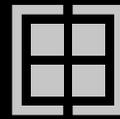


Committed to excellence



**RUTRONIK**  
ELECTRONICS WORLDWIDE



Logistics Solutions –  
Standard or Custom-Tailored

Systematic **Logistics.**

# RUTRONIK OFFERS LOGISTICS SOLUTIONS: CUSTOM-TAILORED OR STANDARD

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## Editorial

Fierce competition, increasing cost pressure, shorter product lifecycles and widely differing delivery times – these are the signs of a time that calls for new solutions. Logistics solutions that help you produce quicker, more cost-effective and, above all, free of interruptions. This is where Rutronik's strategic work comes into play.

Rutronik has been operating as a distributor for electronic components for over 40 years, and today as an owner-managed and therefore independent company ranks among the worldwide leading broadline distributors.

Rutronik has been developing and implementing logistics solutions for and with its customers since 1996. Our proven logistics modules simplify and accelerate processes and reduce costs. This paves the way for the release of completely new productivity potentials.

On the basis of its wealth of experience in implementation and optimisation of supply chain solutions, Rutronik has developed logistics standard solutions geared towards the "best practice" method. Our customers are quick off the mark thanks to these intelligent and pre-defined standards. Short introduction times and the swift use of lean processes have an immediate effect on process cost savings. Customers with relatively low IT operations also benefit from this efficient approach.



Hans-Christoph Behler  
Head of Material Management

### Consulting – Know-how. Built-in.

#### The technical competence from Rutronik

Pan-European and individual consulting on the spot: by competent sales staff, application engineers and product specialists.

### Components – Vielfalt. Eingebaut.

#### The product portfolio from Rutronik

Wide product range of semiconductors, passive and electromechanical components, displays & boards, storage technologies, wireless technologies, lighting solutions and photovoltaic solutions for optimum coverage of your needs.

### Logistics – Reliability. Built-in.

#### The delivery service from Rutronik

Innovative and flexible solutions: in supply chain management through individual logistics systems.

### Support – Support. Built-in.

#### The qualification drive from Rutronik

Technical support: through online services, seminars, PCNs, quality management and much more.



Semiconductors



Passive Components



Electromechanical  
Components



Displays & Boards



Storage Technologies



Wireless Technologies

# Supply Security and Process Cost Optimisation



## Advance by way of professional logistics systems

The market for electronic components places the highest of demands on logistics. On the one hand, broadliners need to cope with widely differing volumes of product quantities from a huge product range. The market is also characterised by heavy requirement fluctuations, which in part give rise to very long delivery periods spanning several months.

The alternation between scarcity and over production calls for timely intervention, where possible, to guarantee reliable and trouble-free supplies.

This is where the advantages of tailor-made, uniform, logistics systems come into effect:

- High level of automation
- Reduction in labour input
- Reduction in process costs

The proper functioning of a logistics system is conditional on the electronic exchange of data that allows for a swift reaction to changes in requirements.

At the same time processes are optimised and errors reduced. Ultimately, recording and confirming orders manually is a potential source of errors.

## Increased supply security

A medium to long-term requirements forecast and procurement and capacity planning are necessary to achieve a high level of supply security. During the ongoing exchange of information this is refined on an ongoing basis and adjusted in line with the plan data. Among other things, this means the following advantages:

- Reduction in the dependency on the replacement time because scheduling is based on the customer's forecast figures
- Flexibility: in the case of fluctuations in requirements, customers can postpone and reduce order quantities within the agreed window

## Reduction in process costs

The supply process is analysed in the run-up, optimised and defined together with the decision makers.

- Reduction of labour-input by manual activities
- Management by exception: communication only in the event of variations, and intervention or adjustment regarding orders
- Orders are bundled by way of collective deliveries

## Individual and nevertheless efficient

Logistics to meet your needs: we therefore gear our operations towards the specific requirements of your company. For example the step-by-step adjustment of partial solutions has proven successful in the case of introducing a logistics system. At Rutronik we don't use rigid concepts.

## Increase in quality within the processes

Error reduction and greater process security thanks to automated data and interface exchange.

