

DISPOSAL UTS ergo line®

Safety storage cabinets in modern design



Type 90

For active collection of
flammable liquids

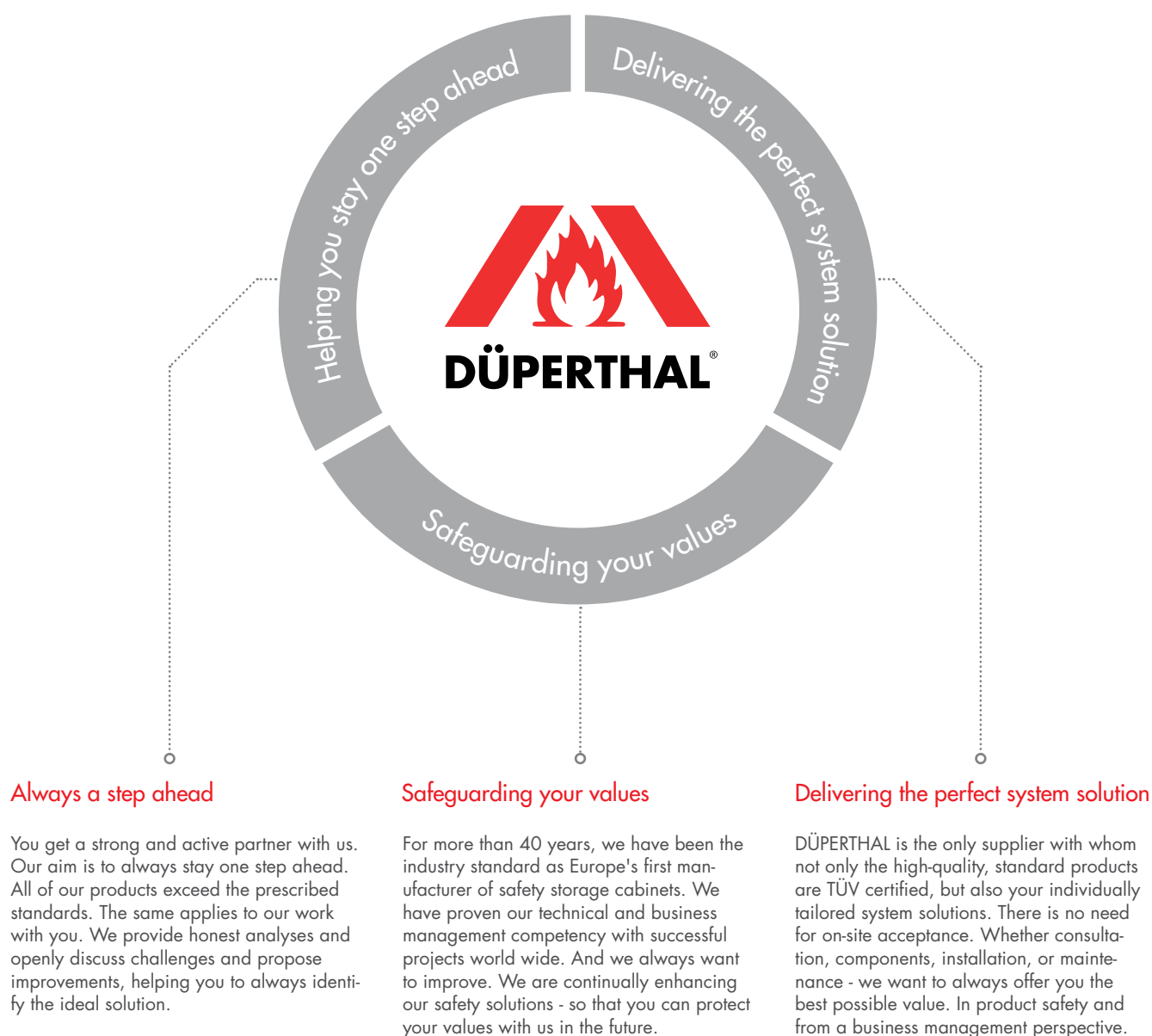
DÜPERTHAL – constant reassurance





Welcome to DÜPERTHAL

As a leading German quality and technology enterprise, we set the standards when it comes to designing system solutions for the process-optimised storage of chemicals and hazardous materials. All of our products and solutions are tailored specifically to meet your requirements. In addition to maximum safety, they offer the highest levels of effectiveness and efficiency – also in situations where there is no risk of fire. We are therefore providing you with constant reassurance. This is what we, as a family-run company, stand for. The original is what we stand for.





Constant development for your safety

We don't rest on our good reputation. Because we are aware that your work is constantly becoming more complex. That's why your demands on our safety solutions are increasing. In order to meet these requirements, we are continuously pushing ahead with further developing our products. We invest time, money, passion and above all one thing: commitment.

Did you know that ...

- » the name DÜPERTHAL stands for full service?
- » DÜPERTHAL markets more than just products?
- » the internet-enabled Cabi2Net brings smart technologies into the workplace?
- » the system solutions from DÜPERTHAL are more than just cabinets?
- » you profit economically and technologically from the wide range of solutions

You can find detailed answers to these questions and further useful information on the following pages - compact, practical, and forward-looking!



A ground-breaking innovation

Cabi2Net

Simple, safe, effective – the Cabi2Net from DÜPERTHAL is revolutionising the central control of work processes. With every internet-enabled end device, Cabi2Net offers you a virtual look into your safety storage cabinet and information, example about fill: fill levels, ventilation functionali , and provides warning notices.

Cabi2Net can be easily scaled, expandable as necessary through additional modules and can even be integrated into general building automation.



HARDWARE

- Internet capable system
- Processes sensor signals (fill level, pressure flow rate, and more)
- Controls signal lights, warnings, valves and more



SOFTWARE

- All cabinets can be activated separately
- Digital real-time protocol
- Operate with keyboard, mouse or touch screen



NEW FUNCTIONS

- One interface, everything under control
- Planning of resource-conserving container exchanges
- Remote access to important data and information



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IN PRODUCT SECTION 6.



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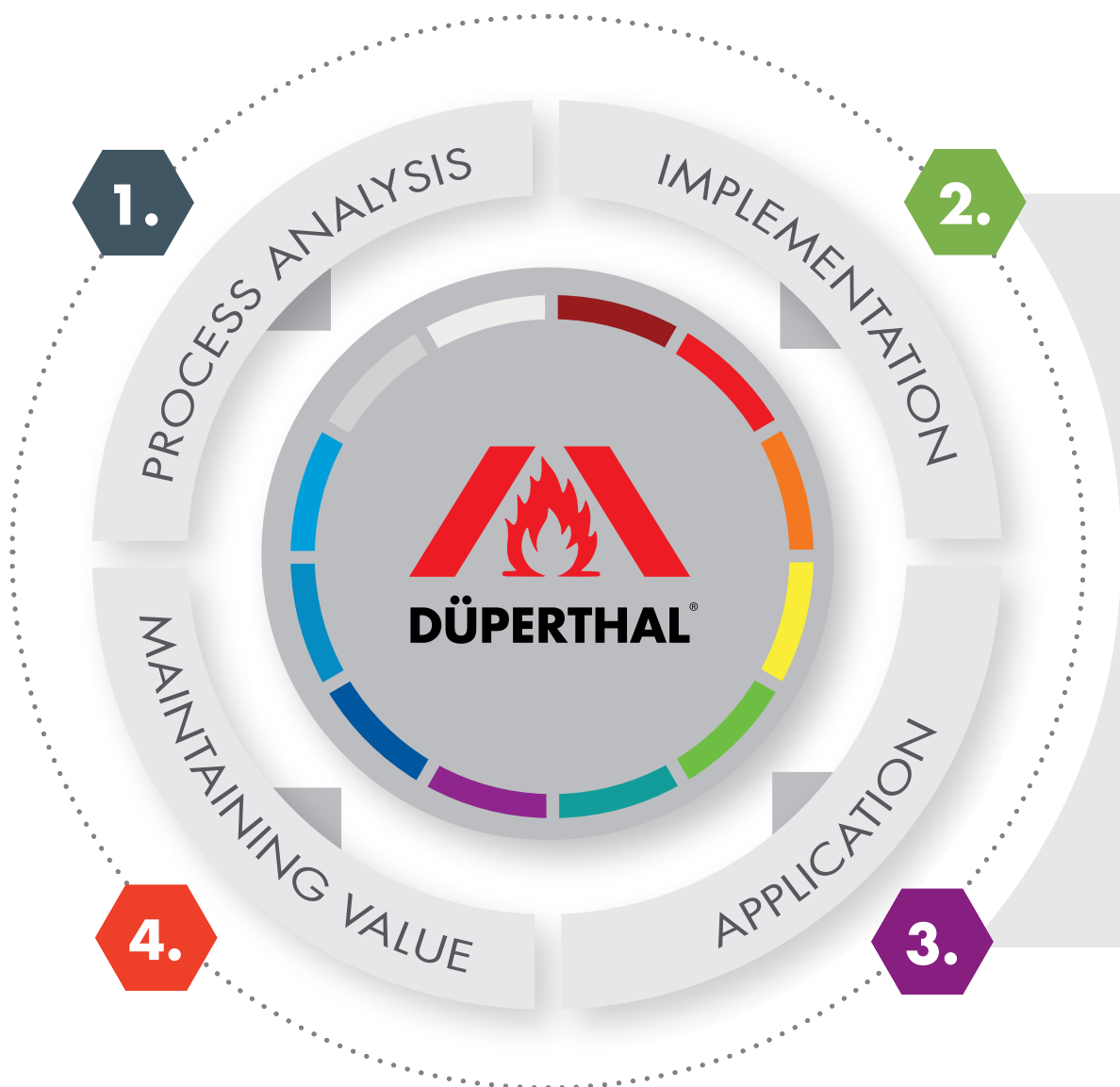
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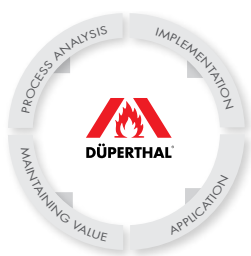
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From the process to realisation: We go with you

We offer products and service for every requirement

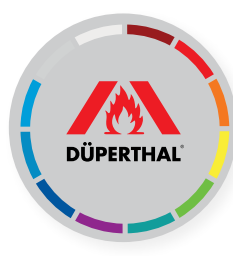
DÜPERTHAL offers system solutions for process-optimised storage of chemicals and hazardous substances. for scientific research, development and production. Our goal is to always fulfil your individual requirements with customised solutions. This is why you can expect not only outstanding certified products from us, but also outstanding full service.





Services throughout the process

One of our distinctive features is our profound knowledge of our customers' processes. For more than 40 years, we have stood by you as an active companion and consultant: from the analysis of your individual requirements, to the planning and implementation of the optimal solution, through to permanent maintenance.



Innovative products for every situation

Our product portfolio for the storage, use and disposal of chemicals and hazardous substances is as diverse as the requirements for their handling. In addition to high-quality, certified safety storage cabinets, we offer a variety of fitting options and accompanying products for every need, however specific



Technical added advantages

- » Safety storage cabinets and accompanying products for every application
- » More occupational safety and environmental protection through maximum fire protection
- » Maximum comfort during use and operation

Economic added advantages

- » Optimisation of processes and work processes.
- » Continuous value retention
- » Excellent service throughout the process

Tailored to your processes



1. Process analysis

Your problem is our challenge

Your processes should run optimally - in every respect. Our experts take a closer look at safety-relevant and profitability aspects. You are guaranteed the greatest possible flexibility in implementation. Because we have the right solution for every situation.



From process analysis to concept

Together with you on site, our experts will collect extensive data in an as-is analysis. Based on this information and your requirements, a target state is defined in a task folder.



Modular and tested system solutions

We use the full range of DÜPERTHAL's standard technologies and supplement them with modular and type-tested systems, adapted to your requirements.



2. Implementation

Safe and economical solutions

Not only do you get a technically perfect system from us, but we also make sure that you have to put in as little effort as possible. We deliver our products directly to the site and take over the implementation. Full service is our principle.



