

Software & Services

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Rittal – The System.

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efficient engineering.

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for industry

The Eplan and Rittal group of companies and the machine solutions provided by Rittal Automation Systems are unique across the globe. This means you are now on the next step towards adding value and completely re-automating your processes from engineering through manufacturing.

- Planning and Project Engineering
- Design, Calculation, Verification
- Components and System Engineering
- Virtual Enclosure Design
- Enclosure Machining
- Documentation



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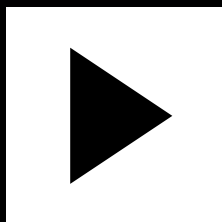
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Planning and Project Engineering

With Eplan you are putting your trust in Europe's foremost engineering solutions. The Eplan platform integrates all the relevant disciplines from the design and development process and is the trendsetter in the field of engineering. The EPLAN Data Portal, a globally available web service for high-quality device data, provides the basic framework for cross-platform engineering.

EPLAN Electric P8 – the high-end tool for the process-oriented project engineering, documentation and management of electrotechnical automation projects – is integrated into the Eplan platform.

- EPLAN Data Portal – over 340,000 data records containing components for electrotechnical project engineering
- EPLAN Electric P8 – innovative project engineering, documentation and management of electrotechnical automation projects



Planning
Project
Engineering

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ePLAN[®]
electric₃

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data portal

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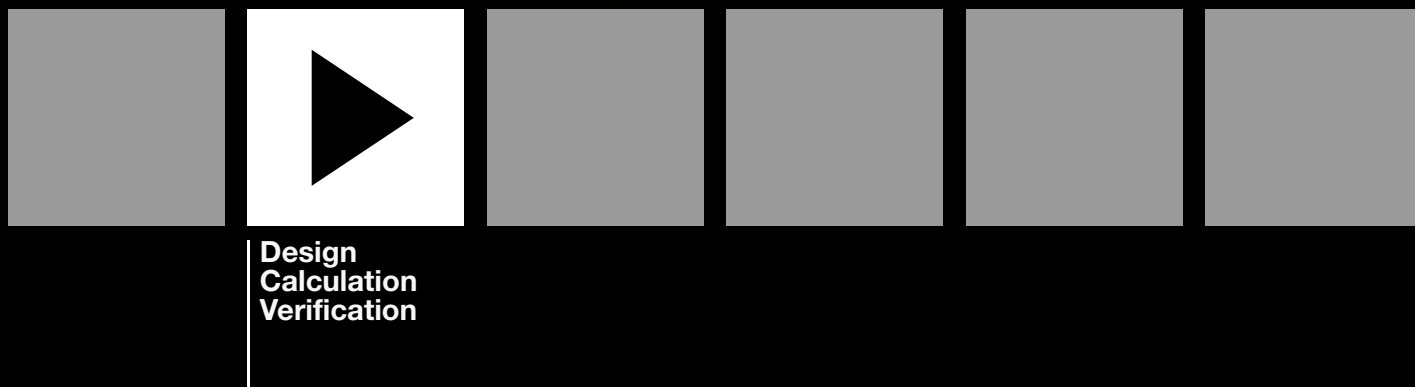
Design – Calculation – Verification

The application-specific design of power distribution components and climate control measures forms a significant part of the engineering associated with an automation system.

Rittal supplies a range of perfect tools to support this activity:

“Rittal Power Engineering” enables you to quickly configure Ri4Power low-voltage switchgear and busbar systems so they comply with the standards; it even includes an integrated design certificate! An optimal design of the climate control system is a crucial aspect of efficient system engineering. This is where we support you with “Therm”, a program that provides a highly accurate and rapid calculation of the climate control requirements and suggests the appropriate design measures – also available as an App for iPhone and Android! The CAD data for the components are essential if planning is to be carried out efficiently; all this data can be accessed online from anywhere in the world via the Part-community section of the Rittal website using the “RiCAD-3D” software package.

- Therm is a calculation program for enclosure climate control
- Rittal Power Engineering – configuration of standards-compliant low-voltage switchgear and busbar systems
- RiCAD-3D – the database containing Rittal CAD data, compatible with all standard CAD systems



