



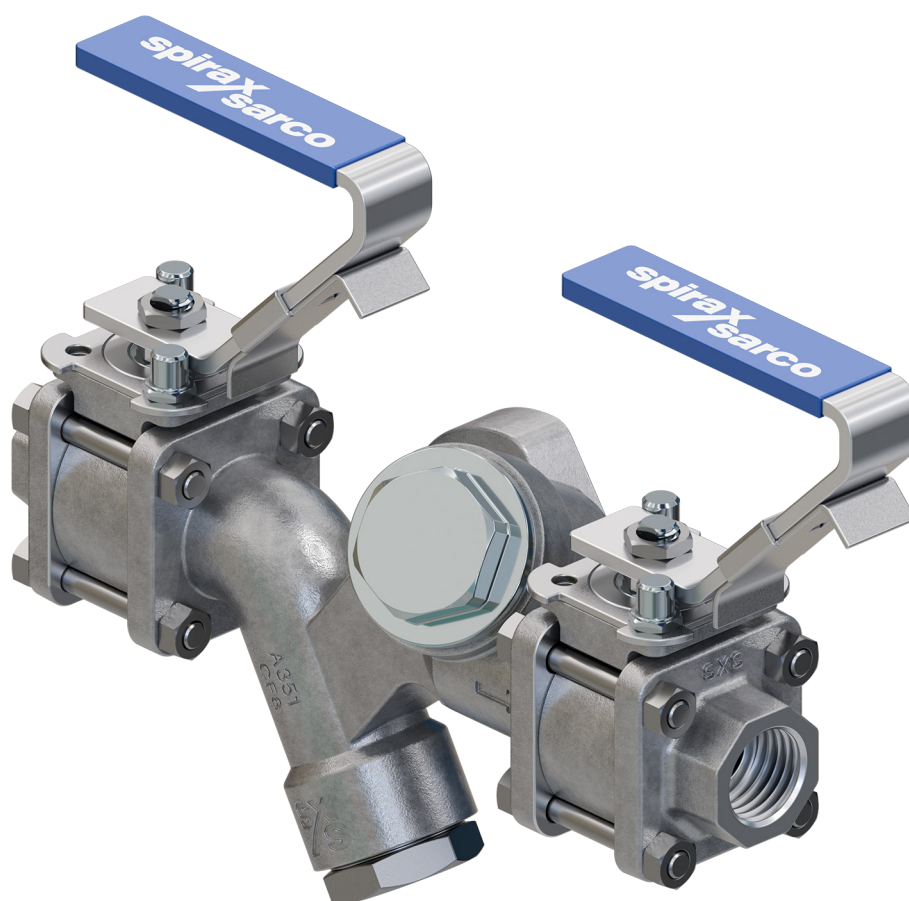
TI-P833-02
CMGT Issue 2

STS32

Stainless Steel High Pressure Compact Pipeline Connector Steam Trapping Station

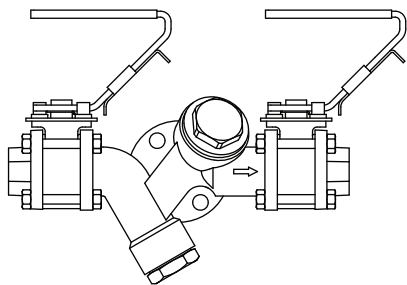
Description

The STS32 high pressure compact pipeline connector steam trapping station has been designed to provide a convenient ready to install trapping solution, which includes: upstream and downstream isolation valves, body incorporating quickfit connector + strainer and check valve blanking plug.

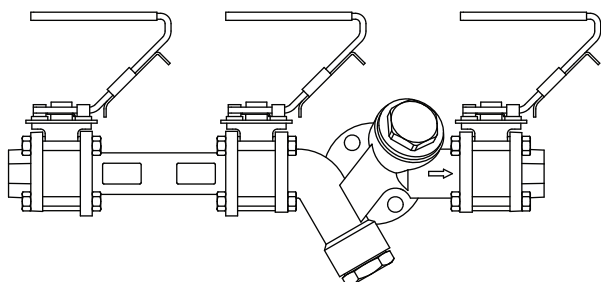


Available types

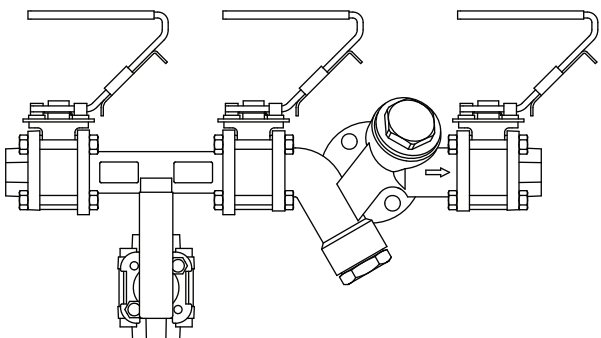
The STS32 is available in Single, Double or Double Block and Bleed variations, see below:



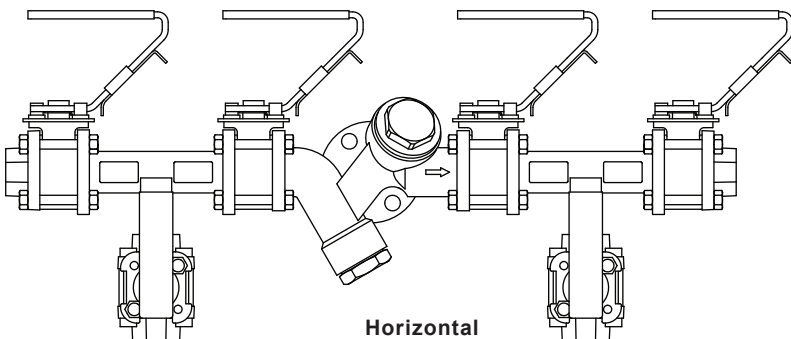
Single Isolation (SB)



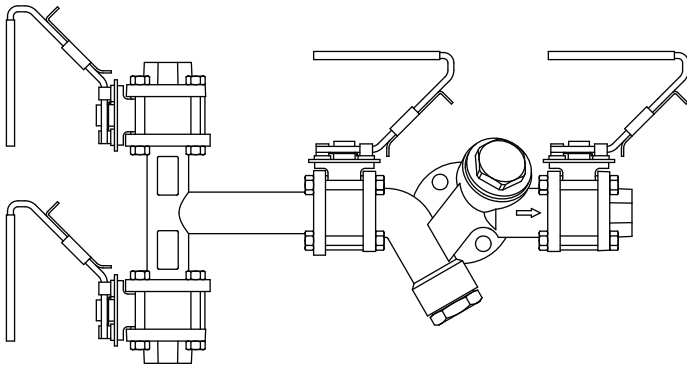
Double Isolation Upstream (DB US)



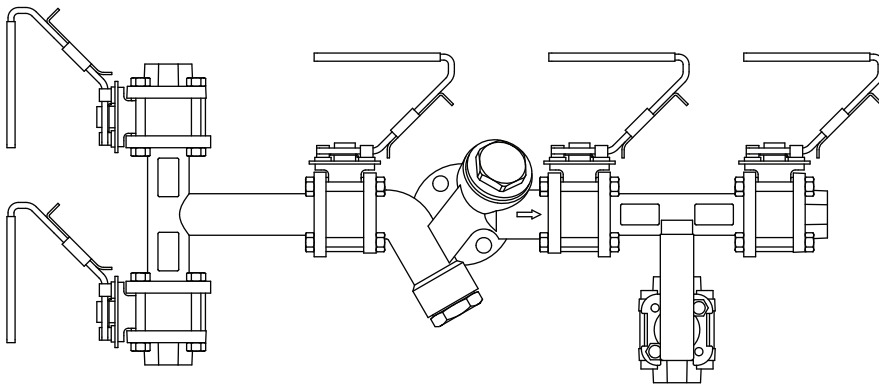
Double Block and Bleed Upstream Horizontal (DBB USH)



Double Block and Bleed Upstream Horizontal Downstream Horizontal (DBB USH DSH)



Double Block and Bleed Upstream Vertical (DBB USV)



Double Block and Bleed Upstream Vertical Downstream Horizontal (DBB USV DSH)

The DBB (Double Block and Bleed) variation provides enhanced safety and possibility to drain the steam trapped between the isolation valves by adding a T shaped connection.

