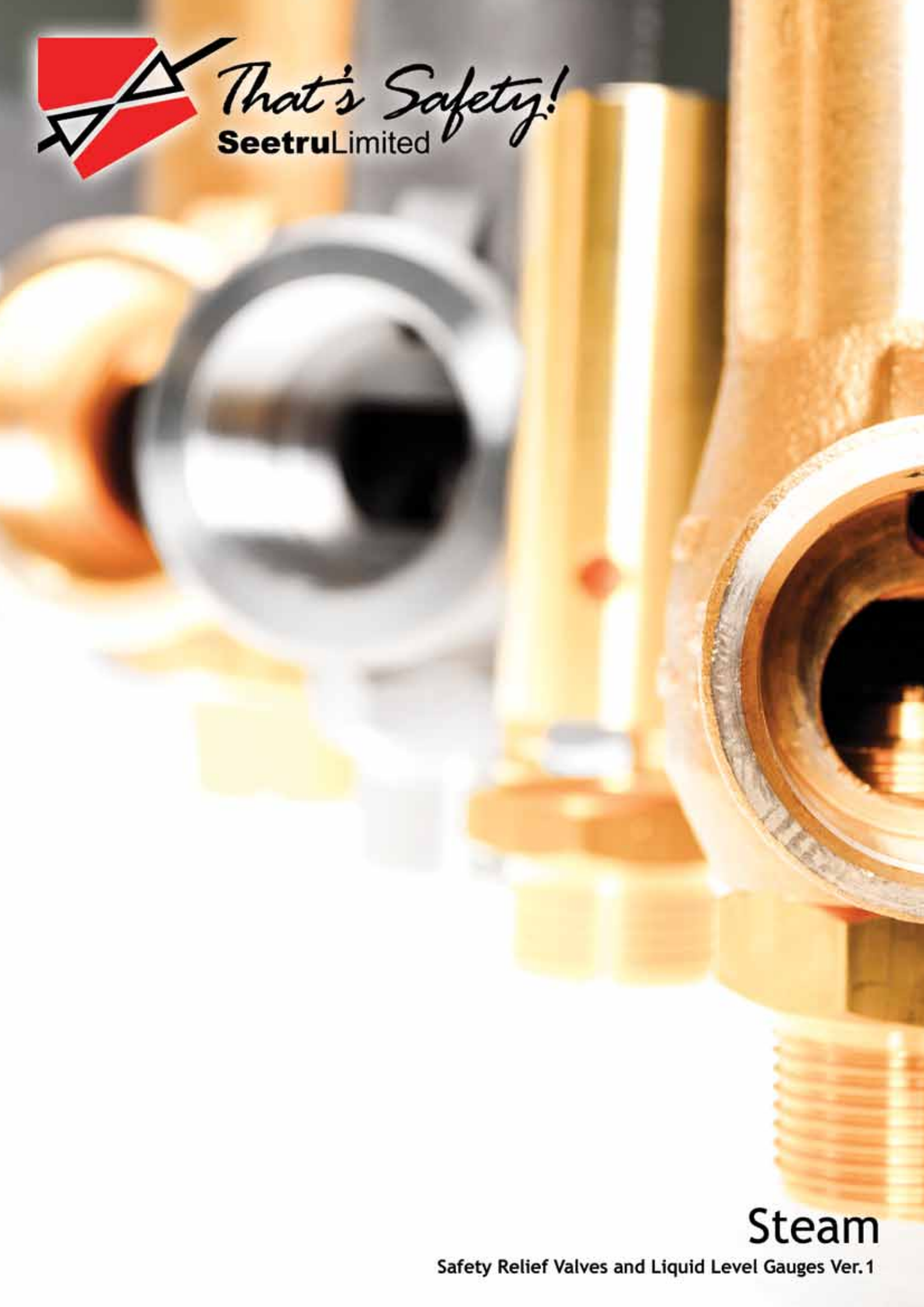




*That's Safety!*  
**Seetru**Limited



**Steam**

Safety Relief Valves and Liquid Level Gauges Ver.1



# Seetru Limited

## Quality, Innovation & Service



### The Company

Seetru Limited was founded in 1949 with the aim of producing the finest liquid level gauges so customers could see the true level even under the most severe conditions.

This philosophy of making the finest through innovation continued with the introduction of the Seetru range of pressure relief devices, circa 1950; the Seetru Tutchtite® sealing system revolutionized the safety valve market with valves that do not leak even after repeated popping and for high pressures.

Today, Seetru have an extensive range of pressure relief valves and liquid level gauges which carry a wide range of international approvals and are supplied worldwide.



### The Products

Seetru are manufacturers of safety relief and other special purpose ancillary valves for a wide range of compressed air, industrial gas, refrigerants, powder, steam, liquid and liquefied gas applications.

These valves meet important international standards which include: BS 6759 Parts 2 & 3, AD-Merkblatt A2, ISO 4126 and ASME Section VIII design codes as well as type test approvals from TÜV and the National Board. The products comply with the requirements of the European Pressure Equipment Directive 97/23/EC (PED) and are available with both the CE mark as well as the UV stamp, and have wide international approvals such as the Russian GOST and RTN and the Canadian CRN.

Seetru also has a wide range of special purpose valves, which are largely for the compressed air industry and for medium sized industrial diesel engines. These include minimum pressure valves for screw type compressors and air starting valves for medium size industrial and marine diesel engines.

Seetru liquid level gauges are primarily of two types, sight gauges and magnetic float by-pass gauges. Many of the gauges are direct reading though most have optional electronic remote reading systems and computer interfaces. The range includes the Quickmount, Seemag and CPI gauges for industrial and chemical applications and the Seeflex for marine applications.

The company's substantial design and development department, which includes TÜV approved testing facilities, enables it to provide extensive bespoke design, advisory and manufacturing services to develop or adapt individual products for new applications.

**Tel: +44 (0)117 927 9204 Fax: +44 (0)117 929 8193 Email: [sales@seetru.com](mailto:sales@seetru.com) Web: [www.seetru.com](http://www.seetru.com)**

## The Seetru 'SA' & 'SP' Range

The Seetru range of safety valves for steam applications are compact and highly efficient, designed with the exclusive Tutchtite® sealing technology offering repeatable bubble-tight sealing performance. Typical uses of these valves include autoclaves, pharmaceutical industry, vending machines, hot water boilers, steam boilers and plants as well as clean steam applications. Suitable for use up to 250 °C and minimum dryness factor of 0.97.

Manufactured in accordance with a wide range of international standards and approvals such as TÜV (Germany) to AD Merkblatt A2, National Board UV Stamp to ASME Section VIII Division 1, GOST/RTN, and compliant with the requirements of the Pressure Equipment Directive 97/23/EC (CE marked).

These valves are available with a wide range of sealing materials and technologies as well as a comprehensive range of manual relieving devices to suit application requirements.

### SA 319 specifications

|                |           | Inlet |       |
|----------------|-----------|-------|-------|
| Connections    | BSP & NPT | 1/4"  |       |
|                |           | From  | To    |
| Pressure range | bar       | 0.27  | 5     |
|                | psi       | 3.92  | 72.50 |

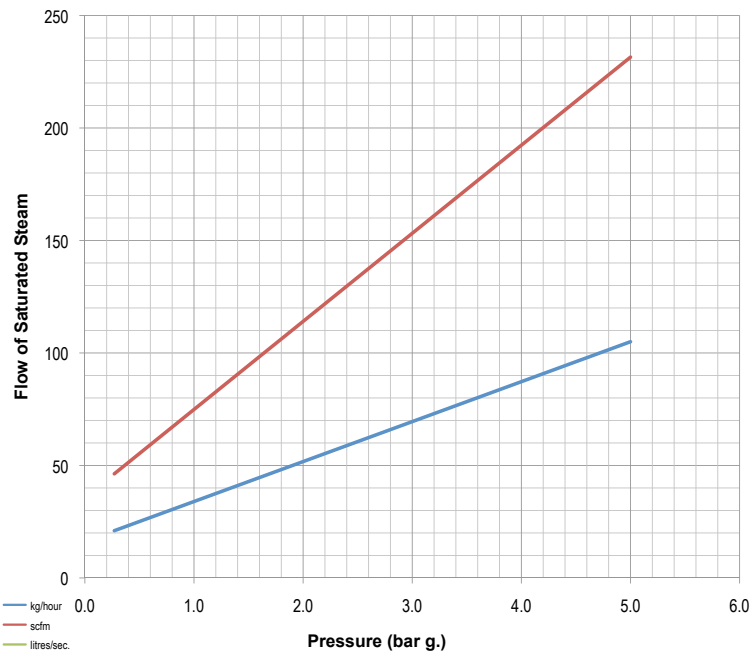
**Temperature range** Up to 140°C (subject to seal material)

**Flow area** 49.02mm<sup>2</sup> (7.90 mm inlet bore diameter)

**Notes**

- Relieving pressure is set pressure +0.3 bar g.
- Reseating pressure is set pressure -0.3 bar g.

### Discharge capacity's

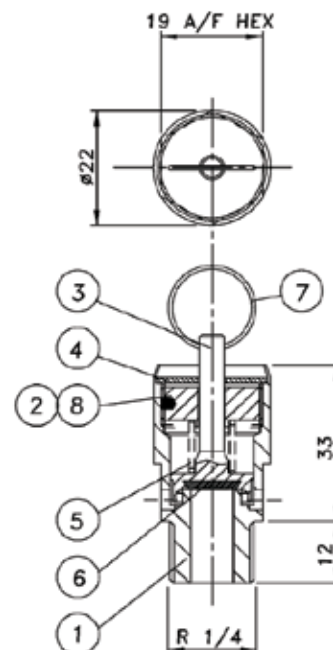


### Approvals



Sealing  
Perfluoroelastomer

DN8



### Materials of construction

|                |                 |
|----------------|-----------------|
| 1 Body         | Brass CZ132     |
| 2 Adjuster     | Brass CZ132     |
| 3 Plunger      | Brass CZ132     |
| 4 NamePlate    | Aluminium Alloy |
| 5 Spring       | St. Steel       |
| 6 Disc Seal    | Silicone        |
| 7 Pull Ring    | St. Steel       |
| 8 Locking Slug | Nylon           |

# 1

# Steam SA 750

## SA 319 specifications

|                |           | Inlet |         |
|----------------|-----------|-------|---------|
| Connections    | BSP & NPT | 1/4"  |         |
|                |           | From  | To      |
| Pressure range | bar       | 0.27  | 5       |
|                | psi       | 3.92  | (72.50) |

