Rittal – The System.

Faster – better – everywhere.

Rittal + Eplan

Product Overview

Contents

A strong family
The Friedhelm Loh Group

12,600 employees

13 production sites worldwide

84,100 software customers

€3.1 bn turnover (2024)

15,000 enclosures per day

393,000 software licences on the market

95 subsidiaries

2,000 patents

FRIEDHELM **LOH** GROUP

RITTAL · e PLAN · C IDEON · STAHLO · LKH · LOH SERVICES

Discover solutions for your industry

New **technologies and trends** are transforming your industry. **Digitalisation, individualisation and climate protection** are the principal drivers.

We address the challenges you are facing as a result of this. Our industry-specific expertise covers the legal requirements, regulations and industry standards and helps us understand your needs.

Our exceptional flexibility and standardisation enable us to offer bespoke solutions for your applications, whatever your sector and regardless of whether your focus is on industry or IT.

Discover solutions
for your industry:

www.rittal.com/industries

4
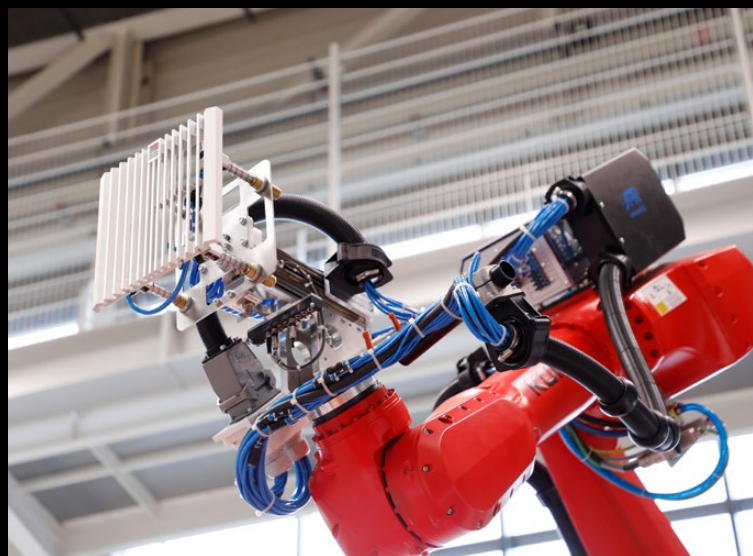
Rittal's comprehensive system portfolio for industrial applications covers all aspects from end to end, from enclosures, to modular power distribution, through to smart climate control. In combination with digital engineering tools and automated manufacturing solutions, Rittal facilitates a seamlessly interconnected value chain. In this way, planning, configuration and wiring processes become more efficient, errors are minimised, and time-to-market is significantly shortened. Industrial companies benefit from maximum system availability, exceptional energy efficiency and future-proof scalability, with global support from a powerful network of services and logistics.

Our broad portfolio also includes infrastructure solutions for modular, energy-efficient data centres using tried-and-trusted concepts for the physical protection of data and systems.

Leading software providers **Eplan** and **Cideon** enhance the value chain with bespoke engineering solutions, and the range is rounded out by automation solutions for switchgear manufacturing from **Rittal Automation Systems**.

System solutions from Rittal are used in almost every industry, whenever there are exacting requirements in terms of energy efficiency, needs-based climate control, reliable power distribution and powerful IT infrastructures.

Bespoke solutions – Sector overview

Automotive industry
Standardised system solutions that ensure operational reliability and efficiency

Railway technology
Setting the points for the future with Rittal

Electrical engineering and automation
Boost productivity with automated panel building and switchgear manufacturing

Energy sector
Making modern energy supply efficient and flexible

Infrastructure / Telecommunications
Optimising bandwidth and availability

Logistics
Solutions for modern logistics centres

Aviation industry
Safe solutions for the aviation industry

Maritime industry
Flexible on land and on the high seas

Mechanical engineering
Controlling machines safely and efficiently

Food and beverage industry
Producing food hygienically and safely

Process industry
Integrating innovative technologies into demanding processes

Customer references

The key to success

Rittal's solutions are utilised across a wide range of applications, from car manufacturing to wind farms, and from cruise ships to airports.

Got specific requirements? Our comprehensive industry expertise means we can offer you the best, most appropriate solutions and services. Read the following customer references to discover how you too can benefit and secure success.

Read references
from your industry.
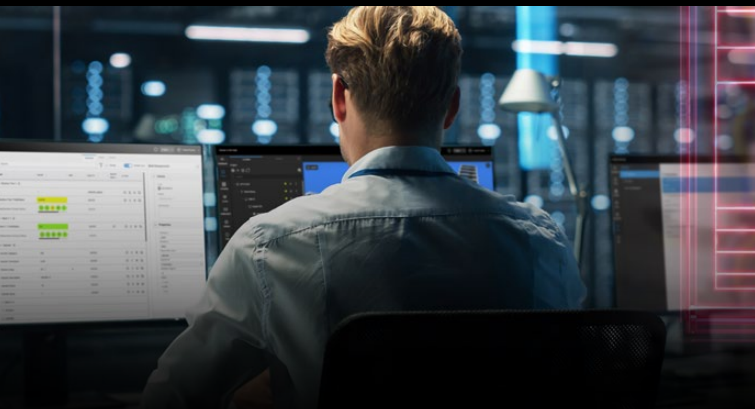
www.rittal.com/reference

Efficient automation solutions for an optimised value chain

A unique ecosystem of Rittal, Eplan and Rittal Automation Systems

From the skills shortage and time pressure to a lack of digitalisation – the **panel building and switchgear manufacturing** sector is facing a number of complex challenges. This calls for solutions that simplify processes rather than make things even more complicated. The answer lies in **intelligent automation**.

Rittal, Eplan and Rittal Automation Systems demonstrate how end-to-end, AI-driven solutions can be used to continuously improve your processes.

Software

Smart engineering with seamless data

With Eplan, you can make your **electrical engineering** much, much faster. Using high-quality component data and a holistic engineering platform, you can create **digital twins** – the perfect basis for seamless, automated manufacturing – in a matter of seconds. The benefits for you are fewer errors and faster project completion times!

Automation

Efficient automation solutions for an optimised value chain

Rittal, Eplan and Rittal Automation Systems have joined forces to offer a unique ecosystem for your AI-driven industrial automation.

Combining networked data, professional engineering solutions and smart processes, this seamless system understands, thinks ahead and adapts flexibly as needed. The benefits for you are shorter throughput times, enhanced process quality and much lower total costs!

Read more about software:

www.rittal.com/software

Read more about automation:

www.rittal.com/automation

Hardware

High-quality infrastructure
for smart data flows

Rittal supplies hardware for the industry of the future – innovative enclosure solutions, a high-performance power distribution portfolio and modular cooling systems.

By opting for Rittal solutions, you can lay the perfect foundations for industrial AI. The benefit for you is system technology that makes your everyday work faster, simpler and more efficient!

Read more about hardware:

www.rittal.com/hardware

Service

Smart tools for rapid support
and smooth operations

Rittal and Eplan are reimagining service activities – as an integral part of an end-to-end system that interconnects data, processes and people intelligently.

With a clear focus on availability, transparency and speed, they are laying the foundations for proactive, AI-driven maintenance and smooth operations. The benefits for you are reduced downtimes, greater scope and smart service.

Read more about service:

www.rittal.com/service

Eplan Software –
Seize the opportunities
offered by digitalisation

The digital transformation poses challenges across all segments of industry. The world is changing. If a company wants to remain competitive in the Industry 4.0 era, standing still is not an option. Rittal offers end-to-end solutions and services tailored to your industry which can help future-proof your engineering processes.

Mechanical and plant engineering
Seamless planning of your control engineering and a powerful ECAD platform provide a professional basis for gradually automating your engineering and production processes.

Enclosure manufacturing
Panel building and switchgear manufacturing is ready for a comprehensive upgrade of process quality. Place your trust in Rittal as a powerful partner.

Automotive industry
Eplan creates crucial added value for greater efficiency: From concept development, standardisation and detailed planning, to production integration for electrical engineering companies and their suppliers, through to plant documentation.

Building services

With Eplan, place your trust in a comprehensive database that extends way beyond engineering processes to include every stage in your value chain.

Energy

Whether for conventional or alternative energy sources, for heavy, medium or low voltage networks, Eplan solutions help you plan complex switchgear and systems as well as networks.

Process industry

Eplan delivers data consistency, planning confidence and optimised processes for a range of sectors, including the oil and gas industries, the pharmaceutical and chemical industries, as well as water utilities and sewage treatment plants.

Maritime industry

From planning cruise ships, to designing yachts, to building cargo ships and special purpose vessels: Eplan helps shipyards and shipping companies worldwide to link their processes into existing PDM system landscapes.

Food and beverage

Eplan offers engineering solutions for machinery and plant control systems. We can assist with the manufacturing, production, reprocessing and packaging of agricultural products into food and beverages.
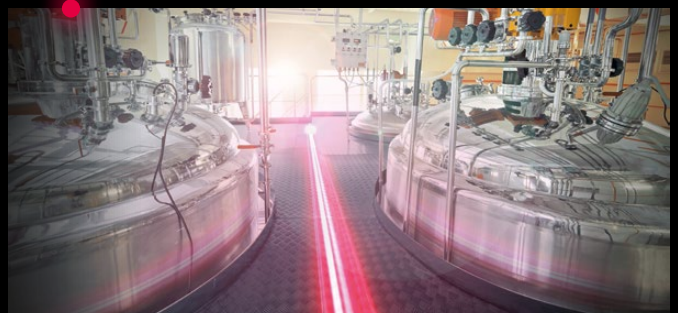
Eplan Platform

Engineering software for automation and energy technology

The Eplan Platform combines software solutions for a range of different engineering disciplines: With piping and instrumentation diagrams, wiring plans, comprehensive evaluations, 3D enclosure layouts and 3D cabling, it creates a complete digital twin of your machine or plant automation system.

Eplan is the standard format in electrical design. By facilitating the simple exchange of projects, plant operators are able to collaborate with machine, plant and enclosure manufacturers on a uniform database.

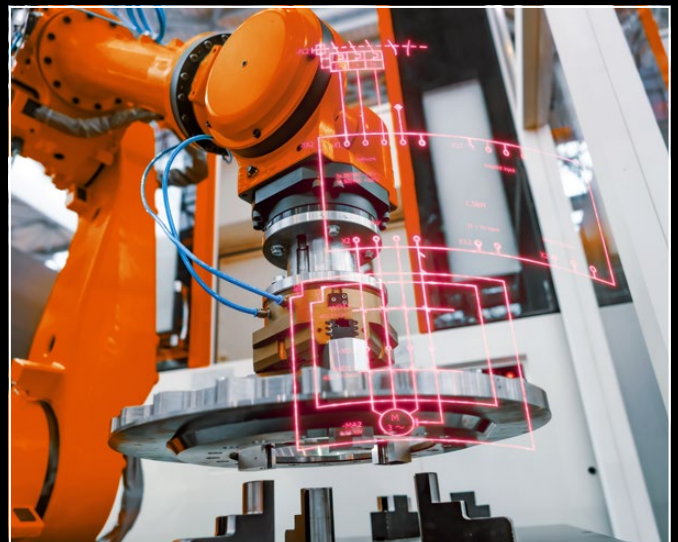Read more about
Eplan Platform:

**www.eplan-software.com/
eplan-platform**

Eplan Electric P8

More than just ECAD

Eplan Electric P8 is your engineering and documentation solution for projects in the mechanical and plant engineering, automation and control engineering sectors.

Eplan Electric P8 offers far more than a conventional ECAD solution, with rapid wiring plan generation including component, device and cable data. Its design-supporting functions such as automatic connections, online checks, translations and automated evaluations help you generate project-related documents in next to no time.
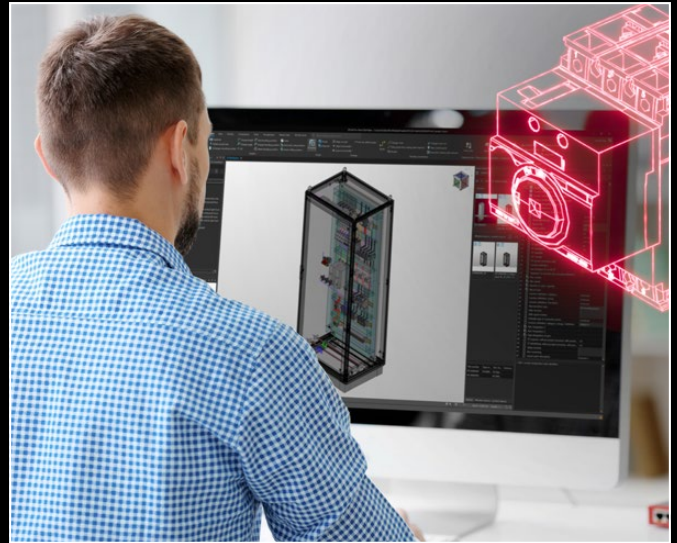

Read more about
Eplan Electric P8:

www.eplan-software.com/electric-p8

Eplan Pro Panel

From documentation to 3D layout

Create a 3D digital enclosure model based on your wiring plan data, so your production team gets a comprehensive description of the enclosure layout and related production data. Eplan Pro Panel is tailored specifically to the requirements of electrical design, with easy-to-create 3D layouts.

Eplan delivers digital data as the basis for industrialising your enclosure production. Use Eplan Pro Panel to create the digital twin of an enclosure, controlgear or switchgear.

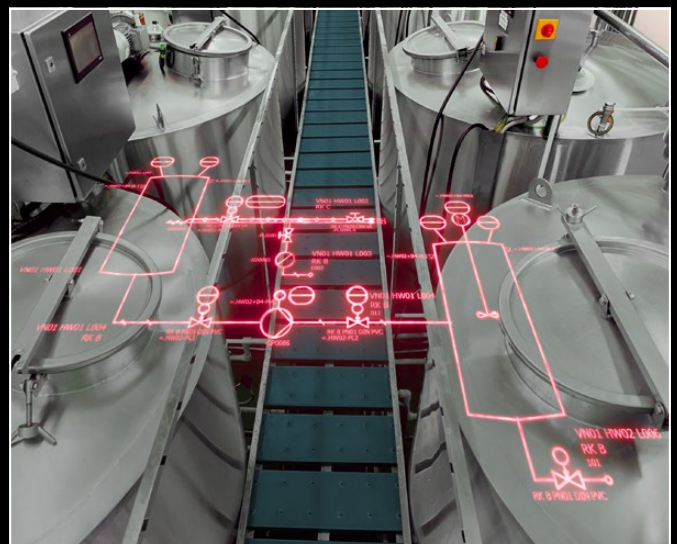Read more about
Eplan Pro Panel:

www.eplan-software.com/pro-panel

Eplan Preplanning

Digitalised planning – from day one

Eplan Preplanning allows you to log and manage engineering data early in the pre-planning process.

It helps you create plant overviews in the form of piping and instrumentation diagrams, record plant structures, and import engineering data from external spreadsheets so you can generate the initial data sheets and specifications for material procurement quickly. The data collated in Eplan Preplanning slots seamlessly into the detailed engineering phase and can be used e.g. to generate electrical wiring plan and enclosure layouts.
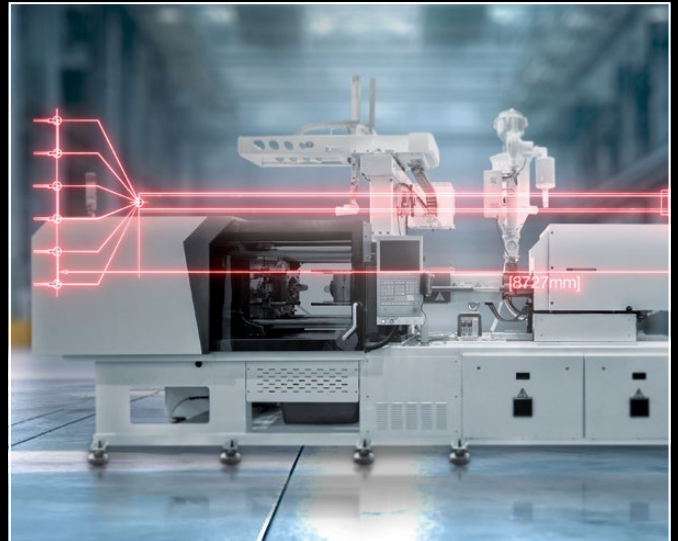

Read more about
Eplan Preplanning:

www.eplan-software.com/preplanning

Eplan Cable proD

Cable planning and assembly

Mechanical engineering demands precision throughout the entire product lifecycle. Defective or inadequately documented cabling will influence assembly, commissioning and sign-off, and results in protracted downtime for servicing.

With this in mind, Eplan has developed a software solution specifically for machine cabling: Eplan Cable proD. A digital twin of the cabling shows the layout of cables and defines their length. This means that cables sold by the metre and preassembled cables can be ordered or prepared to fit. The digital twin also assists with assembly, ensuring that it runs smoothly and rapidly.
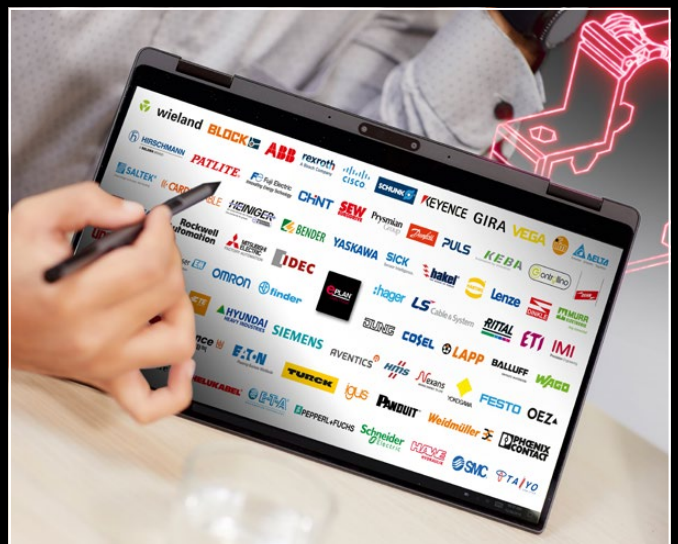

Read more about
Eplan Cable proD:

www.eplan-software.com/cable-prod

Eplan Data Portal

The Eplan Data Portal provides access to millions of device and component data for electrical engineering and enclosure manufacturing. Use this central database to plan and design your entire electrical and control engineering.

Hundreds of top manufacturers have their component data available to download from the one-stop Eplan Data Portal. This includes master data such as commercial and technical data, wiring plan macros, 3D graphics, image files, links and much more besides. Everything is designed so that these data records can be used directly to generate wiring plans or enclosure assemblies in Eplan with no further processing.

Read more about
Eplan Data Portal:

**www.eplan-software.com/
eplan-data-portal**

Eplan Harness proD

Use Eplan Harness proD to plan and document your cable harness and unite electrical engineering and mechanics. Optimise and digitalise typical operations in cable harness construction and automate the documentation for production.

With Eplan Harness proD, you define relevant manufacturing information in the engineering process using a 3D model of the mechanical system. This makes a cable harness prototype superfluous.

Read more about
Eplan Harness proD:

www.eplan-software.com/harness

Eplan Smart Production

Intuitive assembly and clever wiring in enclosure manufacturing

Eplan Smart Production is an assistance system for enclosure manufacturing personnel, in which checklists help guide them through the individual processes in component assembly and enclosure wiring. The system provides the information needed for each work stage. A 3D model of the enclosure ensures a deeper understanding of the actions required for each step.

The consolidated rendering of relevant information, supplemented with additional flash-up instructions as needed, saves the time-consuming process of searching through the project documentation. Assembly and wiring instructions are automatically generated from the digital twin, so that new colleagues can be trained far more quickly.
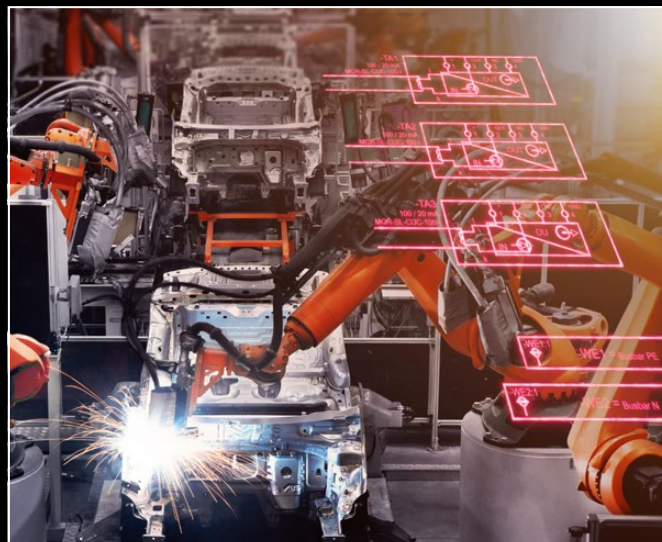

Read more about
Eplan Smart Production:

**www.eplan-software.com/
smart-production**

Eplan Engineering Configuration

Eplan Engineering Configuration (EEC) allows you to emulate your engineering templates in a modular system with interdisciplinary functional units. On this basis, EEC automatically generates engineering documentation from upstream configurators.

