



TI-P027-01
CMGT Issue 14

BSP Pressure Gauge with Syphon and Cock

Description

Pressure gauge with 100 mm diameter dial with units marked in bar, psi and inches hg for vacuum as appropriate and having a BSP connection. The gauge is supplied with either:

- Ring type syphon tube and cock or a 'U' type syphon tube and cock.

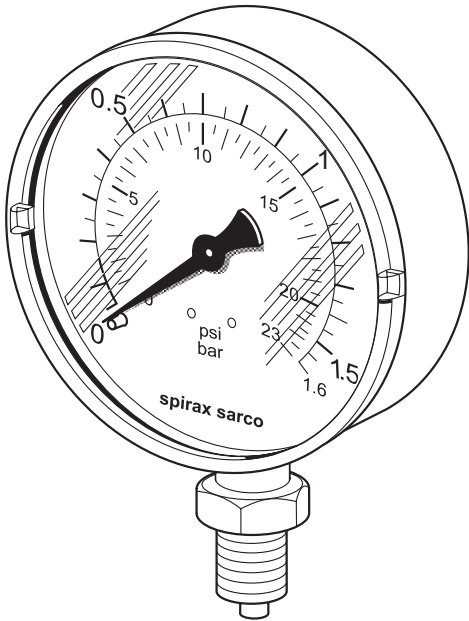
For the following options, consult Spirax Sarco:

Pressure gauges with **NPT** connections.

Available pressure range

Steel	Range	0 to 1.6 bar	0 to 23 psi
	Range*	0 to 4.0 bar	0 to 53 psi
	Range*	0 to 6.0 bar	0 to 86 psi
	Range*	0 to 10.0 bar	0 to 145 psi
	Range*	0 to 16.0 bar	0 to 230 psi
	Range*	0 to 25.0 bar	0 to 360 psi
	Range	-1 to 1.5 bar	30" Hg to 20 psi
	Range	-1 to 3.0 bar	30" Hg to 40 psi
	Range	-1 to 5.0 bar	30" Hg to 70 psi
	Range	0 to 4.0 bar	0 to 53 psi
Stainless steel	Range	0 to 10.0 bar	0 to 145 psi
	Range	0 to 16.0 bar	0 to 230 psi
	Range	0 to 25.0 bar	0 to 360 psi

Note: Where indicated (*) a dial with MPa units is available.



Standards

The product fully complies with the requirements of the EU Pressure Equipment Directive/UK Pressure Equipment (Safety) Regulations.

This pressure gauge conforms to:

- DIN EN 837-1:1997-02 Pressure gauges - Part 1: Bourdon tube pressure gauges; dimensions, metrology, requirements and testing, and
- DIN EN 837-1:1997-02 Pressure gauges - Part 3: Diaphragm and capsule pressure gauges; dimensions, metrology, requirements and testing

Certification

A certificate of conformity is available as standard for this product. A calibration certificate is available by special order at extra cost.

10

Pipeline ancillaries
Pressure gauges and temperature gauges

Sizes and pipe connections

Pressure gauge		3⁄8" BSP male	EN ISO 228-1
Gauge cock	Gauge end	3⁄8" BSP female	
	Syphon end	3⁄8" BSP female parallel	
Ring / 'U' syphon	Cock end	3⁄8" BSP male taper	EN 10226-1
	Process end	3⁄8" male parallel	

