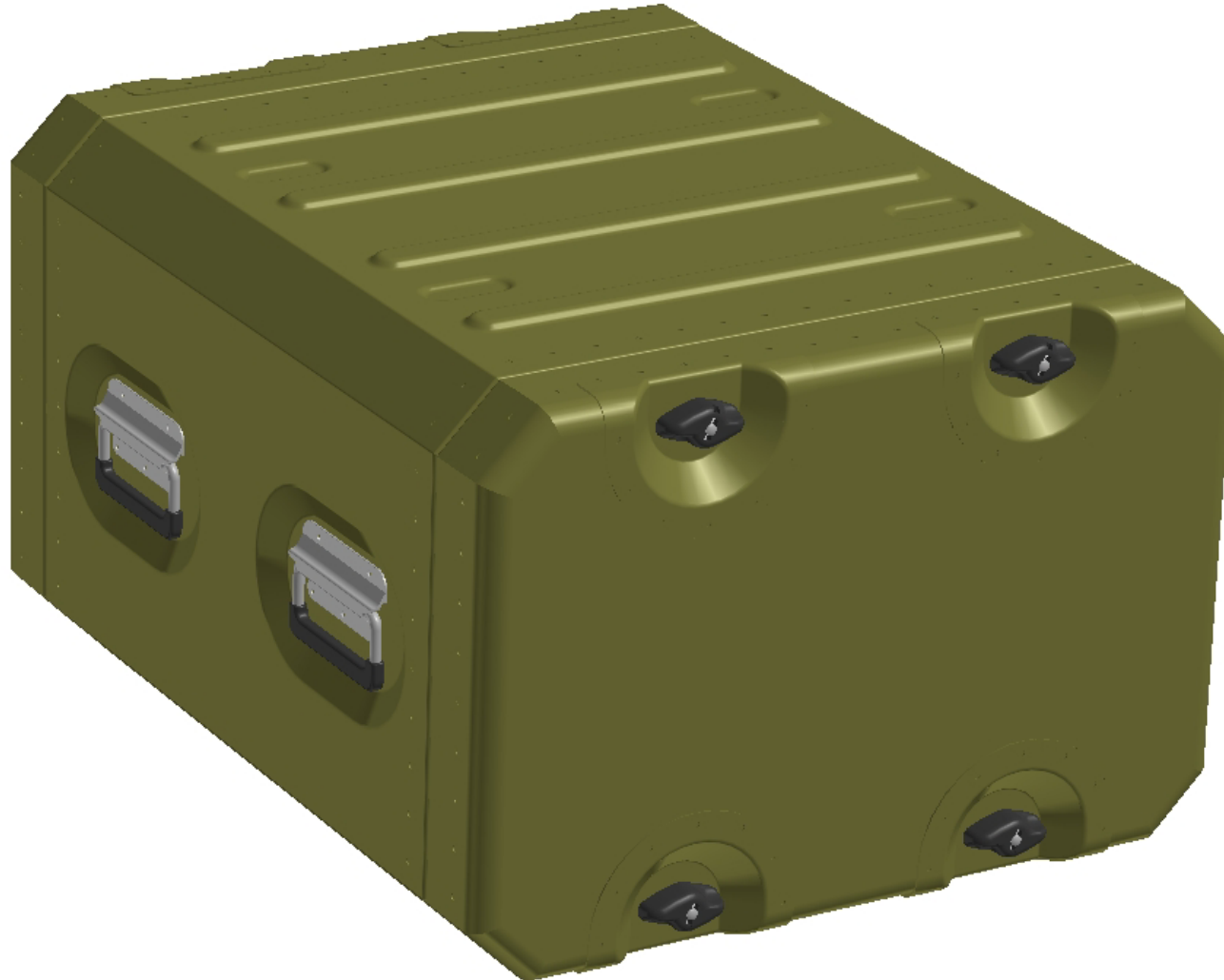


New Lightweight E-Rack

cp cases 



E-RACK[®]
RUGGEDISED ALUMINIUM

New Lightweight E-Rack



- The New E-Rack builds on the successful E-Rack developed between Brunel University, one of Europe's leading engineering universities, and CP Cases Ltd.
- This 19 inch ruggedised electronic transit rack has been designed for commercial and military applications, when protection against physical, climatic and electromagnetic hazards are required, and where weight, strength and portability are critical issues.
- Constructed from high-tensile aluminium alloy using an innovative folded rim design (patent pending) instead of a welded or riveted extrusion, E-Racks are used for applications worldwide including:
 - Satellite communications
 - Land, airborne and seaborne military communications.
 - Broadcast Field Stations.
 - Test and Measurement Equipment.
 - Offshore test equipment.
 - Geophysical survey instrumentation

New Lightweight E-Rack



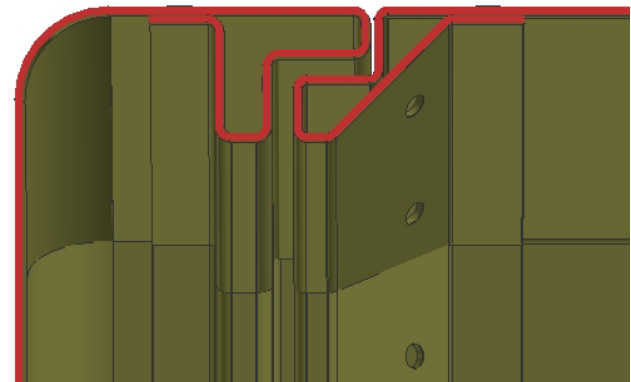
Design features include:

- 19 inch chassis compliant to IEC 60-297 and BS5954
- Rugged, compact aluminium construction.
- Very lightweight – the 6U 480mm deep version weighs less than 15Kg including the lids
- Recessed, sprung handles and lid latches.
- Front mounted quarter turn latches for secure closure allowing front access when stacked.
- Weatherproofing to EN 60529 / IP65
- Stackable with inter-locating ribs on container top & bottom surfaces.
- Precision manufactured interchangeable lids.
- Maximum equipment payload is 50 kg, heavier payloads achievable on request.

New Lightweight E-Rack

Ruggedised Outer Container

- Constructed from 1.5mm high tensile aluminium alloy.
- The lid engagement profile is formed from the flat sheet by an innovative sequence of folds (patent pending).
- This method avoids attaching an extruded section to the body giving the following benefits:
 - Eliminates the inherent risk of leakage.
 - Exceptional beam strength (>100kg centre point load).
 - Less weight.
 - More cost effective.

