

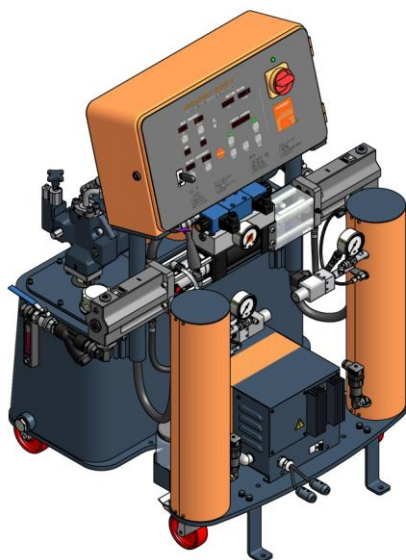


# Parts Manual

## Proportioning Unit

### evolution G-50 H

Issue 3.7 18/02/19  
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

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-50 H MODEL

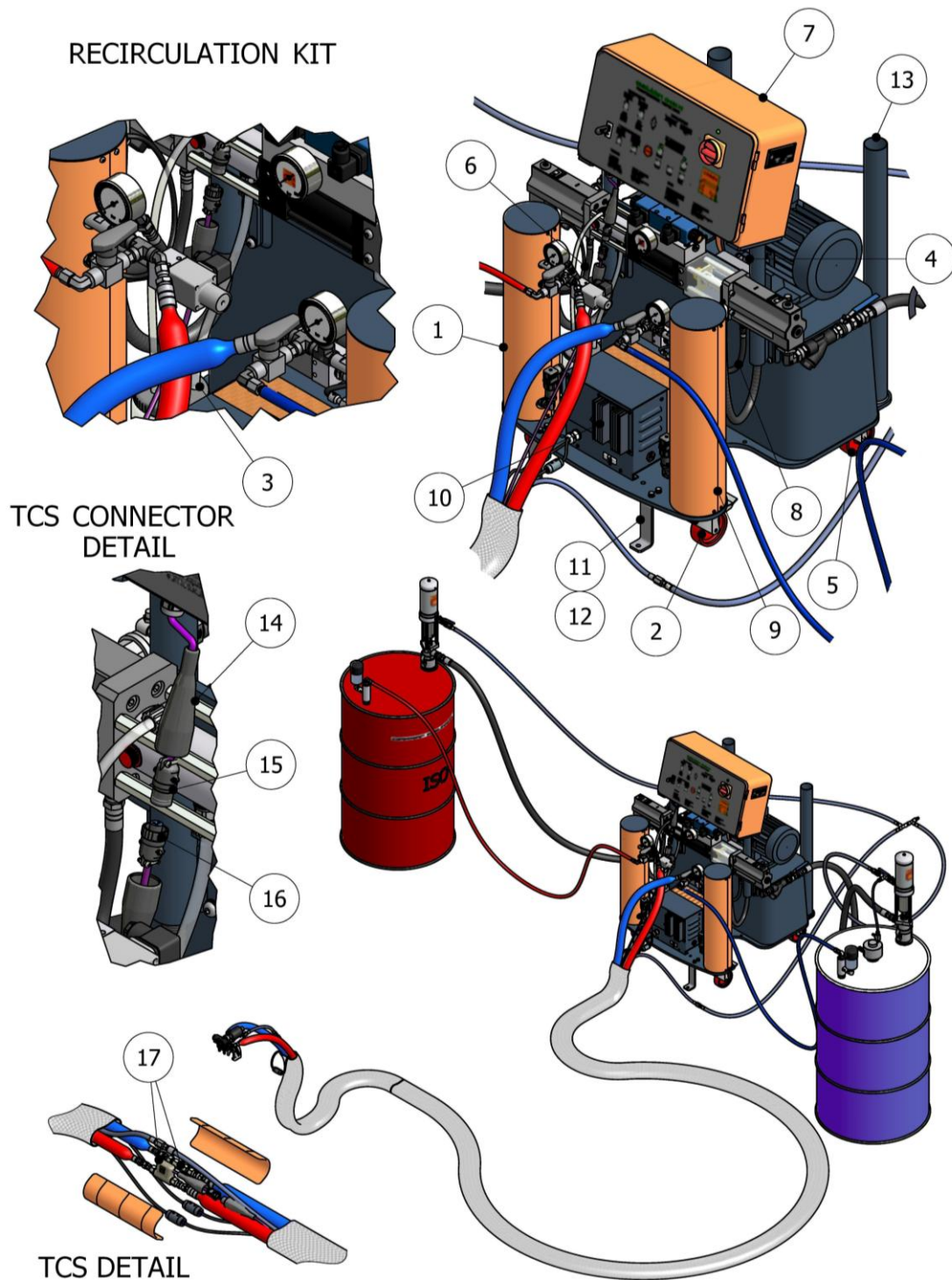


Figure 1. Proportioning Unit Evolution G-50 H Model

**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 without Transfer Pump Bracket	MQ-01017	2
12	"Z" Bracket with 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
CLH-01001-00G	A Primary Heater 250 bar / 3500 psi 9000 watts 400 v.
CLH-01001-00T	A Primary Heater 250 bar / 3500 psi 9000 watts 200 v.



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

Part Number	Description
CLH-01002-00G	R Primary Heater 250 bar / 3500 psi 9000 watts 400 v.
CLH-01002-00T	R Primary Heater 250 bar / 3500 psi 9000 watts 200 v.

**Table 4. Electrical Console Reference List**

Part Number	Description
EL-00191-00	Electrical Console Assy.(3x 400v.Without NEUTRAL 50/60 Hz)
EL-00191-SP4	Electrical Console Assy.(3x 200v.Without NEUTRAL 50 Hz)

**Table 5. Hose Transformer Reference List**

Part Number	Description
EL-00127-15	Hose Transformer Assy (3x400v – NEUTRAL)
EL-00127-22	Hose Transformer Assy (3x200v – NEUTRAL)

## ELECTRICAL CONSOLE

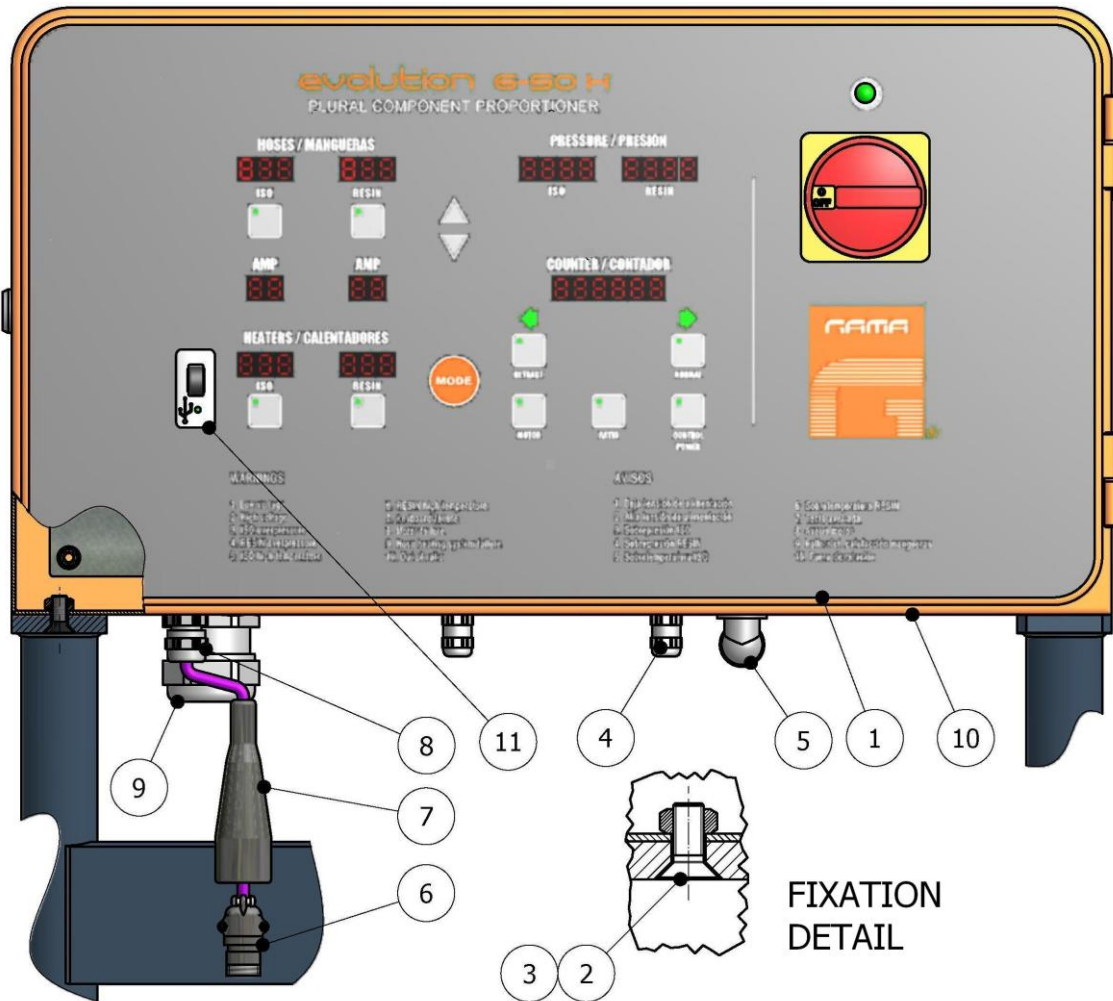


Figure 2. Electrical Console evolution G-50 H



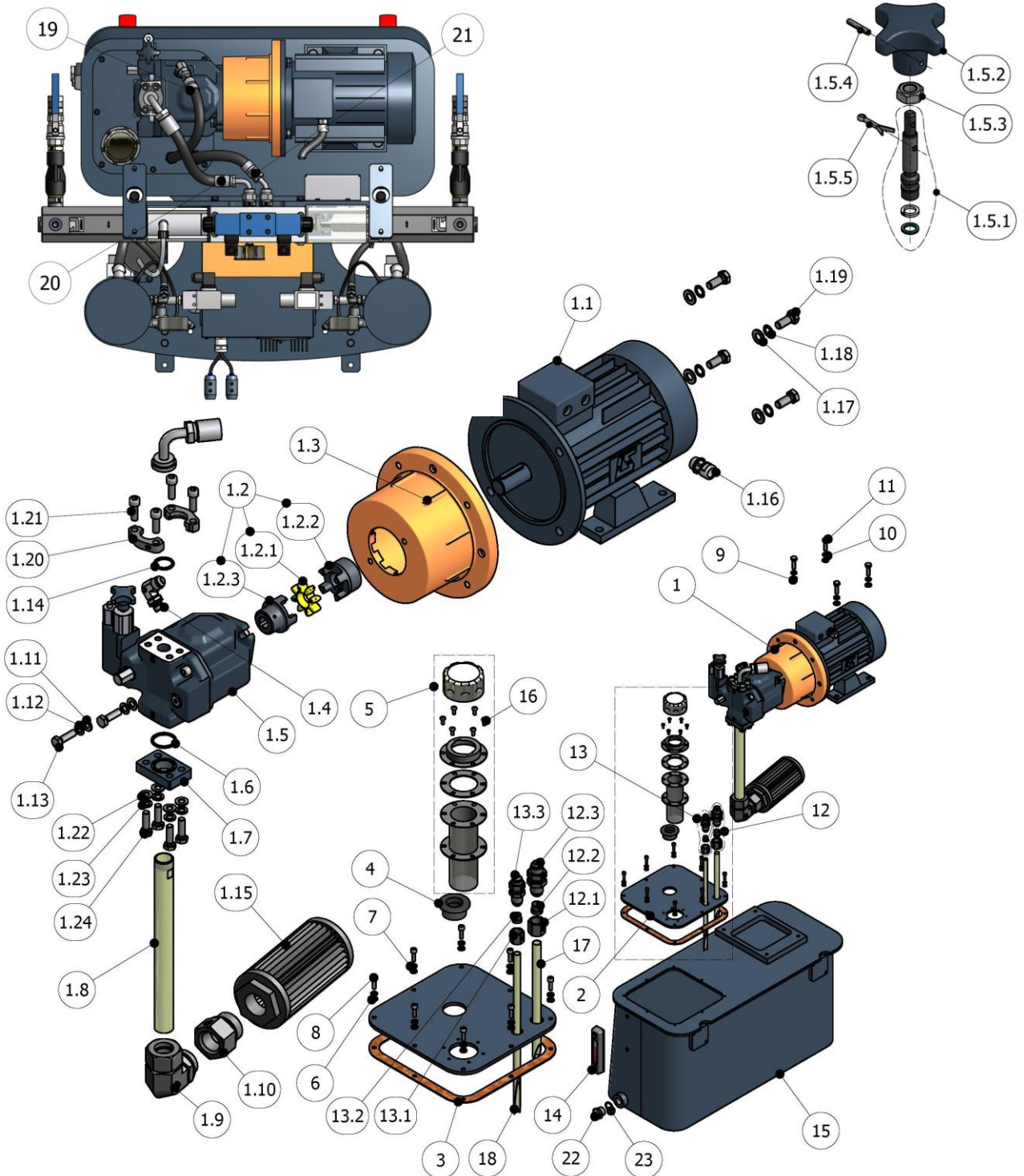
**Table 6. Electrical Console, Parts List**

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 400/200v w/o N 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**





**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) Not included in Hyd.Pump Assy Ref.1.5	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



Ref.	Description	Part Number	Qty.
1.21	Socket Head Cap Screw	TN-00253	4
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 (400v)	HI-00081 (28 cc.)
		EL-00138-12 (200v)	

**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**

Motor 5.5 Kw	28 cc. Pump
EL-00138-01 (400v) EL-00138-12 (200v)	HI-00086

## REVERSING SWITCH

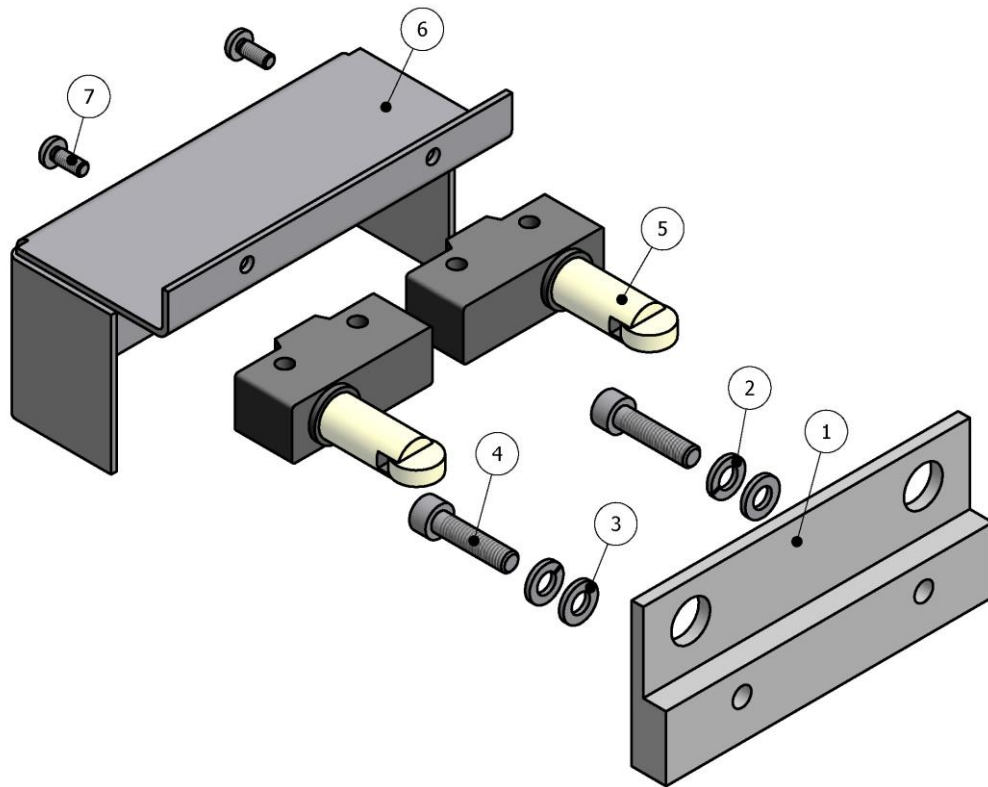


Figure 4. Reversing Switch Assy., Exploded View.

