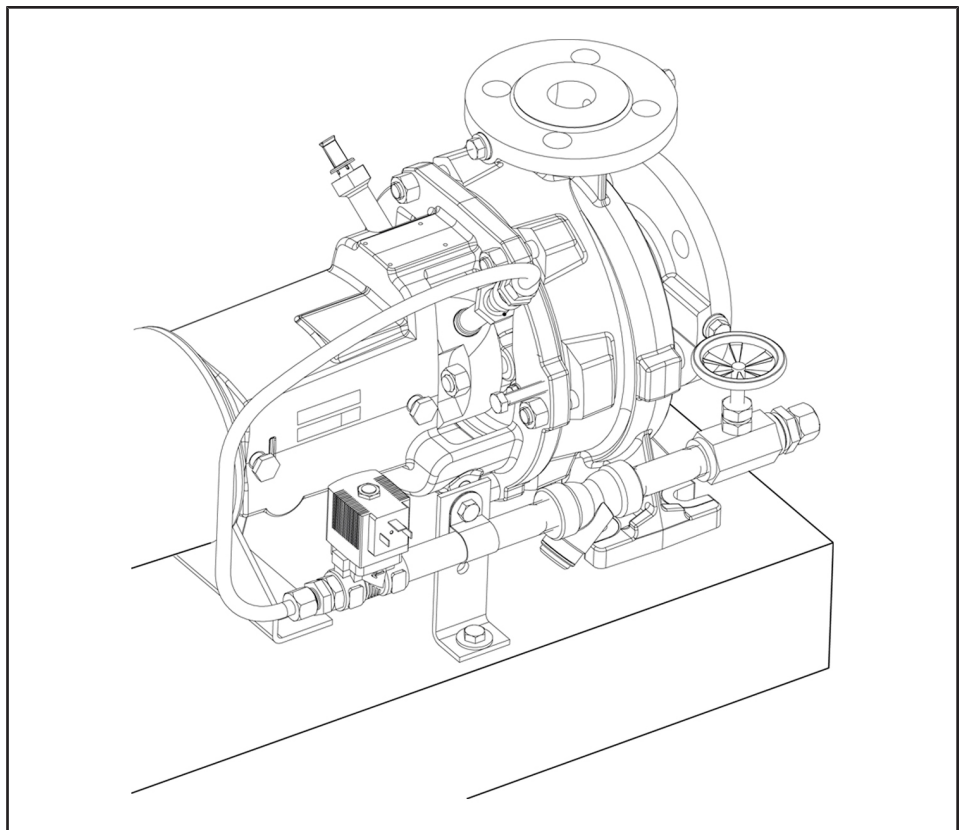


Supply System for Double Mechanical
Seals

QS-DLQ Flushing System

Supplementary Operating Manual



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Supplementary Operating Manual QS-DLQ Flushing System

Original operating manual

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1 Supplementary Operating Manual

1.1 General

This supplementary operating manual accompanies the installation/operating manual. All information contained in the installation/operating manual must be observed.

Table 1: Relevant operating manuals

Type series	Reference number of the installation/operating manual
Etanorm	1311.8
Etabloc	1173.8
Etaprime L	2753.81
Etaprime B	2753.82
Vitachrom	1966.8

1.2 Application

Double mechanical seals always require a supply system.

- Double mechanical seal in tandem arrangement: flushing system or quench system
- Double mechanical seal in back-to-back arrangement: barrier fluid system

This supply system is intended for use with horizontally installed pumps only.

