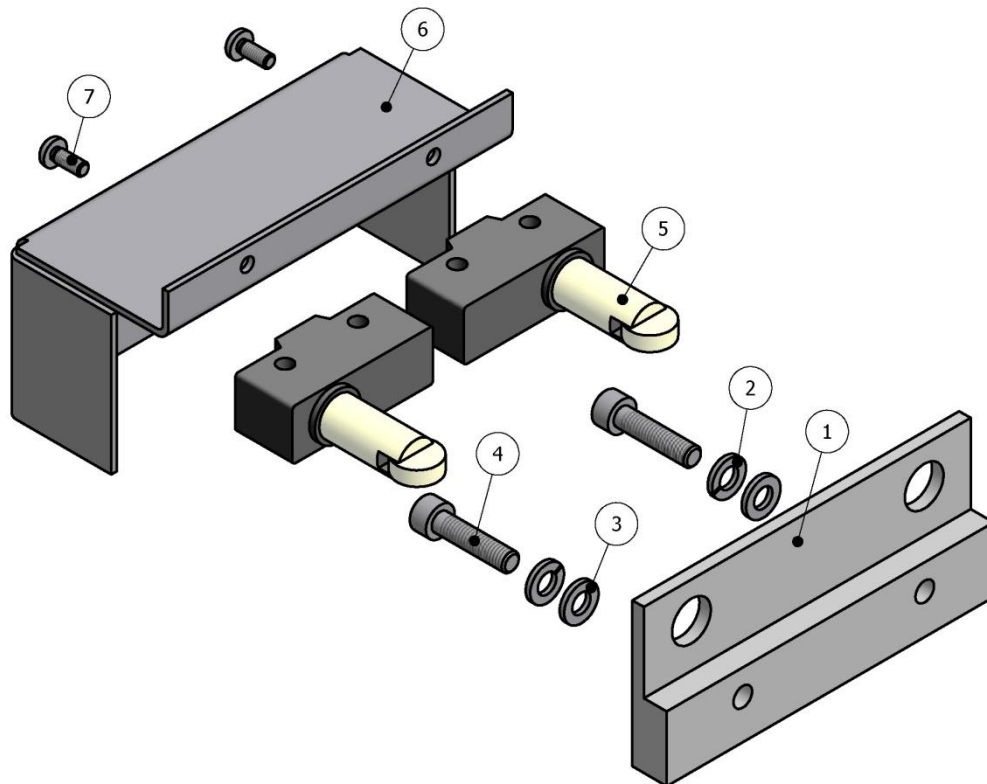


Ref.	Description	Part Number	Qty.
1.10	for 18 cc. Pump (not mount)	-	1
	Thread Reducer for 20 cc. Pump	RA-00031	
1.11	Washer	TN-00040	4
1.12	Lock Washer	TN-00039	4
1.13	Socket Head Cap Screw	TN-00053	4
1.14	Washer (18 cc)	TN-00162	2
	Washer (20 cc)	TN-00040	
1.15	Lock Washer for 18 cc Pump	TN-00087	2
	Lock Washer for 20 cc Pump	TN-00039	
1.16	Socket Head Cap Screw for 18 cc Pump	TN-00129	2
	Socket Head Cap Screw for 20 cc Pump	TN-00060	
1.17	Male Adapter for 18 cc Pump	RA-00451	1
	Male Adapter for 20 cc Pump	RA-00069	
1.18	Cartridge Strainer for 18 cc Pump	HI-00050	1
	Cartridge Strainer for 20 cc Pump	HI-00003	
1.19	Suction Tube for 18 cc Pump	HI-00143	1
	Suction Tube for 20 cc Pump	HI-00009	
1.20	Motor Conduit Connector	EL-00087-00	1
2	Reservoir Cover Plate for 18 cc. Pump	HI-00142-00	1
	Reservoir Cover Plate for 20 cc. Pump	HI-00039-04	
3	Reservoir Cover Plate Gasket	HI-00014-03	1
4	Rubber Grommet for 18 cc Pump	HI-00140	1
	Rubber Grommet for 20 cc Pump	HI-00017	



Ref.	Description	Part Number	Qty.
5	HYD-Oil Filler	HI-00002	1
6	Washer	TN-00024	8
7	Washer	TN-00025	8
8	Socket Head Cap Screw	TN-00026	8
9	Lock washer	TN-00087	4
10	Washer	TN-00162	4
11	Hex Head Cap Screw (for 18 cc Pump)	TN-00445	4
	Hex Head Cap Screw (for 20 cc Pump)	TN-00163	
12	Adapters Bulkhead Union	RA-00059	1
12.1	Adapters Bulkhead Union	RA-00170	1
12.2	Ferule	RA-00169	1
12.3	Nut	RA-00171	1
13	Adapters Bulkhead Union	RA-00060	1
13.1	Ferule	RA-00173	1
13.2	Nut	RA-00174	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	P-Port Hose (for 18 cc Pump)	HI-00145	1
	P-Port Hose (for 20 cc Pump)	HI-00026	
18	T-Port Hose	HI-00024	1
19	Drain Hose (for hyd. Pump 18 cc)	HI-00144	1
	Drain Hose (for hyd. Pump 20 cc)	HI-00023	
20	Return Tube	HI-00051	1
21	Return Tube	HI-00010	1
22	O-Ring	OR-00082	1
23	Plug	RA-00022	1
24	Plate Motor (for 18 cc Pump)	HI-00141-00	1
	Plate Motor (for 20 cc Pump)	-	0

## REVERSING SWITCH



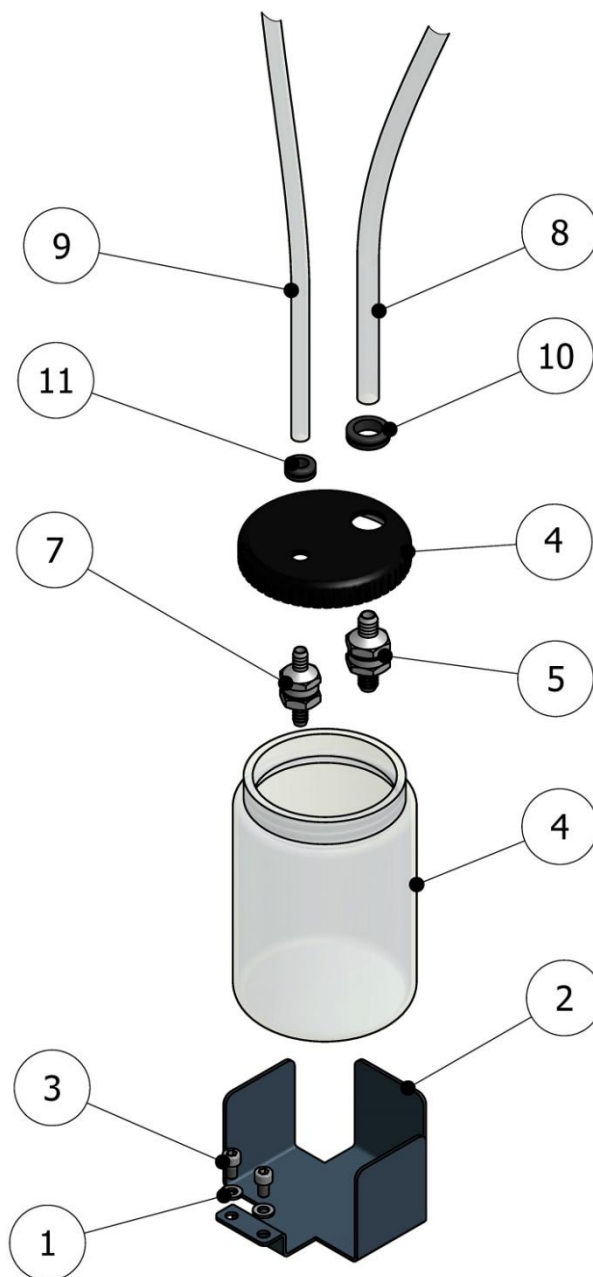
*Figure 5. Reversing Switch Assy., Exploded View*

*Table 9. 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 6. Lube Reservoir Hose Assembly, Exploded View*

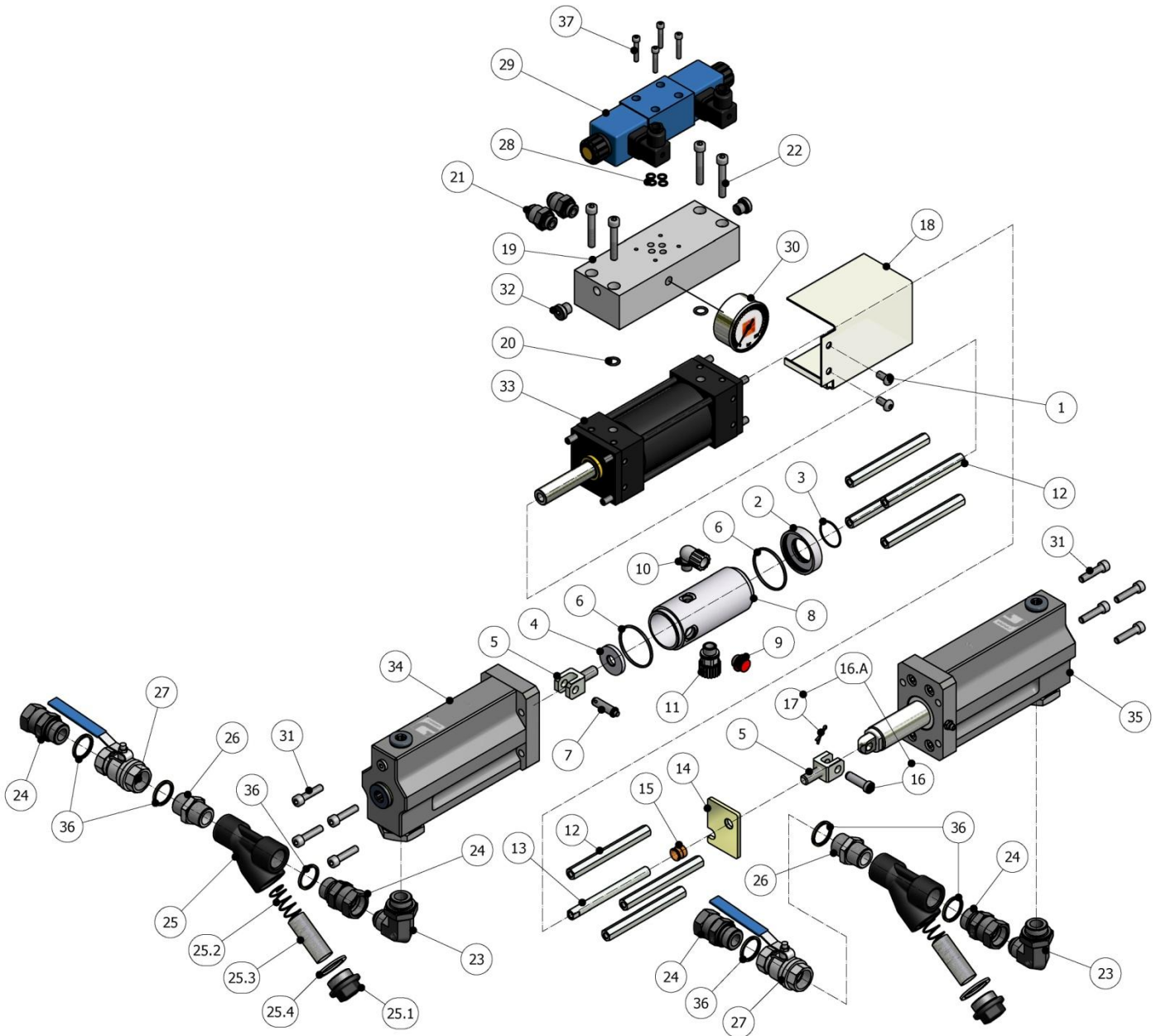
**Table 10. Lube Reservoir Hose Assembly, Parts List**

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 with Drilled Cap	MQ-01009-01	1
5	Lube Reservoir Check Valve for Pipe 12x1	RA-00068	1
6			
7	Lube Reservoir Check Valve for Pipe 10x1	RA-00283	1
8	Supply Line	MA-00025	1
9	Return Line	MA-00024	1
10	Rubber Grommet	EL-00095-03	1
11	Rubber Grommet	EL-00095-01	1





**PUMP LINE ASSEMBLY**



*Figure 7. Pump Line Assembly, Exploded View*



**Table 11. 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	Washer (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



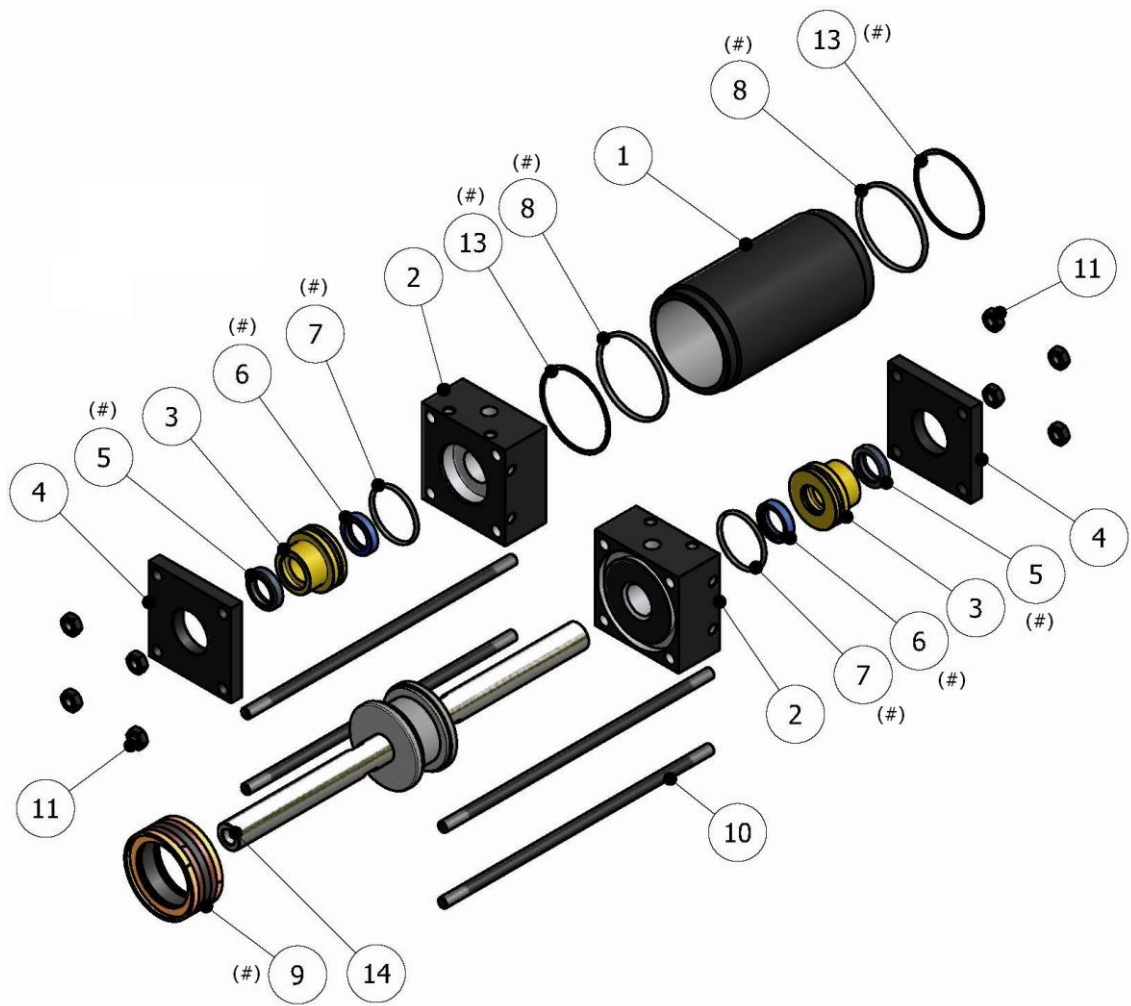
Ref.	Description	Part Number	Qty.
25.3	Filter	RA-00074-03-30	2
25.4	Filter Gasket	OR-00061	2
26	Hex Nipple	RA-00143	2
27	Ball Valve	RA-00078	2
28	Junta Tórica	OR-00035	4
29	Directional valve	HI-00054	1
30	Hydraulic Gauge	HI-00078	1
31	Socket Head Cap Screw	TN-00245	8
32	Plug	RA-00013	2
33	Hydraulic Cylinder With Spacers	HI-00101	1
34	“A” Proportioning Pump Assembly	See Table 12	1
35	“R” Proportioning Pump Assembly	See Table 12	1
36	Gasket	OR-00082	6
37	Screw	TN-00148	4

