



## 1000 and 1000A Series 2 Way Control Valves

### Description

The Spirax Sarco Hiter 1000/1000A Series is a 2 way control valve built to provide fine control and easy adjustment in a compact design. Available in a wide variety of body ratings, sizes and materials, it is designed to efficiently control a wide range of fluids in numerous types of processes and industrial facilities.

Spirax Sarco Hiter 1000/1000A Series are available in diameters from ½" to 24" and pressure classes up to ASME 16.34 CL2500# in both globe and angle body patterns.

### Applications

Oil & Gas Processes; Offshore Platforms; Refineries; Gas Storage and Transportation; Chemical Industry; Sugar and Ethanol; Power Generation, Pulp & Paper and any applications which requires a good control in large diameters and medium or high pressures,



Designed and manufactured in accordance to the requirements of the European Pressure Equipment Directive 2014/68/EU and carries the  $\text{C}\text{E}$  mark when so required and applicable.

### Series 1000 Available Versions

ASME B16.34 150, 300 or 600 Classes Sizes 6" to 24"

1010	Globe body. Balanced plug, cage guided trim suitable for medium and large pressure drops. Standard seat leakage in accordance with ANSI FCI 70.2 Class IV. Classes V and VI are available upon request.
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1110	Globe body. Balanced plug, cage guided trim with resilient seat. Suitable for applications that require low seat leakage. Standard seat leakage in accordance with ANSI FCI 70.2 Class VI. Pressure drop limited to 300 psig (21 bar).
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### Model Type

1210	Globe body. Balanced plug, cage guided trim, with double metal seat, suitable for high temperatures and large pressure drops. Standard seat leakage in accordance with ANSI FCI 70-2 Class IV.
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1040	Angle body with balanced plug, cage guided trim. Suitable for medium and large pressure drops. Standard seat leakage in accordance with ANSI FCI 70.2 Class IV.
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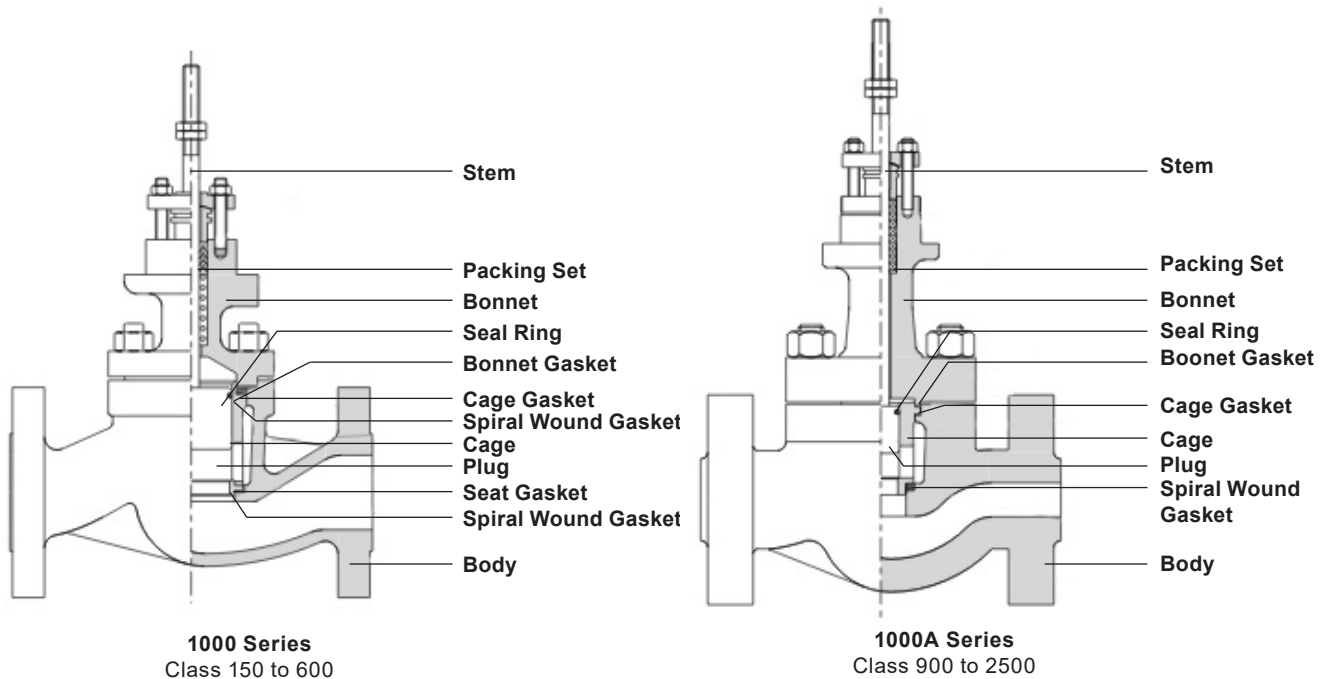
1140	Angular body with balanced plug and cage guided trim with soft (PTFE) seat for use when low leakage is necessary. Standard seat leakage in accordance with ANSI FCI 70.2 is Class VI.
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## Series 1000A Available Versions

