

# PETROLEUM TECHNOLOGY COMPANY

The Artificial Lift Company



## ISOLIFT-IPO

[www.ptc.as](http://www.ptc.as)

1.0", 1.5" - Unloading valve

## ISOLIFT-IPO

The PTC ISOLift- IPO is a nitrogen charged Injection Pressure Operated gas lift valve with a true metal-to-metal seal.

Built on a combination of streamlined design, few moving parts and an optimized material composition – the ISOLift is a very robust valve ideal for long life service in a harsh environment (H<sub>2</sub>S, CO<sub>2</sub>).

The nitrogen charged bellows is based on revolutionary new design and technology which facilitates unrivaled performance, high pressure resistance whilst pertaining high sensitivity to pressure changes.

The ISOLift valve is designed to be retrofit to all side-pocket mandrels in the market according to ISO 17078-1. It is designed, built and tested in accordance to ISO 17078 part 1 & 2 (E4, Q1, V1, F1).

**PTC**

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For further information contact PTC at: [post@ptc.as](mailto:post@ptc.as)  
+47 51 95 08 00 or +1 281 378 4776 or +44 (0)1224 57 93 50

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### DESIGN SPECIFICATIONS

| Description                 | ISOLift- IPO 1.0"                                                                                                         |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Service                     | CO <sub>2</sub> , H <sub>2</sub> S Unique Service<br>(pp H <sub>2</sub> S <sub>0</sub> = 20 bar)                          |
| Valve Body Material         | Inconel 718<br><small>OTHER MATERIAL AVAILABLE ON REQUEST</small>                                                         |
| Dome Material               | Inconel 718                                                                                                               |
| Spring Material             | MP35N                                                                                                                     |
| Elastomer Material          | ENDURA/H-NBR/Reinforced PTFE                                                                                              |
| Bellows Material            | Inconel 718                                                                                                               |
| Maximum OD                  | 1.01"                                                                                                                     |
| Length                      | 12.6"                                                                                                                     |
| Orifice Size                | 1/8" to 5/16"                                                                                                             |
| Pressure Rating             | 5 000 PSI (Standard)<br>7 500 PSI (P1)                                                                                    |
| Dome Pressure Rating        | Max 7 500 PSI                                                                                                             |
| Temperature Rating          | 55 °C to 121 °C (Standard)<br>4 °C to 121 °C (T0)<br>55 °C to 149 °C (T1)<br>55 °C to 185 °C (T2)<br>55 °C to 200 °C (T3) |
| Leak Criteria for FAT Test  | 3.5 scf/d<br>(10 times better than API/ ISO criteria)                                                                     |
| Thread Connectin            | 11/16" - 16 UNS- 2                                                                                                        |
| Certification/Qualification | ISO 17078- 2<br>ISO 15156                                                                                                 |

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| Dome Material               | Inconel 718                                                                                                               |
| Spring Material             | MP35N                                                                                                                     |
| Elastomer Material          | ENDURA/H-NBR/Reinforced PTFE                                                                                              |
| Bellows Material            | Inconel 718                                                                                                               |
| Maximum OD                  | 1.5"                                                                                                                      |
| Length                      | 21.65"                                                                                                                    |
| Orifice Size                | 1/8" to 1/2"                                                                                                              |
| Pressure Rating             | 5 000 PSI (Standard)<br>10 000 PSI (P2)                                                                                   |
| Dome Pressure Rating        | Max 10 000 PSI                                                                                                            |
| Temperature Rating          | 55 °C to 121 °C (Standard)<br>4 °C to 121 °C (T0)<br>55 °C to 149 °C (T1)<br>55 °C to 185 °C (T2)<br>55 °C to 200 °C (T3) |
| Leak Criteria for FAT Test  | 3.5 scf/d<br>(10 times better than API/ ISO criteria)                                                                     |
| Thread Connectin            | 1-1/16" - 18 UNEF- 2                                                                                                      |
| Certification/Qualification | ISO 17078- 2<br>ISO 15156                                                                                                 |