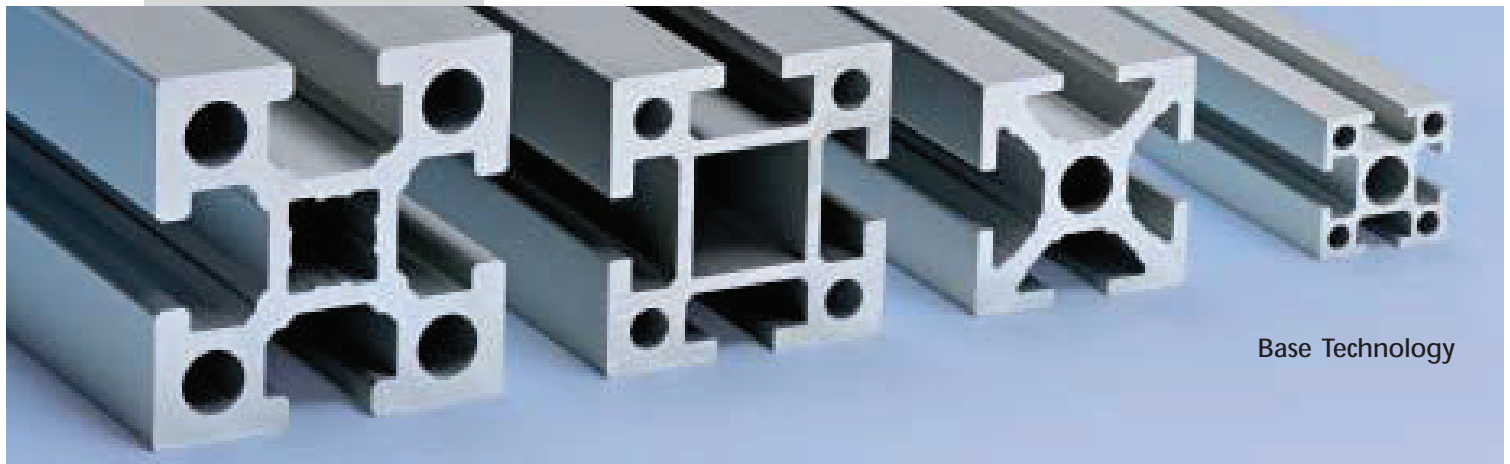


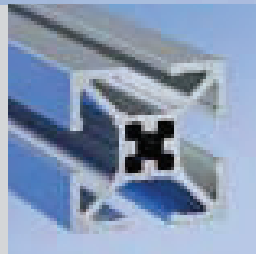


# mk Conveyor Technology

# One construction kit – many options



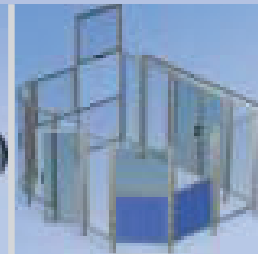
Base Technology



Profile Technology



Conveyor Technology



Factory Equipment



Linear Motion

## *"mk creating flexibility through modularity"*

The mk system is based on high-quality aluminum profiles. Over 250 different profiles, extensive connectors and a large range of accessories form the basis of the four mk business segments: mk profile technology, mk conveyor technology, mk linear technology (linear motion) and mk factory equipment. Select the mechanical components and modules from our extensive system construction kit to create all the basic functions of your automation systems. Make decisions based on your production capacity, for example; on when and where you purchase the system components; as individual units, as an assembly kit or as a fully functional module. Your benefits:

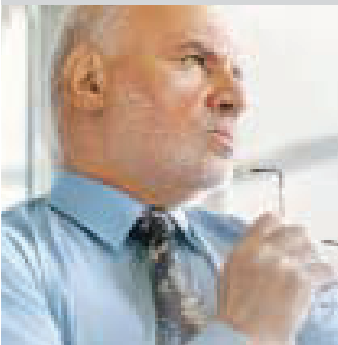
The mk system can radically simplify complex machinery design and construction and makes it more effective because the individual mk system components can easily be combined with each other. In this way, you can achieve optimum plant and system configurations. The system is flexible and the materials used are of the highest quality. This enables expansion, or any equipment changes, to be easily implemented. Last, but not least, system construction using standard components enables you to considerably simplify your entire project planning process and to reduce project costs and risks by purchasing specific functions at fixed prices!

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*Introducing mk*

Your tasks are what  
drive us – worldwide



*"Modular products which fulfill the functions  
of automation systems at fixed prices"*

As a mechanical engineer, you develop automation systems to help your customers optimize their production processes and to save costs. The mk Technology Group supports you in this task by supplying the technical components and modules which make complex engineering easier and your production process more efficient. Take advantage of the mk system which has been





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developed over some 40 years for your benefit, and with great enthusiasm for technical solutions and an understanding of market requirements. We are able to supply you with everything you need from a single source based on the uniform construction principle – modular and flexible, and with the highest quality. From simple profile elements for building precise machine frames to

the complex linear and conveyor technology modules through to system elements for your factory equipment. All of the mk business segments are part of a modular system and are therefore compatible with each other. You order the parts you need – we deliver them quickly and reliably, assembled or not, just as you need them. Why not do what countless other satisfied customers

across the world do – construct with mk! It doesn't matter whether you are in the special mechanical engineering sector and are looking for a competent, reliable and flexible partner for your projects, or whether you are involved in standard mechanical engineering and rely on dependable suppliers who provide high-quality sub-components for your systems. We know your market and its requirements.

*Introducing mk*

## The mk modular system – systematically advantageous



### *The advantages of the mk modular system*

- Everything from a single source: Compatible profile, conveyor and linear technologies as well as factory equipment
- Outsourcing of fixed project functions at fixed prices helps integrators to optimize their project costs and risks
- Covers all basic mechanical functions of automation systems (support structure, conveyor technology, handling and safety elements)
- Widest system profile range on the market reduces the need for special design and therefore provides a cost benefit due to standardization
- Simplified system project planning through modular design and compatibility
- Top material quality for high load-bearing capacity and long lifetimes
- Maximum flexibility for system expansions or modifications due to the compatibility and reusability of the individual components and modules
- Utilize your resources optimally due to the freely selectable degree to which our products can be assembled
- Simplification of planning & design thanks to online CAD library and 3D configurator
- Reduced production and assembly times by the use of threaded connectors
- 24-hour ordering available from the mk online shop
- Online order tracking creates transparency

# Our range of products and services



One basic technology, four business segments, thousands of products and constant engineering innovation: That is mk.

Profile technology, conveyor technology, linear motion technology

and factory equipment – mk supplies the complete system construction kits for all of the essential basic functions of automation systems – standardized and compatible. And everything is available from a single source.

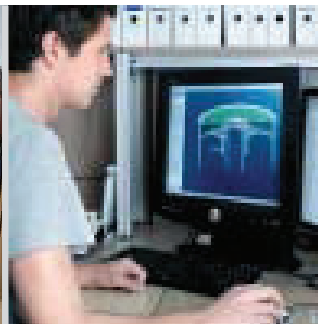
From the provision of individual components and assemblies to modules right down to complete solutions. Put your trust in the flexible and practical mk system with its countless benefits!

## *mk – the definition of service*



### **Consultation**

Consultation and advice from mk regarding your project allows you to benefit from all our strengths. Sales staff with considerable experience and professional consultant engineers with both analysis and method expertise are able to assist you in designing solutions based on modular products.



### **Conceptual design & proposal**

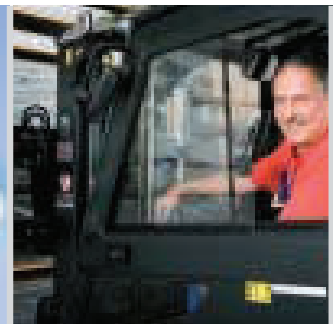
For the best solution at the best price, we provide the following services:

- Simulation and tests/  
engineering services
  - CAD library
  - Design
- Configurator for  
perimeter guarding
- Tools for preparing  
quotations, price lists
- Contact on site



### **Production**

We develop components and modules for your factory automation. When it comes to setting up your system using mk products, this means you decide whether modules are to be delivered assembled or unassembled – depending how you require them for your own project process.



### **After-sales support**

- International, locally based support from locations worldwide
  - Compatibility and modularity of all mk products
  - Maintenance and Service agreements for mk products selectable response times
  - Stability-oriented pricing policy
- Spare parts supply

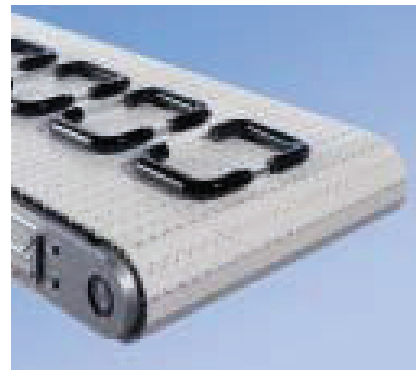
*Our Business Fields –*  
mk Conveyor Technology



*"Our Conveyor Technology  
product catalog"*

There are three important factors to take into account when choosing the right conveyor technology: high process reliability, fast availability and a reasonable price. mk conveyor technology offers you all three of these benefits.

mk conveyor technology provides you with an extensive standardized range which enables precise matching of the individual modules

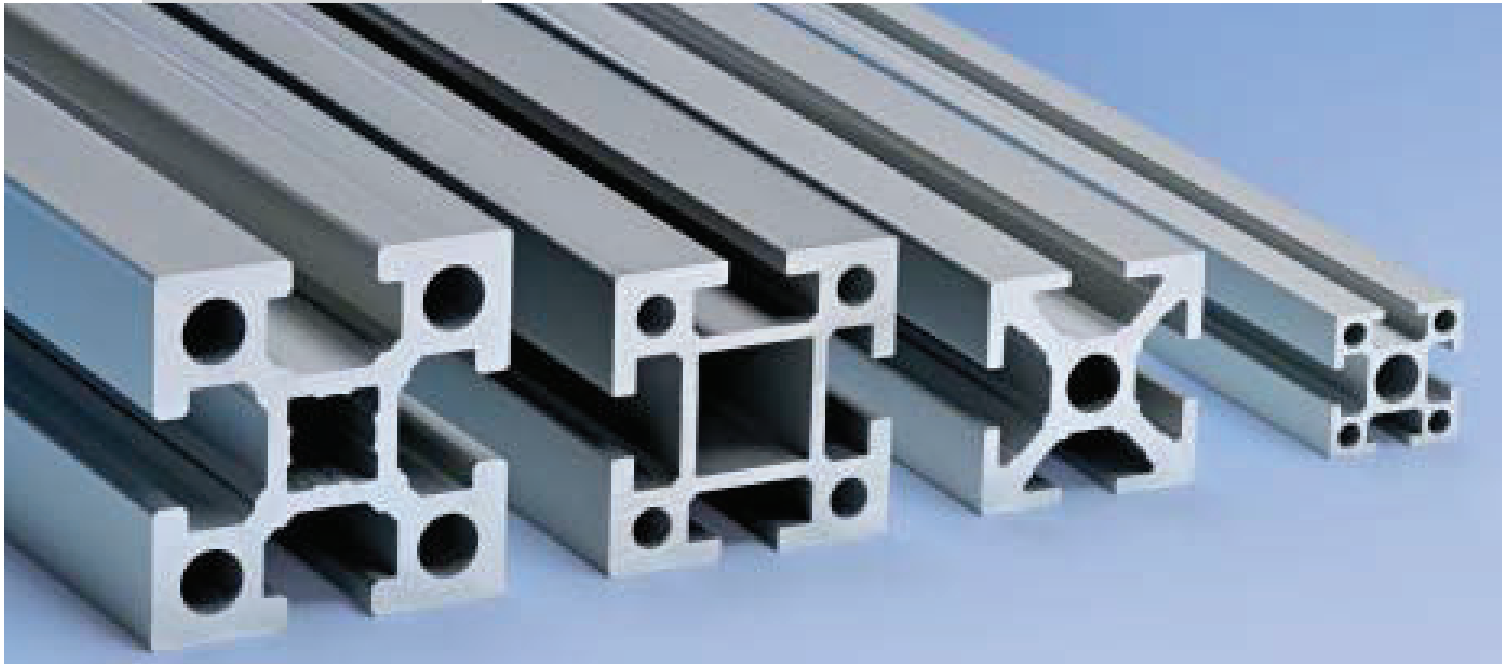


to their respective requirements. This ensures maximum process reliability. Our products include flat and timing belt conveyors, steel and plastic chain conveyors as well as roller conveyors. You can choose from a total of 20 conveyor systems. This enables your system to be designed precisely to the workpiece and the environment in which it is used. To do so, use our product com-

parison tool on the internet. Individual production processes and automation can be taken into account as well as specific customer requirements, i.e. integration within existing systems.

Thanks to standardization, our range is cost-effective, easy to expand and quickly available.

*Our Business Fields –*  
mk Profile Technology



*"Our Profile Technology  
product catalog"*

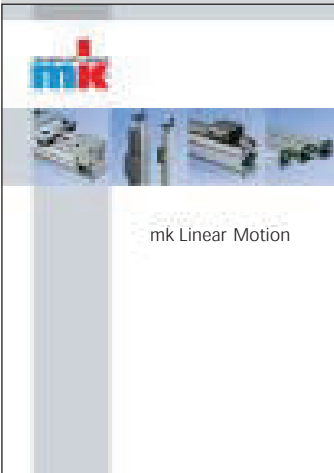
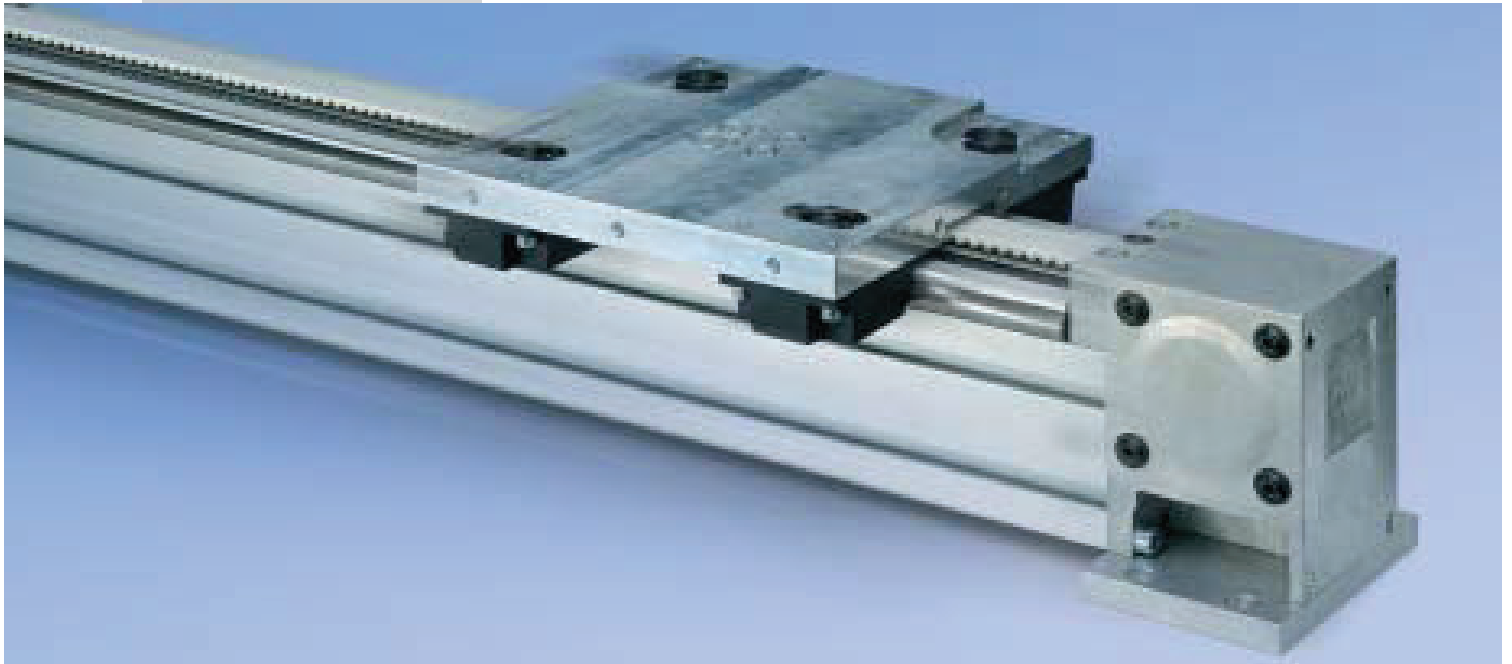
With mk profile technology you build using flexibility and established technology from the outset. With an excess of 250 system profiles made from high-quality alloys, perfected stable connectors, as well as a comprehensive range of accessories and compatible standardized components, you can realize virtually all structural designs for machine frames, guards and factory equipment. With four aluminum profile series – categorized according to the base



dimensions 25, 40, 50 and 60 mm – a perfect profile series is available for every application. Simple frames with small spatial requirements can be built just as effectively as load-bearing structures for heavy machinery. Our experienced engineers and customer-focused design aids such as the 3D configurator and online CAD library provide further support. The benefit that the mk system offers is an assembly that is substantially simpler for you due to the use

of standard components. You are able to focus on the functions rather than the design of individual components. You also profit from the compatibility of the profiles with each other. This means systems can be easily expanded or modified as and when necessary. Due to the high quality of the products and connectors, all components have a long life and can be reused after being disassembled.

*Our Business Fields –*  
mk Linear Motion



*"Our Linear Motion  
product catalog"*

mk linear technology features customized linear systems which set themselves apart thanks to their high reliability in operation and precise running. Choose from a wide selection. With our add-on principle you can achieve limitless configuration options for linear functions. This results in an optimum design that is tailored



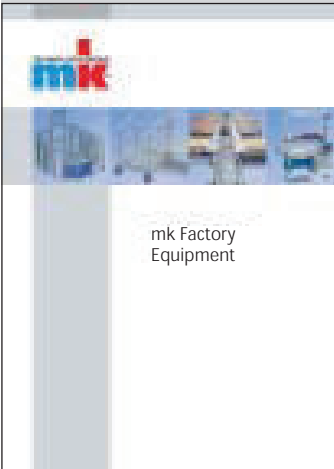


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to your needs. We offer slide-ways, track roller guides and recirculating ball bearings. You can choose between profile tracks, linear tracks and linear modules for handling applications with high repeat accuracy. On request, carriages with pneumatic or electro-mechanical drive elements may also be

incorporated. An additional benefit: mk guides are compatible with all mk profile series. The add-on principle enables tracks to be mounted directly onto your system's load-bearing structure. You save on material, cost and space.

*Our Business Fields –*  
mk Factory Equipment



*"Our Factory Equipment  
product catalog"*

Factory equipment from mk is characterized by modular equipment. Based on the basic technology of the mk profiles, you have an economic and comprehensive range of elements for individual factory equipment.

Your benefit: Due to the modular design you are completely flexible when it comes to designing your



workstations and work areas as functionally and ergonomically as possible. A module construction kit for enclosures with swing, sliding and lifting doors enables you to configure perimeter guards using a 3D configurator. If the conditions on site change, it is easy to modify or expand, even using the existing modules. In addition, the individual modules can be used to set up

individual workstations for the workshop, assembly areas or offices, which satisfy all aesthetic, functional and ergonomic requirements. Our modules are complemented by an extensive range of stylish and functional guard rails, stairs and platforms which enable you to complete the design of your plant layout from a single source.



## *Information about Conveyor Technology*

# Advantages



### *Advantages of mk Conveyor Technology*

- Optimum functionality of every system thanks to the 20 different conveyor systems which can be selected to suit the properties of the product to be transported as well as the environment in which the conveyor is used
- Simplified planning and design using standardized modules
- Maximum process reliability is assured by: optimum functionality, mature technology, high-quality materials and purchased parts, fast worldwide spare parts supply
- Cost savings and short delivery times due to standard modular construction
- High level of flexibility in systems manufacture and modification due to compatibility with all other mk profile technology, linear technology and factory equipment systems
- Competent design advice and support from mk's sales engineers
- Customer-focused assistance, such as an online CAD library

By selecting the ideal conveyor system for your conveying task, mk ensures you maximum process reliability. Use the criteria

list below to choose the conveyor suitable for your transport needs from our wide range of 20 different systems. Our selection and

order aids, on pages 18 and 19, provide further help for your design planning.

## *Criteria for selecting the ideal conveyor*

- **Property of the product to be transported**
  - Weight
  - Shape
  - Temperature
  - Size
  - Sensitivity to shock
  - Dry vs. damp
- **Environment**
  - Temperature
  - Dirty, e.g. due to dust
  - Explosion protection requirements
  - Clean room conditions
  - Food regulations
  - Chemical resistance requirements
- **Transport path**
  - Straight-line and curved transport
  - Transport on one level or on different elevations
- **Transfer (acceptance and handover) of the product being transported**
  - Defined acceptance and handover
- **Type of transport**
  - Accumulation vs. continuous transport
  - Continuous or intermittent duty
  - Defined orientation during transport
- **Speed and cycle time**

# Information about Conveyor Technology

## Selecting the System

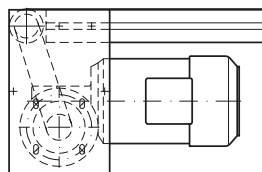
Type	Specification										
	Conveyor width mm	Conveyor length mm	Total load max. kg	Speed max. m/min	Minimum pulley diameter mm	Reversible	Incline available	Packaged food suitability	Curve	Continuous duty Accumulation	Indexable
<b>Belt Conveyors</b>   page 20											
GUF-P MINI	75/100/150	410-5000	25	50	22/32/52	•	•	•	•	•	•
GUF-P 2000	50-800	420-10000	75	80	10/20/52	•	•	•	•	•	•
GUF-P 2041	200-1200	500-10000	150	60	20/85	•	•	•	•	•	•
GUF-P 2004	200-2000	600-20000	200	60	105			•	•	•	•
KGF-P 2040	300-600*	-	30	30	20	•	•	•	•	•	•
DGF-P 2001	100-250	300-2000	15	30	25			•	•	•	•
<b>Modular Belt Conveyors</b>   page 104											
MBF-P 2040.02	210-1010	400-10000	150	30	110			•	•	•	•
<b>Incline Conveyors</b>   page 116											
KFG-P 2000	300-700*	-	50	15	52			•	•	•	•
KFM-P 2040.86	210-710	-	-	30	95			•	•	•	•
KFS-P 2040.86	210-710	-	-	12	100			•	•	•	•
<b>Timing Belt Conveyor</b>   page 150											
ZRF-P 2010	200-2000	500-6000	100	30	85			•	•	•	•
ZRF-P 2040.02	40/80/120/160	400-10000	200	30	100			•	•	•	•
<b>Chain Conveyors</b>   page 178											
KTF-P 2010	200-2000	500-10000	200	30	90	•			•	•	•
SRF-P 2010	200-2000	500-10000	200	30	90	•			•	•	•
SRF-P 2012	200-2000	1000-10000	300	30	100	•			•	•	•
<b>Flat Top Chain Conveyors</b>   page 222											
SBF-P 2254	100/130	-	35	40	150			•	•	•	•
<b>Roller Conveyors</b>   page 240											
RBS-P 2065/2066	290-690*	500-5000	400	-	50				•	•	•
RBS-P 2255	290-690*	500-5000	400	-	50				•	•	•
RBT-P 2255	420-720*	600-10000	400	30	50				•	•	•
RBM-P 2255	380-680*	500-5000	275	70	50	•			•	•	•

\*in 100 mm increments

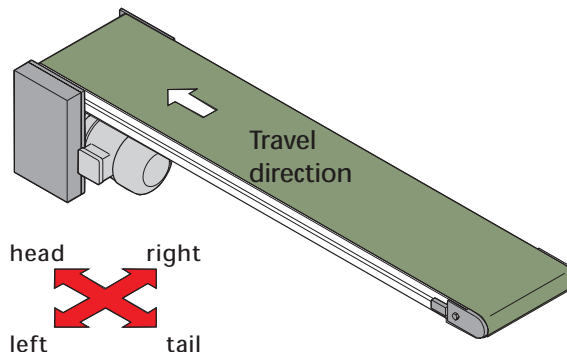
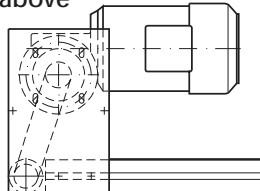
## Drive location

When selecting a drive version, please note the available drive locations (example: head left below, as shown).

below

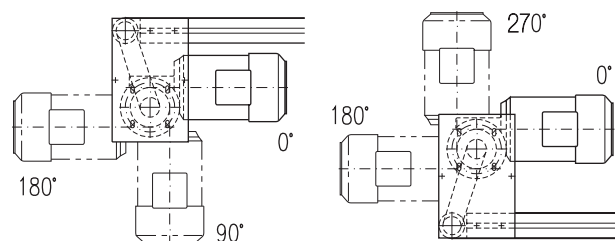


above



## Motor orientation

The motor orientation can be specified as 0°, 90°, 180° or 270° as shown. If no specific orientation is requested, 0° will be supplied as a standard.



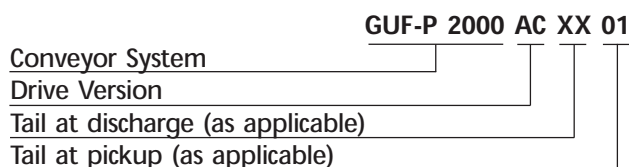
## Order considerations

The conveyor type designation consists of the selected Conveyor System, the Drive Version and the Tail Option (at pickup and discharge as applicable).

If a tail option at the discharge is not available, as in the head drive conveyor shown above, please indicate this with XX.

The configuration of a specific conveyor is influenced by many factors. In order to ensure the correct conveyor for your application, please include any relevant information relating to the product and the environment where the conveyor will be used. Not to be ignored are cleanroom or explosion-proof requirements.

## Conveyor Designation



Besides the Conveyor Designation we also require the following information:








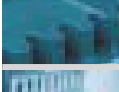

- Conveyor Length
- Conveyor Width
- Product (Weight and Dimensions)
- Drive Orientation
- Speed (constant or variable)
- If variable: Vmax
- Side Rails
- Belt Type
- Stands
- Accessories
- Travel (Continuous or Accumulating)

# mk Belt Conveyors





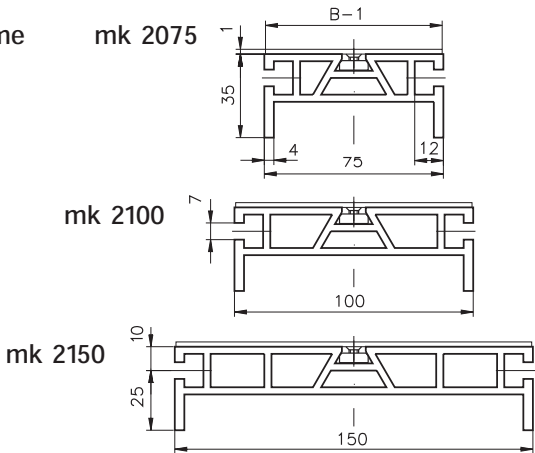
## Contents mk Belt Conveyors

	GUF-P MINI	22
	GUF-P 2000	34
	GUF-P 2041	50
	GUF-P 2004	62
	KGF-P 2040	72
	DGF-P 2001	78
	Belt Conveyors Belt Types	86
	Belt Conveyors Cleat Types	89
	Belt Conveyors Application Examples	94

# Belt Conveyors GUF-P MINI



Conveyor frame  
profiles





Due to its compact design, GUF-P MINI conveyors are ideally suited for equipment applications such as stamping machines, for example, where its small size and rigidity are an asset. The available T-slots (7 mm opening) of Profile mk 2075, mk 2100 or mk 2150 can be used to attach stands, side rails or other components. This single profile frame construction ensures a rigid struc-

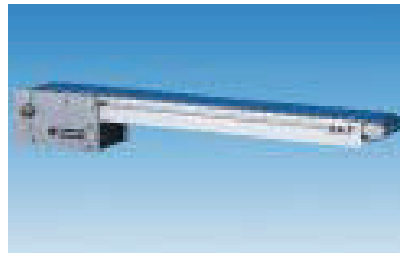
ture with good load carrying capacity, whereby given values for load, speed, etc. are directly related and can vary as a result.

The drive rolls of the different versions can be rubberized in order to efficiently transfer all available motor torque to the belt. Crowned drive and tail drums simplify belt tracking and ensure proper alignment

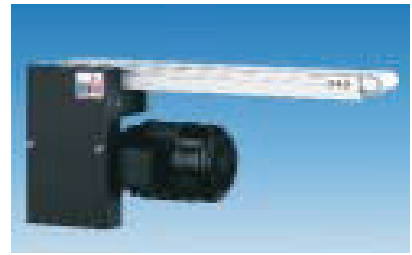
of the belt along the centerline of the frame. The belt travels on a stainless steel slider bed which is fastened to the frame profile, thus providing low friction and ensuring long belt life. Finally, the underside of the frame extends to not only protect the belt, yet allows the conveyor to be placed directly onto an existing surface.