Shipment and delivery

Safety for us starts with the delivery of the product. The specialist carrier appointed by us works according to a detailed checklist and therefore ensures that our products are professionally transported to and installed in their final place of use - delivery just-in-time and just-in-place.



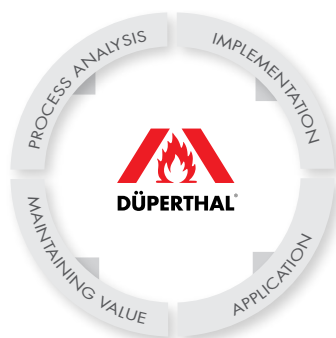
Project support on site

The professional handling of complex projects requires more than just delivering safety storage cabinets. DÜPERTHAL therefore provides comprehensive support for your national and international projects with planning, delivery service, construction site support and training of the lab managers and users.



Installation, implementation and final acceptance

Our team of specialists ensures a smooth and optimal assembly process on site. After complete installation of all components, the commissioning and joint final acceptance will be carried out with you.



3.

Application

Optimal integration – safe and economical solutions

We work conscientiously to optimise your process flows sustainably. This means that we attach great importance to documentation and training. In addition, the latest technology is used for evaluations. In this way, we integrate our products ideally into your existing structures.



Documentation

A detailed operations manual is supplied with each product, especially for complex projects. This already includes the CE certificate of conformity and the type certificate for the patented system solutions tested by independent third parties.



Training and risk assessment

In order that you are sure that our components can be used professionally and can be operated without any risk, we will be happy to train the responsible persons directly on the spot. The points treated can be included in your risk assessment.



Evaluation

With the Internet-capable Cabi2Net, all relevant operating parameters of the safety storage cabinets can be constantly monitored and evaluated. The query can be sent simply from a mobile phone, tablet or PC. This also safeguards your processes and helps you to make the internal value chain even more efficient

4.

Maintaining value

Product life cycle - maximum safety

To ensure the functionality and safety of your system solution in the long term, we recommend an annual inspection. Our service agreement guarantees you maintenance and spare parts long after installation and commissioning.



Occupational safety and health OSHA / EU-OSHA

When dealing with hazardous substances, the highest priority is the protection of employees and the environment. Therefore, DÜPERTHAL safety storage cabinets guarantee compliance with the requirements of the Occupational Safety and Health Administration (OSHA and EU-OSHA). We will clarify all relevant topics and train you in the safe handling of our products

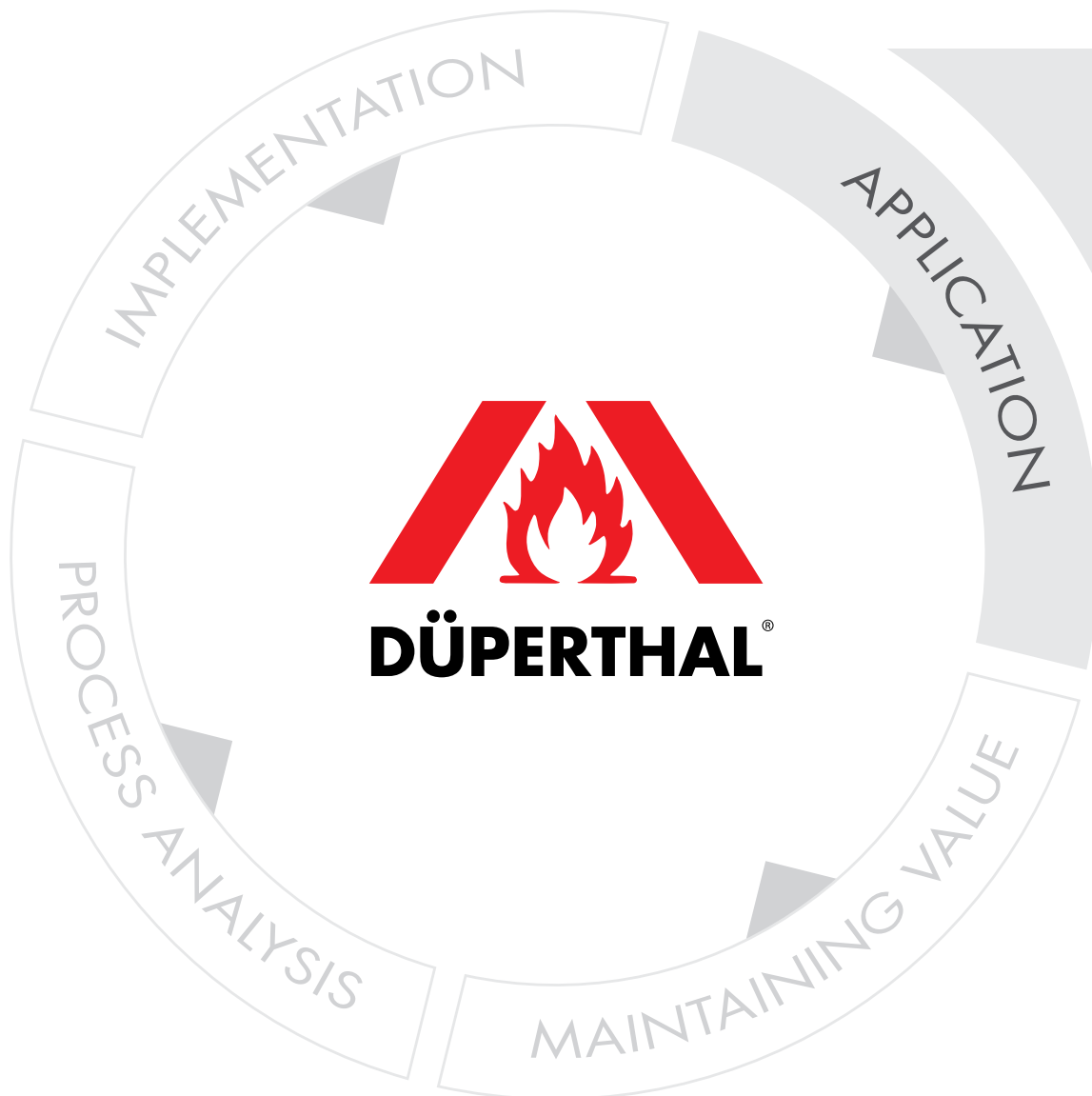


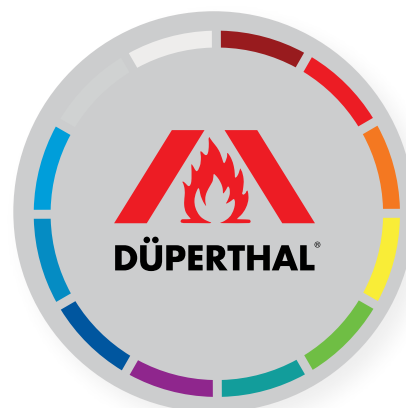
Permanent service agreement with regular maintenance and service

Highly complex processes rely on robust structures. With our service agreement, we can safeguard our reliable system solutions even better in your interest. The annual maintenance also extends the manufacturer's guarantee. A double benefit for you - in terms of safety and profitability.

Your Challenge – Our Solution

The handling of hazardous substances is subject to stringent regulations – for good reason. DÜPERTHAL can help you to meet all the relevant requirements whilst at the same time optimising your work processes. Based on the analysis of the actual status and the jointly defined objective, you receive an individually tailored and modular system solution from us. Thanks to our varied product range, you can design your laboratory and workplace flexibly and as needed





1. Storage

Safely storing hazardous substances

We offer a wide range of products for the safe storage of sensitive hazardous goods. Up to 90 minutes of protection in case of fire ensures maximum safety.



2. Use

Using products ergonomically

In addition to a large range of standard solutions, we have tailor-made solutions that integrate seamlessly into your workflows and optimise them.



3. Disposal

Disposing of materials in an environmentally sound manner

There are strict regulations for the disposal of dangerous goods. We provide a wide range of products and components for safe implementation in compliance with regulations.

90 minutes – Course of events and timetable of a fire

In the event of a fire, the 90 minutes of tested fire protection is the decisive factor in protecting people and minimising damage to property. DÜPERTHAL safety storage cabinets of fire resistance rating type 90 allow sufficient time for workers to leave the room in the event of a fire and allow the fire brigade sufficient time to get into the laboratory. Just before a smaller extinguishable fire from stored flammable substances causes an uncontrollable fire



The test of the cabinet under fire conditions is part of the standard. Each cabinet model is type-tested in a fire chamber in accordance with DIN EN 14470-1. The test parameters and test temperatures in the fire chamber and directly in the cabinet are specified in the standard, and further details are provided on the following pages.



10-15 min.

10-15 minutes - after the start of the fire

- » The fire brigade is at the source of the fire

After 10 minutes of burn time

- » Safety storage cabinets with a fire resistance of 10 minutes are now losing their function.
- » The flammable substances are no longer safe
- » The fire brigade must fight the fire at a considerably increased risk.
- » Heavy damage is to be expected.

90 min.

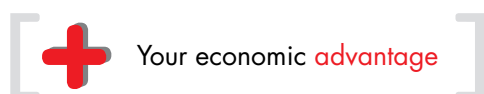


Your benefits with the 90-minute technology

- » Safety storage cabinets Type 90 retain their function for 90 minutes.
- » The hazardous substances are stored safely for at least 90 minutes.
- » The fire brigade has considerably more time to extinguish the fire safely.
- » Reduction of the fire load and minimisation of damage.

Fire chamber test according to DIN EN 14470-1

The fire resistance rating of safety storage cabinets in accordance with DIN EN 14470-1 is determined by the rise of temperature of the cabinet interior inside of a fire chamber according to the temperature-time curve in accordance with DIN EN 1363-1. Starting from an initial temperature of 20 ± 5 °C and after the time until the temperature in the cabinet interior increases to 180 °C maximum, the cabinet is then classified as type 15, 30, 60 or 90 (analogous to time in minutes). Safety storage cabinets for pressurised gas cylinders are subjected to a comparable test in accordance with DIN EN 14470-2, details on this are provided on page 264.



Example calculation:
(average values)

Cost of purchasing a
safety storage cabinet
tested fire resistance

Profitability/Costs

US standards	European standard
FM/UL, NFPA 30	DIN EN 14470-1

€ 1,000
10 minutes

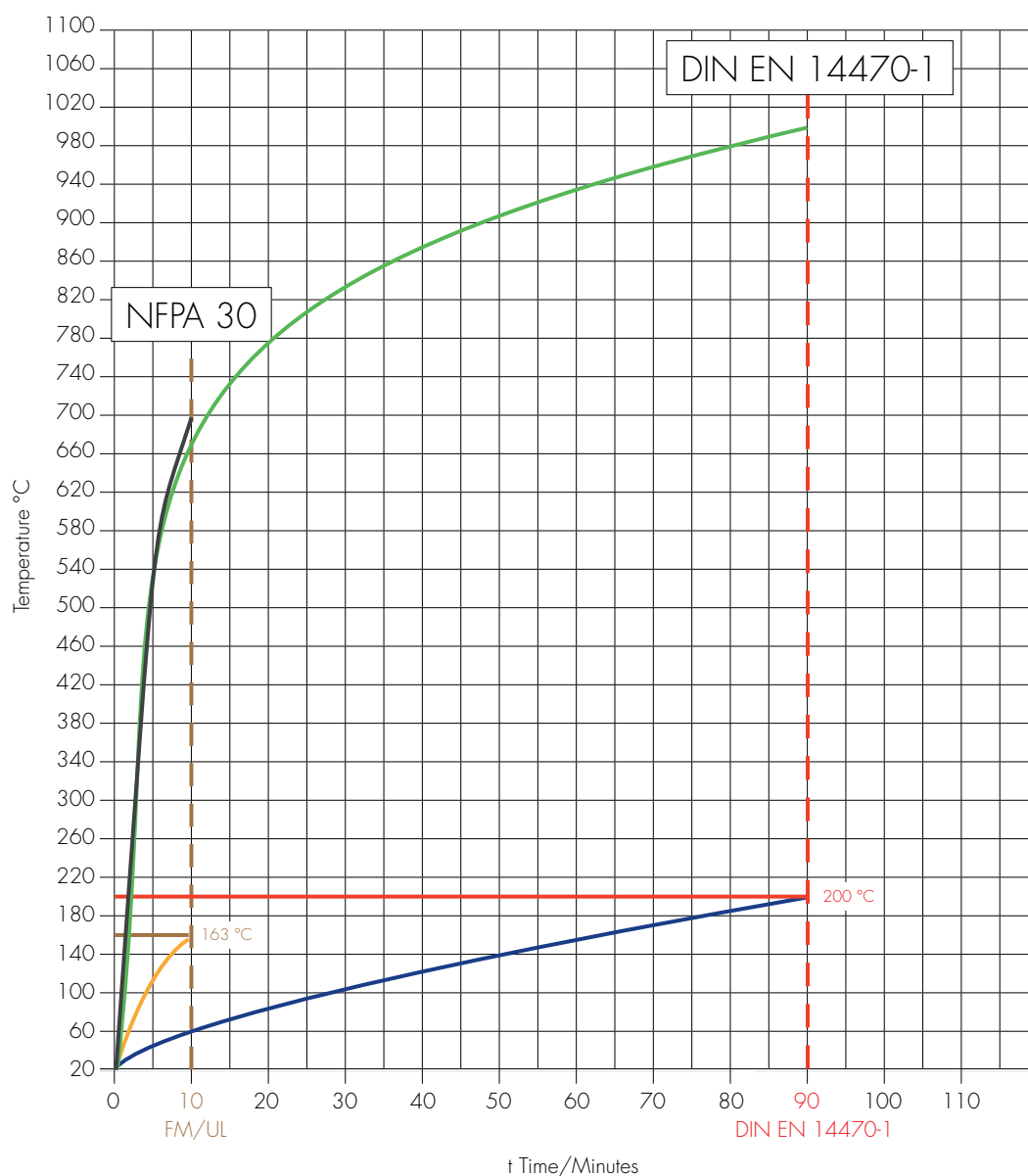
100 € per min.

