



WILH. SCHULZ GMBH
SPEZIALGLÜHBETRIEB

HEAT TREATMENT
IN EVERY DIMENSION



OUR EXPERIENCE – YOUR BENEFIT

With decades of experience, we have been carrying out a wide variety of heat treatment projects at our Krefeld site on an area of over 13,000 square metres since the mid-1970s.

of various materials, components and component dimensions. We have eight

Stationary heat treatment facilities are available which are fired with gas burners and electronically controlled.

Our furnaces and heat treatment equipment are subject to regular monitoring by TÜV Rheinland in accordance with DIN EN 60584-1.

The requirements profile includes:

- AD leaflet HP 7/1
- API Specification 6A, Annex M, 20th Ed. 2010
- ASTM A 991
- Norsok M-650 Edition 4
- NPT Certificate

and further approvals: Germanischer Lloyd, VGB-Working Group Rule KTA 1401, Marine Division Bureau Veritas, DET Norske Veritas, ABS, Inspecta, FMC

Of course, we also have a quality assurance system in accordance with ISO 9001:2008.

According to the latest state of the art technology, all We professionally carry out and document any heat treatments required around the clock. A team of qualified employees is available to process orders for all areas of the metalworking industry. In addition to our in-depth knowledge of all heat treatment processes, we are characterized by the flexibility of a medium-sized company.

Reasons enough to have your products heat treated by us.



OUR EXPERIENCE – YOUR BENEFIT

Backed up by several decades of experience, our company has been in the German town of Krefeld since mid-1970, covering over 13,000 square metres of floor space. We specialise in a wide variety of heat treatments, different materials, components and dimensions. We use eight stationary inductive heat treatment systems, fired by gas burners and controlled electronically.

Our furnaces and heat treatment equipment are subject to regular monitoring by TÜV Rheinland (the Technical Inspection Authority for the Rhineland) under the EN 60584-1 standard.

The requirement profile includes:

- AD Datasheet HP 7/1
- API Specification 6A, Annex M, 20th Ed. 2010
- ASTM A 991
- Norsok M-650 Edition 4
- NPT Certificate

and other licences: Germanischer Lloyd, VGB Working Group Rule KTA 1401, Marine Division Bureau Veritas, DET Norwegian Veritas, ABS, Inspecta, FMC

We also have the usual quality assurance system in compliance with ISO 9001:2008.

Based on state-of-the-art technology, all heat treatment is conducted and documented by us professionally and 24/7. Orders are processed by a skilled workforce, covering all sectors of the metalworking industry. We have in-depth knowledge of all heat treatment processes and the flexibility of a medium-sized enterprise.

These are good reasons to trust us with the heat treatment of your products.



OUR HEAT TREATMENT – YOUR SOLUTION

At Schulz in Krefeld you will find solutions for every heat treatment in all possible dimensions.

Whether steel structures, equipment, pipes, profile steel or slabs – whatever you

If you want to undergo heat treatment, we will be happy to advise you and offer you the solution.

We are highly specialised in the areas of “heat exchangers” and “large containers and apparatus”, which are considered particularly difficult to anneal, as well as in the shrink-fitting of rollers, gears, cylinders and pistons.

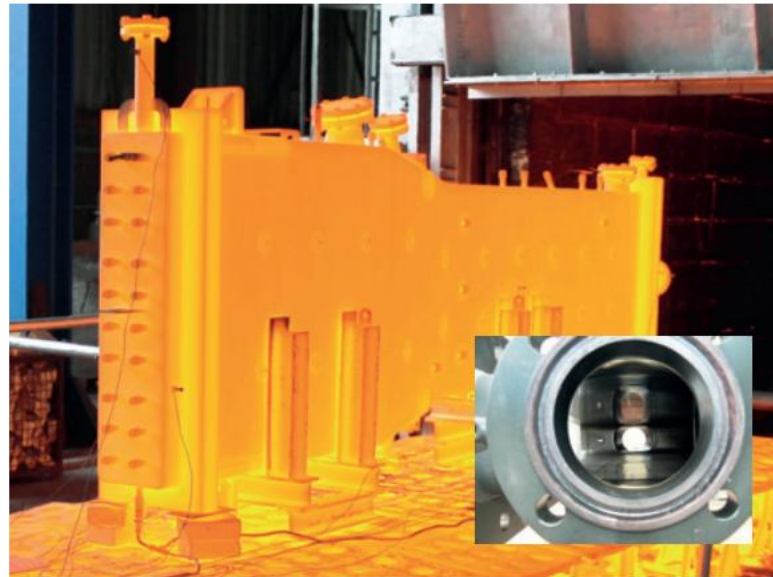
Procedure:

- Stress relieving
- Normalize
- Hardening
- Starting
- Annealing
- Perlitizing
- Ferritizing
- Solution annealing with air or water quenching, other processes
- on request

Materials:

All ferrous and non-ferrous metals such as general structural steels, tempering and case-hardening steels, rust- and acid-resistant stainless steels, high-alloy special materials, non-ferrous and light metals as well as cast materials such as ductile iron.

Do you need a material analysis or a determination of values? If necessary, we can put you in touch with independent testing laboratories.



Stabilization annealing with internal protective gas purging
Stabilisation annealing with inert gas rinsing inside

OUR HEAT TREATMENT – YOUR SOLUTION

Schulz in Krefeld can provide you with heat treatment solutions in all the relevant dimensions. Whether it's steel-framed structures, machinery, pipes, steel sections or steel slabs – we can provide advice and suitable solutions on anything that may require heat treatment.

We specialise, in particular, in two areas: “Heat Exchangers” and “Large Vessels and Machinery”.

These are particularly difficult to anneal and to shrink-fit rollers, gears, cylinders and pistons.

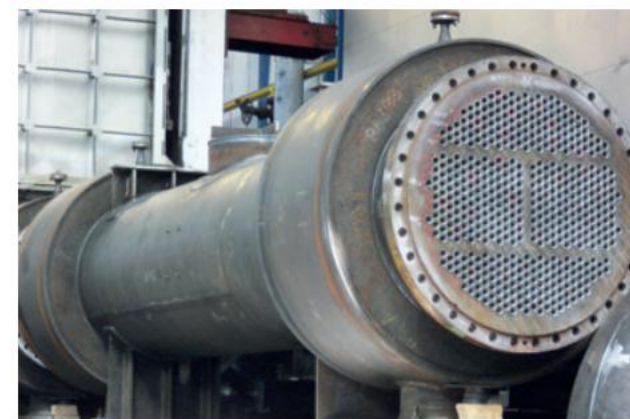
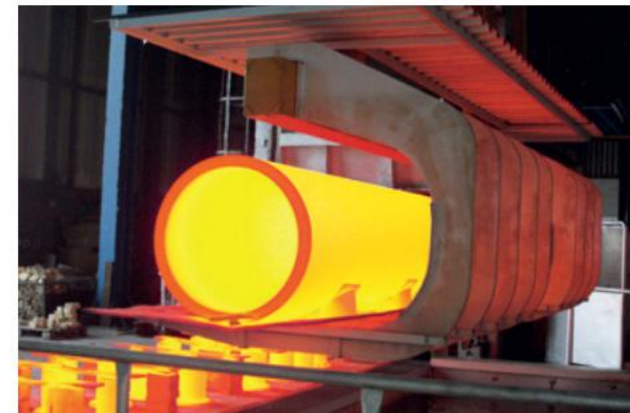
Processes:

- Stress-free annealing
- Normalising
- Hardening
- Tempering
- Soft annealing
- Isothermal annealing
- Ferrite-beading
- Solution annealing with air or water quenching
- Further processes upon request

Materials:

All ferrous and non-ferrous metals such as general structural, tempered and case-hardened steel, corrosi-on- and acid-resistant stainless steel, special high-alloy materials, non-ferrous metals, light metals and casting materials, e.g. spheroidal graphite iron.

Do you need a material analysis or an identification of values? If you require such services we would be pleased to put you in touch with independent test labs.



OUR OPTIONS – YOUR SERVICE

In our company you can find heat treatment plants with the following characteristics for Disposal:

Temperatures:
Controlled and regulated from room temperature to 1,250°C

Maximum oven dimensions:
Length 19m, width 6m, height 5m

Maximum loading capacity of the ovens:
350 tons

Crane capacity:
100 tons

Water quenching tank: 8,000 x 3,000 x 3,600 with immersion capacity up to 12t, integrated circulation system, water temperature recording and a charging time of less than one minute.

Recirculating air annealing using a blower:
During the heat treatment process, warm furnace atmosphere is passed through the tube bundle of a heat exchanger, for example, to achieve uniform heating.



