



Cert. No. LRQ 0963008

ISO 9001

spirax sarco

M40S ISO Automation Ball Valve DN25 to DN150

TI-P133-40
ST Issue 5

Description

The M40S ISO Automation is a reduced bore ball valve, with a single piece body, having ISO mounting as standard (making it easy and safe to automate). It is an isolating valve, which can be used with the majority of industrial fluids, not a control valve. The valve is supplied without a handle (lever) and with a photochemical name-plate welded to the body. The M40S ISO Automation is available with either ANSI 150 or ANSI 300 flanges.

Available types

M40S2 ISO Automation	Zinc plated carbon steel body, PDR 0.8 seats, reduced bore and ISO mounting.
M40S3 ISO Automation	Stainless steel body, PDR 0.8 seats, reduced bore and ISO mounting.

Standards

This product fully complies with the requirements of the European Pressure Equipment Directive 97/23/EC and carries the CE mark when so required.

Certification

This product is available with certification to EN 10204 3.1. **Note:** All certification / inspection requirements must be stated at the time of order placement.

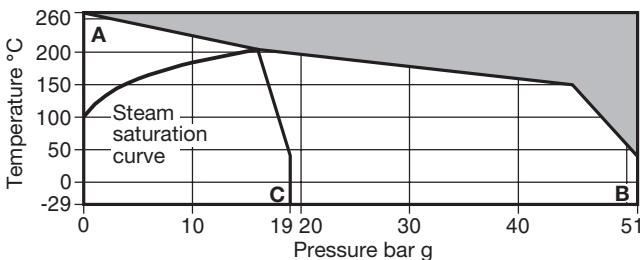
Options

- Self-venting ball.

Technical data

Flow characteristic	Modified linear
Port	Reduced bore
Leakage test procedure to ISO 5208 (Rate A) / EN 12266-1 (Rate A)	
Antistatic device (optional) complies with ISO 7121 and BS 5351	

Pressure/temperature limits



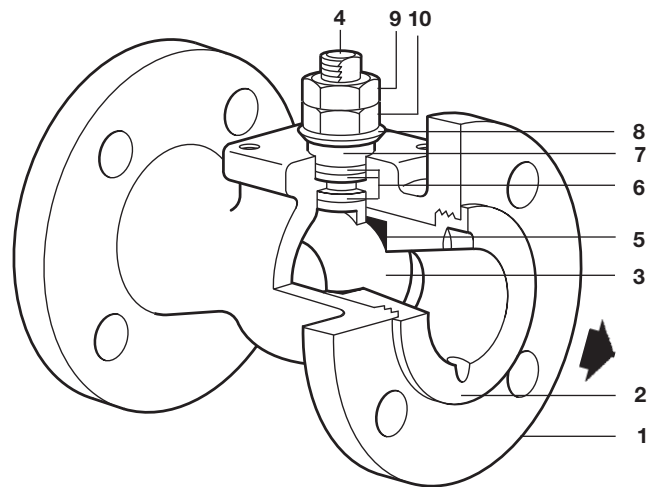
The product **must not** be used in this region.

- A - B Flanged ANSI 300
- A - C Flanged ANSI 150

Body design conditions	ANSI 150 and ANSI 300	
PMA Maximum allowable pressure	ANSI 150	51 bar g @ 45°C
	ANSI 300	51 bar g @ 38°C
TMA Maximum allowable temperature	260°C @ 0 bar g	
Minimum allowable temperature	-29°C	
PMO Maximum operating pressure for saturated steam service	17.5 bar g	
TMO Maximum operating temperature	260°C @ 0 bar g	
Minimum operating temperature	-29°C	
Note: For lower operating temperatures consult Spirax Sarco		
ΔPMX Maximum differential pressure is limited to the PMO		
Designed for a maximum cold hydraulic test pressure of:	ANSI 150	28.5 bar g
	ANSI 300	76.5 bar g

Sizes and pipe connections

DN25, DN40, DN50, DN65, DN80, DN100 and DN150. Standard flanges ANSI Class 150 and ANSI Class 300.



Materials

No. Part	Material	
1 Body	Zinc plated carbon steel	ASTM A 216 WCB
	Stainless steel	ASTM A 351 CF8M
2 Insert	Zinc plated carbon steel	ASTM A 216 WCB
	Stainless steel	AISI 316
3 Ball	AISI 316 L	
4 Stem	AISI 316L	
5 Seat	Carbon/graphite reinforced PTFE	PDR 0.8
6 Stem seal	Antistatic reinforced PTFE	
7 Separator	SAE 1010/1045	
8 Belleville washer	Stainless steel	AISI 316
9 Stem nut	Zinc plated carbon steel	SAE 12L14
10 Stem nut	Zinc plated carbon steel	SAE 12L14

Local regulations may restrict the use of this product to below the conditions quoted.

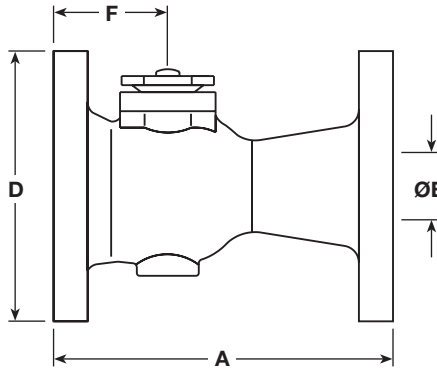
In the interests of development and improvement of the product, we reserve the right to change the specification without notice.

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Dimensions/weights (approximate) in mm and kg

Flanged ANSI 150

Size	A	D	E	F	Weight
DN25	127	108	20	49	2.15
DN40	165	127	31	54	4.20
DN50	178	152	36	61	6.30
DN65	190	178	50	63	9.50
DN80	203	190	57	73	11.80
DN100	229	229	75	82	19.80
DN150	267	279	100	118	32.70



Flanged ANSI 300

Size	A	D	E	F	Weight
DN25	165	124	20	59	3.91
DN40	190	156	31	64	7.46
DN50	216	165	36	69	9.26
DN65	241	191	50	75	13.16
DN80	283	210	57	87	19.47
DN100	305	254	75	97	32.24
DN150	403	318	100	118	56.70

K_v values

DN	25	40	50	65	80	100	150
K _v	21	81	94	197	248	581	730

For conversion: $C_v(\text{UK}) = K_v \times 0.963$ $C_v(\text{US}) = K_v \times 1.156$

Operating torques (N m)

DN	25	40	50	65	80	100	150
N m	12	18	23	40	50	65	200

The torque figures shown are for a valve at maximum operating pressure that is operated frequently. Valves that are subject to long static periods, may require greater break-out torque.

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions supplied with the product.

How to order

Specify:	Size	Model	Seats	Material
			S = PTFE PDR 0.8	
			2 = Carbon steel	
			3 = Stainless steel	

Example: 1 off Spirax Sarco DN50 flanged ANSI 150 M40S2 ISO Automation ball valve.

Spare parts

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

Available spare

Seat and stem seal set	5, 6
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How to order spares

Always order spares by using the description given in the column headed 'Available spare' and state the size and type of ball valve.
Example: 1 - Seat and stem seal set for a Spirax Sarco DN50 M40S2 ISO Automation ball valve.

