

### Atkore Unistrut Catalogue

**Electrical & Mechanical Support Systems** 

# Electrical



### **ATKORE UNISTRUT**

#### The Original Metal Framing System

Unistrut is the original metal framing system, featuring a unique weldless connection. The Unistrut system eliminates welding and drilling, and is easily adjustable and reusable for infinite configurations. Since 1924, our brand has evolved from a simple connection concept to a comprehensive engineered building and support system featuring a robust line of channels, fittings, fasteners, hangers, pipe clamps cable trays and cable ladders. Backed by our worldwide network of engineering and distribution centres, we provide customers with total-resource capability, making Unistrut the brand everyone asks for by name.

## **Atkore**

Allied Tube & Conduit A FC Cable Systems A Heritage Plastics Unistrut Unistrut Construction United Poly Systems Calbrite Calbond Cii US Tray Power-Strut Calconduit Razor Ribbon Calpipe Security Vergokan Marco Columbia-MBF Eastern Wire + Conduit ACS/Uni-Fab Sasco Strut Kaf-Tech Cope FRE Composites Queen City Plastics Four Star Industries Flexicon





### Introduction



### The Atkore Unistrut World of Support starts with our network of Unistrut Service Centers across the nation.

Atkore Unistrut World of Support starts with our network of Unistrut Service Centres throughout New Zealand. They go far beyond providing local product inventories, by offering complete application solutions, based on experience gained from thousands of projects worldwide. It's the kind of knowledgeable assistance that can help save time and cost now, and simplify change in the future.

Technical help? No one knows the engineering side of Unistrut support systems like your local Atkore Unistrut team. If it's special fabrication, cutting or custom finishing you want, the pros at your local Unistrut Service Centre will make it happen - quickly, efficiently, economically. So when it's help you need, call your Unistrut Service Centre –the quickest way to unlock Atkore Unistrut's World of Support.







### Introduction



#### **Atkore Unistrut New Zealand**

Atkore Unistrut has been the leading supplier of metal framing systems for over 45 years.

We specialise in Metal Framing, Cable Management and our products and services are synonymous with engineering excellence and reliability worldwide.

#### **Over Ninety Years Of Innovation**

Unistrut began developing and manufacturing products during the 1920s, producing the original Unistrut® Metal Framing System. Our extensive product portfolio now includes a variety of cable management solutions and advanced metal framing systems.

#### Sharing our Experience, Knowledge and Expertise

We continue to make investments in our people, products and services. Our ability to share our experience and knowledge with our customers is the key to our success in a wide range of industry sectors.

#### **Proven Delivery Processes**

Atkore Unistrut has proven procedures that guarantee the delivery of orders.

#### Part of the Atkore® Family

Atkore is a major manufacturer and innovator with a unique focus on steel frame, pipe and electrical products. As part of the Atkore family, we can draw on a variety of technologies, products and experience from Atkore companies throughout the world.







**INTRODUCTION** 

### Introduction

#### Wide Range of Applications for Construction and Industry

Atkore Unistrut can supply a wide variety of standard structural fittings in zinc plated heavy duty galvanised, aluminium and 316 stainless steel. Atkore Unistrut engineers can also design specialised fittings for individual project needs.

With resources across the Asia Pacific region, including manufacturing sites in New Zealand and Asia totaling over 400,000m<sup>2</sup> in floor space accredited to ISO9001.

Atkore Unistrut facilities have automated welding, over 30 metal pressing machines, from 16 to over 300 tonnes, and roll forming machinery. Services from both our Atkore Unistrut fully owned operations and our JV partner facilities can fully label, pack and ship to your individual specifications. Marshalling and packaging is done in-house and from our manufacturing facility fully undercover.

#### Projects in the Region Successfully Supplied Include

- Waterview Tunnel Project
- M2pp Bridge Services
- Mount Victoria Tunnel Services (Fire And Seismically Rated)
- Christchurch Hospital
- Kaimai Rail Tunnel Service Supports
- Pacific Island Standby Power Systems
- Darfield Dryers Service Support Systems
- City rail link
- Auckland Library Granite Cladding Support System

#### **Atkore Overview**

- Revenue of \$1.8B
- 3,100+ employees
- 27 manufacturing and service locations in New Zealand, Asia Pacific, EMEA and North America
- Strong brands that are well known by customers and respected in the industry
- Purchase & process close to one million tonne of steel per year approximately 50,000 truckloads
- Produce enough electrical cable each year to circle the earth 7 times
- Electrical Raceway and Mechanical Products solutions







### NEMA Cable Ladder General Information

Unistrut® also manufactures and markets the largest range of cable ladder systems for the Australasian Electrical Industry. This extensive range of cable ladder support systems includes a comprehensive range of steel and aluminium cable ladders load rated to NEMA Standard VE1. Steel cable ladders can be manufactured to side-rail in or side-rail out configuration depending on the project requirements.

In cases where extremely high corrosion resistance is required, stainless steel cable ladder systems are available by special order. All Unistrut® Cable Ladder systems are complemented with a complete range of accessories: Horizontal Bends, Internal and External Risers, Tees, Crosses, Reducers, Hinged Horizontal and Vertical Splices, Adjustable Risers, Covers, Divider Strip, Adjustable Cantilever Support Brackets and Cable Clamps.

#### NEMA AL8A CABLE LADDER

- Length: 6m
- Width: 150, 300, 450, 600, 750, 900mm
- Cable Laying Depth: 30 mm

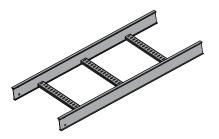


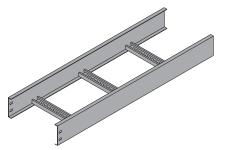
#### NEMA AL12 CABLE LADDER

- Length: 6m
- Width: 150, 300, 450, 600, 750, 900mm
- Cable Laying Depth: 70mm



- Length: 6m
- Width: 150, 300, 450, 600, 750, 900mm
- Cable Laying Depth: 88mm









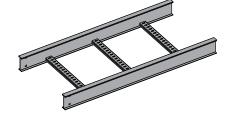
### Atkore Unistrut

NEMA CABLE LADDER

### NEMA Cable Ladder General Information

#### NEMA AL16 CABLE LADDER

- Length: 6m
- Width: 150, 300, 450, 600, 750, 900mm
- Cable Laying Depth: 80mm

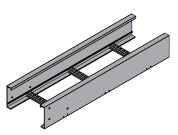


#### NEMA AL20 CABLE LADDER

- Length: 6m
- Width: 150, 300, 450, 600, 750, 900mm
- Cable Laying Depth: 100mm

#### NEMA AL20C CABLE LADDER

- Length: 6m
- Width: 150, 300, 450, 600, 750, 900mm
- Cable Laying Depth: 125mm



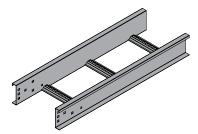
#### NEMA 16A CABLE LADDER - STEEL

- Length 6m
- Width: 150, 300, 450, 600, 750, 900mm
- Cable Laying Depth: 72mm



#### NEMA 20B CABLE LADDER - STEEL

- Length: 6m
- Width: 150, 300, 450, 600, 750 & 900mm
- Cable Laying Depth: 109mm







### **General Information**

#### NEMA CABLE LADDER

The following notes are presented in order to assist users to achieve maximum economy and convenience with the installation of cable support systems. As each application will have its own particular conditions and requirements, it is recommended that the services of Unistrut® sales personnel and engineering team be engaged, especially in the early stages of any major project, so that the best overall result can be achieved.

#### **Standard Sizes**

Standard ladder widths are 150mm, 300mm, 450mm, 600mm, 750mm and 900mm being the inside dimension between side-rails and is the maximum width available for carrying cables. Straight lengths are 6m long. Standard rung spacing on all systems is 300mm nominal.

Each of the UniStrut Systems includes a full range of standard accessories, with a nominal radius of 300mm. Non-standard ladder widths and accessory radii can be manufactured by special order. Non-standard products are non-returnable and non-refundable.

#### Load Capacity

- a. Cable Load Because the cable density remains fairly constant in a total installation, the widest ladders carry the most load, and each smaller width carries proportionately less load. However, the load carrying capacity of any class of ladder is independent of the width.
- b. For details on how safe working loads are determined, refer to the NEMA VE 1 Standard and to the published load graphs for allowable loads of each ladder type.
- c. Fixed Ladder Spans It is commonly found that the building structure supporting the cable ladders will dictate the span, but it is still possible to exercise some choice. Where the cabling is heaviest, and this is not usually extensive, it is possible to use two 300mm wide ladders side by side instead of one 600mm wide, in order to select a lighter category of ladder for the total project. It is often inconvenient to use more than one ladder category in the same installation.
- d. Varying the Spans Where the structure does not dictate the ladder span, the heaviest cable runs could be supported more frequently, again enabling a lighter category of ladder to be chosen.

#### **Cable Laying Depth**

Each of the Unistrut Cable Ladder has a different cable laying depth. It is a general rule that the shallower the ladder, the lower the cost per metre and the more frequently it needs support. It is sometimes found that the lightest, most economical ladders are excluded from consideration solely because a particular minimum cable laying depth is required and has been specified accordingly.

#### Deflection

Cable ladders are essentially structural members designed to strength requirements only and are required to support pliable load elements. Therefore, the control of deflection is not necessary for durability or stability reasons and can probably only be justified on purely aesthetic grounds. If normally accepted deflection limits such as 1/300<sup>th</sup> of span are imposed, the resultant cable ladder will be grossly overdesigned and correspondingly expensive.

There may still be locations where the designer wishes to limit visual deflection. For example, prestige areas which may be open to public view or where the ladder is installed at eye level and deflection is accentuated. If these conditions exist, it is recommended that closer support spacings be used only in those important locations (to control visual deflection) and normal support spacings elsewhere (for economy). A maximum of **Mao**<sup>th</sup> of span, when deflection is determined from the graphs published in this catalogue, should prove a satisfactory limit for visual deflection.

Otherwise, wherever overall economy is the principal consideration, no limits should be placed on deflection. This does not mean that deflection will be excessive but simply that a typically acceptable installation will result and optimum economy will be attained.





### Nema Cable Ladder 67

NEMA CABLE LADDER

### **General Information**

#### **Material Selection**

Often the most difficult decision to be made is the selection of material, because it involves the most costsensitive of compromises. Material choice is directly related to service life and the longer the required life, the more expensive will be the materials. The cost of these materials also must be considered as an equation of initial investment versus maintenance costs and eventual replacement.

Because service conditions for cable ladders can vary over an enormously wide range, even within a single installation, it is impossible to write down any hard and fast rules on the subject of corrosion and expected lifespan. The following may be considered a guide as to what can be expected from the various materials and finishes currently available for cable support systems.

**Aluminium** – Aluminium is also a popular choice of material for cable ladders. Most frequently it is selected because of its excellent performance

- For any given load class or capacity, aluminium cable ladders are more expensive than their galvanised steel counterparts. Aluminium ladders can also be expected to have a greater deflection than an equivalent steel system. On the other hand, they are lighter, more readily handled and are easy to work with, resulting in faster installation and therefore lower installation cost.
- Aluminium cable ladders can be expected to have a lifespan well in excess of twenty years in most industrial or marine applications. The exception would be in the case of a local concentration of chemicals which are detrimental to aluminium.
- Alkaline compounds or fumes is a common example but if any doubt exists, the advice of aluminium suppliers should be sought.

**Galvanised Steel** – Hot-dipped galvanised steel (after fabrication) is a common selection, as it is economical to purchase and suitable for most conditions of outdoor exposure. For indoor applications, or anywhere that is essentially free from moisture, galvanised ladders can be considered to have an indefinite life. That is, they should last as long as the plant, building, cabling or equipment which they service.

- On a typical industrial or processing plant installation, exposed to weather, moisture and airborne industrial pollution, a basic life of approximately ten years can be expected. This is not to say that the ladder will be completely corroded in that time, but it is the probable life of the corrosion protection finish. Beyond that time, rapid decay can be expected and maintenance costs will increase substantially in order to keep the ladders serviceable.
- The ten year life quoted here should be adjusted up or down depending on the circumstances. For example, if installed near the coast, the effect of salt laden air may shorten the expected life. Also galvanising is sensitive to some







### **General Information**

#### **Powder Coating or Paint Systems:**

- 1. Coating on bare steel.
- Painting over bare steel is not generally recommended for cable ladders. This comment applies to virtually all types of 'organic' or nonmetallic coatings such as powder coatings, polyesters, PVC or nylon. Although these coatings are resistant to a wide variety of chemicals, their effectiveness on cable ladders can be limited. The non-sacrificial nature of paint films means that anywhere the coating is broken, corrosion is permitted to obtain a foot-hold. It is then able to spread rapidly underneath the paint, lifting it off and allowing corrosion to progress even further.
- If it is decided to use a paint or powder coating on bare steel, then before commissioning, a compatible repair paint should be used to make good any places on the ladder installation that may have been damaged during erection.
- 2. Coating over galvanised Steel or Aluminium
- Application of paint systems over either of the above materials is obviously a more expensive approach, but in some circumstances it is the only answer. If ladders are installed in close proximity to acid tanks, process vats, steam pipes or similar situations, there may be no metallic finish capable of giving satisfactory service life. This can be overcome by the application of a suitable paint or powder coating over galvanised or aluminium base materials. Naturally, in order to contain costs, the additional finish need only be applied to those sections of the work which are effectively exposed to the corrosive fumes.

#### Stainless Steel

• Stainless Steel is sometimes considered as a material for cable ladders, usually where extremely high corrosion resistance, coupled with difficulty of servicing after installation and a high degree of reliability are essential requirements. An off-shore oil drilling platform may be one example where these conditions exist.







NEMA CABLE LADDER

### **General Information**

#### The NEMA Standards

NEMA STANDARD VE 1 is published by the National Electrical Manufacturers Association in the U.S.A. The Standard provides for the technical requirements of construction, performance and testing of cable ladder tray systems. It is regularly revised by the Association in order to keep pace with technology and the ever-changing requirements of the manufacturers, contractors, consultants and other users throughout the electrical industry.

There is presently no Australasian Standard governing cable support systems. Despite the existence of other versions from places such as Canada and Europe, the NEMA VE 1 is by far the most widely accepted and the best known Standard for cable supports in Australia and New Zealand.

In recognition of this situation, and in order to produce cable ladders of known quality and load capacity, Unistrut® has adopted a policy of constructing and rating its cable support products in accordance with the VE 1 Standard wherever possible. This policy is reflected in the name and various class designation numbers now used by Unistrut® which are drawn directly from the Standard. For example NEMA Class 12B, 16A or 20B. Please note that in most cases Unistrut® ladders exceed the minimum strength requirements of each ladder class and therefore the published load graphs should be consulted in order to find the actual safe load capacity for each ladder type.

The more important aspects of the NEMA Standard VE 1 which are relevant to Unistrut products are described as follows:

#### 1. Load Capacity and Safety Factor

Safe working loads are required to be determined as a result of testing a series of sample ladders. Tests must be conducted as simple spans (i.e. the worst case for loading) and over various span lengths with a safety factor of 1.5 against the collapse load of the ladder. In this way, loads are based on average performance of a number of samples and not just a single test or some calculations.

The Standard does not permit working loads to be determined by calculation because it has proven to be too unreliable. Cable ladders are specialist products which are unconventional in the structural sense. That is, they have an unusual combination of slenderness, local buckling of thin material and overall lateral restraint elements which are not satisfactorily interpreted by normal design methods.





