ALPHA GROUP

FORGED STEEL CHECK VALVE

Class 800, Trim API No.5, 1/2"-2"

CONSTRUCTION IS AS FOLLOWS:

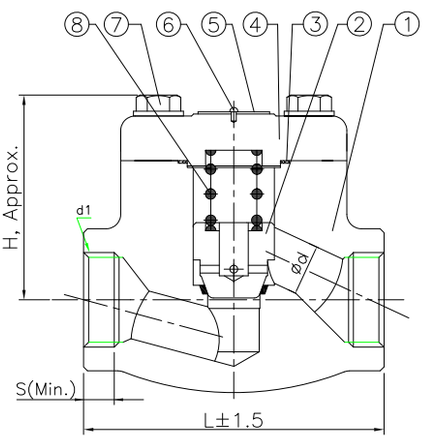
- Conventional Port (Full Port also available)
- Piston Check
- Spring available on request
- Bolted bonnet with spiral-wound gasket
- Integral backseat
- Socket weld Ends to ANSI/ASME B16.11
- Screwed Ends (NPT) to ANSI/ASME B1.20.1

DESIGN CONSTRUCTION & SPECIFICATIONS

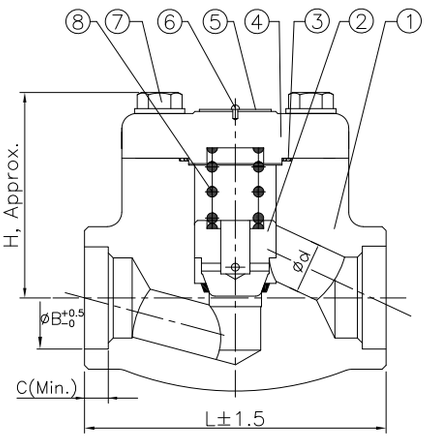
Forged steel check valves conform to MSS SP-118 and BS5352 ANSI/ASME B16.34 Each are tested according to API 598 and marking is per MSS SP-25

Standard Material Specifications

No.	Part Name	Materials	No.	Part Name	Materials
1	Body	A105N	4	Bonnet	A105N
	Seat ring	HF(#6) Integral With Body	5	Nameplate	SS 304
2	Disc	A182-F6a HF No.6	6	Rivet	CU
3	Gasket	SPW 304+Graphite	7	Bolt	A193-B7M
			8	Spring	SS 304



NPT-F (ASME B 1.20.1)



Socket Weld (ASME B16.11)

Dimensions (mm)

NPS (inch)	NPT-F (ASME B 1.20.1)					Socket Weld (ASME B16.11)				
	H	L	Ød	d1	S	H	L	Ød	ØB	C
1/2"	61	79	9.5	1/2 NPT	13.6	61	79	9.5	21.8	10
3/4"	61	92	12.5	3/4 NPT	14	61	92	12.5	27.2	13
1"	79	111	17.5	1 NPT	17.4	79	111	17.5	33.9	13
1-1/4"	81	120	23	1-1/4 NPT	18	81	120	23	42.7	13
1-1/2"	82	140	28.5	1-1/2 NPT	18.4	82	140	28.5	48.8	13
2"	99	172	36.5	2 NPT	19.2	99	172	36.5	61.2	16

FORGED STEEL CHECK VALVE

Class 1500, Trim API No.5, 1/2"-2"

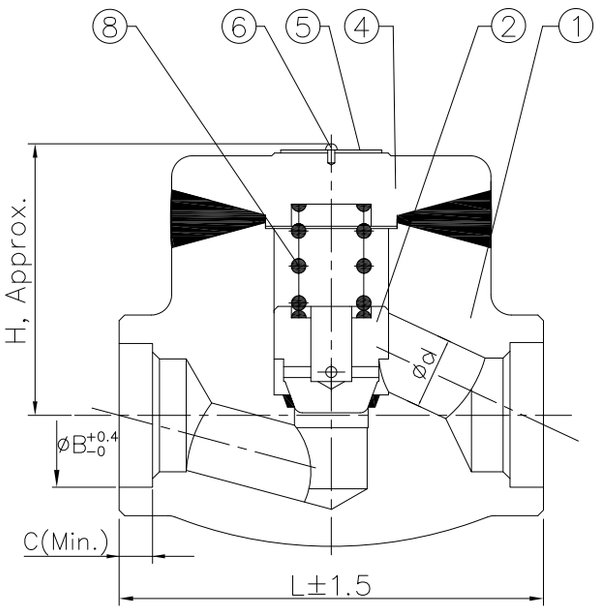
ALPHA GROUP

CONSTRUCTION IS AS FOLLOWS:

