

SatRack™

cp cases 

SatRack™



Introducing SatRack

Designed for Electronic News Gatherers and Media Professionals operating across the globe, SatRack is a lightweight solution that can be hand carried on commercial airlines as checked luggage. For those who need delicate electronic and satcom equipment to be quickly deployable and available immediately, SatRack saves time and avoids additional baggage charges.

Contents

- 2 Overview
- 4 SatRack Features
- 5 Applications
- 6 Size List and Numbering
- 7 SatRack Accessories
- 8 Other CP Products and Services

Overview

SatRack's novel and patented design is available in standard sizes of 3U, 4U and 5U versions with a 480 or 610mm deep, ultra-lightweight welded aluminium floating frame and is fully compatible with all 19-inch rack-mountable equipment. (Also available for 9.5-inch racks.) This design offers an exceptional strength-to-weight ratio and equipment panel fixing rails located at both ends of the frame allow for flexible mounting of kit.

The 4U x 480 mm (internal) chassis depth rack weighs only 8 kg, and with weight restriction for checked baggage on commercial airlines set at 23kg (without premium) up to a maximum of 32kg, this allows an additional 15-24kg of equipment to be carried.

To protect equipment against shock and vibration, the chassis is mounted on eight cylindrical elastomeric anti-vibration mounts. These are set at a 45° angle to offer optimum shock resistance during handling and transit conditions, regardless of orientation.

SatRack's thermo-formed honeycomb polypropylene (HPP) body shell has a high strength-to-weight ratio and is highly resistant to crushing. CP Cases' thermo-forming process does not crimp the HPP, but instead gives the angled edges longitudinal strength and rigidity with a stacking capability of 100kg. The component parts of the shell are joined with a mortice and tenon joint and then secured with bifurcated rivets, which secure themselves in the shell wall, helping to maintain the structural integrity of SatRack.

The HPP body shell is encased within a 3mm high-density polyethylene (HDPE) foam jacket that helps to insulate the rack and offers cushioning to create a 'carry-friendly' piece of ruggedised luggage. HDPE foam has a closed cell structure and is alkaline and oil resistant in addition to be highly resistant to the elements.

The chassis is supplied with stainless steel caged nuts to easily secure equipment. Optional support shelves and equipment restraint systems are available for additional fixing security.

The chassis is suspended in a lightweight 10mm rigid honeycombed polypropylene outer shell with angled elastomeric anti vibration mounts. These provide 40mm of 'sway-space' between the chassis and outer shell and are available in various grades to give alternative suspension characteristics to suit specific payloads.

The nylon outer cover is abrasion and weather resistant and will not tear or rot, while integrated ventilation panels help to keep equipment cool during operation in warmer climates with protective, Velcro-fastened cover flaps for transportation. The outer bag can have an external label holder and several units can be stacked and secured with optional tensionable straps. The unique design combined with an attention to detail provides the lightest, strongest, toughest rack system available.

Half size and customised 9.5-inch Racks

The 9.5-inch version of SatRack offers all the advantages and benefits of its bigger brother but in a more compact format. This is perfect for microwave amplifiers and other forms of electronic support equipment, such as test apparatus and telecommunications units. As with all CP Cases' products, both SatRack formats can be customised to fit requirements.



Unique, super-lightweight rack solution for portable satellite equipment, conforming to IATA guidelines