# Belt Conveyors GUF-P MINI

**Drive Version AA**



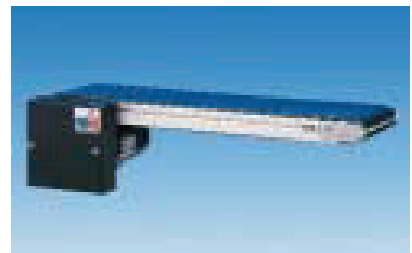
**Drive Version AC**



**Drive Version AD**



**Drive Version AG**



**Drive Version BA**



**Drive Version BC**



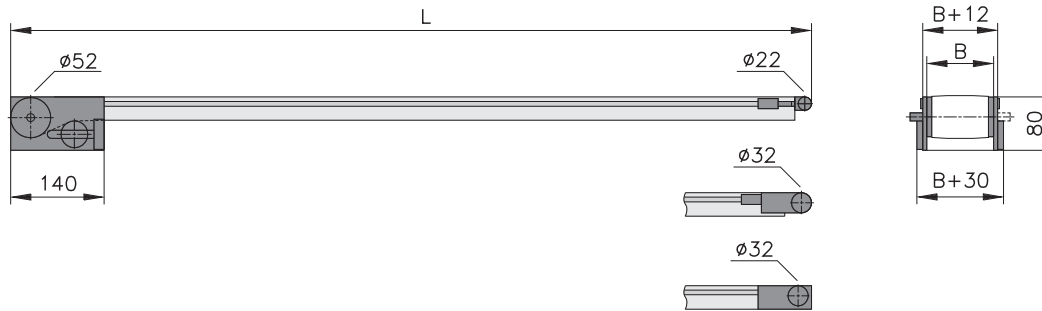
## *Contents GUF-P MINI*

GUF-P MINI AA – Head Drive without Motor – ex. for multiple lanes	26
GUF-P MINI AC – Head Drive – Drive Roll ø 52	27
GUF-P MINI AD – Head Drive – Drive Roll ø 32	28
GUF-P MINI AG – Head Drive – Drive Roll ø 32	29
GUF-P MINI BA – Center Drive without Motor, bidirectional – ex. for multiple lanes	30
GUF-P MINI BC – Center Drive, bidirectional – Drive Roll ø 62	31
GUF-P MINI Motor Information	32
GUF-P MINI Tails	33

# GUF-P MINI AA

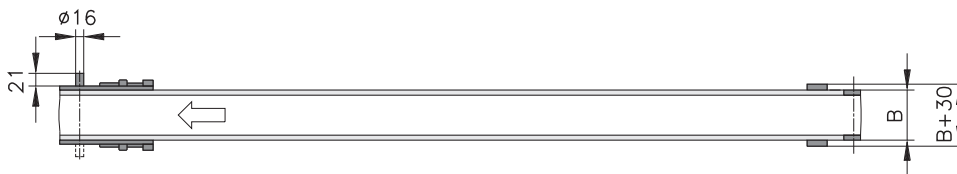
*Belt Conveyors with Head Drive, without Motor*

B20.75.009



Drive shaft on both sides also available.  
Please specify this when inquiring.

Tails  
see page 33



## Features:

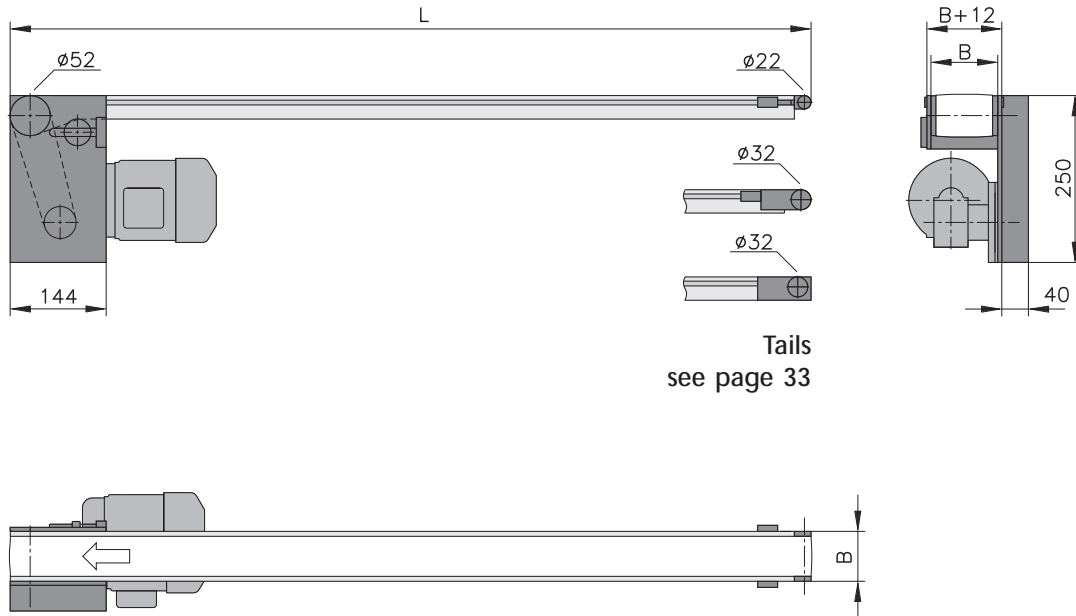
Drive Version AA is often used where multiple lanes are to be slave driven, either parallel or in-line, with a single drive motor. The compact frame is ideal for integrating this conveyor into new or existing equipment. Additional features include a  $\varnothing 52$  mm crowned drive roll, separate belt tension roller, easy belt tracking at tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. Use of cleated belts is not possible with this drive version. The  $\varnothing 16$  mm output shaft has a usable length of 19 mm and includes a 5 x 5 x 16 mm shaft key (DIN 6885).

	Dimensions – Technical Information	Notes
Conveyor length L	between 365 - 5000 mm	any increment possible
Conveyor width B	75 mm, 100 mm and 150 mm	
Belt Width	B-15 mm	see page 86
Drive and Speed	to 60 m/min (200 ft/min)	see page 32
Stands and Side Rails		see page 262
Load Capacity max.	25 kg (55 lbs)	higher on request

# GUF-P MINI AC

*Belt Conveyors with Head Drive*

B20.75.001



Tails  
see page 33

**Features:**

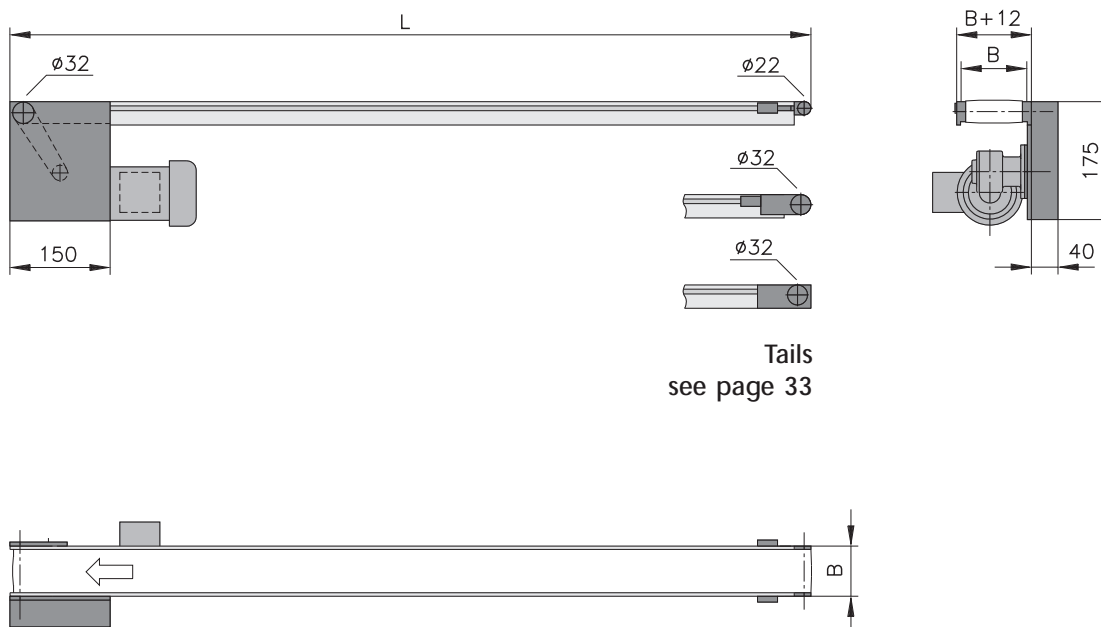
mk offers a variety of motor options for Drive Version AC, which are sized and selected for each application's individual speed and load requirements. The compact frame is ideal for integrating this conveyor into new or existing equipment. Additional features include a  $\varnothing 52$  mm crowned drive roll, separate belt tension roller, easy belt tracking at tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. Use of cleated belts is not possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 370 - 5000 mm	any increment possible
Conveyor width B	75 mm, 100 mm and 150 mm	
Belt Width	B-15 mm	see page 86
Drive Location	head right, head left	head left shown
Drive and Speed	to 60 m/min (200 ft/min)	see page 32
Stands and Side Rails		see page 262
Load Capacity max.	25 kg (55 lbs)	higher on request

# GUF-P MINI AD

## Belt Conveyors with Head Drive

B20.75.033



### Features:

mk offers a variety of motor options for Drive Version AD, which are sized and selected for each application's individual speed and load requirements. The compact frame is ideal for integrating this conveyor into new or existing equipment. Additional features include a  $\varnothing 32$  mm crowned drive roll, easy belt tensioning and tracking at tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. The  $\varnothing 32$  mm drive roll allows for the use of cleated belts. Compared to Drive Version AC, this version is significantly more compact.

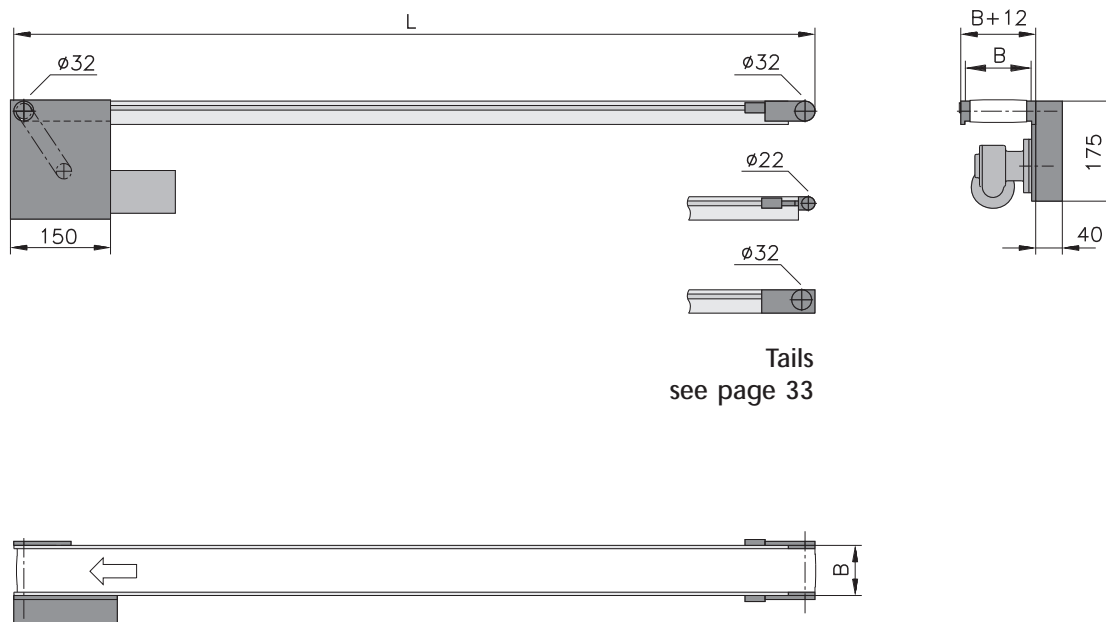
	Dimensions – Technical Information	Notes
Conveyor length L	between 375 - 5000 mm	any increment possible
Conveyor width B	75 mm, 100 mm and 150 mm	
Belt Width	B-15 mm	see page 86
Drive Location	head right, head left	head left shown
Drive and Speed	to 15 m/min (50 ft/min)	see page 32
Stands and Side Rails		see page 262
Load Capacity max.	15 kg (33 lbs)	higher on request



# GUF-P MINI AG

Belt Conveyors with Head Drive, Parallel Shaft Motor

B20.75.004



**Features:**

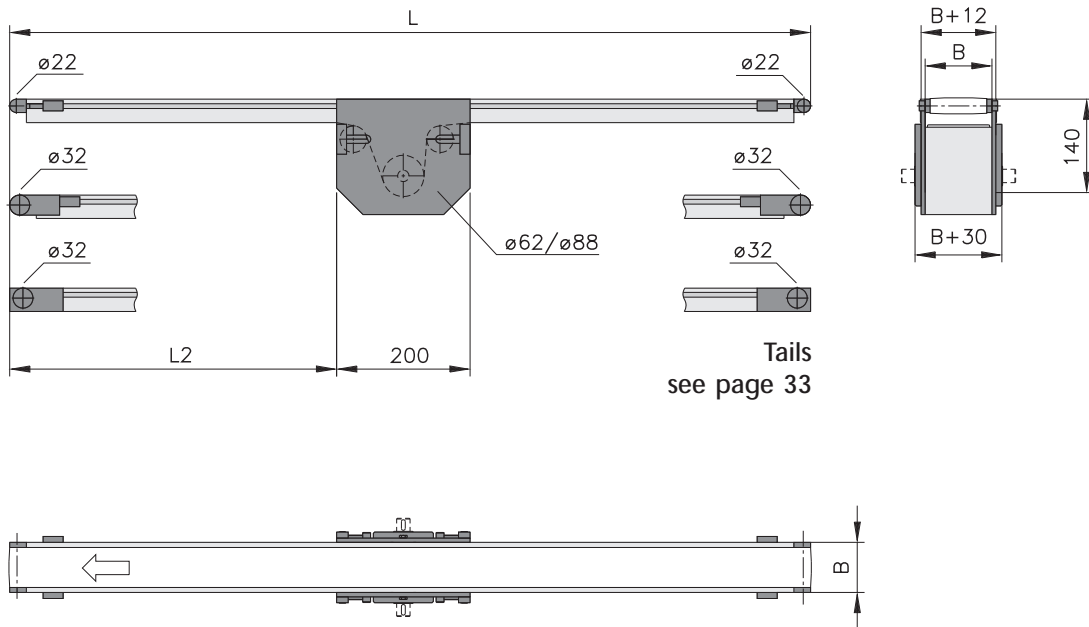
The AG drive with direct-current motor has a slightly modified structure compared to the AD drive. The compact frame is ideal for integrating this conveyor into new or existing equipment. Additional features include a  $\varnothing 32$  mm crowned drive roll, easy belt tensioning and tracking at tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. The  $\varnothing 32$  mm drive roll allows for the use of cleated belts. Compared to Drive Version AC, this version is significantly more compact.

	Dimensions – Technical Information	Notes
Conveyor length L	between 375 - 5000 mm	any increment possible
Conveyor width B	75 mm, 100 mm and 150 mm	
Belt Width	B-15 mm	see page 86
Drive Location	head right, head left	head left shown
Drive and Speed	to 15 m/min (50 ft/min)	see page 32
Stands and Side Rails		see page 262
Load Capacity max.	15 kg (33 lbs)	higher on request

# GUF-P MINI BA

*Belt Conveyors with Center Drive without Motor, bidirectional*

B20.75.030



## Features:

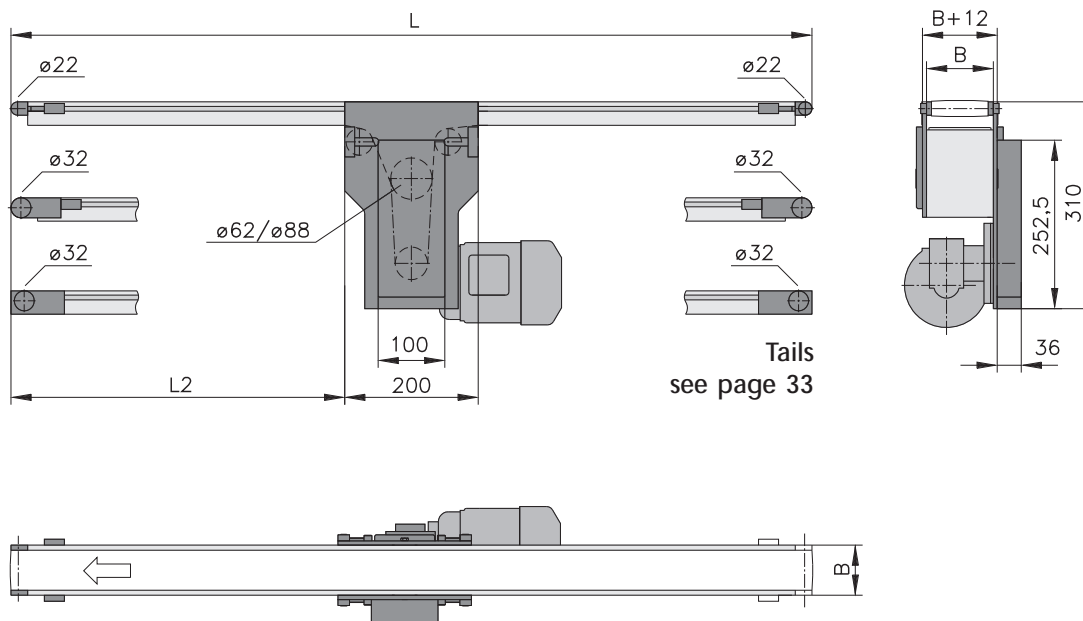
Drive Version BA is used primarily when driving multiple conveyors in parallel using one drive motor. This conveyor is used as the slave, or driven, lane. The compact design, and the ability to move the drive location anywhere along the conveyor frame, simplifies the integration of this conveyor into new or existing equipment. Additional features include a  $\varnothing 62$  mm crowned drive roll, separate belt tensioning and tracking, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. Use of cleated belts is not possible with this drive version. The crowned drive roll features a  $\varnothing 20$  mm hollow shaft with a 6 mm keyway according to DIN 6885.

	Dimensions – Technical Information	Notes
Conveyor length L	between 530 - 5000 mm	any increment possible
Conveyor width B	75 mm, 100 mm and 150 mm	
Belt Width	B-15 mm	see page 86
Drive and Speed	to 60 m/min (200 ft/min)	see page 32
Stands and Side Rails		see page 262
Load Capacity max.	25 kg (55 lbs)	higher on request

# GUF-P MINI BC

Belt Conveyors with Center Drive, bidirectional

B20.75.005



Tails  
see page 33

### Features:

mk offers a variety of motor options for Drive Version BC, which are sized and selected for each application's individual speed and load requirements. When combined with Drive Version BA, this version serves as the driving conveyor in parallel arrangements. The compact design, and the ability to move the drive location anywhere along the conveyor frame, simplifies the integration of this conveyor into new or existing equipment. Additional features include a  $\varnothing 62$  mm crowned drive roll (depending on the application), separate belt tensioning and tracking, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. Use of cleated belts is not possible with this drive version. The crowned drive roll features a  $\varnothing 20$  mm hollow shaft with a 6 mm keyway according to DIN 6885 and can be optionally located on the right or left.

	Dimensions – Technical Information	Notes
Conveyor length L	between 530 - 5000 mm	any increment possible
Conveyor width B	75 mm, 100 mm and 150 mm	
Belt Width	B-15 mm	see page 86
Drive Location	right, left	
Drive and Speed	to 60 m/min (200 ft/min)	see page 32
Stands and Side Rails		see page 262
Load Capacity max.	25 kg (55 lbs)	higher on request

# GUF-P MINI

## *Motor Information*

### **Motor selection**

As a standard, mk offers a variety of motors. On our homepage ([www.mk-group.com](http://www.mk-group.com)) we provide a calculation program for motor sizing for conveyors available in Germany. Although the selection varies by country with respect to local voltage standards and safety regulations, international availability is a key requirement. Typically, we supply inverter-duty right-angle gearmotors for heavy-duty requirements and parallel shaft gearmotors for lower speed and load applications.

All motors are readily available from mk.

### **Motor voltage**

As a standard, mk provides motors which comply with the normal, expected electrical requirements of the country where they are manufactured. International motors are also available for conveyors designed for export.

### **Motor power**

Motors are sized to each individual conveyor style, size and performance requirements. The typical range is between 0.054 KW and 0.25 KW (1/14 hp and 1/3 hp).

### **Speeds**

The maximum belt speed for GUF-P MINI conveyors is approximately 60 m/min (200 ft/min). This is dependant on the total load, the type of transport with respect to indexing or accumulation, and the conveyor length. For Drive Versions with parallel shaft gearmotors the maximum speed is 15 m/min (50 ft/min).

### **Speed Control**

Frequency inverters with a variable speed range of 1:7 are available for AC motors. DC motors offer speed controls with a 1:10 range.

### **Rating**

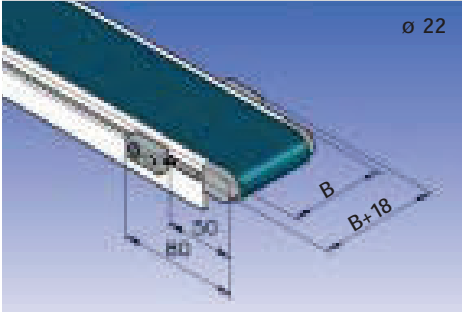
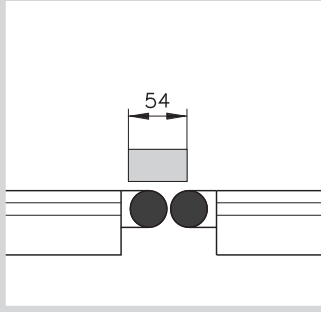
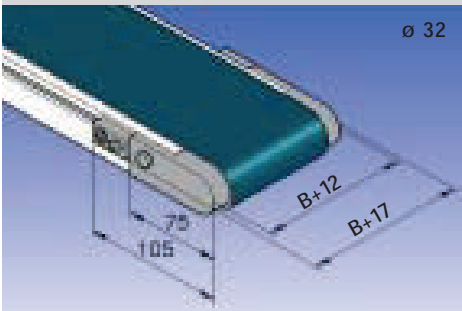
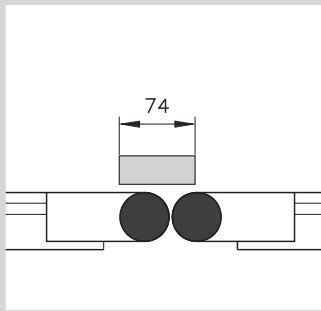
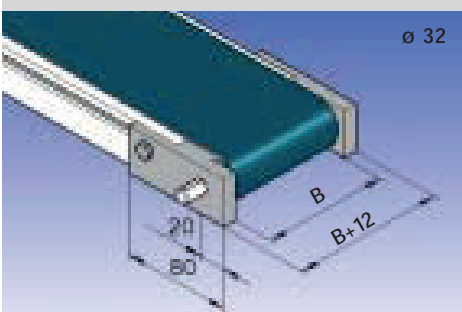
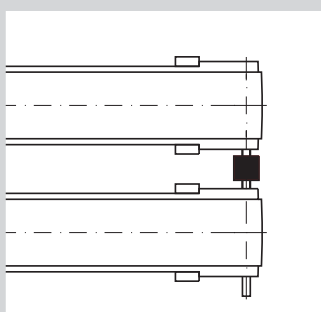
All standard motors are built to IP 54 (IP = International Protection) standards, whereby higher standards are available on request.

### **Additional notes**

The motors are primarily designed for continuous duty. Operating motors at very low frequency (below 70% of normal) may require additional cooling. Motors with encoders, clutches, brakes, thermal overload protection or indexing capabilities are also available.

# GUF-P MINI

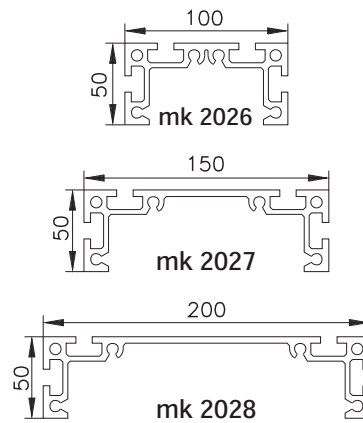
## Tails

<p><b>Tail 01</b></p>  <p>ø 22</p> <p>50</p> <p>80</p> <p>B</p> <p>B+18</p>	<p><b>Ident-Nr. B80.01.002</b></p> <ul style="list-style-type: none"> <li>■ ø 22 mm crowned roll</li> <li>■ Sealed bearings</li> <li>■ Belt tension and tracking using alignment blocks</li> <li>■ Minimum part size for transfer 54 mm</li> <li>■ Note minimum pulley diameter when selecting belt</li> </ul>	 <p>54</p>
<p><b>Tail 03</b></p>  <p>ø 32</p> <p>75</p> <p>105</p> <p>B+12</p> <p>B+17</p>	<p><b>Ident-Nr. B80.01.001</b></p> <ul style="list-style-type: none"> <li>■ ø 32 mm crowned roll</li> <li>■ Sealed bearings</li> <li>■ Belt tension and tracking using alignment blocks</li> <li>■ Minimum part size for transfer 74 mm</li> <li>■ Note minimum pulley diameter when selecting belt</li> </ul>	 <p>74</p>
<p><b>Tail 19</b></p>  <p>ø 32</p> <p>20</p> <p>80</p> <p>B</p> <p>B+12</p>	<p><b>Ident-Nr. B80.01.004</b></p> <ul style="list-style-type: none"> <li>■ ø 32 mm crowned roll</li> <li>■ Sealed bearings</li> <li>■ ø 10 mm x 15 mm long shaft, 3x3x12 mm shaft key (DIN 6885)</li> <li>■ Coupling of two lanes using one drive (specify right, left or both sides)</li> <li>■ Minimum part length for transfer 74 mm</li> <li>■ Note minimum pulley diameter when selecting belt</li> </ul>	

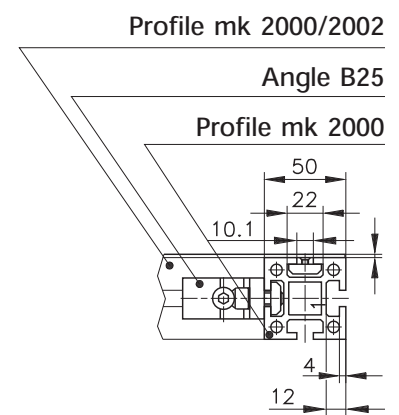
# Belt Conveyors GUF-P 2000



Conveyor frame profiles



Conveyor frame cross-section





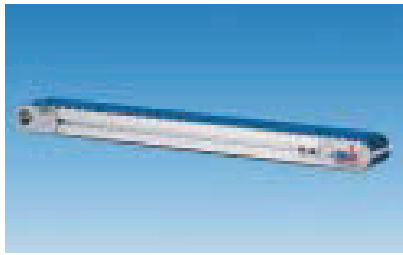
GUF-P 2000 conveyors are designed and manufactured using our very rigid structural profile system mk 2000, and assembled using standard components. Through this standardization we are able to offer an extremely versatile belt conveyor with a wide variety of drive and tail options. A large selection of belt types complement the compact frame height of 50 mm and the

ø 52 mm drive roll, which is available in either a steel or rubberized version depending on the application. All mk belt conveyor systems feature crowned rollers which significantly simplify belt tracking. Included system T-slots (10 mm opening) run the length of the conveyor frame which can be used for integration into existing equipment as well as for mounting of stan-

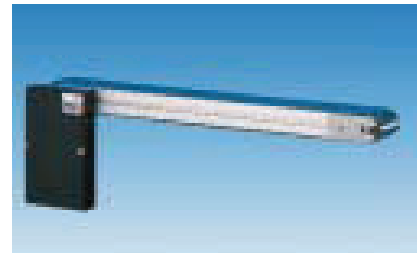
dard or customer-specific stands, side rails and other accessories. Additional quality details include a stainless steel slider bed mounted to the conveyor frame which reduces wear on the belt, and sealed ball bearings for overall conveyor life and performance. In addition to the large selection of side rails and stands, stops, diverters, electrical brackets and V-guided belts are also available.

