P31+

UL assembly instruction

Cable tray system UL certificate

Index

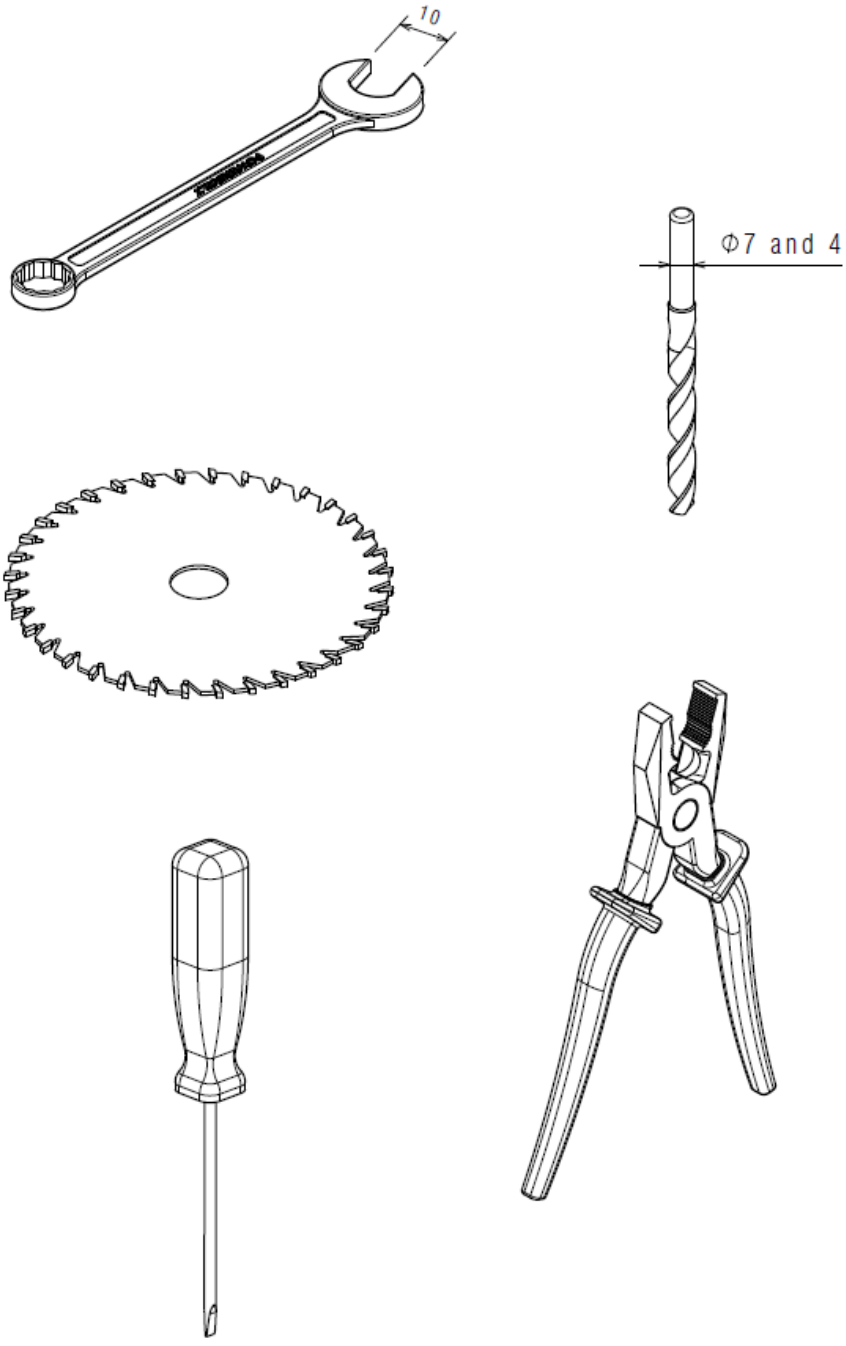
1. Introduction

In name of LEGRAND, we thank you to join us into our new cable tray system P31 and we hope that you will enjoy the use of our products.

This mounting guide will help you to prepare and realize in the best way your cable tray installation.

Please read carefully at the beginning the safety rules in order to make the best use of our new products.

1.1. Utilities



2. General safety rules

1) Please use suitable gloves throughout the installation of our products in order to protect your hands from potentially sharp metal parts.
2) Please wear suitable safety glasses when cutting or grinding metal products.
3) Please use protective devices where necessary and as required on your site,
4) When working on heights, please take protective safety measures.
5) Please pay attention to the safety working loads (SWL) of our system before the installation in order to prevent misapplication.
   SWL are available in our technical sheets and don't hesitate to contact your local LEGRAND sales office if you have any questions related to them or any other topic.

   Avoid dangerous situations for you and the people around you at all times!

3. P31 Length assembling

Is mandatory to assemble cable trays using the correct finishing.

3.1. Perforated cable tray

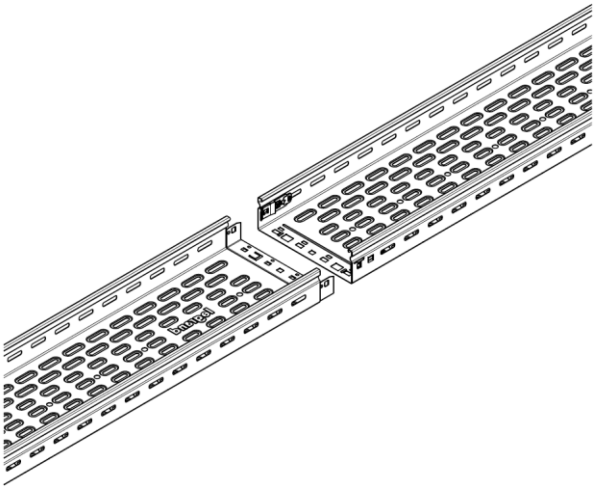
3.1.1. Male - Female automatic coupler system

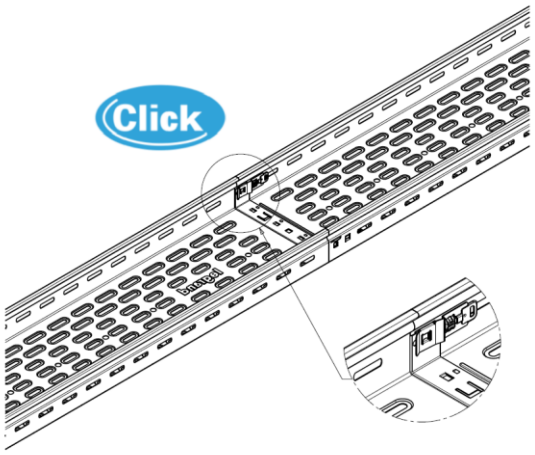
3.1.1.1. H50-60

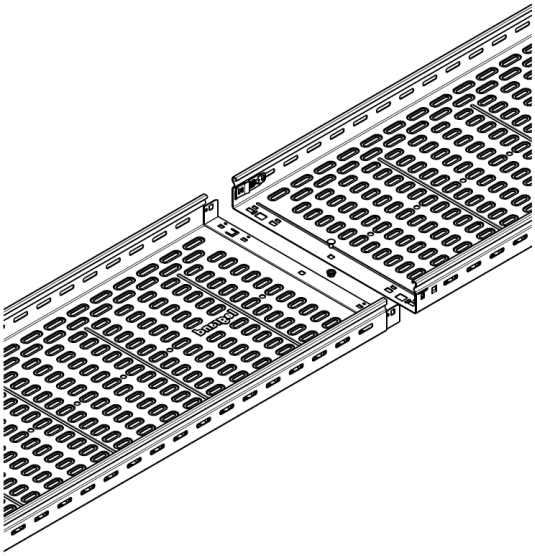
For H60mm this scheme is valid also for:

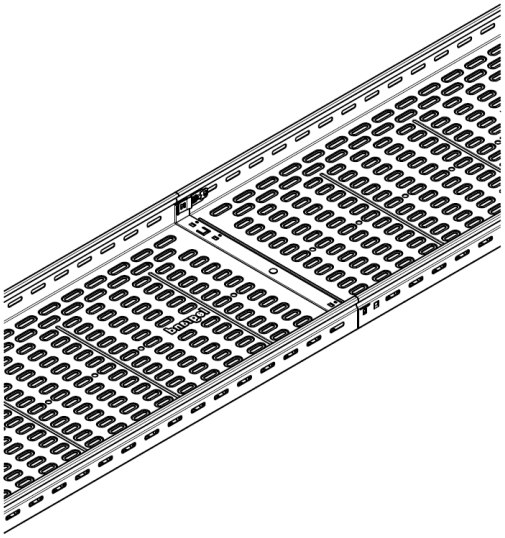
- H60 CPC trays
- H60 Lighting trays
- H60 MBR trays

Assembly two pieces of length with automatic coupler plus:
for PG/Painted version 1 extra screw M6 (341895) on the bottom (tightening torque of 11 Nm)



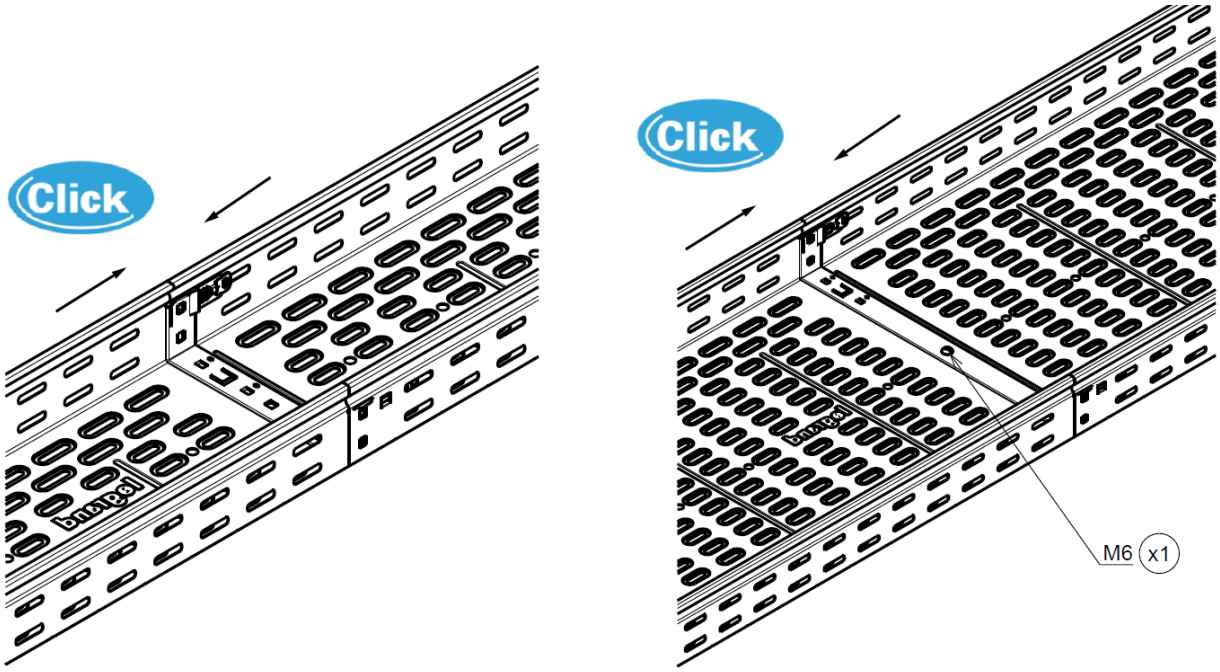






3.1.1.2. H77

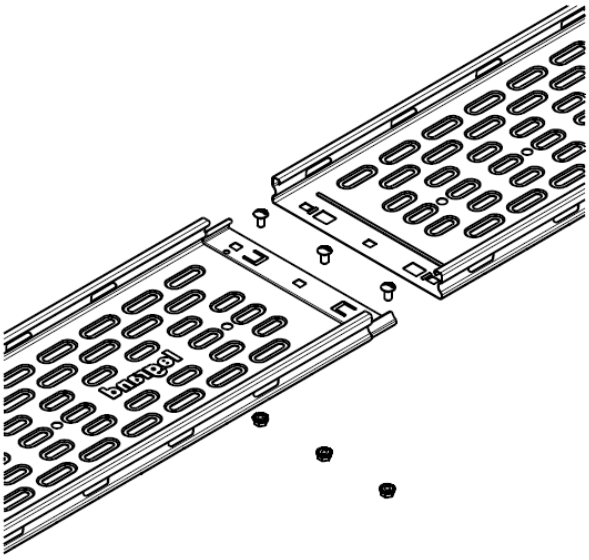
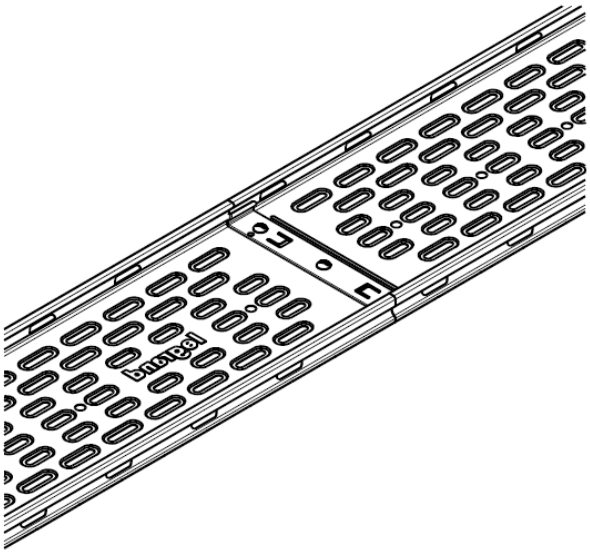
Assembly two pieces of length with automatic coupler plus:
for PG/Painted version 1 extra screw M6 (341895) on the bottom (tightening torque of 11 Nm)



3.1.2. Male – female system

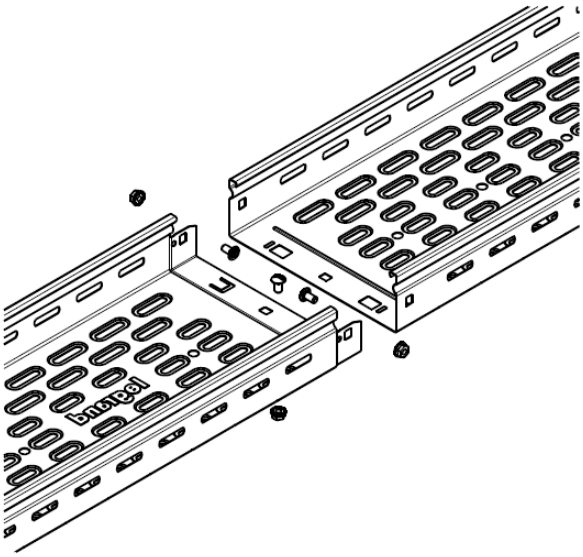
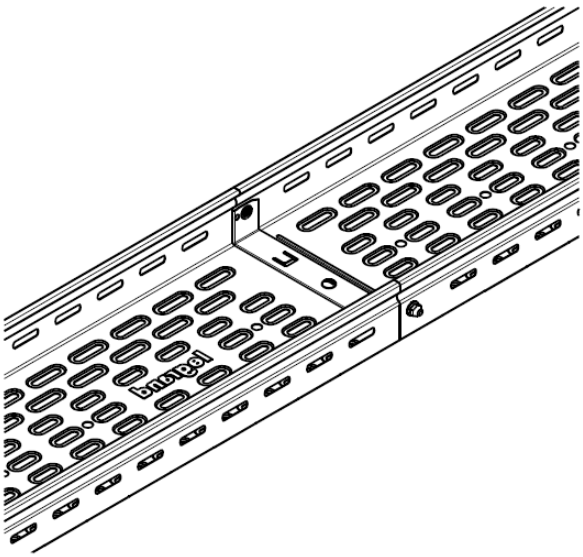
3.1.2.1. H25

25mm height is assembled using:
for PG/Painted version 3 screws M6 (341895) (tightening torque of 11 Nm)
for HDG version 3 screws M6 (485035) (tightening torque of 11 Nm)

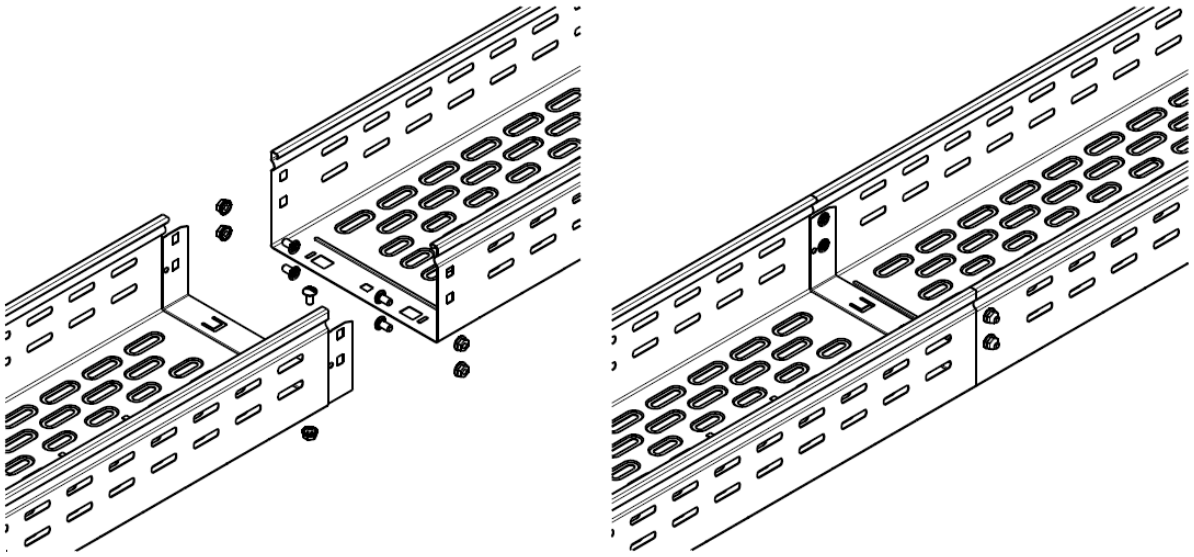
3.1.2.2. H50-60

Height 50 and 60 mm is assembled using:
for PG/Painted version 3 screws M6 (341895) (tightening torque of 11 Nm)
for HDG version 3 screws M6 (485035) (tightening torque of 11 Nm)

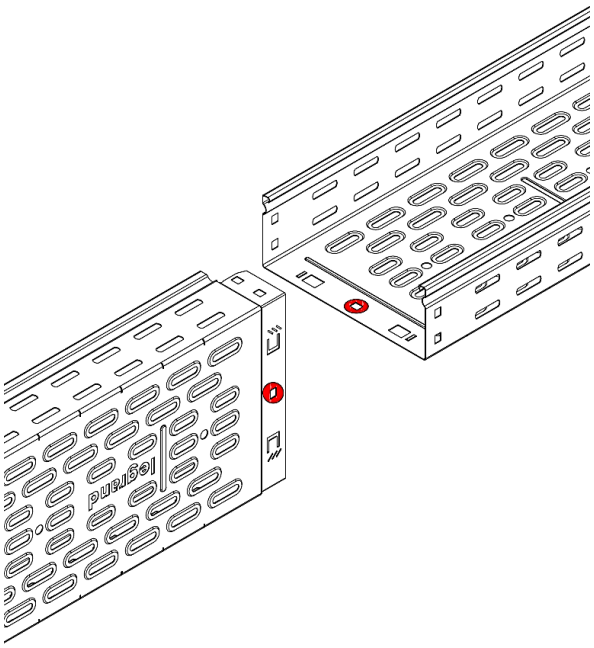
3.1.2.3. H77-100

Height 77 and 100 mm is assembled using:
for PG/Painted version 5 screws M6 (341895) (tightening torque of 11 Nm)
for HDG version 5 screws M6 (485035) (tightening torque of 11 Nm)



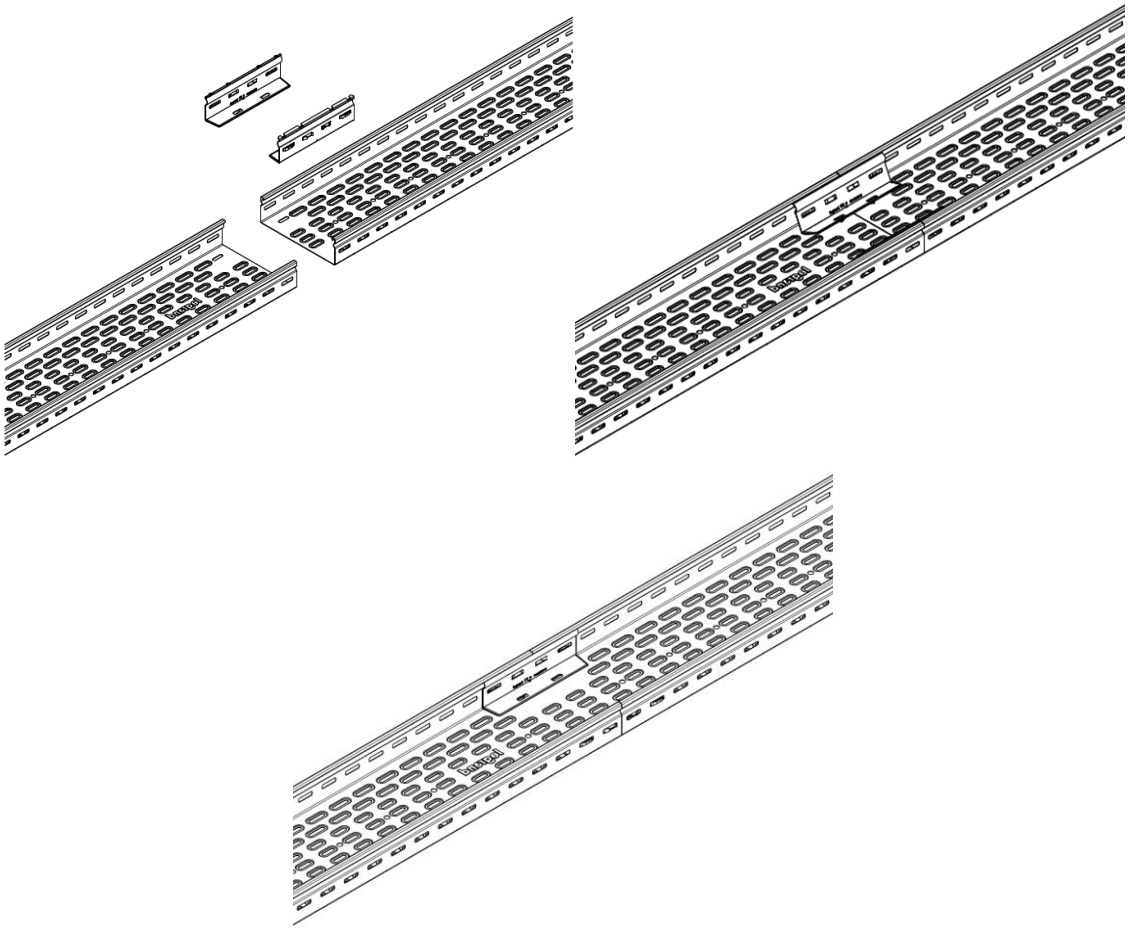
3.1.3. Male – female system painted

For painted version remove the paint from both sides (top and bottom) of the central bottom holes and add one screw M6x12 (341895 tightening torque of 11 Nm).



3.1.4. H60 Symmetrical cable tray

P31 symmetrical cable trays in height 60mm are assembled using two ECLIC couplers.
This scheme is valid also for H60 Vanderlande cable trays.

