ISR_GA_EN	
Effective	January 2019
Replaces	New

Installation Instructions For Rotary Union Type GA

SAFETY INSTRUCTIONS Please follow your company's 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.

PRELIMINARY ASSEMBLY (see figure 1)

- Clamp slightly the rotary union body
- Thread a 300mm or longer flexible metal hose into the rotary union port and tighten using a torque of 50Nm
- Connect the hose with a compressed air source and carry out three test cycles as defined below
    - Closure
    - Maintain the pressure for 30 sec.
    - Opening
- Verify there is no leakage through the hose fitting and the commutation of the joint is practically instantaneous.

WARNING *It is important to connect the hose to the rotary union prior to installing it onto the spindle to prevent damage to the rotary union's ball bearings races.*

INSTALLATION

- Mount the union rotor in its housing of the spindle and tighten with a torque of 40Nm.
- Connect the drain line to the union with the drainage hole.

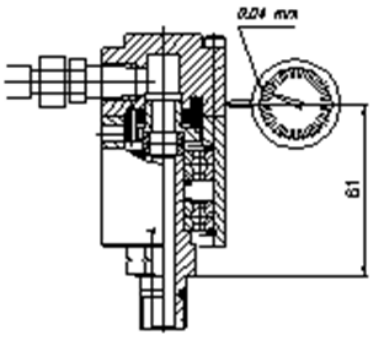
NOTICE *It is suggested to use a transparent drainage line to monitor any leakage from the union. It shall be downwards bent and siphons curves shall be avoided to guarantee a satisfactory drainage (see figure 1)*

- Connect the flexible hose to the coolant supply. Be sure to install the piping to avoid any side loading of the rotary union. Side loading, or other excessive forces, will lead to premature failure.
- Final check of installation of rotary union, flexible hose and drain line. Make sure the rotary union is able to move freely and there is no side loading from the flexible hose installation.

The installation is now complete!

PRELIMINARY TEST

- Fit the rotary union onto the machinery shaft, then manually rotate the shaft and using a dial indicator verify that TIR is lower than 0,04mm



- Start the machine and verify, at maximum speed, there are no vibrations which could damage the union.

NOTICE *This is a dry run test and should be carried out for just few seconds.*

FUNCTIONAL TEST WITH COOLANT

- Introduce coolant into the rotary union (verify pressure and PV diagram accordingly to our catalogue or table drawing if using a custom union)
- verify the correct commutation of the joint. It shall be almost instantaneous, leakage during commutation shall be as low as a few drops.
- Maintain the rotary union running for at least 1 hour to carry out a good adjustment of the roller bearings.
- Verify that temperature measured on the union body do not exceed 70°C during initial phase of the test and is dropping to 50°C max after 1 hour.
- Carry out several commutations verifying a correct functioning.

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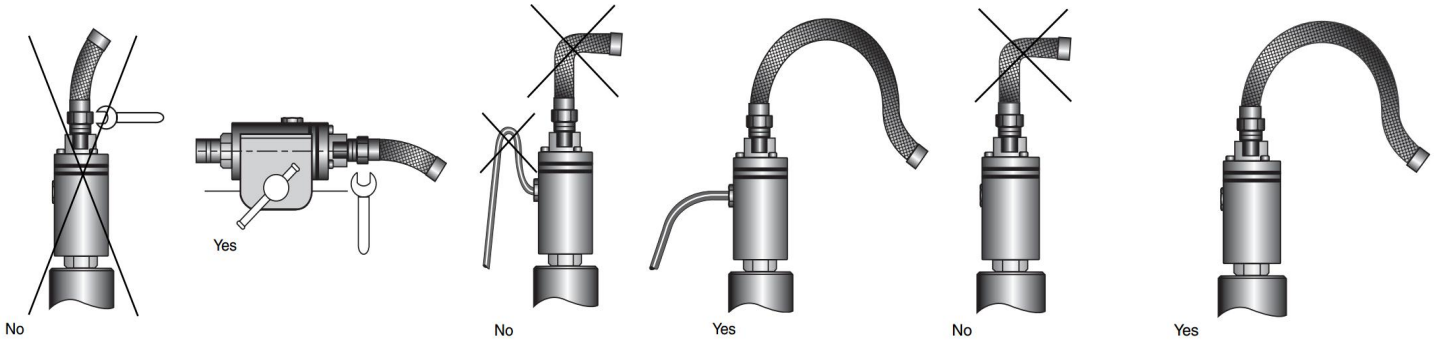
WARNING The temperature measured on the union body shall not exceed 50°C during the test. Eventual leakage shall not be more than 0.2ml/min (1ml is about 20/30 drops)

FUNCTIONAL TEST WITH AIR

- Introduce air into the rotary union (verify pressure and PV diagram accordingly to our catalogue or table drawing if is a custom union)
- Run this pressure test for 5 minutes
- Verify there is no excessive leakage of air.
- Shut off the pressure
- Repeat several commutations verifying the correct functioning.

NOTICE *To detect leakage when using air, it is recommended to use a sensitive gauge on the drain line.*
If it is not possible, slight leakage can be detected by closing the drain hole for few seconds and then verifying if the drainage chamber is pressurized.

Figure 1: proper flexible hose and drain line installation



TROUBLESHOOTING			
Problem		**Possible Cause**	**Action**
High vibrations/noise		Rotor connection is not tight Damaged bearings	Verify rotor and loosened rotor connection Replace rotary union
Leakage through drain holes during service		Wearing or damage of seal faces	Replace rotary union
Overheating		Lack of cooling liquid Damaged bearings	Verify coolant is flowing to the rotary union. Dry running at highest speed could cause failure in short time Replace rotary union