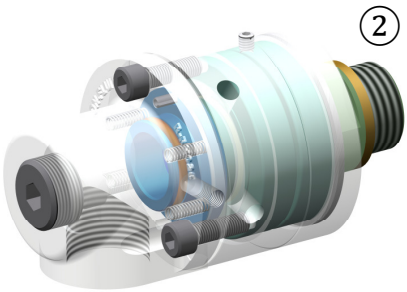
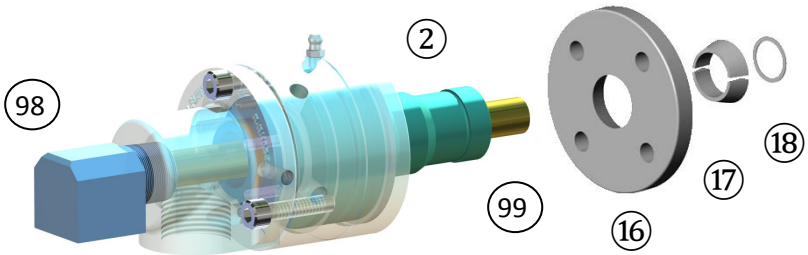
Installation Instructions for Type R-RH Rotary Unions (3/8″ – 2″)



Single Flow



Double Flow

Please follow your company' safety procedures whenever working on Johnson-Fluiten rotary unions and read all of the instructions completely before proceeding.Please refer to the engineer drawings of your Johnson-Fluiten rotary union for part identification. If you have any question, please contact your sales representative or Johnson-Fluiten directly.In order to optimize the installation we recommend to prepare tools and consider torque values as specified in below table 1.

PRELIMINARY CHECKS

Before proceeding with assembly check:

- **Rotor housing**: diameter and depth of threading
- **Coupling flange** (when applied): number, dimension and bolt circle of coupling holes
- **Geometrical tolerances**: concentricity (Y=0.15) and perpendicularity (AY=0.1) between housing and rotor. At high RPM's the bearings will yield longer service life if runout is kept to a minimum
- **Rotary joint connections**: verify that fittings are suitable for connections (see dimensions in our catalogue on in customized drawing)

INSTALLATION INSTRUCTIONS

Single flow (M) – No supply pipe

Attach in manner described in *Mounting to Journal* given your rotor design.

Dual flow (F) – stationary pipe

First thread the siphon pipe (99) into the rotary union elbow (98) and then attach union to the journal

Dual flow (L) – rotary pipe

Holding union straight, slide slowly over siphon pipe (99) and into elbow (98), then attach to journal.

Mounting to journal:

- **Threaded rotor**: lubricate connections using recommended fluid mineral oil, thread the rotor (2) into journal and tighten straight copper gasket (18)
- **Quick release rotor**: place copper gasket (18) in journal flange recess. Slide the quick release flange (16) over the rotor (2) with the taper facing away from the union. Place splitwedges (17) into the rotor recess, then slide the quick release flange over it. Position union/flange into journal flange and tighten the fasteners evenly. NOTE: there will be a 3-5mm gap between the journal flange and the quick release flange.
- **Integral flanged rotor**: place gasket on rotor flange and place on journal with studs extending through rotor flange. Tighten nuts evenly in a star patterm to seal flange surfaces and minimize runout.

INSTALLATION NOTES

- Take special care when mounting union over siphon pipe as internal seals can be damaged
- Siphon pipe can be guided to the elbow while looking through the M connection
- Pay attention on length of siphon pipe. excess length can cause flow to be cut off against interior of elbow
- Avoid locking of fittings with the rotary joint installed on journal. Locking forces could get deformed rotor or damage bearings
- Apply soft pads on clamping device. Avoid excessive clamping which could damage bearing support.

Table 1

Size	description	Dimension	Key	Torque (N*m)
R009	Rotor	3/8”G-ISO228	19	
	Body-support screw	M4	3	6
	Weep holes	6 x M6		
R012	Rotor	½” G-ISO228	24	
	Body-support screw	M5	4	6
	Weep holes	5 x 8.7mm		
R019	Rotor	¾” G-ISO228	30	
	Body-support screw	M5	4	6
	Screw for Q flange	M8	13	24.6
	Weep holes	5 x 8.7mm		
R025	Rotor	1” G-ISO228	36	
	Body-support screw	M8	6	24.6
	Screw for Q flange	M8	13	24.6
	Weep holes	5 x 8.7mm		
R031	Rotor	1-1/4” G-ISO228	46	
	Body-support screw	M8	6	24.6
	Screw for Q flange	M10	16	50
	Weep holes	5 x 8.7mm		
R038	Rotor	1-1/2” G-ISO228	55	
	Body-support screw	M8	6	24.6
	Screw for Q flange	M10	16	50
	Weep holes	5 x 10mm		
R050	Rotor	2” G-ISO228	60	
	Body-support screw	M8	6	24.6
	Screw for Q flange	M12	18	85
	Weep holes	5 x 12mm		

FLEXIBLE HOSE CONNECTIONS

Given your application, choose either rubber or metal braided hose, with ratings able to sustain the flow media. When connecting the rotary union to the fixed piping, the flexible hose should be installed as close to the union as possible, in a relaxed condition, neither stretched or compressed. If you have unusual long run of hose, it is strongly suggested you to support the hose so s not to overload the bearings. Refer to Table 2 to determine the correct length of flexible hose needed to isolate the rotary union from piping stresses and to Table 3 for correct examples of installation.

