RX Rotary Union

For water and thermal oil service

KADANT
AN ACCENT ON INNOVATION

Advanced rotary unions for fluid service.

Engineered reliability for demanding applications

RX Rotary Union

Single flow rotary union

Dual flow rotary union

Quick Select Chart

Type		Media				Pressure (Max.)		Temperature (Max.)		Speed (RPM)
		Water	Thermal Oil	Steam	Air	BAR	PSI	°C	°F	
2" to 3"	RX	●	●	●	●	13	200	105	220	1.000
	RX-1	●	●	●	●	13	200	177	350	1.000
	RX-2	●	●	●	●	13	200	204	400	1.000
	RX-3	●	●	●	●	13	200	250	482	1.000
4" to 6"	RX	●	●	●	●	10	150	149	300	750
	RX-1	●	●	●	●	10	150	160	320	750
	RX-2	●	●	●	●	10	150	204	400	750
	RX-3	●	●	●	●	10	150	260	500	750

● Recommended

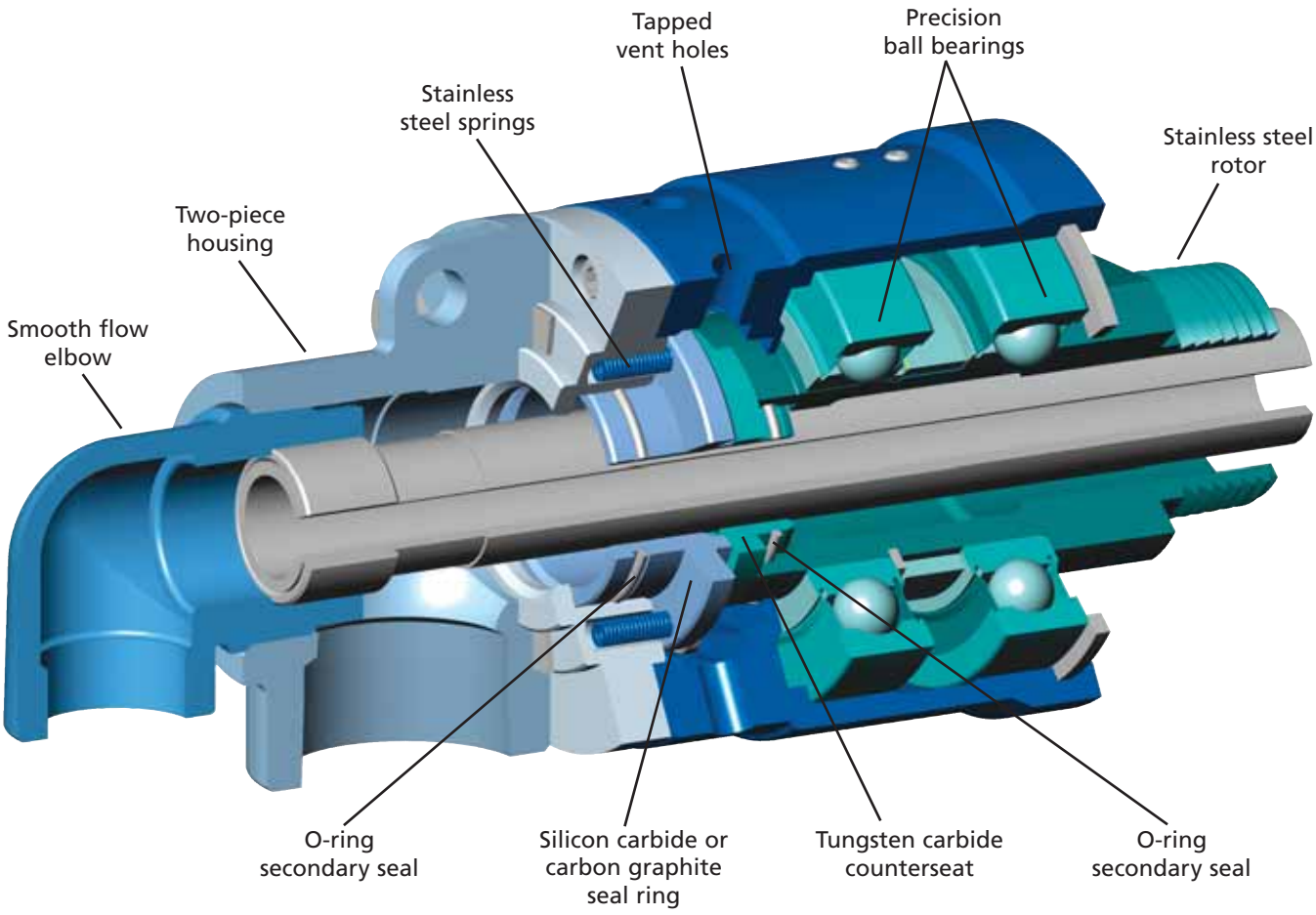
● Acceptable

● Not Recommended

Consult Kadant Johnson for application recommendations and for high-temperature RX-1, RX-2, and RX-3 configurations.

Do not operate unions at maximum values of pressure, temperature, and speed.

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
- Matched seal faces
- Bearing isolation system available
- Tungsten carbide counterseat

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
- Added toughness and shock resistance

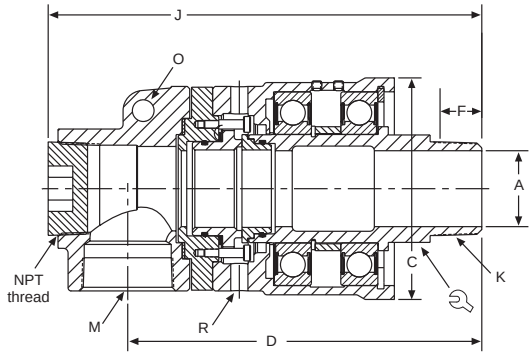
The RX rotary union connects stationary piping to a rotating device. The fluid is sealed by precision, micro-lapped seals that provide a uniform, full-flow design. The union is supported by two widely-spaced anti-friction bearings and is available with a bearing isolation system for added bearing protection. The RX union is capable of intermittent dry running and features a 100% pure-molded carbon graphite or silicon carbide seal and tungsten carbide counterseat.

2" to 3"

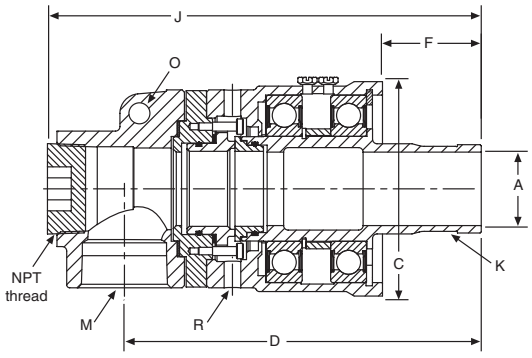
Standard RX Ratings

Pressure:	13 bar (200 psig)
Temperature:	105°C (220°F)
Speed:	1.000 RPM
Media:	Water, Thermal Oil

Consult Kadant Johnson for RX-1, RX-2, and RX-3 unions for applications up to 232°C (450°F).