The STS32 trapping solution incorporates Spirax Sarco quickfit technology, which allows speedy trap maintenance. The following swivel connector steam traps (sold separately) can be used with this pipeline connector enabling it to be tailored to suit any application:

- **UTD26** and **UTD52** thermodynamic steam traps.
- **UBP32** balanced pressure steam trap.
- **USM** bimetallic steam trap.
- **UFT32** ball float steam trap.
- **UIB30** and **UIB30H** inverted bucket steam traps.

Standards

These products fully comply with the requirements of the European Pressure Equipment Directive 2014/68/EU.

Certification

These products are available with certification to EN 10204 3.1.

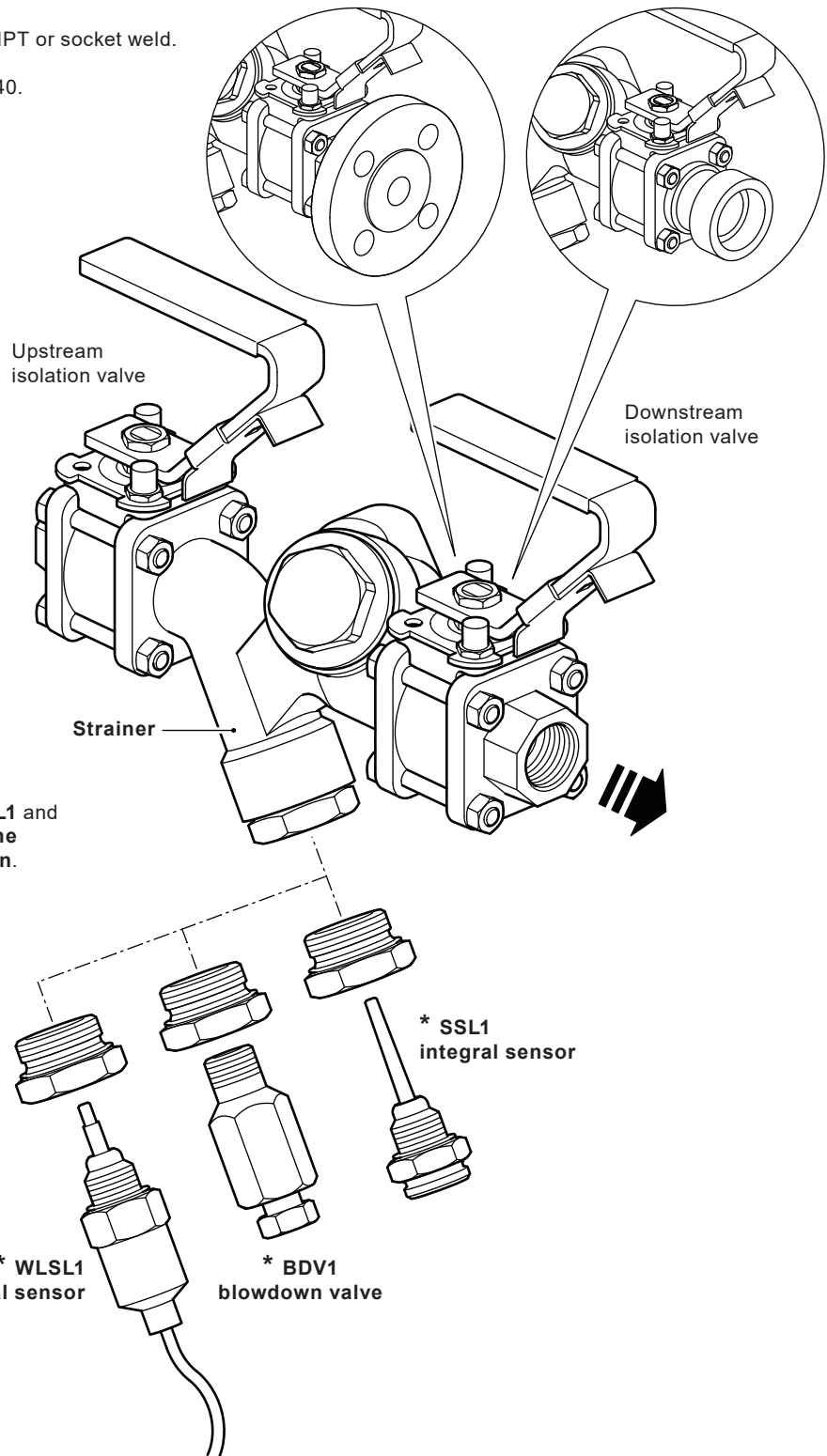
Note: All certification/inspection requirements must be stated at the time of order placement.
For other certification contact Spirax Sarco.

Sizes and pipe connections

½", ¾" and 1" screwed BSP T Rp (ISO 7-1), NPT or socket weld.

½", ¾" and 1" ASME 150 and ASME 300.

DN15, DN20 and DN25 flanged EN 1092 PN40.



Optional

* Please note that the optional Spiratec **SSL1** and **WLSL1** sensors **must not be fitted** when the **STS32** is installed in a vertical application.

Optional extras

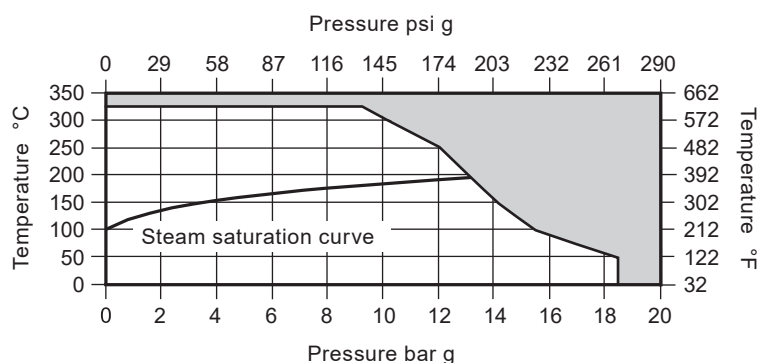
Integral sensor type SSL1 (steam only) or **WLSL1** (for waterlogging) for use with R1C or **WLSL1 with DIODE** for use with RI6C are available as optional extras, to enable operational monitoring of the steam trap. **Please note** that the optional Spiratec **SSL1** and **WLSL1** sensors **must not be fitted** when the **STS32** is installed in a vertical application.

BDV1 blowdown valve is also available for cleaning the strainer during operation. Care should be taken when using the BDV1 blowdown valve as the discharge may be hot. Please note that a BDV1 cannot be used when a Spiratec sensor has been chosen to be part of the unit.

Retrofit double isolation valve and spool piece to convert a single upstream isolation version to double isolation.

Insulation jacket is available to reduce heat loss and energy wastage. See separate literature.

