



PBV Valve
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CERTIFIED MATERIAL TEST REPORT

Serial Number	Size (DN)	Pressure Class (PN)	Figure Number	Test Pressures psi (bar)					
				Hydrostatic			Pneumatic		
				Shell	Seat A	Seat B	DBB	Seat A	Seat B
1398290	2" (50)	150F (20)	C-6410-31-2236-FT-NL-I3	450 psi (31.0)				80 psi (5.5)	80 psi (5.5)

Part Heat Number	Alloy	CHEMICAL COMPOSITION																
Body 7201	ASTM A216 WCB	C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%							
		0.23	0.87	0.016	0.019	0.45	0.06	0.05	0.09	0.04	0.004							
Body 7167	ASTM A216 WCB	C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%							
		0.21	0.95	0.025	0.021	0.51	0.05	0.08	0.09	0.06	0.004							
Body 7215	ASTM A216 WCB	C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%							
		0.21	0.83	0.02	0.018	0.49	0.07	0.05	0.04	0.03	0.002							
Body 01494	ASTM A216 WCB	C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%							
		0.22	0.85	0.021	0.017	0.51	0.05	0.06	0.13	0.05	0.007							
Body 7210	ASTM A216 WCB	C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%							
		0.2	0.94	0.018	0.02	0.49	0.06	0.04	0.04	0.03	0.003							
Body 01522	ASTM A216 WCB	C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%							
		0.19	0.93	0.02	0.017	0.51	0.07	0.05	0.12	0.05	0.005							
Body 7214	ASTM A216 WCB	C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%							
		0.19	0.92	0.03	0.017	0.51	0.06	0.06	0.06	0.03	0.003							
Body 7185	ASTM A216 WCB	C%	Si%	Mn%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%						
		0.21	0.49	1	0.019	0.017	0.05	0.09	0.04	0.07	0.003	0						
Cap 7180	ASTM A216 WCB	C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%							
		0.19	0.86	0.023	0.021	0.49	0.04	0.04	0.06	0.03	0.005							
Cap 7214	ASTM A216 WCB	C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%							
		0.19	0.92	0.03	0.017	0.51	0.06	0.06	0.06	0.03	0.003							
Cap 01339	ASTM A216 WCB	C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%							
		0.2	0.92	0.02	0.017	0.53	0.06	0.05	0.08	0.05	0.009							
Cap 7176	ASTM A216 WCB	C%	Si%	Mn%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%						
		0.18	0.53	0.91	0.025	0.021	0.08	0.09	0.03	0.07	0.002	0						
Cap 7145	ASTM A216 WCB	C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%							
		0.22	0.88	0.016	0.022	0.5	0.06	0.06	0.05	0.03	0.005							
Cap 7209	ASTM A216 WCB	C%	Si%	Mn%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%						
		0.23	0.52	0.8	0.019	0.021	0.04	0.04	0.05	0.05	0.003	0						

Part	Heat Number	Mechanical Values					Charpy Test Results					Heat Treatment	Heat Treatment Codes
		TS (ksi)	YS (ksi)	EL (%)	RA (%)	BHN	Temp	Avg.	1	2	3		
Body	7201	77.97	49.42	26	40	163						N, T, AC	A: Annealed
Body	7167	74.78	46.96	29	48	161						N, T, AC	DA: Double Aged
Body	7215	76.23	45.65	30	51	164						nt ac	N: Normalized
Body	01494	77.39	48.41	26	42	167						N T AC	OQ: Oil Quenched
Body	7210	76.81	48.55	26	40	161						n, t, ac	SA: Solution Annealed
Body	01522	73.48	44.06	31	58	160						N T AC	WQ: Water Quenched
Body	7214	75.36	43.62	33	54	160						N T AC	ST: Solution Treatment
Body	7185	75.07	46.67	29	50	163	0	0	0	0		N T AC	T: Tempered

Cap	7180	73.48	45.36	26	42	160						N, T, AC	SR: Stress Relieving
Cap	7214	75.36	43.62	33	54	160						N T AC	
Cap	01339	73.62	45.22	30	51	161						N T AC	
Cap	7176	71.45	42.03	28	49	156	0	0	0	0		N T AC	
Cap	7145	75.36	47.25	28	43	160						N, T, AC	
Cap	7209	75.51	47.68	30	39	171	0	0	0	0		N T AC	

This (These) valve(s) has (have) successfully completed the testing requirements of API-598.

The products used in the manufacture of this valve comply with the requirements of NACE MR0175.

This document has been reviewed and approved by D. Senger, General Manager as per EN 10204 (3.1).
