

## Diaphragm Seals - Bolted Assembly Model: MDD1

### Applications

- Level measurement . For aggressive, corrosive or toxic media
- Rugged design for direct mounting
- Process industry: Chemical/petro chemical, power stations, food and beverage, offshore oil rigs, pulp and paper, environmental technology, machine building and general plant construction

### Special features

- All welded diaphragm seals
- All stainless steel 316L
- Large selection of process connections and materials
- Large selection of process pressure

### Description

- |                                 |                                                                                                                   |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------|
| ■ Upper body material           | Stainless steel 304, Stainless steel 316L<br>Hastelloy, Monel, Tantalum(option)                                   |
| ■ Bottom chamber material       | Stainless steel 316L, Hastelloy, Monel<br>PVC, PVDF, PP, Tantalum(option)                                         |
| ■ Diaphragm material            | Stainless steel 316L, Hastelloy, Monel<br>PVC, PVDF, PP, Tantalum(option)                                         |
| ■ Instrument connection         | Stainless steel 316L<br>1/4 NPT, 1/2 NPT, BSP (option)                                                            |
| ■ Silicon oil                   | Suitable for -40 ... 345°C                                                                                        |
| ■ Diaphragm diameter            | 51mm for high pressure, 90mm for medium pressure, 110mm for low pressure                                          |
| ■ Max. process pressure at 20°C | 6000 psi with 8 bolts,<br>1500 psi with 4 bolts,                                                                  |
| ■ Process connection            | 1/4", 1/2", 3/4", 1", female NPT or BSP<br>1/2 male NPT or BSP, Flange type<br>Flat face, Raised face, Ring joint |
| ■ Capillary                     | Stainless steel 316                                                                                               |
| ■ Armour                        | Stainless steel 304, Stainless steel 316<br>PTFE, PVC, Silicone (option)                                          |



**MDD1 Diaphragm Seals**

| ORDERING CODE                                           | Example: MDD1 | 4 | N | 2 | L | S | M | I |
|---------------------------------------------------------|---------------|---|---|---|---|---|---|---|
| Process Connection                                      |               |   |   |   |   |   |   |   |
| 2 - ¼                                                   |               |   |   |   |   |   |   |   |
| 4 - ½                                                   |               | 4 |   |   |   |   |   |   |
| 6 - ¾                                                   |               |   |   |   |   |   |   |   |
| 8 - 1"                                                  |               |   |   |   |   |   |   |   |
| 10 - Flange (customer to supply specifications)         |               |   |   |   |   |   |   |   |
| Process Connection Type                                 |               |   |   |   |   |   |   |   |
| N - Male NPT                                            |               |   | N |   |   |   |   |   |
| G - Male G                                              |               |   |   |   |   |   |   |   |
| E - Female                                              |               |   |   |   |   |   |   |   |
| F - Flange (customer to supply specifications)          |               |   |   |   |   |   |   |   |
| Instrument Connection                                   |               |   |   |   |   |   |   |   |
| 2 - ¼ Female NPT                                        |               |   |   | 2 |   |   |   |   |
| 4 - ½ Female NPT                                        |               |   |   |   |   |   |   |   |
| 6 - ¼ Female G                                          |               |   |   |   |   |   |   |   |
| 8 - ½ Female G                                          |               |   |   |   |   |   |   |   |
| 10 - ¼ Welded                                           |               |   |   |   |   |   |   |   |
| 12 - ½ Welded                                           |               |   |   |   |   |   |   |   |
| P - Capillary (consult for material, Length and armour) |               |   |   |   |   |   |   |   |
| C - Custom                                              |               |   |   |   |   |   |   |   |
| Process Pressure                                        |               |   |   |   |   |   |   |   |
| L - Low pressure (5 to 1000 mbar)                       |               |   |   |   | L |   |   |   |
| M - Medium pressure (Vacuum to 100 bar)                 |               |   |   |   |   |   |   |   |
| H - High pressure (100 to 400 bar)                      |               |   |   |   |   |   |   |   |
| Upper Body Material                                     |               |   |   |   |   |   |   |   |
| S - Stainless steel 304                                 |               |   |   |   |   | S |   |   |
| L - Stainless steel 316L                                |               |   |   |   |   |   |   |   |
| C - Customer                                            |               |   |   |   |   |   |   |   |
| Diaphragm Material                                      |               |   |   |   |   |   |   |   |
| S - 316L Stainless steel                                |               |   |   |   |   |   |   |   |
| M - Monel® 400                                          |               |   |   |   |   |   | M |   |
| H - Hastelloy                                           |               |   |   |   |   |   |   |   |
| T - Titanium                                            |               |   |   |   |   |   |   |   |
| L - Tantalum                                            |               |   |   |   |   |   |   |   |
| I - Inconel 600                                         |               |   |   |   |   |   |   |   |
| P - PTFE coated (max. temp 200°C and 1500 PSI)          |               |   |   |   |   |   |   |   |
| F - PTFE coated (max. temp 300°C and 1500 PSI)          |               |   |   |   |   |   |   |   |
| O - Silver                                              |               |   |   |   |   |   |   |   |
| G - Gold                                                |               |   |   |   |   |   |   |   |
| C - Customer                                            |               |   |   |   |   |   |   |   |
| Sealing Ring Embedded                                   |               |   |   |   |   |   |   |   |
| P - PTFE for max. temp 200°C                            |               |   |   |   |   |   |   |   |
| I - Inconel Silver plate max. temp 400°C                |               |   |   |   |   |   |   | I |
| M - Metal                                               |               |   |   |   |   |   |   |   |

