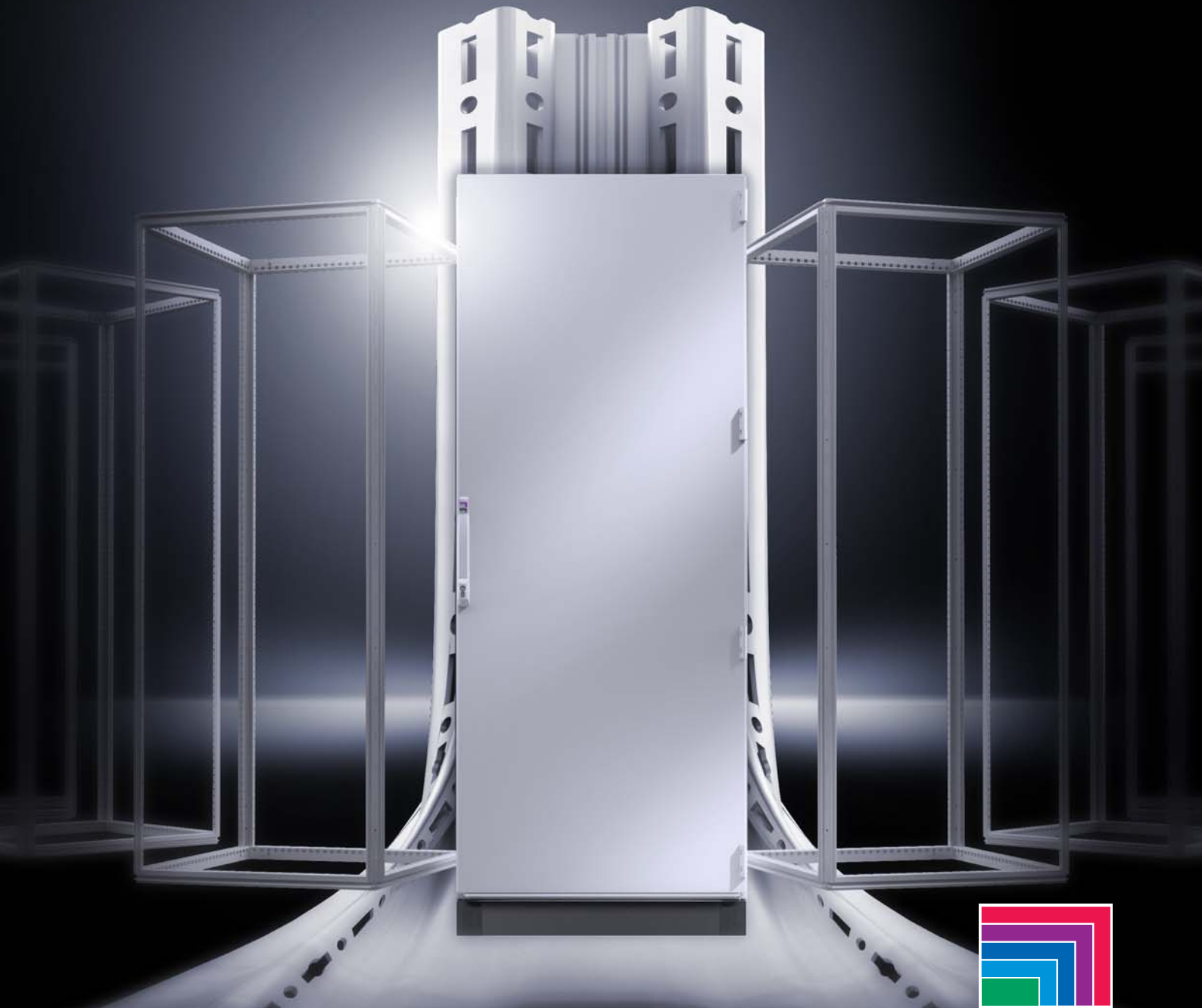


Rittal – The System.

Faster – better – everywhere.

➤ **Our expertise – your benefit.
TS 8 – available off the shelf.**



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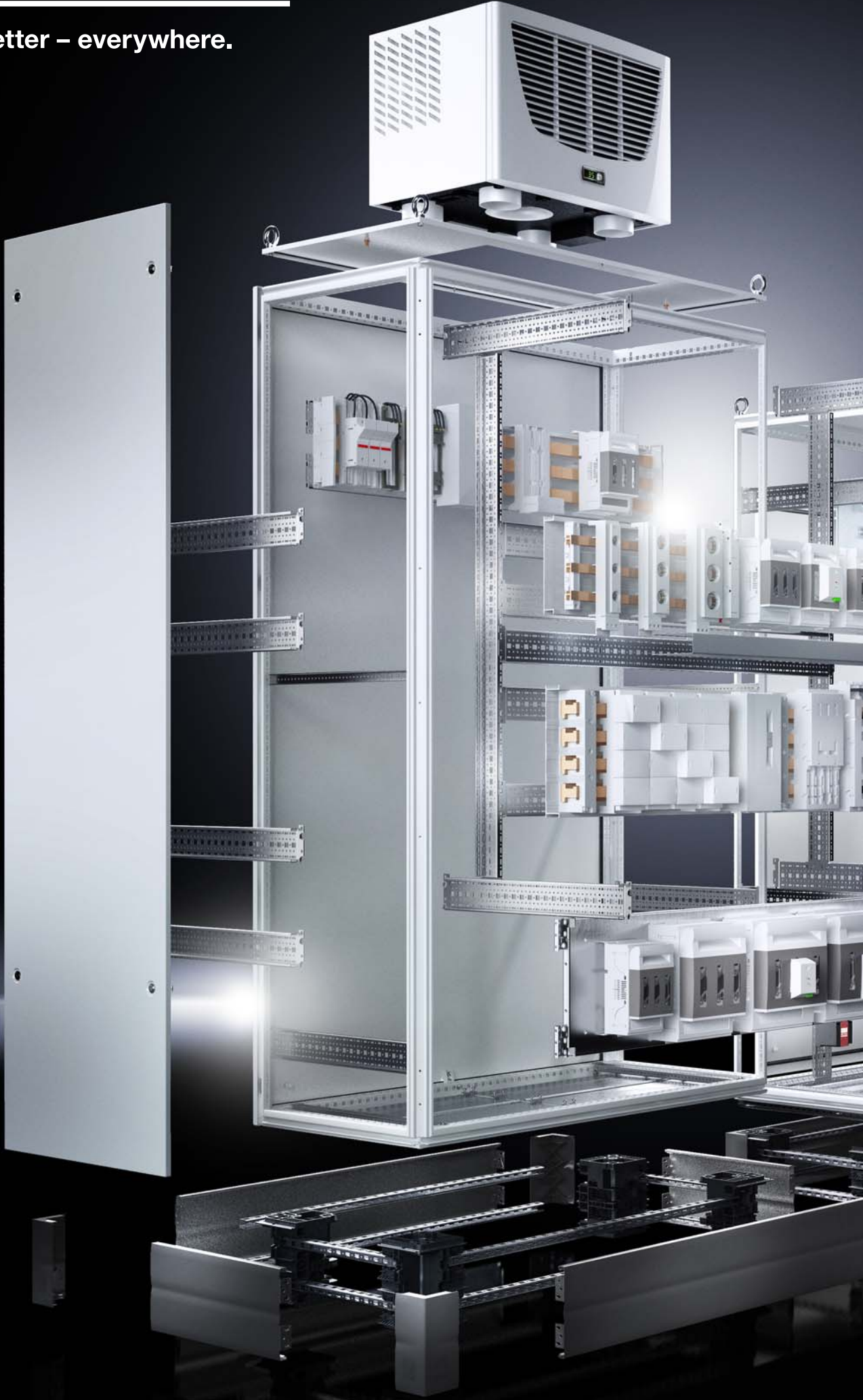
SOFTWARE & SERVICES



FRIEDHELM LOH GROUP

Rittal – The System.

