

EXTRACT



Safety cabinets for hazardous material storage



DC
DÜPERTHAL **connect**



Check out our new

Smart Safety Concept

safe | connected | protected



Why have DÜPERTHAL as your partner?

As a leading provider of safety-optimised storage solutions, DÜPERTHAL represents decades of experience and in-depth knowledge. Our experts know the specific challenges of your industry and, with you, will develop customised concepts for the safe storage of hazardous substances and chemicals. With extensive specialist knowledge and a deep understanding of the legal requirements and technical innovations, we accompany you from the first analysis through to successful implementation.



» **Comprehensive expertise:**

Extensive experience and industry-specific knowledge.

» **Individual solutions:**

Tailored solutions adapted to your requirements and processes.

» **Future-oriented:**

Focus on innovative technologies and cost-saving digital solutions.

Our consultancy services in detail

Our consulting approach is based on a holistic understanding of your requirements and processes. Here, we focus on the following core areas:



Status analysis and risk determination

In an extensive status analysis, we start by determining the current state of your storage solution. We identify potential weaknesses and evaluate risks, to develop targeted measures for your safety.



Solution development and planning

Based on this analysis, our experts come up with solutions which perfectly match your safety and storage requirements. Our planning includes both conventional and digital approaches, in order to provide you with a future-proof solution.



Realisation and implementation

We will accompany you from concept development through to successful implementation. Our team will ensure seamless integration of the new systems and support you in training your employees.



Continuous improvement

We will also continue to support you after implementation. With regular audits and inspections, we will make sure your system works properly and always complies with the latest standards.



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DÜPERTHAL Safety storage cabinets

DÜPERTHAL safety cabinets offer the optimal solution for the safe storage of hazardous substances. As a leading supplier in this field, DÜPERTHAL is committed to the highest safety standards and innovative technologies. Our cabinets are certified according to DIN EN 14470-1/-2 and offer a fire resistance duration of up to 90 minutes to ensure the protection of people, inventory, and workplaces.



Smart Safety - DÜPERTHAL connect

In laboratories, many incidents and process interruptions occur due to “unrecognized conditions” such as exhaust air malfunctions, open doors, critical fill levels, or temperature deviations. This leads to safety risks (vapors/explosive zones), quality risks (samples/media), downtime (e.g., HPLC), and high manual control costs (paper/checklists).

The solution: sensor-monitored safety cabinets

Our safety cabinets can be equipped with modern sensor technology and, in combination with the DÜPERTHAL connect software or via OPC UA interfaces, enable future-oriented hazardous material storage at the highest level of safety.

Benefits:

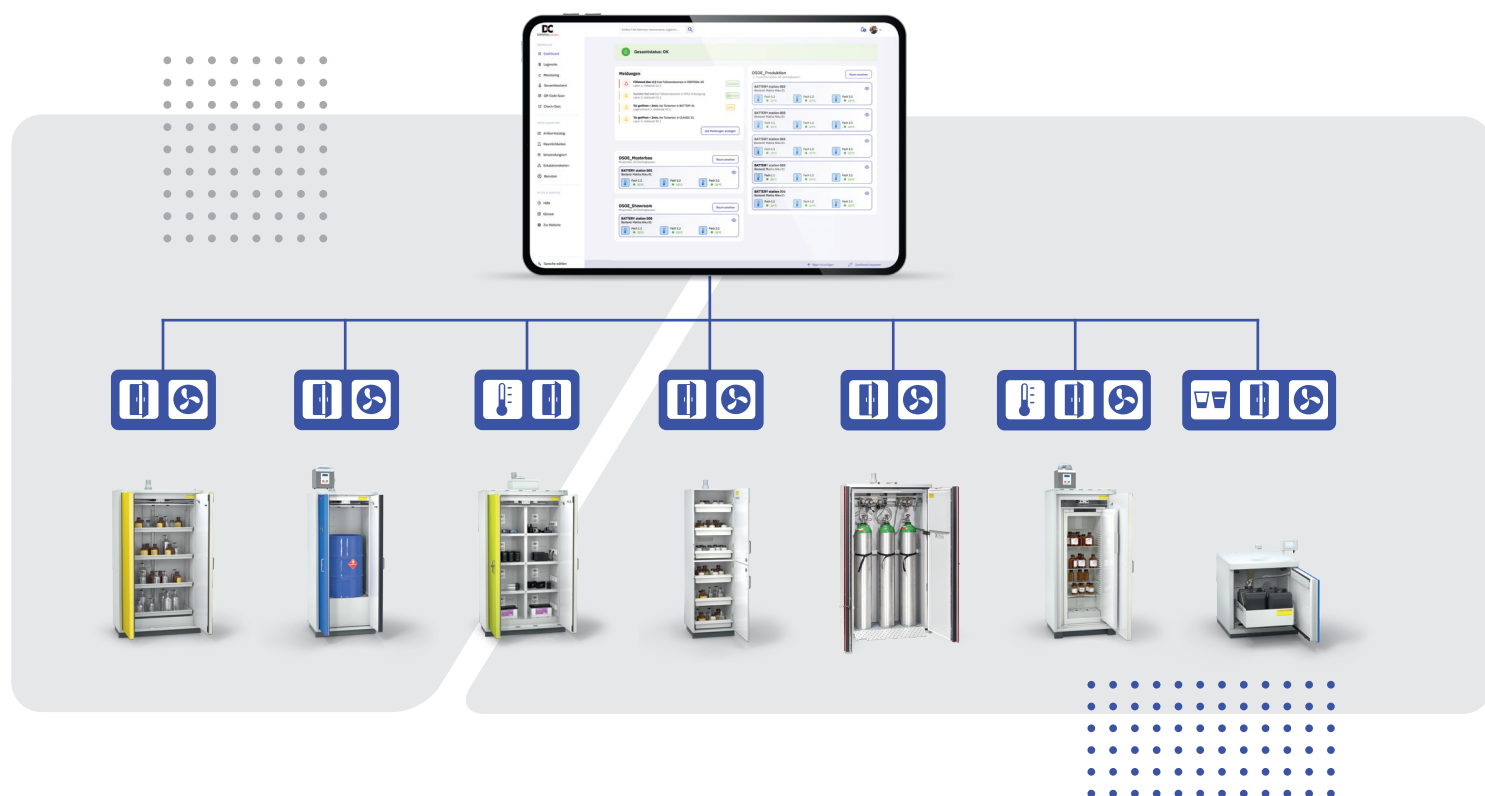
- » Maximum safety for employees and infrastructure.
- » Compliance with standards and insurance requirements.
- » Time savings through automation and fewer visual inspections.