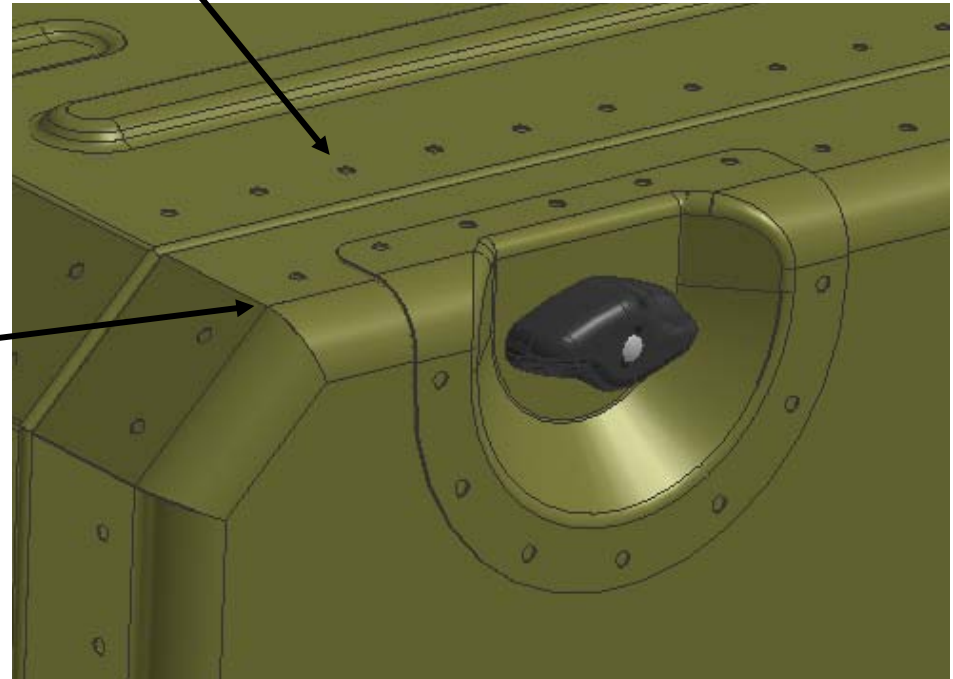


New Lightweight E-Rack

Unique press tooled high shear fastening without piercing the body

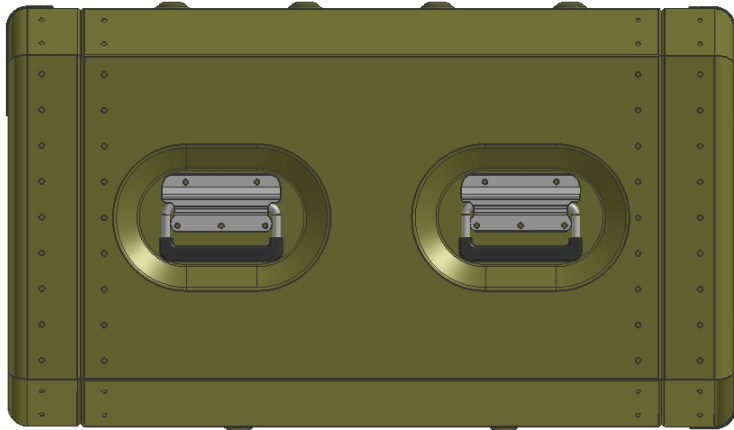
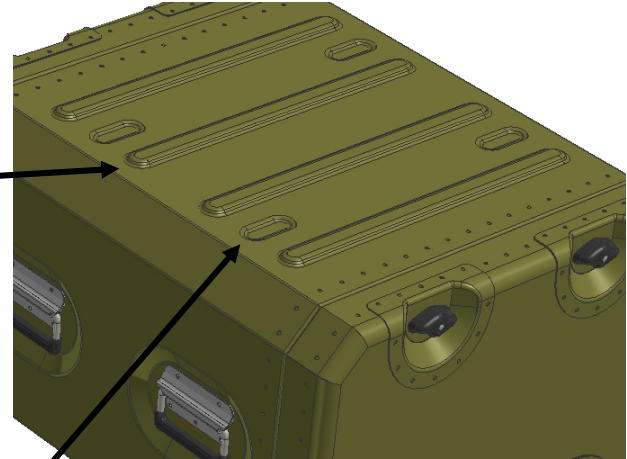


