

## Riser Pipes & Johnson Spring Lock (JSL) Connection

The geometrical characteristics (diameter, depth), pump pressure and water quality are the main factors in determining the choice of the riser pipe and the fitting type.

These choices are important for the productivity, longevity and sustainability of a well.



### Stainless Steel

The use of stainless steels is an asset to guarantee the longevity of the riser column. It helps to secure long-lasting investment and reduce maintenance cost.

For drinking water, stainless steel has been widely used, particularly because of health regulation.

Johnson Screens® riser pipes are manufactured from stainless steel grade AISI 304L or 316L.

Other materials (duplex, super duplex, etc.) can be used for particular cases.

A surface treatment (pickling-passivation) can be done as a final operation to produce a uniform metal oxides protective layer that provides maximum anti-corrosion protection.

### JSL connection features

- Stainless steel
- Easy assembly/disassembly
- Compact quick connection
- Suitable for large-diameter risers

## The importance of the fitting

Each fitting has its advantages and specificities. The conventional flange fittings are cumbersome and take a long time to install.

Threaded fittings require special precautions to ensure tightness and prevent galling.

Johnson Spring Lock (JSL) is an economical solution combining compactness, a water tight seal and ease of assembly.

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## Fitting Design

- Four grooves machined around the male end
- Two O-rings to ensure the water tightness
- Two slots on the female end used to insert a flexible rod, intended to withstand traction forces, into each intermediate groove
- Twisting forces on pump start-up and shutdown are neutralized by a pin on a male end which engages into a notch on the female end

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## Installation

- No special tools are needed to assemble or disassemble a riser with JSL fittings
- Once the O-ring are set, the male end is inserted into the female end after alignment of the anti-rotation pin and notch
- When the end is fully seated, a stainless steel flexible rods is inserted into the slot. Once the rods reappear on the other side of the slot, the connection is complete.



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## Performance

### Sealing

The tests performed on the fittings show that the sealing class is PN 40 up to DN 150 and PN 25 for larger diameters.

### Traction

Our fittings are seamless, machined in heavy wall pipes or centrifugal stainless-steel cast. Pull tests show tensile strength values greater than those of most required applications.

## Our services

We can assist you to design your riser system:

- Advise on the mechanical resistance (collapse, burst and tensile resistance)
- Advice on the material selection
- Additional services, including pickling-passivation
- Supply of handling and installation accessories (collars, lifting heads, centralizers, etc.)
- Design of the well head according to your needs

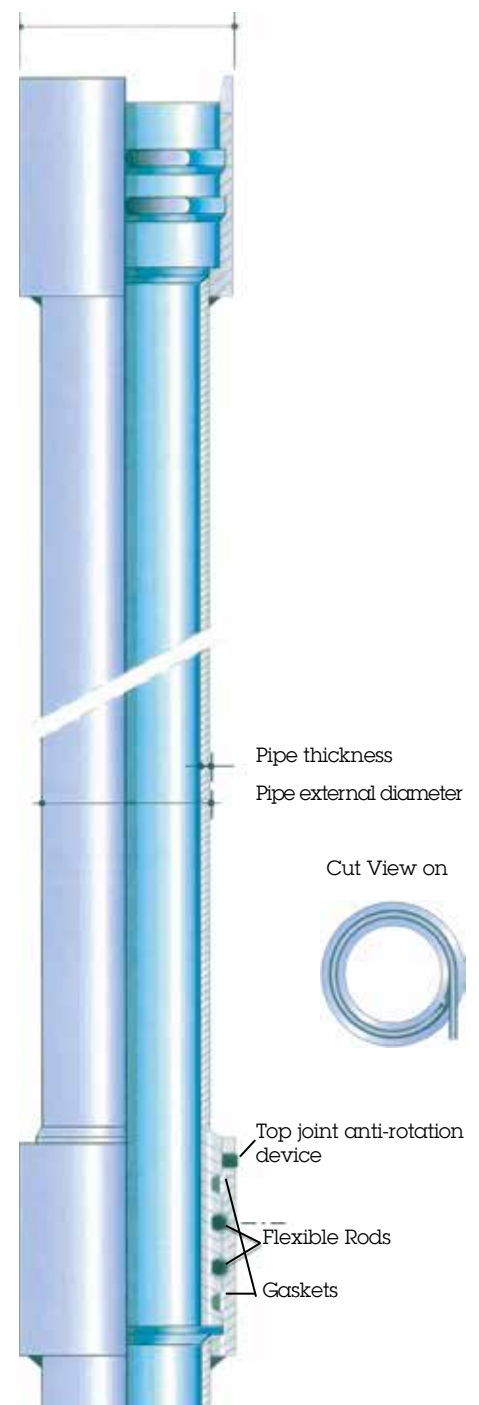


## Dimensional features

Connectors external diameter

DN	Pipe ext. Diam. (mm)	Connector ext. Diam (mm)	Connectors Weight (kg)	Useful height Connector (mm)	Traction max. (Break)* (kN)	Working pressure of the fitting (bar)
50	60.3	85	2.3	110	218	40
65	73/76	106	3.3	110	260	40
80	88.9	118	3.5	120	290	40
100	114.3	140	4.5	120	310	40
125	139.7/141.3	170	6	140	320	40
150	168.3	200	7.9	140	325	40
200	219.1	253	10	140	336	25
250	273.1	316	18.4	140	<330	25

NB: DN175, 225 & 300 achievable on demand (\*) without internal pressure



## Dimensional features

The standard useful lengths of riser pipes are 6.1m or 3.1m.

Pup joints for pump and well head connections are customized according to the pump's and well head end fitting type (gas thread, flange, etc.).



## Accessories

Here are some examples of additional equipment associated with our columns :

- 1 & 3. Centralizers
- 2. Lifting heads (CE approved)
- 4. Well Heads
- 5. Suspension collars (CE approved)



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