**Table 12. Proportioning Pump Size, Parts**

SIZE	Proportioning Pump Size	
	Ref. 34 (ISO Pump)	Ref. 35 (POL Pump)
1.20 (standard)	PU-06101-012G	PU-06102-012G
0.80 (optional)	PU-06101-008G	PU-06102-008G

**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 8. Hydraulic Cylinder with Spacers, Exploded View**

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



**Table 13. 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	Front Plate	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

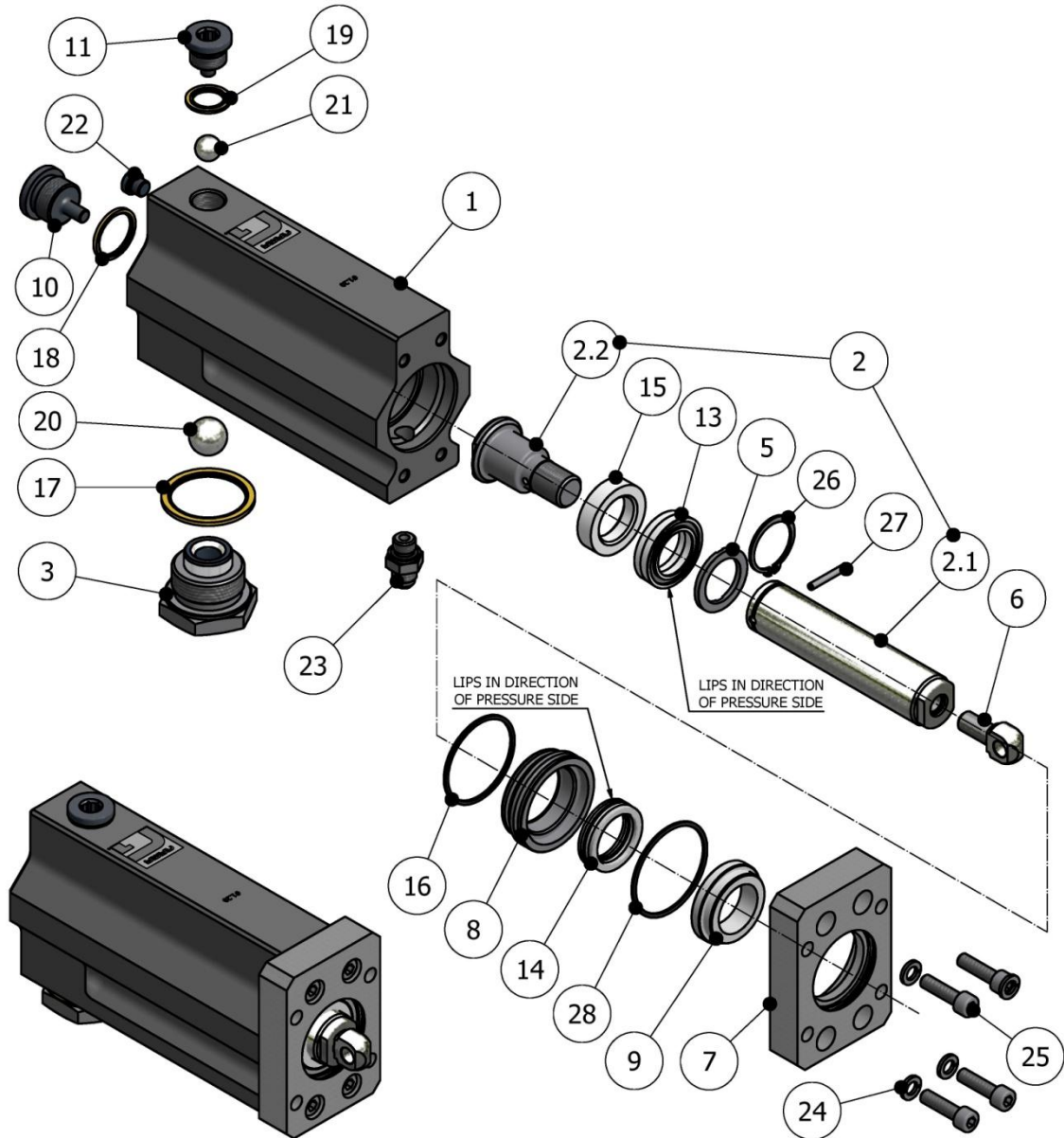


Figure 9. “A” Proportioning Pump Assembly, Exploded View



**Table 14. "A" Proportioning Pump Assembly, Parts List**

item.	Description	Part Number	Qty.
1	Body Pump with Check Valve Seat	See Table 15	1
2	Piston Rod Assembly (Only item. 2.1 y 2.2)	See Table 15	1
2.1	Piston Rod (Included in item 2)	See Table 15	1 (#)
2.2	Piston Head (Included in item 2)	See Table 15	1 (#)
3	Inlet Ball Seat Assembly	PU-01003-0J	1
4			
5	Piston Seal	See Table 15	1
6	Pump Clevis	See Table 15	1
7	Monobloc Flange Pump – ISO	See Table 15	1
8	Seat Seal – ISO	See Table 15	1
9	Bearing ISO	See Table 16	1 (*)
10	Plug Side Pump	PU-01003-0E	1
11	Upper Plug Pump	PU-01003-0F	1
12			
13	Piston Seal	See Table 16	1 (*)
14	Cylinder Seal	See Table 16	1 (*)
15	Piston Guide	See Table 16	1 (*)
16	O-Ring	See Table 16	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	See Table 15	1
23	Output Elbow	RA-00145	1
24	Washer	See Table 15	4
25	Allen Screw	See Table 15	4
26	Seeger Ring	See Table 15	1
27	Pin	See Table 15	1
28	O-Ring	See Table 16	1 (*)

**N.B.:** The parts marked with (\*), are included in the repair seal kit of "A" pump (see Table 17).

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



**Table 15. "A" Proportioning Pump Assembly, Parts List**

Pump	Item 1	Item 2 (2.1 + 2.2)	Item 2.1	Item 2.2
<b>1.20 (#)</b>	PU-06001-012	PU-01006-012	PU-01007-012	PU-01008-012
<b>0.80</b>	PU-06001-008	PU-01006-008	PU-01007-008	PU-01008-008

Pump	Item 5	Item 6	Item 7	Item 8	Item 22
<b>1.20 (#)</b>	PU-01010-012	PU-01042	PU-06004	PU-06009-012G	RA-00211
<b>0.80</b>	PU-01010-008	PU-01042	PU-06004	PU-06009-008G	RA-00211

Pump	Item 24	Item 25	Item 26	Item 27
<b>1.20 (#)</b>	TN-00028	TN-00062	TN-00070	TN-00086
<b>0.80</b>	TN-00028	TN-00062	TN-00067	TN-00085

**Table 16. Seals Monobloc "A" Pump**

item	1.20 (#)	0.80
<b>9</b>	PU-06007-012	PU-06007-008
<b>13</b>	PU-01016-012A	PU-01016-008A
<b>14</b>	PU-01017-012G	PU-01017-008G
<b>15</b>	PU-01014-012A	PU-01014-008A
<b>16</b>	OR-00009	OR-00009
<b>28</b>	OR-00115	OR-00115

**Table 17. Repair Seal Kit "A" Pump**

Pump	Item
<b>1.20 (#)</b>	KT-00157
<b>0.80</b>	KT-00159

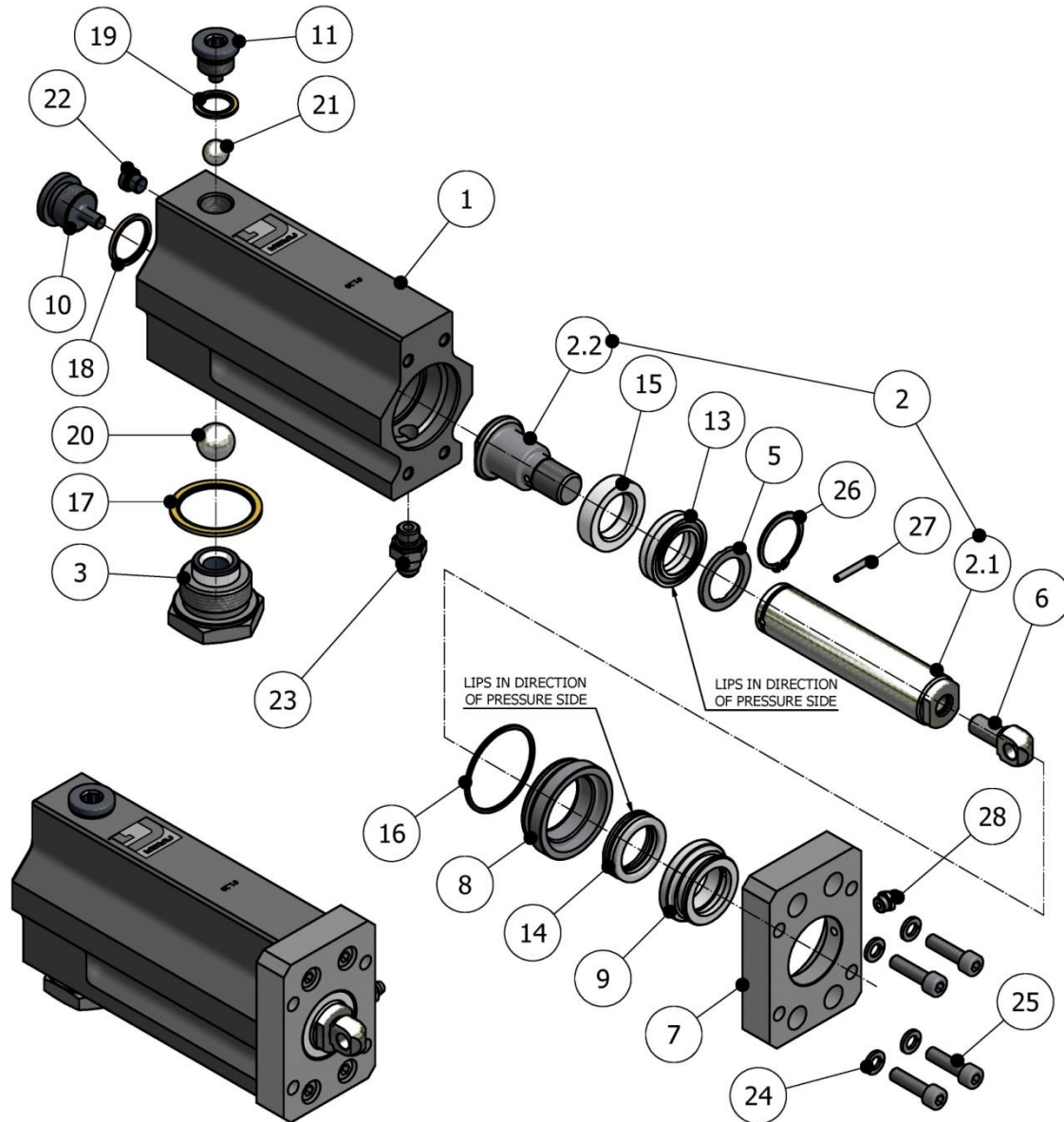
**N.B : (#)** The standard proportioning pump sizes is #1.20. Different sizes are available under order. For delivery time, please consult with Marketing department.

The Repair seal kit include the parts indicated (\*) in the Table 14.





**“R” PROPORTIONING PUMP ASSEMBLY**



**Figure 10. “R” Proportioning Pump Assembly, Exploded View**

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



**Table 18. “R” Proportioning Pump Assembly, Parts List**

item.	Description	Part Number	Qty.
1	Body Pump with Check Valve Seat	See Table 19	1
2	Piston Rod Assembly (Only item. 2.1 y 2.2)	See Table 19	1
2.1	Piston Rod (Included in item 2)	See Table 19	1 (#)
2.2	Piston Head (Included in item 2)	See Table 19	1 (#)
3	Inlet Ball Seat Assembly	PU-01003-0J	1
4			
5	Piston Seal	See Table 19	1
6	Pump Clevis	See Table 19	1
7	Monobloc Flange Pump – POL	See Table 19	1
8	Seat Seal – POL	See Table 19	1
9	Bearing POL	See Table 20	1 (*)
10	Plug Side Pump	PU-01003-0E	1
11	Upper Plug Pump	PU-01003-0F	1
12			
13	Piston Seal	See Table 20	1 (*)
14	Cylinder Seal	See Table 20	1 (*)
15	Piston Guide	See Table 20	1 (*)
16	O-Ring	See Table 20	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	See Table 19	1
23	Exit Elbow	RA-00145	1
24	Washer	See Table 19	4
25	Allen Screw	See Table 19	4
26	Seeger Ring	See Table 19	1
27	Pin	See Table 19	1
28	Grease Fiting	See Table 19	1

**N.B.:** The parts marked with (\*), are included in the repair seal kit of “R” pump (see Table 21).

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



**Table 19. "R" Proportioning Pump Assembly, Parts List**

Pump	Item 1	Item 2 (2.1 + 2.2)	Item 2.1	Item 2.2
<b>1.20 (#)</b>	PU-06001-012	PU-01006-012	PU-01007-012	PU-01008-012
<b>0.80</b>	PU-06001-008	PU-01006-008	PU-01007-008	PU-01008-008

Pump	Item 5	Item 6	Item 7	Item 8	Item 22
<b>1.20 (#)</b>	PU-01010-012	PU-01042	PU-06005	PU-06006-012G	RA-00211
<b>0.80</b>	PU-01010-008	PU-01042	PU-06005	PU-06006-008G	RA-00211

Pump	Item 24	Item 25	Item 26	Item 27	Item 28
<b>1.20 (#)</b>	TN-00028	TN-00062	TN-00070	TN-00086	TN-00073
<b>0.80</b>	TN-00028	TN-00062	TN-00067	TN-00085	TN-00073

**Table 20. Seals Monobloc "R" Pump**

Pump	Item 9	Item 13	Item 14	Item 15	Item 16
<b>1.20 (#)</b>	PU-06008-012	PU-01016-012A	PU-01017-012G	PU-01014-012A	OR-00009
<b>0.80</b>	PU-06008-008	PU-01016-008A	PU-01017-008G	PU-01014-008A	OR-00009

