

Back-Lit Conveyors

mk North America, Inc.

better products. better solutions



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mk North America, Inc. is a leading manufacturer of high quality profile conveyors. Whether you need a basic belt conveyor or a comprehensive conveyor system, put the mk North America team to work for you. You will experience first-hand the benefits of our innovative design, competitive pricing, exceptional customer service and top quality - all committed to improving the efficiency of your material flow.

The mk Advantages

- Our modular approach reduces engineering and lead time, and offers enormous flexibility and design freedom
- Robust construction and the use of high quality components reduces down-time and operating expenses while increasing productivity
- Our product line is continually updated in order to adapt the demands of an ever-changing marketplace
- Trained field sales and technical application assistance



24 hour Quote Turnaround

In today's fast-paced business world, when you need a quote, you need it fast. We pride ourselves on turning quotes around to our customers within 24 hours of receiving the application parameters.

www.mkNorthAmerica.com



Our new customer-focused website makes it easier and faster to find the conveyor you are looking for. You will find extensive information on all products that mk North America has available.

Custom Solutions

mk Custom Conveyors is an especially innovative and customer-oriented product group. 40 years of experience in the design and manufacture of conveyor systems for various industries enables us to give you competent advice specifically tailored to your specific application. Please contact us with your individual needs.

Online Belt Conveyor Configurator



Our new and easy to use [configurator](#) allows you to build and price your standard flat belt conveyor online within minutes. Every configurable conveyor ships within 5 days. For back-lit conveyors please contact our sales department at
- Phone: (860) 769-5500
- sales@mknorthamerica.com

Our Conveyors

With over 20 different conveying systems, all of which are compatible to each other, mk offers a product variety which is unsurpassed in the marketplace and includes flat belt conveyor, modular plastic conveyor, flat top chain conveyor, pallet conveyor, timing belt conveyor and roller conveyor. Our broad offering, and more than 40 years experience in material handling, allows us to offer robust solutions with long life and reliable operation, while maintaining all the advantages of modular design and expandability.

Back-Lit Conveyors

mk conveyors, better products. better solutions.

mk offers a wide range of back-lit conveyors in various widths and custom lengths. The smooth, continuous surface of a conveyor belt is ideal for many product handling applications. The following are just a selection of the features and benefits of all mk belt conveyors.

- Quick 5 minute belt change
- Strong, box frame construction
- End drive and center drive models`
- Sealed, high-quality ball bearings
- Stainless steel slider beds and crowned pulleys reduce belt wear

bring light into the dark

Back-Lit conveyors are used to provide a greater contrast between the product and the conveyor belt. They are ideal for vision inspection applications - both manual and machine controlled. A light panel is integrated within the frame of our standard GUF-P 2000 series conveyor and emits light through a translucent belt.

- A static-dissipative polycarbonate cover protects the light source while dramatically reducing the amount of static emitted.
- Fluorescent and LED light panels available.
- On/Off switch with 115V power supply

putting it in perspective

The color quality of light is frequently described by its color temperature. Light coming from a normal incandescent lamp is usually about 2700° Kelvin, while a daylight source might have a color temperature of around 5500 -6000° Kelvin. This is why mk features primarily 5400° Kelvin illumination sources.



LED

- Illumination without ultraviolet light
- Preferred for sensitive parts
- Low heat development
- Low failure rate
- Low power consumption
- Jitter-free
- Shock-proof
- No time lag
- High safety (low voltage)
- Long life
- No mercury or heavy metals

