

LOGI INTERNAL STIC SYSTEMS





Manufacturer

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SMARTFACTORY

Efficiency Through Innovation

Smart manufacturing and the Smart Factory is a broad category of manufacturing with the goal of optimising the manufacturing process. Smart manufacturing is the process that employs computer controls, modelling, big data and other automation to improve manufacturing efficiencies.

Smart manufacturing aims to take advantage of advanced information and manufacturing technologies to enable flexibility in physical processes to address a dynamic and global market. Smart Manufacturing is being predicted as the next Industrial Revolution or Industry 4.0. And, as with many other advances throughout recent years, it all has to do with technology connectivity and the advances in the contextualisation of data

The Definition of SMART FACTORY

The National Institute of Standards and Technology (NIST) defines Smart Manufacturing as systems that are “fully-integrated, collaborative manufacturing systems that respond in real time to meet changing demands and conditions in the factory, in the supply network, and in customer needs.”

The SMLC definition states, "Smart Manufacturing is the ability to solve existing and future problems via an open infrastructure that allows solutions to be implemented at the speed of business while creating advantaged value."

Table of CONTENT



Table of Content

Introduction

Introduction.....	6
Overview.....	7
What & Why Intralogistic.....	8
Design Details.....	9

A.C. Drum Motor

Product Description.....	11
Optional Features.....	12
Label, Features, Application.....	13
Part List & Dimension.....	14
Performance.....	15

D.C. Roller Drive

24 VDC Technology.....	17
Features & Application Area	18
Product Information.....	19
Characteristics data.....	20
Dimensional Drawing.....	21
EZ24 Drive Technology.....	22
Energy Consumptions.....	23

Conveyors Rollers

Universal Series 1200.....	25
Description & Technical Data.....	26
Dimension Drawing.....	27
Fixed Drive Series 1500.....	28
Description & Technical Data.....	29
Dimension Drawing.....	30
Tapered Series 1800.....	31
Description & Technical Data.....	32
Dimension Drawing.....	33

Belt Conveyors

Overview.....	35
415 VAC Belt Conveyor.....	36
Technical Data & Dimension.....	37
415 VAC Inclined Conveyor.....	38
Technical Data & Dimension....	39

Table of Content

Belt Merge Conveyor.....	40
Curve Belt Conveyor.....	42
24 VDC Belt Conveyor.....	44

Roller Conveyor

Overview & Application.....	47
24 VDC Roller Conveyor.....	48
415 VAC Roller Conveyor.....	50
Merge Roller Conveyor.....	52
Curve Roller Conveyor.....	54

Sorting Products

IMPEL 90° Belt Transfer unit...	57
IMPEL Steerable Diverter.....	60

Continues Vertical Lift

Overview.....	63
Design.....	64
Working.....	65
Dimension.....	66

Vertical Lift Conveyor

Parts Overview.....	68
Working Principle.....	69
Increase Plant Efficiency.....	75

Accessories

IMPEL Support Frame.....	76
Contact Details.....	78



Table of CONTENT

Introduction

Customised Conveying Systems for Internal Material Flow

With a diversified product range of conveying system solutions in modular designs, **IMPEL - Intralogistic** reconciles the wide-ranging transport requirements within companies with high levels of efficiency and **cost-effectiveness**. The range of services encompasses a broad product portfolio of Carton, Katta, pallet, small parts, and tray conveying systems.

Our conveying systems keep your goods moving and form the basis for cost-effective processes in cases of recurring sequences of steps, which are always carried out on the same transport routes. The high quality and compatibility of all our components ensures that the entire system runs smoothly, meaning that your investment is secure.

Transporting, sorting, feeding in and rejecting, storing, stowing away – the diversity of the Intralogistics tasks is matched by the range of components and solutions. With our various conveying elements, we have the right conveying system range ready for any application.

Your Advantages

- ◆ Complete solution from a single Source
- ◆ Wide range of Solutions for almost all transport aids
- ◆ Long term productivity due to reliable component
- ◆ High Efficiency and Throughput, Thanks to the latest

Overview



What & why

Intralogistics

The growing demand for products and services puts great pressure on logistics performance and enhances the role that logistics plays in determining a company's competitiveness.

Today's technical development, expanding markets and growing population increase the demand for products and services. This demand requires an increased focus on logistics since it puts great pressure on the logistics performance in the form of, for example, just-in-time supply of material, efficient material handling within operations, and on-time delivery of finished products. Therefore, the role that logistics plays in companies' industrial performance and competitiveness is great.



**FLEXIBILITY
AVAILABILITY
PERFORMANCE**

The internal logistics system (with the internal logistics activities) constitutes a necessary and vital part for the overall function of organisations in a wide spectrum of lines of business.

In the manufacturing industry, the main task of the internal logistics system is to provide necessary supplies to the company's operational units. A failure in the flow of materials or adherent information can result in costly downtime, which clarifies the significance of a well-functioning internal logistics system for the functioning of all operational units. In other lines of business, such as the healthcare sector, the need to have the right materials and information in the right place in the right time is even more critical since it can influence the possibilities to perform proper care.

Design details

Intelligent Conception, Sophisticated Design details and Advanced Technologies.

- ❖ Conveying System with solid C - Profile.
- ❖ Standardise profile for roller conveyor and belt conveyor
- ❖ Profile internal space usable as cable channel.
- ❖ Separating plate in profile serves as electrical shielding of data lines.
- ❖ Flexible Conveyor railing are clipped onto conveyor frame
- ❖ Shapely, homogenous characteristics, standardised for all conveyor element.
- ❖ Ergonomic design with rounded of edges.
- ❖ Easy accessibility for maintenance purpose also during operation.
- ❖ Uncomplicated spare parts management.

Our Technical innovation and state-of-the-art solutions ensure your leading role in order placing.

- ❖ Flexibility of use thanks to drive-roll technology in floor conveyors, curves which allow for accumulations etc.
- ❖ Modular construction of all components. (e.g. support legs, gates)
- ❖ Extremely long lifespan thanks to the application of enhances components (e.g. PolyVee belt instead of conventional belt).
- ❖ Component manufacture based on the latest production technologies.
- ❖ Systematic movements with your warehouse-reliable, fast and low noise transport of your goods.
- ❖ Perfectly tuned conveying system component offer highest flexibility.
- ❖ New conception, extension or modification -
- ❖ Anything is Possible.



LOGI INTERNAL SYSTEMS **STIC**



Drum Motors - Asynchronous Motors

Drum Motor

asynchronous Motor

GENERAL TECHNICAL INFORMATION

PRODUCT DESCRIPTION

The Drum Motor is a totally enclosed electric driven pulley and replaces external components such as gear-motors and gearboxes that require frequent maintenance.

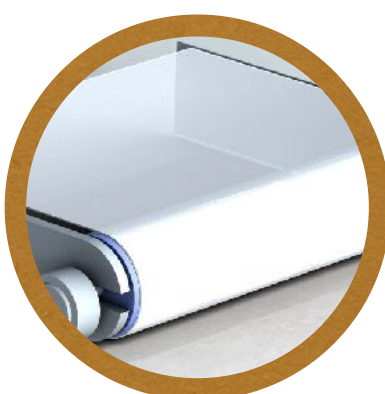
The Drum Motor can operate in high concentrations of dust or grit and can be subjected to water jets or spray and will withstands most aggressive environments. Due to its IP66 protection class and its stainless steel finish (when specified) it can also be used for food processing, hygienic or pharmaceutical applications. The Drum Motor can be used with a rubber lagging for increasing friction between the Drum Motor and conveyor belt or provided with a profiled lagging for driving modular or profiled belts or without any covering.

Drum Motors are powered by an asynchronous AC induction motor which is available in different power levels and in accordance to most international voltages.

SN-series Drum Motors are powered by a synchronous motor and must be connected to a suitable drive controller. For information on the drive controller see the respective manual.

The Drum Motor contains oil that serves as lubricant and coolant by dissipating heat through the drum shell and conveyor belt.

If the Drum Motor is used without a belt or with modular belt it can be provided in a special design to ensure cooling.



Drum Motor

asynchronous Motor

OPTIONAL FEATURES

Integral Thermal Control/Thermal Winding Protection:

An Integral Thermal Control switch is fitted in the winding head to prevent overheating. The switch will open if the motor overheats. However, it must be connected to a suitable external control device which will interrupt the power supply to the motor in case of overheating

Integral Electromagnetic Brake:

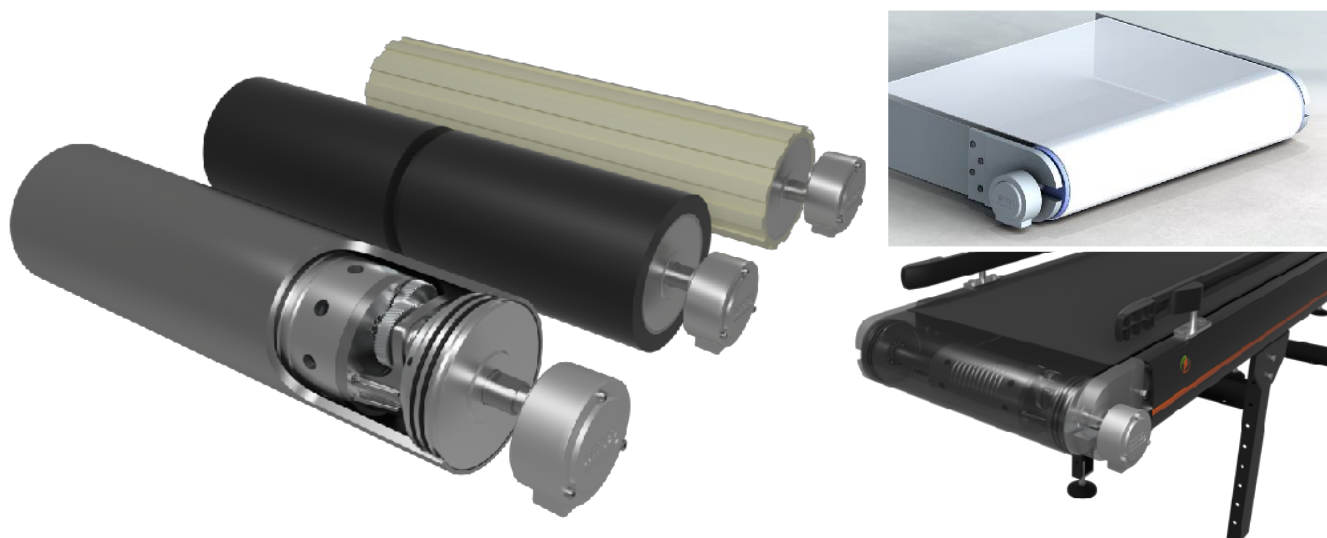
The Integral Electromagnetic Brake is able to brake and hold a load according to the stated belt pull. It is applied directly to the Drum Motor's rotor shaft and supplied with a DC rectifier. The Electromagnetic Brake is available for all Drum Motor models except 80s and 113s

Mechanical Backstop Function:

The Mechanical Backstop Function fitted to the rotor shaft can be used on inclined conveyors to prevent the belt from moving backwards when power supply is off. The Mechanical Backstop Function is available for all Drum Motor models except 113s and SN-series.

Encoder solution:

The pulses of the Encoder can be used for positioning, speed and rotational direction control.



Drum Motor

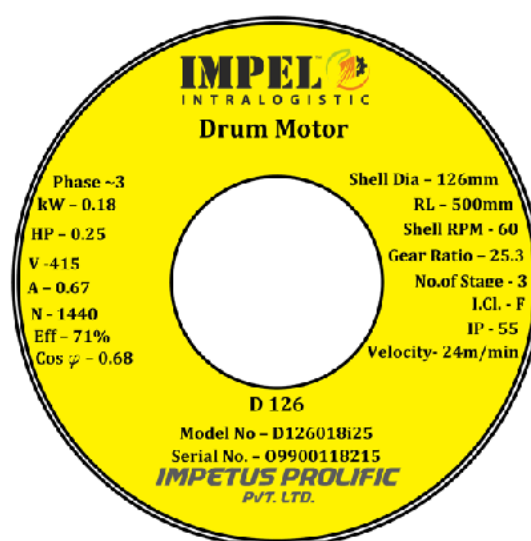
asynchronous Motor

Features

- ◆ Technopolymer Gearbox
- ◆ Light Weight
- ◆ Single rated Voltage
- ◆ 3 - phase or 1- phase induction motor
- ◆ Integral Motor Protection
- ◆ Maintenance Free
- ◆ Lifetime Lubricated
- ◆ Reversible

Application

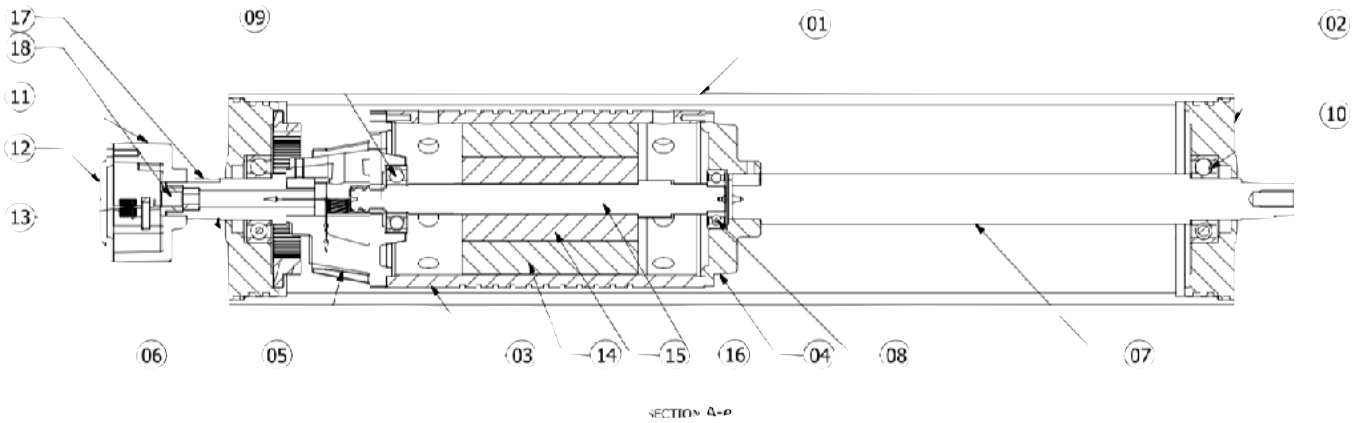
- ◆ Light duty Conveyors
- ◆ Packaging Equipment
- ◆ Bottle recycling
- ◆ X-ray, security scanning system
- ◆ Pharmaceutical handling
- ◆ Maintenance Free
- ◆ Lifetime Lubricated
- ◆ Reversible
- ◆ Low Noise



Drum Motor

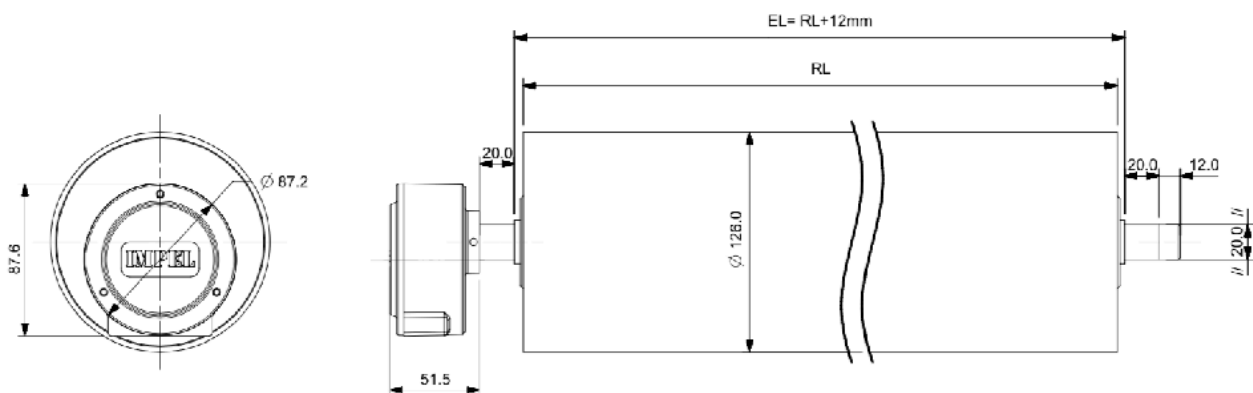
asynchronous Motor

Part List of Drum Motor



- | | | |
|---------------------|------------------------|--------------------|
| 1. Shell | 7. Mounting Shaft A | 13. Terminal Plate |
| 2. End cap | 8. Bearing 6203/2Z/C3 | 14. Stator |
| 3. Motor Body | 9. Bearing 6202/2Z/C3 | 15. Rotor |
| 4. End Shield | 10. Bearing 6205/2Z/C3 | 16. Rotor Shaft |
| 5. Gearbox | 11. Terminal Box | 17. Oil Seal |
| 6. Mounting Shaft B | 12. Terminal Cover | 18. Pressure Plug |

Dimensional Drawing



Drum Motor

asynchronous Motor

Drum Motor 80mm Performance

Phase	Power	Belt Speed	Belt Pull (LBF)
3	0.024 HP	11 ft/min to 20 ft/min	65 to 37
3	0.054 HP	24 ft/min to 111 ft/min	68 to 15
3	0.094 HP	24 ft/min to 230 ft/min	122 to 13
3	0.16 HP	51 ft/min to 230 ft/min	99 to 22

Drum Motor 113mm Performance

Phase	Power	Belt Speed	Belt Pull (LBF)
3	0.20 HP	44 ft/min to 171 ft/min	146 to 37
3	0.24 HP	29 ft/min to 115 ft/min	255 to 67
3	0.30 HP	91 ft/min to 355 ft/min	102 to 27
3	0.50 HP	80 ft/min to 356 ft/min	194 to 44

Drum Motor 138mm Performance

Phase	Power	Belt Speed	Belt Pull (LBF)
3	0.25 HP	15 ft/min to 45 ft/min	452 to 163
3	0.34 HP	20 ft/min to 61 ft/min	465 to 167
3	0.50 HP	31 ft/min to 228 ft/min	473 to 69
3	0.75 HP	67 ft/min to 378 ft/min	340 to 61
3	1.00 HP	37 ft/min to 236 ft/min	446 to 134
3	1.34 HP	75 ft/min to 378 ft/min	541 to 113

LOGI INTERNAL SYSTEMS STIC



DC Roller Drive

DC Roller Drive

24 Volt D.C. Technology

Today's continuous conveyor systems can be used in many different sectors and industries. In recent years, in addition to the standard 400 V drive technology, 24V DC technology has become increasingly popular.

