

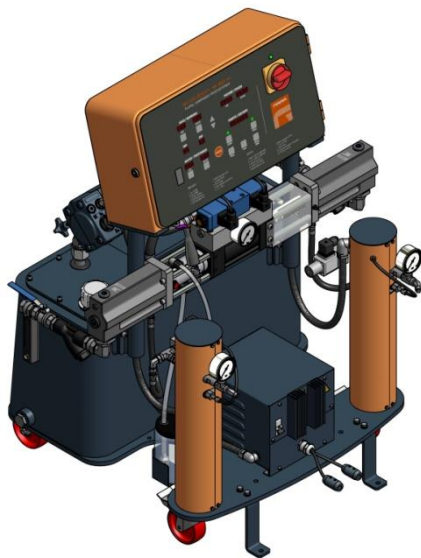


# Parts Manual

## Proportioning Unit

### evolution G-30 H

Issue 3.8 18/02/2019  
Ref. NR-00039-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-30 H MODEL

RECIRCULATION KIT  
(OPTIONAL)

TCS CONNECTOR  
DETAIL

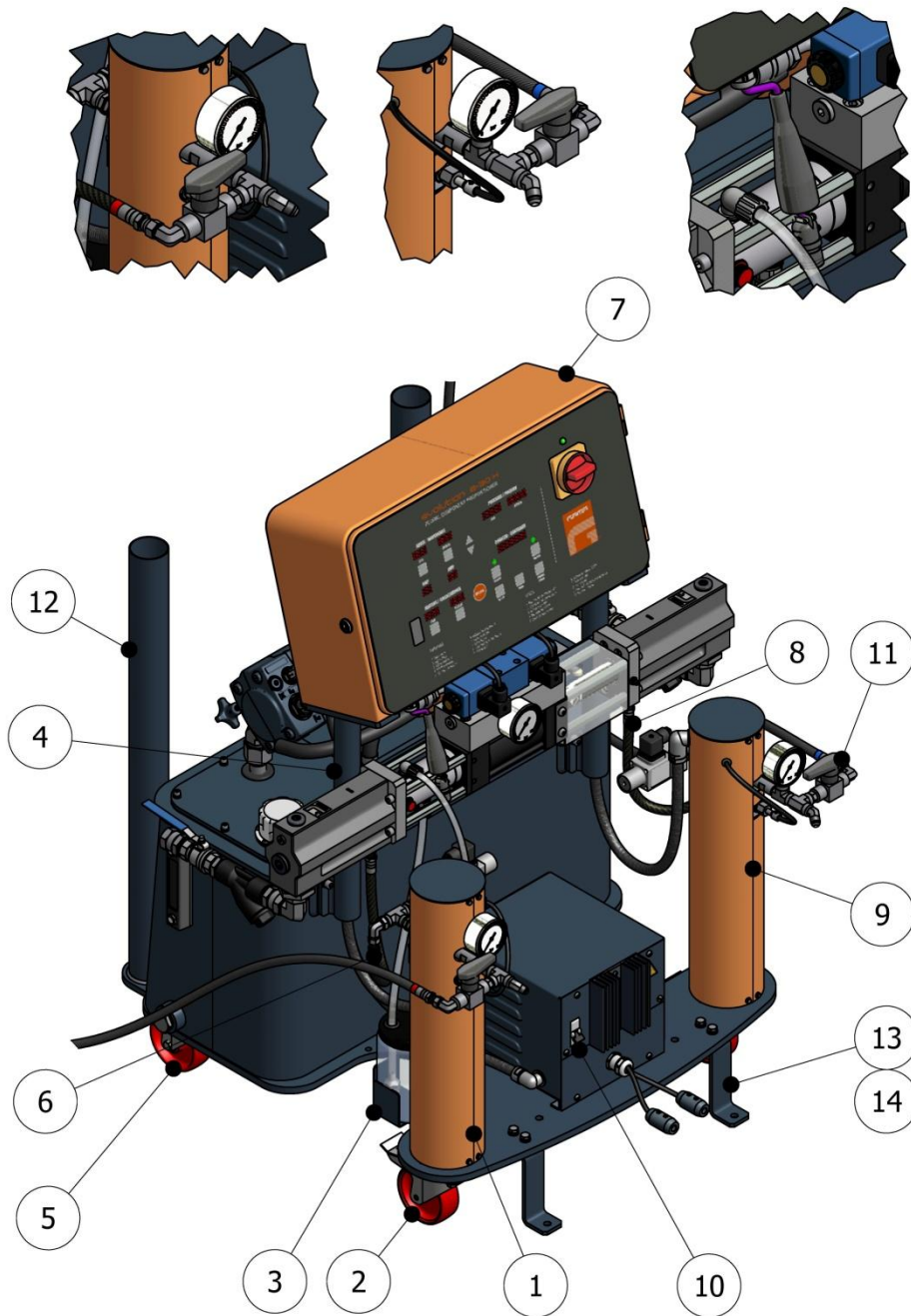


Figure 1. Proportioning Unit evolution G-30 H Model

**Table 1. Proportioning Unit Evolution G-30 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

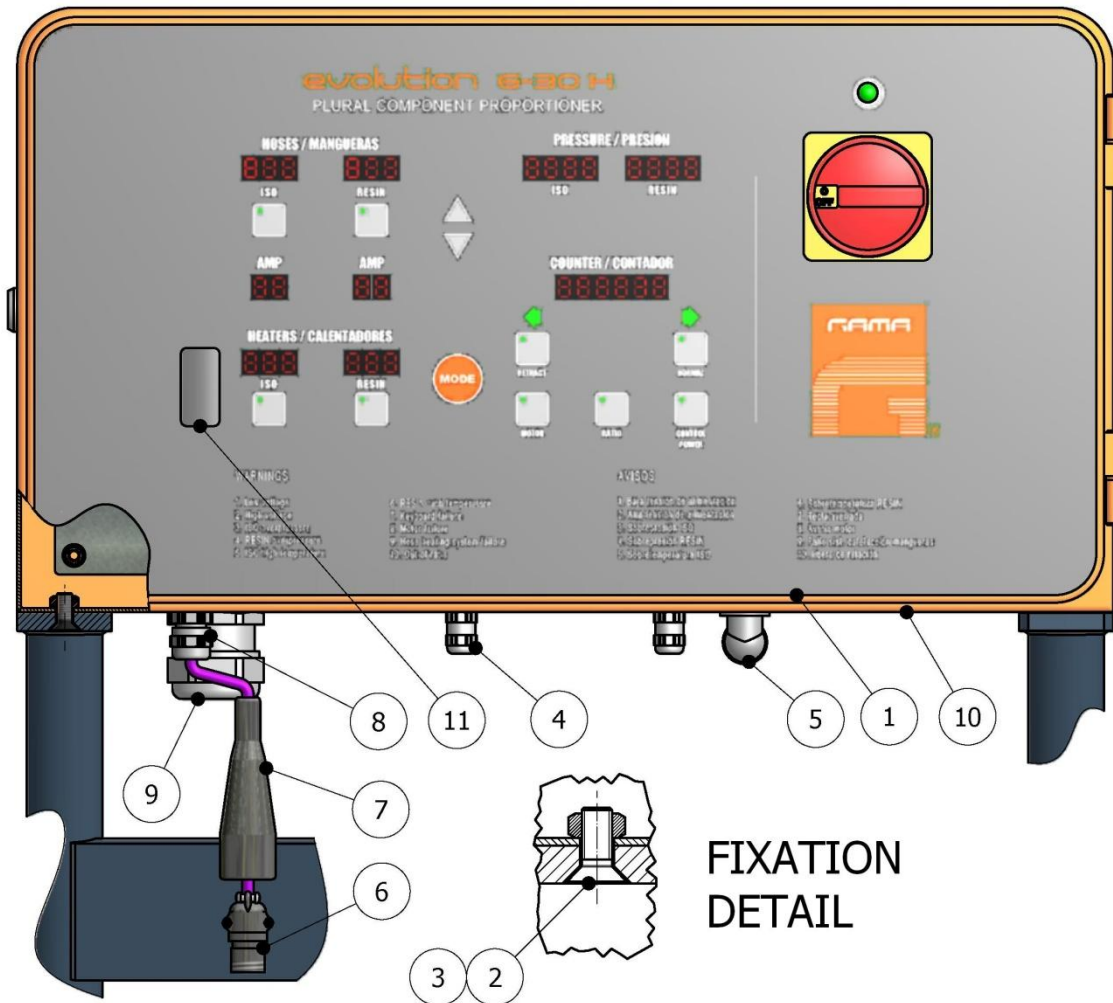


Figure 2. Electrical Console evolution G-30 H



**Table 6. Electrical Console evolution G-30 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.**

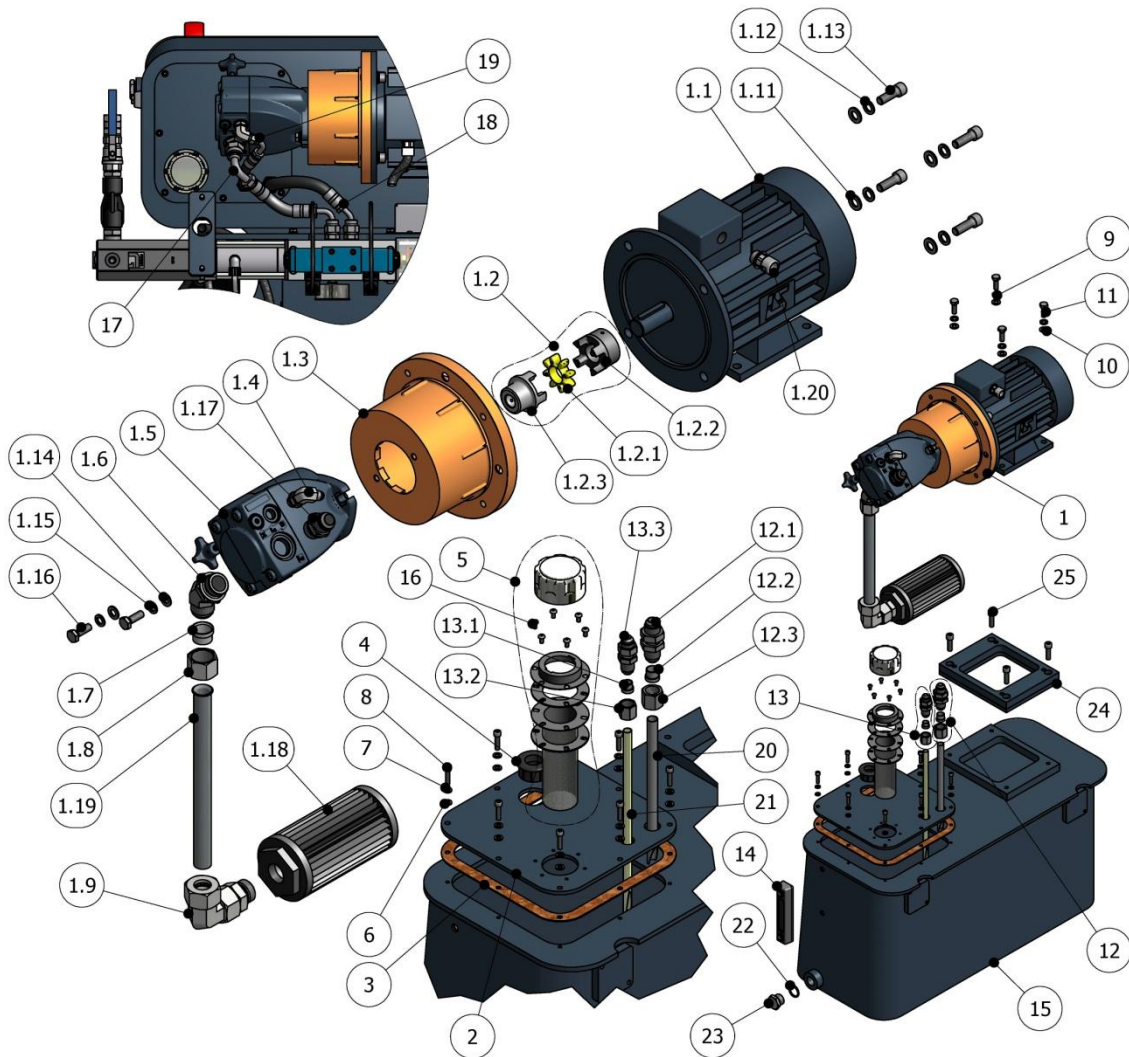
**Table 7. Bezel Components Assembly**

|               | 3x 400v/230v.sN 50/60 Hz<br>Without Logger<br>(standard) | 3x 400v/230v.sN 50/60 Hz<br>With Logger<br>(optional) |
|---------------|--|---|
| Bezel 1x      | EL-00192   | EL-00192  |
| 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   |



