

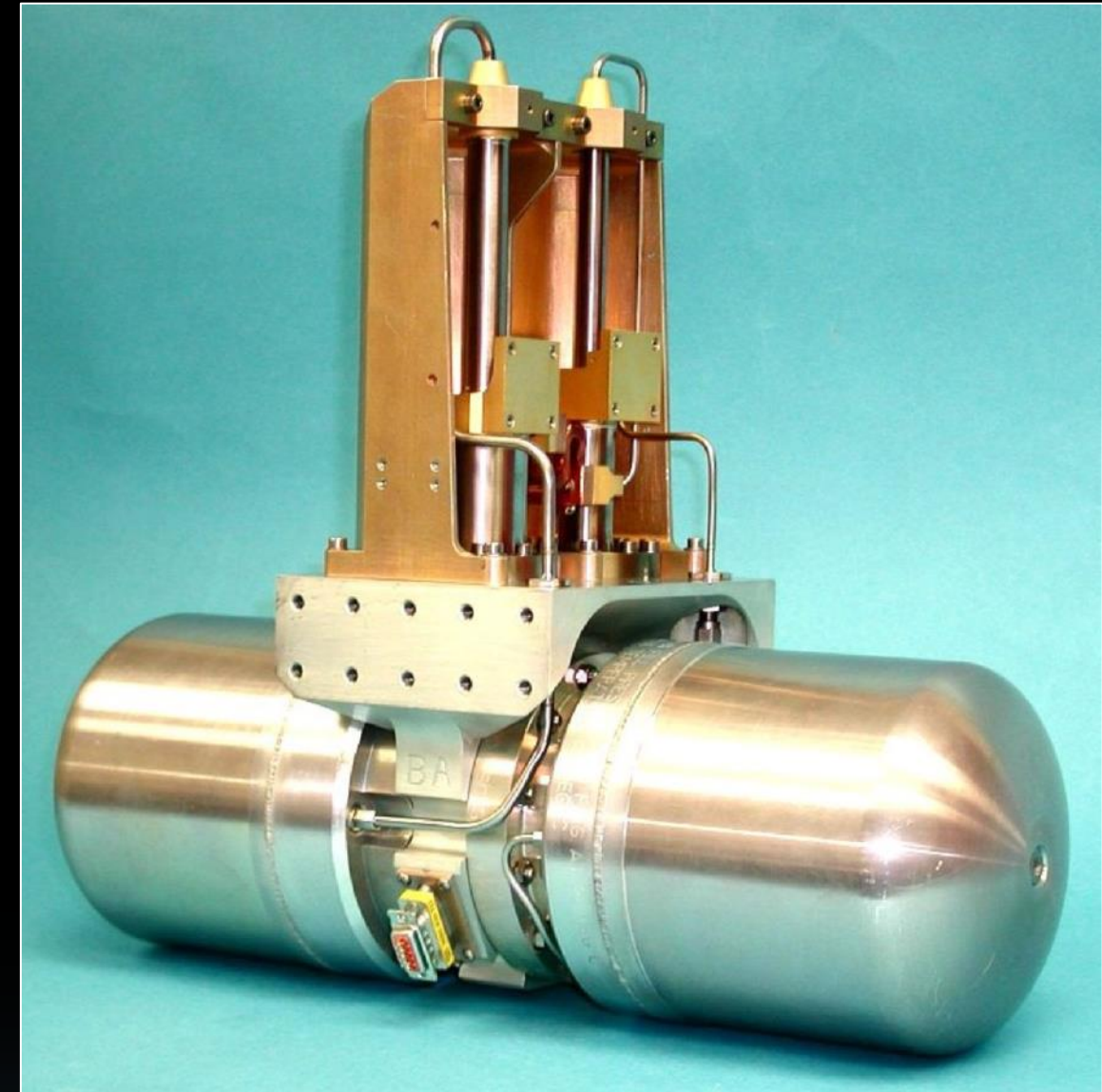
The widest range of
mission-critical interconnect
technologies in the world



