Gen–X II

DATA SHEET

ASME 600 / 900 / 1500 / 2500 Limited Class

Process Media
Steam
Water
Gas
Hydrocarbon

Valve Leakage Tests
MSS SP-61
API 598

End Connections
2 inch Socketweld
3 inch Buttweld

Bore Size
2 inch

Features

ASME TDP-1 2013
- Built for the prevention of water induction into steam turbines in Cold Reheat applications
- Meets and exceeds full, 2-inch bore reliability requirements

Two-Piece, Forged Body
- Available in materials A105, F22 and F91
- Allows for valve repairability

Seat Spring
- Assisted by line pressure, provides a constant mechanical force on ball against seat to maintain seal

Ball & Seats
- Mate-lapped for 100% sealing contact
- Ensures absolute shutoff
- Corrosion resistant
- Seats are protected from flow in open / closed position
- Seats are field replaceable

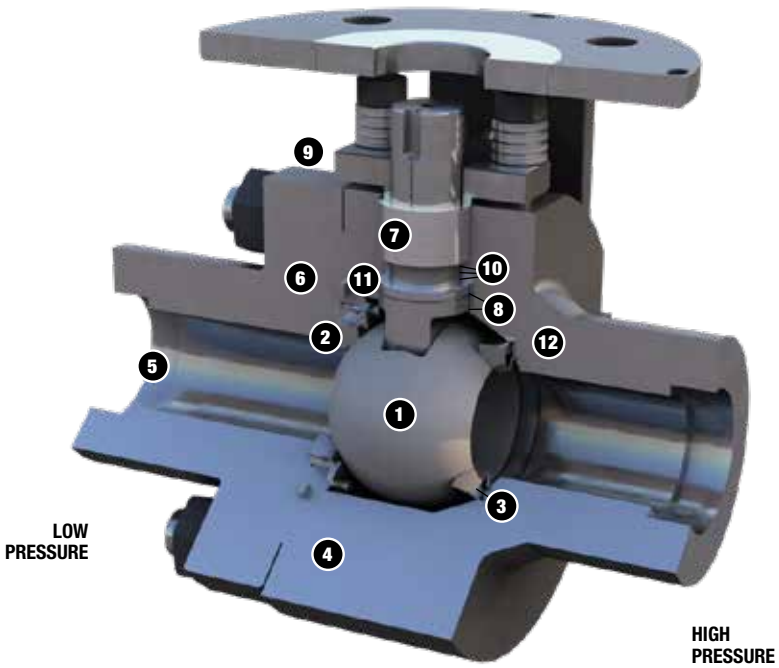
Inner Stem Seals
- Provides a reliable combination of bearing and pressurized stem seal

Quarter-turn, Non-rising Stem
- Live loading
- Quick open / close operation
- Extends the packing life

Bill of Materials

Item No.	Description	Material
1	Ball	410SS / CC Coated, INC 718 / SF Coated
2	Seat	410SS / CC Coated, INC 718 / SF Coated
3	Spring	Inconel 718
4	Body	A105, F22, F91
5	End Connection	A105, F22, F91
6	Gasket	Spiral Wound
7	Stem	A638 GR660
8	Stem Seal Bearing	Stellite #3
9	Gland Flange	316SS / Moly Coated
10	Stem Packing	Expanded Graphite
11	Anti-Extrusion Ring	Braided Graphite w/ Inconel Wires
12	Pusher Seat	410SS / CC Coated, INC 718 / SF Coated

SF = Spray and Fused
CC = Chromium Carbide

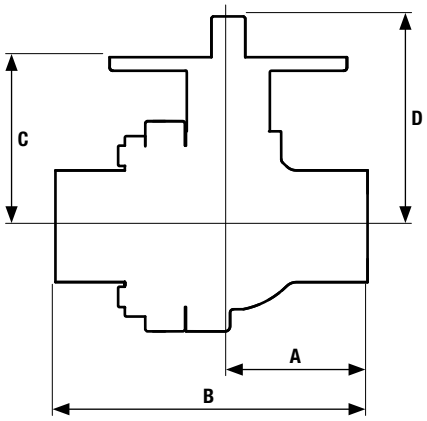


Dimensions (in)

