



STORAGE OF HAZARDOUS SUBSTANCES



The basics of hazardous material storage



When storing hazardous materials, various basic legal conditions are to be observed. The essential relevant information is presented below.

Cause for concern principle:

Water is the most important foundation for life and is irreplaceable. This fact has always been true, and endangering the water supply is a threat to our future. This is why the so-called “cause for concern principle” is central to the (German federal) Water Resources Management Act. In the words of a lawyer: “Cause for concern exists not only when a harmful event is likely to occur but even as soon as a harmful event is not unlikely to occur.”

- ✓ Determine your water hazard class
- ✓ Note the classification of flammable liquids (see table on right)
- ✓ Observe the legal requirements
- ✓ Ensure that your collection trays are positioned correctly
- ✓ Check that your tray is made from a material that is resistant to the media held in it



Examples	WGK	GHS
Alcohol (ethanol), acetone	1	extremely flammable
Anti-freeze for radiators (glycol)	1	not flammable
AdBlue®	1	not flammable
Diesel fuel/heating oil	2	liquid with flash point > 55 resp. 60 °C
Normal petrol	3	highly flammable
Unused lubrication oils	2	not flammable
Old oil (known origin)*	3	liquid with flash point > 55 resp. 60 °C
Old oil (unknown origin)*	3	highly flammable
Coolant lubrication emulsion	3	not flammable
CKW (Tri, Per, etc.)	3	not flammable



The ABCs of hazardous materials

Water polluting classes (WGK)

The German Water Management Act (WHG) sets out substances that are hazardous to water and how to handle them. According to an ordinance (AwSV) under the WHG, system operators are obligated to classify the substances and mixtures they use into one of three water pollution classes (WGK), for the purposes of handling these substances that are hazardous to water:

- WGK 3 Highly water-hazardous substances,**
e.g. petrol, used oil, halogenated solvents
- WGK 2 Distinctly water-hazardous substances,**
e.g. diesel, lubricating oil, toluene
- WGK 1 Low water-hazardous substances,**
e.g. rapeseed methyl ester, AdBlue®, acetic acid

The classification is generally carried out by the manufacturer or distributing company. Operators can find the information on the water pollution classes in the safety data sheets of the products they use. The law does not prescribe a WGK label on the container packaging.

If you mix substances to create a mixture that is not yet classified, you must do so yourself in accordance with the AwSV (see AwSV appendix 1). There are rules concerning mixtures that can be used to derive the WGK of a mixture from the WGKs of the constituent substances. Available toxicity data may also be used in certain cases. **Document the self-classification carefully** (see AwSV appendix 2). The substance lists of hundreds of substances that have already been classified in the annexes of the now obsolete VwVwS provide a brief guide.

Classification of flammable liquids

After the German Ordinance on Industrial Safety (BetrSichV) replaced the previously valid ordinance on flammable liquids (VbF), the Technical Regulations for Handling Flammable Liquids (TRbF) ceased to be in force at the start of 2013. They were replaced with the Technical Regulations for Industrial Safety (TRBS) and the Technical Regulations for Hazardous Substances (TRGS). One particularly important element is TRGS 510 "Storage of hazardous substances in mobile containers", which substantiates the requirements of the Hazardous Materials Act, such as those concerning responsibilities, approvals, hazard assessments, operating instructions and briefings, warehouse configuration, transport routes, etc.

The VbF also ended the classification of flammable liquids into the previous hazard classes A I to A III and B.

Flammable liquids used to be classified according to the Hazardous Materials Act (GefStoffV) as follows:

- Extremely flammable (flash point < 0 °C)**
- Highly flammable (flash point < 21 °C)**
- Flammable (flash point 21 - 55 °C)**
- Liquids with a flash point > 55 °C**

Today, the GHS provides the following categories (see table for examples):

Extremely flammable liquids H224

- Flashpoint < 23 °C
- Boiling point ≤ 35 °C

Highly flammable liquids H225

- Flashpoint < 23 °C
- Boiling point > 35 °C

Flammable liquids H226

- Flashpoint 23 °C - 60 °C

Liquids with a flash point above 100 °C are not considered flammable, e.g. lubrication oil.

TIP:

Workshops, for example, can save a lot of work by keeping these two origin types separated, and avoiding admixtures of petrol or solvent residues.

Important legal provisions

- Water Resources Management Act (WHG)
- State Water Resources Management Act (LWG)
- Ordinance on installations handling water polluting substances (AwSV)
- Technical Regulations for Industrial Safety (TRBS)
- Technical Regulations for Hazardous Substances (TRGS)
- Health and safety at work act (BetrSichV)

- Ordinance on Hazardous Substances (GefStoffV)
- European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR)
- GHS Globally Harmonized System of Classification and Labelling of Chemicals

We will be happy to advise you on this topic.

Collection volumes

General rule: The collection tray must be able to hold at least 10% of the total storage volume or the contents of the largest container stored above it. The tray volume must therefore be equal to the largest of these two volumes. A special regulation applies in water protection areas: Here, it is necessary to guarantee a 100 % capture volume for the media stored.

Material resistance

Selection of tray material is dependent on the media stored. In most cases, the high resistance properties of GRP (see page 146), make it a suitable choice.

Approvals

According to the WHG, tanks and collection trays used for the storage of substances that are hazardous to water require a certificate of usability issued by the construction inspection authorities, e.g. a general construction inspection approval.

TIP:

An approved collection tray is not required for a total storage volume of < 220 L of liquid, water-hazardous substances.

Guidance for the storage of hazardous materials

THE FOLLOWING QUESTIONS MUST BE CLARIFIED PRIOR TO PRODUCT PROCUREMENT:

(Here we have used the example of the most frequently encountered hazard categories “hazardous to water” & “flammable”

STEP 1

- Has the liquid been classified as hazardous to water and/or flammable?
(see safety data sheet and hazard pictogram)

STEP 2

- Number of containers to be stored?
- Size of the container (e.g. canisters, drums, IBCs)?
- Is the collection volume of the tray sufficient?
- Is the tank manufactured from resistant material?
- Passive storage or active storage?
- How and by what means will loading take place (e.g. lift truck)?

Specific storage requirements

LIQUIDS THAT ARE HAZARDOUS TO WATER AND/OR FLAMMABLE



HAZARDOUS TO WATER



FLAMMABLE

- selecting a position (e.g. observe safety distance)
- condition of storage area (e.g. fire-resistant F90)
- explosion-proof electrical equipment
- earthing
- sufficient ventilation
- fire extinguishing system where necessary
- fire protection requirements
- further official requirements



Collection trays

Spill trays



Spill pallets/sumps for drums



IBC bunds



Workfloors/ground protection systems



Bunds over multiple levels



Collection trays in comparison

Characteristic

GRP	PE	steel
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CORROSION RESISTANCE

Trays must remain impervious to liquids across their entire service life and may not be impaired in this function.

No corrosion across entire service life.

No corrosion across entire service life.

Vulnerable to corrosion: check regularly.

COMPULSORY CHECKS OF THE TRAY BASE

The underside of the collection tray and the grating must be visually inspected every two years. The result must be recorded and presented to the responsible water authorities upon request.

No compulsory check, as material does not corrode.

No compulsory check, as material does not corrode.

Vulnerable to corrosion: regular checking and recording compulsory.

CLEANING THE INSIDE OF THE TRAY

The operator must check at least once a week by means of visual inspection whether any liquid has leaked out of the containers. Any liquid that has leaked out must be removed immediately.

Smooth inside surfaces make it easy to clean the tray if necessary.

Necessary reinforcements make cleaning harder.

Smooth inside surfaces enable simple cleaning.

TRAY STRENGTH

The walls of the tray must be dimensioned in such a way that they absorb the forces acting upon them. The trays may only be placed on suitable surfaces.

The material structure enables both high strength and low wall thickness.

High wall thicknesses and reinforcements are necessary for strength.

Required minimum wall thickness 3 mm.

TRAY HANDLING

The handling characteristics depend heavily on the weight of the trays.

Low weight through relatively low material thicknesses.

Higher material thicknesses have a negative effect on the tray weight.

Highest weight results in difficult handling, e.g. when checking the tray base.

TRAY MATERIAL DURABILITY

The prescribed requirements for the trays remain fully valid across the entire service life.

The material characteristic does not change throughout the entire service life.

Strength is reduced as a result of the natural ageing process.

Corrosion impairs the required impermeability over a longer period.

CEMO recommendation for tray material:

Diesel, fresh and used oils, weak lyes and acids

Lyes and acids

Petrol, highly flammable liquids

Comparison of the suitability of sump/spill pallets made from different materials

(confirmed by independent experts)

used with various media typical in industrial concerns and workshops

Material of collection trays	Media stored							
	Waste oil of known origin (flammable, flash point > 55 °C)	Heating oil and diesel (flammable, flash point > 55 °C)	Petrol, nitro (extremely flammable, highly flammable, flammable)*	Lyes up to pH 8	Lyes over pH 8	Acids up to 10 % salt solutions pH 6-8 fixing baths	Acids up to 20 % battery acid 37%	
GRP	X	X	–	X	–	X	X	
Steel painted or galvanised	X	X	X	X	–	–	–	
PE = polyethylene	–	–	–	X	X	X	X	
X approved and resistant	– not approved / not resistant				If necessary, please enquire about individual resistances.			

* Special storage space requirements are to be observed. (fire protection, explosion protection).

GRP sumps / spill pallets

GRP SUMPS ARE IDEAL FOR THE STORAGE OF ENVIRONMENTALLY HAZARDOUS SUBSTANCES.

GRP is a universally applicable material for the storage of environmentally hazardous substances. The thermosetting plastic base structure in conjunction with the glass fibre reinforcement provide an

advantageous fire performance and high chemical resistance. GRP sumps combine the properties of steel and plastic. Due to their absolute corrosion resistance, GRP sumps can be placed directly on

the ground. The low installation height facilitates easy handling in factories and workshops.

Extremely favourable price/performance ratio



universal application
e.g. waste oil, lyes and acids

absolutely corrosion-resistant
(no welding seams)

low installation height, because no
ground clearances are required
(compare steel sumps/spill pallets)

smooth inside walls
ensure simple cleaning

minimal inspection requirements,
no additional inspection of
sump floor (compared to steel
sump/spill pallets)

Example:
GRP sump 220/2

Our PREMIUM product line GRP



Due to the excellent material properties created by reinforcing the three-dimensionally meshed duroplastic material with glass fibres, GRP has been used for decades to make high-performance products that are expected to have a long service life in tough environments and at the same time ensure high levels of safety.

GRP combines the positive properties of steel and plastic.

GRP sumps PG 9

GRP sumps with general construction inspection approval no. Z-40.12-227

- for the storage of strongly water polluting substances



Sump/spill pallet 220/2



Sump/spill pallet 220/4

Sump/spill pallet 150 for Euro pallets



Mobile sump/spill pallets from GRP

- hot-dip galvanised grating
- hot-dip galvanised chassis with collision protection
- 2 steering and 2 fixed castors (castors dia. 12.5 cm) as well as a handle for trouble-free steering



Accessory: loading rails
Accessories see page 150



Accessory: steel foot-frame, galvanised

Sumps Type RC PG 9







GRP sumps type RC without approval

- suitable as a collection tray for materials not hazardous to water or for uses for which no approval is required





Sump/spill pallet 220/3-RC

GRP sumps and RC sumps PG 9

Description / Type	External dimensions cm (l x w x h)	Collection volume L	Loading capacity kg	Quantity 200 L drums	Weight approx. kg	with general construction inspection approval	Type RC, without approval
						Order no.	Order no.
GRP sump/spill pallet 65							
 without grating	82 x 41 x 23	65	-	-	4	7086	10380
with galvanised steel grating	82 x 42 x 24	65	40	-	9.5	7717	10381
GRP sump/spill pallet 150 for Euro pallets							
 without fixture	120 x 80 x 16.5	150	-	-	9	5113	10382
with fixing pins	120 x 80 x 20.8	150	-	-	9	5114	10383
with galvanised steel grating	120 x 80 x 19.0	140	250	-	25	7963	10384
with fixing pins and galvanised steel grating	120 x 80 x 23.5	140	250	-	25	7970	10385
GRP sump/spill pallet 220/1							
 without grating	85 x 85 x 39	210	-	1	13	7867	10386
with galvanised steel grating	85 x 85 x 40	210	400	1	27	7868	10387
complete with GRP grating	85 x 85 x 40	210	400	1	20	7869	10388
GRP sump/spill pallet 220/2							
 without grating	128 x 85 x 27	220	-	1	13	6882	10389
with galvanised steel grating	128 x 85 x 29	220	800	2	33	6875	10390
complete with GRP grating	128 x 85 x 29	220	800	2	24	6886	10391
GRP sump/spill pallet 220/3							
 without grating	188 x 85 x 19	220	-	1	18	7085	10392
with galvanised steel grating	188 x 85 x 20	220	1200	3	46	7083	10393
complete with GRP grating	188 x 85 x 20	220	1200	3	36	7286	10394
GRP sump/spill pallet 220/4							
 without grating	128 x 128 x 18	220	-	1	18	6884	10395
with galvanised steel grating	128 x 128 x 21	220	1300	4	46	6876	10396
complete with GRP grating	128 x 128 x 20	220	1300	4	36	6943	10397

Accessories see page 150

MOBILE SUMP/SPILL PALLETS FROM GRP

Description / Type	External dimensions cm (l x w x h)	Height of loading area	Collection volume L	200 L drum Items	Loading kg	Weight approx. kg	Order no.
 220/1-mobile	109 x 86 x 108	56	210	1	400	50	7870
 220/2-mobile	152 x 86 x 108	44	220	2	800	60	7834

GRP sumps PG 9



ACCESSORIES FOR GRP SUMP/SPILL PALLETS

Description	External dimensions cm (l x w x h)	Weight approx. kg	Order no.
① Steel frame, galvanised (max. drive-under height 96 mm) only for GRP sump/spill pallet 220/2	117 x 78 x 14	15	6889
② Screw on fixing plate for pallets (2 off with screws) only for GRP pallet sump/spill pallet 150		0.5	5112
③ Edging (4-part), galvanised for sideways insertion in the steel grating, to stop storage material such as small containers, etc. from falling off)			6990
④ Loading rails, galvanised (2 off), width inside 15 cm			6878

Description		External dimensions cm (l x w x h)	Weight approx. kg Steel / GRP	Galvanised steel	GFK
				Order no.	Order no.
Grating for GRP sump/spill pallet	65	80 x 40 x 3	6 / -	7641	-
	150	118 x 78 x 3	12.5 / -	8121	-
	220/1	83 x 83 x 3	14 / 7	8176	10601
	220/2	125 x 83 x 3	18 / 11	6883	6887
	220/3	185 x 83 x 3	28 / 18	7084	7338
	220/4	125 x 125 x 4	28 / 18	6885	6941

ACCESSORIES FOR MULTIPLE INSTALLATION

Type	Description	Number required			Order no.
		220/2	220/3	220/4	
Front end	Covering strip short	1	1	-	6967
Adjoining	Covering strip long	1	-	1	6968
In blocks of 4	Cover plate	1	-	1	6969
	Covering strip short	2	-	-	6967
	Covering strip long	2	-	4	6968

PE sump/spill pallets

PE SUMP/SPILL PALLETS WITH AN IDEAL PRICE/PERFORMANCE RATIO

CEMO always offers a suitable solution when it comes to collecting water-polluting substances. Environmentally compatible, proper and safe storage of hazardous materials is an important topic for every company.

Caustic or toxic substances require special care during handling and storage. For purposes of protection and a clean environment, we have developed a range of PE sump/spill pallets which offer great functionality and high resistance against

acids and lyes thanks to the diverse variation options which ensures an ideal price/performance ratio for you.



- ✓ high chemical resistance
- ✓ great functionality



various options:
with fixing pins,
feet, skids or castors

the tray can be placed directly on
the floor or a Euro pallet

Example: suitable
for Euro pallets



PE small container and rack trays



PE sump/spill pallet 120 x 80 mm
with a collection volume of 220 L



PE filling station
with a collection volume of 450 L

EURO PE sump/spill pallet 250/2 PG 9

Euro PE sump/spill pallet 250/2 with general construction inspection approval no. Z-40.22-420

- manufactured from high quality polyethylene (HDPE)
- high chemical resistance
- collection capacity without grating 250 L, with grating 224 L



With 4 feet and PE grating



Integrated recessed handles for easy lifting

- for storing drums up to 224 L
- high functionality
- tray can be positioned directly on the floor or on a Euro-pallet
- versions with locking pins (for Euro-pallets), feet, runners or castors



With 2 runners and steel grating

Euro PE sump/spill pallet 250/2 - RG without approval no.

- manufactured from high quality recycled polyethylene
- suitable as a collection tray for materials not hazardous to water or for uses for which no approval is required



With steering castors

Description / Capacity L	External dimensions cm (l x w x h)	Capacity kg	Quantity 200 L drums	Weight approx. kg	with General Construction Inspection Approval	without approval 250/2 RG
					Order no.	Order no.
EURO PE SUMP/SPILL PALLET 250/2						
without grating	120.5 x 80.5 x 33	600	1	16	8276	8424
with galvanised steel grating	120.5 x 80.5 x 33	600	2	29	8277	8425
with PE grating	120.5 x 80.5 x 34	600	2	29	8278	8426
EURO PE SUMP/SPILL PALLET 250/2 WITH 4 FEET						
without grating	120.5 x 80.5 x 43	600	1	18	8279	8427
with galvanised steel grating	120.5 x 80.5 x 43	600	2	31	8280	8428
with PE grating	120.5 x 80.5 x 44	600	2	31	8281	8429
EURO PE SUMP/SPILL PALLET 250/2 WITH 2 RUNNERS						
without grating	120.5 x 80.5 x 43	600	1	20	8282	8430
with galvanised steel grating	120.5 x 80.5 x 43	600	2	33	8283	8431
with PE grating	120.5 x 80.5 x 44	600	2	33	8284	8432
EURO PE SUMP/SPILL PALLET 250/2 MOBILE WITH STEERING AND FIXED CASTORS*						
without grating, with steel base-frame	129 x 80.5 x 104	400	1	26	8285	8433
with galvanised steel grating	129 x 80.5 x 104	400	2	37	8286	8434
with PE grating and steel base-frame	129 x 80.5 x 104	400	2	39	8287	8435

* Loading height 250/2 mobile 49 cm, castor dia. 12.5 cm

Accessories see page 153

EURO PE sump/spill pallet 250/2 PG 9

Canister rack system

The rack system is designed for the Euro PE sump/spill pallet 250/2 in versions: without feet or runners (8276 + 8277), with feet (8279 + 8280) and with runners (8282 + 8283).
Loading capacity per storage level: 100 kg.