Energy demand, costs, system performance and flexibility are key factors in the choice of the optimum system. A direct comparison of the two techniques in many cases shows the 24V DC as the most efficient and attractive alternative.

Today's continuous conveyor systems can be used in many different sectors and branches of industry. As well as classic 400-volt drive technology, 24-volt drive technology has increasingly been used over the past few years. Since 24-volt and 400-volt drive technology share some common distinguishing features, the two drive technologies will be compared with each other in this paper. Possible distinguishing features include the operating mode, drive-train design and conveyor task. The advantages and disadvantages of state-of-the-art 24-volt technology will subsequently be determined. A direct comparison of both technologies will then be made using the following criteria: "energy consumption", "costs", "system performance" and "flexibility". To quantify the energy consumption in each case, a distinction will be made between six different scenarios, which will be duly compared.



DC Roller Drive

24 Volt D.C. Technology

Features

- ❖ Low Power Input 50 Watt
- ❖ Plug & play service,
- ❖ Eliminate External Motor & Gearbox and its mountings
- ❖ Zero Pressure Accumulation can be possible
- ❖ Multi Speed Control - 32 steps
- ❖ Speed control by analogue inputs with simple regulatory switch
- ❖ Smooth Acceleration & Deceleration
- ❖ Dynamic Braking with servo locking system
- ❖ Self position sensing capabilities.
- ❖ Protection against high voltage, high ampere and over temperature.
- ❖ Multi motor profile - I.e. Eco mode for light duty and boost mode for heavy duty application.
- ❖ One or more than one motor's topology can be synchronised by ethernet network protocol.
- ❖ Inbuilt sensor controls
- ❖ Commence with UL Standard.



DC Roller Drive

24 Volt D.C. Technology

Product Information

CE Certified and IP 54 rating

Tube Material:	Mild steel with zinc plated, Stainless Steel 304
Roller Diameter:	50 mm, 60.5 mm
Min. Roller Length:	Refer to “available minimum roller length table below”
Max. Roller Length:	1000 mm “Contact us for longer than 1000 mm”
Cable length:	600 mm /1000 mm
Motor Connector:	M8 - 4 pin
Operation:	0.5 sec ON / 0.5 sec OFF duty cycle or continues with rated load

Technical Data

	ECO Mode	BOOST Mode	BOOST - 8 Mode
Voltage	24 VDC		
Nominal Output	40W	50W	50W
Rated Current	2.5 Amp	3.5 Amp	3.5 Amp
Starting Current	3.0 Amp	5.0 Amp	8.0 Amp
Ambient Temperature	-10° to 50°		
Ambient Humidity	10 to 90% No Condensation		

Available Minimum Roller Length

Roller Diameter	Speed Code	Interlocking Option		
		Straight	PolyVee	Round Groove
50 mm / 60.5 mm	15, 20, 25	331	324	363
	35, 40, 60, 75	307	300	339
	95, 125, 175, 215	280	273	312

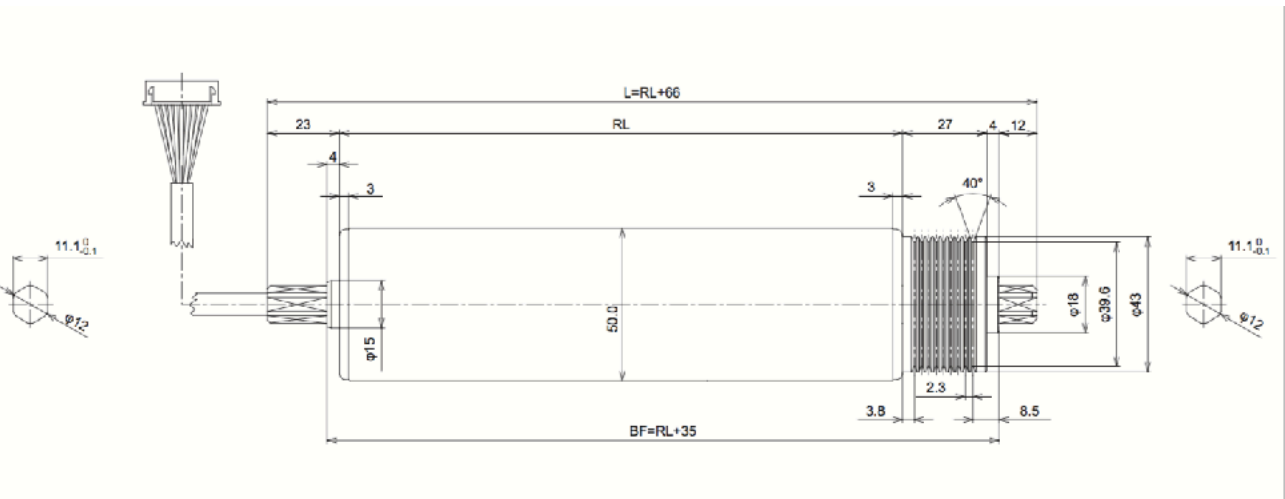
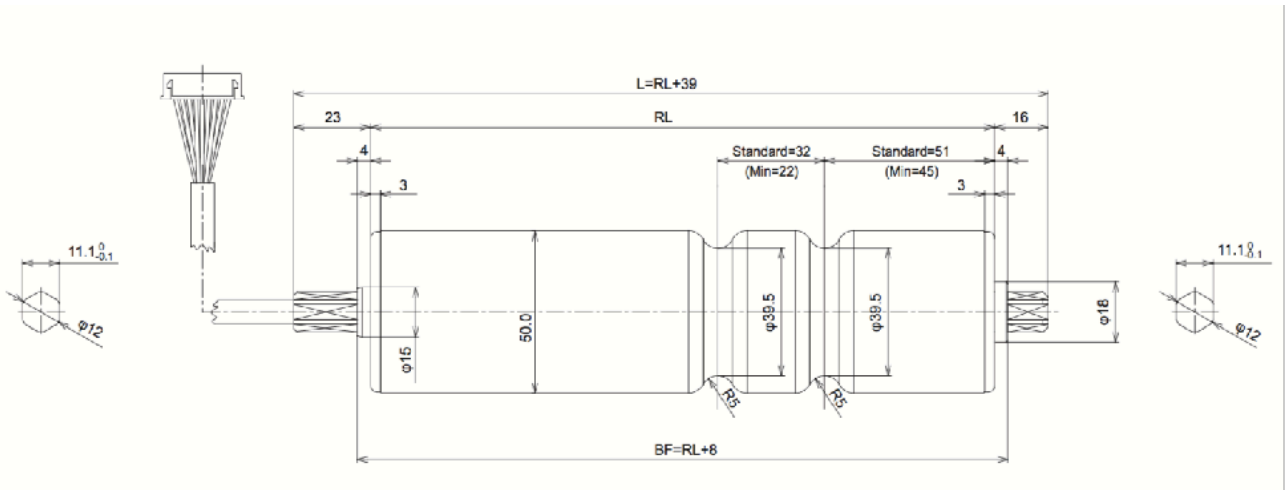
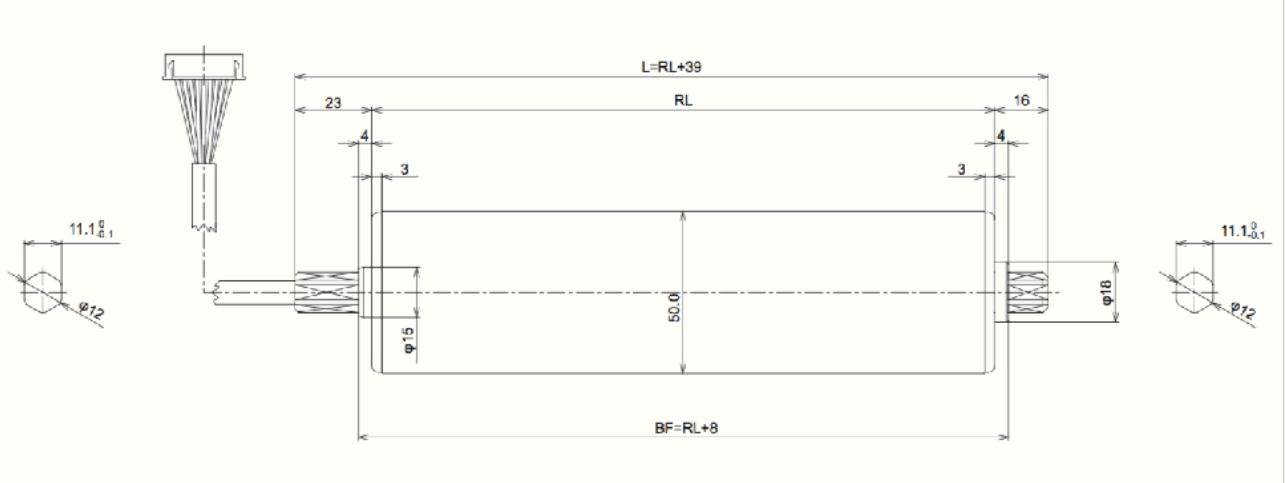
Characteristics Data for Roller Diameter - 50mm

Speed code	Gearbox	Reduction ratio	Eco Mode						Rated	Starting	
			Speed (m/min)	Torque (N-m)		Tangential force (N)		Current (A)			
				Rated	Starting	Rated	Starting	Rated			Starting
5	3 Stage	45.00	2,0~20.3	2.97	16.39	118.8	655.7	2.5	3.0		
20		32.94	2.7~22.7	2.17	12.00	86.9	480.0				
25		27.00	3.4~33.8	1.78	9.83	71.2	393.4				
35	2 Stage	18.30	4.9~49.9	1.20	6.66	48.3	266.6				
45		15.00	6.0~60.8	0.99	5.46	39.6	218.5				
60		10.98	8.2~83.1	0.72	4.00	28.9	160.0				
75		9.00	10.1~101.4	0.59	3.27	23.7	131.1				
95		6.82	13.3~133.8	0.44	2.48	17.9	99.3				
125	1 Stage	5.00	18.1~182.5	0.33	1.82	13.2	72.8				
175		3.66	24.7~249.3	0.24	1.33	9.6	53.3				
215		3.00	30.2~204.1	0.19	1.09	7.9	43.7				
Speed code	Gearbox	Reduction ratio	Boost & Boost - 8 mode						Rated	Starting	
			Speed (m/min)	Torque (N-m)		Tangential force (N)		Current (A)			
				Rated	Starting	Rated	Starting	Rated			Starting
5	3 Stage	45.00	2.0 ~ 14.7	5.40	21.37	216.0	855.0	3.5	5.0		
20		32.94	2.7 ~ 20.0	3.95	15.64	158.1	625.8				
25		27.00	3.4 ~ 24.4	3.24	12.82	129.6	513.0				
35	2 Stage	18.30	4.9 ~ 36.1	2.19	8.69	87.8	347.7				
45		15.00	6.0 ~ 44.0	1.80	7.12	72.0	285.0				
60		10.98	8.2 ~ 60.1	1.31	5.21	52.7	208.6				
75		9.00	10.1 ~ 73.3	1.08	4.27	43.2	171.0				
95		6.82	13.3 ~ 96.8	0.81	3.23	32.7	129.5				
125	1 Stage	5.00	18.1 ~ 131.9	0.60	2.37	24.0	95.0				
175		3.66	24.7 ~ 180.3	0.43	1.73	17.5	69.5				
215		3.00	3.2 ~ 219.9	0.36	1.42	14.4	57.0				

DC Roller Drive

24 Volt D.C. Technology

Dimension Drawing



DC Roller Drive

24 Volt D.C. Technology

EZ24
MULTI-DRIVE CONTROL

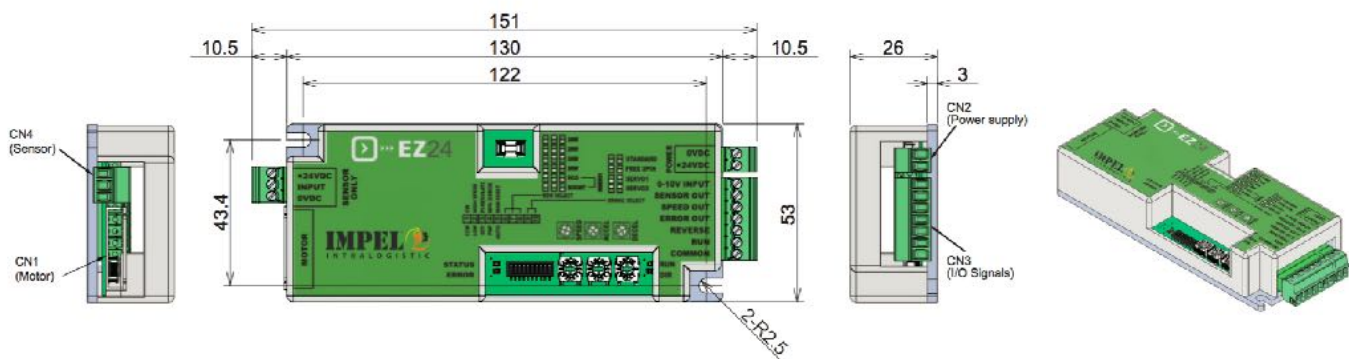
Features

- ❖ CE Certified
- ❖ 2 Different Performance Mode, Eco & Boost
- ❖ LED Error indicator
- ❖ 31 fixed speed setting with DIP switch (High/Low) and rotary switch (16 stages)
- ❖ 0-10V analog input for speed setting
- ❖ Run Motor forward or reverse
- ❖ Selectable braking methods - Dynamic brake, Non braking, Servo Lock Brake
- ❖ 16 Stage accel / Decel timer setting for 0 - 2.5 sec.
- ❖ NPN / PNP input applicable
- ❖ NPN / PNP error output available (select on DIP switch No.4)
- ❖ Built in brake control available with IL20

Technical Data

Voltage	24 VDC
Voltage Range	18 V - 28 V
Rated Current	2.5 Amp (ECO). 3.5 Amp (BOOST)
Starting Current	3.0 Amp (ECO), 5.0 Amp (BOOST)
Fuse	Present

Dimension Drawing



DC Roller Drive

24 Volt D.C. Technology

Energy Consumption

Going Green and Achieving Cost Savings Through the Use of DC 24V MDR (Motor Driven Roller)

For the last several years, a green movement has swept the globe. Consumers, organisations, and large corporations have all moved toward green initiatives. Whether in packaging, recyclable materials, or in energy efficient production. India too has recently pledged its support to this worthy cause with Prime Minister Modi committing to cut the “emissions intensity” of India’s economy at the recent U.N. Climate Secretariat. For any industry, going green can be interpreted in several different ways. However for those in the materials handling industry, going green consists of **minimising the amount of energy and materials** being used in a system and ensuring that the material handling equipment and system positively affects the employees. Simply put, this means all machinery should be safe, energy efficient, cost effective, non polluting, low noise, and operate as cleanly as possible. While going green may be an option being considered, many businesses owners wonder if the investment in green material handling initiatives is really worth the cost and whether it will really save money. The answer can be a resounding YES.