EEC uses an interdisciplinary approach which unites sales, order fulfillment, electrical engineering, control engineering, production and documentation. For optimum results, link EEC with upstream configurators in sales, order processing, a database or your homepage.
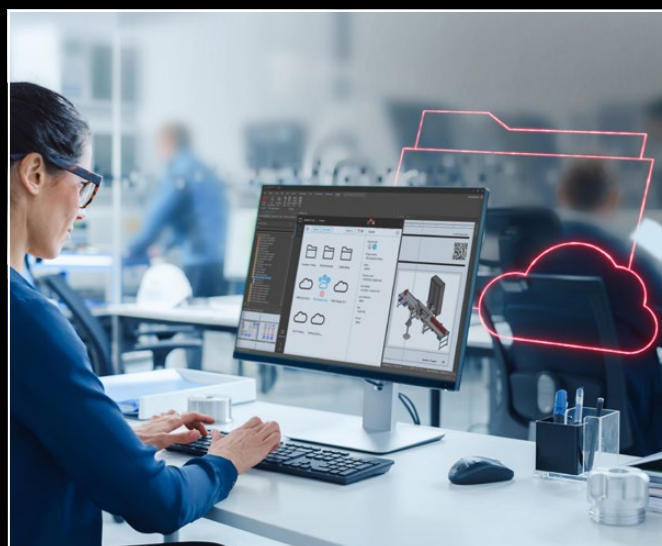
Read more about
Eplan Engineering Configuration:

**www.eplan-software.com/
engineering-configuration**

Eplan Collaboration Apps

Comprehensive access,
simple collaboration

Eplan is synonymous with next-level solutions in electrical engineering. For us, this means more than simply developing highly specialised products. It's about designing processes efficiently. Our Collaboration Apps pursue the same objective. Through data management, inventory management and project viewers, they support collaboration from any location and provide direct access to Eplan projects and relevant data.
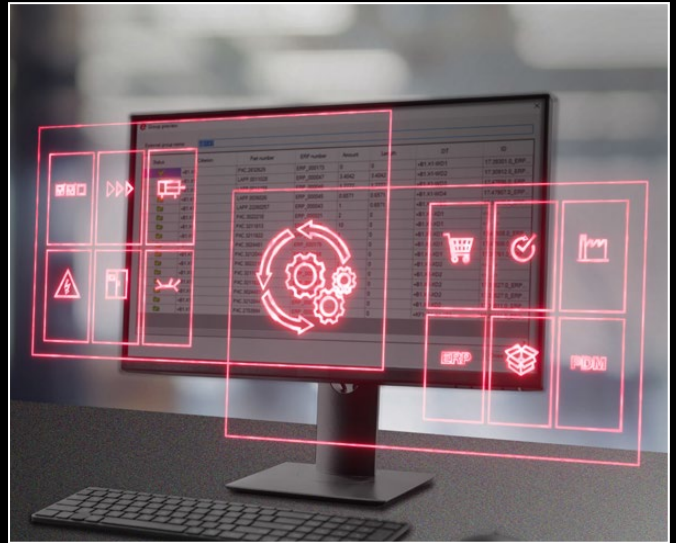
Read more about
Eplan Collaboration Apps:

**www.eplan-software.com/
collaboration-apps**

Eplan Integrations

Integration for your systems

In today's world, digitalisation and data consistency are paramount. Our integrations and standard interfaces support the bidirectional exchange of data and documents between the electrical design team and your ERP, PDM and PLM systems. For example, transferring parts lists from engineering saves time and money in commercial processes. Documents such as complete Eplan projects can also be uploaded automatically into the PDM system. Consistent data flows ensure transparency in the product development process. The Eplan Integration Suite creates integrations into your existing ERP, PDM and PLM system landscapes.

Read more about
Eplan Integrations:

**www.eplan-software.com/
integrations**

Eplan Education

Eplan Education has been created specifically for teaching and includes a software package and a comprehensive training concept.

Lecturers can use the tool in lessons to create practical electrical designs with their students: Circuit diagrams based on the industry standard or digital twins as the basis for enclosure manufacturing, for example.

School pupils, students and apprentices receive software licences free of charge for private use.

Many companies use Eplan as their software of choice for electrical design. Eplan Education therefore builds bridges between theory and practice.

Read more about
Eplan Education for lecturers:

www.eplan-software.com/classrooms

Read more about
Eplan Education for students:

www.eplan-software.com/students

Speed up your processes with Rittal Software

Looking for a seamless software system for panel-builders & switchgear manufacturers? Searching for the industry standard? We streamline and speed up your processes at every phase, from engineering, to procurement and manufacturing, through to operation.

Configuration
Large enclosures, small enclosures, compact enclosures, IT racks, chillers and power distribution units – a wide range of sizes and variants can be quickly and easily configured, modified and plausibility-checked with the Rittal configurators.

Ordering
Today's ECAD systems are not isolated solutions. By integrating them deeply into our customers' IT infrastructure, auto-generated parts lists for quotes and material procurement can easily be transferred into existing ERP systems.

Manufacturing documents
Software solutions can automatically generate your manufacturing documents such as drawings, parts lists, terminal lists and all the data needed for automated production stages using standardised interfaces and data.

Logistics
The enclosure and switchgear manufacturer receives data from the customer and validates it with regard to the availability of component data, completeness and suitability for all downstream processes, such as construction and job scheduling.

Kitting
A comprehensive, clearly structured parts list and scheduling list from the ERP system ensure that the required components are listed in the relevant customer order next to each production stage. This ensures straightforward assembly.

RiPanel

Your cutting-edge tool for individual enclosure system configuration

Key functions at a glance:

- User-friendly interface
- Plausibility-checked selection of accessories
- Customised cut-outs and import of CAD data
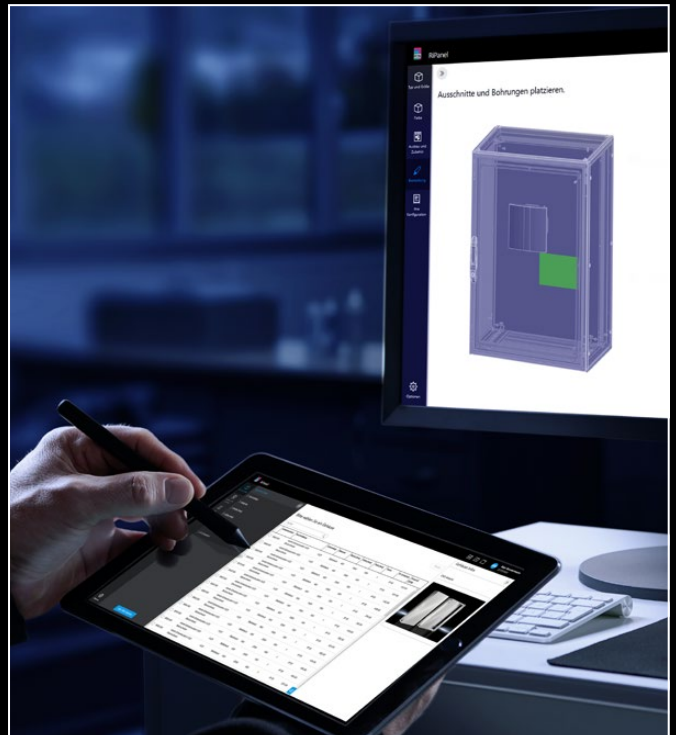- Automatic generation of technical data

Your benefits:

- Save time with configuration and ordering
- Avoid errors with the selection of accessories
- Parts list for improved planning
- Faster processes

Find out more
about RiPanel:
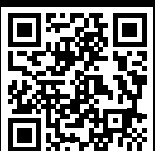
www.rittal.com/RiPanel

RiTherm

Your climate control planning tool for enclosures

Quickly and easily design the correct climate control
for your switchgear:

- Calculation and selection depending on the ambient
  conditions (indoor and outdoor applications)
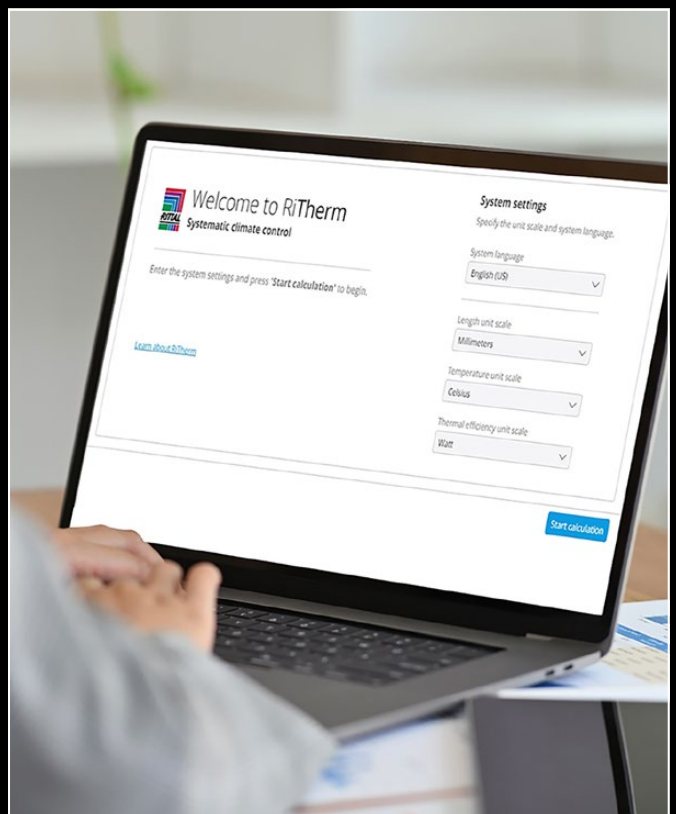
New features:

- Thermal calculation integrated into Eplan Pro Panel
- Direct access to heat loss data in the Eplan Data Portal
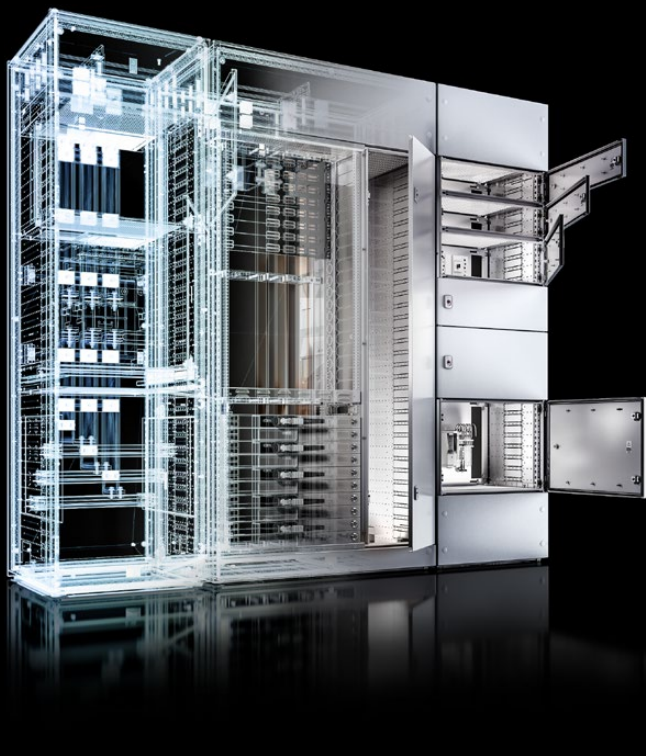- Create and reuse your own heat loss carriers

Find out more
about RiTherm:

www.rittal.com/RiTherm

RiPower configurator

Welcome the dawn of a new era, thanks to our new RiPower configurator – the cloud-based project planning tool that is setting completely new standards in the planning of low-voltage switchgear. The tool guides the user through the entire planning process quickly and efficiently, in simple, logical steps.

- System documentation including assembly instructions
- With direct access to the online shop, you can order your custom configuration directly
- Supports subsequent processing with the market's leading tools (Eplan P8, AutoCAD, etc.)
- Automatic integration of configuration results via pre-prepared interfaces such as GAEB (XML) for preparing quotes for end customers.

Find out more
about RiPower configurator:

www.rittal.com/RiPower-configurator

Rittal ePocket

Digital machine and system documentation throughout the entire value chain

Rittal ePocket ensures fast, straightforward access to complete documentation. Thanks to round-the-clock access to the latest technical documents and wiring schematics, documentation, maintenance and service processes can all be made more efficient.

Your design and documentation benefits:
- Save on printing costs when preparing documents
- Reduce your carbon footprint
- Transfer digital documentation to customers efficiently

Your service and maintenance benefits:
- Up-to-the-minute data always available for everybody involved
- Fast change management with the integrated Eplan eVIEW workflow
- Clear tracking of changes

Find out more
about Rittal ePocket:
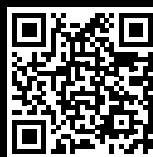
www.rittal.com/epocket

RiDLC

Calculation and configuration software for high-performance computing applications.
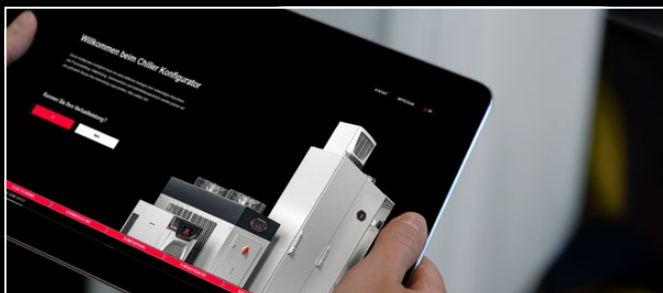
All functions at a glance:

- Calculation of the required thermal (cooling) capacity
- 3D configuration for IT equipment, rack and cooling
- Documentation

Find out more about RiDLC:

www.rittal.com/ridlc

Chiller configurator

The chiller configurator is the cost-effective way to select your required machine and process cooling.

Find out more about the chiller configurator

www.rittal.com/chiller-configurator

RiZone
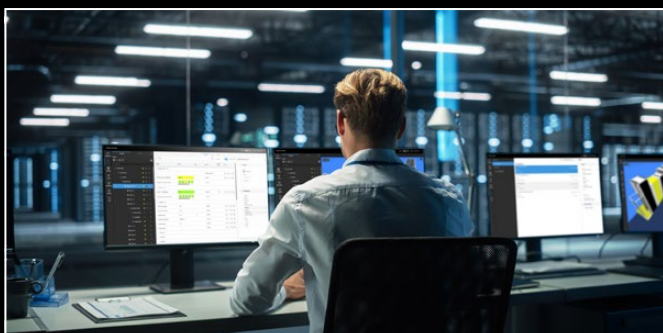
RiZone gives you complete control over the entire OT level in the data centre. The software enables central, transparent, straightforward management of all OT equipment, from cooling and power distribution, to access management, through to energy monitoring. The focus here is on the three principal challenges facing the OT level in data centres:

- Availability
- Security
- Energy efficiency

The solution is ideal for use in combination with various Rittal hardware products such as metered, switched or managed PDUs, CMC and IT cooling units.

Find out more about RiZone:

www.rittal.com/RiZone

Rittal
Scan & Service app

Want to configure your climate control devices quickly and easily? Simply scan the QR code on the rating plate for detailed information about every Rittal product. The NFC scan gives an overview of your device statuses for easier configuration. That's no problem when using the Scan & Service app.

- Save time by transferring your settings to other cooling units
- Contact Rittal around the clock
- Easily request accessories and spare parts

Register your product now in the app and get an extended warranty.
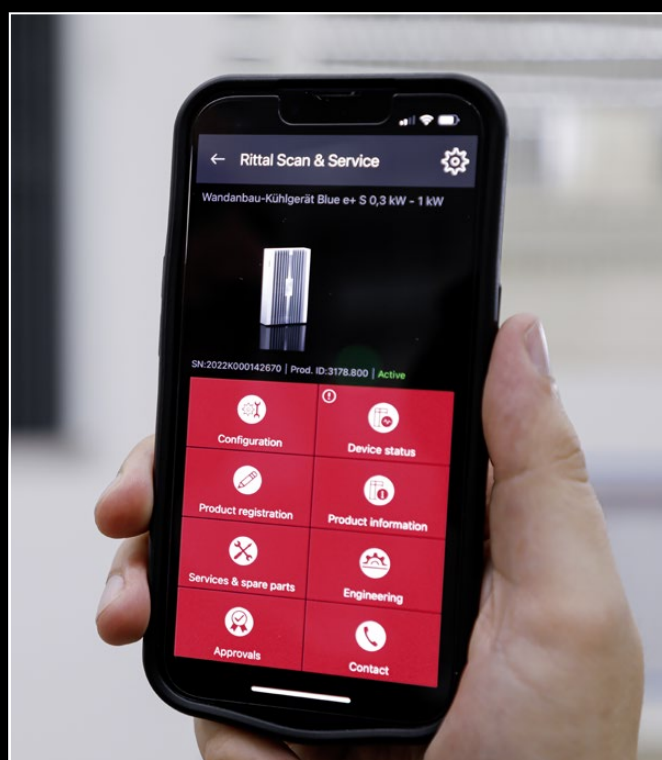
Download here:
App store

Rittal
Online shop
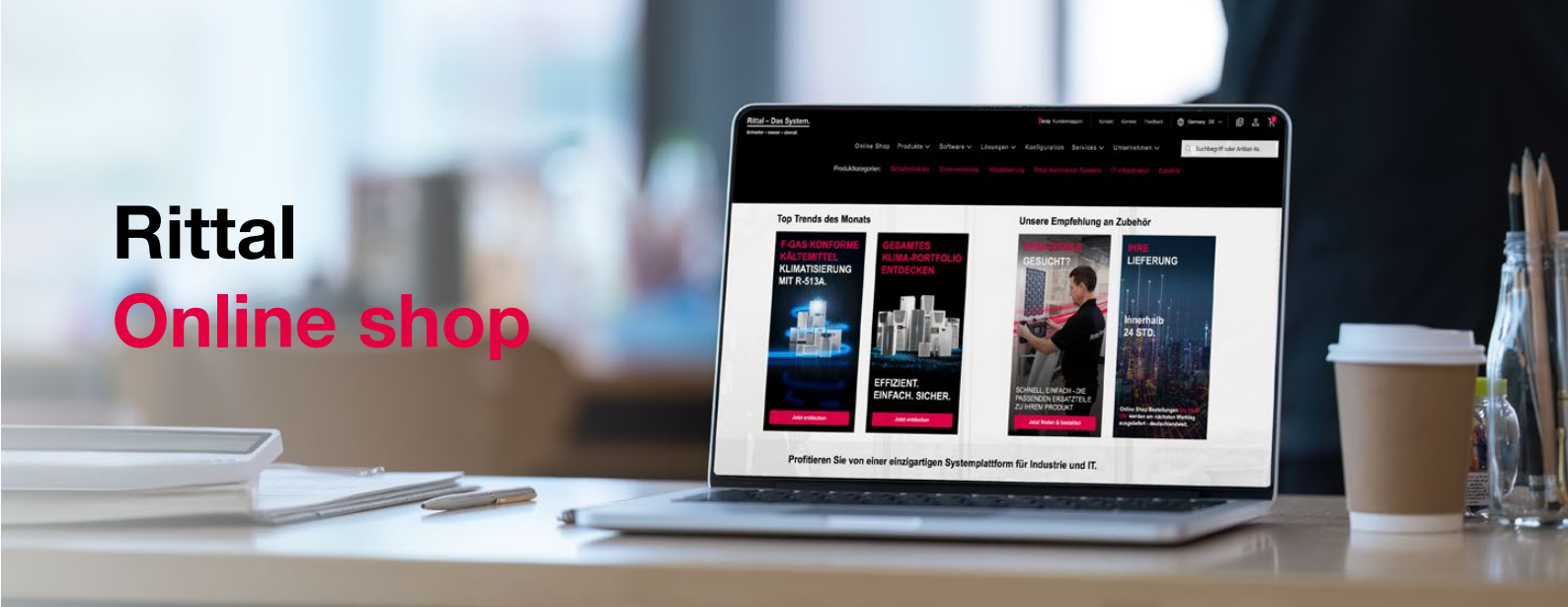
The central point of contact that makes it easy to select from our comprehensive range of enclosures, power distribution systems, climate-control solutions and IT infrastructure products and purchase the products you need.

You can use the online shop to...

- Place orders conveniently, quickly and efficiently – at any time and from any place
- Check the availability of products
- Configure solutions in RiPanel and quickly find accessories and spare parts
- Track orders and view your order history
- Upload and download documents for efficient ordering (PDF, Excel, CSV files)
- Save and share shopping carts and create and edit projects
- Manage user rights – through at least one administrator
- View customised prices, terms and conditions

Rittal
Application Center
Join. Apply. Grow.

The production chain from end to end

How can panel builders and switchgear manufacturers make the leap into the world of digitalisation and automation – and how can they prepare for the future? Answers to these questions can be found at the Rittal Application Centers (RACs).