**Turnkey, High-Pressure
Pure Gas Tube Assemblies**

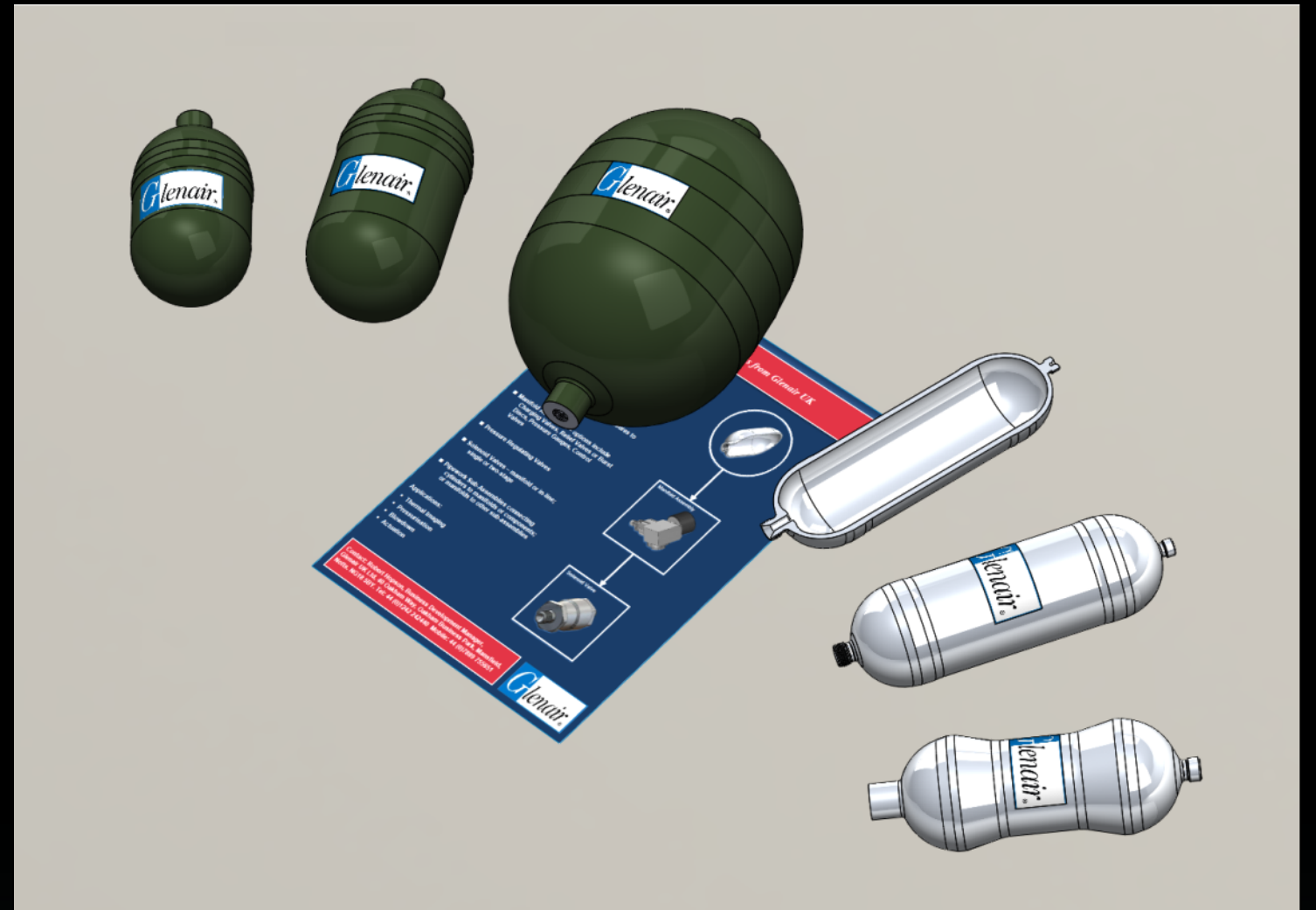
Pure-Air/Pneumatic Products

- Gas vessel assemblies
- Gas supply systems
- Integrated manifold assemblies
- High-pressure pipe assemblies
- High-pressure relief valves
- Solenoid valves
- Regulator valves
- High-pressure couplings



Pure-Air Vessel Assemblies

- 0.33L to 2.4L volume sizes
- Cylinder or spherical
- Various inlet and outlet sizes
- Stainless steel S143 – S145
- 3,000 – 10,000 psi
- Electron beam welded
- Heat treated
- Painted or un-painted



Pure-Air Vessel Sizes

DEF STAN 81-91

0.33 litre

0.60 litre

2.40 litre

Fill Pressure (Air): 330 bar at 20°C

0.34 litre (sectioned)

