



Cert. No. LRQ 0963008

ISO 9001

spirax sarco

M40 ISO

Reduced Bore Ball Valve DN25 to DN150 ANSI 150 and ANSI 300

Description

The M40 ISO is a reduced bore ball valve, with a single piece body, having ISO mounting as standard. It is an isolating valve, which can be used with the majority of industrial fluids, not a control valve.

Available types

M40V2 ISO	Zinc plated carbon steel body, PTFE seats.
M40V3 ISO	Stainless steel body, PTFE seats.
M40S2 ISO	Zinc plated carbon steel body, PDR 0.8 seats.
M40S3 ISO	Stainless steel body, PDR 0.8 seats.

Standards

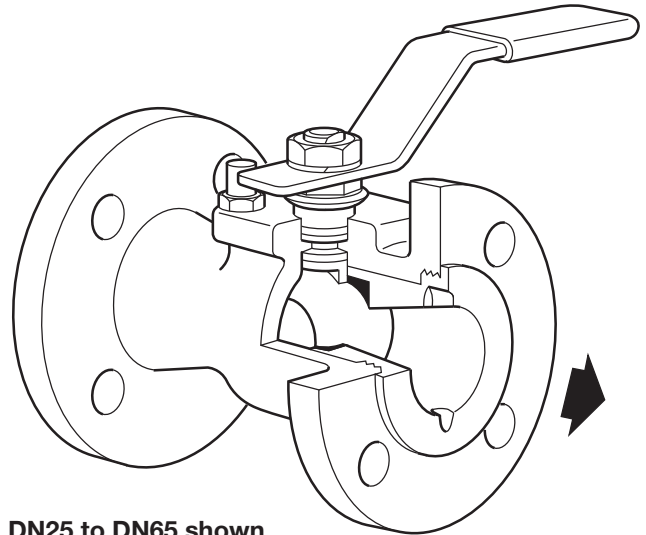
This product fully complies with the requirements of the European Pressure Equipment Directive 97/23/EC and carries the **CE** mark when so required.

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.

Sizes and pipe connections

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



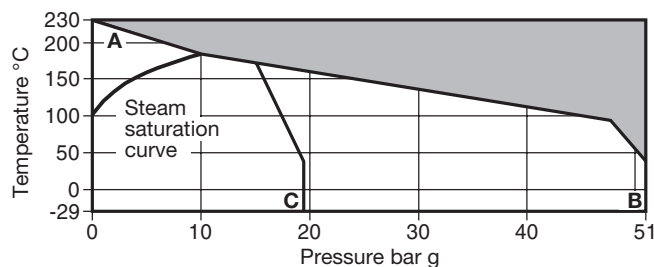
DN25 to DN65 shown

Technical data

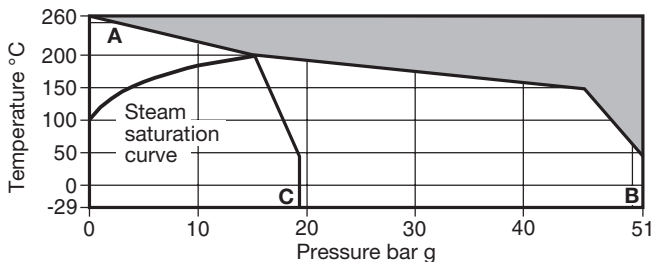
Flow characteristic	Modified linear
Port	Reduced bore
Leakage test procedure to ISO 5208 (Rate A) / EN 12266-1 (Rate A)	
Antistatic device (optional) complies with ISO 7121 and BS 5351	

