compact

1/2006 The customer magazine of ThyssenKrupp Steel

www.thyssenkrupp-steel.com

Brazil, Europe, North America

ThyssenKrupp Steel is investing billions in global growth

Professional tools made from steel
Shovels, spades and the like for gardening, landscaping and building

Cool in Dubai
Skiing and snowboarding is now possible at the Persian Gulf

Thinking the future of steel

ThyssenKrupp Steel

compact

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About our cover picture:

ThyssenKrupp Steel is banking on international growth and intends to position itself amongst the top 5 companies in the market for high-quality flat products. At the end of 2005, the Supervisory Committees of the ThyssenKrupp Group gave the green light for the Forwards Strategy. It is based on three components: Building a new steel works in Brazil (title picture, 3-D animation), expansion of processing stages in Germany, target market North America. You can read interesting details from page 8 onwards.

impressum

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Photographs:
ThyssenKrupp Steel photography; Maserati (pg. 4/5), Pininfarina (pg. 5), Messe Stuttgart (pg. 7), Pixelkontor (pg. 8/9), Ski Dubai (pg. 14/15), ThyssenKrupp Hoesch Bausysteme (pg. 18 bottom), VW (pg. 24)

Design:
MERZ Werbeagentur, Düsseldorf

Printing:
ThyssenKrupp Printmedia GmbH, Duisburg

Publication frequency:
Three times a year, the next edition will be published in August

Issue 23:
1/2006 – April

"We want to grow with our customers, which underlines the importance of our global forwards strategy."

Dear Readers,

For the first edition of our compact customers' magazine this year, our editorial team has gathered together a variety of information and news from the world of steel and of ThyssenKrupp Steel.

This issue focuses on our global Forwards Strategy. The decision is also of great importance to you as a part of shared, qualitative and value-oriented growth. In this context, we are analyzing our position in the global steel market and flagging up possible activities for our core business in Europe as well as the future NAFTA target market.

Other topics dealt with are customer-specific orientation and the wide range of applications for our steel products in the Industry Division, which are permanent features of our growth strategy. System-oriented software solutions, the innovative use of materials and products combined with optimum applications engineering are showcased for you with examples from the Auto Division.

On this occasion, we are allowing authors to describe in their own words how they see our company from the outside. The first, a scientist, comments on our Forwards Strategy. Then, a scientific journalist describes how a ThyssenKrupp Steel product is used in finding a solution to a problem.

And now if you would allow me to say a few words on behalf of the company: I would like to take this opportunity to explain the bottlenecks in the supply of material during the past few weeks. The unforeseeable loss of production at the Huckingen plant operated by our affiliated company HKM was caused by a fire at the start of the year that damaged significant quantities of roughed slabs and prevented them from being processed further. With support from you, our customers, our crisis management team did a magnificent job and lessened the supply problems.

I would like to express my particular gratitude to all affected customers who helped us during this period to manage the crisis together and, above all, in a spirit of partnership. In addition, I would like to thank our managers and employees in the materials logistics chain who provided an exemplary demonstration of the great capabilities of our company in this difficult period until production capacity was quickly restored.

My Board of Management colleagues and I hope you enjoy reading the new compact.

With best wishes,

Dr. Karl-Ulrich Köhler
Chief Executive Officer

Maserati Quattroporte: Sporty and refined

Fascinating design made of steel

Quattroporte. Maserati Quattroporte. The name exudes tradition. Since 1963, saloons from the exclusive Italian brand have carried this name. The latest comes from the Pininfarina design dynasty and is of enchanting beauty.

▶ The Maserati Quattroporte carries a price tag of 100,000 Euros and up. It is a unique pleasure for well-heeled auto fans with children. The picture shows the luxury variant, the Maserati Executive GT.

▼ The body designed by Pininfarina shows off the material steel in its best light: The inner door panels are made from Duisburg steel that is processed into tailored blanks at ThyssenKrupp Tailored Blanks S.r.L. in the Italian town of San Gillio.

The art of the master Pininfarina lies above all in balancing out contradictions in this Maserati: It is mighty and delicate, aggressive and elegant, modern and retro. The downwards-sloping front section with the gigantic, jauntily cut radiator grille and the comparatively small, glinting headlights leave no room for doubt: This is a thoroughbred Italian sports car – even if it is more than 5 meters long with four doors and five seats.

Luxury saloon and sports car

The interior of the touring saloon is highly luxurious: Plush, thickly cushioned leather with finely stitched seams, de-luxe seats including massage function and high-quality wood invite the driver to climb on board. However, the speedo and the rev counter betray the sporty power of the 400 h.p. V8 engine. Acceleration from 0 to 100 km/h takes just 5.2 seconds and the speedo needle does not stop climbing – given the right traffic conditions – until above 270 km/h.

ThyssenKrupp Steel has also contributed to the luxury flagship: Its subsidiary ThyssenKrupp Tailored Blanks S.r.L. based in the Italian town of San Gillio processes steel from Duisburg into tailored blanks that are then shaped into inner door panels for the Quattroporte at Maserati. The laser-welded blanks consist of two steel panels: A 1.8 mm thick sheet made from a special steel that is highly strong and yet can easily be formed is used for the hinge area where the greatest loadings occur in the finished component. Then, 0.8 mm thick sheet is used for the parts of the inner door that are no so heavily stressed.

Christiane Hoch-Baumann

www.maserati.de
www.thyssenkrupptailoredblanks.it

Italy's legendary designer

Paolo Pininfarina prefers steel when it comes to tailoring elegant bodies for exclusive cars: "If steel didn't exist, we'd have to invent it. It's innovative, easy to process and permits a huge range of different forms. Steel embodies passion, luxury and endurance, which is precisely why cars are produced using this material. For more than 75 years now, we in the Pininfarina Group have been setting international standards in automotive and design development through the superior way that we connect the material, industrial production and design."

www.pininfarina.com

▼ Paolo Pininfarina is the President and CEO of Pininfarina Extra, a subsidiary of the renowned Pininfarina company in Italy. Pininfarina has shaped some of the most fascinating cars in automotive history. Including the Maserati Quattroporte.

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ThyssenKrupp Hoesch Bausysteme makes it easy

Stuttgart's exhibition center parking garage floats over the autobahn

The new Stuttgart exhibition center is currently the biggest building site in Germany. This area was a greenfield site before the first diggers arrived in September 2004. Now, an army of cranes tower over the 83 hectare site. The contours of the future exhibition center landscape are becoming clearer by the day. About 65,000 metric tons of steel will have been installed by the time the fair is opened in autumn 2007.

Everything close to hand

One of the structures that is most advanced is the exhibition center's parking garage. Like two huge fingers, it spans the six lanes of the A8 autobahn between Karlsruhe and Munich – 440 meters long, 100 meters wide and 34 meters tall. 4000 parking spaces spread over six levels will be available to visitors once the park is completed. The structure is being referred to as an iconic parking garage. 13,500 metric tons of steel have gone into it. However, this alone is not an adequate explanation for the great public interest. Rather, it is the special aspects of the design and the construction method that people are talking about. This is because, whilst 120,000 vehicles passed underneath the steel heavyweight every day on the autobahn, this colossus was built through the air using the timed shifting process – without causing any obstruction to the traffic. Although there is a certain tradition of using this technique in bridge building, it has never before been attempted on a structure of this scale anywhere else in the world. Instead of the support and protection scaffold that would have been needed with a conventional construction method, specialists assembled the steel skeleton in individual segments and pulled it over the autobahn.

Framework construction of posts and diagonals

The two fingers of the parking garage are each made up of five parts. Three of them for each finger were shifted towards the exhibition center site over the carriageway at a height of eight meters using a pushing device. A total weight of more than 5000 metric tons per finger had to be dragged across before the span was finally completed. The planners worked to such a level of accuracy that the maximum deviation over a distance of about 200 meters was only 1.5 mm. Following this, the headpieces were fitted at both ends, thereby filling in the remaining gaps to the entrance and exit spirals. Uneven forces acted on the fingers during the dragging movement, because their structure incorporated posts and diagonals. As a result, the static situation had to be recalculated in advance of each half-meter of shift.

