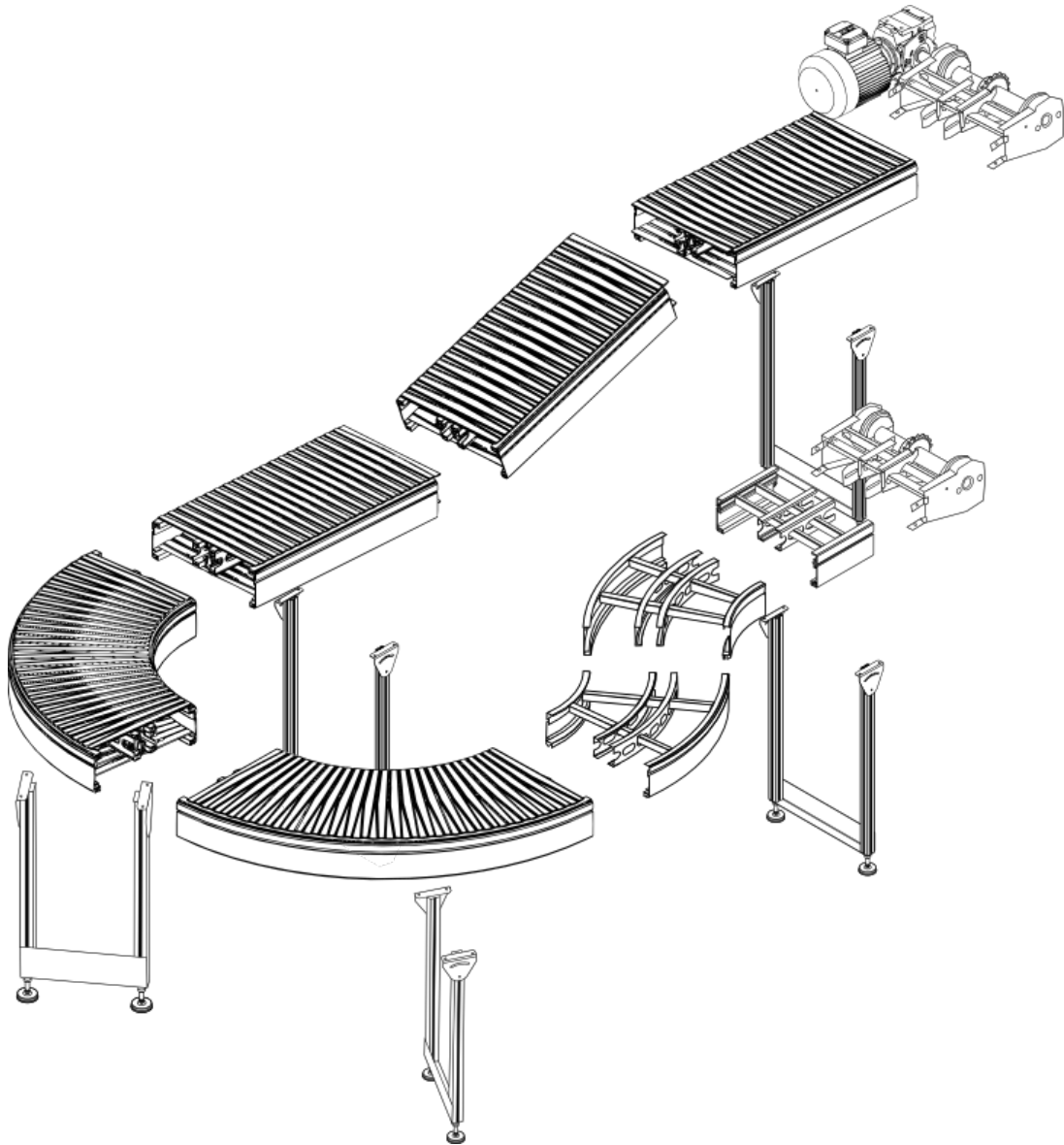


# AMBAVEYOR PRODUCT DATA SHEET



# Introduction

## How to read this document

This Product Data Sheet describes the relevant standard features, options, accessories and approved application of the AmbaVeyor.

If your feature, functionality or applications is not mentioned in this document, ask us for the possibilities.

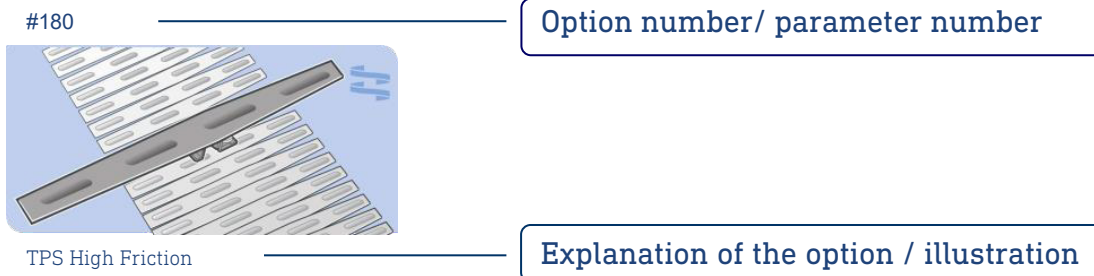
## Technical specifications

In case of a proposal quoted or order confirmed, this document serves as the base for the application and technical features. The separate quotation or order confirmation includes a bill of materials listing up the modules. The bill of materials may not describe extra features, special design or applications. The bill of materials in the proposal quoted or order is leading and overrules this product sheet.

Not all options and configuration can be combined. In case an impossible combination is requested we will inform you and suggest a better configuration or combination.

## Legend:

Example Picture:



### \* Disclaimer:

Illustrations shown are indicative. Illustrations can differ on details for the supply. Illustrations may show options that are not in the scope of supply unless specified in the quotation / order.

All dimensions specified in this document are design meant to be dimensions. For the as build dimensions, larger functional tolerances should be considered.

# Frame

## Explanation machine code

The main elements of the AmbaVeyor are the frame and the belt. Optionally supports, guides, motor drives, etc. can be added to complete the AmbaVeyor track.