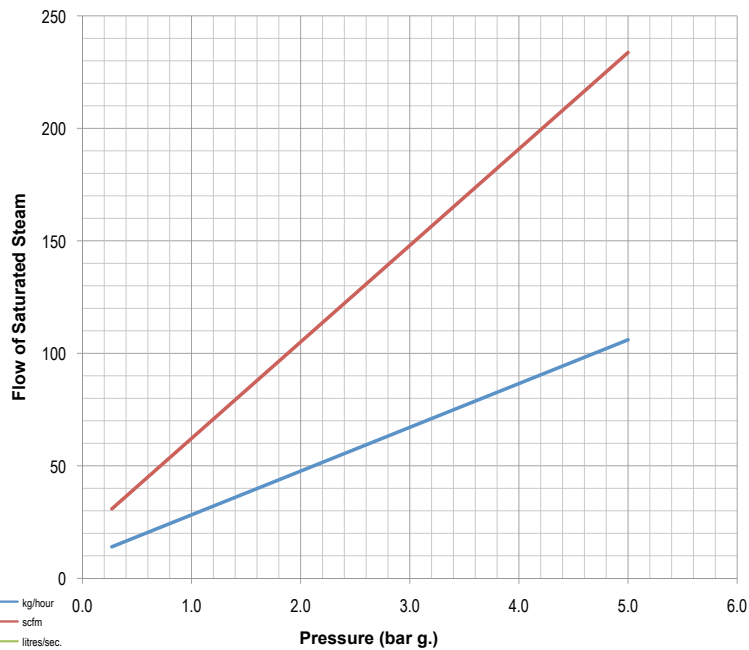
Temperature range Up to 150°C

Flow area 49.02mm<sup>2</sup> (7.90 mm inlet bore diameter)

### Notes

- Relieving pressure is set pressure +10% (0.0 bar g. below 1.0 bar g.)
- Reseating pressure is set pressure -10% (0.3 bar g. below 3.0 bar g.) • Below 1.00 bar g. PED certified only

## Discharge capacity's

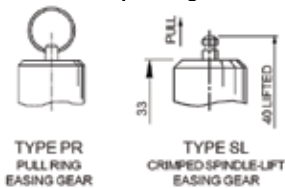


— kg/hour  
— scfm  
— litres/sec.

## Approvals

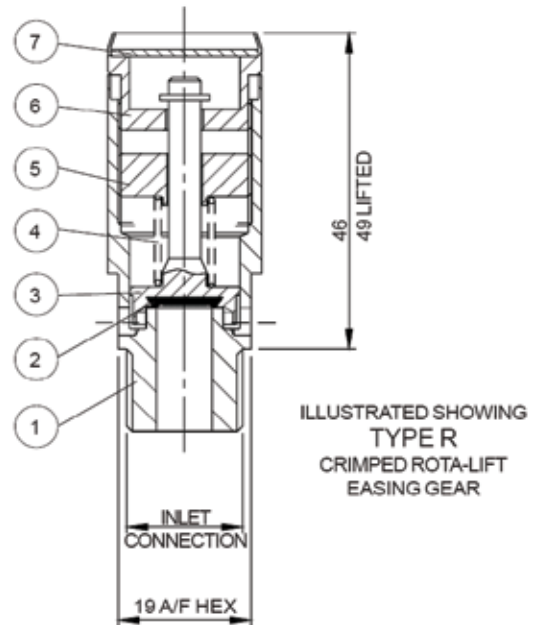


### Alternate Top Fittings



Sealing  
Silicone

## DN8



## Materials of construction

|   | ASME         | SA 75708 *                |
|---|--------------|---------------------------|
|   | PED/TÜV/ASME | SA 75108 *                |
|   | PED/TÜV      | SA 75008                  |
| 1 | Body         | Brass CW602N / CW614N (*) |
| 2 | Adjuster     | To Suit                   |
| 3 | Plunger      | Brass CW602N              |
| 4 | NamePlate    | St. Steel 1.4310 (302)    |
| 5 | Spring       | Brass CW602N              |
| 6 | Disc Seal    | Brass CW602N              |
| 7 | Pull Ring    | Aluminium Alloy           |

## GP 63608 specifications

|                |           | Inlet        | Outlet |
|----------------|-----------|--------------|--------|
| Connections    | BSP & NPT | 1/4" to 1/2" | 3/8"   |
|                |           | From         | To     |
| Pressure range | bar       | 0.30         | 4      |
|                | psi       | 4.35         | 58     |

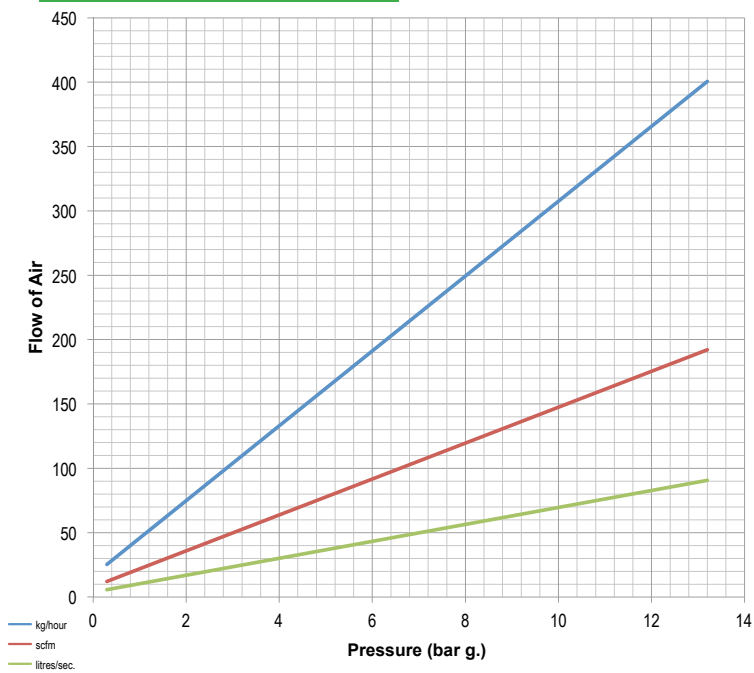
**Temperature range** -20°C to 180°C (subject to seal material)

**Flow area** 49.02mm<sup>2</sup> (7.90 mm inlet bore diameter)

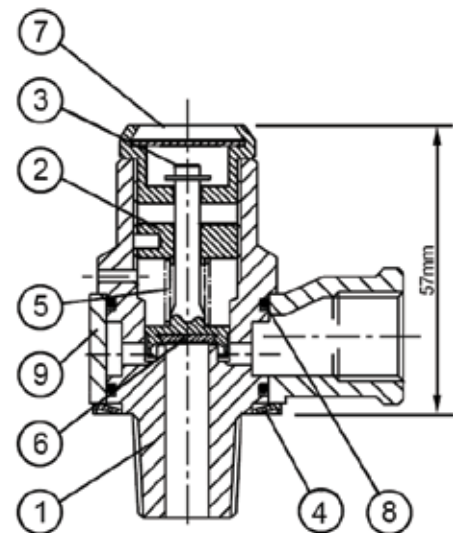
**Notes**

- Maximum permissible built up back pressure is 10% of set pressure
- Relieving pressure is set pressure +10% (0.1 bar g. below 1 bar g.)
- Reseating pressure is set pressure -10% (0.1 bar g. minimum)

## Discharge capacity's



**DN8**



ILLUSTRATED SHOWING  
TYPE R  
CRIMPED ROTA-LIFT  
EASING GEAR

## Approvals



## Materials of construction

|   |                 |                      |
|---|-----------------|----------------------|
| 1 | Body            | Brass CZ132          |
| 2 | Adjuster        | Brass CZ132          |
| 3 | Plunger         | Brass CZ132          |
| 4 | Retaining Clip  | Zinc Plated          |
| 5 | Spring          | St. Steel            |
| 6 | Disc Seal       | St. Steel            |
| 7 | Relieving Screw | Brass                |
| 8 | 'O' ring        | As Disc Seal         |
| 9 | Pipe Collar     | PPS 40% Glass Filled |

# 2

# Steam SP 636, 646, 656

## GP 63610, 64610, 65610 specifications

|                       |           | Inlet        | Outlet    |
|-----------------------|-----------|--------------|-----------|
| <b>Connections</b>    | BSP & NPT | 3/8" to 1/2" | 3/4"      |
|                       |           | <b>From</b>  | <b>To</b> |
| <b>Pressure range</b> | bar       | 0.48         | 12        |
|                       | psi       | 6.96         | 174       |

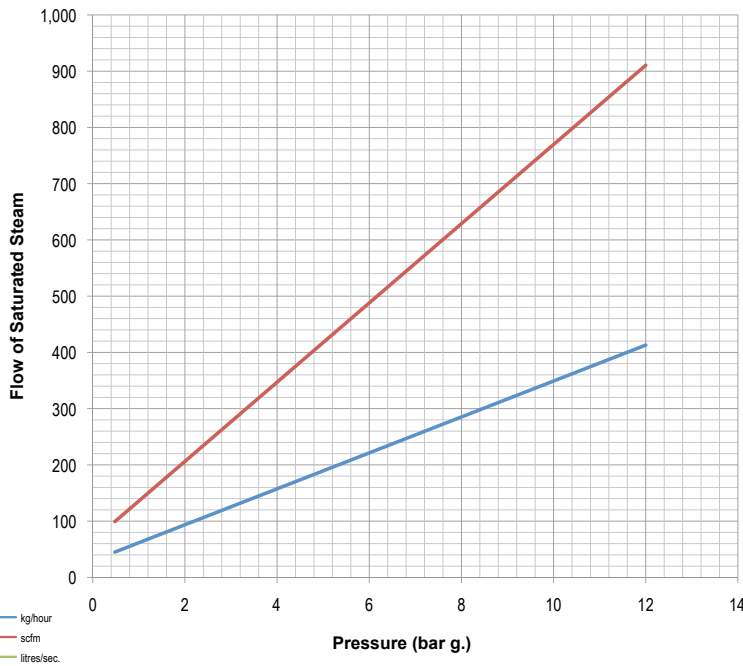
**Temperature range** Up to 200°C (subject to seal material)

**Flow area** 70.88mm<sup>2</sup> (9.50 mm inlet bore diameter)

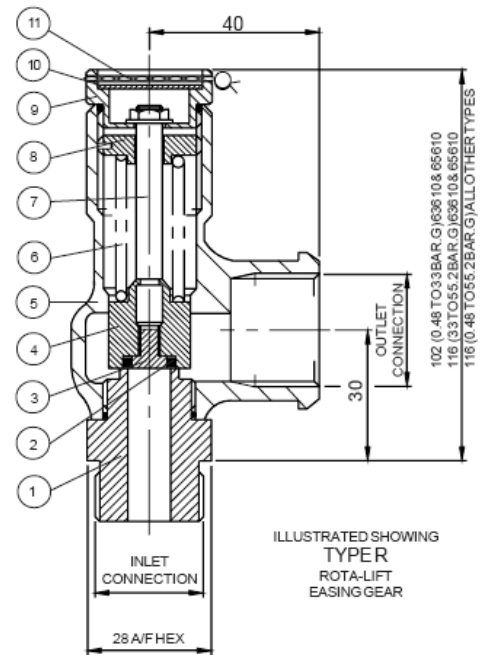
**Notes**

- Maximum permissible built up back pressure is 10% of set pressure
- Stable operation on flows down to 50% of valve related capacity
- Relieving pressure is set pressure +10% (0.3 bar g. below 1.55 bar g.)
- Reseating pressure is set pressure -10% (0.3 bar g. minimum)
- Below 1.55 bar g., PED certified only
- Perfluoroelastomer only suitable from 7 bar g.