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

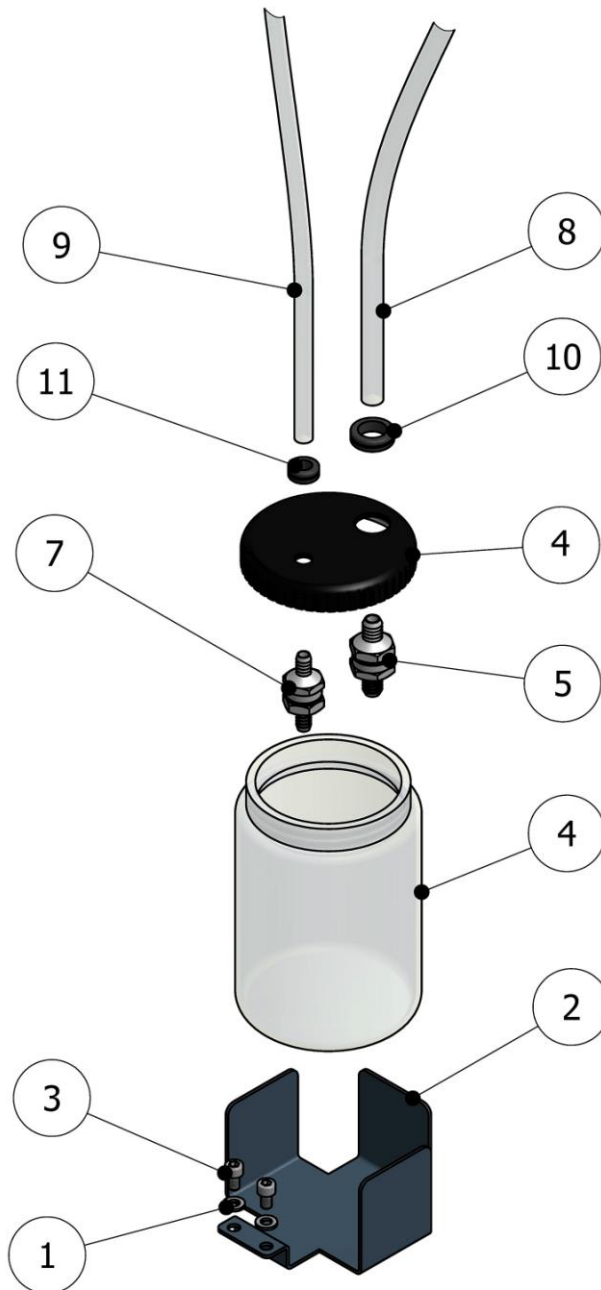


Figure 5. Lube Reservoir Hose Assembly, Exploded View



**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 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

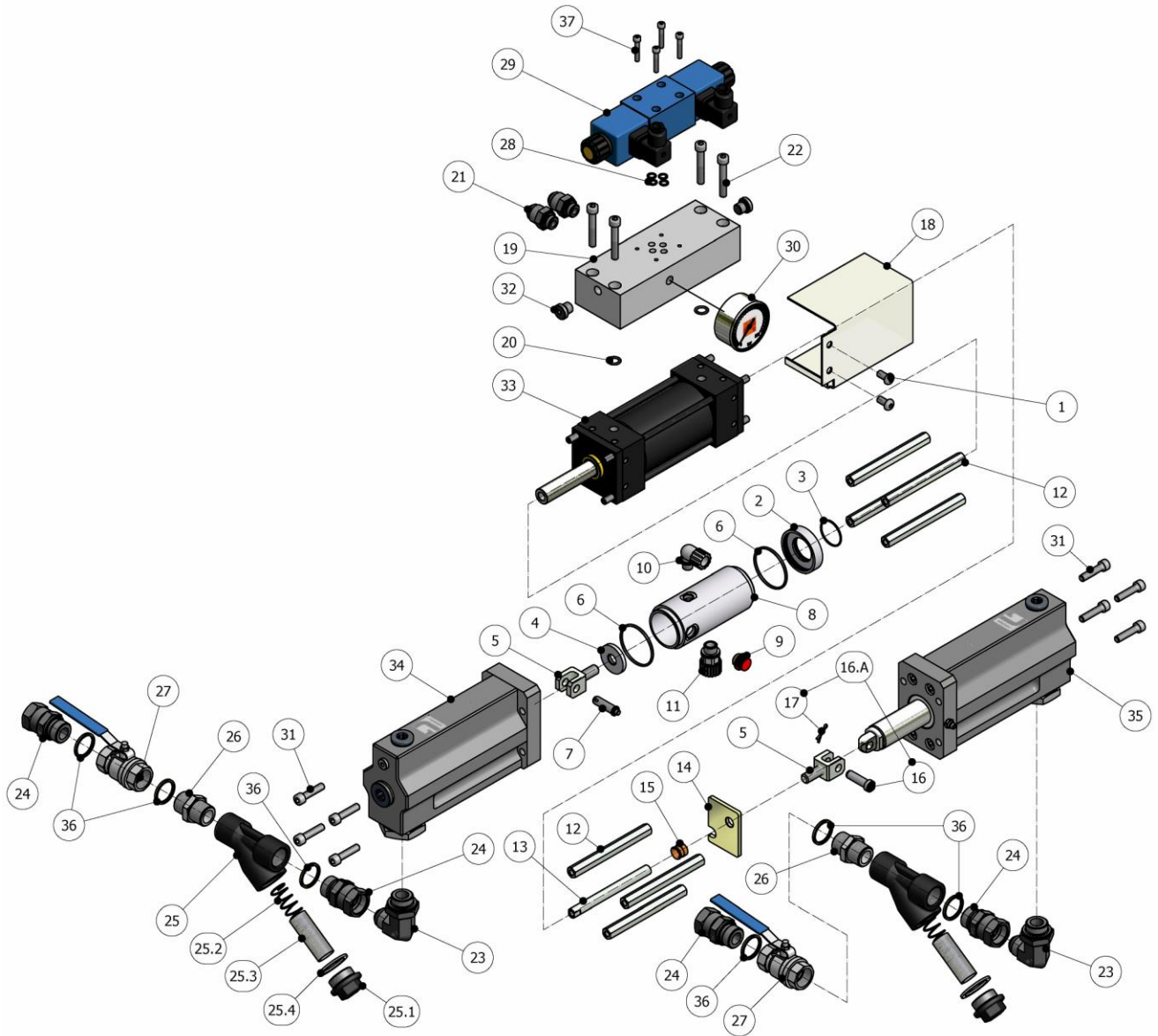


Figure 6. Pump Line Assembly, Exploded View



**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	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





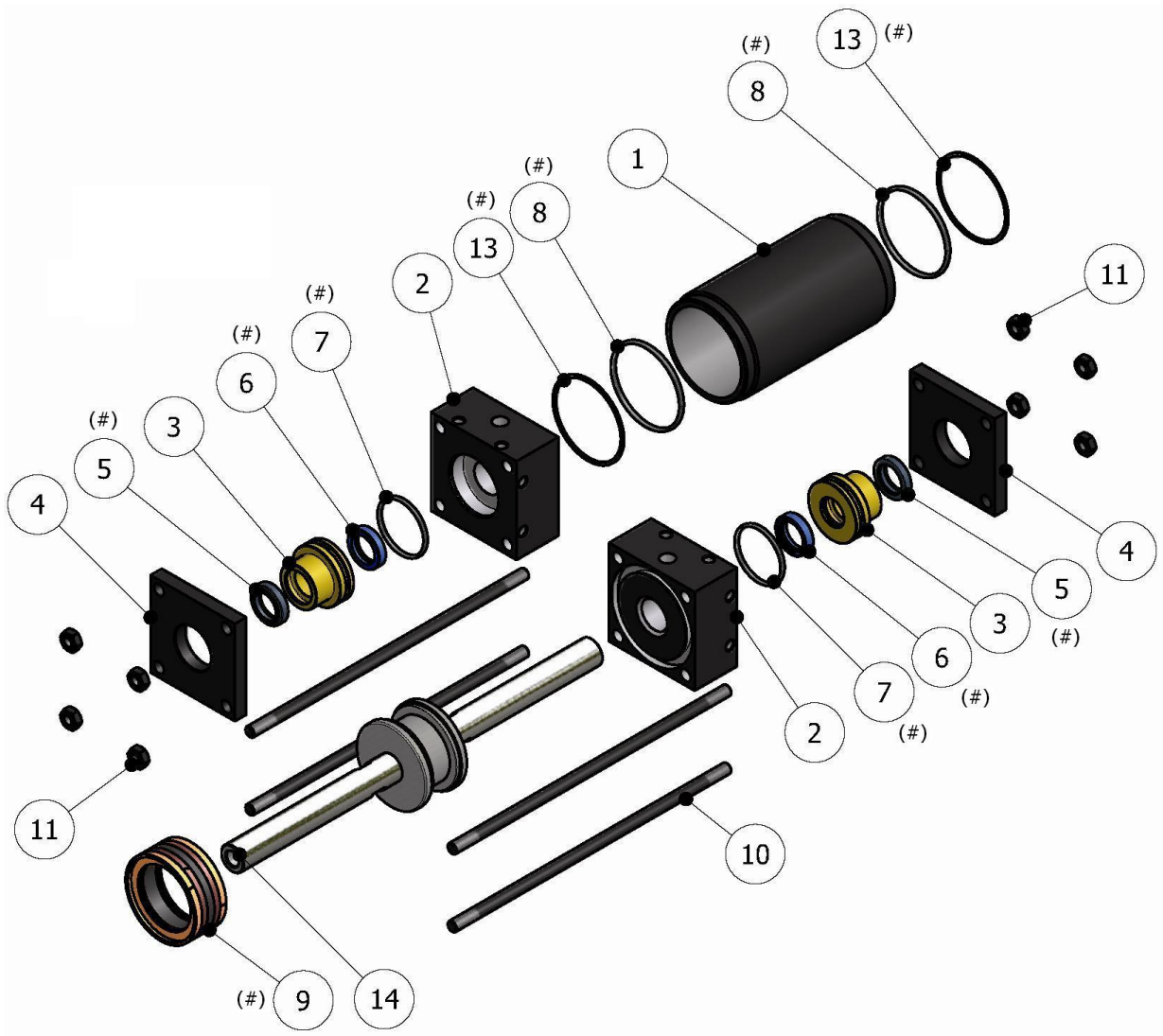
Ref.	Description	Part Number	Qty.
25.3	Filter	RA-00074-03-30	2
25.4	Filter Gasket	OR-00061	2
26	Hex Nipple	RA-00143	2
27	Ball Valve	RA-00078	2
28	Junta Tórica	OR-00035	4
29	Directional valve	HI-00054	1
30	Hydraulic Gauge	HI-00078	1
	Hydraulic Gauge without Logo	HI-00078SL	
31	Socket Head Cap Screw	TN-00245	8
32	Plug	RA-00013	2
33	Hydraulic Cylinder With Spacers	HI-00101	1
34	“A” Proportioning Pump Assembly	See Table 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.	
		w/o Logo		w/o Logo
1.20 (*)	PU-06101-012G	PU-06101-012GSL	PU-06102-012G	PU-06102-012GSL