€ 2,430
90 minutes

27 € per min.

Video of an
extreme test





Fire and explosion-proof safety storage cabinets Type 90 by DÜPERTHAL offer a reliable fire resistance of 90 minutes in accordance with DIN EN 14470-1.

US standards according to FM/UL, NFPA 30

- Maximum allowed temperature in the cabinet in acc. with FM/UL = 163 °C (325 °F).
- Temperature profile in accordance with NFPA 251 in the open fire chamber.
- Example of the rising temperature in an FM/UL cabinet during the fire test, monitored with 1 thermometer.

European standard DIN EN 14470-1.

- Maximum allowed temperature in the cabinet in acc. with DIN EN 14470-1 = 200 °C (392 °F).
- Temperature profile in accordance with DIN EN 1363-1 in the closed fire chamber.
- Example of the rising temperature in a Type 90 cabinet during the fire test, monitored with 11 thermometers.

Fire resistance class – Type 90:

90 minutes of safety thanks to special construction

Utmost care is essential in the handling of hazardous substances. Our technology with maximum fire resistance helps you to achieve this. Thus, thanks to their special construction, our safety storage cabinets guarantee fire resistance of 90 minutes, type-tested according to DIN EN 14470-1.



Type 90

Fire resistance

Construction:

- » The doors and the outer carcass are made of powder-coated sheet steel.
- » The inner carcass and the inside of the doors are made of high-quality decor panels.
- » There is a special insulation between the inner and outer carcasses, so that the heat cannot penetrate into the cabinet interior in case of fire
- » In case of fire, doors, drawers and ventilation openings for air supply and exhaust air are automatically closed and the door gaps as well as open joints are sealed by foam-forming gaskets.



Your benefits through DÜPERTHAL safety storage cabinets Type 90:

- » A chain reaction will be avoided in case of fire
- » Workers, the fire brigade, and rescue services will be protected.
- » Maximum fire protection for buildings and systems
- » Reduction of insurance contributions for fire protection is possible
- » Financial security, e.g. by reducing the risk of default of production and buildings.
- » Fulfilment of the requirements of risk management in accordance with ISO 9000 and ISO 14001.
- » Use of high-quality safety storage cabinets conserves resources and strengthens the image of your company.

Test criteria, protection objectives and minimum requirements

The three essential requirements of a safety storage cabinet in accordance with DIN EN 14470-1 are the minimisation of the risk of fire, the minimisation of fumes released into the work environment, and the retention of possible leakages. The test requirements of the laboratory furniture standard DIN EN 14727 also ensure a minimum of quality.



DIN EN 14470-1
DIN EN 14727

Extracts from DIN EN 14470-1

Ventilation

- » To prevent an explosive atmosphere, the ventilation must be effective directly above the bottom tray.
- » Ventilation openings for air supply and exhaust air must self-close when the temperature reaches 70 °C (158 °F).

Interior fittings

- » The bottom tray for the restraint of possible leakages must still be functional even after the fire resistance test.
- » The shelves must be made of non-absorbent material, bear the permissible load over the duration of the fire and be at most 1.75 m (5.74 ft) above the floor.

Door technology

- » Complete self-locking of the doors within a maximum of

20 seconds, optionally, an arrest system with temperature release at 50 °C (122 °F) is possible.

- » Closing force between the main closing and opposite closing edge of the door must not exceed 100 Newtons.
- » Each wing of the door must be operational with one hand.
- » If the doors are lockable, the locking device must not prevent self-closing in case of fire.

Fire chamber test

- » Each cabinet model and size is type-tested in a fire chamber test in accordance with DIN EN 14470-1 Type 90.

Tested safety at a very high level including:



Extracts from DIN EN 14727

Static endurance test

- » Standing surfaces, e.g. storage shelves, are subject to a static load and impact tests and must not show any breakage or other damage.

Dynamic load test

- » All components that move mechanically such as pull-out shelves, drawers and doors are tested with 50,000 cycles each. After the tests, the doors must close exactly and snap into place.



Tested safety at a very high level including

- » Type-testing according to DIN EN 14470-1 by recognised test institutes (TÜV Süd, iBMB Braunschweig, ift Rosenheim).
- » TÜV-tested according to DIN EN 14727 (laboratory furniture standard).
- » Type 90 classification in accordance with DIN EN 14470-1.
- » GS/CE mark.
- » High Quality mark of approval for upper-level style, user-friendliness and increased lifetime.

High-quality safety storage cabinets with maximum fire protection



Your added advantage with DÜPERTHAL safety storage cabinets!

» Maximum fire protection for your safety

Maximum safety with Type 90 technology and automatic self-closing doors in case of fire

» Upper-level style for your health

Ventilation in every cabinet level with visual inspection of the butterfly valves, with a continuous earthing concept as a standard.

» Increased lifetime for your investment

Continuous testing in accordance with DIN EN 14727, even 80,000 instead of 50,000 cycles in the dynamic load test.



1 Ventilation

Ventilation in **every cabinet level** and visual inspection of the venting cut-off flaps

2 Earthing (system)

To prevent ignition hazards through earthing in accordance with TRGS 727, the bearing surfaces are conductively connected as a standard to the equipotential bonding saddles.

3 Automatic closing of the doors

In case of fire, a the mocouple automatically triggers the uninterrupted closing system via the non-wearing safety feature (functional principle similar to the air bag system).

4 Base

A setback base is the solution to ergonomic working and a safe position.

5 Lock arrangement

The ergonomic lock arrangement at handle level increases handling convenience.

6 Transport

Due to the base construction with removable base boards, the cabinet is accessible from all sides. As a result, simple transport, for example with a hand pallet truck, is possible.

Solved internally, confi med externally and independently

For DÜPERTHAL, quality is the main focus. Proof of this is provided by the quality marks of approval awarded to each of our safety storage cabinets, in recognition of our comprehensive quality management system as per DIN EN ISO 9001. One basic condition here is that, apart from our own in-house inspections, production of the safety storage cabinets is continuously monitored by external accredited test institutes.



Tested safety - Made in Germany

Tested safety at the highest level including

- » Type-tested according to DIN EN 14470-1 as well as DIN EN 14470-2 by recognised test institutes (TÜV Süd, iBMB Braunschweig, ift Rosenheim).
- » TÜV testing according to DIN EN 14727 (laboratory furniture standard).
- » GS/CE mark.
- » High Quality mark of approval for upper-level style, user-friendliness and increased lifetime.



DÜPERTHAL Innovation –

sustainably protected technical inventions based on well over

50 national and international patents!

DIN EN



What else should you pay attention to?

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.



» Exhaust air systems

» Filter systems



Your added advantage with industrial ventilation!

» 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.

Our commitment to sustainable action

As an internationally operating family business with a company culture characterised by the community, we maintain clear values that characterise our daily thinking and action. In this way, we always have the big picture in mind in order to achieve satisfaction and success together with our customers and partners. This vision is committed to bringing the requirements of customers, the environment and society into harmony.





Economic aspects

The holistic view of the processes of our customers is deeply rooted in our corporate philosophy. This is how we create the basic conditions for optimised, safe and ergonomic work processes. Retaining the value of the products not only reduces costs. The increased lifetime of the safety storage cabinets also saves resources and saves energy for production.



Ecological aspects

DÜPERTHAL is committed to environmental protection and resource efficiency. We attach great importance to the commitment to use locally available raw materials. The short transport routes from suppliers in the surrounding area help to reduce emissions of harmful substances. At the same time, the use of recyclable materials relieves the environment during production.



Socio-cultural aspects

We promote and protect scientific research and development. With our products and services we increase safety in the workplace. We help our customers focus on the essentials - their work and the development of innovations that advance our society. Therefore, we do not limit ourselves to Germany. We document and certify our services in many countries and languages in order to implement our high standards on a comprehensive basis.

We continue the advancement of our company with the same diligence. For that is how we lay the foundation stone for securing our future-oriented production sites and the preservation of valuable jobs in the region.

Active storage of flammable liquids





2

Safe storage - both active and passive

There are different technical and administrative requirements for the active and passive storage of flammable liquids. How will you store your chemicals? It is best if you determine how substances will be stored at your workplace or laboratory during the planning of installations. Below, you will find some important aspects of active and passive storage.



Passive storage

- » Liquids or solids are stored in sealed containers.
- » No filling or transferring takes place in or at the cabinet.
- » Your safety storage cabinet serves only as a storage facility.

Active storage

- » Flammable liquids are stored in open or unsealed containers.
- » Chemicals are filled or transferred in or at the safety storage cabinet.
- » Your safety storage cabinet is actively connected to your processes. It is a storage location - and also a workplace.

Maximum protection with a system – tailored to your processes

As soon as you begin with active storage, you must take different requirements into account in your risk assessment (acc. to TRGS 400) and the associated explosion protection documents: these include requirements of TRGS 526 and TRGS 510 Annex 3, but also additional points of TRGS 509, TRGS 727 and DIN EN 60079-10.



Proactive working safety

The DÜPERTHAL safety storage cabinets for active storage guarantee you conformity with the regulations and their construction offers a firm foundation for efficient workflows. This enables us to offer you individual solutions optimally tailored to your processes.



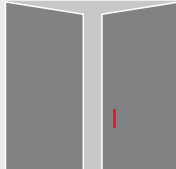
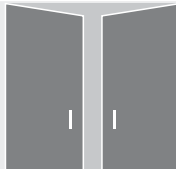
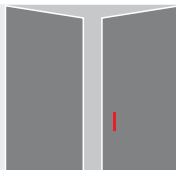
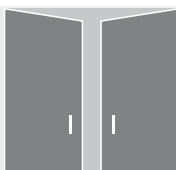

Your technical advantage

- » Optimal management of liquids during supply and disposal.
- » The risk of an accident due to overfilling is minimised.
- » Effective and monitored object and air curtain extraction when filling as well as ventilation in each cabinet level ensure the reduction of explosive atmosphere and increase health protection.
- » The integrated earthing concept includes inner and outer conductive surfaces as well as the connection of all electrically conductive components with the potential connection to the cabinet body.

Your economic advantage

- » Decentralised storage with media available directly at the workplace means work simplification and time saving.
- » Safety processes can be optimized and defined for simple documentation in your risk assessment.
- » The explosion protection concept recommended in the GS certification can be incorporated in the explosion protection document and facilitates the documentation.
- » Falling consumption of chemicals reduces procurement and disposal costs and spares the environment (CO2 balance).