ASME B16.34 900, 1500 or 2500 Classes Sizes 1/2" to 24"

	<p><b>1010</b> Globe body. Balanced plug, cage guided trim suitable for medium and large pressure drops. Standard seat leakage in accordance with ANSI FCI 70.2 Class IV. Classes V and VI are available upon request.</p>
<p><b>Available Types</b></p>	<p><b>1070</b> Globe body. Micro flow plug and cage guided. Suitable for applications with low flow in medium or high pressure drops. Suitable also to high temperatures due to the metal seat. Standard seat leakage in accordance with ANSI FCI 70.2 Class IV. Class V is available upon request.</p>
	<p><b>1210</b> Globe body. Balanced plug, cage guided trim, with double metal seat, suitable for high temperatures and large pressure drops. Standard seat leakage in accordance with ANSI FCI 70-2 Class IV.</p>

## Main Components



## Technical Specifications

	Type	Pressure Class	Standard	Available Sizes
<b>End Connections</b>	<b>RF</b> (Flanged)	ASME 150 to 600 ASME 900 to 2500	ASME 16.34	10" to 24" ½" to 24"
	<b>RTJ</b> (Ring Type Joint)	ASME 150 to 600 ASME 900 to 2500	ASME 16.20	10" to 24" ½" to 24"
	<b>SW</b> (Socket Weld)	ASME 900 to 2500	ASME B16.11	½" to 2"
	<b>BW</b> (Butt Weld)	ASME 600 ASME 900 to 2500	ASME B16.25	10" to 24" 3" to 24"

<b>Face to Face</b>	<b>RF/RTJ</b>	ISA S75.08.01
	<b>SW</b>	ISA S75.08.03
	<b>BW</b>	ISA S75.08.05

	Material	Temperature Range
<b>Body Materials</b>	Carbon Steel ASTM A216 WCB	-20°F to 800°F (-29°C to 427°C)
	Alloy Steel Cr-Mo-V ASTM A217 WC9	-20°F to 1100°F (1) (-29°C to 595°C) (1)
	Stainless Steel ASTM A351 CF8M	-20°F to 1000°F (1) (-29°C to 538°C) (1)

(1) At temperatures of 1000°F (538°C), only valves with welded connections should be used

Different materials are available upon request

<b>Stem Seal Materials (Packing)</b>	Braided PTFE		Graphite		
	CE1 Bonnet	CE3 Bonnet	CE3 Bonnet	CE1 Bonnet	CE3 Bonnet
	-22°F to 449.6°F (-30°C to 232°C)	-213.8°F to 572°F (-101°C to 300°C)	-213.8°F to 572°F (-101°C to 300°C)	-22°F to 699.8°F (-30°C to 371°C)	-94°F to 1,202°F (-70°C to 650°C)