The concept:
Rittal is turning the spotlight on the customer and their workshop, application scenarios and processes. In the spirit of "Join. Apply. Grow.", these are the places where existing and new customers can work with experts from Rittal to develop their projects, and familiarise themselves with new technologies and try them out.
The combined expertise of Eplan, Rittal and Rittal Automation Systems is unparalleled on the market.

The Rittal Application Centers are where the interplay between these solutions throughout the entire value chain comes into its own. As a user, you can experience this live in a genuine workshop environment. Our goal is to show you new development opportunities for the future and thereby continue to enhance your competitiveness.
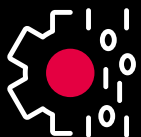
What you can expect:
- Process standardisation
- Short training times
- Increased reproducibility
- Reduction of data sources
- Shorter throughput times
- Increase in production capacities and reduction in production costs

Together, we will lift your productivity to a whole new level!
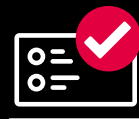
Additional services:
Besides our standard services, such as
- modifying Rittal enclosures
- installing Rittal system components and accessories, our **Rittal Modification Centers** also offer additional services on a site-specific basis:
- Planning and pre-assembly of low-voltage switchgear
- Precise machining of copper busbars
- On-site delivery with optional on-site installation
- Special logistics services
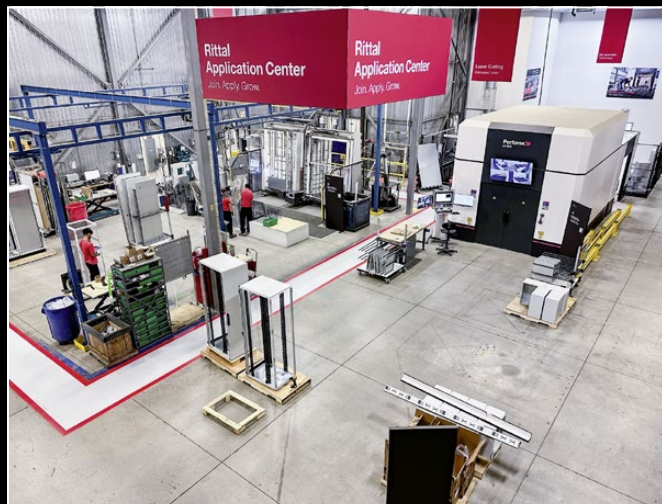
Rittal Application Centers worldwide – combined expertise within easy reach

Our team looks forward to seeing you at the following locations

- Australia: Sydney
- Austria: Vienna
- Belgium: Lokeren
- Brazil: São Paulo
- Canada: Mississauga
- Czech Republic: Zdiby

- Finland: Vantaa
- Germany: Gera and Rittal Innovation Center Haiger
- Italy: Valeggio
- Japan: Odawara
- Korea: Incheon

- Mexico: Toluca
- Poland: Stryków
- Sweden: Ängelholm
- Switzerland: Neuenhof
- UK: Hellaby
- USA: Houston

Read more about
Rittal Application Centers:

www.rittal.com/rac

Rittal
Automation
Systems

One-stop automation – A powerful alliance

Rittal Automation Systems is your partner for seamless automation in panel building and switchgear manufacturing. Our merger with Kiesling Maschinentechnik in 2013, followed by the integration of **ALFRA** (2017) and **EHRT** (2020), combined the expertise of some of the top specialists under one roof:

Rittal Automation Systems
Solutions for machining,
wire processing and wiring

EHRT
Specialists in automated
busbar machining

ALFRA
Professionals in handling
and tool solutions

Punching

Milling

Laser machining

Busbar machining

Component cutting

Component mounting

Wire processing

Wiring

Handling

Hand tools

Customers of our alliance benefit from:

Combined expertise –
Comprehensive knowledge across all relevant sectors

Exceptional innovation –
New ideas are rapidly translated into market-ready solutions

Efficient processes –
Everything from a single source, from planning through to implementation

This creates a manufacturing experience that is not just efficient, but also future-proof.

Read more about
Rittal Automation Systems:

www.rittal.com/ras

Digital networking – From planning to finished enclosure

In collaboration with Eplan, Rittal Automation Systems facilitates seamless data flows throughout the entire value chain, from engineering to the finished enclosure.

Planning
Design in the Eplan environment, then transfer all project data into the job management section of the RiPanel Processing Center.

Pre-production
Job management ensures optimised processing and transfer of all manufacturing information directly to the machines. The RiPanel Processing Center enables the simple, centralised planning of resources and production orders using state-of-the-art order management systems and layout tools.
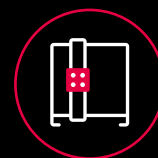
Production
The data transmitted from preproduction is utilised on a project-specific basis for precise machining on automated machines.
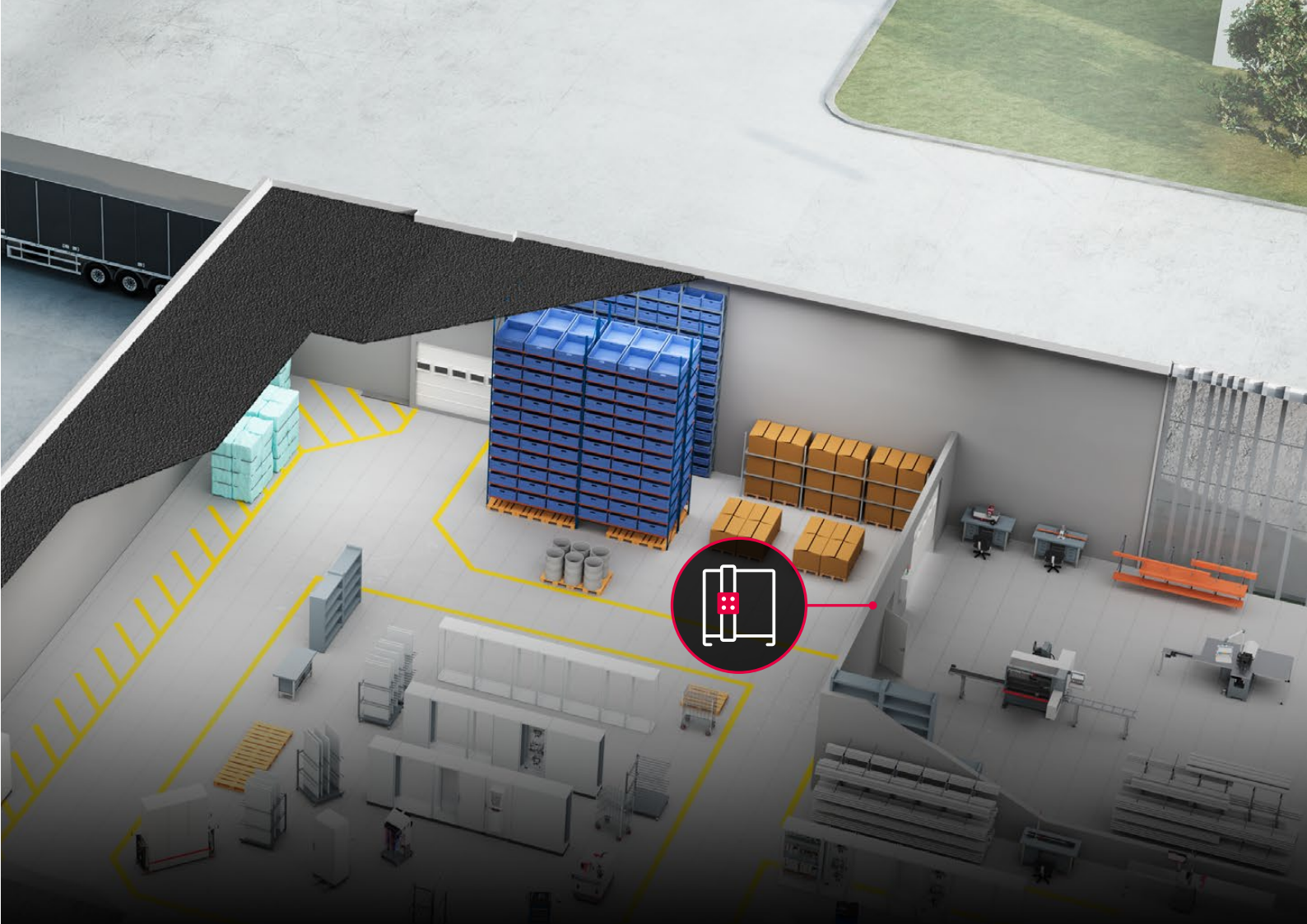
Your value-added:

- **Shorter throughput times** by up to **85 %**
- **Minimised error rates** thanks to uniform data records
- **Optimum utilisation** of production capacity
- **Maximum transparency** and traceability of all work stages

Up to **85%**
shorter throughput times
with digital connectivity.

Drawing on the combined expertise of our alliance and partnership with Eplan,
Rittal Automation Systems is synonymous with stability, innovation and practical solutions,
for your long-lasting success.
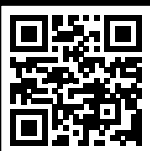
Read more about
Eplan:

www.eplan.com

Read more about
the RiPanel Processing Center:

www.rittal.com/ripanel-processing

Solutions by Rittal Automation Systems
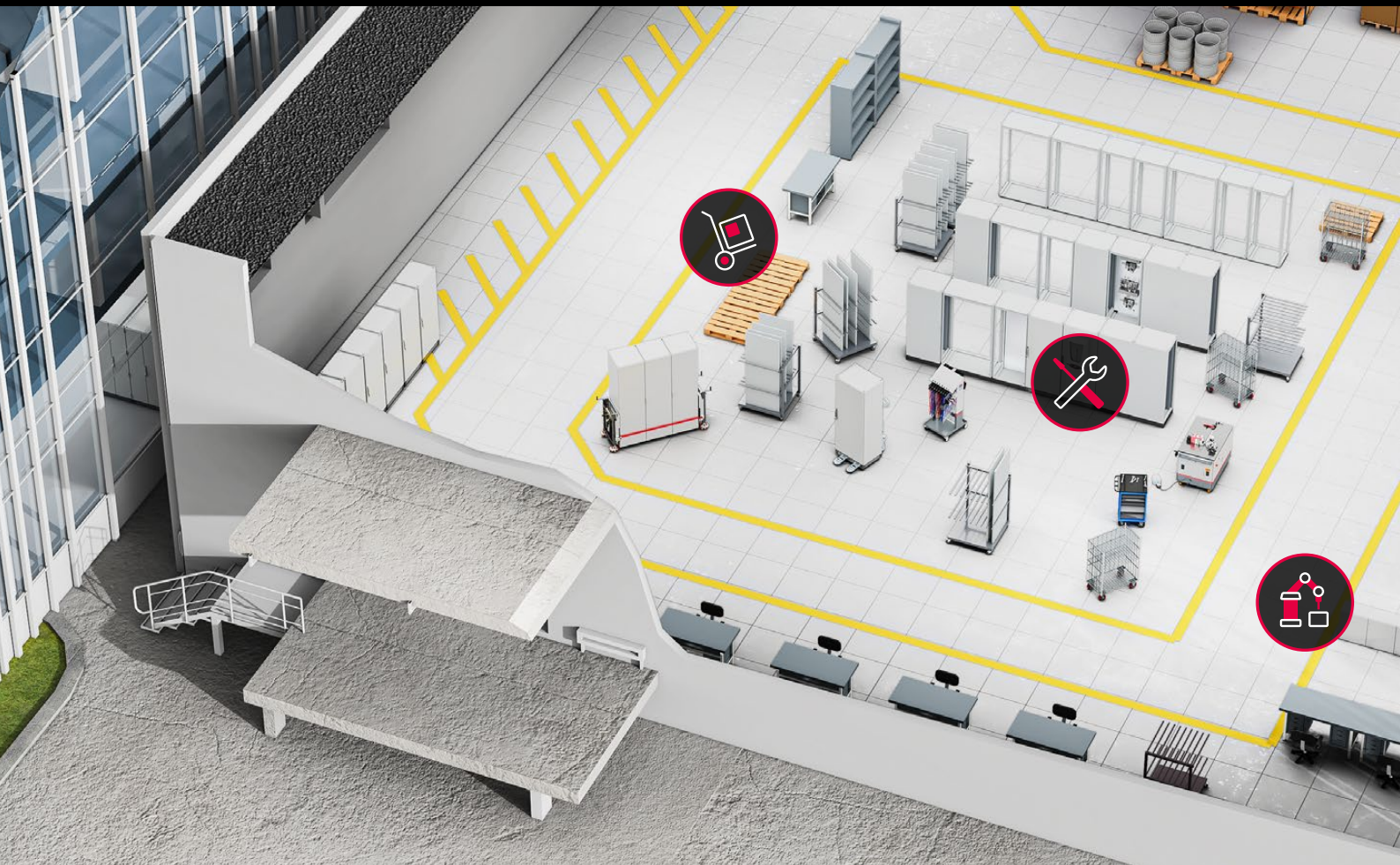
Punching	**Milling**	**Laser machining**	**Busbar machining**	**Component cutting**

Forge ahead safely, step by step

The solutions offered by Rittal Automation Systems cover a whole host of individual processes and the entire manufacturing spectrum – from manual tools to fully automated machining centres.

- **Our machines** are fast, precise and exceptionally efficient.
- Thanks to **automated solutions** for wire processing, we deliver enormous efficiency gains.
- **Ergonomic handling tools** optimise processes on the shop floor.
- **We offer tailored advice** and bespoke solutions for each step in your automation journey.
- Our **professional hand tools** support fatigue-free work.

| Component mounting | Wire processing | Wiring | Handling | Hand tools |

Rittal Automation Systems –

The best route to automating and optimising workflows and processes in panel building and switchgear manufacturing.

Further information:

www.rittal.com/ras

Laser machining

Laser machining: Perforex Laser Centre LC
Rapid modifications, even with stainless steel

Perforex LC laser centres are ideal for automated mechanical modification of standard enclosures in stainless steel, sheet steel and powder-coated metals. Machining stainless steel enclosures is many times faster and there is no damage to the cut edges. Even small and medium-sized panels can be machined, shortening the amortisation period still further.

What is more, the machining of spray-finished metal panels with intricate contours and mounting plates with tapped holes can be achieved without any visible damage to the paintwork. Contactless, low-vibration 3D laser machining boasts significantly shorter throughput times and enhanced productivity.

Super-efficient working
Perforex laser centres can machine multiple components in a single operation and from five sides simultaneously, with minimal set-up and operating input.

Thread tapping option
The LC 3030 offers even greater flexibility with six thread sizes in the tool magazine and automatic change-over of the machine head.
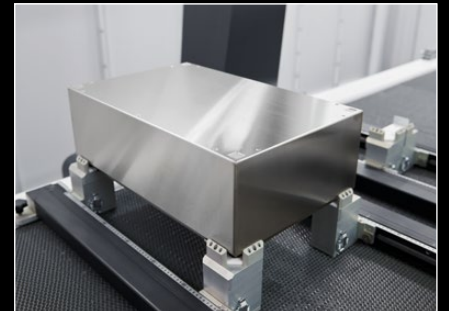
Clean process
Fast, wear-free cutting, even in stainless steel, requires no coolants or lubricants and is exceptionally precise, eliminating the need for time-consuming rework.

Read more about laser machining:

www.rittal.com/laser-machining

Milling

Perforex Milling Terminal MT S
Minimise your processing times with maximum precision

Machining the smallest enclosures, panels and racks is much faster with Perforex milling terminals. These versatile drilling and milling centres are capable of handling all machinable materials, including spray-finished sheet steel and stainless steel as well as aluminium, copper and plastic. A variety of interfaces support problem-free data transfer from virtually all standard CAD systems and planning tools, such as Eplan Pro Panel, RiPanel Processing Center and the RiPanel configurator.
It is also possible to import neutral formats, such as DXF. The RiPanel Processing Center supports modern order management including layout generation, a secure digital workflow and exceptional efficiency.

Automated machining
With fully automated tool changer and integral magazine for up to 21 tools, all operations are completed in a single pass.

Profitable even with a batch size of 1
With its simple, intuitive operation and option of remote maintenance, the machining centre guarantees a rapid return on your investment.

Top quality
A choice of operating modes and automatic tool calibration ensure perfect results every time.

Read more about milling:

www.rittal.com/milling

Punching

Punching: AP 400 stationary punching machine
For rapid punching of cut-outs without predrilling

Manual predrilling is time-consuming. This is where the AP 400 comes into play. This hydraulically powered stationary punching machine can accelerate production processes and boost your productivity.

Punch fast, precise openings in enclosures, enclosure doors or mounting plates with the semi-automatic AP 400. Whether sheet steel, stainless steel, aluminium or plastic, effortlessly punch round, square or rectangular openings. Even special shapes are supported. The quick tool changer helps you work efficiently and consistently, even in the extreme marginal areas.

Available in three models – AP 250, AP 400 and AP 600 – the stationary punching machine is designed to meet a range of application requirements for various use cases.

Maximum precision
The centre point of the punched openings is marked by laser for absolute precision.

No sharp edges
Burr-free punching of wide variety of shapes and materials is supported. No reworking is required, and throughput times are increased.

Manual hydraulic punch
Punch round, square and rectangular cut-outs.

Read more about punching:

www.alfra.de/en/ap400

Component cutting

Cutting Terminal CT
User-friendly length-cutting with reduced wastage

Cut wiring ducts, cable duct covers and support rails to the precise length required with our Cutting Terminal CT M and Cutting Terminal CT H cutting centres. The integrated manual cutting tools offer a user-friendly, simple and burr-free means of cutting to length. The Cutting Terminal CT H variant offers hydraulically assisted cutting for DIN rails.

Data supplied from engineering plus automated end stops in the cutting terminal support the workshop process and ensure cut optimisation even across multiple projects. Full connectivity and data continuity from engineering through to production creates an integrated product solution across all processes.
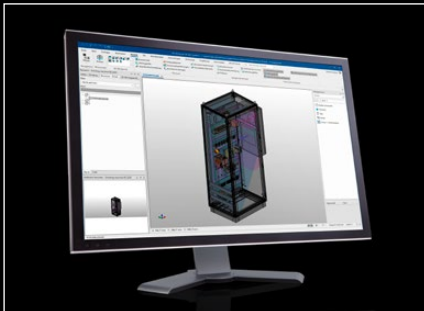
Seamless data
The machine software supports data transfer from CAD systems and planning tools such as Eplan Pro Panel and RiPanel Processing Center, as well as the import of cutting lists in CSV format.

Integrated hand tools
The tools enable user-friendly, simple and burr-free length-cutting of wiring ducts, cable duct covers and various DIN rail sizes.

Component labelling including barcodes for labelling trimmed material
Component labels including barcodes are generated for labelling trimmed material. These can be read with Eplan Smart Mounting to ensure that positioning on the mounting plate is visualised precisely.

Read more about component cutting:

www.rittal.com/component-cutting

Busbar machining

Punching Terminal PT S4
Smooth, reliable machining with modern, intuitive operation

The Punching Terminal PT S4 is ideally suited for entry-level automated busbar machining.

Accommodating up to 4 tools with a quick-change function, this product solution allows you to punch and cut flat materials quickly and precisely to the required length. With powerful tool springs and correspondingly high retraction forces, even thick copper bars are punched extremely cleanly, so that no reworking is required.

The seamless data communication via Ethernet ensures professional machine monitoring and production analysis to boost your production efficiency.

Minimal setup times
The ability to accommodate up to four tools with quick-change function is a direct time-saver.

Mobile busbar machining
The mobile CW 120-M combines bending, punching and cutting in a single product solution. Castors allow the station to be flexibly used at any workstation.

Static busbar machining
The units in the CW 120-S product series are ideal for bending, punching and cutting busbars. The integral precision laser facilitates the cutting and bending process.

Read more about busbar machining:

www.rittal.com/busbar-machining

Busbar machining

Bending Terminal BT 20E
Pioneering energy-saving drive

The new electrical bending machine for busbar machining supports a range of bending types, from multi-stack bending to closed U-bending.

The electric drive makes the Bending Terminal BT 20E particularly quiet, low-maintenance and efficient. The special plug-in system supports user-friendly tool changes, quick set-up times and exceptionally precise bending results.

Versatile interfaces
The machine software supports the import of various data, including manufacturer-independent DXF formats, as well as data from Eplan, Optimation, Metamation and WiCAM.
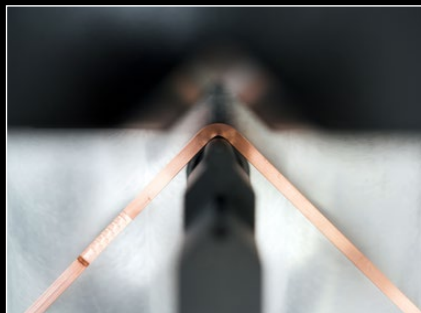
Ultimate bending accuracy
The integral electronic angle measurement system with springback compensation ensures exceptional accuracy from the very first part, for guaranteed reproducibility and consistent quality.
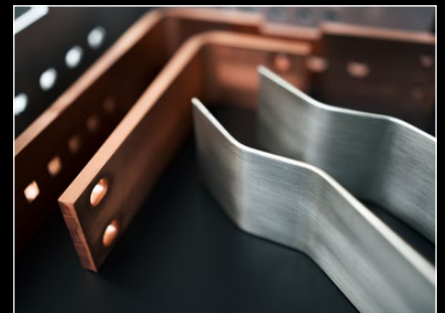
Aluminium machining
Alongside conventional copper bars, the machining of cheaper, lighter aluminium busbars is also supported.

