

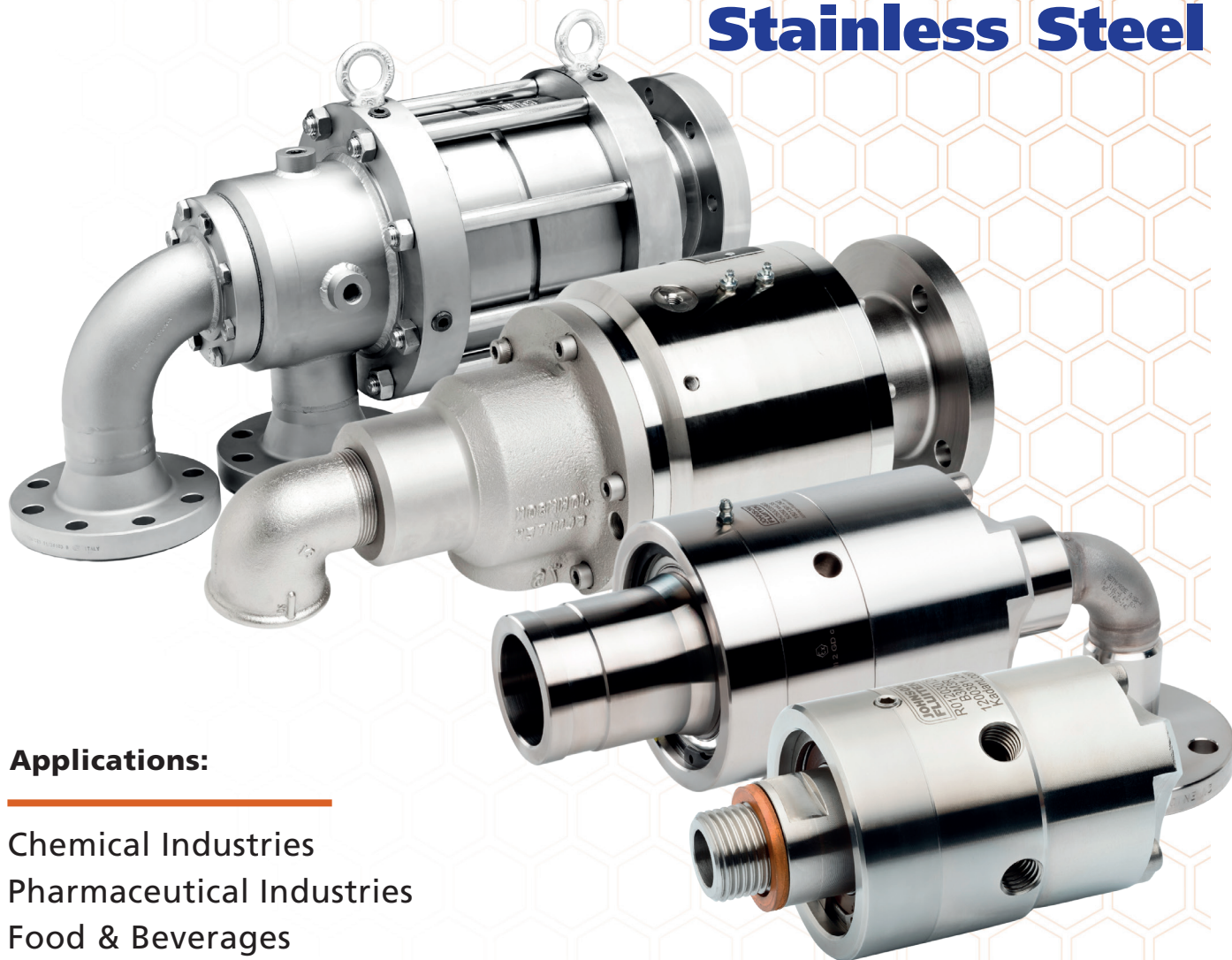


JOHNSON-FLUITEN

FLUID HANDLING

Rotary Unions

Type R[®] Stainless Steel



Applications:

Chemical Industries
Pharmaceutical Industries
Food & Beverages



Oil



Water



Steam



Air

EASY
MAINTENANCE



Our rotary joints are featured with a Quick Replacement Design (QRD) which allows you to repair the union while it is **STILL INSTALLED** on the machine.

