

# Universal Pipeline Connectors

## How can standardizing on universal connectors help reduce your total cost of ownership?

The Spirax Sarco universal pipeline connector range has been developed to satisfy the needs of modern process industries, significantly simplifying installation and reducing maintenance time. Traditional steam trapping assemblies often require the plant to be shut down for new traps to be installed, taking significant time and reducing production output. The universal pipeline connector range allow steam traps to be installed without need for process shutdown.



### Features

- Universal Steam Trap Connection – allows you to safely fit a complete range of steam traps without interruption of your process.
- Interchangeable – permits all trap technologies and compatible with other manufacturer's steam traps.
- Wide range of products, from straight line connectors (PC10HP) to strainer connectors (PC20) to complete trap station with double isolation and trap test blowdown valves as standard (PC4000).
- 10 year warranty on PC3000 & PC4000 trap stations and connected universal traps – total peace of mind (valid for properly sized, selected, and installed traps, free of dirt, debris and corrosion).

### Benefits






- 2 bolt rapid change out – reduces maintenance times and cost, as well as reduced labor costs.
- 1 part number combines up to 5 components – easy to order & specify.
- No hot work needed – PC4000's mitigate risk in trap change out due to easy, safe and quick depressurization of both inlet and outlet connections.
- Single source supplier – promotes simplicity of selection, helps customers easily choose the correct trap for the correct application, as well as reduced inventory costs.



				
<b>Model</b>	PC10HP	PC20	PC3000	PC4000
<b>Sizes</b>	1/2", 3/4", 1"	1/2", 3/4", 1"	1/2", 3/4" L-R and R-L	1/2", 3/4" L-R and R-L
<b>Connection</b>	NPT, SW to ANSI 16.11	NPT, SW to ANSI 16.11	NPT, SW to ANSI 16.11	NPT, SW to ANSI 16.11
<b>Construction</b>	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
<b>PMO*</b>	900 psig	600 psig	899 psig @ 534F	899 psig @ 534F
<b>TMO*</b>	797F @ 812 psig	750F @ 600 psig	797F @ 812 psig	797F @ 812 psig
<b>Options</b>	Cast Steel (SW only)	Left hand, Cast Steel (SW only)	Flanged connections (150#, 300#, 600#), PC3001 with line drainage valve	Flanged connections (150#, 300#, 600#), PC4001 with line drainage valve

## Universal Steam Traps

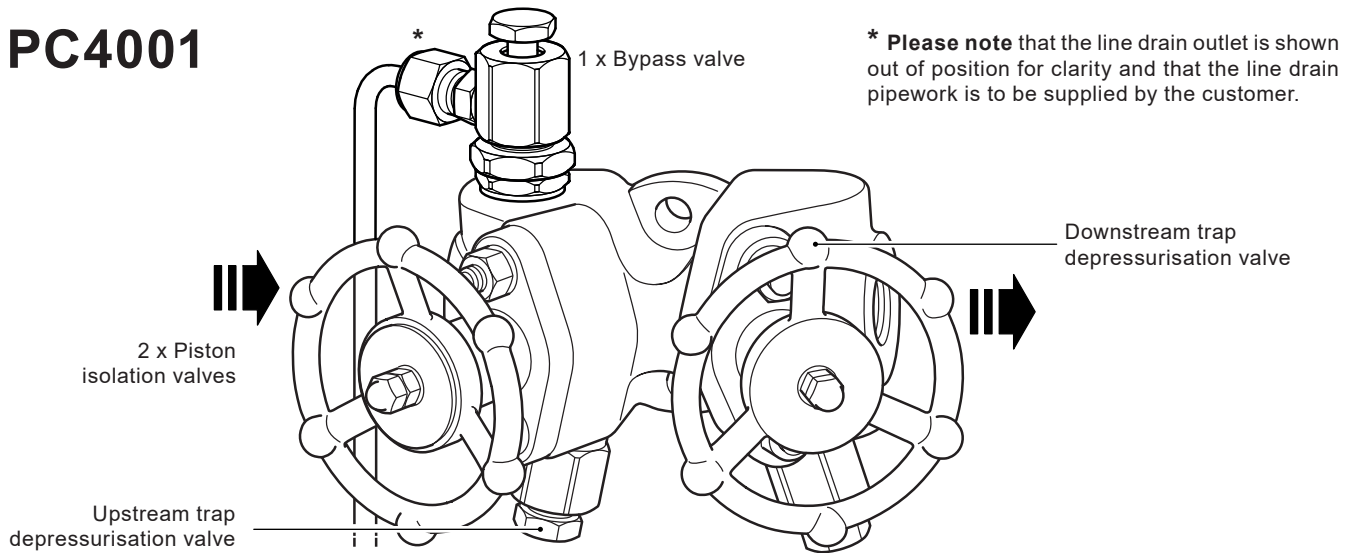
The PC3000 and PC4000 pipeline connectors can easily be used in conjunction with Spirax Sarco's complete range of universal steam traps.

	<p><b>UTD52 STEAM TRAP</b></p> <p><b>UTD52 Range</b> The UTD52 series is an energy efficient stainless steel thermostatic steam trap having an electroless nickel plating finish (ENP) for corrosion resistance.</p>
	<p><b>BALL FLOAT STEAM TRAPS</b></p> <p><b>UFT32</b> The UFT32 is an austenitic stainless steel maintenance free sealed ball float steam trap with an integral automatic air venting facility. It is designed for differential steam pressures up to 464 psig (32 barg).</p>
	<p><b>INVERTED BUCKET STEAM TRAP</b></p> <p><b>UIB30/UIB30H</b> The UIB30 and UIB30H are maintenance free sealed inverted bucket steam traps. The UIB30H is designed for higher capacities.</p> <p><b>UIB45</b> The UIB45 is designed for higher pressure applications</p>
	<p><b>BALANCED PRESSURE STEAM TRAP</b></p> <p><b>UBP32</b> The UBP32 is designed for higher pressure applications</p>
	<p><b>BIMETALLIC STEAM TRAP</b></p> <p><b>USM21/USM32</b> The USM21 and USM32 are a pre-set and maintenance free sealed bimetallic steam trap manufactured in stainless steel. It is designed for steam pressures up to 304 psig (21 barg) and applications such as steam tracing and mains drips.</p>

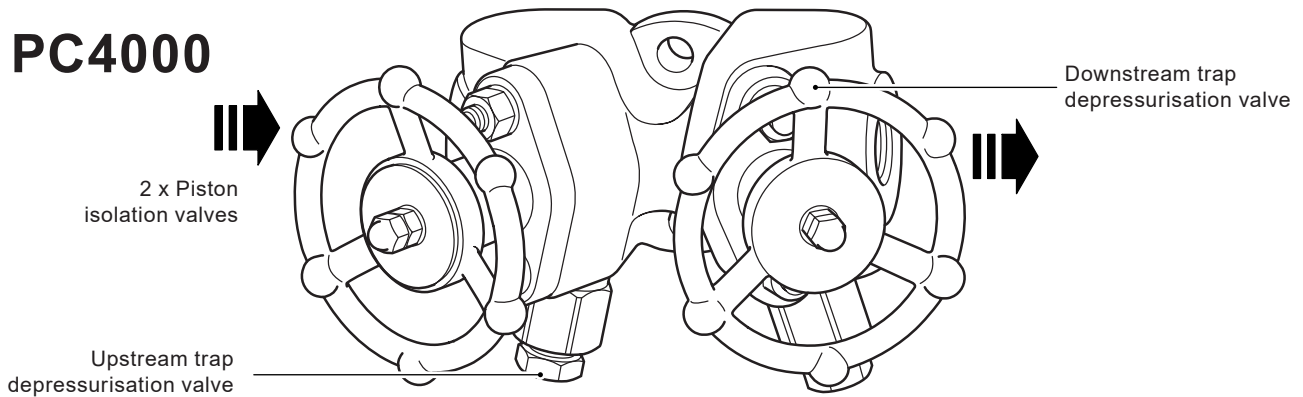


## PC4001, PC4000 and PC40 Pipeline Connectors

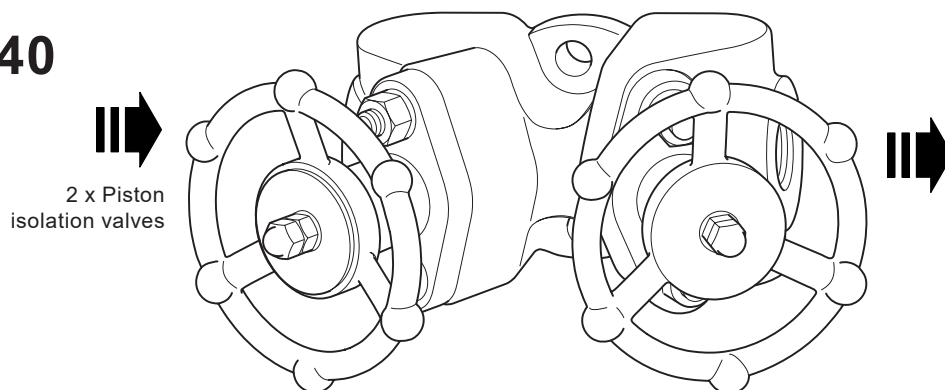
### PC4001



### PC4000



### PC40



## Description

The PC4001, PC4000 and PC40 range of pipeline connectors are a complete 'Trap valve station solution' developed for use with two bolt universal swivel connector steam traps.

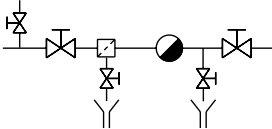
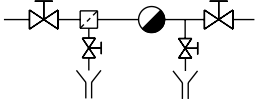

As the unit has been designed with two integral piston stop valves, it is possible to isolate both upstream and downstream of the universal trap connection.

