

Precise Temperature Control up to 1,200 °C ...

Heat Treatment Service for Various Components and Applications



Kalenborn offers a comprehensive range of heat treatment services for the processing of metallic components, including:

- workpiece weights up to 12 t
- welded and cast structures
- temperatures up to 1,200 °C
- no restriction with respect to materials
- a wide variety of applications

Heat treatment of metallic components up to 1,200 °C at ± 5 °C temperature fluctuations



Components weighing up to 12 t can be heat treated in a furnace that has maximum dimensions of 5,000 x 3,700 x 2,000 mm

Kalenborn provides the heat treatment service within its line of metallic materials.

Heat Treatment for Material Conditioning:

Temperatures up to 1,200 °C Providing with Precise Observance of the Temperature Specification

Heat Treatments

Heat treatments shall achieve specific material properties:

- increasing or reducing strength (hardening, normalizing, soft annealing)
- eliminating internal stress (stress relieving)
- achieving requested structural conditions (hardening, normalizing, soft annealing)
- improving machining properties (soft annealing, full annealing)
- eliminating the effects of cold forming (normalizing, recrystallization annealing)

Thermal Treatment Furnaces

Kalenborn offers different heat treatment furnaces. The maximum internal dimensions of the gas-fired furnaces are 5,000 x 3,700 x 2,000 mm. The workpieces can weigh up to 12 t.



In addition, electrically heated thermal treatment furnaces with internal dimensions of 1,000 x 500 x 400 mm are available. They accommodate workpieces weighing up to 500 kg.

Temperatures and Temperature Curves

Kalenborn offers thermal treatment up to 1,200 °C. Depending on the specific customer's request, thermal treatment is programmed so that specified temperature curves can be maintained. Maintenance of the temperature curve within a range of $\pm 5^\circ\text{C}$ can be documented by PC records.

Components

A wide variety of structures can be subjected to a heat treatment. This applies both to welded and cast structures.

Typical components are: motor and gear casings, pump and rotor casings, pipes, special welded structures that originate from foundries, mechanical engineering, vessel and chemical equipment manufacturers as well as automotive suppliers.

Materials

There are no restrictions concerning components to be treated. Practically any material can be heat treated at Kalenborn.

Thermal treatment is offered for cast and welded structures made from a wide variety of materials

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