



FERDINAND GROSS

THE SPECIALIST FOR FASTENING PARTS



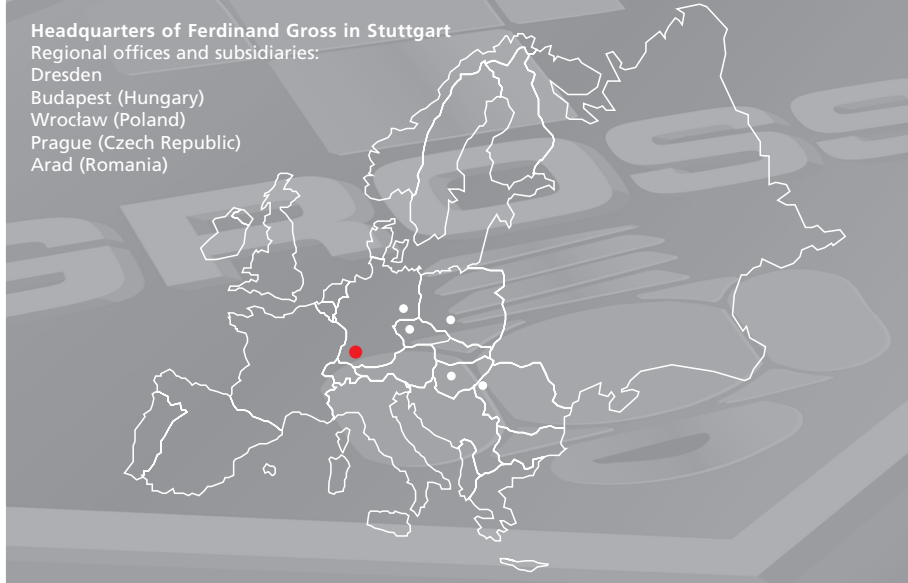
THE EXCELLENT SCREW



Headquarters of Ferdinand Gross in Stuttgart

Regional offices and subsidiaries:

- Dresden
- Budapest (Hungary)
- Wrocław (Poland)
- Prague (Czech Republic)
- Arad (Romania)



Connecting Europe

Europe is no destination but rather a route

Tomorrow, "today" will be yesterday. Only those who are aware of this circumstance can actively determine the pace of the market. Ferdinand Gross is, nowadays, one of the most important suppliers of fastening elements. Our international ambition is confirmed by the fact that our regional offices are constantly growing and that we are represented in more and more markets. Our portfolio of products and services is based on a company history dating back almost 150 years and is characterized by continuity, experience and quality. The four pillars of the company – fastening technology, tools, technical product range and drawing

parts – form the broad assortment of Ferdinand Gross. You can experience our special service with C-part management: here, we offer you a lot more than just screws. Thanks to our Kanban system, we are able to take over the complete C-part process for your company, allowing you to concentrate on your core business. In addition to this, there is our online-shop with intuitive access which you can configure according to your needs. Take up our challenge, and find out for yourself about our strengths.

Gerald Hering, managing partner (right) and Thomas Erb, managing director (left)

1864

Founding of the company by Ferdinand Gross in Stuttgart, Hauptstätterstraße, as ironmongers

1890

Relocation to Olgastraße and expansion of the company

1904

Appointment as the purveyor to the court of the king

1933

Continuation of the company's activities by Franz Hering

1964

The sons of Franz Hering, Günther and Dieter, begin joint-management of the company

1971

Construction and relocation to the current building in Leinfelden also including administration offices and warehouse

1991

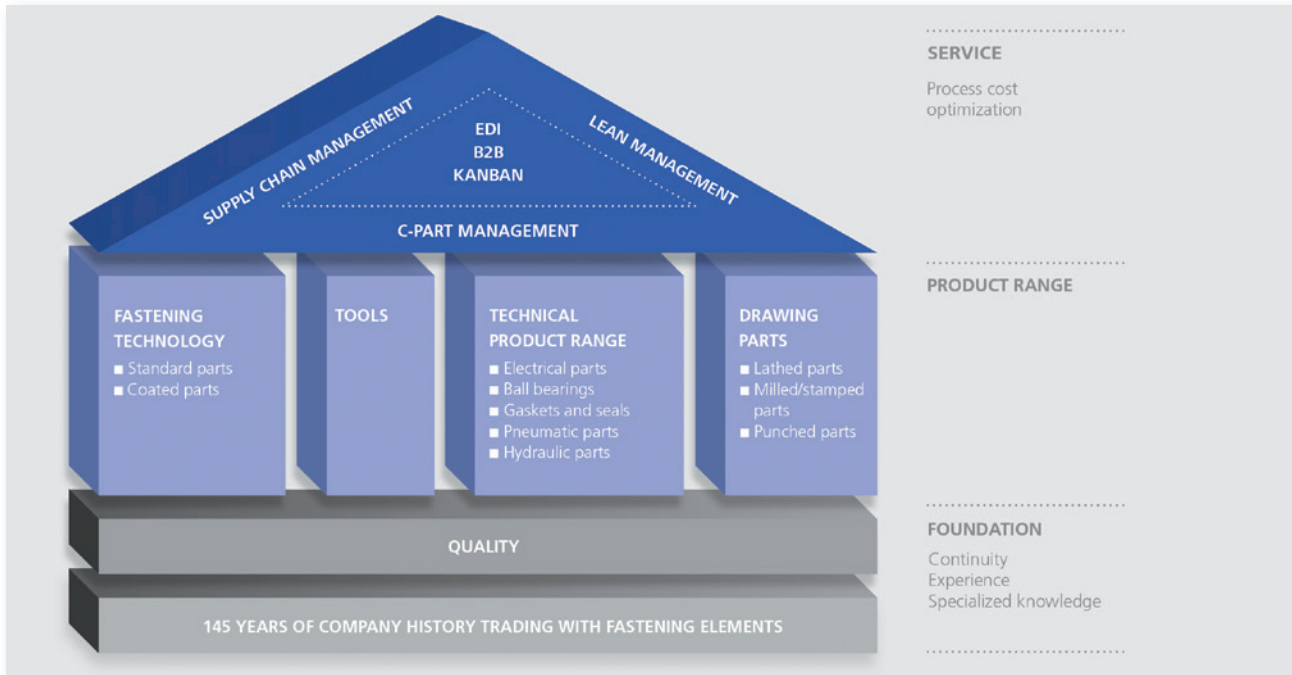
Gerald Hering, son of Dieter Hering, joins the company's management; founding of the regional office in Dresden

