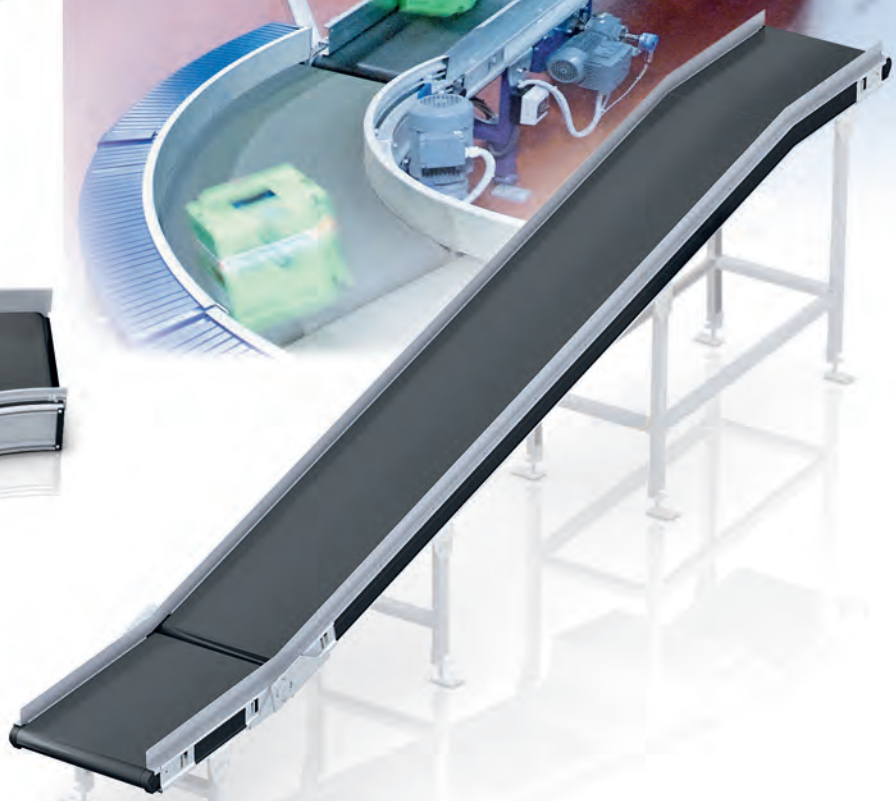
en-US FEB/2011

INTERROLL®

INSPIRED BY EFFICIENCY

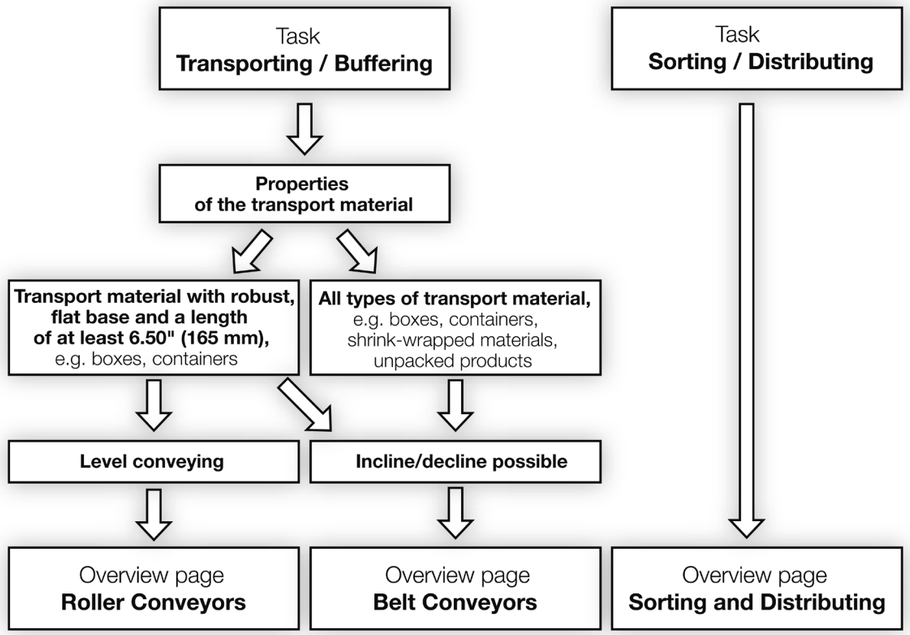


CONVEYOR LINES

MEDIUM AND HEAVY

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 catalog: Roller Conveyors, Belt Conveyors and Sorting and Distributing.



After selecting the chapter most appropriate 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.

TABLE OF CONTENTS

WHO IS INTERROLL?

Interroll is one of the world's leading specialists within the field of material handling, logistics and automation. Headquartered in Sant'Antonino, Switzerland, the exchange-listed company employs some 1,500 people at 28 enterprises around the globe.

In which sectors are Interroll's core products used?

Intelligent products made by Interroll perform a multitude of tasks around the globe – day in, day out; wherever goods need to be conveyed, stored and distributed; in every sector imaginable and along the entire value chain. Designed as core products for key locations along materials flow systems, Interroll solutions have proved particularly popular in the food and beverage industry, in the field of airport logistics (baggage conveying and security technology), in the courier, express delivery and postal sector, in the area of logistical services, as well as in the industrial and healthcare sectors.

Who are Interroll's customers?

Interroll's range of state-of-the-art drive solutions, such as drum motors, is targeted principally at regional system engineering companies and original equipment manufacturers. Conveyor modules (e. g. for dynamic storage solutions) and subsystems (e. g. crossbelt sorters) are supplied mainly to global system integrators, multinational companies and end-users. Interroll serves more than 23,000 customers across all continents.

Interroll – one brand, three pillars

Three globally operating business units located under one roof in a strategic holding company in the Swiss town of Sant'Antonino provide clear market and product-specific guidance for the group's activities: Interroll Drives & Rollers, Interroll Dynamic Storage, and Interroll Automation.

Which customer requirements does Interroll meet?

From the initial idea until a material flow system is ramped up, Interroll focuses on the needs of the different customer and project partners. Interroll supports users, planners, and consulting firms with: Application consultancy, worldwide references, access to the latest innovations, worldwide consistent quality, energy and space-saving solutions with operational simplicity and safety.

Users take advantage of a short amortization period (2-3 year return on investment), low maintenance costs, price-effective operations (savings in energy and space), low noise levels, above-average life-span and quality, 24/7 service, and user friendly documentation – in short – of everything which optimizes the "Total Cost of Ownership".

Interroll offers system integrators and OEMs: Layout and product advice, knowhow obtained from worldwide references, a comprehensive range of modular products that are rapidly available anywhere in the world, have specific installation instructions, abbreviated installation times, and simplified integration of pre-installed product solutions (plug and play) which correspond to industry standards (EC, UL, etc.).

Interroll's key markets

Food & Beverage Industry

Manufacturing

Parcel, Postal and Courier

Distribution

Airport Logistics

Health Care Industry

INTERROLL – ONE BRAND, THREE PILLARS

Interroll Drives & Rollers

The heart of the conveyor technology

With an experienced eye for the big picture, we offer you the kind of components that are versatile and essential building blocks in the portfolio of any successful planner or developer.

- Drum Motors and Idler Pulleys
- Zone-controlled RollerDrives and PolyVee Drive Units
- Gravity Rollers
- Fixed Drive Conveyor Rollers
- Friction Drive Conveyor Rollers
- Tapered Conveyor Rollers
- Conveyor Wheels
- Omniwheels
- Ball Transfer Units
- Roller Tracks

Our product portfolio represents a proven quality standard for dynamic, efficient material flow across all continents and in all sectors. Interroll solutions convey, accumulate, insert, remove and combine goods. Powered or with gravity. With or without accumulation pressure. Easy to install drive solutions for new plants or to refurbish existing plants. Excellent products that will pay for themselves and that you can rely on.
In every respect.

Interroll Automation

The hub of distribution logistics

Millions of items travel through the world's flow of goods every day. Ever more varied, individually commissioned products must be delivered on time to the correct destination. This is a trend that requires a performance-based logistics system with economic material flow solutions. Interroll's innovative conveyor modules and subsystems are always ready for systems and their key locations:

- Crossbelt Sorters
- Belt Curves
- Spiral Curves
- Intelliveyor 24 V DC Conveyor Modules with Zero-Pressure Accumulation
- Roller Conveyors
- Belt Conveyors
- Merges

Precisely pre-assembled at the factory and rapidly delivered, the conveyor modules and subsystems can be easily integrated into the larger complete system – plug and play. The conveyor modules and subsystems provide users with key assurances: excellent availability while being easy to use; outstanding efficiency even at low throughput volumes; efficient investment with a short period of return on investment (two to three years); adaptability in the event of change.

Interroll Dynamic Storage

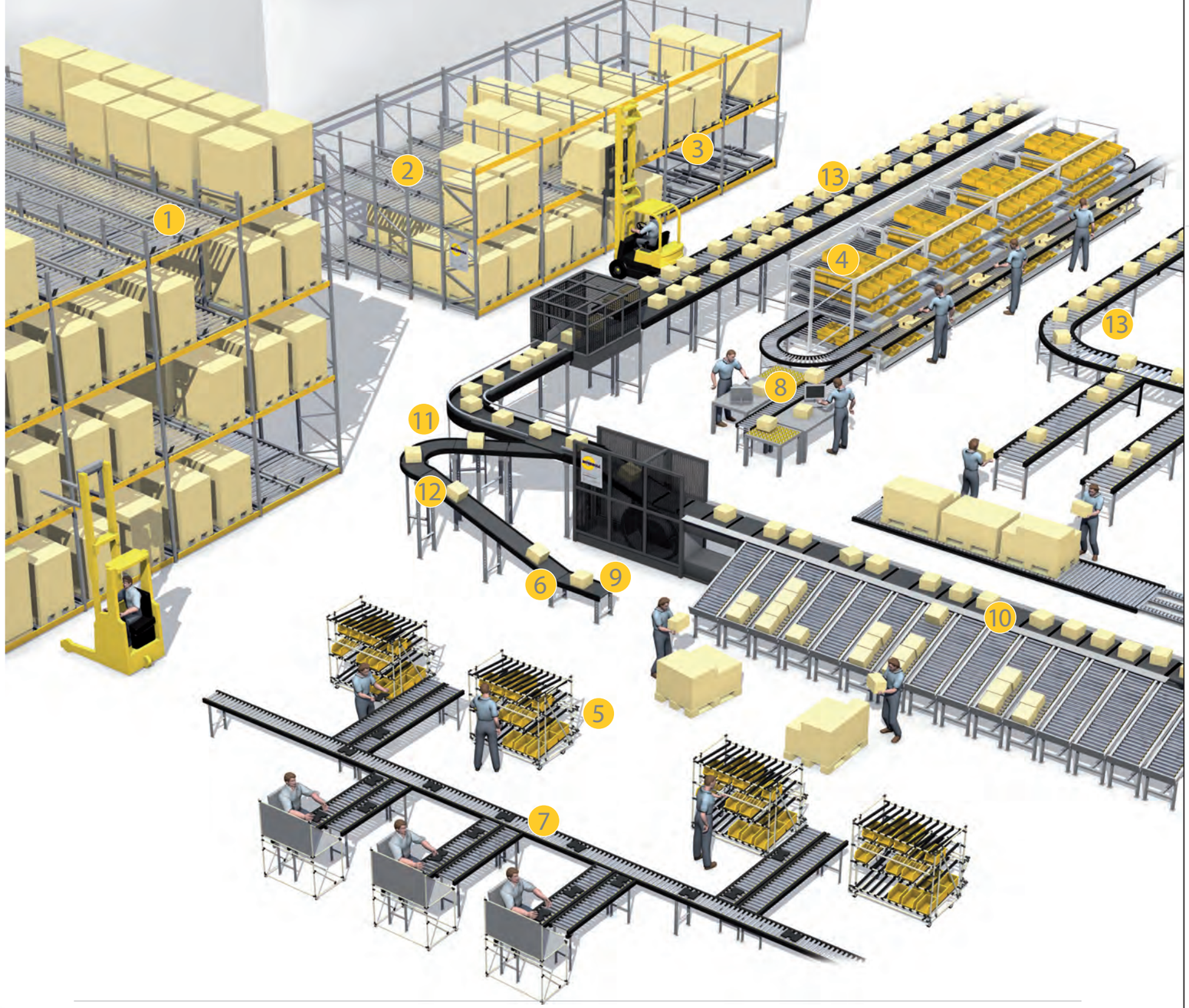
Excellence in order picking

Efficient and user-friendly: the dynamic storage solution that operates without energy. It is designed for fast-moving goods (e. g. groceries) that have to be picked and quickly conveyed to consumers. The principle is as simple as it is ingenious. It is known as FIFO, First in – First out, and guarantees that what has been stored first is also picked first. Or LIFO, Last in – First out, when what has been stored last is picked first. It means making maximum use of minimal space. And because the needs of our customers are as diverse as their products, our central and peripheral subsystems offer unlimited design options.

- Flow Storage
- Speed Controller
- Safety Separators
- Universal Connectors
- Wheel Flow
- Pushback
- Flex Flow
- Roller Flow

The picking times can scarcely be beaten. The return on investment for the operator is less than two years. Of course, „Just in Time“ comes as standard.

INTERROLL – THE MOST GLOBAL PROVIDER OF KEY PRODUCTS FOR MATERIAL HANDLING SOLUTIONS



① FIFO - Pallet flow storage modules (Conveyor Rollers)
② LIFO - Pallet flow storage modules (Conveyor Rollers)
③ LIFO - Pallet flow storage modules (Cart Pushback)
④ Order picking racking with Carton Flow (Roller Track)
⑤ Order picking racking with Flex Flow

⑥ Drum Motors, Idler Pulleys, brackets
⑦ 24 V DC RollerDrives and Controls
⑧ Conveyor Rollers and Accessories
⑨ Idler Pulleys

⑩ Crossbelt Sorters
⑪ Belt Curves
⑫ Belt Conveyor Modules
⑬ Intelliveyor Modules for zero pressure accumulation (ZPA) Conveyors


6

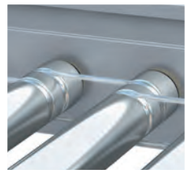

7


8

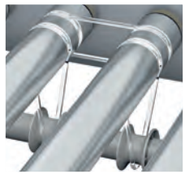

9

OVERVIEW OF ROLLER CONVEYORS

Intelligent and non-contact separation



Non-contact conveying and separation

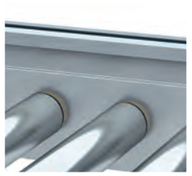


Conveying and accumulating with low accumulation pressure

Conveying high loads with fewer motors

Conveying high loads with low noise at high velocity

Conveying high loads with low pressure accumulation



Conveying with gravity

Stopping, distributing or raising and lowering the material to be conveyed

Buffering and sorting containers on an incline with low accumulation pressure

	Intelliveyor	RollerDrive	Lineshaft	Tangential Chain	Toothed Belt	Accumulation	Gravity	Key Elements	Roller Chute
Max. load capacity	110 lb *(50 kg)* (with O-ring) 175 lb *(80 kg)* (with PolyVee belts)	110 lb *(50 kg)* (with O-ring) 175 lb *(80 kg)* (with PolyVee belts)	50 lb/ft *(75 kg/m)*	175 lb/ft *(250 kg/m)*	175 lb/ft *(250 kg/m)*	175 lb/ft *(250 kg/m)*	75 lb/ft *(100 kg/m)*	150 lb/ft *(200 kg/m)*	40 lb/ft *(50 kg/m)*
Max. conveyor speed	250 ft/min *(1.2 m/s)*	250 ft/min *(1.2 m/s)*	120 ft/min *(0.6 m/s)*	100 ft/min *(0.5 m/s)*	400 ft/min *(2.0 m/s)*	60 ft/min *(0.3 m/s)*		120 ft/min *(0.60 m/s)*	450 container/h
Function									
Non-contact accumulation	✓	✓						(✓)	
Accumulation	(✓)		✓	✓	✓	✓	✓	(✓)	✓
Conveying	✓	✓	✓	✓	✓	✓	✓	(✓)	✓
Sorting	✓	✓	(✓)	(✓)	(✓)	(✓)		(✓)	✓
Control	Internal ``Plug and play´´ logic								Internal ``Plug and play´´ logic
	see page 10	***see page 22***	***see page 30***	***see page 38***	***see page 38***	***see page 46***	***see page 52***	***see page 62***	***see page 84***

INTELLIVEYOR

The intelligent, well thought-out modular system

- ✓ **Intelligent** — The internal control of the Intelliveyor, the Z-Card, transforms a roller conveyor into an intelligent single position conveyor that assigns each transport material its own zone in the flow. A superior control system is not required but can be connected at any time
- ✓ **Low-noise** — Quiet operation <60 db(A) (without material)
- ✓ **Zero accumulation pressure transport** — The moving unit load is stopped at the end of a zone if the downstream zone is occupied. Unit loads do not touch and are accumulated with zero accumulation pressure if required
- ✓ **Plug and play** — Ready for installation and use with pre-assembled modules from the flexible Intelliveyor modular system

Straight
RM 5504
p. 12

Curve
RM 5530
p. 14

Merge 30° /45°
RM 5550
p. 16

Diverter 30° /45°
RM 5545
p. 18

Transfer 90°
RM 5591
p. 20

Can be combined with

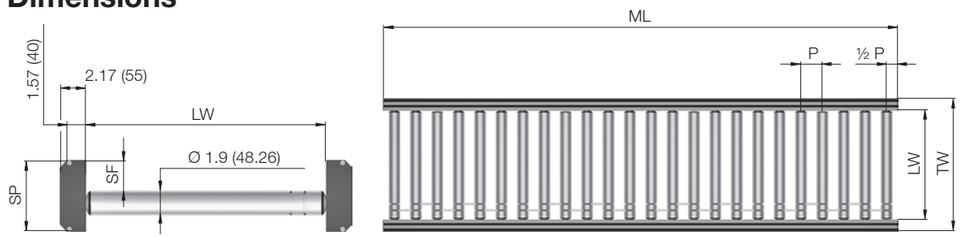
INTERROLL INTELLIVEYOR RM 5504

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

	O-ring	PolyVee belt
General technical data		
Max. load capacity per zone	110 lb *(50 kg)*	175 lb *(80 kg)*
Conveyor speed	20 to 250 ft/min *(0.1 to 1.2 m/s)*	
Inclined/declined	Not suitable	
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*	
Roller		
Roller type	Interroll Series 1700	Interroll Series 3500
Roller diameter	1.9"	
Roller material	Steel, zinc-plated	
Max. number of rollers per zone	11	20
Drive		
Rated voltage	24 V DC	
Max. electrical power per zone	0.05 kW	
Drive medium	5 mm O-ring	PolyVee belt
Torque transmission	Roller-to-roller	
Side frame		
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller 	
80 mm (3.15“) Extrusion	Allows lateral shifting 3.15" *(80 mm)* high, 0.16" *(4 mm)* below top of roller 	
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)* 3.15" / 6" *(80 mm / 150 mm)* 6" / 3.15" *(150 mm / 80 mm)*	

Dimensions



Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
ML Module length	ZL x number of zones, max. 120" *(3000 mm)*
ZL Zone length	Number of rollers x P
TW Module width	LW + 4.33" *(110 mm)*
P Roller pitch	2" / 3" / 4" / 5" *(50 mm / 75 mm / 100 mm / 125 mm)*
SP Side frame	3.15" / 6" *(80 mm / 150 mm)*
SF Side guide	0.16" / 26" *(5 mm / 65 mm)*

Order Information

Scope of supply

- The module is completely assembled with control and sensors
- Please order support legs, end caps and 24 V power supply unit separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5504 – □ – □ – □ – □ – □ – □ – □ – □ – □ – □

- Clearance LW: **12"** to **40"**
- Module length ML in **"**
- Number of zones: **1** to **4**
- Roller pitch P: O-ring – **2"**, **3"**, **4"**, **5"**; PolyVee belt
- RollerDrive: **BT100**, **EC200**, **EC300**
- Control Side: Right **R**, Left **L**
- Drive medium and drive side: O-ring right **RR**, O-ring left **RL**, PolyVee belt right **PR**, PolyVee belt left **PL**, Belt **B**
- Side frames: **6"/6"**, **6"/3.15"**, **3.15"/6"**
- Conveyor speed in ft/min: BT100, EC200 – **20**, **40**, ⋮, **160**; EC300 – **170**, **200**, **250**
- Special: **S**

For selection of the RollerDrive please consult the Application Notes from p. 124.
A conveyor belt is also available as the drive medium. Please see the Application Notes from p. 124.

If you require a non-standard version, add an „S“ to the end and describe your requirements.

The Interroll Intelliveyor RM 5504 is also available on request as angled roller conveyor for one-sided alignment of the material.

Order example

Example of a reference number: 5504-20-80-4-4-EC200-R-RL-40-6/6

This reference number stands for Interroll Intelliveyor RM 5504 with a clearance LW 20" *(510 mm)*, a module length ML 80" *(2000 mm)*, a roller pitch P 4" *(100 mm)*, 4 zones, a RollerDrive EC200, the controls mounted on the right, a O-ring as drive medium on the left, a conveyor speed of 40 ft/min *(0.2 m/s)* and side frames with dimensions of 6"/ 6" *(150 mm / 150 mm)*.

Accessories

- Support legs, see p. 110
- End caps, see p. 116
- 24 V power supply unit, see p. 117
- Interface card, see p. 118
- PLC connection cable, see p. 118
- Photo cell kit, see p. 119

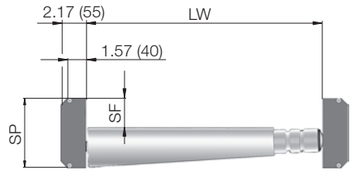
INTERROLL INTELLIVEYOR RM 5530

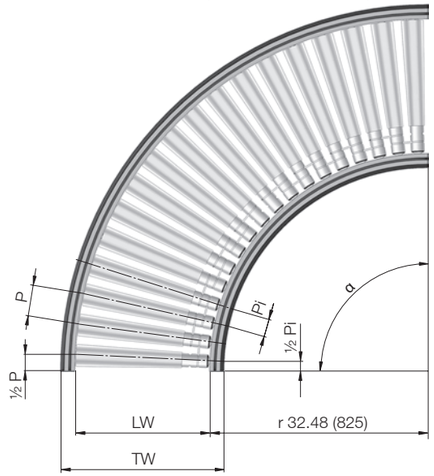
The roller conveyor curves change the direction of transport of material. The alignment of the material is maintained within the side frames by tapered rollers.

Technical Data

	O-ring	PolyVee belt
General technical data		
Max. load capacity per zone	110 lb *(50 kg)*	175 lb *(80 kg)*
Conveyor speed	20 to 250 ft/min *(0.1 to 1.2 m/s)*	
Inclined/declined	Not suitable	
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*	
Roller		
Roller type	Interroll Series 1700KXO	Interroll Series 3500KXO
Roller diameter	1.9"	
Roller material	Steel, zinc-plated with tapered polymer elements	
Max. number of rollers per zone	9	
Drive		
Rated voltage	24 V DC	
Max. electrical power per zone	0.05 kW	
Drive medium	5 mm O-ring	PolyVee belt
Torque transmission	Roller-to-roller	
Side frame		
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller 	
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)*	

Dimensions





Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
TW Module width	LW + 4.33" *(110 mm)*
α Angle	30° / 45° / 60° / 90°
P Roller pitch, external	~0.003" *(~0.087 mm)* x LW + Pi
Pi Roller pitch, internal	~2.83" *(~72 mm)*
SP Side frame	6" *(150 mm)*
SF Side guide	2.6" *(65 mm)*

Order Information

Scope of supply

- The module is completely assembled with control and sensors
- Please order support legs, end caps and 24 V power supply unit separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5530 - □ - □ - □ - □ - □ - □ - □

- Clearance LW: **12"** to **40"**
- Angle α: 30° **30**, 45° **45**, 60° **60**, 90° **90**
- Number of zones: **1**, **2** (only 90°)
- RollerDrive: **BT100**, **EC200**, **EC300**
- Drive medium: O-ring **R**, PolyVee belt **P**
- Conveyor speed in ft/min: BT100 / EC200: **20**, **40**, ⋮, **160**; EC300: **170**, **180**, **250**
- Special: **S**

For selection of the RollerDrive please consult the Application Notes from p. 124.
If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5530-20-90-2-EC200-R-40

This reference number stands for Interroll Intelliveyor RM 5530 with a clearance LW 20" *(510 mm)*, an angle α 90°, 2 zones, the RollerDrive EC200, a O-ring as drive medium and a conveyor speed of 40 ft/min *(0.2 m/s)*.

Accessories

- Support legs, see p. 110
- End caps, see p. 116
- 24 V power supply unit, see p. 117
- Interface card, see p. 118
- PLC connection cable, see p. 118
- Photo cell kit, see p. 119

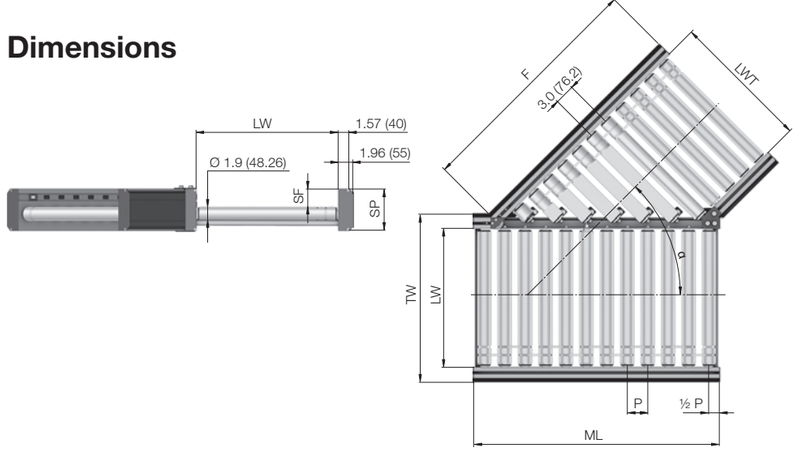
INTERROLL INTELLIVEYOR TRANSFER RM 5550

The Intelliveyor Merge Roller Conveyor merges two conveyor lines together using the gaps in the flow.

Technical Data

	O-ring	PolyVee belt
General technical data		
Max. load capacity per zone	75 lb *(35 kg)*	110 lb *(50 kg)*
Conveyor speed	20 to 250 ft/min *(0.1 to 1.2 m/s)*	
Inclined/declined	Not suitable	
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*	
Roller		
Roller type	Interroll Series 1700	Interroll Series 3500
Roller diameter	1.9"	
Roller material	Steel, zinc-plated	
Drive		
Rated voltage	24 V DC	
Max. electrical power per zone	0.05 kW	
Drive medium	5 mm O-ring	PolyVee belt
Torque transmission	Roller-to-roller	
Side frame		
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller 	
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)*	

Dimensions



Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
LWT Clearance transfer	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
ML Max. module length	60" *(1,510 mm)*
TW Module width	LW + 4.33" *(110 mm)*
F Face length	See Information on Application Notes
α Angle	30° / 45°
P Roller pitch	3" / 4" *(75 mm / 100 mm)*
SP Side frame	6" *(150 mm)*
SF Side guide	2.6" *(65 mm)*

Order Information

Scope of supply

- The module is completely assembled with control and sensors
- Please order support legs, end caps and 24 V power supply unit separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5550 – □ – □ – □ – □ – □ – □ – □ – □ – □ – □

- Module length ML in " (See Application Notes): Clearance LW **12"** to **40"**
- Angle α: 30° **30**; 45° **45**
- Roller pitch P: **3"**; **4"**
- Feeder: Right hand **RH**; Left hand **LH**
- RollerDrive: **BT100**; **EC200**; **EC300**
- Drive medium: O-ring **R**; PolyVee belt **P**
- Conveyor speed in ft/min: BT100 / EC200: **20**, **40**, ⋮, **160**, **180**, **200**, **250**; EC300
- Side frames: **6"/6"**
- Special: **S**

For selection of the RollerDrive please consult the Application Notes from p. 124.
If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5550-20-50-45-4-RH-EC200-R-40-6/6

This reference number stands for Interroll Intelliveyor Transfer RM 5550 with a clearance LW 20" *(510 mm)*, a module length ML 50" *(1200 mm)*, an angle α 45°, a roller pitch P 4" *(100 mm)*, a right hand merge, a RollerDrive EC200, a O-ring as drive medium, a conveyor speed of 40 ft/min *(0.2 m/s)* and side frames with dimensions of 6"/6" *(150 mm/150 mm)*.

Accessories

- Support legs, see p. 110
- End caps, see p. 116
- 24 V power supply unit, see p. 117
- Interface card, see p. 118
- PLC connection cable, see p. 118
- Photo cell kit, see p. 119

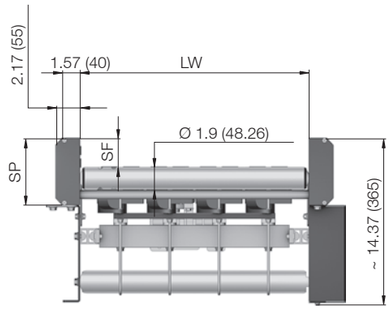
INTERROLL INTELLIVEYOR TRANSFER RM 5545

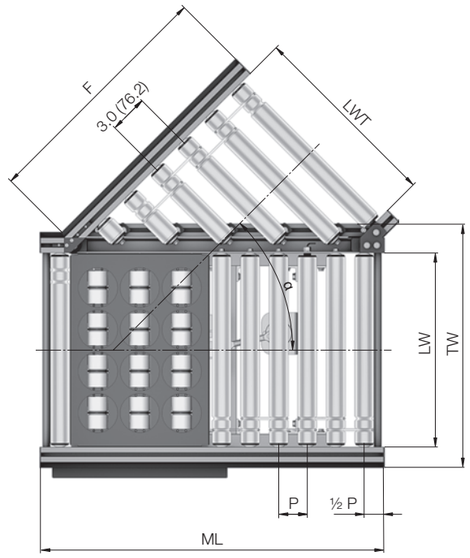
The Intelliveyor diverter 45° diverts material that should maintain its direction of travel via pivoted rollers. The flow of material remains uninterrupted.

