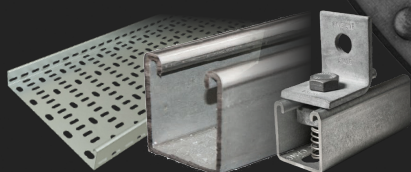


Atkore Defender™

//
Defend
your project. //

Comprehensive
System Solution



 Atkore™

Atkore Defender™

Comprehensive System Solution

The complete system solution

When designing for harsh environments where increased protection against corrosion is required, reach for the premium finish coating of Atkore Defender™.

Designed to streamline your installation process, Atkore Defender™ offers a product that contains self-healing properties which can eliminate the necessity to paint cut ends at the job site.

Encompassing metal framing and cable management, straight lengths and accompanying accessories are available in the Atkore Defender™ premium finish for a comprehensive system solution.

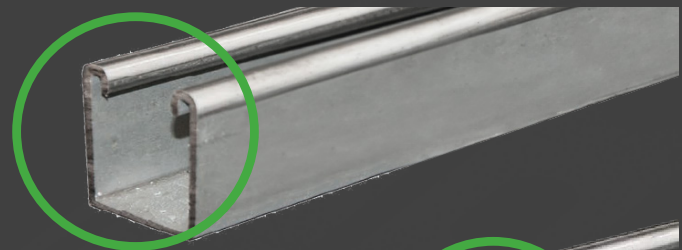
As the authentic Unistrut, we celebrate a century of innovation and continue to advance.



A cost-effective option

Outperforming Hot-Dip-Galvanising by lasting up to 3 times as long before reaching the red 5% red rust failure criteria*, the premium finish of Atkore Defender™ aids in extending the service life of your building, while reducing long term maintenance and labour costs.

Additionally, it's longer anticipated service life can also help enhance your project's sustainability credentials.



Atkore Defender™ heals over time

Healing duration can vary depending on weather, location, type and size of application.



Hot-Dip Galvanised rust may form on the cut end

Did you know?

1,000 hrs of continuous salt spray testing

proves the protection Atkore Defender™ can offer, see the results for yourself:*



Atkore Defender™



Hot-Dip Galvanised

Atkore Defender™

Comprehensive System Solution

Why choose Atkore Defender™?

For decades, engineers have had limited choices when it came to protecting steel from corrosion in outdoor environments. Hot-Dip Galvanised has long been the standard and provides a good level of protection. However, it most often will not protect the steel for the entire service life of the facility.

Atkore Defender™ offers a new alternative which ultimately extends the useful life of many projects. Below highlights why Atkore Defender is the tried, trusted, and chosen choice of engineers and contractors alike.

Main advantages



Self-healing coating

Can eliminate or reduce the necessity to paint cut ends at the job site.



Ideal in corrosive environments

Provides added protection from corrosion than alternatives such as Hot-Dip Galvanised.*



Streamlines installation

Coated straight lengths and accessories eliminate the binding of threads associated with Hot-Dip Galvanised.



Cost & labour savings

With little or no repainting and recoating required, this translates into bottom-line profits, yielding bigger long term and up-front savings.



* Based on average ASTM B117 salt spray test results.

Atkore Defender™

Comprehensive System Solution

Build a system that lasts

With a decade of established expertise in successfully installing systems in challenging real-world applications, Atkore Defender™ is designed and tested to ASTM and ISO standards for use in environments exposed to harsh conditions, where corrosion can be a concern. Formulated to withstand salt spray, high humidity, and other environmental extremes seen in demanding and mission-critical applications, Atkore Defender™ coated product is

ideal to specify on projects such as, mobile phone towers, electrical substations, solar panel framing, rooftop supports, highways, and other installations where hot-dipped galvanised products may not be up to the task.

When choosing Atkore Defender™, you can be rest assured that our product is proven to perform.

This is supported by:



Rigorous testing

Third party, accredited laboratory tests plus ISO & ASTM standards to back up performance claims.



Case Studies

Real-world case studies demonstrating use of Atkore Defender™ in different types of applications.



