

spirax/sarco®

M10H ISO Ball Valve 1/4" to 2"

Description

M10H ISO is a three piece body ball valve designed for steam and other industrial fluids for services ranging from vacuum to the higher temperatures and pressures.

M10H ISO can be serviced without removing the valve from the pipeline. The M10H ISO mounting makes it safe and easy to automate the ball valve.

As a main feature, the valve has a special ball, which has received a surface hardening.

ISO mounting

The integral ISO body mounting allows the valve to be automated without losing seal integrity, as the body does not require disassembly. Manual to remote control may therefore be easily accomplished by the ISO range of Spirax Sarco ball valves.

Available types

M10H2RB ISO Zinc plated carbon steel body, PEEK seats, reduced bore, ISO mounting.

M10H2FB ISO Zinc plated carbon steel body, PEEK seats, full bore, ISO mounting.

Options

- Self venting ball.

Sizes and pipe connections

1/4", 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2", (2" only available with reduced bore).

Screwed BSP, BSPT, NPT, SW, BW full bore and reduced bore.

Note: Flanged connections ANSI class 150, 300 and PN40 are available on request.

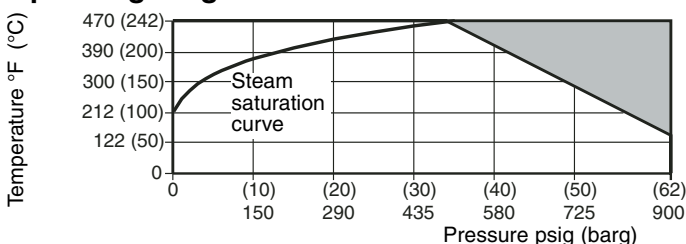
Technical data


Flow characteristic	Modified linear
Port	Full and reduced bore versions
Leakage	Test procedure to ISO 5208 (rate A)

Limiting conditions

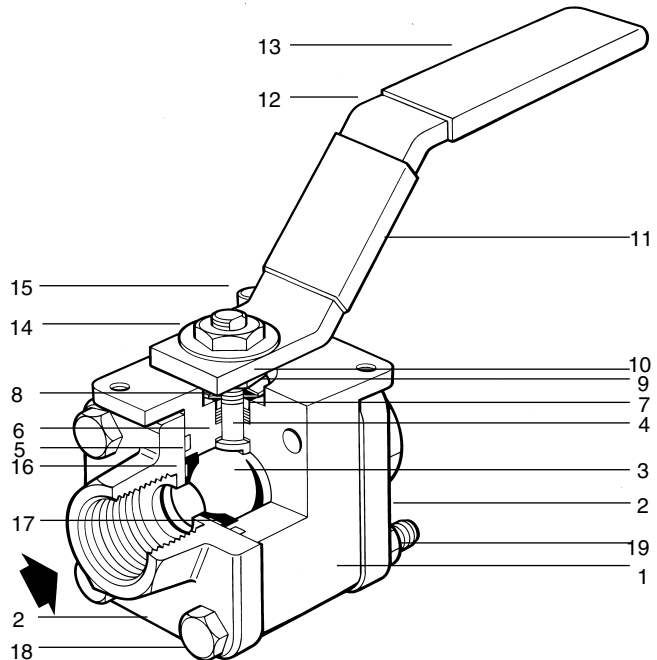
Maximum operating temperature	590°F @ 0 psig (310°C @ 0 barg)
	(590°F for short periods)
For continuous operation maximum operating temperature is	250°F (121°C)
Maximum operating pressure	900 psig @ 140°F (62 barg @ 60°C)
Maximum saturation steam pressure	490 psig (34 barg)
Maximum cold hydraulic test pressure	1350 psig (93 barg)

Operating range



 The product must not be used in this region.

Local regulations may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only. In the interests of development and improvement of the product, we reserve the right to change the specification. TI-P133-13-US 01.05



Materials

No	Part	Material	
1	Body	Zinc plated carbon steel	ASTM A105
2	Cap	Zinc plated carbon steel	ASTM A105
3	Ball	Stainless steel	AISI 316
4	Stem	Stainless steel	AISI 316
5	Seat	PEEK	
6	Stem seal	PEEK	
7	Stem seal	Graphite	
8	Separator	Zinc plated carbon steel	SAE 12L14
9	Belleville washer	Stainless steel	AISI 301
10	Nut	Zinc plated carbon steel	SAE 12L14
11	Name-plate	Stainless steel	AISI 430
12	Lever	Zinc plated carbon steel	SAE 1010
13	Grip	Vinyl	
14	Name-plate (DN)	Stainless steel	AISI 430
15	Stop screw	Zinc plated carbon steel	SAE 12L14
16	Seat seal	Graphite reinforced with AISI 316	
17	Cap gasket	Graphite	
18	Bolts	Zinc plated carbon steel	Grade 5
19	Nuts	Zinc plated carbon steel	Grade 5