## Discharge capacity's



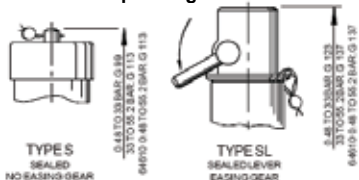
**DN10**



## Approvals



## Alternate Top Fitting



## Materials of construction

| ASME            | GP 63710                        | GP 64710                  | GP 65710                        |
|-----------------|---------------------------------|---------------------------|---------------------------------|
| PED/TÜV/ASME    | GP 63110                        | GP 64110                  | GP 65110                        |
| PED/TÜV         | GP 63610                        | GP 64610                  | GP 65610                        |
| 1 Inlet Seat    | Brass CW614N                    | St. Steel<br>1.4401 (316) | St. Steel<br>1.4401 (316)       |
| 2 Seal          | To Suit                         | To Suit                   | To Suit                         |
| 3 Seal Retainer | Brass CW614N                    | St. Steel<br>1.4401 (316) | St. Steel<br>1.4401 (316)       |
| 4 Plunger       | Brass CW602N                    | St. Steel<br>1.4401 (316) | Brass CW602N                    |
| 5 Body          | Bronze CC491K<br>(SB-62 C83600) | St. Steel<br>1.4408 (316) | Bronze CC491K<br>(SB-62 C83600) |
| 6 Spring        | St. Steel<br>1.4310 (302)       | St. Steel<br>1.4310 (302) | St. Steel<br>1.4310 (302)       |
| 7 Spindle       | St. Steel<br>1.4057 (431)       | St. Steel<br>1.4057 (431) | St. Steel<br>1.4057 (431)       |
| 8 Adjuster      | Brass CW614N                    | St. Steel<br>1.4401 (316) | Brass CW614N                    |
| 9 Cap           | Brass CW614N                    | St. Steel<br>1.4401 (316) | Brass CW614N                    |
| 10 Nameplate    | Aluminium Alloy                 | Aluminium Alloy           | Aluminium Alloy                 |
| 11 Wire & Seal  | St. Steel & Lead                | St. Steel & Lead          | St. Steel & Lead                |

# Steam SP 636, 646, 656

# 2

## SP 63613, 64613, 65613 specifications

|                |           | Inlet | Outlet |
|----------------|-----------|-------|--------|
| Connections    | BSP & NPT | 3/4"  | 1"     |
|                |           | From  | To     |
| Pressure range | bar       | 0.32  | 12     |
|                | psi       | 4.64  | 174    |

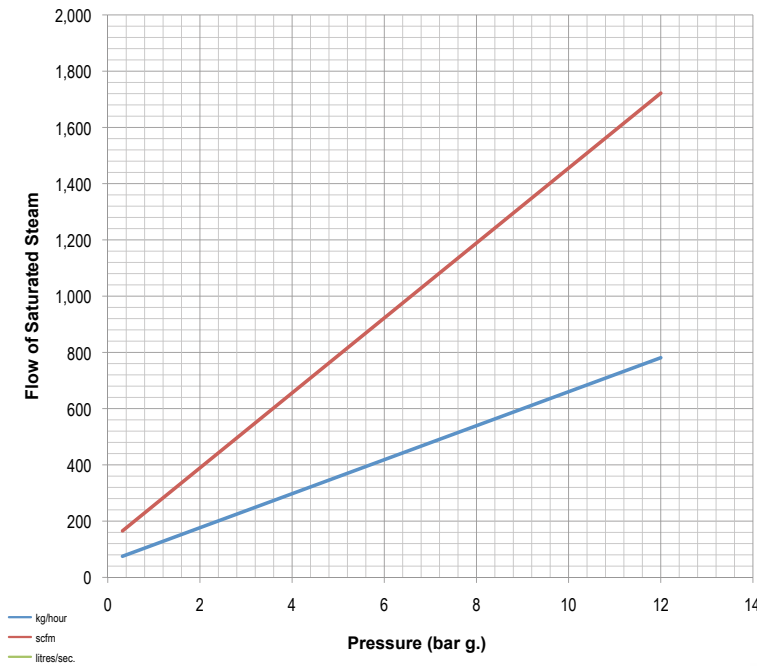
Temperature range Up to 200°C

Flow area 147.41mm<sup>2</sup> (13.70 mm inlet bore diameter)

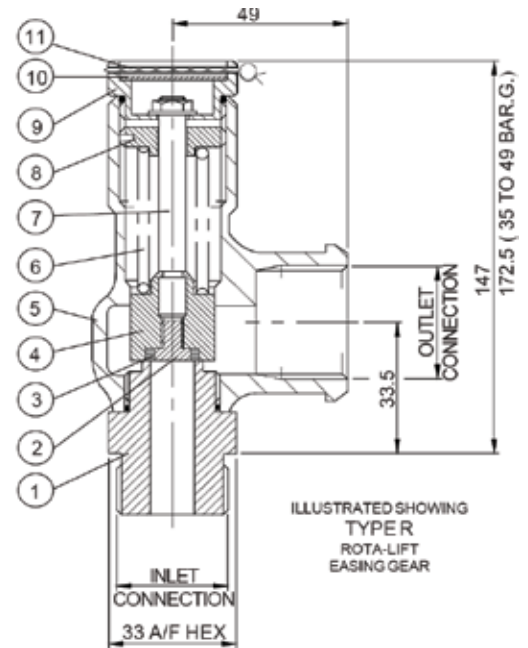
### Notes

- Maximum permissible built up back pressure is 10% of set pressure
- Stable operation on flows down to 50% of valve related capacity
- Relieving pressure is set pressure +10% (0.3 bar g. below 1.40 bar g.)
- Reseating pressure is set pressure -10% (0.3 bar g. minimum)
- Below 1.40 bar g., PED certified only
- Perfluoroelastomer only suitable from 7 bar g.

## Discharge capacity's



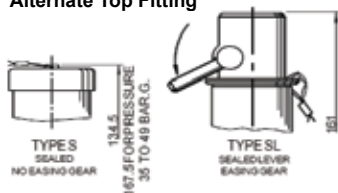
DN13



## Approvals



### Alternate Top Fitting



## Materials of construction

| ASME            | GP 63713                        | GP 64713                  | GP 65713                        |
|-----------------|---------------------------------|---------------------------|---------------------------------|
| PED/TÜV/ASME    | GP 63113                        | GP 64113                  | GP 65113                        |
| PED/TÜV         | GP 63613                        | GP 64613                  | GP 65613                        |
| 1 Inlet Seat    | Brass CW614N                    | St. Steel<br>1.4401 (316) | St. Steel<br>1.4401 (316)       |
| 2 Seal          | To Suit                         | To Suit                   | To Suit                         |
| 3 Seal Retainer | Brass CW614N                    | St. Steel<br>1.4401 (316) | St. Steel<br>1.4401 (316)       |
| 4 Plunger       | Brass CW602N                    | St. Steel<br>1.4401 (316) | Brass CW602N                    |
| 5 Body          | Bronze CC491K<br>(SB-62 C83600) | St. Steel<br>1.4408 (316) | Bronze CC491K<br>(SB-62 C83600) |
| 6 Spring        | St. Steel<br>1.4310 (302)       | St. Steel<br>1.4310 (302) | St. Steel<br>1.4310 (302)       |
| 7 Spindle       | St. Steel<br>1.4057 (431)       | St. Steel<br>1.4057 (431) | St. Steel<br>1.4057 (431)       |
| 8 Adjuster      | Brass CW614N                    | St. Steel<br>1.4401 (316) | Brass CW614N                    |
| 9 Cap           | Brass CW614N                    | St. Steel<br>1.4401 (316) | Brass CW614N                    |
| 10 Nameplate    | Aluminium Alloy                 | Aluminium Alloy           | Aluminium Alloy                 |
| 11 Wire & Seal  | St. Steel & Lead                | St. Steel & Lead          | St. Steel & Lead                |

# 2

# Steam SP 636, 646, 656

## GP 63618, 64618, 65618 specifications

|                |           | Inlet | Outlet |
|----------------|-----------|-------|--------|
| Connections    | BSP & NPT | 1"    | 1 1/2" |
|                |           | From  | To     |
| Pressure range | bar       | 1     | 12     |
|                | psi       | 14.50 | 174    |

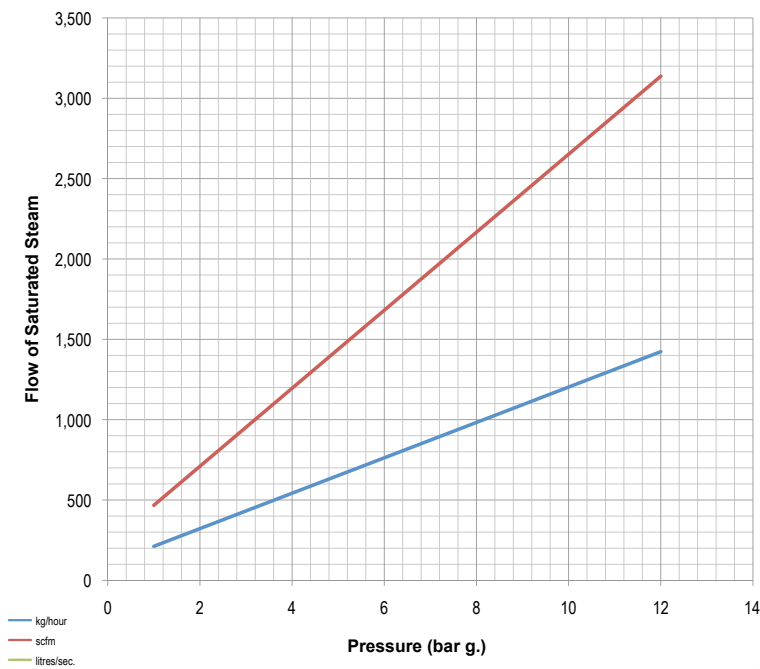
**Temperature range** Up to 200°C (subject to seal material)

