

# Macduff Robotics

Intelligent Subsea Equipment



## Description:

Rolling bladder type compensator for pressure balancing of subsea oil filled assemblies such as junction boxes, transformer housings, or motor bodies. Standard design manufactured from lightweight corrosion resistant Acetal for general purpose use.

## Hydraulic Compensators – Standard Versions

### Equipment supplied

Standard supply includes

- Compensator unit.
- Operating manual

### MAIN FEATURES

- Manufactured from corrosion resistant Acetal co-polymer, with stainless steel fasteners and spring, with reinforced rubber diaphragm.
- Nine size variants from 26cc to 2701cc
- Standalone ported and manifold mount versions available.
- No protruding parts during operation
- Can be mounted vertically to improve elimination of air pockets.

### Further Information

Spares kits also available



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## Weights and volumes

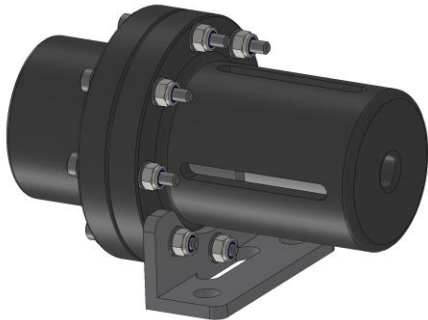
|                   | Unit Volume (cc) | Weight in Air (Kg) | Weight in Fresh Water (Kg) | Weight in Sea Water (Kg) | Recommended Maximum Compensated Volume (cc) |
|-------------------|------------------|--------------------|----------------------------|--------------------------|---|
| Standard Units    | 26               | 0.158              | 0.099                      | 0.097                    | 147   |
|                   | 70               | 0.302              | 0.144                      | 0.139                    | 397   |
|                   | 270              | 0.664              | 0.283                      | 0.272                    | 1530  |
|                   | 373              | 1.106              | 0.486                      | 0.467                    | 2114  |
|                   | 864              | 1.754              | 0.788                      | 0.759                    | 4896  |
|                   | 1221             | 2.143              | 0.885                      | 0.848                    | 6919  |
|                   | 2701             | 4.323              | 2.006                      | 1.937                    | 15306                                       |
| Low Profile Units | 369              | 1.125              | 0.439                      | 0.419                    | 2091  |
|                   | 415              | 1.281              | 0.506                      | 0.482                    | 2352  |

## Typical Options Available

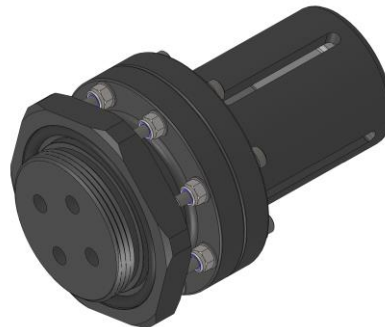
- **SAE, NPT, & BSPP threaded ports**
- **Overpressure Relief valve – normally set to 1bar (requires an NPT port)**
- **Alternative materials - Aluminum, Stainless steel, and duplex versions possible**

