

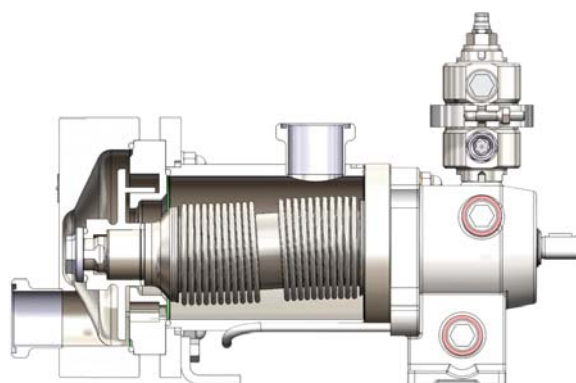


INSTRUCTIONS 1011-W00 e

Section	1011
Effective	October 2018
Replaces	August 2018

Original instructions

ECS System (Easy Clean System) for SLS4 i & SLS8 i pumps



This manual must be used along with following manuals :

- NT 1004-E00 Pumps SLS4 i SLS8 i
- NT 1011-S00 Bellows monitoring system C SL Series pumps

WARRANTY :

ECS System for SLS4 i & SLS8 i pumps is covered 24 months by warranty within the limits mentioned in our General Sales Conditions. In case of a use other than that mentioned in the Instructions manual, and without preliminary agreement of MOUVEX, warranty will be canceled.



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Your distributor :

1. DESCRIPTION

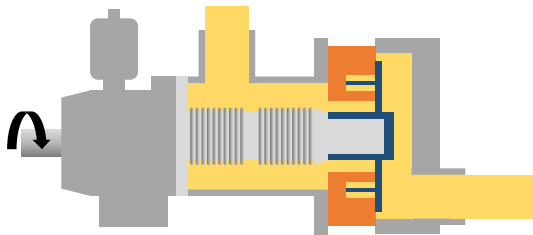
On a SLS4 or SLS8 pump equipped with ECS, the transmission includes a pressurization capacity destined to be supplied with 4 bar / 58 psi compressed air.

Air supply leads to pump inside opening, allowing full CIP flow rate to cross the pump with a limited pressure drop. As a consequence, external CIP bypass valve and linked piping are no longer necessary.

2. OPERATION

2.1 Process operation (Product pumping)

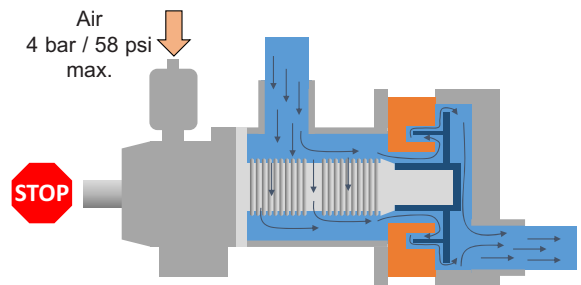
During process operation, transmission is not supplied with air. Disc remains against the cylinder, to allow pumping action.