**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

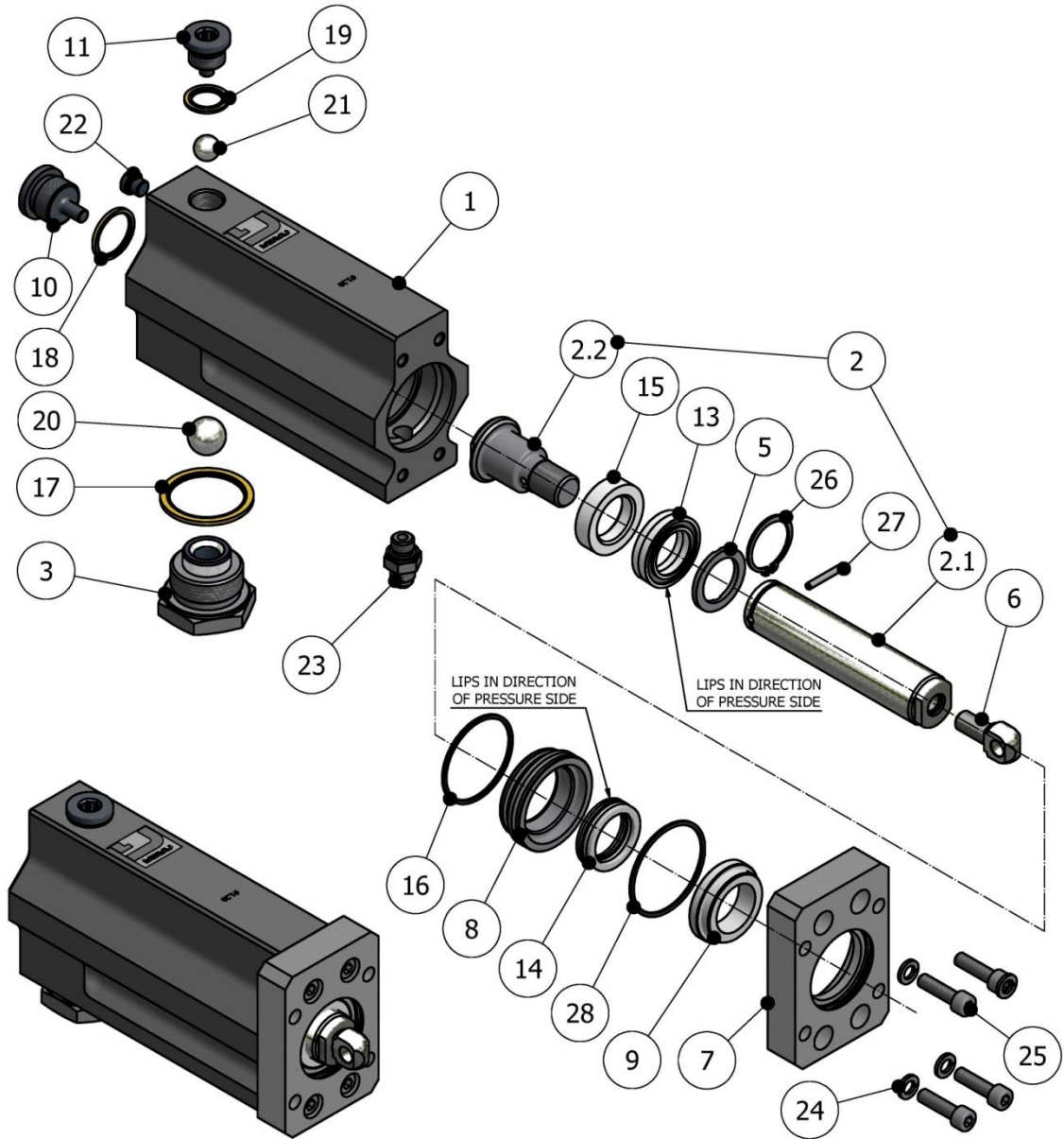


Figure 8. “A” Proportioning Pump Assembly, Exploded View



**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			
5	Piston Seal	See Table 18	1
6	Pump Clevis	See Table 18	1
7	Monoblock Flange Pump – ISO	See Table 18	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			
13	Piston Seal	See Table 19	1 (*)
14	Cylinder Seal	See Table 19	1 (*)
15	Piston Guide	See Table 19	1 (*)
16	O-Ring	See Table 19	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 18	1
23	Output Elbow	RA-00145	1
24	Washer	See Table 18	4
25	Allen Screw	See Table 18	4
26	Seeger Ring	See Table 18	1
27	Pin	See Table 18	1
28	O-Ring	See Table 19	1 (*)

**N.B.:** The parts marked with (\*), are included in the repair seal kit of "A" pump (see ¡Error! No se encuentra el origen de la referencia.).

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
1.20 (#)	PU-06001-012	PU-01006-012	PU-01007-012	PU-01008-012

Pump	Item 5	Item 6	Item 7	Item 8	Item 22
1.20 (#)	PU-01010-012	PU-01042	PU-06004	PU-06009-012G	RA-00211

Pump	Item 24	Item 25	Item 26	Item 27
1.20 (#)	TN-00028	TN-00062	TN-00070	TN-00086

**Table 19. Seals Monobloc "A" Pump**

item	1.20 (#)
9	PU-06007-012
13	PU-01016-012A
14	PU-01017-012G
15	PU-01014-012A
16	OR-00009
28	OR-00115

**Table 20. Repair Seal Kit "A" Pump**

Pump	Item
1.20 (#)	KT-00157

**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 with (\*) in the Table 17.**

## “R” PROPORTIONING PUMP ASSEMBLY

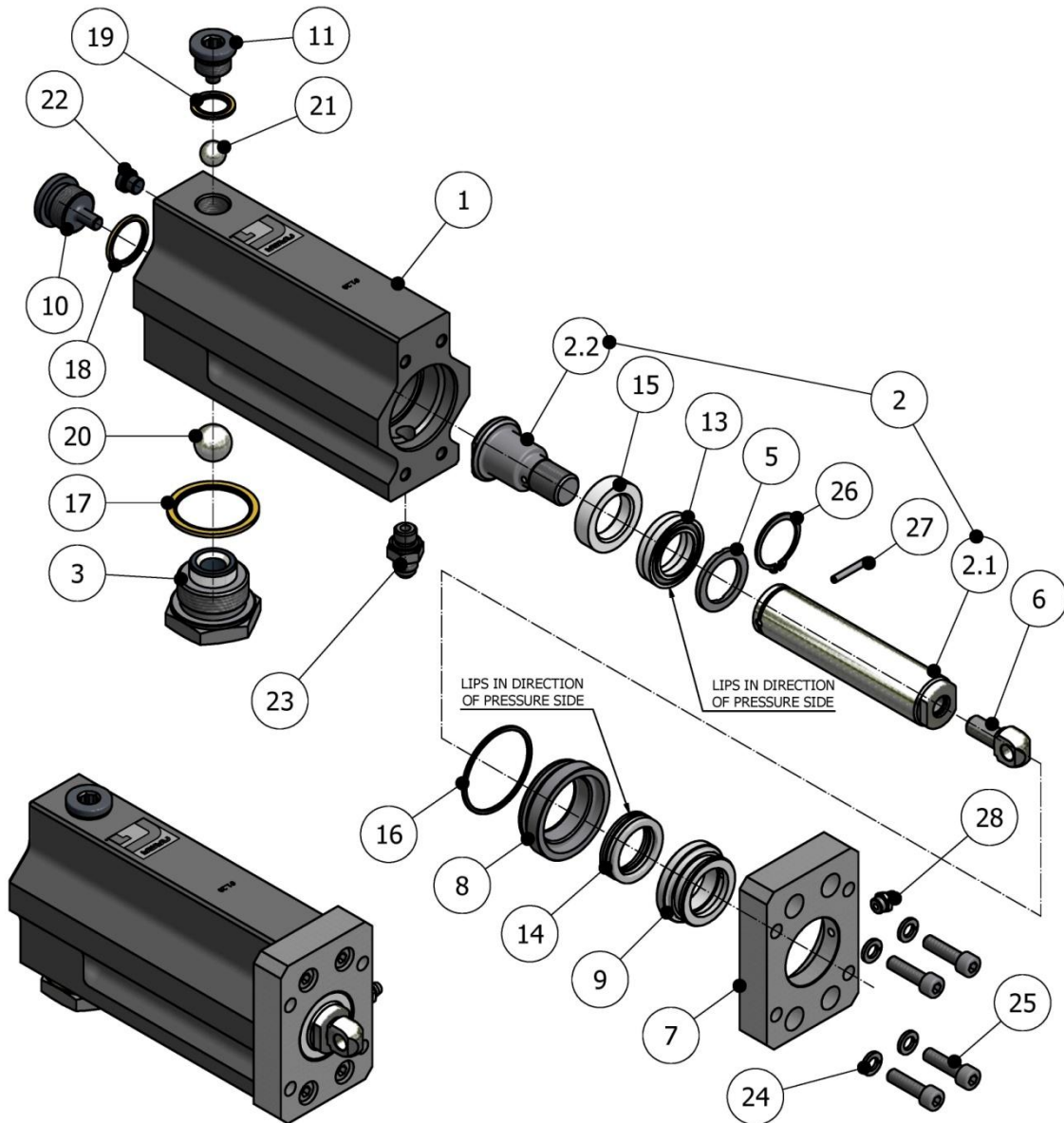


Figure 9. “R” Proportioning Pump Assembly, Exploded View



**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			
5	Piston Seal	See Table 22	1
6	Pump Clevis	See Table 22	1
7	Monoblock Flange Pump – POL	See Table 22	1
8	Seat Seal – POL	See Table 22	1
9	Bearing POL	See Table 23	1 (*)
10	Plug Side Pump	PU-01003-0E	1
11	Upper Plug Pump	PU-01003-0F	1
12			
13	Piston Seal	See Table 23	1 (*)
14	Cylinder Seal	See Table 23	1 (*)
15	Piston Guide	See Table 23	1 (*)
16	O-Ring	See Table 23	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 22	1
23	Exit Elbow	RA-00145	1
24	Washer	See Table 22	4
25	Allen Screw	See Table 22	4
26	Seeger Ring	See Table 22	1
27	Pin	See Table 22	1
28	Grease Fiting	See Table 22	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
1.20 (#)	PU-06001-012	PU-01006-012	PU-01007-012	PU-01008-012

Pump	Item 5	Item 6	Item 7	Item 8	Item 22
1.20 (#)	PU-01010-012	PU-01042	PU-06005	PU-06006-012G	RA-00211

Pump	Item 24	Item 25	Item 26	Item 27	Item 28
1.20 (#)	TN-00028	TN-00062	TN-00070	TN-00086	TN-00073

**Table 23. Seals Monobloc “R” Pump**

Pump	Item 9	Item 13	Item 14	Item 15	Item 16
1.20 (#)	PU-06008-012	PU-01016-012A	PU-01017-012G	PU-01014-012A	OR-00009

**Table 24. Repair Seal Kit “R” Pump**

Pump	Item
1.20 (#)	KT-00158

**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 with (\*) in the Table 21.**

**“A” PRIMARY HEATER**

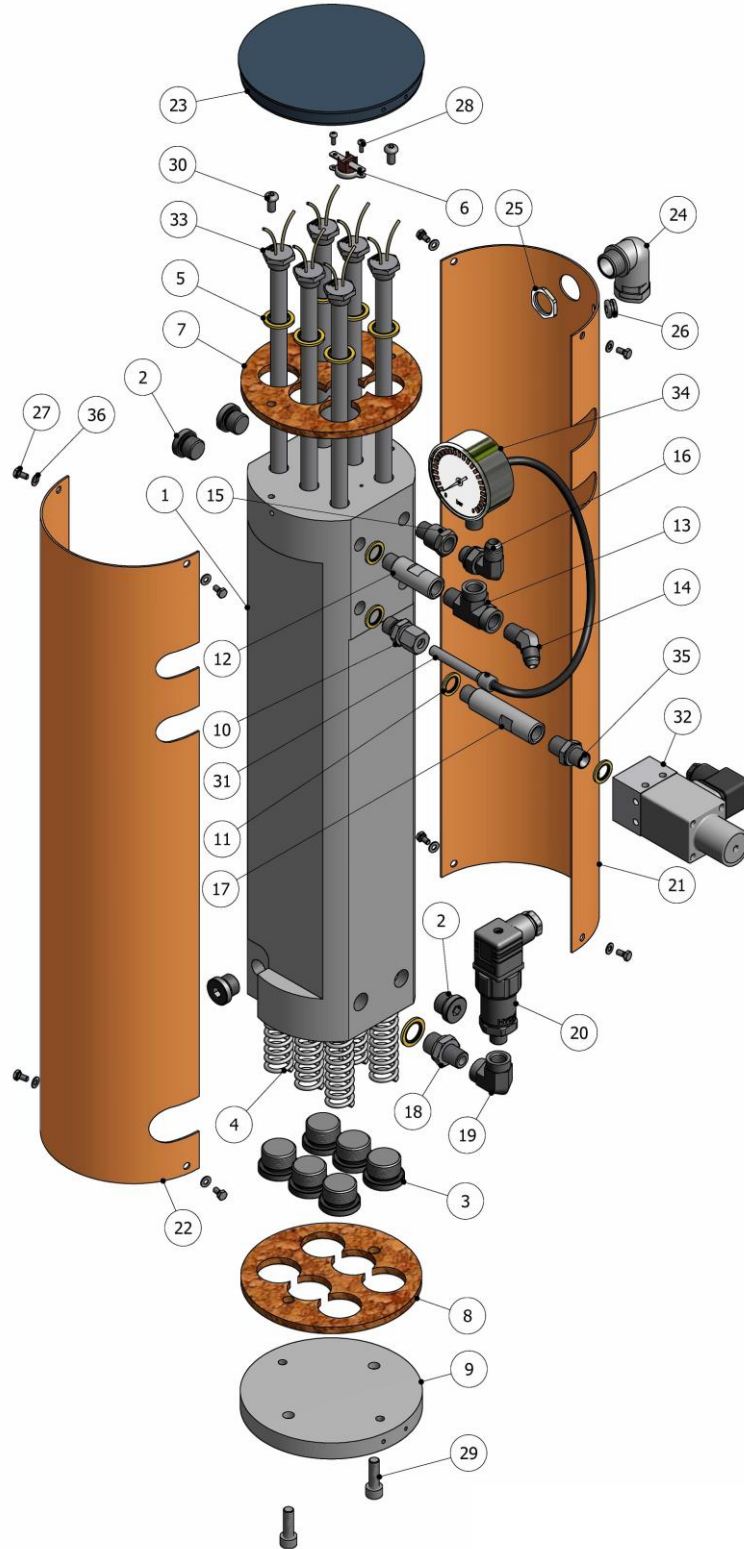


Figure 10. “A” Primary Heater, Exploded View



**Table 25. "A" Primary Heater, Parts List**

Ref.	Description	Part Number	Qty.
1	Heat Block	CLH-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



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
<b>CLH-01001-00G</b>	A-Heater 250 bar / 3500 psi 9000 w / 400 v.	EL-00179	HI-00035
<b>CLH-01001-00T</b>	A-Heater 250 bar / 3500 psi 9000 w / 200 v. without Logos	EL-00243	HI-00035SL