Lightweight: Hoesch Additive Floor®

One of the most important prerequisites was to reduce the load on the steel structure for statics reasons. The designers decided to abandon the conventional solid concrete floors in favor of a self-supporting lightweight floor system from ThyssenKrupp Hoesch Bausysteme. Laying of this has now begun. This floor system, weighing 300 kilograms per square meter, is about 40 percent lighter than a solid flat floor with a comparable load capacity. "It's above all in parking garage construction that we use this system we've developed," explains Roger Görg, responsible for marketing at ThyssenKrupp Hoesch Bausysteme.

▲ The superlative Stuttgart exhibition center parking garage will form a clear span over the A8 autobahn that links Stuttgart and Ulm. Only in the parts at the ends are the vertical forces supported by a total of 24 piers. Access to the park is possible directly from the autobahn.

The secret of the Additive Floors lies in their design. They are made of prefabricated trapezoidal sections comprising steel sheet. On site, it is only necessary to lay the purpose-built flat support structure, pour the concrete and apply the concrete covering layer. An area of more than 100,000 square meters will have been laid with the floor system by the autumn. Following this, the interior outfitting of the parking garage will start, involving building the stairwells, elevators and the entire electrical system.

By the time the new exhibition center celebrates its opening, the parking garage will also have reached its completion phase. Motorists will be able to drive directly into the garage from the autobahn using the two entrance and exit spirals. Pedestrians will be allowed to stroll in the central zone between the north and south fingers, and indeed with luck the first signs of the roof vegetation will be visible by that time.

Monika Etspüler, scientific journalist

www.messe-stuttgart.de
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▼ The new Stuttgart exhibition center is growing from day to day: The carcass work on the International Congress Center has almost been completed. The seven standard halls, each with an area of 10,000 square meters, are to be completed successively over the coming months. About 65,000 metric tons of steel will have been installed by the time the fair is opened in autumn 2007.

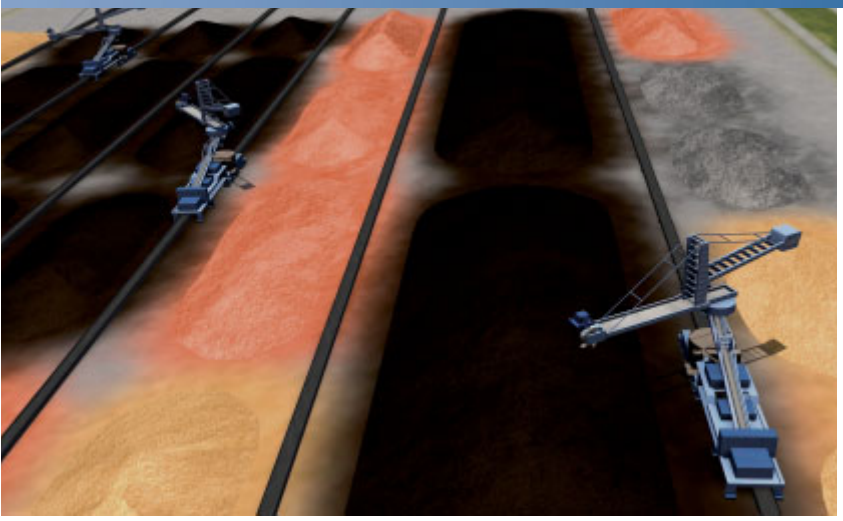
International growth in focus

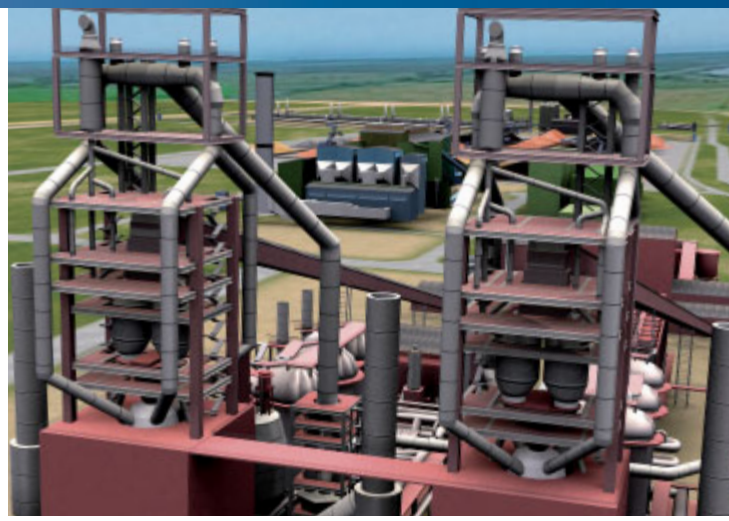
The foundation stone of the Forwards Strategy is being built in Brazil

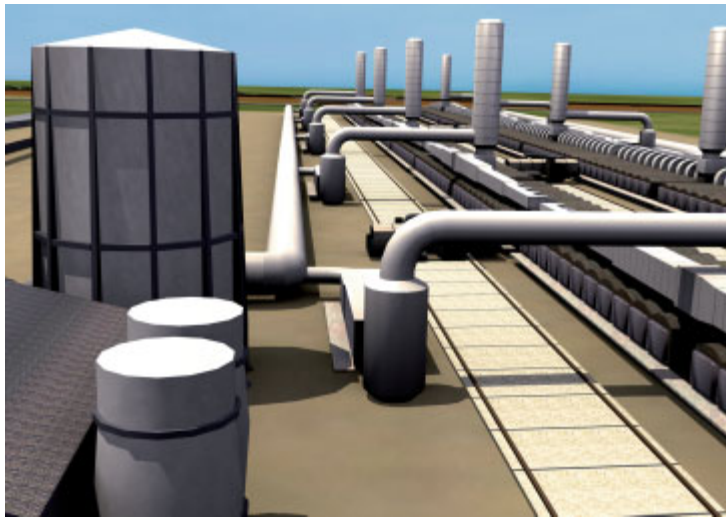
ThyssenKrupp Steel is intending to take up a long-term position amongst the top 5 companies in the market for high-quality flat products. The strategy will be set to international growth based on the strengths the company has developed, with high efficiency and excellent technological expertise. At the end of 2005, the Supervisory Committees of the ThyssenKrupp Group gave the green light for pushing ahead quickly with the Forwards Strategy.

It consists of three major components: Safeguarding future potential growth by establishing a new steel works for slabs in Brazil, expanding processing and finishing stages in the German sites and working out a strategy for strengthening the market position in North America with various options.

▼ The steel plant being built in Brazil – shown here in a 3-D steel works animation – is located at Santa Cruz in the Bay of Sepetiba, about 60 kilometers from Rio de Janeiro.







▲ Detailed views of the planned steel plant in Brazil: The 3-D animation shows mixing beds, blast furnaces and the coking plant (from the top left).

Preparations advancing at high speed

The preparations for building the new steel plant in Brazil, and thereby for expanding crude steel capacity, are proceeding at pace. The integrated steel works on the coast at Sepetiba in the state of Rio de Janeiro forms the terminus for the railway line from the ore deposits of Minas Gerais. It is planned for 4.4 million metric tons of slabs to be produced annually from autumn 2008 onwards. The project takes advantage of regional cost benefits and proximity to the ore resources. It consists of a sintering plant, two blast furnaces and a top-blown steel plant with two continuous casting lines, various ancillary plants and its own port. The investment volume is around 2 billion US dollars. The plant is being built and will be operated by Companhia Siderúrgica do Atlântico (CSA), in which the world's biggest iron ore producer, the Brazilian Companhia Vale do Rio Doce (CVRD), has taken a ten percent stake. CVRD has undertaken to guarantee long-term ore supplies to CSA.

Reinforcement of the home base in Germany

Just under half of the high-quality slabs is intended for the European home market. To enable this significant quantity of extra slabs from Brazil to be processed optimally in Germany, it will be necessary to expand the capacities of existing rolling and finishing plants accordingly because they are currently suffering from bottlenecks. This applies in particular to the hot strip plants and the hot-dip coating plants. More funds will be channeled into expanding the infrastructure and the slab logistics. The total investment volume for the expansion measures is 400 million Euros.