It is enough to remove the blocking screws and separate the body to **replace SEAL rings and O-rings**.

WITHOUT HAVING TO REMOVE THE ROTARY UNION FROM THE MACHINE

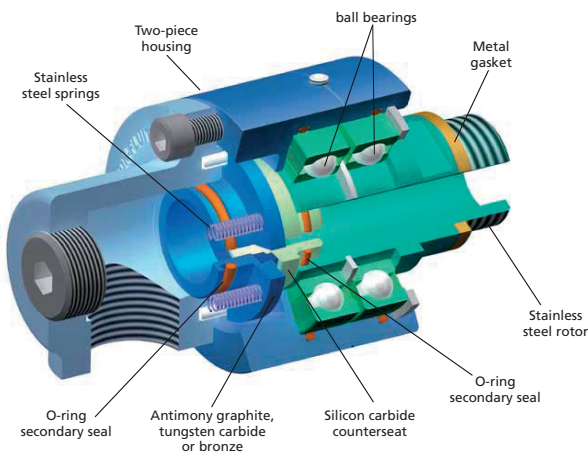


This solution allows as well to **quickly** adapt the rotary joint to fluids requiring **DIFFERENT sealing materials**

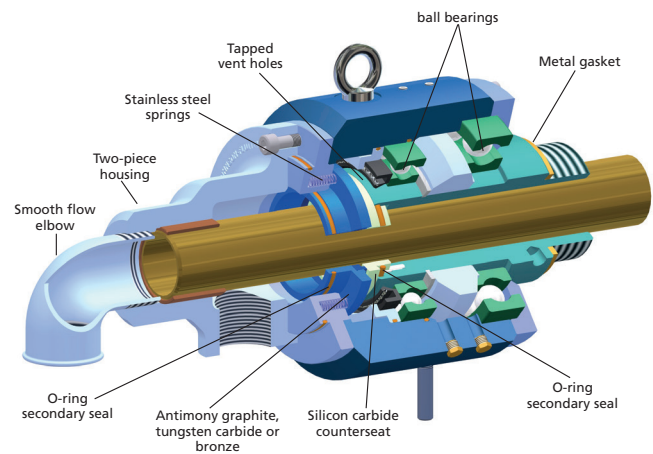
QUICK
REPLACEMENT
DESIGN

The R rotary union connects stationary piping to a rotating device. The fluid is sealed by precision, micro-lapped seals that provide a uniform, full-flow design. The union is supported by two widely-spaced anti-friction bearings and is available with a bearing isolation system for added bearing protection. The R union is capable of intermittent dry running and features a carbon graphite seal inserted in stainless steel and silicon carbide counterseat.

Single Passage Rotary Joint From 3/8" to 6"



Double Passage Rotary Joint From 3/8" to 6"



Overview



Features

- Springs located outside the flow area
- Stainless steel rotor
- Two-piece housing, on-machine seal replacement
- O-rings fully captured in glands
- Balanced seal assembly
- Full flow area
- Bearing isolation system
- Different mechanical seal material



Benefits

- Improved reliability, increased flow area
- Corrosion resistant
- Reduced down-time and cost of maintenance
- Robust design, no risk of o-ring slipping
- Extended operating life
- Low pressure drop
- Materials selected for specific service
- Increased bearing protection

Type R/RH® STAINLESS STEEL - 3/8" to 6"