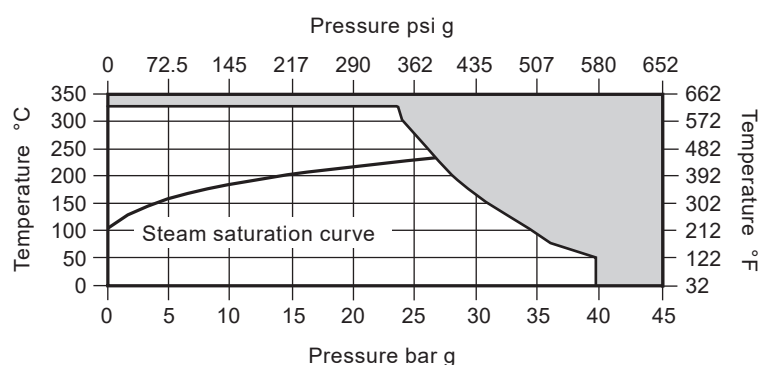
Pressure/temperature limits - ANSI 150



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

Body design conditions		Class 150
PMA	Maximum allowable pressure	18.5 bar g @ 50 °C 268.8 psi g @ 122 °F
TMA	Maximum allowable temperature	325 °C @ 9.3 bar g 617 °F @ 134.8 psi g
Minimum allowable temperature		-29 °C 20.2 °F
PMO	Maximum operating pressure for saturated steam service	11.3 bar g 164 psi g
TMO	Maximum operating temperature	189.3 °C @ 11.3 bar g 372.7 °F @ 164 psi g
Minimum operating temperature		-29 °C 20.2 °F
Note: For lower operating temperatures consult Spirax Sarco		
Product is safe for use under full vacuum conditions		
Designed for a maximum cold hydraulic test pressure of:		75 bar g 1087 psi g

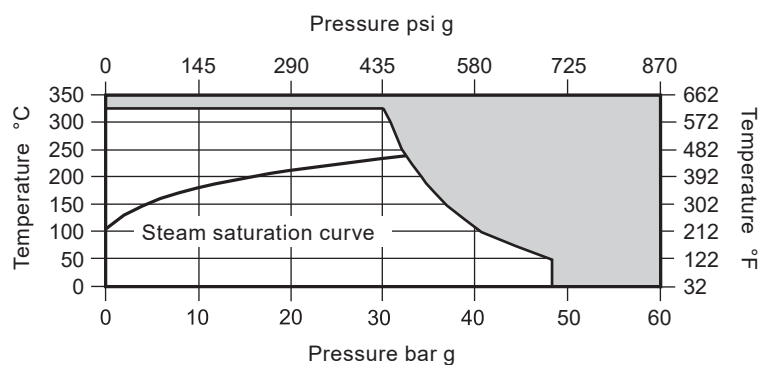
Pressure/temperature limits - PN40



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

Body design conditions		PN40
PMA	Maximum allowable pressure	40 bar g @ 50 °C 580.1 psi g @ 122 °F
TMA	Maximum allowable temperature	325 °C @ 23.6 bar g 617 °F @ 342.2 psi g
Minimum allowable temperature		-29 °C 20.2 °F
PMO	Maximum operating pressure for saturated steam service	26 bar g 377 psi g
TMO	Maximum operating temperature	250 °C @ 26 bar g 482 °F @ 377 psi g
Minimum operating temperature		-29 °C 20.2 °F
Note: For lower operating temperatures consult Spirax Sarco		
Product is safe for use under full vacuum conditions		
Designed for a maximum cold hydraulic test pressure of:		75 bar g 1087 psi g

Pressure/temperature limits - Class 300

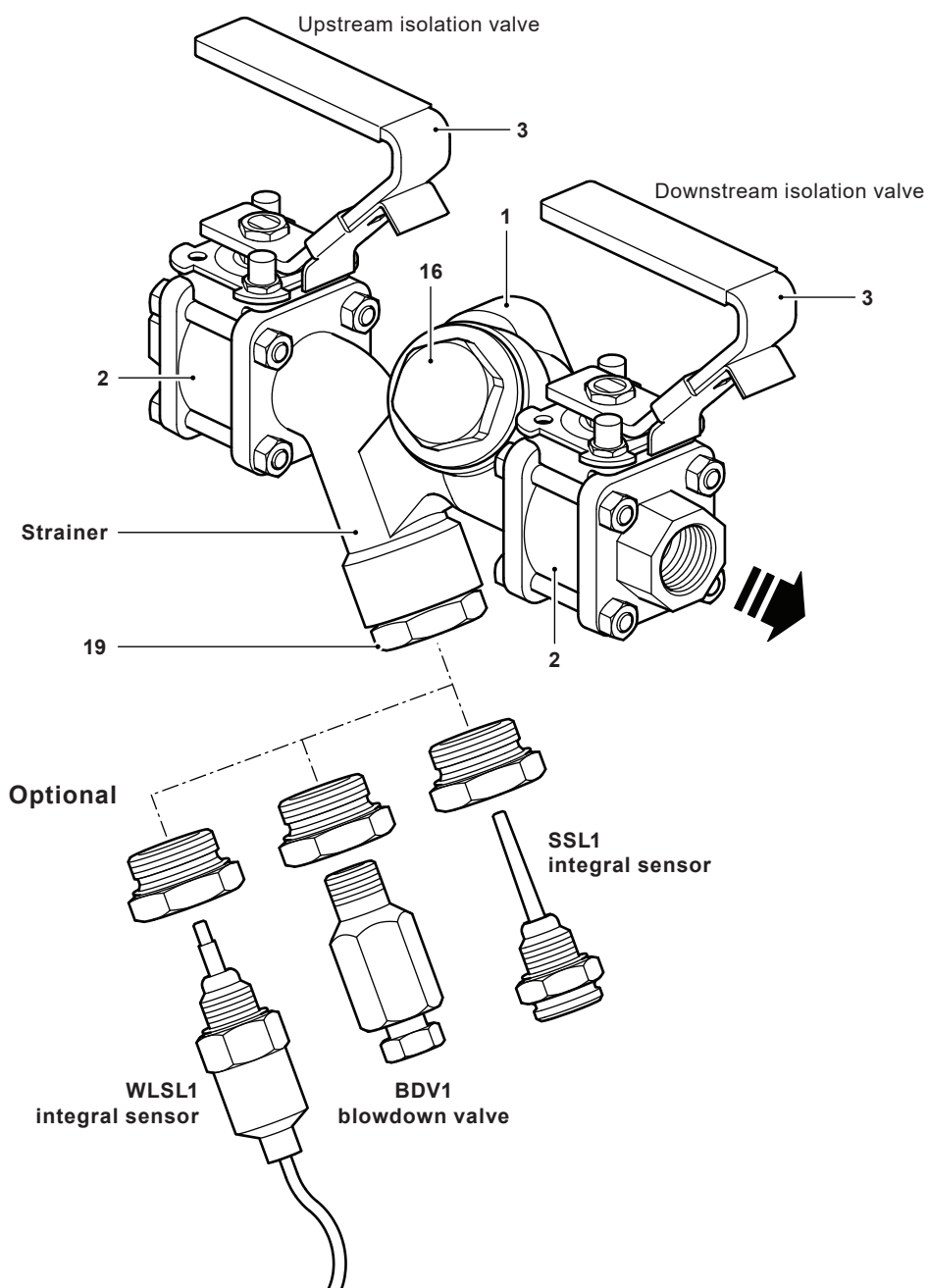


The product **must not** be used in this region.

