

Sight glasses

for fluid indication and inspection



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/sarco

Spirax Sarco sight glasses - a range of visual indicators for industrial fluids

Spirax Sarco sight glasses have been successfully used to detect flow of many different industrial fluids.

A wide range of materials and connections makes them suitable for most industries, e.g. chemicals, beverages and utilities.

Why use sight glasses?

There are two main reasons for using sight glasses:

Indication

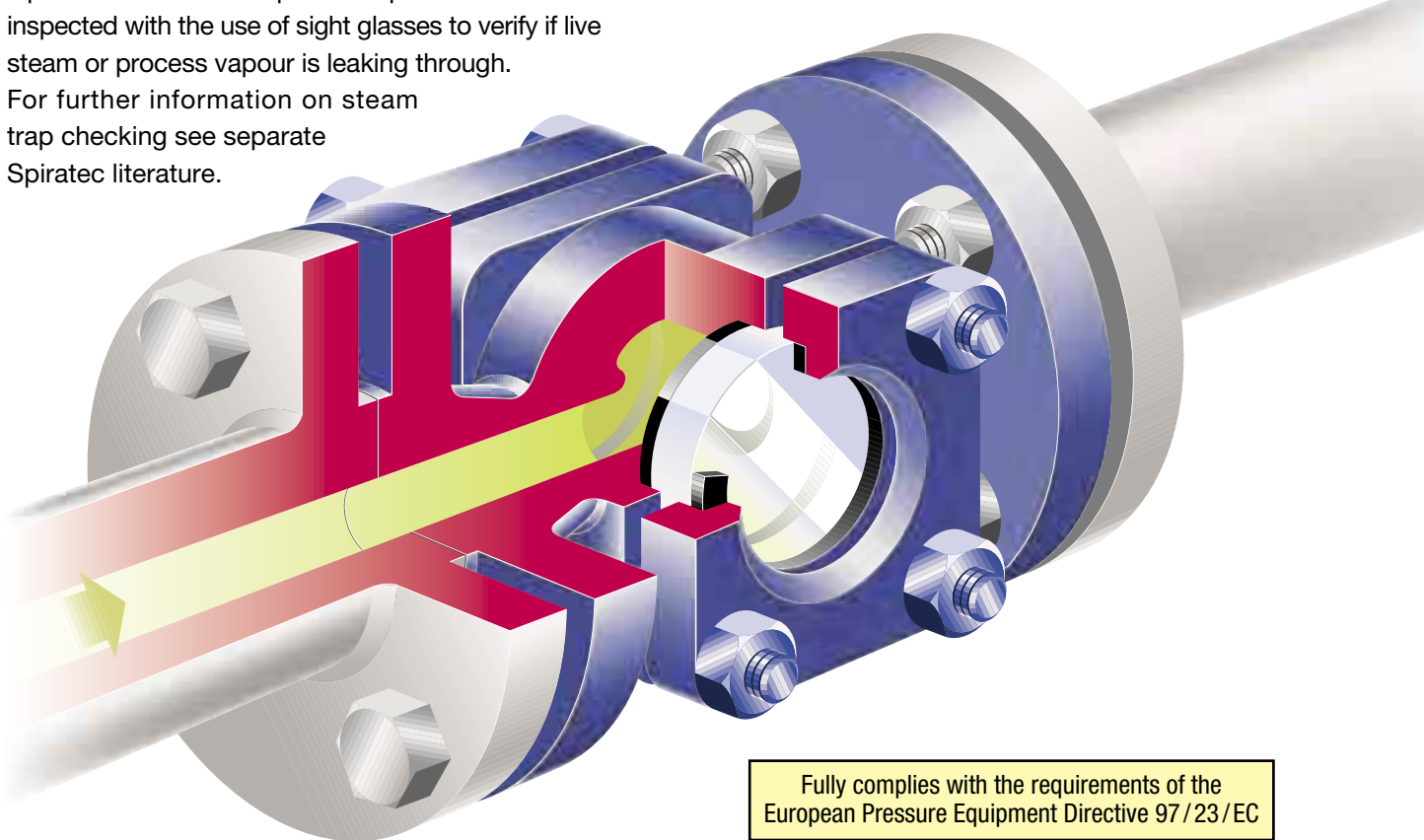
Flow indication is the most common application. The sight glass is fitted in a fluid pipeline to indicate if the fluid is flowing correctly. They can therefore be used to detect blocked valves, strainers, steam traps and other pipeline equipment which would otherwise reduce plant efficiency and safety.