Faster – better – everywhere.



TS 8

More possibilities



Rittal – The System.

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The whole is more than the sum of its parts

The same is true of “Rittal – The System.” With this in mind, we have bundled our innovative enclosure, power distribution, climate control and IT infrastructure products together into a single system platform. Complemented by our extensive range of software tools and global service, we create unique added value for trade and industry: Production plant, test equipment, facility management and data centres. In accordance with our simple principle, “Faster – better – everywhere”, we are able to combine innovative products and efficient service to optimum effect.

Faster – with our “Rittal – The System.” range of modular solutions, which guarantees fast planning, assembly, conversion and commissioning with its system compatibility.

Better – by being quick to translate market trends into products. In this way, our innovative strength helps you to secure competitive advantages.

Everywhere – thanks to global networking:

- 13 production facilities with almost 250,000 m² production space worldwide
- 58 subsidiaries
- Around 90 warehouse facilities with more than 180,000 pallet locations and over 260,000 m² storage space worldwide

IT INFRASTRUCTURE

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TS 8

More benefits

Ingeniously simple, fully symmetrical, and patented worldwide – this is the successful formula behind a proven design principle with more than 10 million successful installations across all industries and applications. This is the basis for the TS 8 bayed enclosure system, which has set a brand new benchmark in user benefits.

TS 8 means:

- More efficiency
- More flexibility
- More quality
- More safety



IT INFRASTRUCTURE

SOFTWARE & SERVICES



Rittal – The System.

Faster – better – everywhere.

More efficiency

This is the key to becoming more competitive!

The bottom line is what counts, with labour now a major cost factor.

This is where we can help:

- With precise, time-saving planning
- With significant space gains and simple interior installation
- With automatic potential equalisation,
for savings of up to 40 euros per enclosure
- With simple one-man assembly of all enclosure panels

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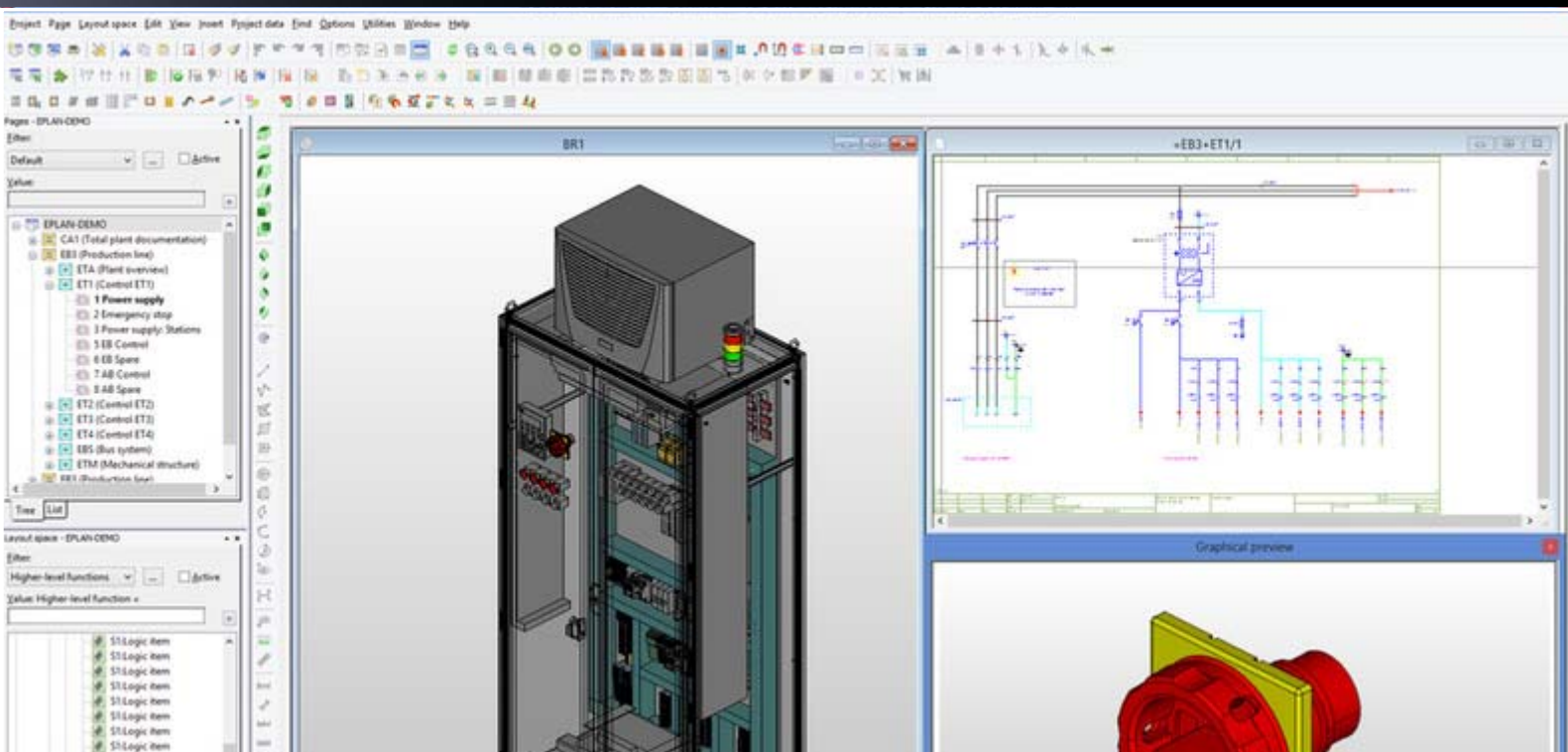
SOFTWARE & SERVICES