Pressure/temperature limits

Version 'V' Virgin PTFE



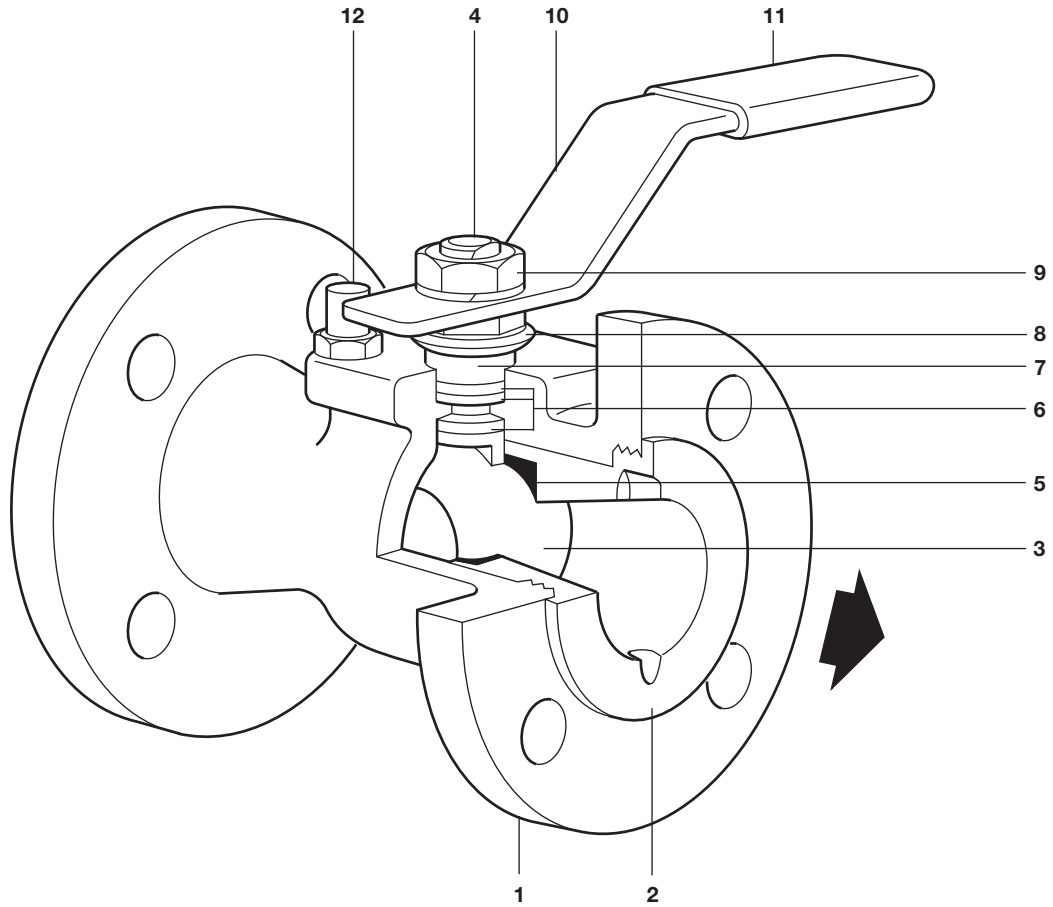
Version 'S' Reinforced PTFE



Body design conditions	ANSI 150 and ANSI 300	
PMA	Maximum operating pressure	ANSI 150 19 bar g @ 38°C
		ANSI 300 51 bar g @ 38°C
TMA	Maximum allowable temperature	M40V 230°C @ 0 bar g
		M40S 260°C @ 0 bar g
Minimum allowable temperature		-29°C
PMO	Maximum operating pressure for saturated steam service	M40V 10.0 bar g
		M40S 17.5 bar g
TMO	Maximum operating temperature	M40V 230°C @ 0 bar g
		M40S 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

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

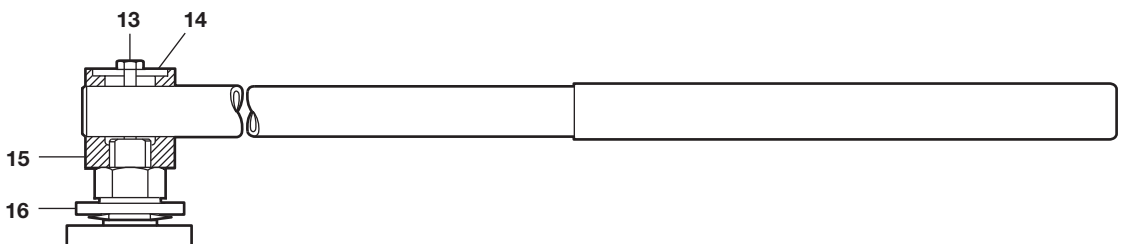
A - B Flanged ANSI 300.
A - C Flanged ANSI 150.