Euro PE sump (8277), canister rack system base unit (8523) and extension unit (8627)



Accessory:
PE grating



Accessory:
locking pins



Accessory:
sump/spill pallet attachment



CANISTER RACK SYSTEM FOR EURO PE SUMP/SPILL PALLET 250/2

Description	Overall dimensions* cm (l x w x h)	Heights of storage levels in cm from the ground*	Weight approx. kg	Order no.
Canister rack system base unit for Euro PE sump/spill pallet 250/2, consisting of 4 push-on support elements and one steel grating (excludes sump)	120.5 x 80.5 x 81	33 / 81	19	8523
Canister rack system attachment unit for Euro PE sump/spill pallet 250/2, consisting of 4 push-on support elements and one steel grating (excludes sump)	120.5 x 80.5 x 129	129	19	8627

* Scope includes Euro PE sump/spill pallet 250/2 with steel grating (8277)

ACCESSORIES

Description	Order no.
Locking pins for fixing the Euro PE sump/spill pallet 250/2 onto a Euro pallet (4 pcs. incl. fittings)	8288
Steel grating, galvanised for PE sump/spill pallet 250/2	8324
PE grating for PE sump/spill pallet 250/2	8325
Sump/spill pallet attachment (height 20.5 cm)	8358

PE sump/spill pallet 250^{HD} PG 9

HD = HIGH DENSITY

PE sump/spill pallet 250^{HD}
with general construction inspection approval Z-40.22-548

- from polyethylene
- fully recyclable
- can be used with/without perforated plate
- non-slip plate surface
- maintenance friendly
- trays can be connected to form a surface protection system, see page 169
- leak indicator is included free of charge (see page 157)



PE sump/spill pallet 250^{HD}
with PE perforated plate

PE SUMP/SPILL PALLET^{HD}

Description	Overall dimensions cm (l x w x h)	Loading capacity kg	Collection volume L	Quantity 200 L drums	Weight approx. kg	Order no.
PE sump/spill pallet 250 ^{HD}	160 x 120 x 16.5	-	250	2	10.5	10712
PE sump/spill pallet 250 ^{HD} with PE perforated plate	160 x 120 x 18	1000	250	5	25.7	10713

PE pallet sumps and PE drum bunds

The new generation of CEMO PE pallet sumps and PE drum bunds has arrived. The polyethylene (PE) sumps and bunds are highly resistant to chemicals. Thanks to the different sizes and versions, you will find the right solution for almost any application.

PE pallet sumps

- Matched to the size of a Euro pallet (120 x 80 cm) or an industrial pallet (120 x 120 cm).
- You can choose to place the transport pallet directly on the collecting tray or to use a steel or PE grating as the deck surface.



Pallet sump 220/2
with wooden pallet



Pallet sumps 425/4
with steel grating



Pallet sump 220/4
with PE grating

PE drum bunds

- Grid elements are ideally matched to the size of 200 l drums.
- no wasted space

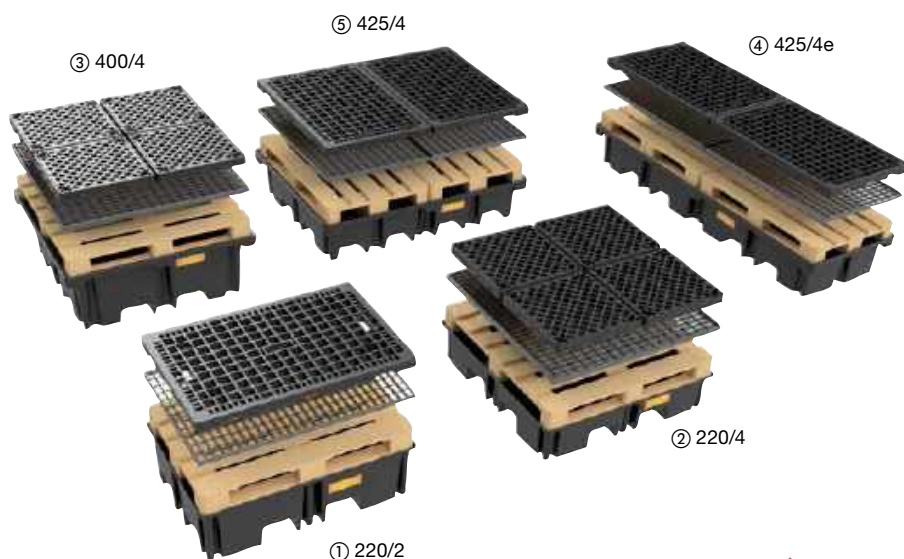


Drum bund 220/3



Drum bund 220/4e

PE pallet sumps PG 9



PE pallet sumps with General Construction Inspection Approval (applied for)

- made from high-quality polyethylene (PE)
- high chemical resistance
- Sumps can be placed directly on the floor
- with integral forklift pockets
- accessible from four sides (except tray for two 120 x 80 pallets lengthwise)
- ideally suited for Euro pallets (120 x 80) or industrial pallets (120 x 120), as well as for plastic pallets of similar sizes
- loaded pallets can be placed directly on the tray using a forklift or high-platform truck
- a steel or PE grid is not required, but can be optionally used



Description / Type	Overall dimensions cm (l x d x h)	Loading capacity kg	Collection volume L	Quantity pallets	Quantity 200 L drums	Weight approx. kg	Order no.
① PE pallet sump 220/2 for 1 pallet 120 x 80							
without grating	123 x 83 x 36	600	220	1	2	13	11257
with steel grating	123 x 83 x 36	600	220	1	2	28	11258
with PE grating	123 x 83 x 39	600	220	1	2	21.5	11259
② PE-pallet sump 220/4 for 1 pallet 120 x 120							
without grating	123 x 123 x 26	1200	220	1	4	13.5	11260
with steel grating	123 x 123 x 26	1200	220	1	4	33.5	11261
with PE grating	123 x 123 x 29	1200	220	1	4	26	11262
③ PE-pallet sump 400/4 for 1 pallet 120 x 120							
without grating	129 x 129 x 48	1200	400	1	4	15.5	11276
with steel grating	129 x 129 x 48	1200	400	1	4	28	11277
with PE grating	129 x 129 x 50	1200	400	1	4	35.5	11278
④ PE-pallet sump 425/4e for 2 pallets 120 x 80							
without grating	242 x 88 x 36	1200	425	2	4	17.5	11263
with steel grating	242 x 88 x 36	1200	425	2	4	47.5	11264
with PE grating	242 x 88 x 39	1200	425	2	4	34.5	11265
⑤ PE-pallet sump 425/4 for 2 pallets 120 x 80							
without grating	167 x 127 x 36	1200	425	2	4	17	11266
with steel grating	167 x 127 x 36	1200	425	2	4	47	11267
with PE grating	167 x 127 x 39	1200	425	2	4	34	11268

ACCESSORIES FOR PE PALLET SUMPS

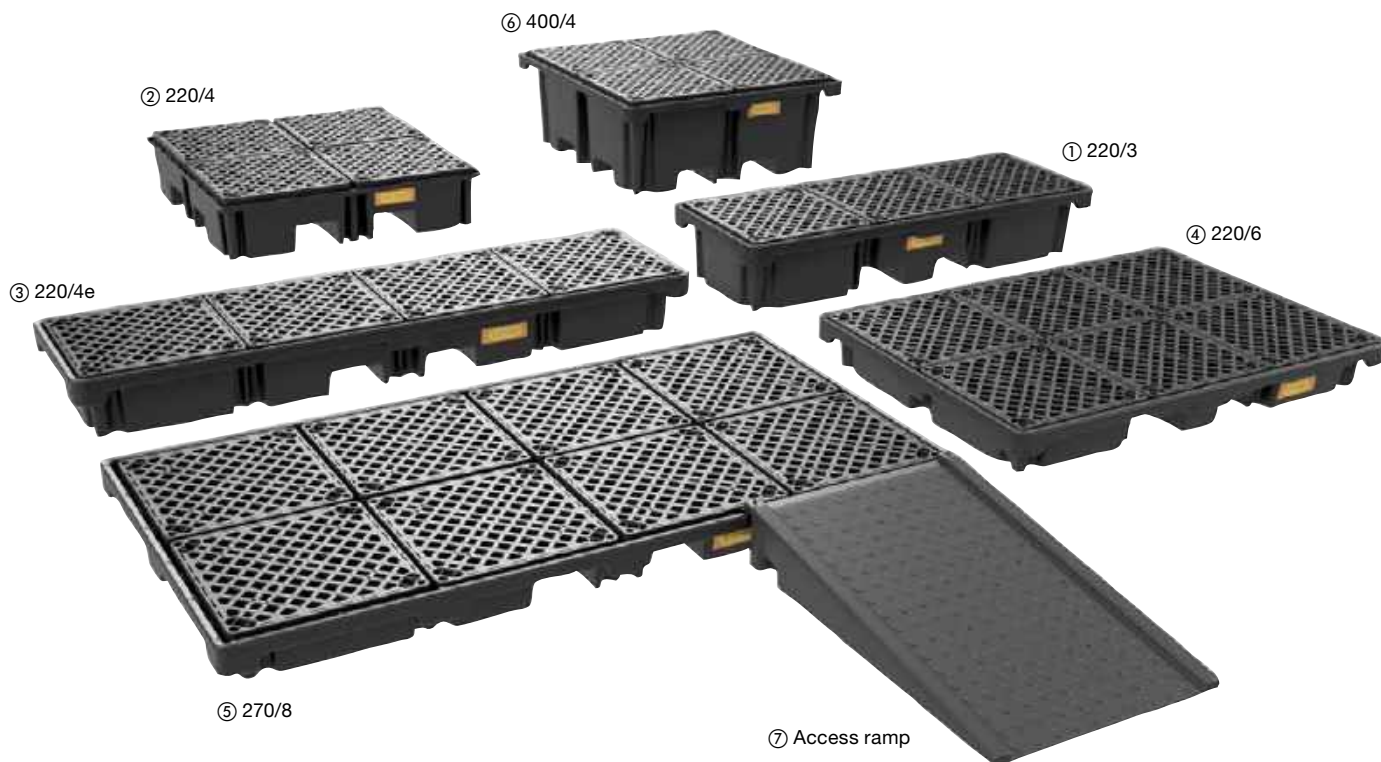
Description/Type	Overall dimensions cm (l x d x h)	Loading capacity kg	Weight approx. kg	Order no.
Steel grid for PE pallet sump 220/2, 425/4, 425/4e	120 x 80 x 3	600	15	11269
Steel grid for PE pallet sump 220/4, 400/4	120 x 120 x 3	1200	20	11270
PE grid for PE pallet sump 220/2, 425/4, 425/4e	120 x 80 x 6	600	8.5	11271
PE grid 60 x 60 (4 x) for PE pallet sump 220/4, 400/4	120 x 120 x 7	4 x 300	12.5	11281

PE drum bunds PG 9

PE drum bunds with General Construction Inspection Approval (applied for)

- made from high-quality polyethylene (PE)
- high chemical resistance

- bund can be placed directly on the floor
- with integral forklift slots
- accessible from two sides
- ideally suited for drums
- only one PE grid size for all variants



Description / Type	Overall dimensions cm (l x d x h)	Loading capacity kg	Collection volume L	Quantity PE grating	Quantity 200 L drums	Weight approx. kg	Order no.
① 220/3	186 x 66 x 33	900	215	3	3	23	11272
② 220/4	123 x 123 x 29	1200	220	4	4	26	11262
③ 220/4e	245 x 66 x 26	1200	215	4	4	24.5	11273
④ 220/6	186 x 126 x 20	1800	220	6	6	33	11274
⑤ 270/8	248 x 128 x 18	2400	270	8	8	44	11275
⑥ 400/4	129 x 129 x 50	1200	400	4	4	35.5	11278

ACCESSORIES FOR PE DRUM BUNDS

Description/Type	Overall dimensions cm (l x d x h)	Loading capacity kg	Weight approx. kg	Order no.
⑦ Access ramp for PE drum bunds 220/8	126 x 80 x 20	300	13	11282
PE grating 60 x 60	60 x 60 x 7	300	3.1	11283

Small PE container/laboratory trays^{HD} PG 9

HD = HIGH DENSITY

Small PE container/laboratory trays with general construction inspection approval Z-40.22-548 and Z-40.22-549

- small container/laboratory trays from polyethylene
- fully recyclable
- can be used with/without perforated grating
- stackable for space-saving storage/transport
- non-slip grating surface
- maintenance friendly
- designed for Euro-pallets
- trays can be connected to form a surface protection system, see p. 169



PE sump/spill pallet 25^{HD} with and without PE grating



PE sump/spill pallet 30^{HD} with and without PE grating



PE sump/spill pallet 60^{HD} with PE grating

PE Container/laboratory trays^{HD} - RG without approval no.

- manufactured from high quality recycled polyethylene
- suitable as a collection tray for materials not hazardous to water or for uses for which no approval is required



PE sump/spill pallet 25^{HD} with PE grating as laboratory tray



PE sump/spill pallet 120^{HD} with PE grating

A significant plus in safety in the daily handling of hazardous liquids

COST-FREE
visual leakage indicator
for every tray with PE grating



If liquid has flowed unnoticed into the drip tray, then the visual leakage indicator free floats and becomes visible.



Description	Overall dimensions cm (l x w x h)	Loading capacity kg	Collection volume L	Weight approx. kg	with General Construction Inspection Approval	without approval PE-trays RG
					Order no.	Order no.
PE sump/spill pallet... ... 25 ^{HD}	60 x 40 x 16.5	-	25	1.8	10704	10884
... 25 ^{HD} with PE grating	60 x 40 x 18	125	25	3.7	10705	10885
... 35 ^{HD}	80 x 40 x 16.5	-	35	2.2	10706	10886
... 35 ^{HD} with PE grating	80 x 40 x 18	160	35	4.8	10707	10887
... 60 ^{HD}	80 x 60 x 16.5	-	60	3	10708	10888
... 60 ^{HD} with PE grating	80 x 60 x 18	250	60	6.8	10709	10889
... 120 ^{HD}	120 x 80 x 16.5	-	120	5.2	10710	10890
... 120 ^{HD} with PE grating	120 x 80 x 18	500	120	12.8	10711	10891
... 250 ^{HD}	160 x 120 x 16.5	-	250	10.5	10712	10892
... 250 ^{HD} with PE grating	160 x 120 x 18	1000	250	25.7	10713	10893
Accessory PE grating 60 x 40	60 x 40 x 17	125	-	1.9	10715	10894
Accessory PE grating 40 x 40	40 x 40 x 17	80	-	1.3	10716	10895

Trays PG 9

PE surface protection trays

- versatile use: under machines, tanks, as table/workbench tray, single tray, etc.
- easy to link through clip system, e.g. for lining areas
- safe, can be walked on, simple to lay, can be retrofitted, maintenance-free



Description	Collection volume L	Dimensions per element cm (l x w)	Order no.
① PE surface protection tray	5 L	56 x 78	8712
PE surface protection tray	12 L	124 x 78	8714
② PE surface protection tray	15 L	136 x 86	8911

Folding tray 8/12

This flexible, flat PVC tarpaulin can quickly and easily be turned into a resistant collection tray; it can be used as an emergency tray or as a transport and consignment container that can protect people and the environment against water-polluting liquids.

- multi-function container tray
- flexible collecting tray, extremely adaptable to different spaces

- built-in fill-level indicator
- space-saving when folded up
- ready for use in seconds
- impervious to liquid
- easy forklift access when empty
- resistant to oils, chemicals and technical fluids
- material: PES, surface-coated with PVC on both sides, blue



Description	External dimensions expanded cm (l x w)	External dimensions tray cm (l x w x h)	Package size cm (l x w x h)	Collection volume L	Weight approx. kg	Order no.
Folding tray 8/12 with carry bag	130 x 170	84 x 124 x 22.5	45 x 70 x 12	210	5.5	10179

Folding tray 30 L

This folding collection tray is made from PVC and has built-in reinforcement plates; its extremely flat design means it can be transported in any vehicle.

It is ideally suited for transporting hazardous materials on construction, agricultural and forestry machines. This saves you unnecessary costs caused by leaking chemicals or oils.

- flat design, low space requirement when unfolded (only 2.5 cm high)

- quick assembly with Velcro fasteners
- absolutely impervious to liquid
- resistant to many chemicals and oils



Description	Collection volume L	External dimensions cm (l x w x h)	Collapsed dimensions cm (l x w x h)	Weight approx. kg	Order no.
Folding tray	30	60 x 40 x 25	60 x 40 x 2.5	1.2	10183

Small containers and collection tray PE

PE collection tray 30-MOBILE PG 9

PE collection trays with general construction inspection approval no. Z-40.22-388



PE sump/spill pallet
40 L with frame



PE sump/spill
pallet 40 L



Suitable for hazardous substance cabinet 13/20...



... drum racks 360, 540 and hazardous substances racks.



PE sump/spill pallet 30-mobile

- chassis galvanised with 2 steering and 2 fixed castors, dia. 100 mm, as well as a pushing handle for trouble-free maneuvering
- for carrying and storage of water-polluting substances such as cleaning agents, pesticides, used oil filters, oil-coated machine components
- PE collection tray can be removed for cleaning



PE sump/spill pallet
30-mobile

Description/Type		External dimensions cm (l x w x h)	Collection volume L	Loading capacity kg	Weight approx. kg	Order no.
PE collection tray 30	without grating	98 x 60 x 8.5	30	-	4	8076
	complete with steel grating	98 x 60 x 8.5	30	50	10	8077
PE collection tray 40	without grating	130 x 62 x 8	40	-	5	7871
	complete with steel grating	130 x 62 x 8	40	50	13	7872
PE collection tray 30-mobile		112 x 63 x 104	30	100	28	8166

ACCESSORIES FOR PE COLLECTION TRAYS AND PE COLLECTION TRAY 30-MOBILE

Description	Weight approx. kg	Order no.
Steel grating galvanised for PE collection trays 30 L	6	8167
Steel grating galvanised for PE collection trays 40 L	8	8168

Canister filling stand PG 9

- facilitates emptying of canisters up to 60 L
- cage secures mounting of canisters
- precise measuring by swivelling of the canister
- made from highly resistant stainless steel – suitable for acids and lyes
- wall mounting possible



Canister filling stand for canisters up to 30 L



Canister filling stand for canisters up to 60 L

Description/Typ	External dimensions cm (l x w x h)	max. canister dimensions cm (l x w x h)	Weight approx. kg	Order no.
Canister filling stand for canisters up to 30 L	67 x 39 x 74	31 x 29 x 48	5.4	8007
Canister filling stand for canisters up to 60 L	67 x 47 x 82	42 x 37 x 65	7.5	10100

PE filling station PG 9

Mobile filling station

- made of polyethylene
- ideal as a mobile filling station and bund
- easy to maintain, fluid flows into front area
- easy handling thanks to symmetrical design
- all-rubber wheels and steering castors with locks
- tensioning belts to secure drums
- large filling area with beaded surface, texture traps and reduces fluid movement
- sturdy handles
- lock-in safety support for easy vertical pick-up and storage of drums
- 2 foot recesses facilitate tilting and handling



MOBILE FILLING STATION

Description	Overall dimensions cm (l x d x h)	Containment capacity L	Quantity 200 L drums	Weight approx. kg	Order no.
Mobile filling station	81.5 x 68 x 174	250	1	42	8528

PE filling station 450 L with general construction inspection approval no. Z-40.22-380

- made from high-quality polyethylene (PE)
- high chemical resistance
- collection volume 450 L
- suitable as a storage and filling station for two 200-L barrels (with additional drum pallet for four 200-L drums)
- forkliftable



Description	Overall dimensions cm (l x d x h)	Containment capacity L	Quantity 200 L drums	Weight approx. kg	Order no.
PE filling station 450 L	135 x 138 x 64	450	2	46	8674
Accessory: PE drum pallet	94 x 138 x 39	-	2	15	8675

Steel sump/spill pallets

SPILL PALLETS OFFERING EXCELLENT VALUE FOR MONEY

In the early days of the Environmental Protection Industry, spill pallets/sumps were made of steel. The material represents strength, rigidity and endurance. In the arena of professional manufacturing in a regulated industry, steel sumps

emerged as a high-quality, premium sump for hazardous materials. Before leaving the factory, every sump is tested for being leak-proof. Companies should only implement products that conform to Water Resources Act

standards, and have recognised certification. All CEMO's steel bunds have the StawaR certification and are allowed to display the Ü mark.

