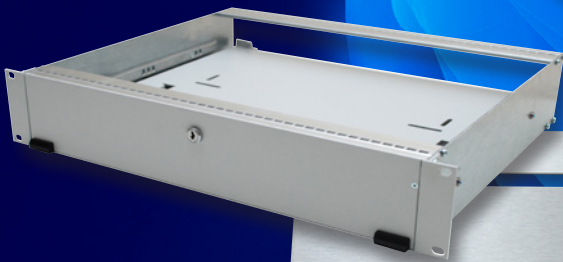# VEROTEC
Electronics Packaging

19" Racks and Accessories

CUSTOM 19" RACKS

TecServ+ is the vehicle by which Verotec delivers its value added services. These fall within 5 main categories and are described below. When it comes to 19" racks, we've worked with many customers in the past to design, manufacture and help bring to market modified and custom versions of our standard products – a small selection of these are pictured below. If you have any special 19" rack requirements, please contact our sales office

ENGINEERING SERVICES:

➕ Complete review of commercial, electro-mechanical, environmental and regulatory product requirements with customer.

➕ Import of STEP, IGES, DWG & DXF file formats

➕ Mechanical and electrical design using latest CAD software

➕ 3D Modelling to allow conceptual testing before production

➕ Component selection from a vast library of parts

MANUFACTURING SERVICES:

➕ Prototype / pre-production samples using small batch shop

➕ Modification of standard catalogue products (including machining, CNC punching, laser cutting, painting & silk-screening)

➕ Manufacture of custom / bespoke products (including fabrication, machining, CNC punching, plating, painting & silk-screening)

➕ Assembly & kitting of components

➕ Integration & mechanical / electrical testing of complex systems

COMPLIANCE SERVICES:

➕ Validation of product design and/or specification

➕ Advice on environment legislation (RoHS, Reach, Weee etc.)

➕ In-house pre-compliance testing for CE marking (Safety, EMC)

➕ Supply of product technical construction file

➕ Testing & certification of a product at an approved test house (for EMC, shock & vibration, altitude, temperature, humidity etc.)

LOGISTICAL SERVICES:

➕ Express manufacturing service for quick turnaround of urgent orders

➕ Special / bespoke packaging for safe transport of goods

➕ Scheduled orders (including JIT and KAN BAN systems)

➕ Stock holding & distribution

➕ Exporting (including export packaging, land/sea/air transportation, freight forwarding, customs documentation & shipping manifests)
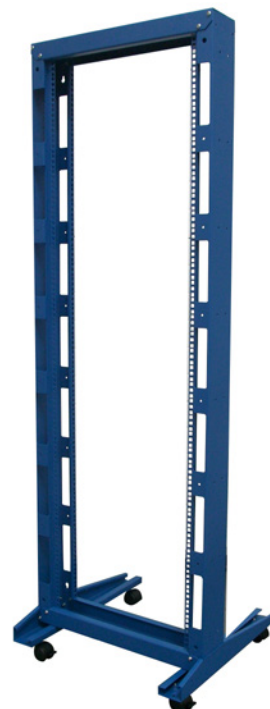
PROJECT MANAGEMENT SERVICES:

➕ Initial project consultation

➕ Capability and feasibility study

➕ Estimation of project cost and leadtime

➕ Management of design process (specification to validation)

➕ Management of manufacturing process (prototype to production)

➕ Cost reduction programmes throughout product life cycle

TecServ ➕

Customised IMRAK cabinet (non-standard size) – data storage application.

Customised IMRAK cabinet, painted anthracite with front to rear baying – IT application.

Customised Labrak360, painted blue – medical laboratory application.

VEROTEC Electronics Packaging

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CONTENTS

STANDARD RANGE

9 19" Racks & Accessories

INTRODUCTION

Since its introduction in the early 1990's, the award-winning IMRAK® 1400 enclosure range has enjoyed considerable success in the international networking and broadcasting markets. The widespread acceptance of IMRAK® 1400 among installers and end-users across the world lies in the inherent qualities of the enclosure platform, from its superior build quality to a vast array of accessories. IMRAK® 1400 is a particularly versatile 19" enclosure system that can be configured to adapt to very stringent and varied applications in the evolving electronic data communications industrial. IMRAK® 1400 is also exceptionally rugged and strong, allowing its users to ship fully equipped enclosures overseas. The cabinet's frame structure is bolted together, allowing the enclosure to be disassembled in situations where access is difficult. IMRAK® 1400 boasts attractive styling, finished in pale and dusty grey (RAL 7035/7037), making it equally suitable for office, equipment or communications rooms. Optional cover trims maintain the cabinet's elegant appearance when the front door is not required. Thermal management solutions, (including intelligent fan trays), and numerous locking options give almost limitless applications, on the market IMRAK® 1400 probably the most versatile enclosure available.

IMRAK 1400 – DIMENSIONS AND MOUNTING POSITIONS

DIMENSIONS	Overall height	Rack space
Height	Dim 'A' mm	Dim 'B' mm
12U	620,1	533,4
17U	842,4	755,7
22U	1064,6	977,9
27U	1286,9	1200,2
32U	1509,1	1422,4
37U	1731,4	1644,7
42U	1953,6	1866,9
47U	2175,9	2089,2

DESCRIPTION

	Dim 'C' mm
Heavy duty castor	92,1
Light duty castor	66,0
Light duty castor – braked	66,0
Adjustable feet	25 (min.) – 40 (max.)
High top and high to side vented	Add 24
Adjustable foot adaptor to adjustable feet	Add 56

STANDARDS

IEC 297–2
DIN 41494, part 7
DIN 41494, part 1 – mounting dimensions
EN 60 950
VDE 0100

IMRAK® 1400 dimensions

Floor version
Depth: 600 - 800 mm   Width: 600 - 800 mm

600 mm wide

600 mm wide

Plan view - front left corner
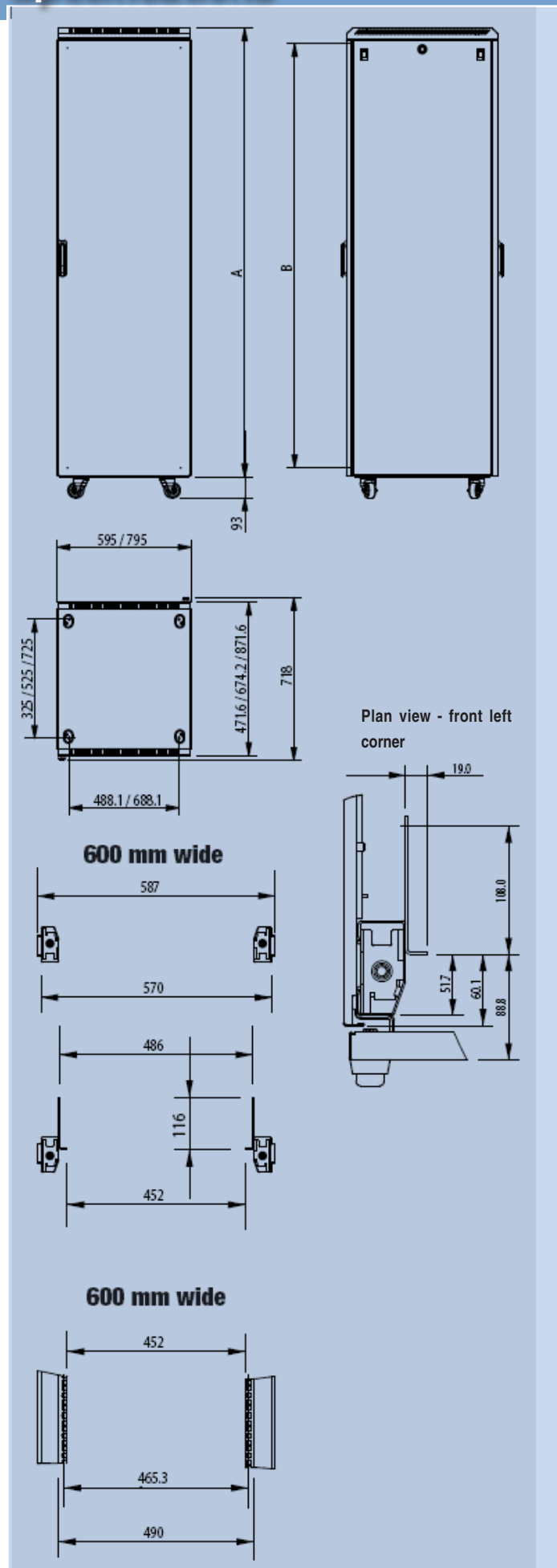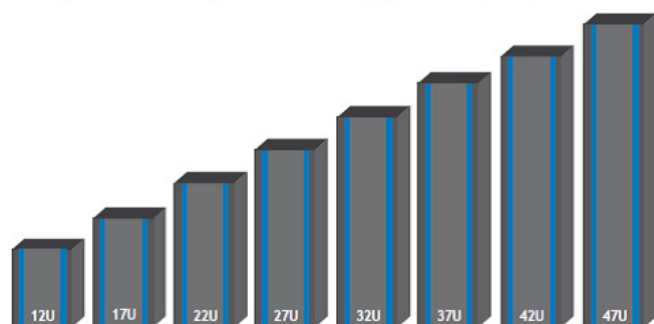
OPEN FRAME

The IMRAK Open Frame is available in the standard heights of 27U, 37U 42U and 47U. The non preferred heights of 12U, 17U, 22U and 32U are available with a minimum order quantity (MOQ) of 10.
The open frame is supplied assembled.

To be used with

The IMRAK open frame can be used as the starting point to configure a unique IMRAK configuration and as a result is used with the entire IMRAK range of components and accessories.

Contents of kit

| Description	Qty	Material	finishes
Verticals	4	1.5 mm steel	Light grey RAL 7035
End frame	2	1.5 mm steel	Grey RAL 7035
M10 bolts	8	Steel	Zinc plated
M6 screws	8	Steel	Zinc plated
Load rating and safety specification			
Load rating 1,000 Kg			

Order table

Height x Width x Depth	M.O.Q.	Net weight for kit (Kg)	Light grey RAL 7035 Order code
12U 600 x 600 mm	1	13.5	804-550001
12U 600 x 800 mm	1	16.0	804-550002
17U 600 x 600 mm	1	15.5	804-550021
17U 600 x 800 mm	1	18.0	804-550022
22U 600 x 600 mm	1	17.5	804-550041
22U 600 x 800 mm	1	20.0	804-550042
27U 600 x 600 mm	1	19.5	804-550061
27U 600 x 800 mm	1	22.0	804-550062
27U 800 x 600 mm	1	22.0	804-550245
27U 800 x 800 mm	1	25.3	804-550246
32U 600 x 600 mm	1	21.5	804-550081
32U 600 x 800 mm	1	24.0	804-550082
32U 800 x 600 mm	1	24.0	804-550265
32U 800 x 800 mm	1	27.3	804-550266
37U 600 x 600 mm	1	23.5	804-550101
37U 600 x 800 mm	1	26.0	804-550102
37U 800 x 600 mm	1	26.0	804-550285
37U 800 x 800 mm	1	29.3	804-550286
42U 600 x 600 mm	1	25.5	804-550121
42U 600 x 800 mm	1	28.0	804-550122
42U 800 x 600 mm	1	28.0	804-550305
42U 800 x 800 mm	1	31.3	804-550306
47U 600 x 600 mm	1	27.5	804-550141
47U 600 x 800 mm	1	30.0	804-550142
47U 800 x 600 mm	1	30.0	804-550325
47U 800 x 800 mm	1	33.3	804-550326
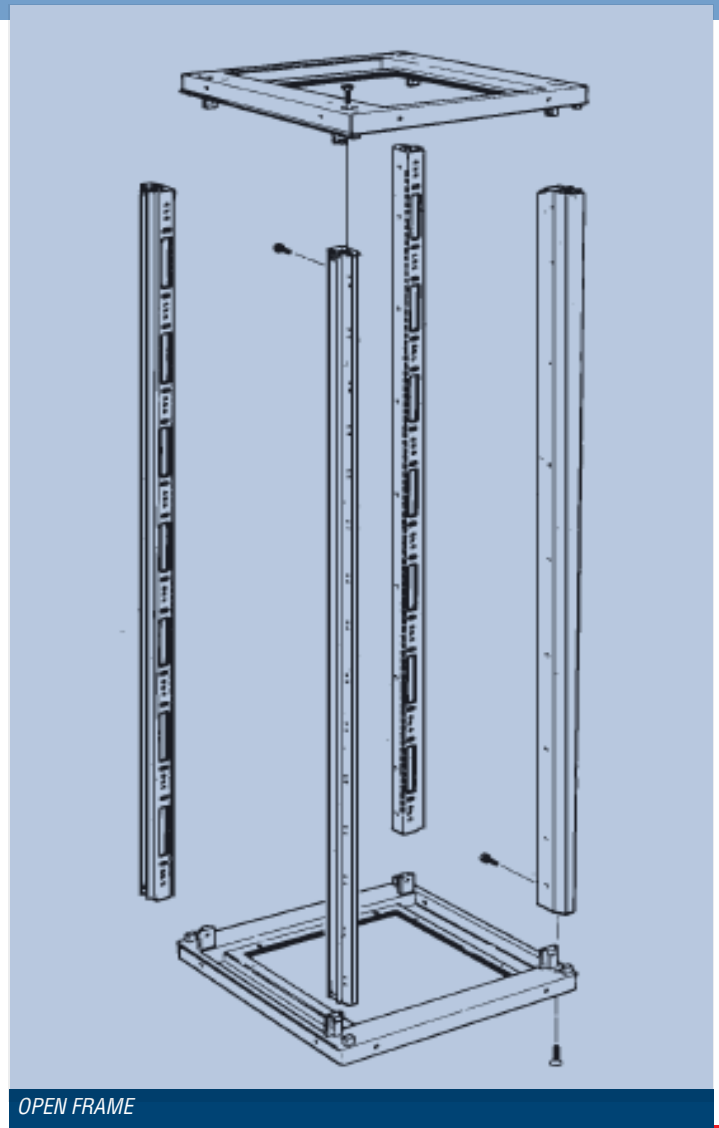
OPEN FRAME

SIDE PANELS

Strong, lightweight side panels are easily fitted into position using smooth action slam latches. A centre grommet may be removed and replaced with a lock if required.

To be used with

An IMRAK frame of the same height and depth
Side panel kit if required
Earthing kits if required

Contents of kit

Description	Qty	Material	finishes
Side panels	2	1.0 mm steel	Light grey RAL 7035
Slam latches	4	Plastic	Grey RAL 7037
Lock hole blanks	2	Plastic	Grey RAL 7037

Load rating and safety specification
N/A

Height x Depth	M.O.Q.	Net weight for kit (Kg)	Light grey RAL 7035 Order code
12U x 600 mm	1	7.2	802-560283
12U x 800 mm	1	9.6	802-560284
17U x 600 mm	1	10.0	802-560303
17U x 800 mm	1	13.3	802-560304
22U x 600 mm	1	12.8	802-560323
22U x 800 mm	1	17.0	802-560324
27U x 600 mm	1	15.5	802-560343
27U x 800 mm	1	20.7	802-560344
32U x 600 mm	1	18.3	802-560363
32U x 800 mm	1	24.4	802-560364
37U x 600 mm	1	21.1	802-560383
37U x 800 mm	1	28.1	802-560384
42U x 600 mm	1	23.9	802-560403
42U x 800 mm	1	31.8	802-560404
47U x 600 mm	1	26.6	802-560423
47U x 800 mm	1	35.5	802-560424

SIDE PANELS

SIDE PANEL LOCKS

For lockable side panels, simply order a kit of two locks.
Standard versions use the same key as the standard lock.