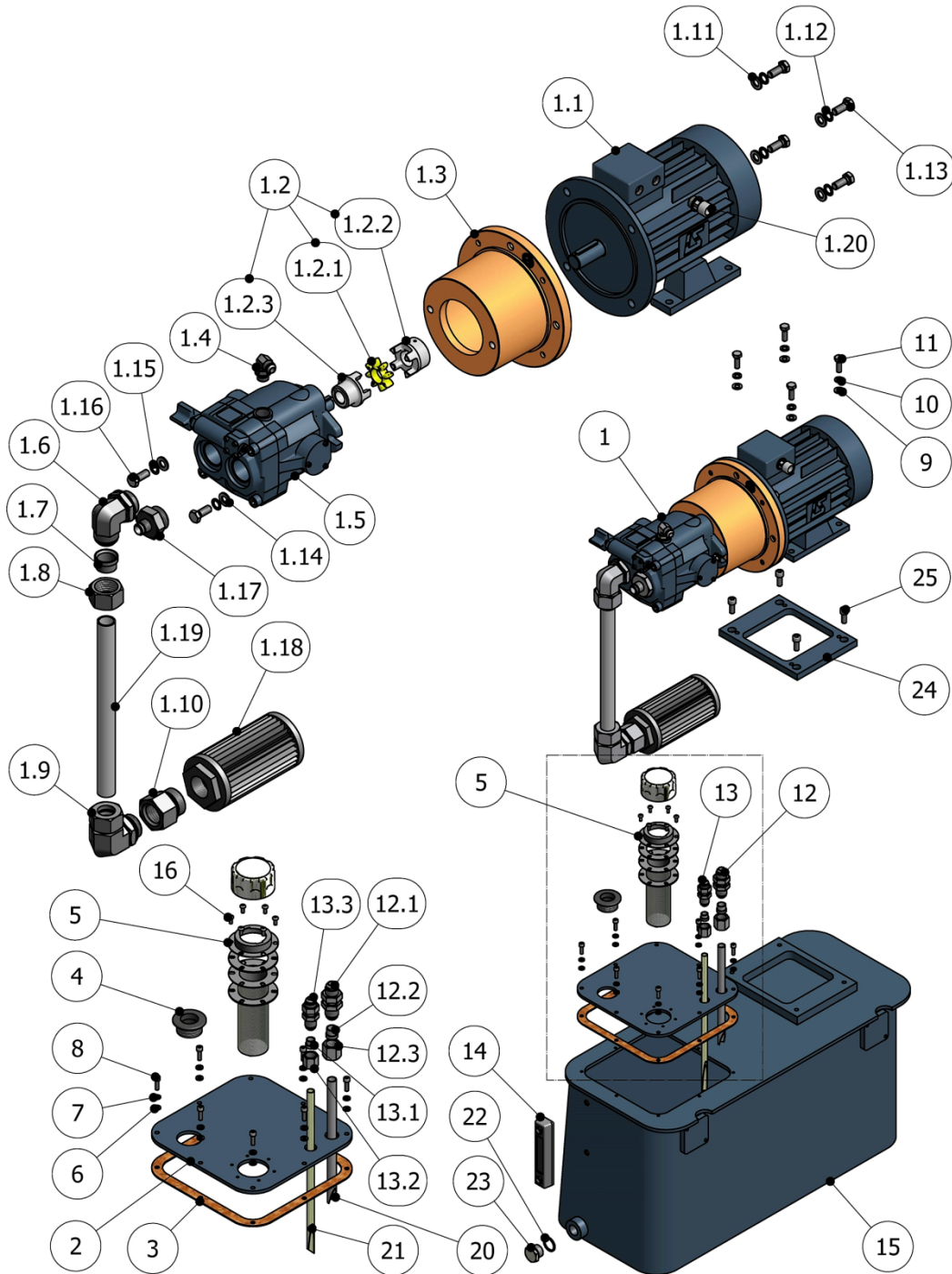


**HYDRAULIC MANIFOLD WITH MOTOR 3x400v/230v.  
50/60Hz (hyd. Pump 18 cc.)**



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

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



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



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

| Ref.  | Description                  | Part Number | Qty. |
|-------|------------------------------|-------------|------|
| 1     | Motor/Pump Line Assembly     | HI-00040-03 | 1    |
| 1.1   | Electric Motor 3Kw 50/60Hz   | EL-00138-02 | 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    |      |

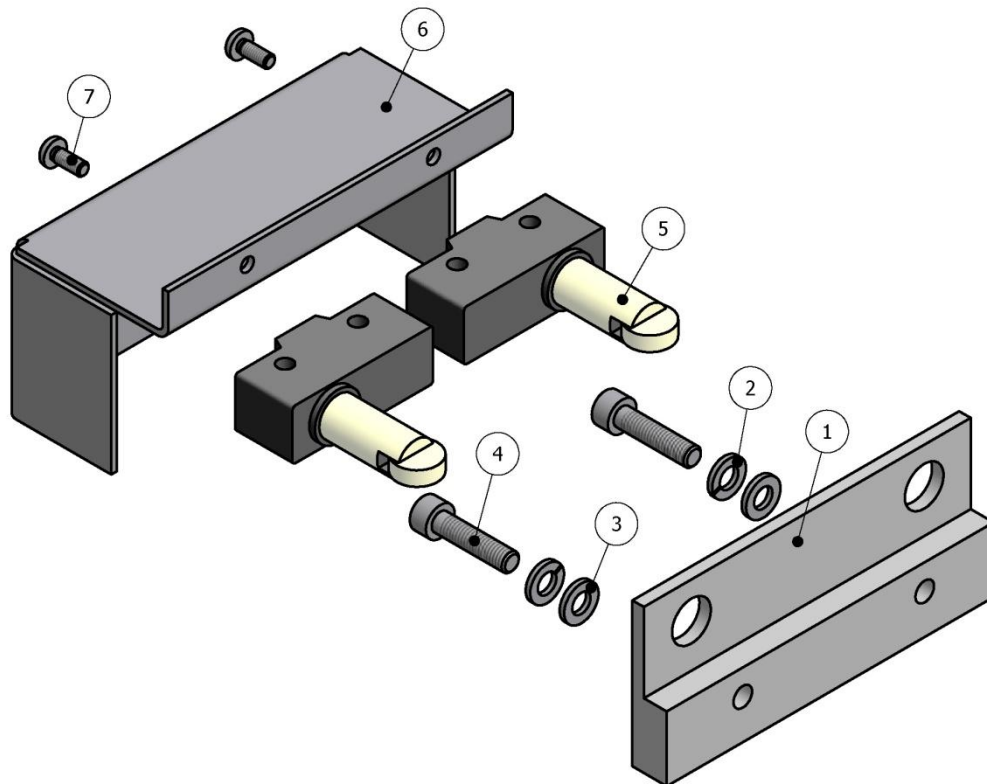


| Ref. | Description                           | Part Number | Qty. |
|------|---------------------------------------|-------------|------|
| 1.10 | for 18 cc. Pump (not mount)           | -           | 1    |
|      | Thread Reducer for 20 cc. Pump        | RA-00031    |      |
| 1.11 | Washer                                | 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-00148-00 |      |
| 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                | TN-00163    | 4    |
| 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)      | HI-00040-05 |      |
| 25   | Screw (for 18 cc Pump)            | TN-00252    | 4    |
|      | Screw (for 20 cc Pump)            | TN-00206    |      |

## REVERSING SWITCH



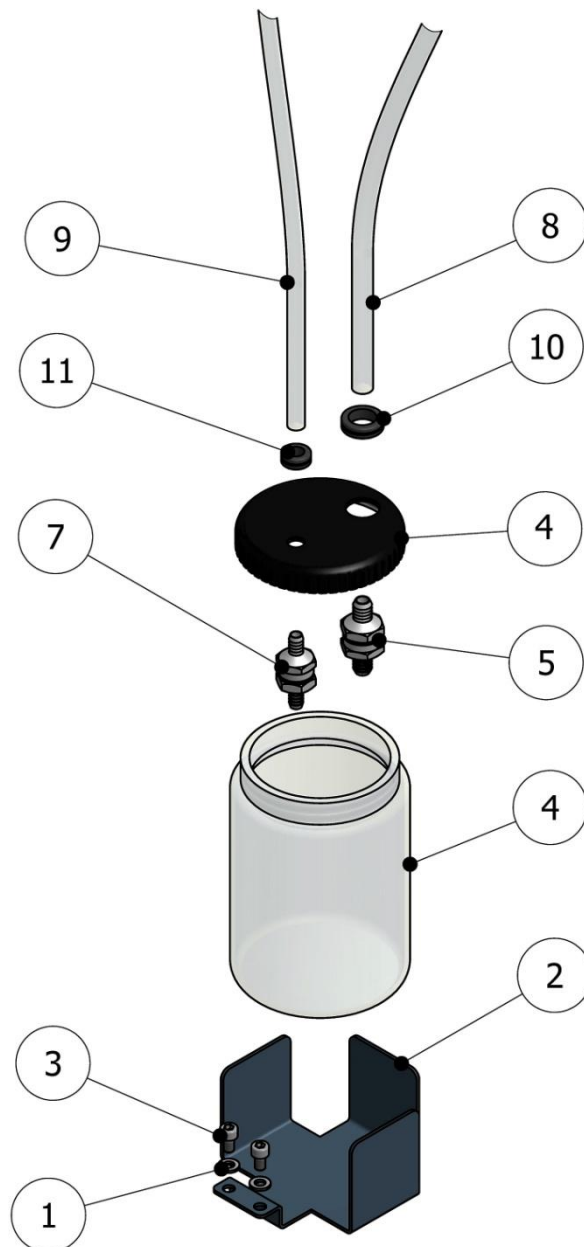
*Figure 5. Reversing Switch Assy., Exploded View*

*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*



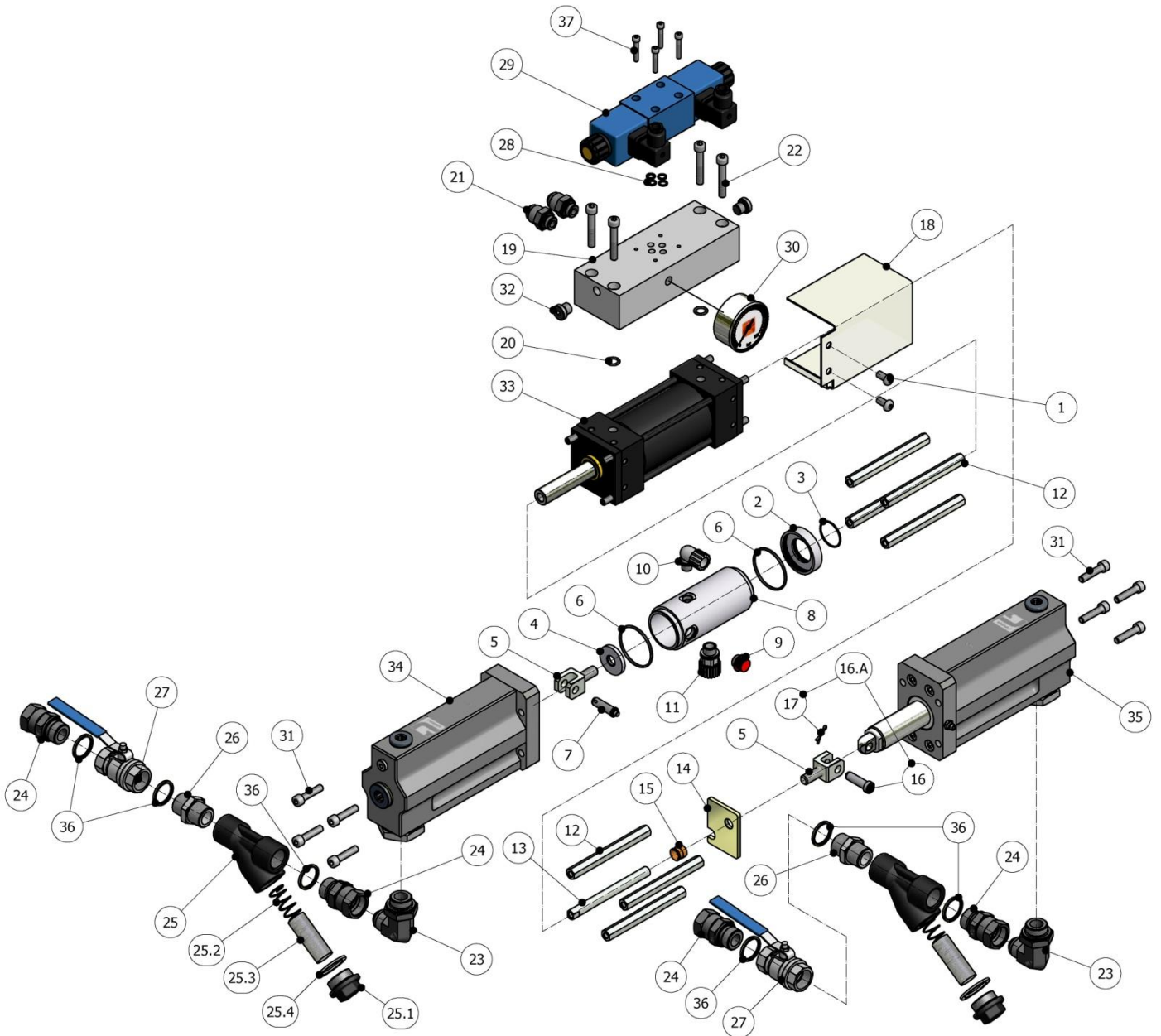
**Table 10. Lube Reservoir Hose Assembly, Parts List**

| 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    |



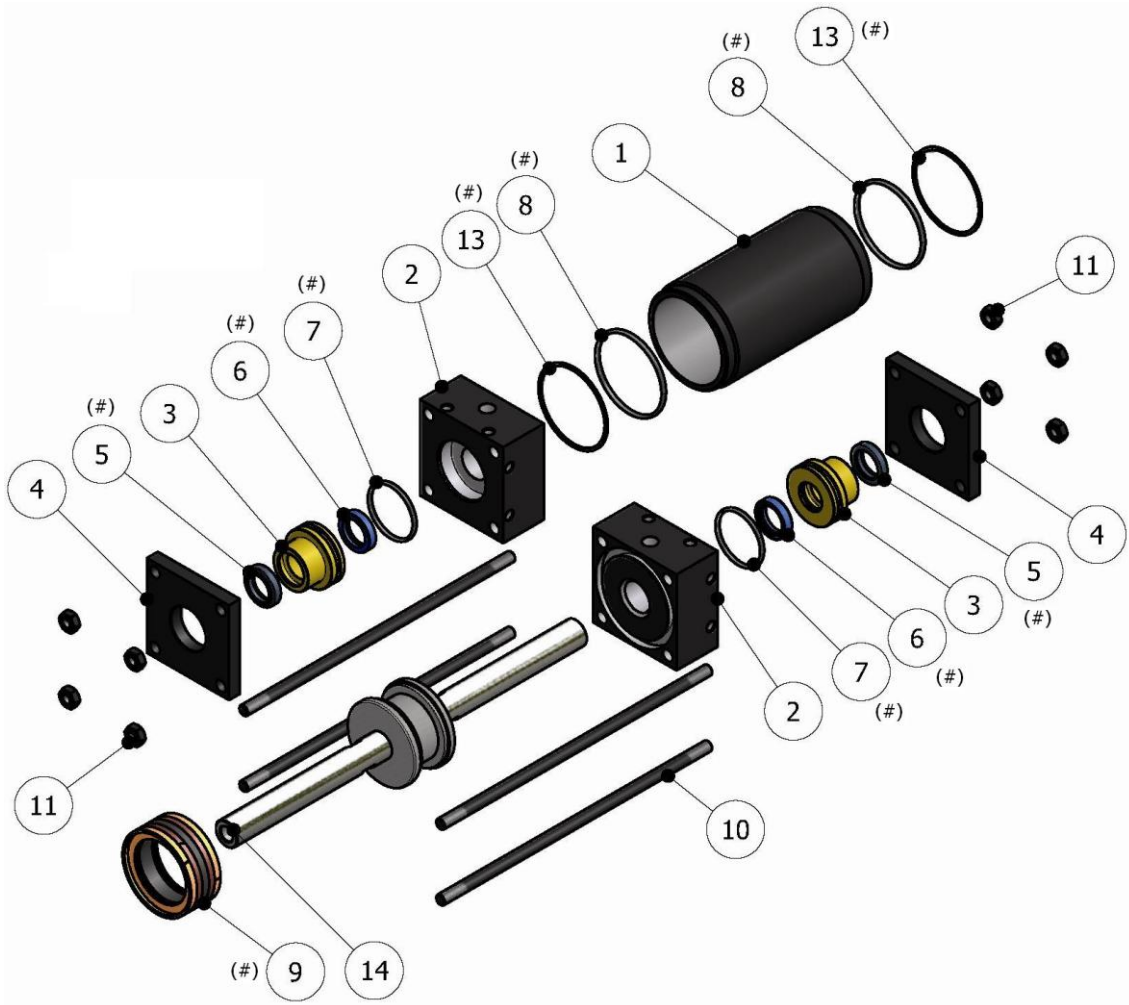
| Ref. | Description                     | Part Number    | Qty. |
|------|---------------------------------|----------------|------|
| 25.3 | Filter                          | RA-00074-03-30 | 2    |
| 25.4 | Filter Gasket                   | OR-00061       | 2    |
| 26   | Hex Nipple                      | 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