Different sizes and variants to suit any requirements

available with or without grating (to provide a stable base)
Steel sumps are mandatory in the case of flammable liquids

forklift accessible for assembly and transport



IBC fund GS two-AB
one painted, with
filling stand



SW1-mobile
galvanised



Drum rack type 540
with steel bund
(see page 174)

Steel sump/spill pallets PG 9

Steel collection trays in 3 mm material thickness provide safety for the storage of water-hazardous and flammable substances.

The product range convinces with a large variety of variants for a wide variety of applications, for small containers and barrels.

Sump/spill pallets have 100 mm ground clearance and permit forklift access from all sides.

All SW sump/spill pallets are equipped with or without hot-dip galvanised, removable gratings.



Type SW10 painted with grating



Type SW2 painted with grating



Type SW3 painted with grating



Type SW1 painted with grating



Type SW4 galvanised with grating

SPILL PALLETS MADE OF STEEL FOR 1 – 10 DRUMS



Type SW4e painted with grating



Type SW8 painted with grating



Type SO6 painted without grating



Steel sump/spill pallets PG 9



Type SO2 galvanised without grating

Practical tip:

CEMO recommends that in principle spill pallets should be used with a galvanised grating. The advantages are that handling and extraction of liquids is made simpler by having a stable, level surface. The entire legally-required collection volume is available, as drums are not placed in the bund, thereby reducing the collection volume in the event of leakage.

Safety Information:

Please note that, when storing flammable liquids, special requirements apply with regard to fire protection and explosion protection above a certain quantity limit; these are set out in TRGS 510. In practice, these requirements can be met with the application of measures such as safety distances, earthing devices and suitable storage rooms (e.g. F90 containers, fire-resistant rooms).



Application example: container filling from a 60 L drum using a filling stand (see page 164)

SUMP/SPILL PALLETS WITHOUT GRATING

Description/ Type	External dimensions cm (l x w x h)	Collection volume L	Capacity / no. of 200 L drums	Loading kg	Weight approx. kg	Painted model	Galvanised model
						Order no.	Order no.
Type SW1 o. GR	80 x 80 x 44	205	one 200 L drum and small container	400	46	8529	8530
Type SW2 o. GR	120 x 80 x 35	210		800	50	7582	7680
Type SW3 o. GR	180 x 80 x 28	205		1200	61	10138	10139
Type SW4 o. GR	120 x 120 x 26.5	205		1600	56	7681	7682
Type SW4e o. GR	239 x 80 x 23	205		1600	71	7683	7684
Type SW6 o. GR	201 x 120 x 25.6	308		2400	87	10402	10403
Type SW8 o. GR	239 x 120 x 20	205		3200	92	7685	7686
Type SW10 o. GR	300.6 x 120 x 25.6	462		4000	125	10404	10405

SUMP/SPILL PALLETS WITH GRATING

Description/ Type	External dimensions cm (l x w x h)	Collection volume L	Capacity / no. of 200 L drums on grating	Loading kg	Weight approx. kg	Painted model	Galvanised model
						Order no.	Order no.
Type SW1	80 x 81 x 46	205	1 x 200 L drum	400	56	8531	8532
Type SW2	120 x 81 x 36	210	2 x 200 L drum	1000	64	7583	7687
Type SW3	180 x 80.5 x 29	205	3 x 200 L drum	1200	90	10140	10141
Type SW4	120 x 121 x 28.5	205	4 x 200 L drum	1600	94	7688	7689
Type SW4e	239 x 81 x 25	205	4 x 200 L drum	1600	100	7690	7691
Type SW6	201 x 120.5 x 26.6	308	6 x 200 L drum	2400	122	10406	10407
Type SW8	239 x 121 x 21	205	8 x 200 L drum	3200	166	7692	7693
Type SW10	300.6 x 120.5 x 26.6	462	10 x 200 L drum	4000	175	10408	10409

SPILL PALLETS WITHOUT GROUND CLEARANCE

Description/Typ	External dimensions cm (l x w x h)	Collection volume L	Loading kg	Weight approx. kg	Painted model	Galvanised model
					Order no.	Order no.
WITHOUT GRATING						
Type SW2 o.F o.GR	120 x 80 x 24.6	210	800	47	11206	11207
Type SW4 o.F o.GR	120 x 120 x 15.6	205	1600	53	11208	11209
WITH GRATING						
Type SW2 o.F	120 x 80.5 x 25.6	210	1000	49	11210	11211
Type SW4 o.F	120 x 120.5 x 16.6	205	1600	76	11212	11213

Steel sump/spill pallets PG 9

Mobile steel sump/spill pallets

- with hot-dip galvanised, removable gratings
- 2 steering and 2 fixed castors as well as a pushing bar for trouble-free steering
- collection volume 205 L
- loading height SW1-mobile 49 cm, loading height SW2-mobile 42 cm



MOBILE STEEL SUMP/SPILL PALLETS

Description / Type	External dimensions cm (l x w x h)	200 L drum items	Loading capacity kg	Weight approx. kg	Order no.
SW1-mobile painted	98 x 81 x 113	1	300	62	7397
SW1-mobile galvanised	98 x 81 x 113	1	300	62	7398
SW2-mobile painted	135 x 81 x 109	2	450	72	7399
SW2-mobile galvanised	135 x 81 x 109	2	450	72	7400
Securing belt for safer transport, 25 mm x 4 m, one-piece					7420

Small steel collection trays PG 9

- extremely versatile use: e.g. for the decanting procedure on the work-bench, placing on a pallet, etc.
- made liquid-tight from 3 mm steel
- approved according to StawaR
- for containers up to max. 30 litres



Description / Type	External dimensions cm (l x w x h)	Capacity L	Weight approx. kg	Order no.
① Small steel collection trays Q30	46 x 43.5 x 17	30	11	11003
② Small steel collection trays R30	90 x 44.5 x 9	30	16	11004
③ Perforated plate insert Q30	–	–	2.5	11060
④ Perforated plate insert R30	–	–	3.5	11061

GRP, PE and steel sump/spill pallets PG 9



Description / Type	External dimensions cm (l x w x h)	Capacity	Weight approx. kg	Order no.
① Barrel support FB1	60 x 60 x 35	1 x 60 L or 1 x 200 L	15	7586
② Barrel support FB2	113 x 60 x 35	2 x 60 L or 2 x 200 L	21	7587
③ Barrel support FB3	120 x 60 x 40	3 x 60 L	17	7835
④ Barrel support stackable	63 x 45 x 53	1 x 60 L	10	7741
⑤ PE drum pallet	94 x 138 x 39	2 x 200 L	15	8675

IBC bunds (GRP) PG 9

IBC bunds GRP with general construction inspection approval no.: Z-40.12-315

Capacity 1,000 L.

Bund from glass fibre reinforced plastic,
GRP for Intermediate Bulk Containers
(IBC).

The practical storage and filling station
for water-polluting and flammable liquids
with a flash point > 55 °C

- universal application
e.g. for used oil, lyes and acids
- corrosion resistant

RC version without approval.

Capacity 1,100 L.

Without installation.



Version with galvanised steel support frame



Model with galvanised steel grating



extremely favourable
price-performance ratio

universally applicable
e.g. waste oil,
lyes and acids




100 % corrosion-resistant

accessories:
collision protection, can holder
and base pallet



Description	External dimensions cm (l x w x h)	No. of 1000L containers	Loading capacity kg	Weight approx. kg	with General Construction Inspection Approval	without Approval
					Order no.	Order no.
with galvanised steel support frame	162 x 119 x 83	1	1600	55	10398	10400
with stainless steel support frame	162 x 119 x 83	1	1600	55	10399	10401
with galvanised steel grating	162 x 119 x 91	1	1600	80	7588	8665

ACCESSORIES FOR IBC BUNDS MADE OF GRP

Description	Weight approx. kg	Order no.
 Collision protection	6	7589
 Can holder, bearing surface 75 x 28 cm (w x d) for example as a drip tray	4	7590
 Base pallet (ground clearance 90 mm)	25	7591

IBC bunds PE PG 9

IBC collecting trays in PE with National Technical Approval Z-40.22-564

- made from high-quality polyethylene
- high chemical resistance
- capacity 1,100 litre
- rugged PE support crossbar for high load-bearing capacity
- forkliftable with a forklift or manual lift truck (transport only when empty)
- can be stacked inside each other for transport



- ✓ rugged PE support crossbar for high load-bearing capacity
- ✓ high chemical resistance
- ✓ made from high-quality polyethylene



forkliftable

IBC bund 1100/1-PE with supporting crossbar and filling attachment

IBC bunds PE PG 9



IBC bund 1100/1-PE
with supporting crossbar



IBC bund 1100/1-PE
with PE perforated plate



IBC bund 1100/1-PE with filling
attachment and galvanised steel
grating



Nestable for transport

IBC bund 1100/2-PE
with galvanised steel
grating



Description / Type	External dimensions cm (l x w x h)	Collection volume L	No. of 1000 L IBCs	Loading capacity kg	Weight approx. kg	Order no.
1100/1-PE	146 x 117 x 85	1100	1	1500	43	10938
1100/1-PE with galvanised steel grating	146 x 117 x 87	1100	1	1500	63	10947
1100/1-PE with PE perforated plate	146 x 117 x 88	1100	1	1500	53	10950
1100/1-PE with filling attachment	162 x 117 x 85	1100	1	1500	45	10939
1100/1-PE with filling attachment with galvanised steel grating	162 x 117 x 87	1100	1	1500	65	10948
1100/1-PE with filling attachment with PE perforated plate	162 x 117 x 88	1100	1	1500	55	10951
1100/2-PE	223 x 146 x 44	1100	2	3000	47	10940
1100/2-PE with galvanised steel grating	223 x 146 x 46	1100	2	3000	87	10949
1100/2-PE with PE perforated plate	223 x 146 x 47	1100	2	3000	67	10952

IBC bunds steel PG 9

IBC bunds steel with design approval

- approved for the storage of water-hazardous and flammable substances
- designed for the storage of IBC, ASF- and ASP containers up to 1000 litres
- with galvanised, removable grates
- 100 mm ground clearance for safe transport
- painted (RAL 5002, ultramarine blue) or galvanised



IBC bund GS2a galvanised with filling area



IBC bund GS1a AB1 painted with filling stand and filling area



IBC bund GS1a painted with grating and filling area



IBC bund GS2 AB1 painted with filling area



Description	Overall dimensions cm (l x w x h)	Collection volume L	Cont. à 1000 L item	Loading capacity kg	Weight approx. kg	Painted	Galvanised
						Order no.	Order no.
GS1	135 x 125 x 76	1000	1	2000	170	7392	7393
GS1a with filling area	160 x 126 x 67	1000	1	2000	179	10613	10614
GS1 AB1 with 1 filling stand	135 x 125.5 x 76	1000	1	2000	182	10849	10850
GS1a AB1 with 1 filling stand	160 x 125.5 x 96.5	1000	1	2000	191	10851	10852
GS2	268 x 125 x 46	1000	2	4000	238	7394	7395
GS2a with filling area	268 x 161 x 40	1000	2	4000	273	10615	10616
GS2 AB1 with 1 filling stand	268 x 125.5 x 81	1000	2	4000	247	10853	10854
GS2a AB1 with 1 filling stand and filling area	268 x 160.5 x 80	1000	2	4000	282	10855	10856
GS2 AB2 with 2 filling stands	268 x 125.5 x 81	1000	2	4000	256	10857	10858
GS2a AB2 with 2 filling stands and filling area	268 x 160.5 x 80	1000	2	4000	291	10859	10860

ACCESSORIES FOR IBC BUNDS MADE OF STEEL

Description	External dimensions cm (l x w x h)	Collection volume L	Cont. à 1000 L item	Loading capacity kg	Weight approx. kg	Order no.
Filling stand GS ZB galvanised	133 x 122 x 40	-	1	2000	49	7396
Can holder for IBC bunds GS1 and GS2	35 x 30 x 19	-	-	-	4	8740

PE ground protection systems^{HD} with PE grating PG 9

PE ground protection systems with general construction inspection approval Z-40.22-548 and Z-40.22-549

- can be used as storage/filling station
- elements can be combined to cover a complete storage area
- connection components (Accessories) permit the lining of surfaces of any size that are suitable as storage and transfilling stations

- can be combined in any way with the PE collection trays on page 157 of this catalogue
- rugged, removable PE grating
- stable PE access ramp with an integrated fixing bolt for connection to the PE grating, slight inclination for easy loading of the floor elements
- PE grating and access ramp are non-slip
- with optical leak detector



Can be combined in any way with the PE collection trays^{HD} on page 155

PE ground protection systems - RG without approval no.

- manufactured from high quality recycled polyethylene
- suitable as a collection tray for materials not hazardous to water or for uses for which no approval is required



PE sump 120^{HD} with PE grating



① Accessory access ramp



PE sump 250^{HD} with PE grating

Description / Type	Overall dimensions cm (l x w x h)	Collection volume L	Ultimate load* kg	Weight approx. kg	with General Construction Inspection Approval	without approval PE-Systems ^{HD} RG
					Order no.	Order no.
PE sump 120 ^{HD} with PE grating	120 x 80 x 18	120	500	12.8	10711	10891
PE sump 250 ^{HD} with PE grating	160 x 120 x 18	250	1000	25.7	10713	10893

* with an evenly distributed load

ACCESSORIES FOR PE GROUND PROTECTION SYSTEMS^{HD}

Description	Overall dimensions cm (l x w x h)	Order no.
① Access ramp, ultimate load 300 kg, weight approx 13 kg	126 x 80 x 20	10714
② Connecting rail, short	114 x 1.5 x 1.5	10721
③ Connecting rail, long	154 x 1.5 x 1.5	10722
Cross connector	11.5 x 11.5 x 3.5	10723

Ground protection systems^{HD} with galvanised grating PG 9

PE ground protection system with general building approval Z-40.22-548 and Z-40.22-549

- implemented as storage and filling station
- components can be combined into a floor-covering storage system

- robust, removable, galvanised steel grating with feet
- optional connecting rails make it possible to cover large surfaces that are suitable as storage and filling stations

- stable PE ramps with integrated locating bolts for docking on the grating, with a gentle slope for easy loading on the work floor
- perforated plate and access ramp are non-slip



① Accessory access ramp



Description / Type	Overall dimensions cm (l x w x h)	Collection volume L	Ultimate load kg	Wheel load kg	Weight approx. kg	Order no.
PE spill pallet 60 ^{HD} with galvanised steel grating	80 x 60 x 18	60	1000	150	16	11135
PE Spill pallet 120 ^{HD} with galvanised steel grating	120 x 80 x 18	120	1000	150	31	11136
PE Spill pallet 250 ^{HD} with galvanised steel grating	160 x 120 x 18	250	1000	150	63	11137

ACCESSORIES FOR PE GROUND PROTECTION SYSTEMS^{HD}

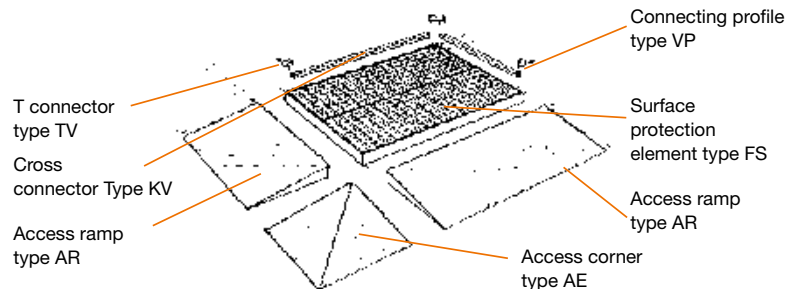
Description	Overall dimensions cm (l x w x h)	Order no.
① Access ramp, ultimate load 300 kg, weight approx 13 kg	126 x 80 x 20	10714
② Connecting rail, short	114 x 1.5 x 1.5	11138
③ Connecting rail, long	154 x 1.5 x 1.5	11139



Ground protection systems (steel) PG 9

Safety when handling water hazardous and flammable substances.
Modular matching elements allow the lining of large surfaces, which are suitable as storage and transfer stations.

- suitable for storage of water-polluting and flammable substances
- modular, matched elements
- with galvanised, removable grating
- available painted (RAL 5002, ultramarine blue) or galvanised



SYSTEM ELEMENTS

Description / Type	External dimensions cm (l x w)	Height cm	Collection volume L	Capacity kg/m ²	Wheel load kg	Weight approx. kg	Order no.
Ground protection	FS 55/13/13 painted	130 x 130	5.5	49	5000	450	7401
	FS 55/13/18 painted	130 x 180	5.5	69	5000	450	7402
	FS 55/13/28 painted	130 x 280	5.5	108	5000	450	10617
	FS 55/18/18 painted	180 x 180	5.5	96	5000	450	7403
	FS 108/13/13 painted	130 x 130	11	105	5000	450	7404
	FS 108/13/18 painted	130 x 180	11	146	5000	450	7405
	FS 108/13/28 painted	130 x 280	11	228	5000	450	10618
	FS 108/18/18 painted	180 x 180	11	220	5000	450	7406
Access ramp	AR13 galvanised	126 x 72	5.5			30	7407
	AR18 galvanised	176 x 72	5.5			42	7408
	AR28 galvanised	276 x 72	5.5			63	10619
	AE galvanised	72 x 72	5.5			21	7410
	AR13 galvanised	126 x 72	11			34	7411
	AR18 galvanised	176 x 72	11			46	7412
	AR28 galvanised	276 x 72	11			70	10620
	AE galvanised	72 x 72	11			23	7414

Manufactured to order. Delivery approx. 3-4 weeks. Galvanised version of ground protection elements upon request.

FASTENING ELEMENTS

Description /Type	External dimensions mm (w x l)	Weight approx. kg	Order no.
VP13 galvanised	38 x 1280	2	7415
VP18 galvanised	38 x 1780	3	7416
VP28 galvanised	38 x 2780	5	10621
KV galvanised	200 x 200	1	7418
TV galvanised	200 x 100	1	7419

Manufactured to order. Delivery approx. 3-4 weeks.

Drum racks

Sump/spill pallets with general construction inspection approval no. Z-40.12-227 granted by DIBt-Berlin.

Drum racks for approved and space-saving storage of barrels and other containers. All drum racks are completely hot-dip galvanised and have a corrosion

free GRP sump/spill pallet for long-term safe use. Due to their absolute corrosion resistance, GRP sump/spill pallets can be placed directly on the ground. The low installation height facilitates handling in the factory/ workshop. The different rack models permit filling

over the projecting sump/spill pallet even for the most widely varying types of barrels and containers. The rack ensures optimum matching to the actual operating conditions. Delivered in space-saving individual parts, easily and quickly assembled.

- ✓ quick and easy assembly
- ✓ universally applicable
e.g. waste oil, lyes and acids
- ✓ corrosion-resistant
- ✓ high resilient shelves
- ✓ minimum inspection requirements,
no additional inspection of
sump/spill pallet bottom
(compare steel sump/spill pallets)



Example:
Drum rack type 540 has three grating shelves and six clip-in individual drum supports, which can be clipped in different positions in two storage levels.

