



High Performance Cases

NEW!

- K470 universal containers IP65
- Mitraset® RRF
- and a wealth of innovations



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**Packaging solutions for military
and electronic equipment**

High Performance Cases – at ZARGES, you get the high quality our name stands for



Professional logistics solutions for special requirements

Every single ZARGES box is the result of decades of experience in the design and production of re-usable containers for packaging, storage and transport applications.

This know-how in the field of professional logistics solutions, plus high-quality aluminium as the basic material, are the ideal starting point for the design and manufacture of products for special requirements and applications.

Extremely lightweight yet stable, corrosion-proof, non-magnetic and easily adaptable to a wide range of applications, ZARGES High Performance Cases are ideal for packing electronic equipment, first aid material and other sensitive goods with NATO, the peace-keeping forces and emergency aid organisations.



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ZARGES know-how

in development and production

The strengths of ZARGES lie in the development of new products, the rapid implementation of new ideas in user-oriented, innovative solutions, adherence to the highest quality standards and comprehensive support for its customers.

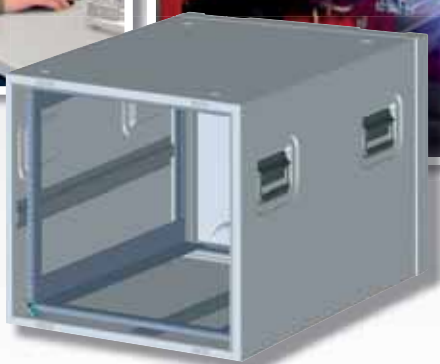
ZARGES has many years of experience in the development and production of logistics equipment for industry, trade and the public sector, designed to meet the highest quality requirements. At its main production site, ZARGES has state-of-the-art production and storage facilities with an area of more than 23,000 m².

Using the latest CAD systems, ZARGES develops the optimum solutions tailored to the specific requirements of its customers. Technical drawing data are exchanged in the course of the processing of a project in order to allow examination of the construction space to be carried out as quickly as possible, thus simplifying the development of the overall system. Our development processes and products comply with all the latest national and international standards (certified in accordance with DIN EN ISO 9001:2008).

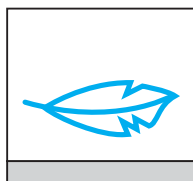
The production processes and the level of automation in development and production necessitate a high degree of process capability in terms of sequences and in the manufacture of our products. For our customers, this means the advantage of being able to rely on the consistently high production quality reflected in the statement "made by ZARGES", attractive prices and with very short delivery times.

On the one hand, ZARGES is small enough to be able to cater to individual requirements, while on the other hand, the company is large enough to have at its fingertips the requisite know-how in development, consulting, planning, production and services.

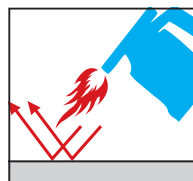
This means we can offer our customers products to meet almost any requirements.



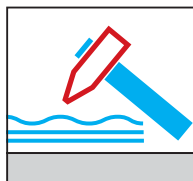
Economical, safe and environmentally friendly:



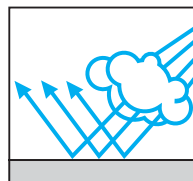
Aluminium is lightweight, yet extremely stable: The density of aluminium is only approx. 2.6 to 2.8 g per cm³. That is approx. 1/3 the density of steel. In spite of its low weight, aluminium is extremely strong.



Aluminium is incombustible: No sparks fly when you strike aluminium materials. Aluminium is non-flammable, not even aluminium shavings burn.



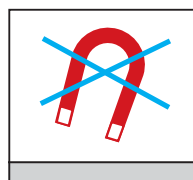
Aluminium is impact-resistant and extremely strong: Its surface dents on impact, but the force of the blow is absorbed by the deformation.



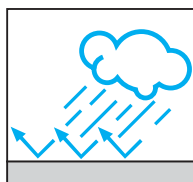
Aluminium is vapour-impermeable: Even when stored over very long periods of time, moisture will not diffuse through the material. In welded construction, an aluminium container can be made in water-vapour proof design.



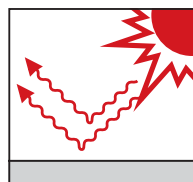
In addition, aluminium is insensitive to extreme fluctuations in temperature: Within a temperature range of -80 °C to +150 °C, the material characteristics remain constant.



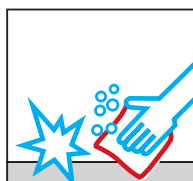
Aluminium is magnetically neutral: Aluminium is not ferromagnetic. This material characteristic can be of great significance for certain applications.



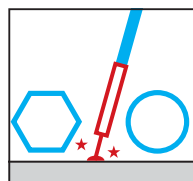
Aluminium is corrosion-resistant and protects itself: When it comes into contact with oxygen, the surface of aluminium oxidises, and this layer of oxide immediately reforms when damaged. This makes aluminium highly resistant to salt water.



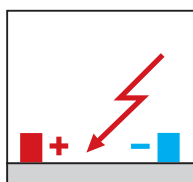
Aluminium is resistant to UV rays: Long periods of storage and exposure to UV rays have no effect on this material.



Aluminium is hygienic: Its smooth surface is easy to clean and odourless. Aluminium containers are ideal for use in areas with high hygiene requirements.



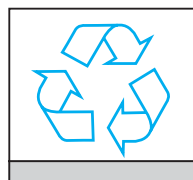
Aluminium can be processed in a wide variety of ways: All standard processing methods – welding, moulding etc. – can be applied to aluminium, and in many cases their application is much easier than with other metals.



Aluminium is antistatic: Aluminium is a good conductor of electricity and heat, an advantage, e.g. when producing housings for electronic installations.



Aluminium does not pose a health hazard: Aluminium is not known to have any negative effects on health. It is approved for use by the WHO (World Health Organisation).



Aluminium is fully recyclable: Used aluminium can be melted down and re-used – an important contribution towards the reduction of waste and the protection of the environment.

→ ZARGES, one of the leading companies in the field of aluminium processing, has relied on the advantages of this material for decades. As a result, it has developed a wide range of boxes, containers, cases, baskets, trolleys and individual special constructions to solve your logistics problems. As re-usable products with a long service life, they make an invaluable contribution to the protection of our environment.

Mitraset® 19" housing

Housing for electronic instruments



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Mitraset® 19" housings according to VG 95446 are designed to accommodate electronic devices in a 19" rack.

They protect the equipment against a wide range of influences: These include mechanical influences such as shock, impact and vibrations, electromagnetic interference from radio waves, lightning etc. as well as general environmental effects such as heat, moisture, dust etc.

Mitraset® 19" housings incorporate the following features in order to meet these requirements:

The casing is made from precision-welded high-strength aluminium sheets and profiles to which an elastically suspended anti-vibration frame made of extruded sections is fitted. The equipment to be protected is inserted in this frame and screwed in position.

The anti-vibration frame is connected to the casing via rails and rubber shock mounts, whereby the material and type of mount are selected in accordance with the application in question.



➡ Also available as UN-approved hazardous goods packaging

Details

- Protection class IP 65 in accordance with DIN EN 60 529 and ICE 34-5/529 through seam-welded housing and lid with peripheral seal.
- Base with stacking battens, sheet metal cover with indentations to facilitate stacking.
- All sizes can be stacked inside each other (except NT610).
- Stable frame profile with integrated floating mounts for fasteners.
- Sides with recessed sprung drop handles.
- All sides and lid stiffened with moulded sections (except NT610).
- 8 rubber shock mounts with slide rails to support the anti-vibration frame.
- Lid with toggle-action snap fasteners.
- Variable designs in different depths and heights.
- A comprehensive range of special equipment for a wide variety of applications.
- Can be fitted in Dornier-Shelter frames.





5.11 Shock test

- Test 516.3 in accordance with VG MIL-STD-810 D-17.
- The shock test with recording of the damping values is to be carried out in the six main directions, each time with 3 half-sine shocks at an acceleration $a = 40 \text{ g}$ and a pulse time $t = 7 \text{ ms}$.

5.3 Strength of carrying handles

- The test specimen is suspended in the normal position and loaded in such a way that there is a force of 375 N acting on each carrying handle. Then the test specimen is suspended by each handle separately and a load of 750 N applied.
- Duration of test: 5 minutes.

5.5.2 High temperature test

- Test 501.2 in accordance with VG MIL-STD-810 D-3, method I A2.
- 24 hours, 71 °C.

5.6.2 Low temperature test

- Test 502.2 in accordance with VG MIL-STD-810 D-4, method I C2.
- 24 hours, - 51 °C.

5.7.2 Temperature change test

- Test 503.2 in accordance with VG MIL-STD-810 D-5.
- Method I to III, 3 × 4 h each time at 71 °C and - 50 °C.

5.8.2 Damp heat test

- Test 507.2 in accordance with VG MIL-STD-810 D-8, method III.

5.9.2 Vibration test

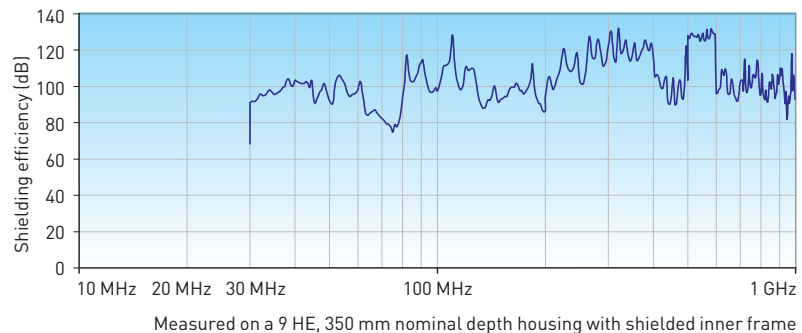
1. Test 514.3 in accordance with VG MIL-STD-810 D-15, figures 514.3-7, 514.3-8 and 514.3-9, depending on the vibration axis, each 10 min. per axis.
2. Determination of resonance during the random vibration described under paragraph 1.
3. Random vibration according to figure 514.3-36 in the three main axes, each one hour per axis.

Paragraphs 1 to 3 to be carried out completely in each axis.





Example of shielding efficiency measurement to MIL-STD-285, measured values



Extract from the results of testing to MIL-STD-810 G/VG 95 446-2

→ MIL-STD-810 G method 506.5 Rain

– Procedure I –

Rain and Blowing Rain. Wind speed 28 m/s, at least 90 minutes per side.

→ MIL-STD-810 F method 509.4

– Salt Spray –

Duration of test 96 hours

→ Resistant to mildew formation in acc. with MIL-STD-810 F method 508.5

– Fungus –

Duration of test 28 days

→ Shielding efficiency to MIL-STD-285

5.5.2 High temperature test

→ Test 501.2 in accordance with VG MIL-STD-810 D-3, method I A2.

→ 24 hours, 71 °C.

Test as per specifications of hazardous goods directive

Approval for hazardous goods transport, packaging class I in acc. with ADR/RID/IATA-DGR and IMBG Code.

Type testing comprises at least the following tests:

- Drop test from a height of 1.20 m onto a rigid impact surface.
- Stacking pressure test, simulation of a pressure load at least equivalent to 3.00 m stacking height over at least 24 hours.
- Dart drop test in which a rod Ø 32 mm with a hemispherical end and weighing 6 kg is dropped centrally onto the weakest point of the test specimen from a height of 1.00 m.



Mitraset® 19" housing

Vibration damping



Undesirable mechanical vibrations often occur in transport and in many other applications.

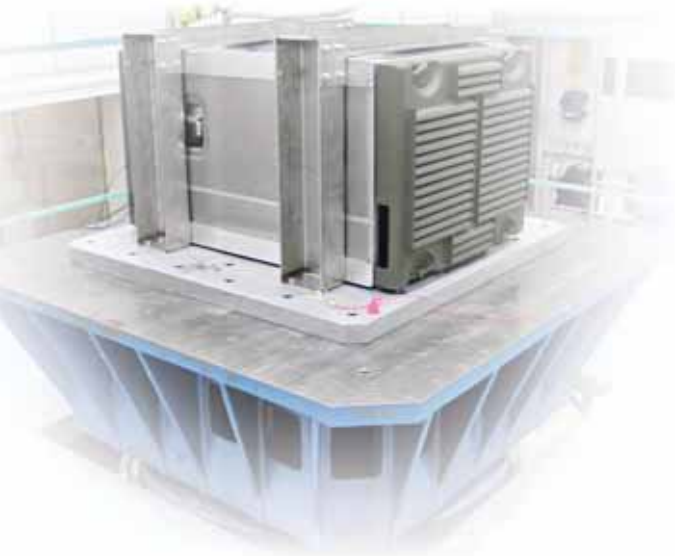
These may have a negative effect on the function of electronic components and thus represent an increased safety risk.

