



CITY GAS DISTRIBUTION PROJECT

PIPE CLASS	250HSS
DESIGN CODE	ASME B31.3
RATING	2500#
BASE MATERIAL	STAINLESS STEEL

Temperature (Deg. C) and Pressure (barg) Ratings (Group 2.2 ASME B16.5)

Temperature	-29	38	50	100	150	200	250	300	325
Pressure	413.7	413.7	400.9	351.6	320.8	297.2	278.1	263.5	257.4

NOTES:

1. All vents and drains shall be provided with gate valve with blind flange assembly unless otherwise indicated in P&ID.
2. Fittings shall be of seamless construction.
3. Procurement of materials shall be as per detailed relevant specifications.
4. Pressure-temperature ratings indicated are for flanges only in accordance with ANSI B 16.5.
5. At stations, branch connections shall be as per branch connection table below.
6. NDT of welds shall be as follows:
 - Radiography: All butt welds 100%
 - MPI: Socket welds 100%
7. 100% PMI will be performed on SS materials.
8. 100% of socket weld shall be subjected MPI/ DPT.
9. NDT requirements as per 2007E - Functional Specification for Welding & NDT Piping.

ITEM	SIZE	DESCRIPTION
Maintenance joints	ALL	Flanged, to be kept minimum
Pipe joints	1.5" & BELOW	SW coupling
	2.0" & ABOVE	Butt welded
Drains	ON LINES $\leq$ 1.5"	Refer std. Drawing
	ON LINES $\geq$ 2.0"	As per P&ID or 0.75". Refer std. Drawing
Vents	ON LINES $\leq$ 1.5"	Refer std Drawing
	ON LINES $\geq$ 2.0"	As per P&ID or 0.75". Refer std. Drawing



Energising Quality

PIPING MATERIAL SPECIFICATION

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Item	Lower Size (Inch)	Upper Size (Inch)	Sch. / Thk.	Dmn. STD	Material	Description
PIPE GROUP						
PIPE	0.5	1.5	XXS	B-36.10	ASTM A312 TP316	PE, SEAMLESS
Pipe	2.0	3.0	XXS	B-36.10	ASTM A316 TP316	BE, SEAMLESS
NIPPLE	0.5	1.5	M, M	B-36.10	ASTM A312 TP316	PBE, SEAMLESS
FLANGE GROUP						
FLNG.SW	0.5	1.5	M	B-16.5	ASTM A182 F316	2500, RTJ /63 AARH
FLNG.BLIND	0.5	1.5		B-16.5	ASTM A182 F316	2500, RTJ /63 AARH
FLNG.FIG.8	0.5	8		ASME B16.48	ASTM A182 F316	2500, RTJ /63 AARH
FITTING GROUP						
ELBOW.90	0.5	1.5		B-16.11	ASTM A182 F316	SW, 9000
ELBOW.45	0.5	1.5		B-16.11	ASTM A182 F316	SW, 9000
T. EQUAL	0.5	1.5		B-16.11	ASTM A182 F316	SW, 9000
T.RED	0.5	1.5		B-16.11	ASTM A182 F316	SW, 9000
SWAGE. CONC	0.5	3	M, M	B-16.11	ASTM A182 F316	PBE
SWAGE.ECC	0.5	3	M, M	B-16.11	ASTM A182 F316	PBE
CAP	0.5	0.75		B-16.11	ASTM A182 F316	SCRF, 9000
PLUG	0.5	0.75		B-16.11	ASTM A182 F316	SCRF, 9000
O'let						
SOCKOLET	0.5	1.5		MSS-SP97	ASTM A182 F316	SW, 9000
VALVES GROUP						
VLV.GLOBE	0.5	1.5		API-602	BODY-ASTM A 182 Gr. 316, TRIM-SS316+ STELLITED	SW /NPT, 2500 /800, 9000, B-16.11
VLV.CHECK	0.5	1.5		API-602	BODY-ASTM A182 Gr. F316, TRIM SS316+STELLITED	SW /NPT, 2500 /800, 9000, B-16.11



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VLV.BALL	0.5	1.5		API -608	BODY-ASTM A182 Gr. F316, TRIM SS316	SW /NPT, 800 /2500, 9000, B-16.11
BOLT GROUP						
BOLT.STUD	0.5	48		B-18.2	BOLT: A193 GR. B7, NUT: A194 GR.2H, HOT DIP GALVANIZED	
GASKET GROUP						
GASKET	0.5	1.5		B-16.20-ANSI B16.5	Octagonal Ring, ASME B16.20, Soft Iron (Max 90 HB) / SS304, Style R / RX Profile, ASME Class 2500, Solid metallic ring joint gasket	RTJ, 2500

Note: For all Valves, valve data sheets shall also be referred, stringent requirement among data sheet and above details shall be followed.



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