ERS 50 GRAVITY ROLLER CONVEYOR

ERS 51 ROLLER DRIVE CONVEYOR
(Drive control | excl. sensor kit)

ERS 52 SMART CONVEYOR
(Zone control | incl. sensor kit)

ERS 53 BELT DRIVEN CONVEYOR

ERS BELT CONVEYOR

ERS 60 SUPPORT STANDS

ERS 51 STOPPER

ERS TECHNICAL INFO

ERS ACCESSOIRES

ERS (DESIGN) NOTES

www.easy-conveyors.com
ROLLING CONVEYOR
GRAVITY ERS 50

CONVEYING WITHOUT A DRIVE

Simple
EASY gravity roller conveyors transport 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 use
EASY gravity Roller Conveyor are supplied in modular form and can be combined with all other Easy Conveyors in this catalogue.
The gravity, straight roller conveyor transports material either manually or over an gradient via gravity. It is mostly used for assembly and picking lines as well as for dynamic storage systems.

**TECHNICAL DATA**

**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**

**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
- Accessories, see PAGE 114

Refer to the (design) notes from P106 up for help with planning and design.

**www.easy-conveyors.com**
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.

**TECHNICAL DATA**

**General technical data**
- Max. load capacity: 100 kg
- Inclined/declined: Not suitable
- Ambient temperature: -5 to +10 °C

**Roller**
- Roller bearing: Sealed Precision ball bearing 6002 2RS
- 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
- Angle: 30° / 45° / 60° / 90°
- P Roller pitch, external: - (0.007 mm x LW) + P
- PI Roller pitch, internal: ~ 72 mm
- SF 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**
   - 30° | 45° | 60° | 90°

4. **CCW** = counter clock wise
   - CW = clock wise

5. **Side profiles**
   - HH | HL | LH | LL

**ORDER EXAMPLE**

Example for a reference number:

50 - 620 - 90 - CCW - HH

This reference number stands for Gravity Roller Conveyor ERS 50 with a clearance LW 620 mm and an angle of 90°, product flow CCW 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
- Accessories, see PAGE 114
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.

TECHNICAL DATA

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 2ZR
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

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
• Accessories, see PAGE 114
GRAVITY OUTFEED ROLLER CONVEYOR ERS 50

TECHNICAL DATA

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: 75.5 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
- P Max. module length: See application Notes PAGE 118
- TW Module width: LW + 75 mm
- P Roller pitch: 75 mm
- SF Side profile: 116 / 151.5 mm
- SF Side guide: 31.5 mm

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

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
- Accessories, see PAGE 114

EASY CONFIGURATOR
Please create the reference number with the following configurator.

1 TYPE
ERS 50

2 Clearance LW
420 | 520 | 620 | 820
F Max. module length
See application Notes PAGE 118

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

ORDER EXAMPLE
Example for a reference number:
ERS 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.
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.

TECHNICAL DATA

General technical data
- Max. load capacity: 100 kg
- Inclined/declined: Suitable for decline
- Ambient temperature: -5 to +100 °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

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

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

www.easy-conveyors.com
ROLLERSDIVE 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 flexibly.

Low-noise
Quiet operation when running without materials < 60 dBA (A) with 24 VDC.

Plug and play
Ready for installation and use with pre-configured modules.

www.easy-conveyors.com

Available for

ERS 51 STRAIGHT
ERS 51 CURVE
ERS 51 INFEED / OUTFEED
ERS 51 ALIGNMENT
ERS 51 DIVERTER
ERS 51 TRANSFER
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.

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Round belt</th>
<th>PolyVee belt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General technical data</strong></td>
<td></td>
</tr>
<tr>
<td>Max. load capacity</td>
<td>50 kg</td>
</tr>
<tr>
<td>Conveyor speed</td>
<td>0.16 to 1.75 m/s</td>
</tr>
<tr>
<td>Inclined/declined</td>
<td>Not suitable</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>+5 to +40 °C</td>
</tr>
<tr>
<td><strong>Roller</strong></td>
<td></td>
</tr>
<tr>
<td>Roller bearing</td>
<td>Sealed Precision ball bearing 6002 2RZ</td>
</tr>
<tr>
<td>Roller diameter</td>
<td>50 min</td>
</tr>
<tr>
<td>Roller material</td>
<td>Steel, zinc-plated</td>
</tr>
<tr>
<td>Max. number of rollers per conveyor/zone</td>
<td>11</td>
</tr>
<tr>
<td><strong>Drive</strong></td>
<td></td>
</tr>
<tr>
<td>Rated voltage</td>
<td>24 VDC</td>
</tr>
<tr>
<td>Max. electrical power per zone</td>
<td>0.05 kW</td>
</tr>
<tr>
<td>Drive medium</td>
<td>PU round belt ø 5 mm</td>
</tr>
<tr>
<td>Torque transmission</td>
<td>Roller-to-roller</td>
</tr>
<tr>
<td><strong>Side profile</strong></td>
<td></td>
</tr>
<tr>
<td>Profile H</td>
<td>151.5 mm high</td>
</tr>
<tr>
<td>Profile L</td>
<td>Permits lateral displacement</td>
</tr>
<tr>
<td>4 mm below top edge of roller</td>
<td></td>
</tr>
<tr>
<td>Combination of profile heights left/right</td>
<td>HH</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

Refer to the (design) notes from P106 up for help with planning and design.

**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
- Accessories, see PAGE 114
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.

### TECHNICAL DATA

**Round belt**
- Max. load capacity: 50 kg
- Conveyor speed: 0.16 to 1.75 m/s
- Ambient temperature: +5 to +40 °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: 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

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

**TW Module width**
- LW + 75 mm

**α Angle**
- 30° / 60° / 90°

**P Roller pitch, external**
- ~ (0.087 mm x LW) + \( \pi \)

**Pi Roller pitch, internal**
- ~ 72 mm

**SP Side profile**
- ~151.3 mm

**SF Side guide**
- 31.5 mm

**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
- Accessories, see PAGE 114

**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 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
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.

### TECHNICAL DATA

<table>
<thead>
<tr>
<th></th>
<th>Round belt</th>
<th>PolyVee belt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General technical data</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. load capacity</td>
<td>35 kg</td>
<td>50 kg</td>
</tr>
<tr>
<td>Conveyor speed</td>
<td>0.16 to 1.75 m/s</td>
<td>0.16 to 1.75 m/s</td>
</tr>
<tr>
<td>Inclined/declined</td>
<td>Not suitable</td>
<td>Not suitable</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>+5 to +40 °C</td>
<td>+5 to +40 °C</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th><strong>Roller</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Roller bearing</td>
<td>Sealed Precision ball bearing</td>
<td>Sealed Precision ball bearing</td>
</tr>
<tr>
<td>Roller diameter</td>
<td>50 mm</td>
<td>30 mm</td>
</tr>
<tr>
<td>Roller material</td>
<td>Steel, zinc-plated</td>
<td>Steel, zinc-plated</td>
</tr>
<tr>
<td>Max. number of rollers per conveyor/zone</td>
<td>11</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Drive</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>24 VDC</td>
</tr>
<tr>
<td>Max. electrical power per zone</td>
<td>0.05 kW</td>
</tr>
<tr>
<td>Drive medium</td>
<td>PU round belt ø 5 mm</td>
</tr>
<tr>
<td>Torque transmission</td>
<td>Roller-to-roller</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Side profile</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile H</td>
<td>151.5 mm high</td>
</tr>
<tr>
<td>SF Side guide</td>
<td>41.5 mm</td>
</tr>
<tr>
<td>Combination of profile heights left/right</td>
<td>HH</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Dimensions</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LW Clearance</td>
<td>420 / 520 / 620 / 820 mm</td>
</tr>
<tr>
<td>TW Module width</td>
<td>LW + 75 mm</td>
</tr>
<tr>
<td>F Face length</td>
<td>See application Notes P118</td>
</tr>
<tr>
<td>α Angle</td>
<td>30° / 45°</td>
</tr>
<tr>
<td>P Roller pitch</td>
<td>75 mm</td>
</tr>
<tr>
<td>SF Side guide</td>
<td>31.5 mm</td>
</tr>
</tbody>
</table>

### 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

### 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
- Accessories, see PAGE 114

Refer to the (design) notes from P106 up for help with planning and design.
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.