Materials

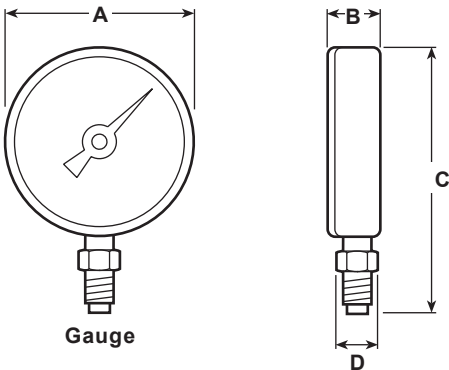
Part		Material
Steel	Gauge	Case Pressed steel
		Glass Snap fit perspex
		Bourdon tube CuSh 8 (92% Cu 8% Zn)
	Ring and 'U' syphon	Mild steel tube BS 1387 heavy grade
	Gauge cock (for use up to 16 bar g)	Body Brass
		Handle Phenolic
	* For use on pressures above 16 bar g	3⁄8" M10S2 ball valve Carbon steel
Stainless steel	Gauge	Case Stainless steel
		Glass Snap-fit perspex
		Bourdon tube Stainless steel 316TI
	'U' syphon	Stainless steel
	Gauge cock	Use a Spirax Sarco 3⁄8" M10S4 Stainless steel

Pressure/temperature limits

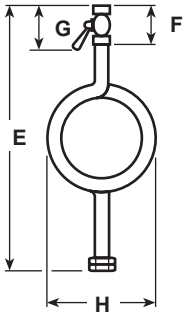
Maximum design conditions		Full scale reading		
PMA	Maximum allowable pressure	Full scale reading		
TMA	Maximum allowable temperature of gauge. Note: Either a 'U' or a ring syphon must be fitted to achieve this.	217 °C		
Minimum allowable temperature		-40 °C		
PMO	Maximum operating pressure Please note: 1. Where indicated (†) these units are available as compound gauges down to full vacuum. 2. For compressed air and steam services the maximum operating pressure for this product is 16 bar g. 3. Gauge cock limited to 16 bar g. Use M10S2 or M10S4 for higher pressures.	Range †	1.5 bar	20 psi
		Range	1.6 bar	23 psi
		Range †	3 bar	40 psi
		Range	4 bar	53 psi
		Range †	5 bar	70 psi
		Range	6 bar	86 psi
		Range	10 bar	145 psi
		Range	16 bar	230 psi
		Range	25 bar	360 psi
		Maximum ambient temperature		50 °C

Dimensions/weights (approximate) in mm and kg

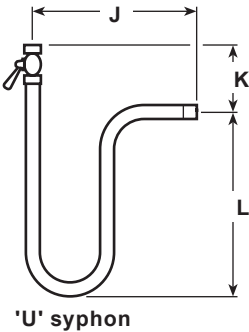
Gauge				
A	B	C	D	Weight
100	29	137	22 A/F	0.43



Ring syphon					
					Weight
E	F	G	H	Syphon Cock	M10S2 and M10S4 ball valve
321	35	80	116	0.94 0.21	0.61



U' syphon				
J	K	L	Syphon Cock	M10S2 and M10S4 ball valve
167.5	61.5	136.5	0.59 0.21	0.61



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P027-02) supplied with the product.

Installation note:

As with all instrumentation, the Spirax Sarco pressure gauge is a delicate measuring device and care has to be taken in its installation and use if it is to remain reliable.

It is recommended that all gauges are fitted with a gauge cock to assist when calibration or maintenance is necessary. When used on steam or other hot gases, gauges must be protected from heat by the use of a 'U' syphon or ring syphon tube and gauge cock. The syphon pipe should be primed with water prior to fitting the gauge. Care should be taken if the installation is exposed to frost as gauges can burst.

Disposal:

The product is recyclable. No ecological hazard is anticipated with the disposal of this product providing due care is taken, with the exception of PTFE (ball valves).

PTFE:

- Can only be disposed of by approved methods, not incineration.
- Keep PTFE waste in a separate container, do not mix it with other rubbish, and consign it to a landfill site.