The perception in industry is that MDR (Motor Driven Roller) conveyors can cost up to 15% more in terms of capital cost, however it is also known that they tend to yield the greenest results. Owing to this many corporations have decided to work with hybrid systems where transfers and merges are done with an MDR conveyor while the rest of the handling system is with existing conveyors. However considering the advances made by MDR in recent times, this fear is unfounded and such hybrid solutions are unnecessary. In order to dispel the doubts about the cost effectiveness of MDR conveyors, let us draw a comparison between common conveyor types to get a better understanding on how DC 24V MDR are by far **The Greenest and Most Cost Effective** solution for the Material Handling industry.




LOGI INTERNAL SYSTEMS **STIC**



Conveyor Rollers

Rollers

UNIVERSAL CONVEYOR ROLLER

SERIES - 1200

Spring Loaded Shaft



Female Threaded Shaft



Rollers

Product Description

Application:

- ❖ Convey loads of Cartons, Totes, Fixtures, Cardboard Boxes
- ❖ Non-Contact Accumulation
- ❖ Pallet loads when bottom boards are perpendicular to the rollers
- ❖ Convey loads of Cartons, Totes, Fixtures, Cardboard Boxes
- ❖ Pallet loads when bottom boards are parallel to the rollers
- ❖ Side loading/unloading
- ❖ Accumulation of loads

Where it works

- ❖ Warehousing & Distribution
- ❖ Manufacturing
- ❖ Order Fulfilment
- ❖ Aerospace
- ❖ Government Military & Agency
- ❖ Automotive
- ❖ Parcel Handling
- ❖ Appliance
- ❖ Cabinetry & Furniture

Technical Data

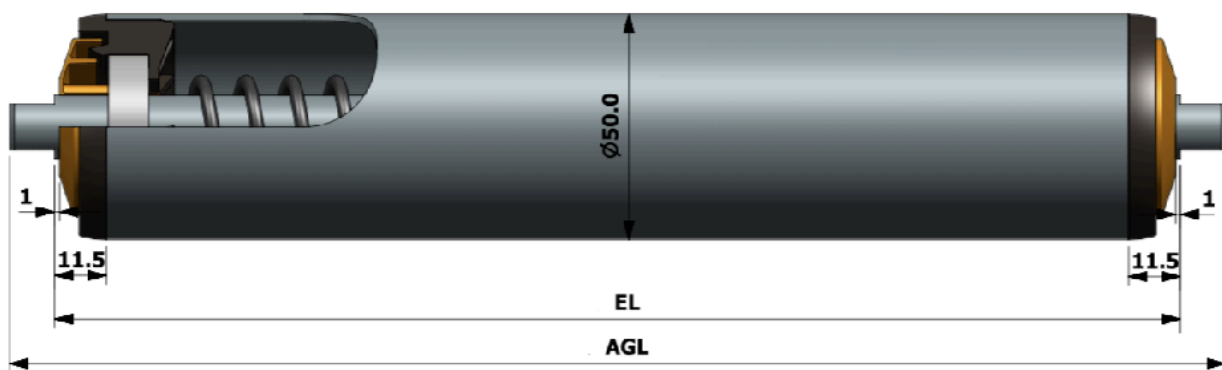
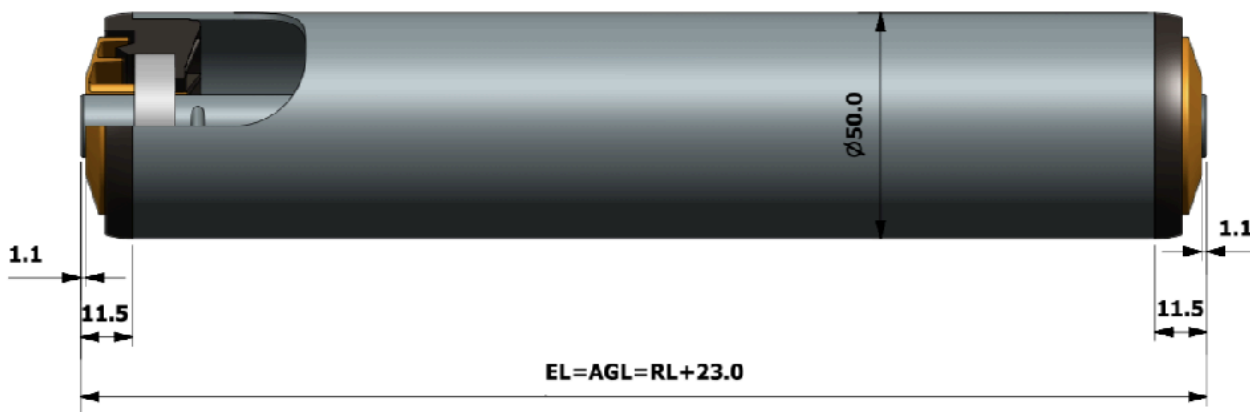
General Technical Data

Max. load capacity	310 Kgs
Max. conveyor speed	-
Temperature range	5 to +40 °C

Material

Bearing housing	Polyamide
Seal	Polyamide
Ball	Carbon steel or stainless steel 1.4301

Dimension



Spring Loaded Roller Dimension

RL	Reference Length/ Ordering Length
EL	Installation Length
AGL	Total Length of Shaft
F	Length of the bearing assembly, Including axial play



Rollers

FIXED DRIVE CONVEYOR ROLLER

SERIES - 1500

**Poly Vee Head
Roller**



**Toothed Head
Roller**

**Round Belt Head
Roller**



Product Description

Application:

- ❖ Convey loads of Cartons, Totes, Fixtures, Cardboard Boxes
- ❖ Non-Contact Accumulation
- ❖ Pallet loads when bottom boards are perpendicular to the rollers
- ❖ Convey loads of Cartons, Totes, Fixtures, Cardboard Boxes
- ❖ Pallet loads when bottom boards are parallel to the rollers
- ❖ Side loading/unloading
- ❖ Accumulation of loads

Where it works

- ❖ Warehousing & Distribution
- ❖ Manufacturing
- ❖ Order Fulfilment
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- ❖ Appliance
- ❖ Cabinetry & Furniture

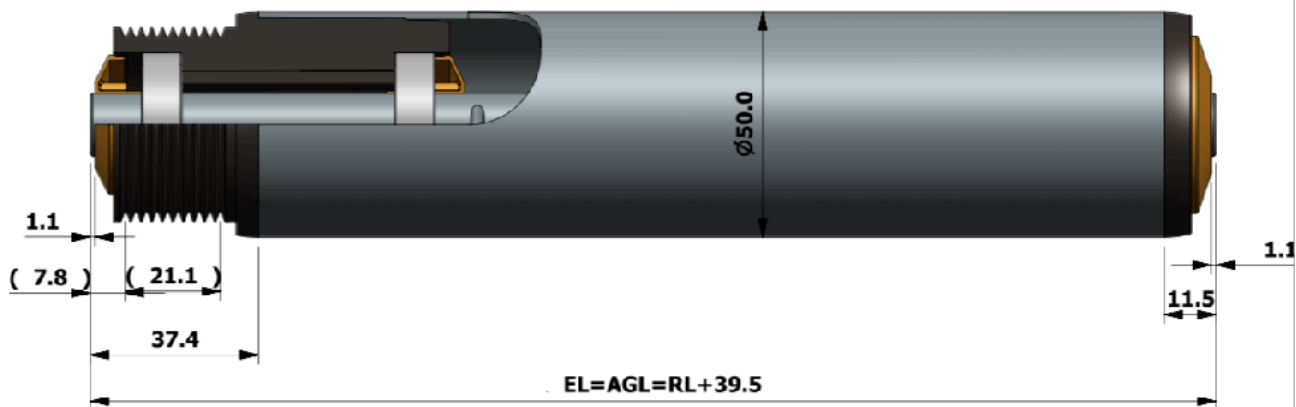
Technical Data

General Technical Data

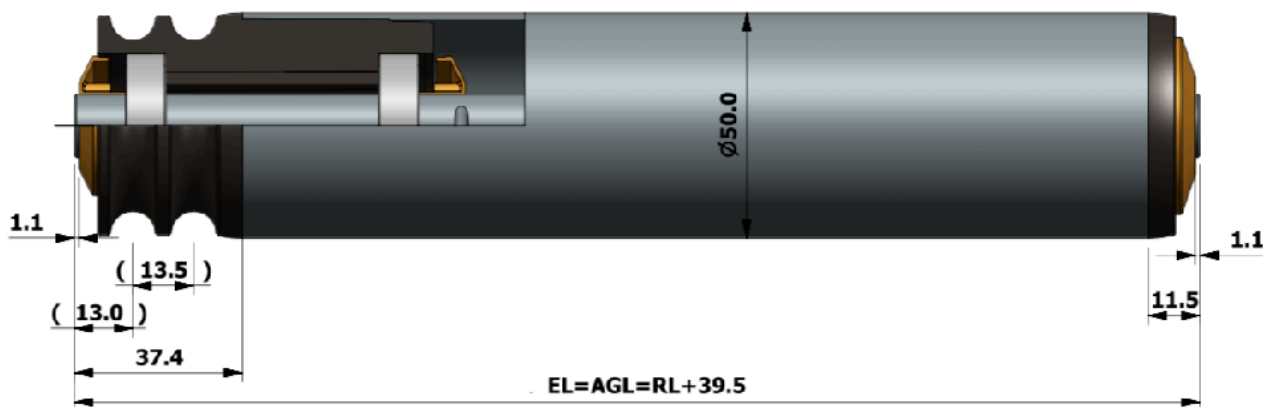
Max. load capacity	310 Kgs
Max. conveyor speed	-
Temperature range	5 to +40 °C

Material

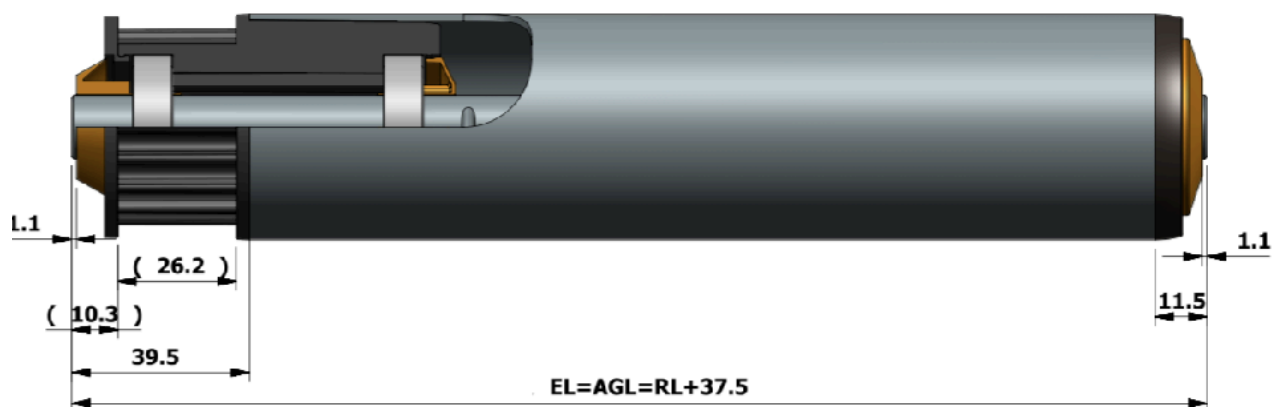
Bearing housing	Polyamide
Seal	Polyamide
Ball	Carbon steel or stainless steel 1.4301



Poly Vee Drive Head Roller



Round Belt Drive Head

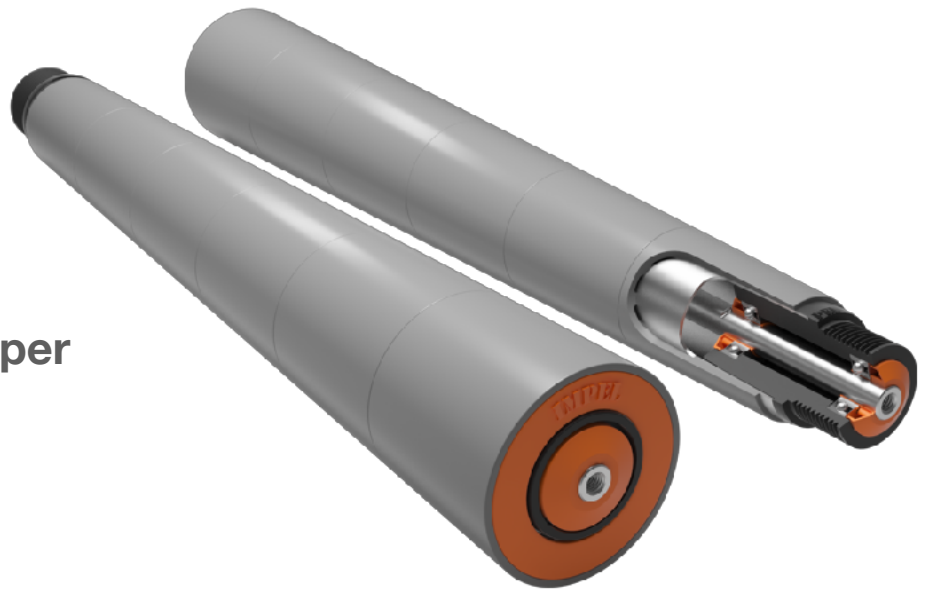


Toothed Belt Drive Head

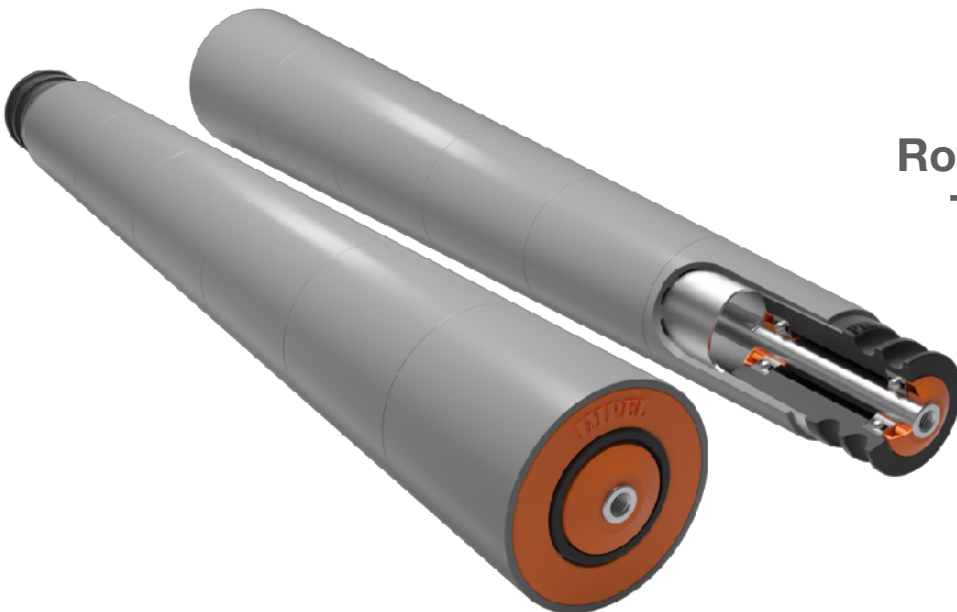
TAPPERED CONVEYOR ROLLER

SERIES - 1800

**PolyVee Head Taper
Roller**



**Round Belt Head
Taper Roller**



Product Description

Application:

- ❖ Convey loads of Cartons, Totes, Fixtures, Cardboard Boxes
- ❖ Non-Contact Accumulation
- ❖ Pallet loads when bottom boards are perpendicular to the rollers
- ❖ Convey loads of Cartons, Totes, Fixtures, Cardboard Boxes
- ❖ Pallet loads when bottom boards are parallel to the rollers
- ❖ Side loading/unloading
- ❖ Accumulation of loads

Where it works

- ❖ Warehousing & Distribution
- ❖ Manufacturing
- ❖ Order Fulfilment
- ❖ Aerospace
- ❖ Government Military & Agency
- ❖ Automotive
- ❖ Parcel Handling
- ❖ Appliance
- ❖ Cabinetry & Furniture

Technical Data

General Technical Data

Max. load capacity	310 Kgs
Max. conveyor speed	-
Temperature range	5 to +40 °C

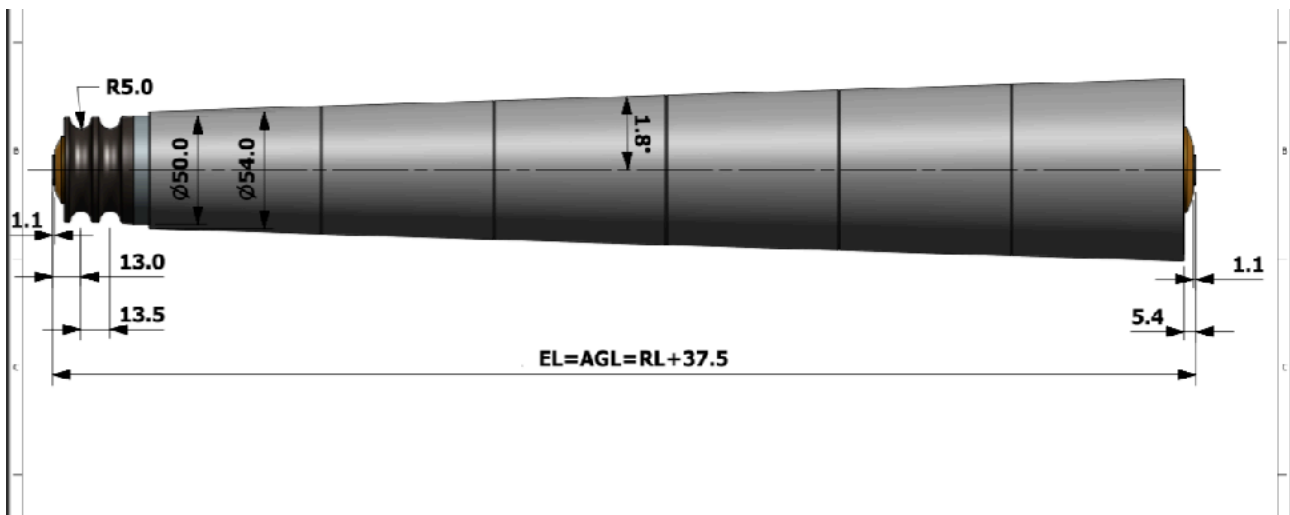
Material

Bearing housing	Polyamide
Seal	Polyamide
Ball	Carbon steel or stainless steel 1.4301

DIMENSION



PolyVee Head Taper Roller



Round Belt Head Taper Roller

RL	Reference Length/ Ordering Length
EL	Installation Length
AGL	Total Length of Shaft

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Belt Conveyor

Belt Conveyor

OVERVIEW

The belt conveyor is used for horizontal conveying of goods that are not suitable for roller conveyors and all kinds of unit loads where inclines and declines (up to 16°) need to be conquered. Powered by highly efficient, compact **drum motors** or, alternatively, by gear motors, this new family of belt conveyors is available in three standard widths and also comes as “light” versions, equipped with 24V drive technology, for transport and ZPA operation of unit loads with low weight.