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th></th>
<th>Round belt</th>
<th>PolyVee belt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General technical data</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. load capacity</td>
<td>35 kg</td>
<td>50 kg</td>
</tr>
<tr>
<td>Conveyor speed</td>
<td>0.16 to 1.75 m/s</td>
<td>0.16 to 1.75 m/s</td>
</tr>
<tr>
<td>Inclined/decended</td>
<td>Not suitable</td>
<td>Not suitable</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>+5 to +40 °C</td>
<td>+5 to +40 °C</td>
</tr>
</tbody>
</table>

**Roller**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Roller bearing</td>
<td>Sealed Precision ball bearing</td>
<td>Sealed Precision ball bearing</td>
</tr>
<tr>
<td>Roller diameter</td>
<td>50 mm</td>
<td>50 mm</td>
</tr>
<tr>
<td>Roller material</td>
<td>Steel, zinc-plated</td>
<td>Steel, zinc-plated</td>
</tr>
<tr>
<td>Max. number of rollers per conveyor/zone</td>
<td>11</td>
<td>20</td>
</tr>
</tbody>
</table>

**Drive**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>24 VDC</td>
<td>24 VDC</td>
</tr>
<tr>
<td>Max. electrical power per zone</td>
<td>0.05 kW</td>
<td>0.05 kW</td>
</tr>
<tr>
<td>Drive medium</td>
<td>PU round belt ø 5 mm</td>
<td>PolyVee belt</td>
</tr>
<tr>
<td>Torque transmission</td>
<td>Roller-to-roller</td>
<td>Roller-to-roller</td>
</tr>
</tbody>
</table>

**Side profile**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile H</td>
<td>151.5 mm high</td>
<td>31.5 mm above top edge of roller</td>
</tr>
<tr>
<td>Profile L</td>
<td>Permits lateral displacement</td>
<td>116 mm high</td>
</tr>
<tr>
<td></td>
<td>4 mm below top edge of roller</td>
<td></td>
</tr>
<tr>
<td>Combination of profile heights left/right</td>
<td>HH</td>
<td>HL</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LW Clearance</td>
<td>420 / 520 / 620 / 820 mm</td>
<td></td>
</tr>
<tr>
<td>TW Module width</td>
<td>LW + 75 mm</td>
<td></td>
</tr>
<tr>
<td>F Face length</td>
<td>See application Notes P118</td>
<td></td>
</tr>
<tr>
<td>α Angle</td>
<td>30° / 45°</td>
<td></td>
</tr>
<tr>
<td>P Roller pitch</td>
<td>75 mm</td>
<td></td>
</tr>
<tr>
<td>3P Side profile</td>
<td>1151.5 mm</td>
<td></td>
</tr>
<tr>
<td>SF Side guide</td>
<td>31.5 mm</td>
<td></td>
</tr>
</tbody>
</table>

**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 | 0.55 | 0.78 | 0.98 | 1.31 | 1.75

9. **Side profiles**
   - HH | HL | LH | LL

**ORDER EXAMPLE**

Example for a reference number: 51 - 420 - 75 - 0 - LH - RH - 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
- Accessories, see PAGE 114
**TECHNICAL DATA**

**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

**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: 31.5 mm above top edge of roller
- Profile L: 4 mm below top edge of roller
- Combination of profile heights left/right: HH / HL / LH / LL

**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

**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.

**ACCESSORIES**
- Support stands, see PAGE 104
- EASY CONFIGURATOR, see PAGE 114

**EASY CONFIGURATOR**

Please create the reference number with the following configurator.

1. **TYPE**
   - ERS 51A

2. **Clearance LW**
   - Friction Top Roller put P 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

Example for a reference number:

- ERS 51A - 75 - 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° / 90° / 120° / 150° / 240° / 270° / 300° / 330° / 360°

**ORDER EXAMPLE**

Example for a reference number:

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

Refer to the (design) notes from P106 up for help with planning and design.

www.easy-conveyors.com
# 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.

## TECHNICAL DATA

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Round belt</th>
<th>PolyVee belt</th>
</tr>
</thead>
<tbody>
<tr>
<td>General technical data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. load capacity</td>
<td>35 kg</td>
<td>50 kg</td>
</tr>
<tr>
<td>Conveyor speed</td>
<td>0,16 to 1,00 m/s</td>
<td>0,16 to 1,00 m/s</td>
</tr>
<tr>
<td>Inclined/declined</td>
<td>Not suitable</td>
<td>Not suitable</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>±5 to +40 °C</td>
<td>±5 to +40 °C</td>
</tr>
<tr>
<td></td>
<td>Maximum load capacity is depending on the combination of speed &amp; load</td>
<td></td>
</tr>
</tbody>
</table>

## EASY CONFIGURATOR

Please create the reference number with the following configurator.

### 1 TYPE
ERS 51

### 2 Clearance LW
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>520</td>
</tr>
<tr>
<td>Example 51 - 420F - 75 - ..........</td>
<td></td>
</tr>
</tbody>
</table>

### 3 Clearance LWT
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>520</td>
</tr>
</tbody>
</table>

### 4 Angle α
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 V and Pneumatic</td>
<td>30°</td>
</tr>
</tbody>
</table>

### 5 Roller pitch P in mm
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

### 6 Diverter
<table>
<thead>
<tr>
<th>Side profile</th>
<th>Left hand</th>
<th>Right hand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile H</td>
<td>PRH</td>
<td>PLH</td>
</tr>
<tr>
<td>Profile L</td>
<td>PSR</td>
<td>PSL</td>
</tr>
</tbody>
</table>

### 7 Drive medium
<table>
<thead>
<tr>
<th>Side profile</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LW Clearance</td>
<td>Round belt</td>
</tr>
</tbody>
</table>

### 8 Conveyor speed in m/s
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,16</td>
<td>0,25</td>
</tr>
</tbody>
</table>

### 9 Side profiles
<table>
<thead>
<tr>
<th>Reference number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 - - - - - - 75 - - - 8 - 9</td>
<td></td>
</tr>
</tbody>
</table>

## 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.

## ACCESSORIES

- Support stands, see PAGE 104
- Accessories, see PAGE 116

---

### DIMENSIONS

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LW Clearance</td>
<td>420 / 520 / 620 / 820 mm</td>
</tr>
<tr>
<td>LW T Clear width transfer</td>
<td>420 / 520 / 620 / 820 mm</td>
</tr>
<tr>
<td>ML Max. module length</td>
<td>2400 mm</td>
</tr>
<tr>
<td>TW Module width</td>
<td>LW + 75 mm</td>
</tr>
<tr>
<td>Angle</td>
<td>30°</td>
</tr>
<tr>
<td>P Roller pitch</td>
<td>75 mm</td>
</tr>
<tr>
<td>F Face length</td>
<td>See Application Notes P118</td>
</tr>
<tr>
<td>SF Side profile</td>
<td>31,5 mm</td>
</tr>
</tbody>
</table>

This reference number stands for Smart Conveyor Popup Transfer ERS 51 with a clearance LW 420 mm, a LW T 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.

---

Refer to the (design) notes from P106 up for help with planning and design

www.easy-conveyors.com
ROLLING DRIVE CONVEYOR
BELT TRANSFER
ERS 51

TECHNICAL DATA

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

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

Rated voltage 24 VDC

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 (roller/drive) 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

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
• If you require a non-standard model, contact your local EASY Supplier.
• With order supply the Pitch of the transfer belt

ACCESSOIRES
• Support stands, see PAGE 240
• Accessories, see PAGE 114

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 Cassette 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

ORDER EXAMPLE
Example for a reference number: S1 – 620 – T1 – 3 – C2 – 2 – 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 0.98 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.

www.easy-conveyors.com
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.
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 straight 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 Centre’s
- Strategic Industries and Markets

www.easy-conveyors.com
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.

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%.

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

www.easy-conveyors.com
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).