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#### 2. Deflection

The NEMA Standard VE 1 does not specify any limitation on the deflection of cable support members. To do so, would inevitably result in an over-designed (and hence uneconomical) system. For further information on deflection please refer to notes under Guidelines for Ladder Selection.

#### 3. Electrical Continuity

The electrical resistance of connections is limited to a maximum of 330 micro-ohms. Representative samples of Unistrut® splice joints (both steel and aluminium) as well as the run to side-rail joint in aluminium ladders have been tested by an Independent Electrical Laboratory, and in all cases were found to comply with the NEMA Standard VE 1 specification.





### **General Information**



Explanation of NEMA VE 1 load/span class designations

The NEMA VE 1 rating method is based on the Imperial system of measurement, as follows:

- 1. The numerals indicate the ladder span in feet
- 8 = 8ft (2.4m)
- 12 = 12ft (3.6m)
- 16 = 16ft (4.8m)
- 20 = 20ft (6.0m)

- 2. The letter indicates the working load category
- A = 50lbs/lin.ft (75kg/m)
- B = 75lbs/lin.ft (112kg/m)
- C = 100lbs/lin.ft (149kg/m)

Example: A 20B class ladder requires a minimum safe working load of 75lb/ft. over a 20ft.span. (ie.112kg/m over a 6.0m span)

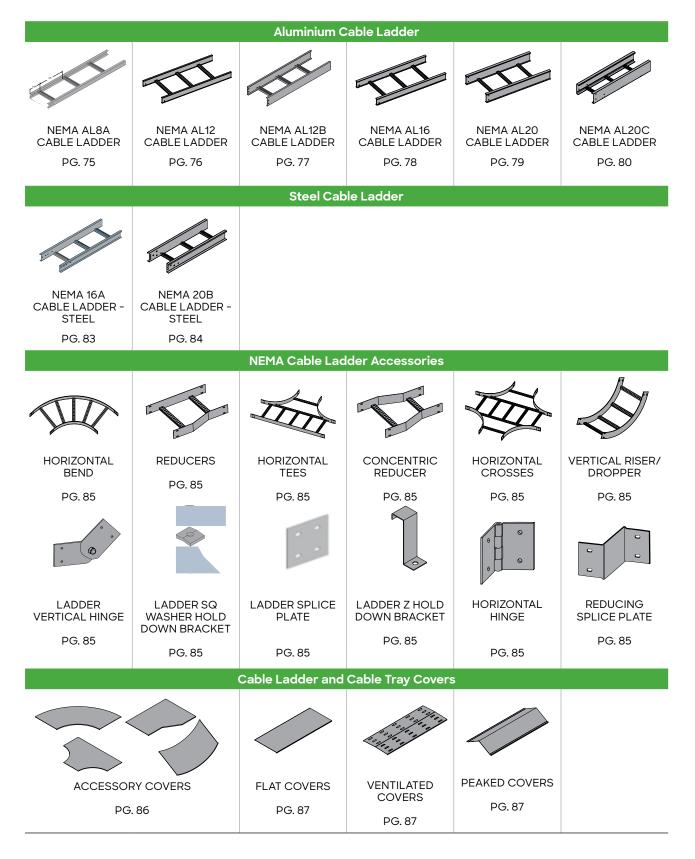








### **Pictorial Index**







### NEMA Cable Ladder - Aluminum

#### Aluminium Cable Ladder (ACL)

Wherever severe corrosion conditions are present, or a long maintenance free life is required, Unistrut aluminium cable ladder systems are the obvious choice.

Unistrut manufactures a complete range of Aluminium cable ladder systems that conform to NEMA VE1. These systems provide a wide range of load and span combinations to suit the requirements of almost any installation.

Most frequently, aluminium cable ladders are selected because of their excellent performance in marine environments where salt spray or salt laden atmosphere is present. Applications such as wharves, coal loader conveyors or similar port facilities as well as coal mines, smelters, chemical processing plants and refineries are all typical users of aluminium cable ladders.

#### **Splice Plates**

The unique Unistrut aluminium system splice plate is close fitting so that it is retained neatly and firmly on the cable ladder side rail. The splice design also permits up to 10mm of expansion and contraction movement at each joint – an important consideration with aluminium cable ladders – eliminates the need to place special expansion splices at predetermined intervals. The installation procedure for the splice connection is fast and simple.

Notes: To attain maximum working load of the system, the following recommendations should be adopted:

- Do not splice single spans of ladder.
- Avoid splice joints in the vicinity of the end supports on continuous runs.
- Avoid splice joints directly over intermediate supports on continuous runs.
- Locate splice joints at the quarter span point between supports on continuous runs.
- If in doubt, please consult your Unistrut Service Centre.

#### Accessories

All aluminium cable ladder systems are complemented by a full range of standardised fabricated accessories and fittings which are readily available.

#### **Built-in Splice**

The principal feature of all Unistrut cable ladder accessories is the 'built-in' plate. An extension of the accessory side-rail permits direct connection to the straight ladder, eliminating the need for a separate splice component.

The advantages of this method are:

- Minimised fixing hardware and components.
- When joining to a cut ladder, the accessory end acts as a convenient drill template for bolt holes.
- Simplified pre-planning, quantity take-offs and ordering.
- No left-over components.
- Strong and rigid joint.
- Faster installation.

Accessories are attached with the same fasteners as used for straight splice plates.

Elongated slots allow easier fit-up and permit adjustments in alignment to be absorbed.





### **NEMA Cable Ladder - Aluminum**

#### Aluminium Cable Ladder (ACL)

#### Hold-Down Brackets

The general purpose hold-down bracket can be positioned at any point along ladder length, even in the situation where a rung and support member coincide. The bracket provides a large bearing area for the side-rail and permits free expansion movement to occur.

For side mounted ladders, or where rigid fixing of ladder is required, the rigid clamping bracket can be used.

#### Construction

Unistrut aluminium cable ladder systems are manufactured from high strength alloy 6063-T6 for all extruded components to AS / NZS1866 and 5005 for sheet or plate components to AS / NZS1734. These alloys are suitable for marine applications and offer excellent all round corrosion resistance. For marine and corrosive environments, all fasteners are made from 300 series grade of stainless steel for optimum corrosion resistance. Other applications utilise either HDG galvanised, or Zinc plate fastenings.

The rungs are fillet welded to the side rails, which further improves the overall stability as well as strength of finished product.





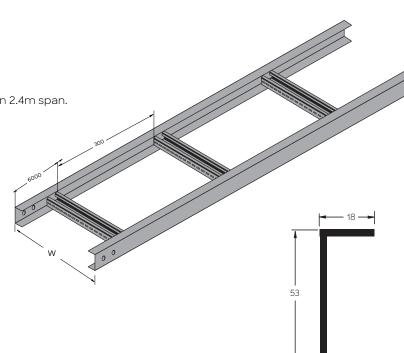


#### NEMA AL8A Cable Ladder

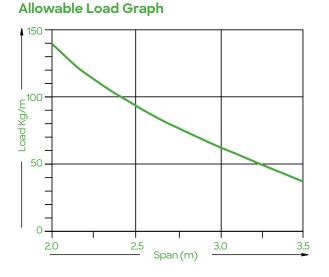
#### **Technical Data**

- Cable Depth: 30mm
- Loading Data:
- Basic Load Capacity = 96kgs/lin.m on 2.4m span.
- Length: 6m
- Rung Spacing: 300mm nominal

Parts List				
Dim "W"	Туре	Part No.		
150	8	AL8A 150		
300	8	AL8A 300		
450	8	AL8A 450		
600	8	AL8A 600		
750	8	AL8A 750		
900	8	AL8A 900		

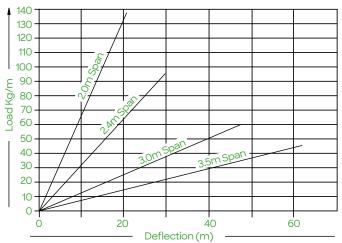


#### Alleringhile Least Crearly



Allowable loads are determined generally in accordance with NEMA standard VE 1 and verified by testing. Safety factor = 1.5 on collapse load for single span.

#### **Deflection Graph**







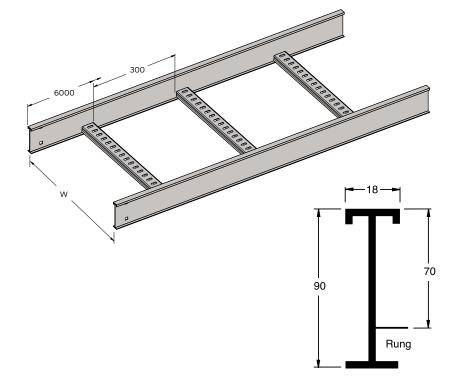
#### NEMA AL12 Cable Ladder

#### **Technical Data**

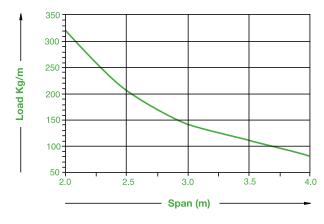
- Cable Depth: 70mm
- Loading Data:
- Basic Load Capacity = 140kgs/lin.m on 3 m span.
- Length: 6m
- Rung Spacing: 300mm nominal

#### **Parts List**

Dim "W"	Туре	Part No.
150	12	AL12 150
300	12	AL12 300
450	12	AL12 450
600	12	AL12 600
750	12	AL12 750
900	12	AL12 900

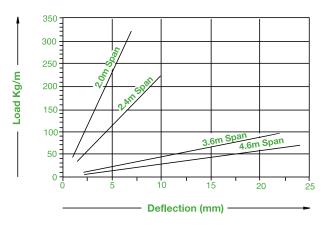


#### **Allowable Load Graph**



Allowable loads are determined generally in accordance with NEMA standard VE 1 and verified by testing. Safety factor = 1.5 on collapse load for single span.

#### **Deflection Graph**





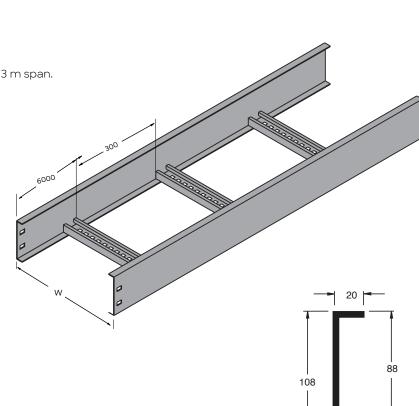


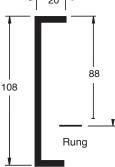
#### **NEMA AL12B Cable Ladder**

#### **Technical Data**

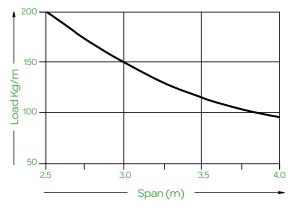
- Cable Depth: 88mm .
- Loading Data: . Basic Load Capacity = 150kgs/lin.m on 3 m span.
- Length: 6m
- Rung Spacing: 300mm nominal

<b>Parts List</b>		
Dim "W"	Туре	Part No.
150	12B	AL12B 150
300	12B	AL12B 300
450	12B	AL12B 450
600	12B	AL12B 600
750	12B	AL12B 750
900	12B	AL12B 900



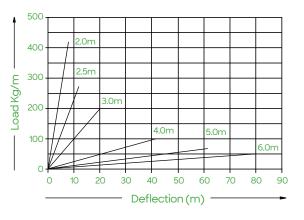


#### **Allowable Load Graph**



Allowable loads are determined generally in accordance with NEMA standard VE1 and verified by testing. Safety factor = 1.5 on collapse load for single span.

#### **Deflection Graph**



Deflections shown apply to the end-bays (ie. worst case) of a continuous ladder run. To find deflection of a single span, multiply by 2.5.

NEMA CABLE LADDER

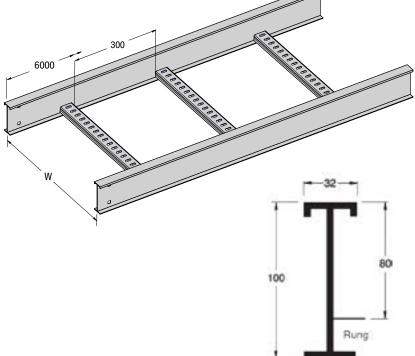




#### NEMA AL16 Cable Ladder

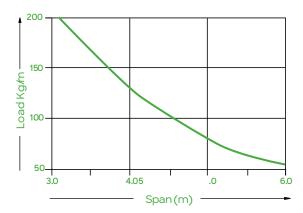
#### **Technical Data**

- Cable Depth: 80mm
- Loading Data:
- Basic Load Capacity = 225kgs/lin.m on 3 m span.
- Length: 6m
- Rung Spacing: 300mm nominal



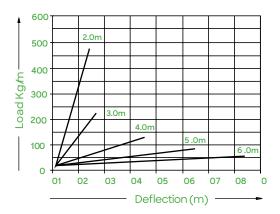
Parts List			
Dim "W"	Туре	Part No.	
150	16	AL16 150	
300	16	AL16 300	
450	16	AL16 450	
600	16	AL16 600	
750	16	AL16 750	
900	16	AL16 900	

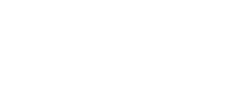
#### **Allowable Load Graph**



Allowable loads are determined generally in accordance with NEMA standard VE 1 and verified by testing. Safety factor = 1.5 on collapse load for single span.

#### **Deflection Graph**







# NEMA CABLE LADDER

Atkore

**Unistrut**°

#### NEMA AL20 Cable Ladder

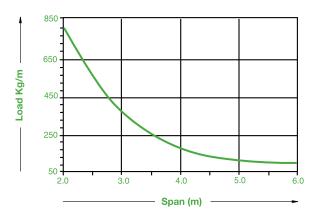
#### Technical Data

- Cable Depth: 100mm
- Loading Data:
- Basic Load Capacity = 370kgs/lin.m on 3 m span.
- Length: 6m
- Rung Spacing: 300 mm nominal
- Standard Finish: Aluminum, Mill Finish

n span.			7	
6000 		120		

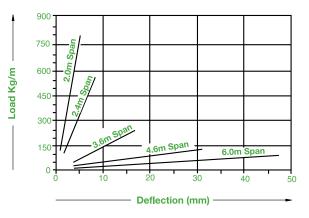
Parts List				
Dim "W"	Туре	Part No.		
150	20	AL20 150		
300	20	AL20 300		
450	20	AL20 450		
600	20	AL20 600		
750	20	AL20 750		
900	20	AL20 900		

#### Allowable Load Graph



Allowable loads are determined generally in accordance with NEMA standard VE 1 and verified by testing. Safety factor = 1.5 on collapse load for single span.

#### **Deflection Graph**







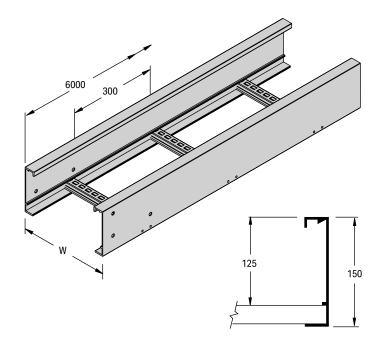
#### NEMA AL20C Cable Ladder

#### Non standard stock. Made to order.

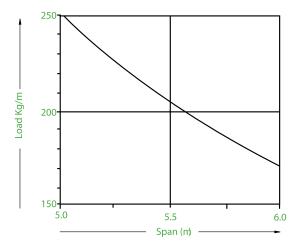
#### **Technical Data**

- Cable Depth: 125mm
- Loading Data: Basic Load Capacity = 175kgs/lin m on 6m span.
- Length: 6m
- Rung Spacing: 300mm nominal
- Standard Finish: Aluminum, Mill Finish

Parts List				
Dim "W"	Туре	Part No.		
150	20C	AL20C 150		
300	20C	AL20C 300		
450	20C	AL20C 450		
600	20C	AL20C 600		
750	20C	AL20C 750		
900	20C	AL20C 900		

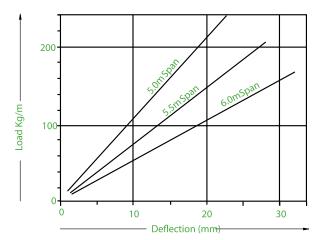


#### Allowable Load Graph



Allowable loads are determined generally in accordance with NEMA standard VE 1 and verified by testing. Safety factor = 1.5 on collapse load for single span.