ACCESSORIES



Sump/spill pallet supports for secure standing on uneven ground and to permit driving under the drum rack



PE collection tray 40 L



Can holder for easy filling of small containers



Ball valve for quick and simple discharge



Rotating roller support for simple movement of drums



Drum supports for tilting drum for optimum emptying of 60 L drums

Drum racks type 120 PG 9

2 storage levels for up to two 60 L barrels

or

2 storage levels for small containers

or

1 storage level for one 60 L barrel and
1 storage level for small containers



GRP sump/spill pallet with 65 L collection volume

Model 3
Drum rack Type 120

Application example:
with steel grating for
GRP sump/spill pallet
as 3rd storage level
(see page 175)

Application example:
with stackable barrel
support as an extra
storage level for a 60 L
drum (see page 177)

DRUM RACK TYPE 120 FOR SMALL CONTAINERS AND 60 L BARRELS

Description		Overall dimensions cm (l x w x h)	Heights of storage levels in cm from ground	Weight approx. kg	Order no.
Type 120 with GRP sump/spill pallet 65 L (7086)					
	Model 1 with drum supports for 2 x 60 L barrels	45 x 82 x 131	63 / 115	18	7081
	Model 2 with grating support for small containers	45 x 82 x 131	60 / 112	21	7639
	Model 3 with drum and grating support for 1 x 60 L barrel and small containers	45 x 82 x 131	60 / 112	19	7640

Accessories see page 177

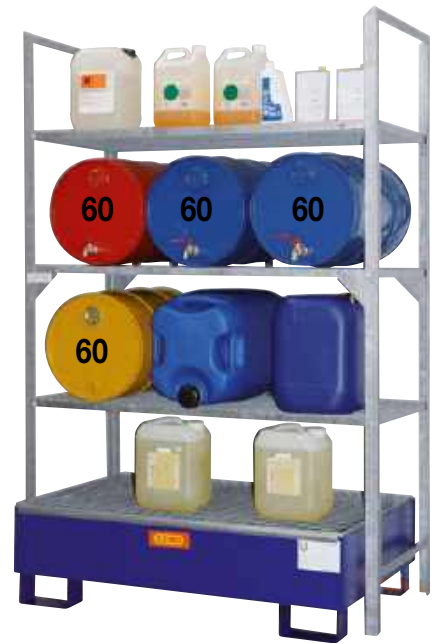
Drum racks type 360 and type 540 PG 9



Drum rack type 360 with GRP sump/spill pallet
Application example:
with can holder and steel grating as 3rd storage level (accessories see page 177)



Drum rack type 540 with GRP sump/spill pallet
Application example:
with can holder and steel grating as 4th storage level (accessories see page 177)



Drum rack type 540 with steel sump/spill pallet*

*approved under StawaR

Description	Overall dimensions cm (l x w x h)	Heights of storage levels in cm from ground	Weight approx. kg	Order no.
DRUM RACK TYPE 360 FOR SMALL CONTAINERS AND UP TO 6 X 60 L BARRELS				
Drum rack type 360 with GRP sump/spill pallet 150 L (5113) with drum supports for 6 x 60 L barrels and/or small containers	132 x 80 x 130	69 / 117	60	7642
Drum rack type 360 with steel sump/spill pallet SW 2 (7583) with drum supports for 6 x 60 L barrels and/or small containers	132 x 80 x 130	36 / 69 / 117	115	10253
DRUM RACK TYPE 540 FOR SMALL CONTAINERS AND UP TO 12 X 60 L BARRELS				
Drum rack type 540 with GRP sump/spill pallet 150 L (5113) with drum supports for 6 x 60 L barrels and small containers	132 x 80 x 200	69 / 117 / 165	82	7734
Expansion unit for type 540 with GRP sump/spill pallet 150 L (5113) with drum supports for 6 x 60 L barrels and small containers	132 x 80 x 200	69 / 117 / 165	72	7855
Drum rack type 540 with steel sump/spill pallet SW 2 (7583) with drum supports for 6 x 60 L barrels and small containers	132 x 80 x 200	36 / 69 / 117 / 165	137	10254
Expansion unit for type 540 with steel sump/spill pallet SW 2 (7583) with drum supports for 6 x 60 L barrels and small containers	132 x 80 x 200	36 / 69 / 117 / 165	127	10255

Accessories see page 177



Combination of drum rack type 540 and expansion unit type 540



Combination of drum rack type 540 and hazardous substance rack 13/20 (see p. 178)

Drum racks type 400 PG 9

2 storage levels
for up to four 60 L barrels
or two 200 L barrels

or

1 storage level
for small containers
and 1 storage level
for up to two 60 L barrels
or one 200 L barrel

GRP sump/spill pallet with
220 L collection volume



can holder
(accessory
see page 177)




drum supports



Model 2
drum rack type 400

DRUM RACK TYPE 400 FOR SMALL CONTAINERS AND UP TO 4 X 60 L BARRELS

Description

Type 400 with GRP sump/spill pallet 220 L (6882)	Overall dimensions cm (l x w x h)	Heights of storage levels in cm from ground	Weight approx. kg	Order no.
 <p>Model 1 with barrel support for 2 x 60 L barrels or 1 x 200 L barrel</p>	99 x 128 x 84	62	41	7663
 <p>Model 2 with barrel support for 4 x 60 L barrels or 2 x 200 L barrels or 2 x 60 L drums and 1 x 200 L drum</p>	99 x 128 x 162	62 / 140	70	7664
 <p>Model 3 with barrel support for 2 x 60 L barrels or 1 x 200 L barrel and grating support for small containers</p>	99 x 128 x 162	62 / 139	82	7665

Accessories see page 177

Drum rack type 800 PG 9

2 storage levels
for up to six 60 L barrels
or four 200 L barrels

or

1 storage level for small
containers and 1 storage
level for barrels

or

1 storage level
for barrels

GRP sump/spill
pallet with 220 L
containment capacity









Model 3
drum rack type 800

drum supports

can holder
(accessory
see page 177)




















DRUM RACK TYPE 800 FOR SMALL CONTAINERS AND UP TO 4 X 200 L BARRELS

Type 800 with GRP sump/spill pallet 220 L (6884)	Description	Overall dimensions cm (l x w x h)	Heights of storage levels in cm from ground	Weight approx. kg	Order no.
	Model 1 with barrel supports for 2 x 200 L barrels	141 x 128 x 84	62	51	7670
	Model 2 with barrel supports for 4 x 200 L barrels	141 x 128 x 162	62 / 140	84	7671
	Model 3 with barrel supports for 2 x 200 L barrels and 3 x 60 L barrels	141 x 128 x 162	62 / 140	87	7672
	Model 4 for 2 x 200 L barrels and grating support for small containers	141 x 128 x 162	62 / 139	116	7673
	Model 5 with drum supports for 3 x 60 L barrels	141 x 128 x 84	62	54	7674
	Model 6 with drum supports for 6 x 60 L barrels	141 x 128 x 162	62 / 140	90	7675

Accessories see page 177

Accessories for drum racks type 120 to type 800 PG 9

	for type	Description	Overall dimensions cm (l x d x h)	Heights of storage levels in cm from ground	Weight approx. kg	Order no.
	400	Sump/spill pallet support (pair), sump/spill pallet forkliftable by forklift		15	7	7668
	800	Sump/spill pallet support (pair), sump/spill pallet forkliftable by forklift		15	10	7679
	400	Storage level for 1 x 200 L or 2 x 60 L drums	99 x 66 x 84	62	28	8326
	800	Storage level for 2 x 200 L drums	141 x 66 x 84	62	33	8328
	800	Storage level for 3 x 60 L drums	141 x 66 x 84	62	36	8329
	120	Steel grating for GRP sump/spill pallet as 3rd storage level	42 x 80 x 3	24	6	7641
	360 540	Steel grating as 3rd (for type 360) or 4th storage level (for type 540)	130 x 62 x 3	21	18	6817
	360 540	Steel tray 20 L as 3rd (for type 360) or 4th storage level (for type 540)	130 x 62 x 5	21	19	7799
	360 540	PE collection tray 40 L as insert tray (acid-/alkali resistant, see page 159)	130 x 62 x 8	22	5	7871
	120	Stackable drum support, for an extra storage level for a 60 L drum (see page 164)	63 x 45 x 53	167	10	7741
	400	Grating level for small containers	99 x 125 x 84	62	40	8327
	360 540	Drum supports 3 pcs. per storage level			1	7800
	360 540	Drum supports "raising" 3 pieces for one storage level for optimum emptying of the 60 L drums			1	8254
	400 800	Rotating roller support for 200 L barrel (pair)		66	6	7669
	360 400 540 800	Edge border (4-part), galvanised for sideways insertion in the steel grating for securing storage material such as small containers, etc. from filling off (see page 150)				6990
	120 360 540	Can holder, galvanised, bearing surface 23 x 11 cm (w x d)			2	5917
	400 800	Can holder, galvanised, bearing surface 18.5 x 11 cm (w x d)			2	7727
	all	Discharge ball valve 1/2", nickel plated brass, angled 90° [PG 8]			1	3775
	all	Discharge ball valve 3/4", nickel plated brass, angled 90° [PG 8]			1	3776

Environmental / HazMat racks PG 9

Environmental/HazMat rack 10/20 with general construction inspection approval no. Z-40.22-388

For storage of water-polluting substances in small containers up to 30 L capacity. The tray is completely galvanised and can be assembled without screws or tools. It has 5 shelf floors which can be positioned in mounting points that have 25 mm spacing and two 30 L, PE collection trays. Each level can support up to 200 kg.



Environmental/HazMat rack 13/20

For storage of water-polluting substances in small containers up to 20 L capacity. It is completely hot-dip galvanised and equipped with a 20 L leak-tight tray bottom welded in accordance with StawaR (German guidelines for the requirements of steel container trays of capacity up to 1000 L) lowest storage level. Each level can support up to 200 kg.





Environmental/HazMat rack 10/20 with expansion rack (PE sump/spill pallet, accessory)

ENVIRONMENTAL/HAZMAT RACK 10/20 FOR SMALL CONTAINERS

Description	Overall dimensions cm (l x w x h)	Weight approx. kg	Order no.
 <p>Environmental/HazMat rack 10/20 for small containers</p>	106 x 63 x 200	44	8091
 <p>Expansion rack for environmental/HazMat rack 10/20</p>	101 x 63 x 200	34	8092

ENVIRONMENTAL/HAZMAT RACK 13/20 FOR SMALL CONTAINERS

Description	Overall dimensions cm (l x w x h)	Heights of storage levels in cm from ground	Weight approx. kg	Order no.
 <p>Environmental/HazMat rack 13/20 for small containers</p>	132 x 63 x 200	16/69/117/165	92	7820
 <p>Expansion rack for Environmental/HazMat rack 13/20</p>	132 x 63 x 200	16/69/117/165	82	7856

ACCESSORIES ENVIRONMENTAL/HAZMAT RACKS 10/20 AND 13/20

for type	Description	Overall dimensions cm (l x w x h)	Weight approx. kg	Order no.
10/20	PE collection tray 30 L as insert tray (acid-/alkali resistant)*	98 x 60 x 8.5	4	8076
13/20	PE collection tray 40 L as insert tray (acid-/alkali resistant)*	130 x 62 x 8	5	7871
10/20	Additional shelf floor for Environmental/HazMat rack 10/20	100 x 60 x 4	4	8093

* see page 159

Environmental/HazMat racks PG 9

Space-saving storage for substances in all water-pollution classes

- galvanised steel for racks, sumps and gratings
- able to be accessed from both sides
- 200 kg weight limit per shelf
- 1600 kg floor weight limit per rack system
- height-adjustable shelves with grids of 25 mm

- additional wall fixing according to application (not essential)
- expandable storage capacity by increasing the base unit with expansion units
- quick plug-assembly of supplied components



Environmental/HazMat rack 10/5 (base unit) and 13/5 (as expansion unit) with removable grating (see accessories)



Version with spill tray base:

- 4 shelves with spill tray base
- separated storage of different substances per shelf
- spill tray per shelf
- all shelves can have the full containment volume by using the removable grating (see accessories)

Version with grating shelves:

- 4 shelves with grating
- 3 shelves with grating
- bottom shelf with spill tray
- bottom shelf can have the full containment volume by using a removable grating (see accessories)



Environmental/HazMat rack 13/5 (base unit) and 10/5 (expansion unit) with removable grating (see accessories)

ENVIRONMENTAL/HAZMAT RACK 10/5 AND 13/5

Description	External dimensions cm (l x w x h)	Usable floor area cm (l x w)	Features	Containment volume L	Base unit	Expansion unit
					Order no.	Order no.
10/5 with spill tray bases	106 x 53.5 x 200	100 x 50	4 x shelf tray, galvanised	4 x 25	11181	11182
13/5 with spill tray bases	136 x 53.5 x 200	130 x 50	4 x shelf tray, galvanised	4 x 33	11183	11184
10/5 with grating levels	106 x 53.5 x 200	100 x 50	1 x shelf tray, 3 x grating, galvanised	1 x 25	11185	11186
13/5 with grating levels	136 x 53.5 x 200	130 x 50	1 x shelf tray, 3 x grating, galvanised	1 x 33	11187	11188

Note: An expansion unit is supplied without a frame on one side and can only be used in conjunction with the base field.

ACCESSORIES FOR ENVIRONMENTAL/HAZMAT RACK 10/5 AND 13/5

Description	for type 10/5	for type 13/5
	Order no.	Order no.
Additional shelf spill tray	11189	11190
Additional grating as storage shelf	11191	11192
Braces (two units) for shelf tray and grating as storage shelf	11365	11366
Removable grating	11193	11194
Wall fixing	11195	11195

Environmental/HazMat cabinets PG 9

For the safe and proper storage of water-hazardous and environmentally hazardous substances in buildings pursuant to TRGS 510.

The CEMO environmental cabinets are manufactured from quality sheet steel. All cabinets are approved by the floor trays according to StawaR. Since the doors are lockable, access can be restricted to a group of people who are experts in handling hazardous substances. Ideal also for storage of pesticide. Not suitable for the storage of flammable substances in working rooms.

The following applies to all environmental cabinets on this double page:

- floor tray according to StawaR in 3 mm-thick steel
- each shelf is a spill tray
- high-quality powder coating in grey (RAL 7035)
- lockable doors by means of a cylinder lock
- ventilation openings in the doors for natural ventilation
- supplied fully assembled and ready for immediate use
- the cabinet top has a connection (NW75) for an external ventilation system
- sticker for risk advising included

Environmental cabinet 5/10, 10/10, 5/20 & 10/20 and approved pursuant to StawaR

4 sizes for best utilisation of space

- all storage levels are manufactured as galvanised trays
- height-adjustable storage levels, further trays can be ordered as accessories for an additional storage level
- document pouch on inside of door



Environmental/HazMat cabinet 10/20



Environmental/HazMat cabinet 5/20



Environmental/HazMat cabinet 10/10



Environmental/HazMat cabinet 5/10



ENVIRONMENTAL/HAZMAT CABINETS 5/10, 10/10, 5/20 AND 10/20

Description	Scope of delivery: Floor tray, shelf tray	Overall dimensions cm (l x d x h)	Load capacity per level kg	Weight approx. kg	Order no.
Environmental/HazMat cabinet 5/10	1 x 30 L, 1 x 20 L	50 x 50 x 100	65	38	10999
Environmental/HazMat cabinet 10/10	1 x 30 L, 1 x 20 L	95 x 50 x 100	65	54	11000
Environmental/HazMat cabinet 5/20	1 x 30 L, 3 x 20 L	50 x 50 x 195	65	61	11001
Environmental/HazMat cabinet 10/20	1 x 30 L, 3 x 20 L	95 x 50 x 195	65	88	11002

ACCESSORIES FOR ENVIRONMENTAL/HAZMAT CABINETS 5/10, 10/10, 5/20 AND 10/20

Description	for type	Weight approx. kg	Order no.
Shelf tray	5/10, 5/20	2.5	11005
Shelf tray	10/10, 10/20	4	11006
Perforated plate insert for shelf tray	5/10, 5/20	2.2	11007
Perforated plate insert for shelf tray	10/10, 10/20	3.2	11008
Perforated plate insert for floor tray	5/10, 5/20	2.5	11060
Perforated plate insert for floor tray	10/10, 10/20	3.5	11061

Environmental/HazMat cabinets PG 9

For the safe and proper storage of water-hazardous and environmentally hazardous substances in buildings pursuant to TRGS 510.

①

Environmental cabinet with sliding door and approved pursuant to StawaR

- ideal for tight spaces
- each sliding door is mounted on rollers and can therefore be operated with one hand
- all shelves are manufactured as spill trays
- height-adjustable shelves
- all spill trays galvanised



②

Environmental cabinet with fully extending drawers and approved pursuant to StawaR

- removable galvanised shelf trays enable best access to all stored containers and tanks
- with interlock protection as standard so that not more than one sliding shelf can be open simultaneously
- all trays galvanised

② Environmental/HazMat cabinet 10/20 with fully extending drawers



③

Environmental cabinet designed as a canister cabinet and approved pursuant to StawaR

- filling directly from the canister store (up to 15 canisters)
- the floor tray can be pulled out at the same time as the canister shelf to catch any spillage during filling
- the canister holder is suitable for most popular designs
- with interlock protection as standard so that the shelf tray cannot be open at the same time as more than one canister level
- all internals painted in RAL 7035
- shelf tray galvanised



① Environmental/HazMat cabinet 15/20 with sliding doors



③ Canister cabinet 10/20 (canisters not included)

Description	Scope of delivery	Overall dimensions cm (l x d x h)	Load capacity per level kg	Weight approx. kg	Order no.
Environmental cabinet 10/20 with sliding doors	1 x Floor tray 30 L, 3 x Shelf tray @ 20 L	100 x 50 x 195	65	95	11011
① Environmental cabinet 15/20 with sliding doors	2 x Floor tray @ 30 L, 6 x Shelf tray @ 20 L, centre divider	150 x 50 x 195	65	150	11012
Environmental cabinet 10/20 with fully extending drawers	1 x Floor tray 30 L, 3 x Shelf tray @ 20 L	95 x 50 x 195	70	108	11009
② Environmental cabinet 12/20 with fully extending drawers	1 x Floor tray 39 L, 3 x Shelf tray @ 20 L	120 x 50 x 195	70	120	11010
③ Canister cabinet 10/20	1 x Floor tray 30 L, 1 x Lower shelf, 3 x Canister shelves	100 x 55 x 195	Canister shelf: 70 Lower shelf: 45	125	11014

Environmental/HazMat cabinets PG 9

Environmental/HazMat cabinet 13/20

Based on the drum rack 540, the Environmental/HazMat cabinet 13/20 serves for storage of environmentally harmful substances such as pesticides, lubricants, etc. The surface of the cabinet casing is sealed with a high quality powder coating (RAL 7035 light grey). The doors have ventilation slits top and bottom. On the inside of the door is a document holder in which packing notes, treatment instructions, etc can be properly stored. The base frame and the grating floor are completely hot-dip galvanised.

The Environmental/ HazMat cabinet 13/20 is optionally available **with a 150 L GRP sump/spill pallet with general construction inspection approval no. Z-40.1-227** or with a galvanised and welded tray bottom of 20 L capacity as the lowest storage level (in accordance with StawaR). Each level can support up to 200 kg. The shelf depth of 600 mm enables the horizontal storage of 60 L drums including discharge valve.

The cabinet requires assembly.



Environmental/HazMat cabinet 13/20 with GRP sump 150 L and 4 gratings



GRP sump with approval:





Closed, with warning signs



Environmental/HazMat cabinet 13/20 with tray bottom

ENVIRONMENTAL/HAZMAT CABINET 13/20

Description	Overall dimensions cm (l x w x h)	Weight approx. kg	Order no.
 <p>with GRP collection tray 150 L and 4 gratings as well as doors, side panels, roof and rear panel</p>	132 x 80 x 200	202	7954
 <p>with 3 gratings and 1 x tray bottom 20 L as well as doors, side panels, roof and rear panel</p>	132 x 63 x 200	204	7956

ACCESSORIES FOR ENVIRONMENTAL/HAZMAT CABINET 13/20

Description	Overall dimensions cm (l x w x h)	Weight approx. kg	Order no.
PE collection tray 40 L as insert tray (acid-/alkali resistant)*	130 x 62 x 8	5	7871
Barrel supports 3 off per storage level	130 x 62 x 8	1	7800

Please note: For a storage capacity of 200 L or more, approved collection trays may be prescribed. The collection volume/size of the collection tray should be sufficient for 10 % of the total volume / or rather minimum capacity of the largest container, depending which is higher.

