

# DENIOS

ENVIRONMENTAL PROTECTION  
& WORK SAFETY

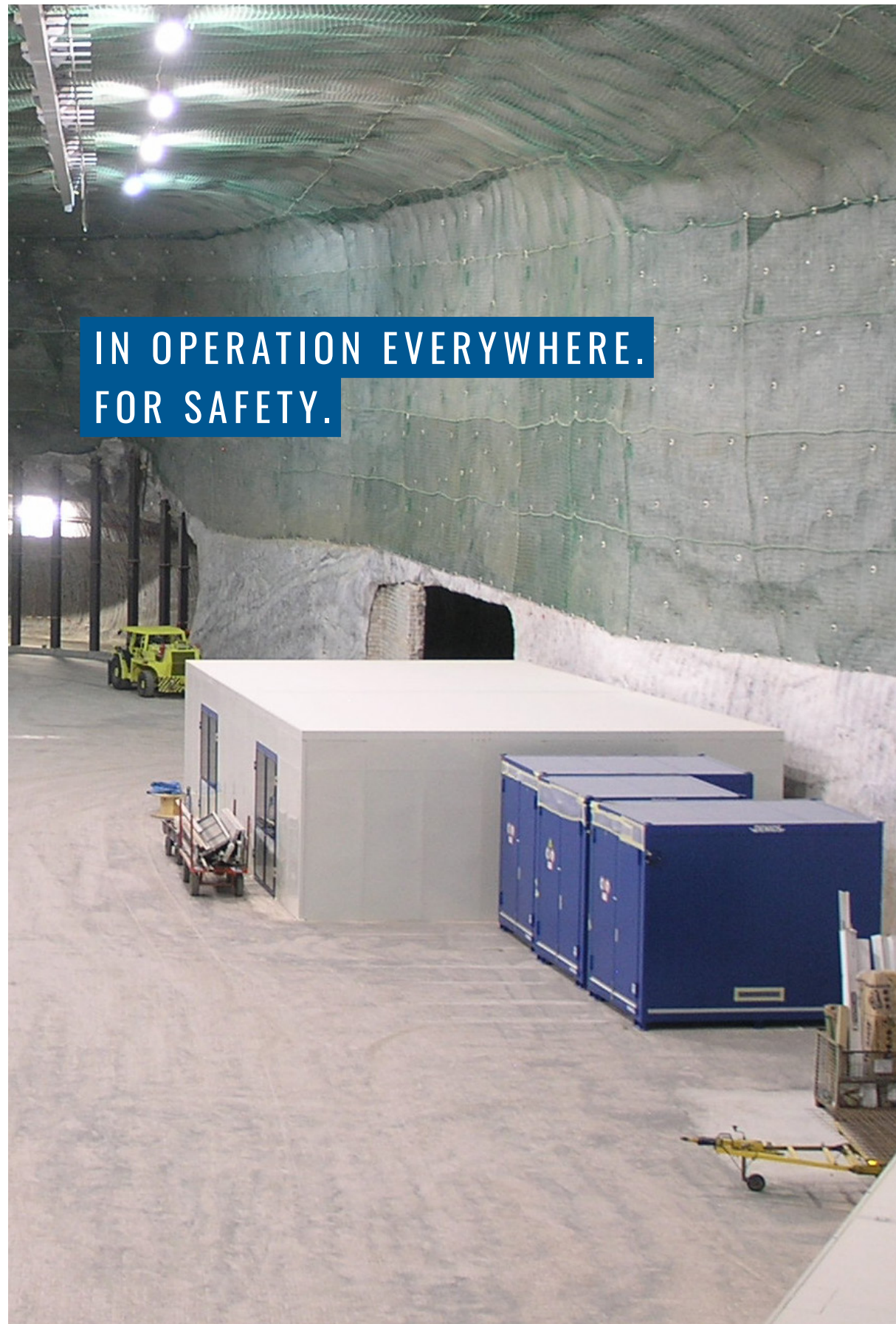


SERVICE &  
MAINTENANCE.

[www.denios.de/service-wartung](http://www.denios.de/service-wartung)

SERVICE & MAINTENANCE FROM DENIOS. EVERYTHING FROM ONE SUPPLIER.





IN OPERATION EVERYWHERE.  
FOR SAFETY.

For more than 35 years, DENIOS has been developing and manufacturing innovative products and solutions for the safe and legally compliant storage of hazardous substances. We have enjoyed a close, trusting relationship with our customers for just as long. With DENIOS as your partner, you can be sure of all-round protection - from commissioning through the entire product life cycle. Regular maintenance protects the value of your investment and ensures the safety and protection of your employees and the environment. For this purpose we have experienced, qualified service technicians who are familiar with all the relevant laws and certifications. They'll remind you of maintenance dates and support you in fulfilling your obligations as an operator, so that your hazardous material stores are always legally compliant and safe. Discover our range of services and find out what we mean when we talk about DENIOS Service. We're your partner at your side, offering comprehensive and worry-free support.

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With service & maintenance from DENIOS, you are taking responsibility for the environment and work safety.  
We will support you with a holistic concept and customised solutions.

Service & Maintenance from DENIOS.

Helmut Dennig – CEO

Ansgar Jost – Director Engineered Solutions

Ingo Schlutter – Head of Quality and Service

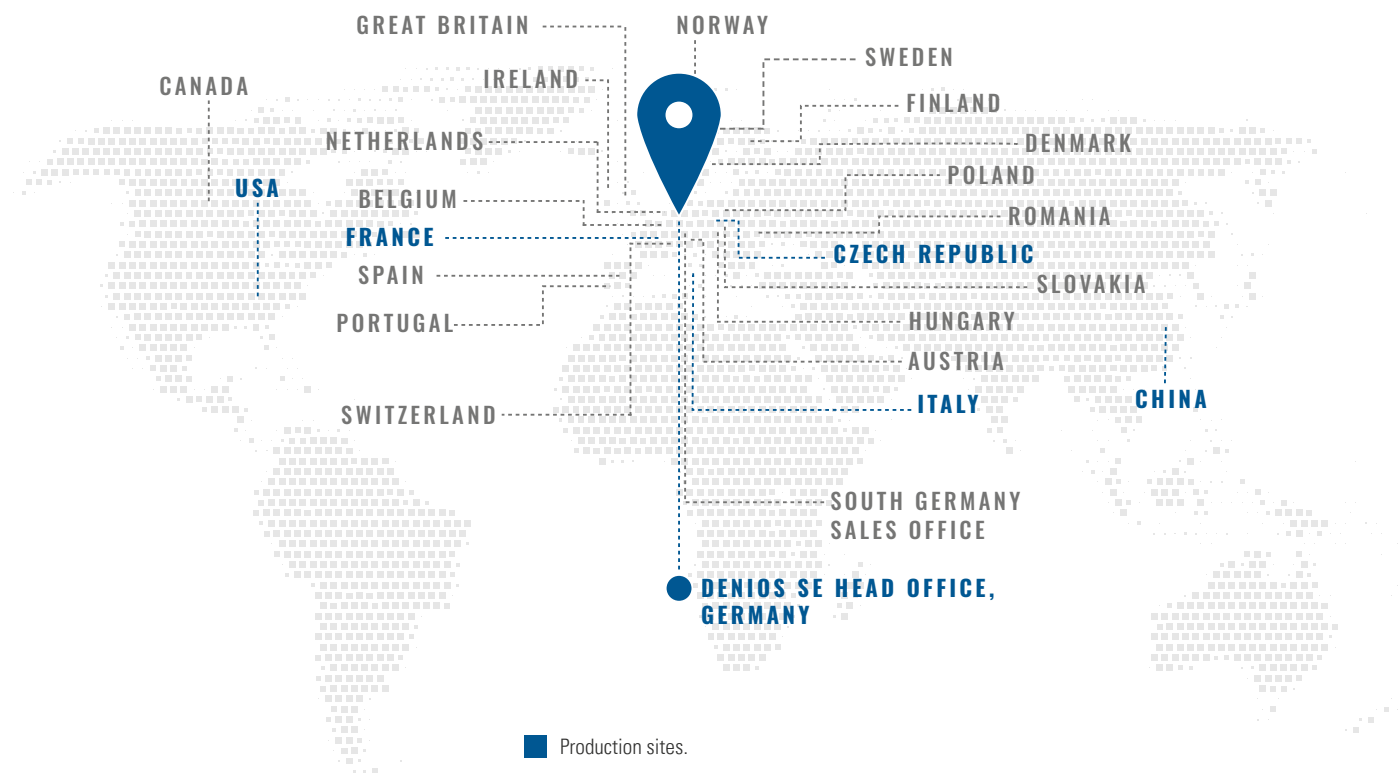


## WORKING FOR YOU, ACROSS THE WORLD.

### PERSONAL SERVICE EVERY TIME. ON SITE EVERY TIME.

Did you know that you can take advantage of our on-site advice for service and maintenance, free of charge? We are your international partner and problem solver - always close at hand. Due to local legislation a personal consultation and analysis on site are indispensable for ensuring a smooth process. In addition, we offer all the services you'll need for hazardous materials storage from one source.

- Over 1,000 employees.
- More than 20 branches in Europe, Asia and America.
- 6 production sites.
- Approx. 3,000 room systems sold per year worldwide.
- Approx. 200 million Euro turnover a year.
- Over 35 years' experience.



The DENIOS on-site consultation service is guaranteed to be free of charge for you. Travel, consultations and information materials are all included. You will only incur costs if you place an order with us for the package of measures discussed, if you order products from our range or if you book further services. Of course, we'll provide a comprehensive offer in advance.

International customers that trust DENIOS.





## OFFICIALLY CONFIRMED: OUR TEAM HAS ALL THE REQUIRED CERTIFICATIONS.

Hazardous material storage is a very sensitive area and must therefore comply with a large number of legal requirements. In order to be allowed to carry out services - especially on electrical systems and fire and explosion protection devices - the specialist must be appropriately qualified.

The DENIOS service team has a very broad base and is also ideally equipped to handle complex requirements. We have all the qualifications and certifications required to service and maintain a hazardous materials store. The use of DENIOS specialists ensures that you can benefit from our comprehensive expertise as a manufacturer for all service options.

We not only know the technical criteria of the individual components, but we also understand the interaction of all the factors involved - ensuring the holistic, safe functioning of your hazardous materials store.

Whether maintenance, repair or spare parts: we'll be happy to carry out a non-binding consultation at your location, free of charge, including a professional inventory. On this basis, we can then organise customised service from our team for you.

