

# HPSR

HIGH PRESSURE SCORED REVERSE - WELDED PRESSURE RELIEF DEVICE

#### A compression-loaded welded assembly designed for high pressure applications of 2,500 psig and above



OsecoElfab's HPSR (High Pressure Scored Reverse buckling rupture disc assembly) is designed and manufactured for demanding gas and liquid applications.

The HPSR is hydrostatically tested and can withstand full vacuum, elevated temperatures up to 600°F and 95% operating conditions. The welded design eliminates leak paths and allows for easy installation.

This makes the HPSR rupture disc assembly an ideal solution for your most demanding applications, including those considered to be very high cycling.

25mm - 200mm **Burst Pressure** 172.3-413.7 barg **Operating Ratio** 95% Performance Tolerance +/-5%

Manufacturing Range 0%

**Product Dimensions** Standard height matches our insert-style holders\*

Special heights available to fit any flange type or configuration, consult factory for further information

Let us help you with all your pressure relief questions.

**UK office** | North Shields

+44 (0)191 293 1234 | uksales@osecoelfab.com

**US office** | Broken Arrow

+1 (918) 258 5626 | info@osecoelfab.com

osecoelfab.com







# TECHNICAL SPECIFICATIONS



| Size range   | 25-200mm (1"-8")  |  |  |
|--|---|--|--|
| Burst pressure range   | 172.3-413.7 barg (2,500-6,000 psig)   |  |  |
| Temperature range  | Up to 315°C (600°F)   |  |  |
| Standard materials*  | Hastelloy® C, Inconel® 600  |  |  |
| Max. Operating Ratio   | 95%   |  |  |
| Performance Tolerance  | +/-5%   |  |  |
| Manufacturing Range  | 0%  |  |  |
| Fragmentation  | Non-fragmenting design  |  |  |
| Vacuum service   | Withstands full vacuum (14.7 psi) without separate vacuum support   |  |  |
| Fluid compatibility  | Gas service and liquid service  |  |  |
| Torque requirements  | Non-torque sensitive; Fully isolated pressure relief device allows for torquing to any gasket specifications. |  |  |
| Cycling or static service  | Suitable for very high-cycling applications: tested to 48 million cycles.                                     |  |  |
| Relief valve isolation   | Suitable for safety relief valve isolation  |  |  |
| Leak tightness   | Welded, leak-proof design   |  |  |
| Design standards Designed and tested to meet ASME Section XIII standards |   |  |  |

## **Related Products**

**One Piece Unit** 

Oseco Safety Cartridge **Holders** 

Insert holder

### **Burst Pressure Ranges**

HPSR Min/Max Burst Pressure @ 22°C (barg) / 72°F (psig)



| SIZE     |         | MATERIAL               | MIN           | MAX           |
|----------|---------|------------------------|---------------|---------------|
| (inches) | DN (mm) | IVIAI ERIAL            | barg (psig)   | barg (psig)   |
| 1        | 25      | Inconel<br>Hastelloy C | 172.3 (2,500) | 413.7 (6,000) |
| 2        | 50      | Inconel<br>Hastelloy C | 172.3 (2,500) | 413.7 (6,000) |
| 3        | 80      | Inconel<br>Hastelloy C | 172.3 (2,500) | 413.7 (6,000) |
| 4        | 100     | Inconel<br>Hastelloy C | 172.3 (2,500) | 413.7 (6,000) |
| 6        | 150     | Inconel<br>Hastelloy C | 172.3 (2,500) | 413.7 (6,000) |
| 8        | 200     | Inconel<br>Hastelloy C | 172.3 (2,500) | 413.7 (6,000) |

### **Burst Tolerance**

+/-0.14 barg at or below 2.8 barg (40 psig)

+/-5% above 2.8 barg (40 psig)