

PATENTED WITH SELF CLEANING HINGE

MADE IN **GERMANY**



DEFENDER[®]

CABLE PROTECTION SYSTEMS

THE INDUSTRY & EVENT STANDARD

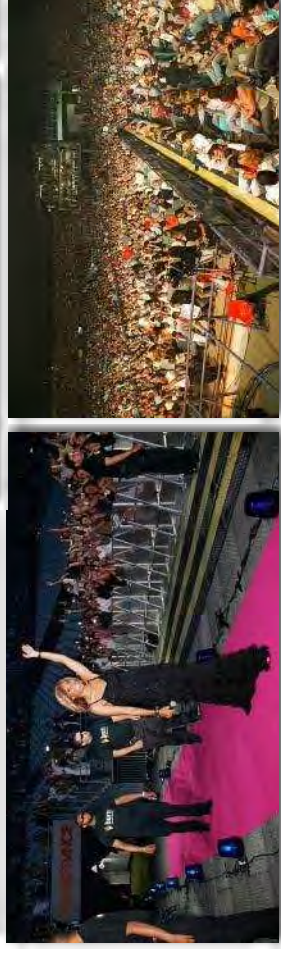


Via F.lli Lumiere 15, Z.I. La Selva 47122 Forlì (FC) ITALY
Tel. +39 0543 783511 - Fax. +39 0543 783550
info@trabes.it - www.trabes.it





DEFENDER[®]
CABLE PROTECTION SYSTEMS
THE INDUSTRY & EVENT STANDARD



RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / department stores / construction sites, streets, etc.

However, please ensure compliance with road traffic regulations (higher than 75 mm)

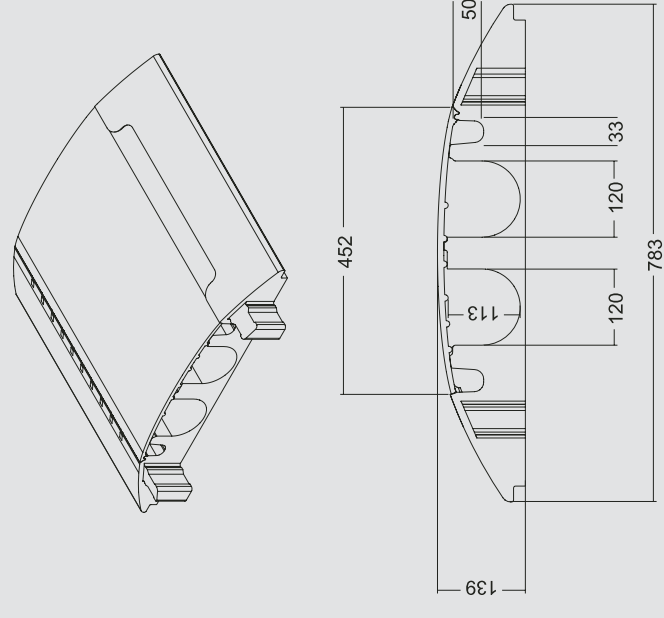
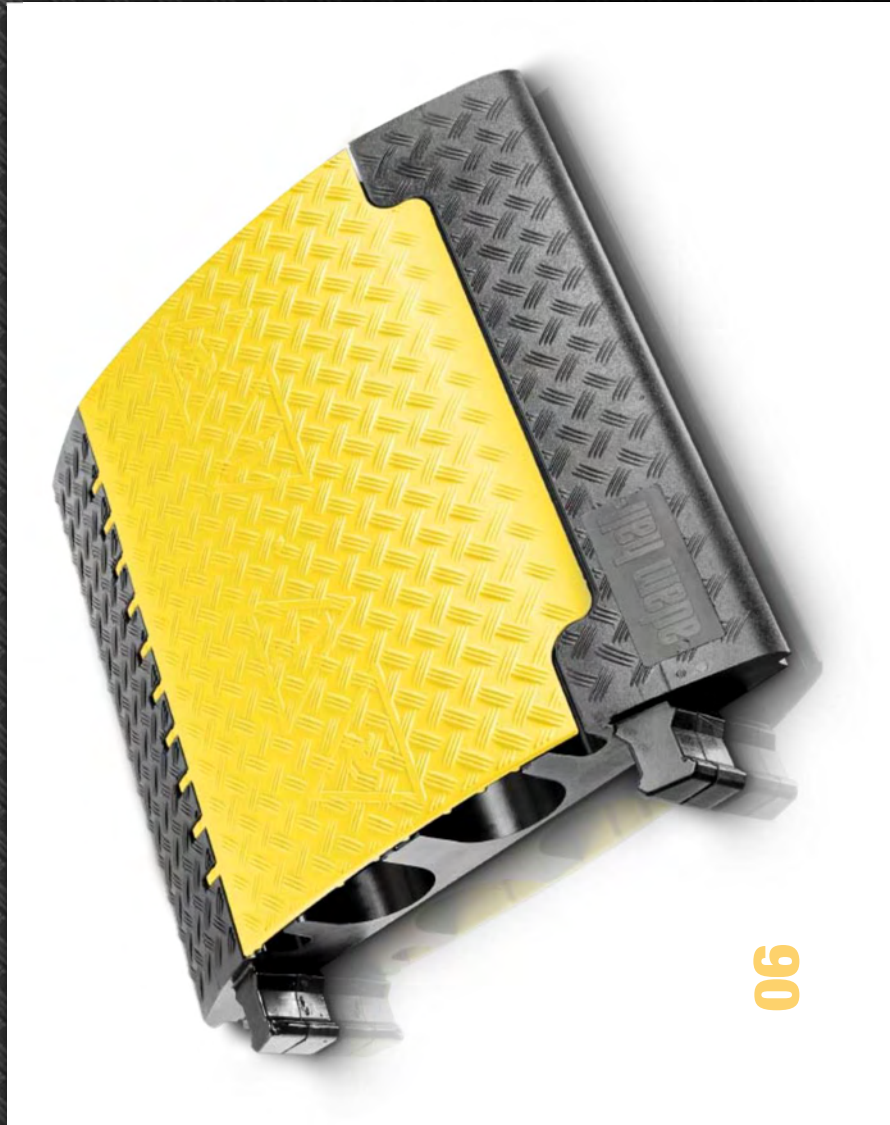
DEFENDER® ULTRAL

2 XXL CHANNELS – THE HEAVY DUTY GIANT

This cable crossover was developed in collaboration with suppliers for major events. The key features of this heavy-duty crossover is the two oversized cable / hose ducts for lines up to 120 mm, and for fragile connections and connector housings not exceeding 100 mm.

SPECIFICATIONS:

Art. No.:	85600
Product:	cable protector
Type:	2-Channel
Length:	70 cm
Width:	78.3 cm
Height:	13.9 cm
Number of Channels:	2 + 2
Widths Channel 1-4:	3.3 cm / 12 cm / 12 cm / 3.3 cm
Heights Channel 1-4:	5 cm / 11.3 cm / 11.3 cm / 5 cm
Material:	TPU (Thermoplastic Polyurethane)
Load bearing:	Approx 5 tons per typical tyre imprint (20 x 20 cm)
Chemical resistance:	oil, acid & petrol resistant
Degree of hardness:	Shore A hardness: 88 ± 4
Flame class:	B2 (also available in B1 flame resistant)
Operating range:	-30°C up to +60°C
Weight:	30.5 kg



RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / department stores / construction sites, streets, etc.