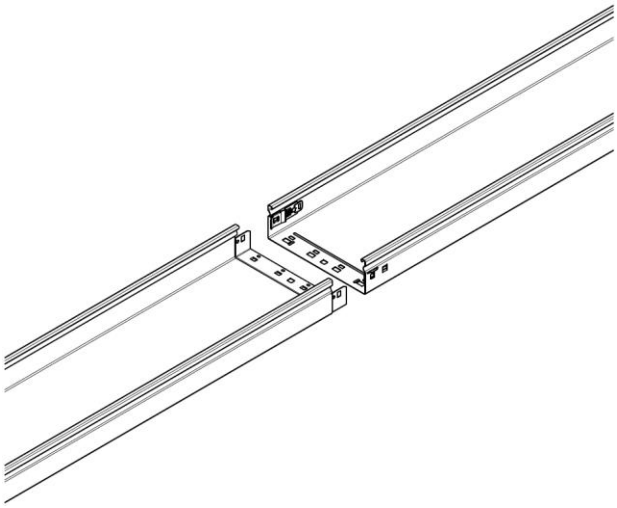


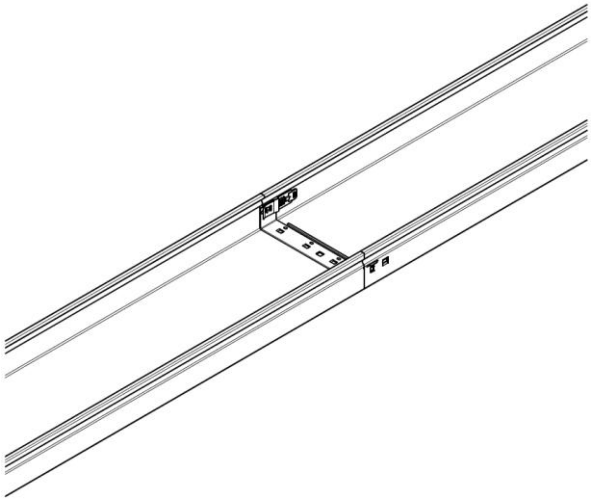
3.2. Blind cable tray

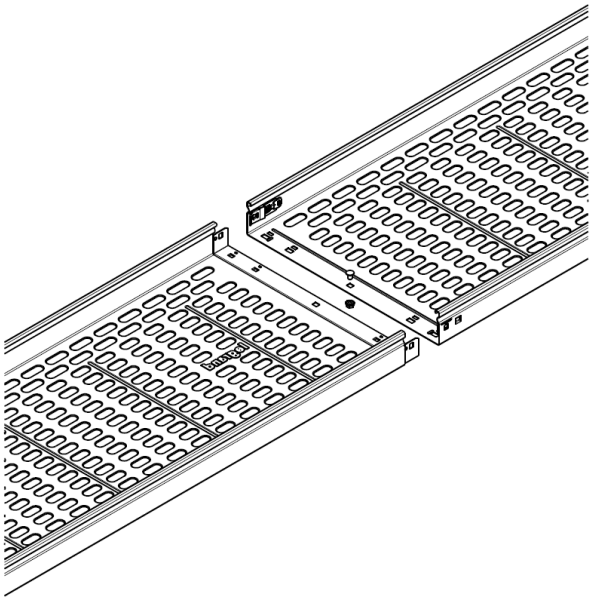
3.2.1. Male – Female automatic coupler system

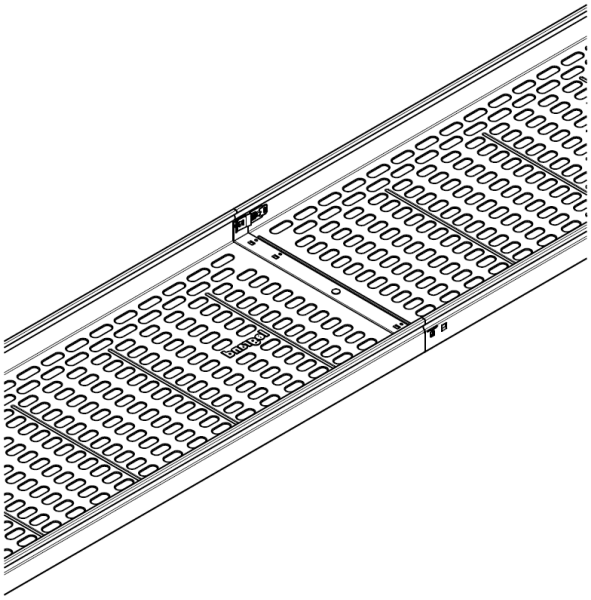
3.2.1.1. H50-60

Assembly two pieces of length with automatic coupler and 1 extra screw M6 (341895) on the bottom (tightening torque of 11 Nm)



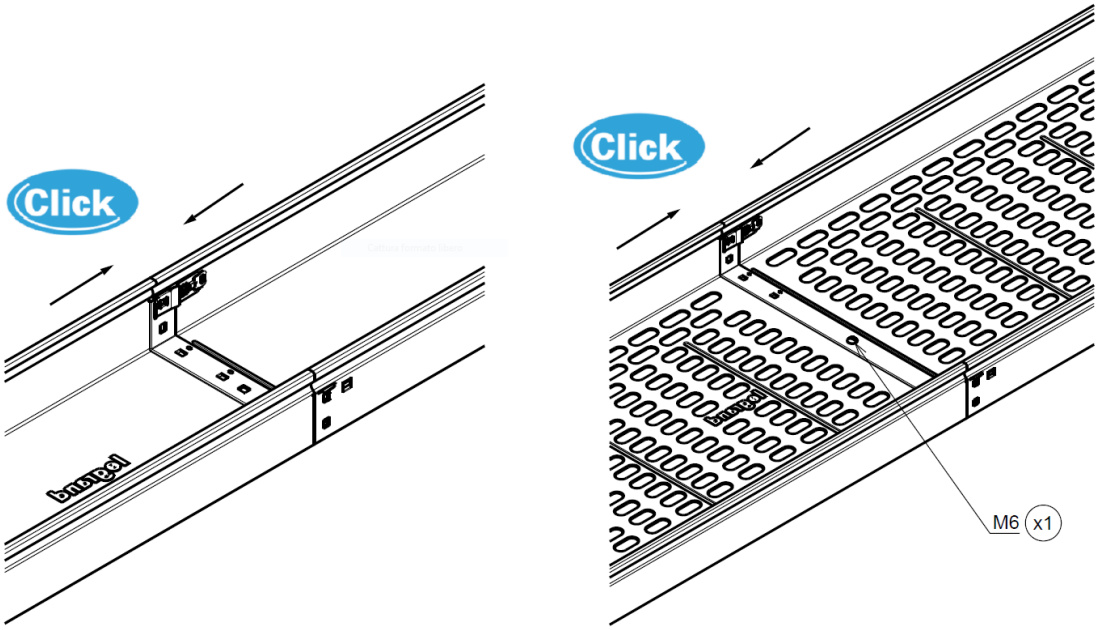






3.2.1.2. H77

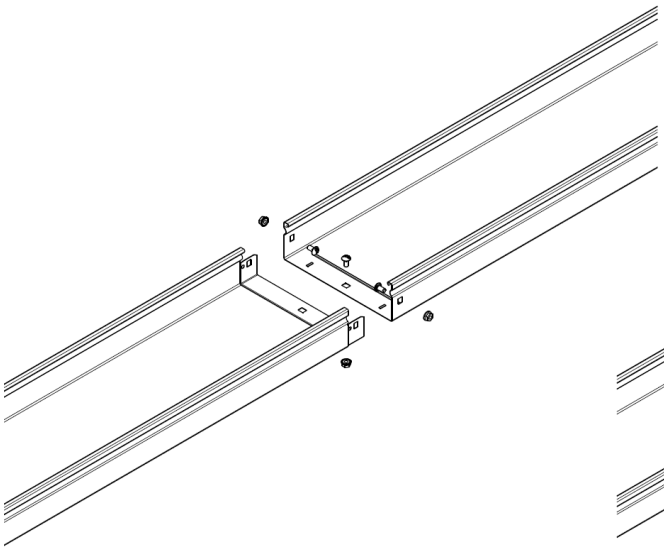
Assembly two pieces of length with automatic coupler and 1 extra screw M6 (341895) on the bottom (tightening torque of 11 Nm)

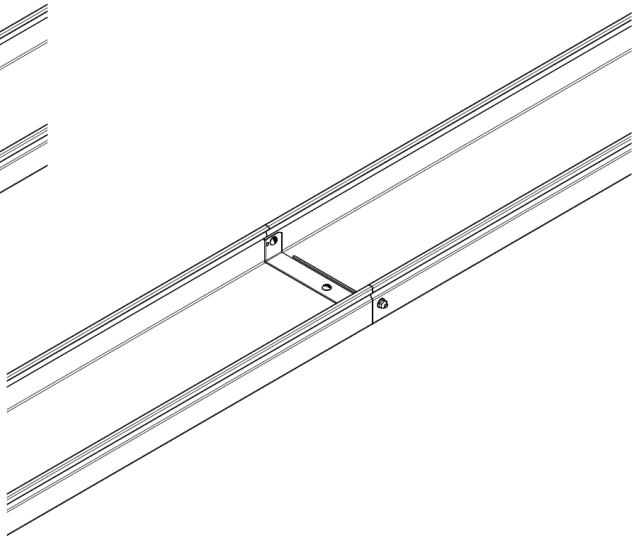


3.2.2. Male – female system

3.2.2.1. H50-60

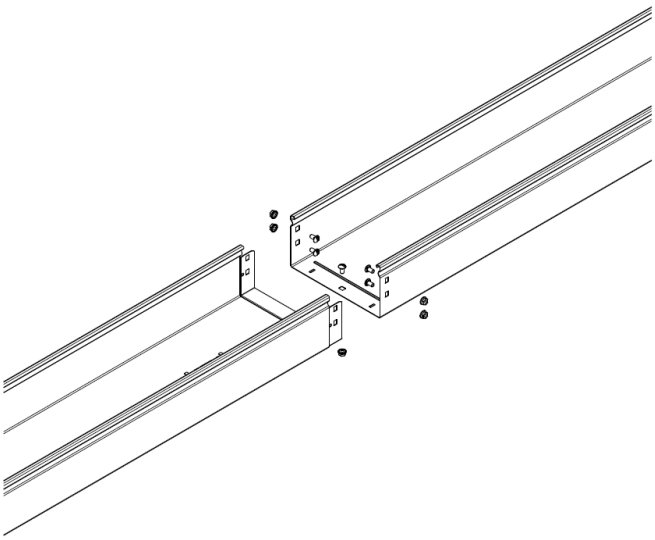
Height 50 and 60 mm is assembled using:
for PG/Painted version 3 screws M6 (341895 tightening torque of 11 Nm)
for HDG version 3 screws M6 (485035 tightening torque of 11 Nm)

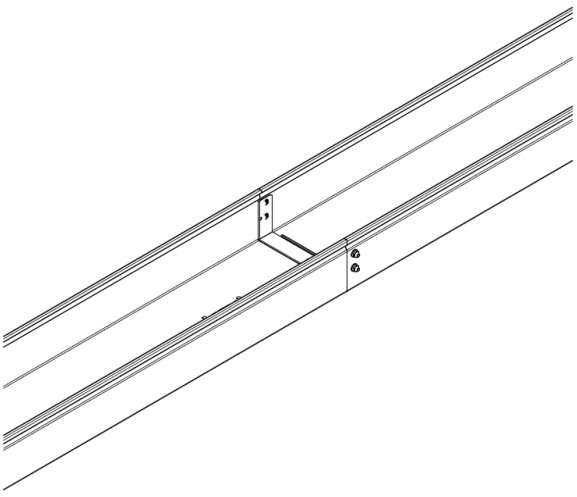




3.2.2.2. H77-100

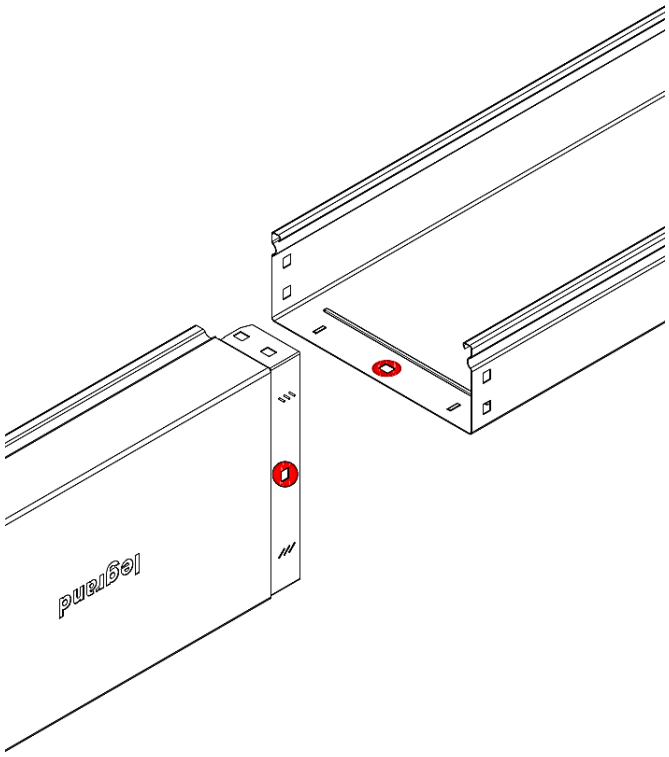
Height 77 and 100 mm is assembled using:
for PG/Painted version 5 screws M6 (341895 tightening torque of 11 Nm)
for HDG version 5 screws M6 (485035 tightening torque of 11 Nm)





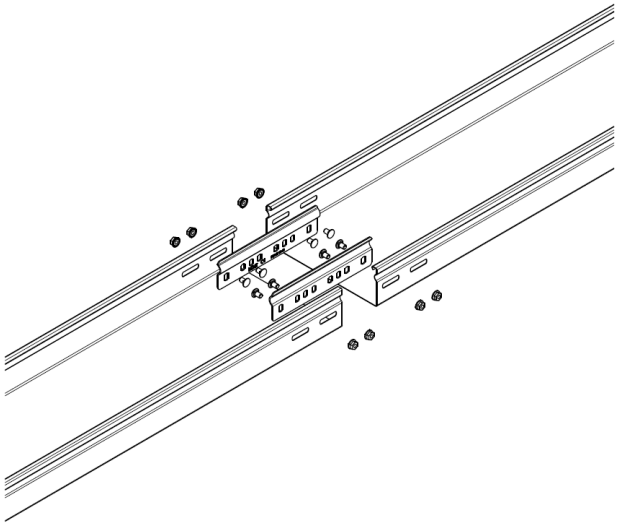
3.2.3. Male – female system painted

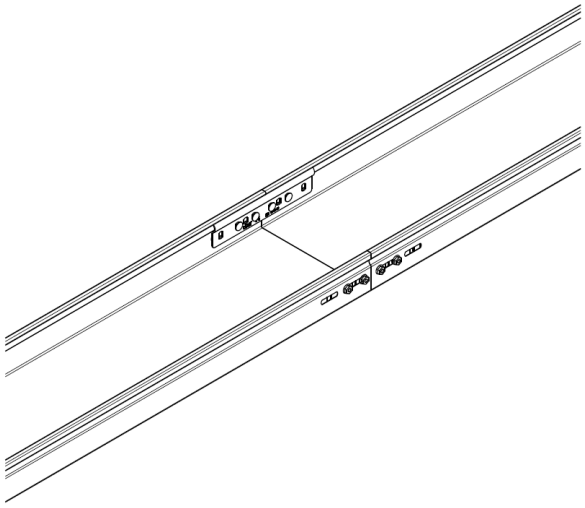
For painted version remove the paint from both sides (top and bottom) of the central bottom holes and add one screw M6x12 (341895 tightening torque of 11 Nm).



3.2.4. H60 Symmetrical cable tray

P31 symmetrical blind cable trays are available in 60mm height and are assembled using two EP couplers and:
for PG/Painted version 4 screws M6 (341895 tightening torque of 11 Nm)
for HDG version 4 screws M6 (485035 tightening torque of 11 Nm)





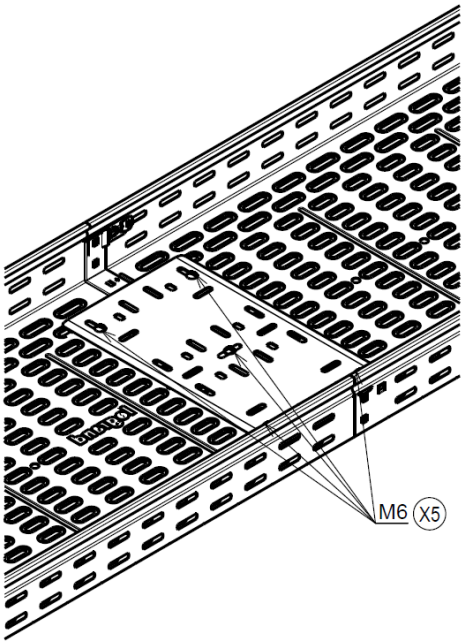
3.3. Bottom plate

For all heights and for widths from 200 mm to 600 mm, to improve the mechanical performance of the cable trays, is possible to add the bottom plate.
It is prohibited to connect the cable trays only with bottom plate and without couplers on the sides.

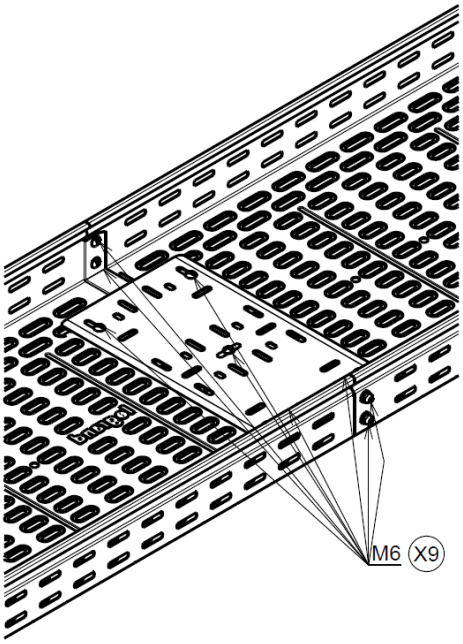
Connection of automatic trays with integrated coupler and bottom plate plus:
for PG/Painted version 5 screws M6 (341895 tightening torque of 11 Nm)
for HDG version 5 screws M6 (485035 tightening torque of 11 Nm)

Connection of male/female trays and bottom plate (with 9 screws M6).
for PG/Painted version 9 screws M6 (341895 tightening torque of 11 Nm)
for HDG version 9 screws M6 (485035 tightening torque of 11 Nm)

- Male/Female Automatic



- Male/Female

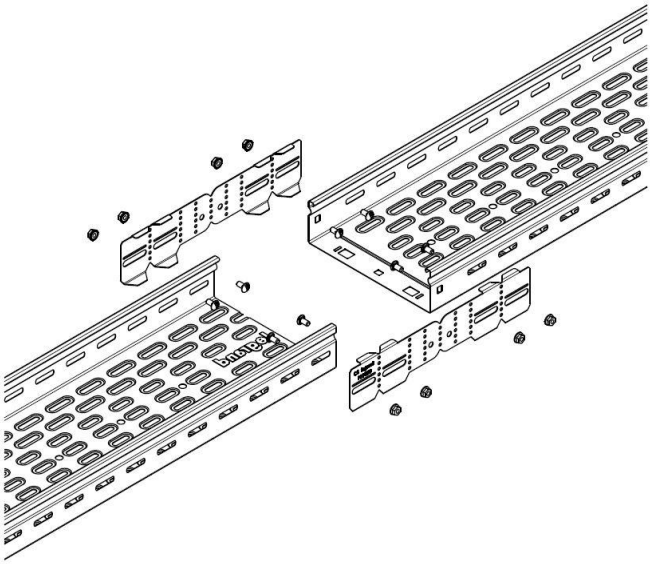


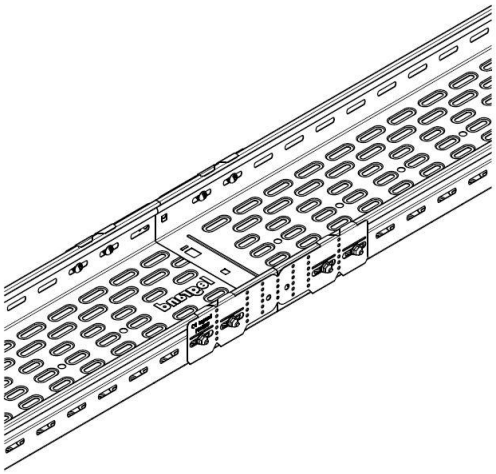
4. Coupler

4.1. EDU Coupler

4.1.1. H50-60

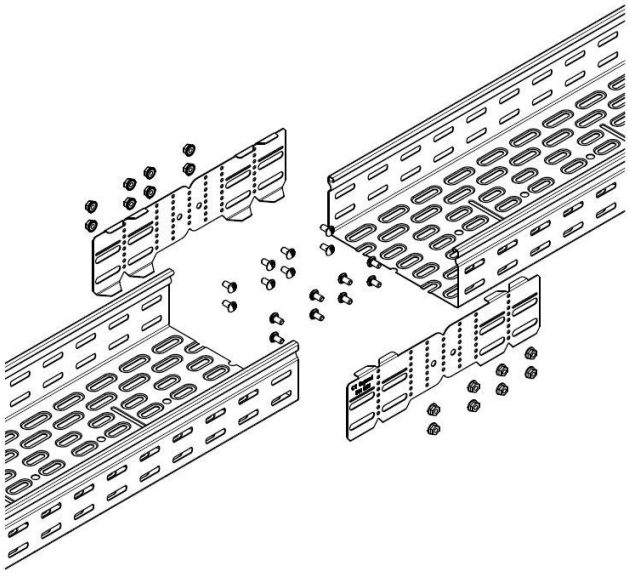
Use min. 4 screws for:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

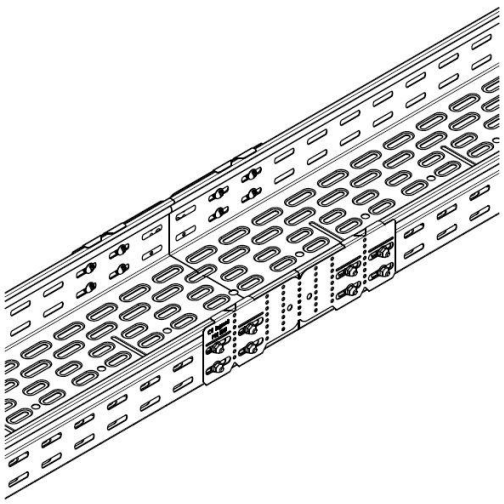




4.1.2. H77-100

Use min. 8 screws for:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

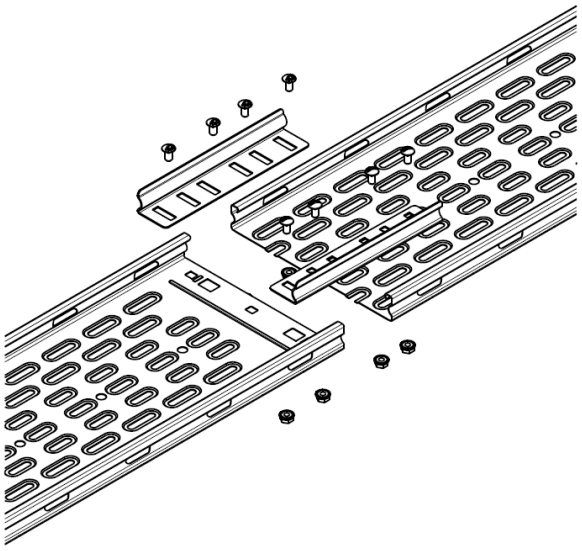


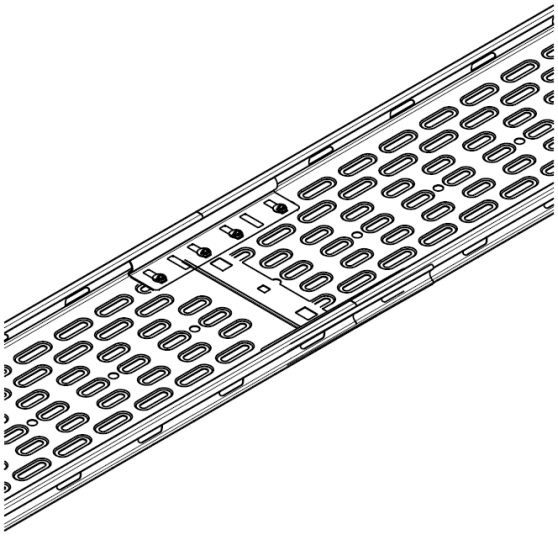


4.2. Square coupler

4.2.1. H27 (from W77 to W500)

Use 4 screws on each coupler:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

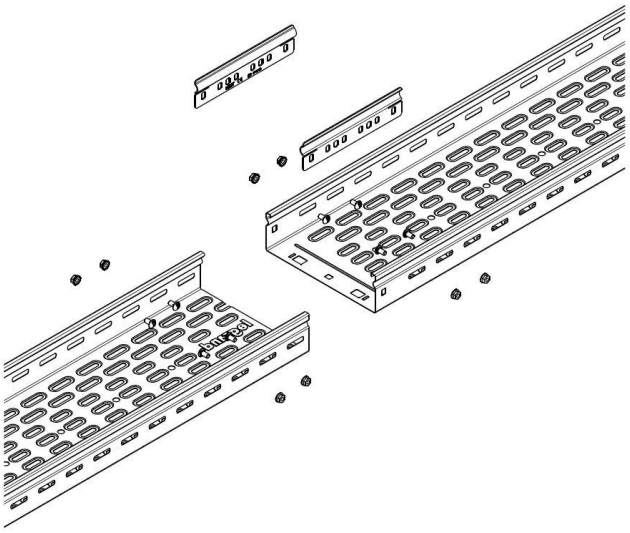


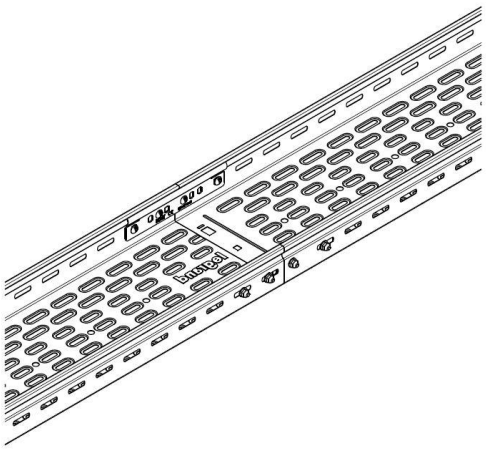


4.3. EP coupler

4.3.1. H50-60

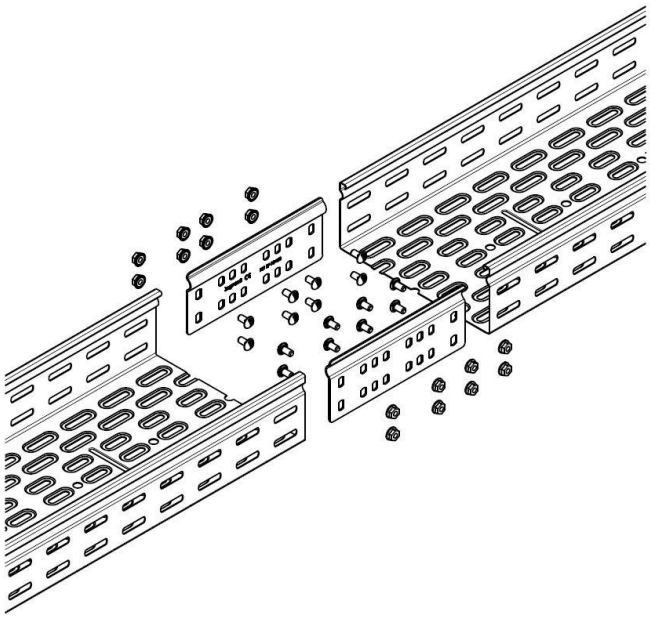
Use min. 4 screws on each coupler:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

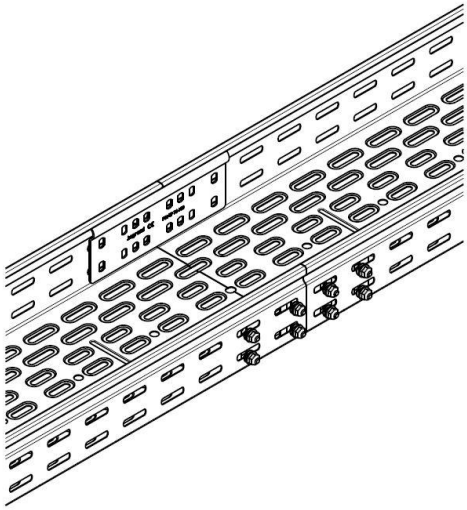




4.3.2. H77-100

Use min.84 screws on each coupler:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

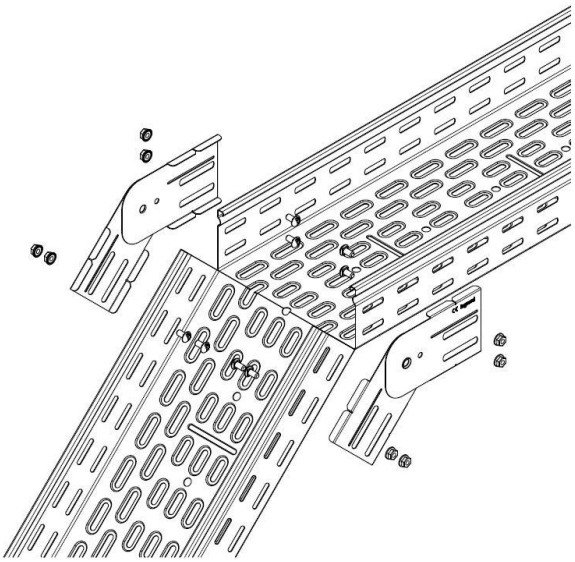


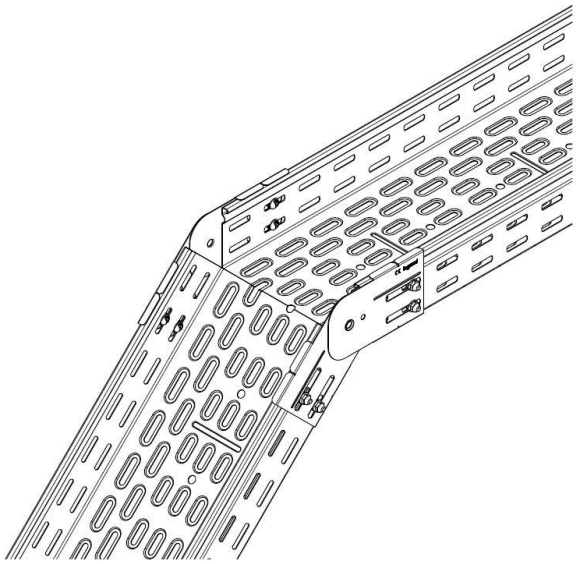


4.4. EV - Vertical coupler

4.4.1. H77-100

Use 4 screws for height 77 and 100mm on each coupler and an extra screw on the junction of the coupler to guarantee the electrical continuity between the two parts.
For PG/Painted version M6 (5 x 341895 tightening torque of 11 Nm)
For HDG version M6 (5 x 485035 tightening torque of 11 Nm)

