



# **COVERS**

FOR CONVEYOR BELTS



**RULMECCA®**  
MOVING AHEAD



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# COVERS

## Indications for use



### 1.1 - Introduction and indications for use

When designing a conveyor belt, once the most important components have been defined, it is also important to consider accessories, such as covers.

The need to protect conveyor belts can be due to the climate, to the characteristics of the material transported (volatility), or to the type of processing, and now, European regulations are also requiring all open-air conveyor belts to be covered.

For example, rain can cause the belt to slip on the rollers, resulting in sliding.

Extreme temperatures can lead to system halts, while strong winds can shift the belt from its natural position, causing serious operating problems or the loss of the material being transported.

### 1.2 - Types and characteristics

Belt covers do not require maintenance and are easy to install and handle.

The fixing system is designed to also allow rapid removal, facilitating conveyor inspections.

There are two types of cover available: in preformed corrugated polyvinyl chloride (PVC) and in corrugated galvanised sheet metal.

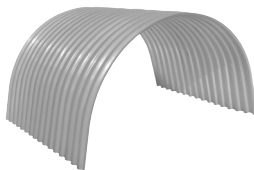
### CPX steel covers



The covers proposed are made from corrugated galvanised sheet steel. They are self-supporting and extremely safe, easy to install and adaptable to any structure. On request, they can also be supplied

with other materials or treated with special coatings. They are available for all belt widths and for any kind of support and can be supplied with inspection doors on request. They do not require any maintenance.

### CPT covers in PVC



Due to the characteristics of the material, preformed covers in shock-proof neutral opaque PVC are light, transparent, anti-corrosive and with a smooth surface. They are also easily adapted to any type of conveyor. They are resistant to corrosion

and are classified as "NOT FLAMMABLE" - DIN 4102.

However, despite their being self-extinguishing, they are recommended for use in environments with temperatures or irradiation of no more than 65°C.

# CPX COVERS

## In steel



### 1.3 - CPX steel covers

The covers shown here are the result of many years' experience gained in collaboration with design departments and manufacturers specialised in the creation of conveyor belt systems.

#### Why cover conveyor belts.

##### To protect the transported products.

##### To protect the environment:

- against dust
- against noise
- better integration into the landscape.

##### For personnel safety.

##### To protect the belt:

- from the sun and the elements
- increasing its lifespan.

##### To protect materials:

- reducing maintenance for structures
- avoiding losing materials and reduced productivity due to wind
- avoiding the depositing of rainwater on the belt
- ensuring the functionality of the industrial constructions related to the belt.

#### Material:

- hot-dip galvanised construction steel in accordance with EN10326:2004.

#### Z275 standard coating

Hot-dip galvanisation.

#### Coating options in accordance with the environmental conditions and the products transported:

- MAGNELIS® ZM310 coating in zinc, aluminium and magnesium environmental certification C5.

#### Other types of coating:

PPE: pre-coated on galvanised steel Z140.  
25-micron polyester coating.

**Magnelis and PPE are only available for larger orders.**

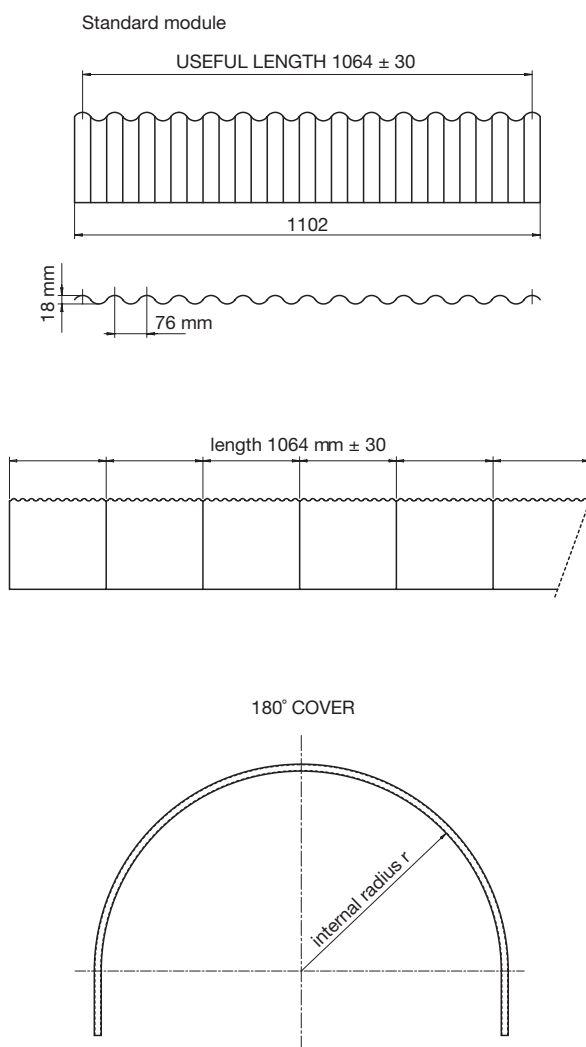
# COVERS

## Technical specifications

### Characteristics

Made from corrugated galvanised 76/18-section sheet steel for all standard-use conveyor belts with a belt width of at least 400 mm.