In addition, a decision was taken some time ago to reinforce the metallurgy stage at the central location of Duisburg by rebuilding blast furnace 8 and relining blast furnace 9, and indeed this work has already been started. About 340 million Euros is being spent on this modernization program which is due for completion by 2008.

Establishing a strong market position in North America

ThyssenKrupp Steel intends that the other half of the Brazilian slab capacity – around 2.3 million metric tons – will be supplied to North America, thereby further expanding its position in the NAFTA region, one of the most important markets for steel in the world. Over the next few years, the delivery volumes are expected to be increased from the current one million metric tons of finished products to five million metric tonnes, thereby achieving a market share of at least five percent.

There are three scenarios for implementing the Forwards Strategy in North America, and concepts for these are currently being worked out: Building a greenfield plant for processing the Brazilian slabs through to end-product status; a "brownfield solution" involving purchasing the processing companies, modernizing them and then bolting on the finishing stages in the form of investments; or purchasing a steel company in the NAFTA region.

Katharina Mette

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In conversation with CEO Dr. Karl-Ulrich Köhler

"We are standing before major new challenges"

"Our Forwards Strategy will enable us to make the leap from being a European player to a top quality company with a global stance in the international steel industry. High-quality, low-cost slabs from Brazil will enable us to safeguard our future growth opportunities, expand our strong market position in Europe and reinforce our presence in North America."

Dr. Karl-Ulrich Köhler, ThyssenKrupp Steel boss

Dr. Köhler, the steel sector is going through a phase of massive changes. The consolidation and globalization process is making the headlines on an almost daily basis. ThyssenKrupp Steel is working on implementing a global Forwards Strategy involving investments running into billions. At what stage of implementation does the group currently find itself?

ThyssenKrupp Steel is actively adapting to meet future challenges. Any company that intends to be successful in the steel market has got to move with the times, and this means: Globalization. Our key customers are located at the end of the wealth creation chain and the crucial factor is that they are now distributed all over the world. Globalization in the automotive industry is the best example for this. However, consumer industries such as domestic appliance, engineering and packaging industries are just as internationalized. Cost pressure in particular is forcing many industries to go global. We also have got to provide our key international customers with the quality they have come to expect, at competitive prices.

For years now, the downstream activities have been following our customers all over the world; we undertake production steps for them in the areas of finishing, processing and service. This successful model has made our downstream structure stable, while we have established a continuous, long-term strategy and are concentrating on putting it into practice. Now it is important to take a comprehensive approach to the international trend towards consolidation and globalization by laying the foundations for growth through increased sales in high-volume markets.

And this explains the construction of a steel works in Brazil?

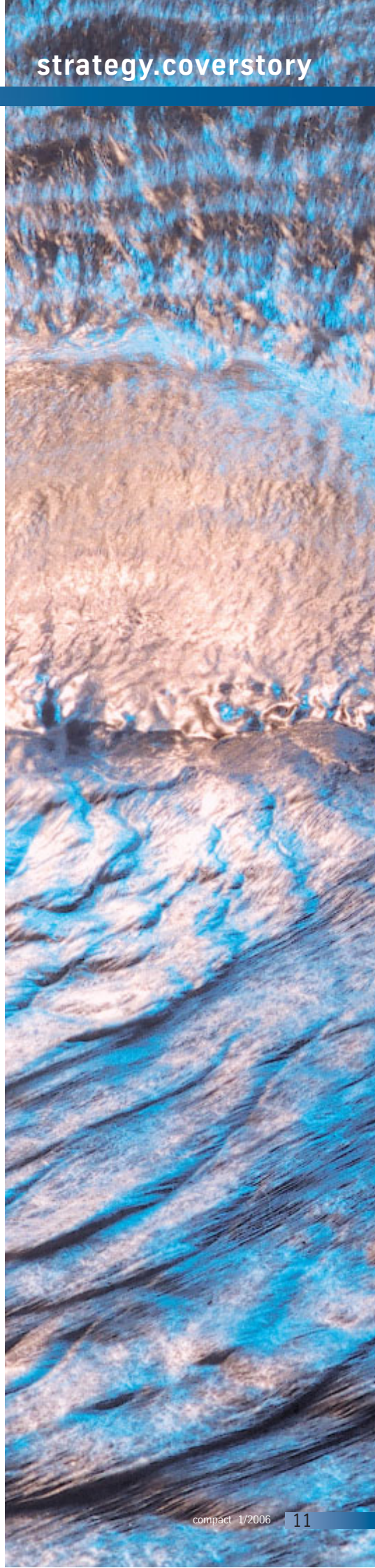
Yes. In order to achieve our objectives in the core markets of Europe and North America, we need an additional crude steel capacity that will provide us with flexibility and input materials at low cost – something that is demanded by the globalization trend. To do this, we need to be close to iron ore deposits and these are most easily accessible in Brazil. In addition, the Brazilian Atlantic coast offers logistical advantages through its optimum transport connections to the processing centers. Also, it is cheaper to transport slabs rather than high volumes of iron ore.

Half of the slabs are intended for the European market. Won't this contribute to oversupply and the risk of a disastrous downwards price spiral?

Not at all. We intend systematically to expand our presence in the European home market with products and services in which we have specific strengths and enjoy long-term cost benefits. At least three quarters of the additional quantities are destined for the exacting customer segments that characterize our European core market. During the past few years, we have been unable to meet our customers' delivery requirements in full because the capacity of our steel works was limited by bottlenecks in slab supply. By expanding our processing capacities close to the market, we can guarantee opportunities for growth in Western and Eastern Europe on a competitive cost basis, at the same time as using the advantages of sourcing slabs from Brazil for our current product portfolio. In doing so, we will safeguard the long-term job prospects of our highly qualified personnel in our German locations. I particularly want to emphasize the following point: Our employees are the guarantee for our outstanding product quality.

Why have you selected North America as the second growth target?

The NAFTA region is an attractive target market for our high-quality flat steel products. The size of the market and its competitive structure offer enormous opportunities for ThyssenKrupp Steel. Although demand for quality flat steel is only growing at 1 to 1.5 percent, the volume is about 100 million metric tons. We intend to secure a market share of five percent for ourselves. At present, we are scarcely obtaining one percent.



▶ Investments are being directed towards hot-dip coating plants, amongst other resources, so that the significant quantities of extra slabs from Brazil can be processed optimally in Germany.

Key customers in the automotive, domestic appliance and packaging industries expect to have suppliers who can meet exacting technological requirements. At present, there is a great demand for imports. However, it is limited by the application of protectionist measures. These instruments are intended to protect a local steel industry that is characterized by overcapacity, a poor cost position and an extremely urgent need for restructuring.

As far as we are concerned, this scenario offers us the opportunity to supply high-quality flat steel to selected industries from local production. To achieve this goal, we are attempting to build a platform in North America for processing the slabs from Brazil.

Doesn't the greater market presence also harbor risks?

As I said, our current position in North America is one of a relatively limited amount of exports, backed up by local processing centers and production facilities for tailored blanks. However, we have enjoyed business links with key customers going back over decades. These links are very stable, thanks to our high product quality and the intensive consulting services provided by our R&D arms. But we have been unable to meet demands for additional quantities because our current capacity in this market is limited.

How, specifically, will the platform take shape?

We are currently working on concepts for three scenarios: Firstly, we are considering building a greenfield plant to process the slabs through to finished products. We are also considering a brownfield solution which would involve purchasing processing companies, modernizing them and bolting on the finishing stages in the form of investments. However, it is also possible that we could purchase a steel company in the NAFTA region. Dofasco has been and remains one variant and option in our North American strategy.

And if this option doesn't stack up?

In parallel to Dofasco, we are intensively studying the two other variants, namely new build or cooperation. A solution will have to meet two essential requirements: Securing cost leadership through low-cost input stock from Brazil and ensuring quality leadership through using the latest production technologies. This would also present us with some unique advantages over the competition. The Supervisory Board of ThyssenKrupp AG is going to discuss the proposals in May.

Christiane Hoch-Baumann

◀ Further investments are being channeled into existing German rolling mills where there are currently bottlenecks.