Fluorescent

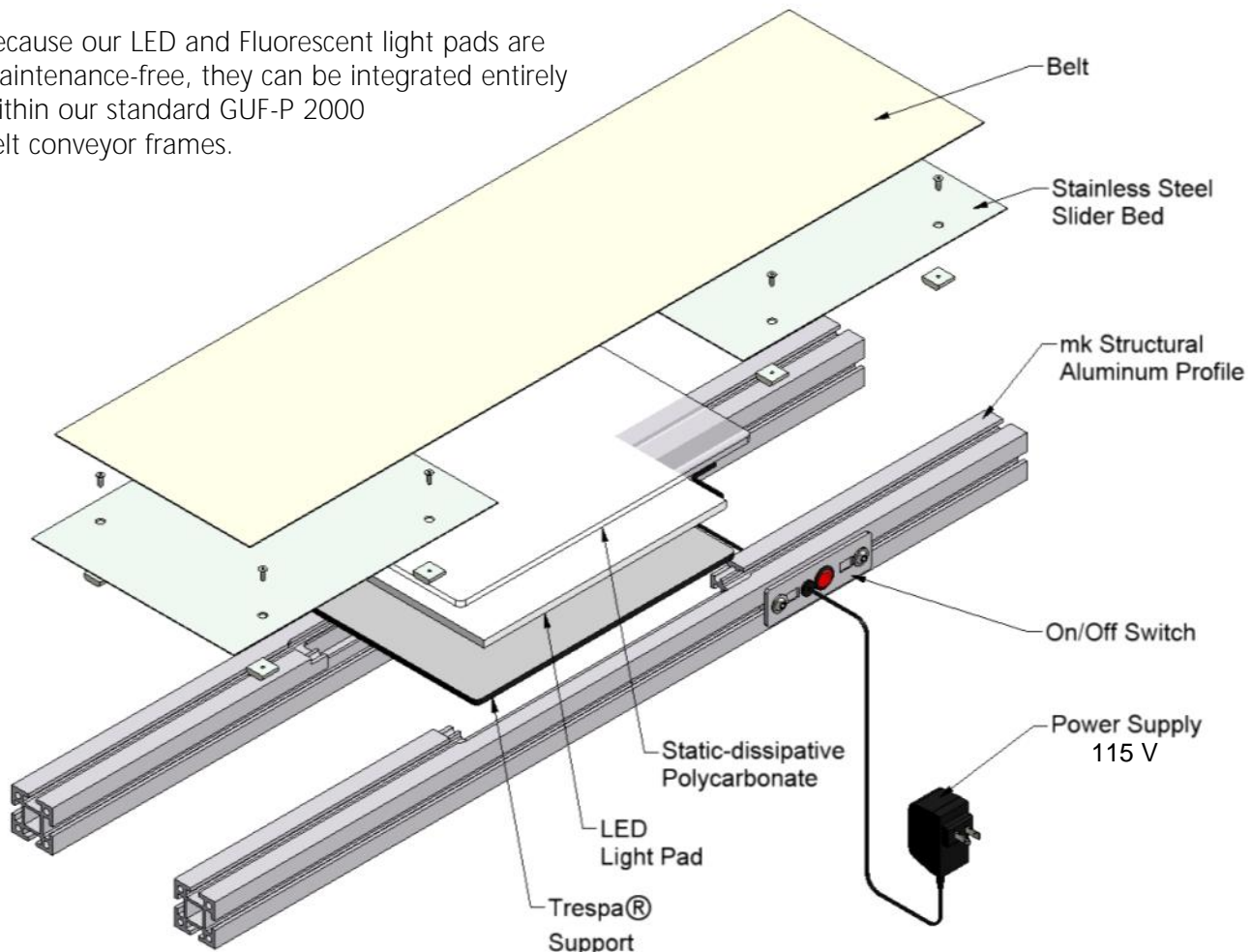
- High light efficiency
- Low-price
- High range of performance types

Note:

The customer can freely specify the light-panel location. Please see page 7 for details.

construction

Because our LED and Fluorescent light pads are maintenance-free, they can be integrated entirely within our standard GUF-P 2000 belt conveyor frames.



Light Specifications

Light Source	Light Area W x L [mm]	Part #	Luminance [°K]	Color	Lamp Life [hours]	Notes
LED	95 x 95	LD-1	5,500	Daylight	70,000	a
	153 x 153	LD-5	5,500	Daylight	70,000	a
	210 x 297	LD-7	5,500	Daylight	70,000	b
	305 x 305	LD-8	5,500	Daylight	70,000	b
	457 x 610	LD-11	5,500	Daylight	70,000	b
	610 x 457	LD-12	5,500	Daylight	70,000	b
	610 x 915	LD-13	5,500	Daylight	70,000	b



