

## KBV40i Key Operated Boiler Blowdown Valve

### Description

The key operated boiler blowdown valve consists of a carbon steel reduced bore ball valve with carbon reinforced PTFE seats and a key operated mechanism in stainless steel. Two types of key are sold as optional extras and are available as follows:

- **Standard length key.**
- **Extended length 'T' bar type key** for use where access to the valve is limited.

**To ensure compliance with boiler regulations** the key cannot be removed when the valve is open.

**Note:** The standard length key and extended length 'T' bar type key are sold separately. It is recommended that an extended length 'T' bar type key is purchased for valve sizes DN50 (2") and DN65 (2½").

### Standards

These products comply with the requirements of the European Pressure Equipment Directive 97/23/EC and carries the mark when so required.

ISO mounting in accordance with ISO 5211.

Antistatic device complying with ISO 7121 and BS 5351.

### Certification

These products are 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 (1"), DN32 (1¼"), DN40 (1½"), DN50 (2"), and DN65 (2½")  
Flanged ASME (ANSI) B 16.5 Class 300.

#### Available flange options:

Flange	Face-to-face	Flange thickness
ASME (ANSI) 300	ASME B 16.10	ASME B 16.5

### Materials

<b>Body and insert</b>	Zinc plated carbon steel	ASTM A216 WCB
<b>Stem seals</b>	Antistatic R-PTFE	
<b>Vented ball</b>	Austenitic stainless steel	AISI 316
<b>Stem</b>	DN65 (2½")	Austenitic stainless steel AISI 316
	DN25-DN50 (1"-2")	Martensitic stainless steel AISI 420
<b>Seats</b>	Carbon and graphite reinforced PTFE	PDR 0.8

### Valve coefficients

Size	DN25 (1")	DN32 (1¼")	DN40 (1½")	DN50 (2")	DN65 (2½")
<b>Cv value</b>	34.6	46.2	93.6	119.1	227.8

### How to specify

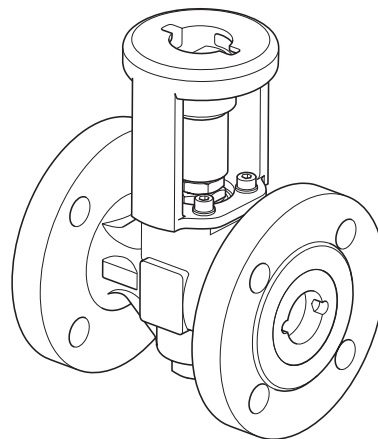
1½" key operated boiler blowdown valve, flanged ANSI300 with carbon reinforced seats and stainless steel key.

### How to order

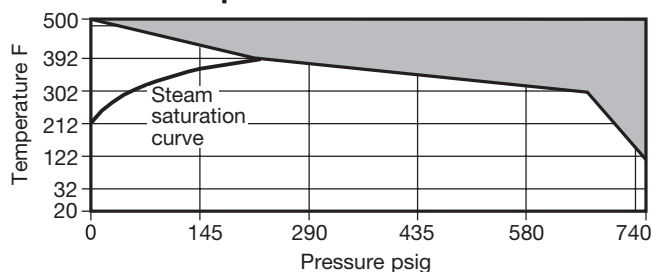
**Example:** 1 off Spirax Sarco DN40 (1½") KBV40i key operated boiler blowdown valve having ANSI300 flanged connections.

Local regulation 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.



### Pressure / temperature limits



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

<b>Body design conditions</b>		ASME 300
PMA	Maximum allowable pressure	740 psig @ 100°F (51 bar g @ 38°C)
TMA	Maximum allowable temperature	500°F @ 0 psig (260°C @ 0 bar g)
Minimum allowable temperature		20°F (-29° C)
PMO	Maximum operating pressure for saturated steam service	250.1 psig (17.25 bar g)
TMO	Maximum operating temperature	500°F @ 0 psig (260°C @ 0 bar g)
Minimum operating temperature		20°F (-29° C)
<i>Note: For lower operating temperatures consult Spirax Sarco</i>		
ΔPMX	Maximum differential pressure is limited to the PMO	
Designed for a maximum cold hydraulic test pressure of 1109 psig (76.5 bar g)		