ZARGES Mitraset® housings offer a solution to vibration problems in military, aeronautical and aerospace applications as well as in industry. They are tested to MIL-STD-810.

For special requirements, a modified Mitraset® housing has been developed and undergone successful testing in accordance with the strict specifications of MIL-STD-810 F.

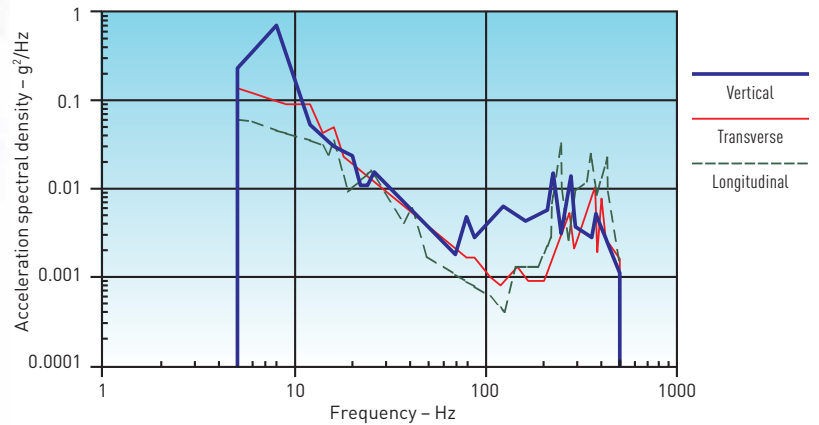


The following diagram shows the test specifications to FIGURE 514.5C-3.: Composite wheeled vehicle vibration exposure.

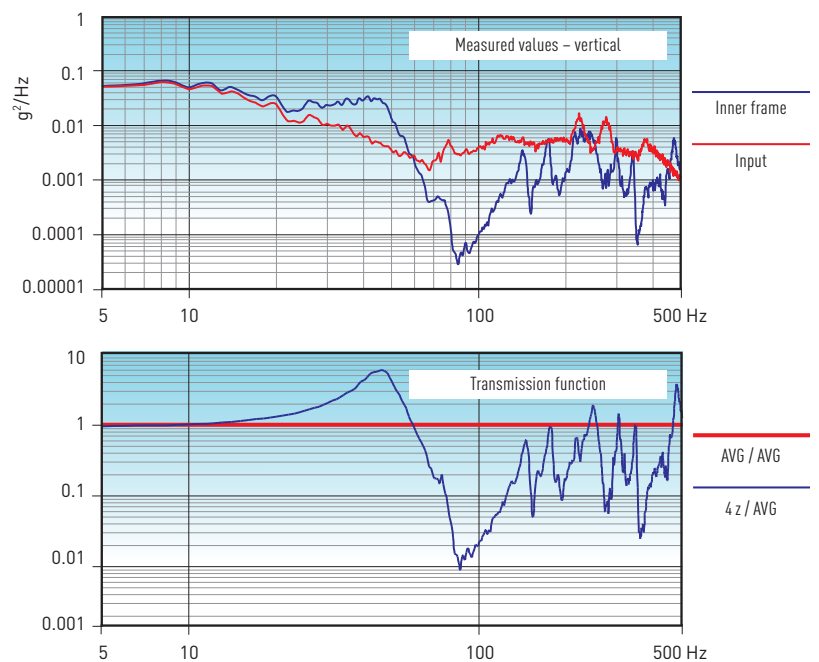


MIL-STD-810 F, FIGURE 514.5 C-3.

(MIL-STD-810 F, 1 January 2000, ANNEX C)



**Vibration exposure in acc. with MIL-STD-810 F Category 4
Figure 514.5 C-3 Composite wheeled vehicle vibration exposure**



Mitraset® 19" housing

Mitraset® Components

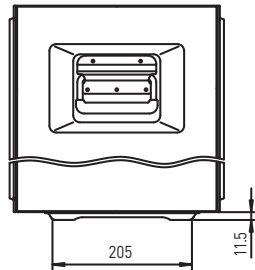


The precision-welded Mitraset® housing is made from high-strength aluminium sheets and profiles and protects sensitive electronic equipment against extreme temperature conditions, moisture and electromagnetic interference, while a specially designed anti-vibration frame cushions against mechanical shocks, impact or vibrations.

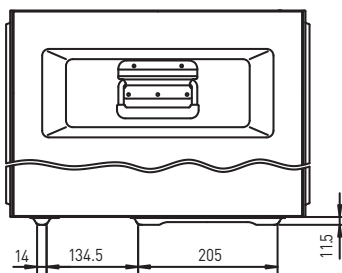
(Some items shown in illustrations are non-standard accessories.)

Lids, handles, stacking features

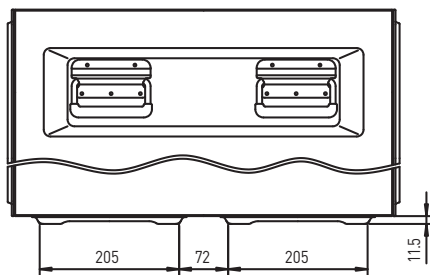
Stacking diagram



▲ Nominal depth 219 mm

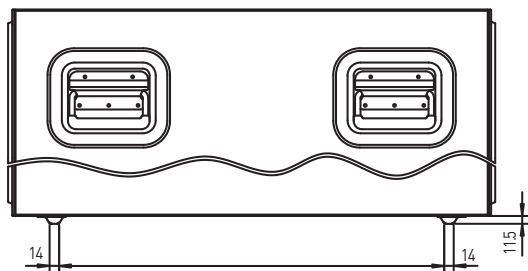


▲ Nominal depth 350 mm



▲ Nominal depth 480 mm

Housings in nominal depths 219 mm, 350 mm and 480 mm can be stacked together.



Depending on the respective depth

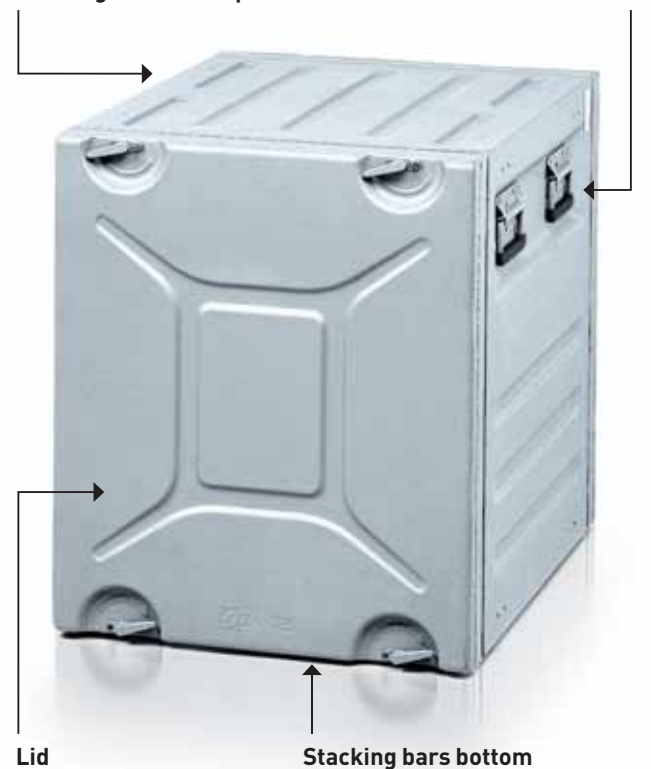
▲ all other depths

Details

- Stacking recess on the top.
- Standard housing with additional strengthening ribs on the top and side walls.
- Recesses on the side walls for drop handles.
- Recess also suitable for accommodating pressure relief valve and humidity indicator.
- Screw-down lids can also be supplied.

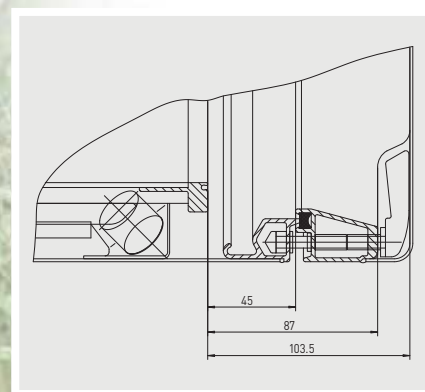
Stacking recesses top

Handles

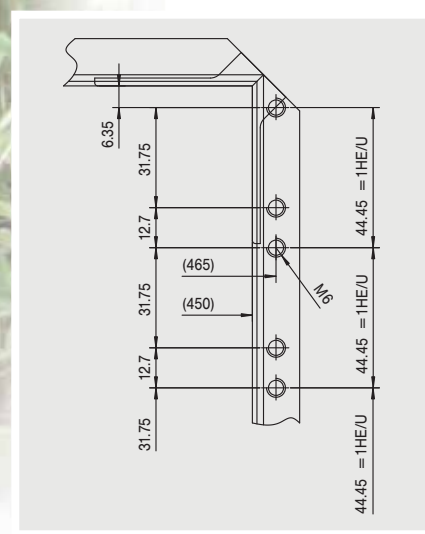


Mitraset® 19" housing

Dimensions and weights



Dimensions of space available



Dimensions of the anti-vibration frame

Technical data of lid

Lid	Outside dimensions (H × W × D, approx. mm)	Weight per lid (approx. kg)
3 HE / U	214.5 × 534 × 63	1.9
4 HE / U	259.0 × 534 × 63	2.1
5 HE / U	303.5 × 534 × 63	2.3
6 HE / U	348.0 × 534 × 63	2.5
7 HE / U	392.5 × 534 × 63	2.7
8 HE / U	437.0 × 534 × 63	2.8
9 HE / U	481.5 × 534 × 63	3.0
10 HE / U	526.0 × 534 × 63	3.2
11 HE / U	570.5 × 534 × 63	3.3
12 HE / U	615.0 × 534 × 63	3.5
14 HE / U	704.0 × 534 × 63	3.8
16 HE / U	793.0 × 534 × 63	4.1

Important note: Inside diameter lid = external dimension minus 54 mm

Inner frame

- Slide-in module width 450 mm.
- Slide-in module height:
1 U = 44.5 mm.
- Slide-in module depths
(nominal depths)
219/350/480/610 mm or
special depth.

Housing

Order No.	Inner height	Nominal depth mm	Ext. dimensions without lid (H × W × D, approx. mm)	Weight without lid (approx. kg)	Weight with 2 standard lids (approx. kg)
45 702	3 HE/U	219	214.5 × 534 × 303	6.6	10.4
45 704		350	214.5 × 534 × 434	8.6	12.4
45 706		480	214.5 × 534 × 564	10.7	14.5
45 803		610	214.5 × 534 × 694	13.5	17.3
45 863		762	214.5 × 534 × 856	16.2	20.0
45 708	4 HE/U	219	259.0 × 534 × 303	7.0	11.2
45 710		350	259.0 × 534 × 434	9.0	13.2
45 712		480	259.0 × 534 × 564	11.1	15.3
45 804		610	259.0 × 534 × 694	14.1	18.3
45 864		762	259.0 × 534 × 856	16.8	21.0
45 714	5 HE/U	219	303.5 × 534 × 303	7.3	11.9
45 716		350	303.5 × 534 × 434	9.3	13.9
45 718		480	303.5 × 534 × 564	11.4	16.0
45 805		610	303.5 × 534 × 694	14.7	19.3
45 865		762	303.5 × 534 × 856	17.4	22.0
45 720	6 HE/U	219	348.0 × 534 × 303	7.5	12.5
45 722		350	348.0 × 534 × 434	9.6	14.6
45 724		480	348.0 × 534 × 564	11.9	16.9
45 806		610	348.0 × 534 × 694	15.2	20.2
45 866		762	348.0 × 534 × 856	17.9	22.9
45 726	7 HE/U	219	392.5 × 534 × 303	7.8	13.2
45 728		350	392.5 × 534 × 434	10.0	15.4
45 730		480	392.5 × 534 × 564	12.2	17.6
45 807		610	392.5 × 534 × 694	15.9	21.3
45 867		762	392.5 × 534 × 856	18.6	24.0
45 732	8 HE/U	219	437.0 × 534 × 303	8.2	13.8
45 734		350	437.0 × 534 × 434	10.3	15.9
45 736		480	437.0 × 534 × 564	12.6	18.2
45 808		610	437.0 × 534 × 694	16.6	22.2
45 868		762	437.0 × 534 × 856	19.3	24.9
45 738	9 HE/U	219	481.5 × 534 × 303	8.4	14.4
45 740		350	481.5 × 534 × 434	10.7	16.7
45 742		480	481.5 × 534 × 564	13.0	19.0
45 809		610	481.5 × 534 × 694	17.1	23.1
45 869		762	481.5 × 534 × 856	19.8	25.8
45 744	10 HE/U	219	526.0 × 534 × 303	8.6	15.0
45 746		350	526.0 × 534 × 434	11.0	17.4
45 748		480	526.0 × 534 × 564	13.3	19.7
45 810		610	526.0 × 534 × 694	17.5	23.9
45 870		762	526.0 × 534 × 856	20.2	26.6
45 750	11 HE/U	219	570.5 × 534 × 303	8.8	15.4
45 752		350	570.5 × 534 × 434	11.3	17.9
45 754		480	570.5 × 534 × 564	13.7	20.3
45 811		610	570.5 × 534 × 694	18.1	24.7
45 871		762	570.5 × 534 × 856	20.8	27.4
45 756	12 HE/U	219	615.0 × 534 × 303	9.0	16.0
45 758		350	615.0 × 534 × 434	11.6	18.6
45 760		480	615.0 × 534 × 564	14.1	21.1
45 812		610	615.0 × 534 × 694	18.6	25.6
45 872		762	615.0 × 534 × 856	21.3	28.3
45 814	14 HE/U	610	704.0 × 534 × 694	19.9	27.5
45 874		762	704.0 × 534 × 856	22.0	29.6
45 816	16 HE/U	610	793.0 × 534 × 694	21.1	29.3
45 876		762	793.0 × 534 × 856	23.8	32.0