- Full Port or Conventional Port
- Piston Check
- Spring available on request
- Seal welded bonnet
- Socket weld Ends to ANSI/ASME B16.11
- Screwed Ends (NPT) to ANSI/ASME B1.20.1

DESIGN CONSTRUCTION & SPECIFICATIONS

Forged steel check valves conform to MSS SP-118 and BS5352 ANSI/ASME B16.34. Each are tested according to API 598. and marking is per MSS SP-25.



Socket Weld (ASME B16.11)

Standard Material Specifications

No.	Part Name	Materials
1	Body	A182-F22
	Seat ring	HF(#6) Integral With Body
2	Disc	A182-F6a HF No.6
3	Bonnet	A182-F22
4	Nameplate	SS 304
5	Rivet	CU
6	Spring	SS 304

Dimensions (mm)

NPS (inch)	H	L	Ød	ØB	C
1/2"	63	92	10	21.8	10
3/4"	72	111	13	27.2	13
1"	77	120	17.5	33.9	13
1-1/4"	80	140	22.5	42.7	13
1-1/2"	100	172	28.6	48.8	13
2"	110	220	35	61.2	16

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PRESSURE-TEMPERATURE RATINGS

ALPHA

ASTM A 105 (1)(2), ASTM 350 GR LF2 (1), ASTM A216 Grade WCB (1) and ASTM A352 Grade LCC (1)

Temperature		MAXIMUM ALLOWABLE NON-SHOCK WORKING PRESSURE IN PSIG BY CLASS					
°F	°C	150	300	600	800	1500	2500
-20 to 100	-29 to 38	285	740	1480	1973	3705	6170
200	93	260	680	1360	1809	3395	5655
300	149	230	655	1310	1747	3270	5450
400	204	200	635	1265	1689	3170	5280
500	260	170	605	1205	1609	3015	5025
600	316	140	570	1135	1516	2840	4730
650	343	125	550	1100	1467	2745	4575
700	371	110	530	1060	1413	2665	4425
750	399	98	505	1015	1351	2535	4230
800	427	80	410	825	1098	2055	3430
850	454	65	320	640	849	1595	2655
900	482	50	230	460	613	1150	1915
950	510	35	135	275	364	685	1145
1000	538	20	85	170	227	430	715

(1) Upon prolonged exposure to temperatures above 425ºC, the carbide phase of steel may be converted to graphite. Permissible, but not recommended for prologed usage above 425ºC.
(2) Only killed steel shall be used above 455ºC.
(a) Flanged End Valve ratings terminate at 1000ºF.

ASTM A 182 GR F22 AND ASTM A217 Grade WC9

Temperature		MAXIMUM ALLOWABLE NON-SHOCK WORKING PRESSURE IN PSIG BY CLASS					
°F	°C	150	300	600	800	1500	2500
-20 to 100	-29 to 38	290	750	1500	2000	3750	6250
200	93	260	750	1500	2000	3750	6250
300	149	230	720	1445	1124	3610	6015
400	204	200	695	1385	1849	3465	5775
500	260	170	665	1330	1773	3325	5540
600	316	140	605	1210	1613	3025	5040
650	343	125	590	1175	1569	2940	4905
700	371	110	570	1135	1516	2840	4730
750	399	95	530	1065	1418	2660	4430
800	427	80	510	1015	1356	2540	4230
850	454	65	485	975	1298	2435	4060
900	482	50	450	900	1200	2245	3745
950	510	35	385	755	1031	1930	3220
1,000	538	20	265	535	711	1335	2230
1,050	566	20(*)	175	350	467	875	1455
1,100	593	20(*)	110	220	293	550	915
1,150	621	20(*)	70	135	182	345	570
1,200	649	15(*)	40	80	111	205	345

* At temperatures above 538ºC, use only when the carbon content is 0.04% or higher.
(a) Flanged End Valve ratings terminate at 1000ºF.