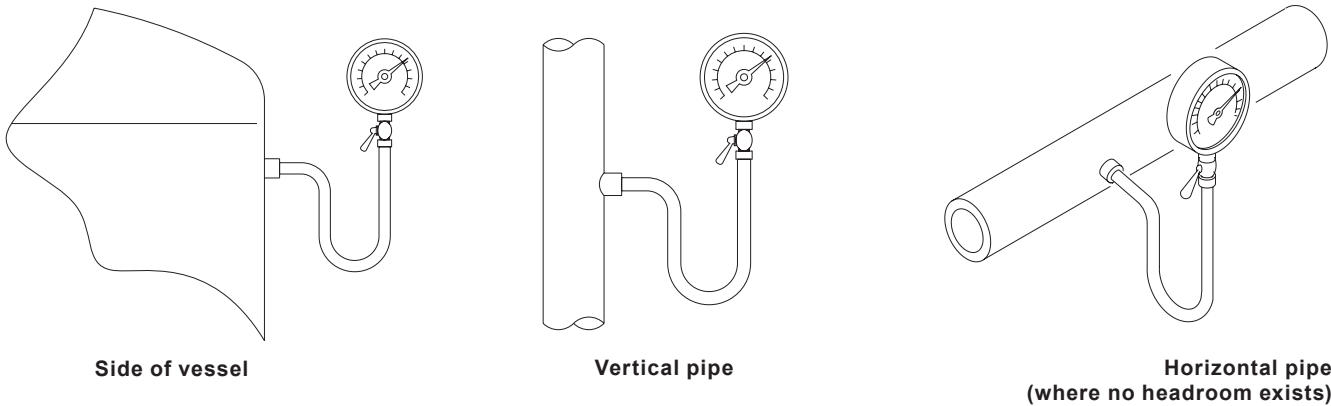
How to order

Example: 1 off Spirax Sarco 4" pressure gauge with a pressure range of 0 - 10 bar and having screwed 3/8" BSP connections.

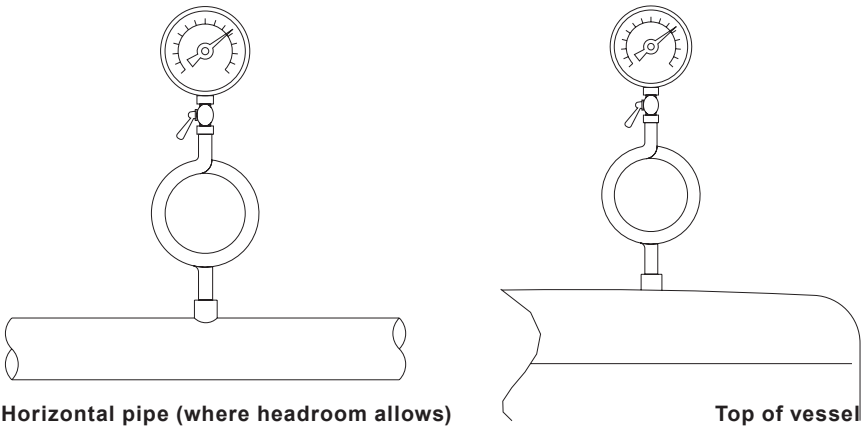
Pipeline ancillaries
Pressure gauges and temperature gauges

Spare parts
There are no spare parts available for Spirax Sarco pressure gauges.

Typical uses of a 'U' syphon and gauge



Typical uses of a ring syphon and gauge





TI-P027-03
CMGT Issue 7

NPT Pressure Gauge with Syphon and Cock

Description

Pressure gauge with 4" (100 mm) diameter dial with units marked in psi and inches Hg for vacuum as appropriate. The gauge is supplied with either:

- Ring type syphon tube and cock or a 'U' type syphon tube and cock.
- Bourdon tube gauge, constructed in accordance with DIN 16005.