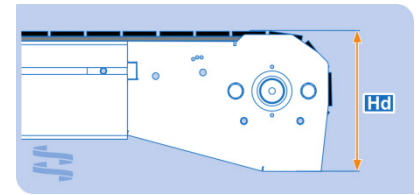
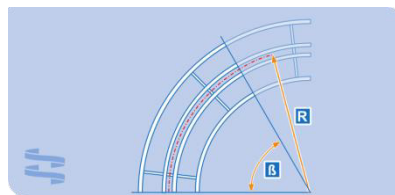
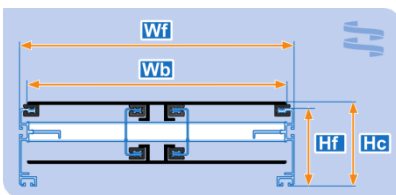
Description of the AmbaVeyor short code:

Example: AF400-A-TPSHF4

- AmbaVeyor Type AF
- Belt width belt (b) 400mm
- Material configuration A
- Slat type TPS
- High Friction ratio HF4

## Dimensions

	AF200	AF400	AF600
Wb = Nominal belt width [mm]	200	400	600
Wf = Frame width [mm]	226	426	626
Hf = Frame height [mm]	120	120	120
Hc = Conveyor height [mm]	135	135	135
Hd = Idler-/ Drive-unit height [mm]	173	173	173
R = Standard/minimum Centreline Curve radius [mm]	500	650	900
Maximum load capacity [kg/m]	50	50	50
Maximum speed [m/min]	60	60	50



# Frame

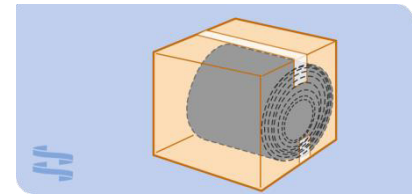
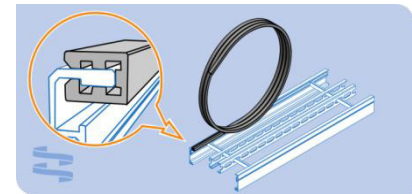
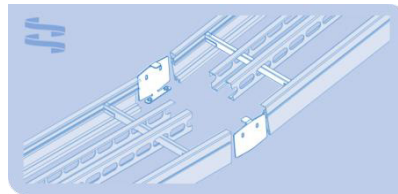
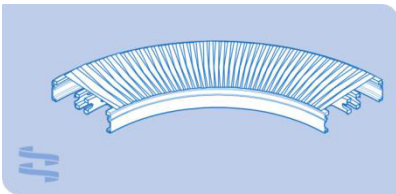
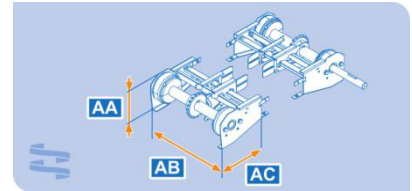
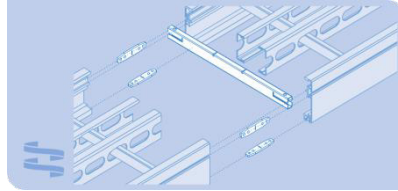
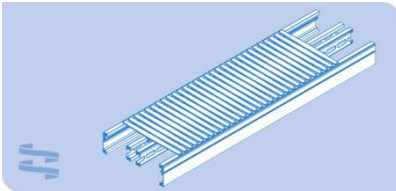
## Material

	Dry use (A)	Wash down (RS)
Outside frame]	Aluminium	Stainless steel
Inside frame	Galvanised mild steel	Stainless steel
Drive-/idler unit	Galvanised mild steel	Stainless steel
Chain	High tensile steel	Corrosion resistant steel Optional: Stainless steel
Slat belt	Polyoxymethylene (POM)	Polyoxymethylene (POM)
<b>Accessories</b>		
Side guide	Galvanised mild steel	Stainless steel
Offset spacers (for guiding)	Polybutylene terephthalate (PBT)	Polybutylene terephthalate (PBT)
Floor supports	Aluminium	Stainless steel
Underguarding	Polystyrene (PS, black)	Polystyrene (PS, black)
Transitions rollers	Stainless steel	Stainless steel

# Frame

## Modules

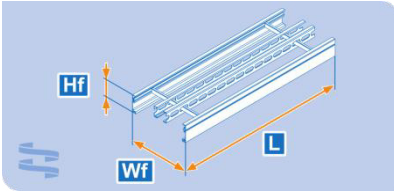
The modules are the connecting elements for AmbaVeyor track sections. Each module is a functional group of parts including the frame, slide strips and belt. The belt is guided in and supported by the track section profiles. The modules are easy to modify on site to suit the required layout.



# Frame

## Track Modules

### Straight Track Module

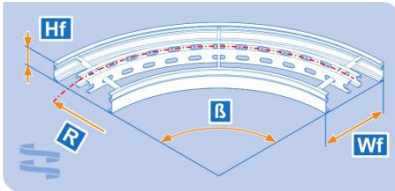


Dimensions	AF200	AF400	AF600
Hf [mm]	120	120	120
Wf [mm]	226	426	626
L standard [mm]	250, 1500, 3000	250, 1500, 3000	250, 1500, 3000
L customized [mm]	≥ 250, ≤ 3000	≥ 250, ≤ 3000	≥ 250, ≤ 3000

Included in standard supply:

- pre-assembled straight track module
- Slide strips, shipped in standard lengths
- Belt type: TPS (other belt types available on request, see Belt)
- connection plates

### Curve Track Module



Dimensions	AF200	AF400	AF600
Wb [mm]	200	400	600
Wf [mm]	226	426	626
Hf	120	120	120
R standard [mm]	500	650	900
R customized [mm]	> 500	> 65 0	> 90 0
β standard [°]	30, 45, 90	30, 45, 90	30, 45, 90
β customized [°]	> 30	> 3 0	> 3 0

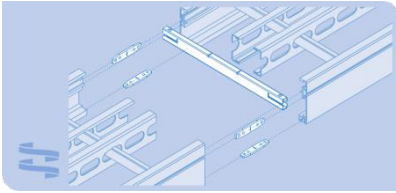
Included in standard supply:

- pre-assembled curve track module
- Slide strips, shipped in standard lengths
- Belt type: TPS (other belt types available on request, see Belt)
- connection plates

# Frame

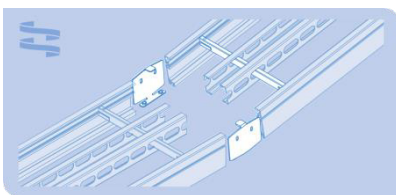
## Track Modules

### Frame Connection Set



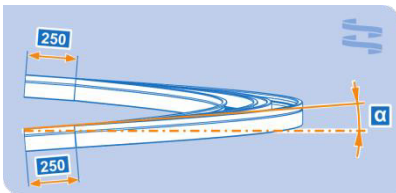
Standard part supply only

### Vertical Bend Set



Standard - and Customized part supply

### Helical Curve



Customized part supply only

Dimensions	AF200	AF400	AF600
$\alpha$ max [°]	15	15	15
R standard [mm]	500	650	900
R customized [mm]	> 500, < 2000	> 650, < 2000	> 900, < 2000

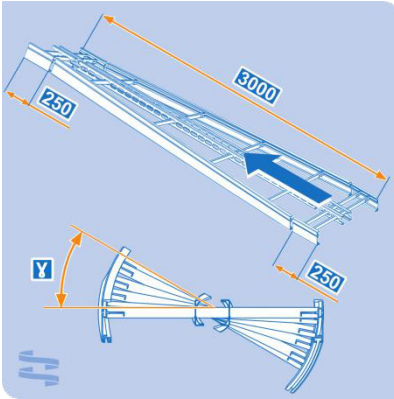
Consisting of:

- 250 mm straight track module
- Helical curve
- 250 mm straight track module

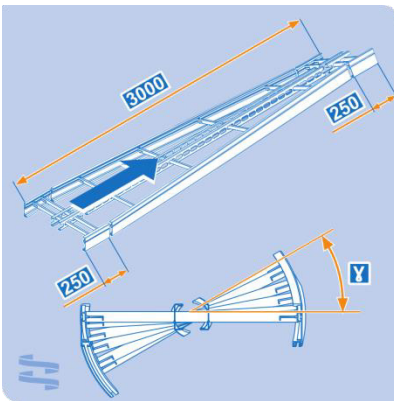
# Frame

## Track Modules

### Tilter



Tilt rotation: clock wise



Tilt rotation: counter clock wise

Dimensions	AF200	AF400	AF600
$\gamma_{\min}$ [°]	10	10	10
$\gamma_{\max}$ [°]	45	45	45

Standard component length of 3000mm.

Consisting of:

- 250 mm straight track module
- Vertical bend set
- 2450 mm straight tilting track module
- Vertical bend set
- 250 mm straight track module

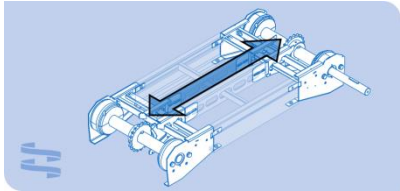


# Frame

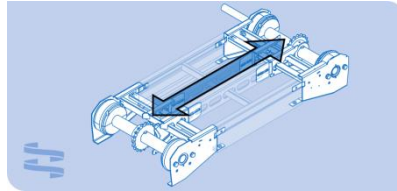
## A) Drive & Idler Module

The drive and idler unit are sold as a pair and are used for every track as the beginning (idler unit) and end (drive unit) of the track.

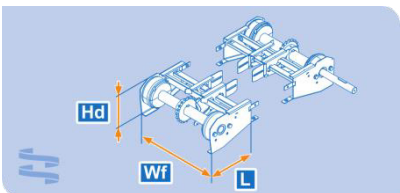
drive & idler unit, plastic slide strip integrated on units slat belt shipped in standard lengths (total qty. based on overall track length)



Idler-/drive-unit set with drive shaft right

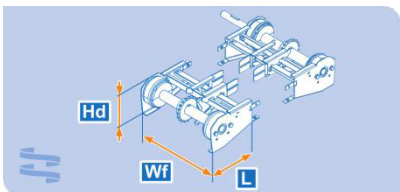


Idler-/drive-unit set with drive shaft left



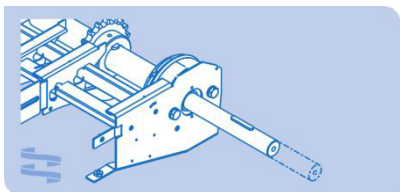
Idler-/drive-unit set with drive shaft right

Dimensions	AF200	AF400	AF600
Wb [mm]	200	400	600
Wf [mm]	226	426	626
Hd [mm]	173	173	173
L idler [mm]	250	250	250
L drive [mm]	250	250	250

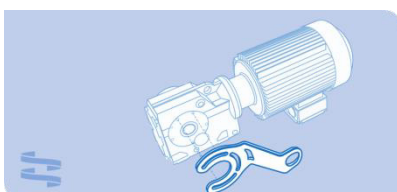


Idler-/drive-unit set with drive shaft left

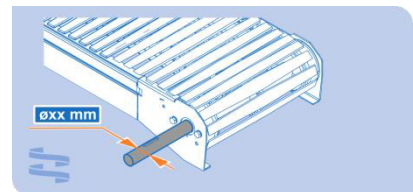
## B) Customize Options



Extended shaft = standard shaft + 100 mm



- Torque arms available for:
- SEW KA37 / KA47
  - SEW WA20
  - Lenze GKR05

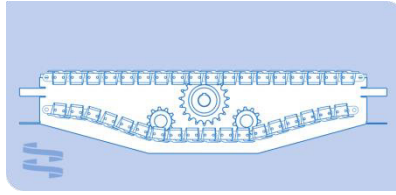
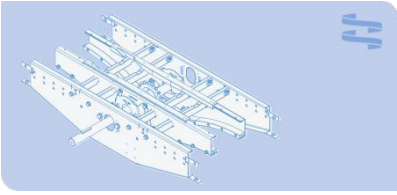