## “R” PRIMARY HEATER

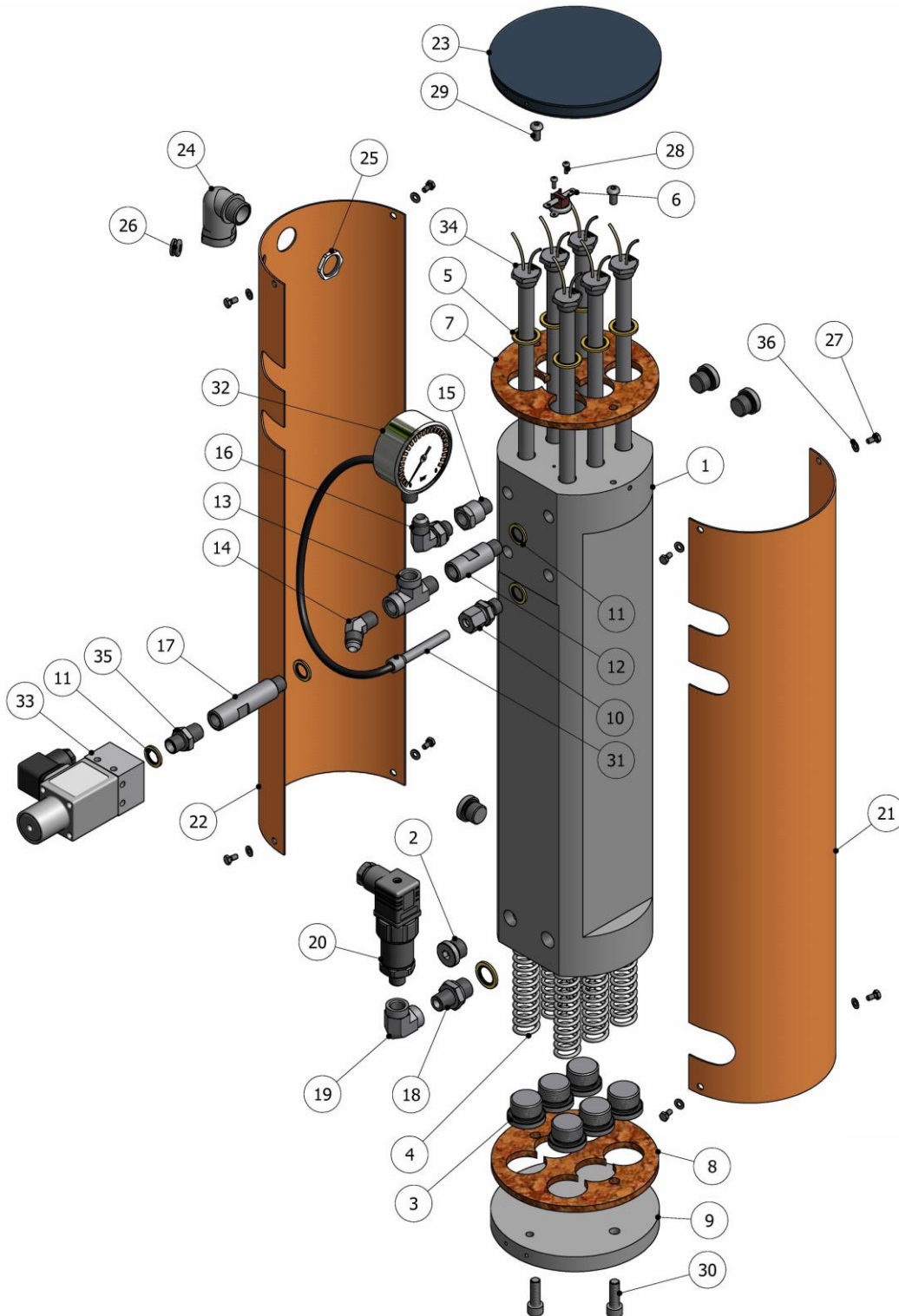


Figure 11. “R” Primary Heater, Exploded View

**Table 27. "R" Primary Heater, Parts List**

Ref.	Description	Part Number	Qty.
1	Heat Block	CLH-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

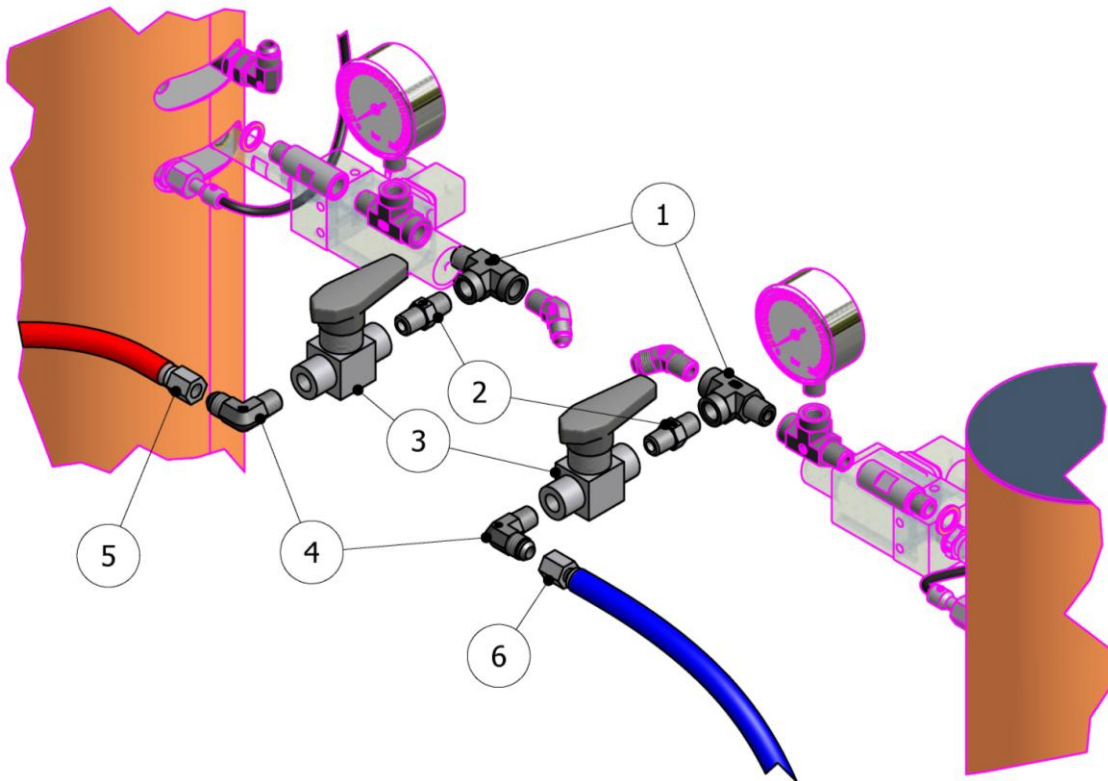


Ref.	Description	Part Number	Qty.
32	Liquid Fill Gauge	See Table 28	1
33	Pressure Switch	HI-00021	1
34	Heat Resistance	See Table 28	6
35	Union	RA-00138	1
36	Washer	TN-00104	8

**Table 28. Parts List for each model of “R” Heater**

Part Number	Description	Ref. 34	Ref. 32
CLH-01002-00G	R-Heater 250 bar / 3500 psi 9000 w / 400 v.	EL-00179	HI-00035
CLH-01002-00T	R-Heater 250 bar / 3500 psi 9000 w / 200 v. without Logos	EL-00243	HI-00035SL

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



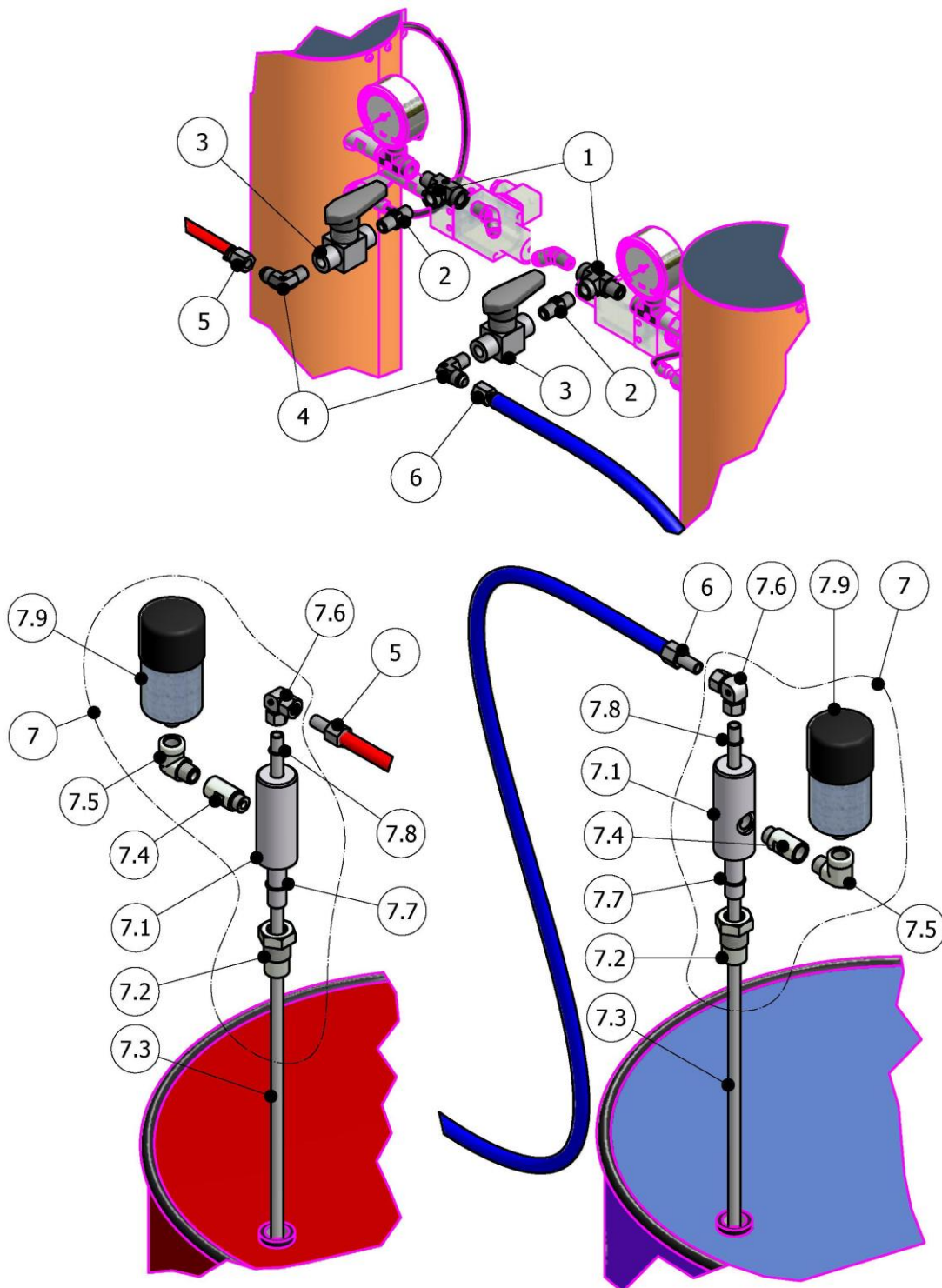
*Figure 12. Recirculation Kit P#: KT-00038, Exploded View*

*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



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



**Figure 13. Recirculation Kit P#:. KT-00038-01, Exploded View**

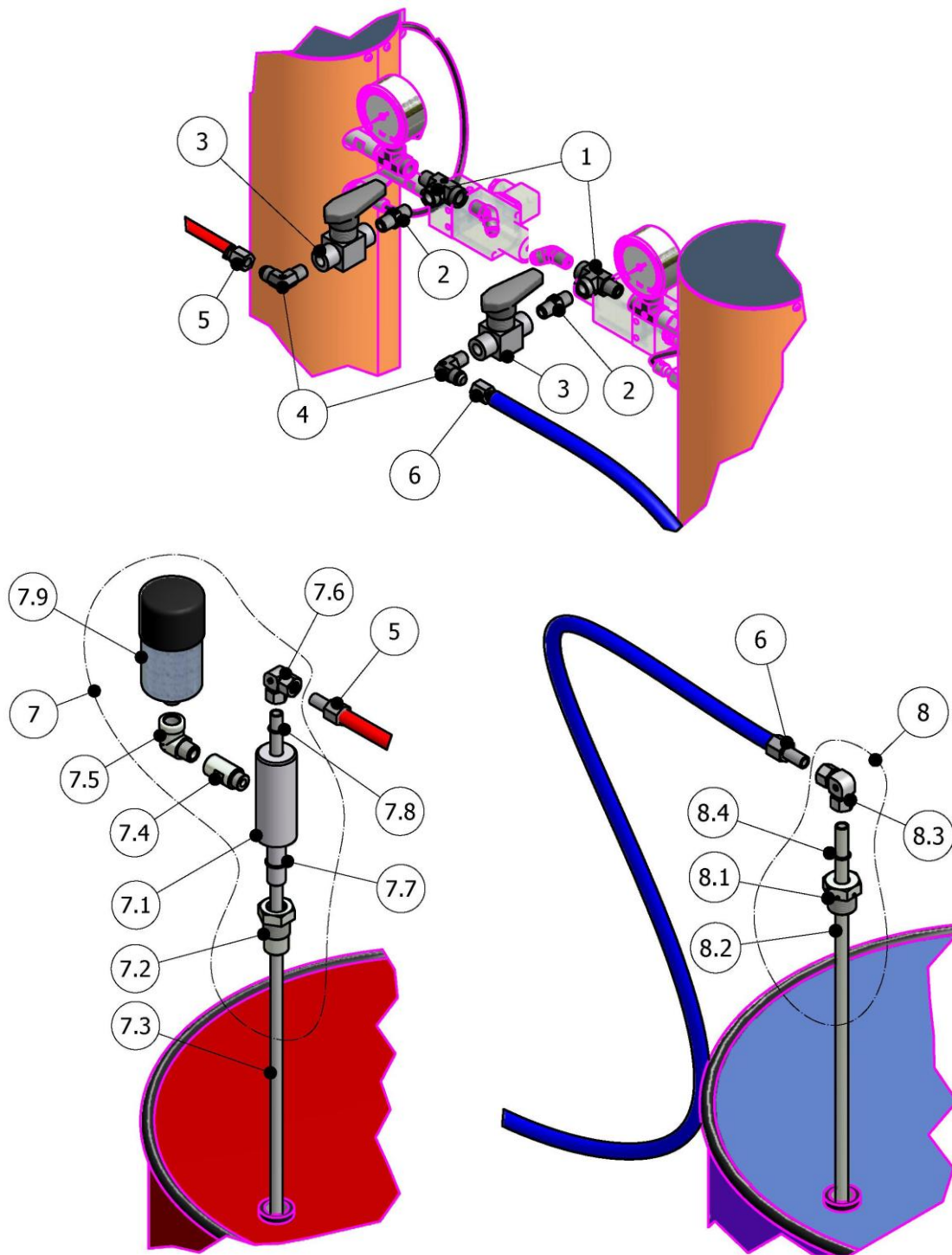
**Table 30. Recirculation Kit #KT-00038-01, Parts List**