#### **Deflection Graph**





Atkore

Unistrut®

### **NEMA Cable Ladder - Steel**

#### Steel Cable Ladder (SCL)

Galvanised steel cable ladders are a recognised format for cable support systems as they afford a good combination of cost, strength and service life. Unistrut® manufactures a complete range of NEMA Steel Cable Ladder systems. These systems provide a wide range of load and span combinations to suit the requirement of almost any installations.

Side-Rail Alternative - All Steel ladder systems are available with the side-rails turned outward (as standard), or inward to meet varying client specifications.

All ladder systems are load rated to NEMA Standard VE 1.

Stainless Steel - In cases where extremely high corrosion resistance is required, stainless steel cable ladder may be the only solution. All steel cable ladder systems are available in stainless steel on special order only. For load and deflection calculations, contact your local Unistrut® Service Centre.

#### **Splice Plates**

**16A and 20B Systems** - Unistrut steel splice plates are of a robust and practical design. The neat fitting flanges and bolted configuration of Unistrut® splices also reduce deflection at joints as the ladder is loaded. Unsightly dips or discontinuities along the ladder run are therefore avoided. Bolt holes in splice plates and ladder side-rails are elongated so that site misalignments as well as thermal expansion and contraction are catered for.

#### Notes

Electrical resistance across splice joints is less than the 330 micro-ohms limit specified by NEMA Standard VE 1. To attain maximum working load of the system, the following recommendations should be adopted.

- Do not splice single spans of ladder.
- Avoid splice joints in the vicinity of the end supports on continuous runs.
- Avoid splice joints directly over intermediate supports on continuous runs.
- Locate splice joints at the quarter span point between supports on continuous runs.







### NEMA Cable Ladder - Steel

#### Accessories

All Unistrut® steel cable ladder systems are complemented by a full range of standardised fabricated accessories and fittings which are readily available. All are of a welded construction.

**Built-in Splice** The principal feature of all Unistrut cable ladder accessories is the 'built-in' splice plate. A shaped extension of the accessory side-rail permits direct connection to the straight ladder eliminating the need for a separate splice component.

#### The advantages of this method are:

- Minimised fixing hardware and components.
- When joining to a cut ladder, the accessory end acts as a convenient drill template for bolt holes.
- Simplifies pre-planning, quantity take-offs and ordering.
- No left-over components.
- Strong and rigid joint.
- Faster installation.

Accessories are attached with the same fasteners as used for straight splice plates. Threaded fasteners are hot-dipped galvanised. Elongated slots allow easier fit-up and permit adjustments in alignment to be absorbed.

#### Construction

Unistrut steel cable ladders are manufactured from steel to AS/NZS1594 "Hot-Rolled Steel Flat Products," which are cold roll formed to the desired shape. The roll forming process improves the mechanical properties of the metal whilst the special lipped strut section is designed to give the best possible combination of strength-to-weight, lateral rigidity and low deflection. The rungs are fillet welded to the side-rails which further improves the overall stability as well as strength of the finished product. The rung joint is so designed that galvanising can be effected to all areas.

Ladders, accessories and other galvanised components are heavy duty galvanised to AS/NZS 4680 / BS EN ISO 1461 after fabrication.







#### NEMA 16A Cable Ladder - Steel

#### **Technical Data**

Cable Laying Depth: 72mm

#### Loading Data:

Basic Load Capacity 64kg/lin.m on 6m span 90kg/lin.m on 4.8m span 230kg/lin.m on 3m span

Length: 6m

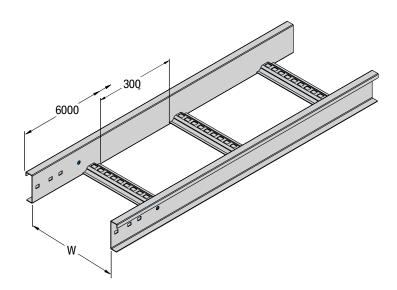
Rung Spacing: 300mm nominal

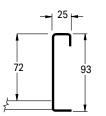
**Standard Finish:** Heavy Duty Galvanised Also available in Stainless Steel Grade 316

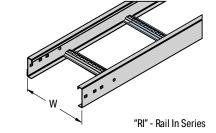
#### **Parts List**

Dim "W"	Туре	Part No.
150	16	16A150
300	16	16A300
450	16	16A450
600	16	16A600
750	16	16A750
900	16	16A900

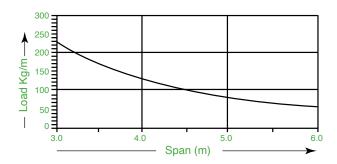
Please specify RI or RO when ordering \* Splice plate & fixing screws are not included (order separately).





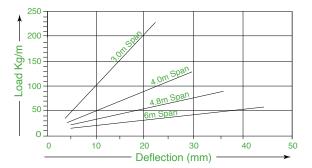


#### **Allowable Load Graph**



Allowable loads are determined generally in accordance with NEMA Standard VE1 and verified by testing. Safety Factor = 1.5 on collapse load for single span.

#### **Deflection Graph**







#### NEMA 20B Cable Ladder - Steel

#### **Technical Data**

Cable Laying Depth: 109mm

#### Loading Data:

Basic Load Capacity 136kg/lin.m on 6m span 544kg/lin.m on 4.8m span

Length: 6m

Rung Spacing: 300mm nominal

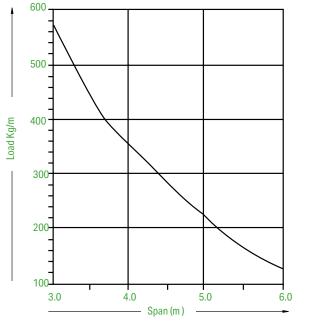
**Standard Finish:** Heavy Duty Galvanised Also available in Stainless Steel Grade 316

#### **Parts List**

Dim "W"	Туре	Part No.
150	20B	20B150
300	20B	20B300
450	20B	20B450
600	20B	20B600
750	20B	20B750
900	20B	20B900

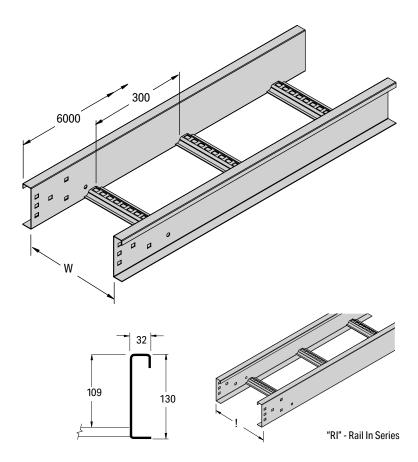
Please specify RI or RO when ordering \* Splice plate & fixing screws are not included (order separately).

#### Allowable Load Graph

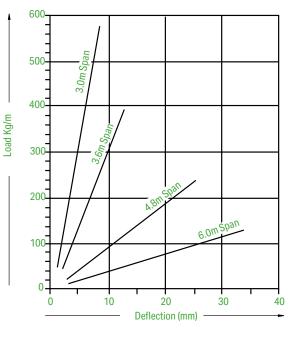


Allowable loads are determined generally in accordance with NEMA Standard VE1 and verified by testing. Safety Factor = 1.5 on collapse load for single span.

### **NEMA Cable Ladder**



#### **Deflection Graph**



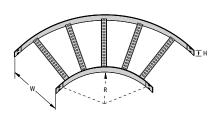


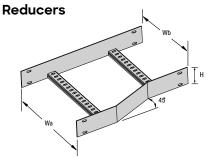


### **NEMA Cable Ladder Accessories**

Standard Radius - 300mm

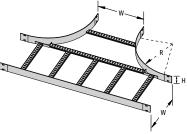
**Horizontal Bend** 



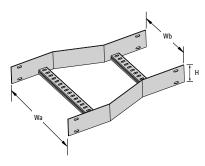


Note: Left or Right Hand (L/H shown)

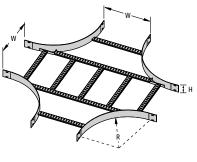
Horizontal Tees



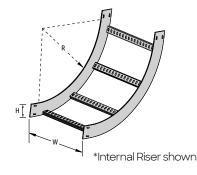
**Concentric Reducer** 



**Horizontal Crosses** 

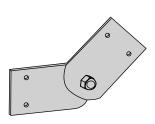


Vertical Riser/Dropper

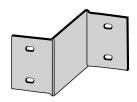


Ladder Vertical Hinge

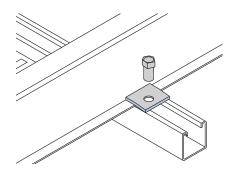
Note: Supplied in pairs



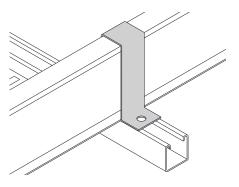
**Reducing Splice Plate** 



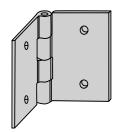
Ladder Sq Washer Hold Down Bracket



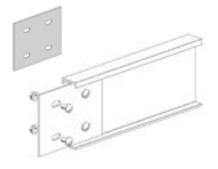
Ladder Z Hold Down Bracket



Ladder Horizontal Hinge Note: Supplied in pairs



Ladder Splice Plate





#### Cable Ladder And Cable Tray Covers

#### Ladder and Tray Covers

Covers are normally specified where protection is required:

- 1. To safeguard against damage to cable and insulation from falling objects-dropped tools, discarded cigarettes, sparks or solid materials.
- 2. Covers protect cable insulation and fixings (plastic ties etc.) from harmful effects of ultra-violet light and/or weathering deterioration.
- 3. In areas where high levels of airborne particles are present, covers prevent accumulation of dust or other debris on cables, which may cause heat build up, fire hazards or absorb moisture, which may shorten life of installation.

#### Availability

Covers are available for all Unistrut<sup>®</sup> cable ladder systems. All our Covers are Non Standard Stock and available to order. Standard length is 3 meters. Flat, peaked or ventilated covers are also available by special order.

#### MATERIAL

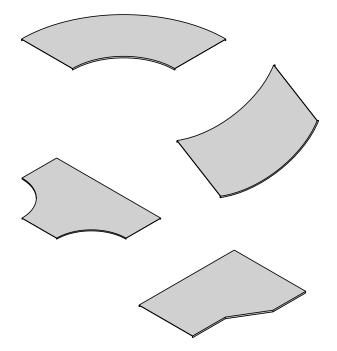
Aluminium Systems: Aluminium alloy 5005. Suitable for marine applications and compatible with the 6106-T6 alloy used in ladders.

Steel Systems: Galvabond, Heavy Duty Galvanised steel sheet to AS 1397.

#### **Accessory Covers**

- Flat covers are available to match shaped accessories of all Unistrut Cable Ladder Systems, in both steel and aluminium.
- Materials are the same as for straight covers.

Note: Accessory covers are identical for all steel and aluminium cable ladder systems. When ordering, please specify width and radius.





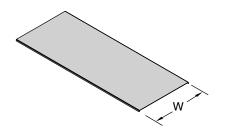


### **NEMA Cable Ladder Accessories**

#### Cable Ladders & Cable Tray Covers

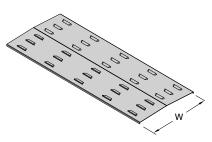
Non Standard Stock. Available to order.

#### **Flat Covers**



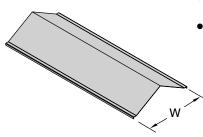
• Most commonly used where there is space restrictions and the use of standard and peaked covers is not practical.

#### **Ventilated Covers**



 Should be used wherever reasonable protection for cables is required and where there is also a primary requirement to allow the escape of heat generated by cable.

#### **Peaked Covers**



- Used in very dusty situations where the self cleaning effect of slopping sides prevents excessive dust accumulations.
- The large air-space above the cables also assists with the dissipation of heat.



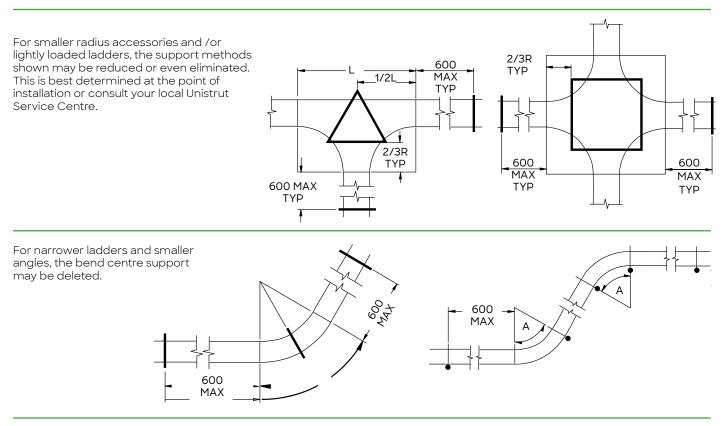


### NEMA Cable Ladder Accessories Supports

Accessories for all Unistrut® cable ladder systems are available in the following standard widths - 150, 300, 450, 600, 750 or 900mm. SCL (Steel Cable Ladder) and ACL (Aluminium Cable Ladder).

Steel Cab	le Ladder	Aluminium C	able Ladder
Ladder System	Standard Radius	Ladder System	Standard Radius
NEMA 16A, NEMA 20B	300mm	AL8, AL12, AL12B, AL16, AL20, AL20C	300mm

Fixed bends and Internal or External Risers are readily available with a 90° angle. Other angles (30°, 45° or 60°) and other radii (300, 450, 600 or 900mm) can be supplied on special request. The radii also applies to Tees and Crosses. All support locations below are in accordance with NEMA standard VE2.

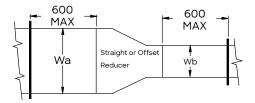


Straight Reducer plus left and right hand offset reducers are available for all Unistrut Cable Ladder systems.

Major Width: Wa 300, 450, 600, 450, 600, 600

Minor Width: Wb 150, 150, 150, 300, 300, 450

Reducer splice plates are also available for all ladder systems.





### UNI-TRAY<sup>®</sup>, Rolled Edge, ACROFIL<sup>®</sup>, Cable Trunking Steel & Vergokan

#### **UNI-TRAY®**

The UNI-TRAY<sup>®</sup> systems offers the contractor the ability to site manufacture all required junctions, thereby reducing the installation cost over traditional cable trays and ladders.





Unistrut®

Atkore

#### Rolled Edge Cable Tray

A simple and cost effective support system for communications and power cable distribution. Slots running down the length of the trays enable easy installation of cable ties. The joggled end for joining lengths and accessories eliminates the requirements for separate joiners.

#### ACROFIL® Wire Baskets

**Cable Trunking Steel** 

Ideal for a variety of applications, our wire baskets feature a self-splicing system designed to be simple to assemble and proven to be 80% faster in mounting time than standard splicing – eliminating the need for nut and bolt connections.