Special Designs

0.34 litre

0.28 litre

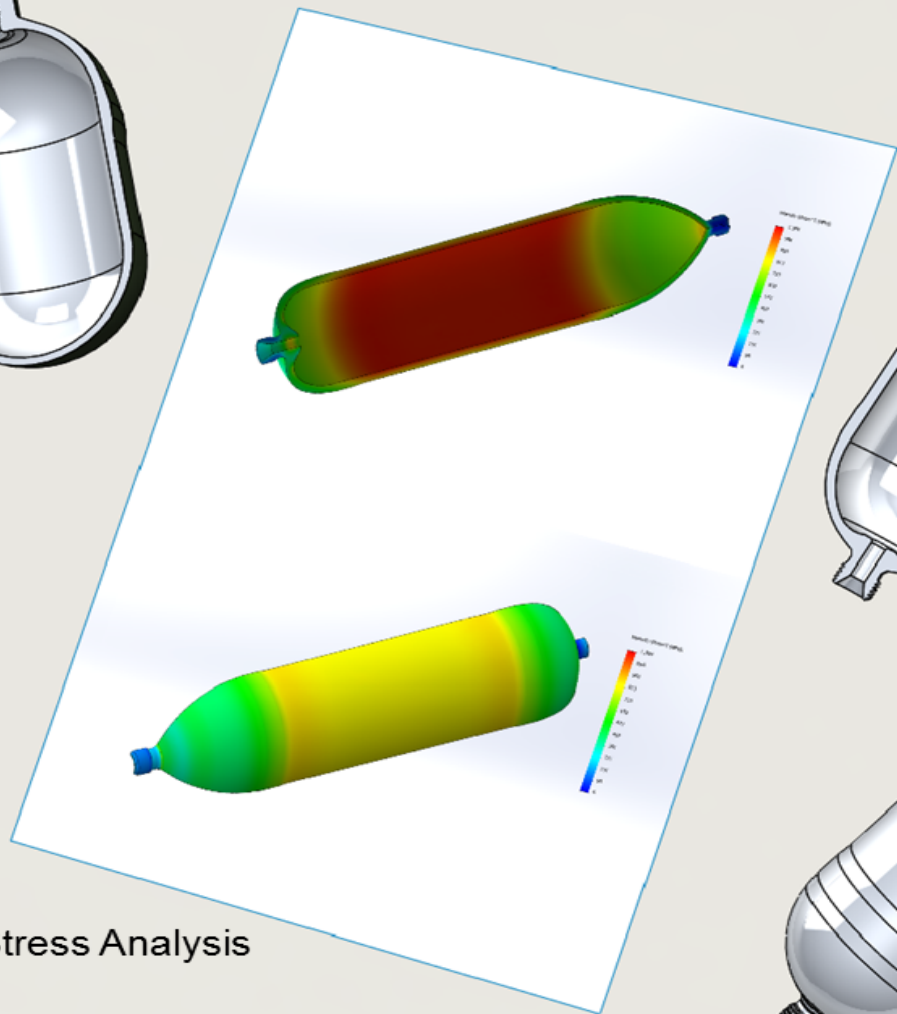
Fill Pressure (Air): 470 bar at 20°C

Pure-Air Vessel Types

Pressure Vessels

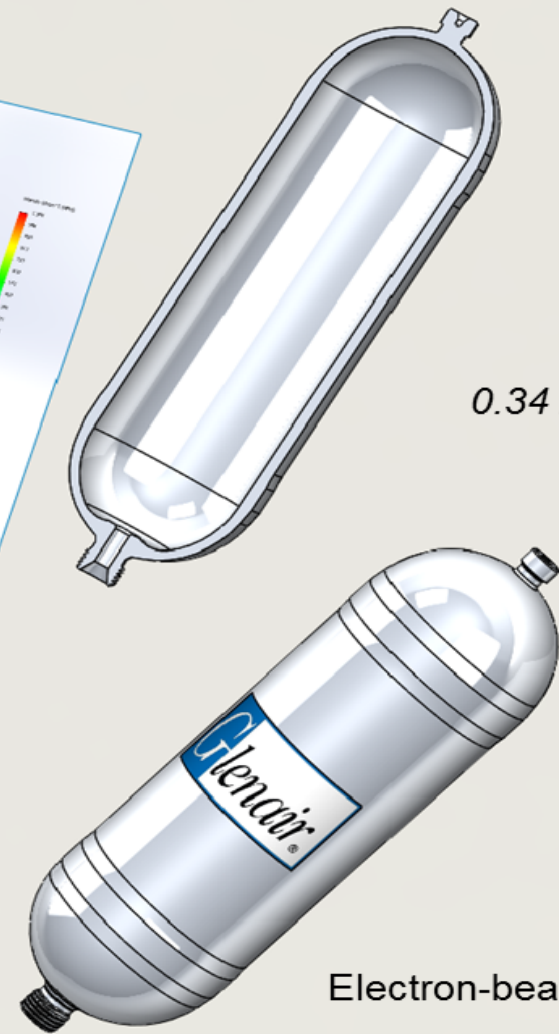
Heat-treated stainless steel

0.33 litre



Finite Element Stress Analysis

