



ROTO SEAL COUPLING

UFLOW AUTOMATION

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01) Coupling instruction

- › Roto Seal Coupling is a type of rotating joint which is used for allowing rotation of parts that are united with each other. It is a kind of a device which works as a seal between a stationery and a rotating instrument which make the flow smoother & easier.

02) Temperature Limitations

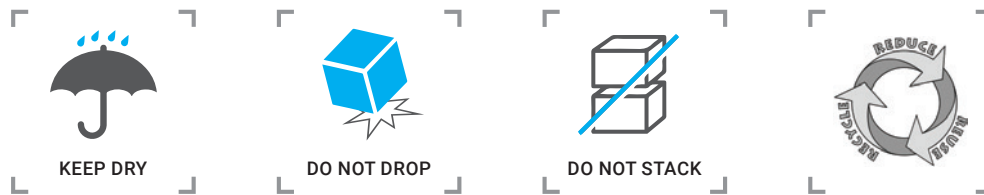
- › Ambient Temperature: -20 °C to 40 °C
- › Sealing Material Temperature: -10°C to 160°C Viton (FKM)/Special Viton
- › Zone: 1
- › Suitable Media: Gas & Liquid (Media Temperature as per sealing material)
- › Surface treatment: Electro Policing

03) Positioning

- › Valve is designed to perform properly when mounted in any position. However, for optimum life and performance, the valve should be mounted in horizontal pipe fitting to reduce the possibility of foreign matter accumulating in the sub-assembly area.

04) Storage of valves

- › On receipt, check the coupling to ensure that it is in fully assembled condition.
- › Coupling should be stored above the ground level or rack.
- › Do not apply tar, paint, grease or any other material inside the coupling as this could impair performance of the coupling.
- › Please pay attention to following symbols.



- › Do not expose the valve in below critical environmental conditions.



05) Operation

- › A roto seal coupling locks the input valve during its rotation to meet an outlet valve. During the movement, the fluid which could be either, gas or liquid will flow into roto seal coupling from its source input and stored within the roto seal itself.
- › Seat testing/ Body test carried out with hydro test.

06) Installation

- › If required any compound or chemical apply on male thread only (On pipe). Avoid pipe strain by properly supporting and aligning piping. When tightening the pipe, do not use coupling as a lever. Locate wrenches applied to valve body or piping as close as possible to connectionpoint.
- › To protect the coupling, install a strainer or filter suitable for the service involved in the inlet side as close to the valve as possible. Clean periodically depending on service conditions.
- › Check identity sticker for correct valve number, pressure. Never apply incompatible fluids or exceed pressure rating of the valve.



USE TEFLON TAPE FOR PROPER JOINT WITH VALVE.
(REFER FIG. FOR PROPER USE OF TEFLON TAPE)

07) Basic Safety instruction

- › These safety instructions do not make allowance for any ,
- › Contingencies and events which may arise during the installation, operation and maintenance of the devices.
- › Local safety regulations; the operator is responsible for observing these regulations, also with reference to the installation personnel

Danger – High Pressure

- › Before loosening the lines and valves, turn off the pressure lines.

Risk of electric shock!

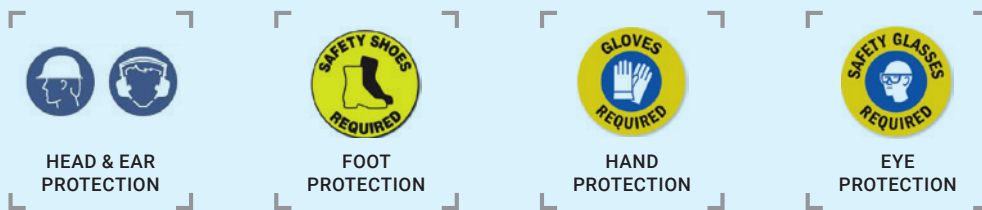
- › Before reaching into the device or the equipment, switch off the power supply end secure to prevent reactivation!
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Risk of burns/risk of fire if used continuously through hot device surface!

- › Keep the device away from highly flammable substances and media and do not touch with bare hands.

General Hazardous situations.

- › The system cannot be activated unintentionally.
- › Installation and repair work may be carried out by authorized technician only and with appropriate tools.
- › After interruption in the power supply or pneumatic supply, ensure that the process restarted in a defined or controlled manner.
- › The devised may be operated only when In perfect condition and in consideration of the operating instructions.
- › The general rules of technology apply to application planning and operation of the device.



08) Maintenance

WARNING: If found any guilty in valve, turn off electrical power, depressurize valve, and vent fluid to a safe area before servicing the valve.