2005

Founding of the foreign subsidiaries in Budapest (H) and Wrocław (PL); Win-Win Cup Award granted by the VDI



Our portfolio of products and services



Market economy is like high-performance sport

The fast pace of the market demands very quick and unbureaucratic decision-making processes within the company, supported by highly motivated and competent employees and smooth logistics in combination with a certain calmness if something nevertheless, indeed threatens to go wrong. We have accepted this challenge, and have shifted our complete logistics to a modern, innovative multishuttle system that is, in this form, unique worldwide. Optimizing all processes in the entire company went hand in hand with modernizing our logistics – thus we are now able to offer our customers even better service. This achievement and several others were decisive for the jury of the “Top 100” under the auspices of Ranga Yogeshwar in granting the much sought-after prize as one of the most innovative companies amongst small and medium sized German companies in the year 2013 once again to Ferdinand Gross – for the fifth time since 2006, 2007, 2009 and 2011.



<p>2006 Awarded quality label “Top 100”</p>	<p>2007 Awarded quality labels “Top Job” and “Top 100”; founding of the logistics center in Hanover; founding of the foreign subsidiaries in Prague (CZ) and Arad (RO)</p>	<p>2008 Expansion of the offices in Poland and Hungary</p>	<p>2009 Complete modernization of logistics; renewal of the quality label “Top 100” award</p>	<p>2010 Optimization of all organizational processes and change-over to a new Document Management System (DMS)</p>	<p>2011 Relaunch of the online-shop; renewal of the quality label “Top 100” award</p>	<p>2012 Introduction of FALCON</p>	<p>2014 150th anniversary of Ferdinand Gross</p>
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An unbeatable team

Faster, more productive, and optimally prepared for the future

Ferdinand Gross thrives on its employees. They provide the ideas and innovations which contribute to our success – every day there’s something new. Thus it only makes sense that “the excellent s[crew]” had its say with the extension of the Enterprise Resource Planning (ERP) system as well. Processes were optimized, throughput times shortened – and a modern DMS (Document Management System) ensure that we are not only getting one step closer to becoming a paper-free office. Customers and suppliers alike are now integrated more strongly in workplace processes, procedures become more transparent and take all corporate divisions into account. Since this simultaneously makes us

faster and more productive, we are also able to look after you in a more comprehensive way. This is possible because all documents are now stored centrally and can be retrieved by everybody. Thanks to a modern Customer Relationship Management (CRM) system, our customer support is now even more efficient. In addition, the Supplier Relationship Management (SRM) system has been optimized. This was achieved by extending the CRM so it can additionally be used as an SRM system. We are optimally prepared for the requirements of the future since we look beyond the boundaries of our company and and make more and more information available to our customers.



Team Challenge – Employees of Ferdinand Gross have the opportunity to participate in company-sponsored events throughout the year free of charge. These events include classes in climbing, dancing and self-defense, a football competition, mountain bike excursions as well as bowling nights, go-cart races and Pilates exercises for the body and soul.