1.3 QS-DLQ flushing system design

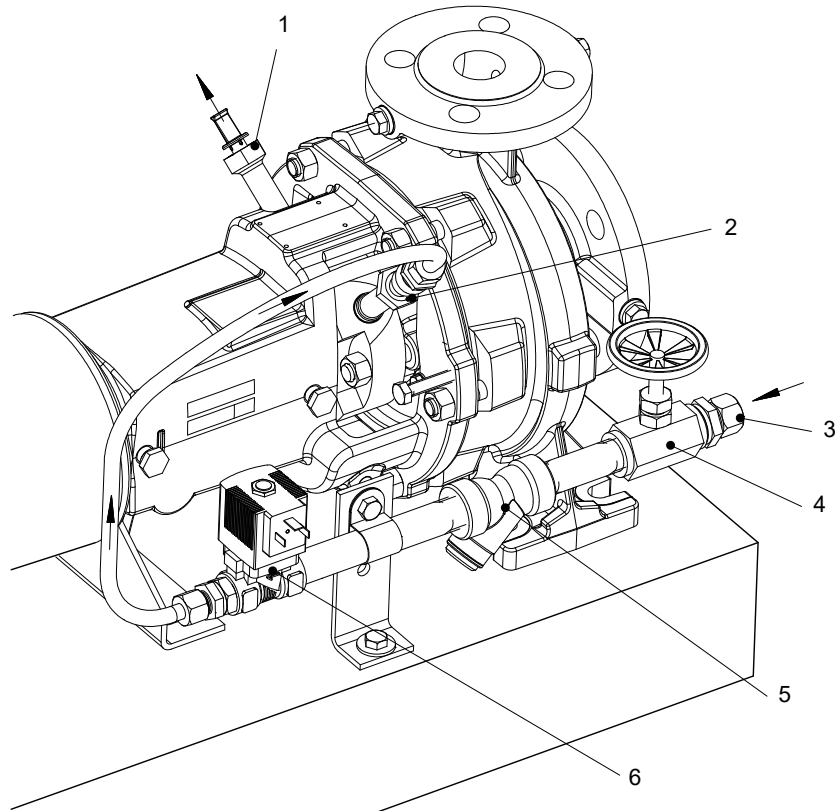


Fig. 1: Design

1	Flushing liquid outlet	4	Needle valve
2	Flushing liquid inlet	5	Strainer
3	Water supply connection	6	Solenoid valve

1.4 Technical data

Table 2: Application range

Characteristic	Value
Operating temperature	5 °C to 30 °C
Operating pressure	2 bar to 8 bar
Flushing liquid	Water

Table 3: Material

Component	Material
Piping	1.4571
Pipe union	1.4571 1.4404
Needle valve	1.4571
Strainer	1.4408
Solenoid valve	1.4571
Bracket	St 37, painted, galvanised
Fastening bolts/screws, discs, nuts	Galvanised steel

1.5 Supply options

The following supply option is available:

- Fully assembled with bracket

1.6 Commissioning/Starting up the supply system

- ✓ The installation/operating manual of the pump set is to hand.
- ✓ Flushing liquid¹⁾ is available in sufficient quantity.
 1. Establish connection to the water supply.
 2. Open the valves.
 3. Fill the connected piping and mechanical seal chamber of the pump with the selected flushing liquid.
 4. Vent the supply system.
 - ⇒ Ensure that the venting process has removed all air bubbles. If necessary, repeat filling and venting several times until the presence of air bubbles can be completely ruled out.
 5. Commission/Start up the pump set in accordance with the installation/operating manual.
 6. After a few hours of pump set operation, check the flow rate of the flushing liquid and adjust if necessary; check venting.

1.7 Supervision of operation

While the pump is in operation, observe and/or check the following:

- Regularly check the mechanical seal supply.
- Regularly check and replace the flushing liquid if necessary.
- Regularly check the strainer and clean if necessary.

¹ Water, 5 °C to 30 °C

1.8 Supply system connections

1.8.1 QS-DLQ flushing system for Etanorm, Etaprime L type series

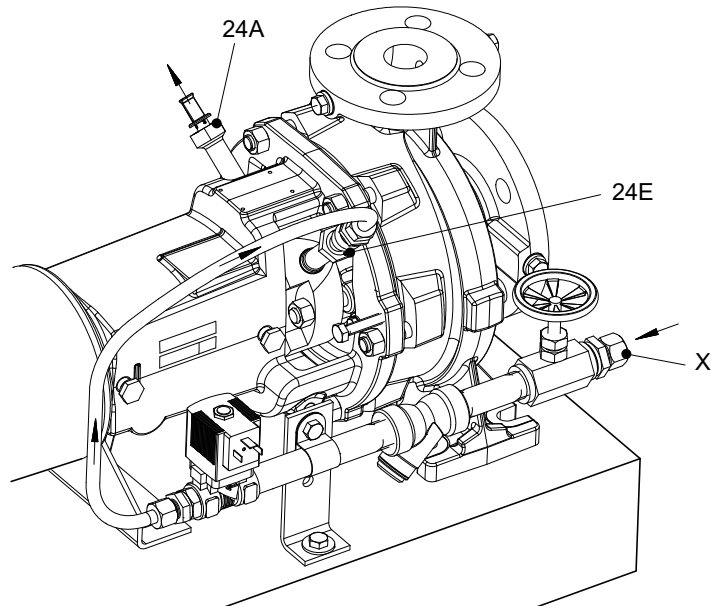


Fig. 2: Pump set connections

Table 4: Pump set connections

Connection	Description	Thread
24A	Flushing liquid outlet	G1/4
24E	Flushing liquid inlet	G1/4
X	Water supply connection	G1/2