Go to our website



Water



Oil



Air

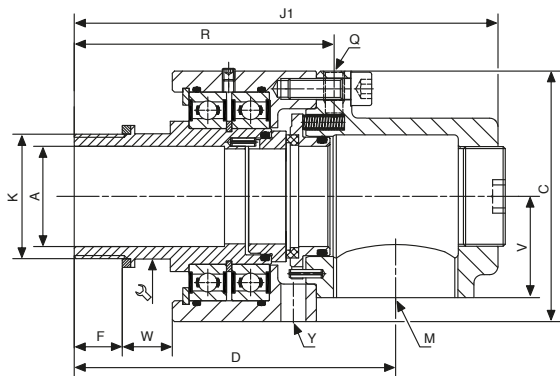
- Temperature: 120°
- Seal material: B3/C3 - B4/T4*

* Codes Referring to Seal Material B3 for C3-B4-T4 contact us

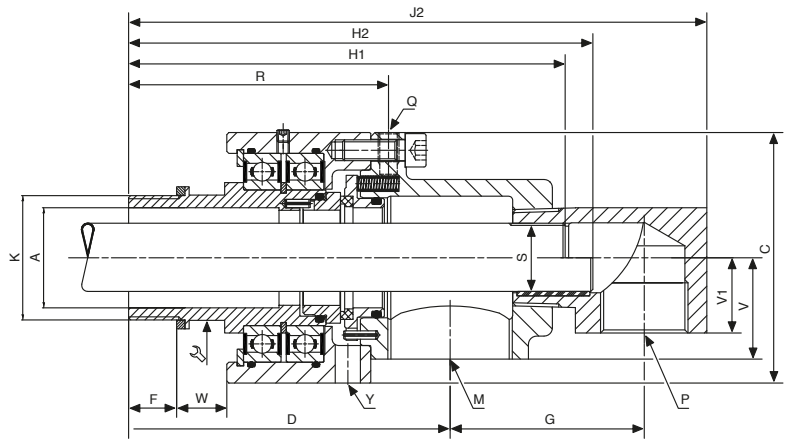
Water / Oil Air

	Water / Oil		Air	
	Pressure	Speed	Pressure	Speed
R009	50	3000	10	1500
R012	50	2800	10	1400
R019	50	2600	10	1300
R025	50	2300	10	1150
R031	40	2000	8	1000
R038	35	1700	7	850
R050	35	1400	7	700

Size	K ISO 228-1 Rotor	M ISO 228-1 RH	Part ID			P ISO 228-1 RH	A	C	D	F	G	H1 Fixed pipe	H2 Rotary pipe	J1	J2	Q	R	S		V	V1	W	Y	⌀	Approx. Weight
			Single Flow	Dual Flow Fixed pipe	Dual Flow Rotary pipe													Fixed pipe ISO 228-1	Rotary pipe h 13						
R009	G 3/8"-RH	3/8"	R009021575	R009025543	R009049005	1/4"	10	54	80	9	34	97	109	98	125	M5	80	M6x1	6	22	16	13	M6x5	19	0.65-0.7
	G 3/8"-LH		R009024783	cf	cf																				
R012	G 1/2"-RH	1/2"	R012021618	R012036643	R0012038691	3/8"	13	59	90	12	40	110	120	110	142	M6	89	1/8"	10	23	17	14	M10x5	24	0.85-0.95
	G 1/2"-LH		R012033393	R012036642	cf																				
R019	G 3/4"-RH	3/4"	R019021507	R019047505	R019047349	1/2"	16	67	106	14	49	131	144	132	170	M8	89	1/4"	13	27,5	19	16	⌀ 8,7x5	30	1.4-1.6
	G 3/4"-LH		R019038645	R019038649	cf																				
R025	G 1"-RH	1"	R025012003	R025022043	R025008209	1/2"	25	82	120	16	55	149	163	150	192	M8	99	3/8"	16	34	22	19	⌀ 8,7x5	36	2.1-2.4
	G 1"-LH		R025026425	R025038646	R025036863																				
R031	G 1-1/4"-RH	1-1/4"	R031038647	R031022939	R031030107	3/4"	32	93	134	19	67	172	188	173	221	M10	112	1/2"	22	38,5	23	23	⌀ 8,7x5	46	3.0-3.5
	G 1-1/4"-LH		R031028686	R031038652	R031038651																				
R038	G 1-1/2"-RH	1-1/2"	R038016865	cf	R038030173	3/4"	38	108	146	20	75	189	209	190	241	M10	149	3/4"	26	44,5	29	24	⌀ 10x5	55	4.3-4.9
	G 1-1/2"-LH		R038026448	cf	R038038648																				
R050	G 2"-RH	2"	R050022923	cf	R050022874	1-1/4"	48	120	154	23	93	205	222	203	277	M10	125	1"	32,2	48,5	36	24	⌀ 12x5	60	5.4-6.6
	G 2"-LH		R050023508	cf	R050036874																				



