



ERS
SYSTEM

ROLLER CONVEYORS



easy
...CONVEYORS

www.easy-conveyors.com

THE EASY WAY...

OF SOLVING YOUR MATERIAL HANDLING NEEDS



easy
...CONVEYORS

Easy conveyors bv

Easy conveyors bv is a company with 25 years of experience in the field of intralogistic conveyor components, we have specialised ourselves in developing modular components for the production of Belt conveyors, Table top conveyors, Mat top conveyors and Roller conveyors. All our products are being developed with the "modular thought"

Quality with innovative solutions

At Easy conveyors, we believe in delivering precision in our products and services, there's simply no compromising in the quality of our products and services. We make it our business to understand your needs and requirements. This is to ensure that our continuous R&D effort for technological breakthrough enables your business to maintain its competitive advantage while delivering more value to your customers Flexibility in fulfilling infinite potential. Today's dynamic business environment requires businesses to constantly evolve with technology and new customer requirements. With this in mind, Easy conveyors components are designed to get the best out of your investment and realise the unlimited potential of your business.

Efficiency for all businesses

At end of the day, all businesses depend on their bottom lines. Results, that's all that matters and Easy conveyors has continuously raised and set the benchmark to cater to the needs and budgets of various industries.

We work towards ensuring optimal results for businesses with our cost-efficient systems that afford you with...

- | | |
|---------------------------------------|---------------------------------|
| 01 Fast layout capability | 05 Enhanced productivity |
| 02 Minimal component variation | 06 Low maintenance |
| 03 Design simplicity | 07 User-friendliness |
| 04 Effective space utilization | |

Distribution network

Easy conveyors is worldwide available and has set up a well-established network of exclusive distributors or integrators. Our partners are able to offer you the complete solution integrating our components. Deliveries of our components are being made out of our major stock facilities in Europe, North America, Australia and Asia, from these locations orders from the product configurator can be shipped out with 24 hours lead time.

Product configurator online

Easy conveyors offers an online engineering tool, where you can configure your desired conveyor online by answering a few simple questions. The configurator will generate the desired conveyor and you can download the file in the selected cad format.

TRY OUT ON WWW.EASY-CONVEYORS.COM



1

All our products are available online, you can either configure an EBS belt conveyor, EMBS mat top conveyor, ETS table top conveyor, EMCS mat top conveyor or a ERA roller conveyor by selecting the product under product and cad button.



2

For example we choose an EBS belt conveyor, we need to know A & B size. When we scroll down you can select the type of cad format.



3

In this part you have to fill in the desired length, width, speed, weight etc. to configure the conveyor.



4

In this part the backoffice will calculate the needed power and if it fit is all possible with this conveyor.

Online product configurator

Go to www.easy-conveyors.com and click on product configurator and experience the simplicity of easy conveyors



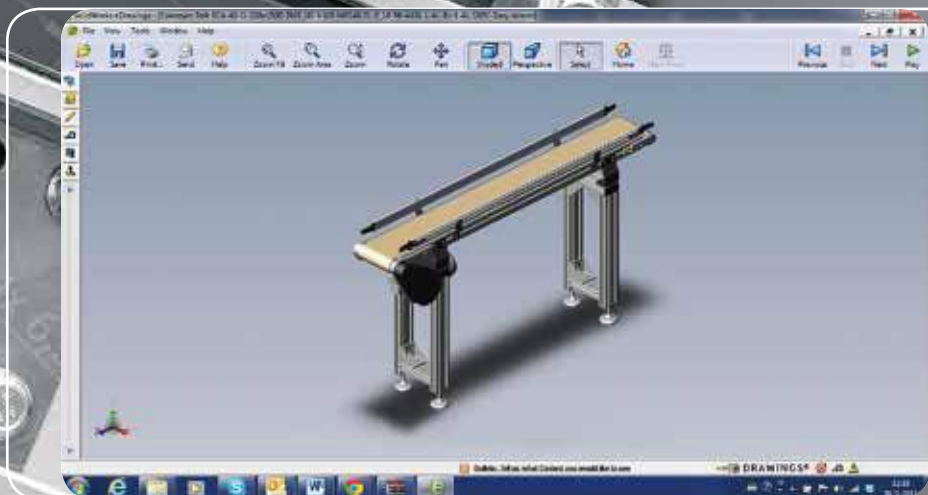
5

When you scroll down, you have the choice to either, "request for a quote" or download the "cad" file or a "pdf" file. If you request a quote, your local dealer will receive an email with the request, they will take care of the quotation and send this to you.



6

When you click on cad-file, the system will generate a cad drawing in the selected format, with your cad program or with a viewer (free download on <http://www.edrawingsviewer.com/>) you can open the drawing.



7

The drawing.

THE EASY WAY...
OF SOLVING YOUR MATERIAL HANDLING NEEDS



ERS
SYSTEM

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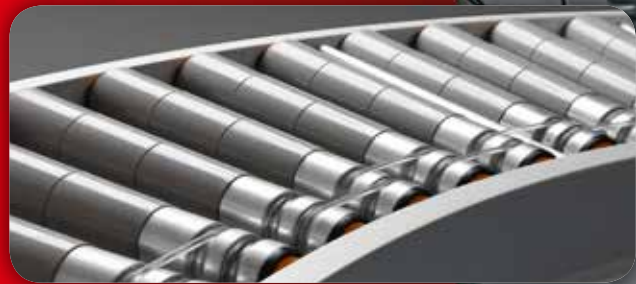
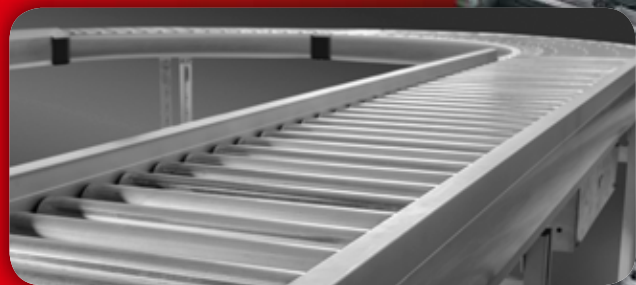


114
ERS ACCESSOIRES



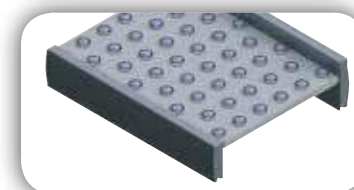
118
ERS (DESIGN) NOTES





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ROLLER CONVEYOR GRAVITY ERS 50



18
ERS 50 STRAIGHT

20
ERS 50 CURVE

22
ERS 50 INFEEED / OUTFEED

26
ERS 50A BALL TABLE

CONVEYING WITHOUT A DRIVE

Simple

EASY gravity roller conveyors transports products manually or by gravity via decline, they are used for assembly and picking lines, they include straight and curved sections, ball tables with ball rollers, they complement integrated systems.

Flexible and easy to us

EASY gravity Roller Conveyor are supplied in modular form and can be combined with all other Easy Conveyors in this catalogue.

GRAVITY ROLLER CONVEYOR ERS 50

The gravity, straight roller conveyor transports material either manually or over a gradient via gravity. It is mostly used for assembly and picking lines as well as for dynamic storage systems.

Roller Conveyors
Gravity
ERS 50
Straight



TECHNICAL DATA

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...CONVEYORS

General technical data

Max. load capacity	100 kg
Inclined/declined	Suitable for decline
Ambient temperature	-5 to +50 °C

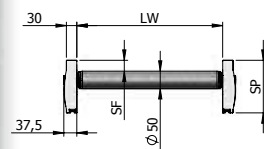
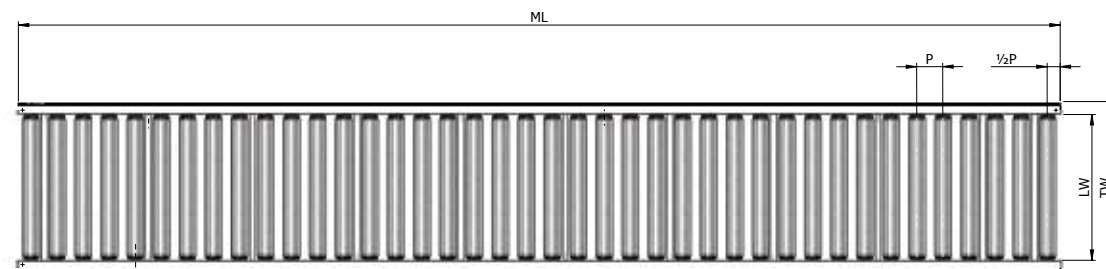
Roller

Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated

Side profile

Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 50

2 Clearance LW

Friction Top Roller put **F** behind the **LW**
Example 50 - 420F - 75 -

3 Roller pitch P in mm A 75 | 100

4 Module length ML in mm A min 300 mm, numbers of rollers x P, max 3000 mm

5 Side profiles HH | HL | LH | LL

1 2 3 4 5
50 - - - -

ORDER EXAMPLE

Example for a reference number:
50 - 420 - 100 - 3000 - HH

This reference number stands for Gravity Roller Conveyor ERS 50 with a clearance LW 420 mm, a roller pitch P 100 mm, a module length ML 3000 mm and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Easy Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



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GRAVITY ROLLER CONVEYOR CURVE ERS 50

Gravity roller conveyor curves change the direction of transport of material. Material is manually pushed around the curve. The alignment of the material is maintained within the side frames by tapered rollers.

Roller Conveyors
Gravity
ERS 50
Curve



TECHNICAL DATA

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...CONVEYORS

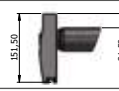
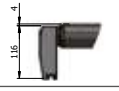




General technical data

Max. load capacity	100 kg
Inclined/declined	Not suitable
Ambient temperature	-5 to +50 °C

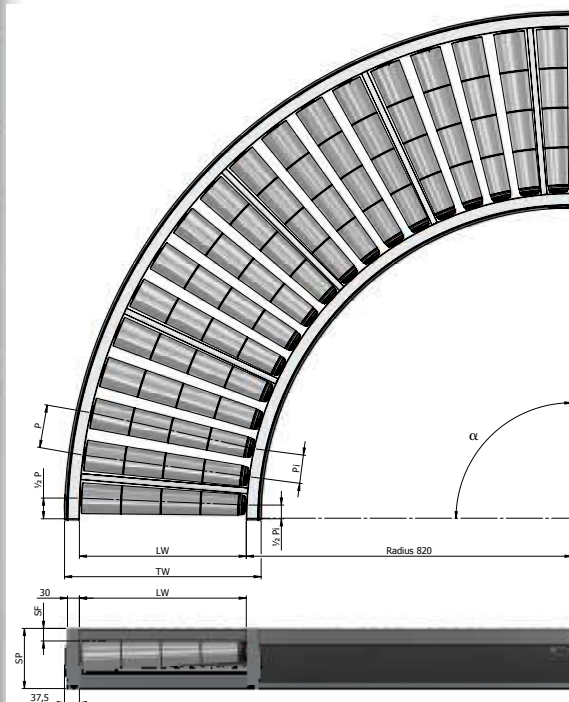
Roller

Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, with grey tapered polypropylene sleeves
Max. number of rollers per conveyor/zone	18 at 90° 12 at 60° 9 at 45° 6 at 30°

Side profile

Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH  HL  LH  LL 	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
α Angle	30° / 45° / 60° / 90°
P Roller pitch, external	~ (0.087 mm x LW) + Pi
Pi Roller pitch, internal	~ 72 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 50

2 Clearance LW

420 | 520 | 620 | 820

3 Angle α

30° | 45° | 60° | 90°

4 CCW = counter clock wise CW = clock wise



5 Side profiles

HH | HL | LH | LL

1 2 3 4 5
50 - - - -

ORDER EXAMPLE

Example for a reference number:

50 - 620 - 90 - CW - HH

This reference number stands for Gravity Roller Conveyor ERS 50 with a clearance LW 620 mm and an angle of 90°, product flow CW and both sides high side profile.

ORDER INFORMATION

• The module is fully assembled

• Please order support stands, side guide, straight connectors and end caps separately

• Steel components are zinc-plated

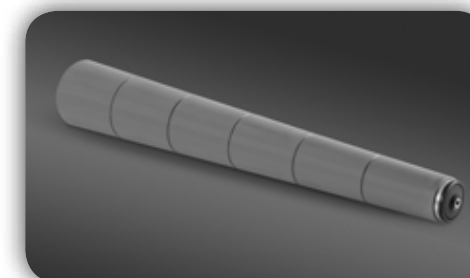
CONFIGURATOR

• If you require a non-standard model, contact your local Easy Supplier.

ACCESSOIRES

• Support stands, see PAGE 104

• Accessoires, see PAGE 114



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...CONVEYORS

GRAVITY INFEED ROLLER CONVEYOR ERS 50

The gravity, straight roller conveyor transports material either manually or over a gradient via gravity. It is mostly used for assembly and picking lines as well as for dynamic storage systems.

Roller Conveyors
Gravity
ERS 50
Infeed



TECHNICAL DATA

easy
...CONVEYORS

General technical data

Max. load capacity	100 kg
Inclined/declined	Suitable for decline
Ambient temperature	-5 to +50 °C

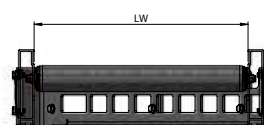
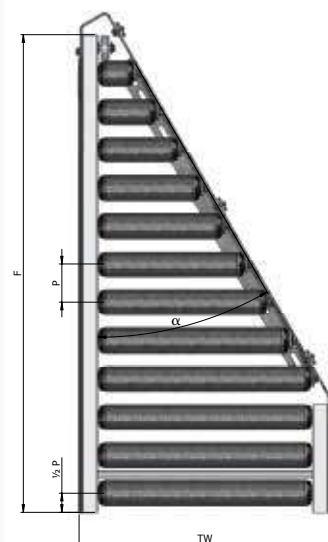
Roller

Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated

Side profile

Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
F Max. module length	See application Notes P118
TW Module width	LW + 75 mm
P Roller pitch	75 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 50

2 Clearance LW

420 | 520 | 620 | 820 Friction Top Roller put **F** behind the **LW**
Example 50 - 420F - 75 -

3 Roller pitch P in mm

75

4 Angle α

30° | 45°

5 Infeed position LH | RH



6 Infeed I

7 Side profiles HH | HL | LH | LL

1	2	3	4	5	6	7
50	-		-	75	-	
				I		

ORDER EXAMPLE

Example for a reference number:
50 - 420 - 100 - 30 - I - LH - HH

This reference number stands for Gravity Roller Conveyor ERS 50 with a clearance LW 420 mm, a roller pitch P 100 mm, an angle of 30°, infeed, a left hand infeed and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



GRAVITY OUTFEED ROLLER CONVEYOR ERS 50

The gravity, straight roller conveyor transports material either manually or over a gradient via gravity. It is mostly used for assembly and picking lines as well as for dynamic storage systems.

Roller Conveyors
Gravity
ERS 50
Outfeed



TECHNICAL DATA

easy
...CONVEYORS







General technical data

Max. load capacity	100 kg
Inclined/declined	Suitable for decline
Ambient temperature	-5 to +50 °C

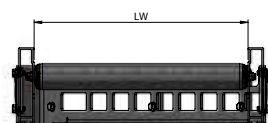
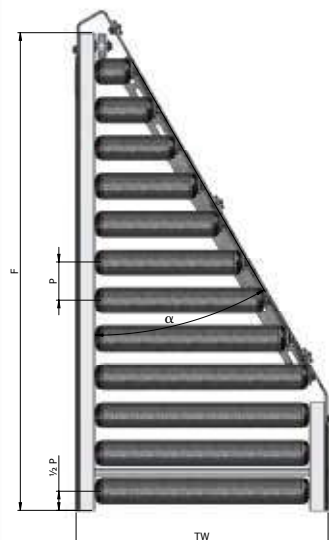
Roller

Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated

Side profile

Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH  HL  LH  LL 	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
F Max. module length	See application Notes PAGE 118
TW Module width	LW + 75 mm
P Roller pitch	75 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 50

2 Clearance LW

Friction Top Roller put **F** behind the **LW**
Example 50 - 420F - 75 -

3 Roller pitch P in mm

75

4 Angle α

30° | 45°

5 Outfeed position

LH | RH



6 Outfeed

0

7 Side profiles

HH | HL | LH | LL

1 2 3 4 5 6 7
50 - - 75 - - 0 - -

ORDER EXAMPLE

Example for a reference number:
50 - 420 - 100 - 30 - 0 - LH - HH

This reference number stands for Gravity Roller Conveyor ERS 50 with a clearance LW 420 mm, a roller pitch P 100 mm, an angle of 30°, outfeed, a left hand outfeed and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114

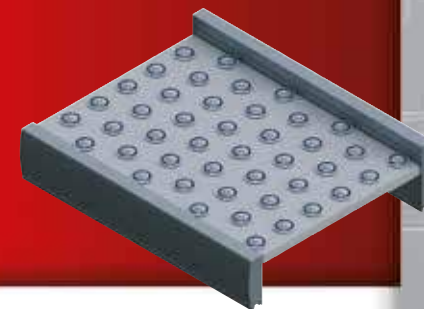


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...CONVEYORS

GRAVITY BALL TABLE ERS 50A

The ball table enables material to be moved horizontally in any direction with very little force. It is especially suitable for workstation and inspection areas. The ball units are fitted into a sub frame assembled to standard aluminium side profiles to allow the ball table section to be easily integrated into a conveyor system.

Roller Conveyors
Gravity
ERS 50
Ball Table



TECHNICAL DATA

easy
...CONVEYORS

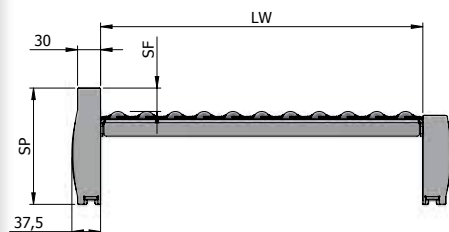
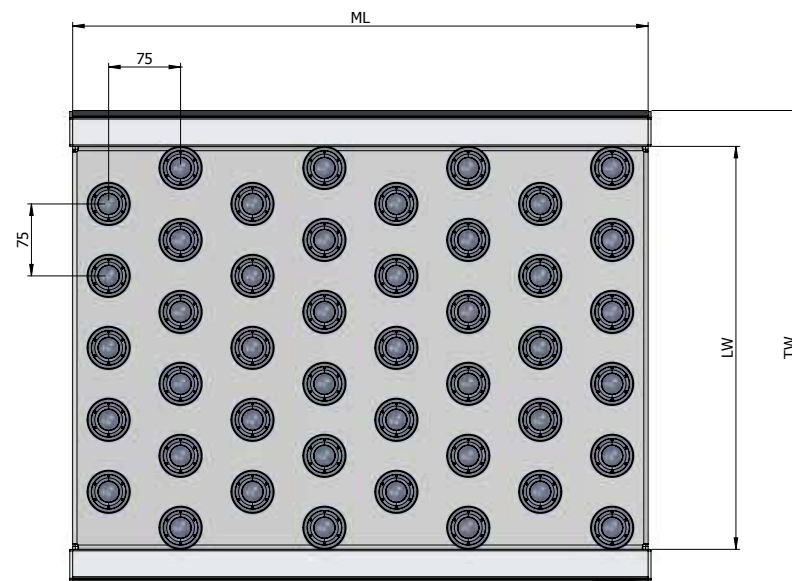
General technical data

Max. load capacity	100 kg
Inclined/declined	Suitable for decline
Ambient temperature	-5 to +50 °C

Side profile

Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
TW Module width	LW + 75 mm
Pitch	75 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 50A

2 Clearance LW
420 | 520 | 620 | 820

3 Module length ML in mm
min. 300 till 3000 mm with steps of 300 mm

4 Side profiles
HH | HL | LH | LL

1 **2** **3** **4**
50A - - -

ORDER EXAMPLE

Example for a reference number:

50A - 620 - 900 - HL

This reference number stands for Gravity Ball Table ERS 50A with a clearance LW 620 mm, a module length ML 900 mm and side profiles with dimensions of 151,5/116 mm.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Easy Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



easy
...CONVEYORS

ROLLERDRIVE CONVEYOR ERS 51



NON-CONTACT CONVEYING AND SEPARATION WITH CENTRAL CONTROL

Simple and economical

EASY roller conveyors with Roller Drive are characterized by especially low-noise and economical conveying. With control via PLC, the RollerDrive Conveyor offers maximum flexibility.

Low-noise

Quiet operation when running without materials < 60 dB(A) with 24 VDC.

Plug and play

Ready for installation and use with pre-configured modules.



30
ERS 51 STRAIGHT



32
ERS 51 CURVE



34
ERS 51 INFEEED / OUTFEED



38
ERS 51 ALIGNMENT



40
ERS 51 DIVERTER



42
ERS 51 TRANSFER

ROLLERDRIVE CONVEYOR ERS 51

The RollerDrive Conveyor is used with a PLC as transport storage conveyors or zero accumulation pressure storage conveyors. Each drive features a digital interface to an external control (PLC) that simultaneously protects the RollerDrive from overload. Each RollerDrive is connected via PU round belts or PolyVee belts to the idlers.

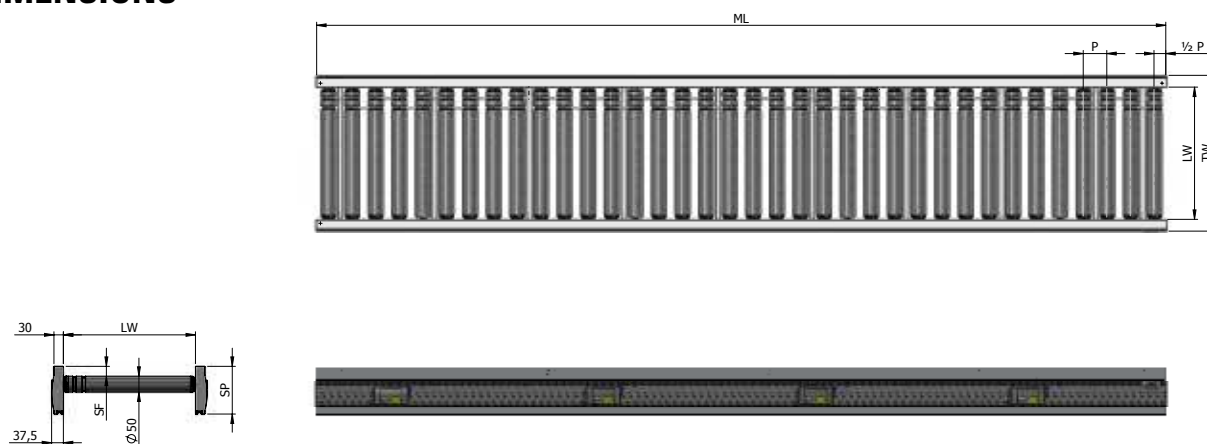
Roller Conveyors
Rollerdrive
ERS 51
Straight



TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	50 kg	80 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
Maximum load capacity is depending on the combination of speed & load		
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
ZL Zone length	Number of rollers x P
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 51

2 Clearance LW

Friction Top Roller put **F** behind the **LW**
Example 51 - 420F - 75 -

3 Roller pitch P in mm A 75 | 100

4 Module length ML in mm A min 300 mm, numbers of rollers x P, max 3000 mm

5 Number of zones See Application Notes PAGE 118

6 Electric side Right | R / Left | L

7 Drive medium Round belt | R PolyVee belt | P

8 Conveyor speed in m/s 0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles HH | HL | LH | LL

1 2 3 4 5 6 7 8 9
51 - - - - - - - - -

ORDER EXAMPLE

Example for a reference number:
51 - 620 - 75 - 2375 - 4 - R - R - 0,33 - HH

This reference number stands for RollerDrive Conveyor ERS 51 with a clearance LW 620 mm, a roller pitch P 75 mm, a module length ML 2375 mm, 4 zones, the electric side on the right, a round belt as drive medium, a conveyor speed of 0.33 m/s and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on PAGE 110
- If you require a non-standard model, contact your local Easy Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



ROLLERDRIVE CONVEYOR CURVE ERS 51

The roller conveyor curves change the direction of transport of material. The alignment of the material is maintained within the side frames by tapered rollers. Each drive features a digital interface to an external control (PLC) that simultaneously protects the RollerDrive from overloads.

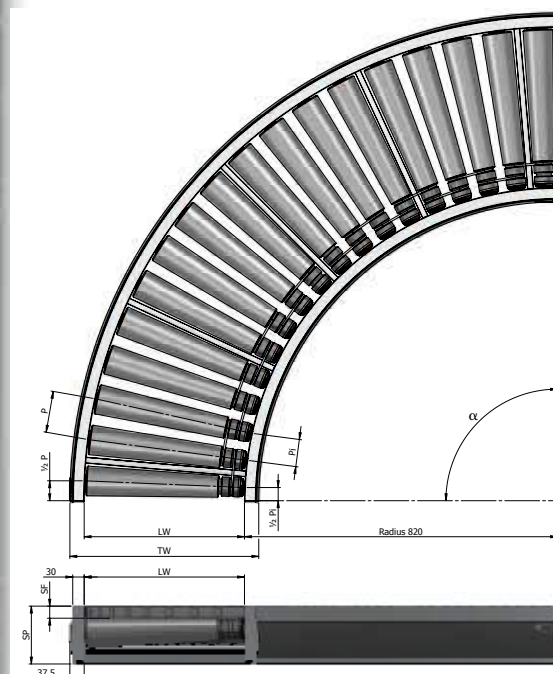
Roller Conveyors
Rollerdrive
ERS 51
Curve



TECHNICAL DATA

		easy ...CONVEYORS	
General technical data		Round belt	
Max. load capacity		50 kg	
Conveyor speed		0,16 to 1,75 m/s	
Inclined/declined		Not suitable	
Ambient temperature		+5 to +40 °C	
		Maximum load capacity is depending on the combination of speed & load	
Roller			
Roller bearing		Sealed Precision ball bearing 6002 2RZ	
Roller diameter		50 mm	
Roller material		Steel, with grey tapered polypropylene sleeves	
Max. number of rollers per conveyor/zone		9	
Drive			
Rated voltage		24 VDC	
Max. electrical power per zone		0.05 kW	
Drive medium		PU round belt ø 5 mm	
Torque transmission		Roller-to-roller	
Side profile			
Profile H		151,5 mm high 31,5 mm above top edge of roller	
Profile L		Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right		HH HL LH LL	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
α Angle	30° / 45° / 60° / 90°
P Roller pitch, external	~ (0.087 mm x LW) + Pi
Pi Roller pitch, internal	~ 72 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 51

2 Clearance LW
420 | 520 | 620 | 820

3 Angle α
30° | 45° | 60° | 90°

4 Number of zones
1
2 (only 90°)

5 Drive medium
Round belt | R

6 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

7 CCW = counter clock wise
CW = clock wise



8 Side profiles
HH | HL | LH | LL

1 2 3 4 5 6 7 8
51 - - - - R - - -

ORDER EXAMPLE

Example for a reference number:
51 - 420 - 90 - 2 - R - 0,65 - CW - HH

This reference number stands for 24 VDC RollerDrive Conveyor ERS 51 with a clearance LW 420 mm, an angle 90°, 2 zones, a round belt as drive medium and a conveyor speed of 0.65 m/s, product flow CW and both sides high side profile.



ORDER INFORMATION

- The module is fully assembled
- Please order support stands, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on PAGE 110
- If you require a non-standard model, contact your local Easy Supplier.

ACCESSOIRES

- Support stands, see P104
- Accessoires, see PAGE 114









ROLLERDRIVE CONVEYOR INFEED 51

The RollerDrive Merge Roller Conveyor infeed two conveyor lines together. The zones of the infeed roller conveyor are directly and independently controlled by the PLC.

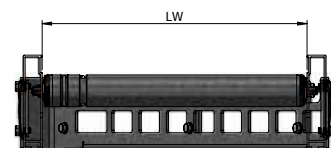
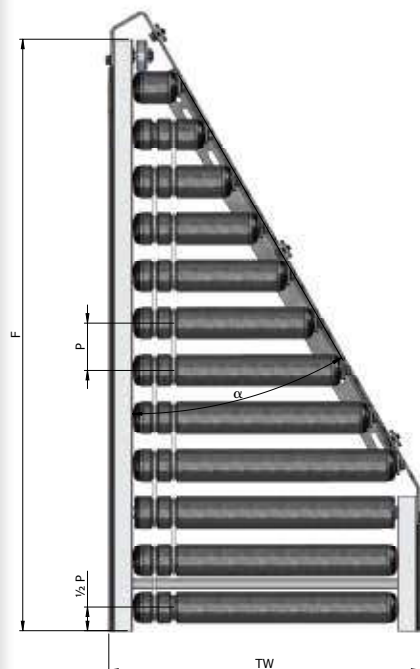
Roller Conveyors
Rollerdrive
ERS 51
Infeed



TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	35 kg	50 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH  HL  LH  LL 	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
F Face length	See application Notes P118
α Angle	30° / 45°
P Roller pitch	75 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 51

2 Clearance LW
420 | 520 | 620 | 820

3 Roller pitch P in mm
75

4 Angle α
30° | 45°

5 Infeed
I

6 Infeed position
Left hand | LH
Right hand | RH

7 Drive medium
Round belt | R
PolyVee belt | P

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1 2 3 4 5 6 7 8 9
51 - F - 75 - I - - - - -

ORDER EXAMPLE

Example for a reference number:

51 - 420 - 75 - 30 - I - RH - R - 0,33 - HH

This reference number stands for 24 VDC RollerDrive Conveyor ERS 51 with a clearance LW 420 mm, a roller pitch P 75 mm, an angle of 30°, infeed, a right hand merge, a round belt as drive medium, a conveyor speed of 0,33 m/s and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side glides, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on PAGE 110
- For ML Module Lengths see application Notes PAGE 134
- If you require a non-standard model, contact your local Easy Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114









ROLLERDRIVE CONVEYOR OUTFEED 51

The RollerDrive Merge Roller Conveyor outfeed two conveyor lines together. The zones of the outfeed roller conveyor are directly and independently controlled by the PLC.