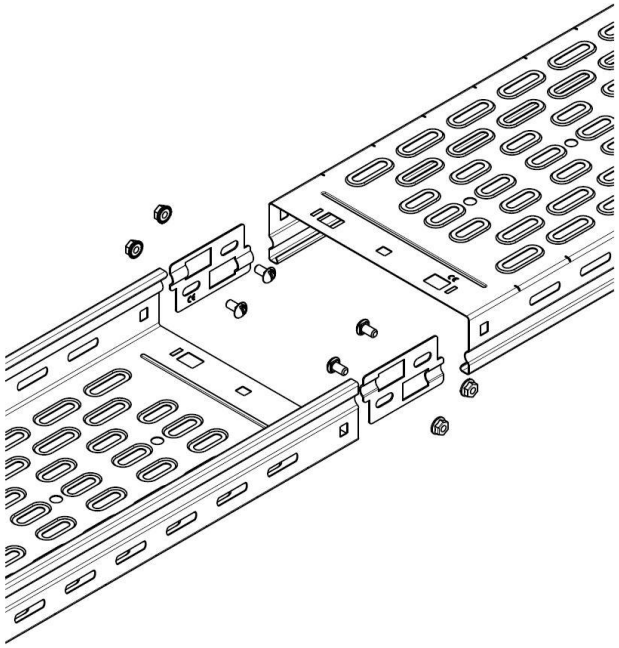


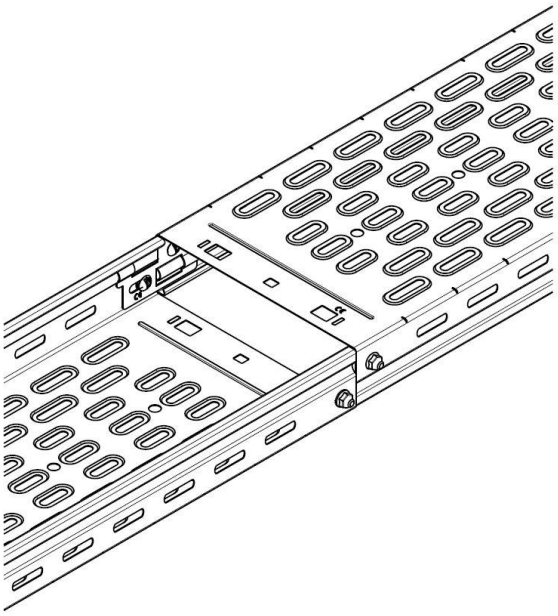


4.5. Twist coupler

4.5.1. H50

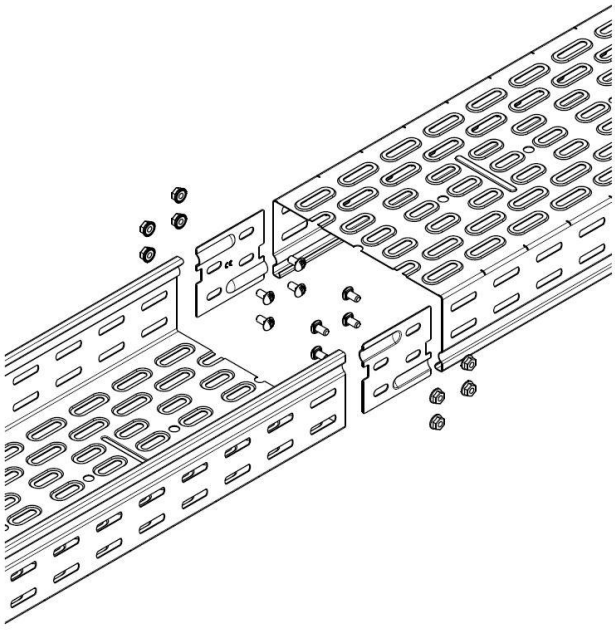
Use 2 screws on each coupler:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

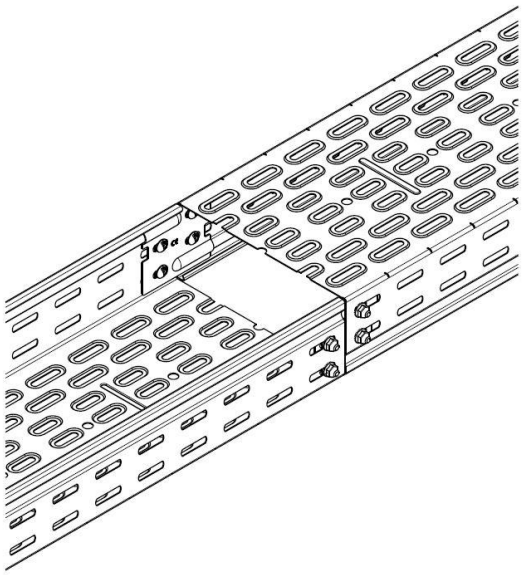




4.5.2. H77-100

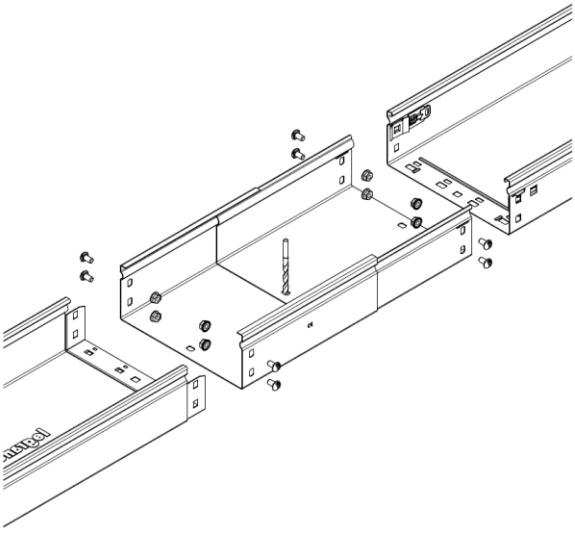
Use 4 screws on each coupler:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

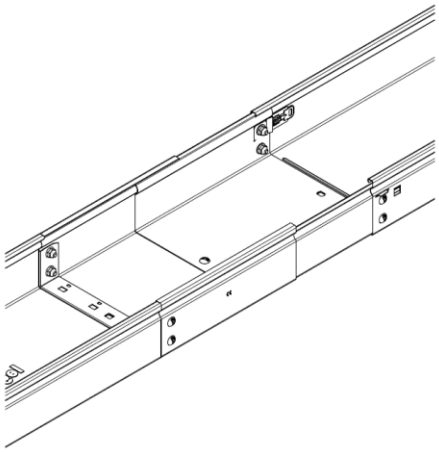




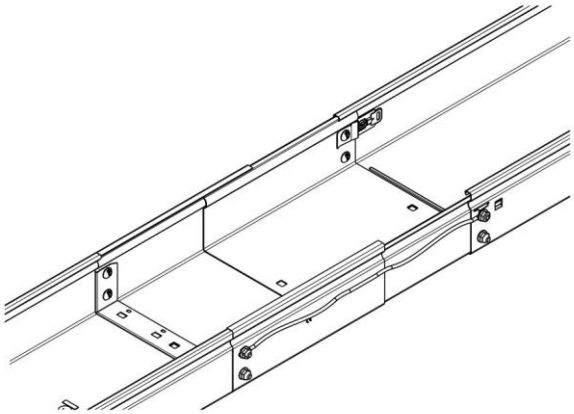
5. Telescopic element

PG Version.
Slide together the two parts of telescopic element at the right length and fix it to the cable tray using 4 screws (341895 tightening torque of 11 Nm) on each side. Is not necessary to disassembly automatic coupler.
Is mandatory to drill one hole in the bottom (7mm diameter drill bit) and add a screw (341895 tightening torque of 11 Nm) to guarantee the electrical continuity between the two parts.



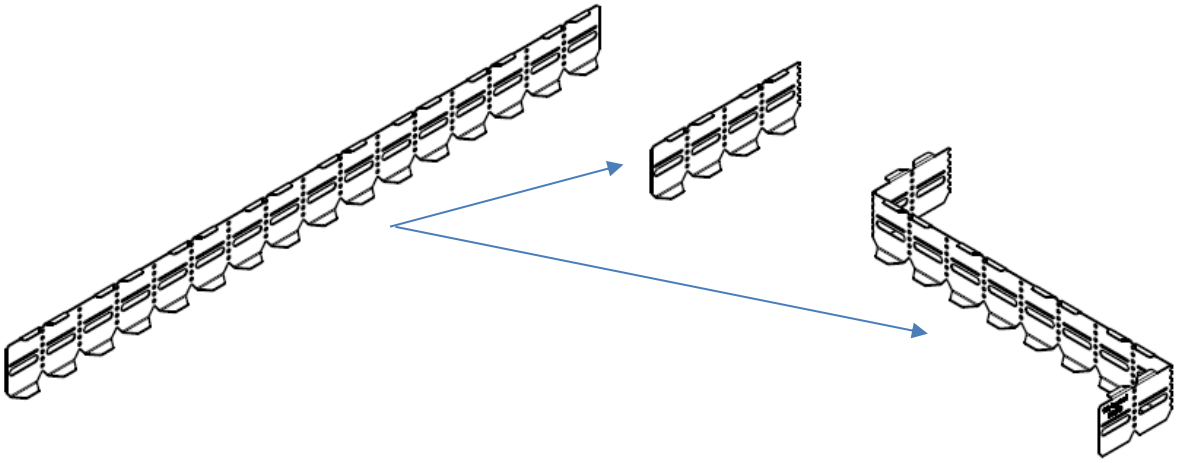


Painted version.
Slide together the two parts of telescopic element at the right length and fix it to the cable tray using 4 screws (341895 tightening torque of 11 Nm) on each side.
It is mandatory to insert a cable on the unpainted area and fix it along the length (outside) of the telescopic element to guarantee the electrical continuity between the two parts.
For correctly sizing the cable follow the chapter 13.



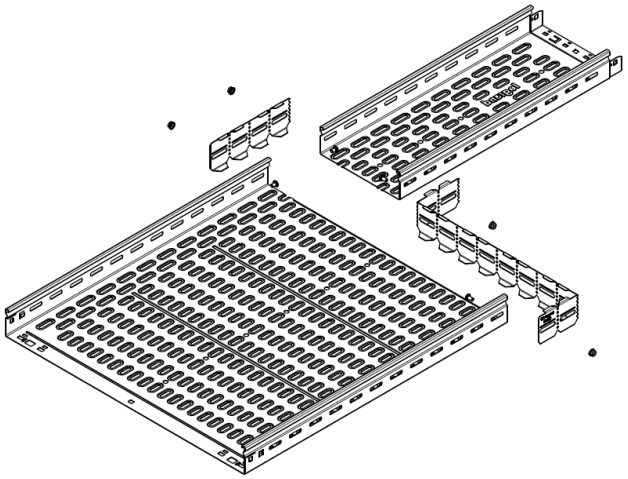
6. Reducer

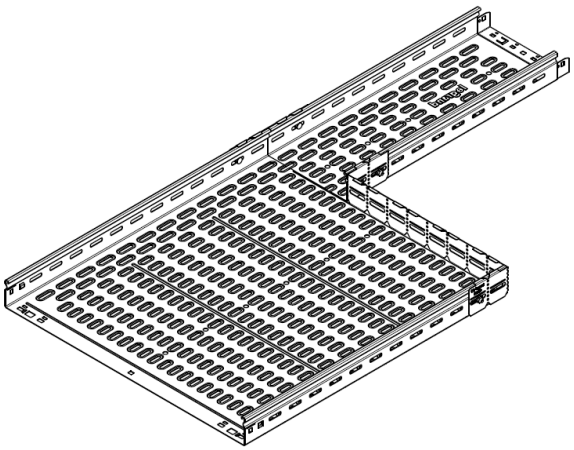
Reducers can be bend into various shapes with different dimensions. They can also be broken into parts by manually bending it several times over the same line.



6.1. H50-60

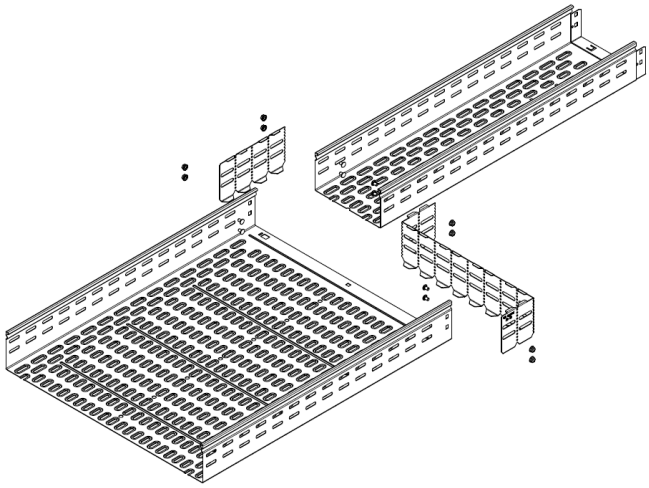
Breaking a small part of reducer and bending the larger part creates the parts needed to reduce the cable tray width.
Mount each part using min. 2 screws for:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

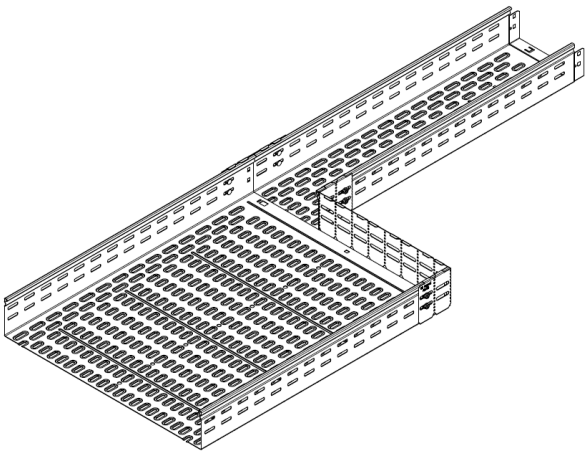




6.2. H100

Breaking a small part of reducer and bending the larger part creates the parts needed to reduce the cable tray width.
Mount each part using min. 4 screws for:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



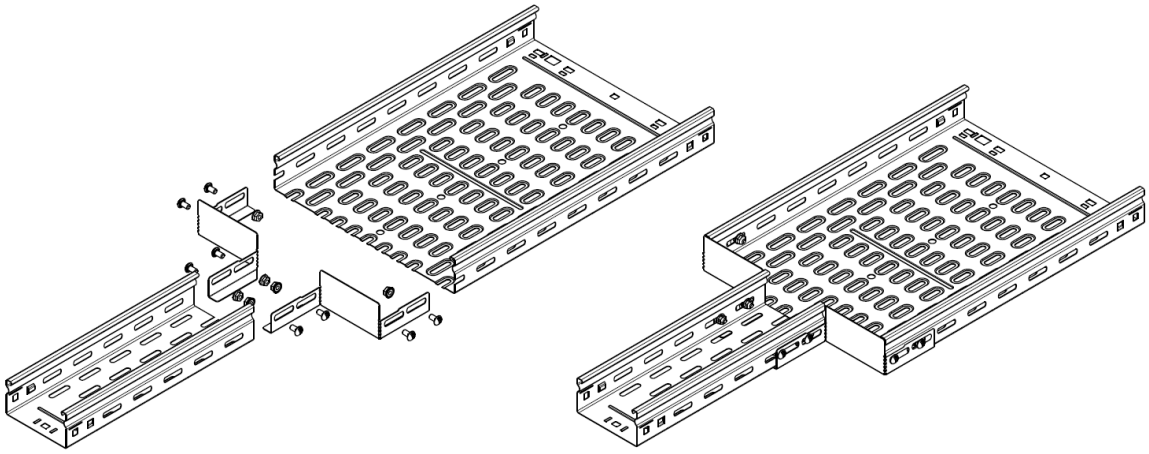


7. Reduction plate

Use reduction plate to reduce cable tray width and connect the next one.

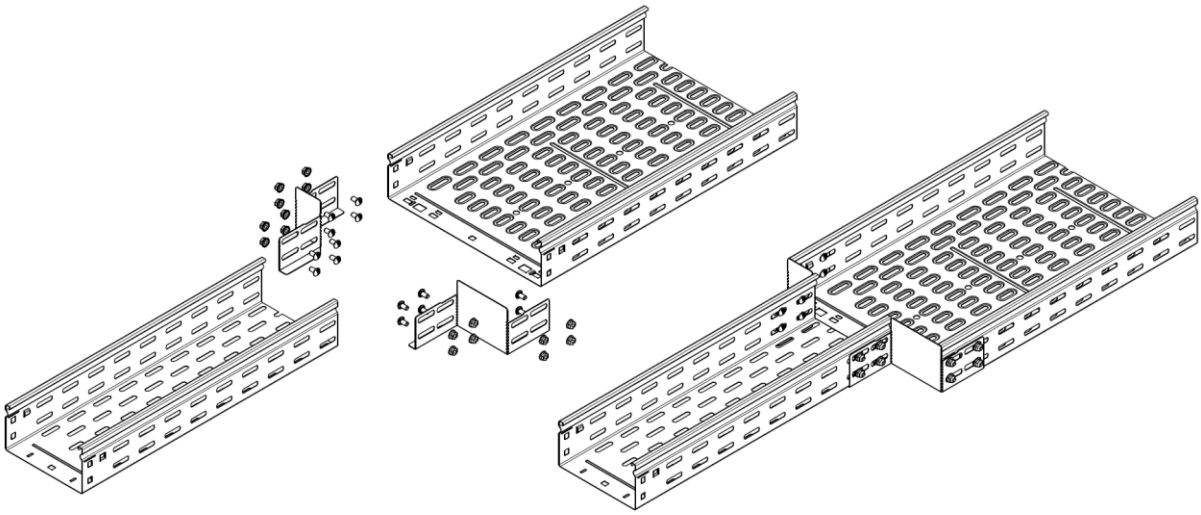
7.1. H50

Reduction plate in height 50mm is assembled using 4 screws on the side on each plate:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



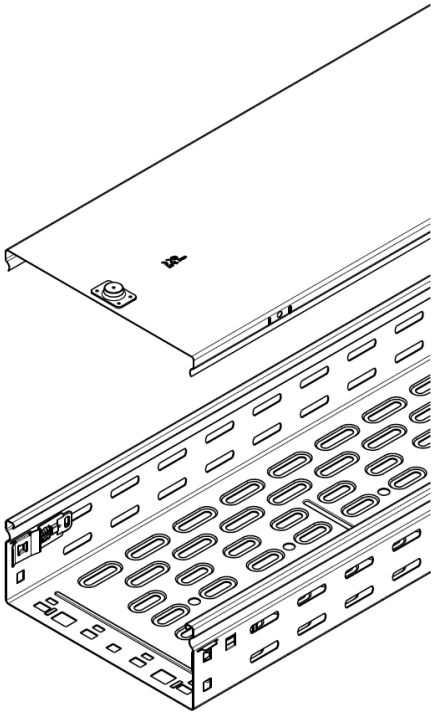
7.2. H77-100

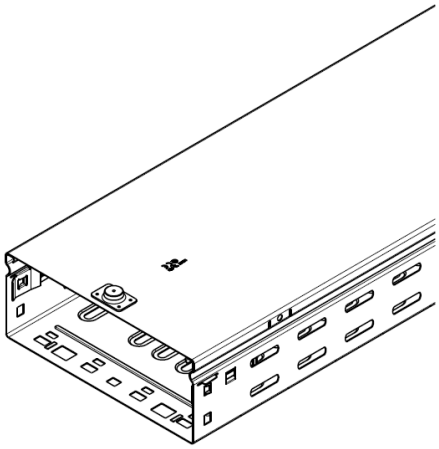
Reduction plate in height 77mm is assembled using 8 screws on the side on each plate:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



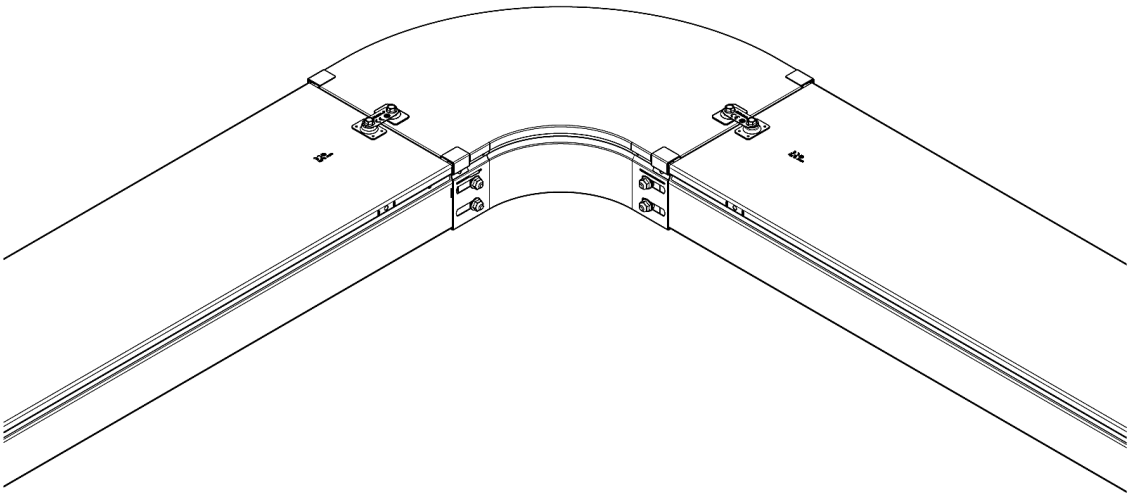
8. P31 cover length

To mount cover on cable tray just press until it ‘clicks’
To guarantee the electrical continuity between covers customers must joint cover using a copper wire or a copper plate.



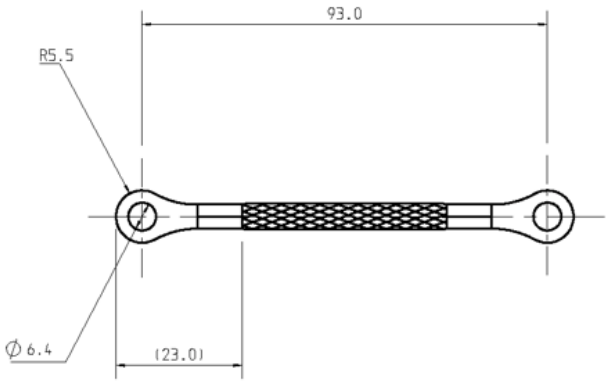


Below is an example of mounting between cover of cable trays and accessory



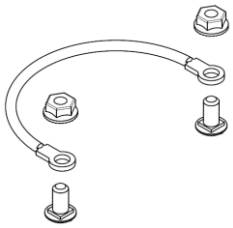
8.1. Electrical continuity for covers

To guarantee the electrical continuity between covers customers must joint cover using a copper wire or a copper plate.

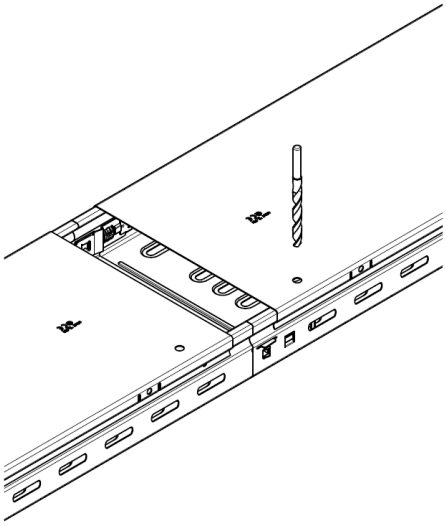


8.1.1. Copper wire

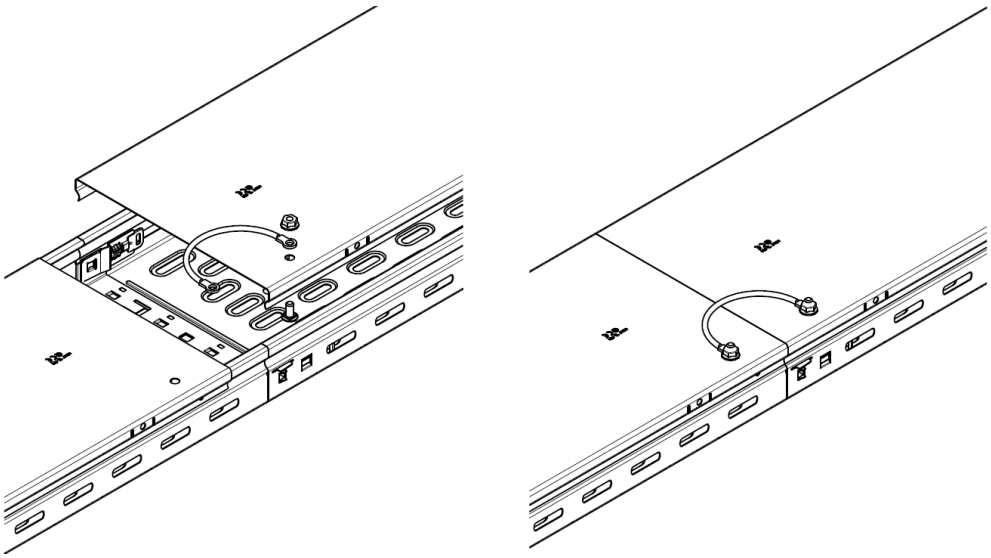
To guarantee the electrical continuity between covers there is a possibility to join it using a copper wire.



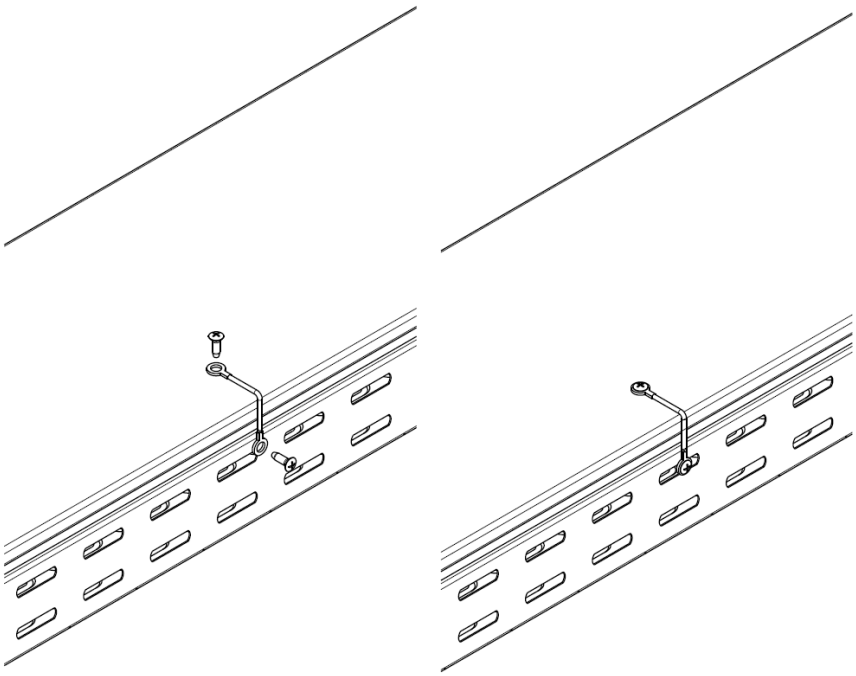
If the cover is devoid of grounding connection it is necessary to drill a 7mm diameter hole.
For painted version remove paint around the hole to assure electric conductibility.