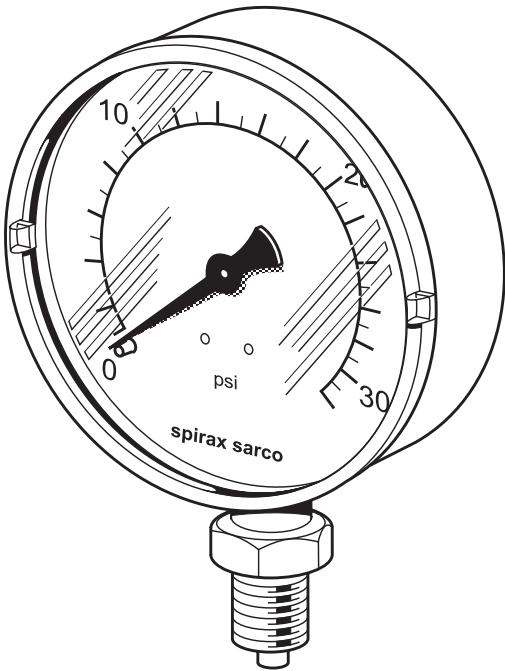
For the following options, consult Spirax Sarco:

Pressure gauges with **BSP** connections.

A dial with **MPa** units is available where indicated (*) in the 'Available pressure range' table below.

Available pressure range

Steel Note: Where indicated (*) a dial with MPa units is available.	Range	0 to 30 psi
	Range *	0 to 60 psi
	Range *	0 to 100 psi
	Range *	0 to 160 psi
	Range *	0 to 300 psi
	Range	30" Hg to 15 psi
	Range	30" Hg to 30 psi
	Range	30" Hg to 60 psi



Standards

The product fully complies with the requirements of the EU Pressure Equipment Directive/UK Pressure Equipment (Safety) Regulations.

Certification

A certificate of conformity is available as standard for this product. A calibration certificate is available by special order at extra cost.
Note: All certification/inspection requirements must be specified at the time of order placement.

Sizes and pipe connections

Pressure gauge

Gauge cock	Gauge end	1/2" NPT
	Syphon end	
Ring/'U' syphon	Cock end	1/2" NPT
	Process end	

10 Pipeline ancillaries
Pressure gauges and temperature gauges

Materials

Part		Material
Gauge	Case	Pressed steel
	Glass	Snap fit perspex
	Bourdon tube	CuSh 8 (92% Cu 8% Zn)
Ring and 'U' syphon		Mild steel tube BS 1387 heavy grade
Gauge cock	Body	Brass
	Handle	Phenolic

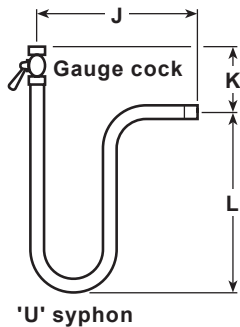
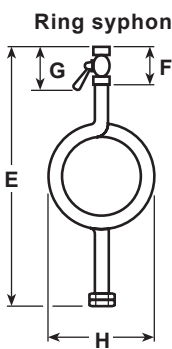
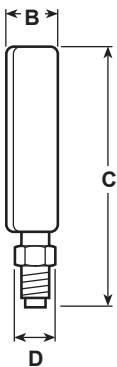
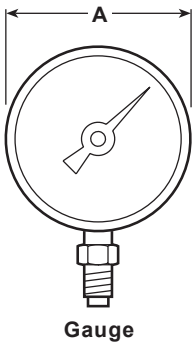
Pressure/temperature limits

Maximum design conditions		Full scale reading	
PMA	Maximum allowable pressure	Full scale reading	
TMA	Maximum allowable temperature	217 °C	
Note: Either a 'U' or a ring syphon must be fitted to achieve this.			
Minimum allowable temperature		-40 °C	
PMO	Maximum operating pressure	Range †	15 psi
		Range †	30 psi
		Range †	60 psi
		Range	100 psi
		Range	160 psi
		Range	300 psi
TMO	Maximum operating temperature	50 °C	

Please note:
1. Where indicated (†) these units are available as compound gauges down to full vacuum.
2. For compressed air and steam services the maximum operating pressure for this product is 300 psi.

Dimensions/weights (approximate) in mm and kg

Gauge					Ring syphon						'U' syphon				
A	B	C	D	Weight	Weight						Weight				
					E	F	G	H	Syphon	Cock	J	K	L	Syphon	Cock
100	29	132	22 A/F	0.43	390	66	89	100	1.07	0.23	216	92	175	0.90	0.23



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P027-02) supplied with the product.