Safety storage cabinets for active storage of flammable liquid

		Door technologies	Type 90
2.1	TAP line		Type 90
2.2	SUPPLY line		Type 90
2.3	COMPLEX line		Type 90
2.4	ACTCOM line		Type 90
2.5	DISPOSAL [UTS ergo BENCH] line HPLC service station		Type 90
2.6	VisiCon® Waste Collection System		



from page

Supply systems canister cabinets
with canister shelves, drip trays and exhaust
air monitor



198

Supply systems drum cabinets
with exhaust air monitor



209

Drum station supply systems
with media pump, extraction point
and exhaust air monitoring



219

Supply and disposal systems
with collection container, exhaust air monitor
and fill level monitor



227

Disposal systems
with collection container, exhaust air monitor
and fill level monitor



233

Collection system
Collect media flexibly and centrally



255

DISPOSAL line | DISPOSAL UTS ergo line[®]
DISPOSAL BENCH line | HPLC service station

2.5



Safety storage cabinets for disposal - system solution



Your added advantage with the DISPOSAL line!

» Health

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

» Safety

Secure media disposal or transfer in containers up to 60 litres (15.85 gal) in accordance with TRGS 509.

» Working safety

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

DISPOSAL line in detail

2.5

Specially designed to store different chemical wastes, the DISPOSAL line is equipped with varied additional functions to make work easier and safer. From the great variety of optional extras, choose those which are ideally suited to your laboratory. Create your own individual work environment tailored to your requirements and work processes.



1 Ventilation

Ventilation at every cabinet level, visual inspection of the venting cut-off flaps.
Fume extraction directly at the filling point.

2 Media disposal

Safe media disposal or media transfer via stainless steel safety funnel according to TRGS 509. Filling of canisters possible with hose connection or directly via safety funnel with pipe.

3 Arrest system

As a standard, the doors are fitted with an arrest system. In case of fire, the mechanism automatically closes the doors without blocking.

4 Funnel shelf

The funnel shelf can be easily removed and canisters and drums can be inserted and removed easily and securely.

5 Ventilation monitoring

The exhaust air monitoring unit integrated as a standard monitors the required exhaust air flow rate.

6 Base design makes the cabinet easily accessible

The adjustable bases have an extra large bearing surface for easy alignment and level adjustment.



DISPOSAL line – Type 90

The DISPOSAL line is your flexible solution for handling waste disposal issues when working with a wide range of chemicals. On the following pages, you will find all features and ordering information at a glance.



DISPOSAL XL

Interior fittings:

- » Disposal system with funnel shelf, safety funnel and lockable hinged lid, conductive powder-coating.
- » Bottom tray made of conductive, powder-coated sheet steel and galvanised grating.

Construction:

- » Wing doors made of conductive powder-coated sheet steel.
- » Outer carcass made of conductive powder-coated sheet steel.
- » Inner carcass made of conductive powder-coated sheet steel.

Colour standard version:

- » Wing doors in gentian blue, similar to RAL 5010.
- » Complete carcass in light grey, similar to RAL 7035.
- » Base in slate grey RAL 7015.

Gentian blue
RAL 5010

Light grey
RAL 7035



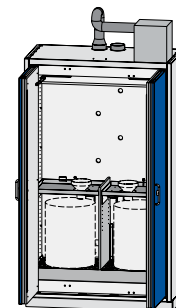
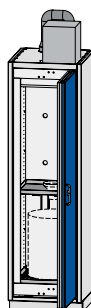
Tested safety at a very high level including:



DIN EN 14470-1
DIN EN 14727



Ordering information



2.5

Ref. no.

With exhaust air monitoring unit and ventilator

With exhaust air monitoring unit

Details

Dimensions

Outer [mm]
(width x depth x height) [inch]

Inner [mm]
(width x depth x height) [inch]

Weight [kg]
[lbs]

Storage capacity/standing surface (approx. data)

Size [10 l]
[2.64 gal]
[50/60 l]
[13.21/15.85 gal]

Ref. no.

Additional interior fittings Material

Bottom tray, funnel shelf and grating Stainless steel V2A

Bottom tray, funnel shelf and grating Stainless steel V4A

Funnel shelf PE-el

Shelf Sheet steel

DISPOSAL M

with classical wing door technology

59-200660-047

59-200660-048

1 safety funnel with hinged lid made of stainless steel, 2 earthing cables with crocodile clips, 1 bottom tray for 60 l (15.85 gal) drum with grating and base

595 x 595 x 2080
23.43 x 23.43 x 81.89

499 x 446 x 1830
19.65 x 17.56 x 72.05

301
663.59

–

1 drum

on request

on request

on request

49-81260-114

DISPOSAL XL

with classical wing door technology

59-201260-047

59-201260-048

2 safety funnels with hinged lid made of stainless steel, 4 earthing cables with crocodile clips, 1 bottom tray for 1x 60 l (15.85 gal) drum with grating and base

1195 x 595 x 2080
47.05 x 23.43 x 81.89

1099 x 446 x 1830
43.27 x 17.56 x 72.05

469
1033.97

–

2 drums

on request

on request

on request

49-81260-114

Accessories - varied and flexible

From the great variety of optional extras, choose those which are ideally suited to your laboratory. Create your own individual work environment tailored to your requirements and work processes.



Level monitor
with control module to warn about overfilling



Drum wrench
for easy opening and closing of drums, prevents spark formation.



Platform lift
Ideal for lifting and transporting of drums and canisters when used in conjunction with a transport unit with a roller system.



Roller system
as insertion aid, with arrest system for easy intake of drums and canisters.



Cabi2Net
for central control of work processes. Configuration according to individual requirements.



Pipe penetration
for stainless steel pipes, cables and hoses up to Ø 28 mm (1.1 inch) .



Transport trolley
in conductive design with antistatic rollers to safely transport hazardous substances.



Absorber cloths
Absorber cloths are specially designed for use with chemicals and are thus ideal for picking up spilled hazardous substances.



VisiCon safety container
with integrated sight glass and measuring scale.



Stainless steel funnel
optionally with fill hole Ø 120 mm (4.72 inch) or Ø 200 mm (7.87 inch).



Red-Box
for safely storing documents exactly where they are needed.



Canister
Made of electrostatically conductive polyethylene for the collection and transport of flammable liquids.



Accessories - DISPOSAL line	Ref. no.
Cabi2Net	on request
Pipe penetration (reclosable)	on request
Pipe penetration	49-70000-048
Red-Box	2.233.04
Optional extras	
Platform lift, load bearing capacity 160 kg (352.74 lbs)	1.31.050
Roller system as an insertion aid	1.31.053
Transport unit with roller system - left right	1.31.051 1.31.052
Transport trolley for flammable medi	7.02.100
Canister made of conductive PE, 10 litre (2.64 gal)	5.09.010
Canister made of conductive PE, 20 litre (5.28 gal)	5.09.020
Canister made of conductive PE, 30 litre (7.93 gal)	5.09.030
Canister made of conductive PE, 60 litre (15.85 gal)	5.09.060
VisiCon safety funnel with pipe (d = 200 mm/7.87 inch) for immersed fillin	on request
VisiCon safety funnel (d = 120 mm/4.72 inch) with pipe socket to directly fill containers without hos	on request
VisiCon safety funnel (d = 200 mm/7.87 inch) with pipe socket to directly fill containers without hos	on request
VisiCon - safety container, 1 litre (0.26 gal)	5.90.001
VisiCon - safety container, 2 litre (0.53 gal)	5.90.002
Vacuum and pressure compensation valves 2" for drums	See programme section 9 or at www.dueperthal.com
Drum wrench	1.808.05
Absorber	See programme section 10 or at www.dueperthal.com

Tech specs DISPOSAL line – Type 90

Technical details - DISPOSAL line

Model size			M	XL
Load bearing capacity with uniformly distributed load (maximum load capacity/shelf)	[kg]	Shelf	75	75
	[lbs]		165.34	165.34
	[l]	Grating	250	250
	[gal]		66.04	66.04
Maximum volume of the largest individual container which may be stored in the cabinet	[l]		60	60
	[gal]		15.85	15.85
Collection volume bottom tray	approx. [m ³ /h]		66	66
	approx. [cubic ft/h]		2330.46	2330.46
Volumetric flow rate with 10-fold air exchange	approx. [m ³ /h]		10	10
	approx. [cubic ft/h]		353.1	353.1
Required extraction flow rate for transfer (active storage*)	approx. [m ³ /h]		>21	>21
	approx. [cubic ft/h]		>750	>750
Pressure drop in the cabinet	[Pa]		<10	<10
	[Psi]		<10	<10

* Note

The continuously upcoming (24h) exhaust air flow rate of the installation must be monitored during filling and transferring (active storage) to detect failure of the required air stream and to at least trigger an alarm.

Dimensions – interior fittings [mm] - DISPOSAL line [inch]

Model size	M			XL		
	Width	Depth	Height	Width	Depth	Height
Shelf	490	430	35	1090	430	35
	19.29	16.93	1.37	42.91	16.93	1.37
Funnel shelf	490	430	35	536	430	35
	19.29	16.93	1.37	21.1	16.93	1.37
Bottom tray	485	440	312	1085	440	141
	19.09	17.32	12.28	42.72	17.32	5.55

Zoning

When the required extraction volume flow is complied with, in general the ratio to the filling volume flow is sufficient, so that the lower explosion protection limit (UEG) is exceeded for a short time only. Therefore, an ex-zone 2 can be expected in the cabinet interior and at the filling point. For risk assessment, the DISPOSAL line has to be assessed in connection with its actual application. In this context, it may be necessary to adjust the ex-zones, the exhaust air flow rate or both.



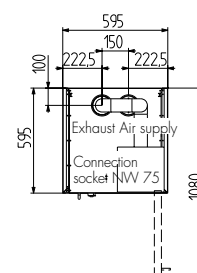
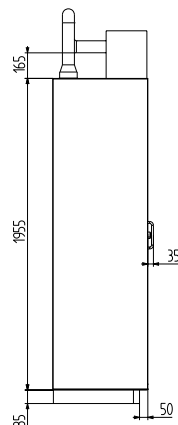
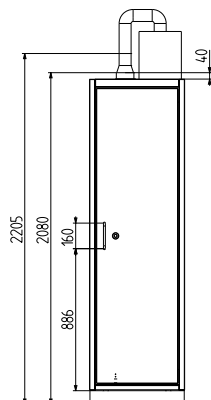
Tech specs DISPOSAL line – Type 90

Side view

Top view

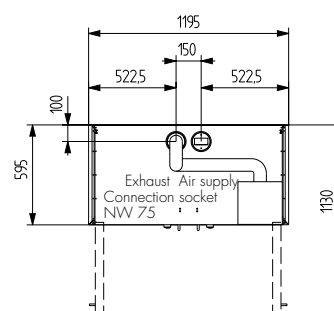
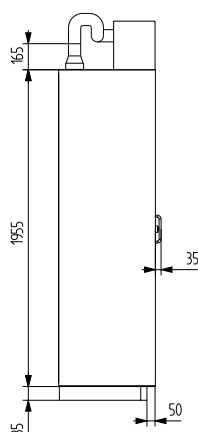
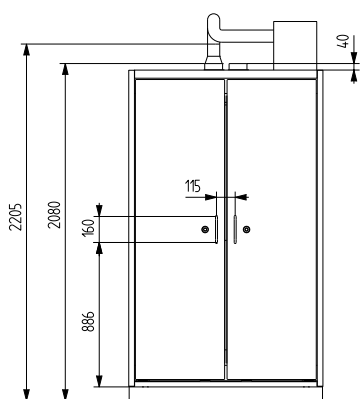
Rear view

DISPOSAL M



2.5

DISPOSAL XL



Safety storage cabinets for disposal



Your added advantage with the DISPOSAL line!

» Health

Object and air curtain extraction during filling, floor extraction and ventilation in the cabinet interior.

» Safety

Secure media disposal or transfer in containers up to 20 litres (5.28 gal) in accordance with TRGS 509.