The cable duct system is designed to be quick and simple to assemble, providing real time saving as well as remaining a

reliable product throughout its natural life cycle.



ACROFIL®

## \* \*

CABLE TRUNKING STEEL

# Research Street

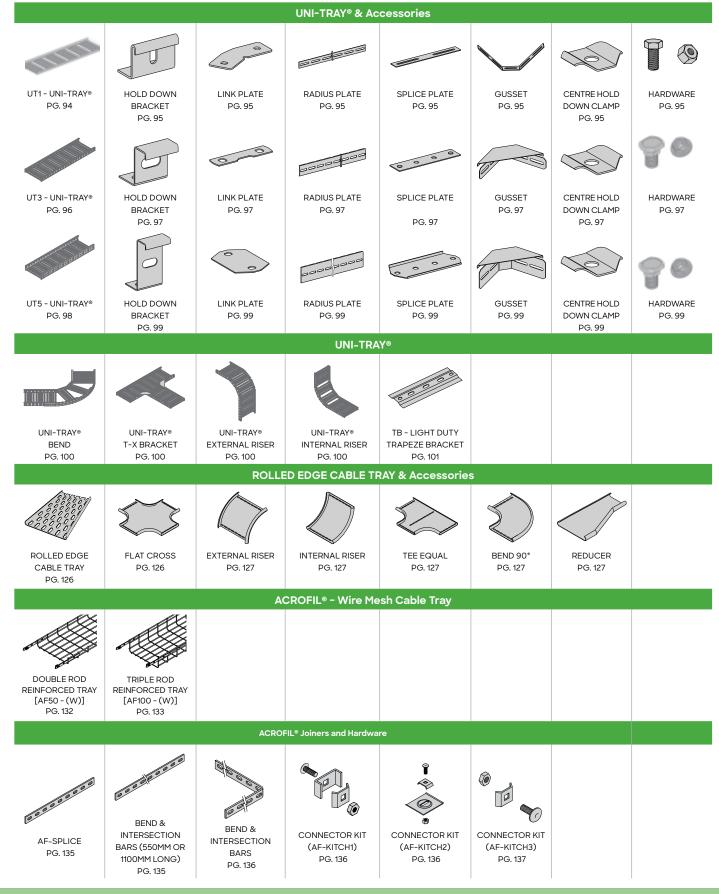
VERGOKAN CABLE TRAY SYSTEM

#### VERGOKAN CABLE TRAY SYSTEM

The new generation KBSCL Fusion cable tray system incorporates a patented "click" joiner, obviating the need for separate splice plates and associated fixing hardware .The clickable joining method makes assembly ultra-fast, user-friendly, and offers a significant installation cost saving without sacrificing quality.

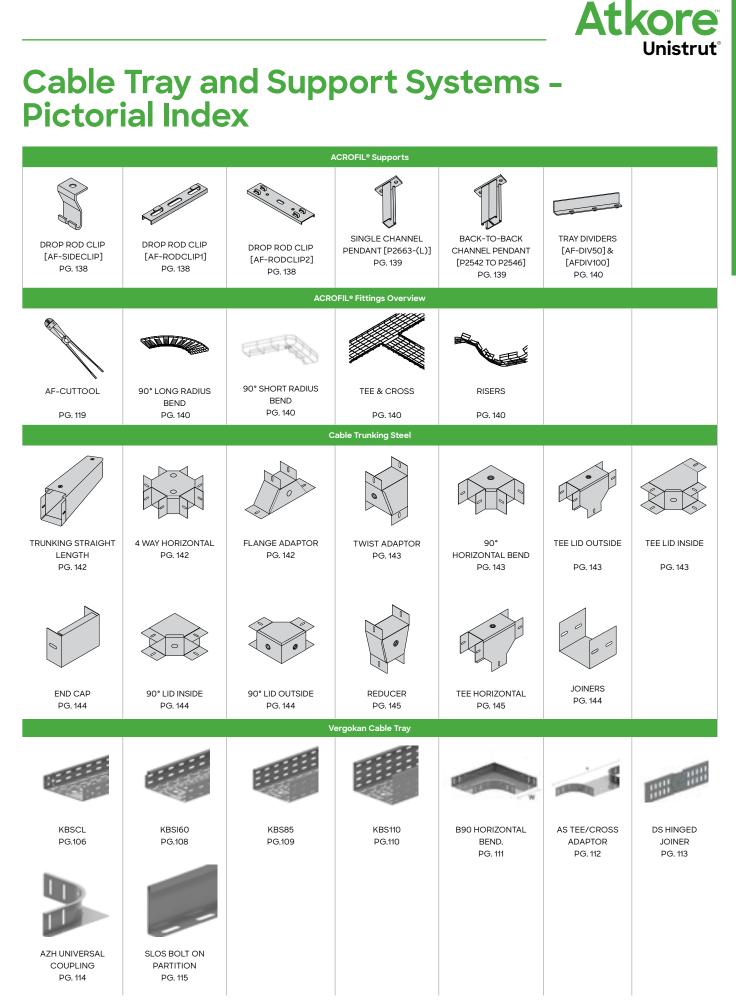


### Cable Tray and Support Systems -Pictorial Index



90 Cable Tray & Trunking





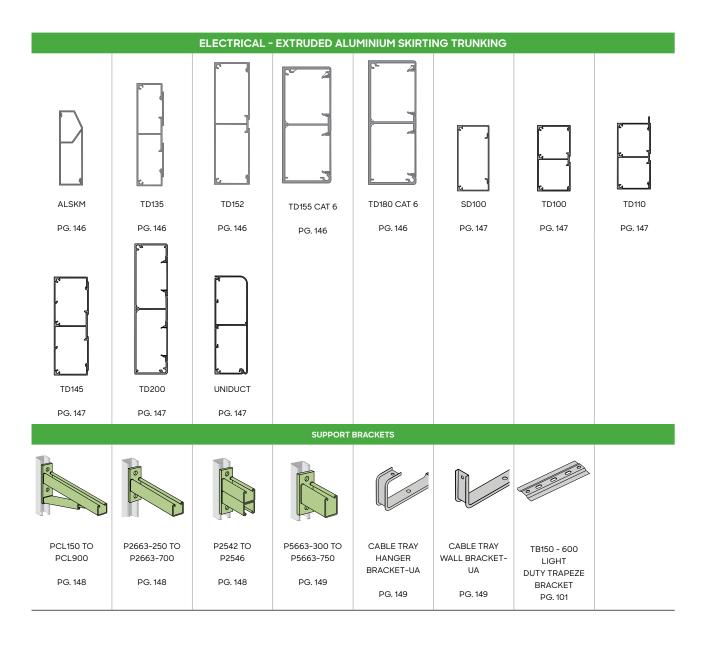
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www.unistrut.co.nz

Cable Tray & Trunking 91



### Cable Trunking and Support Systems - Pictorial Index









### NOTES






### **UNI-TRAY®** Cable Tray

#### **UT1 UNI-TRAY**

UT1 is available in differing finishes with 30mm side height, 3 metres in length and a variety of widths to meet all your application needs.

#### **Finishes**

#### Galvabond (GB)

Base material is supplied ex the Steel Mill in . pre-galvanised finish, in accordance with AS/NZS 1397, with a coating class of Z275. The material is slit to width, punched, and formed in the UNI-TRAY profile.

#### Heavy Duty Galvanised (HG)

Coatings are applied generally in accordance with AS/NZS 4680. The thickness of the coating is dependent on the material thickness of the component being galvanised. It should be noted that due to the galvanising process, the thickness of the coating will vary over the surface and should be taken into account during





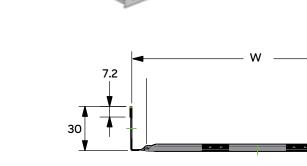
component assembly. It may be necessary to remove excess build-up prior to use.

#### Other - Powder Coated (PC), Pre-Galv (PG), Plain (PL)

When specific applications require other commercially available finishes, they can be supplied according to specification.

GB Code	Overall Width mm "W"	Cable Laying Depth mm	Length mm	Overall Height mm
UT1-100	100	25	3000	30
UT1-125	125	25	3000	30
UT1-175	175	25	3000	30
UT1-250	250	25	3000	30
UT1-325	325	25	3000	30

Basic Load 20kgs/Linea Meter on 1.5 meter span.

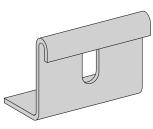






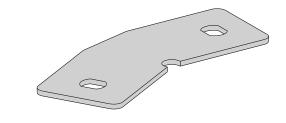
## **UT1 Accessories**

### Hold Down Bracket



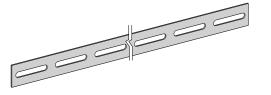
Description	Finish	Part No.	Finish	Part No.
Hold Down Bracket	GB	UT1HDB	HG	UT1HDBH

**Link Plate** 



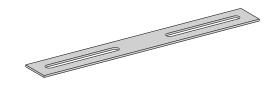
Description	Finish	Part No.	Finish	Part No.
Link Plate	GB	UT1LP	HG	UT1LPH

## **Radius Plate**



Description	Finish	Part No.	Finish	Part No.
Radius Plate 1200mm	GB	UT1RP	HG	UT1RPH

## Splice Plate



Description	Finish	Part No.	Finish	Part No.
Splice Plate	GB	UT1SP	HG	UT1SPH

### Gusset



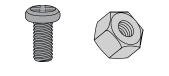
Description	Finish	Part No.	Finish	Part No.
Tray Gusset	GB	UT1AG	HG	UT1AGH

## **Centre Hold Down Clamp**



Description	Finish	Part No.	Finish	Part No.
Centre Down Clamp	GB	UTCHD	HG	UTCHDH

#### Hardware



Description	Finish	Part No.
Gutter Bolt M6x12	ZP	GB0612Z
Hex Nut M6	ZP	HN06

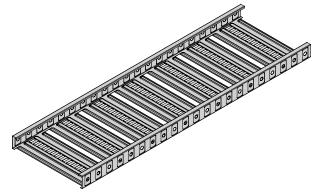




## **UNI-TRAY®** Cable Tray

### **UT3 UNI-TRAY**

UT3 is available in differing finishes with 50mm side height, 3 metres in length and a variety of widths to meet all your application needs.



#### **Finishes**

#### Galvabond (GB)

• Base material is supplied ex the Steel Mill in pre-galvanised finish, in accordance with AS/NZS 1397, with a coating class of Z275. The material is slit to width, punched, and formed in the UNI-TRAY® profile.

### Heavy Duty Galvanised (HG)

• Coatings are applied generally in accordance with AS/NZS 4680. The thickness of the coating is dependent on the material thickness of the component being galvanised. It should be noted that due to the galvanising process, the thickness of the coating will vary over the surface and should be taken into account during component assembly. It may be necessary to remove excess build-up prior to use.

#### Other - Powder Coated (PC)

• When specific applications require other commercially available finishes, they can be supplied according to specification.

GB Code	Cable Laying Width mm "W1"	Overall Width mm "W2"	Cable Laying Depth (mm)	Length (mm)	Overall Height (mm)	₩2
UT3-150	150	172	45	3000	50	W1
UT3-300	300	322	45	3000	50	50
UT3-450	450	472	45	3000	50	
UT3-600	600	622	45	3000	50	

Basic Load 125kgs/Linea Meter on 1.5 meter span.



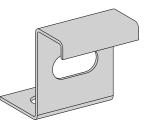
Note: The deflections have been provided as a guide based on CONTINUOUS spans.





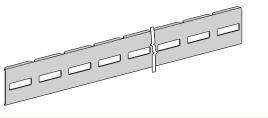
## **UT3 Accessories**

### Hold Down Bracket



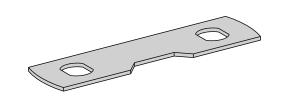
Description	Finish	Part No.	Finish	Part No.
Hold Down Bracket	GB	UT3HDB	HG	UT3HDBH

## **Radius Plate**



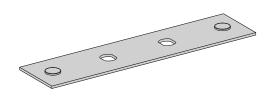
Description	Finish	Part No.	Finish	Part No.
Radius Plate 3000mm	GB	UT3RP3	HG	UT3RPH

## Link Plate



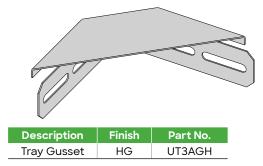
Description	Finish	Part No.	Finish	Part No.
Link Plate	GB	UT3LP	HG	UT3LPH

## **Splice Plate**

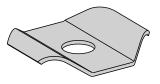


Description	Finish	Part No.	Finish	Part No.
Splice Plate	GB	UT3SP	HG	UT3SPH

## Gusset



## Centre Hold Down Clamp



Description	Finish	Part No.	Finish	Part No.
Centre Down Clamp	GB	UTCHD	HG	UTCHDH

### Hardware



Description	Finish	Part No.	Finish	Part No.
UNITRAY NUT & BOLT	ZP	UTB/UTN	HG	UT940MG





## **UNI-TRAY®** Cable Tray

#### **UT5 UNI-TRAY**

UT5 is available in differing finishes with 85mm side height, 3 metres in length and a variety of widths to meet all your application needs.

### Finishes Galvabond (GB)

• Base material is supplied ex the Steel Mill in pre-galvanised finish, in accordance with AS/NZS 1397, with a coating class of Z275. The material is slit to width, punched, and formed in the UNI-TRAY profile.

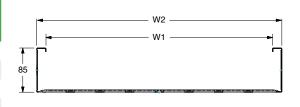
#### Heavy Duty Galvanised (HG)

- Coatings are applied generally in accordance with AS/NZS 4680. The thickness of the coating is dependent on the material thickness of the component being galvanised. It should be noted that due to the galvanising process, the thickness of the coating will vary over the surface and should be taken into account during component assembly. It may be necessary to remove excess build-up prior to use.

### Other - Powder Coated (PC)

• When specific applications require other commercially available finishes, they can be supplied according to specification.

GB Code	Cable Laying Width mm "W1"	Overall Width mm "W2"	Cable Laying Depth (mm)	Length (mm)	Overall Height (mm)
UT5-150	150	172	80	3000	85
UT5-300	300	322	80	3000	85
UT5-450	450	472	80	3000	85
UT5-600	600	622	80	3000	85



Basic Load 75kgs/Linea Meter on 3.0 meter span.



Note: The deflections have been provided as a guide based on CONTINUOUS spans.

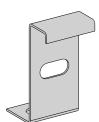




**UNI-TRAY SYSTEMS** 

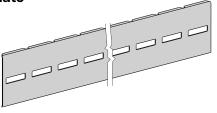
## **UT5 Accessories**

## Hold Down Bracket



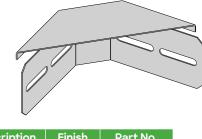
Description	Finish	Part No.	Finish	Part No.
Hold Down Bracket	GB	UT5HDB	HG	UT5HDBH

## **Radius Plate**



Description	Finish	Part No.	Finish	Part No.
Radius Plate 3000mm	GB	UT5RP3	HG	UT5RPH

## Gusset



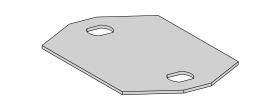
Description	Finish	Part No.
Tray Gusset	HG	UT5AG-H

### Hardware



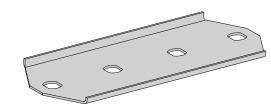
Description	Finish	Part No.	Finish	Part No.
UNITRAY NUT & BOLT	ZP	UTB/UTN	HG	UT940MG

## Link Plate



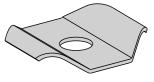
Description	Finish	Part No.	Finish	Part No.
Link Plate	GB	UT5LP	HG	UT5LPH

### **Splice Plate**



Description	Finish	Part No.	Finish	Part No.
Splice Plate	GB	UT5SP	HG	UT5SPH

## **Center Hold Down Clamp**



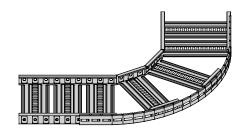
Description	Finish	Part No.	Finish	Part No.
Centre Down Clamp	GB	UTCHD	HG	UTCHDH





## UNI-TRAY<sup>®</sup> - Rapid On-Site Fabrication Assemblies

UNI-TRAY® Bend

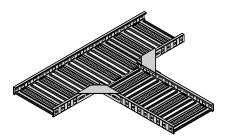


- Cut outside rails right through (3 full cuts make 90°bend).
- Form Radius Plate to suit and cut to length before fixing to tray with standard joining hardware.
- Cut inside rails at top and bottom flanges only.