The standard thickness of the covers is 0.6-0.8 mm.



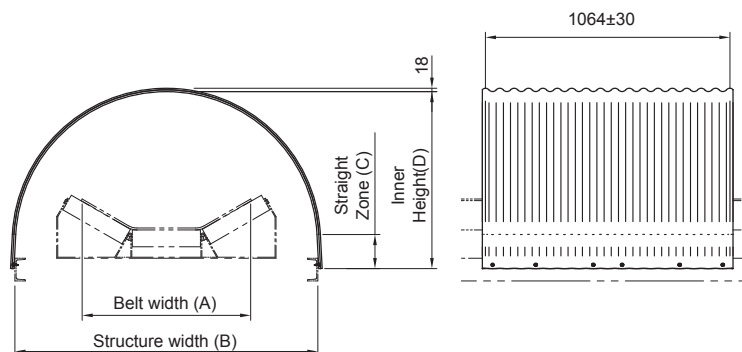
# CPX D COVER

## Fixed semi-circular with supports

### 1.3.1 – CPX D Fixed semi-circular with supports

Example of cover order code:

CPX D	1600/1025	180/1064	P200	C0/C5/C6	H62	Z
Type	Belt/radius	Degrees/length	Support height (P200 standard)	Fixing type (with self-threading screws (C5), with brackets (C6), no fixing (C0))	Height of holes for C6 fixing	Coating (hot-dip galvanised Z - standard)



Belt width (A) - mm	Standard radius - mm	Opening	L standard mm	Structure width (B) mm	Straight zone (C) mm	Inner height (D) - mm	Fixing	Holes height for C6 - mm	Finishing	Cover weight (Kg)
400	350	180°	1064	700	200	550	C0 (no fixing) C5 (without holes) C6 (with holes)	62	galvanized steel - Z	9,00
500	400			800		600				9,94
650	475			950		675				11,35
800	575			1150		775				13,24
1000	675			1350		875				15,12
1200	800			1600		1000				17,48
1400	900			1800		1100				19,36
1600	1025			2050		1225				21,72
1800	1125			2250		1325				23,61



# CPX D COVER

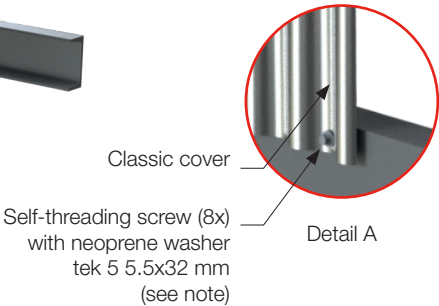
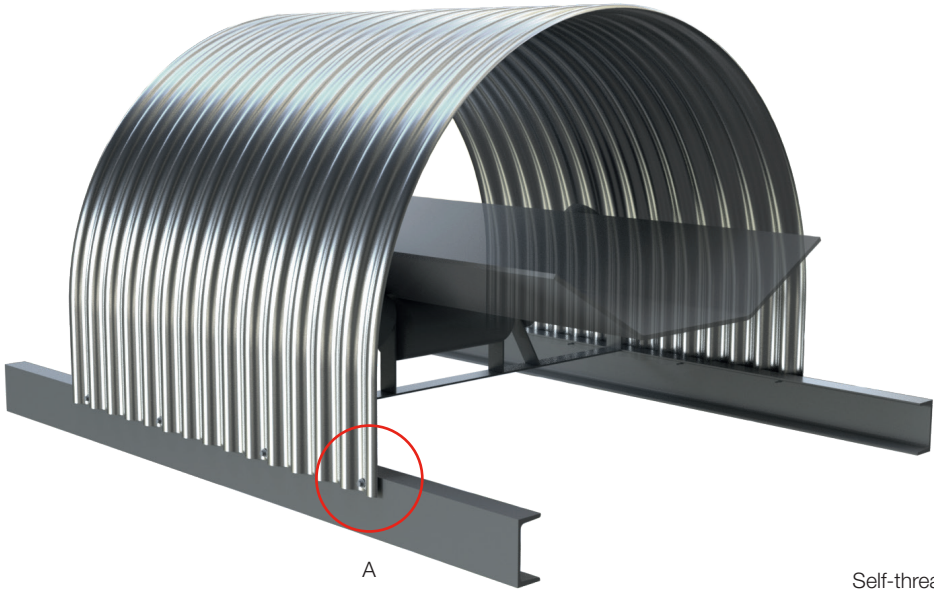
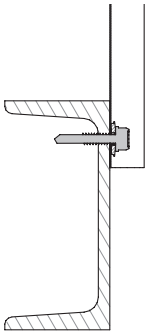
## Fixing