Read more about busbar machining:

www.rittal.com/busbar-machining
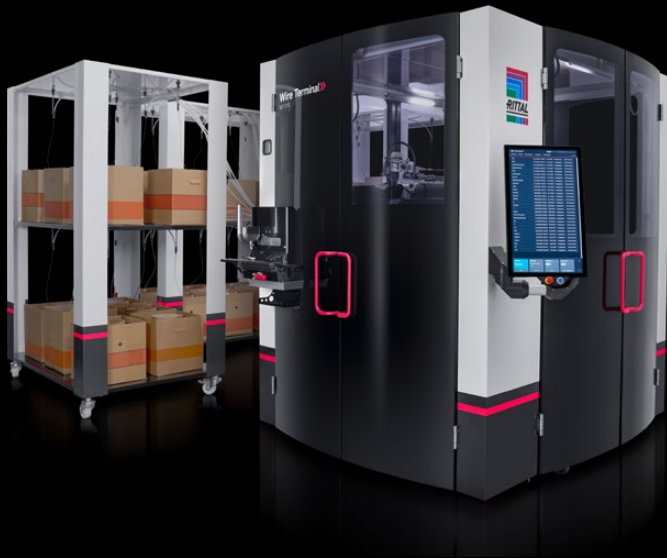
Wire processing

Wire Terminal WT C
Boost clock speeds and improve processes

The Wire Terminal WT C fully automated wire processing machine automatically processes and labels wires.

A fully integrated crimper solution that uses servo technology and has been specially modified for the application ensures that wires with cross sections from 0.5 to 6 mm² can be stripped fully or partially to any length or fitted with wire end ferrules in various lengths. The WT Tube 12 wire store is ideal for simple wire changeovers.

The modular system features modern wire routing including wire infeed block with quick-change system and RFID memory.

Wire labelling
The Wire Terminal can be configured with the very latest IQ.JET marking system for labelling the source and target of wires.

Selectable wire output
Wire output occurs sequentially into a wire rail system or optionally as a chain bundle.

Rittal semi-automated machines
Boost your efficiency in the workshop with wire cutting, stripping and crimping.

Read more about wire processing:

www.rittal.com/wire-processing

Wiring

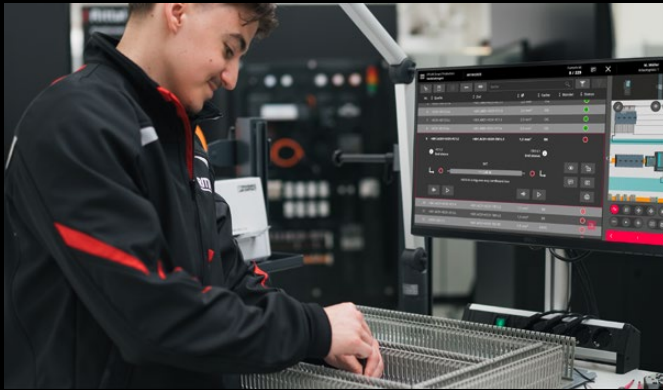## Perfectly coordinated processes down to the last detail

Regardless of whether you opt for partially or fully automated wire processing, component wiring in the rack or on the mounting plate can be time-consuming. Rittal has developed a series of perfectly coordinated solutions to streamline this process and make wiring more reliable and efficient.

Wires processed on a project-specific basis at the Wire Terminal are easily order-picked for the Wire Cart and transported to the Wire Station wiring bench. The wires are sequentially arranged in the wire rails for simple, intuitive wiring. At the Wire Station, the wires are securely wired using robust, ergonomic hand tools.
The Eplan Smart Production Collection digital assistant visualises every step in the wiring process for superior results and reduced stress.

Eplan Smart Wiring
Digital assistant for clear presentation of the wiring process, also suitable for use on mobile output devices.

Wire Station
The mobile, ergonomic wiring table is designed for fatigue-free working.

Smart component placement
The Eplan Smart Mounting worker assistance system uses the barcode on the label to visualise the placement of components once they have been cut to length.

Read more about wiring:

www.rittal.com/wiring

Handling

Clever tools for ergonomic working

With the right equipment, manual tasks can be considerably simplified, streamlined and speeded up. That's why we offer a wide range of high-quality, ergonomic bench solutions for machining, assembling, wiring and testing enclosures. Our ergonomic handling systems for transport and lifting operations make life easier for fitters and service personnel. They are ideal for transporting materials and tools to the jobsite and can even accommodate very large components.

Assembly frames
With a height- and tilt-adjustable mounting level for efficient, ergonomic machining of mounting plates and enclosures.

Smart Lifter
Robust lifting and transport device for easy handling of enclosures and bayed enclosure suites.

Storage and transport trolley
Ideal for storage and order picking, and for easy handling of enclosure panels.

Read more about handling:

www.rittal.com/handling

Hand tools

Fatigue-free working
Indispensable quality tools

Rittal Automation Systems provide solutions for all panel builders and switchgear manufacturers, from fully automated through to manual. This also includes high-quality tools whose exceptional functionality, durability and excellent handling set them apart.

Our tools are ergonomically designed for fast, pleasant, energy-saving working while also reducing the risk of injury and accidents. Your added value: Greater motivation, enhanced productivity, improved efficiency.

Screwdrivers
Whether screwdrivers, bits or bit holders, our screwdrivers combine high-quality, robust materials with user-friendliness.

Pliers
Whether crimping, insulation-stripping, length cutting or gripping, Rittal has the perfect tool for every process.
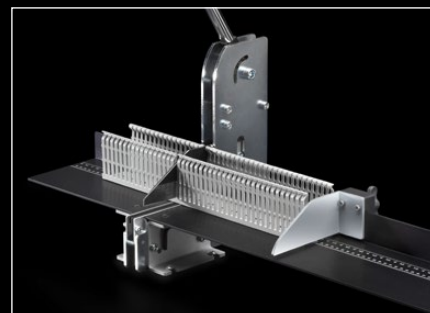
Wiring duct cutter MC 125
Manual cutting of wiring ducts, with adjustable length end stop. Anodised contact surface with laser-engraved calibration in millimetres and inches.

Read more about hand tools:

www.rittal.com/handtools

Rittal Automation Systems – Service and support direct from the manufacturer
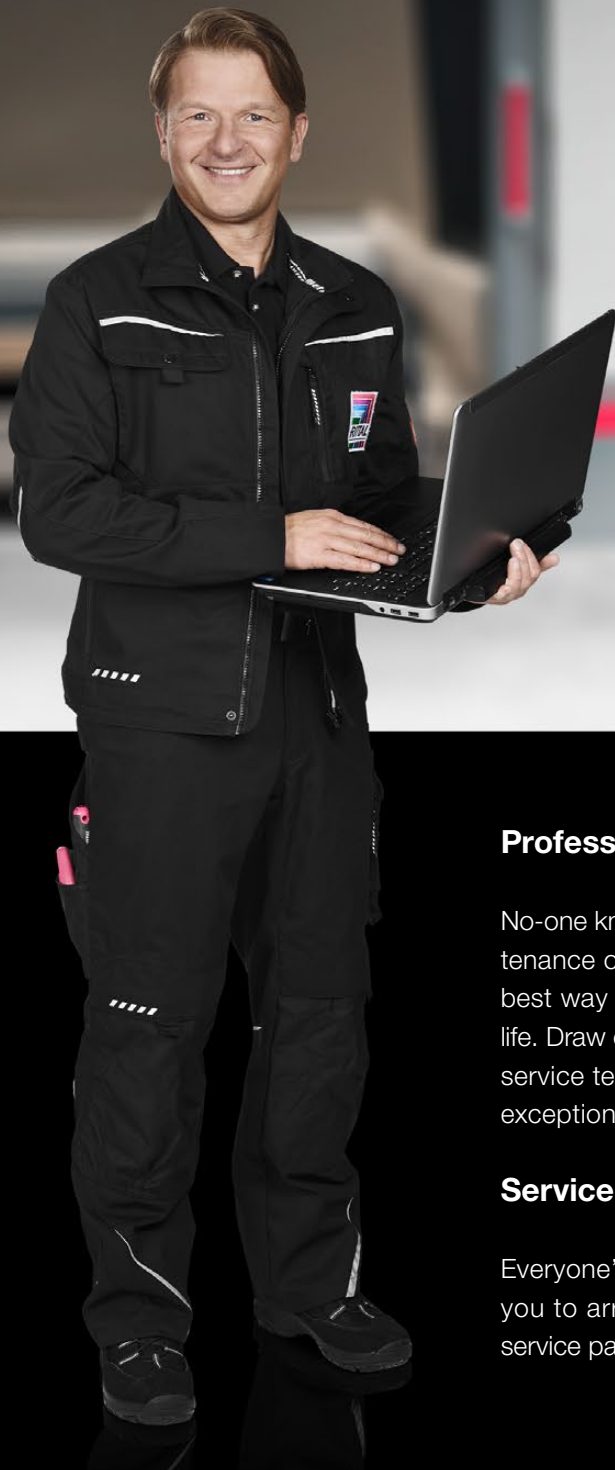
Professional servicing for your machines

No-one knows your equipment better than the manufacturer. Regular maintenance of your machines by the Rittal Manufacturer's Service team is the best way to ensure their availability for use, performance and a long service life. Draw on the experience and knowledge of our highly trained, qualified service technicians and benefit from dependable production quality and exceptional reliability.

Service agreements – individual and customisable

Everyone's service needs are different. Rittal service agreements allow you to arrange multiple services individually and also combine various service packages, all with fixed, transparent conditions.

Read more about
RAS service and support:

www.rittal.com/ras

	Scope of services included in standard agreement	Optional contract modules
Maintenance	1 x per year	2 x per year
Availability	Working days (Mon – Fri) 7 am – 5 pm	Every day of the week (Mon – Sun) 24 hours
On-site service	Within 72 hours, incl. reduced hourly rate	Within 48 hours, incl. reduced hourly rate
Machine warranty	No warranty extension	+ 12 months
Individual stocking of spare parts	On request	
DXF remote training	One training session	
Software update	As necessary (but excluding hardware/PC or operating system replacement)	

Rittal hardware – Infinite possibilities for industry and IT

No matter what industry you work in or what challenges you are currently facing, we would like to work with you to help you successfully overcome them with concrete solutions. Our extensive hardware range offers solutions for countless applications in the following areas:

- Enclosures
- Energy & Power
- Climate control
- IT infrastructure

Rittal enclosures

With our enclosures, you are perfectly equipped for any scenario: Your electronics are securely accommodated and installed. Allow yourself to be convinced by the simplicity, assembly-friendliness and versatile functions of our enclosure range. Want to read up on enclosures? You will find plenty of useful information in our portfolio.

Rittal Energy & Power

The power distribution range from Rittal delivers modular, standard-compliant solutions for a broad selection of applications in the low-voltage range. Play it safe with super-flexible power distribution technology – Simple, secure assembly and user-friendly planning are what set our tested solutions apart.

Rittal climate control

The enclosure interior not only needs protection from external influences; heat loss and condensation must also be balanced. Whether you are looking for an enclosure climate control unit or a heater, we have the right energy-saving and eco-friendly climate control solution to suit your application!

Rittal IT infrastructure

Future-centric solutions for your IT infrastructure are efficient, secure and scalable. Rittal delivers bespoke complete solutions, from single racks, to smart power distribution and monitoring, through to complete data centres. Ready-to-use in next to no time, energy-efficient and future-proof – for maximum availability with minimal effort and expense.

Rittal accessories

A comprehensive range of system accessories for industrial and IT enclosures offers infinite possibilities with enclosure population, all meticulously planned and fully compatible.

Enclosures

Time pressures, complexity, not to mention exacting standards of quality and security – in panel building and enclosure manufacturing, every decision counts. Our enclosures help you work more efficiently, minimise downtime, and future-proof your processes, with carefully considered functionality, simple handling and maximum protection for your technology. Applicable to every industry.

Product group		Small enclosures	Compact enclosures	Hygienic Design	
		Tough enough to take it all – there are practically no limits to the scope of applications for these especially robust small and compact enclosures. Electrical, electronic and pneumatic components are securely protected with a high IK impact resistance.		Hygienic Design (HD) enclosures are essential components for ensuring hygienic equipment in open processes within the food and beverage industry.	
Material	Plastic	■	■	–	
	Aluminium	■	–	–	
	Sheet steel	■	■	–	
	Stainless steel	■	■	■	
Dimension options		More than 160 small enclosures and 160 compact enclosures in a range of individual materials and designs.		30 different enclosure types and sizes.	
Product characteristics		Exceptionally robust and with a high IP and IK protection class, Rittal small and compact enclosures are compliant with all major international approvals and standards.		The range is based on common standards, directives and regulations in the food and beverage industry.	

	Enclosure systems	Console systems	PC enclosure systems	Industrial Workstations	Command panels	Support arm systems	Stand systems
	Ingeniously simple, fully symmetrical, and can be used worldwide – this is the successful formula which has established the VX25/VX SE as a global standard.	Versatility through modularity – essential for meeting individual customer requirements for machine and plant operation perfectly and cost-effectively.			Always exactly the right position: Different viewing angles of the machine, tall or short operating staff – find your perfect ergonomic solution at the human/machine interface.		
	–	–	–	–	–	–	–
	–	–	–	–	■	■	–
	■	■	■	■	■	■	■
	■	■	■	–	■	■	–
	Free-standing and bayed enclosures in more than 120 options for controlgear production and plant manufacturing.	Choose from console systems in over 30 combination variants, 8 PC enclosure systems and 13 variants of Industrial Workstations.			With over 30 command panels, 5 support arm systems with a wide range of combination options and 8 stand systems, there is a solution for every requirement.		
	Infinite installation opportunities, simple assembly, uncompromising baying and tested quality are the distinguishing features of these enclosure systems. QR codes on all machinable components.	Robust and modular, especially designed for tough industrial environments where a high protection category and good accessibility are key factors.			Flexibility, stability, simple assembly and tremendous versatility with product combinations mean that every requirement is catered for.		
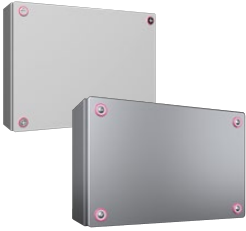
Small enclosures

Small enclosures available in a choice of variants and materials such as sheet steel, stainless steel, cast aluminium and polycarbonate. With their high-quality finish and high protection categories of up to IP 66, they satisfy even the most demanding protection requirements for electrical components in small control applications.

Read more about small enclosures:

www.rittal.com/small-enclosures

Product description	Terminal box KX	E-Box KX	Bus enclosure KX	
	The **terminal box KX without gland plate** enables flexible interior installation with a high protection category, while the **terminal box KX with gland plate** supports flexible interior installation and simple cable entry with optimised use of space.	Exceptionally user-friendly assembly plus flexible choice of lock systems.	With cover and viewing panel. For installing most brands of bus modules and sensors.	
Material	Sheet steel	■	■	■
	Stainless steel	■	■	■
	Polycarbonate	–	–	–
Dimensions W/H/D	From 150 x 150 x 120 mm to 800 x 400 x 120 mm	From 150 x 300 x 80 mm to 300 x 800 x 155 mm	From 400 x 200 x 155 mm to 800 x 300 x 155 mm	
Protection category	IP 55, IP 66, NEMA 1, 3R, 3RX, 4, 4X, 12	IP 66, NEMA 1, 3R, 3RX, 4, 4X, 12	IP 66, NEMA 1, 3R, 4, 4X, 12	

Small enclosures

Product description	Polycarbonate enclosure PK	GA cast aluminium enclosure	Switch housing, stainless steel	
	The simple construction makes optimum use of the interior space, and also saves time. Transparent cover, with optional knockouts for cable entry.	The ideal enclosure for tough environments in a range of compact sizes. Cover and enclosure made from cast aluminium, cover with all-round CR cellular rubber seal.	Enclosure made from stainless steel 1.4301 (AISI 304), prepared with cut-outs Ø 22.5 mm to accommodate switches.	
Material — Cast aluminium	–	∎	–	
Material — Stainless steel	–	–	∎	
Material — Polycarbonate	∎	–	–	
Dimensions W/H/D	From 65 x 65 x 57 mm to 360 x 254 x 165 mm	From 58 x 64 x 36 mm to 330 x 230 x 183 mm	From 100 x 100 x 90 mm to 280 x 100 x 90 mm	
Protection category	IP 66, NEMA 4X	IP 66, NEMA 4	IP 66, NEMA 4X	

Wall-mounted enclosures

Compact enclosure solutions offer exceptional versatility for controller applications with moderate space requirements. Depending on the variant, they meet the highest levels of corrosion protection and a maximum protection category of IP 66. Wall-mounted enclosures feature simple interior installation with no machining plus flexible cable entry options.

Read more about
wall-mounted enclosures:

www.rittal.com/wall-mounted-enclosures

Product description		Basic enclosure AX, sheet steel	Basic enclosure AX, stainless steel	Plastic enclosure AX
		Integrated locators in the roof, base and side of the enclosure emulate the familiar 25 mm system punchings from the VX25 large enclosure. This unique, patented system ensures that AX compact enclosures are prepared for any given configuration and upgrade scenario. System components and accessories can be easily, quickly and securely installed and retrofitted on busbars, with no drilling required.	The robust enclosure with integral locator system enables fast, easy, reliable and extensive system configuration with no drilling required.	**With or without viewing panel** Ideally suited for applications in challenging environments. Numerous mounting lugs inside the enclosure allow individual interior configuration on a 25 mm pitch pattern, for example with punched sections and rails.
Material	Sheet steel	■	–	–
	Stainless steel	–	■	–
	Plastic	–	–	■
Dimensions W/H/D		From 300 x 300 x 210 mm to 1200 x 1200 x 400 mm	From 300 x 300 x 210 mm to 1000 x 1200 x 300 mm	From 250 x 350 x 150 mm to 800 x 1000 x 300 mm
Protection category		IP 55, IP 66, NEMA 1, 12, 3R, 4, 12	IP 55, IP 66, NEMA 1, 3R, 4, 4X, 12	IP 65, IP 66, NEMA 1, 3R, 3X, 4, 4X, 12

Compact enclosure accessories

Discover the versatility and efficiency of AX accessories. Our accessory solutions are purposely designed to optimise your work processes and create maximum flexibility.

Read more about compact enclosure accessories:

www.rittal.com/accessories
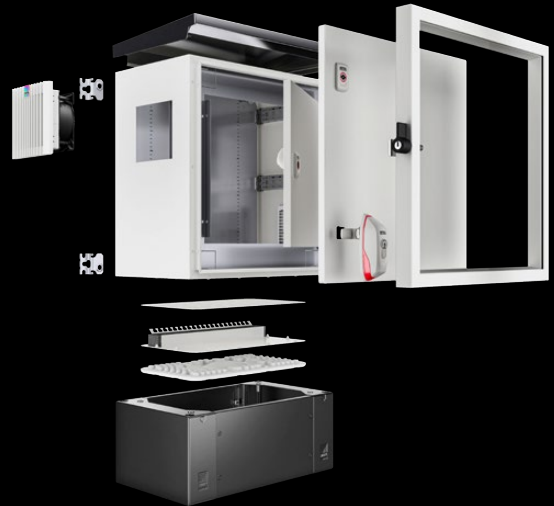
The new **AX base/plinth** boasts maximum space for individual cable entries, with an optimised trim panel concept and a new design principle. This makes the base / plinth exceptionally efficient across a wide range of requirements.

Gland plates provide a flexible, secure solution for cable entry in the AX. They guarantee an exceptional seal and are easy to fit.

The **mini comfort handle AX** offers a robust, user-friendly solution. It is compatible with a range of lock inserts.
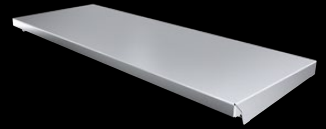
The **protection canopy** reliably protects the enclosure from standing moisture and other soiling from above.
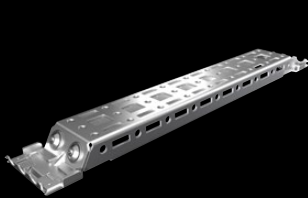
Interior installation rails allow simple, flexible assembly without drilling. They provide stability and maximise use of the interior space.

The **door stay** allows you to secure the door in the open position, and may be fitted without any further machining of the enclosure.

Wall-mounting brackets are ideal for convenient one-person assembly of wall-mounted enclosures, even in confined spaces. Screw-fastened directly from the rear with a self-tapping screw in the enclosure eyelet.

The **pole clamp** provides reliable, user-friendly mounting of enclosures on various pole types, both round and rectangular.