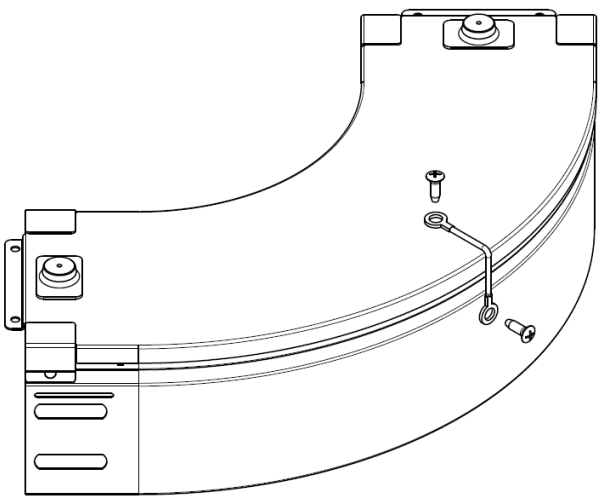
After that fix wire using 2 screws:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

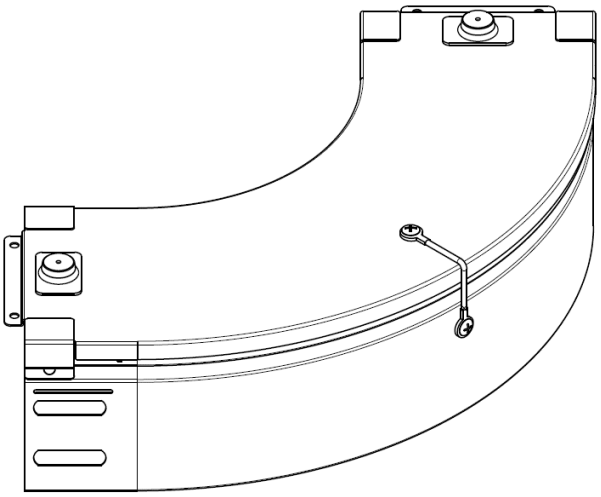


Below is an example of mounting copper wire between cover and cable tray.



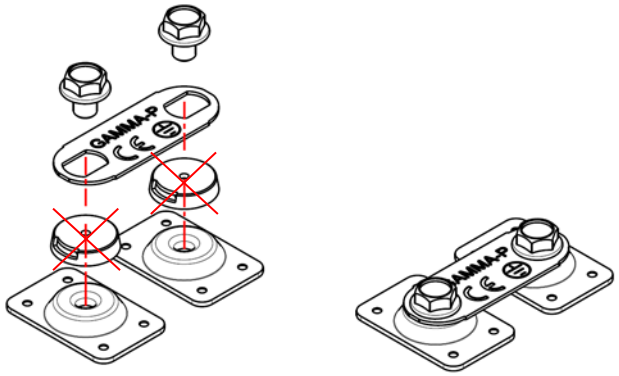
Below is an example of mounting copper wire between cover and fitting.



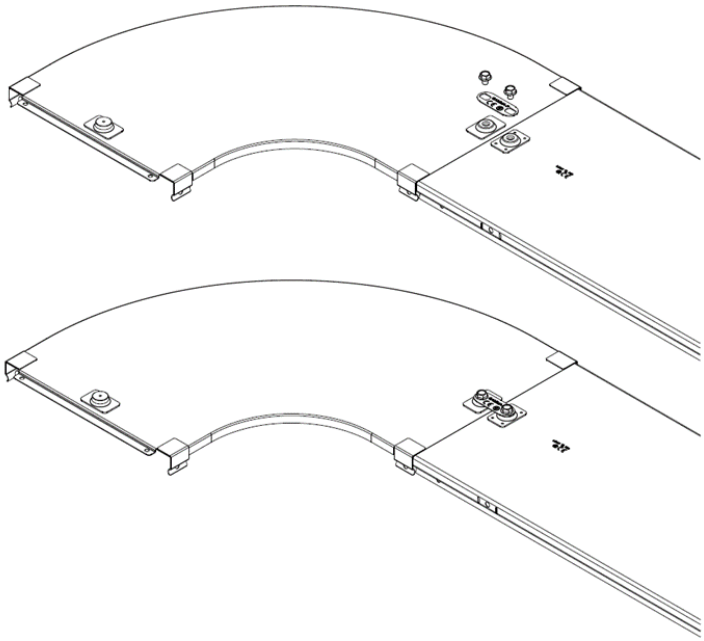


8.1.2. Copper plate

To guarantee the electrical continuity between covers there is a possibility of joint hearth connection using a copper plate.
Remove the plastic protection of heath connection and connect the copper plate using 2 M5 screws (tightening torque of 5 Nm) present into the kit.



Below is an example of mounting between cover of cable trays and accessory

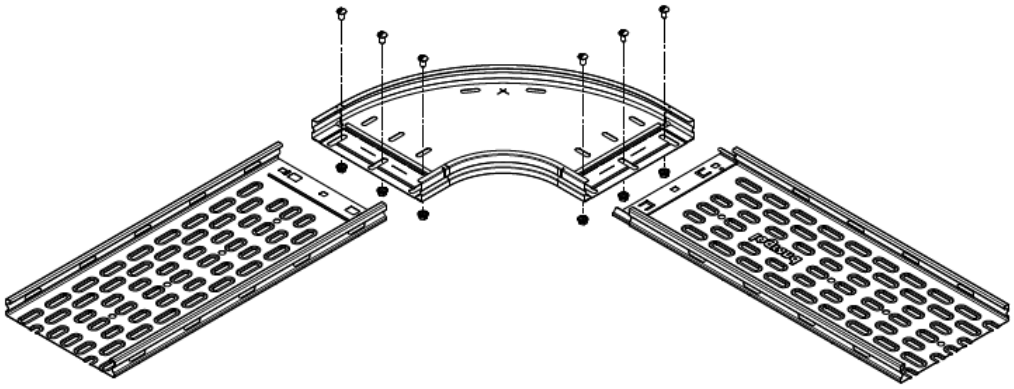


9. Installing a fitting

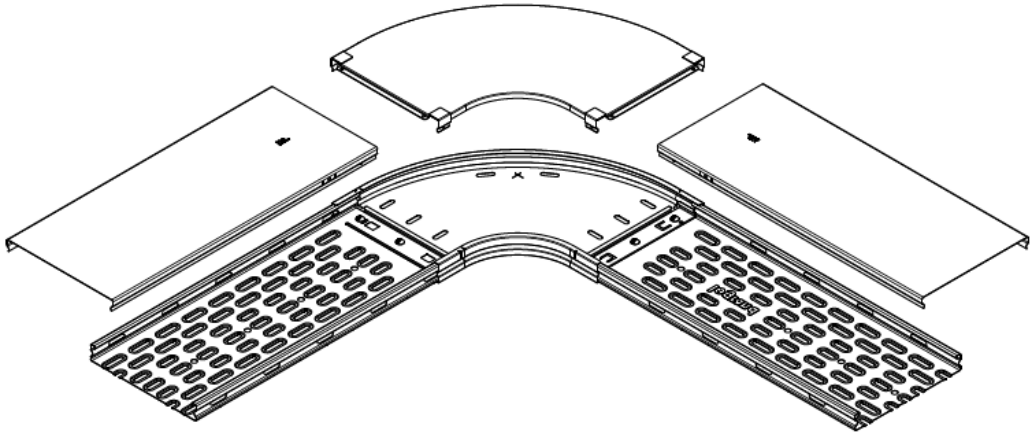
It is mandatory to assemble fittings and cable trays using the correct finishing.

9.1. H25

Fittings in height 25mm are assembled using 3 screws M6x12 on the bottom on each side:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

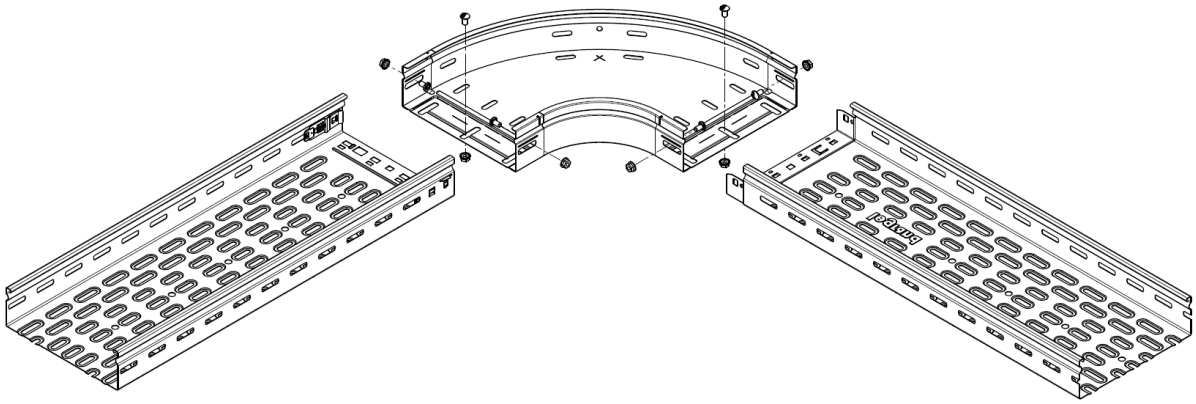


In case of covers, first fix the cover on the fitting before the cover length.

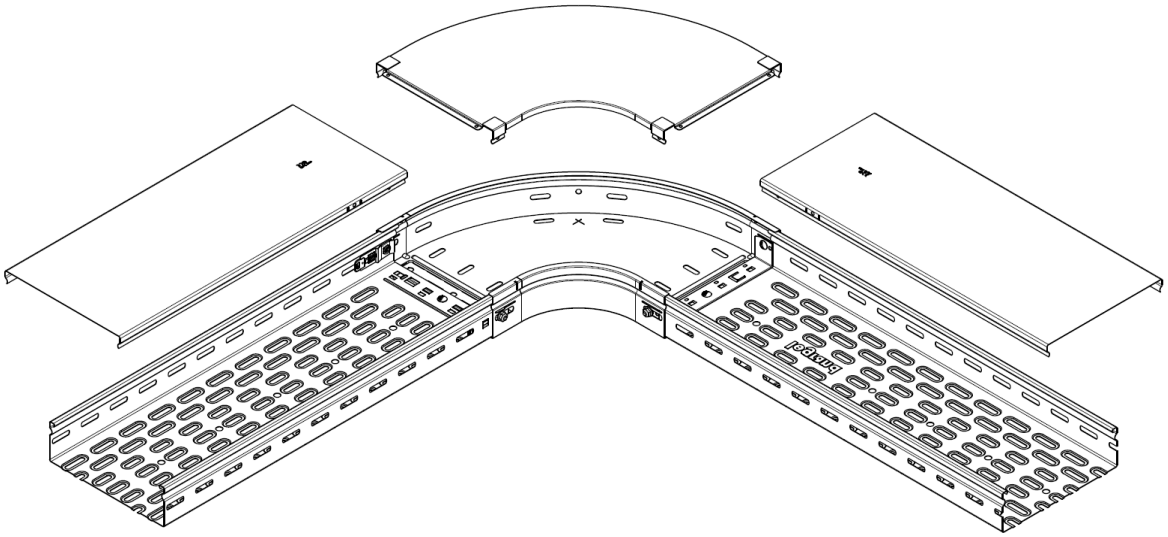


9.2.1 H50-60

Fittings in height 50 and 60mm are assembled using 3 screws on each side:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

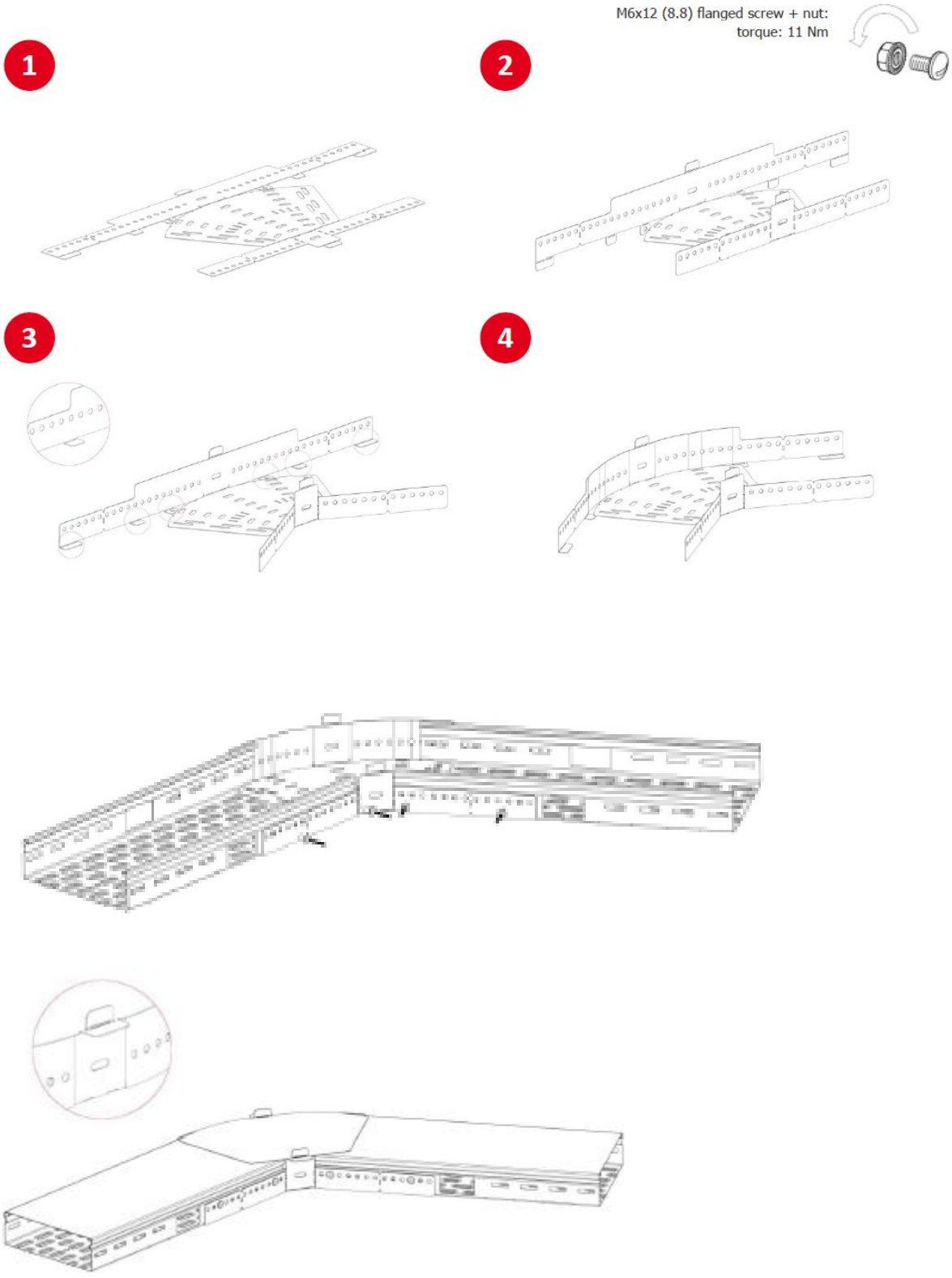


In case of covers, first fix the cover on the fitting before the cover length.

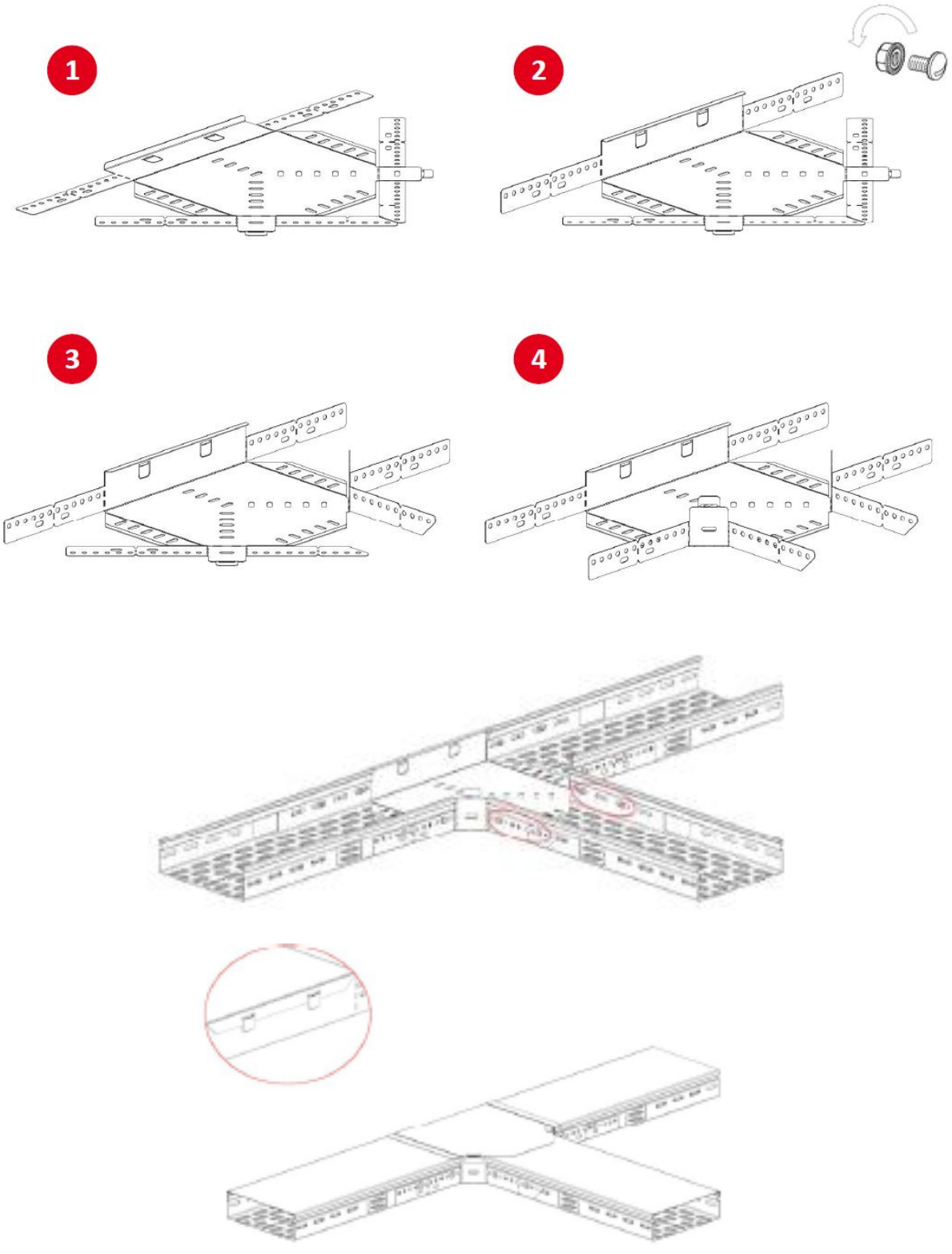


9.2.2 H60 flat pack fittings

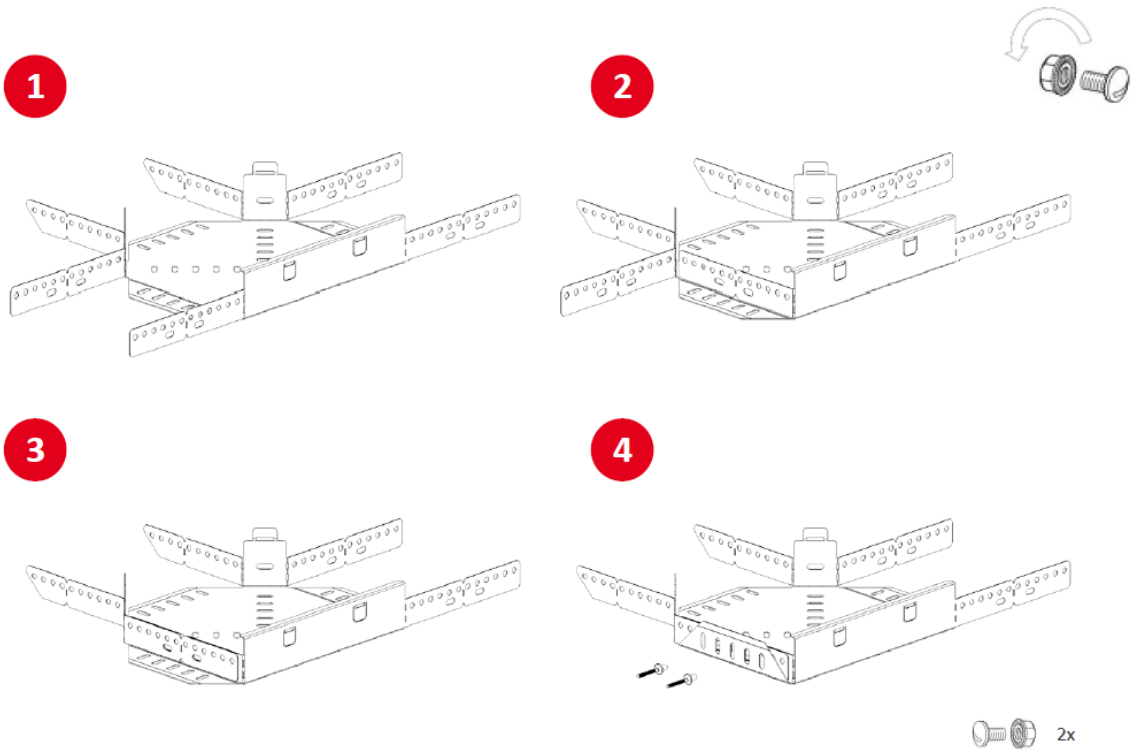
Universal corner height 60 mm PG assembled with 8 screws M6x12 341895 (tightening torque 11 Nm)

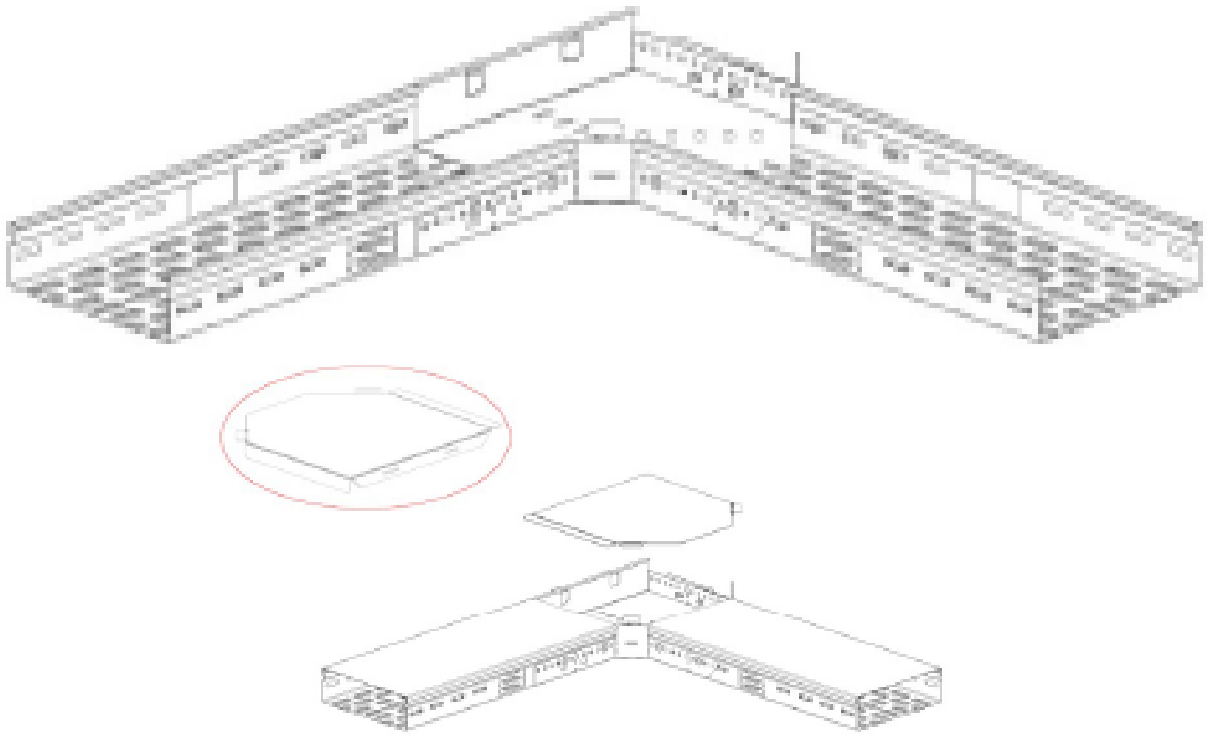


T/L piece used as flat T height 60 mm PG assembled with 12 screws M6x12 341895 (tightening torque 11 Nm)

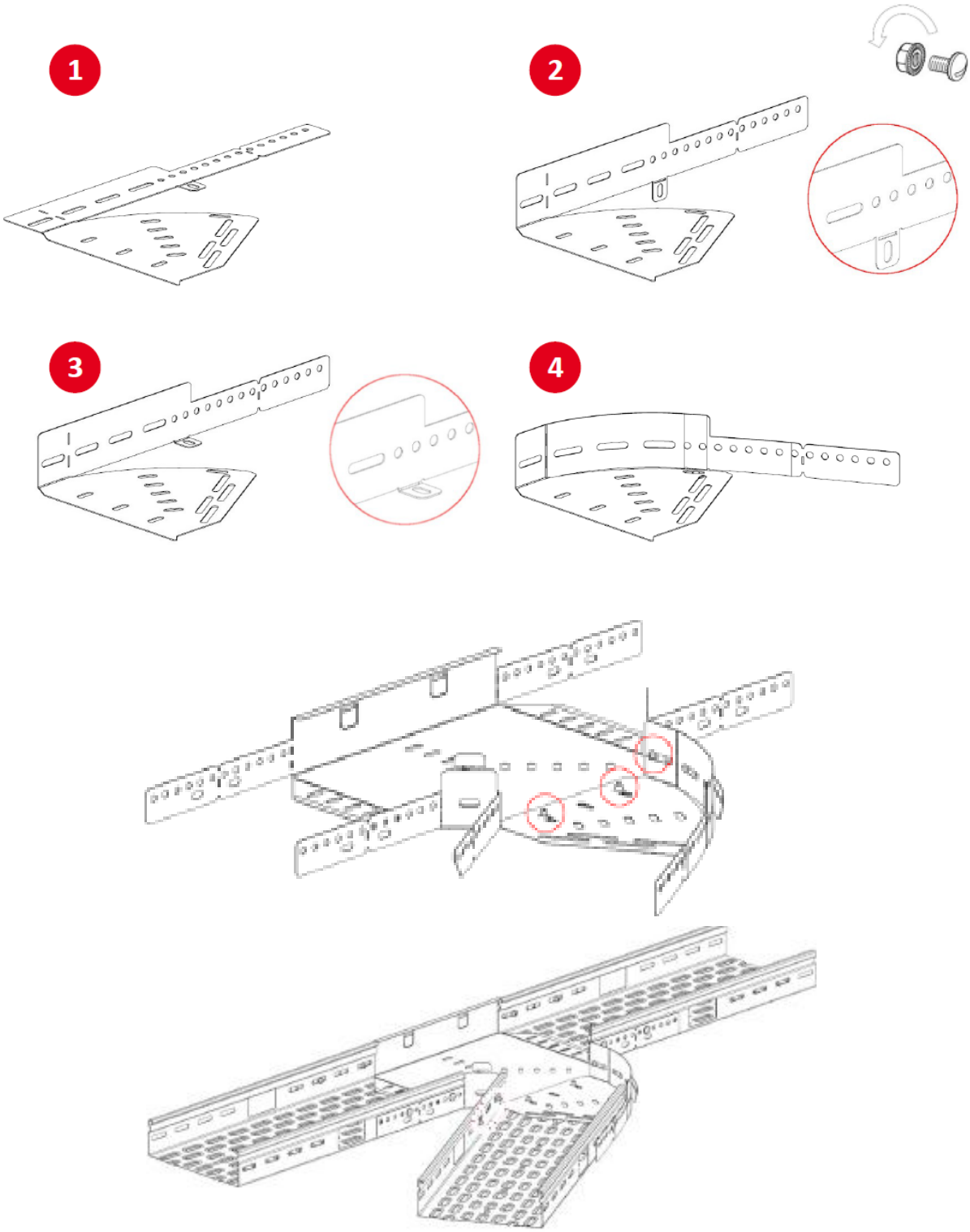


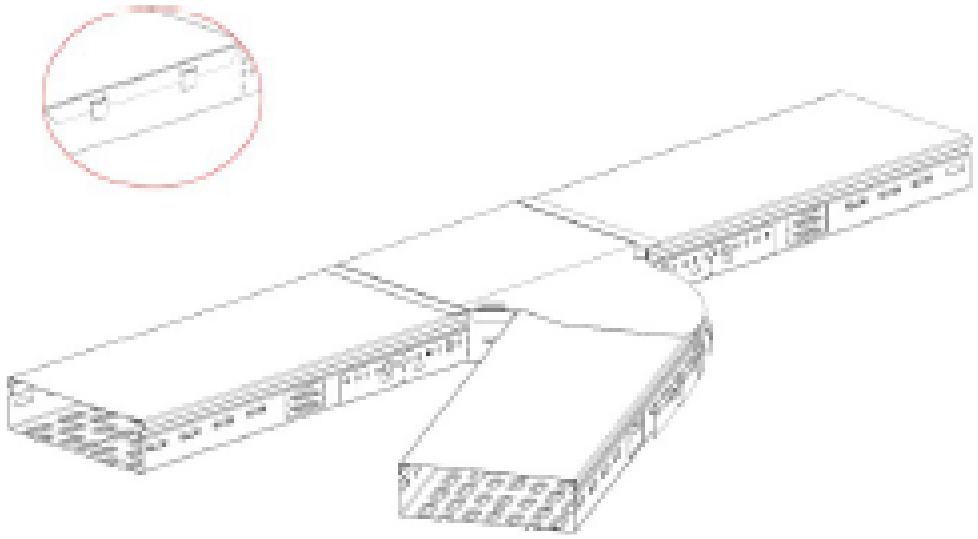
T/L piece used as flat bend height 60 mm PG assembled with 10 screws M6x12 341895 (tightening torque 11 Nm)





