

Solid Lug Type BSR

Solid Lug Wafer design.
Clamped between flanges
with bolting passing through
the body of the valve.

Retainerless

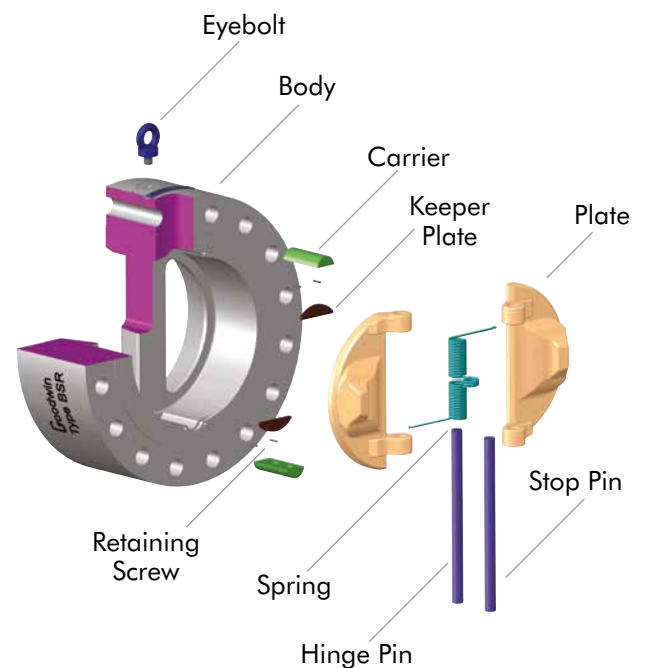
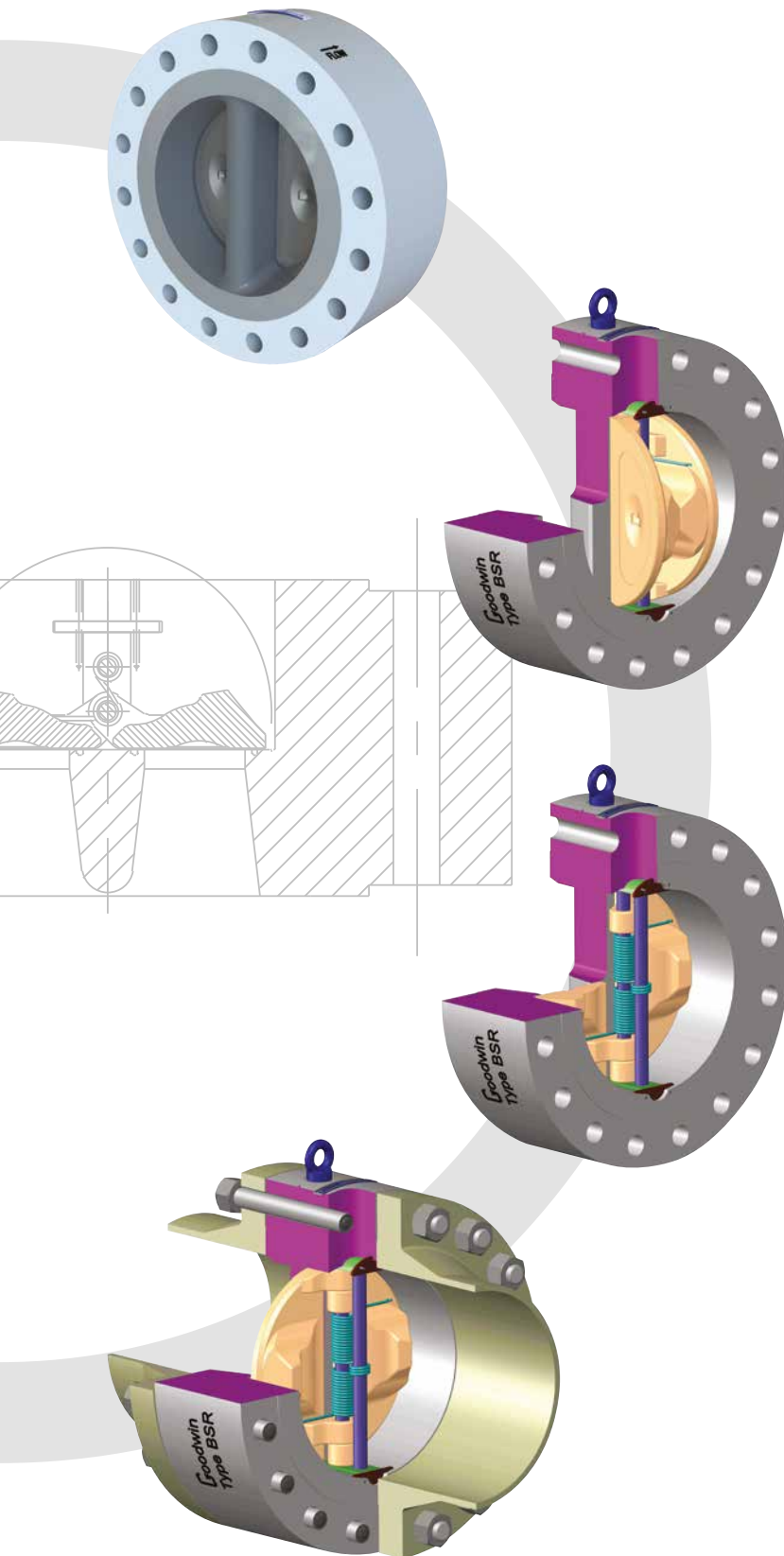
- Retainerless is standard in Goodwin Check Valves