### CERTIFICATIONS OF THE DENIOS SERVICE TEAM.

Our employees regularly take part in further training courses and therefore always have the latest specialist knowledge at their disposal. This enables us to react quickly to your requirements at any time. Of course, we will always observe any company-specific safety regulations at the installation site. Here you will find an example of our qualifications for servicing on and in a hazardous materials store:

- SCC training.
- Hazardous substances officer according to TRGS 510, 800, 201, 526.
- Qualified person for fire-rated doors and gates as well as specialist for hold-open systems.
- Expert for testing and assembling fire protection flaps and fire protection elements according to DIN 4102 and DIN 18017.
- Qualified person in electrical and mechanical explosion protection.
- Welding test certificate.
- Driving licence for motor-driven industrial trucks according to DIN 15140 (combustion engine and electric drive) and operator's licence for aerial work platforms.
- Measurement/testing technology seminar on electrical systems (DGUV V3, DIN VDE 0100, DIN VDE 0701-0702).
- Dangerous goods training according to 1.3 ADR and § 6 GbV.
- Qualified electrician for specified activities.
- Expert for the testing of electrical systems (DGUV V3, DIN VDE 0100, DIN VDE 0701-0702).
- Expert on refrigeration and air-conditioning systems and heat pumps. (Category EG 303/2008, EG 842/2006, § 5 ChemKlimaschutzV).
- Expert for racking inspection (DIN EN 15635).



The DENIOS service team is your reliable partner. Advice at the ready, hands-on, always with a solution.

### MORE HIGHLY QUALIFIED OFFERS FOR SECURITY & SERVICE.

Do you have other company equipment to maintain besides your hazardous materials store? Please do not hesitate to contact us. Our portfolio of services is wide-ranging and is regularly expanded.





## YOUR LOYALTY PAYS DIVIDENDS.

### HOW TO SCORE WITH MAINTENANCE.

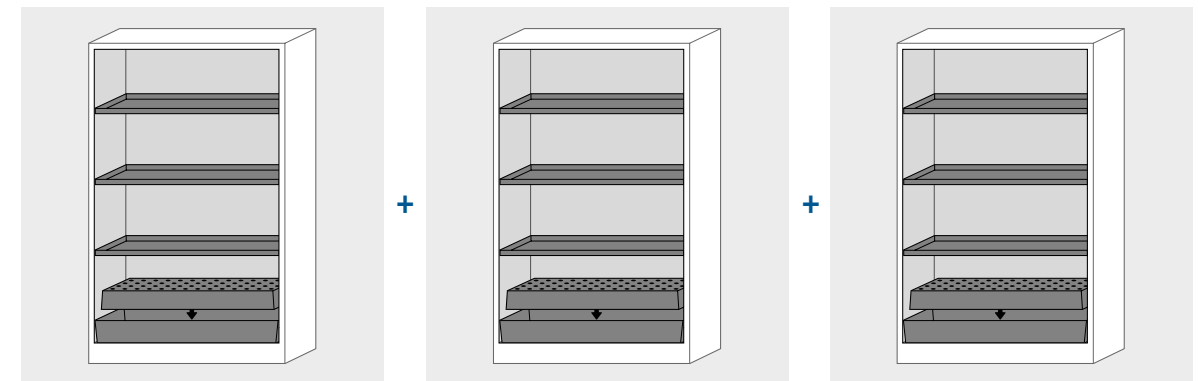
Our many years of service experience tell us that no two projects are the same. Every customer has different requirements and specific conditions. This means that not only is the DENIOS service tailored to the specific situation of the customer, but the pricing is too. This depends, among other things, on the scope of the project, the accessibility of the sites and the complexity of the individual tasks. Our customer-friendly DENIOS discount models can be used as a starting point:

#### GRADUATED DISCOUNT.

The minimum order value for a service or maintenance order is 150 Euro. Graduated discounts are applied when several identical products are to be serviced, for example several room systems. However, the distance between the individual items for maintenance must not be too great.

#### PACKAGE DISCOUNT.

Package discounts are given for a combination of maintenance orders for different products. The prerequisite, however, is that at least one product is a DENIOS hazardous materials store. Graduated discounts are not subject to additional discounts.



#### GRADUATED DISCOUNT %.



#### PACKAGE DISCOUNT %.

#### OUR INSTALLATION AND MAINTENANCE CONDITIONS.

For maximum transparency, please refer to our installation and maintenance conditions. These conditions cover the most important general conditions regarding our services for you.





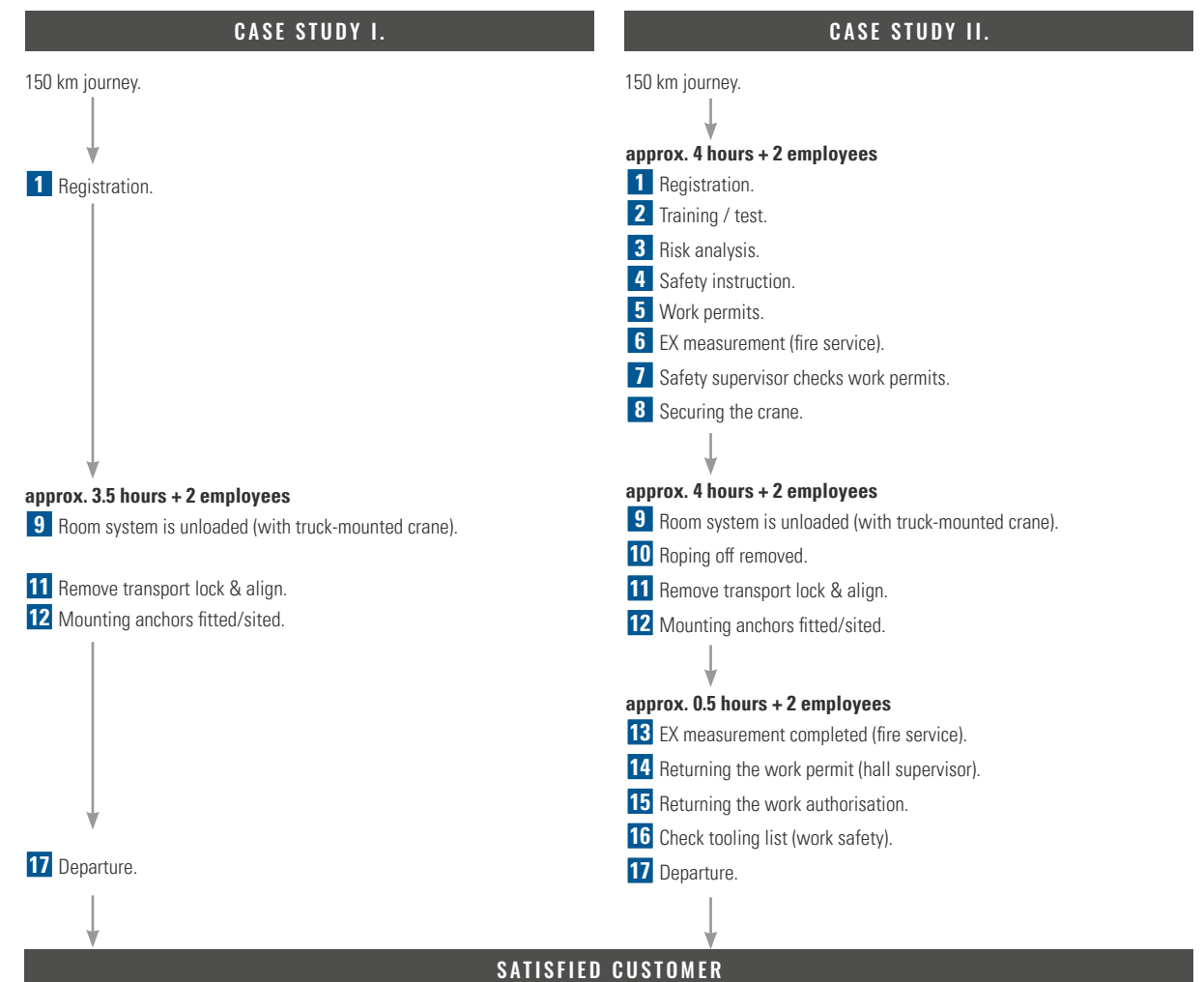
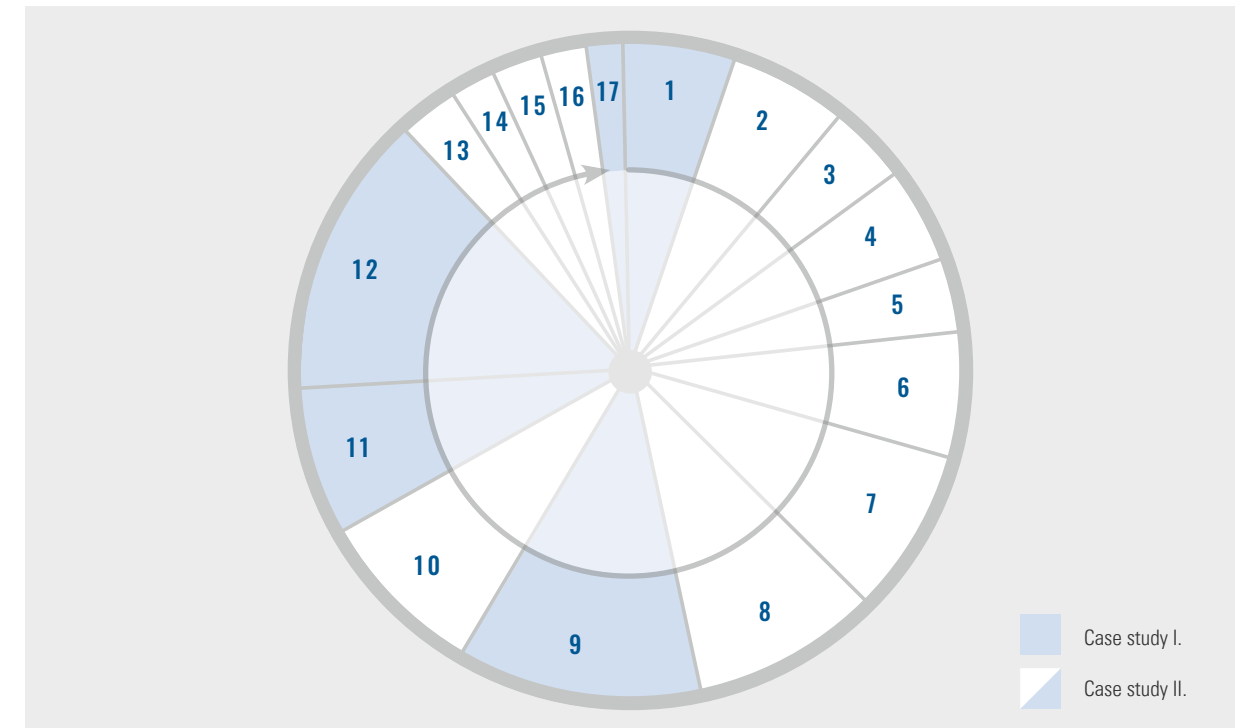
## FACTORS WHICH AFFECT YOUR ASSEMBLY COSTS.

### USING THE EXAMPLE OF A HAZARDOUS MATERIALS STORE.

Various factors affect how long it will take to assemble your room system. Depending on your safety regulations our technicians may need to spend significantly more time on your site. We fully understand this - of course the safety of your employees is our top priority and that of our technicians too. However, the longer we spend on site, the higher the assembly costs will be.



The DENIOS service technician anchors the hazardous materials store to the ground foundation.