### PC4001 and PC4000 models only

Through the use of the fitted depressurisation valves it is possible to depressurise, test and drain the pipeline.

The trap depressurisation port also incorporates a maintainable 40 mesh stainless steel strainer screen to provide trap protection from system dirt and debris, which can be cleared through the use of the line pressure.

## Available types

Model	Valve connections	P and ID diagram	Flow direction
<b>PC4001</b>	2 x Piston isolation valves 1 x Upstream trap depressurisation valve 1 x Downstream trap depressurisation valve 1 x Bypass valve		<p>Left to right</p> <p>→</p> <p>or</p> <p>←</p> <p>Right to left</p>
<b>PC4000</b>	2 x Piston isolation valves 1 x Upstream trap depressurisation valve 1 x Downstream trap depressurisation valve		
<b>PC40</b>	No valve connections		

For available options to the pipeline connections detailed within this Technical Information sheet please reference TI-F01-37.

**Standards** - These products fully comply with the requirements of the Pressure Equipment Directive (PED).

**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

DN15 (½") and DN20 (¾") condensate inlet/outlet connections are available with screwed BSP or NPT and as a socket weld connection to ASME B16.11 class 3000. Drainage and venting connections have an M18 thread as standard.

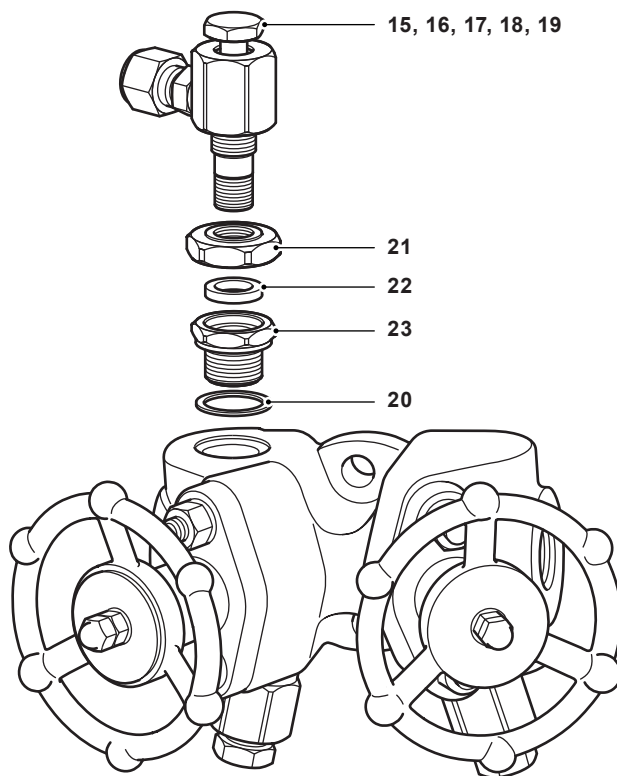
Flanged versions are also available upon request. Please contact Spirax Sarco for further details.

## How to order

**Example:** 1 off ½" Spirax Sarco PC4001 pipeline connector having right to left flow and socket weld end connections to ASME B 16.11 Class 3000.

## PC4001 Materials

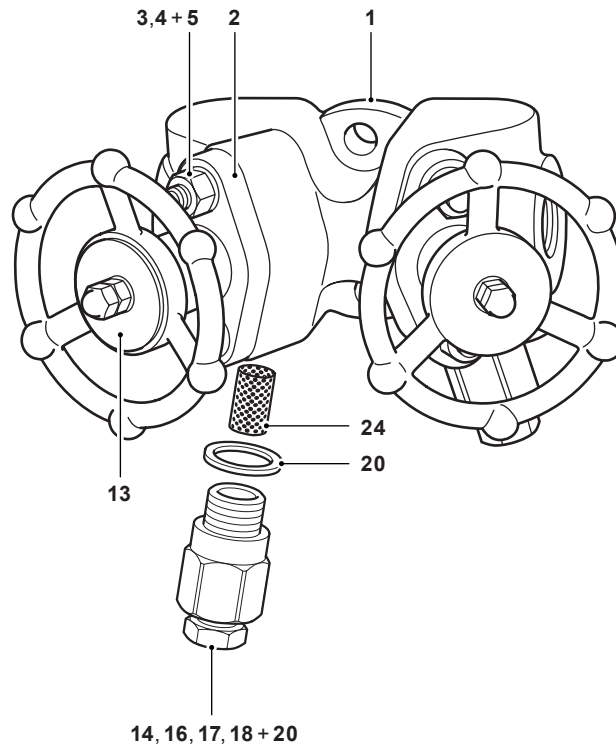
No.	Part	Material	
15	Bypass valve	Stainless steel	ASTM A182 : 304/304L
16	Valve screw	Stainless steel	ASTM A276 : AISI 431
17	Valve cone	Stainless steel	AISI 440 B
18	Retaining ring	Stainless steel	BS 2056 302 S26
19	Compression fitting for the line drain valve only	Carbon steel (Zinc plated)	
20	Valve gasket	Graphite and stainless steel	
21	Bypass locknut	Stainless steel	ASTM A276 : AISI 431
22	Graphite ring	Die-formed graphite	
23	Bypass bottom body	Stainless steel	ASTM A182 304/304L



**Please note** that the PC4001 and PC4000 unit is supplied fully assembled; the view is only exploded for ease of part identification.

## PC4000 Materials

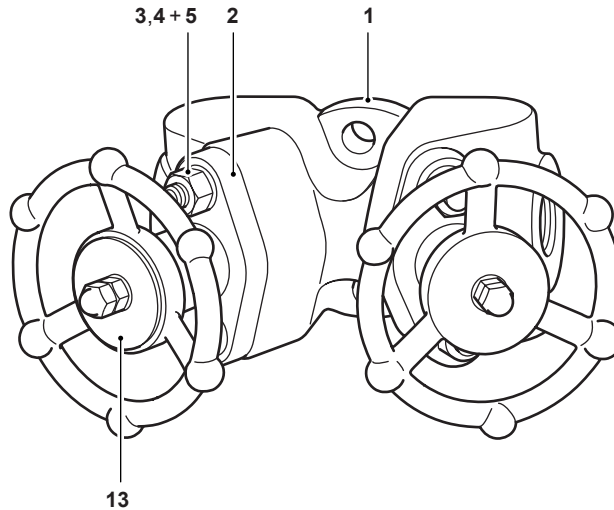
No.	Part	Material	
1	Pipeline connector body	Austenitic stainless steel	ASTM A182F : 304/304L
2	Bonnet	Carbon steel (Zinc plated)	ASTM A105N/LF2
3	Studs	Steel (plated)	ASTM A193 B7
4	Nuts	Steel (plated)	ASTM A194 2H
5	Washers	Stainless steel	
13	Name-plate	Stainless steel	
14	Depressurisation valve	Stainless steel	ASTM A182 : 304/304L
16	Valve screw	Stainless steel	ASTM A276 : AISI 431
17	Valve cone	Stainless steel	AISI 440 B
18	Retaining ring	Stainless steel	BS 2056 302 S26
20	Valve gasket	Graphite and stainless steel	
24	Strainer screen	Stainless steel	



**Please note** that the PC4001 and PC4000 unit is supplied fully assembled; the view is only exploded for ease of part identification.

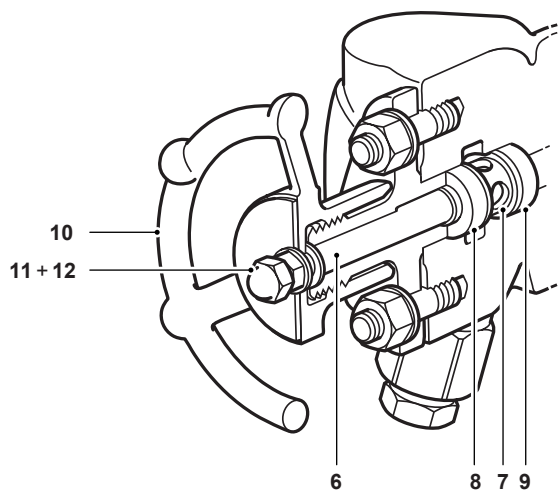
## PC40 Materials

No.	Part	Material	
1	Pipeline connector body	Austenitic stainless steel	ASTM A182F : 304/304L
2	Bonnet	Carbon steel (Zinc plated)	ASTM A105N/LF2
3	Studs	Steel (plated)	ASTM A193 B7
4	Nuts	Steel (plated)	ASTM A194 2H
5	Washers	Stainless steel	
13	Name-plate	Stainless steel	

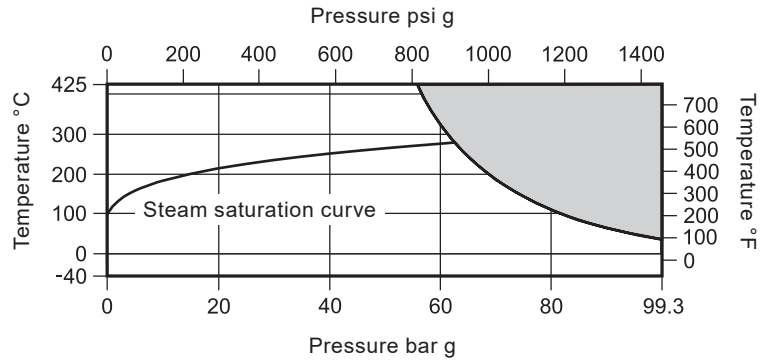



## Valve internal materials

No.	Part	Material	
6	Piston	Stainless steel	AISI 410 : 1.4006
7	Lantern bush	Stainless steel	ASTM A276 : AISI 431
8	Upper ring	Graphite and stainless steel	
9	Lower ring	Graphite and stainless steel	
10	Handwheel	Carbon steel (Zinc plated)	EN 10213 : 1.0619N
11	Handwheel nuts	Stainless steel	
12	Nitronic 60 washers	Stainless steel	



## Pressure/temperature limits (ISO 6552)



 The product **must not** be used in this region or beyond the parameter of the PMA or TMA of the relative end connection - See notes below.