	Seat, Bonnet and Cage Gasket	Spiral wound Gasket	Temperature Limit
<b>Gasket Material Combinations</b>	Carbon and graphite fibers with NBR rubber (non-asbestos)	304 stainless steel and carbon and graphite fibers with NBR rubber (non-asbestos)	449°F (232°C)
	PTFE	304 stainless steel and PTFE	449°F (232°C)
	Expanded graphite laminate with stainless steel insert	Inconel and expanded graphite	1099F (593°C)

## Technical Specifications

	Material	Temperature Limit
<b>Seal Ring Materials</b>	BUNA-N	248°F (120°C)
	EPDM	248°F (120°C)
	NEOPRENE	302°F (150°C)
	PTFE	392°F (200°C)
	VITON	399°F (204°C)
	PTFE Graph.	446°F (230°C)
	SHT	482°F (250°C)
	CHEMRAZ	500°F (260°C)
	KALREZ	527°F (275°C)
	GRAPHITE	1202°F (650°C)

	Material	Temperature Range
<b>Stud Materials</b>	ASTM A193 Gr. B7	-20°F to 800°F (-29°C to 427°C)
	ASTM A193 Gr. B8M	-425°F to 800°F (-254°C to 427°C)
	ASTM A193 Gr. B16	802°F to 1,099°F (428°C to 593°C)
<b>Nut Materials</b>	ASTM A194 Gr. 2H	-20°F to 800°F (-29°C to 427°C)
	ASTM A194 Gr. 8M	-425°F to 800°F (-254°C to 427°C)
	ASTM A194 Gr. 7	802°F to 1,099°F (428°C to 593°C)

### Pressure and Temperature Limits

By ASME B16.34

### Trim Materials

	Plug	Seat	Cage	Seal Ring	Max. ΔP	Temperature Range	
<b>Trim Materials</b>  <b>Type</b> <b>1010</b> <b>1040</b>  <b>ASME</b> <b>150 to 600</b>	316 stainless steel		410 stainless steel hardened	See Seal Ring Materials Table	305 psi (21 bar)	-20°F to 600°F (-29°C to 316°C)	
	316 stainless steel		17.4 PH stainless steel hardened			-213°F to 600°F (-101°C to 316°C)	
	410 stainless steel hardened					1500 psi (103.4 bar)	-20°F to 788°F (-29°C to 420°C)
	316 stainless steel with Stellite coating		316 stainless steel with Stellite face			1500 psi (103.4 bar)	790°F to 1,050°F (421°C to 566°C)