Key funktion:

- » Flexible warning systems for customized safety concepts.
- » 24/7 monitoring of all safety cabinets.
- » Complete documentation through sensor data.
- » Overview of all monitored safety cabinets in a dashboard.

Smart Safety – Sensor overview

When storing hazardous materials, fire protection is not the only factor that matters; monitoring safe operation on a daily basis is also important. Here is a small selection of our sensors - and best of all, **retrofitting is possible**.



Exhaust air monitoring

Early warning in the event of pressure drops/air flow irregularities, before vapors accumulate or undesirable hazardous areas develop.



Door sensor

Door sensors ensure that open doors are detected immediately and hazards from possible exposure can be prevented.



Temperature sensor

When storing temperature-sensitive valuable materials, a sensor detects deviations at an early stage and enables an alarm to be triggered and provides complete documentation.



Filling level sensor

When filling, overflow or failure must be prevented at an early stage. Level sensors provide automatic warnings, reducing disposal stops and manual inspection rounds.

Safe storage of flammable hazardous substances

CLASSIC line - Type 90



Your classic standard solution **with wing doors**, optionally with shelves or pull-out trays.

» **Health**

Ventilation on each cabinet level provides optimised air exchange

» **Safety**

In case of fire, a thermocouple automatically initiates the uninterrupted closing of the doors.

» **Working safety**

Equipotential bonding saddles as a standard on the cabinet help to prevent spark formation.



Smart Safety



Your options with **DÜPERTHAL connect**



Exhaust air monitoring detects air flow irregularities and pressure drops.



Door sensors immediately detect open doors.

PREMIUM line - Type 90



The space-saving solution **with folding doors**, optionally with shelves or pull-out trays.

» **Health**

Ventilation on each cabinet level provides optimised air exchange.

» **Safety**

In case of fire, a thermocouple automatically initiates the uninterrupted closing of the doors.

» **Working safety**

Equipotential bonding saddles as a standard on the cabinet help to prevent spark formation.



Smart Safety



Your options with **DÜPERTHAL connect**



Exhaust air monitoring detects air flow irregularities and pressure drops.



Door sensors immediately detect open doors.

UTS line - Type 90



The solution for storage directly at the point of use – **under the work surface** – optionally with pull-out tray or bottom tray.

» Health

Ideal layout of ventilation ensures an optimised air exchange.

» Safety

In case of fire, a thermocouple automatically initiates the uninterrupted closing of the doors.

» Working safety

Equipotential bonding saddles as a standard on the cabinet help to prevent spark formation.



Smart Safety



Your options with **DÜPERTHAL connect**



Exhaust air monitoring detects air flow irregularities and pressure drops.



Door sensors immediately detect open doors.

COOL line - Type 90



Flammable liquids can be stored safely and **refrigerated** at temperatures between +3°C and +16°C.