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**

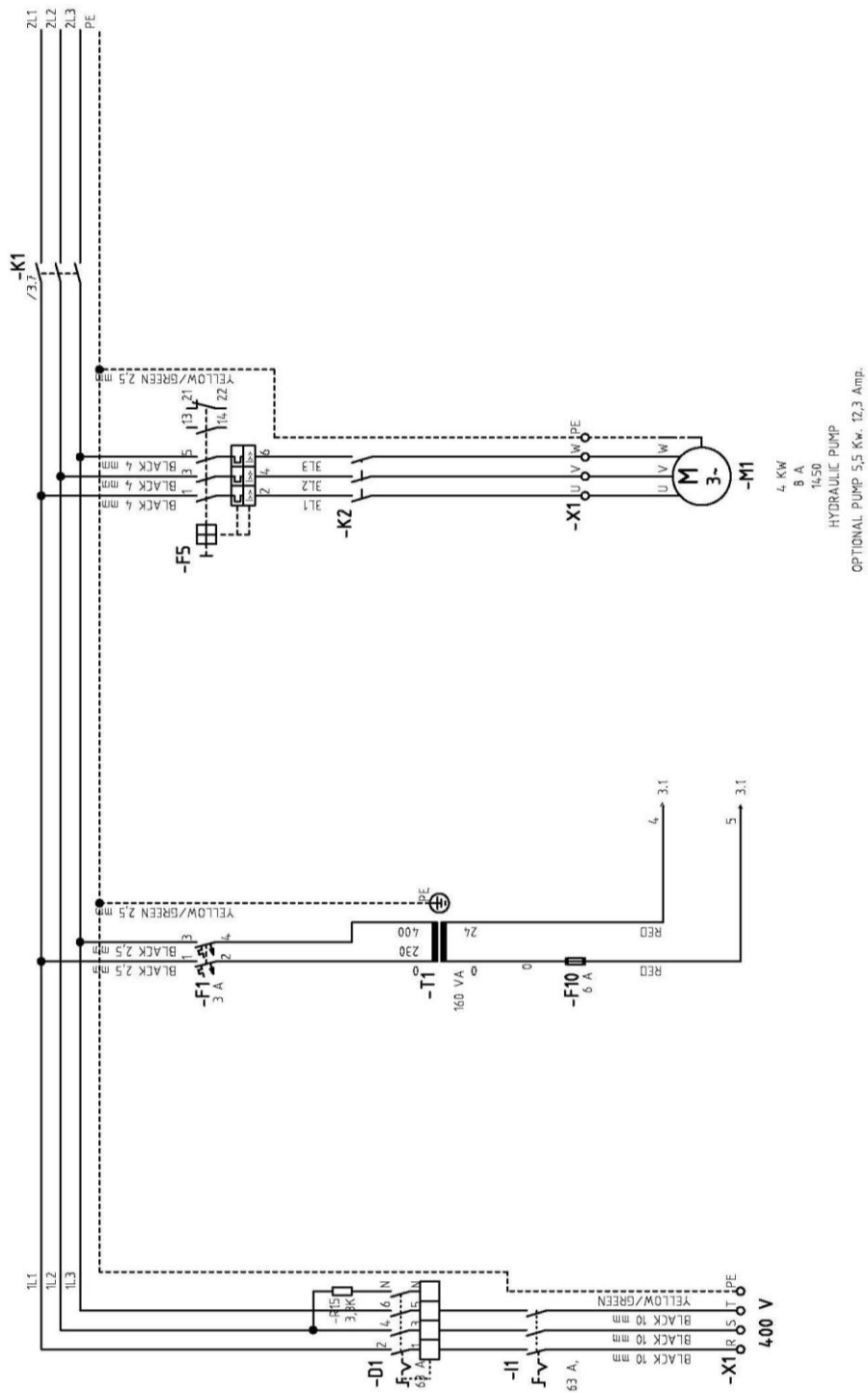


Figure 15. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 1 de 7

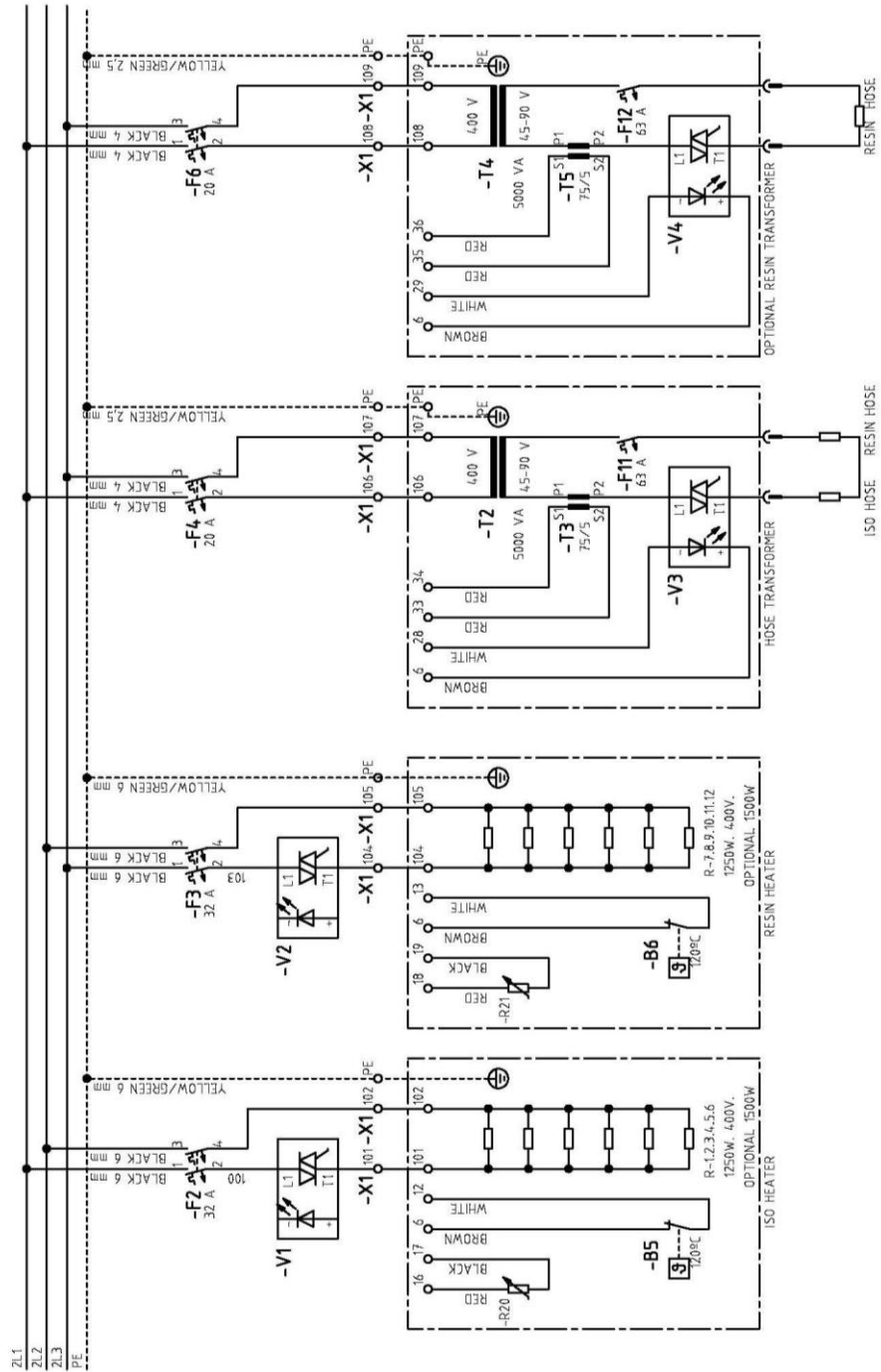


Figure 16. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 2 de 7

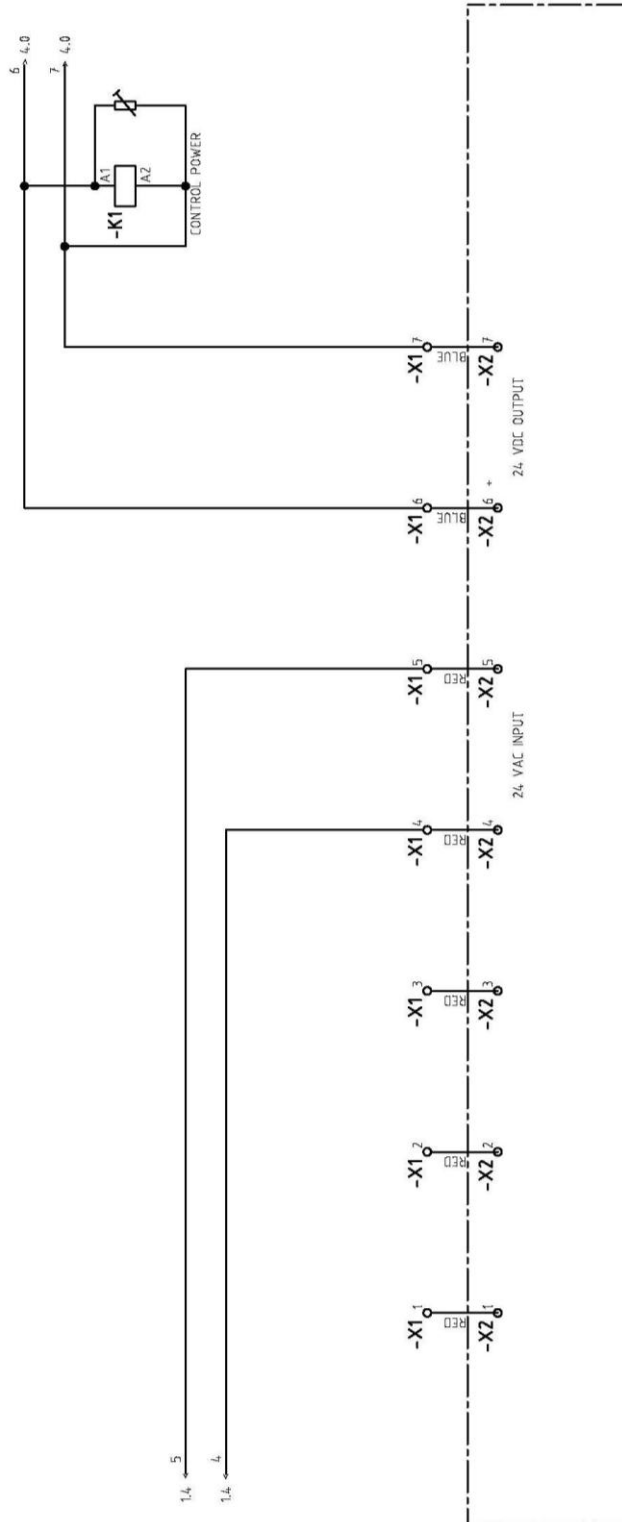


Figure 17. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 3 de 7

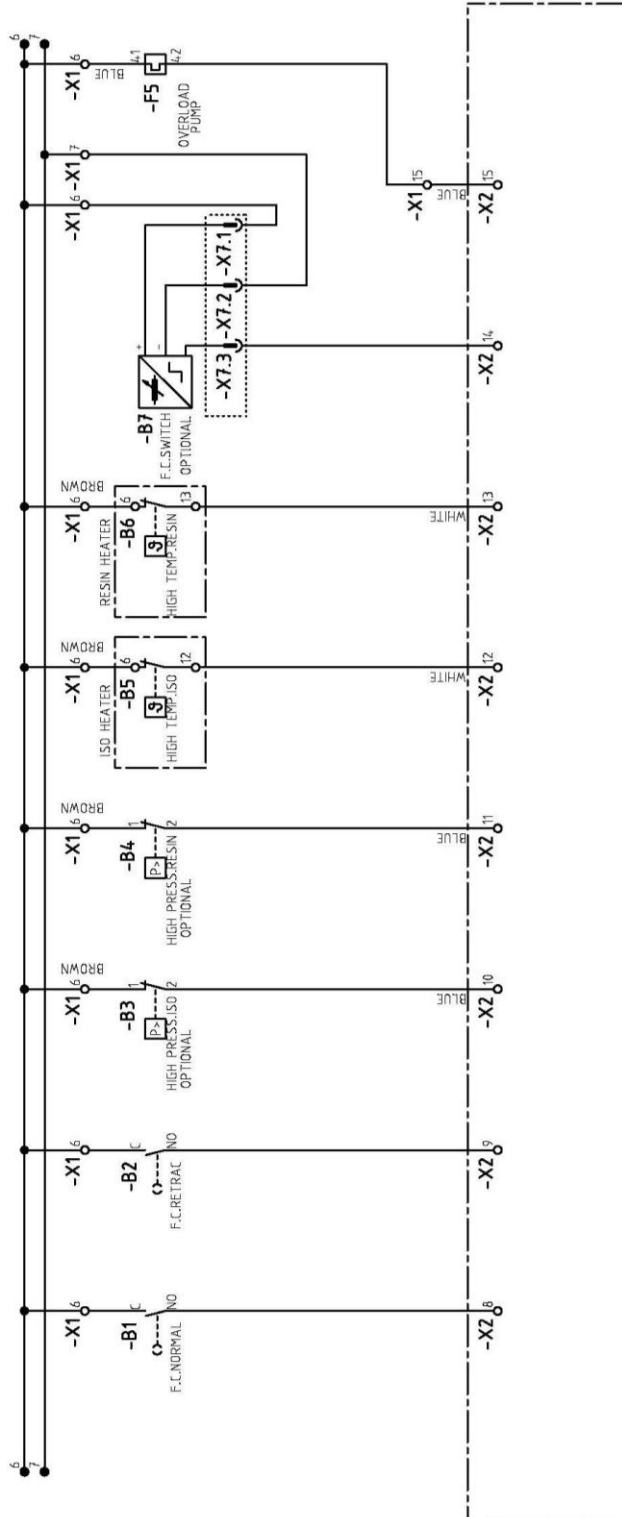