Light Source	Light Area W x L [mm]	Part #	Luminance [°K]	Lamp Tone	Lamp Life [hours]	Notes
Fluorescent Lamp	127 x 100	FL-7	5,000	Daylight	10,000	c, d
	120 x 172	FL-6	5,400	Daylight	20,000	e
	195 x 247	FL-5	5,400	Daylight	20,000	e
	280 x 408	FL-3a	5,400	Daylight	10,000	e
	408 x 280	FL-3b	5,400	Daylight	10,000	e, f

Notes:

- | | |
|---------------------------|--|
| a) LEDs on 4 edges | c) can also operate on 6xAAA batteries |
| b) LEDs on 2 edges | d) On/Off switch on unit |
| e) On/Off switch on cable | f) Color-corrected fluorescent |

Dimensions

LED					
BB	Part #	Min OAL		Min LP _I Infeed	Min LP _D Discharge
		End Drive	Center Drive		
100	LD-1	535	640	160	285
200	LD-5	530	640	130	250
250	LD-7	665	675	130	245
400	LD-8	675	685	130	245
500	LD-11	980	990	130	250
700	LD-12	860	840	130	250
700	LD-13	1290	1300	130	250

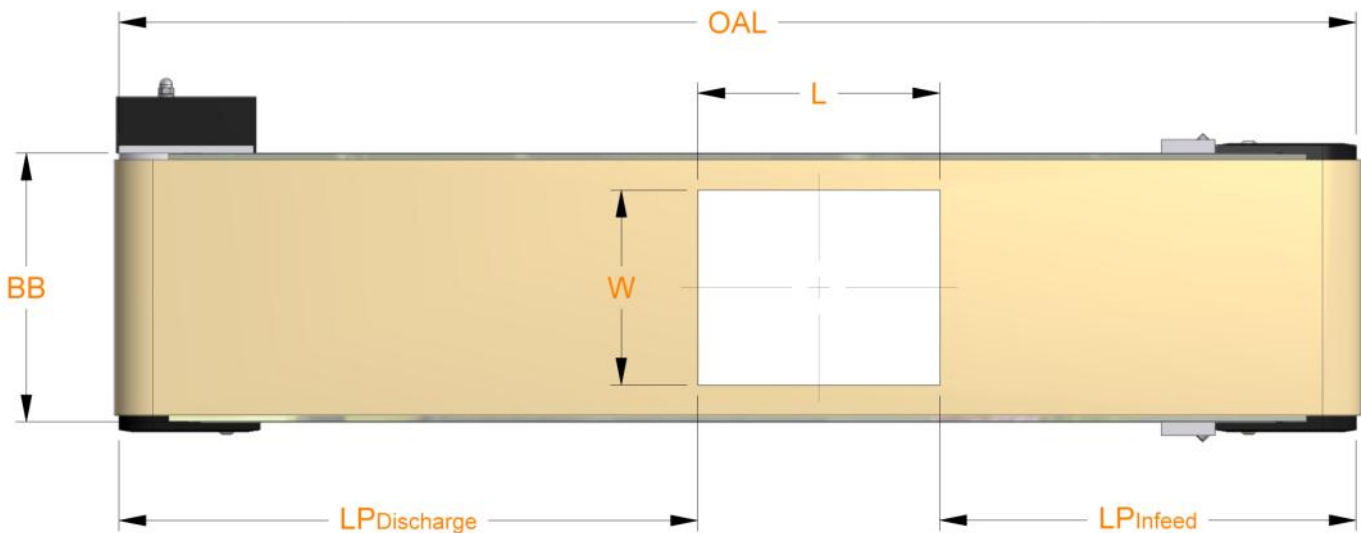
Fluorescent					
BB	Part #	Min OAL		Min LP _I Infeed	Min LP _D Discharge
		End Drive	Center Drive		
200	FL-7	520	640	135	290
200	FL-6	560	640	140	245
250	FL-5	725	975	180	300
300	FL-5	655	705	140	270
400	FL-3a	840	885	155	280
500	FL-3b	770	1013	200	300

Min OAL: Minimum conveyor length without stands. Add 125 mm per stand.