Taper thread rotor



Q flange rotor

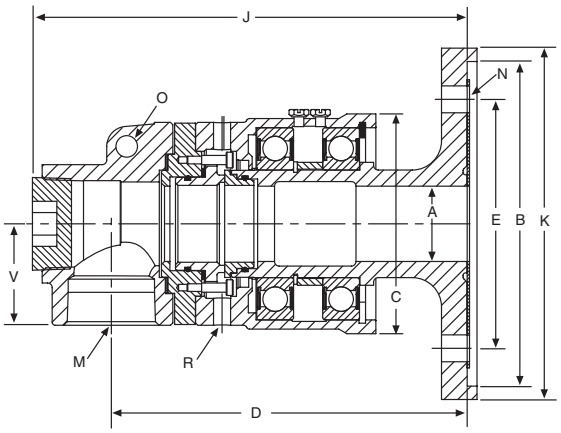
K Rotor	M ISO 228-1 RH	Part ID	A	C	D	F	J	O	R NPT 8 x RH		Approx. Weight
G2"-RH	G2"	995.550/0001	49	143	229	29*	280	14	1/4"	70	13 Kg
G2"-LH		995.550/0002									
Q Flange		995.550/0003	49	143	239	66	290	14	1/4"	–	13 Kg
G2 1/2"-RH	G2 1/2"	995.556/0001	61	174	271	38*	334	14	1/4"	83	20 Kg
G2 1/2"-LH		995.556/0002									
Q Flange		995.556/0003	61	174	271	71	334	14	1/4"	–	20 Kg
G3"-RH	G3"	995.562/0001	74	200	327	45*	397	14	3/8"	95	29 Kg
G3" -LH		995.562/0002									
Q Flange		995.562/0003	74	200	318	84	389	14	3/8"	–	29 Kg

**Lock-up dimension for straight threads.*

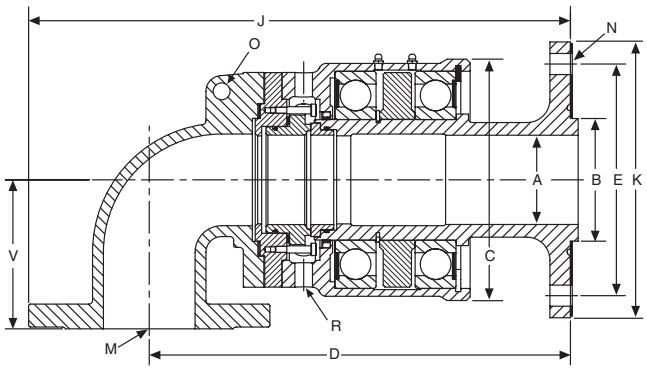
Dimensions are in mm and are for reference only and subject to change.

RX

Single flow



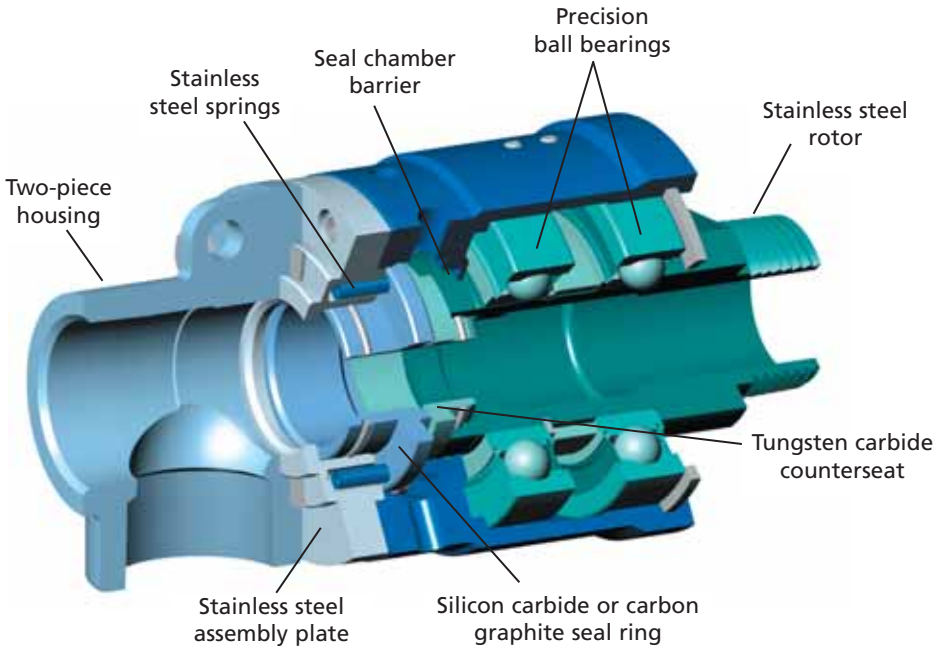
2" and 2½" integral flange



3" integral flange

K Rotor	M ISO 228-1 RH	Part ID	A	B*	C	D	E	J	N	O	R NPT 8 x RH	V	Approx. Weight
229	G2"	–	48	211	142	231	162	282	4 x 17,5	14	1/4"	66	18 Kg
229	DN50 PN16	–	48	211	142	272	162	353	4 x 17,5	14	1/4"	94	19 Kg
229	G2 1/2"	–	61	211	175	272	162	328	4 x 17,5 6 x 17,5	14	1/4"	76	24 Kg
229	DN50 PN16	–	61	211	175	310	162	396	4 x 17,5 6 x 17,5	14	1/4"	104	25 Kg
229	G3"	995.561/0001	74	102	201	318	192	389	6 x 17,5	14	3/8"	89	33 Kg
229	DN50 PN16	–	74	102	201	348	192	450	6 x 17,5	14	3/8"	124	34 Kg

** For 2" and 2½" sizes, the 'B' dimension is the ID of the counterbore. Counterbore depth is 6,4 mm.*
For 3" size, the 'B' dimension is the OD of the pilot. Pilot length 7,6 mm.
Dimensions are in mm and are for reference only and subject to change.

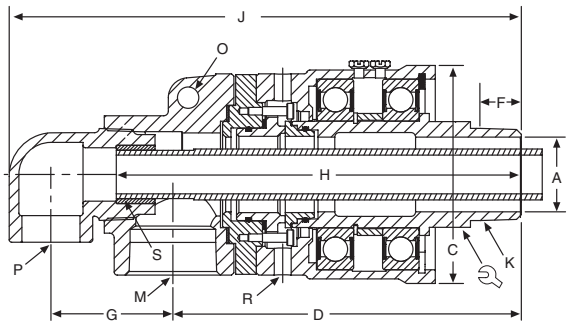


2" to 3"

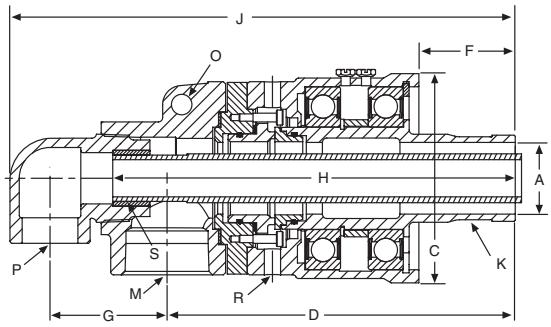
Standard RX Ratings

Pressure:	13 bar (200 psig)
Temperature:	105°C (220°F)
Speed:	1.000 RPM
Media:	Water, Thermal Oil

Consult Kadant Johnson for RX-1, RX-2, and RX-3 unions for applications up to 232°C (450°F).



Taper thread rotor



Q flange rotor

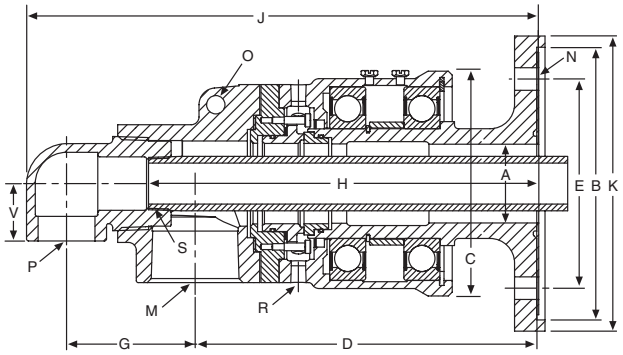
K Rotor	M ISO 228-1 RH	Part ID		A	C	D	F	G	H	J	O	P ISO 228-1 RH	R NPT 8 x RH	S			Approx. Weight
		Fixed Pipe	Rotating Pipe											Fixed Pipe ISO 228-1	Rotating Pipe OD f7		
G2"-RH	G2"	995.553/0001	995.554/0001	49	143	229	29*	79	269	336	14	G1"	1/4"	G1"-RH	32,2	70	14 Kg
G2"-LH		995.553/0002	995.554/0002														
Q Flange		995.553/0003	995.554/0003	49	143	239	66	79	274	345	14	G1"	1/4"	G1"-RH	32,2	–	14 Kg
G2 1/2"-RH	G2"	995.559/0001	995.560/0001	61	174	271	38*	371	307	402	14	G1 1/2"	1/4"	G1 1/2"-RH	45	83	20 Kg
G2 1/2"-LH		995.559/0002	995.560/0002														
Q Flange		995.559/0003	995.560/0003	61	174	271	71	100	328	402	14	G1 1/2"	1/4"	G1 1/2"-RH	45	–	20 Kg
G3"-RH	G2"	995.567/0001	995.568/0001	74	200	327	45*	453	373	491	14	G2"	3/8"	G2"-RH	60	95	32 Kg
G3"-LH		995.567/0002	995.568/0002														
Q Flange		995.567/0003	995.568/0003	74	200	318	84	124	396	483	14	G2"	3/8"	G2"-RH	60	–	32 Kg