**Flow area** 226.98mm<sup>2</sup> (17 mm inlet bore diameter)

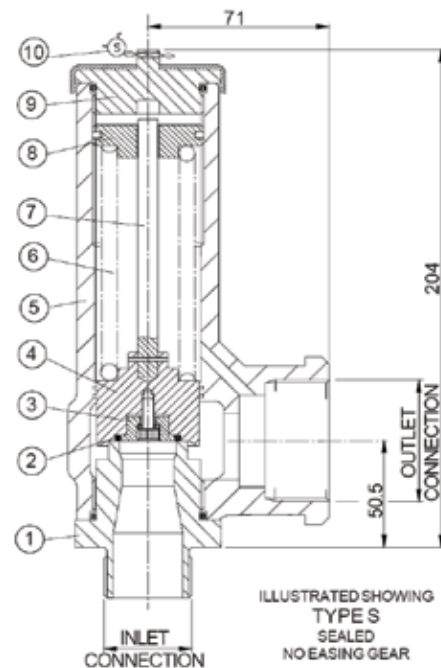
**Notes**

- Maximum permissible built up back pressure is 10% of set pressure • Perfluoroelastomer only suitable from 7 bar g.
- Stable operation on flows down to 50% of valve related capacity
- Relieving pressure is set pressure +10%
- Reseating pressure is set pressure -10% (0.3 bar g. minimum)
- Below 2.40 bar g., PED certified only

## Discharge capacity's



**DN18**



## Approvals



## Materials of construction

|                 | GP 63718                     | GP 64718               | GP 65718                     |
|-----------------|------------------------------|------------------------|------------------------------|
| ASME            | GP 63118                     | GP 64118               | GP 65118                     |
| PED/TÜV/ASME    | GP 63618                     | GP 64618               | GP 65618                     |
| PED/TÜV         |                              |                        |                              |
| 1 Inlet Seat    | Brass CW614N                 | St. Steel 1.4401 (316) | St. Steel 1.4401 (316)       |
| 2 Seal          | To Suit                      | To Suit                | To Suit                      |
| 3 Seal Retainer | Brass CW614N                 | St. Steel 1.4401 (316) | St. Steel 1.4401 (316)       |
| 4 Plunger       | Brass CW602N                 | St. Steel 1.4401 (316) | Brass CW602N                 |
| 5 Body          | Bronze CC491K (SB-62 C83600) | St. Steel 1.4408 (316) | Bronze CC491K (SB-62 C83600) |
| 6 Spring        | St. Steel 1.4310 (302)       | St. Steel 1.4310 (302) | St. Steel 1.4310 (302)       |
| 7 Spindle       | St. Steel 1.4057 (431)       | St. Steel 1.4057 (431) | St. Steel 1.4057 (431)       |
| 8 Adjuster      | Brass CW614N                 | St. Steel 1.4401 (316) | Brass CW614N                 |
| 9 Cap           | Brass CW614N                 | St. Steel 1.4401 (316) | Brass CW614N                 |
| 10 Wire & Seal  | St. Steel & Lead             | St. Steel & Lead       | St. Steel & Lead             |



# Steam SP 636, 646, 656

# 2

## GP 63620, 64620, 65620 specifications

|                |           | Inlet  | Outlet |
|----------------|-----------|--------|--------|
| Connections    | BSP & NPT | 1 1/4" | 2"     |
|                |           | From   | To     |
| Pressure range | bar       | 3      | 12     |
|                | psi       | 43.50  | 174    |

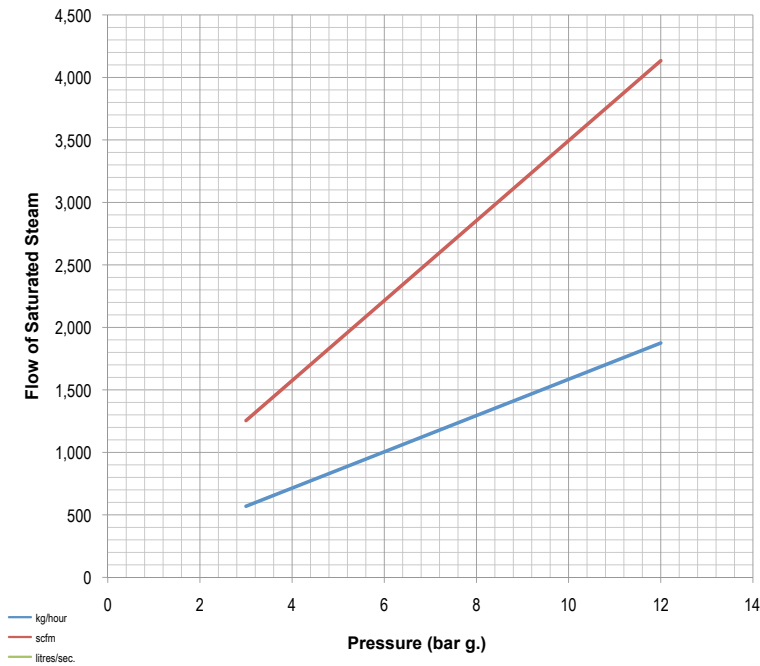
**Temperature range** Up to 200°C (subject to seal material)

**Flow area** 314.16mm<sup>2</sup> (20 mm inlet bore diameter)

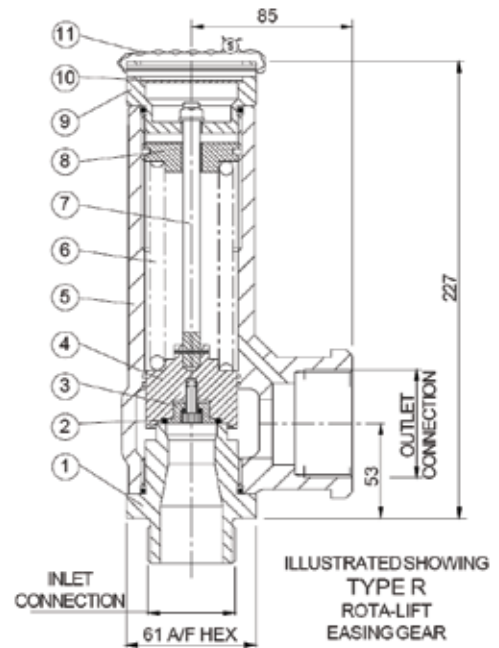
### Notes

- Maximum permissible built up back pressure is 10% of set pressure • Perfluoroelastomer only suitable from 7 bar g.
- Stable operation on flows down to 50% of valve related capacity
- Relieving pressure is set pressure +10%
- Reseating pressure is set pressure -10% (0.3 bar g, minimum)

## Discharge capacity's



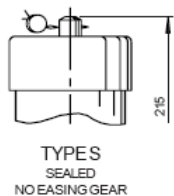
**DN20**



## Approvals



### Alternate Top Fitting



## Materials of construction

| ASME            | GP 63720                        | GP 64720                  | GP 65720                        |
|-----------------|---------------------------------|---------------------------|---------------------------------|
| PED/TÜV/ASME    | GP 63120                        | GP 64120                  | GP 65120                        |
| PED/TÜV         | GP 63620                        | GP 64620                  | GP 65620                        |
| 1 Inlet Seat    | Brass CW614N                    | St. Steel<br>1.4401 (316) | St. Steel<br>1.4401 (316)       |
| 2 'O' Ring      | To Suit                         | To Suit                   | To Suit                         |
| 3 Seal Retainer | Brass CW614N                    | St. Steel<br>1.4401 (316) | St. Steel<br>1.4401 (316)       |
| 4 Plunger       | Brass CW602N                    | St. Steel<br>1.4401 (316) | Brass CW602N                    |
| 5 Body          | Bronze CC491K<br>(SB-62 C83600) | St. Steel<br>1.4408 (316) | Bronze CC491K<br>(SB-62 C83600) |
| 6 Spring        | St. Steel<br>1.4310 (302)       | St. Steel<br>1.4310 (302) | St. Steel<br>1.4310 (302)       |
| 7 Spindle       | St. Steel<br>1.4057 (431)       | St. Steel<br>1.4057 (431) | St. Steel<br>1.4057 (431)       |
| 8 Adjuster      | Brass CW614N                    | St. Steel<br>1.4401 (316) | Brass CW614N                    |
| 9 Cap           | Brass CW614N                    | St. Steel<br>1.4401 (316) | Brass CW614N                    |
| 10 Nameplate    | Aluminium                       | St. Steel                 | Aluminium                       |
| 11 Wire & Seal  | St. Steel & Lead                | St. Steel & Lead          | St. Steel & Lead                |

# 2

# Steam SP 636, 646, 656

## GP 63625, 64625, 65625 specifications

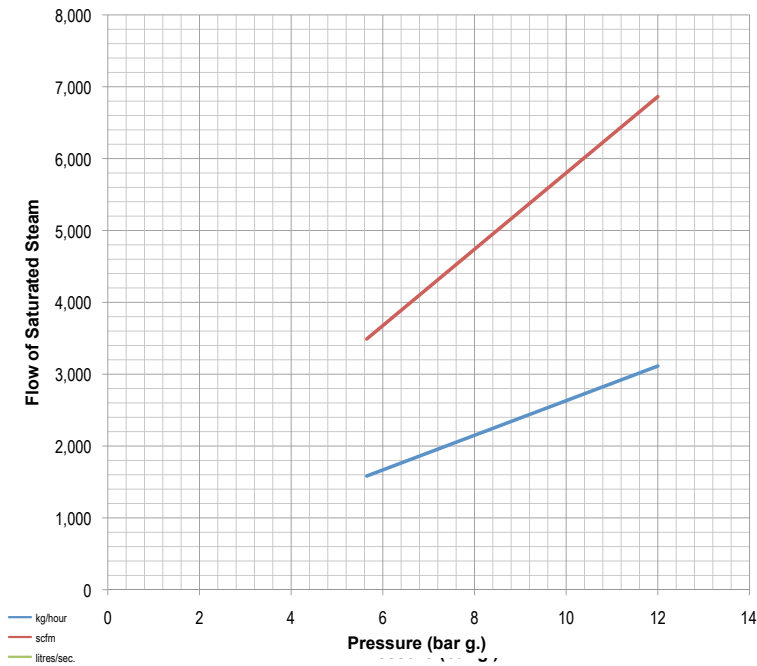
|                |           | Inlet  | Outlet |
|----------------|-----------|--------|--------|
| Connections    | BSP & NPT | 1 1/2" | 2"     |
|                |           | From   | To     |
| Pressure range | bar       | 5.65   | 12     |
|                | psi       | 30     | 174    |