**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.

**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
SMART 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.

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Round belt</th>
<th>PolyVee belt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. load capacity</td>
<td>50 kg</td>
</tr>
<tr>
<td>Conveyor speed</td>
<td>0.16 to 1.75 m/s</td>
</tr>
<tr>
<td>Inclined/declined</td>
<td>Not suitable</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>+5 to +40 °C</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Roller bearing</th>
<th>Sealed Precision ball bearing 6002 2RZ</th>
<th>Sealed Precision ball bearing 6002 2RZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roller diameter</td>
<td>50 mm</td>
<td>30 mm</td>
</tr>
<tr>
<td>Roller material</td>
<td>Steel, zinc-plated</td>
<td>Steel, zinc-plated</td>
</tr>
<tr>
<td>Max. number of rollers per conveyor/zone</td>
<td>11</td>
<td>20</td>
</tr>
</tbody>
</table>

Drive

<table>
<thead>
<tr>
<th>Rated voltage</th>
<th>24 VDC</th>
<th>24 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. electrical power per zone</td>
<td>0.05 kW</td>
<td>0.05 kW</td>
</tr>
<tr>
<td>Drive medium</td>
<td>PU round belt ø 5 mm</td>
<td>PolyVee belt</td>
</tr>
<tr>
<td>Torque transmission</td>
<td>Roller-to-roller</td>
<td>Roller-to-roller</td>
</tr>
</tbody>
</table>

Side profile

<table>
<thead>
<tr>
<th>Profile H</th>
<th>151.5 mm high</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.5 mm above top edge of roller</td>
<td></td>
</tr>
<tr>
<td>Profile L</td>
<td>Permits lateral displacement</td>
</tr>
<tr>
<td>116 mm high</td>
<td></td>
</tr>
<tr>
<td>4 mm below top edge of roller</td>
<td></td>
</tr>
</tbody>
</table>

Combination of profile heights left/right

| HH | HL | LH | LL |

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 |
| SF Side guide | 31.5 mm |

ORDER EXAMPLE

Example for a reference number: ERS 52 420F - 75 - 50 - 30 - 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 drive side on the right, a round belt as drive medium, a conveyor speed of 0.25 m/s and both sides high side profile.

www.easy-conveyors.com
SMART CONVEYOR CURVE ERS 52

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.

TECHNICAL DATA

Round belt

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

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
- Profile L: 116 mm high
- Combination of profile heights left/right: HH, HL, LH, LL

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
P1 Roller pitch, internal ~ 72 mm
3P Side profile ~151.5 mm
SF Side guide 31.5 mm

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
- Accessories, see PAGE 114

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

ORDER EXAMPLE

Example for a reference number:
52 - 620 - 90 - 2 - Sensor Position B
R - 0.65 - CCW - 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 0.65 m/s, product flow CCW and both sides high side profile.
**SMART CONVEYOR INFEED ERS 52**

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

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th></th>
<th>Round belt</th>
<th>PolyVee belt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Max. load capacity</strong></td>
<td>35 kg</td>
<td>80 kg</td>
</tr>
<tr>
<td><strong>Conveyor speed</strong></td>
<td>0.16 to 1.75 m/s</td>
<td>0.16 to 1.75 m/s</td>
</tr>
<tr>
<td><strong>Ambient temperature</strong></td>
<td>+5 to +40 °C</td>
<td>+5 to +40 °C</td>
</tr>
</tbody>
</table>

**Roller**

<table>
<thead>
<tr>
<th></th>
<th>Sealed Precision ball bearing 6002 2RZ</th>
<th>Sealed Precision ball bearing 6002 2RZ</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Roller diameter</strong></td>
<td>50 mm</td>
<td>50 mm</td>
</tr>
<tr>
<td><strong>Roller material</strong></td>
<td>Steel, zinc-plated</td>
<td>Steel, zinc-plated</td>
</tr>
<tr>
<td><strong>Max. number of rollers per conveyor/zone</strong></td>
<td>11</td>
<td>20</td>
</tr>
</tbody>
</table>

**Drive**

<table>
<thead>
<tr>
<th></th>
<th>24 VDC</th>
<th>24 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rated voltage</strong></td>
<td>0.05 kW</td>
<td>0.05 kW</td>
</tr>
<tr>
<td><strong>Max. electrical power per zone</strong></td>
<td>0.05 kW</td>
<td>0.05 kW</td>
</tr>
<tr>
<td><strong>Drive medium</strong></td>
<td>PU round belt ø 5 mm</td>
<td>PolyVee belt</td>
</tr>
<tr>
<td><strong>Torque transmission</strong></td>
<td>Roller-to-roller</td>
<td>Roller-to-roller</td>
</tr>
</tbody>
</table>

**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**

**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 |

**SF Side guide**

| 31.5 mm |

**EASY CONFIGURATOR**

Please create the reference number with the following configurator.

1. **TYPE**

2. **Clearance LW**

| 420 | 520 | 620 | 820 |

3. **Roller pitch P in mm**

| 75 |

4. **Angle α**

| 30° | 45° |

5. **Infeed**

6. **Infeed position**

| Left hand | RH | LH | LH |

7. **Drive medium**

| Round belt | PolyVee belt |

8. **Conveyor speed in m/s**

| 0.16 | 0.25 | 0.33 | 0.44 | 0.55 | 0.84 | 0.98 | 1.31 | 1.75 |

9. **Side profiles**

| HH | HL | LH | LL |

**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
- Accessories, see PAGE 114

Refer to the (design) notes from P106 up for help with planning and design.

www.easy-conveyors.com
The Smart Conveyor Outfeed Roller Conveyor merges two convoyer lines together using the gaps in the flow.

### Technical Data

#### Round Belt vs. PolyVee Belt

**General technical data**
- **Max. load capacity**: 35 kg vs. 80 kg
- **Conveyor speed**: 0,16 to 1,75 m/s vs. 0,16 to 1,75 m/s
- **Ambient temperature**: +5 to +40 °C vs. +5 to +40 °C

**Roller**
- **Roller bearing**: Sealed Precision ball bearing 6002 2RS vs. Sealed Precision ball bearing 6002 2RS
- **Roller diameter**: 50 mm vs. 50 mm
- **Roller material**: Steel, zinc-plated vs. Steel, zinc-plated
- **Max. number of rollers per conveyor/zone**: 11 vs. 20

**Drive**
- **Rated voltage**: 24 VDC vs. 24 VDC
- **Max. electrical power per zone**: 0,05 kW vs. 0,05 kW
- **Drive medium**: PU round belt ø 5 mm vs. PolyVee 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**
- **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
- **SF 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**: /5
4. **Angle α**: 30° | 45°
5. **Outfeed**: O
6. **Outfeed position**: LH | RH | LH | RH
7. **Drive medium**: Round belt | PolyVee belt
8. **Conveyor speed in m/s**: 0,16 | 0,25 | 0,33 | 0,44 | 0,98 | 1,31 | 1,75
9. **Side profiles**: HH | HL | LH | LL

**Order Example**

Example for a reference number:

- 52 - 620 - 75 - 0 - 0 - 0 - 0 - 0 - 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.

**Accessories**

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

Refer to the (design) notes from P106 up for help with planning and design.

www.easy-conveyors.com
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.

TECHNICAL DATA

<table>
<thead>
<tr>
<th>General technical data</th>
<th>Round belt</th>
<th>PolyVee belt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. load capacity</td>
<td>50 kg</td>
<td>80 kg</td>
</tr>
<tr>
<td>Conveyor speed</td>
<td>0.16 to 1.75 m/s</td>
<td>0.16 to 1.75 m/s</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>+5 to +40 °C</td>
<td>+5 to +40 °C</td>
</tr>
<tr>
<td>Maximum load capacity</td>
<td>depending on the combination of speed &amp; load</td>
<td></td>
</tr>
</tbody>
</table>

Roller

<table>
<thead>
<tr>
<th>Roller bearing</th>
<th>Sealed Precision ball bearing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter</td>
<td>50 mm</td>
</tr>
<tr>
<td>Material</td>
<td>Steel, zinc-plated</td>
</tr>
<tr>
<td>Max. number of rollers per conveyor/zone</td>
<td>11</td>
</tr>
</tbody>
</table>

Drive

| Rated voltage          | 24 VDC                      |
| Drive medium           | PU round belt ø 5 mm        |
| Torque transmission    | Roller-to-roller            |

Profile

| Profile H | 151.5 mm high |
| Profile L | 31.5 mm above top edge of roller |

Combination of profile heights left/right

HH [ ] HL [ ] LH [ ] LL [ ]

DIMENSIONS

| LW Clearance | 420 / 520 / 620 / 920 mm |
| ML Max. module length | max. 3000 mm |
| Zone length | Number of rollers x P |
| Module width | LW + 75 mm |
| Roller pitch | 75 mm |
| SF Side profile | 175 / 175.5 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 | 920 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 |
Alignment side
Right | P | Left |

7 Drive medium
Round belt | R |
PolyVee belt | P |

8 Conveyor speed in m/s
0.16 | 0.25 | 0.35 | 0.45 | 0.55 | 0.75 | 0.98 | 1.31 | 1.75 |

9 Side profiles
HH | HL | LH | LL |

ORDER EXAMPLE

Example for a reference number:

ERS 52A - 420 - 100 - 2100 - 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.