1.8.2 QS-DLQ flushing system for Etabloc, Etaprime B, Vitachrom type series

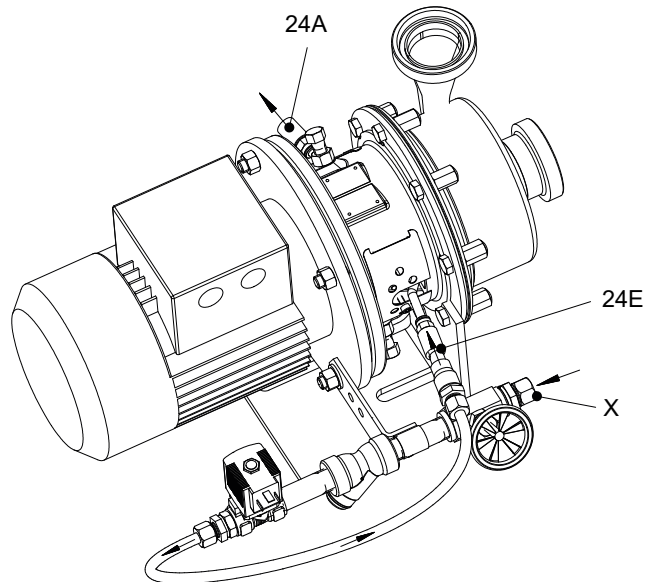


Fig. 3: Pump set connections

Table 5: Pump set connections

Connection	Description	Thread
24A	Flushing liquid outlet	G1/4
24E	Flushing liquid inlet	G1/4
X	Water supply connection	G1/2

