



Cert. No. LRQ 0963008

ISO 9001

spirax sarco

TI-P128-02
ST Issue 7

PC3_ Pipeline Connectors

Description

The PC3_ range of pipeline connectors are designed for use with swivel connector steam traps. The PC3_ is a pipeline connector with integral stop valve which isolates upstream of the steam trap. The stop valve is a piston type. The PC3_ is available with optional connections for the draining of upstream pipework and trap venting upstream of the steam trap. These connections use DV1 and/or DV2 depressurisation valves which can be supplied separately. See TI-P600-01 for details.

Available types

Type	Description	Flow direction
PC30	Pipeline connector with 1 stop valve	Universal (both left to right and right to left)
PC33	Pipeline connector with 1 stop valve and upstream line drain for DV1 or DV2 and trap vent connection for DV2.	Left to right
PC34	Pipeline connector with 1 stop valve and upstream line drain for DV1 or DV2 and trap vent connection for DV2.	Right to left
PC35	Pipeline connector with 1 stop valve and upstream line drain connection either side of the body for DV1 or DV2. It is necessary to plug one connection. This must always be the top connection.	Universal (both left to right and right to left)

For piping installation diagrams see TI-F01-37.

Sizes and pipe connections

For condensate inlet/outlet:
DN15, DN20 screwed BSP or NPT with optional DN15 connection, screwed BSP or NPT (corresponding with inlet/outlet connection) for line drain/trap vent.
DN15, DN20 socket weld ends to ANSI B 16.11 Class 3000 with optional DN15 screwed NPT or socket weld connection for line drain/trap vent.

Optional equipment

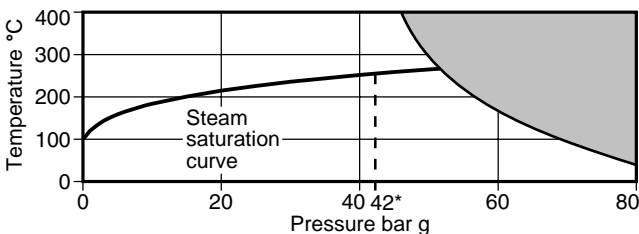
The following is available as an optional item:
Depressurisation valve type DV (see TI-P600-01).

Limiting conditions

Body design conditions ANSI Class 600 (ISO PN100)

Designed for a maximum cold hydraulic test pressure of 150 bar g

Operating range



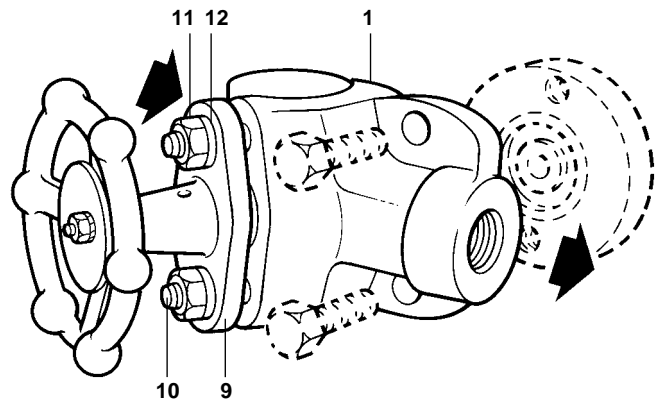
The product must not be used in this region.

* PMO Maximum operating pressure recommended for saturated steam.