However, please ensure compliance with road traffic regulations (higher than 75 mm)

DEFENDER® XXL

5 HUGE CHANNELS – THE HEAVY DUTY ALLROUNDER

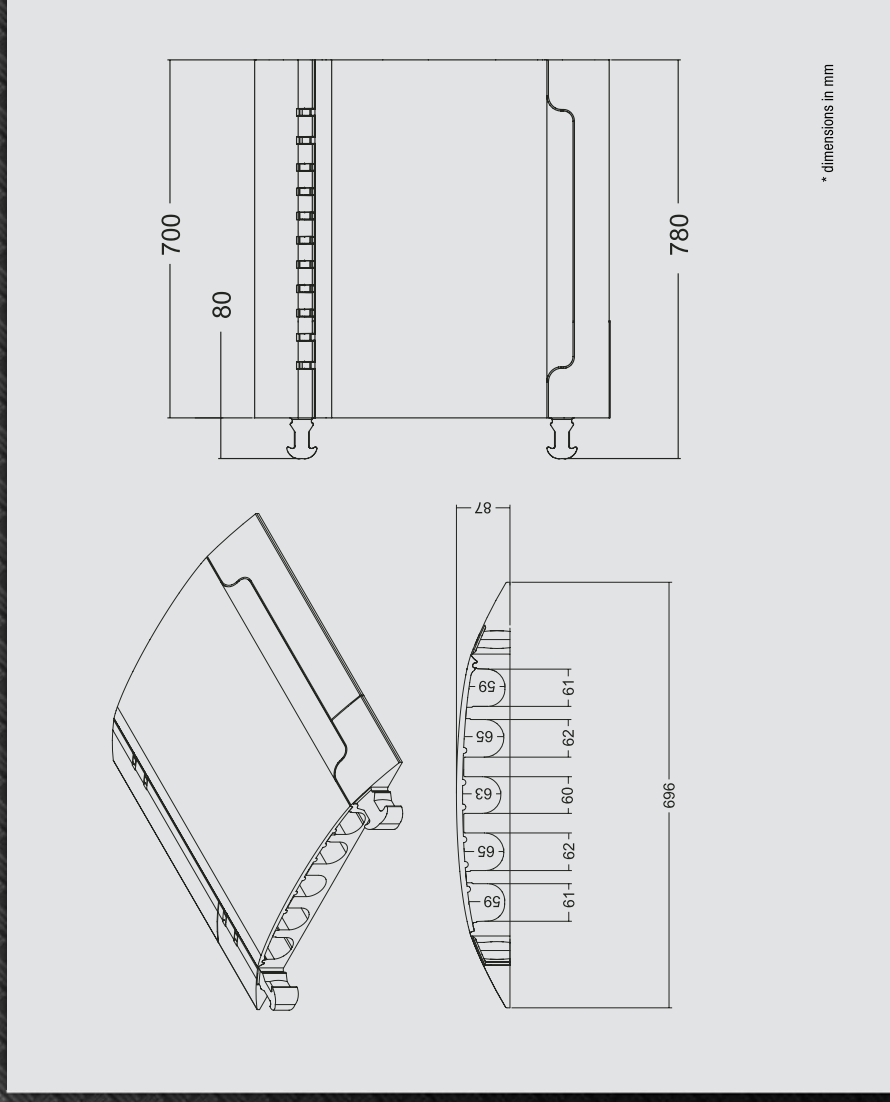
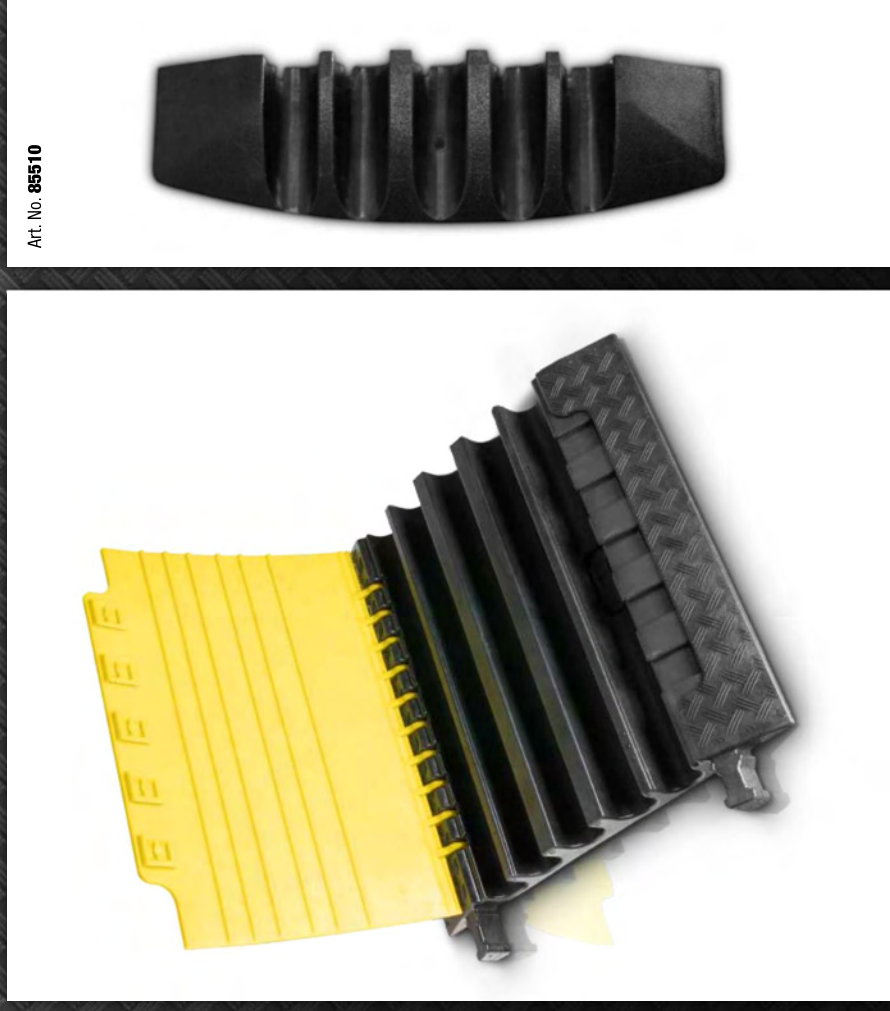
Together with the industry and leading rental companies we have developed our new flagship of the DEFENDER series - 5 huge cable ducts – 3 of them are suitable for C-Tube hose as used by the fire brigade (Ø 62 mm). Power cables also have optimum protection. The load bearing actually surpasses the DEFENDER III at more than 5 tons.

SPECIFICATIONS:

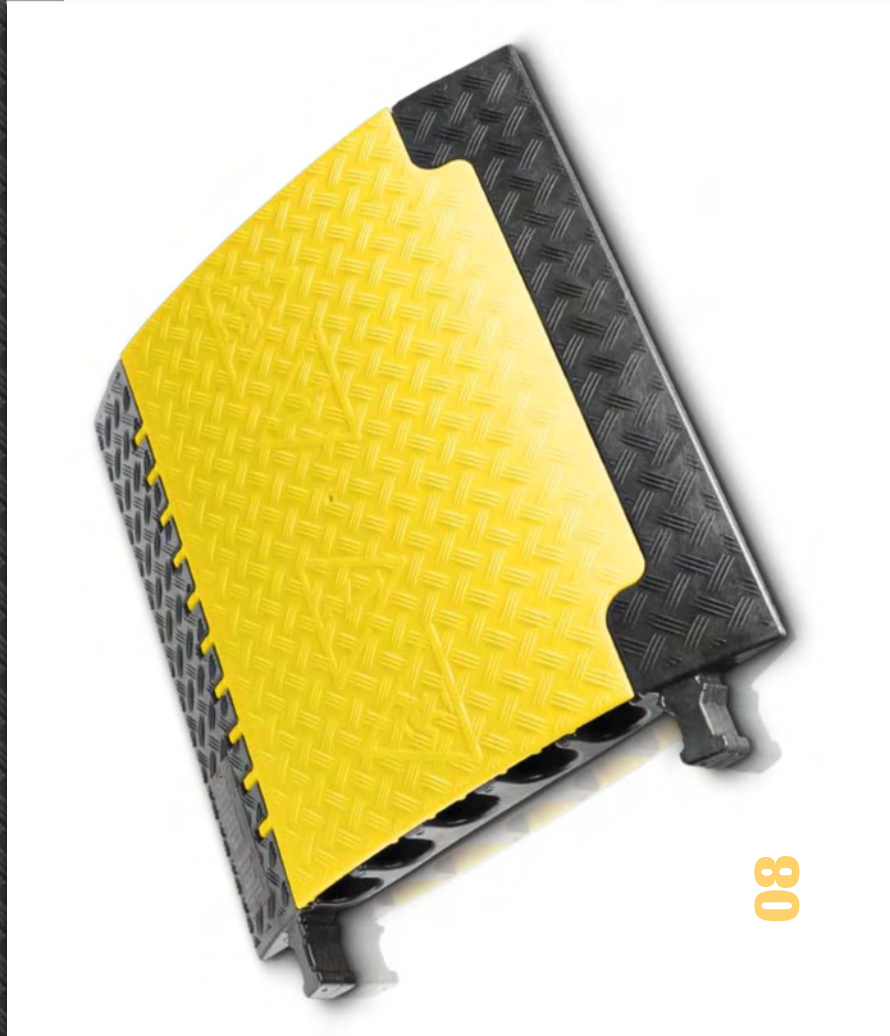
Art. No.:	85500
Product:	cable protector
Type:	5-Channel
Length:	70 cm
Width:	69.6 cm
Height:	8.7 cm
Number of Channels:	5
Widths Channel 1-5:	6.1 cm / 6.2 cm / 6.0 cm / 6.2 cm / 6.1 cm
Heights Channel 1-5:	5.9 cm / 6.5 cm / 6.3 cm / 6.5 cm / 5.9 cm
Material:	TPU (Thermoplastic Polyurethane)
Load bearing:	Approx 5 tons per typical tyre imprint (20 x 20 cm)
Chemical resistance:	oil, acid & petrol resistant
Degree of hardness:	Shore A hardness: 88 ± 4
Flame class:	B2 (also available in B1 flame resistant)
Operating range:	-30°C up to +60°C
Weight:	21.4 kg