#### **UNI-TRAY® External Riser**

- Cut both side rails down to bottom face.
- Bend tray along bottom face and secure with link plates and joining hardware.
- 3 cuts in each rail make a 90°riser.

### UNI-TRAY® T-X Bracket



- Note: Cross is same procedure repeated on the other side.
- Cut side rail to bottom face in 2 places to suit tray width (flatten side down or cut off with snips).
- Fix 2 T-X brackets to both trays using joining hardware.

#### **UNI-TRAY® Internal Riser**

- Cut both side rails down to top face.
- Bend tray along bottom face and secure with link plates and joining hardware.
- 3 cuts in each rail make a 90°riser.



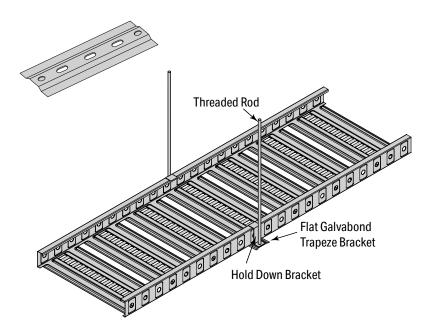




## UNI-TRAY<sup>®</sup> - Rapid On-Site Fabrication Assemblies

## TB - Light Duty Trapeze Bracket

Part No.	Designation	Actual Size
TB150	Trapeze Bracket for UNI-TRAY® 150mm	250mm
TB300	Trapeze Bracket for UNI-TRAY® 300mm	400mm
TB450	Trapeze Bracket for UNI-TRAY® 450mm	550mm
TB600	Trapeze Bracket for UNI-TRAY® 600mm	700mm







## NOTES



## **KBSCL Cable Tray**

Quick Install Solutions









## **KBSCL Cable Tray**

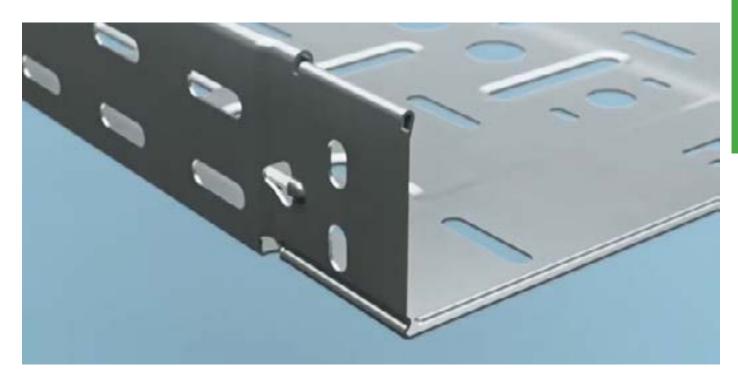


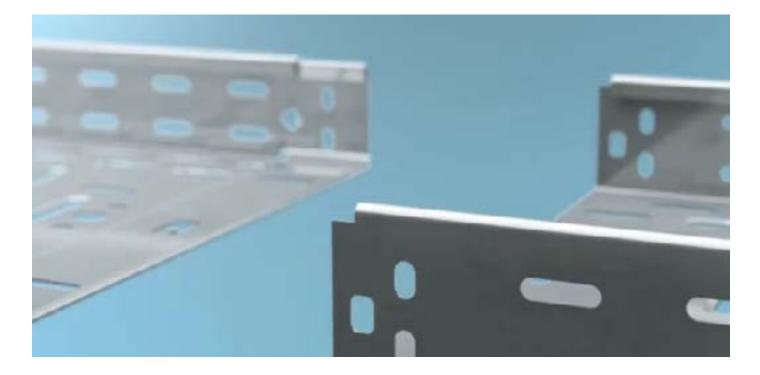






## **KBSCL Cable Tray**







www.unistrut.co.nz



## **KBSCL60**

### CLICKABLE CABLE TRAY

- Standard finish PG
- Optional finish Zinc Magnesium
- Powder coated options also available



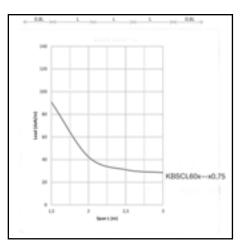
#### KBSCL60

ZM	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/m
ZM	KBSCL60.100.075	60	100	0.75	3000	1.200
ZM	KBSCL60.150.075	60	150	0.75	3000	1.462
ZM	KBSCL60.200.075	60	200	0.75	3000	1.723
ZM	KBSCL60.300.075	60	300	0.75	3000	2.234
ZM	KBSCL60.400.100	60	400	1.00	3000	3.545

## LOAD Diagram

This diagram illustrates the permissible uniformly distributed loads applied to multiple supports. They comply with IEC 61537 with connection in the centre of the span and the end span =  $0.8 \times 10^{-10}$  k the span.

F = max. admissible load (daN/m) L = support distance (m) Max. deflection (m) = L/100





## Atkore Unistrut

## **KBSCL60**

### CLICKABLE CABLE TRAY

#### New

Our KBSCL cable tray is now also available in zinc magnesium (ZM) to order. Thanks to its unique chemical composition zinc magnesium offers a resistance against corrosion that is at least equivalent to standard hot-dipped steel.

For widths 500 and 600: see KBSI.

Other lengths upon request: min. 1.95 m / max. 6 m in 150 mm steps.

#### **FEATURES**

#### - Clickable.

- The simplest jointing system, with a single movement.
- Rapid Just click and ready for the next joint. Immediate alignment at the same time.
- Strong As strong as a bolted joint.
- Reliable Maximum load with snap-fit joint. Multiple jointing options available.
- Cost-effective Working faster results in immediate time and cost savings.
- High standard Wide and complete range of accessories available.

Etched perforations for:

- better stability
- extra load-bearing capacity
- better cooling

Longitudinal and transverse perforations for:

- better fixing to the support
- convenient cable bundling

Additional equipotential bonding available by 1. snap-fit joint, 2. bolted joint, 3. push-through lip in the bottom and 4. lateral fitting lip for earth conductor.

### **TECHNICAL INFORMATION**

Perforation pattern varies according to width. Transverse perforation as from 200 mm width. 16 mm dia. and 20.4 mm dia. openings to be provided for fitting a gland. SLIS60 snap-in partition to suit width as from 75 mm every 50 mm in the width direction. Can be secured with VM6.10 or KBVCL as an option.



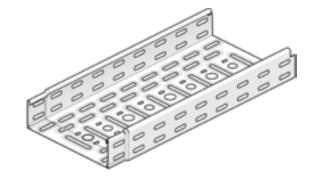


## KBSI60

### INTERLOCK CABLE TRAY

### Non Standard Stock. Available to order

- Standard finish PG
- Optional finish HG
- Powder coated options also available



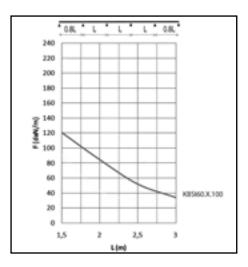
### KBSI60

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/m
HD	KBSI60.500.100	60	500	1.25	3000	5.210
HD	KBSI60.600.100	60	600	1.25	3000	6.030

#### LOAD DIAGRAM

This diagram illustrates the permissible uniformly distributed loads applied to multiple supports. They comply with IEC 61537 with connection in the centre of the span and the end span = 0,8 x the span. For widths of 300 and up, it is advised to use a stiffening plate.

F = max. admissible load (daN/m) L = support distance (m) Max. deflection (m) = L/100





## Atkore Unistrut

## KBS85

## PERFORATED CABLE TRAY

### Non Standard Stock. Available to order

- Standard finish PG
- Optional finish HDG
- Powder coated options also available

### KBS85

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/m
HD	KBS85.100.100	85	100	1.00	3000	1.890
HD	KBS85.150.100	85	150	1.00	3000	2.220
HD	KBS85.200.100	85	200	1.00	3000	2.540
HD	KBS85.300.100	85	300	1.00	3000	3.190
HD	KBS85.400.100	85	400	1.00	3000	3.840
HD	KBS85.500.125	85	500	1.25	3000	5.620
HD	KBS85.600.125	85	600	1.25	3000	6.430

Fix with:						
HD	V85.200	75	200	-	-	0.130
-	V85	77	180	-	-	0.130
HD	VMK6.10	-	-	M6	-	0.008

## LOAD DIAGRAM

This diagram illustrates the permissible uniformly distributed loads applied to multiple supports. They comply with IEC 61537 with connection in the centre of the span and the end span = 0,8 x the span. For widths of 300 and up, it is advised to use a stiffening plate.

F = max. admissible load (daN/m)

L = support distance (m)

Max. deflection (m) = L/100

### CHARACTERISTICS

Embedded perforations for:

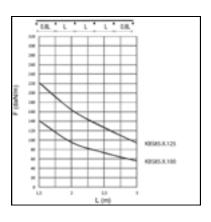
- extra load capacity
- better aeration
- better stabilitybetter condensation drainage

Alternative perforations for: - better fixing to supports

- very useful for attaching cables
- very user and a tradening cubics

### **TECHNICAL INFORMATION**

The perforation scheme differs according to the width. Alternative perforation beginning at 200 mm. Round holes of Ø 16 mm and Ø 19.5 mm provided as opening for the fitting of a gland.







## **KBS110**

### PERFORATED CABLE TRAY

#### Non Standard Stock. Available to order

- Standard finish PG
- Optional finish HDG
- Powder coated options also available

### **KBS110**

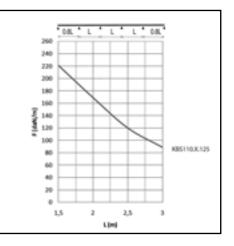
HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/m
HD	KBS110.150.125	110	150	1.25	3000	3.180
HD	KBS110.200.125	110	200	1.25	3000	3.580
HD	KBS110.300.125	110	300	1.25	3000	4.400
HD	KBS110.400.125	110	400	1.25	3000	5.210
HD	KBS110.500.125	110	500	1.25	3000	6.030
HD	KBS110.600.125	110	600	1.25	3000	6.840

Fix with:						
HD	V110.200	100	200	-	-	0.170
HD	VMK6.10	-	-	M6	10	0.008
HD	KPW	115	400	-	-	0.590

#### LOAD DIAGRAM

This diagram illustrates the permissible uniformly distributed loads applied to multiple supports. They comply with IEC 61537 with connection in the centre of the span and the end span = 0,8 x the span. For widths of 300 and up, it is advised to use a stiffening plate.

F = max. admissible load (daN/m) L = support distance (m) Max. deflection (m) = L/100







## Atkore Unistrut

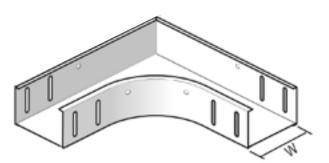
## **B90**

## 90° Horizontal Bend

## Non Standard Stock. Available to order

- Standard finish PG
- Optional finish HDG
- Powder coated options also available
- Radius 100mm

## **B90**



HD	Part Number	Sidewall Height (mm)	Width (W) (mm)	Thickness (mm)	Length (mm)	kg/m
HD	B90.60.100	60	100		-	0.738
HD	B90.60.150	60	150		-	0.822
HD	B90.60.200	60	200		-	1.374
HD	B90.60.300	60	300		-	2.292
HD	B90.60.400	60	400		-	2.958
HD	B90.60.500	60	500		-	5.424
HD	B90.60.600	60	600		_	6.690

Fix with:						
HD	VMK6.10	-	-	M6	-	0.008

\*Minimum number bolts and nuts 8 pieces.





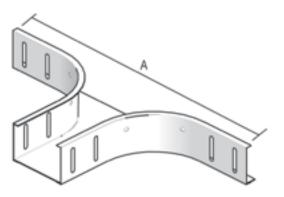
## Atkore Unistrut

AS

## 90° Horizontal Adaptor

## Non Standard Stock. Available to order

- Standard finish PG
- Optional finish HDG
- Powder coated options also available
- Radius 100mm



### AS

HD	Part Number	Sidewall Height (mm)	Width (A) (mm)	Thickness (mm)	Length (mm)	kg/m
HD	AS60.100	60	100		-	0.570
HD	AS60.150	60	150		-	0.650
HD	AS60.200	60	200		-	0.730
HD	AS60.300	60	300		-	0.880
HD	AS60.400	60	400		-	0.103
HD	AS60.500	60	500		-	1.524
HD	AS60.600	60	600		_	1.740

Fix with:						
HD	VMK6.10	-	-	M6	-	0.008

\*Minimum number bolts and nuts 8 pieces.





## DS

## Hinged Joiner

- Standard finish PG
- Optional finish HDG
- Powder coated options also available



## DS

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
HD	DS60	60	-		-	0.130
HD	DS85	85	-		-	0.340
HD	DS110	110	600		-	0.390

Fix with:	:					
HD	VMK6.10	-	-	M6	-	0.008

\*Minimum number bolts and nuts 8 pieces.







## 90° Universal Coupling

- Standard finish PG
- Optional finish HDG
- Powder coated options also available

## AZH

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
HD	AZH60	60	-		-	0.390
HD	AZH85	85	-		-	0.750
HD	AZH110	110	-		-	0.900

Fix with:						
HD	VMK6.10	-	-	M6	-	0.008

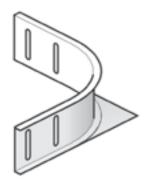
\*Minimum number bolts and nuts 8 pieces.







## AZH



## Vergokan Tray Systems 115

## SLOS

## **Bolt-in Partition**

- Standard finish PG
- Optional finish HDG
- Powder coated options also available

## SLOS

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
HD	SLOS60	53	-		3000	0.511
HD	SLOS85	78	-		3000	0.680
HD	SLOS110	103	-		3000	0.820

Fix with						
HD	VMK6.10	-	-	M6	-	0.008

Fixing set: 1 per meter.

## SLIS

## **Snap-in Partition**

• Standard finish - PG

## SLIS

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
-	SLIS60	60	-		3000	0.440











CL

## **Clips for SLIS**

• Standard finish - PG

## CL

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
-	CL	-	-	-	-	0.005

Joiner for Fast Mounting

- Standard finish PG
- Powder coated options also available

## V60

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
-	V60	52	180	-	-	0.090

Fix with:						
HD	VMK6.10	-	-	M6	-	0.008

Minimum number bolts and nuts: 2 pieces.





## Vergokan Tray Systems 117

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## V85

## Joiner for Fast Mounting

## Non Standard Stock. Available to order

• Standard finish - PG

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v	8	5
	_	_

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
HD	V85	110	-		3000	0.820

Fix with:						
HD	VMK6.10	-	-	M6	-	0.008

Minimum number bolts and nuts: 2 pieces.