Operation of steam traps and liquid drainers can be inspected with the use of sight glasses to verify if live steam or process vapour is leaking through. For further information on steam trap checking see separate Spiratec literature.

Inspection

For inspection purposes, sight glasses can be used to compare colour of the product at different stages of the production process to enable adjustments to be made quickly and effectively.






SG253 shown



User benefits

- Fully complies with the requirements of the European Pressure Equipment Directive 97/23/EC.
- No rotating parts. No maintenance.
- Double window version. High luminosity and easy inspection.
- Wide range of connections.
- Easy and quick inspection. No need for qualified operators.
- Option of sight glass and check valve in the same product.
- Spirax Sarco's guarantee of worldwide knowledge, service and technical support.

Product range

Model		Sight check 	Double window sight glass 		Single window sight glass 	SG13 sight glass 	SG253 sight glass 	
Material		Bronze	Bronze	Brass	Brass	Brass	SG iron	SG iron
Body rating		PN 3.6	PN5	PN5	PN5	PN16	PN25	ANSI 150
Size	DN10 - 3/8"				●			
	DN15 - 1/2"	●		●	●	●	●	●
	DN20 - 3/4"	●		●	●	●	●	●
	DN25 - 1"	●		●	●	●	●	●
	DN32 - 1¼"		●				●	●
	DN40 - 1½"		●				●	●
	DN50 - 2"		●				●	●
Pipeline connections	Screwed	●	●	●	●	●		
	Flanged						●	●
Pressure / temperature limits	PMA	3.5 bar g @ 148°C	5 bar g @ 90°C	5 bar g @ 90°C	5 bar g @ 90°C	16 bar g @ 130°C	25 bar g @ 100°C	17.2 bar g @ 35°C
	TMA	148°C @ 3.5 bar g	148°C @ 3.5 bar g	148°C @ 3.5 bar g	148°C @ 3.5 bar g	200°C @ 13.5 bar g	280°C @ 18 bar g	280°C @ 10 bar g
	Minimum allowable temperature	-10°C	-29°C	-29°C	-29°C	-20°C	-10°C	-10°C
	PMO*	3.5 bar g	3.5 bar g	3.5 bar g	3.5 bar g	13 bar g	21 bar g	13.8 bar g
	TMO	148°C @ 3.5 bar g	148°C @ 3.5 bar g	148°C @ 3.5 bar g	148°C @ 3.5 bar g	200°C @ 13.5 bar g	280°C @ 18 bar g	280°C @ 10 bar g
	Minimum operating temperature	0°C	0°C	0°C	0°C	0°C	0°C	0°C

* The PMO displayed is the maximum for saturated steam service.

How they work

Sight glasses

The sight glass has a smooth concentric reduction in the inlet connection which promotes turbulence in the sight glass when the fluid is passing through it. The turbulent flow inside the sight glass permits any fluid to be detected.

The SG13 cylinder view can be screwed directly into the steam trap it is monitoring to form a modular steam trap arrangement.

Sight checks

The 'sight check' is a sight glass and check valve combination in one unit. A ball in the top of the flow tube is lifted off its seat by the fluid as it flows through the cylindrical window to the outlet connection. The ball movement makes the flow easy to see yet provides shut-off on reverse flow.

Installation

Sight glasses should be installed in such a way that they can be readily viewed. For steam trap indication, they should be fitted after the trap and at least 1 m away when used with blast discharge steam traps.

Selection, specification and how to order

Selection

The sight glass is normally selected to be the same size as the pipe into which it is to be fitted. Therefore ensure that the pipeline is adequately sized before selection. Choose a body material and pressure rating suitable for your application, if in doubt consult Spirax Sarco.

Sight check specification

Sight checks shall be Spirax Sarco combined sight glass and check valves with bronze bodies, borosilicate glass and screwed connections. Sight check screwed only.

How to order

Example: 1 Spirax Sarco ½" BSP sight check having a bronze body and borosilicate glass tube.

Single and double window specification

Single window sight glasses shall be Spirax Sarco type with brass bodies and screwed connections.

