



Rittal – Perfection from a single source



System solutions for the water industry

Perfect solutions for a precious commodity



Our materials are as versatile as your applications

Indoor

- Sheet steel – Phosphating, electrophoretic-dipcoat priming and powder coating provide triple protection
- Plastic – Robust thanks to fibreglass-reinforced, non-saturated polyester GFK
- Stainless steel – The ultimate in terms of hygiene and corrosion resistance

Semi-outdoor

- Tough plastic and stainless steel for protected outdoor environments

Outdoor

- Sheet steel, zinc-coated with zinc phosphating – Automotive standards at moderate costs
- Stainless steel 1.4301 or 1.4571, powder-coated – Optimum corrosion and fracture resistance
- Aluminium – The superior all-rounder for outdoor use

Extreme protection for outdoor enclosures

- Uncompromisingly robust: Resistant to sea water, earthquake-proof, vandal-proof.
- Innovative nano-spray finish – Additional protection for extremely high protection requirements

Modern enclosure technology, from outdoor to indoor

Water is our most precious commodity, not to mention a scarce and sensitive resource. It deserves the very best technology to ensure its safe abstraction and treatment. As one of the world's leading system suppliers of enclosure and case technology, Rittal offers individual solutions for every stage of the water cycle – from highly corrosion-resistant outdoor and indoor enclosures, to standardised case systems and complex compact installations.

Rittal offers unique product diversity, from outdoor to indoor, including the broadest range of system accessories. We can supply diverse solutions to meet your specific water treatment requirements – with outstanding reliability and unsurpassed robustness.

The enclosures in water treatment plants may be exposed to extreme conditions of heat and cold, high levels of humidity, as well as acid and alkaline conditions. The high level of corrosion resistance of Rittal enclosures guarantees the lasting safety and functioning of sensitive electronics,



thanks to the use of top-quality materials and extremely resistant surface coatings and finishes. A high protection category is provided as a matter of course: from IP 55 to IP 69K.

Rittal – Perfect solutions at reasonable prices

Drinking water processing

- Compact enclosures AE (sheet steel, stainless steel)
- Bayed enclosure system TS 8 (sheet steel, stainless steel)

Waste water treatment

- Polycarbonate enclosures PK
- Plastic enclosures KS
- Compact enclosures AE (sheet steel, stainless steel)
- Bayed enclosure system TS 8 (sheet steel, stainless steel)
- CS outdoor enclosures

Sewer cleaning

- Polycarbonate enclosures PK
- Compact enclosures AE (sheet steel, stainless steel)
- Compact enclosures AE IP 69K



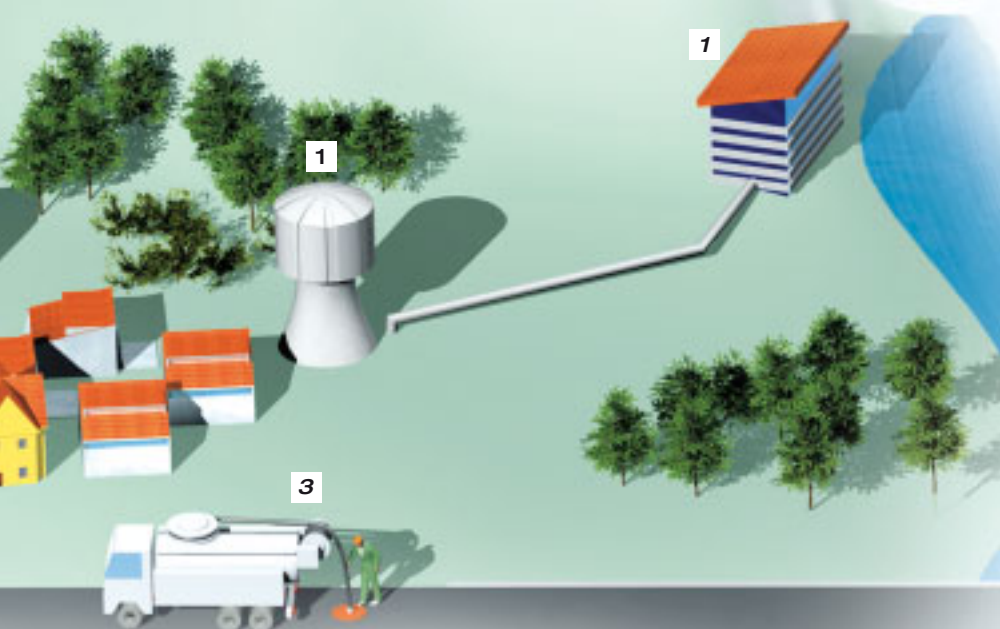
Drinking water processing
Rittal compact enclosures from the AE series (stainless steel) are used, for example, in a drinking water processing plant with UV radiation.



