

Knürr Technical Furniture

The Workstation Experts



Knürr Technical Furniture

The workstation experts 2

Product portfolio

Knürr Dacobas® 4

Knürr CiCon® 4

Workstation for
Electronics Engineers 4

Knürr Elicon® 4

Monitor Wall 4

Knürr CoolDesk® 5

Knürr ErgoCon® 5

Ergonomic

Flat Screen Holder 5

Mobile Equipment Carriers 5

Accessories 5

Industry Expertise

Security Control Technology 6

Automation and
Industrial Technology 6

Automotive 6

Medical Technology 7

Measurement, Testing
and Lab Technology 7

Banking and Insurance 7

Media Technology/Broadcasting 8

Power Supply 8

Logistics 8

Traffic Control Technology 9

Mobile Equipment Carriers

Modular Standard Solutions 10

Customized Solutions 11

Ergonomics 12

Room Planning 13

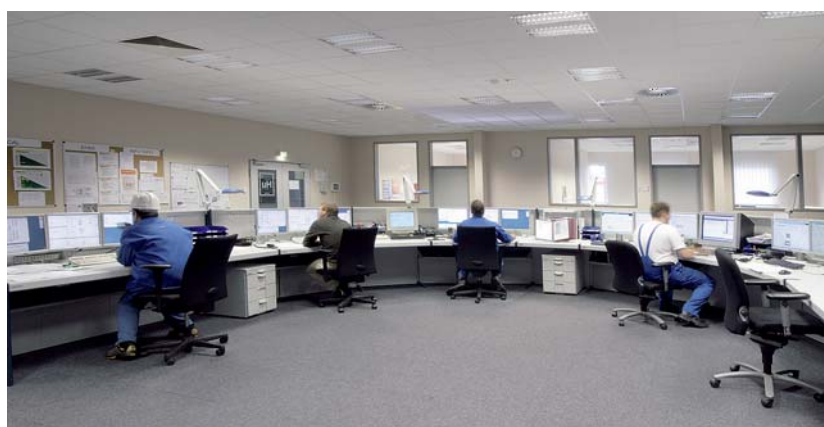
Project Management 15

Design 16

Production and Logistics 17

More Comprehensive
Benefits 18

Exemplary Results 19



Knürr Technical Furniture

The Workstation Experts

Our customers set the requirements – we respond with quality, flexibility, speed and perfected service.

Around the entire globe we are recognized as a particularly reliable partner for technical workstation systems, control consoles and operations control centers in traffic control technology, police, fire and ambulance services, industrial applications, the automotive industry, medical technology, electronics, media technology, power supply, logistics and banking/insurance.

Knürr Technical Furniture product philosophy:

- Investment-protected with long lifespan and flexible upgrading
- Reliable due to selected materials
- Ergonomic perfection by incorporating occupational health expertise into the individual planning, design and implementation
- Individual by analyzing process flows and environmental conditions

Workstation systems require uniform spatial concepts – complex technological integration with the highest functionality available!

Mobile equipment carriers from Knürr are one of the factors that create efficiency and autonomy in the laboratory, OP area, office and in the workshop.

Global presence, an innovative and aesthetic design, a mature range of standard products and our recognized high standard of production expertise make us stand out clearly from the crowd.



Knürr Technical Furniture

Product Portfolio

Knürr Dacobas®

Modular workstation systems for:

- Technological and office use
- Monitoring and control centers
- Control and measuring stations
- Security and rescue centers



Knürr CiCon®

Circular consoles for:

- Control rooms
- Monitoring centers



Workstation for Electronics Engineers

- Training and instruction workstations
- Assembly workstations
- Development workstations
- Service workstations



Knürr Elicon®

Modular workstation systems for:

- Technological and office use
- Monitoring and control centers
- Open control and measuring stations



Modular LCD Monitor Wall

Modular LCD monitor wall for:

- Measurement consoles and control rooms
- Emergency operations centers



Knürr ErgoCon®

Height-adjustable consoles for:

- Operations control centers
- Emergency operations centers



Knürr CoolDesk®

Comfort workstation solution with water-cooling for:

- Banks, insurance companies and process-controlled industrial applications



Ergonomic Flat Screen Holders

For universal use for 17" to 65" monitors



Mobile Workstations

- Automotive Industry
- Medical technology
- Industry and research
- Production and assembly



Accessories

- Cabinets
- Chairs
- Lights
- System accessories
- Power supply
- 19" accessories
- ESD accessories



Industry Expertise

Safety and Security Technology

Knürr is a specialist in taking care of the requirements of authorities and organizations with security tasks

- Operations control centers at police and fire stations, rescue services, customs, army, control and command centers in disaster management
- Industrial front desk systems and control centers of private security companies



Industry Expertise

Automation and industrial technology



Knürr Technical Furniture has been active in the furniture for process automation business for more than 20 years.