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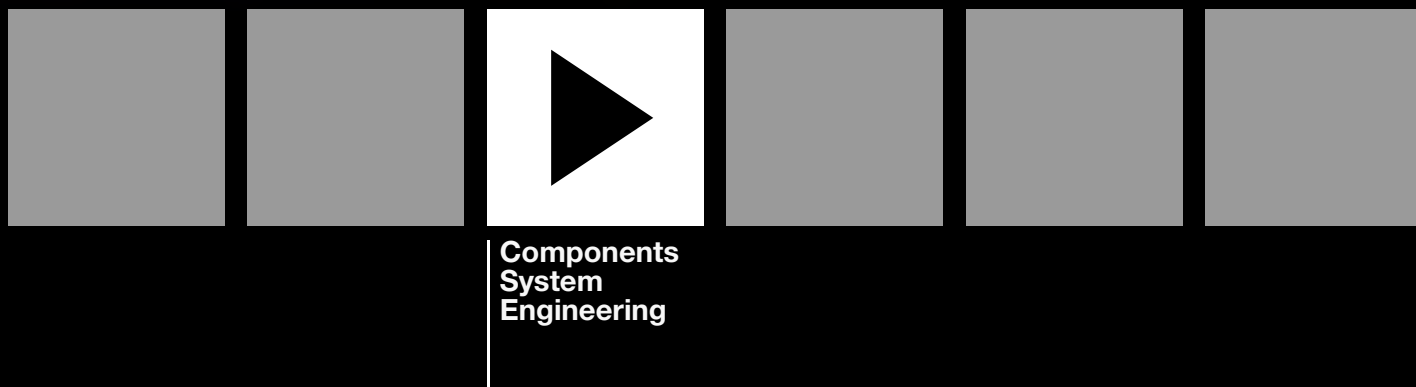
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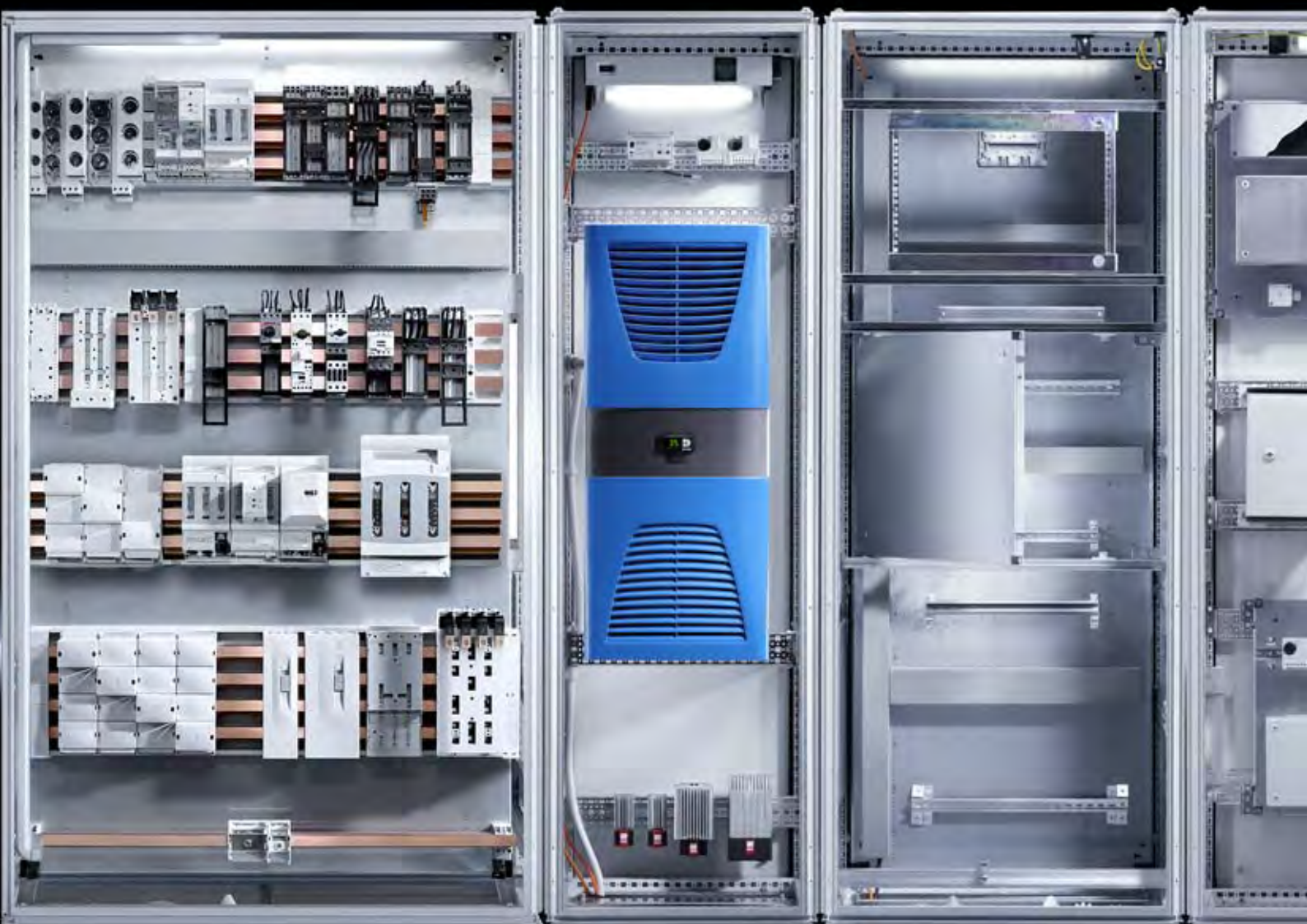
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Components and System Engineering

“Rittal – The System.” With their coordinated and innovative modular approach, Rittal solutions offer the highest levels of cost efficiency for all companies, regardless of size. Our components have been tested with regard to their IP protection category, resistance requirements and the functioning of their grounding conductors – the ideal foundations for compliance with the IEC 61 439 standard.

- Enclosures
- Power Distribution
- Climate Control
- IT Infrastructure
- Software & Services