Enclosure systems

The **VX25 baying enclosure system** and the **VX SE system enclosures** from Rittal deliver outstanding functionality and flexibility for a wide range of applications in industrial automation, energy and power distribution, transport and logistics, the food and beverage industry, IT and data centres, telecommunications, healthcare, manufacturing, chemicals and pharmaceuticals, and renewable energies.

Available in a total of 141 variants with bayed enclosures, free-standing enclosures, sheet steel and stainless steel plus a high protection category.

Read more about enclosure systems:

www.rittal.com/enclosure-systems

Product description		VX25 baying enclosure system	Baying enclosure system VX25 stainless steel	VX freestanding enclosure
		With one or two doors, enclosure frame with one front door, rear panel, mounting plate, roof plate and divided gland plates. The perfect solution for efficient interior installation of enclosures.	The enclosure system and the free-standing enclosure VX made from robust stainless steel feature an integral locator system for fast, easy, reliable and extensive system configuration with no drilling required.	Enclosure frame with two front doors, roof and side panels from one piece, rear panel, mounting plate, gland plates. Save time with pre-configured side panels and large enclosure widths to replace small baying arrangements.
Material	Sheet steel	▪	–	▪
	Stainless steel	▪	▪	▪
Dimensions	Width	400 – 1200 mm	600 – 1200 mm	600 – 1800 mm
	Height	1200 – 2200 mm	1800 – 2000 mm	1800 – 2000 mm
	Depth	400 – 800 mm	400 – 600 mm	300 – 600 mm
Protection category		IP 55, NEMA 1, 12	IP 55, NEMA 1, 12	IP 55, NEMA 12

Large enclosure accessories

VX accessories are based on a meticulously planned modular system for fast, simple assembly. Complete compatibility between accessories allows you to design individual enclosures and adapt them to your specific requirements.

Read more about
large enclosure accessories:
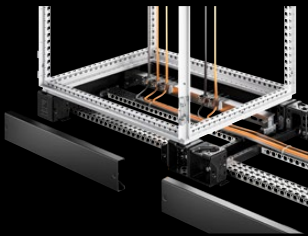
The **VX base/plinth system** may be used with almost any enclosure application. As well as a high degree of stability, it also boasts exceptional user-friendliness as well as time savings and brand new configuration options for the base/plinth.

The **glazed door for VX** boasts maximum transparency and security – the perfect solution when you need a clear view of your enclosure components.

The **comfort handle for VX** has a folding action which does not take up any of the swivel range, so the door surface area can be maximised for installed components. Simple assembly with the tool-free, snap-mounted handle system.

The **swing frame** provides convenient access to the rear of the 482.6 mm (19") installed equipment. Depending on the chosen version, available with an opening angle of 130° or 180°.

The **180° hinge** for VX extends the door opening angle to 180° without machining.

Baying connectors have the right solution for every baying situation in enclosure manufacturing.

Busbar systems provide superior assembly-friendliness and efficient engineering, thanks to a 25 mm pitch pattern frame profile which is symmetrical across all levels and accessible from all sides.
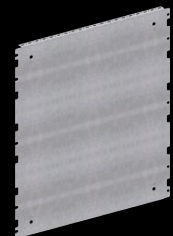
The **partial assembly plates** can accommodate additional components in the enclosure.

Hygienic Design

Our stainless steel Hygienic Design enclosures were purpose-developed for the stringent requirements in the food and beverage industry. They are easy to clean, increase machine availability and reduce the risk of contamination. Available in a range of sizes, from small to large enclosures, they ensure maximum hygiene and process reliability.

Read more about
Hygienic Design:

www.rittal.com/hygienic-design

Product description	HD large enclosure	HD compact enclosure	HD terminal box	HD switch housing
	Bayable enclosure solution for hygiene-sensitive areas exposed to regular cleaning.	Its impressive features include a 30° sloping roof and a seal approved for use with foodstuffs, making it ideal for use in the food industry.	With a 3° enclosure tilt and silicone seal, it is ideal for use in sensitive production environments with stringent hygiene requirements.	The impressive 3° enclosure tilt makes it ideal for operating solutions in open production environments and on machines in the food industry.
Material / Stainless steel	■	■	■	■
Dimensions W/H/D	From 600 x 1800 x 500 mm to 1200 x 2000 x 600 mm	From 220 x 350 x 155 mm to 1010 x 1250 x 400 mm	From 150 x 150 x 80 mm to 400 x 300 x 120 mm	From 100 x 100 x 90 mm to 160 x 220 x 90 mm
Protection category	IP 66, IP X9, NEMA 4X	IP 66, IP X9, NEMA 4X	IP 66, IP X9, NEMA 4X	IP 66, IP X9, NEMA 4X

Hygienic Design accessories

Hygienic Design accessories were developed specifically for use in our HD enclosures and deliver a seamless hygienic system solution. The range includes side panels, attachments, mounting plate infills, wall spacer brackets, cable glands and viewing windows, all in the HD design. Ideal for exacting hygiene requirements in sensitive production areas.

Read more about
Hygienic Design accessories:

www.rittal.com/hd-accessories

The **HD viewing window** reliably protects control components such as switches and displays from external influences. Its meticulous hygienic design is sure to impress, while its generous viewing panel creates optimum transparency for operation and control, even in challenging environments.
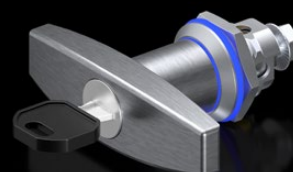
The **HD T-handle** provides an alternative solution to conventional HD locks and delivers maximum usage flexibility. It is available both with and without a lock insert and blends seamlessly with the hygienic design concept.

HD cable glands enable reliable, hygienic cable entry, even in challenging environments. Carefully designed for ease of cleaning, they minimise the accumulation of dirt and meet the highest standards of hygiene and functionality.

The **HD wall spacer bracket** creates a deliberate gap between the enclosure and the wall, to allow space for thorough cleaning behind the enclosure. Dispensing with an all-round seal significantly reduces the assembly time without compromising on hygiene or functionality.

Outdoor

Rittal's outdoor products provide robust protection and reliability for all weather conditions. They are specifically designed to withstand extreme environments and reliably protect your technology. With their durable construction and high-quality materials, they provide the ideal solution for outdoor use.

Read more about our outdoor range:

www.rittal.com/outdoor-products

Product description		CS Toptec, bayable	Outdoor Basic enclosure	Multifunctional enclosure	Outdoor housing	Outdoor wall-mounted enclosure
		Twin-walled outdoor enclosure with 100 mm base/plinth and seamlessly bayable weather canopy. The entire enclosure frame is available for efficient, flexible interior installation.	Single-walled system in a one-door or two-door variant. Ready to use in all applications with passive interior installation or minimal heat loss in the outdoor sector. Roof concept with all-round louvred grilles.	Twin-walled enclosure for outdoor siting with resistance class RC 2.	For use with the compact enclosure AX outdoors to create an enclosure-within-in-an-enclosure concept. Cut-outs and integrated louvres ensure optimum ventilation of the enclosure	For wall or pole mounting. Enclosure-within-an-enclosure concept, outer enclosure with cut-out and integrated louvres for optimum ventilation
Material	Aluminium	∎	∎	∎	∎	∎
	Stainless steel / aluminium	Enclosure frame: Stainless steel 1.4301 (AISI 304) Enclosure panels and base/plinth trim: Aluminium, AlMg3 Rain canopy: Aluminium	Enclosure and mounting plate: Aluminium AlMg3	–	–	Enclosure and mounting plate: Aluminium AlMg3
Dimensions W/H/D		From 600 x 1600 x 600 mm to 800 x 2000 x 800 mm	From 600 x 1200 x 500 mm to 1200 x 1200 x 500 mm	From 1000 x 1600 x 500 mm to 2000 x 1600 x 500 mm	From 421 x 550 x 308 mm to 721 x 750 x 448 mm	From 370 x 522 x 210 mm to 630 x 780 x 380 mm
Protection category		IP 55, NEMA 3R, 12, IK10	IP 55, NEMA 3R, IK10	IP 55, NEMA 3R, 12, RC 2	–	IP 55

Ex enclosure

Industrial applications under extreme conditions such as explosion hazard environments demand robust, reliable, individually configurable enclosure solutions. Our Ex enclosure solutions, available in stainless steel or fibreglass-reinforced plastic, comply with international standards such as ATEX, IECEx, UL HazLoc and CCC, and offer protection categories including IP66 and NEMA 4X.

With an adaptable interior installation and an extensive range of accessories, the enclosures may be tailored precisely to your project-specific requirements, from the oil and gas industry, to chemical process technology, through to tough outdoor environments. This gives you the freedom to create bespoke solutions that combine maximum security with exceptional adaptability, guaranteed to suit your applications.

Read more about Ex enclosures:

www.rittal.com/ex-enclosures

Product description	Stainless steel Ex enclosure	Ex terminal box	AX plastic Ex enclosure	Stainless steel Ex enclosure, project solution	
	With hinged door, specifically designed for use in explosion hazard areas in zones 1/2 (gas) and 21/22 (dust). It reliably protects electrical components in tough industrial environments and complies with international safety standards.	With a screw-fastened cover and all-round foamed-in silicone seal for distributor boxes and other applications in hazardous environments. Ideal for the secure accommodation of electrical components in tough industrial environments.	With hinged door – Reliably protects electrical components in hazardous areas.	Upon request, stainless steel Ex enclosures are also available with a hinged door for an extended temperature range and UL Hazloc.	
Material	Stainless steel 1.4301 (AISI 304)	Stainless steel 1.4301 (AISI 304)	Fibreglass-reinforced unsaturated polyester	Stainless steel 1.4301 (AISI 304)	
Dimensions W/H/D	From 200 x 300 x 155 mm to 800 x 1000 x 300 mm	From 150 x 150 x 80 mm to 400 x 200 x 120 mm	From 250 x 350 x 150 mm to 800 x 1000 x 300 mm	From 200 x 300 x 150 mm to 1000 x 1600 x 500 mm	
Protection category	IP 66, NEMA 4X	IP 66 to IEC 60529	IP 65, NEMA 4X	IP 66, NEMA 4X	
Certifications	ATEX, IECEx and CCC	ATEX, IECEx	ATEX, IECEx, UL HazLoc	ATEX, IECEx, UL Hazloc	
Temperature range	–30°C to +80°C	–30°C to +80°C	–40°C to +70°C	–50°C to +180°C	
Application	Oil and gas, chemicals, water treatment, industrial plant	Zone 1/2 (gas), zone 21/22 (dust), e.g. in chemicals, oil & gas, water technology	Chemical plant, oil & gas industry, water and waste water technology	Oil and gas, chemicals, water treatment, industrial plant	

Workstation solutions (PC / IW / consoles)

Workstation applications improve ergonomics and functionality at the human/machine interface. From control consoles to PC enclosure systems through to industrial workstations, we have the perfect product to suit your application.

Read more about workstation solutions (PC / IW / consoles) here:

www.rittal.com/workstations

Product description	CX one-piece console	CX console system	PC enclosure system	Industrial Workstation
	One-piece console for operation and monitoring, with large mounting plate.	Offering maximum flexibility, whether you are just using the pedestal or prefer a 2-part or 3-part assembly with desk unit and/or console.	Secure accommodation of all PC components, from monitors, to PCs, to keyboards For ultimate ease of operation in a modern design. Perfect protection from humidity and dirt, temperature fluctuations and unauthorised access.	Modular system for professional, attractive workstation design in industrial environments. May be combined with support arm system and command panels. System accessories may be used.

Material	Sheet steel	■	■	■	■
	Stainless steel	■	–	■	–
Dimensions W/H/D		From 600 x 970 x 400 mm to 1200 x 970 x 400 mm	From 600 x 1390 x 400 mm to 1600 x 1390 x 500 mm	From 600 x 1600 x 630 mm to 800 x 1600 x 836 mm	From 600 x 900 x 600 mm to 600 x 1000 x 645 mm
Protection category		IP 55, NEMA 1, 12	IP 55, NEMA 1, 12	IP 55, NEMA 1, 12	IP 54
Compatible with VX accessories		■	■	–	–

Support arm and stand systems

Support arm systems CP40/60/120/180 for use in the static load range from 400 to 1800 N. Endless combination possibilities, with a versatile range of functions. Reliable cable protection in all applications.

The support arm configurator is the perfect planning tool for fast, safe design of a support arm system to suit your application. Stand systems slot seamlessly into your work environment with individual adjustments to design, functionality and ergonomics.
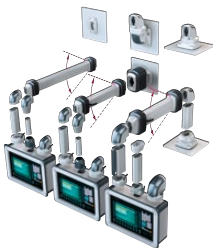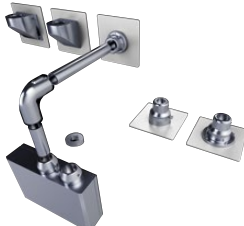
Read more about support arm systems:

www.rittal.com/arm-systems

Read more about stand systems:

www.rittal.com/stand-systems

Product description	Support arm system CP 40/60/120/180	Support section, height-adjustable	Support arm system CP 40, stainless steel	Stand systems	
	One system, four combinable cross-sections for flexible use across a wide range of applications. The stylish design combines aesthetics with exceptional functionality, creating a professional look in any environment.	A clear view of the key factors is guaranteed at all times. Whether small or large, whether you work sitting down or standing up, the height-adjustable support section slides easily to the ergonomically correct position without the need for tricky adjustments. Maximum load: 60 kg	The robust, versatile solution for demanding applications. Its high quality and durability makes it ideal for environments where corrosion resistance and stability are crucial. Covers a broad range of requirements, with flexible installation options and individual modifications.	Satisfies all ergonomic and technical requirements, providing a powerful pillar for your application. Suitable for all enclosure types, with secure accommodation of cables.	
Material	Steel	■	–	–	■	
	Cast aluminium	■	■	–	■	
	Stainless steel	–	–	■	–	

Command panels

Command panels and support arm/stand systems are perfectly coordinated and can be combined to accommodate your individual requirements in terms of design, function and ergonomics. Command panels in aluminium and sheet steel, support arm systems CP 40/60/120/180 in a choice of materials, stand systems for various siting situations.

Read more about Command panels:

www.rittal.com/command-panels

Product description		Comfort Panel	Optipanel	Command panel AX with handle strips	
		Enclosure with a high level of thermal conductivity for optimum passive heat dissipation. Low weight plus high stability.	Enclosure with a high level of thermal conductivity for optimum passive heat dissipation. For smaller panels and control solutions. Super-slimline design, needs hardly more space than the installed equipment itself.	Enclosure based on AX, sheet steel, with support arm cut-out Ø 130 mm to fit support arm system CP 60/120/180 Servicing access from the front. Aluminium front panel, easily dismantled for machining.	
Material	Sheet steel	–	–	■	
	Aluminium	■	■	–	
	Stainless steel	–	–	–	
Dimensions W/H/D		From 628.5 x 508 x 92 mm to 628.5 x 708.5 x 209 mm	From 474 x 387 x 110 mm to 562 x 642 x 159 mm	From 300 x 200 x 155 mm to 600 x 600 x 210 mm	
Protection category		IP 65, NEMA 1, 12	IP 65, NEMA 1, 12	IP 55, NEMA 1, 12	

Command panels

Product description	**Command panel AX for desktop TFT up to 24"**	**Compact Panel**	**Command panel housing with door and premium panel in stainless steel**	
	Enclosure based on AX, sheet steel, for desktop TFT up to 24" with VESA 75/100 accommodation. Effective, attractive protection for commercially available desktop TFTs up to 24" in the formats 16:9 / 16:10.	Command panel in an elegant design made from extruded aluminium sections. Ideal for small operator panels. For a versatile interior installation.	Command panel housing with door made from stainless steel 1.4301 (AISI 304). With handle strips made from plastic approved for use with foodstuffs. May be combined with support arm system CP 40, stainless steel. Premium Panel made of stainless steel 1.4301 (AISI 304), resistant to high-pressure cleaning.	
Material — Sheet steel	■	–	–	
Material — Aluminium	–	■	–	
Material — Stainless steel	–	–	■	
Dimensions W/H/D	650 x 450 x 155 mm	From 241 x 238 x 87 mm to 315 x 388 x 87 mm	From 300 x 300 x 150 mm to 600 x 400 x 150 mm	
Protection category	IP 65, NEMA 1, 12	IP 65, NEMA 12	IP 66, NEMA 1, 12	

Accessories

Discover our versatile range of system accessories – perfectly tailored to your individual requirements. With outstanding quality and innovative solutions, you can optimise your systems for optimum efficiency and reliability.

System lights
The innovative LED lighting system improves illumination for enhanced work safety in the enclosure or IT rack. Suitable for global use: LED system light, connection accessories and socket boxes for LED system light.

Signal pillars
For the reliable display of machine and plant statuses via visual and acoustic signals. Extensive range of accessories adapts readily to a variety of surfaces and support arm systems.

Cable glands
Available in a high protection category of up to IP 68 / IP 69. Cable glands made from polyamide, brass and stainless steel, also available in an EMC version. Cable glands in a hygienic design are available for use in the food industry and clean room environments.

Interface flaps
For connecting various devices or data output without needing to open the enclosure

Accessories
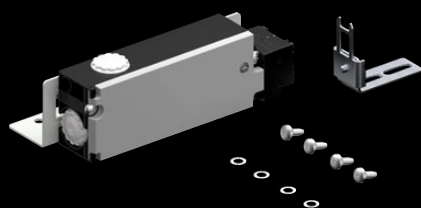
Safety lock

To protect doors against contact with live electrical equipment whilst the master switch is ON.

Pressure relief stopper

With integral sealing membrane, designed specifically for enclosures which are exposed to changing climatic conditions (e.g. when sited outdoors). Available in poly-amide and stainless steel.

Earth straps

For reliable contact and earth connection, to ensure that all enclosure components are incorporated into the PE conductor circuit. Available in a range of cross-sections.

The **wiring plan pockets** provide a safe, organised storage solution for wiring plans directly on the enclosure.

Energy & Power

RiLineX

Whether in industry, IT or renewable energies, efficient and safe power distribution calls for intelligent systems. Rittal's power distribution portfolio includes modular, standard-compliant solutions for a wide range of applications in the low-voltage sector, from individual busbar systems through to complete solutions in the form of a low-voltage switchgear up to 6300 A.