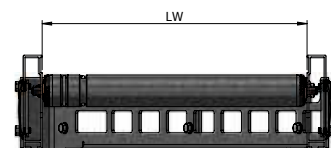
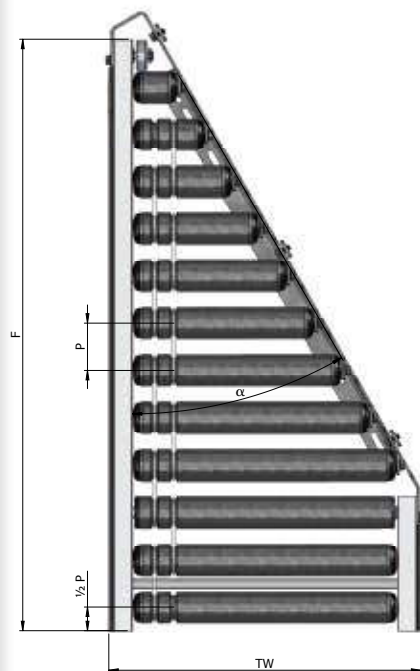
Roller Conveyors
Rollerdrive
ERS 51
Outfeed



TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	35 kg	50 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH  HL  LH  LL 	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
F Face length	See application Notes P118
α Angle	30° / 45°
P Roller pitch	75 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 51

2 Clearance LW
420 | 520 | 620 | 820

3 Roller pitch P in mm
75

4 Angle α
30° | 45°

5 Outfeed
0

6 Outfeed position
Left hand | LH
Right hand | RH

7 Drive medium
Round belt | R
PolyVee belt | P

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1 2 3 4 5 6 7 8 9
51 - F - 75 - 0 - - - - -

ORDER EXAMPLE

Example for a reference number:

51 - 420 - 75 - 30 - 0 - RH - R - 0,33 - HH

This reference number stands for 24 VDC RollerDrive Conveyor ERS 51 with a clearance LW 420 mm, a roller pitch P 75 mm, an angle of 30°, outfeed, a right hand merge, a round belt as drive medium, a conveyor speed of 0,33 m/s and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side glides, end caps, sensors, straight connectors and 24 V power supply unit separately

- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on PAGE 110

- For ML Module Lengths see application Notes PAGE 134

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104

- Accessoires, see PAGE 114









ROLLERDRIVE ALIGNMENT CONVEYOR ERS 51

The RollerDrive Conveyor is used with a PLC as transport storage conveyors or zero accumulation pressure storage conveyors. Each drive features a digital interface to an external control (PLC) that simultaneously protects the RollerDrive from overload. Each RollerDrive is connected via PU round belts or PolyVee belts to the idlers.

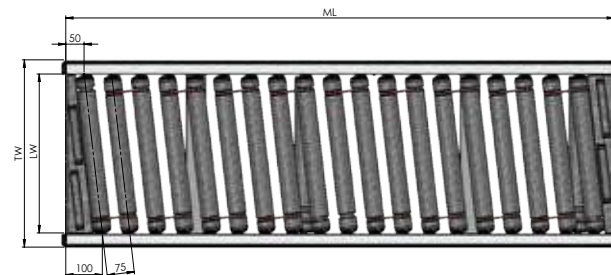
Roller Conveyors
Rollerdrive
ERS 51
Alignment



TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	50 kg	80 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH  HL  LH  LL 	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
ZL Zone length	Number of rollers x P
TW Module width	LW + 75 mm
P Roller pitch	75 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 51A

2 Clearance LW 420 | 520 | 620 | 820

Friction Top Roller put **F** behind the **LW**
Example 51 - 420F - 75 -

3 Roller pitch P in mm A 75

4 Module length ML in mm A min 300 mm, numbers of rollers x P, max 3000 mm

5 Number of zones See Application Notes PAGE 118

6 Electric side Right | R / Left | L

Alignment side
Right | / Left | ^

7 Drive medium Round belt | R PolyVee belt | P

8 Conveyor speed in m/s 0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles HH | HL | LH | LL

1 2 3 4 5 6 7 8 9
51A - - 75 - - - - - - -

ORDER EXAMPLE

Example for a reference number:

51A - 620 - 75 - 2375 - 4 - R - R - 0,33 - HH

This reference number stands for RollerDrive Alignment Conveyor ERS 51 with a clearance LW 620 mm, a roller pitch P 75 mm, a module length ML 2375 mm, 4 zones, the electric side on the right, alignment to the right side, a round belt as drive medium, a conveyor speed of 0.33 m/s and both sides high side profile.

Angle of rollers

420 - 6,8° | 520 - 5,5° | 620 - 4,6° | 820 - 3,5°

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on PAGE 110
- If you require a non-standard model, contact your local Easy Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114









ROLLER DRIVE CONVEYOR DIVERTER ERS 51

The Smart Conveyor diverter diverts material that should maintain its direction of travel via pivoted rollers. The flow of material remains uninterrupted.

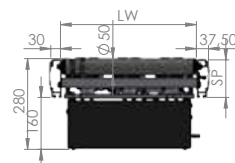
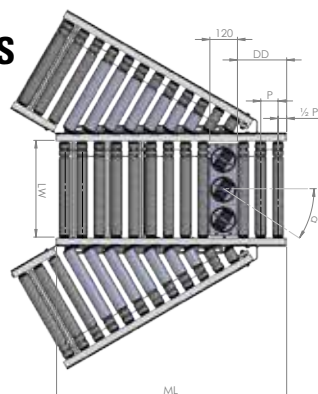
Roller Conveyors
Roller Drive Conveyor
ERS 51
Roller Drive Diverter



TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	35 kg	50 kg
Conveyor speed	0,16 to 1,00 m/s	0,16 to 1,00 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
Maximum load capacity is depending on the combination of speed & load		
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0,05Kw	0,05Kw
Drive medium	Round belt	Poly-V belt
Torque transmission	Roller-to-roller	Roller-to-roller
Motion Control		
Motion medium	Pneumatic	Pneumatic
Swiveling time	0,3 sec / 90°	0,3 sec / 90°
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH  HL  LH  LL 	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
LWT Clear width transfer	420 / 520 / 620 / 820 mm
ML Max. module length	2400 mm
TW Module width	LW + 75 mm
α Angle	30°
P Roller pitch	75 mm
F Face length	See Application Notes P118
SP Side profile	151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 51

2 Clearance LW Friction Top Roller put **F** behind the **LW**
420 | 520 | 620 | 820 Example 51 - 420F - 75 -

3 Clearance LWT
420 | 520 | 620 | 820 (max. LWT = LW + 200 mm)

4 Angle α
24 V and Pneumatic 30°

5 Roller pitch P in mm
75 | 100

6 Diverter Pneumatic
Left hand | PLH
Right hand | PRH

7 Drive medium
Round belt | R
PolyVee belt | P

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1 2 3 4 5 6 7 8 9
51 - - - - 75 - - - -

ORDER EXAMPLE

Example for a reference number:
51 - 420 - 420 - 45 - 75 - PRH - R - 0,33 - HH

This reference number stands for Smart Conveyor Popup Transfer ERS 51 with a clearance LW 420 mm, a LWT 420 mm, an angle of 45°, a roller pitch P 75 mm, a pneumatic right hand diverter, a round belt as drive medium, a conveyor speed of 0.33 m/s and both sides high side profile.

Throughput: see calculation Page 126.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on PAGE 110
- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



ROLLER DRIVE CONVEYOR BELT TRANSFER ERS 51

The Smart Conveyor 90° Transfer, lifts and transfers materials from a straight section and moves the materials at right angles, this can also be used for merging and diverting. The belt transfer cassettes are easily and quick replaceable to have minimum loss of production time.

Roller Conveyors
Roller Drive Conveyor
ERS 51
Transfer



TECHNICAL DATA

easy
...CONVEYORS

General technical data

Max. load capacity	50 kg
Conveyor speed	0,1 to 1,75 m/s
Transfer speed max	0,98 m/s
Stroke time	0,3 m/s
Inclined/declined	Not suitable
Ambient temperature	+5 to +40 °C

Maximum load capacity is depending on the combination of speed & load

Roller

Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated

Drive

Rated voltage	24 VDC
Max. electrical power per zone	0.05 kW
Drive medium	Poly-V
Torque transmission	Roller-to-roller

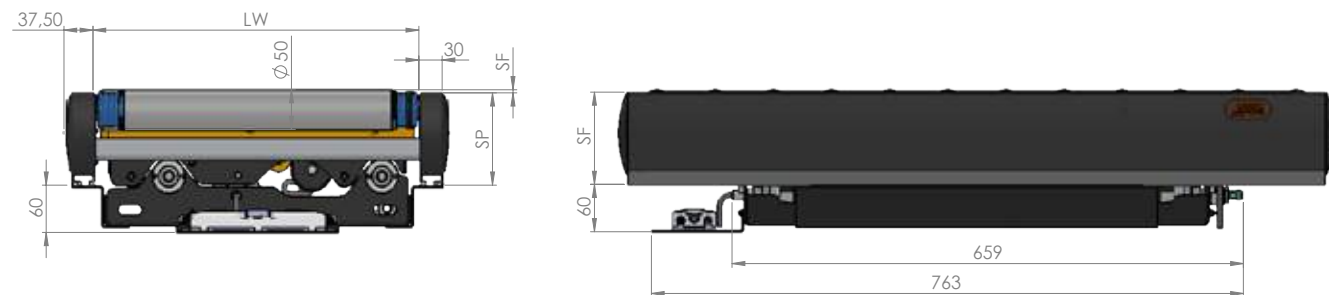
Lifting gear

Operating medium	24 VDC
Stroke time	0,3 sec

Drive transfer

Rated voltage (RollerDrive)	24 VDC
Max. electrical power per zone	0.05 Kw
Power transmission transfer	Toothed belt with Friction Top
Stroke height	15 mm above top edge of roller

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Module length	900 mm
TW Module width	LW + 75 mm
α Angle	90°
C1 First belt pitch	152,5 mm
C2 till C7	152,5 + n x 80 mm
SF	116 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 51

2 Clearance LW
420 | 520 | 620 | 820

3 TYPE
T1

4 Amount of cassette (n)
2 | 3 | 4 | 5

5 First cassette
C1 | C2 | C3 | C4 | C5 | C6

6 Casset Pitch
n x 75 mm

7 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

8 Transfer speed in m/s
0,36 | 0,55 | 0,73 | 0,98

9 Side profiles
HL | LL | LH

1 2 3 4 5 6 7 8 9
51 - - - - - - - - -

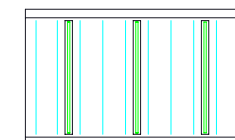
ORDER EXAMPLE

Example for a reference number:
51 – 620 – T1 – 3 – C2 – 2 – 0,65 – 0,98 – LL

This reference number stands for EASY transfer ERS 51 with a clearance LW of 620 mm, type T1 with 3 cassette, the first cassette C2 (position 152,5 + 80 mm) with every next cassette pitch of 2 x 80 mm (160 mm), conveyor speed 0,65 m/s, transfer speed 0,98 m/s and low side profile both sides.

The throughput is depending on the speed of the conveyor and transfer belt and the length of the product.

T1



ORDER INFORMATION

• Module is completely assembled with control and sensors

• Please order support stands, side-guids, end caps, sensors, straight connectors and 24 V power supply unit separately

• Steel components are zinc-plated

CONFIGURATOR

• If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

• Support stands, see PAGE 240

• Accessoires, see PAGE 114

• With order supply the Pitch of the transfer belt



SMART CONVEYOR ERS 52



THE SMART INTELLIGENT MODULAR SYSTEM

- Smart** The internal control of the Smart Conveyor, with its integral control card, transforms a roller conveyor into an intelligent self-contained conveyor that assigns each transport material its own drive zone in the flow. Depending on system complexity a superior control system can be required.
- Low-noise** Quiet operation when running without materials < 60 dB(A) with 24 VDC.
- Zero accumulation pressure transport** The transported unit load is stopped at the end of a zone when the downstream zone is occupied. Unit loads do not touch and are accumulated with zero accumulation pressure when required.
- Plug and play** Ready for installation and use with pre-assembled modules from the flexible Smart Conveyor modular system.



54
ERS 52 **STRAIGHT**



56
ERS 52 **CURVE**



58
ERS 52 **INFEEED / OUTFEED**



62
ERS 52 **ALIGNMENT**



64
ERS 52 **DIVERTER**
30° | 45°



66
ERS 52 **TRANSFER**
90°

SMART CONVEYOR MEET THE MARKET DEMANDS OF SMART CONVEYING BY USING MODULAR INTELLIGENT SYSTEMS



SMART CONVEYORS - THE SMART INTELLIGENT MODULAR SYSTEM

As an intelligent conveyor with integrated accumulating conveyor technology, the EASY Smart Conveyors simplifies unit-load handling. The internal control Card, converts a roller track into a single space conveyor which allocates each material to be conveyed in its own zone along the material flow.

Unit loads can be buffered without contact and transported further as required to achieve an overall continuous material flow. With a well-developed, economic concept, the ready to connect roller track modules offer a complete range of customer advantages.

During the planning phase:

- Individual and flexible routing options based on a complete modular system from straights to 45° high performance diverters
- Simple planning of conveyor lines from the modular system
- Simple connection to adjoining conveyor technology

During the implementation phase:

- Fast delivery
- Quick and easy installation
- Ready for installation and use thanks to pre-fabricated modules ("plug and play")

During operation:

- Approx. 50 % energy saving (depending on operating mode up to 70%) compared with conventional accumulating conveyors
- Extremely quiet operation (< 60 dBA)
- Maximum safety thanks to 24 Volt low voltage
- High availability
- Low maintenance
- Extendable and adaptable to future growth

Connecting conveyor modules from the EASY range of the Smart Conveyors has modular advantages and can be extended at any time with other EASY products.

Roller conveyor modules, curves, diverters, merge modules, transfers and Transportation positioning modules for material handling of light to heavy corrugated boxes, crates and packages are available, depending on the drive and transmission belts, for loads up to 175lbs (80 kg per zone).

Easy Conveyors supports customers around the world through a network of Strategic Partners:

- System Integrators
- System Manufacturers
- Material Handling Companies
- Original Equipment Manufacturers
- Engineering and Consulting Firms
- Operations and Distribution Centres
- Strategic Industries and Markets

SMART CONVEYOR INTELLIGENT CONVEYING EXPLAINED IN AN UNCOMPLICATED WAY

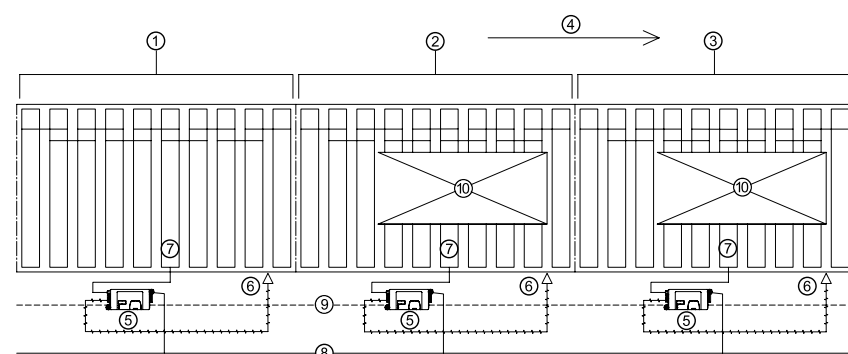


Smart Conveyor – this name represents a complete conveyor system that enables unit loads to be conveyed and accumulated with zero pressure, i.e. without ever touching each other.

Smart Conveying is achieved by utilizing Smart-Control Technology, a proven 24 Volt control PCB. Control of the conveyor line is managed by dividing into individual zones and communicating along the material flow.

During the operation of the system each Smart Control card operates its assigned drive zone according to the condition of the adjacent zones, automatically.

The Smart Conveyor system is designed as a decentralised, intelligent control in such a way that with the modular principle a complete system can be constructed and also simply extended later if required.



**Wiring diagram for ZoneControl
for 3 conveyor zones**

- 1 Zone 1
- 2 Zone 2
- 3 Zone 3
- 4 Conveyor direction
- 5 ZoneControl
- 6 Zone sensor
- 7 RollerDrive
- 8 +24 V DC voltage supply
- 9 Peer-to-peer connection
- 10 Material to be conveyed



Visualizing the principal functions of Smart Conveyors in demonstrating one single zone.

Build-up of one zone:

- 1 Roller Drive
- 8 Slave rolls
- 1 Photo cell kit



Given the number of different variations, stocking of spare parts is minimized.

Energy savings are achieved through 'Run-on-demand' operation by the Smart Control card. Conveying only takes place when a conveying movement is actually necessary.

When there are no materials to be conveyed in the zone, the system switches off until the next pulse is received, this can result in energy savings up to 70 %.



SMART-CONTROL AND ROLLERDRIVE 24 VDC THE HEART OF THE SMART CONVEYOR



Each conveyor line of the EASY Smart Conveyor is divided into zones, which are adapted to the maximum length of the material to be conveyed.

Each zone has:

- 1 x RollerDrive
- Rollers driven by belts (O-rings or Poly-Vee belts)
- 1 x Conveyor Smart control
- 1 x Photo cell kit

A pre-assembled conveyor unit (module) consists of 1-4 zones complete with wiring. This enables easy plug and play connectivity with other modules.

Because less really can be more, the EASY Smart Conveyor does not use conventional external drive components but at the same time increases the safety of the operator thanks to a low power supply of 24 Volts.

At the beginning of a roller track section there is an additional photo cell to start the conveyor track.

The EASY Smart Conveyor has two operating modes: singulation release and train release (see photo on the right).



Slave rollers can be connected to the Roller Drive by different methods, for example with O-rings.



Single Release:

In the "Singulation release mode" each drive zone is activated in turn one-by-one. Each product must leave its drive zone before the next product is allowed to move.

This mode also reduces the overall power consumption of the conveyor line as the start-up power of each drive zone occurs only one at a time.



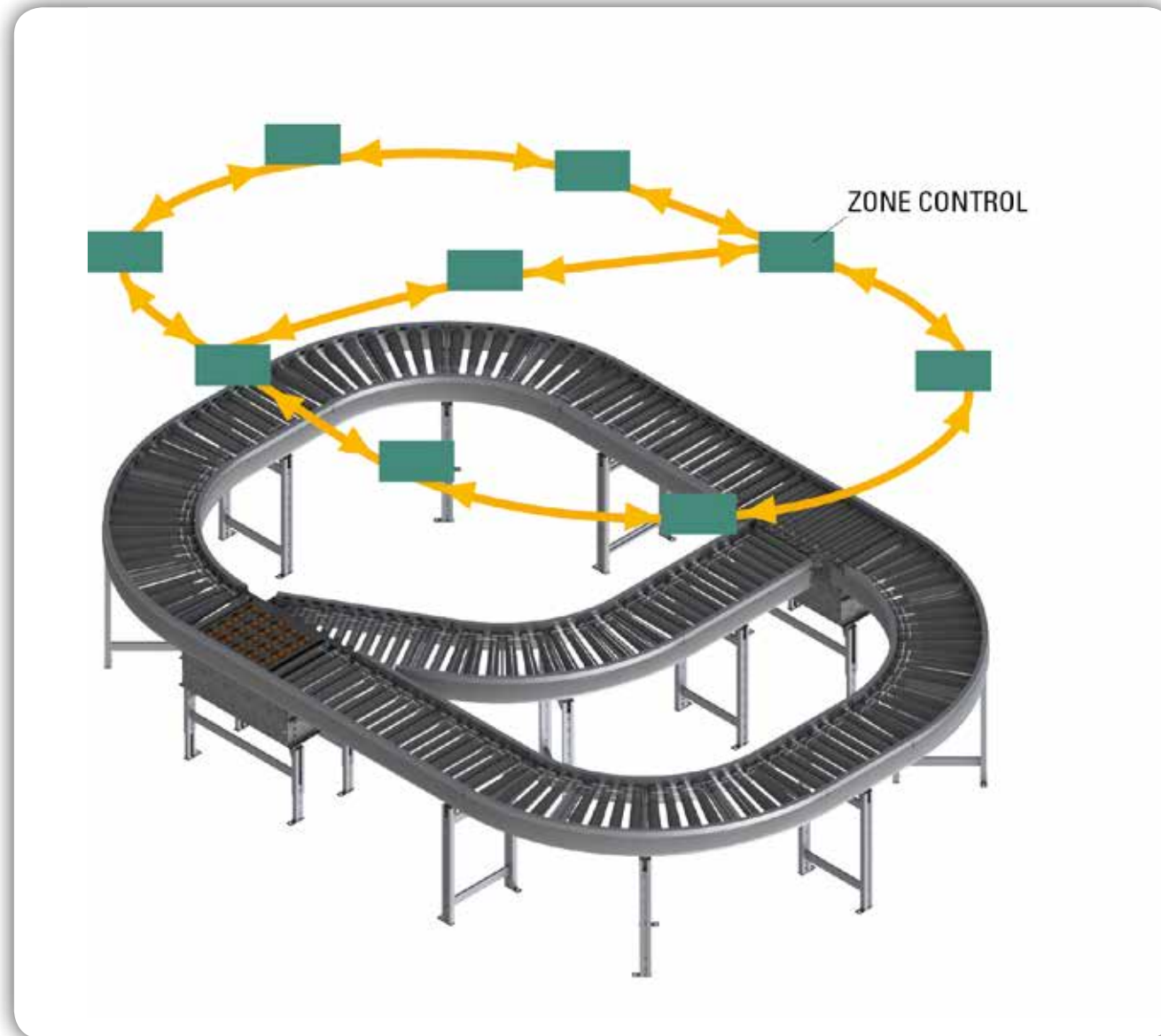
Poly-V belts are another drive option, they are used for conveying higher loads on straight and curved modules.



Train Release:

In the "Train release mode" several zones can be configured to start up simultaneously to transport several products together like a train. This can increase throughput of product by reducing the indexing time between each product. This mode demands a little higher startup power but only for those zones that need to start together.

COMMUNICATION WITHIN THE SMART CONVEYOR PLUG AND PLAY



Standard communication

All Zone Control exchange information within the Smart Conveyor via a pre-installed data cable.

Every Smart-Card communicates with its adjacent zones via a 4-wire data cable. This cable transmits signals to start, stop, detect errors or conduct certain control procedures along the conveying system.

This connection is a real plug and play connection and therefore insures immediate function without specific addressing. For connection to external systems, every Zone Control has four connections for incoming and outgoing signals.

Among others these are used for the following requirements:

- Transfer of materials to be conveyed to third-party systems
- Influencing the merging and diverting behaviour of the modules
- Issue of an error signal

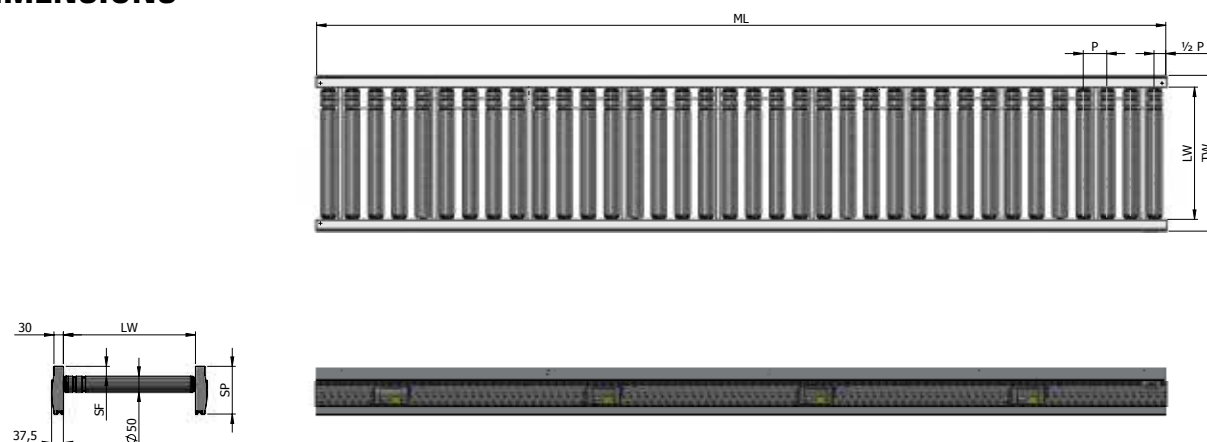




TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	50 kg	80 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
Maximum load capacity is depending on the combination of speed & load		
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	max. 3000 mm
ZL Zone length	Number of rollers x P
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

easy
...CONVEYORS

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 52

2 Clearance LW 420 | 520 | 620 | 820

Friction Top Roller put **F** behind the **LW**
Example 52 - 420F - 75 -

3 Roller pitch P in mm A 75 | 100

4 Module length ML in mm A min 300 mm, numbers of rollers x P, max 3000 mm



5 Number of zones application notes, P119 Sensor Position A | B | C

6 Electric side Right | R / Left | L

7 Drive medium Round belt | R PolyVee belt | P

8 Conveyor speed in m/s 0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles HH | HL | LH | LL

1 2 3 4 5 6 7 8 9
52 - - - - - - - - - /

ORDER EXAMPLE

Example for a reference number:
52 - 420 - 100 - 2100 - 4 - R - R - 0,25 - HH / B

This reference number stands for Smart conveyor ERS 52 with a clearance LW 420 mm, a roller pitch P 100 mm, module length ML 2100 mm, 4 zones, with sensors at Position B of the zone, the electric side on the right, a round belt as drive medium, a conveyor speed of 0.25 m/s and both sides high side profile.

ORDER INFORMATION

- Module is completely assembled with control and sensors
- Please order support stands, side guide, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on PAGE 110
- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES




- Support stands, see PAGE 104
- Accessoires, see PAGE 114



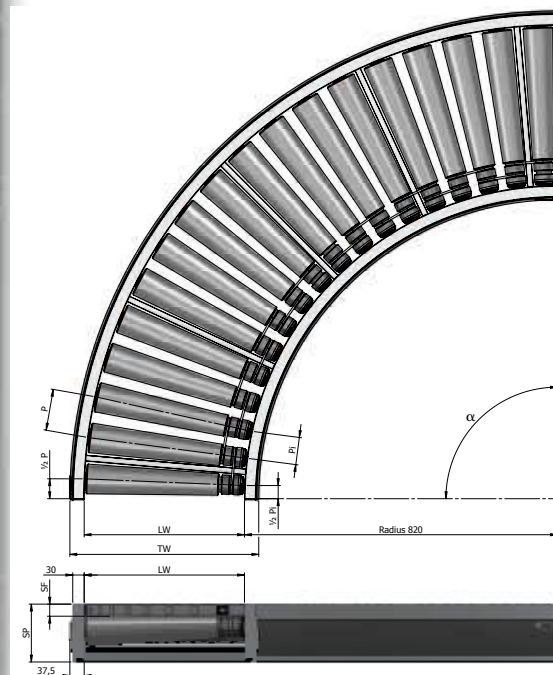
easy
...CONVEYORS



TECHNICAL DATA

		Round belt		...CONVEYORS	
General technical data					
Max. load capacity		50 kg			
Conveyor speed		0,16 to 1,75 m/s			
Inclined/declined		Not suitable			
Ambient temperature		+5 to +40 °C			
		Maximum load capacity is depending on the combination of speed & load			
Roller					
Roller bearing		Sealed Precision ball bearing 6002 2RZ			
Roller diameter		50 mm			
Roller material		Steel, with grey tapered plastic elements			
Max. number of rollers per conveyor/zone		9			
Drive					
Rated voltage		24 VDC			
Max. electrical power per zone		0.05 kW			
Drive medium		PU round belt ø 5 mm			
Torque transmission		Roller-to-roller			
Side profile					
Profile H		151,5 mm high 31,5 mm above top edge of roller			
Profile L		Permits lateral displacement 116 mm high 4 mm below top edge of roller			
Combination of profile heights left/right					

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
α Angle	30° / 45° / 60° / 90°
P Roller pitch, external	~ (0.087 mm x LW) + Pi
Pi Roller pitch, internal	~ 72 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

easy
...CONVEYORS

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 52

2 Clearance LW

420 | 520 | 620 | 820

3 Angle α

30° | 45° | 60° | 90°

4 Number of zones

1

2 (only 90°)

Sensor Position A | B | C



5 Drive medium

Round belt | R

6 Conveyor speed in m/s

0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

7 CCW = counter clock wise CW = clock wise



8 Side profiles

HH | HL | LH | LL

1

2

3

4

5

6

7

8

52

-

-

-

-

R

-

-

-

/

ORDER EXAMPLE

Example for a reference number:

52 - 620 - 90 - 2 - R - 0,44 - CW - HH / B

This reference number stands for Smart conveyor ERS 52 with a clearance LW 620 mm, an angle 90°, 2 zones with sensors at Position B of the zone, a round belt as drive medium and a conveyor speed of 0.44 m/s, product flow CW and both sides high side profile.



ORDER INFORMATION

• Module is completely assembled with control and sensors

• Please order support stands, side guide, end caps, sensors, straight connectors and 24 V power supply unit separately

• Steel components are zinc-plated

CONFIGURATOR

• For selection of the RollerDrive please consult the information on PAGE 110

• If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

• Support stands, see PAGE 104

• Accessoires, see PAGE 114




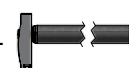


SMART CONVEYOR INFEED ERS 52

The Smart Conveyor Infeed Roller Conveyor merges two conveyor lines together using the gaps in the flow.

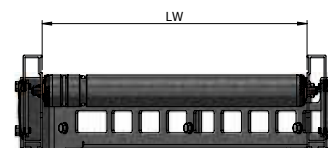
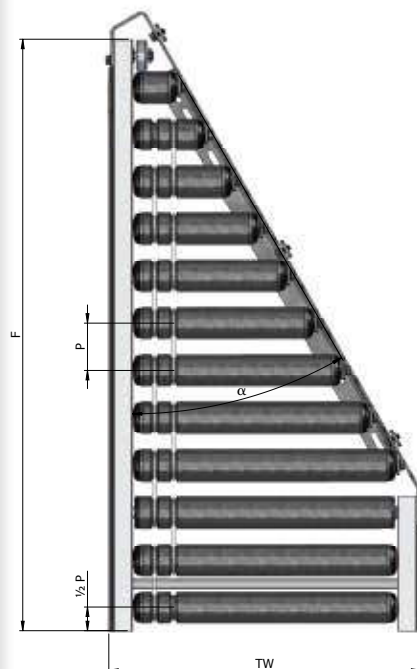
Roller Conveyors
Smart Conveyor
ERS 52
Infeed



TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	35 kg	80 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
Maximum load capacity is depending on the combination of speed & load		
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH  HL  LH  LL 	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
F Face length	See application Notes P118
α Angle	30° / 45°
P Roller pitch	75 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 52

2 Clearance LW
420 | 520 | 620 | 820

3 Roller pitch P in mm
75

4 Angle α
30° | 45°

5 Infeed
I

6 Infeed position
Left hand | LH
Right hand | RH



7 Drive medium
Round belt | R
PolyVee belt | P

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1 2 3 4 5 6 7 8 9
52 - F - 75 - I - - - - -

ORDER EXAMPLE

Example for a reference number:
52 - 620 - 75 - 45 - I - RH - R - 0,16 - HH

This reference number stands for Smart Conveyor Transfer ERS 52 with a clearance LW 620 mm, a roller pitch P 75 mm, an angle of 45°, infeed, a right hand merge, a round belt as drive medium, a conveyor speed of 0.16 m/s, and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guides, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on PAGE 110
- For ML Module Lengths see application Notes PAGE 134
- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114






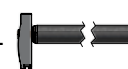


SMART CONVEYOR OUTFEED ERS 52

The Smart Conveyor Outfeed Roller Conveyor merges two conveyor lines together using the gaps in the flow.