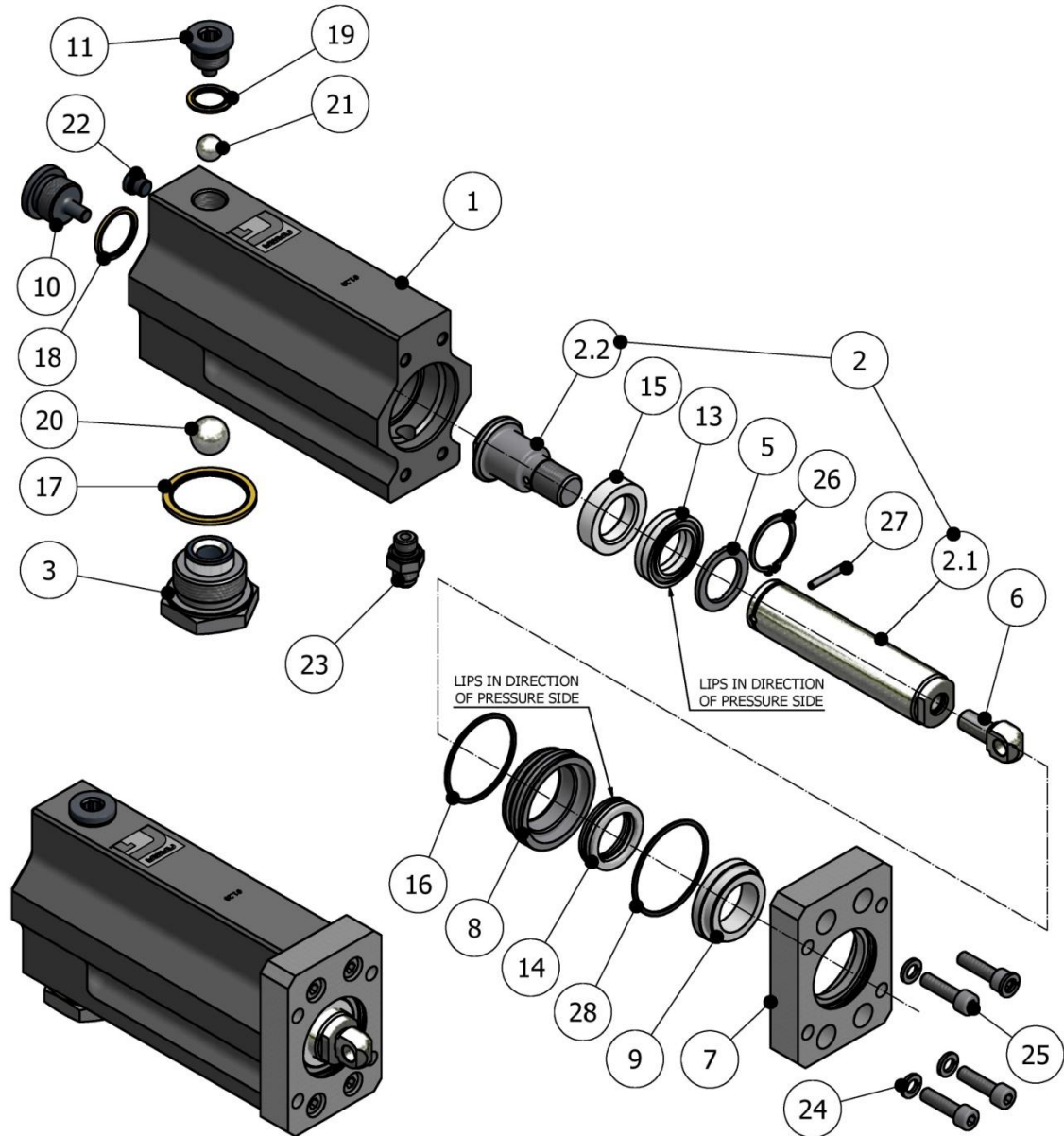


Figure 9. “A” Proportioning Pump Assembly, Exploded View



**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<br>(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 |

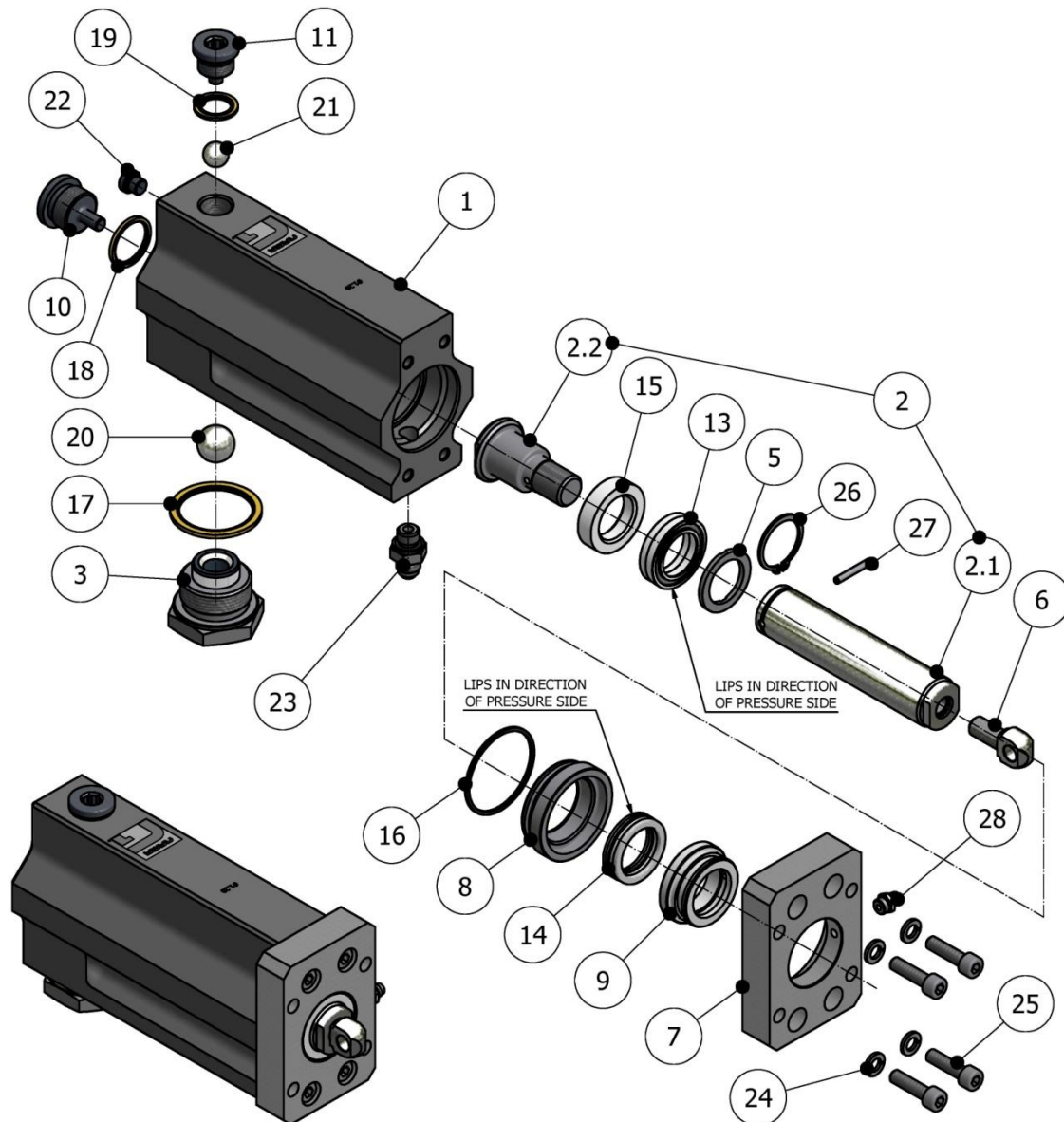
**N.B : (#)** The standard proportioning pump sizes is #1.20. Different sizes are available under order. For delivery time, please consult with Marketing department.

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<br>(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**

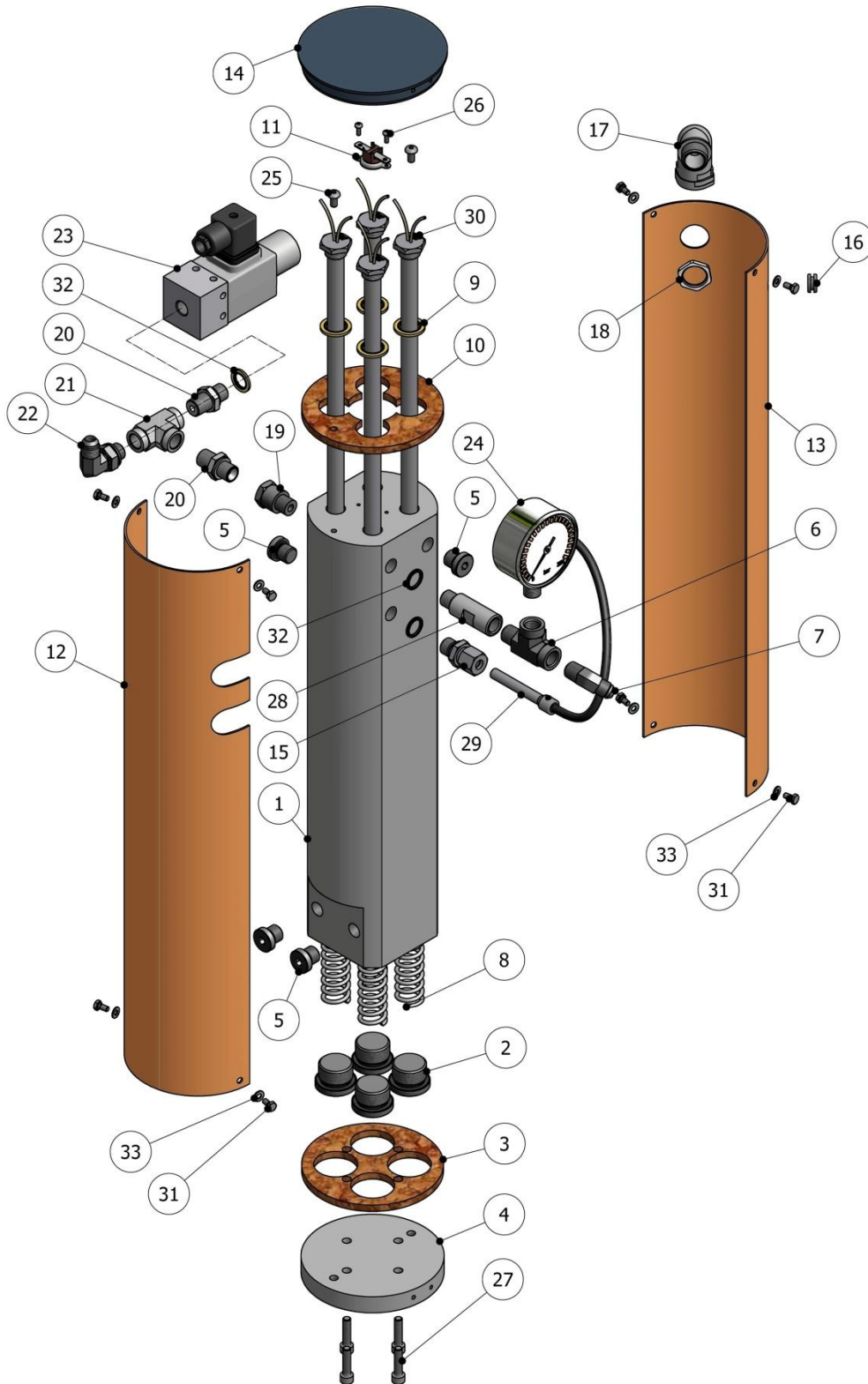
| Pump            | Item     |
|-----------------|----------|
| <b>1.20 (#)</b> | KT-00158 |
| <b>0.80</b>     | KT-00160 |