To be used with

To be fitted to side panels

Contents of kit

Description	Qty	Material	finishes
Locks	2	Steel	chrome
Fixings			

Load rating and safety specification
N/A

Order table

Description	M.O.Q.	Order code
Side panel lock - Standard version	1	802-560004

SIDE PANELS LOCK

IMRAK 1400

BAYING KIT
The baying kit is designed for joining two IMRAKs side by side.

To be used with
two IMRAK frames
Vertical & horizonal baying trims are as recommend when baying
IMRAK's together.

Contents of kit
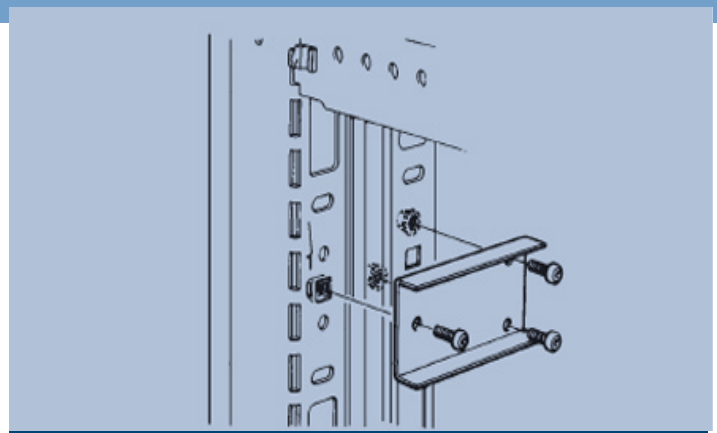
Description	Qty	Material	finishes
Baying kit	4	2.0 mm steel	Light grey RAL 7035
fixings	4		
Load rating and safety specification			
N/A			

Order table

Description	M.O.Q.	Net weight for kit (Kg)	Order code
Baying kit	1	0.3	**802-560943**

BAYING KIT

VERTICAL BAYING TRIMS
A vertical trim kit is used to create a smooth, neat appearance when two racks
are bayed together. Fit is by means of attaching to one rack and allowing the other
leg to "float".

To be used with
Can only be used when cabinets are bayed together using a 'Baying kit'. Doors or
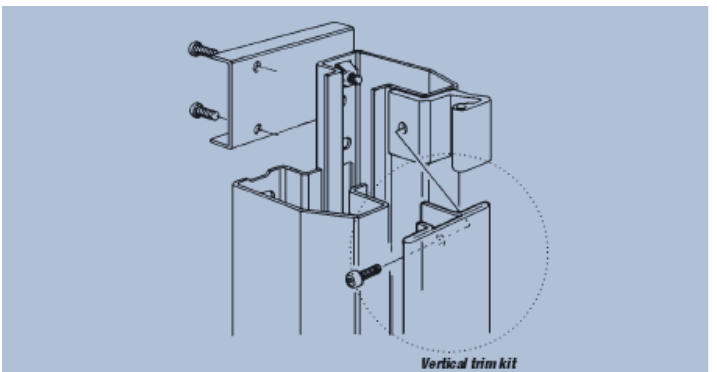'front cover trims' should also be fitted to both cabinets

Contents of kit

Description	Qty	Material	finishes
Vertical trims	2	1.0 mm steel	Light grey RAL 7035
Fixings			
Load rating and safety specification			
N/A			

VERTICAL BAYING KIT

Order table

Height	M.O.Q.	Net weight for kit (Kg)	Order code
27U	1	1.8	**802-560820**
32U	1	2.1	**802-560825**
37U	1	2.5	**802-560830**
42U	1	2.8	**802-560835**
47U	1	3.1	**802-560840**

HORIZONTAL BAYING TRIMS
A horizontal trim kit is used to complement the vertical trim kit and
prevent foreign bodies falling down the slot between the two racks.

To be used with
Can only be used when cabinets are bayed together using a 'Baying kit'.

Contents of kit

Description	Qty	Material	finishes
Horizontal trim	1	1.0 mm steel	Light grey RAL 7035
Fixings			
Load rating and safety specification			
N/A			

HORIZONTAL BAYING KIT

Order table

Depth	M.O.Q.	Net weight for kit (Kg)	Order code
600 mm	1	0.44	**802-561047**
800 mm	1	0.58	**802-561048**

IMRAK 1400
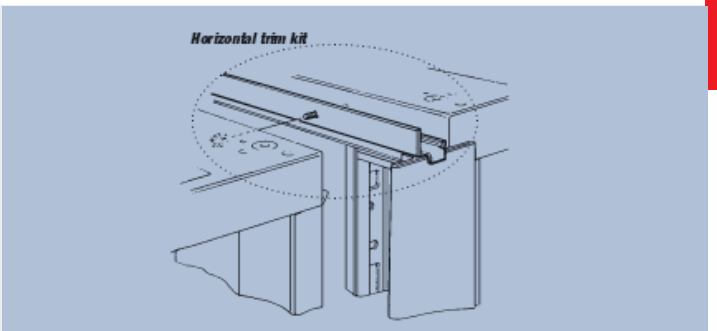
PLAIN STEEL & GLASS DOORS

Doors suitable for the front or rear of IMRAK cabinets are available in metal and glass. Shortened doors can also be fitted to provide space above or below for fan units, grills, infill panels or cable entries. Doors incorporate a key-lock mechanisim which can be replaced with swing or electronic locking handles – please call for details.

Contents of kit

Description	Qty	Material	finish
Door	1	1.0 mm steel 4 mm toughen tinted grey glass (6mm for 42U & 47U)	Dusty grey RAL 7037
brackets	2	Steel	Light grey RAL 7035
Hinge pins	2	Steel	

Order table

Glass doors Height x width	M.O.Q.	Net weight for kit (Kg)	Order code
12U x 600 mm	1	3.9	**802-2213111**
12U x 800 mm	1	5.5	**802-2213121**
17U x 600 mm	1	5.4	**802-2213112**
17U x 800 mm	1	7.6	**802-2213122**
22U x 600 mm	1	6.9	**802-2213113**
22U x 800 mm	1	9.7	**802-2213123**
27U x 600 mm	1	8.0	**802-2213114**
27U x 800 mm	1	11.8	**802-2213124**
32U x 600 mm	1	9.9	**802-2213115**
32U x 800 mm	1	14.0	**802-2213125**
37U x 600 mm	1	11.0	**802-2213116**
37U x 800 mm	1	16.0	**802-2213126**
42U x 600 mm	1	14.0	**802-2213117**
42U x 800 mm	1	25.0	**802-2213127**
47U x 600 mm	1	16.0	**802-2213118**
47U x 800 mm	1	34.0	**802-2213128**

Steel plain doors Height x width	M.O.Q.	Net weight for kit (Kg)	Order code
12U x 600 mm	1	3.6	**802-563389**
12U x 800 mm	1	4.8	**802-563397**
17U x 600 mm	1	5.0	**802-563390**
17U x 800 mm	1	6.7	**802-563398**
22U x 600 mm	1	6.4	**802-563391**
22U x 800 mm	1	8.5	**802-563399**
27U x 600 mm	1	7.8	**802-563392**
27U x 800 mm	1	10.4	**802-563400**
32U x 600 mm	1	9.2	**802-563393**
32U x 800 mm	1	12.2	**802-563401**
37U x 600 mm	1	10.5	**802-563394**
37U x 800 mm	1	14.1	**802-563402**
42U x 600 mm	1	11.9	**802-563395**
42U x 800 mm	1	15.9	**802-563403**
47U x 600 mm	1	13.3	**802-563396**
47U x 800 mm	1	17.8	**802-563404**

GLASS AND PLAIN STEEL DOORS

VEROTEC Electronics Packaging

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PERFORATED AND VENTED DOORS

Perforated doors may be fitted to the front or rear of an IMRAK cabinet and have an open area of 63%, making them idea for secure applications where front to rear cooling is required. Shortened doors as well as split (wardrobe style) and glass vented doors are also available by special order – please call for details.

Contents of kit

Description	Qty	Material	finishes
Door	1	1.0 mm steel	Dusty grey RAL 7037
Door brackets	2	Steel	Light grey
Hinge pins	2	Steel	

Order table

Fully perforated steel doors - 63% open area Height x width	M.O.Q.	Net weight for kit (Kg)	Order code
42U x 600 mm	1	9.5	802-343113
42U x 800 mm	1	12.7	802-343117
47U x 600 mm	1	0.7	802-343114
47U x 800 mm	1	14.2	802-343118

PERFORATED DOOR

SWING HANDLE / LOCK

Imrak doors may have a swing handle fitted in place of the factory supplied cam / lock mechanism. Locks must be ordered separately and are available in two versions; Self Locking (where the door automatically locks when closed) or Manual Locking (where a key must be turned to lock the door).

Order table

Description	MOQ	Ordercode
Swing handle	1	802-563494
Self-locking lock	1	802-563532
Manual-locking lock	1	802-563610

INFILL PANELS

These panels have a nominal size of 5U. For example, a panel plus 37U door would fit a 42U enclosure. They may be fitted above and/or below a glass or steel door. Typical uses are to allow mechanical handling of cables i.e. to accept connectors/ cable glands.

Contents of kit

Description	Qty	Material	finishes
5U Panel	1	1.0 mm steel	Dusty grey RAL 7037
Mounted brackets	4	aluminium	Light grey RAL 7035

SWING HANDLE

Order table

Height x width	M.O.Q.	Net weight for kit (Kg)	Order code
5Ux600 unventilated	1	1.7	802-561042
5Ux800 unventilated	1	2.2	802-561043
5Ux600 ventilated	1	1.7	802-561044
5Ux800 ventilated	1	2.2	802-561045
5U x 600 with brush cable entry	1	1.7	802-563581
5U x 800 with brush cable entry	1	2.2	802-563582
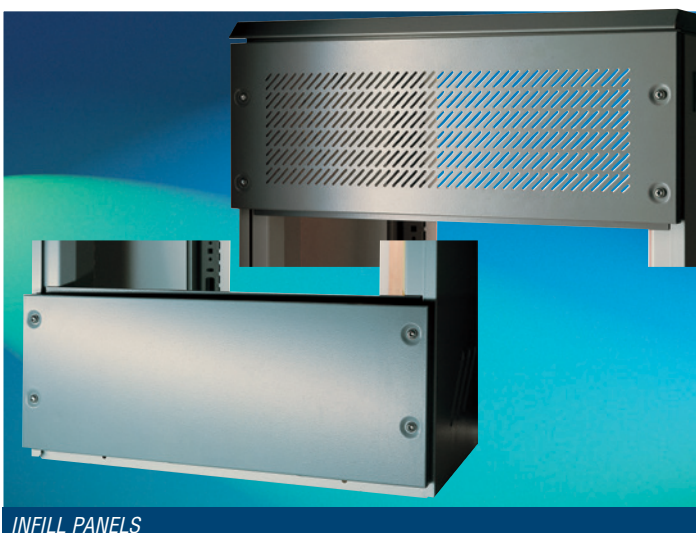
INFILL PANELS

FRONT COVER TRIMS & COACH LINES

Front cover trims

For applications where no doors are required, a set of aluminium trims may be fitted. Cover trims are supplied in pairs painted in RAL 7037 and with an inset green plastic "coach line".

As an option, red or blue coach lines may be specified at extra cost.

To be used with

An IMRAK frame of the same height

Contents of kit

Description	Qty	Material	finish
Cover trims	2	aluminium	Dusty grey RAL 7037
Green coach line	2	Plastic	
Fixings			

Order table

Height	M.O.Q.	Net weight for kit (Kg)	Order code
12U	1	0.95	802-560600
17U	1	1.35	802-560605
22U	1	1.75	802-560610
27U	1	2.14	802-560615
32U	1	2.54	802-560620
37U	1	2.94	802-560625
42U	1	3.34	802-560630
47U	1	3.73	802-560635

FRONT COVER TRIMS

TOP COVERS

**SIDE VENTED** High top side vented – allows air flow through side slots.

FULLY VENTED High top fully vented – allows air flow through a matrix of square top holes as well as side slots. Recommended when fan trays are to be used. IMRAK

Contents of kit

Description	Qty	Material	finishes
Top cover	1	1.0 mm steel	Dusty grey RAL 7037
Screw cover mouldings	4	Plastic	Dusty grey RAL 7037
Spacers	4	Steel zinc plated	
Fixing screws	4	Steel zinc plated	

Order table

| Height x depth	M.O.Q.	Net weight for kit (Kg)	Order code
600x600 side vented	1	4.2	802-560655
600x800 side vented	1	5.4	802-560656
800x600 side vented	1	5.6	802-560659
800x800 side vented	1	7.1	802-560660
600x600 fully vented	1	4.2	802-560647
600x800 fully vented	1	5.4	802-560648
800x600 fully vented	1	5.6	802-560651
800x800 fully vented	1	7.1	802-560652
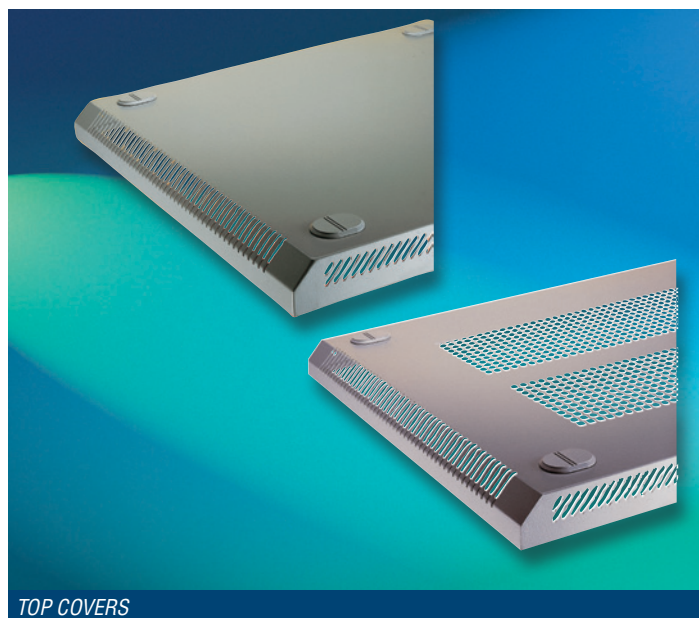
TOP COVERS

LIFTING EYES

Lifting eyes may be fitted to the top of an IMRAK when a cover is not fitted

Description	MOQ	Ordercode
Lifting eye kit	1	802-560000

LIFTING EYES

IMRAK 1400
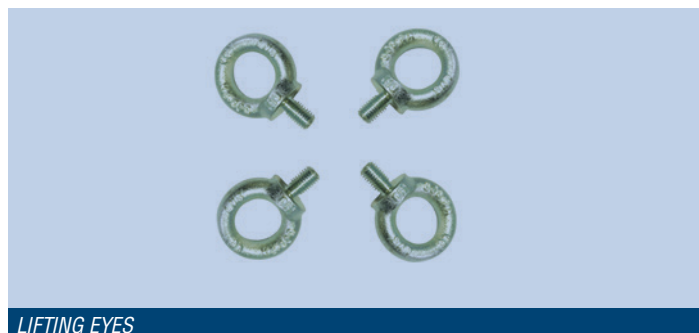
19" PANEL MOUNTING ANGLES - 'STANDARD'

Panel mounts are supplied in pairs to provide 19" mounting positions with hole patterns to accept captive nuts on universal centres. Incorporated into the design of the mounts are notches in the centre of each U height which makes the positioning of the cage nuts much easier. The panel mounting may be attached directly to the corner vertical, in which case front to rear adjustment is 60mm per panel mount. Alternatively the panel mount may be fitted onto panel mount angle supports giving infinite adjustment throughout the depth of the rack.

To be used with

An IMRAK frame of the same height or taller. 'Reducing Cable Channels' are required in 800 mm wide cabinets and 'Panel Mount Angle Supports' if full adjustment through the depth of the cabinet is needed. 'Panel Mount Angle Spacing kit' - one required if 'Panel Mount Angel Supports' are to be set out towards the side panel.