Teamwork, not rivalry

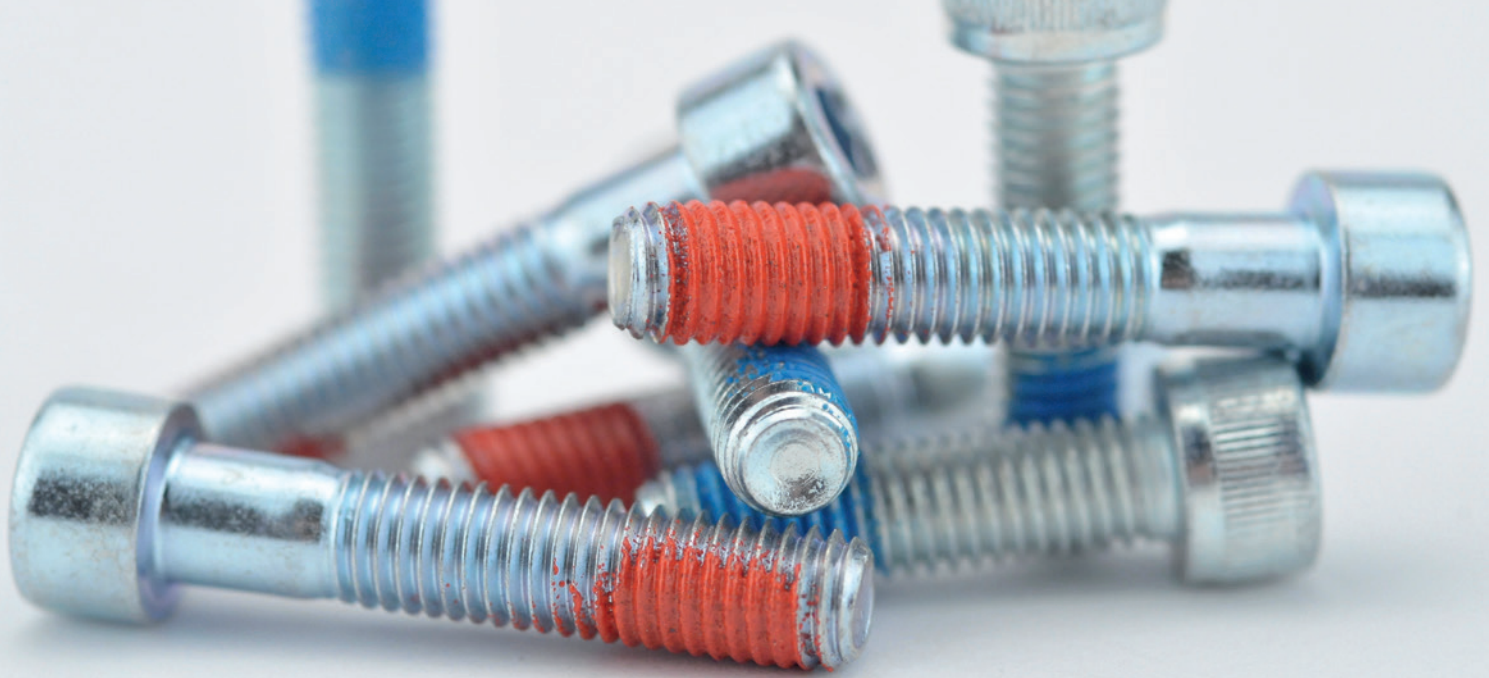


A screw on its own is nothing without the team behind it

“Honesty”, “Loyalty”, “Respect” – these values mean a lot to our employees. How do we know this? From self-initiated workshops organized by various departments because they wanted to find out what is really important to the employees for their daily work. This applies to dealing with customers as well as dealing with colleagues. From this, we jointly developed a set of Ferdinand Gross values which helps us reach our goals – and which is not determined by upper management. The results: a productive team develops by working together and not against each other. This approach guarantees that orders go smoothly and seamlessly from one department to the next.

You can rely on our team! Most of the proposals for improvement implemented by Ferdinand Gross come from the employees. To make sure that no idea gets lost, a weekly meeting takes place in each department which we call a “standing” appointment because it fulfills its function in a very quick and concise manner – No need to sit down! Each week the boxes which have been filled with proposals for improvement by the individual departments are emptied. These proposals are assessed jointly and passed on to the responsible people. The suggestions made by our employees contribute decisively to Ferdinand Gross being successful on the market. And this concept must not be all wrong since we were already granted the award of “Top Employer” by the Institute for Leadership and Human Resource Management of the University of St. Gallen in 2007.





Whatever you're looking for

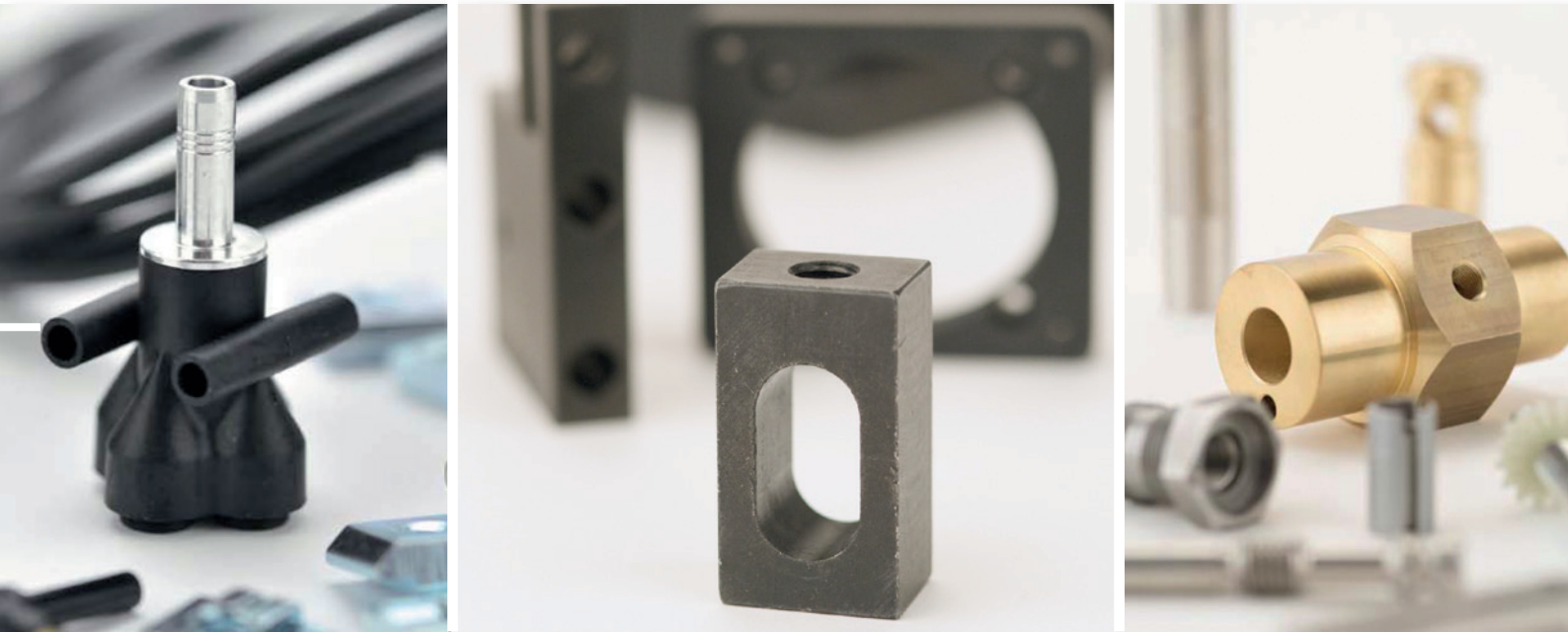
Looking for a screw in a haystack?



