



Service Temperature		Class 150 / PN 20					Class 300 / PN 50					Class 600 / PN 100					Class 900 / PN 150																			
°F	°C	WCB	WC6	WC9	CF8	CF8M	WCB	WC6	WC9	CF	CF8M	WCB	WC6	WC9	CF8	CF8M	WCB	WC6	WC9	CF8	CF8M															
-20 to 100	-29 to 38	284	290	290	276	276	741	750	750	719	719	1480	1499	1499	1438	1340	2221	2249	2249	2159	2159															
122	50	278	278	278	267	267	726	741	742	693	697	1453	1483	1485	1388	1396	2178	2224	2227	2081	2094															
212	100	257	257	257	228	235	673	708	711	593	612	1346	1414	1422	1186	1224	2017	2121	2133	1778	1836															
302	150	229	229	229	202	215	655	673	676	526	558	1312	1344	1353	1054	1117	1968	2017	2029	1581	1675															
392	200	203	203	203	183	199	635	660	650	476	518	1270	1320	1301	950	1034	1907	1978	1950	1425	1552															
482	250	175	175	175	170	175	605	645	641	443	484	1209	1344	1282	886	969	1815	1934	1924	1328	1453															
572	300	148	148	148	148	148	561	615	615	422	458	1124	1231	1231	842	918	1685	1846	1846	1264	1376															
662	350	122	122	122	122	122	537	583	583	408	441	1072	1167	1167	813	882	1608	1750	1750	1221	1324															
707	375	107	107	107	107	107	529	563	563	403	431	1057	1125	1125	805	861	1586	1688	1688	1208	1292															
752	400	94	94	94	94	94	500	531	531	399	422	1001	1061	1061	796	844	1501	1592	1592	1195	1266															
797	425	81	81	81	81	81	418	509	509	394	416	834	1018	1018	787	831	1251	1527	1527	1182	1247															
842	450	68	68	68	68	68	290	490	490	391	407	581	980	980	779	815	871	1470	1470	1169	1221															
887	475	54	54	54	54	54	196	460	460	386	397	383	918	918	770	793	589	1378	1378	1156	1190															
932	500	41	41	41	41	41	128	403	403	378	389	255	806	806	755	779	383	1209	1209	1134	1167															
<b>Shell Test</b>		<b>450 PSIG</b>			<b>425 PSIG</b>		<b>1125 PSIG</b>			<b>1100 PSIG</b>		<b>2225 PSIG</b>			<b>2175 PSIG</b>		<b>3350 PSIG</b>			<b>3250 PSIG</b>																
<b>Seat Test</b>	<b>Fluid</b>	<b>325 PSIG</b>					<b>825 PSIG</b>					<b>800 PSIG</b>					<b>1650 PSIG</b>					<b>1600 PSIG</b>					<b>2450 PSIG</b>					<b>2400 PSIG</b>				
	<b>Gas</b>	<b>80 PSIG</b>					<b>80 PSIG</b>					<b>80 PSIG</b>					<b>80 PSIG</b>					<b>80 PSIG</b>					<b>80 PSIG</b>									

## PRESSURE - TEMPERATURE HYDROSTATIC TEST PRESSURE ACCORDING TO ANSI B16.34

Valves Material	Pressure	-60°C	-10°C	120°C	200°C	250°C	300°C	350°C	400°C	450°C
Cast Iron GJL-250	PN 16	–	16 Bar	16 Bar	13 Bar	11 Bar	10 Bar	–	–	–
Ductile Iron GJS-400-18	PN 25	–	25 Bar	25 Bar	20 Bar	18 Bar	16 Bar	15 Bar	–	–
Cast Steel GP240GH+N	PN 40	20 Bar	40 Bar	40 Bar	35 Bar	32 Bar	28 Bar	24 Bar	21 Bar	18 bar
Valve Materials	Pressure	-60°C	-20°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C
Stainless Steel 1.4408	PN 16	8 Bar	16 Bar	13 Bar	11.5 Bar	10.5 Bar	9.5 Bar	9 Bar	8.3 Bar	8 bar
Stainless Steel 1.4408	PN 40	20 Bar	40 Bar	32 Bar	29 Bar	26 Bar	24 Bar	22 Bar	21 Bar	20 bar

## PRESSURE - TEMPERATURE RATING ACCORDING TO DIN EN 1092-1/2

Material	Symbol	Classification Steel	ASTM REF.	Recommended Temperature Limits		Application
				°C	°F	
WCB	A	Carbon	A216 Grade WCB	-29 to 425	-20 to 800	Steam, water oil, oil vapour, gas and general service
LCB	B	Carbon	A352 Grade LCB	-46 to 350	-50 to 650	Low temperature
LCC	C	Carbon	A352 Grade LCC	-46 to 350	-50 to 650	
WC6	D	Chromium Moly 1.25% Cr, 0.5% Mo	A217 Grade WC6	-29 to 590	-20 to 1100	
WC9	E	Chromium Moly 2.25% Cr, 1% Mo	A217 Grade WC9	-29 to 590	-20 to 1100	Corrosive / erosive oil refinery service
C5	F	Chromium Moly 5% Cr, 0.5% Mo	A217 Grade C5	-29 to 650	-20 to 1200	
CF8M	G	Stainless 18% Cr, 10% Ni, 2% Mo	A351 Grade CF8M	-29 to 590	-20 to 1100	High and low temperature corrosion resistance Cryogenic service is also available upon request
CF8	H	Stainless 18% Cr, 10% Ni	A351 Grade CF8	-29 to 590	-20 to 1100	
CF3M	I	Low Carbon Stainless 18% Cr, 10% Ni, 2% Mo	A351 Grade CF3M	-29 to 454	-20 to 850	Corrosion resistance
CF3	J	Low Carbon Stainless 18% Cr, 10% Ni	A351 Grade CF3	-29 to 425	-20 to 800	
CN7M	P	Stainless 19% Cr, 29% Ni	A351 Grade CNM	-29 to 425	-20 to 800	

## SHELL MATERIAL