# Belt Conveyors GUF-P 2000

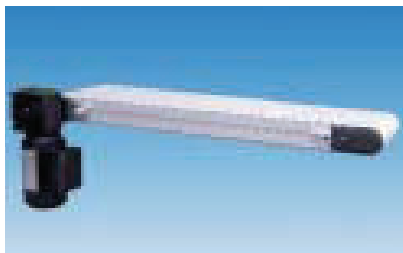
**Drive Version AA**



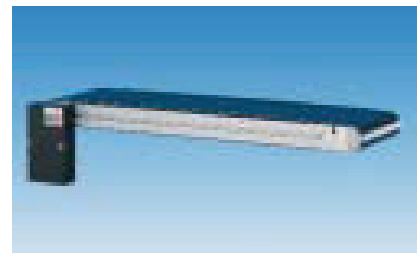
**Drive Version AC**



**Drive Version AF**



**Drive Version AG**



**Drive Version AM**



**Drive Version AS**



**Drive Version AU**



**Drive Version BA**



**Drive Version BC**





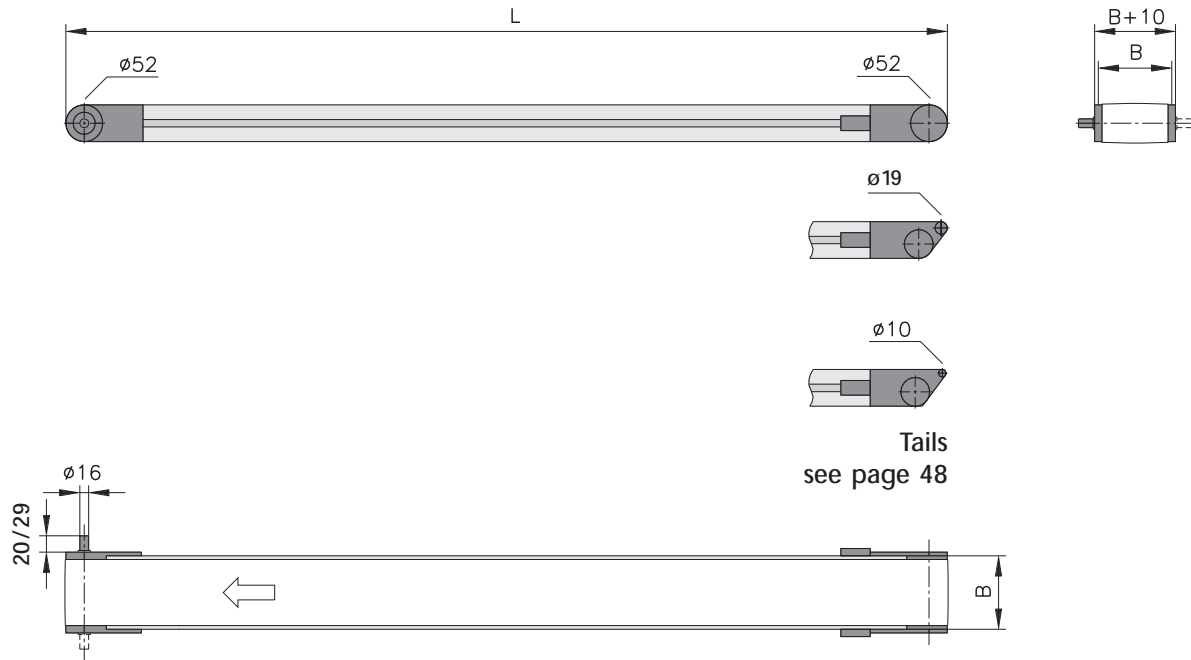
## Contents GUF-P 2000

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# GUF-P 2000 AA

*Belt Conveyors with Head Drive, without Motor*

B20.00.009



## Features:

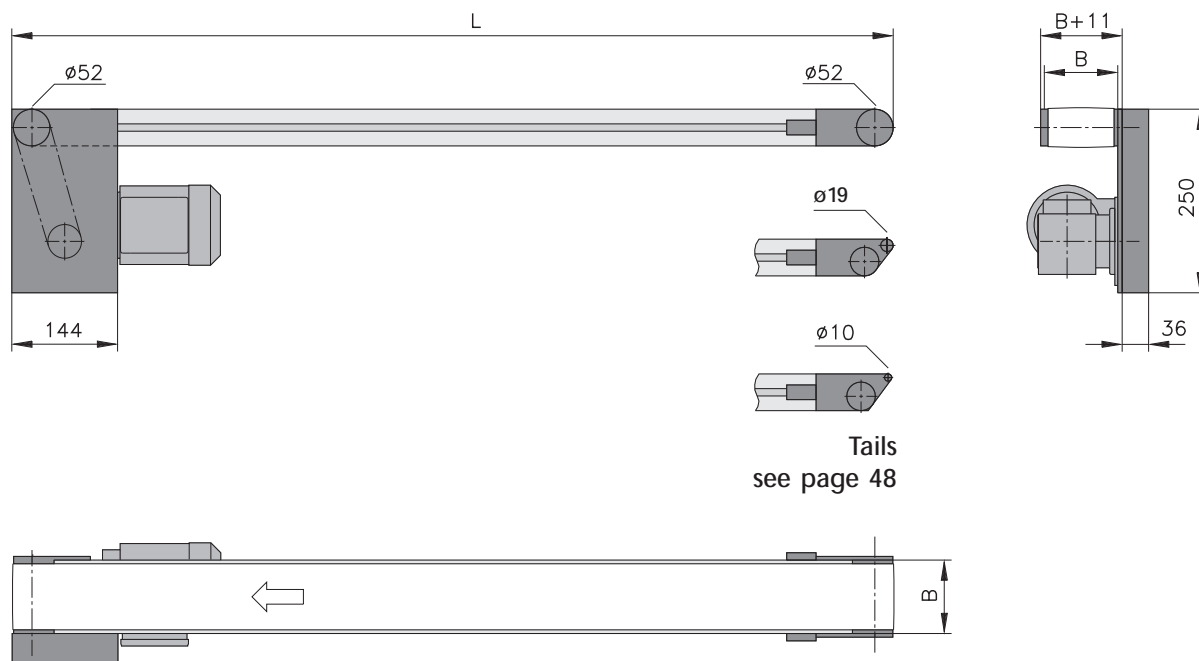
Drive Version AA is often used where multiple lanes are to be slave driven, either parallel or in-line, with a single drive motor. The series 50 frame is ideal most general purpose conveying applications. Additional features include a  $\varnothing 52$  mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version. The  $\varnothing 16$  mm output shaft has a usable length of 20 mm for chain drive or 29 mm for timing belt drive. Both include a 5 x 5 x 16 mm shaft key (DIN 6885).

	Dimensions – Technical Information	Notes
Conveyor length L	between 410 – 10000 mm	any increment possible
Conveyor width B	50, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request
Belt Width	B-10 mm	see page 86
Drive and Speed	to 80 m/min (260 ft/min)	see page 47
Stands and Side Rails		see page 262
Load Capacity max.	75 kg (165 lbs)	higher on request

# GUF-P 2000 AC

Belt Conveyors with Head Drive

B20.00.002



Tails  
see page 48

### Features:

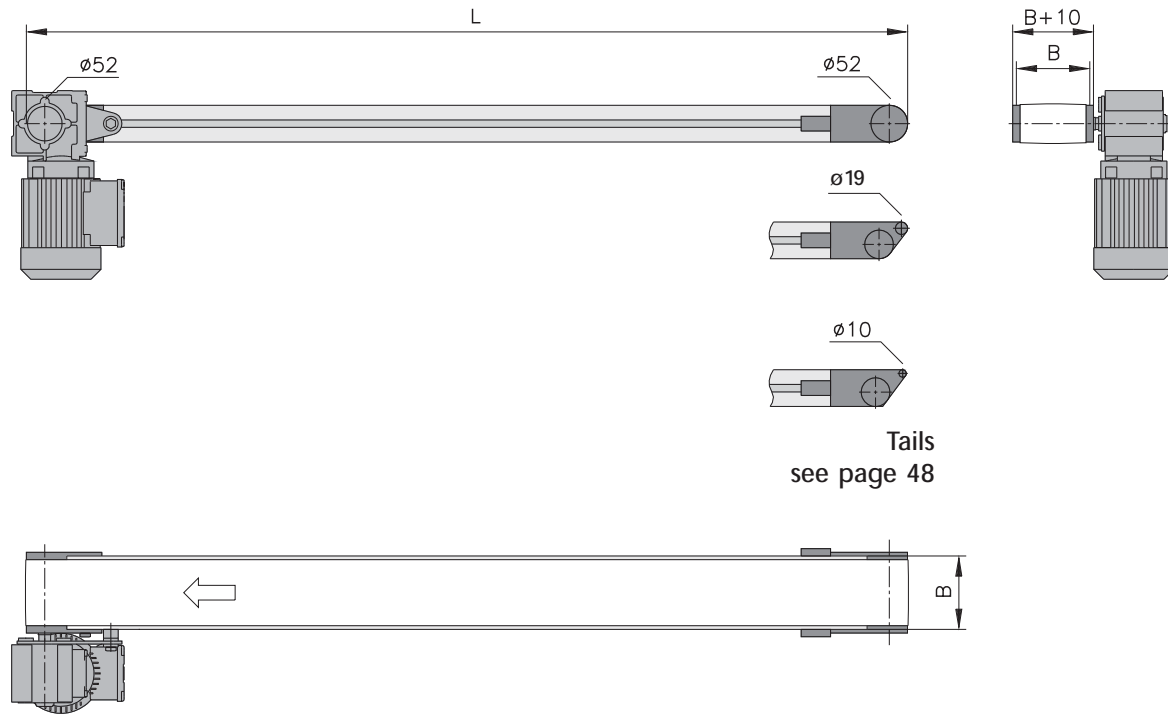
mk offers a variety of motor options for Drive Version AC, which are sized and selected for each application's specific speed and load requirements. The series 50 frame is ideal most general purpose conveying applications. Additional features include a  $\phi 52$  mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 410 – 10000 mm	any increment possible
Conveyor width B	50, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request
Belt Width	B-10 mm	see page 86
Drive Location	head right below, head left below, head right above, head left above	head left shown
Drive and Speed	to 80 m/min (260 ft/min)	see page 47
Stands and Side Rails		see page 262
Load Capacity max.	75 kg (165 lbs)	higher on request

# GUF-P 2000 AF

*Belt Conveyors with Head Drive direct and Torque Arm*

B20.00.011



## Features:

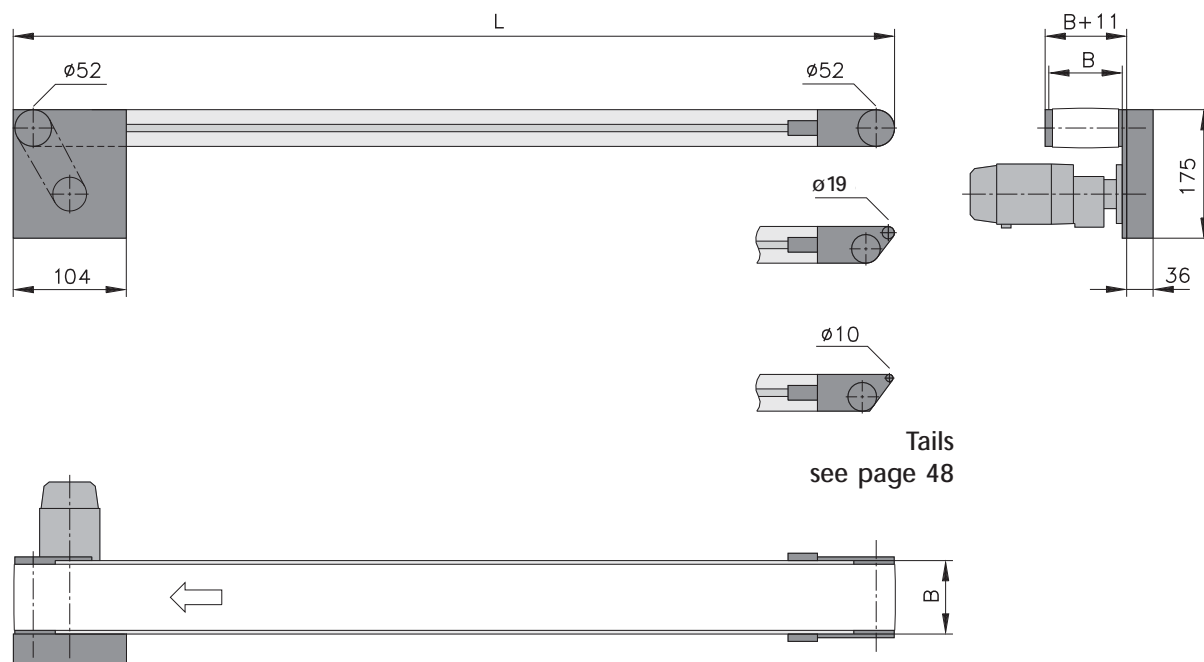
By placing the motor directly onto the drive shaft, this drive version minimizes not only the space required at the drive yet also the number of moving parts and maintenance requirements. The torque arm enables even large output torques to be transferred to the belt.

	Dimensions – Technical Information	Notes
Conveyor length L	between 410 - 10000 mm	any increment possible
Conveyor width B	50, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request
Belt Width	B-10 mm	see page 86
Drive Location	head right, head left	head left shown
Drive and Speed	2.8; 3.6; 4.4; 5.4; 6.5; 7.7; 8.7; 10.9; 12.9 and 14.9 m/min	see page 47
Stands and Side Rails		see page 262
Load Capacity max.	30 kg (65 lbs)	higher on request

# GUF-P 2000 AG

Belt Conveyors with Head Drive, Parallel Shaft Motor

B20.00.005



## Features:

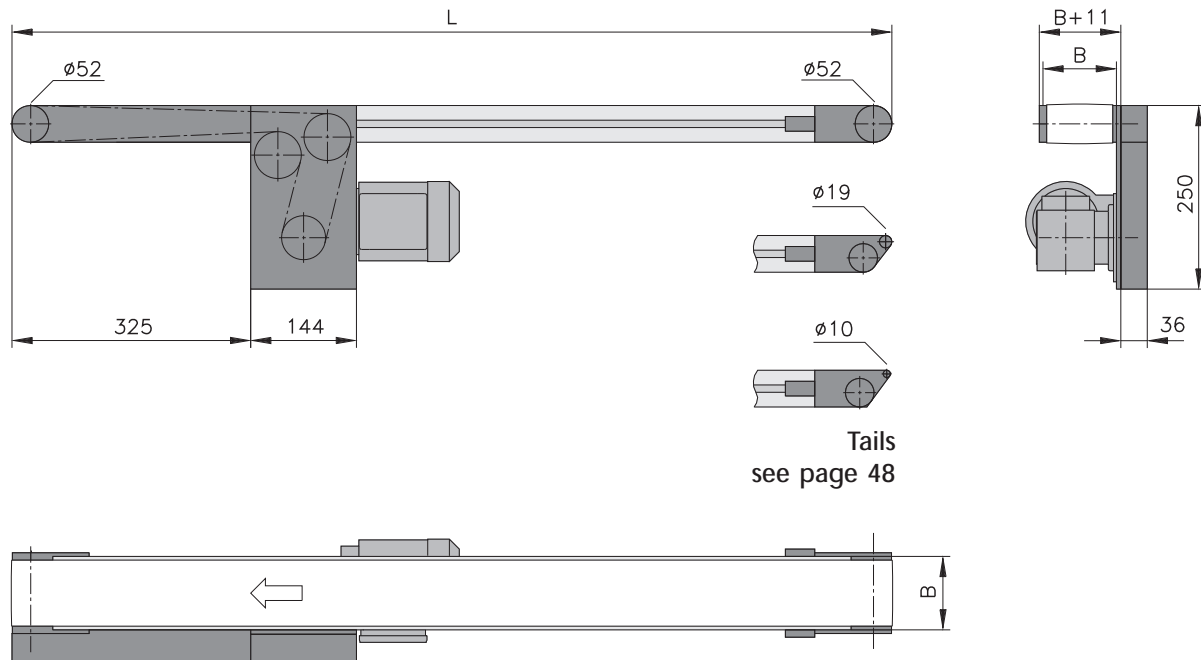
Drive Version AG differs from version AC due to the use of parallel shaft gearmotors. The series 50 frame is ideal most general purpose conveying applications. Additional features include a  $\varnothing 52$  mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. Drive Version AG is also dimensionally more compact than version AC due to the use of parallel shaft gearmotors.

	Dimensions – Technical Information	Notes
Conveyor length L	between 310 - 6000 mm	any increment possible
Conveyor width B	50, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request
Belt Width	B-10 mm	see page 86
Drive Location	head right below, head left below, head right above, head left above	head left shown
Drive and Speed	to 15 m/min (50 ft/min)	see page 47
Stands and Side Rails		see page 262
Load Capacity max.	15 kg (33 lbs)	higher on request

# GUF-P 2000 AM

## Belt Conveyors with Offset Head Drive

B20.00.003



### Features:

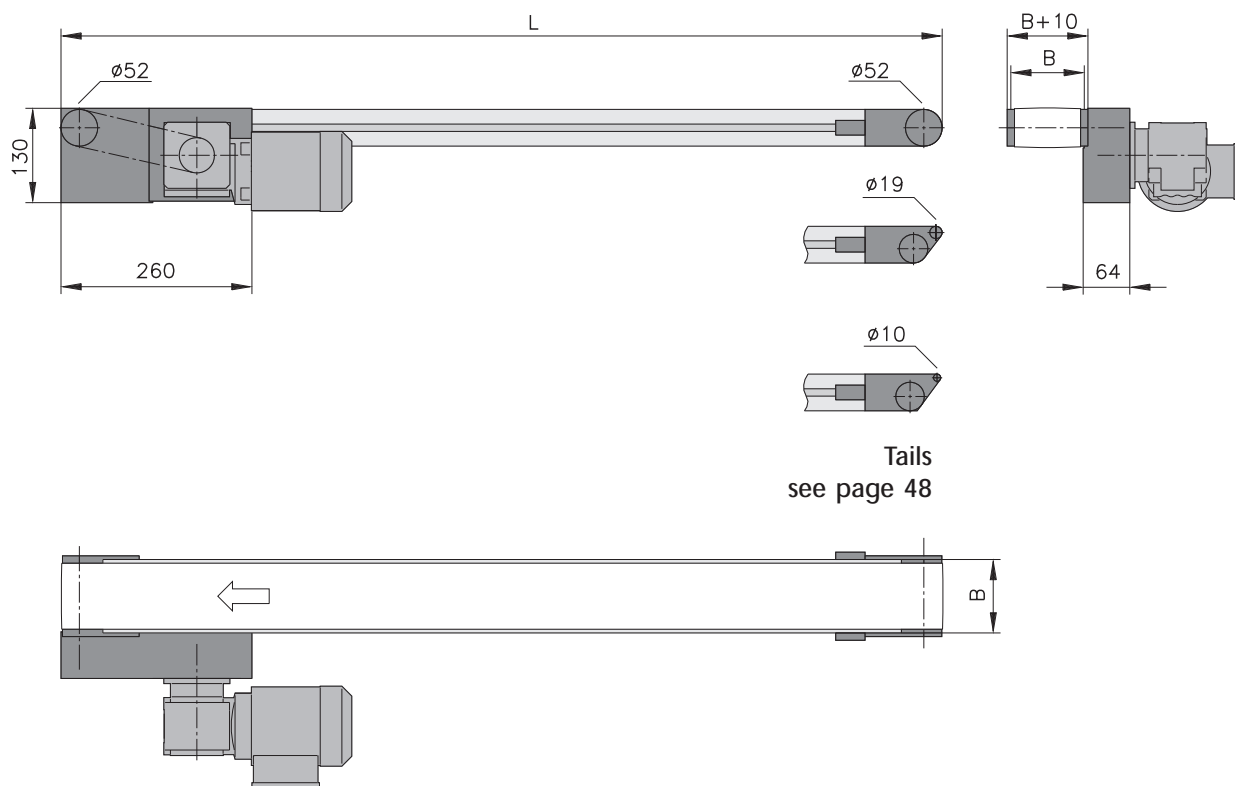
Drive Version AM combines the cost advantages of a head drive with the unobstructed discharge end of a center drive. This conveyor is ideal for feeding parts into or out of equipment. Additional features include a  $\varnothing 52$  mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 735 - 10000 mm	any increment possible
Conveyor width B	50, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request
Belt Width	B-10 mm	see page 86
Drive Location	head right, head left	head left shown
Drive and Speed	to 80 m/min (260 ft/min)	see page 47
Stands and Side Rails		see page 262
Load Capacity max.	75 kg (165 lbs)	higher on request

# GUF-P 2000 AS

Belt Conveyors with Outside Head Drive

B20.00.008



### Features:

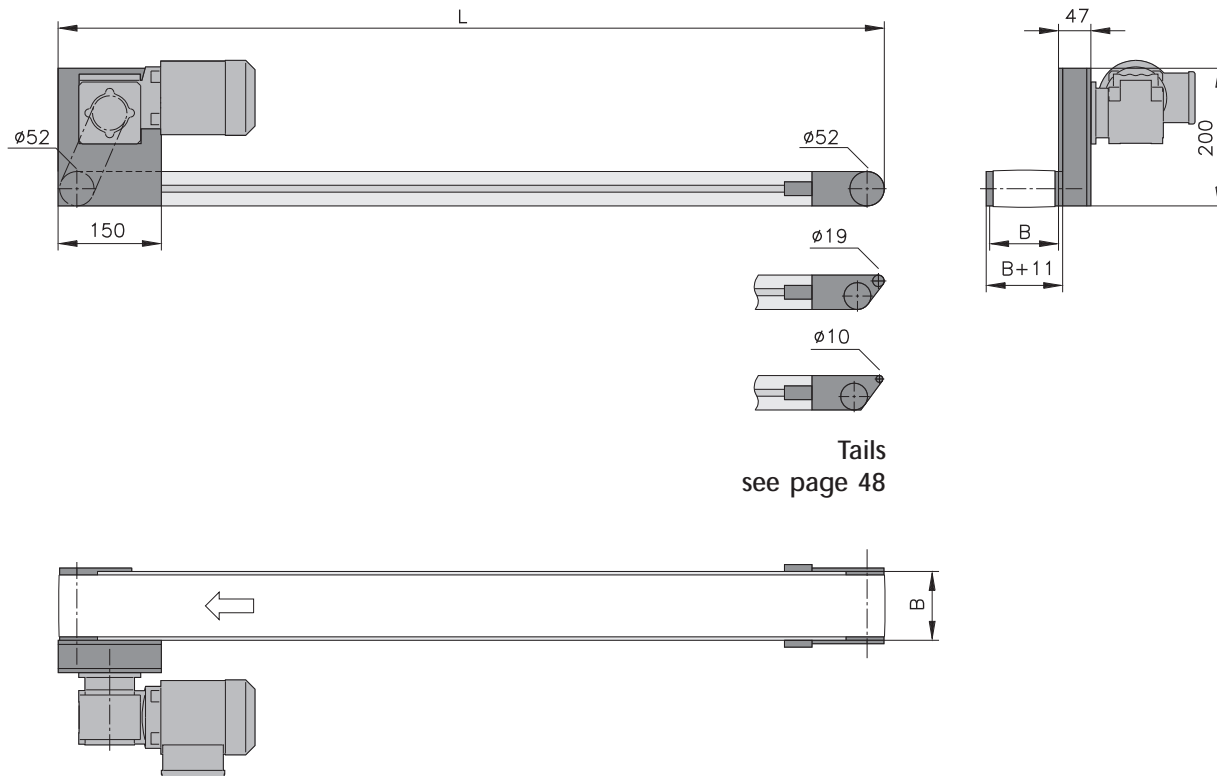
Drive Version AS features the motor mounted to an aluminum casting outside of the conveyor frame. This is used in situations where the conveyor frame must be unobstructed, or where the motor must remain clean. The conveyor can be placed very close to equipment. Additional features include a  $\varnothing 52$  mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 525 - 10000 mm	any increment possible
Conveyor width B	50, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request
Belt Width	B-10 mm	see page 86
Drive Location	head right below, head left below, head right above, head left above	head left shown
Drive and Speed	to 80 m/min (260 ft/min)	see page 47
Stands and Side Rails		see page 262
Load Capacity max.	75 kg (165 lbs)	higher on request

# GUF-P 2000 AU

## Belt Conveyors with Outside Head Drive

B20.00.020



### Features:

Drive Version AU features motor placement outside of the conveyor frame. This is often used in situations where the underside of the conveyor frame must be as unobstructed as possible, or where the motor must remain clean. The conveyor can be placed very close to equipment and transport of tall objects is no problem. Additional features include a  $\varnothing 52$  mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version.

	Dimensions – Technical Information	Notes
<b>Conveyor length L</b>	between 415 - 10000 mm	any increment possible
<b>Conveyor width B</b>	50, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request
<b>Belt Width</b>	B-10 mm	see page 86
<b>Drive Location</b>	head right below, head left below, head right above, head left above	head left shown
<b>Drive and Speed</b>	to 80 m/min (260 ft/min)	see page 47
<b>Stands and Side Rails</b>		see page 262
<b>Load Capacity max.</b>	75 kg (165 lbs)	higher on request

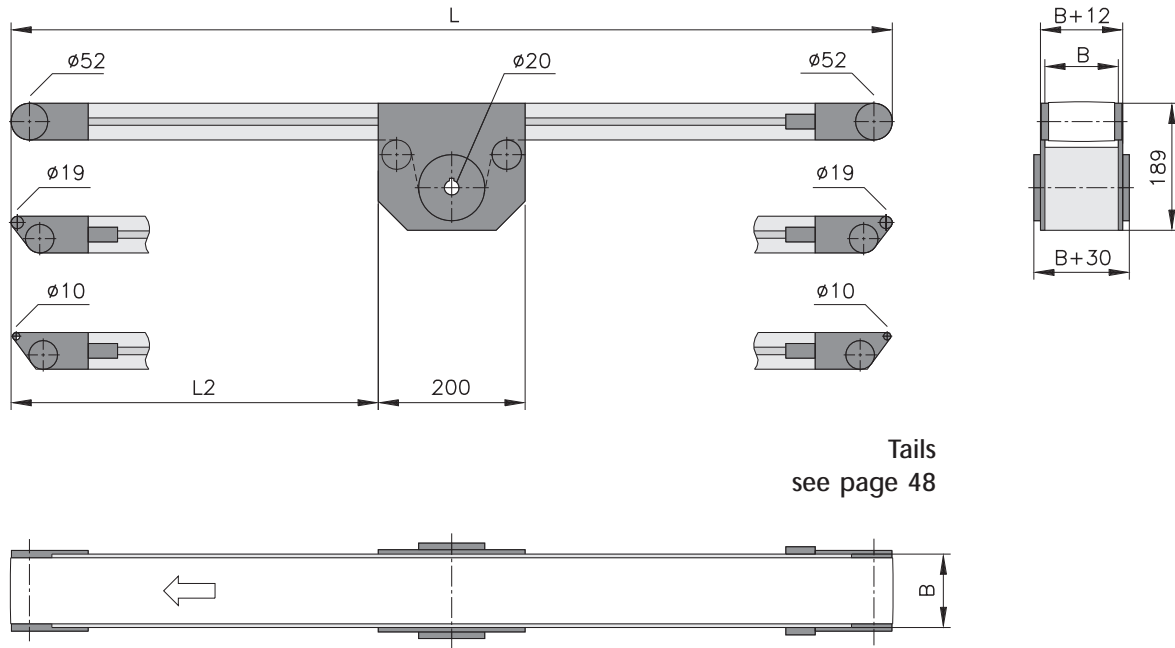


# GUF-P 2000 BA

Belt Conveyors with Center Drive without Motor, bidirectional



B20.00.001



## Features:

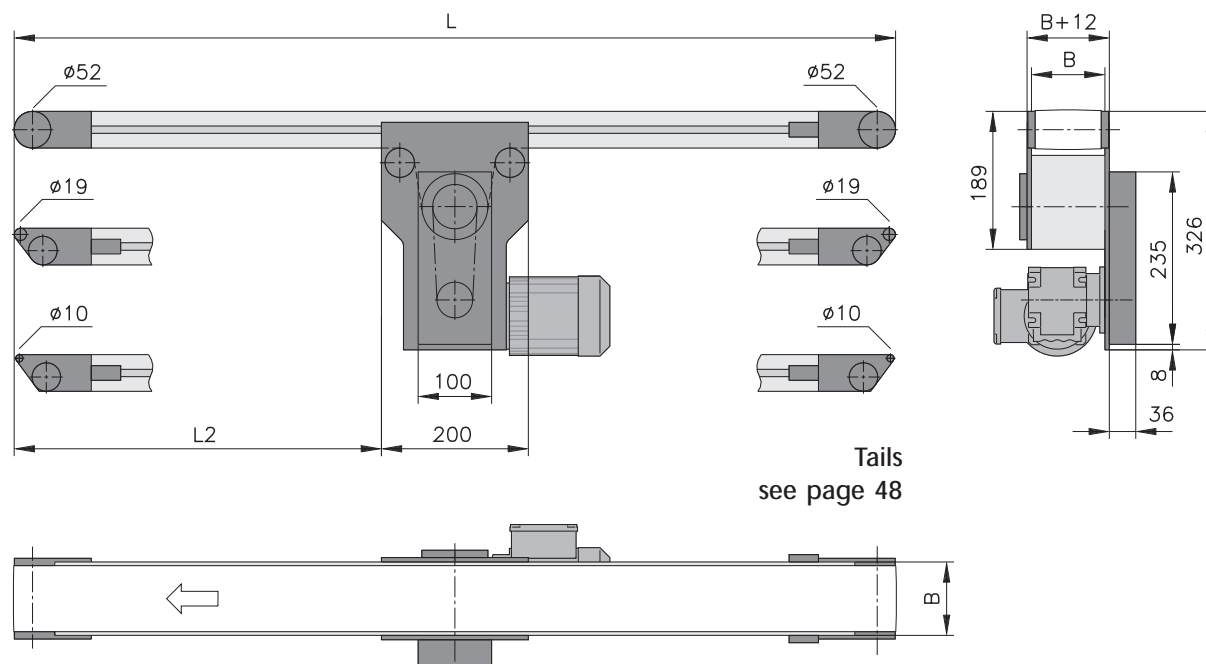
Drive Version BA is used primarily when slave driving multiple conveyor lanes in parallel using one drive motor. The compact design, and the ability to move the drive location anywhere along the conveyor frame, simplifies the integration of this conveyor into new or existing equipment. Additional features include a  $\phi 62$  mm or  $\phi 88$  mm crowned drive roll (depending on the application), separate belt tensioning and tracking, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. Use of cleated belts is not possible with this drive version. The drive roll features a  $\phi 20$  mm hollow shaft with 6 mm keyway (DIN 6885).