- Drive shafts available:
- shaft ø 30mm
  - shaft ø 20mm

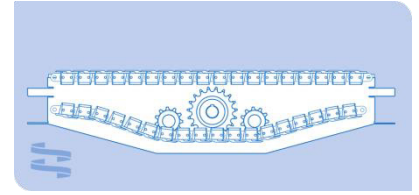
# Frame

## C) Auxiliary Drive System

This drive system can be used as an intermediate drive system to reduce the number of transfer

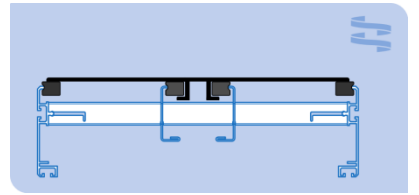
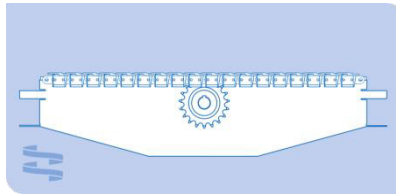
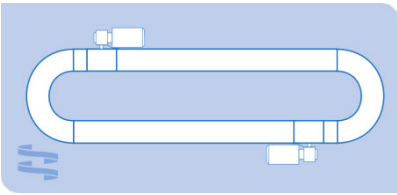


Auxiliary drive system, driving the transport belt

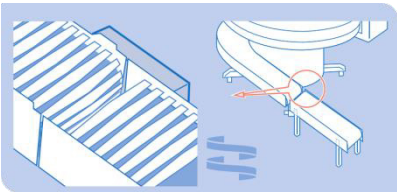


Auxiliary drive system, driving the return belt

This drive system can be used as an intermediate drive system in an AmbaLoop systems (carrousel)

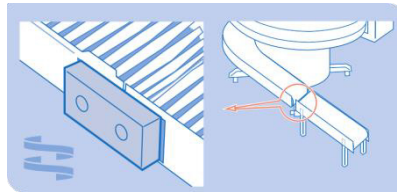


## D) Slave Drive System



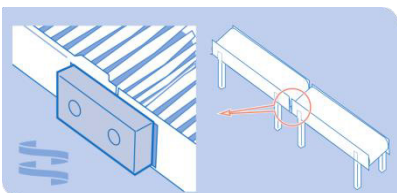
Slave drive connection between an AmbaVeyor and SpiralVeyor system.

Picture: AmbaVeyor slave drive shaft: right



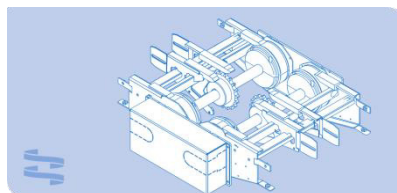
Slave drive connection between an AmbaVeyor and SpiralVeyor system.

Picture: AmbaVeyor slave drive shaft: left



Slave drive connection between two AmbaVeyors systems.

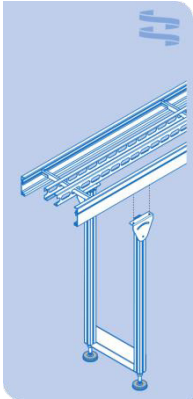
Universal design for both left and right.



# Frame

## Track Supports

### A) Floor Supports



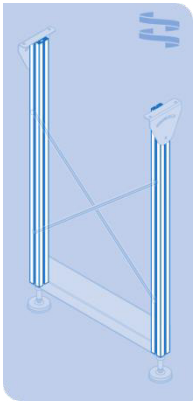
**Floor support situation:**

- Each 3 meter straight
- Each 90 degree curve
- Each level change

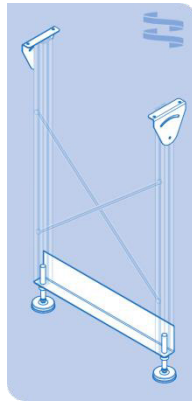
**Dimensions:**

Maximum top of belt height: 3230 mm.  
Upright dimensions: 45x45 mm Height adjustment: ±35mm

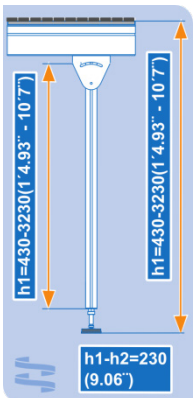
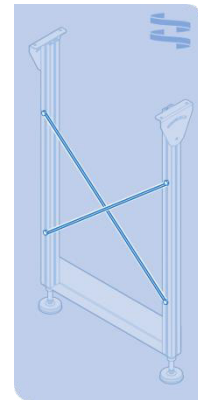
Support frame profile



Support frame set



Lateral bracing



**Shipping unit**

One set of feet, one set of connection brackets and one cross bar per support frame

A quantity of 3 m [118.11"] support legs; the total quantity depends on the total number of support frames and their heights

A quantity of braces depending on the height of the support frame

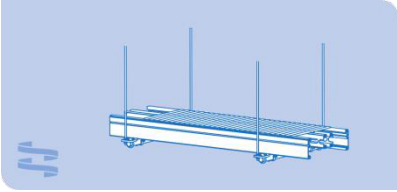
**Customize options**

A specific top of belt (TOB) height. The support legs will be cut to the requested size and pre-assembled before shipment.

# Frame

## Track Supports

### B) Ceiling Mounted Supports



The ceiling mounted support design consist of  
One set of threaded rods (M12); one cross bar; connecting plates + fasteners;  
not included: any substructure and fasteners to the substructure

#### Multiple Tier

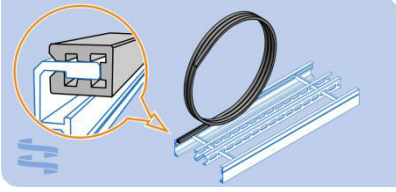
If the AF is positioned above of each other, then it is recommended to supply additional cross bars and fasteners.

Static forces must be checked.