## V60.200

## **Joining Plate**

- Standard finish PG
- Optional finish HDG
- Powder coated options also available

## V60.200

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
HD	V60.200	50	200		3000	0.440

Fix with:						
HD	VMK6.10	-	-	M6	-	0.008

Minimum number bolts and nuts: 4 pieces.







## V85.200

### **Joining Plate**

#### Non Standard Stock. Available to order

- Standard finish PG
- Optional finish HDG
- Powder coated options also available

### V85.200

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
HD	V85.200	75	200	-	-	0.130

Fix with:						
HD	VMK6.10	-	-	M6	-	0.008

Minimum number bolts and nuts: 4 pieces.



## V110.200

## **Joining Plate**

## Non Standard Stock. Available to order

- Standard finish PG
- Optional finish HDG
- Powder coated options also availablee

### V110.200

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
HD	V110.200	100	200	-	-	0.170

Fix with:						
HD	VMK6.10	-	-	M6	-	0.008

Minimum number bolts and nuts: 8 pieces.





## KBV

## Fast Locking for KBSI

• Standard finish - Stainless Steel

Κ	В	V	

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
-	KBV	-	-	-	-	0.001

To order per full packaging of 100.

## **KBVCL**

## Locking Clips for KBSCL

• Standard finish - Stainless Steel

## KBVCL

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
-	KBVCL	-	-	-	-	0.001

To order per full packaging of 100.





Atkore

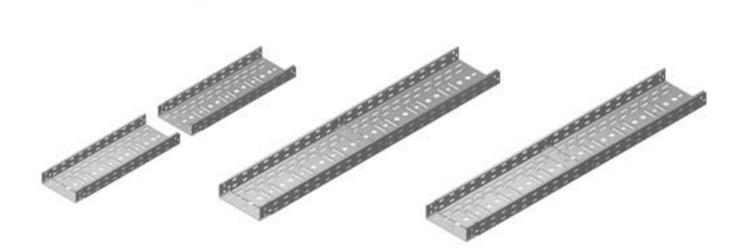
Unistrut





## **KBSCL**

#### Installation Guide



### How do you install?

It's very simple!

- 1. Slide two lengths into each other until you hear a click.
- 2. Optional: Snap in KBVCL clips or VMK6.10 for extra stability and safe locking.
- 3. Finished!

This system offers you various advantages :

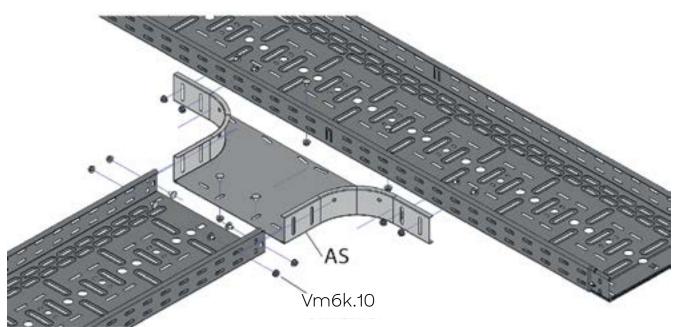
- 1. Lower installed price.
- 2. Faster mounting just by clicking.
- 3. No bolts and nuts required.
- 4. Fixing with clips.
- 5. Certified earth continuity .
- 6. Easier fixing thanks to alternative perforations.
- 7. Better stability thanks to embedded perforations.
- 8. Better aeration of the cables thanks to embedded perforations.
- 9. Integrated cable protection thanks to overlapping ends.
- 10. Smooth finishing touch.
- 11. No protruding nuts / bolts / joiners





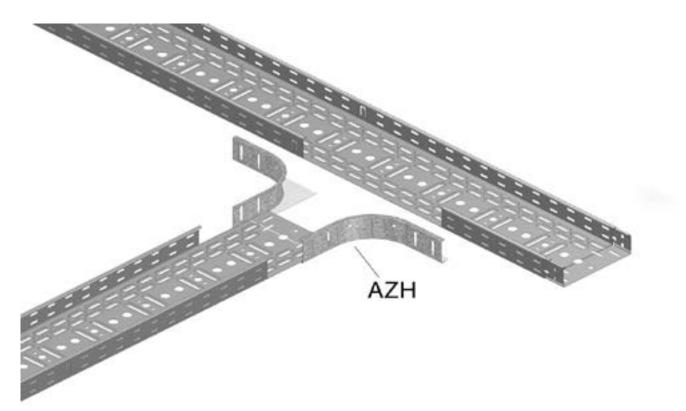
## AS

## **Technical Information**



## AZH

## **Technical Information**







## **KBSCL**



The KBSCL has been tested to 11.1.2 of IEC 61537 for Electrical Continuity.

An Electrical Continuity Declaration Certificate is available from www.atkore.com/vergokan







## MP3 41x41 (P1000-T3)

## **Assembly Profile Perforation on 3 Sides**

- Profile opening 23.5mm
- Standard finish PG
- Optional finish HDG

### MP3.41.41

HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
HD	MP3.41.41.200.3	41	41	2.5	3000	8.1

## HDHSMU50

Ceiling Profile Medium / Heavy

200mm stock item. Other sizes

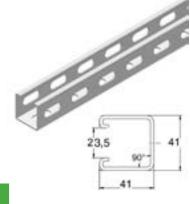
## Non Standard Stock.

- Standard finish HDG
- Max. load 2100 daN

## HDHSMU50

Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece
HDHSMU50.200	-	-	-	200	0.940
HDHSMU50.300	-	-	-	300	1.160
HDHSMU50.400	-	-	-	400	1.380
HDHSMU50.500	-	-	-	500	1.610
HDHSMU50.600	-	-	-	600	1.830
HDHSMU50.800	-	-	-	800	2.270
HDHSMU50.1000	-	-	-	1000	2.710
HDHSMU50.1200	-	-	-	1200	3.150
HDHSMU50.1500	-	-	-	1500	3.820







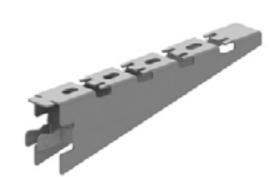


## WKCL

## Snap-in Bracket for MP-profile

- Standard finish PG
- Optional finish HDG
- Ideal in combination with ceiling profile
- HDHSMU50.200 and perforated MP3.41.41-profile

#### WKCL



HD	Part Number	Sidewall Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	kg/piece	Max. load (daN) HSLE3
HD	WKCL100	65	100	-	-	0.229	190
HD	WKCL150	65	150	-	-	0.294	190
HD	WKCL200	65	200	-	-	0.334	160
HD	WKCL300	65	300	-	-	0.464	125
HD	WKCL400	65	400	-	-	0.604	90
HD	WKCL500	65	500	-	-	0.744	70

Max. load (in daN): uniformly distributed over complete width of cantilever brackets

## Toothed Round Head Bolt / Flange Nut

- Standard finish EZP
- Optional finish HDG



#### VM

HD	Part Number	Sidewall Height (mm)	Width (mm)	Size	Length (mm)	kg/piece
HD	VMK6.10	-	-	M6.	-	0.008

To order per full packaging of 100. According to DIN 50 961







VERGOKAN TRAY SYSTEMS

## NOTES






### **Standard Finish:**

Galvabond. Also available in: Heavy Duty Galvanised, Powder Coated, Aluminium and 304 & 316 Stainless Steel.

### **Standard Length:**

3 metres in Galvabond, Heavy Duty Galvanised and Powder Coated. 2.4 metres in Aluminium and Stainless Steel.

#### Nominal Standard Widths:

50, 100, 150, 200, 300, 450

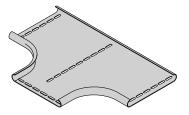
Note: When ordering please specify the type of metal finish preferred.

## Rolled Edge Cable Tray & Accessories

### **Rolled Edge Cable Tray**



**Tee-Equal** 



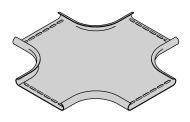




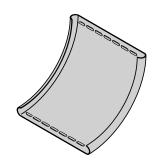


## Rolled Edge Cable Tray & Accessories

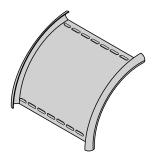
Flat Cross



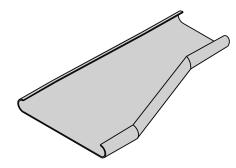
Internal Riser



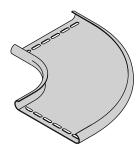
**External Riser** 



Reducer



BEND 90°









## **ACROFIL® - Wire Mesh Cable Tray**



#### **ACROFIL Overview**

ACROFIL is a welded wire mesh cable management system produced from high strength steel wires. ACROFIL is produced by first welding a net, forming the Strut, and then finishing. The 50mmX100mm wire spacing permits continuous airflow to help prevent heat build-up. In addition this unique open design prevents the build-up of dust, contaminants and bacterial proliferation.

ACROFIL is produced in standard 3m lengths and is supplied in 2 standard depths: 50 and 100mm.

ACROFIL is offered in seven different widths: 100mm, 150mm, 200mm, 300mm, 400mm, 500mm, 600mm. Special sizes are available to meet your unique requirements.

#### Zinc Plated (ZP) - (AS 1789)

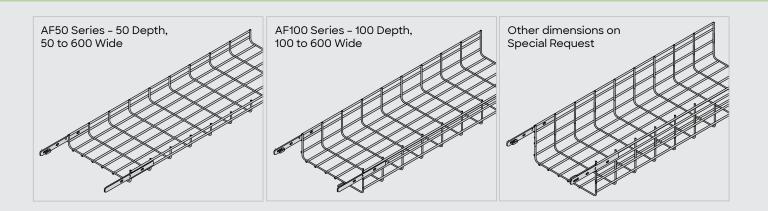
Strut, fittings and components are electroplated generally in accordance with AS/NZS 1789. Fasteners are electroplated generally in accordance with AS/NZS 1789.

#### Hot-dipped Galvanised (HG) -(AS/NZS 4680)

Coatings are applied generally in accordance with AS/ NZS 1789. The thickness of the coating is dependent on the material thickness of the component being galvanised. It should be noted that due to the galvanising process, the thickness of the coating will vary over the surface and should be taken into account during component assembly. It may be necessary to remove excess build-up prior to use.

### 316 Type Stainless Steel (SS)

Corrosive resistant stainless steel with no additional surface treatment. This material option provides the best corrosion resistance available. Stainless steel is used primarily in marine environments or food processing facilities.







## **ACROFIL® - Wire Mesh Cable Tray**

# Other Finishes - Powder Coated (PC), Pre Galvanised (PG), Plain (PL) and Grade 304 Stainless Steel (SS304). When specific applications require other commercially available finishes, they can be supplied according to

#### Example

## Masses and Dimensions

How To Order Part numbers shown in the catalogue are for the standard zinc plated finish. For special order finishes,

#### **ACROFIL System**

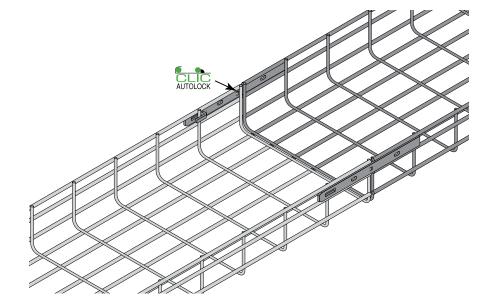
UNISTRUT The premier name in electrical and metal infrastructure solutions has been designing and manufacturing products in Australia and New Zealand for over 50 years delivering superior performance in design, engineering excellence, distribution, and customer service.

As part of global company Atkore, Unistrut is able to provide the ACROFIL range of wire-mesh cable tray, which features unique Autolock system and welded splices. Autolock and welded splices make connecting tray fast and simple and in turn eliminate the need for nut and bolt connection.

The addition of ACROFIL to our range reinforces Unistrut's commitment to being the one-stop supplier for all your cable management solutions.

Visit www.atkore.com/unistrut







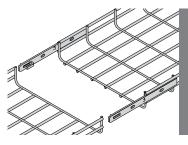


## **ACROFIL® - Wire Mesh Cable Tray**

#### **ACROFIL System**

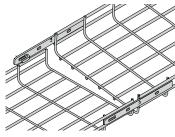
#### Self-Splicing Straight Lengths

ACROFIL's exclusive autolock splicing system makes connecting ACROFIL fast and simple. The Autolock, or self splicing bars which come preinstalled on ACROFIL systems, eliminates the need for a typical nut and bolt type connection.



**Step 1** Align the trays as show



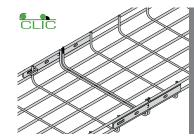


### Step 2

While raising the rear edge of the male connection, slide the tray forward, but do not engage the locking clip.

## Step 3

Push the rear locking clip over the back edge of the tray.



### Step 4

Slide the tray forward to engage both front and rear locking clips.

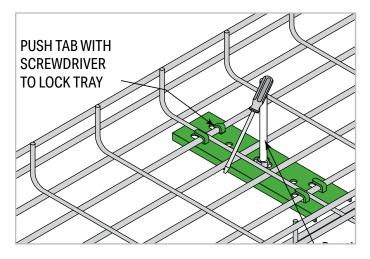
Splice straight lengths for field cuts with zero hardware



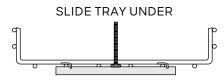




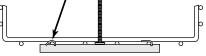
### Accessory Assembly



For accessories which use the tab lock, the tray is secured by using a screw driver to gently bend one of the tabs down over the tray.



BEND TAB LOCK DOWN

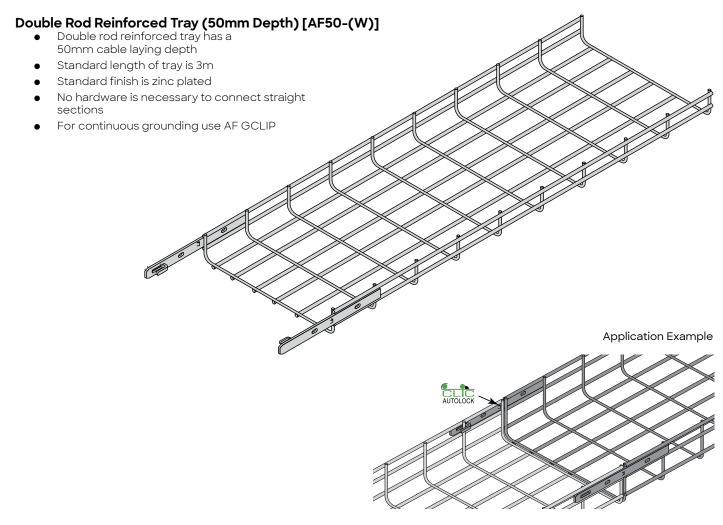








### ACROFIL System



Part Description		Width (Nominal)	dth (Nominal) Depth (mm)		Loading (kg/m)		
Part Description		width (Norninal)		(piece)	1.5m Span	2.0m Span	2.5m Span
Ĩ	*AF50-50	50	50	1.9	25.1	17.8	13.1
	AF50-100	100	50	2.6	34.2	23.3	17.2
lF	AF50-150	150	50	3.6	56.3	36.6	27.8
	AF50-200	200	50	4.2	58.7	39.2	29.8
l,,ß	AF50-300	300	50	5.5	64.0	39.3	29.0
ł	AF50-400	400	50	8.1	89.4	49.4	36.5
	AF50-500	500	50	9.5	105.4	63.0	46.5
l	*AF50-600	600	50	10.8	114.9	68.7	50.7

Load Values are determined by IEC61537 testing. Copies of load tests available upon request. Safety Factor 1.7 \*Non stock item. Made to order.