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A classic win-win situation

"Brazil is the right decision for the future"

Personal information

Prof. Dr. Marion Steven was appointed Professor of Production Economics at the Bochum Ruhr University in 1996. In addition, she is the Managing Director of the Institute for Business Management. Her research interests are focused on the areas of supply chain management, production controlling and service production.

Growing customer requirements, globalization, flexibility, concentration on core expertise and acting in complex supply chains are the main challenges currently facing company managers. Highly divergent cost structures in international procurement markets are leading to a pronounced international division of labor in which each location is assigned specific tasks. The coming investment project by ThyssenKrupp in order to establish additional crude steel capacities in Brazil represents a forward-looking expansion strategy which is a proactive response to these challenges.

The planned site in Sepetiba is excellently suited for supplying low-cost production to meet demand in North America and Europe, because of its logistical infrastructure and proximity to the raw material deposits. The planned slab steel works will lead to an efficient distribution of wealth creation activities between the regions and will safeguard supplies to associated markets in the medium term. It is therefore an important step in the expansion of the global wealth creation network. This investment will also have the effect of securing, and even expanding, finishing capacities in Germany – as a result, we are looking at a win-win situation from an economic policy perspective.

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Snow report from Dubai

Excellent skiing and sledging

▲ If camel riding in the desert isn't enough for you, it's now possible to go sledging and skiing at last: On practically real snow in the first indoor ski resort in the Middle East.

▲ Double-T beams from ThyssenKrupp DAVEX form the backbone of the glass façade between the Dubai indoor skiing center and the adjacent shopping mall. In addition, 5000 curious visitors come to see the structure every day.

Whether it's a seven-star luxury hotel built to look like a sailing ship, huge theme parks or artificially created islands in the shape of a palm – no scheme seems to daunt the project developers in the small emirate of Dubai. In December last year, a new attraction was added to the list of head-turners in Dubai. Anyone who wants to can now visit the Persian Gulf town for skiing and snowboarding – and not on a sand dune but on practically real snow. All this can be done in a ski hall that is as big as three soccer pitches. A great deal of complicated technology is needed to keep this super-size deep freeze cool in spite of the oven-like conditions outside – in the Gulf, temperatures of 50 degrees Celsius are by no means rare – and to provide sufficient snow.

Like the cooling system for an ice box

The inside of the hall is cooled like the cooling system of an ice box. Pressure converts a cooling fluid into a gas, which additionally heats up to plus 60 degrees Celsius. When the pressure is suddenly reduced, the gas cools to a temperature of minus 20 degrees. This cold is then transferred to a second circuit. In this way, the cooling fluid freezes in a system of pipes covering several kilometers in the floor of the hall. 23 high-efficiency air-conditioning systems cool the air in the hall during the day, to achieve a temperature that is pleasant for winter sports enthusiasts, namely a constant 1 to 2 degrees below zero Celsius. Moreover, the hall has various insulating layers – for example, there is a five meter space between the ceiling of the hall and the actual roof.

Facts and figures on the Dubai ski hall

- The hall covers an area of 22,500 square meters – in terms of floor space, Cologne Cathedral could be fitted in three times.
- Every night, 70,000 liters of water are turned into 750 cubic meters of fresh snow, resulting in a five centimeter thick layer of snow.
- More than 100 metric tons of cooling fluid passes through tubes below the piste in order to cool the ski dome.
- The difference between the outdoor and indoor temperature is 50 degrees Celsius: The ski hall is minus 1 degree inside, whilst the outside air can quickly heat up to 50 degrees.
- The longest piste in the ski arena is 400 meters long. There are five pistes in all, offering different levels of difficulty.
- Up to 5000 guests visit this technological marvel every day, while 1500 winter sports enthusiasts can take to the pistes.

▲ A view from the adjacent shopping mall towards the winter wonderland in Dubai. ThyssenKrupp DAVEX beams were used for the glass and steel structure. Isocab IND insulating panels were used for the interior walls and roof of the indoor skiing center.

▲ Powder snow, mountain magic, quarterpipe, a 400 meter piste and even an in-house ski school: Two ThyssenKrupp Steel companies have supplied products to provide winter sports fun in the desert at the Dubai ski dome.

Artificial snowfall overnight

Snow production takes place overnight. For this purpose, the room temperature is initially reduced to minus eight degrees Celsius. Then, purified water is cooled to one degree and sprayed into the hall as ultrafine droplets through snow canons installed under the roof. In the air, it freezes optimally into snow crystals that fall to the floor of the hall as an even covering. The result: That St Moritz feeling in the middle of the desert. Products from ThyssenKrupp also contribute to keeping the temperature below zero Celsius in the huge space of the Dubai ski dome. The interior walls and the roof of the indoor skiing center are built using Isocab IND insulating panels from the Belgian ThyssenKrupp Steel subsidiary, Isocab N.V.

Well insulated

These are heavy panels that are zinc-plated and painted light blue. They consist of two steel covering shells and a core of rigid insulating foam with especially good fire resistance.

Double-T beams from ThyssenKrupp DAVEX, Gelsenkirchen, form the optically attractive and slender backbone of the glass and steel structure that links the ski dome to the adjacent shopping mall.

Katharina Mette

www.isocab.be
www.davex.de
www.skidubai.ae

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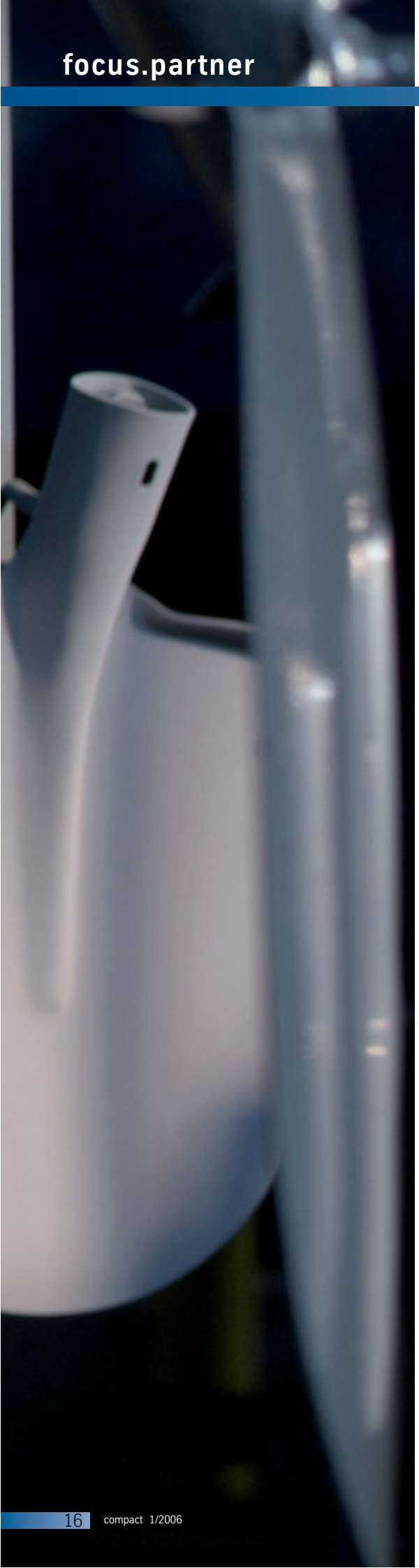

Professional tools for gardening, landscaping and building

Ideal spades dig with quality

Ear-numbing hammering. Rhythmic humming. Hissing. The historic, over 100-year old square-framed factory hall of Idealspaten-Bredt in Herdecke is pulsating. The floor shakes in time with two mighty machines that are punching templates out of a narrow coil in an uninterrupted sequence. The templates look almost like the spades in a pack of cards, the coil is slit hot strip from ThyssenKrupp Steel in Duisburg.

◀ Using an exceedingly hard and also tough steel from ThyssenKrupp Steel, Idealspaten-Bredt produces getting on for one million shovels, amongst other tools, on a production line. It takes just under ten minutes to turn the coil into a conventional hand tool.

"Every year, we supply our customer Idealspaten-Bredt around 1200 metric tons of 30 MNB 5 grade slit strip – a boron-alloyed steel that is both hard and extremely tough," says Ulrich Blötner who works in Technical Customer Consulting at ThyssenKrupp Steel.