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Virtual Enclosure Design

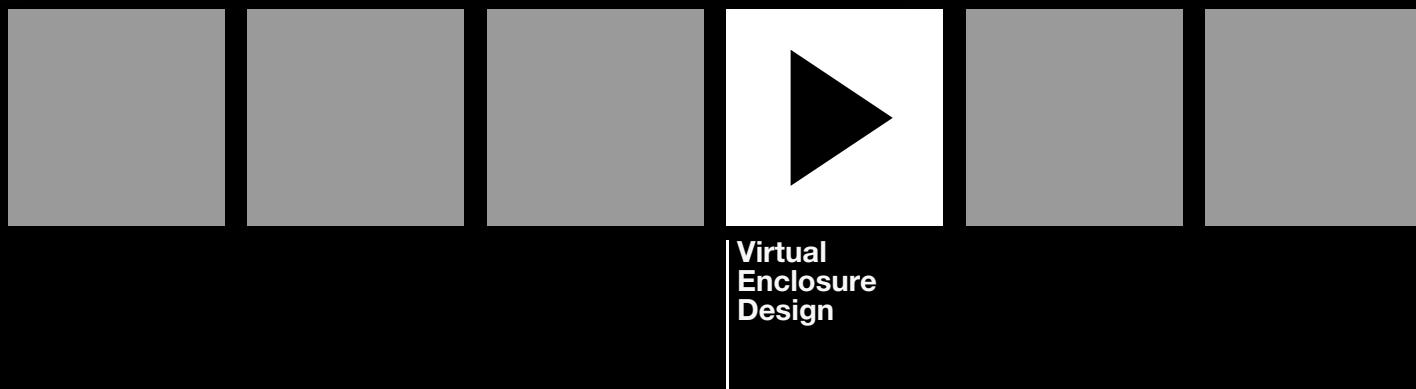
Based on the electrotechnical project and hardware engineering, the accurate design of the technical aspects of the power distribution and climate control systems, and further supported by the technological data associated with Rittal system components, the virtual design of the enclosure assembly is carried out using EPLAN Pro Panel.

EPLAN Pro Panel is a software solution that supports the technological project engineering and 3D design of enclosure assemblies.

Completely integrated in the Eplan platform, consistent product data from the EPLAN Data Portal support the interdisciplinary engineering activities in electrical design and enclosure project engineering, improve project quality and make a lasting contribution towards accelerating the product creation process.

The virtual 3D product data model provides all the necessary data for controlling NC manufacturing systems, automated wire assembly or the manufacture of individual copper bars.

- EPLAN Pro Panel Professional – virtual enclosure design in 3D



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*electric*3

ePLAN[®]
pro panel

ePLAN[®]
data portal

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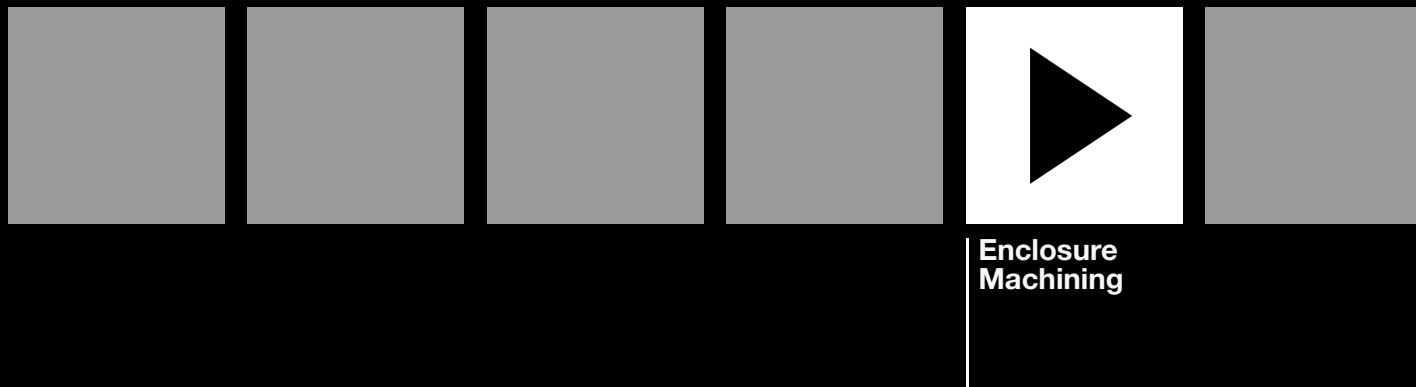
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Enclosure Machining

The NC data output by EPLAN Pro Panel form the basis for the professional machining of enclosures, housings and mounting plates. The “Perforex” machining centers from Rittal Automation Systems control all machining operations (drilling, thread cutting, milling) completely automatically and are fast, accurate and reliable.

The cost-intensive and time-consuming manual reworking of enclosure components becomes a thing of the past – a genuine increase in efficiency!