Contents of kit

Description	Qty	Material	finishes
19" Panel Mounting Angles - 'Standard'	2	2.0 mm steel	Light grey RAL 7035
Fixings			
Load rating and safety specification			
500 kg per pair			

Order table

Height	M.O.Q	Net weight for kit (Kg)	Order code
6U	1	1.0	**802-343042**
12U	1	2.0	**802-343043**
14U	1	2.4	**802-343892**
19U	1	2.9	**802-343895**
17U	1	3.2	**802-343044**
22U	1	3.7	**802-343045**
27U	1	4.6	**802-343046**
32U	1	5.4	**802-343047**
37U	1	6.2	**802-343048**
42U	1	7.1	**802-343049**
47U	1	7.9	**802-343050**

PANEL MOUNTING ANGLES

PANEL MOUNTING SUPPORTS

These fit between vertical mambers to allow adjustment of the panel mounts at any position along IMRAK's framework.
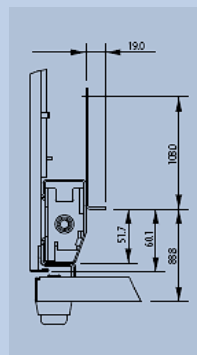
To be used with

An IMRAK frame of the same depth. 19" Panel Mounting Angles - Standard 19" Panel Mounting Angles - Simple. Cable Reducing Channels in 800 mm wide cabinet applications. Panel Mounting Angle Spacer kit when 'PanelMounting Supports' are set out towards the sdie panels. Vertical cable trays can be fitted to these members

Contents of kit

Description	Qty	Material	finishes
Panel Mount Supports	2	1.5 mm steel	Light grey RAL 7035
Clips	4	Plastic	Grey RAL 7037
Load rating and safety specification			
200 kg per pair			

Order table

Depth	M.O.Q.	Net weight for kit (Kg)	Order code
600 mm	1	0.6	**802-560545**
800 mm	1	0.9	**802-560546**
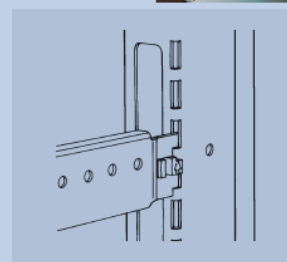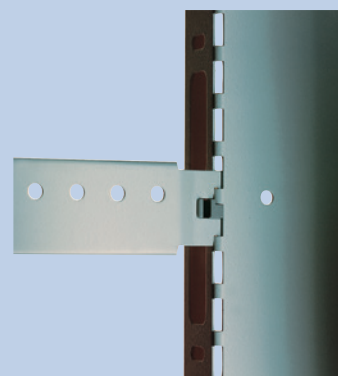
PANEL MOUNTING SUPPORTS

CABLE REDUCING CHANNELS

Cable reducing channels are suitable for 800mm wide racks only. These units are supplied in pairs and may be attached directly to the corner vertical, or fitted onto panel mount angle supports. Reducing cable channels have been designed to support panel mounting angles. The appropriate size and type of panel mounting angles also need to be ordered.

Contents of kit

Description	Qty	Material	finishes
Reducing channels	2	2.0 mm steel	Light grey RAL 7035
Fixings			

Load rating and safety specification

500 kg a pair

Order table

Height	M.O.Q.	Net weight for kit (Kg)	Order code
6U	1	1.9	**802-563565**
12U	1	3.7	**802-563566**
17U	1	5.3	**802-563567**
22U	1	6.8	**802-563568**
27U	1	8.3	**802-563569**
32U	1	9.9	**802-563570**
37U	1	11.4	**802-563571**
42U	1	13.0	**802-563572**
47U	1	14.5	**802-563573**

CABLE REDUCING CHANNELS

CASTORS

Two types of castor are available. All castor loads are stated under average conditions, fitted to the rack bolt on mounting plates.
Available in braked and unbraked versions.

To be used with

IMRAK end frame

Contents of kit

Description	Qty	Material	finishes
Heavy duty castor 4	kit of 4 castors & 4 mounting plates		
Heavy duty braked/unbraked castor kit	Kit of 2 braked & 2 unbraked castors plus 4 mounting plates		
Light/medium duty castor 4	kit of 4 castors		
Light/medium duty braked/unbraked castor kit	Kit of 2 braked plus 2 unbraked castors		
Load rating and safety specification			
Light/medium duty	65kg per castor in average conditions		
Heavy duty	115kg per castor in average conditions		

Order table

Description	M.O.Q.	Net weight for kit (Kg)	Order code
Heavy duty castor	4	1 2.9	**802-560003**
Heavy duty braked/unbraked castor kit	1	3.0	**802-561556**
Light/medium duty castor	4	1 0.5	**802-561557**
Light/medium duty braked/unbraked castor kit	1	0.5	**802-560002**

CASTORS

ADJUSTABLE FEET

These allow you to align your rack on uneven surfaces. Adjustable feet are screwed directly into the corner blocks, using 10mm threads. An adaptor is required when feet are to be fitted as well as heavy duty castors. Adjustment is between 25mm and 40mm.

To be used with

Adjustable feet to ued with an IMRAK end frame
Adjustable foot adaptors are required when heavy duty castors are also fitted or when a 100 mm plinth is fitted and adjustable feet are also needed. Note, adjustable feet can not be used at the sane time as light/medium duty castors as both are fixed via the same 10mm threaded hole in the end frame.
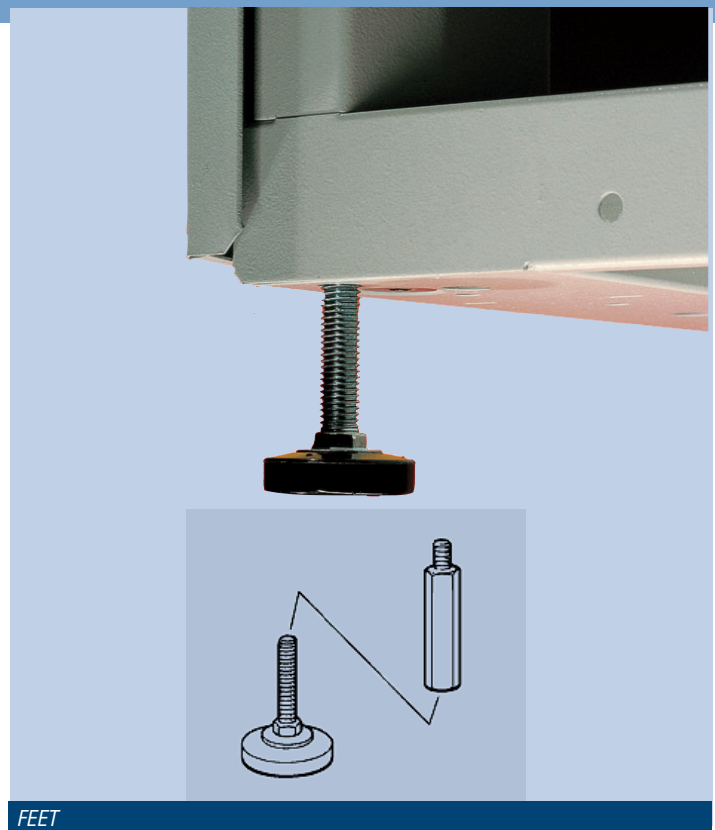
Contents of kit

Description	Qty	Material	finishes
Adjustable feet	4	Black pastic foot, steel stem	zinc plated
Adj.foot adaptors	4	Steel	zinc plated
Load rating and safety specification			
1000 kg for a set of four			

Order table

Description	M.O.Q.	Net weight for kit (Kg)	Black/Metal Order code
Adjustable feet	1	0.33	**802-560001**
Adj.foot adaptors	1	0.50	**802-560944**

FEET

100 MM PLINTHS
Plinths as complete kits

Plinth kits are available in two heights; 100mm or 200mm. Plinth kits consist of four identical corner sections and four infill sections which allow easy modification for cable entry. Adjustable feet, which will align IMRAK on uneven surfaces, can be fitted to a plinth when the use of 'adjustable foot adaptors'. Plinths may be stacked to provide additional height.

To be used with

IMRAK end frame
Adjustable feet when adjustable foot adaptors are also fitted.

Contents of kit

Description	Qty	Material	finishes
Plinth corners	4	2.0 mm steel	Light grey RAL 7035
Side trims	2	1.0 mm steel	Light grey RAL 7035
Front & rear trims	2	1.0 mm steel	Light grey RAL 7035
Load rating and safety specification			
1,000 kg			

Order table

Width X D epth	M.O.Q.	Net weight for kit (Kg)	Order code
600 x 600	1	5.1	**802-592667**
600 x 800	1	5.5	**802-592668**
800 x 600	1	5.5	**802-592669**
800 x 800	1	5.9	**802-592670**

PLINTH

9 19" Racks & Accessories

BOLTING DOWN PLATE

This kit of 4 rectangular plates allows the base frame to be bolted down, using 12 mm bolts (not supplied).

CONTENTS OF KIT

Description	Qty	Material	Finishes
Bolting down plates	4	2.0 mm steel	Light grey RAL 7035

ORDERING INFORMATION

Description	M.O.Q.	Net weight for kit (Kg)	Light grey RAL 7035
			Order code
Bolting down plate	1	0.72	**802-562415**

BOTTOM GLAND PLATES

Gland plates are used to seal off the cable opening in the base of the rack. Half gland plates allow a cable entry kit to be fitted in the center position. The cable entry kit consists of two brushes through which cables may be pushed.

CONTENTS OF KIT

Description	Qty	Material	Finishes
Bolting down plates	1	2.0 mm steel	Light grey RAL 7035
Half gland plates	2	2.0 mm steel	Light grey RAL 7035

ORDERING INFORMATION

Full gland plate	M.O.Q.	Net weight for kit (Kg)	Light grey RAL 7035
Width x depth			Order code
600 x 600 mm	1	3.2	**802-560946**
600 x 800 mm	1	4.7	**802-560947**
800 x 600 mm	1	4.7	**802-560950**
800 x 800 mm	1	6.8	**802-560951**

Half gland plate	M.O.Q.	Net weight for kit (Kg)	Light grey RAL 7035
Width x depth			Order code
600 x 600 mm	1	2.8	**802-560954**
600 x 800 mm	1	4.2	**802-560955**
800 x 600 mm	1	4.0	**802-560958**
800 x 800 mm	1	6.0	**802-560959**

Cable entry kit for use with half gland plate		
600 mm wide	1	**802-561007**
800 mm wide	1	**802-561008**
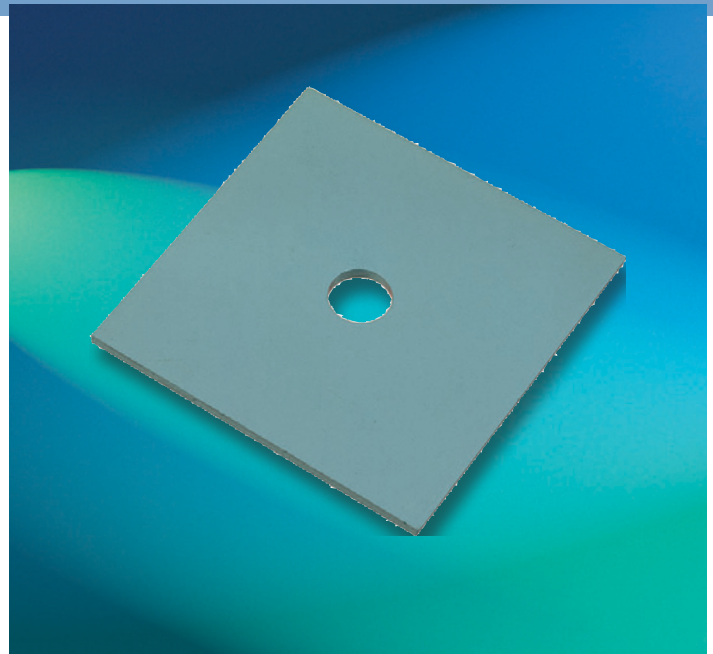
BOLTING DOWN PLATE
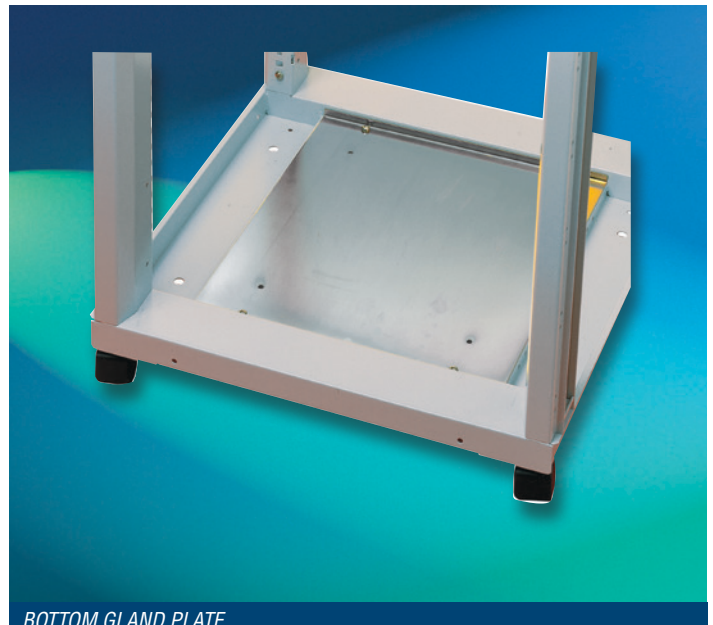
BOTTOM GLAND PLATE
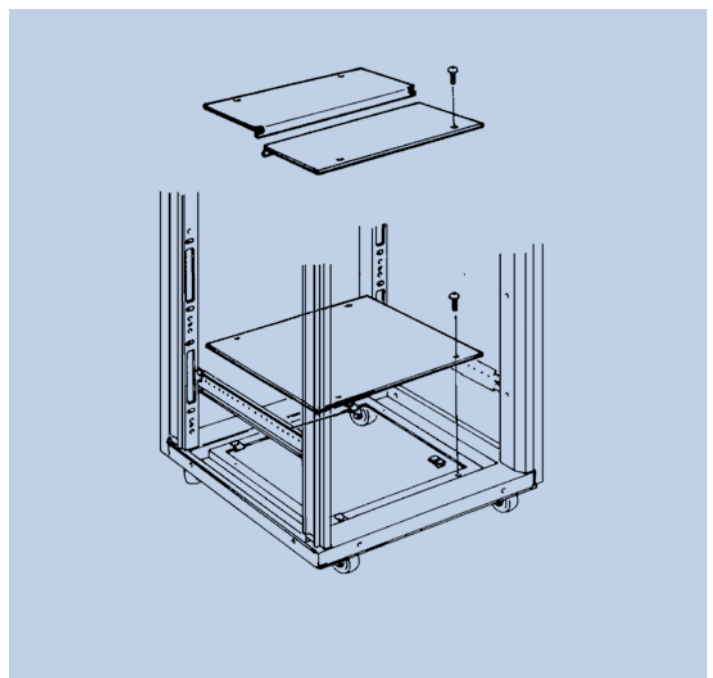
HALF AND FULL BOTTOM GLAND PLATE

IMRAK 1400

TOP MOUNTED FAN TRAYS

Top mounted fan trays are available to aid the cooling of your rack housed equipment. These may be retro-fitted to the IMRAK 1400, and occupy none of the useable U height. Fan trays are supplied with four or six fans Top fan trays have blanking plates fitted in all unused positions. Connection to all fans is by means of a CEE 22 mains inlet, which must be ordered separately. Select appropriate mains lead from lower table

To be used with
To be fitted into the appropriate IMRAK top end frame. Power lead needs to be order separately.