**Temperature range** Up to 200°C (subject to seal material)

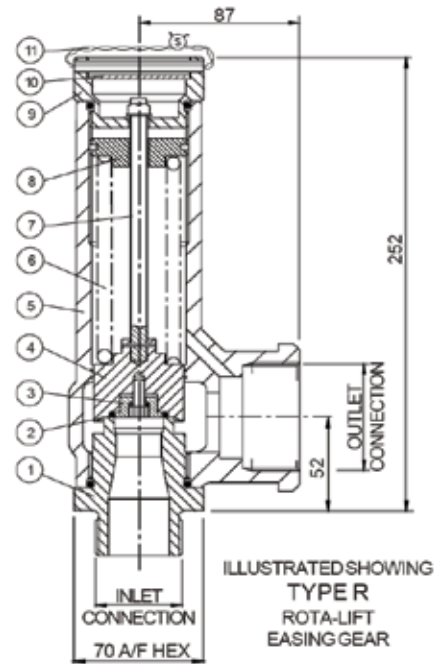
**Flow area** 490.87mm<sup>2</sup> (25 mm inlet bore diameter)

- Notes
- Maximum permissible built up back pressure is 10% of set pressure
  - Stable operation on flows down to 50% of valve related capacity
  - Relieving pressure is set pressure +10%
  - Reseating pressure is set pressure -10%
  - Perfluoroelastomer only suitable from 7 bar g.

## Discharge capacity's



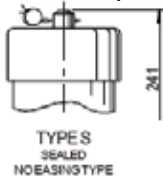
**DN25**



## Approvals



## Alternate Top Fitting



## Materials of construction

| ASME            | GP 63725                        | GP 64725                  | GP 65725                        |
|-----------------|---------------------------------|---------------------------|---------------------------------|
| PED/TÜV/ASME    | GP 63125                        | GP 64125                  | GP 65125                        |
| PED/TÜV         | GP 63625                        | GP 64625                  | GP 65625                        |
| 1 Inlet Seat    | Brass CW614N                    | St. Steel<br>1.4401 (316) | St. Steel<br>1.4401 (316)       |
| 2 'O' Ring      | To Suit                         | To Suit                   | To Suit                         |
| 3 Seal Retainer | Brass CW614N                    | St. Steel<br>1.4401 (316) | St. Steel<br>1.4401 (316)       |
| 4 Plunger       | Brass CW602N                    | St. Steel<br>1.4401 (316) | Brass CW602N                    |
| 5 Body          | Bronze CC491K<br>(SB-62 C83600) | St. Steel<br>1.4408 (316) | Bronze CC491K<br>(SB-62 C83600) |
| 6 Spring        | St. Steel<br>1.4310 (302)       | St. Steel<br>1.4310 (302) | St. Steel<br>1.4310 (302)       |
| 7 Spindle       | St. Steel<br>1.4057 (431)       | St. Steel<br>1.4057 (431) | St. Steel<br>1.4057 (431)       |
| 8 Adjuster      | Brass CW614N                    | St. Steel<br>1.4401 (316) | Brass CW614N                    |
| 9 Cap           | Brass CW614N                    | St. Steel<br>1.4401 (316) | Brass CW614N                    |
| 10 Nameplate    | Aluminium/<br>St. Steel         | St. Steel                 | Aluminium/<br>St. Steel         |
| 11 Wire & Seal  | St. Steel & Lead                | St. Steel & Lead          | St. Steel & Lead                |

# Steam SP 646 (Clean Gas Service)

# 2

## GP 64610 (clean gas service) specifications

|                |           | Inlet                   | Outlet |
|----------------|-----------|-------------------------|--------|
| Connections    | BSP & NPT | 1/2" to 1"<br>TRI-CLAMP | 3/4"   |
|                |           | From                    | To     |
| Pressure range | bar       | 0.48                    | 12     |
|                | psi       | 6.96                    | 174    |

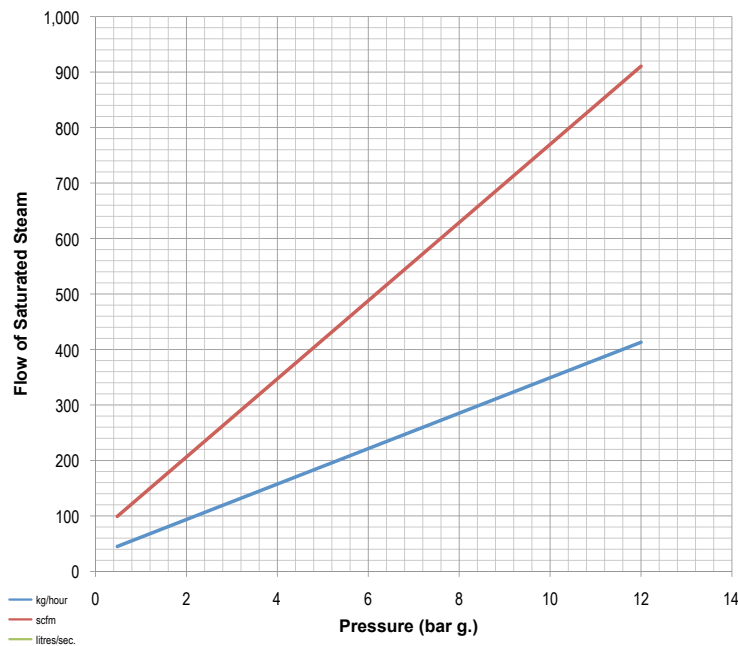
**Temperature range** Up to 190°C (subject to seal material)

**Flow area** 70.88mm<sup>2</sup> (9.50 mm inlet bore diameter)

### Notes

- Maximum permissible built up back pressure is 10% of set pressure
- Stable operation on flows down to 50% of valve rated capacity
- Relieving pressure is set pressure +10% (0.3 bar g. below 1.55 bar g.)
- Reseating pressure is set pressure -10% (0.3 bar g. minimum)
- Below 1.55 bar g., PED certified only
- Tri-Clamp compatible generally in accordance with ASME BPE 2005 & BS 4825-3.

## Discharge capacity's



## Approvals

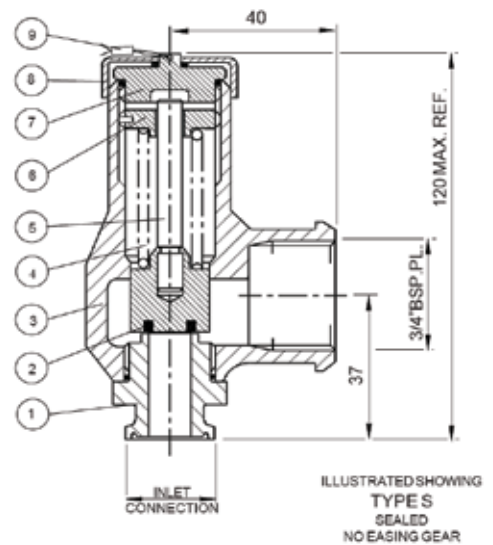


### Alternate Top Fitting



DN10

Sealing  
Perfluoroelastomer



## Materials of construction

|   | ASME         | GP 64710                |
|---|--------------|-------------------------|
|   | PED/TÜV/ASME | GP 64110                |
|   | PED/TÜV      | GP 64610                |
| 1 | Inlet Seat   | St. Steel 1.4404 (316L) |
| 2 | Plunger      | St. Steel 1.4404 (316L) |
| 3 | Body         | St. Steel 1.4404 (316)  |
| 4 | Spring       | St. Steel 1.4404 (302)  |
| 5 | Spindle      | St. Steel 1.4404 (431)  |
| 6 | Adjuster     | St. Steel 1.4404 (316)  |
| 7 | Cap          | St. Steel 1.4404 (316)  |
| 8 | Cover        | St. Steel               |
| 9 | Wire & Seal  | St. Steel & Lead        |

# 2

# Steam SP 646

## GP 64613 (clean gas service) specifications

|                |           | Inlet      | Outlet |
|----------------|-----------|------------|--------|
| Connections    | BSP & NPT | 3/4" to 1" | 1"     |
|                |           | Tri-Clamp® |        |
| Pressure range | bar       | From 0.32  | To 12  |
|                | psi       | 4.64       | 174    |

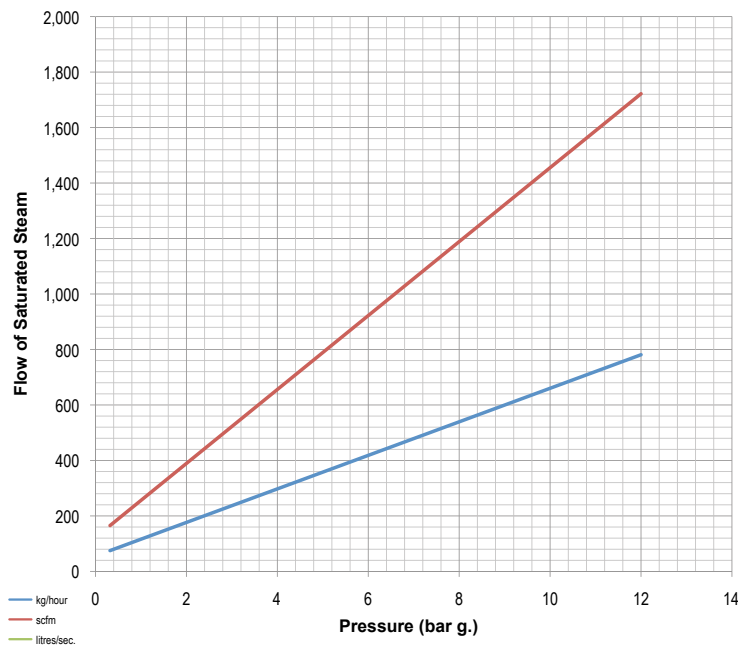
**Temperature range** Up to 190°C (subject to seal material)

**Flow area** 147.41mm<sup>2</sup> (13.70 mm inlet bore diameter)

**Notes**

- Maximum permissible built up back pressure is 10% of set pressure
- Stable operation on flows down to 50% of valve rated capacity
- Relieving pressure is set pressure +10% (0.3 bar g. below 1.55 bar g.)
- Reseating pressure is set pressure -10% (0.3 bar g. minimum)
- Below 1.40 bar g., PED certified only
- Tri-Clamp® compatible generally in accordance with ASME BPE 2005 & BS 4825-3.