TS 8

Time-saving planning



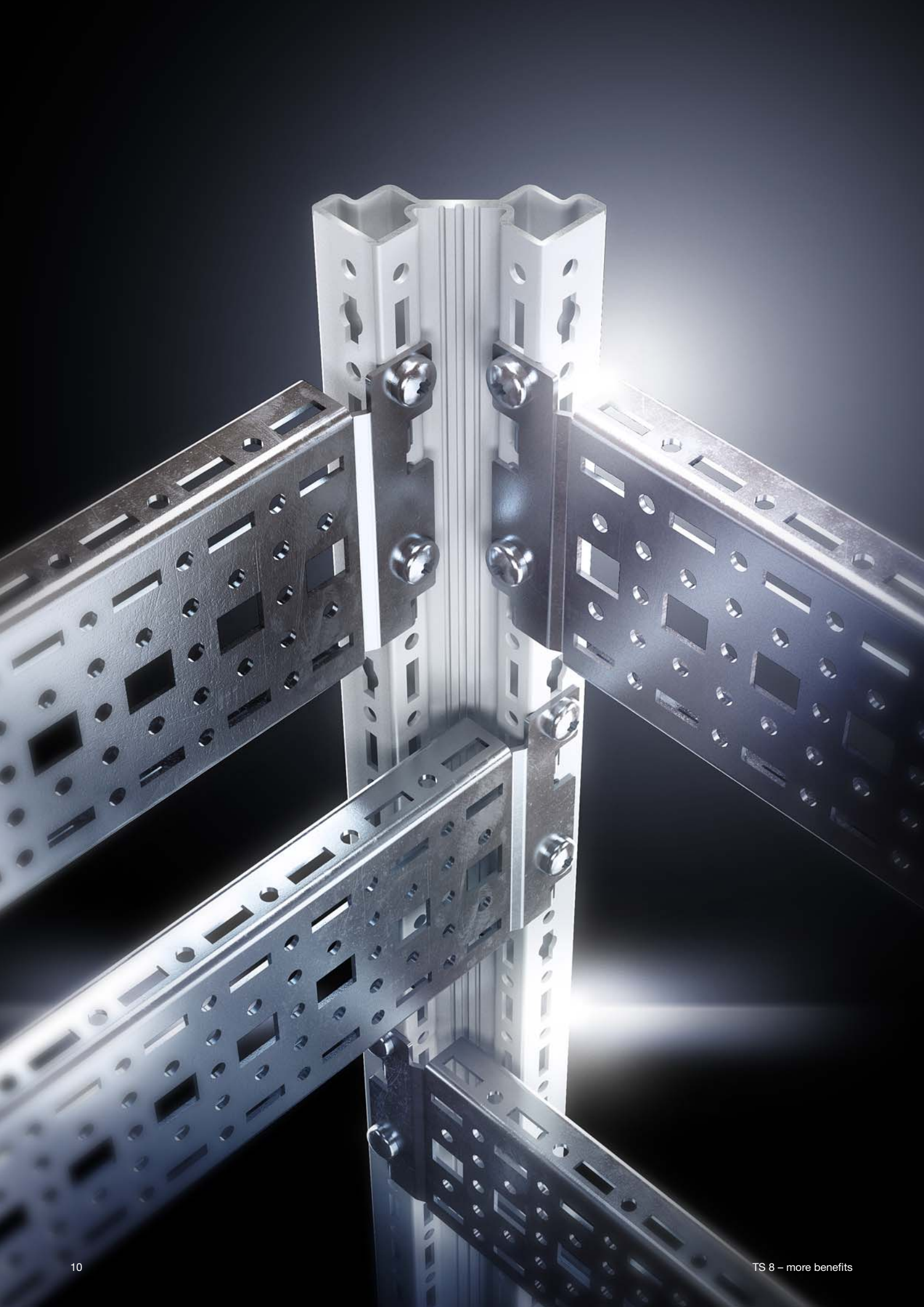
With RiCAD 3D, you have validated CAD data at your fingertips for professional design planning. Make use of the original CAD data of the Rittal components – irrespective of your particular CAD system. Even more efficient planning is possible with EPLAN Pro Panel, the leading software solution for project planning and 3D engineering.

RiCAD 3D:

- CAD data can be imported into all typically used CAD systems
- The use of validated data enables design drawings to be produced with optimum planning certainty

EPLAN Pro Panel:

- Planning aids for perfect dimensioning and space utilisation
- Control interface to mechanical machining and cable preparation machines



TS 8

Significant space savings



The 16-fold profile of the vertical sections is the key to an intelligent two-level concept which not only provides a second mounting level as standard, but also offers up to 15% more installation space in the enclosure!

- Two symmetrical levels with identical pitch patterns in the width and depth
- Two mounting levels provided as standard for interior installations
- Up to 15% better space utilisation due to consistent use of the outer mounting level
- Consequently more space for further components, e.g. for efficient cable routing
- Straightforward hole count enables simple component installation in the enclosure



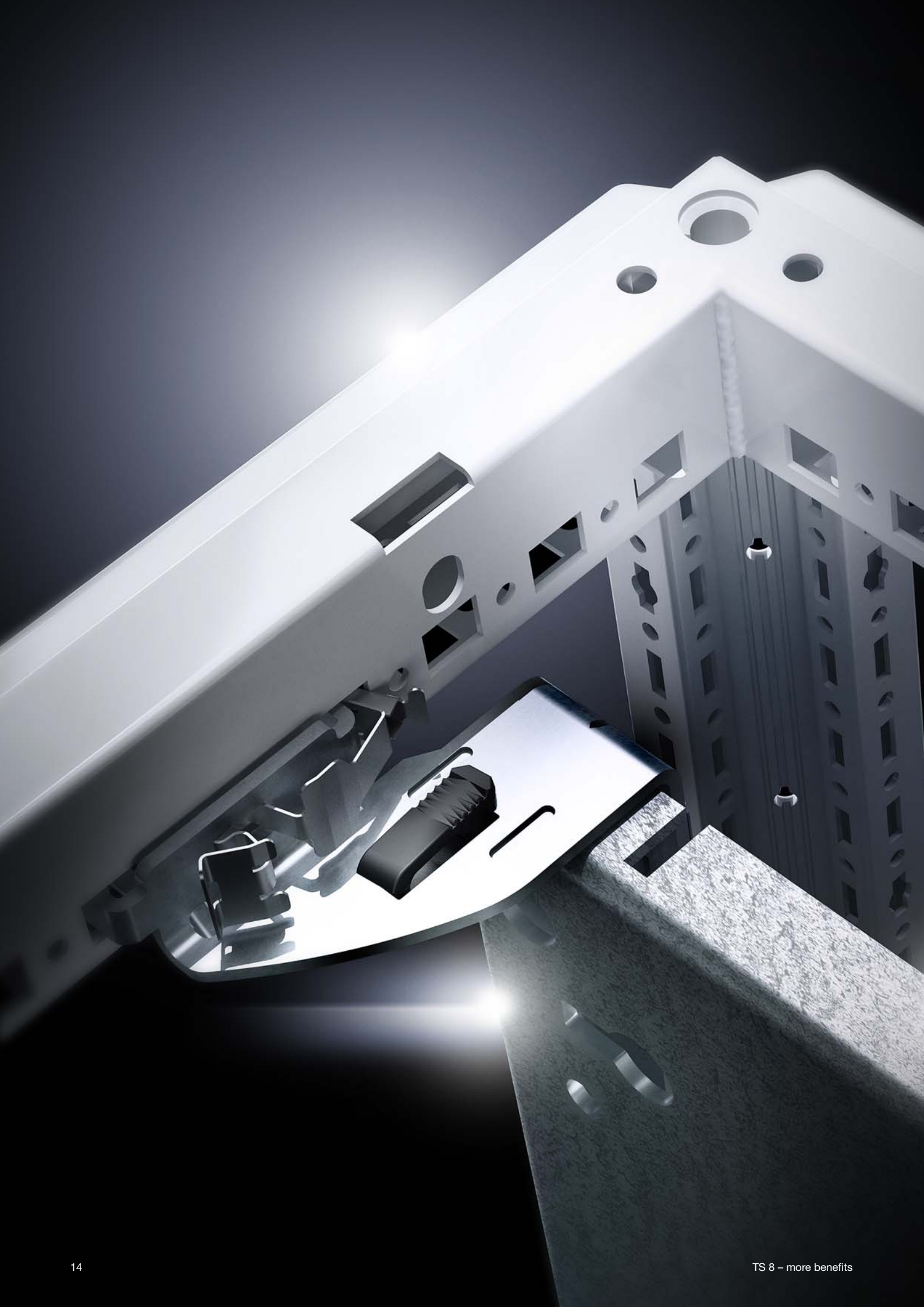
TS 8

Automatic potential equalisation



Potential equalisation for the gland plates, side panels, rear panel and roof is achieved automatically when the enclosure is assembled. That guarantees a conductive contact between the frame and all panel parts. Where there are no electrical devices mounted on the panel parts, it is possible to forego earth straps.