### **ACROFIL System**

### Triple Rod Reinforced Tray (100mm Depth) [AF100-(W)]

- Triple rod reinforced tray has a 100mm cable laying depth
- Standard length of tray is 3m •
- Standard finish is zinc plated
- No hardware is necessary to connect straight sections
- For continuous grounding use AF GCLIP

**Application Example** 

Part Description		Width (Nominal) Depth (mm)	Weight (kg)	Loading (kg/m)			
Part Description			Depth (mm)	(piece)	2.0m Span	2.5m Span	3.0m Span
	AF100-100	100	100	4.2	69.6	54.2	41.2
	AF100-200	200	100	5.5	78.4	58.4	46.4
	AF100-300	300	100	8.1	109.9	85.0	67.4
	AF100-400	400	100	9.5	129.3	96.1	76.3
Ĩ	AF100-500	500	100	10.8	151.0	119.7	95.0
l	AF100-600	600	100	17.6	164.6	130.5	103.6

Load Values are determined by IEC61537 testing. Copies of load tests available upon request. Safety Factor 1.7

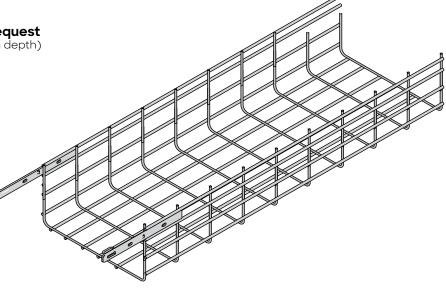




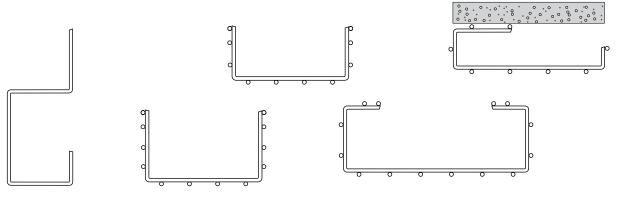
### **ACROFIL System**

### Other Products Available at Special Request Quadruple rod reinforced tray (150mm depth)

- Heavy duty cable tray •



### **Custom Made Tray Examples**









### **ACROFIL® - Bar Connectors**

#### **AF-Splice**

Weight: 0.13kg/each

- Splice bar connector is 19mm x 225mm long
- Standard finish is zinc plated
- Connect using AF-KITCH3 (sold separately)
- Bend 90° for use as an angle connector

#### NOTES:

- 1. Always place nut on outside of tray
- 2. For use with AF50, AF100 & AF150 tray
- 3. The splice connector is used to connect remnant sections of tray cut from standard lengths and to field fabricate fittings

### **Bend & Intersection Bars**

#### AF-TBAR1100

Weight: 0.65kg/each

- AF-TBAR1100 connector is 19mm x 1100mm long
- Connect using AF-KITCH3 (sold separately)
- Bend 90° for use as an angle connector

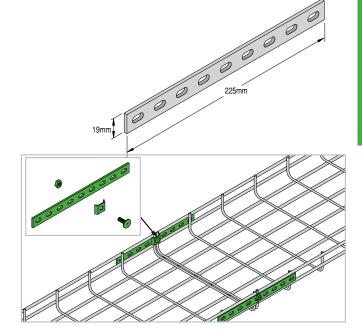
#### AF-TBAR550

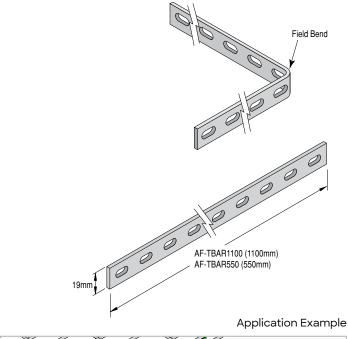
Weight: 0.32kg/each

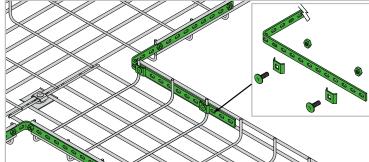
- • AF-TBAR550 connector is 19mm x 550mm long
- • Connect using AF-KITCH3 (sold separately)

### NOTES:

- 1. Always place nut on outside of tray
- 2. For use with AF50, AF100 & AF150 tray
- 3. Used for tees that require a heavier support
- 4. These bars are normally cut to appropriate length





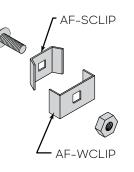






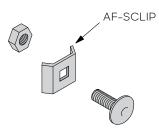
### **ACROFIL® - Connector Hardware**

### AF-KITCH1



AF-KITCH2

AF-KITCH3





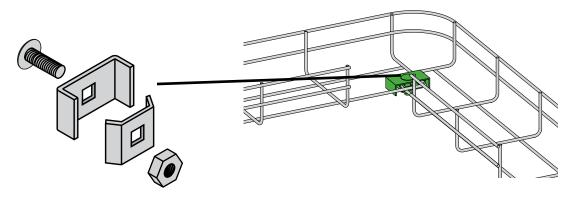


Part Kit	Weight (kg)	NO./ PKG	Single Part	Weight (kg)	NO./ PKG
AF-KITCH1	0.32	10	AF-SCLIP	0.20	10
AF-KITCH2	0.53	10	AF-WCLIP	0.31	10
AF-KITCH3	0.20	10	AF-BCLIP	0.92	10
AF-EG-CBN	0.09	10		0.52	10

### Connector Kit [AF-KITCH1]

- • Standard bar connector is 30mm x 18mm
- • Standard finish is zinc plated
- · Sold in packs of 10
  - (AF-EG-CBN connector hardware included)

NOTE: Always place nut on outside of tray



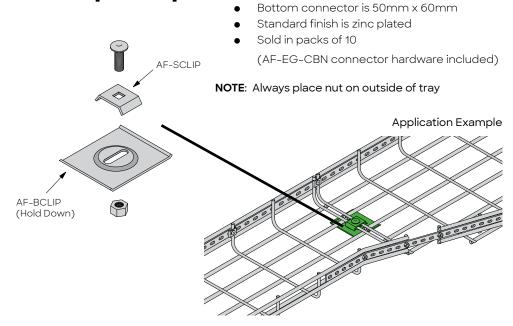
Application Example





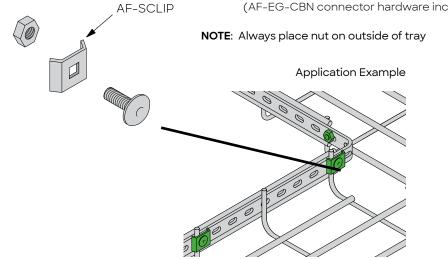
### **ACROFIL® - Connector Hardware**

### Connector Kit [AF-KITCH2]

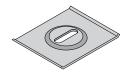


### Connector Kit [AF-KITCH3]

- Universal connector is 18mm x 24mm
- Standard finish is zinc plated
- Sold in packs of 10
- (AF-EG-CBN connector hardware included)



### Connector Hardware [AF-B Clip]



- M6 x 20 Carriage bolt
- M6 Hex nut
- Standard finish is zinc plated
- Sold in packs of 10 each

NOTE: Always place nut on outside of tray



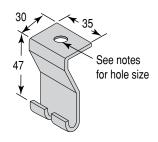


### **ACROFIL® - Drop Rod Clips**

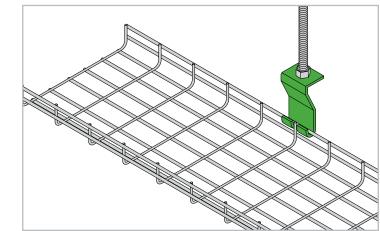
### Drop Rod Clip (AF-Sideclip)

Weight: 0.06kg/each

- Standard finish zinc plated
- 2mm Bracket thickness
- For all widths of tray
- Use AF-SIDECLIPM8 for 8mm Rod Use AF-SIDECLIPM10 for 10mm Rod



Application Example

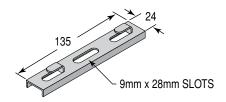


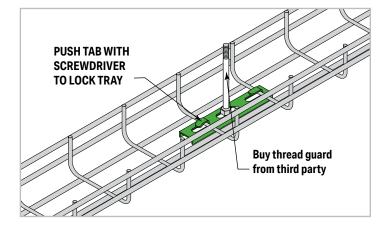
#### Application Example

### Drop Rod Clip (Af-Rodclip1)

Weight: 0.05kg/each

- Standard finish zinc plated
- 2mm Bracket thickness
- For all 100mm wide & 150mm wide tray

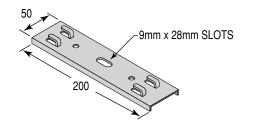


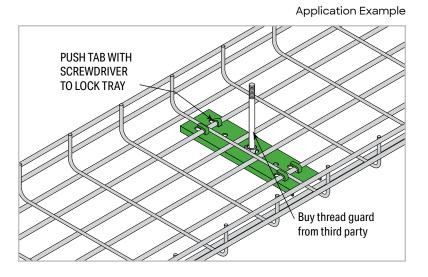


### Drop Rod Clip [Af-Rodclip2]

Weight: 0.18kg/each

- Standard finish zinc plated
- 2mm Bracket thickness
- For all 200mm wide & 300mm wide tray







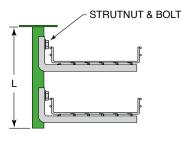


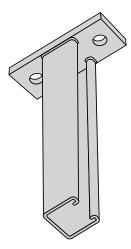
# ACROFIL<sup>®</sup> - Hanging Brackets and Pendants

### Standard finish is Heavy Duty Galvanised

Part No.	Length (L) (mm)	Design Uniform Load (kN)	Weight (kg)
P2663-250	250	3.01	1.02
P2663-400	400	1.88	1.43
P2663-450	450	1.51	1.53
P2663-550	550	1.36	1.86
P2663-700	700	1.06	2.29

**Application Example** 



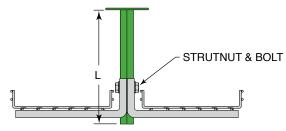


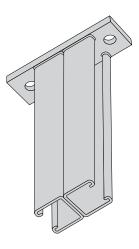
### Back-to-Back Channel Pendant [P2542 thru P2546]

• Standard finish is Heavy Duty Galvanised

Part No.	Length (L) (mm)	Design Uniform Load (kN)	Weight (kg)
P2542	305	7.57	2.28
P2543	460	5.22	3.14
P2544	610	3.98	4.00
P2545	760	3.21	4.87
P2546	915	2.67	5.74

#### **Application Example**





NOTE: Non stock item made to order.





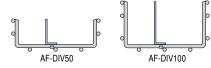
## **ACROFIL<sup>®</sup> - Accessories**

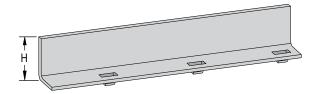
### Tray Dividers [AF-DIV50] & [AF-DIV100]

- Standard finish is Galvabond Z275
- Locks into tray with auto-lock tabs (no hardware required)
- Cut "V" notches into bottom flange to make barriers for flat fittings

NOTE: Non stock item made to order.

#### Application Example

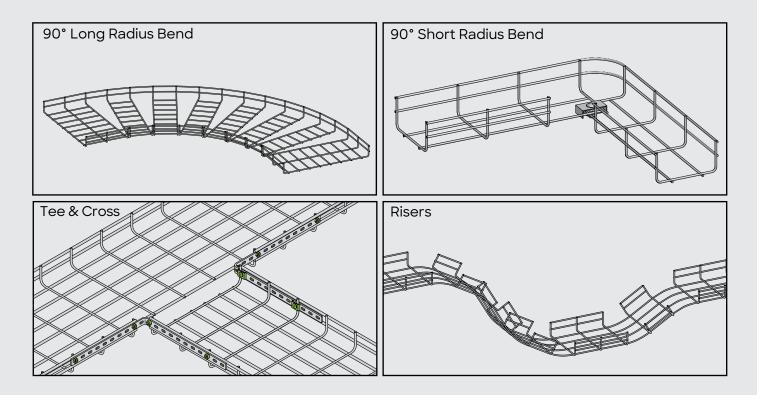




Part	Height (H) (mm)	Weight (kg)
AF-DIV-50	50	2.4
AF-DIV-100	100	3.6

### Fittings Overview / Assembly

Fittings are typically fabricated on the job. To determine the fitting hardware required to create a set of fittings, see the following pictures.





### 

### **ACROFIL® – Specification**



### **1.0 Acceptable Manufactures**

Provide "ACROFIL" Wire Basket type of cable management system as manufactured by Unistrut or engineered approved equal.

All cable trays shall be installed in a neat uniform fashion. Installing contractor shall field modify tray system to accommodate the exact routing requirements.

### 2.0 Material/Finishes

Wire basket tray to be fabricated from high strength steel wires.

### 2.1 Acceptable finishes

- 2.1.a Standard Finish: Zinc Plated Steel in accordance with AS/NZS 1789
- 2.1.b Other Finishes: Hot-dipped Galvanised Steel in accordance with AS/NZS 4680
- Pregalvanised Galvabond AS/NZ 1397 with a coating class of Z275.
- SS AISI 316L stainless steel.

### 3.0 - Straight Sections

Straight sections shall be manufactured from high strength steel wires forming 50mm X 100mm openings and shall conform to the following dimensions.

- 3.1 Length: Straight sections shall be supplied in 3m lengths.
- 3.2 Width: Widths shall be 100, 150, 200, 300, 400, 500, or 600 as called out on drawings. (mm)
- 3.3 Load depths: The load depths shall include 50mm & 100mm as required.

### 4.0 Splices

All straight sections shall be supplied with pre-installed, auto-locking, splices plates, where possible, as per Unistrut® "ACROFIL®". Trays design shall allow for a snap together type connection and shall require no nut and bolt assembly.

### 5.0 Fittings

All fittings shall be fabricated in the field as required, per manufacturer's recommendations. Radius of the fittings shall be based on the "minimum bending" radius of the cables being installed.

### 6.0 Accessories

Accessories such as blind ends, dropouts, and barriers, etc... shall be installed as specified on drawings.

### 7.0 Supports

Supports shall include, but are not limited to, centre type, trapeze type, wall supports, and floor supports.

- 7.1 Auto Locking: All supports shall be supplied with an Auto locking feature, requiring no special tools for attachment of the trays.
- 7.2 Finish: All supports, including threaded rod and associated hardware shall be zinc plated coated to AS 1789.





#### **TRUNKING Straight Length**

Manufactured in a variety of sizes this product features plastic quick fix buttons plus locking cams for the simple removal and replacement of lids.

- Trunking supplied in 3 metre lengths.
- Bodies complete with lid and joiner
- All fastenings integral with parts and accessories.
- Available in any colour on request.
- Standard Finish: Galvabond Also available to order in Stainless Steel or Aluminium. Supplied in 2.4m length.