	Plug	Seat	Cage	Seal Ring	Max. ΔP	v	
<b>Trim Materials</b>  <b>Type</b> <b>1110</b> <b>1140</b>  ASME 150 to 600	316 stainless steel with PTFE		410 stainless steel hardened	See Seal Ring Materials Table	305 psi (21 bar)	-20°F to 248°F (-29°C to 120°C)	
			-13°F to 392°F (-29°C to 120°C)				
	316 stainless steel with PTFE		17.4 PH stainless steel hardened		305 psi (21 bar)	-20°F to 248°F (-29°C to 120°C)	
			-13°F to 392°F (-29°C to 120°C)				
	Plug	Seat	Cage	Max. ΔP	Temperature Range		
<b>Trim Materials</b>  <b>Type</b> <b>1210</b>  ASME 150 to 600	316 stainless steel		410 stainless steel hardened	305 psi (21 bar)	-20°F to 600°F (-29°C to 316°C)		
			17.4 PH stainless steel hardened		-150°F to 600°F (-101°C to 316°C)		
	316 stainless steel with Stellite coating		17.4 PH stainless steel hardened		1450 psi (100 bar)	-102°F to 199°F (39°C to 93°C)	
	316 stainless steel with Stellite coating		316 stainless steel with Stellite face		1500 psi (103.4 bar)	-20°F to 788°F (-29°C to 420°C)	
	Plug	Seat	Cage	Seal Ring	Max. ΔP	Temperature Range	
<b>Trim Materials</b>  <b>Type</b> <b>1010</b>  ASME 900 to 2500	316 stainless steel			See Seal Ring Materials Table	305 psi (21 bar)	-20°F to 600°F (-29°C to 316°C)	
	316 stainless steel with Stellite coating					410 stainless steel hardened	6250psi (430 bar)
	316 stainless steel with Stellite coating		17.4 PH stainless steel hardened		600psi (42 bar)	20°F to 1099°F (-29°C to 593°C)	
	410 stainless steel hardened						
	316 stainless steel with Stellite coating		316 stainless steel with Stellite face				
	316 stainless steel with Stellite coating					316 stainless steel with Stellite face	
	Plug	Seat	Cage	Seal Ring	Max. ΔP	Temperature Range	
<b>Trim Materials</b>  <b>Type</b> <b>1070</b> <b>1210</b>  ASME 900 to 2500	316 stainless steel with Stellite coating		17.4 PH stainless steel hardened	N/A	1100psi (75bar)	501°F to 600°F (261°C to 316°C)	
	17.4 PH stainless steel hardened				6250psi (430 bar)	-20°F to 1099°F (-29°C to 593°C)	
	410 stainless steel hardened						
	410 stainless steel hardened				6000psi (413bar)	20°F to 1099°F (-29°C to 593°C)	
	316 stainless steel with Stellite coating		Nitrided Cr-Mo Alloy-Steel with Stellite Coating				

## Flow Coefficients

Flow Coefficient Range		LV - Linear, PV - Equal Percentage, MV - Modified Parabolic 1R, 2R, 3R, 4R - Low noise 1, 2, 3 and 4 stages respectively 1K, 2K, 3K – Anti-cavitation 1,2 and 3 stages respectively.									
Flow Coefficient - C <sub>v</sub>	Body Size (Inch)	Flow Characteristic									
		LV	PV	MV	1R	2R	3R	4R	1K	2K	3K
Types 1010 1110 1210  ASME CL 150 to 600	10	450 - 1350	400 - 1170	180 - 1200	218 - 760	315 - 500	212 - 617	80 - 208	184 - 515	168 - 393	120 - 330
	12	650 - 1640	490	400 - 1062	587 - 1050	533 - 693	360 - 468	270 - 350	289 - 610	210 - 490	150 - 360
	14	1050 - 1830	1700	950 - 1800	846 - 1400	693 - 900	468 - 608	270 - 380	338 - 900	251 - 586	186 - 434
	16	1900 - 2720	2230	1500 - 2000	1217 - 1700	693 - 2100	468 - 1300	380 - 430	581 - 2350	-	-
	18	3800 - 5000	3300	3450	-	1500	-	-	2800	-	-
	20	4700	4270	4100	3200	-	-	-	2700 - 3500	-	-
	24	7300	6350	6650	-	-	-	-	-	-	-
Flow Coefficient - C <sub>v</sub>  Types 1040 1140  ASME CL 150 to 600	10	527 - 1580	468 - 1369	1034 - 1404	255 - 889	369 - 585	248 - 722	94 - 243	216 - 603	197 - 460	140 - 386
	12	761 - 1919	573	468 - 1243	687 - 1229	624 - 811	421 - 548	316 - 410	338 - 715	246 - 573	176 - 421
	14	1229 - 2141	1989	1112 - 2106	990 - 1638	811 - 1053	548 - 711	316 - 445	396 - 1053	294 - 686	218 - 508
	16	2223 - 3182	2609	1755 - 2340	1424 - 1989	811 - 2457	548 - 1521	445 - 503	680 - 2750	-	-
	18	4446 - 5850	3861	4037	-	1755	-	-	3276	-	-
	20	5499	4996	4797	3744	-	-	-	3159 - 4095	-	-
	24	8541	7430	7781	-	-	-	-	-	-	-
Flow Coefficient - C <sub>v</sub>  Types 1010 1020 1210  ASME CL 900	1	12	10	11	2,7	-	-	-	8	-	-
	1,5	13 - 22	11 - 18	12 - 20	18 - 26	-	-	-	9 - 13	4 - 8	3 - 6
	2	25 - 41	21 - 36	20 - 36	30 - 48	-	-	-	15 - 27	8 - 18	5 - 15
	3	45 - 131	39 - 115	39 - 120	100	12 - 74	43	-	17 - 67	24 - 37	14 - 33
	4	22 - 180	125 - 155	89 - 170	80 - 178	74 - 155	56 - 95	56	77 - 121	50 - 70	22 - 81
	6	195 - 290	168 - 250	180 - 270	180 - 286	125 - 212	73 - 155	73 - 96	140 - 180	76 - 152	72 - 145
	8	310 - 520	280 - 448	283 - 470	350 - 380	163 - 275	125 - 200	96 - 150	207 - 235	100 - 250	96 - 241
	10	525 - 950	450 - 820	485 - 884	520 - 710	212 - 464	125 - 340	150 - 212	270 - 441	189 - 441	145 - 338
	12	635 - 1150	530 - 960	570 - 1030	1000	-	-	-	-	-	-
	14	930 - 1690	780 - 1410	840 - 1520	-	-	-	-	-	-	-
	16	1060 - 2050	890 - 1610	960 - 1740	-	-	-	-	-	-	-