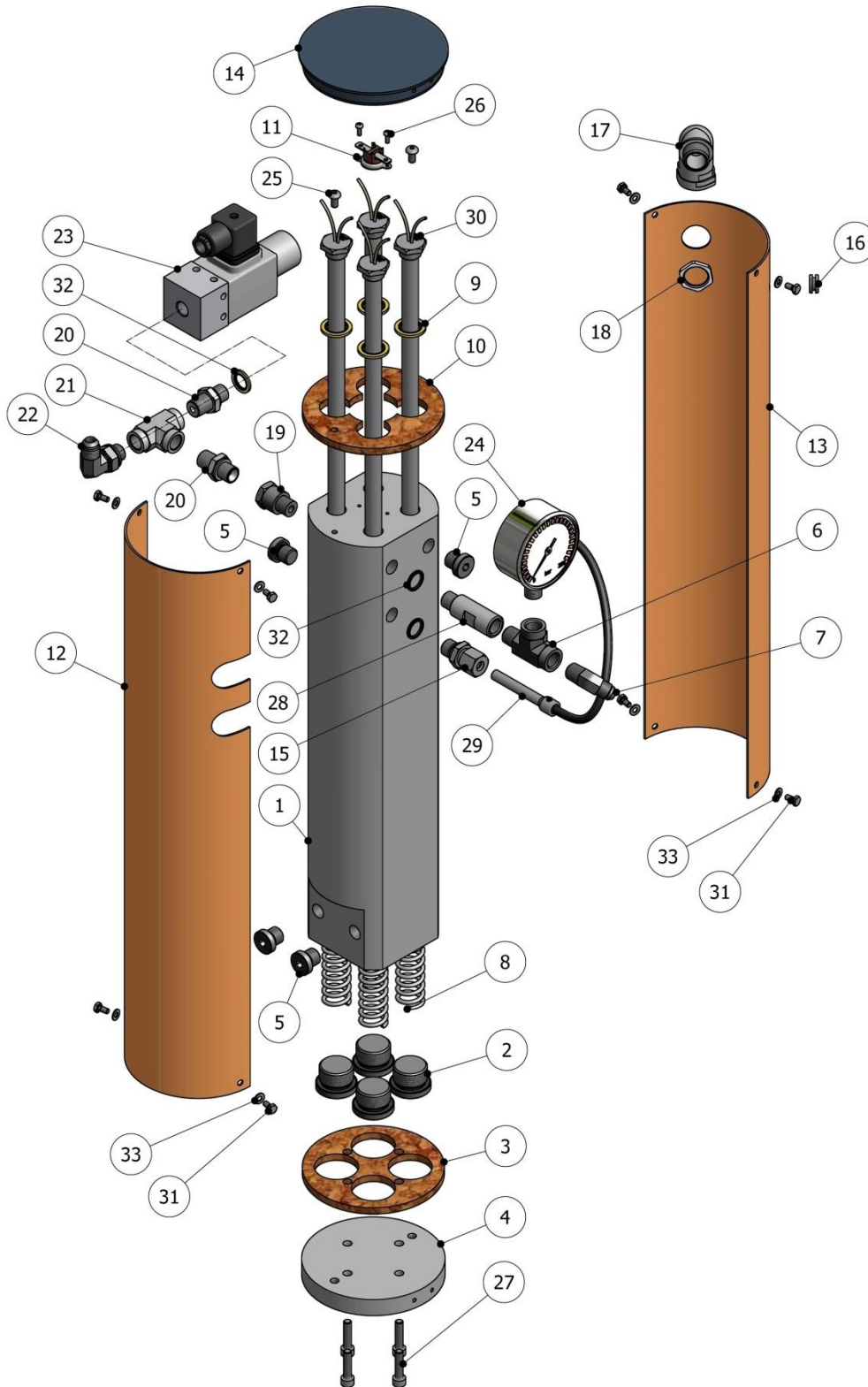
**Table 21. Repair Seal Kit "R" Pump**

Pump	Item
<b>1.20 (#)</b>	KT-00158
<b>0.80</b>	KT-00160

**N.B :** (#) The standard proportioning pump size 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 18.

**“A” STANDARD PRIMARY HEATER**

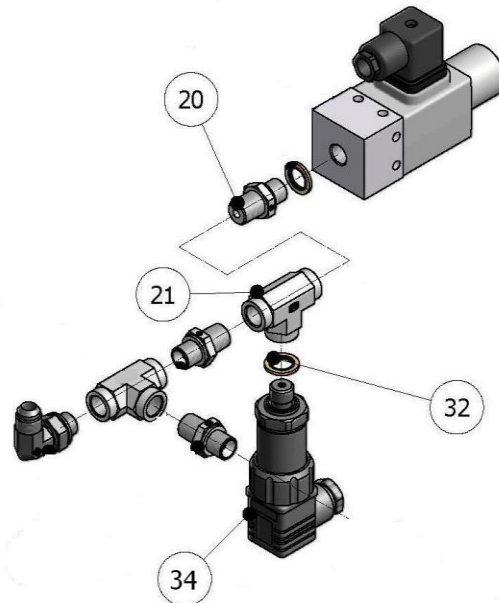


**Figure 11. “A” Standard Primary Heater, Exploded View**



**Table 22. "A" Standard Primary Heater, Parts List**

Ref.	Description	Part Number	Qty.
1	Heat Block	CLH-02001-01A	1
2	Pipe Plug	RA-00012	4
3	Bottom Insulate Plate	CL-02001-03	1
4	Heater Plate	CL-02001-02	1
5	Pipe Plug	RA-00013	4
6	Pipe Tee	RA-00018	1
7	Hose Nipple	RA-00017	1
8	Spring	SP-00009	4
9	Seal	OR-00018	4
10	Top Insulate Plate	CL-02001-04	1
11	Thermal Limit Switch	EL-00006	1
12	Heater Cover	CL-02001-06	1
13	Heater Cover	CL-02001-05	1
14	Top Cap	CL-02001-07	1
15	Thermocouple Nipple	RA-00231	1
16	Rubber Grommet	EL-00095-00	1
17	Conduit Connector	EL-00087-01	1
18	Nut	EL-00090-01	1
19	Swivel Union	RA-00077	1
20	Adapters Union	See Table 23	2
21	Pipe Tee	See Table 23	1
22	Elbow Fitting	RA-00050	1
23	Pressure Switch	HI-00021	1
24	Liquid Fill Gauge	See Table 23	1
25	Screw	TN-00166	2
26	Socket Head Cap Screw	TN-00128	2
27	Socket Head Cap Screw	TN-00169	4
28	Adapter	RA-00100	1
29	Thermocouple	EL-00146-00	1
30	Heat Resistance	See Table 24	4
31	Screw	TN-00317	8
32	Seal	See Table 23	
33	Washer	TN-00104	8



**Figure 12. "A" Standard Primary Heater, Exploded View**

**Table 23. Parts List of Variable Components for "A" Primary heater**

Ref.	Description	for 200 bar		for 300 bar	
		With Logger (optional)	Without Logger (standard)	With Logger (optional)	Without Logger (optional)
		CLH-03001-00GT CLH-03001-00BT CLH-03001-00IT	CLH-03001-00G CLH-03001-00B	CLH-03001-00HT CLH-03001-00DT	CLH-03001-00H CLH-03001-00D
20	Adapters Union	3x RA-00138	2x RA-00138	3x RA-00138	2x RA-00138
21	Pipe Tee	2x RA-00053	1x RA-00053	2x RA-00053	1x RA-00053
24	Liquid Fill Gauge	1x HI-00019	1x HI-00019	1x HI-00035	1x HI-00035
32	Seal	4x OR-00054	3x OR-00054	4x OR-00054	3x OR-00054
34	Transducer	1x HI-00033	-	1x HI-00033	-

**Table 24. "A" Heat Resistance Reference List**

Ref.	Description	Part Number	Qty.
30	Heat Resistance 400v 1500w	EL-00189	4
	Heat Resistance 400v 1250w	EL-00226	4
	Heat Resistance 230v 1500w	EL-00082	4

## “R” STANDARD PRIMARY HEATER

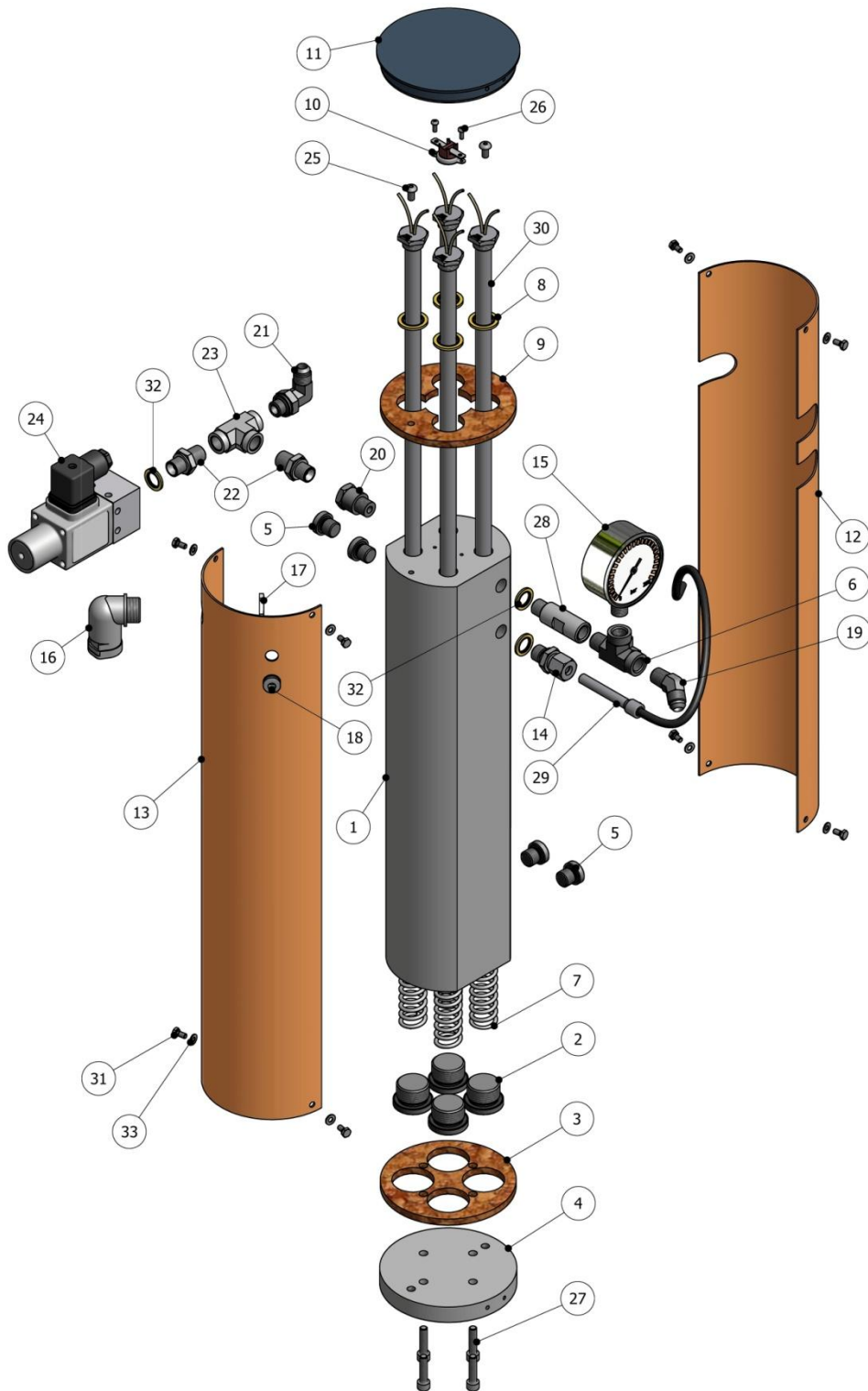


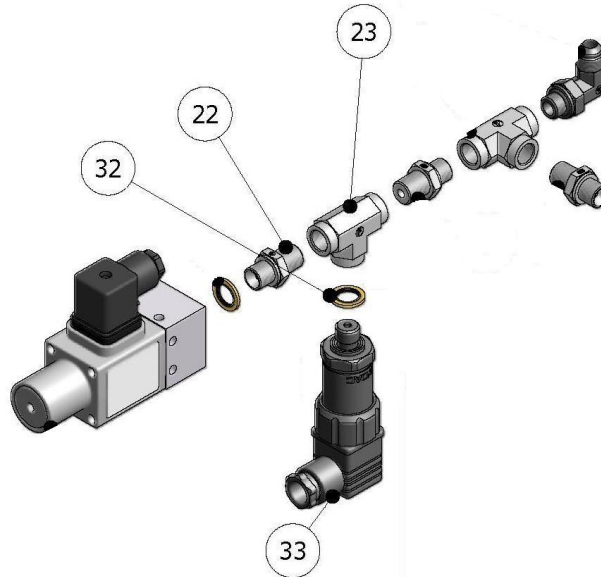
Figure 13. “R” Standard Primary Heater



**Table 25. "R" Standard Primary Heater, Parts List**

Ref.	Description	Part Number	Qty.
1	Heat Block	CLH-02001-01A	1
2	Pipe Plug	RA-00012	4
3	Bottom Insulate Plate	CL-02001-03	1
4	Heater Plate	CL-02001-02	1
5	Pipe Plug	RA-00013	4
6	Pipe Tee	RA-00018	1
7	Spring	SP-00009	4
8	Seal	OR-00018	4
9	Top Insulate Plate	CL-02001-04	1
10	Thermal Limit Switch	EL-00006	1
11	Top Cap	CL-02001-07	1
12	Heater Cover	CL-02002-06	1
13	Heater Cover	CL-02002-05	1
14	Thermocouple Nipple	RA-00231	1
15	PSI Liquid Fill Gauge	See Table 26	1
16	Conduit Connector	EL-00087-01	1
17	Nut	EL-00090-01	1
18	Rubber Grommet	EL-00095-00	1
19	Hose Nipple	RA-00043	1
20	Swivel Union	RA-00077	1
21	Elbow Fitting	RA-00050	1
22	Adapters Union	See Table 26	2
23	Pipe Tee	See Table 26	1
24	Pressure Switch	HI-00021	1
25	Screw	TN-00166	2
26	Socket Head Cap Screw	TN-00128	2
27	Socket Head Cap Screw	TN-00169	4
28	Adapter	RA-00100	1
29	Thermocouple	EL-00146-00	1
30	Heat Resistance	Table 27	4
31	Screw	TN-00317	8
32	Seal	See Table 26	
33	Washer	TN-00104	8