» Working safety

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

Specially designed to store different chemical wastes, the DISPOSAL UTS ergo and the DISPOSAL BENCH line are equipped with varied additional functions to make work easier and safer. From the great variety of optional extras, choose those which are ideally suited to your laboratory. Create your own individual work environment tailored to your requirements and work processes.



1 Push-to-open wing doors

Very easy-moving push-to-open wing doors can be opened by light pressure on the front.

2 Media disposal

Automatically extending pull-out trays ensure maximum handling convenience. The canisters are suitable to be equipped with fill level probes, optionally a capacitive probe or with a float probe

3 Level monitor

The exhaust and filling level monitor MPS 3 integrated as a standard with display for error display and logging warns against overfilling

4 Air curtain extraction

The air supply and exhaust air vents are ideally placed for visual checking.

5 Equipotential bonding saddle

The electrically conductive interior fittings and everything cables with crocodile clips are for earthing according to TRGS 727 conductive connection to the equipotential bonding saddles on the cabinet roof.

6 Funnel set

Funnel set for custom installation in exhaust hoods or workbenches. It is connected up continuously to the canister with a PTFE-el hose with a smooth interior and anti-kinking sleeve.



DISPOSAL UTS ergo line® – Type 90

The DISPOSAL UTS ergo line is your flexible solution for handling waste disposal issues when working with a wide range of chemicals. On the following pages, you will find all features and ordering information at a glance.



DISPOSAL UTS ergo S 1



DISPOSAL UTS ergo S 2



DISPOSAL UTS ergo LD

Interior fittings:

- » When the door is opened, an automatically extending pull-out tray made of conductive, powder-coated sheet steel, interior fittings DISPOSAL UTS ergo S 3 made of stainless steel.
- » Conductive disposal system.

Construction:

- » Wing door made of conductive powder-coated sheet steel.
- » Outer carcass made of conductive powder-coated sheet steel.
- » Inner carcass made of conductive powder-coated sheet steel.

Colour standard version:

- » Wing doors in gentian blue, similar to RAL 5010.
- » Complete carcass in light grey, similar to RAL 7035.
- » Base in slate grey RAL 7015.

Gentian blue
RAL 5010

Light grey
RAL 7035



DISPOSAL BENCH line – Type 90

The DISPOSAL BENCH line is your flexible solution for handling waste disposal issues when working with a wide range of chemicals. On the following pages, you will find all features and ordering information at a glance.

2.5



DISPOSAL BENCH S

Interior fittings:

- » With door opening automatically extending pull-out tray made of conductive powder-coated sheet steel.
- » Conductive disposal system.

Colour standard version:

- » Wing doors in gentian blue, similar to RAL 5010.
- » Complete carcass in light grey, similar to RAL 7035.
- » Base in slate grey RAL 7015.

Construction:

- » Wing door made of conductive powder-coated sheet steel.
- » Outer carcass made of conductive powder-coated sheet steel.
- » Inner carcass made of conductive powder-coated sheet steel.

Gentian blue
RAL 5010

Light grey
RAL 7035

Ordering information



Ref. no.

Classical door technology

Push-to-open

Details

Dimensions

Width	[mm] [inch]
Depth	[mm] [inch]
Height (classical)	[mm] [inch]
Weight	[kg] [lbs]

Storage capacity/standing surface (approx. data)

Size	[5 l/1.32 gal] [10 l/2.64 gal] [20 l/5.28 gal]
------	------------------------------------------------------

Ref. no.

Additional interior fittings Material:

Classical base 85 mm/3.35 inch (instead of 35 mm/1.38 inch)
ToeKick base 85 mm/3.35 inch
Roller set

DISPOSAL UTS ergo S 1

with 5 litre (1.32 gal) canisters

59-060667-034

59-060669-034

1 pull-out tray, 1 canister guidance, 3 PE container per 5 litre (1.32 gal) with 1 capacitive level probe, 1 waste cap with stopcock and extraction pipe, electrically conductive PTFE hose with a length of 1.5 m (59.06 inch) and a 1/2" connection for a funnel, 1 pipe penetration with stainless steel pipe, 1 exhaust air monitor and level monitor MPS 3 with error indication on the display, 1 earthing cable with crocodile clip and classical base 35 mm (1.38 inch)

Outer	Inner
600 23.62	503 19.8
593 23.35	463 18.23
631 24.84	480 18.9
130 286.6	

DISPOSAL UTS ergo S 2

with conductive 10 litre (2.64 gal) canisters

59-060667-033

59-060669-033

1 pull-out tray, 1 canister guidance, 2 conductive PE canisters per 10 litre (2.64 gal) with 1 capacitive level probe, 1 waste cap with stopcock and extraction pipe, electrically conductive PTFE hose with a length of 1.5 m (59.06 inch) and a 1/2" connection for a funnel, 1 pipe penetration with stainless steel pipe, 1 exhaust air monitor and level monitor MPS 3 with error indication on the display, 1 earthing cable with crocodile clip and classical base 35 mm (1.38 inch)

Outer	Inner
600 23.62	503 19.8
593 23.35	463 18.23
631 24.84	480 18.9
130 286.6	

3	PE canisters	–
–		2 PE canisters (conductive)
–		–

29-10660-084	29-10660-084
29-10660-085	29-10660-085
29-10900-011	29-10900-011

Other accessories on page 248. Other technical details and dimensions from page 252 onwards.



Tested safety at a very high level including:



DIN EN 14470-1
DIN EN 14727



2.5

DISPOSAL UTS ergo S 3	DISPOSAL UTS ergo LD	DISPOSAL BENCH S
with conductive 10 litre (2.64 gal) canisters	with conductive 10 litre (2.64 gal) canisters	with conductive 20 litre (5.28 gal) canisters

59-060667-007	59-061167-033	59-080667-033
59-060669-007	59-061169-033	59-080669-033

1 pull-out tray, 1 canister guidance, 2 10 litre (2.64 gal) conductive PE canisters with 1 capacitive level probe, 2 drip pans stainless steel V4A, direct (fume) extraction on canister opening, funnel stainless steel V4A with lid for immersed filling, funnel housing PE electroconductive with anti-rotation device, 1 pipe penetration, 1 exhaust air monitor and level monitor MPS 3 with error indication on the display, 1 earthing cable with crocodile clip and classical base 35 mm (1.38 inch)	2 pull-out trays, 2 canister guidances, 4 10 litre (2.64 gal) conductive PE canisters with 2 capacitive level probes, 2 waste caps with stopcock and extraction pipe, electrically conductive PTFE hoses with a length of 1.5 m (59.06 inch) and a 1/2" connection for a funnel, 1 pipe penetration with stainless steel pipe, 1 exhaust air monitor and level monitor MPS 3 with error indication on the display, 2 earthing cables with crocodile clip and classical base 35 mm (1.38 inch)	1 pull-out tray, 1 canister guidance, 2 20 litre (5.28 gal) PE canisters with 1 capacitive level probe, 1 waste cap with stopcock and extraction pipe, electrically conductive PTFE hose with a length of 1.5 m (59.06 inch) and a 1/2" connection for a funnel, 1 pipe penetration with stainless steel pipe, 1 exhaust air monitor and level monitor MPS 3 with error indication on the display, 1 earthing cable with crocodile clip and classical base 35 mm (1.38 inch)
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outer	Inner	Outer	Inner	Outer	Inner
600 23.62	503 19.8	1100 43.31	L: 490/19.29 R: 490/19.29	600 23.62	503 19.8
593 23.35	463 18.23	593 23.35	463 18.23	593 23.35	463 18.23
631 24.84	480 18.9	631 24.84	480 18.9	831 32.72	680 26.77
130 286.6		210 462.97		145 319.67	

–	–	–
2 PE canisters (conductive)	4 PE canisters (conductive)	2 PE canisters (conductive)
–	–	–

29-10660-084	29-11160-084	29-10660-084
29-10660-085	29-11160-085	29-10660-085
29-10900-011	29-11400-011	29-10900-011

Accessories - varied and flexible

Adjust your DÜPERTHAL safety storage cabinet to meet your requirements even better with a variety of accessories. To make your workplace more efficient and safe.



Cabi2Net

for central control of work processes. Configuration according to individual requirements.



Roller set

ensures easy installation into existing laboratory equipment.



Safety funnel set

made of stainless steel 1.4571, with hinged lid, removable dirt strainer and earthing cable with crocodile clip.



Bench penetration

for easy installation of the DISPOSAL UTS ergo/BENCH line.

Accessories - DISPOSAL UTS ergo line[®] | DISPOSAL BENCH line

Cabi2Net

Safety funnel set made of stainless steel 1.4571, with hinged lid, removable dirt strainer and earthing cable with crocodile clip, bench penetration, fill diameter 20 mm (7.87 inch)

Master card

Bench penetration M32x1.5/G 1/2"

Float probe with 1-3 measuring points

Display adapter for MPS 3

Optional extras

Canister made of PE, 5 litre

Canister made of conductive PE, 10 l (2.64 gal), with sensor support

Canister made of conductive PE, 20 l (5.28 gal), with sensor support

Transport trolley for flammable medi

VisiCon - safety container, 1 litre (0.26 gal) | 2 litre (0.53 gal)

VisiCon - Waste Collection System

Special pliers for PE canister

Absorber

Ref. no.

on request

50-70000-054

50-70000-930

92017

on request

50-70000-370

5.09.105

59-10000-098

on request

7.02.100

5.90.001 | 5.90.002

See programme section 2.6 or at www.dueperthal.com

5.09.003

See programme section 10 or at www.dueperthal.com



HPLC service station – Type 90

The HPLC service station is your flexible solution for handling waste disposal issues in high performance liquid chromatography. On the following page, you will find all ordering information at a glance.

2.5



HPLC service station S

For process reliability

Using the HPLC service station allows you to comply with a great variety of laws, regulations and directives, especially the safety requirements of TRGS 509 for filling and transfer stations. System-aided working ensures process reliability in a sustainable way and can thus be taken into account in your risk assessment.

HPLC service station consisting of:

- » DISPOSAL UTS ergo line S
- » Service rack

Interior fittings:

- » Pull-out tray made of conductive powder-coated sheet steel.
- » 7 electrical sockets at the rear of the cabinet.
- » Standing surface, e.g. for PC.

Construction:

- » Wing door made of conductive powder-coated sheet steel.
- » Outer carcass made of conductive powder-coated sheet steel.
- » Inner carcass made of conductive powder-coated sheet steel.
- » Service rack made of high-quality decor panels.
- » PC shelf made of powder-coated sheet steel.
- » Base in ToeKick version.

Colour standard version:

- » Wing doors in gentian blue, similar to RAL 5010.
- » Complete carcass in light grey, similar to RAL 7035.
- » Base in slate grey RAL 7015.

Gentian blue
RAL 5010

Light grey
RAL 7035

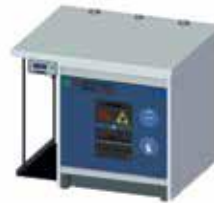
Tested safety at a very high level including:



DIN EN 14470-1
DIN EN 14727



Ordering information



HPLC service station S

with one-hand wing door technology

Ref. no.

stationary

300-070979-04

mobile

300-070979-07

Details

1 DISPOSAL UTS ergo line S with 2 10 litre (2.64 gal) conductive PE canisters, 1 stopcock, 1 earthing cable with crocodile clip, 1 MPS 3 exhaust air monitor with level monitor, 1 PC shelf, 7 electrical sockets, 1 HPLC bench penetration, 2 cable penetrations and ToeKick base 85 mm (3.35 inch)

Dimensions

Outer
(width x depth x height) [mm]
[inch]

900 x 750 x 745
35.43 x 29.53 x 29.33

Inner
(width x depth x height) [mm]
[inch]

503 x 463 x 480
19.8 x 18.23 x 18.9

Weight [kg]
[lbs]

170
374.78

Storage capacity/standing surface (approx. data)

Size [10 l/2.64 gal]

2 PE canisters (conductive)

Ref. no.