Smooth partnership

A partnership that has lasted for more than 40 years. "In the 1970s, we changed over our input stock grade following intensive discussions with our customer. As a result, the family firm in Herdeck could dispense with one working process – tempering or annealing. Since then, our partnership has run very smoothly." CEO Dr. Bodo Reinke adds, "Although we're always considering how to develop our products further, we're currently very satisfied with the input stock."

▶ "We have 3000 different products in our portfolio and we are represented in almost every hardware store. We manufacture 1000 different shovels and spades alone using input stock from ThyssenKrupp Steel," says CEO Dr. Bodo Reinke (r.) of Idealspaten-Bredt. Company executive Joachim Werner (middle) and Ulrich Blötner of ThyssenKrupp Steel are also more than satisfied with the business relations.

▶ Stamped templates are heated to about 1000 degrees Celsius and then pressed into shape – a production method that places exacting requirements on the input stock. ThyssenKrupp Steel supplies a special boron-alloyed steel in 30 MNB 5 grade.

Shovels and spades off the production line

Using a special steel from ThyssenKrupp Steel, Idealspaten-Bredt produces getting on for one million shovels, amongst other tools, on a production line: The freshly stamped templates are passed through an oven on a conveyor belt where they are continuously heated to about 1000 degrees Celsius. The movements are directed by robots that, operating with split-second precision, place the hot templates into an enormous press in which they are pressed into shape. Then the socket is bent, the socket being the end of the shovel that accepts the wooden handle. The product is now almost finished but still has to undergo brief hardening before being suspended from a sort of butcher's hook, descaled along with many others of its kind and coated with powder. Finally, the handle is inserted in the socket and secured. After a final quality check, the professional-grade tool is ready for use in gardening, landscaping and building.

"We've sold more than 100 million spades to date."
Dr. Bodo Reinke, CEO of Idealspaten-Bredt

"It takes just under ten minutes to go from the coil to the conventional hand tool," says CEO Dr. Bodo Reinke, explaining the production process. When it comes to extras and complicated special fabrications, however, human beings take the place of robots: "We can produce up to 1000 different shovels and spades. These include our top product, the Ideal Spade."

This occupies a special position in production, explains company executive Joachim Werner: "We need wide flat steels for our Ideal Spade. It is shaped from a blank. In this case, the socket, which is the part that accepts the wooden handle, is neither riveted nor welded." Instead, the spade is rolled from one piece of steel and the handle is optimally inserted into the blade. How this is done will remain a company secret.

"Steel is a fascinating product."
Joachim Werner, Idealspaten-Bredt

But this is not all. The product range of Idealspaten-Bredt, the traditional company that was founded in 1899, extends from forks, hoes, rakes and scythes to snow clearers and watering cans. "We have more than 3000 products in our range. It goes without saying that we don't make them all ourselves," emphasizes Werner. "We buy in equipment and process it further." Indeed, this is also essential nowadays: "Global competition is enormous," says Reinke. "The Far East is flooding the market with discount products and we have to compete on price. As a result, we also rely on the excellent quality of our assortment and this explains why we've been very successful in Germany." The objective is to secure the Herdecke site for the long term using high-quality products, "So we can continue producing spades, shovels and more besides." Another thing the company emphasizes it that they offer a 10-year guarantee on all hand tools.

Christiane Hoch-Baumann

www.idealspaten.com
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ThyssenKrupp Hoesch Bausysteme

Keeping warm down under

ThyssenKrupp Hoesch Bausysteme is currently benefiting from Australia's respect for fire – major conflagrations regularly devastate huge swathes of land. Australian architects and building owners order their heat-insulating wall and façade elements from Kreuztal in Germany's Siegerland, accepting in so doing the five-week transport time.

Melbourne airport with a new look

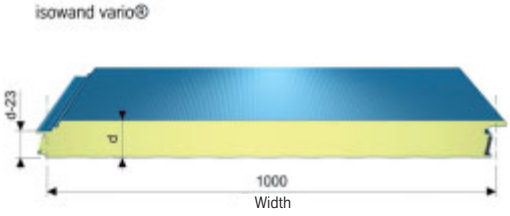
The 220 million Euro extension of the international passenger terminal at Melbourne Airport, for example, is intended to be completed at the start of 2007 and ThyssenKrupp Hoesch Bausysteme has already supplied 2500 square meters of façade elements for this project. One aspect is the extension of the ground floor: 1000 square meters of isorock® wall elements with rock wool core are used here, which are classified in Germany as non-combustible building materials. ThyssenKrupp Hoesch Bausysteme has supplied 1500 square meters of its isowand vario® wall elements for the upper floor that is also under construction. These elements with their PIR rigid foam core have a higher proportion of polyisocyanate compared to elements with a PUR (polyurethane) rigid foam insulating layer. This composition provides significantly better fire protection properties at the same time as offering good thermal insulation.

Façade for an office building in Perth

The owners of Midland Gate, an office project in Perth, also decided to build the entire façade of the two-part office complex with 3000 square meters of isowand integral® from ThyssenKrupp Hoesch Bausysteme. The PVDF (polyvinylidene fluoride) coating available on request for construction elements from ThyssenKrupp Hoesch Bausysteme is proving an additional advantage on the Australian market. It is particularly resistant to aggressive UV radiation and retains its shine for a long time. The elements for both Melbourne Airport and the Midland Gate project in Perth were supplied with this high-quality coating.

Bernd Overmaat

www.tks-bau.com



◀ isorock vario® wall elements are being used for the extension at Melbourne Airport. They are light and have what is called a PIR rigid foam core that provides outstanding fire protection properties and good thermal insulation.

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Corrosion protection made in Finnentrop

Wide effect from narrow strip

It's small but perfectly formed: The narrow strip galvanizing line at ThyssenKrupp Steel at the Finnentrop site in Germany's Sauerland. All the same, the line has produced 450,000 metric tons of hot-dip galvanized strip steel since starting operation. If all this material were laid end to end, it would encircle the world 14 times around the Equator. That's more than 560,000 kilometers.

Hot-dip galvanized strip steel is made in Finnentrop as follows: Hot strip is first slit lengthways to the customers' dimensions – it can be between one and six millimeters thick and from 15 to 180 millimeters wide. The slit strip then passes through the galvanization process. "The strip is first threaded in, welded, then pickled, rinsed and activated in order to achieve optimum zinc adhesion," says Fred Jindra, the head of surface finishing at the Finnentrop hot-dip galvanizing line, describing the process. "After this preliminary treatment, the strip passes through the molten zinc bath at a current maximum speed of 15 meters per minute along twelve tracks. This gives it an all-round coating of up to 500 grams per square meter and side, providing optimum corrosion protection." The thickness of the zinc layer depends entirely on the application: "150 grams of zinc per square meter per side, for example, is sufficient for manufacturing building hardware or rails for rolling doors," explains shift coordinator Volker Funke. It's quite different, however, if the customer wants to use the material for manufacturing grounding cables for new buildings – in this case a high zinc deposit of up to 500 grams is demanded."

"We produce and prefabricate galvanized narrow strip according to individual customer requests."
Hans-Joachim Heiler, Finnentrop's head of operations

The team at the narrow strip galvanizing plant is ready to meet almost any customer request: Input stock for lightning conductors, gutter holders, rolling grille and garage doors, shelf, pallet and automobile construction are manufactured here. Input stock for door and window lintels is supplied to the UK, wood fittings to Denmark. Rings for the wine and cognac barrel industry in France are also made in Finnentrop.

Katharina Mette

www.thyssenkrupp-steel.com/industrie/en/organisation/ids_finnentrop.jsp

▼ ThyssenKrupp Steel's narrow strip galvanizing plant at Finnentrop is the only one in the world that can apply a thick zinc coating on up to twelve lines simultaneously.

◀ Optimum corrosion protection of their products – that are used in the automotive industry, for example, as well as for rolling grille doors – is the responsibility of Fred Jindra (l.), the surface finishing team leader, and shift coordinator Volker Funke.