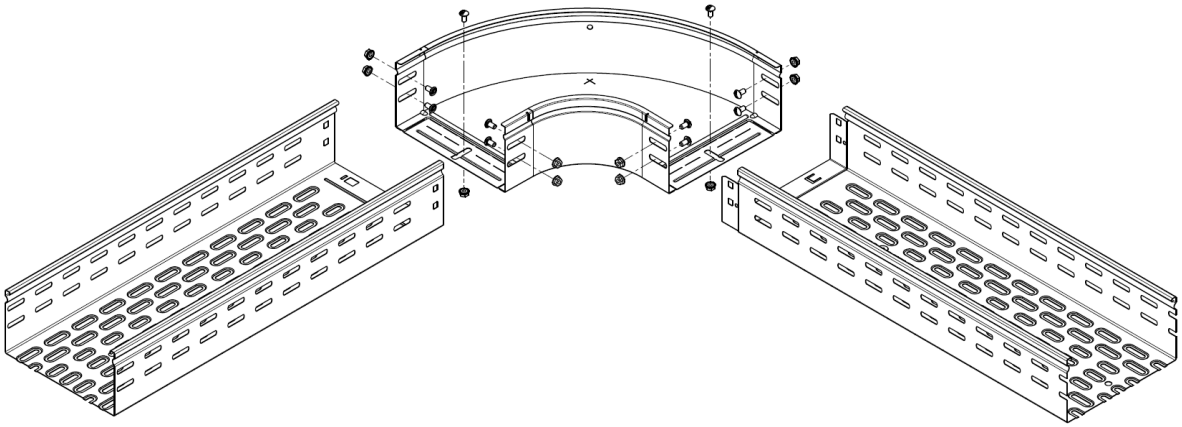
Y junctions L/R height 60 mm PG assembled to a T/L piece with 3 screws M6x12 341895 (tightening torque 11 Nm)



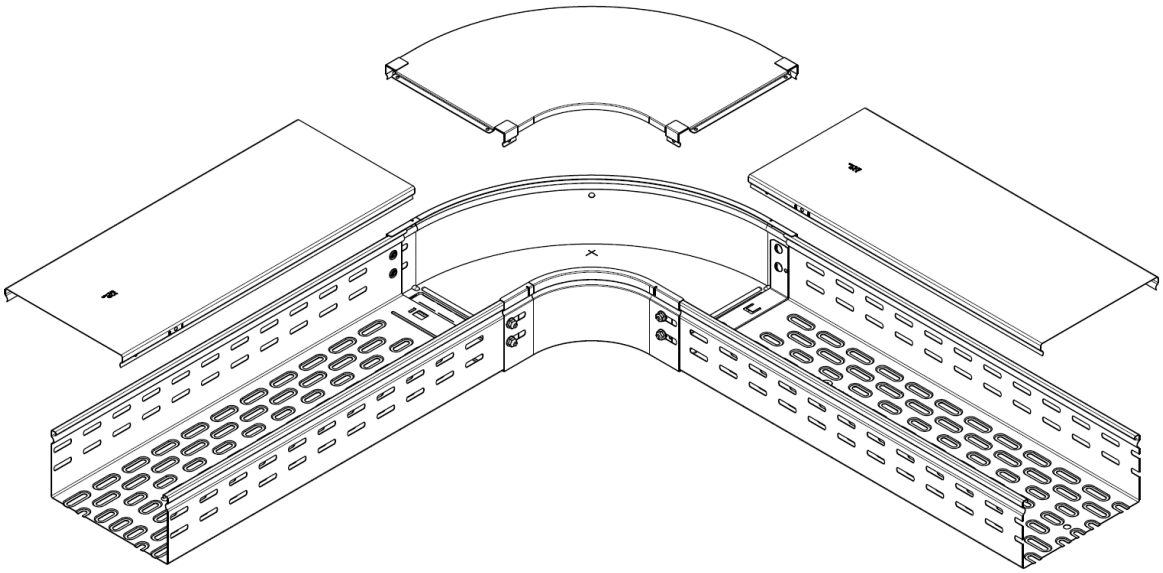


9.2. H77-100

Fittings in height 77 and 100mm are assembled using 5 screws on each side:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



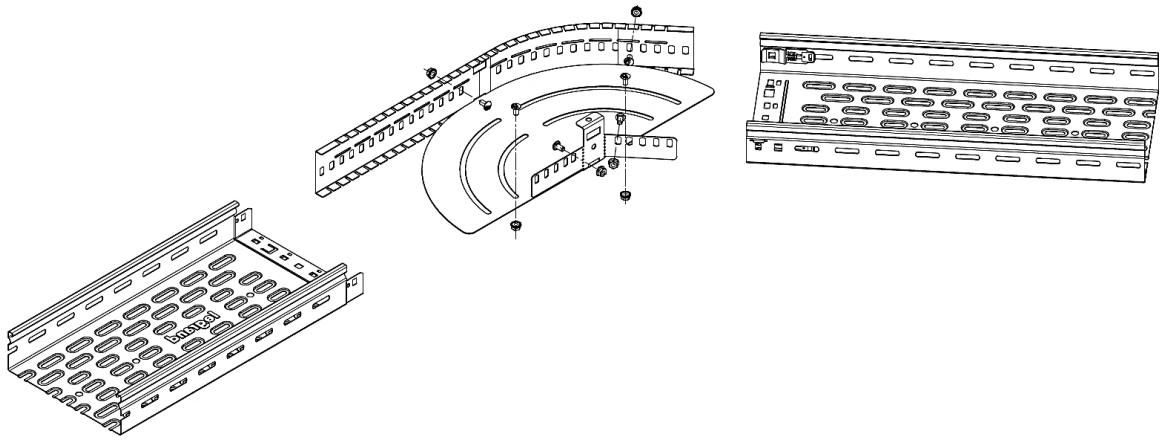
In case of covers, first fix the cover on the fitting before the cover length.



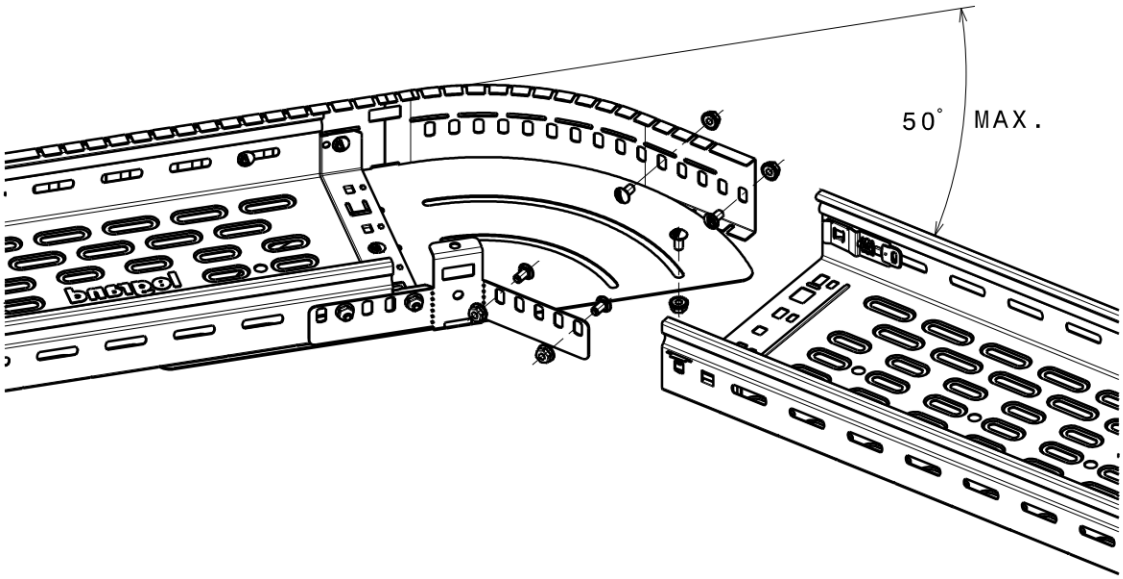
9.3. Adjustable flat bend

9.3.1. H60

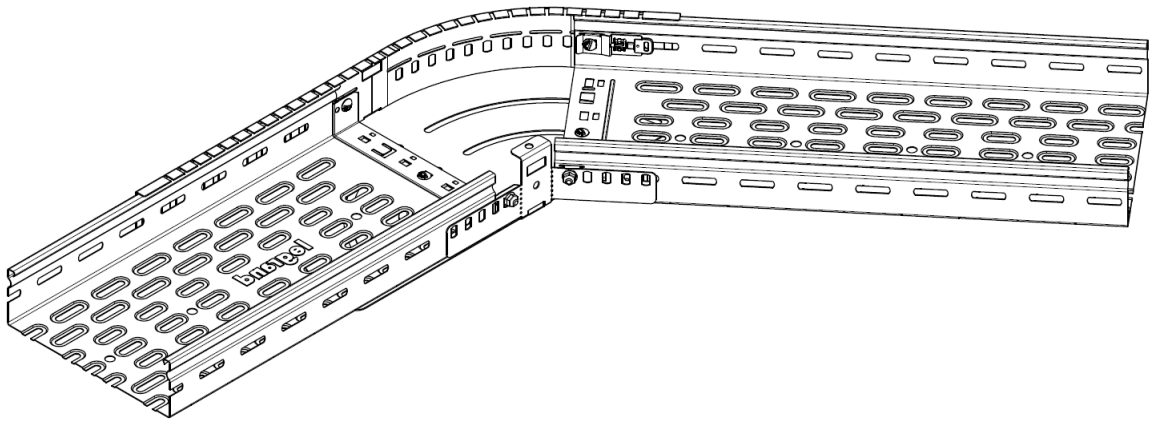
The adjustable flat bend is available only in 60mm height.
It is assembled using 6 screws M6x12 on the side and on the bottom:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



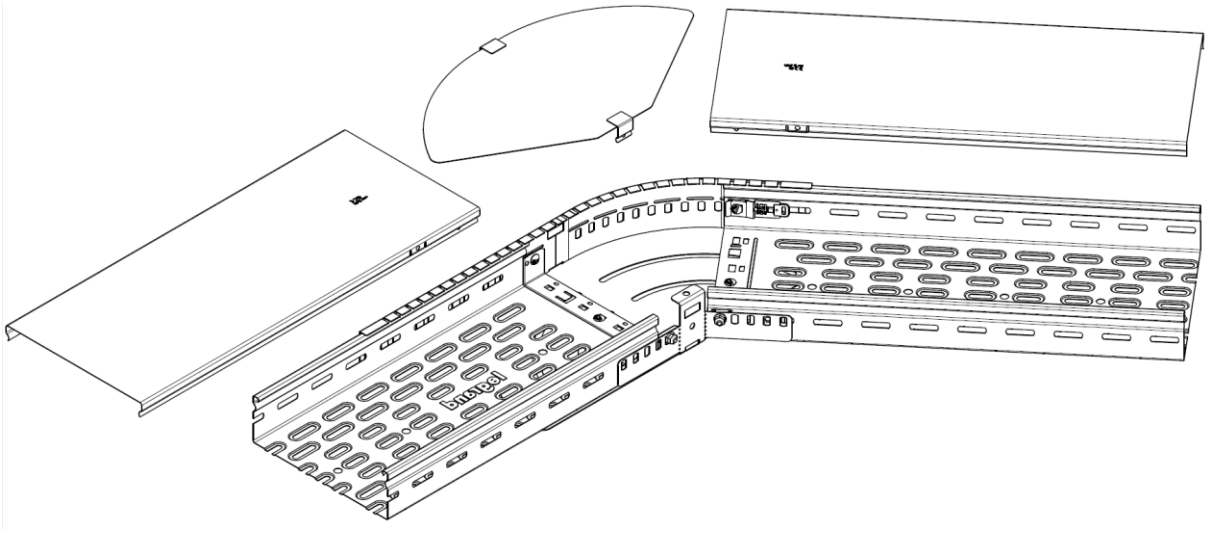
You can adjust the angle of bending from 0 to 100° (50° for both sides).



Fix the 3 screws per side in the free holes that you find on the side and bottom.

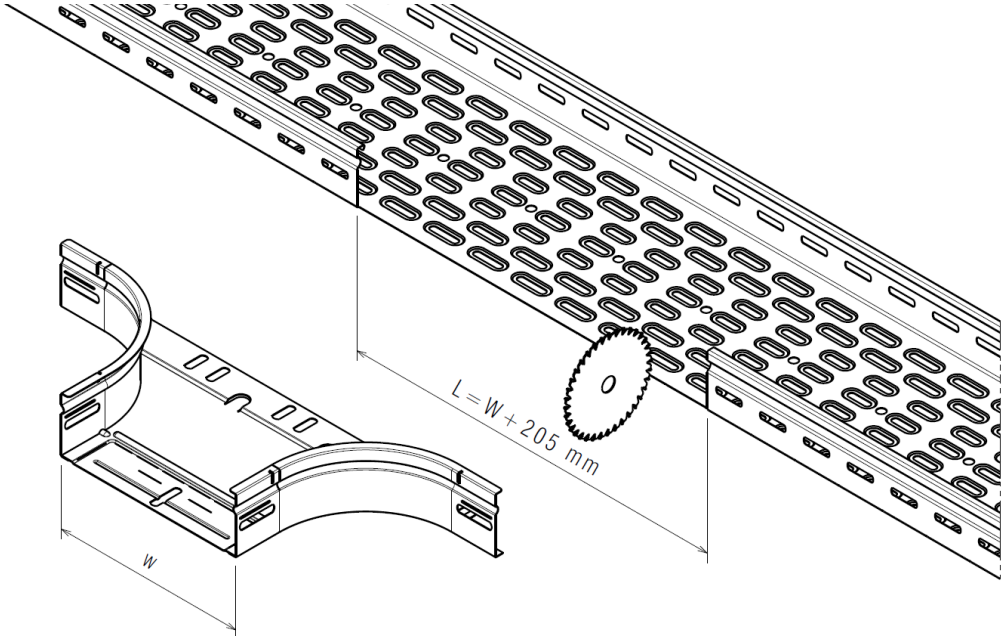


In case of covers, first fix the cover on the fitting before the cover length.

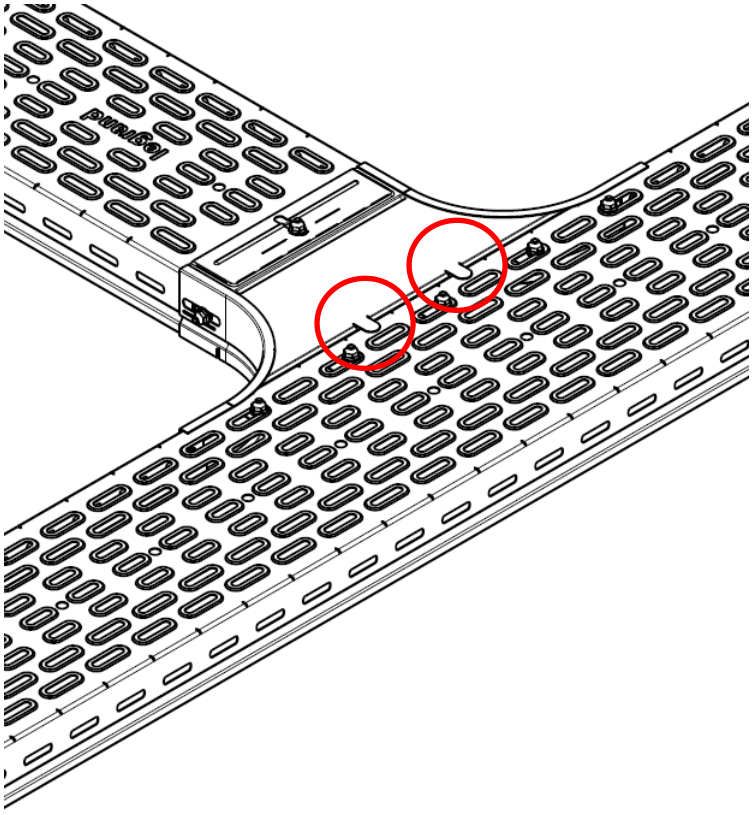


9.4. T-Branch

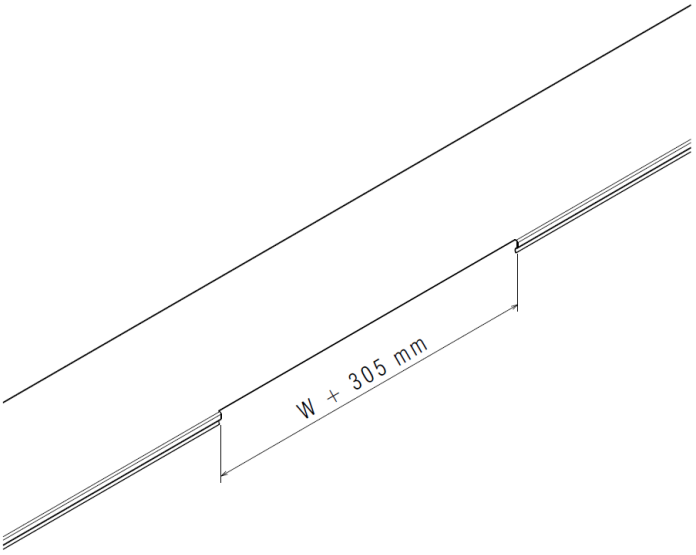
To install the T-Branch fitting, cut the side of the cable tray.
Find the right measure to cut in the pictures below.
“W” stands for the width of cable tray that you want to install as a branch.



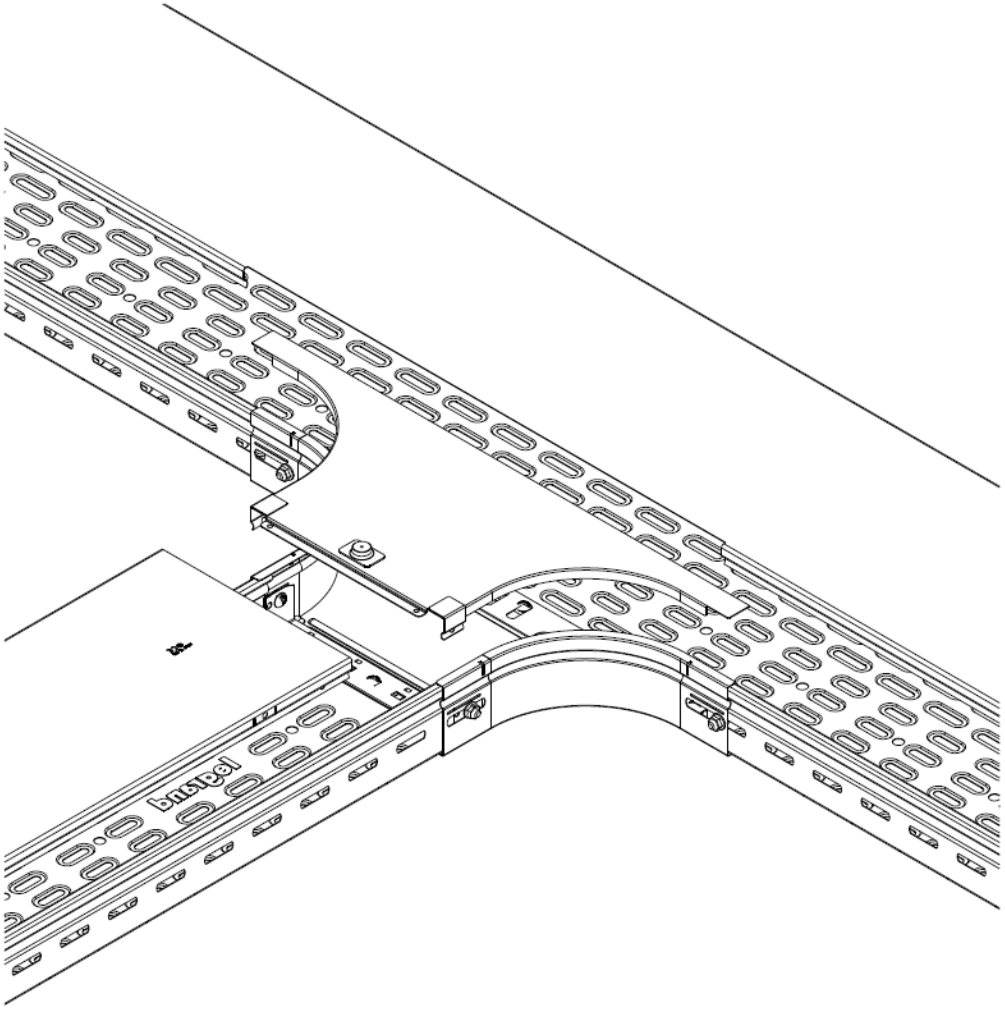
At positioning the T-Branch, it is important to put the wings under the bottom of the cable tray for extra support.



Find the right measure to cut the cover in the pictures below.
“W” stands for the width of cable tray that you want to install as a branch.



In case of covers, first fix the cover on the straight length, then the fitting and finally the branching cable tray.

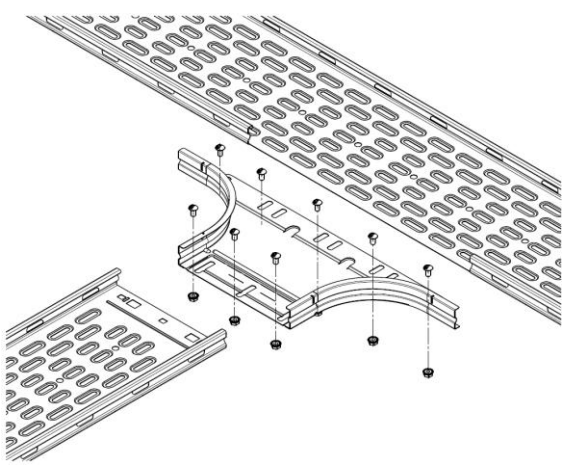


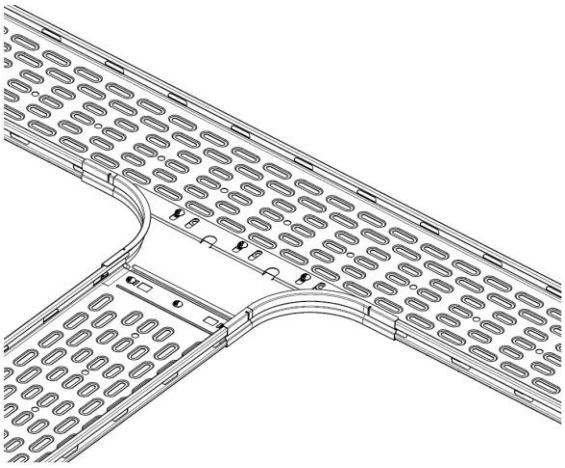
Below there is the table with the number of screws M6x12 needed to install Branch Piece.