	Dimensions – Technical Information	Notes
Conveyor length L	between 610 - 10000 mm	any increment possible
Conveyor width B	50, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request
Belt Width	B-10 mm	see page 86
Drive and Speed	to 80 m/min (260 ft/min)	see page 47
Stands and Side Rails		see page 262
Load Capacity max.	75 kg (165 lbs)	higher on request

# GUF-P 2000 BC

*Belt Conveyors with Center Drive, bidirectional*

B20.00.004



## Features:

mk offers many motor options for Drive Version BC, which are sized and selected for each application's individual speed and load requirements. When combined with Drive Version BA, this version serves as the driving conveyor in parallel arrangements. The compact design, and the ability to move the drive location anywhere along the conveyor frame, simplifies the integration of this conveyor into new or existing equipment. Additional features include a  $\varnothing 62$  mm or  $\varnothing 88$  mm crowned drive roll (depending on the application), separate belt tensioning and tracking, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. Use of cleated belts is not possible with this drive version. The drive roll features a  $\varnothing 20$  mm hollow shaft with 6 mm keyway (DIN 6885).

	Dimensions – Technical Information	Notes
Conveyor length L	between 610 - 10000 mm	any increment possible
Conveyor width B	50, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request
Belt Width	B-10 mm	see page 86
Drive Location	right, left	
Drive and Speed	to 80 m/min (260 ft/min)	see page 47
Stands and Side Rails		see page 262
Load Capacity max.	75 kg (165 lbs)	higher on request

# GUF-P 2000

## Motor Information



### Motor selection

As a standard, mk offers a variety of motors. On our homepage ([www.mk-group.com](http://www.mk-group.com)) we provide a calculation program for motor sizing for conveyors available in Germany. Although the selection varies by country with respect to local voltage standards and safety regulations, international availability is a key requirement. Typically, we supply inverter-duty right-angle gearmotors for heavy-duty requirements and parallel shaft gearmotors for lower speed and load applications.

All motors are readily available from mk.

### Motor voltage

As a standard, mk provides motors which comply with the normal, expected electrical requirements of the country where they are manufactured. International motors are also available for conveyors designed for export.

### Motor power

Motors are sized to each individual conveyor style, size and performance requirements. The typical range is between 0.054 KW and 0.37 KW (1/14 hp and 1/2 hp).

### Speeds

The maximum belt speed for GUF-P 2000 conveyors is approximately 80 m/min (260 ft/min). This is dependant on the total load, the type of transport with respect to indexing or accumulation, and the conveyor length. For Drive Versions with parallel shaft gearmotors the maximum speed is 15 m/min (50 ft/min).

### Speed Control

Frequency inverters with a variable speed range of 1:7 are available for AC motors. DC motors offer speed controls with a 1:10 range.

### Rating

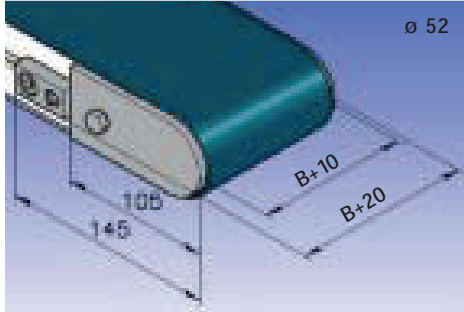
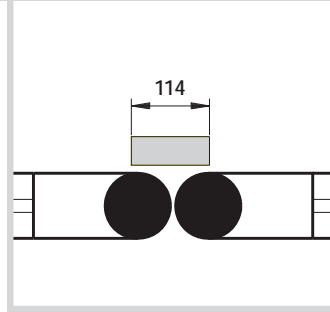
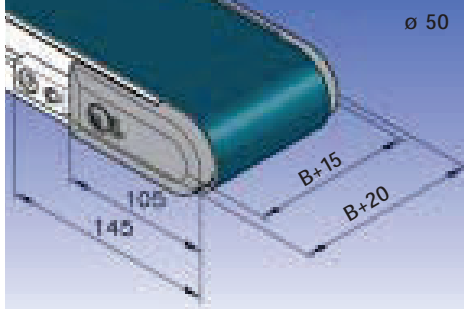
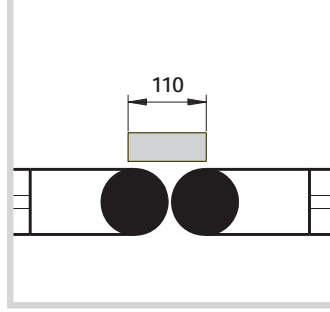
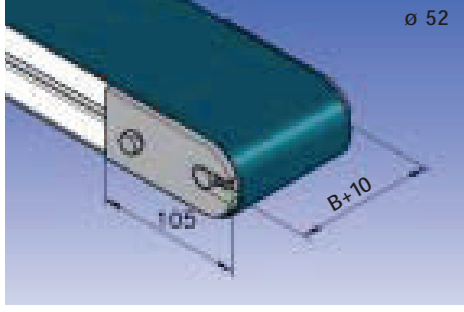
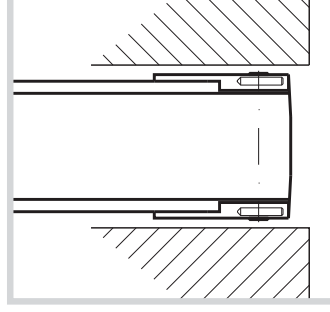
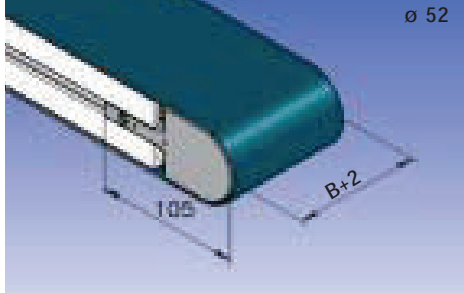
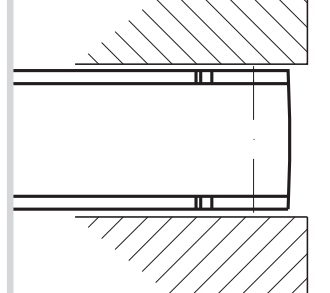
All standard motors are built to IP 54 (IP = International Protection) standards, whereby higher standards are available on request.

### Additional notes

The motors are primarily designed for continuous duty. Operating motors at very low frequency (below 70% of normal) may require additional cooling. Motors with encoders, clutches, brakes, thermal overload protection or indexing capabilities are also available.

# GUF-P 2000

## Tails

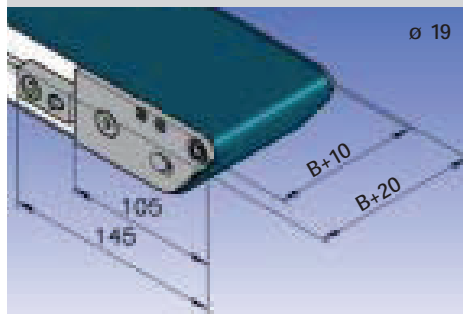
<p><b>Tail 01</b></p> 	<p><b>Ident-Nr. B80.00.001</b></p> <ul style="list-style-type: none"> <li>■ <math>\varnothing</math> 52 mm crowned roll</li> <li>■ Sealed bearings</li> <li>■ Belt tension and tracking using alignment blocks</li> <li>■ Minimum part size for transfer 114 mm</li> <li>■ Plastic or aluminum roll holders</li> </ul>	
<p><b>Tail 02</b></p> 	<p><b>Ident-Nr. B80.00.013</b></p> <ul style="list-style-type: none"> <li>■ Cylindrical drum <math>\varnothing</math> 50 mm</li> <li>■ Sealed bearings</li> <li>■ Belt tension and tracking using alignment blocks</li> <li>■ Minimum part size for transfer 110 mm</li> <li>■ Plastic roll holders</li> <li>■ Load Capacity max. 25 kg (55 lbs)</li> <li>■ Conveyor width 100 bis 500 mm</li> <li>■ not suitable for sideloadings</li> </ul>	
<p><b>Tail 09</b></p> 	<p><b>Ident-Nr. B80.00.005</b></p> <ul style="list-style-type: none"> <li>■ <math>\varnothing</math> 52 mm crowned roll</li> <li>■ Sealed bearings</li> <li>■ Belt tension using roll holders</li> <li>■ Belt tension and tracking using set screws from end</li> <li>■ Compact tail</li> </ul>	
<p><b>Tail 11</b></p> 	<p><b>Ident-Nr. B80.00.007</b></p> <ul style="list-style-type: none"> <li>■ <math>\varnothing</math> 52 mm crowned roll</li> <li>■ Sealed bearings</li> <li>■ Belt tension and tracking using roll holders</li> <li>■ Roll holders flush</li> <li>■ Compact tail</li> </ul>	

# GUF-P 2000

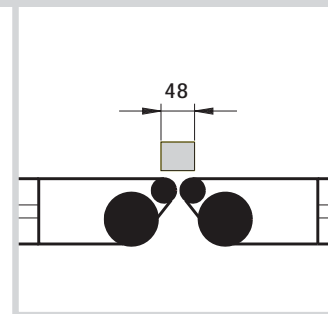
## Tails

**Tail 13**

**Ident-Nr. B80.00.008**

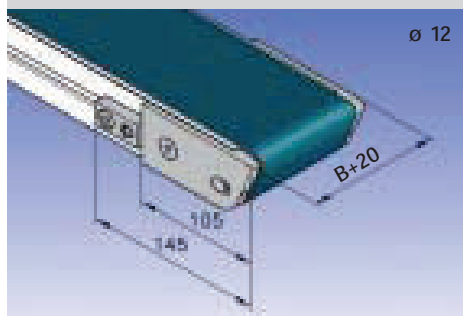


- Rolling nosebar
- Roll ø 19 mm, sealed bearings
- Belt tension and tracking using roll holders
- Minimum part size for transfer 48 mm
- Note minimum pulley diameter when selecting belt

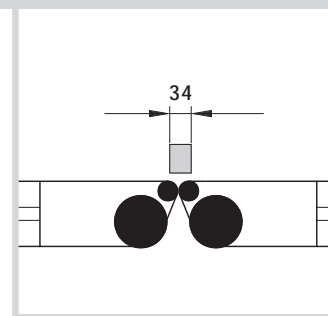


**Tail 10**

**Ident-Nr. B80.00.004**

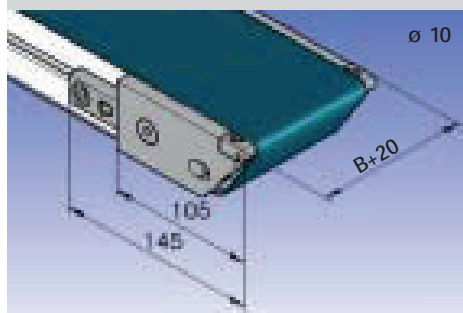


- Rolling nosebar, Bmax = 200 mm
- Belt tension and tracking using alignment blocks
- Minimum part size for transfer 34 mm
- Note minimum pulley diameter when selecting belt
- Belt speed may not exceed 10 m/min (33 ft/min)

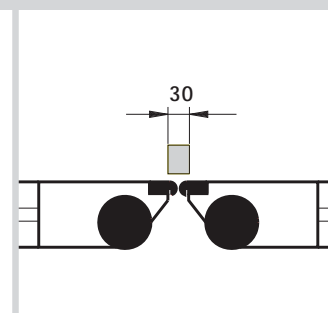


**Tail 17**

**Ident-Nr. B80.00.002**

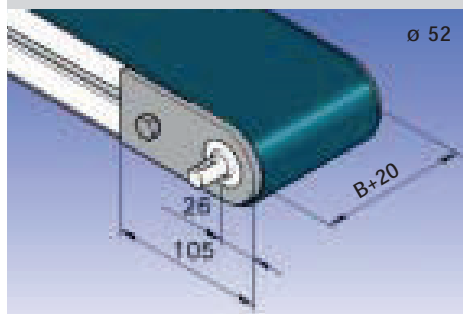


- Fixed nosebar, Bmax = 300 mm
- Belt tension and tracking using alignment blocks
- Minimum part size for transfer 30 mm
- Note minimum pulley diameter when selecting belt
- Belt speed may not exceed 10 m/min (33 ft/min)
- Requires rubberized roller

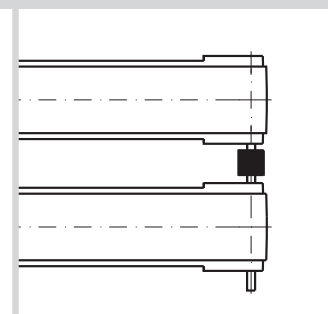


**Tail 19**

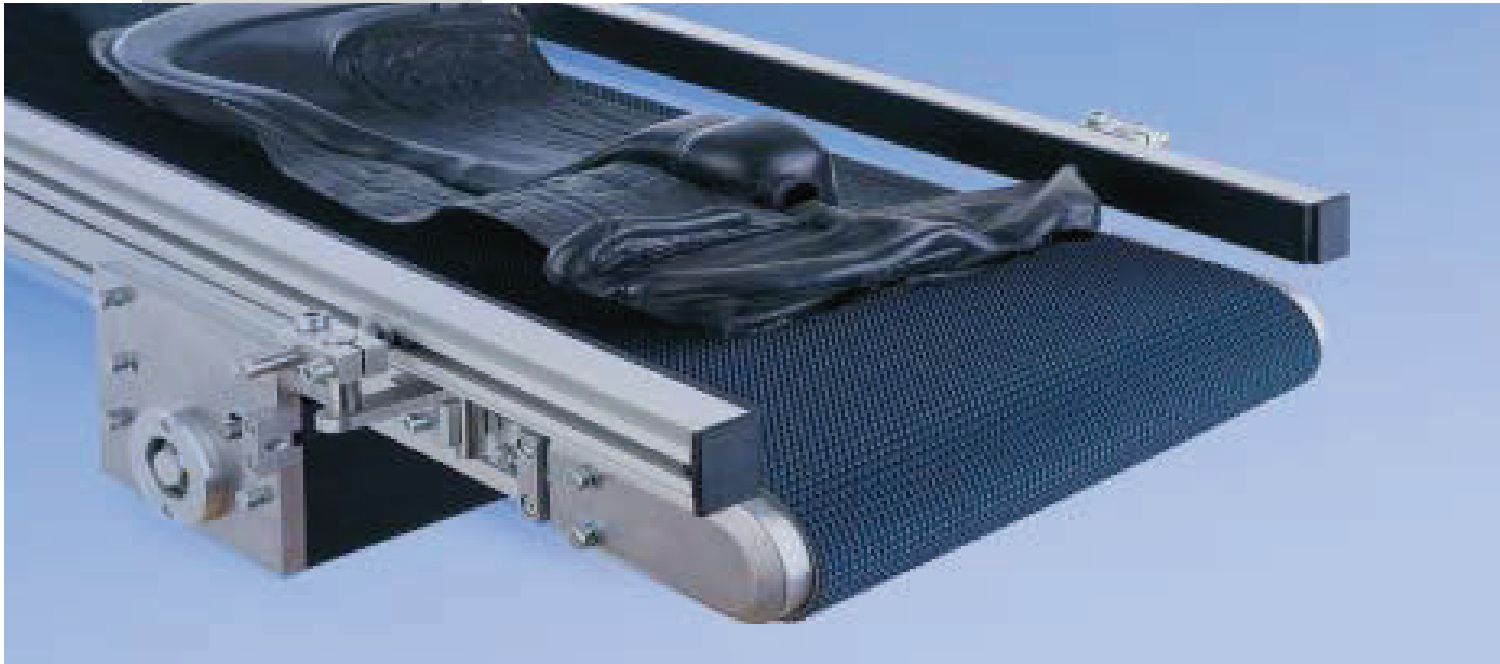
**Ident-Nr. B80.00.006**



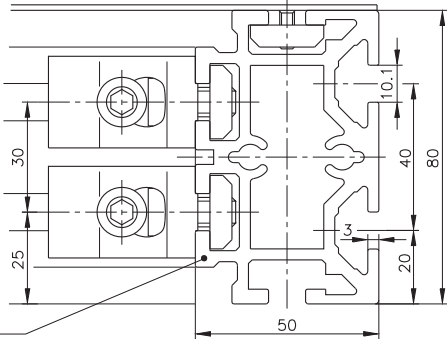
- ø 52 mm crowned roll
- Sealed bearings
- ø 16 mm output shaft 22 mm long for chain drives or 29 mm long for timing belt drives. Both include a 5 x 5 x 16 mm shaft key (DIN 6885)
- Coupling of two lanes using one drive (specify right, left or both sides)



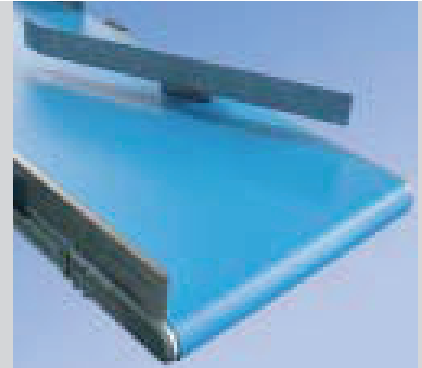
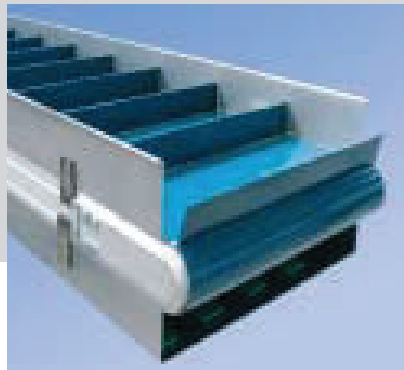
# Belt Conveyors GUF-P 2041



Conveyor frame  
cross-section



Profile mk 2251



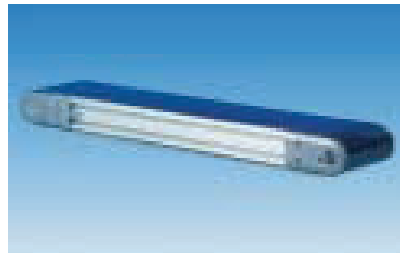
The use of our rigid structural Profile mk 2251 (50 x 80 mm) to manufacture the conveyor frame allows System GUF-P 2041 conveyors to accommodate loads of up to 150 kg (330 lbs). The components used in the drive and tail assemblies are also specifically designed to handle these loads. The  $\varnothing$  85 mm drive roll

standard for this system further ensures that all available motor power is transferred to the belt. A further advantage of this system is an almost unlimited selection of belt types, including cleats and sidewalls. Each side of the conveyor frame features two system T-slots (10 mm opening) for integration into existing

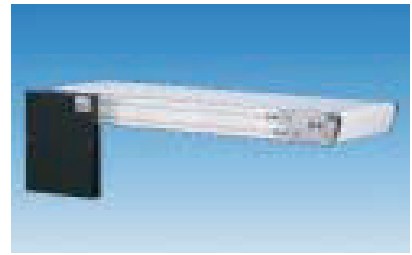
equipment, or for the attachment of stands, side rails and other accessories. Additional noteworthy details include the use of galvanized slider beds for reduced belt friction, sealed ball bearings and crowned rollers for simple belt tracking and alignment.

# Belt Conveyors GUF-P 2041

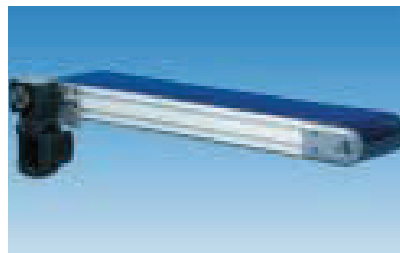
**Drive Version AA**



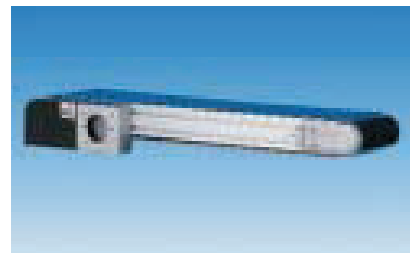
**Drive Version AC**



**Drive Version AF**



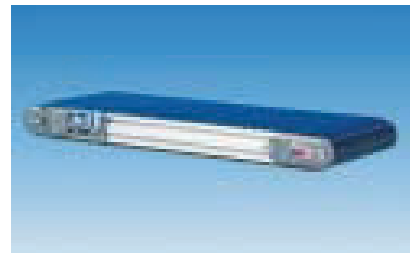
**Drive Version AS**



**Drive Version BC**



**Drive Version CA**





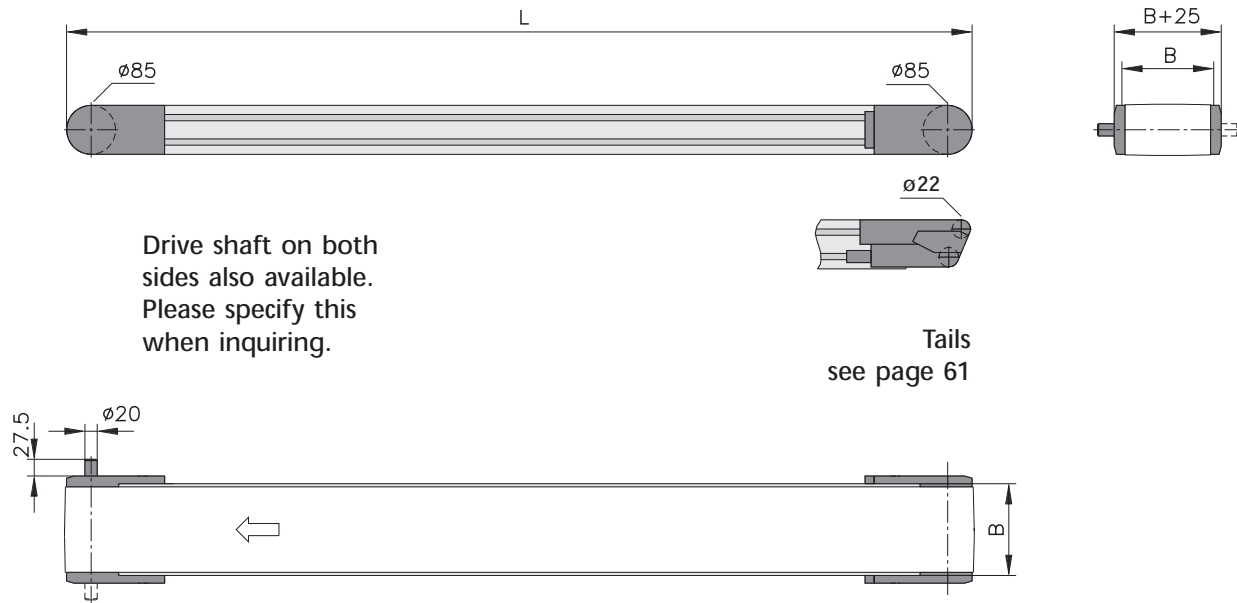
## *Contents GUF-P 2041*

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# GUF-P 2041 AA

*Belt Conveyors with Head Drive, without Motor*

B20.40.009



## Features:

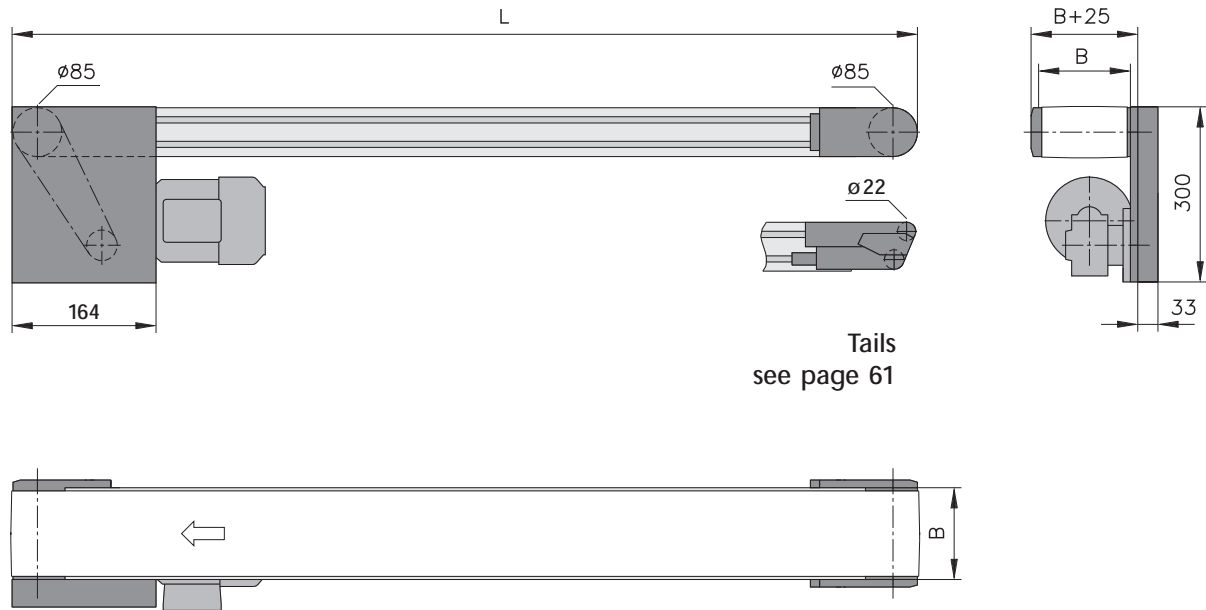
Drive Version AA is often used where multiple lanes are to be slave driven, either parallel or in-line, with a single drive motor. The robust frame is ideal for stand-alone applications or for integrating this conveyor into new or existing equipment. Additional features include a  $\varnothing 85$  mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a galvanized steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version. The  $\varnothing 20$  mm x 27.5 mm long output shaft includes a 6 x 6 x 22 mm shaft key (DIN 6885).