All joints fully seam welded

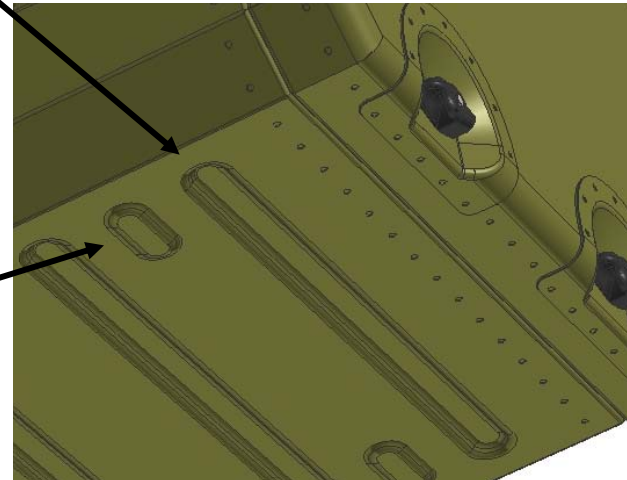


New Lightweight E-Rack

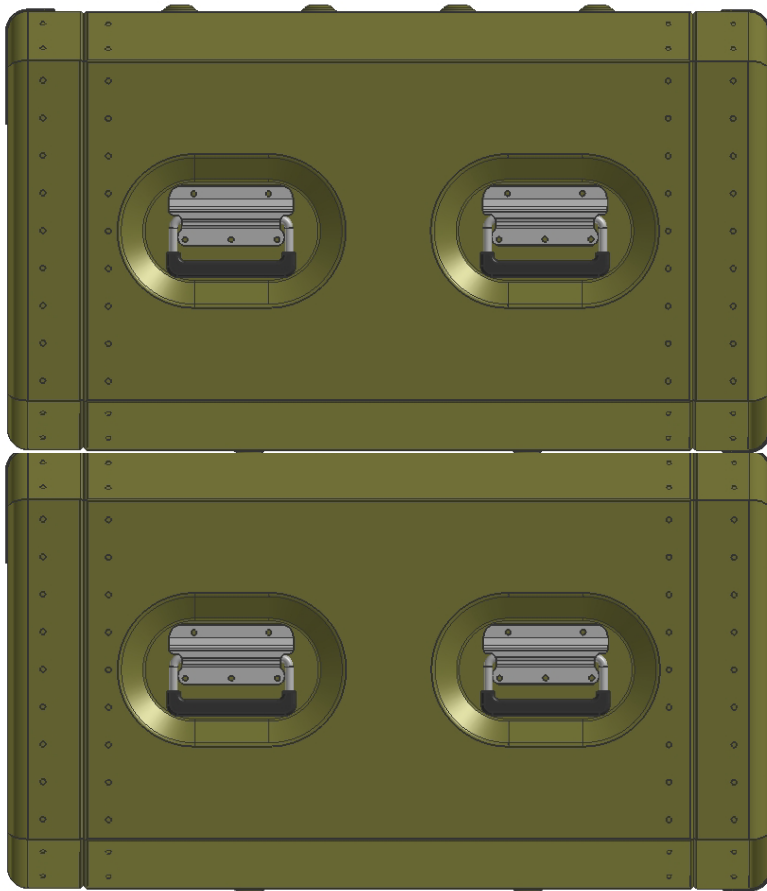
Stiffening and
stacking ribs
and recesses



Nesting foot and
top recesses



New Lightweight E-Rack



Interstacks with all other New E-Rack and Amazon products

Racks can be positively stacked together – allowing front & rear lids to be removed without side access

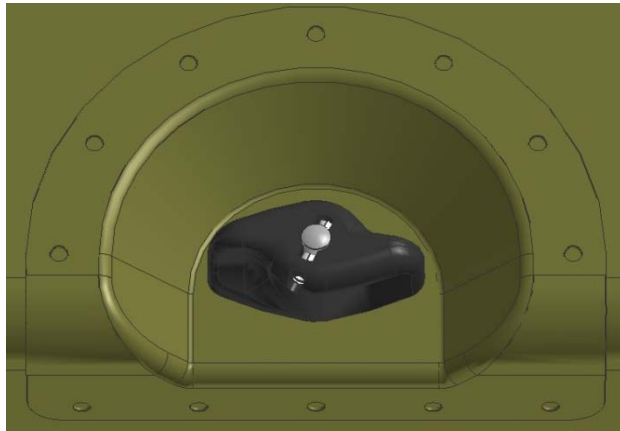
Retains body shape and “Lid Fit” integrity from -40°C to +70°C when stacked