Width Cable tray	# screws M6x12		
	'X'	'Y'	'Z'
75	4	6	10
100	4	6	10
150	5	7	11
200	6	8	12
300	6	8	12
400	7	9	13
500	9	11	15
600	9	11	15

9.4.1. H25

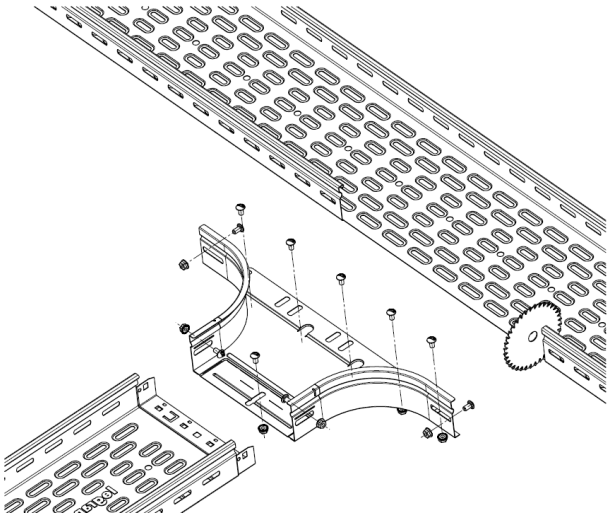
T-Branch in height 25mm is assembled using “X” screws (see chapter 9.5.) on the bottom:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

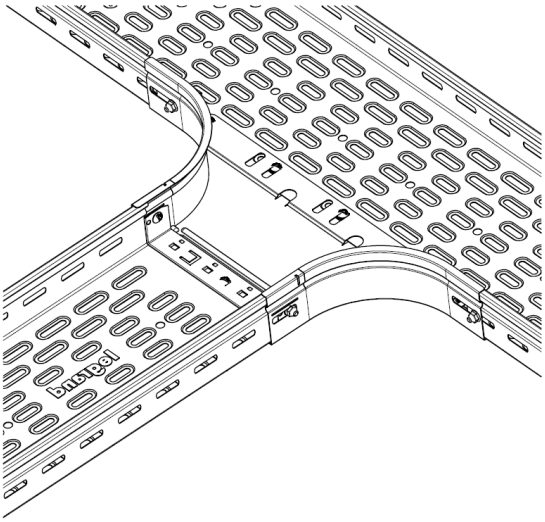




9.4.2. H50-60

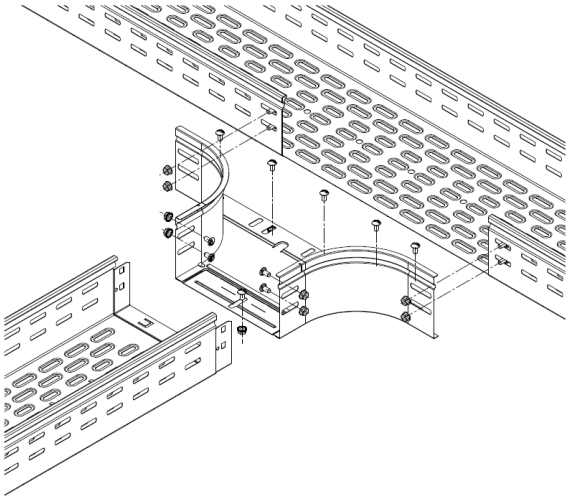
T-Branch in height 50 and 60mm are assembled using “Y” screws (see chapter 9.5.) on bottom and sides:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

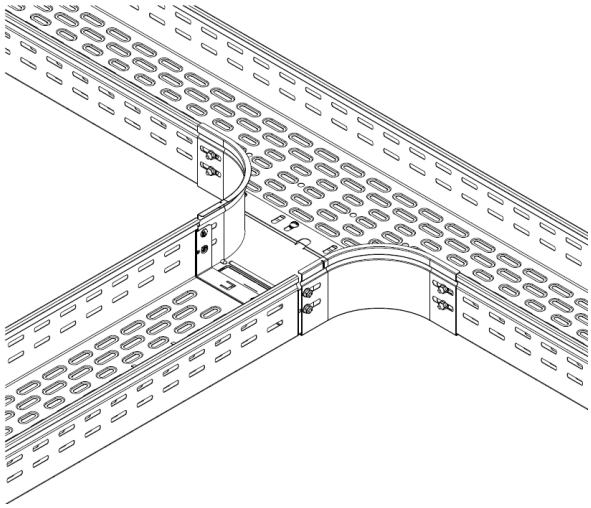




9.4.3. H77-100

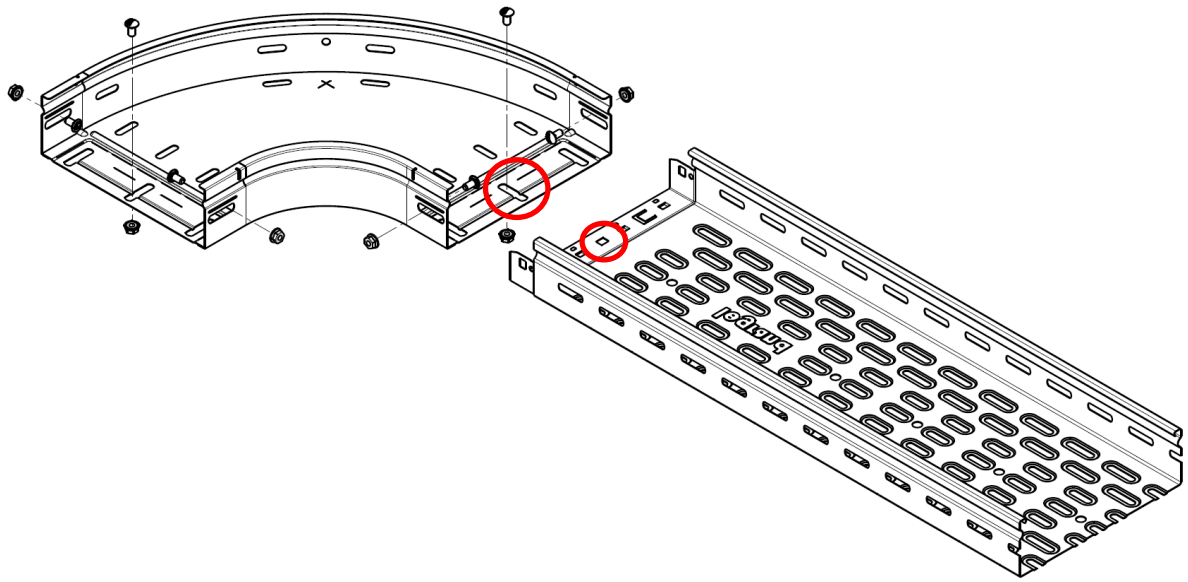
T-Branch in height 77 and 100mm is assembled using “Z” screws (see chapter 9.5.) on bottom and sides:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)





9.5. Installing a painted fitting

For the installation of painted fitting is mandatory to guarantee electrical continuity between the accessory and the cable tray.
To do this remove the paint from both sides (top and bottom) of the central bottom holes and add one screw M6x12 (341895 tightening torque of 11 Nm)

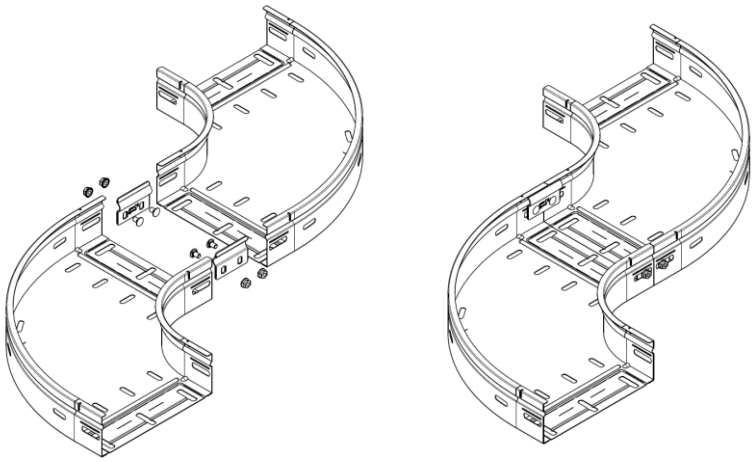


10. Fitting to fitting assembly

Fittings can be connected directly, without a cable tray, using the EA coupler.
Put in contact the fittings and insert two EA coupler, one for each side.

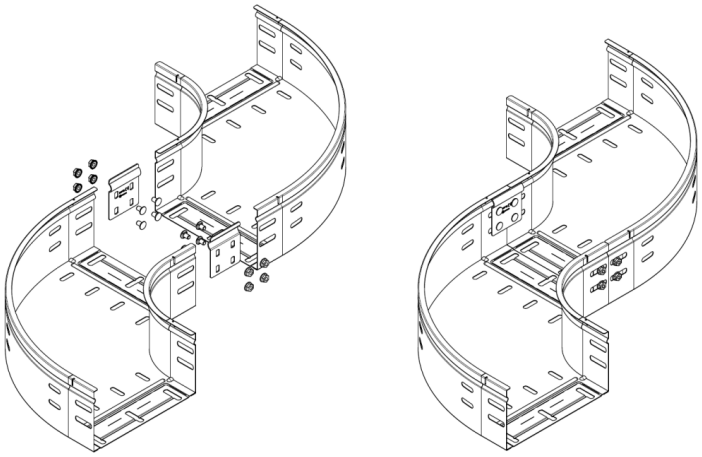
10.1. H50-60

Slide together the two fittings and add 2pc of EA height 50-60 coupler using 2 screws on each coupler:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



10.2. H77-100

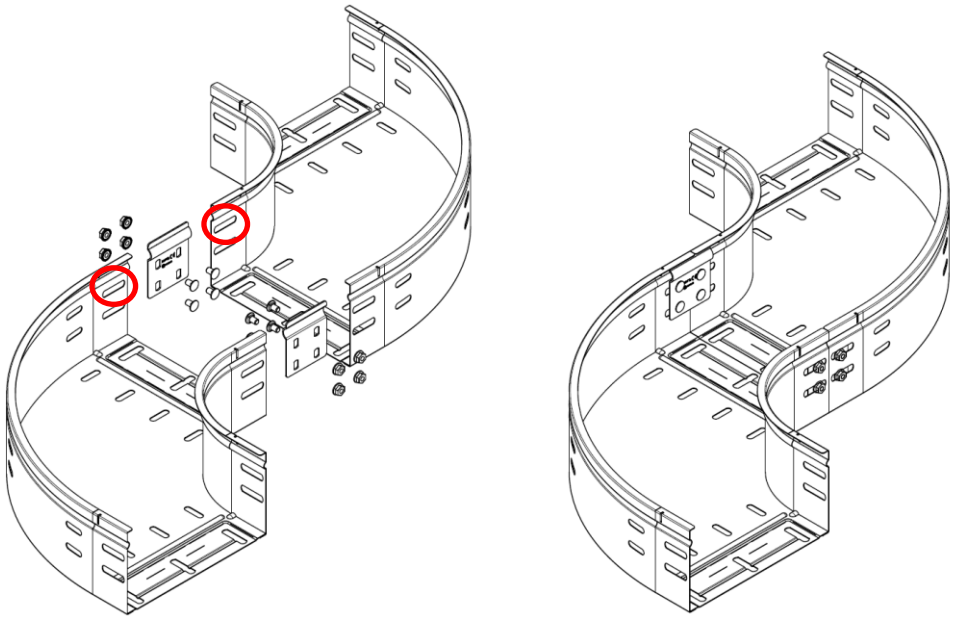
Slide together the two fittings and add 2pc of EA couplers height 77-100 using 4 screws on each coupler:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



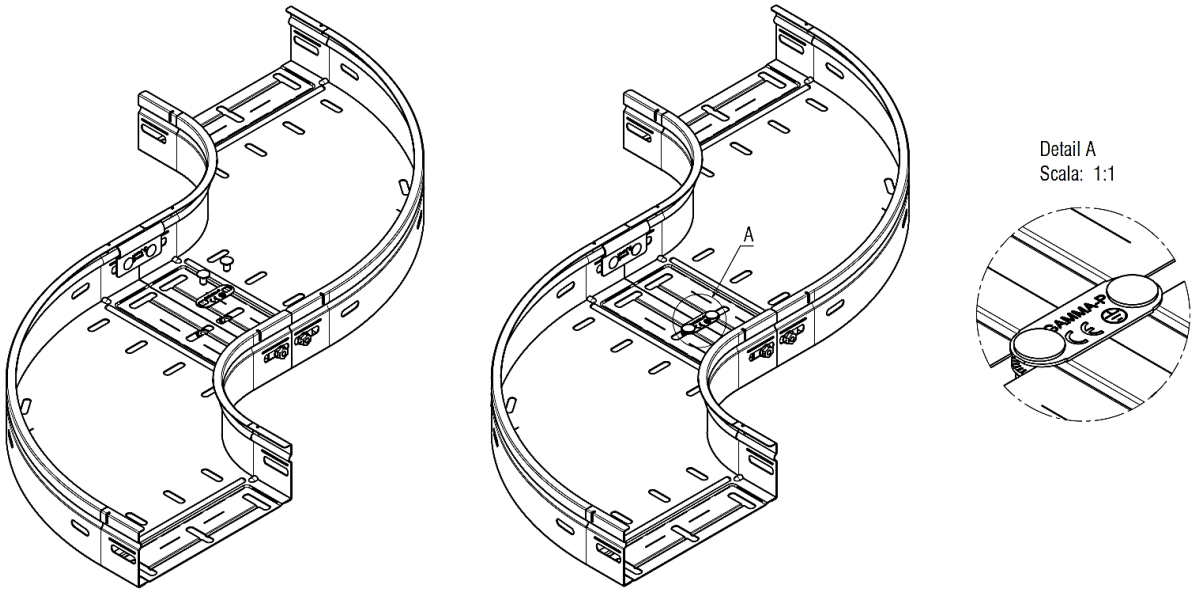
10.3. Fitting to fitting painted version

To guarantee the electrical continuity between two fittings in painted version you have two different way.

1) Remove the paint from both sides of the side's holes (one for each fitting on the internal side) and slide together the two fittings and add 2pc of EA couplers not painted using screws M6x12 (341895 tightening torque of 11 Nm) on each coupler as showed in the chapter before.



2) Remove the paint from both sides (top and bottom) of the central bottom holes and slide together the two fittings.
Connect the central holes using the copper plate as heart connection installation fixed with 2 screws M6x12 (341895 tightening torque of 11 Nm).
Follow the standard installation rules for the mounting of EA coupler.



11. Dividers

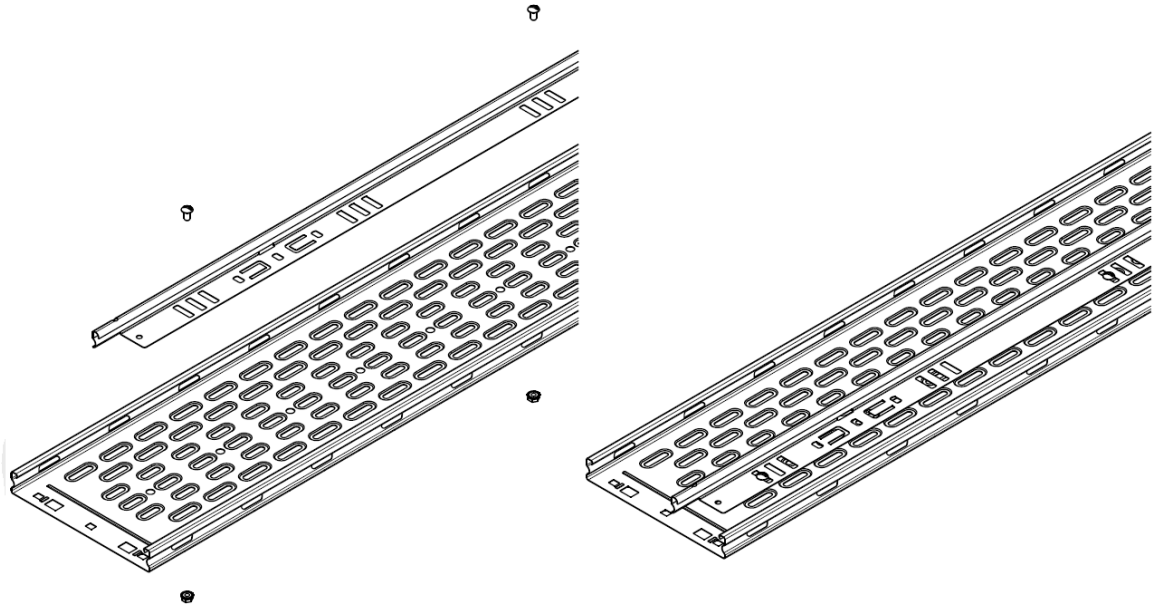
11.1. Universal divider for length

The Universal dividers can be used in combination with perforated Male-Female (auto) cable trays.
For application in blind cable trays, drill holes ø7mm and use screws M6x12: min. 2 screws per piece of divider and max. 600mm apart over longer distances.

Recommendation: for Male-Female (auto) cable trays, keep the connections of the divider at the same location as the connections of the cable trays to ensure a smooth fitting over the tray connection.

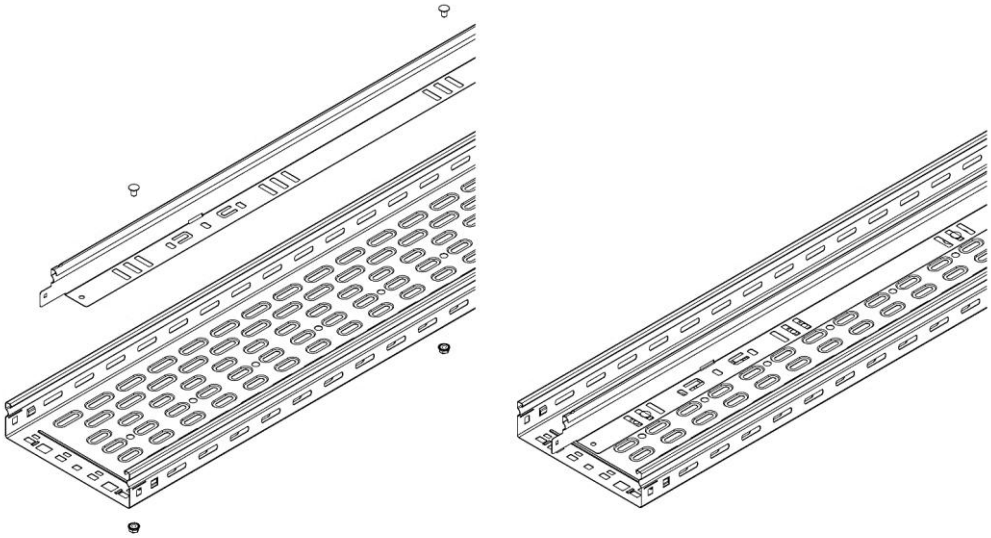
11.1.1. H25

Mount the divider using min. 5 screws M6x12 evenly divided over the 3m length:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



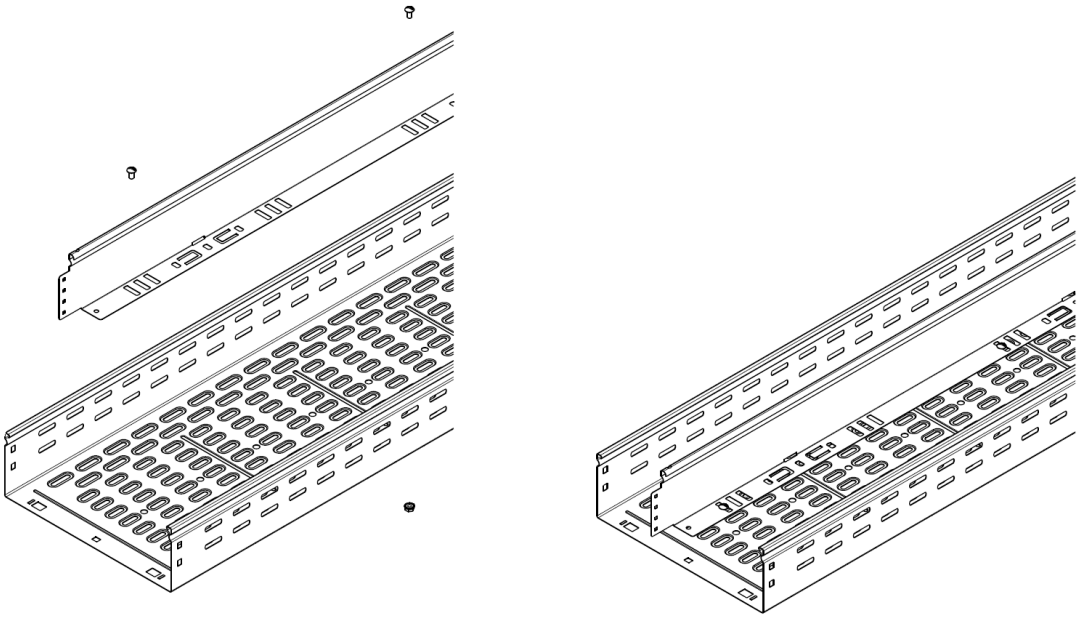
11.1.2. H50-60

Mount the divider using min. 5 screws M6x12 evenly divided over the 3m length:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



11.1.3. H77-100

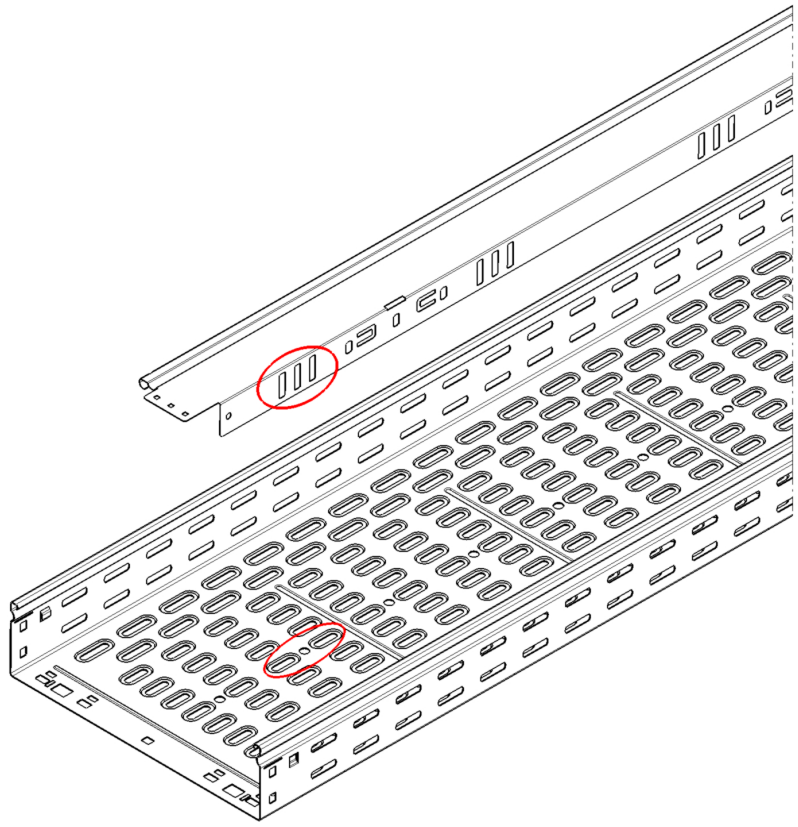
Mount the divider using min. 5 screws M6x12 evenly divided over the 3m length:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



11.2. Painted dividers for length

To guarantee electrical continuity between the divider and the cable tray it is mandatory to remove the paint from the contact area (between the bottom of the divider and the top of the cable tray) where the screws are located.

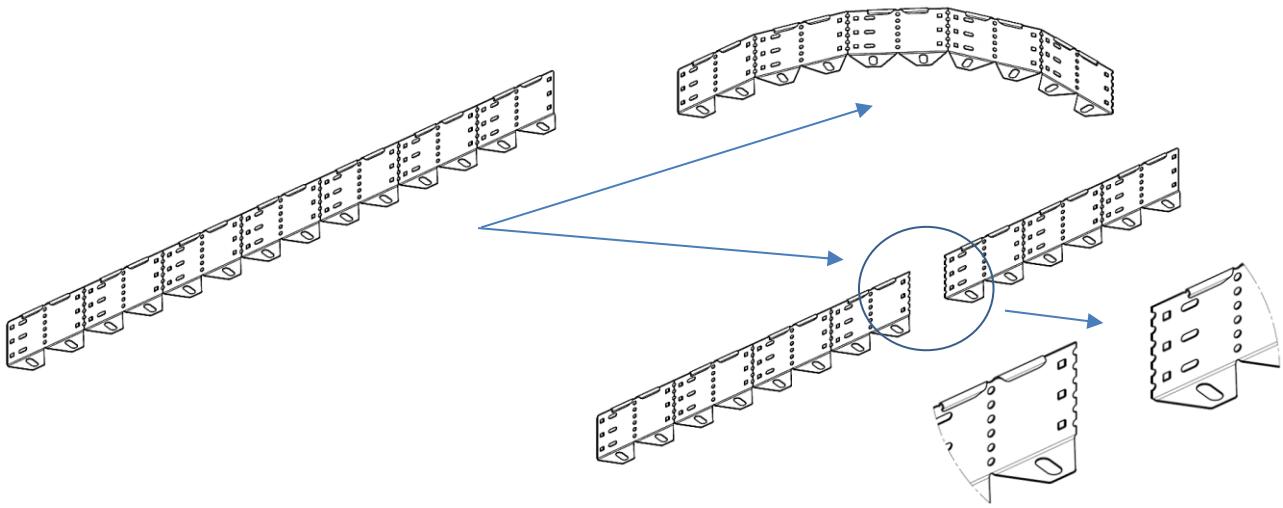
This scheme is valid for all heights.



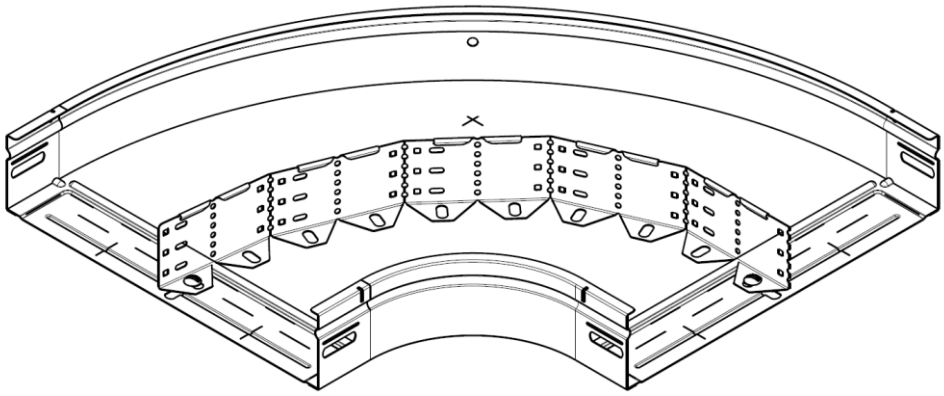
11.3. Universal dividers for fittings

The Universal dividers can be used in combination with all flat fittings.
For application in blind bottom, drill holes ø7mm and use screws M6x12:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)

Divider for fittings can be bend into various shapes with different dimensions.
They can also be broken into parts by manually bending it several times over the same line.