Body design condition		ASME 600
PMA Maximum allowable pressure	99.3 bar g @ 38 °C	1440 psi g @ 100 °F
TMA Maximum allowable temperature	425 °C @ 56 bar g	797 °F @ 812 psi g
Minimum allowable temperature	-46 °C	-51 °F
PMO Maximum operating pressure for saturated steam service	62 bar g @ 279 °C	899 psi g @ 534 °F
TMO Maximum operating temperature	425 °C @ 56 bar g	797 °F @ 812 psi g
Minimum operating temperature	-46 °C	-51 °F
Designed for a maximum cold hydraulic test pressure of:	150 bar g	2 175 psi g

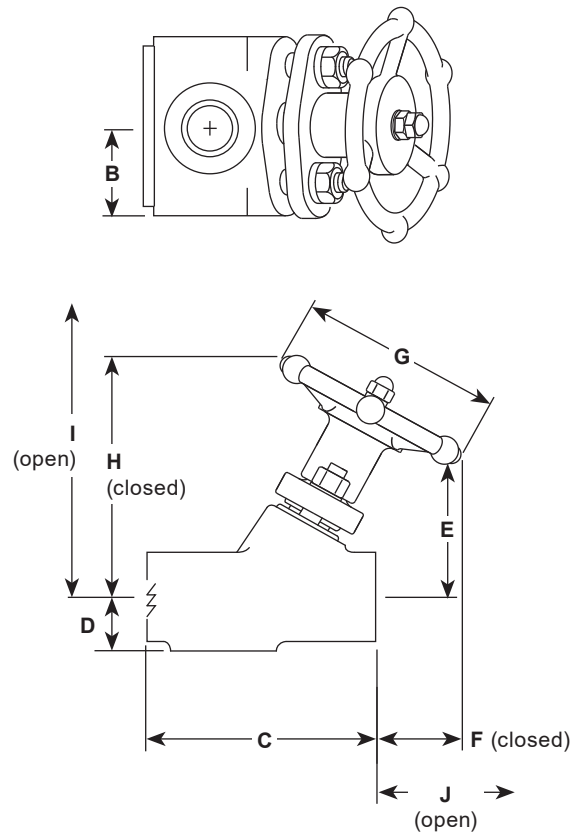
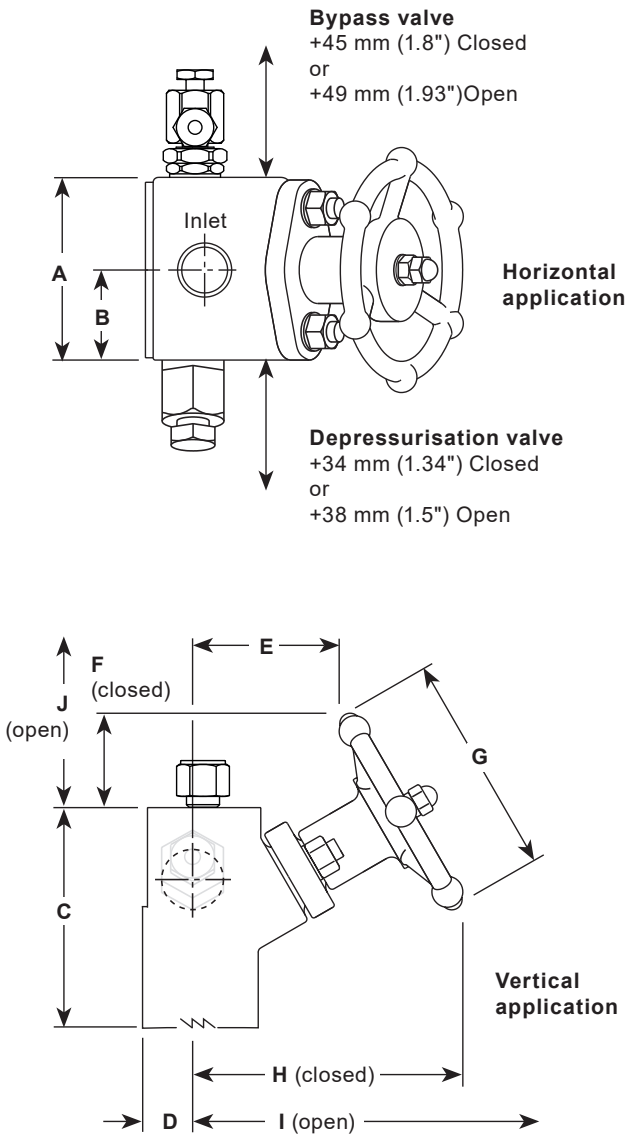
### Notes:

1. If flange connections are fitted then these will limit the maximum and minimum design conditions of the pipeline connector.
2. The maximum operating limits of the complete assembly will be dictated by the steam trap of choice. Reference the specific steam trap technical information sheet for its 'Pressure/temperature limits'.

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

**PC4001 and PC4000**

**PC40**



Units	A	B	C	D	E	F	G	H	I	J	Weight
<b>Metric</b>	72	36	124	25	52	37	95	100	118	50	3.6 kgs
<b>Imperial</b>	2.8"	1.4"	4.9"	1"	2"	1.5"	3.7"	3.9"	4.64"	1.97"	7.9 lbs

## Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P128-35) supplied with the product.

### General information

There are two criteria which must be satisfied to ensure that the swivel connector trap will operate correctly and ensure effective condensate removal:

1. The PC4001, PC4000 and PC40 shall be installed with flow in the direction of the arrow on connector body. Flow can be horizontal (left to right or right to left), vertical or inclined.
2. The connection face for the swivel connector steam trap must be in the vertical plane unless stated on relevant steam trap Installation and Maintenance Instructions.

After installation it is recommended that the pipeline connector is insulated to minimise radiated heat losses and to protect personnel from burns risk: Please note that some steam trap types should not be insulated.

### Depressurisation and line drainage

The PC4001 and PC4000 assemblies are supplied fitted with valves which allow depressurisation of the system to enable safe removal and maintenance of the steam trap. The PC4001 is also supplied with bypass/line drainage fitted, however consideration must be given to the position of the discharge which should be directed or piped to a safe place where it will not injure personnel or damage equipment. PC40 only - Following isolation slightly loosen the trap bolts to ensure the full release of hot steam and condensate prior to commencing work. Safety equipment should be used and care taken to avoid potential injury.

### Disposal

This product is recyclable. No ecological hazard is anticipated with the disposal of this product, providing due care is taken.

## Spare parts

The spare parts available are shown in heavy outline. Parts drawn in grey line are not supplied as spares. For ease of replacement an extractor tool is available for removing the sealing rings.

### Available spares



Sealing ring set	<b>8 and 9</b>
Piston valve assembly	<b>2, 4, 5, 6, 7, 8, 9, 10, 11 and 12</b>
Piston valve sub-assembly	<b>6, 7, 8 and 9</b>
Extractor tool	Not shown
PC depressurisation valve and gasket	<b>14 and 20</b>
PC bypass valve assembly and gasket	<b>15, 16, 17, 18, 19, 20, 21, 22 and 23</b>
Strainer screen and gasket (pack of 3)	<b>20 and 24</b>
Valve gasket set (pack of 10)	<b>20</b>

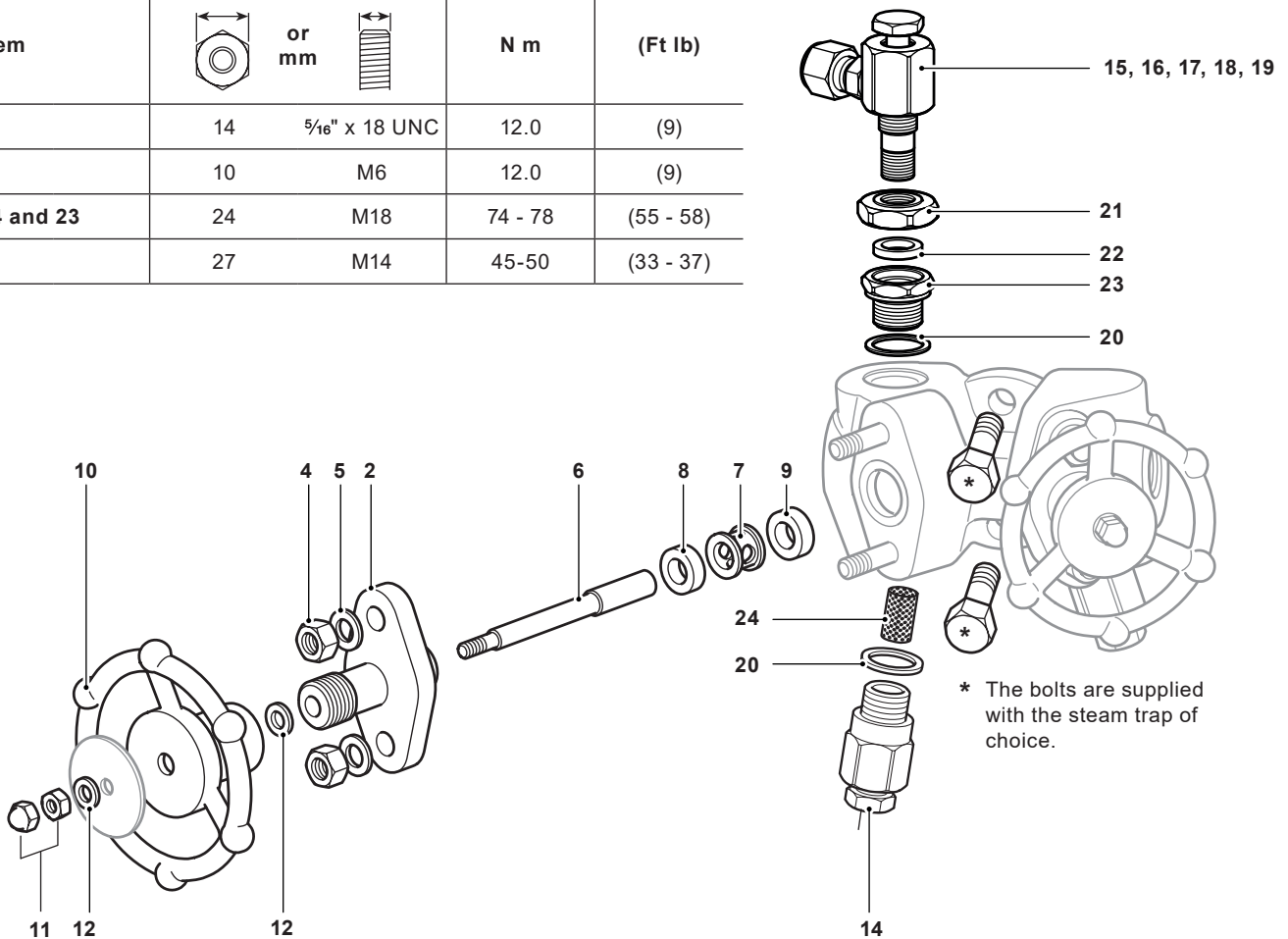
### How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state type and size of equipment.