API 594

- Designed in accordance with API 594 / API 6D
- Face-to-face dimensions to API 594

Unique Plate Design

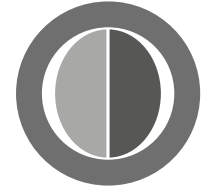
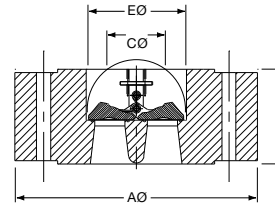
- Pressure sensitive plate
- Improved flow efficiencies
- Total Life Cycle Costs reduced
- Superior metal-to-metal sealing
- High degree of shut-off



Type BSR

Installation Dimensions

ASME B16.5



Size inches	Pressure Rating ASME	End Facing	A	B	C	E	HOLE P.C.D. mm	HOLE DIA. mm	STUD SELECTION			† Valve Weight kg
			mm	mm	mm	mm			No. §	DIA. inches	*Length mm	
2 (50mm)	150	RF	152	60	0	57	120.7	19.1	4	5/8	165	5
	300	RF	165	60	0	57	127.0	19.1	8	5/8	170	7
	600	RF/RJ-23	165	60	0	57	127.0	19.1	8	5/8	195	7
	900	RF/RJ-24	216	70	0	57	165.1	25.4	8	7/8	240	14
	1500	RF/RJ-24	216	70	0	57	165.1	25.4	8	7/8	240	14
	2500	RF/RJ-26	235	70	0	57	171.4	28.6	8	1	275	18
3 (80mm)	150	RF	191	73	51	87	152.4	19.1	4	5/8	185	8
	300	RF	210	73	51	87	168.3	22.2	8	3/4	205	15
	600	RF	210	73	51	87	168.3	22.2	8	3/4	230	14
	900	RF/RJ-31	241	83	60	87	190.5	25.4	8	7/8	255	22
	1500	RF/RJ-35	267	83	60	87	203.2	31.8	8	1 1/8	285	26
	2500	RF/RJ-32	305	86	60	87	228.6	34.9	8	1 1/4	335	38
4 (100mm)	150	RF	229	73	89	113	190.5	19.1	8	5/8	185	13
	300	RF	254	73	89	113	200.0	22.2	8	3/4	210	20
	600	RF/RJ-37	273	79	89	113	215.9	25.4	8	7/8	255	27
	900	RF/RJ-37	292	102	83	113	235.0	31.8	8	1 1/8	300	39
	1500	RF/RJ-39	311	102	83	113	241.3	34.9	8	1 1/4	325	51
	2500	RF/RJ-38	356	105	83	113	273.0	41.3	8	1 1/2	395	69
6 (150mm)	150	RF	279	98	140	166	241.3	22.2	8	3/4	220	33
	300	RF	318	98	140	166	269.9	22.2	12	3/4	245	46
	600	RF/RJ-45	356	137	89	166	292.1	28.6	12	1	340	77
	900	RF/RJ-45	381	159	89	166	317.5	31.8	12	1 1/8	380	104
	1500	RF/RJ-46	394	159	89	166	317.5	38.1	12	1 3/8	455	119
	2500	RF/RJ-47	483	159	89	166	368.3	54.0	8	2	540	165
8 (200mm)	150	RF	343	127	171	207	298.5	22.2	8	3/4	255	64
	300	RF	381	127	171	207	330.2	25.4	12	7/8	290	82
	600	RF/RJ-49	419	165	168	207	349.2	31.8	12	1 1/8	385	129
	900	RF/RJ-49	470	206	130	207	393.7	38.1	12	1 3/8	455	208
	1500	RF/RJ-50	483	206	130	207	393.7	44.5	12	1 5/8	530	214
	2500	RF/RJ-51	552	206	143	207	438.2	54.0	12	2	630	277
10 (250mm)	150	RF	406	146	235	260	362.0	25.4	12	7/8	285	96
	300	RF	445	146	235	260	387.4	28.6	16	1	325	122
	600	RF/RJ-53	508	213	200	260	431.8	34.9	16	1 1/4	460	234
	900	RF/RJ-53	546	241	195	260	469.9	38.1	16	1 3/8	505	324
	1500	RF/RJ-54	584	248	184	260	482.6	50.8	12	1 7/8	620	378
	2500	RF/RJ-55	673	254	191	260	539.8	66.7	12	2 1/2	790	500
12 (300mm)	150	RF	483	181	260	300	431.8	25.4	12	7/8	325	181
	300	RF	521	181	260	300	450.8	31.8	16	1 1/8	375	214
	600	RF/RJ-57	559	229	232	300	489.0	34.9	20	1 1/4	480	300
	900	RF/RJ-57	610	292	206	300	533.4	38.1	20	1 3/8	575	502
	1500	RF/RJ-58	673	305	210	300	571.5	54.0	16	2	720	792
	2500	RF/RJ-60	762	305	225	300	619.1	73.0	12	2 3/4	895	790
14 (350mm)	150	RF	533	184	286	339	476.3	28.6	12	1	340	199
	300	RF	584	222	286	339	514.4	31.8	20	1 1/8	420	313
	600	RF/RJ-61	603	273	232	339	527.0	38.1	20	1 3/8	535	313
	900	RF/RJ-62	641	356	0	339	558.8	41.3	20	1 1/2	660	775
	1500	RF/RJ-63	749	356	0	339	635.0	60.3	16	2 1/4	810	905
16 (400mm)	150	RF	597	191	332	387	539.8	28.6	16	1	350	282
	300	RF	648	232	330	387	571.5	34.9	20	1 1/4	445	489
	600	RF/RJ-65	686	305	330	387	603.2	41.3	20	1 1/2	590	660
	900	RF/RJ-66	705	384	162	387	616.0	44.5	20	1 5/8	705	795
	1500	RF/RJ-67	826	384	162	387	704.8	66.7	16	2 1/2	885	1170