OUR EXPERIENCE – YOUR SERVICE

Our company provides heat treatment facilities with the following properties:

Temperatures:
Monitored and controlled from room temperature to 1,250°C

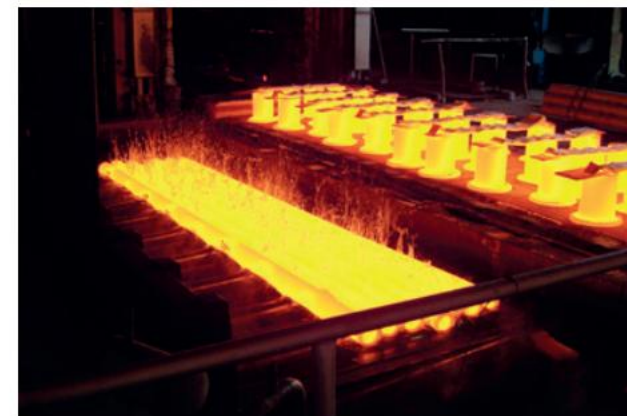
Maximum dimensions of furnaces:
19m long, 6m wide, 5m high

Maximum loading capacity of furnaces: 350 metric tonnes

Crane capacity: 100 metric tonnes

Water quenching basin: 8,000 x 3,000 x 3,600 with immersion capacity up to 12 metric tonnes, integrated circulating system, recording of water temperature and charging time less than one minute.

Air annealing with the use of a blower:
To ensure uniform heating during heat treatment, hot air from the furnace is fed, for instance, through the tube bundle of a heat exchanger.



OUR DIMENSIONS – YOUR CHOICE

Oven 510

Carriage hearth furnace with 20 burners / 100 kW

- each 5,500 x 3,800 x 3,600mm (LxWxH)
- Temperature up to 1,100°C
- 2 hearth cars / each 80,000 kg load capacity

Oven 540

Carriage hearth furnace with 40 burners / 120 kW each

- 19,000 x 5,000 x 5,000mm (LxWxH)
- Temperature up to 750°C
- 1 trolley / 200,000 kg load capacity

Oven 550

Carriage hearth furnace with 30 burners / 120 kW each

- 12,000 x 4,300 x 2,500 mm (LxWxH)
- Temperature up to 1,100°C
- 1 trolley / 60,000 kg load capacity

Oven 570

Carriage hearth furnace with 12 burners / 230 kW each

- 7,000 x 2,000 x 1,850 mm (LxWxH)
- Temperature up to 1,250°C
- 2 hearth cars / each with a load capacity of 30,000 kg
- 2 water basins with charging devices
- 8,000 x 3,000 x 3,600 (LxWxH)
- Continuous circulation of water Submersible device up to 12,000 kg

Oven 580

Hood furnace with 3 burners / 150 kW each 1,450

- x 1,450 x 1,200 mm (LxWxH)
- Temperature up to 1,100°C
- Loading capacity max. 1,000 kg

Oven 590

Hood furnace with 2 annealing stations with 10 burners each / 350 kW each

- 6,300 x 4,350 x 4,000 mm (LxWxH)
- Temperature up to 1,100°C
- Loading capacity up to 150,000 kg

Ofen 600 (Laborofen)

Chamber furnace electrically heated

- 600 x 400 x 300 mm (LxWxH)
- Temperature up to 1,000°C

Oven 610

Shuttle furnace with 20 burners / 300 kW each and 2 annealing stations

- 16,900 x 6,000 x 5,500 mm (LxWxH)
- Temperature up to 700°C
- Loading capacity up to 300,000 kg per loading station

Crane capacities:

- 100,000 kg, 50,000 kg, 40,000 kg, 32,000 kg



OUR DIMENSIONS – YOUR CHOICE

Furnace 510

Bogie hearth furnace with 20 burners, 100 kW each

- 5,500 x 3,800 x 3,600 mm (LxWxH)
- Temperature up to 1,100°C 2
- bogies, 80,000 kg, each with 80,000 kg load-bearing capacity

Furnace 540

Bogie hearth furnace with 40 burners, 120 kW each 19,000 x

- 5,000 x 5,000mm (LxWxH)
- Temperature up to 750°C 1
- bogie, 200,000 kg load-bearing capacity

Furnace 550

Bogie hearth furnace with 30 burners, 120 kW each 12,000 x

- 4,300 x 2,500 mm (LxWxH)
- Temperature up to 1,100°C 1
- bogie, 60,000 kg load-bearing capacity