**Figure 14. "R" Standard Primary Heater, Exploded View**

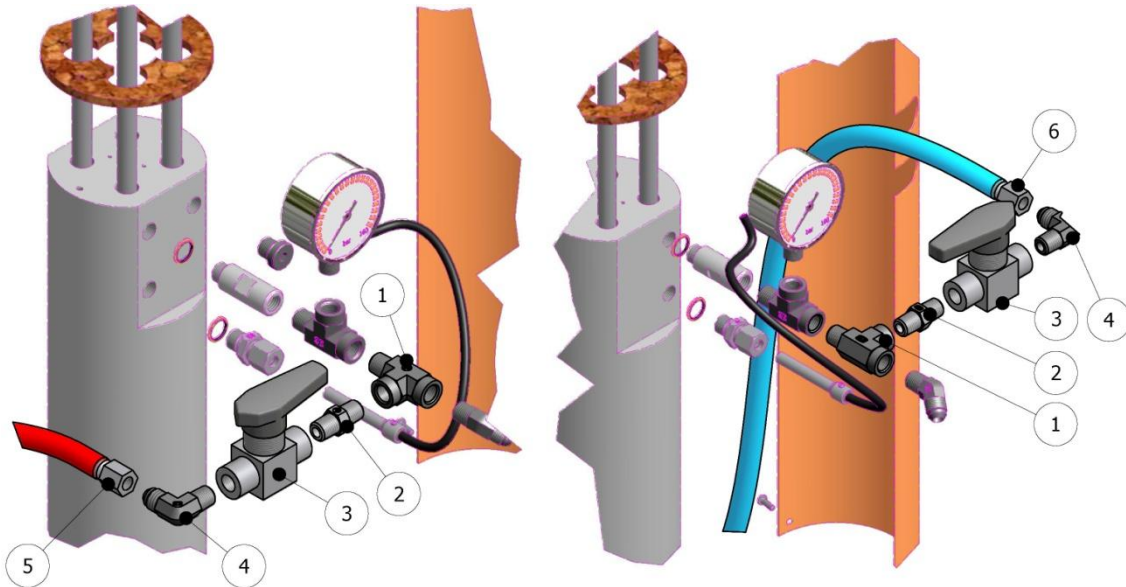
**Table 26. Parts List of Variable Components for "R" Primary heater**

Ref.	Description	for 200 bar		for 300 bar	
		With Logger (optional)	Without Logger (standard)	With Logger (optional)	Without Logger (optional)
		CLH-03002-00GT CLH-03002-00BT CLH-03002-00IT	CLH-03002-00G CLH-03002-00B	CLH-03002-00HT CLH-03002-00DT	CLH-03002-00H CLH-03002-00D
22	Adapters Union	3x RA-00138	2x RA-00138	3x RA-00138	2x RA-00138
23	Pipe Tee	2x RA-00053	1x RA-00053	2x RA-00053	1x RA-00053
15	Liquid Fill Gauge	1x HI-00019	1x HI-00019	1x HI-00035	1x HI-00035
32	Seal	4x OR-00054	3x OR-00054	4x OR-00054	3x OR-00054
34	Transducer	1x HI-00033	-	1x HI-00033	-

**Table 27. "R" Heat Resistance Reference List**

Ref.	Description	Part Number	Qty.
30	Heat Resistance 400v 1500w	EL-00189	4
	Heat Resistance 400v 1250w	EL-00226	4
	Heat Resistance 230v 1500w	EL-00082	4

**RECIRCULATION KIT P#: KT-00038**

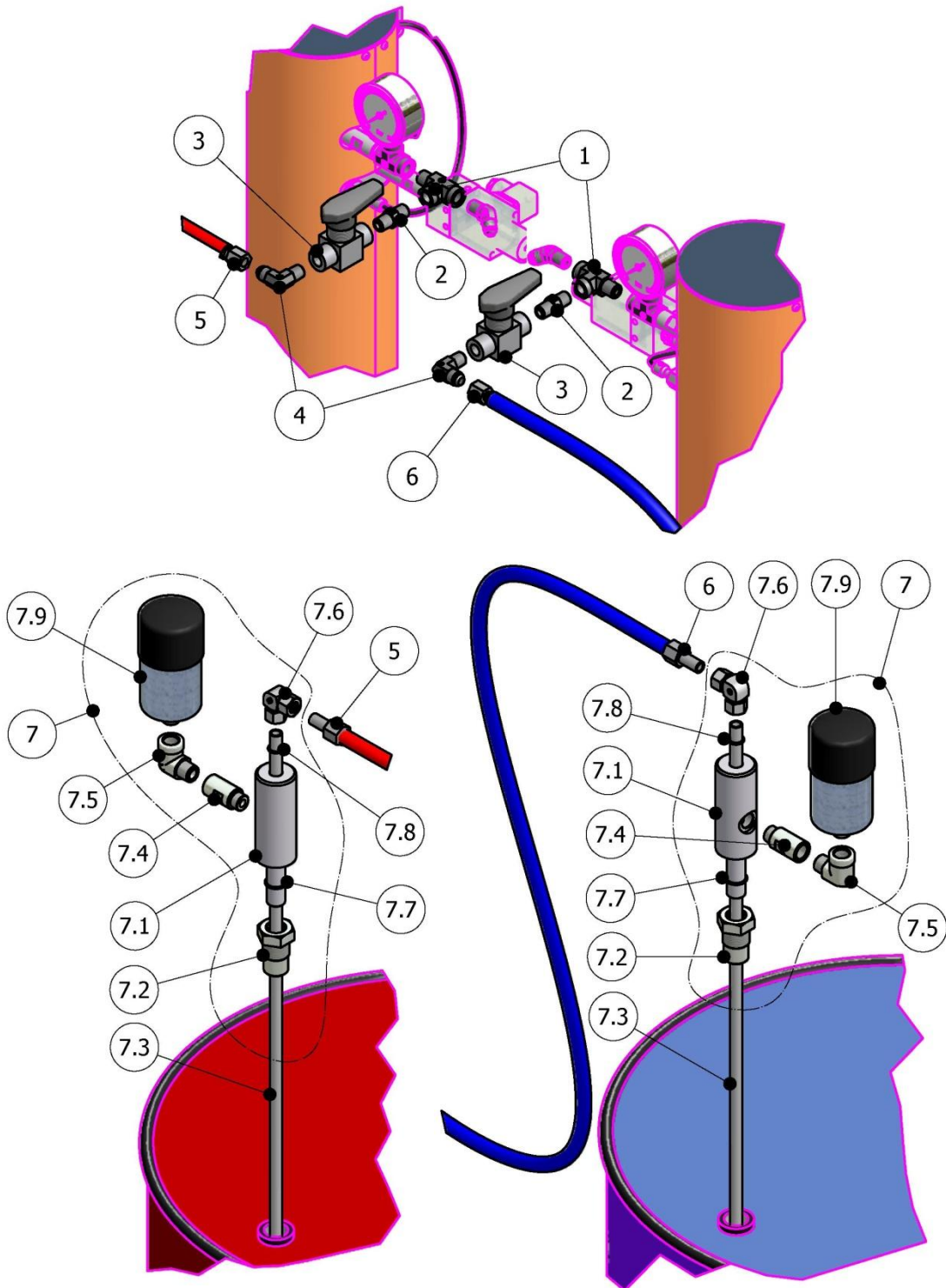


*Figure 15. Recirculation Kit P#: KT-00038, Exploded View*

*Table 28. Recirculation Kit evolution, 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

**RECIRCULATION KIT P#: KT-00038-01**



**Figure 16. Recirculation Kit P#: KT-00038-01, Exploded View**

**Table 29. Recirculation Kit #KT-00038-01, Parts List**

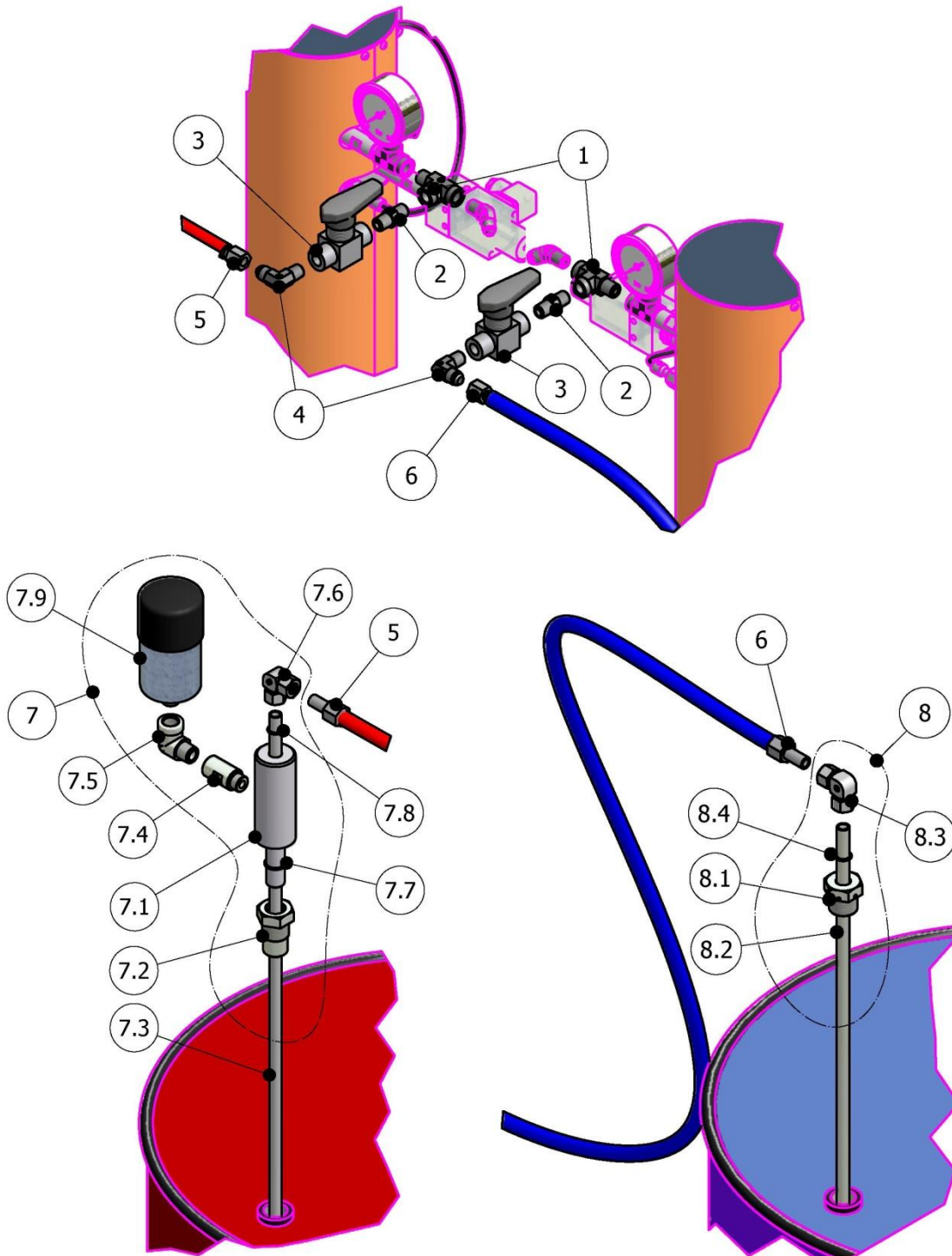
Ref.	Description	Part Number	Qty.
1	Pipe Tee	RA-00018	2
2	Swivel Union	RA-00188	2
3	Ball Valve	RA-00189	2
4	Elbow ISO	RA-00254	1
	Elbow POL	RA-00044	1
5	A-Hose	MA-00050-01	1
6	R-Hose	MA-00050-00	1
7	Assy. Connection to Tank with Filter	MQ-05009-00	2
7.1	Body Connection	MQ-05010	1 (*)
7.2	Connection Tank	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 (*)

**N.B.:**

**(\*) Unitary Quantities included in 1 set POS.7**



**RECIRCULATION KIT P#: KT-00038-03**



**Figure 17. Recirculation Kit P#: KT-00038-03, Exploded View**



**Table 30. 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 POS.7**

**(#) Unitary Quantities included in 1 set POS.8**



**ELECTRICAL SCHEMATIC DIAGRAM 3x400v. w/o NEUTRAL 50/60Hz**

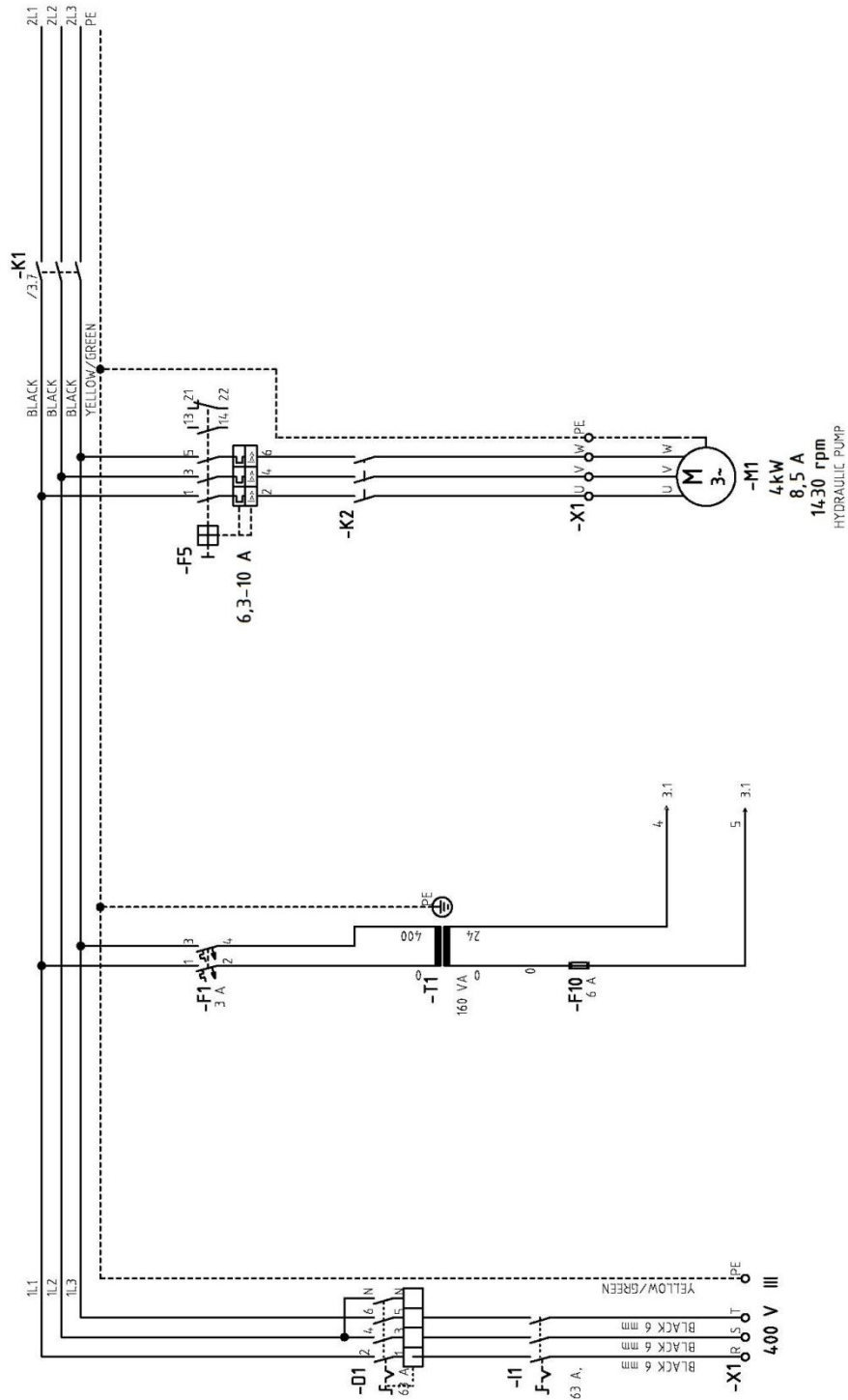


Figure 18. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 1/7)

