

Sight Check (combined sight glass and check valve) Installation and Maintenance Instructions

Description

A sight check is a combined sight glass and check valve. It is used to observe discharges from steam traps. The position of the ball check indicates whether or not condensate is flowing. Where condensate rises after the trap it eliminates the need for a separate check valve thus simplifying installation.

It is particularly useful for commissioning steam traps fitted with steam lock release (SLR). It can also be used on other liquid lines for which the materials of construction are compatible.

Limiting conditions

Maximum operating pressure	3.6 bar g
Maximum operating temperature	148 °C
Cold hydraulic test pressure	7 bar g

Installation

Sight checks can be fitted in either a horizontal or a vertical line on the outlet side of a steam trap. Where the trap is a blast discharge type e.g. thermodynamic, the sight check must be fitted at least 1 m from the trap. This is to ensure that the glass tube is not subjected to thermal shock or pressure. Reasonable steps should be taken to protect personnel from injury in the unlikely event that the glass breaks. Ensure access is available to enable the withdrawal of the discharge tube.

Maintenance

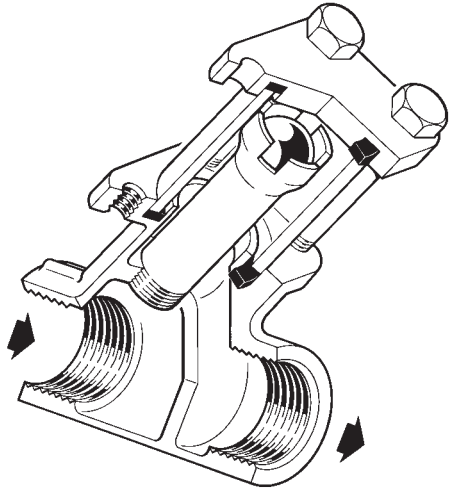
All work must be carried out by a suitably competent person. Before starting work ensure that suitable tools are available and the 'Safety information' overleaf is being complied with. Use only Spirax Sarco replacement parts.

How to fit

Before carrying out any work on this equipment make sure that it is fully isolated (see 'Safety information' overleaf). After maintenance ensure that the system is fully functioning.

To renew sight tube

Undo bolts. Remove cover and sight tube. Take out old gaskets and carefully clean out recesses. Fit new gaskets supplied with sight tube and reassemble, tightening bolts evenly and without excessive force. It is advisable to do up the bolts little more than finger tight, retightening as necessary after a period of use.



To renew discharge tube

Remove cover and sight tube the same way as 'To renew sight tube', and lift out ball check. Using notches, carefully unscrew old tube and fit new one. Renew gaskets, fit new ball check and reassemble as previous.

Warning: In some applications condensate can act as a solvent for glass. It is recommended that the sight tube is periodically checked for thinning. If there is any evidence of thinning then the sight tube should be replaced immediately.

Safety information

Pressure

Before attempting any maintenance of the sight check, consider what is or may have been in the pipeline. Ensure that any pressure is isolated (using suitable independent isolation valves) and safely vented to atmospheric pressure before attempting to maintain the sight check. It is imperative that the upstream stop valve is closed first in order to prevent over pressurisation. This is easily achieved by fitting Spirax Sarco depressurisation valves type DV in the pipework between the isolation valve and sight check (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 on and off in a gradual way to avoid system shocks.

Disposal

The 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 broken line are not supplied as spares.

Available spare

Sight tube assembly	(1 off)	3
	(2 off)	2
Discharge tube assembly (2 off)		4, 5
Set of bolts and washers (set of 4)*		7, 8
Gaskets (packet of 6)†		2

Available spares are common to ½" and ¾" sizes, but not 1".

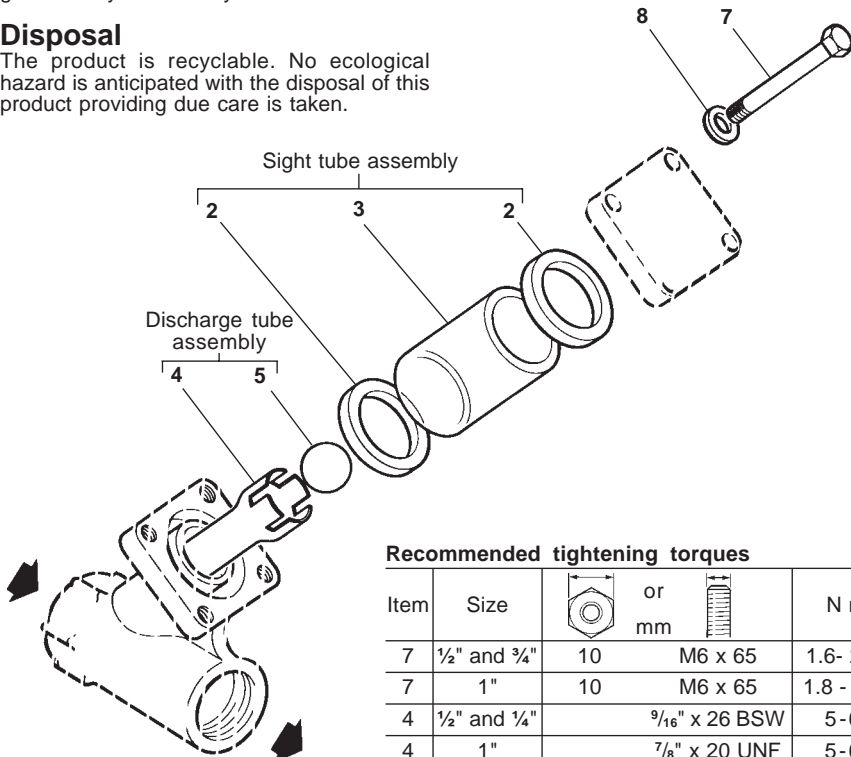
* Earlier models used studs, nuts and washers and these are contained in the set of bolts pack

† Earlier models used ethylene propylene gaskets which were considerably thicker than graphite laminate



How to order spares

Always order spares by using the description given in the column headed Available spare and stating the size of the sight check.

Example: 1 - Sight tube assembly for ½" Spirax Sarco sight check.



Recommended tightening torques

Item	Size	 or mm		N m
7	½" and ¾"	10	M6 x 65	1.6- 2.3
7	1"	10	M6 x 65	1.8 - 2.5
4	½" and ¾"		9/16" x 26 BSW	5-6
4	1"		7/8" x 20 UNF	5-6