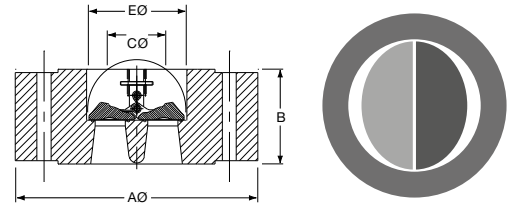
* Where Ring Joint Facing shown in End Facing, Stud lengths based on Ring Joint flange connection.

† Weights are for valve only and exclude mating flanges and bolting. Weight will vary according to corrosion allowance specification.

Type BSR

Installation Dimensions

ASME B16.5



Size inches	Pressure Rating ASME	End Facing	A	B	C	E	HOLE P.C.D. mm	HOLE DIA. mm	STUD SELECTION			† Valve Weight kg
			mm	mm	mm	mm			No. §	DIA. inches	*Length mm	
18 (450mm)	150	RF	635	203	395	438	577.9	31.8	16	1 1/8	375	290
	300	RF	711	264	391	438	628.6	34.9	24	1 1/4	485	558
	600	RF/RJ-69	743	362	330	438	654.0	44.5	20	1 5/8	665	1078
	900	RF/RJ-70	787	451	244	438	685.8	50.8	20	1 7/8	815	1165
	1500	RF/RJ-71	914	468	184	438	774.7	73.0	16	2 3/4	1010	1665
20 (500mm)	150	RF	699	219	438	487	635.0	31.8	20	1 1/8	400	348
	300	RF	775	292	438	487	685.8	34.9	24	1 1/4	520	700
	600	RF/RJ-73	813	368	432	487	723.9	44.5	24	1 5/8	685	933
	900	RF/RJ-74	857	451	406	487	749.3	54.0	20	2	835	1960
	1500	RF/RJ-75	984	533	210	487	831.8	79.4	16	3	1125	2249
24 (600mm)	150	RF	813	222	537	579	749.3	34.9	20	1 1/4	420	396
	300	RF	914	318	524	579	812.8	41.3	24	1 1/2	570	1076
	600	RF/RJ-77	940	438	510	579	838.2	50.8	24	1 7/8	800	1554
	900	RF/RJ-78	1041	495	445	579	901.7	66.7	20	2 1/2	975	2351
	1500	RF/RJ-79	1168	559	391	579	990.6	92.1	16	3 1/2	1235	3230