Technical Data

	O-ring	PolyVee belt
General technical data		
Max. load capacity per zone	75 lb *(35 kg)*	110 lb *(50 kg)*
Conveyor speed	20 to 250 ft/min *(0.1 to 1.2 m/s)*	
Inclined/declined	Not suitable	
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*	
Roller		
Roller type	Interroll Series 1700	Interroll Series 3500
Roller diameter	1.9"	
Roller material	Steel, zinc-plated	
Drive		
Rated voltage	24 V DC	
Max. electrical power per zone	0.05 kW	
Drive medium	5 mm O-ring	PolyVee belt
Torque transmission	Roller-to-roller	
Drive transfer		
Motor	24 V gear motor	
Max. electrical power	0.05 kW	
Power transmission transfer	5 mm O-ring	
Side frame		
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller 	
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)*	

Dimensions





Dimensions	
LW Clearance	12" to 30" in 2" increments *(310 to 760 mm in 50 mm increments)*
LWT Clearance transfer	12" to 30" in 2" increments *(310 to 760 mm in 50 mm increments)*
ML Max. module length	60" *(1510 mm)*
TW Module width	LW + 4.33" *(110 mm)*
α Angle	45°
P Roller pitch	3" / 4" *(75 mm / 100 mm)*
F Face length	See Information on Application Notes
SP Side frame	6" *(150 mm)*
SF Side guide	2.6" *(65 mm)*

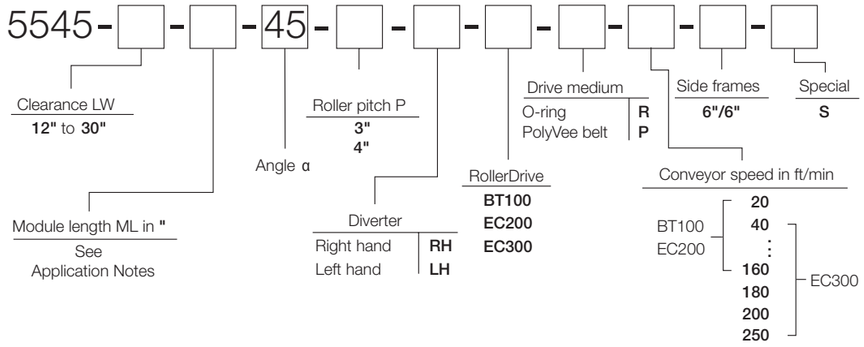
Order Information

Scope of supply

- The module is completely assembled with control and sensors
- Please order support legs, end caps and 24 V power supply unit separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.



For selection of the RollerDrive please consult the Application Notes from p. 124.
If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5545-20-50-45-3-RH-EC200-R-60-6/6

This reference number stands for Interroll Intelliveyor Transfer RM 5545 with a clearance LW 20" *(510 mm)*, a module length ML 50" *(1200 mm)*, an angle α 45°, a roller pitch P 3" *(75 mm)*, a right hand diverter, a RollerDrive EC200, a O-ring as drive medium, a conveyor speed of 60 ft/min *(0.3 m/s)* and side frames with dimensions of 6"/ 6" *(150 mm/150 mm)*.

Accessories

- Support legs, see p. 110
- End caps, see p. 116
- 24 V power supply unit, see p. 117
- Interface card, see p. 118
- PLC connection cable, see p. 118
- Photo cell kit, see p. 119

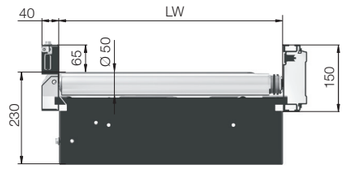
INTERROLL INTELLIVEYOR TRANSFER RM 5591

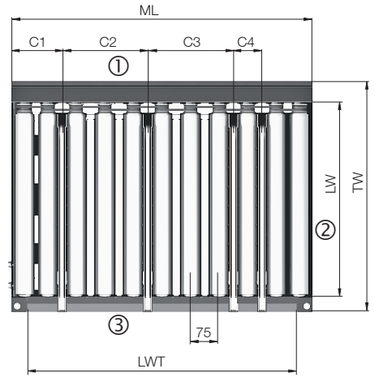
The Intelliveyor Transfer 90° transfers materials from a straight section in a perpendicular direction and can be used both for merging and diverting. The electrical stroke of the transfer belt guarantees safe transportation.

Technical Data

General technical data	
Max. load capacity per zone	110 lb *(50 kg)*
Conveyor speed	20 to 255 ft/min *(0.1 to 1.3 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*
Roller	
Roller type	Interroll Series 3500
Roller diameter	1.9"
Roller material	Steel, zinc-plated
Drive (roller conveyor)	
Rated voltage (RollerDrive)	24 V DC
Max. electrical power per zone	0.05 kW
Drive medium	PolyVee belt
Torque transmission	Roller-to-roller
Transfer driver (belt and stroke)	
Rated voltage (RollerDrive)	24 V DC
Max. electrical power	0.05 kW
Power transmission transfer	Toothed belt T5
Stroke height	0.5" *(13 mm)* above top edge of roller

Dimensions





Dimensions	
LW Clearance	16 to 40" in 2" in increments *(410 to 1,010 mm in 50 mm increments)*
LWT Transfer clearance	12 to 40" in 2" in increments *(310 to 1,010 mm in 50 mm increments)*
ML Module length	LWT + 3.15" *(80 mm)*
TW Module width	LW + 3.75" *(95 mm)*
α Angle	90°
C1 First belt pitch	5.3" + n x 3" *(135 + n x 75 mm)*
C2 Belt pitch	n x 3" *(75 mm)*
C3 Belt pitch	n x 3" *(75 mm)*
C4 Belt pitch	n x 3" *(75 mm)*
C5 Belt pitch	n x 3" *(75 mm)*

Order Information

Scope of supply

- The module is completely assembled with control and sensors
- Please order support legs, end caps and 24 V power supply unit separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5591 - □ - □ - □ - 75 - □ - □ - □ - □ - □ - □ - EC 310 - P - □ - □

- Clearance LW: **16"** to **40"**
- Clearance Transfer LWT: **12"** to **40"**
- Module length ML: LWT + 3.15"
- Roller pitch P: **3"**
- Pitch C1 in ": 5.3" + n x 3"
- Pitch C2 in ": n x 3"
- Pitch C3 in ": n x 3"
- Pitch C4 in ": n x 3"
- Pitch C5 in ": n x 3"
- Transfer side ①/②/③:
  - Page ① **I/O/C** (Input/Output/Closed)
  - Page ② **O/C** (Output/Closed)
  - Page ③ **I/O/C** (Input/Output/Closed)
- RollerDrive: **EC310**
- Drive medium: PolyVee belt **P**
- Conveyor speed in ft/min: **20**, **40**, ⋮, **200**, **250**
- Special: **S**

If you require a non-standard version, add an "S" to the end and describe your requirements.

Order example

Example of a reference number: 5591-510-710-790-75-135-225-225-75-C/O/O-EC310-P-0.6

This reference number stands for an Interroll Intelliveyor Transfer 5591 with a clearance LW of 510 mm, a transfer clearance LWT of 710 mm, a module length ML of 790 mm, a roller pitch P of 75 mm, a pitch C1 to the first belt of 135 mm, respective pitches to the next belts of 225 mm, 225 mm and 75 mm, with the 1st transfer side closed, with the 2nd and 3rd transfer sides as a discharge, a RollerDrive EC310, a PolyVee drive medium and a maximum conveying speed of 0.6 m/s.

Accessories

- Support legs, see page 110
- End caps, see page 116
- 24 V power supply unit, see page 117
- Interface card, see page 118
- PLC connecting cable, see page 118
- Photo cell kit, see page 119

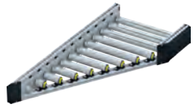
ROLLERDRIVE CONVEYOR

Non-contact conveying and separation with central control

- ✓ **Simple and economical** — Medium roller conveyors with RollerDrive are characterized by especially low-noise, economical conveying. With control via PLC, the RollerDrive Conveyor can be flexibly used
- ✓ **Low-noise** — Quiet operation < 60 db(A) (without material) with 24 V DC
- ✓ **Plug and play** — Ready for installation and use with pre-assembled modules

Straight
RM 5660
p. 24

Curve
RM 5661
p. 26



Feeder 30°/45°
RM 5662
p. 28

Can be combined with

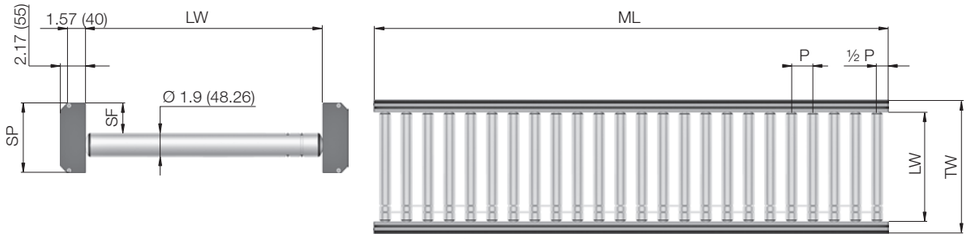
INTERROLL ROLLERDRIVE CONVEYOR RM 5660

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 protects the RollerDrive from overload. Each RollerDrive is connected via PU O-rings or PolyVee belts to the idlers.

Technical Data

	O-ring	PolyVee belt
General technical data		
Max. load capacity	40 lb/ft *(50 kg/m)*	50 lb/ft *(80 kg/m)*
Conveyor speed	20 to 250 ft/min *(0.1 to 1.2 m/s)*	
Inclined/declined	Not suitable	
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*	
Roller		
Roller type	Interroll Series 1700	
Roller diameter	1.9"	
Roller material	Steel, zinc-plated	
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 V DC	
Max. electrical power per zone	0.05 kW	
Drive medium	5 mm O-ring	PolyVee belt
Torque transmission	Roller-to-roller	
Side frame		
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller	
80 mm (3.15“) Extrusion	Allows lateral shifting 3.15" *(80 mm)* high, 0.16" *(4 mm)* below top of roller	
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)* 6" / 3.15" *(150 mm / 80 mm)* 3.15" / 6" *(80 mm / 150 mm)* 3.15" / 3.15" *(80 mm / 80 mm)*	

Dimensions



Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
ML Max. module length	120" *(3,000 mm)*
ZL Zone length	Number of rollers x P
TW Module width	LW + 4.33" *(110 mm)*
P Roller pitch	2" / 3" / 4" / 5" *(50 mm / 75 mm / 100 mm / 125 mm)*
SP Side frame	3.15" / 6" *(80 mm / 150 mm)*
SF Side guide	0.16" / 26" *(4 mm / 65 mm)*

Order Information

Scope of supply

- The module is fully assembled
- Please order support legs, end caps, sensors and 24 V power supply unit separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5660 – □ – □ – □ – □ – □ – □ – □ – □ – □ – □

- Clearance LW: **12"** to **40"**
- Module length ML in **"**: See Application Notes
- Roller pitch P: O-ring **2"**, **3"**, **4"**, **5"**; PolyVee belt **2"**, **3"**, **4"**, **5"**
- Number of zones: See Application Notes
- RollerDrive: **BT100**, **EC200**, **EC300**
- Controls mounted: Right **R**, Left **L**
- Drive medium and drive side: O-ring right **RR**, O-ring left **RL**, PolyVee belt right **PR**, PolyVee belt left **PL**, Belt **B**
- Side frames: **6"/6"**, **6"/3.15"**, **3.15"/6"**, **3.15"/3.15"**
- Conveyor speed in ft/min: BT100 / EC200 **20**, **40**, ⋮, **160**; EC300 **180**, **200**, **250**
- Special: **S**

For selection of the RollerDrive please consult the Application Notes from p. 124.
A conveyor belt is also available as the drive medium. Please see the Application Notes from p. 124.
If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5660-20-120-4-6-EC200-R-RL-40-6/6

This reference number stands for Interroll RollerDrive Conveyor RM 5660 with a clearance LW 20" *(510 mm)*, a module length ML 120" *(3000 mm)*, a roller pitch P 4" *(100 mm)*, 6 zones, a RollerDrive EC200, the controls mounted on the right, a O-ring as drive medium on the left, a conveyor speed of 40 ft/min *(0.2 m/s)* and side frames with dimensions of 6"/6" *(150 mm/150 mm)*.

Accessories

- Sensors, see p. 118
- Support legs, see p. 110
- End caps, see p. 116
- 24 V power supply unit, see p. 117

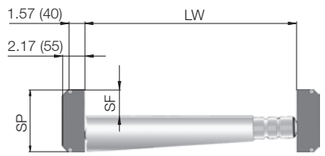
INTERROLL ROLLERDRIVE CONVEYOR RM 5661

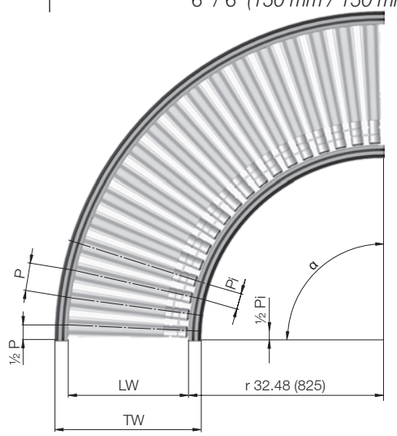
The roller conveyor curves change the direction of transport of material. The alignment of the material is maintained within the side frames by tapered rollers. Each drive features a digital interface to an external control (PLC) that protects the RollerDrive from overload.

Technical Data

	O-ring	PolyVee belt
General technical data		
Max. load capacity	35 lb/ft *(50 kg/m)*	50 lb/ft *(80 kg/m)*
Conveyor speed	20 to 250 ft/min *(0.1 to 1.2 m/s)*	
Inclined/declined	Not suitable	
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*	
Roller		
Roller type	Interroll Series 1700KXO	Interroll Series 3500KXO
Roller diameter	1.9"	
Roller material	Steel, with gray tapered polypropylene sleeves	
Max. number of rollers per zone	9	
Drive		
Rated voltage	24 V DC	
Max. electrical power per zone	0.05 kW	
Drive medium	5 mm O-ring	PolyVee belt
Torque transmission	Roller-to-roller	
Side frame		
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller	
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)*	

Dimensions





Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
TW Module width	LW + 4.33" *(110 mm)*
α Angle	30° / 45° / 60° / 90°
P Roller pitch, external	~0.003" *(~0.087 mm)* x LW + Pi
Pi Roller pitch, internal	~2.83" *(~72 mm)*
SP Side frame	6" *(150 mm)*
SF Side guide	2.6" *(65 mm)*

Order Information

Scope of supply

- The module is fully assembled
- Please order support legs, end caps, sensors and 24 V power supply unit separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5661- □ - □ - □ - □ - □ - □ - □

- Clearance LW: **12"** to **40"**
- Number of zones: **1**, **2** (only 90°)
- Angle α: 30° **30**, 45° **45**, 60° **60**, 90° **90**
- RollerDrive: **BT100**, **EC200**, **EC300**
- Drive medium: O-ring **R**, PolyVee belt **P**
- Conveyor speed in ft/min: BT100 / EC200: **20**, **40**, ⋮, **160**; EC300: **180**, **200**, **250**
- Special: **S**

For selection of the RollerDrive please consult the Application Notes from p. 124.
If you require a non-standard version, add an „S“ to the end and describe your requirements.

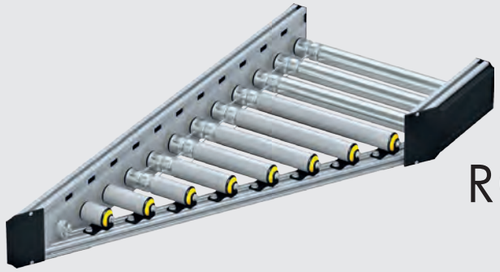
Order example

Example of a reference number: 5661-20-90-2-EC200-R-40

This reference number stands for Interroll RollerDrive Conveyor RM 5661 with a clearance LW 20" *(510 mm)*, an angle α 90°, 2 zones, a RollerDrive EC200, a O-ring as drive medium and a conveyor speed of 40 ft/min *(0.2 m/s)*.

Accessories

- Sensors, see p. 118
- Support legs, see p. 110
- End caps, see p. 116
- 24 V power supply unit, see p. 117



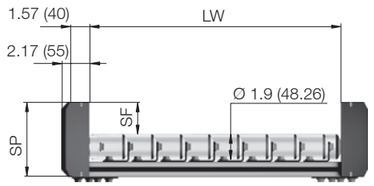
INTERROLL ROLLERDRIVE CONVEYOR RM 5662

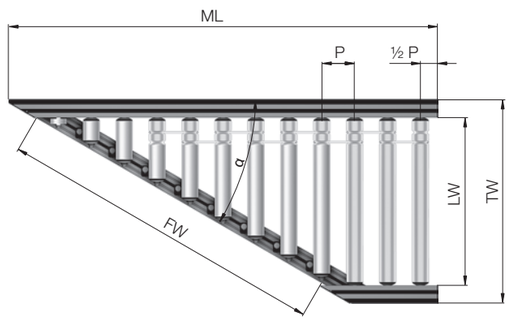
The RollerDrive Merge Roller Conveyor merges two conveyor lines together. The zones of the merge roller conveyor are directly and independently controlled by the PLC.

Technical Data

	O-ring	PolyVee belt
General technical data		
Max. load capacity	25 lb/ft *(35 kg/m)*	35 lb/ft *(50 kg/m)*
Conveyor speed	20 to 250 ft/min *(0.1 to 1.2 m/s)*	
Inclined/declined	Not suitable	
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*	
Roller		
Roller type	Interroll Series 1700	
Roller diameter	1.9"	
Roller material	Steel, zinc-plated	
Drive		
Rated voltage	24 V DC	
Max. electrical power per zone	0.05 kW	
Drive medium	5 mm O-ring	PolyVee belt
Torque transmission	Roller-to-roller	
Side frame		
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller 	
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)*	

Dimensions





Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
ML Max. module length	60 " *(1,510 mm)*
TW Module width	LW + 4.33" *(110 mm)*
LM Length of merge	See Information on Application Notes
FW Opening width	See Information on Application Notes
α Angle	30° / 45°
P Roller pitch	3" / 4" *(75 mm / 100 mm)*
SP Side frame	6" *(150 mm)*
SF Side guide	2.6" *(65 mm)*

Order Information

Scope of supply

- The module is fully assembled
- Please order support legs, end caps, sensors and 24 V power supply unit separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5662 – □ – □ – □ – □ – □ – □ – □ – □ – □ – □

- Clearance LW: **12"** to **40"**
- Module length ML in **"**: See Application Notes
- Angle α: 30° **30**; 45° **45**
- Roller pitch P: **3"**; **4"**
- Feeder: Left hand **LH**; Right hand **RH**
- RollerDrive: **BT100**; **EC200**; **EC300**
- Drive medium: O-ring **R**; PolyVee belt **P**
- Conveyor speed in ft/min: BT100 / EC200: **20**, **40**, ⋮, **160**, **180**, **200**, **250**; EC300
- Side frames: **6"/6"**
- Special: **S**

For selection of the RollerDrive please consult the Application Notes from p. 124.
If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5662-20-50-45-3-RH-EC200-R-40-6/6

This reference number stands for Interroll RollerDrive Conveyor RM 5662 with a clearance LW 20" *(510 mm)*, a module length ML 50" *(1200 mm)*, an angle α 45°, a roller pitch P 3" *(75 mm)*, a right hand merge, a RollerDrive EC200, a O-ring as drive medium, a conveyor speed of 40 ft/min *(0.2 m/s)* and side frames with dimensions of 6"/6" *(150 mm/150 mm)*.

Accessories

- Sensors, see p. 118
- Support legs, see p. 110
- End caps, see p. 116
- 24 V power supply unit, see p. 117

LINESHAFT ROLLER CONVEYOR

Conveying and accumulating with low accumulation pressure

✓ **Economical**

The Interroll Lineshaft Roller Conveyor is a friction drive accumulation conveyor with lineshaft. Because of low accumulation pressure, especially long conveyor lines are possible with few drive motors. During an accumulation situation the lineshaft continues to rotate and the rollers stop

✓ **Flexible and easy to use**

The Interroll Lineshaft Roller Conveyor is supplied in modular form and can be combined with all other conveyors from the (medium) product family

Straight
RM 5620

p. 32

Curve
RM 5621

p. 34

Merge 30°/45°
RM 5622

p. 36

Can be combined with

Belt Conveyors	from p. 86
Intelliveyor	from p. 10
RollerDrive Conveyor	from p. 22
Gravity Conveyor	from p. 52
Key Elements	from p. 62
Accessories	from p. 108

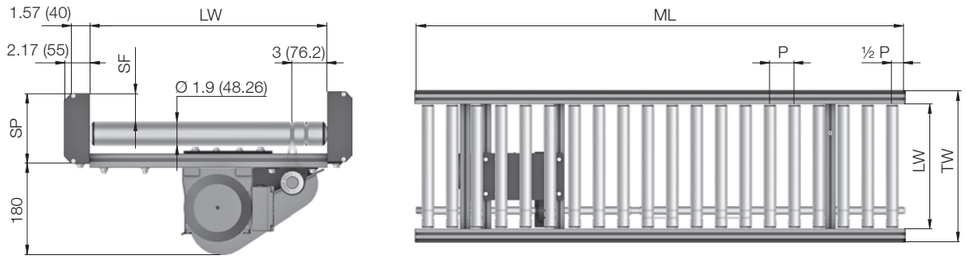
INTERROLL LINESHAFT ROLLER CONVEYOR RM 5620

The Interroll Lineshaft Roller Conveyor RM 5620 conveys unit loads on straight sections. The drive spools of the lineshaft drive the rollers frictionally so that unit loads accumulate with low accumulation pressure.

Technical Data

General technical data	
Max. load capacity	50 lb/ft *(75 kg/m)*
Conveyor speed	40 to 120 ft/min *(0.2 to 0.6 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*
Roller	
Roller type	Interroll Series 1700
Roller diameter	1.9"
Roller material	Steel, zinc-plated
Max. number of rollers per drive	See Information on Application Notes
Drive	
Rated voltage	460 V / 60 Hz / 3 phase
Drive medium	5 mm O-ring
Torque transmission	O-ring for Lineshaft roller
Side frame	
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller
80 mm (3.15“) Extrusion	Allows lateral shifting 3.15" *(80 mm)* high, 0.16" *(4 mm)* below top of roller
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)* 6" / 3.15" *(150 mm / 80 mm)* 3.15" / 6" *(80 mm / 150 mm)* 3.15" / 3.15" *(80 mm / 80 mm)*

Dimensions



Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
ML Max. module length	120" *(3,000 mm)*
TW Module width	LW + 3.31" *(84 mm)*
P Roller pitch	2" / 3" / 4" / 5" *(50 mm / 75 mm / 100 mm / 125 mm)*
SP Side frame	3.15" / 6" *(80 mm / 150 mm)*
SF Side guide	0.16" / 26" *(4 mm / 65 mm)*

Order Information

Scope of supply

- The module is fully assembled
- Please order support legs and end caps separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5620 - □ - □ - □ - □ - □ - □ - □ - □ - □

- Clearance LW: **12"** to **40"**
- Module length ML in **"**
- Roller pitch P: **2"**, **3"**, **4"**, **5"**
- Drive position: Left hand drive **LH**; Right hand drive **RH**
- Module type: Drive **D**; Slave **S**
- Conveyor speed in ft/min: **40**, **60**, **80**, **100**, **120**
- Side frames: **6"/6"**, **6"/3.15"**, **3.15"/6"**, **3.15/3.15"**
- Special: **S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5620-20-120-4-RH-D-100-6/6

This reference number stands for Interroll Lineshaft Roller Conveyor RM 5620 with a clearance LW 20" *(510 mm)*, a module length ML 120" *(3000 mm)*, a roller pitch P 4" *(100 mm)*, the drive position on the right, with own drive, a conveyor speed of 100 ft/min *(0.5 m/s)* and side frames with dimensions of 6"/6" *(150 mm/150 mm)*.

Accessories

- Support legs, see p. 110
- End caps, see p. 116

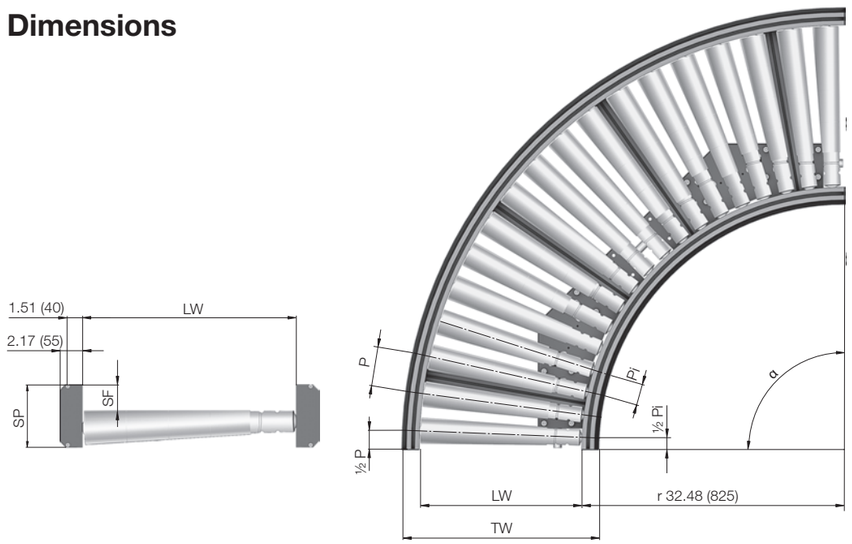
INTERROLL LINESHAFT ROLLER CONVEYOR RM 5621

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. The rollers are driven from a horizontal shaft.

Technical Data

General technical data	
Max. load capacity	50 lb/ft *(75 kg/m)*
Conveyor speed	40 to 120 ft/min *(0.2 to 0.6 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*
Roller	
Roller type	Interroll Series 1700KXO
Roller diameter	1.9"
Roller material	Steel, with gray tapered polypropylene sleeves
Max. number of rollers per conveyor/zone	12 at 60° 18 at 90° 6 at 30° 9 at 45°
Drive	
Rated voltage	460 V / 60 Hz / 3 phase
Max. electrical power per zone	0.37 kW
Drive medium	5 mm O-ring
Torque transmission	O-ring for Lineshaft roller
Side frame	
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)*

Dimensions



Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
TW Module width	LW + 3.31" *(84 mm)*
α Angle	30° / 45° / 60° / 90°
P Roller pitch, external	~0.003" *(~0.087 mm)* x LW + Pi
Pi Roller pitch, internal	~2.83" *(~72 mm)*
SP Side frame	6" *(150 mm)*
SF Side guide	2.6" *(65 mm)*

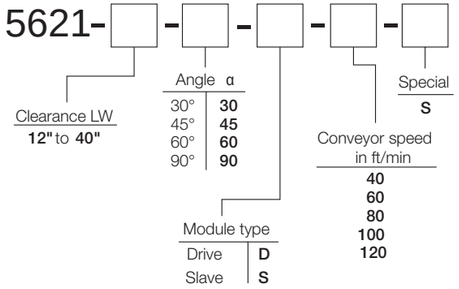
Order Information

Scope of supply

- The module is fully assembled
- Please order support legs and end caps separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.



If you require a non-standard version, add an „S“ to the end and describe your requirements.

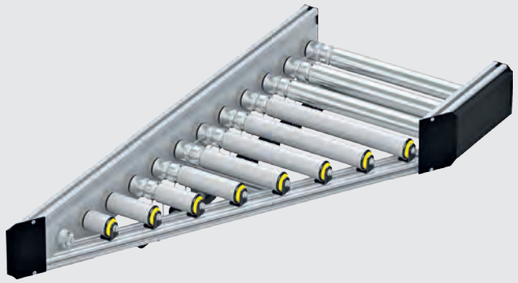
Order example

Example of a reference number: 5621-20-90-D-100

This reference number stands for Interroll Lineshaft Roller Conveyor RM 5621 with a clearance LW 20" *(510 mm)*, an angle α 90°, with own drive and a conveyor speed of 100 ft/min *(0.5 m/s)*.

Accessories

- Support legs, see p. 110
- End caps, see p. 116



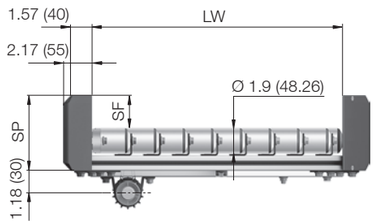
INTERROLL LINESHAFT ROLLER CONVEYOR RM 5622

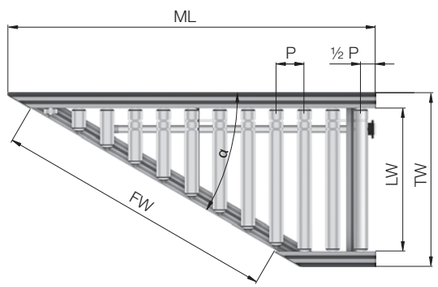
The Lineshaft Merge Roller Conveyor merges two conveyor lines together. The rollers are driven from a horizontal shaft.

