



More than a Forge

BRUCK®

DIE BESSERE VERBINDUNG



More than a Forge

The name BRÜCK® stands for the worldwide leading supplier of seamless hot rolled rings, flanges and special forgings.

As an independent family-owned company in third generation BRÜCK® has made a name for itself on the international markets.

Innovation as Business Culture

In the meantime the spectrum of a classical forging company has been far exceeded. With more than 100 CNC controlled machines, even the tightest machining tolerances of parts up to 250 tons of weight can be reached.

In the BRÜCK® Component Building Division the finish machined forgings are mounted to complex assemblies tested and delivered turnkey as per customer order.



Anne and Matthias Brück,
Managing Partners

***"We at BRÜCK® act on a clear maxim:
Supplying complex forgings and com-
ponents in worldwide best available
quality".***



Site Hilden



Site Netherlands

BRÜCK® at a Glance

Since its foundation in 1923, the BRÜCK® group has been constantly growing. Today, forgings manufactured in the Saarland (Southwest-Germany) are supplied to customers on a worldwide scale.

- Headquarters of the group near Saarbrücken with approx. 500 employees
- In the middle of the 90ies, construction of Czech Republic Production Plant with approx. 300 employees today
- 8 sales offices with own machining resources in Germany and abroad

In recent years BRÜCK® premises and production capacities have been doubled.

- Significant enlargement of the production spectrum with a brand-new 8,000 tons press and corresponding manipulators – this opens in particular the door to a variety of open-die forging geometries, including finish machining
- Creation of comprehensive capacities in the finish machining of complex components
- Manufacturing of turnkey constructions of 150 tons and more in BRÜCK®'s Component Manufacturing Division

BRÜCK® Ensheim



BRÜCK® Czech Republic



Site Southern Germany



Site Czech Republic





BRÜCK® offers More

BRÜCK®'s product range covers – based on customer specifications – an almost unlimited variety of geometries, materials and requirements

- An average of 20,000 tons of raw material in stock, comprising 400 different material grades
- Forgings up to 40 tons and seamless hot rolled rings with unit weights up to 30 tons

- Tight machining tolerances
- Machining of casings, weld constructions and components up to 250 tons unit weight
- Manufacturing of polished surfaces
- Weld overlay cladding
- Joint welding of components
- (Hydro) Pressure Testing
- FEA and FEM

Material Variety

High-alloy steels, nickel-based alloys, aluminium, copper and titanium are standard materials at BRÜCK®.

Forging and Ring Rolling

BRÜCK® is considered as a worldwide leading specialist in the manufacturing of forgings and seamless hot rolled rings, flanges and special forgings. We forge and ring roll parts in highest accuracy:

- Seamless Hot Rolled Rings and Bushings up to 30 tons
 - Outer Diameter up to 6,400 mm (252")
 - Radial Width of max. 1,000 mm (39")
 - Height up to 1,750 mm (69")
- Forgings up to 40 tons and a length of 10,000 mm

Machining

In recent years BRÜCK® has significantly broadened the capabilities of finish machining complex

geometries. BRÜCK® offers all possibilities of a high-quality finishing under one roof:

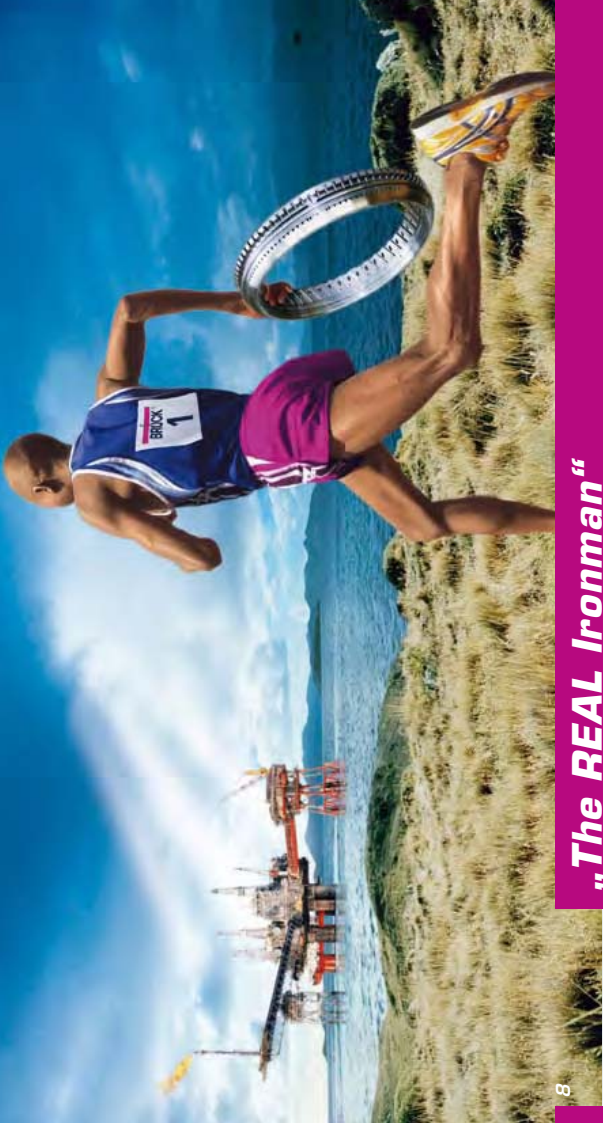
- More than 100 ultramodern CNC controlled machines
- Machining tolerances of a few hundredths mm
- Surfaces up to R_a 0.3 μm

Quality Control/ Acceptance Testing

BRÜCK® is fully equipped to carry out all the required testings in-house:

- Hardness tests
- Tensile and impact tests
- Metallographic examinations
- Corrosion tests
- Ferrite measurements
- Chemical analyses





„The REAL Ironman“

Express Service

The BRÜCK® Express Service works closely with our manufacturing departments. Thus, BRÜCK® achieves delivery times far underneath the average market lead times.

Express Deliveries of parts as per drawing according to customer specification within 6 to 15 working days!



Express Service cargo of large diameter rings to South Africa with an Antonov AN-124, one of the largest cargo planes in the world, especially chartered for this job

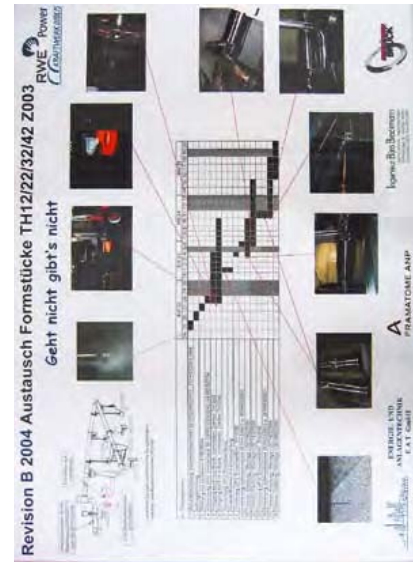
BRÜCK® EXPRESS SERVICE

Delivery within 6 to 15 working days

With the BRÜCK® Express Service we support our customers worldwide, mainly:

- To avoid threatening liquidated damages in case of tight project deadlines
- To avoid or minimize downtimes in case of damages

The constantly growing demand for Express Deliveries confirms the strategy chosen by BRÜCK® many years ago. We support all industrial sectors with express solutions – reaching from Plant Engineering to (Nuclear) Power Stations, from the global Machinery Building to the worldwide Wind Energy Industry and all the way to the International Oil & Gas Markets.





Customers and Employees take center stage

*"Since I work at BRÜCK®,
I enjoy waking up every morning!"*

One goal unifies all employees at BRÜCK®:

Offer brilliant customer services bearing worldwide comparison.

We at BRÜCK® focus on flat hierarchies and high performance through constructive teamwork.

We believe that we achieve maximum performance if we face the daily challenges in a spirit of supporting one another.



This also expresses the appreciation towards our employees.

A variety of employees' activities underlines the team spirit within the company, such as:

- BRÜCK® Skiing Tour
- BRÜCK® Carnival Group
- BRÜCK® Soccer Team
- BRÜCK® Dragon Boat Team
- BRÜCK® Language Courses
- BRÜCK® Summer Festivity
- BRÜCK® Company Run
- BRÜCK® Motorbike Tour
- BRÜCK® Christmas Party
- BRÜCK® Racing Team





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BRÜCK® : Three companies under One Roof



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Forging and Ring Rolling

BRÜCK® is considered as one of the world's largest specialist in the manufacturing of forgings and seamless hot rolled rings, flanges and special forgings.

