

Heat Treatment Services

Field Services



In partnership with Traterme, we deliver advanced heat treatment services for critical components across industrial, manufacturing, and energy sectors. Our capabilities cover a wide range of thermal processes—both in-house and on-site—to enhance material properties, relieve stress, and ensure long-term reliability.

Hardening (Water, Oil, Polymer, Vacuum)

- Controlled hardening processes using different quenching mediums to increase surface strength and wear resistance of components.

Nitriding

- Gas or plasma nitriding to enhance surface hardness, wear resistance, and corrosion protection without altering core strength.

Carbonitriding

- A combination of carburising and nitriding that improves surface hardness, fatigue strength, and wear resistance in low-carbon steels.

Induction Hardening

- Rapid localized surface hardening using induction heating, ideal for improving fatigue strength in high-stress areas.

Carburising

- Introduction of carbon into the surface layer to improve hardness and durability, suitable for gears, shafts, and wear-prone parts.



Heat Treatment Services

Field Services

Annealing

- Heat treatment to soften metals, improve ductility, and refine microstructure, aiding in machining or forming processes.

Normalising

- Hydrostatic and pneumatic testing, as well as advanced leak detection methods, to verify vessel integrity and safety under operating conditions.



Tempering

- Reduces brittleness and increases toughness after hardening, balancing strength with ductility in treated components.

Stress Relieving (Small to Very Large Parts)

- Controlled heating and cooling processes to reduce residual stresses from welding, forming, or machining—applied to components of all sizes.

Onshore Treatment

The following services, which can be performed by electrical resistance, induction or gas, are:

- Pre-heating
- Post-heating
- Stress relieving / PWHT
- Normalising
- Hydrogen Bakeout
- Shrink-fitting

Contact Us



info@prometim.net



(+244) 926 423 985