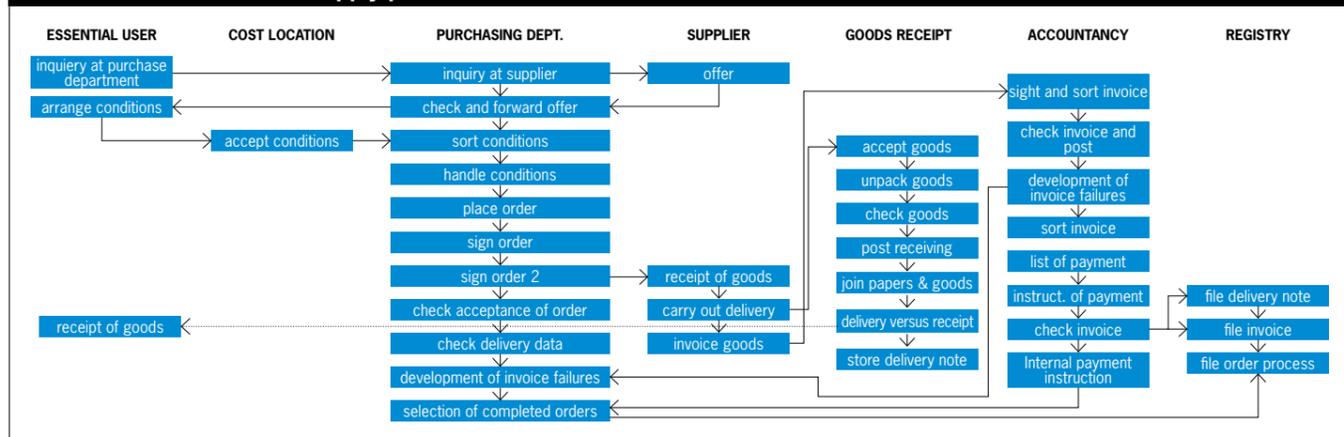
## Reduction in capital tie-up costs in the supply chain

By way of optimised store management between customers, manufacturers and Rutronik, stocks in finished and buffer stores are kept low. This ties-up less capital, and processing costs are reduced considerably – without jeopardising the ability to deliver. Likewise, the reduction in the number of suppliers is, without doubt, one of the key steps in respect of increasing efficiency and saving costs in the case of procuring electronic components. Many customers therefore make use of the advantages offered by a broadline distributor such as Rutronik. As an interface to leading and established manufacturers, Rutronik covers the entire range of electronic components.

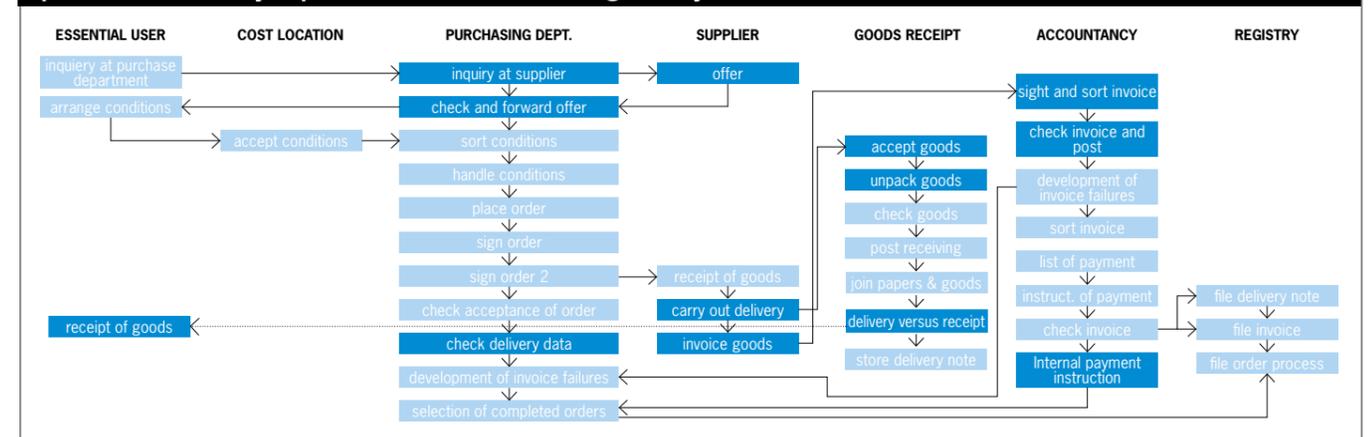
## Decision criteria

- Demands/trends
- Concentrated deliveries
- Supply security
- Parts availability
- Process costs
- Optimized Inventory
- Bond capital
- Automation (e.g. EDI)
- Flexibility
- Lead time reduction
- Stock capacity
- Packaging solutions

## Workflow of a conventional supply process



## Optimised workflow by implementation of a modern logistics system



# Flexibility without Limits: Delivery Plan, Kanban, Consignment



## Delivery systems

As a broadliner, Rutronik generates half its total sales via logistics systems and supports logistics customers worldwide. The orders are prepared and co-ordinated at the company headquarters in Ispringen such that in terms of global operations Rutronik can provide the same standards of service in respect of uniform labels, packaging, notification and much more.