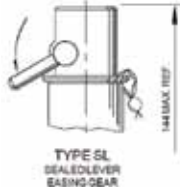
## Discharge capacity's



## Approvals

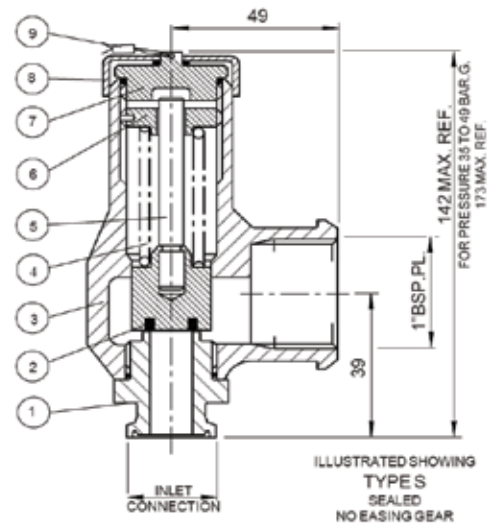


### Alternate Top Fitting



**DN13**

Sealing  
Perfluorelastomer



## Materials of construction

|   | ASME         | GP 64713                |
|---|--------------|-------------------------|
|   | PED/TÜV/ASME | GP 64113                |
|   | PED/TÜV      | GP 64613                |
| 1 | Inlet Seat   | St. Steel 1.4404 (316L) |
| 2 | Plunger      | St. Steel 1.4404 (316L) |
| 3 | Body         | St. Steel 1.4404 (316)  |
| 4 | Spring       | St. Steel 1.4404 (302)  |
| 5 | Spindle      | St. Steel 1.4404 (431)  |
| 6 | Adjuster     | St. Steel 1.4404 (316)  |
| 7 | Cap          | St. Steel 1.4404 (316)  |
| 8 | Cover        | St. Steel               |
| 9 | Wire & Seal  | St. Steel & Lead        |

# Steam SP 936, 946

# 2

## GP 94610 (Metal Seal) specifications

|                |           | Inlet        | Outlet |
|----------------|-----------|--------------|--------|
| Connections    | BSP & NPT | 1/2" to 3/4" | 1"     |
|                |           | From         | To     |
| Pressure range | bar       | 0.30         | 28     |
|                | psi       | 4.35         | 406    |

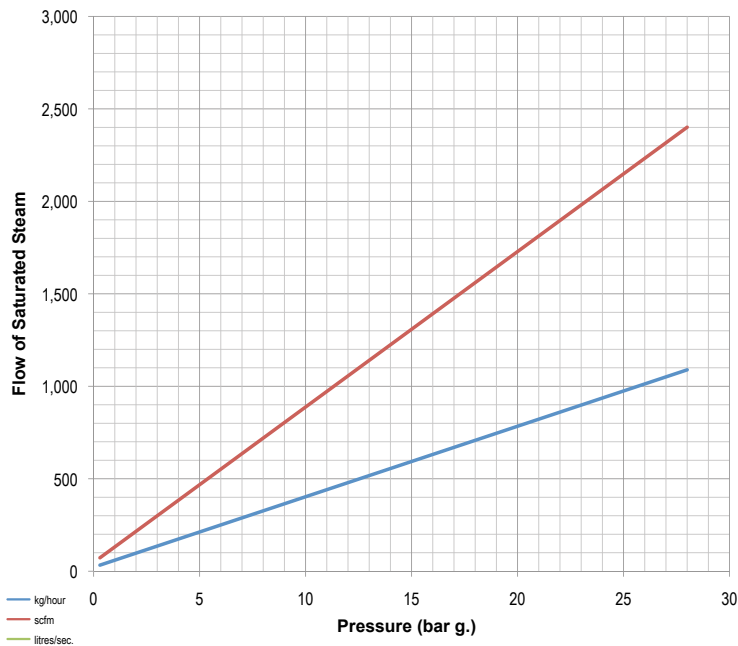
**Temperature range** Up to 250°C (subject to seal material)

**Flow area** 78.54mm<sup>2</sup> (10.00 mm inlet bore diameter)

**Notes**

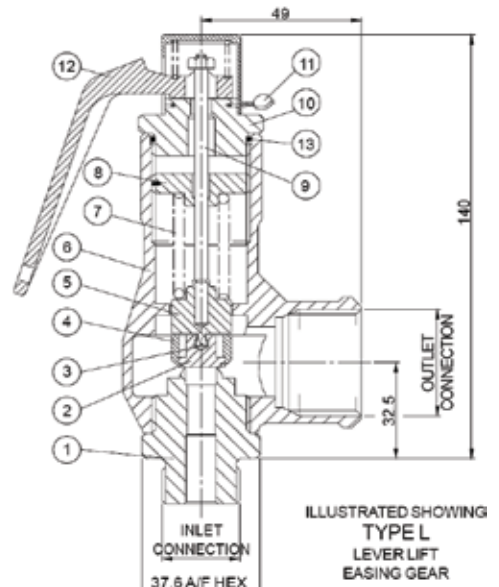
- Maximum permissible built up back pressure is 10% of set pressure
- Stable operation on flows down to 50% of valve rated capacity
- Relieving pressure is set pressure +10% (0.1 bar g. below 1.3 bar g.)
- Reseating pressure is set pressure -10% (0.3 bar g. below 3.0 bar g.)

## Discharge capacity's



Sealing  
Metal-to-Metal

**DN10**



## Approvals



## Alternate Top Fittings



## Materials of construction

|                | GP 93610               | GP 94610         |
|----------------|------------------------|------------------|
| 1 Inlet Seat   | Brass                  | St. Steel        |
| 2 Disc         | St. Steel 1.4401 (316) | St. Steel 440B   |
| 3 Ball         | St. Steel              | St. Steel        |
| 4 Disc Holder  | St. Steel              | St. Steel        |
| 5 Plunger      | St. Steel              | St. Steel        |
| 6 Body         | Brass                  | St. Steel        |
| 7 Spring       | St. Steel              | St. Steel        |
| 8 Adjuster     | Brass                  | St. Steel        |
| 9 Spindle      | St. Steel              | St. Steel        |
| 10 Cap         | Brass                  | St. Steel        |
| 11 Wire & Seal | St. Steel & Lead       | St. Steel & Lead |
| 12 Lever       | Brass                  | St. Steel        |
| 13 'O' ring    | To Suit                | To Suit          |

# 2

# Steam SP 936, 946

## GP 94615 (Metal Seal) specifications

|                       |           | Inlet         | Outlet    |
|-----------------------|-----------|---------------|-----------|
| <b>Connections</b>    | BSP & NPT | 3/4 to 1 1/2" | 1 1/2"    |
|                       |           | <b>From</b>   | <b>To</b> |
| <b>Pressure range</b> | bar       | 0.30          | 28        |
|                       | psi       | 4.35          | 406       |

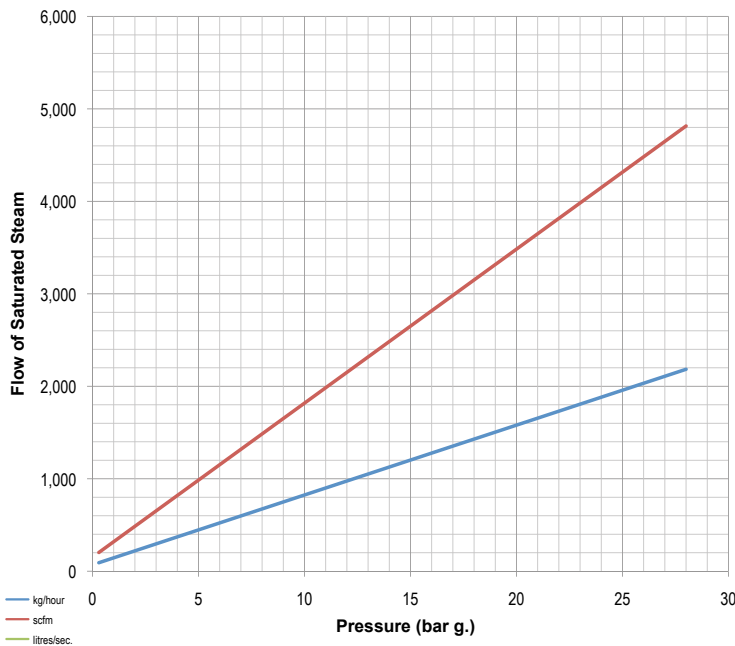
**Temperature range** Up to 250°C (subject to seal material)

**Flow area** 176.71mm<sup>2</sup> (15.00 mm inlet bore diameter)

**Notes**

- Maximum permissible built up back pressure is 10% of set pressure
- Stable operation on flows down to 50% of valve rated capacity
- Relieving pressure is set pressure +10% (0.1 bar g. below 1.3 bar g.)
- Reseating pressure is set pressure -10% (0.3 bar g. below 3.0 bar g.)