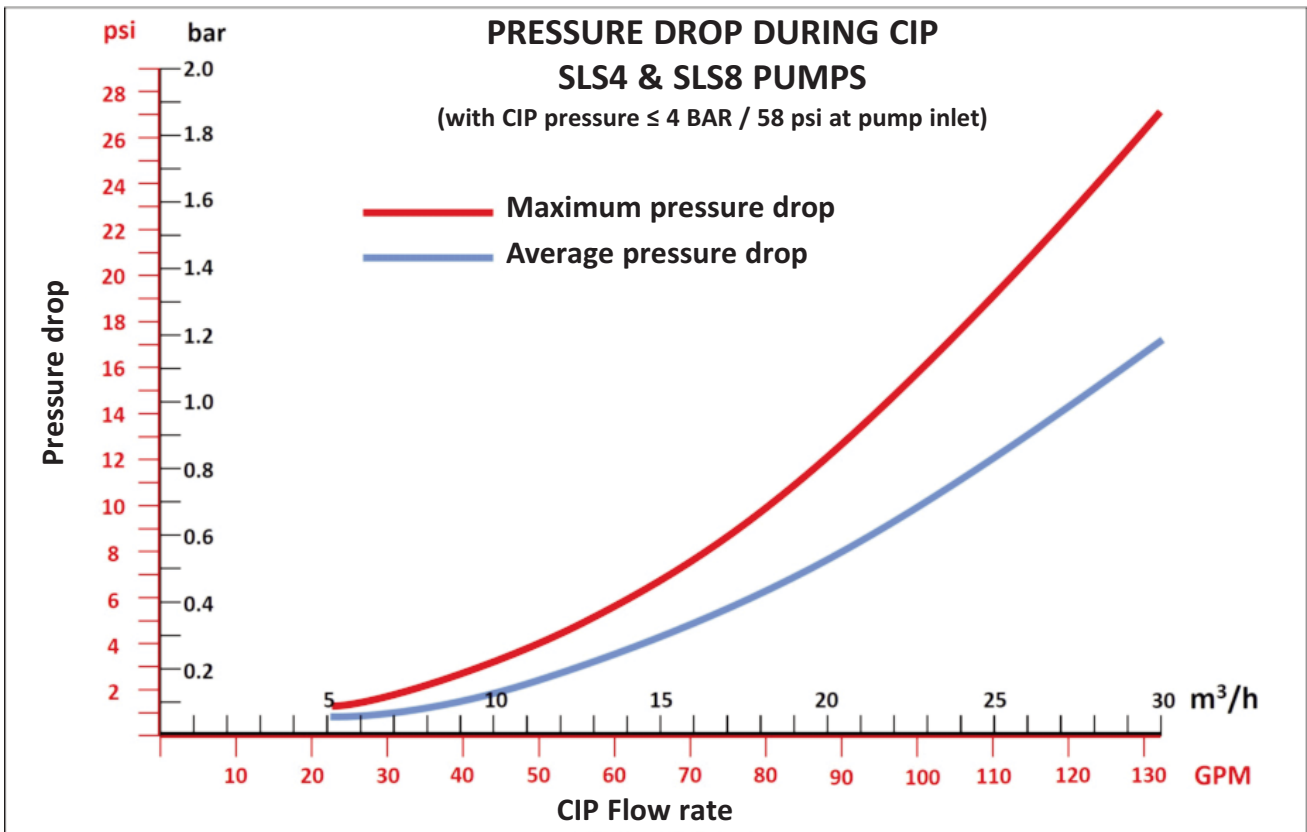
2.2 Cleaning in place or water flush

During a CIP or a water flush, the pump is stopped and the transmission is supplied with compressed air. This allows :

- To move disc away from the cylinder, thus letting the full CIP flow rate going through the pump with a limited pressure drop.
- To balance pressures inside and outside the bellows, allowing resistance to pressure and water hammers.



Curve below gives pressure drop inside the opened pump depending on CIP flow rate.



Non-contractual information.

3. INSTALLATION

Pumping set must be installed according to recommendations mentioned in pump Instructions (NT 1004-E00).

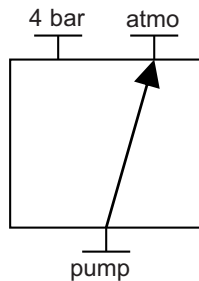
3.1 Air connection

Connect air supply to pressurization capacity and **check that pressure does not exceed 4 bar / 58 psi**. Use a pressure reducer if necessary. Drive air supply with a 3-ways solenoid valve allowing either to put transmission inside at atmospheric pressure or 4 bar / 58 psi. Solenoid valve can be similar to the ones used on butterfly/ball valves pneumatic actuators.

4. OPERATION

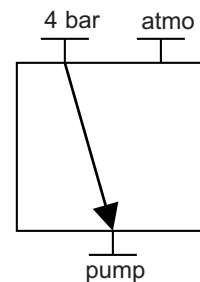
4.1 Process operation (product pumping)

Drive solenoid valve to put transmission inside to atmospheric pressure. Pressurizing transmission while pump is rotating will lead to **total flow rate loss** and can **damage the transmission**.