## MAINTENANCE AND REPAIR. REGULAR INSPECTIONS FOR SAFETY.

When our qualified and certified service technicians come to your site, they will inspect, clean, check and, if possible, make any repairs immediately. Only if all safety-relevant components are in proper working order will there be a tick and a test sticker, and you'll receive the inspection certificate. This applies to hazardous materials stores as well as to hazardous materials cabinets, spill pallets and all other products requiring inspection. Only regular maintenance and repairs by the manufacturer guarantee the retained value of your product and therefore the safety and protection of your employees and the environment. Our experienced professionals are always available whenever you need them.





## MAINTENANCE FROM DENIOS.

### QUALIFIED AND RELIABLE SERVICE.



Save yourself expensive repairs with regular servicing.



Minimise the risk of downtime and extend the life of your products.



You'll never miss an appointment again! We'll plan the annual safety inspections for you.



You get extra long protection: we extend your warranty up to 5 years.



You'll save on travel costs - our technicians always carry materials for minor repairs.

#### SERVICES FROM OUR MAINTENANCE DEPARTMENT.

- One-off inspection or maintenance contract.
- Trained and certified service technicians.
- On-site repair of defects and damage (as far as possible - large scale repairs will be quoted for and carried out separately).
- Production of a service report and test report.
- Fitting the test sticker.
- Travel costs and small consumables are always included in the maintenance price.

#### YOUR ADVANTAGES.

- Legal compliance.
- Maintenance of your insurance protection including limitation of company liability in the event of a loss.
- Avoidance of costly repairs with regular maintenance.
- Minimised risk of downtime and extended product life.
- Maintenance appointment reminder from DENIOS (for maintenance contracts).
- Safety for your employees and your company.



**Ingo Schlutter, Head of Quality and Service, DENIOS AG,** and his team will ensure that you comply with all the legally specified maintenance intervals. We will proactively contact you and will carry out all the necessary inspection, maintenance and servicing work for you.

### INSPECTION PROCESS.

Our DENIOS service team completes the legally compliant testing procedure as a holistic process and checks each prescribed criterion conscientiously and professionally.

#### CONDITION MONITORING.

We check your hazardous materials store for damage inside and outside and identify possible problems in the way it operates. We pay special attention to the installation conditions: our experienced technicians check statics and mountings as well as safety distances and accessibility. We also check for contamination, especially in spill pallets, ventilation grilles and roof drainage.

#### COMPLIANCE INSPECTION.

Compliance with the legally prescribed containment volume of the spill pallet(s) is an essential factor for the safety of the hazardous materials store and is therefore carefully checked. The legally required markings are also examined as part of the compliance inspection. Organisation in the store is also an inspection criterion.

#### FUNCTIONAL TEST.

DENIOS specialists precisely check the locking mechanisms of doors and gates as well as fire protection flaps. We also inspect the technical ventilation and check the operation of the electrics and control technology. In addition, fire detection in the hazardous materials store is tested, and the heat exchangers on heaters and air-conditioning units are also examined.

#### TEST REPORT AND STICKER.

After completion of all required inspections, the responsible inspector fills out and stamps the service booklet in accordance with the regulations. If the hazardous materials store can be successfully approved, the corresponding test sticker is issued.



Many a DENIOS product has been reliably serving its customers for more than 25 years. Only regular maintenance and repairs by the manufacturer will ensure that your product retains its value.



# INSPECTION AND MAINTENANCE SCHEDULE.

The TRGS 510 and the BetrSichV stipulate regular inspections of all storage facilities and work equipment over the entire service life to ensure safety.

ITEM	ACTIVITY	INSTRUCTION/BASIS
Hazardous materials store	Check before commissioning	BetrSichV, TRGS 510
Spill pallet	Initial inspection	StawaR
	Inspect for liquid leaking from the containers	AwSV/StawaR/DIBt approval
	Check, record	StawaR/DIBt approval
	Clean	StawaR/DIBt approval
	Refinish surface protection	StawaR/DIBt approval
	Repair damage	StawaR/DIBt approval
Grid	Check	BetrSichV
Grid mounting	Check	BetrSichV
Grid	Replace	BetrSichV
Shelving system	Check (especially hooked connections and screwed connections)	BetrSichV/DGUV R 108-007
	Clean	TRBS 2152
	Refinish surface protection	BetrSichV
Wing door	Check (especially seals, hinges, locks)	Oil
Wing door hinge	Oil	BetrSichV
Wing door locking system	Check (in particular closing function, closing sequence)	BetrSichV
Door hold-open system; fire detection	Check	StawaR/DIBt approval
Fire detection system	Check	VDE 0833/Vds
Technical ventilation	Check	BetrSichV/DGUV R 113-001
Technical ventilation - Shut-off device	Check	Manufacturer's operating instructions
Extinguishing system, semi-fixed	Initial inspection, record	Vds
Extinguishing system, semi-fixed	Check	Vds
Refrigeration system	Initial inspection, record	BetrSichV/BGR 500, 2.35
Refrigeration system	Check for leaks	BetrSichV/BGR 500, 2.35
Complete electrical system	Initial inspection	DGUV V3/BetrSichV/VDE
Complete electrical system	Retest	DGUV V3/BetrSichV/VDE

\* Qualified persons = PrüfSV - from 10,000 litres ZÜS (approved inspection body)

# STATUTORY INSPECTION OBLIGATIONS.

## SAFETY WHEN HANDLING HAZARDOUS SUBSTANCES.

### LEGAL OBLIGATIONS FOR WORK HEALTH AND SAFETY.

The joint responsibility of employers and employees to improve safety and health at work gives rise to various obligations. This is the result of the European Occupational health and safety framework directive 89/391/EEC, which is applied in German law through the Occupational health and safety act (ArbSchG). This also includes inspection obligations that are specified in various regulations and technical rules.

#### BETRSTÄTTV § 14

##### Industrial safety regulation.

(1) The employer must ensure that, where safety depends on assembly, work equipment is tested

- after assembly
- before commissioning
- as well as after any assembly (...) at a new location.

(3) The employer must ensure that work equipment is tested by an authorised person to ensure safe operation after repair work which could affect the safety of the work equipment.

(5) The due date for regular inspections must be given as the month and the year in each case. The period to the next regular inspection begins when the last inspection is due. If an inspection is carried out before the due date, the period to the next inspection begins from the month and year when the inspection was carried out.

#### ARBSTÄTTV § 4

##### Workplace regulation

The employer must ensure that safety equipment used to prevent or remove risks is properly maintained at regular intervals and inspected for correct operation.

#### BETRSTÄTTV § 10

##### Industrial safety regulation

(1) The employer must carry out repair work, so that the work equipment meets the relevant safety and health and safety protection requirements during the whole period of use, and can be maintained in a safe condition. The manufacturer's instructions must be observed.

(2) The employer must have maintenance measures safely carried out based on a risk assessment and taking into account the manufacturer's operating instructions.

#### TRGS 510

##### Technical rule for hazardous substances

The hazardous substances regulation requires the employer to regularly check the operation and effectiveness of technical protective measures. Test institutes require room systems for hazardous substances and hazardous materials cabinets to be inspected annually in accordance with the manufacturer's instructions. The operation of built-in technical ventilation must also be inspected annually as a minimum by a qualified person.

#### TRBS 1203

##### Technical rule for work safety

A qualified person for regular inspections is someone who, by virtue of their education, experience and recent professional activity has the required specialist knowledge.

#### BETRSTÄTTV § 3

##### Industrial safety regulation

(6) The employer must decide on and determine the type and scope of the required inspections for work equipment as well as the time periods for regular inspections. The time periods for the regular inspections must be specified in such a way that the work equipment can be safely used until the next inspection is due.

We expressly point out that failure to comply with the inspection obligations under the above-mentioned legislation, automatically leads to a non-conformance during an audit or equipment inspection. Missing regular inspection reports will lead to major issues with insurers in the event of damage. Please note that depending on product type, additional inspections may be prescribed and need to be carried out by the operator! Test institutes specifically advise the operator that an annual inspection of spill pallets, ventilation equipment, fire barriers etc should be carried out annually by the manufacturer. Also take note of the relevant sections in your DIBt General Technical Approval.





# SERVICE & MAINTENANCE FROM DENIOS.

EVERYTHING FROM ONE SUPPLIER.

## SECTION I

### HAZARDOUS MATERIALS STORAGE.

Hazardous material stores from DENIOS perform a valuable task in your company. They ensure both the safety of your employees when handling hazardous substances and the protection of the environment. In order to guarantee this at all times, regular maintenance is a basic requirement - and also prescribed by law. At DENIOS, you'll receive all the necessary service and maintenance services from a single source - backed by the know-how and experience of the manufacturer. From a spill pallet to technical ventilation and roof drainage. We make sure that you meet all legal requirements and that the components of your hazardous materials store always meet the highest safety standards. Your hazardous material and safety cabinets as well as your spill pallets also retain their full functionality with our maintenance. We would be pleased to carry out a free inventory and consultation at your premises.



# OPERATING HAZARDOUS MATERIALS STORES SAFELY.

## PERMANENT OBLIGATIONS. FOR GOOD REASON.

As the operator, you are responsible for managing, monitoring and maintaining the hazardous material store in such a way that it is in a proper condition and can serve its intended purpose: the safe storage of hazardous substances.

For example, you must ensure that:

1. National regulations for the storage of hazardous substances as well as for work safety, water and environmental protection are observed;

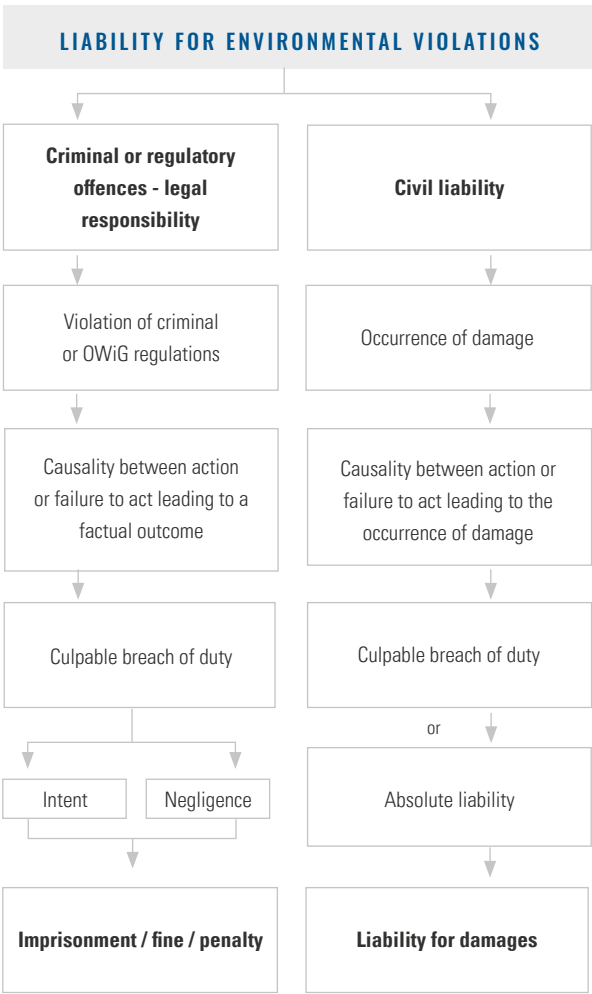
2. The hazardous materials store is always operated as intended in accordance with the company's safety and fire protection design and the explosion protection requirements according to Directive 1999/92/EC are observed;

3. Misuse and unauthorised access are prevented;

4. Operating faults and damage are immediately and professionally repaired;

5. Regular inspection intervals are observed and documented.

## YOUR RESPONSIBILITIES. OUR KNOW-HOW.



### WE ARE AT YOUR SIDE WITH ADVICE AND SUPPORT.

If there is an operational fault, the operator is always well advised to contact the manufacturer's service department first. A telephone call can often provide important information and help to solve any problems.