Real-world cases

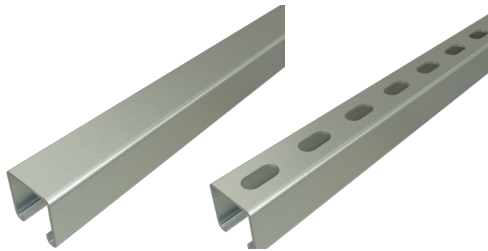
Real-world cases that demonstrate the advantages of Atkore Defender™ under various conditions.



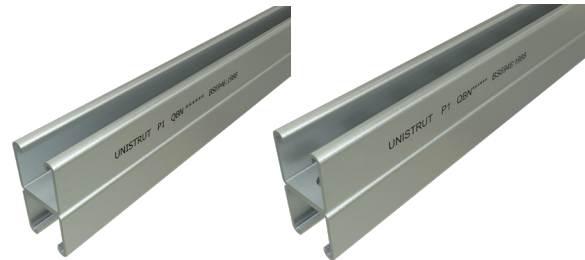
Atkore Unistrut

Atkore Defender™

Atkore Defender™ coated Unistrut and fittings offer total flexibility in design and construction of assemblies for framing applications, suitable for use in harsh conditions. With products available in a range of materials and finishes, offering differing degrees of corrosion protection, there is a suitable solution for a variety of environments.



P1 Series				
Part Type	Slot	Type	Size (mm)	Length (mm)
P1000	None	Single	41x41	3000 & 6000
P1000T	M12	Single	41x41	3000 & 6000
P1000T10	M10	Single	41x41	3000 & 6000



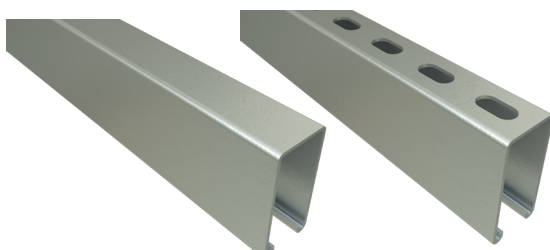
P1 Series				
Part Type	Slot	Type	Size (mm)	Length (mm)
P1001	None	Double	82x41	3000 & 6000
P1001T	M12	Double	82x41	3000 & 6000
P1001T10	M10	Double	82x41	3000 & 6000



P3 Series				
Part Type	Slot	Type	Size (mm)	Length (mm)
P3300	None	Single	21x41	3000 & 6000
P3300T	M12	Single	21x41	3000 & 6000
P3300T10	M10	Single	21x41	3000 & 6000



P3 Series				
Part Type	Slot	Type	Size (mm)	Length (mm)
P3301	None	Double	41x41	3000 & 6000
P3301T	M12	Double	41x41	3000 & 6000
P3301T10	M10	Double	41x41	3000 & 6000



P5 Series				
Part Type	Slot	Type	Size (mm)	Length (mm)
P5000	None	Single	83x41	3000 & 6000
P5000T	M12	Single	83x41	3000 & 6000
P5000T10	M10	Single	83x41	3000 & 6000



P5 Series				
Part Type	Slot	Type	Size (mm)	Length (mm)
P5001	None	Double	166x41	3000 & 6000
P5001T	M12	Single	166x41	3000 & 6000
P5001T10	M10	Single	166x41	3000 & 6000

Cable Tray Part Guide

Atkore Defender™

By using the information tables included within this booklet, you can identify the product required with ease. Follow the below steps to formulate your part code:

How to formulate part codes

Step 1

Choose the designation

- TUL = Light Duty
- TUM = Medium Duty
- TUH = Heavy Duty
- TUEH = Extra Heavy Duty