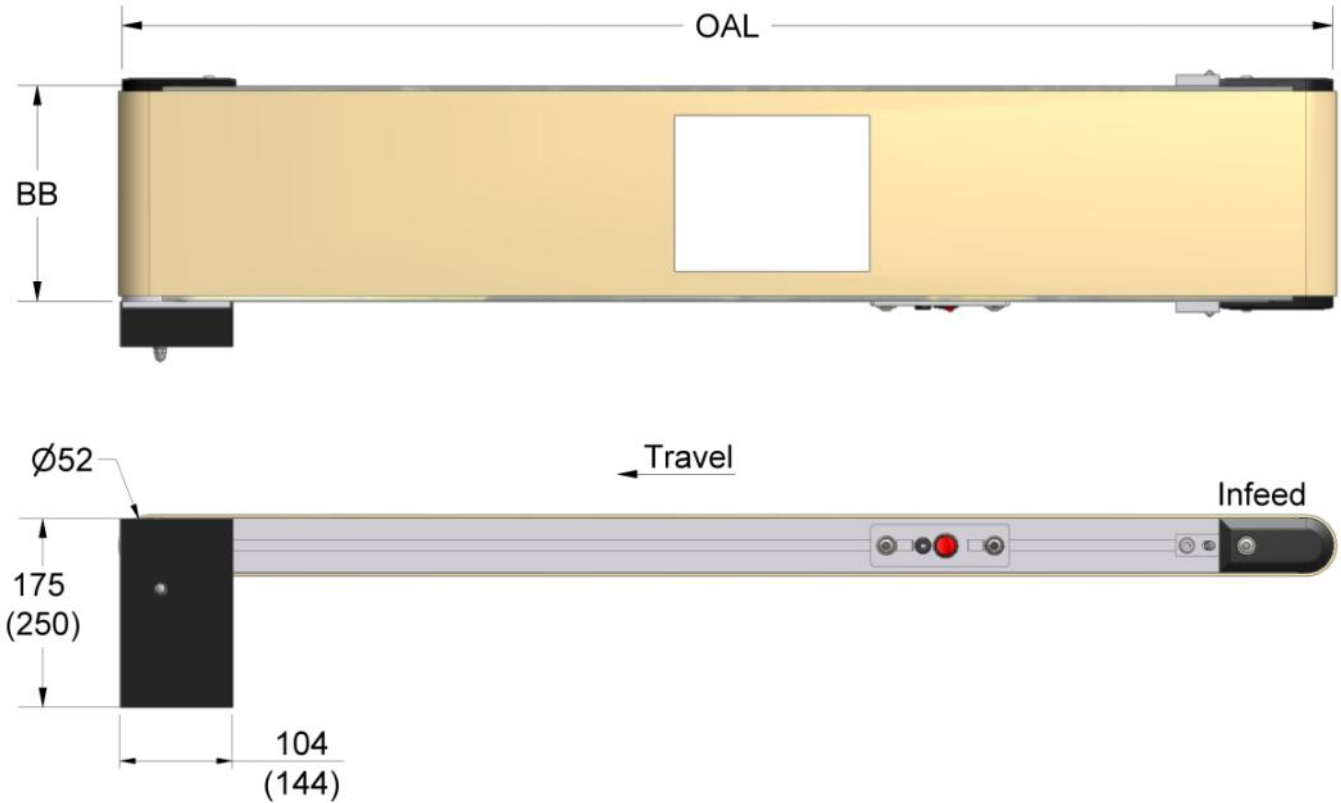
Min LP: For Center Drive conveyors, minimum LP dimension is LP_{Infeed} at both ends.

Note:

The table above shows the maximum size for the light-panel by a given BB. Smaller light-panels can also be integrated.



