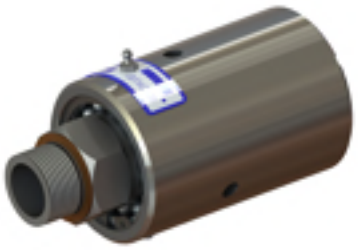
400A SERIES INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

Document No: TL 7 34 EN | Release Date: 01.01.2015 | Rev No: 0

SIZE	MODEL
1/4"	402
3/8"	403
1/2"	405
3/4"	407
1"	410
1 1/4"	412
1 1/2"	415
2"	420



WARNING

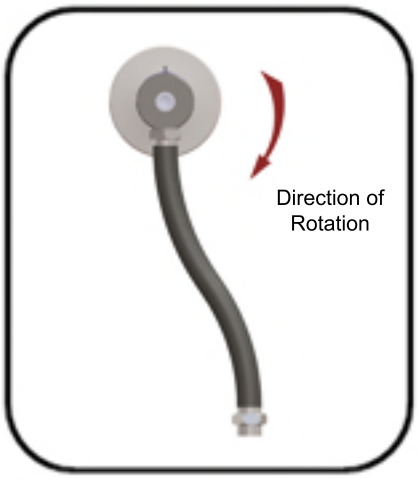
Unless specified; ROTOFLUID rotary joints must not be used with Hydrocarbons or Flammable Mediums. Leaking may result explosion or fire.

Medium: Water, Steam, Hot Oil, Pneumatic, Hydraulic, Vacuum, General Purpose
Max. Water Pressure: 50 bar (750 psi)
Max. Steam Pressure: 1 bar (14 psi)
Max. Hot Oil Pressure: 7 bar (100 psi)
Max. Temperature: 200 ^{o}C
Max. Speed: 3,500 RPM

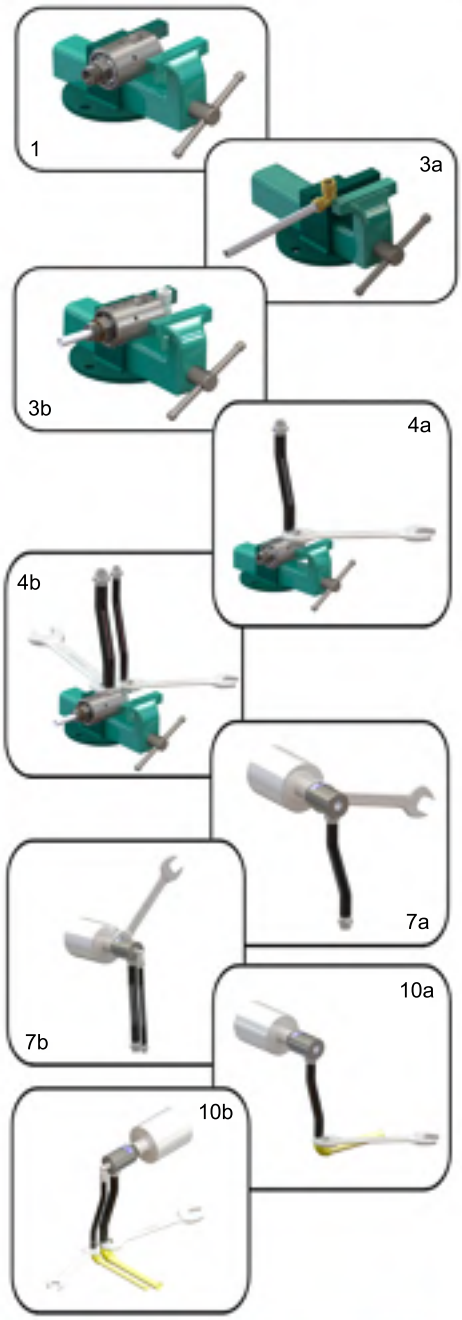
- Do not work with max. pressure at max. speed.
- All ROTOFLUID products are leakage tested before shipment. Disassemling or dismantling the joint invalidates the warranty.
- Operator should not make any modification or attachments and retroffiting of the rotary joint without manufacturers' consent is prohibited.
- It is important to use correct hand of rotary connection thread to ensure the Rotary Joint will not unscrew. If shaft rotates forward & reverse; flanged connection is recommended.
- 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.
- For applications higher than 8 bar, 400A Series are only used with cold water. For other applications higher than 8 bars, please contact factory.
- 400A Series Rotary Joints are designed to work with the interpassing medium. Do not run dry very long time. If application needs dry running, please consult factory.