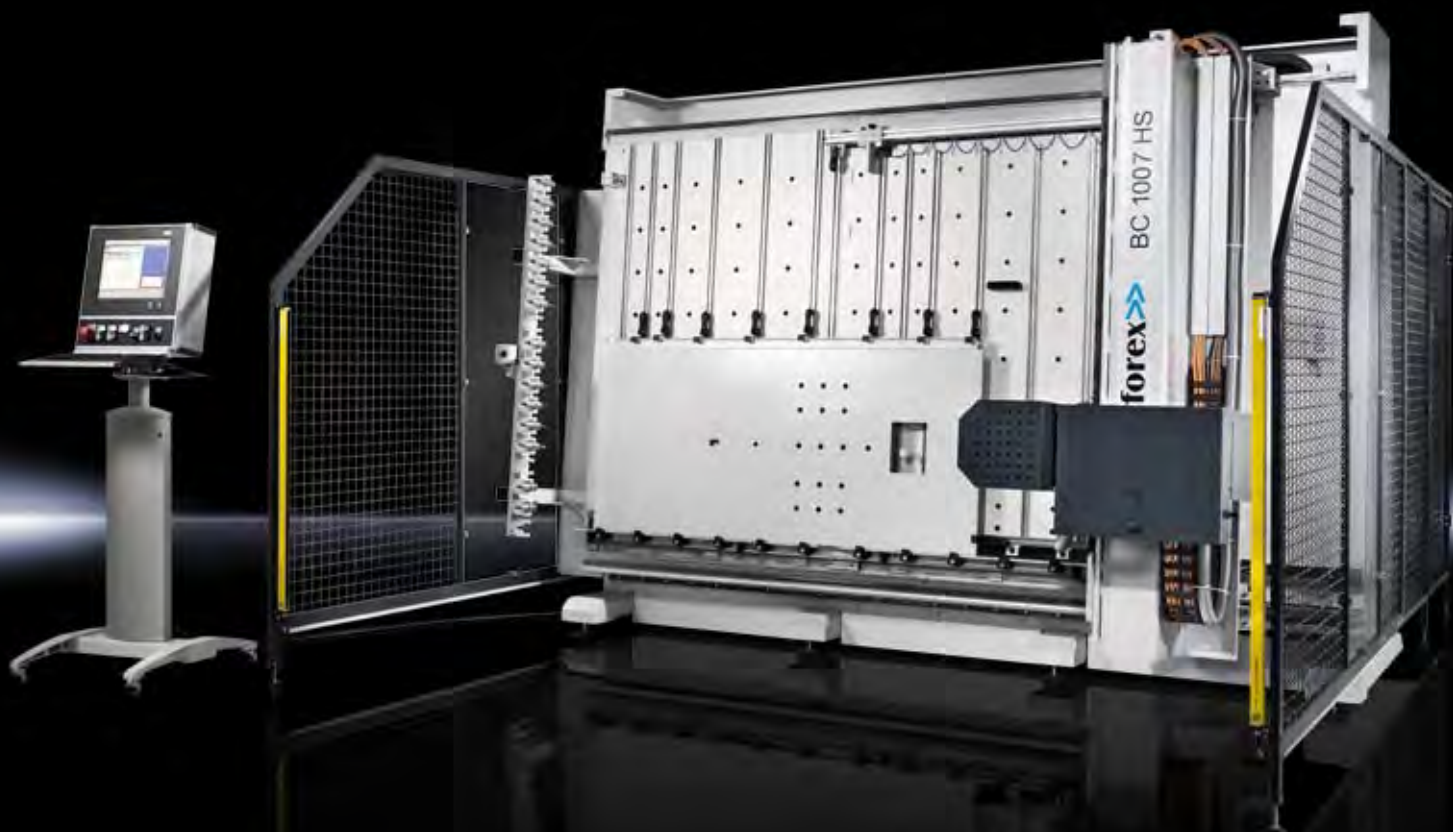
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Perforex

- The machining center for enclosure construction



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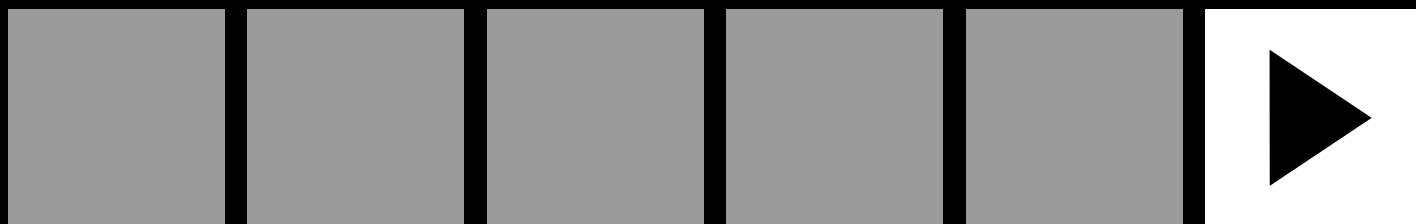
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Documentation

Produce your documentation according to the new IEC 61 439 standard. Numerous Rittal components have satisfied the specified requirements for years. We now support you in the production of the necessary documentation with the aid of perfectly coordinated processes in the value-added chain.

- Planning and project engineering with Eplan solutions
- Calculation and design with Rittal tools
- Tested system components from Rittal
- 3D enclosure design with Eplan engineering solutions
- Machining using the Rittal Automation Systems machining center



Documentation

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Documentation



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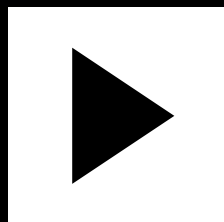
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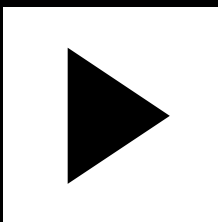
Benefits of the Value Added Chain

Speeding up processes across the entire value added chain offers you potential savings of up to 50%.

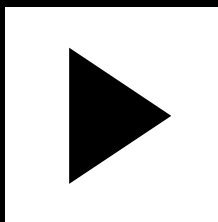
- Shorter throughput times
- Improved quality
- Flexible response to customer requirements
- Faster deliveries
- Cost transparency and control
- Standards-compliant documentation



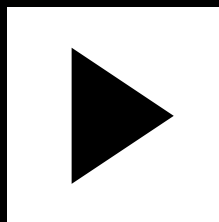
**Planning
Project
Engineering**



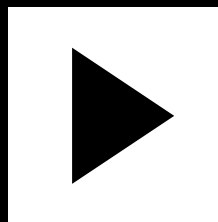
**Design
Calculation
Verification**



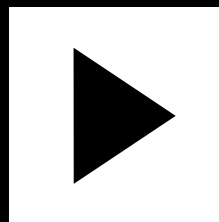
**Components
System
Engineering**



**Virtual
Enclosure
Design**



**Enclosure
Machining**



Documentation

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RiCAD 3D

Greater efficiency in plant design

Regardless of which CAD system you use, RiCAD 3D effectively supports the efficiency and productivity of your plant design.