Contents of kit

Description	Qty	Material	finishes
Steel fan tray	1	1.5 mm steel	Light grey RAL 7035
Fan units	4 or 6		
Wiring kit			
CEE connector	1		
Blanking panel on 1,000			
deep fan trays			
fixing			

Top Mounted Fantray

Rating and safety specification

STANDARD TOP MOUNT FAN TRAY			
FANS	CFM	M3/Hr	*HEAT REMOVED (watts)
4	380	644	2150

*Note: All Heat loads based on a 10oC rise with no system resistance

Width x Depth	M.O.Q.	Net weight for kit (Kg)	Order code
Low noise fan trays (230V AC)			
600 x 600 mm, 4 fan unit	1	3.6	**802-563089**
600 x 800 mm, 4 fan unit	1	4.8	**802-563090**
800 x 600 mm, 4 fan unit	1	4.8	**802-563093**
800 x 800 mm, 4 fan unit	1	6.5	**802-563094**
Replacement fan (230V AC)	1	0.25	**548-240522**
Standard fan trays (115V AC)			
600 x 600 mm, 4 fan unit	1	3.6	**802-4001714**
600 x 800 mm, 4 fan unit	1	4.8	**802-4001715**
800 x 600 mm, 4 fan unit	1	4.8	**802-4001716**
800 x 800 mm, 4 fan unit	1	6.5	**802-4001717**
Replacement fan (115V AC)	1	0.25	**28-4000382**
Power leads for fan trays			
2 m 13A (UK) plug fitted	1		**802-561559**
2 m Schuko (Franch/German)plug fitted	1		**802-562463**

We also offer intelligent versions of fantrays which provide speed control and monitoring functionality. Please call for details

CHASSIS SUPPORTS

These steel supports may be varied along the depth of the rack and offer an ideal method of supporting heavy equipment. When used in conjunction with 19" equipment they position cardframes accurately in line with U heights.

An extra 15mm width is available when chassis supports are fitted directly to panel mounting angle supports as maximum chassis width is then 465mm. Nominal load rating is 50kg. Chassis supports are sold in pairs.

To be used with

To be fitted to 'standard 19" Panel Mount Angles or fitted directly to Panel Mount Angle Supports. Chassis trays and Heavy duty shevles mount onto Chassis Supports

Contents of kit

Description	Qty	Material	finishes
Chassis Support	2	1.5 mm steel	Light grey RAL 7035
fixing			

Order table

Length (min cabinet depth)	M.O.Q.	Net weight for kit (Kg)	Order code
470 mm (600 mm)	1	0.8	**802-561010**
670 mm (800 mm)	1	1.2	**802-561011**

Other depths available upon request

CHASSIS SUPPORTS

CHASSIS TRAYS

These steel trays come in four depths so that the correct depth for your installation may be selected without interfering with cabling or power distribution at the rear. With this style of tray a pair of chassis supports is also required.

To be used with

To be fitted onto Chassis Supports

Contents of kit

Description	Qty	Material	finishes
Chassis tray	1	1.5 mm steel	Light grey RAL 7035
fixing			

Order table

Width X Depth	M.O.Q.	Net weight for kit (Kg)	Order code
19" (600mm) x 456 mm	1	3.2	**802-561015**
19" (600mm) x 556 mm	1	3.9	**802-561016**

Other sizes available upon request

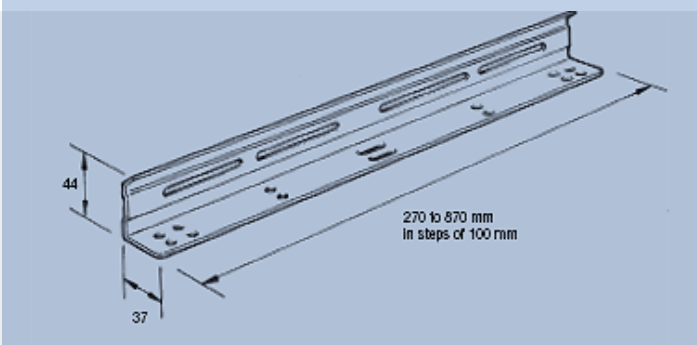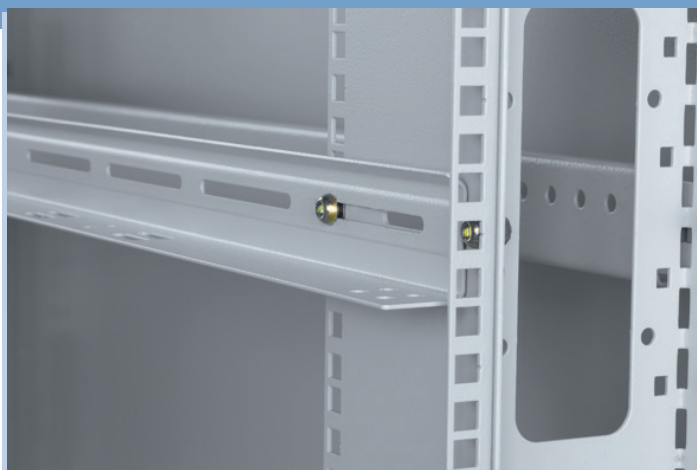
CHASSIS TRAYS

HEAVY DUTY SHELVES

For applications where heavy loads are required, this shelf offers a load capacity of over 100 Kg. Slotted holes offer limited air passage and also provide simple fixing positions. Note: Must be fitted to two pairs of Chassis Supports

Contents of kit

Description	Qty	Material	finishes
Heavy duty shelf	1	1.5 mm steel	Light grey RAL 7035
fixing			

Order table

Width X Depth	M.O.Q.	Net weight for kit (Kg)	Order code
600mm x 472mm (600)	1	3.4	**802-552914**
600mm x 672mm (800)	1	4.5	**802-552915**

HEAVY DUTY SHELF

9 19" Racks & Accessories

19" CANTILEVER SHELVES

Cantilever shelves fix directly onto the standard 19" panel mounts. The shelves occupy 2U of panel mount height. Cantilever shelves have a nominal load rating of 20kg, mounted in the mddle of the shelf.

To be used with

Can be used with or without Chassis Supports

Contents of kit

Description	Qty	Material	finishes
19" Cantilever shelf	1	1.5 mm steel	Light grey RAL 7035
fixing			
Load rating and safety specification			
20 kg			

Order table

Width X Depth	M.O.Q.	Net weight for kit (Kg)	Order code
19" x 255 mm	1	2.0	**802-562284**
19" x 400 mm	1	3.2	**802-562285**

CANTILEVER SHELF

SLIDING SHELVES - 19" FIXING

This shelf will fit into the IMRAK® enclosure that has 19" panel mounts fitted in the front and rear of the enclosure, independent of whether the enclosure is 600 mm or 800 mm wide. The supporting surface of the shelf is in-line with the bottom of the 'U' above it, therefore the shelf can be used to support both 19" mounted equipment as well as non 19" mounted equipment.
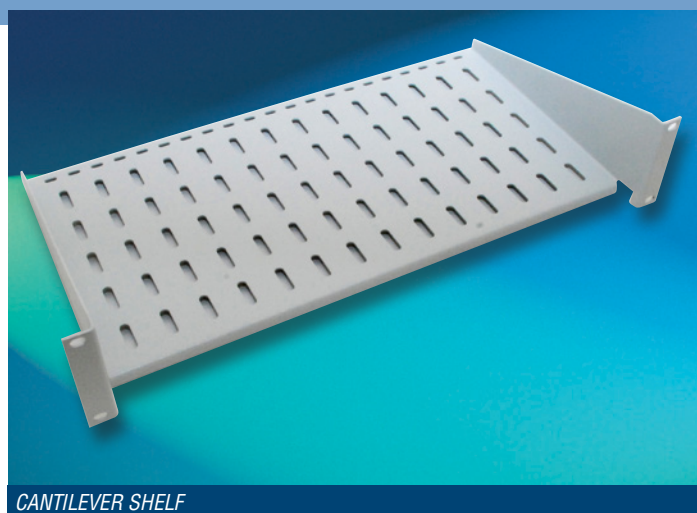
TO BE USED WITH:

Must be used with 19" Panel Mounting Angles fitted front and rear.

CONTENTS OF KIT

Description	Qty	Material	Finishes
Sliding shelf	1	1.5 mm steel	Light grey RAL 7035
Slides	2	Steel	
Mounting brackets	4	Steel	
Fixings			
Load capacity: 35 Kg			

ORDERING INFORMATION

W x D	M.O.Q.	Net weight for kit (Kg)	Light grey RAL 7035
			Order code
Sliding shelf 19" x 425 mm	1	4.1	**802-3635759**
Sliding shelf 19" x 625 mm	1	6.0	**802-3635760**

SLIDING SHELF

9 19" Racks & Accessories

VEROTEC Electronics Packaging
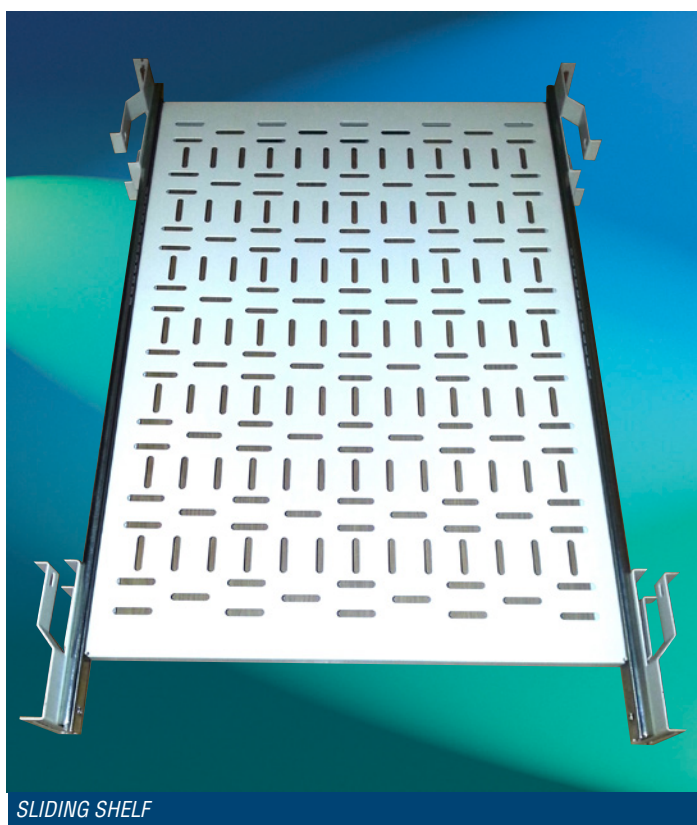
CABLE MANAGEMENT

1. PLASTIC CABLE TRUNKING - A plastic trough measuring 80mm wide by 40mm deep externally with a snap-on cover. Supplied in 2m lengths and easily cut for other sizes.

2. STEEL CABLE TRAYS - Three alternative lengths, all 152mm wide by 12,7mm deep and multipunched for accepting cable ties etc.

3, 4, & 5 CABLE MANAGEMENT PANELS - 1Ux19" brushed cable entry panel with / without support bar and cable hoop panels

6 & 7. SINGLE AND DOUBLE CABLE HOOPS - Single cable hoops can be fixed to the inside face of the vertical corner members. Single sized hoops are available for racks with side panels.
Double sized hoops can be fitted to the inside faces of the vertical corner members when the racks are bayed together. The hoops may also be fitted on cross members at the rear of the rack or from panel mount supports on the side of the rack.

To be used with
Items 1 & 2 – fit to panel mount supports
Items 3, 4 & 5 – fit horizontally across the 19" panel mounts
Item 6 – mount to the rear of an IMRAK vertical member
Item 7 – mount into the cable reducing channel used on 800mm wide cabinets or to the rear of an 2 x IMRAK vertical members in baying applications"

Contents of kit
All items supplied with fixings

Order table

Description	M.O.Q.	Net weight for kit (Kg)	Order code
1. Plastic trunking 2m long (45U)	1		**643-10000**
2. Steel cable trays 1481mm (33U)	1	2.5	**802-560876**
2. Steel cable trays 1703mm (38U)	1	2.9	**802-560881**
2. Steel cable trays 1925mm (43U)	1	3.3	**802-560886**
3. 1U brushed cable entry panel with rear cable tray	1		**802-563107**
4. 1U brushed cable entry panel with front cable support bar	1		**960-4000503**
5. Cable management panel 1U	1		**802-563522**
6. Single cable hoops (pk. 10)	1		**802-563612**
7. Double cable hoops (pk. 10)	1		**802-563613**

1
2
3
4
5
6
7
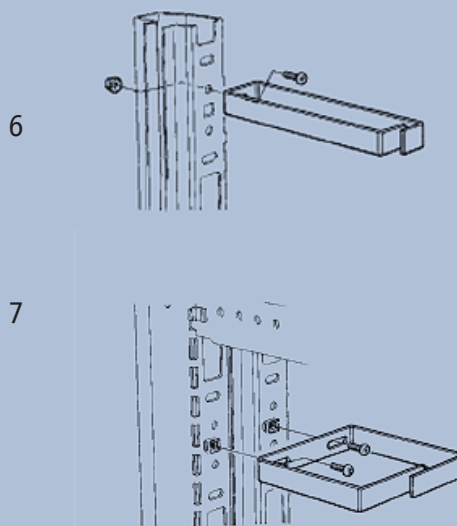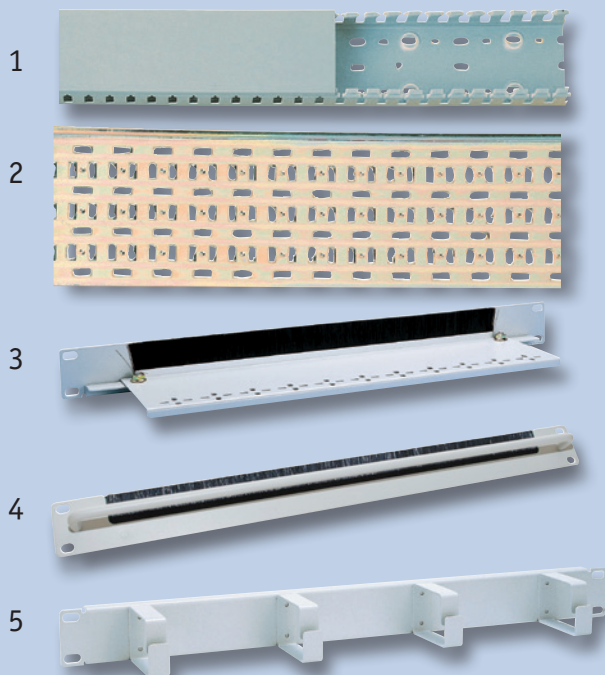
Cable Managment

EARTH CONTINUITY KITS

Two styles of earth continuity are available. Each contains ten leads to earth all panels and doors, and leaving extra leads to earth parts of the electronic equipment. Type 1 has ring terminals at both ends to mount directly onto the earth studs on the panels.
Type 2 has a ring terminal on one end and a spade (faston) at the other. Adaptor rings are provided for bolting on to the earth studs to allow quick removal and assembly.
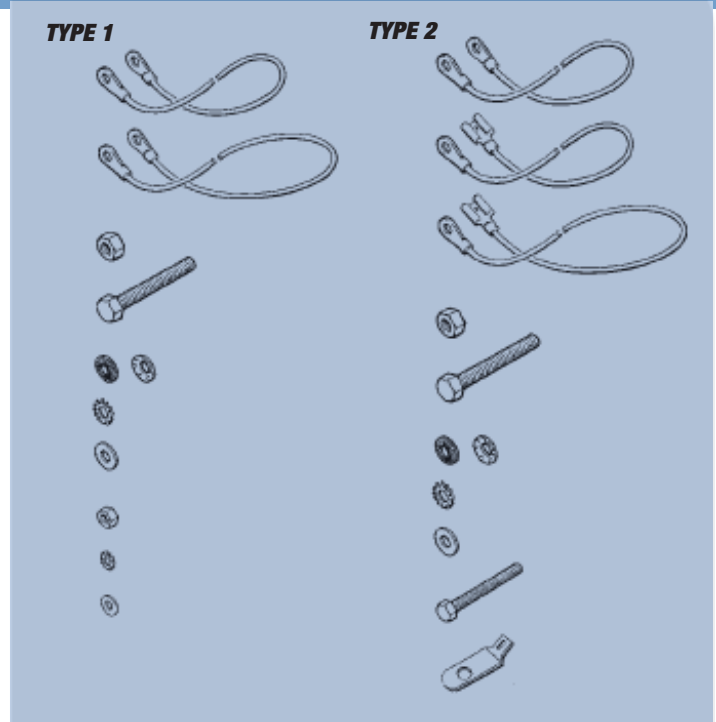
To be used with
IMRAK 1400

Contents of kit

Description	Qty	Material	finishes
Earth continuity kit	1	-	-
fixing			
Load rating and safety specification			

Order table

Description	M.O.Q.	Net weight for kit (Kg)	Order code
Earth continuity kit - type 1	1		802-560005
Earth continuity kit - type 2	1		802-561563

TYPE 1   TYPE 2

EARTHING BARS

These earthing busbars offer the option of bonded earth or isolated conditions. Earth conditions by using insulated spacer strips. They have male spade fixing positions at 1/2U intervals and can be mounted on any flat surface. Mounting holes allow assembly without further drilling on the inside faces of IMRAK® as illustrated. Made from nickel plated copper, the earth bars have a rating of 40 Amps and can be cut to specific lengths. Main earth is provided by M6 studs at both ends.