This is based on three standardised logistics systems that are easy to implement: "Delivery Plan", "Kanban" and "Consignment" with fixed defined processes on the flow of information, materials and values. They are adjusted according to customers' requirements in line with the relevant processes, costs and factors, and depending on the

respective wishes flexibly combined with system support forecast, ship to line, barcode and many other additional options. The outcome is a tailor-made solution.

### Flexible delivery plan system

Delivery plan processing can be applied to all components, and is suitable for a small number of product numbers. Customers forward their planned figures (forecast) to Rutronik on a rolling basis at fixed intervals. This forecast is the basis for scheduling.

On the basis of the planned figures, Rutronik supplies all divisions within a defined window, and these are "fixed" according to the defi-

inition agreed with the customer. The requirement samples may be irregular.

- + Can be used for all components
- + Highly flexible system (including in the case of requirement changes)
- + Effective C-parts management due to optimised BIN quantities
- + Minor labor input

### Kanban: "card system" for secure product circulation

Kanban processing is suitable for constant requirements in the case of continual production processes. The Kanban containers are defined in the run-up with a certain filling quantity, likewise their quantity. Each container has a clear identity number. All details on a container (quantity, parts no., warehouse location, recipient warehouse and delivery time etc.) are listed on a "Kanban card". Two containers are in operation as a minimum to guarantee product circulation. As soon as a Kanban container is empty at a customer's premises, the electronic Kanban card is forwarded to Rutronik, the container is refilled and the delivery process starts afresh. The Kanban containers are made available directly at the place of use.

- + Self-operated control loop
- + Reduction in material stocks and capital tie-up
- + Reduction in throughput times
- + Can be combined with multi-use container system

### Consignment warehouse: flexible and reliable

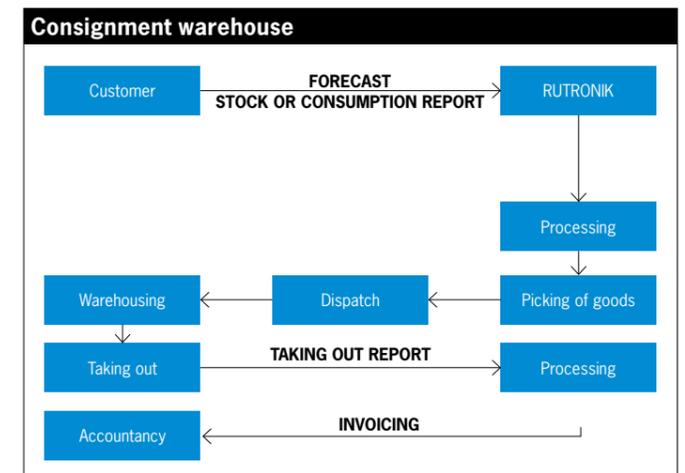
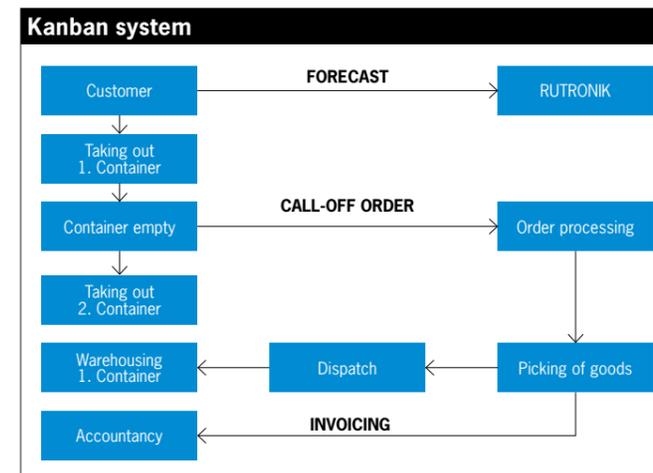
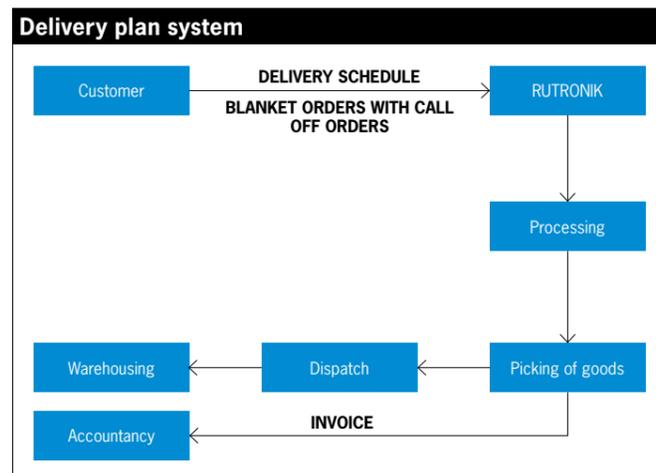
The consignment warehouse is an ideal solution for production subject to short-term fluctuations. While the customer merely provides the storage space, Rutronik provides the goods. Invoices are only written out once goods are withdrawn from the warehouse.