Owing to the vast number of different C-parts used during manufacturing, it is quite easy for an outsider to lose track of things. Any screw maybe requested in any number of different materials and with special coatings, and amongst the great number of manufacturers it is not always easy to find just the right one where quality and price are a perfect match. These are just a few of the reasons why many customers nowadays let us take care of their complete C-part management. We organize, control and deliver your individual drawing parts exactly to your specific dimensions and requirements. We have been working with many suppliers and customers for decades, and our know-how is just as extensive as our product range. And our commitment to providing perfect service keeps us on the move as well: We offer, for example, a CAD catalog for fastening elements called CADcat – either online or on CD-ROM. And thanks to the unique search possibilities of our online-shop, you will have no problem at all finding the required C-part easily.



Here's what we offer to you



Our delivery program

■ Fastening elements

- Hexagon socket head cap screws
- Hexagon head bolts/screws
- Set screws/locking screws
- Flat-head or slotted screws
- High-tensile screws, nuts, washers
- Miscellaneous screws
- Tapping screws, self-drilling screws, notched screws
- Self-tapping and thread-forming tapping screws
- Wood and particle board screws
- Nuts
- Washers
- Locking elements for threads
- Retaining rings
- Pins
- Machine elements

■ Drawing parts

- Lathed parts, cold-forged parts, hot-forged parts, milled/stamped/punched parts, assembly parts

■ Coating

- Galvanic coatings (Cr(VI)-free)
- Zinc lamination coatings (Dacral, Dörken)
- Chemical screw coatings (adhesive, clamping and sealing)

■ Technical products

- Anything apart from screws which are categorized as C-parts regarding its value analysis:
- Electrical parts, ball bearings, gaskets and seals, pneumatic parts, hydraulic parts, and much more

■ Tools

- High-quality electric and hand-held tools for assembly production round out the range of products we deliver

The Ferdinand Gross Group expressed in figures:

- 250 employees
- 15,000 customers
- 120,000 shelf spaces and 20,000 pallet spaces at the headquarters in Leinfelden-Echterdingen
- 5,000 sales items per day in the outgoing goods department
- approx. 40 tons of incoming goods per day
- more than 800 Kanban customers with over 1,000 Kanban storage locations
- more than 500,000 Kanban bins in regular use
- approx. 10,000 customer drawings are managed at Ferdinand Gross
- 72,000 standard parts
- 24,000 customer-specific parts
- 11,000 tools are regularly in stock
- 12 company trucks and 16 Kanban-Express vehicles
- turnover 2012: approx. 70 million Euros of which over 60 percent is C-part management



Intelligent logistics

Always on the move – the multishuttle principle

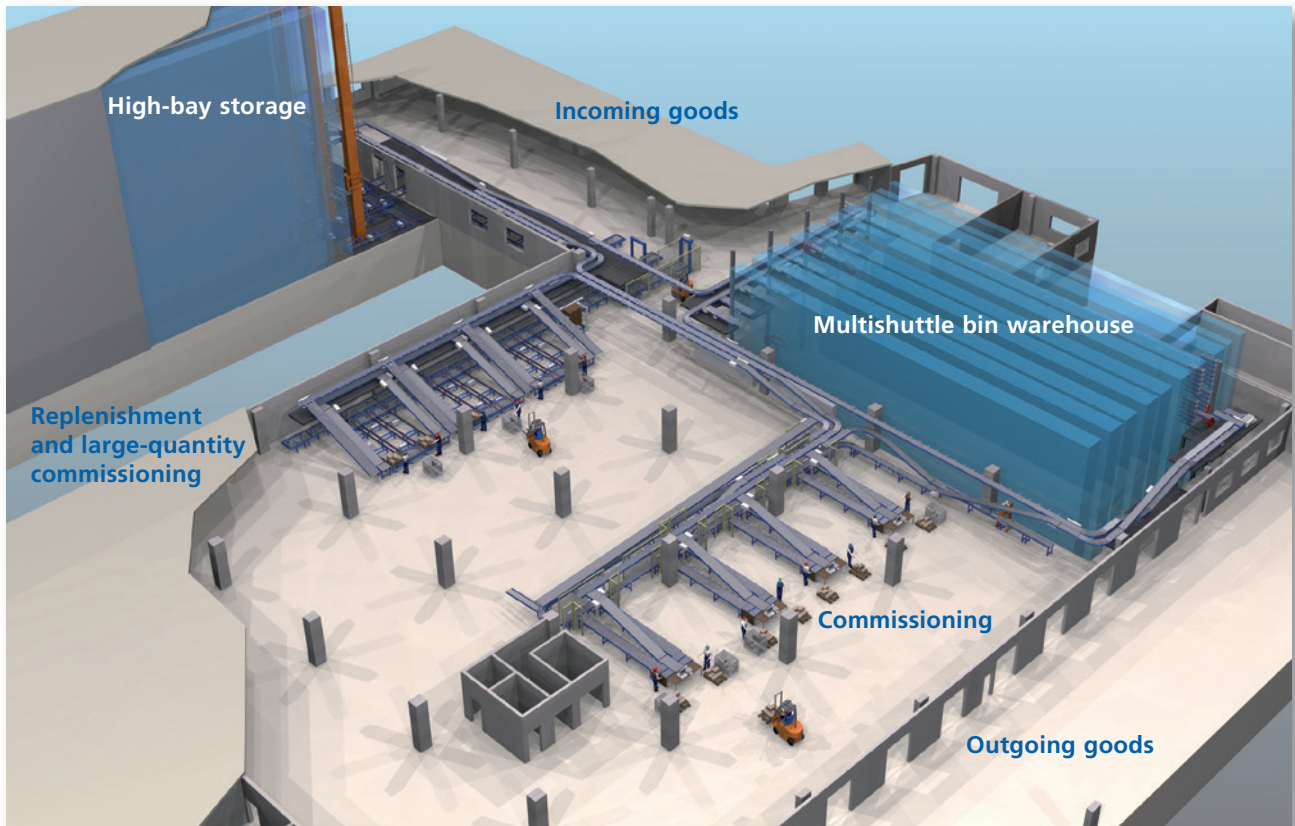
Standstill means a setback – and we are aware of this as much as you. Therefore we have modernized our entire logistics from the bottom up. Our multishuttle system from Dematic is at the heart of this movement. As a goods-to-man system, this system guarantees much higher efficiency compared to the traditional man-to-goods solutions. The advantages are quite obvious: The throughput time for each order only takes 30 to 60 minutes, and now we are able to accept orders until 4 PM – for you, our customer, this means more flexibility and better service. In addition to this, the number of

