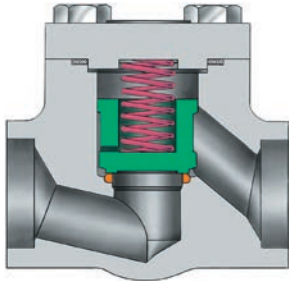


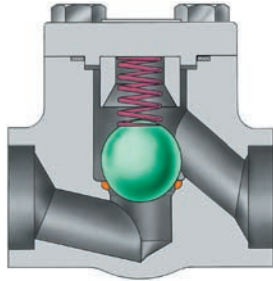
VELAN FORGED STEEL CHECK VALVES

CONVENTIONAL PORT OPENING, PISTON, BALL OR SWING

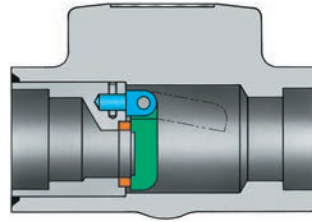
NPS ¼–2 (DN 8–50), ASME CLASSES 800 (1975 psi @ 100°F), 1500 (3705 psi @ 100°F)
 THREADED OR SOCKET WELD FLANGED ASME CLASSES 150, 300, 600, 1500
 COMPLIES TO API 602 AND ASME B16.34 STANDARDS



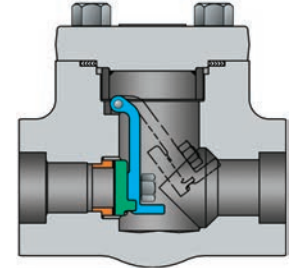
PISTON BOLTED COVER



BALL TYPE BOLTED COVER



COVERLESS SWING CHECK



SWING CHECK BOLTED COVER

SPECIFICATIONS

Type	Bolted cover	Coverless
Piston check	034B	—
Ball check	024B	—
Swing check	114B	114W

For other materials, trims, and engineering data, see pages 23–35.

PART	STANDARD MATERIALS
Body and cover	A105
Seat, integral	CoCr alloy
Disc ⁽¹⁾	CA15HT or CoCr alloy ⁽²⁾
Ball ⁽³⁾	Gr. 440C
Spring ⁽⁴⁾	Gr. 302
Cap screw ⁽⁵⁾	Gr. B7
Gasket ⁽⁵⁾	Gr. 304 (stainless and graphite)
Swing holder ⁽⁶⁾	CA15HT
Swing pin ⁽⁶⁾	Gr. 410