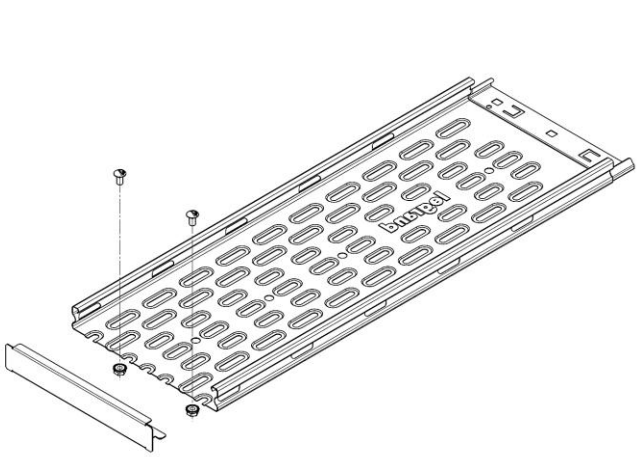
Universal divider for fittings is available in height 50, 60, 77 and 100mm.
Mount the divider using min. 2 screws M6x12:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



12. End-Cap

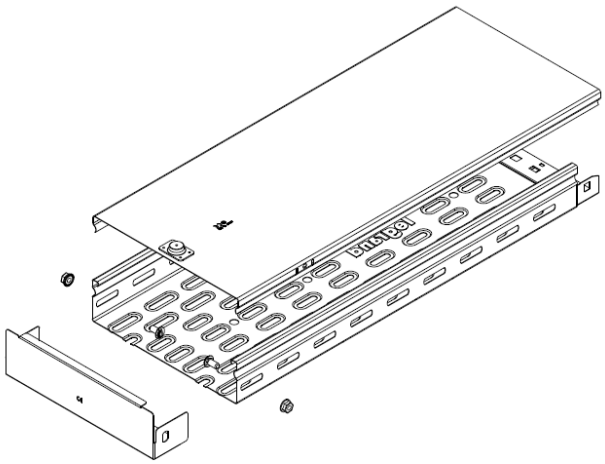
12.1. H25

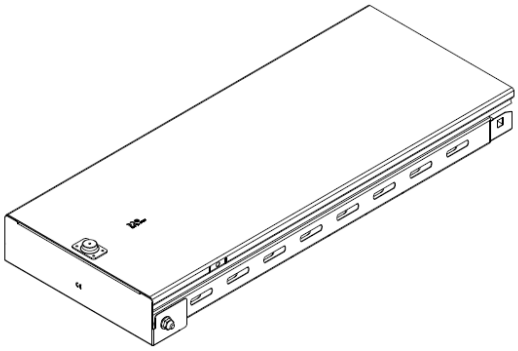
The Endcap in height 25 is assembled using 2 screws M6x12 on the bottom of the cable tray:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



12.2. H50

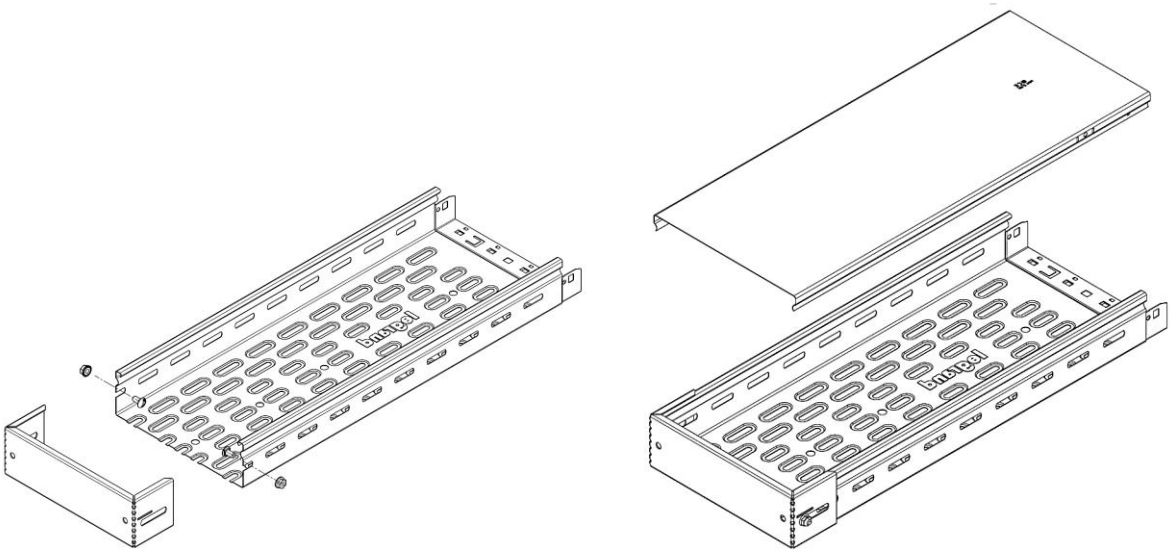
The Endcap in height 50 is assembled using 2 screws M6x12 on the sides of the cable tray:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)





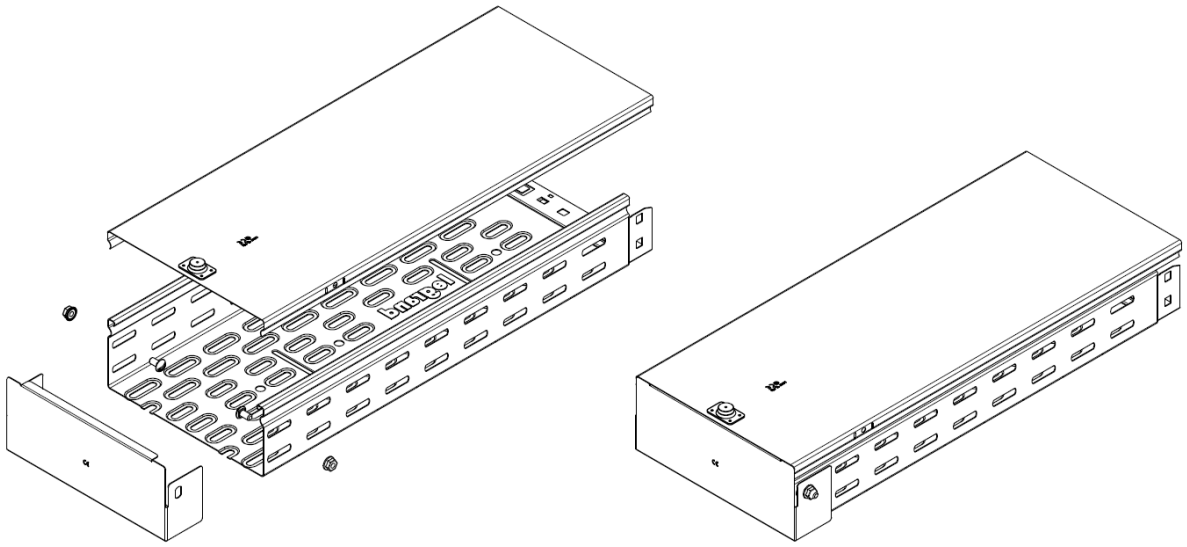
12.3. H60

The Endcap in height 60 is assembled using 2 screws M6x12 on the sides of the cable tray:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



12.4. H77-100

The Endcap in height 100 is assembled using 4 screws M6x12 on the sides of the cable tray:
PG/Painted version M6 (341895 tightening torque of 11 Nm)
HDG version M6 (485035 tightening torque of 11 Nm)



13. Electrical continuity of connection (UL certification)

In USA the requirement of the electrical characteristics of a cable tray system is defined by the standard NEMA BI50015.
Into section 5, paragraph 5.1 of the standard, is described the test method to verify the electrical continuity of connections (tray to tray, tray to cover, tray to accessories…).

According to the Electrical National Code NFPA 70 there is also a second condition to satisfy independently by the electrical continuity since the cable tray systems could be used as an equipment grounding conductor; for UL is not possible to ignore this possibility. This is needed to declare for each dimension the minimum cross-sectional area.

This information allows at the Customer to know, depending by the type of the *protection device used*, the section of the *grounding wire* needed to gain the *minimum cross-sectional area* fixed by table 392.60A of NFPA 70 showed below.

Table 392.60(A) Metal Area Requirements for Cable Trays Used as Equipment Grounding Conductor

Maximum Fuse Ampere Rating, Circuit Breaker Ampere Trip Setting, or Circuit Breaker Protective Relay Ampere Trip Setting for Ground-Fault Protection of Any Cable Circuit in the Cable Tray System	Minimum Cross-Sectional Area of Metal[a]			
	Steel Cable Trays		Aluminum Cable Trays	
	mm^2	$in.^2$	mm^2	$in.^2$
60	129	0.20	129	0.20
100	258	0.40	129	0.20
200	451.5	0.70	129	0.20
400	645	1.00	258	0.40
600	967.5	1.50[b]	258	0.40
1000	—	—	387	0.60
1200	—	—	645	1.00
1600	—	—	967.5	1.50
2000	—	—	1290	2.00[b]

[a]Total cross-sectional area of both side rails for ladder or trough cable trays; or the minimum cross-sectional area of metal in channel cable trays or cable trays of one-piece construction.
[b]Steel cable trays shall not be used as equipment grounding conductors for circuits with ground-fault protection above 600 amperes. Aluminum cable trays shall not be used as equipment grounding conductors for circuits with ground-fault protection above 2000 amperes.

When the tray doesn't meet the *minimum cross-sectional area* fixed by the Table 392.60A of NFPA 70 and is used as an equipment grounding conductor (EGC) is needed to choose the *bonding jumper* and the *wire* depending by the *maximum ampere rating* used to protect the cable circuit to gain the minimum cross sectional area value.

13.1. Example of sizing

We have decided to start the sizing using a *maximum fuse ampere rating* of **60A** installed on a H60x200 Lighting cable tray Item **LG-487003**.

First step is to check the *minimum cross-sectional area of metal* required for an ampere rating of 60A on table 392.60(A). **We obtain 129 mm²**.

Now we have to compare the obtained value with the cross-sectional area of the cable tray; for **LG-487003 is 118.2 mm²** (check the value on the label of the product; however, we resume all data for every items into the dedicated tables shown in the next chapter).

Minimum cross-sectional area of metal must be major than cross sectional area of the cable tray. In this case we have to choose the size of the bonding jumper and sizing the section of grounding wire **to gain** the required sectional area**.**

13.1.1. Choice of bonding jumper

Depending on the maximum ampere rating and according to table 250.122 showed below select the size of the bonding jumper.

NEC 2008: Table 250.122
Minimum Size Equipment Grounding Conductors for Grounding Raceway and Equipment

Rating or Setting of Automatic Overcurrent Device in Circuit Ahead of Equipment, Conduit, etc., Not Exceeding (Amperes)	Size (AWG or kcmil)	
	Copper	Aluminum or Copper-Clad Aluminum*
15	14	12
20	12	10
30	10	8
40	10	8
60	10	8
100	8	6
200	6	4
300	4	2
400	3	1
500	2	1/0
600	1	2/0
800	1/0	3/0
1000	2/0	4/0
1200	3/0	250
1600	4/0	350
2000	250	400
2500	350	600
3000	400	600
4000	500	800
5000	700	1200
6000	800	1200

Note: Where necessary to comply with 250.4(A)(5) or (B)(4), the equipment grounding conductor shall be sized larger than given in this table.
*See installation restrictions in 250.120.

Using a *maximum fuse ampere rating* of **60A** we obtain **10 AWG** size of bonding jumper made by copper.

To convert AWG to mm^2 use the table shown below.

10 AWG are **$6mm^2$**

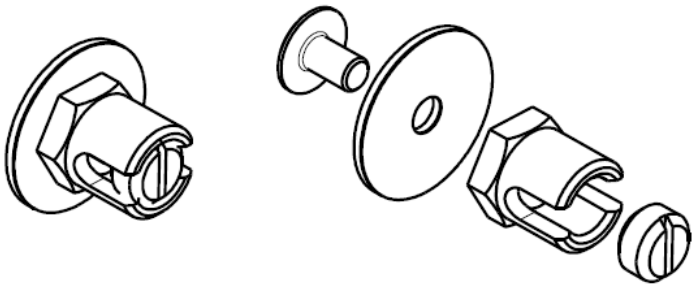
Wire Size Conversion Chart - American Wire Gauge to square millimeters							
AWG	mm^2	AWG	mm^2	AWG	mm^2	AWG	mm^2
30	0.05	18	0.75	6	16	4/0	120
28	0.08	17	1.0	4	25	300MCM	150
26	0.14	16	1.5	2	35	350MCM	185
24	0.25	14	2.5	1	50	500MCM	240
22	0.34	12	4.0	1/0	55	600MCM	300
21	0.38	10	6.0	2/0	70	750MCM	400
20	0.50	8	10	3/0	95	1000MCM	500

Choose the upper value of bonding jumpers showed into the next chapter.

In this case use item **585357**.

13.1.1.1. Mounting of bonding jumper (EGC)

Use the standard kit to connect the grounding cable to the side of the cable tray.

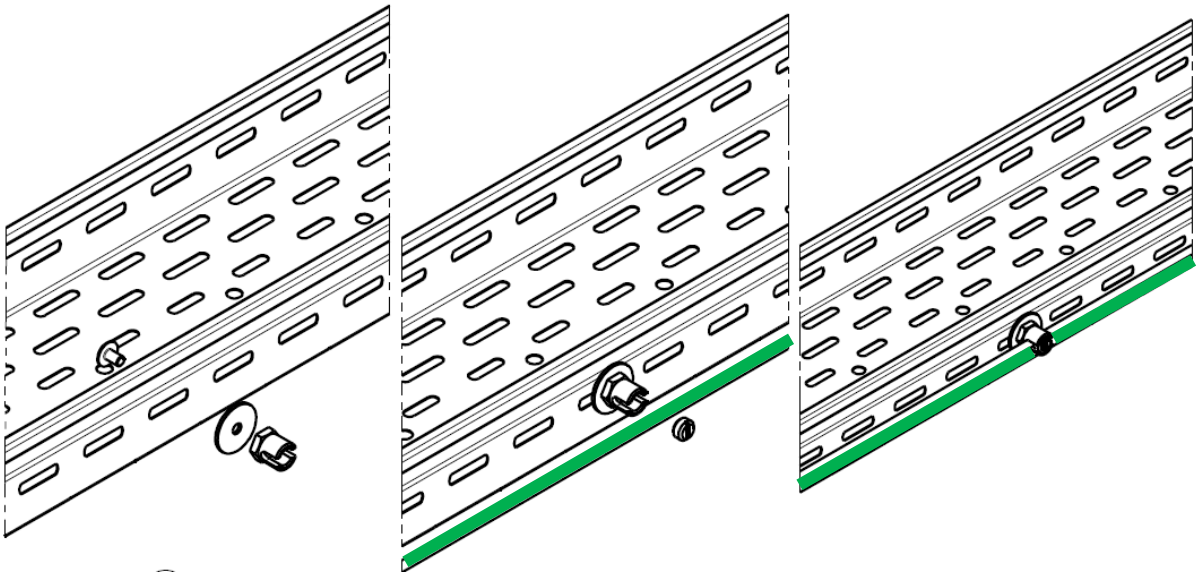


Item	Description	Material	Section (mm^2)
585357	BLT6-16 CU EARTH TERMINAL	COPPER	16
585367	BLT6-35 CU EARTH TERMINAL		35
585377	BLT6-50 CU EARTH TERMINAL		50

Place the bonding jumper (EGC) on the side of the cable tray and fasten it using the screw supplied in the kit with a tightening torque of 11 Nm.

Unscrew the cable clamp, place the bare grounding cable (depicted in green) and replace the clamping screw. Make sure the cable clamp holds the grounding wire tightly.

For blind cable trays it is necessary to drill a hole in the side of the cable tray using a 7mm drill.



On each length of tray must be mounted minimum 1 bonding jumper and the AWG wire must be connected throughout the entire length of the cable trays system.

13.1.2. Calculation of cross-sectional area to add

Summarized into the table below the obtained data until yet.

Description	Size	Table
Protection Devise	60 (Ampere)	---
Bonding jumper	10 AWG (6 mm^2)	250.122
Minimum cross-sectional area (A)	129 (mm^2)	392.60(A)
Cross sectional area of cable tray (B)	118.2 (mm^2)	On product label

We can calculate the cross-sectional area **to add** making a difference between the minimum cross-sectional area required by the table 392.60(A) and the cross-sectional area of cable tray.

Cross sectional area to add = A – B = 129 – 118.2 = 10.8 mm^2.

13.1.3. Choice of wire dimension

Knowing the cross-sectional area to add use the table below to find the right dimension for the wire.

AWG	Diameter (mm)	Section (mm^2)
0000 (4/0)	11,684	107,22
000 (3/0)	10,405	85,01
00 (2/0)	9,266	67,43
0 (1/0)	8,252	53,49
1	7,348	42,41
2	6,544	33,61
3	5,827	26,67
4	5,189	21,15
5	4,62	16,77
6	4,115	13,3
7	3,655	10,55
8	3,264	8,37
9	2,906	6,63
10	2,588	5,26
11	2,305	4,17
12	2,052	3,31
13	1,828	2,63
14	1,623	2,08
15	1,45	1,65
16	1,291	1,31
17	1,149	1,04
18	1,024	0,823
19	0,912	0,653
20	0,812	0,519

AWG	Diameter (mm)	Section (mm^2)
21	0,723	0,411
22	0,644	0,324
23	0,573	0,259
24	0,511	0,205
25	0,455	0,162
26	0,405	0,128
27	0,361	0,102
28	0,321	0,0806
29	0,286	0,0649
30	0,255	0,0507
31	0,227	0,0401
32	0,202	0,0324
33	0,18	0,0255
34	0,16	0,0201
35	0,143	0,0159
36	0,127	0,0127
37	0,113	0,0103
38	0,101	0,0081
39	0,09	0,0062
40	0,08	0,0049
41	0,071	0,0039
42	0,064	0,0032
43	0,056	0,0025
44	0,051	0,0020

For a 10.8 mm^2 of cross section area to be added choose the upper value 13.3 mm^2; the corresponding value of wire diameter is **4.115 mm** or **6 AWG.**

13.2. Cross sectional area

13.2.1. Perforated cable trays

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H27 M/F PERFORATED	LG-480044	27	50	3	M/F	GS/PG/Z	58,8	0,09
	LG-480045	27	77				66,6	0,10
	LG-480046	27	100				80,4	0,12
	LG-480047	27	150				110,4	0,17
	LG-485048	27	200				140,4	0,22
	LG-485049	27	300				189,6	0,29
	LG-480050	27	400				345,6	0,54
	LG-480051	27	500				410,4	0,64
	LG-482144	27	50			GC/HDG/C	58,8	0,09
	LG-482145	27	77				66,6	0,10
	LG-482146	27	100				80,4	0,12
	LG-482147	27	150				110,4	0,17
	LG-485248	27	200				140,4	0,22
	LG-485249	27	300				189,6	0,29
	LG-482050	27	400				345,6	0,54
	LG-482051	27	500				410,4	0,64

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H50 M/F AUTO PERFORATED	LG-481175	50	77	3	M/F+Auto	GS/PG/Z	96,0	0,15
	LG-481100	50	100				109,8	0,17
	LG-481150	50	150				139,8	0,22
	LG-481201	50	200				165,6	0,26
	LG-481300	50	300				261,0	0,40
	LG-481400	50	400				374,4	0,58
	LG-481500	50	500				439,2	0,68
	LG-481600	50	600				504,0	0,78

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H50 M/F PERFORATED	LG-480052	50	50	3	M/F	GS/PG/Z	88,2	0,14
	LG-480852	50	77				96,0	0,15
	LG-480053	50	100				109,8	0,17
	LG-480054	50	150				139,8	0,22
	LG-480155	50	200				165,6	0,26
	LG-480156	50	300				261,0	0,40
	LG-480057	50	400				374,4	0,58
	LG-480058	50	500				439,2	0,68
	LG-480059	50	600				504,0	0,78
	LG-482052	50	50			GC/HDG/C	88,2	0,14
	LG-482852	50	77				96,0	0,15
	LG-482053	50	100				109,8	0,17
	LG-482054	50	150				139,8	0,22
	LG-482155	50	200				165,6	0,26
	LG-482156	50	300				261,0	0,40
	LG-482057	50	400				374,4	0,58
	LG-482058	50	500				439,2	0,68
	LG-482059	50	600				504,0	0,78
	LG-484052	50	50			Paint/G	88,2	0,14
	LG-484053	50	100				109,8	0,17
	LG-484054	50	150				139,8	0,22
	LG-484055	50	200				165,6	0,26
	LG-484056	50	300				261,0	0,40
	LG-484057	50	400				374,4	0,58
	LG-484058	50	500				439,2	0,68
	LG-484059	50	600				504,0	0,78

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H60 M/F AUTO PERFORATED	LG-480110	60	77	3	M/F+Auto	GS/PG/Z	108,0	0,17
	LG-480111	60	100				121,8	0,19
	LG-480112	60	150				151,8	0,24
	LG-480113	60	200				177,6	0,28
	LG-480114	60	300				276,0	0,43
	LG-480115	60	400				392,4	0,61
	LG-480116	60	500				457,2	0,71
	LG-480117	60	600				522,0	0,81

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H60 M/F PERFORATED	LG-481219	60	77	3	M/F	GS/PG/Z	108,0	0,17
	LG-481220	60	100				121,8	0,19
	LG-481221	60	150				151,8	0,24
	LG-481222	60	200				177,6	0,28
	LG-481223	60	300				276,0	0,43
	LG-481224	60	400				392,4	0,61
	LG-481225	60	500				457,2	0,71
	LG-481226	60	600				522,0	0,81
	LG-482110	60	77			GC/HDG/C	108,0	0,17
	LG-482111	60	100				121,8	0,19
	LG-482112	60	150				151,8	0,24
	LG-482113	60	200				177,6	0,28
	LG-482114	60	300				276,0	0,43
	LG-482115	60	400				392,4	0,61
	LG-482116	60	500				457,2	0,71
	LG-482117	60	600				522,0	0,81

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H60 CPC PERFORATED	LG-481260	60	77	3	M/F+Auto	GS/PG/Z	80,4	0,12
	LG-481261	60	100				94,2	0,15
	LG-481262	60	150				124,2	0,19
	LG-481263	60	200				150,0	0,23
	LG-481264	60	300				241,5	0,37
	LG-481265	60	400				351,0	0,54
H60 MBR PERFORATED	LG-481823	60	77		M/F+Auto	GS/PG/Z	116,4	0,18
	LG-481824	60	100				130,2	0,20
	LG-481825	60	150				160,2	0,25
	LG-481826	60	200				190,2	0,29
	LG-481827	60	300				312,8	0,48
H60 LIGHTING PERFORATED	LG-487000	60	77		M/F+Auto	GS/PG/Z	70,8	0,11
	LG-487001	60	100				84,6	0,13
	LG-487002	60	150				88,2	0,14
	LG-487003	60	200				118,2	0,18
	LG-487004	60	300				207,0	0,32
	LG-487005	60	400				309,6	0,48

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H60 SYMMETRICAL PERFORATED	LG-480561	60	77	3	Coupler	GS/PG/Z	108,0	0,17
	LG-480562	60	100				121,8	0,19
	LG-480563	60	150				151,8	0,24
	LG-480564	60	200				177,6	0,28
	LG-480565	60	300				276,0	0,43
	LG-480566	60	400				392,4	0,61
	LG-480567	60	500				457,2	0,71
	LG-480568	60	600				522,0	0,81
	LG-480571	60	77			GC/HDG/C	108,0	0,17
	LG-480572	60	100				121,8	0,19
	LG-480573	60	150				151,8	0,24
	LG-480574	60	200				177,6	0,28
	LG-480575	60	300				276,0	0,43
	LG-480576	60	400				392,4	0,61
	LG-480577	60	500				457,2	0,71
	LG-480578	60	600				522,0	0,81
H60 VANDERLANDE PERFORATED	LG-487150	60	77		Coupler	GS/PG/Z	80,4	0,12
	LG-487151	60	100				94,2	0,15
	LG-487152	60	150				124,2	0,19
	LG-487153	60	200				200,0	0,31
	LG-487154	60	300				289,8	0,45
	LG-487155	60	400				351,0	0,54
H60 LEGRAND (30X60) PERFORATED	LG-487054	60	77		Coupler	GS/PG/Z	80,4	0,12
	LG-487055	60	100				94,2	0,15
	LG-487056	60	150				124,2	0,19
	LG-487057	60	200				200,0	0,31
	LG-487058	60	300				289,8	0,45
	LG-487059	60	400				351,0	0,54

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H77 M/F PERFORATED	LG-F3075Z	77	77	3	M/F	GS/PG/Z	120,0	0,18
	LG-F3100Z	77	100				133,8	0,20
	LG-F3150Z	77	150				163,8	0,25
	LG-F3200Z	77	200				234,8	0,36
	LG-F3300Z	77	300				345,6	0,53
	LG-F3400Z	77	400				410,4	0,63
	LG-F3500Z	77	500				475,2	0,73
	LG-F3600Z	77	600				540,0	0,83
	LG-F3075C	77	77			GC/HDG/C	120,0	0,18
	LG-F3100C	77	100				133,8	0,20
	LG-F3150C	77	150				163,8	0,25
	LG-F3200C	77	200				234,8	0,36
	LG-F3300C	77	300				345,6	0,53
	LG-F3400C	77	400				410,4	0,63
	LG-F3500C	77	500				475,2	0,73
	LG-F3600C	77	600				540,0	0,83
	LG-F3075G	77	77			Paint/G	120,0	0,18
	LG-F3100G	77	100				133,8	0,20
	LG-F3150G	77	150				163,8	0,25
	LG-F3200G	77	200				234,8	0,36
	LG-F3300G	77	300				345,6	0,53
	LG-F3400G	77	400				410,4	0,63
	LG-F3500G	77	500				475,2	0,73
	LG-F3600G	77	600				540,0	0,83

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H77 M/F AUTO PERFORATED	LG-S3075Z	77	77	3	M/F+Auto	GS/PG/Z	120,0	0,18
	LG-S3100Z	77	100				133,8	0,20
	LG-S3150Z	77	150				163,8	0,25
	LG-S3200Z	77	200				234,8	0,36
	LG-S3300Z	77	300				345,6	0,53
	LG-S3400Z	77	400				410,4	0,63
	LG-S3500Z	77	500				475,2	0,73
	LG-S3600Z	77	600				540,0	0,83

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H100 M/F PERFORATED	LG-480068	100	100	3	M/F	GS/PG/Z	161,4	0,25
	LG-480069	100	150				191,4	0,30
	LG-481070	100	200				217,2	0,42
	LG-481071	100	300				325,5	0,50
	LG-480072	100	400				451,8	0,70
	LG-480073	100	500				516,6	0,80
	LG-480107	100	600				581,4	0,90
	LG-482068	100	100			GC/HDG/C	161,4	0,25
	LG-482069	100	150				191,4	0,30
	LG-482170	100	200				217,2	0,42
	LG-482171	100	300				325,5	0,50
	LG-482072	100	400				451,8	0,70
	LG-482073	100	500				516,6	0,80
	LG-482106	100	600				581,4	0,90
	LG-484068	100	100			Paint/G	161,4	0,25
	LG-484069	100	150				191,4	0,30
	LG-484070	100	200				217,2	0,42
	LG-484071	100	300				325,5	0,50
	LG-484072	100	400				451,8	0,70
	LG-484073	100	500				516,6	0,80

13.2.2. Blind cable trays

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H50 M/F AUTO BLIND	LG-481901	50	77	3	M/F+Auto	GS/PG/Z	103,2	0,16
	LG-481902	50	100				117,0	0,18
	LG-481903	50	150				147,0	0,23
	LG-481904	50	200				148,2	0,23
	LG-481905	50	300				308,7	0,48
	LG-481906	50	400				398,7	0,62
	LG-481907	50	500				488,7	0,76
	LG-481908	50	600				578,7	0,90

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H50 M/F BLIND	LG-480000	50	50	1	M/F	GS/PG/Z	94,2	0,15
	LG-480010	50	50	2			94,2	0,15
	LG-480020	50	50	3			94,2	0,15
	LG-481252	50	77				105,0	0,16
	LG-480021	50	100				118,8	0,18
	LG-480022	50	150				148,8	0,23
	LG-480023	50	200				178,8	0,28
	LG-480024	50	300				354,6	0,55
	LG-480078	50	400				444,6	0,69
	LG-480079	50	500				534,6	0,83
	LG-480081	50	600				624,6	0,97
	LG-482020	50	50			GC/HDG/C	94,2	0,15
	LG-482021	50	77				105,0	0,16
	LG-482074	50	100				118,8	0,18
	LG-482075	50	150				148,8	0,23
	LG-482076	50	200				178,8	0,28
	LG-482077	50	300				354,6	0,55
	LG-482078	50	400				444,6	0,69
	LG-482079	50	500				534,6	0,83
	LG-482080	50	600				624,6	0,97

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H50 SYMMETRICAL BLIND	LG- 340034	50	50	0.5	Coupler	GS/PG/Z	91,2	0,14
	LG- 344034	50	50			Paint/G		

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H50 M/F BLIND	LG-484000	50	50	1	M/F	Paint/G	94,2	0,15
	LG-484010	50	50	2			94,2	0,15
	LG-484020	50	50	3			94,2	0,15
	LG-484021	50	100				118,8	0,18
	LG-484022	50	150				148,8	0,23
	LG-484023	50	200				178,8	0,28
	LG-484024	50	300				354,6	0,55
	LG-484078	50	400				444,6	0,69
	LG-484079	50	500				534,6	0,83
	LG-484080	50	600				624,6	0,97

