

IPLEX IRONTITE® DUCTILE IRON PIPE

HIGH STRENGTH • SUPERIOR QUALITY • RELIABLE



Since its introduction to Australia in the 1950's ductile iron pipe has been recognised as an industry standard for water and wastewater systems. Over 60 years of field experience has proven its strength, durability and reliability. Iplex's Irontite® ductile pipe range is manufactured by Jindal SAW Limited, a leading manufacturer of ductile iron pipelines with over 30 years of experience and a history of continuous reinvestment into research and development, staying at the forefront of new technology and design.

APPLICATIONS

With a wide range of internal linings and external coating options Irontite® pipes can be used above and below ground across a range of applications including:

- Potable water
- Recycled water
- Sewage
- Irrigation water
- Bore water
- Slurries

The comprehensive range of pipe, fittings and valves up to 750mm offers a pipeline solution for all applications.



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ADVANTAGES

Ironitite® pipes have been a popular choice for pipeline construction due to the materials advantages and characteristics.

FEATURES	BENEFITS
High strength	Ductile iron provides a pipe with high hoop and axial strength. Ironitite® pipe can withstand severe stresses caused by heavy external soil, traffic, groundwater and construction loads.
High beam strength	Ductile iron is recognised for its capacity to withstand beam loads in above ground installations.
Improved wear life	Ironitite® ductile pipe is manufactured with an Zn-Al primer (mean mass 400 gm/m ²) + blue liquid epoxy (min. 80 µm DFT) providing increased corrosion protection and can be buried without sleeving in soils with a resistivity lower than 500 Ω cm (please check with your local water authority). Polyethylene sleeving may be applied during installation for further enhancement protection in aggressive environments.
High impact resistance	Whilst care should always be taken to minimise the possibility of damage, Ironitite®'s high toughness means it is able to withstand the rigors of on-site handling in difficult terrain and abnormal service conditions.
Flow characteristics	Ironitite®'s relatively low coefficient of friction (Colebrook White roughness k=0.03mm) can result in high flow capacity, low head loss, low pumping costs, and significant energy savings over the life of the pipeline.
Tremendous burst strength	Ironitite® tremendous burst strength makes it ideally suited for high-pressure applications. It also provides an additional safety factor against water hammer.
Maintenance free	Years of experience in operating systems throughout the world have demonstrated that, once installed, zinc coated ductile iron pipes and polymeric coated fittings require little; if any, maintenance over the life of the pipeline when installed in accordance with the manufacturer's recommendations.
Ease of Installation	By eliminating the need for polyethylene sleeving can reduce the time it takes to install each length of Ironitite® pipe. With the requirement for sleeving, the installation process is drastically more efficient and simple to join with a one-step push fit process.
High angular deviation	Can potentially reduce the number of fittings increasing the rate of installation

