SPECIAL STEELS
Dörrenberg produces the patented, two to four-times refined Janus steel, an excellent “cutting steel”.
Our four business units – special steels, special steel casting, investment castings and surface treatment are the pillars of the foundations on which our business is built.

The special steels division is one of these pillars. Tool steels form the basis of our wide range of products.

Knowledge gained through years of experience, together with our ability to adjust to change form the basis of our success.

Our customers do not just want standard grades. Special qualities are both developed and produced.

Our success is based on technical consultation, which forms the basis of our relationship with our customers. Our advice covers all questions in the area of materials technology as well as production and final applications.

Our world wide distribution and sales network allows us to offer material Just in time in both the required execution and quantity.

Development of the famous Hidalgo "high-endurance steel" for high-quality tools.

Commissioning of Germany’s first electric induction melting furnace.

Opening of the plant in Wiehl-Weiershagen.
MELTING, FORMING, STOCKHOLDING

ingot casting
Melting is still one of the most important processes in the creation of a wide range of materials. As so often in life, the key to success is finding the right combination. A steel’s properties depend on optimum metallurgical control in the melting furnace, the purity and the chemical composition. This is where we customise our steels for your individual application.

Our steel is produced in our own steel mill in close collaboration with qualified and competent German and international partners, using the latest forming and machining equipment. Stockholding is another key element in our wide range of services, complementing production and development.

A computer-controlled high capacity racking system with a wide range of sizes and grades, coupled with our regional service centres guarantee a trouble free and flexible supply. Stock sizes and grades are continually adjusted to meet customer needs.

Shaping  Product selection  Racking System
Effective logistics through computer-aided management.
PLANNING, CUTTING, SUPPLYING

Advice
Manufacturing a good product is only one side of being competitive. Service is the other. Qualified advice for our customers as well as continual control ensure both are met.

Our qualified in-house staff and sales representatives are always available for advice and assistance for technical questions and specific problems.

If we do not have the product you require in stock, we can produce the size according to your specification. Special products such as discs, rings and machined tools also belong to our delivery programme.

Our competitive cutting and machining facilities can quickly produce cut-to-size parts, fixed lengths or other machined parts.

We are also able to both heat treat and coat tools using the PVD and CVD process.

In addition we are able to coat your tools using all standard coating processes e.g. PVD, PA-CVD, CVD and Plasma-Nitriding. This means the highest possible tool life.
QUALITY ASSURANCE

- Our experienced and highly skilled personnel check all products for compliance with our stringent internal quality standards and our customers’ specifications.

  Our TÜV certified Quality Management System guarantees constantly updated measuring and testing procedures.

- Careful planning before commencement of manufacture guarantees the quality of our products. The chemical composition and mechanical-technological properties of all our products are tested in our laboratory with state-of-the-art equipment.

- In addition, we are permanently working with our customers on the development and further development of materials. Close co-operation with universities and research institutes plays and integral role in guaranteeing that we are always up to date with the latest technical developments.

Microstructure  Mechanical material testing  Chemical material testing
**SPECIAL STEELS**
- Stainless and acid resistant castings
- Heat-resistant castings
- Wear-resistant castings
- Cold work, hot work and high-speed steel castings
- Special alloys
- 3-D-CAD (Catia)
- Foundry simulation (Magmasoft)

**INVESTMENT CASTINGS**
- Advice regarding materials and design
- CAD data exchange
- Simulation of solidification
- Rapid prototyping, rapid tooling
- Mechanical machining
- Various surface treatment processes
- Cooperation in order to supplement our range of products

Investment casting of all standard and special steels using the lost wax process

**SPECIAL STEEL CASTINGS**
- Forging ingots/Raw ingots
- Mechanical machining

**SURFACE TREATMENT**
- Hard material coatings with CVD-, PVD-, PA-CVD-Technology
- Heat treatment on commission
- Vacuum heat treatment
- Edge Hardening
- Plasmanitriding
- Polishing, coating removal and re-coating
- Treatment of complete tools
- Consultancy on site
- Transportation logistics

**COMPETENCE**
We offer a wide range of market-oriented products. From stock alone, we can supply around 50 different materials in about 2500 sizes.

- Hot and cold work tool steels
- High-speed steels
- Powder metallurgical materials
- Precision Flat Steel / Premachined Plates
- EDM-blocks
- Glass Mould Steel
- Stainless, acid and heat-resistant steels
- Silver steel
- Nitriding steels
- Heat-treatable steels
- Alloyed and Unalloyed Structural Steel
- Special Alloys
- Tools
- Mechanical machining

As a full service provider and tool steel specialist, our customers can expect a high level of competence, experience and innovative developments.
Dörrenberg Edelstahl GmbH
Geschäftsbereich Edelstahl
Werk Wiehl
Weiershagener Str. 80
D-51674 Wiehl-Weiershagen
Phone +49 2263 79-0
Fax +49 2263 79-205

Dörrenberg Edelstahl GmbH
Postfach 21 64
D-51758 Engelskirchen
Phone +49 2263 79-0
Fax +49 2263 79-205
www.doerrenberg.de
E-Mail: edelstahl@doerrenberg.de

Doerrenberg Special Steels Pte. Ltd.
25 International Business Park
04-60A German Centre
Singapore 609916
Phone +65 65 62 9021
Fax +65 65 62 9023
www.doerrenberg.com.sg

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