Body design conditions		Class 300	
PMA	Maximum allowable pressure	48.3 bar g @ 50 °C	700.5 psi g @ 122 °F
TMA	Maximum allowable temperature	325 °C @ 30.2 bar g	617 °F @ 431 psi g
Minimum allowable temperature		-29 °C	20.2 °F
PMO	Maximum operating pressure for saturated steam service	32 bar g	464 psi g
TMO	Maximum operating temperature	250 °C @ 32 bar g	482 °F @ 464 psi g
Minimum operating temperature		-29 °C	20.2 °F
Note: For lower operating temperatures consult Spirax Sarco			
Product is safe for use under full vacuum conditions			
Designed for a maximum cold hydraulic test pressure of:		75 bar g	1087 psi g

Materials

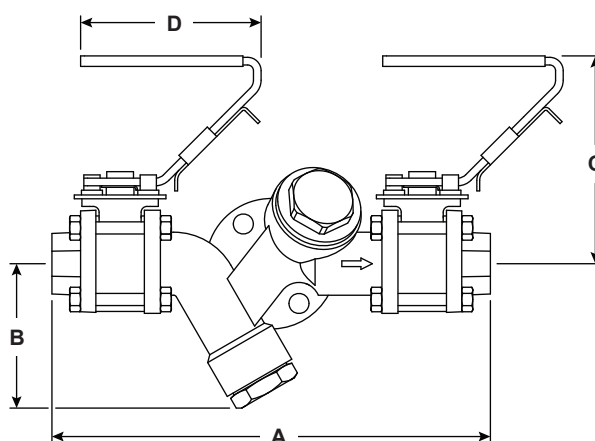
STS32 version with single isolation



No.	Part	Material	
1	Body	Stainless steel	ASTM A351 Gr. CF8
2	Isolation ball valves	Stainless steel	ASTM A182 F316L
3	Handle	Stainless steel	AISI 316
16	Check valve blanking plug	Stainless steel	ASTM A276 431
19	Strainer cap	Stainless steel	ASTM A582 416

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

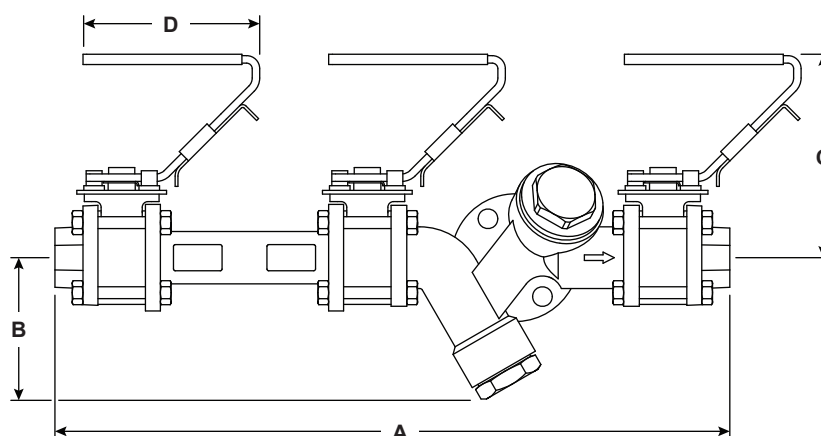
Single Isolation (SB)



Isolation	Size and connection	Dimension				Weight
		A	B	C	D	
Single	½" BSP T Rp (ISO 7-1), ½" NPT and ½" SW	230 (9.05)	76 (3.0)	110 (4.3)	94 (3.5)	3.60 (7.94)
	¾" BSP T Rp (ISO 7-1) and ¾" NPT					3.53 (7.78)
	¾" SW	221 (8.70)				3.54 (7.80)
	1" BSP T Rp (ISO 7-1) and 1" NPT	237 (9.33)				3.71 (8.18)
	1" SW	277 (10.70)				3.86 (8.51)
	½" ASME 150	276 (10.86)				4.45 (9.81)
	½" ASME 300	302 (11.89)				4.98 (11.0)
	DN15 EN 1092 PN40	292 (11.49)				5.12 (11.3)
	¾" ASME 150	280 (11.02)				4.67 (10.3)
	¾" ASME 300	314 (12.36)				5.98 (13.2)
	DN20 EN 1092 PN40	312 (12.28)				5.74 (12.7)
	1" ASME 150	279 (12.48)				4.96 (10.9)
	1" ASME 300	317 (12.48)				6.64 (14.6)
	DN25 EN 1092 PN40	312 (12.28)				6.24 (13.8)

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

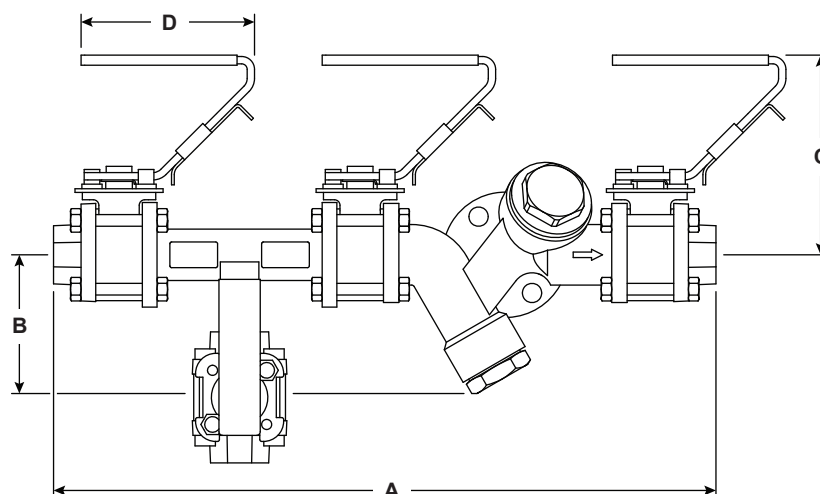
Double Isolation Upstream (DB US)



Isolation	Size and connection	Dimension				Weight
		A	B	C	D	
Double	½" BSP T Rp (ISO 7-1), ½" NPT and ½" SW	362 (14.27)	78 (3.1)	110 (4.3)	94 (3.6)	5.32 (11.7)
	¾" BSP T Rp (ISO 7-1) and ¾" NPT					5.25 (11.57)
	¾" SW	353 (13.87)				5.26 (11.6)
	1" BSP T Rp (ISO 7-1) and 1" NPT	369 (14.57)				5.43 (12.0)
	1" SW	409 (16.1)				5.58 (12.3)
	½" ASME 150	408 (16.07)				6.17 (13.6)
	½" ASME 300	434 (17.07)				6.70 (14.8)
	DN15 EN 1092 PN40	424 (16.67)				6.84 (15.1)
	¾" ASME 150	412 (16.17)				6.39 (14.1)
	¾" ASME 300	446 (17.57)				7.70 (17.0)
	DN20 EN 1092 PN40	444 (17.47)				7.46 (16.4)
	1" ASME 150	411 (16.18)				6.68 (14.7)
	1" ASME 300	449 (17.67)				8.36 (18.4)
	DN25 EN 1092 PN40	444 (17.47)				7.97 (17.6)

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

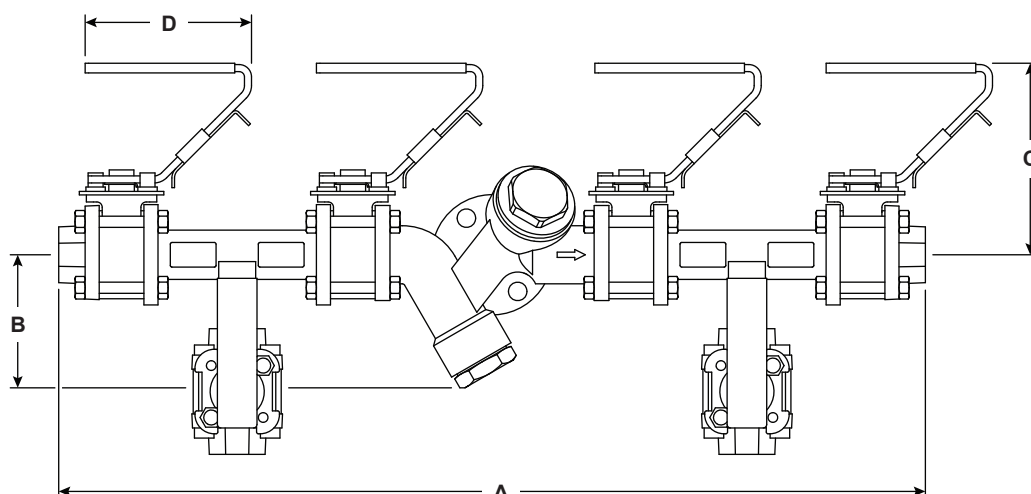
Double Block and Bleed Upstream Horizontal (DBB USH)