**Lock-up dimension for straight threads.*

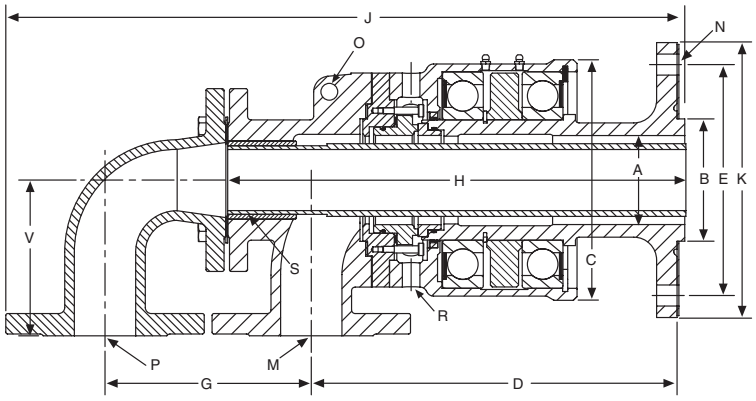
Dimensions are in mm and are for reference only and subject to change.
Syphon pipe supplied by the customer.

RX

Dual flow



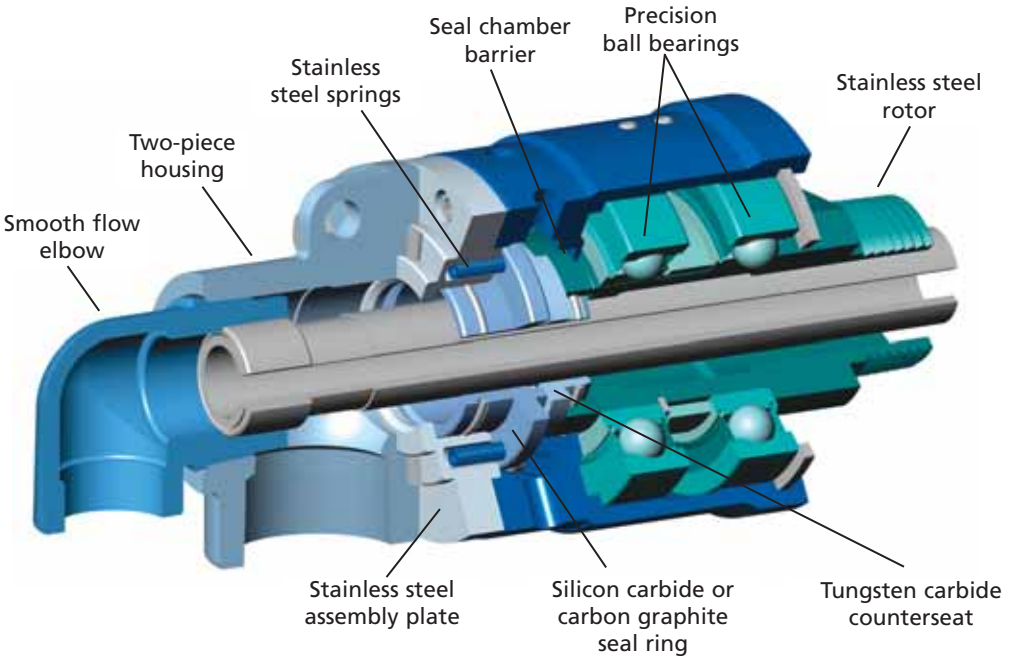
2" and 2½" integral flange



3" integral flange

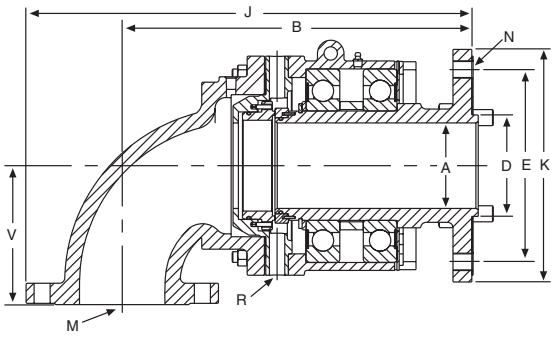
K Rotor	M ISO 228-1 RH	Part ID		A	B*	D	E	G	H	J	N	O	P ISO 228-1 RH	R NPT 8 x RH	S		V	Approx. Weight
		Fixed Pipe	Rotating Pipe												Fixed Pipe ISO 228-1	Rotating Pipe OD f7		
229	G2"	–	–	48	211	232	162	80	262	339	4 x 17,5	14	G1"	¼"	G1"-RH	32,2	66	18 Kg
229	DN25 PN16	–	–	48	211	221	162	122	273	401	4 x 17,5	14	DN25 PN16	¼"	G1"-RH	32,2	102	20 Kg
229	G1½"	–	–	61	211	264	162	99	315	396	4 x 17,5 6 x 17,5	14	G1½"	¼"	G1½"-RH	45	76	26 Kg
229	DN40 PN16	–	–	61	211	264	162	157	315	488	4 x 17,5 6 x 17,5	14	DN40 PN16	¼"	G1½"-RH	45	117	31 Kg
229	G2"	995.564/0001	995.569/0001	74	102	318	192	124	396	483	6 x 17,5	14	G2"	⅜"	G2"-RH	60	89	36 Kg
229	DN50 PN16	–	995.570/0002	74	102	305	192	173	374	564	6 x 17,5	14	DN50 PN16	⅜"	G2"-RH	60	130	43 Kg

** For 2" and 2½" sizes, the 'B' dimension is the ID of the counterbore. Counterbore depth is 6,4 mm.*
For 3" size, the 'B' dimension is the OD of the pilot. Pilot length 7,6 mm.
Dimensions are in mm and are for reference only and subject to change.
Syphon pipe supplied by the customer.

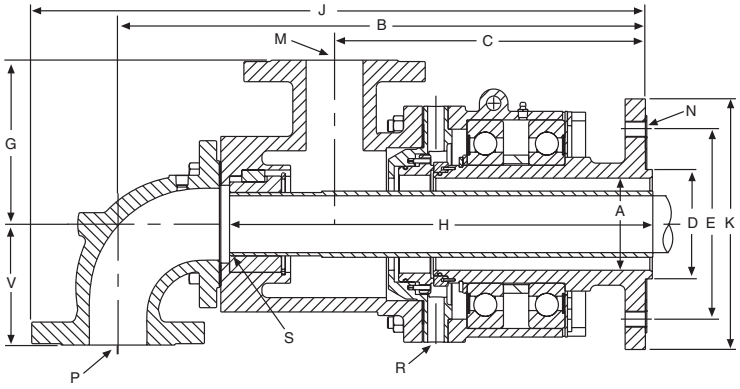


4" to 6"