- Saves the installation of up to 7 earth straps
- Simplifies assembly/disassembly of all panel parts
- Enhances safety



TS 8

One-person assembly



Time is money, and labour is expensive. The purposefully conceived, platform-independent design enables fast and simple assembly by a single person. This means cost savings in daily work.

- The door hinge can be switched to the other side with no mechanical modification
- The depth of the mounting plate can be varied in steps of 25 mm by a single person thanks to its clip fastenings
- The Rittal base/plinth system Flex-Block facilitates fast one-person assembly without tools
- Punched sections are simply located in the required frame hole and screwed into place

Rittal – The System.

Faster – better – everywhere.

More flexibility

A bit of extra room for manoeuvre can solve many a problem!
We've all been there – you need an extra enclosure, a different size,
or the local site conditions require special baying.

This is our strength:

- Because we have more than 100 different variants available off the shelf,
immediately
- We find the right solution for even the most complex baying tasks
- We guarantee flexible cable entry from all sides

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TS 8

Cable entry



Safe cable entry from all sides is the key to flexible interior configuration and enables simple adaptation of the TS 8 enclosure system to individual circumstances at the place of installation. The modular systems provide for optimum cable management and offer a perfect solution for practically every application.

- Maximum flexibility through possibilities for cable entry from all sides (roof, sides, base)
- High degrees of protection are maintained
- Convenient cable entry for large numbers of cables and large cross-sections



TS 8

Baying



The symmetry of the enclosures, with identical dimension increments for both the width and depth, makes it possible – baying in all directions. Whether to the left or right, upwards or around corners, the TS 8 baying system offers infinite possibilities.

- Maximum flexibility through possibilities for baying to all sides
- Continuous mounting surface even with the mounting panel in its rearmost position
- Optimum space utilisation through the mounting of cable ducts on the shared vertical sections of the bayed TS 8 enclosure
- Stable baying connectors permit the transport of bayed enclosures



Materialflussgruppe
Partnerschaft gewinnt

Materialflussgruppe
Partnerschaft gewinnt



TS 8

Over 100 variants available off the shelf



Availability from stock within 24 hours. That means flexibility in both planning and production, saves storage space and reduces tied-up capital.

- 13 production facilities with almost 250,000 m² production space worldwide
- 58 subsidiaries
- 9 sales and distribution centres in Germany
- Around 90 warehouse facilities with more than 180,000 pallet locations and over 260,000 m² storage space worldwide

Rittal – The System.

Faster – better – everywhere.

More quality

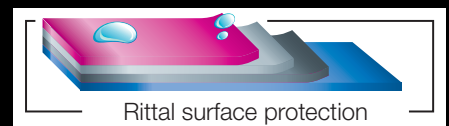
Quality and high-class workmanship build trust!

There is nothing more irritating than products which start to rust after a short time, or doors that buckle and fail to fulfil their intended purpose.

This is our challenge:

- Surface treatment to automotive industry standards
- Large-scale production with consistently high quality
- Our own accredited laboratory carries out all major product tests

International certification for worldwide use

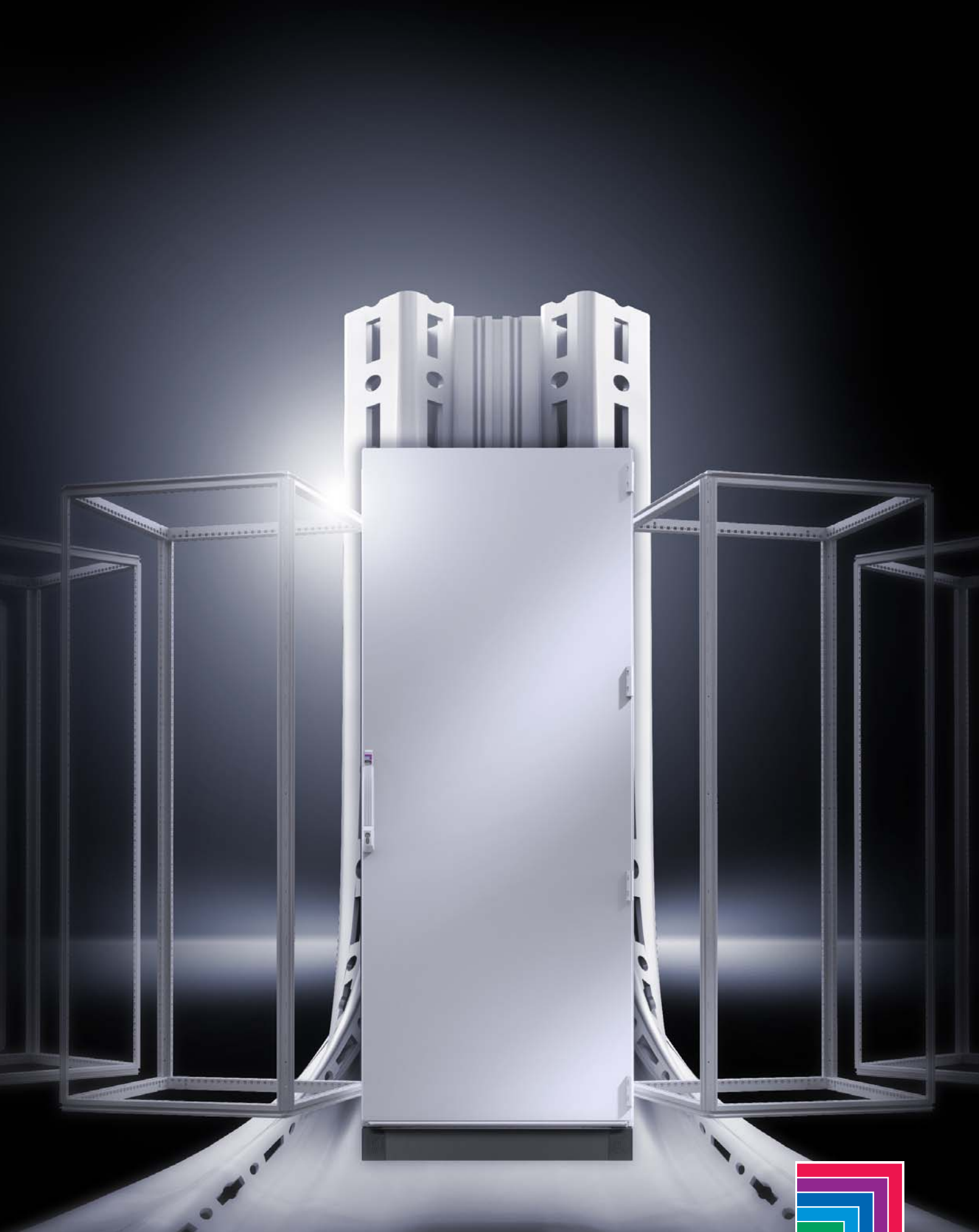


Rittal surface protection

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TS 8

Paint finish



The three-phase surface finish of the TS 8 baying system promises optimum corrosion protection and is resistant to mineral oils, lubricants, machining emulsions and solvents such as those used in cleaning. Rittal is the only enclosure manufacturer which offers paint quality similar to that of the automobile industry as standard. And this quality is also guaranteed by way of continuous process monitoring.