It includes both 2D and 3D drawings for just about every Rittal product, together with an extensive range of system accessories.

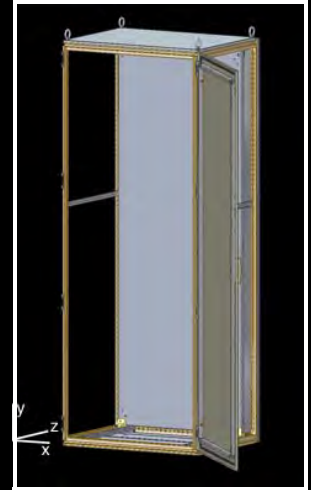
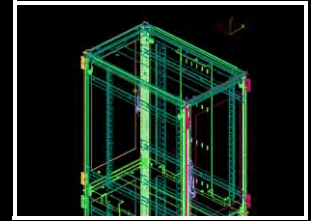
Three ways of retrieving CAD data

- Offline: RiCAD 3D as a database on your hard disk
- Online: Request data via the product page on the Rittal web site
- Online: Access data via the "PARTcommunity" web platform

Advantages for users of RiCAD 3D

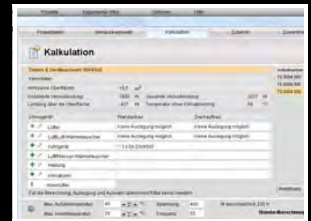
- The intelligent, native, 2D/3D-multiCAD compatible format enables all CAD data to be used in all standard CAD systems.
- With detailed and validated drawings, users can produce their design drawings with the highest levels of planning confidence – and in a fraction of the time it would take in a conventional design environment using simple remodeling.
- The freely selectable level of detailing of the CAD models enables them to be reproduced in a drastically simplified format, bringing about tremendous increases in performance for users.

The Internet provides fast online access to the original data in all standard CAD formats and the ability to download the data directly.



Therm Software

The Therm software package calculates all the climate control requirements, see page 321.



Rittal Power Engineering

Planning software for RiLine busbar systems and Ri4Power low-voltage switchgear with design certificate, see page 231.





Enclosures

Menu-assisted configurators help you select the correct housing and the appropriate series accessories.

In addition to the Rittal article number for the parts list definition, the results also include the request for the relevant CAD data in line with your choice that is appropriate for your CAD system.

TS 8 Configurator

A complete TS 8 enclosure configured in just eight clicks, including parts list and 3D model.

Advantages:

- Easy menu-assisted configuration of a bayed TS 8 enclosure with base/plinth, side panels and the required handle system
- Punched rails and system chassis can be pre-assembled for interior fitting
- This will produce a 3D drawing that can be incorporated directly into the system design or integrated into the CAD system

Available on the Internet



Human/Machine Interface

Operation and monitoring in mechanical and plant engineering is becoming increasingly important. Rittal satisfies the high requirements placed on the "packaging" of sensitive and powerful electronic systems through a consistently modular approach on the HMI.

Design, function and ergonomics are features of the product range.

Rittal provides free Internet tools for the planning and engineering of the command panels and support arm systems.

This enables the appropriate product for your client's application to be designed quickly, easily and safely.

Command Panel Configurator

The online Command Panel configurator enables individual and perfectly tailored panel solutions to be configured. Using a list of relevant questions, the configurator guides you automatically through the individual option screens to your finished system. Intelligent consistency checking is built in to ensure that your configuration can be fully realized without any errors.

Advantages:

- Select the housing that holds the HMI panel to be used (the integrated database contains a variety of commercial panels from various manufacturers)
- Easy navigation thanks to the list of related questions
- Quick compilation of the required features
- Request a quote based on the selected data sets
- Request the 3D CAD model for integration in the system design

Available on the Internet



Support Arm Configurator

for CP 40/60/120/180

The tool precisely defines the correct support arm system using key user-specific parameters such as the jib length, housing weight or required cable cross-section.

Advantages:

- Individual assembly according to the requirements of the application
- Built-in consistency check
- The result is a parts list whose plausibility has been checked

