

STAUFF Solutions for Data Center Infrastructure

Fluid Conveyance, Connection and Fastening Technology

Product Overview

Version
10/2026

Modern data centers are the backbone of the digital economy, supporting cloud computing, artificial intelligence, telecommunications and business-critical IT services.

As computing densities increase and uptime requirements become ever more stringent, data center infrastructure must operate reliably under continuous load, strict safety standards and demanding environmental conditions.

Mechanical integrity, secure fluid handling and robust system design are essential to ensure long-term availability, efficiency and resilience.

Within this environment, several technical sub-systems are particularly critical and directly relevant to STAUFF's portfolio of fluid conveyance, connection and fastening solutions:

- Thermal Management | Liquid Cooling Distribution Systems
- Thermal Management | Liquid Immersion Cooling Systems
- Fire Suppression Systems
- Electrical Power and Data Cable Management Systems
- Emergency and Independent Power Supply Systems

Across all these sub-systems, STAUFF solutions contribute to safe installation, operational reliability and long service life – helping data centers maintain performance, availability and resilience where failure is not an option.

With the comprehensive portfolio of best-in-class fluid conveyance, connection and fastening solutions, STAUFF supports manufacturers of equipment and components for specific data center sub-systems, as well as engineering firms, installers and data center operators – tailored to the respective project requirements.

A Global Partner with Strong Local Presence

As a globally operating manufacturer of fluid conveyance, connection and fastening solutions, STAUFF combines worldwide reach with strong local capabilities.

With wholly owned subsidiaries and a closely integrated network of sales, service and system partners across all major industrial regions, STAUFF supports data center projects on a global scale while responding to regional and project-specific requirements.

This global setup enables local availability, local support and – where required – local content, helping customers meet regulatory, logistical and operational demands throughout the entire project lifecycle.

From engineering and installation to operation and long-term maintenance, STAUFF delivers consistent quality and reliability – globally coordinated, locally executed.



Thermal Management | Liquid Cooling Distribution Systems

Cooling Distribution Systems are essential for managing the high thermal loads generated by modern, high-density IT equipment.

They require precise flow control, stable operating pressures and absolutely leak-free connections to ensure efficient heat transfer and protect sensitive hardware.

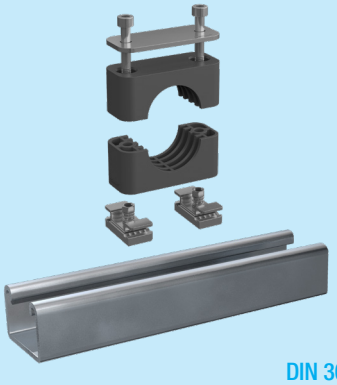
Reliability, material compatibility and long-term operational safety are critical, as cooling performance directly impacts system availability and energy efficiency.

STAUFF Components

STAUFF Components for Cooling Distribution Systems contribute to:

- Improved operational reliability and fire safety
- Long-term mechanical stability under temperature fluctuations, UV exposure and environmental influences
- Reduced installation time and effort
- Modular systems for quick and easy expansion and conversion

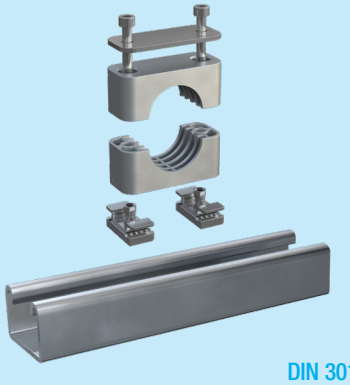
Learn more on our dedicated Data Center page: www.stauff.com/dc



DIN 3015

Block-Type Clamps made from Flame-Retardant Plastics for Pipes, Tubes and Hoses

- Clamp bodies made from flame-retardant plastic materials based on Polyamide (or Polypropylene)
- Highest V-0 fire-safety rating according to UL 94 (self-extinguishing, no flaming drips)
- Excellent temperature, media, UV and weather resistance
- Specific versions available for rigid pipes and tubes (with profiled inside surfaces) and for flexible hoses (with smooth inside surfaces and round edges and corners)