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CERTIFICATION

AS/NZS 2280 Ductile iron pipes and fittings

AS/NZS 4020 Testing of products for use in contact with drinking water

WSAA Appraisal PA1802

ISO 2531/7186

Polyurethane lining conforms to BS EN 15655

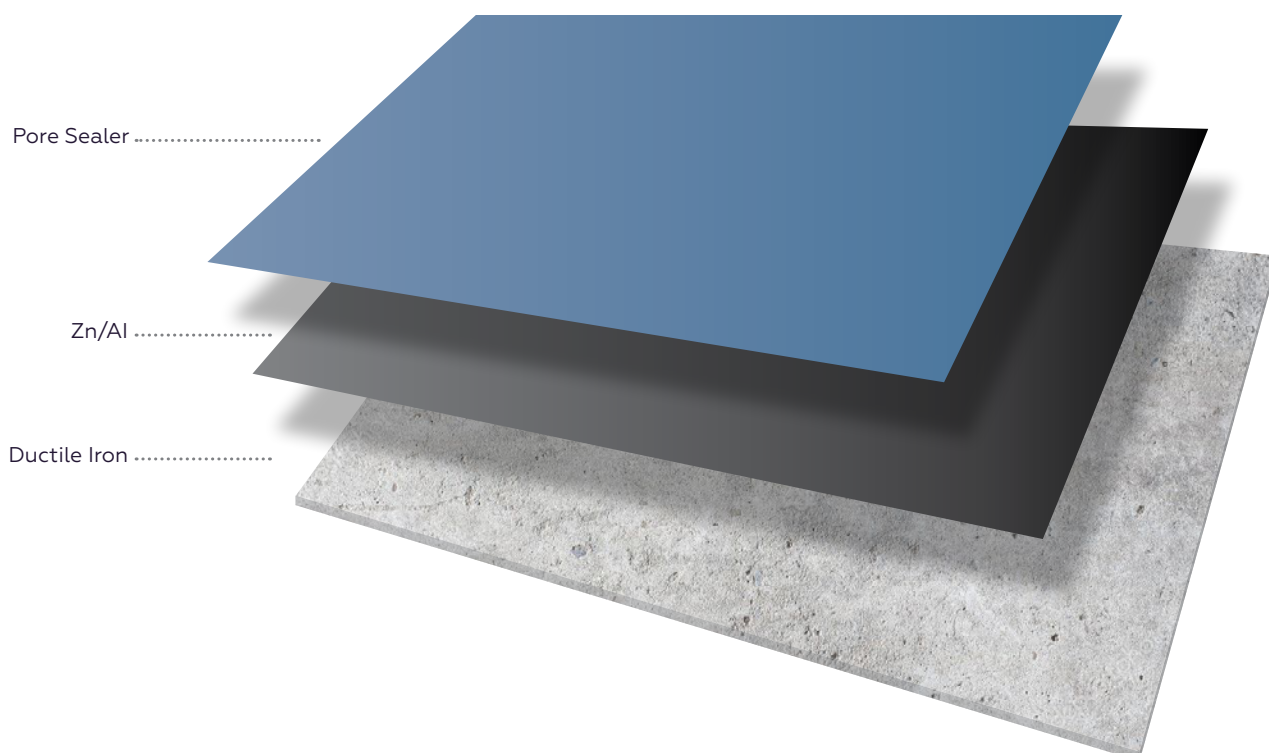
IRONTITE® PIPE ANTI-CORROSION SYSTEM

With some of the most advanced manufacturing facilities in the world, utilising state-of-the-art technology and complete control over the entire manufacturing process, Jindal SAW company produces advance ductile iron pipelines.

Jindal SAW have developed an anti-corrosion system composed of a specially formulated Zinc-Aluminium (ZN-AL) alloy at a density of 400g/m², double the thickness of other standard zinc coatings.

Eliminating the need for loose polyethylene sleeving*, the Zn-Al alloy provides advanced protection from some of the most aggressive soil environments, while extending the service life of the pipeline and minimising on-site handling and increasing installation rates.

*soils with a resistivity lower than 500 Ω cm (please check with local water authority)



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TECHNICAL INFORMATION

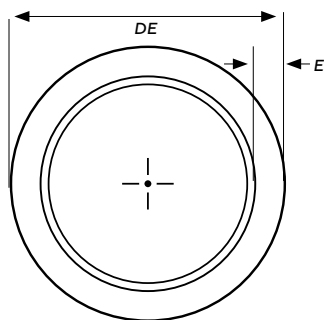
IRONTITE® BLUE PN35 ZINC/ ALUMINIUM DUCTILE IRON PIPE



JINDAL SAW LTD.
TOTAL PIPE SOLUTIONS

TECH SHEET

Ideal for potable water applications



Size Range
DN100 - DN750

Nominal Pressure
PN35

Effective Length
5.5m

Internal Lining – Cement Lining

External Lining – Zn-Al primer (mean mass 400gm/m²) + blue liquid epoxy (min. 80 µm DFT)

DN	OUTSIDE DIAMETER (DE)		PIPE WALL THICKNESS, E (mm)	CEMENT MORTAR LINING THICKNESS (mm)
	OD (MM)	TOLERANCE (mm)	PN35	
100	122	+1, -2	4.9	5
150	177	+1, -2	5.0	5
200	232	+1, -2	5.0	5
225	259	+1, -2	5.0	5
250	286	+1, -2	5.2	5
300	345	+1, -2	5.9	5
375	426	± 2	7.0	5
450	507	± 2	8.1	5
500	560	± 2	8.8	5
600	667	± 2	10.2	5
750	826	± 2	12.3	6