ACCESSOIRES

• Support stands, see PAGE 104
• Accessories, see PAGE 114
ROLLR Drive Conveyor diverter ERS 52

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Round belt</th>
<th>PolyVee belt</th>
</tr>
</thead>
<tbody>
<tr>
<td>General technical data</td>
<td></td>
</tr>
<tr>
<td>Max. load capacity</td>
<td>35 kg</td>
</tr>
<tr>
<td>Conveyor speed</td>
<td>0.16 to 1.00 m/s</td>
</tr>
<tr>
<td>Inclined decline</td>
<td>Not suitable</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>+5 to +40 °C</td>
</tr>
</tbody>
</table>

**Roller**

| Seated Precision ball bearing 6202 ZR2 | Seated Precision ball bearing 6202 ZR2 |
| Roller diameter | 30 mm | 30 mm |
| Roller material | Steel, zinc-plated | Steel, zinc-plated |

**Drive**

| 24 VDC | 24 VDC |
| Max. electrical power per zone | 0.095kW | 0.095kW |
| Drive medium | Pneumatic | PolyVee belt |
| Torque transmission | Roller-to-roller | Roller-to-roller |

**Motion Control**

| Pneumatic | Pneumatic |
| Motion medium | | |
| 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 | 116 mm high | 4 mm below top edge of roller |

**Combination of profile heights left/right**

HH, HL, LH, LL

**DIMENSIONS**

| LW Clearance | 420 / 520 / 620 / 820 mm |
| LW Clear width transfer | 420 / 520 / 620 / 820 mm |
| Max. module length | 2400 mm |
| TW Module width | LW + 75 mm |
| Pressure roller pitch | 75 mm |
| Face length | See Application Notes P118 |
| SF Side profile | 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 P 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 PLH
   - Right hand PRH

7. **Drive medium**
   - Round belt R
   - PolyVee belt P

8. **Conveyor speed in m/s**
   - 0.16, 0.25, 0.35, 0.44, 0.65, 0.78, 0.98, 1.31, 1.75

9. **Side profiles**
   - HH, HL, LH, LL

**ORDER EXAMPLE**

Example for a reference number:

52 - 420 - 420 - 65 - 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.
**TECHNICAL DATA**

**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
- 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 (transfer): 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**

- LW Clearance: 420 / 520 / 620 / 820 mm
- ML Module length: 900 mm
- TW Module width: 75 mm
- Angle: 90°
- C1 First belt pitch: 152.5 mm
- CZ 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. **Cassette 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

**ORDER INFORMATION**

- Module is completely assembled with control and sensors
- Please order support stands, side-guides, and 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

**ORDER EXAMPLE**

Example for a reference number:

- ERS 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.
**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.

**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.
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.

TECHNICAL DATA

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

Roller
- Roller bearing: Sealed Precision ball bearing 6002 2ZR
- 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

Order 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
- Accessories, see PAGE 114

www.easy-conveyors.com
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 give 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.

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>General technical data</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. load capacity</td>
<td>100 kg</td>
</tr>
<tr>
<td>conveyor speed</td>
<td>Max 1,75 m/s</td>
</tr>
<tr>
<td>Inclined/declined</td>
<td>Not suitable</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>-5 to +50 °C</td>
</tr>
<tr>
<td>Roller bearing</td>
<td>Sealed Precision ball bearing 6002 2RS</td>
</tr>
<tr>
<td>Roller diameter</td>
<td>50 mm</td>
</tr>
<tr>
<td>Roller material</td>
<td>Steel, zinc-plated</td>
</tr>
<tr>
<td>Drive</td>
<td></td>
</tr>
<tr>
<td>Rated voltage</td>
<td>400 V / 50 Hz / 3 phase</td>
</tr>
<tr>
<td>Max. electrical power per zone</td>
<td>1,1 kW</td>
</tr>
<tr>
<td>Drive medium</td>
<td>Belt</td>
</tr>
<tr>
<td>Torque transmission</td>
<td>Roller-to-roller</td>
</tr>
<tr>
<td>Side profile</td>
<td></td>
</tr>
<tr>
<td>Profile H</td>
<td>151,5 mm high</td>
</tr>
<tr>
<td></td>
<td>31,5 mm above top edge of roller</td>
</tr>
<tr>
<td>Profile L</td>
<td>Permits lateral displacement</td>
</tr>
<tr>
<td></td>
<td>116 mm high</td>
</tr>
<tr>
<td></td>
<td>4 mm below top edge of roller</td>
</tr>
<tr>
<td>Combination of profile heights left/right</td>
<td>HH</td>
</tr>
</tbody>
</table>

**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
- Accessories, see PAGE 114

**ACCESSOIRES**

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

**ORDER EXAMPLE**

Example for a reference number:

53G - 420 - 100 - 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.

Refer to the (design) notes from P106 up for help with planning and design

www.easy-conveyors.com
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.

TECHNICAL DATA

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

Roller
Roller bearing Sealed Precision ball bearing 6002 2ZC
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

LW Clearance 420 / 520 / 620 / 820 mm
TW Module width LW + 75 mm
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

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

ORDER EXAMPLE
Example for a reference number:
53 - LW 620 - Angle 90° - RH - Speed 0.33 m/s - Product flow CW - Side profile 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.

www.easy-conveyors.com
BELT DRIVEN INFEED ROLLER CONVEYOR ERS 53

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

TECHNICAL DATA

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

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: 116 mm high, 4 mm below top edge of roller
- Combination of profile heights left/right: HH, HL, LH, LL

DIMENSIONS

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 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

ORDER EXAMPLE

Example for a reference number:
53 - 420 - 75 - 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.
BELT DRIVEN OUTFEED ROLLER CONVEYOR ERS 53

TECHNICAL DATA

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

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

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
SF Side profile 151.5 mm
SF Side guide 31.5 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

This module is driven by the adjacent straight module.

ORDER EXAMPLE

Example for a reference number:
ERS 53 420 - 75 - 30° - 0 - 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.
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.

TECHNICAL DATA

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

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

ORDER EXAMPLE
Example for a reference number:
ERS 53A - 420 - 100 - 3000 - RH - 0.98 - HH - Right

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 0.98 m/s and both sides high side profile, alignment right.

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
- Accessories, see PAGE 114

www.easy-conveyors.com
**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.

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>General technical data</th>
<th>Pneumatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. load capacity per zone</td>
<td>50 kg</td>
</tr>
<tr>
<td>Conveyor speed</td>
<td>Max 1.75 m/s</td>
</tr>
<tr>
<td>Inclined/declined</td>
<td>Not suitable</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>+5 to +40 °C</td>
</tr>
</tbody>
</table>

**Roller**

| Roller bearing | Sealed Precision bearing 6002 2ZR |
| 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: HH, HL, LH, LL

**DIMENSIONS**

| LW Clearance | 420 / 520 / 620 / 820 mm |
| LW Clear width transfer | 420 / 520 / 620 / 820 mm |
| ML Max. module length | 2250 mm |
| TW Module width | LW + 75 mm |
| a 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 |

**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.

**ACCESSORIES**

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

---

**EASY CONFIGURATOR**

Please create the reference number with the following configurator.

1. **TYPE**
   - ERS 53

2. **Clearance 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 | L
   - Right | R

7. **Type**
   - Pneumatic

8. **Side profiles**
   - HL | LH | LL

**ORDER EXAMPLE**

Example for a reference number: 53 - 420 - 1425 - 75 - RH - 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.

---

Refer to the (design) notes from P106 up for help with planning and design

www.easy-conveyors.com
**TECHNICAL DATA**

**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

**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 (motor/drive): 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**

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

**ML Module length**
- 800 mm

**TW Module width**
- LW + 75 mm

**C1**
- First belt pitch: 152.5 ± n x 80 mm

**C2**
- First belt pitch: 152.5 + 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. **Cassette Pitch**
   - n x 75 mm

7. **Conveyor speed in m/s**
   - 0.16 | 0.25 | 0.33 | 0.44 | 0.55 | 0.65 | 0.78 | 0.80 | 0.98 | 1.31 | 1.75

8. **Transfer speed in m/s**
   - 0.36 | 0.56 | 0.73 | 0.98

9. **Side profiles**
   - HL | LL | LH

**ORDER EXAMPLE**

Example for a reference number:

ERS 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.
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

www.easy-conveyors.com

by Easy Conveyors
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.