## Flow Coefficient

	Body Size (Inch)	Flow Characteristic									
		LV	PV	MV	1R	2R	3R	4R	1K	2K	3K
Flow Coefficient - C <sub>v</sub>  Types 1010 1020 1210  ASME CL 1500	1	12	10	11	-	-	-	-	8	-	-
	1,5	13 - 22	11 - 18	12 - 20	18 - 26	-	-	-	9 - 13	4 - 8	3 - 6
	2	25 - 41	21 - 36	20 - 42	30 - 48	-	-	-	15 - 27	8 - 18	5 - 15
	3	45 - 96	39 - 82	39 - 85	35 - 93	44 - 74	38	-	17 - 64	23 - 39	10 - 35
	4	40 - 170	86 - 145	89 - 150	154	74 - 155	50 - 120	56	74 - 113	46 - 81	27 - 75
	6	120 - 265	155 - 228	160 - 235	200 - 280	163 - 212	65 - 143	73	130 - 168	70 - 141	35 - 134
	8	276 - 480	240 - 405	250 - 390	360	163 - 275	85 - 200	125 - 150	194 - 220	96 - 242	96 - 241
	10	508 - 1030	428 - 760	405 - 770	678	212 - 440	100 - 310	150 - 350	253 - 412	176 - 411	171 - 399
	12	615 - 1110	500 - 900	500 - 900	-	-	-	-	474 - 489	209 - 490	204 - 477
	14	870 - 1570	725 - 1310	820 - 1480	-	-	-	-	-	-	-
16	995 - 1800	830 - 1500	885 - 1600	-	-	-	-	-	-	-	

	Body Size (Inch)	Flow Characteristic									
		LV	PV	MV	1R	2R	3R	4R	1K	2K	3K
Flow Coefficient - C <sub>v</sub>  Types 1010 1020 1210  ASME CL 2500	1	11	9	10	-	-	-	-	8	-	-
	1,5	11 - 16	9 - 13	10 - 14	-	-	-	-	9 - 10	-	-
	2	17 - 30	14 - 26	15 - 26	15 - 42	-	-	-	11 - 23	8 - 15	7 - 12
	3	32 - 70	27 - 60	30 - 63	77	28 - 61	22	-	26 - 53	18 - 31	16 - 27
	4	74 - 104	63 - 90	70 - 95	141	47 - 80	29 - 48	45	60 - 90	36 - 63	46 - 81
	6	110 - 177	95 - 150	105 - 157	217	61 - 205	38 - 150	56 - 73	103 - 137	57 - 114	51 - 103
	8	187 - 360	158 - 330	166 - 350	290	135 - 615	110 - 175	73 - 130	158 - 180	76 - 190	75 - 181
	10	380 - 750	350 - 628	370 - 800	542	175 - 390	186 - 280	130 - 180	207 - 341	145 - 338	140 - 326
	12	1090	-	920							