Our experts are here to support you and will be happy to advise you.  
[AFTERSALES@DENIOS.DE](mailto:AFTERSALES@DENIOS.DE) | +49 5731 753 216



### DENIOS WHITEPAPER. KNOWLEDGE GAINED IN OVER 35 YEARS.

The storage of hazardous substances is subject to strict regulations and laws for reasons of work safety and environmental protection. We regularly provide new and important information to operators of hazardous material stores and safety professionals as a whitepaper download on our website. Visit us online, with us you are always up to date.

- PLANNING HAZARDOUS MATERIALS STORES PROPERLY.
- OPERATING HAZARDOUS MATERIALS STORES SAFELY.
- EMERGENCY PLAN FOR HAZARDOUS MATERIALS STORES.
- CHANGES TO HAZARDOUS MATERIALS STORES.



To the whitepapers





## THE SIX MOST IMPORTANT TEST TO INSPECTION.

Regular inspection of the hazardous materials store is mandatory for good reason. Even a failed fan or blocked roof drainage can have devastating consequences. The following six components of the hazardous materials store should be checked regularly.

### 1. SPILL PALLET – KEEP FREE FROM CONTAMINATION AND LIQUIDS!

The spill pallet must be kept free of contamination and liquids. To ensure this, a weekly visual inspection is required by law. This must be documented. If a leak is discovered during the inspection of the spill pallet, you should act immediately. This is because you are legally obliged to guarantee the required containment volume at all times. If there is already liquid in the spill pallet, the legally-required containment volume is no longer guaranteed. The hazardous materials store is also designed for a specific storage medium, so that in the event of a leak, the resistance of the spill pallet is ensured. Before storing other media, make sure that resistance also applies to these substances. While the surface protection of the spill pallet can be restored by the operator, repair work may only be carried out by a WHG specialist company.

Particularly problematic substances, which release hazardous vapours for example, need to be quickly dealt with to counteract the risks. Emptying of the spill pallet should be approached in the same way as the cleaning up of any other leak.



### 2. TECHNICAL VENTILATION – USE 24/7!

To counteract concentrations of explosive or health-endangering gases during storage of hazardous materials, hazardous material stores are equipped with natural or technical ventilation. The ventilation must be permanently active and must not be covered, blocked or switched off. An odour nuisance can be a fairly harmless consequence. Air contaminated with health-endangering, toxic or explosive gases represents a high safety risk and must be replaced according to a legally prescribed air exchange rate (see TRGS 510). For a variety of substances, technical ventilation can be combined with a gas detector. This increases safety for both people and the environment.

In a store with technical ventilation, air extraction monitoring must be provided in accordance with TRGS 510, No. 12.6.2 (6). This can also be retrofitted. Technical ventilation and air extraction monitoring are subject to an annual inspection requirement. Ex-fans must be replaced approx. every 5 years or after 40 thousand hours in accordance with the manufacturer's operating instructions. The same applies if an assessment shows that heat or noise has become perceptible.



### 3. DOOR(S) – ENSURE SUFFICIENT LUBRICATION!

The pivot point of the door(s) must be greased regularly. Otherwise, there is a risk that the door will no longer close properly within a legally prescribed time window. This is particularly critical in the case of F 90 doors: if the proper door closing process fails, the hazardous materials store cannot withstand a fire.



### 4. FIRE PROTECTION FLAPS – OPERATE REGULARLY!

Operate the fire protection flaps manually at least once a month. Otherwise there is a risk that the spring will rust. The flap can then no longer close - with fatal consequences in the event of a fire.



### 5. ELECTRICAL COMPONENTS – ELIMINATE FAULTS IMMEDIATELY!

Before delivery, the manufacturer checks all electrical components of the hazardous materials store. Supply cables and connections must be provided by the customer. In accordance with DGUV V3/BetrSichV/VDE, the entire electrical system must then be inspected by an electrical specialist at regular three year intervals.



### 6. ROOF DRAINAGE – ENSURE RAINWATER DRAINAGE!

For outdoor installation, the gutters must be kept free of leaves, dirt, snow and ice. If the rainwater can no longer run away in a controlled manner, there is a risk of water penetrating the hazardous materials store. This can lead to considerable damage to the hazardous materials store and render the spill pallet unusable.





## EQUIPMENT SUBJECT TO INSPECTION.

### AIR CONDITIONING SYSTEMS.

- Inspection and measurement - all temperatures.
- Inspection and cleaning of the heat exchanger.
- Safety inspection for damage.

This service is carried out by a DENIOS AG partner.



### AIR EXTRACTION MONITORING.

According to the new version of TRGS 510 dated 16.02.2021, the function of the ventilation system must be monitored in stores with a technical ventilation system (e.g. by air extraction monitoring) if there is no sufficient assessment of the availability of the ventilation system according to TRGS 725.

**We recommend that your equipment is updated immediately by our qualified specialist personnel to ensure that it continues to meet the current safety requirements and regulations. Take preventive action to minimise your safety risks!**



### GAS WARNING EQUIPMENT.

Inspection according to DGUV Information 213-057 technical note T 023 and 213-056 technical note T 021.

- Visual inspection and indicator display test for portable gas warning equipment.
- Visual inspection of fixed gas warning equipment and systems.
- Functional test including calibration and adjustment.
- System inspection.
- Check of records.
- Documentation of completeness of above inspections.

This service is carried out by a DENIOS AG partner.



## SERVICE TECHNICIANS FOR ELECTRICAL AND MECHANICAL EXPLOSION PROTECTION.

Only qualified persons may carry out service measures on the electrical and mechanical explosion protection. Our service technicians are trained and qualified for this purpose. We will be happy to send you the relevant certificates on request.



## DID YOU KNOW?

### NO LIFETIME PROTECTION FROM HEAT SENSORS.

According to DIN 14677 "Maintenance of hold-open systems", the fire detectors of a hold-open system tested in accordance with DIBt must be checked regularly and maintained/repared by a specialist for hold-open systems.



MAINTENANCE MEASURE	TIME INTERVAL BETWEEN TWO REVIEWS	QUALIFICATION FOR HOLD-OPEN SYSTEM TYPE 1
Inspection	Not more than 3 months	Trained person
Maintenance	Not more than 1 year	Specialist for hold-open systems

This means that in your DENIOS system with a built-in hold-open system, the fire detector must be replaced after 5 years in order to comply with the generally recognised rules of technology and to ensure the full functionality of the hold-open system.

- In addition, the prescribed replacement intervals for the fire detectors must be observed.
- Regular replacement intervals ensure that the hold-open system is functional and ready for operation.

MAINTENANCE MEASURE	FIRE DETECTORS WITHOUT CONTAMINATION COMPENSATION	FIRE DETECTORS WITH CONTAMINATION COMPENSATION	FIRE DETECTOR WITH MANUFACTURER'S INFORMATION
Maintenance (replacement of the fire alarm)	After 5 years	After 8 years	According to the manufacturer

## WE WOULD BE HAPPY TO PROVIDE YOU WITH A CUSTOMISED QUOTATION FOR THE NECESSARY UPDATE

Do you have questions on our maintenance services, current legislation or about service and maintenance in general?  
**Don't delay - get in touch with our service specialists by email or call free on:**

[AFTERSALES@DENIOS.DE](mailto:AFTERSALES@DENIOS.DE) | +49 5731 753 216





## HAZARDOUS MATERIAL, CHEMICAL, ACID & ALKALI CABINETS.



### MAINTENANCE QUOTE.

Inspection according to DGUV regulation 1 / §14 BetrSichV / §4 ArbStättV.

- Inspection of general condition.
- Functional inspection and maintenance of mechanical parts.
- Safety inspection.
- Test of fire-protection technical usability (DIN 12925/EN 14470 cabinets only).
- Technical ventilation inspection.
- Visual inspection.


### RECIRCULATING AIR FILTER UNITS.

Replacement of the recirculating air filter unit filter.

- Inspection of the recirculating air filter unit.
- Replacement of the filter unit.
- Disposal of the old filter unit.



### TRAVEL EXPENSES.

For the maintenance of hazardous material and safety cabinets, a one-time travel fee per location will be charged if not covered by a package discount (**DISCOUNTS**  **FROM P. 8**).



## SPILL PALLETS (TECHNICAL/VISUAL).

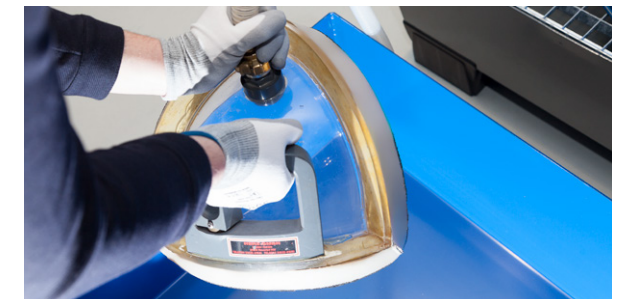


### MAINTENANCE QUOTE.


Inspection according to StawaR (steel) / DIBt approval (plastic).

- Technical sealing test using weld seam test process (vacuum pump).
- Visual inspection for damage, defects, corrosion and contamination.

### UNIQUE TEST METHOD.



### TRAVEL EXPENSES.

A one-time travel fee per site will be charged for spill pallet maintenance if not covered by a package discount (**DISCOUNTS**  **FROM P. 8**).





# SERVICE & MAINTENANCE FROM DENIOS.

EVERYTHING FROM ONE SUPPLIER.

## SECTION II

# HANDLING HAZARDOUS MATERIALS.

Use the DENIOS service to meet all legal requirements in connection with the handling of hazardous substances. As a manufacturer of high-quality safety solutions, we not only know exactly how the individual products function, but also what demands they are exposed to through daily operational use and how they must be maintained accordingly. In this way, the DENIOS service team ensures that the required high level of safety and protection is guaranteed at all times in your company with detailed checks of employee protection and intralogistics.



## INSPECTION OF PERSONAL PROTECTIVE MEASURES.

### HAZARDOUS SUBSTANCE WORKSTATIONS.

Inspection according to EC Directive 89/391/EEC / ArbSchG / ArbStättV.

- Inspection according to DIN 31051: visual inspection of the safe condition of the hazardous substance workstation including operational ventilation inspection using manufacturer's instructions and fault analysis.
- Immediate maintenance according to DIN 31051: measures to delay wear, function test of the function control unit, feedback from maintenance work.
- Immediate repair according to DIN 31051.
- Legal safety inspection: legally required marking, verification of documentation.