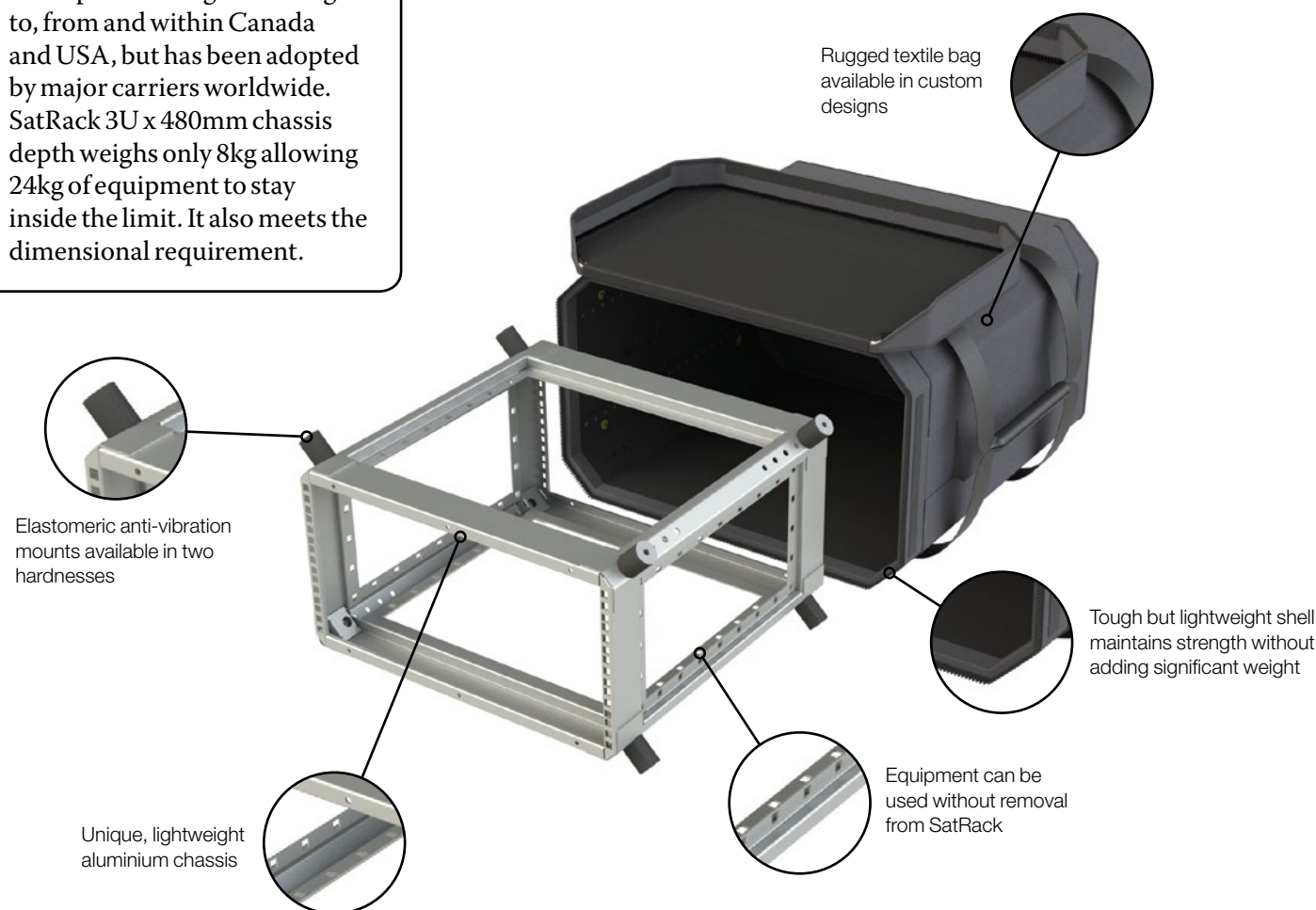


SatRack Features

SatRack
SatRack is fully customisable to suit individual requirements and CP Cases' extensive experience in designing and manufacturing ruggedised OEM cases and containers means we are able to provide practical solutions for unique applications, when a case or an extremely tough container is required for deployment, transport or storage.

IATA Weight & Size Guidelines
Checked baggage is accepted according to weight and size. Each piece must weigh no more than 32 kilos (70lb) and measure no more than 158cm (62 inches) adding the dimensions: height + width + length. This 'piece concept' was designed for flights to, from and within Canada and USA, but has been adopted by major carriers worldwide. SatRack 3U x 480mm chassis depth weighs only 8kg allowing 24kg of equipment to stay inside the limit. It also meets the dimensional requirement.

- Convenience** Quickly and easily deployable equipment
- Heat Dissipation** Side-vented panels for easy heat dissipation, with protective Velcro-fastened cover flaps for transportation
- Caged Nuts** Aluminium chassis is supplied with stainless steel captive M6 caged nuts allowing easy fitting of equipment
- Patented** Unique patented design
- Robustness** Heavy duty flag stitching around handles resists tearing under strain
- Size** Fully compatible with all 19-inch rack-mountable equipment and is also available with a half rack chassis width (9.5-inch)
- Suspension** Chassis is suspended by eight cylindrical elastomeric anti vibration mounts that provide 40mm of 'sway-space' between the rack and body shell
- Weight** Light and robust
- Zippered Lids** Fully-protected zippered lids at front and rear can be hinged through 270° to lie flat on the rack body and allow full access to equipment



Applications

Certification and accreditations are available on request



- Applications in**
- Secure Telecommunications
 - Satellite Uplinks
 - Aerospace
 - Maritime
 - Offshore & Geophysical