Deep groove ball bearing support



Single flow flanged connection

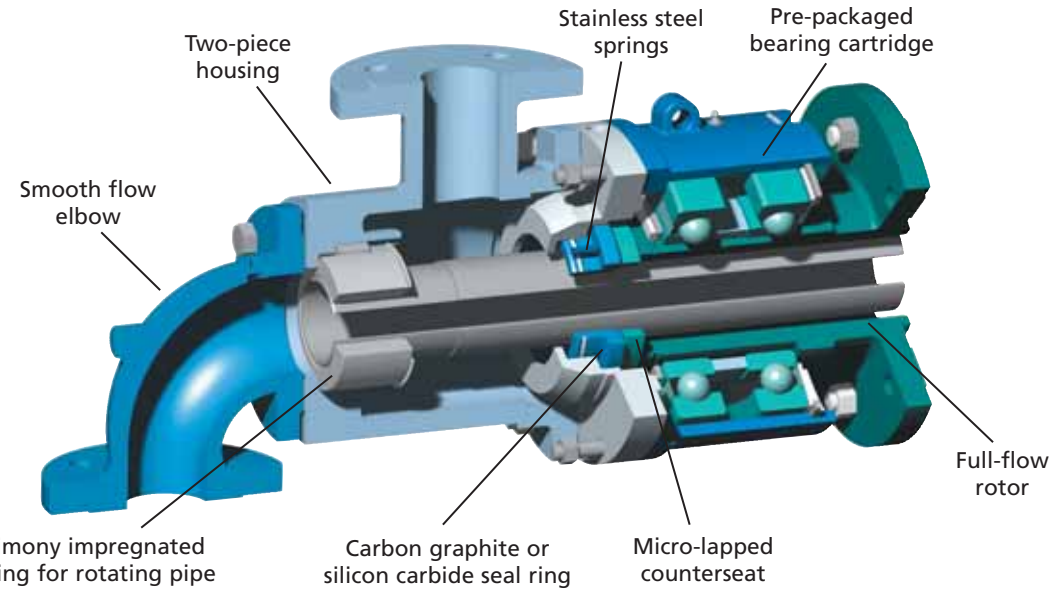


Dual flow flanged connection

K Rotor	Flow	M	Part ID	A	B	C	D*	E	G	H	J	N	P	R NPT 4 x RH	S Rotating Pipe OD f7	V	Approx. Weight
276	Single	DN100 PN16	–	100	415	–	120,6	228,6	–	–	530	6 x 21,5 8 x 21,5	–	1/2"	–	165	75 Kg
276	Dual	DN65 PN16	–	100	582	343	120,6	228,6	181	433	677	6 x 21,5 8 x 21,5	DN65 PN16	1/2"	70	133	95 Kg
279	Single	DN125 PN16	–	127	485	–	159,8	225	–	–	583	6 x 21,5 8 x 21,5	–	1/2"	–	194	120 Kg
279	Dual	DN80 PN16	–	127	661	428	159,8	225	212	507	756	6 x 21,5 8 x 21,5	DN80 PN16	1/2"	85	140	127 Kg
295	Single	DN150 PN16	–	152	–	–	176,2	240	–	–	–	8 x 21,5	–	1/2"	–	–	–
295	Dual	DN100 PN16	–	152	–	–	176,2	240	–	–	–	8 x 21,5	DN100 PN16	1/2"	110	–	–

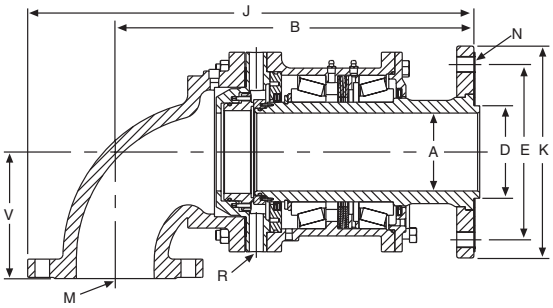
**Pilot length 7,6 mm .*

Dimensions are in mm and are for reference only and subject to change.
Syphon pipe supplied by the customer.

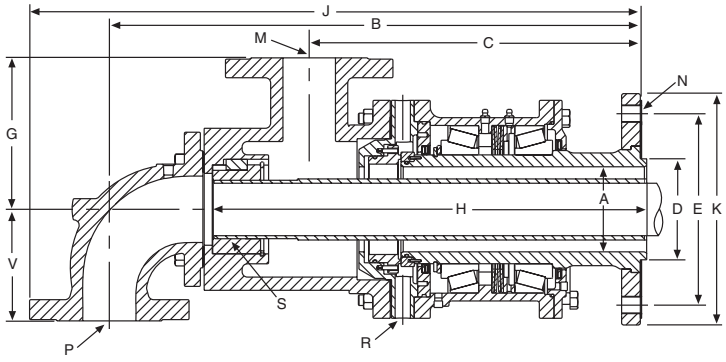


RX-1, RX-2, RX-3

Tapered roller bearing support



Single flow flanged connection

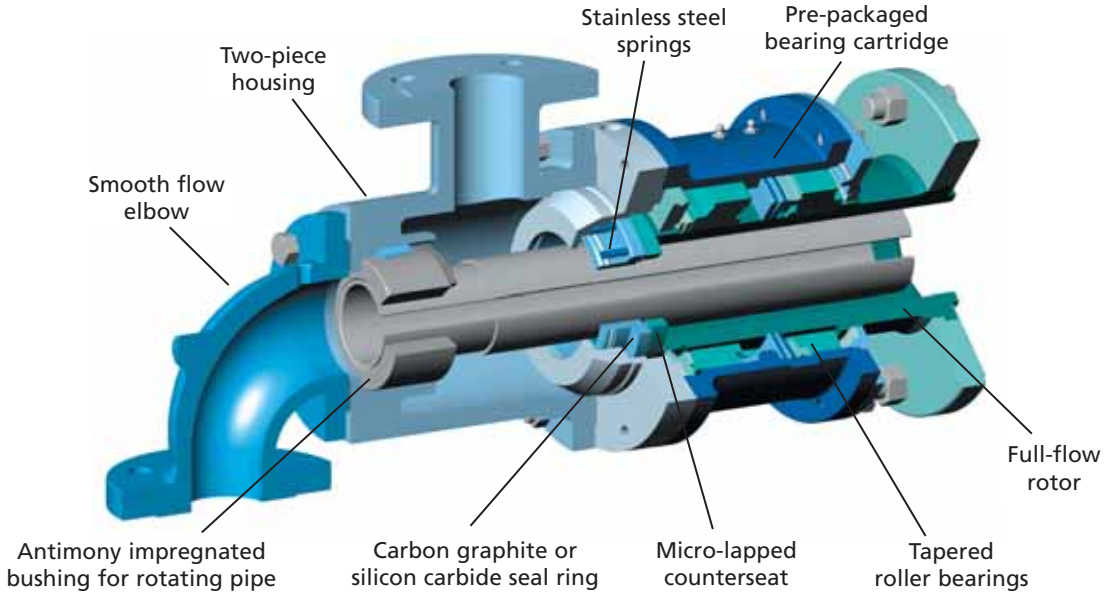


Dual flow flanged connection

K Rotor	Flow	M	A	B	C	D*	E	G	H	J	N	P	R NPT 4 x RH	S Rotating Pipe OD f7	V	Approx. Weight
276	Single	DN100 PN16	100	469	–	120,6	228,6	–	–	584	6 x 21,5 8 x 21,5	–	1/2"	–	165	75 Kg
276	Dual	DN65 PN16	100	636	397	120,6	228,6	181	433	730	6 x 21,5 8 x 21,5	DN65 PN16	1/2"	70	133	95 Kg
279	Single	DN125 PN16	127	486	–	159,8	225	–	–	617	6 x 21,5 8 x 21,5	–	1/2"	–	194	120 Kg
279	Dual	DN80 PN16	127	662	428	159,8	225	212	507	757	6 x 21,5 8 x 21,5	DN80 PN16	1/2"	85	140	127 Kg
295	Single	DN150 PN16	152	517	–	176,2	240	–	–	657	8 x 21,5	–	1/2"	–	227	–
295	Dual	DN100 PN16	152	773	498	176,2	240	229	581	887	8 x 21,5	DN100 PN16	1/2"	110	178	–

** For 4" and 5" sizes, pilot length is 7,6 mm.*
Pilot length for 6" size is 14,2 mm.

Dimensions are in mm and are for reference only and subject to change.
Syphon pipe supplied by the customer.