packages per order is reduced. And by the end of each shift, all orders are on their way to the customer. Kanban customers profit as well from this new system: The throughput time for orders is dramatically shortened – from an average of one week to just one day. Furthermore, the number of delivery trips is reduced since we no longer need to refill the original bin rather discretionary bins are now newly labeled before refilling. The return of empty bins can, therefore, be carried out in one go. This also has a positive impact on the environment and drastically reduces transport cost.

Our new logistics at a glance:

- More freedom and flexibility since articles can be processed anywhere, and the workplaces are now completely independent of each other
- One employee processes and monitors the complete order (increased transparency)
- Ergonomic workplaces
- Manual accessibility to all storage locations in the multishuttle
- Reducing throughput times makes it possible to accept late-hour orders
- Increased performance by an additional captive lane
- Plant expansion in the existing hall wing is always possible. Expansion areas outside the existing halls remain
- Increased productivity (full-bin throughput: 1,000 bin double cycles/hour)
- Expansion of storage capacity by 65,000 shelf spaces

In record speed



Combining two systems for increased effectiveness

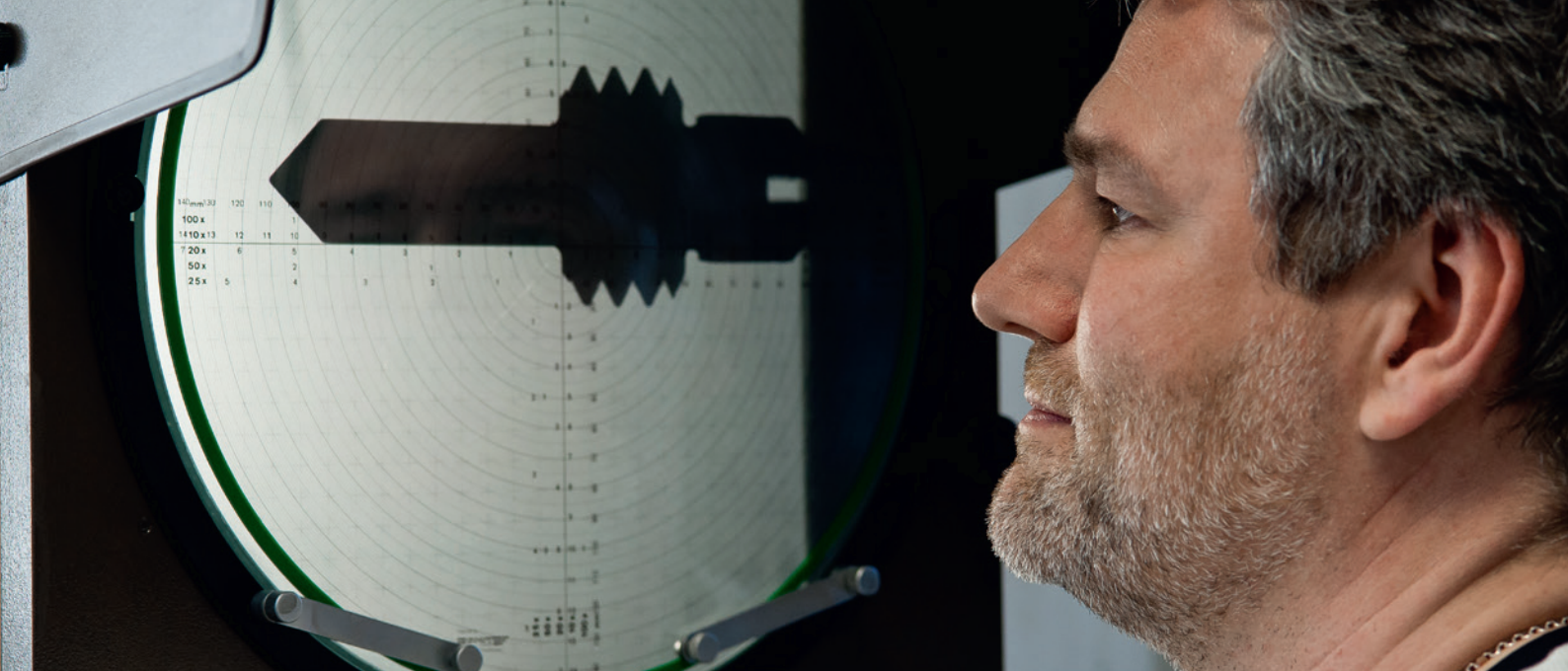
The special feature of the solution realized by Ferdinand Gross is, however, the first-time installation of the multishuttle variants "Captive" and "Roaming" in one shelf block with structurally identical shuttles in both areas. One multishuttle per storage lane can reach any level via lift and then continues on the track to any required storage location.