AVAILABLE ACCESSORIES:

Art. No. 85510 – End ramp for DEFENDER XXL



Art. No. 85510



RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / department stores / construction sites, streets, etc.

DEFENDER® III

3 BIG CHANNELS – MOST POPULAR

Black polyurethane construction with textured non-slip surface and highly visible yellow polyethylene lid including three cable ducts. Lid load bearing capacity per typical tyre imprint. Crossover lengths are joined by connector plugs, available individually. Each crossover is supplied with one pair of connector plugs. New lid with patented hinge (lid remains attached while cables are laid) and integrated zipper fastener, providing better protection from soiling and tearing than traditional Velcro fasteners. A complete range of accessories expands the DEFENDER III into a flexible system for protecting your valuable cables and multicores.

SPECIFICATIONS:

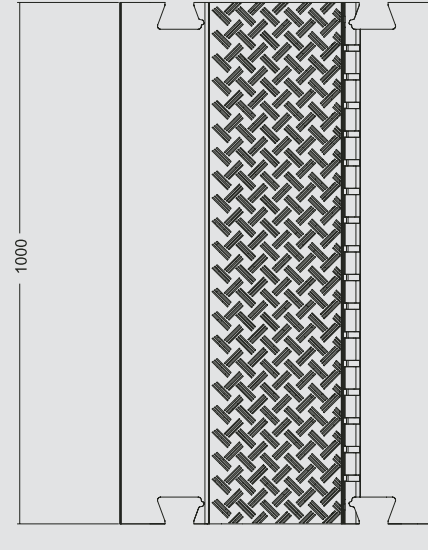
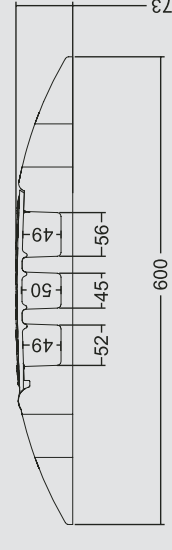
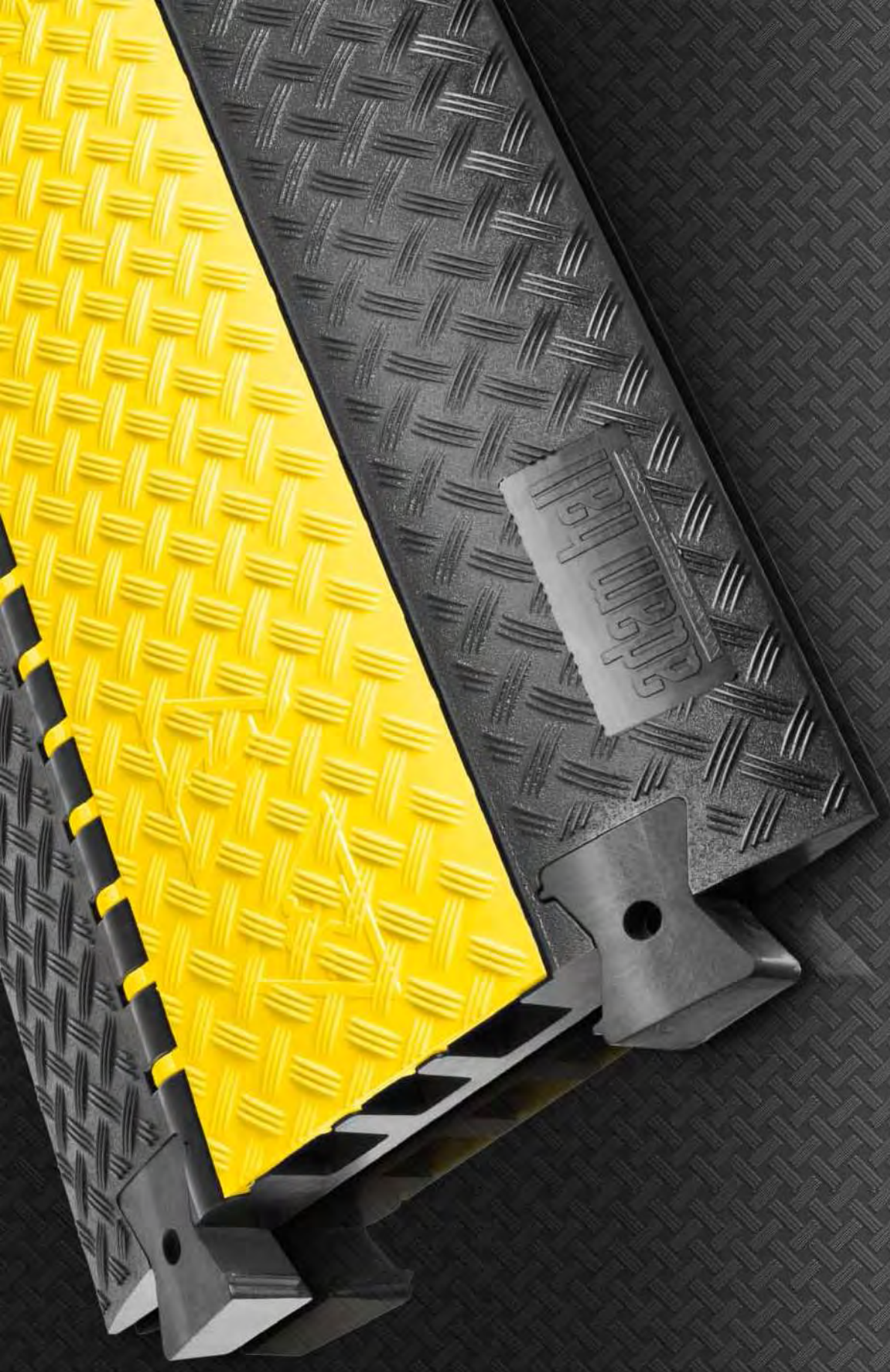
Art. No.:	85002
Product:	cable protector
Type:	3-Channel
Length:	100 cm
Width:	60 cm
Height:	7.3 cm
Number of Channels:	3
Widths Channel 1-3:	5.2 cm / 4.5 cm / 5.6 cm
Heights Channel 1-3:	4.9 cm / 5.0 cm / 4.9 cm
Material:	TPU (Thermoplastic Polyurethane)
Load bearing:	Approx 6 tons per typical tyre imprint (20 x 20 cm)
Chemical resistance:	oil, acid & petrol resistant
Degree of hardness:	Shore A hardness: 88 ± 4
Flame class:	B2 (also available in B1 flame resistant)
Operating range:	- 40° C bis + 70° C
Weight:	22 kg

AVAILABLE ACCESSORIES:

Art. No. **85009** - 45° curve with removable lid. A pair of connector plugs is included.

Art. No. **85004** - Connector plugs are available individually.

Art. No. **85008** - End ramp for cable outlet reduces the risk of tripping.



* dimensions in mm

RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / department stores / construction sites, streets, etc.