1.9 General assembly drawings

1.9.1 QS-DLQ flushing system for Etanorm, Etaprime L type series

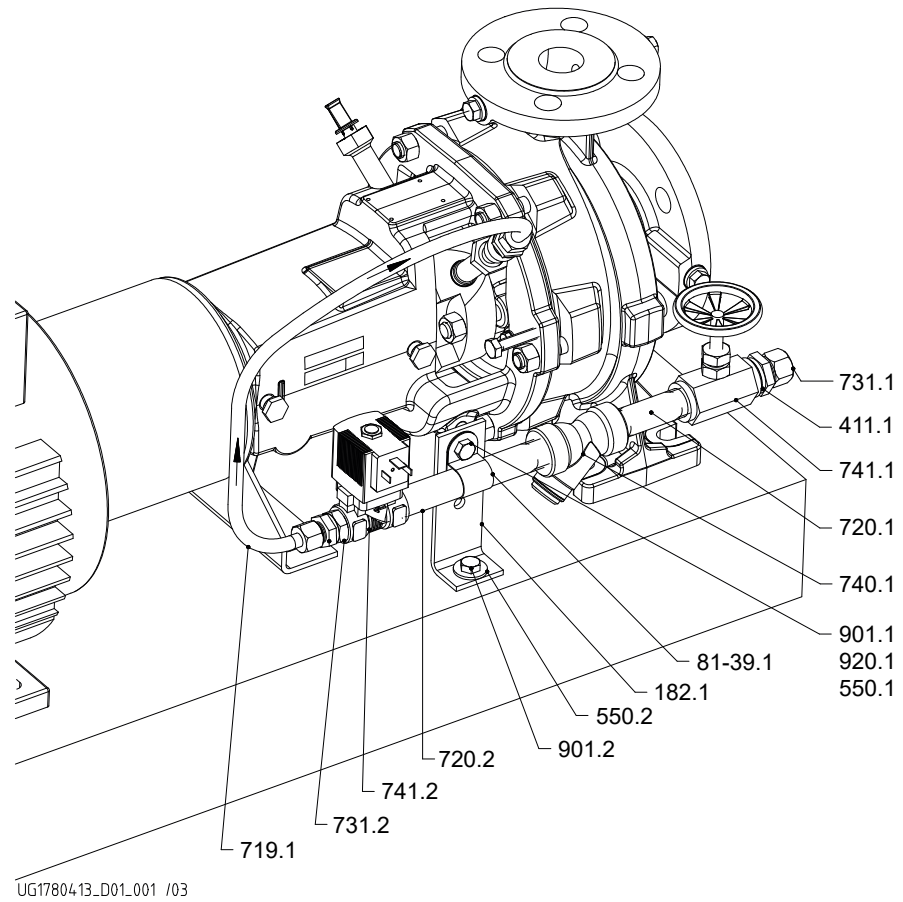


Fig. 4: General assembly drawing

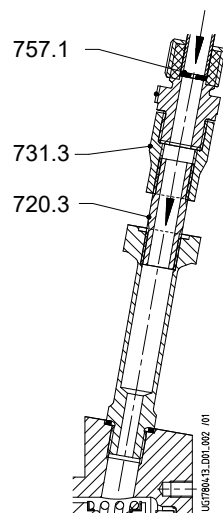


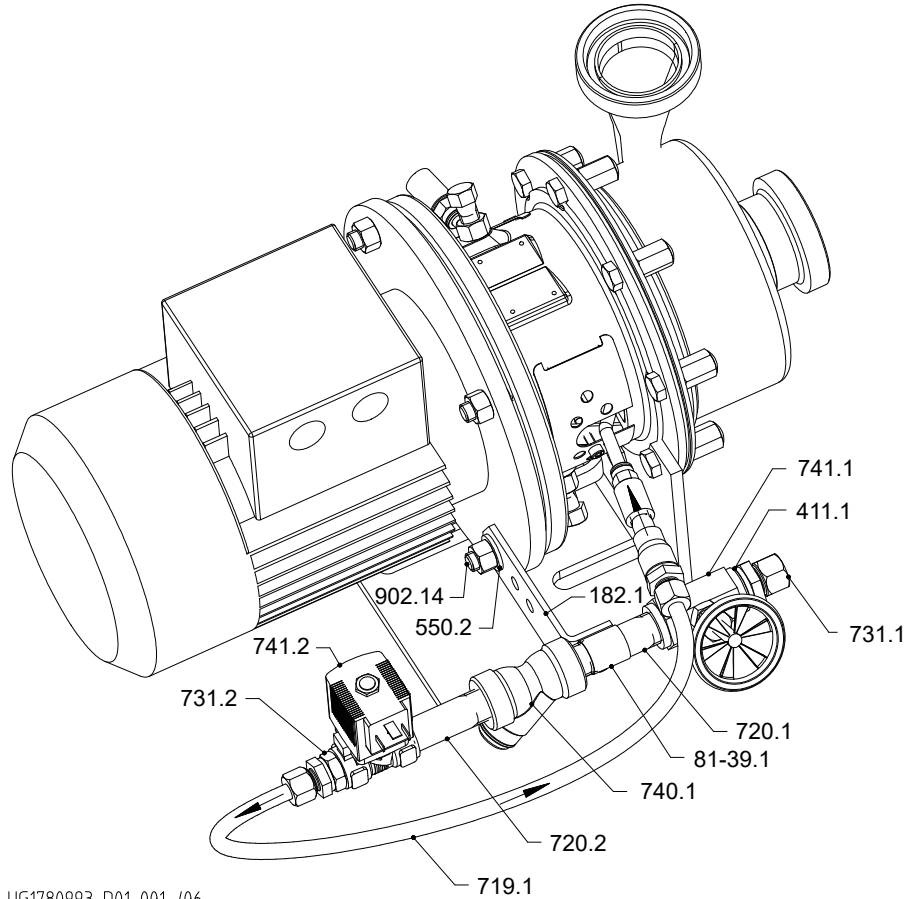
Fig. 5: Detail drawing, flushing connection

Table 6: List of components

Part No.	Description	Part No.	Description
182.1	Foot	740.1	Valve (strainer)
411.1	Joint ring	741.1/.2	Valve
550.1/.2	Disc	757.1	Throttle

Part No.	Description	Part No.	Description
719.1	Flexible tube	81-39.1	Clamp
720.1/2/3	Fitting	901.1/2	Hexagon head bolt
731.1/2/3	Pipe union	920.1	Nut

1.9.2 QS-DLQ flushing system for Etabloc, Etaprime B, Vitachrom type series



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Fig. 6: General assembly drawing

Table 7: List of components

Part No.	Description	Part No.	Description
182.1	Foot	731.1/2	Pipe union
411.1	Joint ring	740.1	Valve (strainer)
550.2	Disc	741.1/2	Valve
719.1	Flexible tube	81-39.1	Clamp
720.1/2	Fitting	902.14	Stud



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