The individual shuttles are also used between the levels by means of lifts – in record speed. For this, 20 shuttles are used in the roaming area, serving 60,000 storage spaces with a throughput of 600 double cycles per

hour. In the captive area, 12 shuttles are used, serving 5,500 storage spaces with 600 double cycles per hour. The roaming system is mainly used for stocking those products which are most highly demanded by the customers and thus enables increased availability and flexibility.

The captive area serves to provide order-related articles from the roaming area, the shelf spaces or commission-related replenishment. Here, every level of a store lane is equipped with its own multishuttle. That's quite impressive, don't you think?





Trust us

Computer-aided quality management meets high-tech laboratory – quite an effort for small parts



The entire processes of quality assurance are bundled – and thus become more transparent for all employees – thanks to the introduction of our new computer-aided quality management software (CAQ). This is increasingly important: Legislators and more and more customers expect a multitude of evidence and other quality-relevant information such as testing protocols, certificates and test reports from companies. This places high demands on rapid and thorough registration, processing and forwarding of this data. And there is a lot more: In addition to approximately 500 general measuring devices, gauges and thread gauges, Ferdinand Gross' laboratory relies, above all, on a great deal of high-tech equipment such as hardness testers or coating thickness gauges to guarantee quality standards in the μ -range – and it goes without saying that we are fully certified.

Independent quality assurance for guaranteed good fastening



DIN EN ISO 9001:2008

- Sale of mechanical fastening elements
- Drawing parts and tools
- C-part management



VDA 6.2:2004

- Sale of mechanical fastening elements
- Drawing parts and tools
- C-part management



ISO 14001:2004

- Sale of mechanical fastening elements
- Drawing parts and tools
- C-part management

Hand-picked suppliers



Meticulous, small-minded and distrustful – we're only like this when it comes to checking quality

Even the smallest amount of negligence during quality control of a C-part has the potential to become a major problem. Our quality control makes sure that these situations do not arise in the first place. The fact that we do a good job is confirmed by the awards granted to us by **Deutsche Bahn AG** as **Supplier of the Year 2003** and the **Supplier Award 2007** granted by Festool. On the basis of our QM system certified according to DIN EN ISO 9001:2008 and VDA 6.2:2004 and our environmental management according to ISO 14001:2004, our "firewall" consists of the following elements:

■ Supplier selection

We work exclusively with qualified and primarily certified suppliers which are repeatedly audited by us. Constant performance assessment and monitoring of suppliers is guaranteed by our quality assurance.

■ Product quality

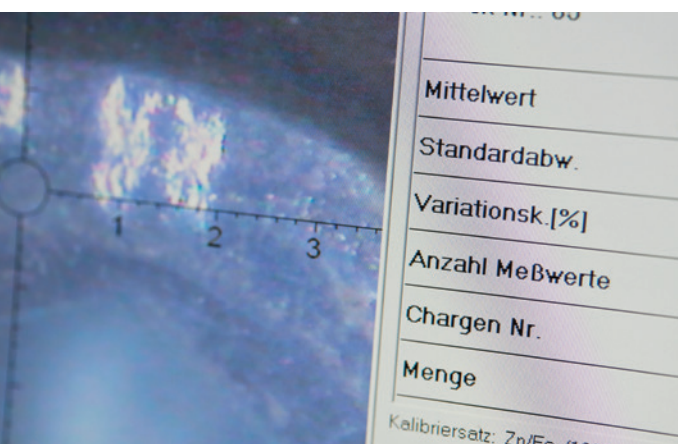
Incoming products are verified according to precisely defined internal rules and regulations using state-of-the-art testing and measuring devices.

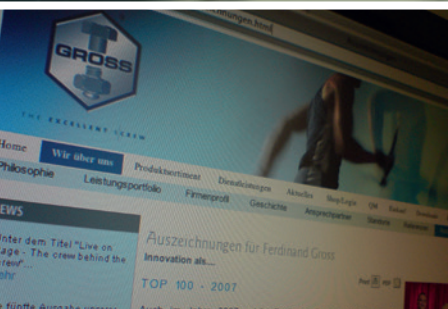
■ Logistics quality

With the help of disposition and deadline monitoring systems, our stocks are constantly controlled to assure availability.

■ Service quality

Special regulations such as the International Material Data System (IMDS) are just as quickly implemented as new technologies, e.g. Cr(VI)-free surfaces. We offer customer workshops on product range reduction, DIN ISO conversion or current developments of mechanical fastening elements.





Unlimited supplies

Kanban is just like a long, calm stream. Everything is always on the move, supply never stops.

You already know this: C-parts are cost drivers. They only account for approximately 15 percent of the purchase volume but cause at least 85 percent of the procurement costs. Leave it to us to count the screws, and concentrate entirely on your core competences instead. We look after your small parts and take care of logistics planning and warehousing for you – and yet you can still keep track of things. And how can we do this? First of all, we work with you to analyze how many C-parts you actually need. Then we take care of purchasing, manufacturing, warehousing, and delivering your supplies to your intermediate storage

facility or just-in-time directly to the production site – and we monitor all procedures involved as well.

You want to know the status of the current processes? To do so, you only need to log into our online-shop. Via electronic data interchange (EDI), trouble-free data exchange between your goods management system and our own data processing (DP) is possible. All order-related data is linked to your customer file: any authorized Ferdinand Gross employee can access this data and provide you with information – and now, thanks to FALCON, you can do this on your own.



"I do not want to think about quality. I want to experience quality."