### FULL MASKS.

Inspection according to DGUV rule 112-190.


- Visual inspection of main components (mask body, clamps, visor, straps, connection piece with valves).
- Inspection of parts which have an expiry date.
- Testing of breathing valve opening pressure.
- Overall mask sealing test.
- Check of records.
- Visual inspection of speech diaphragm, visor wiper, helmet adaptor if necessary.
- Dimensional accuracy check for masks with a threaded connection if necessary.
- Incl. cleaning and disinfection.
- Incl. return shipment of the checked mask to the customer.

This service is carried out by a DENIOS AG partner.

**Note:** if a full mask is to be decontaminated, please provide information on the type of decontamination beforehand. The mask must be dispatched separately - this is compulsory.



### TRAVEL EXPENSES.

For the maintenance of hazardous material and safety cabinets, a one-time travel fee per location will be charged if not covered by a discount (discounts  from p. 8).



### EMERGENCY SHOWERS.

Inspection according to DIN EN 15154-2:2006 and BGI/GUV-I 850-0.

- Inspection of general condition.
- Check accessibility.
- Functional test.
- Check warning signs are fitted.
- Correct operation by pull handle or tilting lever.
- Shut-off valve closes automatically.
- Auto-draining between valve and shower head.
- Mounting height of shower head lower edge according to specification.
- Check service lock.
- Correct installation of emergency shower.
- Check for leaks.
- Flow rate according to specification.
- Check spray pattern.



### EYE SHOWERS.

Inspection according to DIN EN 15154-2:2006 and BGI/GUV-I 850-0.

- Inspection of general condition.
- Check accessibility.
- Functional test.
- Check warning signs are fitted.
- Mounting height of shower head upper edge according to specification.
- Dust cap for shower heads present.
- Check impact protection.
- Check hose for damage.
- Check service lock.
- Correct installation of the eye shower.
- Check for leaks.
- Flow rate according to specification.
- Check spray pattern/spray height.





## INTRALOGISTICS INSPECTIONS.

### DRUM HANDLING.

Drum lifter Secu Drive/Secu Ex.

Inspection according to DGUV regulation 54 / §14 BetrSichV / §4 ArbStättV.

- Inspection of general condition.
- Visual inspection for damage and defects (breaks, deformation, cracks, damage, wear, corrosion damage).
- Check for ease of movement of moving parts as well as load chain, lubricate if necessary.
- Check removable connections for secure mounting.
- Clean the drum lifter (if no harmful substances or deposits are present).
- Check the position of the clamping lever and the counter support.
- Check electrical conductivity.
- Check control unit battery if necessary.



### MOBILE FUEL TANKS.

Inspection according to 6.5.4.4.1a, 6.5.4.4.1b and 6.5.4.4.2 ADR.

- Check of type approval, marking.
- Visual inspection of the container.
- Control of the operating equipment.
- Check of safety equipment.
- If necessary, pressure test (sealing test).



### INSPECTION OF INDUSTRIAL TRUCKS.

Inspection according to DGUV regulation 68.

- Inspection of general condition.
- Functional test.
- Test sticker.
- Create test report.
- If necessary, clean and lubricate.
- Grease lifting chains if necessary.
- Check battery if necessary.

This service is carried out by a DENIOS AG partner.



### INSPECTION OF INTERMEDIATE BULK CONTAINERS (IBC).

Legal basis: inspection according to ADR 6.5.4.5.

- Extraordinary inspection of intermediate bulk containers (IBC) according to ADR 6.5.4.5.
- Visual inspection of the external condition.
- Visual inspection of the internal condition.
- Wall thickness measurement - check.
- Minimum wall thickness.
- Function of the operating equipment.
- Sealing test.

This service is carried out by a DENIOS AG partner.





## SERVICE & MAINTENANCE FROM DENIOS.

EVERYTHING FROM ONE SUPPLIER.

### SECTION III

## OTHER EQUIPMENT.

In the course of our service and maintenance activities at your site, we don't just focus exclusively on hazardous materials safety or on products from our own range. Our service philosophy allows us to always look further and act with foresight. We will create an exact record of all your equipment needing maintenance and submit a non-binding offer. This can significantly reduce your organisational effort. Take advantage of our free inventory of your additional equipment and individual consultation.

## TESTS FOR OTHER EQUIPMENT.

### BIO.X CLEANING TABLES.

- Insulation testing.
- Functional check of the components.
- Safety inspection of all functions, replacement of faulty components if necessary.
- Draining and refilling the tank.
- Visual inspection for damage and defects.



### STORAGE SYSTEMS.

Inspection according to DIN EN 15635 / DGUV 108-007.

- Visual inspection of all shelving for recognisable deformations, damage and missing components.
- Visual inspection to ensure compliance with safety guidelines in accordance with DIN EN 15635 and DGUV 108-007.
- Comparison of load information plates with actual assembly.
- Production of a test report and issue of test sticker.
- Recommendation regarding replacement of damaged parts.

This service is carried out by a DENIOS AG partner.



### INSPECTION OF LIFTING TABLES.

Inspection according to DGUV rule 100-500.

Operational test of the existing system:

- Check the joints (axles).
- Check the bearings and cylinder bolts.
- Check the protective device.
- Check the hydraulic components.
- Check the electrical components.

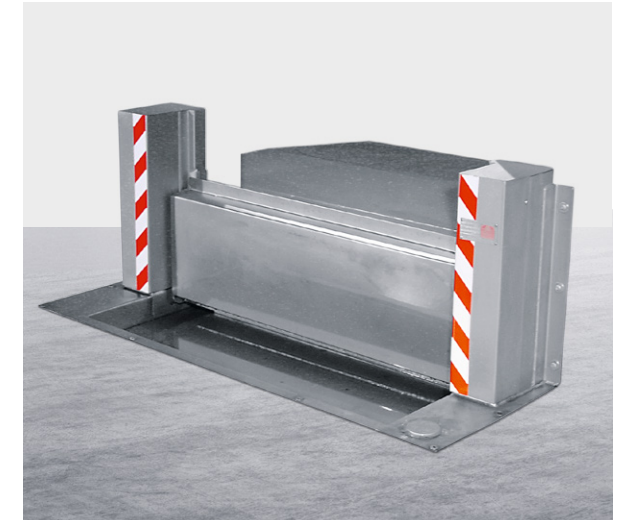
This service is carried out by a DENIOS AG partner.



### EXTINGUISHING WATER BARRIERS.

- Check correct storage.
- Check pressure lever operation.
- Check all bolts are correctly tightened.
- Check bearing blocks for sealing.
- Check seals for function.
- Deploy the spill barrier and check handling.
- Lubricate all moving parts.

This service is carried out by a DENIOS AG partner.



### FIRE EXTINGUISHER INSPECTION.

Inspection according to DIN 14406-4.

- General condition and check of the marking.
- Disassembly, cleaning and inspection of the components.
- Emptying the container and checking the extinguishing agent (volume, quantity, condition), filling the extinguishing agent container.
- Assembly.
- Apply seal, final inspection and maintenance certificate.
- If necessary, relieve pressure.
- If necessary, pressurisation.

A one-time travel fee per location will be charged if not included by a discount (**DISCOUNTS**  **FROM P. 8**).



### SMOKERS' BOOTHS.

- Check the filter unit.
- If necessary, replace the filter unit.
- Technical function test.
- Cleaning and recommissioning.





## FURTHER MAINTENANCE OFFERS.

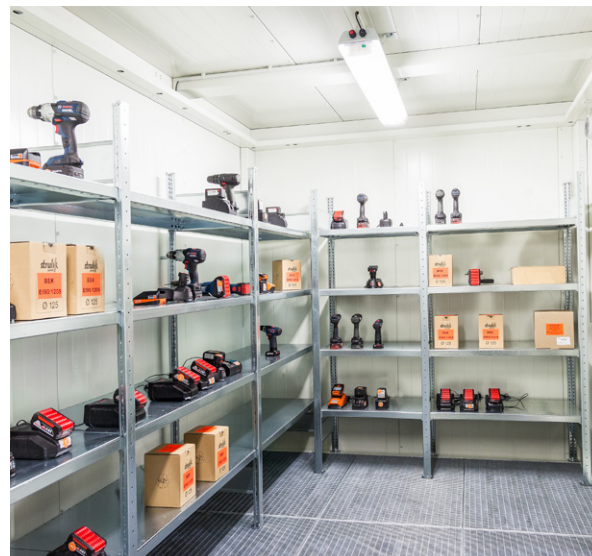
### STORAGE AND PROCESS TECHNOLOGY.

DENIOS manufactures safe and environmentally friendly storage technology in steel, as well as heat chambers and fume cupboards for process technology. Products are designed to suit the storage or process medium and the associated activities. Use our manufacturer service to maintain the value of your technical room systems and containment facilities and to ensure safety when handling hazardous substances. Trust the experts!

#### STORAGE AND TEST ROOMS FOR LITHIUM-ION BATTERIES. INSPECTION ACCORDING TO DGUV REGULATION 1 / § 14 BETRSICHV / § 4 ARBSTÄTTV.

The hazard potential when handling lithium-ion batteries is high. Deep discharge, fire, chemical reactions, explosion in the worst-case scenario – each individual situation means a risk for workers, companies and the environment. This is where DENIOS can help. For your safety we offer an appropriate maintenance program:

- Inspection of general condition.
- Visual inspection for damage and defects.
- Inspection of spill pallets for damage.
- Functional inspection of mechanical parts and doors.
- Safety check of all functions.
- Inspection of fire recognition if applicable.
- Inspection of heating if applicable.



#### HEAT AND COLD CHAMBERS. INSPECTION ACCORDING TO DGUV REGULATION 1 / § 14 BETRSICHV / § 4 ARBSTÄTTV.

Whether heating, cooling, tempering, melting or drying: we offer customised thermotechnology solutions for all industrial sectors that work with temperature-sensitive substances. The maintenance offer includes the following measures:

- Inspection of general condition.
- Visual inspection for damage and defects.
- Inspection of spill pallets for damage.
- Functional inspection of mechanical parts and doors.
- Safety check of all functions.
- Inspection of fire recognition if applicable.
- Inspection of heating if applicable.



#### CONTAINMENT SYSTEMS. INSPECTION ACCORDING TO DGUV RULE 109-002.

Work and production processes in many areas of industry and the chemical and pharmaceutical sectors require the handling of substances or materials which produce hazardous emissions while being processed. DENIOS worktables and multi-task workstations offer personal, product and room protection at the highest level, with explosion protection as an option. We'll provide an appropriate maintenance offer:

- Inspection of technical equipment parameters: air extraction flow, electric drive current draw, lighting intensity, noise level, ejector nozzle pressure.
- Inspection of all accessible mechanical components: visual inspection and functional check.
- Inspection of equipment operation: check of flow pattern using test smoke.
- Resetting of equipment parameters if required.
- Documentation of the measured values.



