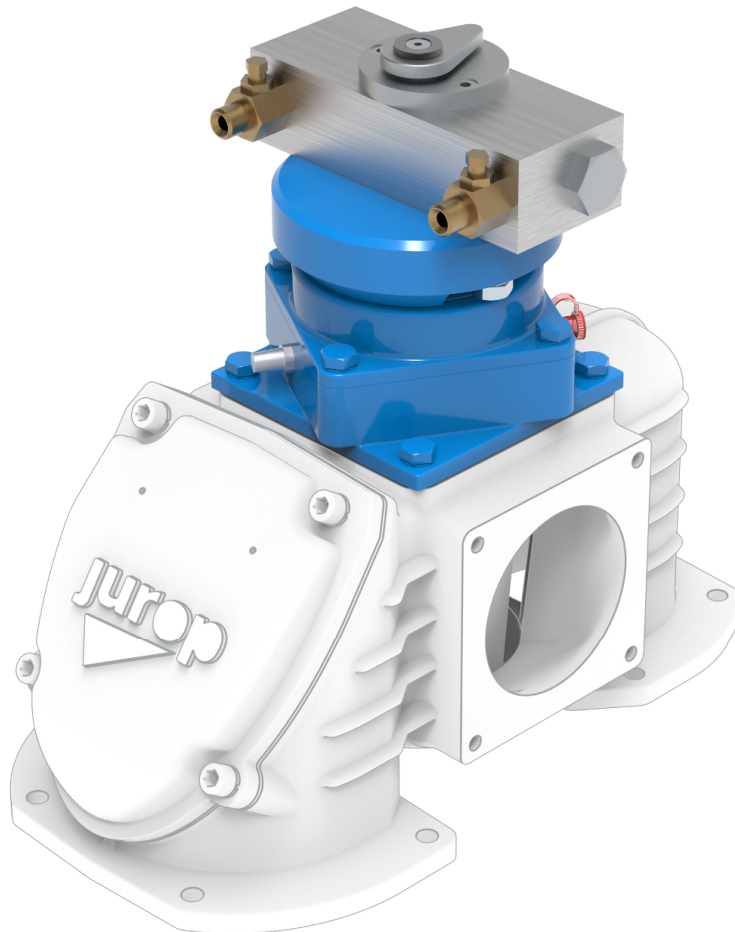


EN

## 4 WAY HYDRAULIC ACTUATOR KIT



### ACCESSORIES

#### 4-Way Hydraulic Actuator Kit



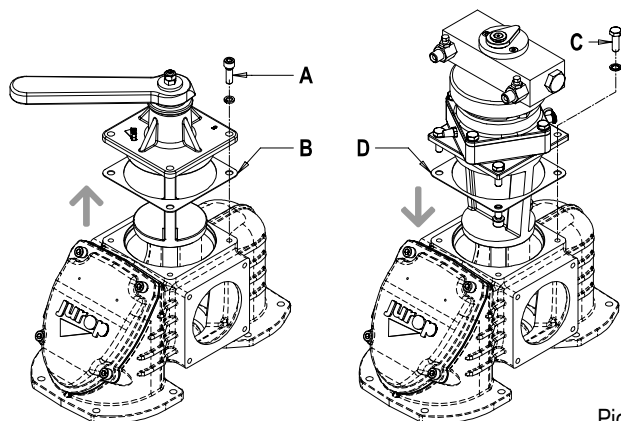
COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =

## INSTALLATION INSTRUCTIONS

### 4-WAY HYDRAULIC ACTUATOR KIT

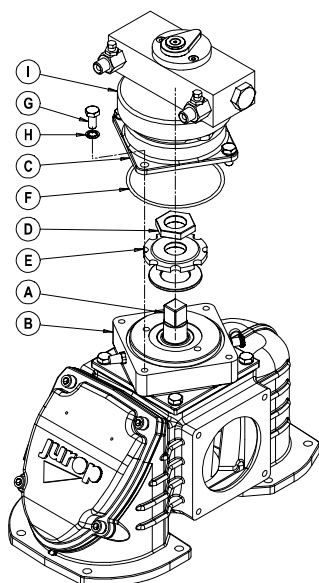
For PN-PNE-PNR-LC-RV-DL pumps series

• As shown in Pic. 1, dismount the 4-Way Manual Actuator unscrewing the 4 screws (A). Remove the gasket (B). Then insert the **Hydraulic 4-Way Actuator Kit** (with its gasket D) and fix it with the 4 screws (C).