**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**

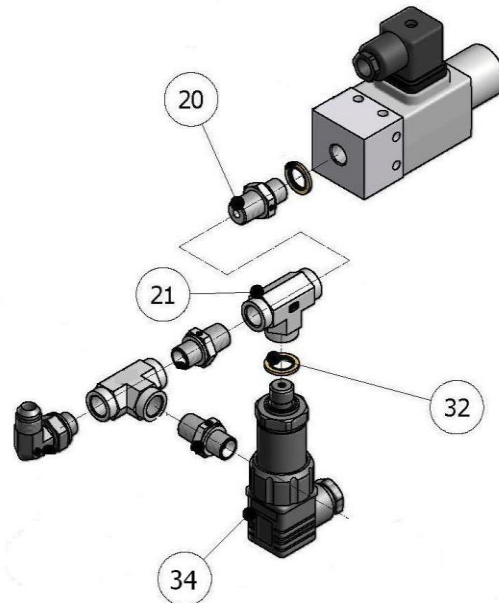


**Figure 11. “A” Standard Primary Heater, Exploded View**



**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<br>(optional)                          | Without<br>Logger<br>(standard) | With Logger<br>(optional)        | Without<br>Logger<br>(optional) |
|      |                   | CLH-03001-00GT<br>CLH-03001-00BT<br>CLH-03001-00IT | CLH-03001-00G<br>CLH-03001-00B  | CLH-03001-00HT<br>CLH-03001-00DT | CLH-03001-00H<br>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

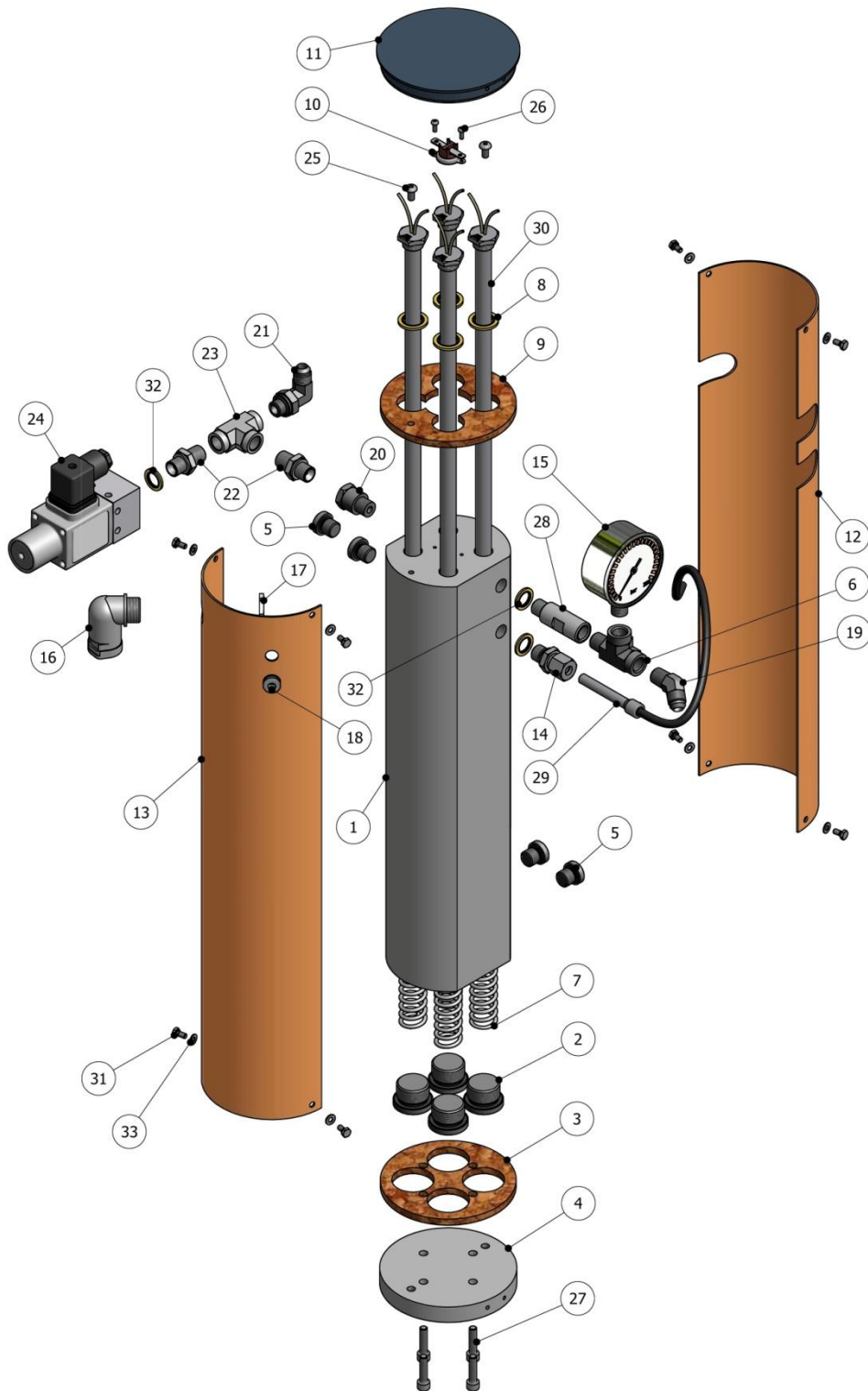


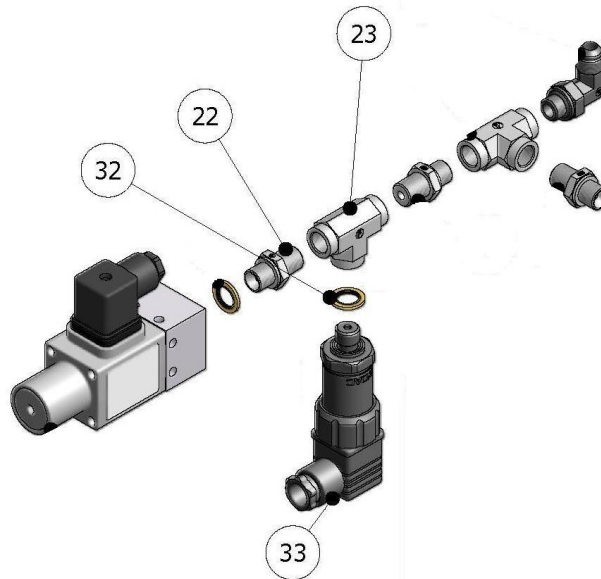
Figure 13. “R” Standard Primary Heater



**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       | See 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**

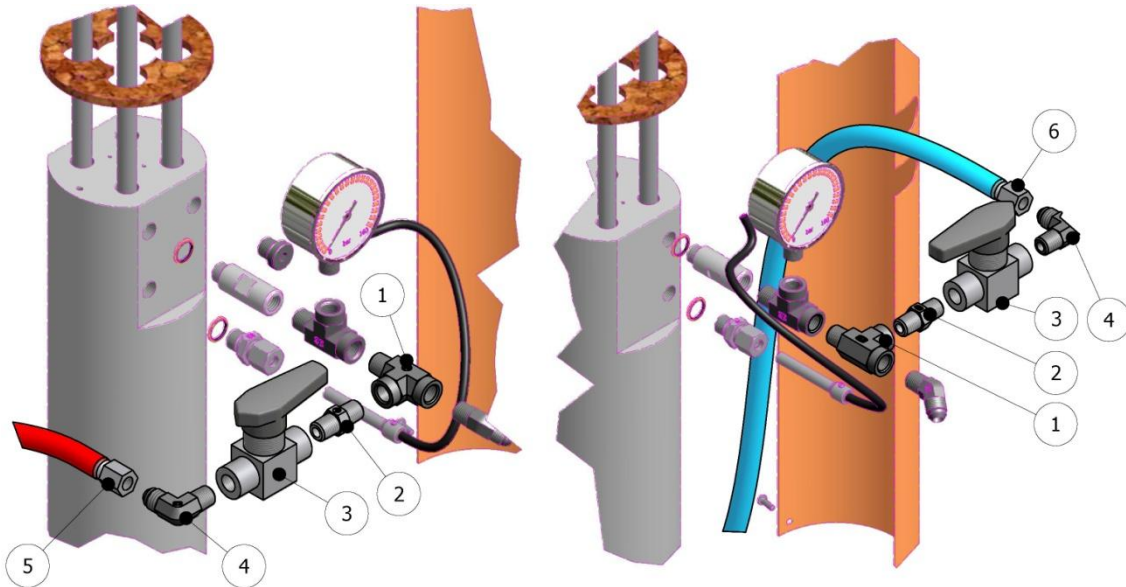
**Table 26. Parts List of Variable Components for "R" Primary heater**

| Ref. | Description       | for 200 bar  |                                | for 300 bar                      |                                |
|------|-------------------|--|--------------------------------|----------------------------------|--------------------------------|
|      |                   | With Logger (optional)                             | Without Logger (standard)      | With Logger (optional)           | Without Logger (optional)      |
|      |                   | CLH-03002-00GT<br>CLH-03002-00BT<br>CLH-03002-00IT | CLH-03002-00G<br>CLH-03002-00B | CLH-03002-00HT<br>CLH-03002-00DT | CLH-03002-00H<br>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**



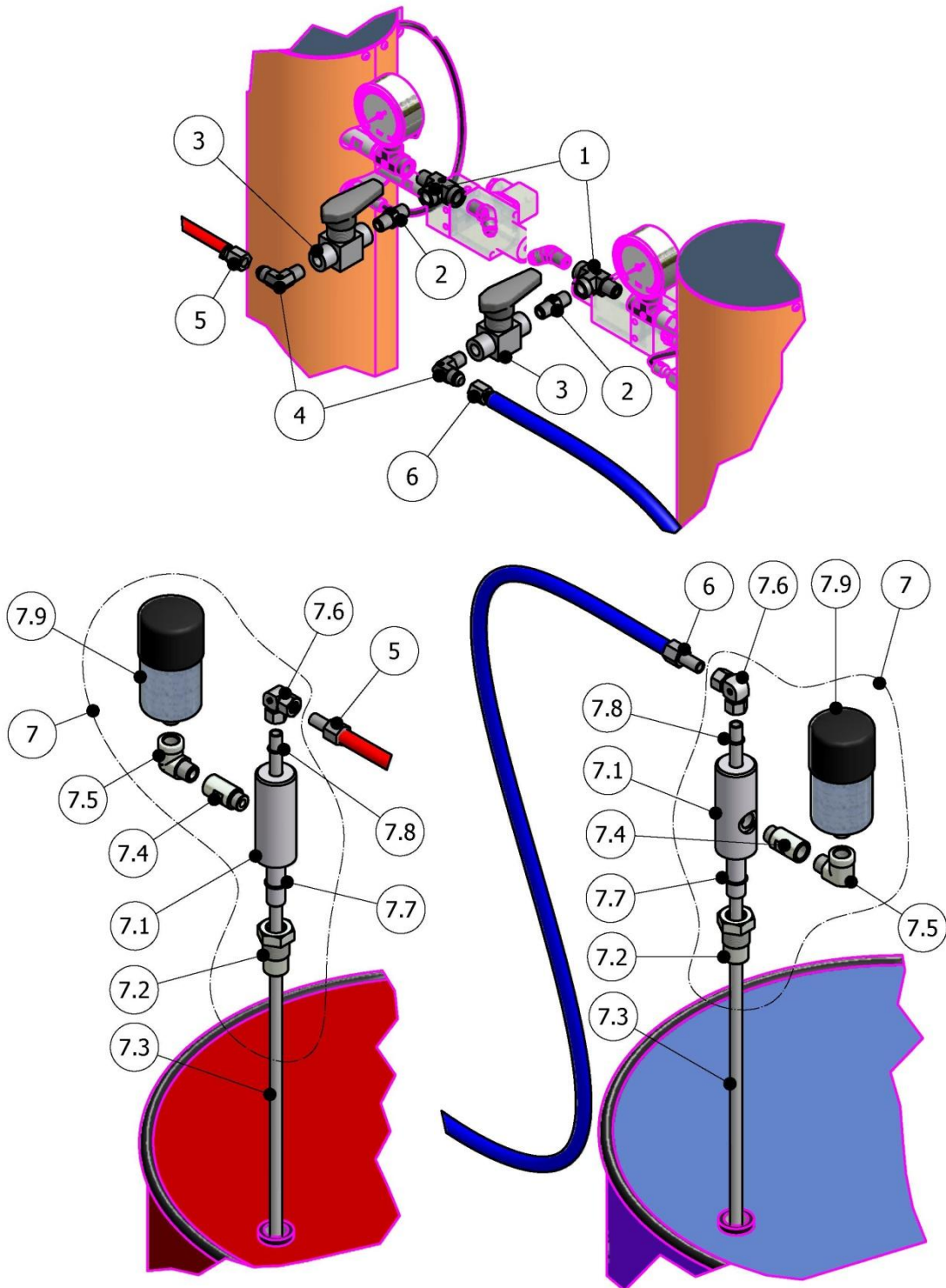
*Figure 15. Recirculation Kit P#: KT-00038, Exploded View*