Figure 18. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 4 de 7



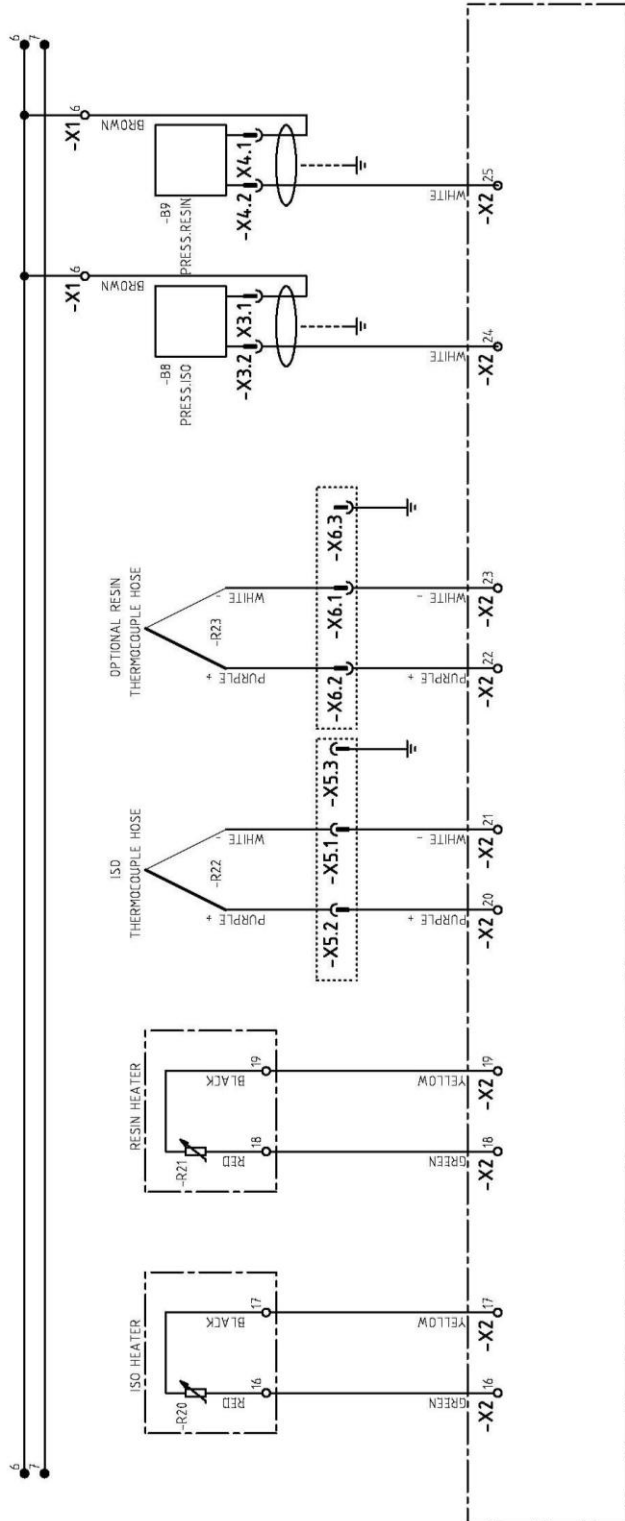


Figure 19. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 5 de 7

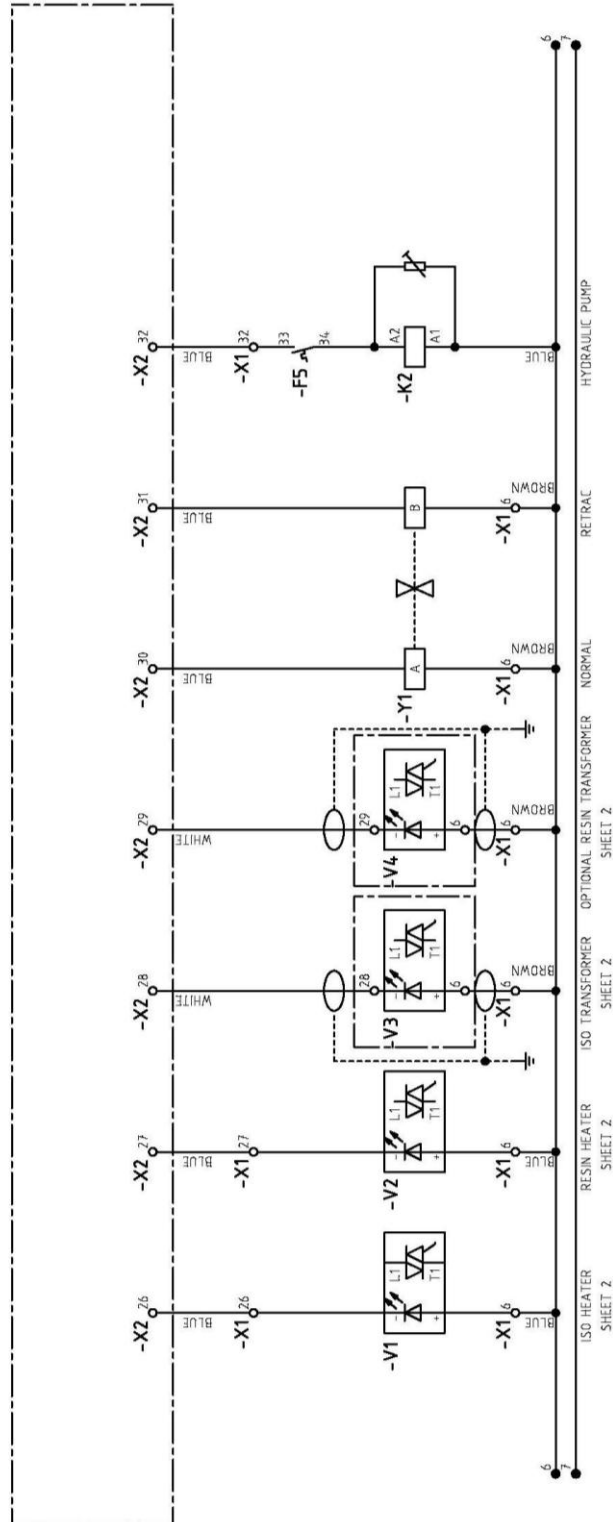


Figure 20. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 6 de 7

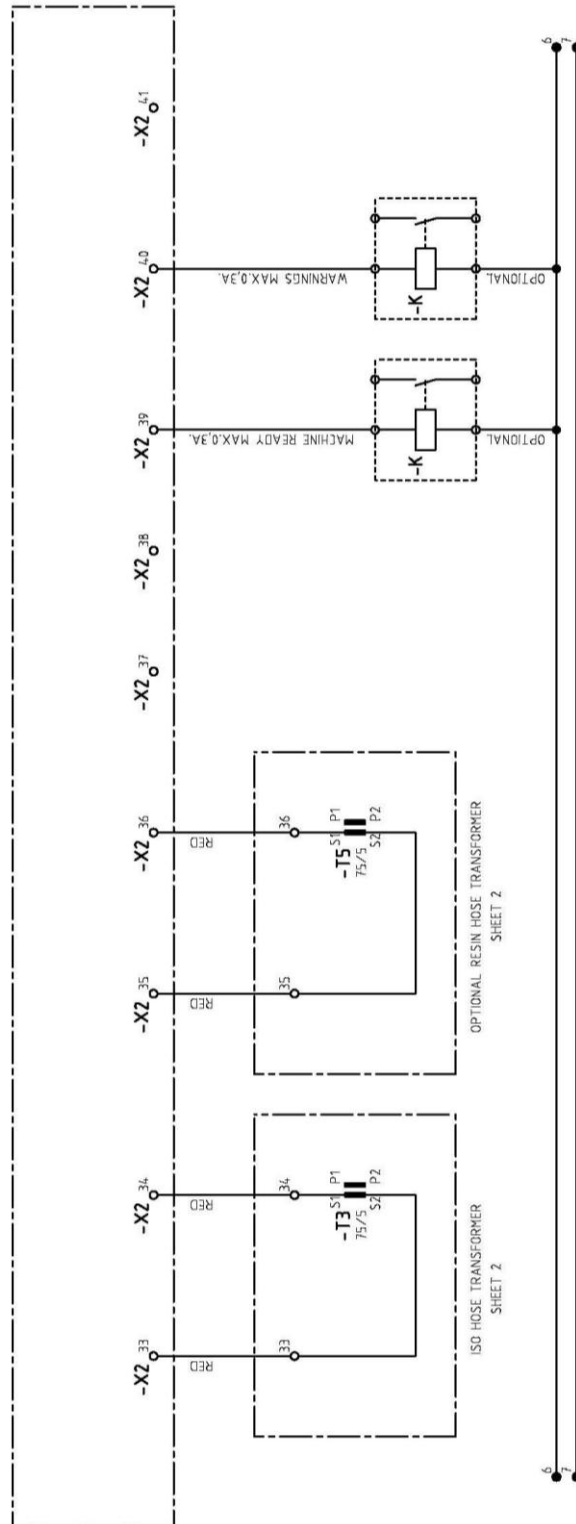


Figure 21. Electrical Schematic Diagram 3 x 400 v. without N 50/60Hz, Sheet 7 de 7