* see page 159

PE chemicals cabinet PG 9

Modular, stackable PE cabinet for all applications requiring high resistance to the storage of corrosive media such as acids and lyes.

- colouring in grey with marbled surface finish
- door opens to right or left
- integral collection tray in floor element, two shelves can be used
- assembly in five minutes completely
- without tools; disassembly just as fast
- locking by means of padlock
- fixing to wall possible
- made from high-quality polyethylene (HDPE)
- option to connect mechanical ventilation via 2" thread
- parts for mounting single cabinet (5/10) to double and quadruple cabinet (10/10, 5/20, 10/20) are inclusive



PE chemicals cabinet 5/10



PE chemicals cabinet 10/20



PE chemicals cabinet 5/20



PE chemicals cabinet 10/10

Description	Overall dimensions cm (l x d x h)	Collection volume L	Weight approx. kg	Order no.
PE chemicals cabinet 5/10	46 x 56 x 91.5	1 x 12	21	11019
PE chemicals cabinet 10/10	92 x 56 x 91.5	2 x 12	42	11020
PE chemicals cabinet 5/20	46 x 56 x 183	2 x 12	42	11021
PE chemicals cabinet 10/20	92 x 56 x 183	4 x 12	84	11022

PE environmental cabinets PG 9

For storage of environment- and water-hazardous liquids

- suitable for aggressive media (e.g. acids & lyes)
- lockable swing doors
- integrated bund
- shelves made of resistant stainless steel
- only for indoor use
- ideal for storing small quantities
- polyethylene body manufactured in single-piece rotation moulding



PE environmental cabinet S (Small) with storage in swing door and storage area on top



PE environmental cabinet L (Large) installed on optional, forkliftable sump (see accessory)



PE environmental cabinet M (Medium)

Description	External dimensions cm (l x w x h)	Internal dimensions cm (l x w x h)	Collection volume L	Weight approx. kg	Load capacity per shelf kg	Order no.
PE Environmental Cabinet S	60 x 47 x 85	58 x 38 x 20	18	19	15	11196
PE Environmental Cabinet M	97.5 x 52 x 118	95 x 41 x 31	47	38	50	11197
PE Environmental Cabinet L	99 x 500 x 166	97 x 41 x 31	28	53	50	11198

ACCESSORY

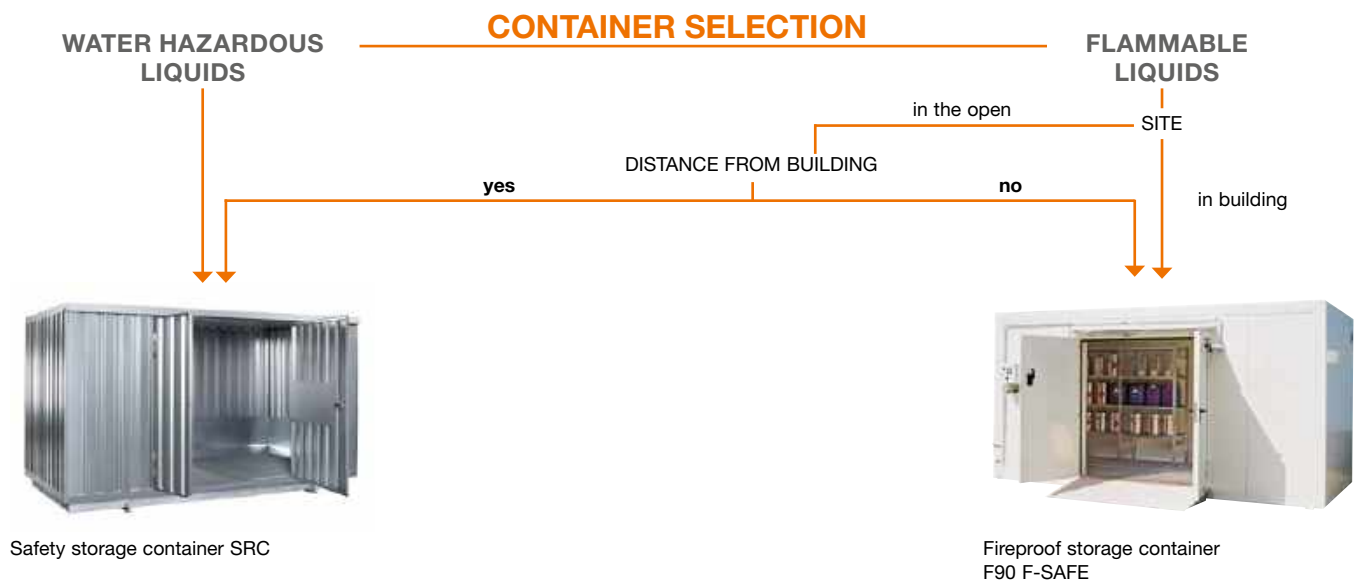
Separate sump for PE Environmental Cabinet L	103 x 53 x 17		40	7		11199
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Storage of hazardous substances outdoors

It is not always possible for businesses to store hazardous substances indoors. Sometimes it is recommended to reduce risk by storing hazardous substances outdoors in suitable containers. One needs to distinguish between storage containers without fire protection features (Safety Storage Containers (SRC) and hazardous substance depots) and those with fire-

resistant features (F90 fireproof container). When storing flammable substances, EX-protective equipment is generally required because a potentially explosive zone can be expected. In principle, the hazardous substances store should be fitted with a liquid-tight sump that should be certified.

The collection volume of a hazardous substance store must be capable of containing 10% of the total volume of liquids stored, or the volume of the largest container (e.g. drum or IBC). Please note: there are different regulations in water protection areas, if storage is permitted there



SAFE DISTANCES

When **flammable liquids** are stored with out fireproof storage facilities, a safety distance must be maintained. This distance depends on the quantity to be stored in accordance with **TRGS (Technical Rule for Hazardous Substances) 510, Annex 5, Nr. 4, para. 2:**

Combined stored volume less than 200 kg:	3 metres
Combined stored volume between 200 kg and 1000 kg:	5 metres
Active storage (see below) or combined stored volume more than 1000 kg:	10 metres

Alternatively, either fire-resistant building exterior walls (F90 in accordance with DIN 4102) or fire-resistant components between buildings and hazardous material storage in specified height and width would be sufficient, but in practice this occurs in very few cases. However, if a hazardous materials store is to be erected directly against a building, an F90 Fire proof container in fireproof construction is required.

ACTIVE AND PASSIVE STORAGE OF FLAMMABLE LIQUIDS

1. Passive storage is when storage takes place in tightly closed containers. During the storage the containers may not be emptied or filled containers, even opening for other purposes is prohibited. Generally natural ventilation is sufficient.
2. Active storage refers to those storage situations in which the containers are opened for dispensing or refilling. Mechanical ventilation is mandatory in these cases. An exception can be made for small hazardous substance stores (observe risk assessment).

Description	Passive storage	Active storage
Safety distance available	SRC (Depot) Natural ventilation (0.4 times air change)	SRC (Depot) Mechanical ventilation (5 times air change)
No safety distance possible	F 90 fireproof container Mechanical ventilation (5 times air change)	F 90 fireproof container Mechanical ventilation (5 times air change)

HazMat collection stations PG 9

Hazardous substance collection stations from glass fibre reinforced plastic (GRP)

offer central, safe storage for different containers and liquids. The GRP sump pallet with splash protection wall is suitable to store liquids of all the water-polluting classes.

The wide opening, Lockable lid with gas struts enables easy loading/unloading and allows outdoor use – station has galvanised floor frame with grating.



Hazardous substance collection station with roller floor for outdoor installation. Barrel stand as accessory (see page 177)



Hazardous substance collection station with grated floor for indoor installation without any hood. Barrel stand as accessory (see page 177)



Hazardous substance collection station with grated floor with general technical approval no. Z-40.12-228 granted by DIBt-Berlin

GRP HAZARDOUS SUBSTANCE COLLECTION STATION

Description	Surface area cm (l x w)	Height cm	Weight approx. kg	Order no.
Collection station with grating floor for outdoor installation (with hood), with 200 L containment volume	150 x 85	211	85	3412
Collection station with grating floor for indoor installation (without hood), with 200 L containment volume	150 x 85	138	60	5229

ACCESSORIES FOR GRP HAZARDOUS SUBSTANCE COLLECTION STATION

Description	Order no.
Hood, lockable, complete with fittings, suitable for order no. 5229	3341
Exchangeable lock individual lock	6655
Exchangeable lock with simultaneously locking lock	5643

PE drum depot

with general construction inspection approval no. Z-40.22-380

- approved for the storage of water-polluting and aggressive liquids
- safe storage of 200 L drums indoors or outdoors
- collection tray, perforated plate and hood in polyethylene (PE)
- collection tray can be driven under on both sides
- hood with four cut-outs for ground anchoring
- two smooth-running, rugged, yet flexible PE blinds for access from both sides (opened either at the front or rear)

- 2 storage compartments on the inside side walls
- lockable (padlock not included in the scope of delivery)
- high chemical resistance to aggressive media



Accessory: access ramp for PE drum depot 250-4-GH



Type PE 250-2-GH with hood for storing up to four 200 L drums

Description	Collection volume L	Capacity	External dimensions cm (l x w x h)	Weight approx. kg	Order no.
PE Drum depot 250-2-GH	224	2 drums at 200 L	156.5 x 99.5 x 211	111	8933
PE Drum depot 250-4-GH	242	4 drums at 200 L	156.5 x 162 x 211	157	8934

ACCESSORIES FOR PE DRUM DEPOT

Description	External dimensions cm (l x w x h)	Carrying capacity kg	Weight approx. kg	Order no.
Access ramp for PE drum depot 250-2-GH	250 x 75 x 45	500	54	10518
Access ramp for PE drum depot 250-4-GH	175 x 75 x 30	500	27	10519

HazMat collection stations PG 9

- can be installed outdoors due to weather-resistant coating (similar to RAL7035)
- approved according to StawaR for the storage of water-hazardous (WGK 1-3) and flammable liquids (H224-226)
- cover can be held open as required by means of gas struts
- opening slits for natural ventilation
- doors can be locked to prevent unauthorised access
- ground clearance to allow the depot to be forkliftable
- space to accommodate chemical and Euro pallets
- supplied fully-assembled
- hazard sticker enclosed for identification as a hazardous material storage facility
- horizontal drum storage possible with installation of drum rack (optional accessory) with 2 shelves for 2 x 200 L or 3 x 60 L drums per shelf
- additional storage levels for canisters etc. available with the small container rack (optional accessory)
- for the storage of flammable liquids please note the safety distances from buildings specified in the regulations (TRGS 510, paragraph 5).



Wide-opening doors for easy access



Hazardous material depot 400 with optional drum rack



Hazardous material depot 320 with optional small container rack

Description	Dimensions cm (l x w x h)	Collection volume L	Capacity	Weight approx. kg	Order no.
Steel hazardous material depot 320	150 x 120 x 189.5	320	2 x 200 L / 6 x 60 L	209	11015
Steel hazardous material depot 400	150 x 150 x 189.5	400	4 x 200 L / 9 x 60 L	250	11016

ACCESSORIES FOR STEEL HAZARDOUS MATERIAL DEPOT

Description	Dimensions cm (l x w x h)	Order no.
Drum shelf for steel hazardous material depot, horizontal drum storage, galvanised design, per storage level either 2 x 200 L drums or 3 x 60 L drums	135 x 52 x 90	11017
Small container shelf for steel hazardous material depot, 3 tray bottoms, galvanised design, up to 4 height-adjustable storage levels	135 x 61 x 135	11018

Safety storage containers PG 9

This accessible container offers a compact solution for storage of a variety of hazardous materials. By the modular principle, this can be supplied in a variety of sizes and can be tailored to individual demands on site.

Surface area coverage from 2–42 m²



SRC 5.1W
with 2 swing doors fitted to long side



Storage for
plant pesticide
(example painted green)

- ✓ Fully-assembled model
- ✓ Galvanised sheet steel
Alternative: Galvanised and painted (RAL 5002 ultramarine blue, other colours available on request)
- ✓ Wall and roof elements from galvanised trapeze profile corrugated sheet steel
- ✓ Floor sections made as hot dipped galvanised steel sump floor.
 - resistant to chemicals according to Chemical compatibility guide DIN 6601
 - steel S235JR according to EN 10025
- ✓ 100 mm ground clearance
- ✓ Floor grating removable (load limit 1000 kg/m²)
- ✓ Large, single swing door (width 1240 mm)

- ✓ Traversable roof (designed to withstand 125 kg/m² snow load)
- ✓ drainage via interior gutters
- ✓ Spill guards on walls to protect against spills
- ✓ Door handles inside and outside



SRC 3.1W
with door on narrow side



FOR EVERY APPLICATION THE CORRECT CONTAINER CONFIGURATION

Type series
SRC-W



Storage of water-polluting liquids (WGK [water hazard class] 1-3)

- ✓ Sump/spill pallet, walls and roof made of sheet steel

Example storage situation:
Chemicals, water-polluting liquids

Type series
SRC-N



Storage of combustible and flammable liquids (WGK 1-3, H224-226)

- ✓ Sump/spill pallet, walls and roof made of sheet steel
- ✓ Perforations for natural ventilation (min. 0.4 air changes guaranteed)

Example storage situation:
Fuel, petrol, oils, solvents

Type series
SRC-TB



Storage of temperature-sensitive, water-polluting liquids (WGK [water hazard class] 1-3)

- ✓ Sump/spill pallet made of sheet steel
- ✓ Walls and roof made of thermal insulation material (building material class B1: flame retardant)

Example storage situation:
Pesticides, cleaning agents, chemicals, housing for dosing systems

Type series
SRC-TA



Storage of temperature-sensitive, flammable liquids (WGK 1-3, H224-226)

- ✓ Sump/spill pallet made of sheet steel
- ✓ Walls and roof made of thermal insulation material (building material class A1: non-combustible)

Example storage situation:
Sensitive paints and varnishes

* Multi-module containers from size 4.x are delivered in individual modules

Safety storage containers PG 9

STORAGE OF SUBSTANCES HAZARDOUS TO WATER (WGK [WATER HAZARD CLASS] 1-3):

Safety storage containers can be installed both indoors and outdoors.

Observe official requirements for larger storage quantities, in particular for WGK 3 (highly hazardous to water).

STORAGE OF FLAMMABLE SUBSTANCES (H224-226):

Normal case: passive storage

Four fundamental specific features must be taken into account here:

- The prescribed safety distance between material and buildings is maintained
- Sufficient ventilation is guaranteed
- The electrical equipment is explosion-proof and the container is earthed
- For variants with thermal insulation: only type series TA

If the spatial situation on the property does not permit a safety distance, an F90 fireproof storage unit with DIBt approval must be used (see page 198).

See the detailed explanation of the regulations on page 185.

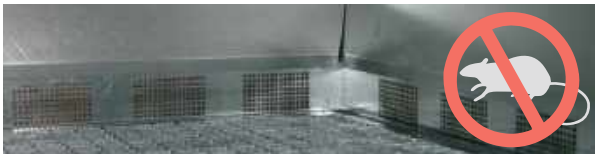
Special feature: active storage

e.g. decanting, removing, filling, etc. into and from drums, IBCs and small containers

In addition to the technical requirements for passive storage, the container must imperatively have technical ventilation (forced ventilation) for 5 times air exchanges. We also recommend exhaust air monitoring of the ventilation system for maximum safety.

EQUIPMENT OPTIONS (STANDARD OR OPTIONAL)

Natural ventilation



Min. 0.4 times air change rate confirmed by expert. Micro-perforation protects against penetration by small animals and rodents.

Mechanical ventilation



Forced ventilation for 5 times air changes.

Thermal insulation



For protection against frost and cold. Dependent on the storage medium in building material A1 or B1. Frequently used in conjunction with heating and ventilation (for accessories see page 190).

Grating



In addition to the standard grid, a closer-meshed grating with better lift truck access is also available if required.

Single or double-wing doors



Single-wing door already in place creates an opening of 1240 cm (e.g. for chemical pallets), two-lead variant provides significantly greater opening.

Sliding door



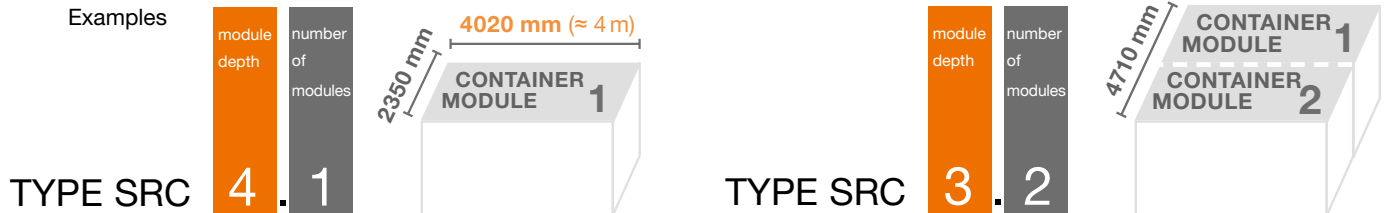
Convenient access. No slamming in the wind compared to winged doors. Not possible for thermo-insulated containers.