WEEP HOLES

The weep holes in the body of rotary union provide escape of leakage at the internal seals which indicate the need for seal replacement. The rotary union should be oriented such that one of the weep holes is pointing directly downward. See Table 1 for detail of number and size of holes.

FUNCTIONAL TEST

It is not possible to define in detail the functional test which will depend on the type of installation., some general suggestions are specified below:

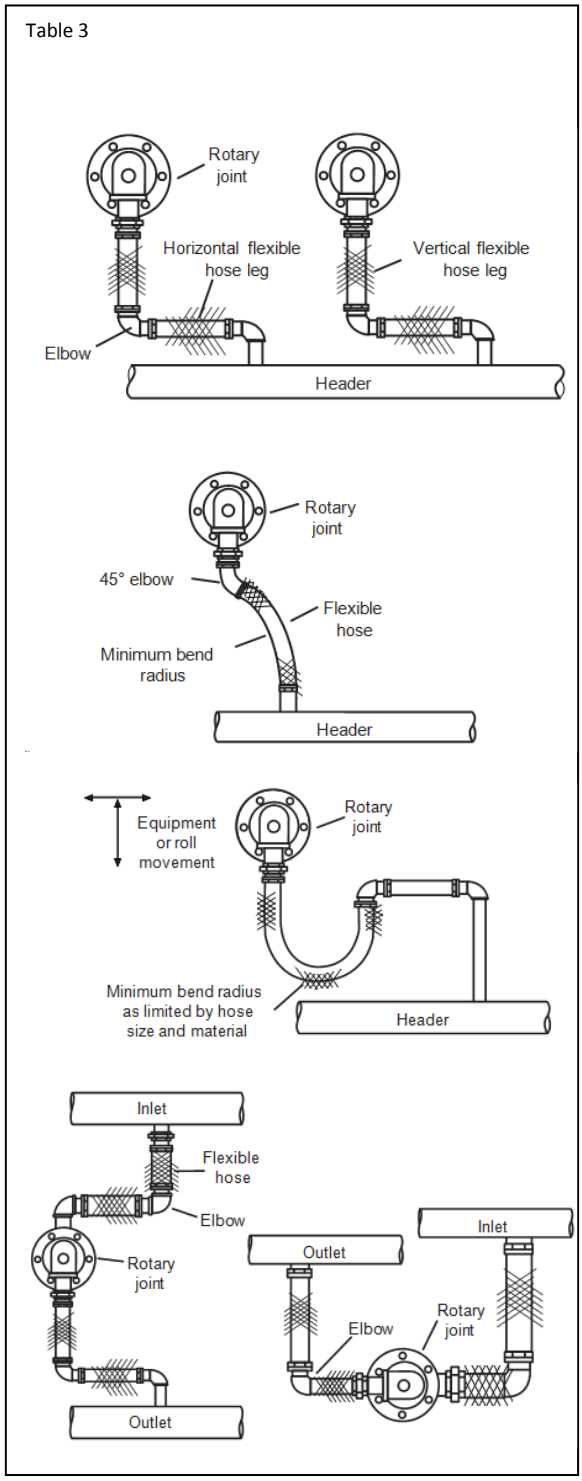
Start the machinery and operate for 5 minutes verifying:

- Absence of leakage
- Absence of vibration or abnormal noises produced by rotary joint
- Absence of excessive heating of rotary joint, in particular in the area of ball bearings

Table 2

RECOMMENDED MINIMUM HOSE LENGHT	
1/4”	200 mm
3/8”	250 mm
1/2”	250 mm
3/4”	300 mm
1”	380 mm
1-1/4”	450 mm
1-1/2”	450 mm

Table 3



Johnson-Fluiten Warranty

Johnson-Fluiten products are built to a high standard of quality. Performance is what you desire: that is what we provide. Johnson-Fluiten products are warranted against defects in materials and workmanship for a period of one year after date of shipment. It is expressly understood and agreed that the limit of Johnson-Fluiten's liability shall, at Johnson-Fluiten's sole option, be the repair or resupply of a like quantity of non-defective product.

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