Single flow straight thread rotor



Dual flow rotary straight thread rotor



Water



Oil



Steam



Air

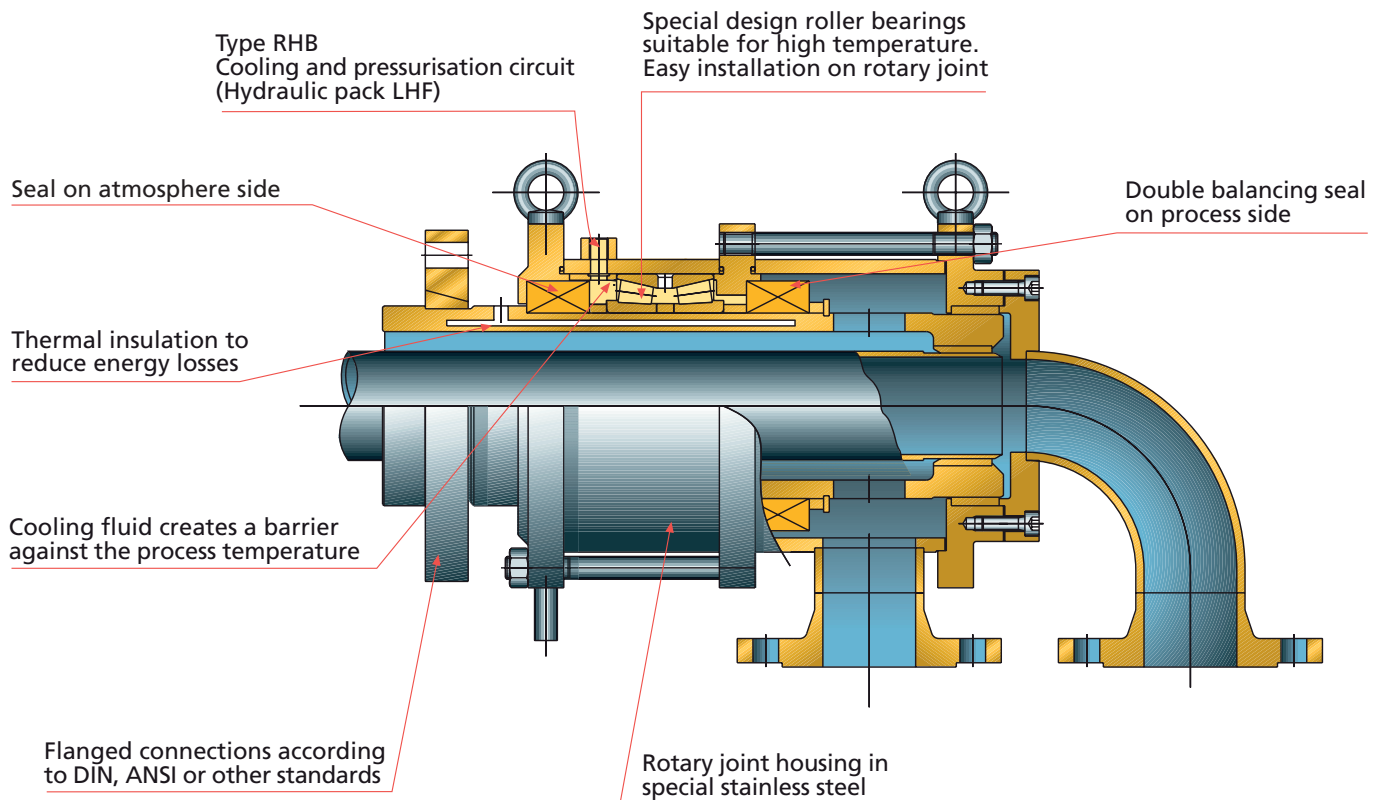
- Temperature: 180°
- Seal material: B3/C3 - B4/T4