Step 5

Choose riser type*

- OR = Outside Riser
- IR = Inside Riser
- AR = Adjustable Riser

Step 2

Specify type

- LT = Straights
- B = Flat Bend
- X = Equal Cross
- T = Equal Tee

Step 6

Choose reducer type*

- OR = Outside Reducer
- IR = Inside Reducer
- AR = Adjustable Reducer

Step 3

Choose width

- Width ranges:
- From: 50 mm
- Up to 900 mm

Step 7

Choose reducer width 1 & 2*

- Width ranges:
- From: 50 mm
- Up to 900 mm

Step 4

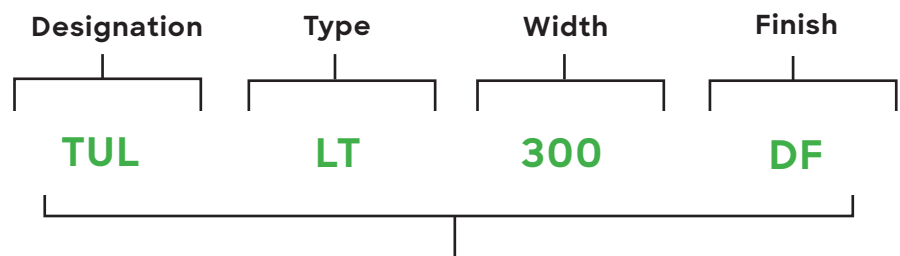
Choose angle*

- 45°
- 90°

Step 8

Choose finish code

- For Defender™ finish specify 'DF'



Part code for project specification:

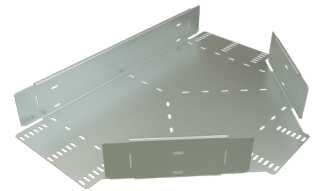
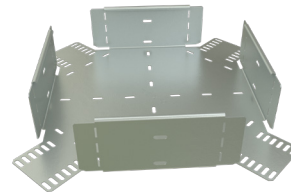
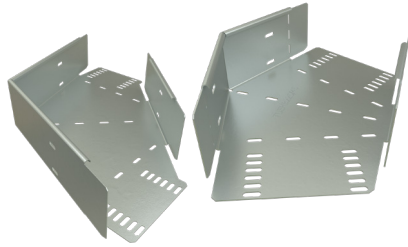
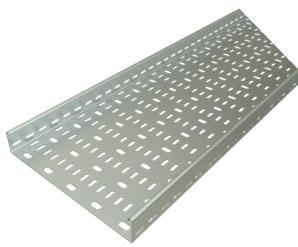
TUMLT300DF

* If applicable

Cable Tray

Atkore Defender™

The complete range of Atkore Unistrut Cable Tray, available in the Defender™ coating, is suitable for use in **Light (TULL)**, **Medium (TUMLT)**, **Heavy (TUHLT)** and **Extra Heavy (TUEHLT)** duty applications. With a variety of sizes, many being standard factory items whilst other sizes are available upon request, the ultimate in flexibility, quality, speed of installation and corrosion protection is offered.



Cable Tray Straight

Tray Designation	Width (mm)
TUL	50
TUM	75
TUH	100
TUEH	150
	225
	300
	450
	600
	750
	900

Cable Tray Flat Bend

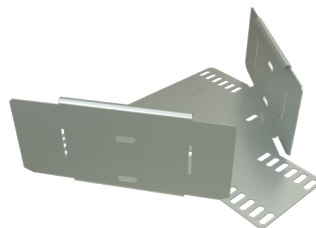
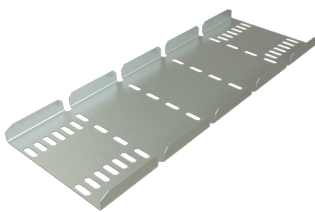
Tray Designation	Width (mm)	Degree
TUL	50	45°
TUM	75	90°
TUH	100	
TUEH	150	
	225	
	300	
	450	
	600	
	750	
	900	

Cable Tray Equal Cross

Tray Designation	Width (mm)
TUL	50
TUM	75
TUH	100
TUEH	150
	225
	300
	450
	600
	750
	900

Cable Tray Equal Tee

Tray Designation	Width (mm)
TUL	50
TUM	75
TUH	100
TUEH	150
	225
	300
	450
	600
	750
	900



Cable Tray Riser

Tray Designation	Riser Type	Width (mm)
TUL	OR	50
TUM	IR	75
TUH	AR	100
TUEH		150
		225
		300
		450
		600
		750
		900

Cable Tray Reducer

Tray Designation	Riser Type	Width 1 (mm)	Width 2 (mm)
TUL	OR	50	50
TUM	IR	75	75
TUH	AR	100	100
TUEH		150	150
		225	225
		300	300
		450	450
		600	600
		750	750
		900	900