0.34 litre

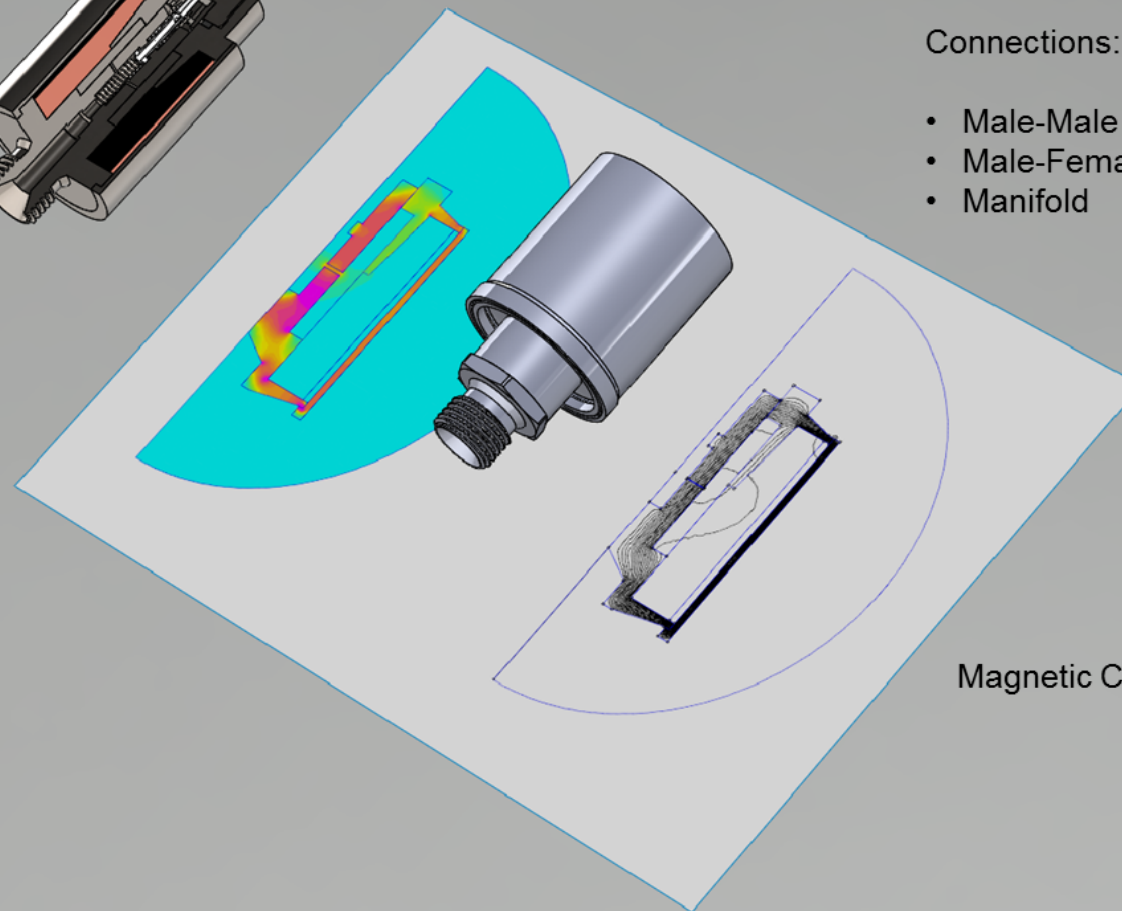
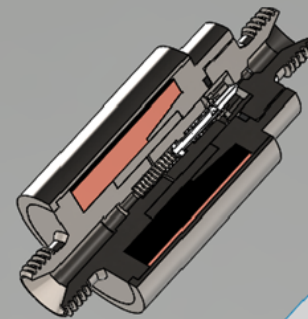


Electron-beam welded

High-Pressure Solenoid Valves

Example:

- Pure Air
- Voltage: 28 V dc
- Current: 0.2 A max
- Pressure: 420 bar max
- Temperature: 70°C