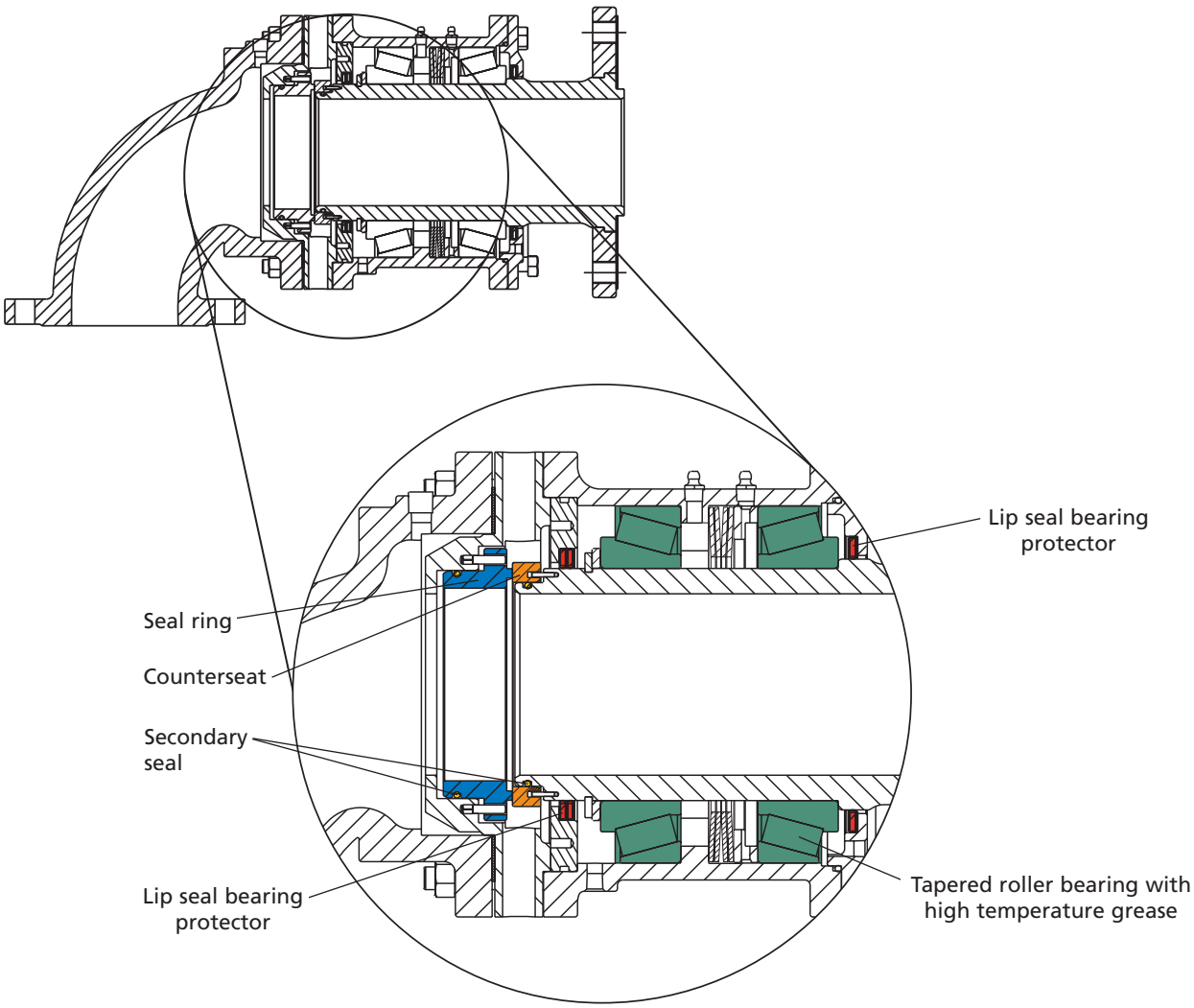
Cartridge Options

RX Rotary Unions for Demanding Applications

Type RX rotary unions feature a cartridge design that allows for application-specific configurations. For demanding applications with higher operating temperatures, rotational speed, or lower quality fluids, three cartridge options are available: RX-1, RX-2, and RX-3.

	RX	RX-1	RX-2*	RX-3*
Seal Ring Material	Carbon Graphite	Carbon Graphite	Silicon Carbide	Silicon Carbide
Counterseat Material	Tungsten Carbide	Tungsten Carbide	Silicon Carbide**	Silicon Carbide**
Back-up Lip Seal	No	Yes	Yes	Yes
Bearings (3/8 – 3")	Deep Groove	Deep Groove	Deep Groove	Deep Groove
Bearings (4" – 6")	Deep Groove	Tapered Roller	Tapered Roller	Tapered Roller
Maximum Temperature	145° C	177° C	204° C	260° C

** RX-2 and RX-3 not recommended for dry running.*
*** 5" and 6" available with tungsten carbide counterseat.*



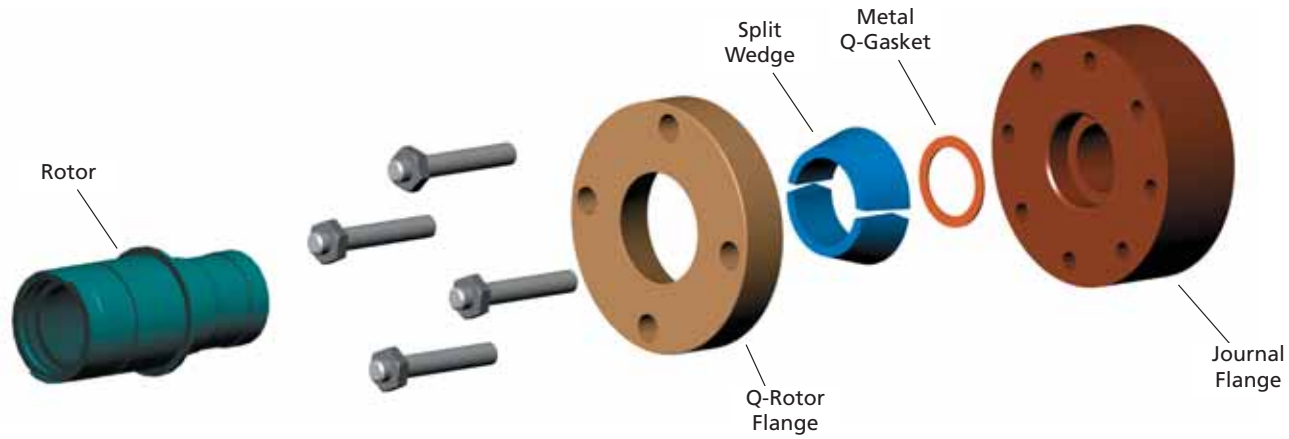
Size	Cartridge	Part ID Seal Kit	Seal	Counterseat	Secondary Seal	Grease	Temp. °C	Pressure (barg)		
								Water	Oil	Steam
4200	RX	860.300	Carbon Graphite	Tungsten Carbide	Aflas	Commercial	-18-105	13	10	1,0
	RX-1					SHC PM	145			3,5
						Krytox	177			8,2
	RX-2	860.302	Silicon Carbide	Tungsten Carbide	Aflas	SHC PM	145			N/A
						Krytox	204			N/A
	RX-3	860.307	Silicon Carbide	Tungsten Carbide	Kalrez	Krytox	250			N/A
4250	RX	860.308	Carbon Graphite	Tungsten Carbide	Aflas	Commercial	-18-105	13	10	1,0
	RX-1					SHC PM	145			3,5
						Krytox	177			8,2
	RX-2	860.309	Silicon Carbide	Tungsten Carbide	Aflas	SHC PM	145			N/A
						Krytox	204			N/A
	RX-3	860.310	Silicon Carbide	Tungsten Carbide	Kalrez	Krytox	250			N/A
4300	RX	860.311	Carbon Graphite	Tungsten Carbide	Aflas	Commercial	-18-105	13	10	1,0
	RX-1					SHC PM	145			3,5
						Krytox	177			8,2
	RX-2	860.312	Silicon Carbide	Tungsten Carbide	Aflas	SHC PM	145			N/A
						Krytox	204			N/A
	RX-3	860.313	Silicon Carbide	Tungsten Carbide	Kalrez	Krytox	250			N/A
4400	RX	860.303	Carbon Graphite	Tungsten Carbide	Aflas	SHC PM	145	10	10	N/A
	RX-1					SHC PM	145			N/A
						Krytox	160			N/A
	RX-2	860.314	Silicon Carbide	Tungsten Carbide	Aflas	SHC PM	145			N/A
						Krytox	204			N/A
	RX-3	860.304	Silicon Carbide	Tungsten Carbide	Kalrez	Krytox	260			N/A
4500	RX	860.315	Carbon Graphite	Tungsten Carbide	Aflas	SHC PM	145	10	10	N/A
	RX-1					SHC PM	145			N/A
						Krytox	160			N/A
	RX-2	860.316	Silicon Carbide	Tungsten Carbide	Aflas	SHC PM	145			N/A
						Krytox	204			N/A
	RX-3	860.306	Silicon Carbide	Tungsten Carbide	Kalrez	Krytox	260			N/A
4600	RX	860.317	Carbon Graphite	Tungsten Carbide	Aflas	SHC PM	145	10	10	N/A
	RX-1					SHC PM	145			N/A
						Krytox	160			N/A
	RX-2	860.318	Silicon Carbide	Tungsten Carbide	Aflas	SHC PM	145			N/A
						Krytox	204			N/A
	RX-3	860.319	Silicon Carbide	Tungsten Carbide	Kalrez	Krytox	260			N/A