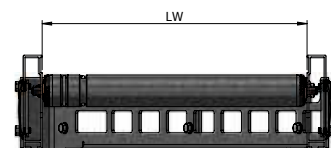
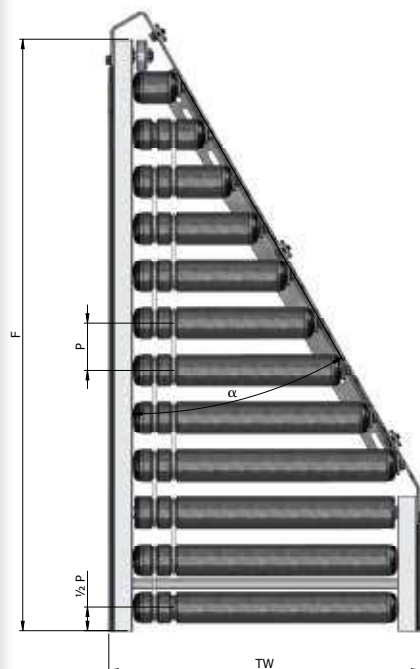
Roller Conveyors
Smart Conveyor
ERS 52
Outfeed



TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	35 kg	80 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH  HL  LH  LL 	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
F Face length	See application Notes P118
α Angle	30° / 45°
P Roller pitch	75 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 52

2 Clearance LW
420 | 520 | 620 | 820

3 Roller pitch P in mm
75

4 Angle α
30° | 45°

5 Outfeed
0

6 Outfeed position
Left hand | LH
Right hand | RH



7 Drive medium
Round belt | R
PolyVee belt | P

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1 2 3 4 5 6 7 8 9
52 - F - 75 - 0 - - - - -

ORDER EXAMPLE

Example for a reference number:

52 - 620 - 75 - 45 - 0 - RH - R - 0,16 - HH

This reference number stands for Smart Conveyor Transfer ERS 52 with a clearance LW 620 mm, a roller pitch P 75 mm, an angle of 45°, outfeed, a right hand merge, a round belt as drive medium, a conveyor speed of 0.16 m/s, and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guides, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on PAGE 110
- For ML Module Lengths see application Notes PAGE 134
- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



SMART ALIGNMENT CONVEYOR ERS 52

The internal control of the roller conveyor ensures transport of unit loads with zero accumulation pressure. Each zone is driven by a RollerDrive, and is connected via round or PolyVee belts with a specified number of idlers.

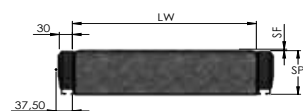
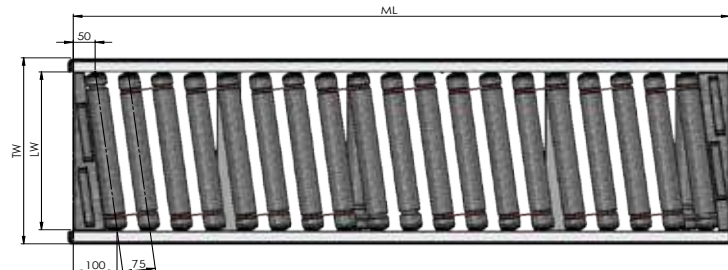
Roller Conveyors
Smart Conveyor
ERS 52
Alignment



TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	50 kg	80 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
Maximum load capacity is depending on the combination of speed & load		
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	max. 3000 mm
ZL Zone length	Number of rollers x P
TW Module width	LW + 75 mm
P Roller pitch	75 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 52A

2 Clearance LW 420 | 520 | 620 | 820

Friction Top Roller put **F** behind the **LW**
Example 52 - 420F - 75 -

3 Roller pitch P in mm A 75

4 Module length ML in mm A min 300 mm, numbers of rollers x P, max 3000 mm



5 Number of zones application notes, P119 Sensor Position A | B | C

6 Electric side Right | R / Left | L

Alignment side
Right | ↗ / Left | ↖

7 Drive medium Round belt | R PolyVee belt | P

8 Conveyor speed in m/s 0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles HH | HL | LH | LL

1 2 3 4 5 6 7 8 9
52A - - - - - - - - - /

ORDER EXAMPLE

Example for a reference number:

52A - 420 - 100 - 2100 - 4 - R - R - 0,25 - HH / B

This reference number stands for Smart alignment conveyor ERS 52 with a clearance LW 420 mm, a roller pitch P 100 mm, module length ML 2100 mm, 4 zones, with sensors at Position B of the zone, the electric side on the right, alignment to the right side, a round belt as drive medium, a conveyor speed of 0.25 m/s and both sides high side profile.

ORDER INFORMATION

- Module is completely assembled with control and sensors

- Please order support stands, side guide, end caps, sensors, straight connectors and 24 V power supply unit separately

- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on PAGE 110

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104

- Accessoires, see PAGE 114









ROLLER DRIVE CONVEYOR DIVERTER ERS 52

The Smart Conveyor diverter diverts material that should maintain its direction of travel via pivoted rollers. The flow of material remains uninterrupted.

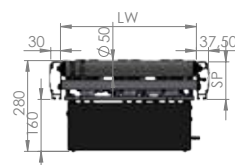
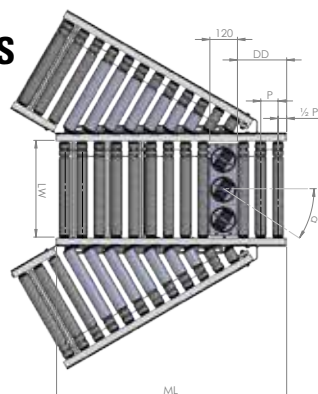
Roller Conveyors
Roller Drive Conveyor
ERS 52
Roller Drive Diverter



TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	35 kg	50 kg
Conveyor speed	0,16 to 1,00 m/s	0,16 to 1,00 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
Maximum load capacity is depending on the combination of speed & load		
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0,05Kw	0,05Kw
Drive medium	Round belt	Poly-V belt
Torque transmission	Roller-to-roller	Roller-to-roller
Motion Control		
Motion medium	Pneumatic	Pneumatic
Swiveling time	0,3 sec / 90°	0,3 sec / 90°
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH  HL  LH  LL 	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
LWT Clear width transfer	420 / 520 / 620 / 820 mm
ML Max. module length	2400 mm
TW Module width	LW + 75 mm
α Angle	30°
P Roller pitch	75 mm
F Face length	See Application Notes P118
SP Side profile	151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 52

2 Clearance LW 420 | 520 | 620 | 820

Friction Top Roller put **F** behind the **LW**
Example 51 - 420F - 75 -

3 Clearance LWT 420 | 520 | 620 | 820 (max. LWT = LW + 200 mm)

4 Angle α 24 V and Pneumatic 30°

5 Roller pitch P in mm 75 | 100

6 Diverter Left hand | Right hand

Pneumatic
| PLH
| PRH

7 Drive medium Round belt | PolyVee belt

| R
| P

8 Conveyor speed in m/s 0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles HH | HL | LH | LL

1 2 3 4 5 6 7 8 9
52 - - - - 75 - - - -

ORDER EXAMPLE

Example for a reference number:

52 - 420 - 420 - 45 - 75 - PRH - R - 0,33 - HH

This reference number stands for Smart Conveyor Popup Transfer ERS 52 with a clearance LW 420 mm, a LWT 420 mm, an angle of 45°, a roller pitch P 75 mm, a pneumatic right hand diverter, a round belt as drive medium, a conveyor speed of 0.33 m/s and both sides high side profile.

Throughput: see calculation Page 126.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on PAGE 110
- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



ROLLER DRIVE CONVEYOR BELT TRANSFER ERS 52

The Smart Conveyor 90° Transfer, lifts and transfers materials from a straight section and moves the materials at right angles, this can also be used for merging and diverting. The belt transfer cassettes are easily and quick replaceable to have minimum loss of production time.

Roller Conveyors
Roller Drive Conveyor
ERS 52
Transfer



TECHNICAL DATA

easy
...CONVEYORS

General technical data

Max. load capacity	50 kg
Conveyor speed	0,1 to 1,75 m/s
Transfer speed max	0,98 m/s
Stroke time	0,3 m/s
Inclined/declined	Not suitable
Ambient temperature	+5 to +40 °C

Maximum load capacity is depending on the combination of speed & load

Roller

Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated

Drive

Rated voltage	24 VDC
Max. electrical power per zone	0.05 kW
Drive medium	Poly-V
Torque transmission	Roller-to-roller

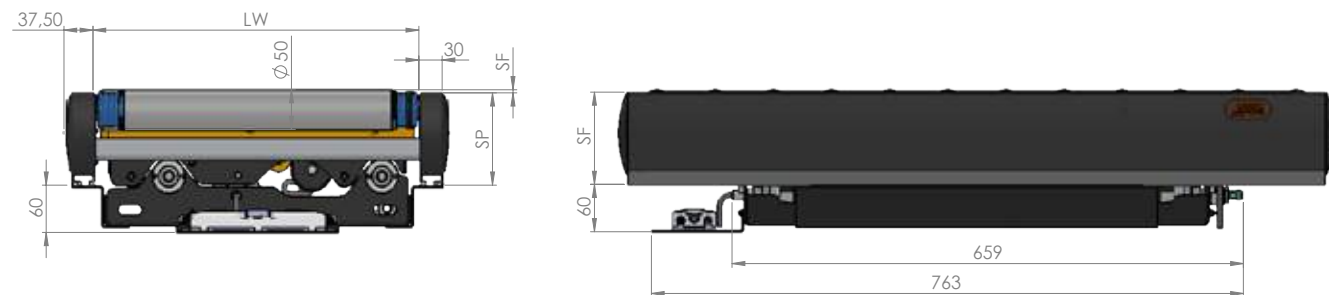
Lifting gear

Operating medium	24 VDC
Stroke time	0,3 sec

Drive transfer

Rated voltage (RollerDrive)	24 VDC
Max. electrical power per zone	0.05 Kw
Power transmission transfer	Toothed belt with Friction Top
Stroke height	15 mm above top edge of roller

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Module length	900 mm
TW Module width	LW + 75 mm
α Angle	90°
C1 First belt pitch	152,5 mm
C2 till C7	152,5 + n x 80 mm
SF	116 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 52

2 Clearance LW
420 | 520 | 620 | 820

3 TYPE
T1

4 Amount of cassette (n)
2 | 3 | 4 | 5

5 First cassette
C1 | C2 | C3 | C4 | C5 | C6

6 Casset Pitch
n x 75 mm

7 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

8 Transfer speed in m/s
0,36 | 0,55 | 0,73 | 0,98

9 Side profiles
HL | LL | LH

1 2 3 4 5 6 7 8 9
52 - - - - - - - - -

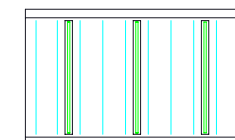
ORDER EXAMPLE

Example for a reference number:
52 – 620 – T1 – 3 – C2 – 2 – 0,65 – 0,98 – LL

This reference number stands for EASY transfer ERS 52 with a clearance LW of 620 mm, type T1 with 3 cassette, the first cassette C2 (position 152,5 + 80 mm) with every next cassette pitch of 2 x 80 mm (160 mm), conveyor speed 0,65 m/s, transfer speed 0,98 m/s and low side profile both sides.

The throughput is depending on the speed of the conveyor and transfer belt and the length of the product.

T1



ORDER INFORMATION

• Module is completely assembled with control and sensors

• Please order support stands, side-guids, end caps, sensors, straight connectors and 24 V power supply unit separately

• Steel components are zinc-plated

CONFIGURATOR

• If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

• Support stands, see PAGE 240

• Accessoires, see PAGE 114

• With order supply the Pitch of the transfer belt



BELT DRIVEN ROLLER CONVEYOR ERS 53



CONVEYOR SOLUTIONS FOR HEAVY GOODS

High loads with economy of use

The roller conveyors for heavy goods feature a fixed drive or a friction drive for low accumulation pressure conveying. Long conveyors lines can have a single motor drive

Transport of heavy loads

Loads with a weight of up to 250 kg are transported with ease

Plug and play

Ready for installation and use with pre-assembled modules



70
ERS 53 BELT DRIVEN
WITH END DRIVE ERS 53



72
ERS 53 BELT DRIVEN
WITH GENERAL DRIVE ERS 53



74
ERS 53 BELT DRIVEN
CURVE ROLLER CONVEYOR ERS 53



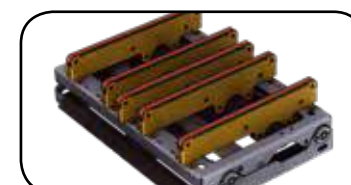
76
ERS 53 INFEEED / OUTFEED



80
ERS 53 ALIGNMENT



82
ERS 53 HIGH SPEED POP UP
30°

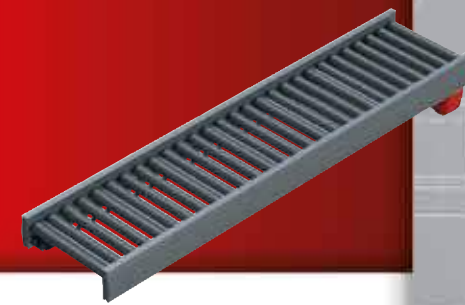


84
ERS 53 TRANSFER
90°

BELT DRIVEN WITH END DRIVE ERS 53

The ERS belt driven roller conveyor with end drive has been optimized to transport a great variety of product types. The ERS belt driven roller conveyor is the ideal device for highly dynamic applications that require gentle handling of for example cartons and totes. The flat belt drive guarantees a very low-noise operation.

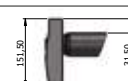
Roller Conveyors
Belt driven
ERS 53
Straight



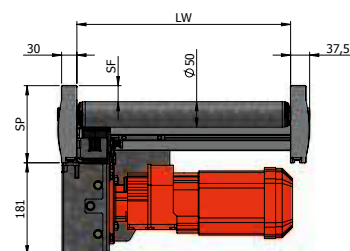
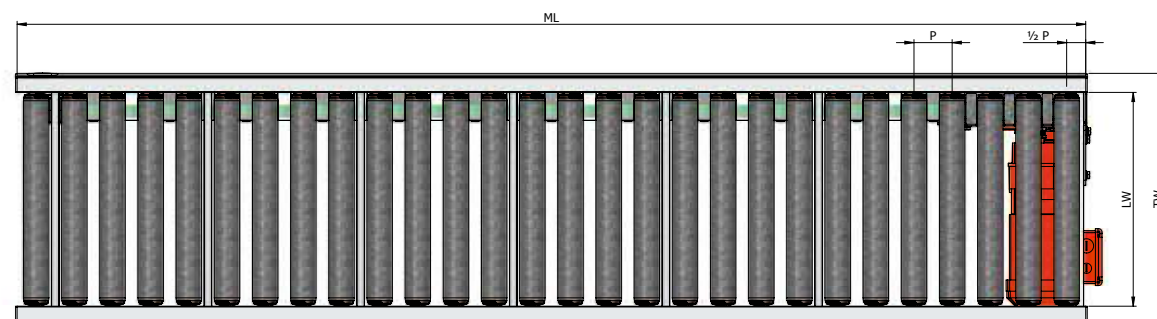
TECHNICAL DATA

easy
...CONVEYORS

General technical data	
Max. load capacity	50 kg
Conveyor speed	Max 1,75 m/s
Inclined/declined	Not suitable
Ambient temperature	-5 to +50 °C
	Maximum load capacity is depending on the combination of speed & load
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Drive	
Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,5 kW
Drive medium	Belt
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL



DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 53

2 Clearance LW 420 | 520 | 620 | 820

Friction Top Roller put **F** behind the **LW**
Example 53 - 420F - 75 -

3 Roller pitch P in mm A 75 B 100

4 Module length ML in mm A min 600 mm, numbers of rollers x P, max 3000 mm B min 625 mm, numbers of rollers x P, max 3000 mm

5 Drive position Right hand drive | RH Left hand drive | LH

6 Conveyor speed in m/s 0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75

7 Side profiles HH | HL | LH | LL

1 2 3 4 5 6 7
53E - - - - - - -

ORDER EXAMPLE

Example for a reference number:
53E - 420 - 100 - 3000 - RH - 0,65 - HH

This reference number stands for Belt Driven Roller Conveyor ERS 53 with a clearance LW 420 mm, a roller pitch P 100 mm, a module length ML 3000 mm, an end drive on the right, a conveyor speed of 0.65 m/s and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



BELT DRIVEN WITH GENERAL DRIVE ERS 53

The ERS belt driven roller conveyor with general drive has been optimized to transport a great variety of product types. The general drive can be positioned on several positions into the section. The general drive options gives you the possibility to go for longer lengths and still have one drive unit. The ERS roller conveyor is the ideal device for highly dynamic applications that require gentle handling of products for example cartons and totes. The flat belt drive guarantees a very low-noise operation.

Roller Conveyors
Belt driven
ERS 53
Straight



TECHNICAL DATA

easy
...CONVEYORS

General technical data

Max. load capacity	100 kg
Conveyor speed	Max 1,75 m/s
Inclined/declined	Not suitable
Ambient temperature	-5 to +50 °C
Maximum load capacity is depending on the combination of speed & load	

Roller

Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated

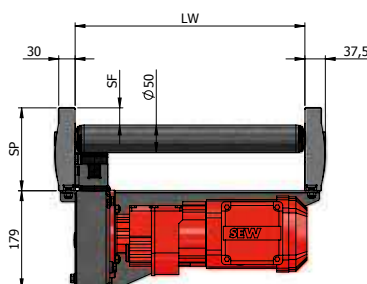
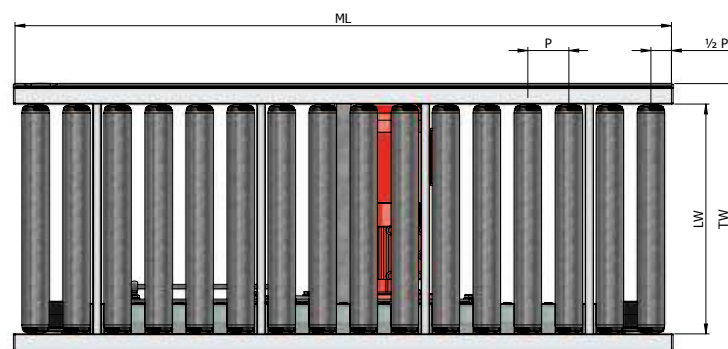
Drive

Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,1 kW
Drive medium	Belt
Torque transmission	Roller-to-roller

Side profile

Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 53

2 Clearance LW

420 | 520 | 620 | 820 Friction Top Roller put **F** behind the **LW**
Example 53 - 420F - 75 -

3 Roller pitch P in mm

75 | 100

4 Module length ML in mm

1200 mm till max 21000 mm, increments by roller pitch P in mm

5 Drive position

Right hand drive **RH**
Left hand drive **LH**

6 Conveyor speed in m/s

0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75

7 Side profiles

HH | HL | LH | LL

1 2 3 4 5 6 7
53G - - - - - - -

ORDER EXAMPLE

Example for a reference number:

53G - 420 - 100 - 3000 - RH - 0,65 - HH

This reference number stands for Belt Driven Roller Conveyor ERS 53 with a clearance LW 420 mm, a roller pitch P 100 mm, a module length ML 3000 mm, a general drive on the right, a conveyor speed of 0.65 m/s and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



easy
...CONVEYORS

BELT DRIVEN CURVE ROLLER CONVEYOR ERS 53

The ERS belt driven curve roller conveyor with end drive has been optimized to transport a great variety of product types. The ERS belt driven curve roller conveyor is the ideal device for highly dynamic applications that require gentle handling of products for example cartons and totes. The curved roller conveyor consists of precise tapered rollers, ensuring an accurate run-in or run-out and smooth curvilinear movement of products. The flat belt drive guarantees a very low-noise operation.

Roller Conveyors
Belt driven
ERS 53
Curve



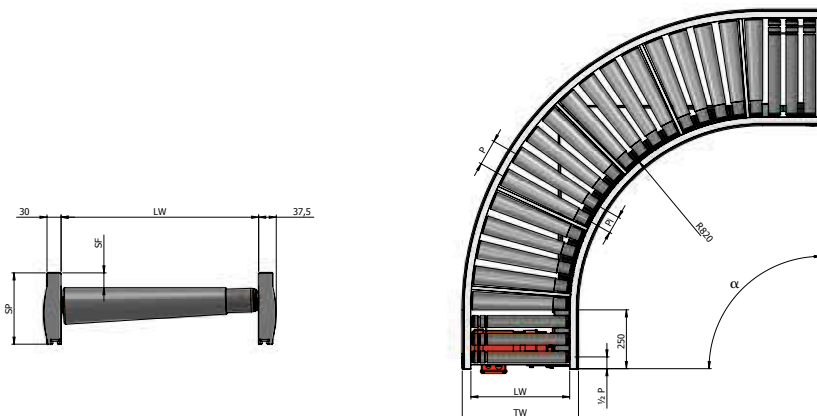
TECHNICAL DATA

easy
...CONVEYORS

General technical data	
Max. load capacity	100 kg
Conveyor speed	Max 1,75 m/s
Inclined/declined	Not suitable
Ambient temperature	-5 to +50 °C
Maximum load capacity is depending on the combination of speed & load	
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated with grey tapered polypropylene sleeves
Max. number of rollers per conveyor/zone	18 at 90° 12 at 60° 9 at 45° 6 at 30°
Drive	
Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,1 kW
Drive medium	Belt
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL



DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
α Angle	30° / 45° / 60° / 90°
P Roller pitch , external	~ (0.1 mm x LW) + Pi
Pi Roller pitch , internal	~ 77 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

2 Clearance LW
420 | 520 | 620 | 820

3 Angle α
30° | 45° | 60° | 90°

4 Drive position
Left hand drive | LH
Right hand drive | RH

5 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75

6 CCW = counter clock wise
CW = clock wise



7 Side profiles
HH | HL | LH | LL

1 2 3 4 5 6 7
53 - - - - - - -

ORDER EXAMPLE

Example for a reference number:

53 - 620 - 75 - 90 - RH - 0,33 - CW - HH

This reference number stands for Belt Driven Roller Conveyor ERS 53 with a clearance LW 620 mm, a roller pitch P 75 mm, an angle of 90°, an end drive, right hand and a conveyor speed of 0.33 m/s, product flow CW and both sides high side profile.



ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guid and straight connectors separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



easy
...CONVEYORS

BELT DRIVEN INFEED ROLLER CONVEYOR ERS 53

The EASY Belt driven merges, merges two conveyor lines together. The rollers are driven by belt.

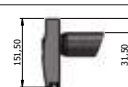
Roller Conveyors
Belt driven
ERS 53
Infeed



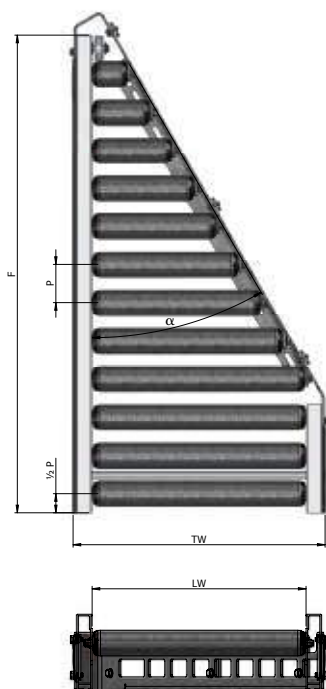
TECHNICAL DATA

easy
...CONVEYORS

General technical data	
Max. load capacity	100 kg
Conveyor speed	Max 1,75 m/s
Inclined/declined	Not suitable
Ambient temperature	+5 to +40 °C
Maximum load capacity is depending on the combination of speed & load	
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Max. number of rollers per conveyor/zone	See Application Notes
Drive	
Drive medium	Belt
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL



DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
F face Length	See Application Notes P118
α Angle	30° / 45°
P Roller pitch	75 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm



EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

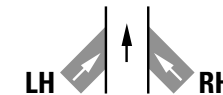
2 Clearance LW
420 | 520 | 620 | 820

3 Pitch
75

4 Angle α
30° | 45°

5 Infeed
I

6 Drive position
Right hand drive | RH
Left hand drive | LH



7 Side profiles
HH | HL | LH | LL

1 2 3 4 5 6 7
53 - F - 75 - I -

ORDER EXAMPLE

Example for a reference number:
53 - 420 - 75 - 30 - I - LH - HH

This reference number stands for Belt Driven Roller Conveyor ERS 53 with a clearance LW 420 mm, a roller pitch P 75 mm, a infeed angle 30°, the drive medium on the left hand and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

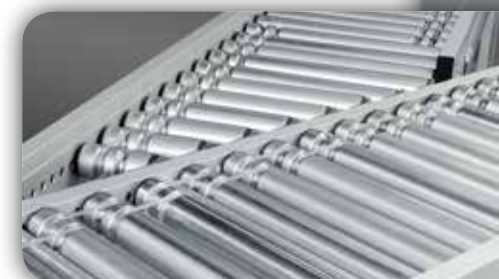
CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114

This module is driven by the adjacent straight module.



BELT DRIVEN OUTFEED ROLLER CONVEYOR ERS 53

The EASY Belt driven merges, merges two conveyor lines together. The rollers are driven by belt.

Roller Conveyors
Belt driven
ERS 53
Outfeed



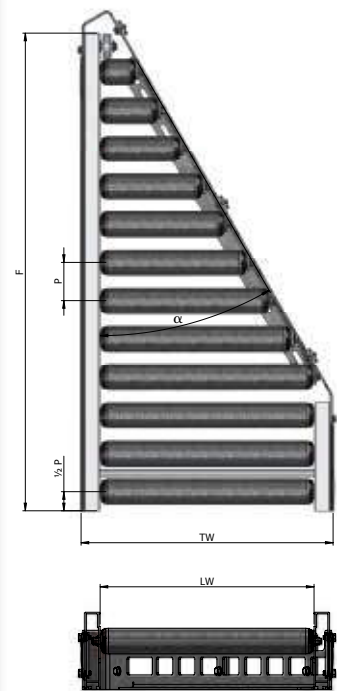
TECHNICAL DATA

easy
...CONVEYORS

General technical data	
Max. load capacity	100 kg
Conveyor speed	Max 1,75 m/s
Inclined/declined	Not suitable
Ambient temperature	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Max. number of rollers per conveyor/zone	See Application Notes
Drive	
Drive medium	Belt
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL



DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
F face Lenght	See Application Notes P118
α Angle	30° / 45°
P Roller pitch	75 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm



EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

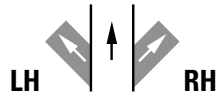
2 Clearance LW
420 | 520 | 620 | 820

3 Pitch
75

4 Angle α
30° | 45°

5 Outfeed
0

6 Drive position
Right hand drive | RH
Left hand drive | LH



7 Side profiles
HH | HL | LH | LL

1 53 - **2** F - **3** 75 - **4** - **5** 0 - **6** - **7**

ORDER EXAMPLE

Example for a reference number:
53 - 420 - 75 - 30 - 0 - LH - HH

This reference number stands for Belt Driven Roller Conveyor ERS 53 with a clearance LW 420 mm, a roller pitch P 75 mm, a outfeed angle 30°, the drive medium on the left hand and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114

This module is driven by the adjacent straight module.



easy
...CONVEYORS

BELT DRIVEN WITH GENERAL DRIVE ERS 53

The ERS belt driven roller conveyor with general drive has been optimized to transport a great variety of product types. The general drive can be positioned on several positions into the section. The general drive options gives you the possibility to go for longer lengths and still have one drive unit. The ERS roller conveyor is the ideal device for highly dynamic applications that require gentle handling of products for example cartons and totes. The flat belt drive guarantees a very low-noise operation.

Roller Conveyors
Belt driven
ERS 53
General Drive



TECHNICAL DATA

easy
...CONVEYORS

General technical data

Max. load capacity	50 kg
Conveyor speed	Max 1,75 m/s
Inclined/declined	Not suitable
Ambient temperature	-5 to +50 °C
Maximum load capacity is depending on the combination of speed & load	







Roller

Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated

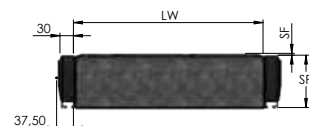
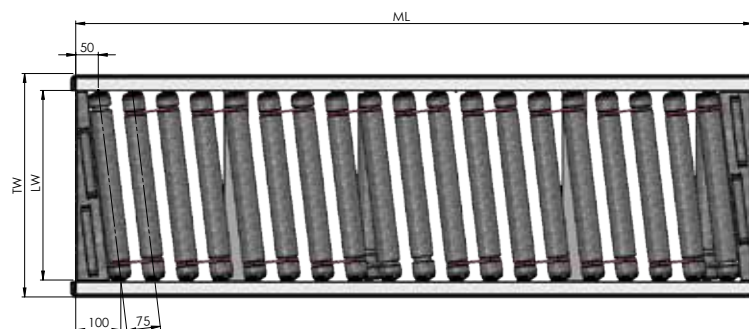
Drive

Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,1 kW
Drive medium	Belt
Torque transmission	Roller-to-roller

Side profile

Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH  HL  LH  LL 	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 53A

2 Clearance LW

420 | 520 | 620 | 820 Friction Top Roller put **F** behind the **LW**
Example 53 - 420F - 75 -

3 Roller pitch P in mm

75

4 Module length ML in mm

1500 mm till max 9000 mm, increments by roller pitch P in mm

5 Drive position

Right hand drive | **RH**
Left hand drive | **LH**

6 Conveyor speed in m/s

0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75

7 Side profiles

HH | HL | LH | LL

8 Alignment

Right | **R** Left | **L**

1 2 3 4 5 6 7 8
53A - - 75 - - - - -

ORDER EXAMPLE

Example for a reference number:
53A - 420 - 100 - 3000 - RH - 0,65 - HH - R

This reference number stands for Belt Driven Roller Conveyor ERS 53A with a clearance LW 420 mm, a roller pitch P 100 mm, a module length ML 3000 mm, a general drive on the right, a conveyor speed of 0.65 m/s and both sides high side profile, alignment right.

Angle of rollers

420 - 6,8° | 520 - 5,5° | 620 - 4,6° | 820 - 3,5°

ORDER INFORMATION

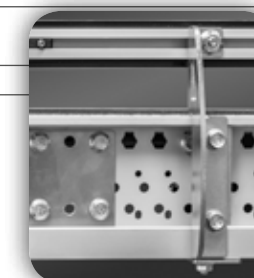
- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



easy
...CONVEYORS

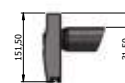

BELT DRIVEN HIGH SPEED POP-UP ERS 53

The high speed pop up diverts material that should maintain its direction of travel via pivoted rollers. The flow of material remains uninterrupted.