Fully welded body & lids provide good EMC shielding characteristics

New Lightweight E-Rack

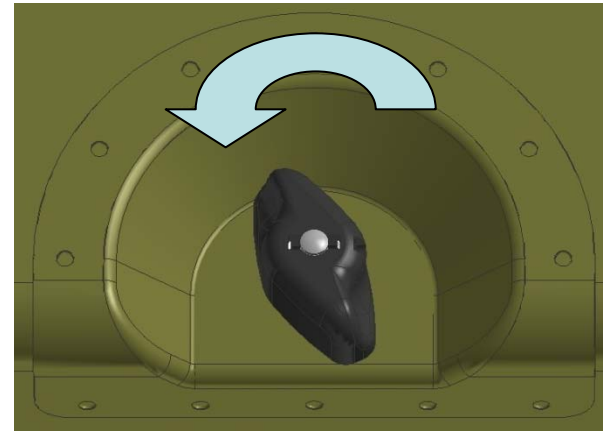
- The lid latches feature fully recessed lobe knobs sculpted for easy grip even when wearing arctic gloves.
- Steady bearings fixed in the lid engage in striker sleeves attached to the body, pre-aligning the latch spindles as the lid is placed in position.
- Helical cams, inside the striker sleeves, draw down the lid evenly to the body, providing optimum guaranteed seal compression. Fully home, the latches are securely located in anti-vibration detents.

Latched/closed position



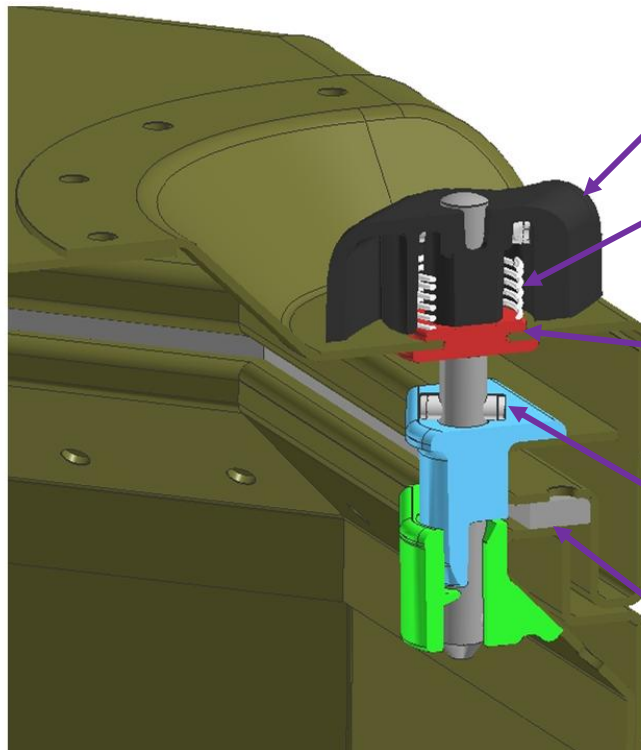
Latch design prevents accidental opening from vibration & impact

Open position



115° turn for secure and positive pull-down onto lid seal gasket

New Lightweight E-Rack



Fully recessed lobe knob – easy grip even with Arctic gloves

Stainless steel return spring to disengage latch

Elastomeric Seal on stainless steel latch spindle prevents ingress of contaminants