### TECHNICAL DATA

#### 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

#### Roller

- **Roller bearing**: Sealed Precision ball bearing 6002 2RS
- **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

<table>
<thead>
<tr>
<th>HH</th>
<th>HL</th>
<th>LH</th>
<th>LL</th>
</tr>
</thead>
</table>

### DIMENSIONS

#### LW Clearance

<table>
<thead>
<tr>
<th>LW</th>
<th>Clearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>520</td>
</tr>
</tbody>
</table>

#### ML Max. module length

<table>
<thead>
<tr>
<th>ML</th>
<th>Max. module length</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000 mm</td>
<td></td>
</tr>
</tbody>
</table>

#### ZL Zone length

<table>
<thead>
<tr>
<th>ZL</th>
<th>Zone length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of rollers x P</td>
<td></td>
</tr>
</tbody>
</table>

#### TW Module width

<table>
<thead>
<tr>
<th>TW</th>
<th>Module width</th>
</tr>
</thead>
<tbody>
<tr>
<td>LW + 75 mm</td>
<td></td>
</tr>
</tbody>
</table>

#### P Roller pitch

<table>
<thead>
<tr>
<th>P</th>
<th>Roller pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>75 / 100 mm</td>
<td></td>
</tr>
</tbody>
</table>

#### SF Side profile

<table>
<thead>
<tr>
<th>SF</th>
<th>Side profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>176 / 175.5 mm</td>
<td></td>
</tr>
</tbody>
</table>

#### SF Side guide

<table>
<thead>
<tr>
<th>SF</th>
<th>Side guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.5 mm</td>
<td></td>
</tr>
</tbody>
</table>

### ORDER INFORMATION

- The module is fully assembled
- Steel components are zinc-plated
- Support stands, side guides, end caps, sensors, straight connectors and 24 V power supply unit separately
- If you require a non-standard model, contact your local EASY Supplier.

### ACCESSOIRES

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

### ORDER EXAMPLE

Example for a reference number:

<table>
<thead>
<tr>
<th>1 TYPE</th>
<th>ERS 56</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Clearance LW</td>
<td>420</td>
</tr>
<tr>
<td>3 Roller pitch P in mm</td>
<td>A 75</td>
</tr>
<tr>
<td>4 Module length ML in mm (Length goes in steps of 25mm)</td>
<td>A min 300 mm, numbers of rollers x P, see application notes P106</td>
</tr>
<tr>
<td>5 Number of zones</td>
<td>See Application Notes, P119</td>
</tr>
<tr>
<td>6 Electric side</td>
<td>Right</td>
</tr>
<tr>
<td>7 Conveyor speed in m/s</td>
<td>0.16</td>
</tr>
<tr>
<td>8 Side profiles</td>
<td>HH</td>
</tr>
</tbody>
</table>

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.
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.

### TECHNICAL DATA

**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

**Roller**
- Roller bearing: Sealed Precision ball bearing 6002 2RZ
- Roller diameter: 30 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 See Page 91
- 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

**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

**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

### 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

Refer to the (design) notes from P106 up for help with planning and design
BELT CONVEYOR STRAIGHT WITH HEAD DRIVE
ERS 70

TECHNICAL DATA

**General technical data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Drum motor</th>
<th>Gear motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. load capacity per module</td>
<td>120 kg</td>
<td>250 kg</td>
</tr>
<tr>
<td>Conveyor speed</td>
<td>Max 1,0 m/s</td>
<td>Max 1,75 m/s</td>
</tr>
<tr>
<td>Inclined/declined</td>
<td>Max 10°</td>
<td>Max 10°</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>-5 to +50 °C</td>
<td>-5 to +50 °C</td>
</tr>
</tbody>
</table>

**Belt material**

- Maximum load capacity is depending on the combination of speed & load
- Belt material: PVC black - type Z M12 UD-V3N
- Roller bed: Roller ø50 ctc 100 mm
- Specs: see belt notes P91

**Drive**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Drum motor</th>
<th>Gear motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>400 V / 50 Hz / 3 phase</td>
<td>400 V / 50 Hz / 3 phase</td>
</tr>
<tr>
<td>Max. electrical power per zone</td>
<td>0,12 kW</td>
<td>1,1 kW</td>
</tr>
<tr>
<td>Drive medium</td>
<td>Drive pully ø 81,5</td>
<td>ø 85</td>
</tr>
</tbody>
</table>

**Side profile**

- Profile L: 116 mm high
- 4 mm below top edge of belt
- L max = 8,5 mtr

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
Left hand drive
R | L

7 **Side profiles**
LL

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,85 | 0,98

**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
- Accessories, see PAGE 114

Refer to the (design) notes from P106 up for help with planning and design

www.easy-conveyors.com
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.

TECHNICAL DATA

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

Belt material
- Conveyor belt surface: PVC black - Type Z M12 UD-V3N
- Roller bed: Roller ø50 ctc 100 mm

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

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

ORDER EXAMPLE
Example for a reference number:
70 - 2 - 420 - 3000 - 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.

www.easy-conveyors.com
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.

TECHNICAL DATA

**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

**Belt material**
- Conveyor belt surface: PVC black with TPU, grooved longitudinally - Type M12 V1/LGF
- Roller bed: Roller ø50 ctc 100 mm
- Side profile: 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

**DIMENSIONS**

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

**ML Max. module length**
- 30.000 mm

**BW Belt wide**
- LW +/- 60 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
- Accessories, see PAGE 114

**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.

www.easy-conveyors.com
THE TECHNICAL DATA

**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

**Belt material**

- Conveyor belt surface: PVC black with TPU, grooved longitudinally - Type 2 M12 V1LGFr
- Roller bed: Roller ø50 ctc 100 mm

**Drive Drum Motor**

- Rated voltage: 400 V / 50 Hz / 3 phase
- Max. electrical power per zone: 1.2 kW
- Drive medium: Drive pully ø 180 mm vulcanised

**Side profile**

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

**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

**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 an infeed length of 737,50 mm and a right hand center drive and both sides low side profile, speed is 0.65 m/s.

---

**BELT CONVEYOR STRAIGHT WITH CENTER DRIVE + INFEED 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.

**TECHNICAL DATA**

**EASY CONFIGURATOR**

Please create the reference number with the following configurator.

1. **TYPE**
   - ERS 70
   - 4

2. **Clearance LW**
   - 420 | 520 | 620 | 820

3. **Infeed Angle α**
   - 4° | 8° | 12° | 16° | 20° | 22.5°

4. **Module length ML in mm (Length goes in steps of 25mm)**
   - min 1.512,50 mm, max 30.000 mm

5. **Drive position**
   - Right hand drive R
   - Left hand drive L

6. **Conveyor speed in m/s**
   - 0.16 | 0.25 | 0.33 | 0.44 | 0.65 | 0.98 | 1.31 | 2.6

---

**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
- Accessories, see PAGE 114

---

Refer to the (design) notes from P106 up for help with planning and design

www.easy-conveyors.com
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.

**TECHNICAL DATA**

**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°C to +50°C

**Belt material**
- Conveyor belt surface feed: PVC black - Type 2 M12 UO-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 Motor**
- Rated voltage: 400 V / 50 Hz / 3 phase
- Max. electrical power per zone: 1.2 kW
- Drive medium: Drive pully ø 180 mm vulcanised

**Side profile**
- Profile L: 116 mm high
- 4 mm below top edge of belt

**DIMENSIONS**

<table>
<thead>
<tr>
<th>LW Clearance</th>
<th>ML Max. module length</th>
<th>TW Module width</th>
<th>BW Belt wide</th>
</tr>
</thead>
<tbody>
<tr>
<td>420 / 520 / 620 / 820 mm</td>
<td>30,000 mm</td>
<td>LW +/- 75 mm</td>
<td>LW +/- 60 mm</td>
</tr>
</tbody>
</table>

**ORDER EXAMPLE**

Example for a reference number:
70 - 5 - 420 - 8 - 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°, an infed length of 637.5 mm, a module length of 7,500 mm, with an outfed 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**
- Please order a non-standard model, contact your local EASY Supplier.