Technical Data

General technical data	
Max. load capacity	50 lb/ft *(75 kg/m)*
Conveyor speed	40 to 120 ft/min *(0.2 to 0.6 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*
Roller	
Roller type	Interroll Series 1700
Roller diameter	1.9"
Roller material	Steel, zinc-plated
Max. number of rollers per conveyor/zone	See Information on Application Notes
Drive	
Rated voltage	
Drive medium	5 mm O-ring
Torque transmission	O-ring for Lineshaft roller
Side frame	
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller 
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)*

Dimensions





Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
ML Max. module length	80" *(2,000 mm)*
TW Module width	LW + 3.31" *(84 mm)*
LM Length of merge	See Information on Application Notes
F Face length	See Information on Application Notes
α Angle	30° / 45°
P Roller pitch	2.95" *(75 mm)*
SP Side frame	6" *(150 mm)*
SF Side guide	2.6" *(65 mm)*

Order Information

Scope of supply

- The module is fully assembled
- Please order support legs and end caps separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5622- □ - □ - □ - □ - □ - □ - □ - □

- Clearance LW: **12"** to **40"**
- Module length ML in ": See Application Notes
- Angle α: 30° **30**, 45° **45**
- Feeder: Right hand **RH**, Left hand **LH**
- Conveyor speed in ft/min: **40**, **60**, **80**, **100**, **120**
- Side frames: **6"/6"**
- Special: **S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5622-20-50-45-RH-100-6/6

This reference number stands for Interroll Lineshaft Roller Conveyor RM 5622 with a clearance LW 20" *(510 mm)*, a module length ML 50" *(1289 mm)*, an angle α 45°, a right hand merge, a conveyor speed of 100 ft/min *(0.5 m/s)* and side frames with dimensions of 6"/6" *(150 mm/150 mm)*.

Accessories

- Support legs, see p. 110
- End caps, see p. 116

Straight Tangential Chain RM 5600 *p. 40*

Curve Tangential Chain RM 5601 *p. 42*

Straight Toothed Belt RM 5640 *p. 44*

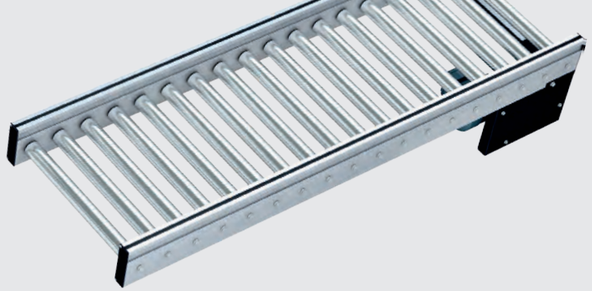
TANGENTIAL CHAIN AND TOOTHED BELT ROLLER CONVEYOR

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 conveyor lines can be driven from one motor
- ✓ **Transport of heavy loads** — Loads with a weight of up to 14 lb/in (250 kg/m) are transported with ease
- ✓ **Plug and play** — Ready for installation and use with pre-assembled modules

Can be combined with

Belt Conveyors	from p. 86
Accumulation Roller Conveyor	from p. 46
Gravity Conveyor	from p. 52
Key Elements	from p. 62
Accessories	from p. 108



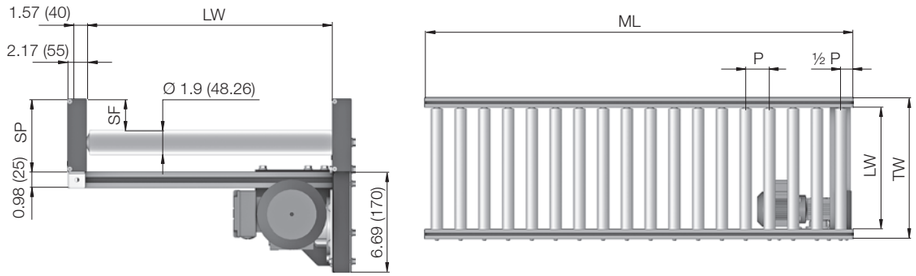
INTERROLL TANGENTIAL CHAIN ROLLER CONVEYOR RM 5600

Roller conveyors with tangential chain drive feature a drive chain within the side frame of the conveyor that drives each roller tangentially via a toothed sprocket. Long conveying lengths can therefore be efficiently driven by a single motor.

Technical Data

General technical data	
Max. load capacity	170 lb/ft *(250 kg/m)*
Conveyor speed	40 to 100 ft/min *(0.2 to 0.5 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Roller	
Roller type	Interroll Series 3500, Fixed Drive Conveyor Roller Interroll Series 3800, Friction Conveyor Roller
Roller diameter	1.9"
Roller material	Steel, zinc-plated PVC
Drive	
Rated voltage	460 V / 60 Hz / 3 phase
Max. electrical power per zone	0.37 kW
Drive medium	1/2" x 5/16"-Precision roller chain
Torque transmission	Tangential chain
Side frame	
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller
80 mm (3.15“) Extrusion	Allows lateral shifting 3.15" *(80 mm)* high, 0.16" *(4 mm)* below top of roller
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)* 6" / 3.15" *(150 mm / 80 mm)* 3.15" / 6" *(80 mm / 150 mm)*

Dimensions



Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
ML Max. module length	120" *(3,000 mm)*
Max. length per drive	600" *(15,000 mm)*
TW Module width	LW + 3.31" *(84 mm)*
P Roller pitch	3" / 4" / 5" *(75 mm / 100 mm / 125 mm)*
SP Side frame	3.15" / 6" *(80 mm / 150 mm)*
SF Side guide	0.16" / 26" *(4 mm / 65 mm)*

Order Information

Scope of supply

- The module is fully assembled
- Please order support legs separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5600 - □ - □ - □ - □ - □ - □ - □ - □ - □ - □

Clearance LW	
12" to 40"	

Module length ML in "	

Roller pitch P	
3"	
4"	
5"	

Module type - End terminal	
Slave – intermediate	SI
Slave – RH end	SR
Slave – LH end	SL
Drive – RH end	DR
Drive – LH end	DL
Drive – complete	DC

Drive position	
Right hand drive	RH
Left hand drive	LH

Roller type	
Fixed drive conveyor rollers	X
Friction conveyor rollers	R

Roller material	
Steel, zinc-plated	S
PVC	P

Conveyor speed in ft/min
40
60
80
100

Side frames
6"/6"
6"/3.15"
3.15"/6"

Special
S

If you require a non-standard version, add an „S“ to the end and describe your requirements.
The module type definition and drive position are explained in the Application Notes from p. 124.

Order example

Example of a reference number: 5600-20-120-4-DC-RH-R-S-100-6/6

This reference number stands for Interroll Tangential Chain Roller Conveyor RM 5600 with a clearance LW 20" *(510 mm)*, a module length ML 120" *(3000 mm)*, a roller pitch P 4" *(100 mm)*, an own drive on the right with two end terminals, steel friction conveyor rollers, a conveyor speed of 100 ft/min *(0.5 m/s)* and side frames with dimensions of 6"/6" *(150 mm/150 mm)*.

Accessories

- Support legs, see from p. 110
- Transfer, see from p. 70

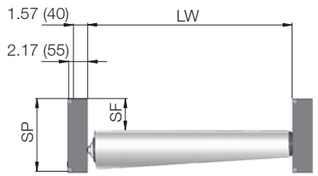
INTERROLL TANGENTIAL CHAIN ROLLER CONVEYOR RM 5601

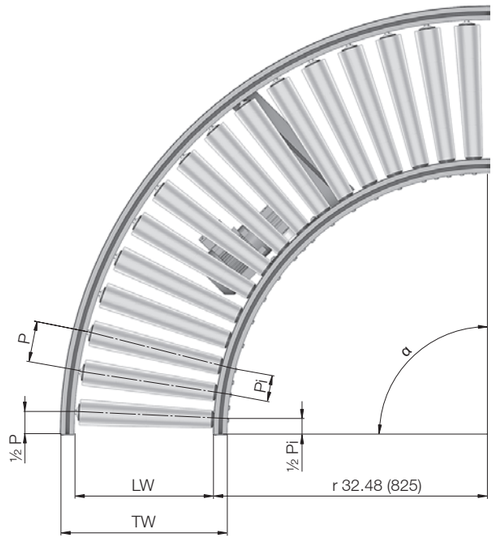
Roller conveyor curves with tangential chain drive use a side bow chain as the drive medium. This runs within the side frame of the conveyor and drives each roller tangentially via a toothed sprocket.

Technical Data

General technical data	
Max. load capacity	100 lb/ft *(150 kg/m)*
Conveyor speed	40 to 100 ft/min *(0.2 to 0.5 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Roller	
Roller type	Interroll Series 3500KXO
Roller diameter	1.9"
Roller material	Steel, zinc-plated with gray tapered polypropylene sleeves
Max. number of rollers per conveyor/zone	10 at 60° 16 at 90° 5 at 30° 8 at 45°
Drive	
Rated voltage	460 V / 60 Hz / 3 phase
Max. electrical power per zone	0.37 kW
Drive medium	1/2 x 5/16“-Precision roller chain
Torque transmission	Tangential chain
Side frame	
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)*

Dimensions





Dimensions	
LW Clearance	16.5" to 36" in 4" increments *(420 mm to 920 mm in 100 mm increments)*
TW Module width	LW + 3.31" *(84 mm)*
α Angle	30° / 45° / 60° / 90°
P Roller pitch, external	~0.004" *(~0.1 mm)* x LW + Pi
Pi Roller pitch, internal	~3.03" *(~77 mm)*
SP Side frame	6" *(150 mm)*
SF Side guide	2.6" *(65 mm)*

Order Information

Scope of supply

- The module is fully assembled, including end caps
- Please order support legs separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5601 - □ - □ - □ - X - S - □ - □

Clearance LW
16.5" to **36"**

Angle α
30° **30**
45° **45**
60° **60**
90° **90**

Roller type
Fixed drive conveyor rollers **X**

Roller material
Steel, zinc-plated **S**

Module type – End terminal
Drive only with 90°
Slave – intermediate **SI**
Slave – RH end **SR**
Slave – LH end **SL**
Drive – RH end **DR**
Drive – LH end **DL**
Drive – complete **DC**

Conveyor speed in ft/min
40
60
80
100

Special
S

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5601-40.5-90-DC-X-S-60

This reference number stands for Interroll Tangential Chain Roller Conveyor RM 5601 with a clearance LW 40.50" *(1029 mm)*, an angle α 90°, an own drive and two end terminals, steel fixed drive conveyor rollers and a conveyor speed of 60 ft/min *(0.3 m/s)*.

Accessories

- Support legs, see from p. 110
- Transfer, see from p. 70

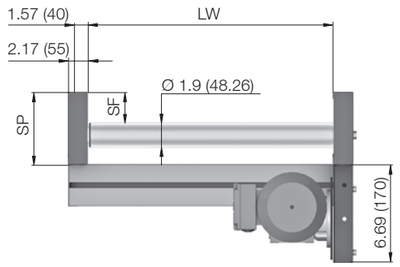
INTERROLL TOOTHED BELT ROLLER CONVEYOR RM 5640

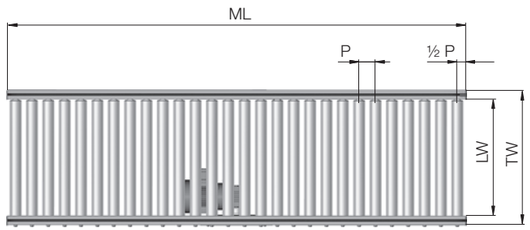
Roller conveyors with toothed belt drive transmission feature roller-to-roller drive transmitting power to each end of the driven conveyor section.
Toothed belt drives have an especially low noise level of less than 65 db(A).

Technical Data

General technical data	
Max. load capacity	170 lb/ft *(250 kg/m)*
Max. load capacity per zone	
Conveyor speed	40 to 400 ft/min *(0.2 to 2.0 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Roller	
Roller type	Interroll Series 3500, Fixed Drive Conveyor Roller Interroll Series 3800, Friction Conveyor Roller
Roller diameter	1.9"
Roller material	Steel, zinc-plated PVC
Max. number of rollers per drive	100, 50 on both sides of the drive
Drive	
Rated voltage	460 V / 60 Hz / 3 phase
Max. electrical power per zone	0.55 kW
Drive medium	Toothed belt T8
Torque transmission	Roller-to-roller
Side frame	
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller 
80 mm (3.15“) Extrusion	Allows lateral shifting 3.15" *(80 mm)* high, 0.16" *(4 mm)* below top of roller
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)* 6" / 3.15" *(150 mm / 80 mm)*

Dimensions





Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
ML Max. module length	120" *(3,000 mm)*
TW Module width	LW + 3.31" *(84 mm)*
P Roller pitch	3" / 4" / 5.5" *(75 mm / 100 mm / 139.7 mm)*
SP Side frame	3.15" / 6" *(80 mm / 150 mm)*
SF Side guide	0.16" / 26" *(4 mm / 65 mm)*

Order Information

Scope of supply

- The module is fully assembled
- Please order support legs and end caps separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5640- □ - □ - □ - □ - □ - □ - □ - □ - □ - □

- Clearance LW: **12"** to **40"**
- Module length ML in ": **3"**, **4"**, **5.5"**
- Roller pitch P: **3"**, **4"**, **5.5"**
- Module type: Drive **D**, Slave **S**
- Roller type: Fixed drive conveyor rollers **X**, Friction conveyor rollers **R**
- Roller material: Steel, zinc-plated **S**, PVC **P**
- Conveyor speed in ft/min: **40**, **60**, ⋮, **400**
- Side frames: **6"/6"**, **6"/3.15"**
- Special: **S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5640-20-120-5.5-D-R-S-100-6/6

This reference number stands for Interroll Toothed Belt Roller Conveyor RM 5640 with a clearance LW 20" *(510 mm)*, a module length ML 120" *(2992 mm)*, a roller pitch P 5.50" *(140 mm)*, an own drive, steel friction conveyor rollers, a conveyor speed of 100 ft/min *(0.5 m/s)* and side frames with dimensions of 6"/6" *(150 mm/150 mm)*.

Accessories

- Support legs, see p. 110
- End caps, see p. 116

ACCUMULATION ROLLER CONVEYOR

Accumulation and separation of heavy goods

✓ **High buffer use**

With Interroll Accumulation Roller Conveyors the accumulation process follows the friction principal, meaning that with accumulation the roller tube/body stops whilst the roller shaft continues to rotate. Forces driving the rollers are determined by the weight of goods being handled. Conveying force can be pre-set at each roller with a spring washer. The conveyor direction is fully reversible at any time

✓ **Especially dense accumulation**

The accumulation conveyor is not divided into zones. Wire baskets or robust workpiece carriers are typically transported and accumulated in contact. The unit loads can be separated again with the use of stops

✓ **Plug and play**

Ready for installation and use with pre-assembled modules

Straight
RM 5330 / 5350

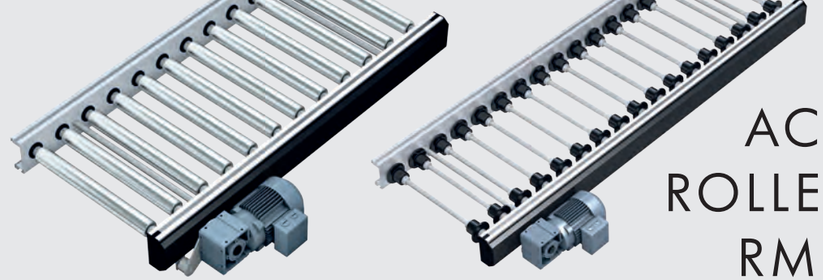
p. 48

Curve
RM 5220

p. 50

Can be combined with

Belt Conveyors	from p. 86
Gravity Conveyor	from p. 52
Key Elements	from p. 62
Accessories	from p. 108



INTERROLL ACCUMULATION ROLLER CONVEYOR RM 5330 / 5350

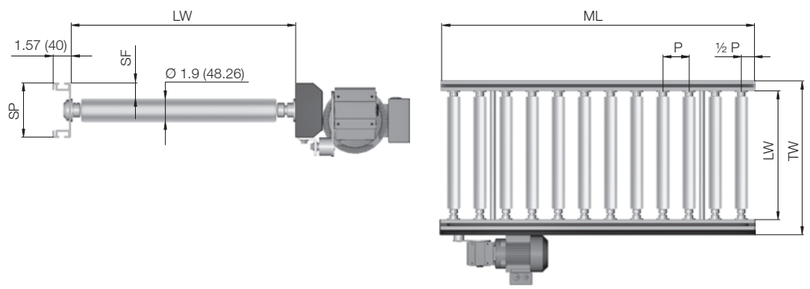
The Accumulation Roller Conveyor is driven by a 1/2" x 5/16" precision roller chain from roller to roller. The drive pinion is a twin chain wheel of glass fiber reinforced plastic. The steel rollers of the RM 5330 are 0.06" (1.5 mm) thick and the shaft is fixed in precision ball bearings within the side frame. With RM 5350, flanged rollers of wear-resistant plastic are used instead of load-bearing rollers. The Accumulation Roller Conveyor is especially suitable for conveying and accumulating heavy unit loads with identical widths.

Technical Data

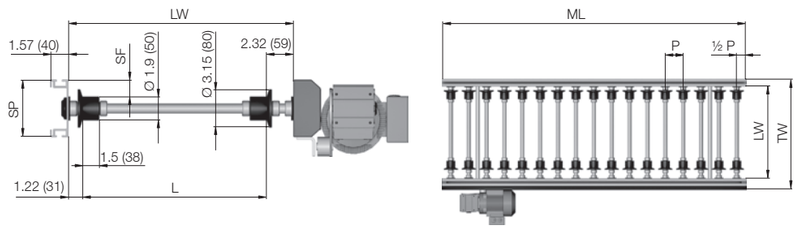
	RM 5330	RM 5350
General technical data		
Max. load capacity	170 lb/ft *(250 kg/m)*	
Conveyor speed	20 to 60 ft/min *(0.1 to 0.3 m/s)*	
Inclined/declined	Not suitable	
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*	
Roller		
Roller type	5330	5350
Roller diameter	1.9"	1.9" , flange 3.1" *(80 mm)*
Roller material	Steel, zinc-plated	Polyamide
Max. number of rollers per drive	45	
Drive		
Rated voltage	460 V / 60 Hz / 3 phase	
Max. electrical power per zone	0.55 kW	
Drive medium	1/2 x 5/16“-Precision roller chain	
Torque transmission	Roller-to-roller	
Side frame		
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller	
120 mm (4.75“) Extrusion	4.75" *(120 mm)* high, 1.4" *(35 mm)* above top of roller	
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)* 4.75" / 4.75" *(120 mm / 120 mm)*	

Dimensions

RM 5330



RM 5350



Order Information

Scope of supply

- The module is fully assembled, including end caps
- Please order support legs separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5330 / 5350 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Clearance LW	Module length ML in "	Roller pitch P	Drive type in kW	Module type	Conveyor speed in ft/min	Side frames	Special
8" to **48"**		**2.5" / 3" / 3.5" / 4" / 5" / 6"**	**0.25** **0.37** **0.55**	Drive **D** Slave **S**	**20** **40** **60**	**6"/6"** **4.75"/4.75"**	**S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5350-20-160-4-0.55-D-40-4.75/4.75

This reference number stands for Interroll Accumulation Roller Conveyor RM 5350 with a clearance LW 20" *(510 mm)*, a module length ML 160" *(4060 mm)*, a roller pitch P 4" *(100 mm)*, an own drive of 0.55 kW, a conveyor speed of 40 ft/min *(0.2 m/s)* and side frames with dimensions of 4.75"/4.75" *(120 mm/120 mm)*.

Accessories

- Support legs, see from p. 110
- Stops, see from p. 64
- Transfers, see from p. 70

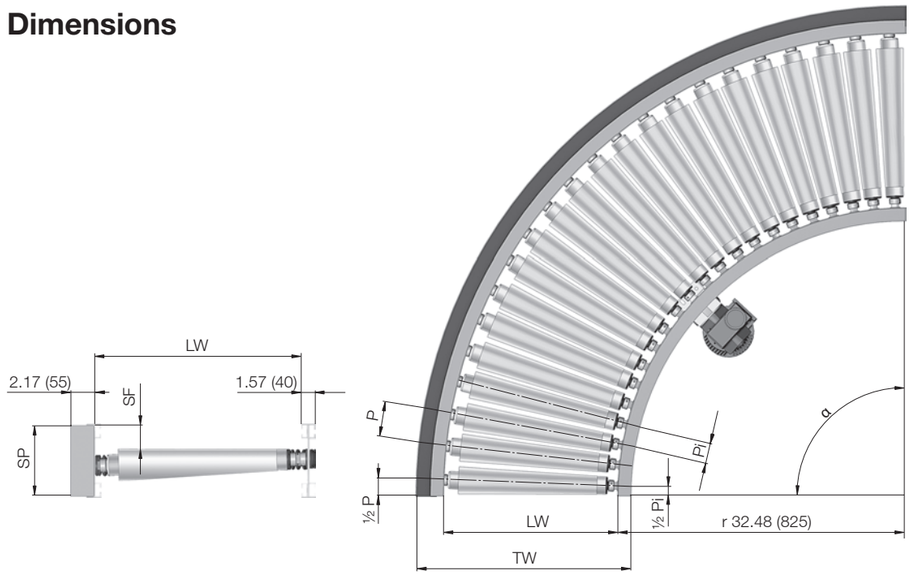
INTERROLL ACCUMULATION ROLLER CONVEYOR RM 5220

The driven 90° roller conveyor curve has an inner radius of 31.50" (800 mm). The side frames are manufactured of robust Aluminum extrusion. Conically shaped plastic segments are pressed onto the load-bearing roller. This functions as a friction roller and is driven from roller to roller by a chain.

Technical Data

General technical data	
Max. load capacity	175 lb/ft *(250 kg/m)*
Conveyor speed	20 to 60 ft/min *(0.1 to 0.3 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Roller	
Roller type	5330
Roller diameter	1.9"
Roller material	Steel, with gray tapered polypropylene sleeves
Max. number of rollers per conveyor	30
Drive	
Rated voltage	460 V / 60 Hz / 3 phase
Max. electrical power per zone	0.55 kW
Drive medium	1/2 x 5/16“-Precision roller chain
Torque transmission	Roller-to-roller
Side frame	
180 mm (7“) Extrusion	7" *(180 mm)* high, top of roller depending on LW
Combination of frame heights left/right	7" / 7" *(180 mm / 180 mm)*

Dimensions



Dimensions	
LW Clearance	16" to 40" in 2" increments *(410 mm to 1,010 mm in 50 mm increments)*
TW Module width	LW + 4.49" *(114 mm)*
α Angle	30° / 45° / 60° / 90°
Pi Roller pitch, internal	~2.50" *(~63.5 mm)*
SP Side frame	7.09" *(180 mm)*
SF Side guide	Dependent on LW

Order Information

Scope of supply

- The module is fully assembled
- Please order support legs separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5220- □ - □ - □ - □ - □ - □

Clearance LW	Angle α	Drive type in kW	Conveyor speed in ft/min	Side frames	Special
16" to **40**"	30° **30** 45° **45** 60° **60** 90° **90**	**0.25** **0.37** **0.55**	**20** **40** **60**	**7" / 7"**	**S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5220-20-90-0.25-60-7/7

This reference number stands for Interroll Accumulation Roller Conveyor RM 5220 with a clearance LW 20" *(510 mm)*, an angle α 90°, a drive with 0.25 kW, a conveyor speed of 60 ft/min *(0.3 m/s)* and side frames with dimensions of 7"/7" *(180 mm/180 mm)*.

Accessories

- Support legs, see from p. 110

GRAVITY CONVEYOR

Conveying without a drive

✓ **Simple**

Medium Gravity Conveyors transport material manually or over a gradient via gravity and are used as assembly and picking lines. As well as straight and curved sections, the ball table with standard omniwheels or ball rollers has proven to be a popular product

✓ **Flexible and easy to use**

The Interroll Gravity Conveyor is supplied in modular form and can be combined with all other conveyors from the product family in this catalog

Straight
RM 5113

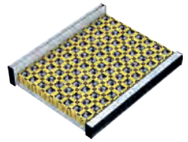
p. 54

Curve
RM 5115

p. 56

Ball Table
RM 5760

p. 58



Ball Table with Omniwheels
RM 5761

p. 60

Can be combined with

Belt Conveyors	from p. 86
Intelliveyor	from p. 10
Lineshaft Roller Conveyor	from p. 30
RollerDrive Conveyor	from p. 22
Tangential Chain Roller Conveyor	from p. 38
Toothed Belt Roller Conveyor	from p. 38
Accumulation Roller Conveyor	from p. 46
Key Elements	from p. 62
Accessories	from p. 108

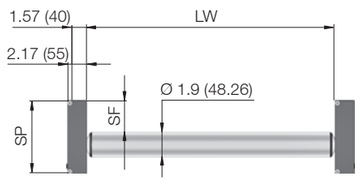
INTERROLL ROLLER CONVEYOR RM 5113

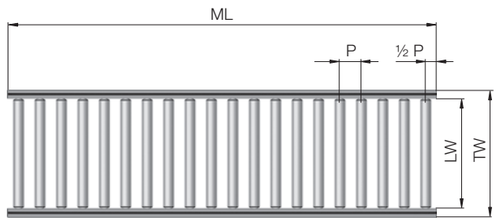
The non-driven, straight roller conveyor transports material either manually or over a gradient via gravity. It is mostly used for assembly and picking lines as well as for dynamic storage systems.

Technical Data

General technical data	
Max. load capacity	70 lb/ft *(100 kg/m)*
Inclined/declined	Suitable for declines
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Roller	
Roller type	Interroll Series 1100, Smooth-Running Conveyor Roller Interroll Series 1700, Universal Conveyor Roller
Roller diameter	1.9"
Roller material	Steel, zinc-plated PVC
Side frame	
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller 
80 mm (3.15“) Extrusion	Allows lateral shifting 3.15" *(80 mm)* high, 0.16" *(4 mm)* below top of roller 
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)* 6" / 3.15" *(150 mm / 80 mm)* 3.15" / 6" *(80 mm / 150 mm)* 3.15" / 3.15" *(80 mm / 80 mm)*

Dimensions





Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
ML Max. module length	120" *(3,000 mm)*
TW Module width	LW + 3.31" *(84 mm)*
P Roller pitch	2" / 3" / 4" / 5" *(50 mm / 75 mm / 100 mm / 125 mm)*
SP Side frame	3.15" / 6" *(80 mm / 150 mm)*
SF Side guide	0.16" / 26" *(4 mm / 65 mm)*

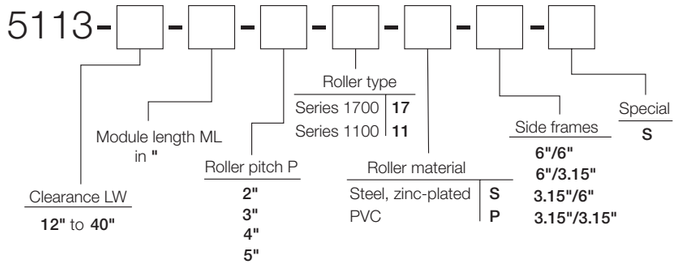
Order Information

Scope of supply

- The module is fully assembled
- Please order support legs and end caps separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.



If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5113-20-120-4-17-S-6/6

This reference number stands for Interroll Roller Conveyor RM 5113 with a clearance LW 20" *(510 mm)*, a module length ML 120" *(3000 mm)*, a roller pitch P 4" *(100 mm)*, roller type series 1700, zinc-plated steel rollers and side frames with dimensions of 6"/6" *(150 mm/150 mm)*.

Accessories

- Support legs, see from p. 110
- End caps, see p. 116
- End stop, see p. 64

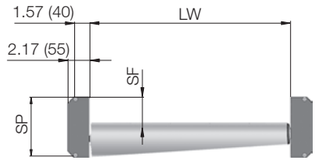
INTERROLL ROLLER CONVEYOR RM 5115

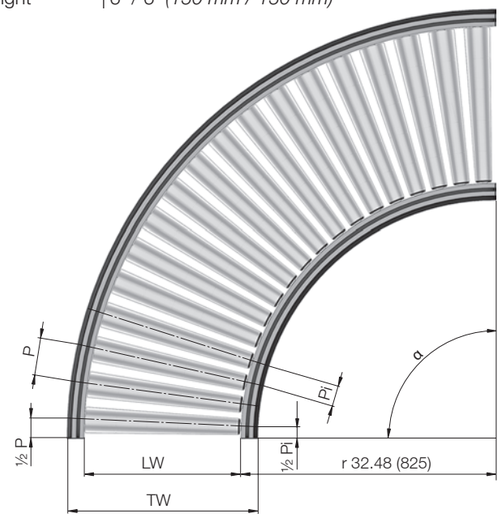
Gravity conveyor curves change the direction of transport of material. Material is manually pushed around the curve. The alignment of the material is maintained within the side frames by tapered rollers.