Furnace 570

Bogie hearth furnace with 12 burners, 230 kW each

- 7,000 x 2,000 x 1,850 mm (LxWxH)
- Temperature up to 1,250°C 2
- bogies, 30,000 kg, each with 80,000 kg load-bearing capacity 2 water basins with charging points 8,000 x 3,000 x 3,600 mm (LxWxH)
- Continuous circulation of water
- Immersion device up for up to 12,000 kg

Furnace 580

Bell furnace with 3 burners, 150 kW each 1,450 x

- 1,450 x 1,200 mm (LxWxH)
- Temperature up to 1,100°C
- Loading capacity up to 1,000 kg

Furnace 590

Bell furnace with 2 annealing stations, each with 10 burners, 350 kW each

- 6,300 x 4,350 x 4,000 mm (LxWxH)
- Temperature up to 1,100°C
- Loading capacity up to 150,000 kg

Furnace 600 (lab furnace)

Electrically heated chamber furnace 600 x 400 x 300 mm (LxWxH)

Temperature up to 1,000°C

Furnace 610, Shuttle furnace with 20 burners, 300 kW each and 2 annealing stations 16,900 x 6,000 x

- 5,500 mm (LxWxH)
- Temperature up to 700°C
- Loading capacity up to 300,000 kg per loading point

Crane capacities:

- 100,000 kg, 50,000 kg, 40,000 kg, 32,000 kg



CONTACT



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GPS

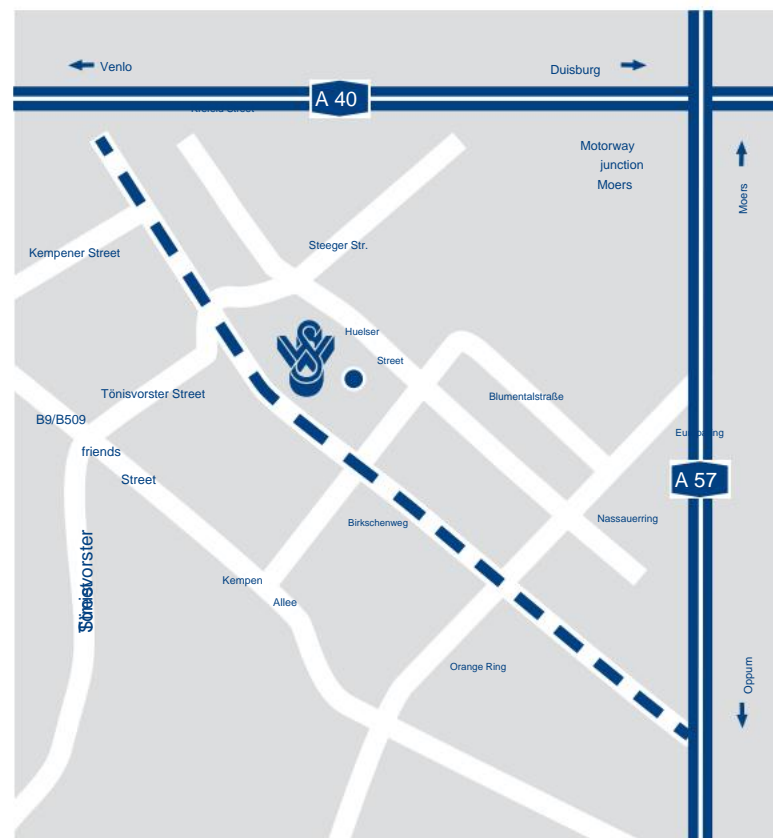
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Terms and conditions

Our document "Conditions for Contract Work" is available as a PDF at www.wschulz-glueherei.de.

Terms and Conditions

Our "Terms and Conditions for Contract Work" are available in PDF format at www.wschulz-glueherei.de.



Tempering gear ring segments made of ductile iron
Tempering sprocket rim segments made of spheroidal graphite iron



Pearlizing a press stand
Isothermal annealing of a press frame



Stress relieving of a heat exchanger
Stress-free annealing of a heat exchanger



Annealing of various coil pipe systems
A wide range of different heating coil systems



Heat treatment of large equipment
Heat treatment of large devices



Solution annealing of large diameters with small wall thicknesses
Solution annealing of large diameters with thin walls



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