

# ASME B16.34 (2017) CWP & VALVE TEST PRESSURES COMMON GRADES PSI/MPA

## WCB/A105/LF2/LF3 (1.1)

CLASS #	CWP-PSI	BODY TEST X 1.5 PSI	SEAT TEST X 1.1 PSI
150	285	427.50	313.50
300	740	1110.00	814.00
600	1480	2220.00	1628.00
800	1975	2962.50	2172.50
900	2220	3330.00	2442.00
1500	3705	5557.50	4075.50
2500	6170	9255.00	6787.00

CLASS #	CWP-MPA	BODY TEST X 1.5 MPA	SEAT TEST X 1.1 MPA
150	1.96	2.95	2.16
300	5.10	7.65	5.61
600	10.20	15.30	11.22
800	13.61	20.41	14.97
900	15.30	22.94	16.83
1500	25.53	38.29	28.08
2500	42.51	63.77	46.76

AIR TEST 80 PSI 0.55 MPA

## WC6/WC9/F5/F11/F22 (1.7/1.9/1.10)

CLASS #	CWP-PSI	BODY TEST X 1.5 PSI	SEAT TEST X 1.1 PSI
150	290	435.00	319.00
300	750	1125.00	825.00
600	1500	2250.00	1650.00
800	2000	3000.00	2200.00
900	2250	3375.00	2475.00
1500	3750	5625.00	4125.00
2500	6250	9375.00	6875.00

CLASS #	CWP-MPA	BODY TEST X 1.5 MPA	SEAT TEST X 1.1 MPA
150	2.00	3.00	2.20
300	5.17	7.75	5.68
600	10.34	15.50	11.37
800	13.78	20.67	15.16
900	15.50	23.25	17.05
1500	25.84	38.76	28.42
2500	43.06	64.59	47.37

AIR TEST 80 PSI 0.55 MPA

## CF8M/CF8/CF8C/CF3/CF3M/ CF3A/316/304/ 317/347 (2.1/2.2/2.5)

CLASS #	CWP-PSI	BODY TEST X 1.5 PSI	SEAT TEST X 1.1 PSI
150	275	412.50	302.50
300	720	1080.00	792.00
600	1440	2160.00	1584.00
800	1920	2880.00	2112.00
900	2160	3240.00	2376.00
1500	3600	5400.00	3960.00
2500	6000	9000.00	6600.00

CLASS #	CWP-MPA	BODY TEST X 1.5 MPA	SEAT TEST X 1.1 MPA
150	1.89	2.84	2.08
300	4.96	7.44	5.46
600	9.92	14.88	10.91
800	13.23	19.84	14.55
900	14.88	22.32	16.37
1500	24.80	37.21	27.28
2500	41.34	62.01	45.47

AIR TEST 80 PSI 0.55 MPA

## 316L/304L/CN7M(Alloy 20)/M35-1/ M35-2 (2.3/3.4/3.17)

CLASS #	CWP-PSI	BODY TEST X 1.5 PSI	SEAT TEST X 1.1 PSI
150	230	345.00	253.00
300	600	900.00	660.00
600	1200	1800.00	1320.00
800	1600	2400.00	1760.00
900	1800	2700.00	1980.00
1500	3000	4500.00	3300.00
2500	5000	7500.00	5500.00

CLASS #	CWP-MPA	BODY TEST X 1.5 MPA	SEAT TEST X 1.1 MPA
150	1.58	2.38	1.74
300	4.13	6.20	4.55
600	8.27	12.40	9.09
800	11.02	16.54	12.13
900	12.40	18.60	13.64
1500	20.67	31.01	22.74
2500	34.45	51.68	37.90

AIR TEST 80 PSI 0.55 MPA

## LCB (1.3)

CLASS #	CWP-PSI	BODY TEST X 1.5 PSI	SEAT TEST X 1.1 PSI
150	265	397.50	291.50
300	695	1042.50	764.50
600	1395	2092.50	1534.50
800	1975	2962.50	2172.50
900	2090	3135.00	2299.00
1500	3480	5220.00	3828.00
2500	5805	8707.50	6385.50

CLASS #	CWP-MPA	BODY TEST X 1.5 MPA	SEAT TEST X 1.1 MPA
150	1.83	2.74	2.01
300	4.79	7.18	5.27
600	9.61	14.42	10.57
800	13.61	20.41	14.97
900	14.40	21.60	15.84
1500	23.98	35.97	26.37
2500	40.00	59.99	44.00

AIR TEST 80 PSI 0.55 MPA

## WCC/LCC (1.2)

CLASS #	CWP-PSI	BODY TEST X 1.5 PSI	SEAT TEST X 1.1 PSI
150	290	435.00	319.00
300	750	1125.00	825.00
600	1500	2250.00	1650.00
800	-	-	-
900	2250	3375.00	2475.00
1500	3750	5625.00	4125.00
2500	6250	9375.00	6875.00

CLASS #	CWP-MPA	BODY TEST X 1.5 MPA	SEAT TEST X 1.1 MPA
150	2.00	3.00	2.20
300	5.17	7.75	5.68
600	10.34	15.50	11.37
800	-	-	-
900	15.50	23.25	17.05
1500	25.84	38.76	28.42
2500	43.06	64.59	47.37

AIR TEST 80 PSI 0.55 MPA

## F5, F5a, F11, F22, F51, F53, F55, C5 CE8MN, 4A, 5A, 6A, CD3MN (1.3/1.17/2.8)

CLASS #	CWP-PSI	BODY TEST X 1.5 PSI	SEAT TEST X 1.1 PSI
150	290	435.00	319.00
300	750	1125.00	825.00
600	1500	2250.00	1650.00
800	2000	3000.00	2200.00
900	2250	3375.00	2475.00
1500	3750	5625.00	4125.00
2500	6250	9375.00	6875.00