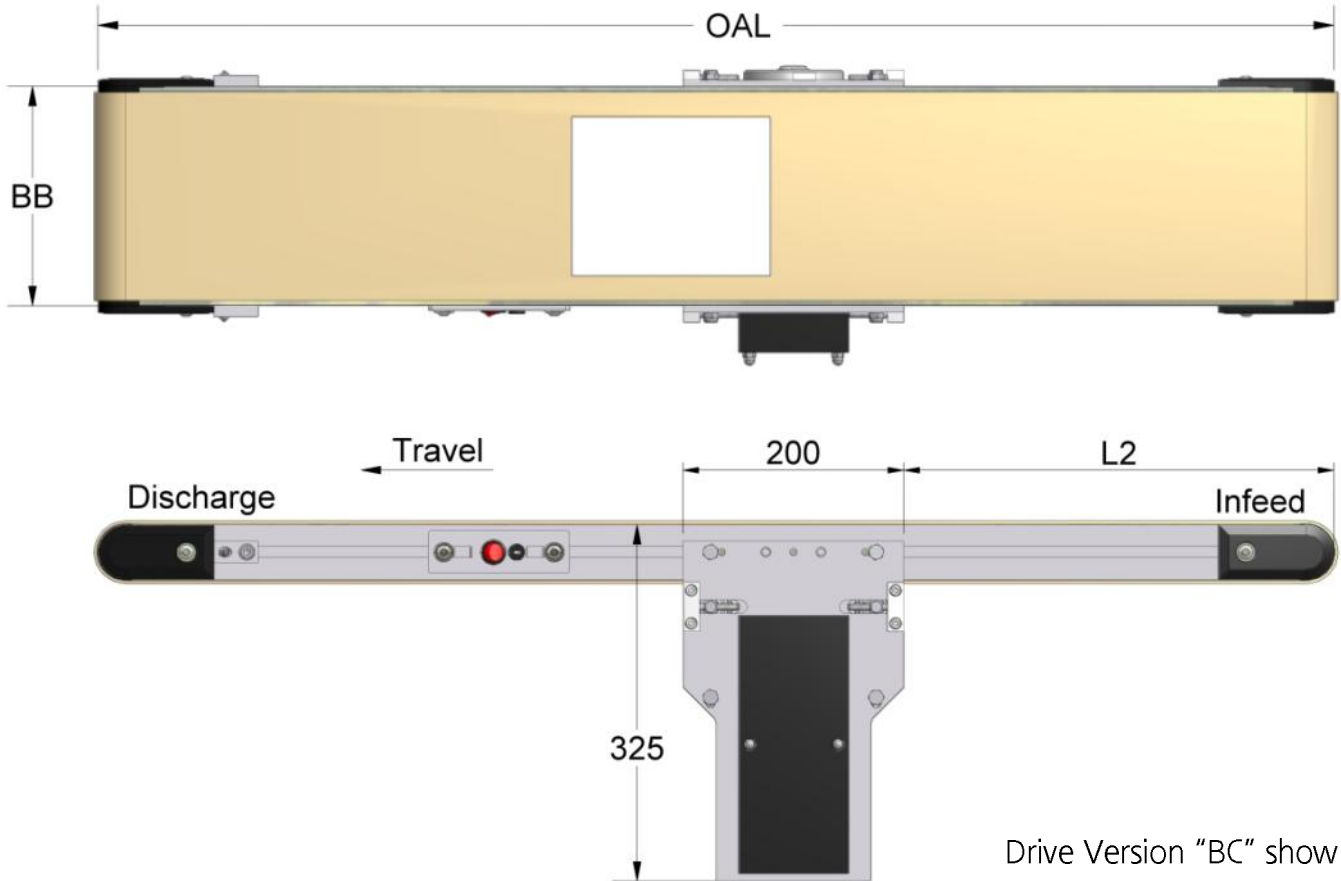
GUF-P 2000 Head Drive



Drive Version "AG" shown.
("AC")

	Dimensions—Technical Data	Remarks
Conveyor Length, OAL	535—10,000 mm	Any increment possible
Conveyor Width, BB	100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	See light panel dimensions for applicable widths
Belt Width	BB-10 mm	Belt types see page 11
Drive Location	Left or Right, relative to travel direction	Left shown
Infeed	Tail 01, 09, 11, 13	01 Standard Tail shown
Speed	to 50 m/min	Constant or Variable
Load	to 35 kg	
Voltage Options	115V 1 ph/ 230V 1 or 3 ph/ 460V 3 ph	