DEFENDER® MIDI

5 MEDIUM CHANNELS – THE SOLUTION FOR NEARLY ANYTHING

The latest innovation, in response to numerous customer requests: A system intermediate between the Defender Compact and the Defender III. This cable crossover features 5 cable ducts, moulded connectors, and a lower height and lighter weight than the Defender III. The load bearing capacity is similar to that of the Defender III.

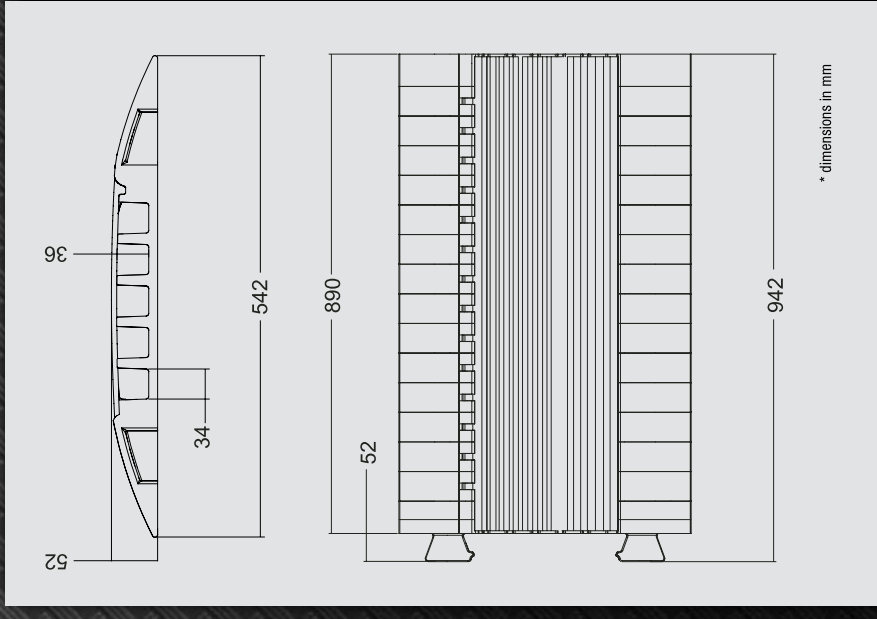
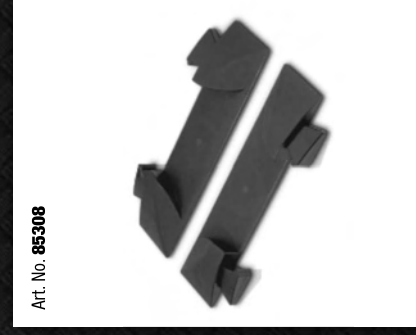
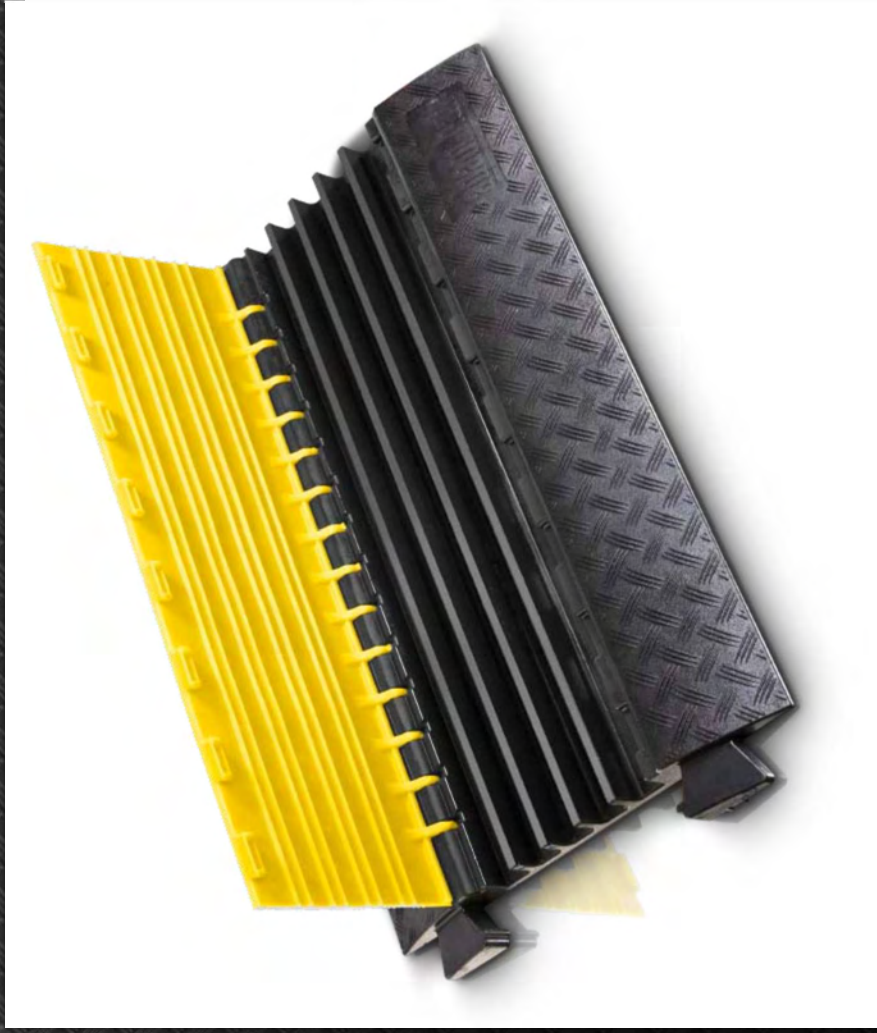
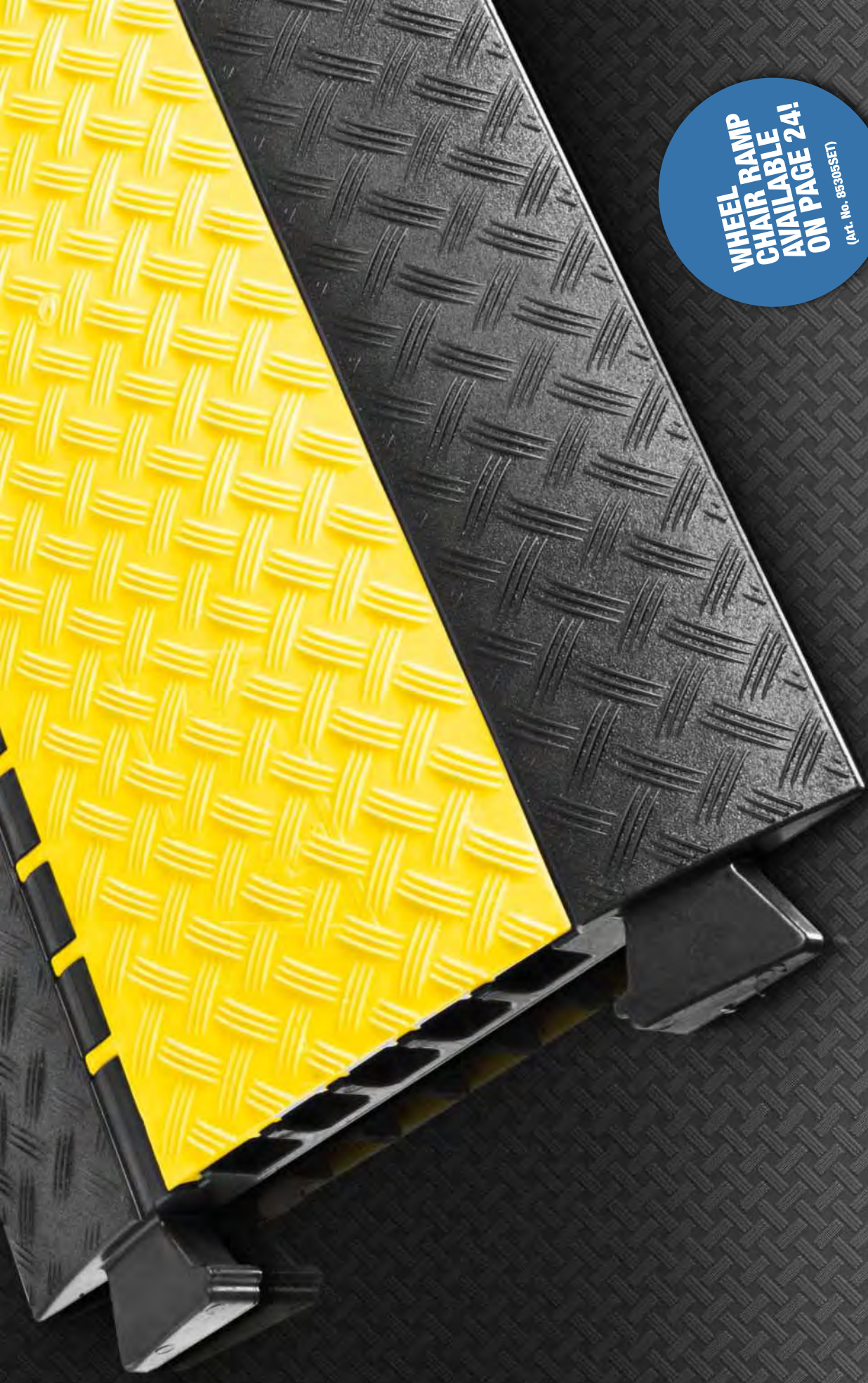
SPECIFICATIONS:

Art. No.:	85300
Product:	cable protector
Type:	5-Channel
Length:	89 cm
Width:	54.2 cm
Height:	5.2 cm
Number of Channels:	5
Widths Channel 1-5:	3.4 cm / 3.4 cm / 3.4 cm / 3.4 cm / 3.4 cm
Heights Channel 1-5:	3.6 cm / 3.6 cm / 3.6 cm / 3.6 cm / 3.6 cm
Material:	TPU (Thermoplastic Polyurethane)
Load bearing:	Approx 5 tons per typical tyre imprint (20 x 20 cm) oil, acid & petrol resistant
Chemical resistance:	oil, acid & petrol resistant
Degree of hardness:	Shore A hardness: 88 + 4
Flame class:	B2 (also available in B1 flame resistant)
Operating range:	- 30° C bis + 60° C
Weight:	11.5 kg

AVAILABLE ACCESSORIES

Art. No. **85009** - 45° curve for DEFENDER MIDI
Art. No. **85308** - End ramp for DEFENDER MIDI

**WHEEL RAMP
CHAIR RAMP
AVAILABLE
ON PAGE 24!**
(Art. No. 85305SET)



* dimensions in mm

RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / department stores / construction sites, streets, etc.

DEFENDER® MIDI 4C

4 CHANNELS – 1 CHANNEL FOR FIRE HOSE

The cable protection Midi 4C differs from the previous midi only in the number of channels. Instead of five equal-sized channels, the Midi 4C has 4 channels with one channel twice as wide (6.8 cm). This wider channel allows the insertion of significantly thicker cables than with the standard Midi cable crossover. Even a Fire hose can be carried out by the Midi 4C.

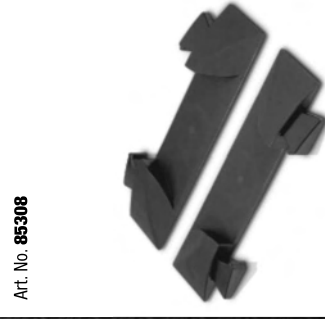
SPECIFICATIONS:

Art. No.:	85301
Product:	cable protector
Type:	4-Channel
Length:	89 cm
Width:	54.2 cm
Height:	5.2 cm
Number of Channels:	4
Widths Channel 1-4:	3.4 cm / 3.4 cm / 3.4 cm / 8.0 cm
Heights Channel 1-4:	3.6 cm / 3.6 cm / 3.6 cm / 3.6 cm
Material:	TPU (Thermoplastic Polyurethane)
Load bearing:	Approx 5 tons per typical tyre imprint (20 x 20 cm)
Chemical resistance:	oil, acid & petrol resistant
Degree of hardness:	Shore A hardness: 88 ± 4
Flame class:	B2 (also available in B1 flame resistant)
Operating range:	- 30° C bis + 60° C
Weight:	11.5 kg

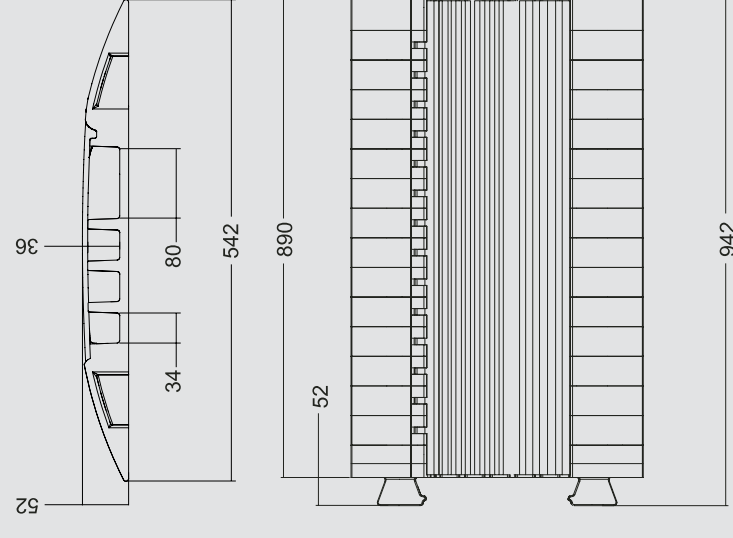
AVAILABLE ACCESSORIES:

Art. No. 85308 - End ramp for DEFENDER MIDI 4C

NEW!



Art. No. 85308



* dimensions in mm

RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / department stores / construction sites, streets, etc.

DEFENDER[®] MINI

3 SMALL CHANNELS — THE LIGHTWEIGHT CHAMPION

Small but sturdy. Light, professional and universally applicable, with the familiar black and yellow design. The new Defender Mini meets every expectation for professional cable protection, expanding the Defender series with a very light (only 5 kg), compact cable crossover, capable of supporting vehicle traffic.

Featuring three cable ducts and a cable cross-section of 35 mm, with an overall height of 48 mm, although used primarily indoors, this crossover can readily support car traffic, due to the load-bearing capacity of more than 2 tons. The bottom of the Defender Mini has a non-slip surface, to ensure an optimal grip on the widest variety of surfaces. Like all of the Defender series crossovers, the Defender Mini is resistant to oils, acids, and petrol, and has a patented self-cleaning hinged closure.

SPECIFICATIONS:

Art. No.:	85200
Product:	cable protector
Type:	3-Channel
Length:	100 cm
Width:	29 cm
Height:	4.8 cm
Number of Channels:	3
Widths Channel 1-3:	3.5 cm / 3.5 cm / 3.5 cm
Heights Channel 1-3:	3.0 cm / 3.5 cm / 3.0 cm
Material:	TPU (Thermoplastic Polyurethane)
Load bearing:	Approx. 2 tons per typical tyre imprint (20 x 20 cm)
Chemical resistance:	oil, acid & petrol resistant
Degree of hardness:	Shore A hardness: 88 + 4
Flame class:	B2 (also available in B1 flame resistant)
Operating range:	- 30° C bis + 60° C
Weight:	5 kg

AVAILABLE ACCESSORIES:

Art. No. **85208F** - End Ramp female for 85200/85200BLK Cable Protector 3-channels
Art. No. **85208M** - End Ramp male for 85200/85200BLK Cable Protector 3-channels

ALSO AVAILABLE WITH BLACK WITH LID!