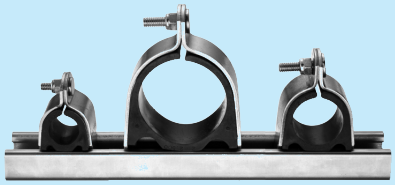


DIN 3015

Block-Type Clamps made from Aluminium for Pipes and Tubes

- Clamp bodies made from Aluminium
- Non-flammable and fire-safe material (non-combustible, no flaming drips)
- Excellent temperature, media, UV and weather resistance
- Outstanding strength-to-weight ratio with good vibration and mechanical load behaviour
- Designed for rigid pipes and tubes (with profiled inside surfaces)

- Full compliance with DIN 3015 standard for maximum availability, interchangeability and interoperability
- Range covering all metric and imperial diameters from 3,2 mm (1/8 inch) up to 102 mm (4 inch / NPS 3.5) in the Standard Series – Intermediate Series covering diameters up to 219 mm (NPS 8) – Heavy Series covering diameters up to 406 mm (NPS 16)
- Corrosion-resistant metal hardware made from Stainless Steel 303/304/316 offering versatile mounting options (direct, rails, profiles, base plates, stacking), quick installation and “fix-and-forget” reliability
- Metal hardware made from Carbon Steel with STAUFF Zinc/Nickel surface coating as a cost-effective but high-performance alternative to Stainless Steel



Strut-Mounted Cushion Clamps for Pipes, Tubes and Hoses

- Design based on Stainless Steel brackets and a vibration-dampening insert made from Thermoplastic Elastomer material
- Quick installation directly into the mounting strut
- Easy retrofitting of additional lines
- Reduced horizontal mounting space
- Range covering all metric and imperial diameters from 6,4 mm (1/4 inch) up to 168 mm (6 inch)



DIN 3570 and others

Round-Steel U-Bolts

- Proven-round steel U-bolt design according to DIN 3570 (Form A) and other standards
- Wide size range from 25 to 521 mm (NPS 20)
- Available in carbon steel with different surface finishes or Stainless Steel V4A (AISI 316 / 316 Ti)
- Short and long plastic pipe saddles available for additional pipe support and protection
- Rubber lining or protective rubber shroud available on request for additional pipe-surface protection
- Suitable for horizontal and suspended pipe installation on steel beams, profiles and brackets
- Robust, simple design for fast and reliable installation of large-diameter pipework



Pressure Testing Equipment

- Analogue, non-electrical pressure testing equipment such as test points, microbore test hoses and pressure gauges for commissioning and acceptance testing, troubleshooting during operation and condition monitoring without risk
- Compact design for permanent installation in confined spaces
- Tool-free zero-spill connection and disconnection under system pressure with minimum air ingress
- Leak-free performance over long static periods
- Metal parts made from Stainless Steel or Carbon Steel with STAUFF Zinc/Nickel surface coating
- Labelling of gauges with customer logos

Thermal Management | Liquid Immersion Cooling Systems

Liquid Immersion Cooling Systems are designed to manage extreme heat densities by submerging IT components in electrically non-conductive dielectric fluids.

These systems require absolute material compatibility with cooling fluids, high cleanliness levels and reliable sealing to prevent contamination or leakage.

Long-term reliability, chemical resistance and stable performance under continuous operation are critical, as cooling effectiveness directly impacts system efficiency, hardware lifespan and data center availability.

STAUFF Components

STAUFF Components for Liquid Immersion Cooling Systems contribute to:

- Maintain high fluid cleanliness
- Support long-term system reliability
- Reduce the risk of corrosion, degradation and performance loss
- Contribute to extended fluid service life and reduced maintenance effort

Learn more on our dedicated Data Center page: www.stauff.com/dc



Spin-On Filters

- Single or double filter heads available
- Designed for inline installation in applications with operating pressure up to 14 bar / 174 PSI
- Made from Aluminium
- To be equipped with spin-on cartridges for fluid purification and dehydration (with water-absorbing properties)
- Compatible with common immersion cooling fluids – please consult STAUFF for details



Offline Filter Systems

- Filter system with integrated motor-pump unit creating a bypass filtration circuit next to main cooling circuit (kidney loop filtration)
- Dual-stage filtration concept with additional spin-on cartridge for fluid purification and dehydration (with water-absorbing properties)
- Main filtration stage using a radial micro filtration concept to prevent the formation of channels and improve flow behaviour
- Spin-on cartridges with high filtration efficiency and large dirt-hold and water capacity
- Easy installation and retrofitting into existing systems
- Compatible with common immersion cooling fluids – please consult STAUFF for details



