

		DOC NO.	MMLH/FPS/13		
TITLE :	TECHNICAL DATA SHEET FOR PIPE, FITTINGS & FLANGES				
PACKAGE:	FIRE PROTECTION SYSTEM	REV.	0	DATE:	12.10.2017
PROJECT:	MMLH, VIZAG	SHEET	1	OF	1
1.0	Manufacturer	: JINDAL / TATA / SAIL/ Equivalent Make			
2.0	PIPING (UNDERGROUND / ABOVE GROUND / IN TRENCHES) (NORMALLY FILLED WITH WATER)				
2.1	Standard	: IS : 1239 (Part-I), IS : 3589, Gr 330			
2.2	Type	: ERW / Spiral Weld			
2.3	Class & Grade	:			
		a. Up to 150NB MS Black Heavy grade to IS : 1239 (Part-1)			
		b. 200 NB TO 400 NB M S Black to IS : 3589 Grade 410			
2.4	Thickness	: a. Up to 150 NB As per IS 1239 (Part-1), Heavy			
		b. 200 NB to 400 NB – 6.4 mm thk.			
2.5	Detail of end connection	: Plain ends or Beveled ends			
3.0	PIPING – NORMALLY EMPTY				
3.1	Standard	: IS : 1239 Part-I (Galvanised) / IS:3589 Gr. 330 (Galvanised to IS : 4736)			
3.2	Type	: ERW			
3.3	Class & Grade	: M.S Galvanised to medium grade to IS : 1239 Part – I and MS Galvanised, 6mm thk to IS 3589 Gr.410			
3.4	Thickness	: a. Up to 150 NB As per IS 1239 (Part – I) Heavy			
		b. 200 NB as per IS: 3589, Gr.410, 6mm wall thickness			
3.5	Detail of end connection	: Screwed			
4.0	Quantity	: As per appd. Drawing			
5.0	Inspection & Testing	: As per appd.QAP			
6.0	Type of protective coating	: <u>For U/G Pipes</u> PYPKOTE As per IS -10221– 4mm THK Ref-Data Sheet : Wrapping & Coating Material			
8.0	M.S.Fittings				
8.1	Manufacturer	Bharat Forge/ Tube Products/M.S. Fittings/ Sanjay Forge/ VS Brand / Equivalent approved make			
8.2	Material Standard	IS: 1239 , Part II			
8.3	Dimensional Standard	50 NB & Below ASME B 16.11, CL 3000 65 NB to 150 NB Butt welded as per ASME B 16.9 200NB to 400 NB			
8.3	Galvanised Fittings				
8.4	Manufacturer	H.B. INDUSTRIES/ equivalent			
8.5	Material Standard	Malleable cast iron to IS 2108 Grade BM-300 as per IS 14329			
8.6	Dimensional Standard	IS 1879			
8.7	Galvanising	IS 4759			
8.8	Flanges & Blind flanges				
	Material Standard	SA 105			
	Drilling Standard	Confirming to ASME B 16.5, 150 #, SORF			
8.9	Quantities of fittings	As per approved drawings			
8.10	Bolts and nuts & Washers				
		Machine Bolts, For Size M 16 & Below IS : 1367 Gr. 8.8. & For Size M 20 & Above IS : 1367 Gr. 6.8.			
		Heavy Hexagonal Nut For Size M 16 & Below IS : 1367 Gr. 8.0. & For Size M 20 & Above IS : 1367 Gr. 6.0. All nut, bolt & washers shall be galvanised.			
8.11	Gaskets	Champion AF 120 - 3 mm Thk. Non Asbestos			
Note :	FLANGES AND BOLTS & NUTS FOR G.I. PIPE LINES SHALL BE GALVANISED AS PER IS : 4736				