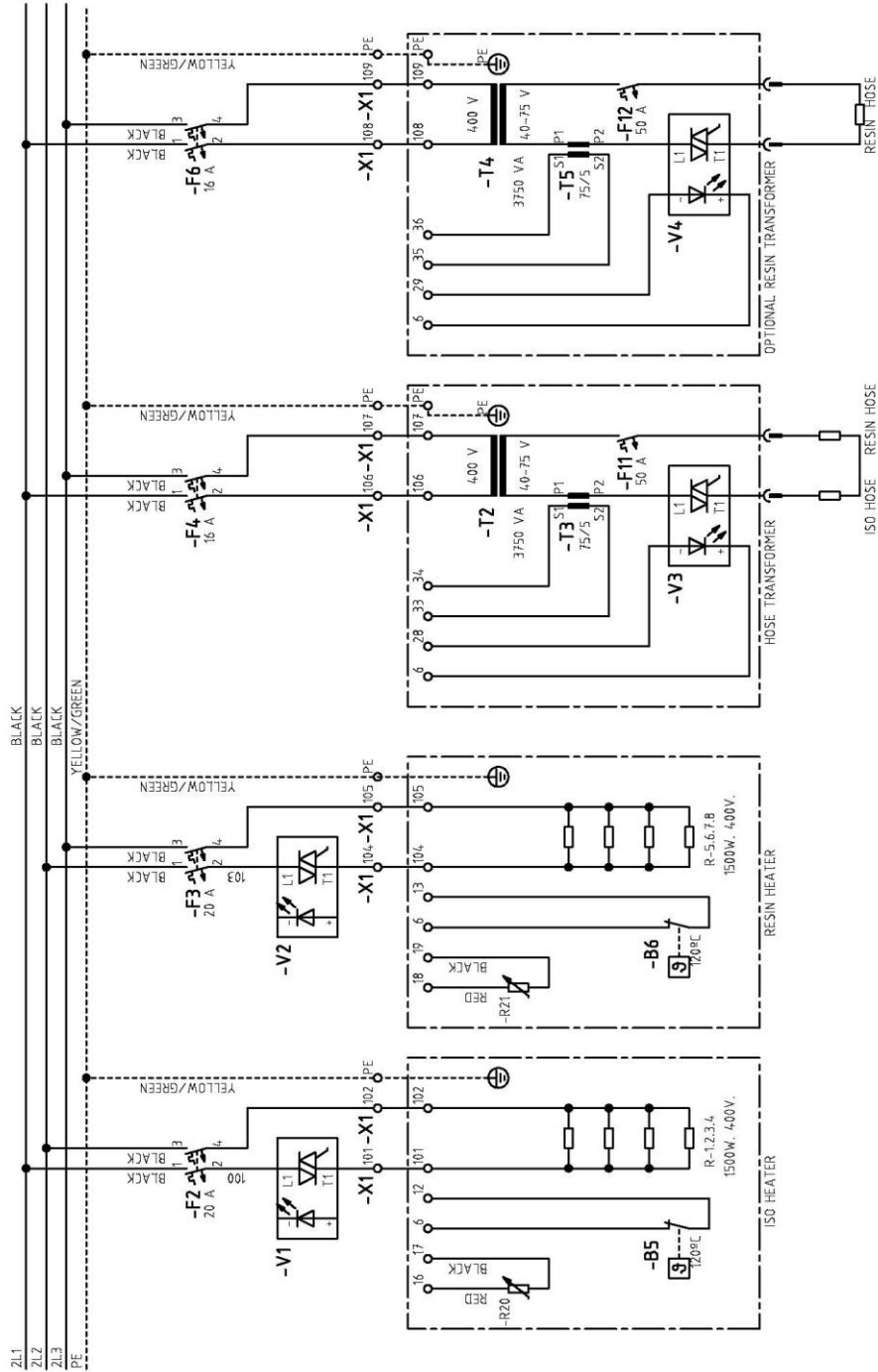


Figure 19. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 2/7)



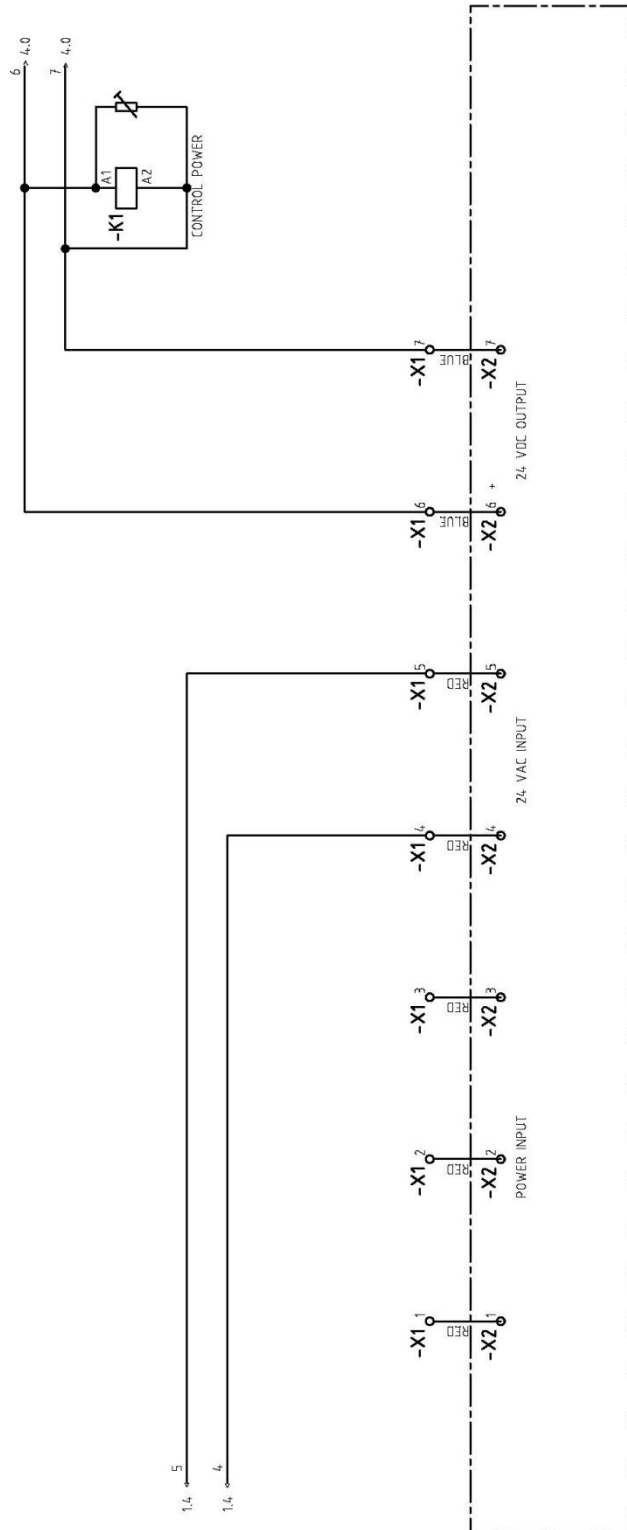


Figure 20. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 3/7)

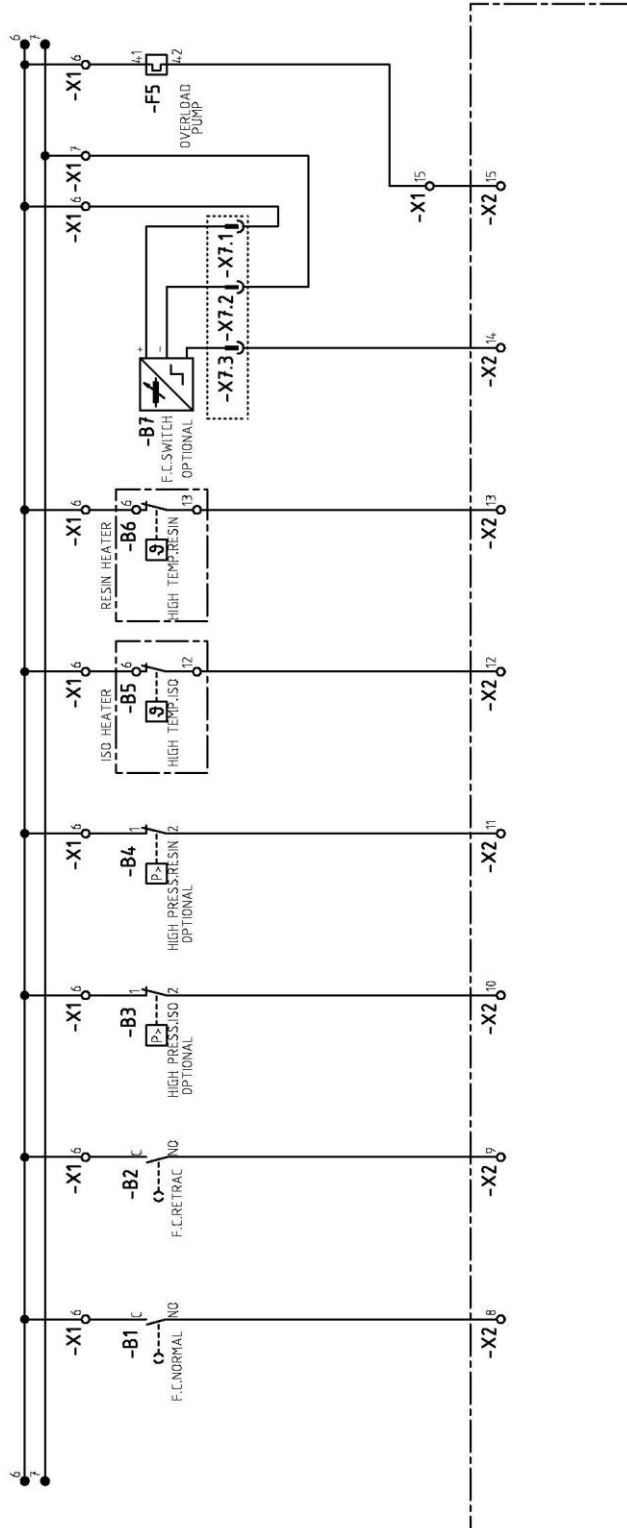


Figure 21. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 4/7)

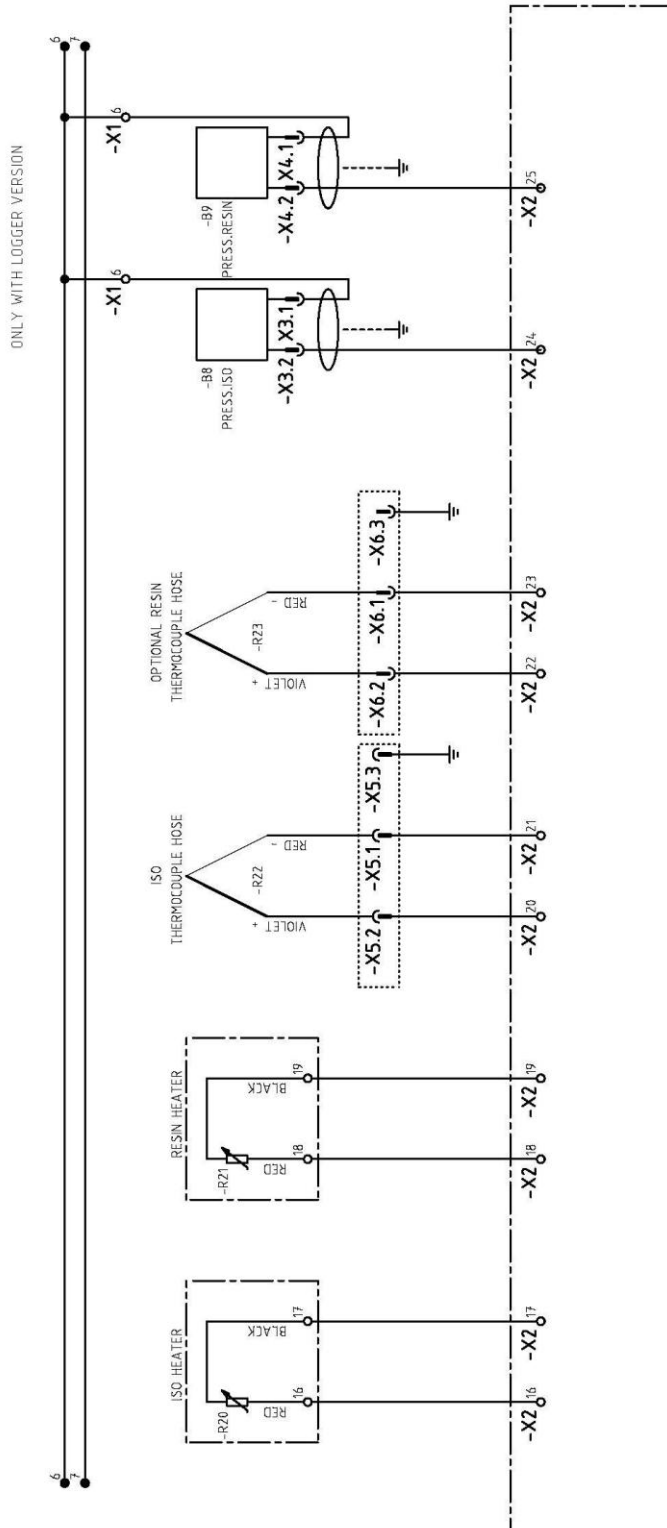


Figure 22. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 5/7)

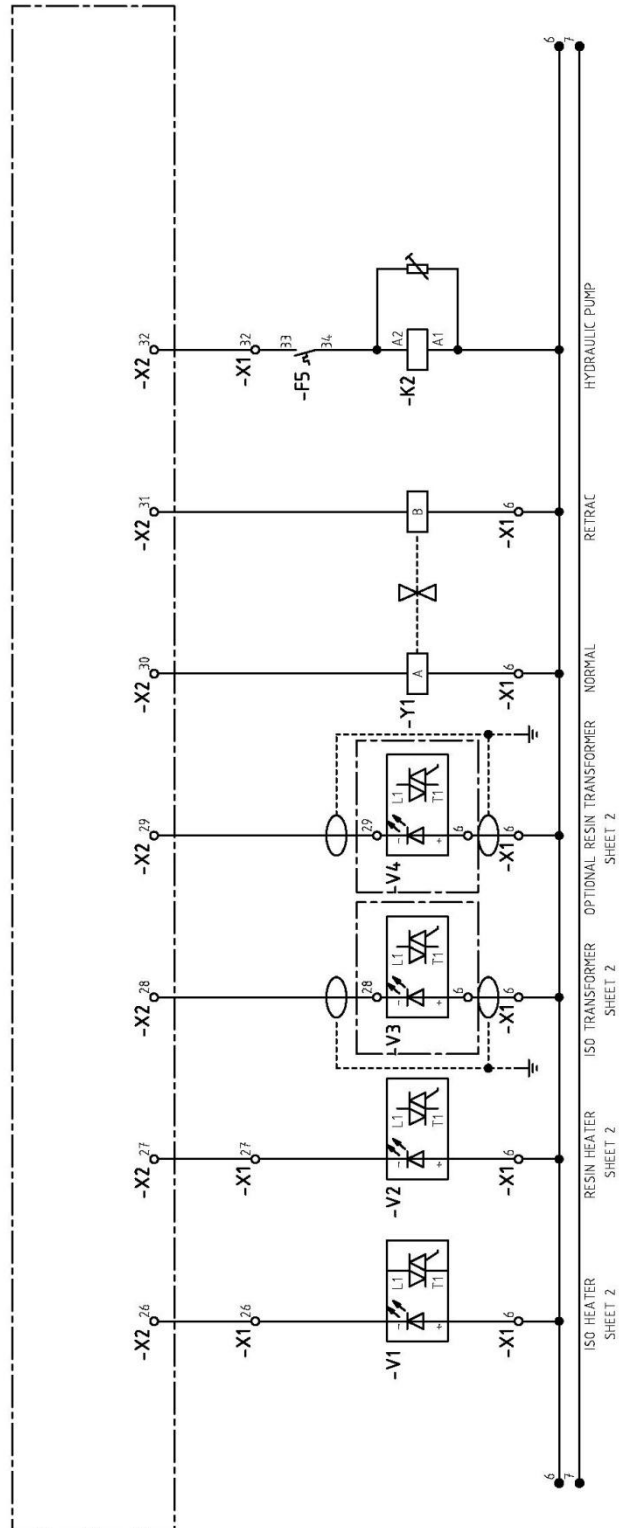


Figure 23. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 6/7)