Important note: Inside diameter housing frame = external dimension minus 44 mm

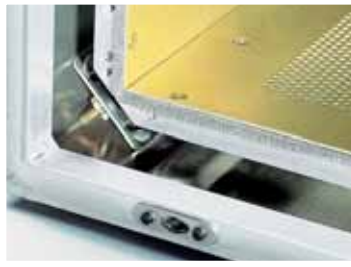
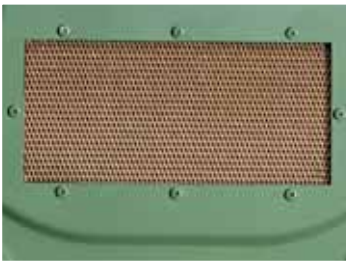
* Weights not including lid and unpainted

- Other sizes are available on request.
- Height of housing with stacking foot = external dimension (nominal dimension) + 11.5 mm.
- Lid depth = 63 mm, depth of special lid to be agreed upon.
- All housings can be supplied with rear panel welded in position.

Mitraset® 19" housing

Mitraset® Accessories





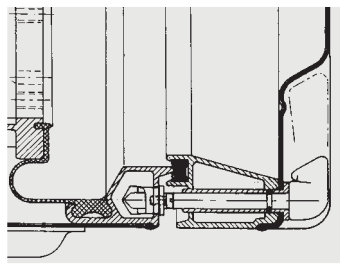
RF screening

On cases with closed lids:

- Achieved through the use of a special lid seal.
- Cutout with RF honeycomb filter, sealed to IP 54.
Mainly for installation in lid.

On cases with open lid:

- By fitting aluminium infill panels on 4 sides of the standard inner frame.
Optionally perforated for better circulation of the air.
In addition, the front and back of the frames are fitted with an RFI seal.
For measured values, see Page 9.
- By fitting a flexible skirt seal made from conductive material between the housing and the anti-vibration frame.
(Front panel and rear panel must be RF-shielded by the user.)



Flexible skirt seal

- If IP 65 is required in operation with an open lid, flexible skirt seals must be used in accordance with the table below.
- RF-tight version is available as special equipment.

for Mitraset® Type	Standard version Order No.	RF-tight version Order No.
3 HE/U	37 053	37 083
4 HE/U	37 054	37 084
5 HE/U	37 055	37 085
6 HE/U	37 056	37 086
7 HE/U	37 057	37 087
8 HE/U	37 058	37 088
9 HE/U	37 059	37 089
10 HE/U	37 060	37 090
11 HE/U	37 061	37 091
12 HE/U	37 062	37 092
14 HE/U	37 064	37 094
16 HE/U	345 093	37 093



Mitraset® 19" housing

Mitraset® Accessories



Pressure relief

- Automatic to VG 95 618
Order No. 316 886
- Manual
Order No. 320 060
- Screw
Order No. 346 457



Gore ventilation membrane

- **Order No. 60 891**



Humidity control

- Humidity indicator according to TL 6685-0008 (VG 95 617).
Order No. 316 887
- Desiccant on request.



For crane transport

- Rivet nuts and lifting eyes (M8).



Stand for supporting rackmount cases

- Variable height adjustment, with 4 feet. With the feet removed, the stand can be stacked with portable housings, complete with captive fixing elements, for all sizes.



Floor mounting

- Effected by means of additional fixing elements (threaded inserts M8) in the stacking feet.





Louvered panel

- Dimensions approx. 230 × 120 mm, 5 louvers, **Order No. 334 699**
- Effective ventilation cross-section 6600 mm².
- Other dimensions available on request.



Cable coil

- Depending on U:
Set comprising 2 to 4 retention brackets with Velcro tapes.



Keyboard support

- Foam insert in the lid, secured by Velcro tape, possible from 6 U.



Bag

- Outer dimensions, small bag: approx. 185 mm × 135 mm × 50 mm.
Order No. 322 768
- Outer dimensions, large bag: approx. 430 mm × 252 mm × 50 mm, possible from 7 U.
Order No. 340 934



Lock installation

- Pressure-cylinder lock.
- 2 locks diagonal to 2 toggle locks with 2 keys.

Mitraset® 19" housing

Mitraset® Accessories



Desiccant compartment

- 1 U Nominal depth 219 mm
- For mounting in the anti-vibration frame.
- Also available as lid-mounted version (not illustrated).
- Desiccant on request.
- **Order No. 353 017**



Special lid

- With laser-cut holes for switches and plugs to customer specifications.



Guide rails

- Riveted in.
- Infinitely adjustable, held in place with screw.



Telescopic rails

- Cover possible.
- With telescopic rails.
- Suitable for accommodating drawers, shelves, etc.

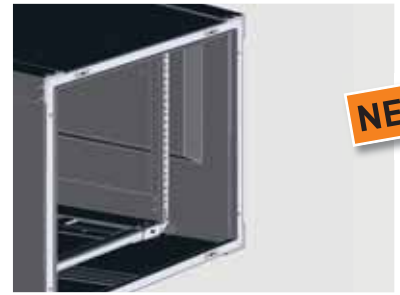


Special lid with flap

- Size of the opening variable according to lid size.



For applications where additional clearance is required in the housing, for example for plugs or cables, there are several possible solutions:



NEW!

Housings in special depths

- The Mitraset® housing is deeper than the nominal depth of the installation frame. This means that, depending on the nominal depth of the frame, additional space can be realised. Standard lids can be used.



NEW!

Lids in special depths

- Where the clearance offered by the standard lid is not sufficient, we can offer special lids in different depths. Special depths of up to 152 mm can be supplied.



NEW!

Rucksack housing

- The option of a separate housing makes sense where additional components are only used sporadically, for example air-conditioning systems. Such housings have their own anti-vibration frame.

Further accessories ...

... e.g. transport aids, housing connections, side panels, hinged lids etc. are available on request.

Heat management

ZARGES Mitraset® 19" housings offer the ideal solution for any application, depending on the type of electronic equipment operated, the ambient temperature and the resulting air-conditioning requirements.

Heat dissipation in Watts under various operating conditions

Inner height	Nominal depth mm	Single housing, free-standing (1) Watt	Rear wall, attached (2) Watt	Housing in the middle of the stack (3) Watt
3 HE/U	219	72	59	46
	350	86	73	53
	480	100	87	59
	610	114	101	65
4 HE/U	219	82	66	56
	350	97	81	63
	480	112	97	71
	610	128	112	79
5 HE/U	219	91	73	65
	350	108	90	74
	480	124	106	83
	610	141	123	92
6 HE/U	219	101	80	75
	350	119	98	85
	480	137	116	95
	610	155	134	106
7 HE/U	219	110	87	85
	350	130	106	96
	480	149	125	108
	610	168	145	119
8 HE/U	219	120	94	94
	350	141	114	107
	480	161	135	120
	610	182	155	133
9 HE/U	219	130	101	104
	350	151	123	118
	480	173	144	132
	610	195	166	146
10 HE/U	219	139	108	113
	350	162	131	129
	480	185	154	144
	610	209	177	160
11 HE/U	219	149	115	123
	350	173	139	140
	480	198	164	156
	610	222	188	173
12 HE/U	219	158	122	133
	350	184	147	151
	480	210	173	169
	610	236	199	187
14 HE/U	610	263	220	214
16 HE/U	610	290	242	241

Details

The guide figures calculated in the table may be influenced by various factors, e. g.:

- Paint type and colour.
- Internal air circulation.
- Location and position of the housing.
- Influence due to adjacent housings.
- Weather and climatic conditions.

The guide figures in the table have been calculated for $\Delta T 20^\circ\text{C}$, figures in W. (All values apply to closed housings.)

ZARGES heat exchanger lid

- The ZARGES heat exchanger lid ensures protection class IP 65 by means of 2 separate air circuits.
- Robust fans ensure that the air is constantly circulated. The heat transfer between the two circuits takes place in a specially designed heat exchanger in the interior of the lid.
- The heat dissipation depends on temperature conditions and on location and position of the housing.



Heating/cooling unit in the lid

ZARGES EIC air-conditioning units

- If necessary, the heat dissipation output can be boosted by means of an active cooling unit.
- Depending on requirements, these units can also be used to heat the housing.



Heating/cooling unit in the anti-vibration frame

These air-conditioning units work on a thermoelectric basis with so-called Peltier elements.

Advantages over compressor cooling units:

- Compact design
- Low weight
- Can be mounted in any position
- Units work without coolant

Details

- The heating/cooling unit can be accommodated in the lid, in the anti-vibration frame or on the housing, as required.
- Possible cooling capacity, depending on requirements, up to 730 W.
- Max. ambient temperature range from -30 °C to +60 °C.
- Other versions on request.

Heating/cooling unit in the housing



Compressor-based air-conditioning units allow optimum operation of sensitive standard electronic devices even under the most adverse environmental conditions. The equipment is operated in a closed system protected against water and dust. Inside this system, the temperature is maintained within a range suitable for the equipment, which at the same time enjoys full protection against the ingress of dust and water.

This means that you can operate your equipment safely and on the move in almost any climate zone in the world.



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Compressor-based air-conditioning aggregates for mobile applications



Details

- Cooling and heating with just one unit.
- Heat generation via a resistance heating element with active air circulation, ensuring quick heating of the system to operating temperature.
- Cold generation via a compressor system using the evaporator/condenser principle, with active air circulation.
- Compact construction, low weight.
- Variable performance levels available.
- Simple assembly and disassembly.
- No filter replacement necessary, therefore particularly low-maintenance.



Mitraset® RRF

Removable Rack Frame

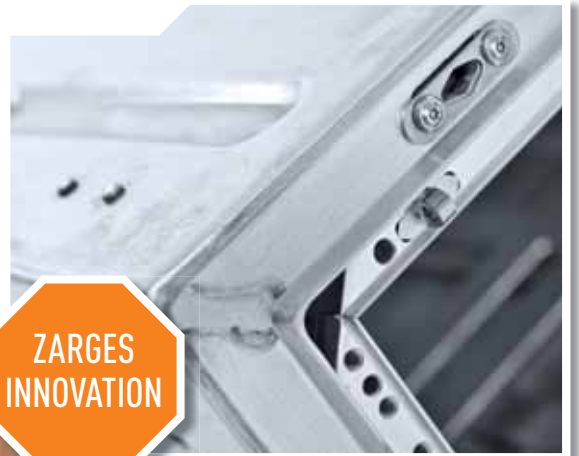
ZARGES
INNOVATION

Mitraset® 19" housing

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The new Mitraset® RRF with removable anti-vibration frame facilitates integration, as it allows unlimited access to all 19" slide-in modules. Cables and plugs are easy to install. After completing installation, the entire anti-vibration frame is slid into the housing and locked in place. Within just a few seconds, the housing is ready for dispatch.



**ZARGES
INNOVATION**



Mitraset® 19" housing

NEW!

Mitraset® RRF details

On the new Mitraset® RRF (Removable Rack Frame), the 19" anti-vibration frame can be removed quickly and easily without the use of tools, even when 19" devices have already been installed.

When the anti-vibration frame has been removed, work on installed devices and cabling can be performed quickly and easily, as the equipment is accessible from all sides.

Housings with removable anti-vibration frame are used for prototypes and housings where components have to be replaced frequently.

