

ALNAT C



Active
Atmosphere
solutions for
carburising,
carbonitriding
and neutral
hardening
of steels

The active heat treatment of finished parts in carbon steel is done under **ALNAT C** Nitrogen and Methanol atmospheres solution with major benefits:

- N_2 -CO- H_2 carrier gas with low H_2O , CO_2 and O_2 contents
- Improved direct injection of the mixture in the furnace
- Carbon potential easily controlled
- Upgrade of your process performance
- Minimal capital expenses and maintenance
- Easy installation and operation
- Furnace safety management with Nitrogen



A high quality atmosphere

Based on the precise mixing of nitrogen and methanol, **ALNAT C** ensures a large range of atmosphere composition.

The high quality of those two fluids gives a high purity mixture with low H₂O, CO₂ and O₂ contents to get a highly reproducible atmosphere's composition.

Adapted to many metal heat treatments

- For carburising, carbonitriding and neutral hardening of carbon steels
- In sealed quench batch-type furnaces, pit or continuous belt, roller hearth and pusher-type furnaces
- The zoning of continuous pusher furnace is adapted to optimise the carburising/diffusion rate and the total gas flow-rate.
- Nitrogen atmosphere for furnace safety



Customized installation

- Engineered and designed to your specific needs
- Improved direct injection lances and pump skid for Methanol
- **ALNAT C** panel supply for multi-furnace or single furnace
- Preventive and corrective Air Liquide maintenance
- Dedicated Ammonia technology for carbonitriding
- Consulting and training on gas handling and safety
- Automatic Nitrogen safety pipeline and procedures



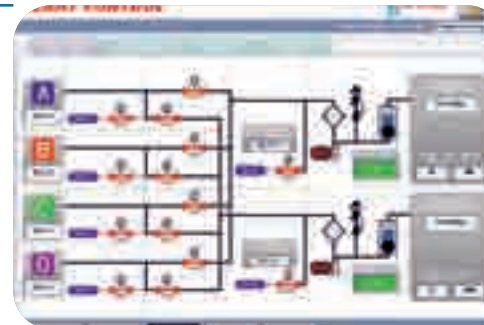
Extended ALNAT offers

ALNAT Expertise to qualify the performance of your furnaces

ALNAT Control to monitor your carbon content of the steel

ALNAT Performance:

- Complete process control to optimize the quality and flow-rate of the atmosphere delivered to your furnaces
- On-line atmosphere analysis (CO/CO₂/CH₄) and-or (H₂O/O₂ probe)
- Telemetry for remote monitoring and reporting



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