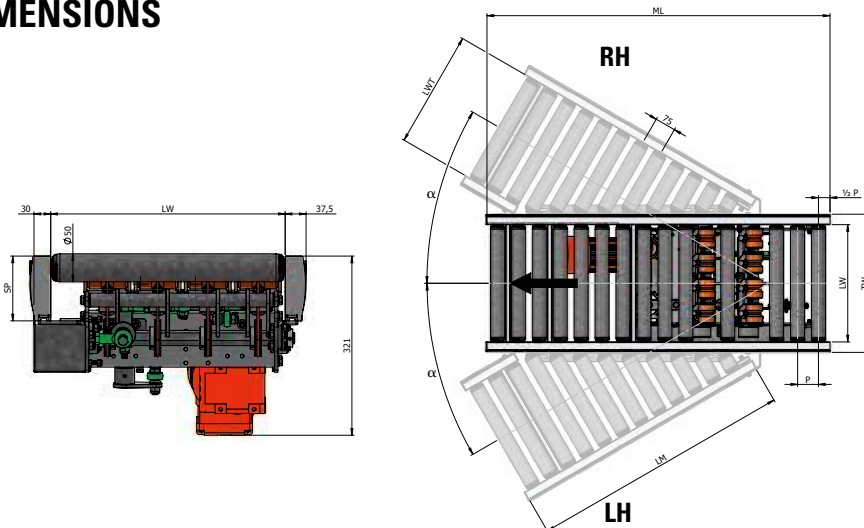
Roller Conveyors
Belt driven
ERS 53
Pop up



TECHNICAL DATA

		Pneumatic		...CONVEYORS	
General technical data					
Max. load capacity per zone		50 kg			
Conveyor speed		Max 1,75 m/s			
Inclined/declined		Not suitable			
Ambient temperature		+5 to +40 °C			
		Maximum load capacity is depending on the combination of speed & load			
Roller					
Roller bearing		Sealed Precision bearing 6002 2RZ			
Roller diameter		50 mm			
Roller material		Steel, zinc-plated			
Lifting gear					
Operating medium		Compressed air in accordance with ISO8573-1:2010 (7:4:4)			
Operating power/pressure		0,8 ... 10 bar			
Piston diameter		40 mm			
Swiveling time		0,3 sec / 90°			
Side profile					
Profile H		151,5 mm high 31,5 mm above top edge of roller			
Combination of profile heights left/right					

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
LWT Clear width transfer	420 / 520 / 620 / 820 mm
ML Max. module length	2250 mm
TW Module width	LW + 75 mm
α Angle	30°
P Roller pitch	75 mm
LM length of merge	See Application Notes P123
SP Side profile	151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

2 Clearance LW Friction Top Roller put **F** behind the **LW**
420 | 520 | 620 | 820 Example 53 - 420F - 75 -

3 Module length ML in mm
See Application Notes P123

4 Roller pitch P in mm
75

5 Diverter
Left hand drive | **LH**
Right hand drive | **RH**
Left/Right hand drive | **LRH**

6 Drive side
Left | Right

7 Type
Pneumatic

8 Side profiles
HL | LH | LL

1 **2** **3** **4** **5** **6** **7** **8**
53 - - - 75 - - - P -

ORDER EXAMPLE

Example for a reference number:
53 - 420 - 1425 - 75 - RH - R - P- LL

This reference number stands for belt driven roller conveyor high speed popup ERS 53 with a clearance LW of 420 mm, module length of 1425 mm an angle of 30 degrees a roller pitch of 75 mm a right hand diverter, drive side = right and Pneumatic lifting gear type with both sides low profiles.

Throughput: see calculation Page 126.

ORDER INFORMATION

• The module is completely assembled with control and sensors

• Please order support stands, side guide, end caps, straight connectors and 24 V power supply unit separately

• Steel components are zinc-plated

CONFIGURATOR

• If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

• Support stands, see PAGE 104

• Accessoires, see PAGE 114



ROLLER DRIVE CONVEYOR BELT TRANSFER ERS 53

The Smart Conveyor 90° Transfer, lifts and transfers materials from a straight section and moves the materials at right angles, this can also be used for merging and diverting. The belt transfer cassettes are easily and quick replaceable to have minimum loss of production time.

Roller Conveyors
Roller Drive Conveyor
ERS 53
Transfer



TECHNICAL DATA

easy
...CONVEYORS

General technical data

Max. load capacity	50 kg
Conveyor speed	0,1 to 1,75 m/s
Transfer speed max	0,98 m/s
Stroke time	0,3 m/s
Inclined/declined	Not suitable
Ambient temperature	+5 to +40 °C

Maximum load capacity is depending on the combination of speed & load

Roller

Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated

Drive

Rated voltage	24 VDC
Max. electrical power per zone	0.05 kW
Drive medium	Poly-V
Torque transmission	Roller-to-roller

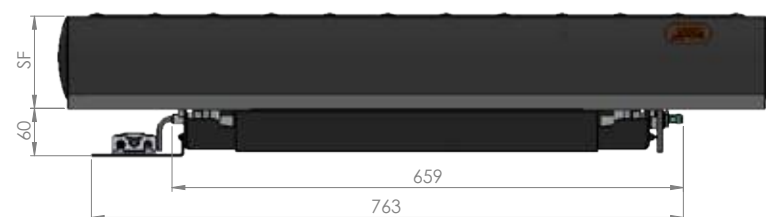
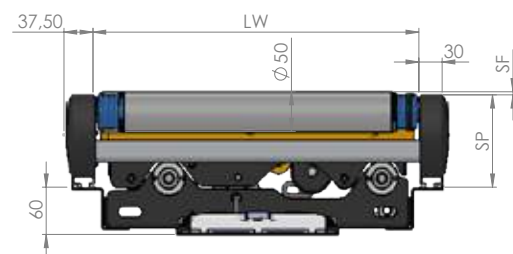
Lifting gear

Operating medium	24 VDC
Stroke time	0,3 sec

Drive transfer

Rated voltage (RollerDrive)	24 VDC
Max. electrical power per zone	0.05 Kw
Power transmission transfer	Toothed belt with Friction Top
Stroke height	15 mm above top edge of roller

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Module length	900 mm
TW Module width	LW + 75 mm
α Angle	90°
C1 First belt pitch	152,5 mm
C2 till C7	152,5 + n x 80 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

2 Clearance LW
420 | 520 | 620 | 820

3 TYPE
T1

4 Amount of cassette (n)
2 | 3 | 4 | 5

5 First cassette
C1 | C2 | C3 | C4 | C5 | C6

6 Casset Pitch
n x 75 mm

7 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

8 Transfer speed in m/s
0,36 | 0,55 | 0,73 | 0,98

9 Side profiles
HL | LL | LH

1 2 3 4 5 6 7 8 9
53 - - - - - - - - -

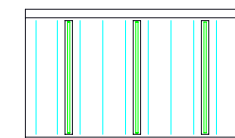
ORDER EXAMPLE

Example for a reference number:
53 – 620 – T1 – 3 – C2 – 2 – 0,65 – 0,98 – LL

This reference number stands for EASY transfer ERS 53 with a clearance LW of 620 mm, type T1 with 3 cassette, the first cassette C2 (position 152,5 + 80 mm) with every next cassette pitch of 2 x 80 mm (160 mm), conveyor speed 0,65 m/s, transfer speed 0,98 m/s and low side profile both sides.

The throughput is depending on the speed of the conveyor and transfer belt and the length of the product.

T1



ORDER INFORMATION

• Module is completely assembled with control and sensors

• Please order support stands, side-guids, end caps, sensors, straight connectors and 24 V power supply unit separately

• Steel components are zinc-plated

CONFIGURATOR

• If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

• Support stands, see PAGE 240

• Accessoires, see PAGE 114

• With order supply the Pitch of the transfer belt



easy
...CONVEYORS

ERS BELT CONVEYORS



CONVEYOR SOLUTIONS FOR HEAVY GOODS

High loads with economy of use

The belt conveyor stands out for careful and extremely low-noise conveying of totes and cartons. It can be combined with either a head drive or a central drive depending on its length. The belt conveyor with central drive is used for long conveying distances, its timing belt transmission enables a very quiet and low-maintenance operation. The belt conveyor with head drive is especially used for short conveying distances, it is also equipped with timing belt transmission. Both versions of the belt conveyor can cope with inclines of up to 22,5°. It is capable of conveying even the smallest goods

Transport of heavy loads

Loads with a weight of up to 600 kg are transported with ease

Plug and play

Ready for installation and use with pre-assembled modules



88

ERS 56/57 **ROLLER DRIVE
BELT CONVEYOR ERS 56/57**



92

ERS 70 **BELT CONVEYOR STRAIGHT
WITH HEAD DRIVE ERS 70**



94

ERS 70 **BELT CONVEYOR STRAIGHT
WITH CENTER DRIVE ERS 70**



96

ERS 70 **BELT CONVEYOR STRAIGHT
WITH CENTER DRIVE + TOP ARCH ERS 70**



98

ERS 70 **BELT CONVEYOR STRAIGHT
WITH CENTER DRIVE + FEED ERS 70**



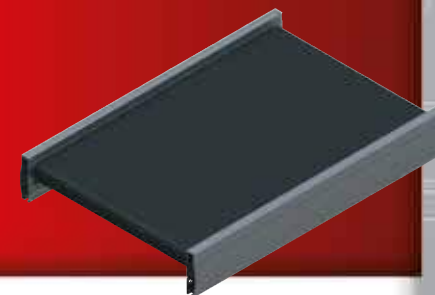
100

ERS 70 **BELT CONVEYOR STRAIGHT
WITH CENTER DRIVE
+ TOP ARCH + FEED ERS 70**

ROLLERDRIVE BELT CONVEYOR ERS 56

The RollerDrive Belt Conveyor is used with a PLC as transport storage conveyors or zero accumulation pressure storage conveyors. Each drive features a digital interface to an external control (PLC) that simultaneously protects the RollerDrive from overload. It is possible to transport small products.

Roller Conveyors
Rollerdrive
ERS 56
Straight



TECHNICAL DATA

easy
...CONVEYORS

General technical data

Max. load capacity	50 kg
Conveyor speed	0,16 to 0,98 m/s
Inclined/declined	Max 15°
Ambient temperature	+5 to +40°C

Maximum load capacity is depending on the combination of speed & load

Roller

Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11

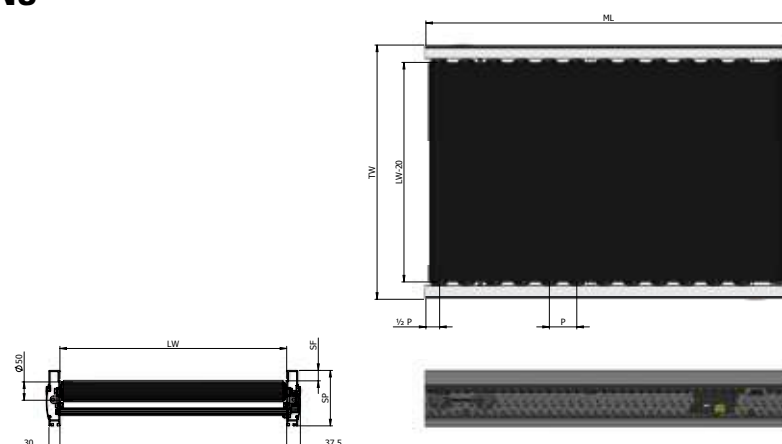
Drive

Rated voltage	24 VDC
Max. electrical power per zone	0.05 kW
Conveyor belt	PVC 2 layer black
Slider bed	Roller

Side profile

Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
ZL Zone length	Number of rollers x P
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 56

2 Clearance LW

420 | 520 | 620 | 820

3 Roller pitch P in mm

A 75 | 100

4 Module length ML in mm (Length goes in steps of 25mm)

A min 300 mm, numbers of rollers x P, see application notes P106

5 Number of zones

See Application Notes, P119

6 Electric side

Right | R / Left | L

7 Conveyor speed in m/s

0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98

8 Side profiles

HH | HL | LH | LL

1	2	3	4	5	6	7	8
56	-		-		-		-

ORDER EXAMPLE

Example for a reference number:

56 - 620 - 125 - 500 - 4 - R - 0,33 - HH

This reference number stands for RollerDrive Conveyor ERS 56 with a clearance LW 620 mm, a roller pitch P 125 mm, a zone length 500 mm, 4 zones, the electric side on the right, a conveyor speed of 0.33 m/s and both sides high side profile.



ORDER INFORMATION

• The module is fully assembled

• Please order support stands, side guides, end caps, sensors, straight connectors and 24 V power supply unit separately

• Steel components are zinc-plated

CONFIGURATOR

• For selection of the RollerDrive please consult the information on PAGE 110

• If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

• Support stands, see PAGE 104

• Accessoires, see PAGE 114

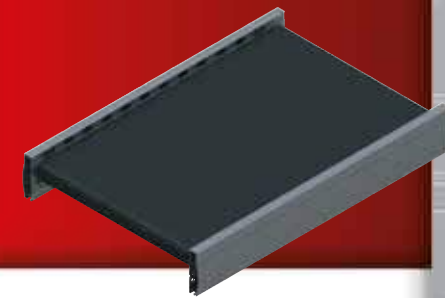


easy
...CONVEYORS

SMART BELT CONVEYOR ERS 57

The Smart belt conveyor is a belt conveyor that is divided into zones and operates with zero pressure accumulation, the drive is based on the 24 VDC drive roller and the smart control incl build in sensors. It is possible to transport and accumulate small products.

Roller Conveyors
Smart Conveyor
ERS 57
Straight



TECHNICAL DATA

easy
...CONVEYORS

General technical data

Max. load capacity	50 kg
Conveyor speed	0,16 to 0,98 m/s
Inclined/declined	Not suitable
Ambient temperature	+5 to +40 °C

Maximum load capacity is depending on the combination of speed & load







Roller

Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11

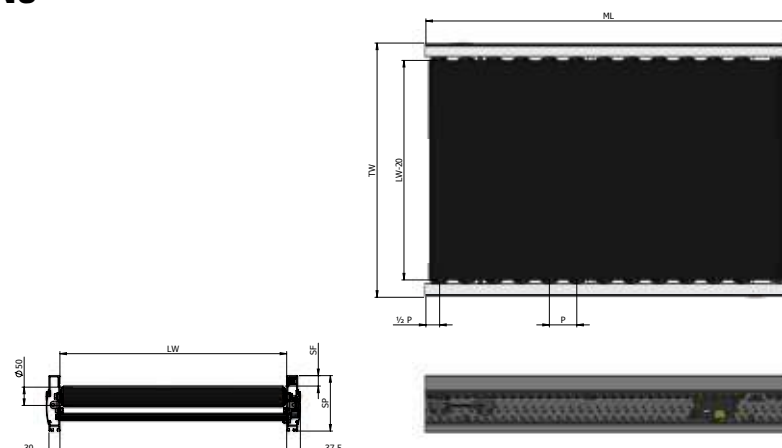
Drive

Rated voltage	24 VDC
Max. electrical power per zone	0.05 kW
Conveyor belt	PVC 2 layer black
Slider bed	Roller

Side profile

Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH  HL  LH  LL 	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	max. 3000 mm
ZL Zone length	Number of rollers x P
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 57

2 Clearance LW
420 | 520 | 620 | 820

3 Roller pitch P in mm
A 75 | 100

4 Module length ML in mm (Length goes in steps of 25mm)
A min 300 mm, numbers of rollers x P, see application notes P119

5 Number of zones
See application notes P119

6 Electric side
Right | R / Left | L

7 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98

8 Side profiles
HH | HL | LH | LL

1 **2** **3** **4** **5** **6** **7** **8**
57 - - - - - - -

ORDER EXAMPLE

Example for a reference number:
57 - 420 - 100 - 500 - 4 - R - 0,25 - HH

This reference number stands for Smart conveyor ERS 57 with a clearance LW 420 mm, a roller pitch P 100 mm, zone length 500 mm, 4 zones, the electric side on the right, a conveyor speed of 0.25 m/s and both sides high side profile.



ORDER INFORMATION

- Module is completely assembled with control and sensors
- Please order support stands, side guides, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on PAGE 110
- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114

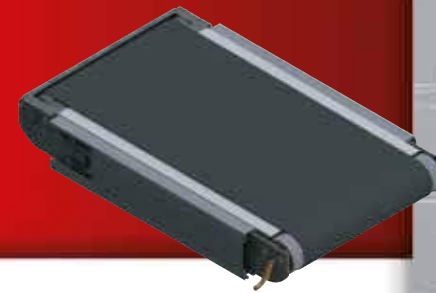


easy
...CONVEYORS

BELT CONVEYOR STRAIGHT WITH HEAD DRIVE ERS 70



The belt conveyors used for transport of unit loads that are not suitable for roller tracks, and for all types of unit loads in case of inclines and declines.

Belt Conveyors
Belt driven
ERS 70
Straight

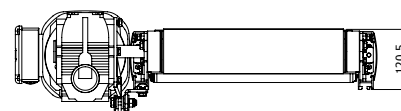
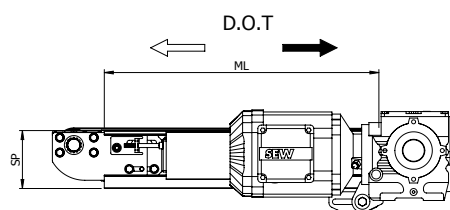
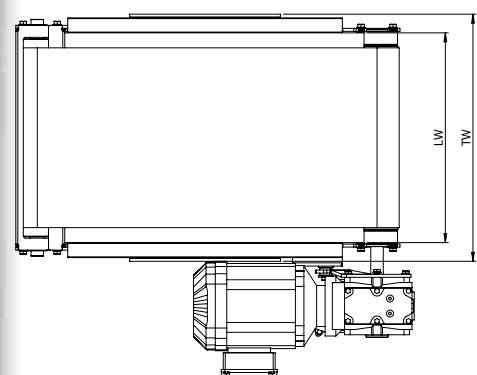
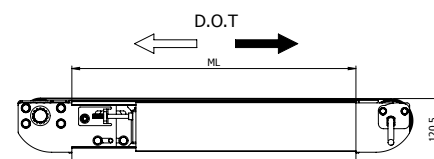
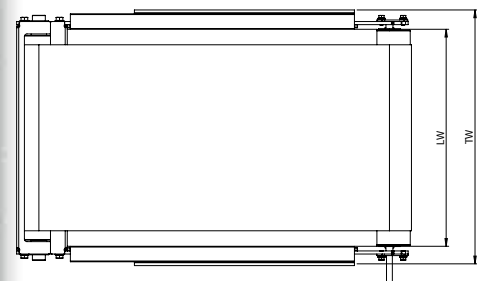


TECHNICAL DATA

easy
...CONVEYORS

General technical data		Drum motor	Gear motor
Max. load capacity per module		120 kg	250 kg
Conveyor speed		Max 1,0 m/s	Max 1,75 m/s
Inclined/declined		Max 10°	Max 10°
Ambient temperature		-5 to +50 °C	-5 to +50 °C
		Maximum load capacity is depending on the combination of speed & load	
Belt material			
Conveyor surface		PVC black - Type 2 M12 U0-V3N	
Roller bed		Roller ø50 ctc 100 mm	
Specs		see belt notes P91	
Drive		Drum motor	Gear motor
Rated voltage		400 V / 50 Hz / 3 phase	400 V / 50 Hz / 3 phase
Max. electrical power per zone		0,12 kW	1,1 kW
Drive medium		Drive pully ø 81,5	ø 85
Side profile			
Profile L		116 mm high 4 mm below top edge of belt	
		LL 	L max = 8,5 mtr

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
TW Module width	LW + 75 mm
BW Belt wide	LW +/- 60 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 70

2 TYPE
1

3 Clearance LW
420 | 520 | 620 | 820

4 Drive
GM | Gear Motor
DM | Drum Motor

5 Module length ML in mm (Length goes in steps of 25mm)
min 600 mm, max 3000 mm

6 Drive position
Right hand drive | R
Left hand drive | L

7 Side profiles
LL

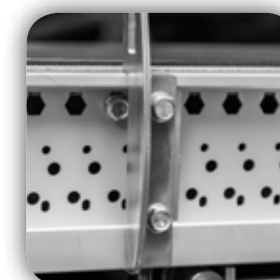
8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98

1 2 3 4 5 6 7 8
70 - 1 - - - - LL /

ORDER EXAMPLE

Example for a reference number:
70 - 1 - 420 - DM - 2000 - R - LL / 0.65

This reference number stands for Belt Conveyor with drum drive ERS 70 with a clearance LW 420 mm, a module length ML 2000 mm, a drum drive on the right, a conveyor speed of 0.65 m/s and both sides low side profile.



ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

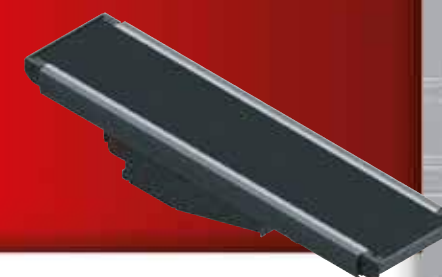
ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114

BELT CONVEYOR STRAIGHT WITH CENTER DRIVE ERS 70

The belt conveyors used for transport of unit loads that are not suitable for roller tracks, and for all types of unit loads in case of inclines and declines.

Belt Conveyors
Belt driven
ERS 70
Straight



TECHNICAL DATA

easy
...CONVEYORS

General technical data

Max. load capacity per module	600 kg
Conveyor speed	Max 2,6 m/s
Inclined/declined	Max 24°
Ambient temperature	-5 to +50 °C

Maximum load capacity is depending on the combination of speed & load

Belt material

Conveyor belt surface	PVC black - Type 2 M12 U0-V3N
Roller bed	Roller ø50 ctc 100 mm
Specs	see belt notes P91

Drive Drum Motor

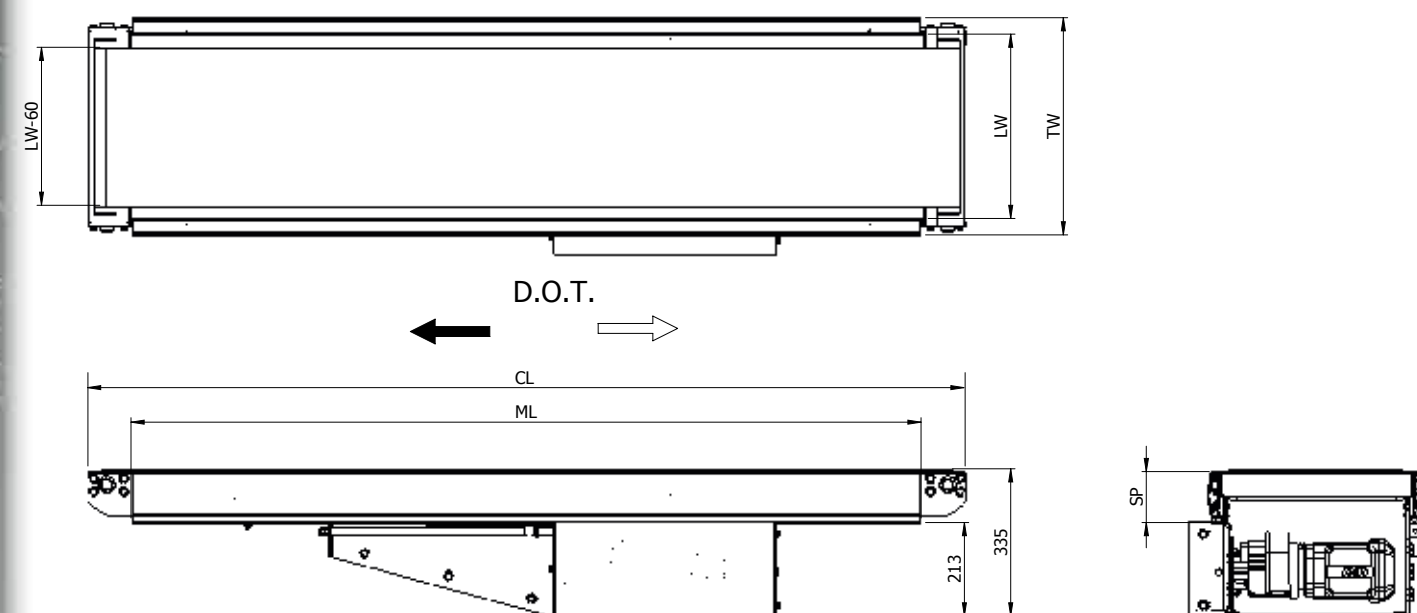
Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,2 kW
Drive medium	Drive pulley ø 180 mm vulcanised

Side profile

Profile L	116 mm high 4 mm below top edge of belt
-----------	--



DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	30.000 mm
TW Module width	LW + 75 mm
BW Belt wide	LW -/- 60 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 70

2 TYPE
2

3 Clearance LW
420 | 520 | 620 | 820

4 Module length ML in mm (Length goes in steps of 25mm)
min 1.500 mm, max 30.000 mm

5 Drive position
Right hand drive | R
Left hand drive | L

6 Side profiles
LL

7 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75 | 2,6

1 2 3 4 5 6 7
70 - 2 - - - - LL /

ORDER EXAMPLE

Example for a reference number:
70 - 2 - 420 - 2000 - R - LL / 0,33

This reference number stands for Belt Conveyor with center drive ERS 70 with a clearance LW 420 mm, a module length ML 12.000 mm, a head drive on the right, a conveyor speed of 0.33 m/s and both sides low side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



easy
...CONVEYORS

BELT CONVEYOR STRAIGHT WITH CENTER DRIVE + OUTFEED ERS 70

The belt conveyor ERS 70 with top arch is used for transport all types of unit loads in case of inclines and declines. The arch reduces noise and the impact of materials while passing over them.

Belt Conveyors
Belt driven
ERS 70
Incline



TECHNICAL DATA

easy
...CONVEYORS

General technical data

Max. load capacity per module	600 kg
Conveyor speed	Max 2,6 m/s
Inclined/declined	Max 22,5°
Ambient temperature	-5 to +50 °C
Maximum load capacity is depending on the combination of speed & load	



Belt material

Conveyor belt surface	PVC black with TPU, grooved longitudinally - Type 2 M12 V7LGFr
Roller bed	Roller ø50 ctc 100 mm
Specs	see belt notes P90

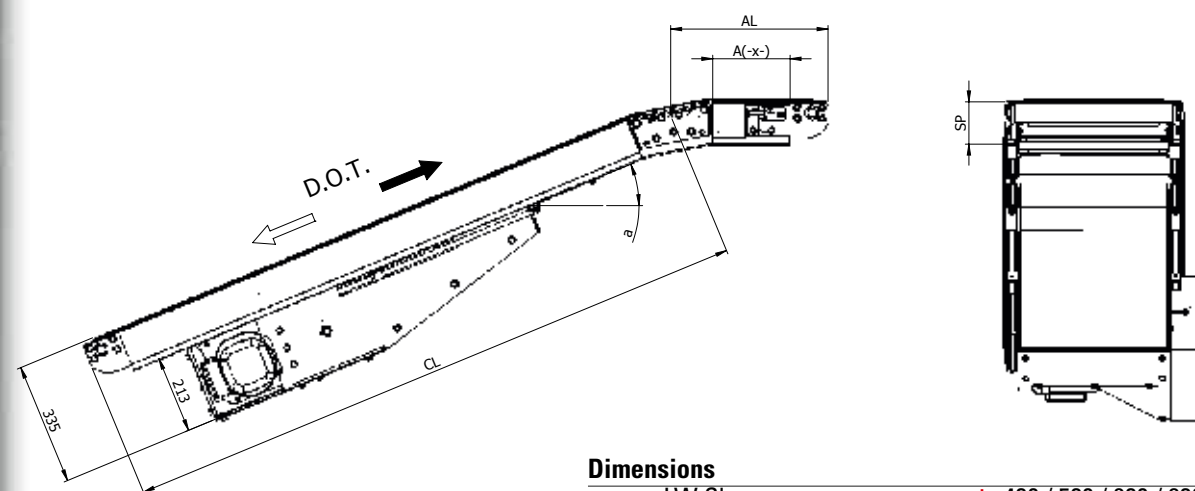
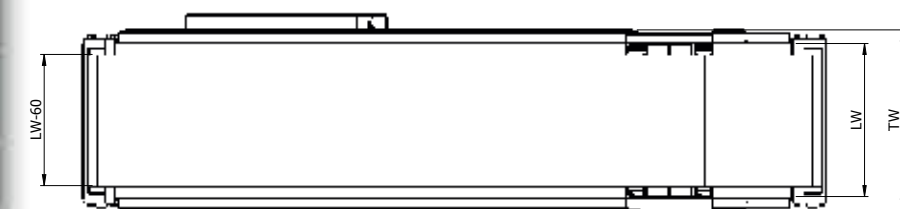
Drive Drum Motor

Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,2 kW
Drive medium	Drive pulley ø 180 mm vulcanised

Side profile

Profile L	116 mm high 4 mm below top edge of belt	
LL		

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	30.000 mm
TW Module width	LW + 75 mm
BW Belt wide	LW -/- 60 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 70

2 TYPE
3

3 Clearance LW
420 | 520 | 620 | 820

4 Outfeed Angle α
4° | 8° | 12° | 16° | 20° | 22,5°

5 Module length ML in mm (Length goes in steps of 25mm)
min 1.500 mm, max 30.000 mm

6 A =
A1 212,5 mm | A2 312,5 mm | A3 412,5 mm | A4 512,5 mm | A5 612,5 mm
AL = A + +/- 220 mm | CL = ML + +/- 246 mm (depending on outfeed angle)

7 Drive position
Right hand drive | R
Left hand drive | L

8 Side profiles
LL

9 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75 | 2,6

1 70 **2** - **3** - **4** - **5** - **6** - **7** - **8** LL **9** /

ORDER EXAMPLE

Example for a reference number:
70 - 3 - 420 - 12 - 6000 - A2 - R - LL / 0,33

This reference number stands for Belt Conveyor ERS 70, type 3 with a clearance LW 420 mm, an arch angle of 12°, a module length ML 6.000 mm, with a outfeed of 312,50 mm and a right hand center drive and both sides low side profile, speed is 0,33 m/s.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



BELT CONVEYOR STRAIGHT WITH CENTER DRIVE + INFEEED ERS 70

The belt conveyor ERS 70, type 4 is used for transporting all types of unit loads in case of inclines and declines. The feed enables a smooth transition at the lower unit of the belt conveyor, e.g. at the interface with a roller conveyor.