Available on the Internet



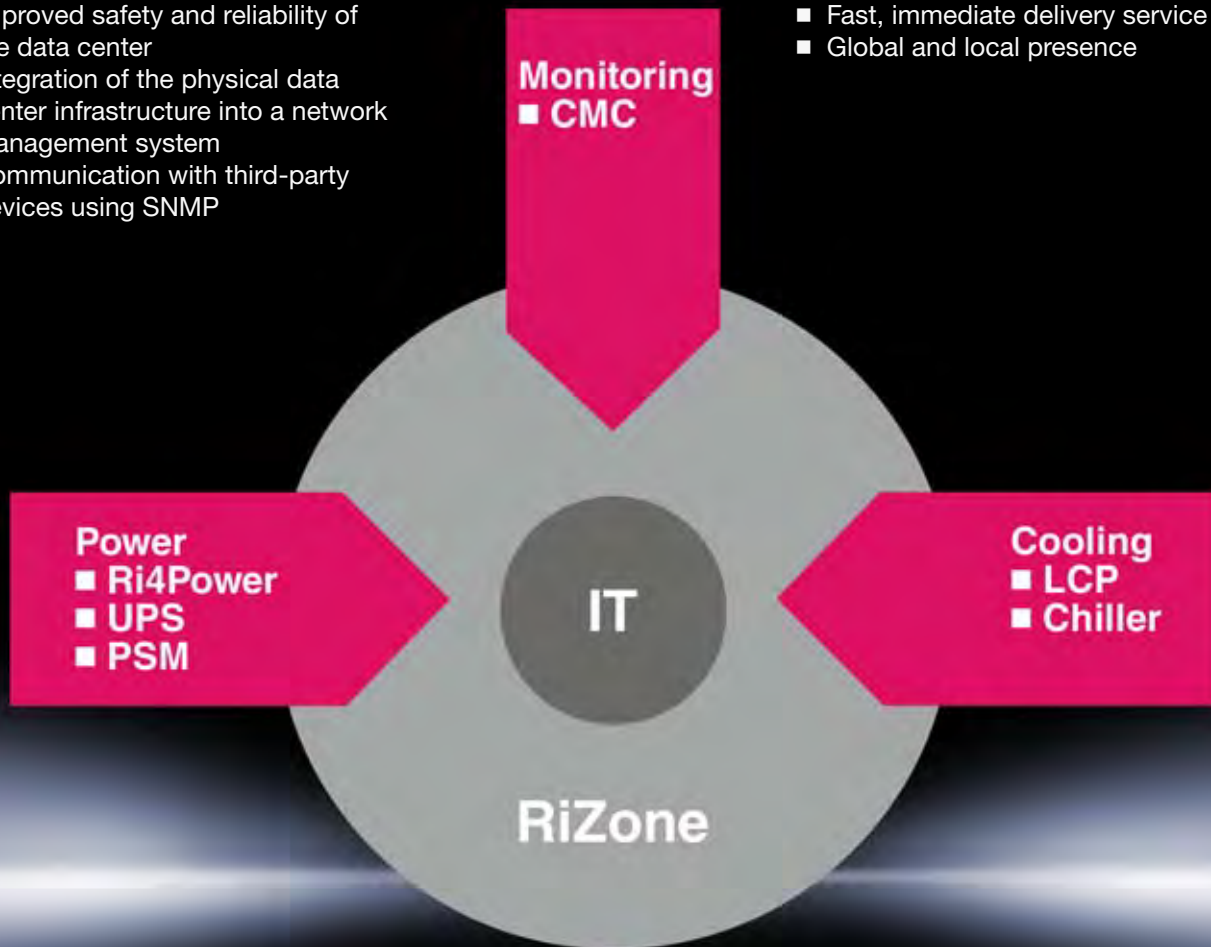
RiZone – customer-oriented, cost-efficient

Six good reasons for choosing RiZone

- Energy optimization throughout the data center
- Straightforward project engineering
- Automatic detection of Rittal components
- Improved safety and reliability of the data center
- Integration of the physical data center infrastructure into a network management system
- Communication with third-party devices using SNMP

Combine the sum of all the advantages of RiZone with the specific advantages that Rittal offers you on every project.

- Comprehensive consultancy services
- Overarching system concept
- Fast, immediate delivery service
- Global and local presence



Measurements from RiZone-compatible components (example)

UPS

- Inverter status
- Status of primary network
- Battery status

CMC

- Temperature
- Humidity
- Access

PSM/PDU

- Current measurements on PSM busbars
- Measuring of power consumption for each outlet with an active PSM
- Switching of individual outlets

Cooling/LCP

- Flow temperature
- Setpoint
- Average supply air temperature

Ri4Power

- Current
- Voltage
- Energy
- Power

Chiller

- Flow and return temperature
- Pump speed
- Operating mode
- Current rating

DCIM – Data Center Infrastructure Management

RiZone – perfect support for IT infrastructure components

Rittal components – from server enclosures through power supplies and climate control to safety and monitoring equipment – can if required be supported during the integration process and in operation by matching sensors and control systems.

- Integration of the physical data center infrastructure into a Data Center Infrastructure Management System
- Easy to configure
- Automatic detection of Rittal components
- Workflow Editor for user-defined situations (what would happen if ...)
- Improved safety and reliability
- Energy optimization in the data center
- Integration of SNMP-compatible third-party devices

RiZone plus Rittal components produce the system solution with the highest levels of energy efficiency.

Note:

- RiZone Appliance Standard
 - RiZone Appliance IP node license
 - Server Shutdown Software
- see page 379

■ Messaging Service

The SNMP and OPC-UA protocols form the interface to the higher-level management systems

■ Workflow Engine

Control loops to optimize the data center and specific escalation management scenarios

■ Reporting Module

Reports containing the data you require when you want them

■ Monitoring Module

Internal watchdog module ensures availability

■ Communication Module

Communication with SNMP-compatible devices within the physical data center infrastructure