### 1.3.2 – CPX D-Fixing

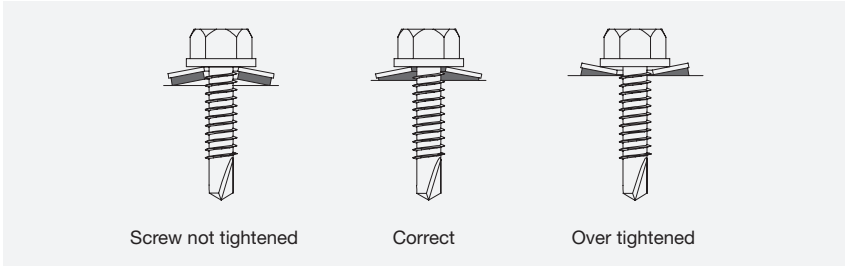
#### C-5 Self-drilling screws

The cover is screwed directly to the conveyor structure. The cover is supplied without holes as no pre-drilling is required. This high-quality screw can easily drill through thicknesses of up to 12 mm (0.50 inches) of steel. It can be unscrewed and rescrewed multiple times. The neoprene washer supplied protects the drilled structure from corrosion. The recommended number of screws per cover is 8. In the case of very windy environments, 16 or 24 screws per cover can be requested.

#### Angular profile



#### Notes



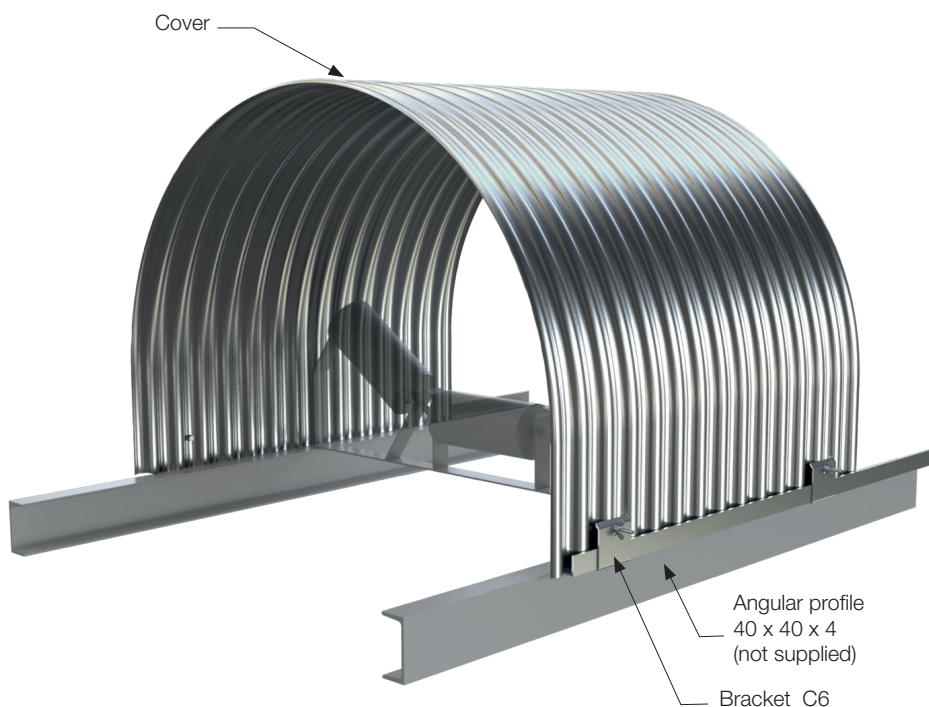


# CPX D COVER

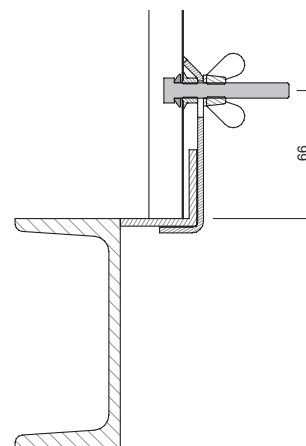
## Fixing

### C-6 with bracket

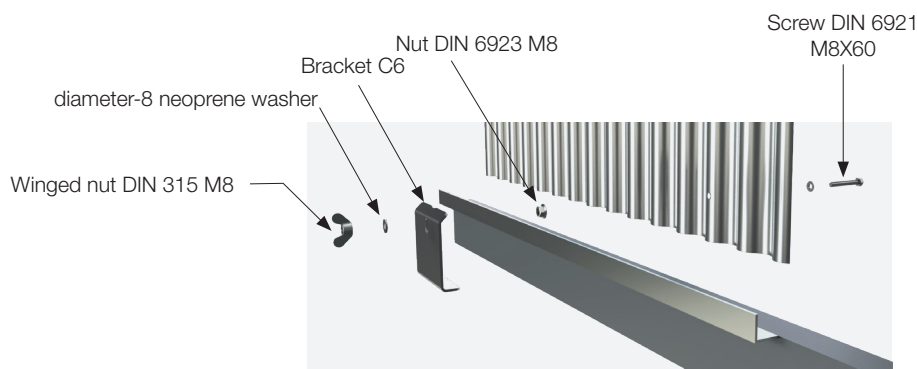
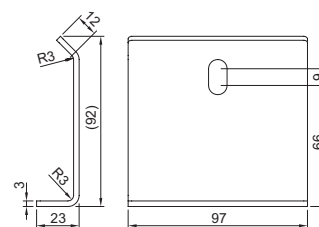
With this type of fixing, the cover is supplied pre-drilled. The bracket can be fixed with either a simple bolt or a winged bolt. A steel angular section (profile L), not supplied, must be welded along the entire length of the conveyor structure. This fixing bracket in steel will hold the cover within the steel angular section. The holes are Ø8 and are positioned at a height of 62 mm. The recommended number of screws per cover is 2. In the case of very windy environments, 4 or 6 brackets per cover can be requested.