#### TECHNICAL SAFETY ROOMS. INSPECTION ACCORDING TO DGUV REGULATION 1 / § 14 BETRSICHV / § 4 ARBSTÄTTV.

High value, technical equipment and electrical installations are needed in all sectors. Often the technology is not just used in fixed buildings or rooms, for reasons of space. Mobile solutions are in demand for frequent infrastructure changes or for outdoor applications. This is where DENIOS technical safety rooms (TSR) are useful. The following activities are carried out during maintenance:

- Inspection of general condition.
- Visual inspection for damage and defects.
- Inspection of spill pallets for damage.
- Functional inspection of mechanical parts and doors.
- Safety check of all functions.
- Inspection of fire recognition if applicable.
- Inspection of heating if applicable.





## FULL SERVICE FOR YOUR HAZARDOUS MATERIALS STORE. ALWAYS AT YOUR SIDE.

We focus on personal advice and support from the very first contact. This is part of our corporate philosophy. At the same time, the storage of hazardous materials is a complex challenge, and it remains so even if the hazardous materials store has been with you for a long time - which is why we are always there for you. This is the only way to ensure that your project runs smoothly and that your equipment operates in compliance with the law. Everything from a single source: from project support to customer acceptance, transport, assembly, commissioning and return & recycling.





## INSTALL. COMMISSION. STAY SAFE.

You can rest easy with DENIOS: we'll take care of the safe delivery and professional assembly and commissioning of your room system. We also take care of regular maintenance and servicing on request.

### TRANSPORT TO THE INSTALLATION SITE.

Our worldwide logistics network ensures smooth travel arrangements for delivery. Whether we use our own DENIOS flat bed trailer or a trusted freight forwarder, we ensure your room system is transported safely and arrives on time. Even special transport (extra wide or extra high) and overseas deliveries are no problem. We will take care of all the arrangements including obtaining the necessary special permits. Appropriate transport packaging is of course ensured. If required we can also provide suitable lifting equipment for unloading and final assembly.

### INSTALLATION AND COMMISSIONING.

DENIOS technicians guarantee the professional installation of your room system and will work with you to complete the Site Acceptance Test including all installation and operational tests. Our standardised solutions can be commissioned immediately, as they have General technical approval; for customised projects approval from the authorities needs to be obtained. Right from the design and production phase, we take care of contact with the responsible authorities so that individual acceptance can proceed smoothly. Our specialist personnel will then instruct the users directly on the product and comprehensive product documentation will be handed over. DENIOS room systems: install, commission, stay safe!



The delivery of a DENIOS hazardous materials store takes place as a heavy transport by low loader.



A crane is usually used to install a hazardous materials store outdoors.





**GOOD PLANNING IS  
EVERYTHING.**

**TORBEN EISBERG HAS BEEN RESPONSIBLE FOR THE PROVISION OF SERVICE TECHNICIANS AT DENIOS FOR OVER 8 YEARS. IN THIS INTERVIEW, HE TALKS ABOUT THE SPECIAL FEATURES OF THE DENIOS ASSEMBLY SERVICE.**

### **MR. EISBERG, THE DENIOS ASSEMBLY SERVICE HAS EXPERIENCED EXPONENTIAL GROWTH IN RECENT YEARS. WHAT DO YOU THINK ARE THE REASONS FOR THIS?**

The operators of hazardous material stores are increasingly being made responsible by legislation for work safety and environmental protection, which also increases safety awareness. At the same time, the laws indicate that certain activities may only be carried out by specialist companies or qualified persons. Specifically related to the installation of a hazardous materials store, the Water resources law (WHG) stipulates that only specialist companies with a legally regulated quality seal may install, set up, maintain, clean or repair environmentally sensitive facilities.

Since we offer products, consulting and servicing from a single source, we are able to offer our customers a direct contact for all matters relating to their products and their applications. We have constantly expanded and improved our service. We did not always communicate this enough. So now we're placing a greater emphasis on this. The more customers learn that we are doing everything we can to fully support them in the commissioning of their hazardous materials store or heat chamber, the more inquiries we receive.

### **HOW IS THE DENIOS INSTALLATION SERVICE ORGANISED AND SET UP?**

If DENIOS receives an enquiry for a hazardous materials store or a heat chamber, our service technicians are already involved in the quotation phase. We know from experience that local conditions always present special challenges and that no two jobs are the same.

Often our customers underestimate the dimensions of the systems ordered and the handling involved. Transport, loading and unloading as well as the installation on site have to be planned and organised precisely. If our transport and assembly service is booked, then our customers can be sure that everything will work smoothly and no damage is caused by incorrect handling. In addition, our customers can be sure that the work will be carried out professionally by a WHG specialist company and that the system can be put into operation properly.

We have our own fleet of transport vehicles, with which we can cover many orders. We've been carrying out special transport and crane operations for many years together with regular partner companies. Our assembly technicians accompany the operation. After consultation with our customers, we take care of the entire handling operation, including suitable lifting equipment, work platforms, etc. All we need is knowledge of the conditions on site, and then we can plan and implement the entire process. Our technicians are located nationwide, ensuring rapid availability. Each technician has his own vehicle, fully equipped for the installation. If something does go wrong on site, the technician can react quickly because he always has the right tools and materials with him.

### **WHAT DOES A TYPICAL ASSEMBLY OPERATION LOOK LIKE?**

Two weeks before the delivery date, our technical contact who will be responsible for the operation of the hazardous materials store or heat chamber will receive an e-mail from us. We'll ask whether any relevant changes have been made to the conditions on site since the order was placed and request pictures of the current installation situation. Safety instructions or access restrictions that our technicians can expect on site are also requested.

The next step is notification of the transport. Depending on the dimensions of the transport, inquiries are made about driving prohibitions or special transport permits for the approach route. Any required lifting equipment, work platforms etc. are ordered depending on the customer's specifications.

One week before delivery, we inform the customer of the names and contact details of the appointed technicians. The service technicians have all the necessary qualifications and experience to carry out the planned work.

On the day of installation, the hazardous materials store or heat chamber is usually delivered assembled and ready for connection after passing the factory acceptance test (quality check and function test). Our technicians ensure the proper installation and ground anchoring of the system. This only works if the foundation meets the static requirements. On the customer side, the power and equipotential bonding are now connected.

### **WHAT PROBLEMS CAN ARISE IF A CUSTOMER CHOOSES NOT TO USE THE PROFESSIONAL SUPPORT OF THE DENIOS INSTALLATION SERVICE?**

When we carry out maintenance, we occasionally come across systems that were not supplied and installed by us. We know that supposedly small faults can often pose a significant risk. For example, we see fire-rated hazardous materials stores still sitting on their transport timbers. These systems meet neither the static requirements nor the fire protection specifications.

In addition, the floor and spill pallet can flex over time. The containment function for water protection is then no longer provided. The doors can also warp, so that the closing mechanism no longer grips properly.

We've also come across fasteners that have been drilled through the spill pallet. This means that the system can no longer be used for the storage of hazardous substances. Incorrect handling during transport also frequently causes damage, which results in significantly higher costs than using our installation service. We therefore advise customers very carefully in advance if they are uncertain about the costs and expenses.



## REPAIRS AND SPARE PARTS.

### RELIABLE RETURN TO ORIGINAL CONDITION.

For good reason, safety-relevant components may only be repaired by qualified specialists. A faulty repair can have serious consequences for both people and the environment. Our DENIOS service technicians have the specialist knowledge, qualifications and equipment to carry out service work on fire and explosion protection equipment. In addition, our manufacturer service offers the great advantage that all repair and wear parts can be replaced and installed in accordance with the original design, in identical construction and quality. This ensures that the original condition is restored.

#### FOR A FUNCTIONING SYSTEM AS A WHOLE.

The designers and engineers at DENIOS ensure that all the components of the hazardous materials store work together perfectly. This enables a perfectly functioning overall system. For example, the DENIOS RFP SD fire-rated store with sliding doors and built-in shelves consists of approx. 110 components in various functional groups. These include fire and explosion protection components as well as electrical components, which only specially qualified persons are allowed to maintain and repair. DENIOS offers spare parts in original quality that are available quickly at any time, as well as repairs by first-class trained and qualified specialists.



In the DENIOS RFP SD fire-rated store, 110 components work together perfectly in various functional groups. In the event of a defect, they can be replaced by DENIOS with the original quality.

#### AVOIDANCE OF EXPENSIVE CONSEQUENTIAL DAMAGE.

If parts within a function group are repaired and replaced and the original condition is not maintained, this can lead to functional restrictions, consequential damage and loss of quality or a shortened product service life. In the case of control-relevant components, non-professional intervention can also result in significant malfunctions. The repair of such malfunctions and functional limitations often comes at considerable additional cost. But it doesn't have to come to that - DENIOS offer free, non-binding advice at any time, even on site. We ensure cost transparency and a fair dialogue in which we examine your concerns individually and weigh up the necessary measures together.

#### COMMON CAUSES OF REPAIRS.

DENIOS hazardous materials stores are extremely robust and durable. If they are handled with care during operation, they can provide decades of reliable service. However, certain repairs are inevitable due to natural wear and tear. Here is an overview of possible causes for repairs:

- Lack of/bad maintenance by third parties.
- Lack of operator training.
- Non-observance of storage regulations (e.g. storage of corrosive products without PE inliner).
- Incorrect operation of the electrical components.
- Pulling on doors held by retaining magnets without triggering the door hold-open system.
- Wear and tear due to age.
- Replacement intervals specified by the manufacturer.
- Damage due to environmental influences.
- Collision damage during manoeuvring and storage and retrieval.



The components of the technical ventilation and recirculated air heating can be replaced at any time by DENIOS in original quality.



# HAZARDOUS MATERIALS STORES - RECONDITIONING.

## FOR RELIABLE BASIC MAINTENANCE AND FUNCTIONAL SAFETY.

Suppose you buy a new car and then leave it - without driving it - outside on the side of the road for a year. Even if there is no wear and tear caused by driving, the vehicle will be exposed to a variety of external influences over time: from heat and UV radiation to hail, cold and frost. Even bird droppings and harmful emissions can take their toll on the paintwork. Dents and cracks in the paint, paint erosion and decomposition can result. The seals and electrical components can also lose quality and function under poor conditions. In order to determine and repair the actual extent of the damage, it would be essential to have the car thoroughly inspected and reconditioned before your next trip. It's a similar story with a hazardous materials store.

Professional reconditioning provides basic renewal and preservation as well as the necessary stability and functional safety. Professional servicing ensures targeted failure and damage prevention can be achieved; avoiding considerable consequential costs. In addition, a permanently well-maintained appearance contributes to the high-quality overall condition of the hazardous materials store.



Collision damage to the hazardous materials store.

### QUALITY-REDUCING FACTORS THAT MAKE REWORK NECESSARY:

- Weathering and aging processes.
- Wear/deformation due to increased stress,
- Mechanical (impact) damage.
- Improper installation, e.g. on an unsuitable surface or without professional ground anchoring.
- Exposure to industrial emissions in the direct environment (contact with process exhaust air).
- Change in legal regulations or other external circumstances.