Our compact yet robust belt conveyor is a proven product which is very reliable and easy to install. Idea for handling most light and medium weight products. They have a very narrow profile and are especially suitable for use in production lines where space is limited. Our conveyors are built using standard modules which enables us to quickly build a conveyor to your specification.



Available Types of Belt Conveyor

1. 415 VAC Belt Conveyor
 - A). Full Skid Belt Conveyor
 - B). Lo-Fri Belt Conveyor
2. 24 VDC Belt Conveyor
3. 24 VDC / 415 VAC Merge Belt Conveyor
4. 415 VAC Inclined Conveyor
5. 24 VDC / 415 VAC Curve Belt Conveyor

Belt Conveyor

**415 VAC
BELT CONVEYOR**

**CENTRE DRIVE
STRAIGHT BELT**



Product Description

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

The standard belt conveyor is equipped with a drum motor, a gear motor is available as an option.

NOTE:

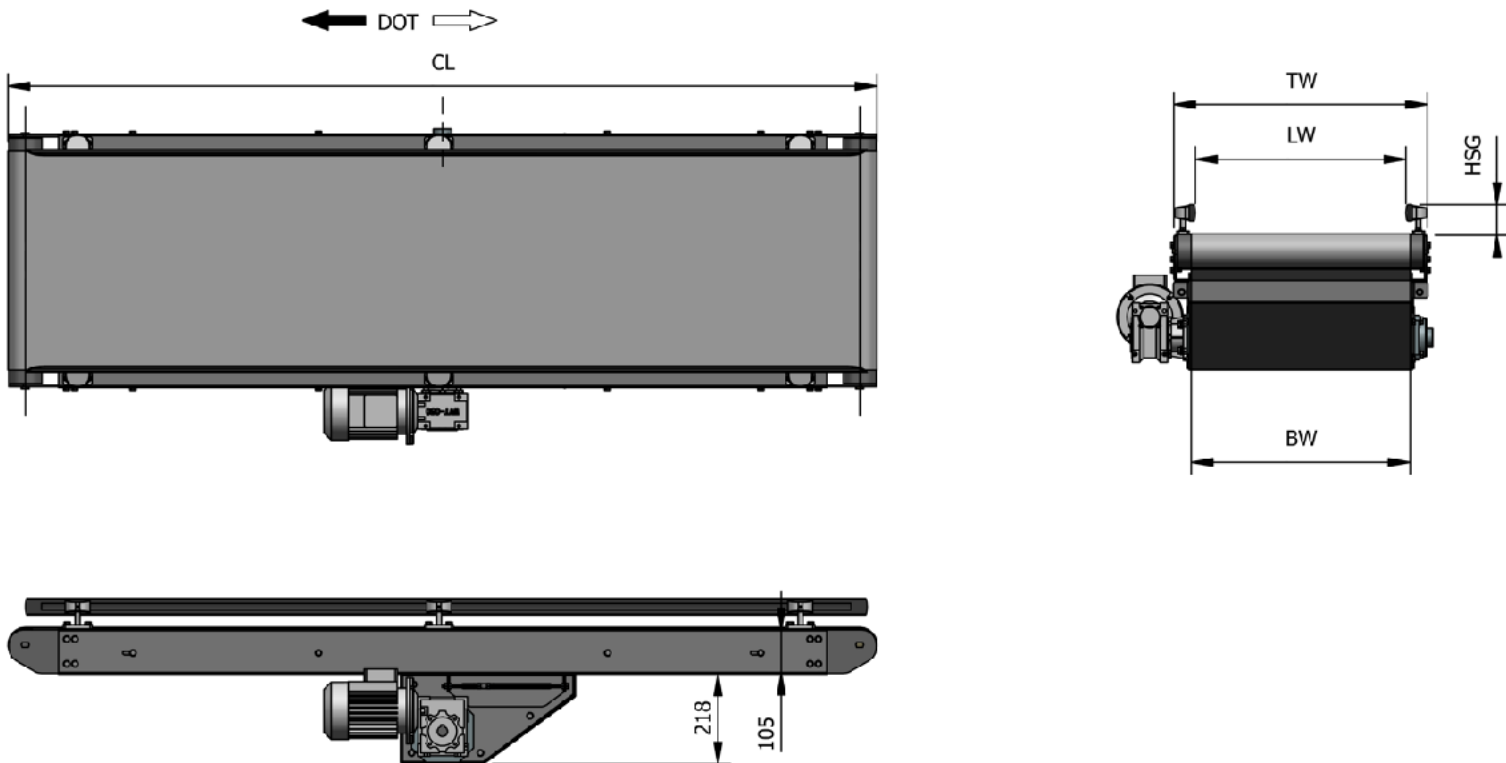
Not suitable for reversing operation.

Belt Conveyor

Technical Data

General Technical Data	Max. load capacity*	50 Kg/m
	Max. load capacity per module*	550 kgs
	Conveyor Speed	0.1 to 2.5 m/s
	Inclined / Declined	Max 28°
	Ambient Temperature	+5 °C to 40 °C (Drum Motor) -5 °C to 50 °C (Geared Motor)
Drive	Rated Voltage	415 VAC
	Electric Power	3.7 kW max.
	Motor Type	Drum Motor / Geared Motor
Materials	Conveyor Belt	PVC Belt 2 mm thickness
	Slider Roller	Mild Steel / Stainless Steel

Dimensions



Belt Conveyor

415 VAC
INCLINED CONVEYOR
Z - TYPE CONVEYOR
SERIES



Product Description

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

The standard belt conveyor is equipped with a drum motor, a gear motor is available as an option.

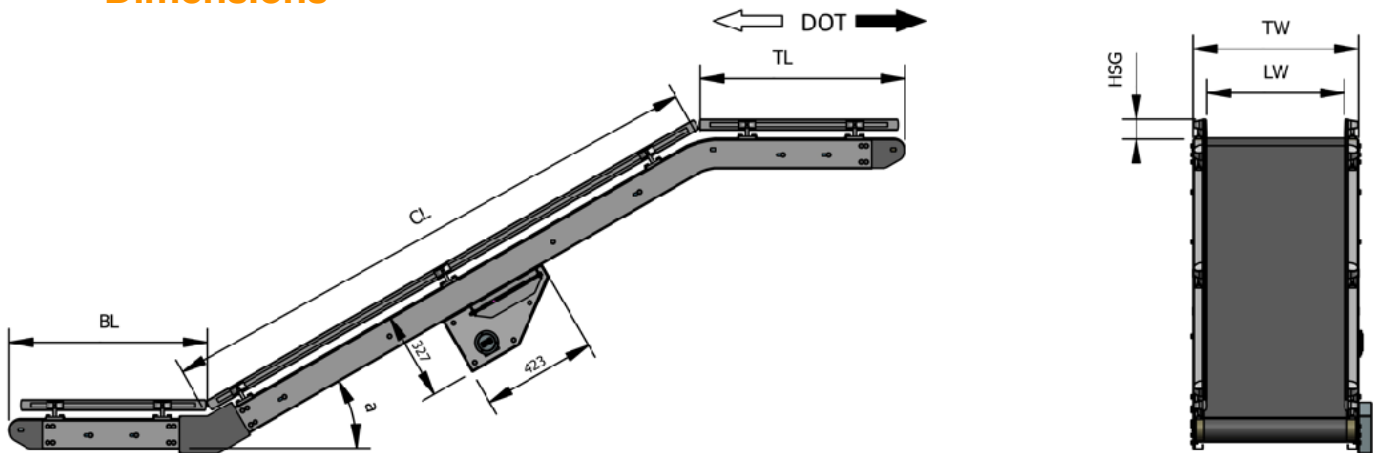
NOTE: Not suitable for reversing operation.

Belt Conveyor

Technical Data

General Technical Data	Max. load capacity*	50 Kg/m
	Max. load capacity per module*	550 kgs
	Conveyor Speed	0.1 to 2.5 m/s
	Inclined / Declined	Max 28°
Drive	Ambient Temperature	+5 °C to 40 °C (Drum Motor) -5 °C to 50 °C (Geared Motor)
	Rated Voltage	415 VAC
	Electric Power	3.7 kW max.
Materials	Motor Type	Drum Motor / Geared Motor
	Conveyor Belt	PVC Belt 2 mm thickness
	Slider Roller	Mild Steel / Stainless Steel

Dimensions



BF	Between Frame	450, 600, 800 Others on demand
LW	Lane Width	BF
CL	Modular Length	650 - 3000 mm
TW	Modular Width	BF + 80 mm
HSG	Height of Side Guard	35 - 65 mm
ANGLE	Inclined/Declined Angle	6°, 9°, 12°, 15°, 18°, 25°, 28°

Belt Conveyor

MERGE BELT CONVEYOR



Product Description

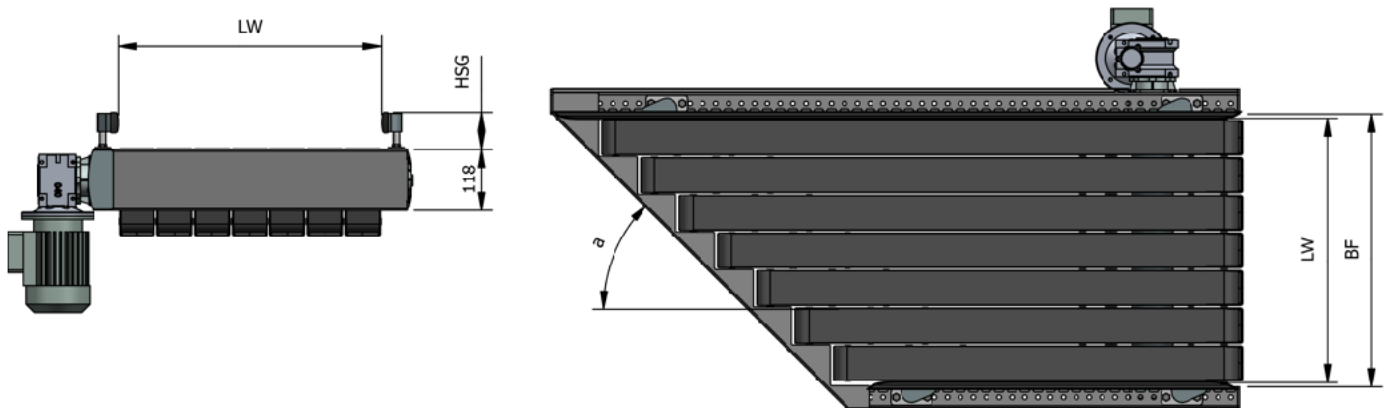
The belt merge is a belt conveyor with a 30° or 45° angled connecting edge. This conveyor element enables the merging of two conveyor lines at the corresponding angle. With the use of supplementary sorting elements, belt merges also enable the separation of conveyor flows. The conveying belts are available in widths of 90 mm and 40 mm for especially small materials.

Belt Conveyor

Technical Data

General Technical Data	Max. load capacity*	50 Kg/m
	Max. load capacity per module*	100 kgs
	Conveyor Speed	0.1 to 2.0 m/s
	Inclined / Declined	Not Suitable
	Ambient Temperature	-5 °C to 50 °C (Geared Motor)
Drive	Rated Voltage	415 VAC / 50 Hz / 3 phase
	Electric Power	0.37 kW to 1.5 kW max.
	Motor Type	Geared Motor
Materials	Conveyor Belt	PVC Belt 2 mm thickness
	Slider Roller	Mild Steel / Stainless Steel

Dimensions



BF	Between Frame	420, 620, 840 Others on demand
LW	Lane Width	BF (+120/-90 mm per side with flexible side guide)
GH	Overall Height	200mm
ANGLE	Inclined/Declined Angle	30° / 45°

Belt Conveyor

CURVE BELT CONVEYOR



Product Description

With a conveyor speed of more than 2 m/s, the IMPEL's belt curve is designed for high performance and trouble-free operation in different applications. The curves are available in several widths, angles and weight classes.

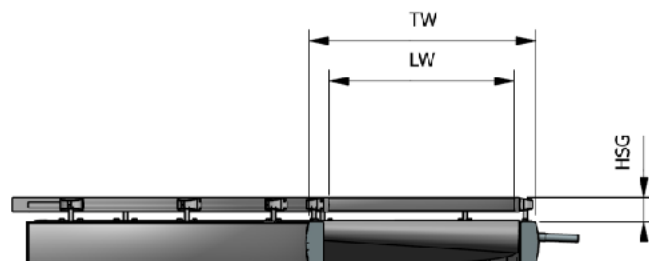
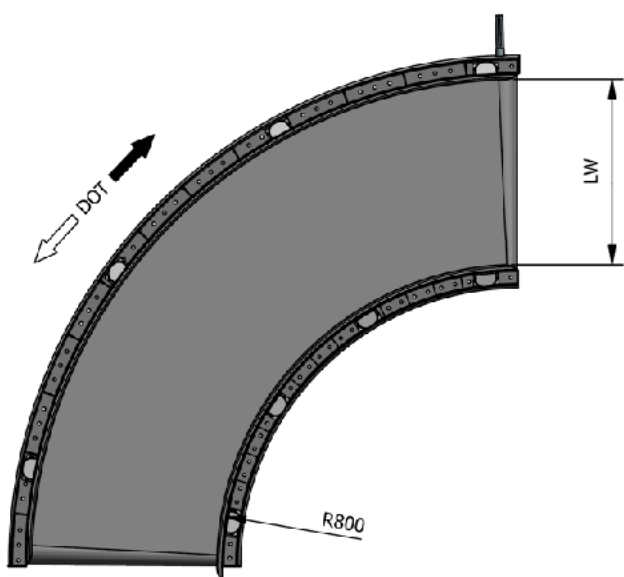
The IMPEL's belt curves can be operated in higher and lower temperature ranges, which represents a significant advantage compared to common solutions, such as friction-driven conveyors. Another advantage is the fast belt change. Thanks to the sophisticated construction, the drive station does not have to be removed for the belt change, thereby saving time.

Belt Conveyor

Technical Data

General Technical Data	Max. load capacity*	75 Kg/m
	Rated Voltage	415V
	Conveyor Speed	Max. 2.0 m/s
	Ambient Temperature	-5 °C to 50 °C (Geared Motor)
Dimension	Cam Angle	30°/45°/60°/90°
	Inside radius	1000/800/800/800 mm
	Lane width	1100/900/700/500 mm
	Lane center length	1550/1250/1150/1050 mm
Materials	Conveyor Belt	FLEXAM EF 10/2 0+A22 BLACK AS FR
	Slider Roller	Mild Steel / Stainless Steel

Dimensions



Belt Conveyor

24 VDC
BELT CONVEYOR



Product Description

The Belt Conveyor Light is a belt conveyor that is divided into zones and operates with zero pressure accumulation; its drive is based on the 24 V RollerDrive. It is possible to transport and accumulate small products, as well as products not suitable for roller tracks. Not suitable for reversing operation. Available in different models—horizontal, inclines and declines (“nose-over” and “power feeder”) — these belt conveyors feature an extremely low **top-of-belt height**, a real benefit where multi-level conveyor systems are installed. Designed for load capacities of up to 550 kg (1’213 lbs) per module, the new Interroll Belt Conveyor guarantees efficient operation for speeds of up to 2.5 m/s (8.2 ft/s), for unit loads of 50 kg (110 lbs).