### Angular profile



### Bracket C6



### Attention

When ordering type-D fixed covers, indicate the type of fixing required, C5 or C6.

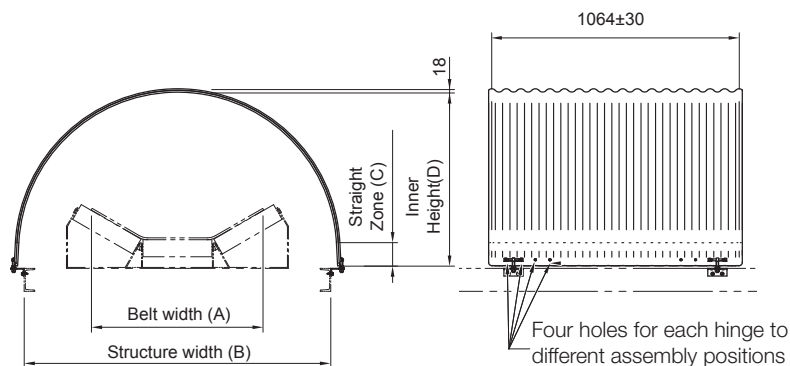
# CPX M COVERS

## Semi-circular hinged with supports

### 1.3.3 – CPX M semi-circular hinged with supports

Example of cover order code:

CPX M	1600/1047,5	180/1064	P200	C1	H30	Z
Type	Belt/radius	Degrees/length	Support height (P200 standard)	Type of fixing with hinge (C1)	Height of holes for C1 fixing	Coating (hot-dip galvanised Z standard)



Belt width (A) - mm	Standard radius - mm	Opening	L standard mm	Structure width (B) - mm	Straight zone (C) - mm	Inner height (D) - mm	Fixing	Holes height for C6 - mm	Finishing	Cover weight (Kg)
400	372,5	180°	1064	700	200	572,5	C-1 (with holes)	30	galvanized steel - Z	9,42
500	422,5			800		622,5				10,36
650	497,5			950		697,5				11,78
800	597,5			1150		797,5				13,66
1000	697,5			1350		897,5				15,55
1200	822,5			1600		1022,5				17,90
1400	922,5			1800		1122,5				19,79
1600	1047,5			2050		1247,5				22,14
1800	1147,5			2250		1347,5				24,03