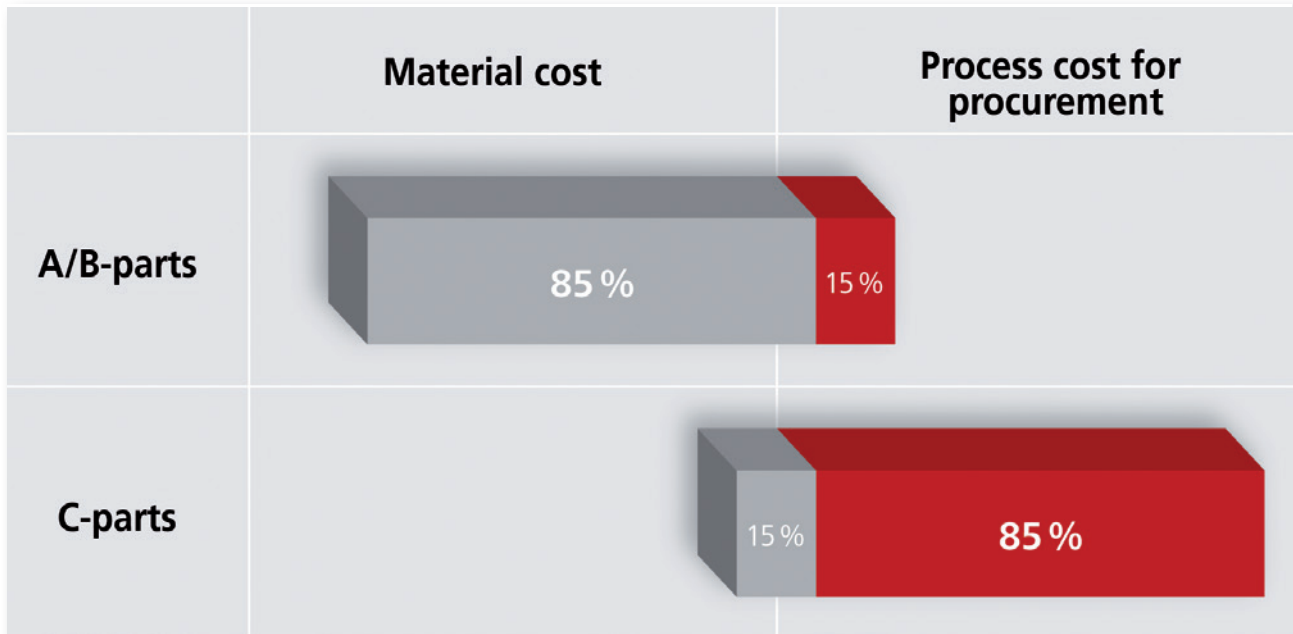
Daniel Wehrle, purchasing manager, Touratech AG

"Touratech customers count one hundred percent on the reliability of our products – and rightly so because all our articles are thoroughly tested down to the smallest detail. And that's why we place the highest

demands on fastening elements as well. We can rely on Ferdinand Gross without having to make any compromises in terms of quality or regarding delivery reliability. Since 2002, we have, therefore, been purchasing our screws, nuts and washers from Ferdinand Gross, and since 2007 through Kanban. Nowadays, we receive approximately 4.5 million standard parts in this way – and in doing so we could economize 2,800 procurement processes."



Savings of up to 70 percent



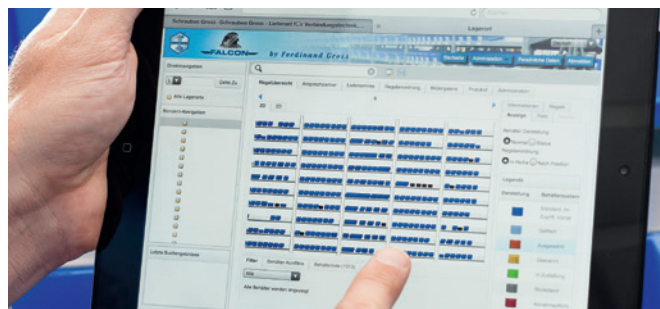
Leave the management of your C-parts to us but maintain control over everything.

Kanban is C-part management for professionals. This system which originally comes from Japan, is based on two bins – if one of the bins is empty, we pick it up and refill it. By scanning the barcode on the bin, the ordering process is automatically initiated – with just the touch of a button.

Ferdinand Gross has perfected this automated procurement process through its new logistics technology. A special vehicle fleet (Kanban-Express) ensures continuous delivery. The Kanban bins are located on special shelves in the customer’s production plant. This outsourcing of C-part management can save up to 70 percent of procurement costs. More than 800 of our customers already make use of Kanban. Ferdinand Gross, thus, fills about 2,500 bins at more than 1,000 warehouse locations around the world daily. Anyone looking for a little extra comfort can opt for our full service. With this service, a Ferdinand Gross employee looks after the complete management of the C-part logistics at the customer’s site. We provide such good service that we were awarded the popular WIN-WIN Cup already in 2005.

And do you want to save money as well? You will find our process cost calculator at www.schrauben-gross.com – see for yourself.





Search. See. Control

FALCON: The revolutionary solution for integrated C-part management

Do you really know where and in which shelf a certain C-part is located? Can you really retrace the actual purchasing volume which you consume per part/per year in Kanban? FALCON, the completely new online cockpit developed by Ferdinand Gross, now provides an overview and control of your C-part management. Feel comfortable knowing that you will no longer have to search for any articles, you will always find them. Why is this? Because FALCON enables absolute visualization of all Kanban storage locations together with all products and data. Simply enter the article number or article

designation in the system, and FALCON will immediately show you where the desired C-part is. You want to know how often an article is delivered? FALCON will have the answer at once. Let FALCON display the delivery chain for you either for all bins or only selected ones. FALCON will also show you the coverage or consumption of bins per week. But there is more because you keep control of everything: You can change the storage location or take out articles which you no longer need at the moment. You can order additional quantities, deactivate a certain bin or change its filling quantity – all going on intuitively.