Knürr plans, develops and produces process control furniture for international customers.

Industry Expertise

Automotive

Mobile equipment trolleys and consoles for:

- Production control stations
- Engine and chassis dynamometers
- Test and assembly workstations
- Training and instruction workstations
- Development workstations



Industry Expertise



Medical technology

New workstation concepts, services and support services are increasingly being determined according to the principle of “flexibility through mobility of tools and instruments in use”. This is no where clearer than in diagnostics and therapy in the medical world.

Industry Expertise

Measurement, testing and lab technology

- Test and service workstations
- Assembly and production workstations
- Training and instruction workstations
- Development workstations



Industry Expertise



Banking and insurance

- Broker workstations
- The comfort workstation solution for banking and insurance operations.

Industry Expertise

Media technology/ broadcasting



We offer diverse console and video solutions for broadcasting, TV, media and conference technology.

- Consoles and monitor walls for conference areas, security centers and facility management
- Editing, reproduction and direction workstations

Industry Expertise

Energy provider

Innovative technologies require professional resource management and a smooth process flow. To control all this we offer consoles for:

- Control and monitoring stations in power supply centers and power plants



Industry Expertise

Logistics



We provide you with high-grade system solutions for logistical and industrial applications - robust, flexible, good to look at, ergonomic

- Mobile workstations for production order
- Workstations for mobile data recording, printing work, online processing

Industry Expertise

Traffic control technology

Aviation

Knürr's planning and engineering specialists are renowned experts when it comes to providing airport and traffic consoles for environments with demanding safety requirements.



Shipping

Tailor-made console solutions for traffic control centers, lock control and cargo management.



Rail

Consoles for operations centers and control rooms for rail traffic.



Road

Technical workstation systems for municipal and cross-regional traffic control consoles.



Some of our satisfied customers from these industries:

AREVA • Airbus Industries • GE Medical • Volkswagen • Police Paris • Qatar Airways • Deutsche Bahn • Siemens AG • Ericsson • BMW • LAX Los Angeles • Aesculap • Eurocopter • Daimler • Volvo • Air France • EADS • Yokogawa • Alcatel • Thales • Rohde & Schwarz • MUC Munich • DLR • BASF • Audi • Bayer • ABB • NASA • Gaz de France • Porsche • Zürich Airport • Daimler • Berlin Airport • Polizei Hamburg • Lufthansa • Deutscher Wetterdienst • DFS Deutsche Flugsicherung • Deutsche Bank

You will find further references and photos at: www.technical-furniture.com

Mobility in practice

Modular standard solutions

Whether it be in the workshop area, electronics lab, the office or in medical technology – our comprehensive standard range provides diverse solutions for the safe and secure mobility of valuable equipment.

The modular construction enables multifaceted trolley configurations, immediately or at any time later on.

For demanding anti-static environments Knürr provides various trolley systems – ranging from robust transport trolleys through to the fully equipped measurements and diagnostics trolley.



Ergonomic details also simplify daily tasks in a wide range of environments.

An extensive range of accessories supplements Knürr's mobile equipment carriers as requested by the customer:

Flatscreen holders, ESD-casters, isolating transformers and leakage detectors, cable routing elements and all kinds of accessories for the medical sector.



Mobility in practice

Customized solutions

Based on our standard modules the options for unique originals are practically unlimited.

Challenge us with your requests! Ask us for your original and stand out on the market with your equipment trolley with customized design – harmonized with your company's image and design (CI/CD).

Our competent **design and technology** team is only too happy to optimally and specifically satisfy customer-specific requirements – and in the respective batch sizes.

“Utilize our long-standing years of **experience**, with which we ergonomically, technically and optically blend our mature and flexibly adjustable product platforms and components into your **individual solution**.”



