

Inconel 625 signal transmission solutions for high-pressure applications

THERMOCOAX is used to meeting the highest standards, with more than 60 years' experience in the nuclear and aviation industries.

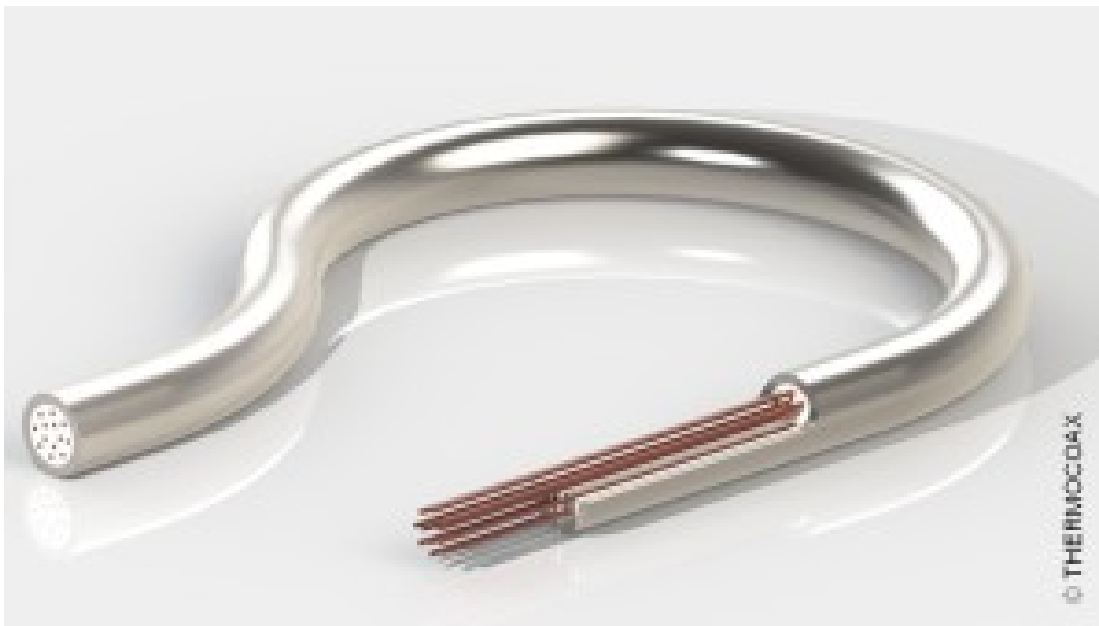
We are able to manufacture and weld various materials in-house.

We had the opportunity to work with Inconel 625 to ensure the requirements were met for deep-sea in terms of pressure, tightness, and reliability.

We worked on a transmission cables solution, including feedthroughs and mechanical parts.

The main focus of the solution was the sealing at the welds.

We used our internal welding and testing capabilities to develop a multi-conductor solution for signal transmission. We now offer signal transmission solutions for up to 8 conductors.



THERMOCOAX internal capabilities:

- Welding capabilities: TIG, plasma, laser
- Testing capabilities: FPI, X-ray, ESS, macrography, **penetrant testing level 4**

THERMOCOAX mineral-insulated cables are able to operate when subject to 300 bars of pressure (when 3,000m/10,000ft under water) for 30 years.

They have been subject to up to 450 bars of pressure during the qualification process.

Our solution is compliant with ASME BPVC Section IX.

The THERMOCOAX mineral-insulated cable is an **alternative to polymer-based** power and control cable systems :

- Suitable for **high temperatures/high pressures**
- Not thermally degradable
- Not susceptible to **fluid getting into the sheath**
- **Easier to connect and interface** with other equipment: no need for pressure- adaption devices.

=> Lower CAPEX, longer lifetime

Our mineral-insulated cable solutions can be used in critical environments for electrical **power** and **control**.

One use is for subsea equipment.

For example :

- Pumping systems
- Transformers
- Heating systems
- Power supplies for control systems
- Valves
- Sensing devices
- Metering devices
- Blowout preventers

THERMOCOAX works with a permanent improvement strategy in terms of:

- **Design**
- **Manufacturing process**
- **Cost reduction**

We adapt to customers' specific requests.

THERMOCOAX is fully established in the US and supplies ASIA directly.