	Body Size (Inch)		Orifice Code	Linear	Equal Percentage	Modified Parabolic
Flow Coefficient - C <sub>v</sub>  Types 1070  ASME Class 900 to 2500	1"	½"	M1	-	-	0.25
			M2	-	-	0.4
			M3	0.85	0.85	0.85
		M4	2	2	2	
		M5	3.4	3.4	3.4	
	¾"	-	M6	5.5	5.5	5.5
		-	M7	7.5	7.5	7.5
		-	M8	10.6	10.6	10.6
		-	M9	13	13	13

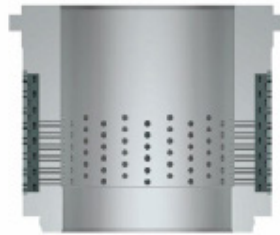
## Seat Leakage Class

	Valve Type	Class	Note
Leakage Class – FCi 70.2	1010	III, IV or V	With graphite or elastomer seal ring
	1040		
	1210	IV	Metal seat
	1110	VI	With PTFE seat
	1140		
	1070	IV or V	Metal seat
	1090		

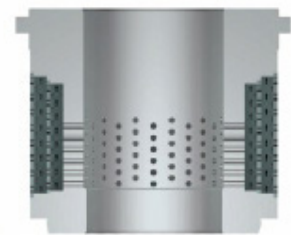
## Special Trims



1R - 1 STAGE



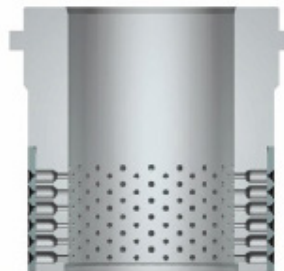
2R - 2 STAGE



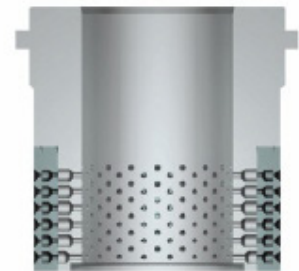
3R - 3 STAGE



1K - 1 STAGE

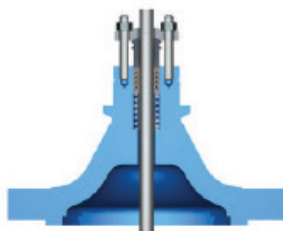


2K - 2 STAGE



3K - 3 STAGE

## Bonnet types



CE1  
Standard Bonnet



CE3  
Extended Bonnet



CE4  
Bellows Seal Bonnet



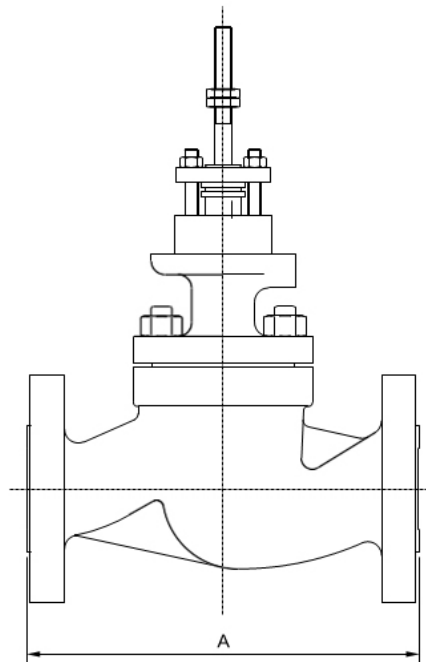
## Sizes and Weights

S1000					S1000A					
Valve Size	ASME CL 150/300		ASME CL 600		ASME CL 900		ASME CL 1500		ASME CL 2500	
	FLG	BW/SW/THRD	FLG	BW/SW/THRD	FLG	BW/SW/THRD	FLG	BW/SW/THRD	FLG	BW/SW/THRD
½"	14kg (31lb)	12kg (26lb)	18kg (40lb)	16kg (35lb)	40kg (88lb)	35kg (77lb)	44kg (97lb)	40kg (88lb)	—	—
¾"	14kg (31lb)	12kg (26lb)	18kg (40lb)	16kg (35lb)	40kg (88lb)	35kg (77lb)	44kg (97lb)	40kg (88lb)	60kg (132lb)	50kg (110lb)