# Slide Strips

## Material

HMPE 1000 with stainless steel fixation pins



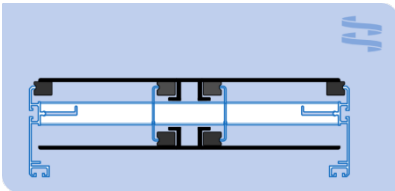
## Shipping Unit

12 m [40'] on a roll

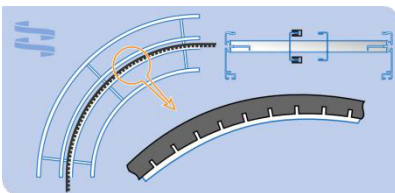
50 m [164'] on a roll

1000 m [3280'] rolled onto a movable coil

## Design

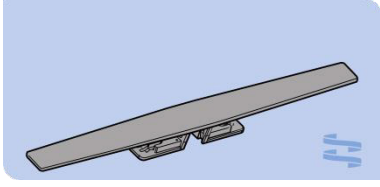
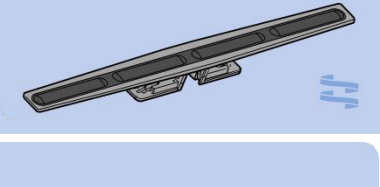
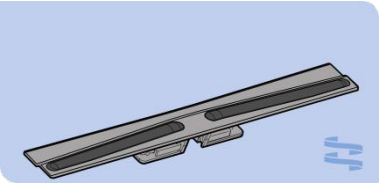


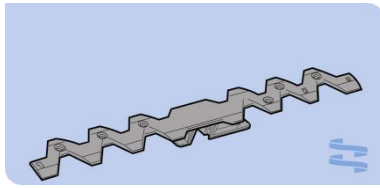
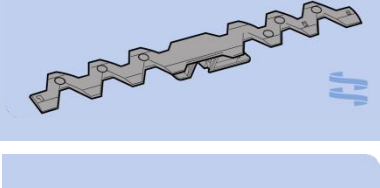
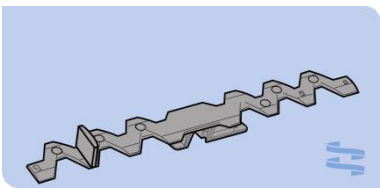
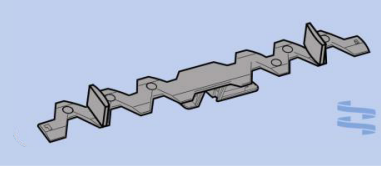
## Curve slide strip



# Belt

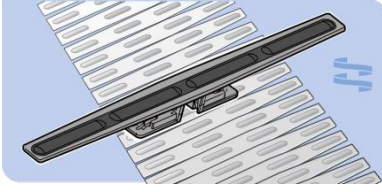
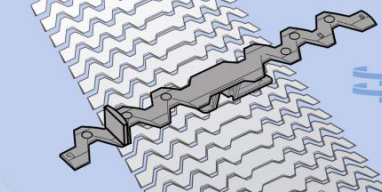
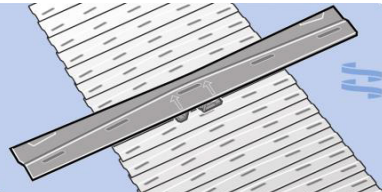
## A) Slat type\*

Belt type	Shape	Friction	Material		Colour	Slat width [mm]		
			Belt	Friction		200	400	600
TPS		Standard	POM		Black	*	*	
		High friction	POM	TPE	Black	*	*	
TPO		High friction	POM	TPE	Black		*	

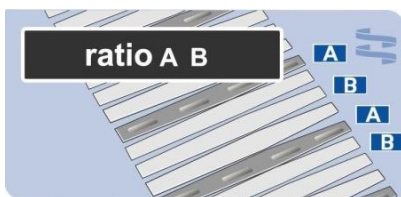
Belt type	Shape	Friction	Material		Colour	Slat width [mm]		
			Belt	Friction		200	400	600
TPT		Standard	POM		Grey		*	
		High friction	POM	TPE	Grey		*	
		High friction Tip guide outer radius with inset	POM	TPE	Grey		*	
		High friction Tip guide with inset on both sides	POM	TPE	Grey		*	

# Belt

## B) Pre defined belt configuration\*

Belt type	Shape	Friction	Material	Colour	Belt width [mm]		
					Belt Friction	200	400
TPS		Standard belt	POM	Black	*	*	*
TPS		Full friction belt	POM TPE	Black	*	*	*
TPT		Full friction belt Tip guide outer radius with inset	POM TPE	Grey	*		
TPO		Full friction belt	POM TPE	Black + grey	*		

## C) Customized Belt Configuration\*



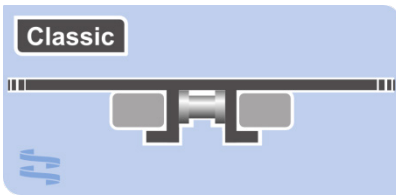
#213 First slat type A  
 #214 Second slat type B  
 #215 Ratio= A/(A+B) Picture -> 1:4