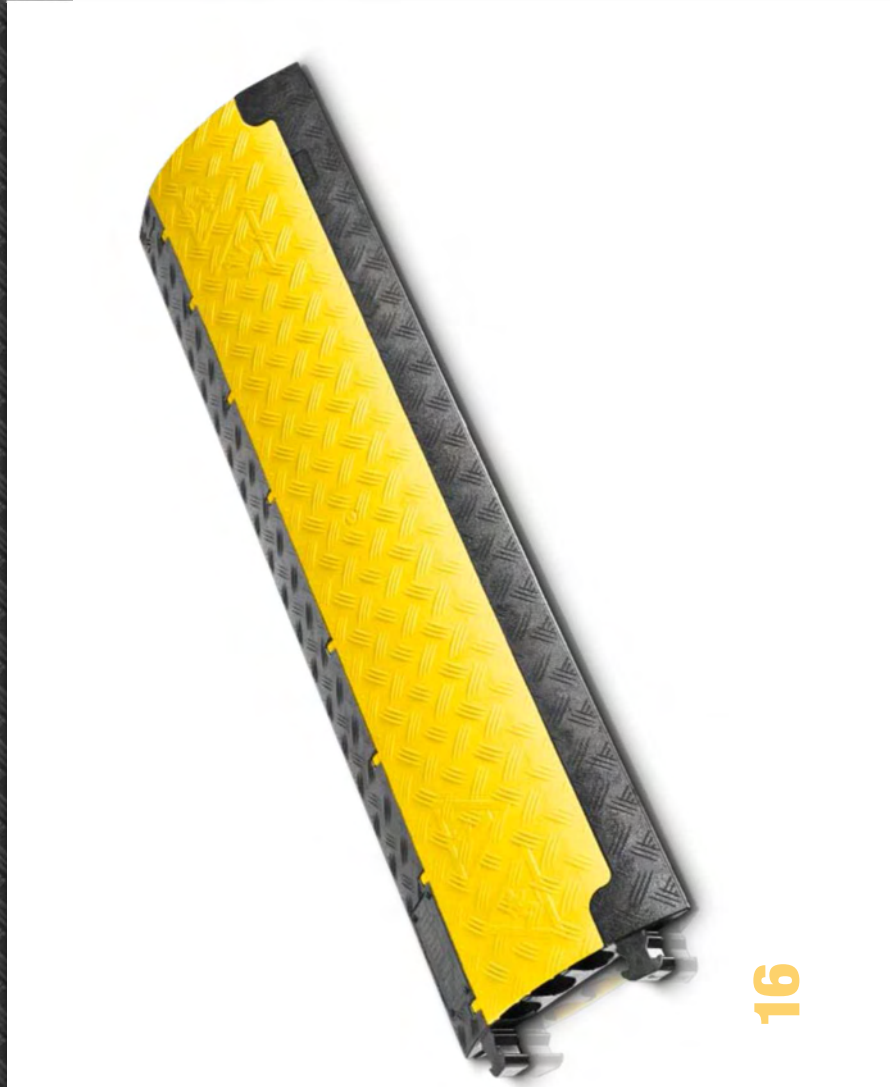
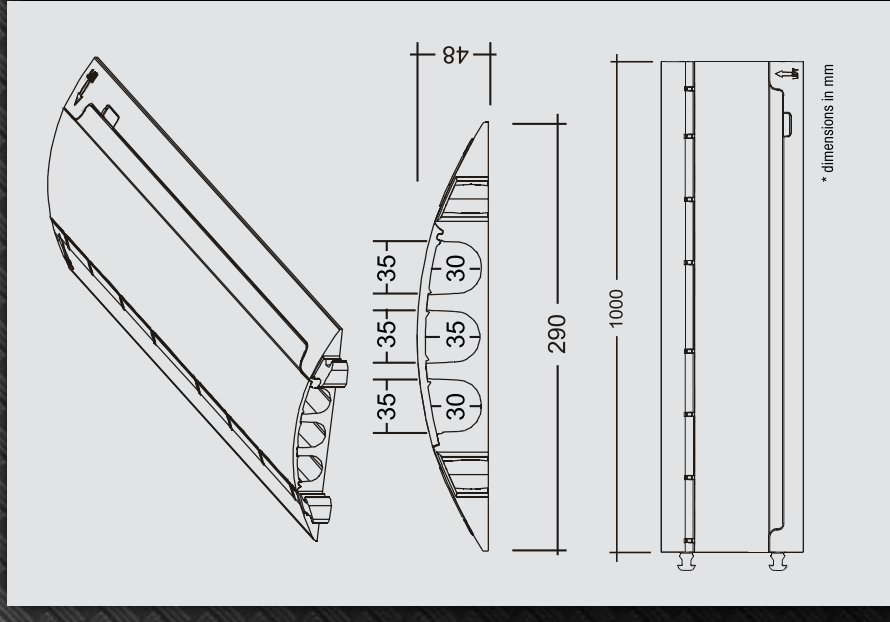
Art. No. 85200BLK



Art. No. 85208F



Art. No. 85208M



RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / department stores / construction sites, streets, etc.

DEFENDER® NANO

6 SLIM CHANNELS – DISCRETE OUTDOOR / INDOOR PROTECTION

The smallest unit, with great potential. Light, professional, wheelchair accessible and universally applicable.

With 6 channels the DEFENDER NANO meets all demands for a professional cable crossover in the smallest size.

Thanks to the addition of this compact, extremely light (approx. only 4kg) and durable (including vehicle traffic) cable crossover, the DEFENDER Series of cable protectors is now complete in the compact sector.

SPECIFICATIONS:

Art. No.:	85150
Product:	cable protector
Type:	6-Channel
Length:	100 cm
Width:	28 cm
Height:	3.2 cm
Number of Channels:	6
Widths Channel 1-6:	1.7 cm / 1.7 cm / 1.7 cm / 1.7 cm / 1.7 cm / 1.7 cm
Heights Channel 1-6:	1.8 cm / 1.8 cm / 1.9 cm / 1.9 cm / 1.8 cm / 1.8 cm
Material:	TPU (Thermoplastic Polyurethane)
Load bearing:	Approx. 2 tons per typical tyre imprint (20 x 20 cm)
Chemical resistance:	oil, acid & petrol resistant
Degree of hardness:	Shore A hardness: 88 + 4
Flame class:	B2 (also available in B1 flame resistant)
Operating range:	- 30° C bis + 60° C
Weight:	4,37 Kg

AVAILABLE ACCESSORIES:

Art. No. **85158F** - End Ramp female for 85150/85150BLK Cable Protector 6-channels

Art. No. **85158M** - End Ramp male for 85150/85150BLK Cable Protector 6-channels

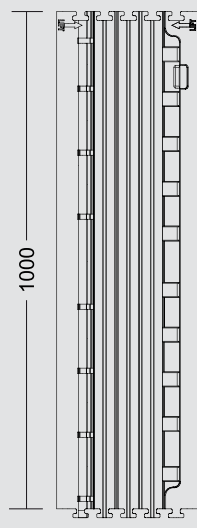
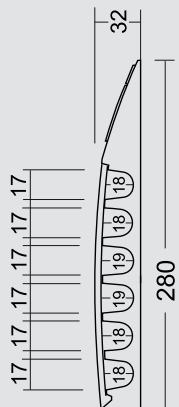
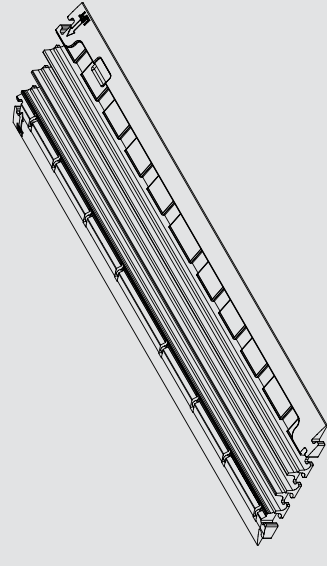
ALSO AVAILABLE WITH BLACK LID!

Art. No. 85150BLK

Art. No. **85158F**



Art. No. **85158M**



* dimensions in mm



RANGE OF APPLICATION

Mainly in halls, at trade fairs, etc.

DEFENDER® COMPACT

7 SMALL CHANNELS – THE DROP-OVER SOLUTION

An inexpensive version of the Defender III system. The arrangement of supports moulded into the bottom permits the Defender Compact to be laid over a run of cables, supporting the weight of crossing vehicles. Black polyurethane construction with ribbed non-slip surface. Not suitable for trucks!

