



Made in  
Germany

# ProtectaCool Rack – Clean water. Reliable cooling. Stable IT.

**All-in-one rack solution for consistently stable water quality in modern high-performance IT infrastructures**

As power densities in data centres and edge environments continue to rise, **direct liquid cooling (DLC)** is becoming increasingly important. Consistent and controlled water quality is crucial for the operational reliability, efficiency and service life of the IT infrastructure.

The **ProtectaCool Rack** from **SCHÄFER IT-Systems**, developed in partnership with **Spirotech**, combines all the key components for water treatment and hydraulics in a ready-to-connect, modular rack system.

It ensures an air-free, particle-free and chemically stable cooling medium – from the primary to the secondary circuit.

## Advantages for you at a glance

- Consistently high water quality in the cooling circuit
- Reduction of air, particles and the risk of corrosion
- Stable and reliable operation of the IT infrastructure
- Significantly reduced probability of failure
- All-in-one solution in a standardised IT rack
- Ready to connect, plug and play setup
- Suitable for glycol-water mixtures
- Supports energy-efficient and sustainable data centre concepts

# Implementing innovative and customised IT solutions hand in hand

The ProtectaCool Rack is specifically designed **for high power densities of up to 150 kW per rack** and integrates all core hydraulic functions into a coordinated overall system.

## Key integrated components

- **Vacuum degasser:** Removal of free and dissolved gases for deaerated water
- **Sludge and magnetite separator:** Protection against abrasion, deposits and corrosion
- **Pressure maintenance system:** Constant system pressures and operational reliability
- **Desalination unit including automatic refeeding:** Regulation and stabilisation of water chemistry
- **Optimised piping:** Minimised pressure losses and high energy efficiency
- **IS-1 rack with power supply and lighting**
- **Monitoring interfaces (GLT and IP)**

The system is modularly scalable – from compact single-rack solutions to redundant system architectures for high-availability environments.

## ProtectaCool Rack – a solution from SCHÄFER IT Systems and Spirotech

### Benefits

- Optimised for direct liquid cooling
- Integration into primary and secondary circuits
- Reduced energy consumption thanks to efficient liquid cooling
- Quick to implement thanks to pre-configured modules
- Efficient heat utilisation and improved PUE figures
- Resource-efficient operation thanks to stable water quality
- Future-proof infrastructure for AI, HPC, edge computing and hybrid cloud



### Features

- Modular system design
- Pre-configured and tested plug-and-play solution
- Easy integration into existing hydraulic systems
- Maintenance- and user-friendly design
- Continuous monitoring via BMS and IP interfaces
- Compatible with common protocols
- Suitable for water and glycol mixtures