Dimensions / weights (approximate) in inches

Reduced bore

Size	A	A1	B2	C2	D	E	Weight
1/4"	2.48	0	5.71	3.19	0.87	0.43	2.0
3/8"	2.48	2.36	5.71	3.19	0.87	0.43	2.0
3/8"	2.48	2.01	5.71	3.19	1.02	0.43	2.0
1/2"	2.76	2.40	5.71	3.31	1.10	0.55	2.2
1"	3.27	3.19	6.34	3.94	1.30	0.83	3.7
1-1/4"	3.90	3.74	7.09	4.10	1.46	0.99	5.3
1-1/2"	4.18	4.02	8.67	4.61	1.62	1.22	7.1
2"	4.81	4.57	8.67	4.93	1.89	1.50	10.4
2-1/2"	0.00	0.00	0.00	0.00	0.00	0.00	0.0

Full bore

Size	A	A1	B2	C2	D	E	Weight
1/4"	2.48	2.36	5.71	3.19	0.87	0.43	2.0
3/8"	2.48	2.36	5.71	3.19	1.02	0.43	2.0
1/2"	2.76	2.60	5.71	3.31	1.10	0.55	2.2
3/4"	3.27	3.23	6.34	3.94	1.30	0.83	3.7
1"	3.90	3.90	7.09	4.10	1.46	0.99	5.3
1-1/4"	4.18	4.18	8.67	4.61	1.62	1.22	7.1
1-1/2"	4.81	4.81	8.67	4.93	1.89	1.50	10.4
2"	0.00	0.00	0.00	0.00	0.00	0.00	0.0

C_v values

Size	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Reduced bore	5.9	5.9	7.0	12	32	57	82	121
Full bore	5.9	8.0	20	42	68	104	179	-

Operating torque (ft / lb)

Size	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Reduced bore	6	6	6	8.5	18	33	37	37
Full bore	6	6	8.5	18	33	37	37	-

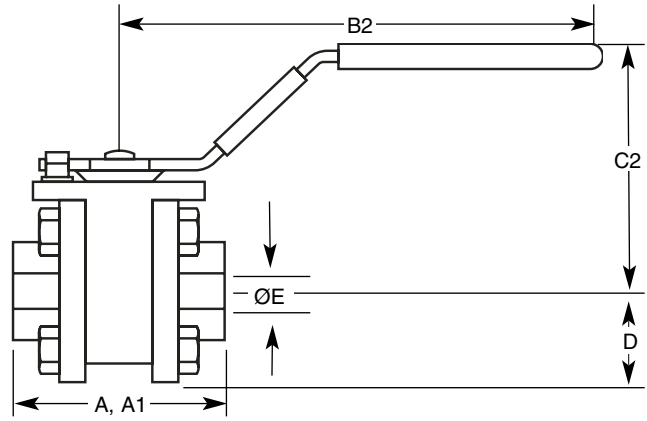
The indicated torque values are for valves frequently operated, that are submitted to a maximum differential pressure of 900 psig (62 barg). Valves that are subject to long static periods, may require up to 75 % greater break out torque.

Maintenance

Before commencing any dismantling work ensure that no flow is taking place in the pipeline and the line is isolated. Any fluid remaining in the line should be drained off.

The new parts can be fitted without removing the complete ball valve from the pipeline.

Remove the four bolts and nuts. The complete body can then be removed and the new parts fitted.



A: Scrd and BW
A1: SW

How to order

Example: Spirax Sarco 1/2" screwed NPT M10H2FB ISO ball valve.

Spare parts

The spare parts available are shown in heavy outline. Parts drawn in broken line are not supplied as spares.

Available spare

Seat, stem seals, seat seal set and cap gaskets 5, 6, 7, 16, 17

How to order spares

Always order spares by using the description given in the column headed Available Spare and stating the size and type of ball valve.

Example: 1 - Seat, stem seals, seat seal set and cap gaskets for 1/2" M10H2FB ISO ball valve.