Additional interior fittings

Monitor arm set, full motion,
including bracket

300-10971-71

Keyboard arm set, extendable,
including mouse pad

300-10971-72

Additional shelf for small parts

300-10971-73

VisiCon - Waste Collection System

See programme section 2.6 or at www.dueperthal.com

Master card for system configuratio

50-70000-930

Other accessories on page 251. Other technical details and dimensions from page 253 onwards.



Accessories - varied and flexible

From the great variety of optional extras, choose those which are ideally suited to your laboratory. Create your own individual work environment tailored to your requirements and work processes.

2.5



Shelf

Shelf for small parts.



Special pliers

for PE canister to close it adequately with a torque of 20 Nm.



Monitor arm set

Full motion, including bracket, optionally with extendable keyboard arm set and mouse pad.



VisiCon - Waste Collection System

for direct feeding of the solvent wastes via the bench penetrations to the cabinets.



Transport trolleys

Optionally transport trolleys are available with antistatic rollers to safely transport hazardous substances, see programme section 9.



Red-Box

for safely storing documents exactly where they are needed.



Exhaust air systems

Monitoring exhaust air systems help prevent explosion risks in work areas, see programme section 7.



Absorber cloths

Absorber cloths are specially designed for use with chemicals and are thus ideal for picking up spilled hazardous substances.

Accessories

Canister made of conductive PE, 10 litre (2.64 gal)

Special pliers for PE canister

Red-Box

Optional extras

Transport trolley for flammable medi

Exhaust air system or ventilator

Absorber

Ref. no.

5.09.010

5.09.003

2.233.04

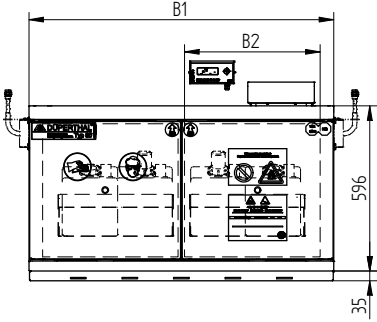
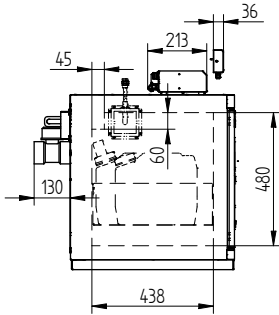
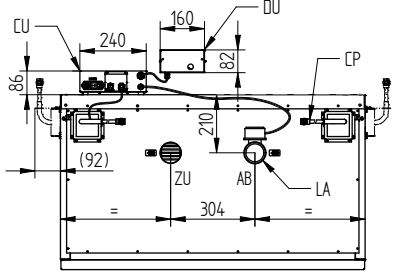
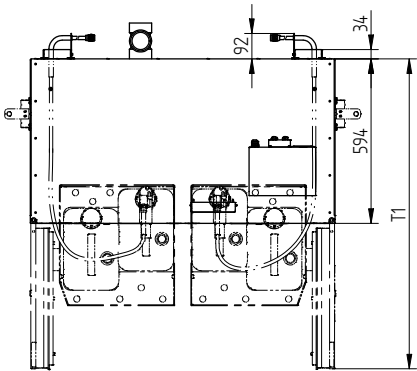
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See programme section 7 or at www.dueperthal.com

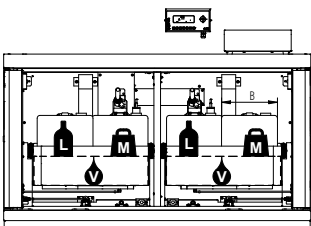
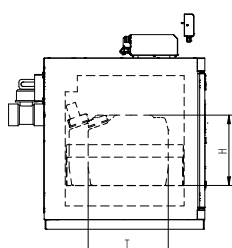
See programme section 10 or at www.dueperthal.com

Tech specs DISPOSAL UTS ergo line® – Type 90

Technical details - DISPOSAL UTS ergo line

Front view	Side view	Rear view																		
																				
Top view	<table border="1"> <thead> <tr> <th>Model size</th><th>S</th><th>LD</th></tr> </thead> <tbody> <tr> <td>B1</td><td>[mm] 601 [inch] 23.66</td><td>1100 43.31</td></tr> <tr> <td>B2</td><td>[mm] 503 [inch] 19.8</td><td>2x 489 2x 19.25</td></tr> <tr> <td>T1</td><td>[mm] 1170 [inch] 46.1</td><td>2x 1119 2x 44.1</td></tr> <tr> <td>CU:</td><td>MPS 3</td><td>MPS 3 Duo</td></tr> <tr> <td>Doors</td><td>1</td><td>2</td></tr> </tbody> </table>		Model size	S	LD	B1	[mm] 601 [inch] 23.66	1100 43.31	B2	[mm] 503 [inch] 19.8	2x 489 2x 19.25	T1	[mm] 1170 [inch] 46.1	2x 1119 2x 44.1	CU:	MPS 3	MPS 3 Duo	Doors	1	2
Model size	S	LD																		
B1	[mm] 601 [inch] 23.66	1100 43.31																		
B2	[mm] 503 [inch] 19.8	2x 489 2x 19.25																		
T1	[mm] 1170 [inch] 46.1	2x 1119 2x 44.1																		
CU:	MPS 3	MPS 3 Duo																		
Doors	1	2																		
	<p>LA: Connection socket NW 75 (2.95) AB: Exhaust air connection ZU: exhaust air and air supply are mirror-inverted for model size S with left stop CU: Inspection unit (network connection 230V/AC, cable length approx. 2 m (6.56 ft), cable length exhaust air control approx. 1 m (3.28 ft)) DU: Display unit, cable length approx. 5 m (16.4 ft) CP: End piece G 1/2" [m], hose length approx. 1.5 m/4.92 ft (for model size LD 2x)</p>																			

Dimensions | Adjustable heights - DISPOSAL UTS ergo line

Front view	Side view	<table><tr><th rowspan="2">Model size</th><th colspan="2">S</th><th colspan="2">LD</th></tr><tr><th>10 L</th><th>5 L</th><th>10 L</th><th>5 L</th></tr><tr><td>B</td><td>[mm] [inch]</td><td>198 7.8</td><td>149 5.87</td><td>198 7.8</td><td>149 5.87</td></tr><tr><td>T</td><td>[mm] [inch]</td><td>298 11.73</td><td>191 7.52</td><td>298 11.73</td><td>191 7.52</td></tr><tr><td>H</td><td>[kg] [lbs]</td><td>264 582.02</td><td>256 564.38</td><td>264 582.02</td><td>256 564.38</td></tr><tr><td>M</td><td>[kg] [lbs]</td><td>45 99.21</td><td>45 99.21</td><td>45 99.21</td><td>45 99.21</td></tr><tr><td>L - Monitored</td><td>[l] [gal]</td><td>1x 10 1x 2.6</td><td>1x 5 1x 1.3</td><td>1x 10 1x 2.6</td><td>2x 5 2x 1.3</td></tr><tr><td>L - Reserve</td><td>[l] [gal]</td><td>1x 10 1x 2.6</td><td>2x 5 2x 1.3</td><td>2x 10 2x 2.6</td><td>4x 5 4x 1.3</td></tr><tr><td>V</td><td>[l] [gal]</td><td>18.7 4.94</td><td>18.7 4.94</td><td>18.1 4.94</td><td>18.1 4.94</td></tr><tr><td>Tare weight</td><td>[kg] [lbs]</td><td>130 286.6</td><td>130 286.6</td><td>225 496.04</td><td>225 496.04</td></tr><tr><td>Max. additional load</td><td>[kg] [lbs]</td><td>45 99.21</td><td>45 99.21</td><td>45 99.21</td><td>45 99.21</td></tr></table>				Model size	S		LD		10 L	5 L	10 L	5 L	B	[mm] [inch]	198 7.8	149 5.87	198 7.8	149 5.87	T	[mm] [inch]	298 11.73	191 7.52	298 11.73	191 7.52	H	[kg] [lbs]	264 582.02	256 564.38	264 582.02	256 564.38	M	[kg] [lbs]	45 99.21	45 99.21	45 99.21	45 99.21	L - Monitored	[l] [gal]	1x 10 1x 2.6	1x 5 1x 1.3	1x 10 1x 2.6	2x 5 2x 1.3	L - Reserve	[l] [gal]	1x 10 1x 2.6	2x 5 2x 1.3	2x 10 2x 2.6	4x 5 4x 1.3	V	[l] [gal]	18.7 4.94	18.7 4.94	18.1 4.94	18.1 4.94	Tare weight	[kg] [lbs]	130 286.6	130 286.6	225 496.04	225 496.04	Max. additional load	[kg] [lbs]	45 99.21	45 99.21	45 99.21	45 99.21
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		<p>B: Canister width in millimetres T: Canister depth in millimetres H: Canister height in millimetres M: Load bearing capacity (uniformly distributed), in millimetres. L: Maximum volume of the largest individual container, in litres V: Max. collection volume, in litres</p>																																																																		



Tech specs DISPOSAL BENCH line - Type 90

Technical details - DISPOSAL BENCH line

Model size			S
Load bearing capacity with uniformly distributed load (maximum load capacity/standing surface)	[kg] [lbs]	Pull-out tray	45 99.21
Maximum volume of the largest individual container that may be placed on the respective standing surface of the cabinet	[l] [gal]	–	20 5.28
Collection volume pull-out tray	[l] [gal]	–	33 8.72
Base height (other base heights on request))	[l] [gal]	with classical base	35 9.25
	[mm] [inch]	with ToeKick base	85 3.35
Volumetric flow rate with 10-fold air exchange	approx. [m³/h] approx. [cubic ft/h]	–	1.5 52.97
Required extraction flow rate for filling and transferring (active storage)	approx. [m³/h] approx. [cubic ft/h]	–	>21 >750
Pressure drop in the cabinet	[Pa] [Psi]	–	<1 <1

* Note

During filling and transferring of media (active storage), the system's exhaust air rate must be monitored to detect a possible failure in the transported air flow. In this case, at least an alarm must be triggered and a shift in the ex-zones must be indicated. Should the exhaust air monitor fail, all filling and transfer processes must be stopped.

Dimensions – interior fittings [mm] - DISPOSAL BENCH line [inch]

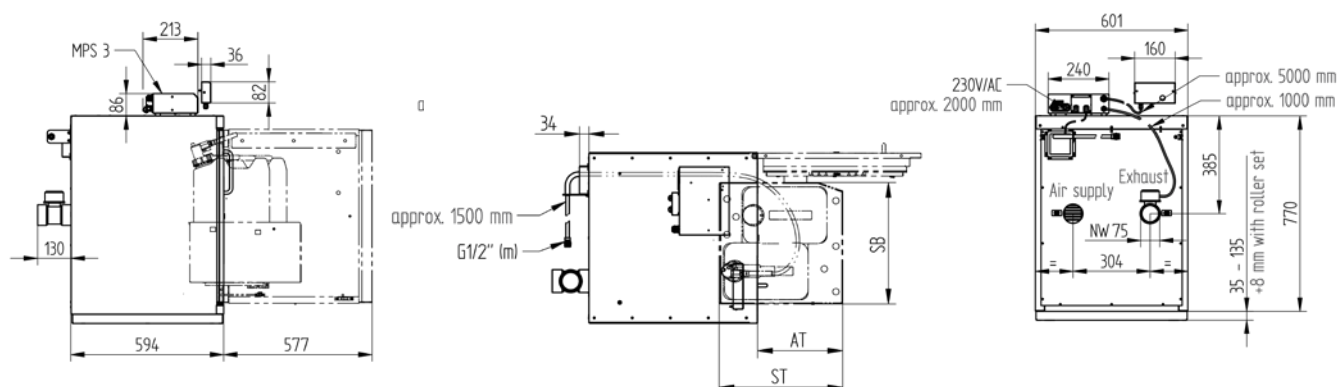
Model size	S		
	Width	Depth	Height
Pull-out tray	427 16.81	432 17.01	233 9.17

Zoning

When all measures for monitoring the exhaust air are observed (protection concept), the proportion between the extraction flow rate and the fill flow rate is ensured and the lower explosion protection limit is exceeded only briefly. In this way, ex-zone 1, which prevails inside the cabinet and at the filling point, can be expected to turn into an ex-zone 2. For risk assessment, the DISPOSAL line has to be assessed in connection with its actual application. In this context, it may be necessary to adjust the ex-zones, the exhaust air flow rate or both.