Their tested system components, exceptional assembly-friendliness and digitally assisted planning can save you time and money, extend the service life of your equipment and create scope for new technologies such as DC current and energy monitoring.

reddot winner 2025

GERMAN DESIGN AWARD WINNER 2025

	RiLine busbar systems		
	Tried-and-trusted, super-flexible power distribution systems to accommodate individual requirements. From small power distributors, to bespoke switchgear and controlgear systems through to heavy-current power distributors for infrastructure and industry applications. Simple, secure assembly plus user-friendly planning with design verification data are the distinguishing features of these systems.		
Systems	**RiLineX**	**RiLine60**	
Bar centre distance mm	60	60	
Rated current A up to	800	800, 1600	
Product characteristics	■ Save space thanks to unrestricted top mounting of the board with components ■ Contact hazard protection up to IP 3X ■ Tested short-circuit resistance up to 65 kA ■ Suitable for AC and DC applications	■ Thanks to the special design of the PLS special busbars, components can be installed above them in the support area without any problems ■ Optimum contact hazard protection with all-round encapsulation ■ Tested short-circuit resistance up to 37 kA ■ Suitable for AC and DC applications	

Ri4Power

Ri4Power low-voltage switchgear		
The tested complete solution – Enclosure and bar system. Cross coupling between electrical equipment in low-voltage switchgear has already been tested to IEC 61439 and the data needed for a design certificate is available.	Modular system for low-voltage switchgear with design certificate data plus power distributors and structured system solutions for switchgear with Form 1-4b separation.	ISV distribution enclosures for standard-compliant power supply in buildings and industry. Flexible configuration with practical power distribution modules.
Ri4Power 185 Compact	**Ri4Power Flat-PLS**	**Ri4Power ISV distribution enclosures and wall-mounted distributors**
185	60, 70, 80, 185	60, 100, 185
2100	6300	1600
■ Components in the pitch pattern of the cover system can be installed above the busbar support ■ Integral busbar shielding in the cover section to prevent accidental arcing ■ Components can be installed above the cover section and components can be retrofitted quickly without removing the cover section	■ Tested system solutions to international standard IEC 61439-1/-2 with simple generation of the design verification ■ High levels of short-circuit withstand strength up to I_{cw} 100 kA for 1 sec./I_{pk} 220 kA ■ Tested accidental arcing protection to IEC 61641	■ Distribution enclosures as wall-mounted and free-standing enclosures for individual population with modular elements

RiLineX
Busbar system platform up to 800 A
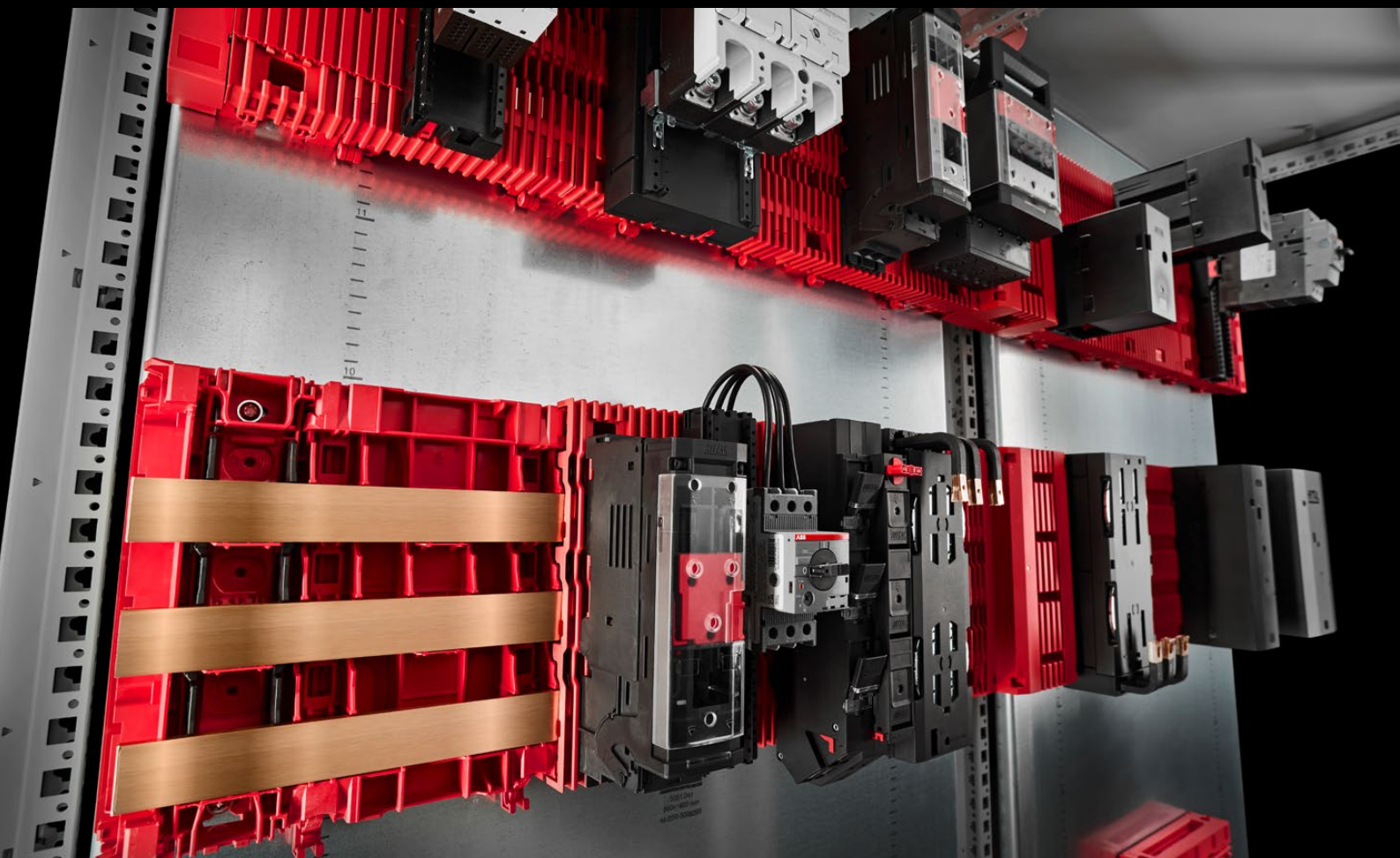
Developments such as rising electrification and energy savings associated with the switch to DC technologies place ever-growing demands on state-of-the-art, reliable power distribution. Demand for internationally recognised and approved components is also growing. At the same time, advancing digitalisation is stepping up the pressure on companies to make their processes more efficient. We need ways to accelerate processes in plant engineering – for example, with power distribution technology.

The new RiLineX busbar system platform provides the optimum basis for efficient, sustainable power distribution and supports the integration of new technologies. This busbar system with 60 mm centre-to-centre spacing offers infinite possibilities. In this way, RiLineX sets new standards in power distribution, helping to future-proof your company for the challenges of the energy sector as well as machinery and plant engineering.

Read more about RiLineX:

www.rittal.com/RiLineX

Your link to the Rittal Partner Network:

www.rittal.com/RiLineX-partner

RiLineX
Busbar system platform up to 800 A
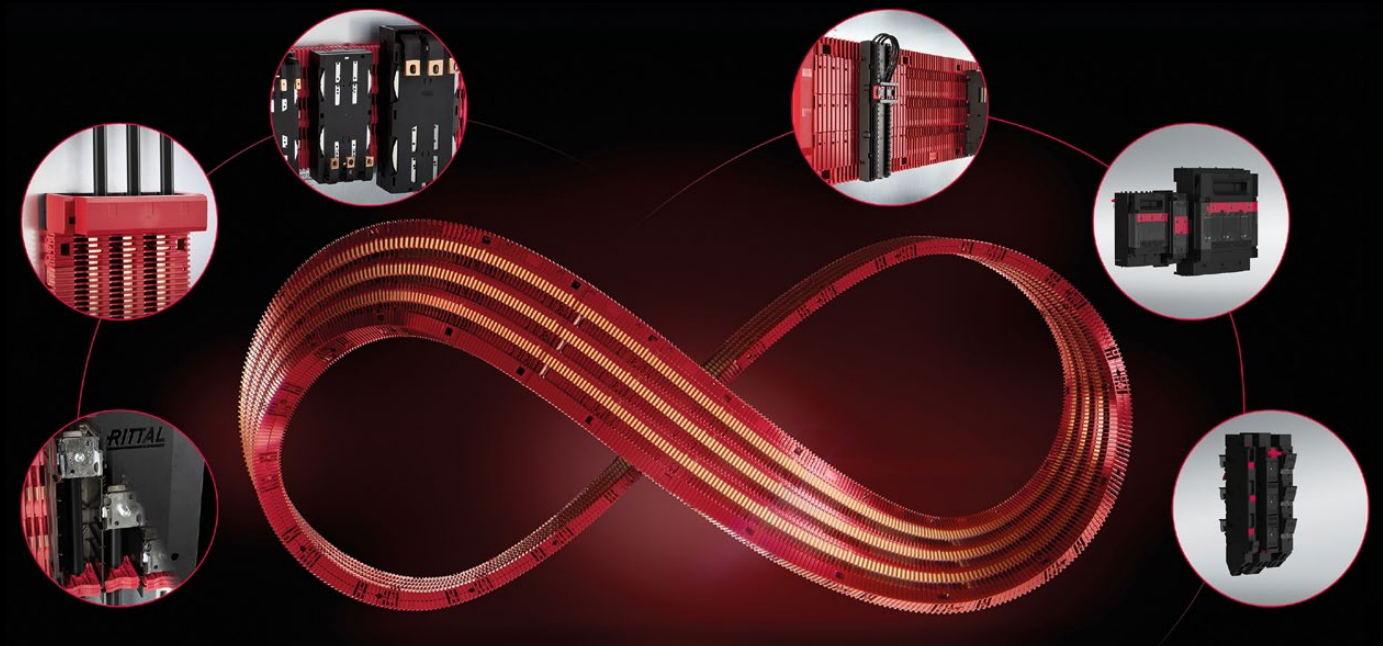
- Rated current up to 550 A / 800 A (500 kW)
- Tested short-circuit resistance up to 65 kA
- Suitable for applications up to 1000 V AC and up to 1500 V DC
- Continuous contact hazard protection to IP 2XB, upgradable to IP 3X at the front
- Unrestricted top-mounting of the board with no interruption from busbar supports saves space
- Fast, efficient planning and installation with our simple system design based on an innovative click system

- Can be used anywhere in the world, thanks to IEC 61439 and UL 508 approvals
- Time savings of up to 30% with engineering, thanks to streamlined system planning
- Time savings of up to 75% with installation, thanks to efficient system assembly.
- Full availability of digital product data in Eplan Data
- Modular extendibility at any time across multiple enclosures (sections) with minimal effort

reddot winner 2025

GERMAN DESIGN AWARD WINNER 2025

RiLineX is complemented to perfection by our Rittal partner network. The open system platform supports customised designs, is not tied to a particular manufacturer and offers complete freedom of choice. Many top manufacturers in our global partner network are committed to RiLineX and develop their components licence-free on our platform, thus further broadening a system of infinite possibilities.

READY FOR RiLineX

RiLine60
Busbar system up to 800 A / 1600 A
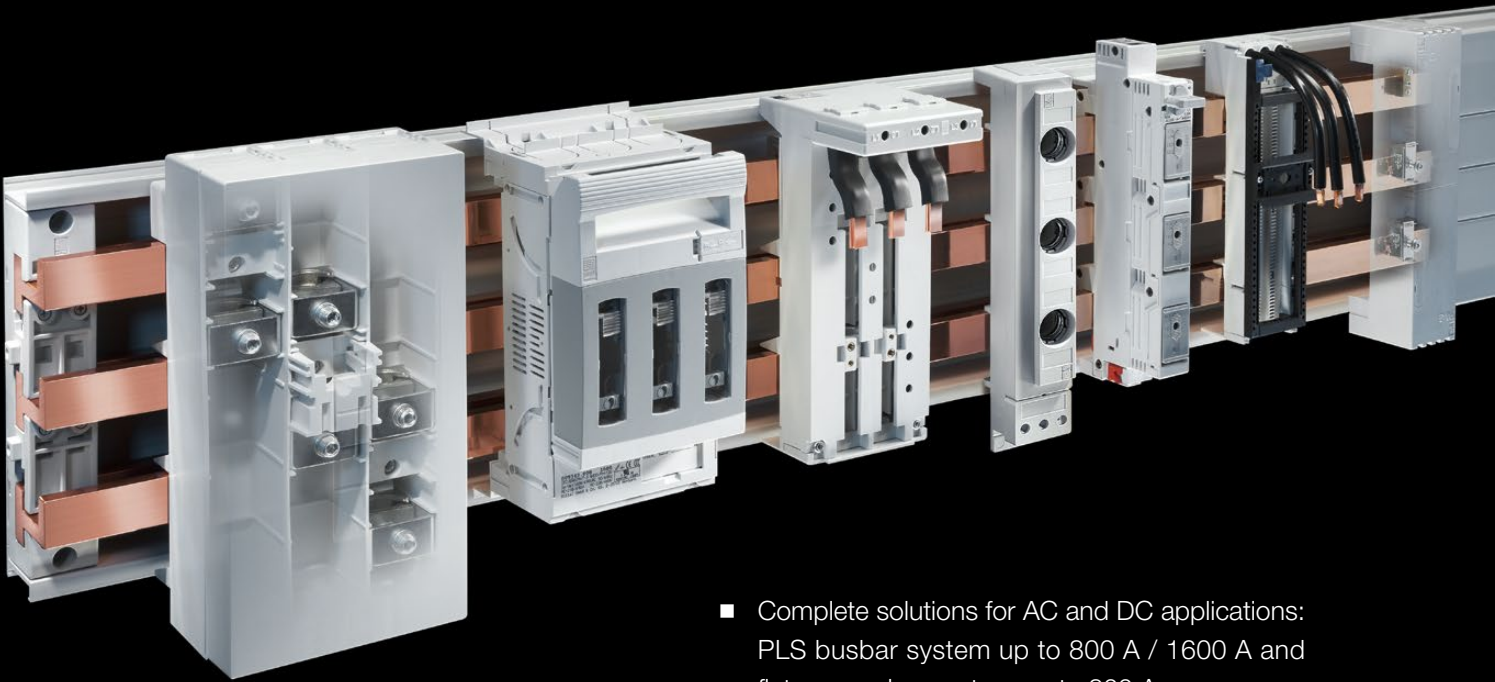
Rittal offers a comprehensive system package with components for individual customer solutions. Wherever in the world they are used, Rittal busbar systems are suitable for a wide range of applications, thanks to comprehensive testing, design verifications and high-profile approvals. Simple project planning, fast assembly and optimum protection against indirect live contact are included as a matter of course with all Rittal busbar system solutions. Support systems and busbars combined with connection systems, component adaptors and fuse components create compact units to accommodate your requirements.

- Complete solutions for AC and DC applications: PLS busbar system up to 800 A / 1600 A and flat copper bar system up to 800 A
- 3- and 4-pole, 60 mm bar centre distance
- Optimum contact hazard protection thanks to all-round encapsulation of the busbar system with base tray, cover section and end cover.
- Short-circuit protection up to 37 kA
- Ultimate safety with comprehensive testing to IEC 61439 and UL approval to UL 508
- The special design of the PLS busbars and the structure of the busbar support allow unrestricted top-mounting with components. In other words, free positioning of the support means easier planning, greater stability where required, and optimum space utilisation.

Read more about RiLine60:

www.rittal.com/riline60

Ri4Power
Low-voltage switchgear up to 6300 A

The Rittal Energy & Power modular system is a complete solution for assembling type-tested low-voltage switchgear with internal form separation.

- Compact, modular system for scalable low-voltage switchgear and power distributors
- Rated current up to 6300 A
- Short-circuit protection up to 100 kA
- Individual adaptation to your requirements with a wide range of standard sections such as air circuit-breakers (ACBs), cable chambers, outgoing feeder sections and coupling sets.
- Standardised system packages for connection systems
- Supply of technical data to generate a design certificate to IEC 61439 using the RiPower software configurator
- Tested accidental arcing protection to IEC 61641
- Separation up to Form 4b is supported

Configure your Ri4Power low-voltage switchgear in next to no time with RiPower. Give it a try!

Ri4Power combined with the new RiLineX busbar system opens up completely new possibilities. In the outgoing section, many different components may be connected under one roof, such as power distributors with control units. To this end, separate compartments are created and shielded from one another.

- Safety from the base to the roof thanks to a fully tested system.
- The modular busbar system can be used across all sections and compartments and is exceptionally straightforward to plan and install. It also offers extensive individualisation options with uncompromising consistency.

Read more about Ri4Power:

www.rittal.com/Ri4Power

Read more about the RiPower configurator:

www.rittal.com/RiPower-configurator

Ri4Power 185 Compact System

With due regard for financial aspects and the requirements of standard IEC 61439, the new VX25 Ri4Power 185 compact busbar system with 185 mm bar centre distance is ideal for configuring a compact, secure power distributor system.

- Rated current up to 2100 A, rated short-time withstand current I$_{cw}$ up to 50 kA

- Optimum space utilisation inside the enclosure thanks to the option of top-mounting the busbar support and cover section with components
- Integral busbar shielding in the cover section prevents accidental arcing
- Complete contact hazard protection up to IP 2XB
- Quick retrofitting of components without removing the cover section
- Secure positioning of the top-mounting components, thanks to centring device
- User-friendly project planning and supply of technical data to generate a design certificate to IEC 61439 using the RiPower configuration software

Read more about the
Ri4Power 185 mm busbar system:

www.rittal.com/ri4power-185compact

Read more about the
RiPower configurator:

www.rittal.com/RiPower-configurator

Ri4Power ISV distribution enclosures

The Ri4Power ISV system delivers a rated current of 1600 A and is designed for the flexible configuration of distribution enclosures in low-voltage switchgear. It combines the modularity of the VX25 enclosure system with the benefits of a thoughtfully designed power distribution system that is perfectly tailored to building and industry applications. Compliance with international standards and testing ensures a high standard of quality and reliability.

- Simple, individual assembly e.g. of protective gear and switchgear using ISV installation modules

- Modular design for flexible system adjustment
- Installation modules may also be used in stainless steel enclosure types for tough ambient conditions
- The ISV installation kit features a removable support for user-friendly, ergonomic assembly and wiring outside of the enclosure.
- Protection category up to IP 54
- User-friendly project planning and supply of technical data to generate a design certificate to IEC 61439 using the RiPower configuration software

Read more about the
Ri4Power ISV distribution enclosures:

www.rittal.com/distribution-enclosures

Read more about the
RiPower configurator:

www.rittal.com/RiPower-configurator

Energy monitoring
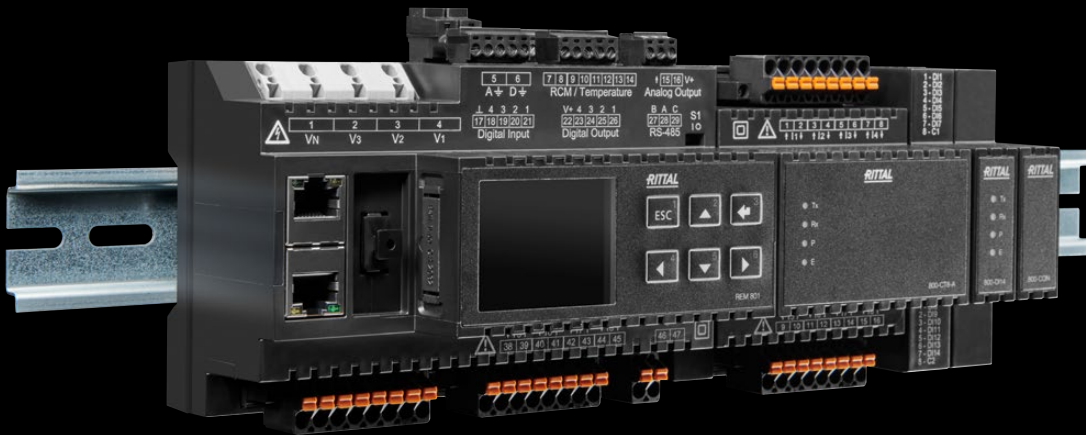
Energy monitoring allows companies to understand their energy consumption in industrial facilities and building infrastructures. Monitoring uses appropriate measurement technology solutions, combined with automated data analysis using suitable software tools. The aim is to make energy flows more transparent and identify efficiency potential. Energy monitoring with the Rittal Energy Meter provides the basis for effective energy management.

Our modular Energy Meters are the ideal solution for precise energy monitoring in modern enclosures, power distribution systems and data centres. Their detailed logging and analysis of electrical energy flows helps to identify energy efficiency potential and reduce your carbon footprint.

- Measurement options may be extended on a project-specific basis with accessory modules.
- The combined logging of voltage, current and phase angles generates a series of key ratios such as power factor and energy consumption. Precise analyses of the energy flows and early detection of any anomalies enable the targeted optimisation of inefficient processes for added efficiency, transparency and operational reliability.
- External equipment can be monitored via digital and analog inputs and outputs.

Current transformers are precise current measurement solutions for connecting to the Rittal Energy Meter (REM). These transformers boast exceptional measurement accuracy and are easily integrated into existing energy monitoring systems.

- Current transformer variants up to 2500 A
- Low-power current transformer technology (333 mV) helps to cut costs by eliminating the design work as well as the customary short-circuit terminals.
- Its compact design makes it suitable for use in enclosures and distributors, even in confined spaces.

Read more about
energy monitoring:

www.rittal.com/Energy-Meter

Read more about
energy efficiency solutions:

www.rittal.com/Energy-Solutions

VX ESS energy storage enclosure system

The VX ESS energy storage enclosure system is a standardised, modular solution for energy storage systems.

- The flexible energy storage enclosure is based on the VX bayed enclosure system and has been purpose-designed to accommodate a wide range of energy storage modules. This enclosure is ideal for batteries and other energy storage modules, as well as hydrogen and supercapacitor applications. Its easy bayability and ready integration into existing systems are what set the VX ESS enclosure apart.

- The enclosure layout may be flexibly adapted, e.g. with individual connection options, to suit different manufacturers and storage module variants.
- Scaling your rack, power distribution, cooling and system accessories is extremely user-friendly, so you can ensure system availability.
- Slide rails and heavy-duty shelves to support storage modules are easily and quickly fitted and boast an impressively high load capacity.
- The robust enclosure frame is designed for a guaranteed total load capacity of 1500 kg. The interior installation system, comprising vertical mounting angles and cross-members in the base and roof section, supports a maximum load of 1000 kg.
- Efficient passive ventilation thanks to perforated door and rear panel
- The flexible interior installation allows optimum organisation and positioning of a range of different storage module shapes and dimensions.
- The VX ESS is available pre-configured and also with a range of individual components for interior installation. In this way, applications are flexibly achieved in a range of different enclosure systems.
- All interior installation components are fully compatible with the CS Toptec outdoor enclosure.

Read more about
VX ESS enclosure systems:

www.rittal.com/vx-ess

Read more about
energy storage solutions:

www.rittal.com/energy-storage-solutions

Climate control

Whether in the enclosure or in the data centre, heat and humidity pose a threat to the availability of your systems. Rittal delivers end-to-end climate control solutions, from energy-saving cooling units, to precise IT cooling, through to modular high-performance concepts. For panel builders and switchgear manufacturers as well as for IT managers, this translates into maximum operational reliability, minimum downtime, and a solution that adapts precisely to your requirements.