	Dimensions – Technical Information	Notes
Conveyor length L	between 500 - 10000 mm	any increment possible
Conveyor width B	200 to 1200 mm (in 100 mm increments)	others on request
Belt Width	B-10 mm	see page 86
Drive and Speed	to 60 m/min (200 ft/min)	see page 60
Stands and Side Rails		see page 262
Load Capacity max.	150 kg (330 lbs)	higher on request

# GUF-P 2041 AC

Belt Conveyors with Head Drive

B20.40.001



Tails  
see page 61

### Features:

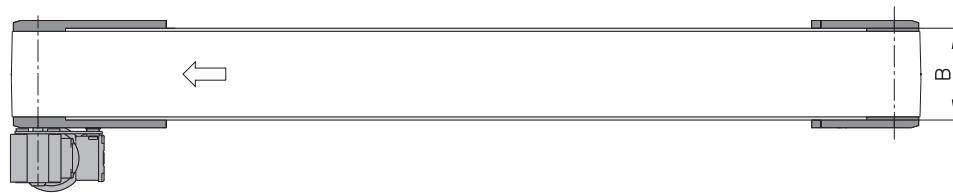
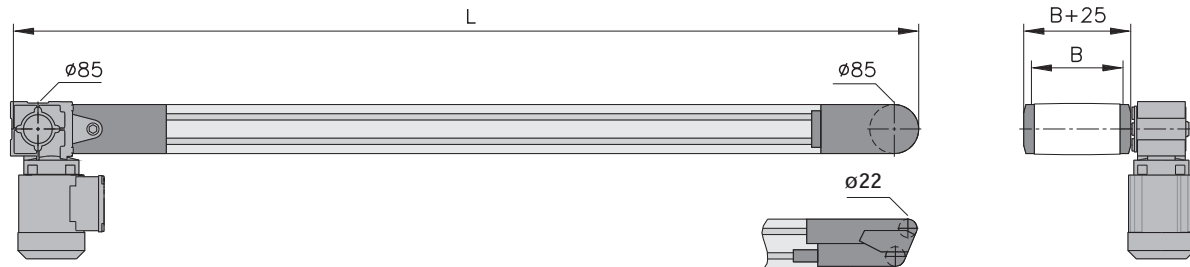
mk offers a variety of motor options for Drive Version AC, which are sized and selected for each application's specific speed and load requirements. The robust frame is ideal for stand-alone applications or for integrating this conveyor into new or existing equipment. Additional features include a  $\phi 85$  mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a galvanized steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 500 - 10000 mm	any increment possible
Conveyor width B	200 to 1200 mm (in 100 mm increments)	others on request
Belt Width	B-10 mm	see page 86
Drive Location	head right, head left	head left shown
Drive and Speed	to 60 m/min (200 ft/min)	see page 60
Stands and Side Rails		see page 262
Load Capacity max.	150 kg (330 lbs)	higher on request

# GUF-P 2041 AF

*Belt Conveyors with Head Drive direct, Torque Arm*

**B20.40.008**



**Features:**

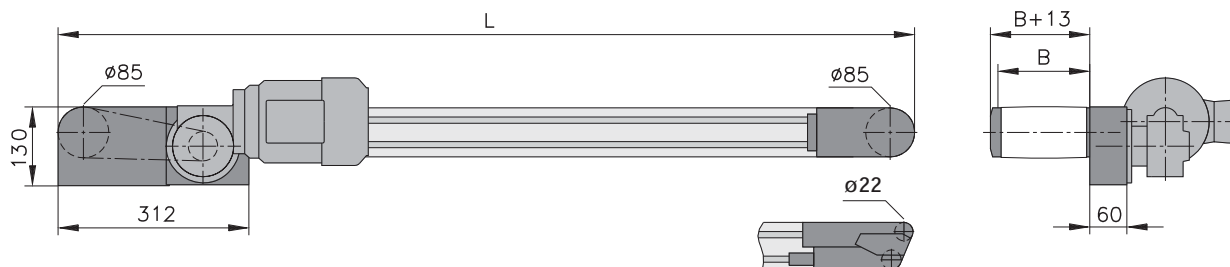
By placing the motor directly onto the drive shaft, this drive version minimizes not only the space required at the drive yet also the number of moving parts and maintenance requirements. The torque arm enables even large output torques to be transferred to the belt.

	Dimensions – Technical Information	Notes
Conveyor length L	between 650 - 10000 mm	any increment possible
Conveyor width B	200 to 1200 mm (in 100 mm increments)	others on request
Belt Width	B-10 mm	see page 86
Drive Location	head right, head left	head left shown
Drive and Speed	3.2 to 55.3 m/min	others on request
Stands and Side Rails		see page 262
Load Capacity max.	100 kg (220 lbs)	higher on request

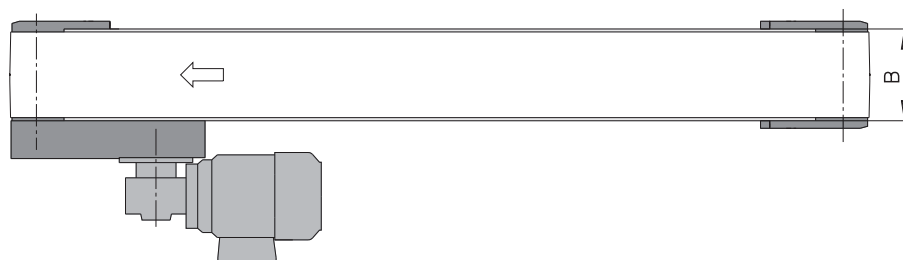
# GUF-P 2041 AS

Belt Conveyors with Outside Head Drive

B20.40.003



Tails  
see page 61



**Features:**

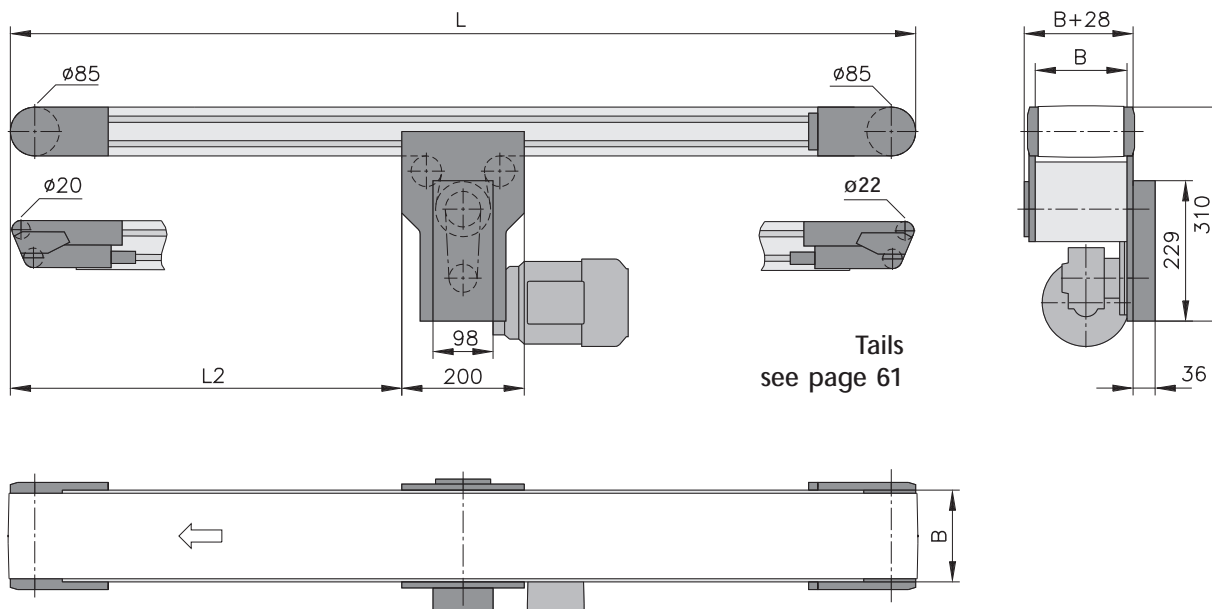
Drive Version AS features motor placement on the outside of the conveyor frame. This is often used in situations where the conveyor frame must be unobstructed, or where the motor must remain clean. The conveyor can be placed very close to equipment. Additional features include a  $\phi 85$  mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a galvanized steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 650 - 10000 mm	any increment possible
Conveyor width B	200 to 1200 mm (in 100 mm increments)	others on request
Belt Width	B-10 mm	see page 86
Drive Location	head right below, head left below, head right above, head left above	head left shown
Drive and Speed	to 60 m/min (200 ft/min)	see page 60
Stands and Side Rails		see page 262
Load Capacity max.	150 kg (330 lbs)	higher on request

# GUF-P 2041 BC

*Belt Conveyors with Center Drive, bidirectional*

B20.40.004



Tails  
see page 61

### Features:

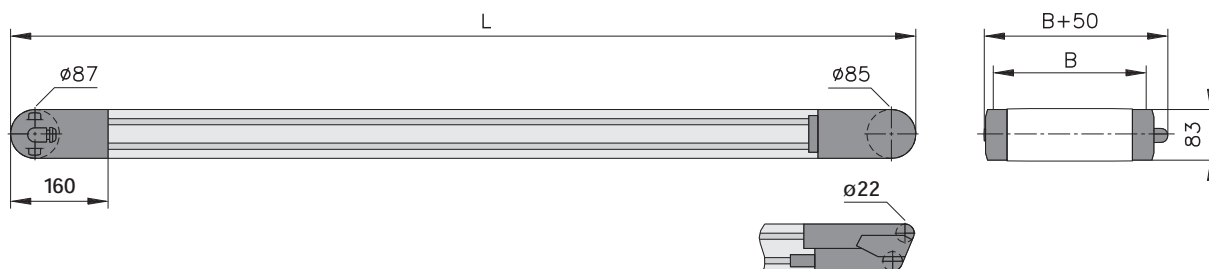
mk offers a variety of motor options for Drive Version BC, which are sized and selected for each application's individual speed and load requirements. The compact design, and the ability to move the drive location anywhere along the conveyor frame, simplifies the integration of this conveyor into new or existing equipment. Additional features include a  $\varnothing 88$  mm crowned drive roll, separate belt tensioning and tracking, sealed ball bearings and a galvanized steel slider bed fastened to an aluminum T-slot designed frame. Use of cleated belts is not possible with this drive version. The drive roll also features a  $\varnothing 20$  mm hollow shaft with a 6 mm keyway (DIN 6885).

	Dimensions – Technical Information	Notes
Conveyor length L	between 650 - 10000 mm	any increment possible
Conveyor width B	200 to 1200 mm (in 100 mm increments)	others on request
Belt Width	B-10 mm	see page 86
Drive Location	right, left	
Drive and Speed	to 60 m/min (200 ft/min)	see page 60
Stands and Side Rails		see page 262
Load Capacity max.	150 kg (330 lbs)	higher on request

# GUF-P 2041 CA

*Belt Conveyors with Driven Roller*

B20.40.005



Tails  
see page 61



## Features:

Drive Version CA with Driven Roller is the most compact drive version available for System GUF-P 2041. By integrating the motor within the drive roll itself, there is no mechanical interference. The integration of this conveyor into equipment is therefore relatively simple.

	Dimensions – Technical Information	Notes
Conveyor length L	between 500 - 3000 mm	any increment possible
Conveyor width B	200, 250, 300, 350, 400, 450 and 500 mm	others on request
Belt Width	B-10 mm	see page 86
Drive and Speed	2.9; 4.1; 5.1; 6.1; 7.4; 8.7; 10.6; 10.7; 13; 13.1; 15.6; 18.7; 22.3; 23; 27.4; 33.6; 48.2 and 59.2	see page 60
Stands and Side Rails		see page 262
Load Capacity max.	on request	

# GUF-P 2041

## *Motor Information*

### **Motor selection**

As a standard, mk offers a variety of motors. On our homepage ([www.mk-group.com](http://www.mk-group.com)) we provide a calculation program for motor sizing for conveyors available in Germany.

Although the selection varies by country with respect to local voltage standards and safety regulations, international availability is a key requirement. Typically, we supply inverter-duty right-angle gearmotors for heavy-duty requirements. All motors are readily available from mk.

### **Motor voltage**

As a standard, mk provides motors which comply with the normal, expected electrical requirements of the country where they are manufactured. International motors are also available for conveyors designed for export.

### **Motor power**

Motors are sized to each individual conveyor style, size and performance requirements. The typical range is between 0.09 KW and 0.55 KW (1/8 hp and 3/4 hp).

### **Speeds**

The maximum belt speed for GUF-P 2041 conveyors is approximately 60 m/min (200 ft/min). This is dependant on the total load, the type of transport with respect to indexing or accumulation, and the conveyor length. For Drive Version CA the maximum speed depends on the conveyor load.

### **Speed Control**

Frequency inverters with a variable speed range of 1:7 are available for AC motors. DC motors offer speed controls with a 1:10 range.

### **Rating**

All standard motors are built to IP 54 (IP = International Protection) standards, whereby higher standards are available on request.

### **Additional notes**

The motors are primarily designed for continuous duty. Operating motors at very low frequency (below 70% of normal) may require additional cooling. Motors with encoders, clutches, brakes, thermal overload protection or indexing capabilities are also available. However, this does not apply for drive execution CA.

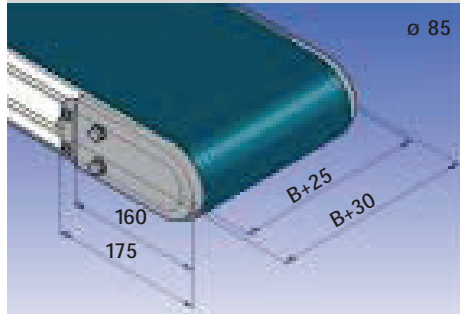


# GUF-P 2041

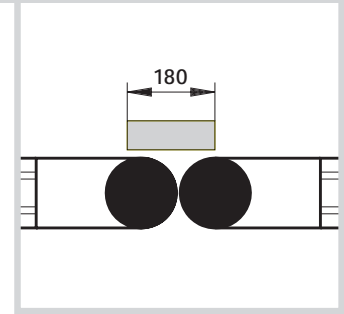
## Tails

**Tail 01**

**Ident-Nr. B80.07.001**

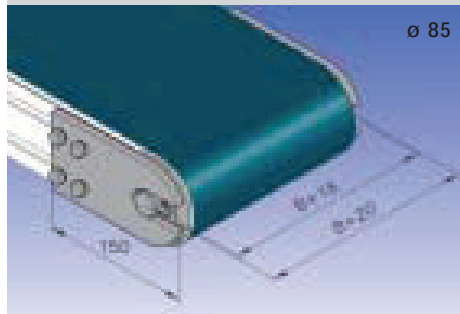


- $\varnothing$  85 mm crowned roll
- Sealed bearings
- Belt tension and tracking using alignment blocks
- Minimum part size for transfer 180 mm
- Cast aluminum roll holders

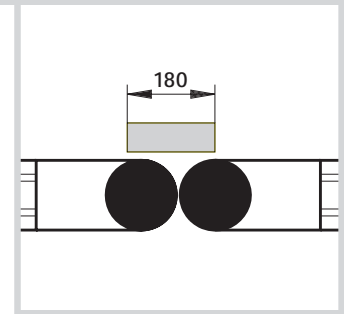


**Tail 02**

**Ident-Nr. B80.07.009**

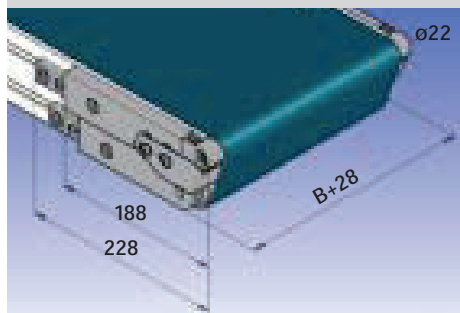


- Cylindrical drum  $\varnothing$  85 mm
- Sealed bearings
- Belt tension and tracking using tension shafts
- Minimum part size for transfer 180 mm
- Not suitable for sideloading

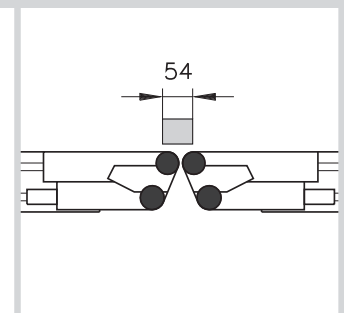


**Tail 13**

**Ident-Nr. B80.07.006**

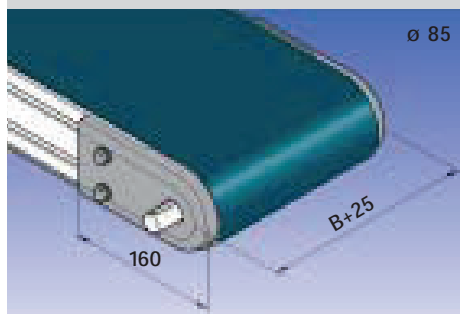


- $\varnothing$  22 mm rolling nosebar
- Sealed bearings
- Belt tension and tracking using alignment blocks
- Minimum part size for transfer 54 mm
- Note minimum pulley diameter when selecting belt

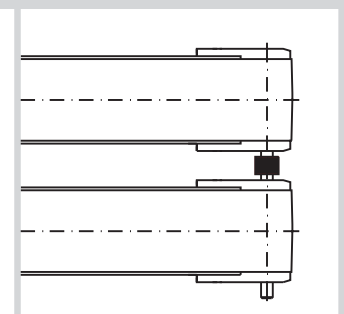


**Tail 19**

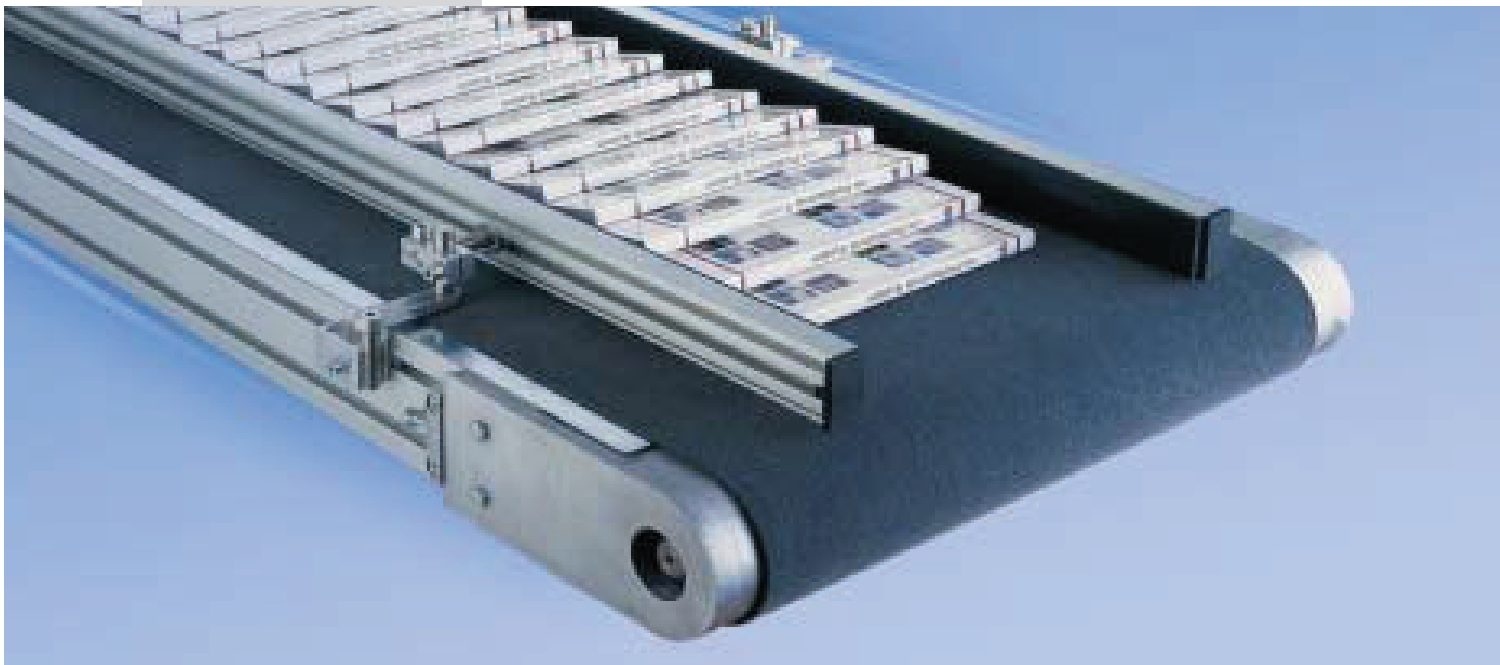
**Ident-Nr. B80.07.002**



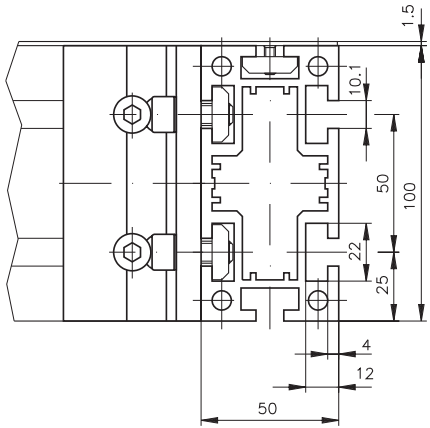
- $\varnothing$  85 mm crowned roll
- Sealed bearings
- $\varnothing$  20 x 27.5 mm long shaft, 6x6x22 mm shaft key (DIN 6885)
- Coupling of two lanes using one drive
- Additional output shaft (specify right, left or both sides)

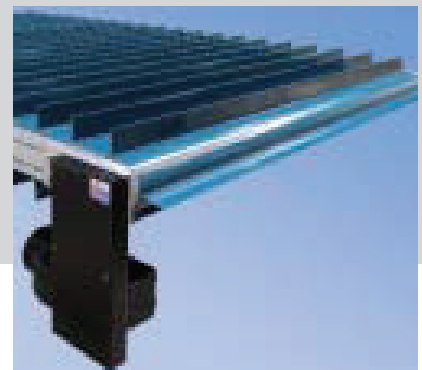
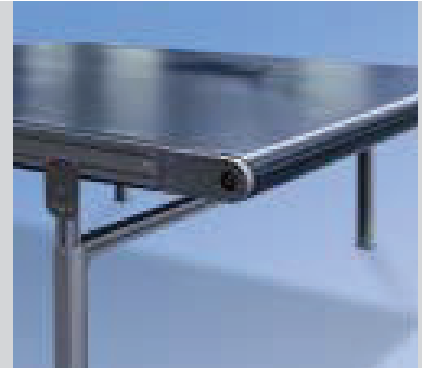


# Belt Conveyors GUF-P 2004



Conveyor frame  
cross-section





Besides the standard features of all mk Belt Conveyor Systems including crowned rolls for simple belt tracking and low friction slider beds, System GUF-P 2004 is noted for its extremely heavy frame manufactured using our structural Profile mk 2004. With total load capacities to 200 kg (440 lbs) and frame dimensions

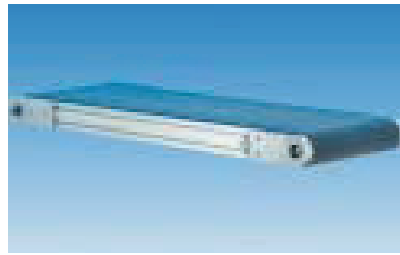
of up to 2.000 mm wide by 20 meters long, this conveyor is ideally suited for transporting large and bulky goods. The  $\varnothing$  105 mm drive roll, which is available in either steel or rubberized depending on load, completes this conveyor, which is the largest belt conveyor we offer. In addition to the high load

carrying capacity, this conveyor system can be further enhanced by the large selection of standard accessories including side rails and heavy-duty stands.

# Belt Conveyors

## GUF-P 2004

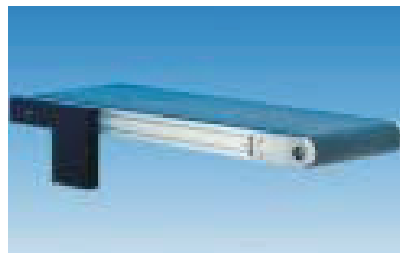
**Drive Version AA**



**Drive Version AC**



**Drive Version AM**



**Drive Version AS**



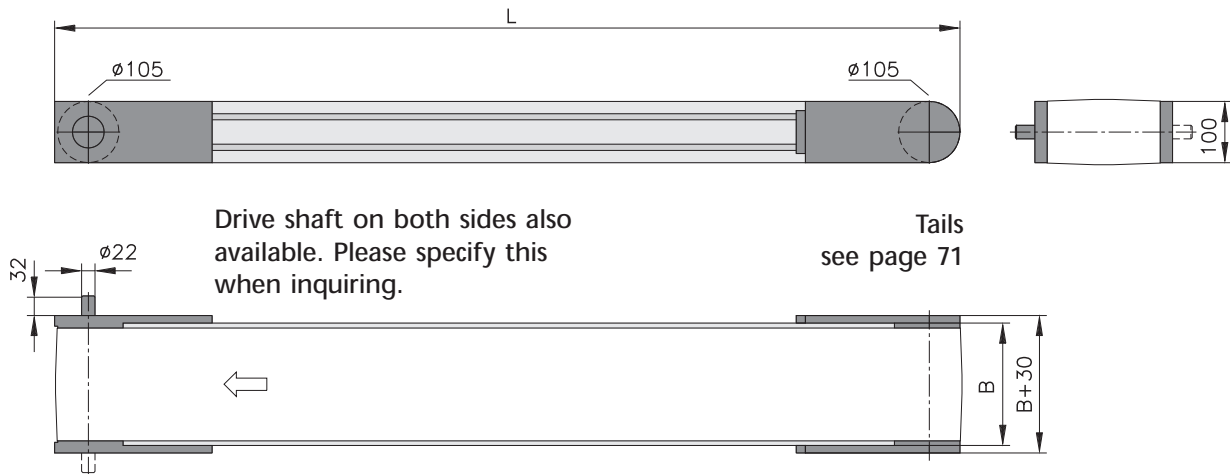
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GUF-P 2004 Motor Information	70
GUF-P 2004 Tails	71

# GUF-P 2004 AA

*Belt Conveyors with Head Drive, without Motor*

**B20.14.009**



## Features:

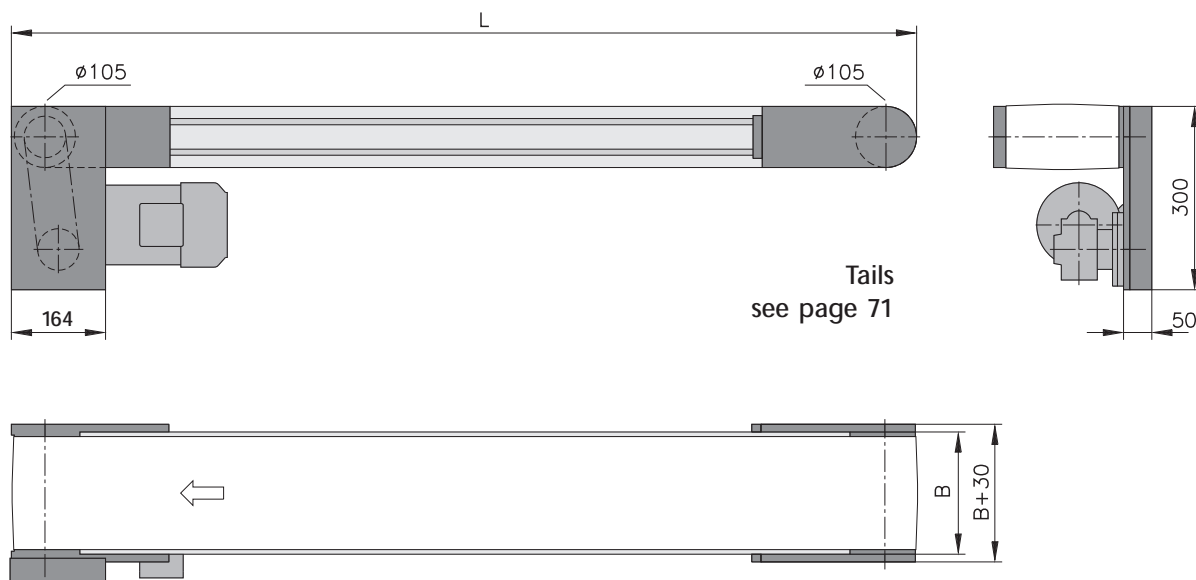
Drive Version AA is often used where multiple lanes are to be slave driven, either parallel or in-line, with a single drive motor. The rigid frame is ideal for integrating this conveyor into new or existing equipment. Additional features include a  $\varnothing$  105 mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a galvanized steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version. The  $\varnothing$  22 mm x 32 mm long output shaft includes a 6 x 6 x 32 mm shaft key (DIN 6885).