Double window sight glasses shall be Spirax Sarco type with brass / bronze bodies and screwed connections.

Both sight glasses shall incorporate a toughened soda lime glass and reinforced exfoliated graphite top and bottom gaskets.

How to order

Example: 1 off Spirax Sarco 1" screwed BSP double window sight glass with brass body and removable toughened soda lime glass.

SG13 sight glass specification

Cylinder view sight glasses shall be Spirax Sarco type SG13 with brass bodies that screw directly into the steam trap providing a modular monitoring system. They shall incorporate a borosilicate glass and virgin PTFE / Fluorocarbon sight tube gasket.

How to order

Example: 1 off Spirax Sarco ½" SG13 sight glass having screwed BSP connections.

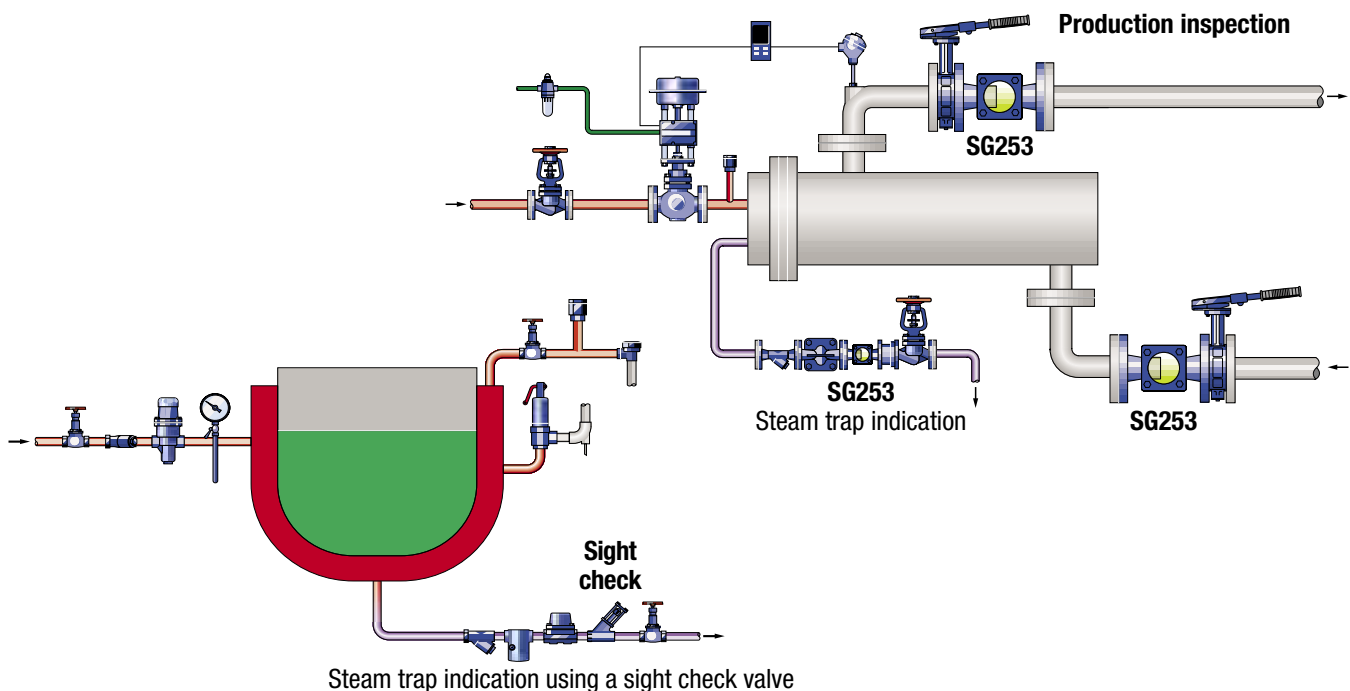
SG253 sight glass specification

Double window sight glasses shall be Spirax Sarco type SG253 with SG iron bodies and flanged connections. They shall incorporate a borosilicate glass and reinforced exfoliated graphite top and bottom gaskets.

How to order

Example: 1 off Spirax Sarco DN20 SG253 sight glass having an SG iron body and removable toughened glass windows. Flanged PN25.

Typical applications



Some products shown may not be available in certain markets.

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