Side view	Top view	Rear view
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DISPOSAL BENCH line S with classic base



Tech specs HPLC service station - Type 90

Technical details - HPLC service station

Model size	S		
Load bearing capacity with uniformly distributed load (maximum load capacity/standing surface)	[kg]	Pull-out tray	45
	[lbs]		99.21
	[l]	Standing surface for HPLC	80
	[gal]		21.13
Maximum volume of the largest individual container that may be placed on the respective standing surface of the cabinet	[l]	–	10
	[gal]		2.64
Collection volume pull-out tray	[l]	–	11
	[gal]		2.91
Base height	[mm]	with ToeKick base	85
	[inch]		3.35
Volumetric flow rate with 10-fold air exchange	approx. [m³/h]	–	1.5
	approx. [cubic ft/h]		52.97
Required extraction flow rate for filling and transferring (active storage)	approx. [m³/h]	–	>21
	approx. [cubic ft/h]		>750
Pressure drop in the cabinet	[Pa]	–	<1
	[Psi]		<1

* Note

During filling and transferring of media (active storage), the system's exhaust air rate must be monitored to detect a possible failure in the transported air flow. In this case, at least an alarm must be triggered and a shift in the ex-zones must be indicated. Should the exhaust air monitor fail, all filling and transfer processes must be stopped.

Dimensions – Interior fittings [mm] - HPLC service station

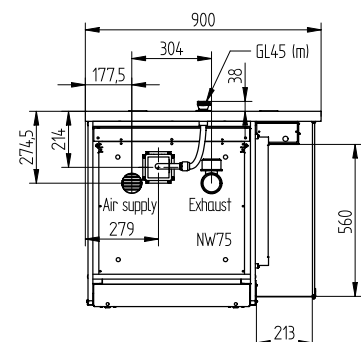
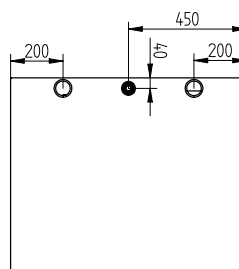
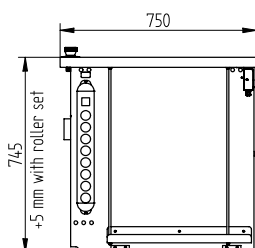
Model size	S		
	Width	Depth	Height
Pull-out tray	427	432	119
	16.81	17.01	4.69

Zoning

When all measures for monitoring the exhaust air are observed (protection concept), the proportion between the extraction flow rate and the fill flow rate is ensured and the lower explosion protection limit is exceeded only briefly. In this way, ex-zone 1, which prevails inside the cabinet and at the filling point, can be expected to turn into an ex-zone 2. For risk assessment, the DISPOSAL line has to be assessed in connection with its actual application. In this context, it may be necessary to adjust the ex-zones, the exhaust air flow rate or both.

Side view	Top view	Rear view
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HPLC service station S1 with ToeKick base



VisiCon® Waste Collection System **2.6**



Collect flammable media flexibly and centrally

The VisiCon® Waste Collection System is the perfect addition to DÜPERTHAL safety storage cabinets for active storage. The system can be used to collect together larger quantities of solvent wastes in accordance with the regulations, centrally at one collection point, e.g. a DISPOSAL line safety storage cabinet. The VisiCon® collection system is also characterised by its high media resistance. All components are conductive and prevent the formation of ignition sparks.



Highest flexibility for streamlined workflow

The system can be extended virtually without limit and the modular concept can be individually adjusted to each process on site. The diverse connection options are suitable for funnel systems and HPLC connections, and can also be adapted to individual requirements. The easy startup due to ready to plug-in, preassembled connections enables flexible workflows and more efficient organisation of the work processes.



Your benefits

- » Secure collection of hazardous substances in accordance with TRGS 509 and minimisation of harmful gases and vapours (emissions) in the workplace.
- » Continuous earthing for the prevention of ignition hazards as a result of electrostatic discharges in accordance with TRGS 727.
- » Higher efficiency by merging wastes from several workplaces to a central collection point
- » Process reliability through defined workflows, additional channels for the disposal of solvents avoided.
- » Approved explosion protection concept for simplified recording in your explosion protection document within the framework of the risk assessment according to TRGS 400.
- » Flexible connection to DÜPERTHAL system solutions for active storage.
- » The almost infinitely expandable modular system can also be integrated at a later stage

Disposal system - safe, economical and flexible

We will be happy to analyse the current situation with you on site and provide you with an optimal disposal solution. We can provide installation and commissioning on site within the framework of our full service.



Your added advantage with VisiCon®!

» Efficient workflow in accordance with the regulations

Disposal of solvent wastes takes place directly at the workplace; additional channels for the disposal of waste are avoided.

» Sustainable and flexible disposal system

The modular system can be optimally integrated in any work or laboratory situation and can be expanded almost infinitely.

» Economic and certified solution

The hazardous substances can be directed from several systems/workplaces to a certified safety storage cabinet.

For a high level of media resistance, all metallic components are manufactured from high-quality stainless steel 1.4571. The hose system is made of dissipative PTFE-el and has a smooth finish to guarantee a good media flow. The hoses are also wrapped in a spiral on the outside for protection against mechanical stress.



1 Funnel systems

Safe disposal of hazardous substances via a funnel with a direct connection to the disposal container.

2 Direct connection of HPLC systems

Simple connection of capillary and media hoses via a large selection of bench penetrations and adapters.

3 Distributors and smooth-walled hose systems

The distributors and hose systems are available in various diameters - the right solution for every viscosity.

4 Prevention of ignition hazards

All components are electrically conductive, the system for the connection to earthing is prepared according to TRGS 727.

5 Tested and certified disposal systems

The media are collected in system solutions with special explosion protection devices, e.g. DISPOSAL BENCH line, in accordance with TRGS 509 and TRGS 727.

6 Profile system - flexible and robust

The flexible profile system is the alternative to the bench penetration and can be used as, for example, a standing surface for HPLC systems.

Accessories - varied and flexible

The individual elements of the VisiCon waste collection systems are available in a modular system.
On this page we present to you an excerpt from the delivery programme.



Stainless steel funnel
optionally with fill hole
Ø 120 mm (4.72 inch) or
Ø 200 mm (7.87 inch).



Stainless steel adapter
with a combination of hose and
capillary connections.



Stainless steel adapter
with capillary connections.



**Bench penetration made of
stainless steel**
suitable for a large number of
worktops.



**T-distributor made of stainless
steel**
for the connection of hoses,
adapters and reducers.



Media hose made of PTFE-el
including mounting material.



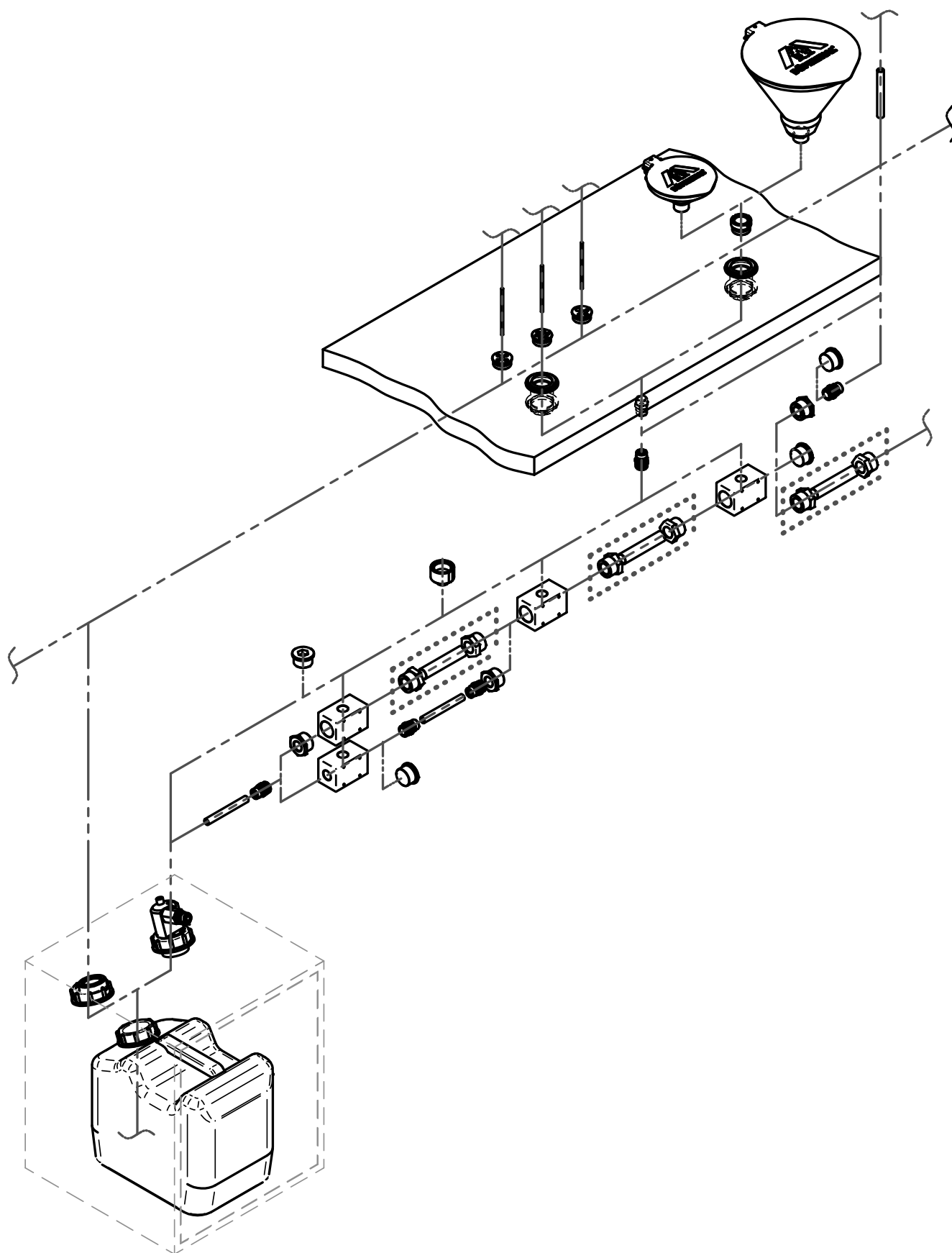
Reduction of stainless steel
of G 1/2"/G 1".



Stainless steel screw plug
for safe and tight closure of
e.g. T-distributor.

Accessories
Funnel G 3/4", optionally with fill hole Ø 120 mm (4.72 inch) or Ø 200 mm (7.87 inch)
Adapter with 3x capillary connections, 1x hose connection
Adapter with 6x capillary connections
Bench penetration
T-distributor G 1/2
Media hose PTFE-el incl. mounting material Ø 12 mm (0.47 inch)
Reduction G 1/2"/G 1"
Screw plug G 1/2"

Ref. no.
on request
on request
on request
on request
on request
on request
on request
on request



Comfort Service Agreement

We thank you for the trust you have shown in purchasing DÜPERTHAL safety storage cabinets.

Please note that according to BetrSichV, TRGS 526, TRGS 510, ArbStättV and the maintenance interval indicated by the manufacturer, all safety-relevant features have to be checked by a qualified person once a year in accordance with TRBS 1203. In order to meet these requirements and to guarantee the safe function of your safety storage cabinets, we recommend that the cabinets should be checked once a year by our service technicians.

Your benefits: DÜPERTHAL Comfort* Service Agreement

- » 5-year manufacturer's guarantee. **
- » First inspection is free of charge.

Your economic advantage

- » 5-year manufacturer's guarantee. **
- » First inspection is free of charge.
- » Cost saving with regard to repairs, time expenditure is not billed separately (included in lump sum).
- » Travel expenses are included in the lump sum.
- » Guarantee systematic monitoring of your safety equipment for audits. We remind you about upcoming deadlines.

Your technical advantage

- » Your cabinet's protective function is constantly maintained.
- » Support from trained and certified service technicians.
- » Inspection of safety storage cabinets and exhaust air filter systems.