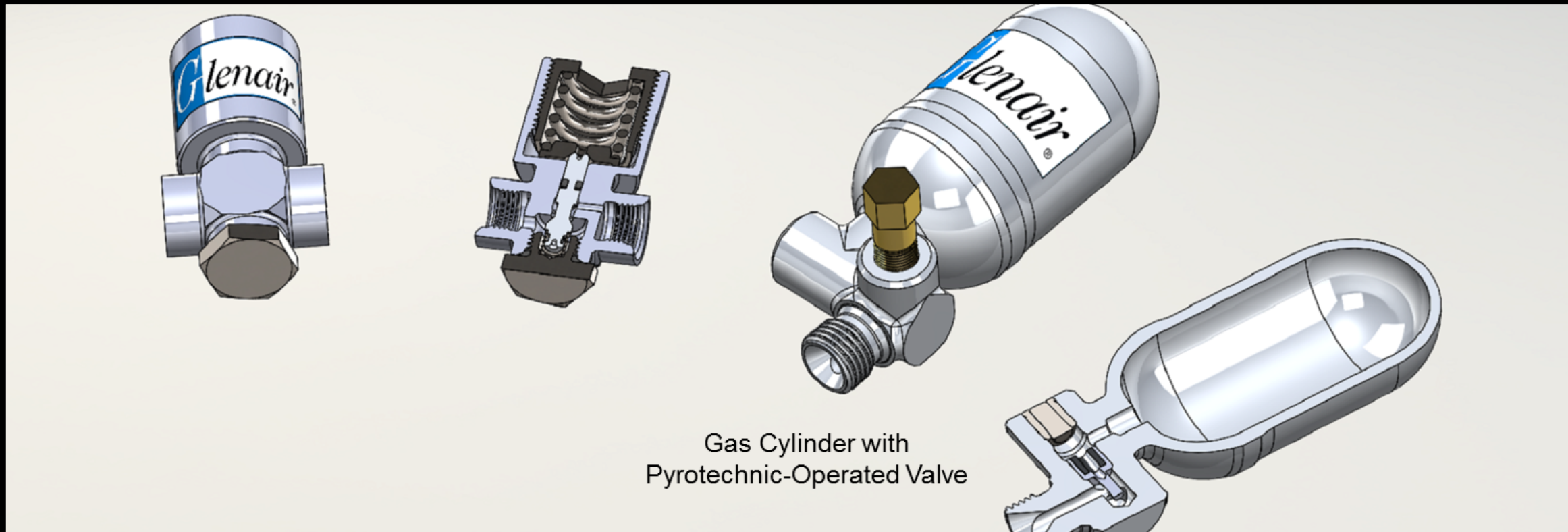


Connections:

- Male-Male (shown)
- Male-Female (shown)
- Manifold

Magnetic Circuit Analysis

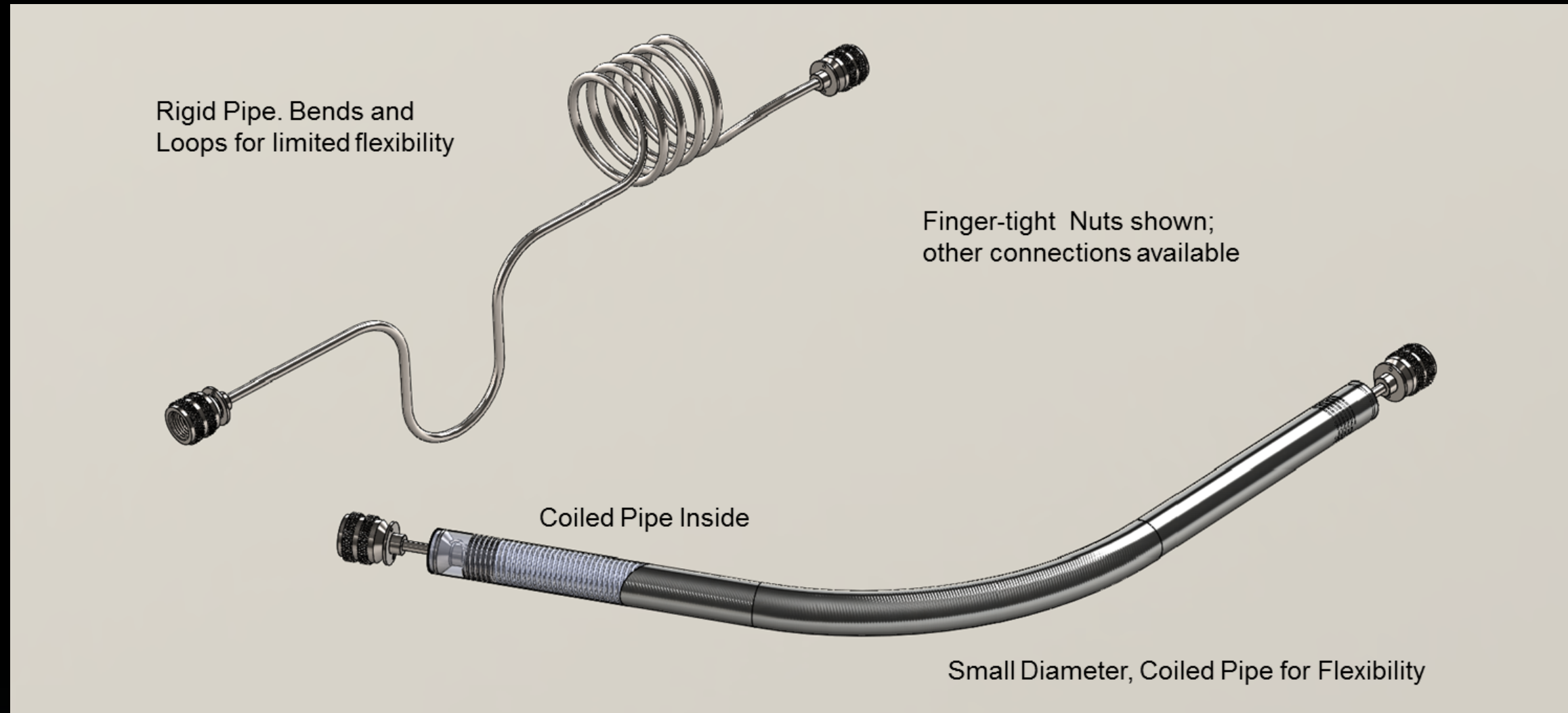
High-Pressure Regulator and Pyrotechnic Valves