Installation note:

As with all instrumentation, the Spirax Sarco pressure gauge is a delicate measuring device and care has to be taken in its installation and use if it is to remain reliable.
It is recommended that all gauges are fitted with a gauge cock to assist when calibration or maintenance is necessary. When used on steam or other hot gases, gauges must be protected from heat by the use of a 'U' syphon or ring syphon tube and gauge cock. The syphon pipe should be primed with water prior to fitting the gauge. Care should be taken if the installation is exposed to frost as gauges can burst.

Disposal:

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

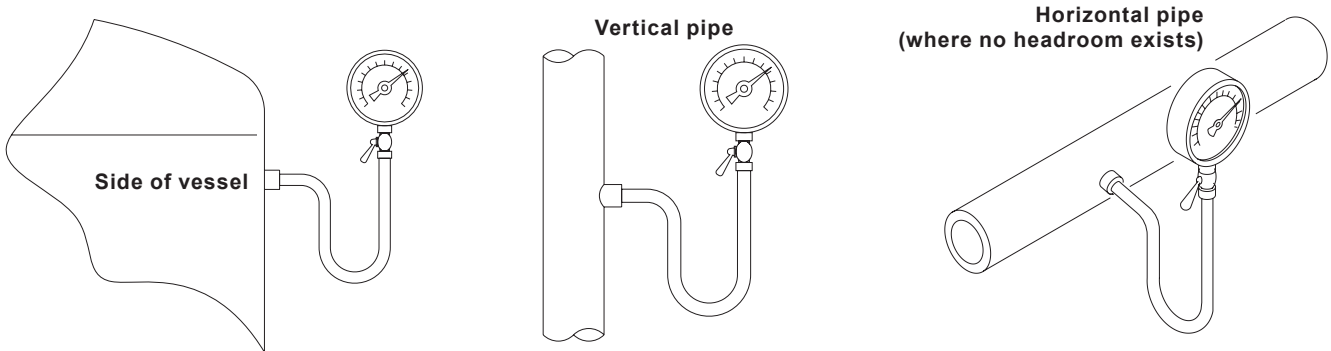
How to order

Example: 1 off Spirax Sarco 1/2" pressure gauge with pressure range of 0 - 160 psi and having screwed NPT connections.

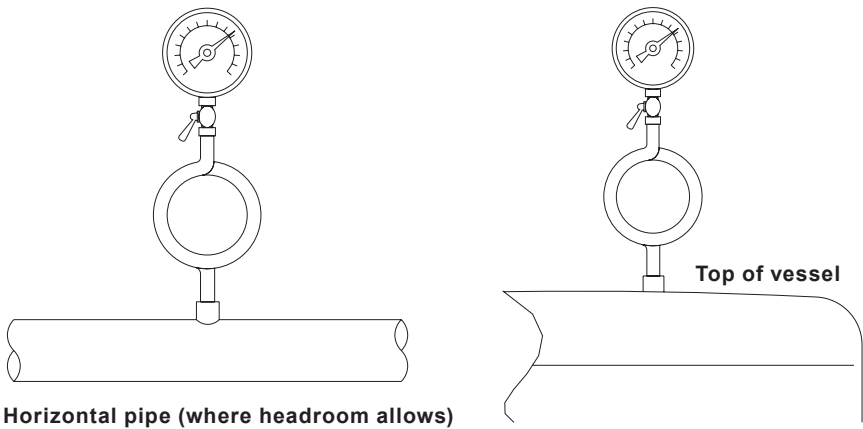
Spare parts

There are no spare parts available for Spirax Sarco pressure gauges.

Typical uses of a 'U' syphon and gauge



Typical uses of a ring syphon and gauge



10

Pipeline ancillaries
Pressure gauges and temperature gauges

10.10

8