Galvanized narrow strip

Preliminary material: Hot strip from ThyssenKrupp Steel, Duisburg

Dimensions: 1 to 6 millimeters thick, 15 to 180 millimeters wide (other widths subject to consultation)

Zinc coating: 150 to 500 grams per square meter

Application: Barrel industry, lightning conductors, gutter holders, roller grille and garage doors, shelf, automobile and pallet construction

Advantage: Outstanding adhesion and forming properties, highest all-round zinc coating

Packaging: Individual batch sizes, delivery in rings as loops (up to 5 metric tons), or as rods according to the customer's requirement

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Rheinbraun extracts lignite using ThyssenKrupp technology

After Excavator 291 has passed, the foresters move in

A report by Christiane Hoch-Baumann, photos: Rainer Kaysers

An endless expanse. A murky fog swathes the scarred lunar landscape. Wasteland in all directions. Nothing but mounds of gravel and sand stretching away to the horizon. Expansive plains of soil, clay and loam. With the black lignite lying deep below. It smells like wet peat. My eyes scan the bizarre landscape. Silence. Just a slight humming audible from far off.

A safari across the mine

We are driving in a jeep through the Hambach open-cast mine in the Rhineland mining district between Cologne and Aachen. All are equipped with solid safety boots, helmets and protective goggles. The vehicle is also carrying Dr. Marco Pfeiffer from the Technical Marketing department of ThyssenKrupp Steel's Heavy Plate Profit Center in Duisburg-Hüttenheim. Our driver, Hans-Jürgen Günther, knows the way. With a reliable touch, he maneuvers the off-roader across the bumpy wasteland. The 4x4 snakes and slithers across the bare soil and mud track. It jumps over humps and slams into potholes. Some signs appear: First stratum, second stratum, third stratum ... we take a sharp right turn and are confronted with an abyss. A 16 percent drop opens up ahead of us. And the driver accelerates.

Details of Excavator 291

Capacity:	240,000 t/day
Crew:	3
Weight:	13,423 t
Length:	200 to 220 m
Height:	approx. 96 m
Drive:	0.5 to 1000 kW
Number of crawlers:	12
Speed:	7 m/minute
Bucket wheel diameter:	21 m
Number of buckets:	18

◀ The huge bucket wheel excavator can extract up to 240,000 metric tons of coal every day – enough to bury a soccer pitch 30 meters deep. And it consumes as much electricity as a small town every day. Two colossal pylons support the enormous bucket wheel and the ballast booms – they keep the steel construction in equilibrium.

Steel colossus made from heavy plate

By the time I open my eyes again, we are parked at the foot, or rather one of the twelve thickly chained feet, of the oversize running gear of Lignite Excavator 291. The humbling steel giant is bigger than two soccer pitches and almost as tall as Cologne Cathedral. Its 18 mighty buckets distributed like teeth around a gear wheel make a deafening roar as they bite into the mountain of coal. They dig in deeply and scoop up the fossil gold, then drop it onto the conveyor belt that transports it straight to the central coal bunker of the open-cast mine located several kilometers away.

"I was involved in building Excavator 291," shouts my driver, who's main job is as a construction manager at ThyssenKrupp Fördertechnik, in the Technologies segment. That was more than ten years ago. "Many hundreds of components were assembled by about 150 experts, like a towering jigsaw puzzle. Of course, we didn't leave anything to chance. Every move was planned in detail. It took a good two years before the machine, with its 100 million Euro price tag, was ready." Pfeiffer adds, "Gigantic machines such as this – more than 6000 metric tons of heavy plate go into building a lignite excavator such as this one – aren't made any more, unfortunately. We just supply replacement material that is processed by special workshops and cut to exactly the right dimensions."

That is because once it has been completed, this top-line bucket excavator will

operate for at least 50 years. Just like a car, it is inspected every 24 months by specialists from ThyssenKrupp. The steel and the steel welds are painstakingly checked for cracks, corrosion and wear. “Only a few years ago, these major inspections were performed annually,” remembers Günther, who has worked for the ThyssenKrupp Group for over 30 years. Pfeiffer knows one reason why the inspection intervals are now longer: “The quality of our steels has improved considerably over recent years. The material doesn’t wear away so quickly, it’s extremely resistant and is much better to work with.”

A ravenous steel giant

The enormous excavator can extract up to 240,000 metric tons of coal every day – enough to bury a soccer pitch 30 meters deep. This is difficult to imagine, because the enormous buckets of the monstrous machine appear to work their way through the prized raw material extremely slowly. The huge steel structure only moves slowly, inch by inch, through the wet coal as it creeps closer to the disappearing mountain. “This is the same working speed,” smiles Günther, whose job has taken him all over the world, “that the other seven excavators are also working through the site.”

◀ XAR® steels from ThyssenKrupp Steel are used not only in gigantic bucket excavators, but also in earth-moving and agricultural machinery as well as in steel and cement works – wherever the amount of wear is the highest. Thanks to their great hardness, they minimize wear and therefore extend the service life.

Hambach: The largest and deepest open-cast mine in the world

The drive over the desolated land continues. We move away from the noise of machines and the boggy stench at the extraction site. Past meter-high spits of land cut open to the sky. We drive alongside a conveyor belt stretching for kilometers. "Open-cast mining is alive," observes Günther, tearing me out of my reverie. "The area is always changing. Even the conveyor belts that transport the coal to the holding bunker and take the cleared earth to the spreaders can be moved." Spreaders? "Open-cast mining wanders over the coal. The lignite is being extracted on the eastern end while machines that we call spreaders take the resulting spoil – that's gravel, sand and loam – and tip it straight back into the huge hole on the western end," he explains. "This keeps the mine stable and rules out the risk of landslides."

We hit a pothole and I feel a blow to my stomach. I'm thrown up from my seat and unceremoniously dumped back into it by the seat belt. "The tracks are much worse in the Chilean copper mines," grins Günther. I manage to smile back weakly. The familiar signs appear again: First stratum, second stratum, third stratum ... we take a sharp left turn past vegetated escarpments and green hills. "All of it is recultivated," interjects our driver and presses the accelerator. "The forestry department is responsible for the flora and fauna. In fact, it's more beautiful and varied after the excavators and spreaders have passed through." Then we see a tarmac road approaching, so we can take off our protective clothing. I breathe a sigh of relief. The unique off-road adventure through the open-cast mine is over. However, for Excavator 291 the end is by no means in sight. The steel giant will have to gnaw its way through the site until 2045. Until the last morsel of lignite has been carried away.

www.rwe.com
www.thyssenkrupp-steel.de/plate

Hambach open-cast mine

Start of extraction:	1978
Extraction planned until:	2045
Employees:	1500
Coal reserves:	2.4 billion metric tons
Area:	85 square kilometers, making it as big as Würzburg or Bergisch Gladbach
Seam depth:	down to 450 meters
Bucket excavators:	Eight
Spreaders:	Seven
Conveyor lines:	100 kilometers
Annual coal extraction:	40 million metric tons
Annual spoil extraction:	250 million cubic meters

Use:
A works railway transports the lignite directly from the central coal bunker at the Hambach open-cast mine to the adjacent, highly modern Niederaussen power station operated by RWE, where it is used for generating electricity. RWE covers about five percent of Germany's electricity demand with the lignite from Hambach.

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VW drives beautifully with expertise from ThyssenKrupp Steel

Job done: Components protected against scale at 950 °C

The Auto Division of ThyssenKrupp Steel has scored another success in terms of system partnership: In only six months of cooperation with Volkswagen (VW), the Saarbrücken-based NANO-X GmbH, Kassel University and DOC Dortmunder OberflächenCentrum, it developed an innovative paint system that reliably protects components against scale during indirect hot forming, and is now being successfully marketed under the name x-tec®.

▲ Not only does it look great, it is also a universal success: The new VW Passat has been produced in Kassel for one year now and about 300,000 cars have rolled off the production line since then.

▶ "We appreciate ThyssenKrupp Steel as a system partner," emphasizes Uwe Paar (l.) of VW. The other team members (from l.): Dr. Markus Weber, ThyssenKrupp Steel, Dr. Stefan Sepeur, NANO-X, Prof. Dr. Kurt Steinhoff, Kassel University and Manuela Ruthenberg, DOC Dortmunder OberflächenCentrum, developed the innovative x-tec® paint system for VW in record time.