Belt Conveyors
Belt driven
ERS 70
Straight



TECHNICAL DATA

easy
...CONVEYORS

General technical data

Max. load capacity per module	600 kg
Conveyor speed	Max 2,6 m/s
Inclined/declined	Max 22,5°
Ambient temperature	-5 to +50 °C
Maximum load capacity is depending on the combination of speed & load	

Belt material

Conveyor belt surface	PVC black with TPU, grooved longitudinally - Type 2 M12 V7LGFr
Roller bed	Roller ø50 ctc 100 mm
Specs	see belt notes P90 - 91

Drive Drum Motor

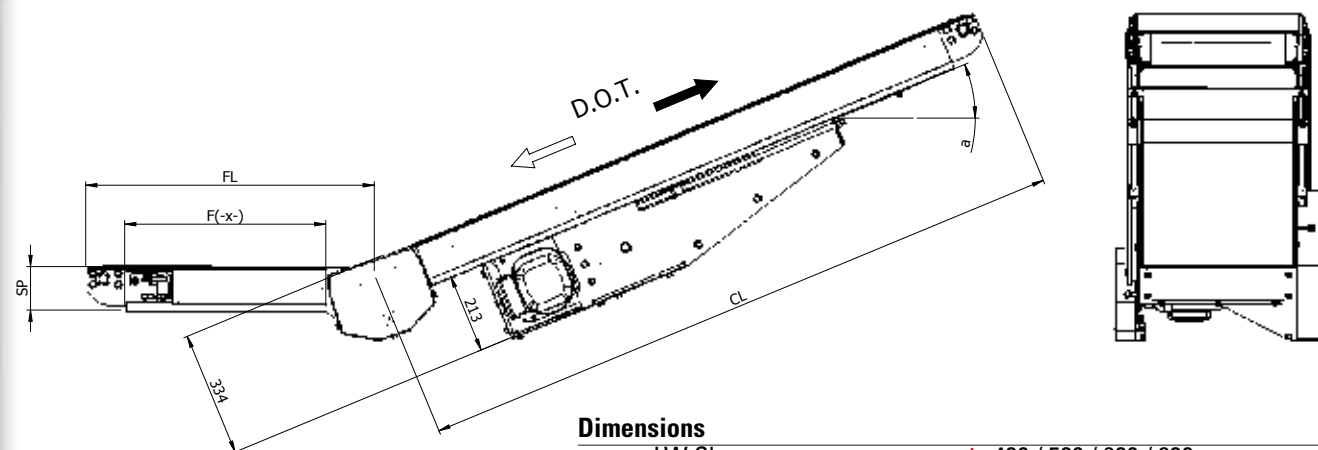
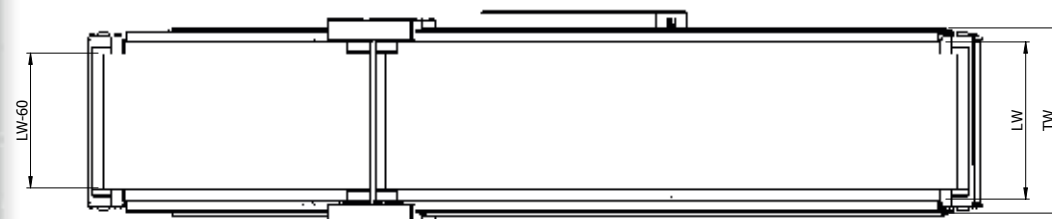
Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,2 kW
Drive medium	Drive pulley ø 180 mm vulcanised

Side profile

Profile L	116 mm high 4 mm below top edge of belt
-----------	--



DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	30.000 mm
TW Module width	LW + 75 mm
BW Belt wide	LW +/- 60 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 70

2 TYPE
4

3 Clearance LW
420 | 520 | 620 | 820

4 Infeed Angle α
4° | 8° | 12° | 16° | 20° | 22,5°

5 Module length ML in mm (Length goes in steps of 25mm)
min 1.512,50 mm, max 30.000 mm

6 F =
F1 537,5 mm | F2 637,5 mm | F3 737,5 mm | F4 837,5 mm
FL = F + +/- 233,5 mm | CL = ML + +/- 246 mm (depending on infeed angle)

7 Drive position
Right hand drive | R
Left hand drive | L

8 Side profiles
LL

9 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75 | 2,6

1 70 **2** - **3** 4 **4** - **5** - **6** - **7** - **8** LL **9** /

ORDER EXAMPLE

Example for a reference number:
70 - 4 - 420 - 20 - 10.000 - F3 - R - LL / 0,65

This reference number stands for Belt Conveyor ERS 70, type 4 with a clearance of 420 mm, a feed angle of 20°, a module length ML 10.000 mm, with a infeed lenght of 737,50 mm and a right hand center drive and both sides low side profile, speed is 0,65 m/s.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



BELT CONVEYOR STRAIGHT WITH CENTER DRIVE + INFEED + OUTFEED ERS 70

The belt conveyor ERS 70, type 5 is used for transporting all types of unit loads in case of inclines and declines. Arch and feed allow a smooth and quieter transition at the upper and lower link.

Belt Conveyors
Belt driven
ERS 70
Straight



TECHNICAL DATA

easy
...CONVEYORS

General technical data

Max. load capacity per module	600 kg
Conveyor speed	Max 2,6 m/s
Inclined/declined	Max 22,5°
Ambient temperature	-5 to +50 °C

Maximum load capacity is depending on the combination of speed & load

Belt material

Conveyor belt surface feed	PVC black - Type 2 M12 U0-V3N
Conveyor belt straight + Arch	PVC black with TPU, grooved longitudinally - Type 2 M12 V7LGFr
Roller bed	Roller ø50 ctc 100 mm
Specs	see belt notes P90-91

Drive Drum Motor

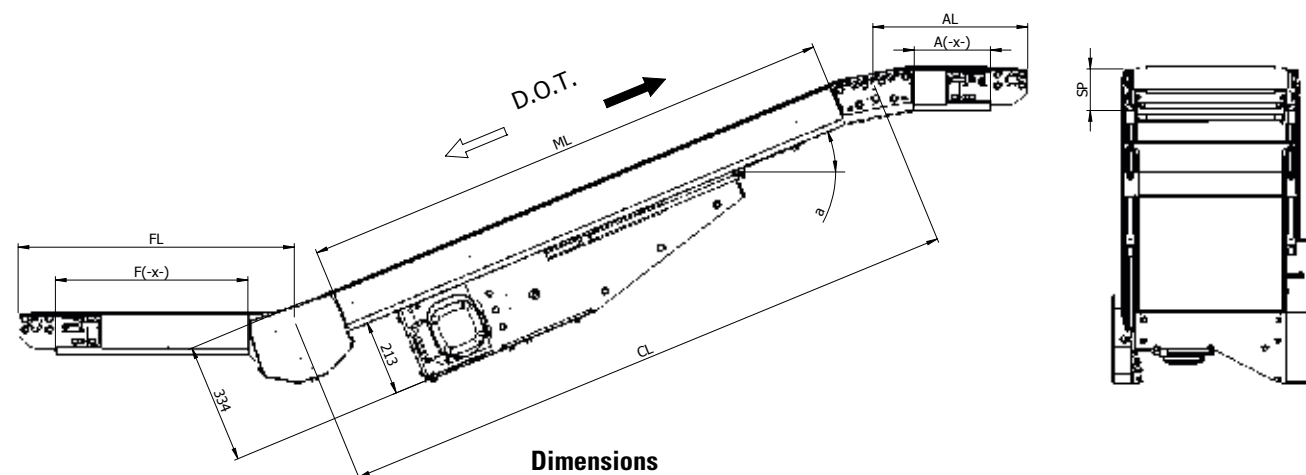
Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,2 kW
Drive medium	Drive pulley ø 180 mm vulcanised

Side profile

Profile L	116 mm high 4 mm below top edge of belt
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DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	30.000 mm
TW Module width	LW + 75 mm
BW Belt wide	LW -/- 60 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 70

2 TYPE
5

3 Clearance LW
420 | 520 | 620 | 820

4 Outfeed angle α
4° | 8° | 12° | 16° | 20° | 22,5°

5 F =
F1 537,5 mm | F2 637,5 mm | F3 737,5 mm | F4 837,5 mm
FL = F + +/- 233,5 mm | CL = ML + +/- 246 mm (depending on infeed angle)

6 Module length ML in mm (Length goes in steps of 25mm)
min 1.512,50 mm, max 30.000 mm

7 A =
A1 212,5 mm | A2 312,5 mm | A3 412,5 mm | A4 512,5 mm | A5 612,5 mm
AL = A + +/- 220 mm | CL = ML + +/- 246 mm (depending on outfeed angle)

8 Drive position
Right hand drive | R
Left hand drive | L

9 Side profiles
LL

10 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75 | 2,6

1 70 - **2** 5 - **3** - **4** - **5** - **6** - **7** - **8** - **9** LL / **10**

ORDER EXAMPLE

Example for a reference number:
70 - 5 - 420 - 8 - F2 - 7500 - A3 - R - LL / 0,65

This reference number stands for Belt Conveyor ERS 70, type 5 with a clearance of 420 mm, an arch angle of 8°, a infeed length of 637,5 mm, a module length of 7.500 mm, with a outfeed length of 412,50 mm and a right hand center drive and both sides low side profile, speed is 0,65 m/s.

ORDER INFORMATION

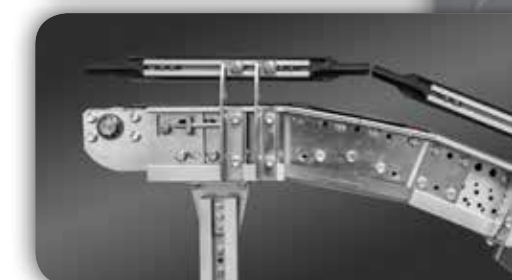
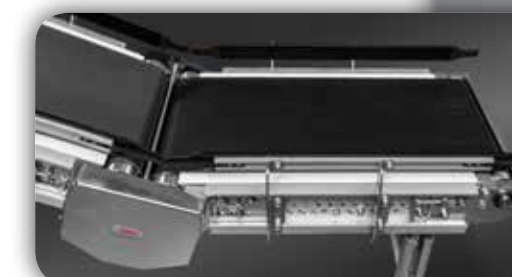
- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.

ACCESSOIRES

- Support stands, see PAGE 104
- Accessoires, see PAGE 114



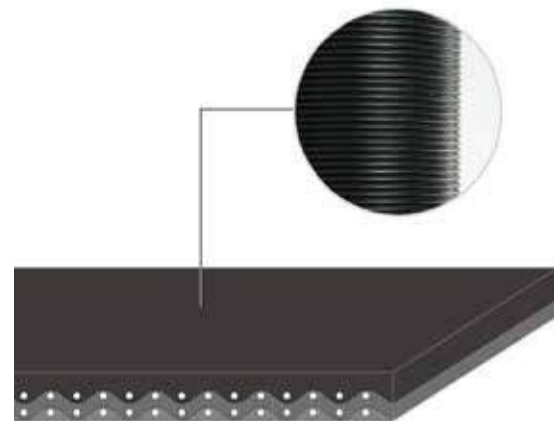
TECHNICAL DATA

COMPOSITION					
Conveying surface	material	PVC 45 Sh.A (±5)			
	thickness	0.70	mm	0.028 in.	
	surface pattern	LG			
	colour	anthracite			
Textile carcass	coefficient of friction	HF			
	material	polyester (PET)			
	plies no.	2			
	weft type	rigid			
Driving surface	material	fabric with polyurethane (TPU) impregnation			
	thickness	---	mm	---	in.
	surface pattern	LdB fabric			
	colour	grey			
TECHNICAL SPECIFICATIONS					
Total thickness		2.70	mm	0.11	in.
Weight		2.40	kg/m ²	0.49	lbs./sq.ft
Elongation at 1%		12	N/mm	68.5	lbs./in.
Max. admissible pull		24	N/mm	137.0	lbs./in.
Temperature resistance ⁽¹⁾	min.	-10	°C	14	°F
	max.	60	°C	140	°F
⁽¹⁾ use of the belt with limit values may reduce its life					
Minimum roller diameter ⁽²⁾					
■	knife edge	no			
■	bending roller	40	mm	1.6	in.
■	counter-bending roller	60	mm	2.4	in.
⁽²⁾ the above mentioned values depend on the type of CHIORINO joint recommended					
Coefficient of friction on driving surface					
■	raw steel sheet	0.20 [-]			
■	laminated plastic/wood	0.25 [-]			
■	steel roller	0.20 [-]			
■	rubberized roller	0.30 [-]			
Max. production width		2000	mm	79	in.

SUITABLE FOR

Airports
Materials handling

NOTES



FEATURES

Humidity influence	no
Suitable to metal detector	no
Permanent antistatic dynamically (UNI EN ISO 21179)	yes
Static conductivity (UNI EN ISO 284)	no
Conveying on skid bed	yes
Conveying on rollers	yes
Conveying on skid bed on top and return	no
Troughed conveying	no
Swan neck conveying	yes
Inclined conveying	yes
Accumulators belts	no
Curved conveyor	no
Chemical resistances (see file available on line)	9

COMPLIANCES

REACH Regulation EC 1907/2006 and amendments
Flame Retardant UNI EN ISO 340
Flame Retardant UL94HB Horizontal Burning

NOTES

TECHNICAL DATA

COMPOSITION					
Conveying surface	material	PVC 70 Sh.A (±5)			
	thickness	0.30	mm	0.012 in.	
	surface pattern	smooth			
	colour	black			
	coefficient of friction	LF			
Textile carcass	material	polyester (PET)			
	plies no.	2			
	weft type	rigid			
Driving surface	material	fabric with polyurethane (TPU) impregnation			
	thickness	---	mm	---	in.
	surface pattern	LdB fabric			
	colour	grey			
TECHNICAL SPECIFICATIONS					
Total thickness		1.90	mm	0.07	in.
Weight		2.10	kg/m ²	0.43	lbs./sq.ft
Elongation at 1%		12	N/mm	68.5	lbs./in.
Max. admissible pull		24	N/mm	137.0	lbs./in.
Temperature resistance ⁽¹⁾	min.	-10	°C	14	°F
	max.	60	°C	140	°F
⁽¹⁾ use of the belt with limit values may reduce its life					
Minimum roller diameter ⁽²⁾					
■ knife edge		no			
■ bending roller		40	mm	1.6	in.
■ counter-bending roller		50	mm	2.0	in.
⁽²⁾ the above mentioned values depend on the type of CHIORINO joint recommended					
Coefficient of friction on driving surface					
■ raw steel sheet		0.20 [-]			
■ laminated plastic/wood		0.25 [-]			
■ steel roller		0.20 [-]			
■ rubberized roller		0.30 [-]			
Max. production width		3000	mm	118	in.

SUITABLE FOR

Wood: MDF particle board panels
Packaging
Supermarkets check-outs
Telescopic belts
Plastic materials moulding

NOTES



FEATURES

Humidity influence	no
Suitable to metal detector	no
Permanent antistatic dynamically (UNI EN ISO 21179)	yes
Static conductivity (UNI EN ISO 284)	no
Conveying on skid bed	yes
Conveying on rollers	yes
Conveying on skid bed on top and return	no
Troughed conveying	no
Swan neck conveying	yes
Inclined conveying	no
Accumulators belts	yes
Curved conveyor	no
Chemical resistances (see file available on line)	2

COMPLIANCES

REACH Regulation EC 1907/2006 and amendments

NOTES

ADJUSTABLE SUPPORT STANDS Type ERS 60

The EASY Support Stands consist of robust aluminium profile upon which the conveyor modules are mounted. The support stands are equipped with an adjustable supports and are fixed to the conveyor side frame via a top coupling bracket.

Support Stand

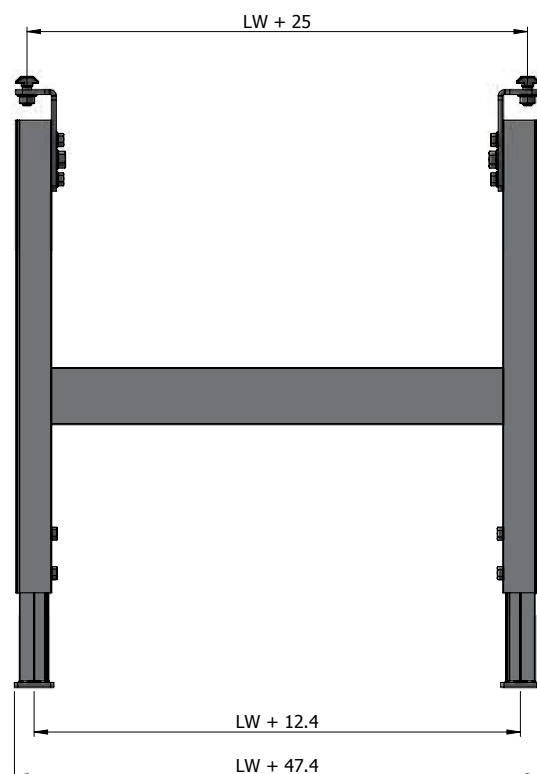


TECHNICAL DATA

easy
...CONVEYORS

General technical data	
Max. load capacity	200 kg
Side profile	
Combination of profile heights left/right	HH HL LH LL
Number of cross members	1 with 350 to 800 mm top of roller height 2 with 800 to 1400 mm top of roller height 3 with 1400 to 2000 mm top of roller height

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
T.O.R. Top of roller height	362 to 2000 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 60

2 Clearance LW 420 | 520 | 620 | 820

3 Height 1 362,5 - 442,5 mm 2 432,5 - 582,5 mm 3 572,5 - 862,5 mm 4 852,5 - 1422,5 mm 5 1412,5 - 2542,5 mm

4 Module S Straight section C Curve section

1 2 3 4
60 - - -

ORDER EXAMPLE

Example for a reference number:
60 - 420 - 3 - S

This reference number stands for ERS Support Stands with a clearance LW 420 mm and a top of roller height of roller 572,5 till 862,5 mm, straight section.

Note 1 Longitudinal or diagonal cross members are not included
2 Dependable on conveyor speed, load, start/stops, etc. additional cross members not under "1" are not included

ORDER INFORMATION

- The module is fully assembled
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.



ADJUSTABLE SUPPORT STANDS Type ERS 60

The EASY Support Stands consist of robust aluminium profile upon which the conveyor modules are mounted. The support stands are equipped with an adjustable supports and are fixed to the conveyor side frame via a top coupling bracket.

Support Stand

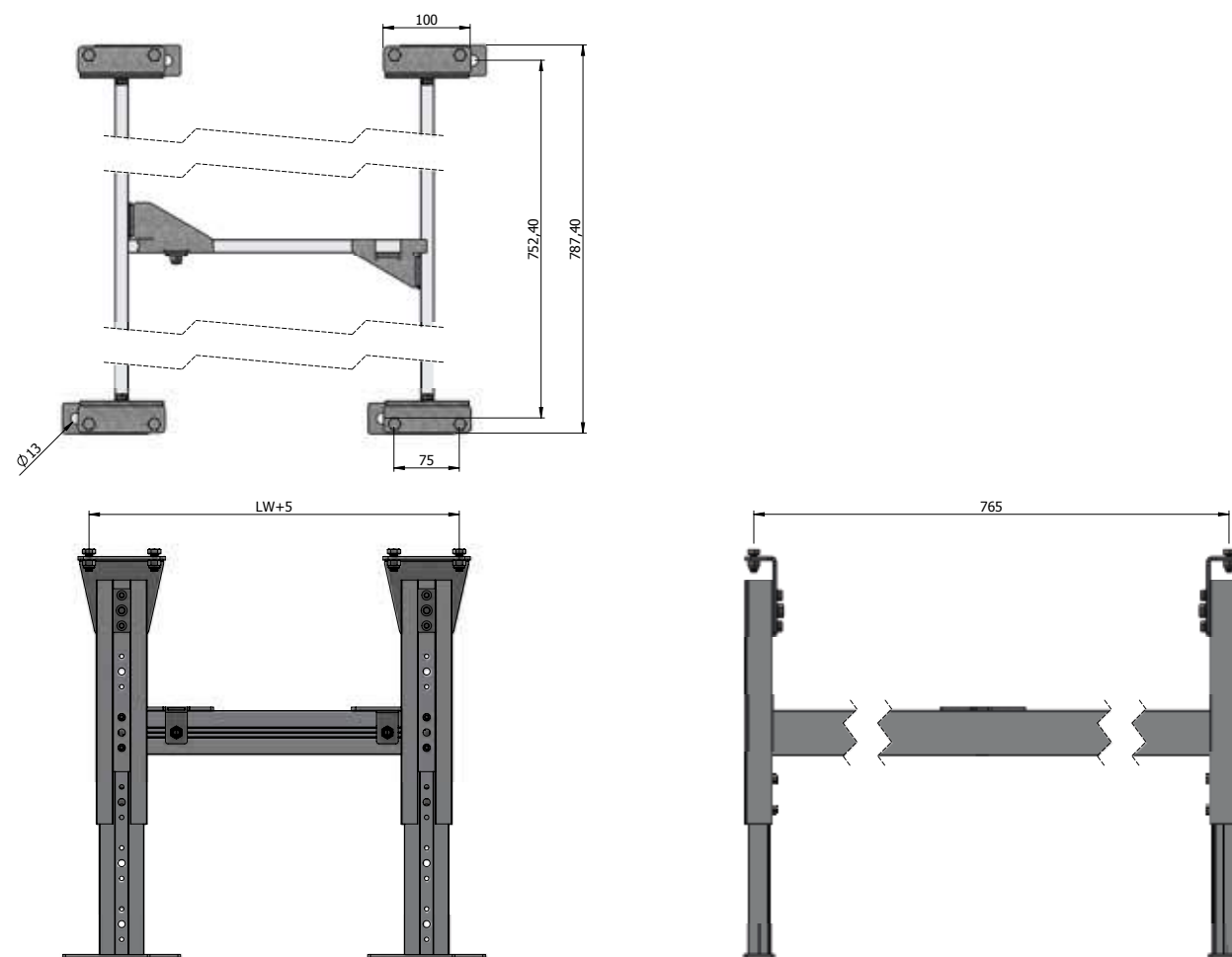


TECHNICAL DATA

easy
...CONVEYORS

General technical data	
Max. load capacity	200 kg
Side profile	
Combination of profile heights left/right	HH HL LH LL
Number of cross members	1 with 577,5 to 657,5 mm top of roller height 2 with 647,5 to 797,5 mm top of roller height 3 with 787,5 to 1077,5 mm top of roller height 4 with 1067,5 to 1637,5 mm top of roller height 5 with 1627,5 to 2757,5 mm top of roller height

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
T.O.R. Top of roller height	577 to 2000 mm

EASY CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE ERS 60

2 Clearance LW 420 | 520 | 620 | 820

3 Height 1 577,5 - 657,5 mm 2 647,5 - 797,5 mm 3 787,5 - 1077,5 mm 4 1067,5 - 1637,5 mm 5 1627,5 - 2757,5 mm

4 Module T | Transfer module

1 2 3 4
60 - - -

ORDER EXAMPLE

Example for a reference number:
60 - 420 - 3 - T

This reference number stands for ERS Support Stands with a clearance LW 420 mm and a top of roller height of roller 572,5 till 862,5 mm, transfer.

Note 1 Longitudinal or diagonal cross members are not included
2 Dependable on conveyor speed, load, start/stops, etc. additional cross members not under "1" are not included

ORDER INFORMATION

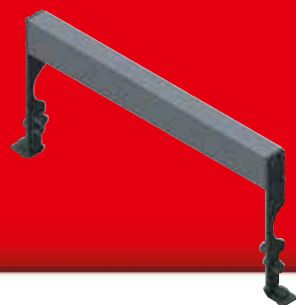
- The module is fully assembled
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local EASY Supplier.



easy
...CONVEYORS



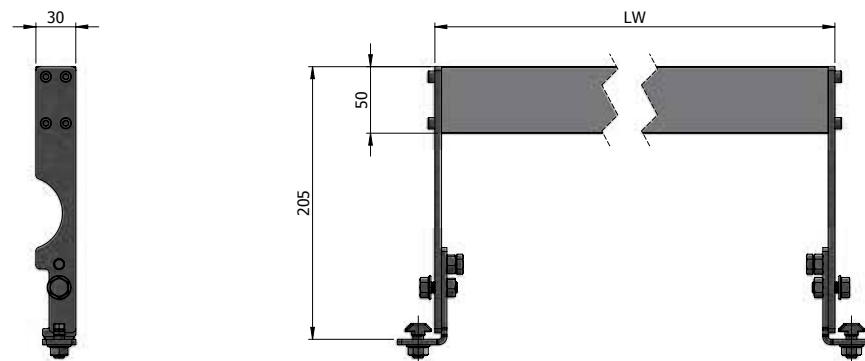
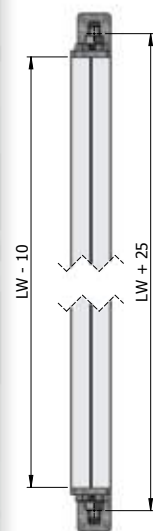
STOPPER TYPE 1 ERS 61



TECHNICAL DATA

General technical data	
Max. accumulation Pressure	300 N
Side profile	
Combination on profile heights left/right	HH HL LH LL

DIMENSIONS



Order example

W	Art nr
420	61-420-1
520	61-520-1
620	61-620-1
820	61-820-1

Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
--------------	--------------------------



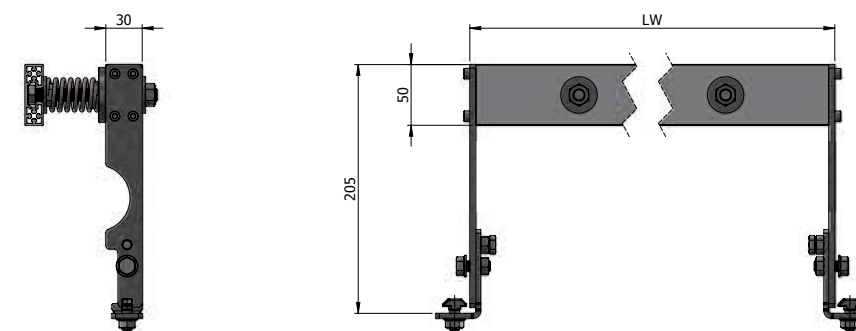
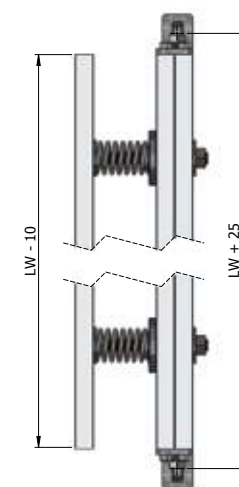
STOPPER TYPE 2 ERS 61



TECHNICAL DATA

General technical data	
Max. accumulation Pressure	300 N
Side profile	
Combination on profile heights left/right	HH HL LH LL

DIMENSIONS

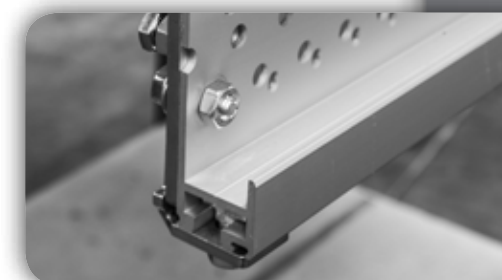


Order example

W	Art nr
420	61-420-2
520	61-520-2
620	61-620-2
820	61-820-2

Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
--------------	--------------------------





PRODUCT DESCRIPTION

- Internal commutation electronics (brushless motor)
- 9 gear stages
- Constant conveyor speed
- Energy recovery in braking
- Electronic holding brake
- Motor cable with 5-pole snap-in plug

TECHNICAL DATA

General technical data	
Mechanical power	32 W
Noise level	55 dB(A)
Max. load capacity with a reference length of from 300 to 1,000 mm	1,100 N
Max. load capacity with a reference length of from 1,010 to 1,500 mm	490 N
Electrical data	
Rated voltage	24 V DC
Voltage range	18 to 28 V DC
Idle current	0.4 A
Rated current	2.0 A
Max. start-up current	5.0 A
Permissible voltage undulation	< 5 %, recommended: < 1 %
Protection rate	IP54
Dimensions	
Tube diameter	50 mm
Wall thickness	1.5 mm
Max. reference length	1,500 mm
Ambient conditions	
Ambient temperature in operation	0 to +40 °C
Ambient temperature during transport and storage	-30 to +75 °C
Max. air humidity	90 %, non-condensing



PRODUCT SELECTION

The following tables provide an overview of the possible versions.

Gear stage versions

Gear ratio	Max. conveyor speed	Rated torque	Start-up torque	Zero motion hold
	m/s	Nm	Nm	Nm
9:1	1.75	0.45	1.10	0.36
12:1	1.31	0.61	1.46	0.48
16:1	0.98	0.81	1.95	0.64
20:1	0.79	1.01	2.44	0.80
24:1	0.65	1.21	2.92	0.96
36:1	0.44	1.82	4.38	1.44
48:1	0.33	2.42	5.85	1.92
64:1	0.25	3.23	7.80	2.56
96:1	0.16	4.84	11.69	3.84

Counter bearing and min. reference length versions

Tube	Shaft	Gear ratio	Min. reference length
			mm
2 grooves	11 mm hex spring-loaded shaft	9:1	335
		12:1 / 16:1 / 20:1 / 24:1	331
		36:1 / 48:1 / 64:1 / 96:1	342
	Female thread M8	9:1	315
		12:1 / 16:1 / 20:1 / 24:1	311
		36:1 / 48:1 / 64:1 / 96:1	322
Without grooves	11 mm hex spring-loaded shaft	9:1	312
		12:1 / 16:1 / 20:1 / 24:1	308
		36:1 / 48:1 / 64:1 / 96:1	319
	Female thread M8	9:1	270
		12:1 / 16:1 / 20:1 / 24:1	266
		36:1 / 48:1 / 64:1 / 96:1	277
PolyVee head Round belt head	11 mm hex spring-loaded shaft	9:1	305
		12:1 / 16:1 / 20:1 / 24:1	301
		36:1 / 48:1 / 64:1 / 96:1	312
	Female thread M8	9:1	295
		12:1 / 16:1 / 20:1 / 24:1	291
		36:1 / 48:1 / 64:1 / 96:1	302
Toothed belt head Chain head	Female thread M8	9:1	287
		12:1 / 16:1 / 20:1 / 24:1	283
		36:1 / 48:1 / 64:1 / 96:1	294

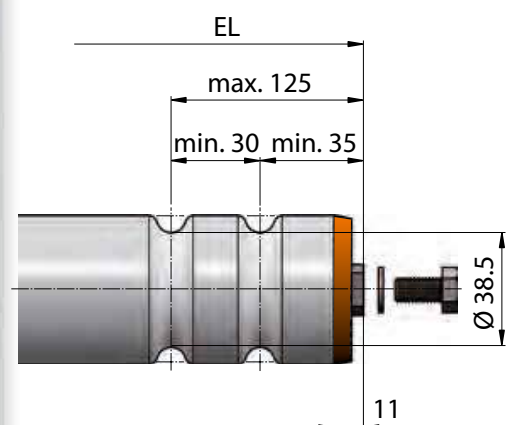


DIMENSIONS AND CONNECTIONS

Dimensions

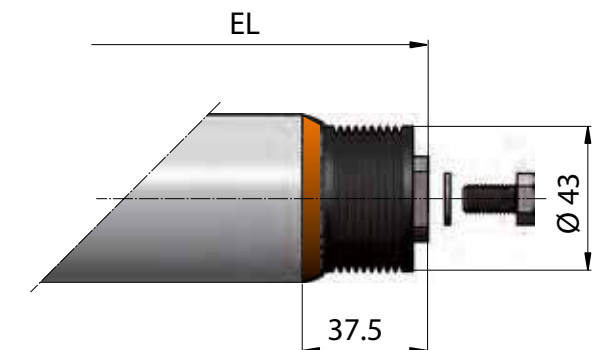
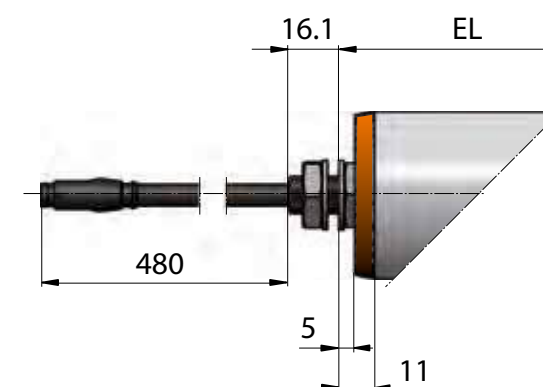
The dimensions depend on the shaft and counter bearing selected. The reference length/ordering length RL does not have any reference edges on the conveyor roller and can therefore not be shown. The installation (EL) corresponds to the clearance between the side profiles. All dimensions in mm.

