

ZOOK®

Welded Solutions



Safety through **knowledge** and **performance**.

About ZOOK

ZOOK is a global market leader with over 90 years of manufacturing expertise of quality metal & graphite rupture disks and other pressure relief products. ZOOK has global locations in the USA, United Kingdom, Canada and Malaysia, with state-of-the-art manufacturing facilities.

ZOOK designs custom and standard pressure relief solutions in both metal and graphite for numerous industries such as, oil and gas, chemical processing, petroleum refining, OEM, pharmaceutical, food and beverage, transportation and powder / bulk.

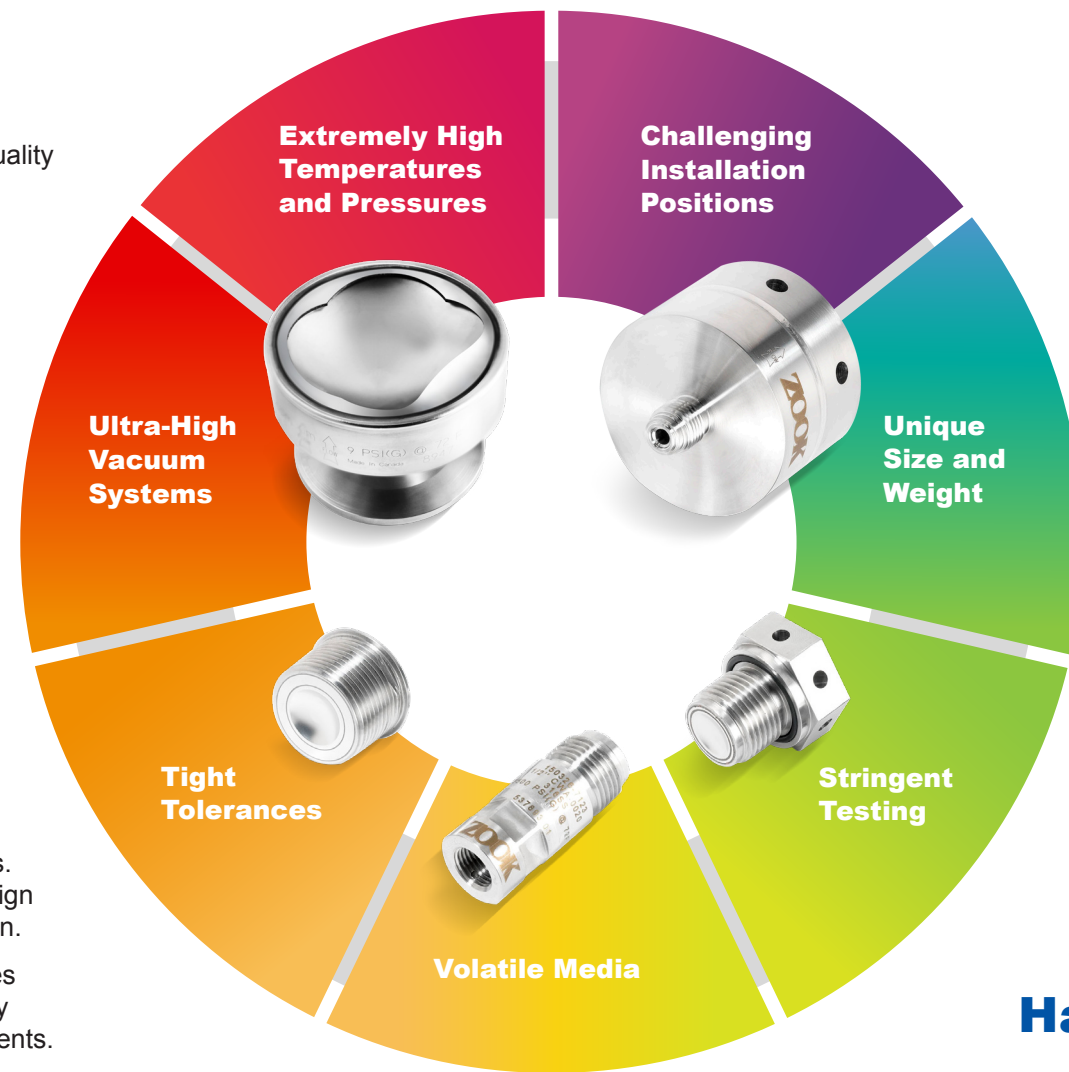
Welded Solutions for Challenging Applications

Many customer applications cannot be met using standard rupture disk designs. ZOOK's Welded Solutions department is dedicated to the design and development of customized rupture disk assemblies tailored to specific customer applications.