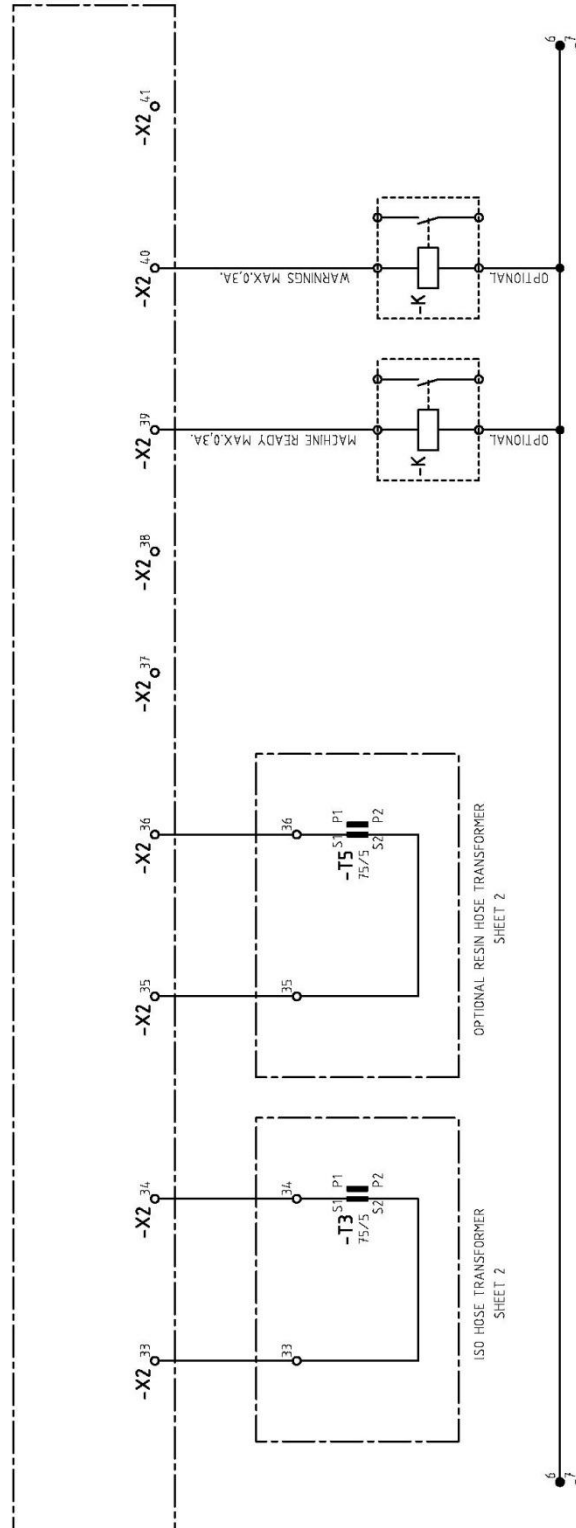


Figure 24. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 7/7)



**Table 31. Electrical Schematic 3x400v.w/o N - 50/60Hz Standard Version, Parts List**

Ref.	Description	Reference	Qty
F10	Fusible point	EL-00104-13	1
F10	Fuse	EL-00128-03	2
I1	Switch	EL-00107-07	1
I1	Control Red Yellow	EL-00107-06	1
T1	Transformer	EL-00127-02	1
D1	Differential Switch	EL-00108-04	1
F1	Circuit Breaker	EL-00109-04	1
F2	Circuit Breaker	EL-00113-04	1
F3	Circuit Breaker	EL-00113-04	1
F4	Circuit Breaker	EL-00112-04	1
F5	Circuit Breaker	EL-00119-04	1
F5	Auxiliary Contactor	EL-00119-03	1
T3	Intensity Transformer	EL-00127-03	1
V1	Static Relay	EL-00126-03	1
V2	Static Relay	EL-00126-03	1
V3	Triac	EL-00126-02	1
K1	Contactor	EL-00123-02	1
K2	Contactor	EL-00121-02	1
K2	Varistor	EL-00120-03	1
X1	Terminal Strip	EL-00105-06	1
X5	Cable with Male Connector TSU (ISO)	EL-00142-00	1
X5	Hood	EL-00096-21	1

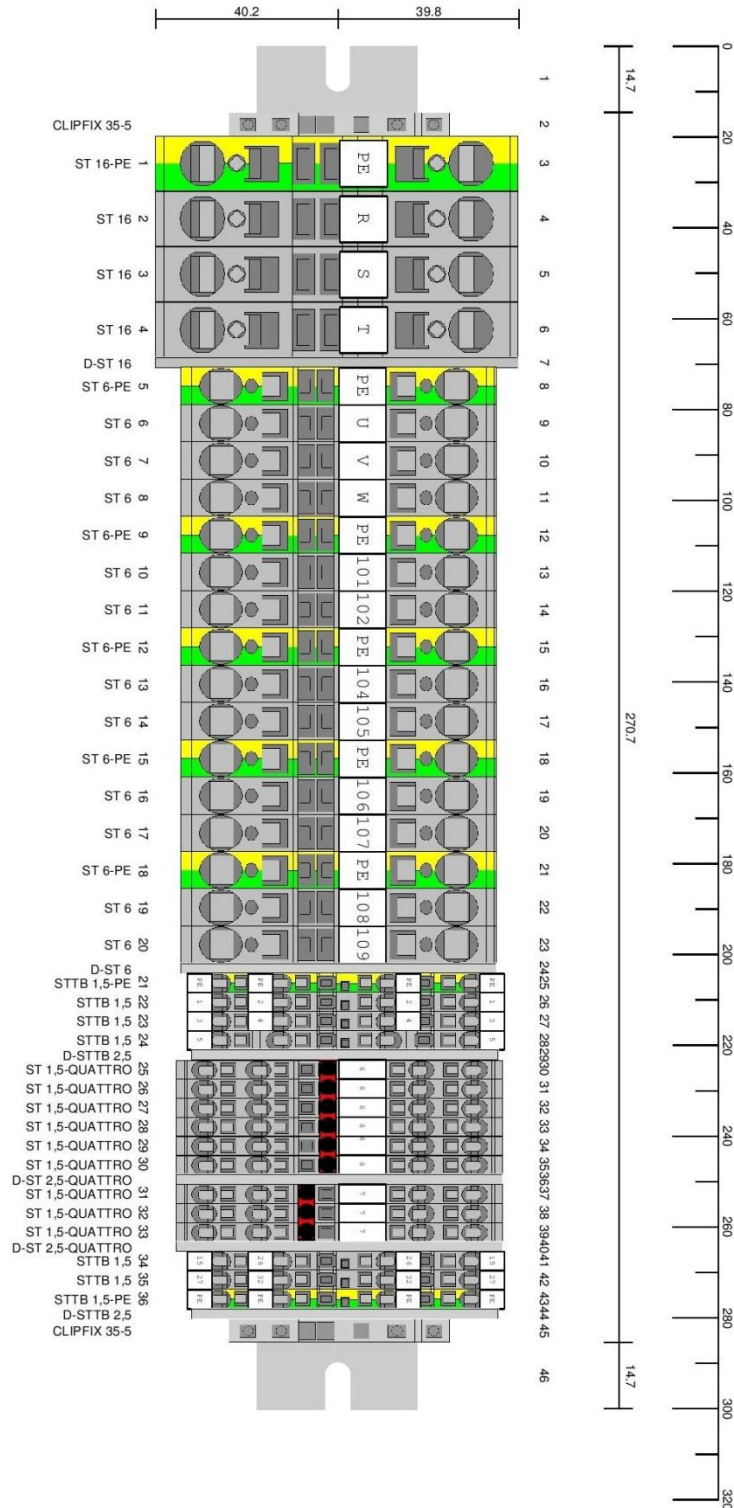


Figure 25. Distribution

**ELECTRICAL SCHEMATIC DIAGRAM 3x230v. w/o NEUTRAL 60Hz**

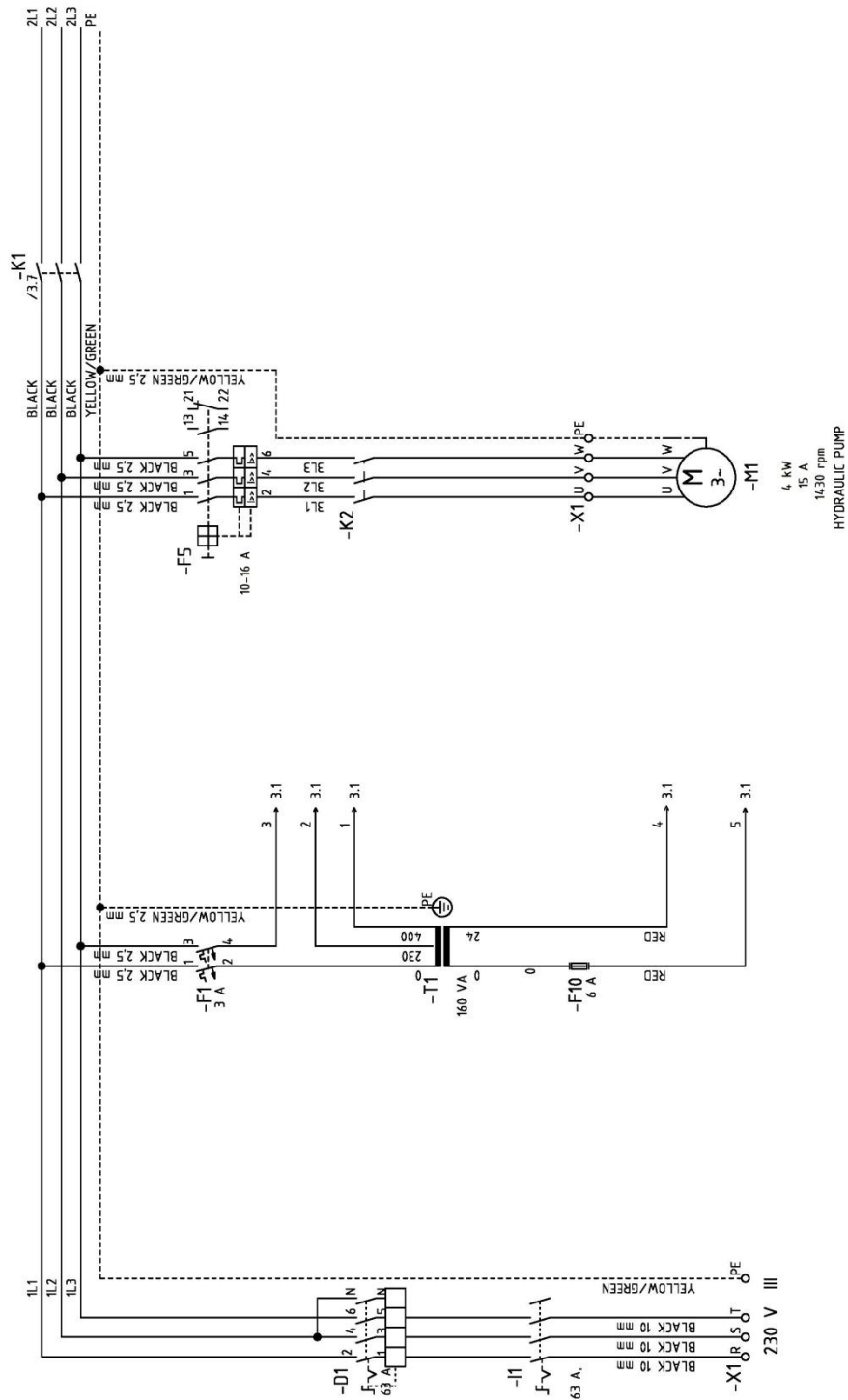


Figure 26. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 1/7)



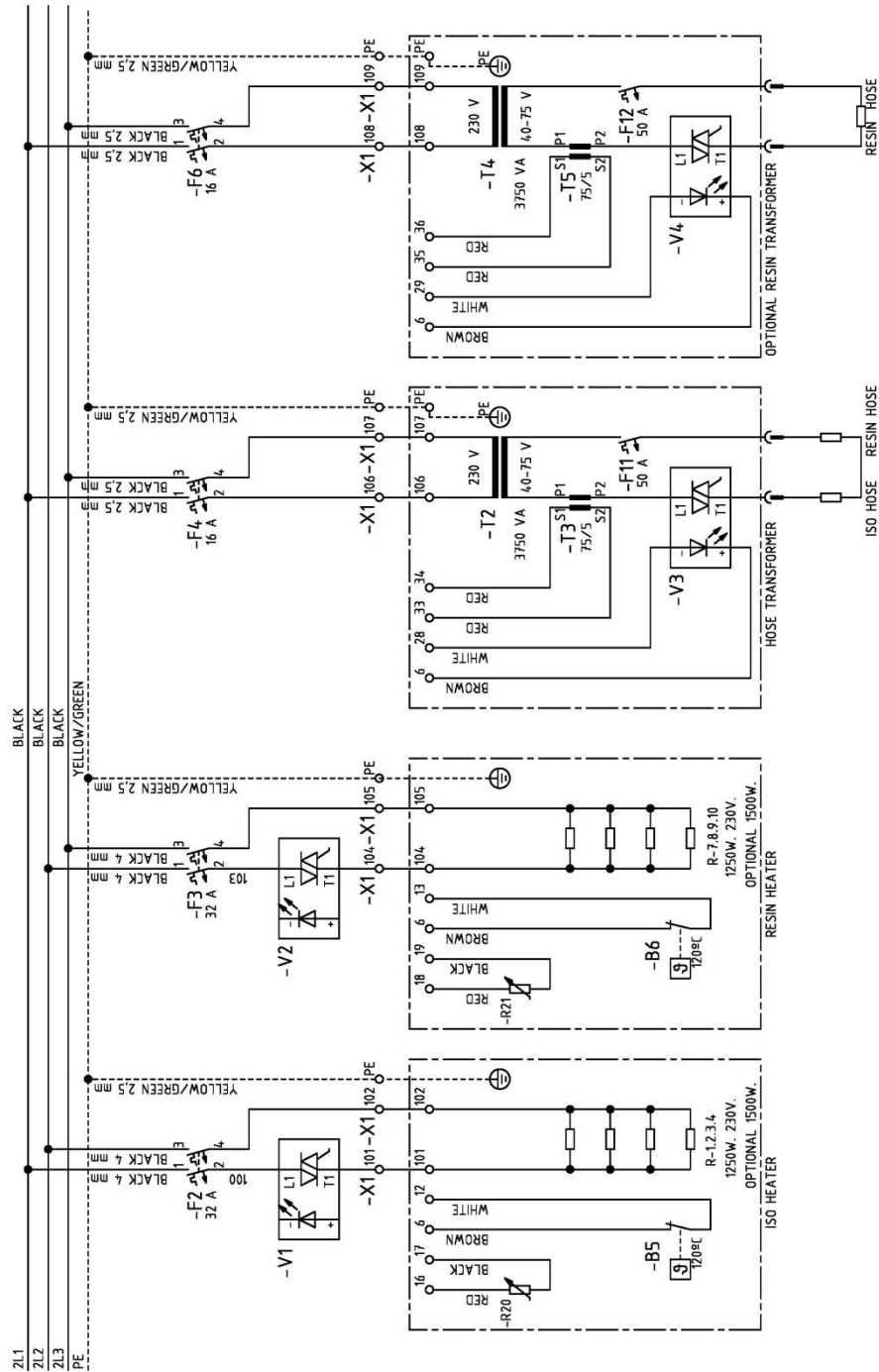


Figure 27. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 2/7)