A special surface coating ensures that the anti-vibration frame slides in and out easily. The housing is equipped with a bonding (earthing) system as standard.

The compact design means that the entire nominal height of the Mitraset® RRF is available as installation space. Unlike other such products on the market, with ZARGES Mitraset® housings, no height units are lost for locks, and the outer dimensions remain unchanged.

Mitraset® RRF have successfully undergone shock and vibration testing to MIL-STD-810 F, method 514.5.





Mitraset® 19" housing

Mitraset® special dimensions

Mitraset® with wire rope shock absorbers

- For particularly high loads or to absorb vibration, the 19" frame featured on this variant is suspended on wire rope shock absorbers at an angle of 45°.
- The external dimensions have been increased correspondingly due to the increased size of the frame.



Mitraset® 1/2 19" housings

- For 1/2 19" racks, ZARGES can supply a housing with one or two lids.
- Rack width: 236.5 mm

Mitraset® applications and special solutions



Customised front panel with flexible skirt seal



Lid with special openings



Housing with special anti-vibration frame



Mitraset® with housing connections



Housing with special edge reinforcements



Housing with hinged-on lid and special dolly trolley



K 475 – lets nothing in or out

Moisture-proof transport and storage containers

Transport and storage containers from the K475 range are high-quality re-usable packaging. They are designed as watertight protective packaging for sensitive assemblies and equipment. The containers are constructed either as standard in the dimensions of the preferred series to VG 95 613 or in special sizes based on individual requirements.

K 475 re-usable containers with special foam fittings, holders and other additional equipment are available on request.



Details

- Transport and storage containers in aluminium in accordance with **TL 8115-0047** (alternative to plastic containers in accordance with VG 95 613).
- Stackable.
- Stable stacking corners.
- Seal-welded container, protection class IP 67.
- Removable lid with all-round seal.
- Self-locking spring-loaded fasteners.
- Sprung drop handles.
- Pressure relief valve and humidity indicator.
- RFI screening available.
- **Also available as UN-approved hazardous goods packaging.**

Details

→ **Protection class IP 67**

→ **Pressure-tightness**

Test to TL 8100-0005-2.4.2,
overpressure 163 mbar \pm 5 %, duration of test 30 \pm 1 min.

→ **Corrosion resistance**

Test to DIN 50 021 (salty spray test),
Duration of test 48 hours, MIL-STD-810 E, Section 509.3,
24 hours.

→ **Stack loading test**

Test to TL 8100-0005-2.6, method 2, test mass equals
6 m stacking height, duration of test 7 d, STANAG 4340,
AEPP-3, Section 301, gross weight 724 kg.

→ **Spring loaded handles**

Test to TL 8100-0005-2.5 (angle of lift max. 125°),
test force 1500 N per handle, duration of test 5 minutes,
STANAG 4340, AEPP-3, Section 310, 181 kg per handle,
5 minutes in each case.

→ **Vibration test**

Test to DIN EN 28 318, alteration of frequency of
vibration table 5 to 300 Hz and back to 5 Hz.
Speed of alteration of frequency of 0.5 Oct/min.
Acceleration amplitude of the table constant at
15 m/s², 2 runs.

→ **Shock test**

Test to TL 8100-0005-2.9.1 vertical shock test
(for boxes without runners), test to TL 8100-0005-2.9.4
tipping test (for boxes with runners).



K 475, Order No. 45 135 approved for hazardous goods transport
and with visual anti-twist protection to lid



VA top-up and emptying valve for filling with inert gas



ZARGES

Transport and storage container K 475



Important note:

Transport and storage container K 475 for the transport of hazardous goods* available at an extra charge.

*Tested:
composite packaging UN 4B



Note:

You can find more detailed information on our transport containers for hazardous goods in our catalogue „Packaging, transport, storage.“

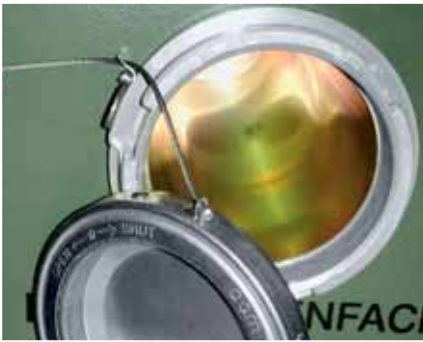
Order No. 170

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Order No.	No.	Inside dimensions (L × W × H, approx. mm)	Outside dimensions (L × W × H, approx. mm)	Contents (approx. l)	Weight (approx. kg)
45 131	1	360 × 260 × 265	400 × 300 × 300	25	4.8
45 133	2	360 × 360 × 265	400 × 400 × 300	34	5.5
45 135	–	460 × 460 × 365	500 × 500 × 400	77	7.5
45 137	–	560 × 360 × 265	600 × 400 × 300	53	7.1
45 138	3	560 × 360 × 365	600 × 400 × 400	74	7.8
45 141	4	760 × 360 × 265	800 × 400 × 300	73	10.7
45 142	–	760 × 360 × 365	800 × 400 × 400	100	11.8
45 144	–	760 × 560 × 360	800 × 600 × 400	153	15.1
45 145	5	760 × 560 × 460	800 × 600 × 500	196	16.8
45 146	–	760 × 560 × 560	800 × 600 × 600	238	18.5

Important note: Clear diameter measurement for K 475 containers approx. 32 mm less than inside dimensions (length and width).
Special sizes on request.

Special accessories



Document compartment

- Manometer
- VA coupling for filling with inert gas
- Foam linings
- Foam inserts to individual requirements
- RFI gasket
- Dessiccant compartment
- Dessiccant cartridges
- Decompression opening
- Pallet substructure
- Document compartment



K 475 in special design with VA coupling

Technical details



Stacking corner



Lid seal



Base stacking corner



RFI sealing



Top rim extrusion



User guide



Humidity indicator /
pressure relief valve

ZARGES
INNOVATION

Heavy duty case K473

Robust for high loads

The new K473 range is particularly suitable for high loads, e.g. heavy machinery, engines or equipment. It thus extends the comprehensive K 470 range by adding an even sturdier alternative and protects heavy equipment even under the toughest transport and environmental conditions. The use of aluminium means an optimum combination of low weight and a high degree of protection.

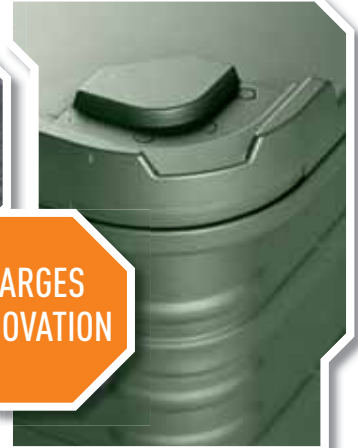


NEW!

Heavy duty case K473 – the robust alternative

Details

- Robust design, particularly suitable for high loads.
- Lid removable, protection class IP 65 in accordance with EN 60 529 provided by foamed seal in the lid.
- Robust, generously proportioned edge and floor profile frame made from full profile sections, permanently linked to jacket metal and base plate through high-strength positive locking.
- Profile joints fully welded.
- Beading all round and corner beads for additional dimensional stability.
- Equipped with the new ZARGES Comfort fasteners.
- Can be secured with a plug lock, lead seals, spring anti-opening feature or a padlock (max. shackle thickness 6 mm).
- Clearance dimensions = inside dimension, no limitation through upper edge profile section.
- Customer-specific solution, please inquire for details.



**ZARGES
INNOVATION**



Optional equipment

- Cast alloy stacking corners.
Cases with and without pallet substructure can be stacked.
- Aluminium pallet substructure.
- Hinged-on lid, two straps and peripheral foam seal to lid (protection class IP 54).
- Pressure relief valve and humidity indicator.
- Removable fixed and swivel castors.
- Paint finish in all standard variants possible.

Sealed containers for missiles



Bulk containers and special containers for a wide variety of applications, e.g. for transporting and storing missiles, rockets, miniature reconnaissance devices and many more.

Designed and built using plates and profile sections in high-strength aluminium alloys. Innovative features such as shock absorbers, holders and handling aids to ensure trouble-free, ergonomic and safe handling.

Tested and approved as hazardous goods packaging in accordance with UN requirements, i.e. can be transported on public roads.

We can also develop bespoke solutions tailored to your specific requirements on request!





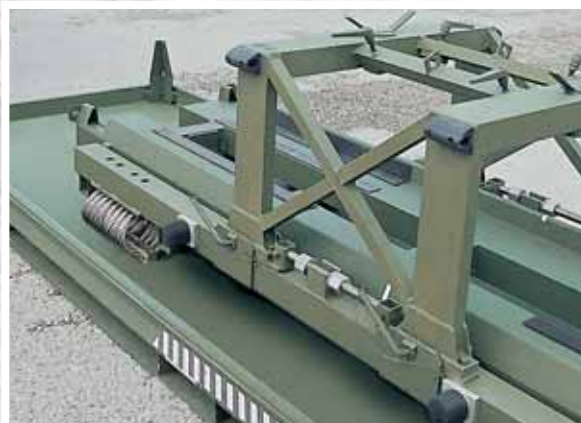
Water-vapour-resistant container in K475 construction



Secure, individual compartments with retaining devices



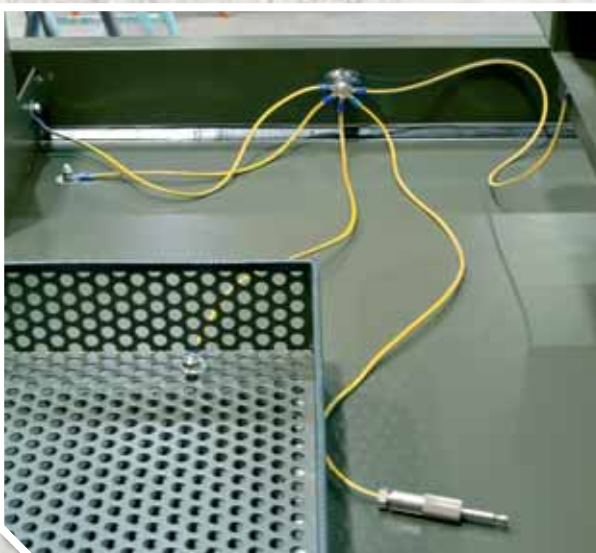
Document compartment



Baseplate with slide



Cable shockmount



Grounding



KEPD 350 missile prior to delivery

Hood-type containers

Making light work of handling heavy equipment

Hood-type transport and storage containers are special containers designed for packaging heavy equipment. Depending on their design and construction, hood-type containers can be stacked together with the standard versions of the Y-type containers.



Moisture-proof special design, IP 67

Details

- Base panel with flat mounting support for equipment.
- Hood cover with stacking corners.
- Drop handles on the ends.
- Hood cover and base panel connected by special adjustable toggle-type fasteners.
- Base panel can be fitted with aluminium or timber pallet to support heavy equipment.
- Can be stacked together with BY containers and containers of the former AY series.
- Fitted instruments can be operated with hood cover removed.
- Special dimensions are available on request.

Warning: Customised fabrication. Please call us!



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Shelf container

Mobility for medical products



Standard version

Details

- High-strength, corrosion-resistant aluminium alloy.
- Extruded framework with welded-on metal plates, impermeable to splashwater.
- Float-mounted locks.
- Separate lid, fixing by means of 4 toggle locks.
- Stackable using stacking knobs and recesses.
- 2 recessed drop handles per end face.
- Peripheral seal to the front.
- Interior with 6 pairs of support rails for maximum 6 modular inserts.
- Outside dimensions (L×W×H, approx. mm): 685×465×775 incl. lid.
- Standard design **Order No. 45 190** (without accessories)

Accessories

- Closed modules/modular baskets to ISO standard (600 mm × 400 mm, height 50, 100, 200 mm).
- Made from polycarbonate (transparent) or ABS (light blue).
- Lengthwise and crosswise partitions.
- Modules for small items.

Special accessories to TL 6545-0055 (see illustration)

- 2 containers can be used as a desk, desktop section is stored in the lid for transport.

ZARGES shelf containers are transport and storage containers for first-aid equipment, tools, spares etc. used in military applications, emergency aid and ambulance and rescue services. They are designed to accommodate closed ISO standard modules / modular baskets. This means that you only need to order what you require, and empty containers can be easily replaced with full ones in the stores or at the scene of the emergency.



