

BROCHURE

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Ductile Iron Pipes
and Fittings with
RASHMI-LOCK
Restrained Jointing
SYSTEM

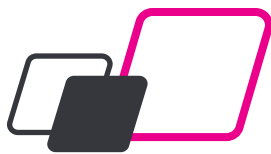
DN 100 - DN 1000

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RASHMI - LOCK

Restrained Joint

Ductile Iron Pipeline System

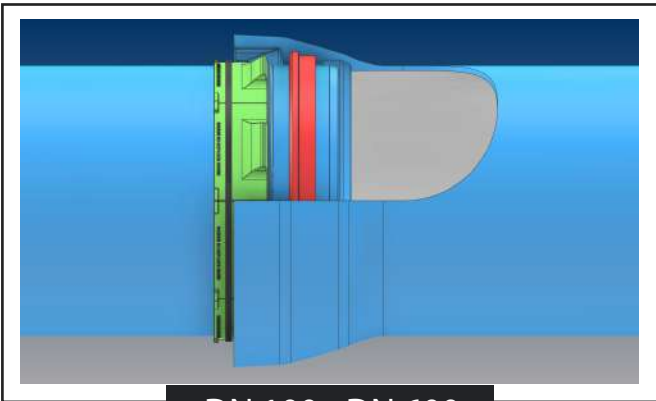


RASHMI-LOCK Jointing system is a restrained semi flexible push-in-jointing of Ductile Iron Pipes. It is a Self-Restrained, semi-flexible jointing system of socket and spigot pipe. The joint can be deflected up to the designed value as per function of size range. Water or other fluids passing through the pipe line exert internal pressure on the walls of the pipe barrel and the same force is being transferred to the other pipe.

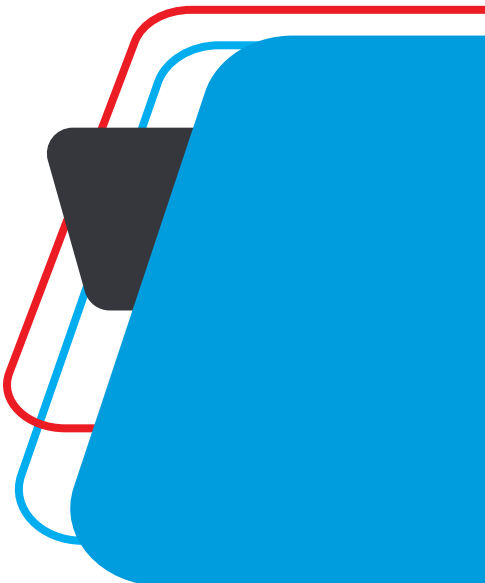
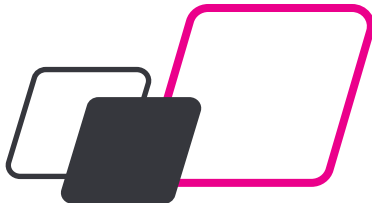
RASHMI-LOCK Jointing system helps in transferring the thrust forces generated to next pipe through weld bead made on spigot of each pipe via lock segments. The Complete Jointing Assembly make joint self-restraining thus eliminating the need of thrust blocks and facilitate trenchless laying of ductile iron pipe lines.

Ductile iron pipes with RASHMI-LOCK Jointing system are quick to assemble and well suited to be used in seismic zones, fault crossings, liquefaction zones, connections to structures, floating pipe lines, hydro Power plants, laying on steep slopes, firefighting water mains and mine dewatering pipelines without thrust blocks or external restraining requirement.

RASHMI-LOCK Jointing system is available in size range from DN 100-DN 1000 as per EN545/ISO 2531/ISO10804-1 with suitable range of fittings.



DN 100 - DN 600



TECHNICAL DATA

RASHMI –LOCK Ductile Iron Pipe – Technical Specifications

Table 1: RASHMI–LOCK Ductile Iron Pipe – Technical Specifications

Product Name	RASHMI –LOCK suitable for restrained semi flexible Push-on-Jointing
Size Range	DN 100mm to DN 1000mm
Standard Length	5.5 m or customized length *
Internal Linings	<ul style="list-style-type: none">• Sulphate resisting cement• Blast furnace slag cement• Ordinary Portland cement• High Alumina cement• Poly urethane coating: Under development.• Seal coat : Under progress
Outside Coatings	<ul style="list-style-type: none">• Zinc or Zinc-Aluminium deposition of 130g/m2 / 200g/m2 / 400g/m2 with finishing layer of Blue or Red Epoxy, Bitumen
Coating of Joint Area	Blue or Red Epoxy / Bituminous coating
Conforming Specifications	Design : ISO 10803 Product : ISO 2531; BS EN 545 Joint : ISO 10804 Rubber Gasket : ISO 4633, BS EN 681-1

