



Tubular supports in a heat treatment oven

Oven construction

Stainless steel components from Kuhn Special Steel literally play a supporting role in oven construction. We are your partner and supplier where reliable quality and secure manufacture of rollers for use in high temperatures are required – from the premachined tube to the finished component including structural welding. Kuhn Special Steel tubes are used in the following areas:

- as tubular supports for annealing frames that are used in retorts
- as jacket pipes for indirect heating (e.g. in continuous ovens/furnaces)
- as conveyor rollers in the hot area of an oven installation up to about 1,150°C
- as pipes for rotary furnaces for annealing treatments of powder-like materials

Our know-how applied for you

In oven construction you benefit as our customer from our very great know-how in centrifugal casting, especially of heat-resistant alloys. After face-to-face,



Oven rollers

Large CNC-controlled lathe



individual advice, we will be happy to develop materials for use in temperatures of over 1,000°C in close co-operation with you. The processing of rollers and tubes ready for installation incl. taps is done at Kuhn Special Steel on the very latest CNC lathes, whilst joint welding is carried out on our submerged arc welding units.

Benefit from our strengths!

- Over 45 years experience in centrifugal casting, concentration on this technique from the start, acknowledged specialist in the centrifugal casting technique
- 16 centrifugal casting machines and 7 furnaces in use
- Large range of machining and milling machinery, in particular in the area of large CNC-controlled lathes



Oven rollers



Oven roller for continuous annealing, ball-shaped mould to customer specification

Materials:

Heat-resistant Fe-based alloy

- Ferritic steels
- Duplex steels
- Austenitic steels

Heat-resistant Ni and Co-based alloys

Possible size range:

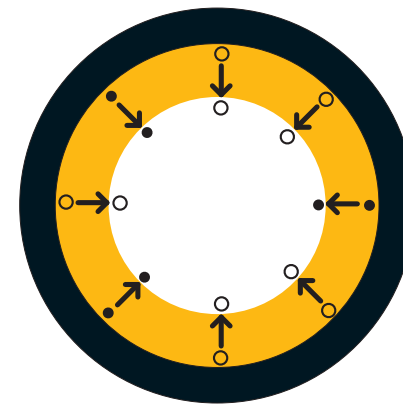
Maximum external diameter up to 1,100 mm (in exceptional cases up to about 1,300 mm) and 3.3 tonnes cast weight depending on the wall thickness.



Heat-resistant tubes from Kuhn Special Steel for the greatest thermal demands

Kuhn Special Steel 
Reliable solutions. Always.

Oven Construction



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Kuhn Special Steel 
Reliable solutions. Always.

The centrifugal casting technique

Our core competence is in the centrifugal casting technique with subsequent finishing. We have mastered the application of this production technique for the most varied stainless steels and alloys. The range varies from low-alloy steels to iron-free alloys. We contribute our materials know-how as early as the development phase so as to produce a perfect product at the end.

We manufacture over 70 % of our products as finished products individually and precisely to customers' drawings. And individual parts and small runs represent no problem for us. Moreover we manufacture each one in materials that can be cast reliably with the centrifugal casting technique and we are also happy to manufacture special materials to your particular specifications.

In centrifugal casting, the steel is cast via the axis of rotation into a rotating canister and it solidifies at up to 120 times the acceleration due to gravity. These great rotation forces and the solidification in an inward direction create a particularly dense and pure structure. Impurities and gas inclusions are driven to the surface and can be removed in subsequent processing.

The products manufactured with this technique therefore have outstanding technological properties that are greatly superior in many areas to conventional static casting.

Our varied options for the preparation and finishing of rotationally condensed stainless steel meet our customers' most varied requirements. Whether it's lathes, finishing and polishing machines or our CNC processing centres – our great strength as a specialist in centrifugal casting is also matched in finishing.