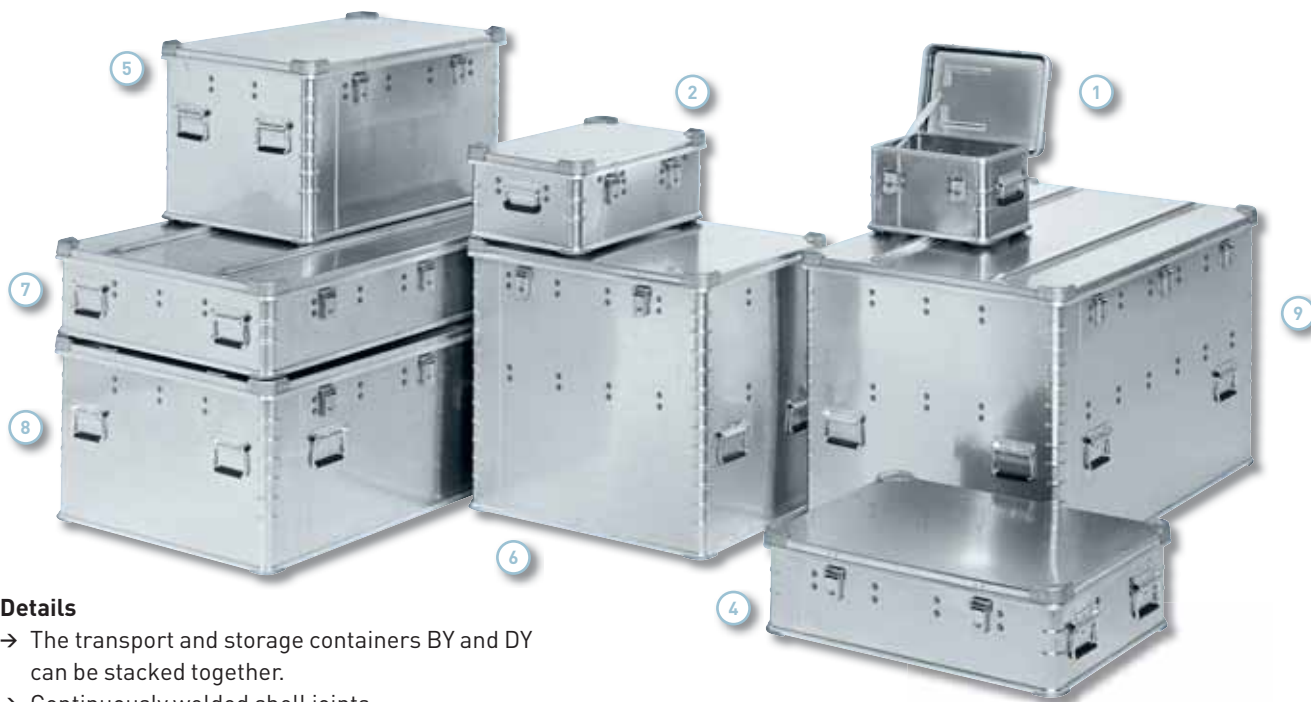
Special model



Y-containers

The range for the federal defence forces

The transport and storage containers in this series were designed specifically for military applications. All container sizes can be stacked together. The entire series is also available in a version approved as hazardous goods packaging.



Details

- The transport and storage containers BY and DY can be stacked together.
- Continuously welded shell joints.
- Sturdy cast stacking corners on lid and base.
- Stacking feet on base with attachment bores inside and outside.
- Side walls with lines of perforated holes, closed off with blind screws.
- Silicone sealing on the inside of the base makes the container waterproof up to the lower edge of the drop handle.
- BY cases have DIN-A4 label holders with a window on the inside of the lid (B 5.2 Y: DIN A5).
- All DY containers with additional handle on the front.
- All DY containers suitable for rack systems.
- Sturdy base, edge and lid profile.
- Hinged-on lid with peripheral seal.
- Lid loose for B 40.1 Y, B 40.2 Y and B 40.4 Y.
- Snap fasteners with anti-spring-open feature.
- Protection class IP 54 in accordance with DIN 60 529 : 1992.



Special equipment

- Also available as UN-approved hazardous goods packaging.
- Red Cross labels available for 4 sides and lid in accordance with TL 6545-0055.
- Lettering in accordance with TL 6545-0055.
- For exterior painting, see Page 72.
- Variable dividers.
- Case inserts.
- Base plates.
- Non-magnetic version available on request.



Order No.	No.	Model	Inside dimensions (L × W × H, approx. mm)	Outside dimensions (L × W × H, approx. mm)	Contents (approx. l)	Weight (approx. kg)
45 051	1	B5.2Y	380 × 265 × 220	420 × 305 × 270	22	4.2
45 050	2	B5 Y	570 × 380 × 220	615 × 420 × 270	47	6.4
45 052	3	B10 Y	570 × 380 × 466	615 × 420 × 516	100	7.6
45 055	4	B20.2Y	794 × 572 × 220	835 × 615 × 270	99	11.4
45 053	5	B20 Y	794 × 572 × 466	835 × 615 × 516	211	13.8
45 054	6	B20.1Y	794 × 572 × 717	835 × 615 × 761	325	17.0
45 058	7	B40.2Y	1175 × 793 × 220	1215 × 833 × 270	205	18.0
45 056	8	B40 Y	1175 × 793 × 465	1215 × 833 × 516	433	23.0
45 057	9	B40.1Y	1175 × 793 × 717	1215 × 833 × 761	668	25.7
335 597	10	B10.2Y	380 × 265 × 466	420 × 305 × 516	46	5.4
40 790	–	DII Y	573 × 278 × 345	606 × 312 × 388	54	5.8
40 792	–	DIII Y	573 × 278 × 540	606 × 312 × 583	86	6.3
41 708	–	D5 Y	499 × 347 × 265	532 × 381 × 308	45	5.2
41 709	–	D9 Y	499 × 347 × 443	532 × 381 × 486	76	6.3
45 036	–	B	1155 × 455 × 375	1200 × 500 × 430	197	14.0
45 037	–	D	555 × 455 × 375	600 × 500 × 430	94	8.0

Important note: All containers are registered with NATO supply no. Clearance dimensions approx. 30 mm less than inside dimensions (length and width). Special sizes on request. All containers supplied unpainted and without labelling as standard.



Hazardous goods packaging

Safety-tested



➔ Basic principles

- Strict safety regulations are laid down by law for the packaging and transport of hazardous goods. Hazardous goods may only be transported in packaging which meets these criteria and has been approved by the authorities.
- Requirements with regard to packaging are defined by the Hazardous Goods Directive and other standards.
- For many years now, ZARGES has been producing UN-approved packaging made from aluminium. It is approved as composite packaging (Code UN 4B, 4BU, 4BV, 4BW, 50B).

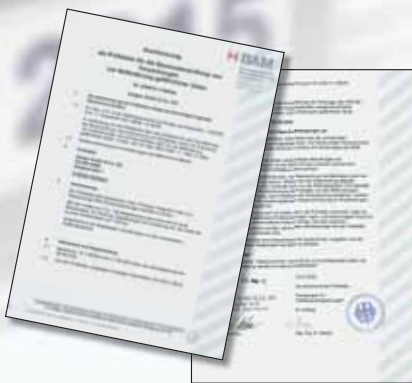


➔ What we at ZARGES offer

Consultancy service: Information on legislation and directives. Advice on the classification of hazardous goods. Recommendations for suitable interior and exterior packaging (incl. padding/padding material). Compiling special solutions.

Testing: Design testing of external combination and composite packaging (aluminium/steel). ZARGES is an authorised inspection authority. Approvals issued by the Federal Office for Material Research and Testing (Bundesamt für Materialforschung und -prüfung – BAM).

Supply: Approved exterior packaging in standard or special sizes. Complete packaging solutions (composite packaging). Special solutions.



In its capacity as a test and inspection agency, ZARGES is authorised and able to test hazardous goods packaging and to apply for type approvals.

Hazardous goods hazardous goods directive encapsulations for a wide range of applications

All series on this page are available as an option with approval for the transport of hazardous goods for a wide range of applications.



BY case for radioactive material



Alu-Case K410



K470 series, available in 27 sizes



Moisture-proof K475



K470 for infectious materials Class 6.2 Category A



Special containers with pallet substructure



Mitraset® for contaminated 19" equipment



Note:
Please also see our catalogue:
Packaging, transportation, storage
Order No. 170

ZARGES

K 470 universal containers

More than 50 years of innovation



➔ Universal container K 470 – a true classic

Developed back in 1950, it still stands for the power of innovation, the highest quality, maximum functionality and convincing design today. These are characteristics which made it the archetype on which most of the ZARGES logistics products were based.

It has been redesigned in two stages, consistently kept abreast of the latest technological developments, and the range has been extended to include practical accessories. It thus offers the optimum solution for safe transportation, economical storage, perfect packaging and reliable protection of your goods against external influences.

Universal container K 470



The range of applications for the successful ZARGES universal containers has once again been extended: Thanks to the addition of two new models, the best-selling K 470 series now comprises a total of 27 models and thus offers an even wider selection of standard sizes.

With capacities ranging from 13 to 829 litres, the K 470 range now has the right container for almost every application – and where that is not enough, we can manufacture special sizes to order.

No matter what their size, it goes without saying that all K 470 models – including the new variants – offer the unmatched quality of this classic ZARGES container. A wide selection of well thought-out interior fittings and intelligent accessory modules round off the range for optimum logistics solutions.

➔ ZARGES innovations in cases, fasteners and handles set new standards



You don't transport raw eggs in a plastic bag, nor would you pack valuable objects in just any old case. For decades now, the ZARGES K 470 aluminium universal container has demonstrated that it can protect its contents reliably against damage in transit. No matter how tough the going gets: This allround talent can take it. Both practical experience and top performance in various load tests prove it.

It has been redesigned in two stages, consistently kept abreast of the latest technological developments and the range extended to include practical accessories. It thus offers the optimum solution for safe transportation, economical storage, perfect packaging and reliable protection of your goods against external influences.



➔ **Important note:**
K 470 shipping case for the transportation of hazardous goods* available for an additional charge.
*Tested: composite packaging UN 4B



➔ **Note:**
You can find more detailed information on our transport containers for hazardous goods in our catalogue „Packaging, transport, storage.“
Order No. 170



➔ Easier to access wearing gloves

The handles are 10% wider, making it even easier to grip them when wearing gloves.



ZARGES
INNOVATION

Getting a good grip

Even more ergonomic fasteners and handles for optimum comfort and long service life

ZARGES Universal container K470



➔ Tailored to your needs – more variety in Comfort fasteners

The new ZARGES Comfort fasteners can be equipped with a mortise lock or with spring anti-opening feature. Furthermore, they can be secured with a shackle lock or lead seal.



Design right and utility model protected

➤ Optimum safety and extremely comfortable handling

The handles of the ZARGES cases proved their strength when tested against other comparable products: Thanks to the reinforced handle plate, the handles are not bent by more than a specific angle, even under the heaviest loads. This ensures reliable protection against injury caused by the hands getting pinched in the handle.



Instead of this ...



... we have this:

ZARGES handles are stable – the new handles were also tested for compliance with military standard VG 95 446-2, under a load of 375 N. The resulting change in the angle of the handle was a mere 1.5° (10° are permissible).



➤ More ergonomic with a wider hand rest

Wider and thicker gripping surfaces mean that the cases are even easier to handle and can be carried for longer periods without tiring.

➤ Service life – tested 20 000 times and still holding their own



When it has been operated 5000 times, a conventional fastener has lost around 80% of its clamping force. The consequence: The case lid may spring open during transport.

In the same period of time, the new Comfort fastener has lost only 20% of its clamping force, and thus its service life is much longer.

These results were confirmed in numerous endurance tests in our own test laboratory. The resulting long service life is unique to the new ZARGES Comfort fasteners.

The new ZARGES container fasteners are protected by EU-wide utility patents!

➤ Possible combinations:

1. Fastener with plug lock
2. Fastener with spring anti-opening feature
3. Fastener with K 470 Clip and shackle lock
Order No. 46 989
4. Fastener with spring anti-opening feature and plug lock



ZARGES Universal container K 470



And the range of applications has increased yet again:
With the addition of two new models, the K 470 series has grown and now comprises 27 different models, thus offering a unique choice of standard sizes.

Their capacity ranges from 13 to 829 litres. If you can't find what you need in this range, ZARGES also makes special sizes to order.

And it goes without saying that the new K 470 models also offer the legendary quality of our classic product.

The K 470 range is rounded off by a wide selection of carefully thought-out interior fittings and numerous solutions for easier handling.



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K 470 shipping case



Details

- Stackable aluminium universal container.
- Lid with stainless steel hinge, two belt straps and foamed seal all round.
- Cast-aluminium stacking corners.
- Edge, lid and base profile frames made of solid profile sections.
- Profile joints fully welded.
- Beading all round and corner beads for additional dimensional stability.
- Snap fasteners. Can be secured with a plug lock, lead seals, spring anti-opening feature or a padlock (max. shackle thickness 6 mm).
- Ergonomic heavy-duty sprung drop handles.
- Clearance dimensions approx. 30 mm less than inside dimensions.