GUF-P 2000 Center Drive

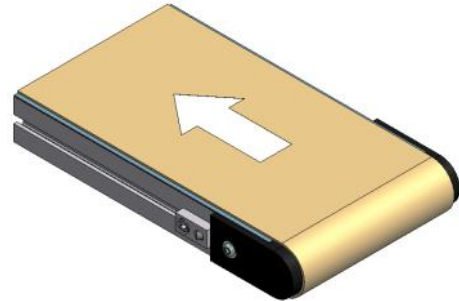
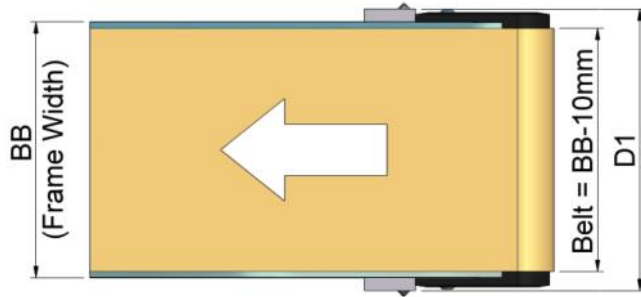


Drive Version "BC" shown.

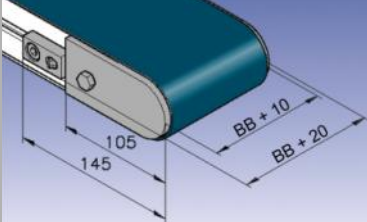
	Dimensions—Technical Data	Remarks
Conveyor Length, OAL	640—10,000 mm	Any increment possible
Conveyor Width, BB	100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	See light panel dimensions for applicable widths
Belt Width	BB-10 mm	Belt types see page 11
Drive Location	Left or Right, relative to travel direction	Specify L2, left shown
Infeed, Discharge	Tail 01, 09, 11, 13	01 Standard Tail shown
Speed	to 50 m/min	Constant or Variable
Load	to 35 kg	
Voltage Options	115V 1 ph/ 230V 1 or 3 ph 460V 3 ph	

Infeed/ Discharge Options

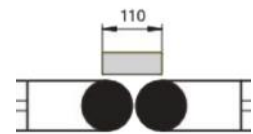
GUF-P 2000 Infeed/ Discharge Options



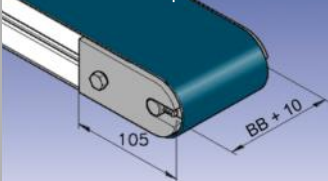
Tail 09 Standard



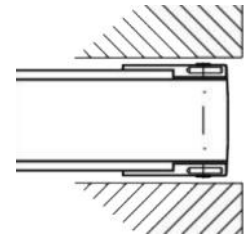
- Ø 52mm crowned roll
- Sealed bearings
- Belt tension and tracking using alignment blocks
- Plastic or aluminum roll holders
- $D1 = BB + 20 \text{ mm}$



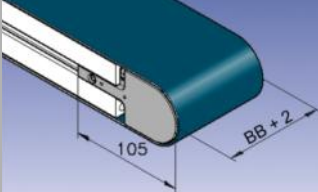
Tail 09 Compact



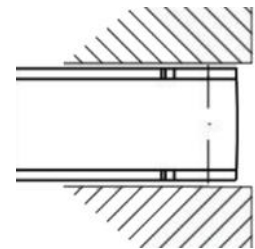
- Ø 52mm crowned roll
- Sealed bearings
- Belt tension using roll holders
- Belt tension and tracking using set screws from end
- $D1 = BB + 10 \text{ mm}$



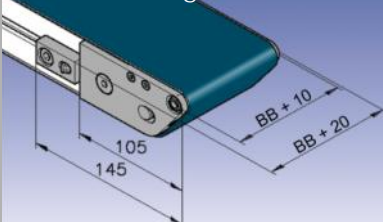
Tail 11 Flush Mount



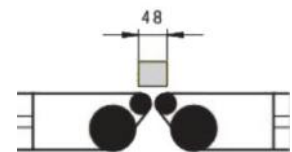
- Ø 52mm crowned roll
- Sealed bearings
- Belt tension using roll holders.
- Belt tension and tracking using roll holders
- $D1 = BB + 2 \text{ mm}$



Tail 13 Rolling Nose Bar



- Rolling knife edge.
- Ø 20mm, shielded bearings.
- Belt tension and tracking using roll holder.
- $D1 = BB + 20 \text{ mm}$