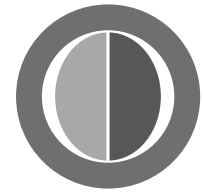
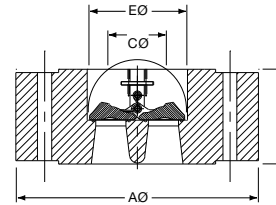
* Where Ring Joint Facing shown in End Facing, Stud lengths based on Ring Joint flange connection.

† Weights are for valve only and exclude mating flanges and bolting. Weight will vary according to corrosion allowance specification.

Type BSR

Installation Dimensions

ASME B16.47 SERIES A (MSS SP44)



Size inches	Pressure Rating ASME	End Facing	A	B	C	E	HOLE P.C.D. mm	HOLE DIA. mm	STUD SELECTION			† Valve Weight kg
			mm	mm	mm	mm			No. §	DIA. inches	*Length mm	
26 (650mm)	150	RF	870	356	597	629	806.5	34.9	24	1 1/4	605	1254
	300	RF	972	356	597	629	876.3	44.5	28	1 5/8	650	1542
	600	RF/RJ-93	1016	457	578	629	914.4	50.8	28	1 7/8	850	1766
	900	RF/RJ-100	1086	533	559	629	952.5	73.0	20	2 3/4	1045	2479
28 (700mm)	150	RF	927	381	648	680	863.6	34.9	28	1 1/4	635	1276
	300	RF	1035	381.6	48.6	80	939.8	44.5 2	8	1 5/8	685	1395
	600	RF/RJ-94	1073	483	629	680	965.2	54.0	28	2	890	1827
	900	RF/RJ-101	1168.5	72	610	680	1022.4	79.4	20	3	1100	3021
30 (750mm)	150	RF	984	305	641	735	914.4	34.9	28	1 1/4	565	1010
	300	RF	1092	368	641	735	997.0	47.6	28	1 3/4	685	1996
	600	RF/RJ-95	1130	505	584	735	1022.4	54.0	28	2	920	3045
	900	RF/RJ-102	1232	635	584	735	1085.9	79.4	20	3	1180	3835
32 (800mm)	150	RF	1060	356	641	784	977.9	41.3	28	1 1/2	645	2925
	300	RF	1149	406	641	784	1054.1	50.8	28	1 7/8	750	3428
	600	RF/RJ-96	1194	533	610	784	1079.5	60.3	28	2 1/4	970	3815
	900	RF/RJ-103	1314	660	610	784	1155.7	85.7	20	3 1/4	1235	4265
36 (900mm)	150	RF	1168	368	648	865	1085.9	41.3	32	1 1/2	675	1430
	300	RF	1270	483	648	865	1168.4	54.0	32	2	845	2661
	600	RF/RJ-98	1314	635	527	865	1193.8	66.7	28	2 1/2	1095	5896
	900	RF/RJ-105	1461	718	356	865	1289.1	92.1	20	3 1/2	1335	**
40 (1000mm)	150	RF	1289	432	883	987	1200.2	41.3	36	1 1/2	740	1386
	300	RF	1238	546	749	909	1155.7	44.5	32	1 5/8	910	3827
	600	RF	1321	660	743	909	1212.9	60.3	32	2 1/4	1155	7862
	900	RF	1511	762	737	909	1339.9	92.1	24	3 1/2	1395	8328
42 (1050mm)	150	RF	1346	432	935	1062	1257.3	41.3	36	1 1/2	755	2377
	300	RF	1289	568	837	1015	1206.5	44.5	32	1 5/8	940	2961
	600	RF	1403	702	648	972	1282.7	66.7	28	2 1/2	1225	6572
	900	RF	1562	787	584	972	1390.7	92.1	24	3 1/2	1440	**
48 (1200mm)	150	RF	1511	524	1037	1193	1422.4	41.3	44	1 1/2	865	4174
	300	RF	1467	629	965	1136	1371.6	50.8	32	1 7/8	1040	6239
	600	RF	1594	787	889	1136	1460.5	73.0	32	2 3/4	1365	**
54 (1350mm)	150	RF	1683	591	1092	1281	1593.9	47.8	44	1 3/4	970	**
	300	RF	1657	718	1092	1281	1549.4	60.3	28	2 1/4	1190	**
60 (1500mm)	150	RF	1854	660	1207	1422	1759.0	47.6	52	1 3/4	1065	**
	300	RF	1810	838	1207	1422	1701.8	60.3	32	2 1/4	1330	**

* Where Ring Joint Facing shown in End Facing, Stud lengths based on Ring Joint flange connection.