INSTALLATION

- Do not connect Rotary Joint directly to piping. Rotary Joints are designed to float with the flexible hoses.
- Install hose with curve in direction of rotation.
- Unless specified, all 400A Series Rotary Joints are shipped as P-type.
- All 400 Series Rotary Joints has a standard P type housing. S type and RSP type joints consist of P-type housing with the appropriate elbow (S or RSP) type.
- To improve joint performance and longer joint life, always flood the Rotary Joint and purge any entrapped air in the system before operating the machine.



1. First hold the housing of the joint with a bench wise. Do not clamp too tightly, it will damage housing or bearings.
2. If the joint is used for single flow, apply adhesive or teflon tape to the threads of the pipe plug and fix it to the second port of the joint.
3. If the joint is used for dual flow,
   3.a) apply adhesive or teflon tape to the thread of the siphon pipe and fix it to the dual flow elbow.
   3.b) Apply adhesive or teflon tape to the thread of the dual flow elbow. Becareful when assembling dual flow elbow with siphon pipe to the second port of the joint, internal siphon pipe may damage internal parts of the joint.
4. Apply sealant/adhesive or teflon tape to the threads of the hoses and assemble them to the housing.
5. If housing connections are SAE Flange, place o-rings into the grooves and fix flanges of the hoses with appropriate bolts.
6. Clean machine bore surface before assembling.
7. Apply adhesive or teflon tape to the thread of the shaft and install the joint to the machine. When installing, pay attention not to install eccentrically.
8. If the joint shaft is flanged,
   8.b) Clean rotating joint flange surface
   8.b) Place a new flange sealing o-ring into the o-ring groove
   8.c) Align rotating joint flange and machine bore flange.
   8.d) Fix flange to the bore of the roll with appropriate bolts. Make sure the sealing o-ring on the shaft flange is in position.
9. If the joint shaft is quick release; put a new copper washer into the bore of the roll, assemble qr flange onto the shaft, place split rings onto the socket around the shaft correspondingly, place qr flange onto the split wedges and fix the flange to the bore of the roll with appropriate bolts.
10. Connect hoses to the supply and return lines. Use flexible hoses and never install joint directly to the pipes.
11. After assembly; control rotation of joint. If any noise, wobble, vibration, knocking or noise show up or if any eccentricity seems; disassemble the joint from the machine and assemble it again.



LUBRICATION

- Do not apply too much grease on ball bearings. Over greasing will result damage of the bearings. All 400A Series Rotary Joints are equipped with grease relief valve to protect ball bearings from overgreasing.
- Always use fresh grease to the ball bearings.