**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

**ELECTRICAL SCHEMATIC DIAG. 3x 200 v. WITHOUT N 50Hz**

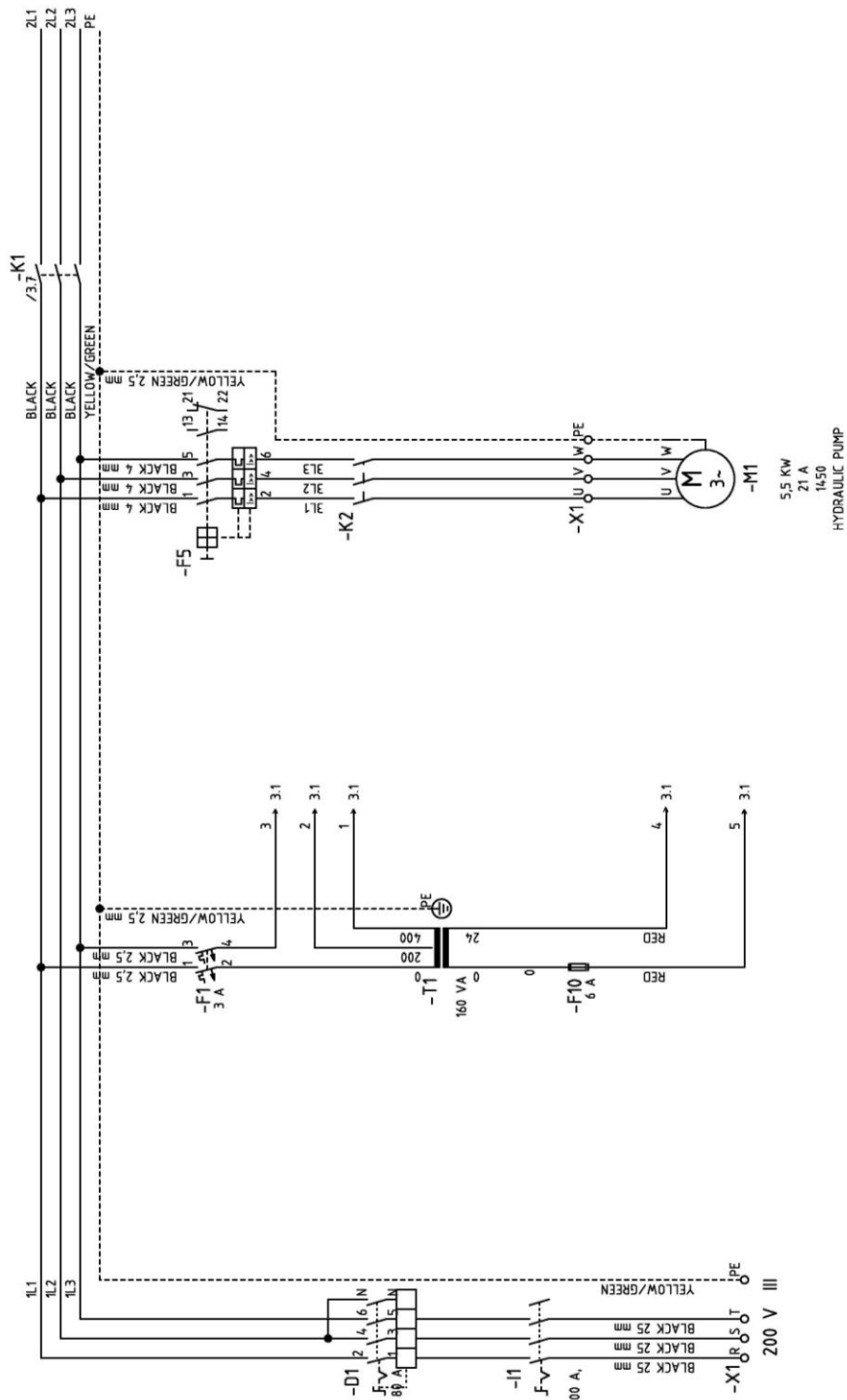


Figure 22. Electrical Schem. Diagram 3 x 200 v. without N 50Hz, Sheet 1 of 7

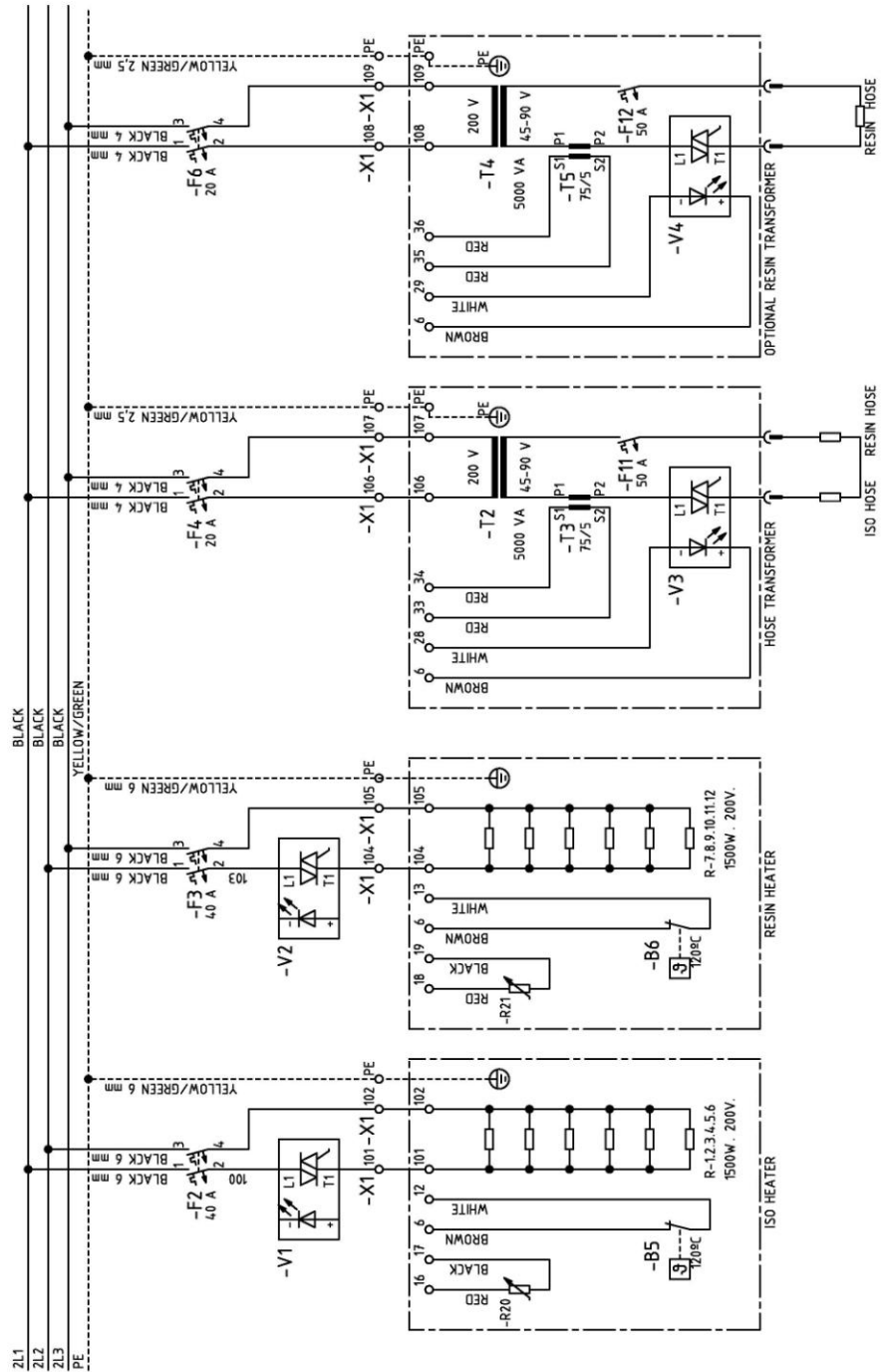


Figure 23. Electrical Schem. Diagram 3 x 200 v. without N 50Hz, Sheet 2 of 7

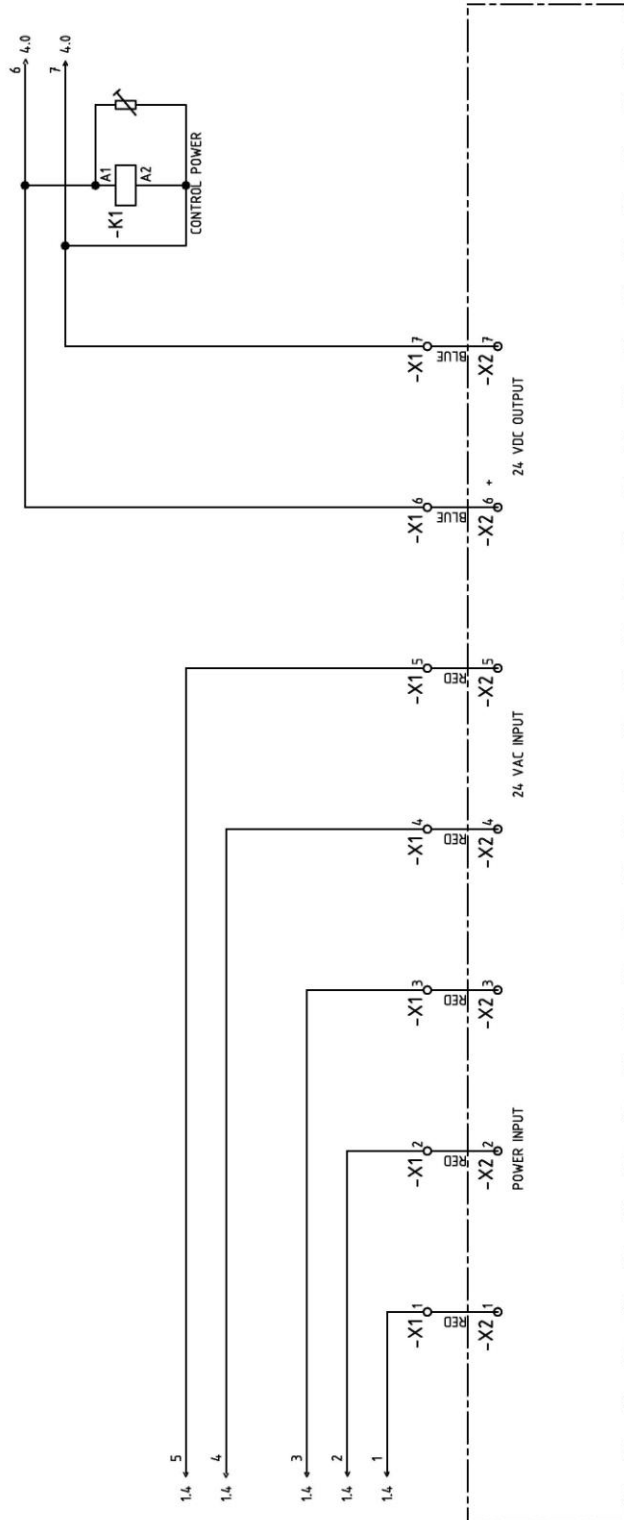


Figure 24. Electrical Schem. Diagram 3 x 200 v. without N 50Hz, Sheet 3 of 7

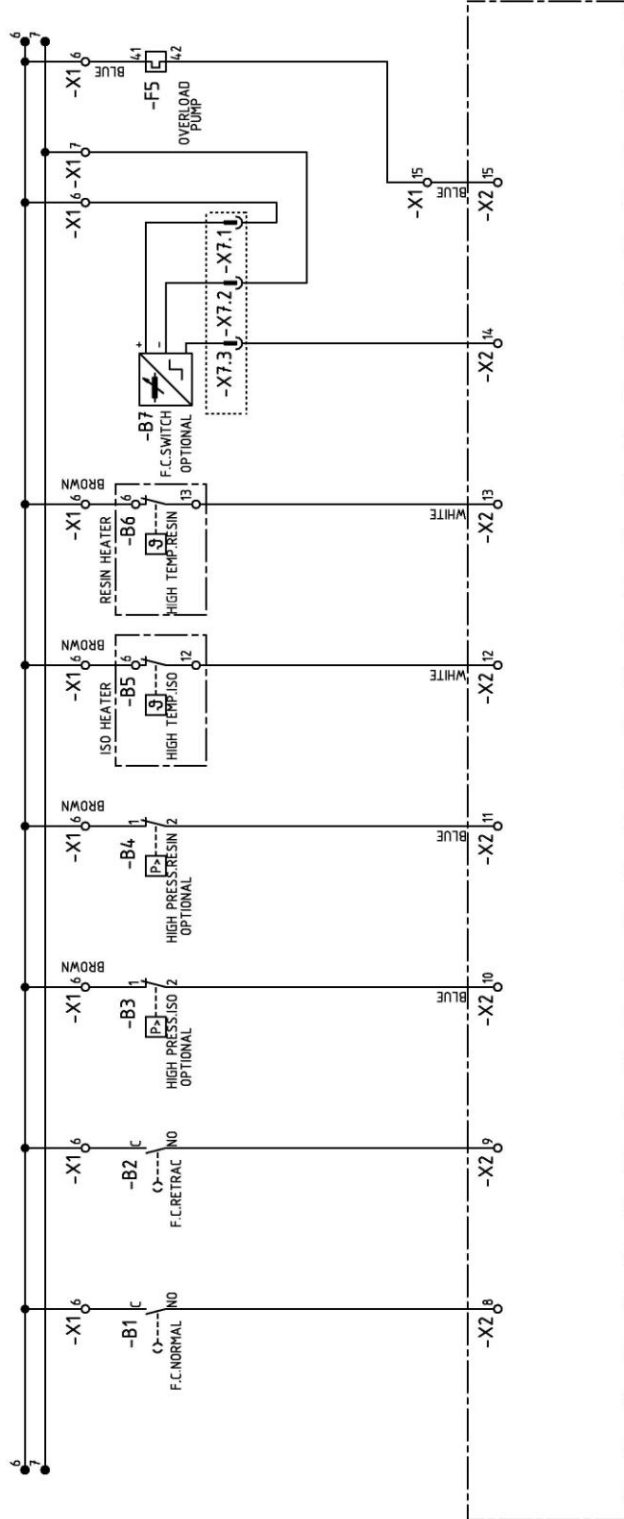


Figure 25. Electrical Schem. Diagram 3 x 200 v. without N 50Hz, Sheet 4 of 7



Parts Manual

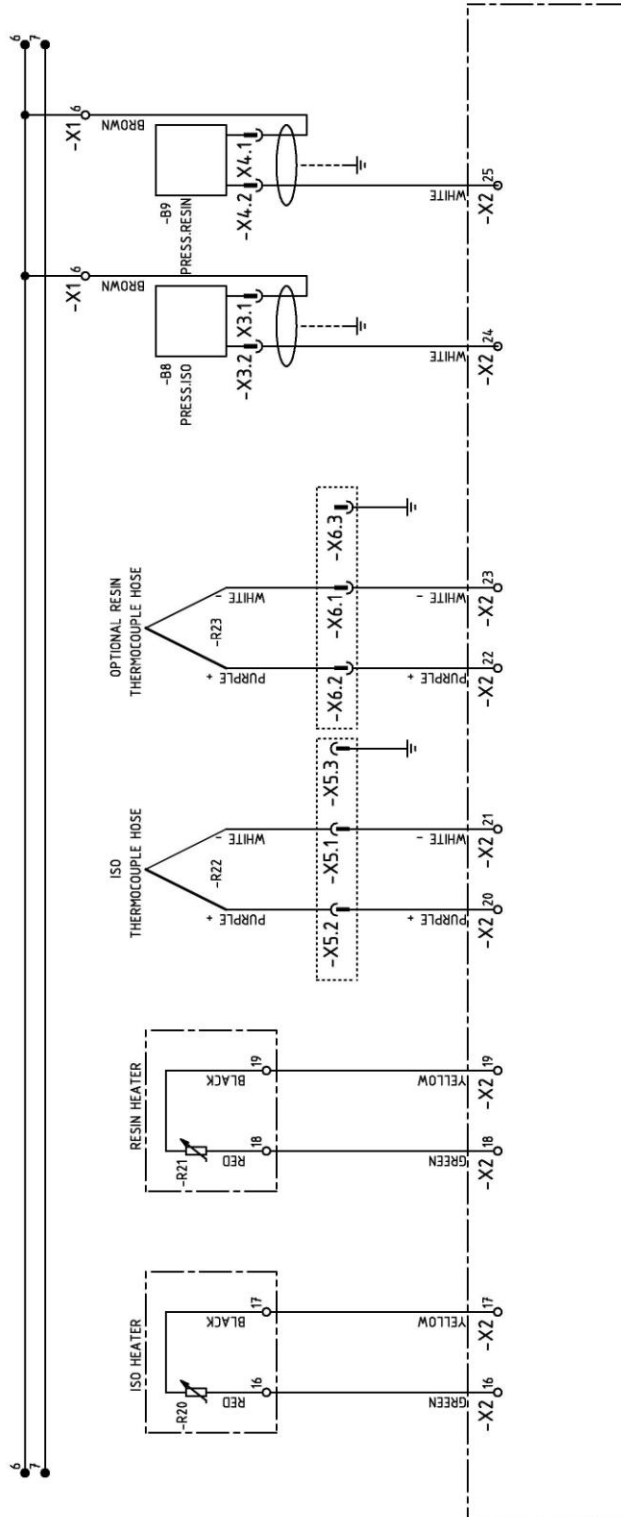


Figure 26. Electrical Schem. Diagram 3 x 200 v. without N 50Hz, Sheet 5 of 7

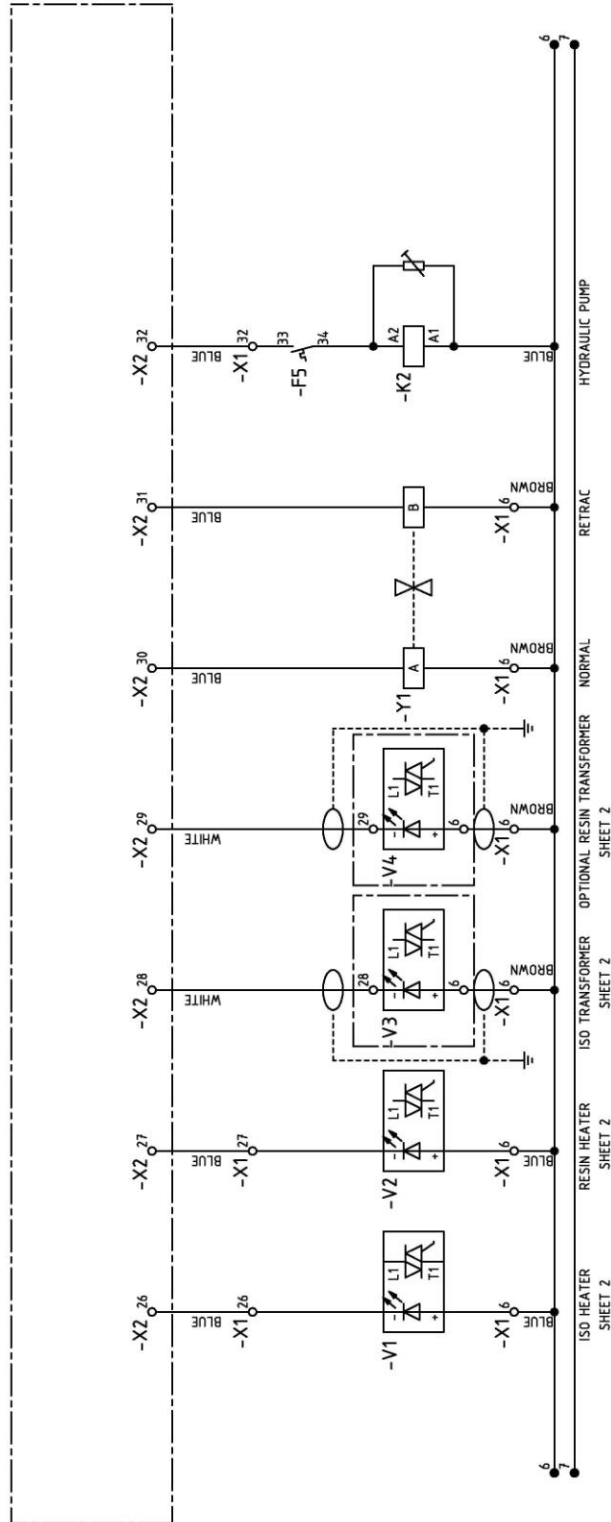


Figure 27. Electrical Schem. Diagram 3 x 200 v. without N 50Hz, Sheet 6 of 7

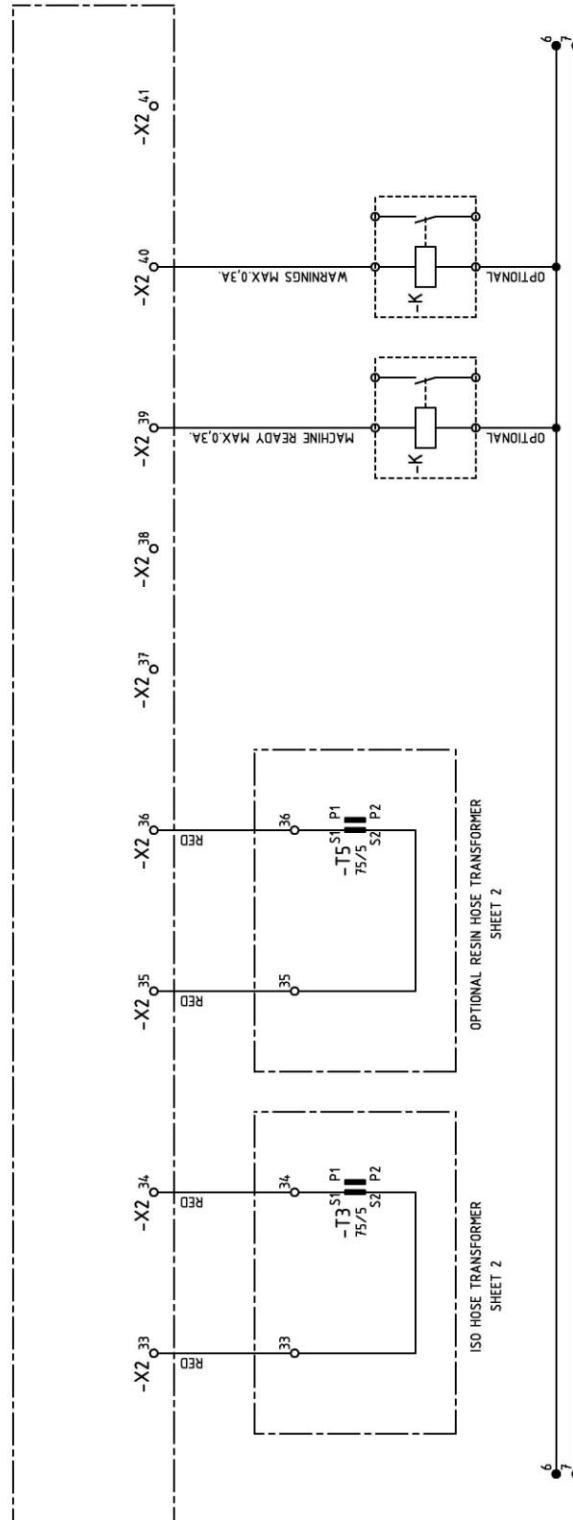


Figure 28. Electrical Schem. Diagram 3 x 200 v. without N 50Hz, Sheet 7 of 7



**Table 33. Electrical Schematic Diagram 3 x 200 v. without Neutral 50Hz, Parts List**

Item	Description	Part Number	Qty.
	BEIGE TERMINAL 35 mm	EL-00104-00	3
	GROUND TERMINAL 35 mm	EL-00104-02	1
	BEIGE TERMINAL 6 mm	EL-00104-06	9
	GROUND TERMINAL 6 mm	EL-00104-08	4