**Example:** 1 off Sealing ring set for an integral piston valve on a PC4001 pipeline connector having DN15 socket weld connections.

### Recommended tightening torques

Item	 or mm		N m	(Ft lb)
4	14	5/16" x 18 UNC	12.0	(9)
11	10	M6	12.0	(9)
14 and 23	24	M18	74 - 78	(55 - 58)
21	27	M14	45-50	(33 - 37)

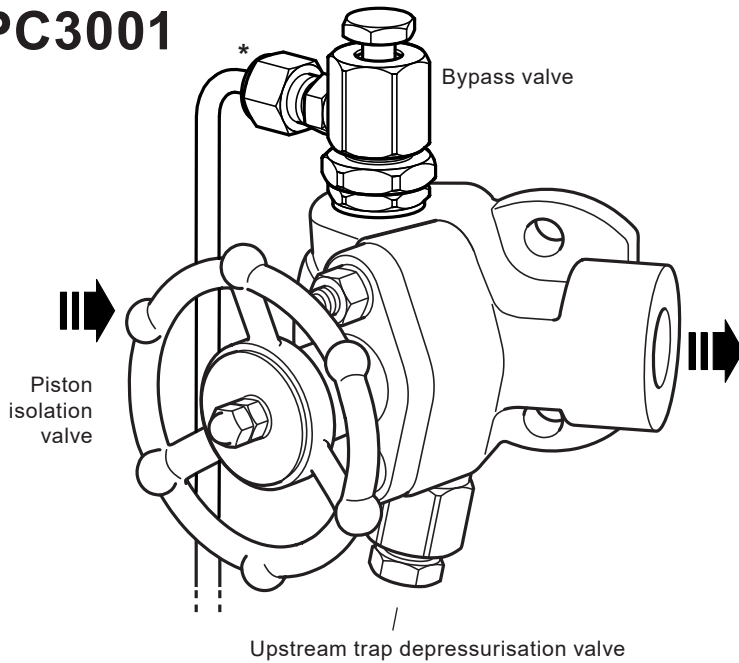


PC4001 shown



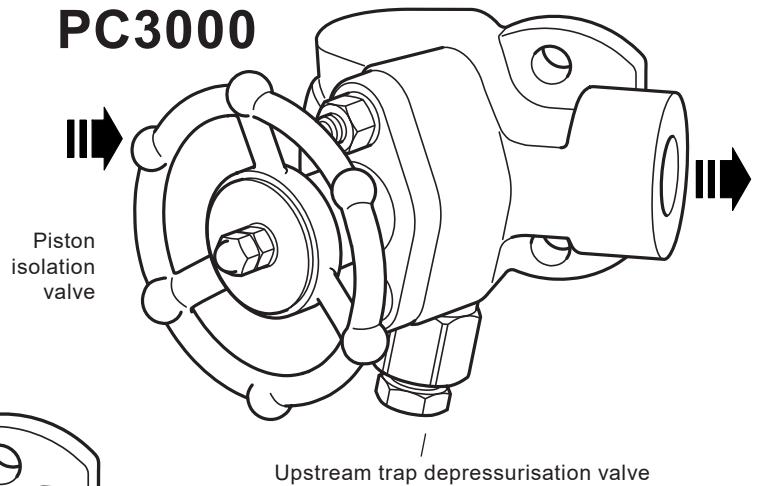
## PC3001, PC3000 and PC30 Pipeline Connectors

### PC3001

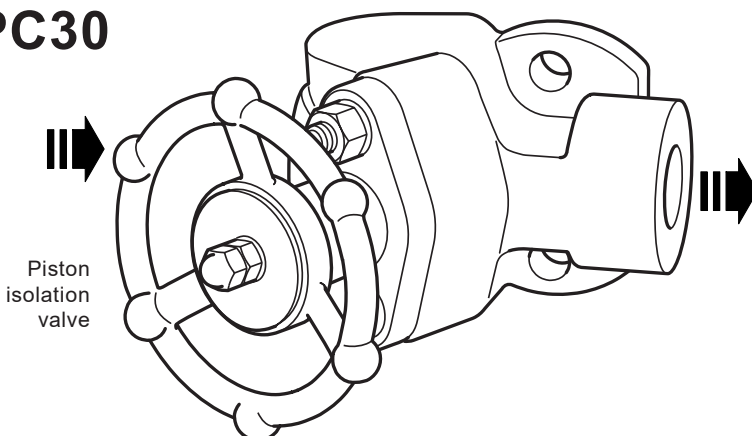


\* **Please note** that the line drain outlet is shown out of position for clarity and that the line drain pipework is to be supplied by the customer.

### PC3000



### PC30



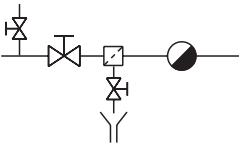
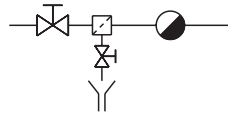

## Description

The PC3001, PC3000 and PC30 range of pipeline connectors are designed for use with two bolt universal swivel connector steam traps. Incorporating one integral piston stop valve, it is possible to isolate upstream of the steam trap.

### PC3001 and PC3000 models only

The trap depressurisation port also incorporates a maintainable 40 mesh stainless steel strainer screen to provide trap protection from system dirt and debris. The PC3001 is also fitted with a bypass/line drain valve upstream of the isolation valve.

### Available types

Model	Valve connections	P and ID diagram	Flow direction
<b>PC3001</b>	1 x Piston isolation valves 1 x Upstream trap vent valve 1 x Bypass valve		<p>Left to right</p> <p>→</p> <p>or</p> <p>←</p> <p>Right to left</p>
<b>PC3000</b>	1 x Piston isolation valves 1 x Upstream trap vent valve		
<b>PC30</b>	No valve connections		

For available options to the pipeline connections detailed within this Technical Information sheet please reference TI-F01-37.

### 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

DN15 and DN20 condensate inlet/outlet connections are available with screwed BSP T Rp (ISO 7-1) or NPT and as a socket weld connection to ASME B16.11 class 3000. Drainage and venting connections have an M18 thread as standard.

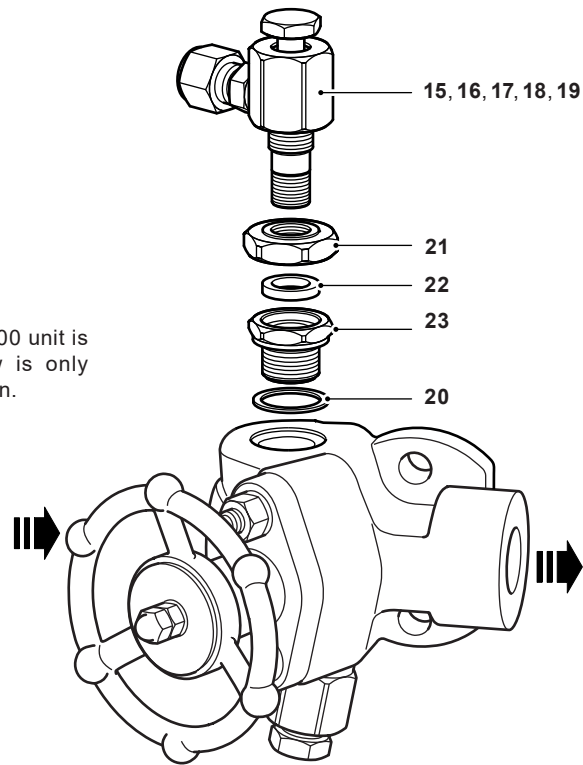
Flanged versions are also available upon request. Please contact Spirax Sarco for further details.

### How to order

**Example:** 1 off ½" Spirax Sarco PC3001 pipeline connector having right to left flow and socket weld end connections to ASME B 16.11 Class 3000.