Female thread M8



$$RL = EL - 11$$

Motor shaft



$$RL = EL - 36$$



ACCESSOIRES



GRAVITY ROLLER FOR TYPE 50 & 53

Wide	Art nr	Wide	Art nr
320	ERS040308000320	620	ERS040308000620
420	ERS040308000420	820	ERS040308000820
520	ERS040308000520		



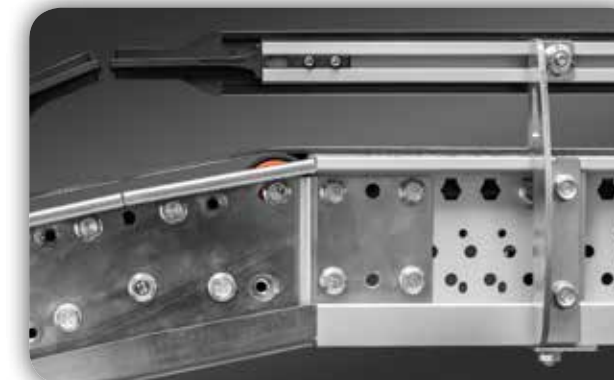
ROUND BELT ROLLER FOR TYPE 51 & 52

Wide	Art nr	Wide	Art nr
320	ERS040308010320	620	ERS040308010620
420	ERS040308010420	820	ERS040308010820
520	ERS040308010520		



SENSORCLIP INCL. SENSOR

Art nr
ERS040315000000
ERS PHOTO CELL KIT WITH PLASTIC CLIP



FIXED SIDE GUIDE

Art nr
ERS040311010000



POLY-V BELT ROLLER FOR TYPE 51 & 52

Wide	Art nr	Wide	Art nr
320	ERS040308011320	620	ERS040308011620
420	ERS040308011420	820	ERS040308011820
520	ERS040308011520		



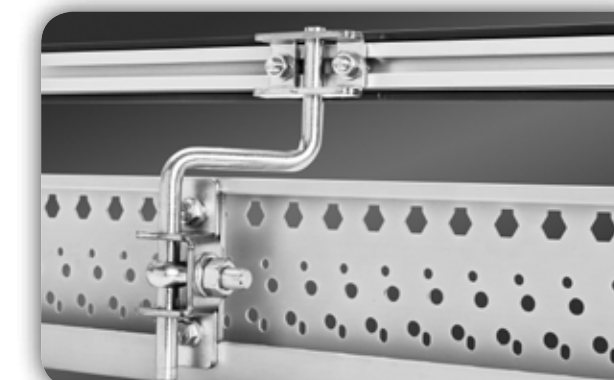
BELT FOR TYPE 53

Art nr	
ERS040305000007	FLAT BELT CORD; PA RUBBERIZED 30x2.2



COVER CAPS

040306080001
040306080002
040306080003
040306080004



ADJUSTABLE SIDE GUIDE TYPE 3

Art nr
ERS040311000002



ROUND BELT FOR TYPE 51 & 52

C.t.C.	Art nr
75	ERS040305030075
100	ERS040305030100
125	ERS040305030125



POLY-V BELT ROLLER FOR TYPE 51 & 52

C.t.C.	Art nr
75	ERS040305031075
100	ERS040305031100
125	ERS040305031125



STRAIGHT CONNECTOR

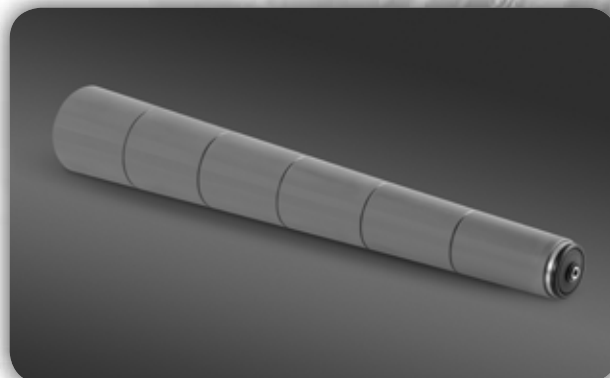
Art nr	
ERS040305040000	ERS STRAIGHT CONNECTOR



BRACKET

Art nr	
ERS040311020000	SENSOR BRACKET
ERS040311020001	REFLECTOR BRACKET

ACCESSOIRES



GRAVITY CURVE ROLLER FOR TYPE 50

Wide	Art nr
420	ERS040308020420
620	ERS040308020620
820	ERS040308020820



GRAVITY CURVE ROLLER FOR TYPE 53

Wide	Art nr
420	ERS040308030420
620	ERS040308030620
820	ERS040308030820



ROUND BELT CURVE ROLLER FOR TYPE 51 & 52

Wide	Art nr
420	ERS040308040420
620	ERS040308040620
820	ERS040308040820



POLY-V BELT CURVE ROLLER FOR TYPE 51 & 52

Wide	Art nr
420	ERS040308041420
620	ERS040308041620
820	ERS040308041820



WHAT ARE THE APPLICATION NOTES FOR?

The Design Notes help you to select the conveying modules most suitable for your conveying task.



The catalogue has six conveyor module chapters:

- Gravity type ERS 50
- 24 V DC Rollerdrive ERS 51/56
- 24 V DC Smart conveyor ERS 52/57
- Belt driven ERS 53
- Belt conveyors ERS 70
- Support stands ERS 60

The sixth chapter lists accessories ERS

If you know your conveying task and your transport materials you can select the most suitable conveyor module chapter with the aid of the diagram in the chapter "Product selection – here's what to do".

Further selection of the conveyor elements is shown in the following chapters, ranging from general principles to selection of the correct power capacity for a conveyor section.

Your task and your transport material

You must ask three questions prior to selection of the conveyor modules:

What task must the conveyor technology fulfil?

- Transporting and/or accumulation
- Sorting and/or distributing

What properties does your transport material have?

- Length, width and height: minimum and maximum dimensions of the material to be transported together on one line
- Weight: minimum and maximum weights of the unit load, ideally assigned to the dimensions
- Composition and surface of the transport material base: the base for example determines the suitability for roller conveyors

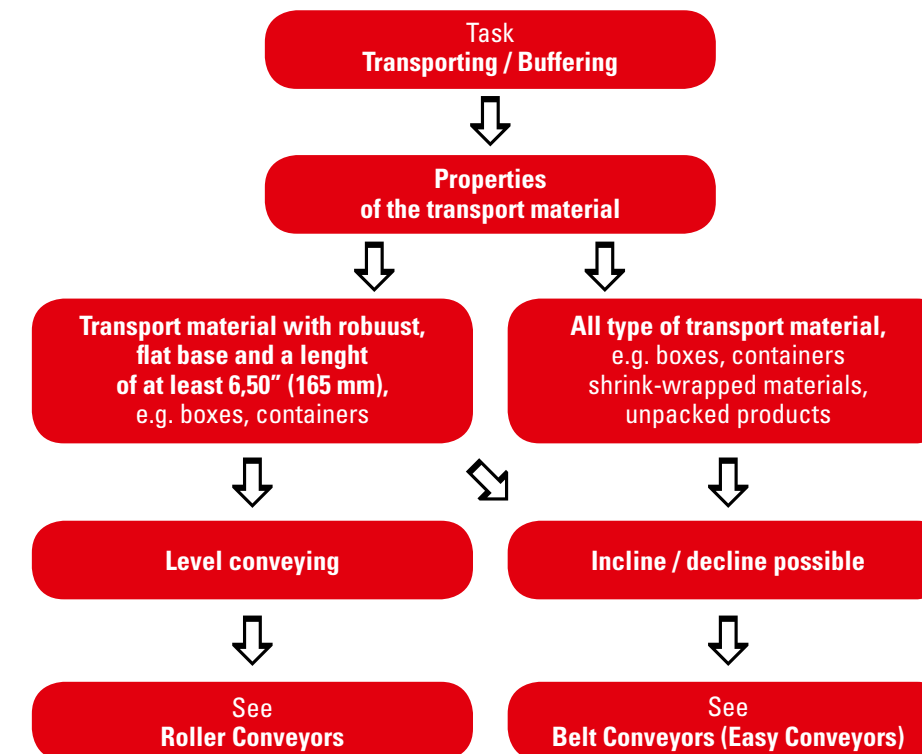
Does the composition of your transport material or the surroundings require special measures?

- Are extreme temperatures, a high level of humidity or chemical influences prevalent?
- Is static electricity likely to be a problem?
- Is the material fragile or problematic in any other way?

Your EASY customer consultant will be glad to help you in answering these questions. EASY particularly recommends a consultation with regard to special measures.

Product selection – here's what to do

The task to be carried out by the conveying technology guides you via the following diagram directly to the three main chapters of the catalogue: roller conveyors, belt conveyors and sorting and distributing.



After selecting the chapter suited to your conveying requirements, you can then make a more detailed product selection with the corresponding overview pages according to the properties of your transport material and the desired functions.

The conveying elements are listed on the overview pages with the following properties:

- Maximum load capacity
- Maximum conveyor speed
- Function of the conveyor module:
 - Non-contact accumulation
 - Accumulation
 - Conveying
 - Separating
 - Synchronising
 - Reversing



SOLUTIONS WITH ROLLER CONVEYORS

BASIC PRINCIPLES FOR TROUBLE-FREE TRANSPORT



In order to transport material flawlessly upon a roller conveyor, the following basic principles must be adhered to:

Roller pitch

The roller pitch P must be selected so that at least three conveyor rollers are below the transport material at any one time:

$$P \leq \frac{L}{3}$$

P	Roller pitch in mm
L	Transport material length in mm

Load capacity

The weight of the transport material must be distributed upon the load-bearing conveyor rollers so that the maximum load capacity of the individual conveyor rollers is not exceeded. This may mean that more than three conveyor rollers must support the transport material.

Clearance

With straight sections, the clearance LW of the conveyor consists of at least the width of the transport material + 50 mm:

$$LW \geq B + 50\text{mm}$$

LW	Clearance in mm
B	Transport material width in mm

In the following cases a greater clearance must be selected:

- The following applies with conveyors into which the transport material is to be diverted: $LW > B + 100\text{ mm}$
- For curves



CLASSIFICATION OF ROLLER CONVEYORS

Easy classifies roller conveyors according to weight classes and drive technology.

Weight classes

Easy divides conveyor modules into the following classes according to the weight of transport material:

- Up to 30 kg: **Light**
- Up to 100 kg: **Medium**
- Up to 250 kg: **Heavy**

This catalogue covers the **Light**, **Medium** and **Heavy** classes. Please contact your Easy customer consultant for information concerning the other classes.

Medium class

Transport material	Boxes, plastic containers, trays, tyres etc.
Load capacity	0 to 100 kg
Conveyor speed	0.2 to 1.2 m/s
Clearance LW	420 - 620 - 820 mm
Roller pitch P	75 - 100 - 125 mm
Rollers	Steel, zinc-plated
Ambient temperature	-5 to +50 °C or +5 to +40 °C (depending upon product)

Heavy class

Transport material	Castings, small pallets, automotive components, trays etc.
Load capacity	0 to 250 kg
Conveyor speed	0.2 to 2 m/s
Clearance LW	420 - 620 - 820 mm
Roller pitch P	Depends upon product
Rollers	Steel, zinc-plated
Ambient temperature	-5 to +50 °C

Drive classes

Easy divides conveyor modules according to drive technology into the following classes:

- Gravity roller conveyors
- Driven roller conveyors

Gravity gravity conveyors are used as low-cost, simple solutions for many conveying areas. The transport material is moved via gravity (angle of conveyor) or manually. Optional speed controllers limit the conveyor speed of the transport material on declined roller conveyors.

Driven conveyors are used for the continuous transport, storage and distribution of transport material, and throughput can be precisely set. Accurate positioning of the material carried on the conveying line is possible as well as automatic diverting to or from the conveyor.

SOLUTIONS WITH ROLLER CONVEYORS

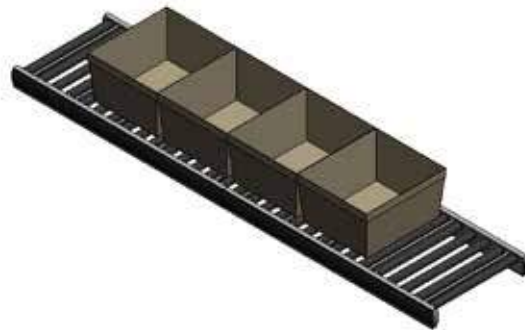
GENERAL NOTES ABOUT ROLLER CONVEYOR TECHNOLOGY

easy
...CONVEYORS

Accumulation pressure

The accumulation pressure F_L is defined as the force required to prevent the moving forward of the transport material being conveyed. Accumulation pressure values refer to a stable conveying situation, i. e. with constant conveyor speed and without consideration of supplementary influences. The following applies:

$$F_L = m_T \times g \times \mu$$



F_L	Accumulation pressure in N
m_T	Total $m_1 + m_2 + m_3 + \dots$ in kg
g	Gravitational acceleration in N/kg
μ	Coefficient of friction

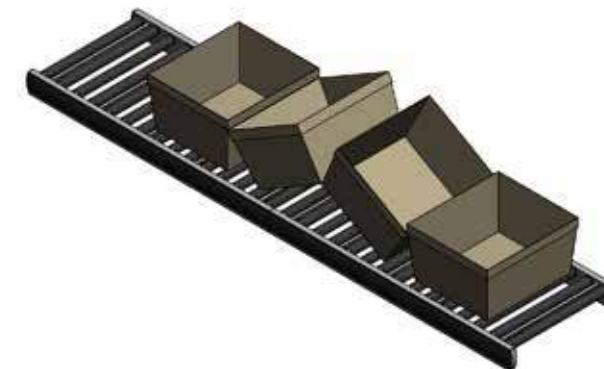
Drive type	μ
Friction conveyor rollers	0,06
Drive shaft	0,20
Round belt rollers	0,25
Fixed drive* with chain, tooth belt or PolyVee belt	~ 0,35

* With use of a fixed drive, the value for μ may vary according to the product and the roller material.



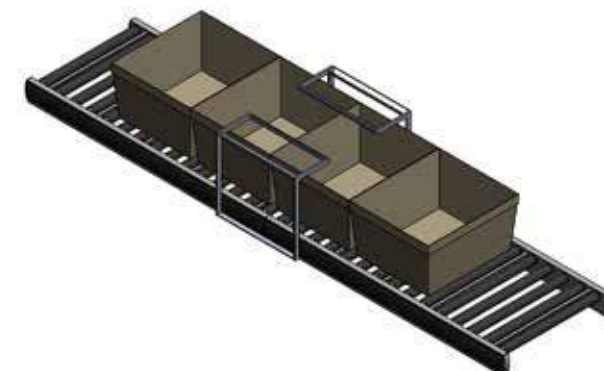
Concertina effect

Excessive accumulation pressure can cause a line of accumulating boxes to concertina. This may damage transport material and cause personal injury.

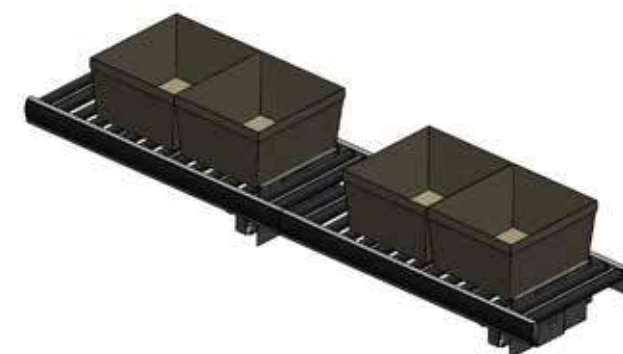


The concertina effect may be prevented by the following measures:

- Overhanging stops at the danger point



- Supplementary stops



SOLUTIONS WITH ROLLER CONVEYORS

Ejection of transport material in curves

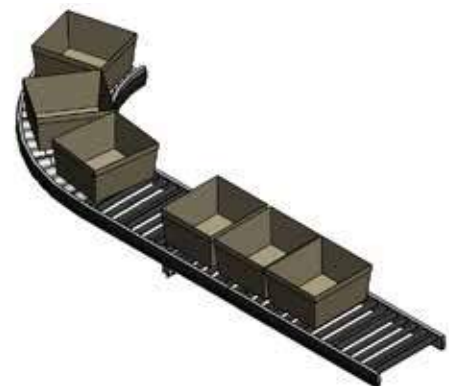
Easy recommends avoiding the accumulation of transport material in curves, except with zero pressure accumulation conveyor systems.

As accumulation pressure creates forces that project outwards, transport material on the curve section may be pushed over the side of the conveyor. This may damage transport material and cause personal injury.



The accumulation pressure in a curve may be prevented by taking the following measures:

- An additional blade stop immediately before the curve



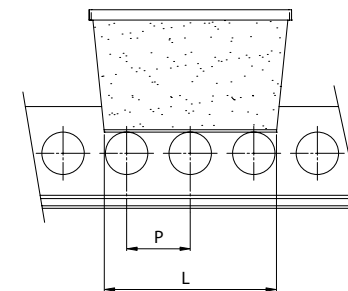
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...CONVEYORS

Trouble-free transport

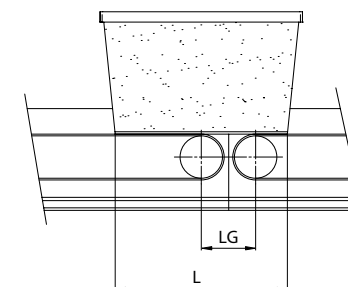
The roller pitch and the dimensions of the transition gap between two conveyors are highly important factors for trouble-free transport.

Transport disturbances can be prevented by taking the following measures:

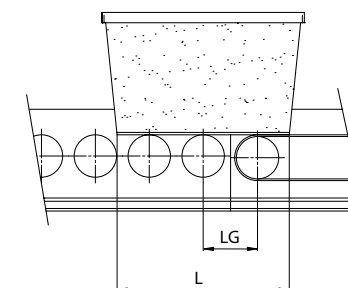
- The roller pitch P must be selected so that at least three rollers support the transport material



- The transition gap LG for all conveyors should be selected so that it consists of less than one third of the transport material length



- With transition between belt and roller conveyors, the roller pitch P and transition gap LG should be selected so that the gap is less than one third of the transport material length, and when material exits a conveyor at least two conveyor rollers are below the transport material



LG	Transition gap in mm
L	Length of transport material in mm
P	Roller pitch in mm

SOLUTIONS WITH ROLLER CONVEYORS

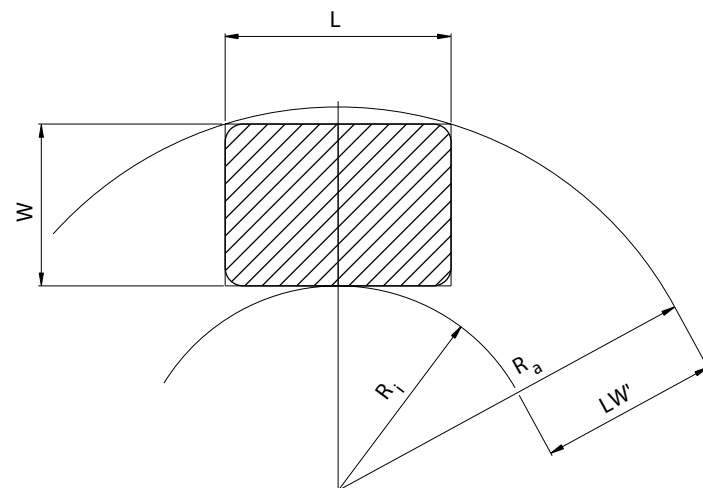
CALCULATIONS



Clearance in curves

The clearance LW in curves must be greater than with straight sections. The clearance depends upon the dimensions of the transport material and corresponds to the outer radius minus the inner radius.

If the inner radius is known, the minimum outer radius can be calculated as follows:



$$R_a = \sqrt{(R_i + W)^2 + (L / 2)^2}$$

The clearance LW is calculated as follows:

$$LW' = R_a - R_i$$

$$LW = LW' + 50$$

L	Maximum length of the transport material in mm
W	Maximum width of the transport material in mm
LW	Clearance (lane width) in mm
LW'	Clearance (lane width) in mm, calculated
R _a	Outer radius of the curve with rectangular transport material in mm
R _i	Inner radius* of the curve in mm

* The inner radius with roller conveyors is normally of 820 mm.

Easy curve modules are available with clearance values LW.

Throughput - Diverters

The throughput Tp of a conveyor system is specified in units of quantity per hour and is dependent on the transport material size and conveyor speed v.

The window size T is required for calculation of the throughput. The window size T is the distance from the leading edge of a transport unit to the leading edge of a subsequent transport unit regardless of the actual length of the unit. The following applies for straight conveying sections:

$$Tp = \frac{3.600 \times v}{T}$$

Tp	Throughput in units per hour
v	Conveyor speed in m/s
T	Window dimensions in mtr

With merging and diverting, throughput is additionally influenced by the actual length and weight of the transport material as well as the transfer cycle. Please contact your Easy customer consultant for calculating.

Note: be aware of slip of the product.

SIDE PROFILES OF THE ROLLER CONVEYOR MODULES

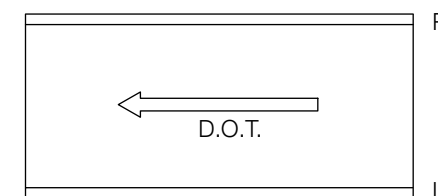
Definition of the conveyor sides

Each module has a side profile on both the left and right sides. In the case of driven modules, a differentiation is made between drive side and non-drive side with side profiles. Drive technology is situated on the drive side. The side with the control electronics of the conveyor is specified as the electric side (usually the non-drive side).



1	Drive side
2	Non-drive side (electric side)

The designations right (R) and left (L) correspond to the direction of travel D.O.T.:



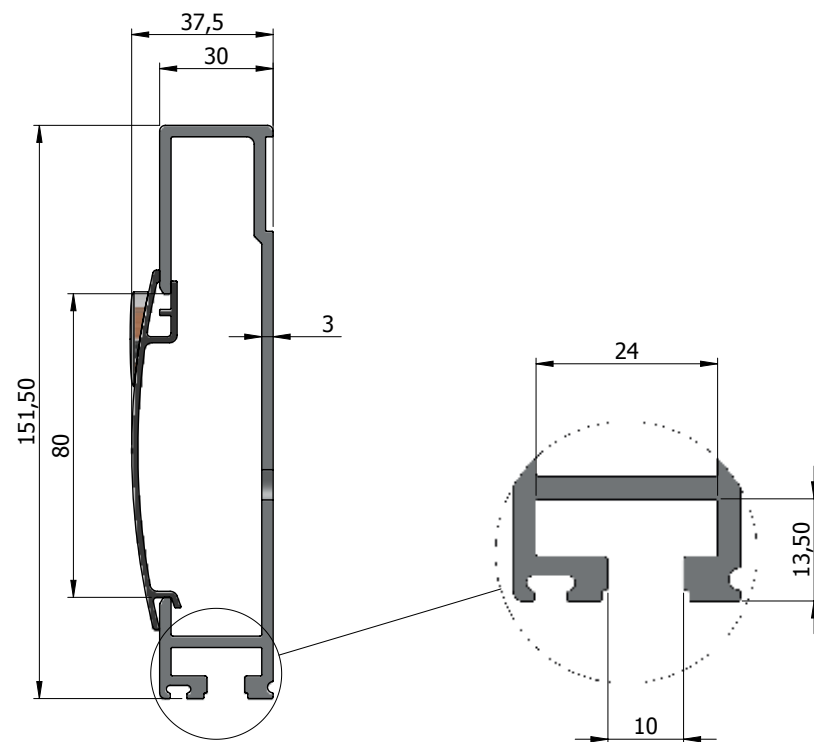
SOLUTIONS WITH ROLLER CONVEYORS

Properties of the Easy profiles

Easy differentiates between two main side profiles designated according to their total height.

Profile H

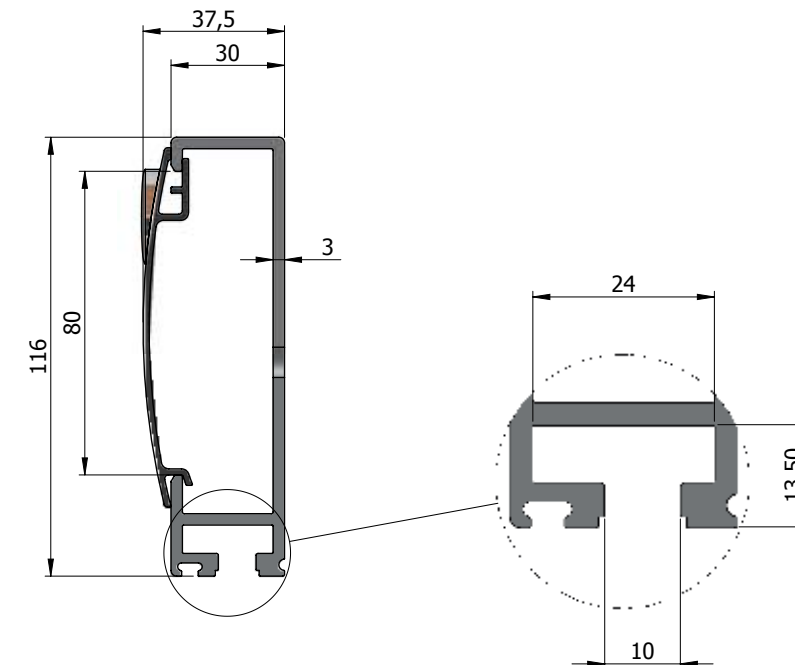
- Standard profile for all roller conveyor modules
- Extruded, anodised aluminium profile for structural stability
- Forms an integrated, 31,5 mm high side guide (31,5 mm above top of roller)
- Grey PVC Cover
- The space behind the cover can be used as a cable channel or can be used on-site for accommodation of the control components
- With T-slot for peripheral devices, e.g. additional guides, sensors and support stands



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...CONVEYORS

Profile L

- Extruded, anodised aluminium profile for structural stability
- Enables sideways movement e. g. for 90° transfers, push over sections or lanes with overhanging transport material. The top of the profile is 4 mm below the top of roller
- Grey PVC Cover
- The space behind the cover can be used as a cable channel or can be used on-site for accommodation of the control components
- With T-slot for peripheral devices, e. g. sensors and support stands



INFORMATION ABOUT ROLLER CONVEYORS PRODUCT TYPES



Drive side, electric side, side profiles

With the straight Smart Conveyor, the drive side and the electric side with control can be selected and specified in the product configurator.

With straight conveyors the control is in Profile H. This means that with a HL side profile combination, the electric side must be the left side. For information about the side profiles see P84-85.

The control is situated on the outer profile with curves and opposite the transfer side with transfers.

Selection of the RollerDrive

The selection of the RollerDrive depends mainly upon the following factors:

- Conveyor speed and rated torque define the maximum load capacity
- The construction type influences the lifetime. The EC (electronically commutated) construction type has a significantly higher lifetime when compared to BT (mechanically commutated)

The following table shows the main properties for selection of the RollerDrive:

	Rollerdrive 24 v DC
Max. conveyor speed	1,75 m/s
Max. load capacity	80 kg
Max. rated torque	11.7 Nm*
Mechanical power	32 W
Noise level	50db(A)
Max. number of starts/ stops per minute	30
Commutation type	Electronic, internal
Min. lifetime	20,000 h

* depends on the gear speed influenced by the maximum speed.

Selection of the drive medium

Three drive mediums are available:

PU round belt Ø 5 mm

- For transport material to max. 50 kg/zone
- For max. 11 idlers per zone (i.e. 11 round belts per zone)
- Reduced acceleration and braking performance due to slippage

PolyVee belt

- For transport material to max. 80 kg/zone
- For max. 20 idlers per zone (i.e. 20 PolyVee belts per zone)
- Hardly any slippage, therefore very good acceleration and braking performance

Belt (conveyor belt on the rollers)

- For zero accumulation pressure transport of units that are unsuitable for roller conveyors
- Also for compact transport units
- Closed belt
- Only available for straight sections

ROLLERDRIVE CONVEYOR

Zones

Each RollerDrive Conveyor conveyor line is divided into zones defined from the maximum length of the material to be conveyed.

Each zone has:

- A RollerDrive
- Idlers driven via belts
- A DriveControl control

In comparison with the Smart Conveyor, a RollerDrive Conveyor has no internal Easy and is therefore typically controlled by a higher level control (PLC). The control is carried out via the Easy DriveControl.

The number of zones possible in a straight module is defined by module length divided by zone length. The maximum module length is 3000 mm.

$$Z = \frac{ML}{ZL}$$

Z	Number of zones
ML	Module length in mm
ZL	Zone length in mm

Selection of the RollerDrive and the drive medium

Selection criteria for the RollerDrive and the drive medium are the same for the RollerDrive Conveyor as the Smart Conveyor P66.



INFORMATION ABOUT ROLLER CONVEYOR PRODUCT TYPES

With terminal modules, the drive side (left or right in the direction of travel) must be defined. The following representations clarify the possible drive sides and positions of the end terminals.

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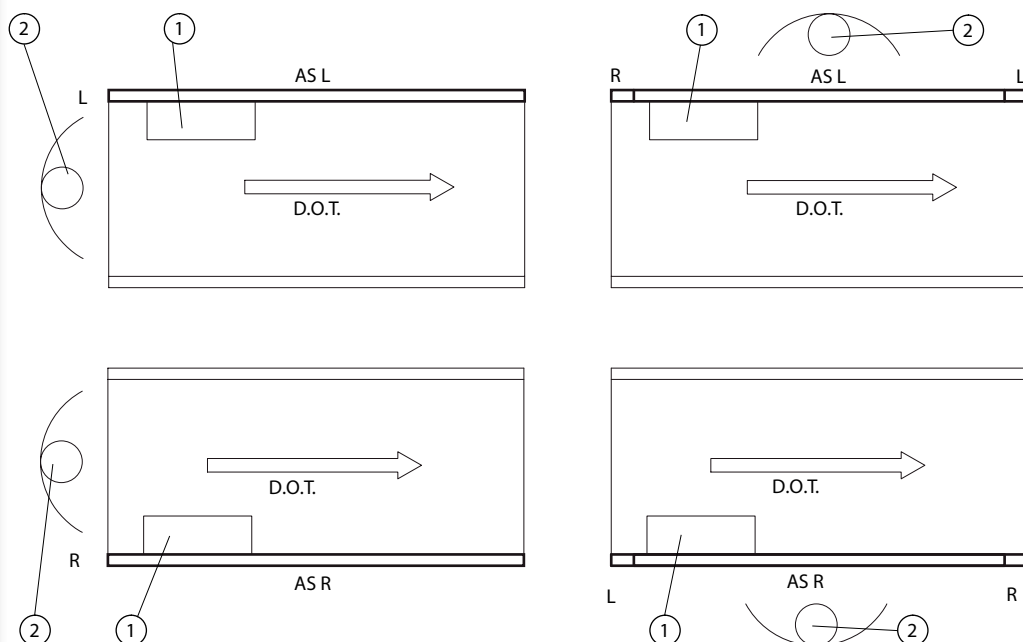


Fig.: Drive side right (R) and left (L) and end terminals

D.O.T.	Direction of travel
1	Motor
2	End terminal
AS R	Drive side right
AS L	Drive side left

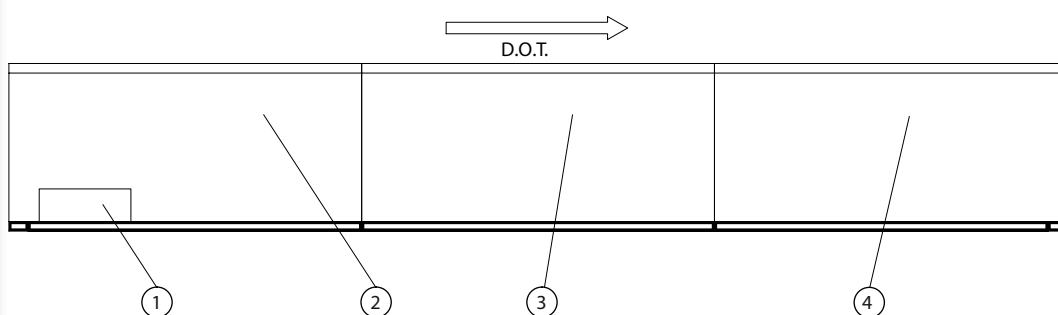


Fig.: Example of a conveyor line with three modules

D.O.T.	Direction of travel
1	Motor
2	Drive module, terminal left: DL; Drive side right: R
3	Intermediate slave module: SI; Drive side right: R
4	Slave module, terminal right: SR; Drive side right: R

PolyVee Roller Conveyor

The maximum number of rollers on each side of the motor is 50. The power capacity must not exceed 0.75 kW. With speeds greater than 1.5 m/s, a soft start is recommended for the motor.