Water / Oil Steam Air

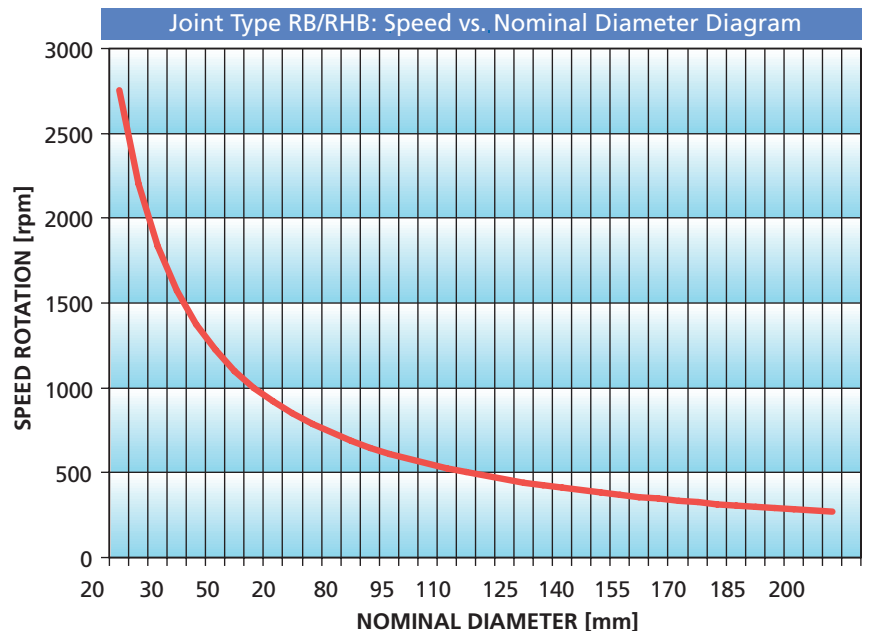
	Water / Oil		Steam		Air	
	Pressure	Speed	Pressure	Speed	Pressure	Speed
RH064-R076	12,5	750	12,5	750	10	375
RH089	12,5	700	12,5	700	5	375
RH102	10	600	10	600	5	350
RH125	10	500	10	500	4	300
RH150	7,5	400	7,5	400	3	200

Type RHB Rotary Unions

Go to our website



Joints type RB/RHB are designed to work at the contemporaneous presence of temperatures of 400 °C and high rotation speeds. Such performances can be reached by using two special seals. This fluid is circulated by a pumping and cooling group that continuously verifies the system's effectiveness, and signals through visual and sound alarms, possible variations from the set values. The above results are reached by using ball bearings with closed loop oil cooling. Oil sealing is obtained by two double balanced seals that guarantee the effectiveness of the system even in case of an electrical failure. Double mechanical seals with pressurised barrier fluid avoid any leakage of the process fluid to the atmosphere; in a worst case event, the barrier fluid will leak into the process. Such double mechanical seal systems have been manufactured and installed in chemical, petrochemical and pharmaceutical applications by Fluiten since 1972.