\*) Pictures based on 400 mm belt width

# Belt

## D) Belt guide

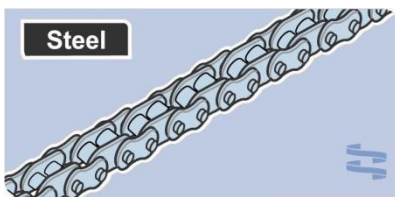
#957



Belt guide system, classic

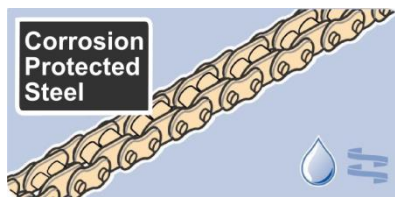
## E) Chain

#193



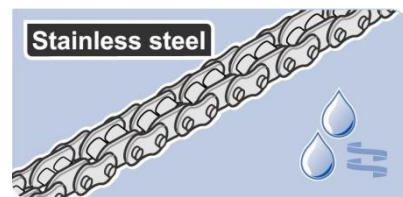
Belt base chain, carbon steel

#738



Belt base chain, corrosion protected, carbon steel

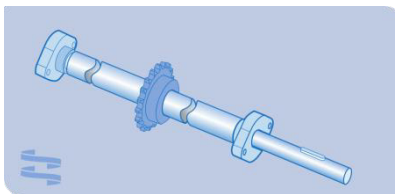
#195



Belt base chain, stainless steel

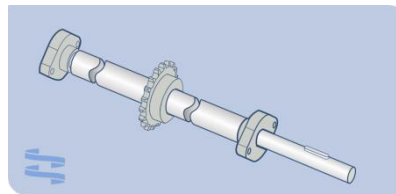
## F) Shafts & Sprockets

#196



Carbon steel  
shaft, bearings, sprockets, fasteners

#197

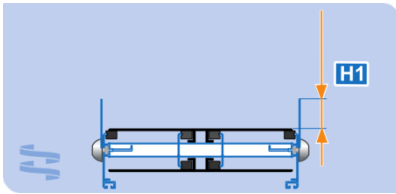


Stainless steel  
shaft, bearings, sprockets, fasteners

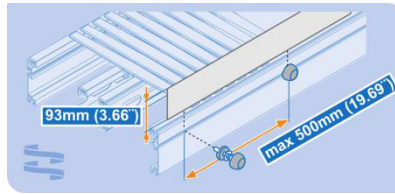


# Guides

## A) B-guides



H1 = 50mm galvanised - / stainless steel plate  
 H1 = 100mm stainless steel plate  
 H1 = 175mm stainless steel plate  
 H1 = 250mm stainless steel plate



**Shipping unit**  
 B50\_12

3 X 4 m = 12 m [40']  
 24 fastening sets

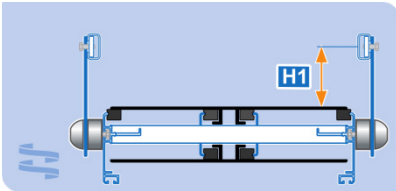
The side guide consists of:

- The plate material straight sections
- Steel or stainless steel fastening material (clamp system) depending on the material configuration

### Optional accessories

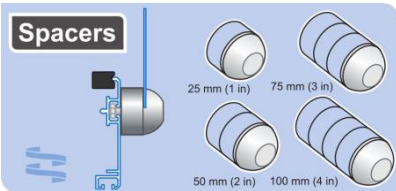
- Offset spacers: additional spacers to widen the distance between guides and allow bigger products to be transported. Spacers are available in 25 mm [1"] widths in packs of 24.

## B) C-guides

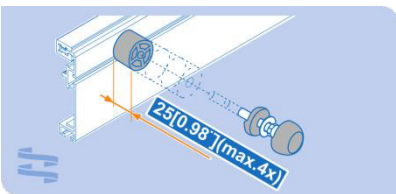


## C) Offset spacers

#770



The spacers are 25 mm [1"] wide and can maximally be combined to 100 mm [4"] offset. Each package contains 24 spacers and sufficient bolts to create any required offset:

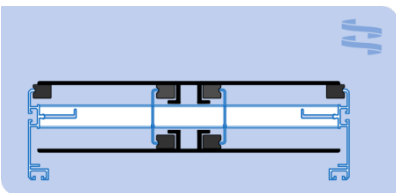


### Shipping unit

24 spacers of 25 mm [1"]  
 Offset 25mm: 24x M8 bolts  
 Offset 50mm: 12x M8 bolts  
 Offset 75mm: 8x M8 bolts  
 Offset 100mm: 6x M8 bolts

## D) No guides

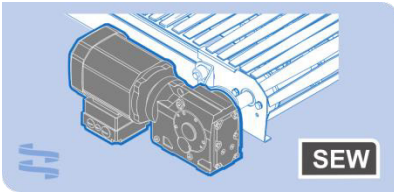
#294



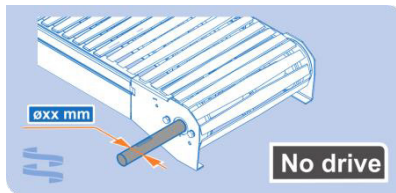
# Drive System

## A) Gear motors

#378



#203



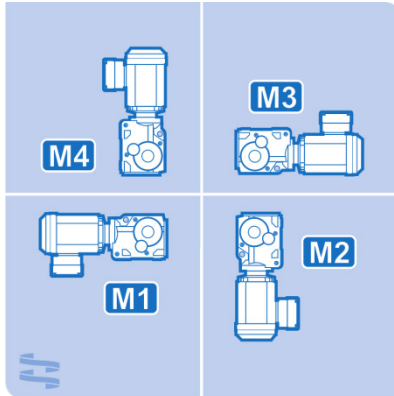
Drive shafts available:

- shaft  $\varnothing$  30mm
- shaft  $\varnothing$  20mm

## B) Drive positions

#208

#649



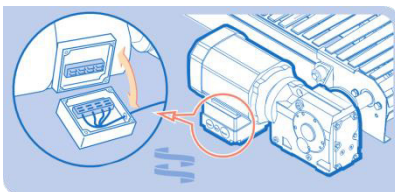
#207

#209

Drive orientation

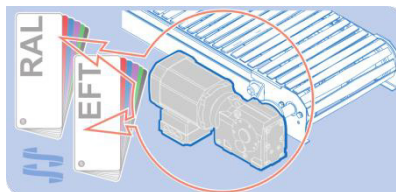
## C) Drive options

#419



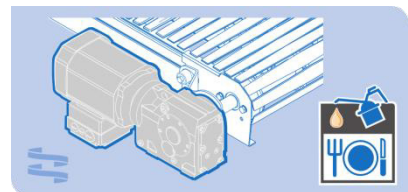
IS connector

#720



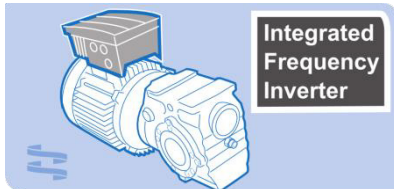
Customer specific colour

#923



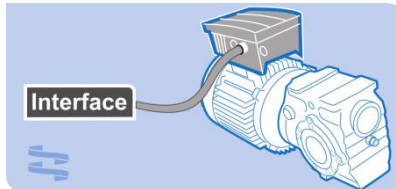
Food grade oil

#718



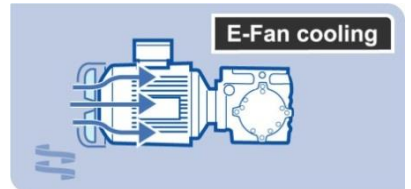
Integrated frequency inverter

#719



Interface on integrated frequency inverter

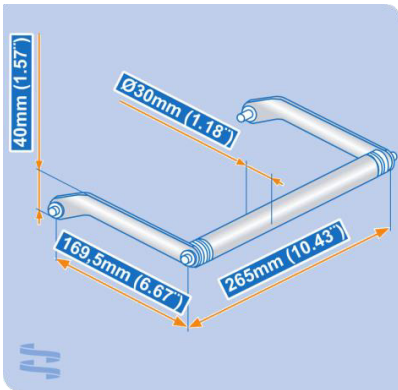
#440



f < 18 Hz

# Accessories AF

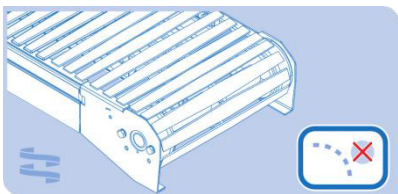
## A) Transfer options



The transition roller consists of:

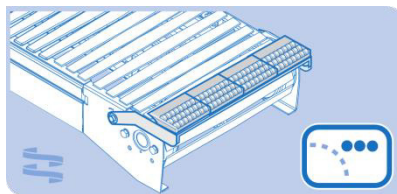
- One roller with an outer diameter of 25 mm [1"]
- Two frame connection brackets
- Two height adjustment disc

#446



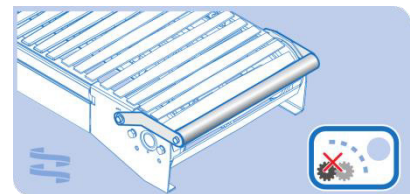
No extra product transfer provisions

#661



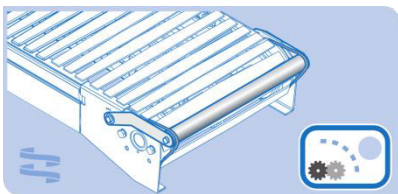
Product transfer plate with rollers (non driven)

#449



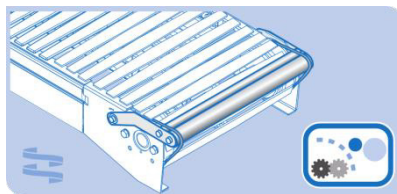
Product transfer rollers 25mm, stainless steel (non driven)

#451



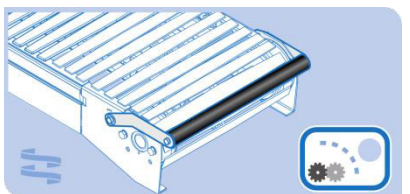
Product transfer rollers 25mm, stainless steel (driven)

#760



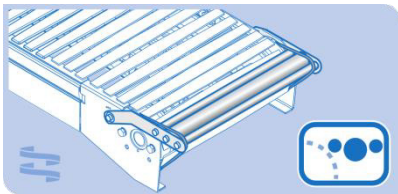
Product transfer micro roller set 12/25mm, stainless steel (driven)

#625



Product transfer grip rollers 25mm, rubber coated (driven)

#454



Triple transfer rollers

# Accessories AF

## B) Under Guarding

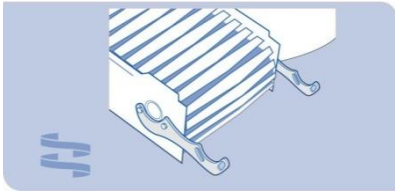
#683



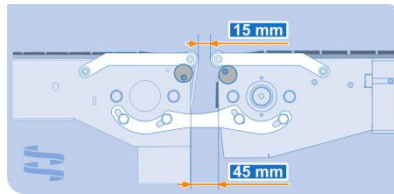
PS underguarding

## C) Connections

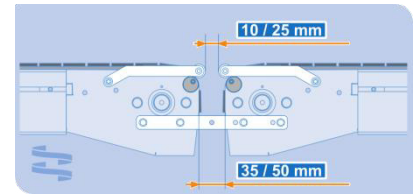
#463



SpiralVeyor Connection brackets



SpiralVeyor Connection brackets

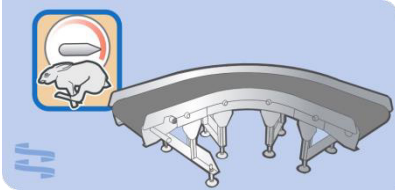


AmbaVeyor Connection brackets

# Packages

## A) High Speed Pack

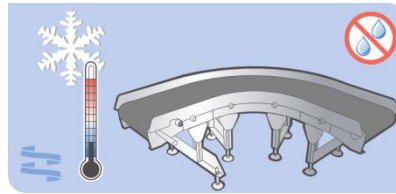
#567



High Speed pack

## B) Polar Pack

#916



Polar pack

## C) Specials

#444



# Integration / Application

## A) Delivery

### Stretch Wrap

#703

All AmbaVeyor leave the factory wrapped in stretch foil for light protection. Special packaging is available on request. Normally the AmbaVeyor is transported in the horizontal position, however due to transport limitations it may be delivered upright.



### Shrink Wrap

#753

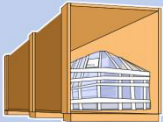
Packaging suited for open truck



### Wooden Crate

#734

Packed in wooden crate



### Shipment

#704

The equipment is supplied Ex Works, excluding installation and integration. Installation assistance is available on request.

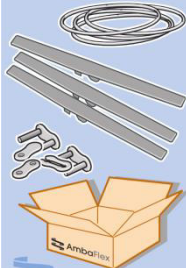


## B) Start Up Package

### Start Up Package

#328

The AmbaVeyor will be delivered with a standard Start Up Package. We refer to our Start Up Package options for small maintenance work and less downtime periods.