Maximum quality is achieved in three stages:

- 1 1st phase: Nanoceramic primer
- 2 2nd phase: Electrophoretic dipcoat-priming
- 3 3rd phase: Textured powder-coating



TS 8

Series manufacturing



Rittal manufactures approx. 3,500 TS 8 enclosure systems every day. That is the equivalent of around 60 truckloads and comparable to the production output of the VW Golf in Wolfsburg. These impressive numbers represent the basis for essential characteristic benefits.

- Constant quality thanks to an automated manufacturing process
- Practically unrestricted availability of series products
- Immediate delivery – over 100 variants can be supplied from stock within 24 hours



TS 8

Tested quality



This stands for consistent quality management and on-going refinements to products, services and internal processes. All 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 audits.

Accredited Rittal test laboratory for:

- Simulation of climatic conditions
- Dynamic and static load tests
- 3D measurement
- 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 tests

Rittal – The System.

Faster – better – everywhere.

More safety

Protection with high standards!

By observing international standards and approvals, you can operate in complete confidence throughout all the world's markets, and need not shy away from extreme climatic conditions.

Our promise to you:

- A high load capacity with 15% less frame weight plus 30% higher stability
- Coordinated climate control components for maximum energy efficiency
- Comprehensive quality management and regular inspections by external test institutes

ENCLOSURES

POWER DISTRIBUTION

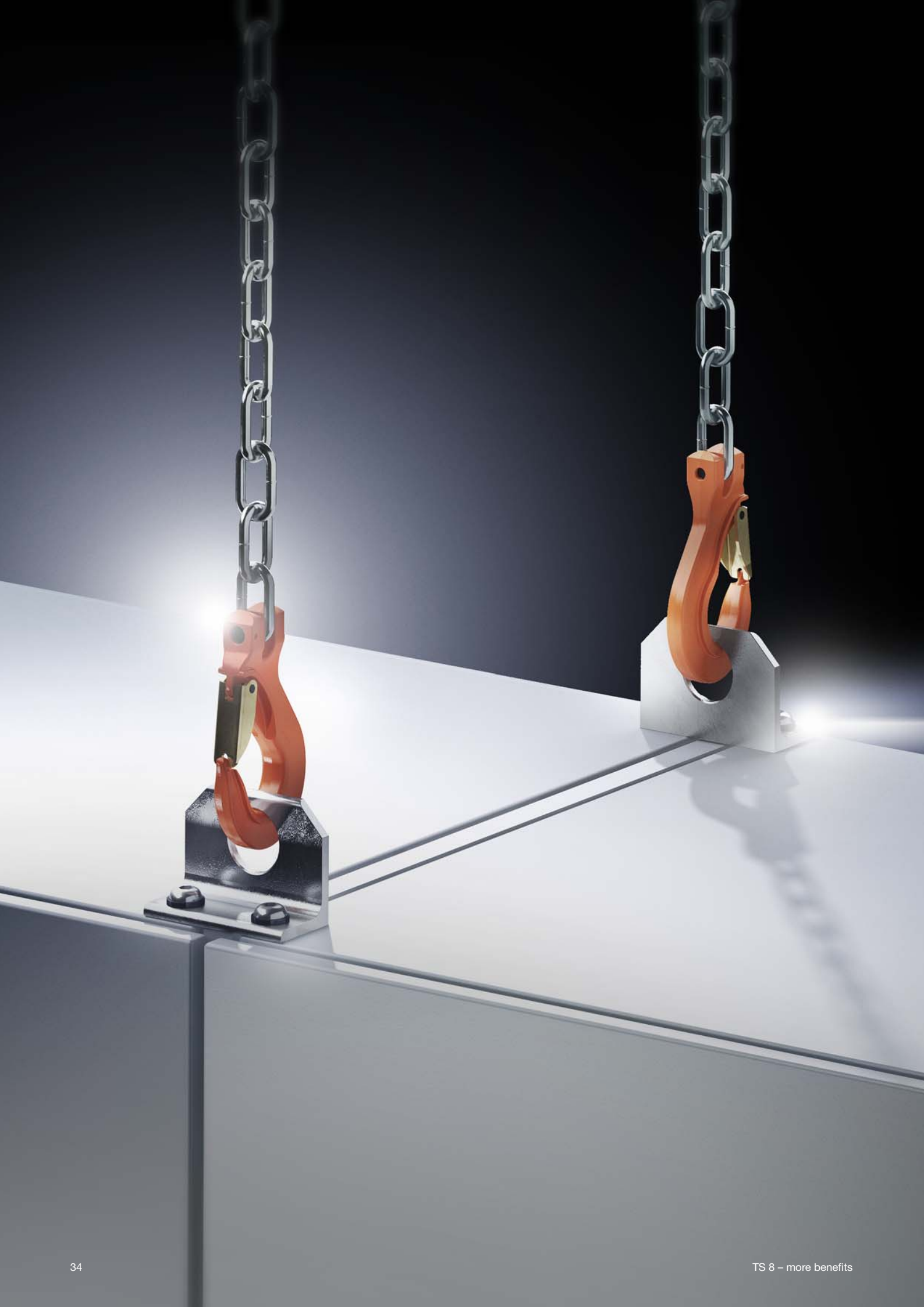
CLIMATE CONTROL



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SOFTWARE & SERVICES





TS 8

Mechanically safe



Less is often more. Thanks to its patented, 16-fold section profile, the TS 8 frame demonstrates exceptional stability – and that with 15% less weight and at the same time 30% greater stability than comparable enclosures. The result is subjected to thorough and continuous testing in our own accredited laboratories.

- High load-bearing capacity up to 1,400 kg
- Internationally recognised approvals and certifications
- Seamlessly foamed PU seals provide for maximum safety and a guaranteed degree of protection
- Simple handling and secure locking thanks to the TS 8 enclosure system with four-point retention, also in conjunction with the Rittal comfort handle



TS 8

Climate control



Safety thanks to climate control solutions matched perfectly to the TS 8 enclosure – all from one supplier. At Rittal, nothing is left to chance. Ecological and energy-efficient units provide for ideal integration and control of the cooling requirements.