*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**

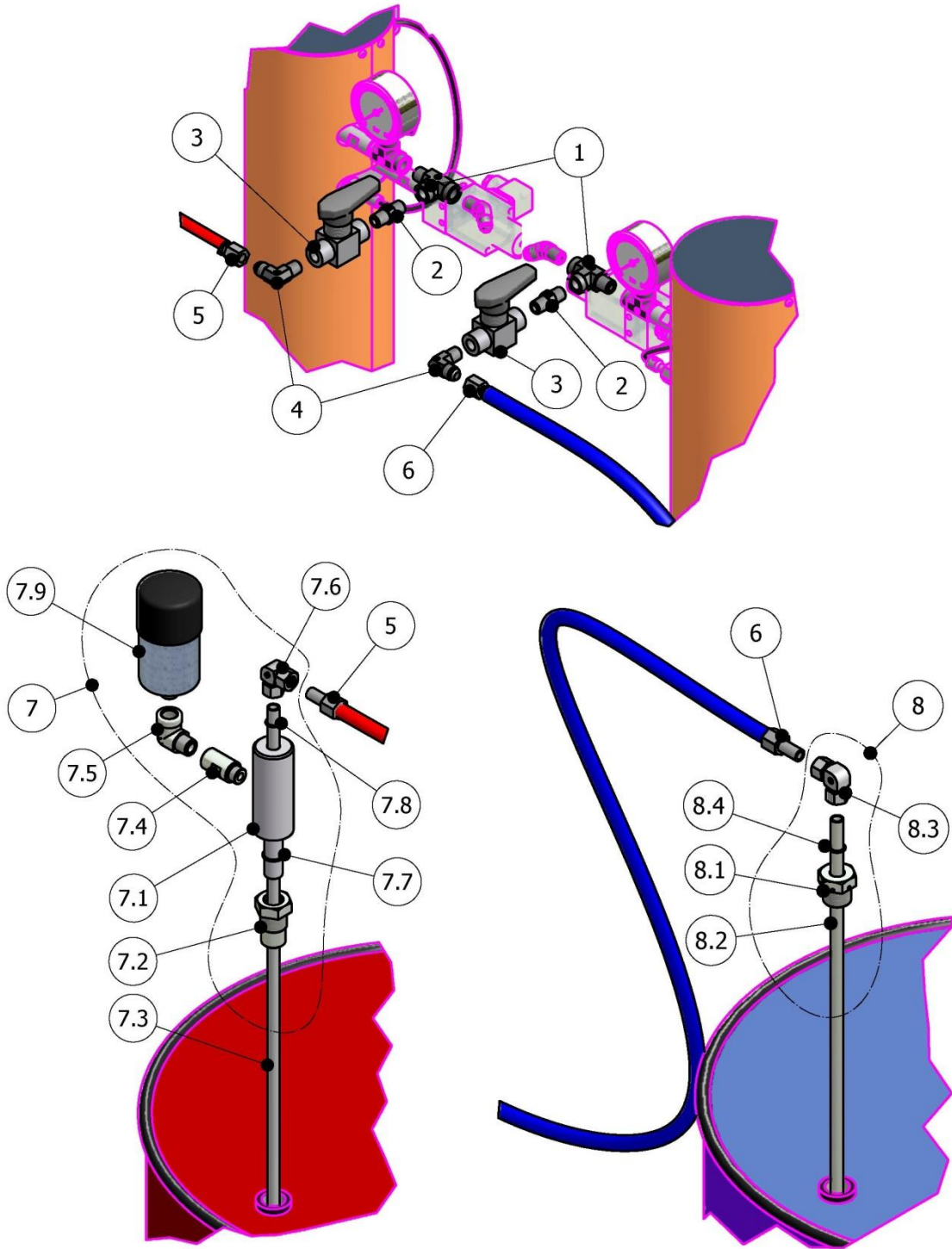
**Table 29. Recirculation Kit #KT-00038-01, Parts List**

| 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**

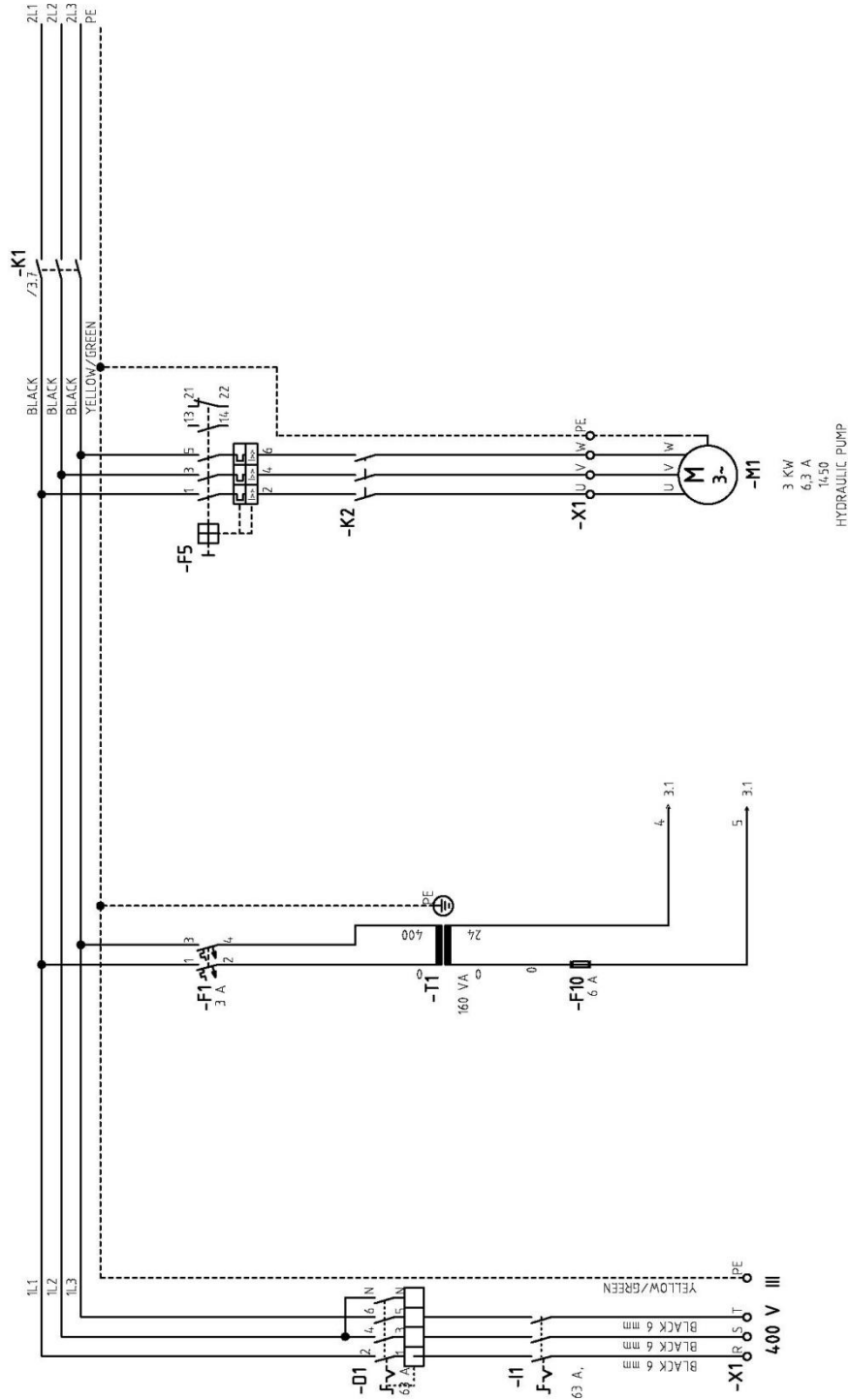


Figure 18. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 1/7)



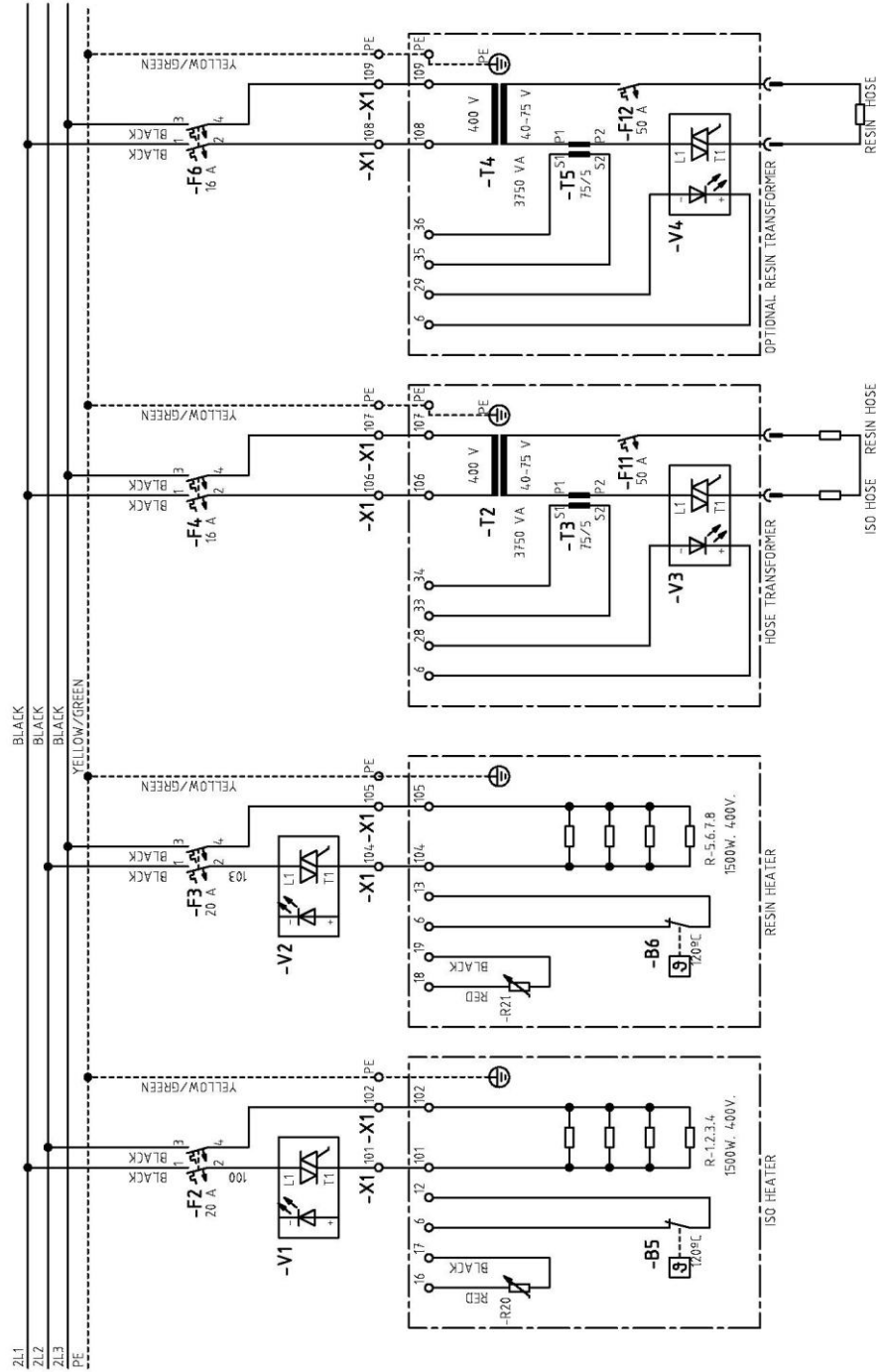


Figure 19. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 2/7)



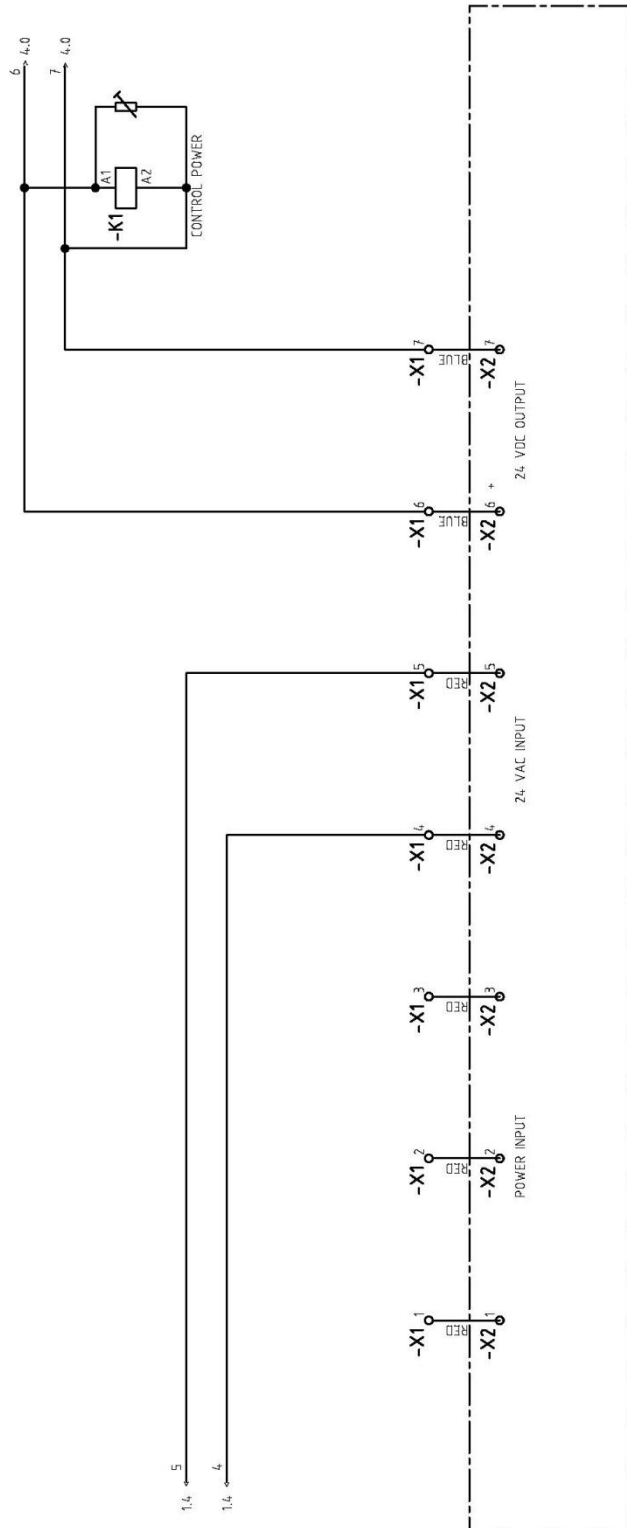


Figure 20. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 3/7)