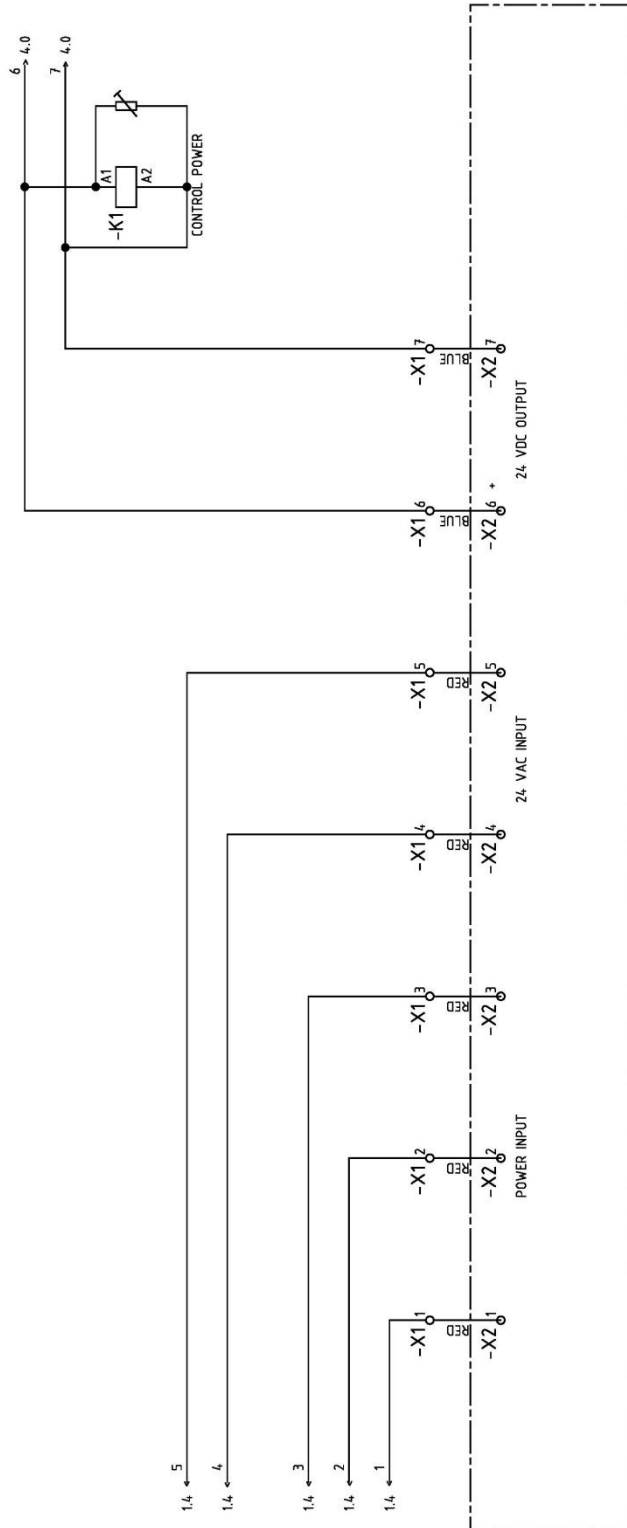


Figure 28. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 3/7)

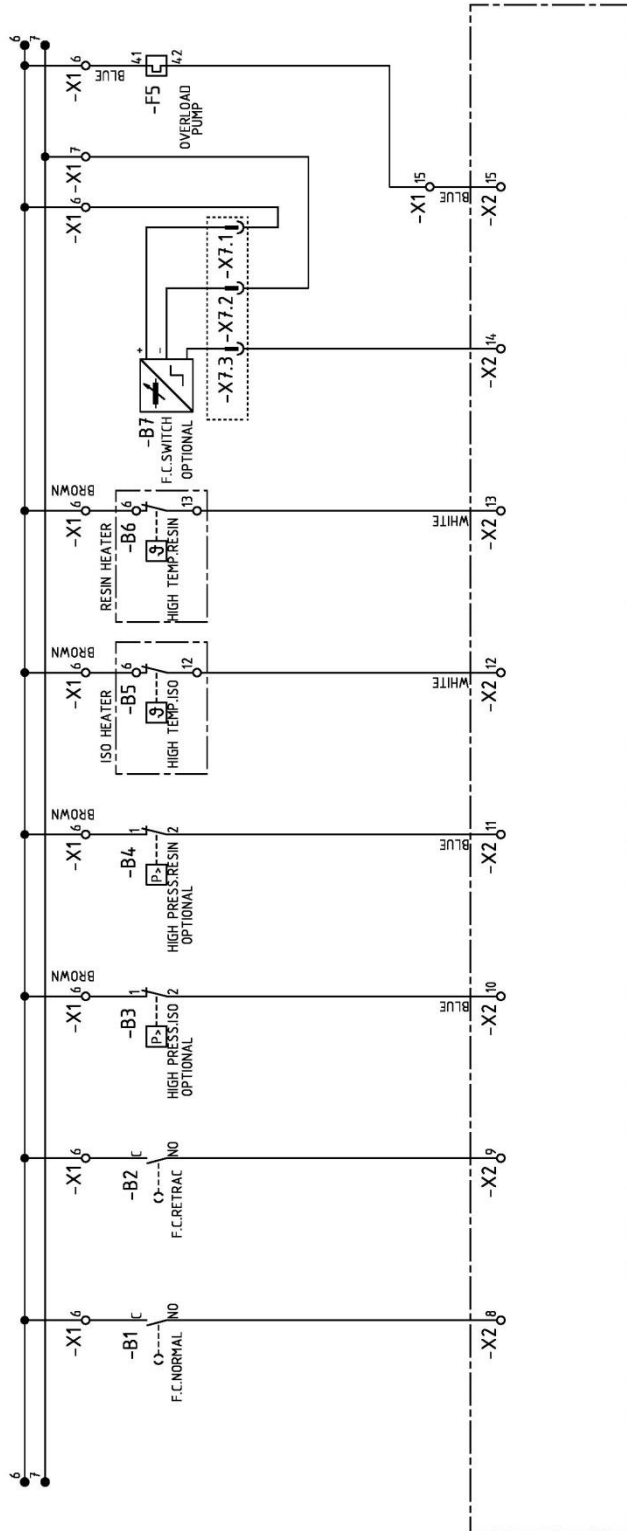


Figure 29. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 4/7)

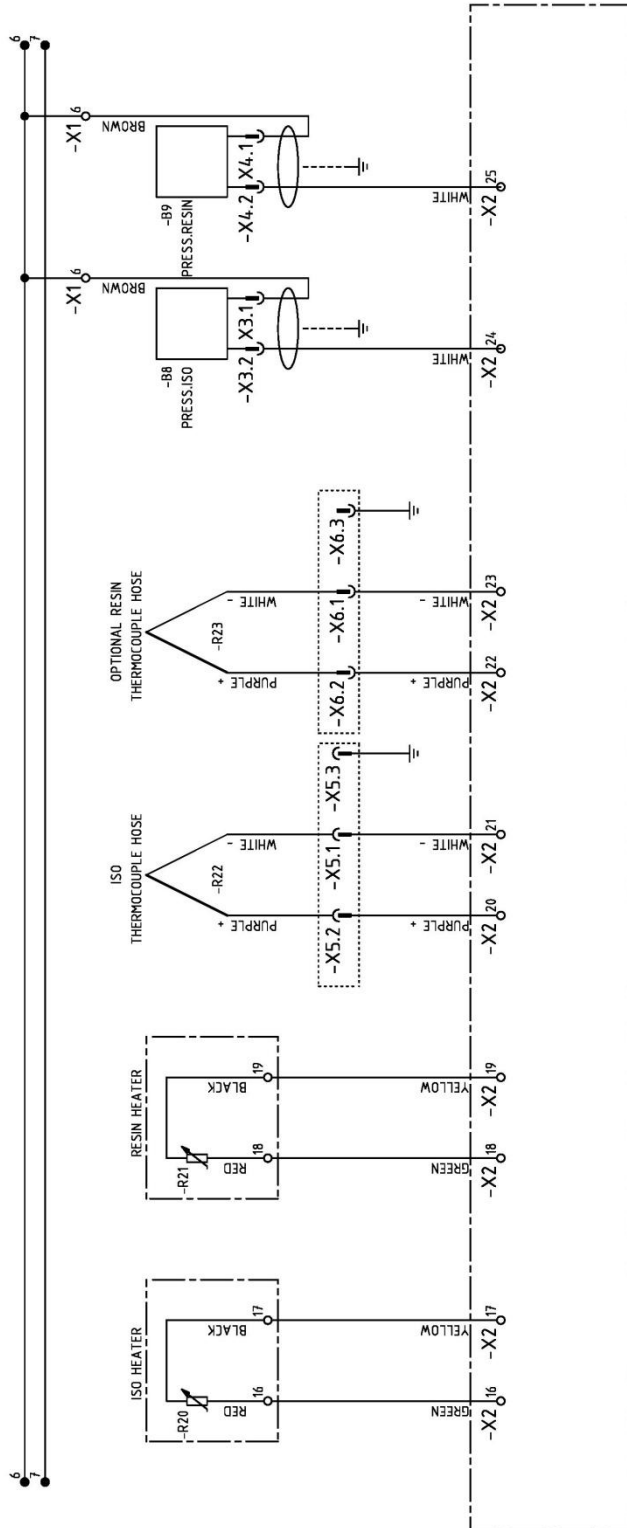


Figure 30. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 5/7)

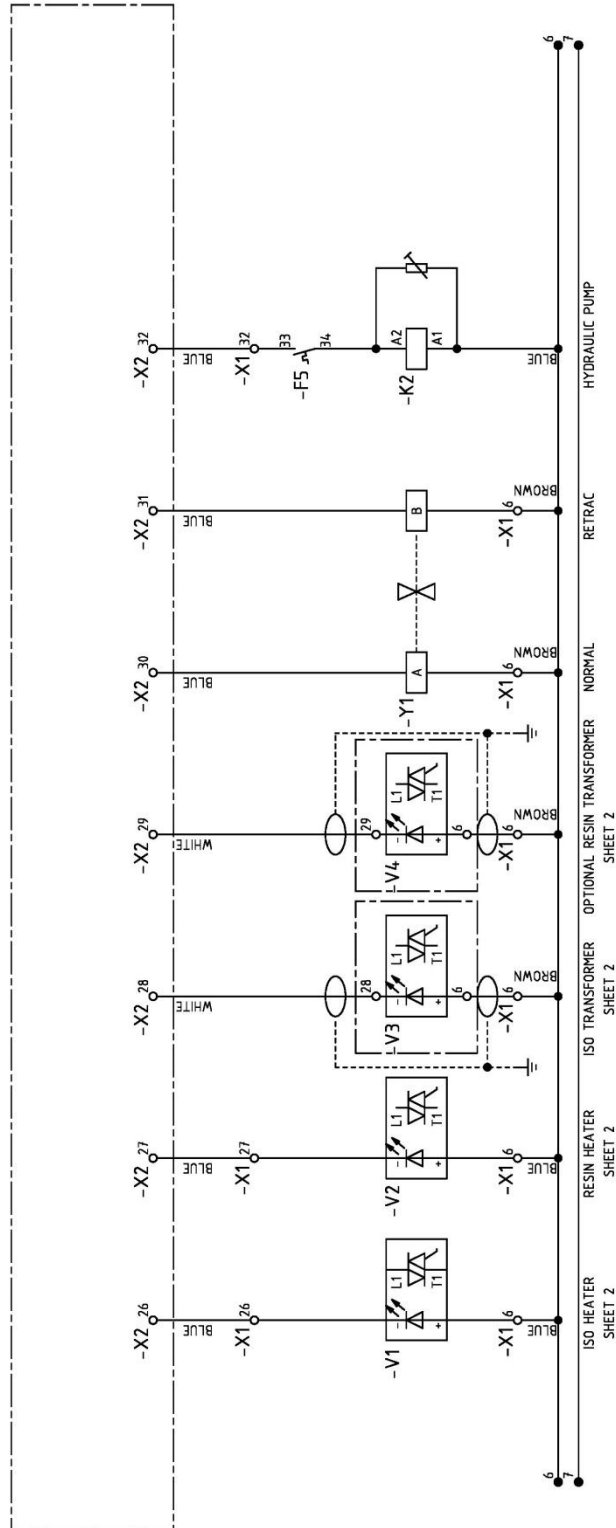


Figure 31. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 6/7)

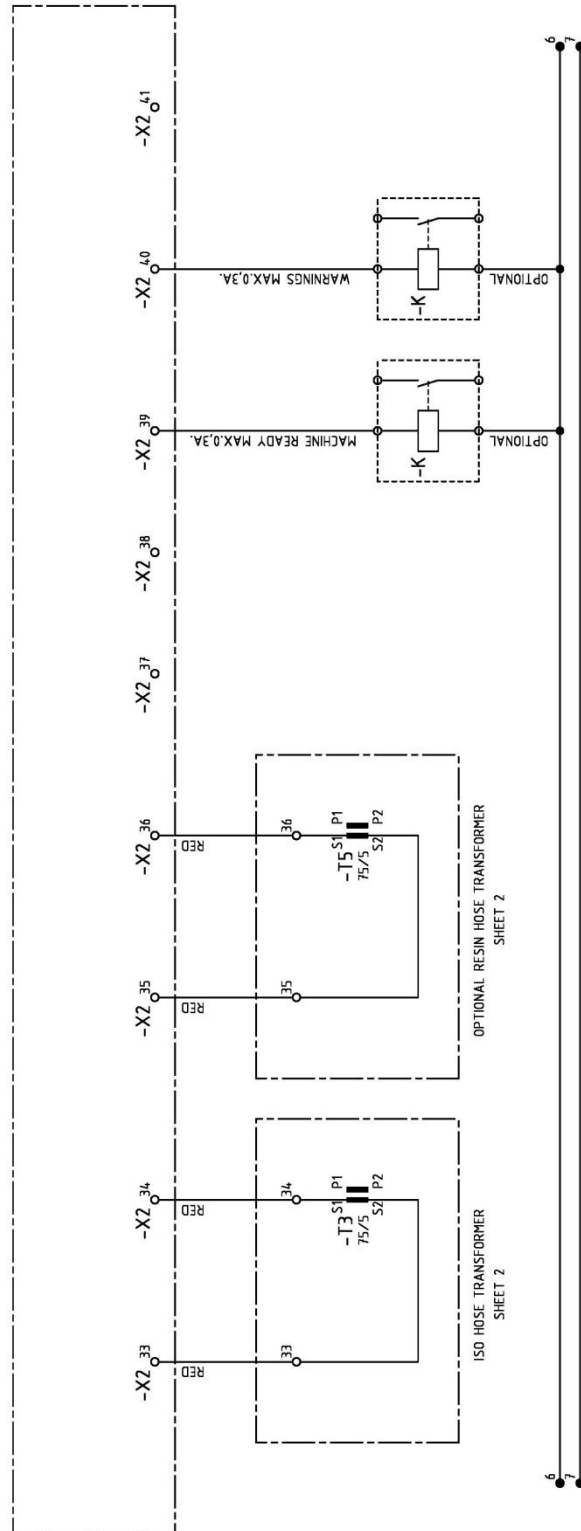


Figure 32. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 7/7)