- Standardised installation interfaces for heat exchangers, cooling units and mini-recooling systems
- TÜV-tested output to EN 14511:2012-01: Rittal is the only supplier in the world to supply an entire range of enclosure cooling units tested to the latest (DIN) EN standard
- Reliable IP rating of the enclosure (seal quality) guarantees optimum cooling performance with only minimal losses
- Free software, Therm, takes care of the complex calculation of climate control requirements



High Quality
Made by Rittal



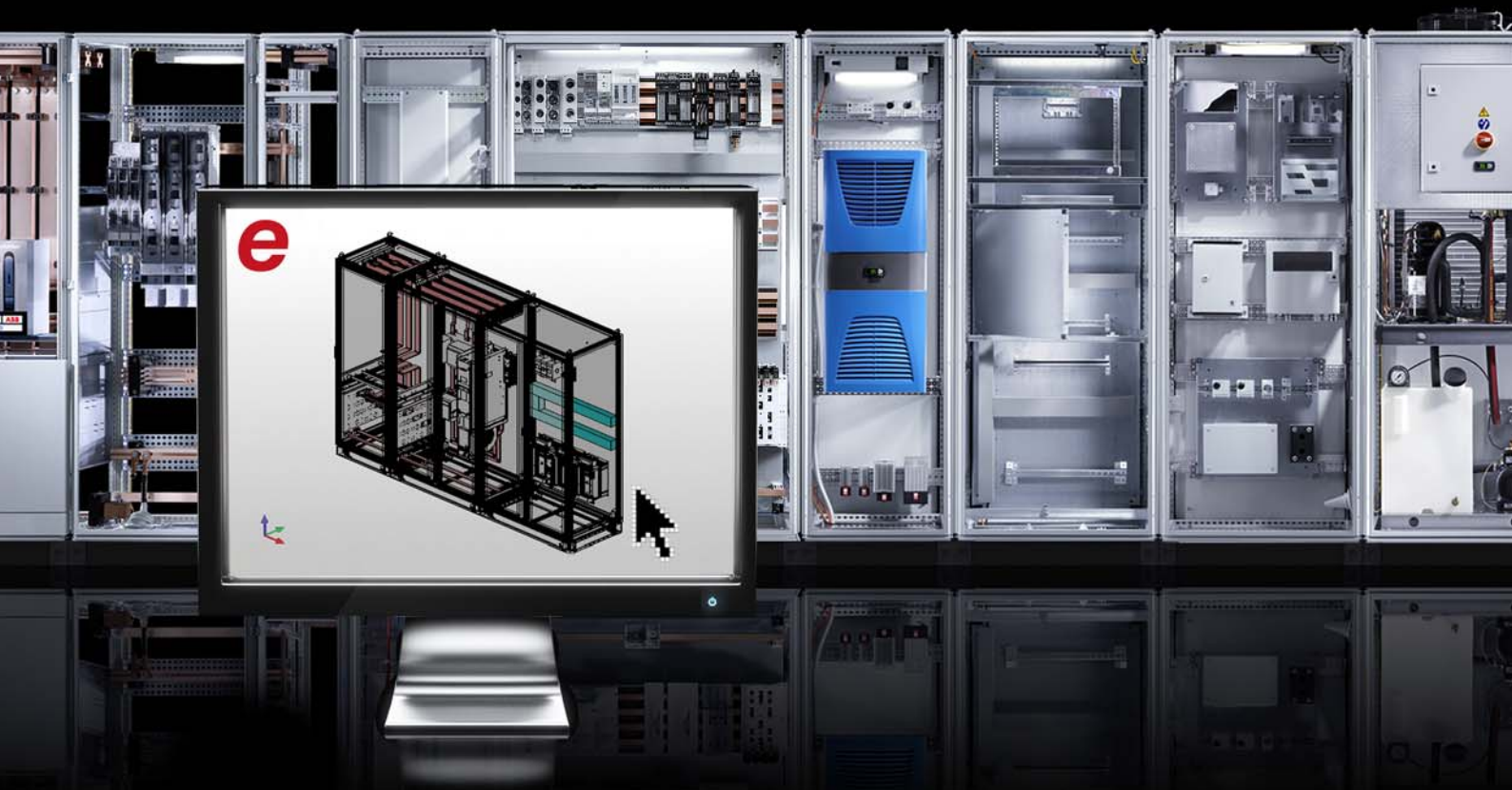
TS 8

Approvals



Rittal products boast a wealth of internationally recognised approvals and certifications and comply with the most exacting and globally recognised quality standards.

- All components are subjected to the most stringent testing in accordance with international standards and regulations
- The consistently high product quality is ensured by a comprehensive quality management system
- Regular production inspections by external test institutes guarantee compliance with global standards
- The TS 8 meets all the requirements for enclosures in switchgear and controlgear assemblies in accordance with IEC 61439-1 (2011), IEC 61439-2 (2011), EN 61439-1 (2011), EN 61439-2 (2011), DIN EN 61439-1 (2012), DIN EN 61439-2 (2012)



Engineering

Maximise the benefits:

- EPLAN Data Portal – Over 350,000 data records for project management in electrical engineering
- EPLAN Electric P8 and EPLAN Pro Panel – Consistent project management, documentation and administration

System

Maximise the benefits:

- Innovative modular system
- Tested quality
- Optimum cost efficiency
- Available for immediate, worldwide delivery