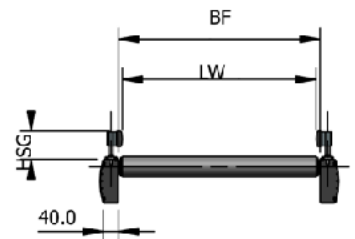
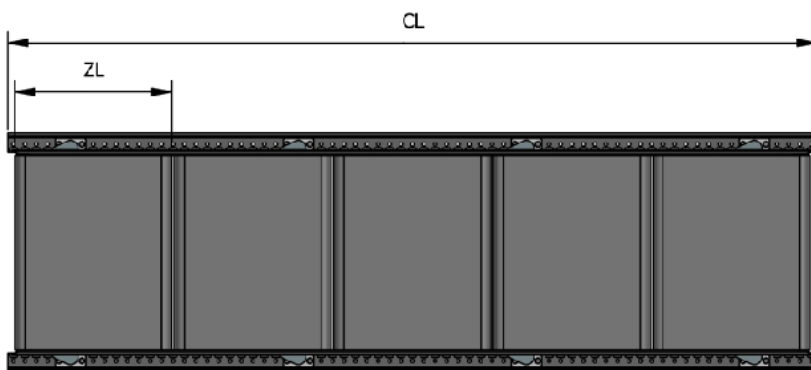


Belt Conveyor

Technical Data

General Technical Data	Max. load capacity per zone*	50 Kg/zone
	Incline/decline	Max. 15°
	Conveyor Speed	Max. 0.8 m/s
	Ambient Temperature	-5 °C to 50 °C (Geared Motor)
Drive	Rated Voltage	24 VDC
	Motor Type	DC Roller Drive
	Diameter of drive roller	50 mm
	Control	MultiControl
Materials	Conveyor Belt	Polyester with PVC coating
	Slider Roller	Rollers, Series - 1700

Dimensions



BF	Between Frame	420, 620, 840 mm (min. 360 mm, max. 840 mm) Other on request
LW	Lane Width	BF (+120/-90 mm per side with flexible side guide)
ML	Modular Length	ZL x number of zones, max. 4080 mm
ZL	Zone Length	Number of rollers x P, max. 1980 mm
TW	Roller pitch	90 mm under the belt, 60 mm between the zones
HSG	Height side guide	35 - 65 mm

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Roller Conveyor

Roller Conveyor

OVERVIEW

IMPEL's Roller Conveyor has been designed efficiently to the highest level whilst keeping with in the focus of our vision to supply high quality cost effective products. The ability to accumulate product with very low line pressure gives reassurance to the End User to keep damaged products to a minimum. With that said its seamless image and sleek profile will impress all.

Our compact yet robust Roller conveyor is a proven product which is very reliable and easy to install. Idea for handling most light and medium weight products. They have a very narrow profile and are especially suitable for use in production lines where space is limited. Our conveyors are built using standard modules which enables us to quickly build a conveyor to your specification.

APPLICATION

Carton / Tote transportation or accumulation, Food, Beverage & Confectionary Processing, Logistics, Freight & Parcel, Airport & Aviation, Warehousing, Picking Lines, Machine in-feed & out-feed, other.



AVAILABLE TYPES OF ROLLER CONVEYORS

1. 415 VAC ROLLER CONVEYOR
2. 24 VDC ROLLER CONVEYOR
3. 415 VAC / 24 VDC MERGE CONVEYOR
4. 415 VAC / 24 VDC CURVE CONVEYOR

Roller Conveyor

24 VDC
ROLLER CONVEYOR



Product Description

The intelligent 24V Roller Conveyor family (straights, curves and merges) offers highest **energy efficiency** for unit-load handling (boxes, totes, crates, etc.). Its exemplary low-noise operation and maximum safety due to low voltage make this technology a key element for an improved working environment for your operators. Note that all IMPEL's roller conveyor modules are also available as non-driven conveyors, where unit loads are moved by gravity or manually.

The internal control of the roller conveyor ensures transport of unit loads with zero pressure accumulation. Each zone is driven by a 24V RollerDrive and connected via PolyVee belts with a specified number of idlers. Conveying speeds of **up to 1.0 m/s** (3.3 ft/s) can be reached for unit loads of 35 kg.

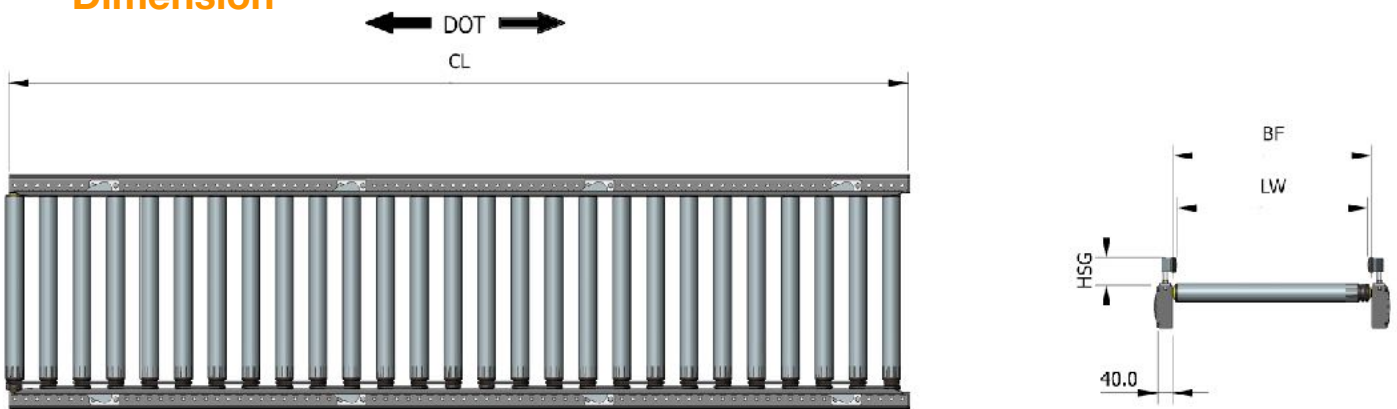


Roller Conveyor

Technical Data

General Technical Data	Max. load capacity*	50 Kg/zone
	Conveyor speed*	0.1 to 1.0 m/s (at 35 kg) 0.1 to 0.8 m/s (at 50 kg)
	Incline/decline	Max. 4°
	Ambient temperature	+5 to +40 °C
Roller	Roller type	IMPEI Series - 1500
	Roller diameter	50 mm
	Roller material	Steel 1.5 mm, zinc-plated
	Number of rollers max. per zone	20
Drive	Rated voltage	24 VDC
	Motor type	DC Roller drive
	Drive medium	PolyVee belts
	Torque transmission	Roller-to-Roller
	Control	MultiControl

Dimension



BF	Between frames	On demand
LW	Lane width	BF
CL	Module length	max. 3000 mm
ZL	Zone length	Number of rollers x P
TW	Module width	BF + 80 mm
P	Roller pitch	60/90/120/150 mm
HSG	Height side guide	35 - 65 mm

Roller Conveyor

**415 VAC
ROLLER CONVEYOR**



Product Description

The 415V Roller Conveyor is driven by a flat belt and delivers highest performance in transportation. Compared to the 24V version, this conveyor is ideal where **higher throughput** levels are required and/or heavier unit loads are to be conveyed. Its modular design allows easy integration of key elements such as transfers and diverts with the possibility of sorting operations on the fly, (i.e., without stopping the product in the material flow). Straight, curve and divert/merge modules can be combined or used as stand-alone elements.

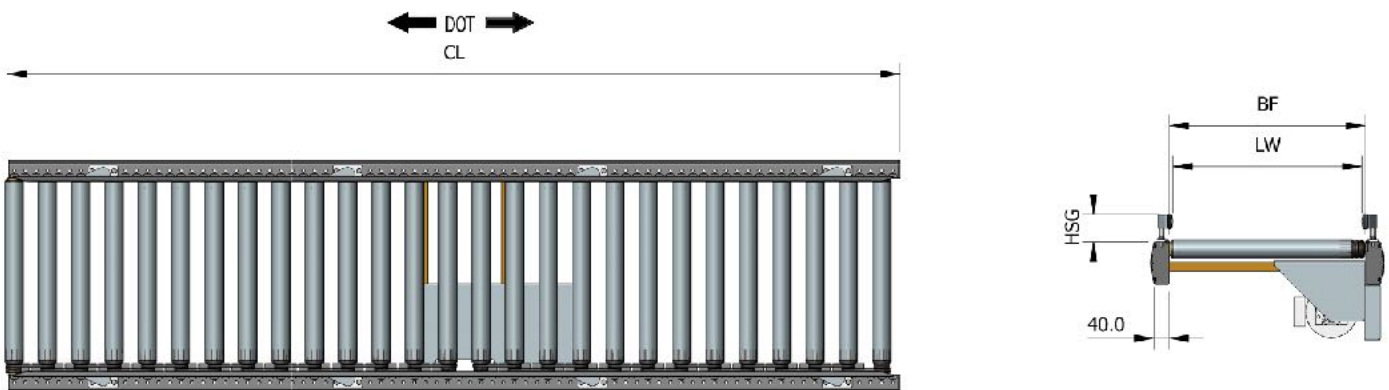
Note that all Interroll roller conveyor modules are also available as non-driven conveyors, where unit loads are moved by gravity or manually.

Roller Conveyor

Technical Data

General Technical Data	Max. load capacity*	50 Kg/zone
	Conveyor speed*	0.1 to 2.0 m/s
	Incline/decline	Not Suitable
	Ambient temperature	+5 to +40 °C
Roller	Roller type	IMPEL - Series 3500 IMPEL - Series 1700
	Roller diameter	50 mm
	Roller material	Steel 1.5 mm, zinc-plated
Drive	Rated voltage	415 VAC
	Motor type	AC Geared Motor 3-phase
	Drive medium	PolyVee belts
	Torque transmission	Roller-to-Roller
	Control	MultiControl

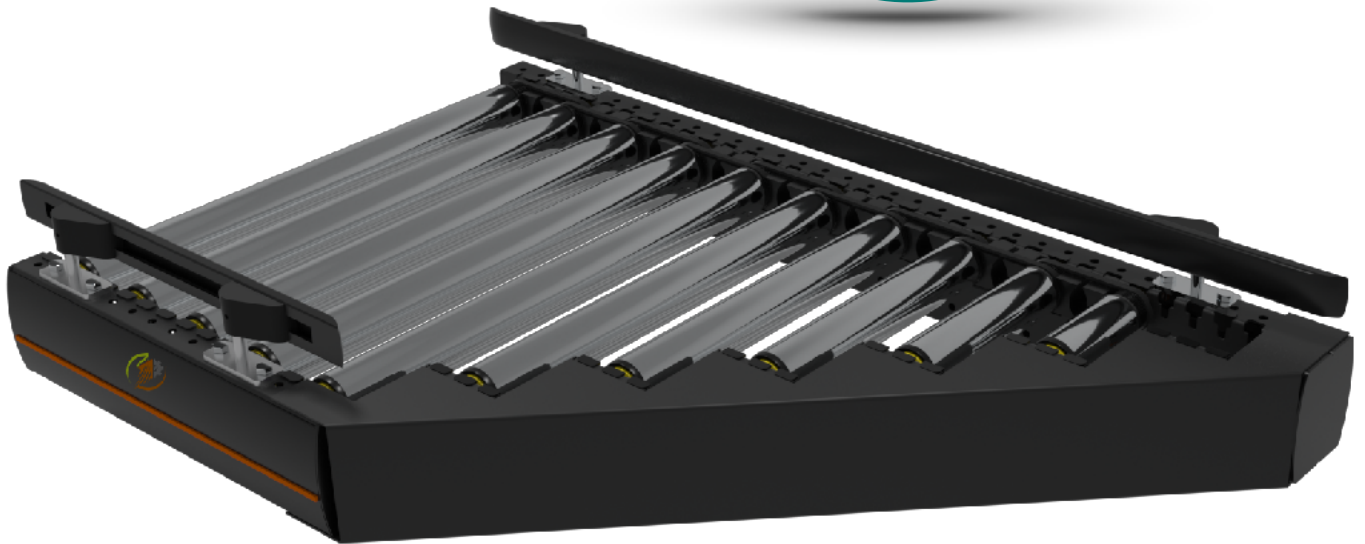
Dimensions



BF	Between frames	On Demand
LW	Lane width	BF
ML	Module length	Max. 3000 mm
TW	Module width	BF
P	Roller pitch	60/90/120/ mm
HSG	Height side guide	35 - 65 mm

Roller Conveyor

MERGE ROLLER CONVEYOR



Product Description

The merge is used for connecting lateral roller tracks at an angle (30° or 45°) to the main track. This can be used for moving material off the track (e.g. with HPD (High Performance Divert)) or onto the track.

IMPEL's 400V Merge is used to connect the side roller modules at an angle (30° or 45°) to a main line. This can be used for **discharging** (e.g., through the High-Performance Divert) or **in-feeding** unit loads.

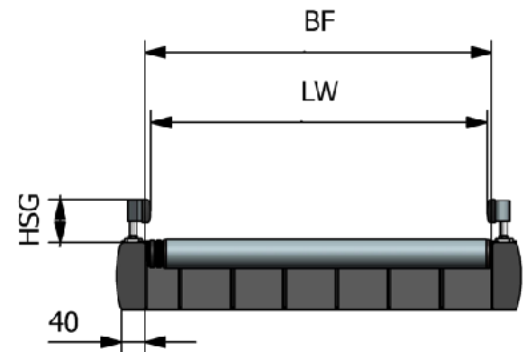
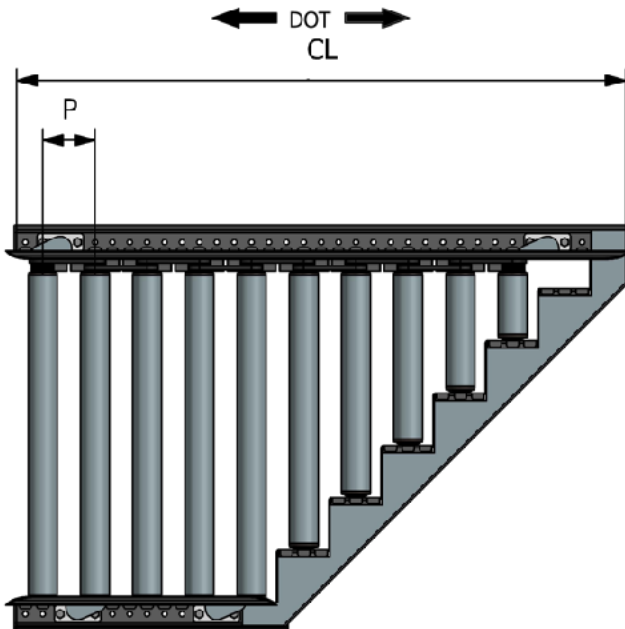
IMPEL's 24V Merge merges two conveyor lines together using the gaps in the flow. Alternatively, it can divert products from a straight path (e.g., through the use of a high-performance divert [HPD]).

Roller Conveyor

Technical Data

General Technical Data	Max. load capacity*	50 Kg/zone
	Conveyor speed*	0.1 to 2.0 m/s
	Incline/decline	Not Suitable
	Ambient temperature	+5 to +40 °C
Roller	Roller type	IMPEL - Series - 1200 IMPEL - Series - 1500
	Roller diameter	50 mm
	Roller material	Steel 1.5 mm, zinc-plated

Dimensions



BF	Between frames	On Demand
LW	Lane width	BF
ML	Module length	-
TW	Module width	BF
P	Roller pitch	60 mm
HSG	Height side guide	35 - 65 mm
Angle	Angle	30°/45°

Roller Conveyor

CURVE ROLLER CONVEYOR



Product Description

The 24 V roller conveyor curves change the direction of transport of the material. The conical rollers retain the alignment of the materials between side frames. A controller enables zero pressure accumulation transport. Each zone is powered by a 24 V RollerDrive that is connected to a fixed number of idlers via round belts.