Important note:

K 470 shipping case for the transportation of hazardous goods* available for an additional charge.

*Tested: composite packaging UN 4B



Note:

You can find more detailed information on our transport containers for hazardous goods in our catalogue „Packaging, transport, storage.“

Order No. 170

Order No.	see No.	Inside dimensions (L × W × H, approx. mm)	Outside dimensions (L × W × H, approx. mm)	Contents (approx. l)	Weight (approx. kg)
40 835	1	350 × 250 × 150	400 × 300 × 180	13	2.6
40 677	2	350 × 250 × 310	400 × 300 × 340	27	3.1
40 810	3	550 × 350 × 150	600 × 400 × 180	29	4.2
40 568	4	550 × 350 × 220	600 × 400 × 250	42	4.8
40 678	5	550 × 350 × 310	600 × 400 × 340	60	5.0
40 564	6	550 × 350 × 380	600 × 400 × 410	73	5.3
40 849	7	550 × 550 × 220	600 × 600 × 250	67	5.6
40 859	8	550 × 550 × 380	600 × 600 × 410	115	6.6
40 836	9	550 × 550 × 580	600 × 600 × 610	175	7.8
40 837	10	600 × 430 × 450	650 × 480 × 480	116	6.5
40 838	11	600 × 560 × 300	650 × 610 × 330	101	6.5
40 839	12	600 × 560 × 440	650 × 610 × 470	148	7.4
40 840	13	660 × 600 × 350	710 × 650 × 380	139	7.6
40 841	14	690 × 460 × 380	740 × 510 × 410	121	6.9
40 842	15	690 × 640 × 340	740 × 690 × 370	150	8.0
40 843	16	690 × 640 × 430	740 × 690 × 460	190	8.6
40 565	17	750 × 550 × 380	800 × 600 × 410	157	10.0
40 566	18	750 × 550 × 580	800 × 600 × 610	239	12.0
40 844	19	780 × 480 × 520	830 × 530 × 550	195	11.1
40 845	20	900 × 480 × 400	950 × 530 × 430	173	11.0
40 846	21	900 × 640 × 450	950 × 690 × 480	259	13.4
40 567	22	950 × 450 × 380	1000 × 500 × 410	162	10.9
40 847	23	1150 × 350 × 150	1200 × 400 × 180	60	7.5
40 580	24	1150 × 750 × 480	1200 × 800 × 510	414	20.0
40 848	25	1350 × 400 × 220	1400 × 450 × 250	119	9.5
40 875	26	1550 × 550 × 465	1600 × 600 × 495	396	25.0
40 876	27	1650 × 750 × 670	1700 × 800 × 700	829	30.0

Important note: Clearance dimensions approx. 30 mm less than inside dimensions (length and width). Special sizes on request.

No chance for water and dust

ZARGES K 470, now dustproof and
protected against water jets in accordance
with protection class IP 65



ZARGES Universal container K 470



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ZARGES K 470 IP 65 universal containers set new standards when it comes to sealing

Up to now, the cases were equipped with reliable protection against dust and splashwater as standard. The new K 470 IP 65 can now be used wherever you need that little bit more, increased protection against moisture, water jets and dust.



→ Protection to class IP 65 was achieved with a peripheral silicone seal and an optimised lid seal.

The K 470 IP 65 was subjected to rigorous testing by TÜV SÜD and certified impervious to dust and water jets.



→ The automatic pressure relief valve ensures that the lid still opens reliably even after changes in air pressure. A Gore™ membrane ensures continuous compensation of differences in pressure and is impervious to dust, salts, water and other liquids. And as the valve is automatic, handling errors can be ruled out.



→ With just a few exceptions, the optional seal is available for all K 470 catalogue sizes. In addition, you can choose the combination of the new equipment with additional UN approval for the transport of hazardous goods.

→ **When placing an order, please add "IP 65" after the Order No.**



ZARGES Universal container K 470

Test certificates K 470



➔ Tried and tested

For decades, customers from all over the world have relied on the tried and tested quality of the K 470 universal containers, which represent the competence and long-standing experience of the ZARGES logistics experts.

And ZARGES commissions regular testing to ensure that this trust is fully justified – after all, proof is proof.

The result: In a wide variety of tests, numerous well-known test institutes confirmed the top quality of the K 470 models.

These institutes included:

- BAM (Federal Institute for Materials Research and Testing, Berlin)
- TÜV SÜD (Munich)
- IABG Ottobrunn (near Munich)
- BWB (Federal Office of Defense Technology and Procurement, Koblenz)
- Dayton T. Brown (Bohemia, Long Island NY, USA)
- and many more



Extract from testing and certification



MIL-STD-810 G method 506.5 Rain – Procedure I – rain and blowing

- Wind speed 18 m/s.
- Rain intensity 100 mm/h.
- Duration of test at least 30 minutes per side.



MIL-STD-810 G – method 510.5 Sand and Dust – Procedure I – Blowing dust:

- Wind speed 8.9 m/s.
- Dust density: $10.6 \pm 7 \text{ g/m}^3$.
- Particle size $\leq 149 \mu\text{m}$.
- Duration of test $2 \times 6 \text{ h}$.



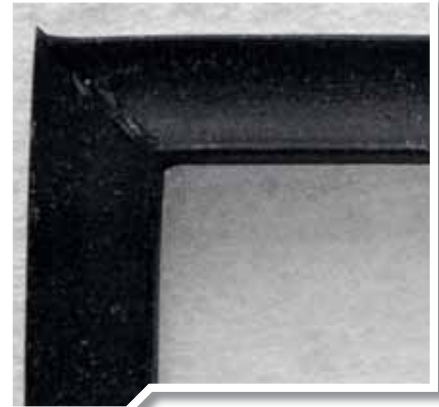
K470 after dust-tightness test.





MIL-STD-810 G method 509.4 Salt Fog Test

- Duration of test 96 hours.
- Temperature 35 °C.



Resistance to mildew as per MIL-STD-810 F method 508.5 – Fungus

- Duration of test 28 days.

Approval for the transport of hazardous goods, packaging group I in accordance with ADR / RID / IATA-DGR and IMBG Code

Type testing comprises at least the following tests:

- Drop test from a height of 1.80 m onto a rigid impact surface.
- Stacking pressure test, simulation of a pressure load at least equivalent to 3.00 m stacking height over at least 24 hours.
- Dart drop test in which a rod Ø 32 mm with a hemispherical end and weighing 6 kg is dropped centrally onto the weakest point of the test specimen from a height of 1.00 m.



Drop test from a height of 1.80 m



Stack load of 2100 kg



➡ Maximum protection with minimum weight

The K 470 was successfully tested for compliance with international aviation standard ATA 300 (Category II).

Category I means that a container has to survive at least 100 round trips as air freight – i.e. outward and return flights.

The following tests were carried out:

- ➔ **Drop test:** K 470 cases were loaded with a weight of 23 kg and dropped 280 times from a height of 76 and 92 cm.
- ➔ **Spray water test:** For this test, the cases were sprayed with 100 litres of water for one hour.
- ➔ **Stability test:** This includes a vibration test in which the cases are loaded with a weight of 23 kg and left on a vibrating table for two hours.



➔ What is the ZARGES Case Center?

Nowadays, discerning customers are looking for more than just an empty case. What they need are complete packaging solutions. And so ZARGES offers not only cases, but has expanded its range to include a wide selection of well thought-out accessories.

Case Center: always the best possible packaging solution



Foam lining

- ➔ On request, all K 470 containers can be equipped with a durable, abrasion-proof PE-foam lining.
- ➔ Base and wall sections made from Plastazote LD 45, (specific gravity 45 kg/m³, thickness 11 mm), lid lined with PU nubbly foam.
- ➔ Other materials and wall thicknesses on request.
- ➔ **Order No. see table**



Order No.	For	Inside dimensions (L × W × H, approx. mm)
43 860	40 835	350 × 250 × 150
43 861	40 677, 40 720	350 × 250 × 310
43 862	40 810	550 × 350 × 150
43 863	40 568, 40 721	550 × 350 × 220
43 864	40 678, 40 722	550 × 350 × 310
43 865	40 564, 40 723	550 × 350 × 380
43 866	40 849	550 × 550 × 220
43 867	40 859	550 × 550 × 380
43 868	40 836	550 × 550 × 580
43 869	40 837	600 × 430 × 450
43 870	40 838	600 × 560 × 300
43 871	40 839	600 × 560 × 440
43 872	40 840	660 × 600 × 350
43 873	40 841	690 × 460 × 380
43 874	40 842	690 × 640 × 340
43 875	40 843	690 × 640 × 430
43 876	40 724	750 × 350 × 310
43 877	40 565, 40 725	750 × 550 × 380
43 878	40 566, 40 716	750 × 550 × 580
43 879	40 844	780 × 480 × 520
43 880	40 845	900 × 480 × 400
43 881	40 846	900 × 640 × 450
43 882	40 567	950 × 450 × 380
43 887	40 847	1150 × 350 × 150
43 884	40 580	1150 × 750 × 480
43 885	40 875	1550 × 550 × 465
43 888	40 848	1350 × 400 × 220
43 886	40 876	1650 × 750 × 670



K470 Accessories



Pick 'n Pluck foam set

- Pre-cut flexible-foam inserts made from open-cell PU foam.
- The fast and simple solution for individual items or small batches.
- Shape can be changed without tools.
- Sheet thicknesses in the set: 2 sheets each of 30 mm and 60 mm, nubbly-foam lid insert 30 mm, base foam 10 mm.
- Including adhesive.

→ Set 1

Fits 40 810, 40 564, 40 568, 40 678, 40 721 – 40 723

Dimensions (L × W × H):
550 × 350 × 220 mm

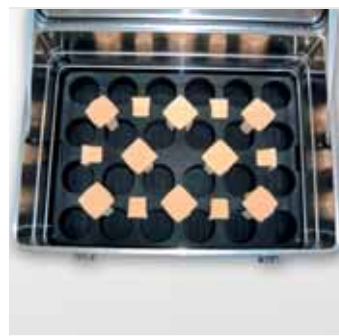
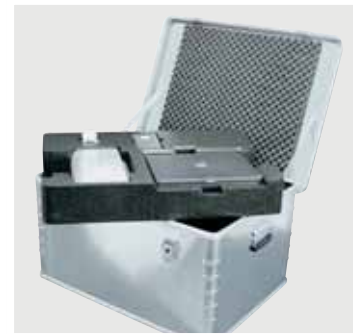
Order No. 40 735

→ Set 2

Fits 40 565, 40 566, 40 725, 40 716

Dimensions (L × W × H):
750 × 550 × 220 mm

Order No. 40 736



Individual foam inserts

- We manufacture tailor-made foam inserts in a large range of materials to provide perfect protection and functionality geared specifically to the goods you are transporting.
- One of the special features of these top-quality foams is that it is possible to calculate in advance the degree of protection which will be provided by the finished packaging.
- On the basis of weight, surface area, drop height and sensitivity of the goods (G value), we develop for you packaging with the optimum padding thickness. The result: lowest possible raw material requirements with maximum protection.
- On request, we can also supply inserts with antistatic finish or dissipative design.

ZARGES Universal container K 470

K 470 Accessories



Clip-on castors

- Mobility for all models from inside dimensions 550 mm × 350 mm upwards.
- Tool-free mounting possible.
- Made of solid rubber, Ø 100 mm, swivel castors fitted with wheel brakes.
- Load capacity up to 90 kg on 4 castors.

→ 2 fixed castors

each with a clamping mechanism
1 × left and 1 × right.

Order No. 40 741

→ 2 swivel castors

each with clamping mechanism
1 × left and 1 × right.

Order No. 40 742

Configuration recommendations:

- 2 swivel castors
(1 × Order No. 40 742) and
2 fixed castors
(1 × Order No. 40 741)
or
- 4 swivel castors
(2 × Order No. 40 742)



Add-on castors

- 2 castors made from high-quality polyamide.
- Simple assembly.
- Load capability 50 kg/set.
- Optimum for containers with an outside length of 800 – 1000 mm.
- Delivery includes the required mounting equipment and assembly instructions.
- **Order No. 40 738**



Pallet substructure

- On request, the boxes can be fitted with a pallet substructure.
- Pallets made from wood, plastic or aluminium.
- Details on request.





NEW!

Lifting equipment with TÜV certification

ZARGES K 470 containers can be supplied with TÜV-tested lifting equipment.

Product characteristics:

→ Can bear loads of up to 200 kg per case.

There are two models available.

Model 1: Mounting set, lifting sling, fabric

→ Low weight.

→ No metallic rattling.