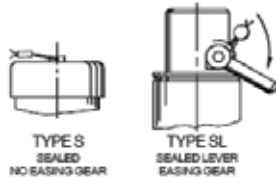
## Discharge capacity's



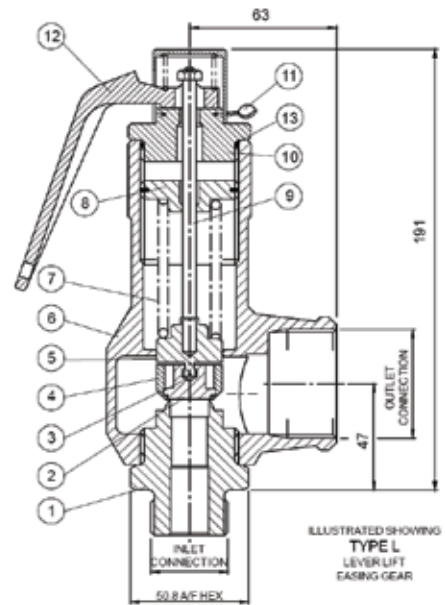
## Approvals



### Alternate Top Fittings



**DN15**



## Materials of construction

|                | GP 93615               | GP 94615         |
|----------------|------------------------|------------------|
| 1 Inlet Seat   | Brass                  | St. Steel        |
| 2 Disc         | St. Steel 1.4401 (316) | St. Steel 440B   |
| 3 Ball         | St. Steel              | St. Steel        |
| 4 Disc Holder  | St. Steel              | St. Steel        |
| 5 Plunger      | St. Steel              | St. Steel        |
| 6 Body         | St. Steel              | St. Steel        |
| 7 Spring       | St. Steel              | St. Steel        |
| 8 Adjuster     | Brass                  | St. Steel        |
| 9 Spindle      | St. Steel              | St. Steel        |
| 10 Cap         | Brass                  | St. Steel        |
| 11 Wire & Seal | St. Steel & Lead       | St. Steel & Lead |
| 12 Lever       | Brass                  | St. Steel        |
| 13 'O' ring    | To Suit                | To Suit          |

## GP 94620 (Metal Seal) specifications

|                |           | Inlet     | Outlet |
|----------------|-----------|-----------|--------|
| Connections    | BSP & NPT | 1" to 1½" | 2"     |
|                |           | From      | To     |
| Pressure range | bar       | 0.30      | 28     |
|                | psi       | 4.35      | 406    |

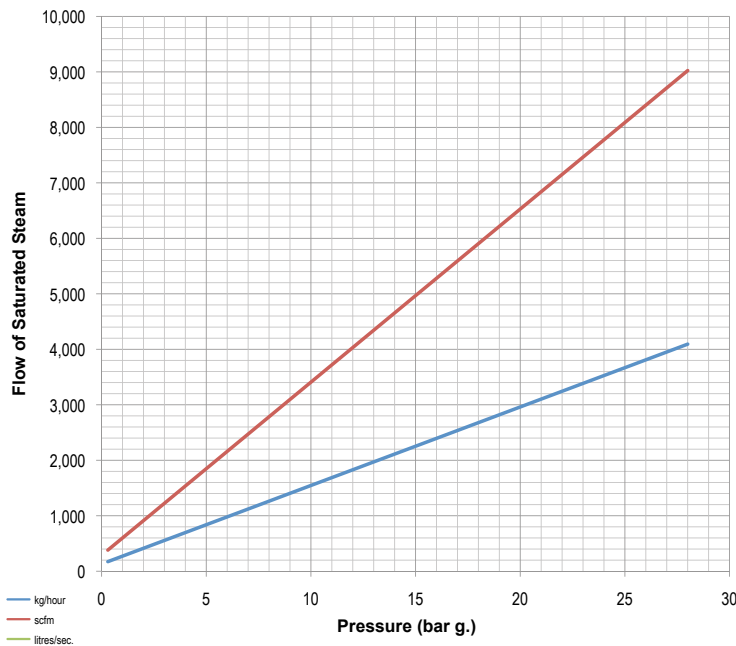
**Temperature range** -196°C to 250°C (subject to seal material)

**Flow area** 314.16mm<sup>2</sup> (20.00 mm inlet bore diameter)

**Notes**

- Maximum permissible built up back pressure is 10% of set pressure
- Stable operation on flows down to 50% of valve rated capacity
- Relieving pressure is set pressure +10% (0.1 bar g. below 1.3 bar g.)
- Reseating pressure is set pressure -10% (0.3 bar g. below 3.0 bar g.)

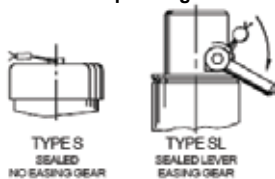
## Discharge capacity's



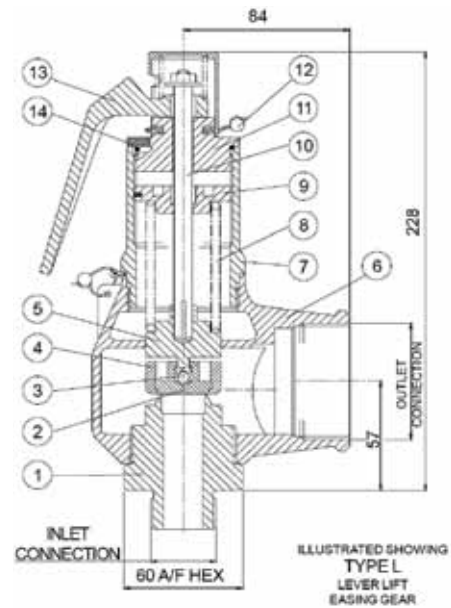
## Approvals



## Alternate Top Fittings



**DN20**



## Materials of construction

|                  | GP 93620               | GP 94620         |
|------------------|------------------------|------------------|
| 1 Inlet Seat     | Brass                  | St. Steel        |
| 2 Disc           | St. Steel 1.4401 (316) | St. Steel 440B   |
| 3 Ball           | St. Steel              | St. Steel        |
| 4 Disc Holder    | St. Steel              | St. Steel        |
| 5 Plunger        | St. Steel              | St. Steel        |
| 6 Body           | Brass                  | St. Steel        |
| 7 Spring Housing | Brass                  | St. Steel        |
| 8 Spring         | St. Steel              | St. Steel        |
| 9 Adjuster       | Brass                  | St. Steel        |
| 10 Spindle       | St. Steel              | St. Steel        |
| 11 Cap           | Brass                  | St. Steel        |
| 12 Wire & Seal   | St. Steel & Lead       | St. Steel & Lead |
| 13 Lever         | Brass                  | St. Steel        |
| 14 'O' ring      | To Suit                | To Suit          |

# 2

# Steam SP 936, 946

## GP 94625 (Metal Seal) specifications

|                |           | Inlet        | Outlet |
|----------------|-----------|--------------|--------|
| Connections    | BSP & NPT | 1 1/4" to 2" | 2"     |
|                |           | From         | To     |
| Pressure range | bar       | 0.30         | 20     |
|                | psi       | 4.35         | 290    |

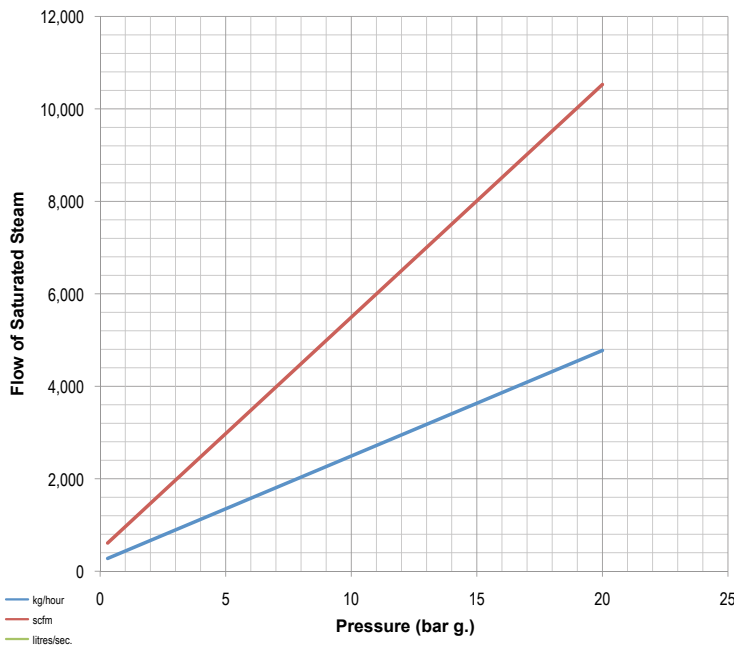
**Temperature range** -196°C to 250°C (subject to seal material)

**Flow area** 490.87mm<sup>2</sup> (25.00 mm inlet bore diameter)

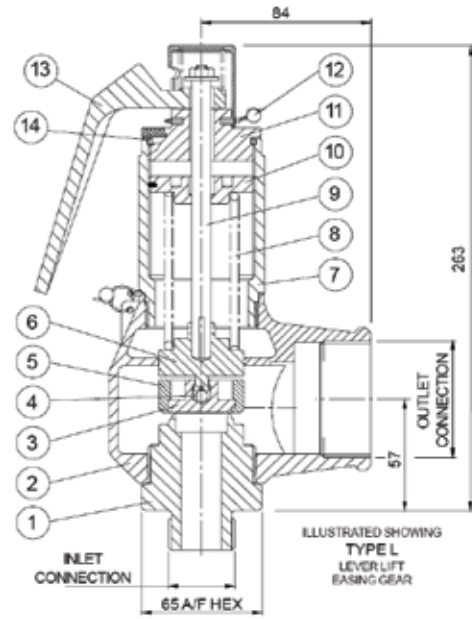
**Notes**

- Maximum permissible built up back pressure is 10% of set pressure
- Stable operation on flows down to 50% of valve rated capacity
- Relieving pressure is set pressure +10% (0.1 bar g. below 1.3 bar g.)
- Reseating pressure is set pressure -10% (0.3 bar g. below 3.0 bar g.)

## Discharge capacity's



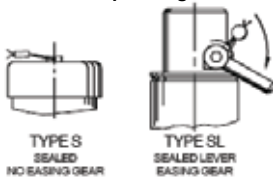
**DN25**



## Approvals



## Alternate Top Fittings



## Materials of construction

|                  | GP 93625               | GP 94625         |
|------------------|------------------------|------------------|
| 1 Inlet Seat     | Brass                  | St. Steel        |
| 2 Body           | St. Steel              | St. Steel        |
| 3 Disc           | St. Steel 1.4401 (316) | St. Steel 440B   |
| 4 Ball           | St. Steel              | St. Steel        |
| 5 Disc Holder    | St. Steel              | St. Steel        |
| 6 Plunger        | St. Steel              | St. Steel        |
| 7 Spring Housing | Brass                  | St. Steel        |
| 8 Spring         | Brass                  | St. Steel        |
| 9 Spindle        | St. Steel              | St. Steel        |
| 10 Adjuster      | Brass                  | St. Steel        |
| 11 Cap           | Brass                  | St. Steel        |
| 12 Wire & Seal   | St. Steel & Lead       | St. Steel & Lead |
| 13 Lever         | Brass                  | St. Steel        |
| 14 'O' Ring      | To Suit                | To Suit          |



## The Seetru 'G22' Quickmount Tubular Gauge

The Seetru Quickmount liquid level gauge is a direct reading, tubular design for general industrial use. The unique isolating valve and collar design, allows for maintenance of the gauge column without tools and the need to drain the tank. Available with automatic safety shut off valves and drain valve. The construction provides a modern gauge, which is aesthetically pleasing.

Suitable for a wide range of pressures and temperatures, the gauge is fitted with elastomer seals in materials to suit the required service.

