



Kn Controlled Gas Nitriding & Nitrocarburizing Furnaces



Innovative Design

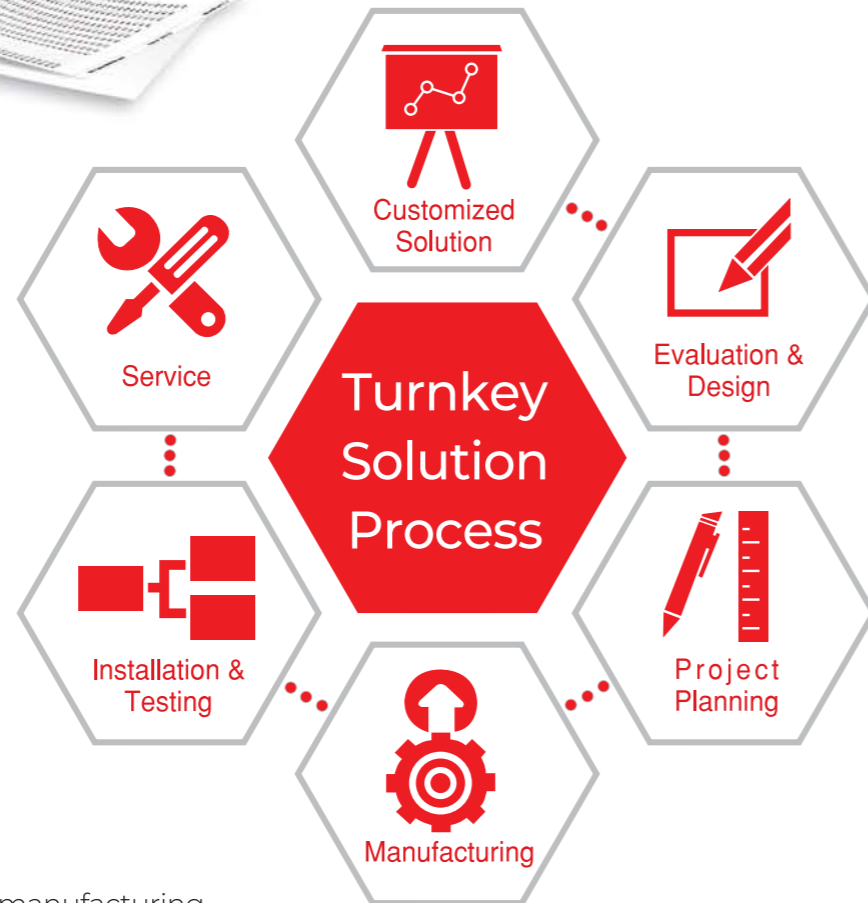




Your Solution Partner

Customized Solutions

Customer requirements about heat treatment applications of critical industries are received by our sales team. We deliver customized solutions to any technical and technological demands.



Evaluation & Design

After receiving your request we evaluate it carefully to offer you accurate concepting and designing services.

We compose products by checking analytical, numerical simulations and by virtually prototyping to get the customers confirmation.

Project Planning

Planning the manufacturing process of the approved design is being realized with the hardwork of the experienced project team.

Manufacturing

Following the planning, every stage of manufacturing process is held down by our experienced staff with precision.

Installation and Testing

Installation, commissioning and final testing are carried out by our qualified service department.

Service

We offer after sale services in a sustainable manner for full satisfaction of our customers.



Process Applications

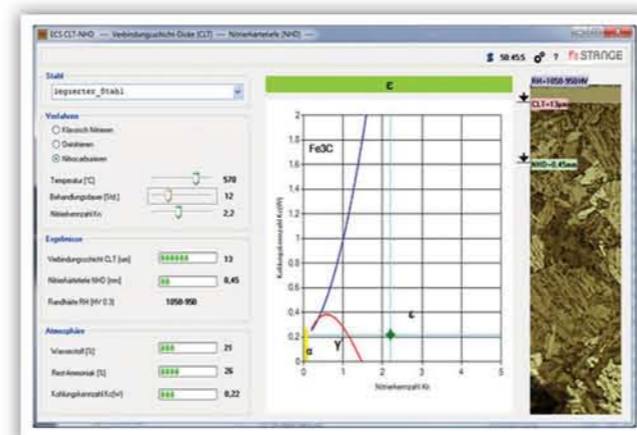
- KN Controlled Nitriding,
- KNc Controlled Nitrocarburizing,
- KO Controlled Oxidation,
- Oxi-Nitriding,
- Vacuum Tempering,
- Thermal Etching,
- NH₃ Cracking,
- Neutralization of Waste Gases,
- Addition of CO process Gas.