Pic. 1

• The kit is delivered already assembled. However once the connection to the manifold has been done it is required to fine-tune the mechanical backlash.

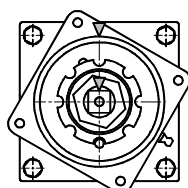


Pic. 2

• Unscrew the 4 screws M8x16 (G, H) which fasten the top cover (C) to the inferior support (B).

• Clean the inner part from the lubricant.

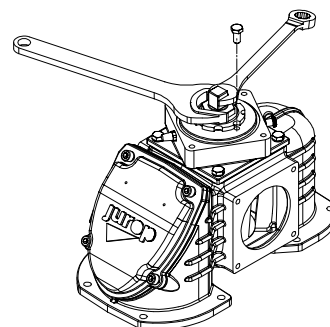
• "Mark" the initial position of the cock (A). When mounting the cock back in place, it must be in the same position.



Pic. 3

• Turn the valve until one of the cock regulation ferrules (E) coincides with one of the threaded holes on the inferior flange (B). Block temporarily the nut ferrule with a screw.

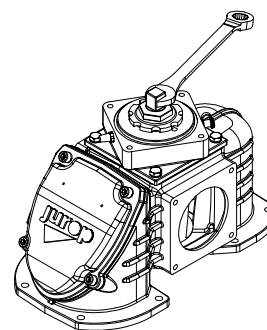
• Hold the valve in place with a 17 mm spanner and loosen the nut (D) over the ferrule by 1/2 - 3/4 turn with a 36 mm spanner.



Pic. 4

• Valve adjustment: turn the valve clockwise by 1/8 turn (45°) in order to lower it (in case of excessive play between the valve and its seat and of reduced performance) or anticlockwise by 1/8 turn (45°) to raise it (in case of difficult rotation of the valve in its seat).

• Hold the valve in place with the spanner and fasten the nut (D) above the ferrule.



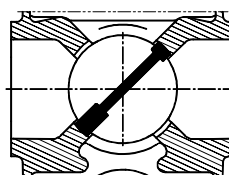
Pic. 5

• Remove the screw which temporarily blocks the ferrule and check for the correct rotation of the valve by adjusting the shaft frame. Repeat the valve adjustment, if necessary.

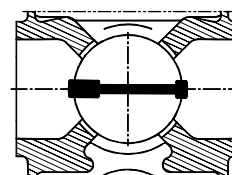


**Attention: get the valve back into the previously "marked" position. Otherwise, the valve may work improperly.**

• The valve - in both its end stroke positions - must separate the air flow sucked from the pump outlet air. The pump may be started in order to check for the proper functioning.



CORRECT POSITION



INCORRECT POSITION

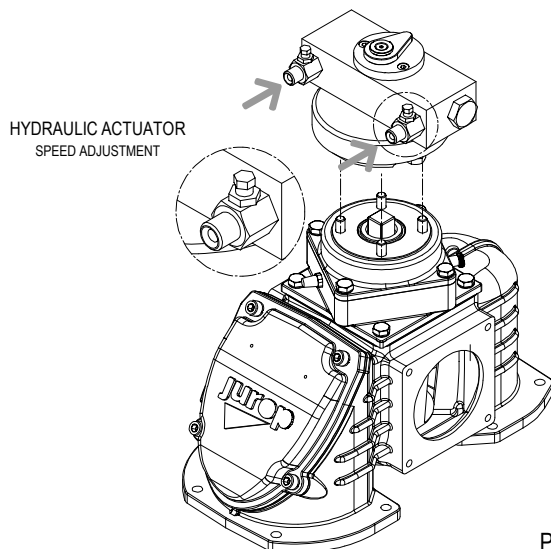
- Lubricate around the threaded ring in order to lubricate the parts subject to wear and tear. Use 40 g of NLGI 2 Lithium grease.
- Set the top cover back into place. Do not forget the OR-Ring (F). Fasten the four screws (G, H).
- Lubricate the cock using 80-100 g of NLGI 2 Lithium grease.