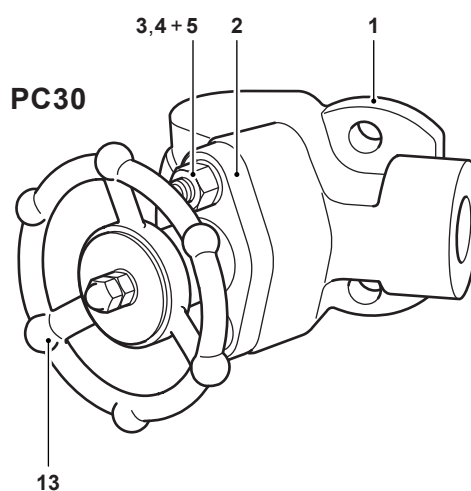
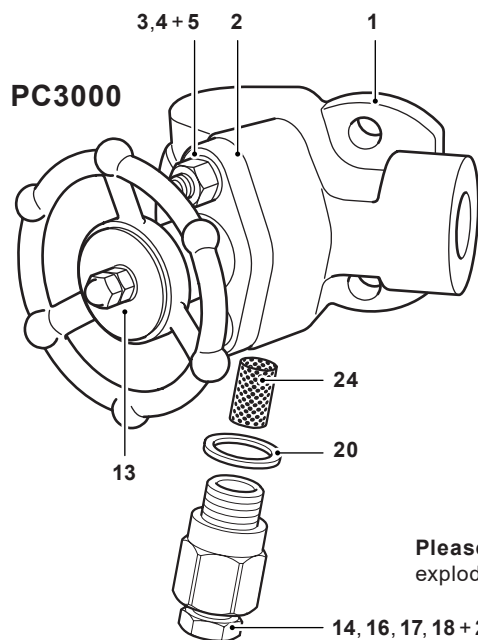
## Materials - PC3001

**Please note** The PC3001 and PC3000 unit is supplied fully assembled; the view is only exploded for ease of part identification.



No.	Part	Material	
15	Bypass valve	Stainless steel	ASTM A182 : 304/304L
16	Valve screw	Stainless steel	ASTM A276 : AISI 431
17	Valve cone	Stainless steel	AISI 440 B
18	Retaining ring	Stainless steel	BS 2056 302 S26
19	Compression fitting for the line drain valve only	Carbon steel (Zinc plated)	
20	Valve gasket	Graphite and stainless steel	
21	Bypass locknut	Stainless steel	ASTM A276 : AISI 431
22	Graphite ring	Die-formed graphite	
23	Bypass bottom body	Stainless steel	ASTM A182 304/304L

## Materials - PC3000 and PC30

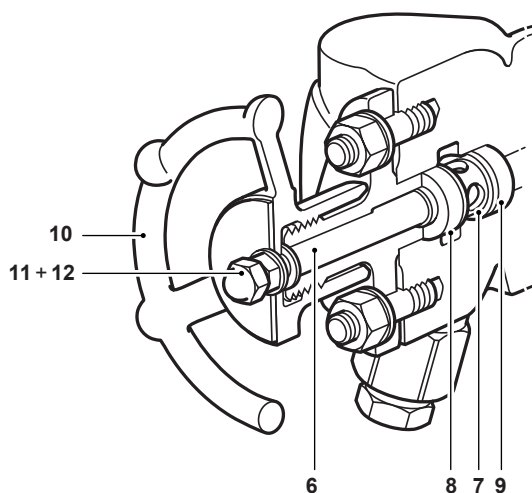


**Please note** The PC3001 and PC3000 unit is supplied fully assembled; the view is only exploded for ease of part identification.

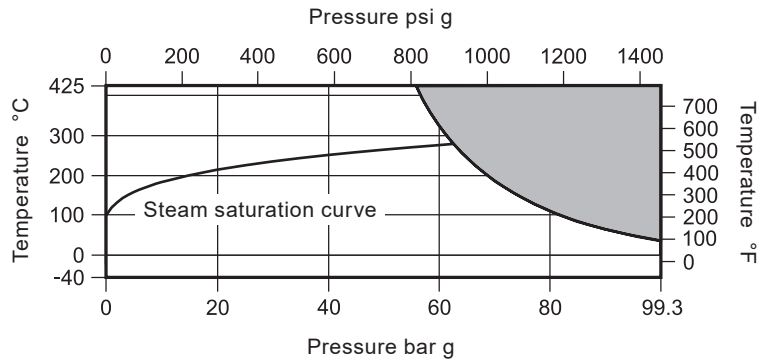
No.	Part	Material	
1	Pipeline connector body	Austenitic stainless steel	ASTM A182F : 304/304L
2	Bonnet	Carbon steel (Zinc plated)	ASTM A105N/LF2
3	Studs	Steel (plated)	ASTM A193 B7
4	Nuts	Steel (plated)	ASTM A194 2H
5	Washers	Stainless steel	
13	Name-plate	Stainless steel	
14	Depressurisation valve	Stainless steel	ASTM A182 : 304/304L
16	Valve screw	Stainless steel	ASTM A276 : AISI 431
17	Valve cone	Stainless steel	AISI 440 B
18	Retaining ring	Stainless steel	BS 2056 302 S26
20	Valve gasket	Graphite and stainless steel	
24	Strainer screen	Stainless steel	

### Valve internal materials

No.	Part	Material	
6	Piston	Stainless steel	AISI 410 : 1.4006
7	Lantern bush	Stainless steel	ASTM A276 : AISI 431
8	Upper ring	Graphite and stainless steel	
9	Lower ring	Graphite and stainless steel	
10	Handwheel	Carbon steel (Zinc plated)	EN 10213 : 1.0619N
11	Handwheel nuts	Stainless steel	
12	Nitronic 60 washers	Stainless steel	



## Pressure/temperature limits (ISO 6552)



The product **must not** be used in this region or beyond the parameter of the PMA or TMA of the relative end connection - See notes below.

Body design condition		ASME 600
PMA Maximum allowable pressure	99.3 bar g @ 38 °C	1440 psi g @ 100 °F
TMA Maximum allowable temperature	425 °C @ 56 bar g	797 °F @ 812 psi g
Minimum allowable temperature	-46 °C	-51 °F
PMO Maximum operating pressure for saturated steam service	62 bar g @ 279 °C	899 psi g @ 534 °F
TMO Maximum operating temperature	425 °C @ 56 bar g	797 °F @ 812 psi g
Minimum operating temperature	-46 °C	-51 °F
Product is safe for use under full vacuum conditions		
Designed for a maximum cold hydraulic test pressure of:	150 bar g	2 175 psi g

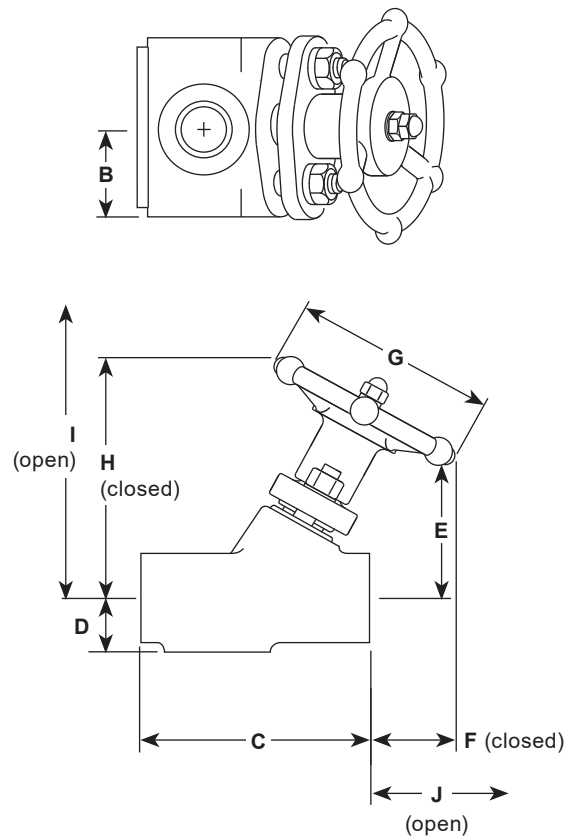
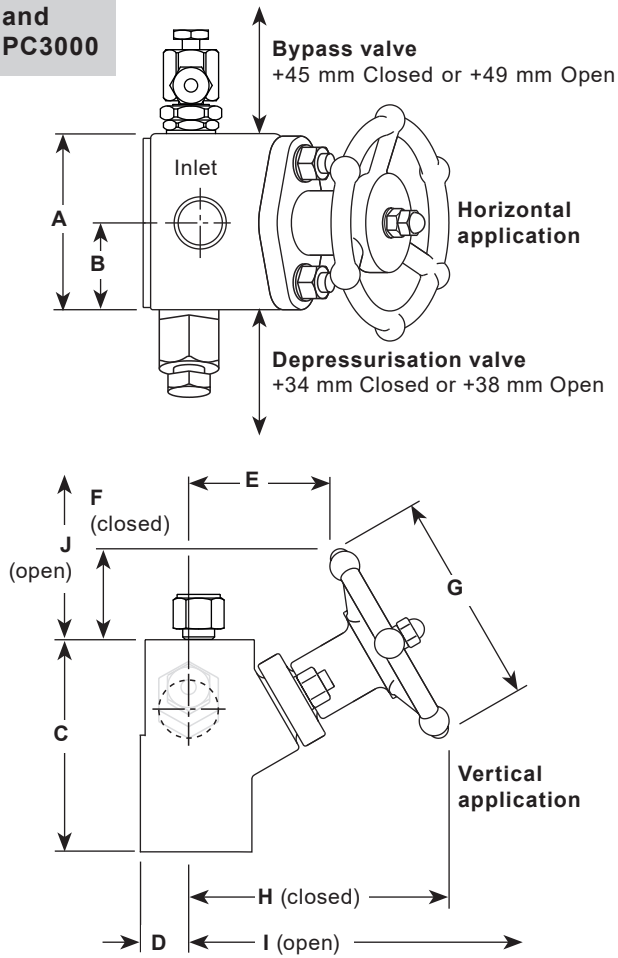
### Notes:

1. If flange connections are fitted then these will limit the maximum and minimum design conditions of the pipeline connector.
2. The maximum operating limits of the complete assembly will be dictated by the steam trap of choice. Reference the specific steam trap technical information sheet for its 'Pressure / temperature limits'.

