

SERVICE: Make-up Hydrogen
RATING: Class 600
FACING: RTJ

CLASS: DD
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CORROSION ALLOWANCE: 0.125 Inches
PRESSURE LIMIT: 1000 PSIG

MATERIAL: Carbon Steel

TEMPERATURE LIMIT: -20°F - 450°F

ITEM	SIZE	DESC RIPT TON	NTSIREV
VALVES --GATE I 3/4 ₁₁ - 1-1/2 ₁₁ 1/2 ₁₁ - 1-1/2 ₁₁ 3/4 ₁₁ - 1-1/2" 2 ₁₁ 8 ₁₁ 10 ₁₁ - 24 ₁₁		1. Gate, Globe and Check Stellited 12 Cr trim with Graphitic Packing (non asbestos) unless otherwise specified. 2. Gate, Globe and Check Valves 2 inch and larger shall be forged carbon steel with pressure seal bonnet design. 3. Orbit valves shall have manufacturer's trim and packing. 4. All piping welds over 3/4 ₁₁ thickness shall be stress relieved. Class 800 Stl SW ANVIL #821-3-1 Class 800 Stl SW x Scrd ANVIL #821-5-11 V1 Class 600 Stl RTJ ANVIL #621-R-1 V2 Class 600 Stl RTJ VELAN #R-2-06-4P-02-MS Class 600 Stl RTJ VELAN #R-2-06-4P-02-MS - Gear Operated	
--GLOBE I 3/4"- 1-1/2 ₁₁ 3/4 ₁₁ Only - Y-Pattern 2"- 4"		Class 800 Stl SW ANVIL #830-3-1 Class 1690 Stl SW VELAN #W-8-07-6Y-02-MSI I 3 class 600 Stl RTJ VELAN #R-2-07-4P-02-MSI I 2	
--CHECK 3/4 ₁₁ - 1-1/2" j - Hor Lft		class 800 Stl SW ANVIL #847-3-1 class 600 Stl RTJ VELAN #R-2-03-4P-02-MS - Hor Lft	
--ORBIT I Class 600 Stl SW (Full Port) 2 ₁₁ 8" lclass 600 Stl BW (Full Port) V1 - Use for vents, drains and instru-		(Temp Limit 400°F Max) ORBIT #1463 ORBIT #1463	I V3 1 ₁₁ - 1-1/2 ₁₁

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ment connections where a threaded outlet is required.
V2 - Use against flanged equipment nozzles.
V3 - Use only where indicated

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UNIT

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ITEM	SIZE	DESCRIPTION	NTS
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PIPE	3/4" - 1-1/2"	Smls Stl ASTM A106 Gr B Sch 160 XS	
	2" - 10"	Sch 60	
NIPPLES	12" - 24"	XXS, Smls Stl ASTM A106 Gr B TBE 3 ¹¹	
	1/2 ¹¹ - 1-1/2 ¹¹	Long	
	3/4 ¹¹ - 1-1/2 ¹¹	TBE 6 ¹¹ Long	
	[6	TOE 3 ¹¹ Long	
	2" 10 ¹¹ 1x	TOE 6 ¹¹ Long	
	12" - 24"	PBE 3 ¹¹ Long	
	1/2 ¹¹ - 1-1/2 ¹¹	PBE 6 ¹¹ Long	
FITTINGS!		000# Stl SW ASTM A105	
		Cap	
		90° Elbow	
		45° Elbow Tee Sockolet Elbolet	
		Coupling	
		Union (GJ, Integral Seat) Cap, scrd	
		Thredolet Elbolet, Scrd	
		Plug, Round Solid Stl, Scrd	
		Smls Stl Buttwelding ASTM A234 Gr	
		WPB s	
		Sch 60	
		Cap	
		90° LR Elbow	
		90° SR Elbow	
		45° Elbow Tee	F2
		Weldolet, ASTM A105 Cone Reducer	
		Ecc Reducer Elbolet, ASTM A105	
		Cone Swage BBE SCH 160 BLE/TSE XXS	
		TLE/BSE XXS TBE XXS	

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ITEM	SIZE	DESCRIPTION	NTS	REV
	1/2" 1- 1/2"	Ecc Swage BBE SCH 160 BLE/TSE XXS TLE/BSE XXS TBE XXS F1 - Use only for temperature F2 - Use only for unvalved vents drains.		
BRANCH CONNECTIONS		Refer to Para 6.6 Branch Connections		
PIPE INSTR. CONNECTIONS		Primary Instr Conn's to Piping Temperature Conn's-----1-1/2" Flgd Pressure Conn's-----3/4" SW Orifice Tap Conn's-----1/2"		
EQUIP. CONNECTIONS		Vessel & Equipment Instrument Conn's Table I		
FLANGES	3/4" 1-1/2"	600#Stl RTJ ASTM A105 SW (Sch 160 Bore)		

ORIFICE FLANGES	2^{11} 10^{11} $12'' - 24''$ $3/4'' 24''$ 2^{11} 12^{11}	WN (XS Bore WN (Sch 60 Bore) Blind ----- 600# Stl RTJ ASTM A105 w/\'' Scrd Taps Slip-on		
GASKETS	$3/4'' - 24^{11}$ $2'' - 12^{11}$	Low Carbon Stl Oval Ring Per ANSI P1620 Parker style p-950 or equal For 600# Flanges For 600# Orifice Flanges		
BOLTS	$3/4'' 24^{11}$ - 2^{11} 12^{11} -	Stud Bolts ASTM A193 Gr B7 w/2 Hvy Hvy Nuts ASTM A194 Gr 2H For 600# Flanges For 600# Orifice Flanges		
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