Miracel®

19" rack platform for data center,
telecommunication and network technology

knŭrr
environments for electronics

EMERSON
Network Power

The Miracel® innovation rack – multi-talented, distinguished, integrative

The Miracel® and Miracel[PLUS®] are truly multi-talented and tailored to customer requirements:

The platform technology provides the basis for a versatile range of racks, which has been setting standards in the world of IT, telecommunications and network technology as the solution for the most diverse requirements.

The design of the Knürr Miracel® enables customer-specific adjustment to all requested dimensions and standards.

Extensive technical adjustments are very straightforward thanks to the broad range of Knürr accessories:
Active and passive components, need-oriented power supply and distribution, clever cable management and scalable thermal management ensure operational reliability.

Similarly the monitoring of the watchdog module and the supervision and control of the built-in components help to prevent downtimes wherever possible. The variants that are possible - from open rack to closed cabinets, EMC-shielded to design model or the heavy

duty rack with a static load of up to 1,500 kg - are equipped to satisfy the most diverse customer requirements world-wide.

The main feature of the Miracel® is the unsurpassed aluminium extrusion with T-slot.
It is lightweight, easy to assemble, offers numerous equipping possibilities and is incredibly stable.
The internal space for built-in components is impressive in relation to the installation area.

The most eye-catching functional and design aspect of this rack system are the doors, which have a perforation level of 83 %. This also offers mechanical protection for the valuable built-in components against intentional or unintentional access.

The multi-talented Miracel® is living proof of the quality and reliability of German engineering.
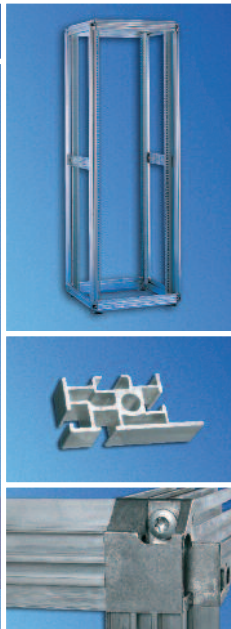
All over the world, the Miracel® is one of the best-selling rack systems for servers, storage, cabling, power supply and mobile communications.

The industry recognises the Knürr Miracel® as an innovative rack firmly rooted in 19" construction. This rack system also makes a significant contribution to energy efficiency.
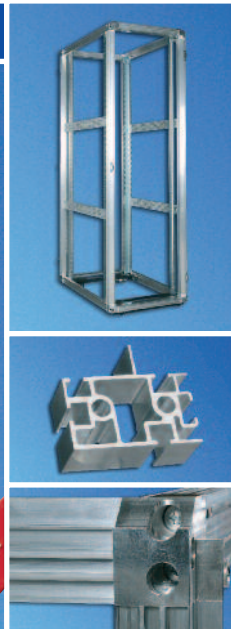
■ made
■ in
■ Germany

Knürr Miracel®

Also available in RAL 7021 dark-grey

83% Perforation

Miracel® 19"-rack system
The Knürr system platform best-seller

- **Installation dimensions in accordance with IEC 60297 and IEC 60917**
  - 23 U / 37 U / 41 U / 46 U
    e.g. 41 U with 2000 mm external height
    and 41 U with 2100 mm and mobile plinth
  - 66-module / 74-module / 82-module (1 module = 25 mm)
  - Width: 482.6 mm (19"), 535 mm (20-module)

- **Static load rating**
  - 5000 N for the stationary version
  - 3000 N with mobile plinth

- **Convenient**
  180° door opening angle

- **Air partitioning**
  Available as an option

Universal strengths

- **Aluminium construction**
  Proven technology based on aluminium extrusions offers high flexibility and stability without excessive weight, which makes handling and assembly much easier.

- **T-slot system**
  Free configuration of accessories. Simple installation of all non-standard built-in components - variable and also in 19" or 25 mm increments.