CLASS #	CWP-MPA	BODY TEST X 1.5 MPA	SEAT TEST X 1.1 MPA
150	2.00	3.00	2.20
300	5.17	7.75	5.68
600	10.34	15.50	11.37
800	13.78	20.67	15.16
900	15.50	23.25	17.05
1500	25.84	38.76	28.42
2500	43.06	64.59	47.37

AIR TEST 80 PSI 0.55 MPA

## CAST IRON

CLASS #	CWP-PSI	BODY TEST X 1.5 PSI	SEAT TEST X 1.1 PSI
Table E (16 Bar)	232	348.00	255.20
Table E (14 Bar)	200	300.00	220.00
PN16 (16 Bar)	232	348.00	255.20
Class 125 (10 Bar)	150	225.00	165.00

CLASS #	CWP-MPA	BODY TEST X 1.5 MPA	SEAT TEST X 1.1 MPA
Table E (16 Bar)	1.60	2.40	1.76
Table E (14 Bar)	1.38	2.07	1.52
PN16 (16 Bar)	1.60	2.40	1.76
PN10 (10 Bar)	1.00	1.50	1.10

AIR TEST 80 PSI 0.55 MPA

CWP shown as per ASME B16.34-2017.  
Test duration can be as per API598 (ISO 5208) or API6D (ISO 14313)

## ASTM COMMON VALVE BODY MATERIALS ASME B16.34 CWP & API 598/API 6D HYDROSTATIC TEST PRESSURES IN BAR

ASTM Material Grade	ASME B16.34 (2017) Group	150#			300#			600#			800#			900#			1500#			2500#		
		CWP	Body Test	Seat Test	CWP	Body Test	Seat Test	CWP	Body Test	Seat Test	CWP	Body Test	Seat Test	CWP	Body Test	Seat Test	CWP	Body Test	Seat Test	CWP	Body Test	Seat Test
A105/WCB/LF2/LF3	1.1	19.60	29.40	21.56	51.10	76.65	56.21	102.10	153.15	112.31	136.10	204.15	149.71	153.00	229.4	168.3	255.30	382.95	280.83	425.50	638.25	468.05
WCC/LCC	1.2	19.80	29.70	21.78	51.70	77.55	56.87	103.40	155.10	113.74	137.83	206.75	151.62	155.00	232.50	175.00	258.60	387.90	284.46	430.9	646.35	473.99
LCB	1.3	18.40	27.60	20.24	48.00	72.00	52.80	96.00	144.00	105.60	127.97	191.95	140.76	144.00	216.00	158.40	240.10	360.15	264.11	400.10	600.15	440.11
F11/WC6	1.9	19.80	29.70	21.78	51.70	77.55	56.87	103.40	155.10	113.74	137.83	206.75	151.62	155.00	232.50	170.50	258.60	387.90	284.46	430.9	646.35	473.99
F22/WC9	1.10	19.80	29.70	21.78	51.70	77.55	56.87	103.40	155.10	113.74	137.83	206.75	151.62	155.00	232.50	170.50	258.60	387.90	284.46	430.9	646.35	473.99
F5a/C5	1.13	20.00	30.00	22.00	51.70	77.55	56.87	103.40	155.10	113.74	137.83	206.75	151.62	155.00	232.50	170.50	258.60	387.90	284.46	430.9	646.35	473.99
F5/F12	1.17	19.80	29.70	21.78	51.70	77.55	56.87	103.40	155.10	113.74	137.83	206.75	151.62	155.00	232.50	170.50	258.60	387.90	284.46	430.9	646.35	473.99
F304/F304H/304/CF10/CF8	2.1	19.00	28.50	20.90	49.60	74.40	54.56	99.30	148.95	109.23	132.37	198.55	145.60	148.80	232.20	163.70	248.20	372.30	273.02	413.70	620.55	455.07
F316/F316H/F317/316/CF3A/CF10M/CG3M/CF8A/CF8M/CG8M	2.2	19.00	28.50	20.90	49.60	74.40	54.56	99.30	148.95	109.23	132.37	198.55	145.60	148.80	232.20	163.70	248.20	372.30	273.02	413.70	620.55	455.07
F316L/F317L/304L/316L/TP304L/CF3/CF3M	2.3	15.90	23.85	17.49	41.40	62.10	45.54	82.70	124.05	90.97	110.24	165.36	121.26	124.00	186.00	136.40	206.80	310.20	227.48	344.70	517.05	379.17
F347/347/CF8C	2.5	19.00	28.50	20.90	49.60	74.40	54.56	99.20	144.88	109.10	132.30	198.40	145.50	148.80	232.20	163.70	248.80	372.10	272.8	413.40	620.10	454.7
F51/F55/F53/S31254/S31803/S32760/CK3MCuN/CE8MN/CD3MN/CD3MWCuN/A995 Gr. 4A/5A/6A	2.8	20.00	30.00	22.00	51.00	76.50	56.10	103.40	155.10	113.74	137.83	206.75	151.62	155.50	233.25	171.05	258.60	387.90	284.46	430.6	645.90	473.70
N04400/M35-1/M35-2 MONEL 400	3.4	15.90	23.85	17.49	41.40	62.10	45.54	82.70	124.00	90.90	110.20	165.40	121.30	124.00	186.00	136.40						
CN7M	3.17	15.90	23.85	17.49	41.40	62.10	45.54	82.70	124.00	90.90	110.20	165.40	121.30	124.00	186.00	136.40						

Refers ASME B16.34 (2017)