# KBV40i Key Operated Boiler Blowdown Valve

Dimensions/weights approximate in inches (mm) and pounds (kg)

Valve size	Flange	A	B	C	D	E	F	Weight
1"	A300	6.5 (165)	4.7 (119)	1.4 (35)			0.7 (19)	9.4 (4.3)
1¼"	A300	7.0 (178)	5.2 (130)	1.4 (35)			1.0 (25)	12.1 (5.5)
1½"	A300	7.5 (190)	5.2 (131)	1.4 (35)			1.2 (30)	17.6 (8.0)
2"	A300	8.5 (216)	5.5 (139)	1.4 (35)			1.5 (37)	22.2 (10.1)
2½"	A300	9.5 (241)	5.5 (140)	1.4 (35)			2.0 (50)	33.0 (15.0)
Standard length key					1.3 (32)	10.2 (258)		0.9 (0.4)
Extended length 'T' bar key					19.7 (500)	14.8 (375)		2.0 (0.9)

## Spare parts - DN25 to DN50 (1" to 2") and DN65 (2½")

The spare parts available are shown in solid outline. Parts drawn in broken line are not supplied as spares. To ensure correct operation and maintain the warranty, use only Spirax Sarco original parts. Before actioning any maintenance program observe the 'Safety Information' in Section 1 of the Information and Maintenance Instructions IM-P405-48 supplied with the unit.

### Available spares DN25 to DN50 (1" to 2")

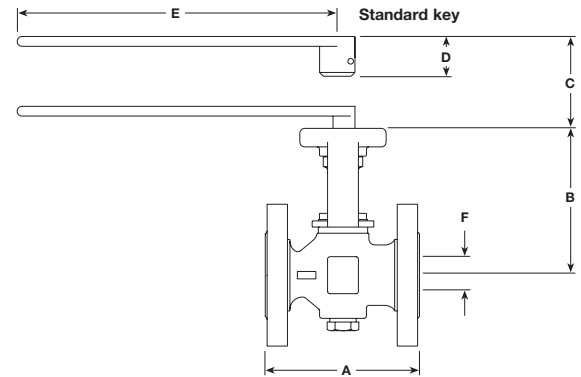
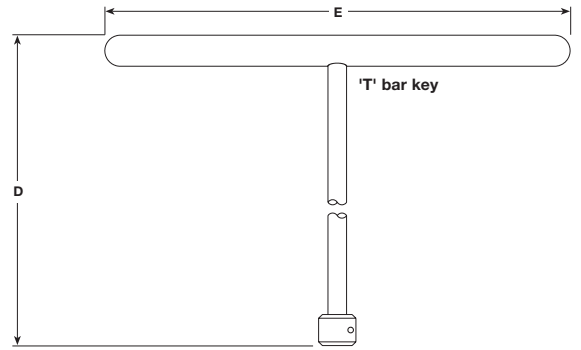
Seats, insert 'O' ring and stem seals	<b>5, 6, 9, 10</b>
Insert tool - Required to aid the removal of the ball valve insert (2)	<b>Not shown</b>

**Caution** - The ball must be installed with the vent hole on the upstream side of the valve.

### How to order spares - DN25 to DN50 (1" to 2")

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 set of seats, insert 'O' ring and stem seals for a Spirax Sarco 2" KBV40i boiler blowdown valve.



### Available spares DN65 (2½")

Seats, insert 'O' ring, seat 'O' ring, stem 'O' ring, lower stem seals and upper stem packing **5, 6, 7, 8, 11, 12**

Insert tool - Required to aid the removal of the ball valve insert (2) **Not shown**

**Caution** - The ball must be installed with the vent hole on the upstream side of the valve.

### How to order spares DN65 (2½")

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 set of seats, insert 'O' ring, seat 'O' ring, stem 'O' ring, lower stem seals and upper stem packing for a Spirax Sarco DN65 (2½") KBV40i boiler blowdown valve