	Dimensions – Technical Information	Notes
<b>Conveyor length L</b>	between 660 - 20000 mm	any increment possible
<b>Conveyor width B</b>	200 - 2000 mm (in 100 mm increments)	others on request
<b>Belt Width</b>	B-50 mm	see page 86
<b>Drive Location</b>	Output shaft right, left or both sides	
<b>Drive and Speed</b>	to 60 m/min (200 ft/min)	see page 70
<b>Stands and Side Rails</b>		see page 262
<b>Load Capacity max.</b>	200 kg (440 lbs)	higher on request

# GUF-P 2004 AC

Belt Conveyors with Head Drive

B20.14.001



Tails  
see page 71

### Features:

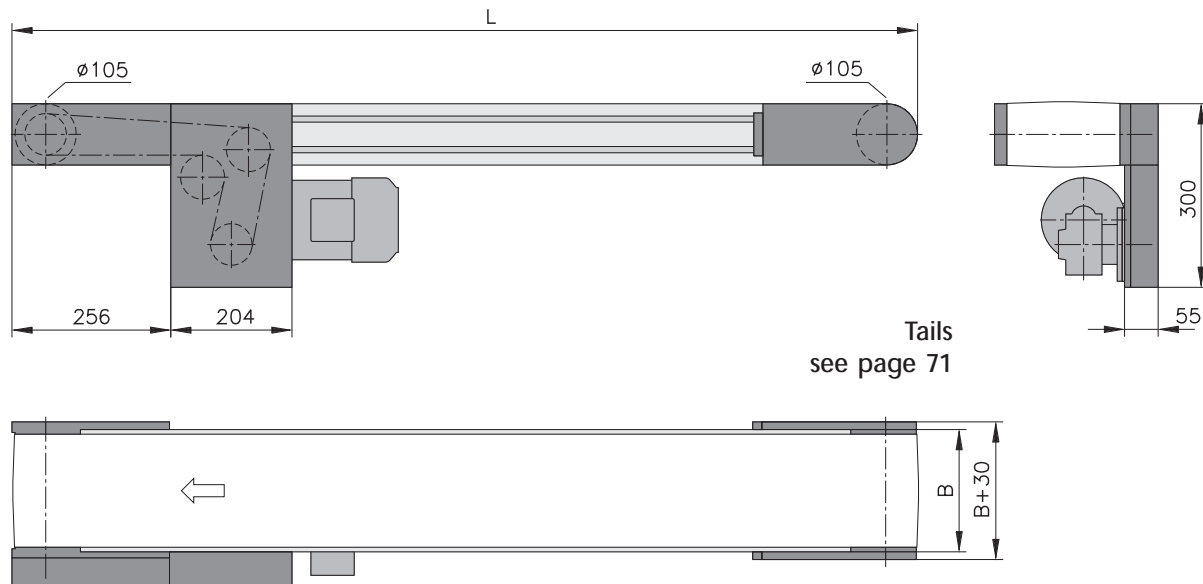
mk offers a variety of motor options for Drive Version AC, which are sized and selected for each application's specific speed and load requirements. The compact frame is ideal for integrating this conveyor into new or existing equipment. Additional features include a  $\varnothing 105$  mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a galvanized steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 700 - 20000 mm	any increment possible
Conveyor width B	200 - 2000 mm (in 100 mm increments)	others on request
Belt Width	B-50 mm	see page 86
Drive Location	head right, head left	head left shown
Drive and Speed	to 60 m/min (200 ft/min)	see page 70
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request

# GUF-P 2004 AM

## Belt Conveyors with Offset Head Drive

B20.14.003



### Features:

Drive Version AM combines the cost advantages of a head drive with the unobstructed discharge end of a center drive. This conveyor is ideal for feeding parts into or out of equipment. Additional features include a  $\varnothing 105$  mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a galvanized steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version.

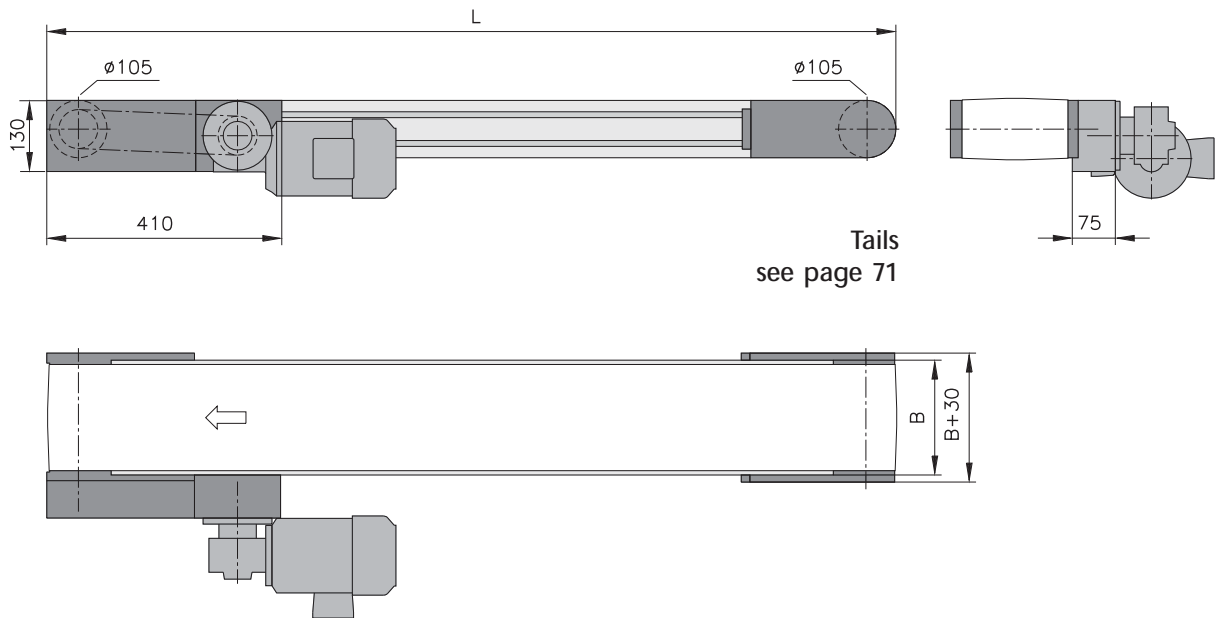
	Dimensions – Technical Information	Notes
Conveyor length L	between 850 - 20000 mm	any increment possible
Conveyor width B	200 - 2000 mm (in 100 mm increments)	others on request
Belt Width	B-50 mm	see page 86
Drive Location	head right, head left	head left shown
Drive and Speed	to 60 m/min (200 ft/min)	see page 70
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request



# GUF-P 2004 AS

*Belt Conveyors with Outside Head Drive*

B20.14.002



**Features:**

Drive Version AS features motor placement on the outside of the conveyor frame. This is often used in situations where the conveyor frame must be unobstructed, or where the motor must remain clean. The conveyor can be placed very close to equipment. Additional features include a  $\phi 105$  mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a galvanized steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 800 - 20000 mm	any increment possible
Conveyor width B	200 - 2000 mm (in 100 mm increments)	others on request
Belt Width	B-50 mm	see page 86
Drive Location	head right below, head left below, head right above, head left above	head left shown
Drive and Speed	to 60 m/min (200 ft/min)	see page 70
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request

# GUF-P 2004

## *Motor Information*

### **Motor selection**

As a standard, mk offers a variety of motors. On our homepage ([www.mk-group.com](http://www.mk-group.com)) we provide a calculation program for motor sizing for conveyors available in Germany. Although the selection varies by country with respect to local voltage standards and safety regulations, international availability is a key requirement. Typically, we supply inverter-duty right-angle gearmotors for heavy-duty requirements and parallel shaft gearmotors for lower speed and load applications.

All motors are readily available from mk.

### **Motor voltage**

As a standard, mk provides motors which comply with the normal, expected electrical requirements of the country where they are manufactured. International motors are also available for conveyors designed for export.

### **Motor power**

Motors are sized to each individual conveyor style, size and performance requirements. The typical range is between 0.18 KW and 0.75 KW (1/4 hp and 1 hp).

### **Speeds**

The maximum belt speed for GUF-P 2004 conveyors is approximately 60m/min (200 ft/min). This is dependant on the total load, the type of transport with respect to indexing or accumulation, and the conveyor length.

### **Speed Control**

Frequency inverters with a variable speed range of 1:7 are available for AC motors. DC motors offer speed controls with a 1:10 range.

### **Rating**

All standard motors are built to IP 54 (IP = International Protection) standards, whereby higher standards are available on request.

### **Additional notes**

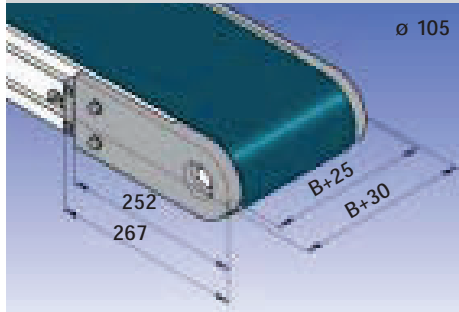
The motors are primarily designed for continuous duty. Operating motors at very low frequency (below 70% of normal) may require additional cooling. Motors with encoders, clutches, brakes, thermal overload protection or indexing capabilities are also available.

# GUF-P 2004

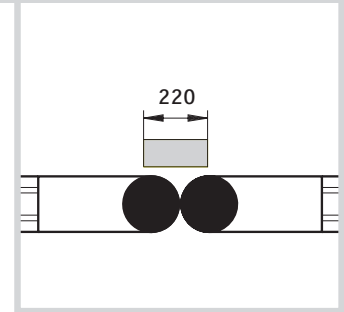
## Tails

### Tail 01

### Ident-Nr. B80.02.004

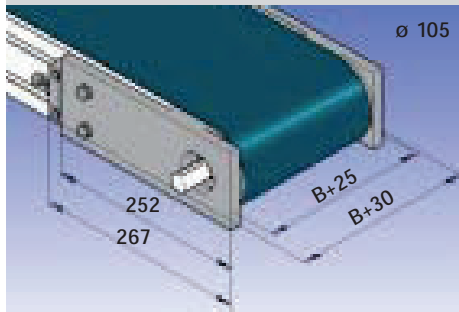


- $\varnothing 105$  mm crowned roll
- Sealed bearings
- Belt tension and tracking using alignment blocks
- Minimum part size for transfer 220 mm

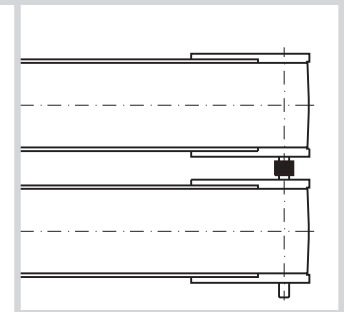


### Tail 09

### Ident-Nr. B80.02.005



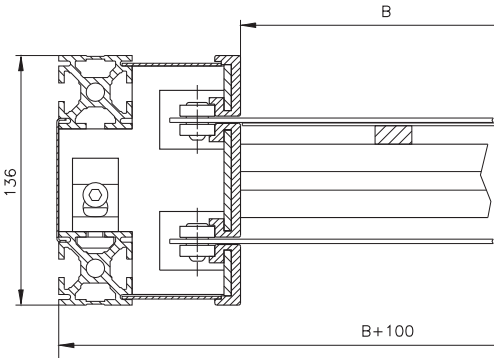
- $\varnothing 105$  mm crowned roll
- Sealed bearings
- $\varnothing 22 \times 32$  mm long output shaft, 6x6x32 mm shaft key (DIN 6885)
- Coupling of two lanes using one drive
- Output shaft left, right or both sides possible



# Belt Conveyors KGF-P 2040



Conveyor frame  
cross-section





The conveyor system KGF-P 2040 is based on our Profile Series 40, and is compatible with all other mk conveyor systems. The exterior profile frame features 10 mm T-slots which allow for the direct mounting of additional accessories such as side rails, sensors, etc. The structural profiles used ensure rigid construction with

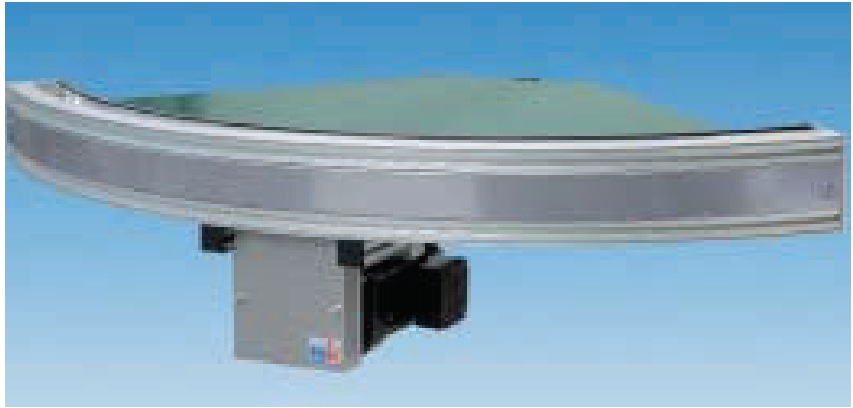
excellent load bearing capacities, whereby the indicated values for maximum loads and speeds are directly dependent, and thus vary. The conveyor features a  $\varnothing$  20 mm rolling nosebar which allows for the transfer of small parts. Automatic belt tensioning is built into the tails which compensates for normal

belt stretch, while at the same time ensuring a fixed, unchanging installed dimension. The compact center drive features no external protrusions when using our standard motor.

# Belt Conveyors

## KGF-P 2040

Drive Version BI



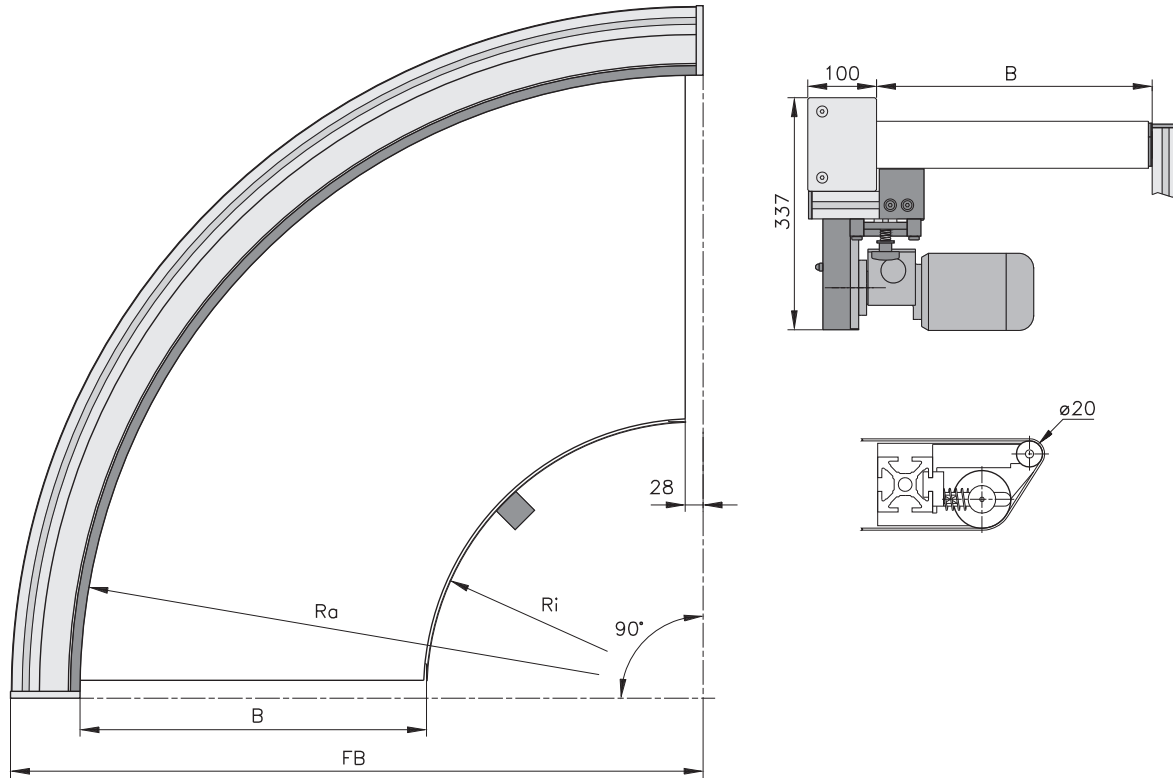
*Contents KGF-P 2040*

KGF-P 2040 BI – Center Drive, reversible –	76
KGF-P 2040 Stands and Order Example	77

# KGF-P 2040 BI

Curved belt conveyor with Center Drive, reversible

B20.40.020



### Features:

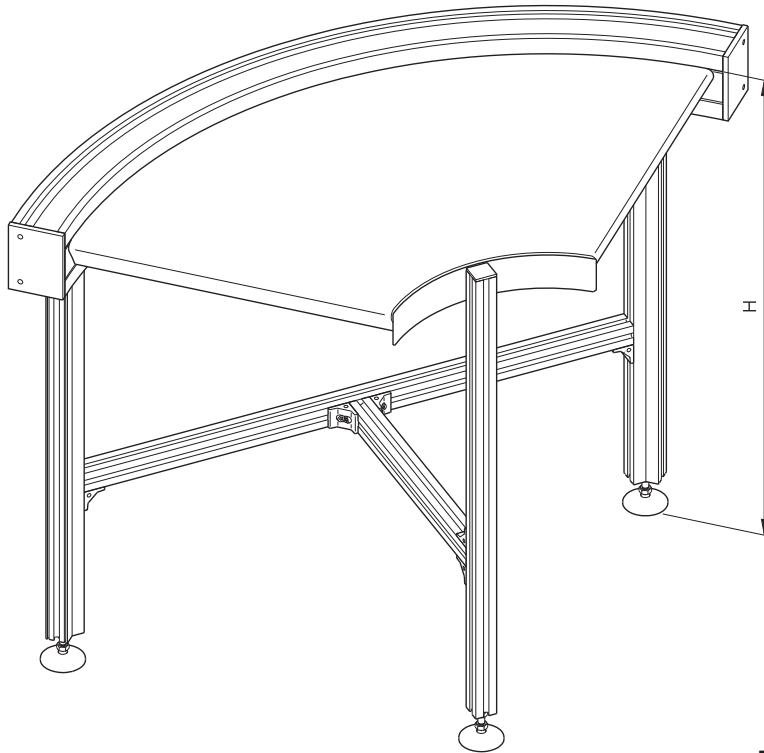
For this conveyor mk offers Drive Version BI, featuring usable belt widths of 300, 400, 500 and 600 mm for a 90° curve. The compact construction simplifies the integration of the conveyor within existing lines. The  $\varnothing 55$  mm drive roll ensures good grip and efficient motor power transfer.

	Dimensions – Technical Information	Notes
Conveyor Angle	90°	others on request
Usable Widths B	300 at Ra=600 mm, Ri=300 mm, FB=706 400 at Ra=900 mm, Ri=500 mm, FB=1006 500 at Ra=900 mm, Ri=400 mm, FB=1006 600 at Ra=900 mm, Ri=300 mm, FB=1006	Ident.-Nr.: B20.40.023 Ident.-Nr.: B20.40.022 Ident.-Nr.: B20.40.021 Ident.-Nr.: B20.40.020
Drive Location	below, center	
Drive and Speed	5 to 30 m/min	others on request
Stands	standard, or with belt change support	
Load Capacity max.	to 30 kg (65 lbs), depending on conveyor angle, speed and product	
Belts		see page 86

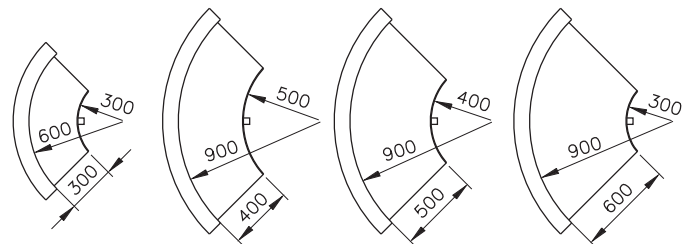


# KGF-P 2040

Stands and Order Example



### Radius Versions



### Order Example

In order to properly quote and manufacture your conveyor we require the following information:

KGF-P 2040

Version Ra 900 / Ri 500

Speed 15 m/min

Usable Width B = 400 mm

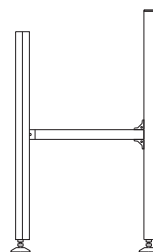
Belt type

Stands with (or without) belt change support

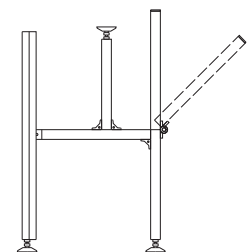
Height H = 800 mm

### Stands

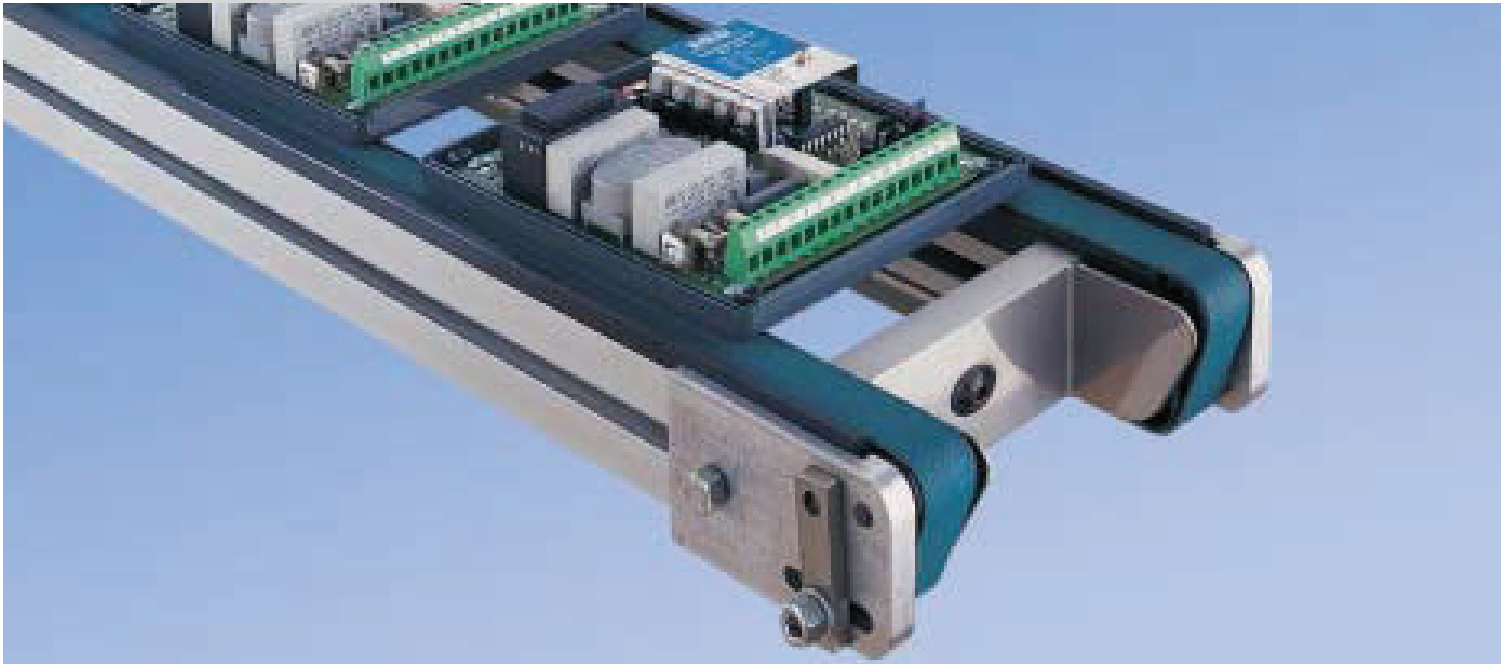
standard



with belt change support



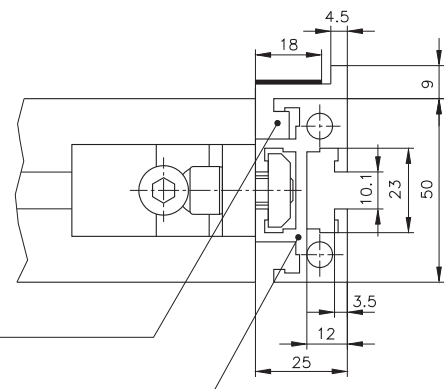
# Belt Conveyors DGF-P 2001

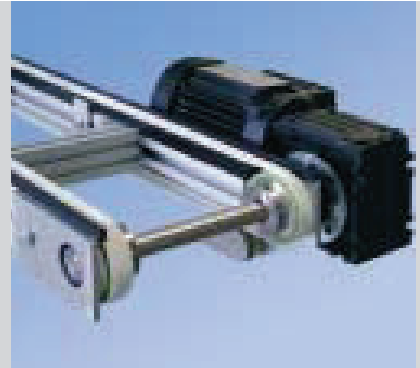


Conveyor frame  
cross-section

Wear Strip mk 1005

Profile for conveyor frame mk 2001





Conveyor System DGF-P 2001 is primarily designed for the transport of pallets. It is ideally suited to assembly areas, such as can be found in the electronics industry for example. The small diameter tail drum allows for the transfer of relatively short pallets. Belt tensioning is accomplished using the lower tail return roller. As

the roll holders are not moved, a fixed overall length is achieved. The belts run entirely on standard mk UHMW wear strips, whereby a maximum total load of 15 kg (33 lbs) is possible. Pallets for the DGF-P 2001 conveyors are supplied by mk in aluminum, as a standard. Machining is therefore according to the customer's wishes.

# Belt Conveyors DGF-P 2001

Drive Version AC



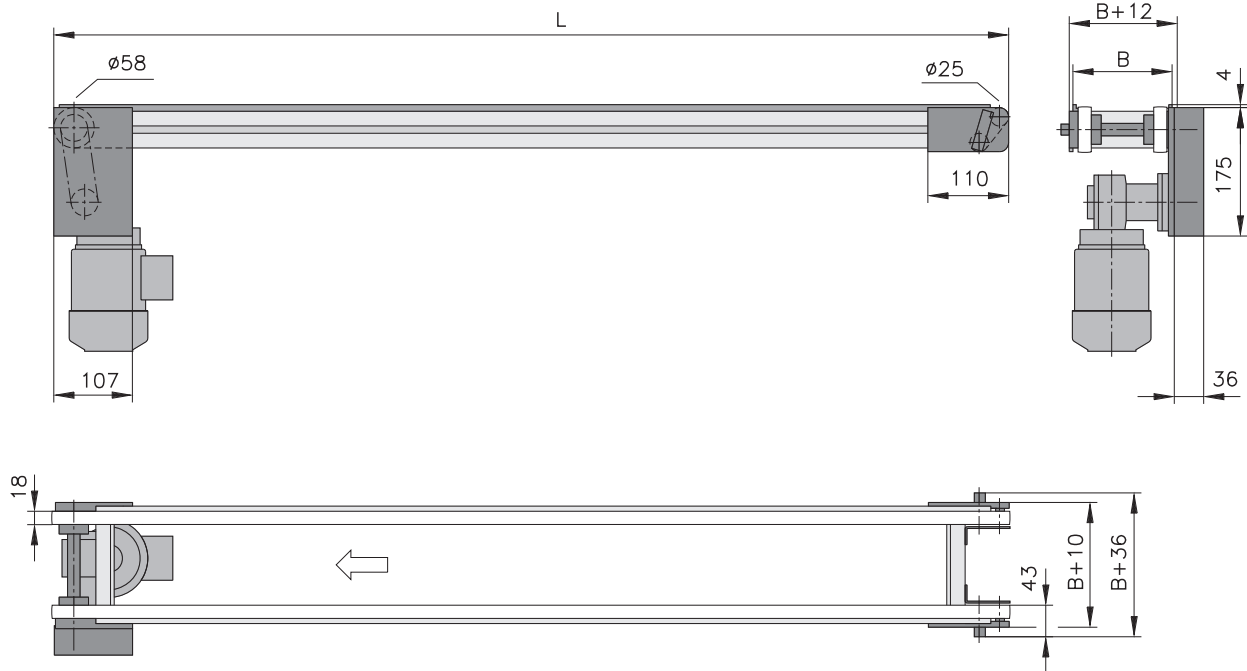
## *Contents DGF-P 2001*

DGF-P 2001 AC - Dual Belt Conveyor with Head Drive -	82
DGF-P 2001 Motor Information	83
DGF-P 2001 Pallets	84

# DGF-P 2001 AC

## Dual Belt Conveyor with Head Drive

B20.11.701



### Features:

The belts of the DGF-P 2001 dual lane conveyor ride on UHMW wear strips 4.5 mm thick x 5 mm tall integrated side rails. The recommended pallet width is the conveyor width B-11 mm (2 mm gap). The compact conveyor frame is ideal for integrating this conveyor into new or existing equipment. The  $\varnothing 58$  mm drive rolls ensure sufficient motor power transmission.

	Dimensions – Technical Information	Notes
Conveyor length L	between 300 - 2000 mm	any increment possible
Conveyor width B	100, 125, 150, 175, 200 and 250 mm	
Belt Width	18 mm	see page 86
Drive Location	head right, head left	head left shown
Speed	to 15 m/min (50 ft/min) constant or variable	
Stands and Side Rails		see page 262
Load Capacity max.	15 kg (33 lbs)	higher on request

# DGF-P 2001

## *Motor Information*



### **Motor selection**

As a standard, mk offers a variety of motors. Although the selection varies by country with respect to local voltage standards and safety regulations, international availability is a key requirement. Typically, we supply inverter-duty right-angle gearmotors for heavy-duty requirements and parallel shaft gearmotors for lower speed and load applications. All motors are readily available from mk.

### **Motor voltage**

As a standard, mk provides motors which comply with the normal, expected electrical requirements of the country where they are manufactured. International motors are also available for conveyors designed for export.

### **Motor power**

Motors are sized to each individual conveyor style, size and performance requirements. The typical range is between 0.09 KW and 0.25 KW (1/8 hp and 1/3 hp).

### **Speeds**

The maximum belt speed for DGF-P 2001 conveyors is approximately 15m/min (50 ft/min). This is dependant on the total load, the type of transport with respect to indexing or accumulation, and the conveyor length.