**ACCESSOIRES**
- Support stands, see PAGE 104
- Accessories, see PAGE 114

Refer to the (design) notes from P106 up for help with planning and design
### TECHNICAL DATA

#### COMPOSITION
- **material**: PVC 55 Sh.A (45)
- **thickness**: 0.70 mm
- **Surface pattern**: anthracite
- **colour of friction**: HF

#### Driving
- **Type**: rigid

#### Textile
- **Pattern**: polyester (PET)
- **Ply no.**: 2
- **Weft type**: rigid

#### Splicing
- **Thickness of fabric with polyurethane (TPU) impregnation**: 0.012 mm
- **Surface**: grey
- **Patterns**: LdB fabric

### TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Coefficient of friction on driving surface</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>raw steel sheet</td>
<td>0.20 [1]</td>
<td>0.20 [1]</td>
</tr>
<tr>
<td>laminated plastic/wood</td>
<td>0.25 [1]</td>
<td>0.25 [1]</td>
</tr>
<tr>
<td>steel roller</td>
<td>0.20 [1]</td>
<td>0.20 [1]</td>
</tr>
<tr>
<td>rubberized roller</td>
<td>0.30 [1]</td>
<td>0.30 [1]</td>
</tr>
</tbody>
</table>

**Total thickness**: 1.90 mm
**Weight**: 2.10 kg/m²
**Elongation at 1%**: 12 mm
**Static conductivity (UNI EN ISO 284)**: yes
**Temperature resistance**: yes

### NOTES
- **SUITABLE FOR**
  - Airports
  - Materials handling

### FEATURES
- **Humidity influence**: no
- **Suitable to metal detector**: yes
- **Permanent antistatic dynamically (UNI EN ISO 21179)**: yes
- **Chemical resistances (see file available on line)**: 9

### COMPLIANCES
- **REACH Regulation EC 1907/2006 and amendments**
- **Flame Retardant UNI EN ISO 340**
- **Ikea**
- **Static conductivity (UNI EN ISO 284)**
- **Temperature resistance**: yes
- **Conveying on skid bed**: yes
- **Conveying on rollers**: yes
- **Conveying on skid bed on top and return**: yes
- **Troughed conveying**: yes
- **Swan neck conveying**: yes
- **Inclined conveying**: yes
- **Accumulators belts**: yes
- **Curved conveyor**: yes
- **Chemical resistances (see file available on line)**: 2

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

---

### TECHNICAL DATA

#### COMPOSITION
- **material**: PVC 70 Sh.A (45)
- **thickness**: 0.30 mm
- **Surface pattern**: smooth
- **colour of friction**: black
- **Ply no.**: 2
- **Weft type**: rigid

#### Driving
- **Type**: rigid

#### Textile
- **Pattern**: polyester (PET)
- **Ply no.**: fabric with polyurethane (TPU) impregnation
- **Surface**: grey
- **Patterns**: LdB fabric

### TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Coefficient of friction on driving surface</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>raw steel sheet</td>
<td>0.20 [-]</td>
<td>0.20 [-]</td>
</tr>
<tr>
<td>laminated plastic/wood</td>
<td>0.25 [-]</td>
<td>0.25 [-]</td>
</tr>
<tr>
<td>steel roller</td>
<td>0.20 [-]</td>
<td>0.20 [-]</td>
</tr>
<tr>
<td>rubberized roller</td>
<td>0.30 [-]</td>
<td>0.30 [-]</td>
</tr>
</tbody>
</table>

**Total thickness**: 0.07 mm
**Weight**: 0.42 lbs./sq.ft
**Elongation at 1%**: 68.5 lbs./in.
**Static conductivity (UNI EN ISO 284)**: yes
**Temperature resistance**: yes

### NOTES
- **SUITABLE FOR**
  - Airports
  - Materials handling

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

### COMPLIANCES
- **REACH Regulation EC 1907/2006 and amendments**
- **Flame Retardant UNI EN ISO 340**
- **Ikea**
- **Static conductivity (UNI EN ISO 284)**
- **Temperature resistance**: yes
- **Conveying on skid bed**: yes
- **Conveying on rollers**: yes
- **Conveying on skid bed on top and return**: yes
- **Troughed conveying**: yes
- **Swan neck conveying**: yes
- **Inclined conveying**: yes
- **Accumulators belts**: yes
- **Curved conveyor**: yes
- **Chemical resistances (see file available on line)**: 2
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.

TECHNICAL DATA

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

- LW Clearance: 420 / 520 / 620 / 820 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

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.

1 Dependable on conveyor speed, load, start/stops, etc.
2 Additional cross members noted 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.

Refer to the (design) notes from P106 up for help with planning and design.

www.easy-conveyors.com
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.

TECHNICAL DATA

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

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.

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 Depending on conveyor speed, load, start/stop, etc. additional cross members noted under “1” are not included

www.easy-conveyors.com
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

<table>
<thead>
<tr>
<th>W</th>
<th>Art nr</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>61-420-1</td>
</tr>
<tr>
<td>520</td>
<td>61-520-1</td>
</tr>
<tr>
<td>620</td>
<td>61-620-1</td>
</tr>
<tr>
<td>820</td>
<td>61-820-1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>W</th>
<th>Art nr</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>61-420-2</td>
</tr>
<tr>
<td>520</td>
<td>61-520-2</td>
</tr>
<tr>
<td>620</td>
<td>61-620-2</td>
</tr>
<tr>
<td>820</td>
<td>61-820-2</td>
</tr>
</tbody>
</table>

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: -20 to +70 °C
- Max. air humidity: 90 %, non-condensing

**PRODUCT SELECTION**

The following tables provide an overview of the possible versions.

### Gear stage versions

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

### Counter bearing and min. reference length versions

#### Tube

- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 335 mm
  - Female thread M8: 335
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 315 mm
  - Female thread M8: 315
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 295 mm
  - Female thread M8: 295
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 275 mm
  - Female thread M8: 275
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 255 mm
  - Female thread M8: 255
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 235 mm
  - Female thread M8: 235
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 215 mm
  - Female thread M8: 215
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 195 mm
  - Female thread M8: 195
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 175 mm
  - Female thread M8: 175

#### Without grooves

- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 312 mm
  - Female thread M8: 312
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 292 mm
  - Female thread M8: 292
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 272 mm
  - Female thread M8: 272
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 252 mm
  - Female thread M8: 252
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 232 mm
  - Female thread M8: 232
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 212 mm
  - Female thread M8: 212
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 192 mm
  - Female thread M8: 192
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 172 mm
  - Female thread M8: 172
- 11 mm hex spring-loaded shaft
  - Gear ratio: 9:1
  - Min. reference length: 152 mm
  - Female thread M8: 152
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.

**Motor shaft**

- EL = 16.1
- 480
- 5
- 11
- RL = EL - 36

**RL = EL - 11**

- Ø 38.5
- min. 30
- min. 35
- max. 125

**Female thread M8**

- RL = EL - 11

Refer to the (design) notes from P106 up for help with planning and design

www.easy-conveyors.com
Refer to the (design) notes from P.106 up for help with planning and design.

www.easy-conveyors.com

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

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
ERS040305000100 RUBBERIZED 36x2.2

POLY-V BELT ROLLER FOR TYPE 51 & 52
C.t.C. Art nr
75 ERS040305030075
100 ERS040305030100
125 ERS040305030125

ROUND BELT FOR TYPE 51 & 52
C.t.C. Art nr
75 ERS04030501075
100 ERS04030501100
125 ERS04030501125

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

ADJUSTABLE SIDE GUIDE TYPE 3
Art nr
ERS040311000002

COVER CAPS
040308080001
040308080002
040308080003
040308080004

STRAIGHT CONNECTOR
Art nr
ERS040305040000 ERS STRAIGHT CONNECTOR

BRACKET
Art nr
ERS040311020000 SENSOR BRACKET
ERS040311020001 REFLECTOR BRACKET
## ACCESSOIRES

**GRAVITY CURVE ROLLER FOR TYPE 50**

<table>
<thead>
<tr>
<th>Wide</th>
<th>Art nr</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>ERS00009010420</td>
</tr>
<tr>
<td>620</td>
<td>ERS00009010620</td>
</tr>
<tr>
<td>820</td>
<td>ERS00009010820</td>
</tr>
</tbody>
</table>

**ROUND BELT CURVE ROLLER FOR TYPE 51 & 52**

<table>
<thead>
<tr>
<th>Wide</th>
<th>Art nr</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>ERS040308040420</td>
</tr>
<tr>
<td>620</td>
<td>ERS040308040620</td>
</tr>
<tr>
<td>820</td>
<td>ERS040308040820</td>
</tr>
</tbody>
</table>

**GRAVITY CURVE ROLLER FOR TYPE 53**

<table>
<thead>
<tr>
<th>Wide</th>
<th>Art nr</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>ERS040308020420</td>
</tr>
<tr>
<td>620</td>
<td>ERS040308020620</td>
</tr>
<tr>
<td>820</td>
<td>ERS040308020820</td>
</tr>
</tbody>
</table>

**POLY-V BELT CURVE ROLLER FOR TYPE 51 & 52**

<table>
<thead>
<tr>
<th>Wide</th>
<th>Art nr</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>ERS040304014420</td>
</tr>
<tr>
<td>620</td>
<td>ERS040304014620</td>
</tr>
<tr>
<td>820</td>
<td>ERS040304014820</td>
</tr>
</tbody>
</table>
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

www.easy-conveyors.com
**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:

\[
\frac{L}{P} < 3
\]

**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:

\[
LW > B + 50\text{mm}
\]

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.
GENERAL NOTES ABOUT ROLLER CONVEYOR TECHNOLOGY

Accumulation pressure
The accumulation pressure FL 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:

\[ F_L = m \times g \times \mu \]

<table>
<thead>
<tr>
<th>Drive type</th>
<th>( \mu )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friction conveyor rollers</td>
<td>0.06</td>
</tr>
<tr>
<td>Drive shaft</td>
<td>0.20</td>
</tr>
<tr>
<td>Round belt rollers</td>
<td>0.25</td>
</tr>
<tr>
<td>Fixed drive* with chain, tooth belt or PolyVee belt</td>
<td>~ 0.35</td>
</tr>
</tbody>
</table>

* With use of a fixed drive, the value for \( \mu \) 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
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

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

\[
\text{Transition gap in mm} \quad \text{Length of transport material in mm} \quad \text{Roller pitch in mm}
\]

• 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
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:

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

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 - Diveters
The throughput $T_p$ 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:

$$3.600 \times v$$

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

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

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).