**Preventive maintenance.
Sustainable maintenance.
Our service sets new standards.**

Your contact person - Service

Phone: +49 6188 9139-166

E-mail: service@dueperthal.com



DÜPERTHAL is certified acc. to
DIN EN ISO 9001



Customer:

(please specify exact address and phone no.)

Service agreement no.:

between the recipient as the
customer and the
DÜPERTHAL SICHERHEITSTECHNIK GmbH & Co. KG
Frankenstrasse 3
63791 Karlstein, Germany

In Germany, the annual inspection of safety storage cabinets including proof of the test is legally required by the BetrSichV, TRGS 526, TRGS 510, and the ArbStättV legislation. Employers are responsible for implementation.

The DÜPERTHAL Comfort* Service Agreement includes the following services:

- » Annual safety inspection and maintenance
- » Test certificate and test label
- » Time expenditure for repairs (spare parts are billed separately)
- » Travel expenses
- » 5-year manufacturer's guarantee**



Number of safety storage cabinets:

(please enter quantity)

1	
2-3	
4 or more	

Lump sum per safety storage cabinet/year:

Number of exhaust air filter systems:

(please enter quantity)

1	
2-3	
4 or more	

Lump sum per exhaust air filter system/year:

The inspection and maintenance covers all safety-relevant parts, such as fire protection and air seals, fusible links, ventilation openings, door closers and locking systems as well as insulation. Furthermore, all mechanical components are checked to ensure that they are working properly and an exhaust air measurement is taken.

Deviations from this agreement are only valid if they have been agreed on in writing by both parties to the contract. Otherwise the service terms and conditions (supplement) must be complied with.

Karlstein,

Date

Place / Date

DÜPERTHAL SICHERHEITSTECHNIK GmbH & Co. KG

CLIENT

Date / Signature / Company stamp

Date / Signature / Company stamp

* Only valid for cabinets not older than 2 years (from delivery date). ** Manufacturer's guarantee does not apply to cabinets of other manufacturers.

Delivery checklist for safety storage cabinets

Simply complete and send back by e-mail to info@dueperthal.com

Dear Customer,

This checklist is part of the order. We would like to deliver and align your safety storage cabinets at the place of use. To ensure a timely and smooth delivery at the preferred installation location / place of use without complications, we need you to fill in the information below. If information is incomplete or received too late, substantial additional costs may arise, which we have to pass on to you. Please take notice of the delivery date mentioned in the order confirmation.

1. Order data	3. Access route/transport route outside the building
Customer	3.1 Is access possible with a 26 t truck, min. dimensions 3 x 12 x 4 m (W x L x H)?
Customer no.:	<input type="checkbox"/> Yes, road width approx. W _____ x H _____ m <input type="checkbox"/> no
Company:	<input type="checkbox"/> Roofing – max. clearance height only _____ m
Post code/city:	<input type="checkbox"/> Bridge – max. clearance height _____ m
Name:	<input type="checkbox"/> Blocked, because _____
Phone:	<input type="checkbox"/> Route not suitable, because _____
Department:	3.2 Distance to the building? _____ m
PO no:	3.3 Road surface?
Order no:	3.4 Pedestrian zone <input type="checkbox"/> yes <input type="checkbox"/> no. Delivery time from _____ to _____
Delivery address	3.5 At ground level <input type="checkbox"/> yes <input type="checkbox"/> no
Company:	3.5 Steps into the building <input type="checkbox"/> yes, _____ steps <input type="checkbox"/> no
Contact person on site:	3.6 Loading ramp available <input type="checkbox"/> yes <input type="checkbox"/> no
Phone:	3.7 Can the truck bridge the steps by means of its rear lifting platform? <input type="checkbox"/> yes <input type="checkbox"/> no
Street:	3.8 Parking facilities <input type="checkbox"/> yes <input type="checkbox"/> no
Post code/city:	3.9 Forklift truck & driver available <input type="checkbox"/> yes <input type="checkbox"/> no
Cabinet model:	3.10 Best access route by road?
Dimensions: (W x D x H in mm)	4. Transport route inside the building
Weight: (in kg)	4.1 Is the load bearing capacity of the transport route sufficient for the weight listed above? <input type="checkbox"/> yes <input type="checkbox"/> no
2. Installation location and delivery date	4.2 Installation location on ground floor <input type="checkbox"/> yes <input type="checkbox"/> no
2.1 When will the rooms/ transport routes be ready for use? (This includes all lifts, staircases, corridors on the way)	4.3 Installation location in basement/on upper floor <input type="checkbox"/> yes, _____ floor
2.2 Delivery possible from _____ to _____	5. Lift
2.3 Installation location (building, room):	5.1 Lift available? <input type="checkbox"/> yes <input type="checkbox"/> no
2.4 Person to be notified by phone:	5.2 Lift usable? <input type="checkbox"/> yes <input type="checkbox"/> no
2.5 Phone:	5.3 Load bearing capacity in kg
	5.4 Usable inner carcass (W x D x H)
	5.5 Door clearance dimensions (W x H)



6. Stairs

6.1 Transport by stairs?

☐ yes, _____ floor ☐ no

Note: In case of transport to buildings without a service lift and delivery above ground floor, any additional costs arising for additional personnel, equipment, load crane, etc. will be borne by the customer and will be billed separately at cost.

6.2 What kind of stairs are there on site? Please mark with a cross!

☐ Version 1

A = Stair width = _____ cm

B = Landing depth = _____ cm

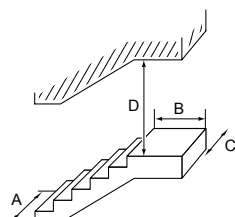
C = Landing width = _____ cm

D = Lintel height = _____ cm

No. of steps = _____

Step depth = _____ cm

Step height = _____ cm



☐ Version 2

A = Stair width = _____ cm

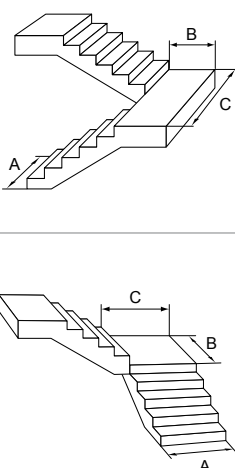
B = Landing depth = _____ cm

C = Landing width = _____ cm

No. of steps = _____

Step depth = _____ cm

Step height = _____ cm



☐ Version 3

A = Stair width = _____ cm

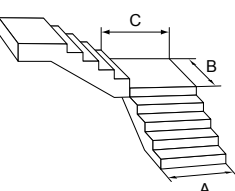
B = Landing depth = _____ cm

C = Landing width = _____ cm

No. of steps = _____

Step depth = _____ cm

Step height = _____ cm



When giving the dimensions, please consider all obstructions like banisters, radiators or similar objects!

6.3 Do all stairs along the transport route correspond to the version marked above?

☐ yes ☐ no. Differences:

6.4 Other stairs:

Description:

Sketch

Note: Delivery via a spiral staircase is only conditionally possible; please arrange with us a transport route inspection by our carrier in good time!

6.6 Number of stairs in total?

6.7 Type of stairs (e.g. concrete, wood, steel, etc.)?

To the building _____

Inside the building _____

Note: Rubber edges on steps may be damaged; we cannot accept liability for this.

6.8 Protruding edges ☐ yes _____ cm overhang ☐ no

6.9 Can each individual step be loaded with the cabinet's weight? ☐ yes ☐ no

7. Doors

7.1 How many doors are there along the transport route?

7.2 Door dimensions	Clear height [cm]	Clear width [cm]	Space available behind [m]
Door 1			
Door 2			
Door 3			
Door 4			
Door 5			

8. Requirements for the installation location/ceiling load

Please take into account the allowable ceiling/floor load at the installation location for all safety storage cabinets. In particular, the SUPREME plus XL and XXL safety cabinets for pressurised gas cylinders may not be installed without consulting a structural engineer first if the ceiling load is less than 600 kg/m².

8.1 The surface must be level and flat and be able to bear the weight of the safety cabinet when fully loaded. Is the load bearing capacity of the installation location sufficient for the weight listed above? ☐ yes ☐ no

8.2 Is the floor at the installation location free of cables and underfloor heating? ☐ yes ☐ no

Note: Furthermore, the installation location must ensure that the safety storage cabinet

- cannot be damaged by vehicles.
- is not exposed to any direct or indirect heat source.
- is protected against moisture.
- is not exposed to an operating temperature below -5 °C or above +45 °C.

The lump sum price quoted for transport is subject to the condition that the installation location (place of use) is freely accessible and it is possible to complete the transport on site. The customer assures that they are aware of the dimensions of the safety storage cabinets to be delivered and that their information regarding the conditions on site at the place of delivery is completely accurate. Any additional costs will be borne by the customer. These may arise from differences between the information given above and the actual situation on site and consequent further action necessary to be taken, such as exceeding the delivery time and/or interventions in the building fabric (widening of door openings, dismantling and reassembly of banisters, etc.) or the installation of a crane to bring the safety storage cabinet to the place requested by the customer. If the transport company refuses transport for reasons of risk and the customer nevertheless insists on installation, all of the customer's rights of recourse are cancelled should the mentioned risks materialise, unless a case of deliberate intent or gross negligence exists.

Date / Signature / Company stamp

Offering you a personal service

Intelligent technology – Great service

There is more to safety than simply buying a safety storage cabinet. This is why we offer you our certified knowledge, comprehensive service and expertise – supporting you before, during and especially after your decision to buy a DÜPERTHAL safety storage cabinet. For a reassuring feeling of having done everything within your power.

Individual advice.
Intelligent solutions.
Safety requires experts.

Your contact person – for Germany

Phone: +49 6188 9139-0

E-mail: info@dueperthal.com

Your contact person – for all other countries

Phone: +49 6188 9139-150

E-mail: info@dueperthal.com

Preventive inspections.
Sustainable maintenance.
Our service sets new standards.

Your contact person – Technical Service

Phone: +49 6188 9139-166

E-mail: service@dueperthal.com



Safety means responsibility.

DÜPERTHAL is one of the leading manufacturers of safety storage cabinets. There are good reasons for choosing DÜPERTHAL safety technology. Find out more about us and our entire product range on www.dueperthal.com.

We look forward to your call!

Mondays to Thursdays from 8.00 am to 5.00 pm
Fridays from 8.00 am to 4.00 pm

DÜPERTHAL Sicherheitstechnik GmbH & Co. KG
Frankenstrasse 3 | 63791 Karlstein | Germany



Metric Equivalents

Commonly used measurements

[rounded]

Volume / Liquid measure equivalents

Containers & Drum Sizes

[ounce]	4	8	16	32	[pint]	1	[quart]	1	2	[gallon]	1	1.32	1 ½	2
[litre]	0.12	0.24	0.5	1	0.5	1	2	4	5	6	7.5			

[gallon]	2 ½	2.64	3	3 ½	4	5	6	6.6	8	10	12	15.9	30	55
[litre]	9.5	10	11	13	15	19	23	25	30	38	45	60	110	200

[inch]	¼	⅜	½	¾	1 ½	2
[mm]	6	10	13	19	38	51

Sheet Steel Sizes

[gauge steel]	24	18	16	14
[mm]	0.5	1	1.5	1.9

Weight Equivalents

[pounds]	60	132	165	350	600	1000	1500
[kg]	27	60	75	159	272	454	680

Pressure and Temperature

[psig]	3	5	[Fahrenheit]	34°	50°	59°	68°	122°	158°	165°	325°	392°
[bar]	0.2	0.35	[Celsius]	1°	10°	15°	20°	50°	70°	74°	163°	200°



Conversion Chart

Fahrenheit to Celcius:
 $(^{\circ}\text{F} - 32) \times 0.5555 = ^{\circ}\text{C}$

Inches to Millimeters:
Multiply by 25.4

Inches to Centimeters:
Multiply by 2.54

Feet to Meters:
Multiply by 0.3048

Feet to Centimeters:
Multiply by 30.48

Feet to Millimeters:
Multiply by 304.8

Ounces to Grams:
Multiply by 28.35

Pounds to Kilograms:
Multiply by 0.4536

Gallons to Litres:
Multiply by 3.785

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