### **Speed Control**

Frequency inverters with a variable speed range of 1:7 are available for AC motors. DC motors offer speed controls with a 1:10 range.

### **Rating**

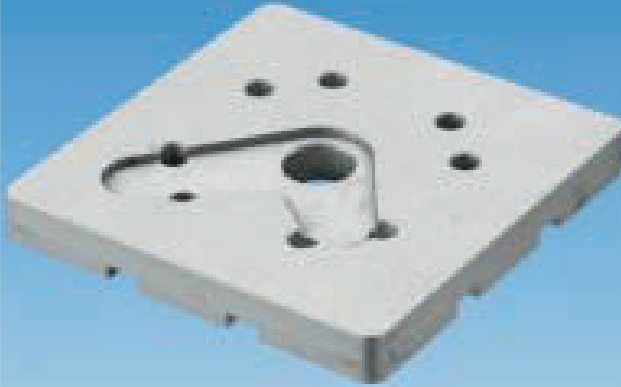
All standard motors are built to IP 54 (IP = International Protection) standards, whereby higher standards are available on request.

### **Additional notes**

The motors are primarily designed for continuous duty. Operating motors at very low frequency (below 70% of normal) may require additional cooling. Motors with encoders, clutches, brakes, thermal overload protection or indexing capabilities are also available.

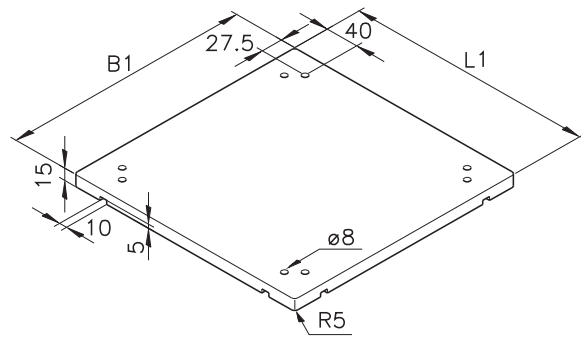
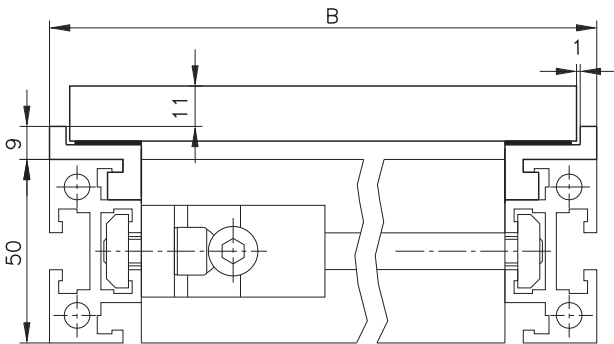
# DGF-P 2001

## Pallets



As as standard, the pallets for Conveyor System DGF-P 2001 are manufactured using aluminum (2017A, or 3.1325). Dimensionally the width is fixed in relation to the conveyor (B-11 mm). The minimum length is 90 mm. Depending on the product to be conveyed, anodized aluminum or other pallet materials are also available. Below is a representation of our standard, with customer-specific tooling shown at left.

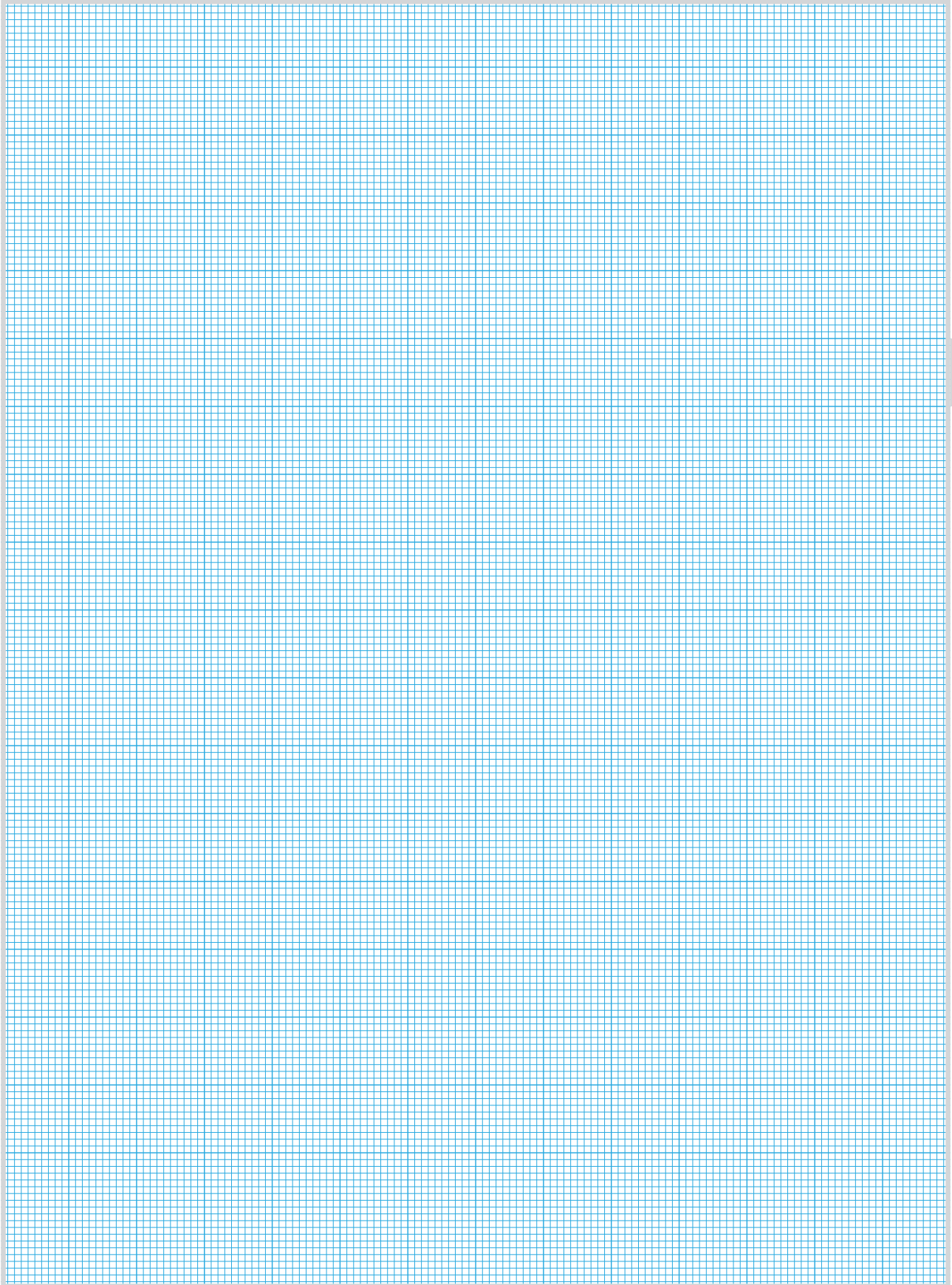
Conveyor and pallet cross-section



### Rework

Upon request we can rework the pallet for your particular application. We can also provide pallets per your drawings.



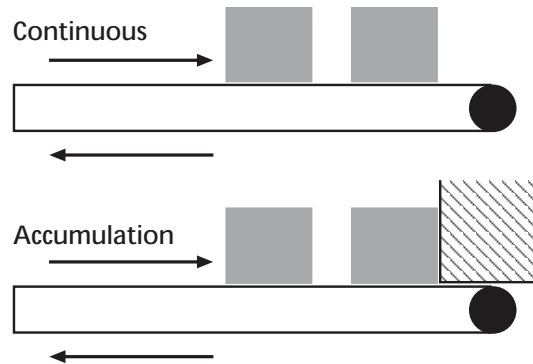


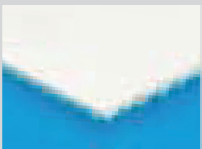

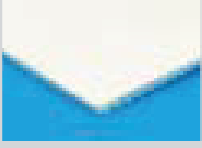


# Belt Conveyors

## Belt Types

The belt types shown below are our standards, and are suitable for most applications. In addition to these we can offer a variety of special belts. Application-specific belts can include, for example, teflon belts, velour belts or others with specific chemical resistance properties.







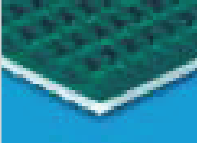

When selecting a belt, please note whether your application requires friction for continuous or incline applications, or whether you are looking for product accumulation.



Belt type	KGF-P 2040 suitable	DGF-P 2001 suitable	Surface Texture	Allowable Temperature	Thickn. (mm)	Properties	Min. Pulley ø	Transport	Material	Belt Category
<b>Transilon E2/1 U0/U2 white, K10200</b>										
		•	smooth	-30 - +100°C	0,6	FDA suitable, antistatic, good traction	8 mm	continuous inclined	Urethane	1
<b>Transilon E3/2 U0/U0 colorless, K10203</b>										
		•	woven structure	-30 - +100°C	1,2	FDA suitable, antistatic, good for accumulation	8 mm	continuous accumulation	Urethane	2
<b>Transilon E3/2 U0/U2 white, K10214</b>										
		•	smooth	-30 - +100°C	1,4	FDA suitable, antistatic, good traction	8 mm	continuous inclined	Urethane	3
<b>Transilon E3/2 U0/G8 NSTR green, K10256</b>										
			woven structure	-30 - +100°C	2,0	antistatic, cut resistant	20 mm	continuous	NBR	3
<b>Transilon E4/1 U0/V5H MT green, K10201</b>										
			smooth	-10 - +70°C	1,1	antistatic, good for accumulation, side-discharge suitable	20 mm	continuous accumulation	PVC	1





# Belt Conveyors

## Belt Types

Belt type	KGF-P 2040 suitable	DGF-P 2001 suitable	Surface Texture	Allowable Temperature	Thickn. (mm)	Properties	Min. Pulley ø	Transport	Material	Belt Cate- gory
Transilon E5/2 0/0 colorless, <b>K10266</b>										
	•	•	woven	-10 - +70°C	1,4	antistatic	20 mm	continuous accumula- tion	Polyester	1
Transilon E5/2 0/V5 green, <b>K10202</b>										
	•	•	smooth	-10 - +70°C	1,9	antistatic, quiet	20 mm	continuous	PVC	1
Transilon E5/2 0/V5H MT black, <b>K10261</b>										
			smooth	-10 - +70°C	1,9	antistatic, troughability, quiet	40 mm	continuous	PVC	1
Transilon E6/2 U0/U2-M green, <b>K10241</b>										
			smooth	-30 - +100°C	1,9	FDA suitable, extremely laterally stiff, antistatic	50 mm	continuous inclined	Urethane	4
Transilon E8/2 U0/U2 green, <b>K10205</b>										
		•	smooth	-30 - +100°C	1,4	FDA suitable, laterally stiff, antistatic	20 mm	continuous	Urethane	2
Transilon E8/2 U0/V5 green, <b>K10204</b>										
			smooth	-10 - +70°C	2,1	quiet, good traction,	50 mm	continuous inclined	PVC	2
Transilon E8/2 U0/V20 AR green, <b>K10207</b>										
			high grip	-10 - +70°C	4,7	antistatic, very good traction, incline transport	50 mm	continuous inclined	PVC	3
Transilon E8/2 U0/V/U2H MT green, <b>K10217</b>										
			smooth	-10 - +70°C	1,5	antistatic, cut resistant	50 mm	accumula- tion	Urethane	2

# Belt Conveyors

## Belt Types

Belt type	KGF-P 2040 suitable	DGF-P 2001 suitable	Surface Texture	Allowable Temperature	Thickn. (mm)	Properties	Min. Pulley ø	Transport	Material	Belt Cate- gory
Transilon E8/H U0/U2 MT HACCP white, <b>K10252</b>										
		•	smooth	-30 - +100°C	1,4	FDA suitable, laterally stiff, suitable for knife edge, antistatic	8 mm	continuous	Urethane	2
Transilon E8/2 0/U10 S/LG green, <b>K10253</b>										
			structure	-30 - +100°C	2,1	antistatic, good traction, incline transport, oily or greasy products	40 mm	continuous inclined	Urethane	4
Transilon E8/H U0/V10S LG black, <b>K10257</b>										
			structure	-10 - +70°C	2,3	antistatic, laterally stiff	40 mm	continuous inclined	PVC	2
Transilon Novo 25-HC black, <b>K10206</b>										
	•	•	felt	-10 - +120°C	2,5	antistatic, conductive (HC)	30 mm	continuous accumu- lation	Polyester	2

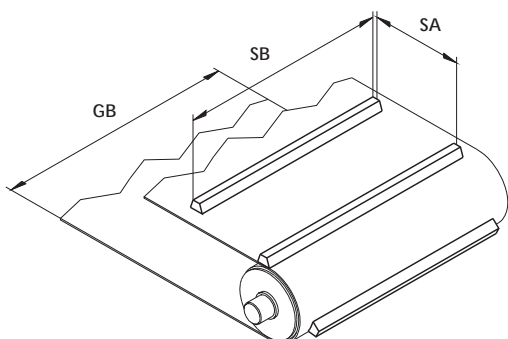
# Belt Conveyors

## Belt Types with Cleats

When selecting a cleat, please ensure that the belting and the cleat material are the same. Segmented lateral cleats as well as combinations of lateral and longitudinal cleats are possible. Other cleat profiles available on request.

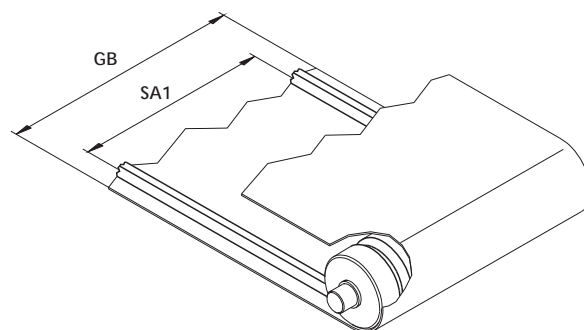
### Lateral Cleats, topside

act as a pusher for the transported product, especially on inclined conveyors (for these applications, the following profiles may be used: K6, K10, K13, K15, K17, K30, F20/3, F30/8, T20U, T30U, T40U, T50U, T60U, T20, L40, L60)



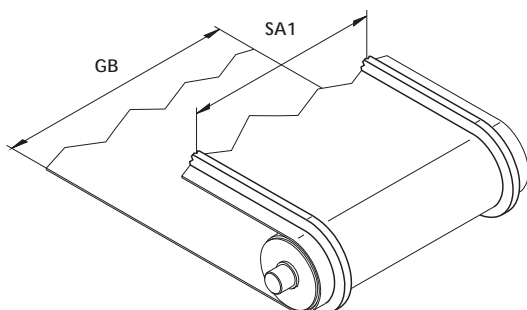
### Longitudinal Cleats, underside

are a belt guide option and are usually used if lateral forces act on the belt. (for these applications, the following profiles may be used: K6, K10 and K13). Unevenness can occur in the conveyor belt in the area of longitudinal cleats.



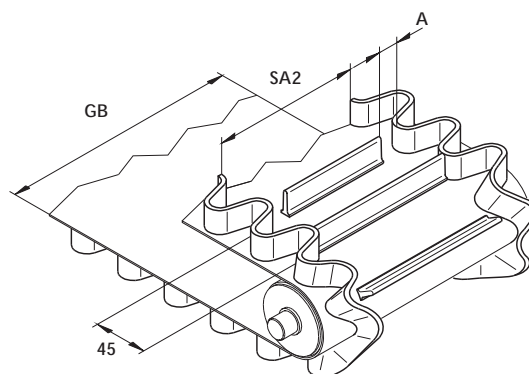
### Longitudinal Cleats, topside

are used primarily for guiding the belt, e.g. as in inclined conveyors (for these applications, the following profiles may be used: K6, K10 and K13)



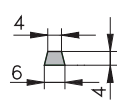
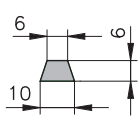
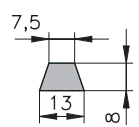
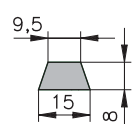
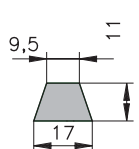
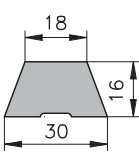
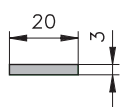
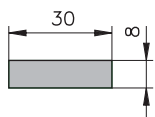
### Sidewalls, topside

can be used instead of side guides and are used in particular in inclined conveyors (for these applications, the following profiles may be used: Fw2 x 30, Fw2 x 40 and Fw2 x 60).

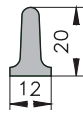
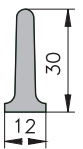
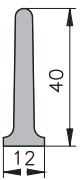
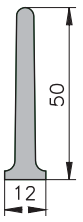
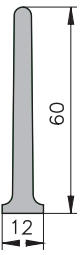
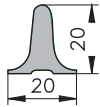


# Belt Conveyors

## Cleat Types

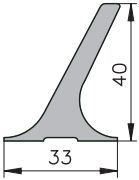
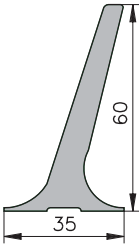
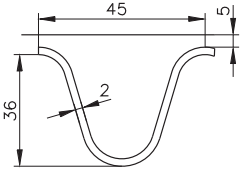
Cleat type		Color					Weight app.g/m	Lateral $d_{min}$ Drum $\varnothing$ appx.mm	$SA_{1 min}$ in mm	Longitudinal	
		PVC		colorl.	PU					$d_{min}$ approx. mm	
		green	white		green	white				Underside	Topside
K6		•	•	•			25	30	30	40	30
K10		•	•	•			60	50	30	70	60
K13		•	•	•			100	80	30	100	70
K15		•		•			120	90	30	100	80
K17		•	•	•			180	110	30	110	90
K30		•					470	180	50	230	180
F20/3		•	•				75	70	30	70	50
F30/8		•	•				290	120	45	120	90

# Belt Conveyors Cleat Types

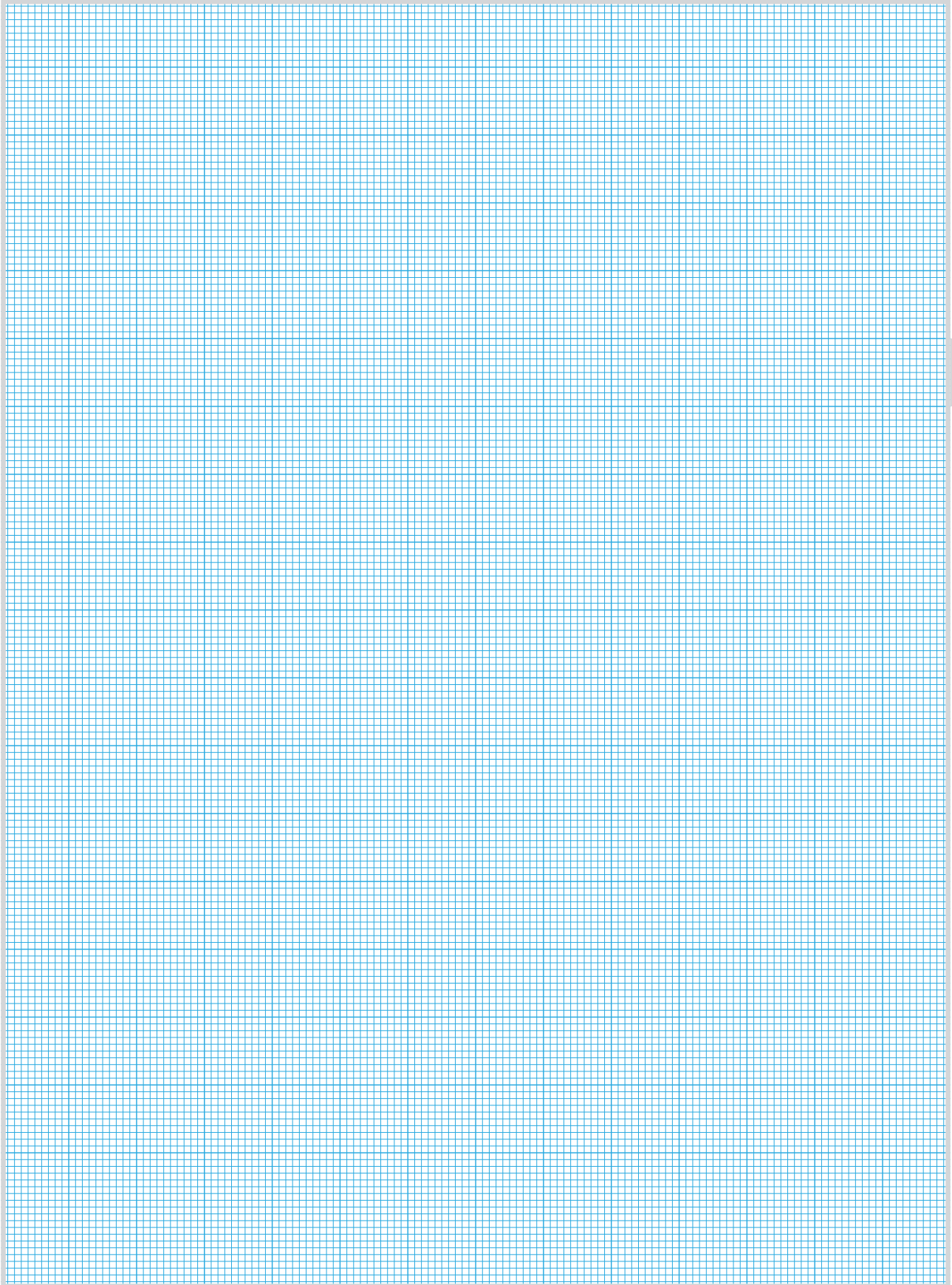
Cleat type	Color					Weight app.g/m	Lateral $d_{min}$ Drum $\varnothing$ appx.mm	SA <sub>1 min</sub> in mm	Longitudinal	
	PVC		colorl.	PU					$d_{min}$ approx. mm	
	green	white		green	white				Underside	Topside
T20U 				•	•	140	50			
T30U 				•	•	180	50			
T40U 				•	•	220	50			
T50U 				•	•	250	50			
T60U 				•	•	280	50			
T20 	•	•				160	90			

# Belt Conveyors

## Cleat Types

Cleat type	Color					Weight app.g/m	Lateral $d_{min}$ Drum $\varnothing$ appx.mm	SA <sub>1 min</sub> in mm	Longitudinal	
	PVC		colorl.	PU					$d_{min}$ approx. mm	
	green	white		green	white				Underside	Topside
<b>L40</b> 	•	•				470	80			
<b>L60</b> 	•	•				600	80			
<b>Fw2</b> Height = 30 mm Height = 40 mm Height = 60 mm 				•	•	130				80
				•	•	170				125
				•	•	240				150





# Belt Conveyors

## *Application Examples*



**GUF-P Mini for integration into an existing system  
as transverse conveyor and singulator**



**Combination of two  
GUF-P 2000 for conveying  
slanted transport tanks**



**Mobile GUF-P 2000 featuring  
discharge chute with  
variable inclination angle**



**GUF-P 2000 with mechanism for folding and aligning paper bags before the filling process**



**GUF-P 2000 with mk wood profile and metal detector**



**GUF-P 2000 as transverse conveyor and singulator following a cooling section**

# Belt Conveyors

## *Application Examples*



**GUF-P 2000 with comb-style cleated belt**



**GUF-P 2041 with pneumatic deflector**



**GUF-P 2041 with adjustable side rail**



GUF-P 2000 as transverse conveyor and singulator following a cooling section



GUF-P 2000 with drip pan and end stop



Recirculating system using two parallel GUF-P 2000 running in opposite directions



GUF-P 2000 with rolling nosebar

# Belt Conveyors

## *Application Examples*



**GUF-P 2004 widths up to 2 m and  
belt lengths up to 20 m possible**



**GUF-P 2041 with guides for  
workpiece separation**



**GUF-P 2041 with drip pan  
and longitudinal cleats**



Two GUF-P 2041 in tandem arrangement with mobile stand system for mobile double feeding of a system



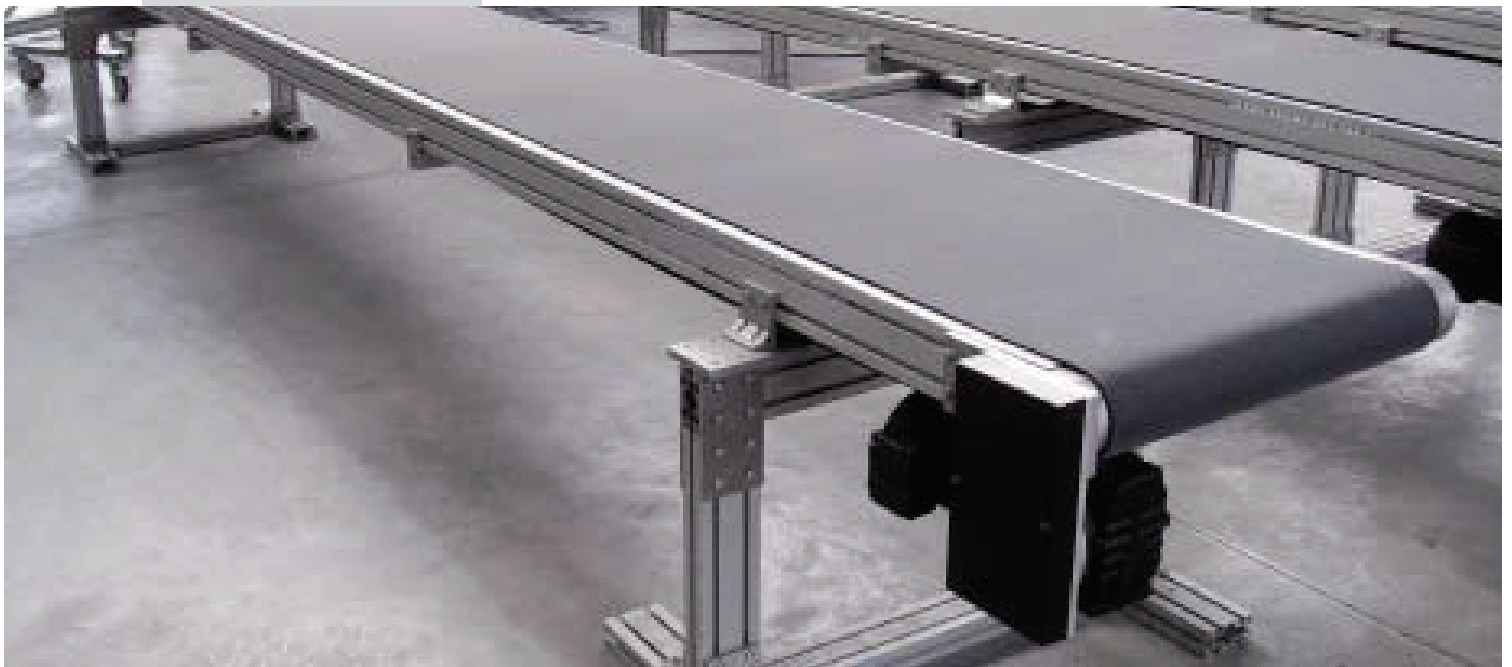
GUF-P 2004 with separate working and return side of belt



GUF-P 2041 with belt for conveying sharp-edged products, e.g. metal stampings

# Belt Conveyors

## *Application Examples*



Nuts for the installation side rails or sensor plates can be inserted in the T-slots according to the customers' wishes



Two conveyor belts driven by one motor at the head drive



Several conveyor lanes linked via a center drive





The flat, side end of the KGF-P 2040 ensures short transfer paths



180° KGF-P 2040 with side rail



KGF-P 2040 with Drive Version BI



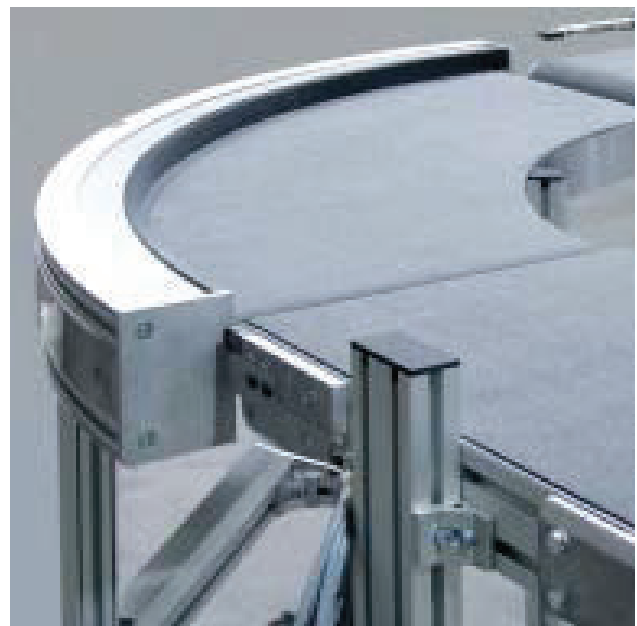
180° KGF-P 2040 with secured guard and inner radius 0 mm