SPECIFICATIONS:

Art. No.:	85100
Product:	cable protector
Type:	7-Channel
Length:	80 cm
Width:	43 cm
Height:	4 cm
Number of Channels:	7
Widths Channel 1-7:	2.8 cm / 2.8 cm / 2.8 cm / 2.8 cm / 2.8 cm / 2.8 cm / 2.8 cm
Heights Channel 1-7:	2.3 cm / 2.7 cm / 2.9 cm / 3.0 cm / 2.9 cm / 2.7 cm / 2.3 cm
Material:	TPU (Thermoplastic Polyurethane)
Load bearing:	Pedestrians, bicycle
Chemical resistance:	oil, acid & petrol resistant
Degree of hardness:	Shore A hardness: 88 ± 4
Flame class:	B2 (also available in B1 flame resistant)
Operating range:	- 30° C bis + 60° C
Weight:	3,5 kg

AVAILABLE ACCESSORIES:

Art. No. **85103** - Defender Compact - Base for 85100 Cable Protector 5-channels

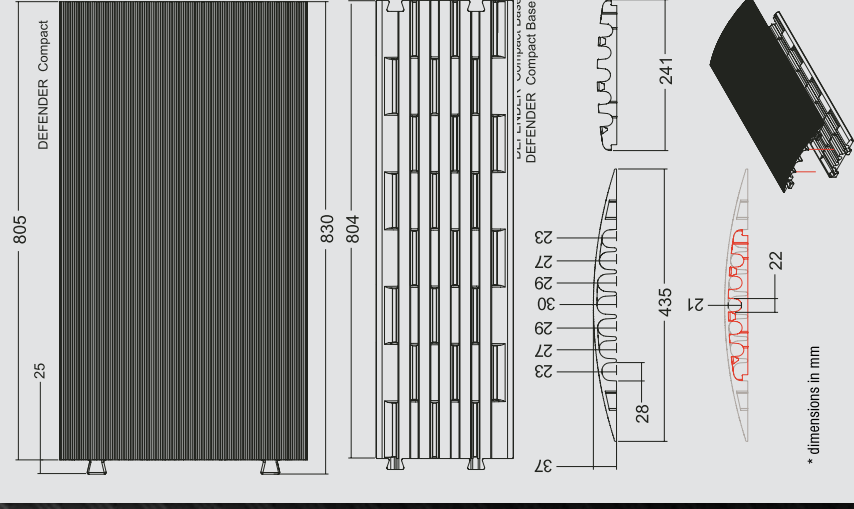
The ultimate enhancement for heavy loads: The unique Compact base with a weight of 3,5 kg is attached to the Compact to form a single unit. Thus reinforced, the Compact can withstand high loads. Even forklifts and lifting trucks can now drive over this crossover with no problem. The 5 cable ducts, each with a diameter of 22 mm, provide ample space for many applications: If a line of several DEFENDER Compact units with base is assembled, the row now remains stable even if a car drives over it.



Art. No. **85100**



Art. No. **85103**



RANGE OF APPLICATION

Mainly in offices, halls, at trade fairs, etc.

DEFENDER® OFFICE

4 MINI CHANNELS – INDOOR & DESIGN SOLUTION

The 4-channel Defender Office meets all expectations and guidelines for professional cable protection, whether in offices, in your conference room or at your trade fair booth. You can adapt the length of the cable channel, as well as the 90° bend, to your individual needs at any time. For ideal fastening, you can screw down the Defender Office using the pre-drilled holes or glue it in place thanks to the smooth underside.

SPECIFICATIONS:

Art. No.:	85160 (Black) / 85160GREY (Grey) / 85160VEL (Yellow)
Product:	cable protector
Type:	4-Channel
Length:	87 cm
Width:	12 cm
Height:	2 cm
Number of Channels:	4
Widths Channel 1-4:	1.0 cm / 1.2 cm / 1.2 cm / 1.0 cm
Heights Channel 1-4:	1.0 cm / 1.2 cm / 1.2 cm / 1.0 cm
Material:	TPU (Thermoplastic Polyurethane)
Load bearing:	can be driven over by cars / lorries / forklifts and lifting trucks
Chemical resistance:	oil, acid & petrol resistant
Degree of hardness:	Shore A hardness: 92 ± 4
Flame class:	B2
Operating range:	- 30° C bis + 60° C
Weight:	1,24 kg

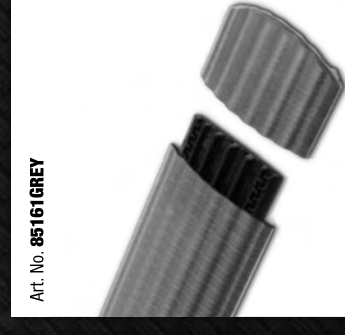
AVAILABLE ACCESSORIES:

- Art. No. **85161** - 90° Curve for 85160 Cable Crossover 4-channels
- Art. No. **85161GREY** - 90° Curve for 85160 Cable Crossover 4-channels
- Art. No. **85161VEL** - 90° Curve for 85160 Cable Crossover 4-channels
- Art. No. **85166** - End Ramp for 85160 Cable Crossover 4-channels
- Art. No. **85168GREY** - End Ramp for 85160 Cable Crossover 4-channels
- Art. No. **85168VEL** - End Ramp for 85160 Cable Crossover 4-channels

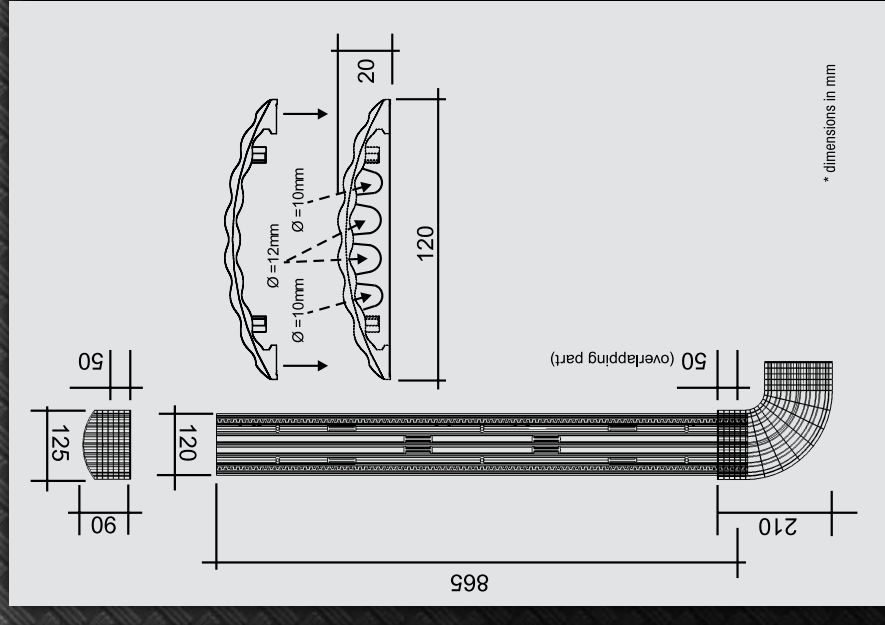
ALSO
AVAILABLE
IN BLACK
IN YELLOW!
& YELLOW!



Art. No. 85168GREY



Art. No. 85161GREY



* dimensions in mm

RANGE OF APPLICATION

Mainly in halls, at trade fairs, etc.

DEFENDER® RILLS MAT

ECONOMY DROP OVER

Art. No. **85900** - Fine-grooved Mat black 1 m x 10 m

Art. No. **85970** - Fine-grooved Mat black 0.7 m x 10 m

- Fine-grooved rubber mat black
- SBR quality
- 3 mm thick
- Width 100 cm / 70 cm
- Length 10 m
- Non-slip
- Resilient covering for all high traffic areas
- Weather proof
- Lies flat
- Coarsely patterned underside
- Ideal for protecting cables of all types
- Matting can be trimmed to the desired size



DEFENDER® WHEELCHAIR RAMP

THE PERFECT ADD ON FOR DEFENDER MIDI

Defender Wheelchair Ramp with 3 Lines (6 ramp pieces), matching extremity pieces and the blue pre-drilled Defender Midi cable crossover.

Professional cable protection combined with a practical solution to make the Defender MIDI cable crossovers suitable for wheelchairs, walking frames and trolleys.

As it is the case with all crossovers of the DEFENDER series, the Defender Wheelchair ramp is oil, acid, and petrol resistant.

We recommend the use of our wheelchair ramp set including 3 Lines (6 ramp pieces) with the matching extremity pieces.

These pieces must be used together with the blue pre-drilled Defender Midi cable crossover.