Products

- YGN-Series / Horizontal Gas Nitriding Furnace
- DGN-Series / Vertical Gas Nitriding Furnace
- AP-Series / Ammonia Cracker
- E-NTR-Series / Neutralizers of Waste Gases

Specific Features

- Kn controlled nitriding & nitrocarburizing,
- Stange Electronic control and automation system
- Repeatable white layer & nitriding thickness,
- Minimum gas consumption,
- Online process monitoring & recording system,
- Process cost calculation,
- External fast & efficient cooling with double fan,
- Ready to use process recipe for 10 applications,
- 250 recipe registration possibility,
- AMS 2759/10 and 2759/12 compliance to standards,
- AMS 2750-H compliance to standards.



Optional Features

- Oxidation
- Vacuum application,
- Heat exchanger for direct cooling,
- Surface activation,
- Neutralizer,
- Ammonia (NH₃) vaporizer and filtration unit.

HORIZONTAL GAS NITRIDING

Heated By Electricity

YGN Series

$$K_N = \frac{p_{NH_3}}{p_{H_2}^{3/2}}$$

Smart Solution

FURNACES



Nitriding & Oxidation

Excellent corrosion resistance up to 240 h



Crankshaft



Aviation industry, Custom 465
Nitriding Depth: 18 μm ± 2 / 1100 HV



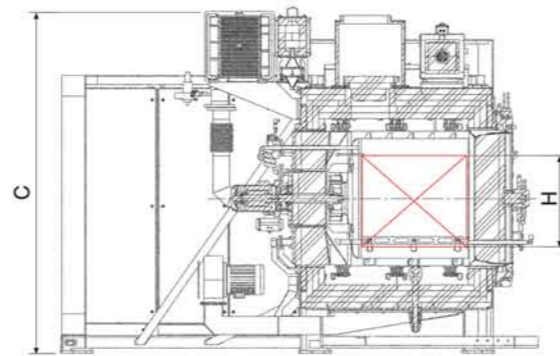
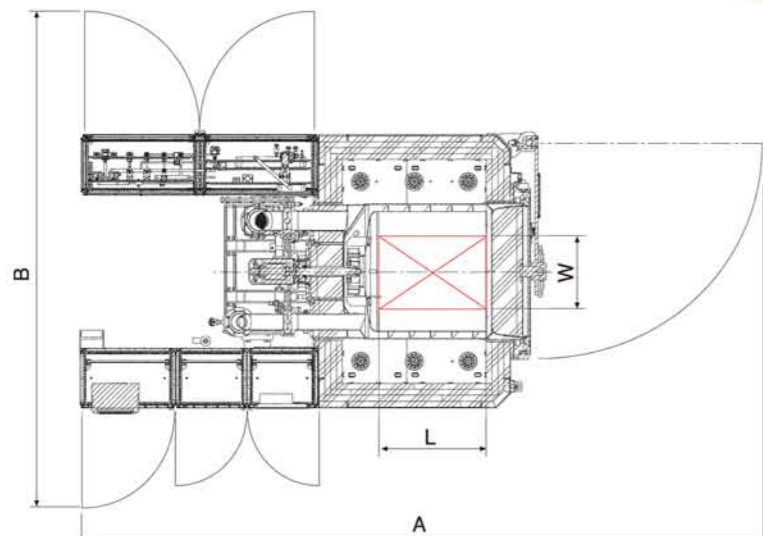
Aluminium extrusion die



