

Plasma nitriding furnaces, diffusion coating furnaces & high-temperature furnace components.

With more than 25 years of experience in designing, manufacturing and commissioning of turn-key thermal processing equipment, we supply a wide range of furnaces within the field of atmosphere heat treatment, diffusion coating, pyrolysis and recycling. As European partner of Ionheat we also provide the Flow-tech efficient hot wall pulsed plasma nitriding furnaces. Additionally we offer a unique capability for design, manufacturing and repair of High-Temperature Furnace Components for use in corrosive environments.

Electron offerings:

Standard and customized design | 3D SolidWorks Engineering | Alloy fabrication | Heating elements manufacturing | Furnace manufacturing & assembly | Large production and test facility | Worldwide commissioning, service, maintenance & repair | Heat and process technology.

Plasma nitriding furnaces

Plasma nitriding is an efficient and eco-friendly process which uses plasma as the main power source to heat parts and to create the nitrogen activity necessary to chemically modify the part's surface. Our glow-tech Furnace system outperforms any other on the market due to its efficiency and specific features:

- Hotwall system for better process control and temperature uniformity;
- Easy maintenance due to the unique equipment design;
- Pulsed plasma power supply for higher plasma consistence;
- Large process chamber up to 1.500x2.200mm;
- Single, Semi-Tandem and Full-Tandem configuration.

CVD, Diffusion Coating and HFIC cleaning Furnaces

New heat treatment and coating process technologies have been developed, validated and tested including the latest technologies in coating for industrial gas turbines. Our furnaces offer the highest capacity amongst the industry and the most cost-effective solution for processing of e.g. hot section gas turbine components. The system can be used to perform either one or a combination of below listed processes:

- Vapour Phase Aluminizing (VPA);
- Vapour Phase Chromizing (VPC);
- Chemical Vapour Deposition (CVD);
- Hydrogen Fluoride Ion Cleaning (HFIC).

High temperature Furnace components

In case you are looking for new, high-temperature furnace components against low investment costs and with a short delivery time, we are your right partner. At our large manufacturing facility in the Netherlands, we design and manufacture various HT furnace components made of heat-resistant alloys. All parts will be cost effectively designed to your specifications or produced on the basis of (your) standard models. Product examples are:

- Alloy retorts & Cast alloy work grids;
- Donor bins;
- Alloy coating boxes & baskets;
- Furnace components & fixtures.