	TERMINAL BLOCK 2,5 mm	EL-00104-12	2
	BEIGE TERMINAL 2,5 mm	EL-00104-09	4
	GROUND TERMINAL 2,5 mm	EL-00104-11	2
	UNION PLATE	EL-00104-14	2
F 10	FUSIBLE POINT	EL-00104-13	1
F 10	GLASS FUSE	EL-00128-03	2
I 1	SWITCH 100A	EL-00107-08	1
I 1	YELLOW/RED COMMAND	EL-00107-06	1
D1	DIFERENTIAL SWITCH 80A 0.03	EL-00108-05	1
T 1	TRANSFORMER 200-400/24 160 VA	EL-00127-14	1
F 2,3	CIRCUIT BREAKER	EL-00116-04	2
F 4	CIRCUIT BREAKER	EL-00113-04	1
F 1	CIRCUIT BREAKER	EL-00109-04	1
F 5	CIRCUIT BREAKER 18-25 A	EL-00119-09	1
F 5	AUX. CONTACT	EL-00119-03	1
T 3	INTENSITY TRASNFORMER	EL-00127-03	1
V 1,2	STATIC RELAY	EL-00126-03	2
V 3	TRIAC	EL-00126-02	1
K 1	CONTACTOR 24 VDC	EL-00123-02	1
K 2	CONTACTOR 24 VDC	EL-00122-02	1
X 5	CONNECTOR		1
X 5	PINS		3
	MALE CONNECTOR 3 pins	EL-00142-00	1
	RUBBER CUP		1
	INCLINATED SUPPORT FORR GUIDE	EL-00106-01	2
X 1	TERMINAL STRIP		1



## PNEUMATIC SCHEMATIC DIAGRAM

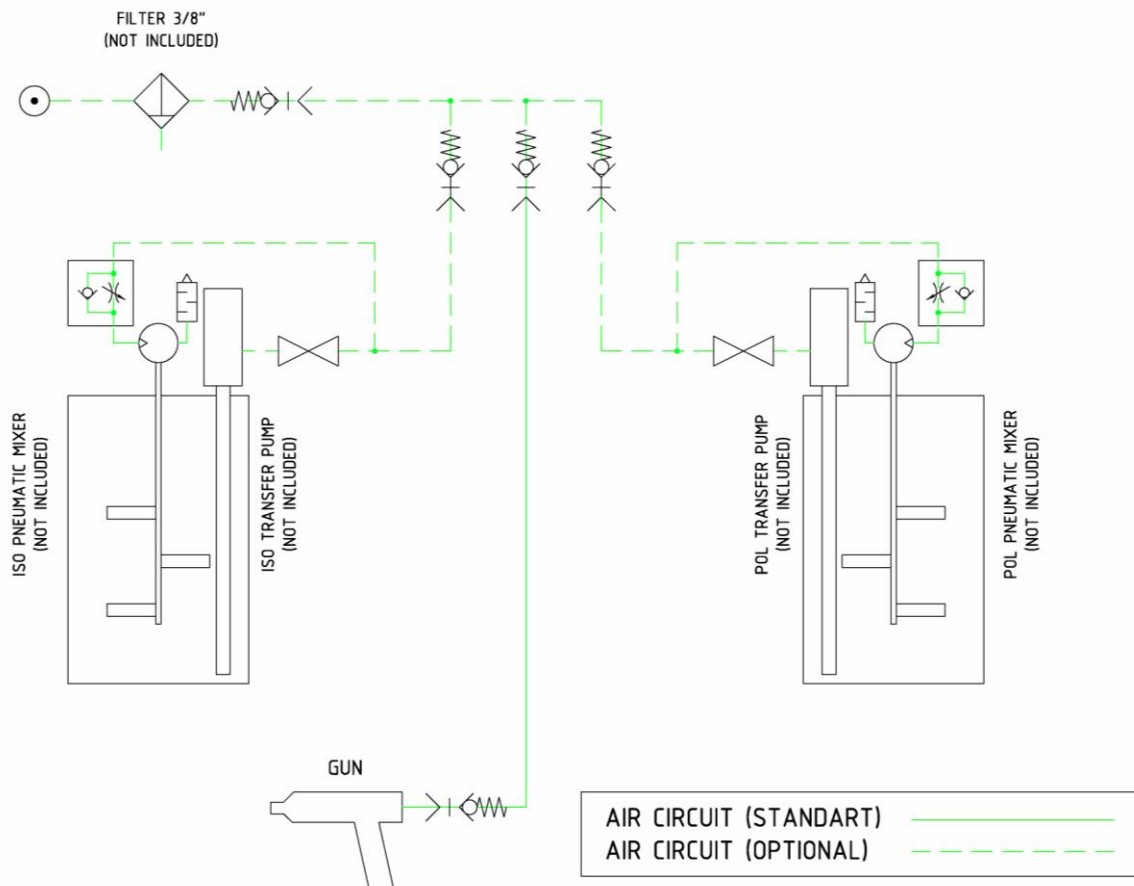
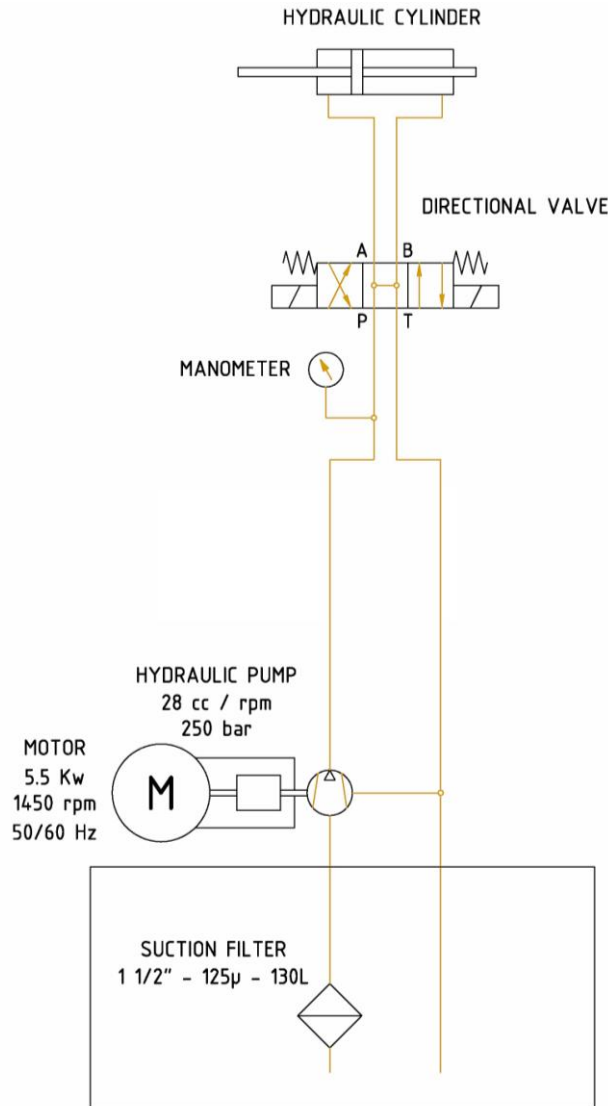


Figure 29. Pneumatic Schematic Diagram

## HYDRAULIC SCHEMATIC DIAGRAM



*Figure 30. Hydraulic Schematic Diagram*

## FUNCTIONING SCHEMATIC DIAGRAM

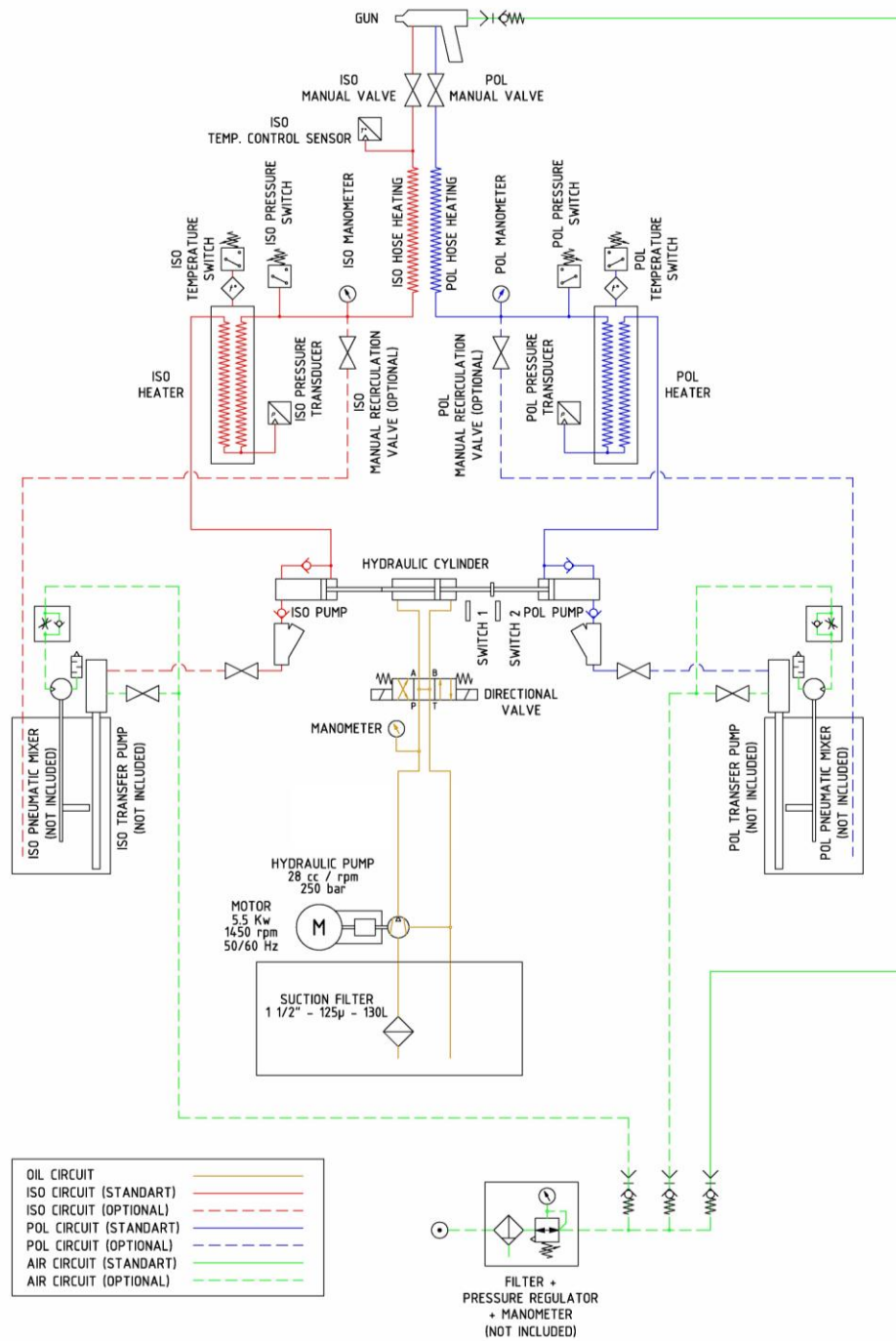


Figure 31. Functioning Schematic Diagram



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