

MODELS - 8022, 8024



Welded Stainless Steel Diaphragm Compensated SUBSEA Stainless Steel Pressure Gauges

APPLICATIONS

Pressure gauges with volume compensating diaphragm; developed to compensate systems that are affected by ambient pressure during submersion and to indicate the system pressure during subsea operations at depth. The compensated gauge 'red zone' indicates that depth (ambient) pressure is greater than that of the system in order to avoid negative (crushing) forces on more delicate components

STANDARD SPECIFICATION

Design to EN 837-1.
100% Pure Glycerin filled with no expansion bubble
Welded, hermetically sealed, socket

Compensating Device

STEWARTS unique welded stainless steel diaphragm – for robustness and durability

Sizes

63mm (2½"), 100mm (4") and 115mm (4½")

Case/ Bezel / Flange / Socket & Element

316 Stainless Steel (Bead blasted non reflective bezel and flange)
Removable bezel design allows repair or recalibration

Movement

Precision Stainless Steel Construction

Dial

Anodised Aluminium
All gauges supplied as white lettering on black background as standard (Non Glare), bespoke colours and designs are available upon request

Pointer

White Painted Aluminium

Window

Acrylic

Traceability

All instruments are individually calibrated with a unique serial number on dial.

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

Installation instructions

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

Accuracy class

	ACCURACY CLASS		Higher Pressure
	0 - 600 bar 0-8702 psi	>600 - 1600 bar >8702-23206 psi	>1600 - 2500 bar >23206-36259 psi
63mm (2½")	1.0	1.6 *	N/A
100mm (4")	1.0 (0.6)	1.0	1.6
115mm (4½")	1.0 (0.6)	1.0	1.6

0.5% Accuracy on request (Consult Sales)
Higher Ranges on request (Consult Sales)

Over-pressure

0-100 bar 0-1450 psi	>100-600 bar >1450-8702 psi	>600-1600 bar >8702-23206 psi	>1600-2500 bar >23206-36259 psi
1.25 x FSD	1.15 x FSD	1.10 x FSD	1.10 x FSD

Scale Range

Vacuum / Compound to -1 to 0 to -1 to 24 bar
63mm (2½") gauge 0 to 1400 bar *
100mm (4") & 115mm (4½") gauges 0 to 2500 bar
Or other equivalent units of pressure or vacuum
PED 2014/68/EU limits, GAS Group.1 <1000 bar, GAS Group.2 <3000 bar

Pressure Connection Thread

⅛", ¼", ⅜", ½" NPT, BSP, BSPT (See High Pressure Options)

MAX PRESSURE EN 837-1			
THREAD EN837	NPT (316ss / Monel)	BSP (316ss / Monel)	BSPT (316ss / Monel)
⅛"	400 bar (5801 psi)	400 bar (5801 psi)	400 bar (5801 psi)
¼"	1000 bar (14504 psi)	1000 bar (14504 psi)	1000 bar (14504 psi)
⅜"	1000 bar (14504 psi)	1000 bar (14504 psi)	1000 bar (14504 psi)
½"	1000 bar (14504 psi)	1600 bar (23206 psi)	1000 bar (14504 psi)

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

DATA SHEET REF: COMPSUBSEA-REV01-15

Specifications and dimensions in this leaflet, are subject to change without prior notice.



Model-8022 Direct Mounted (Bottom Connection)
Model-8024 Flush Mounted Clamp Fixing (Rear Connection)

[See Page-2 for dimension](#)

Operating Temperature Range EN837

-20° to 60°C (-4°F to 140°F) without loss of accuracy.
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

Optional Extras

- Aegis-Guard
- Micro adjustable pointer
- Dial White Anodised Aluminium (Black Printing)
- Dial Custom markings
- Monel according to ISO 15156 / NACE MR-01-75 wetted parts
- Other pressure connections (Including high pressure)
- Orifice Restrictor Screw (standard Ø0.9mm, Ø0.4mm on request)
- Customer logo printed on dial
- Vibragauge® (See data sheet)
- Gauge over-pressure up to 130% of FSD