Spin-On Cartridges for Fluid Purification

- Comprehensive range of replacement filter elements for spin-on filter housings
- Variety of filter media options
- High filtration efficiency and large dirt-hold capacity
- Also available with an integrated bypass valve
- Compatible with common immersion cooling fluids – please consult STAUFF for details
- Labelling of cartridges with customer logos



Spin-On Cartridges for Fluid Purification and Dehydration (with Water-Absorbing Properties)

- Comprehensive range of replacement filter elements for spin-on filter housings
- Large water capacity
- Compatible with common immersion cooling fluids – please consult STAUFF for details
- Labelling of cartridges with customer logos

Fire Suppression Systems

Fire Suppression Systems are designed to protect critical infrastructure in data centers while avoiding secondary damage to IT equipment.

These systems typically rely on gas-based or fine-mist technologies and demand corrosion-resistant, pressure-stable and gas-tight components.

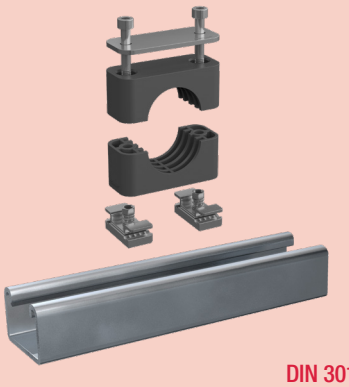
Absolute reliability, compliance with safety standards and maintenance-free operation are key requirements in this safety-critical application.

STAUFF Components

STAUFF Components for Fire Suppression Systems contribute to:

- High fire safety and system integrity
- Leak-free and secure connections
- Robust mechanical performance with excellent resistance to temperature, media, UV exposure and vibration
- Efficient system design and installation
- Long-term operational reliability

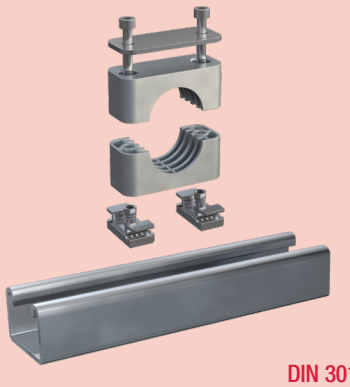
Learn more on our dedicated Data Center page: www.stauff.com/dc



DIN 3015

Block-Type Clamps made from Flame-Retardant Plastics for Pipes, Tubes and Hoses

- Clamp bodies made from flame-retardant plastic materials based on Polyamide (or Polypropylene)
- Highest V-0 fire-safety rating according to UL 94 (self-extinguishing, no flaming drips)
- Excellent temperature, media, UV and weather resistance
- Specific versions available for rigid pipes and tubes (with profiled inside surfaces) and for flexible hoses (with smooth inside surfaces and round edges and corners)

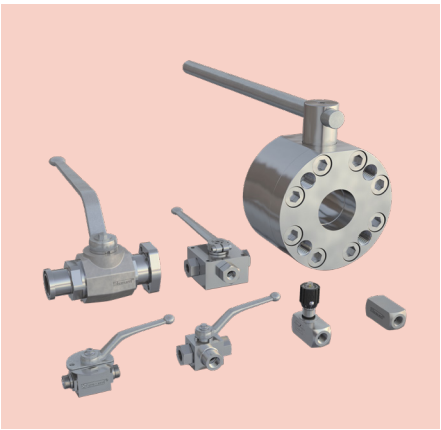


DIN 3015

Block-Type Clamps made from Aluminium for Pipes and Tubes

- Clamp bodies made from Aluminium
- Non-flammable and fire-safe material (non-combustible, no flaming drips)
- Excellent temperature, media, UV and weather resistance
- Outstanding strength-to-weight ratio with good vibration and mechanical load behaviour
- Designed for rigid pipes and tubes (with profiled inside surfaces)

- Full compliance with DIN 3015 standard for maximum availability, interchangeability and interoperability
- Range covering all metric and imperial diameters from 3,2 mm (1/8 inch) up to 102 mm (4 inch / NPS 3.5) in the Standard Series – Intermediate Series covering diameters up to 219 mm (NPS 8) – Heavy Series covering diameters up to 406 mm (NPS 16)
- Corrosion-resistant metal hardware made from Stainless Steel 303/304/316 offering versatile mounting options (direct, rails, profiles, base plates, stacking), quick installation and “fix-and-forget” reliability
- Metal hardware made from Carbon Steel with STAUFF Zinc/Nickel surface coating as a cost-effective but high-performance alternative to Stainless Steel