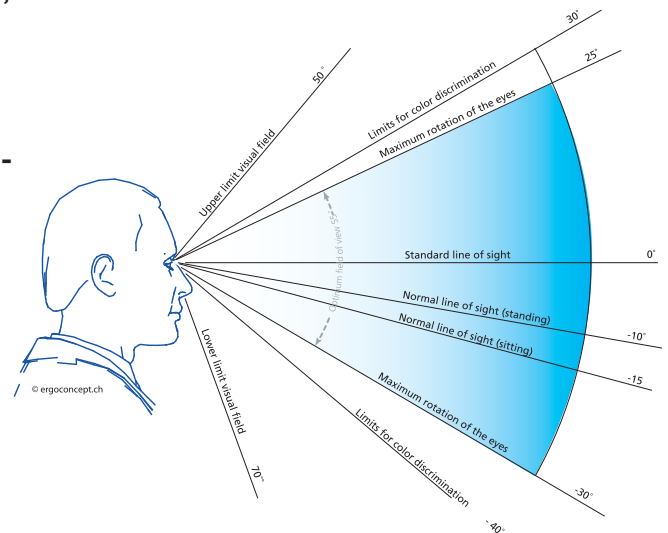
Workstations – holistic planning

Ergonomics

Ergonomics is the science of designing the job, equipment, and workplace to fit the worker.

The work that is done at a workstation is all-important here:

- Monitoring work at a control station
- Telephone and reading work
- Everyday screen work
- Written work
- Testing, etc.



The following factors must, however, be harmonized with one another with the work at the monitor workstation in order to increase efficiency and minimize the amount of sick days:

1. Desk setup
2. Space requirement and room layout
3. Lighting
4. Acoustics
5. Room climate
6. Aesthetics and well-being at the workstation

These factors are handled differently by legislators, standardization institutes and insurance carriers. While the legislators (occupational health and safety laws, health and safety at work act, EU directives, monitor workstation legislation, etc.) determine the rules and regulations, the standardization institutes project the “current state of technology”.

Insurance carriers, such as the respective employer’s liability insurance associations, for example, provide “validated ergonomic findings”. §4 of the Labor Protection Act provides standardization institutes and

DIN, ISO and EN standards and employer’s liability insurance association regulations with the required legal character.

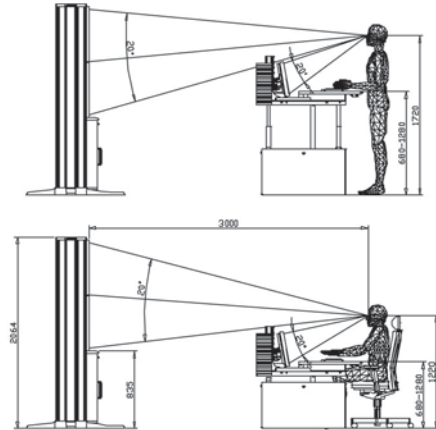
Whether it be new developments or customized products, Knürr complies in its design and development work with these generally applicable ergonomic rules.

Workstations – holistic planning

Room planning

1. Desk setup

- Anthropometry
- Worktops and work levels
- Leg space, legroom depth, legroom height
- Viewing distance to monitors
- Monitor tilt angle
- Monitor viewing angle, etc.



2. Space requirement and room layout

2.1 Basic concept

- Recording the current situation
- User consultation
- Conceptual planning
- Layout planning

2.2 Basic design

- Layout design
- Light design
- Ergonomic design
- Acoustics
- Colors and color combinations

2.3 Execution planning

- Detailed design for control rooms, consoles, operational equipment and installations
- Thermal management

2.4 Construction & production

- Construction of the designed equipment/installations
- Installation work
- Internal configurations



Workstations – holistic planning

Room planning

3. Lighting

- Knürr provides an optimum combination of evenly distributed indirect room lighting, plus individual workstation lamps.
- Avoid direct glare and reflected glare.



4. Acoustics

- The noise level for office and control rooms recommended by experts is 35-40 dB (A) and 55 dB (A) should not be exceeded.
- Knürr specifically prevents sound-carrying with the correct use of materials and preventive room planning. This includes wrapping disturbing sound sources or increasing sound-absorbing surfaces by applying the appropriate materials to floors, ceilings, walls, window fronts, cabinet panels and partition panels, etc.