→ **Order No. 40 745**

Model 2: Mounting set, lifting sling, stainless steel

→ Easy cleaning and decontamination.

→ High resistance to UV rays and chemicals.

→ **Order No. 40 746**

UN approval for the transportation of hazardous goods possible.



Trolleys

→ Telescopic trolley.

→ For easy fitting by the customer.

→ Pull-out and lockable handle.

→ Optimum for cases with an outside length of 600 – 800 mm.

→ Easy-running running gear, Ø 54 mm.

→ Load capacity 30 kg.

→ Fits all K 470 types of length 600 – 800 mm.

→ **Order No. 40 739**

Supplementary items for trolleys

→ Supplementary set enables the trolley to be used with other boxes/cases.

→ **Order No. 40 740**



W150 dolly trolley

→ Aluminium chassis, low version.

→ Running gear: 2 swivel and 2 castors, Ø 125 mm, 40 mm wide, easy running, rubber wheels, "non-marking", roller bearings, thread guards.

Order No.	For	Outside dimensions of container (L × W, approx. mm)	Max. load	Weight (approx. kg)
40 607	K 470	600 × 400 or two cases: 400 × 300	up to 150 kg	5.1
40 608	K 470	800 × 600	up to 150 kg	5.5



Heavy duty dolly trolley W 154

→ Welded aluminium profile-section construction.

→ Castors (2 fixed and 2 swivel castors with brake) made from polyamide, white.

Order No.	For Order No.	Outside dimensions of container (L × W, approx. mm)	Max. load	Weight (approx. kg)
45 096	45 075 / 45 070	800 × 600	up to 300 kg	7.8
45 097	45 076 / 45 073 / 40 580	1200 × 800	up to 600 kg	15.9

The logo is an orange octagon with the words "ZARGES" and "INNOVATION" stacked vertically in white, sans-serif, uppercase letters.

ZARGES
INNOVATION

1 + 1 = 1

**The new two-part transportation system –
K 470 Plus!**

ZARGES Universal container K 470

WWW.ZARGES.COM



➔ The new packaging concept from ZARGES

With the K470 Plus, ZARGES is following a new packaging concept: a two-part transportation system consisting of a top and bottom section. This allows you to combine elements of different heights, creating a whole new range of possibilities.

These containers are designed for the transportation and storage of heavy equipment. The K470 Plus is particularly suitable for use with equipment which is operated in the case, e.g. flash units, printers, measuring equipment etc.

The advantages:

- ➔ The equipment does not have to be lifted out of the case.
- ➔ Easy access to the equipment in the case during transport.
- ➔ If the equipment does have to be lifted out of the case, the new transportation system reduces the lifting distance, because the top section can be removed.



ZARGES Universal container K 470

NEW!

K 470 Plus



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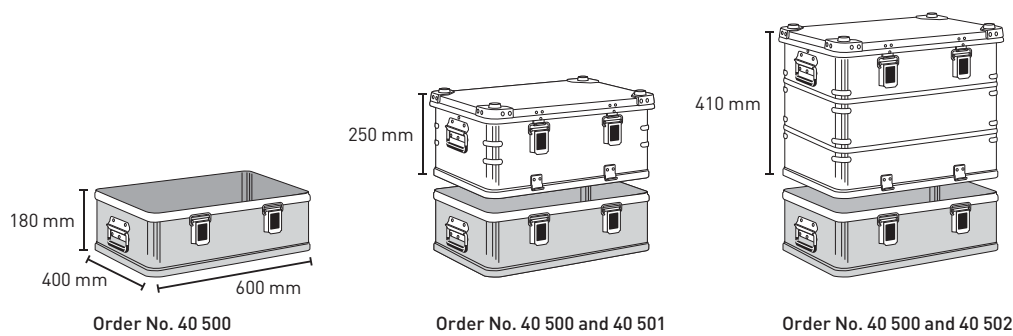
Details

- Stackable aluminium universal container.
- Removable top section and lid with all-round seal.
- Lid with stainless steel hinge, two belt straps and all-round seal.
- Cast-aluminium stacking corners.
- Stackable with products of the K 470 series.
- Profile joints fully welded.
- Depending on height, beading all round and corner beading for extra stability of form.
- Equipped with the innovative new ZARGES Comfort fasteners.
- Can be secured with a plug lock, lead seals, spring anti-opening feature or padlock (max. shackle thickness 6 mm).
- New, innovative, ergonomic, heavy-duty sprung drop handles .
- Clearance dimensions approx. 30 mm less than inside dimensions.
- 2 basic dimensions (550 mm × 350 mm and 750 mm × 550 mm) available as standard, special dimensions possible on request.

Accessories:

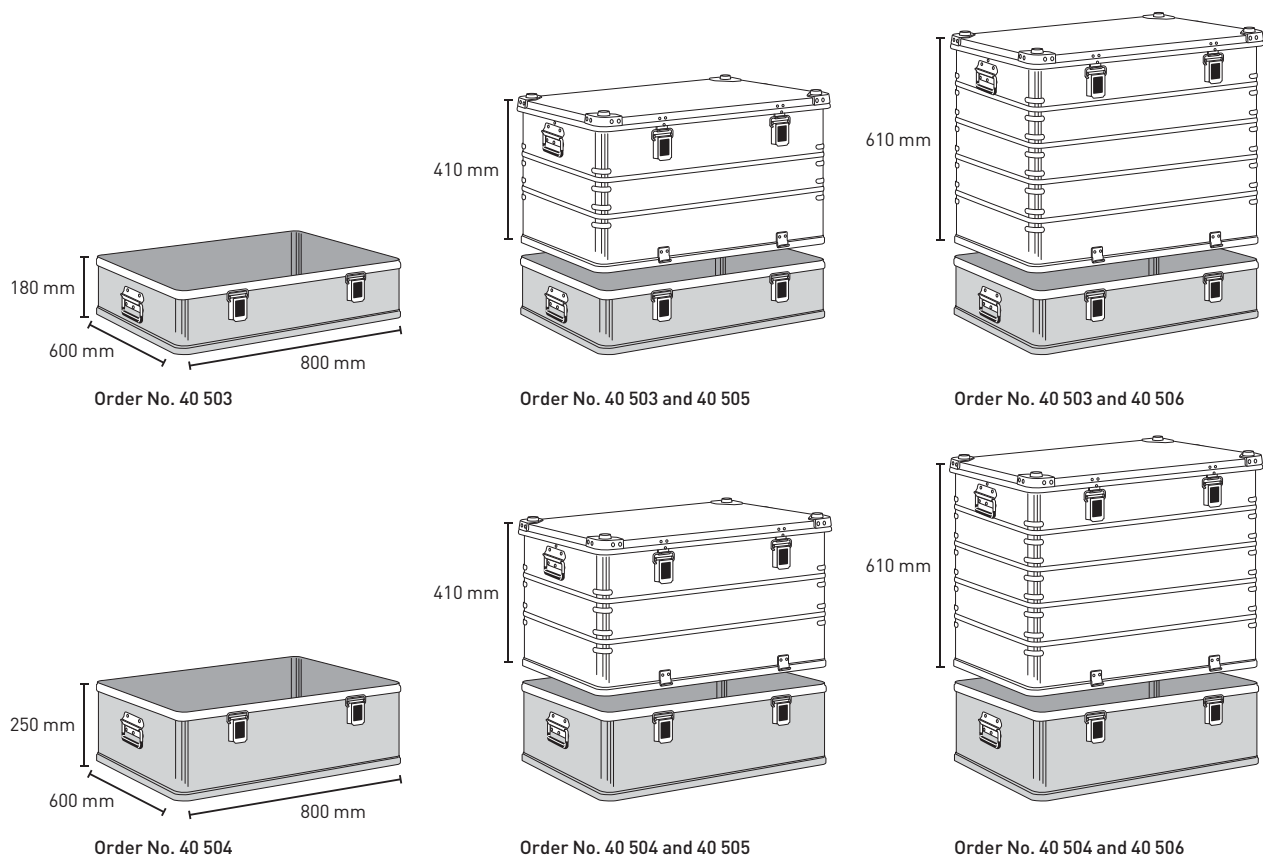
- See Accessories, from Page 58.

ZARGES Universal container K470



K470 Plus Outside dimensions : 600 mm x 400 mm

Order No.	Description	Inside dimensions (L x W x H, approx. mm)	Outside dimensions (L x W x H, approx. mm)	Volume (approx. l)	Weight (approx. kg)
40 500	Bottom section	550 x 350 x 150	600 x 400 x 180	29	2.6
40 501	Top section	550 x 350 x 220	600 x 400 x 250	42	4.0
	Total height with bottom section 150 mm: 370 mm				
40 502	Top section	550 x 350 x 380	600 x 400 x 410	73	4.7
	Total height with bottom section 150 mm: 530 mm				



K470 Plus Outside dimensions : 800 mm x 600 mm

Order No.	Description	Inside dimensions (L x W x H, approx. mm)	Outside dimensions (L x W x H, approx. mm)	Volume (approx. l)	Weight (approx. kg)
40 503	Bottom section	750 x 550 x 150	800 x 600 x 180	62	4.8
40 504	Bottom section	750 x 550 x 220	800 x 600 x 250	91	5.5
40 505	Top section	750 x 550 x 380	800 x 600 x 410	157	8.6
	Total height 530 and 600 mm respectively				
40 506	Top section	750 x 550 x 580	800 x 600 x 610	240	10.5
	Total height 730 and 800 mm respectively				

RetouЯ® collapsible containers

Faltkisten RetouЯ® collapsible container for less-than-cargo lots



Important note:

The RetouЯ® collapsible container is available in a version approved for the transport of hazardous goods* at an additional charge.

*Tested: composite packaging
UN 4B

Note:

You can find more detailed information on our transport containers for hazardous goods in our catalogue „Packaging, transport, storage.“

Order No. 170

Collapsible reusable packaging in aluminium alloy.

- Can be collapsed quickly and easily by one person.
- Simple handling due to interlocking profiles with connection locking device on the floor pan and side parts.
- Side protection profiles.
- High degree of stability through three sets of profiles on the outside walls.
- Folding ratio 1: 3.
- Lid securely fastened to rear wall by swing-type hinge.
- End-walls and lid with additional, externally mounted stiffening profiles.
- Self-engaging fasteners, can be lead-sealed and/or secured with a shackle lock.
- Stacking corners.
- Suitable for use on roller conveyors.
- 15 mm free space when collapsed (e.g. for interior fittings).

Order No.	Inside dimensions (L × W × H, approx. mm)	Outside dimensions (L × W × H, approx. mm)	Size when folded, H (approx. mm)	Contents (approx. l)	Weight (approx. kg)
45 070	730 × 530 × 570	800 × 600 × 600	145	221	21.0
45 073	1130 × 730 × 740	1200 × 800 × 900	287	610	62.0

Important note: Aluminium pallets and aluminium side protection profiles are special equipment.
Order Number 45 073: Standard delivery with wooden pallet and wooden side protection profiles.
Dimensions and weight incl. flat wooden pallet. Special sizes on request.

Special features of collapsible containers

Order No.	More detailed description
45 070 + 45 073	Long front wall folds down, loading also possible from the front
45 073	Flat wooden pallet as standard equipment

Note: For the transport and storage of liquid and paste-like materials, ZARGES offers you a solution in the form of collapsible container RetouЯ®Inliner. Inquire for details.



K410 Alu Case



Alu Case in special design



The sturdy ZARGES Alu-Cases are ideal transport and packaging media for a wide range of applications. Ideal for presenting sample collections, as safe packaging for valuable or sensitive goods or as a repair case for service technicians.

Stable, lockable, protected against dust and splashwater and equipped with ergonomic carrying handles, their distinguishing features are functionality, long service life and timeless design.

- Aluminium case, anodised, for varied applications.
- Corrosion-resistant.
- Smooth surfaces.
- Corner reinforcements with case corner pieces.
- Comfortable carrying handle.
- Tension locks with protection against bursting open.
- Hinged lid with all-round seal, therefore extensively dust- and splashwater-tight.
- Clearance dimensions approx. 20 mm less than inside dimensions (length and width).

Order No.	see No.	Inside dimensions (L × W × H, approx. mm)	Outside dimensions (L × W × H, approx. mm)	Contents (approx. l)	Weight (approx. kg)
40 765	1	360 × 300 × 140	370 × 330 × 145	15	1.8
40 763	2	470 × 350 × 120	480 × 380 × 125	20	2.2
40 764	3	530 × 330 × 140	540 × 360 × 145	25	2.5
40 766	4	470 × 350 × 170	480 × 380 × 175	28	2.7

Important note: Clearance dimensions approx. 20 mm less than inside dimensions (length and width).
Special sizes on request.



Important note:
Alu Cases for the transportation of hazardous goods* available at an extra charge.