1"	14kg (31lb)	12kg (26lb)	18kg (40lb)	16kg (35lb)	40kg (88lb)	35kg (77lb)	44kg (97lb)	40kg (88lb)	60kg (132lb)	50kg (110lb)
1½"	26kg (57lb)	24kg (53lb)	28kg (62lb)	26kg (57lb)	50kg (110lb)	35kg (77lb)	55kg (121lb)	40kg (88lb)	—	—
2"	40kg (88lb)	36kg (79lb)	46kg (101lb)	40kg (88lb)	60kg (132lb)	45kg (99lb)	60kg (132lb)	45kg (99lb)	—	—
3"	75kg (165lb)	68kg (150lb)	85kg (187lb)	75kg (165lb)	120kg (265lb)	100kg (220lb)	130kg (287lb)	100kg (220lb)	240kg (529lb)	200kg (441lb)
4"	110kg (242lb)	90kg (198lb)	120kg (264lb)	95kg (209lb)	205kg (452lb)	170kg (375lb)	220kg (485lb)	180kg (397lb)	400kg (882lb)	350kg (772lb)
6"	192kg (423lb)	165kg (364lb)	240kg (529lb)	190kg (397lb)	420kg (926lb)	350kg (772lb)	480kg (1058lb)	380kg (838lb)	—	—
8"	370kg (816lb)	322kg (710lb)	440kg (970lb)	364kg (802lb)	630kg (1389lb)	520kg (1146lb)	760kg (1675lb)	600kg (1323lb)	—	—
10"	550kg (1212lb)	460kg (1014lb)	620kg (1367lb)	522kg (1151lb)	1050kg (2315lb)	860kg (1896lb)	1200kg (1645lb)	940kg (2072lb)	2200kg (4850lb)	1900kg (4189lb)
12"	752kg (1658lb)	700kg (1543lb)	960kg (2116lb)	810kg (1786lb)	1300kg (2866lb)	1120kg (2469lb)	—	—	—	—
14"	1242kg (2738lb)	1180kg (2601lb)	1388kg (3060lb)	1230kg (2712lb)	—	—	1700kg (3748lb)	1500kg (3307lb)	—	—
16"	1548kg (3413lb)	1480kg (3263lb)	1725kg (3803lb)	1515kg (3340lb)	—	—	—	—	—	—
18"	1720kg (3792lb)	1640kg (3616lb)	—	—	—	—	—	—	—	—
20"	3280kg (7231lb)	3000kg (6614lb)	4180kg (9215lb)	3800kg (8378lb)	—	—	—	—	—	—
24"	5200kg (11464lb)	4900kg (10803lb)	6200kg (13669lb)	5960kg (13140lb)	—	—	—	—	—	—