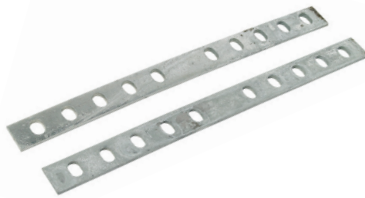
Cable Tray Accessories

Atkore Defender™

A complete range of Atkore Unistrut Accessories are also available in the Atkore Defender™ coated finish, offering a complete and comprehensive system solution. Overall, this removes the need to source product from elsewhere. Ultimately, simplifying and streamlining the project specification process. Atkore can deliver your cable management and protection needs under one roof.



Fish plate (For Light Duty Cable Tray)



Straight splice



Wrap over splice



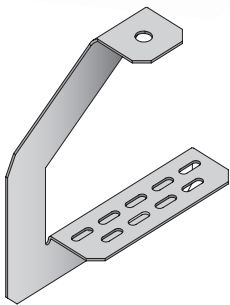
Covers & ventilated cover clips



Dividers



Earth continuity connector



Overhead cantilever bracket



Stand off brackets



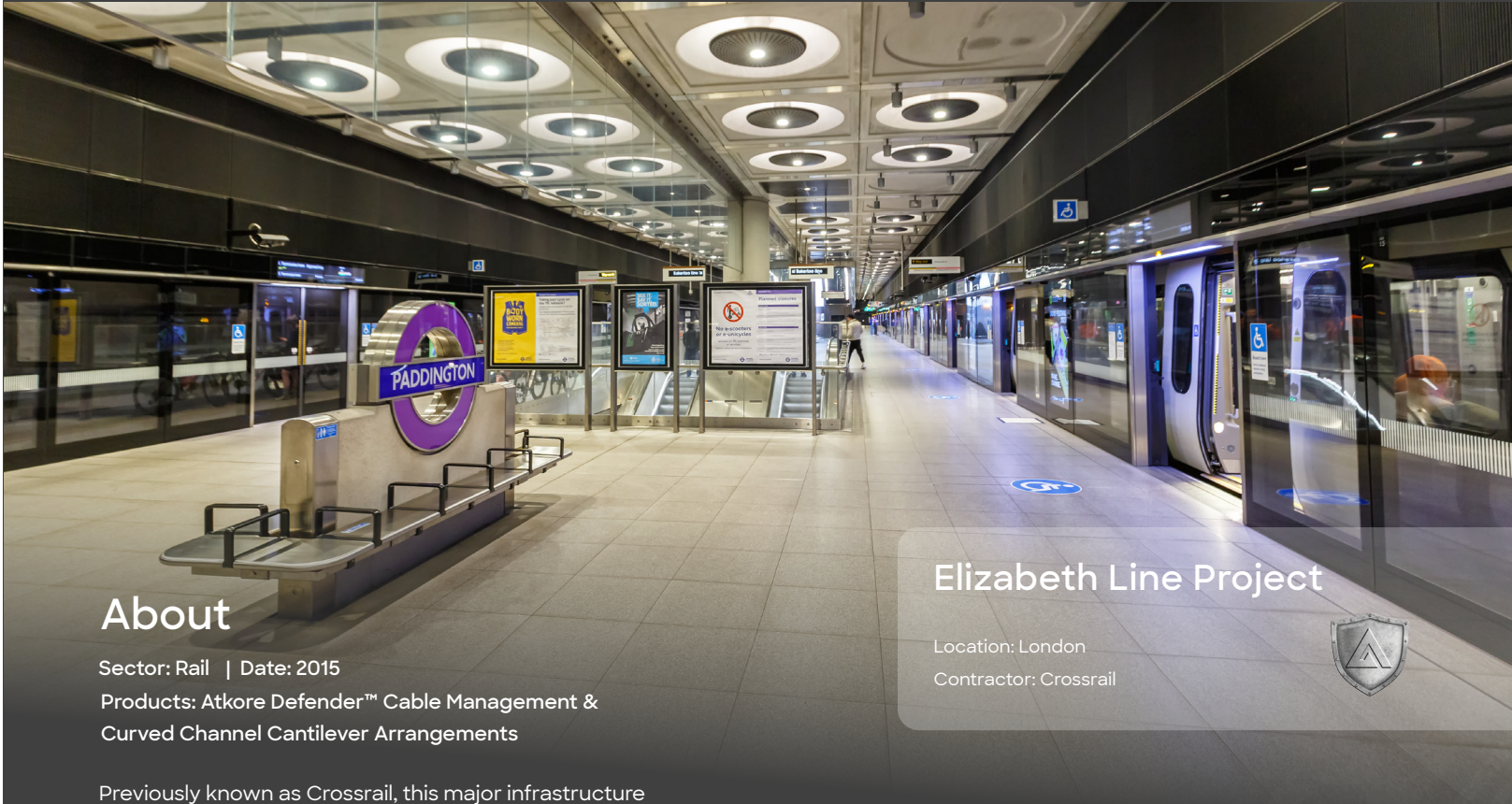
Learn more

For further guidance, support or help with specifying Atkore Defender™ on your existing or new construction project, contact our sales team who will be delighted to discuss requirements in more detail.



Real-World Applications

Atkore Defender™ Case Study



About

Sector: Rail | Date: 2015

Products: Atkore Defender™ Cable Management & Curved Channel Cantilever Arrangements

Previously known as Crossrail, this major infrastructure project in London was designed to improve the transportation network across the city. Spanning over 42 kilometers, the Elizabeth Line connects Reading and Heathrow in the west with Shenfield and Abbey Wood in the east.

Challenges

The Elizabeth Line's running tunnels required Cable Management Systems (CMS) that could withstand harsh environmental conditions, including moisture, vibration, and potential chemical contamination.

Given the tight schedules and spatial constraints within the tunnels, the installation of the CMS needed to be as swift and efficient as possible.



*Atkore's technical **manufacturing expertise**, as well as **logistical capability** enabled them to work collaboratively with ATC JV as a partner to support and deliver the project on behalf of Crossrail.*

Joe Kemm, ATC JV, M&E Project Manager



Elizabeth Line Project

Location: London

Contractor: Crossrail



Solution

To solve the potential problem of harsh environmental conditions, Atkore Defender™ finish was chosen for the CMS, significantly extending lifespan in comparison to standard HDG products. This innovative coating ensured the infrastructure would remain in optimal condition, reducing maintenance costs and downtime.