Safety storage containers PG 9

CONTAINER DESIGNATION: MODULAR DESIGN SYSTEM

FIGURE 1: Module depth or width of the basic size (rough guideline value)

FIGURE 2: Number of assembled modules



TYPE SERIES SRC W FOR WATER POLLUTING SUBSTANCES/HAZMAT



Description	External dimensions cm (l x w x h)	Weight approx .kg	Collection volume in L	Galvanised model		Galvanised and painted	
				Position of door		Position of door	
				Long side Order no.	Narrow side Order no.	Long side Order no.	Narrow side Order no.
Type SRC 1.1W	235 x 91.5 x 241	240	300	8043	–	8210	–
Type SRC 2.1W	235 x 195 x 241	440	630	8044	8743	8211	8752
Type SRC 3.1W	298.5 x 235 x 241	650	1000	8744	8045	8753	8212
Type SRC 3.2W	471 x 298.5 x 241	1150	2 x 1000	8745	8209	8754	8213
Type SRC 3.3W	705 x 298.5 x 241	1690	3 x 1000	8746	8749	8755	8758
Type SRC 4.1W	402 x 235 x 241	820	1000	8747	8750	8756	8759
Type SRC 5.1W	505.5 x 235 x 241	980	1000	8748	8751	8757	8760
Type SRC 6.1W	609 x 235 x 241	1200	1000	10528	10529	10530	10531



Exception:
Only in con-
junction with
technical
ventilation
(optional,
see acces-
series)

Standard sizes 4.2, 5.2, 6.2 and 6.3 on request. | On delivery: Unloading of the goods by the customer

TYPE SERIES SRC TB FOR WATER POLLUTING SUBSTANCES/HAZMAT WITH THERMAL INSULATION



Description	External dimensions cm (l x w x h)	Weight approx.kg	Collection volume in L	Galvanised model		Galvanised and painted	
				Position of door		Position of door	
				Long side Order no.	Narrow side Order no.	Long side Order no.	Narrow side Order no.
Type SRC 1.1TB	235 x 91.5 x 245	460	300	8214	–	8218	–
Type SRC 2.1TB	235 x 195 x 245	770	630	8215	8761	8219	8764
Type SRC 3.1TB	298.5 x 235 x 245	1090	1000	8762	8216	8765	8220
Type SRC 3.2TB	471 x 298.5 x 245	1870	2 x 1000	8763	8217	8766	8221

All standard sizes of the SRC-W type series also with TB insulation. | On delivery: Unloading of the goods by the customer

TYPE SERIES W ST WITH SLIDING DOOR FOR WATER POLLUTING SUBSTANCES/HAZMAT



Description	External dimensions cm (l x w x h)	Door position on wall side	Weight approx. kg	Collection volume L	Galvanised	Galvanised and painted
					Order no.	Order no.
Type SRC 3.1W ST	298.5 x 237 x 241	298.5	650	1000	8767	8772
Type SRC 3.2W ST	473 x 298.5 x 241	298.5	1150	2 x 1000	8768	8773
Type SRC 3.3W ST	707 x 298.5 x 241	298.5	1690	3 x 1000	8769	8774
Type SRC 4.1W ST	402 x 237 x 241	402	820	1000	8770	8775
Type SRC 5.1W ST	505.5 x 237 x 241	505.5	980	1000	8771	8776
Type SRC 6.1W ST	609 x 237 x 241	609	1200	1000	10532	10533

Further standard sizes on request. | On delivery: Unloading of the goods by the customer

Safety storage containers PG 9

TYPE SERIES SRC N WITH NATURAL VENTILATION



Description	External dimensions cm (l x w x h)	Weight approx. kg	Collection volume in L	Galvanised model		Galvanised and painted	
				Position of door		Position of door	
				Long side Order no.	Narrow side Order no.	Long side Order no.	Narrow side Order no.
Type SRC 1.1N	235 x 91.5 x 241	240	300	10339	-	10340	-
Type SRC 2.1N	235 x 195 x 241	440	630	10341	10342	10343	10344
Type SRC 3.1N	298.5 x 235 x 241	650	1000	10345	10346	10347	10348
Type SRC 3.2N	471 x 298.5 x 241	1150	2 x 1000	10349	10350	10351	10352
Type SRC 3.3N	705 x 298.5 x 241	1690	3 x 1000	10353	10354	10355	10356
Type SRC 4.1N	402 x 235 x 241	820	1000	10357	10358	10359	10360
Type SRC 5.1N	505.5 x 235 x 241	980	1000	10361	10362	10363	10364
Type SRC 6.1N	609 x 235 x 241	1200	1000	10534	10535	10536	10537

Standard sizes 4.2, 4.3, 5.2, 5.3, 6.2 and 6.3 on request! | On delivery: Unloading of the goods by the customer

TYPE SERIES SRC TA WITH THERMAL INSULATION FOR FLAMMABLE LIQUIDS



Description	External dimensions cm (l x w x h)	Weight approx. kg	Collection volume in L	Galvanised model		Galvanised and painted	
				Position of door		Position of door	
				Long side Order no.	Narrow side Order no.	Long side Order no.	Narrow side Order no.
Type SRC 1.1TA	235 x 91.5 x 247	460	300	11215	-	11216	-
Type SRC 2.1TA	235 x 195 x 247	770	630	11217	11218	11219	11220
Type SRC 3.1TA	298.5 x 235 x 247	1090	1000	11221	11222	11223	11224
Type SRC 3.2TA	471 x 298.5 x 247	1870	2x1000	11225	11226	11227	11228

All standard sizes of the SRC-W type series also with TA insulation. | On delivery: Unloading of the goods by the customer

TYPE SERIES SRC N ST WITH SLIDING DOOR AND NATURAL VENTILATION



Description	External dimensions cm (l x w x h)	Door position on wall side	Weight approx. kg	Collection volume L	Galvanised	Galvanised and painted
					Order no.	Order no.
Type SRC 3.1N ST	298.5 x 237 x 241	298.5	650	1000	10365	10366
Type SRC 3.2N ST	473 x 298.5 x 241	298.5	1150	2 x 1000	10367	10368
Type SRC 3.3N ST	707 x 298.5 x 241	298.5	1690	3 x 1000	10369	10370
Type SRC 4.1N ST	402 x 237 x 241	402	820	1000	10371	10372
Type SRC 5.1N ST	505.5 x 237 x 241	505.5	980	1000	10373	10374
Type SRC 6.1N ST	609 x 237 x 241	609	1200	1000	10538	10539

Further standard sizes on request. | On delivery: Unloading of the goods by the customer

Please make the most of the opportunity for a consultation:

- container size and media to be stored
- equipment options
- Door layout (long side or short side)
- option of unloading at point of use (as standard, unloading by customer)
- requirements for on-site preparation (e.g. foundation plan)

Please note size-related specifics:
e.g. centre supports, restrictions to the door position



SRC 3.1 painted with single-leaf door (199.6 cm high, 130 cm wide) on long side, rack and translucent sheet (optional, see accessories)






















We recommend concluding a maintenance contract for the annual safety inspection together with your purchase. Talk to us!




SRC 4.1, galvanised and painted

Accessories safety storage containers PG 9

Description	Weight approx. kg	Order no.
 Shelf short, for slotting into place, shelf dimensions 100 x 50 cm, 3 shelves (load 120 kg / storage level)	34	8046
 Shelf long, for slotting into place, shelf dimensions 200 x 50 cm, 3 shelves (load 120 kg / storage level)	63	8047
 Access ramp*, (not suitable for models with sliding doors) max. wheel load 450 kg, 70 x 120 cm (w x d)	34	8048
Close-meshed grating		on request
 Double wing door, optional (199.6 cm high, door wing 125 cm wide, side wing 65 cm)		8222
Double wing door insulated, optional (199.6 cm high, door wing 125 cm wide, side wing 65 cm)		8223
 PVC translucent sheet 90 x 200 cm to allow for daylight illumination		10270
  Fan for mechanical ventilation in explosion-proof model (EX)		8224
Exhaust air monitoring for mechanical ventilation		on request
  Ribbed tube heater 850 W for safety storage container 1.1 T up to 3.1 T in explosion prevention model		8225
  Ribbed tube heater 1700 W for safety storage container 3.2 T in explosion-proof model		8226
 Convactor heater with temperature controller (non-ex, picture similar)	2 kW	10271
	3 kW	10272
  Oval lamp 60 W in explosion prevention model, incl. switch (non-ex)		8227
  Linear luminaire 2 x 58 W in explosion-proof model including switch (non-ex)		8228
 Fuse box IP 54 (imperatively necessary in case of electrical equipment)		8230
 Set of 4 crane eyelets for up to 1 t total load for safety storage container SRC 1.1, SCR 2.1 and SRC 3.1		10070
 Set of 4 crane eyelets with bars for up to 3 t total load for safety storage container SRC 3.1, SCR 4.1, SRC 5.1 and SRC 6.1		10071

UNLOADING

Important: Containers are unloaded by the customer, as standard (i.e. the truck comes without a loading crane). If required, the loading crane truck can be booked as an add-on for the unloading process in advance.

Description	Order no.
 Unloading using the loading crane truck (no discount)	8239

Rack containers PG 9

These approved rack containers are always used when high storage capacities are required in the tightest space. The hazardous material storage facility can be set up for water-polluting or flammable liquids and can be individually adapted to the operational requirements.

- Approved by the DIBt for the storage of water-polluting liquids (WGK 1-3). Flammable liquids (H224-226) are also included here (dependent on container variant).

- Storage capacity can be arranged at will thanks to different rack widths, 1-3 storage levels and single or double rack width and depth.
- ideal for storing large quantities of drums and IBCs, dimensions match IBC, Euro and chemical pallets
- welded frame construction made of steel profiles
- adjustable levels thanks to removable, hot-dip galvanised gratings
- 100 mm ground clearance and therefore accessible for handling devices

The following variants are available:

- with wing door (single rack width) or sliding door (double rack width)
- wall model: either sheet metal (with or without natural ventilation) or thermal insulation in A1 or B1 model
- for vertical or horizontal drum storage or IBC storage
- accessible on one side (single rack depth) or both sides (double rack depth)
- extensive range of accessories (e.g. heating, mechanical ventilation, chemical-resistant model)

SAFETY INFORMATION:

When storing flammable liquids, please pay attention to the outdoor setup and the required safety distance between liquids and buildings in accordance with TRGS 510.

Safe alternative: F90 fireproof storage (see page 198)



Vertical drum storage in 3 storage levels



IBC storage over 2 storage levels



Vertical drum storage in 2 storage levels

CONFIGURATION OPTIONS

Description	Possible rack widths in m	Rack depths (single/double)	Rack heights according to storage levels	Load	Order no.
horizontal drum storage	3,00	1.34/1.27	2x0.95 / 3x0.77	400 kg/drum support	on request
vertical drum storage	2.70 / 3.00 / 3.90	1.34/1.27	1x2.00 / 2x1.24 / 3x1.24	1000 kg/m ²	on request
IBC storage	2.70 / 3.38 / 3.90	1.34/ 1.27	1x 2.00 / 2x1.50/3x1.50	1200 kg/m ²	on request

Secure cabinets FWF 30 and FWF 90 F-SAFE PG 9

Cabinets for proper storage of hazardous substances in work areas in accordance with DIN EN 14470-1 and TRGS 510 (Annex 3).

The F-SAFE secure cabinets are design approved in accordance with DIN EN 14470-1 and comply with DIN EN 14727 (Laboratory Furniture Directive).

The cabinets are resistant to fire for 30 or 90 minutes. The outer body consists of a non-combustible material. The surface coating is highly resistant to chemicals. Body colour light grey, similar to RAL 7035. Door colour zinc yellow, similar to RAL 1018.



Type 12/20



Type 12/20 with 3 tray bottoms and 1 x 44 L bottom tray



Can be accessed by forklift for better positioning in the building

COLLECTION VOLUMES

While the collection volume of 10% of the total amount of stored liquids must be ensured when using collection trays, a different regulation applies in the case of secure cabinets: it must be possible to collect at least 110% of the largest container.

VENTILATION

A technical ventilation system (see page 197) with 10 air changes per hour has the advantage that, in normal operation with closed containers, no explosive atmosphere can occur outside the cabinet.

Operation is also possible without technical ventilation. For this, however, the cabinet must be earthed via equipotential bonding to prevent electrostatic charging. If a secure cabinet is not connected to a technical ventilation system, this may also affect the explosion-proof zone. Zone 1 applies to the inside area, Zone 2 applies to the surrounding area within a radius of 2.5 m. We generally recommend using technical ventilation (page 197)

SECURE CABINETS FWF 30

Secure cabinets with 90-minute fire resistance are considered to be "state of the art" in Germany. However, secure cabinets with 30-minute fire resistance may also be used with restrictions, pursuant to TRGS 510 (Annex 3).

The restrictions for FWF 30 cabinets are as follows:

1. only one cabinet is installed per separate building unit/fire (-fighting) compartment; if the area of the separate building unit/fire(-fighting) compartment is greater than 100 m², one cabinet may be installed every 100 m², or
2. the building unit/fire(-fighting) compartment is protected by an automatic fire detection system and recognised plant fire brigade with a response time of at most 5 minutes from the alarm being raised, or an automatic extinguishing system is in place.

EXCEPTIONS IN THE CASE OF EXTREMELY FLAMMABLE LIQUIDS (H224):

Flammable liquids whose ignition temperature is below 200°C and which have been classified as „extremely flammable“ (H224) may only be stored in FWF 90 secure cabinets with technical ventilation.

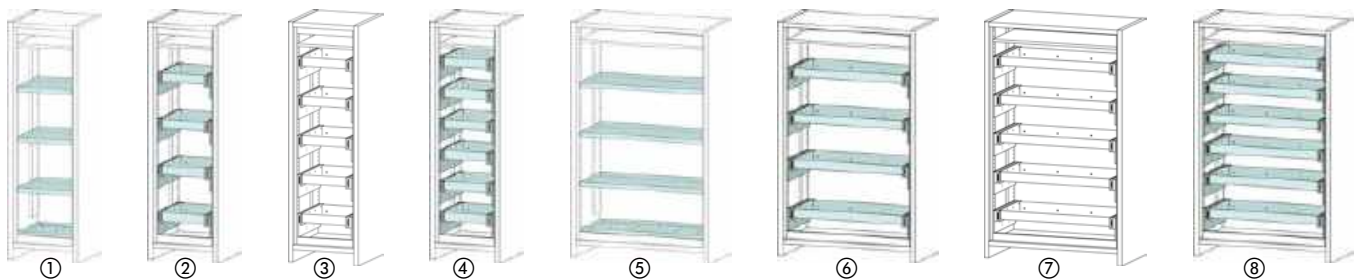
Secure cabinets FWF 30 PG 9

Version secure cabinet FWF 30:

- with sign GS and CE
- 30 minute fire-resistance
- single-layer doors and walls in homogenous full material
- in case of fire, self-closing ventilation openings on the top of the cabinet, DN 100 mm
- hydraulic door closer with integrated arrest system (thermally triggered)

- earthing to avoid the danger of ignition due to electrostatic discharge
- height-adjustable feet, can be aligned from inside
- with removable base trim so it can be driven under
- 3 height-adjustable, steel plate tray bottoms, powder-finished in RAL 7035, load bearing capacity 75 kg
- one steel plate bottom tray, powder-finished in RAL 7035 with a perforated plate insert

- fully-extending drawers for the storage of small containers, load bearing capacity 65 kg, or 11 kg for 28 litre
- 6/20 with bottom tray 19 litre, 12/20 with bottom tray 44 litre



Description / Type	External dimensions cm (l x d x h)	Internal dimensions cm (l x d x h)	Weight approx. kg	Order no.
① 6/20 – FWF 30 3 tray bottoms, 1 bottom tray	59.5 x 59.5 x 196	47.5 x 51.5 x 160	147	8057
② 6/20 – FWF 30 4 full drawers	59.5 x 59.5 x 196	47.5 x 51.5 x 160	206	10622
③ 6/20 – FWF 30 5 full drawers	59.5 x 59.5 x 196	47.5 x 51.5 x 160	220	10623
④ 6/20 – FWF 30 6 full drawers	59.5 x 59.5 x 196	47.5 x 51.5 x 160	235	10624
⑤ 12/20 – FWF 30 3 tray bottoms, 1 bottom tray	119.5 x 59.5 x 196	107.5 x 51.5 x 160	226	8055
⑥ 12/20 – FWF 30 4 full drawers	119.5 x 59.5 x 196	107.5 x 51.5 x 160	291	10625
⑦ 12/20 – FWF 30 5 full drawers	119.5 x 59.5 x 196	107.5 x 51.5 x 160	308	10626
⑧ 12/20 – FWF 30 6 full drawers	119.5 x 59.5 x 196	107.5 x 51.5 x 160	324	10627

Secure cabinets FWF 90 F-SAFE PG 9



Variant with hinged doors



Variant with fully-extending drawer (Figure shows usage example)

Secure cabinet FWF 90 under-table model:

- GS and CE conformity marks
- 90-minute fire resistance (EN 14470-1)
- single-layer doors and walls in homogeneous full material
- self-closing doors in case of fire
- ventilation openings on top of the cabinet, DN 100 mm
- adjustable metal feet on the underside of the cabinet
- earthing to prevent electrostatic charging

Variant with hinged doors

- for storage of small containers
- 24 L collection volume

Variant with fully-extending drawer

- smooth-running, fully-extending drawers for the storage of small containers, load bearing capacity 65 kg
- under-table cabinet with 49 L drawer with locking function
- rollers for easy movement
- locking status display
- includes certified pipe feed-through and earth terminal

Description / Type	External dimensions cm (l x d x h)	Internal dimensions cm (l x d x h)	Weight approx. kg	Order no.
11/6-FWF with hinged doors	110 x 50 x 67	101.5 x 35 x 53	185	8060
11/6-FWF with drawer	110 x 57 x 63	87 x 43 x 46.4	235	11024

Secure cabinets FWF 90 F-SAFE PG 9

Version secure cabinet FWF 90 F-SAFE:

- GS and CE conformity marks
- 90 minute fire-resistance
- single-layer doors and walls in homogeneous full material, sandwich rear wall with ventilation
- in case of fire, self-closing ventilation openings on the top of the cabinet, DN 100 mm
- single-leaf cabinet with hydraulic door closer with integrated arrest system (thermally triggered)
- double-leaf cabinets with free-running doors, intumescent seal in case of fire
- earthing to prevent the danger of ignition due to electrostatic charging

- height-adjustable feet, can be aligned from inside
- with removable base trim so it can be moved by forklift



Variant with tray bottoms

- 3 height-adjustable, steel plate tray bottoms, powder-finished in RAL 7035, load bearing capacity 75 kg
- one steel plate bottom tray, powder-finished in RAL 7035 with a perforated plate insert
- on request: additional sizes for drum cabinets

Variant with fully-extending drawers

- fully-extending drawers for the storage of small cVontainers (load bearing capacity 65 kg)

We recommend using technical ventilation (page 197)



Type 6/20

Type 6/20 with 3 tray bottoms and 1 bottom tray 20 L

Type 6/20 with 4 full drawers (à 11 litres)

Type 12/20 with 3 tray bottoms and 1 bottom tray 44 L

Type 12/20 with 4 full drawers (à 28 litres)



9

10

11

12

13

14

15

16

Accessories see page 197

Description / Type		External dimensions cm (l x d x h)	Internal dimensions cm (l x d x h)	Weight approx. kg	Order no.
9 6/20 – FWF 90	3 tray bottoms, 1 bottom tray	60 x 59.5 x 196	51.6 x 48.3 x 160.3	340	8701
10 6/20 – FWF 90	4 full drawers	60 x 59.5 x 196	51.6 x 48.3 x 160.3	394	10628
11 6/20 – FWF 90	5 full drawers	60 x 59.5 x 196	51.6 x 48.3 x 160.3	408	10629
12 6/20 – FWF 90	6 full drawers	60 x 59.5 x 196	51.6 x 48.3 x 160.3	422	10630
13 12/20 – FWF 90	3 tray bottoms, 1 bottom tray	120 x 59.5 x 196	111.6 x 48.3 x 160.3	600	8700
14 12/20 – FWF 90	4 full drawers	120 x 59.5 x 196	111.6 x 48.3 x 160.3	673	10631
15 12/20 – FWF 90	5 full drawers	120 x 59.5 x 196	111.6 x 48.3 x 160.3	691	10632
16 12/20 – FWF 90	6 full drawers	120 x 59.5 x 196	111.6 x 48.3 x 160.3	710	10633

Secure cabinets FWF 30 and FWF 90 F-SAFE PG 9

ACCESSORIES FOR SECURE CABINETS FWF 90 F-SAFE

Description	Order no.
① Cable feed-through Ø 30 mm for secure cabinets FWF 90 F-SAFE	10848
② Cable and pipe feed-through Ø 125 mm for secure cabinets FWF 90 F-SAFE	10962



Ventilation systems PG 9

FOR SECURE CABINETS

Emerging vapours and gases must be extracted directly on location. The ventilation systems prevent a build-up of gases in secure cabinets.

- Fans and the exhaust system must be connected to an exhaust air line that leads to the open air.
- The air filter system cleans the air and does not need an exhaust air line.

EXHAUST AIR FAN WITH AIRFLOW MONITORING

- sheet steel housing, powder-coated, light grey RAL7035
- includes cabinet connection adapter
- ATEX-compliant for extraction from Ex-zone 2 and installation in Ex-free zone
- sound pressure level Lp2A: 35 dB(A)
- flow rate: 50 - 200 m³/h
- overall pressure: 250 - 50 Pa
- floating output via DIN socket
- voltage: 230 V/87
- power consumption: max. 0.45 A
- frequency: 50 Hz
- protection class CE II 3 G T4



Exhaust fan (rear view) with adapter (included in scope of delivery) for connecting to the secure cabinet, connection nozzles (top of cabinet) for connecting to an external exhaust air line

RECIRCULATION FAN WITH ACTIVE CARBON FILTER

Plug&play recirculation fan with active carbon filter for discharging the exhaust air directly to the outdoor environment.