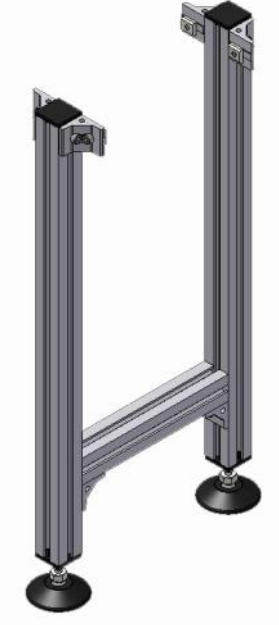

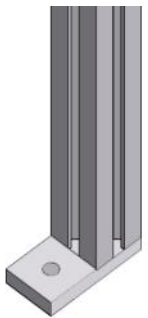
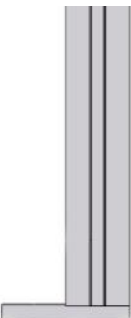
For other specification please see our "mk conveyor system" [catalog](#) page 48/49

Belts

Type	Technical information		
B1, White		<p>Thickness = 0.9 +/- 0.1 mm</p> <p>Topside and underside are urethane impregnated</p> <p>Allowed Temperature Range from -30 to 100°C</p>	<ul style="list-style-type: none"> • Lint-free edges • High abrasion resistance • Antistatic
B2. Transparent		<p>Thickness = 0.6 +/- 0.1 mm</p> <p>Topside and underside are urethane impregnated</p> <p>Allowed Temperature Range from -30 to 100°C</p>	<ul style="list-style-type: none"> • High degree of transparency • Food suitability
B3. Green		<p>Thickness = 0.6 +/- 0.1 mm</p> <p>Topside and underside are urethane impregnated</p> <p>Allowed Temperature Range from -30 to 100°C</p>	<ul style="list-style-type: none"> • Lint-free edges • High abrasion resistance • Food suitability

Shown above is a selection of our standard belt options. Other specifications may be possible.

Stands and Mounting Options

Stands			
Fixed		Adjustable	
	<p>Stand System 55.1</p> <p>Height to top of belt: 500 to 1200 mm</p> <p>Standard Width: BB = 100 to 1200 mm</p> <p>Range of Leveling Pads: ± 5 mm</p>		<p>Stand System 53.1</p> <p>Height to top of belt: 325 \pm 25 mm 400 \pm 50 mm 550 \pm 100 mm 1000 \pm 200 mm</p> <p>Standard Width: BB = 200 to 1200 mm</p> <p>For Casters add 130 mm to height.</p>
Mounting Options			
Floor Mounting		Casters	
			
S0 1		S0 2	S0 3

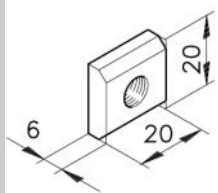
Shown above is a selection of our standard stands and mounting options. Other specifications may be possible.

Side Rails and Accessories

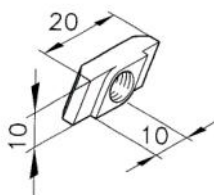
Side Rails	
Fixed	Adjustable
<p>Sizes in mm: V = [25, 50, 75] mm Side rail material is aluminum</p>	<p>Sizes in mm: H = [50, 75, 100] mm V = [75, 100, 150, 200] mm Aluminum backed UHMW</p>

Accessories

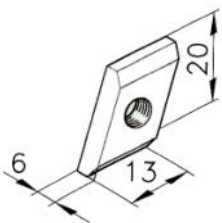
Nuts



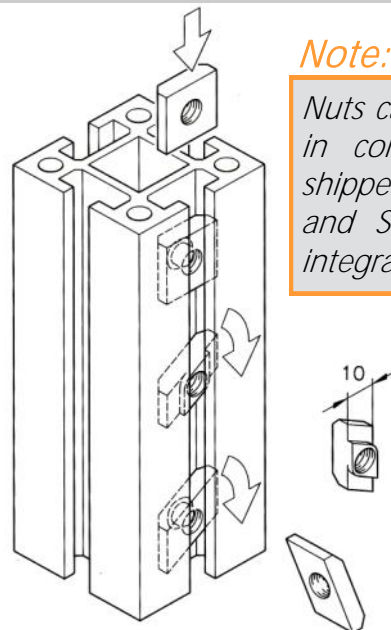
Square nut:
M4, M5, M6, M8
Steel Zn or stainless steel



T-Nut:
M4, M5, M6, M8
Steel Zn



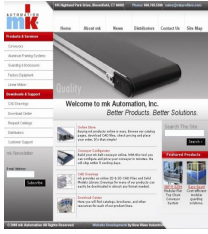
Slot Nut:
M5, M6, M8
Steel Zn or stainless steel



Note:
Nuts can be preinstalled in conveyor frame or shipped loose. T-Nuts and Slot Nuts can be integrated every time.