Technical Data

General technical data	
Max. load capacity	75 lb/ft *(100 kg/m)*
Inclined/declined	Not suitable
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Roller	
Roller type	Interroll Series 1700KXO
Roller diameter	1.9"
Roller material	Steel, with gray tapered polypropylene sleeves
Max. number of rollers per conveyor/zone	12 at 60° 18 at 90° 6 at 30° 9 at 45°
Side frame	
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)*

Dimensions





Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
TW Module width	LW + 3.31" *(84 mm)*
α Angle	30° / 45° / 60° / 90°
P Roller pitch, external	~0.003" *(~0.087 mm)* x LW + Pi
Pi Roller pitch, internal	~2.83" *(~72 mm)*
SP Side frame	6" *(150 mm)*
SF Side guide	2.6" *(65 mm)*

Order Information

Scope of supply

- The module is fully assembled
- Please order support legs and end caps separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5115-□-□-□

Clearance LW	Angle α		Special
12" to **40"**	30°	**30**	**S**
	45°	**45**	
	60°	**60**	
	90°	**90**	

If you require a non-standard version, add an „S“ to the end and describe your requirements.

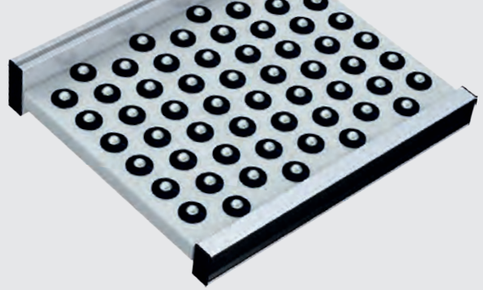
Order example

Example of a reference number: 5115-20-90

This reference number stands for Interroll Roller Conveyor RM 5115 with a clearance LW 20" *(510 mm)* and angle α 90°.

Accessories

- Support legs, see from p. 110
- End caps, see p. 116



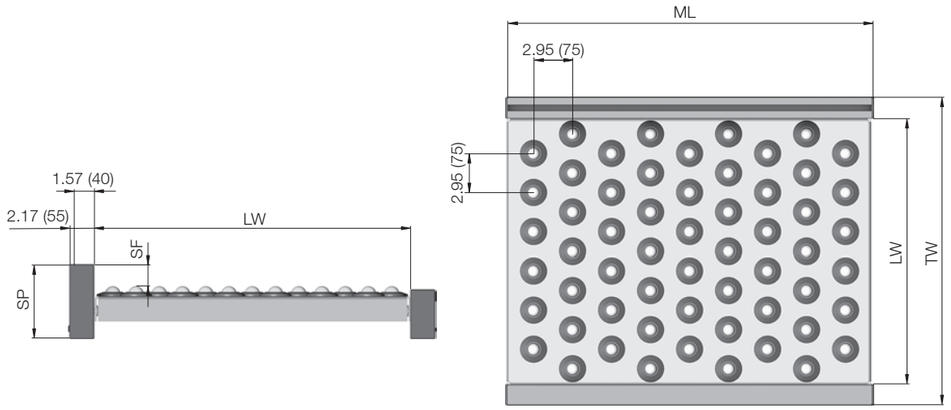
INTERROLL BALL TABLE RM 5760

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

Technical Data

General technical data	
Max. load capacity	75 lb/ft *(100 kg/m)*
Inclined/declined	Suitable
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Side frame	
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of ball
80 mm (3.15“) Extrusion	Allows lateral shifting 3.15" *(80 mm)* high, 0.16" *(4 mm)* below top of ball
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)* 6" / 3.15" *(150 mm / 80 mm)* 3.15" / 6" *(80 mm / 150 mm)* 3.15" / 3.15" *(80 mm / 80 mm)*

Dimensions



Dimensions	
LW Clearance	8" to 40" in 2" increments *(210 mm to 1,010 mm in 50 mm increments)*
ML Max. module length	120" *(3,000 mm)*
TW Module width	LW + 3.31" *(84 mm)*
Pitch	2.95" *(75 mm)*
SP Side frame	3.15" / 6" *(80 mm / 150 mm)*
SF Side guide	0.16" / 26" *(4 mm / 65 mm)*

Order Information

Scope of supply

- The module is fully assembled
- Please order support legs, end caps and end stop separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5760-□-□-□-□

Clearance LW	Module length ML in "	Side frames	Special
8" to **40"**		**6"/6"** **6"/3.15"** **3.15"/6"** **3.15"/3.15"**	**S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

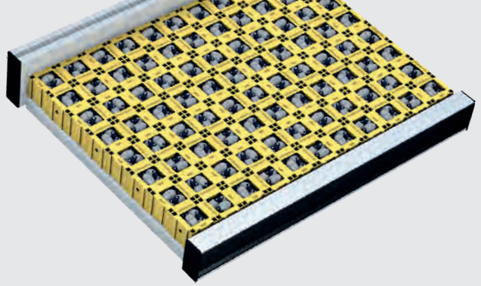
Order example

Example of a reference number: 5760-28-31.50-6/3.15

This reference number stands for Interroll Ball Table RM 5760 with a clearance LW 28" *(710 mm)*, a module length ML 31.50" *(800 mm)* and side frames with dimensions of 6" *(150 mm)*/3.15" *(80 mm)*.

Accessories

- Support legs, see from p. 110
- End caps, see p. 116
- End stop, see p. 64



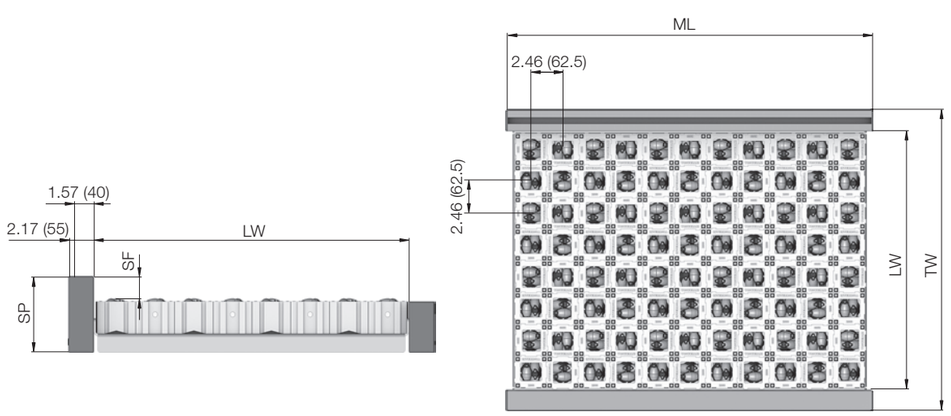
INTERROLL BALL TABLE RM 5761

Ball tables with omniwheels are especially suitable for workstation and inspection areas and for material with soft bases that can be moved in any direction with very little force.

Technical Data

General technical data	
Max. load capacity	36 lb/ft *(60 kg/m)*
Inclined/declined	Not suitable
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Side frame	
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of wheel
80 mm (3.15“) Extrusion	Allows lateral shifting 3.15" *(80 mm)* high, 0.16" *(4 mm)* below top of wheel
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)* 6" / 3.15" *(150 mm / 80 mm)* 3.15" / 6" *(80 mm / 150 mm)* 3.15" / 3.15" *(80 mm / 80 mm)*

Dimensions



Dimensions	
LW Clearance	8" to 40" in 2" increments *(210 mm to 1,010 mm in 50 mm increments)*
ML Max. module length	120" *(3,000 mm)*
TW Module width	LW + 3.31" *(84 mm)*
Pitch	2.46" *(62.5 mm)*
SP Side frame	3.15" / 6" *(80 mm / 150 mm)*
SF Side guide	0.16" / 26" *(4 mm / 65 mm)*

Order Information

Scope of supply

- The module is fully assembled
- Please order support legs, end caps and end stop separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5761- □ - □ - □ - □

Clearance LW	Module length ML in "	Side frames	Special
8" to **40"**		**6"/6"** **6"/3.15"** **3.15"/6"** **3.15/3.15**	**S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

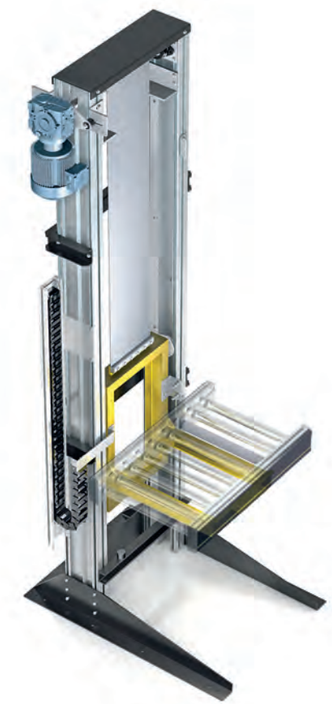
Order example

Example of a reference number: 5761-20-40-6/3.15

This reference number stands for Interroll Ball Table RM 5761 with a clearance LW 20" *(510 mm)*, a module length ML 40" *(1000 mm)* and side frames with dimensions of 6" 3.15" *(150 mm/80 mm)*.

Accessories

- Support legs, see from p. 110
- End caps, see p. 116
- End stop, see p 64



KEY ELEMENTS

Modular expansion and connection of conveyor lines

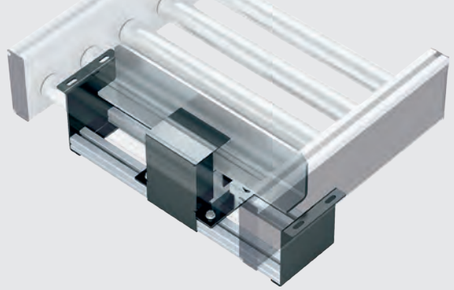
✓ **Flexible**

The modular key elements realize basic conveying functions such as stopping, distributing, lifting and lowering

✓ **Easy to use**

All key elements are designed to be combined with belt and roller conveyors

Can be combined with



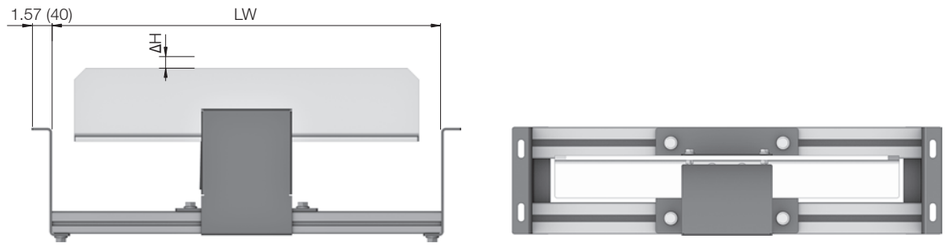
INTERROLL SINGLE BLADE STOP RM 5770

The Interroll Single Blade Stop RM 5770 is a pneumatically actuated stop raised between the roller pitches in order to stop or accumulate material. Stops are often used in conjunction with conveying components such as transfers and pushers for aligning products or policing processes.

Technical Data

General technical data	
Max. accumulation pressure	22 lbf *(100 N)*
Ambient temperature	+40 to +125 °F *(+5 to +50 °C)*
Compressed air consumption	0.11 gal. *(0.4 l)* / cycle + 0.13 gal. *(0.5 l)* per cycle and per meter of Ø 0.31" *(8 mm)* tube
Air pressure	70 psi *(5.0 bar)*
Side frame	
Combination of frame heights left/right	Suitable for all frame combinations

Dimensions



Dimensions	
LW Clearance	12" to 30" *(310 mm to 760 mm)*
P Min. roller pitch	2.95 *(75 mm)*
ΔH stroke	1" *(25 mm)* (0.16" *(4 mm)* below top of roller up to 0.8125" *(20.83 mm)* above top of roller)

Order Information

Scope of supply

- The module is fully assembled
- Control & sensing devices (e.g.&valves, photo cells etc.) are not supplied. Please order separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5770-□-□-□

- Clearance LW: **12"** to **30"**
- Special: **S**
- Module type:

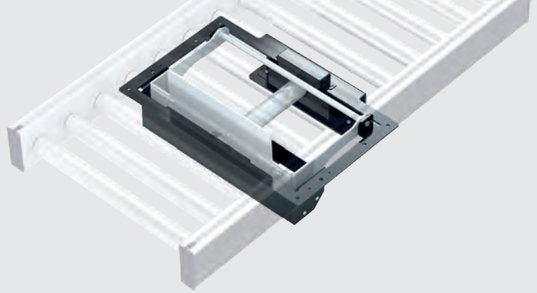
Linehaft Roller Conveyor	**5620**
Roller Conveyor	**5113**
RollerDrive Conveyor	**5660**
Intelliveyor	**5504**
Tangential Chain Roller Conveyor	**5600**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5770-20-5620

This reference number stands for Interroll Single Blade Stop RM 5770 with a clearance LW 20" *(510 mm)* and the module type Interroll Lineshaft Roller Conveyor RM 5620.



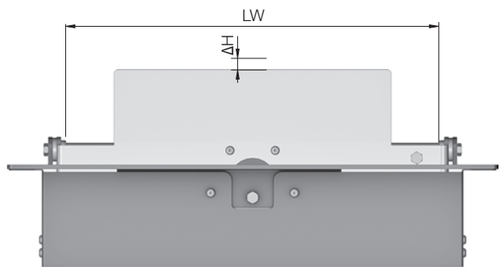
INTERROLL SINGLE BLADE STOP RM 5775

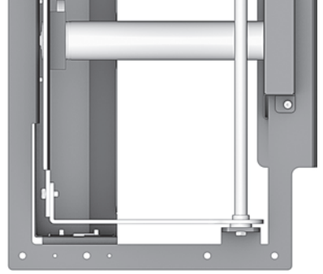
The Interroll Single Blade Stop RM 5775 is an electrically actuated stop that is raised between the roller pitches in order to stop or accumulate material. Stops are often used in conjunction with conveying components such as transfers and pushers for aligning products or policing processes.

Technical Data

General technical data	
Max. accumulation pressure	22 lbf *(100 N)*
Ambient temperature	+40 to +125 °F *(+5 to +50 °C)*
Drive	
Rated voltage	24 V DC
Electrical power	0.05 kW
Side frame	
Combination of frame heights left/right	Suitable for all frame combinations

Dimensions





Dimensions	
LW Clearance	12" to 30" *(310 mm to 760 mm)*
P Min. roller pitch	2.95 *(75 mm)*
ΔH stroke	1" *(25 mm)* (0.16" *(4 mm)* below top of roller up to 0.8125" *(20.83 mm)* above top of roller)

Order Information

Scope of supply

- The module is fully assembled, including sensors
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5775- □ - □ - □

Clearance LW: **12"** to **30"**

Special: **S**

Module type

Lineshaft Roller Conveyor	**5620**
Roller Conveyor	**5113**
RollerDrive Conveyor	**5660**
Intelliveyor	**5504**
Tangential Chain Roller Conveyor	**5600**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5775-20-5620

This reference number stands for Interroll Single Blade Stop RM 5775 with a clearance LW 20" *(510 mm)* and the module type Interroll Lineshaft Roller Conveyor RM 5620.

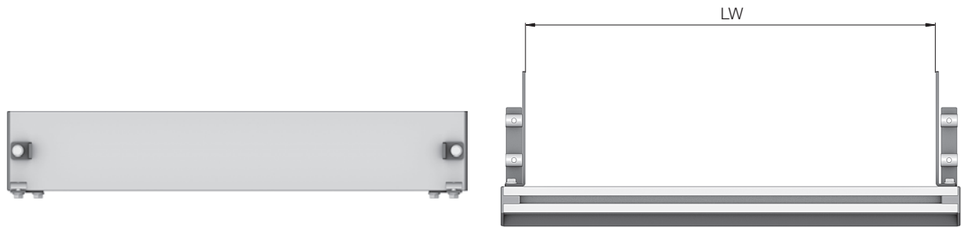
INTERROLL END STOP RM 5774

The end stop is a permanently mounted mechanical conveying line termination for the stopping and accumulating of approaching material. The end stop is positioned at the end of declined roller conveyors or friction roller conveyors or as a secure termination of all other conveying lines.

Technical Data

General technical data	
Max. accumulation pressure	22 lbb. ft. *(100 N)*
Side frame	
Combination of frame heights left/right	Suitable for all frame combinations

Dimensions



Dimensions	
LW Clearance	8" to 40" *(210 mm to 1,010 mm)*

Order Information

- The module is fully assembled
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Please create the reference number with the following configurator.

5774 - □ - □ - □ - □

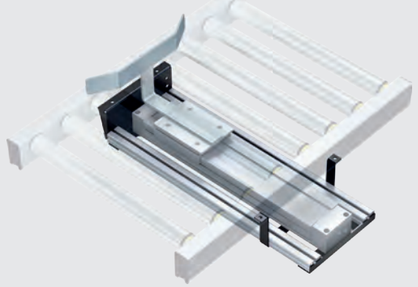
- □ = Clearance LW: **8"** to **40"**
- □ = Module type
- □ = Side frames in "
- □ = Special: **S**

Module type	
Lineshaft Roller Conveyor	**5620**
Roller Conveyor	**5113**
RollerDrive Conveyor	**5660**
Intelliveyor	**5504**
Tangential Chain Roller Conveyor	**5600**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Example of a reference number: 5774-20-5620-6/6

This reference number stands for Interroll End Stop RM 5774 with a clearance LW 20" *(510 mm)*, module type Interroll Lineshaft Roller Conveyor RM 5620 and a side frame combination 6"/6" *(150 mm/150 mm)*.



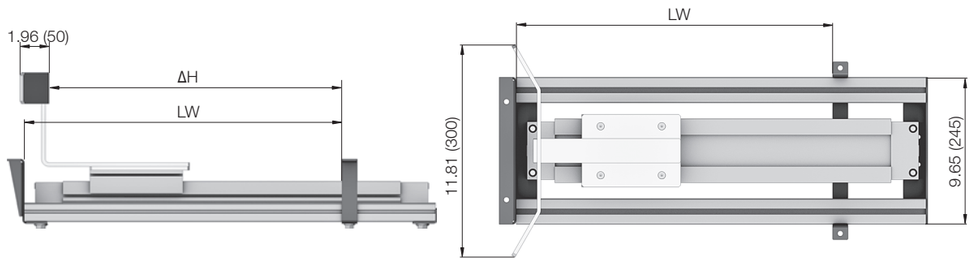
INTERROLL PUSHER RM 5730

A pusher enables the lateral transfer of material at an angle of 90°, for example to another roller conveyor or to a workstation. Pushers are normally used for stable material contained in robust containers and are moved by a rodless pneumatic cylinder mounted beneath the roller conveyor.

Technical Data

General technical data	
Max. unit load weight	70 lb *(30 kg)*
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Compressed air consumption	3.43 gal. *(13.0 l)* / cycle + 0.13 gal. *(0.5 l)* per cycle and per meter of Ø 0.31" *(8 mm)* tube
Air pressure	70 psi *(5.0 bar)*
Inclined/declined	Not suitable
Drive	
Drive medium	Pneumatic cylinder
Piston diameter	1.57" *(40 mm)*
Side frame	
Combination of frame heights left/right	3.15" / 3.15" *(80 mm / 80 mm)*

Dimensions



Dimensions	
LW Clearance	8" to 40" *(210 mm to 1,010 mm)*
P Min. roller pitch	4" *(100 mm)*
Diverter angle	90°
ΔH stroke	LW - 1.97" *(50 mm)*

Order Information

Scope of supply

- The module is fully assembled
- Please order controls & sensors (valves, photo cells, initiators etc.) separately.
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5730-□-□-□-□

Clearance LW	
8" to **40"**	

Pusher type	
T-pusher	**T**
Z-pusher	**Z**

Special	
S	

Module type	
Lineshaft Roller Conveyor	**5620**
Roller Conveyor	**5113**
RollerDrive Conveyor	**5660**
Intelliveyor	**5504**
Tangential Chain Roller Conveyor	**5600**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5730-20-Z-5504

This reference number stands for Interroll Pusher RM 5730 with a clearance LW 20" *(510 mm)*, a Z-pusher and the Interroll Intelliveyor RM 5504.

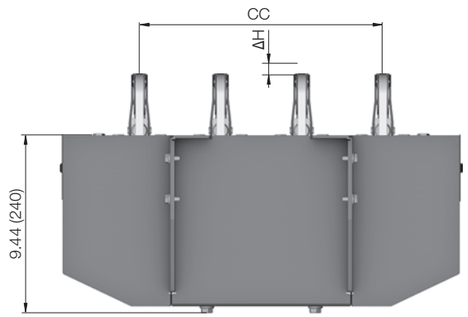
INTERROLL BELT TRANSFER RM 5710

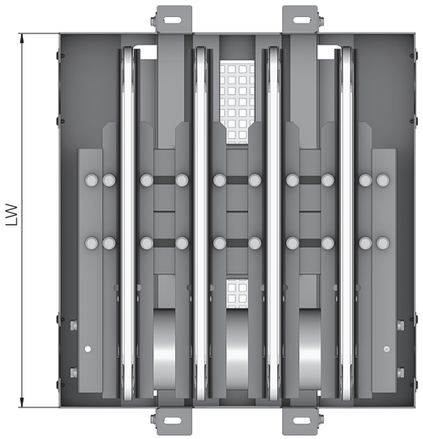
A toothed belt transfer modifies the direction of transport by 90°. Pneumatically raised toothed belts mounted between the conveyor rollers transport material into the adjacent conveyor line or else remove it from the conveyor line.

Technical Data

General technical data	
Max. load capacity	65 lb *(30 kg)* with 2 toothed belts 90 lb *(40 kg)* with 3 toothed belts 110 lb *(50 kg)* with 4 toothed belts
Max. unit load weight	110 lb *(50 kg)*
Conveyor speed	40 to 120 ft/min *(0.20 to 0.60 m/s)*
Ambient temperature	+40 to +125 °F *(+5 to +50 °C)*
Compressed air consumption	0.40 gal. *(1.5 l)* / cycle + 0.13 gal. *(0.5 l)* per cycle and per meter of Ø 0.31" *(8 mm)* tube
Air pressure	70 psi *(5.0 bar)*
Inclined/declined	Not suitable
Drive	
Rated voltage	480 V / 60 Hz / 3 phase
Max. electrical power	0.11 kW
Drive medium	Toothed belt T5
Protection rate	IP54
Drive stroke	
Drive medium	Pneumatic cylinder
Piston diameter	2.5" *(63 mm)*
Side frame	
Combination of frame heights left/right	6" / 3.15" *(150 mm / 80 mm)* 4.75" / 3.15" *(120 mm / 80 mm)* 3.15" / 3.15" *(80 mm / 80 mm)*

Dimensions





Dimensions	
LW Clearance	18" to 40" *(460 mm to 1,010 mm)*
P Min. roller pitch	2.95" *(75 mm)*
α Angle	90°
CC Outer belt - middle pitch	9" to 31.5" *(225 mm to 800 mm)*
ΔH stroke	1" *(25 mm)* (0.16" *(4 mm)* below top of roller up to 0.8125" *(20.83 mm)* above top of roller)

Order Information

Scope of supply

- The module is fully assembled
- Please order controls & sensors (valves, photo cells, initiators etc.) separately.
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5710- □ - □ - □ - □ - □ - □

Clearance LW	Outer belt centre CC	Transfer belt	Conveyor speed in ft/min	Special	Side frames
18" to **40"**	**9"** to **31.5"**	2 strands **2** 3 strands **3** 4 strands **4**	**40** **80** **120**	**S**	**6"/3.15"** **4.75"/3.15"** **3.15"/3.15"**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5710-20-3-16-80-6/3.15

This reference number stands for Interroll Belt Transfer RM 5710 with a clearance LW 20" *(510 mm)*, 3 belt strands, an outer belt center CC of 16" *(400 mm)*, a conveyor speed of 80 ft/min *(0.4 m/s)* and a side frame combination 6"/3.15" *(150 mm/80 mm)*.

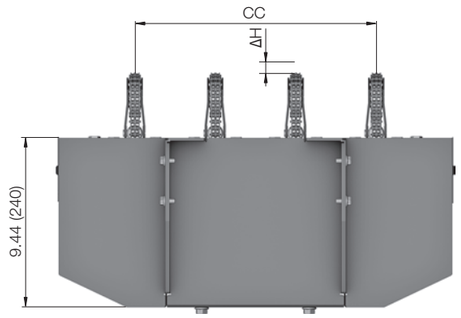
INTERROLL CHAIN TRANSFER RM 5711

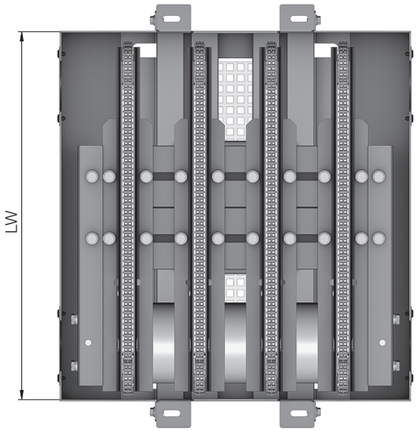
A chain transfer transports heavy material or material that could damage a toothed belt drive onto a conveyor line at 90° or else removes it from a conveyor line. The chains are mounted between the rollers and are pneumatically raised for the diverting movement.

Technical Data

General technical data	
Max. load capacity	220 lb *(100 kg)*
Max. unit load weight	220 lb *(100 kg)*
Conveyor speed	40 to 120 ft/min *(0.20 to 0.60 m/s)*
Ambient temperature	+40 to +125 °F *(+5 to +50 °C)*
Compressed air consumption	0.40 gal. *(1.5 l)* / cycle + 0.13 gal. *(0.5 l)* per cycle and per meter of Ø 0.31" *(8 mm)* tube
Air pressure	70 psi *(5.0 bar)*
Inclined/declined	Not suitable
Drive	
Rated voltage	480 V / 60 Hz / 3 phase
Max. electrical power	0.11 kW
Drive medium	Standard duplex chain 0.31" *(8 mm)* type 05B-2
Protection rate	IP54
Drive stroke	
Drive medium	Pneumatic cylinder
Piston diameter	2.5" *(63 mm)*
Side frame	
Combination of frame heights left/right	6" / 3.15" *(150 mm / 80 mm)* 4.75" / 3.15" *(120 mm / 80 mm)* 3.15" / 3.15" *(80 mm / 80 mm)*

Dimensions





Dimensions	
LW Clearance	18" to 40" *(460 mm to 1,010 mm)*
P Min. roller pitch	3" at Ø 1.9" *(75 mm at Ø 50 mm)*
α Angle	90°
CC Outer chain - middle pitch	9" to 31.5" *(225 mm to 800 mm)*
ΔH stroke	1" *(25 mm)* (0.16" *(4 mm)* below top of roller up to 0.8125" *(20.83 mm)* above top of roller)

Order Information

Scope of supply

- The module is fully assembled
- Please order controls & sensors (valves, photo cells, initiators etc.) separately.
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5711-□-□-□-□-□-□

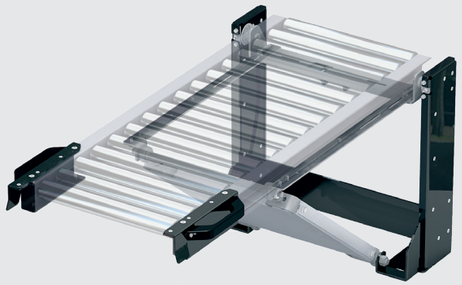
- Clearance LW: **18"** to **40"**
- Transfer chain: 2 strands **2**; 3 strands **3**; 4 strands **4**
- Outer belt centre CC: **9"** to **31.5"**
- Conveyor speed in ft/min: **40**, **80**, **120**
- Side frames: **6"/3.15"**, **4.75"/3.15"**, **3.15"/3.15"**
- Special: **S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 5711-20-3-20-80-6/3.15

This reference number stands for Interroll Chain Transfer RM 5711 with a clearance LW 20" *(510 mm)*, 3 belt strands, an outer belt center CC of 20" *(510 mm)*, a conveyor speed of 80 ft/min *(0.4 m/s)* and a side frame combination 6"/3.15" *(150 mm/80 mm)*.



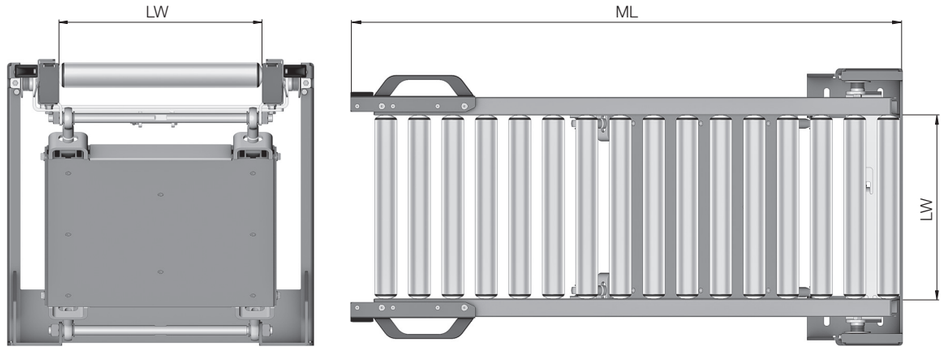
INTERROLL LIFT UP GATE RM 5741

The lift up gate allows access to areas to the rear of the conveyors and also provides a quick escape route in case of danger. The lift up movement operates by an innovative rotary mechanism.

Technical Data

General technical data	
Max. load capacity	220 lb *(100 kg)* (including conveyor)
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Inclined/declined	Not suitable
Side frame	
150 mm (6“) Extrusion	6" *(150 mm)* high, 2.6" *(65 mm)* above top of roller
120 mm (4.75“) Extrusion	4.75" *(120 mm)* high, 1.4" *(35.81 mm)* above top of roller 
80 mm (3.15“) Extrusion	Allows lateral shifting 3.15" *(80 mm)* high, 0.16" *(4 mm)* below top of roller 
Combination of frame heights left/right	6" / 6" *(150 mm / 150 mm)* 4.75" / 4.75" *(120 mm / 120 mm)* 3.15" / 3.15" *(80 mm / 80 mm)* 

Dimensions



Dimensions	
LW Clearance	12" to 48" (of conveyor to be attached) *(310 to 1219.2 mm)*
T.O.R. Min. height of top edge of roller	24" *(600 mm)*
ML Module length	40" to 80" *(1000 mm to 2000 mm)*
Channel width	ML - 8.75" *(220 mm)*

Order Information

Scope of supply

- The module is fully assembled
- The mounted conveyor module is not included in delivery. Please order separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.