5. Room climate

On request our climate engineers and workstation experts run tests to ensure that the requirements and standards for room temperature, air humidity and airflow speed are all complied with.

6. Aesthetics and well-being at the workstation

Numerous individual and subjective factors have an effect here – and these should be determined together with the employee.

For detailed and individual advice, simply use our Knürr ErgoScan® Service Package and call us at +49(0) 8723 28 111.

From the very beginning:

Project Management

Take advantage of our expert know-how, which we have been gathering for decades in numerous customer projects in various industries.

The **project manager** is your direct contact partner. They are the interface between you and the project, and they are responsible for the project planning in accordance with your individual requirements profile. Depending on the complexity of the task at hand, they put together a **professional team** of specialists from the most diverse disciplines.

Numerous factors are considered – from the creation of a list of functional specifications, budgeting and scheduling, through to special design specifications and technical integration, right on through to compliance with standards and guidelines and detailed project documentation.

During the **product design** phase, industrial designers and technicians work closely together to harmonize form and function. You check the result and can add your suggestions at any time with the aid of 3D CAD models.

The **prototyping** is also performed by experts that integrate your wishes, requests and suggestions into a first specific product.

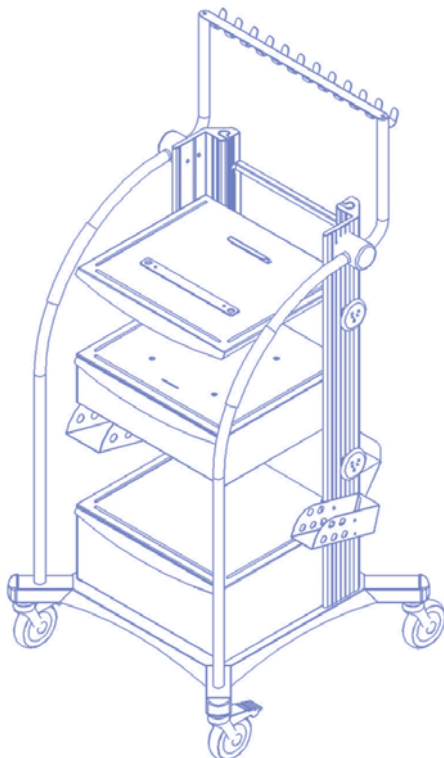
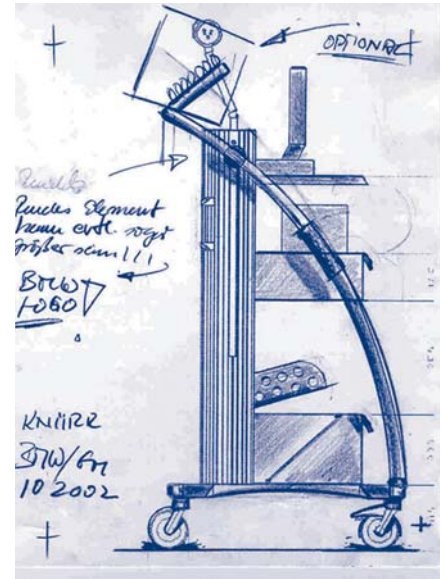


Design and Function

Design

Using the most modern CAD applications, we design your products, which set new standards in terms of technology and aesthetics. On the basis of the project-planned details, 3D views, design studies and volume models emerge, which represent the most realistic state of development progress and enable modifications in line with your wishes at absolutely any time.

Your company-own corporate design is also integrated with our proposals for materials and colors. Ultimately we ensure a smooth technical and technological integration while complying with UL, CSA, VDE or TÜV/GS standards. Only when these stages have been fully completed, can the first prototype be produced.



Exemplary results

Production and logistics

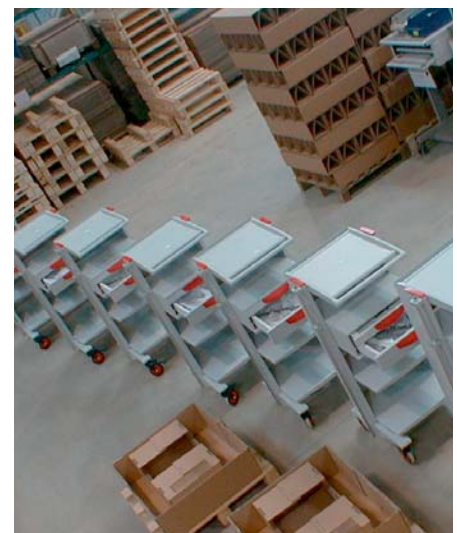
After the customer has approved the production release our elaborate **logistics concepts** go into operation.