# CPX M COVERS

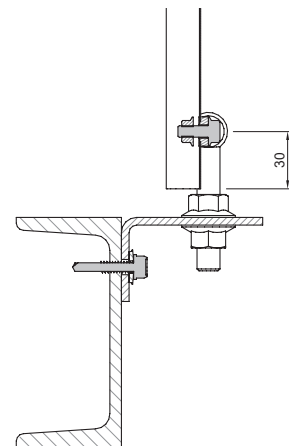
## Fixing

### 1.3.4 – CPX M-Fixings

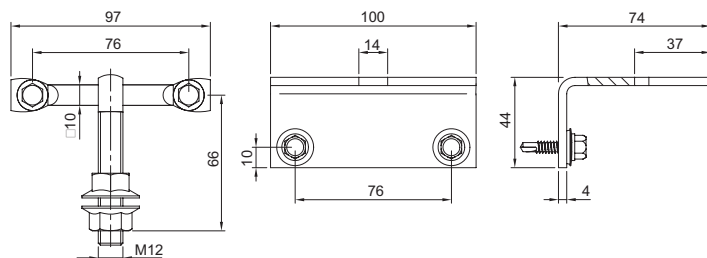
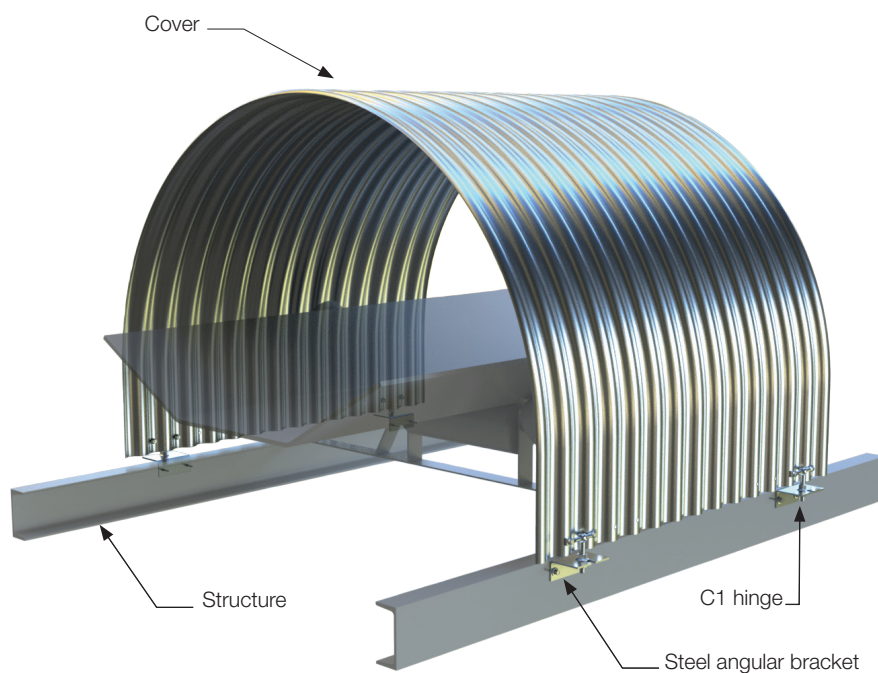
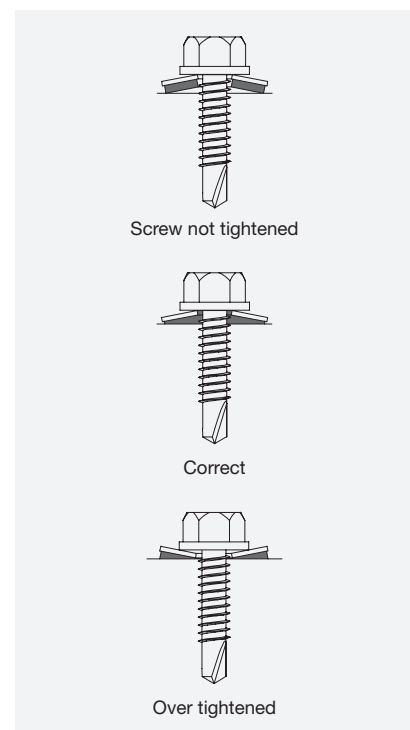
#### C-1 hinge with angular bracket in steel

The pre-drilled galvanised steel angular bracket is fixed to the conveyor structure with two high-quality self-drilling screws (supplied). These screws can easily drill through thicknesses of up to 12 mm (0.50 inches) of steel. The holes are Ø8 and are positioned at a height of 30mm. The recommended number of hinges per cover is 4. In the case of very windy environments, 6 hinges per cover can be requested.