CONTENTS OF KIT

Description	Qty	Material	Finishes
Earthing bar	1	1.5 mm steel	Light grey RAL 7035

ORDERING INFORMATION

| Description	M.O.Q.	Net weight (Kg)	Order code
Earthing bar 13U for cabinets	1		802-552929
Earthing bar 27U for cabinets	1		802-552930
Earthing bar 39U for cabinets	1		802-552931

BUSBAR SYSTEMS

This is a common copper ,earth/neutral busbar which is normally fitted to the rear vertical of the rack. It has a rating of 140 Amps and supported by polyamide insulating blocks which will accept 4 mm, 5/32", or 6BA fixing screws.
There are three sizes of terminals for conductor dimensions from 1,5 mm to 35 mm.
Note: The busbar is simply fitted to the blocks using 'snap-on' clips

CONTENTS OF 'COMPLETE BUSBAR' KIT

Description	Qty	Material	Finishes
Earthing bar: 10 mm x 3 mm x 1000 mm	1	Copper	N/A
Insulated mounting blocks	3		
Large terminal: 16 - 35 mm conductor	1		
Small terminals: 1,5 mm - 4 mm 2 conductor	10		

ORDERING INFORMATION

Description	M.O.Q.	Net weight(Kg)	Order code
Complete 'busbar kit' Busbar kit - 1 off	1		802-556088

Earthing bars   Busbar systems

ELECTROSTATIC POINT (E.S.P.)
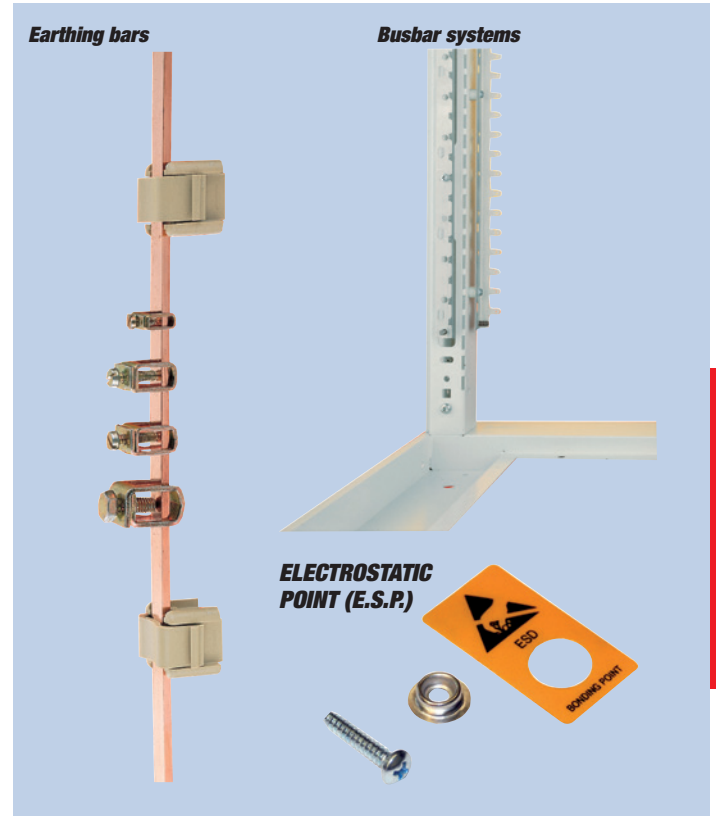
ELECTROSTATIC POINT (E.S.P.) AND ELECTROSTATIC WRIST STRAP AND LEAD

The E.S.P. is designed to protect against electrostatic discharge damage of the electronic equipment. This self-tapping screw stud will be fitted on the midpoint of the front lefthand vertical, unless otherwise stated. The electrostatic wrist strap and lead are to be used with the E.S.P.

To be used with:
To be fitted vertically onto the cabinet's

ORDERING INFORMATION

Description	M.O.Q.	Order code
Electrostatic point (E.S.P.)	1	802-563039
Electrostatic wrist strap and lead	1	802-563040

POWER MANAGEMENT

Power distribution panels are available in two versions; 19" rack mounting (where they are fitted to the front or rear 19" panel mounts) or vertically mounting (where they are fitted to the rear cable trays / members.)

All power distribution panels are 1U in height and manufactured from extruded aluminium with a black paint finish. On switched versions, the switches are illuminated and include a plastic cover to prevent accidental operation. Surge protected units include an earth stud on the rear.

Fixing screws should be ordered separately.

19" RACK MOUNTING POWER DISTRIBUTION PANELS

Type	Description	Ordercode
1	Output = 6 x 13A UK (BS1363) sockets Input = 13A UK (BS1363) plug on 3M cord Switched, not surge protected	**640-4005347**
2	Output = 6 x 13A UK (BS 1363) sockets Input = 13A UK (BS1363) plug on 3M cord Switched & surge protected	**640-4005348**
3	Output = 8 x 13A UK (BS 1363) sockets Input = 13A UK (BS1363) plug on 3M cord Not switched, not surge protected	**640-4005349**
4	Output = 8 x IEC (C13) sockets Input = IEC (C14) plug on 3M cord Switched, not surge protected	**640-4005350**
5	Output = 8 x IEC (C13) sockets Input = 13A UK (BS1363) plug on 3M cord Switched, not surge protected	**640-4005351**

VERTICALLY MOUNTING POWER DISTRIBUTION PANELS

Type	Description	Ordercode
6	Output = 8 x 13A UK (BS1363) sockets Input = 13A UK (BS1363) plug on 3M cord Switched, not surge protected	**640-4005352**
7	Output = 8 x 13A UK (BS 1363) sockets Input = 13A UK (BS1363) plug on 3M cord Switched & surge protected	**640-4005353**
8	Output = 12 x 13A UK (BS 1363) sockets Input = 13A UK (BS1363) plug on 3M cord Switched, not surge protected	**640-4005354**
9	Output = 12 x 13A UK (BS 1363) sockets Input = 13A UK (BS1363) plug on 3M cord Switched & surge protected	**640-4005355**
10	Output = 12 x 13A UK (BS 1363) sockets Input = 16A 2P+E Ceeform plug on 3M cord	**640-4005356**

Type 9 - Vertical PDU
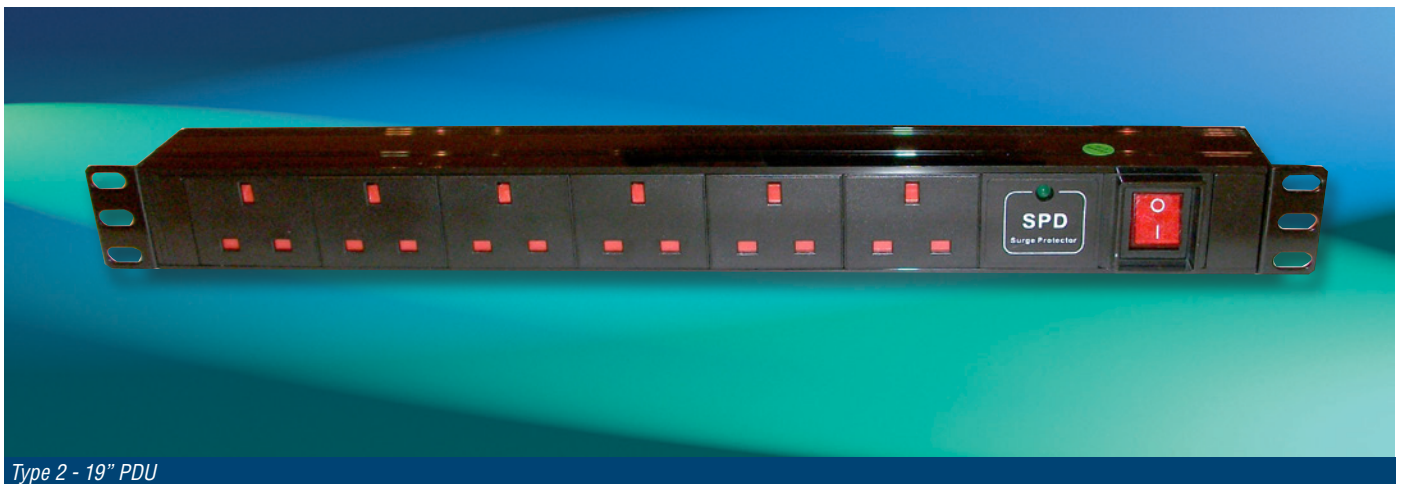
Type 2 - 19" PDU

VERAK IP & EMC CABINETS

VERAK addresses the most stringent enclosure requirements of the communications, industrial networking and electronics sectors, providing both IP65 environmental protection and EMC screening. It is available in two versions: VERAK IP provides protection from the ingress of dust and water, whilst VERAK EMC provides protection from radio frequency interference to ensure that electronic systems meet electromagnetic compatibility requirements.

VERAK EMC gives more than 80dB attenuation at 100Mhz and 40dB at 1GHz, the highest levels available in a standard product from any manufacturer. The EMC gaskets provide electrical continuity between panels. They self-secure into slots punched in the EMC screen, making it impossible to remove without a tool.

VERAK is a very strong floor-standing enclosure. The 2mm steel framework gives the VERAK enclosure exceptional strength and rigidity, rated at 750kg static load capacity. The knife-edges that interact with the panel-mounted gasket to create the IP seal are an integral part of the verticals. The sides of the knife-edges are also the faces against which the EMC gaskets mate, so the ground integrity is maintained throughout the structure. Users can readily change the hinging of a door from left to right without having to interfere with the IP or EMC sealing.

VERAK is available with steel or glass front and rear doors. The EMC panels and doors are double skinned, consisting of an inner conductive panel and an outer painted protective one. The EMC glass door, a laminated construction with a fine metal mesh encapsulated between two sheets of 3mm glass to maintain ground continuity, allows visual inspection of the equipment without degrading the EMC performance.

The unique design of the closing mechanism, which includes a wedgeshaped gasket, ensures the integrity of the IP and EMC seals. A swing handle controls a four-point over-centre cam closure that exerts the correct pressure on the gaskets, thereby avoiding over-compression. The gasket is subjected to minimal compression, so the sealing and screening performance does not degrade over time with repeated door openings; a particular advantage where the cabinet is regularly visited and opened for routine maintenance.

Cables can be brought into the rack from the top, through the bottom and through 5U or 10U high recessed cable entry panels, fitted above or below shortened front or rear doors. Recessed panels ensure that connectors do not protrude outside the overall footprint of the enclosure and removable flat gland plates make punching and drilling an easy job. The screened gland plates provide a cable entry capability without compromising the EMC performance.

VERAK cabinets can be fitted with solid or ventilated top covers and bases; the ventilated covers allow forced or natural convection cooling without reducing the enclosure's EMC performance. Integrated cooling solutions, ranging from heat exchangers and air-conditioners to intelligent climate control systems, are also available.

VERAK's soft–line, slightly curved styling is equally at home in the office, the communications room or on the factory floor. Its two–tone grey colour scheme is neutral, blending with most modern decors, making VERAK the ideal choice for both heavy industrial and telecoms applications.

VERAK-IP Cabinet

Key Features: VERAK-IP

- IP65 rated, enhanced protection against dust and moisture
- Ideal for basements, manufacturing areas and process control applications
- Secure four point door locking system
- Heavy duty frame and robust cladding rated at 750kg
- Top, base and rear cable entry access points
- 3 standard height options - 27U, 37U, and 42U
- 2 depth options – 600mm and 800mm
- 2 width options – 600mm and 800mm
- Steel or Glazed front door
- Choice of full length steel rear door or steel door + IP55 5U vent panel (top) + 5U fan panel (bottom)
- Standard front and rear 19" panel mounts
- Wide range of application specific accessories
- Supplied fully assembled and configured with accessories

Key Features: VERAK-EMC

- High RFI (Radio Frequency Interference) attenuation
- Ideal for both industrial and office applications
- Exceptional strength allows long-distance shipping of fully integrated enclosure
- Secure four point door locking system
- User-friendly multiple entry access points
- 3 standard height options - 27U, 37U, and 42U
- 2 depth options – 600mm and 800mm
- 2 width options – 600mm and 800mm
- Solid steel doors and side panels
- Shortened steel rear door with 10U cable access panel
- EMC screens at top and bottom (ventilated or IP65)
- Standard front and rear 19" panel mounts
- Wide range of application specific accessories
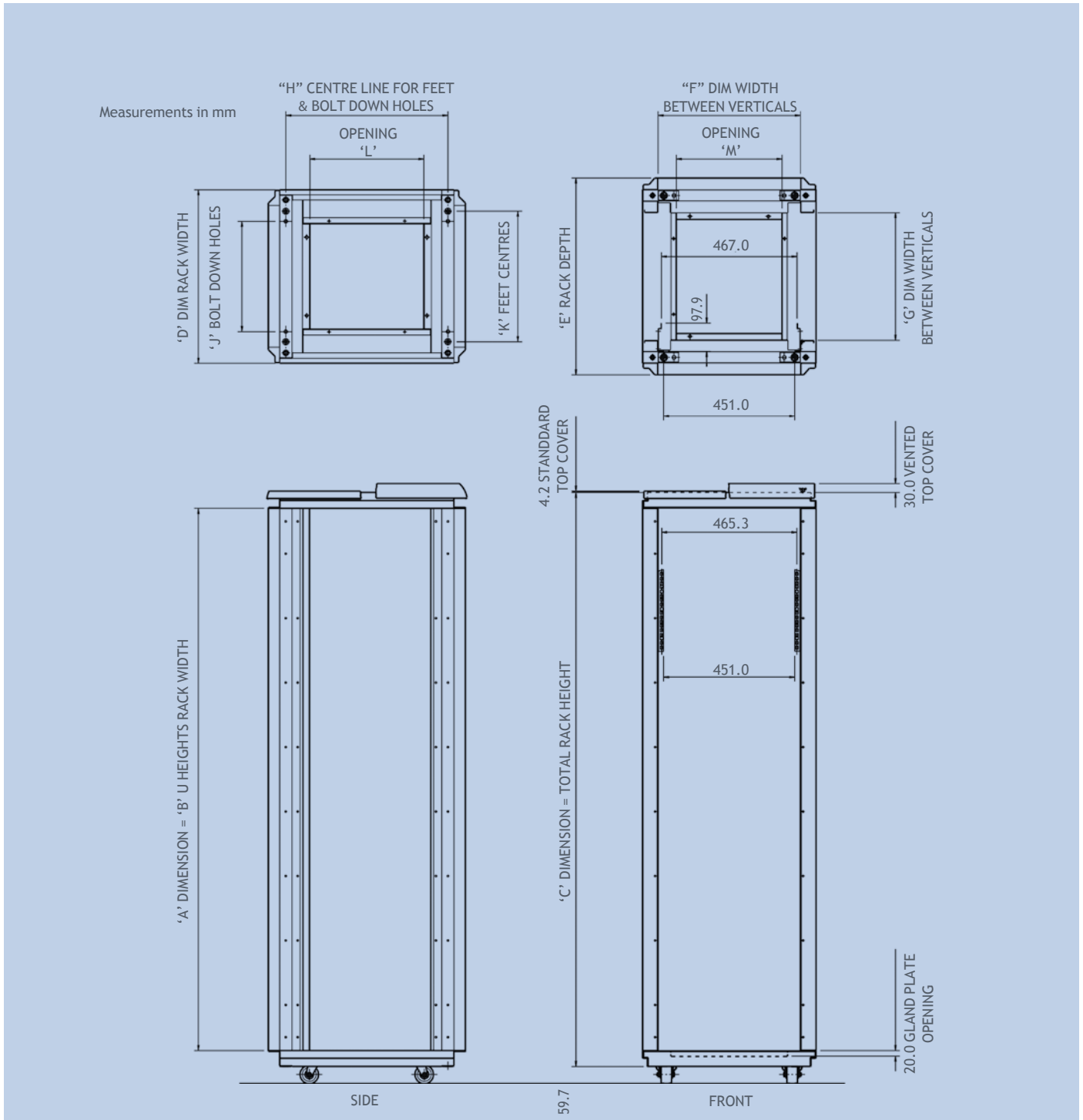- Supplied fully assembled and configured with accessories

