

MODELS- 2030 Series



All stainless steel construction Chemical Seal Pressure Gauges

APPLICATIONS

Diaphragm seal gauges commonly known as "chemical seal" gauges are designed and recommended to isolate the measuring system of a pressure gauge from corrosive, pasty or dangerous fluid depending on the viscosity, pressure, temperature, solidification of a particular process medium.

Dry, Liquid Fillable or Pre-Filled. VIBRAGAUGE® Option also available. VIBRAGAUGE® for Dampening of vibration & pulsation without liquid filling. With liquid-filled case for applications with high dynamic Pressure pulsations or vibration.

STANDARD SPECIFICATION

Petro-Chemical Diaphragm Seal Gauge (Weatherproof Construction to IP66)

Sizes

63, 100 and 150 mm

Case/ Bezel

304 Stainless Steel (316 Stainless Steel can be supplied on request)

Socket & Bourdon Tube

316 Stainless Steel

Movement

Stainless Steel Construction

Blowout Protection

S1 Blow-out device (FSP Option S3 Baffle wall with blow-out backplate)

Dial

White Anodised Aluminium (Black Printing)

Pointer

Black Aluminium

Window

Sheet Glass

Traceability

All instruments are individually calibrated and have an unique Serial Number.

Certification available on request

- Certificate of Conformity Traceable to National Standards
- Group Certification (Pressure Test Calibration Statement)
- Point to Point Test Certificate
- BS EN 10204 3.1 Material Certification

Safety

All units are manufactured to comply with EN 837-1, S1 (or S3 option) specification and other regulatory standards including PED 2014/68/EU.

Installation instructions

Refer to EN 837-2 and our [Guidance On Use of Equipment](#) data sheet.

Accuracy class

| ACCURACY CLASS EN837-1 (Optional Consult Sales) | | | |
|---|-------------|----------------|----------------|
| | 0 - 100 bar | >100 - 420 bar | >420 - 700 bar |
| 63mm | 2.5 | 2.5 | 2.5 |
| 100mm | 1.6 (1.0) | 1.6 (1.0) | 1.6 |
| 150mm | 1.6 (1.0) | 1.6 (1.0) | 1.6 |
| Overpressured | 1.25 FSD | 1.15 FSD | 1.15 FSD |

Options: 2% on 63mm, 1.5% on 100 & 150mm (Consult Sales)

Scale Range

Vacuum / Compound to -1 to 0 to -1 to 24 bar (Where applicable)

Standard 0 to 700 bar

Or other equivalent units of pressure or vacuum

PED 2014/68/EU, GAS Group.1 <1000 bar,

Operating Temperature Range EN837

-20° to 60°C (-4°F to 140°F)

Options for lower/higher operating ranges (Contact Sales)

Temperature Error

Additional error when temperature changes from reference

Temperature of 20°C (68°F) ±0.4% for every 10°C (18°F) rising or Falling % of span

Note: Cooling syphon recommended between diaphragm chamber and gauge for process temperatures above 60°C

Model-2032



See Page-2 for Dimension, Page-3 for Fill fluids and Available materials

Optional Extras

- Micro adjustable pointer /Black finish
- Optional dial materials & Custom markings
- ISO 15156 / NACE MR-01-75 wetted parts
- Spiral wound Armoured capillary (remote mounted)
- Laminated safety glass / Perspex window
- Orifice Restrictor Screw (standard Ø0.9mm, Ø0.4mm on request)
- Customer logo printed on dial
- Liquid filled / Suitable for liquid filling
- Nitelitegage® (See data sheet)
- Vibragaugage® (See data sheet)
- Snubbagaugage® (See data sheet)
- Fitted with electrical contacts (See data sheet)
- Gauge overpressure up to 130% of FSD
- Full Safety Pattern Gauge construction

Further options on request

Available with a wide range of accessories

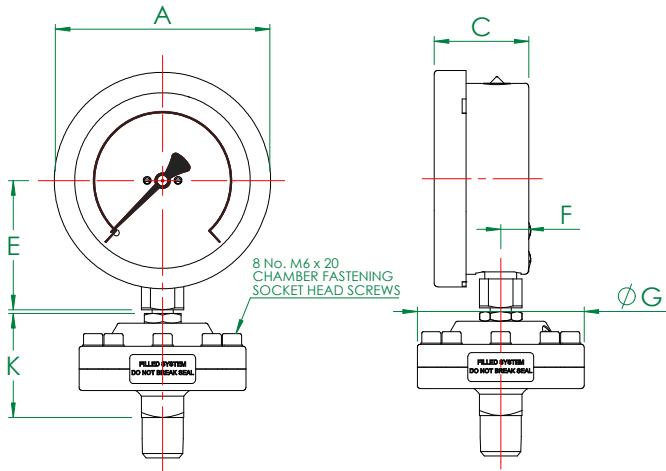
Interposed: Syphons, Snubbers, Overrange gauge protectors.

