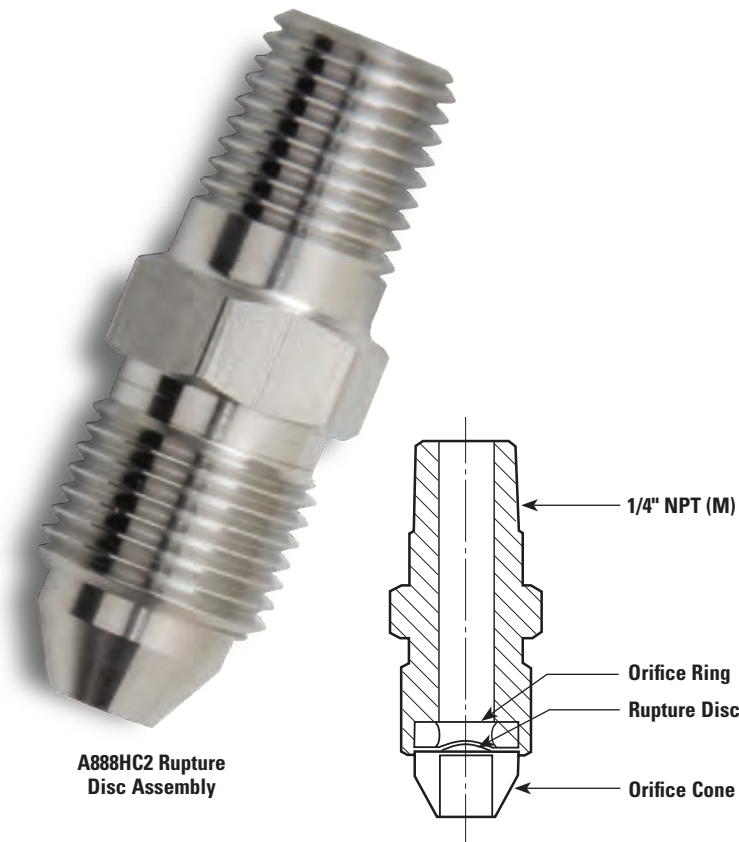


Safety Rupture Discs



A888HC2 Rupture Disc Assembly

Parr Pressure Vessels are protected by custom built rupture discs. Examination of these discs will show that each of these discs is domed. This dome was produced at the factory by taking the individual disc to 70% of its burst pressure.

ASME as well as other pressure vessel codes dictate that pressure vessels must be equipped with a rupture disc designed to burst no higher than the design pressure of the vessel. For pressure loads that do not cycle rapidly such as in our vessels, we suggest limiting the actual

operating pressure to no more than 90% of the disc burst pressure. This combination will limit operating pressures to no more than 90% of the design pressure of the vessel in most cases.

We have selected Alloy 600 as the standard material for these rupture discs. It provides excellent corrosion resistance while retaining over 90% of its room temperature rating at temperatures up to 450 °C. For added corrosion resistance we can furnish these discs with gold facing or replace them with discs made of Alloy C-276. Discs can be produced to match any operating pressure and temperature above the stated minimums.

Parr reactors and pressure vessels from 25 mL to 2000 mL use the 526HC Series Alloy 600 disc or 581HC Series Alloy 600 with gold facing. The 1 gallon and larger use the 708HC series discs. The 4580 reactor systems use the 1415HC series discs.

In general, the 1000 psi disc in the 526HC/581HC series discs and the 800 psi in the 708HC are the lowest available ranges in the Alloy 600 material. Alternate disc materials are available but they do not offer the same corrosion resistant properties and temperature capabilities.

For applications where users prefer a lower range pressure gage, we would add a spring loaded relief valve set to protect the gage and a 1000 psi rupture disc as the fail safe protection.

Safety Rupture Discs

Most rupture discs furnished by Parr come with CE certification. Upon request, Parr can furnish ½" discs with flat seat (both holder and rupture disc) with ASME certification markings and documentation (with UD certification designator).

Users are invited to contact the Parr Technical Support Staff with requirements for your rupture disc needs.

Typical Rupture Discs for 1/4" Orifice

Burst Rating, psig	Inconel Disc	Gold-Faced Inconel Disc
1000	526HCPD	581HCPD
2000	526HCPF	581HCPF
3000	526HCPG	581HCPG
4000	526HCP40CT	581HCP40CT
5000	526HCPH	581HCPH
8000	526HCPJ	581HCPJ
10000	526HCP100CT	

Typical Rupture Discs for 1/2" Orifice

Burst Rating, psig	Inconel Disc
1000	708HCP10CT
1500	708HCP15CT
2000	708HCP20CT
3000	708HCP30CT
3000	1415HCP30CT
4500	1415HCP45CT

Note: For a complete list of rupture disc part numbers, burst ranges, materials, and temperature ratings, see manual 231M.