5741-□-□-□-□-□

- □ Clearance LW: **12"** to **48"**
- □ T.O.R. in **"**
- □ Module type:

Intelliveyor	**5504**
RollerDrive Conveyor	**5660**
Accumulation Roller Conveyor	**5330/5350**
Roller Conveyor	**5113**

- □ Side frames:

	6"/6"
	4.75"/4.75"
	3.15"/3.15"

- □ Special: **S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Please specify which module in your order is to be mounted to the Lift Up Gate.

Order example

Example of a reference number: 5741-20-30-5504-6/6

This reference number stands for Interroll Lift Up Gate RM 5741 with a clearance LW 20" *(510 mm)*, top of roller height T.O.R. 30" *(700 mm)*, the module type Interroll Intelliveyor RM 5504 and the side frame combination 6" *(150 mm)*/6" *(150 mm)*.

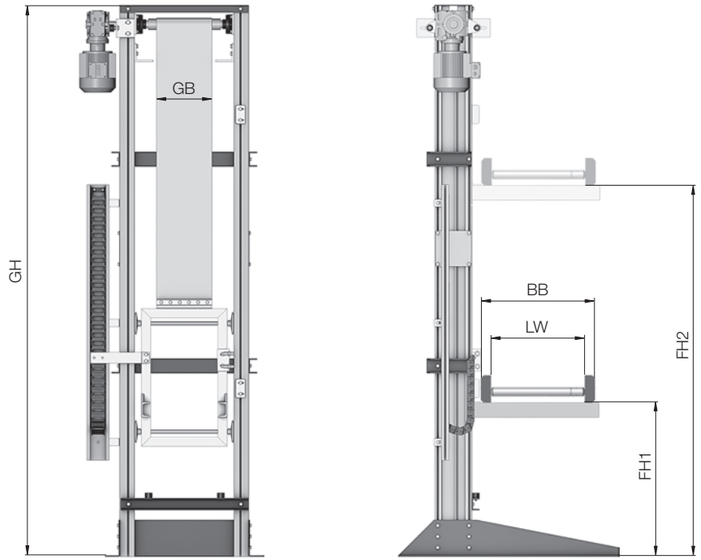
INTERROLL LIFT RM 6006

The lifting station consists of a column construction and a carriage upon which a roller conveyor is mounted. A worm gear motor with brake is used as a drive unit to raise and lower the carriage via a belt.

Technical Data

General technical data	
Max. load capacity	450 lb *(200 kg)*
Stroke velocity	20 to 120 ft/min *(0.10 to 0.60 m/s)*
Ambient temperature	+25 to +105 °F *(-5 to +40 °C)*
Max. stroke height	240" *(6,000 mm)*
Start-up position	Min. 2
Lifting column	7" x 3.15" *(200 mm x 80 mm)* (Aluminum extrusion)
Drive	
Motor type	Worm gear motor with brake, VFD mounted on gearmotor
Rated voltage	480 V / 60 Hz / 3 phase
Max. electrical power	3 HP / 2.2 kW
Drive medium	Belt

Dimensions



Dimensions	
LW Clearance	12" to 48" *(300 mm to 1200 mm)* (when using Interroll modules)
FH1 Lower level dimension	Min. 12" *(300 mm)*
FH2 Upper level dimension	FH1 + stroke height
GH Installed height	FH2 + 24" (*600 mm*), max. 315" *(8000 mm)*
BB Width of mounted conveyors	Max. 51" *(1300 mm)*
GB Belt width	12" / 16" *(300 mm / 400 mm)*

Note: The upper part of the lifting station must be supported on-site above a construction height of 160" *(4000 mm)*.

Order Information

Scope of supply

- The module is fully assembled, including sensors, but is not electrically cabled
- Energy chain is pre-installed
- Please request protective grid and safety fence separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated
- Carriage is powder-coated (in yellow RAL 1021)

Configurator

Please create the reference number with the following configurator.

6006 – □ – □ – □ – □ – □ – □ – □ – □ – □

- Lifting height in "
- Number of Start-up positions
- Minimum travel distance FH1 in "
- Maximum travel distance FH2 in "
- Width of mounted conveyor BB in "
- Lifting speed in ft/min: 20, 40, 60, 80, 100, 120
- Weight incl. conveying element in lb: 110, 220, 330, 440
- Belt width GB: 12", 16"
- Special: S

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 6006-120-2-16-135-20-40-220-16

This reference number stands for Interroll Lift RM 6006 with lifting height of 120" *(3000 mm)*, 2 start-up positions, a minimum level dimension FH1 of 16" *(400 mm)*, a maximum level dimension FH2 of 135" *(3400 mm)*, a mounted conveyor width BB of 20" *(510 mm)*, a stroke velocity 40 ft/min *(0.2 m/s)*, a weight including conveyor element of 220 lb *(100 kg)* and a belt width of 16" *(400 mm)*.

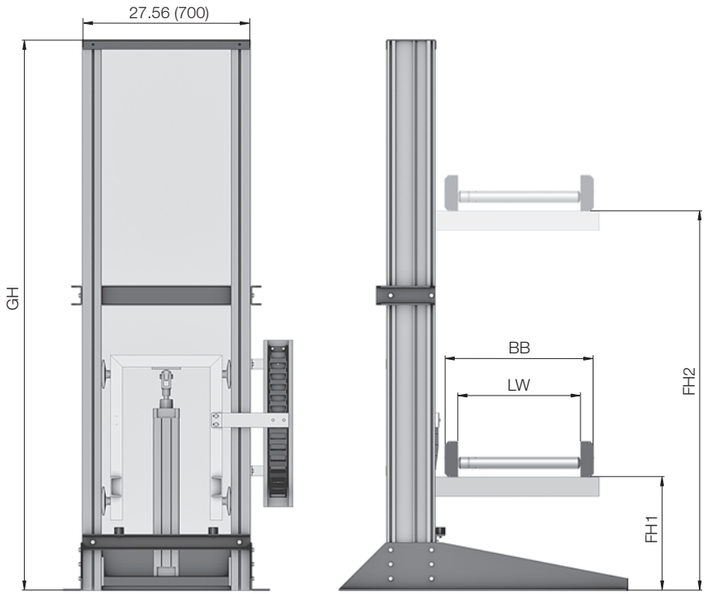
INTERROLL LIFT RM 6007

The lifting station consists of a column construction and a carriage upon which a roller conveyor is mounted. The carriage is equipped with flanged rollers that are supported by robust Aluminum extrusions in the frame construction. A cylinder pneumatically raises and lowers the lift truck.

Technical Data

General technical data	
Max. load capacity	350 lb *(150 kg)*
Stroke velocity	~40 ft/min *(~0.20 m/s)*
Ambient temperature	+25 to +105 °F *(-5 to +40 °C)*
Max. stroke height	40" *(1,000 mm)*
Start-up position	2
Lifting column	7" x 3.15" *(200 mm x 80 mm)* (Aluminum extrusion)
Drive	
Drive medium	Pneumatic cylinder (Festo manufacture)
Piston diameter	4" *(100 mm)*
Air pressure	90 psi *(6.0 bar)*

Dimensions



Dimensions	
LW Clearance	12" to 48" *(310 mm to 1219.2 mm)* (when using Interroll modules)
FH1 Lower level dimension	Min. 11.81" *(300 mm)*
FH2 Upper level dimension	FH1 + stroke height
GH Installed height	FH2 + 24" *600 mm*
BB Width of mounted conveyors	Max. 51.18" *(1300 mm)*

Order Information

Scope of supply

- The module is fully assembled, including sensors, but is not electrically cabled
- Energy chain is pre-installed
- Please request protective grid and safety fence separately
- Please request pneumatic valves separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated
- Carriage is powder-coated (in yellow RAL 1021)

Configurator

Please create the reference number with the following configurator.

6007 - ☐ - 2 - ☐ - ☐ - ☐ - ☐ - ☐ - ☐

- ☐ (1st): Lifting height in "
- 2: Number of Start-up positions
- ☐ (3rd): Minimum travel distance FH1 in "
- ☐ (4th): Maximum travel distance FH2 in "
- ☐ (5th): Width of mounted conveyor BB in "
- ☐ (6th): Weight incl. conveying element in lb — **110**, **220**, **330**
- ☐ (7th): Special — **S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 6007-31.50-2-16-50-20-220

This reference number stands for Interroll Lift RM 6007 with a lifting height of 31.50" *(800 mm)*, 2 start-up positions, a minimum level dimension FH1 of 16" *(400 mm)*, a maximum level dimension FH2 of 50" *(1200 mm)*, a mounted conveyor width BB of 20" *(510 mm)* and a weight including conveyor element of 220 lb *(100 kg)*.

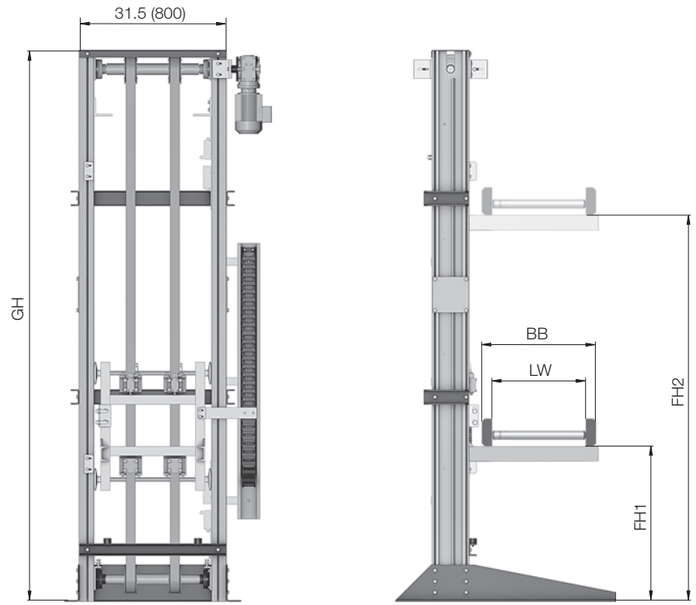
INTERROLL LIFT RM 6008

This vertical conveyor consists of a column construction and a carriage upon which conveyor components can be mounted. Lifting motion by two toothed belts. The drive is located at the top.

Technical Data

General technical data	
Max. load capacity	450 lb *(200 kg)*
Stroke velocity	20 to 120 ft/min *(0.10 to 1.0 m/s)*
Ambient temperature	+25 to +105 °F *(-5 to +40 °C)*
Max. stroke height	450" *(11,000 mm)*
Start-up position	Min. 2
Lifting column	7" x 3.15" *(200 mm x 80 mm)* (Aluminum extrusion)
Drive	
Motor type	Worm gear motor with brake, VFD mounted on gearmotor
Rated voltage	480 V / 60 Hz / 3 phase
Max. electrical power	3 HP / 2.2 kW
Drive medium	Toothed belt

Dimensions



Dimensions	
LW Clearance	12" to 48" *(310 mm to 1200 mm)* (when using Interroll modules)
FH1 Lower level dimension	Min. 20" *(500 mm)*
FH2 Upper level dimension	FH1 + stroke height
GH Installed height	FH2 + 31.50" *(800 mm)*, max. 315" *(8000 mm)*
BB Width of mounted conveyors	Max. 51" *(1300 mm)*

Note: The upper part of the lifting station must be supported on-site above a construction height of 160" *(4000 mm)*.

Order Information

Scope of supply

- The module is fully assembled, including sensors, but is not electrically cabled
- Energy chain is pre-installed
- Please request protective grid and safety fence separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated
- Carriage is powder-coated (in yellow RAL 1021)

Configurator

Please create the reference number with the following configurator.

6008 - □ - □ - □ - □ - □ - □ - □ - □

- Lifting height in "
- Number of Start-up positions
- Minimum travel distance FH1 in "
- Maximum travel distance FH2 in "
- Width of mounted conveyor BB in "
- Lifting speed in ft/min: 20, 40, 60, 80, 100, 120, 160, 200
- Weight incl. conveying element in lb: 110, 220, 330, 440
- Special: S

Order example

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Example of a reference number: 6008-120-2-20-140-20-40-220

This reference number stands for Interroll Lift RM 6008 with a lifting height of 120" *(3000 mm)*, 2 start-up positions, a minimum level dimension FH1 of 20" *(510 mm)*, a maximum level dimension FH2 of 140" *(3510 mm)*, a mounted conveyor width BB of 20" *(510 mm)*, a stroke velocity 40 ft/min *(0.2 m/s)* and a weight including conveyor element of 220 lb *(100 kg)*.

INTERROLL
ROLLER CHUTE RM 5540

The roller chute receives products diverted from a sorter or conveyor line and transfers these at a decline of 6° to 12° to the pickup position. The products are simultaneously buffered. Roller chutes are typically used as sorter destinations.

Technical Data

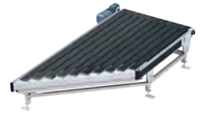
General technical data	
Max. load capacity	110 lb *(50 kg)*
Max. start-up current	8 sec/container
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*
Inclined/declined	Decline of 6° to 12°
Dimensions	
Suitable conveyor modules	Sorter Sorting and distributing
Drive	
Conveyor roller drive	Gravity
Brake	Pneumatic

Scope of supply: The module is fully assembled

Order Information

This product is designed according to the demands of your application. Please consult your Interroll customer consultant for further information.

OVERVIEW OF BELT CONVEYORS, BELT CURVES AND BELT MERGES

	 Conveying of lightweight materials over short stretches	 Conveying over medium stretches	 Conveying over long stretches	 Conveying over rising or falling stretches		 Belt conveyors suitable for curves	 Belt conveyor with sealed belt surface and angled connecting edge	 Belt conveyor with strip belts and angled connecting edge
	Belt Conveyor BM 4070	**Belt Conveyor BM 4081 (HD)**	**Belt Conveyor BM 4081 (CD)**	**Belt Conveyor BM 4081 (CD) Inclined/Declined**		**Belt Curve BC 4608**	**Belt Merge BM 4130 / 4145**	**Strip Belt Merge BM 4430 / 4445**
Drive	Head drive	Head drive	Center drive	Center drive		Form-fit head drive on the inside or outside radius of the curve	Pinch wheel drive	Head drive on the straight side
Conveyor length	20 to 240" *(500 to 6,000 mm)*	28 to 400" *(700 to 10,000 mm)*	60 to 1200" *(1,500 to 30,000 mm)*	60 to 1200" *(1,500 to 30,000 mm)*				
Max. load capacity	12 lb/ft *(20 kg/m)*	40 lb/ft *(50 kg/m)*	40 lb/ft *(50 kg/m)*	40 lb/ft *(50 kg/m)*		40 lb/ft *(50 kg/m)*	40 lb/ft *(50 kg/m)*	40 lb/ft *(50 kg/m)*
Max. total load capacity	275 lb *(120 kg)*	450 lb *(200 kg)*	1,200 lb *(550 kg)*	1,200 lb *(550 kg)*		220 lb *(100 kg)*	220 lb *(100 kg)*	220 lb *(100 kg)*
Conveyor speed	20 to 100 ft/min *(0.10 to 0.50 m/s)*	20 to 200 ft/min *(0.10 to 1 m/s)*	20 to 400 ft/min *(0.10 to 2 m/s)*	20 to 400 ft/min *(0.10 to 2 m/s)*		20 to 500 ft/min *(0.10 to 2.50 m/s)*	20 to 500 ft/min *(0.10 to 2.50 m/s)*	20 to 700 ft/min *(0.10 to 3.50 m/s)*
Inclined/declined	Not suitable	Not suitable	Not suitable	Max. 16°		Not suitable	Not suitable	Not suitable
Function								
Conveying	✓	✓	✓	✓		✓	✓	✓
Accumulation		(✓)	(✓)					
Pulsing		(✓)	(✓)					
Reversing		(✓)	(✓)					
	see page 90	***see page 92***	***see page 94***	***see page 96***		***see page 102***	***see page 104***	***see page 106***

BELT CONVEYOR

Conveying solutions for all applications

- ✓ **Flexible and robust** — Interroll Belt Conveyor is flexible and adaptable thanks to a robust aluminum extrusion construction with T-slots on the upper and lower sides (BM 4081)
- ✓ **Maintenance-free, cost-efficient and durable** — Interroll Belt Conveyor is dependable, maintenance-free and durable due to heavy-duty, two-ply polyester belts, high quality ball bearings and robust drive technology
- ✓ **Gentle material transport with low noise** — With wood laminate or steel slider beds (BM 4081)
- ✓ **Plug and play** — Ready for installation and use with pre-assembled modules, and easy, flexible mounting with Aluminum extrusion construction

Straight, Horizontal, Head Drive BM 4070 *p. 90*

Straight, Horizontal, Head Drive BM 4081 *p. 92*

Straight, Horizontal, Center Drive BM 4081 *p. 94*

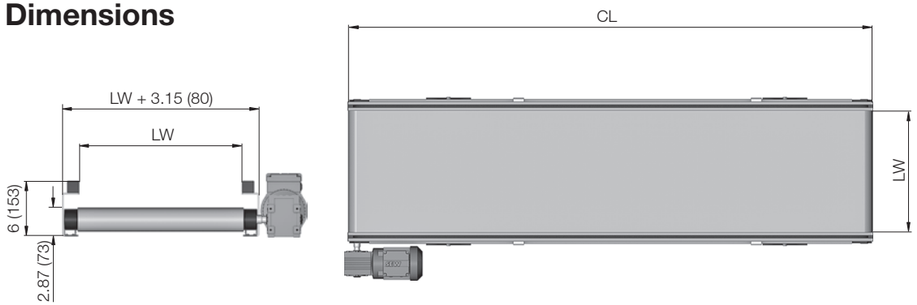
Straight, Inclined/Declined, Center Drive BM 4081 *p. 96*

Can be combined with

INTERROLL BELT CONVEYOR BM 4070

The belt conveyor Interroll Belt Conveyor BM 4070 is designed for the transport of polymer components and material with low weight.

Dimensions



Dimensions	
LW Clearance	8" to 20" in 2" increments *(210 to 510 mm in 50 mm increments)*
CL Conveyor length	20" to 240" *(510 mm to 6,000 mm)*

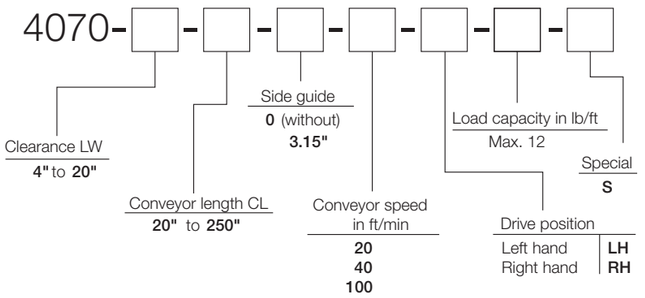
Order Information

- The module is fully assembled
- Please order support legs separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Scope of supply

Please create the reference number with the following configurator.

Configurator



If you require a non-standard version, add an „S“ to the end and describe your requirements.

Example of a reference number: 4070-20-120-0-40-LH-22

Order example

This reference number stands for Interroll Belt Conveyor BM 4070 with a clearance LW 20" *(510 mm)*, a conveyor length CL of 120" *(3000 mm)*, without side guide, a conveyor speed of 40 ft/min *(0.2 m/s)*, the drive position on the left side and a load capacity of 1 lb/in *(10 kg/m)*.

Accessories

- Support legs, see from p. 110

Technical Data

General technical data	
Max. load capacity	12 lb/ft *(20 kg/m)*
Max. total load capacity	275 lb *(120 kg)*
Conveyor speed	20 to 100 ft/min *(0.10 to 0.50 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Drive	
Rated voltage	230 V / 60 Hz / 1 phase 480 V / 60 Hz / 3 phase
Max. electrical power	0.37 kW
Motor type	Shaft-mounted gear motor
Diameter of drive roller	2.5" *(63 mm)*
Diameter of return roller	2.5" *(63 mm)*
Bearing	Self-aligning ball bearing
Materials	
Conveyor belt	Two-ply polyester fabric with PVC cover, matte-top, black
Slider bed	Galvanised steel
Drive/return roller	Aluminum extrusion with steel axles
Side frame	
Side frame	Aluminum extrusion, height 2.87" *(73 mm)*
Side guide	Aluminum extrusion 1.34 x 1.34" *(34 x 34 mm)*, height 3.15" *(80 mm)* (available without side guides)

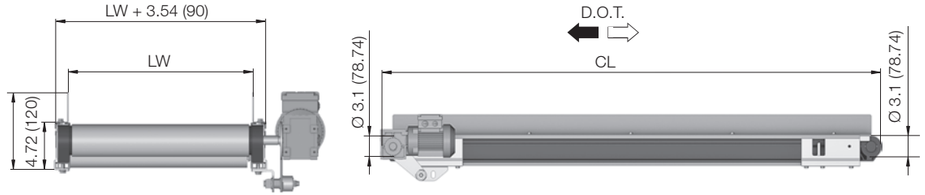
INTERROLL BELT CONVEYOR BM 4081 (HD)

The Interroll Belt Conveyor BM 4081 (Head Drive) is especially suitable for transporting boxes, containers, unit loads etc.

Technical Data

General technical data	
Max. load capacity	40 lb/ft *(50 kg/m)*
Max. total load capacity	450 lb *(200 kg)*
Conveyor speed	20 to 200 ft/min *(0.10 to 1 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Drive	
Rated voltage	230 V / 60 Hz / 1 phase 480 V / 60 Hz / 3 phase
Max. electrical power	0.75 kW
Motor type	Shaft-mounted gear motor Drum Motor
Diameter of drive roller	3.15" *(80 mm)*
Diameter of return roller	3.15" *(80 mm)* (other diameters on request)
Bearing	Flange bearing, above 150 ft/min *(0.80 m/s)* Self-aligning ball bearing, up to 140 ft/min *(0.70 m/s)*
Materials	
Conveyor belt	Two-ply polyester fabric with PVC cover, matte-top, black
Slider bed	Wood laminate or galvanized steel
Drive/return roller	Aluminum extrusion with steel axles
Side frame	
Side frame	Aluminum extrusion, height 4.75" *(120 mm)*
Side guide	Fabricated steel or aluminum, height 3.15" *(80 mm)* (available without side guides)

Dimensions

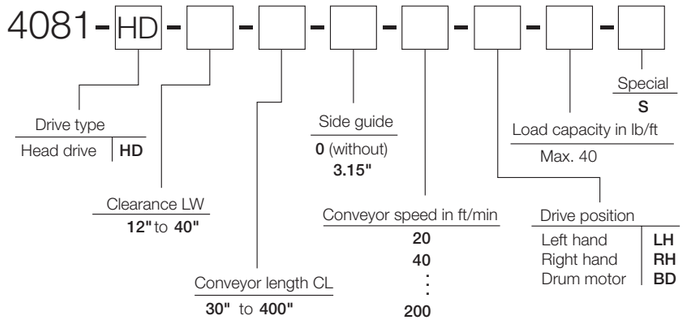


Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
CL Conveyor length	30" to 400" *(700 mm to 10,000 mm)*

Order Information

- The module is fully assembled
- Please order support legs separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Please create the reference number with the following configurator.



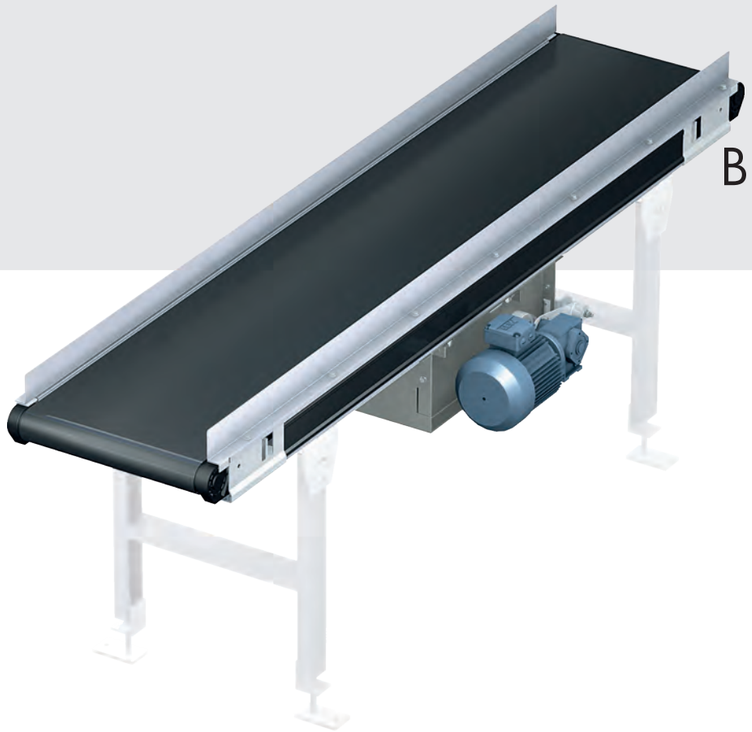
If you require a non-standard version, add an „S“ to the end and describe your requirements.

Example of a reference number: 4081-HD-24-120-3.15-100-LH-66

This reference number stands for Interroll Belt Conveyor BM 4081 with head drive, a clearance LW 24" *(609.6 mm)*, a conveyor length CL of 120" *(3000 mm)*, a side guide of 3.15" *(80 mm)*, a conveyor speed of 100 ft/min *(0.5 m/s)*, the drive position on the left side and a load capacity of 2 lb/in *(30 kg/m)*.

Accessories

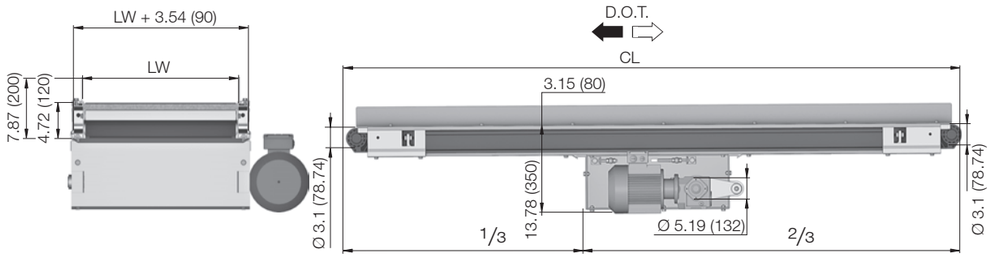
- Interroll Support Legs RM 5704, see p. 112



INTERROLL BELT CONVEYOR BM 4081 (CD)

The Interroll Belt Conveyor BM 4081 (Center Drive) is especially suitable for transporting boxes, containers, unit loads etc. on long lengths.

Dimensions



Dimensions	
LW Clearance	12" to 40" in 2" increments *(310 mm to 1,010 mm in 50 mm increments)*
CL Conveyor length	60" to 1200" *(1,510 mm to 30,000 mm)*

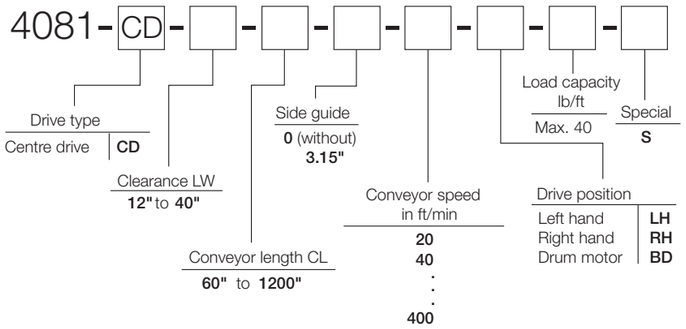
Order Information

- Module is fully assembled (to max. CL = 393.70" *(10,000 mm)*)
- Please order support legs separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Scope of supply

Please create the reference number with the following configurator.

Configurator



If you require a non-standard version, add an „S“ to the end and describe your requirements.

Example of a reference number: 4081-CD-24-120-3.15-100-LH-66

Order example

This reference number stands for Interroll Belt Conveyor BM 4081 with central drive, a clearance LW 24" *(609.6 mm)*, a conveyor length CL of 120" *(3000 mm)*, a side guide of 3.15" *(80 mm)*, a conveyor speed of 100 ft/min *(0.5 m/s)*, the drive position on the left side and a load capacity of 2 lb/in *(30 kg/m)*.