- Unit weights of 30 tons for seamless hot rolled rings
 - Outer diameter up to 6,400 mm (252")
 - Radial width of max. 1,000 mm (39")
 - Height up to 1,750 mm (69")
- Forgings up to 40 tons of unit weight and a length of 10,000 mm



Machining

The complete machining of components is performed under one roof at BRÜCK®.

- Turning
- Milling
- Drilling
- Gear cutting

Also for Subcontracted Work!

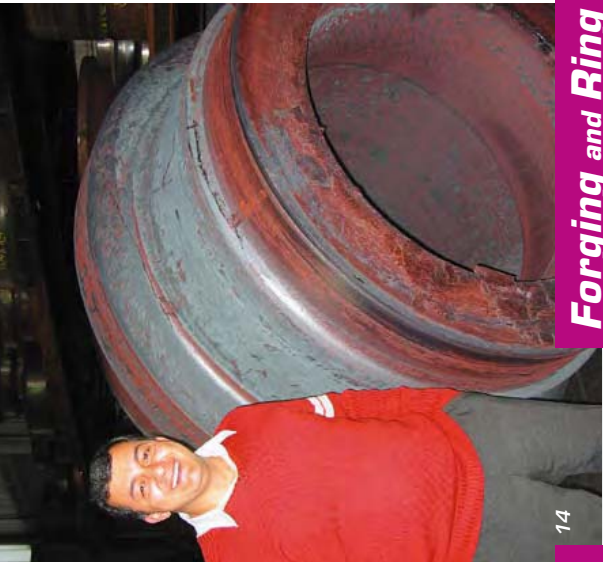


Component Building

BRÜCK® builds turnkey components based on finish machined low tolerance forgings – for instance complex swivel stacks for the offshore oil and gas exploration.

- Finite Element Calculations and customer support in the component design process
- Weld overlay cladding of forgings
- Assembly of forgings (swivels) in tightest tolerance frameset, including gasket systems
- Functional work simulations
- Pressure and leakage tests
- Joint welding of components
- Manufacturing of the corresponding welded steel construction





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Forging and Ring Rolling

Material Variety – one essential strength of BRÜCK®

- More than 80 years of experience in hot forming, heat treatment and machining of more than 1,000 material varieties
- On average 20,000 tons of raw material in 400 different material grades in stock
- High-alloy steels, nickel-based alloys, aluminum, copper and titanium alloys are standard materials at BRÜCK®

■ Common carbon steels and stainless steels, being frequently used in the worldwide:

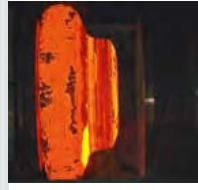
- Power Station Construction
- Wind Energy Markets
- (Heavy) Machine Construction
- Apparatus Engineering and Pressure Vessel Building
- Oil & Gas Markets
- Petrochemical Industry



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Innovative Forging Technology

- With its 5 oil-hydraulic presses BRÜCK® is able to manufacture a comprehensive spectrum of drop and die forged parts
- 5 presses with 1,250, 1,500, 2,500, 4,000 and 8,000 tons press capacity
- Manipulators to handle heavy forgings up to 40 tons
- Know-how grown over many decades in the manufacturing of contour forgings close to net shape of the finished part with optimized properties



"Won't work has no place in the BRÜCK®-world: At BRÜCK® every geometry is feasible!"