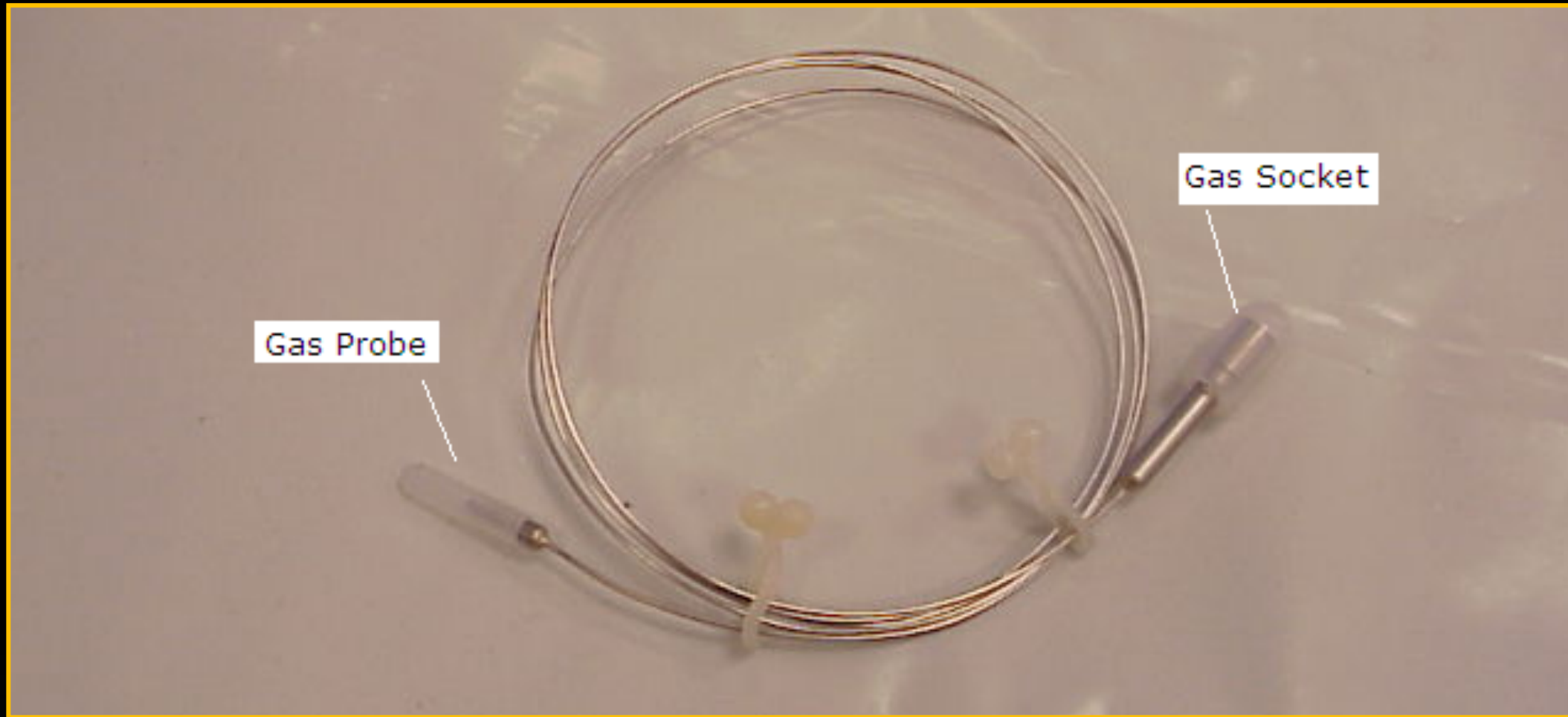
High-Pressure Pipe Assemblies



High-Pressure Pipe Assemblies



Gas Socket and Probe Assembly

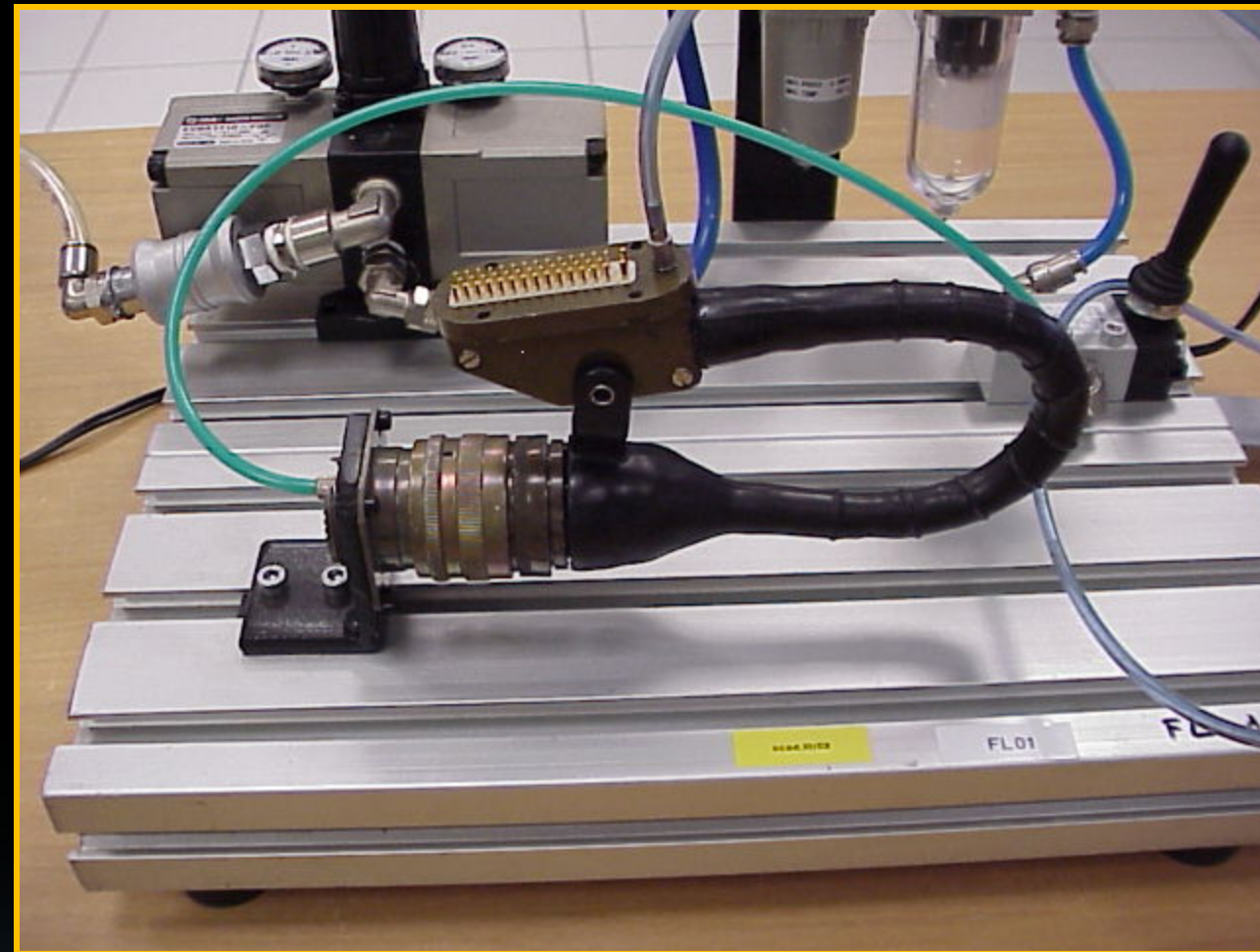


Missile Launch Applications

- Launcher receptacle
- Airborne umbilical loom
- Missile store receptacle
- Buffer assembly



Complete In-House Flow Rate Testing



Pneumatic Umbilical Assembly

- Product Specification -

- Highest performance standards for severe environmental conditions
- Meets or exceeds MIL-DTL-38999 Series III requirements
- Meets the purity levels of Def Stan 58/96



Airborne Umbilical Plug with Pure Gas Socket



Umbilical Adapter with Pure Gas Probe and Socket



Aircraft Launcher Side-Test Harness Assembly



Pure Gas Tube Documentation




Glennair

Series 83 GT Pure Gas Tube Assemblies

Turnkey, High-Pressure, Pure-Gas Contact and Tubing Assemblies for Mission-Critical Applications

United States • United Kingdom • Germany • France • Nordic • Italy • Spain • Japan




Pure Air/Nitrogen Cooling Systems

Complete systems and ancillaries for IR guided weapons and weapons ejection applications

Glennair high pressure Pure-Air/Nitrogen gas solutions are designed and performance tested for use in a wide variety of Defence and Aerospace applications, including cooling of infrared detectors, missile seekers and all high pressure pneumatic actuation and deployment systems. Products include, Sealed for Life Gas Supply Systems, Re-chargeable Gas Supply Systems, High Pressure Solenoid Valves (miniature & low voltage), Small Bore pipe Assemblies, Relief Valves, Integrated Manifold Assemblies, Charge Valves and High Pressure Vessels. All Systems and Ancillaries are designed for direct incorporation into Joule-Thompson (JT) cryogenic systems and all applications which require reliable pressurization, blow down, actuation, and IR Cooling. Glennair Pure-Air and High Pressure Systems and components are designed to exact customer requirements and specification.