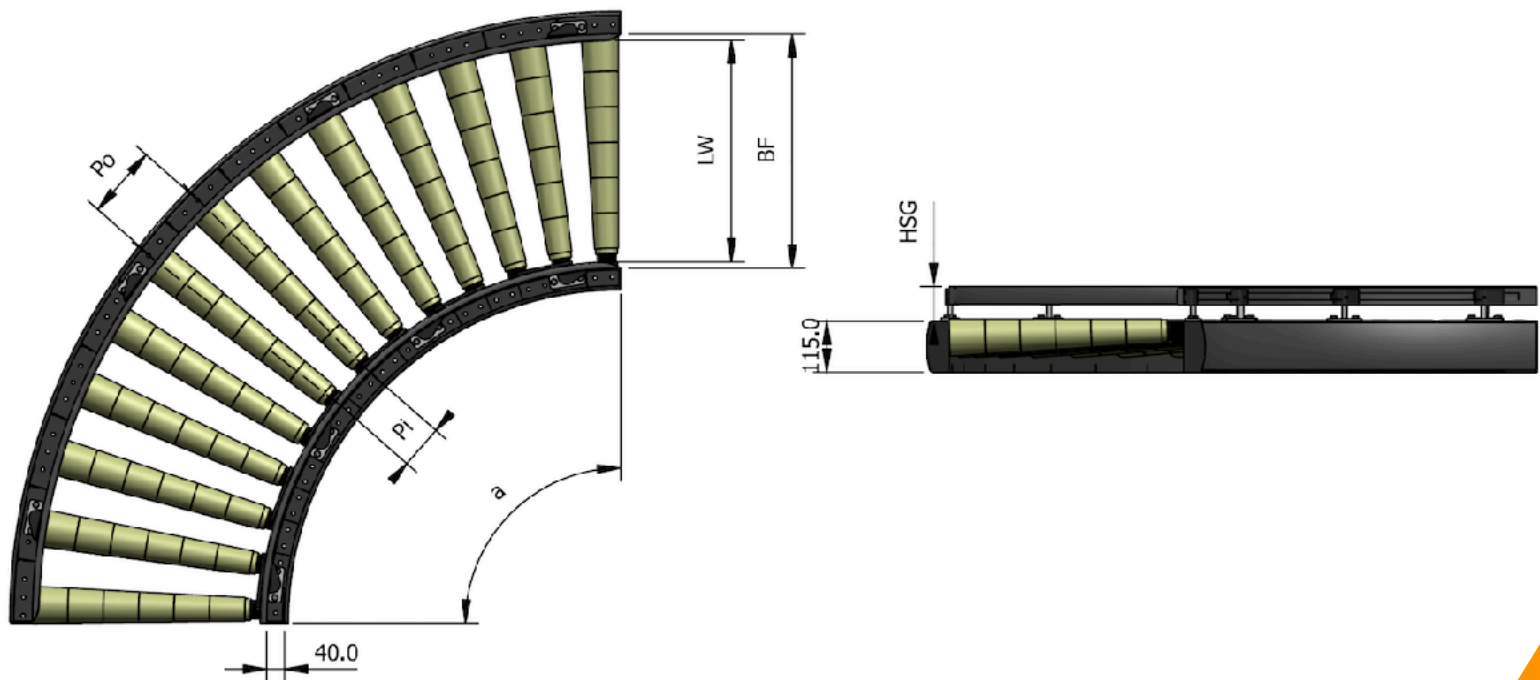
The 400V Roller Conveyor curves change the direction of transport of material. Alignment of the material is maintained within the side frames by tapered rollers, driven by a **PolyVee belt**. Curve elements of flat belt roller conveyors are always driven by the adjacent straight module.

Roller Conveyor

Technical Data

General Technical Data	Max. load capacity*	50 Kgs
	Conveyor speed*	0.1 to 1.0 m/s (at 35 kg) 0.1 to 0.8 m/s (at 50 kg)
	Incline/decline	Not Suitable
	Ambient temperature	+5 to +40 °C
Roller	Roller type	IMPEL - Series 1800
	Roller diameter	50 mm
	Roller material	Steel 1.5 mm, zinc-plated
	Rated voltage	415 VAC or 24 VDC
Drive	Motor type	AC Geared Motor 3-phase IMPEL's DC Roller Drive
	Drive medium	PolyVee belts, Round Belts
	Torque transmission	Roller-to-Roller
	Control	MultiControl

Dimensions



LOGI INTERNAL STIC SYSTEMS



Sorting Products

Sorting Product

90 DEGREE BELT TRANSFER UNIT



Product Description

Key sorting elements such as transfers, diverts, lifts, stops, etc., are designed for the modular expansion and connection of conveyor lines. All elements can be combined with belt and roller conveyors and realise basic conveying functions such as stopping, distributing, lifting and lowering unit loads. They are often critical in system layout planning as their **sorting performance** can have a significant impact on the overall system throughput.

The 24V/415V Transfer performs sorting operations (i.e., in-feeding into and discharging of unit loads from a roller conveyor at an angle of 90°). Direction and orientation of the flow of goods are changed, meaning that long-way transportation becomes cross-way or the other way around. **Toothed belts** are raised by Interroll RollerDrives and the transfer itself can be incorporated at any position of the conveyor line and subsequently easily repositioned.



Sorting Product

Product Description

The Transfer 24 V is used for diverting or merging onto a roller track suitable material at a 90° angle. In the process, the unit load changes direction and its orientation, i.e. the side of the product will now be the leading edge after the transfer.

Product Information

Features

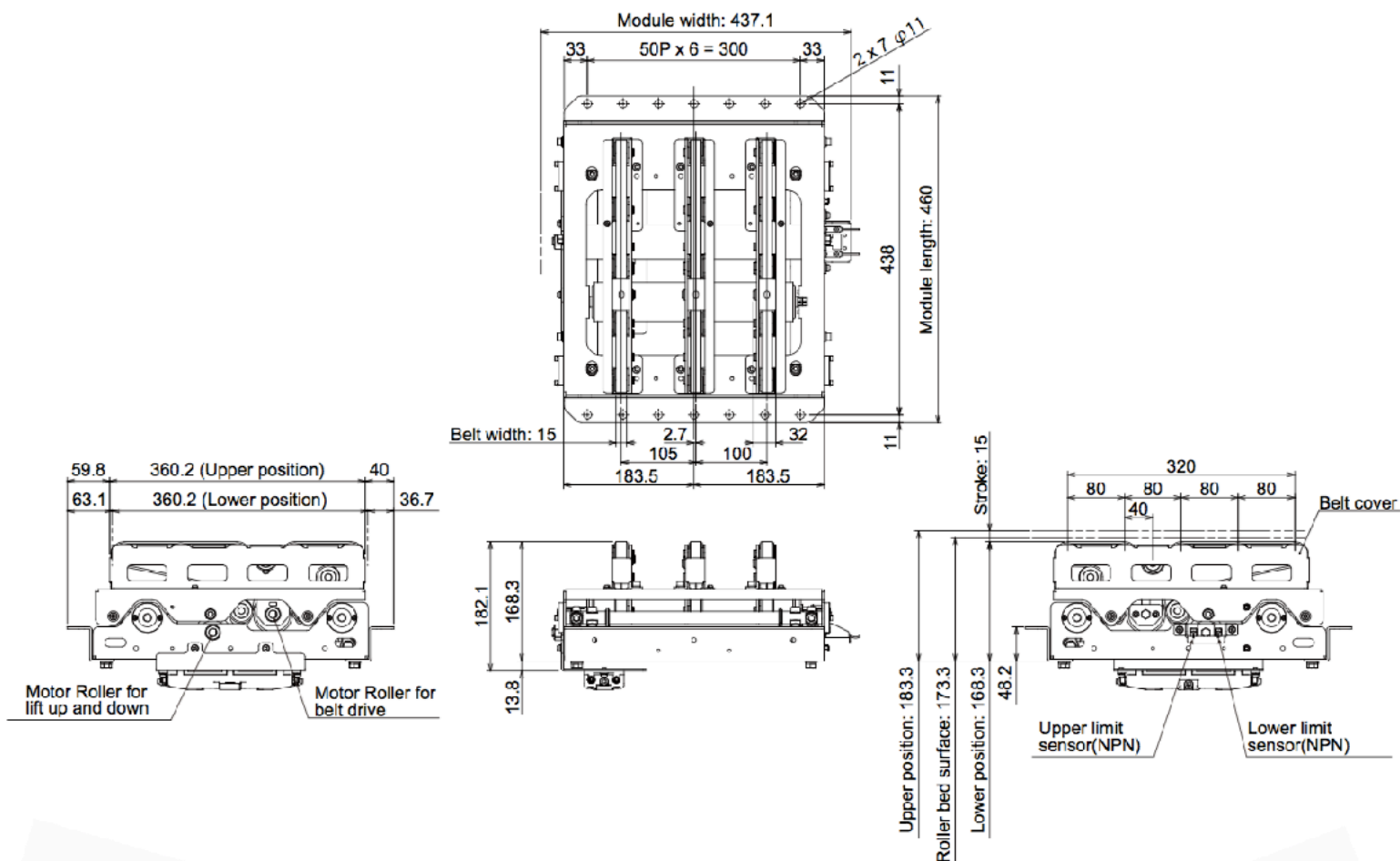
- ❖ CE Certified
- ❖ Low Profile Design
- ❖ Easy installation by mounting directly underneath conveyor frame
- ❖ Easy maintenance
- ❖ 2 DC roller drive for belt drive and lift up & down (No pneumatics)
- ❖ Customised (W, L dimensions and number of belt unit)
- ❖ Strong and oversized machine design

Technical Data

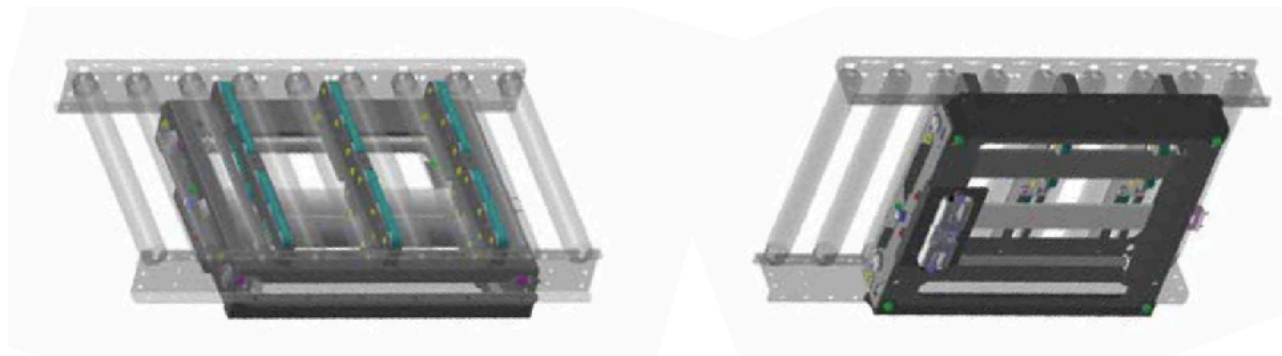
Volateg	DC24V
Roller Pitch	50 kgs
Belt Speed	60 m/min
Lift-up stock	15 mm
Through-Put	1500 / h *It varies depending on Product Size
Minimum dimnessons	W360 X L380 (For BF 380 MM)
Maximum dimensions	W960 X L800 (For BF 820 MM)
Ambient Temperature	-10 to 40° C (No Condensation)
Ambient Humidity	10 to 90% RH (No Condensation)

Sorting Product

Dimensions (Reference drawing for BF 400 mm Conveyor)

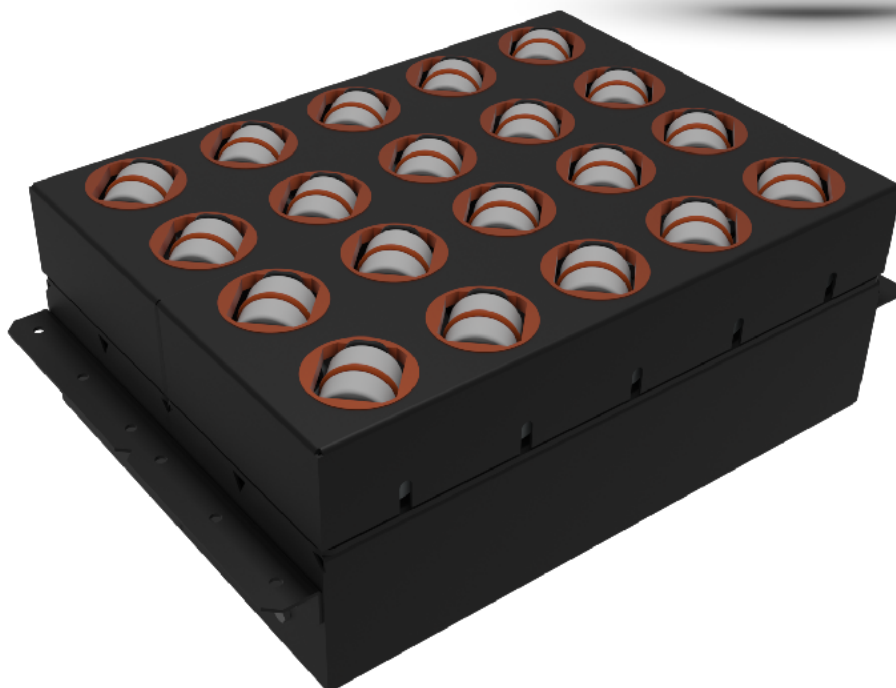


Installation Images



Sorting Product

HIGH PERFORMANCE DIVERTER



Product Description

The High Performance Divert (HPD) is used for diverting unit loads, preferably with smooth bottom surfaces, at different angles onto a lateral track to the right or to the left. The HPD is available in two drive variants:

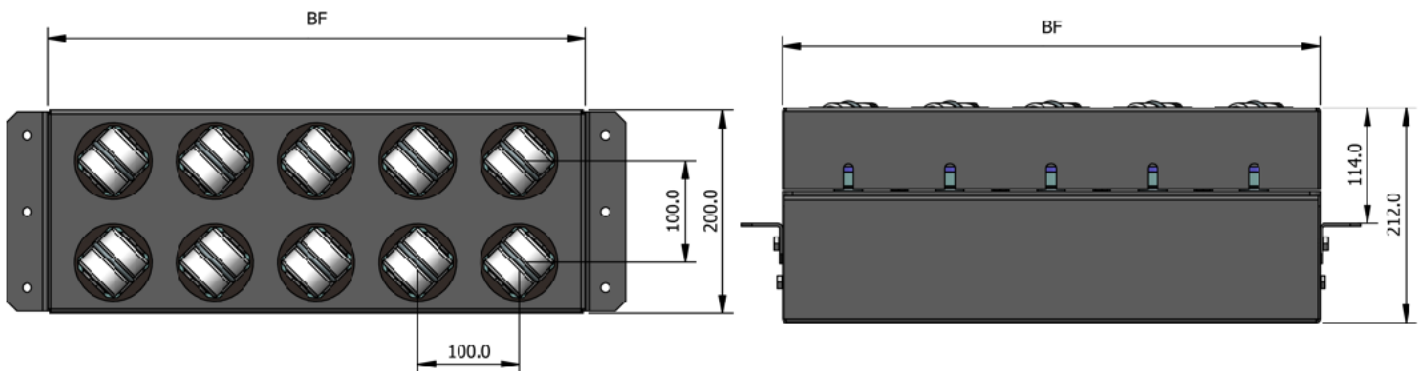
- HPD 24 V master, for which 24 V motors are used as travel and swivel drives
- HPD 400 V master, for which the travel drive from the flat belt conveyor is used, and the swivel drive is powered by a separate 24 V motor. One HPD module can consist of several cassettes, each 120 mm long, depending on the size of the product.

Sorting Product

Technical Data

General technical data	Max. load capacity*	50 kg
	Max. roller speed*	1.4 m/s
	Swiveling time	0.3 s per 90°
	Discharge angle	30°/45°/90°
	Ambient temperature	+5 to +40 °C
Swivel motor drive	Rated voltage	24 V
Travel motor drive	Rated voltage	24 V
	Control	MultiControl

Dimensions





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Continuous Vertical Lift Conveyor

Vertical Conveyor



Vertical Conveyor

High-Speed up-or-down Service, up to 25 units.minute.....

When your material handling system requires up or down movement, Vertical conveyor make batter use of the building cube than any other handling system.

IMPEL specialised in vertical conveyor, offering all of their inherent space-saving advantages, plus a great deal more! IMPEL provides a number of cost effective benefits....High Speed....Simple Low maintenance design...Selection of standardised unit from modular components... Fully automatic operation. All this enables IMPEL to provide unbiased recommendations for each application. The continuous types are described on this brochure.

IMPEL continuous flow vertical conveyors are designed to accept a load horizontally, convey it vertically and discharge it again horizontally, all in a continuous non-stop operation. Loading and unloading is in a “Z” pattern. Powered conveyor synchronised to the lift platform speed are used in loading and unloading and are designed for the specific product to be handled using rollers, belt or chain.