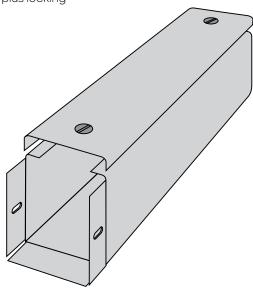
Width	Height
50mm	50mm
75mm	50mm
75mm	75mm
100mm	50mm
100mm	75mm
100mm	100mm
150mm	50mm
150mm	100mm

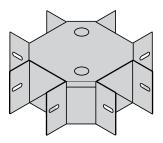
### 4 Way Horizontal

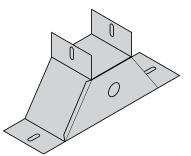
Part No.	Width	Height
HC5050/G	50mm	50mm
HC7550/G	75mm	50mm
HC7575/G	75mm	75mm
HC10050/G	100mm	50mm
HC10075/G	100mm	75mm
HC100100/G	100mm	100mm
HC150100/G	150mm	100mm

### **Flange Adaptor**

Part No.	Width	Height
FA/5050/G	50mm	50mm
FA/7550/G	75mm	50mm
FA/7575/G	75mm	75mm
FA/10050/G	100mm	50mm
FA/10075/G	100mm	75mm
FA/100100/G	100mm	100mm
FA/150100/G	150mm	100mm











### **Twist Adaptor**

Part No.	Width	Height
TA/5050/G	50mm	50mm
TA/7550/G	75mm	50mm
TA/7575/G	75mm	75mm
TA/10050/G	100mm	50mm
TA/10075/G	100mm	75mm
TA/100100/G	100mm	100mm
TA/150100/G	150mm	100mm

### 90° Horizontal Bend

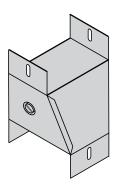
Part No.	Width	Height
HB/5050/G	50mm	50mm
HB/7550/G	75mm	50mm
HB/7575/G	75mm	75mm
HB/10050/G	100mm	50mm
HB/10075/G	100mm	75mm
HB/100100/G	100mm	100mm
HB/150100/G	150mm	100mm

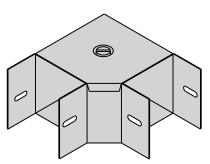
### Tee Lid Outside

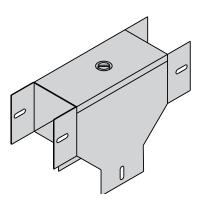
Part No.	Width	Height
TLO/5050/G	50mm	50mm
TLO/7550/G	75mm	50mm
TLO/7575/G	75mm	75mm
TLO/10050/G	100mm	50mm
TLO/10075/G	100mm	75mm
TLO/100100/G	100mm	100mm
TLO/150100/G	150mm	100mm

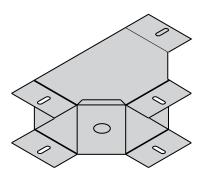
### Tee Lid Inside

Part No.	Width	Height
TLI/5050/G	50mm	50mm
TLI/7550/G	75mm	50mm
TLI/7575/G	75mm	75mm
TLI/10050/G	100mm	50mm
TLI/10075/G	100mm	75mm
TLI/100100/G	100mm	100mm
TLI/150100/G	150mm	100mm











### Joiners

Part No.	Width	Height
SJ/5050/G	50mm	50mm
SJ/7550/G	75mm	50mm
SJ/7575/G	75mm	75mm
SJ/10050/G	100mm	50mm
SJ/10075/G	100mm	75mm
SJ/100100/G	100mm	100mm
SJ/150100/G	150mm	100mm

### **End Cap**

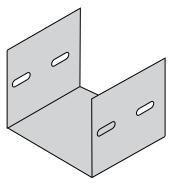
Part No.	Width	Height
C/5050/G	50mm	50mm
C/7550/G	75mm	50mm
C/7575/G	75mm	75mm
C/10050/G	100mm	50mm
C/10075/G	100mm	75mm
C/100100/G	100mm	100mm
C/150100/G	150mm	100mm

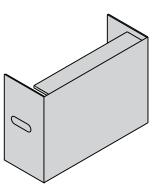
### 90° Lid Inside

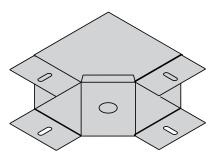
Part No.	Width	Height
HBLI/5050/G	50mm	50mm
HBLI/7550/G	75mm	50mm
HBLI/7575/G	75mm	75mm
HBLI/10050/G	100mm	50mm
HBLI/10075/G	100mm	75mm
HBLI/100100/G	100mm	100mm
HBLI/150100/G	150mm	100mm

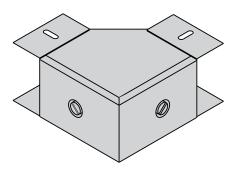
### 90° Lid Outside

Part No.	Width	Height
HBLO/5050/G	50mm	50mm
HBLO/7550/G	75mm	50mm
HBLO/7575/G	75mm	75mm
HBLO/10050/G	100mm	50mm
HBLO/10075/G	100mm	75mm
HBLO/100100/G	100mm	100mm
HBLO/150100/G	150mm	100mm











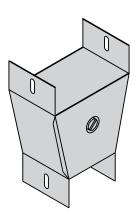


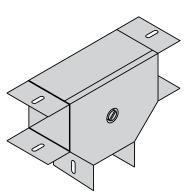
### Reducer

Part No.	Width	Height
R/5050/G	50mm	50mm
R/7550/G	75mm	50mm
R/7575/G	75mm	75mm
R/10050/G	100mm	50mm
R/10075/G	100mm	75mm
R/100100/G	100mm	100mm
R/150100/G	150mm	100mm

### Tee Horizontal

Part No.	Width	Height
TH/5050/G	50mm	50mm
TH/7550/G	75mm	50mm
TH/7575/G	75mm	75mm
TH/10050/G	100mm	50mm
TH/10075/G	100mm	75mm
TH/100100/G	100mm	100mm
TH/150100/G	150mm	100mm







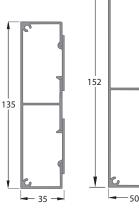




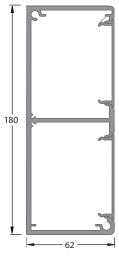
### Electrical - Extruded Aluminium Skirting Trunking

**Common Profiles** 









ALSKM	
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TD135

TD152

TD155 CAT 6

TD180 CAT 6

Part No.	Compartments	Finish
ALSKM*	2	AL/E
TD135*	2	AL/E
TD152*	2	AL/E
TD155 CAT 6	2	AL/E
TD180 CAT 6	2	AL/E

NOTES: Material: Aluminium 6063-T5 Standard length: 3 metres Types of Finish: AL = Mill Finish E = Epoxy Powder Coat. An = Anodised \* Specify clearly top or bottom lid. Ask for details of available punched hole shapes for outlet sw/skts.

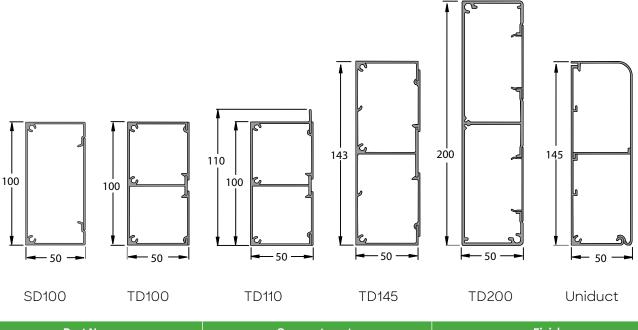
### \*Non Stock Items.Available to order



### Atkore Unistrut®

### Electrical - Extruded Aluminium Skirting Trunking

**Common Profiles** 



Part No.	Compartments	Finish
SD100	1	AL/E
TD100	2	AL/E
TD110	2	AL/E
TD145	2, 3, 4 (with divider strip)	AL/E
TD200	2 (with divider strip)	AL/E
Uniduct	2, 3, 4 (with divider strip)	AL/E

### NOTES:

Material: Aluminium 6063-T5 Standard length: 3 metres Types of Finish: AL = Mill Finish E = Epoxy Powder Coat An = Anodised

\*Non Stock Items.Available to order.

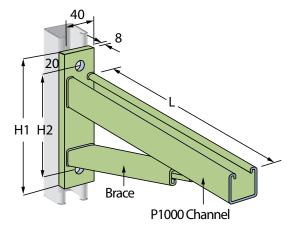




### **Support Brackets**

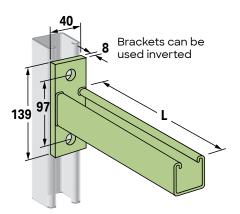
### PCL150 to PCL900

Part No.	L	H1	H2	Design Uniform Load kN	Mass kg/100
PCL150	320	200	160	3.98	170
PCL300	470	200	160	2.82	230
PCL450	635	235	195	2.35	340
PCL600	780	235	195	2.26	380
PCL750	930	300	260	3.83	470
PCL900	1080	300	260	3.58	510



### P2663 - 250 to P2663 - 700

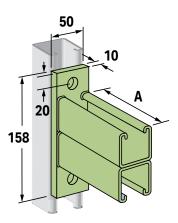
Part No.	L	Design Uniform Load - kN	Mass kg/100
P2663-250	250	3.01	102
P2663-400	400	1.88	143
P2663-450	450	1.51	153
P2663-550	550	1.36	186
P2663-700	700	1.06	229



### \*P2542 TO P2546

Part No.	А	Design Uniform - Load kN	Mass kg/100
P2542	305	7.57	228
P2543	460	5.22	314
P2544	610	3.98	400
P2545	760	3.21	487
P2546	915	2.67	574

\*Non stock item. Made to order.





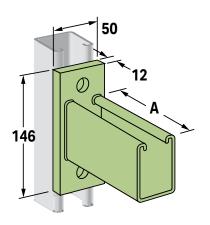


## **Support Brackets**

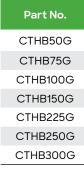
### \*P5663 - 300 to P5663 - 750

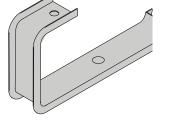
Part No.	А	Design Uniform - Load kN	Mass kg/100
P5663-300	300	6.93	173
P5663-450	450	4.78	224
P5663-600	600	3.62	276
P5663-750	750	2.91	327

\*Non stock item. Made to order.



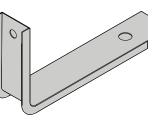
### Cable Tray Hanger Bracket - UA





### Cable Tray Wall Bracket - UA









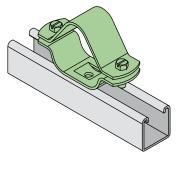


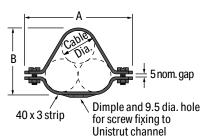
### **Cable Clamps**

### TF Series - Trefoil [ZP - or Aluminium Made to Order]

Specifically designed for fixing directly to Unistrut® channels.

Cable Dia.	Dim. A	Dim. B	Part No.
20	92	43	TF20
22	96	47	TF22
24	100	51	TF24
27	106	56	TF27
30	112	62	TF30
33	118	68	TF33
37	126	75	TF37
41	134	83	TF41
45	142	90	TF45

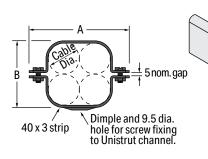


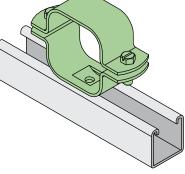


### QF Series Quadfoil [ZP - or Aluminium Made to Order]

Cable Dia.	Dim. A	Dim. B	Part No.
20	92	46	QF20
22	96	50	QF22
24	100	54	QF24
27	106	60	QF27
30	112	66	QF30
33	118	72	QF33
37	126	80	QF37
41	134	88	QF41
45	142	96	QF45

Specifically designed for fixing directly to Unistrut<sup>®</sup> channels.

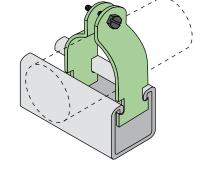




Slotted hex head screws included

### **Conduit Clamp**

Part No	Conduit Nom. Size	Conduit Actual Size	Mass Kg/100
P2027	16	15.8	4.5
P2028	20	19.8	5.0
P2030	25	24.8	6.4
P2032	32	31.8	7.3
P2034	40	39.8	8.2
P2037	50	49.8	12.7
P2042	63	62.8	15.9
P2046	65	75.3	18.6
P2050	80	88.9	21.3
P2058	100	114.3	30.4
P2070-62	150	160.2	44.5



Slotted hex head screw and nut included



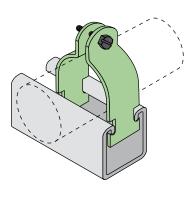




## **Cable Clamps**

### **Sheathed Cable Clamp**

Part No	Sheathed Cable O.D	Mass Kg/100	Part No.	Sheathed Cable O.D	Mass Kg/100
P2024	8	3.6	P2038	51	14.1
P2025	11	3.6	P2039	54	14.5
P2026	14	4.1	P2040	57	15.0
P2027	17	4.5	P2041	60	15.4
P2028	19	5.0	P2042	64	15.9
P2029	22	5.4	P2043	67	16.8
P2030	25	6.4	P2044	70	17.2
P2031	29	6.8	P2046	76	18.6
P2032	32	7.3	P2047	79	19.5
P2033	35	7.7	P2048	83	20.4
P2034	38	8.2	P2049	86	20.9
P2035	43	8.6	P2052	95	26.3
P2036	44	10.6	P2055	105	28.1
P2037	49	12.7			



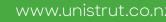
Slotted hex head screw and nut included

### KS2026-1 Series - Single Cable Clamp

Part No.	Cable Dia.	Dim. A	Dim. B	Mass Kg/100
KS2026-1	13	16	50	5.1
KS2028-1	19	22	58	6.2
KS2030-1	25	29	66	6.8
KS2032-1	32	35	71	8.0
KS2034-1	38	44	78	14.1
KS2036-1	44	51	86	16.0
KS2038-1	51	57	92	17.2
KS2040-1	57	64	98	19.0
KS2042-1	64	70	105	20.8
KS2044-1	70	76	113	22.8
KS2046-1	76	83	122	24.0

Non Stock Item. Available to Order

NOTE: Bottom Saddle if required can be ordered separately

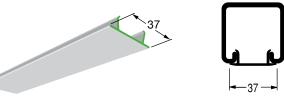




### **STRUT Accessories**

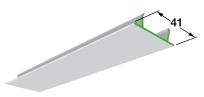
### P1184 - Plastic Closure Strip (UV Stabilised)

- Standard Length: 3m
- Mass: 0.11kg/m



#### P1184A - Aluminum Closure Strip

- Standard Length: 3m
- Mass: 0.18kg/m





### Strut End Caps - Plastic, UV Stabilised

#### P2240

- For P1000 & P2000 Strut
- Mass: 0.70kg/100



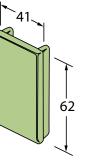
#### P4240

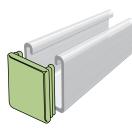
- For P3300 & P4000 Strut
- Mass: 0.40kg/100



#### P5580

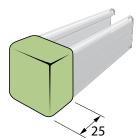
- Typical Installation
- For P5500 Strut
- Mass: 1.2kg/100





#### P2860-10 - Strut End Caps - Plastic

- Fits P1000 & P2000 Strut
- Mass: 1.54kg/100
- Note: Caps struts provide a protective covering on protruding Struts to guard against personal injury or damage to clothing. They slip easily over the ends of strut.
- Available in white only









Allied Tube & Conduit • AFC Cable Systems • Heritage Plastics • Unistrut Unistrut Construction • United Poly Systems • Calbrite • Calbond • Cii • US Tray Power-Strut • Calconduit • Razor Ribbon • Calpipe Security • Vergokan • Marco Columbia-MBF • Eastern Wire • Conduit • ACS/Uni-Fab • Sasco Strut • Kaf-Tech Cope • FRE Composites • Queen City Plastics • Four Star Industries • Flexicon

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