### DENIOS RECONDITIONING SERVICE:

- Paint treatment to maintain corrosion protection and stability.
- Inspection and, if necessary, replacement of electronic components or their parts: in particular fans, air conditioning, heating, technical ventilation, fire detectors, door hold-open system, lighting.
- Replacement of wear parts (seals, retaining magnets and anchor plates, fire protection flaps, door sequence controllers, fittings and door handles, etc.).
- Overhaul of the rolling apparatus for sliding doors.



### FOUR SIMPLE STEPS TO PROFESSIONAL RECONDITIONING:

1. You email us pictures of the hazardous materials store in question. A DENIOS service technician will carry out a free, non-binding survey at your premises.
2. After a consultation including joint consideration of the measures and costs, an individual offer is prepared.
3. Once agreed, our service technicians carry out the reconditioning work on the hazardous materials store on site.



**DENIOS SERVICE TIP:**  
**HAVE RECONDITIONING WORK CARRIED WITHIN 5 YEARS\* AT THE LATEST.**

Not sure what state your system is in? Simply take advantage of the free, no-obligation reconditioning check from DENIOS. We'll assess the situation on site and, in dialogue with you, advise which measures should be taken.

\* If your store is subject to harsh conditions, this period is shortened accordingly. **Enquire now:** [+49 5731 753 216](tel:+495731753216) | [AFTERSALES@DENIOS.DE](mailto:AFTERSALES@DENIOS.DE)





## CHANGES AND EXTENSIONS TO YOUR HAZARDOUS MATERIALS STORE.

### A SYSTEM THAT GROWS TO MEET YOUR NEEDS.

With a DENIOS solution, you're in the best place. Right from the start, all with comprehensive support. Right from the planning and production stages, we take into account your requirements as well as current laws, standards and necessary certifications down to the smallest detail. If you need to make changes during operation or if you need to expand, we'll remain your first point of contact.

#### INTEGRATION INTO THE OVERALL SYSTEM.

As manufacturers and developers, we know exactly how new components can be perfectly integrated into the existing system and how all changes must also be checked for legal compliance.

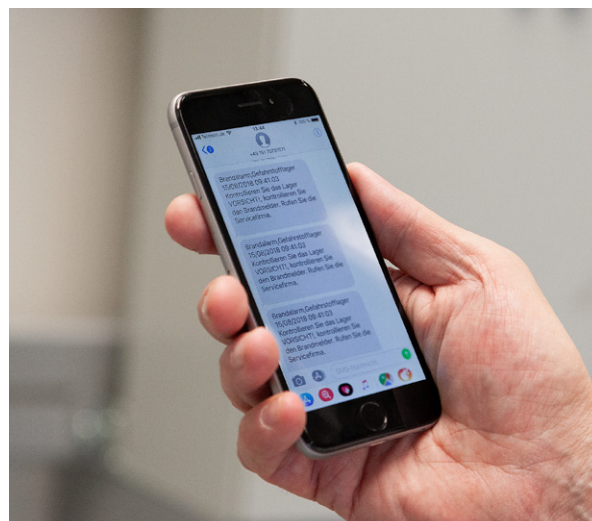
Technically, it is not expedient to add new equipment without considering its effect on the overall system. This is why DENIOS specialists check the static criteria and the continued smooth functioning of the electrics and control technology very carefully before making any changes.

#### EQUIPMENT OPTIONS.

There are hardly any limits to the range of equipment options. In a personal consultation on site, your individual requirements are analysed by our experienced consultants and all measures are agreed with you in detail.



**Think Green:** use your green fingers and increase the insulation value of your hazardous materials store at the same time.



**The advent of digitalisation:** digital access systems, touch panels, video monitoring, data-based services for condition monitoring or warehouse management are changing work processes

An overview of further equipment options can be found in the brochure "Storing hazardous substances safely."  
Download now for free at





## COLLECTION AND RECYCLING.

### OUR CONTRIBUTION TO RESOURCE EFFICIENCY.

DENIOS offers professional support from planning to installation and regular maintenance - and also takes care of the return of old systems. This reduces the organisational effort for our customers enormously. The entire system, including attachments and fixtures, is transported away by the DENIOS installation service. All further steps in the return process take place at our site and are carried out just as carefully and professionally.

#### OUR SERVICES:

- Selection of suitable recycling partners and disposal companies.
- Loosening of anchors, crane/forklift loading and transport of the system by low loader.
- Proper and environmentally compatible dismantling on our premises.
- Expert examination of recycling possibilities, execution of all dismantling steps and separation of valuable and harmful materials.
- Forwarding of recyclable materials for recycling.
- Proper, harmless disposal of materials that can no longer be recycled.

#### YOUR ADVANTAGES:

- Minimal organizational effort.
- Complete cost control.
- Possibility of cost-optimised replacement of the old system with a new one.



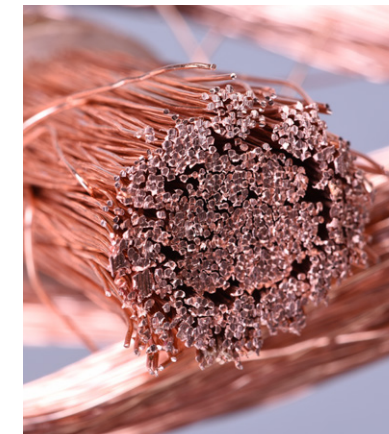
The hazardous materials store is transported in its entirety to the DENIOS site.

### DISMANTLING INTO COMPONENTS FOR RECYCLING AND HARMLESS DISPOSAL.

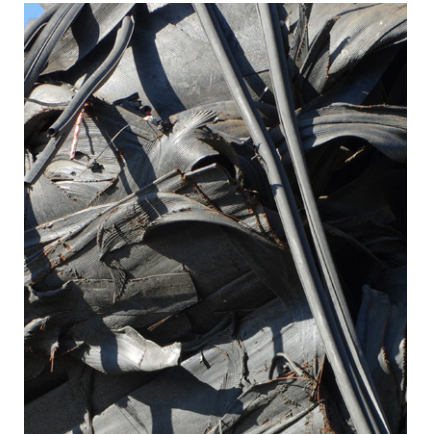
The pictures show examples of materials.



Steel



Copper



Rubber



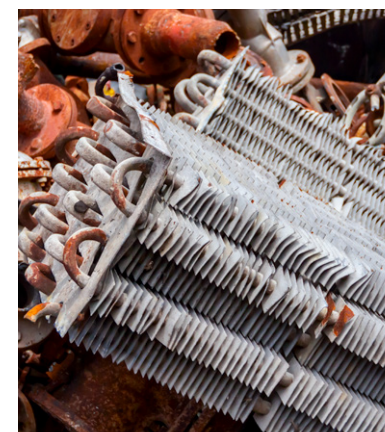
Stonewool



Bitumen



Cable



Coolant



Air conditioning systems



Plastic



## DENIOS CONNECT. SMART CONDITION MONITORING.

Anyone who stores hazardous materials must be certain at every moment that everything is in order and safe. The operation and maintenance of a hazardous materials store is subject to comprehensive legislation. With our data-based services, we support you in the legally compliant and efficient operation of spill pallets, hazardous material stores and heat chambers. Safety-relevant fault events are recorded in real time and an alarm is triggered in the event of an emergency. In addition, DENIOS connect and condition monitoring give you access to operating data, inspection, maintenance and documentation obligations at any time.





## SECURELY NETWORKED. CONDITION MONITORING FOR HAZARDOUS MATERIALS STORES.

### USE OUR DENIOS CONNECT SERVICE - ANYTIME, ANYWHERE.

As an operator, you know that you must regularly check the proper condition of your hazardous materials store, as required by law. This inspection must comply with the specific requirements of the Industrial safety regulation (BetrSichV) for the risk in question, e.g. in the case of fire and explosion hazards. In addition, a weekly visual inspection must be carried out for spill pallets in accordance with the Water resources law (WHG). DENIOS connect offers you optimum support so that you can complete all the necessary checks properly - with the help of practical data transmission and intelligent condition monitoring solutions.

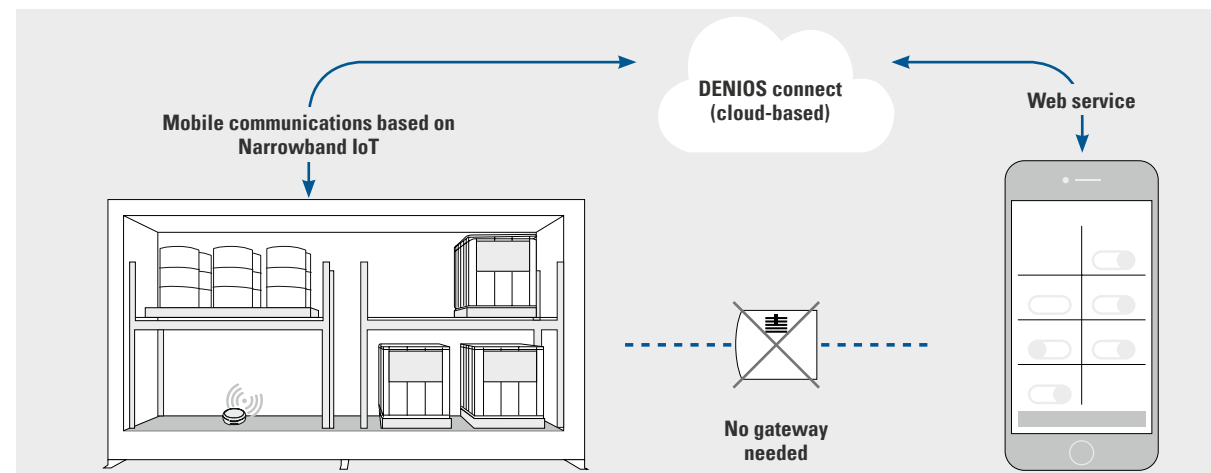
#### Our service for you: permanent condition monitoring and remote access to operating data.

Regardless of whether you are on the move on your company premises or on standby duty: the active DENIOS connect sensors permanently monitor the condition of your hazardous materials store and spill pallets. If there is a leak, smoke or other fault, DENIOS connect sends you an alarm - in real time as an SMS or e-mail on your smartphone, tablet or desktop PC. You can react immediately, saving valuable time as well as any subsequent costs for rectifying the situation. The incident report documenting the event can be easily downloaded as a PDF. In addition, a reminder function ensures that you never miss a maintenance appointment. DENIOS connect makes hazardous materials storage safer and more sustainable than ever before.

### STATE-OF-THE-ART MOBILE COMMUNICATIONS TECHNOLOGY: NARROWBAND IOT.

DENIOS connect is a user-friendly, cloud-based web app. It has been tested according to the latest security criteria and complies with the strict rules of the General Data Protection Regulation. NarrowBand IoT, currently the most efficient mobile network technology for applications such as DENIOS connect, is used for data transmission. Independent of your company network, you will have access to the relevant data and alarm messages from your

hazardous materials store at any time and from practically anywhere in the world. Narrowband IoT is based on LTE and uses the associated 3GPP security mechanisms. The technology is specially designed for smaller data volumes and dispenses with unnecessary LTE functions. It therefore offers particularly cost-effective and reliable mobile communication.