■ Autodiscovery

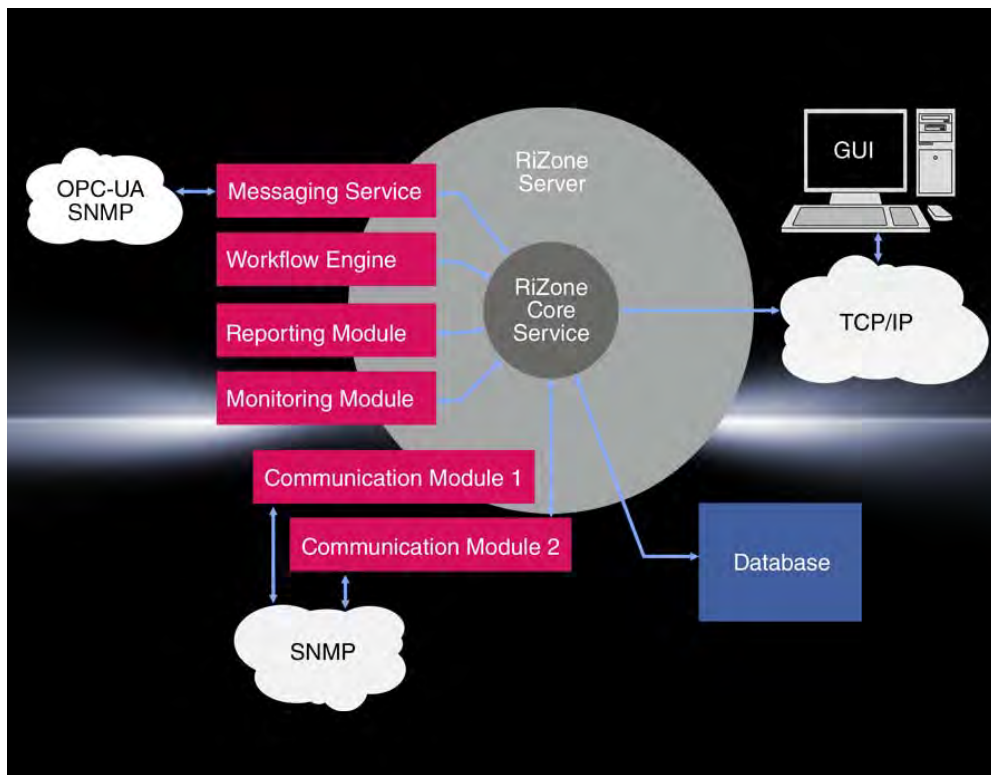
Detection of all SNMP-compatible IT infrastructure components

■ Database

Dedicated SQL database or interface to external MS-SQL and Oracle databases

■ Administration

Configuration of RiZone (user and rights management, network integration)







Your direct line to our service facility

No matter when, where or how you'd like to contact us, we'll be there for you! To reach us, pick up the phone, send us an e-mail or visit our web site. Quick, simple and reliable.

Your advantages:

- International availability
- 24 hours a day
- In your local language

Faster

- Shorter distances, prompt communication:
Thanks to regional Service Centers and Service Partners
- Perfect interaction between Service and Engineering

Better

- Customized service solutions from a single source
- All Rittal service engineers across the globe are trained to the highest levels

Everywhere

- Over 150 Service Partners with more than 1000 service engineers

Rittal Service addresses around the world

Rittal Europe (Herborn)

✉ service@rittal.de
☎ +49(0)2772 505-1855

Rittal Mexico (Toluca)

✉ servicios@rittal.com.mx
☎ +52 728 284-7800

Rittal North America (Urbana)

✉ service@rittal.us
☎ +1 800 477 4000 Option 3

Rittal Canada (Mississauga)

✉ service@rittal.ca
☎ +1 905 795 0777

Rittal South America (São Paulo)

✉ service@rittal.com.br
☎ +55 11 36 22 23 77

Individual services for the entire production cycle

With Rittal products your production process is always in the right hands.

Because Rittal Lifecycle Management goes well beyond the statutory liability for defects and the voluntary manufacturer's guarantee. In this way Rittal ensures the productivity of your systems in the long term. And even this is tailored to your requirements, as you decide the Service Level you need to reduce the risk of loss of production.

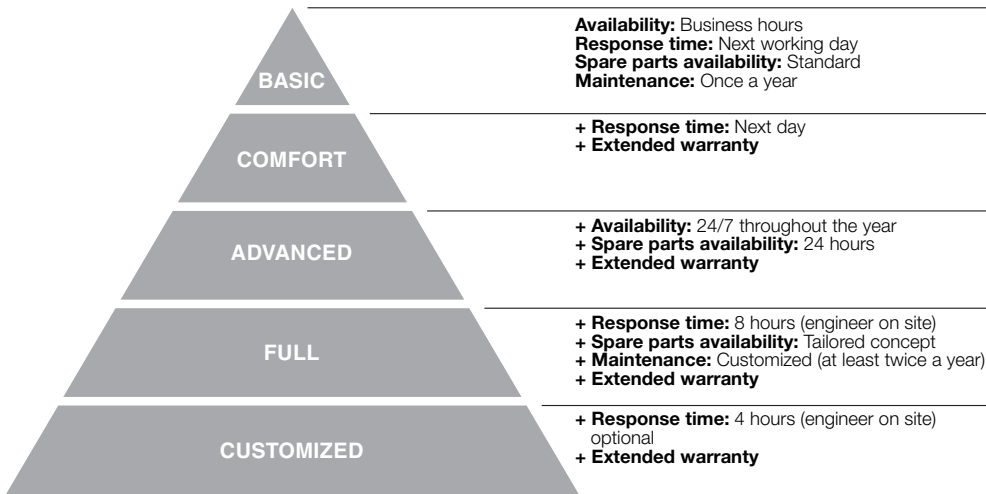
Your advantages:

- Retains the value of your systems/plants
- Less downtime
- Cost management over an extended period



Flexible service contracts: Solutions that meet your requirements

Features of our Rittal service packages at a glance:



Your advantages:

- Engineers in your locality for fast response times
- Retain the value of your systems
- Warranty extension to up to 5 years
- Spare parts held in stock
- Cost transparency