TECHNICAL SPECIFICATIONS

"H" CENTRE LINE FOR FEET & BOLT DOWN HOLES

OPENING 'L'

Measurements in mm

'D' DIM RACK WIDTH

'J' BOLT DOWN HOLES

'K' FEET CENTRES

"F" DIM WIDTH BETWEEN VERTICALS

OPENING 'M'

'E' RACK DEPTH

467.0

97.9

451.0

'G' DIM WIDTH BETWEEN VERTICALS

4.2 STANDDARD TOP COVER

30.0 VENTED TOP COVER

465.3

451.0

'A' DIMENSION = 'B' U HEIGHTS RACK WIDTH

'C' DIMENSION = TOTAL RACK HEIGHT

20.0 GLAND PLATE OPENING

59.7

SIDE

FRONT

Rack dimensions	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"	"L"	"/
27U x 600 x 600	1201.8	27	1311.8	597.6	678.0	490.0	440.0	558.0	380.0	450.0	393.4	36
27U x 600 x 800	1201.8	27	1311.8	597.6	878.0	490.0	640.0	758.0	380.0	450.0	593.4	36
27U x 800 x 600	1201.8	27	1311.8	797.6	678.0	690.0	440.0	558.0	580.0	650.0	393.4	56
27U x 800 x 800	1201.8	27	1311.8	797.6	878.0	690.0	640.0	758.0	580.0	650.0	593.4	56
37U x 600 x 600	1646.3	37	1756.3	597.6	678.0	490.0	440.0	558.0	380.0	450.0	393.4	36
37U x 600 x 800	1646.3	37	1756.3	597.6	878.0	490.0	640.0	758.0	380.0	450.0	593.4	36
37U x 800 x 600	1646.3	37	1756.3	797.6	678.0	690.0	440.0	558.0	580.0	650.0	393.4	56
37U x 800 x 800	1646.3	37	1756.3	797.6	878.0	690.0	640.0	758.0	580.0	650.0	593.4	56
42U x 600 x 600	1868.5	42	1978.5	597.6	678.0	490.0	440.0	558.0	380.0	450.0	393.4	36
42U x 600 x 800	1868.5	42	1978.5	597.6	878.0	490.0	640.0	758.0	380.0	450.0	593.4	36
42U x 800 x 600	1868.5	42	1978.5	797.6	678.0	690.0	440.0	558.0	580.0	650.0	393.4	56
42U x 800 x 800	1868.5	42	1978.5	797.6	878.0	690.0	640.0	758.0	580.0	650.0	593.4	56

VERAK IP & EMC

STRUCTURAL ELEMENTS

FRAME
The frame comprises of 4 verticals and 2 end frames.

GLAZED DOOR
RFI screened, tinted glass complete with swing handle. The required automatic locked or blank lock option needs to be ordered separately. Shortened steel doors and 10U cable access panel A shortened steel door needs to be ordered with the 10U recessed cable access panel. The cable access panel is recessed by 60mm so cable connectors do not protrude out from the foot print. The panel can be fitted above or below the door and is easily removed to facilitate the fitting of cable connectors etc. The 1.6 mm steel door comes complete with swing handle. The required lock or blank lock needs to be ordered separately.

TOP / BOTTOM PLATES
For VERAK EMC to work as an EMC enclosure top and bottom plates must be fitted.

Plain - This plain EMC shielding panel which can be fitted at either the top or bottom of the rack can also be utilized as a cable entry panel.

Vented - The vented EMC shielding panel allows air to flow through the rack assuming a 'vented plate' is fitted at both the top and bottom of the rack and the rack is fitted with a ventilated top cover. A top mounted 'fan tray' can also be fitted under the top mounted 'vented plate' to provide forced air cooling.

STEEL DOORS
1.5 mm steel door is complete with swing handle. The required lock or blank lock needs to be ordered separately.

SIDE PANELS
Side panels are sold in pairs and are 1.5 mm steel painted in RAL7035. The side panels are fitted using captive pozi drive screws which allow the units to easily be fitted or removed.

BAYING BRACKET KIT
The kit consists of the required length of self-adhesive RFI contact fingers and IP gasket material, plus 6 brackets which lock the two racks together to form a bayed suite of racks. For example: If three racks are to be bayed together to make one suite of racks, one pair of 'side panels' are required (to be used on either end of the suite) and two 'baying bracket kits'.

PLAIN IP65 TOP
IP 65 unvented top cover.

SIDE VENTED TOP COVER EMC
This top allows convected air to flow out through the top.
Note: for air to flow through the rack, a vented top and bottom plate must be fitted.

FULLY VENTED TOP COVER EMC
A fully vented top is recommended when a fan tray is to be used.
Note: for air to flow through the rack, a vented top and botto plate must be fitted

LIFTING EYES
Lifting eyes are sold as a kit of 4.
Note: 'side vented' and 'fully vented' top covers must be removed before lifting eyes can be fitted.

SWING HANDLES
Both the metal and glass doors have a swing handle fitted as standard. Please note, the locks for the swing handle need to be ordered separately.
**Keyed alike lock - self locking**
All locks supplied operate with the same key and the door automatically locks when closed.
Keyed alike lock - manual locking
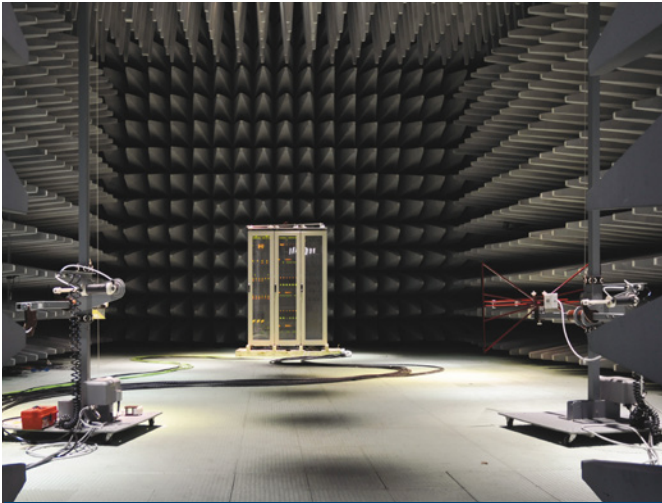All locks supplied operate with the same key. To lock the door the key must be turned.
Lock blank
The lock blank fills the hole in the swing handle when a lock is not required. It also acts as a spring clip holding the handle into its housing

Frame Glazed door

Shortned steel door Top / bottom plates

Steel door Top cover
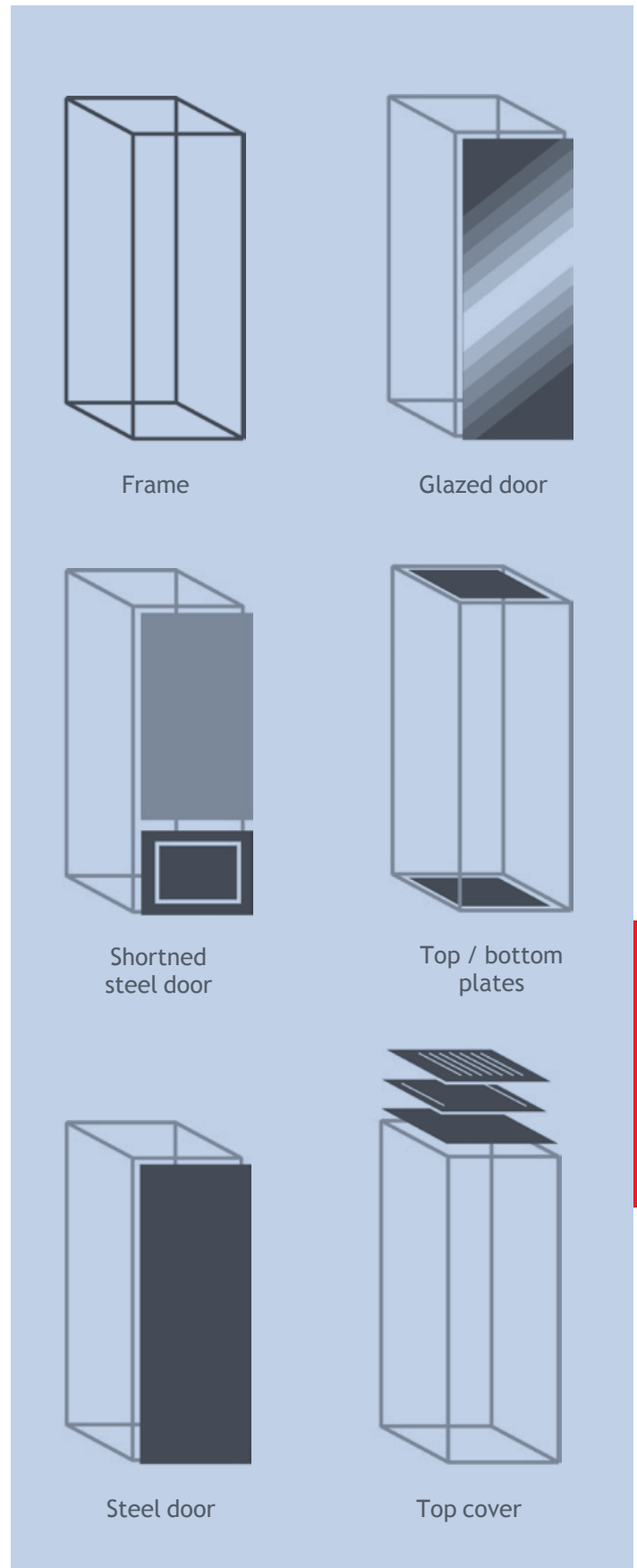
VERAK EMC PERFORMANCE

VERAK EMC gives more than 80dB attenuation at 100MHz and 40dB at 1GHz, the highest levels available in a standard product from any manufacturer. The EMC gaskets provide electrical continuity between panels. They self-secure into slots punched in the EMC screen, making it impossible to remove without a tool.

Verak EMC cabinet in an anechoic chamber under test

Verak EMC cabinet construction & sealing

Graph showing more than 80dB attenuation at 100MHz.

Graph showing more than 40dB attenuation at 1GHz.

9 19" Racks & Accessories
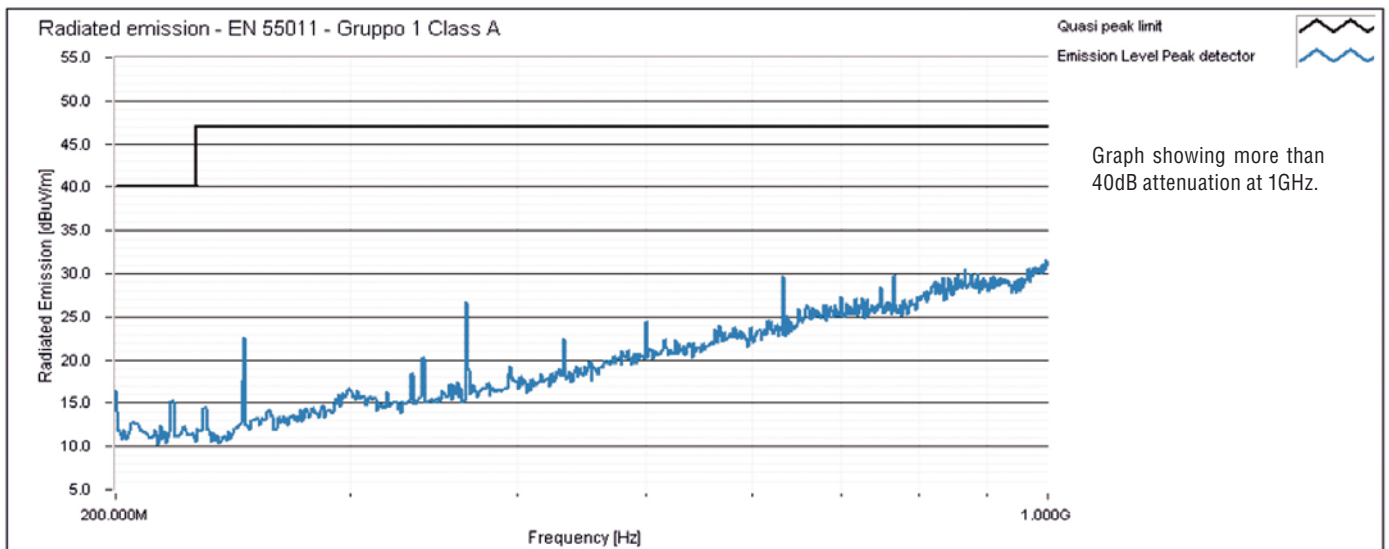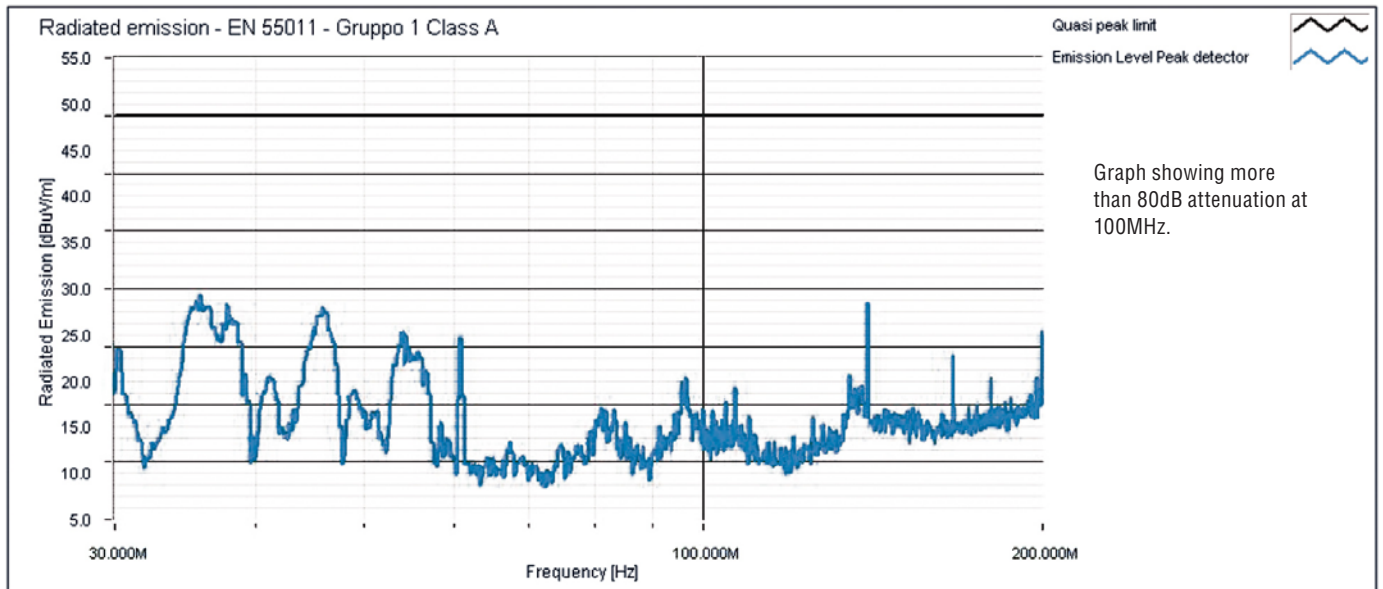
VERAK EMC ORDERING INFORMATION