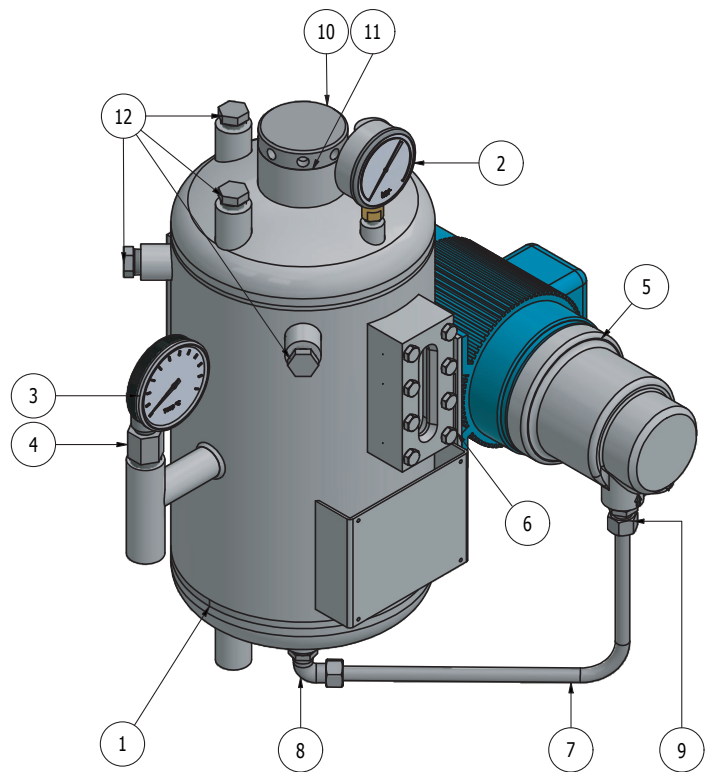
Cooling solutions

Complete Control Units for cooling

RHB joints are designed to operate with fluids at very high temperatures; Johnson-Fluiten also designs and manufactures complete system cooling solutions. Our standard cooling units include:

- Cooling coil
- Pressure gauge
- Thermometer
- Visual level indicator
- Circulation pump

It is possible to develop customized control units based on the specific needs of the customer's end application.



Complete control unit (custom)

STANDARD CONTROL UNIT PART LIST

POS.	DESCRIPTION
1	TANK 12 L
2	PRESSURE GAUGE DN63 0 ÷ 16 Barg
3	TEMPERATURE GAUGE DN80 0 ÷ 120 °C
4	THERMOWELL 3/4" NPT
5	PUMP STANDARD
6	PUMP SUPPORT PLATE
7	TUBING PUMP Ø12
8	ELBOW 1/2" NPT-M x 12 OD-F
9	STRAIGHT FITTING 1/2" NPT-F x 12 OD-F
10	PLUG 2"
11	OR VITON 2"
12	HEX HEAD PLUG 1/2" NPT

Customized Rotary Union Solutions

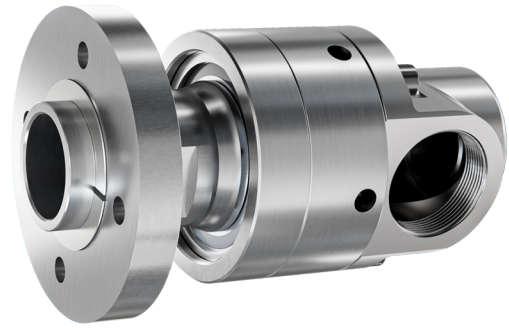
Do you have an application that requires a specialized solution? Our product innovation team focuses on making the best solution in the shortest time possible. Johnson-Fluiten's engineering team is committed to provide technology that meets customers' application demands. Our goal is to work closely with our customers to develop reliable, efficient, and technically advanced products that add value by improving the end product's process and quality.



Special Features available for all Rotary Joints



The ATEX directive consists of two EU directives describing what equipment and work environment is allowed in an environment with an explosive atmosphere. Johnson Fluiten supplies most of its products with ATEX approval according to Art.8, Par.1 & 3 of 94/9/CE European Directive: II 2 GD c X. Please consult your sales contact for confirmation for your product requirements.