Size List and Numbering

| Part Number | External mm | | | U-Height | Chassis Depth | Vol m³ | Wt kg | NSN |
|-------------|-------------|-----|-----|----------|---------------|-----------|----------|------------------|
| | H | D | W | | | | | |
| SR0348 | 285 | 610 | 600 | 3 | 480 | 0.10 | 7.9 | 8145-99-360-1780 |
| SR0361 | 285 | 737 | 600 | 3 | 610 | 0.12 | 8.5 | 8145-99-367-2000 |
| SR0448 | 329 | 610 | 600 | 4 | 480 | 0.12 | 8.6 | 8145-99-667-7131 |
| SR0461 | 329 | 737 | 600 | 4 | 610 | 0.14 | 9.2 | 8145-99-241-7272 |
| SR0548 | 374 | 610 | 600 | 5 | 480 | 0.14 | 9.3 | 8145-99-244-0895 |
| SR0561 | 363 | 737 | 600 | 5 | 610 | 0.16 | 9.9 | 8145-99-740-5436 |
| SR0348HR | 285 | 610 | 387 | 3 | 480 | 0.07 | 6.5 | 8145-99-702-7359 |
| SR0361HR | 285 | 737 | 387 | 3 | 610 | 0.08 | 7.1 | 8145-99-398-1037 |
| SR0448HR | 329 | 610 | 387 | 4 | 480 | 0.08 | 6.9 | 8145-99-726-3010 |
| SR0461HR | 329 | 737 | 387 | 4 | 610 | 0.09 | 7.5 | 8145-99-372-9316 |
| SR0548HR | 374 | 610 | 387 | 5 | 480 | 0.09 | 7.3 | 8145-99-507-3562 |
| SR0561HR | 374 | 737 | 387 | 5 | 610 | 0.11 | 8.0 | 8145-99-990-9004 |

SR 05 61

SR 03 61

SR 05 61 HR
(Half Rack)

SR 03 48 HR
(Half Rack)

Size Numbering System

| | | |
|--------------|---------------|--------------------|
| SR | 03 | 61 |
| SatRack code | Unit U-height | Chassis depth (cm) |

Scale comparison of SatRack SR0361 to a 6ft / 1.83m tall man

SatRack Accessories

Wheels and Trolley Handle

Robust 'roller-blade' wheels and a telescopic handle make SatRack fully man-portable.

A detachable trolley means the transport system can be removed if necessary.

SRW001 (1293.5g)
Telescopic handle and wheel kit

Support Shelves

Stainless steel full width shelf to provide extra support for heavy payloads.

AASSFW48 for 480mm chassis (2893.5g)
AASSFW61 for 610mm chassis (3595.5g)

Air Management & Climate Control

12V axial fans, with filters, holder and protective louver panels, can be added to facilitate ventilation and cool internals. Available in two sizes.

SRF01 (295.5g)
120mm x 120mm x 25mm

SRF02 (195.5g)
92.5mm x 92.5mm x 25mm

Labelling

Labelling options include engraved metal, back printed, non-scratch polycarbonate and write-on/ wipe-off labels, and document holders.

Available on request

Fixed Support Rails

Fixed rails can be user fitted to 480mm and 610mm deep frames to support heavy/deep equipment, in addition brackets and fixings can be designed and supplied for installing non 19 inch equipment within the rack frame.

AASR48 for 480mm chassis (370g)
AASR61 for 610mm chassis (519.5g)

Fixings

M6 Stainless Steel Cage Nut and Panel Screw (pack of 12)

AA423 (170.5g)

Support Shelves

Stainless steel full width shelf to provide extra support for heavy payloads.

AASSFW48 for 480mm chassis (2893.5g)
AASSFW61 for 610mm chassis (3595.5g)

Protective Skirts

For protection against the ingress of rain under operational conditions with the lid removed, a flexible rubber skirt can be fitted between the outer casing and the internal rack frame. It is important to ensure that equipment front panels are watertight to prevent water entry.

SR03S/BK for 3U SatRack
SR04S/BK for 4U SatRack
SR05S/BK for 5U SatRack

7

Other CP Products and Services

COOL-Collar™



COOL-Collar is a thermoelectric air conditioning unit for Amazon 19-inch racks that utilises the patented Amazon lip and silicone gasket to create an airtight and waterproof seal to allow the unit to function in extreme conditions. Where a greater cooling requirement is needed, two Cool Collars with AC units can be fitted to both the front and rear of the rack.

Units are available up to 5000 BTU (1465 watts) which can be fitted to 12U racks and Collars.

Thermoelectric air conditioners use the Peltier cooling effect and have no moving parts, except for axial fans to circulate the air.

Depending on the total weight of the payload, an Amazon rack with a Cool Collar extension can be tilted and wheeled as a complete unit.