**Dimensions/weight** (approximate mm (inches) and kg (lbs))

**PC3001  
and  
PC3000**

**PC30**



Units		A	B	C	D	E	F	G	H	I	J	Weight
Metric	mm	72	36	96	25	52	37	95	100	118	50	3.6 kg
Imperial	inches	2.8"	1.4"	3.8"	1"	2"	1.5"	3.7"	3.9"	4.64"	1.97"	7.9 lbs

## Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P128-35) supplied with the product.

### General information

There are two criteria which must be satisfied to ensure that the swivel connector trap will operate correctly and ensure effective condensate removal:

1. The PC3001, PC3000 and PC30 shall be installed with flow in the direction of the arrow on the connector body. Flow can be horizontal (left to right or right to left), vertical or inclined.
2. The connection face for the swivel connector steam trap must be in the vertical plane unless stated on relevant steam trap Installation and Maintenance Instructions.

After installation it is recommended that the pipeline connector is insulated to minimise radiated heat losses and to protect personnel from burns risk: Please note that some steam trap types should not be insulated.

### Depressurisation and line drainage

The PC30001 and PC3000 assemblies are supplied fitted with valve(s) which allow depressurisation of the system to enable safe removal and maintenance of the steam trap. The PC3001 is also supplied with bypass valve fitted, however consideration must be given to the position of the discharge which should be directed or piped to a safe place where it will not injure personnel or damage equipment.

**PC30 only** - Following isolation slightly loosen the trap bolts to ensure the full release of hot steam and condensate prior to commencing work. Safety equipment should be used and care taken to avoid potential injury.

### Disposal

This product is recyclable. No ecological hazard is anticipated with the disposal of this product, providing due care is taken.

## Spare parts

The spare parts available are shown in heavy outline. Parts drawn in grey line are not supplied as spares. For ease of replacement an extractor tool is available for removing the sealing rings.

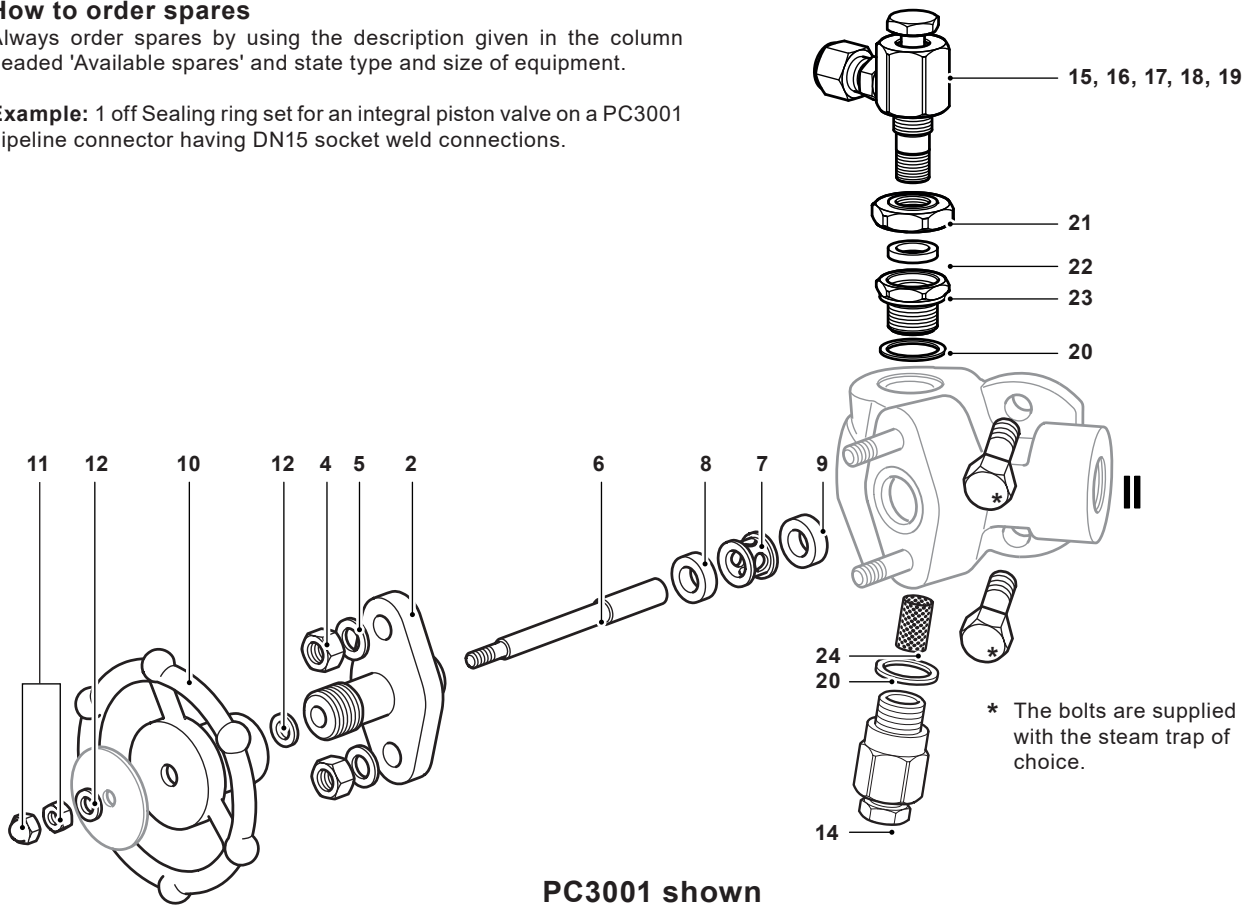
### Available spares

Sealing ring set	8 and 9
Piston valve assembly	2, 4, 5, 6, 7, 8, 9, 10, 11 and 12
Piston valve sub-assembly	6, 7, 8 and 9
Extractor tool	Not shown
PC depressurisation valve and gasket	14 and 20
PC bypass valve assembly and gasket	15, 16, 17, 18, 19, 20, 21, 22 and 23
Strainer screen and gasket (pack of 3)	20 and 24
Valve gasket set (pack of 10)	20



### How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state type and size of equipment.

**Example:** 1 off Sealing ring set for an integral piston valve on a PC3001 pipeline connector having DN15 socket weld connections.



### Recommended tightening torques

Item	 or mm		N m	ft lbf
4	14	5/16" x 18 UNC	12.0	9
11	10	M6	12.0	9
14 and 23	24	M18	74 - 78	55 - 58
21	27	M14	45-50	33-37



## PC10HP Pipeline Connector

### Description

The PC10HP pipeline connector is designed for use with swivel connector steam traps up to the maximum pressure/temperature limitations of the selected steam trap.

The principle is that the pipeline connector can be fitted into the pipeline, either horizontally or vertically. The steam trap can be fitted afterwards to the connector and can be rotated through 360° to ensure that the trap is in the horizontal plane.

### Standards

This product fully complies with the requirements of the European Pressure Equipment Directive 97/23/EC.

### 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.

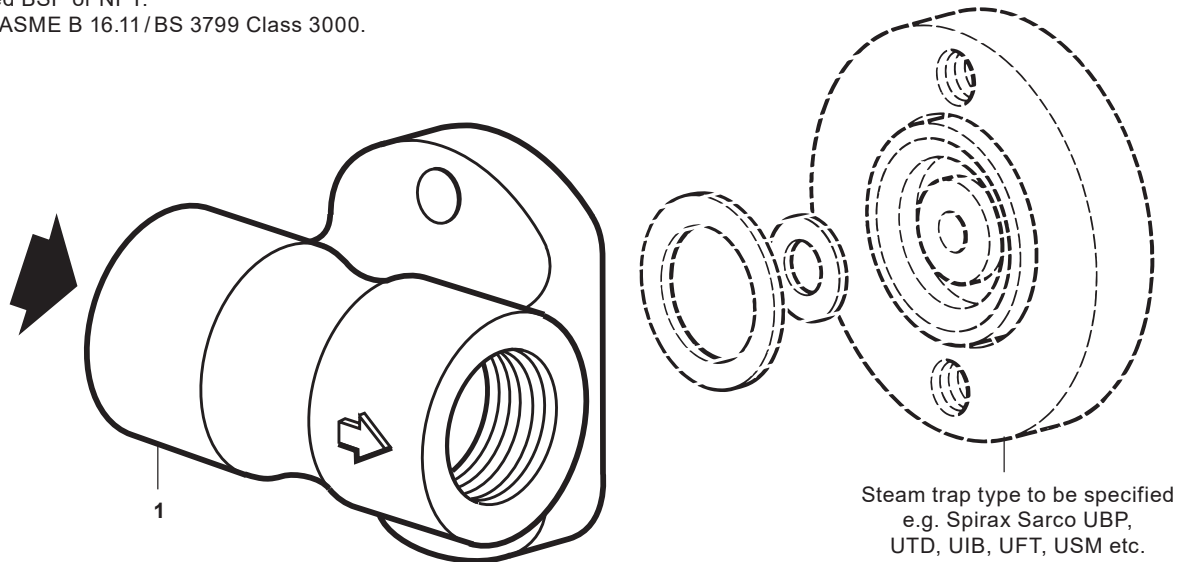
### The PC10HP has been designed for use with the following steam trap options:-

UBP32, UTD30L, UTD30H, UTDS46M, UTD52L, UIB30, UIB45, UFT32, USM21 and USM32.