(1) Piston or swing type only

(2) Bolted bonnet swing check disc CoCr alloy Gr. 6 only

(3) Ball type only

(5) Bolted bonnet only

(4) Piston or ball type only

(6) Swing type only

BOLTED COVER PISTON, BALL, AND SWING CHECK DIMENSIONS AND WEIGHTS

Size NPS DN	A Port				B End-to-end				C Center-to-top, bolts				K Socket weld	L Socket weld	Weight lb/kg				Flanged Face-to-face			
	Piston & ball		Swing check		Piston & ball		Swing check		Piston & ball		Swing check		Piston, ball & swing check		Piston and ball		Swing check ⁽²⁾		Piston, ball & swing check			
	800	1500	800	1500	800	1500	800	1500	800	1500	800	1500	Bore	Depth	800	1500	800	1500	150 ⁽³⁾	300	600	1500
¼ ⁽¹⁾ 8	0.36 9.2	0.50 12.7	—	—	3.13 80	4.00 102	—	—	1.90 48	2.70 68	—	—	0.555 14.1	0.38 9.5	2.5 1.2	6.6 3.0	—	—	4.00 102	—	—	—
⅜ ⁽¹⁾ 10	0.36 9.2	0.50 12.7	—	—	3.13 80	4.00 102	—	—	1.90 48	2.70 68	—	—	0.690 17.5	0.38 9.5	2.5 1.2	6.6 3.0	—	—	4.00 102	—	—	—
½ ⁽¹⁾ 15	0.36 9.2	0.50 12.7	0.50 12.7	0.50 12.7	3.13 80	4.00 102	3.50 89	6.00 152	1.90 48	2.70 68	2.50 64	3.70 94	0.855 21.7	0.38 9.5	2.5 1.2	6.6 3.0	5.0 2.3	17 7.7	4.25 108	6.00 152	6.50 165	8.50 216
¾ 20	0.50 12.7	0.50 12.7	0.50 12.7	0.50 12.7	3.25 83	5.00 127	3.50 89	6.00 152	2.30 58	2.90 74	2.50 64	3.70 94	1.065 27.1	0.50 12.7	3.9 1.8	6.6 3.0	5.0 2.3	17 7.7	4.62 117	7.00 178	7.50 191	9.00 229
1 25	0.75 19.1	0.75 19.1	0.75 19.1	0.75 19.1	3.50 89	6.00 152	5.00 127	6.00 152	2.60 66	3.8 97	3.50 89	3.70 94	1.330 33.8	0.50 12.7	4.8 2.2	17 8	12 5.4	17 7.7	5.00 127	8.00 203	8.50 216	10.00 254
1¼ 32	1.25 31.8	1.25 31.8	1.25 31.8	1.25 31.8	5.00 127	7.00 178	5.25 133	7.00 178	3.70 94	4.5 114	3.40 86	3.70 94	1.675 42.5	0.50 12.7	12 5.4	26 12	15 7	21 10	5.50 140	8.50 216	9.00 229	11.00 279
1½ 40	1.25 31.8	1.25 31.8	1.25 31.8	1.25 31.8	5.00 127	7.00 178	5.25 133	7.00 178	3.70 94	4.5 114	3.40 86	4.20 107	1.915 48.6	0.50 12.7	12 5.4	26 12	15 7	21 10	6.50 165	9.00 229	9.50 241	12.00 305
2 50	1.50 38.1	1.50 38.1	1.50 38.1	1.50 38.1	8.00 203	9.00 229	6.00 152	9.00 229	4.80 122	5.40 137	4.30 109	5.20 132	2.406 61.1	0.63 15.9	22 10.0	41 19	21 10	40 18	8.00 203	10.50 267	11.50 292	14.50 368

COVERLESS SWING CHECK DIMENSIONS AND WEIGHTS (CLASS 800)

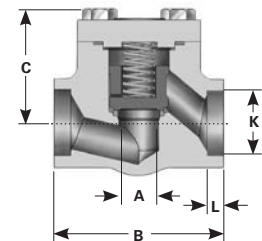
Size NPS/DN	A Port	B End-to-end	C Center-to-top, body	K Socket weld bore	L Socket weld	Weight lb/kg
¼ ⁽¹⁾ 8	0.50 13	3.25 83	1.65 42	0.555 14.1	0.38 9.5	3.5 1.6
⅜ ⁽¹⁾ 10	0.50 13	3.25 83	1.65 42	0.690 17.5	0.38 9.5	3.5 1.6
½ ⁽¹⁾ 15	0.50 13	3.25 83	1.65 42	0.855 21.7	0.38 9.5	3.5 1.6
¾ 20	0.50 13	3.25 83	1.65 42	1.065 27.1	0.50 12.7	3.5 1.6
1 25	0.75 19	3.50 89	1.70 43	1.330 33.8	0.50 12.7	3.0 1.4
1¼ 32	1.25 32	5.00 127	2.56 65	1.675 42.5	0.50 12.7	11.0 5.0
1½ 40	1.25 32	5.00 127	2.56 65	1.915 48.6	0.50 12.7	11.0 5.0
2 50	1.50 38	5.25 133	2.56 65	2.406 61.1	0.63 15.9	11.0 5.0

(1) Only for A105 (carbon) and A182 (stainless F316/F316L) body material in socket weld, threaded, butt weld or combination weld ends and 800 pressure class.

All other materials in 800 pressure class, refer to the NPS ¾ (DN 20) design.

(2) Welded cover also available.

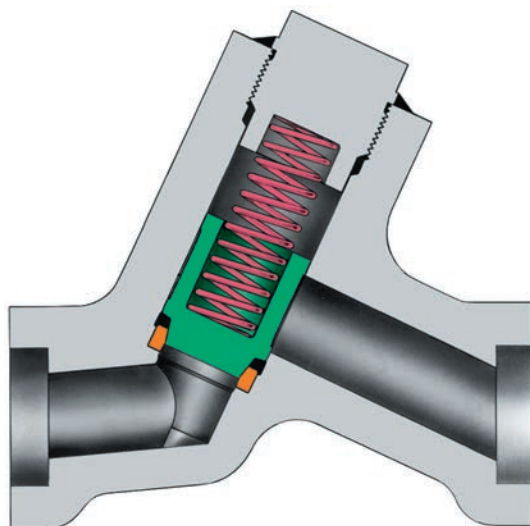
(3) Standard face-to-face for welded flange only.