End connection – socket push-on joint (flexible jointing) with a unique EPDM gasket, clearly identifiable by the green markings on the face of the gasket

OPTIONS*

Internal Lining

Bituminous seal coat to AS/NZS 4020

Polyurethane as per EN 15655

External Coating

Polyurethane as per EN 15189 (700 µm – 2000 µm)

Zn primer (mean mass 200 gm/m²) + Bitumen coating

End Connections

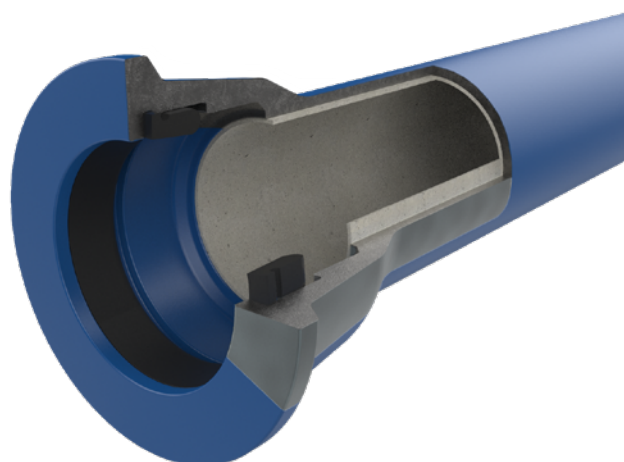
JSAW-LOCK Double socket full restraint joint ends with welded bead ring

JSAW-MRJ – Mechanically restrained Joints

Sizes

ISO pipe sizes available

*Please note options will have minimum run quantities.



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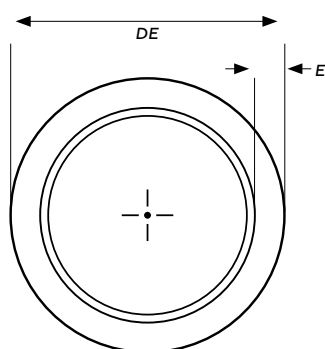
IRONTITE® RED PN35 ZINC/ ALUMINIUM DUCTILE IRON PIPE



JINDAL SAW LTD.
TOTAL PIPE SOLUTIONS

TECH SHEET

Suitable for sewerage and waste water applications



Size Range **Nominal Pressure**
DN100 - DN750 PN35

Effective Length
5.5m

Internal Lining – Cement Lining

External Lining – Zn-Al primer (mean mass 400gm/m²) + red liquid epoxy (min. 80 µm DFT)

DN	OUTSIDE DIAMETER (DE)		PIPE WALL THICKNESS, E (mm)	CEMENT MORTAR LINING THICKNESS (mm)
	OD (MM)	TOLERANCE (mm)	PN35	
100	122	+1, -2	4.9	5
150	177	+1, -2	5.0	5
200	232	+1, -2	5.0	5
225	259	+1, -2	5.0	5
250	286	+1, -2	5.2	5
300	345	+1, -2	5.9	5
375	426	± 2	7.0	5
450	507	± 2	8.1	5
500	560	± 2	8.8	5
600	667	± 2	10.2	5
750	826	± 2	12.3	5

End connection - socket push-on joint (flexible jointing) with a unique EPDM gasket, clearly identifiable by the green markings on the face of the gasket

OPTIONS*

Internal Lining

Sulphate Resistant
Cement (SRC)

External Coating

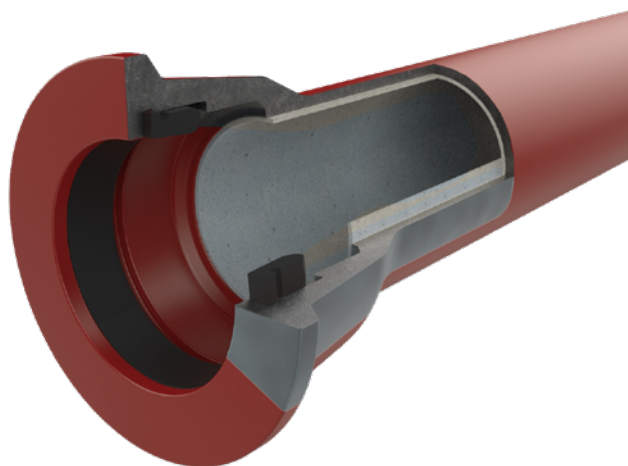
Polyurethane as per EN 15189
(700 µm – 2000 µm)
Zn primer (mean mass 200 gm/m²) + Bitumen coating

End Connections

JSAW-LOCK Double socket full restraint joint ends with welded bead ring
JSAW-MRJ – Mechanically restrained Joints

Sizes

ISO pipe sizes available
*Please note options will have minimum run quantities.



