

# JOHNSON RISER PIPES





Geometrical characteristics (diameter, depth), pump pressure and water quality are the principal factors determining the choice of the riser pipe and the fitting type.

These choices are vital, as they contribute to the productivity, longevity and sustainability of the well.

## STAINLESS STEEL

Use of stainless steels is an advantage for guaranteeing the longevity of the riser pipe. It thus contributes to protecting the investment and reducing maintenance costs.

Employment of stainless steels has become very widespread for potable water, in part because of more demanding quality requirements in health regulations.

Johnson Screens® riser pipes are made of AISI 304L or 316L stainless steel with a low carbon content to optimize corrosion resistance.

Other grades can be employed in particular contexts.

Surface treatment (pickling - passivation) can be carried out as last step of manufacturing to produce a uniform metal oxide protective layer. This treatment provides maximum anti-corrosion protection.

## THE IMPORTANCE OF THE FITTING

Each connection fitting has its advantages and specific features.

Conventional flanged fittings are cumbersome and take a long time to install.

Threaded fittings necessitate particular precautions to ensure watertightness and avoid seizing.

There is an economical solution combining compactness and easy assembly & disassembly: the ZSM connection.

We can guide you in the implementation of your project.

- Verification of the mechanical stability of the riser (pressure, traction)
- Advice on the metallurgy to use
- Additional services, including pickling-passivation
- Supply of accessories (collars, lifting heads, centralizers, etc.),
- Production of the well head according to your instructions.



# ZSM CONNECTION



## FITTING DESIGN

- Four grooves machined around the male end
- Two O-rings to ensure watertightness and keep it clean seated in the first and fourth grooves.
- Two slots on the female end used to insert flexible rods, intended to absorb traction forces, into each intermediate groove.
- Twisting forces on pump startup and shutdown are neutralized by a stud on the male end which engages in a notch on the female end.

## INSTALLATION

- No special tools are needed to assemble or disassemble a riser with ZSM connection.
- The O-rings are fitted to the male end, which is inserted into the female end after alignment of the anti-rotation stud and notch.
- When the ends are fully home, the flexible rods are inserted manually into the slots. When the rod reappears at the other end of the slot, the connection is complete.

## SAFETY

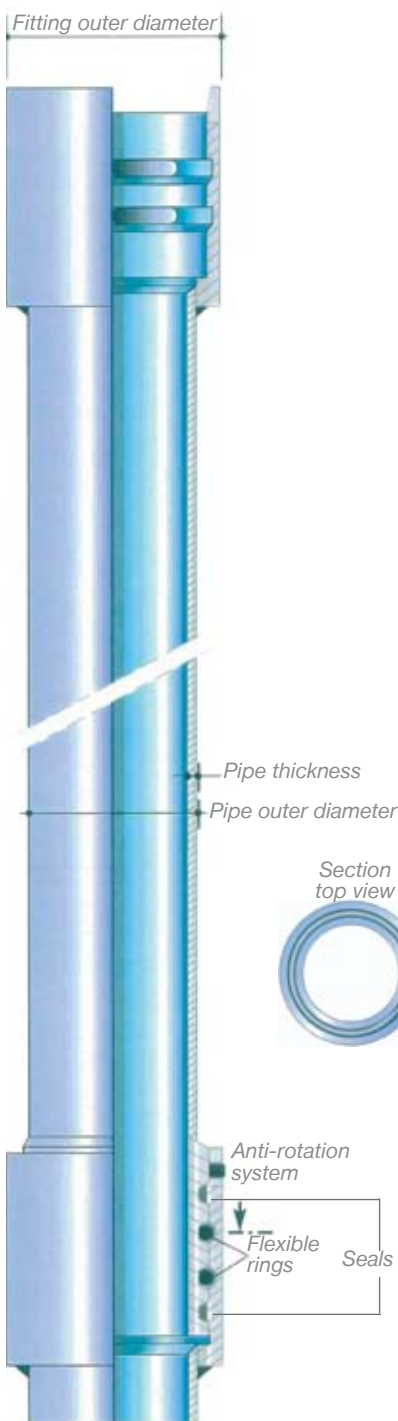
### Sealing

Tests on the connecting fittings show PN 40 sealing up to DN 150 and PN 25 above.

### Traction

Our connections are seamless, fully machined in a heavy wall pipe. Traction tests show tensile strength values greater than those of most applications.





## TECHNICAL CHARACTERISTICS

DN	Pipe O.D. (mm)	Fitting O.D. (mm)	Fitting Weight (Kg)	Fitting Height (mm)	Ultimate Tensile Strength (KN)	Fitting Service Pressure (PN)
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 : DN 175, 225 and 300 on request

(\*) without internal pressure

## MANUFACTURING SPECIFICATIONS

Riser sections are usually produced in effective lengths of 6.1 m or 3.1 m.

A short pump adapter is configured according to pump connection type and dimensions (gas thread, flange, etc.).

The riser outlet can also be customized to your needs.

For optimum assembly and disassembly, particular attention is paid to pipe end alignment in order to ensure parallelism. An alignment bench is employed for this purpose in riser pipe production.





## ACCESSORIES

- Some examples of equipment for use in conjunction with our risers:
- lifting heads (EC approved)
- handling/suspension collars (EC approved)
- centralizers
- well heads
- and more...



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