"We started the joint development project half a year before the start of production of our new VW Passat series," remembers chief of planning Uwe Paar at VW Kassel, looking back at the extremely tight timeframe. "Two years later, it still astonishes me how this combination of forces managed to develop a product in such a short time that was able to withstand the exacting demands of our production process. Nowadays, we can use manganese-boron steels from ThyssenKrupp Steel for making very complex components with extremely high strength levels both in a one-stage direct hot-forming process and in a two-stage indirect cold and hot-forming process – and both processes are economical."

Hot forming direct at VW

But let's not get ahead of the story: Volkswagen is the only car maker in the world to operate modern production lines for two-stage hot forming. "They pay off," emphasizes Paar, "because we use a lot of hot formed steels to meet the exacting requirements on modern cars in terms of crash integrity." The only problem: "The production process involves the components being heated up to 950 degrees Celsius. Conventional, unprotected surfaces would suffer from scale and contaminate our dies. That's why we needed to find a reliable means of protection – and quickly."

"Our customer appreciates us as a system partner."
Dr. Markus Weber, Key Account Manager VW

"As a reliable development partner, we immediately helped VW with our expertise and looked for a suitable solution for the problem," emphasizes VW Key Account Manager Dr. Markus Weber. "Together with NANO-X, the company responsible for developing the material, we very quickly came up with a new coating material that met the complex requirements of VW production."
The paint system is produced at the development partner NANO-X. CEO Dr. Stefan Sepeur remembers: "Without any prior knowledge of the market, our chemists developed a multifunctional coating based on chemical nanotechnology. Not only did this put a stop to the scale formation but it also provides a special lubrication effect to reduce wear on the dies. This was a global first in terms of steel surface treatment."

"Today, the paint is applied directly to the coil in a high-quality procedure on the coil coating line at ThyssenKrupp Steel," says Manuela Ruthenberg of the DOC Dortmunder OberflächenCentrum. "This is possible because we adapted the composition of the paint system to meet the requirements of coil coating." Weber adds: "Our MB-K 1500 steel coated with x-tec® is being used with great success for indirect hot forming in series production at VW Kassel. It's also planned for it to be used in future vehicles from the VW Group. In addition, other components suppliers and car makers have expressed an interest in this innovative product." The paint system has now undergone further development and is about to be launched shortly. It now has better welding properties and makes production more economical.

Christiane Hoch-Baumann

www.volkswagen.de
www.uni-kassel.de
www.nano-x.de
www.thyssenkrupp-steel.com/auto/en/highlights/

Kassel University wants to continue the successful cooperation

▶ Prof. Dr. Kurt Steinhoff

Prof. Dr. Kurt Steinhoff of the Mechanical Engineering/Forming Technology Department at Kassel University, would like to continue the research and development work started together with ThyssenKrupp Steel, the DOC Dortmunder OberflächenCentrum, VW and NANO-X: "It's possible to mix together nano-coatings like a chemistry toolkit comprising different substances to obtain the functions you want, such as scale protection, improved tribological properties, weldability, paintability and corrosion protection. I can see many additional possible applications for the motor industry. But in steel processing, above all else, it's important to take account of many special features of the material – and we on the research and development side can only be of benefit to a steel concern such as ThyssenKrupp Steel."

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Steel barrels from Duttenhöfer in Rhineland-Palatinate

Security for sensitive goods

The dictionary will tell you that a barrel is a medium-sized, cylindrically shaped container with straight or convex sides that is used for the temporary storage of liquid or solid substances. Typically, it is made from steel, plastic or wood, and is equipped either with screw caps for filling and emptying or else it is left completely open at one end and can be fitted with a lid. Barrels have been in use for at least 2000 years – the Roman sage Pliny reported barrel-like vessels that the Celts used to store their wine in. That's the theory.

Innovative packaging producer

The medium-sized firm Gottlieb Duttenhöfer is a packaging producer that has nothing at all to do with antiquity, but

▶ Quality from the Palatinate: Duttenhöfer is a medium-sized company that manufacturers packaging containers in the form of barrels and small drums that can be used for transporting products such as chemicals, oils, paints and varnishes in safety.

rather operates very much in the present day and with a practiced routine: The family firm may have long traditions but it is a highly modern outfit. In the town of Haßloch in Germany's Rhineland-Palatine, it employs a total of 300 staff making thin sheet and stainless steel containers. The containers – that can be subsequently filled with chemicals, oil, paints and varnishes or food flavorings, for example, range in volume from 6 to 225 liters. "Our product range includes tight-head or lidded containers with either an untreated or painted interior, with the option of a plastic liner, in eleven basic designs with more than 50 different versions," reports Carsten Meiswinkel, the company's Commercial Director.

◀ Duttenhöfer has a wide product range: Eleven basic designs of barrel with more than 50 different versions, with volumes from 6 to as much as 225 liters, and with the interior either untreated, painted or with a plastic liner. ThyssenKrupp Steel supplies the input stock.

One million barrels, three million small drums

Duttenhöfer's customer portfolio includes all well known chemicals companies and suppliers to the chemicals and foodstuffs industries. The majority of production remains in Germany, only around 20 percent of the firm's customers are international and most of those are in Europe. The production volume achieved by the packaging specialist is considerable, and there are only about ten other companies apart from Duttenhöfer in Germany that concentrate on similar products: The firm makes around one million barrels and just under three million small drums every year. Most of these are produced from classic cold strip – and a significant proportion of the input stock is supplied to Haßloch by ThyssenKrupp Steel in various dimensions.

Body, base and lid

The production of barrels and small containers basically functions according to the same system, although the containers are produced on different lines depending on their size and capacity. The coils are delivered by truck and are first cut into suitable rectangular blanks in a cross-cut line. They are then rolled into their round shape. This body forms the actual structure of the future barrel and is welded into a tube-like cylinder. In further working steps, the bases and covers are stamped out, primered and then joined onto the body to make a barrel or a small drum. The barrels are painted before being leak-tested – there are at least two destructive tests per batch involving lock seam sections, a hydraulic pressure test and drop tests – to check they are up to the job.

"Safety is a major issue for our customers, and therefore naturally for us as well," emphasizes Thomas Korbel, the Purchasing Manager at Duttenhöfer. "It's important for us to obtain excellent input stock so we can make absolutely high-quality products and nothing else."

Safety is written large

The consequences of a barrel containing a hazardous substance developing a leak or giving off gas do not bear thinking about. "A whole range of our packaging materials has been certified by the German Federal Office for Materials Inspection as suitable for transporting corrosive, toxic and flammable hazardous chemicals by air, sea and land," explains Korbel. Used barrels are generally reconditioned once, involving preparing them for reuse and repeating the tests. Small drums, on the other hand, usually end up directly in the steel manufacturers' converters as scrap metal. "Steel barrels are like motorcycle helmets – one doesn't like to allow such a sensitive cargo to be transported in something that's been used and not tested, because you never know precisely what the previous owner did with it."

Katharina Mette

www.gottlieb-duttenhoefer.de
www.thyssenkrupp-steel.com/industry

◀ Side by side and working close to their barrels (from l.) Andreas Heinelt of IDS Sales and his colleague Hans-Friedrich Eickenscheidt of Technical Customer Consulting at ThyssenKrupp Steel (right) with the Purchasing Manager, Thomas Korbel, and Commercial Director, Carsten Meiswinkel, of Duttenhöfer.

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New opportunities for building with steel

Construction barometer continues its climb

ThyssenKrupp Steel's construction element activities were successful in the 04/05 commercial year: The building construction arm returned to profit in a difficult market environment after losses during past years. The cool room construction area also significantly increased its profits compared to last year.

Short construction time, low costs

ThyssenKrupp Steel boss Dr. Karl-Ulrich Köhler, speaking in Essen at Europe's largest architectural congress in his role as Chairman of the Steel Information Center, drew a positive conclusion at the start of this year: "Steel plays a supporting role not only in the hunt for records, building the longest bridges and the tallest skyscrapers, but is also the material of first choice when it comes to modernizing existing structures. In particular in the German construction market, where building in existing stock makes up about 60 percent of the volume, the short construction times and low costs that can be achieved with steel represent important arguments."