For reference only. Please consult drawings AB10063 and AB10810.
N/A = not applicable

Seal Kit consist of:

- Seal ring
- Counterseat
- O-rings
- Springs
- Head gasket

Quick Release Flange



Joint Size	Flange (n)	Flange Set Water/Air/Steam	Flange Set Oil	Flange	Split Wedge	Gasket Copper Water/Air/Steam	Gasket Aluminum (Oil)
1"	4 holes	050.303	050.403	050.003	550.003	080.053	080.102
1¼"	4 holes	050.304	050.404	050.004	550.004	080.054	080.103
1½"	4 holes	050.305	050.405	050.005	550.005	080.055	080.104
2"	4 holes	050.306	050.406	050.006	550.006	080.056	080.105
2½"	4 holes	050.307	050.407	050.007	550.007	080.057	080.106
3"	4 holes	050.317	050.417	050.017	550.008	080.058	080.107
	5 holes	050.308	050.408	050.008			
	6 holes	050.318	050.418	050.018			
3½"	6 holes	050.309	050.409	050.009	550.009	080.059	080.108
	8 holes	050.310	050.410	050.010			
4"	6 holes	050.311	050.411	050.011	550.010	080.060	080.109
	8 holes	050.312	050.412	050.012			
5"	8 holes	050.313	050.413	050.013	550.015	080.061	080.110
6"	8 holes	050.314	050.414	050.014	550.012	080.062	080.111
6½"	12 holes	050.340	050.440	050.040	550.040	080.063	080.112
7½"	8 holes	050.315	050.415	050.015	550.013	080.063	080.112
	12 holes	050.319	050.419	050.016			
8"	8 holes	050.320	050.420	050.015	550.014	080.064	–
	12 holes	050.316	050.416	050.016			

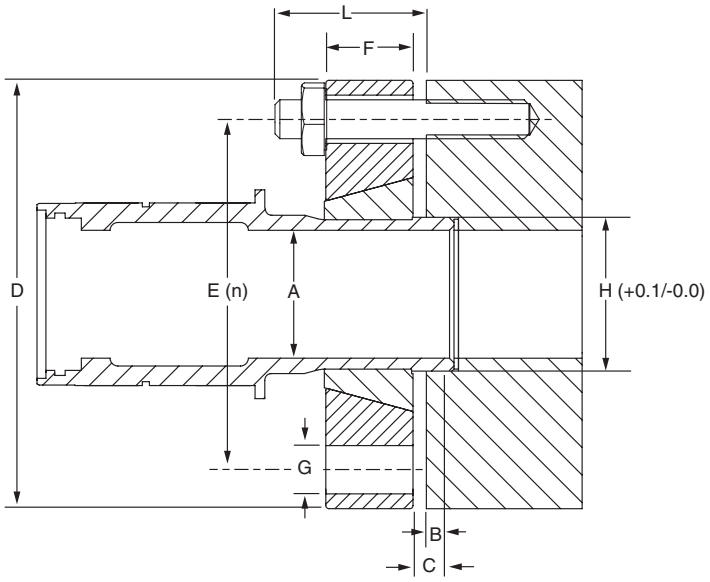
Features

- Split wedge construction for ease of installation
- Q-Flange can be used for LH and RH rotation
- Gaskets for different media
- Mounting with multiple bolts
- Sizes available from 1/2" up to 12"

Benefits

- Reduced installation and maintenance times
- Reduced inventory levels
- Application for all media
- Easy installation with hand tools

Quick Release Flanges are used for increased ease of installation and reduced maintenance cost. The Quick Release Flange can be used for steam, water, oil, and all other media which passes through the rotary joint.



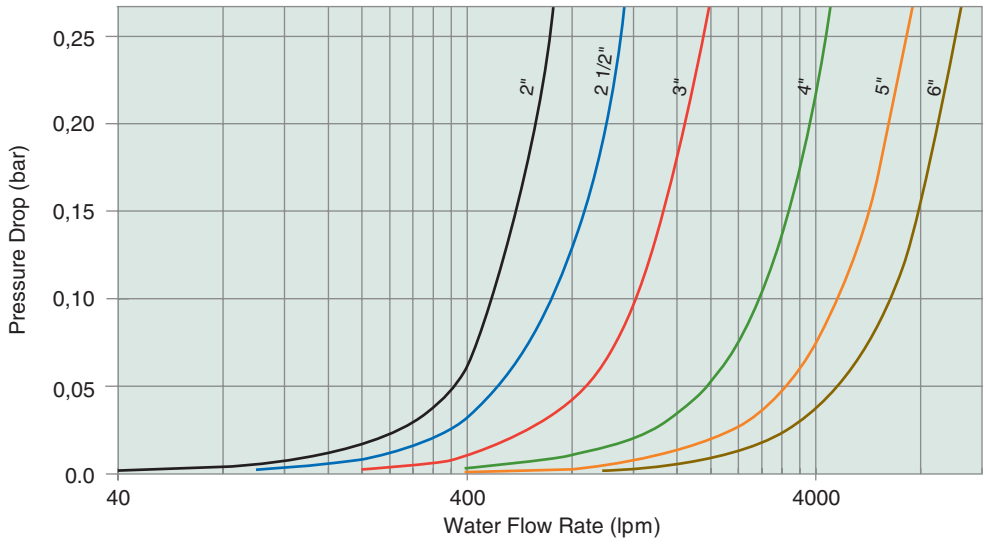
Size	Type	A	B	C	D	E	F	G	H	L	n	Torque (Nm) Copper Gasket	Torque (Nm) Aluminum Gasket	Kg
1¼"	2400 3400	32,5	10	12,7	127	88,9	16	14,25	41,3	M12x35	4	23	21	1,3
1½"	2500 3500	38	10	12,7	140	100	20	14,25	47,6	M12x40	4	25	22	1,9
2"	2550 3550	48	13	15,9	165	120,6	20	14,25	59,1	M12x40	4	29	25	2,6
2½"	2600 3600	59	16	19	165	120,6	20	14,25	72,2	M12x40	4	34	28	2,5
3"	2700 3700	73	19	22,2	203	171,5	31	17,5	87,3	M16x55	4	72	62	5,9
											5	66	57	
											6	61	54	
3½"	2750	85	20	25,4	216	177,8	32	17,5	100	M16x55	6	66	57	6,4
								14,25		M12x55	8	31	26	
4"	2800 3800	97	20	25,4	229	190,5	35	17,5	112,7	M16x60	6	71	61	7,6
											8	63	56	
5"	950 2950	122	25	32	292	235	39	22	139,2	M20x70	8	117	104	13,8
6"	1000	146	25	32	330	279,5	41	22	168	M20x70	8	138	119	19

Technical Data

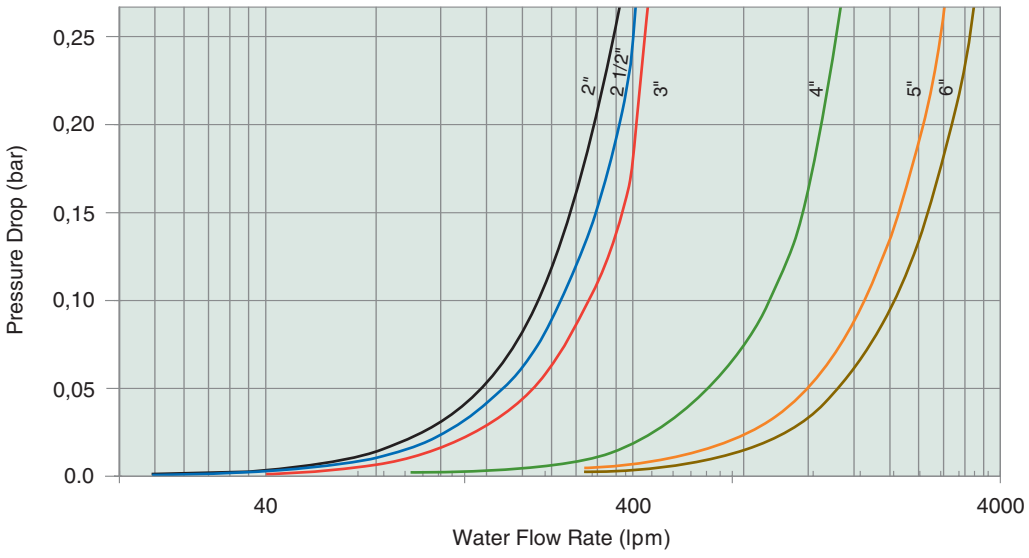
Rotary union sizing

Rotary unions that are used for liquid flow are typically sized so that the pressure drop is less than 0,20 bar (3 psi) for open-loop systems and less than 0,40 bar (6 psi) for closed-loop systems. The pressure drop through a dual flow rotary union is higher than the pressure drop through a single flow union of the same size, because the internal flow area is lower. Use the appropriate chart below for your configuration. Note that the pressure drop shown for dual flow unions is for the supply passage. The total pressure drop (flow in and flow out) would be approximately 2x this value.