- sheet steel housing, powder-coated, light grey RAL7035
- incl. active carbon, coarse and fine filters
- ATEX-compliant for extraction from Ex-zone 2 and installation in Ex-free zone
- noise pressure level: 38 dB(A)
- flow rate: 25m³/h
- with volume flow monitoring
- saturation level monitoring for filters
- floating output via DIN socket
- voltage: 230 V / 50 Hz
- protection class CE II 3 G T4



- no exhaust line to outside necessary
- no wall penetration required

VENTILATION SYSTEMS FOR SECURE AND DRUM CABINETS

Description	External dimensions cm (l x w x h)	Order no.
Exhaust air fan SST AL with adapter SST-P for FWF90	42.5 x 25 x 25.5	8739
Recirculation fan SST UL with adapter SST-P for type FWF90	50 x 28.5 x 29.5	10963
Replacement filter set for recirculation fan SST UL	-	10964

F90 walk-in fireproof storage F-SAFE

The standardized BLS fireproof storage units were developed with the expertise gained in hundreds of hazardous material storage facilities built to individual customer specifications.

The BLS storage units are fireproof inside and outside for up to 90 minutes as required by DIN 4102. They have integrated sumps and are suitable for both indoor and outdoor use.

Each BLS storage unit is a separate fire compartment.

- F90 fire protection inside and outside
- delivered ready for use
- stable, welded design
- thermally insulated with a high thermal insulation value
- with integrated sump made of galvanised sheet steel

- load-bearing surface with removable, galvanised steel gratings, 1000 kg/m²
- automatically closing doors with anti-panic function
- door optionally in the narrow or long side, single- or double-leaf
- low threshold, 160 mm
- corrosion protection via 2C paint in RAL 9002 grey-white



BLS 2460 with 2-leaf door on the long side with optional access ramp*



BLS interior view with optional small parts rack



BLS 2460 with 1-leaf door on the narrow side (similar to image)

BLS 24 WALK-IN, F90

Description / Typ	External dimensions cm (l x w x h)	Internal dimensions cm (l x w x h)	Collection volume L	Storage capacity m ²	Weight to	Order no.
BLS 2420 DIBt	215 x 241.2 x 253	179 x 220 x 210	500	3.5	2.0	on request
BLS 2430 DIBt	315 x 241.2 x 253	279 x 220 x 210	780	5.5	2.1	on request
BLS 2440 DIBt	415 x 241.2 x 253	379 x 220 x 210	1060	7.6	2.4	on request
BLS 2450 DIBt	515 x 241.2 x 253	479 x 220 x 210	1340	9.7	2.9	on request
BLS 2460 DIBt	615 x 241.2 x 253	579 x 220 x 210	1620	11.8	3.2	on request
BLS 2470 DIBt	715 x 241.2 x 253	679 x 220 x 210	1880	13.9	4.1	on request
BLS 2480 DIBt	815 x 241.2 x 253	779 x 220 x 210	2100	15.9	4.7	on request

Ex works – Please ask for freight rates!

Other sizes, equipment versions and accessories such as technical ventilation, door retainer system with fire detection, heating, air-conditioning, stainless steel collection tray, access ramp, lighting, small parts racks, lightning protection, fire alarm system, fire extinguishing system, etc. upon request.

Storage and operation of lithium batteries

The importance of lithium batteries is increasing constantly in our everyday lives. These powerful batteries are increasingly being used not only in small mobile devices or in bicycles (e-bikes) but, correspondingly sized, also in industrial appliances, vehicles and machines. Lithium batteries are powerful, but not without their hazards.

Lithium batteries have long been classified as hazardous goods under transport law and are therefore subject to meticulous hazardous materials regulations which become stricter every 2 years.

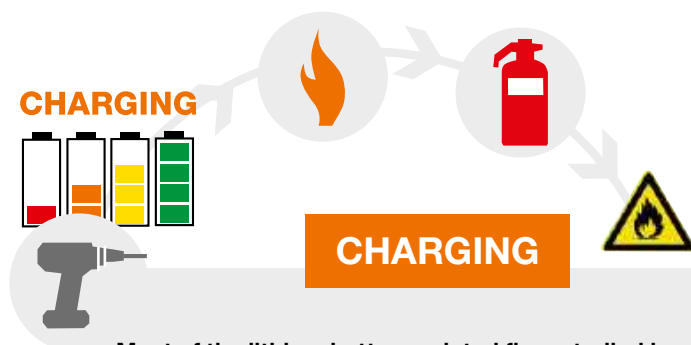
Lithium batteries require the utmost care during transport and particularly during storage and handling. If damaged or if handled incorrectly, these batteries can quickly lead to dramatic consequences, usually in the form of a fire. One reason why storing lithium batteries poses a fire safety challenge is that they are not under constant observation, and a fire can spread quickly and unnoticed.

The typical case of damage involves the battery igniting and explosively emitting jets of flame and toxic smoke.

Summary of the possible causes of fire:

- mechanical damage (e.g. impact, fall)
- improper charging process
- deep discharging
- overheating due to high ambient temperature

More information is available here:
www.akkusicherheit.de



CHARGING

Most of the lithium battery-related fires studied in Germany occurred during the charging process. Safety specialists, fire brigades and property insurers are therefore paying closer attention to this threat.

Unfortunately, practical experience has shown us that there are many (deliberately or unintentionally) wrong ways to charge batteries. Even a lithium battery which looks perfectly intact from the outside can already be damaged enough on the inside that adding electrical energy via the charger can cause a fire hazard. Charging stresses a lithium battery. Frequent charging, hard use and wear place a burden the battery to the point that any charging process could be the last one.

Charged lithium batteries pose a higher fire hazard (cause) and burn more intensely (effect). Therefore, the charging process must never be underestimated and must always take place under supervision at a designated location. Charging in the plant therefore requires the development of a hazard assessment which takes into account the risk to employees and the environment, as well as the spatial situation. It is therefore advisable to include the findings in the fire protection concept.

Overheating due to causes such as direct sunlight or heat build-up during charging must also be avoided.

STORAGE

So far, there are no public regulations for the storage and supply of lithium batteries. Occupational safety obligations and, above all, insurance guidelines nevertheless mean that the information to be observed regarding the storage and operation of lithium batteries is just as comprehensive as that applicable to traditional hazardous materials storage.

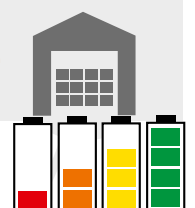
VdS Guideline 3103 from the German Insurance Association (GDV) is a current source for important information about storing and supplying lithium batteries.

Storage additionally involves the danger of a nearby fire spreading to the lithium batteries. A small, extinguishable fire source can then become a major challenge to the fire brigade.

A hazard assessment in combination with the right charging and storage solution effectively improves safety in the plant. Not all lithium batteries are the same. Therefore, there is no generally applicable protection scheme. Additionally, the information provided by the manufacturers of energy storage devices and battery-operated devices must be observed at all times.

Suitable technical protective measures, such as tested transport containers, safety cabinets or even fire protection containers, always depend on the situation in the plant.

CHARGING + STORAGE



CHARGE AND STORE LITHIUM BATTERIES SEPARATELY!

Storage and charging of lithium batteries

CEMO SAFETY NOTE

Safety rules for CHARGING

- Never charge in the storage area.
 - Maintain a clearance of several metres from combustible objects.
 - Never charge damaged or faulty batteries.
 - Avoid heat build-up during charging.
 - Use only the original charger.
 - Immediately disconnect the battery from the mains after charging.
 - Avoid charging overnight.
- Unsupervised charging poses a higher risk.

Fire extinguishing is still the most disputed topic regarding lithium batteries.

Although small quantities of water can worsen the reactions of lithium-ion batteries, large quantities have a cooling effect and, in the ideal case, can interrupt the thermal runaway process. The fire brigade also fight fires with plenty of water, which at least prevents the flames spreading to the surroundings. It is therefore crucial to alert the fire brigade as soon as possible so they can extinguish the fire.

Safety rules for STORAGE

- Protect against short circuit of the battery poles.
- Protect against mechanical damage.
- Separate storage, i.e. no mixed storage.
- When storing batteries inside buildings, maintain a distance of 2.5 m from other installations or store them in areas that are isolated in terms of fire protection (e. g. fire protection containers, safety cabinets).
- Immediately dispose of damaged products properly, even in case of slight abnormalities.
- Do not expose directly and permanently to high temperatures.
- Train employees how to handle lithium batteries properly.
- Provide suitable fire extinguishers.

Damaged/defective batteries, prototypes or batteries for disposal require a hazard assessment and possibly additional protective measures.

Additional storage solutions for lithium batteries

STEEL CONSTRUCTION

F90 F-SAFE fire prevention container with DIBt approval



F90 F-SAFE fire protection container with DIBt approval



Additionally available as a self container.

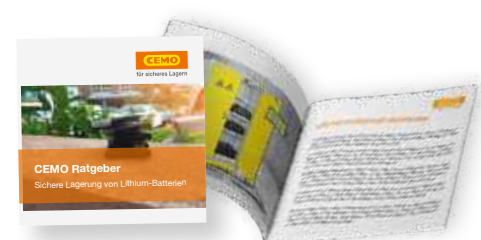


CONCRETE CONSTRUCTION

F90 F-SAFE fire prevention storage cell



F90 F-SAFE fire protection storage walk-in variant



Ask about our guide to storing lithium batteries.

Battery charging cabinet PG 9

Fire protection is important when charging lithium batteries. CEMO now offers a safe solution. Providing important safety equipment can minimise the consequences of these storage devices burning and significantly increase safety in the plant.

- charging of several lithium batteries in the cabinet
- early alarm in case of damage
- all relevant safety rules for charging lithium batteries are observed
- ideal for shielding batteries from the stored inventory during the charging process

Properties:

- MPA-tested fire resistance over 60 minutes from inside to outside according to DIN EN 1363-1
- Real battery fire test carried out by an independent university
- built using non-combustible, fire-resistant components
- special fire protection seals prevent flames escaping
- cold smoke-tight sealing system for openings
- transportable for positioning at the place of installation
- double-leaf, lockable doors with sturdy lock and mount
- doors painted orange, similar to RAL 2004; body grey, similar to RAL 7035

For all charging variants:

- heat dissipation by fan during charging
- power supplied by a four-socket power strip (3500 W, 16 A)
- charging current is interrupted if the doors are opened
- charging stops if a malfunction or accident occurs
- ventilation openings sealed with thermocouples

Optional:

Tested, fireproof cable duct for great flexibility (e.g. for cabling of the customer's fire alarm system)



Charging **Premium**



Charging **Basic**



Insight into the development work:

A real battery fire test with e-bike batteries was successful. For more information please ask for our product flyer.

Description	Order no.
Storage	Smoke alarm (without power connection or ventilation) 11341
Charging Basic	Smoke alarm, power supply in cabinet, technical ventilation, power disconnection in case of heat development, door contact switch 11342
Charging Premium	<u>Additionally to charging Basic:</u> with alarm, power disconnection in case of smoke development as well, smoke detector with floating output for alarm signal 11343
Charging Premium Plus	<u>Additionally to charging Premium:</u> with remote alarm and data transmission via SIM card; additional functions via remote access 11344

ACCESSORY

Description	Order no.
Fireproof cable duct	11345

Battery secure cabinet FWF90 PG 9

FOR THE STORAGE OF LITHIUM BATTERIES

These fireproof secure cabinets are well suited to storing lithium batteries. The proven quality is reflected in the 90-minute fire resistance pursuant to DIN EN 14470-1 on both the outside and the inside. In addition, the cabinet's unique design using non-combustible materials provides good fire protection from both the inside and the outside, even in the event that the stored lithium batteries suddenly ignite. This period is normally sufficient until further action can be taken. The risk of the fire spreading and accelerating is significantly reduced with this cabinet and consequential damage to the environment is effectively reduced in the event of flame formation caused by the lithium batteries inside the cabinet.



Cable duct:
accessory see page 197



Battery secure cabinet 12/20

These secure cabinets achieve a high level of safety, thereby providing strong support when conducting risk analyses for on-site storage. The safety cabinets are based on the current guidelines issued by the German Insurance Association (GDV) for the storage of undamaged lithium batteries (leaflet „VdS 3103“). We therefore recommend that you consult your property insurance company.

Note: With grey doors (similar to RAL 7035) as standard; zinc yellow (similar to RAL 1018) also available on request.

Description	External dimensions cm (l x d x h)	Internal dimensions cm (l x d x h)	Storage levels	Weight approx. kg	Order no.
Battery secure cabinet 11/6	110 x 57 x 63	87 x 43 x 46.6	1 drawer	235	11051
Battery secure cabinet 6/20	60 x 59.5 x 196	51.6 x 48.3 x 160.3	4 storage levels	340	11052
Battery secure cabinet 12/20	120 x 59.5 x 196	111.6 x 48.3 x 160.3	4 storage levels	600	11053

Battery secure cabinet PRO FWF90 PG 9

FOR STORAGE OF LITHIUM BATTERIES

This EN 14470-1-compliant secure cabinet has sophisticated protective mechanisms that provide excellent protection against fires within the cabinet caused by lithium batteries. As soon as a fire breaks out on one of the storage levels, the doors close. Then, the special locking technology that has been installed is deployed, ensuring that the doors remain closed even when the escaping gases ignite. In this case, the system also ensures that the doors can only be opened again by authorised experts. In addition, the cabinet can also be adapted to various requirements.

Talk to us, we'd be pleased to assist.



Talk to us about compartment subdivision, cable ducts, power supply, sensor-controlled temperature monitoring and other additional sizes.

Description	External dimensions cm (l x d x h)	Internal dimensions cm (l x d x h)	Storage levels	Weight approx. kg	Order no.
Battery secure cabinet Pro	119.5 x 59.5 x 208	110 x 44.5 x 183	4	469	11214

Buffer material for storage and transport

Expanded glass granulate and vermiculite

- not flammable
- high thermal insulation
- highly effective at absorbing escaping electrolyte
- not electrically conductive

Both materials have long been tried and tested buffers in hazardous goods packaging. Used carefully, these granulates can prevent flames from spreading from one cell to another. Expanded glass granulate is particularly suitable for lithium battery applications, because it forms a protective shielding layer around the cells in the event of a fire.



Expanded glass granulate



Vermiculite

Transport of lithium batteries

Lithium batteries are classified as hazardous goods under transport law. UN approval of the container is not sufficient to ensure that all requirements for ADR-compliant transport of lithium batteries are satisfied in all cases.

We therefore advise our customers to familiarise themselves with this topic and to provide comprehensive training for their employees on how to use the contain-

ers in compliance with regulations. This includes knowledge about the official packaging instructions (see table), marking as per ADR and implementing transport. It also covers conscientious handling of damaged lithium batteries, for example. If transport containers are properly packed according to the hazardous materials regulations, they can often also be used for storage purposes at the company.

It is nevertheless advisable to conduct a hazard assessment in line with the situation on site, additionally involving the plant safety officer and possibly the property insurer as well.

SPECIAL REGULATIONS AND PACKAGING INSTRUCTIONS

	Special regulations according to ADR	Packaging instructions according to ADR
Small, intact lithium batteries <100 Wh	SV188	-
Intact lithium batteries >100 Wh	SV230	P903
Prototypes	SV310	P910
Batteries for disposal/recycling	SV377	P909
Damaged/defective batteries	SV376	P908
Critically damaged/defective batteries (not safe to transport)	SV376	P911

	Approval of the packaging			Packaging instructions according to ADR				
	Packaging group	UN coding	Intact lithium batteries >100 Wh (usual case)	Proto-types	Batteries for disposal/recycling	Damaged/defective batteries	Critically damaged/defective batteries (not safe to transport)	
			P903	P910	P909	P908	P911	
Plastic collection container S	VG2	Y	✓	✓*	✓	✓*	✗	
Plastic collection container L	VG2	Y	✓	✓*	✓	✓*	✗	
Steel collection container for batteries	VG1	X	✓	✓	✓	✓	✗	
Safety drum for batteries	VG1	X	✓	✓*	✓	✓	✗	
Safety container for batteries	VG1	X	✓	✓	✓	✓	✓	

Plastic collection container PG 9

Optimal storage and transport system

- UN-approved storage and transport system for solid hazardous goods (classified in packaging groups II and III)
- high-density, impact-resistant PE plastic (PE-HD)
- stackable and safe to transport
- ideal for collecting lithium batteries for recycling and disposal

- For reasons of fire protection, use only in combination with suitable buffer material (e.g. vermiculite or expanded glass granulate).
- Observe packaging instructions (e.g. P909) for ADR-compliant transport.
- delivery with lid and ratchet tie-down



Plastic collection container S



Description	External dimensions cm (l x d x h)	Internal dimensions cm (l x d x h)	Collection volume L	Filling weight approx. kg	Order no.
Plastic collection container S	120 x 80 x 40	111.5 x 71.5 x 24.5	195	300 kg	11202
Plastic collection container L	120 x 100 x 76	112 x 92 x 60	610	400 kg	11203

ACCESSORIES

55 L sack of expanded glass granulate	11204
50 L sack of vermiculite	11205
Lining bag for plastic collection container S	11229
Lining bag for plastic collection container L	11230
Plastic bag for single battery	11233

Battery steel collection container PG 9



Battery steel collection container with vermiculite (see accessories)



- 120 litre storage capacity
- ideal for use as a storage container for damaged batteries awaiting disposal
- robust, hot-dip galvanised steel container with sturdy closure buckles
- circumferential rubber seal protects against penetrating moisture



- lid can be opened easily and locked in place in a single step
- can be driven under, stacked and lifted by crane for easy handling
- for use with vermiculite or expanded glass granulate as a buffer material
- UN approval for hazardous solid goods belonging to packaging groups I, II and III
- Special ADR regulations apply for transportation (see special regulations and packaging instructions), may only be carried out by qualified personnel.

Description	Dimensions cm (l x w x h)	Internal dimensions cm (l x w x h)	Storage capacity L	Weight when empty kg	Order no.
Battery steel collection container	71.5 x 71.5 x 58	58 x 58 x 39	120	54	11201

ACCESSORIES

55 L sack of expanded glass granulate	11204
50 L sack of vermiculite	11205
Lining bag for collection container	11231
Plastic bag for single battery	11233

Battery safety barrel PG 9

- 60 litre clamping ring lidded drum
- special valve for pressure relief in the event of damage
- UN approval for hazardous goods belonging to packaging groups I, II or III
- for use with vermiculite as a buffer material
- 60 kg permissible total weight
- ideal for use as a storage bin for damaged batteries awaiting disposal
- approved for the transportation of lithium batteries (UN 3480 and UN 3090) weighing 0.5 - 5 kg
- Special ADR regulations apply for transportation (see special regulations and packaging instructions).
- Please observe the enclosed packaging instructions!
- incl. 1/2 filled with vermiculite and plastic bag



pressure relief in the event of damage in accordance with the pressure cooker principle



Ideal for the safe storage of defective batteries for eBikes, power tools, garden tools and much more.



