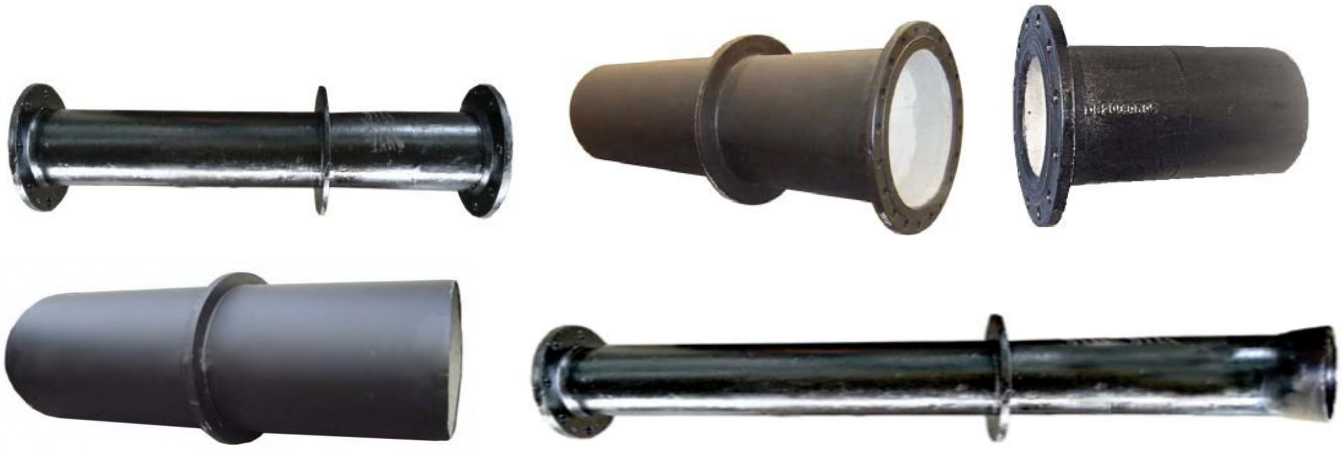
Fabricated Pipe

Riyadh Foundry supplies fabricated pipes with welded flanges on Ductile Iron Pipes in accordance to ISO2531 & EN545. The maximum & minimum lengths of the pipes are shown in the given table.

Pipes with Puddle Flanges:

Puddle Flange Function Problems keep on occurring when connecting pipes during construction work. Pipes laid in the ground must be introduced into concrete walls. In many cases, the presence of groundwater must be taken into account in these procedures. Standing water penetrates on the outer side of the pipes right into the building, requiring costly elimination of the leaks. Usage of puddle flanges may prevent the seepage of groundwater through the concrete walls.

Location of the Puddle Flange: Puddle flange is located in the middle of pipe length L unless stated in the order specifications



TECHNICAL DATA SHEET DUCTILE IRON Fittings

Material Datasheet of the Ductile Iron Pipes Manufactured by Riyadh Foundry Co			
Sr. No	Description	Unit	Specifications
1	Manufacturer:		
	Name of Manufacturer		Riyadh Foundry Co.
	Phone/Fax No. of Manufacturer		+966 11 266 4800
	Place of Manufacture (City & Country)		Saudi Arabia – Riyadh
2	Applicable Standards		
	Pipe Material		Ductile Iron pipe & Fittings ISO 2531 & BSEN 545
	Wall thickness calculation (e (iron) = K (0.5 + 0.001 DN)	mm	K12 , K 14 For DI Fittings according to BSEN545:2006 , ISO 2531:1998 & 2009
	Tolerance on Wall Thickness	mm	-(1.3 +0.001 DN) in mm
	Cement Lining		The cement mortar lining as per BSEN545 & ISO 4179
	Rubber gaskets for joints		EPDM Gaskets as per BSEN 681-1 & ISO 4633
3	Fitting class		
	Ductile Iron Fittings (ISO 2531 & BSEN545)		K12 & K 14
4	Type of pipe joints		Tyton (Push-on-joint), Restrained Joint
	a) Tyton (Push-on -Joint)	Deg	Minimum Deflection for DN 80-300 : $3^0$30'
			Minimum Deflection for DN 350-600 : $2^0$30'
			Minimum Deflection for DN 700-2200 : $1^0$30'
	Tolerance to Joints		According to ISO 2531 / BSEN 545
5	Rubber gasket material		As per EN 681-1 / ISO 4633
	Ductile Iron Pipes with Push-on-joint		EPDM Gaskets
6	Surface protection		
6.1	Internal protection (pipes)		
	Type of Lining		Cement Mortar Lining (WRAS approved)/ SRC
	Applicable Standard		As per BSEN 545 / ISO 4179
	Mortar mix ratio (by mass)		1 Part cement to < 2 & > 1.5 parts sand (by mass), Water / cement ratio < 0.4

Material Datasheet of the Ductile Iron Pipes Manufactured by Riyadh Foundry Co			
Sr. No	Description	Unit	Specifications
	Application method for DI Fittings		Casting
	Surface preparation		As per BSEN 545 / ISO 4179
	Average thickness of lining	mm	≤ DN 600 : 5.0 mm DN 700 to DN 1200 : 6.0 mm
	Min. thickness of lining at spot/one point	mm	≤ DN 600 : 3.5 mm DN 700 to DN 1200 : 4.5 mm
	Tolerance on thickness (mm)	mm	Not less than minimum value at one point
	Finishing Coating / Optional		Blue Epoxy RAL-5017 manual coating above cement mortar lining to provide additional protection layer
6.2	Internal socket ends of pipe		
	a) Type of coating		Zinc Rich Paint + Bitumen Zinc Rich paint with zinc content of 90% min.
	c) Applicable Standard		BSEN 545 / ISO 8179 (for Zinc)
	d) Method of Application		Manual
	e) Min. mass of zinc Layer	g/m2	150 g/m2
	f) Minimum Thickness of Bitumen	µ	120 microns
	g) Total Average thickness	µ	120 microns
6.3	External Protection		
	a) Pipe Body		
	Zinc Layer		Metallic Zinc with purity of 99.99%
	Method of application		Manual
	Surface Preparation		In accordance with BSEN 545 / ISO 8179 -1
	Min. thickness of zinc layer (g/m2 & microns)	g/m2	130 or 200 g/m2 metallic zinc for pipes
	Bituminous Layer		
	Method of application		Manual
	Min. thickness of layer (microns)	µ	70 microns / 120 microns
	Applicable Standards		BSEN 545 / ISO 8179 & BS 3416
	b) External spigot ends of pipes		
	Type of coating		Metallic Zinc + Bitumen
	Method of Application		Spray
	Application Standards		BSEN 545 / ISO 8179-1 & BS 3416
	Min. mass of zinc layer	g/m2	150 g/m2
	Minimum thickness of Bitumen Coating		120 microns
v	Flange connection		ISO 2531 / EN 1092-2 , PN 16