



FOCUSED ON GENERATING PROFIT FOR THE HEAT TREATMENT INDUSTRY

Parker NITROSource Nitrogen Gas Generation Systems



ENGINEERING YOUR SUCCESS.

FOCUSED ON OVERCOMING THE CHALLENGE OF OXIDISATION

Parker understands the challenges presented by the heat treatment process.

In particular, the oxidisation of materials undergoing heat treatment, is a constant issue. Not only does it lead to an unwanted oxide layer of discolouration on the surface of the component, it can also effect the molecular properties of the material itself, altering both strength and durability.

Nitrogen is used throughout the heat treatment industry to exclude oxygen from the heat treatment process – in both furnaces and ovens.

Parker manufactures and supplies on-site gas generation solutions which provide a constant supply of nitrogen at a fraction of the cost of traditional bulk liquid and gas cylinders.

Typical applications for Parker NITROSource nitrogen gas generation systems include:

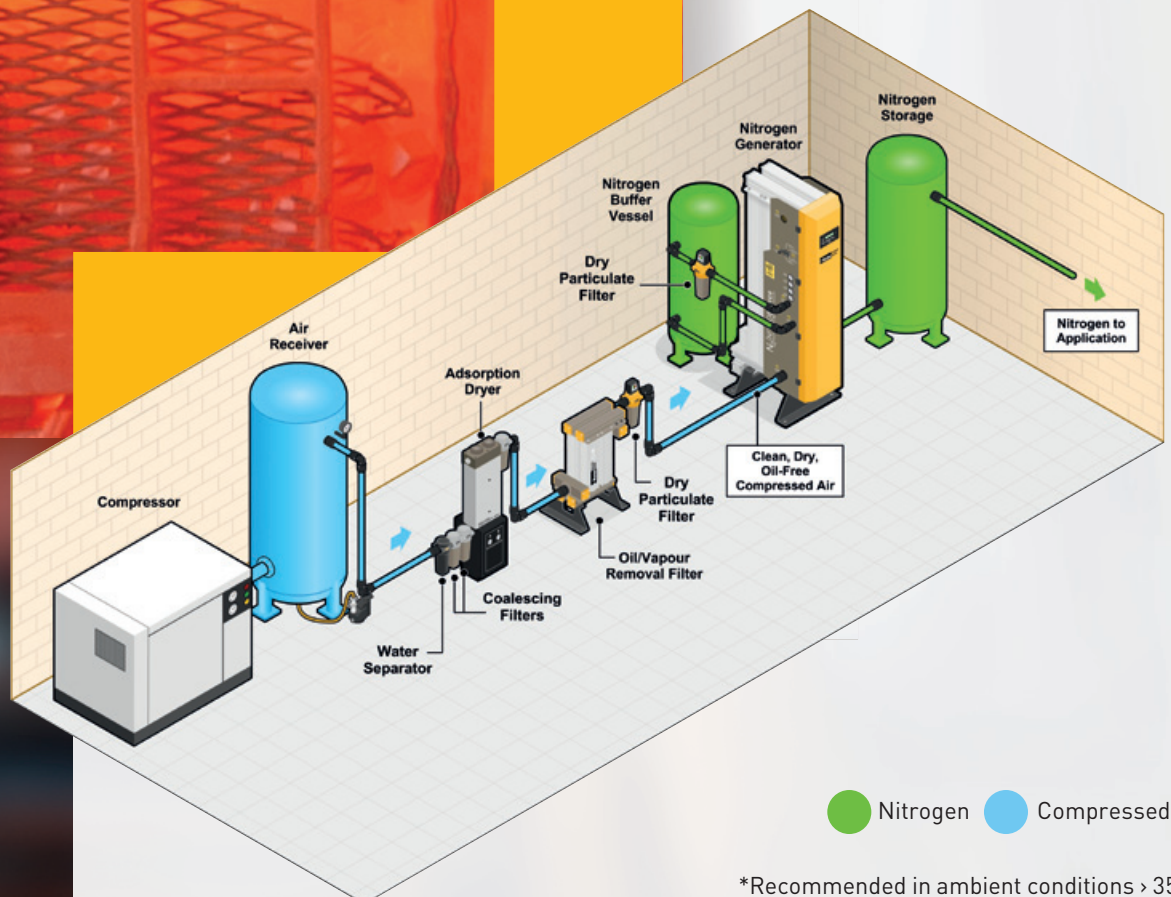
- Belt furnaces
- Batch furnaces
- Vacuum ovens
- Brazing
- Carburising
- Tempering
- Annealing
- Gas quenching
- Neutral hardening
- Normalising
- Sintering



FOCUSED ON THE PERFECT NITROGEN SOLUTION FOR HEAT TREATMENT

The combination of a standard oil lubricated factory air compressor with NITROSource allows for a constant supply of nitrogen. This ensures reliability, increased efficiency and maximum profitability.

