

Corrosion Resistant Alloy (CRA) Solution for Geothermal

Geothermal environments pose extreme challenges, including high temperatures, corrosive fluids, and abrasive particles that impact equipment performance and lifespan.

These conditions require materials that can resist corrosive media, thermal stress and wear.



Corrosion-Resistant Clad & Lined Pipes

CRA-lined pipes designed to withstand corrosive brines,



High Temperature Resistant

Pipes and fittings made from high-temperature alloys, ensuring structural integrity at elevated temperatures up to 370°C.



Wear Resistant Hardfacing

Hardfacing solutions for high-wear components, enhancing durability in abrasive environments.

CRA Overlay Solutions for Long-Lasting Geothermal Piping

CRA overlay provides a protective layer on piping, shielding carbon steel surfaces from high-temperature steam and aggressive chemicals like chlorides and sulphides found in geothermal environments. This overlay extends the longevity of piping by preventing oxidation, stress corrosion cracking, and corrosion, ensuring reliable and durable geothermal steam transport and processing.

It can be applied to:

Steam Gathering Flowlines

Reinjection Lines

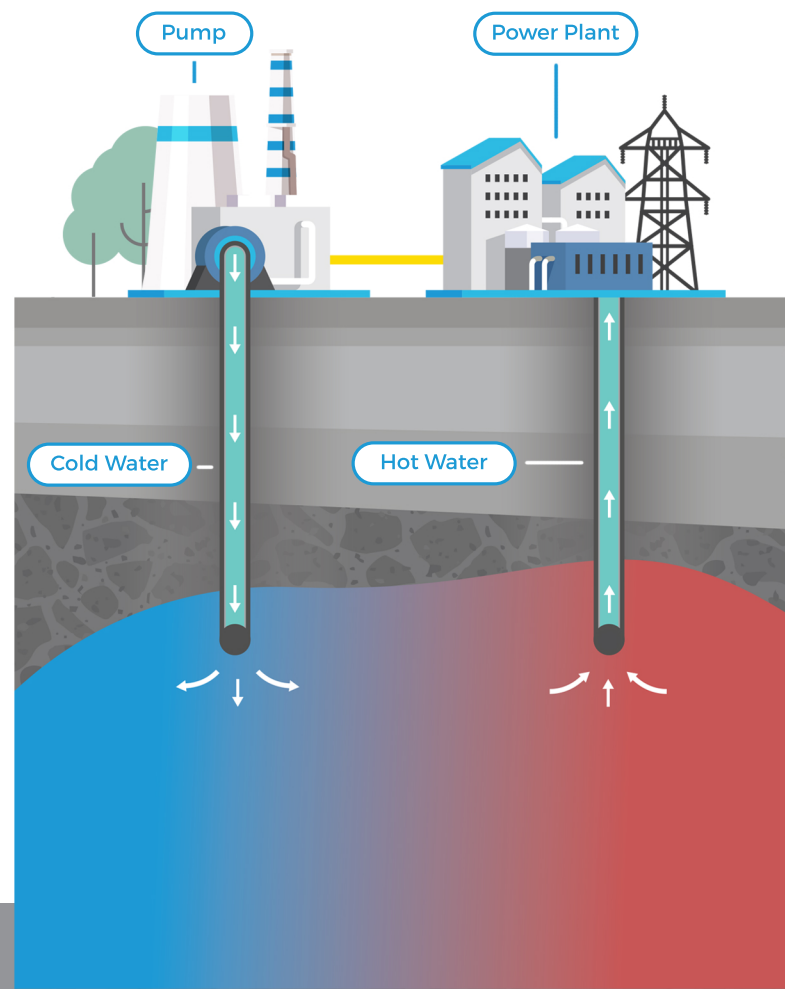
Geothermal Process Piping

Down Hole Production Tubing and Liners

Pre-Fabrication: Spools & Modules

 CRA Products

 Mechanically Lined Tubulars (MLT)



Steam Gathering Flowlines

CRA solutions, including Mechanically Lined Pipes, Clad Pipes and Fittings, offer superior performance for steam flowlines:



Ultimate Performance

CRA layered pipes delivers cost efficiency, reliability, and ease of installation.



Lower CO₂ Emissions:

CRA solutions emit less than 50% of the CO₂ compared to solid CRA.



Geothermal Process Piping

CRA solutions offer key advantages:



Cost-Effective

Clad & Lined components offer significant savings compared to solid high-nickel alloys like 625 and C276.



Material Optimisation

Lining allows for optimal material selection, enhancing performance.



High-Temperature Advantage

Weld overlay (WOL) is often more cost-effective than Duplex and Super Duplex in high-temperature applications, with reduced temperature related derating.

Downhole Tubulars

Our CRA-lined OCTG pipes, called Mechanically Lined Tubulars (MLT), offer:

Alloy 625 Lined Tubing

Available up to 20" diameter.

Cost-Effective:

More economical than solid CRA.

Scalable Technology

Economically scalable to larger diameters.