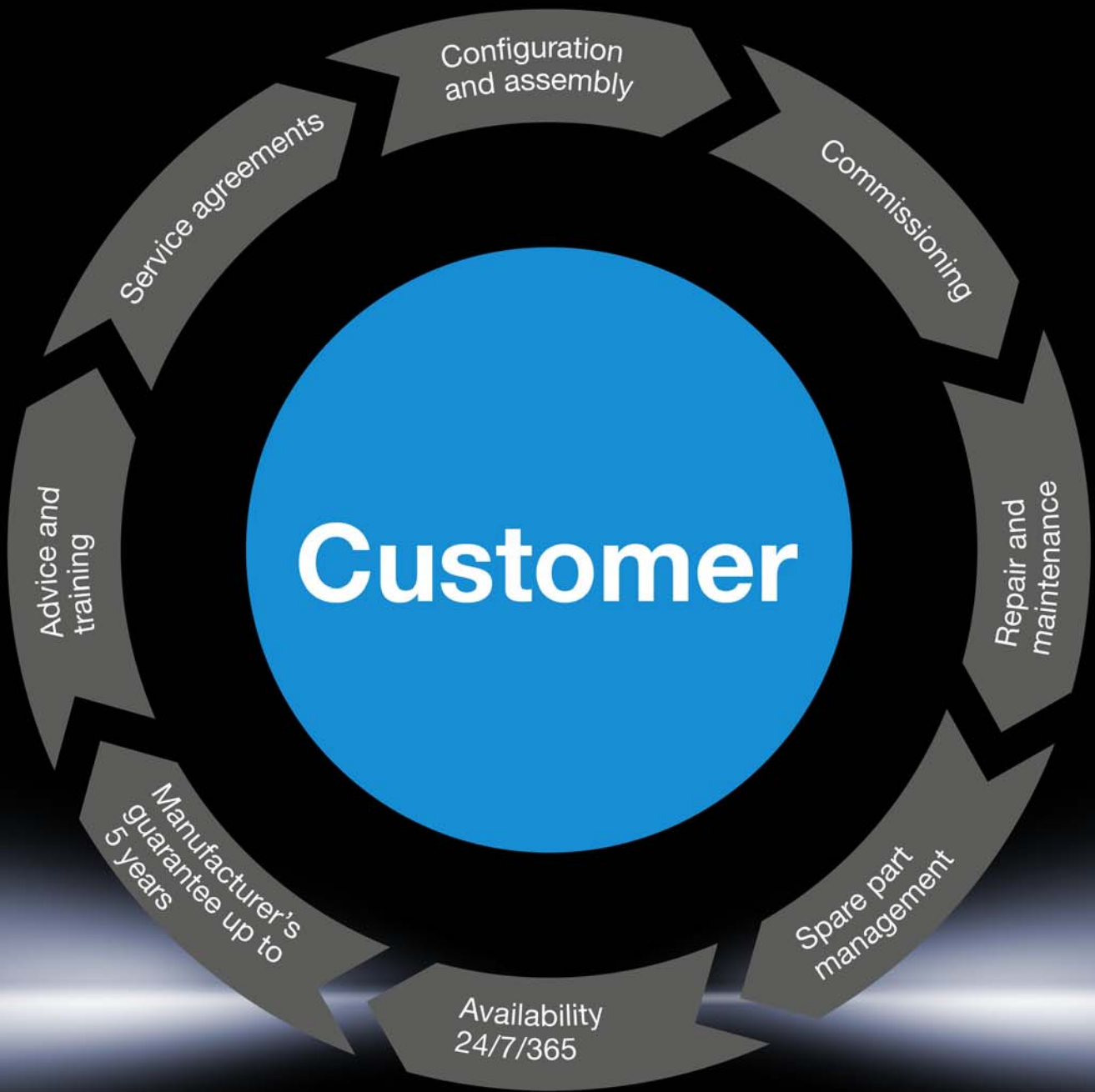
More productivity



Automation

Maximise the benefits:

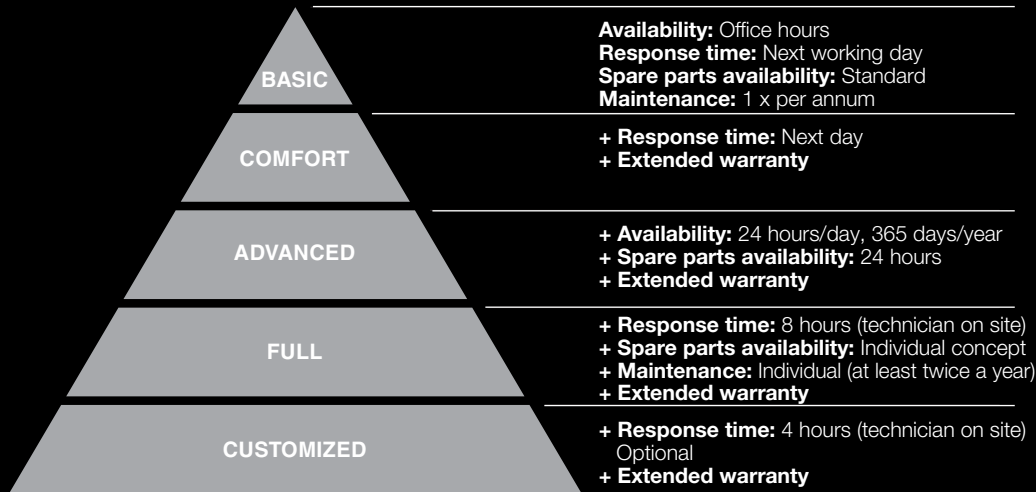
- Fully automated machining of enclosures, cases and mounting plates
- Fully automated wiring of mounting plates
- Manufacturing support in the areas of cutting, configuration and handling



Services

Flexible service contracts: The right solution to match your requirements

Features of the Rittal service packages at a glance:



The benefits to you:

- Short response times thanks to local technicians
- Preserve the value of your equipment
- Extended warranty up to 5 years
- Spare parts held in stock
- Cost transparency

5 years

Manufacturers' warranty

in conjunction with a signed service agreement

We are committed to perfection at every phase



Spare parts – any time, anywhere

Added value, thanks to global availability of individual parts

Professional spare parts management guaranteeing maximum global availability of spare parts, and graduated service contracts matched precisely to your individual requirements: That is what you can expect from Rittal International Service. A service contract enables you to spell out many details, such as the availability of spare parts, specifically for your equipment or system. International service: At your service, any time, anywhere.

The benefits to you:

- Customer-specific components are held in stock on the basis of individual service contracts
- Decentralised warehousing to ensure fast and reliable spare parts availability
- Approved original spare parts from the manufacturer



Rittal Service addresses
can be found on the Rittal website.

TS 8 – Diversity in series

With the TS 8, you are choosing the global standard for bayed enclosure systems. And that accolade was not granted without reason, because its ingenious design principle permits the configuration of perfect solutions for practically all requirements encountered in the field. Furthermore: No long waiting times, but instead immediate delivery from stock.



Baying systems TS 8

Sheet steel, spray finished			
Width mm	Height mm	Depth mm	Model No.
600	1200	500	8615.500
800	1200	500	8815.500
1200	1200	500	8215.500
600	1400	500	8645.500
800	1400	500	8845.500
1200	1400	500	8245.500
600	1600	500	8665.500
800	1600	500	8865.500
1200	1600	500	8265.500
600	1800	400	8684.500
800	1800	400	8884.500
1000	1800	400	8080.500
1000	1800	400	8084.500
1200	1800	400	8284.500
400	1800	500	8485.510
600	1800	500	8685.500
800	1800	500	8880.500
800	1800	500	8885.500
1200	1800	500	8285.500
400	1800	600	8486.510
600	1800	600	8686.500
800	1800	600	8881.500
800	1800	600	8886.500
1200	1800	600	8286.500
600	2000	400	8604.500
800	2000	400	8804.500
1000	2000	400	8004.500
1200	2000	400	8204.500
400	2000	500	8405.510
600	2000	500	8605.500
800	2000	500	8805.500
1000	2000	500	8005.500
1200	2000	500	8205.500

400	2000	600	8406.510
600	2000	600	8606.500
800	2000	600	8806.500
1000	2000	600	8006.500
1200	2000	600	8206.500
600	2000	800	8608.500
800	2000	800	8808.500
1200	2000	800	8208.500
600	2200	600	8626.500
800	2200	600	8826.500
1200	2200	600	8226.500

Stainless steel 1.4301 (AISI 304)			
Width mm	Height mm	Depth mm	Model No.
800	1800	400	8454.600
1200	1800	400	8456.600
1200	1800	500	8453.600
800	1800	500	8455.600
600	1800	500	8457.600
800	2000	600	8450.600
1200	2000	600	8451.600
600	2000	600	8452.600

Electronic enclosures			
Width mm	Height mm	Depth mm	Model No.
600	1600	600	8410.510
600	1600	800	8418.510
600	2000	600	8430.510
600	2000	800	8438.510

EMC enclosures

EMC enclosures			
Width mm	Height mm	Depth mm	Model No.
800	2000	600	8806.750
800	2000	800	8808.750