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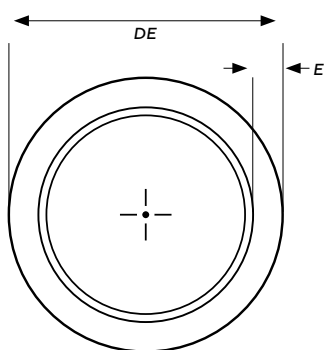
IRONTITE® LITE PN20 ZINC/ ALUMINIUM DUCTILE IRON PIPE



JINDAL SAW LTD.
TOTAL PIPE SOLUTIONS

TECH SHEET

Available for both potable and sewerage and waste water applications



Size Range **Nominal Pressure**
DN225 - DN750 PN20

Effective Length
5.5m

Internal Lining – Cement Lining

External Lining – Zn-Al primer (mean mass 400gm/m²) + blue liquid epoxy (min. 80 µm DFT). Is available with red liquid epoxy.

OPTIONS*

Internal Lining

Bituminous seal coat to AS/NZS 4020

Sulphate Resistant Cement (SRC) – For Ironitite® Red applications

High Alumina Cement (HAC) – For Ironitite® Red applications

End Connections

JSAW-LOCK Double socket full restraint joint ends with welded bead ring

JSAW-MRJ – Mechanically restrained Joints

External Coating

Polyurethane as per EN 15189 (700 µm – 2000 µm)

Zn primer (mean mass 200 gm/m²) + Bitumen coating

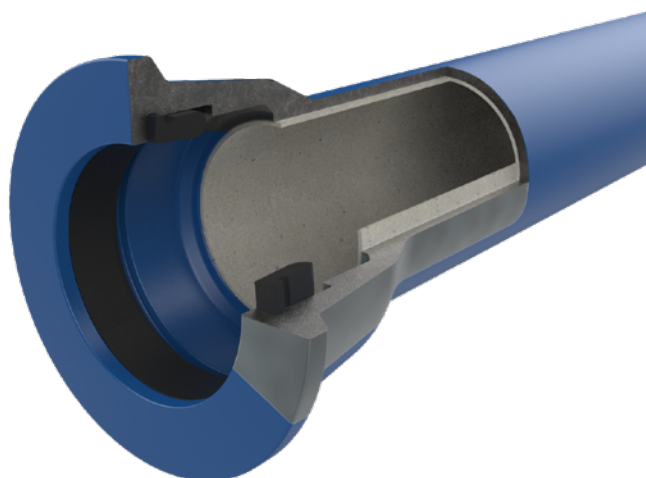
Sizes

ISO pipe sizes available

*Please note options will have minimum run quantities.

DN	OUTSIDE DIAMETER (DE)		PIPE WALL THICKNESS, E (mm)	CEMENT MORTAR LINING THICKNESS (mm)
	OD (MM)	TOLERANCE (mm)	PN35	
225	259	+1, -2	4.5	5
250	286	+1, -2	4.6	5
300	345	+1, -2	4.6	5
375	426	± 2	4.8	5
450	507	± 2	5.4	5
500	560	± 2	5.8	5
600	667	± 2	6.7	5
750	826	± 2	8.0	6

End connection - End connection - socket push-on joint (flexible jointing) with a unique EPDM gasket, clearly identifiable by the green markings on the face of the gasket



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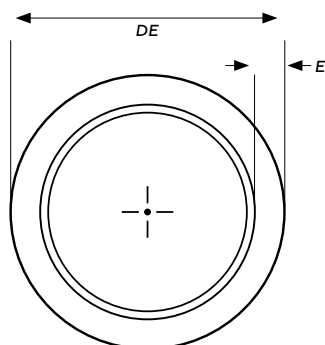
TECHNICAL INFORMATION

IRONTITE® FLANGE CLASS DUCTILE IRON PIPE



JINDAL SAW LTD.
TOTAL PIPE SOLUTIONS

TECH SHEET



Size Range **Nominal Pressure**
DN100 - DN750 PN35

Effective Length
5.5m

Internal Lining – Unlined

External Lining – Zn-Al primer (mean mass 400gm/m²) + blue liquid epoxy (min. 80 µm DFT). Is available with red liquid expoy.