Additional: Swivel Adaptors, Valves, Manifolds etc ensures that STEWARTS can provide you with the right product to suit any individual application or requirement.

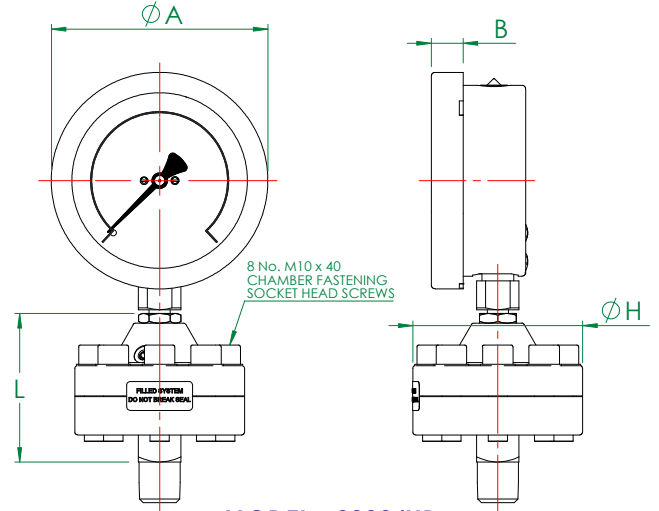
Ordering Parameters, Please state the following: SIZE, MODEL NO, SCALE RANGE, CONNECTION, PRESSURE MEDIUM & OPTIONAL EXTRAS

MODELS- 2030 Series

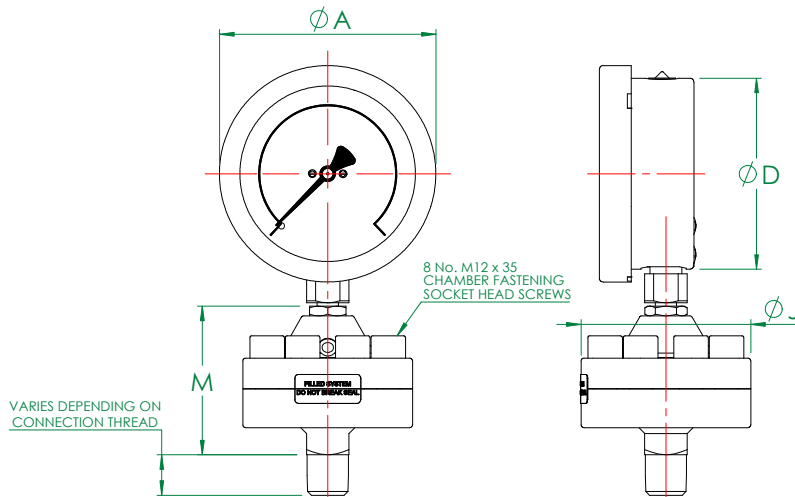
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MODEL - 2032
Direct Mount - Rated to 100 Bar



MODEL - 2032/HP
Direct Mount - Rated to 400 Bar



MODEL - 2032/VHP
Direct Mount - Rated to 700 Bar

| General Arrangement Dimensions in mm, tol' ± 1mm | | | | | | | | | | | | | |
|--|-----|-------|------|------|-----|------|------|------|----|----|------|----|----|
| Dialø | Dim | A | B | C | D | E | F | G | H | J | K | L | M |
| 2.5" (63mm) | | 68.4 | 11 | 31.5 | 62 | 41.8 | 9.5 | 86.5 | 88 | 88 | 53.9 | 77 | 77 |
| SP 2.5" (63mm) | | 68.4 | 11 | 42.5 | 62 | 41.8 | 20.4 | | | | | | |
| 4" (100mm) | | 112.2 | 16.5 | 48 | 99 | 66.9 | 14.5 | | | | | | |
| SP 4" (100mm) | | 112.2 | 16.5 | 65.2 | 99 | 66.9 | 28.7 | | | | | | |
| 6" (150mm) | | 161.7 | 18.5 | 49.5 | 148 | 92.1 | 15.2 | | | | | | |
| SP 6" (150mm) | | 161.7 | 18.5 | 65.7 | 148 | 92.1 | 28.7 | | | | | | |