STS32 type	Size and connection		Dimension				Weight
			A	B	C	D	
DBB USH	½"	BSP T Rp (ISO 7-1)	363 (13.94)	120 (4.75)	110 (4.3)	94 (3.6)	6.37 (14.0)
DBB USH	½"	NPT					6.67 (14.7)
DBB USH	½"	SW					9.77 (21.5)
DBB USH	½"	ASME 150	409 (15.97)	143 (5.65)			10.9 (24.0)
DBB USH	½"	ASME 300	435 (17.17)	156 (6.16)			11.04 (24.3)
DBB USH	½"	PN40	425 (16.60)	151 (5.97)			6.37 (14.0)
DBB USH	¾"	BSP T Rp (ISO 7-1)	363 (14.29)	120 (4.75)			6.67 (14.7)
DBB USH	¾"	NPT					9.77 (21.5)
DBB USH	¾"	SW					10.9 (24.0)
DBB USH	¾"	ASME 150	413 (15.65)	145 (5.73)			11.04 (24.3)
DBB USH	¾"	ASME 300	447 (17.57)	162 (6.40)			6.52 (14.4)
DBB USH	¾"	PN40	445 (17.47)	161 (6.36)			6.82 (15.0)
DBB USH	1"	BSP T Rp (ISO 7-1)	363 (14.57)	120 (4.75)			10.07 (22.2)
DBB USH	1"	NPT					11.5 (25.4)
DBB USH	1"	SW	410 (15.28)	140 (5.53)			1.64 (25.7)
DBB USH	1"	ASME 150	412 (15.54)	141 (5.57)			
DBB USH	1"	ASME 300	450 (17.69)	160 (6.32)			
DBB USH	1"	PN40	445 (17.47)	158 (6.24)			

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

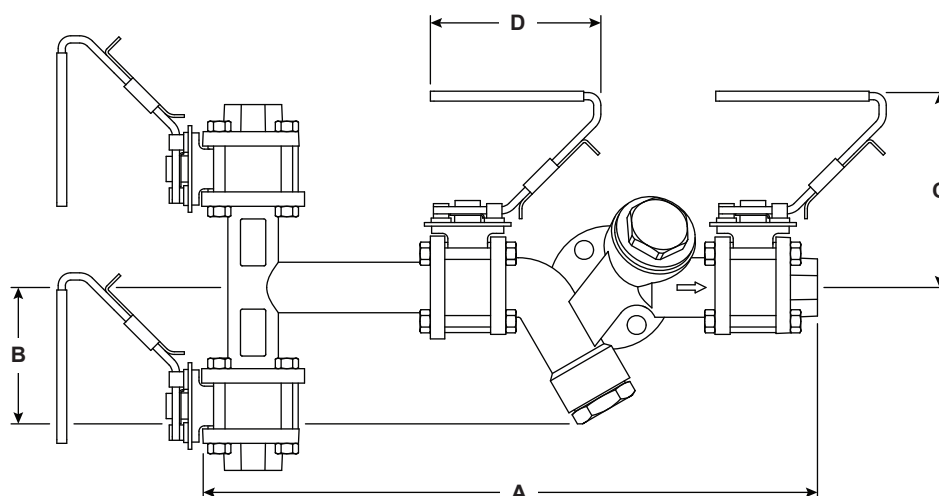
Double Block and Bleed Upstream Horizontal Downstream Horizontal (DBB USH DSH)



STS32 type			Size and connection			Dimension				Weight
						A	B	C	D	
DBB USH DSH	½"	BSP T Rp (ISO 7-1)	495 (19.52)	120 (4.75)	110 (4.3)	94 (3.6)	8.64 (19.0)			
DBB USH DSH	½"	NPT					8.64 (19.0)			
DBB USH DSH	½"	SW					9.04 (19.9)			
DBB USH DSH	½"	ASME 150	541 (21.32)	143 (5.65)			12.89 (28.42)			
DBB USH DSH	½"	ASME 300	567 (21.79)	156 (6.16)			14.22 (31.35)			
DBB USH DSH	½"	PN40	557 (22.12)	151 (5.97)			14.36 (31.66)			
DBB USH DSH	¾"	BSP T Rp (ISO 7-1)	495 (19.52)	120 (4.75)			8.64 (19.0)			
DBB USH DSH	¾"	NPT					9.04 (19.9)			
DBB USH DSH	¾"	SW	486 (19.21)				12.89 (28.42)			
DBB USH DSH	¾"	ASME 150	545 (21.25)	145 (5.73)			14.22 (31.35)			
DBB USH DSH	¾"	ASME 300	579 (23.22)	162 (6.40)			14.36 (31.66)			
DBB USH DSH	¾"	PN40	577 (22.72)	161 (6.36)			8.84 (19.5)			
DBB USH DSH	1"	BSP T Rp (ISO 7-1)	502 (20.22)	120 (4.75)			9.24 (20.4)			
DBB USH DSH	1"	NPT					13.29 (29.3)			
DBB USH DSH	1"	SW	536 (21.22)	140 (5.53)			15.02 (33.11)			
DBB USH DSH	1"	ASME 150	544 (21.42)	141 (5.57)			15.16 (33.42)			
DBB USH DSH	1"	ASME 300	584 (23.22)	160 (6.32)						
DBB USH DSH	1"	PN40	577 (22.72)	158 (6.24)						

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

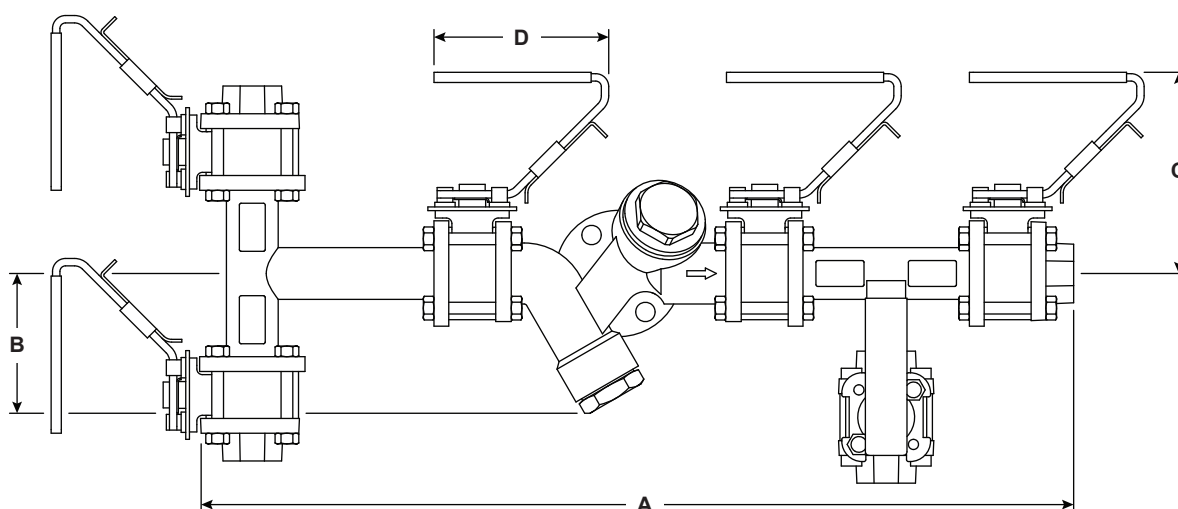
Double Block and Bleed Upstream Vertical (DBB USV)