Typical Parker NITROSource system layout for heat treatment applications



*Recommended in ambient conditions > 35°C

FOCUSED ON GENERATING PROFITABILITY FOR HEAT TREATMENT CUSTOMERS

Energy saving technology

Matches compressed air flow to the nitrogen outlet flow and purity, reducing compressed air use, and saving energy and money.

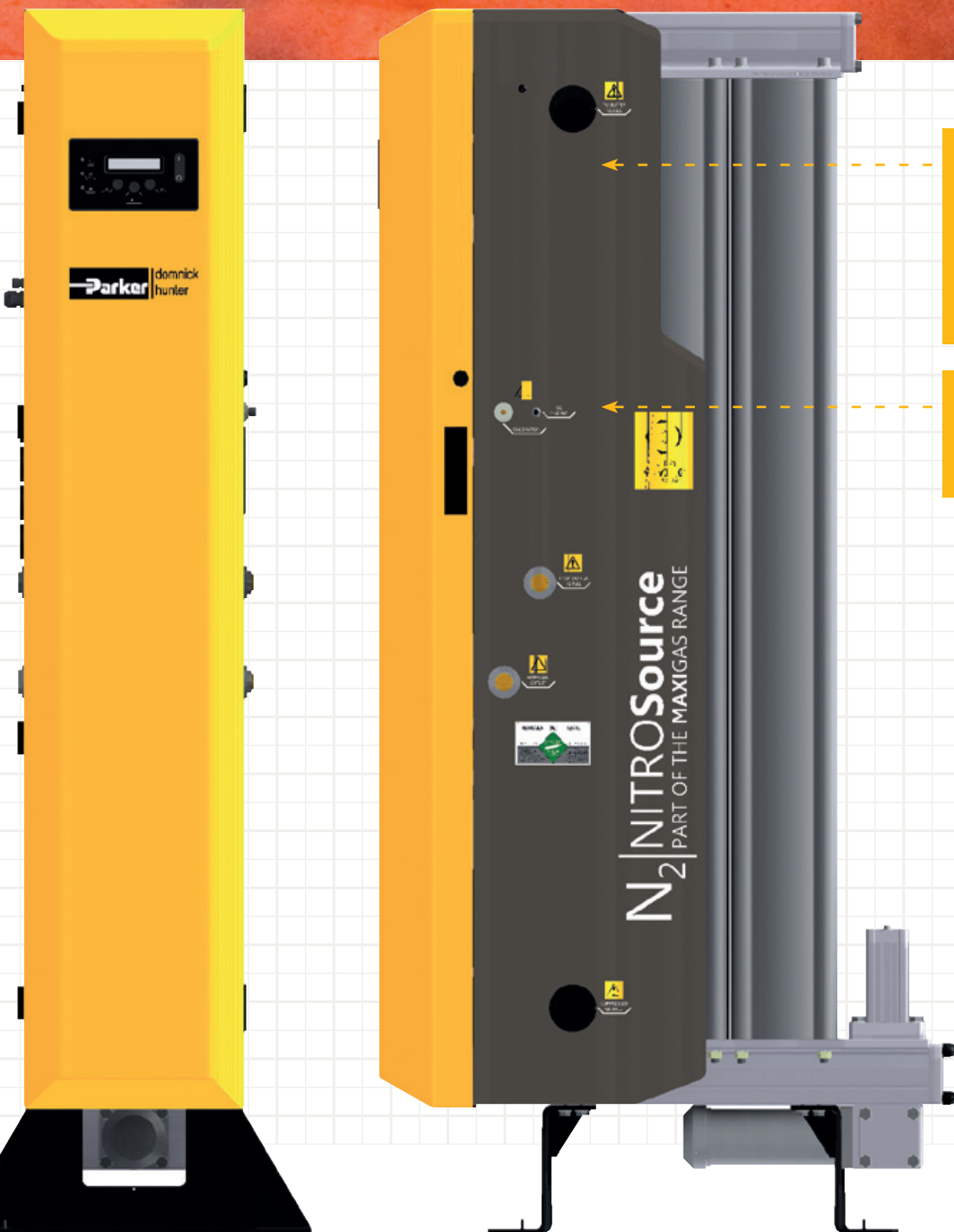
Lower cost maintenance, extensive working life

The Carbon Molecular Sieve, the 'engine' of the generator, delivers nitrogen more efficiently, leading to a very long working life – and huge savings on maintenance.