- **Screw construction**
  Easy dismantling of the rack guarantees accessibility even in cramped rooms.

Knürr Miracel PLUS®

up to 1500 kg Load

Also available in RAL 7035 light-grey

83% Perforation

Miracel PLUS® 19" heavy duty server rack
An additional asset for the innovation rack

- **Installation dimensions in accordance with IEC 60297**
  - 42 U / 46 U
    e.g. 42 U with 2000 mm external height with castors
  - Width: 482.6 mm (19")

- **Static load rating**
  - 15000 N for the stationary version
  - 10000 N with castors
  Stability has been greatly improved by more stable extrusions and reinforced corner joints

- **Convenient**
  Door assembly without tools

- **Air partitioning**
  Standard

- **Expandable at any time**
  System expansions can be easily implemented while maintaining the IP protection rating (IP 20).

- **Flexible ventilation components**
  Optimum ventilation guaranteed by corresponding accessory components. In part due to perforated doors (perforation level: 83%).

- **Cable management**
  Guaranteed optimum cable routing. Cable management variable thanks to comprehensive accessory components.

- **Server extrusions as per IEC standard 60297**
  Extrusions for the rapid installation of all trade standard servers as well as network and telecommunications components.

Knürr Miracel® – the generously equipped rack platform

An extensive range of compatible accessories that permits all possible installation variants in server, network and telecommunication racks rounds off the outstanding Knürr Miracel® system platform:

Cable management

System accessories

Socket strips

Uninterruptible power supply
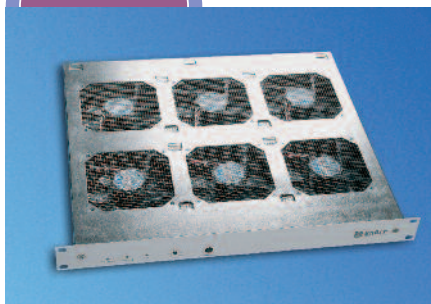
Electro-mechanical components

Active components

Network technology

Air2Air cooling

IT Special Catalog
Networking and Data Centers

The complete range of accessories can be found in our **IT Special Catalogue**.
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Knürr Miracel® & Knürr Miracel^PLUS®

The perfect solution to any data center, telecommunication or network technology challenge

With a load of 1,500 kg, the Knürr Miracel^PLUS® sets new standards as a member of the Miracel® family.

The Miracel® aluminium frame

compares very favourably to steel constructions in terms of weight. The flexibility of the aluminium frame accommodates varying configurations of built-in components.

The construction offers optimum ventilation through the server rack as well as extremely easy add-on options even in areas that are difficult to access.

Knürr Miracel® – an excellent choice!

Emerson Network Power is a consistent global technology leader and recognised expert that helps to secure business-critical processes, and by doing so contributes to a "business-critical continuity".
A series of the most diverse applications, including the tried, tested and proven Knürr rack system solutions and the thermal management connected with them, ensure the required network stability with the highest technological adaptability at the same time.

Knürr system solutions in the world of information and network technology are part of an adaptive Emerson Network Power architecture, which flexibly adjusts to all changes concerning security/safety, high-density and all associated capacities. Companies profit in a sustainable and long-term way from the high IT availability, operative flexibility and impressive reduction in investment and operating costs.

Knürr AG is recognised around the world as one of the leading developers, manufacturers and distributors of rack and enclosure platforms in the indoor and outdoor area, including all relevant active/passive components of 19" structures and the technologies connected with them.

Knürr is certified in accordance with EN ISO 9001 and the EN ISO 14001 standard. Knürr's quality management continuously guarantees the highest level of quality in all areas of the company.

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The global leader in enabling business-critical continuity

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■ Power Switching & Controls	■ Integrated Cabinet Solutions	■ Precision Cooling	■ Surge & Signal Protection
■ DC Power Systems	■ Outside Plant	■ Services	■ Rack & Enclosure Systems