

Installation Instructions

For Rotary Union Type SAIDI-BCI G/50423

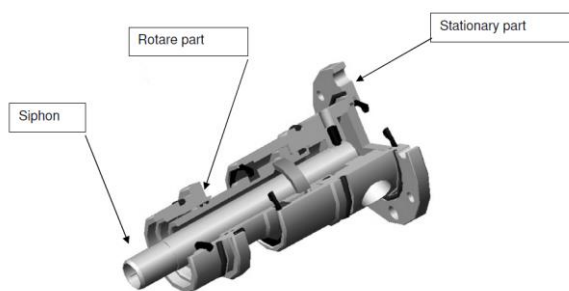
SAFETY INSTRUCTIONS

Please follow your company's safety procedures whenever working on Johnson-Fluiten rotary unions and read all 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.

WARNING

Before proceeding with rotary joint installation, please carefully read all contents of this manual together with annexed schemes.

General description



Rotary joint type SAIDI-BCI is designed for installation on strand guide units to perform the cooling water circulation inside the rolls.

The rotary joint is basically constituted of:

- Stationary part – To be fitted in the strand unit shoulder by means of screws
- Rotary part – To be fitted in the unit roll
- Siphon – To perform the water circulation inside the roll

NOTICE

In order to optimize the installation, we recommend:

Prepare tools as specified at section 1.1

Procure lubricants as specified at section 1.2

1.1 Tools required for installation

On Table 1 are listed dimensions and types of tools used for installation and maintenance of the rotary joints.

On Table 2 are listed recommended torque values for screws of various dimensions and materials.

For materials other than specified the torque value shall be calculated as follows:

$$Ms = Ms_{tab} * Rs_{new_material} / Rs_{material_tab}$$



Example:

$$Rs_{new_material} = 500 \text{ Mpa} ; Rs_{material_tab} (8.8) = 640 \text{ Mpa}$$

$$; Ms_{tab} = 24 \text{ N*m}$$

$$Ms = 24 * 500 / 640 = 18.7 \text{ N*m}$$

1.2 LUBRICATION

On sections relevant to assembling and maintenance eventual lubrication operations shall be specified.

On table 3 are specified recommended lubricants for the seal components.

WARNING

Ethylene Propylene gaskets must be lubricated with silicon grease. Other types of grease are damaging the gasket.

Do not dispose lubricants in the environment.

Lubricants are highly pollutive products and must be disposed in the collection centres.

2. ASSEMBLY INSTRUCTIONS

2.1 PRELIMINARY CHECKS

Before proceeding with assembly the following checks shall be carried out:

Stationary part housing Diameter: 60

Rotary part housing Diameter: 50

Coupling flange

Number 4 threaded holes M8

centre holes diameter = 84 mm

See drawing F5380 for holes layout

Operating length 109 – See Dwg.No. F5380

2.2 ROTARY JOINT ASSEMBLY

- Insert the rotary part in the unit roll housing
- Apply the retaining flange, taking care to align with the guide pin on the rotary part.
- Insert the stationary part in the unit shoulder housing, taking care to align the slot in the nipple with the drive pin in the rotary part.

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Apply grease on gaskets 25-26 (take care that gasket 25 is well placed in its housing)

· Lock stationary part with M8 screws (Torque specified in Table 2)

The installation is complete!

Table 1 – REQUIRED TOOLS – REF. DWG. F5380

DESCRIPTION	Ref.	Dimension	Type	Hex.	Material
Wrench for screw for stationary part connection	-	M8	*	*	*
Wrench for set screw for siphon	12	M6	S.H.	6	A2
Plier for inner retaining ring dia.50	-		*	*	*

(* CUSTOMER SUPPLY)

Table 2 – TORQUE VALUES [N*m]

Screw dia.	Mat.A2-A4 – Rs=210 Mpa	Mat. 8.8– Rs=640 Mpa	Mat.10.9– Rs=900 Mpa
M8	8.5	24	34

For materials other than specified on Table 2 , see section 1.3

Table 3 – RECOMMENDED LUBRICANTS

COMPONENT	RIF.	GASKET MATERIAL	RECOMMENDED LUBRICANT
Sealing rings gasket	10	Ethylene Propylene	Silicon grease SIL133 or equivalent
Stationary part gaskets	24-25-26	Ethylene Propylene	Silicon grease SIL133 or equivalent
Rotary part gaskets	9-27	Ethylene Propylene	Silicon grease SIL133 or equivalent

Table 4 – OPERATING LIMITS

Fluid	water
Pressure max	10 bar
Temperature max	120°C
Speed:	1-10rpm
Max axial displacement	10 mm
Max radial displacement	1 mm
Angular offset	0.3°

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