Detailed in the below table are the order codes for the basic cabinet components, as shown in the below exploded view. Additional items such as fan trays, plinths, shelves a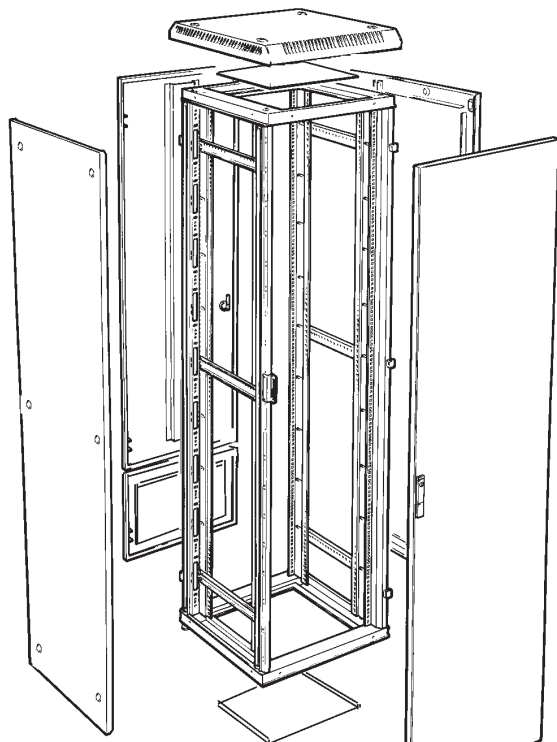nd chassis supports are shown in the accessories section on page 9.27. Whilst component parts can be ordered and shipped individually, basic cabinets & accessories are shipped assembled. A single and unique order code may be generated (upon request) for the configured cabinet for ease of reference

Exploded view of a 42Ux600x600 VERAK EMC cabinet with full length front door and shortened rear door + 10U cable entry panel
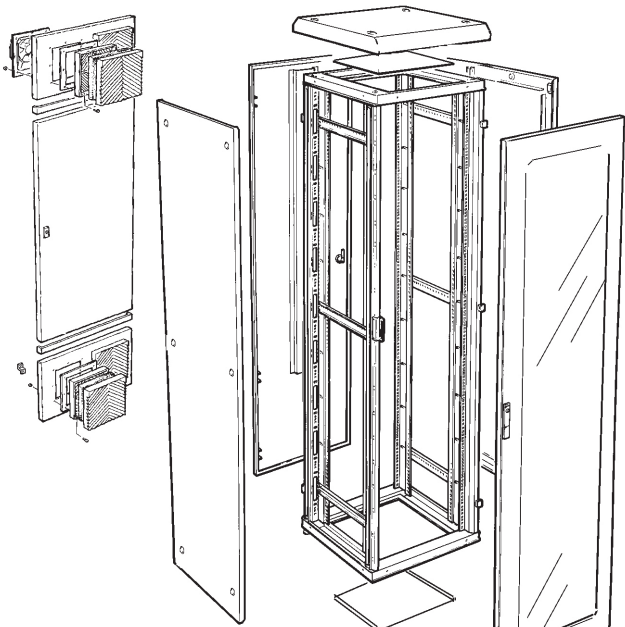
VERAK-IP Cabinet

ORDER TABLE – VERAK EMC BASIC CABINET COMPONENTS

Height	27U	37U	37U	42U
Width x Depth (mm)	600 x 600	600 x 600	600 x 800	600 x 600
Frame	586-565089	586-565105	586-565106	586-565113
Top / bottom EMC plates				
Top vented screen	571-565779	571-565779	571-565780	571-565779
Bottom vented screen	571-565771	571-565771	571-565772	571-565771
Top & bottom plain	571-565763	571-565763	571-565764	571-565763
Doors				
Glazed door full length	571-565685	571-565687	571-565687	571-565688
Steel door full length	571-565669	571-565671	571-565671	571-565672
10U cable entry panel	571-565896	571-565896	571-565896	571-565896
Shortened steel door (-10U)	571-565667	571-565669	571-565669	571-565670
Sides				
Side panels	571-565743	571-565751	571-565752	571-565755
EMC/IP baying kit	571-565875	571-565883	571-565884	571-565887
Top covers				
Side vented top	571-565651	571-565651	571-565652	571-565651
Fully vented top	571-565659	571-565659	571-565660	571-565659
For the bottom				
Adjustable feet	567-565343	567-565343	567-565343	567-565343
Heavy duty castors	567-565408	567-565408	567-565408	567-565408

Refer to page 9.27 for accessories including fan trays, plinths, shelves and chassis supports.

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VERAK IP ORDERING INFORMATION

Detailed in the below table are the order codes for the basic cabinet components, as shown in the below exploded view (excluding fan trays) Additional items such as fan trays, plinths, shelves and chassis supports are shown in the accessories section on page 9.27. Whilst component parts can be ordered and shipped individually, basic cabinets & accessories are shipped assembled. A single and unique order code may be generated (upon request) for the configured cabinet for ease of reference.

Exploded view of a 42Ux600x600 VERAK IP cabinet with full length front door and shortened rear door with 2 x 5U filtered fan panels. (Note that these should be ordered as accessories).

VERAK-IP Cabinet

ORDER TABLE – VERAK IP BASIC CABINET COMPONENTS

Height	27U	37U	37U	42U	42U	42U	42U
Width x Depth (mm)	600x600	600x600	600x800	600x600	600x800	800x600	800x800
Frame	585-565025	585-565041	585-565042	585-565049	585-565050	585-565053	585-565054
Plain IP65 top cover	567-565635	567-565635	567-565636	567-565635	567-565636	567-565639	567-565640
Doors							
Glazed door	567-565605	567-565607	567-565607	567-565608	567-565608	567-565616	567-565616
Steel door	567-565541	567-565543	567-565543	567-565544	567-565544	567-565552	567-565552
Sides							
Side panels	567-565244	567-565252	567-565253	567-565256	567-565257	567-565256	567-565257
IP baying kit	on request	on request	567-565366	567-565369	567-565370	567-565369	567-5653570
For the bottom							
Bottom gland plate	567-565320	567-565320	567-565321	567-565320	567-565321	567-565324	567-565325
Adjustable feet	567-565343	567-565343	567-565343	567-565343	567-565343	567-565343	567-565343
Heavy duty castors	567-565408	567-565408	567-565408	567-565408	567-565408	567-565408	567-565408

Refer to page 9.27 for accessories including fan trays, plinths, shelves and chassis supports.

VERAK IP & EMC

ACCESSORIES

THERMAL KIT (EMC)

Description	Order code
600 x 600, 4 fan unit, RAL 7035	802-560475
600 x 800, 4 fan unit, RAL 7035	802-560476
800 x 600, 4 fan unit, RAL 7035	802-560479
800 x 800, 4 fan unit, RAL 7035	802-560480

THERMAL KIT (IP)

Description	Order code
5U ventilation panel kit, 600 mm, 3 filters only	567-565522
5U ventilation panel kit, 800 mm, 4 filters only	567-565523
5U ventilation panel kit, 3 fan unit, 600 mm, filters	567-565526
5U ventilation panel kit, 4 fan unit, 800 mm, filters	567-565527

Note: for purchase of ventilation unit, contact sales representative

THERMOSTAT AND WIRING KIT

Description	Order code
Thermostat and wiring kit	385-775843

FIXED SHELVES KIT

Description	Order code
19" fixed shelf (600 mm) x 256	802-561013
19" fixed shelf (600 mm) x 356	802-561014
19" fixed shelf (600 mm) x 456	802-561015
19" fixed shelf (600 mm) x 556	802-561016
19" fixed shelf max 800 x 256	802-561017
19" fixed shelf max 800 x 356	802-561018
19" fixed shelf max 800 x 456	802-561019
19" fixed shelf max 800 x 556	802-561020

CHASSIS SUPPORTS

Description	Order code
Chassis support 270 mm in cabinet 400 mm depth min. RAL 7035	802-561009
Chassis support 370 mm in cabinet 500 mm depth min. RAL 7035	802-561561
Chassis support 470 mm in cabinet 600 mm depth min. RAL 7035	802-561010
Chassis support 570 mm in cabinet 700 mm depth min. RAL 7035	802-561562
Chassis support 670 mm in cabinet 800 mm depth min. RAL 7035	802-561011
Chassis support 770 mm RAL 7035	802-343186
Chassis support 870 mm RAL 7035	802-343187

POWER DISTRIBUTION
Please refer to page 9.20 for full details of our rack mounting and vertical mounting power distrbuion units

Thermal Kit
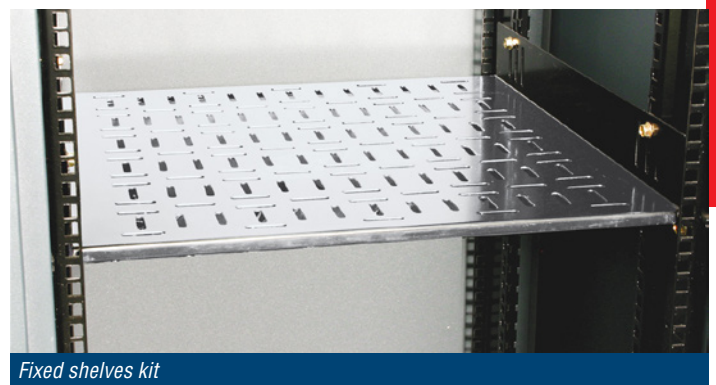

Thermal Kit

Thermostat and wiring kit

Fixed shelves kit

Type 2 - 19" PDU

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HEAVY DUTY SLIDING SHELVES

Description	Order code
19" x 630 mm heavy duty sliding shelves	**802-3635737**

Heavy duty sliding shelves

19" DIN BAR PANEL KIT

Description	Order code
19" Din bar panel kit	**390-787140**

PLINTH

Description	Order code
600 x 600 / 600 x 800 rear / front plinth	**802-561038**
800 x 600 / 800 x 800 rear / front plinth	**802-561039**
600 x 600 / 800 x 600 side plinth	**802-561035**
600 x 800 / 800 x 800 side plinth	**802-561036**
4 angular kit	**567-565504**

19" Din bar panel kit

CASTORS KIT

Description	Order code
Heavy duty castors kit unbraked	**567-565408**
Heavy duty braked / unbraked castors kit	**567-565409**

LIFTING EYES KIT

Description	Order code
Lifting eyes kit	**567-565489**

Plinth

SWING HANDLES

Description	Order code
Keyed alike lock - self locking	**802-563532**
Keyed alike lock - manual locking	**802-563610**
Lock blank	**802-563534**

DOCUMENT HOLDER

Description	Order code
Document holder A4 size	**802-553081**

Caster kit

Swing handles

Lifting eyes kit

9 19" Racks & Accessories

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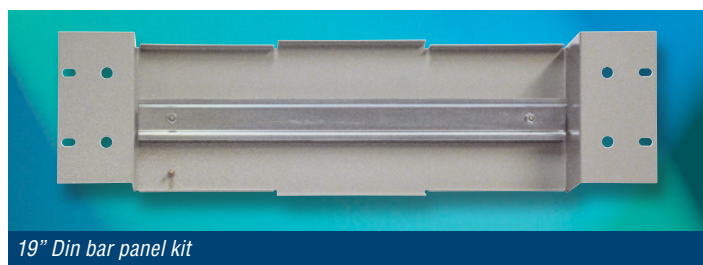
INTRODUCTION

Commsrak and Labrak360 are two products based around a common 19" open cabling frame, designed for applications where all round access is required. Both types are available in heights of 12, 37 and 42U with a static load rating of 150kg for all sizes. They are finished in RAL 7035 grey. The verticals feature standard 19" panel mountings with a regular repeating pattern of cable management cut-outs to allow front to rear cabling. The units are supplied in flat pack form with only one type of fixing used throughout.

COMMSRAK

Commsrak is a wall mounting version suited to the IT industry and particularly useful for cable patching. The frame is secured to the wall by four heavy duty brackets that provide a 400mm standoff between wall and 19" panel mount. (Refer to application note: 139-4003454 for mounting details)

LABRAK360

Labrak360 is a floor-standing variant aimed at the laboratory / test environment. The minimal design of a frame with a floor standing kit provides unrestricted all-round access to the 19-inch frame, making setup, configuration and testing of the installed equipment a very easy process. The floor standing kit fits within the industry standard 600x600mm footprint and is fitted with castors (braked and un-braked) to make locating it in the required position a simple task.

FEATURES

- Supplied in configured kit form
- 3 height options - 12U, 37U and 42U
- Open frame construction gives all round access
- Cable management provided in verticals
- Commsrak = wall mounting with 400mm brackets
- Labrak360 = floor standing with castors
- Simple assembly - tool included
- Static load rating 150kg
- Range of 19" Accessories

ORDERING INFORMATION

Description	Ordercode
12U Commsrak	52-4004615
37U Commsrak	52-4004616
42U Commsrak	52-4004617
12U Labrak360	52-4004618
37U Labrak360	52-4004619

ACCESSORIES

The following accessories are specifically designed for the Labrak360 and Commsrak, although any standard 19" accessory can ultimately be utilised.

Baying Kit – Comprising of a simple bracket and fixings used to bay two Commsraks / Labrak360s together. (Material: 1.2mm Steel, Finish: Painted RAL 7035 - Pale Grey)

Earth Kit – Comprises of 4 x leads to electrically bond the vertical and horizontal members of the Commsrak / Labrak360 together plus 1 x lead to connect to an Earth point. (Uses 4mm Tri-Rated green/yellow cable)

19" Cantilever Shelf – These shelves are 250mm deep, fix directly to the standard 19" panel mounts and occupy 2U of rack height. Nominal load

ORDERING INFORMATION

Description	Ordercode
Baying Kit	52-244931
Earth Kit	52-248075
19" Cantilever Shelf	52-4000553

Power Distribution

COMMSRAK   *LABRAK360*

LABRAK360 in use

See pages 9.31-9.33 for a full range of 19" accessories

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VEROTEC Electronics Packaging

APPLICATIONS

Slimline WallBox is a low profile 2.5U x 19" enclosure suited for telecom / datacom networking applications where equipment can be mounted vertically to overcome space restrictions. Options include various cable entry gland configurations and key locks.

Features

- Low profile for exposed postions
- Key lock
- Wall mounting slot in back panel
- Multi access gland facilities
- Internal protection plate for additional security
- Colour matched for coordinated installations
- Supplied with drilling template for wall mounting

Material specification

Top and base:	1.2mm Zintec coated steel
Colours :	Pale grey RAL 7035 base
	Dusty grey RAL 7037 door

Height 500mm, Width 335mm, Depth 115mm

SLIMELINE WALLBOX

Ordering information

Description	Order code
Cabinet	960-254426
Earth Kit	801-231543

SLIMELINE WALLBOX

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9 19" Racks & Accessories

ALUMINIUM PANELS

We offer a comprehensive range of panels in aluminium to suit both 19" and "half width" practices. In addition, vented panels are available to provide an inlet of air for racks and enclosures.