STS32 type	Size and connection		Dimension				Weight
			A	B	C	D	
DBB USV	½"	BSP T Rp (ISO 7-1)	418 (16.45)	110 (4.32)	110 (4.3)	94 (3.6)	6.57 (14.5)
DBB USV	½"	NPT					6.87 (15.1)
DBB USV	½"	SW					9.97 (22.0)
DBB USV	½"	ASME 150	441 (17.35)	133 (17.35)			11.1 (24.5)
DBB USV	½"	ASME 300	454 (17.85)	146 (5.74)			11.24 (24.8)
DBB USV	½"	PN40	449 (17.65)	141 (5.54)			6.57 (14.5)
DBB USV	¾"	BSP T Rp (ISO 7-1)	418 (16.45)	110 (4.32)			6.87 (15.1)
DBB USV	¾"	NPT					9.97 (22.0)
DBB USV	¾"	SW	415 (16.35)	110 (4.32)			11.1 (5.83)
DBB USV	¾"	ASME 150	443 (17.45)	135 (5.31)			11.24 (24.8)
DBB USV	¾"	ASME 300	460 (18.35)	152 (5.98)			6.72 (14.8)
DBB USV	¾"	PN40	459 (18.05)	151 (5.94)			7.02 (15.5)
DBB USV	1"	BSP T Rp (ISO 7-1)	422 (16.65)	110 (4.32)			10.27 (22.64)
DBB USV	1"	NPT					11.7 (25.8)
DBB USV	1"	SW	442 (17.39)	130 (5.11)			11.84 (26.10)
DBB USV	1"	ASME 150	443 (17.45)	131 (5.15)			
DBB USV	1"	ASME 300	462 (18.18)	149 (5.60)			
DBB USV	1"	PN40	460 (18.15)	148 (5.81)			

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

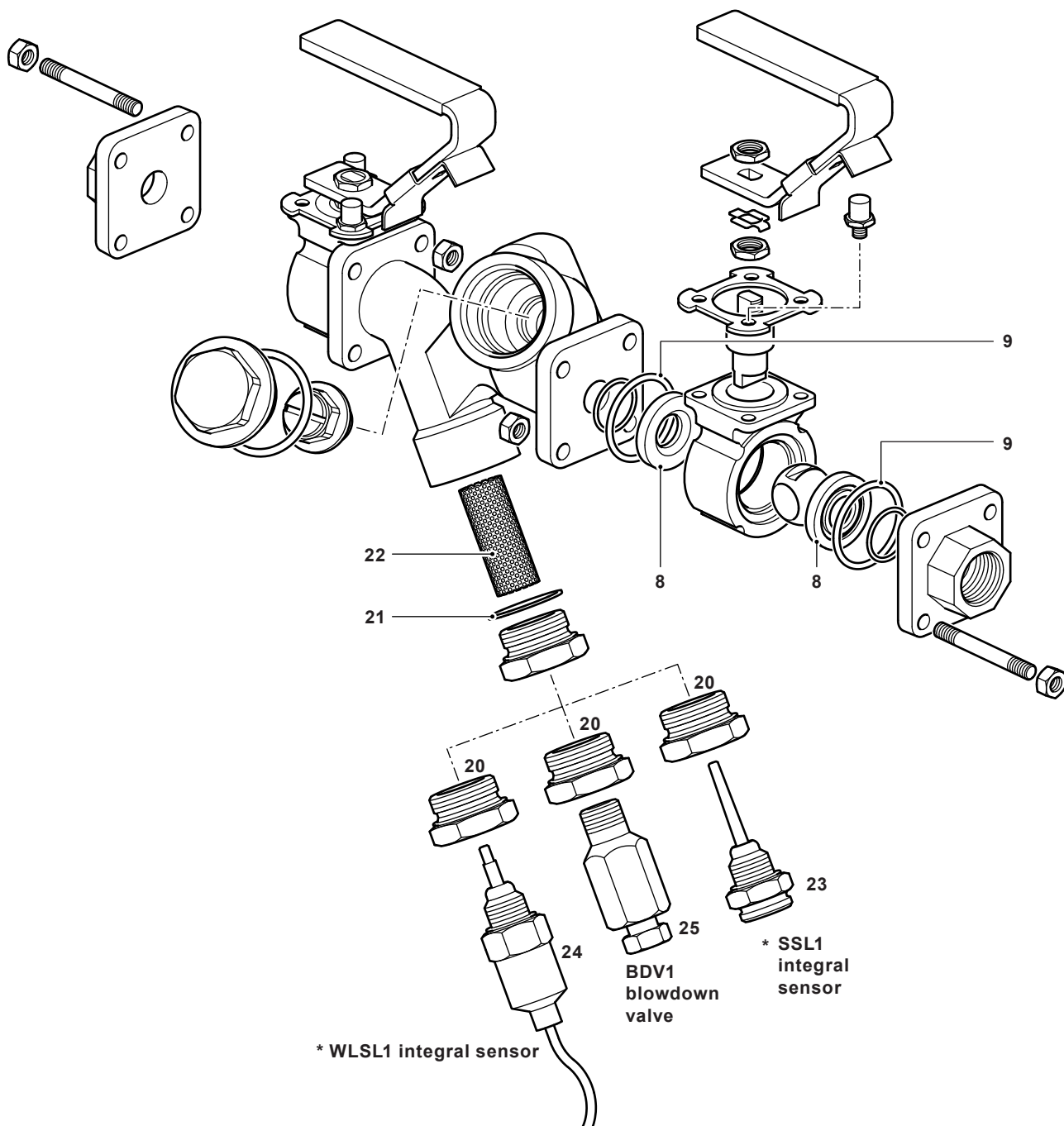
Double Block and Bleed Upstream Vertical Downstream Horizontal (DBB USV DSH)



STS32 type			Size and connection			Dimension				Weight
			A	B	C	D				
DBB USV DSH	½"	BSP T Rp (ISO 7-1)	550 (21.6)	122 (4.8)	110 (4.3)	94 (3.6)	8.84 (19.5)			
DBB USV DSH	½"	NPT					9.24 (20.4)			
DBB USV DSH	½"	SW					13.09 (28.86)			
DBB USV DSH	½"	ASME 150	573 (22.6)	145 (5.7)			14.42 (31.79)			
DBB USV DSH	½"	ASME 300	586 (23.1)	158 (6.21)			14.56 (32.10)			
DBB USV DSH	½"	PN40	581 (22.9)	153 (6.02)			8.84 (19.5)			
DBB USV DSH	¾"	BSP T Rp (ISO 7-1)	550 (21.7)	122 (4.8)			9.24 (20.4)			
DBB USV DSH	¾"	NPT					13.09 (28.86)			
DBB USV DSH	¾"	SW					14.42 (31.79)			
DBB USV DSH	¾"	ASME 150	575 (22.6)	147 (5.78)			14.56 (32.10)			
DBB USV DSH	¾"	ASME 300	592 (23.3)	164 (6.45)			9.04 (19.9)			
DBB USV DSH	¾"	PN40	591 (23.3)	163 (6.41)			9.44 (20.8)			
DBB USV DSH	1"	BSP T Rp (ISO 7-1)	554 (21.8)	122 (4.8)			13.49 (29.74)			
DBB USV DSH	1"	NPT					15.22 (33.55)			
DBB USV DSH	1"	SW	574 (22.6)	142 (5.58)			15.36 (33.86)			
DBB USV DSH	1"	ASME 150	575 (22.6)	143 (5.62)						
DBB USV DSH	1"	ASME 300	594 (23.4)	162 (6.37)						
DBB USV DSH	1"	PN40	592 (23.3)	160 (6.29)						

Spare parts - Double isolation conversion kit

The spare parts are available as indicated below. No other parts are supplied as spares.