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

**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)

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.

\[
Z = \frac{ML}{ZL}
\]

**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.

---

<table>
<thead>
<tr>
<th><strong>Rollerdrive 24 v DC</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. conveyor speed</td>
<td>1.75 m/s</td>
</tr>
<tr>
<td>Max. load capacity</td>
<td>80 kg</td>
</tr>
<tr>
<td>Max. rated torque</td>
<td>11.7 Nm*</td>
</tr>
<tr>
<td>Mechanical power</td>
<td>32 W</td>
</tr>
<tr>
<td>Noise level</td>
<td>95dB(A)</td>
</tr>
<tr>
<td>Max. number of starts/ stops per minute</td>
<td>30</td>
</tr>
<tr>
<td>Commutation type</td>
<td>Electronic, internal</td>
</tr>
<tr>
<td>Min. lifetime</td>
<td>20,000 h</td>
</tr>
</tbody>
</table>

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

**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
- **\( \mu \)**: 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)
### 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

<table>
<thead>
<tr>
<th>Clearance LW in mm</th>
<th>Clearance LWY in mm</th>
<th>Module Length ML in mm</th>
<th>Face Length F in mm</th>
<th>Module length ML in mm</th>
<th>Face length F in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>420</td>
<td>450</td>
<td>447.5</td>
<td>1060</td>
<td>507.5</td>
</tr>
<tr>
<td>520</td>
<td>520</td>
<td>900</td>
<td>447.5</td>
<td>1680</td>
<td>507.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1350</td>
<td>637.5</td>
<td>2280</td>
<td>697.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1500</td>
<td>937.5</td>
<td>2580</td>
<td>997.5</td>
</tr>
</tbody>
</table>

Roller pitch P = 75 mm

<table>
<thead>
<tr>
<th>Clearance LW in mm</th>
<th>Clearance LWY in mm</th>
<th>Module Length ML in mm</th>
<th>Face Length F in mm</th>
<th>Module length ML in mm</th>
<th>Face length F in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>420</td>
<td>450</td>
<td>447.5</td>
<td>1060</td>
<td>507.5</td>
</tr>
<tr>
<td>520</td>
<td>520</td>
<td>900</td>
<td>447.5</td>
<td>1680</td>
<td>507.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1350</td>
<td>637.5</td>
<td>2280</td>
<td>697.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1500</td>
<td>937.5</td>
<td>2580</td>
<td>997.5</td>
</tr>
</tbody>
</table>

Roller pitch P = 75 mm

<table>
<thead>
<tr>
<th>Clearance LW in mm</th>
<th>Clearance LWY in mm</th>
<th>Module Length ML in mm</th>
<th>Face Length F in mm</th>
<th>Module length ML in mm</th>
<th>Face length F in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>420</td>
<td>450</td>
<td>447.5</td>
<td>1060</td>
<td>507.5</td>
</tr>
<tr>
<td>520</td>
<td>520</td>
<td>900</td>
<td>447.5</td>
<td>1680</td>
<td>507.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1350</td>
<td>637.5</td>
<td>2280</td>
<td>697.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1500</td>
<td>937.5</td>
<td>2580</td>
<td>997.5</td>
</tr>
</tbody>
</table>

#### 24V Diverter ERS51/52

<table>
<thead>
<tr>
<th>Clearance LW in mm</th>
<th>Clearance LWY in mm</th>
<th>Module Length ML in mm</th>
<th>Face Length F in mm</th>
<th>Module length ML in mm</th>
<th>Face length F in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>420</td>
<td>450</td>
<td>447.5</td>
<td>1060</td>
<td>507.5</td>
</tr>
<tr>
<td>520</td>
<td>520</td>
<td>900</td>
<td>447.5</td>
<td>1680</td>
<td>507.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1350</td>
<td>637.5</td>
<td>2280</td>
<td>697.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1500</td>
<td>937.5</td>
<td>2580</td>
<td>997.5</td>
</tr>
</tbody>
</table>

Roller pitch P = 75 mm

<table>
<thead>
<tr>
<th>Clearance LW in mm</th>
<th>Clearance LWY in mm</th>
<th>Module Length ML in mm</th>
<th>Face Length F in mm</th>
<th>Module length ML in mm</th>
<th>Face length F in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>420</td>
<td>450</td>
<td>447.5</td>
<td>1060</td>
<td>507.5</td>
</tr>
<tr>
<td>520</td>
<td>520</td>
<td>900</td>
<td>447.5</td>
<td>1680</td>
<td>507.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1350</td>
<td>637.5</td>
<td>2280</td>
<td>697.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1500</td>
<td>937.5</td>
<td>2580</td>
<td>997.5</td>
</tr>
</tbody>
</table>

Roller pitch P = 75 mm

<table>
<thead>
<tr>
<th>Clearance LW in mm</th>
<th>Clearance LWY in mm</th>
<th>Module Length ML in mm</th>
<th>Face Length F in mm</th>
<th>Module length ML in mm</th>
<th>Face length F in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>420</td>
<td>450</td>
<td>447.5</td>
<td>1060</td>
<td>507.5</td>
</tr>
<tr>
<td>520</td>
<td>520</td>
<td>900</td>
<td>447.5</td>
<td>1680</td>
<td>507.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1350</td>
<td>637.5</td>
<td>2280</td>
<td>697.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1500</td>
<td>937.5</td>
<td>2580</td>
<td>997.5</td>
</tr>
</tbody>
</table>

Roller pitch P = 75 mm

<table>
<thead>
<tr>
<th>Clearance LW in mm</th>
<th>Clearance LWY in mm</th>
<th>Module Length ML in mm</th>
<th>Face Length F in mm</th>
<th>Module length ML in mm</th>
<th>Face length F in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>420</td>
<td>450</td>
<td>447.5</td>
<td>1060</td>
<td>507.5</td>
</tr>
<tr>
<td>520</td>
<td>520</td>
<td>900</td>
<td>447.5</td>
<td>1680</td>
<td>507.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1350</td>
<td>637.5</td>
<td>2280</td>
<td>697.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1500</td>
<td>937.5</td>
<td>2580</td>
<td>997.5</td>
</tr>
</tbody>
</table>

Roller pitch P = 75 mm

<table>
<thead>
<tr>
<th>Clearance LW in mm</th>
<th>Clearance LWY in mm</th>
<th>Module Length ML in mm</th>
<th>Face Length F in mm</th>
<th>Module length ML in mm</th>
<th>Face length F in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>420</td>
<td>450</td>
<td>447.5</td>
<td>1060</td>
<td>507.5</td>
</tr>
<tr>
<td>520</td>
<td>520</td>
<td>900</td>
<td>447.5</td>
<td>1680</td>
<td>507.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1350</td>
<td>637.5</td>
<td>2280</td>
<td>697.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1500</td>
<td>937.5</td>
<td>2580</td>
<td>997.5</td>
</tr>
</tbody>
</table>

Roller pitch P = 75 mm

<table>
<thead>
<tr>
<th>Clearance LW in mm</th>
<th>Clearance LWY in mm</th>
<th>Module Length ML in mm</th>
<th>Face Length F in mm</th>
<th>Module length ML in mm</th>
<th>Face length F in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>420</td>
<td>450</td>
<td>447.5</td>
<td>1060</td>
<td>507.5</td>
</tr>
<tr>
<td>520</td>
<td>520</td>
<td>900</td>
<td>447.5</td>
<td>1680</td>
<td>507.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1350</td>
<td>637.5</td>
<td>2280</td>
<td>697.5</td>
</tr>
<tr>
<td>620</td>
<td>620</td>
<td>1500</td>
<td>937.5</td>
<td>2580</td>
<td>997.5</td>
</tr>
</tbody>
</table>

Roller pitch P = 75 mm

<table>
<thead>
<tr>
<th>Belt driven high speed Pop-Up ERS52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearance LW in mm</td>
</tr>
<tr>
<td>420</td>
</tr>
<tr>
<td>520</td>
</tr>
<tr>
<td>620</td>
</tr>
<tr>
<td>720</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module length ML in mm</th>
<th>Face Length-F in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1420</td>
<td>1872.5</td>
</tr>
<tr>
<td>1420</td>
<td>1872.5</td>
</tr>
<tr>
<td>1420</td>
<td>1872.5</td>
</tr>
<tr>
<td>1420</td>
<td>1872.5</td>
</tr>
</tbody>
</table>

Roller pitch P = 75 mm
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.