High Speed Continuous Flow. IMPEL continuous vertical conveyor utilise chain speed up to 35 meter per minute. Which provides the output up to 25 units.minute depending on overall product dimension.* The flow is continuous. 24 hours a day if desired, with never wait for the return of a carrier is unique in that it is rigid in the horizontal load carrying position, yet flexible in the opposite direction... allowing it to rotate around the sprockets to travel in minimum space on the return phase of each cycle.

Vertical Travel up to 50 ft. IMPEL continuous vertical conveyor are capable of lifting a load to elevations as high as 50 feet. The infeed height should be at least 18 to 28”.

Vertical travel completely automatic. IMPEL continuous vertical lift conveyor is fully automatic as the moving flight receives each load from the feed conveyor, convey it up or down to the unload station, and discharges it onto the receiving conveyor. No operation attention is required except for routine maintenance. System may be single direction or reversible as required.

Capacities up to 50 Kgs. IMPEL offers continuous vertical conveyor having capacities ranging from 5 to 50 kgs.

Fully guaranteed. IMPEL vertical conveyor are warranted for one year from date of installation... another assurance of dependable operation and reliable service. IMPEL customers in scores of industries and application provide added evidence of satisfactory service by IMPEL... ask us for names and locations of application similar to yours.

Vertical Conveyor

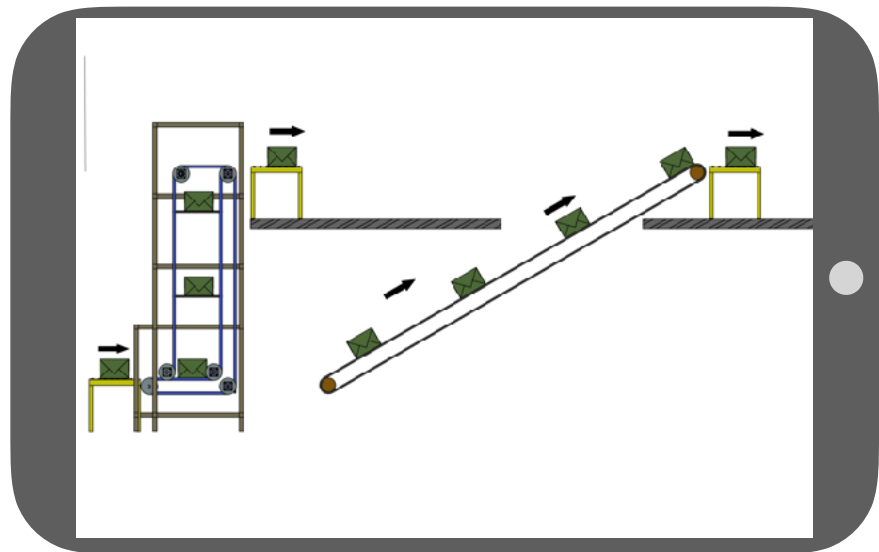
High-Speed up-or-down Service, up to 25 units.minute.....

Complete turnkey systems form design to installation. IMPEL's engineers have the experience and capabilities to recommend design, manufacture and install entire handling system, integrating overhead conveyors, vertical conveyors, various types of special equipment and all necessary controls on turnkey basis. While assembled from pre-engineered stock modular components. IMPEL Vertical Conveyors are individually customised for each individual application and built to customer specification.

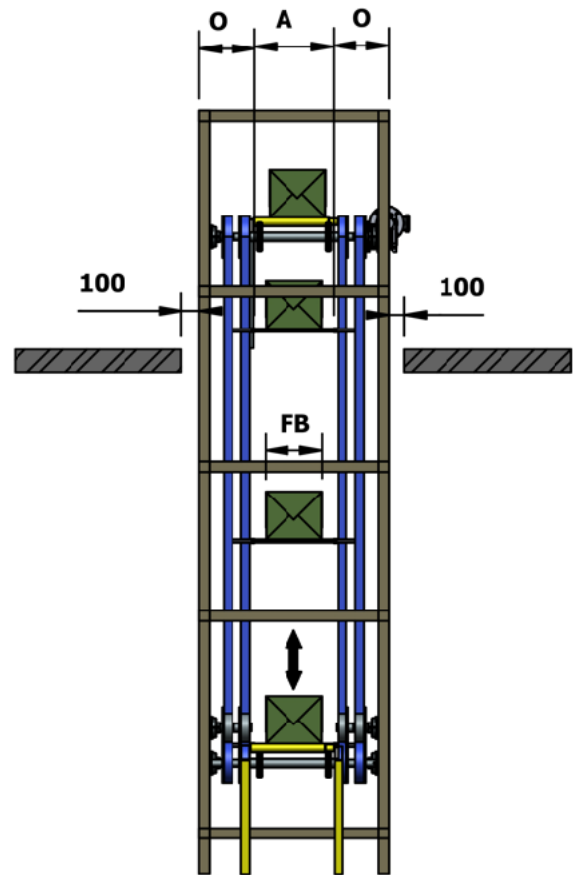
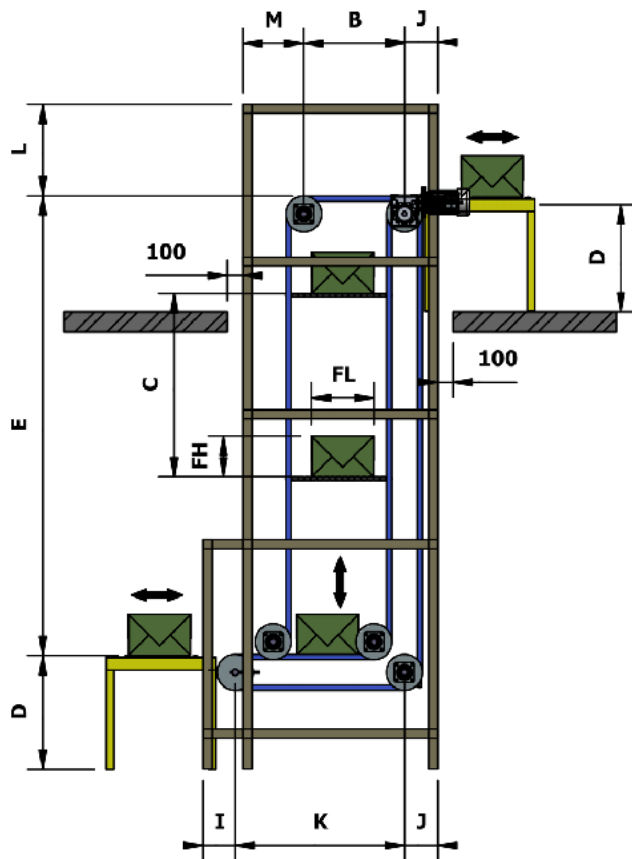
Call IMPEL first for vertical conveyors. Refer to information required for Quotation and send us your inquiry. We will be glad to provide recommendations and estimates for your application with no obligation.

How vertical conveyors increase plant efficiency

- ❖ Provide multi-level transportation in minimum space - product travels straight up and down, no inclined required.
- ❖ Cut floor space requirements up to 90%
- ❖ Utilise vacant air space above the the floor level.
- ❖ Ideal for operations that are automatic or require little or no supervision.
- ❖ Open up mezzanines and balconies to more effective use.
- ❖ Transport up and over machinery, aisles or other obstacles..... avoid expensive production changes.
- ❖ Clear floor areas for more efficient flow of fork lifts, pedestrian traffic, etc.
- ❖ Provide a high degree of flexibility in plant layout.



Vertical Conveyor



Type	Light	Medium
	Max. 10kgs	Max. 50kgs
A	200-1000	300-1500
B	AS PER UNIT SIZE	AS PER UNIT SIZE
C	$B + FH + 50$	$B + FH + 100$
D	min.400	min.500
E	LIFTING HEIGHT	
FL	Max. LENGTH OF CONVEYING GOODS	
FB	Max. WIDTH OF CONVEYING GOODS	
FH	Max. HEIGHT OF CONVEYING GOODS	
I	180	260
J	210	250
K	$B + \text{APPROX } 350$	$B + \text{APPROX } 400$
L	$FH + 150$	$FH + 150$
M	204	250
O	281	330

All dimension in mm without obligation



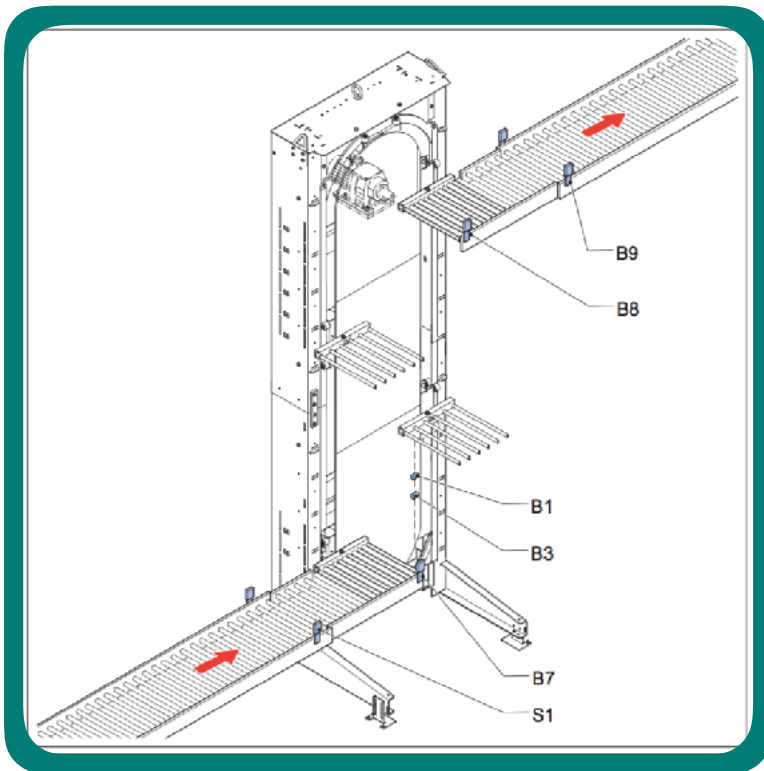
LOGI INTERNAL STIC SYSTEMS



Vertical Lifter - For Multi Floor Systems

Vertical Conveyor

Overview of Parts



- A** Supply Conveyor
- B** Infeed Conveyor
- C** Lift Colum
- D** Motor
- E** Outfeed Conveyor
- F** Output Conveyor
- G** Product Carrier

General Overview

The IMPEL's **i-Track Vertical Lift Conveyor** is designed for the vertical transport of products. This vertical transport unit (or product lift) consists of a lift column, one or more product carriers and, depending on the purchased configuration, a dosing belt, output belt and shielding.

The vertical transport of products can be upwards as well as downwards, and depending on the configuration, even a combination of the two. The lift is always installed as part of a larger transport system in which products are automatically transported to the product lift as well as away from the product lift.

The Machine can consist of....

- Mechanical construction.
- Mechanical construction and electric sensors.
- Mechanical construction, electric sensors and cabling to the terminal module.
- Mechanical construction, electric sensors to the terminal module and a control box including control and software

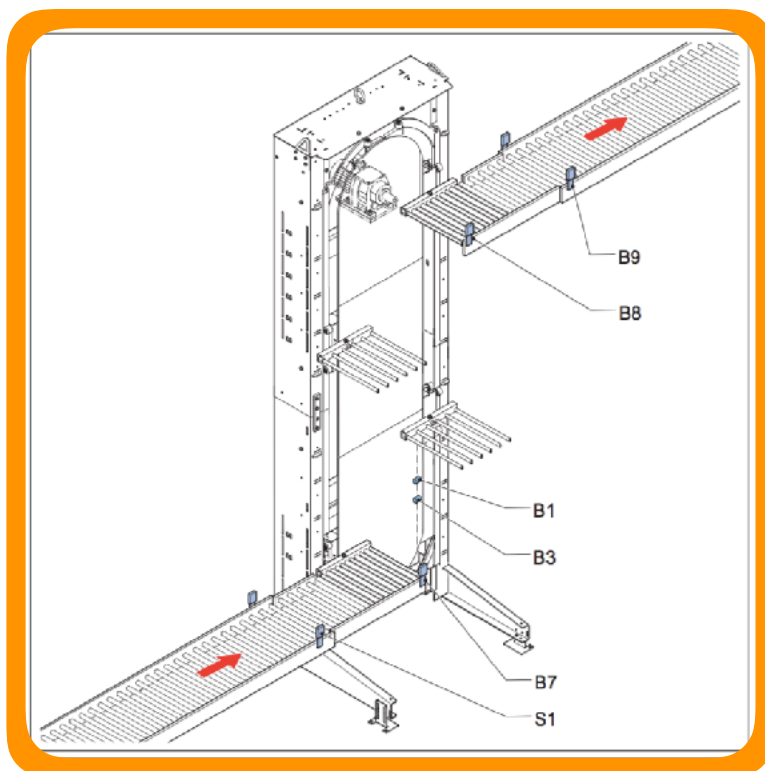
Vertical Conveyor

Motor

The motor drives the circulation of the vertical conveyor. For some configurations it may be necessary to control the motor with a frequency controller for controlled start/stop and optimum adjustment of the rotation speed to the supply speed. If a frequency controller is required, refer to the machine layout drawing. If a frequency controller is used, EMC directives must be observed and the device should be installed according to the manufacturer specifications.

The infeed/outfeed conveyor may also have a motor fitted. For specifications, refer to the machine layout drawing.

Working Principle with fixed conveyor



- S1** Supply Conveyor Sensor
- B7** End of Infeed Conveyor Sensor
- B1** Product Release Sensor
- B3** Start time frame sensor
- B8** Sensor for checking presence of production on the outfeed
- B9** Sensor for checking if product has left on the outfeed

The machine works according to a continuous principle in which the machine runs nonstop. However the machine can be used in start/stop mode. To set up the machine for start/stop mode you must consult IMPEL - Intralogistic for the required specifications.



Note:- *The description and working principle of the sensors applies to the infeed/out-feed conveyor on the machine. When infeed or outfeed takes place at several levels, more sensors are required. Refer to the machine layout drawing.*

Vertical Conveyor

Product Infeed

Products must always be fed into the machine one by one within the software specified time frame. This affects the infeed speed and acceleration. For specifications, refer to the machine layout drawing.

The available infeed time depends on:

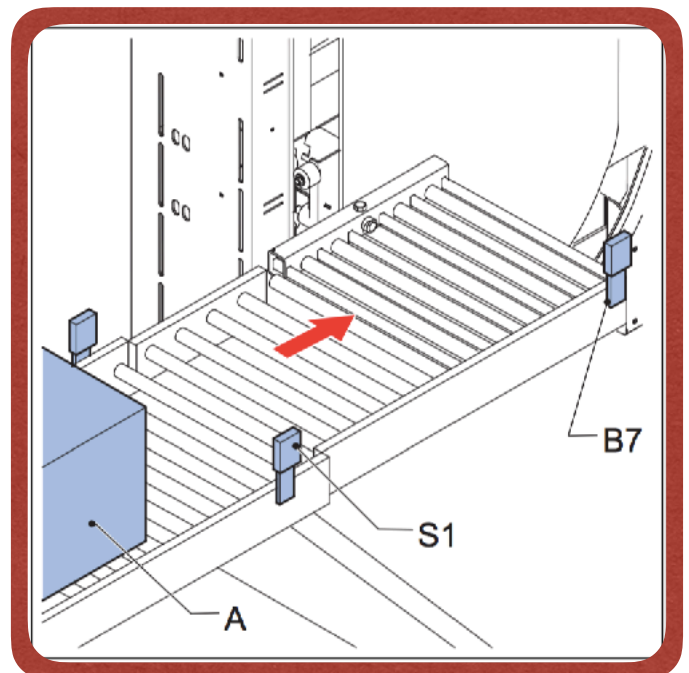
- The speed of the product carriers.
- The dimensions of the product carriers.
- The dimensions of the products
- The speed of the conveyors.

S1 Supply conveyor sensor

B7 End of infeed conveyor sensor

A Product

The product is fed in onto the supply conveyor and monitored by sensor S1. The sensor is located on the end of the supply conveyor. The product (A) will wait at this position until the product release sensor B1 (not shown in this figure) sends a release signal to infeed the product to the machine. Refer to sensor B7 as shown in the illustration at the start of section Products are supplied to the machine only when this release signal has been sent.



If a product backup occurs, the release to the infeed signal must be stopped to make sure further products are not infeed to the machine. It is still possible to discharge products that are still in the machine.