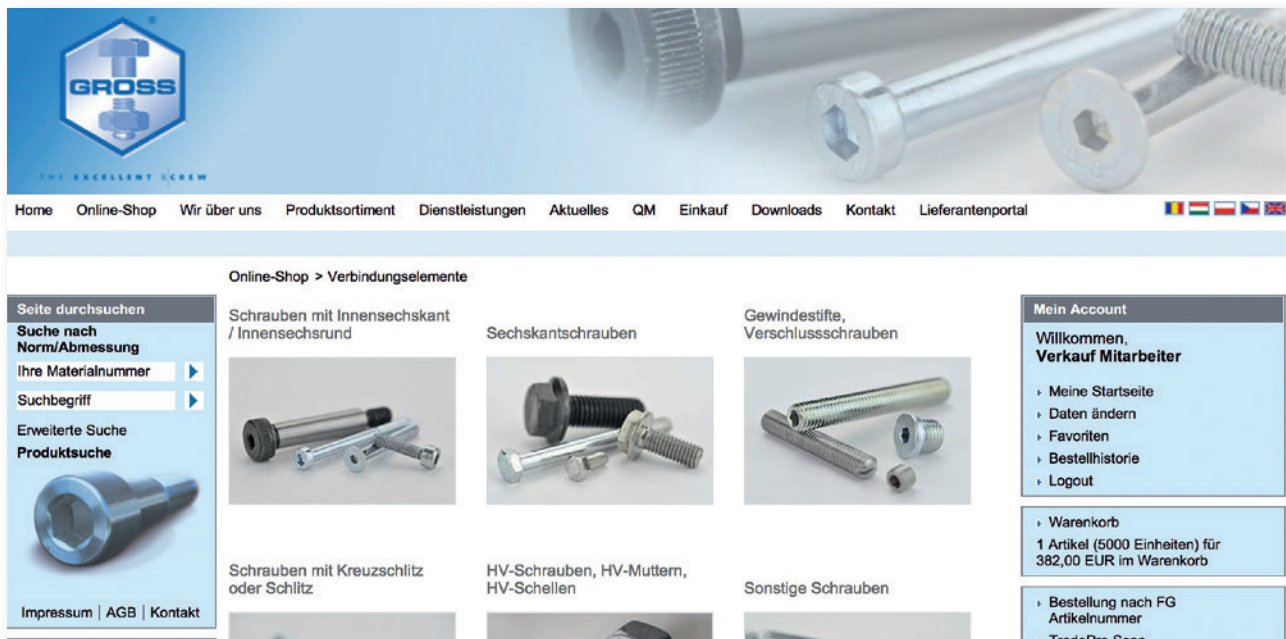


Clearly arranged. Innovative. Service-oriented. FALCON

One of the highlights of FALCON is the Kanban Cockpit: Here, our customers can change quantities, deactivate articles or shift storage locations (including new calculation of warehouse coordinates). Entering new articles and ordering additional articles is also possible with one click. Individually configurable consumption statistics enable more transparency. Thanks to the visual display, you can easily navigate through your Kanban shelves.



Intuitively purchase



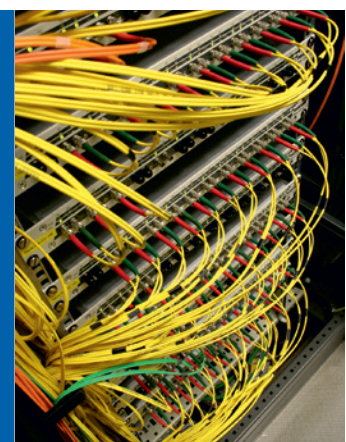
Making shopping easy. The new online-shop

“The customer is at the heart of everything” – the online-shop, with its completely new design, is based on this philosophy. One of the highlights of this new online-shop is its comprehensive search function. You cannot only search by key words but also by entering your own article numbers. Or you can make a selection according to Ferdinand Gross-designated article numbers. The full-text search function is very helpful because it has no restrictions. You can search by designation, description, features or article numbers. Additionally, it is possible to pre-select certain categories. The word-index search operates more specifically, i.e. it is limited to a word from the designation, description or article number. All categories offered in the online-shop are displayed in a visually attractive manner with thumbnails. Clicking

on the desired category brings you to a list view – for example to slotted socket-head screws. Another click displays various types – also with thumbnails. In addition to this, you can activate the display of part or dimensional drawings. It does not matter if you make your selection via various article numbers or conveniently via the full-text search – the result is always presented cleanly and clearly in the form of a list. This list is organized according to various criteria such as article number, product specification, cost, minimum order quantity and much more. Ordering is even more convenient using TradePro Scan: After scanning the relevant article and connecting a mobile scanner to a PC, all scanned articles are transferred within only a few seconds to your shopping basket. That’s how simple online business needs to be today.

You can count on us and on our IT as well

At Ferdinand Gross, the basis of any business activities is that you can be reached and that you are capable of responding at any time. Therefore, we have completely restructured our computer center. All locations are directly managed by our headquarters in Leinfelden-Echterdingen which ensures trouble-free operation. We not only have modern fire-alarm systems and automatic extinguishing devices, but also a state-of-the-art, environmentally-friendly, air conditioned technology and an automatic emergency power supply. Virtualization and safety techniques for server applications have reduced the number of physical servers by 70 percent. Virtualization solutions dramatically increase failsafe performance of IT in general and specifically of applications, while energy consumption is reduced at the same time.



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