

## 400 SERIES DISASSEMBLY & MAINTENANCE INSTRUCTIONS



Document No: TL 7 32 EN Release Date: 01.01.2015 Rev No: 0 SIZE MODEL 400-THREADED **400A SERIES** 400-FLANGED 1/4" 402 3/8" 403 1/2" 405 3/4" 407 1" 410 412 1 1/4" 1 1/2" 415 2" 420

## WARNING

Unless specified; ROTOFLUID rotary joints must not be used with Hydrocarbons or Flammable Mediums. Leaking may result explosion or fire.

## **400 SERIES SPARE PARTS**

- All ROTOFLUID products are leakage tested before shipment. Disassemling or dismantling invalidates the warranty.

- Operator should not make any modification or attachments and retroffiting of the rotary joint without manufacturers' consent.

- ROTOFLUID Rotary Joints may only be installed by personel who have experience and knowledge about rotary joints and plumbing systems.

- For safe operation only use genuine ROTOFLUID parts.

- For safe operation only use hoses which are appropriate for the media.

- Follow engineering specifications of the machine builder.



NO	PART NAME	QTY	NO	PART NAME	QTY
1	400 HOUSING	1	11	EXT. RETAINING RING	1
2	400A HOUSING	1	12	SEAL RING	1
3	SHAFT - THREADED	1	13	PIM	2
4	SHAFT - QR	1	14	SEAL RING O-RING	1
5	SHAFT - FLANGE	1	15	FLOATING SEAL RING	1
6	FLANGE O-RING	1	16	O-RING	1
7	INT. RETAINING RING	1	17	WASHER	1
8	BALL BEARING	2	18	PIM	2
9	GREASE RING	1	19	SPRING	1
10	WASHER	1	20	GREASE RELIEF FITTING	1

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1- Before disassembling the joint from the machine, close inlet and outlet valves and wait for all the medium to be drained completely. Be sure that there is no pressure and no residual pressure is applied to the pipe line system of the machine.

- 2- If hot medium is used, wait until all the system to be cooled down to normal temperature.
- 3- Disconnect inlet and outlet hoses from the supply and return pipes or valves.
- 4- Disassemble the shaft from the machine with appropriate tool.
- 5- If dual flow is used, becareful not to damage the internal siphon pipe when seperating the dual flow joint from the machine.
- 6- Hold the housing(1-2) of the joint with a bench wise and take out the inlet hose from the housing.
- 7- If dual flow is used, pay attention not to damage internal parts when taking out the dual flow elbow with siphon pipe.
- 8- Becareful not to damage the housing while holding it with the bench wise.
- 9- Prepare a clean place on the table where planned to make the maintenance.
- 10- Place the joint on the table onto the housing.
- 11- Control visually if there is any damage or defects.

12- Do not forget that there is spring(19) inside the joint. All internal parts may pop out from the housing because of the force of the spring.

- 13- Hold the shaft(3-4-5) from the threaded/qr/flanged side and press through the housing.
- 14- Take out the internal retaining ring(7) with snap ring pliers.
- 15- Take out the shaft(3-4-5) with bearings(8) slowly.
- 16- Disassemble the seal ring(12) from the shaft. Becareful not to damage the sealing socket.
- 17- Take out the seal o-ring(14) from the shaft sealing socket.
- 18- Take out shaft retaining ring(11) with appropriate snap ring pliers, disassemble the ball bearings.
- 19- Clean shaft and inspect for corrosion and deformation. If necessary change it with new one.
- 20- Control anti rotation pims(13), if necessary change them with new ones.
- 21- Assemble new ball bearings(8) with washer(10) onto the shaft and fix with shaft retaining ring(11).
- 22- Place new seal o-ring(14) into the socket inside the shaft and apply grease on the seal socket.
- 23- Becareful when placing seal ring(12) into the shaft; sockets of the seal ring must correspond to anti rotation pims.
- 24- Take out the floating seal ring(15), washer(17) and spring(19) from the housing.
- 25- Clean all internal surfaces of the housing, check for corrosion and deformation. If sealing surfaces are damaged, change the housing with new one.
- 26- Clean the spring(19) and inspect for deformation; if necessary change it with new one.
- 27- Place the spring inside the housing with a washer(17) on top.
- 28- Place a new floating seal ring(15) with a new o-ring(16) on top of the washer. Microlapped surface of the seal ring must face upwards.
- 29- Hold the shaft from the threaded/qr/flanged side; assemble it into the housing.
- 30- Press the shaft through the housing and fix it with housing retaining ring(7).
- 31- Check rotation of the joint, if any knocking or noise show up, go to step 13 and follow the steps.
- 32- If flanged shaft is used; clean o-ring socket on the flange and place a new o-ring(6).
- 33- Ball bearings will need lubrication. Apply grease according to lubrication instructions.
- 34- Hold the housing of the joint with a bench wise and assemble inlet hose to the housing.

35- If dual flow is used, first assemble the siphon pipe with dual flow elbow to the housing. Then assemble the outlet hose to the dual flow elbow.

36- Assemble the joint to the machine roll. Control rotation of the joint; if any eccentricity seems, disassemble it and assemble it again.

37- Assemble the inlet and outlet hoses to the supply and return pipes or valves.

38- Now the joint is ready for work.