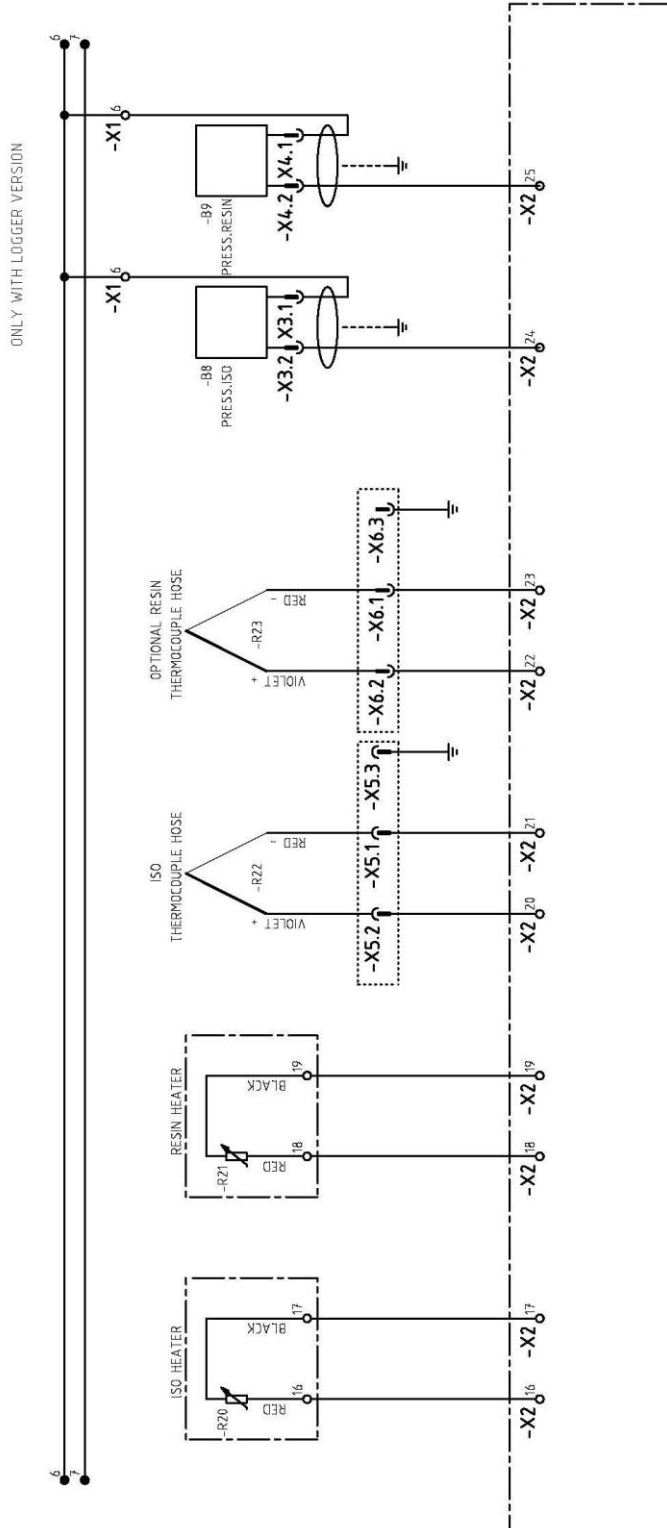


Figure 22. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 5/7)

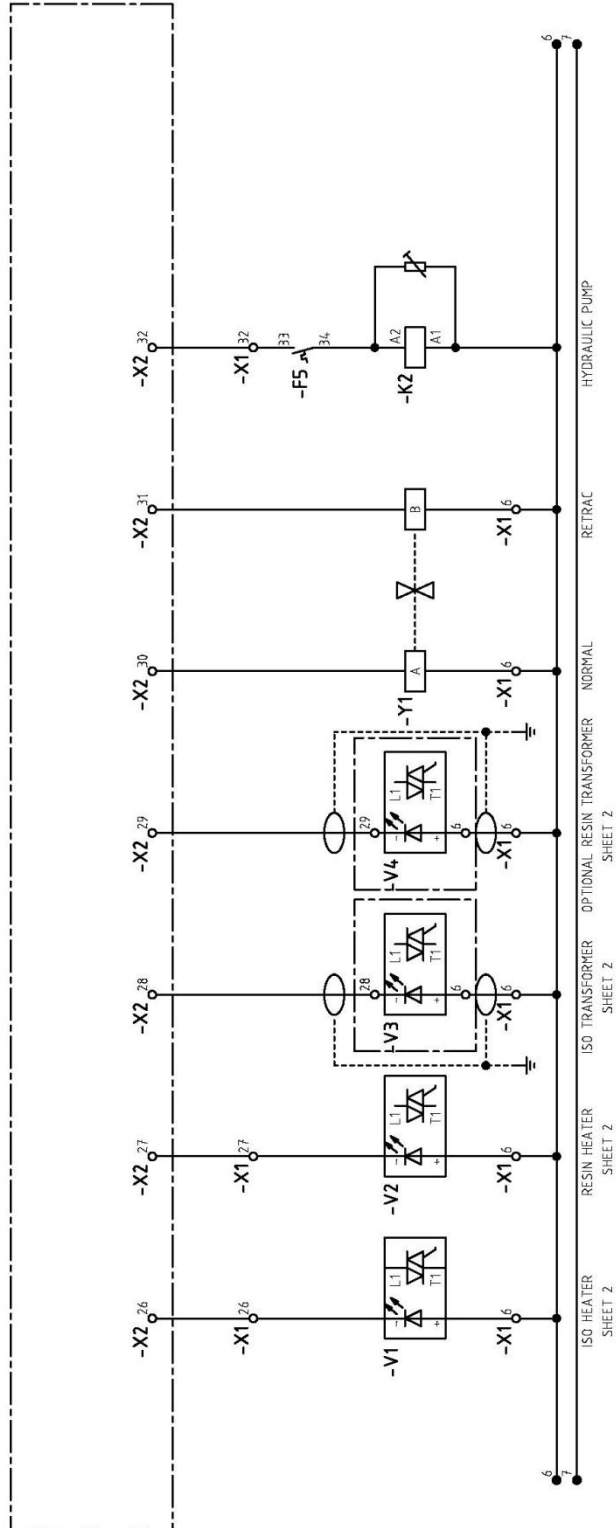


Figure 23. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 6/7)

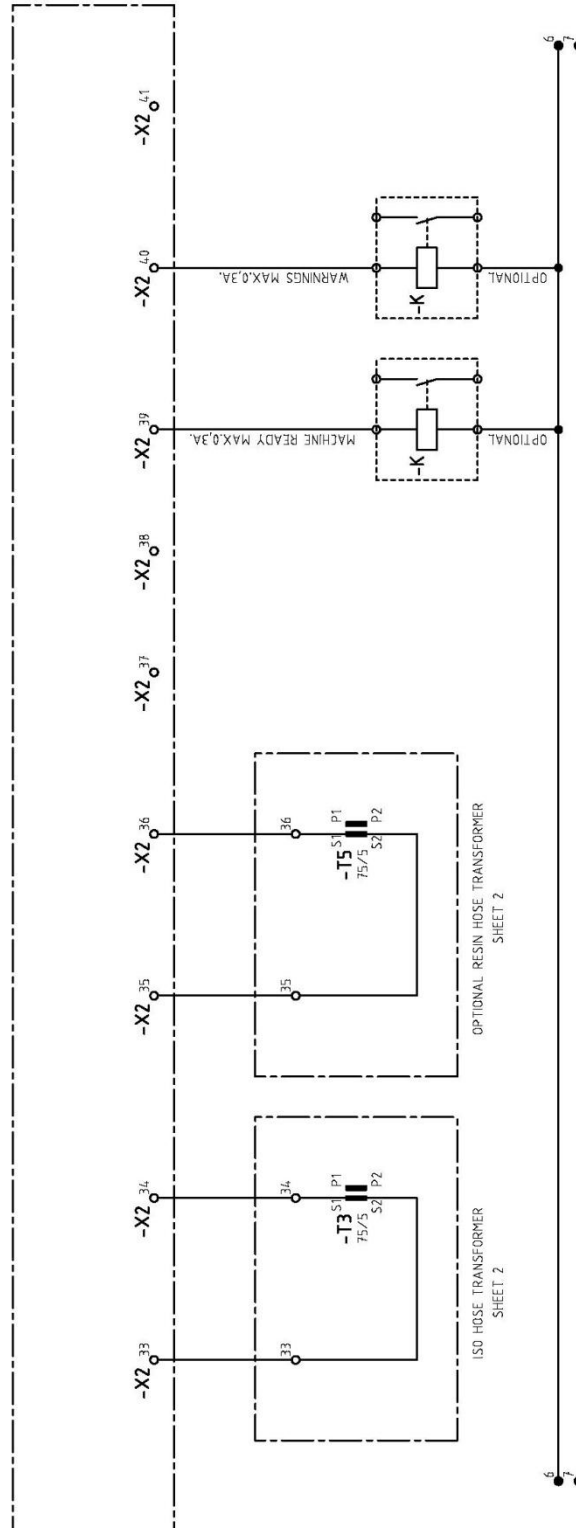


Figure 24. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 7/7)



**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-00119-06 | 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   |



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

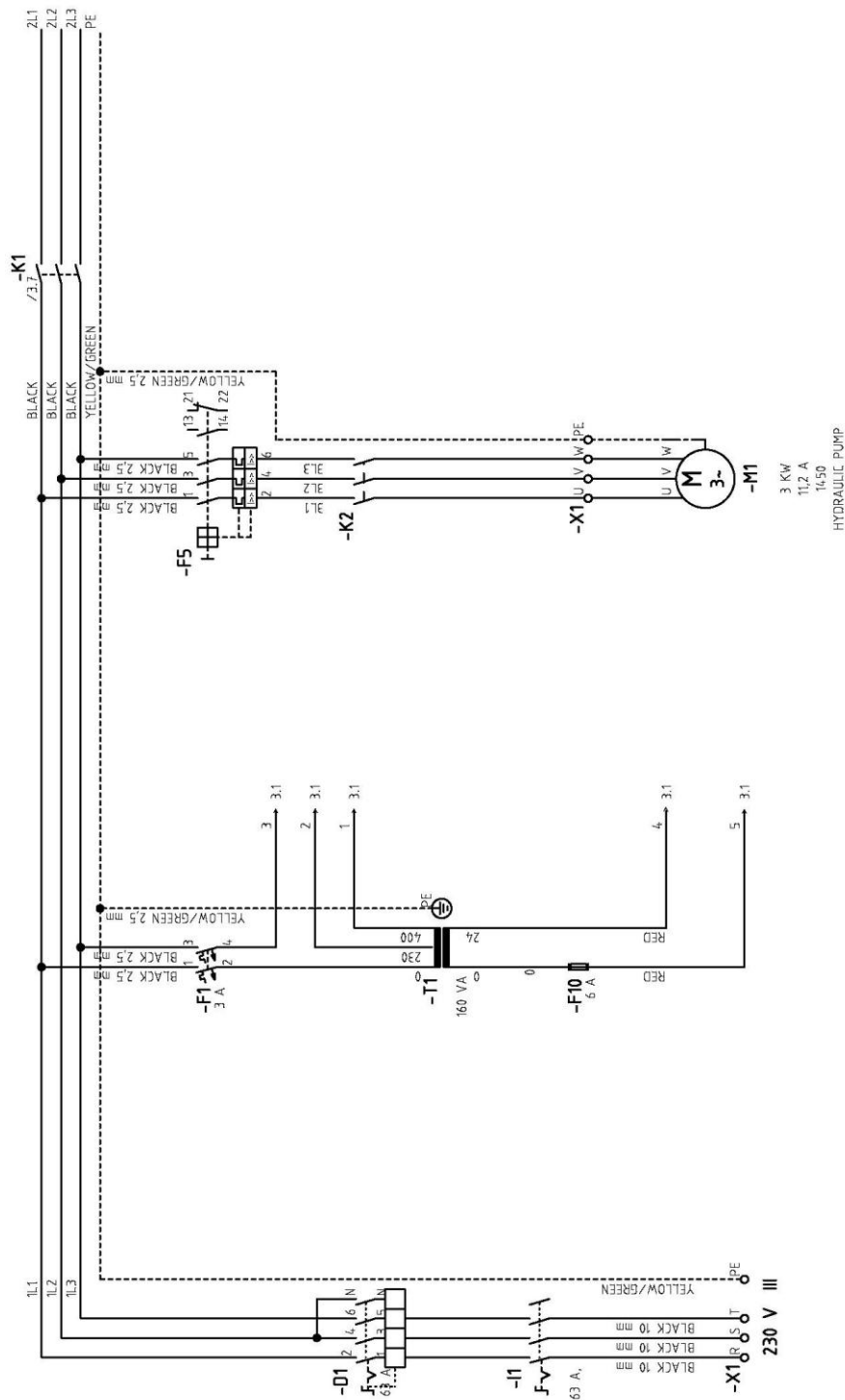


Figure 25. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 1/7)

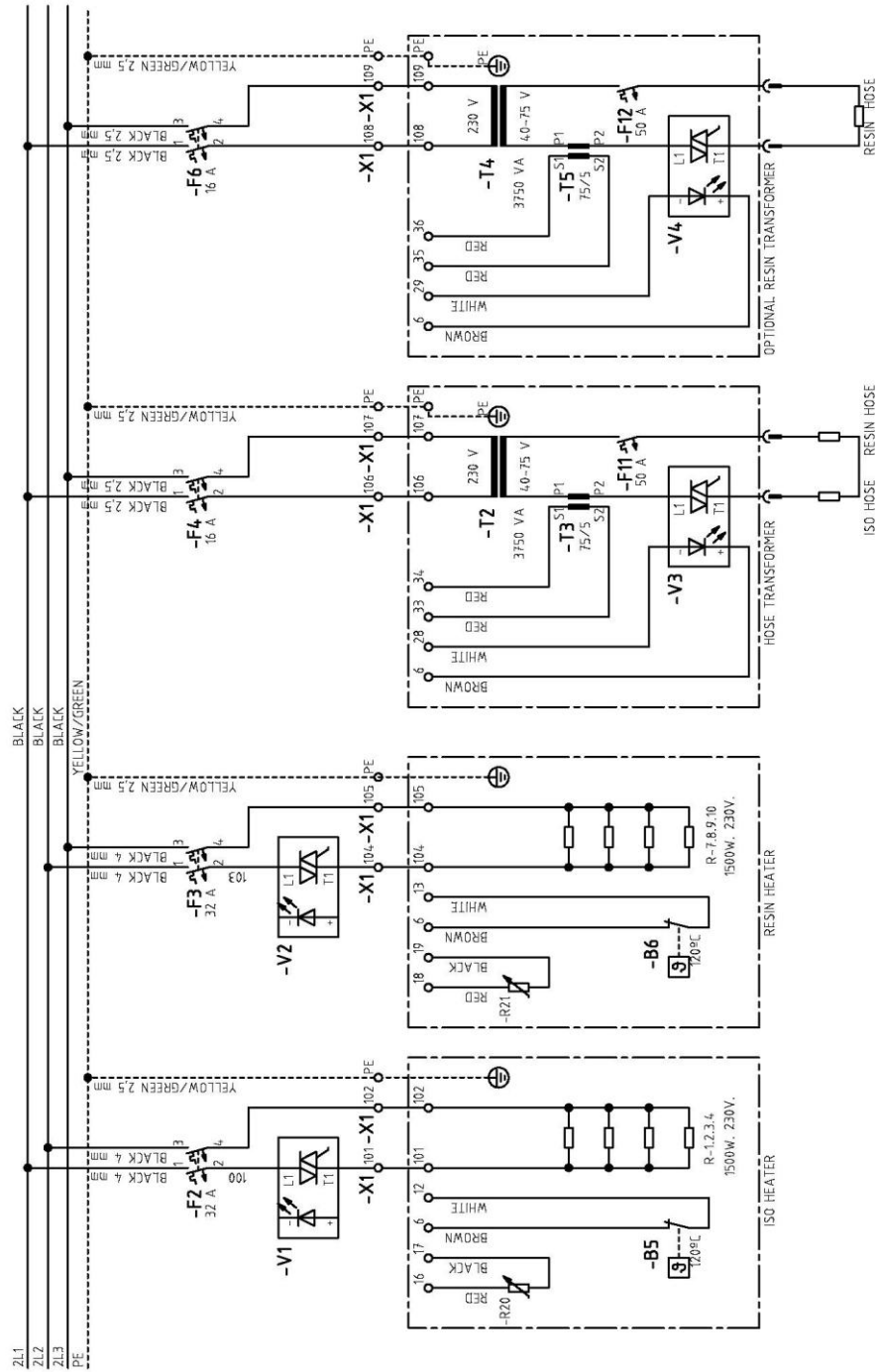


Figure 26. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 2/7)