#### Angular profile



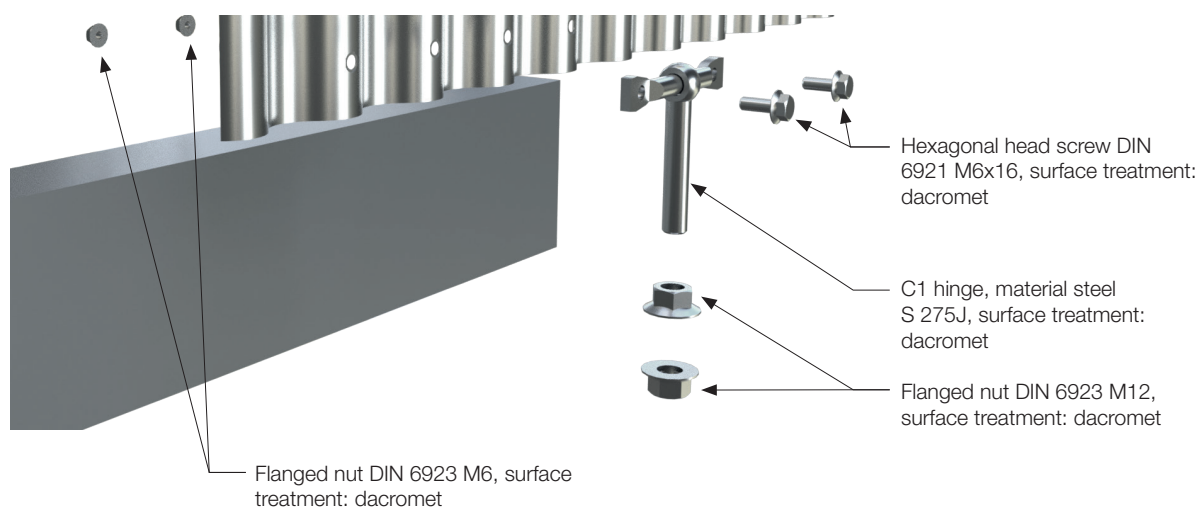
#### Notes



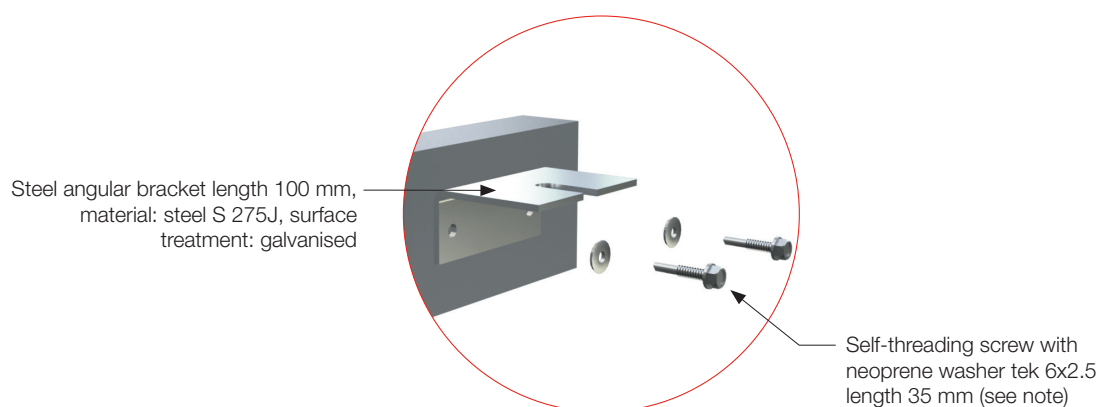
# CPX M COVERS

## Fixing

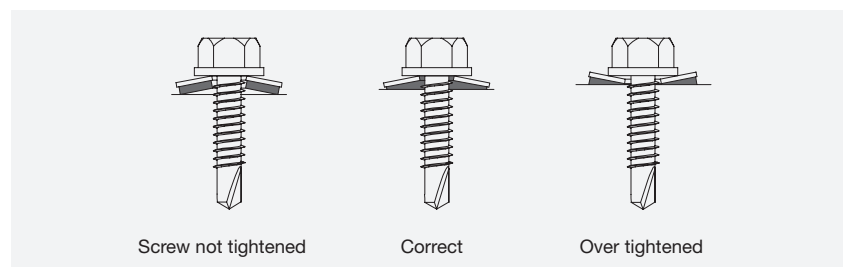
### DETAIL OF C1 HINGE



### DETAIL OF STEEL ANGULAR BRACKET



### Notes



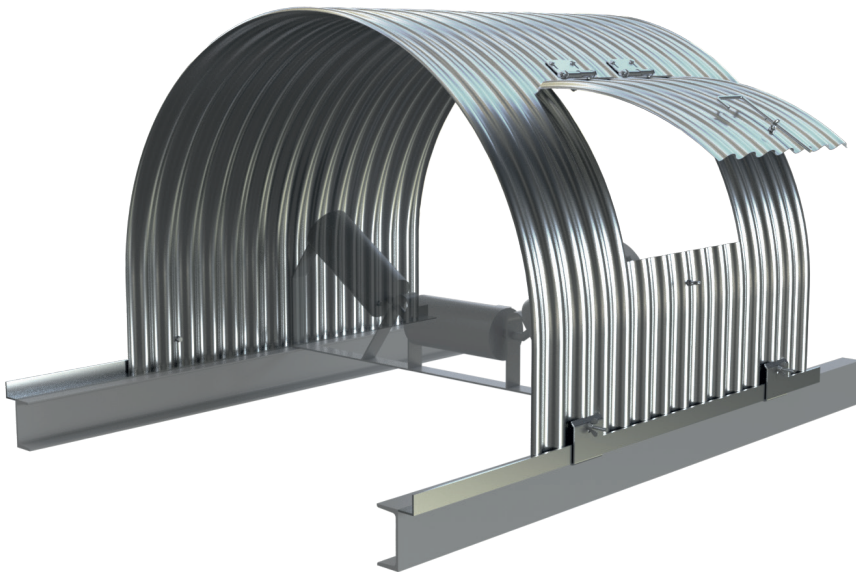
**Attention**  
the C1 fixing is supplied with the CPTA M hinged covers.

## COVERS

### Accessories

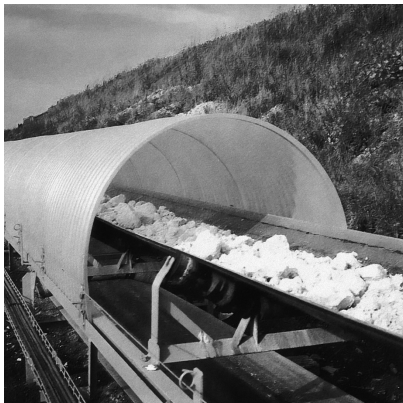
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Both the fixed and hinged model can be supplied with a belt-inspection window on request.