Forging and Ring Rolling

Forging and Ring Rolling





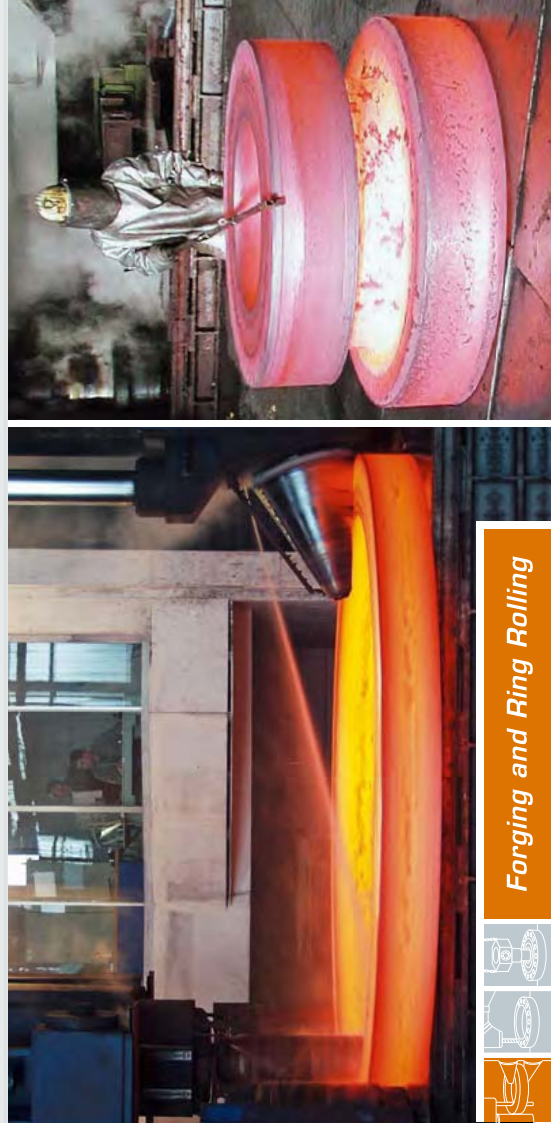
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Forging and Ring Rolling

Latest Heat Treatment Technology

- Over many decades BRÜCK® has been constantly investing in hot forming and heat treatment and thus, BRÜCK® commands nowadays state-of-the-art heat treatment facilities
- Fully gas-fuelled operated heat treatment furnaces
- Heat treatment methods: Hardening, tempering, normalizing, spheroidize annealing, stress relief annealing, solution annealing amongst others

- Work piece dimensions: Outer diameter up to 7,000 mm (276") and height up to 1,800 mm (71")
- Water and polymer basins with special agitation systems and cooling equipments for optimal quenching result



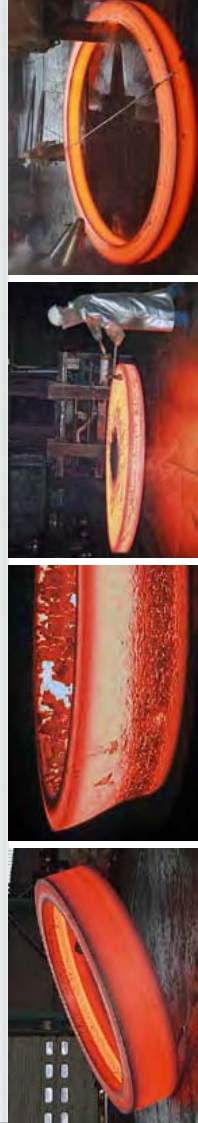
Forging and Ring Rolling



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State-of-the-art Ring Rolling Technology

- BRÜCK® is considered as one of the worldwide leading company in the field of ring rolling technology
- 5 ring rolling mills with maximum ring outer diameter of 6,400 mm (252") and height of 1,750 mm (69")
- Unit weights up to 30 tons
- Inside and outside profiling close to the net contour of finished parts, even for small series or single parts!



Forging and Ring Rolling

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Forging and Ring Rolling

New (Open-Die) Forging Capabilities at Saarbrücken/Ensheim Works

- With our new 8,000 tons press and new manipulators up to 35 tons, BRÜCK® offers a significantly expanded spectrum of forgings.
- In addition to our traditional product range, open-die forgings and heavy closed-die forgings up to 40 tons unit weight and a length of 10,000 mm are within our production line now.
- BRÜCK® offers even more contour forgings close to net shape with optimized material characteristics.
- The entire range of forgings is being finished machined to the tightest tolerances in the BRÜCK® Machining Division.



Forging and Ring Rolling



New Forging Line for Series Production at BRÜCK®'s Czech Republic Plant

- High-Performance sawing with considerable time reduction compared to conventional technology.
- 3,500 tons press and ring rolling capacity up to 3,500 mm outside diameter.
- Interlinked forging technology for production time optimization in handling large quantities.
- Mobile and rail mounted manipulators for flexible and time optimized handling of forgings.
- Optimized fabrication process of series parts starting from the cutting of the billet/bar to the finished machined item.
- State of the art manufacturing technology at low price level.
- Economically worthwhile for series parts of 10 pieces and more.

Attractive conditions for the machining of (small) series using our Czech Republic works!



Forging and Ring Rolling