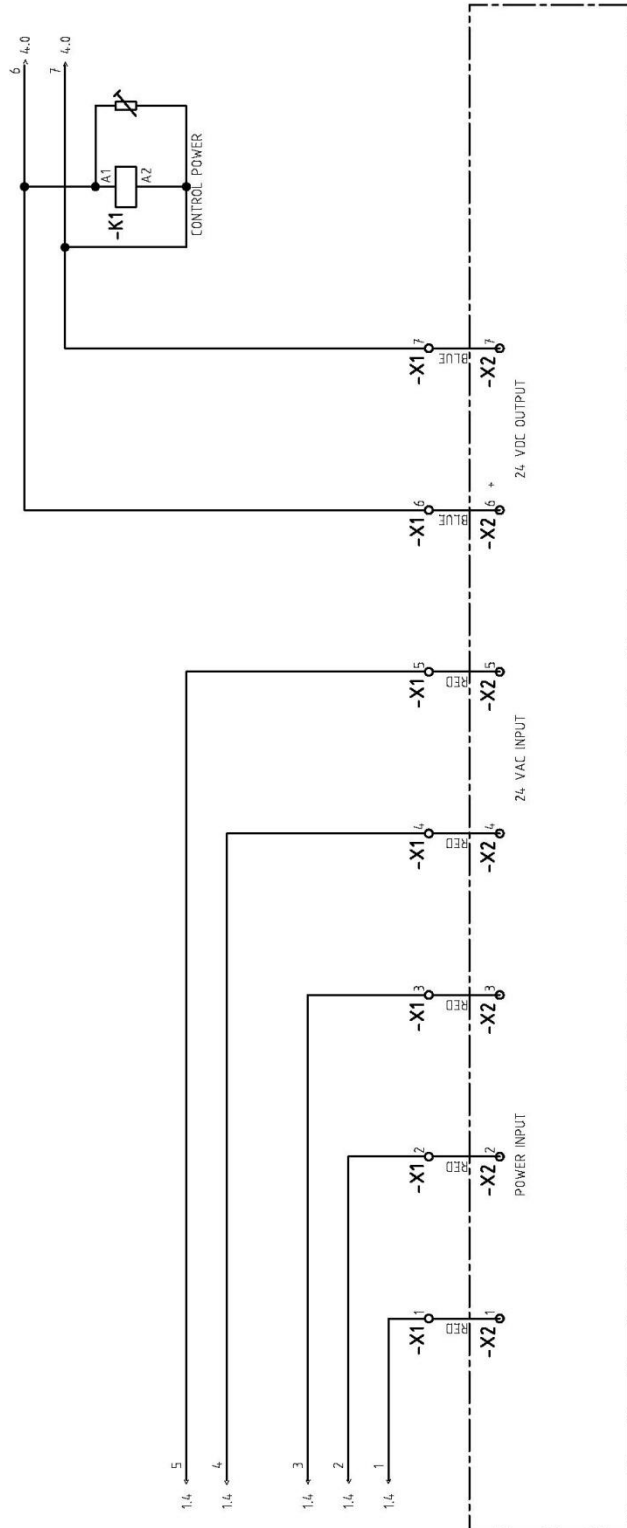


Figure 27. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 3/7)

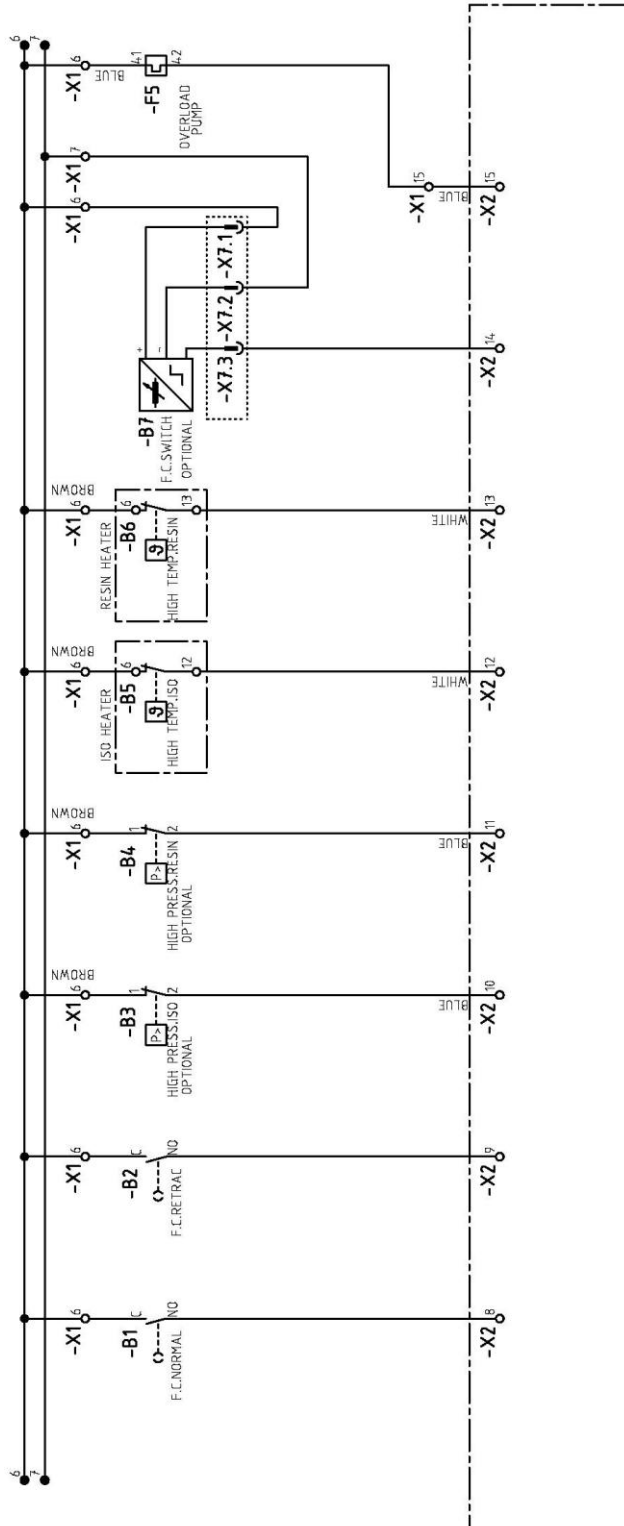


Figure 28. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 4/7)

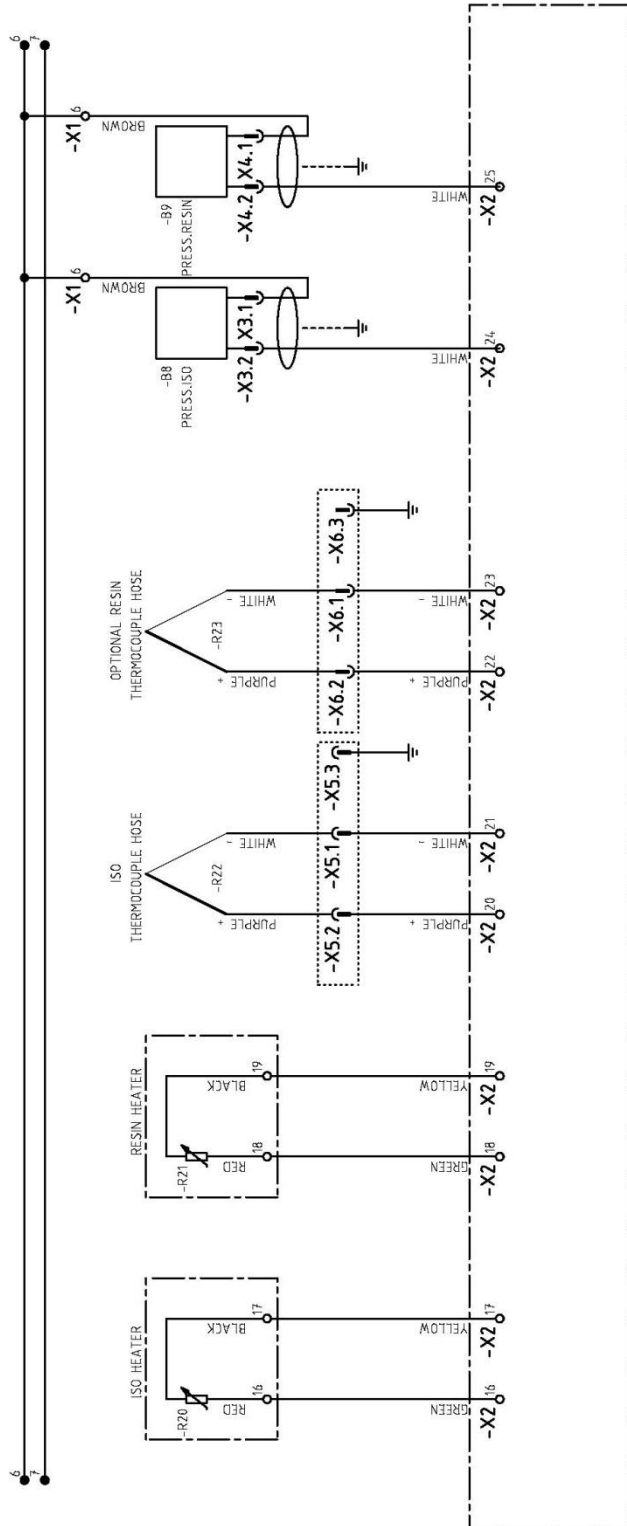


Figure 29. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 5/7)

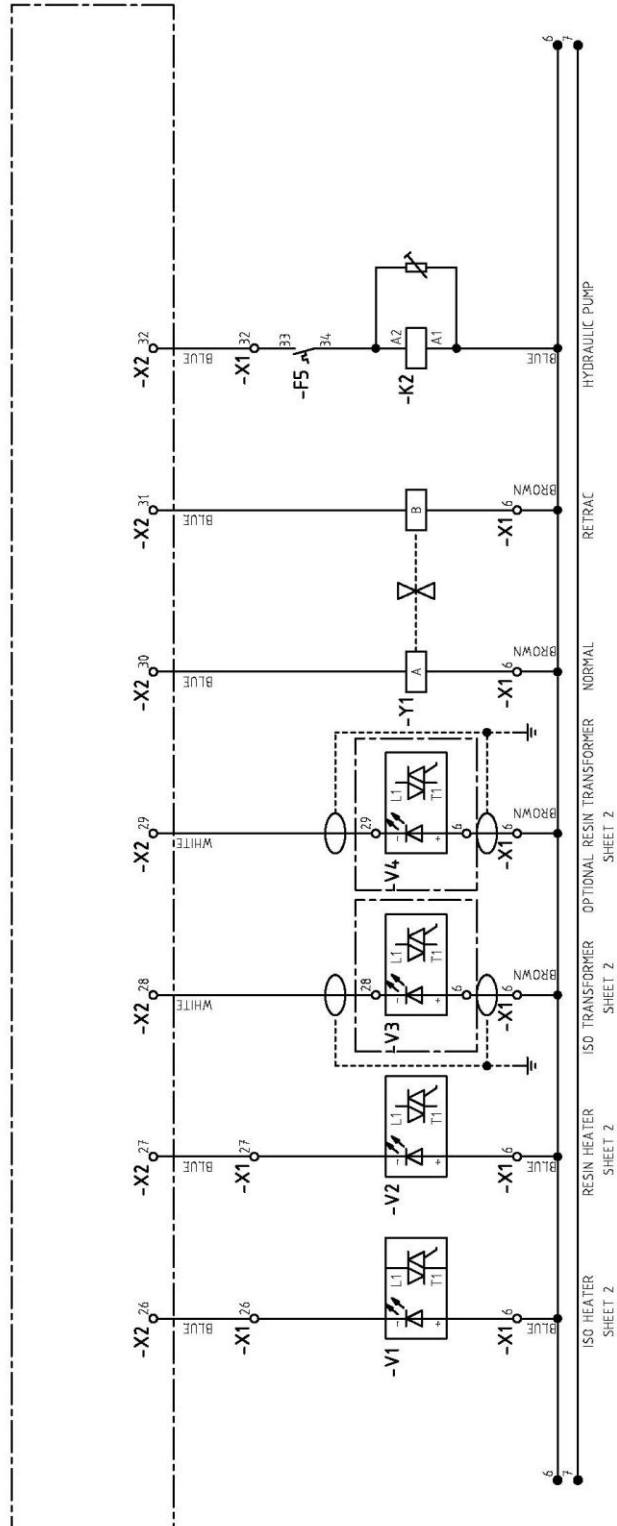


Figure 30. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 6/7)