For textile; sock dies

Unique System

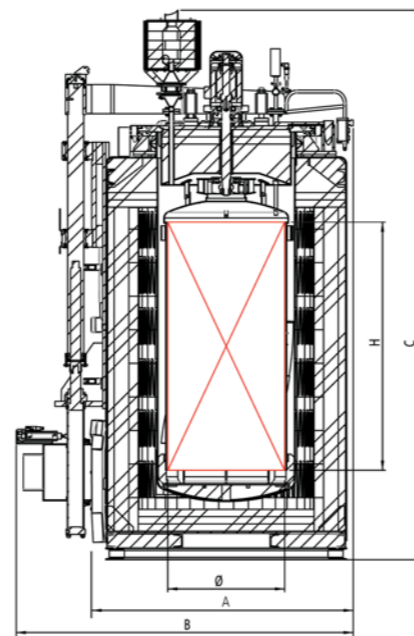
Standard Sizes	Working Zone (WxLxH) (mm)	Outer Dimensions (AxBxC) (mm)	Load. Cap. (Kg)	Heat Cap./Electric (Kw)
YGN-S	600 x 900 x 600	5680 x 4120 x 2865	1.000	90
YGN-M	900 x 1200 x 900	6640 x 4800 x 3600	2.500	180
YGN-L	1200 x 1500 x 1200	8866 x 6740 x 4600	5.000	300



VERTICAL GAS NITRIDING FURNACES

Heated by Electricity

DGN Series



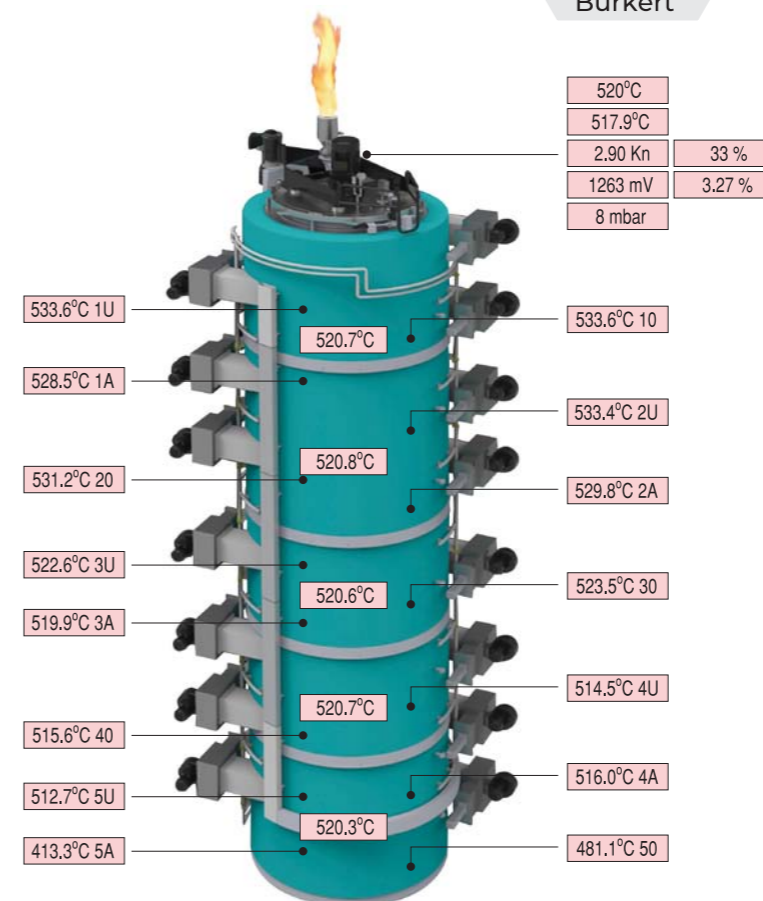
Standard Sizes	Working Zone (ØxH) (mm)	Outer Dimensions(AxBxC) (mm)	Load. Cap. (Kg)	Heat Cap./Electric (Kw)
DGN-10	Ø630 x 1500	2100 x 2350 x 3600	1.000	90
DGN-20	Ø800 x 1800	2250 x 2500 x 4000	2.000	120
DGN-30	Ø1000 x 2000	2450 x 2700 x 4800	3.000	150
DGN-40	Ø1200 x 2000	2700 x 3000 x 4800	4.000	180
DGN-60	Ø1500 x 2000	3000 x 3300 x 4800	6.000	240
DGN-100	Ø1200 x 8200	2700 x 3000 x 10500	10.000	300

- High Speed Cooling (5.1°C/min. at 50% capacity)
- Low Gas Consumption by the Pulse-NIT
- Manageable Porosity in the White Layer by Carbon monoxide
- High Surface Hardness by Carbon monoxide



Our Global Partners

- Kanthal
- Siemens
- SMC
- Thermal Ceramics
- Krom Schroder
- Leybold
- Unifrax
- Brooks
- Phonix TM
- Schneider



OPTIONAL EQUIPMENTS