Stocks without warehouse evaluation are kept separately. Customers are therefore required to display the warehouse by way of EDP technology, and information can be exchanged electronically.

Various models are available for filling the consignment warehouse, such as consumption-controlled min/max filling or requirement-controlled via forecasts.

- + High availability and supply security
- + Low processing input
- + Reduction in the capital tie-up
- + Vendor managed inventory (VMI)
- + Centralised inventory controlling via our specialist department
- + Also available as app

Individual composition of logistics modules			
Logistic system	Kanban	Consignment	Delivery Plan
Forecast	■	■	■
Buffer stock	■		■
Min/Max	■	■	■
EDIFACT	■	■	■
Barcode	■	■	■
Traceability	■	■	■



## Individual or Standard Solutions – There is One Principle Nobody can Neglect: Quality



### Rutronik Logistics

The success of a company mainly depends on its profitability and competitiveness. These, in turn, are increasingly influenced by the high quality of logistics. The performance of Rutronik Logistics stands for such a high quality. Our activities are primarily geared towards establishing efficient, tailor-made and reliable logistics with the uppermost goal of reducing costs, providing supply security and optimising the procurement processes. We have developed four quality factors to achieve these goals.

### From standard use to an individual supply chain solution

Even within a sector, no one company is like another. Rutronik has gained experience in supply chain management, and is able to offer best practice solutions based on the most successful methods, principles and strategies.

Existing and successful standards are adjusted in line with customers' wishes. This facilitates the swift implementation of individual logistics concepts. On the basis of this conviction, Rutronik Logistics offers its customers best practice standards and various logistics modules, which can be combined in any number of ways.

### Support

To guarantee the efficiency of your logistics, we offer you support in respect of introducing and maintaining a controlling system for the performance and costing of your supply chain. In that respect, permanent monitoring of the logistics and procurement processes keeps an eye on the efficiency of the system.

### Strategy

At the start of the collaboration we provide a thorough analysis – our logistics check-up. In a start-up workshop all the respective parties are involved and analyse all processes and costs of relevance to logistics. As a result we create cost and process transparency, determine the factors pushing up costs and implement cause research. On this basis we examine the options available in respect of process optimisation that are largely attributable to interface reduction and avoiding duplication and process loops. We subsequently quantify the measures and discuss reorganisation recommendations.

### Integrated management system (IMS)

At Rutronik all processes are documented, controlled and certified as part of the IMS in accordance with international standards.

Our integrated management system (IMS) supports the collaboration of all Rutronik's divisions and departments at an international level. It is the fundamental element in the way the company organises economic, ecological and commercial decisions, as well as the respective implementation and performance review.

Our IMS comprises quality, environmental protection and occupational safety in accordance with the international norms ISO9001, ISO9002, ISO14001 and OHSAS18001.

### Certification for ESD protective measures

Electrostatic fields can damage electronic components. These either breakdown immediately or ultimately stop working during application by the end user. To rule this out, Rutronik handles all components strictly in accordance with DIN EN 61340-5-1.