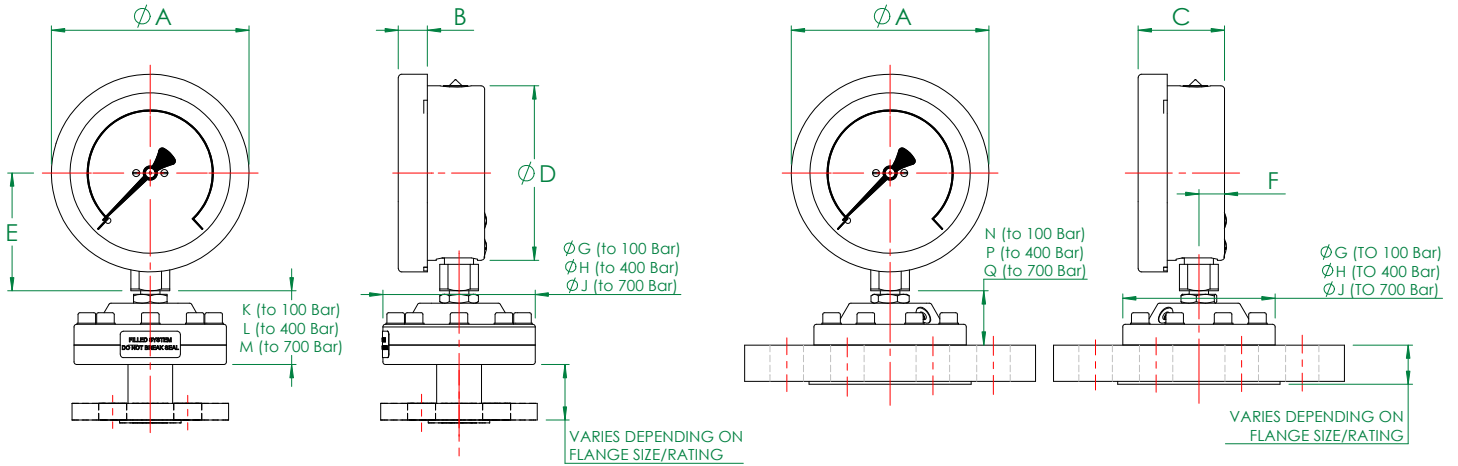
STEWART-BUCHANAN GAUGES LTD

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MODEL - 2033/F (below DN50/2")
Flange Mounted - Rated as Flange to
Maximum seal/chamber ratings

MODEL - 2033/F (DN50/2" & above)
Flange Mounted - Rated as Flange to
Maximum seal/chamber ratings

General Arrangement Dimensions in mm, tol' ± 1mm

| | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q |
|----------------|-------|------|------|-----|------|------|------|----|----|------|----|----|------|----|----|
| 2.5" (63mm) | 68.4 | 11 | 31.5 | 62 | 41.8 | 9.5 | 86.5 | 88 | 88 | 39.8 | 63 | 63 | 28.9 | 43 | 43 |
| SP 2.5" (63mm) | 68.4 | 11 | 42.5 | 62 | 41.8 | 20.4 | | | | | | | | | |
| 4" (100mm) | 112.2 | 16.5 | 48 | 99 | 66.9 | 14.5 | | | | | | | | | |
| SP 4" (100mm) | 112.2 | 16.5 | 65.2 | 99 | 66.9 | 28.7 | | | | | | | | | |
| 6" (150mm) | 161.7 | 18.5 | 49.5 | 148 | 92.1 | 15.2 | | | | | | | | | |
| SP 6" (150mm) | 161.7 | 18.5 | 65.7 | 148 | 92.1 | 28.7 | | | | | | | | | |