Sewage treatment plants
Oxygen measurement in an aeration tank – a Rittal KS enclosure protects the sensitive electronics.



Sewer cleaning
The suction vehicle controls are securely housed in Rittal small enclosures (in centre of picture).



Rittal Outdoor Solutions – Clear solutions for



Remote monitoring of the physical measurement variables in a sewage treatment plant, protected by the CS Basic enclosure.



Level measurement in a sewer and sequential control of a sluice
Protection is provided by the robust CS modular enclosure.

Modular diversity at a high level of safety

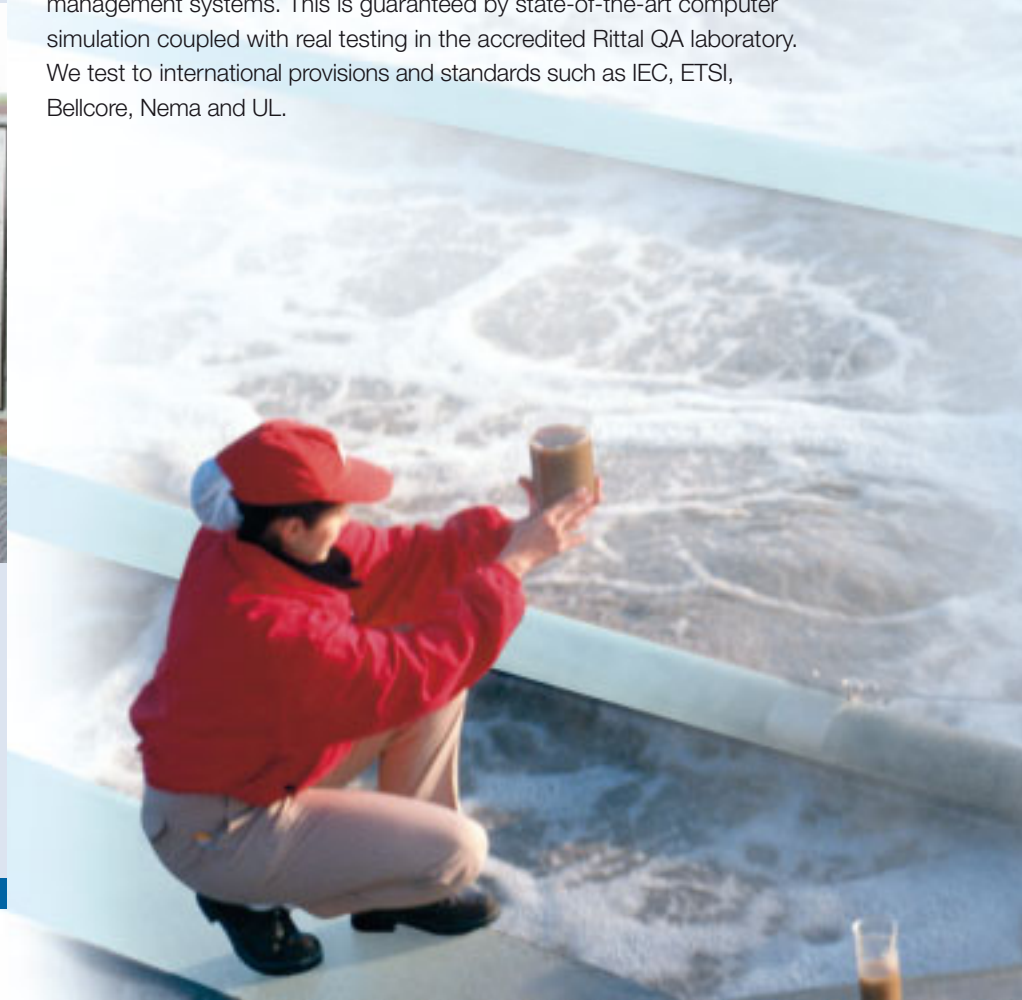
With its CS Outdoor enclosures, Rittal sets new standards in outdoor siting at a high level of safety. Our comprehensive modular solution diversity is based on a range of five systems. High-quality materials provide protection from various physical and climatic influences, while Rittal climate control components ensure the correct operating temperature inside the enclosures.