Customized Unions

Johnson-Fluiten rotary joints are used in mixing, blending, heating, and cooling applications in the chemical processing industry.

New technologies in rotary unions and sealing devices, steam distribution and handling systems, process heating/cooling with thermal oil or water and glycol, and roll cleaning systems increase process efficiency, reduce energy costs, and help companies to be more sustainable in their operations.

A rotary union is a rotary sealing device that connects rotating equipment to fixed piping for the transfer of steam, water thermal oil, coolant, glycol, air and other media.

The heart of the joint is the mechanical seal made by Fluiten. Temperature range is from -29°C up to 340°C.

Rotary unions can be designed with multiple passages and manage multiple media types simultaneously.

Using latest technologies and continuous innovation and research, Johnson-Fluiten is able to provide specialized solutions either for chemical and pharmaceutical industry with the production of rotary joints for high speed centrifuge and separators.

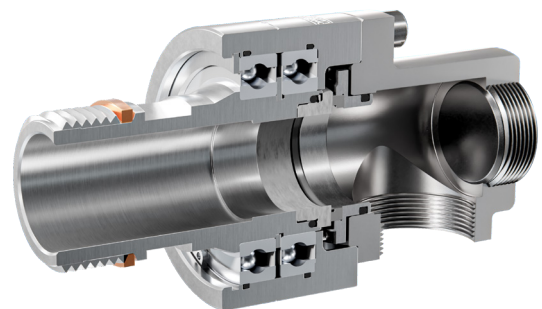


Special Features available for all Rotary Joints



The FDA (Food and Drug Administration) is a scientific, regulatory, public health agency within the United States Department of Health and Human Services.

FDA is responsible for the safety of the United State's foods, cosmetics, drugs, biologics, medical devices, and radiological products. It is one of the United States' oldest consumer protection agencies.



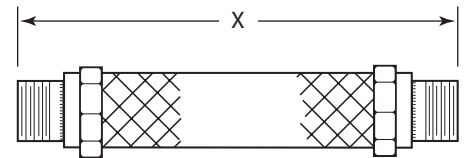
Recommendations

Flexible hose Ratings

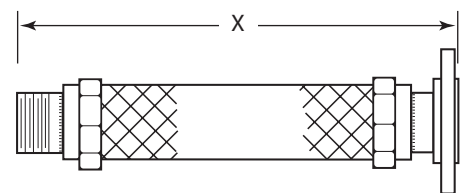
To ensure free movement of the rotary union and elimination of side loading, the proper installation, type, and length of flexible hose should be used.

Recommended hose length, bend, and offset (mm)

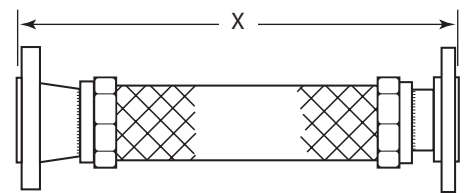
Pipe Size	Minimum Length (x)	Minimum Bend radius	Maximum Offset
1/4"	200	140	50
3/8"	250	140	50
1/2"	250	150	38
3/4"	300	200	25
1"	375	225	38
1 1/4"	450	250	50
1 1/2"	450	300	50
2"	525	375	50
2 1/2"	550	355	60
3"	600	425	60
4"	700	550	75
5"	750	700	60
6"	850	850	60