VELAN FORGED STEEL INCLINED PISTON CHECK VALVES

FOR HORIZONTAL AND VERTICAL LINES

NPS ¼–4 (DN 8–100), THREADED, SOCKET WELD OR BUTT WELD
ASME CLASSES 1690, 2680, 4500



PART	STANDARD MATERIALS			
Body	A105	A182 Gr. F22	A182 Gr. F316	A 182 Gr. F91
Cover	A105	A182 Gr. F22	A182 Gr. F316	A 182 Gr. F91
Disc	CoCr alloy			
Seat, integral	CoCr alloy			
Spring ⁽¹⁾	Gr. 302 (stainless)	Inconel X750	Gr. 302 (stainless)	Inconel X750

For other materials, trims, and engineering data, see pages 23–35.

DESIGN FEATURES

- Complies to ASME B16.34 standards.
- Solid CoCr alloy disc, fully guided for fast and full seating, even without spring.
- High Cv.
- Self-draining waterways.

CLASS	1690	2680	4500
Figure number	8036W	9036W	5036W

DIMENSIONS, WEIGHTS AND CV

Size NPS DN	Port opening		End-to-end		Center-to-top		Socket weld bore	Socket weld depth	Approximate weight lb/kg		C _v Flow coefficient	
	1690 & 2680	4500	1690 & 2680	4500	1690 & 2680	4500			1690 & 2680	4500	1690 & 2680	4500
¼	0.559	–	4.88	–	3.61	–	0.555	0.38	6.5	–	1.0	–
8	14.2	–	124	–	92	–	14.1	9.5	3.0	–	–	–
¾	0.559	0.375	4.88	5.75	3.61	4.26	0.690	0.38	6.3	5	1.8	1.5
10	14.2	9.5	124	146	92	108	17.5	9.5	2.9	2.3	–	–
½	0.559	0.559	4.88	7.00	3.61	5.5	0.855	0.38	6.1	25	2.1	2.1
15	14.2	14.2	124	178	92	140	21.7	9.5	3	11	–	–
¾	0.559	0.559	4.88	7.00	3.61	5.5	1.065	0.50	5.7	25	4.3	4.3
20	14.2	14.2	124	178	92	140	27.1	12.7	2.6	11	–	–
1	0.833	0.559	5.75	7.00	4.88	5.5	1.330	0.50	10.5	25	8.4	4.3
25	21.2	14.2	146	178	124	140	33.8	12.7	4.8	11	–	–
1¼	1.125	–	7.25	–	5.88	–	1.675	0.50	18.5	–	17	–
32	28.6	–	184	–	150	–	42.5	12.7	8.4	–	–	–
1½	1.125	1.125	7.25	10.13	5.88	6.88	1.915	0.50	18.5	42	19	18
40	28.6	28.6	184	257	150	175	48.6	12.7	8.4	19	–	–
2	1.688	1.50	10.13	12.00	7.19	8.44	2.406	0.63	37	87	45	36
50	42.9	38.1	257	305	183	214	61.1	15.9	16.8	40	–	–
2½ ⁽¹⁾	1.688	1.50	12.00	12.00	8.06	8.44	2.906	0.63	94	87	45	36
65	42.9	38.1	305	305	205	214	73.8	15.9	43	40	–	–
3 ⁽¹⁾	1.688	1.50	12.00	12.00	8.06	8.44	(2)	(2)	94	110 ⁽³⁾	45	36
80	42.9	38.1	305	305	205	214	(2)	(2)	43	50	–	–
4	1.688	1.50	12.00	12.00	8.06	8.44	(2)	(2)	94	110 ⁽³⁾	45	36
100	42.9	38.1	305	305	205	214	(2)	(2)	43	50	–	–

(1) For Classes 1690 and 2680, dimensions are as shown, or same as for NPS 2 (DN 50) valve, depending on end connection.

(2) Butt weld or flanged connection only in these sizes.

(3) For butt weld weight is 87 lbs. (40 kg).