5 years

Manufacturer's guarantee

In conjunction with a
signed Service contract



We strive for perfection in everything we do



Spare parts – whenever and wherever

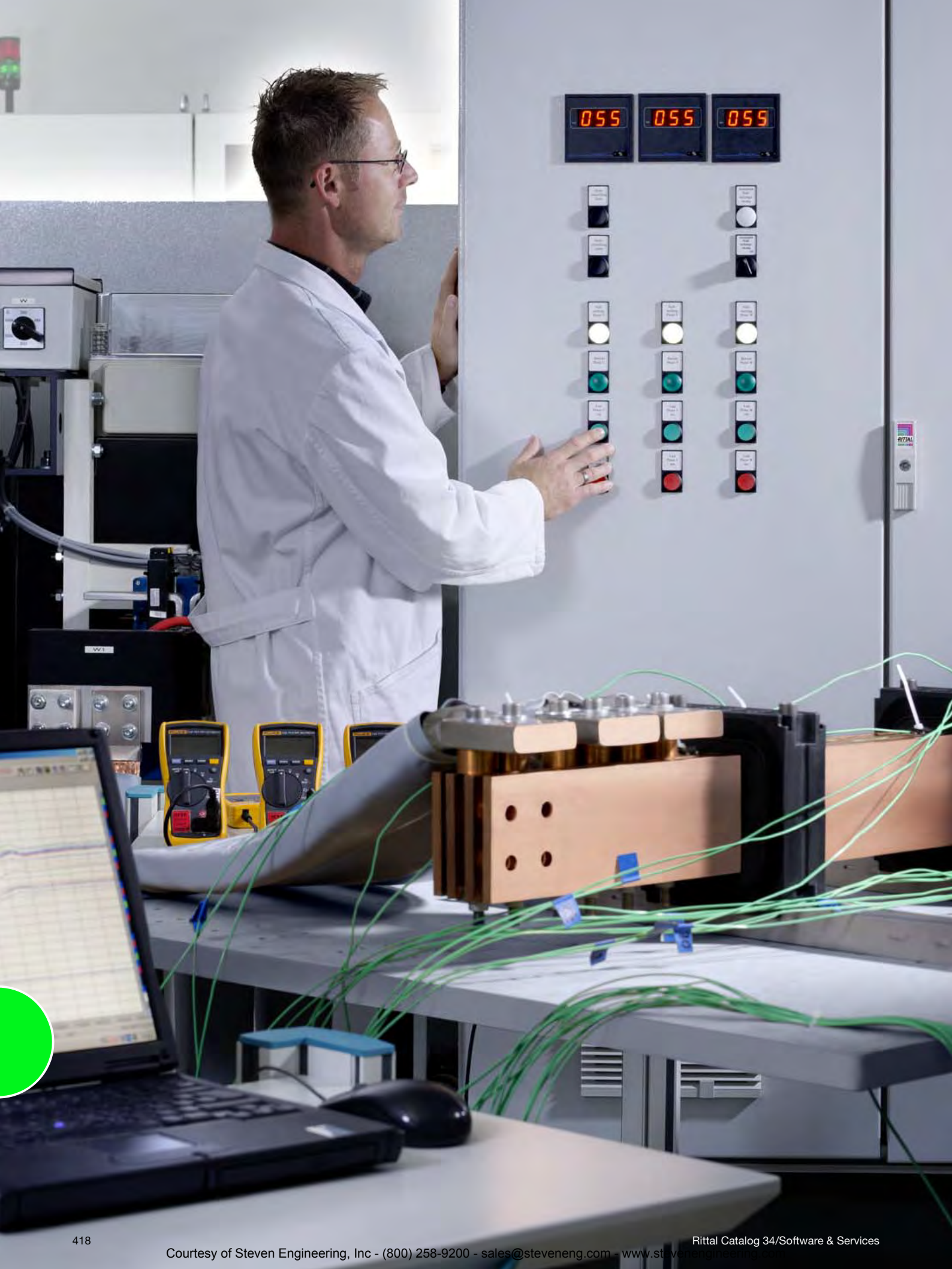
Globally available spare parts produce added value

Professional spare parts management in the perfect package to ensure the maximum availability of spare parts all over the world and modular Service contracts that can be precisely tailored to meet your specific requirements: This is what our international Service concept offers you. You can control many of the details in a Service contract: For example, the availability of spare parts specifically for your plant/system. International service: Whenever and wherever you need it.

Your advantages:

- Stockholding of client-specific components regulated by an appropriate Service contract
- Decentralized stockholding for quick and flexible access to your spare parts
- Approved original spare parts from the manufacturer







Quality management is a must, a quality philosophy is an attitude

“Rittal – The System.” stands for rigorous quality management and the continuous improvement of products, services and internal processes.

The Rittal quality management system ensures that regulations and standards are complied with and that individual customer requirements are satisfied. Furthermore, in our supplementary Rittal standards we lay down the highest demands in respect of the quality of our products. The rigorous Rittal quality philosophy guarantees consistently high standards and ensures the global use of all our products through numerous international licenses and approvals.

The quality of our products is not the sole focus of our attention - we also strive for the highest quality in our processes and services.

All internal processes are continuously developed in quality control loops and are subjected to internal audits. The many successful external system and customer audits that we undergo every year confirm our improvements and high standards.

Rittal supports you right from the outset

- Project planning of technical specifications
- Prototype construction, testing and simulation
- Manufacture and assembly
- Warehouse service and timely delivery
- Personal point of contact for the duration of the project

Accredited Rittal testing laboratory

- Simulation of climatic conditions
- Dynamic and static load tests
- 3D measurements
- Testing of IP protection categories and NEMA type ratings
- Salt spray tests
- Electrical safety and function tests
- Performance testing of cooling units and heat exchangers
- Material and substance testing