Description	Dimensions cm (ø x height)	Storage capacity L	Weight when empty kg	Order no.
Battery safety barrel	38 x 66	60	4.9	11200

ACCESSORIES

50 L sack of vermiculite	11205
Lining bag for battery safety barrel	11232
Plastic bag for single battery	11233

Safety container for batteries PG 9

NEW



- stackable plastic container with fireproof cushioning and absorbent material
- sturdy lid lock with two belts
- folding handles for simple handling
- time saving thanks to filling in empty space and embedding using only two formable special pads (included in scope of delivery)
- usable as a stationary safety container for storage
- ideal for safely storing and separating prototypes, quarantined batteries and defective goods, for example

Highest safety level currently capable of approval:

- one box for all lithium battery states as per ADR 2019
- suitable even for lithium batteries which are unsafe to transport, critically faulty or damaged (P911)
- for lithium batteries weighing up to 20 kg
- transport possible on public roads in accordance with the regulations

Real battery fire tests passed for the test relevant to approval according to P911:

- temperature on the container exterior remains below 100 °C
- no flame formation outside the container
- lateral gas management system including smoke routing and filter system



with UN approval

Highest safety level currently capable of approval

Description	External dimensions in cm (l x w x h)	Internal dimensions in cm (l x w x h)	Empty weight kg	Order no.
Safety container for batteries	60 x 40 x 34	48 x 28 x 18	9.7	11349

ACCESSORY

Special pads 40 x 58 cm	11350
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Collection containers for indoor storage PG 9

Battery disposal box

optimal storage and transport system

- high density PE plastic (HDPE)
- acid-proof to the greatest extent
- can be loaded up to 1 t, stacked up to 3 t
- can be loaded up to 600 kg as individual box, up to 450 kg per box when stacked
- up to 6 boxes can be stacked
- for transporting old batteries (Rh 2807) in accordance with ADR 4.1.4.1 P801a
- stackable and safe for transport
- equipped with three runners
- labeled with danger warnings



Not approved for storage and transport of lithium batteries

Box 610 L

Capacity L	External dimension cm (l x w x h)	Weight approx. kg	Order no.
610	120 x 100 x 76	41	8322

ACCESSORY

Capacity L	External dimension cm (l x w x h)	Weight approx. kg	Order no.
Lid for box 610	121.5 x 101.5 x 6	7	8086

Collection containers for outdoor storage PG 9

Vehicle battery disposal container

- stable GRP model enables clean and safe storage for old vehicle batteries
- approved for transport in accordance with ADR 4.1.4.1 P801a
- two ventilation openings and a galvanised steel base frame for stable positioning
- all fittings are stainless steel
- inserted wooden grate forms a level base surface
- to prevent unauthorised access, the lid can be locked
- labeled with danger warnings



Not approved for storage of lithium batteries



VEHICLE BATTERY DISPOSAL CONTAINER

Capacity L	External dimension cm (l x w x h)	Weight approx. kg	Order no.
200	89 x 59 x 81	23	3396
400	120 x 80 x 81	37	3397
700	134 x 99 x 110	50	3983

MOBILE box hazardous materials approved PG 9

Mobile box

The stable design enables clean and safe storage of hazardous solid goods belonging to packing groups II or III and is also approved for transport according to ADR, RID and IMDG codes. The container (blue), with a capacity of 170 L or 250 L, and lid (coloured) are easy to handle, even when the container is full. The specially shaped lid enables storage in 2-layers. Up to 8 boxes can be safely stacked on a Euro pallet. The beading in the container wall enables emptying with a rotary forklift.

The mobile box is particularly suitable for the following applications:

- collection container for waste and materials such as oil binding agents, paint residues, etc.
- collection and transport container for recycling, cleaning cloths, etc.
- collection container for flammable and polluting substances



Up to 8 containers on a Euro pallet, two layer stackable



Green lid version



Blue lid version



Lid with PU seal, fire-classified, light and air-tight for moisture-sensitive material, red lid version



Lockable mechanism with metal bracket and locking spring



170 L

250 L

Description	Dimensions per packing unit cm (l x w x h)	Weight approx. kg	Order no. /lid		
			red	green	blue
Mobile box 170 L	60 x 40 x 88	12	7718	7719	7720
Mobile box 250 L	60 x 60 x 89	15	7805	8318	7806

Spray can collection container PG 9

Mobile collection container for empty and partially empty spray cans. Tested safety through UN approval 1H2W/X150/S...

- certified for UN 1950 (waste aerosol containers)
- integrated opening to dispose of spray cans when the lid is closed
- lid with rubber seal and sturdy latch
- two integral vents for air circulation in the body

- manufactured with anti-static plastic for additional safety, therefore particularly suitable for installation in buildings
- large wheels and a heat-treated steel axle for easy movement even when filled
- maximum weight up to 150 kg
- grey body, orange lid
- delivery including nonwoven pads (to absorb emerging fluids) and "UN1950" hazardous goods sticker
- Observe the relevant packaging instructions for transport under ADR.

Anti-static version:
Extra safety for workshop and industrial use



Lid with rubber seal and latch



Volume 120 litres



Sturdy latch



Spray cans can be disposed of without opening the lid



Large wheels and integral ventilation openings



Including nonwoven pads



Never dispose of empty spray cans as residual waste or together with other waste.

Description	Dimensions cm (l x w x h)	Volume L	Weight kg	Order no.
Mobile collection container for spray cans	96 x 49.8 x 55.4	120	11	11346

MOBILE oil suction units PG 4

Pneumatic oil suction unit

Compressed-air operated mobile oil extractor
Ideal for quick oil changes on larger vehicles such as lorries, tractors, and cars, etc. A vacuum is generated in the tank with the aid of compressed air. The oil can then be decentrally extracted from the engines using the extraction probes, independently of a compressed-air connection. Ideal oil temperature 70 - 80 °C. Tank is drained by compressed air.



Oil suction unit 90 L with height-adjustable eccentric collection hopper

Technical data 8726 and 10145:

- mobile 65 L or 90 L container with level indicator, vacuum indicator and 1-bar relief valve
- compressed-air connection 1/4"
- removable tool tray
- extraction hose 2 m with probe adapter
- 7 different flexible and rigid probes; direct adapters for Mercedes, VW, BMW and Citroen
- drain hose 2 m
- max. extraction volume 52 L resp. 75 L
- maximum hopper height 188 cm (model 10145)



Oil suction unit 65 L

Technical data 10690 and 10691:

- mobile 80 L container with level indicator, vacuum indicator and relief valve
- compressed-air connection 1/4"
- extraction hose 1.5 m with probe adapter
- 5 different flexible and rigid probes from 5 mm up to 8 mm
- drain hose

Pneumatic oil suction unit 80 L



Pneumatic oil suction unit 80 L, with collection hopper

PNEUMATIC OIL SUCTION UNITS

Description / Capacity L	Dimensions cm (l x w x h)	Weight approx. kg	Order no.
65 L	60 x 42 x 86	26.9	8726
90 L with collection hopper	62 x 42 x 138	38.2	10145
80 L	44 x 49 x 77	24.5	10690
80 L with collection hopper	58 x 49 x 173	27.5	10691

Electric oil suction unit

The mobile oil suction unit meets the growing requirement for sucking waste oil directly out of a car engine via the oil dipstick seating. An integral 12 L reservoir container can hold the removed waste oil directly. The oil suction unit has a special self-priming centrifugal pump which can produce very high vacuum pressures.

Technical data

Mobile frame complete with:

- self-priming centrifugal pump, 230 V, delivery rate 2 to 10 L/min

- vacuum gauge for checking the pump's operation and for successful emptying
- suction hose with fast connection for the probes
- 4 different suction probes (semi-rigid probe dia. 6 x 800 mm, semi-rigid probe dia. 8 x 800 mm, rigid probe dia. 8 x 650 mm, rigid probe dia. 9 x 650 mm)
- removable probe holder with liquid-tight base for collection of any oil drops
- removable transparent collection container 12 L
- suitable for oils up to SAE 140



ELECTRIC OIL SUCTION UNIT

Description	Dimensions cm (l x w x h)	Weight approx. kg	Order no.
12 L	32 x 32 x 90	19.5	8253

MOBILE suction unit for fuels PG 4

Extraction and refuelling trolley for petrol, 2-stroke mixture and diesel Used in the event of misfuelling, accidents, vehicle returns, etc.

- with flashback arrester in filler neck
- 2 m extraction hose DN 10 and 3.2 m delivery hose
- operated with 12 VDC electric pump
- 4.1 m connection cable with corcodile clips, terminals and earthing clamp

- automatic metering pistol on discharge side, lead-free delivery spout
- switch between extraction and refuelling via ball valves
- flexible sensor dia. 8 mm/1.500 mm
- flexible sensor dia. 12 mm/700 mm
- adapter for dia. 6 mm hose
- adapter for dia. 10 mm hose
- holder for probes and adapter (not mounted on trolley)



Description	Dimensions cm (l x w x h)	Weight approx. kg	Order no.
Electric extraction and refuelling trolley 95 L	100 x 56 x 48	23	10762

Extraction Mobile 300 L for petrol, 2-stroke mix and diesel in the event of misfuelling, accident or car returns

- Approved for transport under ADR
- for mobile use indoors and outdoors
- explosion pressure resistant design
- with forklift pockets
- lockable steel lid
- 12V DC pump
- connecting cable 4.1m long with crocodile clips
- digital flowmeter
- automatic cable reel for earth cable
- automatic hose reel with 10m hose DN16, electrically conductive, for extraction and dispensing
- automatic dispensing nozzle, Outlet pipe for lead free

- extraction and dispensing selectable by ball valves
- flexible probe Ø 8 mm/1500 mm
- flexible probe Ø 12 mm/700 mm
- hose adapter Ø 6 mm
- hose adapter Ø 10 mm
- holder for probes and adapters (not mounted on trolley)



Description	Dimensions cm (l x w x h)	Weight approx. kg	Order no.
Mobile suction unit 300 L with electric pump 12 V, 25L/min and ATEX	120 x 60 x 123	146	10997

Mobile suction unit for fuels, 2 stroke mix, diesel and oil

Unit suitable for vehicle and small tank extraction. Suitable for use in potentially explosive atmospheres. Compliant with the Occupational Safety Directive and the 1999/92/EG (ATEX 137) guidelines on workplace health and safety protection.

- satisfies the Explosion Protection Directive ATEX 94/9
- 2 m extraction hose and 2 m drain hose
- operation with compressed air, including pressure reducer and maintenance unit
- bearing surface of the transport trolley suitable for existing canisters or tanks up to 60kg
- earth cable, 3m with clip
- with suction lances Ø 8 mm and Ø 12 mm
- with adaptors for Ø 6 / 8 / 10 mm hoses



Description	Dimensions cm (l x w x h)	Weight approx. kg	Order no.
Mobile suction unit for fuels, 2 stroke mix, diesel and oil	50 x 50 x 100	19.5	10090
Tight-head drum 60 L	Ø 35.5 x 65.5	4.8	5402

Used oil collector PG 4

Mobile used oil collector 80 L

- with collection hopper and fill level display
- emptied using compressed air
- safety valve

Description	Dimensions cm (l x w x h)	Weight approx. kg	Order no.
Mobile used oil collector, 80 L	44 x 49 x 173	25	10692

Mobile used oil collector 80 L



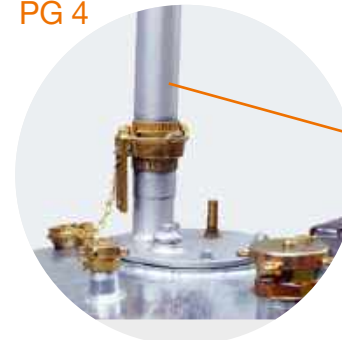
MOBILE collecting and transport container for hazardous materials (HazMat) PG 4

Mobile hazardous substance collector GS-MOBILE for flammable liquids with general construction inspection approval no. D/BAM 6744/31A (400 L, 600 L) and D/BAM 6743/31A (980 L) indefinite approval period

The collection, storage and transport container for flammable liquids without a sump/spill pallet (e.g. waste oil of unknown origin, solvents, thinners and many more).

The integrated forklift pockets enable easy and safe transport. An integrated funnel with a dirt sieve and a fixed installed suction pipe with tanker coupling simplify filling and emptying. Can be used by anybody.

Design: explosion shock-proof



Ventilation pipe 2" can be removed for transport



Filling funnel



980 L

400 L

GS-MOBILE FOR A I TO A III AND B AS DESCRIBED ABOVE

Capacity L	Dimensions, cm (l x w x h) without ventilation pipe	Dimensions, cm (l x w x h) with ventilation pipe 2"	Weight approx. kg	Order no.
400	96 x 96 x 114	96 x 96 x 310	196	7713
600	96 x 96 x 141	96 x 96 x 300	250	7714
980	121 x 121 x 141	121 x 121 x 300	310	7715

Overflow PG 9

For securing a barrel of up to 210 litres

- safety-tested to UN approval 1H2/X300/S...
- easy unscrewing of lid
- nestable storage in readiness for emergency
- made from high density polyethylene (HDPE) with high resistance to aggressive chemicals
- 300 kg load capacity
- interior dimensions: (top x bottom x height): 68.9 x 64.9 x 99



Description	Dimensions cm outside Ø x h	Collection volume L	Weight approx. kg	Order no.
Overflow	78.7 x 104.7	360	22.5	11023

Nozzle holder for 60 L and 200 L barrels PG 4

Nozzle holder for 60 L and 200 L barrels

- holder made from galvanised metal bracket with clamping screws and plastic holster for catching drops
- suitable for attaching to tight-head steel drums and L-ring plastic drums
- easy removal of holster for emptying and cleaning



ACCESSORY NOZZLE HOLDER FOR BARRELS

Description	Order no.
Nozzle holder for barrels complete with clamping screws and drop holster	11044

Funnels / collection trays PG 9

GRP funnel

- with and without lid
- for placing on barrels
- secure seating
- no risk of spillage

PE collection trays

- with swash edge to prevent content spillage
- pouring spout for transfilling
- robust carrying handles
- acid, chemical, oil and petrol resistant
- sizes 15 L and 58 L sealable, provided with holder(s) for oil filters
- version 58 L also mobile (wheels on one side)
- sizes 20 L and 55 L with a 4-chamber system for safe transportation and for emptying using the 4 edges with spouts



PE collection tray 20 L with GRP funnel without lid



GRP funnel for drum use 60 L and 200 L

GRP funnel with hinged lid



PE collection tray 18 L



PE collection tray 20 L and 55 L



PE collection tray 15 L, sealable



PE collection tray 58 L, sealable

GRP FUNNEL AND PE COLLECTION TRAYS

Description	Volume L	External dimension cm (l x w x h)	Weight approx. kg	Order no.
① GRP funnel without lid for 200 L drum	-	height 15, ø 56	3	3342
② GRP funnel with hinged lid for 200 L drum	-	height 18, ø 56	5	5348
③ GRP funnel without hinged lid for 60 L drum	-	height 16, ø 39	2,5	5493
④ PE collection tray 18 L	18.9	61 x 46 x 16	0.6	10841
⑤ PE collection tray 20 L	20	69 x 44 x 10.5	1.3	6892
PE collection tray 55 L	55	101 x 73 x 12.5	2.8	6891
⑥ PE collection tray sealable 15 L	15.1	51 x 44 x 15.5	1.2	10842
⑦ PE collection tray sealable 58 L	58	92 x 60 x 25	7.6	7908

CEMSORB ABSORBENTS

“UNIVERSAL” AND “OIL” PG 9

Cemsorb absorbents are high-performance absorbents to absorb accidentally discharged or spilled hazardous substances without delay or to prevent them from spreading.

Advantages:

- Cemsorb absorbents absorb up to 18 times their own weight in fluids.
- Cemsorb binders are simple and easy to use. Simply place them on the spilled

fluid, and the fluid is quickly absorbed. The area of the accident or the workplace is soon ready to use again.

- Thanks to their high calorific value, they are well suited for thermal utilisation by incineration.

surfaces. Please use the Cemsorb binder “Universal” to absorb small quantities of different technical fluids.

Cemsorb binder “Oil” blue

Cemsorb binder “Oil” was developed to absorb oil and oil derivatives. Cemsorb oil binder is hydroscopic; it does not absorb water.

Cemsorb binder “Universal” grey

The Cemsorb binder “Universal” was developed to absorb all types of fluids. We do not recommend using it on water



① Cemsorb cloths „Oil”



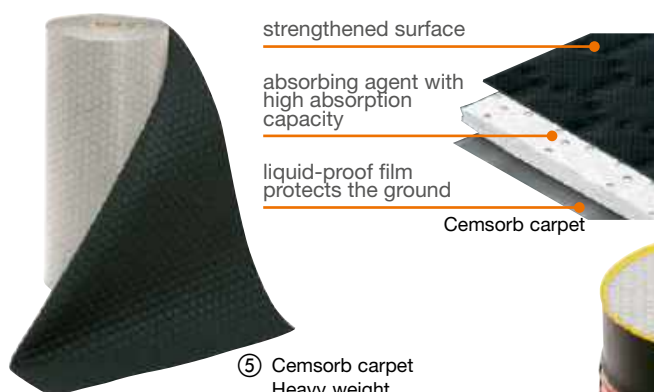
② Cemsorb cloth roll “Oil”



③ Multiple Cemsorb cloth rolls “Universal”: both sides reinforced, lint-free and perforated



④ Cemsorb carpet “Oil” Non-slip, dense, reinforced



⑤ Cemsorb carpet Heavy weight Non-slip, dense, reinforced



⑥ Cemsorb snake “Oil”

⑦ Cemsorb drum cover “Universal” with reinforced and lint-free surface

Description	Absorption in L / sales unit	Dimension cm	Area m ² / sales unit	Sales unit	Weight approx. kg / sales unit	Oil (blue or white)	Universal (grey)
						Order no.	Order no.
① Cemsorb cloths Heavy weight Perforated in width direction	113	40 x 50	20	100 cloths / carton	6	8793	8794
② Cemsorb cloth roll Heavy weight Transversely perforated	180	40 x 4000	32	2 rolls / carton	9.6	8795	8796
③ Cemsorb cloth roll Heavy weight Multiply perforated	48	40 x 2500	10	1 roll / dispenser carton	3.5	-	8797
④ Cemsorb carpet „Oil” Heavy weight Non-slip, dense, reinforced	41.3	80 x 120	9.5	10 carpets / carton	4.4	10412	-
⑤ Cemsorb carpet Heavy weight Non-slip, dense, reinforced	103	80 x 3000	24	1 carpet / carton	10.9	-	8798
⑥ Cemsorb pillow filled with flakes	80	Ø 7.5 x 120	-	20 snakes / carton	8	8799	8800
⑦ Cemsorb drum cover	31.5	Ø 56	6.15	25 items / plastic bag	2.1	-	8803

CEMSORB emergency sets PG 9



Use of the oil suction carpet from the Cemsorb emergency set Agrar



Cemsorb emergency set



Cemsorb emergency box "Universal"



Cemsorb emergency set Agrar



③



Cemsorb emergency trolley

Description	Capacity	Absorption in L / sales unit	Dimension cm (l x w x h)	Weight approx. kg / sales unit	Oil (blue)	Universal (grey)
					Order no.	Order no.
① Cemsorb emergency set Agrar	1 pair gloves, 2 disposal sacks, 22 oil absorbent cloths 30 x 30 cm white, 1 oil suction snake white 1.20 m x 7.5 cm, 5 wiping cloths, 2 yellow universal cloths 40 x 50 cm, 1 dense oil suction carpet 60 x 80 cm (brown surface)	20	32 x 32 x 16	2	10413	-
② Cemsorb emergency set	1 pair gloves, 2 disposal sacks, 32 cloths 30 x 30 cm, 1 snake 1.20 m x 7.5 cm, 5 wiping cloths	20	32 x 32 x 16	2	8804	8805
③ Cemsorb emergency trolley	1 sturdy PE box (10133), 100 item cloths Universal (8794), 20 snakes Universal (8800), 1 item emergency set Universal (8805)	197	80 x 60 x 53	32	-	10014
④ Cemsorb emergency box	1 sturdy PE box (8615), 100 item cloths Universal (8794), 20 snakes Universal (8800), 1 item emergency set Universal (8805)	197	120 x 60 x 54	35	-	8543