Vertical Conveyor

Monitoring products supplied to the infeed/outfeed conveyor

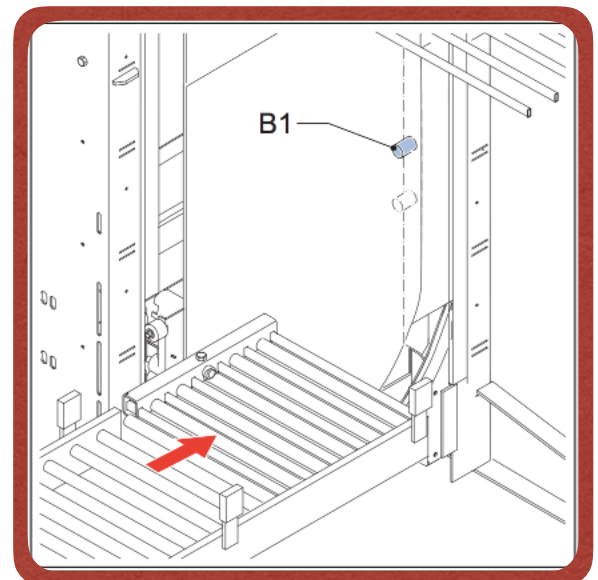
When a product has come off the supply conveyor this is detected by sensor S1. The transport to the infeed conveyor must stop. Sensor B7 detects the product when it is far enough onto the infeed conveyor. The infeed conveyor must also be stopped.

The transporter empty photocell monitors run-time. The run-time function checks to make sure a product does not take too long to move from the supply conveyor to the infeed conveyor.

Product Release Sensor

The product release sensor B1 is operated by each product carrier of the machine in the circular movement, after which a time frame is started. At the moment that this time frame is active, the infeed position is free and there is time to feed in a product to the infeed position.

This sensor must be mounted to the machine frame. The sensor must be set so that it is activated when the product carrier is just above the highest product at the infeed position. The time frame (set by software) must be long enough for feeding in the product at the utmost time without having to stop the machine. This implies that this time depends on the circulation speed of the product carriers and on the infeed speed of the product. This time frame must be set during the test phase.



Type to enter textlf a product backup occurs, the release to the infeed signal must be stopped to make sure further products are not infeed to the machine. It is still possible to discharge products that are still in the machine.

DANGER



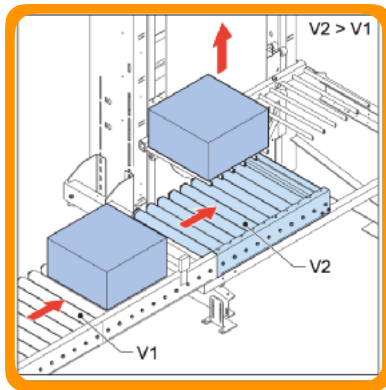
When the machine has 1 product carrier, the lift has a failure when:

- **There is a product on the outfeed conveyor AND**
- **The product carrier reaches the sensor B3**

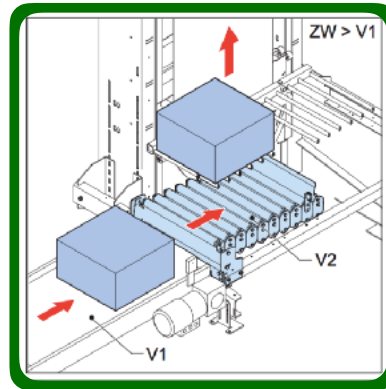
Vertical Conveyor



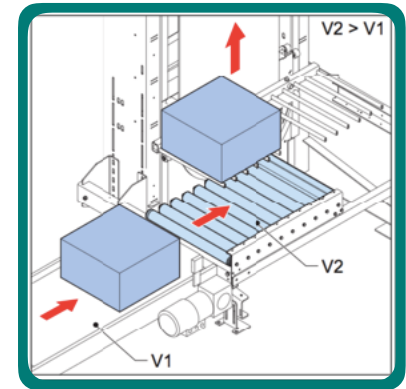
Note:- In the configurations illustrated below, the count photocell S1 must be mounted so the opening between products can be detected.



Product infeed with 2 driven conveyors



Product infeed with 1 driven and 1 gravity conveyor



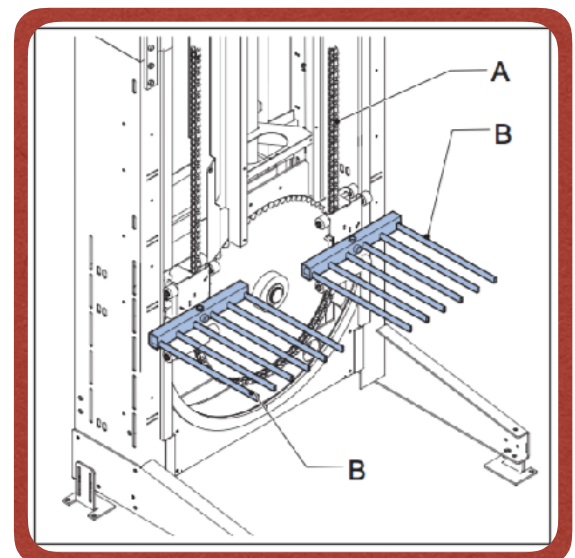
Product infeed with 1 driven conveyor

Product Transportation

- ❖ A Chain system
- ❖ B Product carrier

The continuously circulating chain system (A) takes along one or more product carriers (B). These product carriers have a fork-like shape, allowing them to move between the infeed and outfeed conveyors.

Impact forces occur when picking up and putting down the product because the product is abruptly brought to speed. If required, the infeed and outfeed conveyors can be positioned on a slight incline for picking up and putting down the product more smoothly. This will by nature be the case with a gravity conveyor.



As the infeed is discontinuous, buffering product at the supply may be necessary in some cases. If this is not possible and stops of the infeed are undesired, the rotation speed of the machine can be brought in line with the speed of the infeed using a frequency controller.

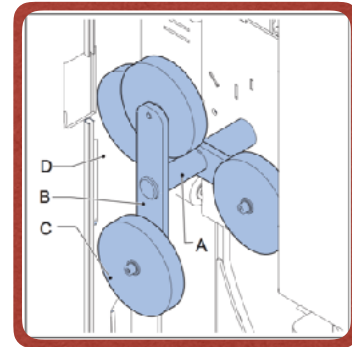
Vertical Conveyor

Keeping the product carriers horizontal

Rear side

During transportation, the product carriers are kept horizontal by a circulation system.

- ❖ A Shaft
- ❖ B Guide
- ❖ C Wheels of the guide
- ❖ D Guide bars

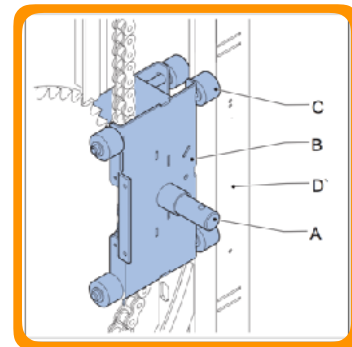


The product carrier has been mounted to a shaft (A) that has been coupled to a guide (B) with 4 wheels (C). The wheels of the guide run below and above along guide bars (D) that keep the product carrier horizontal as seen from the front of the machine.

Front side

- ❖ A Shaft
- ❖ B Trolley
- ❖ C Wheels of the Trolley
- ❖ D Frame

Between the product carrier and the guide there is the trolley (B) with wheels (C) on both sides of the frame (D). The trolley keeps the product carrier horizontal as seen from the side of the machine.



Product outfeed

The product must be taken from the outfeed conveyor in time to ensure a continuous running of the machine. This places demands on the outfeed speed and the outfeed acceleration. See the layout drawing.

The Available outfeed time depends on:

- ❖ The Speed of the product carriers.
- ❖ The dimensions of the product carriers.
- ❖ The dimensions of the products.
- ❖ The Speed of the Conveyors.

Vertical Conveyor

Monitoring of the passage of the product carrier

- B3 Start time frame sensor
- B8 Sensor for checking presence of product on the outfeed
- B9 Sensor for checking if product has left the outfeed (on falling edge)

Sensor B3 has been mounted into the machine. This sensor is operated by each product carrier in the circulating movement. After this a time frame will start. At the end of this time frame it is checked whether the passage where the product carrier passes the putting down position is free from product. This is checked by sensors B8 and B9

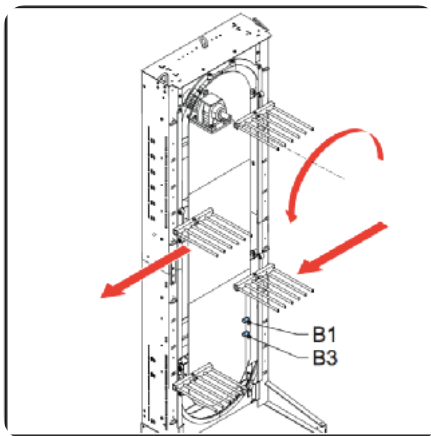
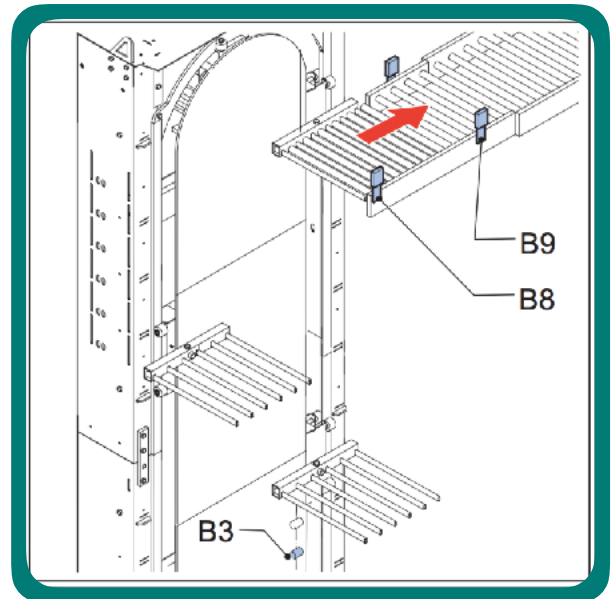


Fig. 1 Ascending carrier

- B1 Product release sensor
- B3 Start time frame sensor

The infeed conveyor is on the lower position and the outfeed conveyor is on the higher position. The products are transported from the lower to the higher position.

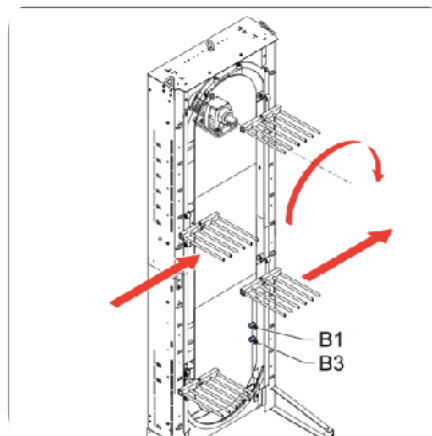


Fig. 2 Descending carrier

The infeed conveyor is on the higher position and the outfeed conveyor is on the lower position. The products are transported from the higher to the lower position.

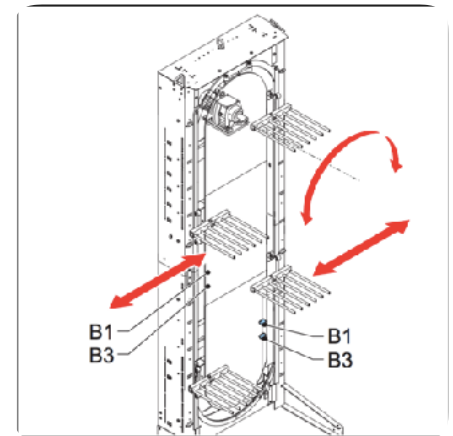


Fig. 3 Descending / Ascending carrier

The descending / ascending carrier can operate in 2 directions. There are 2 sets of sensors, 1 set to operate to the left direction and 1 set to operate to the right direction.

Vertical Conveyor

How Vertical Lift Conveyors increase plant efficiency

- ❖ Provide Multi-level transportation in minimum space - Product travels straight up and down, no incline required.
- ❖ Cut floor space requirements up to 90%
- ❖ Utilise vacant air space above the floor level. Ideal for operations that are automatic or require little or no supervision.
- ❖ Open up Mezzanines and balconies to more effective use.
- ❖ Transport up and over machinery, aisles or other obstacles... avoid expensive production changes.
- ❖ Clear floor areas for more efficient flow of fork lifts, pedestrian traffic, etc.
- ❖ Provide a high flexibility in plant layout.

Information required for quotation.

- ❖ Description of products including size, weight and contact surface.
- ❖ Maximum handling rate (quantity per minute)
- ❖ Infeed and discharge elevations
- ❖ Plant electrical requirements.
- ❖ Special Conditions, such as extreme temperature, moisture, etc.
- ❖ Direction of travel (up, down, reversible)

Accessories

IMPEL SUPPORT FRAME

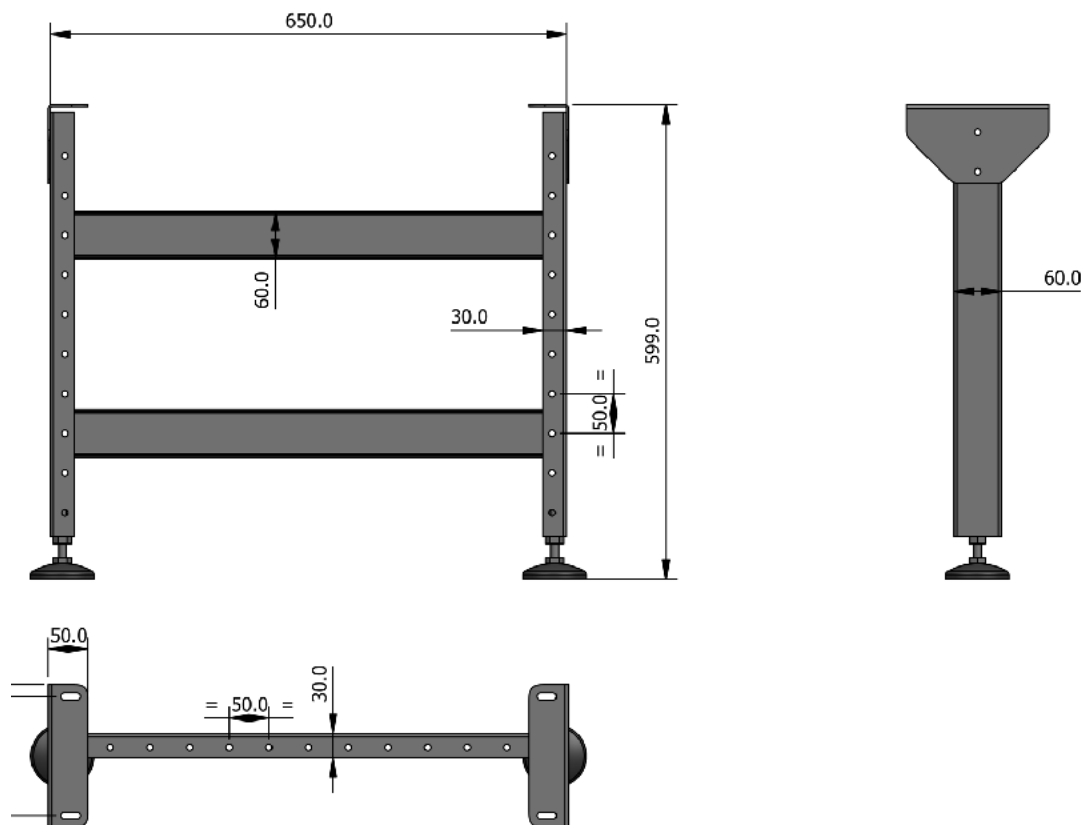


Product Description

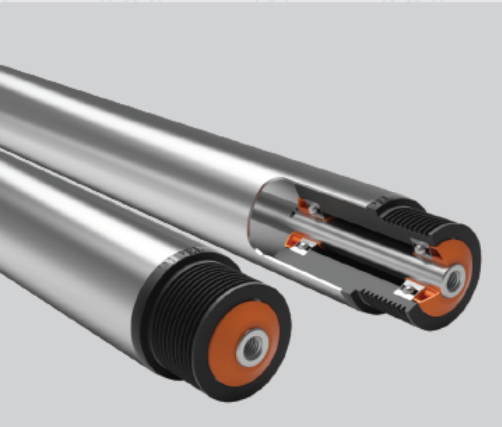
The support is intended for fastening the conveyors to the floor or lift floor. The support foot is infinitely adjustable. A simple height adjustment via threaded spindle can be ordered as an add-on.

Accessories

General Technical Data	Maximum load capacity	200 kgs
	Minimum support Height	350 mm
Side Profile	Dimension	77 X 32 mm
	Numbers of crossbars	2 for 300 to 800 mm height of roller/belt top
		3 for 800 to 1400 mm height of roller/belt top
		4 for 1400 to 2000 mm height of roller/belt top



BF	Between frame	420, 620, 840 mm Other on demand
TW	Modular Width	BF + 80 mm
T.O.R	Top of Roller Height	370 to 2000 mm
	Adjustment range	+/- 50 mm



MOD - APPROCH ULAR

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