RX Rotary Union (Single Flow)



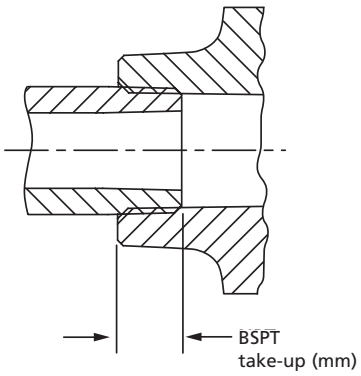
RX Rotary Union (Dual Flow)



Common pipe dimensions

Nominal	Schedule	OD (mm)	Wall (mm)	Internal Area (cm^2)	Weight Pipe (kg/cm)	Weight Water (kg/cm)	BSPT Take-Up (mm)
3/8"	40	17	2	1.23	0.05	0.01	10
	80	17	3	0.91	0.07	0.01	10
1/2"	40	21	3	1.96	0.08	0.01	13
	80	21	4	1.51	0.10	0.01	13
3/4"	40	27	3	3.44	0.11	0.02	15
	80	27	4	2.79	0.14	0.02	15
1"	40	33	3	5.58	0.16	0.04	17
	80	33	5	4.64	0.21	0.03	17
1 1/4"	40	42	4	9.65	0.22	0.06	19
	80	42	5	8.28	0.29	0.05	19
1 1/2"	40	48	4	13.13	0.26	0.08	19
	80	48	5	12.81	0.35	0.07	19
2"	40	60	4	21.65	0.35	0.14	23
	80	60	6	19.05	0.48	0.12	23
2 1/2"	40	73	5	30.89	0.56	0.20	27
	80	73	7	27.34	0.74	0.18	27
3"	40	89	5	47.69	0.73	0.31	30
	80	89	8	42.61	0.99	0.28	30
4"	40	114	6	82.13	1.04	0.53	_
	80	114	9	74.17	1.44	0.48	_
5"	40	141	7	129.07	1.41	0.83	_
	80	141	10	117.38	2.00	0.76	_
6"	40	168	7	186.38	1.83	1.20	_
	80	168	11	168.17	2.46	1.09	_

BSPT threaded pipe

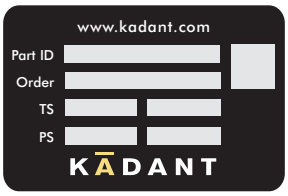


Torque values

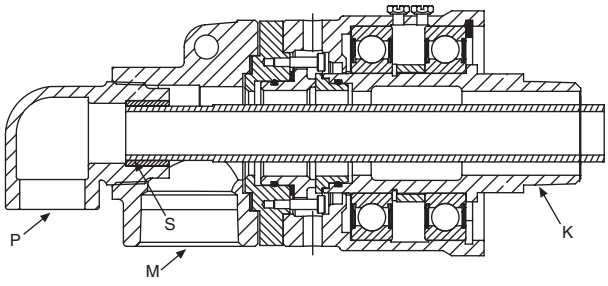
Fastener Size		Torque (Nm)	Bolt Stress At Recommended Torque (Mpa)
1/4"	M6	7	280
–	M8	18	280
3/8"	M10	24	280
7/16"	–	42	310
1/2"	M12	47	230
9/16"	M14	80	275
5/8"	M16	80	200
3/4"	M20	135	185
1"	M24	270	160

Ordering information

If you have an existing Kadant Johnson rotary union with a product label affixed to the housing, the Part ID written on the label is all that is required to order a replacement union. For new applications or if no Part ID is available, the following data are requested:



1. Number of passages (single flow or dual flow)
2. Rotor type (threaded, Q-flange, or integral flange)
3. Rotor thread (right- or left-hand and type)
4. Supply pipe (none, fixed, or rotating)
5. Service (water, thermal oil, air, or steam)
6. Fluid pressure
7. Fluid temperature
8. Rotational speed (rpm)
9. Connection sizes shown on drawing (M, P, S, K)



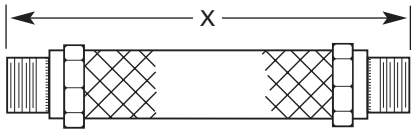
Recommendations

Flexible hose

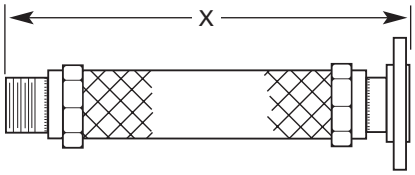
To ensure free movement of the rotary union and elimination of side loading, the proper installation, type, and length of flexible hose should be used.

Recommended hose length, bend, and offset (mm)

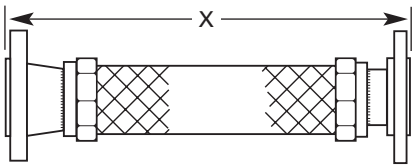
Pipe Size	Minimum Length (X)	Minimum Bend Radius	Maximum Offset
1/4	200	140	50
3/8	250	140	50
1/2	250	150	38
3/4	300	200	25
1	375	225	38
1 1/4	450	250	50
1 1/2	450	300	50
2	525	375	50
2 1/2	550	355	60
3	600	425	60
4	700	550	75
5	750	700	60
6	850	850	60



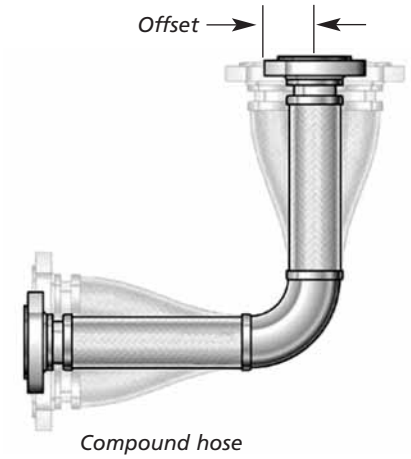
Threaded both ends



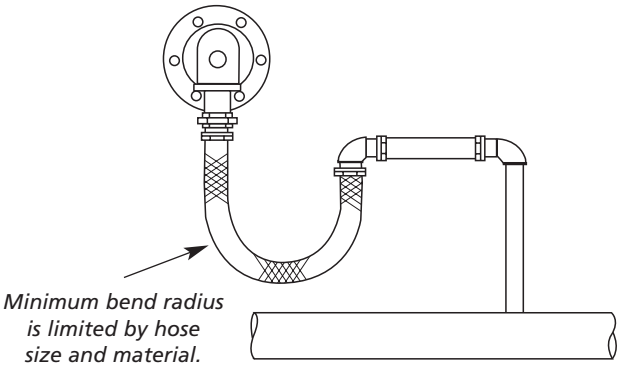
Threaded one end, lap flange other end



Fixed flange one end, lap flange other end



Compound hose (recommended)



Minimum bend radius is limited by hose size and material.

Filtration

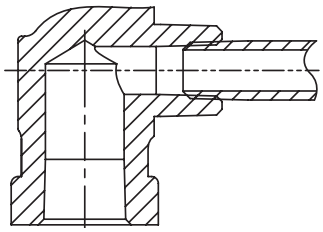
It is important to follow the filtration requirements recommended by the machinery manufacturer. Type RX rotary unions do not require additional filtration other than what is recommended for the fluid circulation system (typically 40–60 micron).