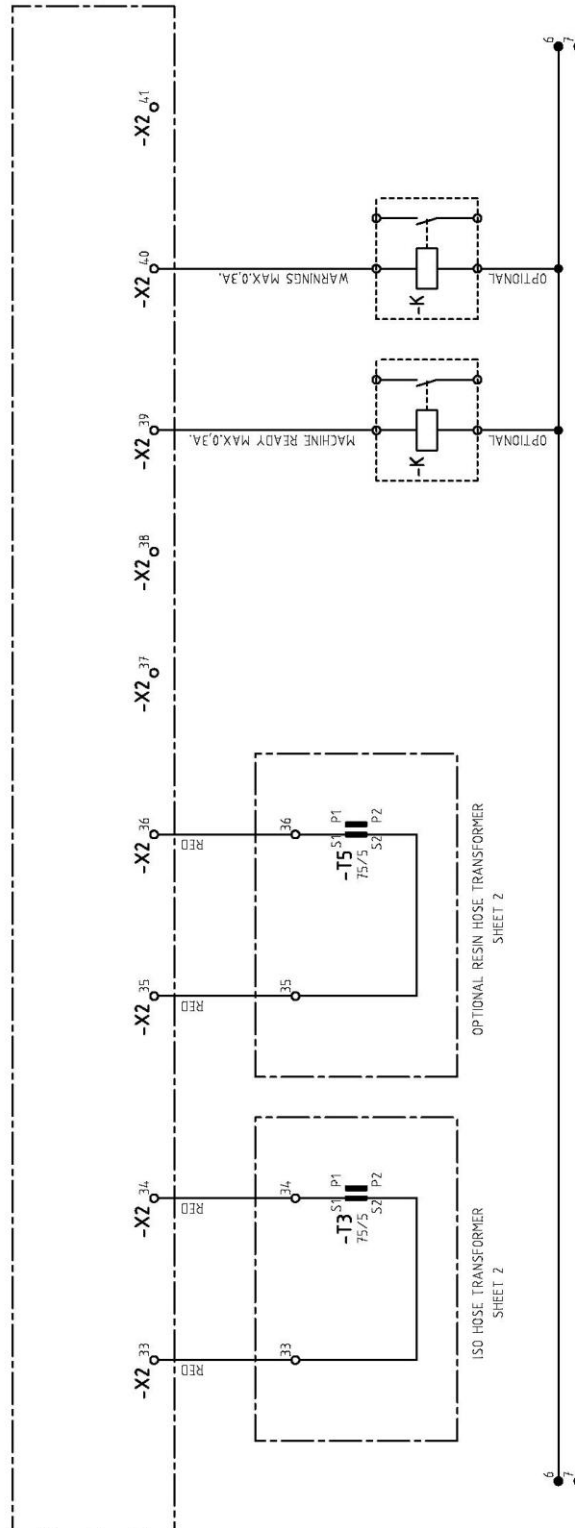


Figure 31. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 7/7)

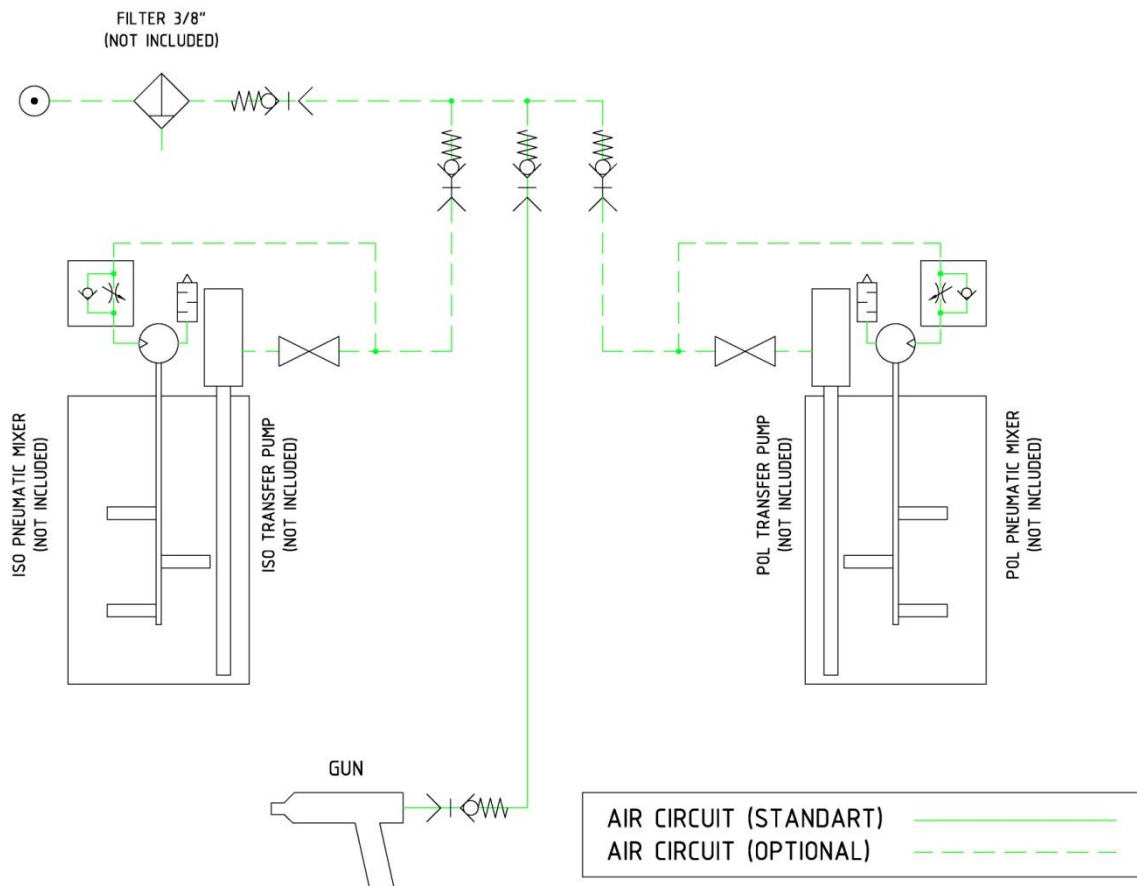


**Table 32. Electrical Schematic 3x230v. w/o N - 60Hz Standard Version,  
Parts List**

| 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   |



## PNEUMATIC SCHEMATIC DIAGRAM



**Figure 33. Pneumatic Schematic Diagram**





## HYDRAULIC SCHEMATIC DIAGRAM

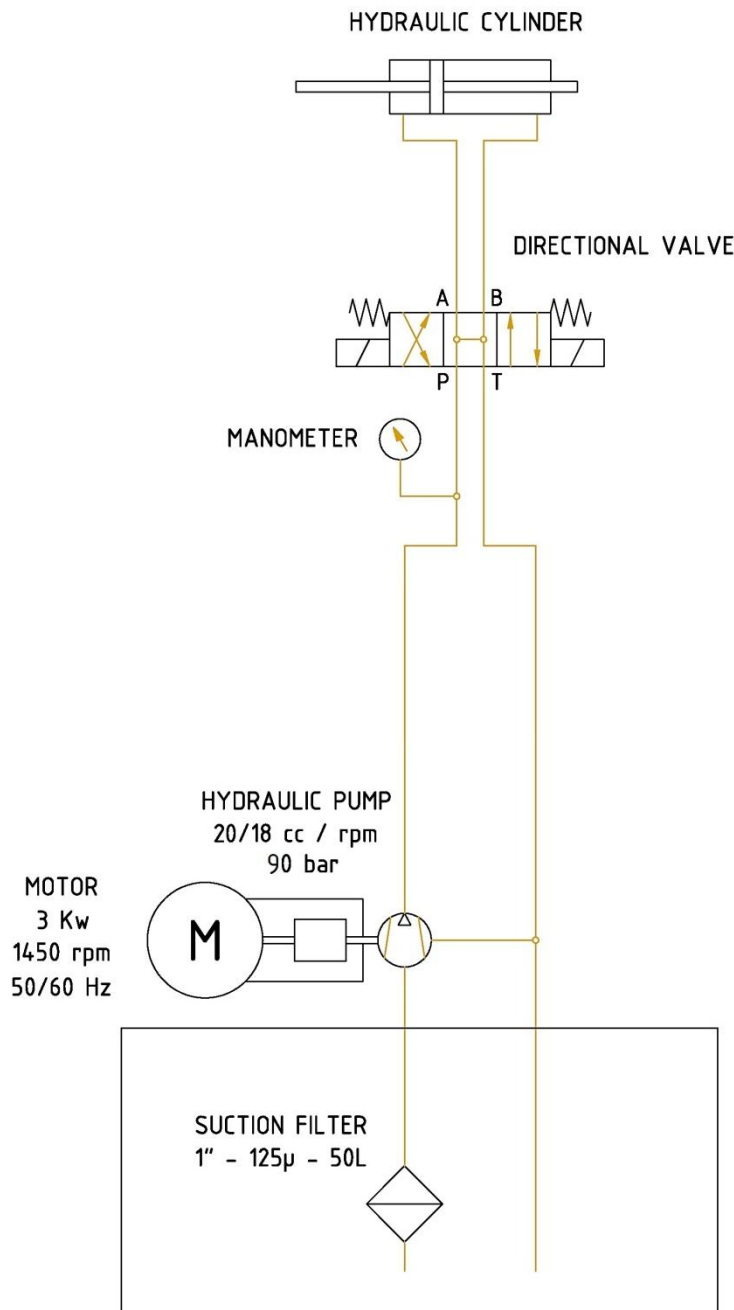


Figure 34. Hydraulic Schematic Diagram





## TABLE OF CONTENTS

|   |    |
|---|----|
| Warranty _____  | 2  |
| Proportioning Unit evolution G-30 H Model _____                             | 3  |
| Electrical Console _____  | 7  |
| Hydraulic Manifold with Motor 3x400v/230v. 50/60hz (hyd. Pump 18 cc.) _____ | 9  |
| Hydraulic Manifold with Motor 3x400v/230v. 50/60hz (hyd. Pump 20 cc.) _____ | 10 |
| Reversing Switch _____  | 14 |
| Lube Reservoir Hose Assembly _____  | 15 |
| Pump Line Assembly _____  | 17 |
| Hydraulic Cylinder with Spacers _____                                       | 20 |
| “A” Proportioning Pump Assembly _____                                       | 22 |
| “R” Proportioning Pump Assembly _____                                       | 25 |
| “A” Standard Primary Heater _____   | 28 |
| “R” Standard Primary Heater _____   | 31 |
| Recirculation Kit P#: KT-00038 _____  | 34 |
| Recirculation Kit P#: KT-00038-01 _____                                     | 35 |
| Recirculation Kit P#: KT-00038-03 _____                                     | 37 |
| Electrical Schematic Diagram 3x400v. w/o Neutral 50/60hz _____              | 39 |
| Electrical Schematic Diagram 3x230v. w/o Neutral 60hz _____                 | 47 |
| Pneumatic Schematic Diagram _____   | 56 |
| Hydraulic Schematic Diagram _____   | 57 |
| Functioning Schematic Diagram _____   | 58 |
| Table of Contents _____   | 59 |
| List of Illustrations _____   | 59 |

## LIST OF ILLUSTRATIONS

|   |    |
|---|----|
| Figure 1. Proportioning Unit evolution G-30 H Model _____                               | 3  |
| Figure 2. Electrical Console evolution G-30 H _____                                     | 7  |
| Figure 3. Hydraulic Manifold 3x400v/230v.50/60Hz (hyd. Pump 18 cc), Exploded View _____ | 9  |
| Figure 4. Hydraulic Manifold 3x400v/230v.50/60Hz (hyd. Pump 20 cc), Exploded View _____ | 10 |
| Figure 5. Reversing Switch Assy., Exploded View _____                                   | 14 |
| Figure 6. Lube Reservoir Hose Assembly, Exploded View _____                             | 15 |
| Figure 7. Pump Line Assembly, Exploded View _____                                       | 17 |



|   |    |
|---|----|
| Figure 8. Hydraulic Cylinder with Spacers, Exploded View                    | 20 |
| Figure 9. "A" Proportioning Pump Assembly, Exploded View                    | 22 |
| Figure 10. "R" Proportioning Pump Assembly, Exploded View                   | 25 |
| Figure 11. "A" Standard Primary Heater, Exploded View                       | 28 |
| Figure 12. "A" Standard Primary Heater, Exploded View                       | 30 |
| Figure 13. "R" Standard Primary Heater                                      | 31 |
| Figure 14. "R" Standard Primary Heater, Exploded View                       | 33 |
| Figure 15. Recirculation Kit P#: KT-00038, Exploded View                    | 34 |
| Figure 16. Recirculation Kit P#: KT-00038-01, Exploded View                 | 35 |
| Figure 17. Recirculation Kit P#: KT-00038-03, Exploded View                 | 37 |
| Figure 18. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 1/7) | 39 |
| Figure 19. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 2/7) | 40 |
| Figure 20. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 3/7) | 41 |
| Figure 21. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 4/7) | 42 |
| Figure 22. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 5/7) | 43 |
| Figure 23. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 6/7) | 44 |
| Figure 24. Elec. Schem. 3x400v.w/o N - 50/60Hz Standard Version (Sheet 7/7) | 45 |
| Figure 25. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 1/7)    | 47 |
| Figure 26. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 2/7)    | 48 |
| Figure 27. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 3/7)    | 49 |
| Figure 28. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 4/7)    | 50 |
| Figure 29. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 5/7)    | 51 |
| Figure 30. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 6/7)    | 52 |
| Figure 31. Elec. Schem. 3x230v.w/o N - 60Hz Standard Version (Sheet 7/7)    | 53 |
| Figure 32. Distribution   | 55 |
| Figure 33. Pneumatic Schematic Diagram                                      | 56 |
| Figure 34. Hydraulic Schematic Diagram                                      | 57 |
| Figure 35. Functioning Schematic Diagram                                    | 58 |