*Tested: composite packaging UN 4B

P 472-Case – the ultimate in protection for your equipment



The ZARGES hard-sided case provides the highest degree of protection for sensitive items.

- Unbreakable, stackable hard-sided case made from high quality polypropylene (PP).
- Ideal transport and storage container for highly sensitive goods, e. g. electronic and optical equipment, measuring instruments, medical instruments, biotechnology equipment etc.
- Available in more than 30 different sizes which hold up to 331 l.
- Larger models with castors and pull-out handle for easier handling.
- Water- and dust-tight thanks to neoprene seal, to degree of protection IP 67 in most models.
- All cases fitted as standard with automatic pressure relief valve.
- Can withstand temperatures from – 40 °C to + 99 °C, resistant to many aggressive substances such as acids and alkalis.
- All metal parts on handles and fasteners made from corrosion-resistant stainless steel.
- Standard colour black, depending on case type, also available in yellow, silver-grey, sand, olive green and orange (minimum order quantity, other colours on request).



Certification:

- Air Transportation Association
- US Military Specifications MIL-C-4150 J
- NATO (NSN)-approved
- DefStan 81-41 / STANAG 4280



Robust design

The special design, an open-cell core and tough wall construction protect the Peli cases in spite of their low weight. The many heavy duty strengthening ribs ensure added protection. Impacts are cushioned evenly and your equipment remains safe and sound.

Automatic pressure relief valve

The automatic pressure relief valve ensures that pent-up air can escape, but no water can enter. This means that the Peli cases are watertight and can still be opened easily even after a change in pressure.

Fasteners

The patented design of the two-stage fasteners makes for easy opening and closing of the case with little effort required.

Model	Inside dimensions (L × W × H, approx. mm)	Outside dimensions (L × W × H, approx. mm)	Contents (approx. l)	Weight without insert (approx. kg)	Order No. empty	Order No. with foam	Order No. with divider
1080	325 × 249 × 43	349 × 278 × 65	3.5	1.3	For details, see Page 70		
1090	381 × 287 × 49	402 × 333 × 73	1.8	1.5	46 675	46 676	–
1120	187 × 124 × 77	209 × 166 × 90	1.8	0.5	46 800	46 801	–
1150	212 × 149 × 93	235 × 192 × 111	2.9	0.8	46 810	46 811	–
1170	268 × 153 × 80	296 × 212 × 96	1.8	3.3	46 625	46 626	–
1200	238 × 184 × 103	270 × 246 × 123	4.5	1.2	46 820	46 821	–
1300	238 × 184 × 155	270 × 246 × 174	6.8	1.4	46 830	46 831	–
1400	305 × 230 × 131	340 × 295 × 152	9.2	1.8	46 840	46 841	–
1430	344 × 146 × 297	430 × 244 × 341	18.0	3.0	46 730	46 731	46 732
1440 *	434 × 190 × 406	500 × 305 × 457	33.6	6.6	46 720	46 721	46 722
1450	376 × 263 × 152	406 × 330 × 174	15.0	2.5	46 850	46 851	46 852
1470	400 × 268 × 95	424 × 332 × 111	10.2	1.7	46 860	46 861	–
1490	454 × 292 × 105	494 × 354 × 119	13.9	2.3	46 880	46 881	–
1495	479 × 333 × 97	549 × 438 × 124	15.5	3.3	For details, see Page 70		
1500	432 × 290 × 155	470 × 357 × 176	19.4	2.9	46 890	46 891	46 892
1510 *	514 × 289 × 193	559 × 351 × 229	28.6	5.1	46 770	46 771	46 772
1520	454 × 324 × 171	486 × 392 × 192	25.2	3.6	46 900	46 901	–
1550	481 × 367 × 197	525 × 436 × 217	34.8	4.8	46 910	46 911	46 912
1560 *	518 × 392 × 229	560 × 455 × 265	46.5	6.9	46 790	46 791	46 792
1600	552 × 427 × 200	616 × 494 × 220	47.1	5.9	46 920	46 921	46 922
1610 *	550 × 422 × 268	627 × 497 × 303	65.9	9.1	46 930	46 931	46 932
1620 *	560 × 432 × 320	630 × 492 × 352	77.4	11.1	46 940	46 941	46 942
1630 *	703 × 533 × 394	794 × 615 × 444	147.0	14.1	46 680	46 681	46 682
1640 *	602 × 610 × 353	691 × 699 × 414	130.0	15.4	46 710	46 711	46 712
1650 *	736 × 454 × 267	781 × 520 × 295	89.2	13.3	46 950	46 951	46 952
1660 *	740 × 525 × 448	800 × 581 × 479	174.0	15.5	46 980	46 981	46 982
1690 *	762 × 635 × 407	847 × 722 × 463	197.0	15.4	46 690	46 691	46 692
0340	457 × 457 × 445	518 × 519 × 489	93.0	10.9	46 740	46 741	46 742
0350 **	508 × 508 × 459	569 × 571 × 540	118.0	11.8	46 750	46 751	46 752
0370 **	610 × 610 × 610	673 × 673 × 642	227.0	14.5	46 760	46 761	46 762
0450	522 × 279 × 321	608 × 375 × 456	46.0	15.0	46 640	46 641	–
0500	887 × 468 × 641	1014 × 595 × 727	266.0	22.7	46 630	46 631	–
0550 ***	1208 × 611 × 449	1296 × 699 × 579	331.0	36.0	46 633	46 634	–
1700 *	910 × 351 × 133	968 × 452 × 155	42.5	7.3	46 960	46 961	–
1720 *	1067 × 343 × 133	1127 × 406 × 156	48.6	7.6	46 780	46 781	–
1730 *	863 × 609 × 317	952 × 689 × 365	164.0	13.6	46 650	46 651	–
1740	1040 × 328 × 308	1121 × 409 × 355	105.0	10.0	46 620	46 621	–
1750 *	1283 × 341 × 133	1343 × 443 × 154	58.2	10.7	46 970	46 971	–
1770	1386 × 396 × 219	1458 × 469 × 285	120.0	17.4	46 623	46 624	–
1780 *	1066 × 559 × 383	1140 × 643 × 419	228.0	17.4	46 660	46 661	–

Important note: The models marked * are equipped with two castors for easier transport. Models 1440, 1510, 1560, 1610, 1620, 1630, 1650, 1660 and 1690 also have a pull-out handle. Standard colour is black, special colours on request. Model 0340 equipped with 4 castors and pull handle. Frame insert for many models from 1120 to 1550 can be supplied. Peli 1080, 1490 and 1495 dimensions only, for details, see the following Pages.

** Corresponding castor attachment set (2 fixed and 2 swivel castors) is available, Order No. 46 757 (not included in the scope of delivery).

*** Optional equipment comprises heavy duty castors (each designed for up to 113 kilos) and removable pallet lifter for trouble-free transport with a lifter truck.

P 472 Case laptop case for notebooks from 12" to 17"

P 472 1080 laptop case for notebooks up to 12".

- Fits notebooks up to 312 mm × 236 mm × 36 mm or documents 216 mm × 279 mm or DIN A4.
- The moulded lining made from padded foam (Order No. 46 672) protects notebooks against impact and scratches.

Order No.	Description	Inside dimensions (L × W × H, approx. mm)	Outside dimensions (L × W × H, approx. mm)	Contents (approx. l)	Weight (approx. kg)
46 671	with Pick 'n Pluck foam, black	325 × 249 × 43	349 × 278 × 65	3.5	1.3
46 672	with foam lining, black	325 × 249 × 43	349 × 278 × 65	3.5	1.3



P 472 1490 laptop case for notebooks up to 15".

- With computer base and lid insert, shoulder strap and lockable fasteners.

Order No.	Description	Inside dimensions (L × W × H, approx. mm)	Outside dimensions (L × W × H, approx. mm)	Contents (approx. l)	Weight (approx. kg)
46 880	empty	454 × 292 × 105	494 × 354 × 119	13.9	2.3
46 881	with Pick 'n Pluck foam, black	454 × 292 × 105	494 × 354 × 119	13.9	2.5
46 882	Computer Case Deluxe	454 × 292 × 105	494 × 354 × 119	13.9	2.2



P 472 1495 CC1 Deluxe-Notebook computer case.

- With lid separator, nylon-padded laptop sleeve and accessories compartment, insert with impact protection for computer and shoulder strap made from ballistic nylon. Lock with 3-digit combination included in the scope of delivery.

P 472 1495 CC2 Standard notebook computer case.

- With compact Pick'n Pluck™ foam insert, lid separator and shoulder strap made from ballistic nylon.

Order No.	Description	Inside dimensions (L × W × H, approx. mm)	Outside dimensions (L × W × H, approx. mm)	Contents (approx. l)	Weight (approx. kg)
46 700	empty	479 × 333 × 97	549 × 438 × 124	15.5	3.3
46 701	with Pick 'n Pluck foam	479 × 333 × 97	549 × 438 × 124	15.5	3.8
46 702	CC1 Deluxe notebook computer case	479 × 333 × 97	549 × 438 × 124	15.5	3.3
46 704	CC2 Standard notebook computer case	479 × 333 × 97	549 × 438 × 124	15.5	3.3



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P472 case installation frame

- Peli offers a practical solution for the installation of customer-specific cover plates in Peli protector cases: We supply the installation frame, which is attached below your control panel on specially cast clamping devices on the walls of the case.

A neoprene O-ring seal protects the control panel so that the case remains waterproof even when the lid is open. The predrilled holes and stainless steel screws allow simple, stable and extremely precise adjustment of the frame to your specific requirements.



NEW! P472 case novelties

P472-0450 military-tested mobile toolcase.

- Toolcase developed especially for military applications.
- 7 removable tool racks (6 × flat, 1 × deep), can be freely configured.
- Top compartment can be used as a tool tray.
- Tested with a load of up to 45 kg.
- With wide castors with ball-bearings and sturdy pull handle.
- 2 automatic pressure relief valves (one per compartment).



P472 case, available accessories

- Pick 'n Pluck foam set made from pre-cut PU foam.
- Divider set, padded, divider panels attached with Velcro, adjustable.
- Individual foam set manufactured to customer specifications. Details on request.
- Lid insert for better organisation.
- Shackle lock, **Order No. 46 989**
- Dessicant, **Order No. 46 988**
- Customer-specific lettering on request.



Paint finish and lettering for all ZARGES aluminium containers



Special colours to specification.

Lettering by screen printing or adhesive film.



All paints in acc. with RAL register are available with standard paint system.



Equipment plate according to VG 95 530.



Label frames in various sizes acc. to VG 92 016 or as special sizes.

Paint finishes for Hi-Tech Containers:

- Painting to TLA-0003 RAL 6031 F9 or RAL 6031 HR, as per ZARGES works standard.
- Painting to TLA-0033 RAL 6031 F9 or RAL 6031 HR; conventional.



Embossing in DIN lettering, capitals, height of lettering 20 mm, in one and more lines.

➔ **Warning:** Check that equipment is appropriate in each case.

Requirement profile / checklist Mitraset® 19" housing



Please tick the relevant options and fill in the following boxes.

HE/U	<input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 16 <input type="checkbox"/> other height _____
Nominal depth	<input type="checkbox"/> 219 <input type="checkbox"/> 350 <input type="checkbox"/> 480 <input type="checkbox"/> 610 <input type="checkbox"/> other nominal depth _____
Equipment	_____ kg
Necessary heat dissipation approx.	_____ Watt <input type="checkbox"/> Heating
Paint finish – colour	<input type="checkbox"/> RAL 6031 <input type="checkbox"/> other _____
Paint finish – degree of gloss	<input type="checkbox"/> matt <input type="checkbox"/> semi-matt <input type="checkbox"/> glossy <input type="checkbox"/> F9 <input type="checkbox"/> RFI
Flexible skirt seal for IP 65 in operating status	<input type="checkbox"/> 1 × <input type="checkbox"/> 2 ×
Pressure relief	<input type="checkbox"/> Automatic <input type="checkbox"/> Manual <input type="checkbox"/> Screw <input type="checkbox"/> Membrane
Humidity indicator	<input type="checkbox"/>
Holder in lid for	<input type="checkbox"/> Cable <input type="checkbox"/> Keyboard (from 6 U)
Pocket in the lid	<input type="checkbox"/> large <input type="checkbox"/> small
Guide rails	<input type="checkbox"/> fixed <input type="checkbox"/> variable
Telescopic rails with tray	
Drawer	<input type="checkbox"/> 1 HE/U <input type="checkbox"/> 2 HE/U <input type="checkbox"/> HE/U other height: _____
Shielding	<input type="checkbox"/> Housing <input type="checkbox"/> Inside frame <input type="checkbox"/> other equipment
Other	

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