Accessories

- Interroll Support Legs RM 5704, see p. 112

Technical Data

General technical data	
Max. load capacity	40 lb/ft *(50 kg/m)*
Max. total load capacity	1,200 lb *(550 kg)*
Conveyor speed	20 to 400 ft/min *(0.10 to 2 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Drive	
Rated voltage	230 V / 60 Hz / 1 phase 480 V / 60 Hz / 3 phase
Max. electrical power	5 HP / 3 kW
Motor type	Shaft-mounted gear motor / Drum Motor
Diameter of drive roller	5.25" *(132 mm)*
Diameter of return roller	3.15" *(80 mm)* (other diameters available)
Bearing	Flange bearing, above 150 ft/min *(0.80 m/s)* Self-aligning ball bearing, up to 140 ft/min *(0.70 m/s)*
Materials	
Conveyor belt	Two-ply polyester fabric with PVC cover, matte-top, black
Slider bed	Wood laminate or galvanized steel Other diversions on request
Drive/return roller	Aluminum extrusion with steel axles
Side frame	
Side frame	Aluminum extrusion, height 4.75" *(120 mm)*
Side guide	Fabricated steel or aluminum, height 3.15" *(80 mm)* (available without side guides)

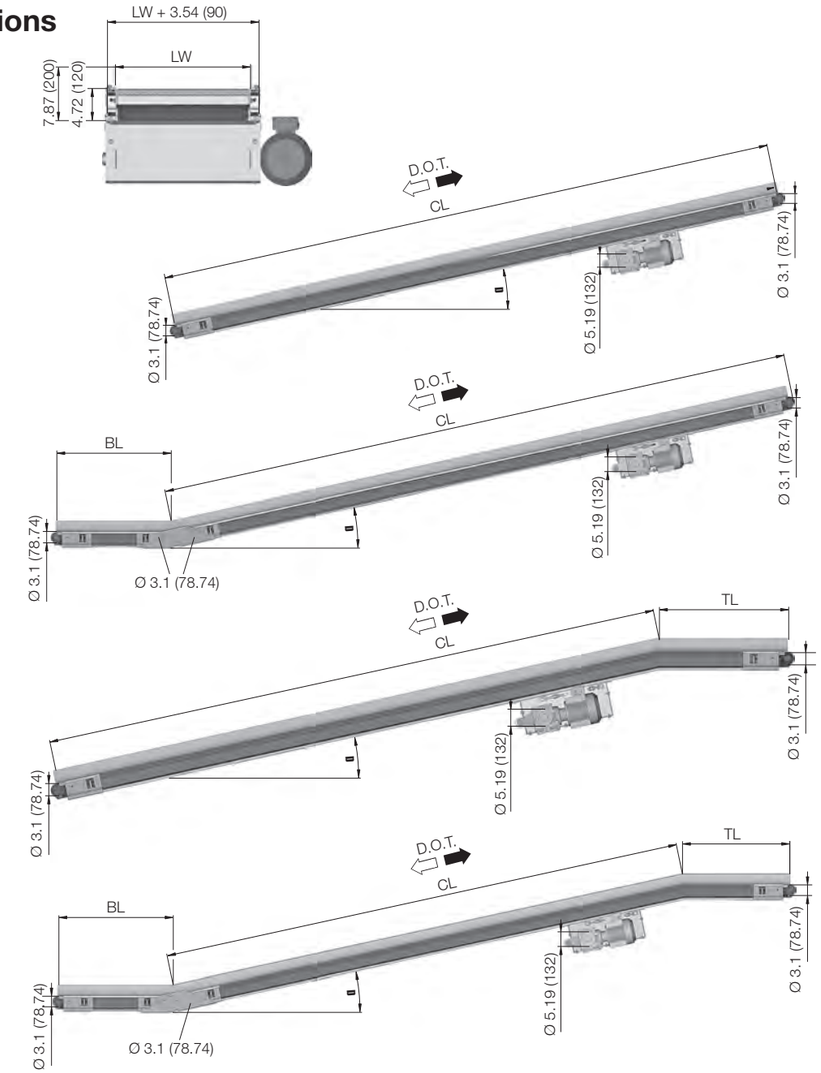
INTERROLL BELT CONVEYOR BM 4081 (CD) INCLINED/DECLINED

The Interroll Belt Conveyor BM 4081 Inclined/Declined (Center Drive) is especially suitable for transporting boxes, containers, unit loads etc. on inclines and declines.

Technical Data

General technical data	
Max. load capacity	40 lb/ft *(50 kg/m)*
Max. total load capacity	1,200 lb *(550 kg)*
Conveyor speed	20 to 400 ft/min *(0.10 to 2 m/s)*
Inclined/declined	Max. 16°
Ambient temperature	+25 to +125 °F *(-5 to +50 °C)*
Drive	
Rated voltage	230 V / 60 Hz / 1 phase 480 V / 60 Hz / 3 phase
Max. electrical power	5 HP / 3 kW
Motor type	Shaft-mounted gear box with brake (480 V)
Diameter of drive roller	5.25" *(132 mm)*
Diameter of return roller	3.15" *(80 mm)* (other diameters available)
Bearing	Flange bearing, above 150 ft/min *(0.80 m/s)* Self-aligning ball bearing, up to 140 ft/min *(0.70 m/s)*
Materials	
Conveyor belt	Two-ply polyester fabric with PVC cover, grooved lengthwise, black
Slider bed	Wood laminate or galvanized steel Other diversions on request
Drive/return roller	Aluminum extrusion with steel axles
Side frame	
Side frame	Aluminum extrusion, height 4.75" *(120 mm)*
Side guide	Fabricated steel or aluminum, height 3.15" *(80 mm)* (available without side guides)

Dimensions



Dimensions	
LW Clearance	12" to 40" in 2" increments *(300 mm to 1000 mm in 500 mm increments)*
CL Conveyor length	60" to 1200" *1,500 to 30,000 mm)*
BL Floor length	0" / 28" / 40" *(0 mm / 700 mm / 1000 mm)*
TL Top length	0" / 20" / 40" *(0 mm / 500 mm / 1000 mm)*
T.O.B. 1 Feed height	Min. 16" *(400 mm)*
T.O.B. 2 Discharge height	Max. 120" *(3000 mm)*

INTERROLL BELT CONVEYOR BM 4081 (CD) INCLINED/DECLINED

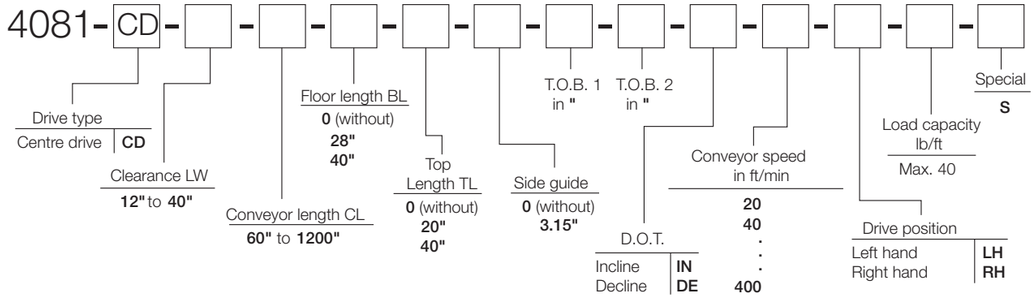
Order Information

Scope of supply

- Module is fully assembled (to max. CL = 400" *(10,000 mm)*)
- Please order support legs separately
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Configurator

Please create the reference number with the following configurator.



If you require a non-standard version, add an „S“ to the end and describe your requirements.

The BM 4081 Incline and Decline Conveyor is also available with head drive (Head Drive) on request.

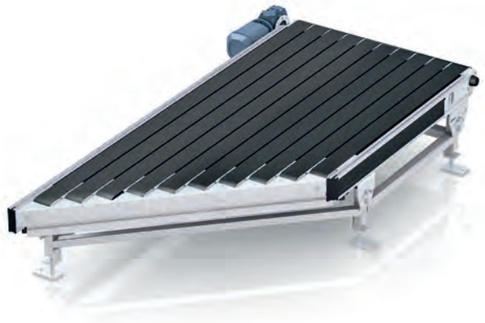
Order example

Example of a reference number: 4081-CD-24-200-0-20-24-60-IN-60-LH-22

This reference number stands for Interroll Belt Conveyor BM 4081 with central drive, a clearance LW 24" *(609.6 mm)*, a conveyor length CL of 200" *(5000 mm)*, without floor length BL, a top length TL of 20" *(510 mm)*, a onload height T.O.B. 1 of 24" *(600 mm)*, a discharge height T.O.B. 2 of 60" *(1510 mm)*, an inclined direction of travel D.O.T., a conveyor speed of 60 ft/min *(0.3 m/s)*, the drive position on the left side and a load capacity of 1 lb/in *(10 kg/m)*.

Accessories

- Interroll Support Legs RM 5705, see p. 114



BELT CURVES & MERGES

Conveying solutions for all applications

- ✓ **Space-saving and flexible** — Interroll Belt Curves and Belt Merges solve tasks that exceed the capabilities of straight belt conveyors. These products enable the implementation of curves in conveyor lines or angled connections to belt conveyor technology and sorters.
  Various angles are available. Interroll belt curves and belt merges have an extremely low top of belt height
- ✓ **Maintenance-free, cost-efficient and durable** — Interroll Belt Curves and Belt Merges are particularly cost-efficient and durable thanks to their specific drive concepts
- ✓ **Gentle material transport** — Interroll Belt Curves and Belt Merges gently transport light to heavy goods with a speed of up to 500 ft/min (2.5 m/s)
- ✓ **Easy to use** — Interroll products are ready for installation with ready-to-use modules that can be integrated simply in a wide variety of conveyor lines

Can be combined with

Roller Conveyors	from p. 8
Belt Conveyors	from p. 86
Sorting and Distributing	from p. 120

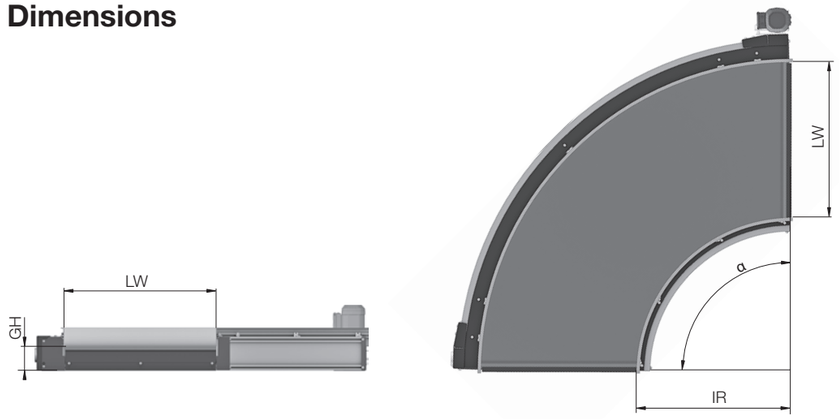
INTERROLL BELT CURVE BC 4608

The belt curves feature a safe, form-fit drive concept and have been designed specifically for mixed materials with a wide variety of compositions. Their top of belt height is only 6.30" (160 mm), with a noise emission level of less than 64 db(A), making them one of the quietest belt curves on the market. The Belt Curve has an automatic belt tensioning device, a robust belt guide concept and an especially light and rapidly replaced belt without removal of the motor.

Technical Data

General technical data	
Max. load capacity	0 lb/ft *(50 kg/m)*
Max. load capacity per module	220 lb *(100 kg)*
Conveyor speed	20 to 500 ft/min *(0.10 to 2.50 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+25 to +105 °F *(-5 to +40 °C)*
Drive	
Rated voltage	480 V / 60 Hz / 3 phase 480 V / 60 Hz / 3 phase
Electrical power	0.5 to 3 HP / 0.37 to 2.20 kW
Motor type	Gear motor
Diameter of drive roller	4" *(100 mm)* (cylindrical)
Diameter of return roller	4" *(100 mm)* (cylindrical)
Materials	
Conveyor belt	Flame retardant in compliance with DIN EN 20340 (optional) Textured surface Other surfaces on request
Slider bed	Low-friction laminated wood (engineered plywood) 11 ga. galvanized steel (optional)
Side frame	
Height of side guide	4.75" *(120 mm)* Side guides up to 24" are avaiable

Dimensions

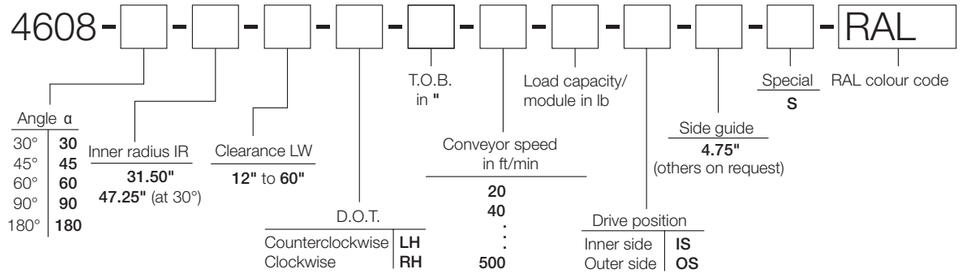


Dimensions	
α Angle	30° / 45° / 60° / 90° / 180°
IR Inner radius	31.50" *(800 mm)* (47.24" *(1200 mm)* at 30°)
LW Clearance	12" to 60" in 2" increments *(310 mm to 1510 mm in 50 mm increments)* Other dimensions on request
T.O.B. Conveying height	Max. 70" *(1800 mm)* Other dimensions on request
GH Installed height	6.30" *(0.16 m)*

Order Information

- The module is fully assembled
- Module is supplied with support legs
- Steel components are in the RAL color selected (see configurator) or zinc-plated

Please create the reference number with the following configurator.



If you require a non-standard version, add an „S“ to the end and describe your requirements.

Example of a reference number: 4608-90-40-40-LH-31.50-20-88-OS-4.75-S-RALXXXX

This reference number stands for Interroll Belt Curve BC 4608 with angle α 90°, an inner radius IR 40" *(1000 mm)*, a clearance LW 40" *(1016 mm)*, counterclockwise direction of travel, a conveying height 31.50" *(800 mm)*, a conveyor speed of 20 ft/min *(1 m/s)*, a load capacity of 88 lb *(40 kg)* per module, an external drive position, a side guide of 4.75" *(120 mm)*, a special belt and with color RAL XXXX.

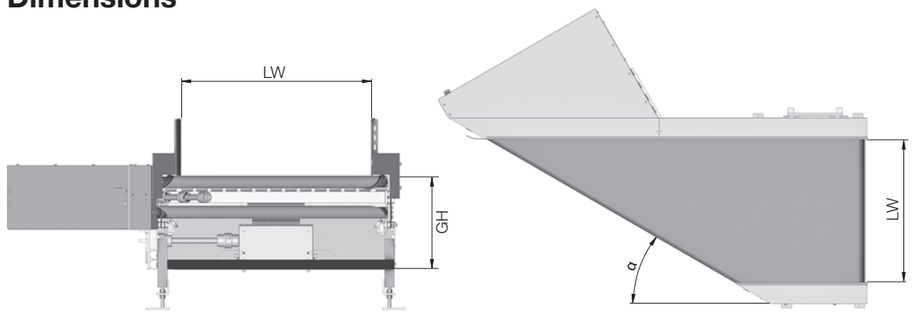
INTERROLL BELT MERGE BM 4130 / 4145

The belt merge is a belt conveyor with an angled connecting edge of 30° or 45°. This conveyor element enables the merging of two conveyor lines according to the specific angle. With the use of supplementary sorting elements, belt merges also enable the separation of conveyor flows. The closed belt surface transports the material smoothly.

Technical Data

General technical data	
Max. load capacity	40 lb/ft *(50 kg/m)*
Max. load capacity per module	220 lb *(100 kg)*
Conveyor speed	20 to 500 ft/min *(0.10 to 2.50 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+23 to +104 °F *(-5 to +40 °C)*
Drive	
Rated voltage	480 V / 60 Hz / 3 phase
Electrical power	1.5 to 5 HP/ 1.10 to 3 kW
Motor type	Gear motor
Diameter of drive roller	Secondary friction wheel, 8.90" *(226 mm)*
Diameter of return roller, straight side	3.15" *(80 mm)*
Diameter of return roller, angled side	2.36" *(60 mm)*
Materials	
Conveyor belt	Flame retardant in compliance with DIN EN 20340 (optional) Textured surface Other surfaces on request
Slider bed	11ga. sheet metal, 0.12" *(3 mm)*
Side frame	
Height of side guide	4.75" *(120 mm)* Side guides up to 24“ available

Dimensions



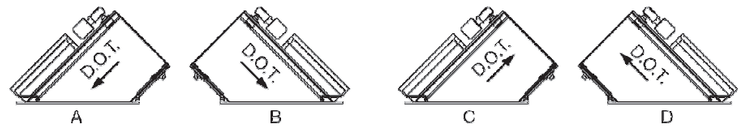
Dimensions	
α Angle	30° / 45°
LW Clearance	12" to 40" in 2" increments *(300 mm to 1000 mm in 50 mm increments)*
T.O.B. Conveying height	Max. 70" *(1800 mm)* Other dimensions on request
GH Installed height	20" *(500 mm)*
Medium length	See Information on Application Notes

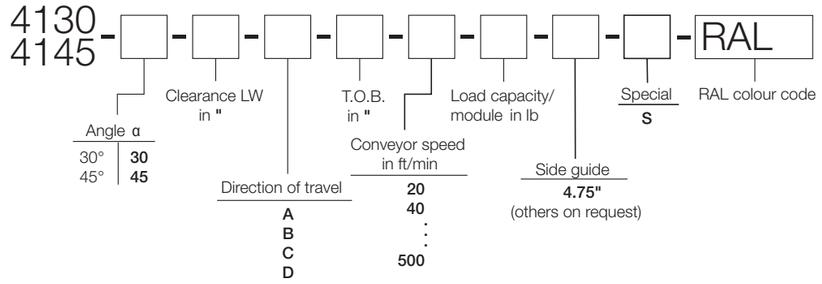
Order Information

- The module is fully assembled
- Module is supplied with support legs
- Steel components are in the RAL color selected (see configurator) or zinc-plated

Please create the reference number with the following configurator.

Select the direction of travel with the following representations.

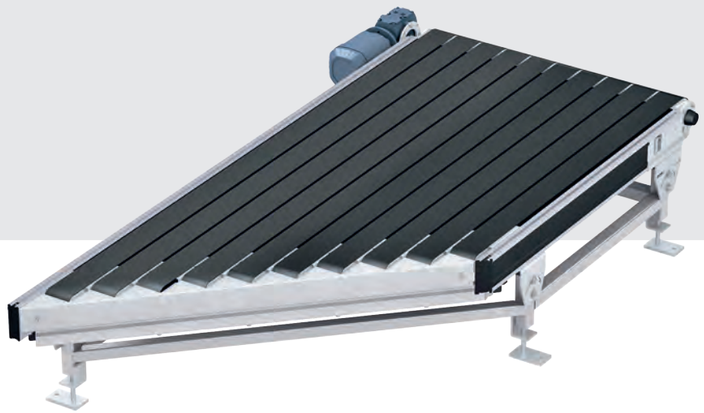




If you require a non-standard version, add an „S“ to the end and describe your requirements.

Example of a reference number: 4145-45-40-B-31.50-20-88-4.75-S-RALXXXX

This reference number stands for Interroll Belt Merge BM 4145 with angle α 45°, a clearance LW 40" *(1016 mm)*, direction of travel B, a conveying height 31.50" *(800 mm)*, a conveyor speed of 20 ft/min *(1 m/s)*, a load capacity of 88 lb *(40 kg)* per module, a side guide of 4.75" *(120 mm)*, a Flame retardant belt and with color RAL XXXX.



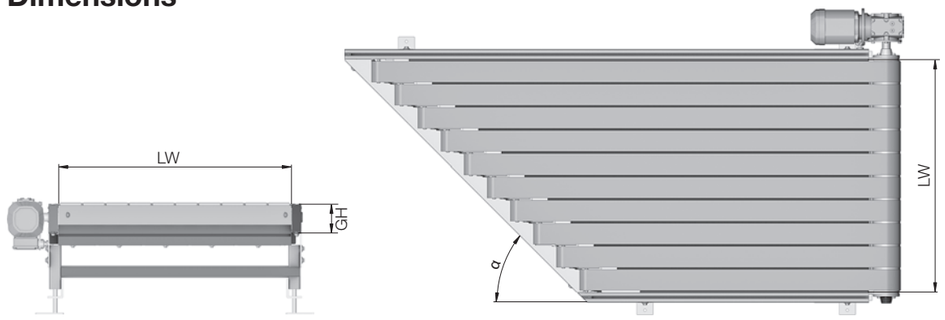
INTERROLL STRIP BELT MERGE BM 4430 / 4445

The belt merge is a belt conveyor with an angled connecting edge of 30° or 45°. This conveyor element enables the merging of two conveyor lines according to the specific angle. With the use of supplementary sorting elements, belt merges also enable the separation of conveyor flows. The conveying belt is available for especially small material units in widths of 4" (100 mm) and 2" (50 mm). The belt merge with 4.75" (120 mm) has an especially low installation height.

Technical Data

General technical data	
Max. load capacity	40 lb/ft *(50 kg/m)*
Max. load capacity per module	220 lb *(100 kg)*
Conveyor speed	20 to 700 ft/min *(0.10 to 3.50 m/s)*
Inclined/declined	Not suitable
Ambient temperature	+23 to +104 °F *(-5 to +40 °C)*
Drive	
Rated voltage	480 V / 60 Hz / 3 phase 480 V / 60 Hz / 3 phase
Electrical power	0.5 to 3 HP / 0.37 to 1.10 kW
Motor type	Gear motor
Diameter of drive roller	3.15" / 4.75" *(80 mm / 120 mm)*
Diameter of return roller, straight side	3.15" / 4.75" *(80 mm / 120 mm)*
Diameter of return roller, angled side	2.76" *(70 mm)*
Materials	
Conveyor belt	Flame retardant in compliance with DIN EN 20340 (optional) Textured surface Other surfaces on request Belt width 4" *(100 mm)* (1.97" *(50 mm)* available)
Slider bed	Polymer slide frames
Side frame	
Height of side guide	4.75" *(120 mm)* Side guides up to 24“ available

Dimensions



Dimensions	
α Angle	30° / 45°
LW Clearance	16" to 40" in 2" increments *(410 mm to 1,010 mm in 50 mm increments)*
T.O.B. Conveying height	Max. 70.87" *(1800 mm)* Other dimensions on request
GH Installed height	7" *(200 mm)*
Medium length	See Information on Application Notes

Order Information

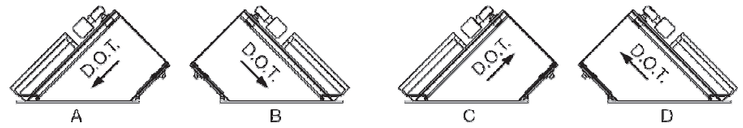
Scope of supply

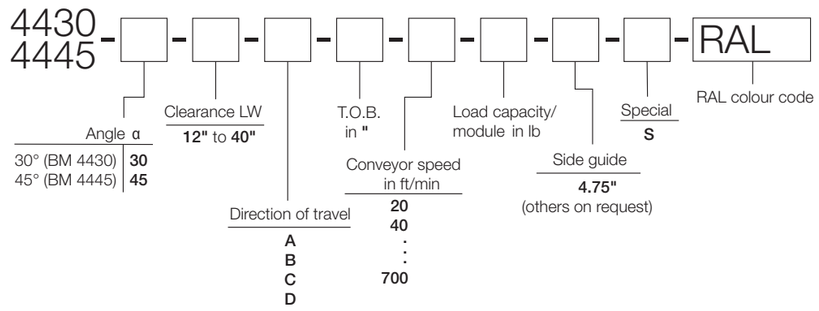
- The module is fully assembled
- Please order support legs separately
- Steel components are in the RAL color selected (see configurator) or zinc-plated

Configurator

Please create the reference number with the following configurator.

Select the direction of travel with the following representations.





If you require a non-standard version, add an „S“ to the end and describe your requirements.

Order example

Example of a reference number: 4430-30-40-B-31.50-20-88-4.75-S-RALXXXX

This reference number stands for Interroll Strip Belt Merge BM 4430 with angle α 30°, a clearance LW 40" *(1016 mm)*, direction of travel B, a conveying height 31.50" *(800 mm)*, a conveyor speed of 20 ft/min *(1 m/s)*, a load capacity of 88 lb *(40 kg)* per module, a side guide of 4.75" *(120 mm)*, a Flame retardant belt and with color RAL XXXX.

ACCESSORIES

✓ When developing accessories for the Interroll Conveyor Modules, a reduction in construction effort as well as a quick integration and commissioning time was focused upon.

✓ This chapter contains accessories designed for Interroll Conveyor Modules to help you to implement your logistics tasks quickly and efficiently.

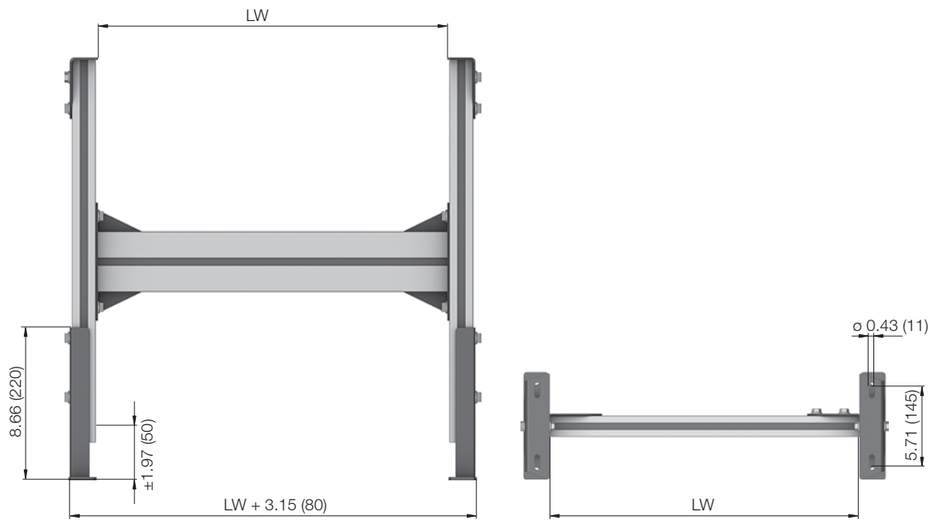
INTERROLL SUPPORT LEGS RM 5703

The Interroll Support Legs RM 5703 consist of robust Aluminum extrusion upon which the conveyor modules are mounted. The support legs are equipped with an adjustable foot and are fixed to the conveyor side frame via a top coupling bracket.

Technical Data

General technical data	
Max. load capacity	450 lb *(200 kg)*
Side frame	
Combination of frame heights left/right	Suitable for all frame combinations
Number of cross members	1 with 14" to 31.5" *(350 to 800 mm)* top of roller height 2 with 31.5" to 55" *(800 to 1400 mm)* top of roller height 3 with 55" to 80" *(1400 to 2000 mm)* top of roller height

Dimensions



Dimensions	
LW Clearance	8" to 40" *(210 mm to 1,010 mm)*
T.O.R. Top of roller height	14" to 80" *(350 mm to 2,000 mm)*
Adjustment range	±1.97" *(±50 mm)*

Order Information

- The module is fully assembled
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Please create the reference number with the following configurator.

5703 - □ - □ - □

- □ Clearance LW: **8"** to **40"**
- □ T.O.R.: **14"** to **80"**
- □ Special: **S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Example of a reference number: 5703-20-28

This reference number stands for Interroll Support Legs RM 5703 with a clearance LW 20" *(510 mm)* and top of roller height T.O.R. 28" *(700 mm)*.

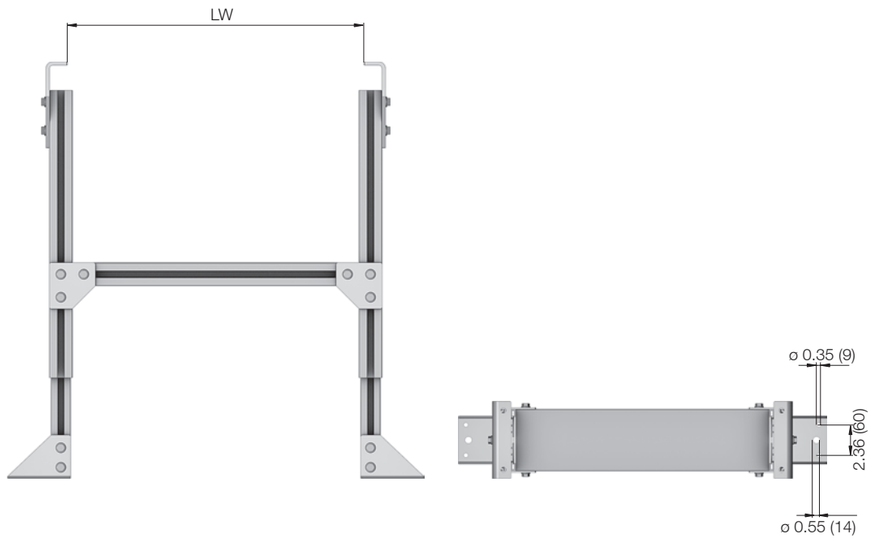
INTERROLL SUPPORT LEGS RM 5704

The Interroll Support Legs RM 5704 consist of robust Aluminum extrusion upon which the conveyor modules are mounted. They are fixed to the conveyor side frame via a top coupling bracket and due to two nested frames within the adjustment range infinitely telescopic.

Technical Data

General technical data	
Max. load capacity	661 lb *(300 kg)*
Side frame	
Combination of frame heights left/right	Suitable for all frame combinations
Number of cross members	1 with 14" to 31.5" *(350 to 800 mm)* top of roller height 2 with 31.5" to 55" *(800 to 1400 mm)* top of roller height 3 with 55" to 80" *(1400 to 2000 mm)* top of roller height

Dimensions



Dimensions	
LW Clearance	8" to 40" *(210 mm to 1,010 mm)*
T.O.R. Top of roller height	14" to 80" *(350 mm to 2,000 mm)*
Adjustment range	2" to 16" *(50 mm to 400 mm)*

Order Information

- The module is fully assembled
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Please create the reference number with the following configurator.