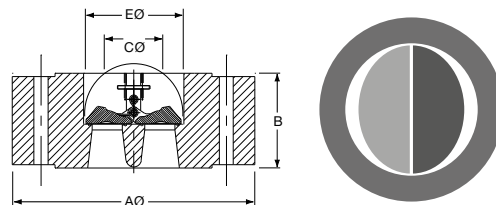
† Weights are for valve only and exclude mating flanges and bolting. Weight will vary according to corrosion allowance specification.

** Apply to Goodwin for details

Type BSR

Installation Dimensions

API 6A / ISO 10423



API 5000: Type BSR (RETAINERLESS)

Size inches	Pressure Rating ASME	End Facing	A	B	C	E	HOLE P.C.D. mm	HOLE DIA. mm	STUD SELECTION			† Valve Weight kg
			mm	mm	mm	mm			No. §	DIA. inches	*Length mm	
2 1/16	5000	R-24	215.9	70	0	53.1	165.1	25.5	8	7/8	225	8
2 9/16	5000	R-27	244.5	70	0	65.8	190.5	28.5	8	1	235	
3 1/8	5000	R-35	266.7	83	60	81.8	203.2	31.75	8	1 1/8	270	14
4 1/16	5000	R-39	311.2	102	83	108.7	241.3	35	8	1 1/4	305	28
5 1/8	5000	R-44	374.7	102	83	131.1	292.1	41.25	8	1 1/2	360	
7 1/16	5000	R-46	393.7	159	89	181.9	317.5	38	12	1 3/8	435	53
9	5000	R-50	482.6	206	130	229.4	393.7	44.5	12	1 5/8	510	117
11	5000	R-54	584.2	248	184	280.2	482.6	51	12	1 7/8	600	204

API 10000 & API 15000: Type BS (RETAINERED, i.e.with Retaining plugs)

Size inches	Pressure Rating ASME	End Facing	A	B	C	E	HOLE P.C.D. mm	HOLE DIA. mm	STUD SELECTION			† Valve Weight kg
			mm	mm	mm	mm			No. §	DIA. inches	*Length mm	
2 1/16	10000	BX-152	200.0	70	0	53.1	158.8	22.2	8	3/4	205	
	15000	BX-152	222.3	95	0	53.1	174.6	25.4	8	7/8	250	
2 9/16	10000	BX-153	231.8	70	0	65.8	184.2	25.4	8	7/8	225	
	15000	BX-153	254.0	95	0	65.8	200.0	28.4	8	1	270	
3 1/16	10000	BX-154	269.9	86	60	78.5	215.9	28.6	8	1	260	
	15000	BX-154	287.3	111	60	78.5	230.2	31.8	8	1 1/8	305	
4 1/16	10000	BX-155	316.0	105	83	103.9	258.7	31.8	8	1 1/8	310	
	15000	BX-155	360.4	130	83	103.9	290.6	38.1	8	1 3/8	365	
5 1/8	10000	BX-169	357.1	105	83	131.1	300.0	31.8	12	1 1/8	330	
	15000	BX-169	419.1	130	83	131.1	342.9	41.1	12	1 1/2	425	
7 1/16	10000	BX-156	479.6	159	89	180.1	403.2	41.1	12	1 1/2	445	
	15000	BX-156	505.0	184	89	180.1	428.6	41.1	16	1 1/2	510	
9	10000	BX-157	552.5	206	143	229.4	476.3	41.1	16	1 1/2	540	
	15000	BX-157	647.7	231	143	229.4	552.5	50.8	16	1 7/8	635	
11	10000	BX-158	654.1	254	191	280.2	565.2	47.6	16	1 3/4	635	
	15000	BX-158	812.8	273	191	280.2	711.2	53.8	20	2	765	

* Where Ring Joint Facing shown in End Facing, Stud lengths based on Ring Joint flange connection.

Testing procedures in accordance with API 6A / ISO 10423. Allowable leakage rate in accordance with API 598.

Types BR and BSR to API 6D / ISO 14313

The installation dimensions are the same as for ASME valves (refer Type BR and Type BSR)
Sizes 2" - 12" 2500# 14"-1500#

Testing procedures in accordance with API 6D / ISO 10423. Allowable leakage rate in accordance with API 598.