Rittal CS Outdoor enclosures will withstand even the most severe pressures – with no ifs or buts. From the basic requirements such as humidity and temperature fluctuations to Ex protection (digestion tower), Rittal has the right solution. In addition to our standard product portfolio, Rittal also offers a range of individual configuration solutions and stages.

With matching components and an extensive range of accessories, standard enclosures may be tailored perfectly to your requirements and retrospectively upgraded. In this way, planning confidence and flexibility are guaranteed at all times.






Maximum equipment protection

Rittal Outdoor Solutions offer a full range of solutions for the protection of electronic equipment, from weather-tested enclosures to complete safety management systems. This is guaranteed by state-of-the-art computer simulation coupled with real testing in the accredited Rittal QA laboratory. We test to international provisions and standards such as IEC, ETSI, Bellcore, Nema and UL.



clear water

Comparison of Outdoor enclosures

	CS Basic enclosures	Outdoor compact enclosure	CS modular enclosure	CS Toptec	CS wall-mounted enclosure
Application					
	Accommodation of electrical and electronic components with low heat loss.	Accommodation of electrical components. High protection from vandalism.	Accommodation of high-quality electronic components with high heat loss. Very high protection from vandalism.	Accommodation of high-quality electronic components with high heat loss.	Accommodation of electrical and electronic components with low heat loss.
Model					
Single-walled	■	■		■	■
Twin-walled			■		
Protection category					
IP 55	■		■	■	■
IP 44		■			
Climate control					
Natural convection		+++	+	++	+
Fan-and-filter unit	+++	++	+++	+++	+++
Air/air heat exchanger	++		+++	+++	
Cooling unit	+		+++	+++	
System accessories	+++	+	+++	+++	+
Vandalism protection	+	+++	+++	++	++
EMC protection	+++	+	+++	++	+++

+++ Ideally suited / high
 ++ Well-suited / medium
 + Suitable in some cases / low

Rittal Outdoor enclosures will withstand the highest pressures.

Infinite possibilities for every aspect of the water industry



Products for all requirements

Rittal solutions cover every task in drinking water abstraction and sewage purification – thanks to one of the most comprehensive immediate delivery ranges with over 10,000 standard products. Rittal offers an incomparably broad spectrum of services comprising outdoor solutions, enclosure systems, small enclosures and power distributors, as well as console systems for monitoring and control and IT solutions with remote monitoring.

Top enclosure system TS 8 – System platform for individual tasks

The Rittal Top enclosure system TS 8 meets individual requirements perfectly and cost-effectively. Each enclosure is a specialist in exceptional tasks.



Control of the preliminary clarification tank in a Rittal TS 8 –

Perfect protection for measurement amplifier, PLC and field bus modules. Compact, reliable power distribution components and the Rittal DCP (Direct Cooling Package) offer additional benefits.



Various modules may be combined into complete individual solutions. New system solutions from Rittal, such as state-of-the-art remote management, or alternative cooling methods for frequency converters such as the Rittal DCP, provide superior benefits from a single source.

Diverse, flexible, cost-effective

With all our solutions, system platforms and modular technologies guarantee diversity, flexibility and convincing value for money, not to mention reduced planning and assembly work.

TS 8 and Maxi-PLS

The ideal combination for low-voltage distributor switchgear with the Top enclosure system TS 8 and the busbar system Rittal Maxi-PLS up to 3,200 A.



Pump controller in secondary clarification tank distributor

in a robust Rittal AE enclosure (stainless steel, V2A or V4A).



Chemical analysis of the water

with automatic linking of the measurement data to a control room computer. The AE enclosure is made from corrosion-resistant stainless steel (V2A or V4A).



Reliability in the control room:

Rittal industrial workstations, electronic and IT racks, all with perfect climate control, plus CMC-TC monitoring of access, climate and power supply.

Tender specification texts available as downloads on the Internet:

www.rittal.de/downloads

For further information, fax us your brochure requests:

Fax hotline 01709 704217

- Brochure "Rittal Innovations 2005"
- Brochure "CS Outdoor Solutions"
- Brochure "In Stainless Steel"
- Overview "Catalogue 31"

Company

Name

Address

Telephone

E-mail

Exemplary service

- Expert, rapid consultancy support
- Customised development of individual system solutions
- Time-saving engineering software for project-planning, configuration and commissioning, amongst others
- Integration of individual components into a complete system
- Qualification and international certification at our own accredited laboratories
- Application-specific seminars for the practical transfer of know-how

A global presence

- 19 high-tech production sites
- Over 70 international agencies
- Over 50 international subsidiaries
- 150 sales and distribution centres



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