Climate control type	Fans, filter fans, air/air heat exchangers	Cooling units, thermoelectric coolers	
	Ambient air cooling units are exceptionally cost-effective at dissipating heat loads, provided the ambient air is relatively clean and at a temperature below the required enclosure internal temperature.	Cooling units keep the enclosure internal temperature at a constant level, which is independent of the ambient temperature. The air routing is designed to meet individual requirements. Two separate circuits prevent the ingress of dust into the enclosure.	
Air throughput, unimpeded airflow m³/h	20 – 1160	–	
Specific thermal output W/K	17.5 – 90	–	
Total cooling output W	–	80 – 5500	
Continuous thermal output W	–	–	
Product characteristics	The latest generation of Blue e+ filter fans are impressively simple to maintain and available in AC/DC, EC and EMC variants. Filter fans with EC technology, in particular, boast IoT capabilities that deliver significant time and cost benefits.	The Rittal Blue e+ series is the world's most efficient cooling unit. With heat pipe technology as standard and speed-controlled components, average energy savings of 75% are achievable.	

	Air/water heat exchangers, chillers	Enclosure heaters	Climate control accessories
	Efficient liquid cooling may be used in all situations requiring a high cooling load, such as process and machine cooling or for dissipating heat loss from enclosures using air/water heat exchangers. Liquid cooling allows you to achieve spatial separation between cooling production and process cooling.	Condensation poses a particular risk for control electronics, especially with outdoor siting. A range of output categories ensures that the correct thermal output is always available.	Perfectly coordinated components allow you to customise climate control to your specific requirements, whether you need targeted air routing, precise control of the equipment or appropriate consumables.
	–	–	–
	–	–	–
	300 – 50,000	–	–
	–	10 – 800	–
	Energy savings of up to 70% can be achieved with the Blue e+ generation of chillers. They ensure efficient cooling of liquid media with exceptional control accuracy, thanks to innovative DC inverter technology.	The innovative profile geometry ensures even heat distribution inside the enclosure and prevents cold spots. The tool-free push-in connection technology ensures a much faster wiring process.	Our innovative range of accessories additionally enhances the efficiency and reliability of climate control components with monitoring, control and individual air routing.

Fans, air/air heat exchangers

Fans are ideal for dissipating heat loads cost-effectively, provided the ambient air is relatively clean with a temperature below the desired enclosure internal temperature.

Benefits at a glance

- Air throughput from 20 m³/h to 1160 m³/h
- IP 54 as standard (up to 700 m³/h)
- Tool-free assembly
- Innovative diagonal fan technology for higher, more constant air throughput in the installed state.
- Air flow direction may be reversed from blowing (default setting) to extracting

Blue e+ EC filter fans

Blue e+ filter fans with ultra-efficient motor technology boast impressive multi-voltage capabilities plus the option of linking with the IoT interface.

AC and EC roof-mounted fans

Fan for cooling the enclosure via the roof. One system and only one mounting cut-out for all sizes. Sophisticated air routing with minimal pressure losses guarantees optimum efficiency.

Air/air heat exchangers

Two separate air circuits prevent the ingress of dust into the enclosure. Cooling output from 17.5 W/K – 90 W/K. The temperature difference between the internal and external circuit determines the amount of heat loss that may be dissipated.

Read more about
fans and air/air heat exchangers here:

www.rittal.com/air-climate-control

Cooling units

Cooling units keep the enclosure internal temperature at a constant level, which is independent of the ambient temperature. Two separate circuits prevent the ingress of dust and oil into the enclosure.

Thermoelectric coolers

Powerful, lightweight climate control units based on Peltier technology provide efficient cooling of command panels and small enclosures.

Cooling units

Available as wall-mounted or roof-mounted cooling units.

Blue e range

- Wide output range covering all cooling requirements from 0.3 to 4.0 kW
- Sheet steel and stainless steel variant, for protection categories NEMA 4X and UL type 3R/4, 12

Blue e + range

The world's most efficient cooling unit range.
The hybrid technology in Blue e+ cuts carbon emissions by a significant amount.

- A wide output range for all cooling requirements from 0.3 to 5.5 kW
- Available in sheet steel, stainless steel, chemical, outdoor and dynamic variants

Modular climate control concept
With no mounting cut-outs whatsoever, different combination options with various dimensions, cooling outputs and voltages support a wide range of applications.

Read more about cooling units here:

www.rittal.com/cooling-units

Enclosure heaters

Enclosure heaters help prevent the formation of condensation inside the enclosure and maintain a constant minimum operating temperature (e.g. when the system is switched off overnight).

Fast assembly system

- Quick-connect terminal for power supply
- Terminal supports parallel connection of an additional heater
- Minimal wiring work

Superior efficiency

- Energy-saving, self-regulating PTC technology
- Superior thermal output with an identical construction size
- Constant heat distribution

Greater flexibility

- Output range: 10 – 800 W
- Secured to a 35 mm top hat rail or mounting plate

Thanks to their self-regulating PTC technology, Rittal heaters ensure a constant distribution of heat.

Read more about enclosure heaters here:

www.rittal.com/heaters

Air/water heat exchangers

If the heat exchanger and cold water supply system are physically separated, waste heat from the enclosure will not increase the ambient temperature.

Air/water heat exchangers can also be used at extreme ambient temperatures ranging from +1°C to +70°C. Even extreme levels of contamination in the ambient air, e.g. with dust and oil, do not affect functionality. High heat loads are dissipated in the most confined spaces.

Benefits at a glance

- Also available with all water-carrying parts made from stainless steel
- High protection category IP 55 to IEC 60 529
- Virtually maintenance-free
- Regulation of the air and water circuits is electronically monitored
- Air/water heat exchangers are also available in Hygienic Design for use in hygiene-critical production zones in the food and beverage industry

Read more about
air/water heat exchangers here:

www.rittal.com/heat-exchangers

Chillers

Liquid cooling is a particularly efficient solution for numerous applications, thanks to its exceptional flexibility and capacity to dissipate high heat loads from machines and enclosures using water. In many industrial manufacturing processes and IT applications, the use of chillers to cool liquids is a basic requirement for smooth-running operations. IT racks, enclosures and machine tools, in particular, must maintain an exact temperature for the precise machining of metals.

Blue e+ chillers 1.5 – 7.0 kW

Ensure centralised and efficient cooling of liquid media with a high level of temperature accuracy and innovative DC inverter technology. Also available as an outdoor variant. Energy cost savings of up to 70%.

Blue e chillers 8 – 50 kW

Deliver maximum efficiency for your systems with exceptional precision – while using 40% less refrigerant. We offer an extended range covering all standard output categories, with fast availability from stock.

VX25 TopTherm chillers 8 – 20 kW

A compact yet versatile design. The chiller and enclosure are perfectly matched and boast a minimal footprint, enhanced efficiency and fast availability as standard.

Read more about
chillers here:

www.rittal.com/chillers

Spare parts and accessories

Boost your cooling efficiency with optimum control

Finding the perfect climate control solution is now easier than ever, with matching system accessories and climate control components perfectly tailored to your requirements. From parametrisation to targeted air routing and precise control of the equipment, Rittal has the right solution for every application.

Benefits at a glance

- Complete system solutions
- Perfectly coordinated components

Read more about
spare parts here:

www.rittal.com/spare-parts-climate-control

Read more about
accessories here:

www.rittal.com/accessories-climate-control

IT cooling

Rittal delivers end-to-end climate control concepts, from cooling individual racks through to the complete coverage of data centres. Safety and efficiency are our top priorities. Our range includes solutions for a wide range of requirements, be it small or large cooling outputs, individual edge applications or extensive data centres. We have the right solution for every requirement in the IT cooling sector.

| Blue e+ roof-mounted | Blue e+ wall-mounted | LCU CW | LCP DX | LCP CW | LCP Rear Door CW | LCP DX | LCP CW | Rear Door Heat Exchanger | CDU In-Rack | CDU In-Row |

1,6 kW - 53 kW per rack — 70 kW - 1000 kW per rack

Low cooling output
Professional IT solutions for customised IT racks and micro data centres

Medium cooling output
Customised solutions for demanding data centres

High cooling output
The most powerful solution for high-end data centres

Liquid Cooling Units
The ideal cooling solution for individual server/network racks and edge applications across a wide range of industries.

Liquid Cooling Packages
Powerful products for rack/suite cooling in medium-sized and large data centre infrastructures as well as high-performance cooling (HPC).

IT chillers
Standard IT chillers up to 50 kW cooling output. Larger cooling output requirements can be accommodated on a project-specific basis in collaboration with the client.

Read more about
IT cooling here:

www.rittal.com/it-cooling

Direct Liquid Cooling – Modular platform solutions

The Rittal DLC portfolio is purpose-designed to meet the requirements of high-performance computing (HPC). It may be seamlessly integrated into existing or new IT infrastructures, is modularly scalable, and its redundant components make it suitable for high-MTBF operation.

The Rittal Direct Liquid Cooling portfolio is available as:
- An air-based solution in the form of a rear-door heat exchanger (70 kW)
- A water-based CDU in-rack solution (up to 150 kW) and CDU in-row solution for very high performance densities up to 1 MW in your data centre
- Modular pipework concept from the CDU through to bespoke manifolds in the rack

Benefits at a glance
- Modular concept for all units
- Redundant pump units, filters and fail-safe mode for pumps
- Leak monitoring on an individual component basis
- Sensors and controllers can be replaced during active operation
- Pumps and filters in the CDU in-row solution can be replaced during active operation
- Power supply via DC busbar

Read more about
Direct Liquid Cooling here:

www.rittal.com/dlc

IT Infrastructure

Be it a small edge data centre in a production plant or a large-format hyperscale environment, those in charge of IT face the challenging task of organising their infrastructure flexibly, securely and efficiently.

Rittal's IT portfolio offers modular solutions for every installation phase, from single racks, to smart power distribution and monitoring, through to complete data centres. Ready-to-use in next to no time, energy-efficient and future-proof – for maximum availability with minimal effort and expense.

IT segment	IT racks and enclosures	IT power	
	The VX IT is the solution for all network and server applications, whether a network distributor or server racks in an edge, colocation or hyperscale data centre. It is the ideal platform for all requirements in modern IT infrastructures.	Put your faith in innovative IT power concepts for energy distribution and backup to meet all your redundancy, scalability and availability requirements.	
Product variants	Whether you have a network infrastructure, edge applications or data centre, with Rittal IT racks and enclosures you can be sure that your IT is secure, flexible and future-proof at all times, from production environments through to state-of-the-art colocation data centres.	From the simple socket strip, to interconnected Power Distribution Units (PDU), through to comprehensive planning (including low-voltage distribution centre, UPS and RPP Remote Power Panel), you can depend on a reliable power supply. Our power distribution solutions for IT racks cover all application areas: – Power distribution: Socket strips, PDU basic, PSM – Power distribution and measurement: PDU metered and retrofittable solution Inline Meter PDU – Power distribution, measurement and switching: PDU switched and PDU managed	
Product characteristics	Rittal IT racks are available in heights ranging from 15 to 52 U and a load capacity of up to 18,000 N. Additionally, wall-mounted enclosures offer compact, space-saving solutions in smaller networks or edge environments.	Optimum integration of the rack PDUs by mounting in the zero U space and professional monitoring by linking to standard DCIM software (such as RiZone). For optimum management of the power supply inside the rack. The output spectrum of our PDUs ranges from 3.7 kW to 22 kW.	

	IT cooling	IT monitoring	IT security solutions	Modular data centre solutions
	Climate control concepts from Rittal cover the full spectrum of applications, from cooling a single rack through to entire data centres. Security plus optimum energy and cost efficiency are paramount.	Today's IT landscape would be unthinkable without monitoring. It has become firmly established as a permanent feature of physical IT security, allowing modern IT infrastructures to be operated securely.	As well as security rooms, Level E Micro Data Centers provide optimum protection against potential physical threats. Modularity and extendibility offer exceptional flexibility while also protecting your investment.	Rittal offers predefined MDC bundle solutions for up to four IT racks and various climate control options. There are also precon-figured RiMatrix data centre solutions for modules with more than four racks.
	Demand-based cooling provides the basis for optimum energy efficiency in data centres, thanks to 45 units with cooling outputs ranging from 3 to 481 kW.	More than 15 different sensors (including temperature, leak and access sensors) and upgrades ensure 360° monitoring of your entire IT infrastructure. Rittal's handle solution allows you to monitor access to the racks. Automatic emergency ventilation enables automatic door opening in the event of an alarm.	A flexible modular system allows you to configure a solution tailored to your requirements, for both security rooms and Level E Micro Data Centers.	The predefined RiMatrix data centre modules can each cover up to 400 kW, allowing several modules in a data centre to be combined.
	Integral climate control concepts for rack, suite and room climate control help to minimise operating costs and ensure energy-efficient operation over a period of many years.	The CMC III monitoring system can accommodate up to 32 sensors per system and has an integral CAN bus for simple wiring. The access management system provides the ultimate in security using 2-factor authentication and the four-eyes principle.	Protection from fire, flue gases, water and dust, as well as unauthorised access. Power supply, cooling, monitoring, fire alarm and extinguisher systems round out this security cover into a complete data centre.	The predefined solutions can be customised to ensure maximum flexibility and customer benefits with minimum planning outlay.

IT racks

In today's digitalised world, reliable accommodation and protection of your IT components is crucial. Rittal's comprehensive IT rack portfolio delivers innovative, practical solutions for all applications, from network racks through to edge, cloud and hyperscale data centres.

VX IT

The VX IT is the flexible solution for modern IT infrastructures. Its modular layout allows it to be configured individually and equipped with a wide range of accessory parts, from smart cable routing, to 482.6 mm (19") technology, through to PDUs and monitoring systems. This helps you create a bespoke rack for any application.

VX IT compartment rack

Ideal for environments with multiple user groups: The VX IT compartment rack supports the integration of different applications into a single rack. It offers two or four separately accessible, lockable compartments, each with their own, protected cable routing. Perfect for colocation and shared IT environments.

Read more about
IT rack systems:

www.rittal.com/it-rack-systems

IT racks

TX colocation rack

Developed specifically for colocation applications, the TX Colo is sure to impress with its high level of security and ready-to-use concept. With an integral divider panel and coded VX comfort handle, the rack is available for immediate use in the data centre while providing reliable protection from unauthorised access. Pre-assembled air baffle plates provide optimised air routing and efficient cooling.
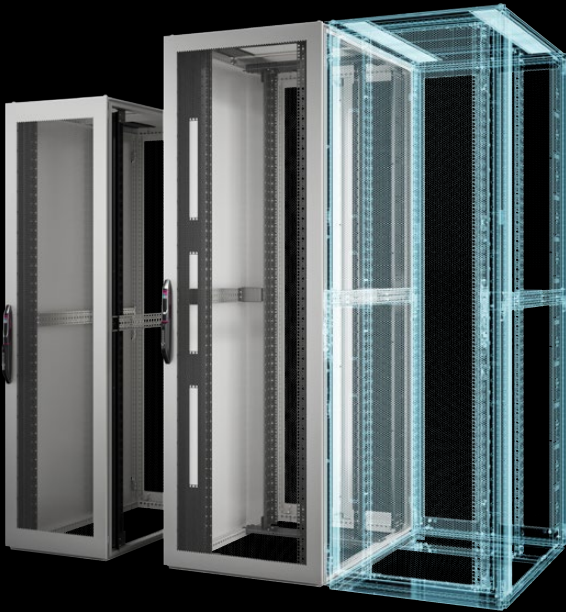
TX CableNet

The TX CableNet is ready to use immediately. Its dismantlable variant is also suitable for installations in confined spaces with limited access. The rack delivers meticulously planned cable routing and is perfectly tailored to the requirements of modern network infrastructures.

OCP ORV3

The OCP ORV3 rack sets new standards in performance density and energy efficiency. The integral 48 V DC / 18 kW busbar supplies DC power directly to the active components. Tool-free fitting of accessory bars enables the flexible integration of both 21" and 19" components. Ideal for AI applications and CPU-intensive workloads.

IT enclosures
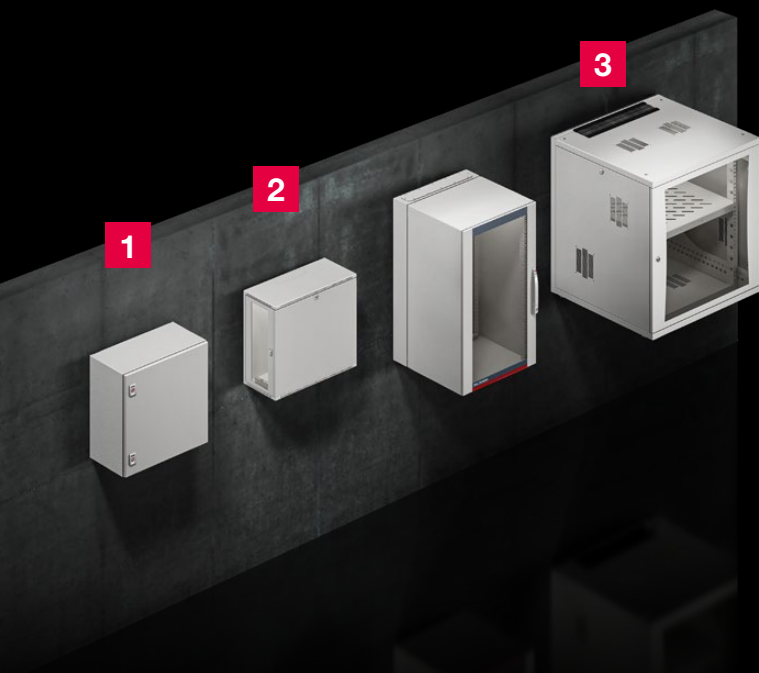
As IT infrastructures become ever more complex, bespoke enclosure solutions are crucial for availability, efficiency and security. The versatile IT enclosure portfolio from Rittal delivers precisely tailored solutions for a wide range of applications, from space-saving integration into office environments through to robust, protected accommodation of IT systems directly in the industrial environment.

1

Wall-mounted enclosures AX IT

Ideal for industrial applications: This solution delivers a resilient enclosure basis for protected integration of your IT systems, including an integral 482.6 mm (19") mounting system for direct, efficient installation of your components.

2

VerticalBox

Compact wall-mounted, under-desk or desktop racks for small networks in office environments. The enclosure also provides exceptionally space-saving vertical installation of components and unrestricted access to the 482.6 mm (19") level from all sides.

3

FlatBox

Enclosure with 482.6 mm (19") mounting angles supplied in dismantled flat-pack form, ideal for accommodating local network solutions, e.g. in office environments. The FlatBox is easily assembled with the tool-free quick-assembly system and provides access to the installation level from all sides. It may be flexibly used as a wall-mounted or floor-standing enclosure.

Read more about
IT enclosures:

www.rittal.com/it-enclosures

IT enclosures

Wall-mounted enclosure AX, 3-part

This functional wall-mounted enclosure is sure to impress with its meticulously planned construction: A designer glazed door, a vertically hinged centre part and a stable installation wall section provide user-friendly, all-round access. The middle enclosure section with mounted components can be swung out completely to one side for maximum accessibility during installation, maintenance and servicing.

AX IT Nano Data Center

This purpose-developed enclosure facilitates the assembly of small data centres directly in an industrial environment – ideal for immediate processing of large data volumes in production plant. The swing-out 482.6 mm (19") mounting frame enables vertical integration of deep active components such as servers and switches in an exceptionally slimline wall-mounted enclosure. In this way, direct access to the IT infrastructure is guaranteed at all times. Integral active climate control also ensures reliable operation under challenging ambient conditions.

IT power

Stable, efficient power distribution and the protection of critical loads are the backbone of any powerful IT infrastructure. Rittal's complete modular solutions offer maximum flexibility and scalability, from simple socket strips through to smart, interconnected Power Distribution Units (PDUs), modular busbar systems and uninterruptible power supplies (UPS). The entire energy path remains transparent and controllable at all times, for maximum operational reliability and future-proofing.