DN	OUTSIDE DIAMETER (DE)		PIPE WALL THICKNESS, E (mm)	CEMENT MORTAR LINING THICKNESS (mm)
	OD (MM)	TOLERANCE (mm)	PN35	
100	122	+1, -2	4.9	5
150	177	+1, -2	5.0	5
200	232	+1, -2	5.0	5
225	259	+1, -2	5.0	5
250	286	+1, -2	5.2	5
300	345	+1, -2	5.9	5
375	426	± 2	7.0	5
450	507	± 2	8.1	5
500	560	± 2	8.8	5
600	667	± 2	10.2	5
750	826	± 2	12.3	6

End connection – socket push-on joint (flexible jointing) with a unique EPDM gasket, clearly identifiable by the green markings on the face of the gasket

OPTIONS*

External Coating

Zn-Al primer (mean mass 400 gm/m²) + Blue/Red liquid epoxy (min. 80 µm DFT)

Polyurethane as per EN 15189 (700 µm – 2000 µm)

Zn primer (mean mass 200 gm/m²) + Bitumen coating

End Connections

Flange to AS 4087/ AS 2129 / ANSI class drillings

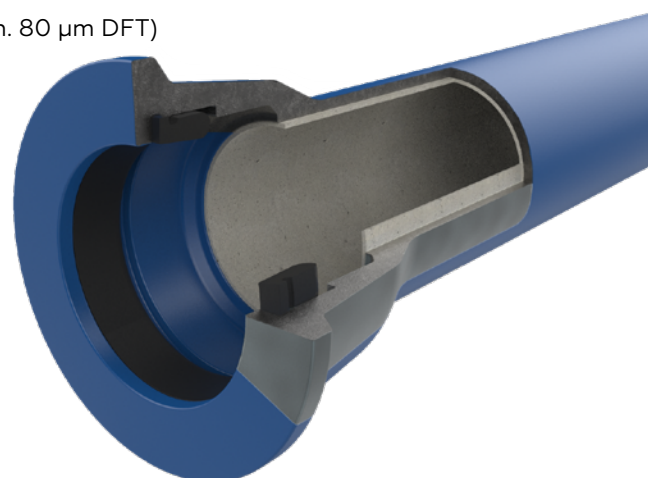
Sizes

ISO pipe sizes available

Flanged pipework

Custom flanged pipework with a bitumen cement internal line finish or thermal bonded coating (up to 2.7m in length) is available

*Please note options will have minimum run quantities.



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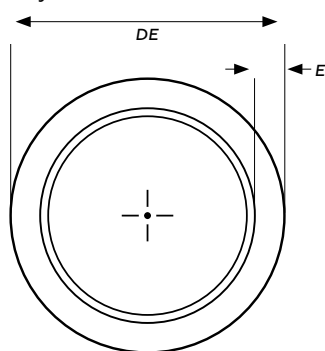
IRONTITE® POLYURETHANE LINED PN35 DUCTILE IRON PIPE



JINDAL SAW LTD.
TOTAL PIPE SOLUTIONS

TECH SHEET

Specially designed to withstand aggressive conditions, very soft water and mineral water applications where cement mortar lining is not suitable. The solvent free, two component system is centrifugally applied to coat the inside of the pipe mitigating any risk of detachment.