To ensure swift and efficient installation, Atkore supplied over 29,000 curved channel cantilever arrangements, specifically designed to facilitate faster installation. These pre-engineered solutions minimised the need for on-site modifications, allowing the project to progress smoothly to meet critical deadlines.

Real-World Applications

Atkore Defender™ Case Study



Floating PV Installation

Location:

Germany | Belgium | Netherlands



About

Sector: Solar | Date: July 2023

Products: Atkore Defender™ Cable Tray & Accessories

Floating PV installations are fully integrated PV solutions for lakes and dams. Designed as a complete system, with integrated inverter boats, gang & maintenance ways, cable ducts, wave barriers, plant boats, and floating transformer stations, the design was realised with durable materials for long term energy generation. Throughout the process, great consideration was given to the project's environmental impact.

The floating system uses a steel mounting structure with Atkore Defender™, a unique, durable, and environmentally friendly corrosion protection coating. Plus, static and dynamic calculations were also performed individually.

In total, the contractor completed 23 of these projects, resulting in 258MWP installed capacity.

Challenges



The system is based on floating devices that are 5 meters long. With wire baskets in standard lengths of 3 meters, this resulted in 1 meter of waste per float (or almost 17%).

Solution



To solve this issue, the team designed and manufactured wire baskets in bespoke lengths. Each wire basket is being coupled with a snap quick-joiner.

This tailor-made solution, combined with the quick responses of both sales and product development, gave us the edge we needed to cater to the needs of the client.




*Our network of **certified** partners provide **support** from project conception, through to implementation, and beyond.*

Dirk Maeyens, Sales & Marketing Director - Atkore Vergokan



Notes

A large rectangular area filled with a light blue grid pattern, intended for taking notes. The grid is composed of small squares.



**BUILDING BETTER
TOGETHER**

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Atkore UK

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