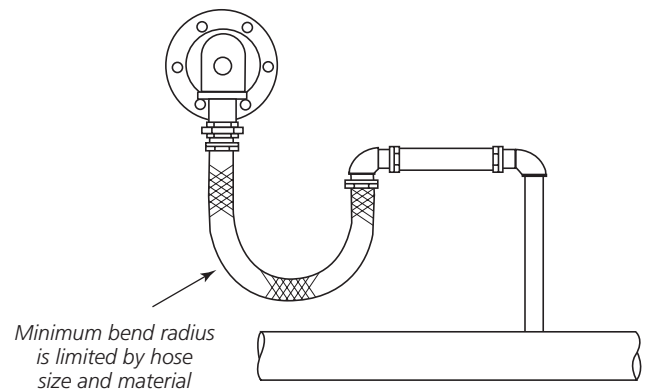
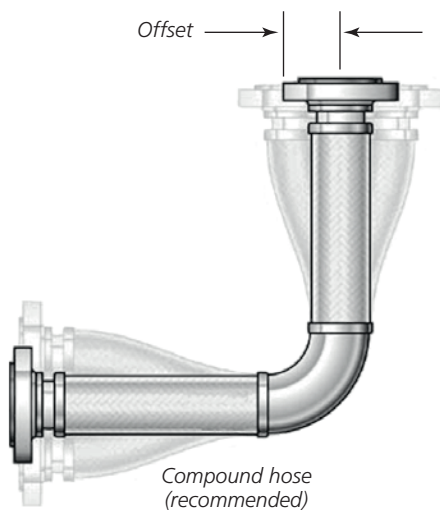
Threaded both ends



Threaded one end, lap flange other end



Fixed flange one end, lap flange other end



Filtration

It is important to follow the filtration requirements recommended by the machinery manufacturer. Type R rotary unions do not require additional filtration other than what is recommended for the fluid circulation system (typically 40-60 micron).

Guarantee

Type R rotary unions are tested prior to shipment and are warranted against manufacturing defects for 12 months. Johnson-Fluiten global sales and service network stands behind its products and provides support to more than 150 countries worldwide.

Local Assistance on a Worldwide Basis



JOHNSON-FLUITEN

Via Newton, 21
20016 Pero, Milano (Italy)
tel: +39 02 3394091
www.johnson-fluiten.com
info-jf@johnson-fluiten.com

Many suppliers have committed to the international marketplace. But few have taken that commitment as far as **Johnson-Fluiten**.

To assure **product availability** wherever it's needed, our Rotary Unions are sold and serviced in Asia, Europa, North America and South America.

Because knowledgeable advice and prompt service are as important as the products, Johnson-Fluiten has factory-authorized representatives in nearly **one hundred and fifty countries**.

So **no matter where you are**, Johnson-Fluiten **products, services and assistance** are nearby.



KADANT
805 Wood Street
Three Rivers, MI
49093 USA
tel: +1 269 2781715



KADANT
Via Anhanguera, Km 83,5
CP 351/353 - 13278-530,
Valinhos, SP, Brazil
tel: +55 19 3849 8700
fax: +55 19 3871



KADANT
Nijverheidslaan 23-25
1380 AB Weesp,
The Netherlands
tel: +31 294 494200



KADANT
Wuxi National Hi-Tech
Industrial Development Zone
Wuxi City, Jiangsu Province,
China
tel: +86 510 85212218

SALES LOCATIONS

Germany

Langenfeld (Rheinland)
Tel.: +49 2173 97490
sales.langenfeld@kadant.com

France

Vitry-le-Francois
Tel.: +33-26-74-80-80
kadant.lamort@kadant.com

Finland

Tampere
Tel.: +35B 3 255 1111
sales.tampere@kadant.com

Sweden, Norway, Denmark

Huskvarna, Sweden
Tel.: +46 36 136080
info.nordic@kadant.com

Benelux

Weesp
Tel.: +31 294 494200
sales.benelux@kadant.com

United Kingdom

Bury, Lancashire
Tel.: +44 61 764 9111
sales.bury@kadant.com

Poland

Poznan
Tel.: +48 601 702 639
sales.poznan@kadant.com

Turkey

Istanbul
Tel.: +90 1 546 652 32 68
sales.istanbul@kadant.com

Australia

Springvale, Victoria
+61 3 9546 0355
kadant.aus@kadant.com

Spain

Sant Esteve de Sesrovires (Barcelona)
Tel.: +34 93 7714410
sales.spain@kadant.com

India

Coimbatore
Tel.: +91422 2442692
sales.coimbatore@kadant.com

Czech Republic

Prague
sales.prague@kadant.com