Size Range
DN100 - DN750

Nominal Pressure
PN35

Effective Length
5.5m

OPTIONS*

External Coating

Zn-Al primer (mean mass 400 gm/m²) +
Blue/Red liquid epoxy (min. 80 µm DFT)
Polyurethane as per EN 15189
(700 µm – 2000 µm)
Zn primer (mean mass 200 gm/m²) +
Bitumen coating

End Connections

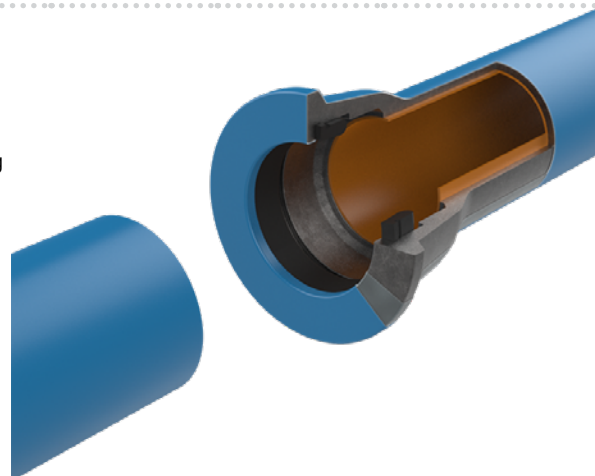
Flange to AS 4087/AS 2129/ANSI class drillings
JSAW-LOCK Double socket full restraint joint ends with welded bead ring
JSAW-MRJ – Mechanically restrained Joints

Sizes

ISO pipe sizes available

*Please note options will have minimum run quantities.

DN	OUTSIDE DIAMETER (DE)		PIPE WALL THICKNESS, E (mm)	POLYURETHANE LINING THICKNESS (µ)
	OD (MM)	TOLERANCE (mm)	PN35	
100	122	+1, -2	4.9	700-2000
150	177	+1, -2	5.0	700-2000
200	232	+1, -2	5.0	700-2000
225	259	+1, -2	5.0	700-2000
250	286	+1, -2	5.2	700-2000
300	345	+1, -2	5.9	700-2000
375	426	± 2	7.0	700-2000
450	507	± 2	8.1	700-2000
500	560	± 2	8.8	700-2000
600	667	± 2	10.2	700-2000
750	826	± 2	12.3	700-2000



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RESTRAINED JOINTS

Restrained joints are used to mechanically arrest the axial movement of a pipeline, making them ideally suited for installations over loose soil or marshy land where one cannot provide anchor blocks at tee points or bends, when varying topographies or gradients are encountered, or in high-pressure pipeline applications. Jindal SAW offer two types of restrained joints - the MRJ and the JSAW Lock Pipe.

MRJ

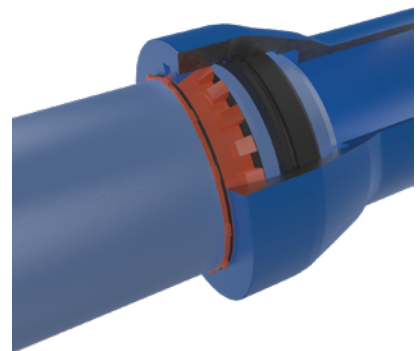
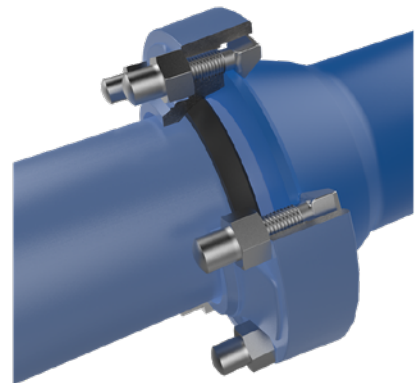
This joint comprises of an assembly of two pipes (socket and spigot) with glands, split ring and a set of hook bolts, nuts and washes. The spigot end of the pipe is to be provided with a weld bead. The socket of the pipe to be joined will have a circumferential projected collar.

JSAW LOCK PIPE

Critical to restraining pipe axial movement in major underground water piping systems, JSAW-LOCK jointing technology offers an easy to install, superior pipeline restraint solution.

The system is a restrained semi-flexible push-in-joint connecting socket and spigot ductile iron pipes (AS and ISO sizes). The complete assembly is self-restraining and thus aids in transferring thrust forces along the entire system – eliminating the need for thrust blocking alternatives.

JSAW's Joint locking system is sustainable within high pressure applications by the way it automatically deflects high angular surges. With the JSAW-LOCK joint, the system is pre-designed to cater for pressures between 100-25 bar in DN100-DN1800 respectively. Lock Joints are custom built to project specifications to confidently withstand pressure surges over a long life-time.



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