Materials and Fill Fluids

| Available Materials | Diaphragm | Lower Housing |
|----------------------------|-----------|---------------|
| Carbon Steel | ☒ | ☑ |
| 316 St.St | ☑ | ☑ |
| MONEL® 400 | ☑ | ☑ |
| HASTELLOY® C276 | ☑ | ☑ |
| HASTELLOY® C22 | ☑ | ☑ |
| INCONEL® 625 | ☑ | ☑ |
| INCOLOY® 825 | ☑ | ☑ |
| TITANIUM Gr2 | ☑ | ☑ |
| DUPLEX S31803 | ☑ | ☑ |
| SUPER DUPLEX S32750 | ☑ | ☑ |
| 6% Moly S31254 | ☒ | ☑ |
| Tantalum | ☑ | ☒ |
| PTFE (Protection) | ☑ | ☑ |
| PVDF (Protection) | ☑ | ☑ |

| SBG Code | Application | Fill Fluids | Temperature Range |
|----------|---|--------------------------|-------------------|
| 1 | Vacuum or Compound | Silicone DC 704 / CVC-4 | 0 to 250°C |
| 8 | Vacuum or Compound | Vegetable / Rapeseed Oil | 0 to 100°C |
| 14 | Vacuum or Compound Low Temperature (PFPE) | FOMBLIN® Y L-VAC 06/6 | -50 to 80°C |
| 2 | Standard | Silicone 200/100 | -40 to 200°C |
| 13 | Standard | Silicone 200/20 | -50 to 240°C |
| 15 | Standard | Silicone 200/5 | -70 to 130°C |
| 4 | Low Temperature | Fluorinert™ FC-77 | -100 to 90°C |
| 3 | High Temperature | Silicone DC 550 | -40 to 315°C |
| 9 | High Temperature | Octoil | 315 to 400°C |
| 12 | High Temperature | SYL THERM 800 | -40 to 200°C |
| 5 | Oxygen & Chlorine (PFPE) | Galden® D05 PFPE | -40 to 140°C |
| 11 | Oxygen & Chlorine (PFPE) | Halocarbon 6.3 | -40 to 180°C |
| 2 | High Pressure | Silicone 200/100 | -20 to 160°C |
| 6 | Food Industry (FDA) | NEOBEE® M-20 | -20 to 150°C |
| 7 | Food Industry (FDA) | Medicinal paraffin | -20 to 150°C |
| 10 | Food Industry (FDA) | Pure Glycerine | 0 to 120°C |

Other fill fluids available

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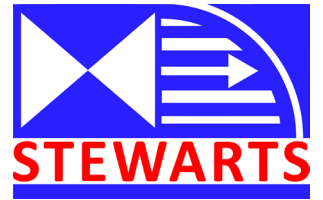
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DATA SHEET REF: 203-REV02-17



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As well as the standard “threaded” direct mounting and “flanged” range of filled system gauge assemblies, STEWARTS also manufacture chemical seal chambers for use in the dairy, food and pharmaceutical industries. Our range includes, but is not limited to, mounting forms compatible with various hygienic and sanitary type connections to BS4825, including IDF, ISS, RJT and tri-clamp fittings (see images below for examples). Also available, for use with our full chemical seal range; giving increased gauge mounting options, is the option of filled armoured flexible capillary (between the top section of the filled chamber and gauge) at a length specified by the customer- contact SBG sales department for details.

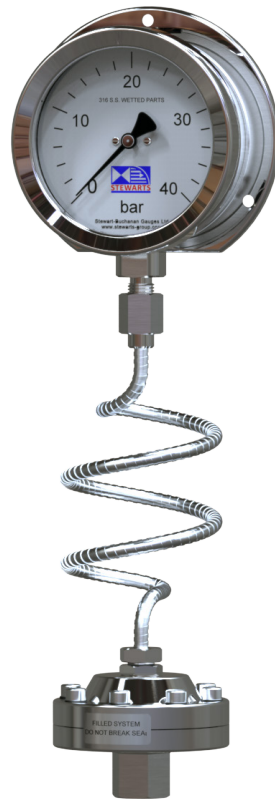
MODEL 2034 – Hygienic “Tri-Clover”
Clamp Fitting



MODEL 2035 – Hygienic RJT
Nut Fitting



MODEL 2032 (Z) – Surface Mount
Gauge with Capillary



Note:- fixing clamp not supplied with model 2034; included for illustration purposes only and elbow section not supplied with model 2035, nut supplied assembled over chamber.

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