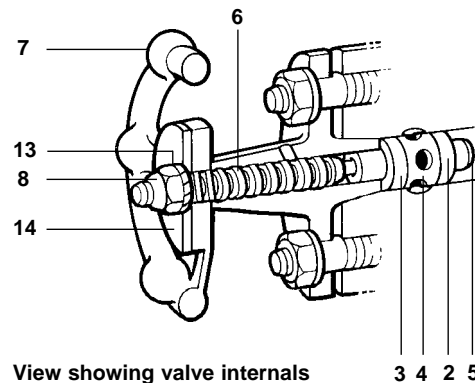
Kv values

Size	DN15	DN20
Kv	1.8	1.8

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



PC30 shown



View showing valve internals

Materials

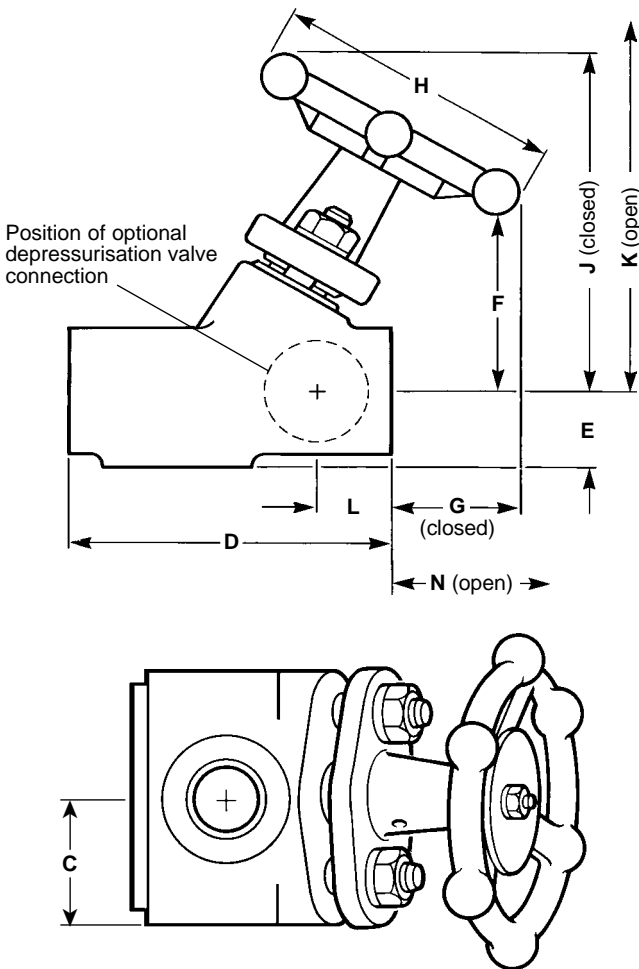
No. Part	Material
1 Body	Austenitic stainless steel ASTM A182 F304L
2 Lower ring	Graphite and stainless steel
3 Upper ring	Graphite and stainless steel
4 Lantern bush	Steel UNI 4838 CF95 SMn Pb36
5 Piston	Stainless steel ASTM A479 F316
6 Spindle	Steel ASTM A479 F410
7 Handwheel	Carbon steel ASTM A105N
8 Handwheel nut	Stainless steel and nylon insert
9 Bonnet	Carbon steel ASTM A105N
10 Studs	Stainless steel BS 6105 /ISO 3506 A4 Class 80
11 Nuts	Stainless steel BS 6105 /ISO 3506 A4 Class 80
12 Washers	Steel
13 Washer	Steel
14 Name-plate	Stainless steel

Certification

The product is available with certification to EN 10204 3.1.B for body and bonnet as standard.

Dimensions / weight (approximate) in mm and kg

C	D	E	F	G	H	J	K	L	N	Weight
36	90	25	50	35	90	99	115	22	50	2



Safety information

Pressure

Before attempting any maintenance, consider what is or may have been in the pipeline. Ensure that any pressure is isolated and safely vented to atmospheric pressure before attempting to maintain the steam trap. This is easily achieved by fitting Spirax Sarco depressurisation valves type DV (see separate literature for details). Do not assume that the system is depressurised even when a pressure gauge indicates zero.

Temperature

Allow time for temperature to normalise after isolation to avoid the danger of burns and consider whether protective clothing (including safety glasses) is required.

Isolation

Consider whether closing isolating valves will put any other part of the system or personnel at risk. Dangers might include; isolation of vents, protective devices or alarms. Ensure isolation valves are turned off in a gradual way to avoid system shocks.

Installation

General

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 PC3_{...} shall be installed with flow in the direction of the arrow. 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.

Ensure that there is sufficient access to the handwheel to allow proper operation.

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 - some steam trap types should not be insulated.

Optional depressurisation valve (DV1/DV2 See TI-P600-01)

If fitting an optional depressurisation valve for line drain or trap vent, the consideration must be given to the position of the discharge. The discharge must be directed or piped to a safe place where it will not injure personnel nor damage plant.

The DV1 provides straight through discharge, generally used as a line drain or trap test valve where discharge is directed to grade. The DV2 provides a side connection discharge, generally used as a trap vent or to ensure discharge is piped to grade.

Maintenance

For detailed Installation and Maintenance Instructions see IM-P128-06, which is supplied with the product.

Disposal

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

How to order

Example: 1 off Spirax Sarco PC30 pipeline connector in forged austenitic stainless steel body with integral piston valve, DN15 socket weld to ANSI B 16.11 Class 3000.

Note: Where DV1 or DV2 valves are to be fitted these must be ordered separately.

Spare parts

The spare parts available are shown in heavy outline. Parts drawn in broken 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	2, 3
Valve internals set	2, 3, 4, 5, 6, 8, 13
Extractor tool	Not shown

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 integral piston valve on a PC3_{...} pipeline connector having DN15 socket weld connections.

Recommended tightening torques

Item	 or mm		N m
11	14	5/16 x 18 UNC	10.0
8	10	M6	0.1