4.2 CIP or water flush

Pump must **absolutely** be **stopped** before pressurizing the transmission. Drive solenoid valve to put transmission inside at 4 bar / 58 psi pressure.



Cycle for any CIP or water flush will be as follows :

1. Pump stop.
2. Pump inside opening of the pump by driving solenoid valve (Compressed air 4 bar / 58 psi max).
3. CIP or water flush start.
4. CIP or water flush end.
5. Pump inside closing of the pump by driving solenoid valve (connection to atmosphere).
6. Pump ready for a new process phase.

Maximum pressure at pump inlet during CIP: 6 bar g / 90 psi g.

CAUTION ! INJURIES RISKS !

Transmission must never be pressurized alone (not mounted in a pump). Bellows tightness must never be controlled by introducing compressed air in the oil filling port.

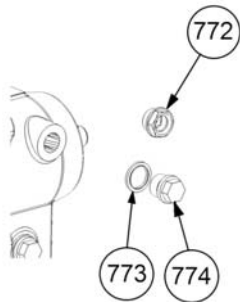
For any operation on pump and transmission, **SLS4 and SLS8 Pumps Instructions must be read** (NT 1004-E00).

5. MOUNTING OF ECS KIT ON EXISTING TRANSMISSION

Attach transmission bearing case to the work surface with a clamp or else, to keep transmission horizontal.

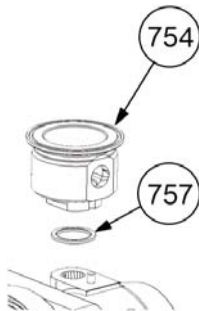
Drain transmission oil (see pump Instructions).

If transmission or pump were delivered before January 2018, change shaft lip seals (see pump Instructions). Use kit 316243.01.



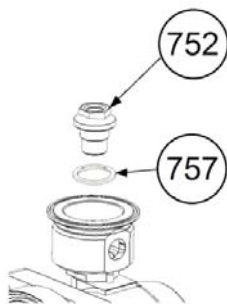
Remove oil bullseye 772.

Place and tighten a plug 773 with its gasket 774 in place of the oil bullseye.



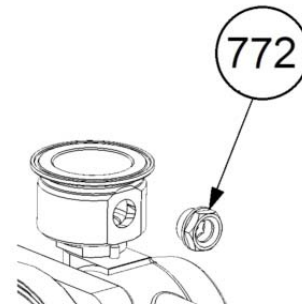
Place a ring 757 on the oil filling port.

Place lower half reservoir 754.



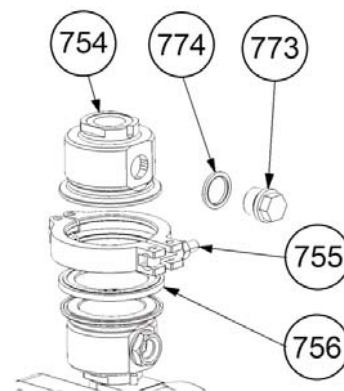
Place a ring 757 in the bottom of lower half reservoir 754.

Place and tighten nipple 752.



Place and tighten oil bullseye 772 on the lower half reservoir 754.

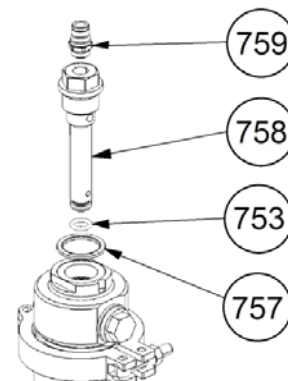
Fill up transmission with Mouvex CS05 oil until level exceeds totally bullseye level. Wait for possible air bubbles coming out and adjust level if necessary.



Place gasket 756 and upper half reservoir 754.

Put and tighten clamp collar 755.

Place and tighten a plug 773 with its gasket 774 on the upper half reservoir 754.



Put O-ring 753 at the end of restrictor 758.

Place a ring 757 on top of the upper half reservoir 754.

Place and tighten restrictor 758 and its O-ring 753 in the reservoir assembly.

Place and tighten air connection 759.