*Options available only with prior arrangement

RASHMI –LOCK SYSTEM
Pipe Dimensions

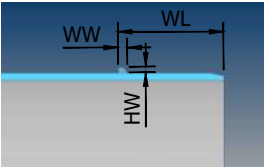


Table 2: RASHMI -LOCK Pipe Dimensions

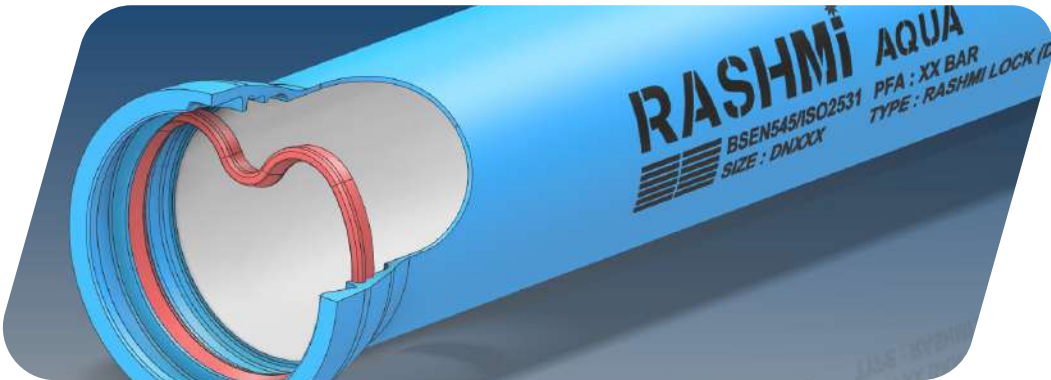
Size	Dimensions (mm)			P1	WL
DN	DE	Water / Sewerage	High Pressure application		
		A	A		
100	180	170	170	123	85
150	170	246	246	130	85
200	220	290	290	142	95
250	274	354	354	163	100
300	326	410	410	174	105
350	378	460	460	171	110
400	429	540	**	183	117
500	532	670	**	200	117
600	635	786	**	216	128
700	**	**	**	**	**
750	**	**	**	**	**
800	842	944	944	199	112
900	945	1080	1080	231	129
1000	*	*	*	*	*

**deailles can be arranged on request

RASHMI –LOCK SYSTEM
Allowable Pressure

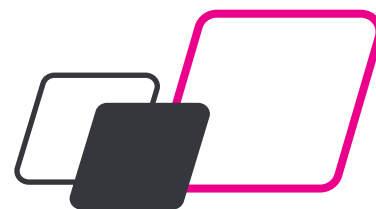
Table 3 : RASHMI LOCK allowable Pressure

Size	PFA *(Allowable operating Pressure), bar		Allowable angular deflection	No. of locks
DN	Water / Sewerage	High Pressure application		
			{0}	(KN)
100	40	100	5	5
150	40	100	5	5
200	40	64	4	8
250	40	64	4	8
300	40	45	4	8
350	30	38	3	8
400	30	35	3	8
500	30	35	3	9
600	35	*	2	10
700	25	*	1.5	10
750	25	*	1.5	10
800	25	*	1.5	10
900	25	*	1.5	12
1000	25	*	1.5	12



ADVANTAGES

RASHMI-LOCK Ductile Iron Pipe



Advantages include:

- Provides a robust pipe system with simple locking mechanism from DN 100 to DN 1000 respectively.
- It can withstand pressure surges and possible unforeseen influences over an enduring lifetime.
- The simple locking system saves a great deal of installation time.
- Polyurethane coating and lining (wherever provided) provides extraordinary high C-value, more adhesive strength, more elasticity, higher mechanical strength and high abrasive resistance.
- The deflection in the jointing system provides flexibility during operation.
- It can be used in regions with elevated earthquake or earth settlement risks.
- The very high angular deflections make these joints suitable even for the laying in complicated and demanding intersections.
- Advantage of laying without anchorage or thrust blocks in conventional open trenches.

AREAS OF APPLICATION

RASHMI -LOCK Restrained Joint Piping System

- Trenchless laying of Ductile Iron pipe lines
- Laying of Ductile iron pipe lines without thrust blocks – for water Application.
- For higher pressure applications.
- Laying of Pipe lines on steep slopes
- Hydro-power applications
- Mining applications such as dewatering and temporary water distributions
- Bridge pipelines
- Laying by Horizontal Directional Drilling -Trenchless Application
- Snow making pipelines
- Firefighting Mains
- District Cooling/Heating Pipelines
- Floating Pipelines in water
- The pipes are designed to sustain high pressure ranging from 100 bar to 16 bar in sizes