# CPT COVER

## In PVC

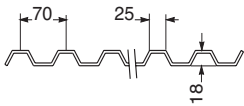


### 1.4 - CPT series in PVC

Thanks to the characteristics of the material, plastic covers are light, offer good transparency, are corrosion resistant and have a smooth surface. They are also easily adapted to any type of conveyor. They are resistant to corrosion and are classified as “NOT FLAMMABLE - DIN 4102”. However,

despite their being self-extinguishing, they are recommended for use in environments with temperatures or irradiation of no more than 65°C. PVC belt covers are produced in heat-shaped pre-formed elements in ribbed sheet material. They are neutral in colour and transparent, with a profile and of a dimension that fit the most common belt widths.

Ribbed sheet model ONDEX  
Colour: T00 translucent  
Thickness: 1.2 mm

Rib modulus	Profile layout	Total length mm	Waves n.
70/18		1090	15 and 1/2

### Storage and transportation

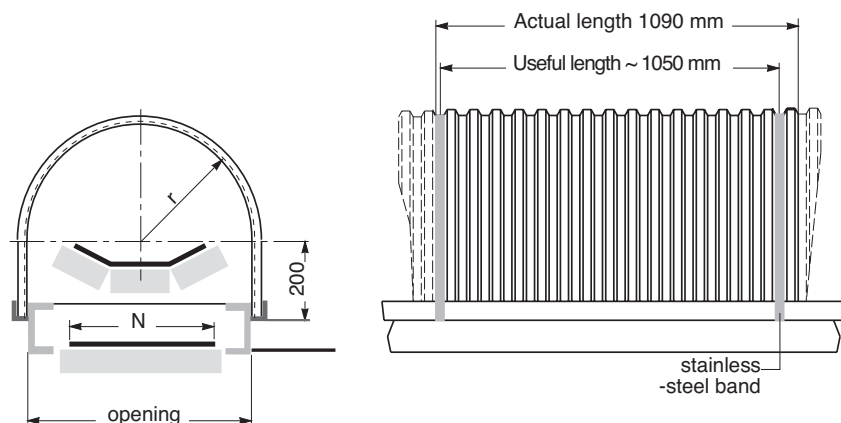
Covers must be stored and transported horizontally on pallets and kept covered with a white protective sheet (as shipped).

ATTENTION: do not expose stacked covers to sunlight or heat sources when not assembled on the conveyor. Store in a shaded and ventilated environment. The non-observance of these instructions may lead to the deformation of the covers due to heat. The mechanical properties of the belt covers are summarised in the following table.

Property	Regulation	Unit	Values for colours - Translucent
Volumetric mass	ISO R1183/NFT 51063	Kg/dm <sup>3</sup>	1.39
Elastic modulus	ISO R178/NFT 51001	MPa	3000
Tensile modulus	ISO R527/NFT 51034	%	80/85
Tensile strength from -20°C to +23°C	DIN 53488	kJ/m <sup>2</sup>	>=300
Vicat point (49N)	ISO R306/NFT 51021	°C	79
Reaction to fire classification	NF 92507		M1
Thermal conductivity	DIN 52610	W/m°C	0.14
Thermal expansion coefficient from -30°C to +30°C	ASTM D696	10 <sup>-6</sup> mm/mm°C	68.5
Light transmission	ASTM D1494	% in relation to air	>=62
Weight per profile		kg/m <sup>2</sup>	>=1.95
Anti-UV treatment		Values from 0 to 20 (0 = no protection)	16

# CPT COVER

## In PVC



Cover type	Belt width mm	Opening mm	Radius r mm	Cover width mm	Weight kg	Fixing accessories*	No. accessories per cover
<b>CPT 1</b>	<b>400</b>	700	350	1500	3.6	<b>CPT 1F 400</b>	1
<b>2</b>	<b>500</b>	800	400	1660	4.0		1
<b>3</b>	<b>650</b>	950	475	1890	4.5		1
<b>4</b>	<b>800</b>	1150	575	2200	5.3		2

(\*) Fixing accessories

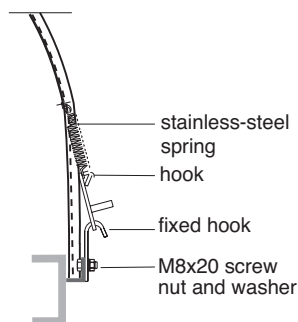
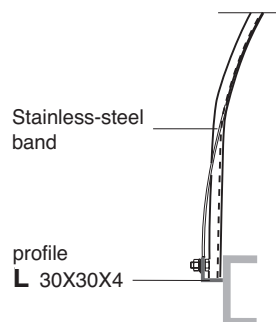
### Assembly instructions

Each cover must be fixed with a 20-mm-wide and 0.6-mm-thick stainless-steel band. The steel band is to be positioned inside the wave at the point where the sheets overlap.

During assembly, the steel bands are to be cut to length and drilled.

The steel band is to be positioned and blocked as follows:

- on one side of the angular section with M8x20 screw and washer, drilling the angular section.
- on the other side, in the same position, with the galvanised hook fixed to the angular section with M8x20 screw and washer.