Customized planning is integrated into our **supply chain management** and seamlessly implemented.

We produce application-specific equipment trolleys in ultra-modern **industrial production processes**.

In the production phase, our employees – supported by our integrated **quality assurance procedures** – guarantee the best product available with their long-standing years of experience in production, packaging and shipping.

This also includes in-depth **packaging expertise**, equipped for global shipping and the most difficult environmental conditions.



Integrated solutions

More comprehensive benefits

Knürr products are put through multi-level quality assurance procedures in accordance with international standards. In addition, all necessary mechanical and electronic tests are carried out in both internal and independent laboratories.

GS certificates and compliance with the European Machine Directive provide you with the security that Knürr products are not only absolutely safe and long-life – they also comply with all standards and directives.

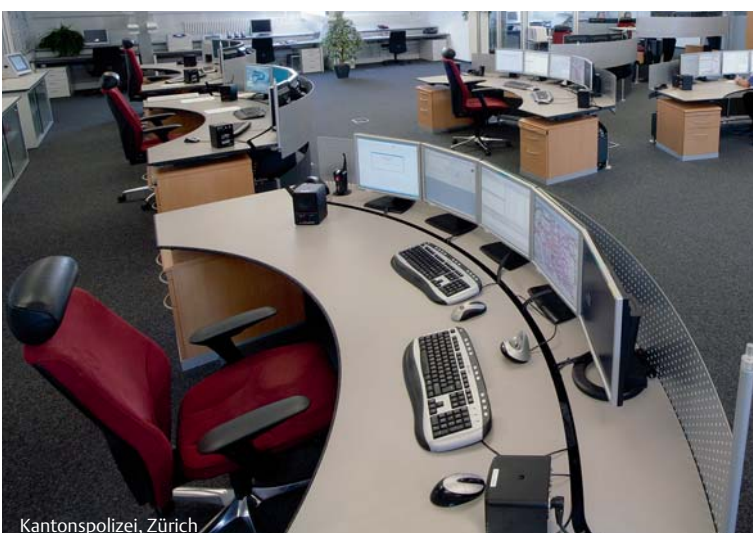
- Various tests on request: Earthquake test, advance tests, vibration test, stress test, environmental audit, VDE/GS, EMC test, etc.
- Industrial production ensures a guaranteed future and investment protection
- Detailed project documentation
- Compilation of assembly instructions
- Ability to operate globally due to Emerson Network Power's worldwide sales presence



- At the same time we also provide you with the benefit of a flexible and highly specialized organisation unit

Selection of reference customers

More comprehensive benefits



Emerson Network Power is the global technology leader in numerous areas, and a recognized expert in helping to secure business-critical processes, and therefore contributes to “business-critical continuity.” A whole range of the most varied applications, including the tried and tested Knürr rack system solutions and the accompanying thermal management, ensures the required network stability with maximum technological adaptability at the same time.

Knürr system solutions in the world of information and network technology are part of an adaptive architecture from Emerson Network Power, which flexibly adapts to changes concerning security, high-density and all associated capacities. Companies are provided sustainable and longterm benefits from the high IT availability, operative flexibility and impressive reduction in investment and operating costs.

The Knürr Technical Furniture business unit develops, produces and distributes technical workstation systems for control consoles, operation control centers and electronics labs, as well as mobile equipment carriers for the automotive and medical technology industries.

Knürr AG is recognized 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 in 19” construction and the technologies associated with it. Knürr is part of Emerson Network Power.

Knürr is certified in accordance with EN ISO 9001 and EN ISO 14001, and its quality management continuously guarantees the highest standards in all areas of the company.

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Emerson Network Power

The global leader in enabling business-critical continuity

AC Power Systems	Embedded Power	Power Switching & Controls	Site Monitoring
Connectivity	Integrated Cabinet Solutions	Precision Cooling	Surge & Signal Protection
DC Power Systems	Outside Plant	Services	Rack & Enclosure Systems

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