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H60 M/F AUTO BLIND	LG-481120	60	77	3	M/F+Auto	GS/PG/Z	117,0	0,18
	LG-481121	60	100				130,8	0,20
	LG-481122	60	150				160,8	0,25
	LG-481123	60	200				190,8	0,30
	LG-481124	60	300				313,5	0,49
	LG-481125	60	400				462,6	0,72
	LG-481126	60	500				552,6	0,86
	LG-481127	60	600				642,6	1,00

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H60 M/F BLIND	LG-480719	60	77	3	M/F	GS/PG/Z	117,0	0,18
	LG-480720	60	100				130,8	0,20
	LG-480730	60	150				160,8	0,25
	LG-480740	60	200				190,8	0,30
	LG-480760	60	300				313,5	0,49
	LG-480770	60	400				462,6	0,72
	LG-480780	60	500				552,6	0,86
	LG-480700	60	600				642,6	1,00
	LG-482556	60	77			GC/HDG/C	117,0	0,18
	LG-482549	60	100				130,8	0,20
	LG-482550	60	150				160,8	0,25
	LG-482551	60	200				190,8	0,30
	LG-482552	60	300				313,5	0,49
	LG-482553	60	400				462,6	0,72
	LG-482554	60	500				552,6	0,86
	LG-482555	60	600				642,6	1,00

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H60 SYMMETRICAL BLIND	LG-480301	60	77	3	Coupler	GS/PG/Z	124,8	0,19
	LG-480302	60	100				138,6	0,21
	LG-480303	60	150				168,6	0,26
	LG-480304	60	200				198,6	0,31
	LG-480305	60	300				323,3	0,50
	LG-480306	60	400				474,3	0,74
	LG-480307	60	500				564,3	0,87
	LG-480308	60	600				654,3	1,01
	LG-481061	60	77			GC/HDG/C	124,8	0,19
	LG-481062	60	100				138,6	0,21
	LG-481063	60	150				168,6	0,26
	LG-481064	60	200				198,6	0,31
	LG-481065	60	300				323,3	0,50
	LG-481066	60	400				474,3	0,74
	LG-481067	60	500				564,3	0,87
	LG-481069	60	600				654,3	1,01

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H77 M/F BLIND	LG-C3075Z	77	77	3	M/F	GS/PG/Z	126,6	0,19
	LG-C3100Z	77	100				140,4	0,21
	LG-C3150Z	77	150				170,4	0,26
	LG-C3200Z	77	200				248,3	0,38
	LG-C3300Z	77	300				387,0	0,59
	LG-K3400Z	77	400				477,0	0,73
	LG-K3500Z	77	500				567,0	0,87
	LG-K3600Z	77	600				657,0	1,01
	LG-C3075C	77	77			GC/HDG/C	126,6	0,19
	LG-C3100C	77	100				140,4	0,21
	LG-C3150C	77	150				170,4	0,26
	LG-C3200C	77	200				248,3	0,38
	LG-C3300C	77	300				387,0	0,59
	LG-K3400C	77	400				477,0	0,73
	LG-K3500C	77	500				567,0	0,87
	LG-K3600C	77	600				657,0	1,01
	LG-C3075G	77	77			Paint/G	126,6	0,19
	LG-C3100G	77	100				140,4	0,21
	LG-C3150G	77	150				170,4	0,26
	LG-C3200G	77	200				248,3	0,38
	LG-C3300G	77	300				387,0	0,59
	LG-K3400G	77	400				477,0	0,73
	LG-K3500G	77	500				567,0	0,87
	LG-K3600G	77	600				657,0	1,01
	LG-C2075Z	77	77	2		GS/PG/Z	126,6	0,19
	LG-C2100Z	77	100				140,4	0,21
	LG-C2150Z	77	150				170,4	0,26
	LG-C2200Z	77	200				248,3	0,38
	LG-C2300Z	77	300				387,0	0,59
	LG-C2075G	77	77			Paint/G	126,6	0,19
	LG-C2100G	77	100				140,4	0,21
	LG-C2150G	77	150				170,4	0,26
	LG-C2200G	77	200				248,3	0,38
	LG-C2300G	77	300				387,0	0,59
	LG-C1075Z	77	77	1		GS/PG/Z	126,6	0,19
	LG-C1100Z	77	100				140,4	0,21
	LG-C1150Z	77	150				170,4	0,26
	LG-C1200Z	77	200				248,3	0,38
	LG-C1300Z	77	300				387,0	0,59
	LG-C1075G	77	77			Paint/G	126,6	0,19
	LG-C1100G	77	100				140,4	0,21
	LG-C1150G	77	150				170,4	0,26
	LG-C1200G	77	200				248,3	0,38
	LG-C1300G	77	300				387,0	0,59

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H77 M/F AUTO BLIND	LG-R3075Z	77	77	3	M/F+Auto	GS/PG/Z	124,8	0,19
	LG-R3100Z	77	100				138,6	0,21
	LG-R3150Z	77	150				168,6	0,26
	LG-R3200Z	77	200				210,0	0,32
	LG-R3300Z	77	300				341,1	0,52
	LG-R3400Z	77	400				431,1	0,66
	LG-R3500Z	77	500				521,1	0,80
	LG-R3600Z	77	600				611,1	0,94

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm²)	Cross sectional area (in²)
H77 SYMMETRICAL BLIND	LG-31C8C075Z	77	77	0.5	Coupler	GS/PG/Z	232,8	0,36
	LG-31C8C100Z	77	100				254,6	0,39
	LG-31C8C150Z	77	150				302,1	0,46
	LG-31C8C200Z	77	200				349,6	0,54
	LG-31C8C300Z	77	300				444,6	0,68
	LG-31C8C075G	77	77			Paint/G	232,8	0,36
	LG-31C8C100G	77	100				254,6	0,39
	LG-31C8C150G	77	150				302,1	0,46
	LG-31C8C200G	77	200				349,6	0,54
	LG-31C8C300G	77	300				444,6	0,68

Type	Item	Height (mm)	Width (mm)	Length (m)	Junction Type	Finishing	Cross sectional area (mm^2)	Cross sectional area (in^2)
H100 M/F BLIND	LG-480030	100	100	3	M/F	GS/PG/Z	168,0	0,26
	LG-480031	100	150				198,0	0,31
	LG-480032	100	200				228,0	0,35
	LG-480033	100	300				360,0	0,56
	LG-480092	100	400				518,4	0,80
	LG-480093	100	500				608,4	0,94
	LG-480106	100	600				698,4	1,08
	LG-482088	100	100			GC/HDG/C	168,0	0,26
	LG-482089	100	150				198,0	0,31
	LG-482090	100	200				228,0	0,35
	LG-482091	100	300				360,0	0,56
	LG-482092	100	400				518,4	0,80
	LG-482093	100	500				608,4	0,94
	LG-482107	100	600				698,4	1,08
	LG-484030	100	100			Paint/G	168,0	0,26
	LG-484031	100	150				198,0	0,31
	LG-484032	100	200				228,0	0,35
	LG-484033	100	300				360,0	0,56
	LG-484092	100	400				518,4	0,80
	LG-484093	100	500				608,4	0,94

13.2.3. Fittings and couplers

The cross-sectional area of fittings is invariable by the type of fitting, it's easy to check the values in this table:

W (mm)	Min cross-sectional area H25 (mm^2)	Min cross-sectional area H50 (mm^2)	Min cross-sectional area H60 (mm^2)	Min cross-sectional area H75 (mm^2)	Min cross-sectional area H100 (mm^2)
50	56,0	91,0			
75	73,5	108,5	122,5	143,5	
100	91,0	126,0	140,0	161,0	196,0
150	126,0	161,0	175,0	196,0	231,0
200	161,0	196,0	210,0	231,0	266,0
300	231,0	266,0	280,0	301,0	336,0
400	301,0	336,0	350,0	371,0	406,0
500	371,0	406,0	420,0	441,0	476,0
600		476,0	490,0	511,0	546,0

NOTE: are excluded from this table the flat pack fittings described in paragraph 9.2.2; for these fittings the cross-sectional area is 26 mm^2 for all types of fittings.

Couplers:

Item	Description	Min cross sectional area (mm^2)
X9G75Z	Vertical coupler H75 PG	26,0
X9G75C	Vertical coupler H75 HDG	26,0
483677	Vertical coupler H100 PG	26,0
481626	Straight coupler H50 PG	12,5
482626	Straight coupler H50 HDG	12,5
X9G76Z	Straight coupler H75 PG	51,0
X9G76C	Straight coupler H75 HDG	51,0
480076	Straight coupler H100 PG	57,5
482185	Straight coupler H100 HDG	57,5
341220	Giunto ER 75-100 PG	51,0
343220	Giunto ER 75-100 HDG	55,0
481179	Bottom plate 200 PG	114,0
482304	Bottom plate 200 HDG	114,0
481180	Bottom plate 300 PG	256,0
482305	Bottom plate 300 HDG	256,0
481181	Bottom plate 400 PG	313,0
482306	Bottom plate 400 HDG	313,0
481182	Bottom plate 500 PG	455,0
482307	Bottom plate 500 HDG	455,0
481183	Bottom plate 600 PG	598,0
482308	Bottom plate 600 HDG	598,0
481530	Straight coupler 27 PG	53,0
483530	Straight coupler 27 HDG	53,0
481528	Straight coupler 27 W77/500 PG	53,0
483528	Straight coupler 27 W77/500 HDG	53,0

Item	Description	Min cross sectional area (mm^2)
341530	Straight coupler 27 W50 PG	50,0
481169	EDU 60 PG	22,5
482169	EDU 60 HDG	22,5
481161	Reducer 60 PG	22,5
482161	Reducer 60 HDG	22,5
487980	EDU 60 (used with cover) PG	11,0
480226	EDU 100 PG	34,0
483226	EDU 100 HDG	34,0
480224	EDU 50 PG	18,0
483224	EDU 50 HDG	18,0
X9G74Z	EDU 75 PG	31,5
X9G74C	EDU 75 HDG	31,5
480221	ECLIC 60	73,0
481562	Fittings coupler 50 PG	30,0
483562	Fittings coupler 50 HDG	30,0
X9G71Z	Fittings coupler 75 PG	46,0
X9G71C	Fittings coupler 75 HDG	46,0
341213	Coupler EP 50-60 PG	45,0
343213	Coupler EP 50-60 HDG	48,0
341216	Coupler EP 75-100 PG	79,5
343216	Coupler EP 75-100 HDG	85,0
341562	Straight coupler 50 PG	45,0
343562	Straight coupler 50 HDG	48,0
341620	Straight coupler 75 PG	79,5
343620	Straight coupler 75 HDG	85,0

14.1. Load data

Cable Tray Straight Sections Cat. Nos.	Height (mm)	Width (mm)	Length (mm)	Load Rating, kg/m (lb/ft)	Span, m (ft)
480044	27	50	3000		1.8 (6)
480045	27	77	3000		1.8 (6)
480046	27	100	3000		1.8 (6)
480047	27	150	3000		1.8 (6)
480048	27	200	3000		1.8 (6)
480049	27	300	3000		1.8 (6)
480050	27	400	3000		1.8 (6)
480051	27	500	3000		1.8 (6)
482144	27	50	3000		1.8 (6)
482145	27	77	3000		1.8 (6)
482146	27	100	3000		1.8 (6)
482147	27	150	3000		1.8 (6)
485248	27	200	3000		1.8 (6)
485249	27	300	3000		1.8 (6)
482050	27	400	3000		1.8 (6)
482051	27	500	3000		1.8 (6)
481175	50	77	3000		1.8 (6)
481100	50	100	3000		1.8 (6)
481150	50	150	3000		1.8 (6)
481201	50	200	3000		1.8 (6)
481300	50	300	3000		1.8 (6)
481400	50	400	3000		1.8 (6)
481500	50	500	3000		1.8 (6)
481600	50	600	3000		1.8 (6)
480052	50	50	3000		1.8 (6)
480852	50	77	3000		1.8 (6)
480853	50	100	3000		1.8 (6)
480054	50	150	3000		1.8 (6)
480155	50	200	3000		1.8 (6)
480156	50	300	3000		1.8 (6)
480057	50	400	3000		1.8 (6)
480058	50	500	3000		1.8 (6)
480059	50	600	3000		1.8 (6)
482052	50	50	3000		1.8 (6)
482852	50	77	3000		1.8 (6)
482053	50	100	3000		1.8 (6)
482054	50	150	3000		1.8 (6)
482155	50	200	3000		1.8 (6)
482156	50	300	3000		1.8 (6)
482057	50	400	3000		1.8 (6)

482058	50	500	3000		1.8 (6)
482059	50	600	3000		1.8 (6)

Cable Tray Straight Sections Cat. Nos.	Height (mm)	Width (mm)	Length (mm)	Load Rating, kg/m (lb/ft)	Span, m (ft)
484052	50	50	3000		1.8 (6)
484052	50	77	3000		1.8 (6)
484053	50	100	3000		1.8 (6)
484054	50	150	3000		1.8 (6)
484055	50	200	3000		1.8 (6)
484056	50	300	3000		1.8 (6)
484057	50	400	3000		1.8 (6)
484058	50	500	3000		1.8 (6)
484059	50	600	3000		1.8 (6)
481901	50	77	3000		1.8 (6)
481902	50	100	3000		1.8 (6)
481903	50	150	3000		1.8 (6)
481904	50	200	3000		1.8 (6)
481905	50	300	3000		1.8 (6)
481906	50	400	3000		1.8 (6)
481907	50	500	3000		1.8 (6)
481908	50	600	3000		1.8 (6)
480020	50	50	3000		1.8 (6)
480010	50	50	2000		1.2 (4)
480000	50	50	1000		0.6 (2)
481252	50	77	3000		1.8 (6)
480021	50	100	3000		1.8 (6)
480022	50	150	3000		1.8 (6)
480023	50	200	3000		1.8 (6)
480024	50	300	3000		1.8 (6)
480078	50	400	3000		1.8 (6)
480079	50	500	3000		1.8 (6)
480081	50	600	3000		1.8 (6)
482020	50	50	3000		1.8 (6)
482021	50	77	3000		1.8 (6)
482074	50	100	3000		1.8 (6)
482075	50	150	3000		1.8 (6)
482076	50	200	3000		1.8 (6)
482077	50	300	3000		1.8 (6)
482078	50	400	3000		1.8 (6)
482079	50	500	3000		1.8 (6)
482080	50	600	3000		1.8 (6)

Cable Tray Straight Sections Cat. Nos.	Height (mm)	Width (mm)	Length (mm)	Load Rating, kg/m (lb/ft)	Span, m (ft)
484020	50	50	3000		1.8 (6)
484010	50	50	2000		1.2 (4)
484000	50	50	1000		0.6 (2)
484021	50	100	3000		1.8 (6)
484022	50	150	3000		1.8 (6)
484023	50	200	3000		1.8 (6)
484024	50	300	3000		1.8 (6)
484078	50	400	3000		1.8 (6)
484079	50	500	3000		1.8 (6)
484080	50	600	3000		1.8 (6)
340034	50	50	500		0.3 (1)
344034	50	50	500		0.3 (1)
487111	60	100	2000		1.2 (4)
487113	60	200	2000		1.2 (4)
487114	60	300	2000		1.2 (4)
480110	60	77	3000		1.8 (6)
480111	60	100	3000		1.8 (6)
480112	60	150	3000		1.8 (6)
480113	60	200	3000		1.8 (6)
480114	60	300	3000		1.8 (6)
480115	60	400	3000		1.8 (6)
480116	60	500	3000		1.8 (6)
480117	60	600	3000		1.8 (6)
481120	60	77	3000		1.8 (6)
481121	60	100	3000		1.8 (6)
481122	60	150	3000		1.8 (6)
481123	60	200	3000		1.8 (6)
481124	60	300	3000		1.8 (6)
481125	60	400	3000		1.8 (6)
481126	60	500	3000		1.8 (6)
481127	60	600	3000		1.8 (6)
481823	60	77	3000		1.8 (6)
481824	60	100	3000		1.8 (6)
481825	60	150	3000		1.8 (6)
481826	60	200	3000		1.8 (6)
481827	60	300	3000		1.8 (6)

Cable Tray Straight Sections Cat. Nos.	Height (mm)	Width (mm)	Length (mm)	Load Rating, kg/m (lb/ft)	Span, m (ft)
481260	60	77	3000		1.8 (6)
481261	60	100	3000		1.8 (6)
481262	60	150	3000		1.8 (6)
481263	60	200	3000		1.8 (6)
481264	60	300	3000		1.8 (6)
481265	60	400	3000		1.8 (6)
481219	60	77	3000		1.8 (6)
481220	60	100	3000		1.8 (6)
481221	60	150	3000		1.8 (6)
481222	60	200	3000		1.8 (6)
481223	60	300	3000		1.8 (6)
481224	60	400	3000		1.8 (6)
481225	60	500	3000		1.8 (6)
481226	60	600	3000		1.8 (6)
482110	60	77	3000		1.8 (6)
482111	60	100	3000		1.8 (6)
482112	60	150	3000		1.8 (6)
482113	60	200	3000		1.8 (6)
482114	60	300	3000		1.8 (6)
482115	60	400	3000		1.8 (6)
482116	60	500	3000		1.8 (6)
482117	60	600	3000		1.8 (6)
480719	60	77	3000		1.8 (6)
480720	60	100	3000		1.8 (6)
480730	60	150	3000		1.8 (6)
480740	60	200	3000		1.8 (6)
480760	60	300	3000		1.8 (6)
480770	60	400	3000		1.8 (6)
480780	60	500	3000		1.8 (6)
480700	60	600	3000		1.8 (6)
482556	60	77	3000		1.8 (6)
482549	60	100	3000		1.8 (6)
482550	60	150	3000		1.8 (6)
482551	60	200	3000		1.8 (6)
482552	60	300	3000		1.8 (6)
482553	60	400	3000		1.8 (6)
482554	60	500	3000		1.8 (6)
482555	60	600	3000		1.8 (6)

Cable Tray Straight Sections Cat. Nos.	Height (mm)	Width (mm)	Length (mm)	Load Rating, kg/m (lb/ft)	Span, m (ft)
487000	60	77	3000		1.8 (6)
487001	60	100	3000		1.8 (6)
487002	60	150	3000		1.8 (6)
487003	60	200	3000		1.8 (6)
487004	60	300	3000		1.8 (6)
487005	60	400	3000		1.8 (6)
480561	60	77	3000		1.8 (6)
480562	60	100	3000		1.8 (6)
480563	60	150	3000		1.8 (6)
480564	60	200	3000		1.8 (6)
480565	60	300	3000		1.8 (6)
480566	60	400	3000		1.8 (6)
480567	60	500	3000		1.8 (6)
480568	60	600	3000		1.8 (6)
480571	60	77	3000		1.8 (6)
480572	60	100	3000		1.8 (6)
480573	60	150	3000		1.8 (6)
480574	60	200	3000		1.8 (6)
480575	60	300	3000		1.8 (6)
480576	60	400	3000		1.8 (6)
480577	60	500	3000		1.8 (6)
480578	60	600	3000		1.8 (6)
480301	60	77	3000		1.8 (6)
480302	60	100	3000		1.8 (6)
480303	60	150	3000		1.8 (6)
480304	60	200	3000		1.8 (6)
480305	60	300	3000		1.8 (6)
480306	60	400	3000		1.8 (6)
480307	60	500	3000		1.8 (6)
480308	60	600	3000		1.8 (6)
481061	60	77	3000		1.8 (6)
481062	60	100	3000		1.8 (6)
481063	60	150	3000		1.8 (6)
481064	60	200	3000		1.8 (6)
481065	60	300	3000		1.8 (6)
481066	60	400	3000		1.8 (6)
481067	60	500	3000		1.8 (6)
481069	60	600	3000		1.8 (6)

Cable Tray Straight Sections Cat. Nos.	Height (mm)	Width (mm)	Length (mm)	Load Rating, kg/m (lb/ft)	Span, m (ft)
350210	60	77	3000		1.8 (6)
350212	60	200	3000		1.8 (6)
350213	60	300	3000		1.8 (6)
350214	60	400	3000		1.8 (6)
350260	60	77	3000		1.8 (6)
350263	60	200	3000		1.8 (6)
350264	60	300	3000		1.8 (6)
350265	60	400	3000		1.8 (6)
S3075Z	77	77	3000		1.8 (6)
S3100Z	77	100	3000		1.8 (6)
S3150Z	77	150	3000		1.8 (6)
S3200Z	77	200	3000		1.8 (6)
S3300Z	77	300	3000		1.8 (6)
S3400Z	77	400	3000		1.8 (6)
S3500Z	77	500	3000		1.8 (6)
S3600Z	77	600	3000		1.8 (6)
F3075Z	77	77	3000		1.8 (6)
F3100Z	77	100	3000		1.8 (6)
F3150Z	77	150	3000		1.8 (6)
F3200Z	77	200	3000		1.8 (6)
F3300Z	77	300	3000		1.8 (6)
F3400Z	77	400	3000		1.8 (6)
F3500Z	77	500	3000		1.8 (6)
F3600Z	77	600	3000		1.8 (6)
F3075C	77	77	3000		1.8 (6)
F3100C	77	100	3000		1.8 (6)
F3150C	77	150	3000		1.8 (6)
F3200C	77	200	3000		1.8 (6)
F3300C	77	300	3000		1.8 (6)
F3400C	77	400	3000		1.8 (6)
F3500C	77	500	3000		1.8 (6)
F3600C	77	600	3000		1.8 (6)
F3075G	77	77	3000		1.8 (6)
F3100G	77	100	3000		1.8 (6)
F3150G	77	150	3000		1.8 (6)
F3200G	77	200	3000		1.8 (6)
F3300G	77	300	3000		1.8 (6)
F3400G	77	400	3000		1.8 (6)
F3500G	77	500	3000		1.8 (6)
F3600G	77	600	3000		1.8 (6)

Cable Tray Straight Sections Cat. Nos.	Height (mm)	Width (mm)	Length (mm)	Load Rating, kg/m (lb/ft)	Span, m (ft)
R3075Z	77	77	3000		1.8 (6)
R3100Z	77	100	3000		1.8 (6)
R3150Z	77	150	3000		1.8 (6)
R3200Z	77	200	3000		1.8 (6)
R3300Z	77	300	3000		1.8 (6)
R3400Z	77	400	3000		1.8 (6)
R3500Z	77	500	3000		1.8 (6)
R3600Z	77	600	3000		1.8 (6)
C1075Z	77	77	1000		0.6 (2)
C1100Z	77	100	1000		0.6 (2)
C1150Z	77	150	1000		0.6 (2)
C1200Z	77	200	1000		0.6 (2)
C1300Z	77	300	1000		0.6 (2)
C2075Z	77	77	2000		1.2 (4)
C2100Z	77	100	2000		1.2 (4)
C2150Z	77	150	2000		1.2 (4)
C2200Z	77	200	2000		1.2 (4)
C2300Z	77	300	2000		1.2 (4)
C3075Z	77	77	3000		1.8 (6)
C3100Z	77	100	3000		1.8 (6)
C3150Z	77	150	3000		1.8 (6)
C3200Z	77	200	3000		1.8 (6)
C3300Z	77	300	3000		1.8 (6)
K3400Z	77	400	3000		1.8 (6)
K3500Z	77	500	3000		1.8 (6)
K3600Z	77	600	3000		1.8 (6)
C3075C	77	77	3000		1.8 (6)
C3100C	77	100	3000		1.8 (6)
C3150C	77	150	3000		1.8 (6)
C3200C	77	200	3000		1.8 (6)
C3300C	77	300	3000		1.8 (6)
K3400C	77	400	3000		1.8 (6)
K3500C	77	500	3000		1.8 (6)
K3600C	77	600	3000		1.8 (6)

Cable Tray Straight Sections Cat. Nos.	Height (mm)	Width (mm)	Length (mm)	Load Rating, kg/m (lb/ft)	Span, m (ft)
C1075G	77	77	1000		0.6 (2)
C1100G	77	100	1000		0.6 (2)
C1150G	77	150	1000		0.6 (2)
C1200G	77	200	1000		0.6 (2)
C1300G	77	300	1000		0.6 (2)
C2075G	77	77	2000		1.2 (4)
C2100G	77	100	2000		1.2 (4)
C2150G	77	150	2000		1.2 (4)
C2200G	77	200	2000		1.2 (4)
C2300G	77	300	2000		1.2 (4)
C3075G	77	77	3000		1.8 (6)
C3100G	77	100	3000		1.8 (6)
C3150G	77	150	3000		1.8 (6)
C3200G	77	200	3000		1.8 (6)
C3300G	77	300	3000		1.8 (6)
K3400G	77	400	3000		1.8 (6)
K3500G	77	500	3000		1.8 (6)
K3600G	77	600	3000		1.8 (6)
340039	77	77	500		0.3 (1)
340040	77	100	500		0.3 (1)
340041	77	150	500		0.3 (1)
340042	77	200	500		0.3 (1)
340043	77	300	500		0.3 (1)
344039	77	77	500		0.3 (1)
344040	77	100	500		0.3 (1)
344041	77	150	500		0.3 (1)
344042	77	200	500		0.3 (1)
344043	77	300	500		0.3 (1)
480068	100	100	3000		1.8 (6)
480069	100	150	3000		1.8 (6)
481070	100	200	3000		1.8 (6)
481071	100	300	3000		1.8 (6)
480072	100	400	3000		1.8 (6)
480073	100	500	3000		1.8 (6)
480107	100	600	3000		1.8 (6)

Cable Tray Straight Sections Cat. Nos.	Height (mm)	Width (mm)	Length (mm)	Load Rating, kg/m (lb/ft)	Span, m (ft)
482068	100	100	3000		1.8 (6)
482069	100	150	3000		1.8 (6)
482170	100	200	3000		1.8 (6)
482171	100	300	3000		1.8 (6)
482072	100	400	3000		1.8 (6)
482073	100	500	3000		1.8 (6)
482106	100	600	3000		1.8 (6)
484068	100	100	3000		1.8 (6)
484069	100	150	3000		1.8 (6)
484070	100	200	3000		1.8 (6)
484071	100	300	3000		1.8 (6)
484072	100	400	3000		1.8 (6)
484073	100	500	3000		1.8 (6)
480030	100	100	3000		1.8 (6)
480031	100	150	3000		1.8 (6)
480032	100	200	3000		1.8 (6)
480033	100	300	3000		1.8 (6)
480092	100	400	3000		1.8 (6)
480093	100	500	3000		1.8 (6)
480106	100	600	3000		1.8 (6)
482088	100	100	3000		1.8 (6)
482089	100	150	3000		1.8 (6)
482090	100	200	3000		1.8 (6)
482091	100	300	3000		1.8 (6)
482092	100	400	3000		1.8 (6)
482093	100	500	3000		1.8 (6)
482107	100	600	3000		1.8 (6)
484030	100	100	3000		1.8 (6)
484031	100	150	3000		1.8 (6)
484032	100	200	3000		1.8 (6)
484033	100	300	3000		1.8 (6)
484092	100	400	3000		1.8 (6)
484093	100	500	3000		1.8 (6)

The cable tray system shall be installed in accordance with NEMA BI 50016.

15.1. Corrosion class

15.1.1. Table corrosion class

Finishing	Description	Short description of finishing	Coatings designation	Standard
Series 1 - PG	Type 2 : dip mill galvanizing	GS/PG/Z	Z200	ASTM A653/A653M-20
Series 2 - HDG	Type 1 : hot-dip galvanizing	GC/HDG/C	45	ASTM A123/A123M-17
Series 3 - Painted	Type 1 : hot-dip galvanizing	Paint/G	Z200	ASTM A653/A653M-20