Further options on request

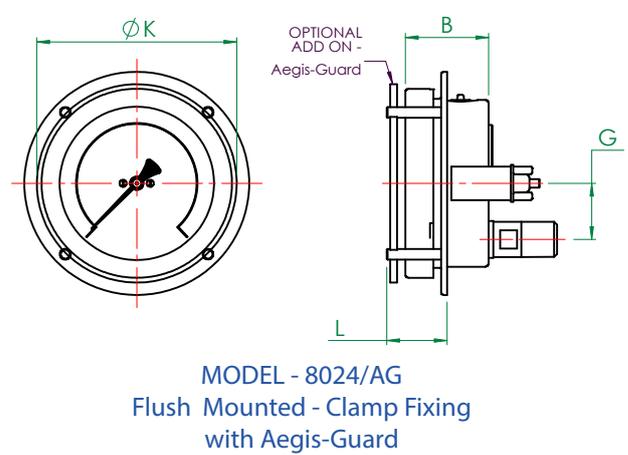
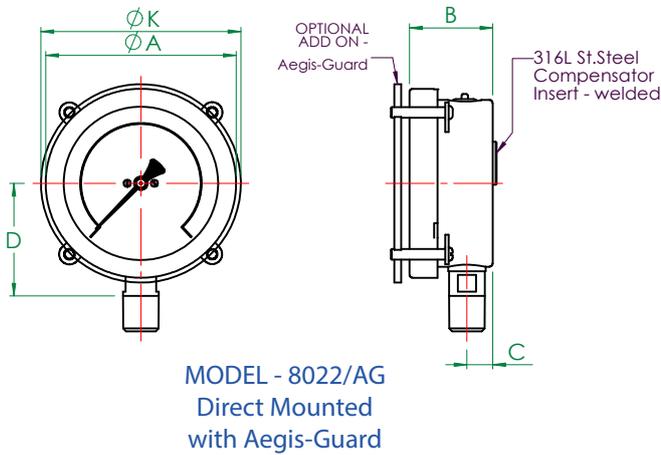
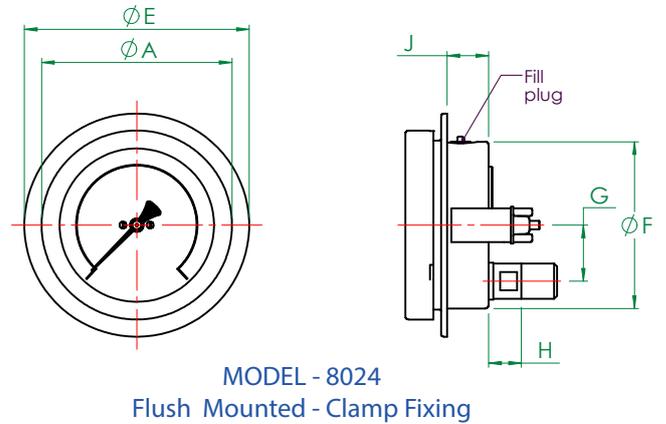
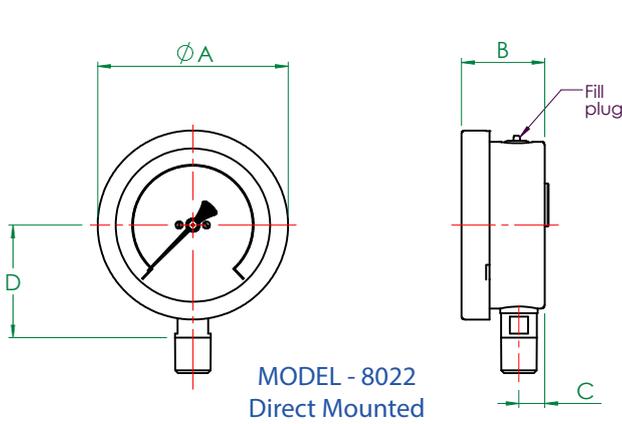
Gauges can be Recalibrated (Please return to manufacturer)

High Pressure Options Available

GAUGE	HIGH PRESSURE THREAD OPTIONS (Up to 2500 bar)					
	TUBE MP (Up to 20 ksi)			TUBE HP (Up to 36 ksi)		
	¼"	⅜"	⅝"	¼"	⅜"	⅝"
63mm (2½")	M	M				
100mm (4")	M/F	M/F	M	M/F	M	M
115mm (4½")	M/F	M/F	M	M/F	M	M

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STEWARTS has developed a unique Aegis-Guard which will offer protection to the gauge in event of a collision.

General Arrangement Dimensions in mm, tol' ± 1mm													
Dialø	Dim	A	B	C	D	E	F	G	H	J	K	L	CUT OUT
(63mm)	2½ (Inches)	68.4 (2.7)	37.5 (1.5)	16.3 (0.64)	45.2 (1.8)	85.2 (3.35)	62 (2.4)	18 (0.71)	18.8 (0.74)	21.5 (0.85)	75 (2.95)	28 (1.1)	66 (2.6)
(100mm)	4 (Inches)	112.2 (4.4)	49 (1.9)	15.2 (0.60)	66.9 (2.6)	132.5 (5.22)	99 (3.9)	33.3 (1.31)	19.3 (0.76)	24.6 (0.97)	117.8 (4.64)	35.5 (1.4)	106 (4.17)
(115mm)	4½ (Inches)	129 (5.1)	49.2 (1.94)	15.5 (0.61)	74.8 (2.94)	160 (6.3)	114.8 (4.5)	32 (1.26)	19.3 (0.76)	26 (1.02)	135 (5.31)	37.2 (1.46)	122 (4.8)

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