### WEB APP - QUICK AND SIMPLE TO ACTIVATE.

The DENIOS connect web app can be activated in just a few steps. When you purchase a DENIOS connect product, you'll receive a registration code to enter when you register for your company account. The assignment of admin and user roles as well as passwords are easy to manage in the application itself.

All your products are clearly displayed on the DENIOS connect user interface. Recipients for the alarm messages can be saved and the type of notification selected: SMS and/or e-mail. Choose from predefined details for the

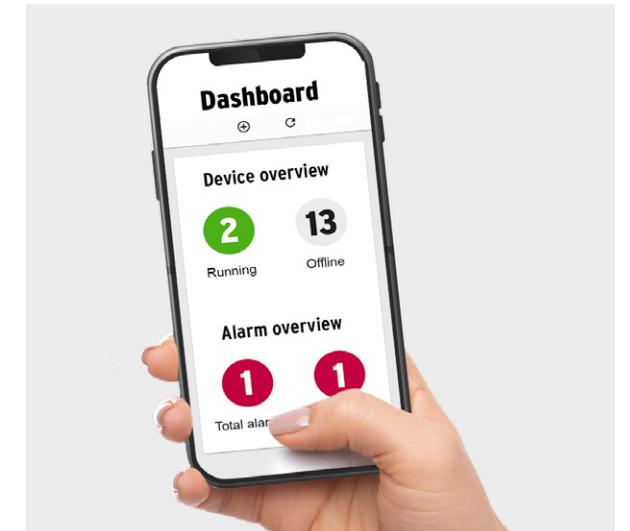
message text. Alternatively, you can opt for the "free text" option. In addition, you'll have access to dashboards and detailed information on your networked DENIOS products.

If there are several hazardous materials stores and spill pallets on your premises, you will of course be informed of the exact location with the alarm message in the event of a malfunction.

### MEASUREMENTS FOR CONDITION MONITORING.

For the following safety-relevant components of the hazardous material storage facility are a permanent status recording, alarm configuration and notifications via SMS and/or e-mail are possible:

- Room temperature.
- Air conditioning (operation/fault).
- Technical ventilation (operation/fault).
- Heating (operation/fault).
- Door control unit/fire alarm (fault).
- Door (open/closed).
- Central power supply (operation/power failure).
- Gas sensor (fault).
- Leak sensor (fault).
- Upcoming maintenance (info).



### SPILLGUARD® CONNECT LEAK RECOGNITION.

The first warning system of its kind: fully autonomous, operated at the push of a button and suitable for fitting to any spill pallet, at any time. SpillGuard® connect safely detects dangerous leaks and sends a leak warning message via SMS and/or email to your smartphone, tablet or desktop PC. You can react immediately, saving valuable time in cleaning up the leak as well as any subsequent costs.



### YOUR ADVANTAGES WITH DENIOS CONNECT.

- Reliable alarms in the event of a fault, in real time.
- Early detection of process risks.
- Targeted fault management to avoid downtime.
- Reduced administrative costs for operation and maintenance of the hazardous materials store.
- Direct connection to DENIOS Service.
- Complete, up-to-date documentation to meet legal requirements.
- Repair status and maintenance plans online.
- Permanent condition monitoring and remote access to operating data.

### TEST DENIOS CONNECT – LIVE.

See the advantages of DENIOS connect technology for yourself in a live demonstration.

Find out more now and arrange a free consultation: +49 5731 753 455 |





## ADVICE FROM DENIOS. PROFESSIONAL AND INDIVIDUAL.

The storage of hazardous substances is subject to strict regulations. This makes it all the more important to have a competent partner at your side when planning and developing a hazardous materials store. Our experienced consultants are there for you at any time and can visit your company to carry out an in-depth analysis and offer advice. Contact us to arrange an appointment.





## WE ARE HERE FOR YOU. FROM THE BEGINNING. AND FOR AS LONG AS YOU WANT.

DENIOS has been developing and producing safe and legally compliant hazardous materials storage technology for over 35 years. But that's not all. We always take a holistic and forward-looking view of your task. With individual advice, an understanding of local legislation, a wide range of products and qualified service, we offer a complete portfolio of services from a single source and are a competent partner at your side throughout the entire product life cycle.



### ALWAYS AT YOUR SIDE.

#### ● Project inquiry for a new hazardous materials store

You are welcome to make a project enquiry without obligation **by calling ☎ +49 5731 753 455 or by sending an e-mail to ✉ SALESBERATERES@DENIOS.DE**. We will get back to you as soon as possible.

#### ● Needs analysis and free, on-site advice

To ensure that the project runs smoothly without any surprises, it is important that our technical experts get a precise picture on site and analyse your individual requirements with you in detail.

#### ● Planning & Project management

Reliability in planning is important for both sides, which is why we'll give you a binding delivery date. For a project, a direct contact will coordinate the project and ensure adherence to deadlines.

#### ● Production

Whether standard or customised solution, thanks to state-of-the-art production and excellent quality management, you'll receive a wide range of high-quality products.

#### ● Transport, assembly & commissioning

Thought of every detail? Let us handle transport & installation. We'll check the conditions on site in advance so that everything runs smoothly on the day of commissioning.

#### ● Service & maintenance

After commissioning, you as the operator are responsible for the maintenance and proper condition of the system. Our services support you to comply with your obligations.

#### ● Collection & recycling

▼ If you wish to replace your hazardous materials store with a new one from DENIOS, we will take back the old system and ensure that as many of the materials as possible are recycled.



## PASSING ON KNOWLEDGE.

### PRACTICAL INFORMATION AND TRAINING.



Shared knowledge is valuable and has a long-term value - for individuals and the common goal: how are hazardous substances moved and stored safely to protect people and the environment? The varied information available from DENIOS includes informative newsletters and practical guides to comprehensive reference books on the storage of hazardous substances. In our DENIOS Academy, you and your employees can also take part in practical training courses - at your premises or online as a webinar.

#### IN-HOUSE TRAINING COURSES.

Personalised training on the topics of "environmental protection and work safety" at your company.

#### ONLINE TRAINING COURSES.

In addition to classic in-house training courses and classroom events, you can also book all the essential training courses at the DENIOS Academy as online seminars.

#### OPEN TRAINING COURSES.

Seminars and training for fire protection or safety officers: learn about important legislation and always stay up to date.

#### DISCOVER OUR DIGITAL SEMINAR OFFER NOW.

- High flexibility with regard to venue and time.
- No travel and accommodation costs.
- Certified courses and qualifications.
- Proof of training is provided by certificates of participation with VDSI points.

**DENIOS.**  
ACADEMY

#### DENIOS HAZMAT MANUAL.

Your guide to safe hazardous material storage: this expert reference book provides valuable tips on working with and handling hazardous substances as well as an overview of current regulations and laws:

Environmental liability and environmental protection law, Emission protection law, Occupational health and safety law, Water law, Chemical law and Public building law.



#### DENIOS GUIDES.

In our practice-oriented guides you will find competent and comprehensible answers to all your questions. Get expert tips on hazardous materials handling, work safety, explosion protection and many other areas of everyday operations.



#### THE DENIOS NEWSLETTER.

Subscribe to our newsletter and stay up to date: find out all about new offers, products and services. Benefit from tips, advice and the expertise of the DENIOS Academy.





## PARTNERSHIP IS OUR MOTTO.

### KEY ACCOUNTS AT DENIOS.

DENIOS Key Account Managers are there for you in person, wherever you are in the world and will work alongside you. As a client, you'll benefit from individual support and our expertise in local legislation. With a dense, international network of sales and production locations, you'll receive the products you need promptly and cost-efficiently.



## E-PROCUREMENT.

### SAFE PURCHASING AT DENIOS.

With 15 years of experience in e-business, DENIOS AG is the professional partner for major customers. Or to put it another way: e-procurement comes as standard, in 14 languages, with more than 200 active electronic catalogues and over 14,000 items. As a developer and manufacturer, we offer the largest range in the field of safety-relevant business equipment and work safety. And we go one step further: everything is adapted to your individual requirements, country-specific and legally compliant. At the same time, as a major customer you'll benefit from framework agreements, confirmation of conditions, audit security and a purchasing advantage with exclusive conditions.

#### YOUR ADVANTAGES.

- With more than 14,000 items, the largest product range in the field of operational environmental protection, directly from the manufacturer.
- Product selection individually tailored to your needs.
- Over 15 years experience in e-business and over 200 catalogues in various formats.
- Available internationally, in 14 languages.
- Additional information available as a PDF download to help you use our products in compliance with the law.
- Standards such as BMEcat, eCI@ss, UNSPSC.
- EDI interfaces for fast document exchange.
- OCI interface for integration of the DENIOS online shop into your ERP system.

#### RECOMMENDED BY SAP ARIBA.

As an expert in e-business, we have been part of the Ariba Network for years. This digital marketplace with trading partners from 190 countries, does USD 3 trillion worth of business. DENIOS is the first company from the environmental technology sector to be recommended as a preferred supplier.

Discover what we can do. And feel free to contact us so that you can benefit from a professional partner in environmental protection and work safety at Ariba.

#### Contact us for more information!

TEL.: +49 5731 753 460

E-MAIL: [KEYACCOUNT@DENIOS.DE](mailto:KEYACCOUNT@DENIOS.DE)



#### Our e-procurement partners





## YOUR SHOP FOR HAZARDOUS SUBSTANCE SAFETY.

### OVER 14,000 PRODUCTS CAN BE ORDERED DIRECTLY.

When it comes to hazardous materials safety, industries from all over the world rely on DENIOS. Today, our range comprises more than 14,000 products. It all started with a simple but innovative product idea: the spill pallet. In over 35 years, we have developed numerous other innovations: you'll find a quality product in our product range for every daily task, for every application and for almost every conceivable requirement.



#### HAZARDOUS MATERIALS STORAGE.

- Spill pallets.
- Dispensing stations.
- Spillage decking.
- Hazardous substance storage and safety cabinets.



#### HANDLING HAZARDOUS MATERIALS.

- Absorbent materials.
- Leak management.
- Drum handling.
- Gas cylinder handling.



#### FUEL TANKS & TRANSPORT CONTAINERS.

- IBCs.
- Drums.
- Canisters.
- Safety containers.



#### CLEANING AND DISPOSAL.

- Parts cleaning and washing tables.
- Surface cleaning.
- ASF and ASP containers.
- Waste oil containers.



#### WORK SAFETY.

- Safety barriers and impact protection.
- Personal Protective Equipment.
- Emergency showers and eye wash stations.
- Workplace matting and floor coverings.



#### PRODUCTION AND OPERATION EQUIPMENT.

- Transport and storage containers.
- Shelving.
- Transport and lifting equipment.
- Equipment cabinets and lockers.



**VISIT THE DENIOS ONLINE-SHOP NOW!**

Get to know the entire DENIOS product range in our online shop and order directly. Thanks to extensive search functions, you can quickly find the right product to meet your requirements.





## STAY IN TOUCH!

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