Stainless steel spindle and cross pins for high loading closure of latch

Latch compresses silicone seal to give an Ingress Protection rating of > IP65

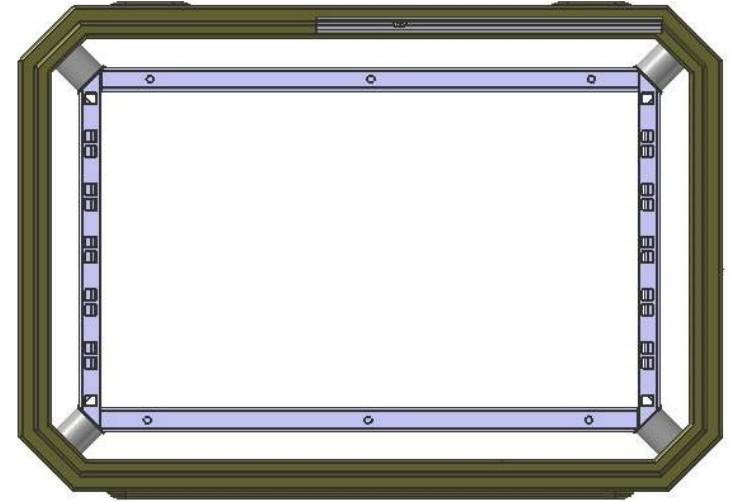
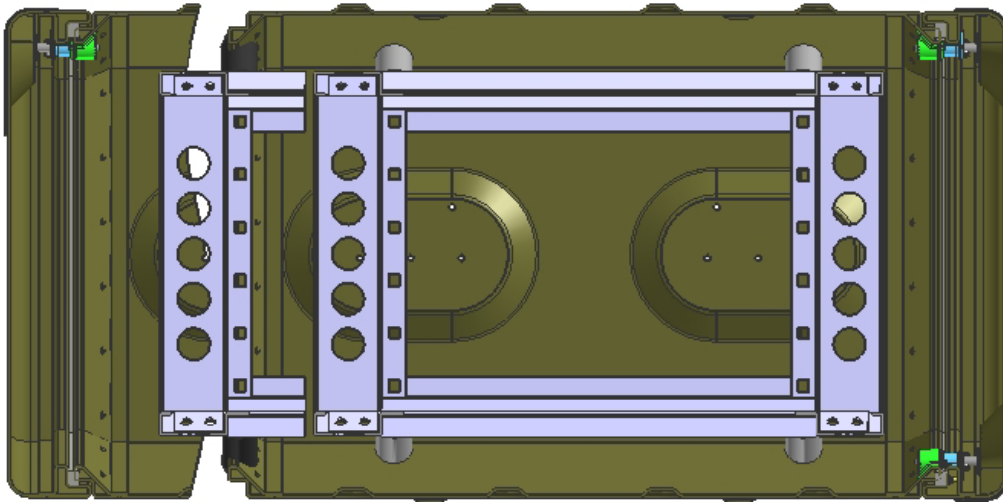
New Lightweight E-Rack