The drilling ensures that the ramp doesn't slide from the cable crossover. With this configuration the drive across zone is 80 cm wide.

It is of course possible to extend the ramp's width by using more lines.

1 Set is composed of:

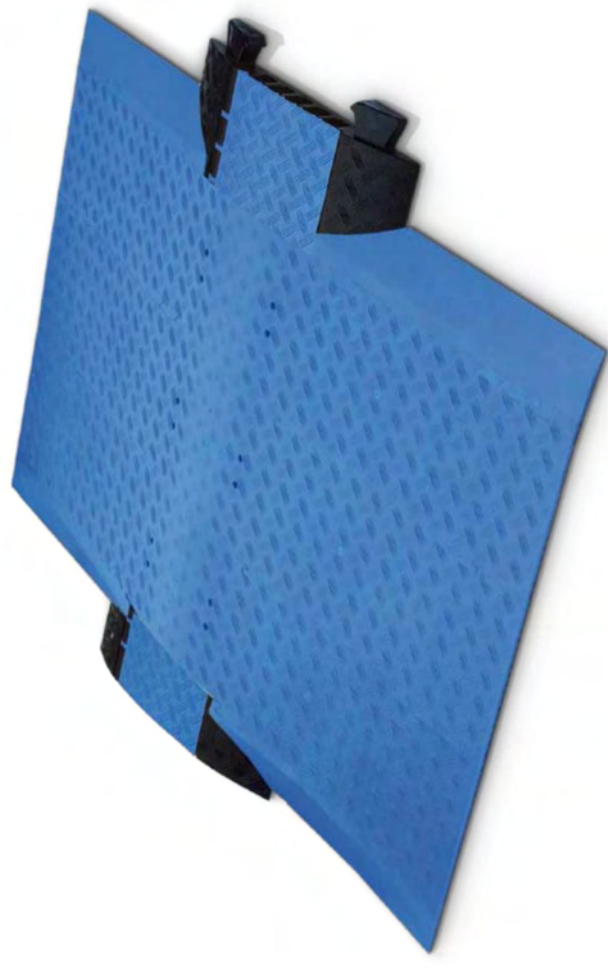
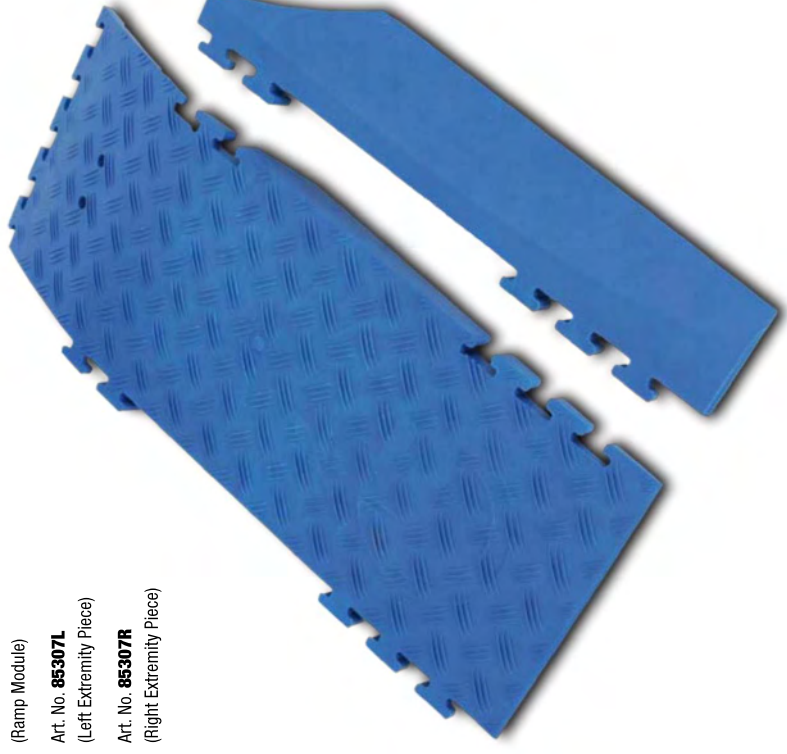
- 6 Ramp pieces (3 Lines)
- 4 extremity pieces (2 left extremities / 2 right extremities)
- 1 blue pre-drilled Midi cable crossover (85300BLUE)

Please note: The Defender Wheelchair Ramp does not support vehicle traffic.

Art. No. **85306**
(Ramp Module)

Art. No. **85307L**
(Left Extremity Piece)

Art. No. **85307R**
(Right Extremity Piece)



DEFENDER® BOX

THE SMART LOGISTIC STORAGE SOLUTION

Multifunctional transport and storage box in euro-pallet dimensions for all Defender cable crossovers. Easy to load and light weight thanks to a synthetic and steel materials combination.

FEATURES

- Easy loading thanks to collapsible sides of the pallet cage
- Max. load bearing > 1t
- Stackable
- Foldable
- Easy cleaning of the cable crossovers thanks to integrated water drain in the Defender Box
- Steel structure undercoated and lacquered on weather proof synthetic euro-pallet
- Dimensions (W x H x D): 1250 x 1285 x 840 mm
- Weight: 50,5 kg



ADVANTAGES



DEKRA CERTIFIED

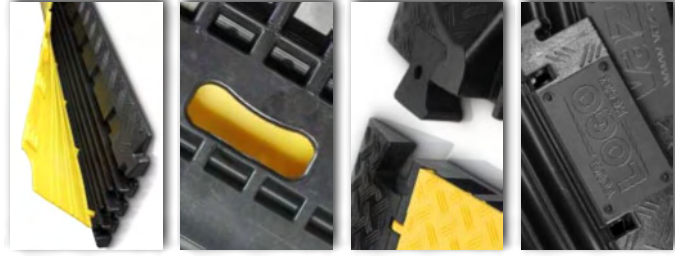
The DEFENDER cable protection range has been awarded the DEKRA certificate. In accordance with testing standards EN 61537:2001 and DIN 31000:1979 all of the Defender cable crossovers adhere to the highest safety and quality requirements. Thanks to the manufacturing process being completed in Germany, Adam Hall GmbH, exclusive distributor of DEFENDER products, is able to ensure that as part of the certification process, DEKRA can complete the required material and production checks on a regular basis.

HIGH TECH RAW MATERIAL

All DEFENDER cable crossovers are made of extremely sturdy, unbreakable TPU (thermoplastic polyurethane), produced from recycled plastic materials. They feature a B2 fire resistance rating (also available with a B1 rating - difficult to ignite - in compliance with DIN4102) and are resistant to oil, acids and petrol. The operating temperature range is approximately -30°C to +60°C. The Shore A hardness range is 88 ± 4.

SELF-CLEANING HINGE

Our cable protectors are equipped with patented self-cleaning hinge. The dirt gathering around the hinges is automatically pushed out when opening and closing the lid of the DEFENDER cable protector. All DEFENDER products are made of extremely sturdy, unbreakable TPU (thermoplastic polyurethane). If needed, the crossovers can be easily cleaned using a steam jet cleaner.



EASY LOCK SYSTEM

The DEFENDER cable protectors feature a very easy and efficient opening and locking system, allowing you to open and close the lid without tooling or special efforts. This exclusive feature also guarantees that the lid remains closed at all times, even when cars or trucks cross it over.

EASY HANDLING

The heaviest DEFENDER cable protection systems are equipped with transport handles (DEFENDER XXL, DEFENDER III and DEFENDER Midi). The DEFENDER Box provides safe and practical storage but also a logistically efficient solution for the transport of many protectors at once (euro-pallet dimensions).

MODULAR SYSTEM

The DEFENDER Cable protection systems also offer high quality accessories to adapt your configuration to each new location, such as end ramps, 90° and 45° bends. Each cable protector has connectors and corresponding sockets that enable you to connect cable protectors in the same series endlessly with one another with maximum stability.

LABEL YOUR CABLE PROTECTORS

Self branding of your cable protectors has 3 main advantages :

Advertisement for your brand / Corporate identity conformity / Avoid mixing up your equipment with another company on large events

Self branding of the DEFENDER cable protectors with the Logo of your company can be purchased for orders ex 30 pieces. You will find the logo format requirements on our website. Feel free to contact our sales team for more information at sales@adamhall.com