Valve Size	Bore	Class	A	B	C	D	Weight
2	2.00	150-600	5.13	11.5	6.23	5.31	90 lb
2	2.00	900-1500	5.13	11.5	6.23	5.34	100 lb
2	2.00	2500	5.5	13	7.95	9.63	217 lb

Dimensions (mm)

DN	Bore	Class	A	B	C	D	Weight
50	50	150-600	130	292	158	135	41 kg
50	50	900-1500	130	292	158	136	45 kg
50	50	2500	140	330	202	245	98 kg



Cv

Bore (inches)	Class	Valve Only
		2
2.00	150 – 2500	351

Temperature vs Pressure — Limited Class Ratings

Class	Mat'l.	Temperature (°F)															
		-20 to 100	200	300	400	500	600	650	700	750	800	850	900	950	1000	1050	1100
ASME 600 Maximum Pressure (psig)	**F22**	1500	1500	1480	1455	1450	1440	1430	1415	1415	1415	1355	1200	945	670	435	277
	A105[1]	1500	1500	1480	1465	1465	1465	1430	1380	1270	1030						
	F91	1500	1500	1500	1500	1500	1500	1500	1465	1460	1440	1355	1200	953	862	862	765
ASME 900 Maximum Pressure (psig)	**F22**	2250	2250	2220	2185	2175	2165	2145	2120	2120	2120	2030	1800	1415	1005	655	415
	A105[1]	2250	2250	2220	2200	2200	2200	2145	2075	1905	1545						
	F91	2250	2250	2250	2250	2250	2250	2250	2200	2185	2160	2030	1800	1433	1311	1311	1165
ASME 1500 Maximum Pressure (psig)	**F22**	3750	3750	3695	3640	3620	3605	3580	3535	3535	3535	3385	3000	2360	1670	1095	700
	A105[1]	3750	3750	3700	3665	3665	3665	3575	3455	3170	2570						
	F91	3750	3750	3750	3750	3750	3750	3750	3665	3645	3600	3385	3000	2412	2250	2250	1993
Temperature vs Pressure — Standard Class Ratings																	
ASME 2500 Maximum Pressure (psig)	**F22**	6250	6250	6070	5880	5540	5040	4905	4730	4430	4230	4060	3745	3220	2230	1455	915
	A105[1]	6170	5655	5450	5280	5025	4730	4575	4425	4230	3430						
	F91	6250	6250	6070	5880	5540	5040	4905	4730	4430	4230	4060	3745	3220	3030	3000	2485

Class	Mat'l.	Temperature (°C)																			
		-29 to 38	50	100	150	200	250	300	325	350	375	400	425	450	475	500	538	550	575	600
ASME 600 Maximum Pressure (barg)	**F22**	103	103	103	102	100	100	100	99	98	98	98	98	94	86	72	48	40	27	
	A105[1]	103	103	103	102	101	101	101	100	98	94	87	72							
	F91	103	103	103	103	103	103	103	103	103	101	101	99	94	86	72	62	59	59	48
ASME 900 Maximum Pressure (barg)	**F22**	155	155	155	153	151	150	149	149	148	146	146	146	141	128	107	73	61	41	
	A105[1]	155	155	155	153	152	152	152	150	147	141	130	108							
	F91	155	155	155	155	155	155	155	155	154	152	151	149	141	128	107	94	90	89	73
ASME 1500 Maximum Pressure (barg)	**F22**	259	259	258	255	251	250	249	248	246	244	244	244	236	214	179	125	104	70	
	A105[1]	259	259	259	255	253	253	253	251	245	236	217	180							
	F91	259	259	259	259	259	259	259	259	257	253	251	248	236	214	179	161	155	153	124
Temperature vs Pressure — Standard Class Ratings																					
ASME 2500 Maximum Pressure (barg)	**F22**	431	431	429	418	405	386	357	344	335	323	305	292	282	264	235	155	130	88	
	A105[1]	426	418	388	376	365	350	332	323	313	303	289	240							
	F91	431	431	429	418	405	386	357	344	335	323	305	292	282	264	235	213	208	200	155

[1] **A105 not recommended for prolonged use above 800°F / 425°C per ASME B16.34.**