» Maximum fire protection

Maximum safety with Type 90 technology and cooled interior.

» Safety

In case of fire, a thermocouple automatically initiates the uninterrupted closing of the doors.

» Working safety

Equipotential bonding saddles as a standard on the cabinet help to prevent spark formation.



Smart Safety



Your options with **DÜPERTHAL connect**



Temperature monitoring detects anomalies and ensures cooling stability.



Door sensors immediately detect open doors.

Safe storage of flammable hazardous substances

TAP line - Type 90



For flexible **media removal from canisters** and small drums.

» Technical ventilation

Object extraction during filling and ventilation in each cabinet level.

» Safety

Safe media extraction from canisters and drums into smaller containers in accordance with TRGS 509 (active storage).

» Working safety

Conductive powder coating as a standard and integrated earthing system according to TRGS 727.



Smart Safety



Your options with **DÜPERTHAL connect**



Exhaust air monitoring detects air flow irregularities and pressure drops.



Door sensors immediately detect open doors.

SUPPLY line - Type 90



For safe **media removal from drums** and integration into existing processes.

» Technical ventilation

Ventilation and exhaust air monitoring minimise the explosive atmosphere when filling.

» Safety

Safe media supply and integration into the process chain in accordance with TRGS 509 (active storage).

» Working safety

Conductive powder coating as a standard and integrated earthing system according to TRGS 727.



Smart Safety



Your options with **DÜPERTHAL connect**



Exhaust air monitoring detects air flow irregularities and pressure drops.



Door sensors immediately detect open doors.

COMPLEX line - Type 90



Safe **filling and decanting** from drums into smaller containers, including plug-in and pre-assembled connections.

» Technical ventilation

Object and air curtain extraction directly at the tap minimize the explosive atmosphere when filling.

» Safety

Safe media extraction from canisters and drums into smaller containers in accordance with TRGS 509 (active storage).

» Working safety

Conductive powder coating as a standard and integrated earthing system according to TRGS 727.



Smart Safety



Your options with **DÜPERTHAL connect**

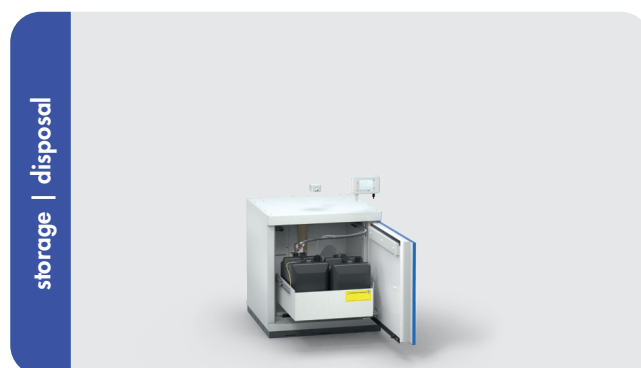


Exhaust air monitoring detects air flow irregularities and pressure drops.



Door sensors immediately detect open doors.

DISPOSAL line - Type 90



Safe waste collection - **including integrated disposal system with collection container and fill level monitoring.**

» Technical ventilation

Object and air curtain extraction during filling minimise the explosive atmosphere.

» Safety

Safe media disposal or transfer in containers up to 10 litres in accordance with TRGS 509 (active storage).

» Working safety

Conductive powder coating as a standard and integrated earthing system according to TRGS 727.



Smart Safety



Your options with **DÜPERTHAL connect**



Level monitoring helps prevent overflows and failures at an early stage.



Door sensors immediately detect open doors.

Safe storage of hazardous materials and batteries

HSC line | HSC UTS line - Type 90



For compact storage of **acids, lyes and flammable liquids**.

» **Health**

Ventilation on each cabinet level provides optimised air exchange.

» **Safety**

Safe storage of various hazardous substances in the smallest space.

» **Working safety**

Equipotential bonding saddles as a standard on the cabinet help to prevent spark formation.



 Smart Safety



Your options with **DÜPERTHAL connect**



Exhaust air monitoring detects air flow irregularities and pressure drops.

ACID line



For storing **acids and lyes** at the workplace.

» **Health**

Innovative design enables optimised air exchange.

» **Safety**

All doors of the ACID line cabinets are separately lockable to provide access control and increase security.

» **Working safety**

Highly media-resistant safety storage cabinets for the safe storage of aggressive substances.



 Smart Safety



Your options with **DÜPERTHAL connect**



Exhaust air monitoring detects air flow irregularities and pressure drops.

BATTERY line - Type 90



For the safe **storage and charging** of **lithium-ion batteries** with double fire protection.

» Safety

In case of fire - inside or outside - a thermocouple automatically initiates the uninterrupted closing of the doors.

» Tested backdraft protection (smoke gas explosion)

In the event of a fire inside the cabinet, the doors are automatically closed and locked to prevent a backdrafts (smoke gas explosion).