### Certification of the Dry Pack packaging system

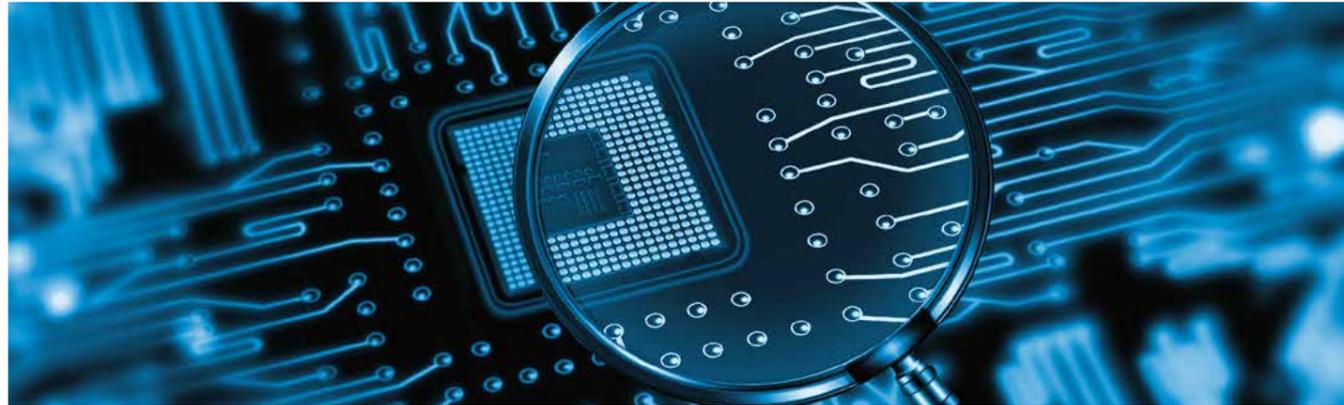
In the case of shipping and re-packaging moisture-sensitive components, Rutronik's operations are geared towards the stringent guidelines of the internationally recognised standards J-STD 033B.1, J-STD 020D and JEP 113-B of the Dry Pack packaging system.

### Certificates

- Quality management system
- Environmental management system
- Occupational safety system
- Proof of ESD conformity
- Dry Pack packaging system



# Rutronik Webg@te 3.0: Quicker, More Individual and More Convenient



Rutronik Webg@te has already become an indispensable tool for many buyers and developers. Now, the online platform's being launched, with a real-time connection and a new look. Each customer can now see his own individual, up-to-date prices along with a real-time overview of availability, delivery dates, and tracking. In addition, different shipping and payment types are available for selection.

Over one million items are available to Rutronik's customers via Webg@te. Intelligent search functions which even suggest alternative replacement parts ensure that developers and buyers are able to find the components they require really easily. In the new version, the customer-specific, up-to-date prices appear along with real-time availability when products are selected. In addition, the customer can choose from standard, fast track, or express shipping

when ordering items. He or she then immediately receives a binding delivery date and a specification of the shipping costs for the selected shipping option. Existing Rutronik customers place orders in accordance with the delivery and payment conditions agreed with us. New customers can choose payment by credit card or on receipt of an invoice. For orders over €100 deliveries to most European countries are free of charge.

The integrated procurement tools can be used to monitor all orders online. This also applies to orders placed in the traditional way. An early warning procurement function makes it easy to identify orders which cannot be delivered as desired, for example. An Excel download function for downloading pre-filtered orders rounds off the procurement tool. Additional functions are being planned. The new Webg@te design is clearer, more transparent, and easier to use.

Thanks to Smartphone optimization, it can also be used from any mobile device with an Internet connection.

"Buying online is the most efficient type of procurement, especially for C products. To make processes even easier and quicker, we are constantly striving to further improve Webg@te," explains Tilo Rollwa, Head of E-Commerce at Rutronik. "Thanks to the real-time connection and other functions, our customers can now find the same services on the Internet that they have previously enjoyed in the "real" world - but on the Internet these services are faster and more transparent. However we also maintain personal contact to our Webg@te because we like to nurture and extend our customer relationships, even in an e-commerce relationship. We're excited to see what the future will bring."

### New features and tried-and-tested favorites

The new features supplement tried-and-tested Webg@te functions. Functions include extensive, intelligent searches using technical parameters, part numbers, or full text as well as quotation requests and direct/sample ordering. Product change notifications (PCNs) are always displayed with the product if they exist.