### G22 Quickmount specifications

|                            |   |
|----------------------------|---|
| <b>Connections</b>         | BSP and NPT threaded connections or ANSI / DIN flanges                              |
| <b>Lengths</b>             | To Suit Requirements (minimum 150mm)  |
| <b>Valve types</b>         | Manual screw down, Manual screw down complete with automatic safety shut-off valves |
| <b>Maximum Temperature</b> | 150°C <sup>1</sup>  |
| <b>Maximum Pressure</b>    | 22 bar <sup>2</sup>   |

<sup>1</sup> Maximum temperature is dependant of the sight tube and seal materials selected.

<sup>2</sup> Maximum allowable operating pressure is dependent upon operating temperature and sight tube material, contact Seetru for full information.

#### Tubular sight glass design

Sight tubes are available in glass or polycarbonate. Metal protecting tubes are available in a variety of materials with optional supplementary transparent polycarbonate protecting tube.

#### Ease of installation and maintenance

The Quickmount liquid level gauge can be installed without the use of special tools. Threaded end units are screwed into female tank bosses. The gauge collars slip over these units and are secured by hand tightening retaining nuts. 'O' ring sealing is used throughout. The isolating valves will allow column removal without need to drain the tank.

#### Tank calibration

Where a measure of the precise storage volume is required an engraved scale plate can be provided marked with the capacity units.

#### Tank connection

A closed circuit or open circuit pattern may be selected for the gauge.

#### Closed circuit pattern

Direct connection from the top of the gauge to the tank can be made with a screw-down valve or a valveless unit.

#### Open circuit pattern

The upper end of the liquid level gauge can be supplied with an automatic safety vent valve or, alternatively, a pipe union connection. The automatic safety vent valve will allow air to pass, but will seal against a liquid level. In the case of the pipe union connection design, a 10 mm o/d steel vent pipe is returned to the tank or into the tank vent pipe. Open circuit connection is only allowable when it is possible for the gauge column to extend above the top of the tank.

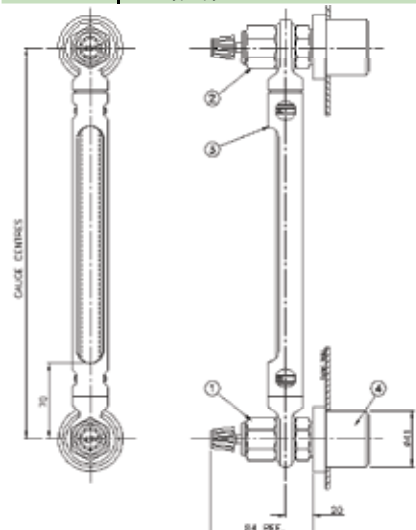
#### Electronic & Digital Readout

Remote reading system and/or computer interface options provide a dual system with the advantages of both electronic and sight glass systems. Level alarms can also be implemented.



### Materials of construction

|              |  |
|--------------|--|
| 1 Sight tube | Borosilicate Glass or Polycarbonate plastic                              |
| 2 Guard tube | Anodised aluminium<br>Brass<br>Stainless steel<br>Zinc plated mild steel |
| 3 Seal       | Elastomer  |
| 4 End Unit   | Brass<br>Stainless steel<br>Polypropylene                                |



For  
Hot Water

# 3

# Steam G22 Reflex Gauge

## The Seetru 'G34' Reflex Gauge

The G34 Reflex gauge is a heavy duty (flat glass) liquid level gauge, suitable for high pressure/temperature combinations. The modular design is made up of compact and robust standard stainless steel precision cast elements.

Variations on the isolating valves ranging from quarter turn ball valves to heavy duty hand wheel isolating valves complete with auto safety shut off safety features are available in a number of flexible configurations offering end mounted, side mount, rear entry connections, with full centre to centre visibility can be secured with minimum overall length.

### G34 Reflex specifications

|                            |  |
|----------------------------|--|
| <b>Connections</b>         | BSP & NPT threaded connections or ANSI/DIN flanges                   |
| <b>Lengths</b>             | Minimum: 216 mm<br>Maximum: 3246 mm                                  |
| <b>Valve types</b>         | Hand wheel operated isolation valves or ¼ Turn ball isolation valves |
| <b>Maximum Temperature</b> | 250°C  |
| <b>Maximum Pressure</b>    | 75 bar   |

#### Column arrangements:

The Reflex gauge is available with either a straight or staggered column, and a choice of valve positions, to provide uninterrupted centre to centre liquid level indication. With the use of extension pieces most centre to centre distance requirements can be achieved.

#### Valve options:

A choice of isolation valves are available, either ¼ turn ball valves or CPI screw down valves with ASV (auto shut-off valves). The ASV feature means that in the unlikely event that the glass is damaged the contents of the tank will not be lost. Also available are drain and vent valves.

#### Low temperature applications:

A polycarbonate frost shield is available which enables the gauge to be used down to -30°C subject to fluid suitability.

#### Electronic & digital readout

Remote reading system and/or computer interface options provide a dual system with the advantages of both electronic and sight glass systems. Level alarms can also be implemented.

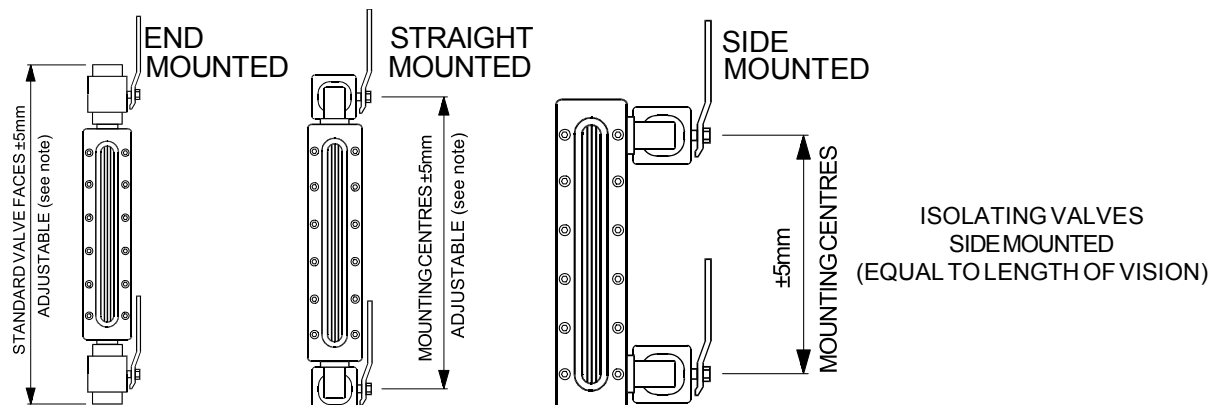
#### Graduation:

Where a measure of the precise storage volume is required an engraved scale plate can be provided marked with the capacity units.



### Materials of construction

|              |   |
|--------------|---|
| 1 Sight tube | Toughened Borosilicate Reflex Glass                   |
| 2 Guard tube | Stainless steel heavy duty front bezel                |
| 3 Seal       | PTFE as standard<br>(Other Elastomer Seals Available) |
| 4 End Unit   | Stainless steel                                       |



## The Seetru 'G35' Seemag® Magnetic Gauge

The Seetru Seemag® tank content indicator or gauge is a high quality yet economical magnetic level indicator. Its unique design offers considerable advantages over conventional magnetic gauges including accurate step-less reading with all round visibility and the option of high/low level alarms with remote digital reading.

### G34 Reflex specifications

**Connections** Threaded connections, flanged connections or stub pipe for welding

**Lengths** Minimum: 500 mm  
Maximum: 5000 mm

**Valve types** Valveless  
(¼ Turn ball isolation valves available)

**Densities** 0.6 to 2.0 SG.

**Maximum Temperature** 180°C

**Maximum Pressure** 22 bar

#### Magnetic bypass design

The gauge utilises a marker strip on a movable carriage fitted on the outside of a stainless steel tube, which by way of magnets moves up and down in unison with a float inside the tube. The marker strip is adjustable to suit the specific gravity of the liquid to be measured.

#### Ease of installation and maintenance

The Seemag liquid level gauge can be provided with a variety of end fittings to customer requirement. These include stub pipe for welding, ball valves, and flanges. The gauge is fitted with blanking plugs at the top and bottom of the gauge column. These can be easily removed to allow cleaning of the gauge column.

#### Tank calibration

A scale plate graduated in mm is incorporated into the Perspex front cover of the Seemag gauge. Other scale plates can be supplied graduated to customer requirement.

#### Tank connection

Seemag gauges are closed circuit design and both the top and bottom of the gauge is fitted to the tank.

#### Alarms and electronic/digital outputs

Options available include electronic high and low level alarm sensors, continuous electronic read out signals and displays as well as a digital data feed for direct computer interfaces and digital control systems.

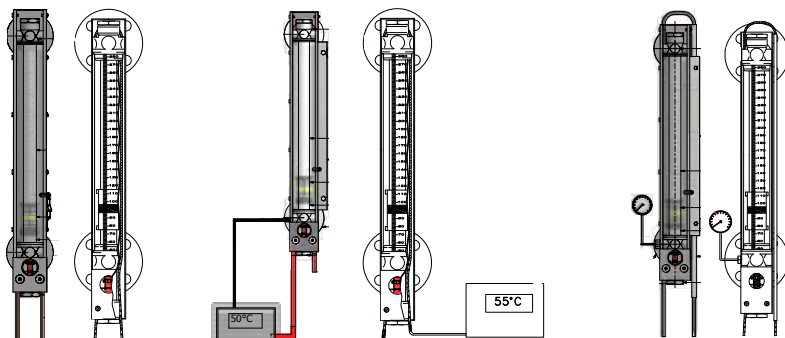
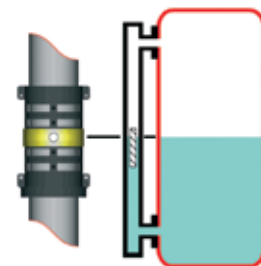
#### Heating system for high viscosity liquids

The Seemag gauge is available with an electrical, thermal oil and steam heating system. This heats the tube to allow the measurement of high viscosity fluids, such as heavy fuel oils on ships.



### Materials of construction

|              |                                     |
|--------------|-------------------------------------|
| 1 Sight tube | Toughened Borosilicate Reflex Glass |
| 2 Guard tube | Polycarbonate                       |
| 3 Seal       | PTFE                                |
| 4 End Unit   | Stainless steel                     |



# Other Products & Services from the Seetru Limited Organisation



The contents of this leaflet do not constitute an offer. SEETRU LIMITED reserve the right while maintaining the essential characteristics of the equipment and services described and illustrated to amend specification without notice.

Seetru Limited  
Albion Dockside Works  
Bristol. BS1 6UT