Floating inner rack frame

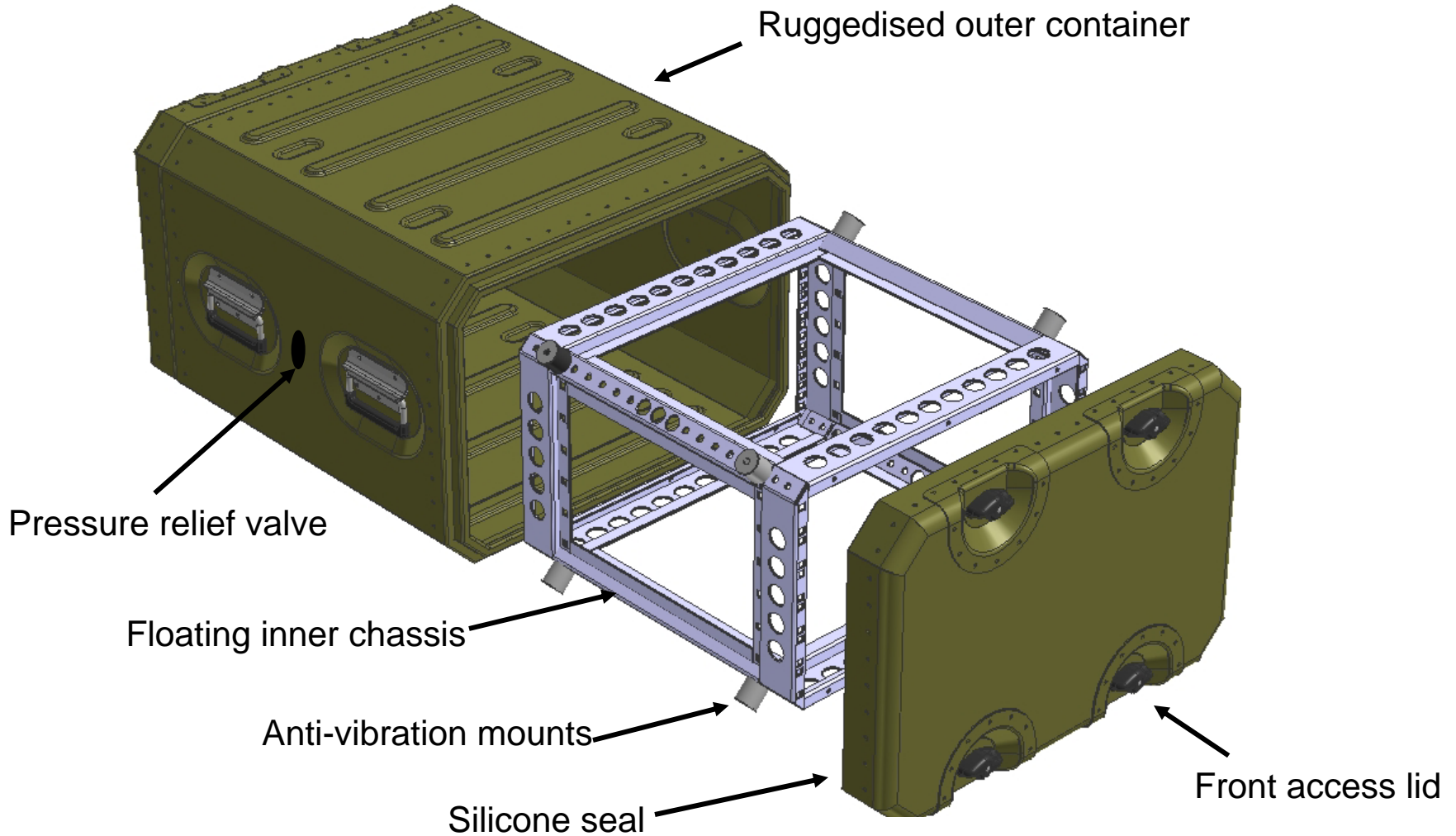
- The 19 inch chassis is constructed from RoSH compliant, high tensile, anodised aluminium alloy giving enhanced lightness, conductivity, rigidity and durability.
- The chassis is mounted on eight elastomeric mounts, fixed to the outer rack body by robust anchor plates, focussed towards the centre of mass of the case. Wire rope mounts are available for heavier payloads.
- These ensure that the electronic equipment is protected against vibration and impact, regardless of orientation.
- The chassis can easily be repositioned 25mm “fore and aft” from the standard central position if required.
- There is up to 50mm of sway space between the inner chassis and outer container which allows the suspended inner chassis to move independently of the outer container, and in any direction.
- An earthing / grounding strap is fitted to maintain conductivity between the chassis and the outer container.

New Lightweight E-Rack



- High tensile fully welded aluminium 19" suspended chassis
- Can be customised to suit individual client requirements
- Increased sway space to facilitate up to 25mm of internal thermal insulation
- Rack mounted on eight elastomeric or stainless steel wire rope AVM's
- Field replaceable M6 stainless steel captive nut fasteners to secure equipment

New Lightweight E-Rack



New Lightweight E-Rack



Detailed Features and Specifications

Outer Ruggedised Container

- Constructed from high tensile 1.5mm aluminium alloy. The rack body is fitted with 4x recessed, sprung aluminium handles, load tested to 100kg.
- Removable lids are positively secured to the rack body by flush, front mounted quarter turn latches.
- Lid and body interface with a silicone gasket seal to exclude the ingress of water, dust and sand. The operational working temperature of the seal is -40°C to +70°C.
- E-Rack climatic protection meets MIL STD 810F and exceeds IP65.
- Stacking ribs are incorporated on the top and bottom surfaces of the rack body. E-Rack units are fully stackable with front and back access when stacked.
- Optional detachable link straps are available for locking stacked containers together.

New Lightweight E-Rack



Detailed features and Specifications cont...