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.
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.
APPLICATION NOTES
BELT CONVEYORS

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 $TP$, please contact your Interroll customer representative. $TP$ for straight paths can roughly be calculated as follows:

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

$TP$ 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:

$$P = 0.5 \, \text{m/s} \cdot 200 \, \text{kg} \cdot 0.005 = 0.50 \, \text{kW} \, \text{ms}$$

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.
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

<table>
<thead>
<tr>
<th>General technical data</th>
<th>Max. load capacity</th>
<th>Ambient temperature</th>
<th>Incline/decline</th>
</tr>
</thead>
</table>
|                        | 100 kg (incl. fitted module) | +5 to +40 °C | 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
### Dimensioned drawing

**A** Optical axis  
**B** Indicator diodes

### Electrical connection

1. 10...30V DC  
2. 0.2mA  
3. 1mA  
4. ≤ 300ms

### Accessories:
- Polarisated retro-reflective photoelectric sensor using visible red light
- Active suppression of extraneous light
- 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

### Specifications

#### Optical data
- Typ. op. range limit (TK(S) 100x100) 1)
- See tables
- Light source: LED (modulated light)
- Wavelength: 620nm (visible red, polarized)

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

#### Electrical data
- Operating voltage U_0:
  - 10...30V DC
- Residual ripple:
  - ≤ 15% of U_0
- Open-circuit current:
  - ≤ 20mA
- Switching output:
  - ...PP... 2 PNP transistor outputs  
  - ...PN... 2 NPN transistor outputs
- Signal voltage high/low:
  - Output current:
  - max. 100mA 2)

#### Indicators
- LED green
- LED yellow
- LED red
- LED ready

#### Mechanical data
- Housing:
  - Optics cover: plastic
  - Weight: 20g with M8 connector

#### Connection type
- M8 metal threaded sleeve

#### Environmental data
- Ambient temp. (operation/storage):
  - -40°C ... +60°C/-40°C ... +70°C
- Protective circuit:
  - IEC 60947-5-2
- VDE safety class:
  - IP 67
- Protection class:
  - Free group (in acc. with EN 62471)
- Light source:
  - LED yellow light path free
  - LED green ready

#### Standards applied
- IEC 60947...
**Accessories:**
- M12 connectors (KD ...
- Ready-made cables (K-D ...
- Mounting clamp (MC 012...)

**Specifications**

- **General specifications**
  - IS 212...-8NO-S12
  - IS 212...-10N-S12
- **Type of installation**
  - non-embedded installation
- **Operating range**
  - S<sub>0</sub> 10...
- **Operating voltage**
  - U<sub>B</sub> 10...
- **Residual current**
  - I<sub>r</sub> 10mA
- **Switching output/function**
  - NO ... PNP transistor, make-contact (NO)
  - NC ... NPN transistor, break-contact (NC)
- **Voltage drop**
  - U<sub>d</sub> ≤ 1V
- **Hysteresis**
  - H<sub>c</sub> ≤ 10% R
- **Ambient temperature**
  - -25°C ...
- **Protection class**
  - IP 67
- **Environmental data**
  - Operating range < 2% of U<sub>B</sub>
- **Tightening torque of the fastening nuts**
  - < 10Nm

**Mechanical data**

- **Mounting**
  - Non-embedded installation
  - Standard surface plate 12 x 12mm², Fe360 24 x 24mm², Fe360 30 x 30mm², Fe360
- **Weight**
  - approx. 30g

**Electrical data**

- **Switching frequency**
  - f 2kHz
- **Residual ripple**
  - ≤ 10% U<sub>B</sub>
- **Repeatability**
  - ≤ 10% R
- **Protective circuit**
  - 4)
- **Protection class**
  - IP 67
- **Ambient temperature**
  - -25°C ...
- **Protection class**
  - IP 67
- **Standard surface plate**
  - 12 x 12mm², Fe360 24 x 24mm², Fe360 30 x 30mm², Fe360

**Timing**

- **Switching frequency**
  - f 2kHz
- **Delay before start-up**
  - ≤ 10ms

**Indicators**

- **Yellow LED**
  - (visible from 360°)

**Mechanical data**

- **Mounting**
  - Non-embedded installation
  - Standard surface plate 12 x 12mm², Fe360 24 x 24mm², Fe360 30 x 30mm², Fe360
- **Weight**
  - approx. 30g

**Electrical data**

- **Switching frequency**
  - f 2kHz
- **Residual ripple**
  - ≤ 10% U<sub>B</sub>
- **Repeatability**
  - ≤ 10% R
- **Protective circuit**
  - 4)
- **Protection class**
  - IP 67
- **Ambient temperature**
  - -25°C ...
- **Protection class**
  - IP 67
- **Standard surface plate**
  - 12 x 12mm², Fe360 24 x 24mm², Fe360 30 x 30mm², Fe360

**Timing**

- **Switching frequency**
  - f 2kHz
- **Delay before start-up**
  - ≤ 10ms

**Indicators**

- **Yellow LED**
  - (visible from 360°)

---

**Tables**

- **Reduction factors**
  - for Sn = 4mm
  - for Sn = 8mm
  - for Sn = 10mm

- **Mounting**
  - Non-embedded installation
  - Standard surface plate 12 x 12mm², Fe360 24 x 24mm², Fe360 30 x 30mm², Fe360

**Accessories:**

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

**Mounting**

- Non-embedded installation
  - Standard surface plate 12 x 12mm², Fe360 24 x 24mm², Fe360 30 x 30mm², Fe360

**Weight**

- approx. 30g
**Specifications**

**General specifications**
- **Type of installation**: non-embedded installation
- **Operating range**: 8.0mm
- **Type B**: 20.0mm

**Electrical data**
- **Operating voltage**: 10 V ... 30 V DC
- **Residual ripple**: ≤ 10% of \( U_B \)
- **Voltage drop**: ≤ 200 mV
- **Residual current**: ≤ 100 μA
- **Switching frequency**: ≤ 2 kHz
- **Tightening torque**: for M12 fastening nuts

**Environmental data**
- **Ambient temperature**: -25°C ... +70°C
- **Protection class**: IP 67
- **Protection circuit**: 1, 2, 3
- **Standards applied**: IEC/EU 60947-5-2
- **Electromagnetic compatibility**: Level 3 air 8kV (ESD)

**Mechanical data**
- **Housing**: chromium-plated brass
- **Active surface**: PBT
- **Weight**: approx. 50g/approx. 120g
- **Connection type**: M12 connector 4-pin or 3-pin

**Mounting**
- **Non-embedded installation**: ≤ 15Nm

**Tables**
- **Reduction factors**:
  - for \( S_n = 8.0 \) mm and \( S_n = 20.0 \) mm

**Design**
- **Standard surface plate** 24 x 24mm², Fe360

**Accessories**:
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Mounting clamp (MC 018...)

**Electrical connection**

**Dimensioned drawing**

**Notes**

1. Observe the safety regulations and installation instructions regarding power supply and wiring; for UL applications, only use in "Class 2" circuits acc. to NEC.
2. Over the entire operating temperature range.
3. For \( U_B = 20 \) ... 30 VDC, ambient temperature \( T_a = 23°C ± 5°C \).
4. 3-pin or 4-pin M12 connection cables can be used.

**Level 3 air 8kV (ESD)**
- \( 100\mu A \)
- \( 200mA \)
- \( 10mA \)
- \( 2V \)
- \( 40ms \)

**Level 3 2kV (Burst)**
- \( 1kV \)

**Level 3 10V/m (RFI)**
- \( 2V \)
- \( 10\% \)

**Level 3 air 8kV (ESD)**
- \( 10\% \)
- \( 20\% \)

**Level 3 air 8kV (ESD)**
- \( 8kV \)
- \( 1kV \)