



Ring for the filter support

## Sealing and filtration technology

The components made of stainless steel for metallic seals produced by Kuhn Special Steel are impressive with their greatest possible resistance to wear, hardnesses in some cases as great as 60 HRC or more, corrosion resistance and outstanding workability – and all this with small batch sizes and components with an internal diameter of 30 mm or more (depending on the wall thickness). We also meet your requirements in a flexible and individual manner for components made of stainless steel in the area of filter technology. We offer a wide selection of materials made of rust-proof and acid-resistant steels and individual materials advice and we supply you with finished components all from one source.

## Use our specialist know-how!

With Kuhn Special Steel as a partner, you benefit from our very great know-how in centrifugal casting and this applies over the entire range of dimensions from 30 mm internally to an external diameter of 1,100 mm. In addition, there is our finishing of components ready for



Gas-lubricated stirring mechanism seal

4-axis lathe



installation, even with materials that are difficult to machine. Thanks to small batch sizes starting from 300 kg, even for special qualities, we can manufacture products for you very flexibly, meeting the highest standards with our materials skills especially in the area of corrosion and wear-resistant alloys.



Filter plant

## Benefit from our strengths!

- Over 45 years' experience in centrifugal casting
- Acknowledged specialist in centrifugal casting techniques in the area of stainless steels
- 16 centrifugal casting machines and 7 furnaces in use
- Specialist in individual part and small run manufacturing, batch weights of 300 kg to 3,300 kg
- For filtration technology: wide range of machining and milling machinery, especially on the LX line

HECKER WERKE GmbH & Co.KG®



AEGIRA® face seal

## Materials:

### Rust-proof and acid-resistant steels:

#### Ferrites and martensites

- Standard alloys
- Soft martensites
- Soft martensites – can be precipitation hardened

#### Duplex steels

- Lean duplex steel
- Standard duplex steel
- High-carbon duplex steel
- Super duplex steel

#### Austenites

- Standard alloys with and without Mo
- Austenitic alloys with increased Si content

### Wear-resistant steels:

#### Tool steels

- Cold-working steels
- Hot-working steels

#### Wear-resistant steels with increased wear resistance

- Chromium gravity cast iron
- Austenitic carbide gravity cast iron
- Ferritic carbide gravity cast iron

### Nickel-based alloys

#### Possible size range:

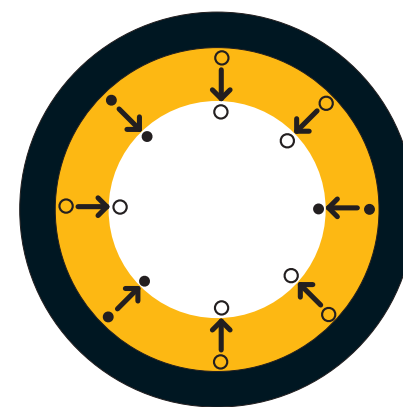
Maximum external diameter 1,100 mm (in exceptional cases up to about 1,300 mm) and 3.3 tonnes cast weight depending on the wall thickness.



Metallic seals

**Kuhn Special Steel**   
Reliable solutions. Always.

**Sealing and  
Filtration  
Technology**



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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.