The mass quotation tool allows really easy inquiries and orders by uploading component requirements in the form of an Excel sheet. In the case of discontinued components or parts with long lead times, the system usefully proposes alternative replacement parts with a list of any deviating parameters.

The Rutronik Product Consultant tool helps customers to choose the right component if necessary and indicates whether a product is a preferred part. Contact with product/application specialists is also possible directly via Webg@te.

Inquiries and other communication can be written in the relevant national language since they are sent to the sales employees of the country in question. They then send the customer an individual quotation. In the procurement area customers can find an overview of all orders, contracts, items, and store inventories along with information such as the order number and status, desi-

red delivery date, planned delivery date, and real-time order tracking information. Naturally, customers can also change desired delivery dates here. The execution of orders can also be tracked online. "All in all, Webg@te 3.0 is a revolutionary tool within our sector and we're certain that it will become a firm part of our sales strategy and will contribute to customer satisfaction in the future," concludes Tilo Rollwa.

A detailed Webg@te manual which explains all available functions in a step-by-step manner is available to customers as a printed document or can be downloaded as required.

The screenshot shows the Rutronik web portal interface. At the top, there is a navigation bar with 'RUTRONIK ELECTRONICS WORLDWIDE' and various menu items like 'KATALOG', 'PROCUREMENT', 'PCN', 'MSSQUOTATION', 'DOWNLOADS', and 'PRINTMEDIA'. Below this is a search bar and a 'Suchen' button. The main content area displays a table of contracts for 'SEW-EURODRIVE GmbH & Co. - 76546 Bruchsal (3001101281)'. The table has columns for 'Kontrakt-Nr.', 'P/N', 'Artikel-Nr.', 'Adress-Nr.', 'P/N', 'Artikel-Nr.', 'Gesamtmenge', 'Gelieferte Menge', 'Empfahene Menge', and 'Rest'. A detailed view of a specific contract is shown on the right, including 'Kontrakt-Nr.', 'Ihre Kontrakt-Nr.', 'Gültig', 'Erfüllungsgrad', 'Restlaufzeit', 'RUTRONIK Artikelnummer', 'Ihre Artikel-Nr.', 'Hersteller', 'Hersteller Artikel', 'Preis', 'Menge', 'Rest', and 'In %'.

Kontrakt-Nr.	P/N	Artikel-Nr.	Adress-Nr.	P/N	Artikel-Nr.	Gesamtmenge	Gelieferte Menge	Empfahene Menge	Rest
000483928	46129781	ICPROM7731	08030227			182500	17500	35000	140000
000475738	46129057	DSGLP261	08013160			35000	5000	10000	20000
000475737	46128010	KEL16365	08024545			70000	0	30000	40000
000472404	46128749	BG4040							4000
000471946	46128826	KXK19902	08						412000
000471945	46128827	PIEZ02390	08	Gültig					46000
000471185	46128737	KTA5535	08	Erfüllungsgrad					200000
000499906	46128933	KFO8497	08	Restlaufzeit					436
000487719	46128528	KFO9208	08	RUTRONIK Artikelnummer					2094
000467528	46128516	KTA7252	08	Ihre Artikel-Nr.					22000
000466533	46128445	FUSE8200	08	Hersteller					8000
000465543	476128416	QUAR20073	08	Hersteller Artikel					3500
000455012	Verreid. H: Capni	IRCOURP5124	08	Preis					0.069 EUR
000455011	Verreid. H: Capni	IRCOURP5124	08	Menge					500000
000454737	46127995	IRCOURP1875	08	Rest					140000
				In %					185000
				Gesamt					17500
				Insgesamt geliefert					175000
									91
									740000

## Intelligent High-Tech Warehouse for Maximum Availability at all Times



### The basis of our continued above-average growth

The new storage and logistics center has expanded the existing storage facilities in Eisingen, located close to Rutronik's headquarters in Ispringen, near Pforzheim. It has extended the surface area by over 20,000 m<sup>2</sup>, providing Rutronik with more than twice as much space as before. And it is not just the space that has got bigger: Rutronik has developed a concept to make the internal logistics operation more efficient, with shorter routes and more effective processes. It means that orders can be processed more quickly, and delivery times reduced.

Integrated in the storage and order-picking hall is an incoming goods area, as well as two floors of office space for meetings and office work. Some 300 employees work hard to ensure that everything runs smoothly.