DN25 to DN65

Materials

No.	Part	Material	
1	Body	Zinc plated carbon steel	ASTM A 216 WCB
		Stainless steel	ASTM A 351 CF8M
2	Insert		SAE 1040 / AISI 316
3	Ball	Stainless steel	AISI 316
4	Stem	Stainless steel	AISI 316
5	Seat	M40V	Virgin PTFE
		M40S	PTFE reinforced (carbon and graphite)
6	Stem seal		Reinforced PTFE
7	Separator		SAE 1010 / 1045
8	Belleville washer	Stainless steel	AISI 301
9	Stem nut	Zinc plated carbon steel	SAE 12L14
10	Lever	Zinc plated carbon steel	SAE 1010
11	Grip	Vinyl	
12	Stop screw	Zinc plated carbon steel	
13	Fixing screw	Zinc plated carbon steel	
14	Support washer	Zinc plated carbon steel	SAE 1045
15	Stem adaptor	Zinc plated SG iron	
16	Stop plate	Zinc plated carbon steel	SAE 1010
17	Name-plate (Not shown)	Stainless steel	AISI 430

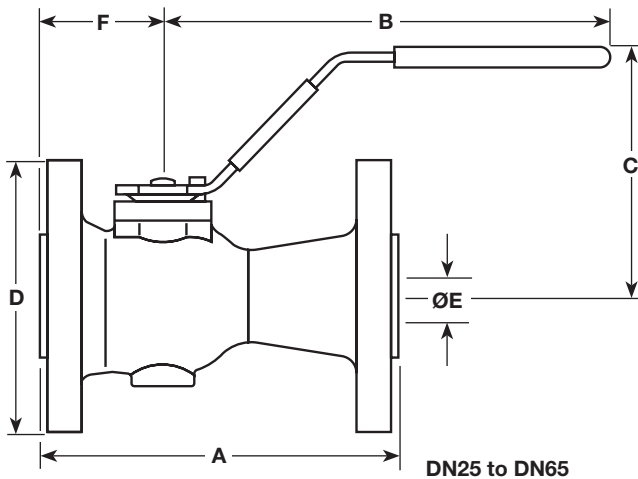
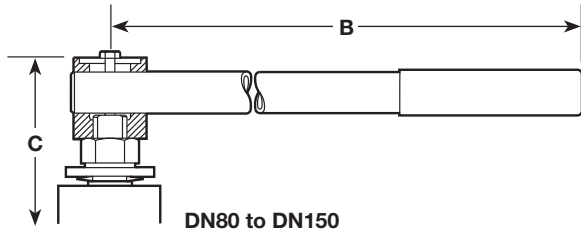


DN80 to DN150

Dimensions / weights (approximate) in mm and kg

Flanged ANSI 150

Size	A	B	C	D	E	F	Weight
DN25	127	180	100	108	20	49	2.30
DN40	165	180	115	127	31	54	4.50
DN50	178	220	129	152	36	61	6.80
DN65	190	220	142	178	50	63	9.70
DN80	203	275	144	190	57	73	14.00
DN100	229	415	172	229	75	82	21.00
DN150	267	700	220	279	100	118	38.00



Flanged ANSI 300

Size	A	B	C	D	E	F	Weight
DN25	165	180	100	124	20	59	4.10
DN40	190	180	115	156	31	64	7.65
DN50	216	220	129	165	36	69	9.60
DN65	241	220	142	191	50	75	13.50
DN80	283	275	162	210	57	87	20.40
DN100	305	415	178	254	75	97	32.40
DN150	403	700	220	318	100	118	62.00

K_v values

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

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

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
			V = Virgin PTFE	
			S = Reinforced PTFE	
			2 = Carbon steel	
			3 = Stainless steel	

Example: 1 off Spirax Sarco DN50 M40V2 ISO ball valve having flanged ANSI 150 connections.

Optional extras:

- Self-venting ball.
- Extended stems 50 mm (2") and 100 mm (4") to allow full insulation.

Spare parts

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

Available spares

Seat and stem seal set	5, 6
------------------------	-------------

How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size and type of ball valve. **Example:** 1 - Seat and stem seal set for a Spirax Sarco DN50 M40V2 ISO ball valve.