### Hydraulic actuator characteristics

Hydraulic actuator characteristics	
Fluid	Hydraulic oil ISO-L-HM
Filtration	ISO 4406 21/19/16
Temperature	-20 ÷ +80 °C
Rated pressure	150 bar
Maximum pressure	200 bar
Supply holes	G 1/8

### Hydraulic actuator installation

- Adjust movement speed using the two built-in valves. Full rotation should not take less than 1 second.
- Use a closed-centre distributor or apply a block valve.
- Fluid filtration: ensure a level equal to or greater than the recommended value.
- In the event of a hydraulic supply failure, the suction unit inverter will remain in the same position it was when the failure occurred.

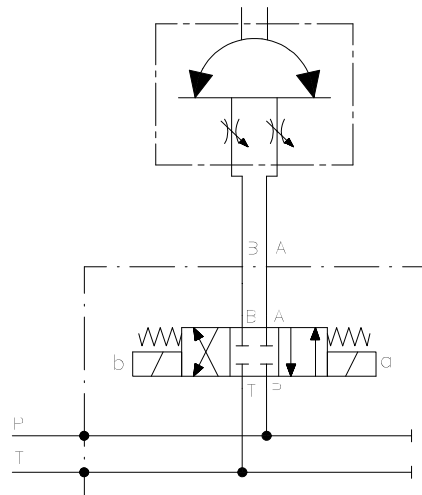


Pic. 6

### Hydraulic actuator maintenance

- Usually the cock (once adjusted at installation) is not in need of further adjustments.
- Diverter lubrication:
  - Use NLGI 2 Lithium grease. Quantity: 80-100 grams for 1000 working cycles.
  - A bleeder hole covered by a filter is preventing the hole to overfill. Clean the filter whenever clogged.
- The control valves are equipped with an internal metal filter. Disassemble and clean if movement stops.

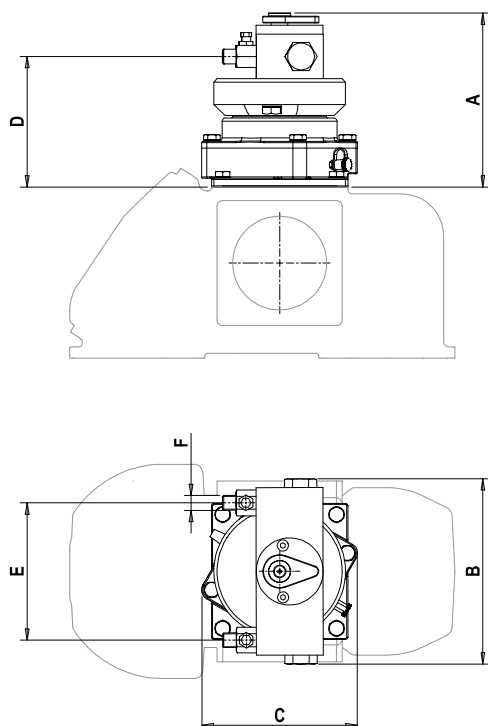
- The following figure shows a possible schematic view of a correct hydraulic connection.



Pic. 7

- In case of interruption of the hydraulic supply, the inverter of the suction unit remains in the same position it was when the failure occurred.

## DIMENSIONS



DL220-250-270-300 LC750	14302030E0	
	A	158
	B	166
	C	142
	D	119
	E	123
	F	¼" M

DL150-180, PN130-140-155, LC420-580, PNR104-124-142	14302032E0	
	A	156
	B	166
	C	139.7
	D	117
	E	123
	F	¼" M

DL75-95-125, PNR-E73-83, LC300, RV-RVC360, R260	14302033E0	
	A	155
	B	166
	C	139.6
	D	116.5
	E	123
	F	¼" M

PN45-58-84-106 RVC210	14302034E0	
	A	155
	B	166
	C	139.6
	D	116.5
	E	123
	F	¼" M