ZOOK offers a large assortment of welded designs for a wide variety of applications with custom fittings and connections for stringent applications such as ultra-high vacuum, OEM markets, military, aerospace, and many other high-end engineering industries.

ZOOK has combined state-of-the-art equipment with in-house design engineers to ensure that customers' needs are met with the best solutions for their specific needs. ZOOK Design Engineers will work with your engineering team to streamline the design and implement a fact-finding process to develop the best solution for your application.

Building a robust solution not only necessitates an excellent design, but also requires validation to back it up. ZOOK Engineering and Manufacturing have invested heavily in validation equipment and techniques to test the design, fit, and quality of components.



Many Applications are Perfect for Welded Pressure Relief Devices

- Containment Vessels Bioreactors Pipeline Pumps
- Compressor/Pump Stations Lab Instrumentation
- Battery Transportation Flare Stacks
- Chillers** HVAC Pressure Activation Equipment
- Marine Cargo Containers Accumulators
- Compressed & Cryogenic Gas Containment Process Vessels
- Distillation **Fracking** Filtration Systems
- Storage Pump & Valve Protection Power Plants
- Boilers Air Conditioners & Refrigeration Systems
- Compressed Gas Fermenters **Cementing**
- Wellhead Protection** Cryogenic Gas
- Desalination Autoclave Overpressure of Equipment
- Overpressure of Equipment Separation
- Heat Exchangers Research & Testing Process Piping
- Cooling Towers Ocean Tanker Hull Protection Boiler Feed Piping
- Hazardous Materials** Boiler **Extrusion Barrel**



Industries We Serve

- Aviation
- Magnetic Resonance Imaging
- Military and Defense
- OEM (Original Equipment Manufacturers)

- Oil and Gas
- Outer Space Equipment
- Plastic Extrusion
- Power and Energy

- Refrigeration Systems
- Research Universities and Laboratories
- Ultra-Pure Applications

Benefits of Using a Welded Solution

- One-Piece Welded Design that meets customers specified pressure protection requirements or pressure event management
- Hermetic Seal provides maximum leak tightness with helium leak rates as low as 1×10^{-9} std.cc/sec
- Custom Housing and Connections
- Optimized Assembly Geometry
- Easy to Install which Reduces the Chance of Damage or Premature Failure
- Especially for Aerospace applications, ZOOK recognizes the importance of weight savings in its design considerations

Standard Disk Types:

- Pre-Bulged
- Scored Forward Acting
- Reverse Acting (RA4, RA6, RA8 & RAX)
- ZANITARY® Series

ZOOK Offers the Highest Quality Control:

- 100% Leak Testing
- Burst Testing
- Weld & Body Pressure Testing
- Digital Inspection of Threads & Body Dimensions
- Ultra Sonically Cleaned
- 100% Material Traceability

- Outsourced 3rd Party Welded Joint and Component Non-destructive Testing
- Cycle Testing
- 3rd Party Precision Cleaning
- Test Plan Development
 - Inspection and Test Plans
 - PPAP (Production Part Approval Process) Submissions
 - Control Plans
 - Video / Photographic Borescope Inspections
- Custom Packaging
- Private Labelling
- Application Specific Design Review Directly with the Customers End Users

ZOOK Welded Rupture Disks are Manufactured in Accordance to Global Standards:

- EN ISO 4126-2
- Pressure Equipment Directive
- ASME Section VIII
- AWS D17.1
- ASME Section IX

Common Disk Materials (Contact ZOOK for other disk materials):

- 316 & 304 Stainless Steel
- 600 Inconel
- 200/201 Nickel
- 400 Monel
- C276 Hastelloy



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