5704 - □ - □ - □ - □

- Clearance LW: **8"** to **40"**
- T.O.R.: **14"** to **80"**
- Adjustment range: **2"**, **8"**, **16"**
- Special: **S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Example of a reference number: 5704-20-28-7

This reference number stands for Interroll Support Legs RM 5704 with a clearance LW 20" *(510 mm)*, top of roller height T.O.R. 28" *(700 mm)* and an adjustment range of 7" *(200 mm)*.

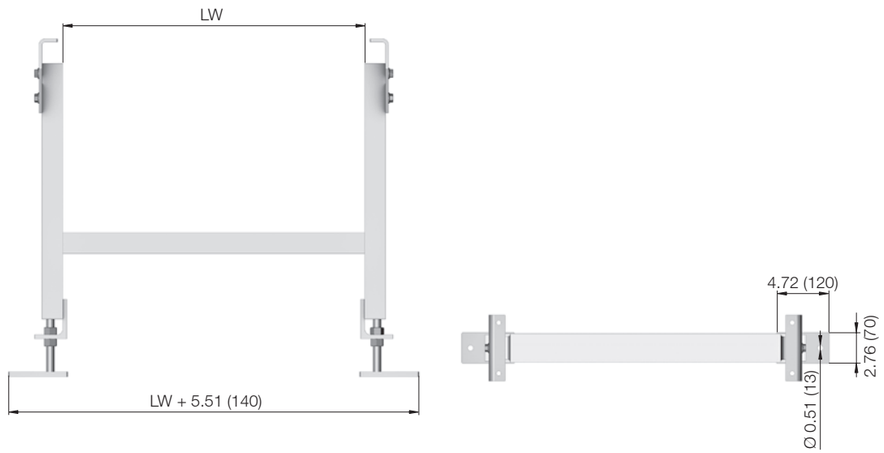
INTERROLL SUPPORT LEGS RM 5705

The Interroll Support Legs RM 5705 consist of robust steel frame upon which the conveyor modules are mounted. The support legs are equipped with an adjustable foot and are fixed to the conveyor side frame via a top coupling bracket. RM 5705 is suitable for especially heavy weights and provides a very stable support of the conveyors.

Technical Data

General technical data	
Max. load capacity	1,300 lb *(600 kg)*
Side frame	
Combination of frame heights left/right	Suitable for all frame combinations
Number of cross members	1 with 14" to 31.5" *(350 to 800 mm)* top of roller height 2 with 31.5" to 55" *(800 to 1400 mm)* top of roller height 3 with 55" to 80" *(1400 to 2000 mm)* top of roller height

Dimensions



Dimensions	
LW Clearance	8" to 40" *(210 mm to 1,010 mm)*
T.O.R. Top of roller height	14" to 80" *(250 to 2,000 mm)*
Adjustment range	±1.97" *(±50 mm)*

Order Information

- The module is fully assembled
- With a top of roller height of T.O.R > 80" *(2000)* cross bracing should be stipulated for reasons of stability. Add an „S“ to the end of the reference number and describe your requirements
- Steel components are powder-coated (in black RAL 9005 or in gray RAL 7030) or zinc-plated

Please create the reference number with the following configurator.

5705 - □ - □ - □

- □ Clearance LW: **8"** to **40"**
- □ T.O.R.: **14"** to **80"**
- □ Special: **S**

If you require a non-standard version, add an „S“ to the end and describe your requirements.

Example of a reference number: 5705-20-31.50

This reference number stands for Interroll Support Legs RM 5705 with a clearance LW 20" *(510 mm)* and top of roller height T.O.R 31.50" *(800 mm)*.

ADDITIONAL ACCESSORIES

End Caps

End caps close the side frames of a conveying line for safety and a finished appearance. The following overview shows the five different models.

Description	Dimensions " (mm)	Reference number
Extrusion 3.15 (80) flat	3.15 (80) x 1.6 (40) x 0.12 (3)	34208
Extrusion 4.72 (120) flat	4.75 (120) x 1.6 (40) x 0.16 (4)	47469
Extrusion 4.72 (120) medium	4.75 (120) x 2.4 (60) x 0.16 (4)	15006000
Extrusion 5.91 (150) flat	6 (150) x 1.6 (40) x 0.12 (3)	32095
Extrusion 5.91 (150) medium	6 (150) x 2.2 (55) x 0.12 (3)	32096

Round Half Nuts

Round half nuts are required for mounting of all components to the Interroll standard frame. They can be inserted at any time into the T-slot of the side frames.

Description	Dimensions " (mm)	Reference number
Round half nut M8	1 (25) x 0.75 (20) x 0.375 (10)	12361000
Round half nut M6	1 (25) x 0.75 (20) x 0.375 (10)	12360999

Frame Connectors

Frame connectors connect the side frames of two conveyors in one line. Their special form guarantees alignment of the side frames. Four frame connectors are normally required to connect two conveyor modules together.

Description	Dimensions " (mm)	Reference number
Frame Connectors	3.15 (80) x 0.75 (20)	31753

Power Supply

A power supply is available for the Intelliveyor and RollerDrive Conveyor. The power supply units are installed in a steel enclosure, and each power supply has a main switch and internal fuse.

Description	Dimensions " (mm)	Reference number
Power supply 24 V / 20 Amp (for max. 15 RollerDrives)	15 (380) x 15 (380) x 8.3 (211)	42274
Power supply 24 V / 40 Amp (for max. 30 RollerDrives)	15 (380) x 15 (380) x 8.3 (211)	42275

ADDITIONAL ACCESSORIES

Interface Card

The interface card enables a supplementary PLC interface via connection to the Intelliveyor Easy-Bus. For further information please consult the Interroll Z-Card installation instructions.

Description	Dimensions " (mm)	Reference number
Interface Card	3.5 (88) x 1.4 (36) x 2.25 (58)	39650

PLC Connection Cable

Connecting a PLC to a PLC connection cable activates a function of the Intelliveyor. For further information please consult the Interroll Z-Card installation instructions.

Description	Dimensions	Reference number
PLC Connection Cable	4-core, open-ended, length 120" (3000 mm)	31918

Photo Cell Kit

Fig: with plastic clip

Fig: with threaded steel fastener

Photo cell kits are available for the Interroll RollerDrive Conveyor and Intelliveyor. They can be used as start or zone photo cells. The set consists of a sensor, the appropriate fastener and a reflector.

Description	Properties	Dimensions	Reference number
Photo cell kit with plastic clip	• Tool-free mounting • Simple remounting • Cannot be adjusted horizontally or vertically	Suitable for Interroll standard pressings	46813
Photo cell kit with threaded steel fastener	• Mounting by drilling of frame • Can be adjusted horizontally and vertically	Suitable for Interroll standard pressings	34461

SORTING AND DISTRIBUTING

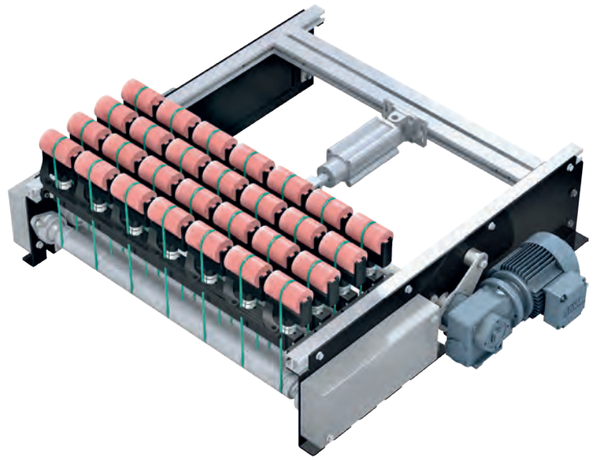
The overview shows all conveyor elements for sorting and distributing. You can find these products on the following pages and also partly in the roller conveyors chapter. You can go directly to the product details of the additional products via the page references.

	Highspeed Popup 30°/45° ST 5446	**Push Crank Diverter** ST 6110	**Pusher** RM 5730	**Belt Transfer 90°** RM 5710		**Chain Transfer 90°** RM 5711	**Intelliveyor Diverter 45°** RM 5545	**Intelliveyor Transfer 90°** RM 5590	**Crossbelt Sorter** ST 6130 / 6160
Max. sorting power	5,000 items/h	4,000 items/h	1,200 items/h	1,200 items/h		1,200 items/h	2,500 items/h	1,200 items/h	15,000 items/h
Max. unit load weight	100 lb *(45 kg)*	110 lb *(50 kg)*	65 lb *(30 kg)*	110 lb *(50 kg)*		220 lb *(100 kg)*	110 lb *(50 kg)*	75 lb *(35 kg)*	75 lb *(35 kg)*
Function									
Sorting	✓	✓	✓	✓		✓	✓	✓	✓
Non-contact accumulation							✓	✓	
Accumulation							(✓)	(✓)	
Conveying	✓						✓	✓	✓
Sorting							✓	✓	
Drive	480 V gear motor and pneumatic cylinder	480 V gear motor	Pneumatic cylinder	480 V gear motor and pneumatic cylinder		480 V gear motor and pneumatic cylinder	24 V gear motor	24 V gear motor	480 V gear motor
Suitable conveyor modules	Belt Conveyors Roller Conveyors	Belt Conveyors Roller Conveyors	Roller Conveyors	Roller Conveyors		Roller Conveyors	Intelliveyor	Intelliveyor	
	see page 122	***see page 123***	***see page 70***	***see page 72***		***see page 74***	***see page 18***	***see page 20***	***Brochure Crossbelt Sorter***

INTERROLL HIGHSPEED POPUP ST 5446

Product description

The Highspeed Popup diverts unit loads in 30° or 45° angles to a continuing conveyor line without interrupting the flow.



This product is designed according to the demands of your application. Please consult your Interroll customer consultant for further information.

Technical Data

General technical data	
Max. load capacity	100 lb *(45 kg)*
Max. start-up current	5000 items/h (depending on material)
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*
Dimensions	
α Angle	30° / 45°
Suitable conveyor modules	Belt Conveyors Roller Conveyors
Drive	
Conveyor roller drive	480 V gear motor
Conveyor roller pivoting movement	Pneumatic cylinder

Scope of supply: The module is fully assembled

INTERROLL PUSH CRANK DIVERTER ST 6110

Product description

The push crank diverter pushes material at an angle of 90° to the direction of travel. Despite high speeds this is implemented gently due to the electrically driven crank principle.

This product is designed according to the demands of your application. Please consult your Interroll customer consultant for further information.

Technical Data

General technical data	
Max. load capacity	110 lb *(50 kg)*
Max. start-up current	4000 items/h (depending on material)
Ambient temperature	+40 to +105 °F *(+5 to +40 °C)*
Dimensions	
α Angle	90°
Suitable conveyor modules	Belt Conveyors Roller Conveyors
Drive	
Pusher drive	480 V gear motor

APPLICATION NOTES

WHAT ARE THE APPLICATION NOTES FOR?

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

The catalog has three conveyor module chapters:

- Roller Conveyors
- Belt Conveyors
- Sorting and Distributing

The fourth chapter lists accessories.

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 conveyors fulfill?

- Transporting and/or buffering
- Accumulation 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

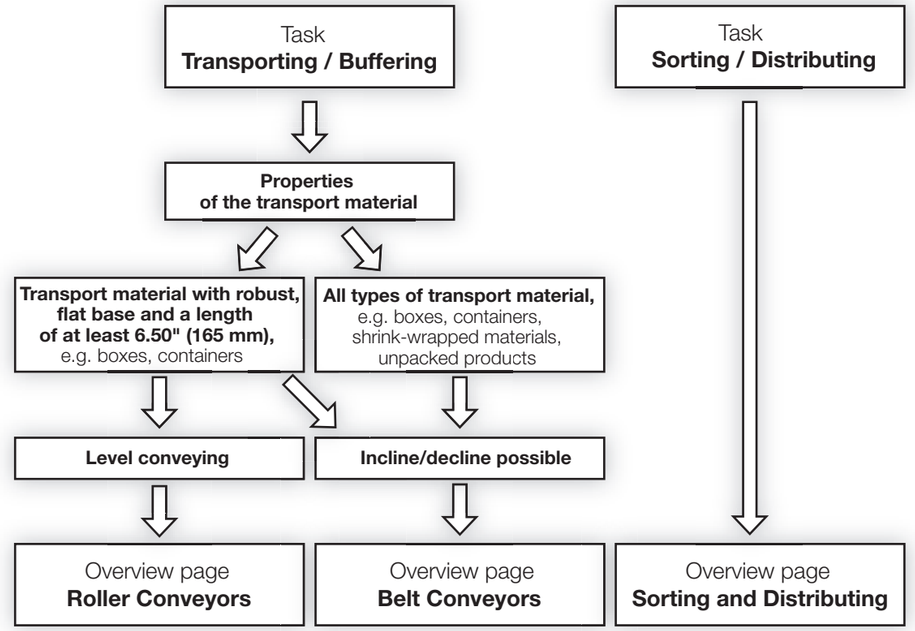
Does the composition of your transport material or the surroundings require special measures?

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

Product selection – here‘s what to do

The task to be performed by the conveyors guides you via the following diagram directly to the three main chapters of the catalog: Roller Conveyors, Belt Conveyors and Sorting and Distributing.



After selecting the chapter most appropriate 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
  - Pulsing
  - Reversing

SOLUTIONS WITH ROLLER CONVEYORS

Basic principles for trouble-free transport

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

Roller pitch

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

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

P	Roller pitch in " (mm)
L	Transport material length in " (mm)

Load capacity

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

You can find out more about conveyor rollers in the conveyor roller catalog from Interroll.

Clearance

With straight sections, the clearance LW of the conveyor consists of at least the width of the transport material + 1.97" *(50 mm)*:

$LW \geq B + 2$

LW	Clearance in " (mm)
B	Transport material width in " (mm)

In the following cases a greater clearance must be selected:

- The following applies with conveyors into which the transport material is to be diverted: $LW \geq B + 4$
- For curves: See p. 134 for calculation

Classification of roller conveyors

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

Weight classes

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

- Up to 65 lb *(30 kg)*: **Light**
- Up to 220 lb *(100 kg)*: **Medium**
- Up to 550 lb *(250 kg)*: **Heavy**
- Up to 3300 lb *(1500 kg)*: **Palett**

This catalog covers the **Medium** and **Heavy** classes. Please contact your Interroll customer consultant for information concerning the other classes.

Medium class

Transport material	Boxes, plastic containers, trays, tires etc.
Load capacity	0 to 75 lb/ft (0 to 100 kg/m)
Conveyor speed	40 to 250 ft/min (0.2 to 1.2 m/s)
Clearance LW	8" to 40" (210 to 1010 mm)
Roller pitch P	2" / 3" / 4" / 5" (50 mm / 75 mm / 100 mm / 125 mm)
Rollers	Interroll Series 1700, Interroll Series 3500 and Interroll Series 1100 in PVC or steel, zinc-plated
Ambient temperature	+25 to +125 °F (-5 to +50 °C) or +40 to +105 °F (+5 to +40 °C) (depending upon product)

Heavy class

Transport material	Castings, small pallets, automotive components, trays etc.
Load capacity	0 to 1745 lb/ft (0 to 250 kg/m)
Conveyor speed	40 to 400 ft/min (0.2 to 2 m/s)
Clearance LW	12" to 40" (310 to 1010 mm)
Roller pitch P	Depends upon product
Rollers	Interroll Series 3500 and Interroll Series 3800 in PVC or steel, zinc-plated Interroll Automation Series 5330 in steel, zinc-plated Interroll Automation Series 5350 in Polyamide
Ambient temperature	+25 to +125 °F (-5 to +50 °C)

Drive classes

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

- Gravity conveyors
- Driven roller conveyors

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 conveying speed of the transport material on inclined roller conveyors.

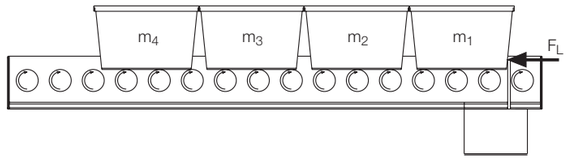
Driven conveyors are used for the continuous transport, storage and distribution of transport material, and throughput can be precisely set. Accurate positioning of the material carried on the conveying line is possible as well as automatic diverting to or from the conveyor.

General notes about roller conveyor technology

Accumulation pressure

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

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



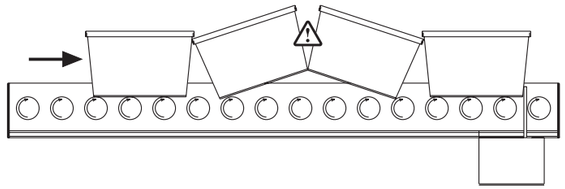
F_L	Accumulation pressure in lbf (N)
m_T	Total $m_1 + m_2 + m_3 + ...$ in lb (kg)
g	Gravitational acceleration in lbf/lb (N/kg)
µ	Coefficient of friction

Drive type	µ
Friction drive rollers	0,06
Lineshaft	0,20
O-ring rollers	0,25
Fixed drive* with chain, tooth belt or PolyVee belt	~ 0,35

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

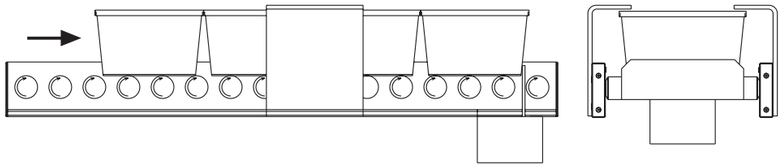
Concertina effect

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

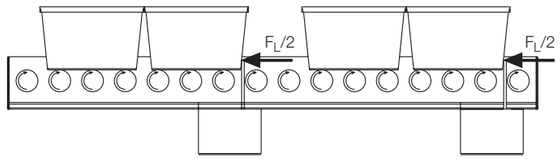


The concertina effect may be prevented by the following measures:

- Overhanging stops at the danger point



- Supplementary stops

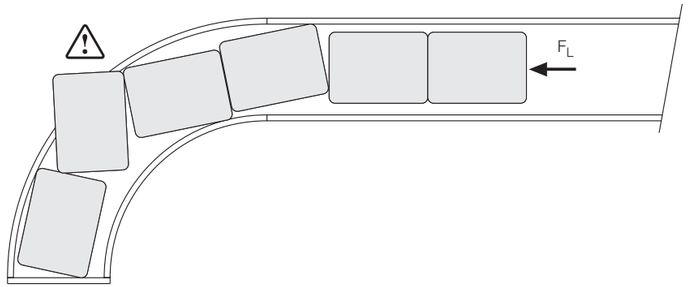


SOLUTIONS WITH ROLLER CONVEYORS

Ejection of transport material in curves

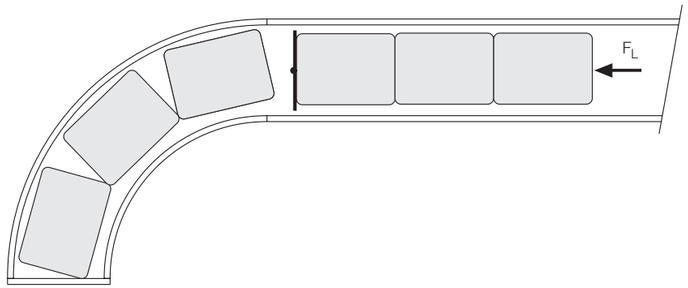
Interroll recommends avoiding the accumulation of transport material in curves, except with zero pressure accumulation conveyor systems.

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

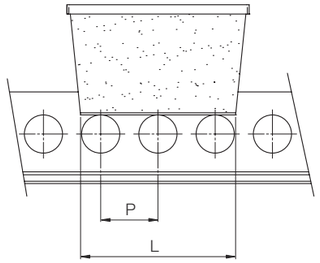


Trouble-free transport

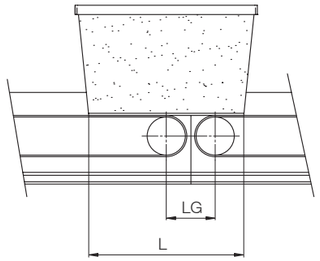
The roller pitch and the dimensions of the transition gap between two conveyors are highly important factors for trouble-free transport.

Transport disturbances can be prevented by taking the following measures:

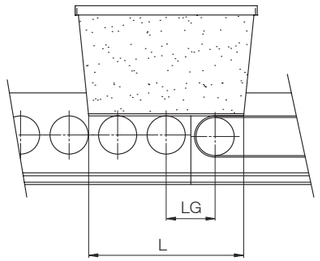
- The roller pitch P must be selected so that at least three rollers support the transport material



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



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



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

SOLUTIONS WITH ROLLER CONVEYORS

Calculations

Clearance in curves

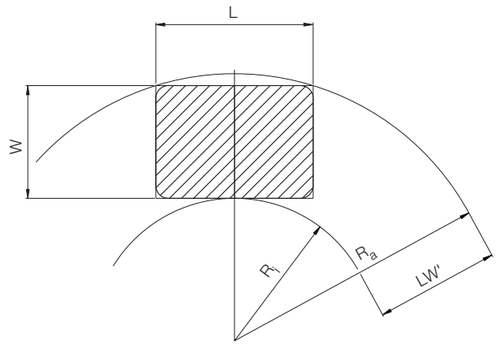
The clearance LW in curves must be greater than with straight sections. The clearance depends upon the dimensions of the transport material and corresponds to the outer radius minus the inner radius.

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

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

The clearance LW is calculated as follows:

$$LW' = R_a - R_i$$
$$LW = LW' + 2$$



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 32.48" *(825 mm)*.

Interroll curve modules are available with clearance values LW in steps of 1.97" *(50 mm)*.

Throughput

The throughput T_p of a conveyor system is specified in units of quantity per hour and is dependent upon the size of the transport material and the 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:

$$T_p = \frac{0.72 \times v}{T}$$

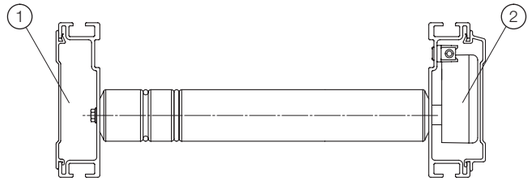
T_p	Throughput in units of quantity per hour
v	Conveying speed in ft/min (m/s)
T	Window size in " (mm)

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.

Side frames of the roller conveyor modules

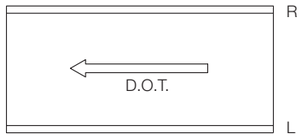
Definition of the conveyor sides

Each module has a side frame 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 frames. Drive technology is situated on the drive side (chain, drive belt, lineshaft etc.). The side with the control electronics of the conveyor is specified as the electric side (usually the non-drive side).



1	Drive side
2	Non-drive side (controls mounted)

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



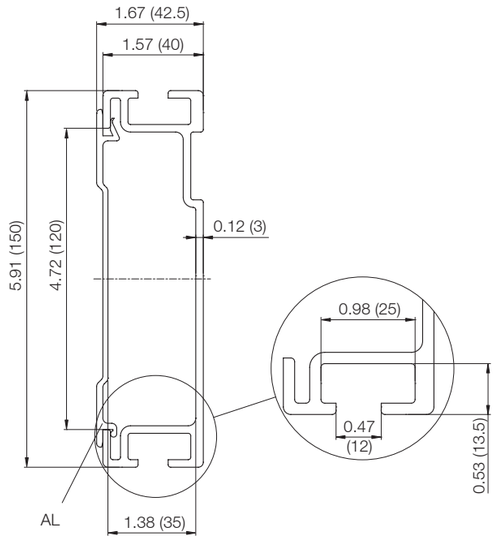
SOLUTIONS WITH ROLLER CONVEYORS

Properties of the Interroll frames

Interroll differentiates between three main side frames designated according to their total height.

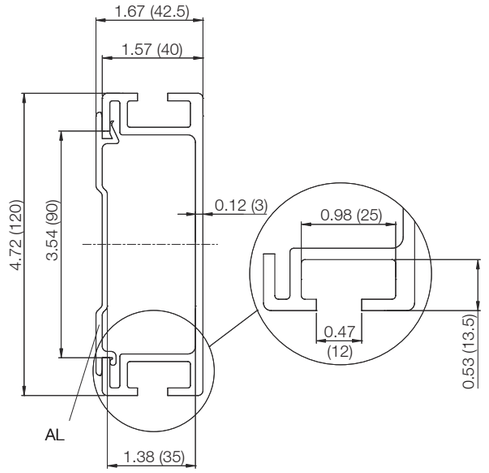
Extrusion 6" (150 mm)

- Standard frame for all roller conveyor modules
- Extruded, anodized aluminum extrusion for structural stability
- Forms an integrated, 2.6" *(65 mm)* high side guide (2.6" *(65 mm)* above top of roller)
- Black PVC cover used
- The space behind the cover can be used as a cable tray or can be used on-site for accommodation of the electrical controls
- With T-slot for peripheral devices, e.g. additional guides, sensors and support legs



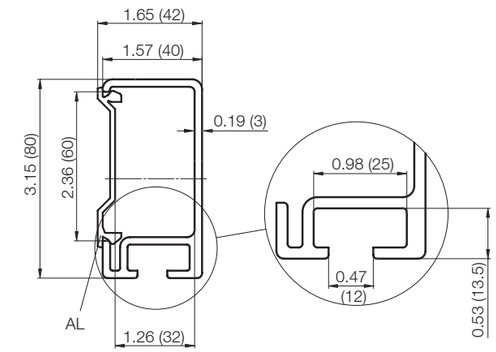
Extrusion 4.75" (120 mm)

- Extruded, anodized aluminum extrusion for structural stability
- Forms an integrated, 1.4" *(35 mm)* high side guide (1.4" *(35 mm)* above top of roller)
- Black PVC cover used
- The space behind the cover can be used as a cable tray or can be used on-site for accommodation of the electrical controls
- With T-slot for peripheral devices, e.g. additional guides, sensors and support legs



Extrusion 3.15" (80 mm)

- Extruded, anodized aluminum extrusion for structural stability
- Allows lateral shifting e. g for 90° transfers, push over sections or lanes with overhanging load. The top edge of the extrusion is situated 0.20" *(5 mm)* below the top of the roller
- Black PVC cover used
- The space behind the cover can be used as a cable tray or can be used on-site for accommodation of the electrical controls
- With T-slot for peripheral devices, e. g. sensors and support legs



AL | Cover panel

INFORMATION ABOUT ROLLER CONVEYOR PRODUCT TYPES

Intelliveyor

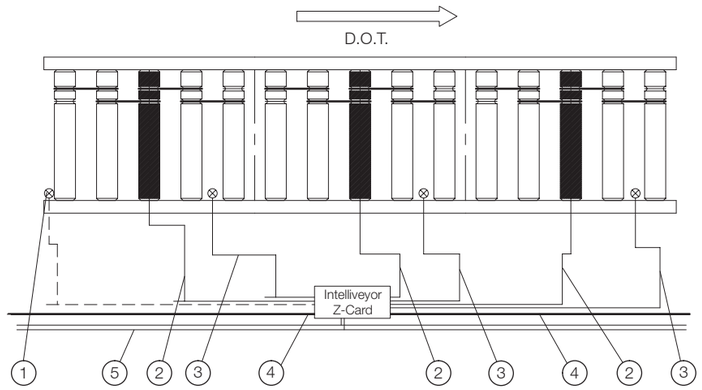
As an intelligent conveyor with accumulation conveyor logic, the Interroll Intelliveyor simplifies transportation. The integrated controls, the Z-Card, transforms a standard roller conveyor into a zoned accumulation conveyor that assigns each item its own zone in the flow. In this way items can be accumulated without contact and transported onwards as needed in order to achieve a continuous transport flow.

Zones

Each Intelliveyor 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 Z-Card as internal control that controls a maximum of four zones simultaneously
- A sensor



D.O.T.	Conveyor direction
1	Start photo cell (optional)
2	RollerDrive connection
3	Photo cell connection
4	Communication cable (Easy-Bus)
5	24 V-Power-Bus

A pre-installed conveyor module with complete cabling forms one to four zones that can be connected via plug and play with other Intelliveyor modules.

Photo cell

An optional photo cell is situated at the beginning of a line (accessories p. 119) that initiates the system.

Control

Each Z-Card communicates with its adjacent controls via a data cable. This cable transmits signals to the start, for accumulation, for error detection and for the execution of specific control processes along the conveyor system.

A Z-Card has four connections for input and output signals to the PLC, e.g. for signal exchange with external systems or for initiating merging and diverting processes.

As well as the digital inputs and outputs, a CAN bus connection is available for connection to top-level controls with which the complete system can be controlled and with which status data can be monitored and reported.

Operating modes

The Intelliveyor features two operating modes:

Single release mode

An accumulation zone communicates with the upstream and downstream zone. In this mode an item is released individually allowing its zone to become available for the next upstream item.

Train release mode

A start/stop signal is transmitted to all controls, thus enabling all zones to discharge their items in a slug.

INFORMATION ABOUT ROLLER CONVEYOR PRODUCT TYPES

Drive side, controls mounted, side frames

With the straight Intelliveyor, the drive side and the controls mounted may be selected and specified in the product configurator.

With straight conveyors the control is in extrusion 6" *(150 mm)*. This means that with a 6" *(150)*/3.15" *(80)* side frame combination, the controls must be the left side. For information about the side frames 136.