Material Specification

3mm Aluminium NS4
Finish
Anodised Panels – Etched and Anodised – linished on front face only. (Denoted by the smooth sheer edges)
Painted Panels – Pale grey textured paint to IMRAK colour RAL 7035

19" X 3MM ALUMINIUM PLAIN PANELS

Ordering Information

Unit Height	Width	Height	Anodised	Painted
1U	483mm	44.45mm	50-0767	644-552985
2U	483mm	88.90mm	50-0768	644-552986
3U	483mm	133.35mm	50-0769	644-552987
4U	483mm	177.80mm	50-0770	644-552988
5U	483mm	222.25mm	50-0771	644-552989
6U	483mm	266.70mm	50-0772	644-552990
7U	483mm	311..15mm	50-225827	-
8U	483mm	355.60mm	50-225828	-
9U	483mm	400.05mm	50-24284	-
10U	483mm	444.50mm	50-24285	-
12U	483mm	533.40mm	50-25286	-

HALF WIDTH X 3MM ALUMINIUM PLAIN PANELS

Ordering Information

Unit Height	Width	Height	Anodised
2U	268mm	88.90mm	50-0763
3U	268mm	133.35mm	50-0764
4U	268mm	177.80mm	50-0765

19" X 3MM ALUMINIUM VENTED PANELS

Ordering Information

Unit Height	Width	Height	Anodised	Painted
1U	483mm	44.45mm	50-24281	644-552981
2U	483mm	88.90mm	50-24282	644-552982
3U	483mm	133.35mm	50-24283	644-552983
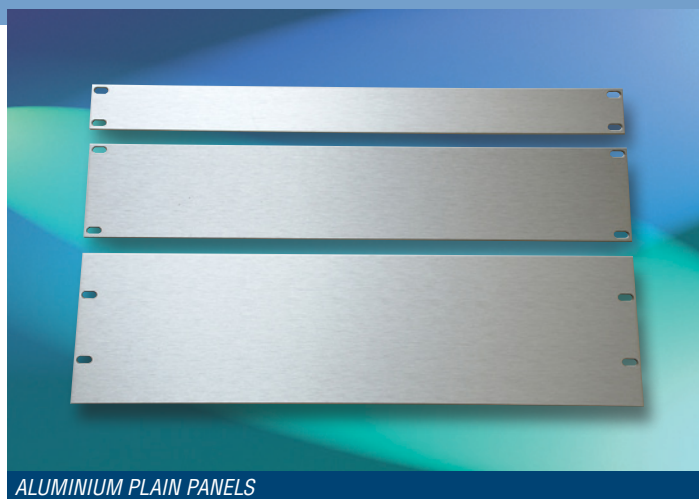
ALUMINIUM PLAIN PANELS
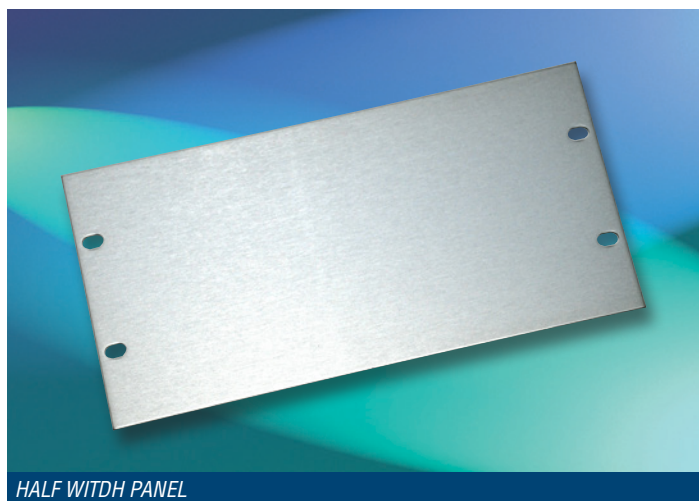
HALF WITDH PANEL

VENTED PANELS

9 19" Racks & Accessories

STEEL PANELS

Steel filler panels are available in plain or vented versions and supplied in packs. They are manufactured using 1.5mm steel, painted black and include flanges to offer additional strength and rigidity.

Material Specification
1.5mm Steel
Finish: Painted smooth black

19" X 1.5MM STEEL FLANGED PLAIN PANELS

Ordering Information

Unit Height	Pack Size	Width	Height	Ordercode
1U	5	483mm	44.45mm	645-599687
2U	5	483mm	88.90mm	645-599688
3U	5	483mm	133.35mm	645-599689
4U	5	483mm	177.80mm	645-599690
5U	5	483mm	222.25mm	645-599691
10U	2	483mm	444.50mm	645-599692

19" X 1.5MM STEEL FLANGED VENTED PANELS

Ordering Information

Unit Height	Pack Size	Width	Height	Ordercode
1U	5	483mm	44.45mm	645-4001013
2U	5	483mm	88.90mm	645-599693
3U	5	483mm	133.35mm	645-4001014
4U	5	483mm	177.8mm	645-599694

STEEL PANELS

BRUSHED CABLE ENTRY PANELS

These 1U x 19" cable entry panels provide a 400 x 25mm entry slot closed against ingress of dust by a nylon brush. They are available with a front-mounted cable support bar or a rear-mounted cable support tray.

Material Specification
Panel: 2mm steel
Support Bar: 8mm Diameter Steel, 448mm Centres
Finish: Powder coated RAL 7035 – Pale Grey

Ordering Information

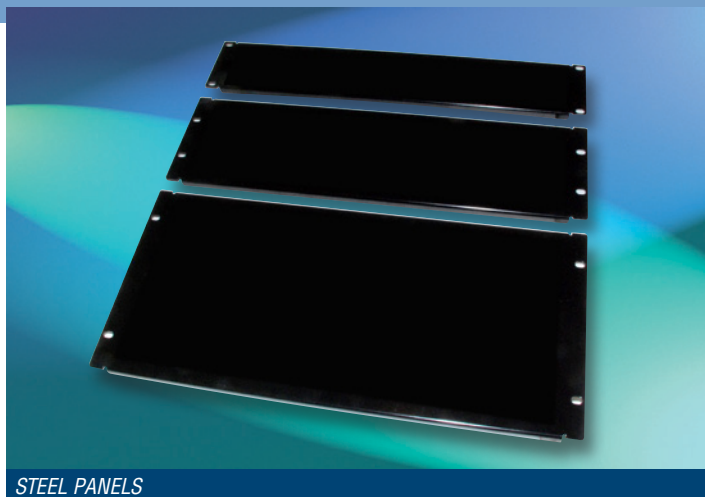| Description	Ordercode
1U x 19" Brushed Entry Panel – With Cable Support Bar	960-4000503
1U x 19" Brushed Entry Panel – with cable support tray	960-4000977

CABLE ENTRY PANELS

KEYBOARD DRAWER

This high quality 19" keyboard housing occupies 2U of usable height and comes complete with a lockable drop down front panel. Keyboards are secured either by screw fixing positions or velcro strips. The drawer is mounted on soft close, self closing slides with "positive stop" both in and out. The usable aperture is 45mm x 426mm.
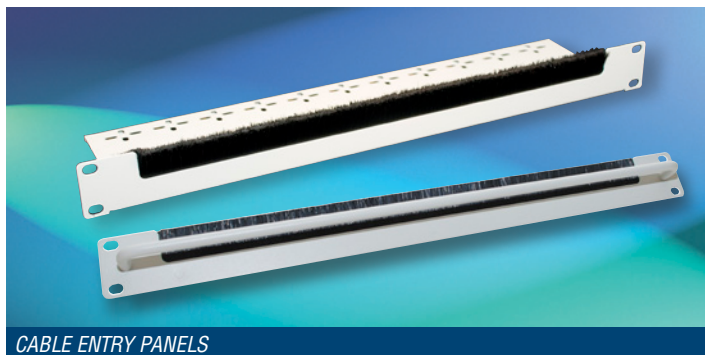
Material Specification
Horizontal tiebars & front panel: Aluminium
Sides and shelf: Galvinised steel
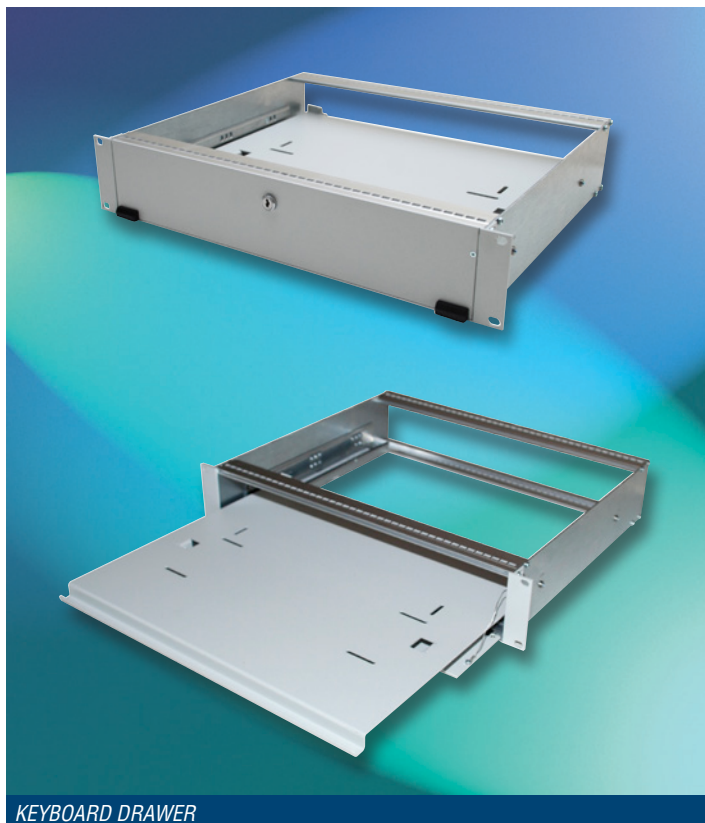Finish: Powder coated RAL 7035 – Pale Grey

Ordering Information

Description	Ordercode
2U Keyboard Drawer	120-4000290
Velcro Mounting Kit	120-4000946

KEYBOARD DRAWER

19" SHELVES

These shelves fix directly onto the standard 19" panel mounts and occupy 2U of rack space. They are available in 250mm or 400mm deep versions and have a nominal load rating of 20KG.
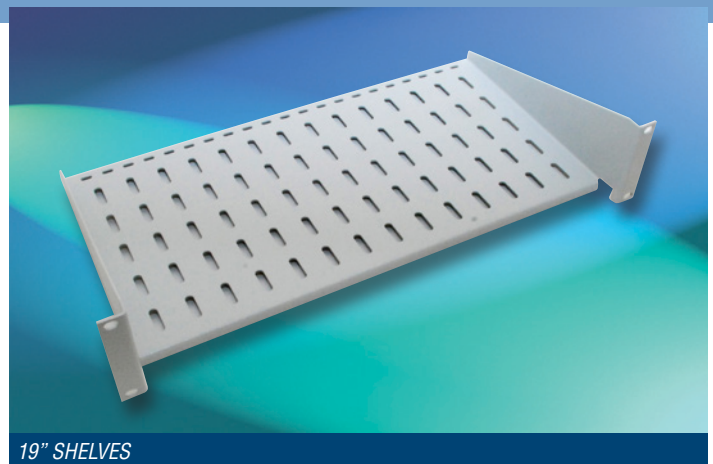
Material Specification

Shelf: 1.6mm Steel
Finish: Powder coated RAL 7035 – Pale Grey"

Ordering Information

Description	Ordercode
250mm Deep Shelf	802-562284
400mm Deep Shelf	802-562285

19" SHELVES

FEET AND CASTORS

Castors – Supplied as a kit of 4, these light/medium duty castors have a static load rating of 65KG each and are available in braked and unbraked versions. Thread size is M10. (Note: Compatible with Imrak, Verak and Commsrak)

Adjustable Feet – For uneven surfaces, a set of 4 x adjustable feet can be used allowing a floor standing racks to be correctly aligned. Thread size is M10. (Note: Compatible with Imrak, Verak and Commsrak)

Ordering Information

Description	Order code
Medium Castors (2braked 2 unbraked)	802-560002
Medium Castors (4 unbraked)	802-561557
Adjustable feet	802-560001

FEET AND CASTORS

CAGE NUTS, TOOLS AND FIXINGS

Panel Fixings - A number of fixings including caged nuts, screws and cup washers are available for fitting front panels and general 19" rack mounting hardware. These are available in various combinations and pack sizes as shown below.

Ordering Information

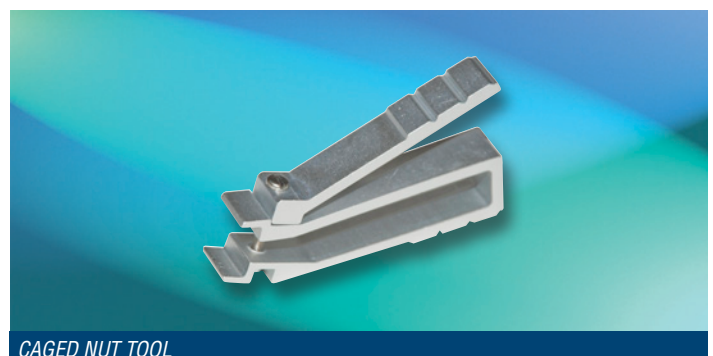| Description	Ordercode Pack 10	Ordercode Pack 100	Ordercode Pack 1000
M6 x 18 Slotted Head Screw, Bright Zinc	645-555393	645-555387	645-555394
M6 x 18 Cross Head Screw, Bright Zinc	645-555395	645-555396	645-555397
M6 Plastic Cup Washer	645-555390	645-555388	645-555389
M6 12/14 swg Caged Nut (1.83mm - 2.64mm)	50-3966	645-10023	50-202533
M6 18/20 swg Caged Nut (0.7mm – 1.6mm)	50-2847	645-555398	645-555399
M6 Self Earthing Caged Nut	645-558717	645-558718	645-558719
M6 x 18 Slotted Head Screw & Cup Washer Kit	50-3965	50-202534	50-202535
M6 x 18 Cross Head Screw & Cup Washer Kit	645-555391	645-594230	645-555392
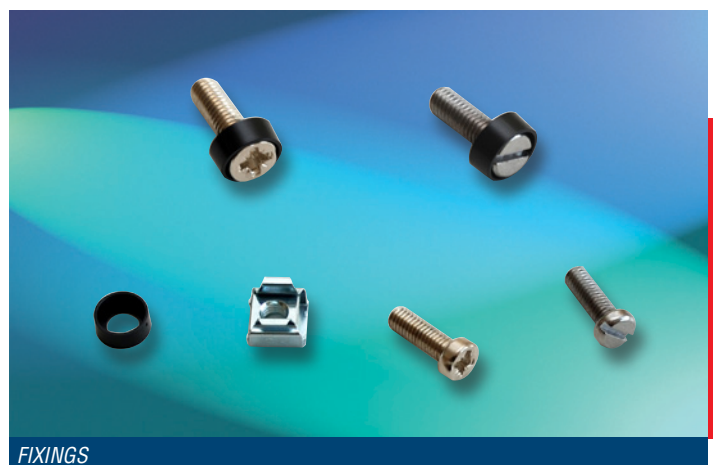
FIXINGS

CAGED NUT TOOL

This caged nut tool provides both insertion and extraction functionality and is quick and easy to use.

Ordering Information

Description	Order code
Caged Nut Tool	50-2339

CAGED NUT TOOL

9 19" Racks & Accessories

VEROTEC Electronics Packaging

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FR ☎ +33 (0)3-444-514-60 sales@verotec.fr

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