

CASE STUDY

Welded rupture disc improves safety on cryogenic propellant storage and transfer system



THE CHALLENGE

Cryogenic gas bottles must maintain integrity even when subjected to fluctuating temperatures and they must fit certain connectors for the transfer systems.

THE SOLUTION

We can adapt our welded disc assembly connections to suit almost any type of application, from threaded NSP / BPS / 1/2" NPT, male/female, tube stub, VCR-style fitting, muffle/baffle, free venting, and other connection types. In this case, by using 316L Stainless Steel for its resistance to embrittlement and strength at sub-zero temperatures, together with a custom threaded connection, we ensured a leak-tight seal across a wide range of temperature and atmospheric pressure conditions.

ABOUT OE'S WELDED DISC ASSMBLIES

- Wide material range: 304L, 316L, Nickel, Inconel, Hastelloy, others such as gold or platinum on request
- Leak tightness verified to 1×10^{-8} cc/sec
- High operational performance and reliability
- Long-life cycle and maintenance-free design
- Controlled venting with rapid activation/opening
- Built to approved aerospace quality standards
- Custom designs tailored to application

RUPTURE DISC SOLUTION SELECTED

→ **Custom Welded Assembly:** This unit combines a rupture disc with an inlet and/or outlet to form a single unit. MIG/TIG and electron-beam welding are possible. Electron-beam welding affords superior leak-tightness and the highest integrity possible. This is ideal for applications where it is essential that the process medium is not vented into the atmosphere.



A wide variety of sizes, shapes and connection types are possible.

Let's talk mission success

Contact us today for a no-obligation discussion to explore how our advanced rupture disc designs can help you push the frontiers of technology - on land, at sea, in the air, and in space.

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