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

Selection of the RollerDrive

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

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

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

	BT100	EC200	EC300
Max. conveyor speed	175 ft/min (0.9 m/s)	200 ft/min (0.98 m/s)	250 ft/min (1.27 m/s)
Max. load capacity	110 lb (50 kg)	175 lb (80 kg)	110 lb (50 kg)
Max. rated torque	22.13 in-lbf (2.5 Nm)	31.86 in-lbf (3.6 Nm)	7.97 in-lbf (0.9 Nm)
Mechanical power	11 W	25 W	44 W
Noise level	47 db(A)	55 db(A)	50 db(A)
Max. number of starts/ stops per minute	15	30	30
Commutation type	Mechanical	Electronic, internal	Electronic, internal
Min. lifetime	6000 h	15,000 h	20,000 h

Selection of the drive medium

Three drive mediums are available:

PU O-ring Ø 0.20" (5 mm)

- For transport material to max. 110 lb *(50 kg)*/ zone
- For max. 11 idlers per zone (i.e. 11 O-rings per zone)
- Reduced acceleration and braking performance due to slippage

PolyVee belt

- For transport material to max. 176 lb *(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

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 Intelliveyor, a RollerDrive Conveyor has no internal logic and is therefore typically controlled by a superior control (PLC). The control is carried out via the Interroll DriveControl (see www.interroll.com).

Zones

The number of zones possible in a straight module is defined by module length divided by zone length. The maximum module length is 120" *(3000 mm)*.

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

Z	Number of zones
ML	Module length in " (mm)
ZL	Zone length in " (mm)

Selection of the RollerDrive and the drive medium

Selection criteria for the RollerDrive and the drive medium are the same for the RollerDrive Conveyor and the Intelliveyor (p. 138).

INFORMATION ABOUT ROLLER CONVEYOR PRODUCT TYPES

Lineshaft Roller Conveyor

Driven roller conveyors with Lineshaft are friction drive accumulation conveyors with a low level of accumulation pressure.

The rollers are driven by PU O-rings with a lineshaft (Ø 0.98" *(25 mm)*) mounted along the longitudinal axis of the conveyor. Each drive belt runs via a drive spool connected to the lineshaft. During an accumulation situation the lineshaft rotates within the drive spool, and the rollers stop.

The combination of a drive module with several slave modules enables long conveying lines with a low number of drives. A maximum of 300 conveyor rollers per drive is possible. The maximum length of a conveyor line with one drive can be calculated with the following formula:

$$L_F = 106.5 \times \frac{L}{m \times v}$$

L_F	Max. length of conveyor line in " (mm)
L	Length of transport material in " (mm)
m	Weight of transport material in lb (kg)
v	Conveying speed in ft/min (m/s)

Lineshaft curves always have a fixed drive. Otherwise they have the same properties as Lineshaft straight sections.

Curves are available with angles of 30°, 45°, 60° and 90°. A curve with a drive (drive module) has an angle of 90°.

For each drive a maximum of two curves or one curve with one straight section with maximum length of 200" *(5000 mm)* are possible.

Tangential Chain Roller Conveyor

With the Tangential Chain Roller Conveyor a standard roller chain drives each roller via a drive pinion.

The maximum length per drive is 590.55" *(15,000 mm)*. The required power capacity is calculated as follows:

$$p = \frac{v \times m \times 0.1}{43{,}373}$$

p	Power capacity in kW
v	Conveying speed in ft/min (m/s)
m	Total weight of the transport units per drive in lb (kg)
μ	Coefficient of friction = 0.1

Planning conveyor lines with a Tangential Chain

There are three types of Tangential Chain modules. These three types are only permitted at specific positions on the conveyor line:

- A drive module at the beginning of a conveyor line always has a chain terminal
- A slave module (module without own drive) with chain terminal at the end of a conveyor line
- Slave modules (modules without own drives) without chain terminal as a line extension between the drive module and the terminating slave module with terminal

INFORMATION ABOUT ROLLER CONVEYOR PRODUCT TYPES

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

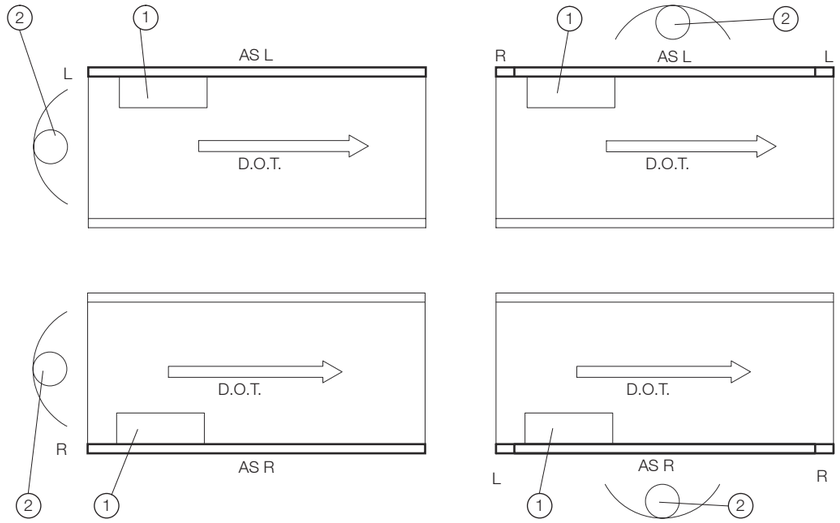


Fig: Drive side right (R) and left (L) and end terminals

D.O.T.	Conveyor direction
1	Motor
2	End terminal
AS R	Drive side right
AS L	Drive side left

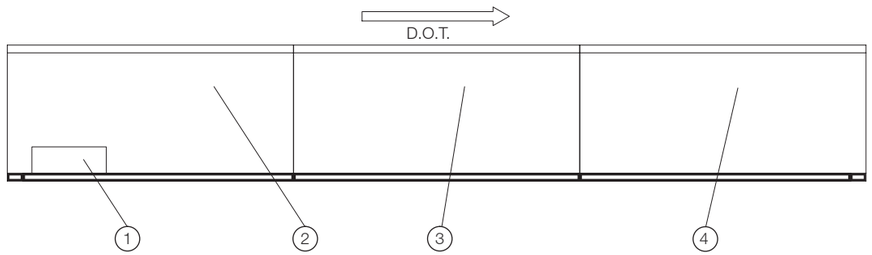


Fig: Example of a conveyor line with three modules

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

Curves with Tangential Chain

For each drive a maximum of two curves or one curve with one straight section with a maximum length of 236.22" *(6000 mm)* is possible.

A straight section connected with a curve requires a curved chain (side bow chain). When ordering this type of straight section an „S“ for special version must be entered in the configurator and the curved chain noted.

Toothed Belt Roller Conveyor

Toothed belts drive the rollers with the Toothed Belt 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 295.28 ft/min *(1.5 m/s)*, a soft start is recommended for the motor.

The required power capacity is calculated as follows:

$$p = \frac{v \times m \times 0.1}{43{,}373}$$

p	Power capacity in kW
v	Conveying speed in ft/min (m/s)
m	Total weight of the transport units per drive in lb (kg)
µ	Coefficient of friction 0.1

Planning conveyor lines with a Toothed Belt

Toothed Belt modules must be ordered according to their position in the conveyor line. There are two Toothed Belt module types:

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

INFORMATION ABOUT ROLLER CONVEYOR PRODUCT TYPES

Dimensions of merges, 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.

Interroll Intelliveyor Transfer RM 5550 (Merge) /
Interroll Intelliveyor Transfer RM 5545 (Diverter)

(RM 5545 to clearance LW29.92" *(760 mm)*)

Clearance LW in " (mm)	Module length ML in " (mm)	Face length F in " (mm)	Module length ML in " (mm)	Face length F in " (mm)
	with angle α = 45° and roller pitch P = 2.95" (75 mm)		with angle α = 30° and roller pitch P = 2.95" (75 mm)	
12.20 (310)	35.43 (900)	20.18 (512.5)	59.06 (1500)	28.72 (729.5)
14.17 (360)	35.43 (900)	23.13 (587.5)	59.06 (1500)	34.63 (879.5)
16.14 (410)	35.43 (900)	23.13 (587.5)	59.06 (1500)	37.58 (954.5)
18.11 (460)	35.43 (900)	26.08 (662.5)	59.06 (1500)	40.53 (1029.5)
20.08 (510)	35.43 (900)	29.04 (737.5)	59.06 (1500)	43.48 (1104.5)
22.05 (560)	47.24 (1200)	29.04 (737.5)	70.87 (1800)	46.44 (1179.5)
24.02 (610)	47.24 (1200)	31.99 (812.5)	70.87 (1800)	49.39 (1254.5)
25.98 (660)	47.24 (1200)	34.94 (887.5)	70.87 (1800)	55.30 (1404.5)
27.95 (710)	47.24 (1200)	34.94 (887.5)	70.87 (1800)	58.25 (1479.5)
29.92 (760)	47.24 (1200)	37.89 (962.5)	70.87 (1800)	61.20 (1554.5)
31.89 (810)	59.06 (1500)	40.85 (1037.5)	94.49 (2400)	64.15 (1629.5)
33.86 (860)	59.06 (1500)	40.85 (1037.5)	94.49 (2400)	67.11 (1704.5)
35.83 (910)	59.06 (1500)	43.80 (1112.5)	94.49 (2400)	70.06 (1779.5)
37.80 (960)	59.06 (1500)	46.75 (1187.5)	94.49 (2400)	73.01 (1854.5)
39.76 (1010)	59.06 (1500)	46.75 (1187.5)	94.49 (2400)	78.92 (2004.5)

Interroll Lineshaft Roller Conveyor RM 5622 (Merge) /
Interroll RollerDrive Conveyor RM 5662 (Merge) /

Clearance LW in " (mm)	Module length ML in " (mm)	Opening width FW in " (mm)	Module length ML in " (mm)	Opening width FW in " (mm)
	with angle α = 45° and roller pitch P = 2.95" (75 mm)		with angle α = 30° and roller pitch P = 2.95" (75 mm)	
12.20 (310)	21.52 (546.5)	21.71 (551.5)	30.69 (779.5)	30.71 (780)
14.17 (360)	21.52 (546.5)	24.49 (622)	33.64 (854.5)	34.65 (880)
16.14 (410)	24.47 (621.5)	27.28 (693)	36.59 (929.5)	38.58 (980)
18.11 (460)	27.42 (696.5)	30.08 (764)	39.55 (1004.5)	42.52 (1080)
20.08 (510)	27.42 (696.5)	32.85 (834.5)	45.45 (1154.5)	46.46 (1180)
22.05 (560)	30.37 (771.5)	35.75 (908)	48.41 (1229.5)	50.39 (1280)
24.02 (610)	33.33 (846.5)	38.43 (976)	51.36 (1304.5)	54.33 (1380)
25.98 (660)	33.33 (846.5)	41.20 (1046.5)	54.31 (1379.5)	58.27 (1480)
27.95 (710)	36.28 (921.5)	43.98 (1117)	57.26 (1454.5)	62.20 (1580)
29.92 (760)	39.23 (996.5)	46.77 (1188)	60.22 (1529.5)	66.14 (1680)
31.89 (810)	39.23 (996.5)	49.57 (1259)	63.17 (1604.5)	70.08 (1780)
33.86 (860)	42.18 (1071.5)	52.34 (1329.5)	69.07 (1754.5)	74.02 (1880)
35.83 (910)	45.14 (1146.5)	55.12 (1400)	72.03 (1829.5)	77.95 (1980)
37.80 (960)	45.53 (1156.5)	57.91 (1471)	74.98 (1904.5)	81.89 (2080)
39.76 (1010)	48.09 (1221.5)	60.69 (1541.5)	77.93 (1979.5)	85.83 (2180)

Interroll Intelliveyor Transfer RM 5590

Two module lengths per belt and roller pitch are possible. Please select the module length that most closely approximates your zone length in the straight sections.

Number of belts	Module length ML in " (mm)	
	with roller pitch P = 2.95" (75 mm)	with roller pitch P = 4" (100 mm)
2	33.07 (840)	33.07 (840)
	44.88 (1140)	44.88 (1140)
3	34.84 (885)	33.86 (860)
	46.65 (1185)	45.67 (1160)

SOLUTIONS WITH BELT CONVEYORS

Belt conveyors are used mainly for transport tasks that can only be implemented with difficulty or not at all with roller conveyors.

Interroll offers among other products the following belt conveyors:

- Incline and decline conveyors
- Acceleration conveyors
- Conveyors for compact or irregularly-shaped transport material
- Conveyors for high conveyor speeds

Interroll belt conveyors are not suitable for outdoor operation or for the transport of bulk material.

General technical information

Drive

The Interroll Belt Conveyor BM 4081 is driven with either a head drive, or a center drive with attachable gear motors, or Interroll drum motors.

Conveyor belts

Two-ply polyester belts with PVC or PU coating are used as conveyor belts. Incline, decline and acceleration conveyors are equipped with laterally grooved surface structures to avoid slippage of the transport material.

Slider bed

The Interroll Belt Conveyor BM 4081 is equipped with wood laminate as bed. Other belt beds are available on request.

Classification of the Interroll Belt Conveyor BM 4081

The Interroll Belt Conveyor BM 4081 is classified according to the following properties:

- Use as a horizontal conveyor or incline/decline conveyor
- Conveyor length
- Clearance
- Conveyor speed
- Max. load capacity
- Max. total load capacity

Transport material	Boxes, packages, plastic containers, plastic parts, trays etc.
Load capacity	0 to 40 lb/ft (0 to 50 kg/m)
Max. total load capacity	1200 lb (550 kg)
Conveyor speed	20 to 400 ft/min (0.1 to 2 m/s)
Clearance	12" to 40" (310 mm to 1,010 mm)
Conveyor length	28" to 1200" (700 mm to 30,000 mm)
Inclined/declined	Max. 16°
Ambient temperature	+25 to +125 °F (-5 to +50 °C)

Horizontal conveyors

The horizontal Interroll Belt Conveyor BM 4081 is supplied fully assembled to a length of 35 feet *(10,000 mm)*. Longer conveyors are broken down for shipment. The segments must be re-assembled and tracked 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 performed by Interroll in accordance with your specifications.

As an indication you can calculate the power capacity with the simplified formula on 153.

A head drive is possible with the Interroll Belt Conveyor BM 4081 if the total weight of the items is less than 500 lb *(220 kg)* and the conveyor speed does not exceed 200 ft/min *(1 m/s)*. If higher loads and/or speeds are required, a center drive is used. Please refer to the belt conveyor overview on 153.

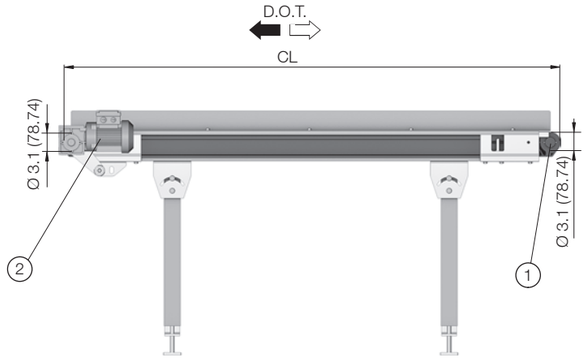


Fig: Interroll Belt Conveyor BM 4081 (Head Drive)

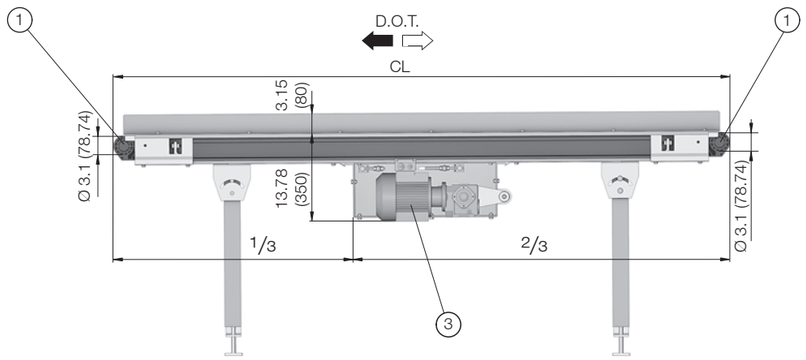


Fig: Interroll Belt Conveyor BM 4081 (Center Drive)

CL	Conveyor length
T.O.B.	Conveying height
D.O.T.	Conveyor direction
1	Return roller
2	Head drive (shaft-mounted gear box motor or drum motor)
3	Center drive (attachable gear motor or drum motor)

SOLUTIONS WITH BELT CONVEYORS

Incline and decline conveyors

The Interroll Belt Conveyor BM 4081 Inclined/Declined is used when differing elevations must be overcome. The conveyors are available with an infeed and noseover as well as below with a horizontal incline power feeder or decline power feeder.

The maximum angle of incline or decline depends on the material to be conveyed. For containers and boxes the angle should be a maximum of 16° to ensure trouble-free transport.

The drive type is a center drive with shaft-mounted 480 V brake motor.

The required power depends on the conveyor length, the style of belt conveyor, the speed and load of the conveyor. Calculation of the required power capacity (in HP) is performed by Interroll in accordance based on your specifications.

Note about support legs:

For incline and decline conveyors please use the RM 5705 steel support legs (see p. 114). With an infeed height or discharge height of T.O.B. 2 > 78.75" *(2000 mm)*, cross bracing is provided by Interroll for stability.

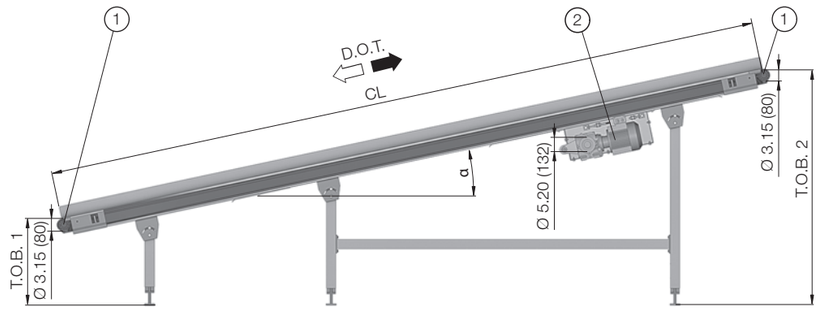


Fig: Interroll Belt Conveyor BM 4081 Inclined/Declined (Center Drive)

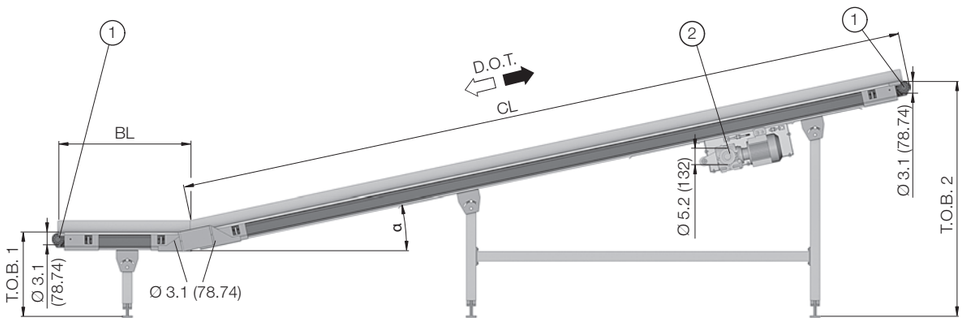


Fig: Interroll Belt Conveyor BM 4081 Inclined/Declined (Center Drive) with incline power feeder or decline power feeder

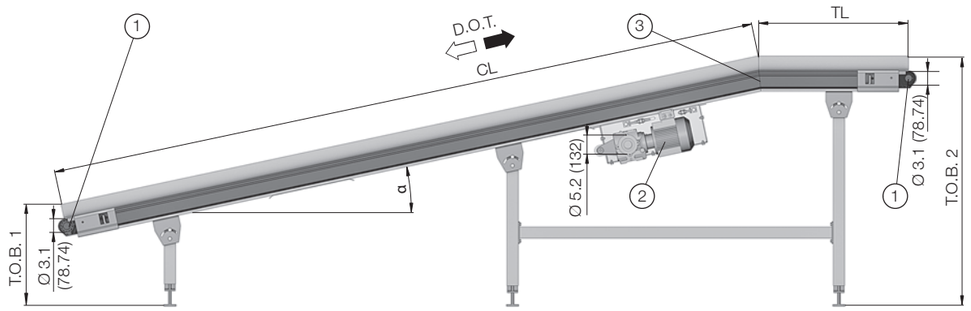


Fig: Interroll Belt Conveyor BM 4081 Inclined/Declined (Center Drive) with nose over above

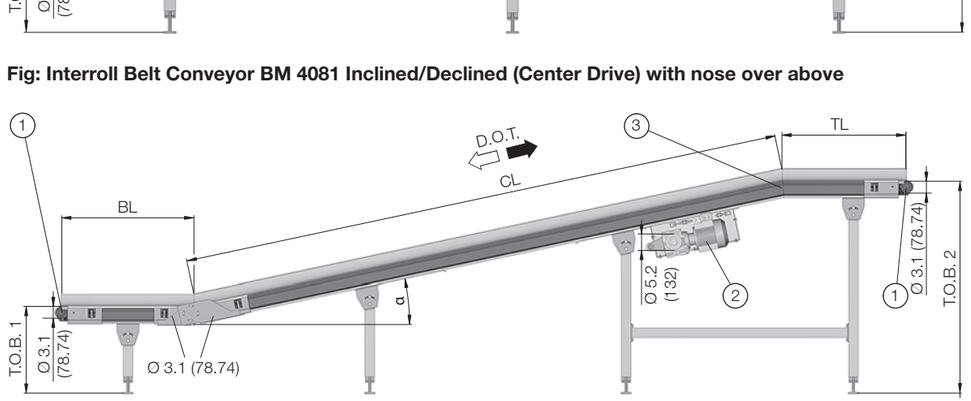


Fig: Interroll Belt Conveyor BM 4081 Inclined/Declined (Center Drive) with nose over above and incline power feeder or decline power feeder below

CL	Conveyor length
BL	Bottom length
TL	Top length
D.O.T.	Conveyor direction
T.O.B.	Onload/discharge height
α	Angle, max. 16°
1	Return roller
2	Center drive (shaft mounted gear motor or drum motor with brake)
3	Nose over

Calculations

Throughput

The throughput T_p of a conveyor system is specified in units of quantity per hour and depends on the size of the item and the conveyor speed v.

The window sizeT is required for calculation of the throughput. The window sizeT 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:

$$T_p = \frac{0.72 \times v}{T}$$

T_p	Throughput in units of quantity per hour
v	Conveying speed in ft/min (m/s)
T	Window size in " (mm)

With merging and diverting, throughput is influenced by the length and weight of the item. Please contact your Interroll customer consultant for calculations.

Power capacity

The power capacity p of an Interroll Belt Conveyor BM 4081 is specified in kW. The power capacity depends upon the total weight m of the transport material in lb *(kg)* and the speed v in ft/min *(m/s)*.

Please contact your Interroll customer consultant for exact calculation of the power capacity p.
In simplified form, p can be calculated as follows:

$$p = v \times m \times 0.0000115$$

p	Power requirement in kW
v	Conveying speed in ft/min (m/s)
m	Total weight of transport material in lb (kg)

For example, with a speed of 100 ft/min *(0.5 m/s)* and a total weight of 450 lb *(200 kg)*, the power requirement p can be calculated as follows:

$$p = 100\ ft/min \times 450\ lb \times 0.0000115 = 0.50\ kW$$

Because the actual power capacity should always be greater than the calculated value, in this case it is recommended to select a power capacity of 0.55 kW.

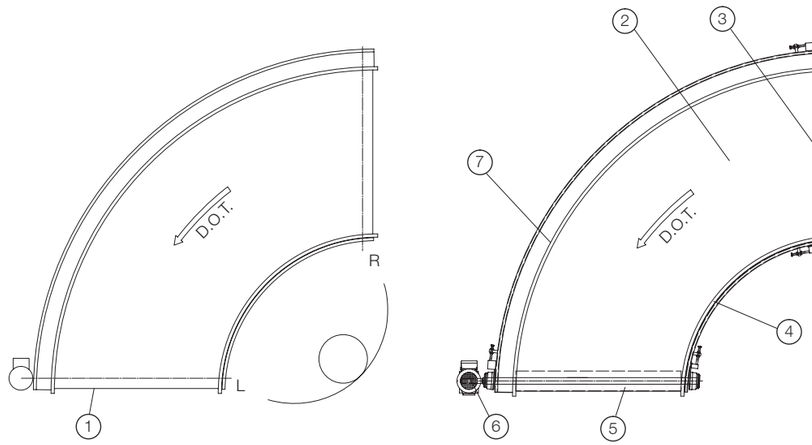
SOLUTIONS WITH BELT CURVES AND BELT MERGES

General technical information

Definition of sides for ordering

With belt curves, the direction is defined relative to the inside radius of the belt curve:

The left side is seen from a counterclockwise direction, the right side from a clockwise direction (see the following representation).



D.O.T.	Conveyor direction
R	Clockwise
L	Counterclockwise
1	Drive roller
2	Belt
3	Return roller
4	Inner side guide
5	Drive roller
6	Gear motor
7	Outer side guide

Dimension table for belt merge

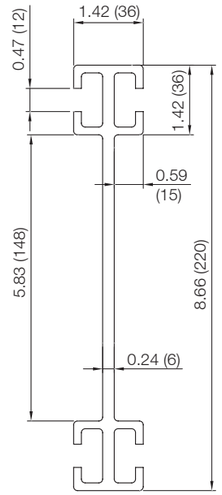
The standard dimensions depend upon the clearance and the angle of the merge.

Clearance LW in " (mm)	Face length F at 45° in " (mm)	Face length F at 30° in " (mm)
12.20 (310) to 18.11 (460)	39.37 (1000)	47.24 (1200)
20.08 (510) to 31.89 (810)	59.06 (1500)	66.93 (1700)
33.86 (860) to 39.76 (1010)	70.87 (1800)	78.74 (2000)

Side frames of belt curves and belt merges

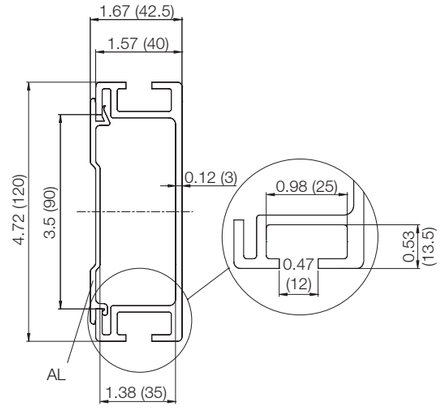
Extrusion 8.66" *(220 mm)*

- Extruded, anodized, satin gloss Aluminum extrusion for structural stability
- T-slots for mounting peripheral devices, e.g. sensors and supports



Extrusion 4.75" *(120 mm)*

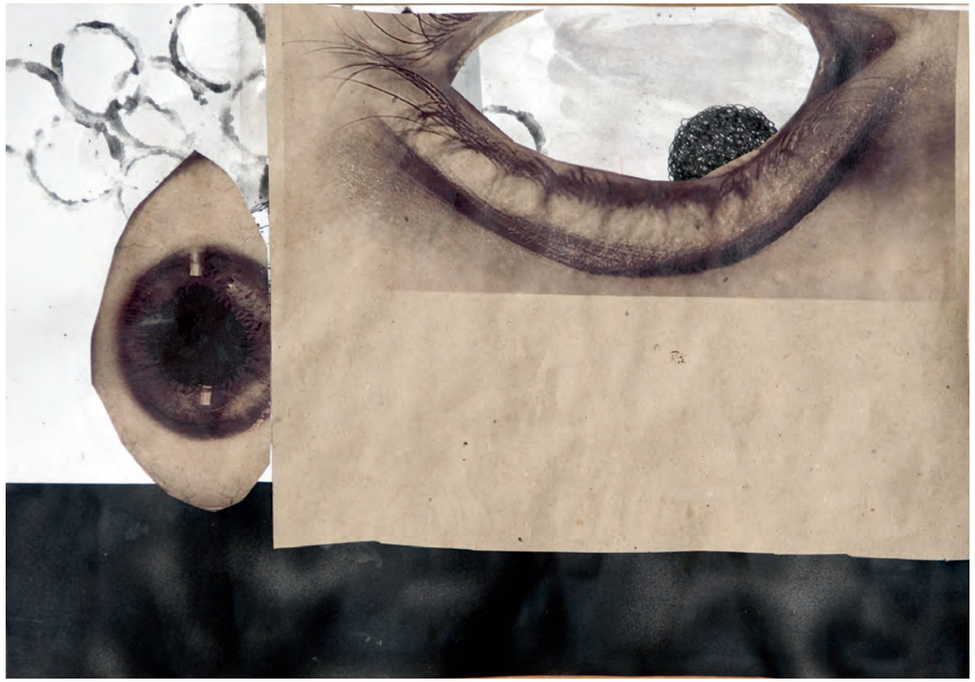
- Extruded, anodized, satin gloss Aluminum extrusion for structural stability
- With T-slots for peripheral devices, e.g. center drives, sensors and support frames
- Optional cover of black polymer
- With most products the space behind the cover can be used as a cable tray



AL	Cover panel

INTERROLL – CORPORATE ART

Art has a positive influence on the work environment and the internal processes governing these structures. Interroll Corporate Art channels this creative potential to create a dialog that embraces art and business as vehicles of communication, and establishes an environment in which the spirit of thought is allowed to flourish.



He lives in dreams. He loves the dark arts and arising out of the unconscious. All this is what Steffen Geisler represents in grandiose spatial art with theatre-like installations and bold imagery.

This Berlin artist allowed his unusual works to convert the familiar into the alien and the alien into the familiar when his art was exhibited at Interroll‘s Swiss headquarters in Sant‘Antonino – thus, he provokes. To think about – to rethink – to consider in advance. He stimulates the explorer‘s spirit and challenges toward innovative creativity. Exactly into that which turns even good conveyor technology into something decisively better.

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