The required power capacity is calculated as follows:

$$p = \frac{v \times m \times 0,1}{100}$$

p	Power capacity in kW
v	Conveyor speed in m/s
m	Total weight of the transport units per drive in kg
μ	Coefficient of friction = 0.1

PolyVee Modules must be ordered according to their position in the conveyor line. There are two PolyVee module types:

- Drive module
- Slave module (module without own drive)



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INFORMATION ABOUT DIMENSIONS OF FEEDERS, DIVERTERS AND TRANSFER

Dimensions of feeders, diverters and transfers

The angle and clearance of a feeder or diverter module define the dimensions of the module.
The following tables show the standard dimensions for modules.

Gravity merge ERS50
Rollerdrive conveyor merge ERS 51
Smart conveyor merge ERS 52
400V Conveyor ERS53

Clearance LW in mm	Clearance LWT in mm	Module Length ML in mm	Face Length F in mm	Module length ML in mm	Face length F in mm
		with angle $\alpha = 45^\circ$ and roller pitch $P = 75$ mm		with angle $\alpha = 30^\circ$ and roller pitch $P = 75$ mm	
420	420	900	637,5	1200	937,5
520	420	900	637,5	1200	937,5
620	420	900	637,5	1200	937,5
820	420	900	637,5	1200	937,5
420	620	1200	787,5	1500	1312,5
520	620	1200	787,5	1500	1312,5
620	620	1200	787,5	1500	1312,5
820	620	1200	787,5	1500	1312,5
620	820	1500	1012,5	1950	1612,5
820	820	1500	1012,5	1950	1612,5

24V Diverter ERS 51/52

Clearance LW in mm	Clearance LWT in mm	Module Length ML in mm	Face Length F in mm	Module length ML in mm	Face length F in mm
		with angle $\alpha = 45^\circ$ and roller pitch $P = 75$ mm		with angle $\alpha = 30^\circ$ and roller pitch $P = 75$ mm	
420	420	850	637,5	1150	937,5
520	420	850	637,5	1150	937,5
620	420	850	637,5	1150	937,5
820	420	850	637,5	1150	937,5
420	620	1100	787,5	1550	1312,5
520	620	1100	787,5	1550	1312,5
620	620	1100	787,5	1550	1312,5
820	620	1100	787,5	1550	1312,5
620	820	1425	1012,5	1950	1612,5
820	820	1425	1012,5	1950	1612,5

Belt driven high speed Pop-Up ERS 53

Clearance LW in mm	Module length ML in mm	Face length LM in mm
	with angle $\alpha = 30^\circ$ and roller pitch $P = 75$ mm	
420	1425	937,5
520	1425	937,5
620	1800	1312,5
820	2250	1612,5



Classification of EASY Belt Conveyors

Belt conveyors are classified according to the following features:

- Use as a horizontal conveyor or incline/decline conveyor
- Conveyor length
- Lane width
- Conveyor speed
- Max. load capacity / m
- Max. overall load capacity / drive

Transport material	Boxes, packages, plastic containers, plastic parts, trays etc.
Load capacity	up to 50 kg/m
Max. total load capacity	600 kg
Conveyor speed	0.1 to 2.6 m/s
Lane width	420, 520, 620, 820 mm, others on request
Conveyor length	600 to 30000 mm
Incline/decline	Max. 22,5°
Ambient temperature	-5 to +50 °C

Horizontal belt conveyors

Horizontal belt conveyors can be supplied completely assembled up to a length of 6000 mm. Longer conveyors are always made up of several module segments. These segments must be assembled and adjusted on-site.

The required power capacity depends upon the conveyor length, the belt speed and the belt load of the conveyor. Calculation of the required power capacity is carried out by Easy Conveyors in accordance with your specifications. As a point of reference, you can calculate the power capacity with the simplified formula on P124.

Head drive with drum motor is possible for belt conveyor ERS70-1 if the overall weight of the transport material is less than 220 kg and the conveying speed does not exceed 1.0 m/s. If higher loads and/or speeds are required, a center drive is used.

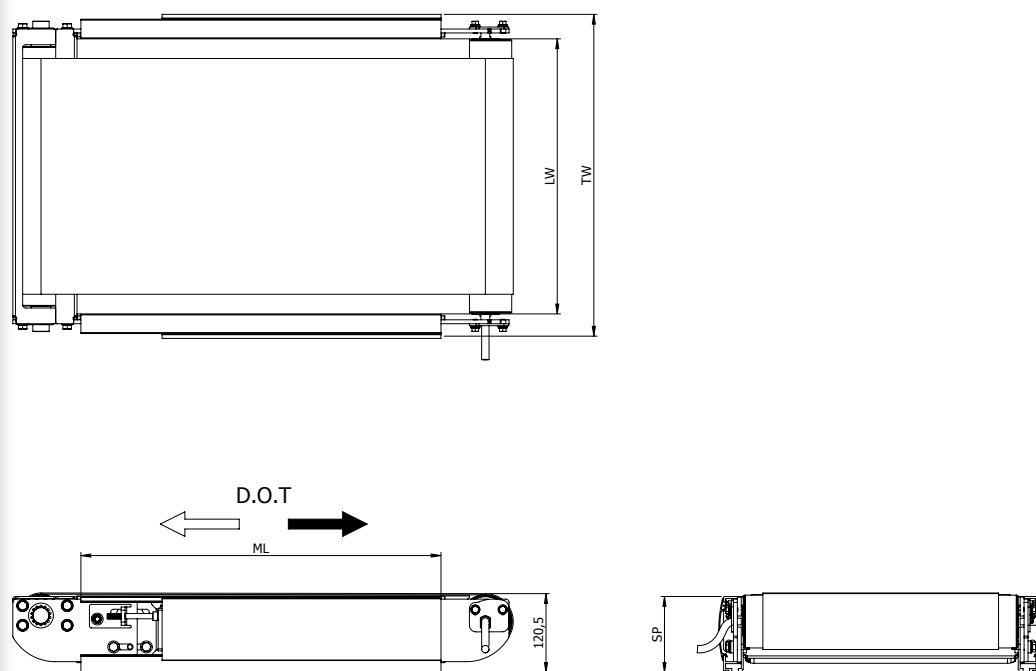


Fig.: EASY Belt Conveyor ERS70-1 (head drive)

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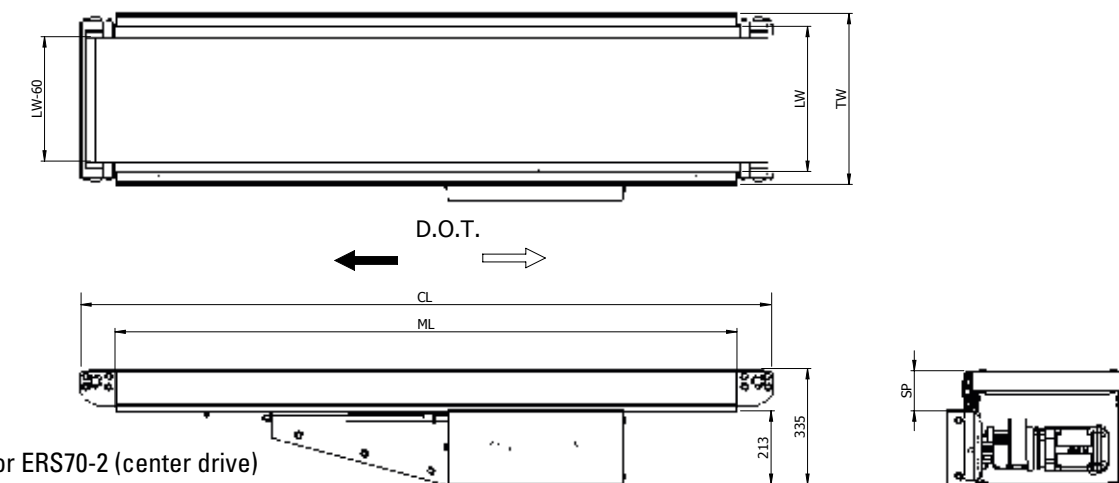


Fig.: EASY Belt Conveyor ERS70-2 (center drive)

CL	Conveyor length
D.O.T.	Conveyor direction

Incline and decline conveyors

Belt Conveyors ERS70-3/70-4/70-5 with incline/decline are used if height differences have to be managed. The conveyors can be equipped above with a horizontal component with a fixed angled frame as well as below with an incline power feeder or decline power feeder.

The maximum angle of incline or decline depends on the material to be conveyed. For containers and cardboard boxes, the angle should be max. 22,5° to ensure a trouble-free transport.

The drive type is a center drive with shaft-mounted gear motor. The motor typically has a brake with a brake voltage of 400 V.

The required power capacity depends upon the conveyor length, the construction form of the belt conveyor, the belt speed and the belt load of the conveyor. The calculation of the required power capacity (in kW) is performed by Easy Conveyors according to your specifications.



APPLICATION NOTES BELT CONVEYORS

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Note about supports:

For incline and decline conveyors, use the ERS60 adjustable supports. With an infeed height or discharge height T.O.B. $2 > 2000$ mm, cross bracing is needed for stability.

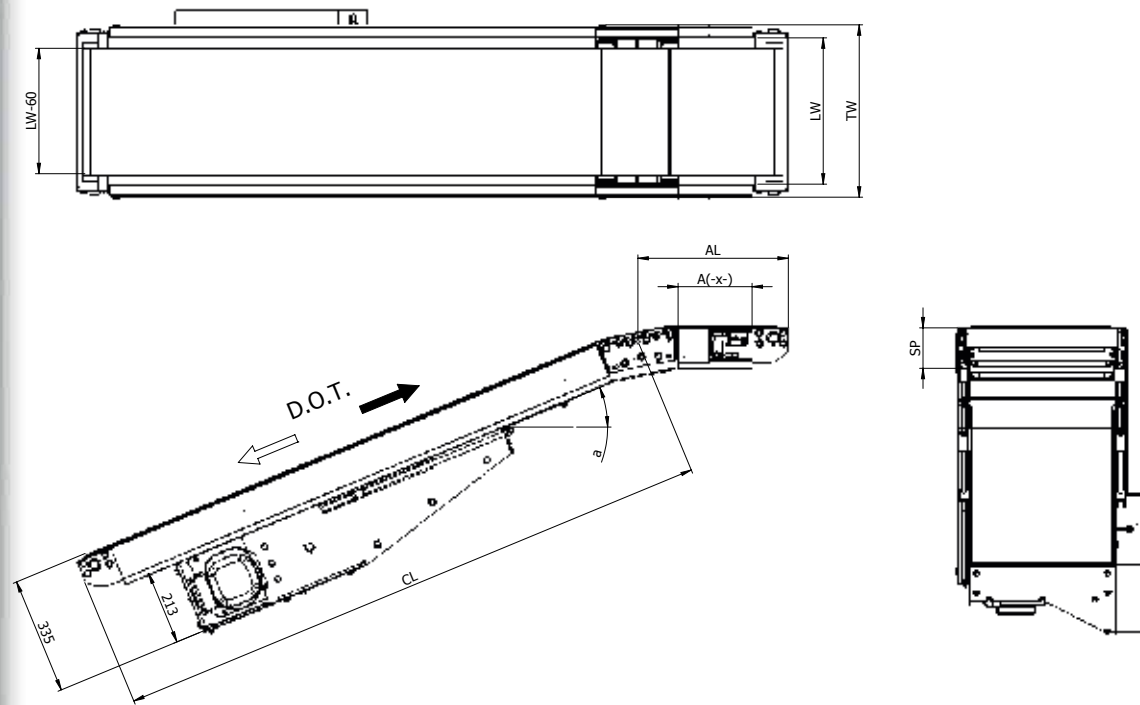


Fig.: EASY Belt Conveyor ERS70-3 (center drive + outfeed)

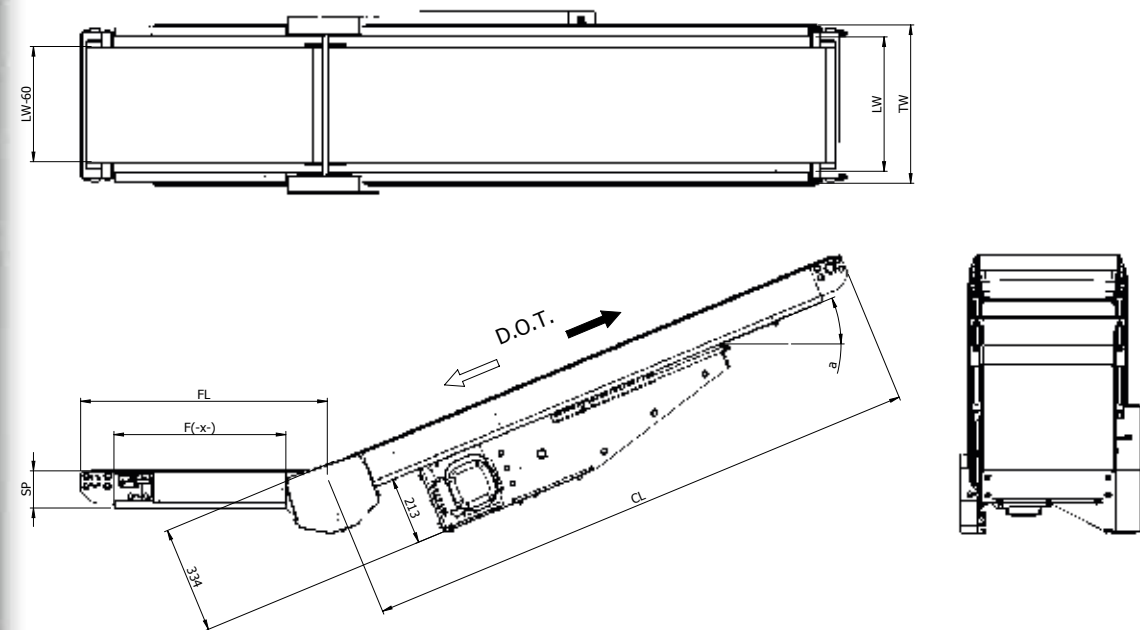


Fig.: Easy Belt Conveyor ERS70-4 (center drive + infeed)

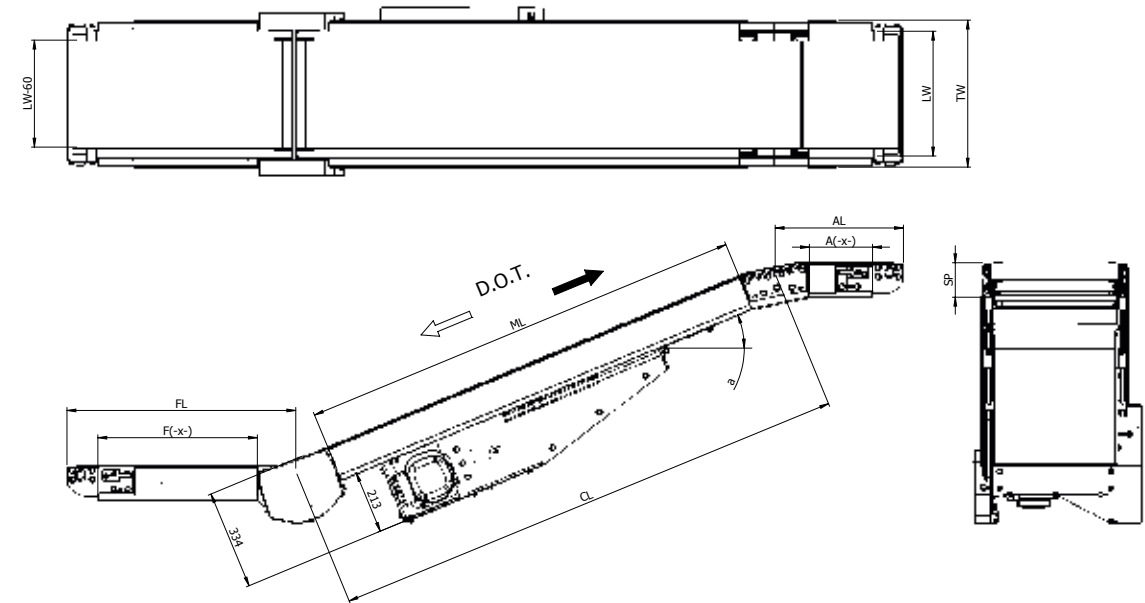


Fig.: Easy Belt Conveyor ERS70-3 (center drive + infeed + outfeed)

CL	Conveyor length
FL	Bottom length
AL	Top length
D.O.T.	Conveyor direction
T.O.B.	Onload/discharge height
α	Angle, max. 22.5°



Calculations

Throughput

The throughput TP of a belt conveyor is given in units/hour and depends on the transport material dimensions and conveying speed.

The window size T is required for calculating the throughput. The window size T is the distance from the front edge of a transport material to the front edge of the following transport material, irrespective of the actual length of the transport material or zone length.

For the precise calculation of the power capacity T_p , please contact your Interroll customer representative. T_p for straight paths can roughly be calculated as follows:

$$T_p = \frac{3.600 \cdot v}{T}$$

T_p	Throughput in units/hour
v	Conveying speed in m/s
T	Window size in m.

With merging and diverting, throughput is additionally influenced by the actual length and weight of the transport material as well as the transfer cycle. Please contact your Interroll customer consultant for calculations.

Power capacity

The power capacity P of an Interroll belt conveyor (applies only to horizontal conveyors) is specified in kW. The power capacity depends on the overall weight m of the transport material in kg and the conveying speed v in m/s.

For the precise calculation of the power capacity P, please contact your Interroll customer representative. P can be calculated with the simplified formula:

$$P = v \cdot m \cdot 0,005$$

p	Power capacity in kW
v	Conveying speed in m/s
m	Overall weight of transport material in kg

For example, the power capacity P at a conveying speed of 0.5 m/s and an overall weight of 200 kg is calculated as follows:

$$P = 0,5 \text{ m/s} \cdot 200 \text{ kg} \cdot 0,005 = 0,50 \text{ kW ms}$$

Since the actual power capacity should always be higher than the calculated value, the selection of a power capacity of at least 0.55 kW is recommended for the example.

Easy Conveyors reserves the right to select a drive that meets the factory standard.

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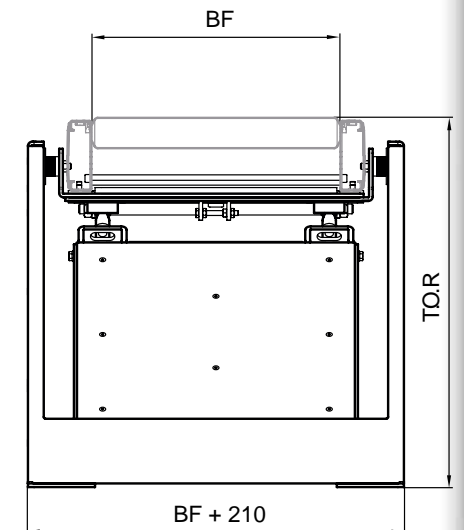
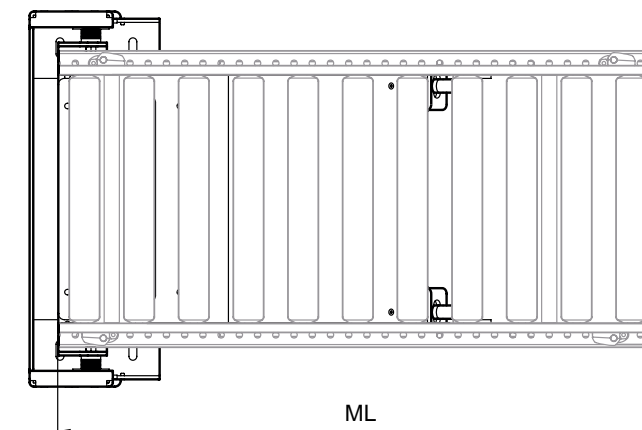
PRODUCT DESCRIPTION

The lift-up gate swivels upward to provide a walkway, or access from one side of the conveyor to the other. This allows access to the rear of the conveyor, and the ability to plan quicker escape routes, in case of an emergency. The swivel movement is operated by an innovative rotary mechanism.

TECHNICAL DATA

General technical data	Max. load capacity	100 kg (incl. fitted module)
	Ambient temperature	-5 to +40 °C
	Incline/decline	Not suitable.

DIMENSIONS



BF	Between frames	420, 520, 620, 820 mm, others on request
T.O.R.	Min. height of top edge of roller	700 mm
ML	Module length	1000 to 1800 mm
	Channel width	ML - 220 mm

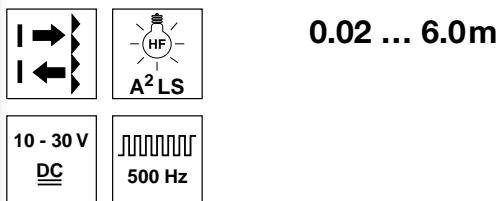
Scope of supply

- The module is fully assembled
- Please order fitted conveyor module separately

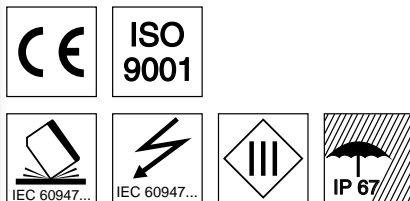
Order information

Visit us at www.easy-conveyors.com

SENSORS



- Polarized retro-reflective photoelectric sensor using visible red light
- Active suppression of extraneous light A²LS
- Fast alignment through *brightVision*®
- Simple mounting with integrated M3 metal threaded sleeves
- Compact installation possible due to cable outlet at the rear or bottom
- Full control through green and yellow indicator LEDs
- Robust plastic housing acc. to IP 67 for industrial application
- Complementary outputs for light/dark switching

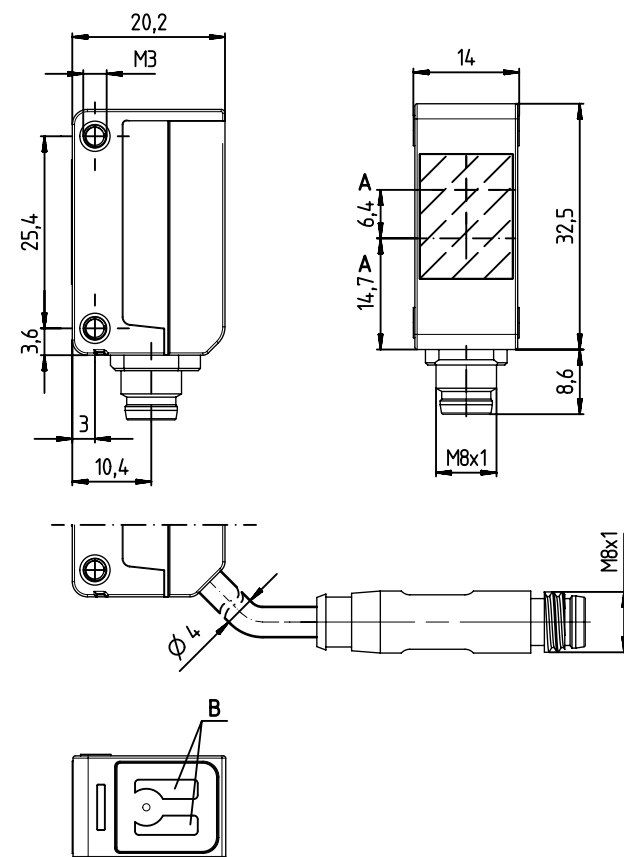


Accessories:

(available separately)

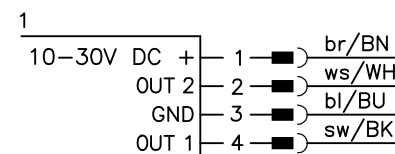
- Mounting systems (BTU 200 ..., BT 200...)
- M 8 connectors (KD ...)
- Ready-made cables (K-D ...)
- Reflectors
- Reflective tape

Dimensioned drawing



- A Optical axis
B Indicator diodes

Electrical connection



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Specifications

Optical data

Typ. op. range limit (TK(S) 100x100) ¹⁾ 0.02 ... 6.0m
Operating range ²⁾ see tables
Light source LED (modulated light)
Wavelength 620nm (visible red light, polarized)

Timing

Switching frequency 500Hz
Response time 1ms
Delay before start-up ≤ 300ms

Electrical data

Operating voltage U_B 10 ... 30VDC
Residual ripple ≤ 15% of U_B
Open-circuit current ≤ 20mA
Switching output .../4P... 2 PNP transistor outputs
pin 2: PNP dark switching, pin 4: PNP light switching
.../2N... 2 NPN transistor outputs
pin 2: NPN dark switching, pin 4: NPN light switching
Signal voltage high/low $\geq (U_B - 2.5V) \leq 2.5V$
Output current max. 100mA ³⁾

Indicators

LED green ready
LED yellow light path free
Yellow LED, flashing light path free, no performance reserve

Mechanical data

Housing plastic
Optics cover plastic
Weight 20g with M8 connector
40g with 200mm cable and M12 connector
70g with 2m cable
M8 connector, 4-pin
cable 200mm with M12 connector, 4-pin
cable 2m, 4x0.20mm²

Environmental data

Ambient temp. (operation/storage) -40°C ... +60°C/-40°C ... +70°C
Protective circuit ⁴⁾ 2, 3
VDE safety class III
Protection class IP 67
Light source free group (in acc. with EN 62471)
Standards applied IEC 60947-5-2

- 1) Typ. operating range limit: max. attainable range without performance reserve
2) Operating range: recommended range with performance reserve
3) Sum of the output currents for both outputs, 50mA when ambient temperatures > 40°C
4) 2=polarity reversal protection, 3=short-circuit protection for all outputs

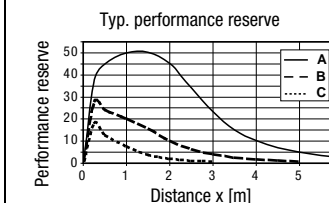
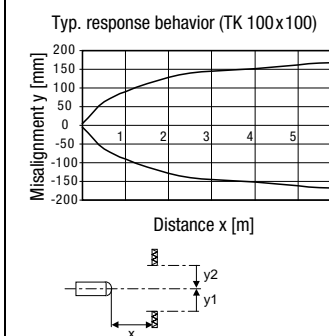
Tables

Reflectors	Operating range
1 TK(S) 100x100	0.02 ... 4.5m
2 TKS 40x60	0.02 ... 3.0m
3 TKS 82.2	0.05 ... 3.6m
4 TKS 30x50	0.03 ... 1.9m
5 TKS 20x40	0.04 ... 1.6m
6 Tape 4 50x50	0.08 ... 1.4m

1	0.02	4.5	6.0
2	0.02	3.0	4.0
3	0.05	3.6	4.5
4	0.03	1.9	2.5
5	0.04	1.6	2.2
6	0.08	1.4	2.0

Operating range [m]
Typ. operating range limit [m]

Diagrams



- A TKS 100x100
B TKS 40x60
C TKS 20x40

Remarks

- **Approved purpose:**
This product may only be used by qualified personnel and must only be used for the approved purpose. This sensor is not a safety sensor and is not to be used for the protection of persons.

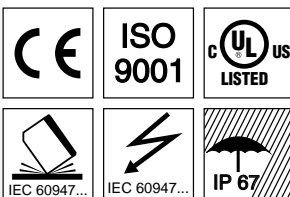




M12 4 mm
8 mm
10 mm

10 - 30 V
DC
2 kHz
non-embedded

- Slim and short cylindrical metal housing M12
- Chromium-plated brass housing
- Built-in short circuit protection, inductive protection and polarity reversal protection
- LED for switching state visible from 360°



Accessories:

(available separately)

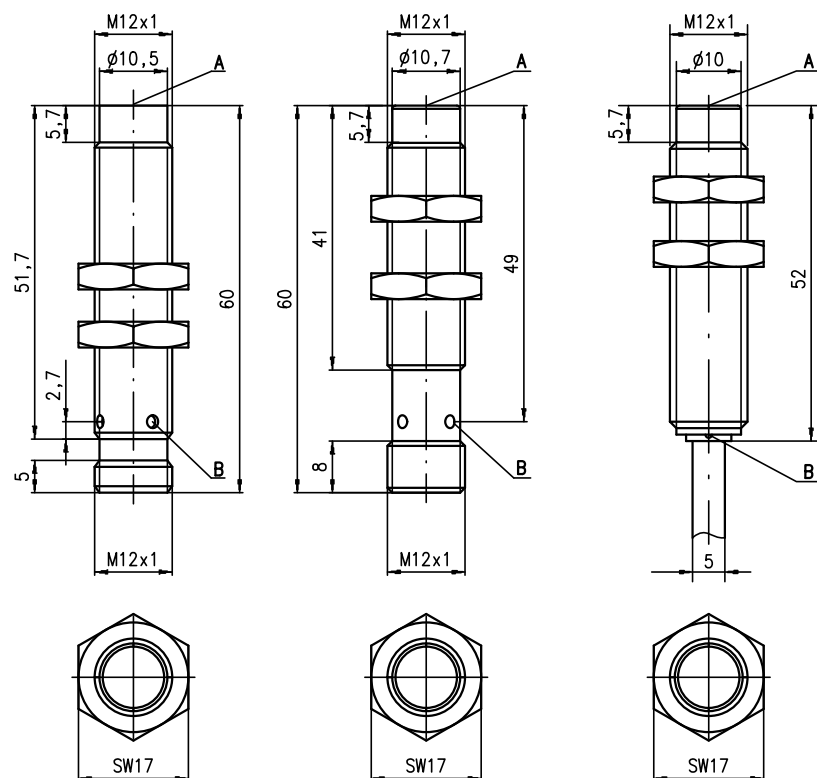
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Mounting clamp (MC 012...)