Guarantee

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

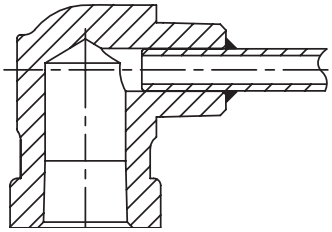
Threaded supply pipe

A threaded supply pipe is used for dual flow installations and is connected to the rotary union elbow using BSPT threads. See page 15 for the BSPT take-up dimension. The size of the supply pipe determines the flow rate for a particular union size. The larger the pipe size, the higher the potential flow rate for a given size union. To avoid excessive stress at the pipe thread, the supply pipe length should not be longer than 4x the overall length of the rotary union.



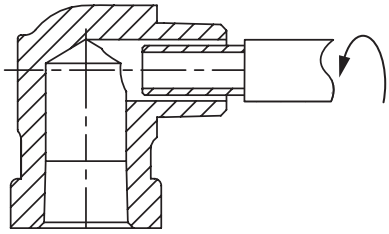
Fixed tube supply pipe

The fixed tube supply pipe is made of stainless steel tubing and is silver-soldered into the elbow of the rotary union. The lighter weight and thinner wall sections allow for higher flow rates and higher rotational speeds compared to alternative supply pipe designs. To avoid excessive stress at the tube-elbow interface, the supply pipe length should not be longer than 6x the overall length of the rotary union.



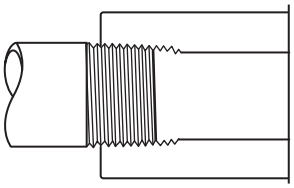
Rotating supply pipe

A rotating supply pipe can be produced from tubing or iron pipe. The end of the pipe that is inserted into the rotary union elbow is machined to a specific tolerance to provide the proper fit and performance. It is recommended that the rotating supply pipe be supported inside the roll when attempting to use a supply pipe longer than 4x the length of the union. A straight thread rotor (for example, BSP or UNS) is used to ensure concentricity.

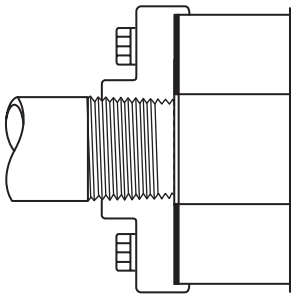


Connectors

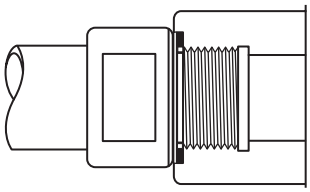
Kadant Johnson rotary unions are attached to roll journals using threaded, flanged, or quick-release nipples.



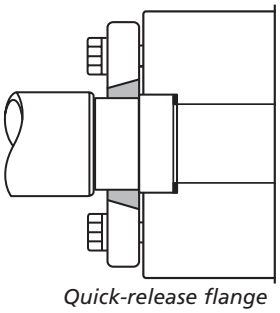
Tapered threads



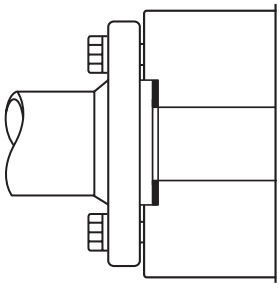
Tapered threads with adapter flange



Straight threads



Quick-release flange mounted to journal



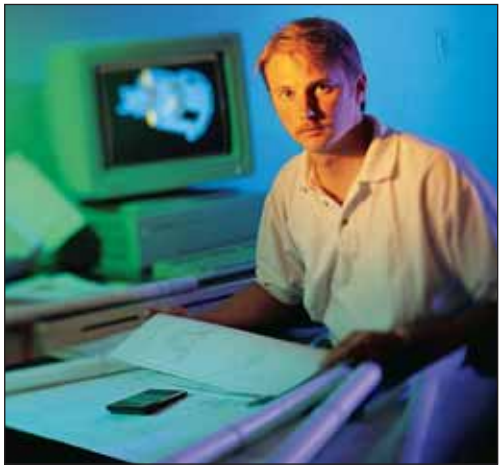
Integral flange

Maximum Speed (RPM)				
Size	Straight Thread	Tapered Thread	Quick Release	Flanged
4200	750	750	1000	1000
4250	750	750	750	1000
4300	550	550	550	1000
4400	–	–	–	750
4500	–	–	–	750
4600	–	–	–	750

For reference only. Please consult drawings AB10063 and AB10810.

Other Rotary Unions

At Kadant Johnson, our world revolves around designing and manufacturing rotary joints and precision unions to meet our customers' needs. Based on more than 75 years of innovation, we produce thousands of different rotary union configurations for a variety of process industries. Our full line of standard rotating unions is used in a wide variety of applications including steam, water, thermal oil, coolant, hydraulic oil, air, and other media. If you do not see what you need, our rapid design product development group is ready to provide a custom design based on your specific application needs.



Type SX for steam and thermal oil (¾" to 3")

The SX rotary joint is designed for steam and thermal oil applications with a stationary supply pipe. Its two internal carbon-graphite bearings permit self-alignment and long operating life – even on cylinders that are not concentric. The convex seal ring and optimized seal diameter provide extended seal life and reduced maintenance for the SX joint. The SX rotary joint line is available in sizes from ¾" to 3" and can be used in single or dual flow applications. The joint is rated up to 343°C (650°F), 20 bar (300 psig), and 550 RPM.

Type ELS for steam and thermal oil (2" to 12")

The ELS rotary joint is designed for use with steam and thermal oil service. The double-guide design provides internal support for the joint and maintains alignment even when the roll or cylinder is not concentric. The ELS is available in sizes ranging from 2" to 12" and is rated up to 343°C (650°F), 50 bar (725 psig), and 200 RPM.

Type G for coolant, water, air, and hydraulic oil

The G rotary union is a high performance, high precision union for coolant, water, air, and hydraulic oil applications. Type G unions are generally applied to spindles, gun drills, milling, and other machinery. The G union is designed for smooth-running at speeds up to 50.000 RPM and pressures up to 400 bar (5800 psig) in sizes ranging from ¼" to ⅝".

Type MP for pneumatic, hydraulic, and water applications

The MP rotary union is a custom-designed multi-passage union for pneumatic, hydraulic, and water applications. The precision ball bearings are lubricated for life and housing materials include stainless steel, aluminum, steel, or brass. Standard passage sizes are ⅛", ¼", ⅜", ½", ¾", and 1" with other sizes available. MP unions are available with up to 12 passages and rated up to 107°C (225°F), 207 bar (3.000 psig), and 500 RPM.

Type OTS for water cooling

The Over-The-Shaft (OTS) rotary union is applied to various types of driven rolls that require cooling through the driven side of the roll. The OTS is made of stainless steel and bronze components and features a Quad-Seal o-ring design for reliable sealing performance. For high-speed applications, a mechanical seal design is available. The OTS rotary union is rated up to 93°C (200°F) and 10 bar (150 psig).

Local Assistance On A Worldwide Basis

Many suppliers have made a commitment to the international marketplace. But few have taken that commitment as far as Kadant Johnson. To assure product availability wherever it's needed, Kadant Johnson joints, syphons, and related equipment are manufactured in Asia, Europe, North America, and South America.

Because knowledgeable advice and prompt service are as important as the products, Kadant Johnson has factory-authorized representatives in nearly 150 countries. So no matter where you are, Kadant Johnson products, service, and assistance are nearby.

MANUFACTURING LOCATIONS

805 Wood Street
Three Rivers, MI 49093 USA
tel: +1 269 278 1715
fax: +1 269 279 5980

Nijverheidslaan 23
1382 LG Weesp, The Netherlands
tel: +31 294 494200
fax: +31 294 431359

Rua Miguel Nelson Bechara, 297
02712-130, São Paulo, SP, Brazil
tel: +55 11 3932 7877
fax: +55 11 3931 4043

Wuxi National Hi-Tech Industrial Development Zone
Wuxi City, Jiangsu Province, China
tel: +86 510 85212218
fax: +86 510 85212038

KĀDANT
AN ACCENT ON INNOVATION

Kadant is a leading global supplier of products and services that improve productivity and quality in paper production and other process industries. For the nearest location and contact, visit our Website.

www.kadant.com

Contact us:

KADANT JOHNSON EUROPE B.V.
Postbus 68
1380 AB Weesp
The Netherlands

Tel: +31 294 494200
Fax: +31 294 431359
info@kadant.com

RX-3004 (KJEU) 06/2009
replaces: RX-3003