



**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	
1398385	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													
		C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%				
Body 7201	ASTM A216 WCB	0.23	0.87	0.016	0.019	0.45	0.06	0.05	0.09	0.04	0.004				
Body 7174	ASTM A216 WCB	0.21	0.46	0.92	0.018	0.017	0.07	0.09	0.05	0.05	0.002	Nb% 0			
Body 7215	ASTM A216 WCB	0.21	0.83	0.02	0.018	0.49	0.07	0.05	0.04	0.03	0.002				
Body 7033	ASTM A216 WCB	0.2	0.83	0.019	0.017	0.5	0.05	0.05	0.09	0.03	0.002				
Body 7185	ASTM A216 WCB	0.21	0.49	1	0.019	0.017	0.05	0.09	0.04	0.07	0.003	Nb% 0			
Body 01526	ASTM A216 WCB	0.19	1	0.022	0.018	0.5	0.05	0.06	0.14	0.05	0.007				
Body 7167	ASTM A216 WCB	0.21	0.95	0.025	0.021	0.51	0.05	0.08	0.09	0.06	0.004				
Body 7214	ASTM A216 WCB	0.19	0.92	0.03	0.017	0.51	0.06	0.06	0.06	0.03	0.003				
Cap 7180	ASTM A216 WCB	0.19	0.86	0.023	0.021	0.49	0.04	0.04	0.06	0.03	0.005				
Cap 7153	ASTM A216 WCB	0.23	0.57	1	0.018	0.016	0	0	0	0	0	Nb% 0			
Cap 7163	ASTM A216 WCB	0.18	0.85	0.024	0.018	0.48	0.06	0.07	0.08	0.05	0.003				
Cap 01339	ASTM A216 WCB	0.2	0.92	0.02	0.017	0.53	0.06	0.05	0.08	0.05	0.009				
Cap 7145	ASTM A216 WCB	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	0.23	0.52	0.8	0.019	0.021	0.04	0.04	0.05	0.05	0.003	Nb% 0			
Cap 7202	ASTM A216 WCB	0.23	0.83	0.021	0.017	0.47	0.05	0.05	0.07	0.02	0.003				
Cap 7176	ASTM A216 WCB	0.18	0.53	0.91	0.025	0.021	0.08	0.09	0.03	0.07	0.002	Nb% 0			
Cap 7185	ASTM A216 WCB	0.21	1	0.019	0.017	0.49	0.07	0.05	0.09	0.04	0.003				
Cap 7156	ASTM A216 WCB	0.22	0.84	0.023	0.018	0.45	0.05	0.05	0.07	0.02	0.003				

  

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		A: Annealed
Body	7201	77.97	49.42	26	40	163						N, T, AC	AC: Air Cooled
Body	7174	75.65	47.1	28	48	162		0	0	0	0	N T AC	DA: Double Aged
Body	7215	76.23	45.65	30	51	164						nt ac	N: Normalized
Body	7033	74.93	46.09	25	45	161						N, T, AC	OQ: Oil Quenched
Body	7185	75.07	46.67	29	50	163		0	0	0	0	N T AC	SA: Solution Annealed
Body	01526	73.91	44.06	31	55	157						N T AC	WQ: Water Quenched
Body	7167	74.78	46.96	29	48	161						N, T, AC	ST: Solution Treatment
Body	7214	75.36	43.62	33	54	160						N T AC	T: Tempered
Cap	7180	73.48	45.36	26	42	160						N, T, AC	SR: Stress Relieving
Cap	7153	77.59	47.86	30	47	175		0	0	0	0	N	
Cap	7163	71.45	42.17	27	42	157						N, T, AC	
Cap	01339	73.62	45.22	30	51	161						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	
Cap	7202	78.41	49.13	25	41	164						N, T, AC	
Cap	7176	71.45	42.03	28	49	156		0	0	0	0	N T AC	
Cap	7185	75.07	46.67	29	50	161						N T AC	
Cap	7156	77.97	49.13	25	40	163						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).													