## Mounting options

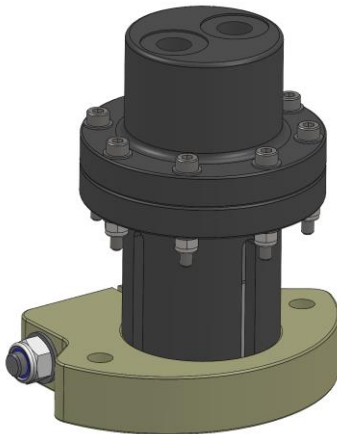
Bracket Mount



Screw-in Manifold Mount

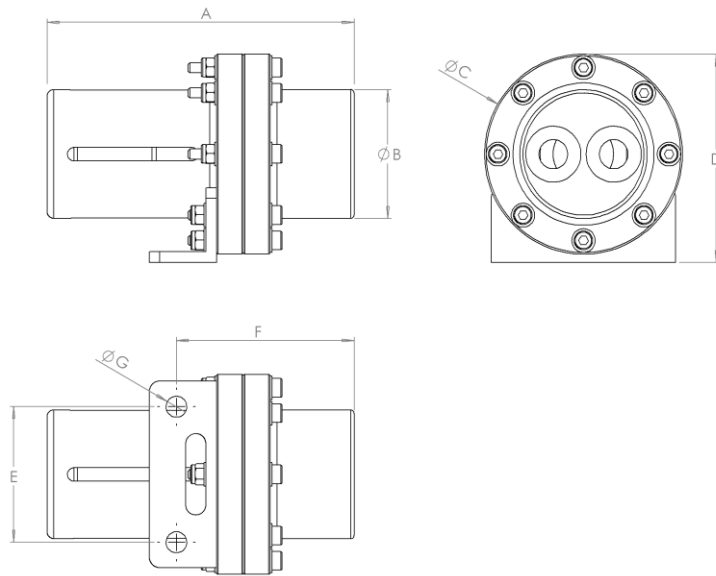


Base Clamp

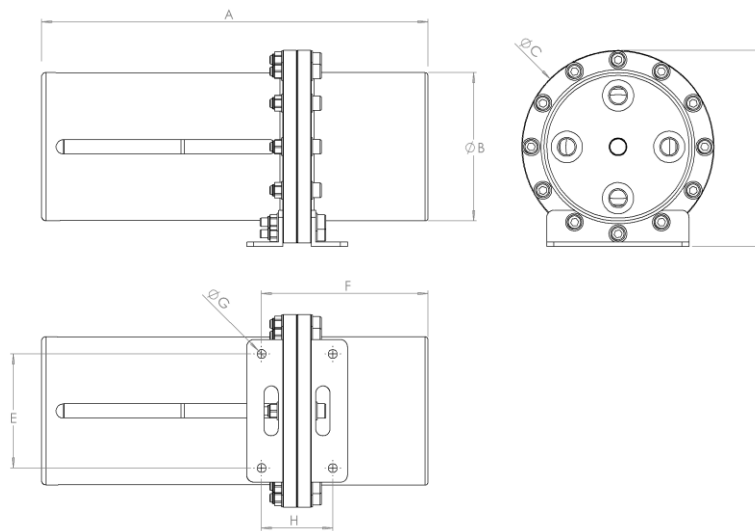


## Dimensions (Bracket Mount types)

26cc,70cc,270cc,373cc



864cc,1221cc,2701cc,369ccLP,415ccLP



| Unit size (cc) | Dimension (mm) |       |       |       |       |       |          |      |
|----------------|----------------|-------|-------|-------|-------|-------|----------|------|
|                | A              | B     | C     | D     | E     | F     | G        | H    |
| 26             | 91.5           | 38.0  | 59.0  | 61.5  | 40.0  | 53.0  | M6 (6.2) | -    |
| 70             | 120.5          | 48.0  | 75.0  | 75.5  | 45.0  | 65.0  | M6 (6.2) | -    |
| 270            | 187.5          | 70.0  | 96.0  | 99.0  | 70.0  | 91.0  | M6 (6.2) | -    |
| 373            | 208.5          | 84.0  | 116.0 | 120.0 | 80.0  | 99.5  | M6 (6.2) | -    |
| 864            | 271.5          | 104.0 | 135.0 | 137.5 | 80.0  | 123.5 | M6 (6.2) | 50.0 |
| 1221           | 298.5          | 114.0 | 145.0 | 147.0 | 90.0  | 126.5 | M6 (6.2) | 50.0 |
| 2701           | 379.0          | 145.0 | 182.0 | 187.0 | 100.0 | 151.0 | M6 (6.2) | 54.0 |
| 369            | 112.5          | 114.0 | 145.0 | 147.0 | 90.0  | 67.5  | M6 (6.2) | 50.0 |
| 415            | 112.5          | 124.0 | 155.0 | 157.0 | 100.0 | 67.5  | M6 (6.2) | 50.0 |

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