## MDD1 Diaphragm Seals

|                                                                                         | MDD1 | SI | M | M  | NOTE |
|-----------------------------------------------------------------------------------------|------|----|---|----|------|
| <a href="#">Filling Fluids</a> (Consult factory for specifications, price and delivery) |      |    |   |    |      |
| FI - Flurolube 4.2 ( -45 to 175°C)                                                      |      |    |   |    |      |
| Fu - Flurolube 6.3 ( -40 to 235°C)                                                      |      |    |   |    |      |
| FR - Flurolube FS-5 ( -28 to 148°C)                                                     |      |    |   |    |      |
| FG - Food grade oil ( -20 to 140°C)                                                     |      |    |   |    |      |
| SI - Silicon DC 200 ( -40 to 205°C) (standard)                                          |      | SI |   |    |      |
| SL - Silicon DC 704 ( 10 to 337°C)                                                      |      |    |   |    |      |
| SC - Silicon DC 710 ( 7 to 371°C)                                                       |      |    |   |    |      |
| SH - Syltherm 800 ( -40 to 315°C)                                                       |      |    |   |    |      |
| SE - Syltherm XLT ( -100 to 260°C)                                                      |      |    |   |    |      |
| HA - Halocarbon oil                                                                     |      |    |   |    |      |
| IN - Inert oil                                                                          |      |    |   |    |      |
| <a href="#">Bottom Body Material</a>                                                    |      |    |   |    |      |
| S - 316L Stainless steel                                                                |      |    |   |    |      |
| M - Monel® 400                                                                          |      |    | M |    |      |
| H - Hastelloy                                                                           |      |    |   |    |      |
| T - Titanium                                                                            |      |    |   |    |      |
| L - Tantalum                                                                            |      |    |   |    |      |
| I - Inconel 600                                                                         |      |    |   |    |      |
| P - PTFE coated (max. temp 200°C and 1500 PSI)                                          |      |    |   |    |      |
| F - PTFE coated (max. temp 300°C and 1500 PSI)                                          |      |    |   |    |      |
| O - Silver                                                                              |      |    |   |    |      |
| G - Gold                                                                                |      |    |   |    |      |
| P - PVC (max. p 150 psi at 20°C)                                                        |      |    |   |    |      |
| F - PBDF (max. p 150 psi at 20°C)                                                       |      |    |   |    |      |
| L - Polypropelene (max. p 150 psi at 20°C)                                              |      |    |   |    |      |
| C - Customer                                                                            |      |    |   |    |      |
| <a href="#">Options</a>                                                                 |      |    |   |    |      |
| FF - Filling fluids covering from -50 ... 600                                           |      |    |   |    |      |
| OT - Helium leak test                                                                   |      |    |   |    |      |
| OC - Calibration test certificate                                                       |      |    |   | OC |      |
| OM - Material test certificate                                                          |      |    |   |    |      |
| NH - Stainless steel tag wired to case                                                  |      |    |   |    |      |
| WA - One year warranty                                                                  |      |    |   |    |      |
| <a href="#">Other</a>                                                                   |      |    |   |    |      |



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