The new building represents another milestone in Rutronik's history. This not inconsiderable investment forms the foundations enabling us to meet current and future needs, and therefore for Rutronik's continued market success. With our experience gained over many years we have conquered challenges, such as the complex conveyor technology and the high level of automation.

The warehouse and logistics center covers some 8,600 m<sup>2</sup> of storage and order-picking space; there are also three platforms with some 6,000 m<sup>2</sup> of storage space. So there is room for up to 11,000 pallet spots, around 185,000 normal shelf spots and an order buffer with around 3,000 storage locations. The latest building and energy technology has been included to ensure

maximum energy efficiency, while a photovoltaic solar panel system has been installed on the roof. This generates peak values of up to 1 megawatt. Around 60% of the total power is available for our own consumption. The option of adding two concrete ceilings for later conversion ensures that the building is future-proof and sustainable.

Thanks to the overall system - planned in modules - individual areas such as the order buffer, the manual and automatic high rack system, the conveyor technology for the new shelving area and the semi-automated incoming goods section, are subject to extensive testing, independent of current operations, before each of the sub-processes is transferred very carefully to production.

The design of the new storage facility focused strongly on maximum availability.

- In the event of a power failure, an emergency power unit supplies 1.2 megawatt of power, i.e. the entire unit, consisting of the building itself, the conveyor technology and the software, is supplied by the backup emergency power supply
- Practically every movement process is set up at the design stage to allow for manual solutions in the event of an emergency
- As for IT, at Rutronik two new peer computer systems are now in mirrored operation

- Two fiberglass cables supply power from two different junction points - guaranteeing a secure data connection

Instead of standard fluorescent tubes, we are using LED technology to light many areas of the building. Peripherals such as cables and control cabinets have also been reduced in number, creating a further gain.

With the new building we have now created the conditions in which we can meet our customers' future needs, and thus always stay a step ahead of our competition.

### Facts and figures

- 20,000 m<sup>2</sup> more floor area
- 185,000 shelf spots
- 11,000 pallet spots
- 100% more capacity
- 100 extra employees
- 24,000 m<sup>2</sup> effective floor area



- 3,000 buffer storage locations
- 670 t less of CO<sub>2</sub> emissions
- 55% saving on electricity

## Warehouse Management by Smartphone: Simple - Quick - Safe



### Manage your storage with your little finger.

You can now use your Smartphone to manage your consignment store quickly and easily. The "smartConsi" app makes your work easier, optimizes handling and improves control. Let us worry about your stock management.



#### Removing from the consignment store

- Barcode scanning to select the product
- Direct connection to the Rutronik IT system
- Automatic debit entry



#### Consignment store incoming goods (optional)

- Confirmation of goods arriving at consignment store
- Improved inventory security
- By arrangement with Rutronik, automatic transaction posting



#### Cancel removal

- It's only human to make a mistake. If necessary we can cancel a removal transaction straight away



#### Inventory information

- Stock data by scanning
- Amount of available inventory
- List of most recent inward and outward movements



#### Traceability

- Additional data about the article and its dispatch to ensure seamless traceability



### Other benefits

#### Security

If the Internet is down, the transactions you have made are buffered, and transferred as soon as the connection is restored.

#### Control

If required, we can also send your transactions by email or by data transfer. You can then automatically incorporate these into your system.

#### Error free

Increases process quality since it is not possible to enter incorrect data.

#### Adaptable

The system automatically carries out the process you require.

#### Simplified

No installation costs for the customer, you just need a Smartphone. Reduces the cost of entering inward transactions and removals - especially in the case of C-parts.



- More than 70 offices worldwide
- Over 1400 employees
- Present in America, Asia and Europe



#### Consult worldwide

- Technical Consulting
- Commercial Consulting
- Logistical Consulting

#### Components worldwide

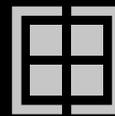
- Semiconductors
- Passive Components
- Electromechanical Components
- Displays & Boards
- Storage Technologies
- Wireless Technologies
- Lighting Solutions
- Photovoltaic Solutions

#### Logistics worldwide

- Supply Chain Solutions
- Logistic Modules
- Logistic Fulfilment
- Value Added Services
- Procurement
- Consulting

#### Support worldwide

- Online Services
- Seminars, Workshops and TechDays
- Product Change Notifications
- Quality Management


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