### \*for type CPT 1-2-3

- 1 Belt with stainless-steel spring and galvanised hook
- 1 Fixed galvanised hook
- 2 M8x20 galvanised bolts
- 2 galvanised washers

### \*for type CPT 4

- 2 Belts with stainless-steel spring and galvanised hook
- 2 fixed galvanised hooks
- 4 M8x20 galvanised bolts
- 4 galvanised washers

**The end cover section for each conveyor requires a series of supplementary accessories.**

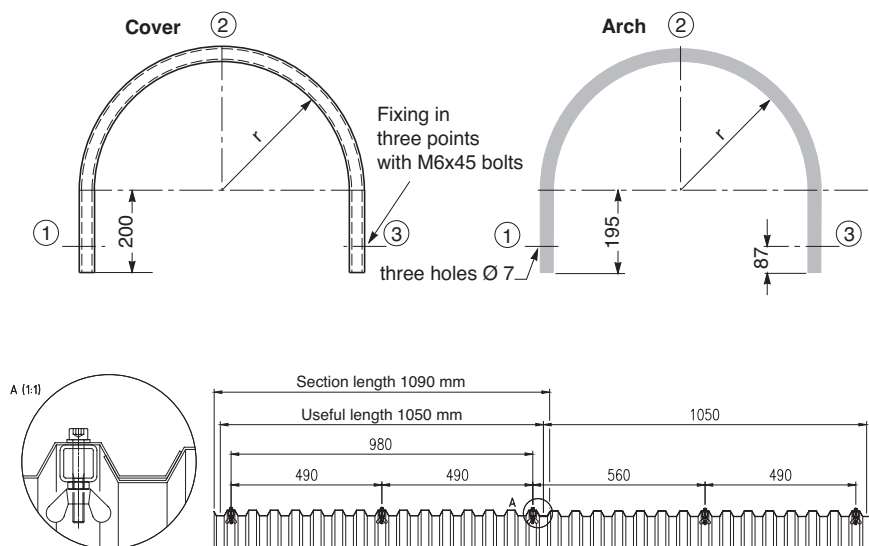
### Order example

- CPT 3, 650 Q.ty 5  
plus fixing accessories  
CPT 1F 400 Q.ty 5+1=6
- CPT 4, 800 Q.ty 3  
plus fixing accessories  
CPT 1F 400 Q.ty 6+1=7



# CPT COVER

## In PVC



### \*for type CPT 5-6-7

- 2 Square tube arches 20x20x2  
sendzimir galvanised
- 6 galvanised M6x45 screws
- 6 M6 galvanised nuts
- 6 galvanised washers
- 4 M6 galvanised wing nuts
- 2 Fixing brackets 30x4x120  
in galvanised steel

**The end section for each conveyor requires a series of supplementary accessories.**

### Order example

CPT 5, 1000, quantity 3  
plus fixing accessories  
CPT 5F, 1000, quantity 6+1=7

### Assembly instructions

These covers require the fitting of two support arches in galvanised steel tubing, one at the point at which the sheets overlap and one at the centre of each section. These arches must first be fitted to the end of each cover as shown in the figure.

The preformed PVC cover and the steel arch are positioned inside the angular section profile and then, together with the fixing bracket, fixed in place with a screw, washer and wing nut in the three points, 1, 2 and 3.

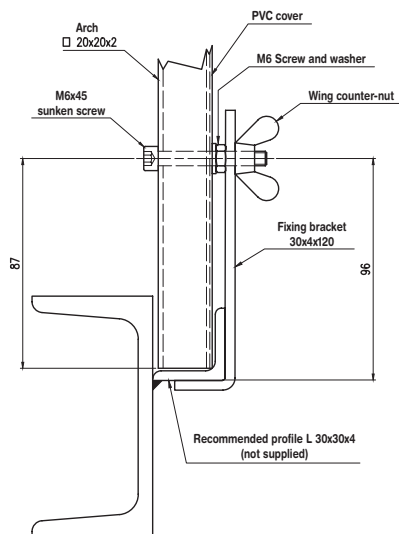
# CPT COVER

## In PVC

### Assembly instructions

These covers require the fitting of two support arches in galvanised steel tubing, one at the point at which the sheets overlap and one at the centre of each section. These arches must first be fitted to the end of each cover as shown in the figure.

The preformed PVC cover and the steel arch are positioned inside the angular section profile and then, together with the fixing bracket, fixed in place with a screw, washer and wing nut in the three points, 1, 2 and 3.



Cover type	Belt width mm	Opening mm	Radius r mm	Cover width mm	Weigh kg	No. accessories per cover	Fixing accessories with arches*
<b>CPT 5</b>	<b>1000</b>	1350	675	2520	6.0	2	<b>CPT 5F 1000</b>
<b>6</b>	<b>1200</b>	1600	800	2910	7.0	2	<b>6F 1200</b>
<b>7</b>	<b>1400</b>	1800	900	3230	7.7	2	<b>7F 1400</b>

(\*) Fixing accessories

[illegible]





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