### Sizes and pipe connections

½", ¾" and 1" screwed BSP or NPT.

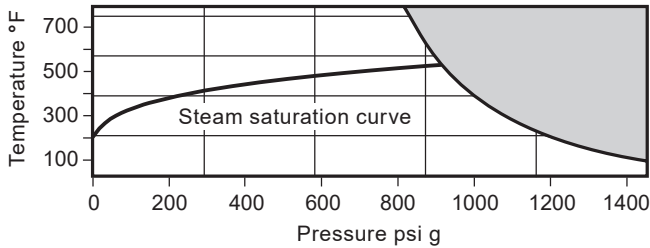
Socket weld ends to ASME B 16.11/BS 3799 Class 3000.



### Materials

No.	Part	Material
1	Body	Austenitic stainless steel type 304 ASTM A 351 CF8

## Pressure/temperature limits (ISO 6552)



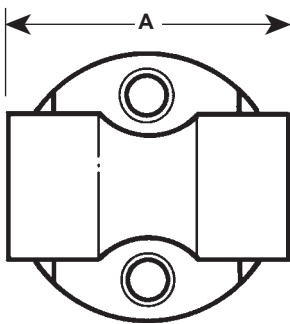
The product **must not** be used in this region.

**Note:** If flange connections are fitted then these will limit the maximum design conditions of the pipeline connector.

Body design conditions		ASME 600
PMA	Maximum allowable pressure	1440 psi g @ 100 °F
TMA	Maximum allowable temperature	797 °F @ 812 psi g
Minimum allowable temperature		32 °F
PMO	Maximum operating pressure for saturated steam service	899 psi g @ 534 °F
TMO	Maximum operating temperature	797 °F @ 812 psi g
Minimum operating temperature		32 °F
<b>Note:</b> For lower operating temperatures consult Spirax Sarco		
PMOB	Maximum operating backpressure should not exceed 80% of the upstream pressure	
Designed for a maximum cold hydraulic test pressure of 2161 psi g		

## Dimensions/weights (approximate) in inches and lbs

Size	A	Weight
1/2"	2 <sup>27</sup> / <sub>64</sub>	1.32
3/4"	2 <sup>57</sup> / <sub>64</sub>	1.54
1"	3 <sup>35</sup> / <sub>64</sub>	1.54



## Safety information, installation and maintenance

For full details see Installation and Maintenance Instructions (IM-P128-13) supplied with the product.

### Installation note:

There are following criteria must be satisfied to ensure that the steam trap will operate correctly and ensure effective condensate removal.

- The PC10HP shall be installed with flow in the direction of the arrow. Flow can be horizontal (either direction), vertical or inclined.
- The connection face for the swivel connector steam trap must always be in the vertical plane unless stated on relevant steam trap Installation and Maintenance Instructions.
- The correct steam trap and end connection must be selected to meet the system design conditions.
- Steam trap connector bolts are supplied with the selected steam trap.

After installation it is recommended that the pipeline connector is insulated to minimise radiated heat losses and to protect personnel from burns risk. Please note that there are some trap types that should not be insulated.

Detailed instructions regarding welding socket weld versions are provided with the product - See IM-P128-13.

An alternative pipeline connector is also available with integral strainer facility, called the PC20. For further details please see TI-P128-15.

Suitable isolation valves must be installed to allow for safe maintenance/replacement - Please see A3S (TI-P132-09).

Spirax Sarco can also supply pipeline connectors fitted with integral isolation valves and can incorporate line drainage and trap depressurization facilities.

Please see PC30 (TI-P128-02) or PC40 (TI-P128-03).

### Disposal

The product is recyclable. No ecological hazard is anticipated with disposal of this product providing due care is taken.

### How to order

**Example:** 1 off 1/2" Spirax Sarco PC10HP pipeline connector in austenitic stainless steel having socket weld end connections to ASME B 16.11 Class 3000 and a body ASME Class 600 rated.

## PC20 Universal Pipeline Connector with Integral Strainer

### Description

The PC20 range of pipeline connectors are designed to give universal flow direction when used with the following swivel connector steam traps:- UTD30, UTDM42, UTDS46M, UTD52, UBP21, UBP32, UFT14, UFT32, UIB30, UIB30H and UIB45.

The integral strainer screen provides protection for the selected steam trap where system conditions require.

There is an optional blowdown valve which can be used to periodically remove any pipeline debris.

The PC20 can also be supplied fitted with an integral Spiratec sensor to detect steam trap failures and reduce energy costs.

These are designated IPC20 and IPC21. Full details are on TI-P128-17.

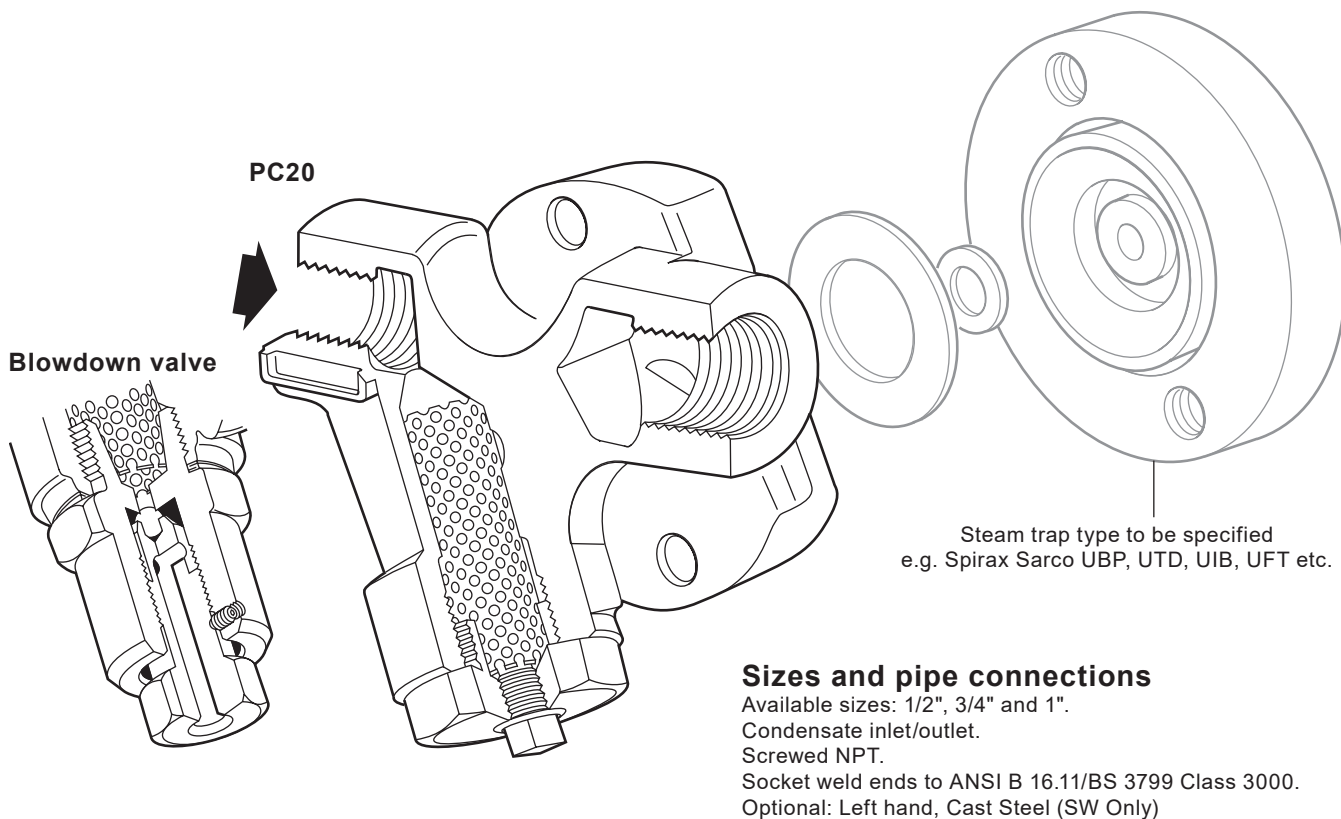
### Standards

This product fully complies with the requirements of the Pressure Equipment Directive (PED).

### Certification

This product is available with certification to EN 10204 2.2.

**Note:** All certification/inspection requirements must be stated at the time of order placement.



### Sizes and pipe connections

Available sizes: 1/2", 3/4" and 1".

Condensate inlet/outlet.

Screwed NPT.

Socket weld ends to ANSI B 16.11/BS 3799 Class 3000.