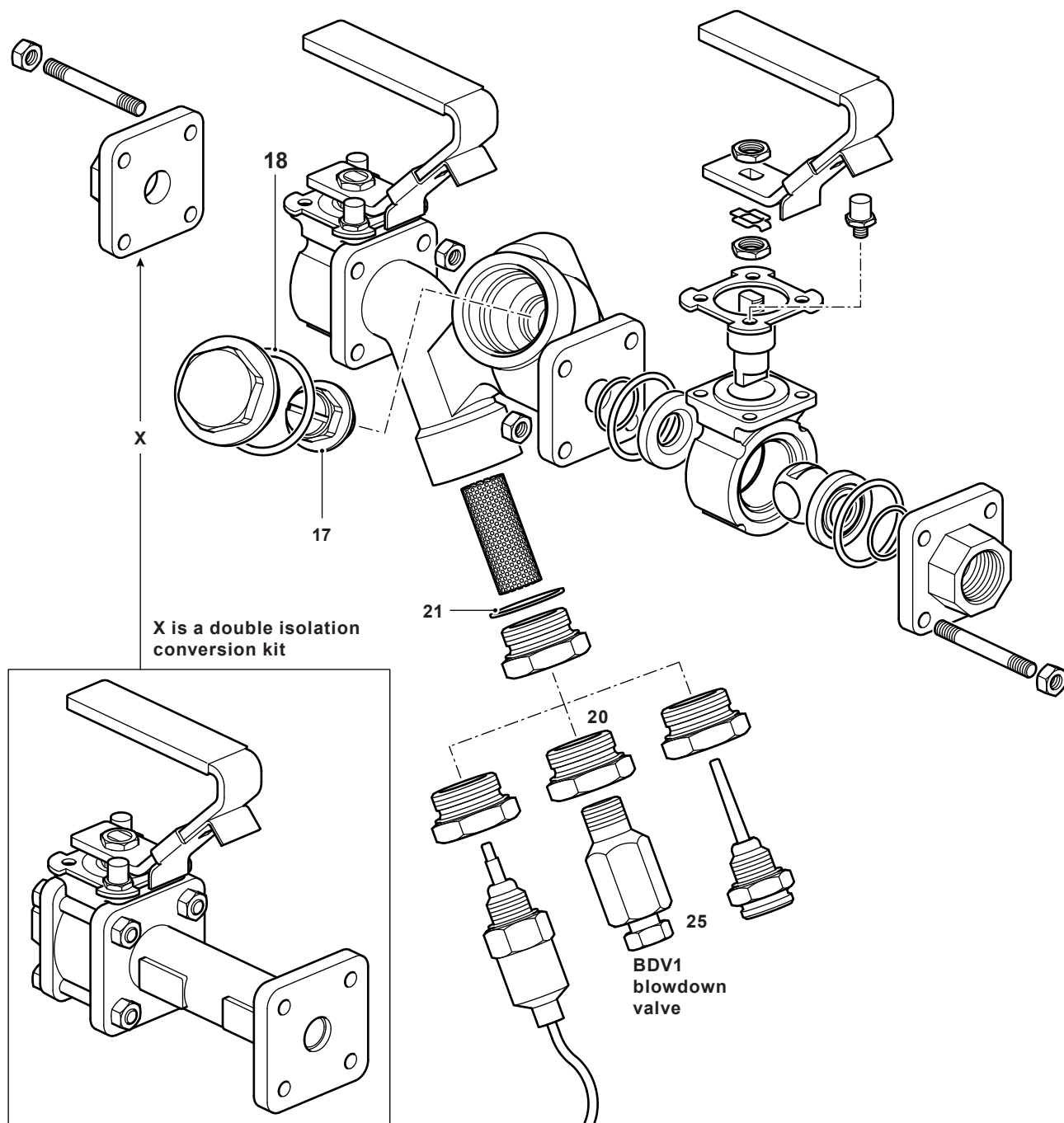


Available spares	Isolation ball valve seat and stem seals	8, 9
	Strainer screen and gasket	21, 22
	Spare sensor and sensor gasket	23
	SSL1 Spiratec sensor	23
	WLSL1 diode waterlogging sensor	24
Spiratec retrofit kit	Note: State whether an SSL1 or WLSL1 sensor is required.	20, 21 + 23 or 24

Double isolation conversion kit spare parts, continued on next page

Spare parts - Double isolation conversion kit (continued)

The spare parts are available as indicated below. No other parts are supplied as spares.



	Check valve assembly	17, 18
Available spares	Double isolation conversion kit (includes spool piece and additional isolation valve)	X
	BDV1 blowdown valve retrofit kit	20, 21 + 25