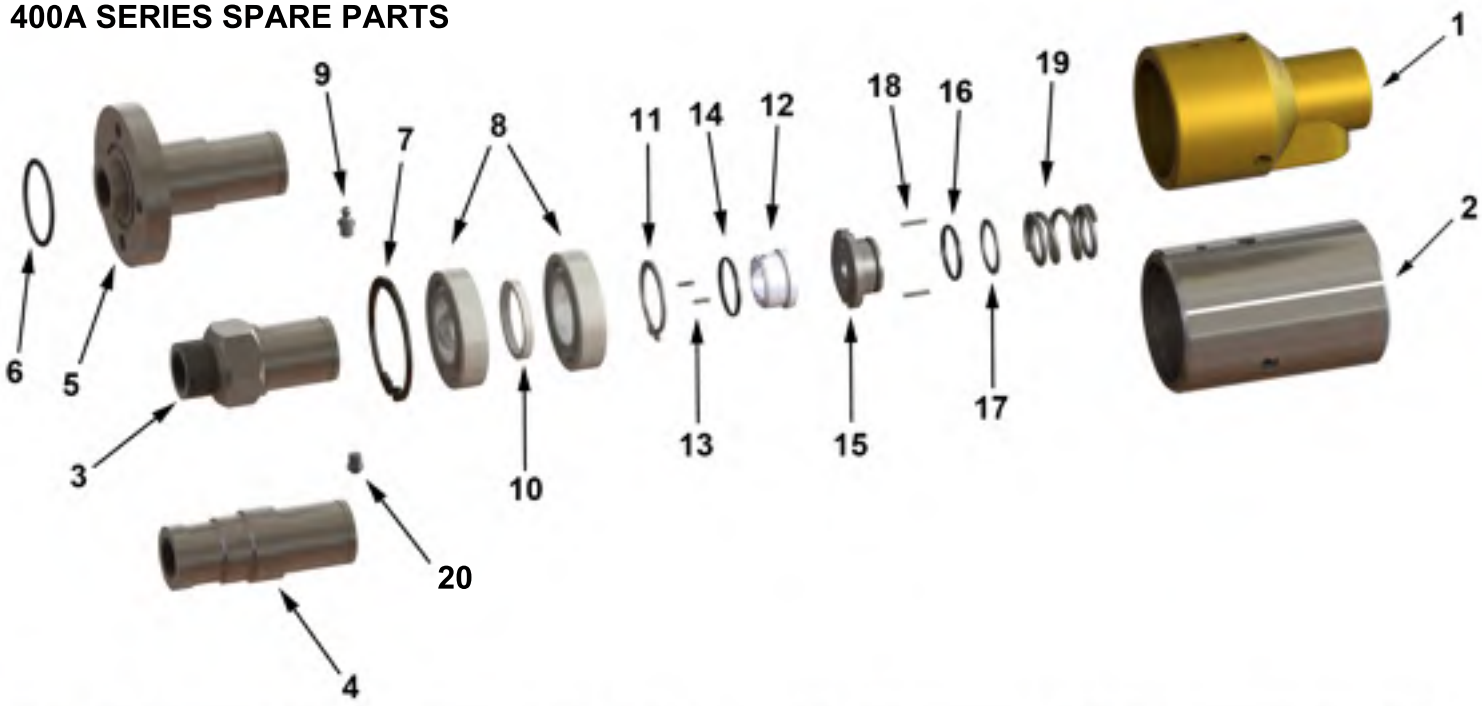
Light duty operating conditions:
- Up to 60 C
- Few vibrations
- Clean environment

Medium-Heavy duty operating conditions:
- 60 - 120 C
- Vibrations
- Polluted environment

Heavy duty operating conditions:
- 121°C - 200°C
- Vibrations
- Polluted environment

Size	400 (Volume gr)	400H (Volume gr)
1/8"	4	7.5
1/4"	4	7.5
3/8"	4	7.5
1/2"	4	13
3/4"	10.5	20
1"	10.5	23
1 1/4"	11.5	28.5
1 1/2"	17.5	39.5
2"	17.5	49
2 1/2"	45	75
3"	45	75

400A SERIES SPARE PARTS



NO	PART NAME	QTY
1	400 HOUSING	1
2	400A HOUSING	1
3	SHAFT - THREADED	1
4	SHAFT - QR	1
5	SHAFT - FLANGE	1
6	FLANGE O-RING	1
7	INT. RETAINING RING	1
8	BALL BEARING	2
9	GREASE RING	1
10	WASHER	1

NO	PART NAME	QTY
11	EXT. RETAINING RING	1
12	SEAL RING	1
13	PIM	2
14	SEAL RING O-RING	1
15	FLOATING SEAL RING	1
16	O-RİNG	1
17	WASHER	1
18	PIM	2
19	SPRING	1
20	GREASE RELIEF FITTING	1

Small Spare Parts Kit

- (12) Seal Ring
- (14) Seal Ring O-ring
- (15) Floating Seal Ring
- (16) Floating Seal O-ring
- (19) Spring

Spare Parts Kit

- (3) Shaft Threaded / or (4) Shaft QR / or (5) Shaft - Flanged & (6) Flange O-ring
- (8) Ball Bearings
- (10) Washer
- (11) External Retaining Ring
- (12) Seal Ring
- (13) Pim
- (14) Seal Ring O-ring
- (15) Floating Seal Ring
- (16) Floating Seal O-ring
- (19) Spring

Repair kits are available for 400A Series and can be supplied by ROTOFLUID.

If you don’t want to repair your rotary joints, ROTOFLUID will disassemble the joints, will clean and replace worn out parts and all sealing tests will be made and joints will be shipped as good as a new joint.