### Installation Package

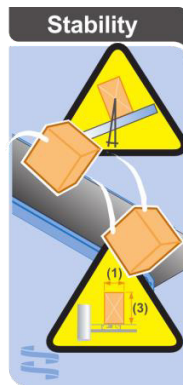


# Integration / Application

## C) Product to handle



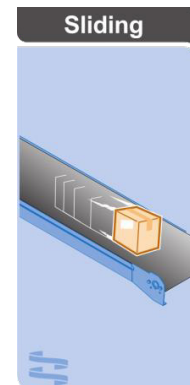
The AmbaVeyor is designed for a wide range of products. The range of secondary packed products, that the standard configuration can handle is based on good stability and good condition.



Product stability depends on speed, incline angle and acceleration. Illustration is a general rule. In case less stable products must be transported we refer to the [D](#).



Warning; be careful with deformed products and odd shapes.

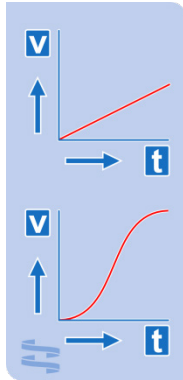
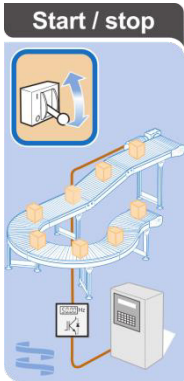


For information about sliding angles in dry and clean environments. These figures are in combination with the full friction surface TPS slats.



# Integration / Application

## D) Integration



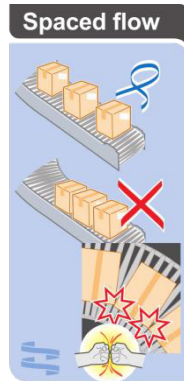
The AmbaVeyor is designed to run continuously. In case of start/ stop or indexing operation a frequency inverter is required.

In those cases the acceleration and deceleration time must be set as following:

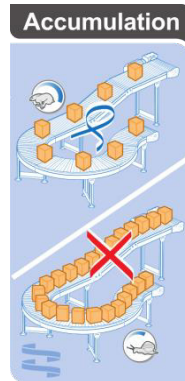
Linear controls velocity  
 $t [s] = 1,5 * v [m/min]/30$

S-curve controls velocity to limit acceleration and deceleration  
 $t [s] = 1,5 * v [m/min]/60$

Speed in m/min [1 FPM = 0.3048 m /min]

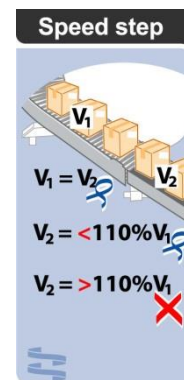


Goods should arrive at the AmbaVeyor with a recommended minimum spacing of 1/3rd of their length



#\*984

The AmbaVeyor is designed for transporting goods. Only if specified, the AmbaVeyor can be used as an accumulator or buffer.



Ideally the speed of the connection conveyor should be similar to the spiral belt speed. If that is not practical a speed difference of less than 10% will be allowed. Notice that speed differences will affect the life time of the belt. The AmbaVeyor may never be used to pull the required gaps between the goods. In case of a special application we refer to the □.



# Integration / Application

## E) Environment

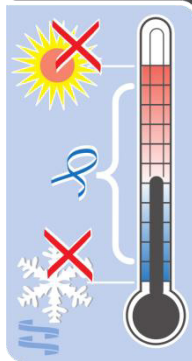
### Indoor



The AmbaVeyor is designed to be used indoors.

For outdoor use AmbaVeyor can offer special AmbaVeyors.

### Temperature



The AmbaVeyor is designed to operate in non-freezing conditions. (temperature range of 0-35°)

See our Polar options for freezing applications.

## F) Cleaning

### Wet



Wet cleaning is allowed for certain component materials. See the available material packages choices.

### Pressure



High pressure cleaning should be avoided. If unavoidable ensure that there is no high pressure water contact with seals, bearings and electrical components.

### Chemicals



A list of approved cleaning detergents for various component materials is available on request.

# Integration / Application

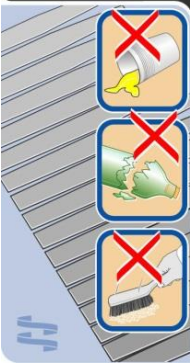
## G) Contamination

### Contamination



Any contamination that may harm the AmbaVeyor or its function must be avoided.

### Abrasive



The AmbaVeyor is not designed to cope with abrasive or aggressive spillage, dirt, glass or atmosphere. AmbaFlex will, when asked, give advice. A wear resistant package may be an option.

### Sticky



Make sure any spillage, dirt or glass that may become sticky is avoided. Otherwise a proper cleaning program within the cleaning possibilities of the AmbaVeyor should be maintained. Sticky contamination may cause the AmbaVeyor to be blocked and may overload the drive gear or cause chain damage.

### Blocking



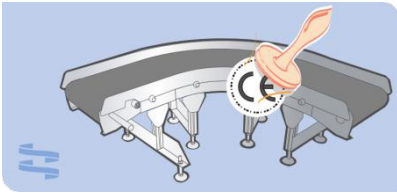
Contamination from foreign objects or leaking products must be avoided. They may block the chain or other moving parts in their function and can cause substantial damage. Let our sales engineers advise you.

### Slippery



Contamination from upstream conveyors like leakage and specially dry lubrication should be avoided unless specified and custom designed.

# CE regulations and documentation



The AmbaVeyor will be delivered according to the CE classifications. However these classifications do not always comply with local regulations. Ask for advice in case of doubt.



Delivery of the AmbaVeyor is including instructions according to the actual CE directive. For reasons of environmental protection, these instructions will be delivered as one copy in English (original) and one copy as a translation into one of the official languages of an EU member state only. These manuals will also be delivered on one CD only.

Should additional copies and/or other languages be required, we can send you an offer on request.