**Dimensions (approximate) in mm**

Body Size (pol)	A Flanged Body Inch (mm)											
	Series 1000						Series 1000A					
	150#		300#		600#		900#		1500#		2500#	
	FR	RTJ	FR	RTJ	FR	RTJ	FR	RTJ	FR	RTJ	FR	RTJ
1/2"	See Series 85						10.7" (273)	10.7" (273)	10.7" (273)	10.7" (273)	—	—
3/4"							10.1/4" (260)**	10.1/4" (260)**	10.1/4" (260)**	10.1/4" (260)**	12.1/2" (318)	12.1/2" (318)
1"							10.1/4" (260)**	10.1/4" (260)**	10.1/4" (260)**	10.1/4" (260)**	12.1/2" (318)	12.1/2" (318)
1.1/2"							13.1" (333)	13.1" (333)	13.1" (333)	13.1" (333)	—	—
2"							14.8" (375)	14.8" (375)	14.8" (375)	14.8" (375)	---	---
3"							15.1/2" (394)**	17.5" (444)	16.17/64" (413)**	16.3/8" (416)**	19.6" (499)	19.7/8" (505)**
4"							20.1" (511)	20.2" (513)**	20.9" (530)	20.9" (532)**	28.9" (735)	29.3" (745)**
6"							28.1" (714)	28.3" (719)**	30.2" (768)	30.4" (773)		
8"							36" (914)	31.5/8" (803)**	38.2" (972)	38.7" (982)		
10"	26.1/2" (673)	27" (686)	27.7/8" (708)	28.1/2" (724)	29.5/8" (752)	29.3/4" (756)	39" (991)	39.1" (993)	42" (1067)	42.4" (1077)	54.1" (1374)	54.8" (1393)**
12"	29" (737)	29.1/2" (749)	30.1/2" (775)	31.7/64" (790)	32.1/4" (819)	32.3/8" (823)	44.5" (1130)	44.6" (1133)	—	—	—	—
14"	35" (889)	35.1/2" (902)	36.1/2" (927)	37.1/8" (943)	38.1/4" (972)	38.3/8" (975)	—	—	49.5" (1257)	50.2" (1276)	—	—
16"	40" (1016)	40.1/2" (1029)	41.5/8" (1057)	42.1/4" (1073)	43.5/8" (1108)	43.3/4" (1111)	—	—	—	—	—	—
18"	45" (1143)	—	46.7" (1187)	—	—	—	—	—	—	—	—	—
20"	49.9" (1267)	—	—	—	54" (1372)	—	—	—	—	—	—	—
24"	60" (1524)	—	—	—	65.9" (1676)	—	—	—	—	—	—	—

\*\* Face to face as per Manufacturer Standard



## Acuatores

The Spirax Sarco Hiter 1000/1000A Series control is normally actuated by a Hiter DC spring and diaphragm actuator or Hiter PP piston actuator.

Series 1000 / 1000A valves can also be supplied with electric or hydraulic actuators. Please contact Spirax Sarco for your specific requirements.



**DC Series**  
Spring and Diaphragm Actuator



**PP Series**  
Piston Actuator

## Positioners

The Hiter by Spirax Sarco 1000/1000A Series control valves are available with the complete range of Spirax Sarco positioners. Alternative positioners are also available. Please contact Spirax Sarco for your specific requirements.

## Series 1000 / 1000A Selection Guide

Series	1000 e 1000A	<input type="text"/>
Type	1010, 1110, 1210, 1040, 1140, 1090	<input type="text"/>
Valve Size	½", 1", ¾" 1.1/2", 2", 3", 4", 6", 8" 10" 12" 14", 16", 18", 20", 24"	<input type="text"/>
Body Class	150, 300, 600, 900, 1500, 2500	<input type="text"/>
Body Material	WCB - Carbon Steel ASTM A216 WCB WC9 - Alloy Steel Cr-Mo-V ASTM A217 WC9' CF8M - Stainless Steel ASTM A351 CF8M	<input type="text"/>
Trim Material	316 stainless steel 17/4PH stainless steel hardened 410 stainless steel hardened 316 stainless steel with Stellite coating	<input type="text"/>
Bonnet Type	CE1 CE3 CE4	<input type="text"/>
Stem Seal Material	Braided PTFE Graphite	<input type="text"/>

## Order Example

1000A	1010	4"	1500#	WCB	410	CE1	Graphite
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