Shown above is a selection of our accessories and standard rail options. Further specifications and options are shown in our [catalogs](#).

mk Resources and Literature



www.mknorthamerica.com

Our new website makes it easier and faster to find the solution you are looking for. You will find extensive information on all products that mk North America has to offer.

- Electronic quote request forms
- CAD downloads
- Electronic catalogs
- Online belt conveyor configurator

mk Quick Designer Software



“mk QuickDesigner” includes “mk Config” a state-of-the-art and stand-alone for pricing, planning and designing perimeter guards quickly and easily. “mk QuickDesigner” also includes “mk Parts”, our latest electronic catalog with easy access to CAD files in most native and neutral formats.

Conveyor Systems Catalog



We offer 20 different conveying systems, all of which are completely compatible with the mk Aluminum Framings. This spectrum of offerings and more than 40 years of experience in material handling, allows us to offer robust solutions that feature long life and reliable operations.

- 20 different conveyor styles
- Custom solutions
- Engineering support
- Quick delivery

Aluminum Framing System Catalog



The largest offering on the market is at your disposal to build just about anything you can imagine. Simple frames for minimum available space can be manufactured as readily as load-bearing constructions for heavy-duty machinery

- 4 Profile Series (25mm, 40mm, 50mm, 60mm)
- Over 200 extrusion shapes
- High quality, easy-to-use components
- Large inventory, same-day shipments

Guarding Systems & Factory Equipment Catalog



Perimeter guards, machine guards, safety enclosures, clean rooms, work platforms and industrial workstations can be built in a cost-effective way using the mk Aluminum Framing System.

- Flexible and economical solutions
- Turn-key, pre-assembled or kit-form
- Custom solutions
- Design software

Linear Motion Catalog



Glides, positions, roller guides and linear carriages designed as a stand-alone or add-on for handling applications requiring high repeatability and precision.

- Tracks available for all mk Profile Series
- Add-on principle
- High precision and repeatability
- Application support



Quote Request Form

Contact Information

Name		Date	
Company		Fax	
Phone		Email	

Product

Material		Unit weight	
Description		Total weight	
Temperature			

Light Panel (pages 06-07)

Part #		Location		<input type="checkbox"/> LP _b <input type="checkbox"/> LP _i
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Conveyor (pages 08-09)

Length OAL		Frame Width BB	
Type	<input type="checkbox"/> Head Drive <input type="checkbox"/> Center Drive	Drive Location	<input type="checkbox"/> Left <input type="checkbox"/> Right
Infeed Tail	Discharge Tail	Center Drive location	
Belt Type			
Speed	<input type="checkbox"/> fpm <input type="checkbox"/> mpm	Speed is	<input type="checkbox"/> constant <input type="checkbox"/> variable
Available power	VAC	Ph	Hz
Other			
		Products	<input type="checkbox"/> will <input type="checkbox"/> will not accumulate

Stands (pages 12)

Type	<input type="checkbox"/> None <input type="checkbox"/> Fixed <input type="checkbox"/> Adjustable	Height	
Options	<input type="checkbox"/> None <input type="checkbox"/> SO 1 <input type="checkbox"/> SO 2 <input type="checkbox"/> SO 3		
Other			

Rails and Accessories (page 13)

Type	<input type="checkbox"/> None <input type="checkbox"/> Fixed <input type="checkbox"/> Adjustable	Dimensions	V:	H:
Accessories				
Other				

Environment

Unusual ambient conditions	

FAX completed form to (860)769-5505 or [EMAIL to Sales@mkNorthAmerica.com](mailto:Sales@mkNorthAmerica.com)



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