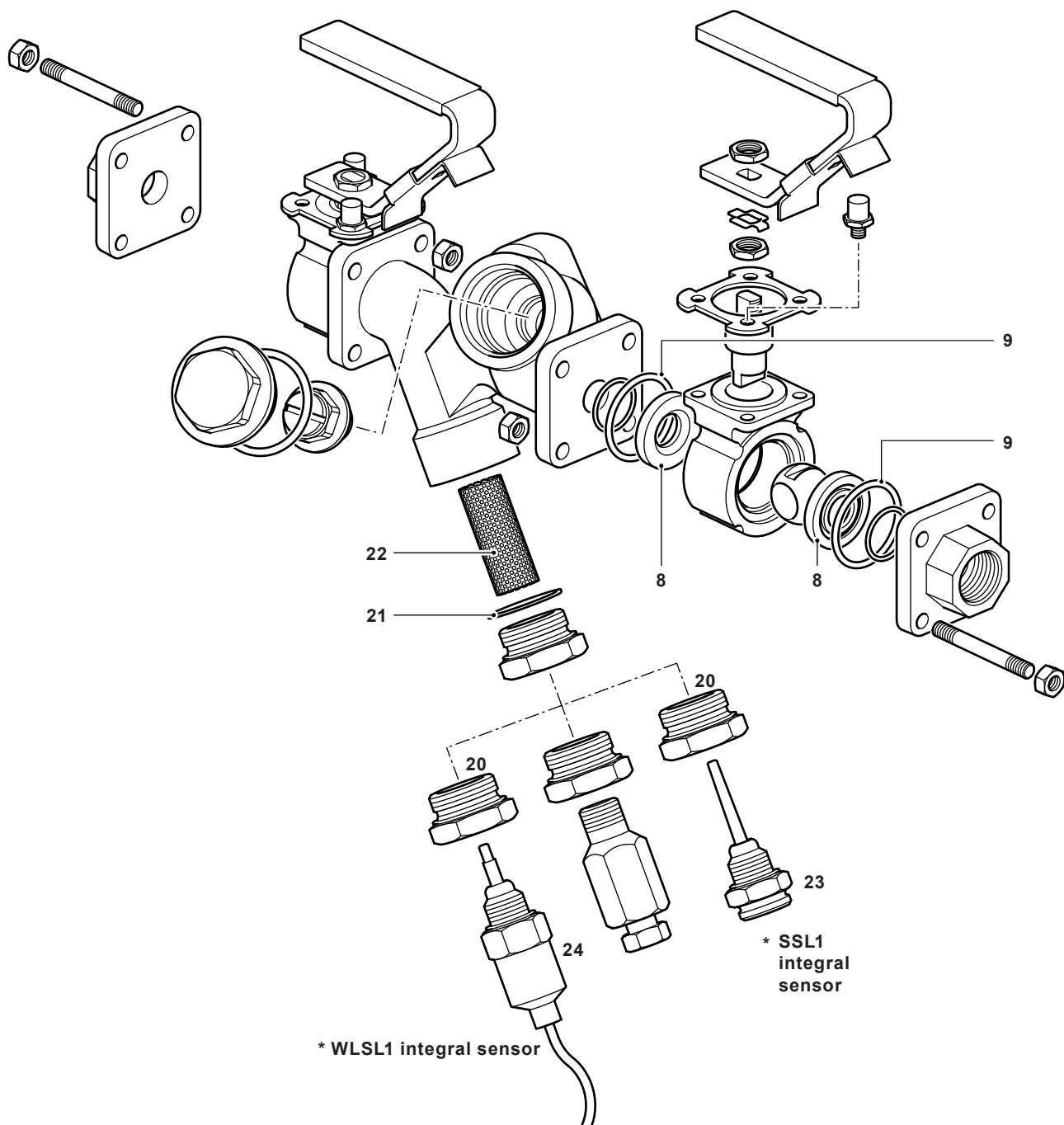
How to order spares

Always order spares using the description given in the column headed 'Available spares' and state the size and model number.

Example: 1 - 1 off Spare Spirax sensor and sensor gasket with WLSL1 diode waterlogging sensor for a ½" STS32 compact pipeline connector steam trapping station.

Spare parts - Double Block and Bleed conversion kit

The spare parts are available as indicated below. No other parts are supplied as spares.

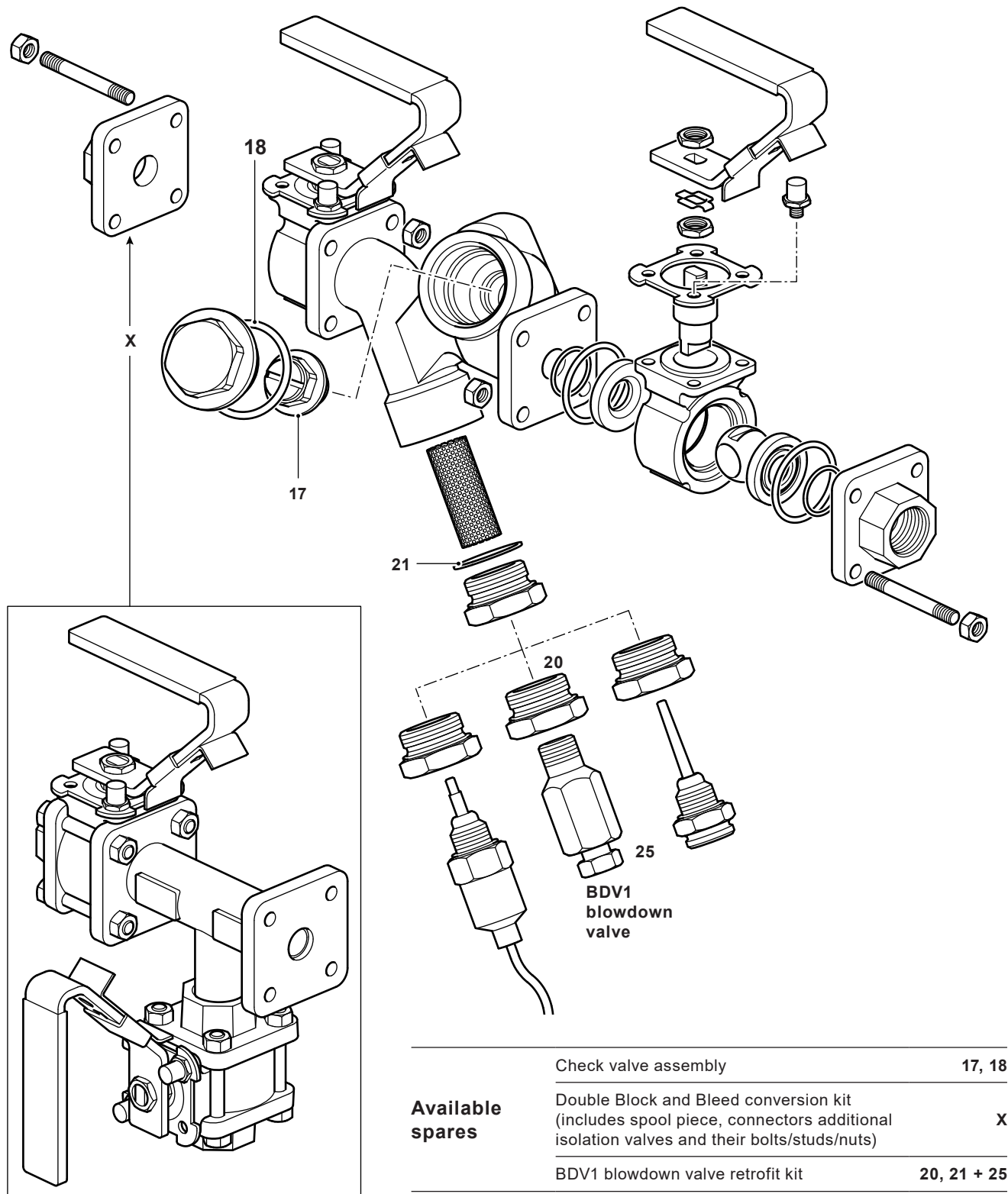


Available spares	Isolation ball valve seat and stem seals	8, 9
	Strainer screen and gasket	21, 22
	Spare sensor and sensor gasket	20, 21, 23, 24
	Spiratec retrofit kit	20, 21, 23, 24
	Note: State whether an SSL1 or WLSL1 sensor is required.	

Double Block and Bleed conversion kit spare parts, continued on next page

Spare parts - Double Block and Bleed conversion kit (continued)

The spare parts are available as indicated below. No other parts are supplied as spares.



X is a double isolation conversion kit

How to order spares

Always order spares using the description given in the column headed 'Available spares' and state the size and model number.

Example: 1 - 1 off Spare Spiratec sensor and sensor gasket with WLSL1 diode waterlogging sensor for a ½" STS32 compact pipeline connector steam trapping station.

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P128-23) supplied with the product.

How to order

Example: 1 off Spirax Sarco ½" screwed BSP T Rp (ISO 7-1) STS32 stainless steel pipeline compact connector steam trapping station, having a Spiratec SSL1 sensor.

How to order*

Product description	STS32	Steam trapping station
Connection size	½"	Ø½" Connection
	¾"	Ø¾" Connection
	1"	Ø1" Connection
Connection type	BSP	BSP T Rp (ISO 7-1) Threaded (both ends)
	NPT	NPT Threaded (both ends)
	SW	Socket Weld (both ends)
	ASME 150	ASME B16.5 Cl.150 (both ends)
	ASME 300	ASME B16.5 Cl.300 (both ends)
	PN40	BS EN 1092-1 (both ends)
Isolation quantity	SB	Single Isolation
	DB	Double Isolation
	DBB	Double Block and Bleed
Upstream connection orientation	US	Upstream (only used for DB)
	USH	Upstream Horizontal (Only used for DBB)
	USV	Upstream Vertical (Only used for DBB)
Downstream connection orientation**	DSH	Downstream Horizontal (Only used for DBB)

* These combinations are Spirax Sarco standard, for any other combination or special item addition please get in touch.

** This cell will be left blank when the intention is to not have any downstream connection.