The COOL-Collar can also be attached to a rack without an AC unit installed, to extend the maximum depth that can be used to 800 mm.

COOL-Collar is available for all Amazon rack sizes (4-12U) and can be fitted with accessories including stowage pouches, wheel kits, pressure relief valves and humidity indicators.

COOL Portable Air Conditioning®



In a world where organisations are working in remote locations with typical temperatures ranging from $>35^{\circ}\text{C}$ in the day to $<-10^{\circ}\text{C}$ at night, CP Cases' range of COOL Portable Air Conditioning units has been designed to provide a simple, effective solution to the issue of transportable air cooling for essential equipment in a simple, customisable rack-mounted system.

Utilising CP Cases' Amazon Rack and ERack systems and build processes, COOL systems are robust, easy to set up and use, and enhance the operating effectiveness of the equipment or environment they are used in.

Either of these rack systems are ideal for housing and transporting communication, encryption, surveillance or other electronic equipment, the addition of COOL Portable Air Conditioning provides the temperature control required to protect sensitive components from damaging heat, dust, moisture and corrosion – and most importantly, failure in the field.

Standard and customisable systems are available, in both Thermoelectric and Vapour Compression Cycle air conditioning formats, to deliver a solution for cooling equipment in an array of mission critical situations.

Amazon Cases & Racks™



Created with one thing in mind, Amazon Cases and Racks give the ultimate protection to valuable and essential equipment during transport anywhere in the world.

Ideal for defence, marine, security, aerospace, oil and gas, satellite and telecommunication applications worldwide, Amazon Cases and Racks deliver exceptional strength to weight and are suitable where delicate or valuable equipment needs to be transported or stored safely.

Amazon Cases and Racks have a unique patented design that offers a tough, lightweight, customisable system that can be tailored to the client's requirements and individual needs.

Aluminium Cases



A triumph of strength and style, CP Cases aluminium cases protect their contents even under severe impact and are tougher, lighter and more resilient than traditional designs in laminated plywood.

CP Cases aluminium cases are the ideal balance between style and protection. Made from 2mm rigidised aluminium, cases are constructed without an edge corner weld to prevent seam splitting and the pre-pressed corners add extra strength and exceptional resistance to drop damage.

The inter-locking lid/body seal, with an integrated neoprene rubber gasket, protects contents against rain, dirt, dust and other environmental hazards.

Custom Solutions



CP Cases' design team can create a solution for any application that you or your products require. Designers are equipped with state-of-the-art capabilities and have extensive experience in diverse manufacturing processes including rotomoulding, blow moulding and injection moulding, vacuum forming, precision sheet metal work and traditional craft skills in a wide range of materials.

ERack™



ERack is a lightweight, 19-inch ruggedised aluminium electronic transit rack, specifically 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.

ERack benefits from patented new technology; the external container has an innovative folded rim design, which eliminates the edge extrusion and makes the case stronger, lighter and more resistant to ingress by water and dust. The internal chassis frame is supported by special mounts that protect against shock. ERack is up to 30% lighter than other rack cases in its class.

Rugged Textiles



CP Cases manufactures a wide range of bags and covers for Original Equipment Manufacturers (OEMs), to provide a cost effective and practical solution for moving, deploying and protecting equipment and instrumentation. Products are widely used in the medical, defence, electronics and broadcast industries for a variety of applications.

Whether protecting expensive broadcast equipment from rain showers at Wimbledon, to sales presentation packs for artificial knee joints, or operational bags for aircraft testing equipment; CP Cases can provide a solution. The design team draws on years of experience with protective textiles to create the most cost-effective bag for your needs.

Foam Engineering



CP Cases can create foam protection systems to meet exacting project requirements for colour, multi-layering and special properties, by a variety of processes, including high speed CNC routing, laminating, drilling, blocking and hand sculpting. Calculating which density and composition of foam to use and the exact thickness required to produce the desired deceleration on impact, ensures the best protection possible.



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**TRUSTED
WHEN IT
MATTERS**

About CP Cases

CP Cases designs and manufactures high-performance, protective cases and racks used for transport, operation and storage of essential equipment in commercial and military applications.

Many of our products are accredited to MIL-STD-810F, rated IP65 and carry NATO stock numbers. With over 40 years' of expertise in producing cases, 19-inch rack solutions and rugged textile products, CP Cases has an unparalleled range of in-house skills and knowledge with materials and processes, including rotationally moulded products, plastic fabrication, aluminium, laminated plywood, HPP, textiles and CNC foam machining.

Full Capability Statement available on request.

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