Anti-graffiti: Water against paint

The third International Architectural Congress addressed the topic of "Maintaining values with steel – New building in existing stock", with some exciting examples being presented on the fringes of the DEUBAU: Architects and engineers presented projects that made it clear how varied are the possible applications for steel. Color designer Friedrich Ernst v.Garnier, who created the **Reflections**One® color collection together with ThyssenKrupp Steel, gave a paper on modern commercial structures and their "well thought-out color in the built environment".

DEUBAU offers space for innovations

A wide variety of astonishing possible ways for building with steel could be viewed on ThyssenKrupp's trade fair stand: Steel sections, roof, wall and façade elements, including construction elements with new color variants and non-flammable construction materials as well as an anti-graffiti coating that allows spray paint to be effortlessly wiped off using water.

Ed

www.stahl-info.de

▶ The construction barometer is continuing to climb, construction element activities were successful last year. The steel group presented numerous innovations at this year's DEUBAU.

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NewsFlash

Industry Division starts a marketing offensive

The Sales department of the Industry Division is carrying our a widespread market study called Project 2020 to find out what its customers' future requirements will be. The objective of the offensive is to ensure that ThyssenKrupp Steel can adapt its products to the ever increasing pace of change in consumer requirements, in order to remain at the cutting edge in future as well. The survey takes in all product areas such as hot strip, cold thin sheets, pipe strip, coated products and electrostrip.
www.thyssenkrupp-steel.com/industry

Stainless steel DAVEX® beams

The Gelsenkirchen section manufacturer ThyssenKrupp DAVEX is launching a new product: Stainless steel DAVEX® sections. Not only do they stand out through their high-quality, pickled surface but also because of their cost benefits. The high-quality beams are available in six different geometries. Delivery length: six meters; smaller lengths from three to five meters are available. Special geometries are also possible, as are the use of different materials and combinations of materials.
www.davex.de

STEEL 24-7 moving ahead

The online marketplace, Steel 24-7, can look back on a successful commercial year – in December 2005, ThyssenKrupp Umformtechnik registered as the 500th customer. "The range of services available is being expanded further," emphasizes Project Leader Marcus Fix. "In addition to detailed order information and the weekly auction, our customers can now use the Material Call function to search systematically through material that is ready for dispatch, sort the material and assign it for dispatch online. A standardized and automated transfer function will also make the order issuing process more convenient for our customers in future."
www.steel24-7.com

Customers' Day at TAGAL in China

The first Customers' Day organized by the Sino-German joint venture TAGAL to mark the end of 2005 proved to be a total success. 50 blue-chip guests – car makers and components suppliers from all over Asia and China in particular – came and experienced a detailed company presentation and plant tour, allowing them to see in person what an outstanding role is played by the company as a supplier to the car industry. It is now planned for Customers' Days to be held regularly in future.
www.tagal.com.cn

Award for Tailored Blanks

ThyssenKrupp Tailored Blanks has received an award as an innovative company. The honor was given to Christian Dohr, member of the Board of Management, by the North Rhine-Westphalian Minister for Innovation Prof. Dr. Andreas Pinkwart and by Otmar Schuster, the chairman of the organizing association Zenit e.V.
www.tailored-blanks.com

Steel Innovation Prize 2006

More than 600 ideas and developments relating to steel have been submitted for this year's Steel Innovation Prize. The national competition is organized in the categories of Products, Research & development, Components and systems as well as Design. The jury is currently selecting the winners who will be officially presented with their awards on June 22 by sponsor and Porsche boss Dr. Wendelin Wiedeking in the Philharmonic Hall in Essen.
www.stahl-info.de

Sales in Motion 2006

In February, the Sales/Engineering department of the Auto Division invited about 60 international sales partners to the Velen sports castle in Germany's Münsterland. True to the motto of "Sales in Motion", the participants attended workshops to work on new forms of process sequences, action and communication, so as to improve the quality of customer consulting offered around the world. Result:
A common timetable for optimizing interfaces that will be put into practice over the coming months. The series of events is planned to be continued.
www.thyssenkrupp-steel.com/auto/en/highlights/

Engineering services in NRW and Japan

On her visit to Yokohama, Japan, the North Rhine-Westphalian Minister of Economics Christa Thoben was able to see that the world is growing smaller. She inspected successful engineering activities by Japanese companies in NRW as well as by North Rhine-Westphalian companies in Japan. These included the JEVISE Corporation, a joint venture involving ThyssenKrupp Steel and JFE Steel. Dr. Dominik Schwarz, Executive Vice President of the joint venture company in Tokyo, explained to Ms. Thoben what are the tasks and work performed by JEVISE as the engineering partner for Japanese car makers in developing new, ground-breaking steel bodies.

Fairs, exhibitions, events

Interbuild
April 23 to 27, 2006
Birmingham
BAU goes international.
This trade fair is the number 1 in the UK for the construction and outfitting area, and therefore represents the perfect springboard into the British market. ThyssenKrupp Hoesch Bausysteme plans to seize this opportunity and take a 100 square meter stand at the Interbuild show.

Intermat 2006
International Trade Fair for Equipment and Processes in Structural and Civil Engineering and the Construction Materials Industry
April 24 to 29, 2006
Paris Nord Villepinte, France
For the second time, the Heavy Plate Profit Center of ThyssenKrupp Steel will be taking part in this international mega-event for all organizations involved in structural and civil engineering. More than 1500 exhibitors will present a widespread range of implements and equipment for the construction industry, while 200,000 trade visitors are expected. The Heavy Plate Profit Center will be showing wear-resistant and high-strength heavy plate for mobile cranes, excavators, loader buckets, breakers, mills and cutter bars.

CWIEME 2006
Coil Winding, Insulation & Electrical Manufacturing Exhibition Conference
May 30 to June 1, 2006
Berlin
The European Union is the world's biggest market for electrical equipment, devices and applications. The European electrical industry is almost as big as the North American and Japanese industries combined. With the CWIEME, Berlin is offering the European trade show location – and ThyssenKrupp Steel and ThyssenKrupp Electrical Steel will be there. Products for applications with grain-oriented and non grain-oriented electrostrip will be presented.

140 years of the Gelsenkirchen site/ 125 years of the Isbergues site
June 9 and 10, 2006
Gelsenkirchen
Major events cast their shadow. ThyssenKrupp Electrical Steel has double the reason for celebration this year. The headquarters in Gelsenkirchen's Schalke district can look back on a 140-year tradition of producing iron and steel products. "From puddling furnace to PowerCore®" – This is the slogan that the plant will be using to present itself. The jubilee will be celebrated with a Customers' and Suppliers' Day on June 9 as well as a Families' Day for employees and their family members on June 10. The subsidiary ThyssenKrupp Electrical Steel UGO in the northern French town of Isbergues (Pas de Calais département) is also celebrating the 125th anniversary of its founding this year. A customer event will be held on May 19 and a Families' Day on May 20.

Rasselstein Tinnovation
Inaugural event
June 14, 2006
Andernach
The modern continuous annealing furnace and finishing line at Rasselstein will be presented and its performance explained as part of a major customer event. These facilities are housed in new works halls designed by v.Garnier.

Intersolar 2006
Trade Fair and Congress for Solar Technology
June 21 to 24, 2006
Freiburg im Breisgau
As every year, solar experts will gather in sunny Freiburg im Breisgau at Europe's largest trade fair for photovoltaic technology, solar-thermal technology and solar building. Hoesch Contecna Systembau will be represented there with its ThyssenKrupp Solartec brand-name product, the multifunctional and highly efficient photovoltaic roof and facade system.

KreuztalKlassik
August 12, 2006
The town of Kreuztal, location of the ThyssenKrupp Steel surface finishing lines in Eichen and Ferndorf, is organizing a major open-air classical concert in August, entitled "A Night in France", as part of an attractive program of cultural events throughout the summer. The guest orchestra, the Southern Westphalian Philharmonic, will play a suite of popular classical music to accompany the cheerful atmosphere in Dresler's Park and low-price open-air dining. ThyssenKrupp Hoesch Bausysteme and the Color Profit Center will utilize this prestigious event to hold a local customer event in a unique atmosphere.

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