- Ultraminiature and lightweight pneumatic components and sub-assemblies
- Pure air and nitrogen (DEF STAN 58-96)
- High-pressure cylinders, solenoid valves, manifolds, and complete sub-assemblies



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PURE AIR/NITROGEN

Lightweight Modular Cooling and Actuation Systems



Glennair pure gas/nitrogen systems and sub-assemblies provide passage of nitrogen and other pure, pressurized gases through precision-machined components such as pressure regulating valves, solenoids, and Joule-Thompson cryogenic cooling systems. Assemblies feature precision stainless steel pipeworks and tubing which are fabricated using a flux-free brazing process and are ultrasonically cleaned and packaged in a sealed, dust-free environment. Electromechanical components are also precision-machined with material properties and dimensional attributes per customer specifications.

- Manifold Assemblies – including Charging Valves, Relief Valves or Burst Discs, Pressure Gauges, Control Valves
- Pipework Sub-Assemblies connecting cylinders to manifolds or components
- Pressure Regulating Valves
- Solenoid Valves – manifold or in-line; single or two-stage
- Manifolds to other sub-assemblies

Typical performance	
Flow Rate	Typical Flow Rate is 5 liters per minute (lpm) @ 150 PSI
Operating Temperature	-65°C to +125°C for all applicable mechanical requirements.
Physical Shock	No loosening of parts, cracking or other deleterious results hindering further part operation after 300 G's in each of 3 mutually perpendicular planes.
High Impact Shock	All components withstand high impact shock per MIL-S-901.
Vibration	All components withstand high-vibration with no evidence of cracking, breaking or loosening of parts.

Solutions built to exact customer requirements and specifications




Pressure test rig



Gas tube helium leak test equipment



Pure air compatibility test equipment



Brazing control panel

The widest range of
mission-critical interconnect
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