Two-Way and Multi-Way Ball Valves

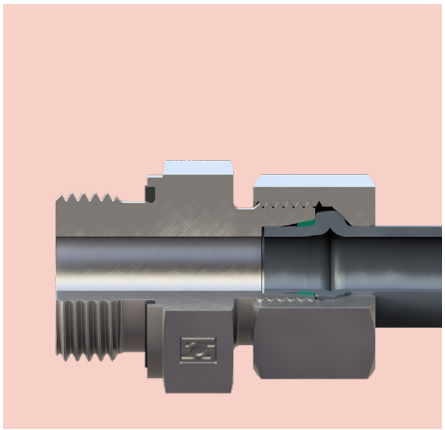
- Comprehensive range of block-body and forged-body ball valves with all commonly used connections (male and female threads, flanges etc.)
- Two-way and multi-way designs available for precise shut-off and directional control of fluid media
- High flow with low pressure drop for maximum efficiency
- Can be equipped with pneumatic and electric actuators for automatic or remote operation
- Made from Stainless Steel or Carbon Steel with STAUFF Zinc/Nickel surface coating (for selected types) as a cost-effective but high-performance alternative to Stainless Steel



ISO 8434-1 / DIN 2353

STAUFF Connect Metric Tube Connectors

- Comprehensive range of fittings, connectors and adapters for metric tubes with outer diameters ranging from 4 to 42 mm in accordance with ISO 8434-1 / DIN 2353
- Versions with metallic and soft sealing cutting rings for maximum leak-free performance over long static periods
- Made from Stainless Steel or Carbon Steel with STAUFF Zinc/Nickel surface coating as a cost-effective but high-performance alternative to Stainless Steel



Tube Forming System

- Machine-assisted cold-forming of metric tube ends
- Safe, reliable and economical alternative to welding and flaring of pipes and tubes as well as to the use of conventional DIN/ISO cutting rings in safety critical applications
- Suitable with tubes made from Stainless Steel and Carbon Steel
- Full compatibility with standard components from the STAUFF Connect range of metric tube connectors

Electrical Power and Data Cable Management Systems

Electrical Cable Management Systems ensure the safe, orderly and reliable routing of power and data cables throughout the data center.

They must provide secure fixation, mechanical protection and clear separation of power and data lines to maintain operational safety and simplify installation and maintenance.

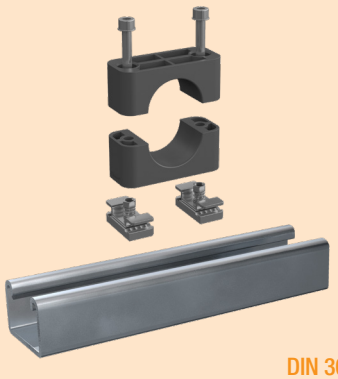
High load capacity, vibration resistance, fire performance and long-term durability are key requirements, as cable infrastructure plays a critical role in system availability, scalability and compliance with safety standards.

STAUFF Components

STAUFF Components for Electrical Power and Data Cable Management Systems contribute to:

- Improved operational reliability and fire safety
- Long-term mechanical stability under temperature fluctuations, UV exposure and environmental influences
- Reduced installation time and effort
- Modular systems for quick and easy expansion and conversion

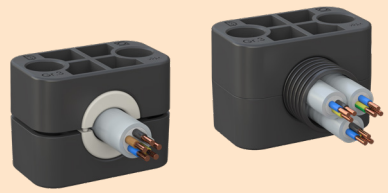
Learn more on our dedicated Data Center page: www.stauff.com/dc



DIN 3015

Block-Type Clamps made from Flame-Retardant Plastics for Electrical Power and Data Cables

- Clamp bodies made from flame-retardant plastic materials based on Polyamide (or Polypropylene)
- Highest V-0 fire-safety rating according to UL 94 (self-extinguishing, no flaming drips)
- Excellent temperature, media, UV and weather resistance
- Specific version available for electrical cables (with smooth inside surfaces and round edges and corners)