Power Distribution Unit (PDU)

- For any application – 5 variants with different measurement and switch functions for each phase and/or output slot
- Compact design – Tool-free assembly in the zero-U space
- Technical perfection – Key monitoring functions (alarm relay, digital input and alarm signal generator) are integrated, and up to 16 ambient sensors including access management may be connected
- Network functionalities – 2x Gigabit network interface for connection to management systems such as RiZone and for cascading of up to 16 PDUs

Application/PDU variant	Basic	Metered	Metered Plus	Switched	Managed
Simple power distribution	x	x	x	x	x
Measurement per phase	–	x	x	x	x
Measurement per output slot	–	–	x	–	x
Switching function per output	–	–	–	x	x
Measurement and switching per output	–	–	–	–	x

Read more about
IT power here:

www.rittal.com/it-power

IT power

Power System Module (PSM)

- Individually adaptable – One or two infeeds with single or three phase; optional measurement of voltage, current and power consumption via CMC and relevant modules
- Space-saving – Option of installation in the zero-U space
- Modular interchangeability – With versatile plug-in modules with a range of socket types
- Patented plug & play system allows you to replace modules with the system operational, without interrupting the power supply in the IT rack
- Easy circuit reversal in redundant systems by simply rotating the module

Socket strips

- A range of designs with various functional elements
- Available in two materials, in an aluminium duct or in plastic
- Between 3 and 12 slots
- Option of local energy measurement
- Practical, individual attachment with a bracket that may be used in four different positions
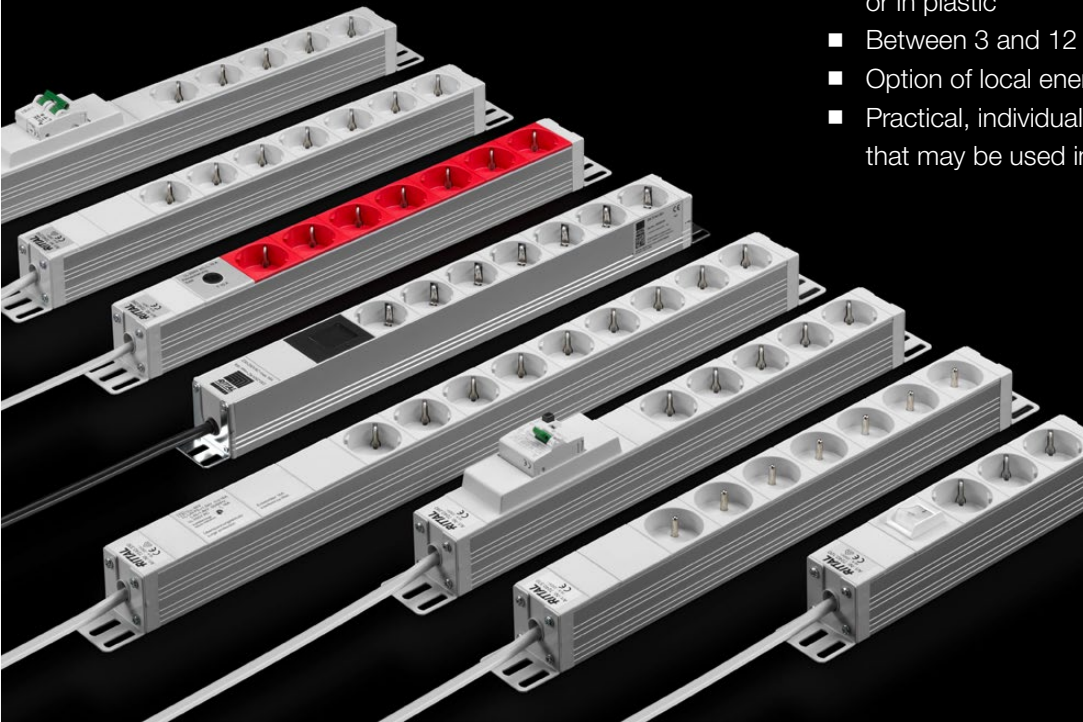
IT monitoring

Powerful IT systems need more than just reliable hardware. They also rely on precise information about their environment. Factors such as temperature, humidity, power supply, access control and many other physical parameters directly influence the availability and security of your IT infrastructure.

Rittal's CMC III monitoring system delivers a flexible, scalable solution for seamless monitoring of all relevant ambient conditions, whether in the IT rack, enclosure, container or plant room. In combination with suitable sensors, the system continuously logs and analyses all operating and environmental parameters.

The modular layout enables a bespoke configuration, from temperature and humidity sensors, to door contacts, through to monitoring electricity consumption, smoke generation and vibrations.

Simple installation, an intuitive web interface and exceptional data protection make the CMC III the ideal solution for IT managers keen to minimise the risk of failure and permanently reduce their operating costs.

Benefits at a glance
- **Exceptional reliability** via permanent monitoring of the physical enclosure environment
- **Modular system of sensors** – Flexibly adaptable and extendible at any time
- **Integration into central management systems** via SNMP and OPC UA
- **Real-time messaging** if limits are exceeded or critical statuses arise
- **Intuitive web interface** for configuration, alarm management and evaluation
- **High availability** thanks to redundant power supply

Automatic Door Opening – ADO

Protection and security in the event of an alarm: Automatic door opening provides reliable emergency ventilation for your IT racks.

- Doors with vent flaps for automatic ventilation of closed network/server enclosures in an emergency
- Supports remote control of the CMC III system
- Tinted single-pane safety glass ensures a high standard of safety

Read more about
IT monitoring:

www.rittal.com/it-monitoring

IT monitoring

Access management

Maximum control, seamless security and flexible access options: Access management solutions from Rittal help you monitor access to your IT racks at all times.

- Control and monitoring of access to the racks
- Door monitoring (open/closed)
- Lever handle monitoring
- Application of the four-eyes principle and two-factor authentication
- Access with numerical codes or transponder tags
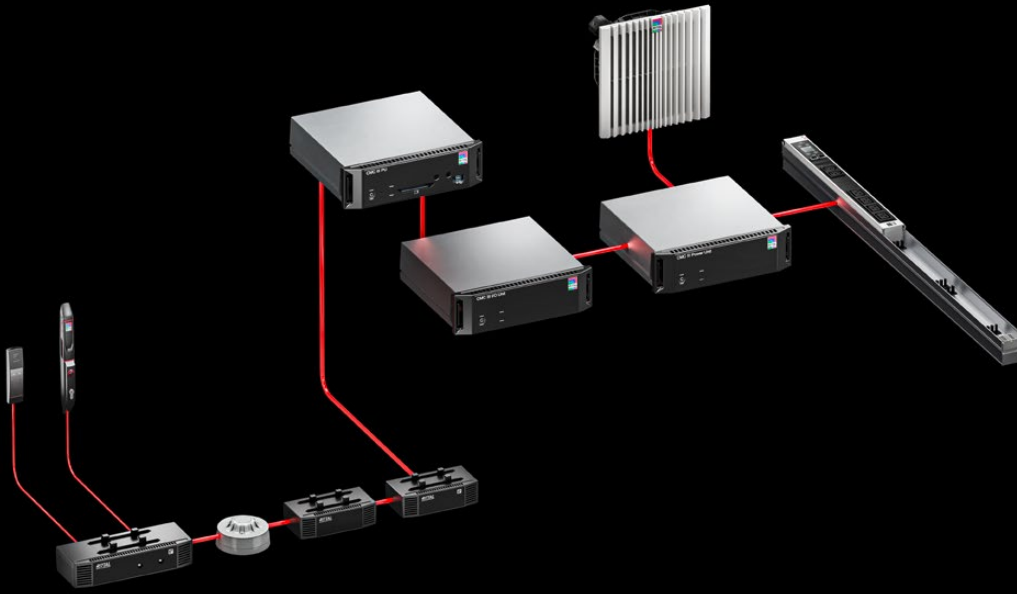
Fire alarm and extinguisher system

A fire in the data centre could mean downtime and loss of data. Reliable early fire detection and extinguishing is therefore crucial. The modular DET-AC system from Rittal provides early, targeted protection for security safes and server racks. The compact system is integrated directly into the IT rack, identifies smoke and increased temperatures at an early stage, and in the event of a serious incident, automatically triggers the extinguisher process, with maximum response speed before a fire can develop.

Benefits at a glance

- **Early fire detection** by highly sensitive smoke detectors
- **Automatic, selective activation** of the extinguisher process if fire is detected
- **Residue-free extinguishing medium** – No consequential damages for hardware
- **Space-saving integration into the rack** – Only takes up 1 U
- **Extendible** – Protect up to five racks in sequence
- **May be integrated into the CMC III monitoring system** – Have eyes on your security infrastructure at all times

Read more about
fire alarm and extinguisher systems:

www.rittal.com/fire-protection

Data centre solutions

Modular, compact, powerful: Our data centres at a glance

Rittal data centre solutions deliver maximum flexibility, security and performance – Tailor-made to suit the most diverse requirements. Compact IT environments will benefit from our **RiMatrix Micro Data Center**: Fully pre-configured systems with up to four racks which unite all the key components of a data centre in one space-saving enclosure. They are ready-to-use in next to no time and ideal for decentralised locations or smaller companies.

For larger IT infrastructures, we offer the modular **RiMatrix Data Center**, which satisfies even the most demanding requirements with an output of up to 400 kW per module. This solution comprises more than four racks and its modular layout means it can be flexibly extended. Energy-efficient cooling and power supply concepts ensure reliable, sustainable operation, ideal for companies with growing IT requirements.

Read more about
data centre solutions:

www.rittal.com/data-centres

Data centre solutions

Ultimate protection: Security solutions

The protection of sensitive IT infrastructures is one of our top priorities. We offer two security solutions for this purpose: the **basic protection room**, providing system-tested protection from physical threats such as fire, water and unauthorised access, and the **high-availability room**, certified by the manufacturer-independent certification agency ECB·S to verify compliance with the highest security standards.

Additionally, for our Micro Data Centers we also offer the **MDC Level E** security solution, a security safe system developed specifically for compact IT systems, which guarantees reliable protection in even the most confined spaces.

IT infrastructure outdoors: Outdoor solutions

Our portfolio is complemented by outdoor solutions that allow you to operate data centres even outside of conventional building structures. Our **IT containers** are ideal for larger IT applications and adapt flexibly to a range of requirements. For smaller applications, we offer the **Outdoor MDC** – Robust, weather-proof and ready to use straight away.

Our 360° service at a glance

DIGITAL

SMART

RELIABLE

PREVENTIVE

360° Service

Maximum system availability begins with a strong service partner: With the Rittal Service, industrial and IT companies receive professional support throughout the entire lifecycle of their cooling and infrastructure solutions – reliable, fast, and global.

All from a single source

The Rittal After-Sales Service team are experts in all aspects of servicing, from installation and commissioning, to maintenance and repairs, through to efficiency enhancements and modernisation.

Manufacturer expertise

Our qualified service engineers with their expert knowledge and understanding of your industry and IT applications are always on hand to assist you. Our technical experts undergo full and continuous training, which results in a high quality standard globally and contributes to our extremely high first-time fix rate in fault resolution.

Worldwide service

A global presence

With 150 service sites and more than 1,000 service specialists around the globe, we guarantee rapid response times internationally. With over 70 Rittal service technicians in Germany, we are never far away when you need us. Contractually agreed response times ensure a qualified service technician will be with you in no time – and keep downtime costs to a minimum. We also offer a global maintenance and spare parts service.

America
107
8

Europe, Africa, Middle East
233
1
31

Asia-Pacific
135
1
13

RITTAL

Rittal locations worldwide

Rittal service technicians

Service training centres

Number of subsidiaries

Read more about
Rittal Services:

www.rittal.com/service

Assembly, installation and commissioning

A smooth-running IT infrastructure from day one?

We take care of it!

Rittal service technicians have the manufacturer's expertise at their fingertips and can look after every aspect of your OT infrastructure. That includes connections to all relevant systems – with functional testing. Your staff also benefit from comprehensive user training.

Your benefits with the Rittal Service:

- Maximum reliability and uptime of OT infrastructure
- Accelerated installation process and minimised potential sources of error.
- A secure, stable infrastructure, verified by load tests etc.
- Comprehensive function tests, including a review of the connection to the building management system, alarm chains and redundancy circuits.
- Transparency and documentation with detailed commissioning records
- Maximum operating efficiency with operator training courses delivered directly by the manufacturer

Service agreements

A predictable service budget?

It's never been easier!
The modular design of Rittal maintenance agreements gives you the flexibility to precisely tailor the scope of our services to your specific requirements – and with clear and transparent terms and conditions. This guarantees you a high level of fail-safe operation at a budgeted cost.

Your benefits with the Rittal Service:

- Guaranteed response times for a site visit by a technician ensure minimal downtimes
- Peace of mind with your day-to-day operations as our service team plans and performs regular maintenance
- Reduced risk of unexpected repair costs with extended warranties up to 5 years
- Rapid availability of spare parts from an individually defined stock (24/48-hour delivery promise)
- Plannable budgets, because costs are fixed and known in advance

Professional maintenance and inspections

Keen to avoid downtime and preserve the value of your assets?

We can help!

Preventive maintenance for your systems helps to quickly detect and/or prevent failures ahead of time. Our service technicians will thoroughly clean your units, check their condition, identify worn parts, and replace them on a preventive basis. As a certified service provider, Rittal regularly carries out mandatory leakage tests as well as inspections.

Your benefits with the Rittal Service:

- Greater operational reliability and availability with early detection of potential malfunctions
- Protect your investment and maintain the value of your assets and IT equipment, thanks to regular maintenance
- Reliable operation and protection from legal risks via compliance with statutory regulations and technical standards to DIN 31051:2012-09
- Rapid, reliable monitoring of the status quo ensures transparency and control
- Considerable cost savings with up to 30% better energy efficiency

Technical support and fault resolution
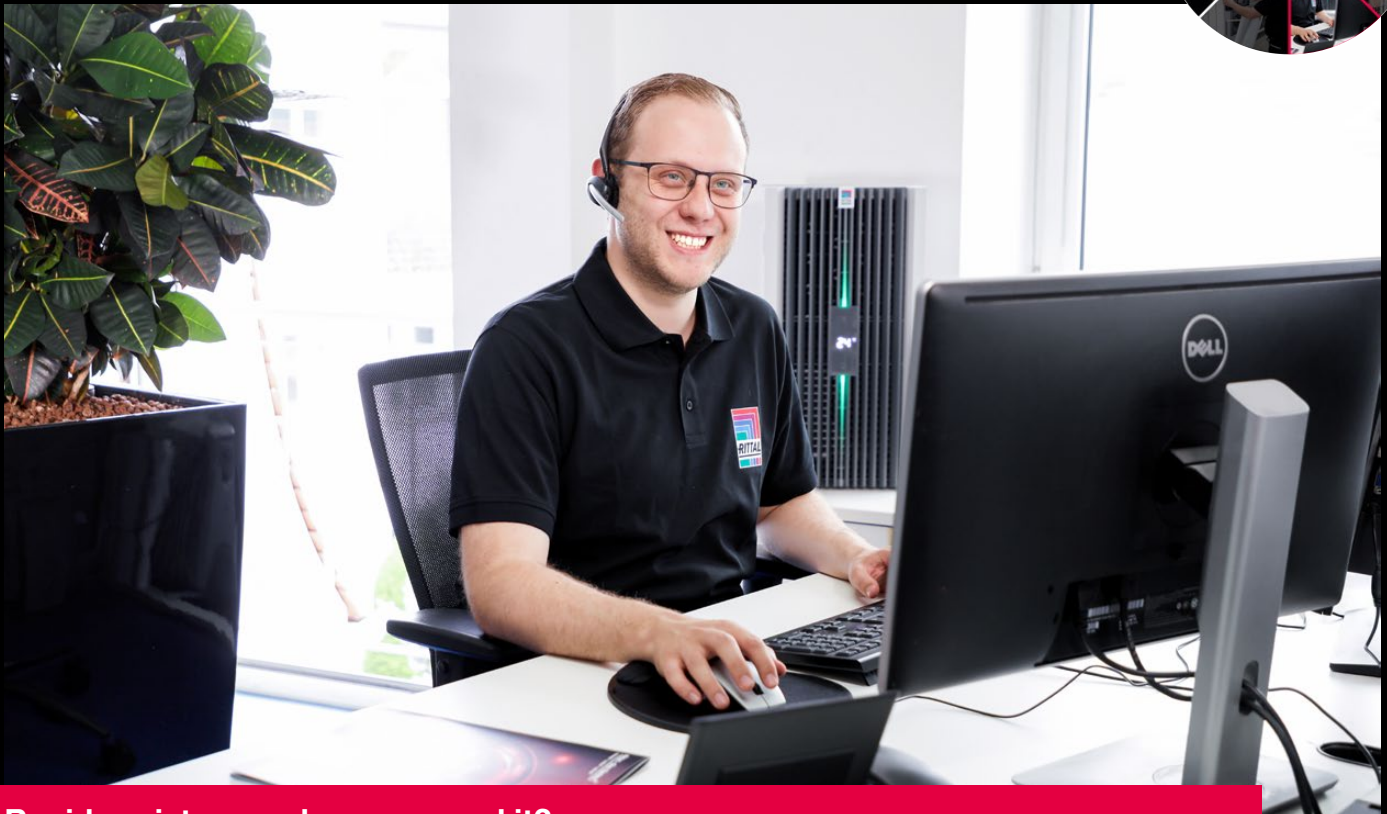
Rapid assistance when you need it?

We're here to help!

Thanks to our 150 service sites and over 1,000 qualified service technicians around the world, we can respond rapidly and stop your production grinding to a halt if a malfunction occurs.
We are there for you – round the world and round the clock.

Your benefits with the Rittal Service:

- Fast, professional troubleshooting and fault resolution by qualified and certified Rittal service technicians means minimal downtime
- Rapid assistance from a well-developed service network with guaranteed fast response times
- Rapid troubleshooting increases productivity
- Reliable service performance ensures smooth operations

Original spare parts


Need a spare part?

Find and get the right part quickly and easily!

Using Rittal original spare parts helps to preserve the value of your assets. You benefit from spare parts stocking – based either at Rittal or at your premises – that is customised for your applications. Finding the correct replacement parts for your products is also straightforward when using the spare parts finder or the Rittal Scan & Service app.

Your benefits with the Rittal Service:

- Optimum spare parts availability ensures rapid fault resolution
- The option of individual stocking of spare parts creates added flexibility
- Original spare parts from the manufacturer, tailored to each specific unit and with 100% accuracy of fit and reliability with global Rittal standards
- Simple, straightforward and user-friendly spare parts searches with our spare parts finder and the Rittal Scan & Service app
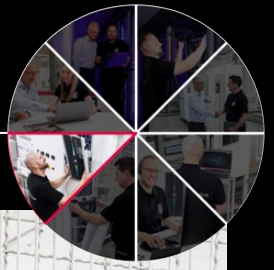
Repairs

Urgent repair needed?

Either on-site or in the Rittal workshop!

Downtime costs money, so every minute counts. Thanks to the extensive Rittal network of service technicians, our experts are always close by, enabling you to benefit from a rapid response globally. Carrying original spare parts, our service technicians typically achieve a first-time fix rate of over 90 percent.

Your benefits with the Rittal Service:

- Fast, professional repairs carried out by our qualified and certified service technicians mean less downtime
- Using original spare parts is a safe investment to preserve the value of your systems
- Because systems are repaired quickly using original spare parts, productivity is boosted
- Enhanced operational reliability with quality, reliable workmanship on every repair
- Rapid assistance in emergencies with fast response times from our well-developed service network

System and efficiency advice

Want to save money and resources?

Let us show you how!

We compile an efficiency check for your potential energy savings – on a transparent basis and in line with energy audits to DIN EN 16247-1. As part of our customer-specific consultation, you also get recommendations on how to extend the service life of your equipment and systems for the long term.

Your benefits with the Rittal Service:

- Optimised performance of installed equipment once our recommendations are implemented
- Lower energy costs by identifying and replacing ageing and/or inefficient equipment
- Eliminating potential weak points and risks earlier reduces both downtime and costs
- Extended product service life for systems, with targeted maintenance programmes and optimisation measures
- Practical approaches for energy audits to ISO50001 help to improve energy efficiency

Upgrades and modernisation

Inefficient systems?

We will support you with modernisation!

Using more efficient systems can significantly enhance your efficiency and performance. Modernisation measures extend service life and improve fail-safeness. Investing in more advanced equipment pays off after a short time and leads to lower maintenance costs.

Your benefits with the Rittal Service:

- Minimal upgrade times: Having service experts with years of experience reduces downtime to an absolute minimum
- Continued operation during upgrades: Units are removed and installed without bringing operations to a halt
- Safety for staff and systems during installation, by using specialist spark-free tools to enlarge cut-outs
- Availability of original spare parts and a longer service life of your investments: Panels for discontinued large enclosure series are still available to order

Quality management is a must.
Quality philosophy is an attitude.

"Rittal – The System." stands for consistent quality management and on-going refinements to products, services and internal processes.

Rittal quality management ensures that regulations and standards are observed, and individual customer requirements are met. In addition to this, we also define our exacting product quality demands in supplementary Rittal standards.

The consistent Rittal quality philosophy guarantees perpetually high standards and ensures the global usability of all products with countless international approvals and licences.

Alongside product quality, we also focus on process and service quality.

All internal processes are continuously refined by quality control groups, and reviewed during in-house audits. Each year, our improvements and high standards are verified by countless successful external system and customer audits.

Rittal offers support from day one

- Project planning of technical specifications
- Prototype assembly, testing and simulations
- Manufacturing and assembly
- Warehousing service and on-time delivery
- Your own personal point of contact throughout the entire project

Accredited Rittal test laboratory

- Simulation of climatic conditions
- Dynamic and static load tests
- 3D measurement
- Testing of IP/IK protection categories and NEMA type ratings
- Corrosion testing
- Electrical safety and function tests
- Software tests
- Performance testing of chillers, cooling units and heat exchangers
- Material testing

Knowledge base – Information
on key Rittal topics:

www.rittal.com/knowledge
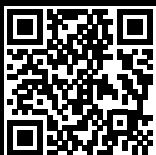
Quality management

EPLAN

efficient engineering.

For further information, regular updates, and videos, please also visit the social media channels of Rittal and Eplan.

FSC
www.fsc.org
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Recyclingmaterial
FSC® C018175

You can find the contact details of all Rittal companies throughout the world here.

www.rittal.com/contact

Your Eplan contact.

www.eplan-software.com/contact

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e·PLAN