Pressure and Humidity Control:

- To equalise of pressure of the rack internal with the atmosphere:
 - 2 way venting Gortex membrane
 - Manual open/close thumb screw
 - Automatic pressure relief valve (APV) with manual override
- Humidity indicator options (including reusable desiccant charges)

Colours and surface finishes:

- Commercial black, olive drab and blue electrostatic polyester powder coated surface finishes, on etch and prime base, available as standard.
- Options include:
 - Military Standard paint specifications
 - Other RAL and BS colours
 - Wet coatings and stove enamelling
 - Infra Red reflective (IRR) coatings
 - Anti static black coating on 19" inner chassis

New Lightweight E-Rack



Optional accessories available:

- Air Conditioning Systems
- Wheelboard with swivel / lockable castors.
- Lifting eyebolts for easy location and positioning.
- Spring loaded lifting shackles.
- Rechargeable desiccant capsules.
- Lids fitted with cable cleats, storage pouches and hinged compartments.
- Screw down M8 lid fasteners.
- Customised connector panels in lids.
- Brackets for fixing to bulkheads in vehicles and ships.
- Electromagnetic shielding.
- Tempest shielding.
- Silicone rubber skirt / gaiter between the chassis and the outer container for use without lids in adverse weather conditions.
- Adjustable shelf supports.
- 19 inch storage drawers, keyboard trays, slides and other accessories.

New Lightweight E-Rack



Labelling Options

- Metal engraved (ink fill optional).
- Acid etched labels, flush or surface fixed (ink fill optional).
- Vinyl cut, self adhesive labels.
- Screen printed logos and lettering.
- Indented metal stamping
- Stencilled logos and lettering.
- Thermally printed labels on a polyester substrate (in a variety of colours and shapes).
- Sequential serial number printing.
- Bar coding.
- Any other customised label design to your artwork.

New Lightweight E-Rack

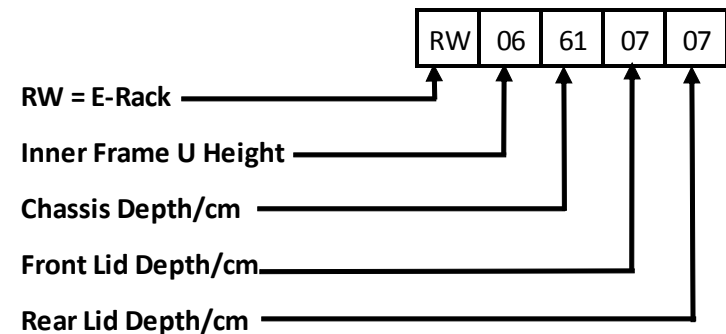


Standard Sizes

- 4u to 12u height (1u = 1.75" / 44.45mm) in 2u increments as standard.
- Standard ISO frame depths available are 480mm and 610mm.
- Custom sizes and modifications are available and easily accommodated.

Part Reference		Inner Frame Dimensions			External Dimensions		
Part Number	NATO Stock Number	U HEIGHT	CHASSIS DEPTH mm	Max Equipment DEPTH mm	WIDTH mm	HEIGHT mm	DEPTH mm
RW04480707	8145-99-812-6124	4	480	570	589	319	690
RW04610707	8145-99-133-8665	4	610	700	589	319	820
RW06480707	8145-99-551-4821	6	480	570	589	408	690
RW06610707	8145-99-859-8115	6	610	700	589	408	820
RW08480707	8145-99-310-0339	8	480	570	589	497	690
RW08610707	8145-99-215-6383	8	610	700	589	497	820
RW10480707	8145-99-989-1234	10	480	570	589	586	690
RW10610707	8145-99-666-8407	10	610	700	589	586	820
RW12480707	8145-99-979-7900	12	480	570	589	675	690
RW12610707	8145-99-213-0411	12	610	700	589	675	820

E-Rack Part Numbering System Explained



New Lightweight E-Rack



- **Contact Details**

CP Cases Ltd
Unit 11, Worton Hall Industrial Estate
Worton Road
Isleworth
Middlesex
TW7 6ER
UK

Tel: +44 (0) 20 8568 1881
Fax: +44 (0) 20 8568 1141
E-Mail: info@cpcases.com
Web: www.cpcases.com