IP 66/NEMA 4/4X

IP 66/NEMA 4, sheet steel, spray-finished			
Width mm	Height mm	Depth mm	Model No.
800	2000	600	8806.580

IP 66/NEMA 4X, stainless steel 1.4301 (AISI 304)			
Width mm	Height mm	Depth mm	Model No.
800	2000	600	8450.680

Power distribution

Distribution enclosures			
Width mm	Height mm	Depth mm	Model No.
850	2000	400	9666.955
850	2000	600	9666.915
1100	2000	400	9666.965
1100	2000	600	9666.925

Modular enclosures			
Width mm	Height mm	Depth mm	Model No.
400	2000	600	9670.406
600	2000	600	9670.606
800	2000	600	9670.806
400	2000	800	9670.408
600	2000	800	9670.608
800	2000	800	9670.808
400	2200	600	9670.426
600	2200	600	9670.626
800	2200	600	9670.826
400	2200	800	9670.428
600	2200	800	9670.628
800	2200	800	9670.828

Fuse-switch disconnect enclosures			
Width mm	Height mm	Depth mm	Model No.
1000	2000	600	9670.006
1200	2000	600	9670.106
1200	2000	800	9670.108

Busbar enclosures			
Width mm	Height mm	Depth mm	Model No.
200	2000	600	9670.206
200	2200	600	9670.226
200	2000	800	9670.208

... also for IT

With the TS IT, you are investing in a system platform which will scale to meet your developing needs for many years to come. And that applies not only to the rack itself, but also to the aspects of climate control, power supply and monitoring – promised!

Further information on TS IT can be found in our IT infrastructure brochure or by visiting www.rittal.com/02tsit.

Network/server enclosures TS IT

with glazed door, with 19" mounting angles			
Width mm	Height mm	Depth mm	Model No.
600	800	600	5525.120
600	1200	600	5526.120
800	1200	800	5503.120
800	1200	1000	5504.120
600	1800	600	5527.120
600	1800	800	5528.120
800	1800	800	5505.120
600	2000	600	5529.120
600	2000	800	5530.120
600	2000	1000	5508.120
600	2000	1200	5510.120
800	2000	600	5506.120
800	2000	800	5507.120
800	2000	1000	5509.120
800	2000	1200	5511.120
600	2200	800	5531.120
600	2200	1000	5513.120
600	2200	1200	5515.120
800	2200	800	5512.120
800	2200	1000	5514.120
800	2200	1200	5516.120

with glazed door, with 19" mounting frame			
Width mm	Height mm	Depth mm	Model No.
600	1200	600	5526.141
800	1200	800	5503.141
800	1200	1000	5504.141
600	1800	600	5527.141
600	1800	800	5528.141
800	1800	800	5505.141
600	2000	600	5529.141
600	2000	800	5530.141
600	2000	1000	5508.141
600	2000	1200	5510.141
800	2000	600	5506.141
800	2000	800	5507.141
800	2000	1000	5509.141
800	2000	1200	5511.141
600	2200	800	5531.141
600	2200	1000	5513.141
600	2200	1200	5515.141
800	2200	800	5512.141
800	2200	1000	5514.141
800	2200	1200	5516.141

with glazed door, pre-configured, with 19" mounting frame			
Width mm	Height mm	Depth mm	Model No.
600	1200	600	5526.151
800	1200	800	5503.151
800	1200	1000	5504.151
600	1800	600	5527.151
600	1800	800	5528.151
800	1800	800	5505.151
600	2000	600	5529.151
600	2000	800	5530.151
600	2000	1000	5508.151
600	2000	1200	5510.151
800	2000	600	5506.151
800	2000	800	5507.151
800	2000	1000	5509.151
800	2000	1200	5511.151
600	2200	800	5531.151
600	2200	1000	5513.151
600	2200	1200	5515.151
800	2200	800	5512.151
800	2200	1000	5514.151
800	2200	1200	5516.151

with glazed door, IP 55, with 19" mounting frame			
Width mm	Height mm	Depth mm	Model No.
600	1200	600	5526.131
800	1200	800	5503.131
800	1200	1000	5504.131
600	1800	600	5527.131
600	1800	800	5528.131
800	1800	800	5505.131
600	2000	600	5529.131
600	2000	800	5530.131
600	2000	1000	5508.131
600	2000	1200	5510.131
800	2000	600	5506.131
800	2000	800	5507.131
800	2000	1000	5509.131
800	2000	1200	5511.131
600	2200	800	5531.131
600	2200	1000	5513.131
600	2200	1200	5515.131
800	2200	800	5512.131
800	2200	1000	5514.131
800	2200	1200	5516.131

with vented door, with 19" mounting angles			
Width mm	Height mm	Depth mm	Model No.
600	1200	600	5526.110
800	1200	800	5503.110
800	1200	1000	5504.110
600	1800	600	5527.110
600	1800	800	5528.110
800	1800	800	5505.110
600	2000	600	5529.110
600	2000	800	5530.110
600	2000	1000	5508.110
600	2000	1200	5510.110
800	2000	600	5506.110
800	2000	800	5507.110
800	2000	1000	5509.110
800	2000	1200	5511.110
600	2200	800	5531.110
600	2200	1000	5513.110
600	2200	1200	5515.110
800	2200	800	5512.110
800	2200	1000	5514.110
800	2200	1200	5516.110

with vented door, with 19" mounting frame			
Width mm	Height mm	Depth mm	Model No.
600	1200	600	5526.181
800	1200	800	5503.181
800	1200	1000	5504.181
600	1800	600	5527.181
600	1800	800	5528.181
800	1800	800	5505.181
600	2000	600	5529.181
600	2000	800	5530.181
600	2000	1000	5508.181
600	2000	1200	5510.181
800	2000	600	5506.181
800	2000	800	5507.181
800	2000	1000	5509.181
800	2000	1200	5511.181
600	2200	800	5531.181
600	2200	1000	5513.181
600	2200	1200	5515.181
800	2200	800	5512.181
800	2200	1000	5514.181
800	2200	1200	5516.181

with vented door, pre-configured, with 19" mounting frame			
Width mm	Height mm	Depth mm	Model No.
800	2000	1000	5509.161

with glazed door, pre-configured, with 19" swing frame			
Width mm	Height mm	Depth mm	Model No.
800	2000	800	5507.170

All preassembled enclosures are already equipped with practice-relevant accessories (e.g. base/plinth elements, side panels, etc.).

with glazed door, IP 55, empty enclosure			
Width mm	Height mm	Depth mm	Model No.
600	800	600	5525.790
600	1200	600	5526.790
800	1200	800	5503.790
800	1200	1000	5504.790
600	1800	600	5527.790
600	1800	800	5528.790
800	1800	800	5505.790
600	2000	600	5529.790
600	2000	800	5530.790
600	2000	1000	5508.790
600	2000	1200	5510.790
800	2000	600	5506.790
800	2000	800	5507.790
800	2000	1000	5509.790
800	2000	1200	5511.790
600	2200	800	5531.790
600	2200	1000	5513.790
600	2200	1200	5515.790
800	2200	800	5512.790
800	2200	1000	5514.790
800	2200	1200	5516.790

Rittal – The System.

Faster – better – everywhere.

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

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



www.rittal.com/contact

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