8.1) Maintenance

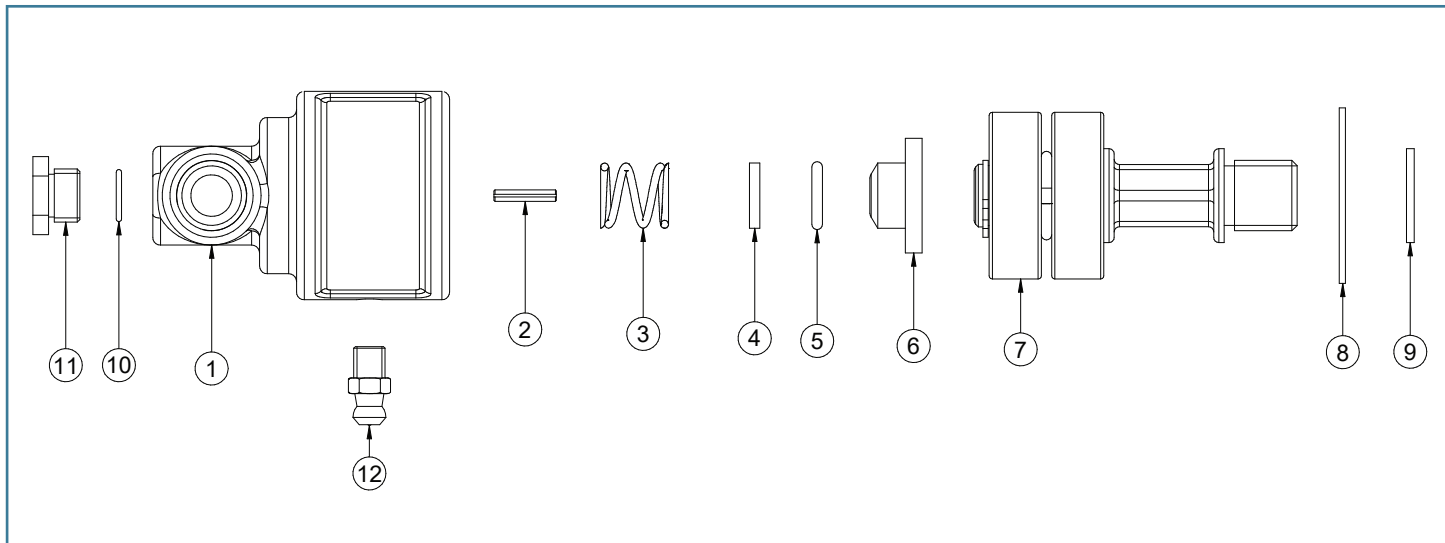
- › Keep the medium flowing through the valve as free from dirt and foreign material as possible.
- › Coupling should be operated/services at least once a month as per your application or usage.

8.2) Cleaning

- › Coupling should be serviced as per application and usage. If not done excessive noise or leakage will be observed. Clean strainer or filter when cleaning the Coupling.

8.3) Coupling Assembly , Disassembly & testing of coupling

- › Disassembly Of Coupling
 - Remove internal circlip (Do not try to remove assembled shaft first)
 - Remove assembled shaft. (Use proper equipment to remove)
 - All parts are now accessible for cleaning or replacement. If parts are worn or damaged, inform to UFLOW AUTOMATION.



BILL OF MATERIAL - SCREW, SOCKET, BUTT END PIECE

SR. NO	PART NAME	MATERIAL	Qty.
1	BODY	CF8	1
2	DOWEL PIN	SS 304	2
3	SPRING	SS 304	1
4	SS WASHER	SS 304	2
5	ORING	NBR	1
6	SEAL BUSH	CFT	4
7	SHAFT ASSEMBLY	-	4
8	CIRCLIP INTERNAL	SS 304	1
9	COPPER WASHER	Copper	1
10	ORING	NBR	3
11	CHECK BOLT	SS 304	1
12	GREASE CAP	MS	1

› **Reassembly of valve**

- Clean all parts properly.
- Install spring, Washer, 'O' ring & CFT Bush into coupling body.
- If removed, install assembled shaft accessories.
- Install internal circlip.
- Recheck line pressure supply to coupling.
- After maintenance is completed, operate the coupling a few times to be sure of proper operation.
- More detail see figure.

› **Routine testing of valve**

- Body seat and body seal leakage test.
 - Material hardness test.
- Coupling cycle test.

8.4) Standards

- › EN / ISO 80079-36 : 2016
- › EN / ISO 80079-37 : 2016

09) Trouble Shooting Guide & Awareness

TROUBLESHOOTING GUIDE FOR BALL VALVES	
PROBLEM	PROCEDURE
Coupling fails to operate	Make sure that pressure parameter complies with nameplate rating.
Coupling is sluggish or inoperative - electrical supply and pressure check out.	Disassemble Coupling; clean out foreign material. (Only disassembled Shaft from body, do not try to open other part of Coupling).
	The CFT seat must be damage free or foreign material and coupled with shaft. If any part damage found replace it.
	Check the sealing pad for cracked, bulged and/or clogged or orifice. Damage sealing pad must be replace.