» Ready to plug in delivery.



Smart Safety



Your options with **DÜPERTHAL connect**



Temperature monitoring as early warning system for quick reactions.



Door sensors immediately detect open doors.

SUPREME line - Type G90



For the safe storage of **compressed gas cylinders**.

» The highest fire protection for your safety

Maximum safety with Type G90 technology for continuous fire protection concept that meets the highest standards.

» Upper-level style for your health

Optimised ventilation ducts provide an efficient air flow system to extract any escaping gas within the cabinet.

» Increased lifetime for your investment

Duration test acc. to DIN EN 16121/16122, but 90,000 instead of 50,000 cycles in dynamic load test.



Smart Safety



Your options with **DÜPERTHAL connect**



Exhaust air monitoring detects air flow irregularities and pressure drops.



Door sensors immediately detect open doors.

Institute for environment and energy, Technology & Analytics (IUTA)

In analytical laboratories, trouble-free operation is essential. Improper or delayed disposal of solvent waste can lead to operational interruptions, incorrect measurements, or even safety incidents. For IUTA, this meant that a solution was needed that would both optimize safety and ensure the smooth operation of the HPLC service station - while complying with all regulatory requirements.



Our solution

To restructure its waste disposal process, IUTA decided to use a DÜPERTHAL DISPOSAL safety cabinet equipped with level sensors and combined with the DÜPERTHAL connect monitoring software.

Result:

- » 0 unplanned downtimes due to fill levels.
- » 80% less manual checks.
- » 100% auditability through automatic documentation.



→ more

about the
use case



Inspection and maintenance – for maximum safety and durability

When handling hazardous substances, the protection of employees and the environment comes first. An annual service inspection and proper maintenance ensure the flawless operation of your safety equipment and sustainably minimize risks.



Safety and compliance

Fulfil all statutory safety regulations and avoid risks.



Maximum availability

Regular maintenance reduces downtime and boosts the reliability of your systems.



Efficiency and durability

With professional maintenance, you extend the service life of your equipment and avoid costly repairs.



Automatic reminders

With DÜPERTHAL connect you receive automated reminders regarding maintenance intervals for your safety cabinets.

We are pleased to offer extensive services such as inspection, maintenance and repair in accordance with DIN 31051. Specifically, this means:

- » **Inspection:** Recording and documentation of the current condition by trained and certified service technicians from DÜPERTHAL.
- » **Maintenance:** Restoration of the specified condition
- » **Immediate repair:** Replacement of defective system components when spare parts are available

→ more

about our
services



Explosion and health protection

In accordance with DIN EN 14470, safety storage cabinets must be provided with supply and exhaust air connection in order to prevent hazardous vapours escaping into the working area by means of a technical exhaust air system. In this case, the ventilation must be carried out to the open air in a safe place. Alternatively, ATEX-compliant (2014/34/EU) recirculating air filter systems have been tried and tested in practice in safety storage cabinets for solvents. In accordance with TRGS 510, safety storage cabinets without industrial ventilation must be earthed due to the increased danger potential.



» Preventing an explosive atmosphere

A concentration dilution can already be achieved in the safety storage cabinet from a 10-fold air exchange per hour, so that an ex-zone around the cabinet is avoided. Please note that a lab bottle that has been opened once can already be a permanent source of emissions.

» Minimisation of health risks

With industrial ventilation, an increased risk of explosion as well as odour pollution can be counteracted. In practice, it might be necessary to set a higher air exchange.

» Effectiveness/Functionality

The ventilation must be effective immediately above the bottom tray, since solvent vapours are often heavier than air.

The laboratory directive also requires that the extraction is applied directly at the point of danger. Therefore, all DÜPERTHAL safety storage cabinets are equipped with ventilation at each cabinet level.

To guarantee maximum safety for your employees, connection to technical exhaust air systems is essential in the case of many chemicals. DÜPERTHAL offers a variety of solutions to stop harmful vapours escaping into the working area. All ventilators and components comply with Directive 2014/34/EU (ATEX) and thus meet the highest safety standards.

Exhaust air monitoring with ventilator

Ventilation systems

- » ATEX conformity as per Directive 2014/34/EU.
- » Air flow sensor monitors the actual exhaust air flow rate – the complete ventilation system of the cabinet is monitored.



AU-unit exhaust air monitoring

Ventilation systems

- » ATEX conformity as per Directive 2014/34/EU.
- » Air flow sensor monitors the actual exhaust air flow rate – the complete ventilation system of the cabinet is monitored.



UFV-unit air recirculation filter with ventilator and monitoring

Ventilation systems

- » ATEX conformity as per Directive 2014/34/EU.
- » Multi-stage, earthed filter system.



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to website



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