Gas Quality Control

- Mass flow controller - ensuring correct set pressure and flow
- Integral oxygen analyser - constantly measures gas purity
- Off-gas-by-pass - automatically vents off out-of-specification gas, to ensure product quality
- Inlet and outlet pressure regulation - preventing damage to the generator or application
- Electronic control system - 100% management of all critical generator functions



Remote monitoring

Enabling connection to proprietary remote management and the generator control systems, to control and track gas parameters from a central location.

Easily upgradable supply

Simply add extra generators as the application requirement grows.

FOCUSED ON THE COMPLETE SOLUTION

Benefiting from world class engineering, energy efficient technology and a host of advanced features, NITROSource is the ideal solution for reliable, economical and high quality nitrogen supply in heat treatment applications.

Nitrogen on-demand

As a permanently installed solution, NITROSource ensures that you have constant access to an unlimited supply of nitrogen, 24/7 - always to the correct set pressure, flow and temperature.

Maximum up-time

Unlike traditional cylinder supply, there are no stoppages because of unexpected gas outages, system reconnection and calibration, inventory control or waiting for deliveries. It means your heat treatment system can be fully productive, for more of the time.

Improved safety

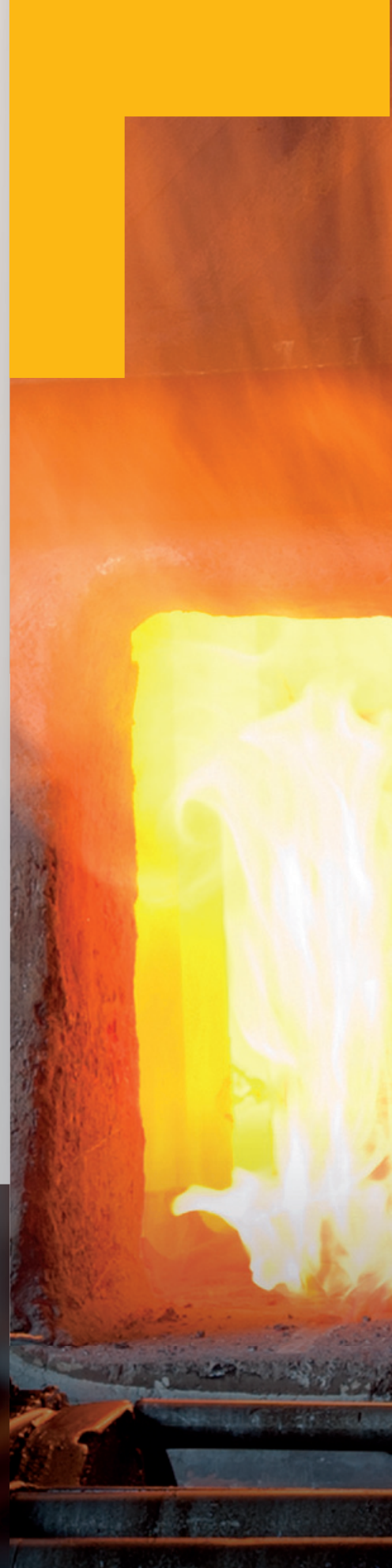
With on-site gas generation, staff no longer have to manually handle large, bulky gas cylinders, and there's no risk of explosion, which means improved workplace safety all round.

Significant cost savings

Low energy consumption and maintenance costs, coupled with less time lost to equipment repair or replacing cylinders, means significant cost savings overall.



For more information or a detailed discussion about your specific requirements please contact Parker or an authorised Parker distributor.



"On-site nitrogen generation enables us to significantly improve the efficiency of the heat treatment process"

Production Director, Engineering Company, UK

FOCUSED ON
ENERGY
EFFICIENCY

FOCUSED ON
PRODUCTIVITY
AND PROFITABILITY

FOCUSED ON
LOWEST COST
OF OWNERSHIP

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US Product Information Centre

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Your local authorized Parker distributor