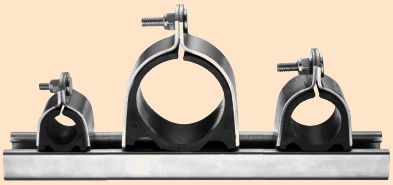


DIN 3015

Block-Type Clamps for Electrical Cables and Corrugated Cable Protection Conduits

- Clamp bodies equipped with a single internal rib to prevent corrugated cable protection conduits from slipping
- Special inserts made from Thermoplastic Elastomer material to prevent damage to electrical cables
- Clamp bodies and inserts made from flame-retardant materials according to UL 94

- Full compliance with DIN 3015 standard for maximum availability, interchangeability and interoperability
- Range covering all metric and imperial diameters from 3,2 mm (1/8 inch) up to 102 mm (4 inch) in the Standard Series – Intermediate Series and Heavy Series available covering larger diameters
- Corrosion-resistant metal hardware made from Stainless Steel 303/304/316 offering versatile mounting options (direct, rails, profiles, base plates, stacking), quick installation and “fix-and-forget” reliability
- Metal hardware made from Carbon Steel with STAUFF Zinc/Nickel surface coating as a cost-effective but high-performance alternative to Stainless Steel



Strut-Mounted Cushion Clamps for Power and Data Cables

- Design based on Stainless Steel brackets and inserts made from Thermoplastic Elastomer material to prevent damage to electrical cables
- Quick installation directly into the mounting strut
- Easy retrofitting of additional cables
- Reduced horizontal mounting space
- Range covering all metric and imperial diameters from 6,4 mm (1/4 inch) up to 168 mm (6 inch)



Cable Cleats and Clamps for Low- and Medium-Voltage Power Cables and Cable Bundles

- Various different versions are available for individual cables and cable bundles
- Quick and tool-free installation, which typically saves up to 70% of the installation time compared to common alternative solutions
- High clamping forces reducing the total number of individual clamps required (when installed vertically)
- High protection against self-loosening
- Flexible inserts covering several cable diameters with a single type of clamp
- Clamp inserts made from flame-retardant plastic materials according to UL 94 – metal parts made from Stainless Steel or Carbon Steel

Emergency and Independent Power Supply Systems

Emergency and Independent Power Supply Systems ensure reliable power for data centers during grid failures or for on-site generation.

Typically based on diesel or gas generators, they require robust, vibration-resistant and highly reliable components for continuous operation under demanding conditions.

High availability, fast response, efficiency and long service life are essential to maintain resilient and secure data center operation.

Learn more on our dedicated Data Center page: www.stauff.com/dc



Hydraulic and Fluid Power Components and Solutions

Components and solutions from STAUFF are used throughout gas and diesel generator systems wherever fluids must be safely routed, vibrations controlled and operational reliability ensured. They make a decisive contribution to:

- High availability of emergency and independent power supply systems
- Safe, long-term operation under demanding conditions
- Reduced maintenance costs and extended generator service life

Filtration and Fluid Protection

Applications

- Lubrication oil side-stream filtration
- Hydraulic and auxiliary fluid circuits

Key Benefits

- Protection of sensitive engine and actuator components
- Extended oil service life and maintenance intervals
- Increased generator and system lifetime
- Reliable operation under high load and continuous duty

Pipe, Tube and Hose Connection

Applications

- Diesel or gas supply (feed, return and vent lines)
- Lubrication oil auxiliary circuits
- Auxiliary media such as cooling water or hydraulic oil for actuators

Key Benefits

- Leak-free, pressure-resistant connections
- High resistance to temperature, media and continuous operation
- Service-friendly installation and easy retrofitting
- High process reliability in emergency and continuous-duty operation

Pipe, Tube and Hose Fastening

Applications

- Fuel, lubricating oil and auxiliary fluid lines
- Cooling and return lines on generator skids
- Hose routing around engines, alternators and peripherals

Key Benefits

- Secure and standards-compliant routing under strong vibration
- Protection against fatigue, abrasion and leakage
- Reduced maintenance effort and increased system availability
- Clean, modular installation for generator containers and skids

Measurement, Testing and Condition Monitoring

Applications

- Pressure, temperature and condition monitoring
- Service and test points in fluid systems

Key Benefits

- Condition-based maintenance instead of reactive servicing
- Early detection of wear and system anomalies
- Increased availability of critical backup power systems
- Documented operational reliability for data center audits

STAUFF®

Contact us today at
marketing@stauff.com
www.stauff.com

CONNECT WITH STAUFF