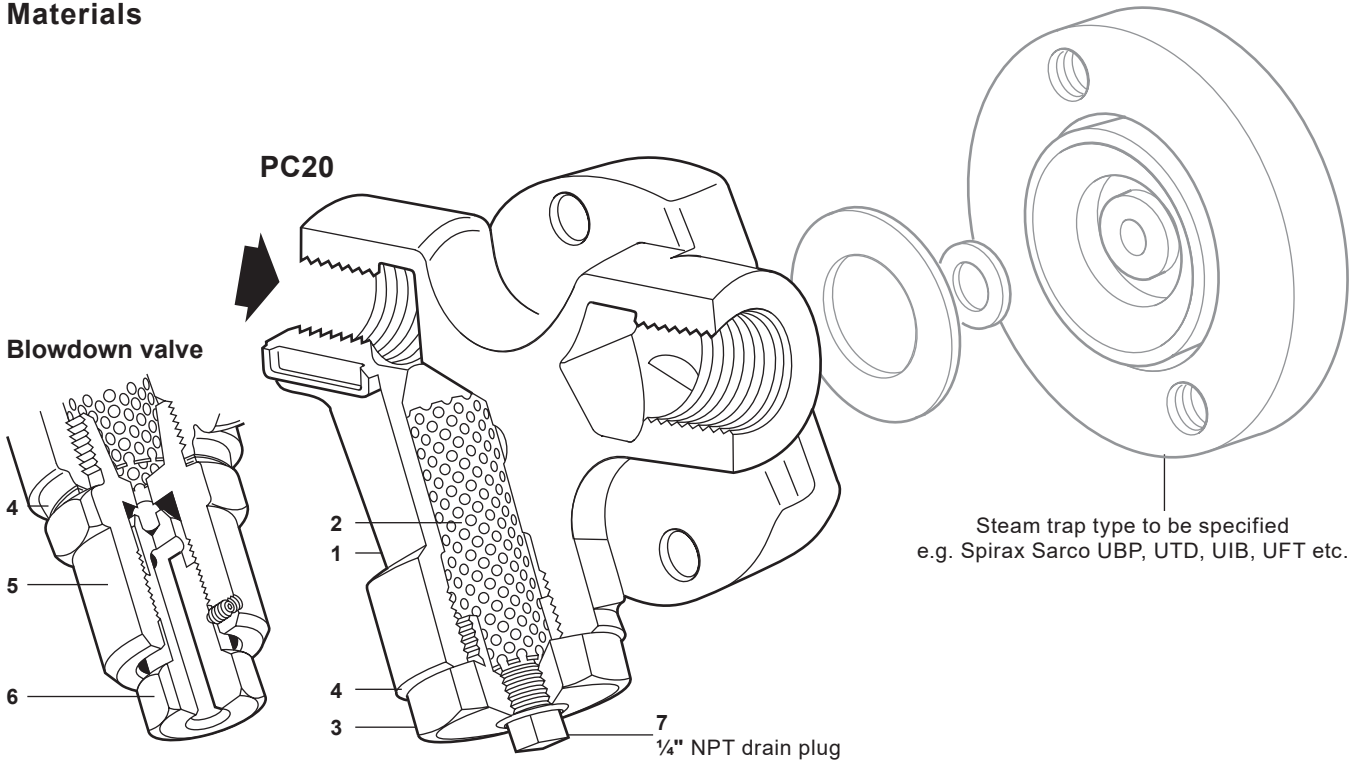
Optional: Left hand, Cast Steel (SW Only)

### Optional extras

- Integral blowdown valve, see TI-P153-01 for further details.

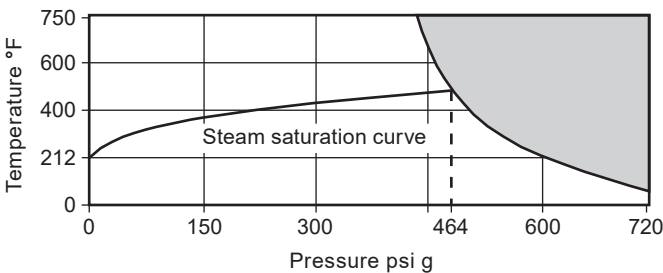
- Integral Spiratec sensor, see TI-P128-17 for further details.

## Materials



No. Part	Material	
1 Body	Austenitic stainless steel	ASTM A 351 CF8
2 Strainer screen	Austenitic stainless steel (0.8 mm perforations.)	316L
3 Strainer cap	Austenitic stainless steel	AISI 303
4 Cap gasket	Stainless steel	BS 1449 304 S16
5 Blowdown valve	Stainless steel	ASTM A582 A16
6 Valve screw	Stainless steel	ASTM A276 431
7 Plug	Steel	ASTM A105

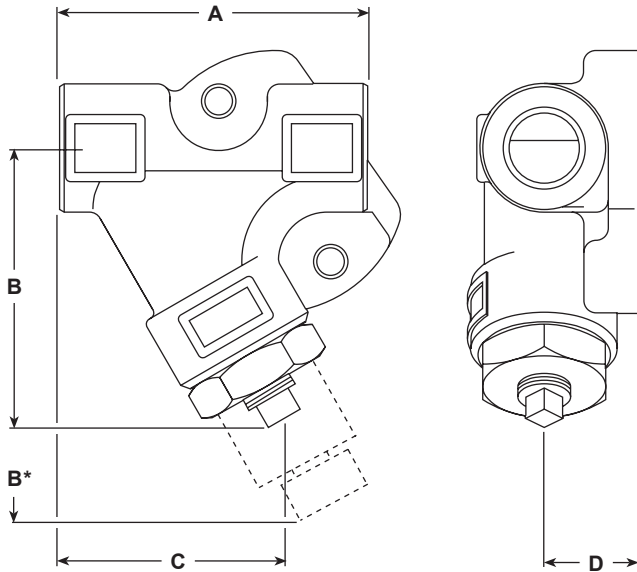
## Operating range



The product **must not** be used in this region.  
 \*PMO Maximum operating pressure recommended for saturated steam service.

Body design conditions	ANSI/ASME Class 300 (PN50)
PMA Maximum allowable pressure	720 psi g @ 100 °F
TMA Maximum allowable temperature	750 °F @ 600 psi g
PMO Maximum operating pressure for saturated steam service	600 psi g
TMO Maximum operating temperature	750 °F
Designed for a maximum cold hydraulic test pressure of:	900 psi g

## Dimensions (approximate) in inches



## Weight (approximate) in lbs

Size	Weight
1/2"	1.32
3/4"	1.54
1"	1.54

Strainer connector dimensions (inches)

Model >	Right hand and left hand standard with 3/8" NPT plug			Right hand and left hand with blowdown valve			All strainer connectors
	A	B	C	A	B*	C	
1/2"	3.2	3.1	2.6	3.2	4.4	3.1	.8
3/4"	3.5	3.2	2.8	3.5	4.5	3.3	.8
1"	3.9	3.4	3.0	3.9	4.6	3.5	.8

## Safety information, installation and maintenance

For full details see Installation and Maintenance Instructions (IM-P128-11) supplied with the product.

### General information

There are two criteria which must be satisfied to ensure that the swivel connector trap will operate correctly and ensure effective condensate removal:

- The PC20 shall be installed with flow in the direction of the arrow. Flow can be horizontal (either direction), vertical or inclined.
- The connection face for the swivel connector steam trap must always be in the vertical plane unless stated on relevant steam trap Installation and Maintenance Instructions.

After installation it is recommended that the pipeline connector is insulated to minimise radiated heat losses and to protect personnel from burns risk.

**Note:** Ensure that the discharge from the blowdown valve blows to a safe place.

Detailed instructions regarding welding socket weld versions are provided with the product.

### Disposal

The product is recyclable. No ecological hazard is anticipated with disposal of this product providing due care is taken.

### How to order

**Example:** 1 off 1/2" Spirax Sarco PC20 pipeline connector with integral strainer in austenitic stainless steel socket weld to ANSI B 16.11 Class 3000.

Steam trap shall be purchased with the pipeline connector, which once installed remains permanently in the pipeline. Trap shall be attached to the connector by two bolts to enable simple quick rapid installation and replacement. The connection is designed to allow installation on pipe work that is vertical, horizontal, or any angle in between. When specified, the connector shall be provided with integral "Y" pattern strainer with or with integral blowdown valve right hand or left hand pattern.

## Spare parts

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

### Available spares

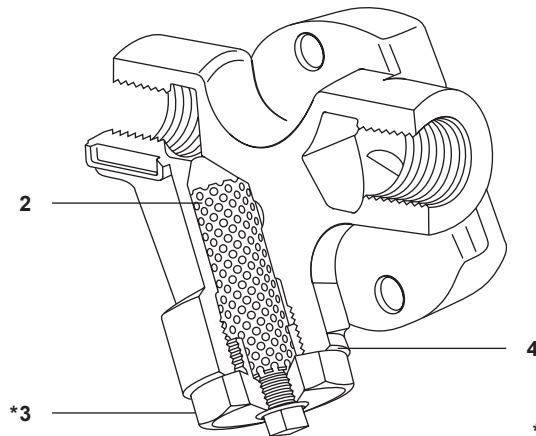
Blowdown valve and gasket	4, 5
Strainer screen and gasket	2, 4

### How to order spares

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

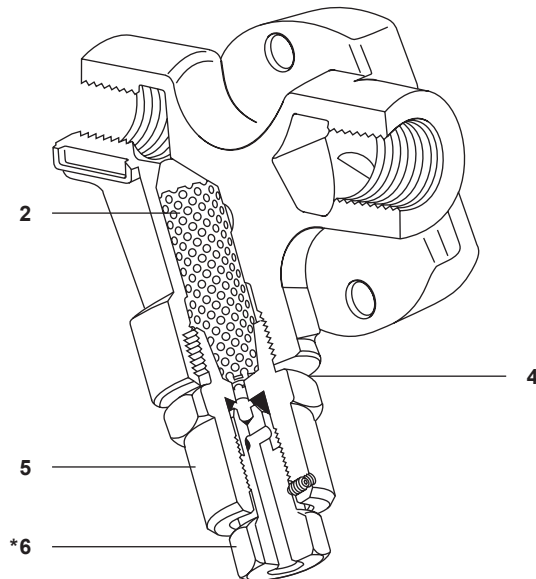
Example: 1 - Strainer screen and gasket for a 1/2" PC20 connector.

## PC20





\*Items 3 and 6 are not available spares

## PC20 with blowdown valve



## Recommended tightening torques

Item	 or mm		ft-lb
3	32 A/F	M28 x 1.5P	125 - 140
5	32 A/F	M28 x 1.5P	125 - 140
6	19 A/F		33 - 37