Dimensioned drawing

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...CONVEYORS

IS 212...-4NO-S12
IS 212...-8NO-S12

IS 212...-10N-S12

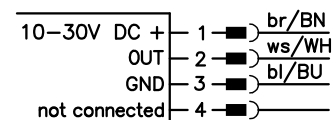
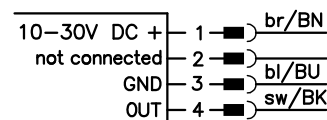


Tightening torque of the fastening nuts < 10Nm !

M12 connector

...NO... (normally open)

...NC... (normally closed)



...NO...-S12 (normally open):
...NC...-S12 (normally closed):

3-pin or 4-pin M12 connection cables can be used.
only 4-pin M12 connection cables can be used.

Specifications

General specifications

Type of installation
Typ. operating range limit S_n
Operating range S_a

Electrical data

Operating voltage U_B 1)
Residual ripple σ
Output current I_L
Open-circuit current I_0
Residual current I_r
Switching output/function .../4NO...
.../4NC...
.../2NO...
.../2NC...

Voltage drop U_d
Hysteresis H of S_r
Temperature drift of S_r
Repeatability

Timing

Switching frequency f
Delay before start-up

Indicators

Yellow LED (visible from 360°)

Mechanical data

Housing
Standard surface plate
Active surface
Weight (M12 plug/cable)

Environmental data

Ambient temperature
Protection class
Protective circuit 4)
Standards applied
Electromagnetic compatibility

IS 212...-4NO...

non-embedded installation
4.0mm
0 ... 3.2mm

IS 212...-8NO...

8.0mm
0 ... 6.4mm

IS 212...-10N...

10.0mm
0 ... 8.1mm

10 ... 30VDC
 $\leq 20\%$ of U_B
 $\leq 200\text{mA}$
 $\leq 10\text{mA}$
 $\leq 100\mu\text{A}$
PNP transistor, make-contact (NO)
PNP transistor, break-contact (NC)
NPN transistor, make-contact (NO)
NPN transistor, break-contact (NC)

$\leq 2\text{V}$
 $\leq 10\%$
 $\leq 10\%$ 2)
 $\leq 5\%$ 3)

$\leq 5\%$ 3)

$\leq 3\%$ 3)

2kHz
 $\leq 10\text{ms}$

1.5kHz
 $\leq 10\text{ms}$

400Hz
 $\leq 50\text{ms}$

switching state

chromium-plated
brass

12 x 12mm², Fe360 24 x 24mm², Fe360 30 x 30mm², Fe360
PBTP
approx. 30g/
approx. 95g
M12 connector 4-pin or
cable: 2m, PVC, 3 x 0.34mm², Ø 5.0mm

-25°C ... +70°C

IP 67

1, 2, 3

IEC/EN 60947-5-2

IEC 60255-5

IEC 61000-4-2

IEC 61000-4-3

IEC 61000-4-4

1kV

Level 3 air 8kV (ESD)

Level 3 10V/m (RFI)

Level 3 2kV (Burst)

1kV

Level 3 air 8kV (ESD)

Level 3 10V/m (RFI)

Level 3 2kV (Burst)

- 1) Observe the safety regulations and installation instructions regarding power supply and wiring; for UL applications: only for use in "Class 2" circuits acc. to NEC
- 2) Over the entire operating temperature range
- 3) For $U_B = 20 \dots 30\text{VDC}$, ambient temperature $T_a = 23^\circ\text{C} \pm 5^\circ\text{C}$
- 4) 1=polarity reversal protection, 2=short circuit protection, 3=inductive protection for all outputs

Tables

Reduction factors:

for $S_n = 4.0\text{mm}$

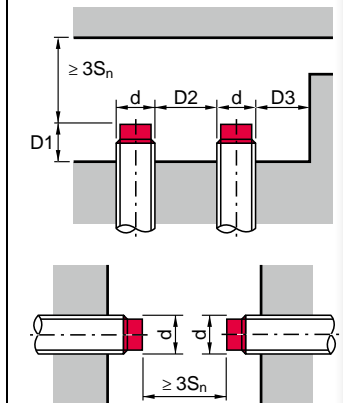
Material	Reduction factor
Steel Fe360	1
Copper	0.50
Aluminum	0.50
Brass	0.60
Stainless steel	0.90

for $S_n = 8.0\text{mm}$

Material	Reduction factor
Steel Fe360	1
Copper	0.41
Aluminum	0.46
Brass	0.52
Stainless steel	0.74

Mounting

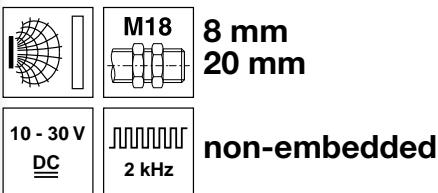
Non-embedded
installation:



Ferromagnetic and non-ferromagnetic materials			
S_n [mm]	D1 [mm]	D2 [mm]	D3 [mm]
4.0	6.0	16.0	6.0
8.0	9.0	33.0	14.0
10.0	13.0	30.0	10.0

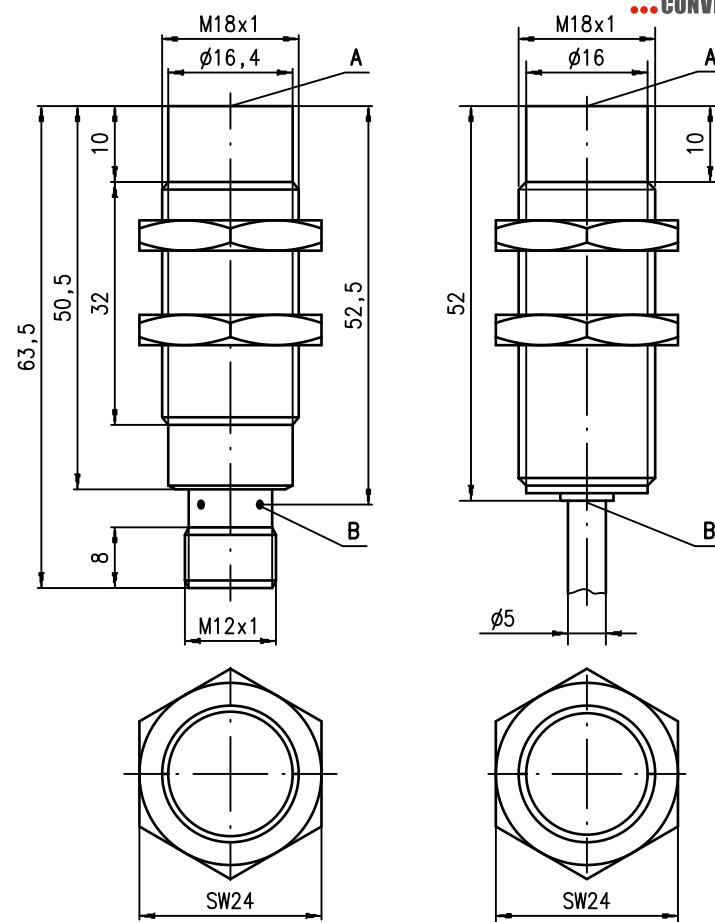


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...CONVEYORS



- Slim and short cylindrical metal housing M8
- Chromium-plated brass housing
- Built-in short circuit protection, inductive protection and polarity reversal protection
- LED for switching state visible from 360°

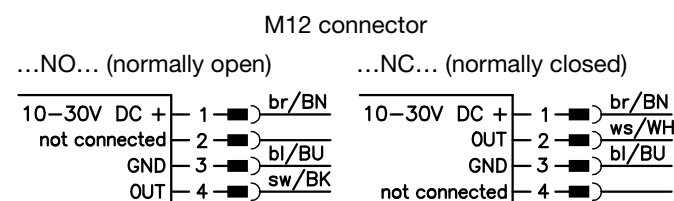
Dimensioned drawing



Tightening torque of the fastening nuts
IS 218...8N0... < 20Nm !
IS 218...20N... < 25Nm !

- A Active surface
B Yellow indicator diode

Electrical connection



...NO...-S12 (normally open): 3-pin or 4-pin M12 connection cables can be used.
...NC...-S12 (normally closed): only 4-pin M12 connection cables can be used.

Specifications

General specifications

Type of installation
Typ. operating range limit S_n
Operating range S_a

Electrical data

Operating voltage U_B 1)
Residual ripple σ
Output current I_L
Open-circuit current I_0
Residual current I_r
Switching output/function

Voltage drop U_d
Hysteresis H of S_r
Temperature drift of S_r
Repeatability

Timing

Switching frequency f
Delay before start-up

Indicators

Yellow LED (visible from 360°)

Mechanical data

Housing
Standard surface plate
Active surface
Weight (M12 plug/cable)
Connection type

Environmental data

Ambient temperature
Protection class
Protective circuit 4)
Standards applied
Electromagnetic compatibility

IS 218...-8N0...

non-embedded installation
8.0mm
0 ... 6.5mm

10 ... 30VDC
 $\leq 20\%$ of U_B
 ≤ 200 mA
 ≤ 10 mA
 ≤ 100 µA

.../4NO... PNP transistor, make-contact (NO)
.../4NC... PNP transistor, break-contact (NC)
.../2NO... NPN transistor, make-contact (NO)
.../2NC... NPN transistor, break-contact (NC)

≤ 2 V
 $\leq 10\%$
 $\leq 10\%$ 2)
 $\leq 5\%$ 3)

2kHz
 ≤ 40 ms

switching state

chromium-plated brass
24 x 24mm², Fe360
PBTP
approx. 50g/approx. 120g
M12 connector 4-pin or
cable: 2m, PVC, 3 x 0.34mm², Ø 5.0mm

-25°C ... +70°C
IP 67
1, 2, 3
IEC/EN 60947-5-2
IEC 60255-5
IEC 61000-4-2
IEC 61000-4-3
IEC 61000-4-4

IS 218...-20N...

20.0mm
0 ... 16.2mm

60 x 60mm², Fe360
1kV
Level 3 air 8kV (ESD)
Level 3 10V/m (RFI)
Level 3 2kV (Burst)

- 1) Observe the safety regulations and installation instructions regarding power supply and wiring; for UL applications: only for use in "Class 2" circuits acc. to NEC
- 2) Over the entire operating temperature range
- 3) For $U_B = 20 \dots 30$ VDC, ambient temperature $T_a = 23^\circ\text{C} \pm 5^\circ\text{C}$
- 4) 1=polarity reversal protection, 2=short circuit protection, 3=inductive protection for all outputs



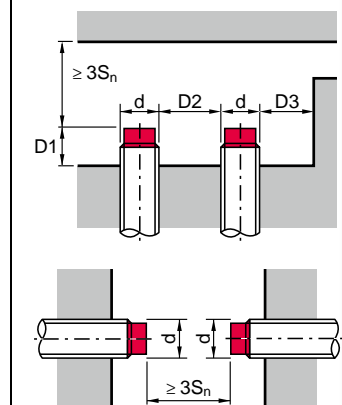
Tables

Reduction factors:

for $S_n = 8.0$ mm		for $S_n = 20.0$ mm	
Steel Fe360	1	Steel Fe360	1
Copper	0.40	Copper	0.35
Aluminum	0.50	Aluminum	0.40
Brass	0.50	Brass	0.45
Stainless steel	0.80	Stainless steel	0.66

Mounting

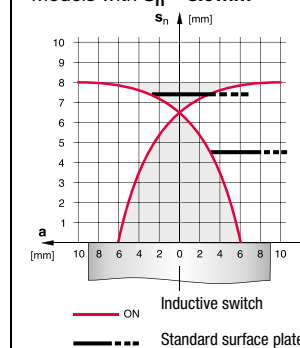
Non-embedded installation:



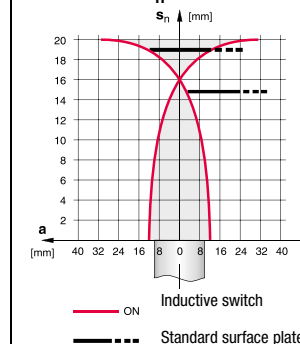
Ferromagnetic and non-ferromagnetic materials			
S_n [mm]	D1 [mm]	D2 [mm]	D3 [mm]
8.0	10.0	32.0	11.0
20.0	20.0	50.0	21.0

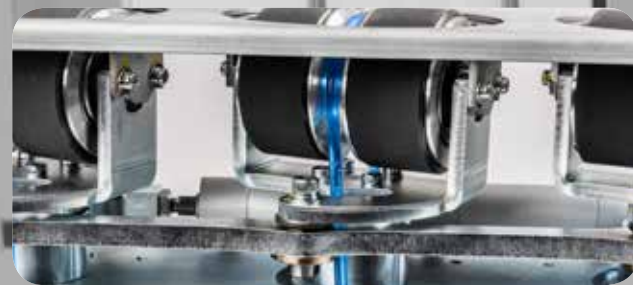
Diagrams

Models with $S_n = 8.0$ mm



Models with $S_n = 20.0$ mm







METAALUNIE CONDITIONS

General Terms and Conditions issued by Koninklijke Metaalunie (the Dutch organization for small and medium-sized enterprises in the metal industry), referred to as the METAALUNIE TERMS AND CONDITIONS, filed at the Registry of the Rotterdam District Court on 1 January 2014. Issued by Koninklijke Metaalunie, P.O. Box 2600, 3430 GA Nieuwegein, the Netherlands. © Koninklijke Metaalunie

Article 1: Applicability

- These Terms and Conditions apply to all offers made by members of Koninklijke Metaalunie, all agreements they conclude and all agreements that may result therefrom, all this in so far as the Metaalunie member is offeror or supplier.
- A Metaalunie member using these Terms and Conditions is referred to as the Contractor. The other party is referred to as the Client.
- In the event of any conflict between the substance of the agreement concluded between the Contractor and the Client and these Terms and Conditions, the provisions of the agreement will prevail.
- These Terms and Conditions may only be used by Metaalunie members.

Article 2: Offers

- All offers are without obligation.
- If the Client provides the Contractor with data, drawings and the like, the Contractor may rely on their accuracy and completeness and will base its offer on the same.
- The prices stated in the offer are based on delivery ex works, Contractor's place of establishment, in accordance with the Incoterms 2010. Prices are exclusive of VAT and packaging.
- If the Client does not accept the Contractor's offer, the Contractor is entitled to charge the Client for all costs incurred by the Contractor in making the offer to the Client.

Article 3: Intellectual property rights

- Unless otherwise agreed in writing, the Contractor retains the copyright and all industrial property rights in the offers made by it and in the designs, pictures, drawings, models (including trial models), software and the like provided by it.
- The rights in the data referred to in paragraph 1 of this article will remain the property of the Contractor irrespective of whether the costs of their production have been charged to the Client. These data may not be copied, used or shown to third parties without the Contractor's prior express written consent. The Client will owe the Contractor an immediately payable penalty of € 25,000 for each breach of this provision. This penalty may be claimed in addition to damages pursuant to the law. 2
- On the Contractor's first demand, the Client must return the data provided to it as referred to in paragraph 1 of this Article within the time limit set by the Contractor. Upon breach of this provision, the Client will owe the Contractor an immediately payable penalty of € 1,000 per day. This penalty may be claimed in addition to damages pursuant to the law.

Article 4: Advice and information provided

- The Client cannot derive any rights from advice or information it obtains from the Contractor if this does not relate to the assignment.
- If the Client provides the Contractor with data, drawings and the like, the Contractor may rely on their accuracy and completeness in the performance of the agreement.
- The Client indemnifies the Contractor from and against all liability to third parties relating to use of the advice, drawings, calculations, designs, materials, samples, models and the like provided by or on behalf of the Client.

Article 5: Delivery period / performance period

- The delivery period and/or performance period will be set by the Contractor on an approximate basis.
- In setting the delivery period and/or performance period, the Contractor will assume that it will be able to perform the assignment under the conditions known to it at that time.
- The delivery period and/or performance period will only commence once agreement has been reached on all commercial and technical details, all necessary data, final and approved drawings and the like are in the Contractor's possession, the agreed payment or instalment has been received and the necessary conditions for performance of the assignment have been satisfied.
- a. In the event of circumstances that differ from those that were known to the Contractor when it set the delivery period and/or performance period, it may extend the delivery period and/or perfor-

mance period by such period as it needs to perform the assignment under such circumstances. If the work cannot be incorporated into the Contractor's schedule, it will be performed as soon as the Contractor's schedule so permits.

- In the event of any contract addition, the delivery period and/or performance period will be extended by such period as the Contractor needs to (cause to) supply the materials and parts for such work and to perform the contract addition. If the contract addition cannot be incorporated into the Contractor's schedule, the work will be performed as soon as the Contractor's schedule so permits.
- If the Contractor suspends its obligations, the delivery period and/or performance period will be extended by the duration of the suspension. If the continuation of the work cannot be incorporated into the Contractor's schedule, the work will be performed as soon as the Contractor's schedule so permits.
- In the event of inclement weather, the delivery period and/or performance period will be extended by the resulting delay.

- The Client is required to pay all costs incurred by the Contractor as a result of delay affecting the delivery period and/or performance period as referred to in Article 5.4. 3
- If the delivery period and/or performance period is/are exceeded, this will in no event entitle to damages or termination.

Article 6: Transfer of risk

- Delivery will be made ex works, Contractor's place of establishment, in accordance with the Incoterms 2010. The risk attached to the good passes to the Client at the time the Contractor makes the good available to the Client.
- Notwithstanding the provisions in paragraph 1 of this article, the Client and Contractor may agree that the Contractor will arrange for transport. In that event, the risk of storage, loading, transport and unloading will be borne by the Client. The Client may insure itself against these risks.
- In the event of a purchase in which a good is exchanged (inruil) and the Client retains the good to be exchanged pending delivery of the new good, the risk attached to the good to be exchanged remains with the Client until it has placed this good in the possession of the Contractor. If the Client cannot deliver the good to be exchanged in the condition that it was in when the agreement was concluded, the Contractor may terminate the agreement.

Article 7: Price change

- The Contractor may pass on to the Client any increase in costing factors occurring after conclusion of the agreement.
- The Client will be obliged to pay the price increase as referred to in paragraph 1 of this article on any of the occasions below, such at the discretion of the Contractor:
 - upon the occurrence of the price increase;
 - at the same time as payment of the principal sum;
 - on the next agreed payment deadline.

Article 8: Force majeure

- The Contractor is entitled to suspend performance of its obligations if it is temporarily prevented from performing its contractual obligations to the Client due to force majeure.
- Force majeure is understood to mean, inter alia, the circumstance of failure by suppliers, the Contractor's subcontractors or transport companies engaged by the Contractor to perform their obligations or perform them in good time, weather conditions, earthquakes, fire, power failure, loss, theft or destruction of tools or materials, road blocks, strikes or work stoppages and import or trade restrictions.
- If the Contractor's temporary inability to perform lasts for more than six months, it will no longer be entitled to suspend performance. On expiry of this deadline, the Client and the Contractor may terminate the agreement with immediate effect, but only as regards such part of the obligations that has not yet been performed.
- In the event of force majeure where performance is or becomes permanently impossible, both parties are entitled to terminate the agreement with immediate effect as regards such part of the obligations that has not yet been performed.
- The parties will not be entitled to compensation for damage suffered or to be suffered as a result of suspension or termination as referred to in this article.

Article 9: Scope of the work

- The Client must ensure that all licences, exemptions and other administrative decisions necessary to carry out the work are obtained in good time. The Client is required upon the Contractor's first demand to send the Contractor a copy of the documents mentioned above.
- The price of the work does not include:
 - the costs of earthwork, pile driving, cutting, breacking, foundation work, cementing, carpentry, plastering, painting, wallpapering, repair work or other construction work;
 - the costs of connecting gas, water, electricity or other infrastructural facilities;
 - the costs of preventing or limiting damage to any goods present on or near the work site.
 - the costs of removal of materials, building materials or waste;
 - travel and accommodation expenses.

Article 10: Changes to the work

- Changes to the work will in any event result in contract variations work if:
 - the design, specifications or contract documents are changed;
 - the information provided by the Client is not factually accurate;
 - quantities diverge by more than 10% from the estimates.
- Contract additions will be charged on the basis of the pricing factors applicable at the time the contract addition is performed. Contract deductions will be charged on the basis of the pricing factors applicable at the time the agreement was concluded.
- The Client will be obliged to pay the price of the contract addition as referred to in paragraph 1 of this article on any of the occasions below, such at the discretion of the Contractor:
 - when the contract addition arises;
 - at the same time as payment of the principal sum;
 - on the next agreed payment deadline.
- If the sum of the contract deduction exceeds that of the contract addition, in the final settlement the Contractor may charge the Client 10% of the difference. This provision does not apply to contract deductions that result from a request by the Contractor.

Article 11: Performance of the work

- The Client will ensure that the Contractor can carry out its activities without interruption and at the agreed time and that the requisite facilities are made available to it when carrying out its activities, such as:
 - gas, water and electricity;
 - heating;
 - lockable and dry storage space;
 - facilities required pursuant to the Working Conditions Act and Working Conditions Regulations.
- The Client bears the risk of and is liable for any damage connected with loss, theft, burning and damage to goods belonging to the Contractor, the Client and third parties, such as tools, materials intended for the work or material used in the work, that are located on the work site or at another agreed location.

- The Client is obliged to adequately insure itself against the risks referred to in paragraph 2 of this article. In addition, the Client must procure insurance of work-related damage as regards the material to be used. Upon the Contractor first demand, the Client must send it a copy of the relevant insurance policy/policies and proof of payment of the premium. In the event of any damage, the Client is required to report this to its insurer without delay for further processing and settlement.

- If the Client fails to perform its obligations as described in the previous paragraphs and this results in delayed performance of the activities, the activities will be carried out as soon as the Client performs its obligations as yet and the Contractor's schedule so permits. The Client is liable for all damage suffered by the Contractor as a result of the delay.

Article 12: Completion of the work

- The work is deemed to be completed in the following events:
 - when the Client has approved the work;
 - when the work is been taken into commission by the Client. If the Client takes part of the work into commission, that part will be deemed to be completed;
 - if the Contractor notifies the Client in writing that the work has been completed and the Client does not inform it in writing as to whether or not the work is approved within 14 days of such notification having been made;

- if the Client does not approve the work due to minor defects or missing parts that can be rectified or subsequently delivered within 30 days and that do not prevent the work from being taken into commission.
- If the Client does not approve the work, it is required to inform the Contractor of this in writing, stating reasons. The Client must provide the Contractor with the opportunity to complete the work as yet.
 - The Client indemnifies the Contractor from and against any claims by third parties for damage to non-completed parts of the work caused by use of parts of the work that have already been completed.

Article 13: Liability

- In the event of an attributable failure, the Contractor is obliged to perform its contractual obligations as yet.
- The Contractor's obligation to pay damages, irrespective of the legal basis, is limited to damage for which the Contractor is insured under an insurance policy taken out by it or on its behalf, but will never exceed the amount paid out under this insurance in the relevant case.
- If, for any reason whatsoever, the Contractor cannot invoke the limitation in paragraph 2 of this article, the obligation to pay damages will be limited to a maximum of 15% of the total assignment amount (excluding VAT). If the agreement comprises parts or partial deliveries, the obligation to pay damages is limited to a maximum of 15% (excluding VAT) of the assignment amount of that part or that partial delivery.
- The following does not qualify for compensation:
 - consequential loss, including business interruption loss, production loss, loss of profit, transport costs and travel and accommodation expenses. The Client may insure itself against this damage if possible;
 - damage to goods in or under its care, custody or control. Such damage includes damage caused as a result of or during the performance of the work to goods on which work is being performed or to goods situated in the vicinity of the work site. The Client may insure itself against such damage if it so desires;
 - damage caused by the intent or wilful recklessness of agents or non-management employees of the Contractor.
- The Contractor is not liable for damage to material provided by or on behalf of the Client where that damage is the result of improper processing.
- The Client indemnifies the Contractor from and against all claims by third parties on account of product liability as a result of a defect in a product supplied by the Client to a third party and that consisted, entirely or partially, of products and/or materials supplied by the Contractor. The Client is obliged to compensate all damage suffered by the Contractor in this respect, including the full costs of defence.

Article 14: Warranty and other claims

- Unless otherwise agreed in writing, the Contractor warrants the proper execution of the agreed performance for a period of six months after delivery/completion. In the event that a different warranty period is agreed, the other paragraphs of this article are also applicable.
- If the agreed performance was not properly executed, the Contractor will decide whether to properly execute it as yet or to credit the Client for a proportionate part of the invoice amount. If the Contractor chooses to properly execute the performance as yet, it will determine the manner and time of execution itself. If the agreed performance consisted (entirely or partially) of the processing of material provided by the Client, the Client must provide new material at its own risk and expense.
- Parts or materials that are repaired or replaced by the Contractor must be sent to the Contractor by the Client.
- The Client bears the expense of:
 - all costs of transport or dispatch;
 - costs of disassembly and assembly;
 - travel and accommodation expenses.
- The Client must in all cases offer the Contractor the opportunity to remedy any defect or to perform the processing again.
- The Client may only invoke the warranty once it has satisfied all its obligations to the Contractor.
- a. No warranty is given if the defects result from:
 - normal wear and tear;
 - improper use;
 - lack of maintenance or improper maintenance;
 - installation, fitting, modification or repair by the Client or third parties;

- defects in or unsuitability of goods originating from, or prescribed by, the Client;
 - defects in or unsuitability of materials or auxiliary materials used by the Client.
- No warranty is given in respect of:
 - goods supplied that were not new at the time of delivery;
 - the inspection and repair of goods of the Client;
 - parts for which a manufacturer's warranty has been provided.

- The provisions of paragraphs 2 to 7 of this article apply mutatis mutandis to any claims by the Client based on breach of contract, non-conformity or on any other basis whatsoever.

- The Client cannot assign any rights under this article.

Article 15: Obligation to complain

- The Client can no longer invoke a defect in performance if it does not make a written complaint to the Contractor in respect thereof within fourteen days of the date it discovered, or should reasonably have discovered, the defect.
- On pain of forfeiture of all rights, the Client must submit complaints regarding the amount invoiced to the Contractor in writing within the payment deadline. If the payment deadline is longer than thirty days, the Client must complain no later than thirty days after the date of the invoice.

Article 16: Failure to take delivery of goods

- Upon expiry of the delivery period and/or performance period, the Client is obliged to take delivery of the good or goods forming the subject of the agreement.
- The Client must lend all cooperation that can be reasonably expected from it to enable the Contractor to make the delivery.
- If the Client does not take delivery of goods, such goods will be stored at the risk and expense of the Client.
- Upon breach of the provisions in paragraphs 1 and/or 2 of this article, the Client will owe the Contractor a penalty of € 250 per day, to a maximum of € 25,000. This penalty may be claimed in addition to damages pursuant to the law.

Article 17: Payment

- Payment will be made at the Contractor's place of establishment or to an account to be designated by the Contractor.
- Unless agreed otherwise, payment will be made as follows:
 - in cash where sale is at the service desk;
 - in the case of payments in instalments:
 - 40% of the total price upon assignment;
 - 50% of the total price after supply of the material or, if delivery of the material is not included in the assignment, after commencement of the work;
 - 10% of the total price upon completion;
 - in all other cases, within thirty days of the date of the invoice.
- If the Client fails to comply with its payment obligation, instead of paying the sum of money agreed it will be obliged to comply with a request by the Contractor for payment in kind (inbetalinggeving).
- The right of the Client to set off or suspend amounts it is owed by the Contractor, save in the event of the Contractor's bankruptcy or if statutory debt rescheduling applies to the Contractor.
- Irrespective of whether the Contractor has fully executed the agreed performance, everything that is or will be owed to it by the Client under the agreement is immediately due and payable if:
 - a deadline for payment has been exceeded;
 - an application has been made for the Client's bankruptcy or suspension of payments;
 - attachment is levied on the Client's goods or claims;
 - the Client (a company) is dissolved or wound up.
 - the Client (a natural person) requests to be admitted to statutory debt rescheduling, is placed under guardianship or dies.
- If payment is not made within the agreed payment deadline, the Client will immediately owe interest to the Contractor. The interest rate is 12% per annum, but is equal to the statutory interest rate if the latter rate is higher. When calculating interest, part of a month is regarded as a whole month.
- The Contractor is authorised to set off its debts to the Client with amounts owed by the Client to companies affiliated with the Contractor. In addition, the Contractor is authorised to set off amounts owed to it by the

Client with debts to the Client of companies affiliated with the Contractor. Further, the Contractor is authorised to set off its debts to the Client with amounts owed to the Contractor by companies affiliated with the Client. Affiliated companies are understood to mean the companies belonging to the same group, within the meaning of Article 2:24b Dutch Civil Code, and participating interests within the meaning of Article 2:24c Dutch Civil Code.

- If payment is not made within the agreed payment deadline, the Client will owe the Contractor all extrajudicial costs, with a minimum of € 75. These costs will be calculated on the basis of the following table (principal sum plus interest):

on the first € 3,000	15%
on any additional amount up to € 6,000	10%
on any additional amount up to € 15,000	8%
on any additional amount up to € 60,000	5%
on any additional amount from € 60,000	3%

The extrajudicial costs actually incurred will be owed if these are higher than they would be according to the above calculation.

- If judgment is rendered in favour of the Contractor in legal proceedings, all costs that it has incurred in relation to these proceedings will be borne by the Client.

Article 18: Security

- Irrespective of the agreed payment conditions, upon the first demand of the Contractor the Client is obliged to provide such security for payment as the Contractor deems sufficient. If the Client does not comply with such demand within the period set, it will immediately be in default. In that event, the Contractor is entitled to terminate the agreement and to recover its damage from the Client.
- The Contractor will retain ownership of any goods delivered as long as the Client:
 - fails or will fail in the performance of its obligations under this agreement or other agreements;
 - has not paid debts that have arisen due to non-performance of the aforementioned agreements, such as damage, penalties, interest and costs.
- As long as the goods delivered are subject to retention of title, the Client may not encumber or alienate the same other than in the ordinary course of its business.
- Once the Contractor has invoked its retention of title, it may take possession of the goods delivered. The Client will lend its full cooperation to this end.
- The Contractor has a right of pledge and a right of retention in respect of all goods that are or will be held by it for any reason whatsoever and for all claims it has or might acquire against the Client in respect of anyone seeking their surrender.
- If, after the goods have been delivered to the Client by the Contractor in accordance with the agreement, the Client has met its obligations, the retention of title will be revived with regard to such goods if the Client does not meet its obligations under any agreement subsequently concluded.

Article 19: Termination of the Agreement

If the Client wishes to terminate the agreement without the Contractor being in default, and the Contractor agrees to this, the agreement will be terminated by mutual consent. In that case, the Contractor is entitled to compensation for all financial loss, such as loss suffered, loss of profit and costs incurred.

Article 20: Applicable law and competent court

- Dutch law applies.
- The Vienna Sales Convention (C.I.S.G.) does not apply, nor do any other international regulations the exclusion of which is permitted.
- Disputes will be heard exclusively by the Dutch civil court with jurisdiction over the Contractor's place of establishment, unless this is contrary to mandatory law. The Contractor may deviate from this rule of jurisdiction and apply the statutory rules of jurisdiction.

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