**Table 32. Electrical Schematic 3x230v. w/o N - 60Hz Standard Version, Parts List**

Ref.	Description	Reference	Qty
F10	Fusible point	EL-00104-13	1
F10	Fuse	EL-00128-03	2
I1	Switch	EL-00107-07	1
I1	Control Red Yellow	EL-00107-06	1
T1	Transformer	EL-00127-02	1
D1	Differential Switch	EL-00108-04	1
F1	Circuit Breaker	EL-00109-04	1
F2	Circuit Breaker	EL-00115-03	1
F3	Circuit Breaker	EL-00115-03	1
F4	Circuit Breaker	EL-00112-12	1
F5	Circuit Breaker	EL-00119-05	1
F5	Auxiliary Contactor	EL-00119-03	1
T3	Intensity Transformer	EL-00127-03	1
V1	Static Relay	EL-00126-03	1
V2	Static Relay	EL-00126-03	1
V3	Triac	EL-00126-02	1
K1	Contactor	EL-00123-02	1
K2	Contactor	EL-00121-02	1
K2	Varistor	EL-00120-03	1
X1	Terminal Strip	EL-00105-06	1
X5	Cable with Male Connector TSU (ISO)	EL-00142-00	1
X5	Hood	EL-00096-21	1

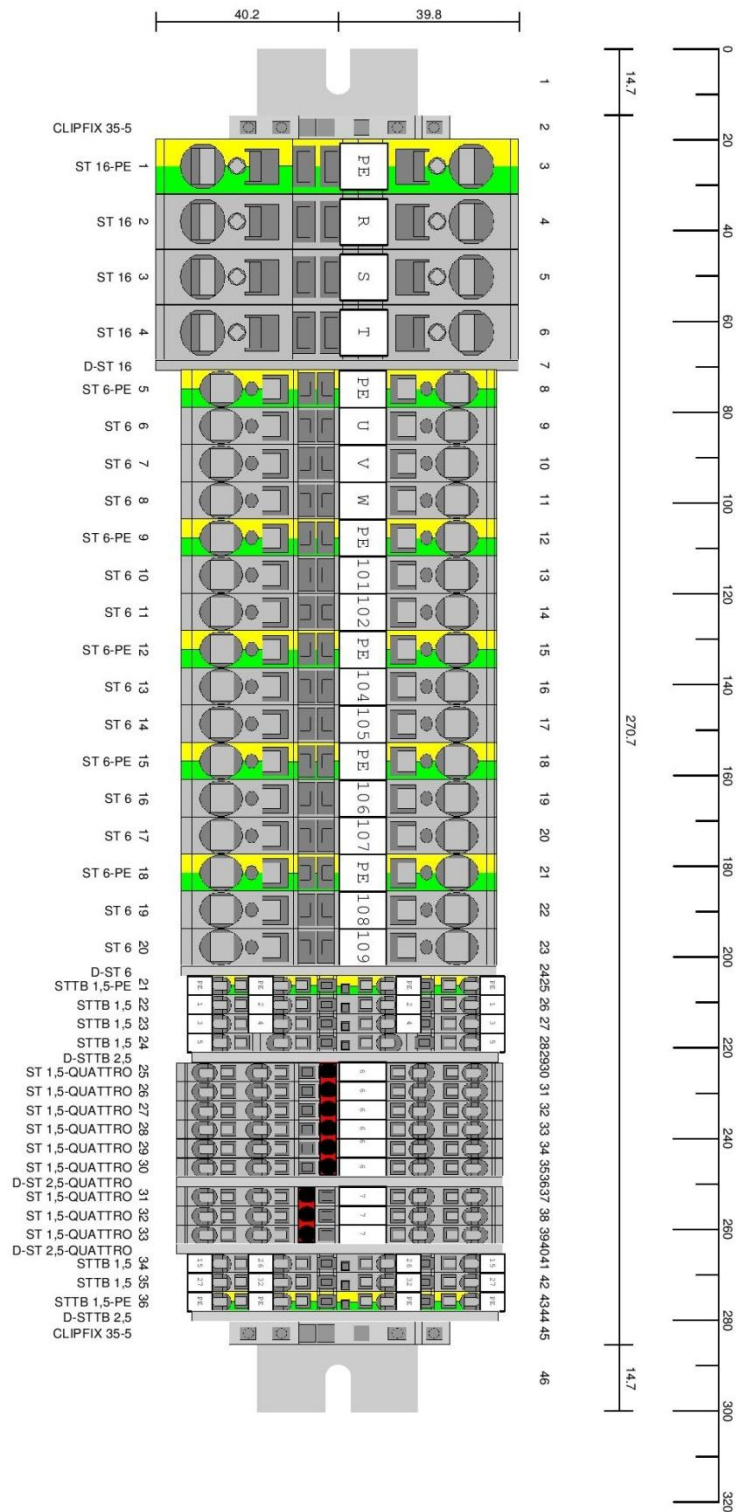


Figure 33. Distribution





## PNEUMATIC SCHEMATIC DIAGRAM

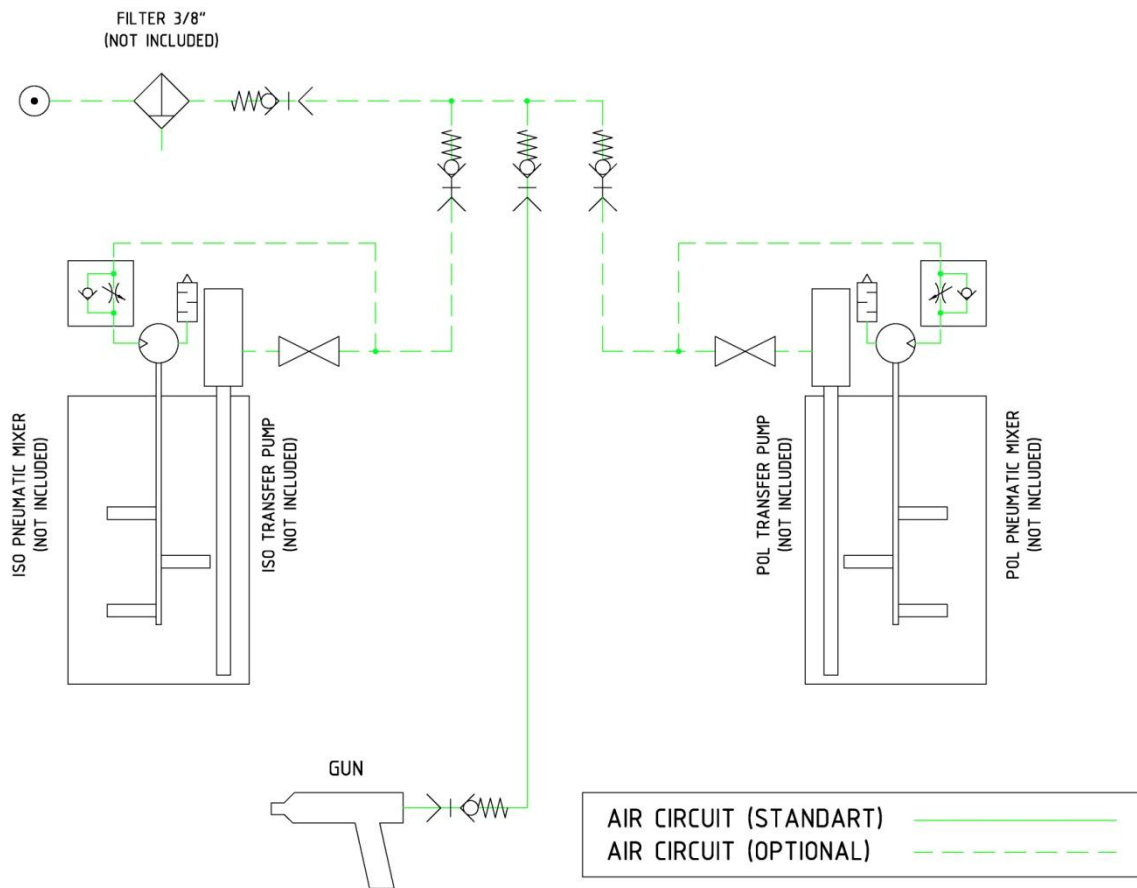


Figure 34. Pneumatic Schematic Diagram

## HYDRAULIC SCHEMATIC DIAGRAM

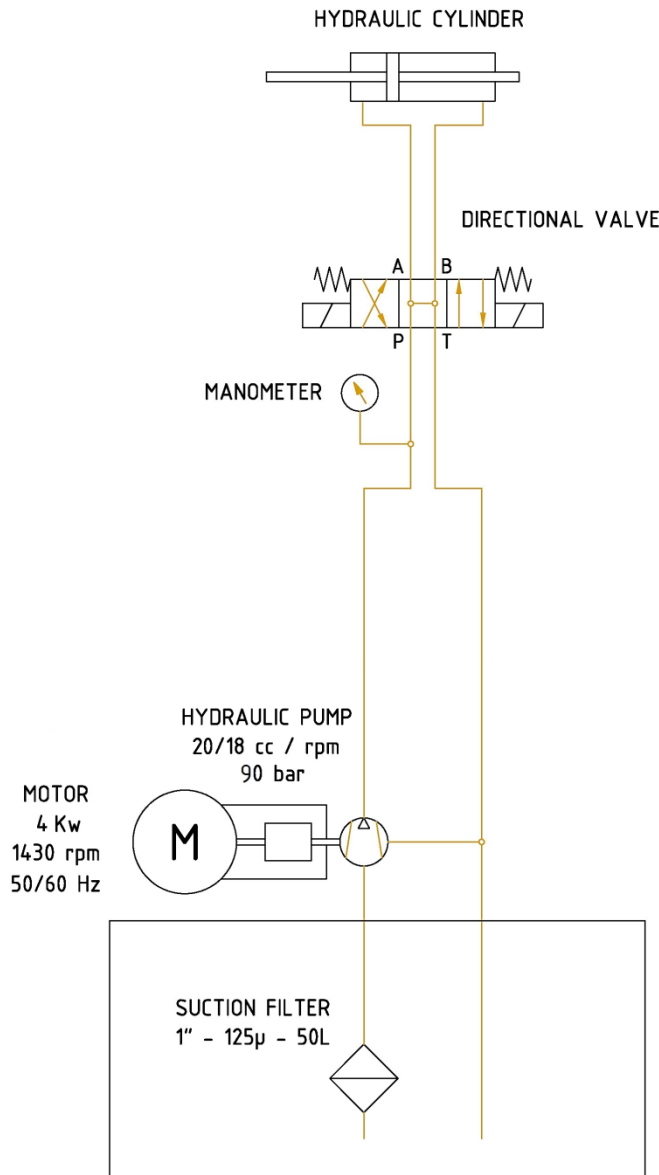
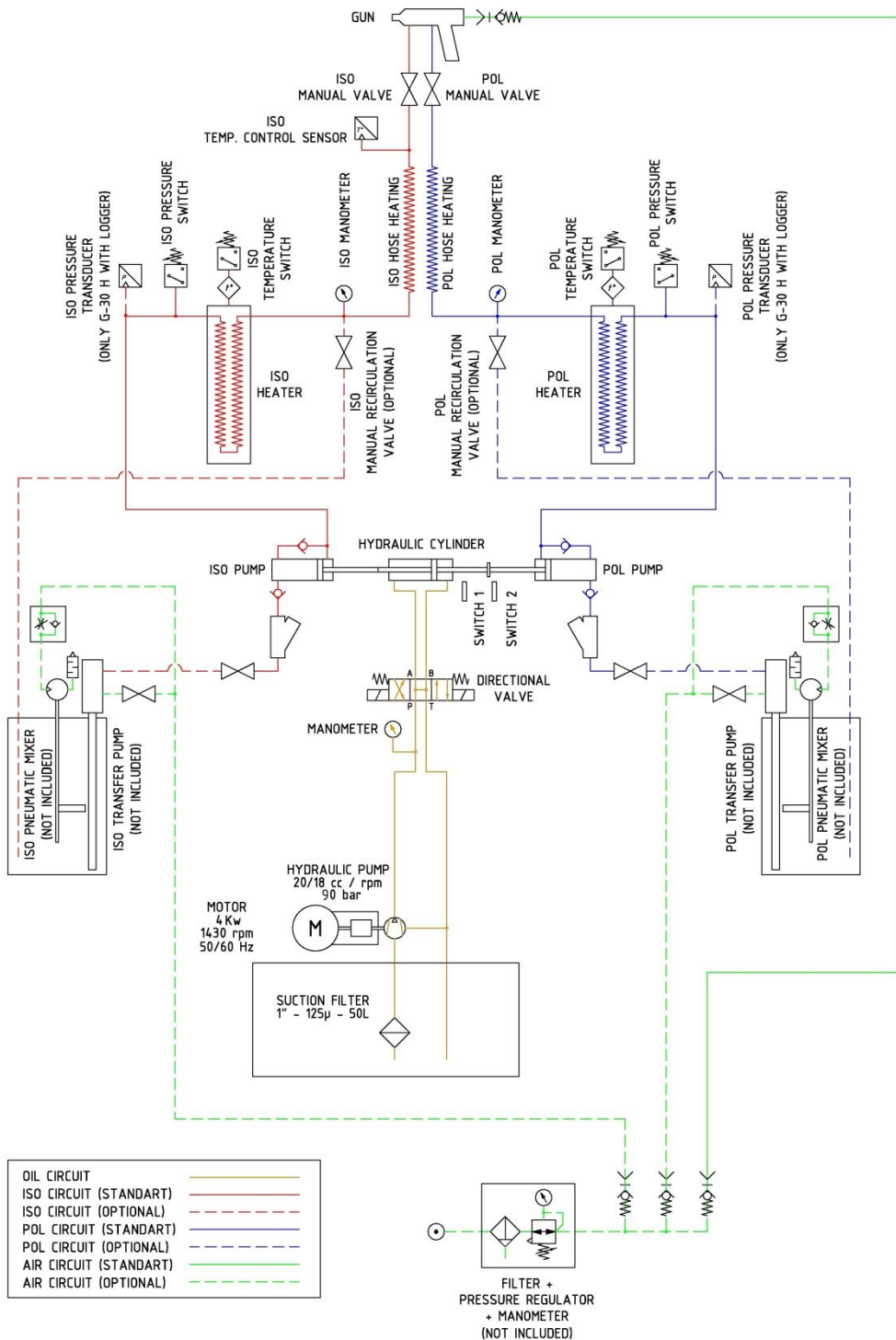


Figure 35. Hydraulic Schematic Diagram



**FUNCTIONING SCHEMATIC DIAGRAM**



**Figure 36. Functioning Schematic Diagram**



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