# Belt Conveyors

## *Application Examples*



**Standard-KGF-P 2040**



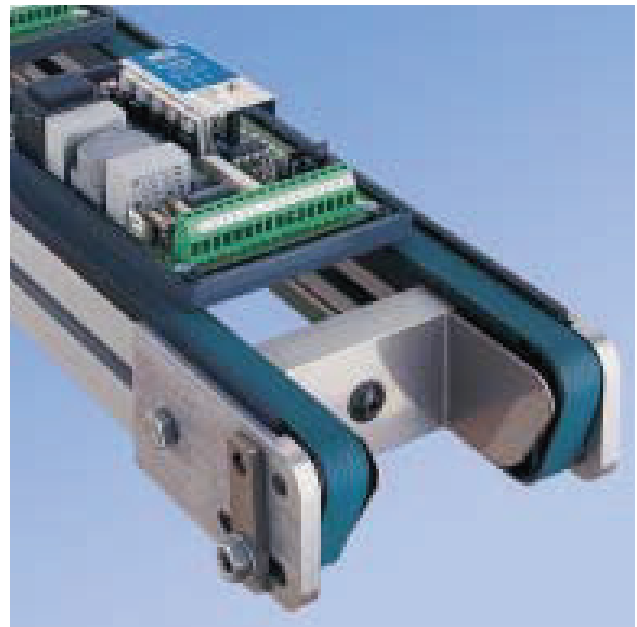
**Transfer between KGF-P 2040 and  
GUF-P 2041 with rolling nosebar  
for product lengths from 50 mm**



Combination of two GUF-P 2000 arranged in parallel. The space between the belts enables access from underneath

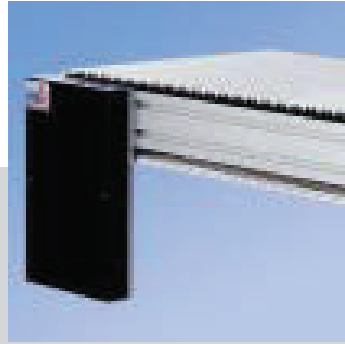
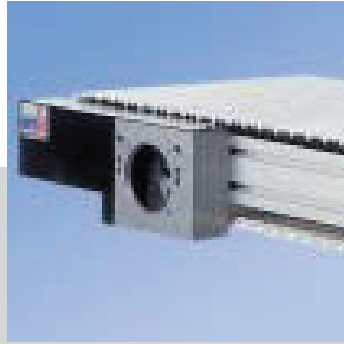


DGF-P 2001 with side rail for extra-wide products



Standard DGF-P 2001 with pallets for inserting printed circuit board components

# mk Modular Belt Conveyors



*Contents mk Modular Belt Conveyors*



MBF-P 2040.02

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Modular Belt Conveyors Application Examples

114



# Modular Belt Conveyors MBF-P 2040.02



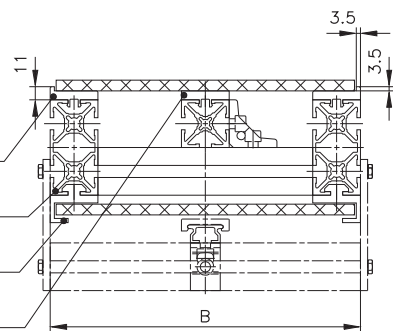
Conveyor frame cross-section

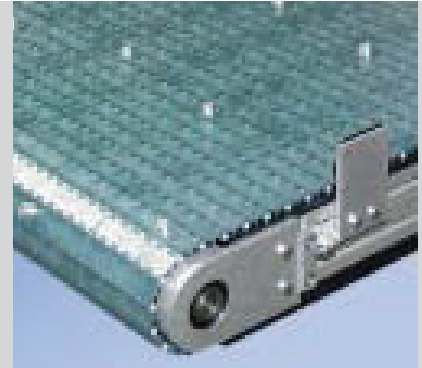
Wear Strip mk 1040.12

Profile for conveyor frame  
mk 2040.41

Wear Strip mk 1040.13

Wear Strip mk 1040.10





Conveyor System MBF-P 2040.02 with modular belting and cleanly integrated drive assemblies distinguishes itself with high load capacities even at narrow belt widths. The belting is positively driven and cannot deviate from its direction of travel. As a result,

parts may be discharged off the side of the conveyor. The belting material is very low friction and extremely resistant to wear. With the selection of belting materials, this conveyor system has applications in the food industry, does well in higher temperature envi-

ronments and has good chemical resistance. Belt accessories include sidewalls and lateral cleats. Maintenance operations such as belt tensioning or replacement of individual links are quick and simple.

# Modular Belt Conveyors

## MBF-P 2040.02

Drive Version AC



Drive Version AS





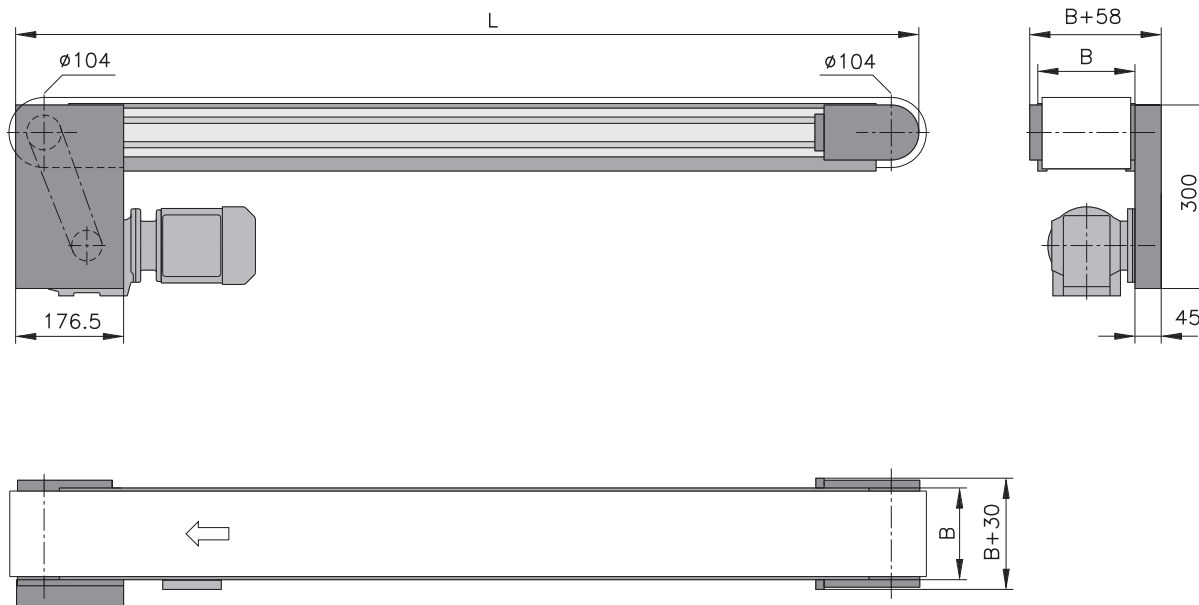
## *Contents MBF-P 2040.02*

MBF-P 2040.02 AC – Head Drive –	110
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MBF-P 2040.02 Motor Information	112
MBF-P 2040.02 Modular Belts	113

# MBF-P 2040.02 AC

## Modular Belt Conveyors with Head Drive

B20.40.801



### Features:

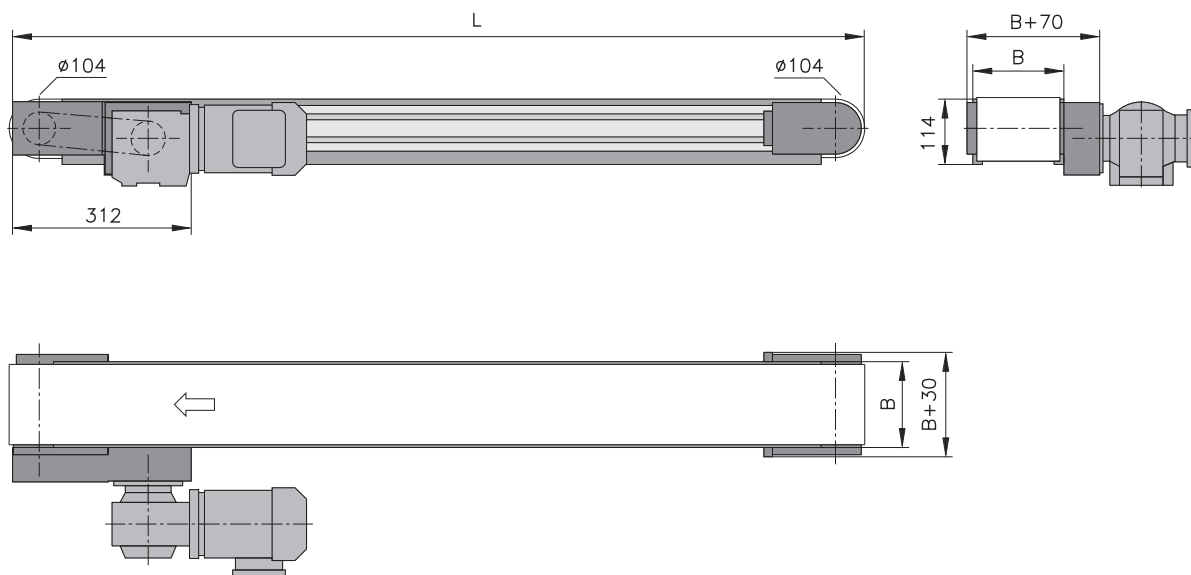
mk offers a variety of motor options for Drive Version AC which are sized and selected for each application's specific speed and load requirements. The molded drive sprockets positively engage with the underside of the belt and ensure proper grip and tracking. The compact frame design simplifies integration of the conveyor into new or existing equipment. Use of cleated belts is possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 475 - 10000 mm	any increment possible
Conveyor width B	210 to 1010 mm (in 50 mm increments)	others on request
Modular Belt width	B-10 mm	see page 113
Drive Location	right, left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 112
Stands and Side Rails		see page 262
Load Capacity max.	150 kg (330 lbs)	higher on request

# MBF-P 2040.02 AS

Modular Belt Conveyors with Outside Head Drive

B20.40.802



**Features:**

Drive Version AS features motor placement on the outside of the conveyor frame. This is often used in situations where the conveyor frame must be as unobstructed as possible, or where the motor must remain clean. The overall height of the conveyor is held to an absolute minimum. The molded drive sprockets positively engage with the underside of the belt and ensure proper grip and tracking. Use of cleated belts is possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 610 - 10000 mm	any increment possible
Conveyor width B	210 to 1010 mm (in 50 mm increments)	others on request
Modular Belt width	B-10 mm	see page 113
Drive Location	right, left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 112
Stands and Side Rails		see page 262
Load Capacity max.	150 kg (330 lbs)	higher on request

# MBF-P 2040.02

## *Motor Information*

### **Motor selection**

As a standard, mk offers a variety of motors. Although the selection varies by country with respect to local voltage standards and safety regulations, international availability is a key requirement. Typically, we supply inverter-duty right-angle gearmotors for heavy-duty requirements and parallel shaft gearmotors for lower speed and load applications. All motors are readily available from mk.

### **Motor voltage**

As a standard, mk provides motors which comply with the normal, expected electrical requirements of the country where they are manufactured. International motors are also available for conveyors designed for export.

### **Motor power**

Motors are sized to each individual conveyor style, size and performance requirements. The typical range is between 0.09 KW and 0.55 KW (1/8 hp and 3/4 hp).

### **Speeds**

The maximum belt speed for MBF-P 2041 conveyors is approximately 30m/min (100 ft/min). This is dependant on the total load, the type of transport with respect to indexing or accumulation, and the conveyor length.

### **Speed Control**

Frequency inverters with a variable speed range of 1:7 are available for AC motors. DC motors offer speed controls with a 1:10 range.

### **Rating**

All standard motors are built to IP 54 (IP = International Protection) standards, whereby higher standards are available on request.

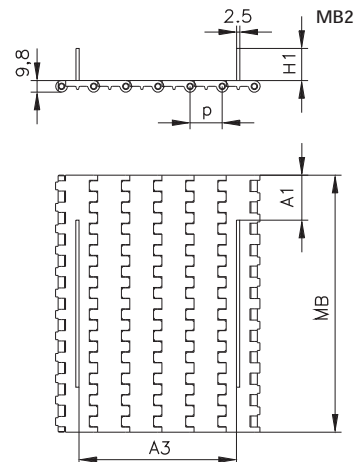
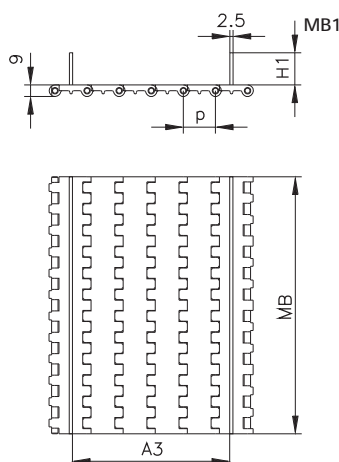
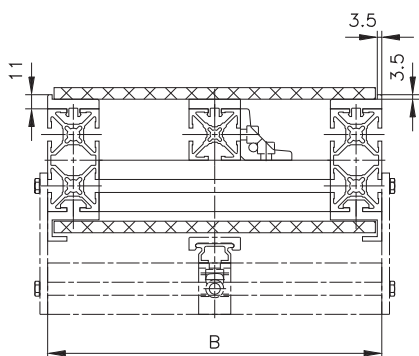
### **Additional notes**

The motors are primarily designed for continuous duty. Operating motors at very low frequency (below 70% of normal) may require additional cooling. Motors with encoders, clutches, brakes, thermal overload protection or indexing capabilities are also available.

# MBF-P 2040.02

## Modular Belts

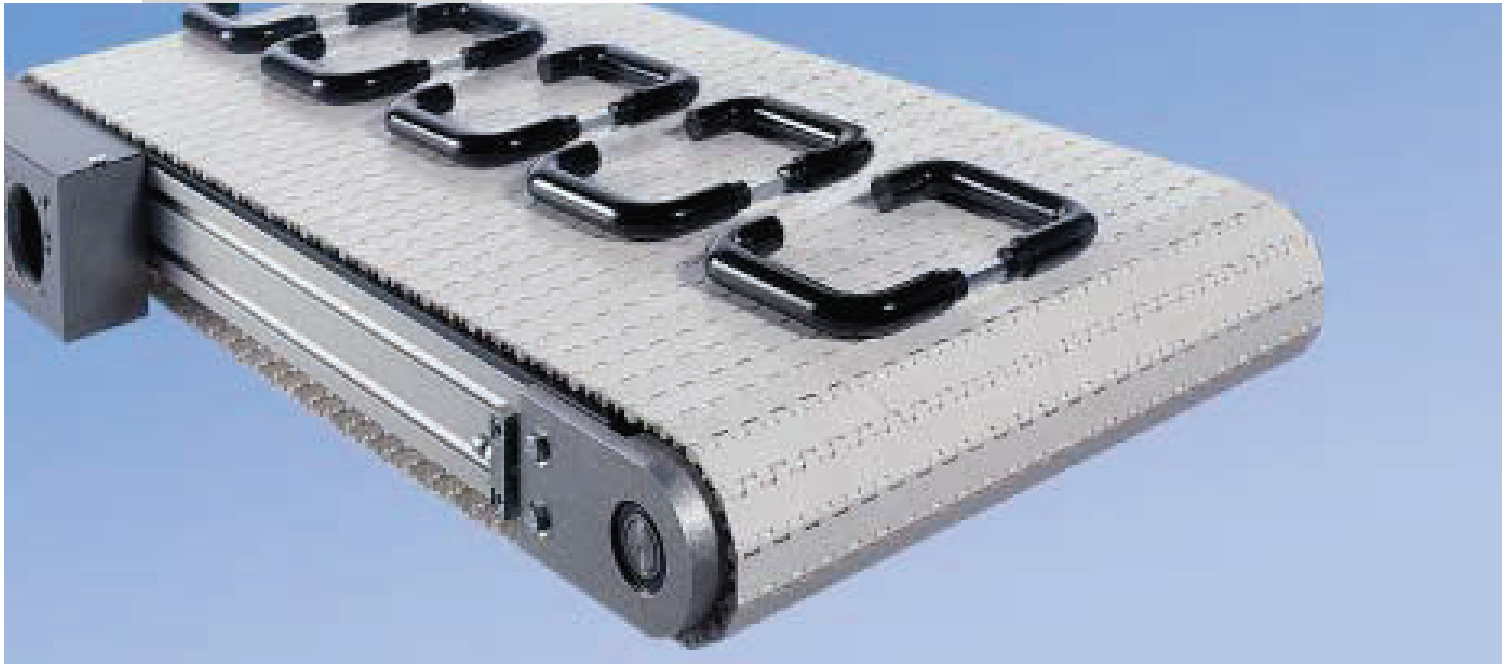
Per customer request, mk offers two types of modular belting with different pitches.



Belt type	MB1	MB2
<b>MB</b>	200 - 1000 mm	194 - 992 mm
<b>Cleat Height, H1</b>	25, 50 mm (or none)	25, 51, 76 (or none)
<b>Cleat Spacing, A3</b>	25 mm increments	27.2 mm increments
<b>Color</b>	white, green	white, blue
<b>Pitch, P</b>	25 mm	27.2 mm
<b>Belt Thickness</b>	9 mm	9.8 mm
<b>Min. Cleat Edge Clearance, A1</b>	0 mm	18 mm
<b>Material</b>	PE, PP, POM	PE, PP, POM
<b>FDA/USDA Suitability</b>	partial	partial
<b>Technical Properties</b>	PP + 5 - + 105° C PE - 70 - + 65° C POM - 45 - + 90° C high wear resistance low friction	PP + 1 - + 104° C PE - 46 - + 66° C POM - 46 - + 93° C high wear resistance low friction

# Modular Belt Conveyors

## *Application Examples*



Short MBF-P 2040.02 with drive version AS



MBF-P 2040.02 with special side rail, belt with 10% open area



MBF-P 2040.02 with side flights and cleats



**MBF-P 2040.02 with belting suitable for food**



**MBF-P 2040.02  
drive version AS**

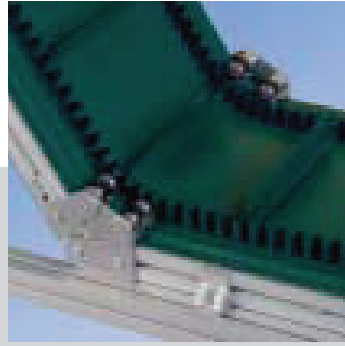


**MBF-P 2040.02  
drive version AC**




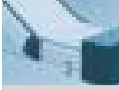



**MBF-P 2040.02 with cleats  
for loosening and transporting  
smaller products**

# mk Incline Conveyors





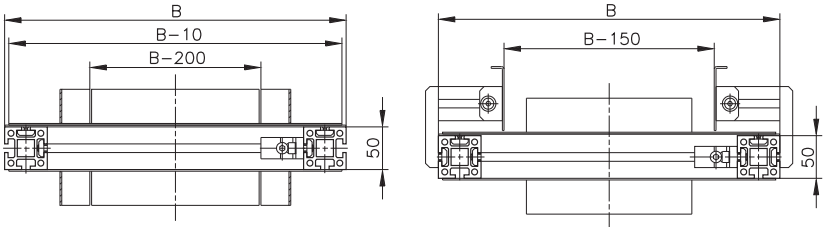
*Contents mk Incline Conveyors*

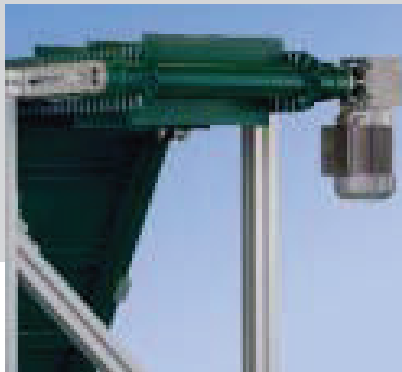
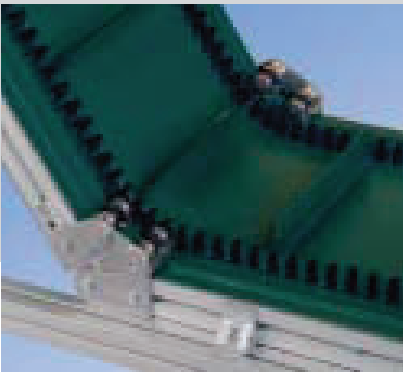
	KFG-P 2000	118
	KFM-P 2040.86	128
	KFS-P 2040.86	136
	Incline Conveyors Motor Information	144
	Incline Conveyors Application Examples	146

# Incline Conveyors KFG-P 2000



Conveyor frame cross-section





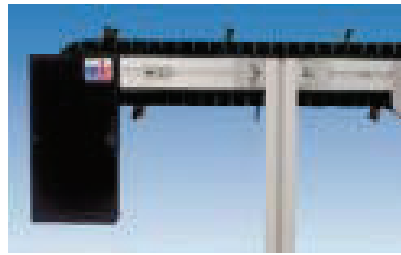
With its' compact design using our structural aluminum Profile mk 2000, Conveyor System KFG-P 2000 is ideally suited for continuous duty applications in multiple shift environments. Used primarily for the transport of small parts, the belt is guided through the incline by welded-on V-guides.

As with all mk conveyors, belt alignment is easy with our standard crowned rollers. Additional features include a stainless steel slider bed mounted to the conveyor frame which reduces wear on the belt and the use of sealed ball bearings for overall conveyor life and performance. Using all

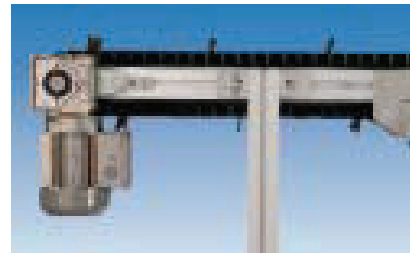
the inherent benefits of modular construction with our mk Profile Technology System, this conveyor can be readily integrated into new or existing equipment, or be used as a free-standing conveyor for bulk handling and loading applications.

# Incline Conveyors KFG-P 2000

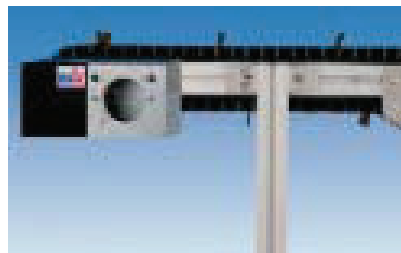
**Drive Version AC**



**Drive Version AF**



**Drive Version AS**



**Drive Version AU**



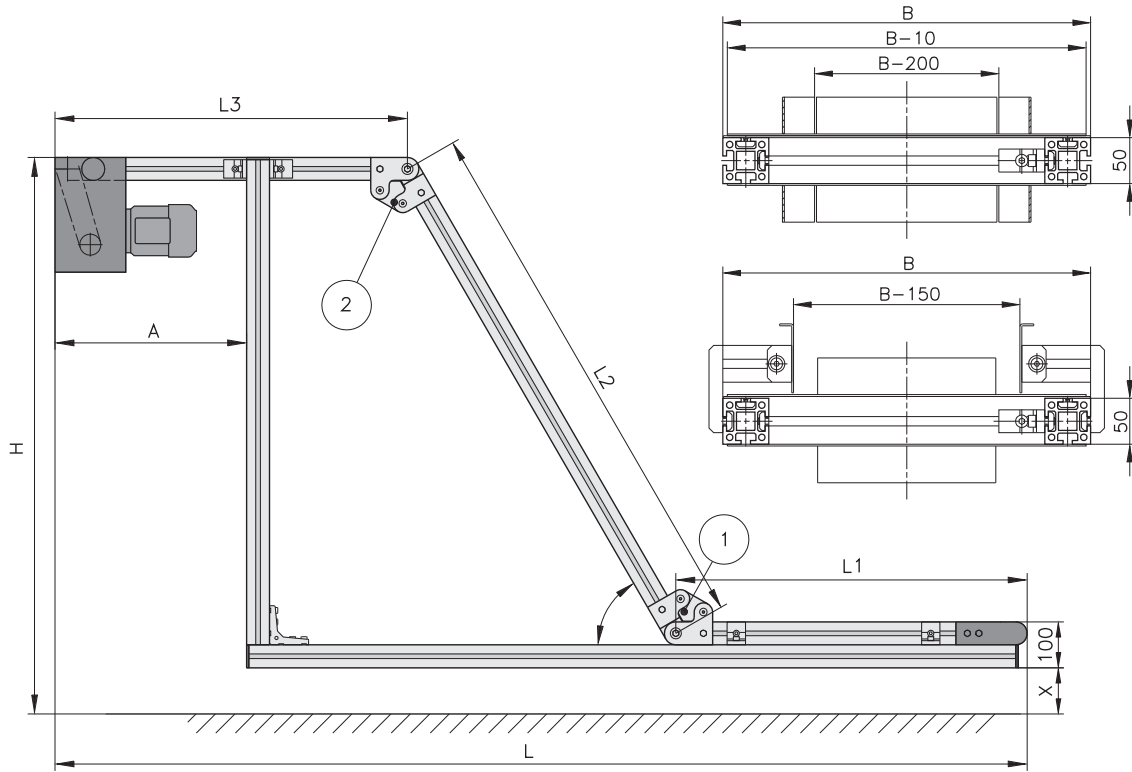
## *Contents KFG-P 2000*

KFG-P 2000 AC – Head Drive –	122
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KFG-P 2000 AS – Outside Head Drive –	124
KFG-P 2000 AU – Outside Head Drive –	125
KFG-P 2000 Stands and Side Rails	126
KFG-P 2000 Belt Types	127

# KFG-P 2000 AC

## Belt Conveyors with Head Drive

B20.00.010



### Features:

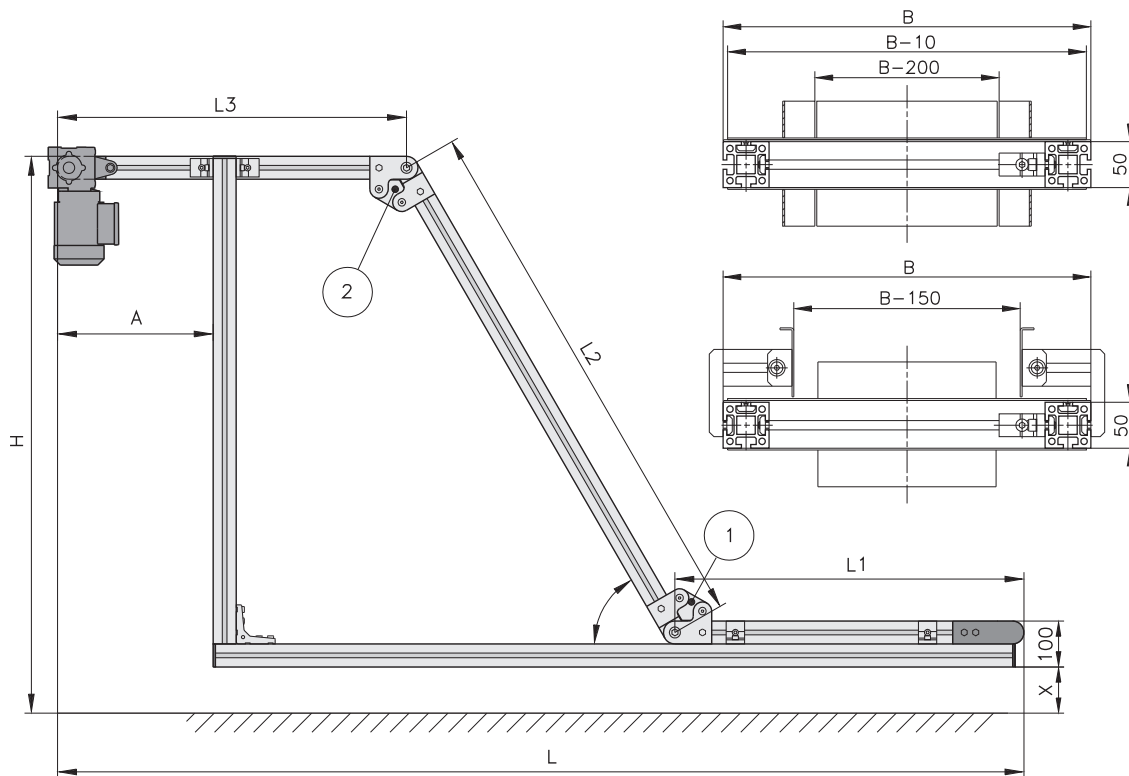
mk offers a variety of motor options for Drive Version AC which are sized and selected for each application's specific speed and load requirements. The  $\varnothing 52$  mm drive roll provides good belt wrap and efficient motor power transmission, and the compact construction simplifies the integration of the conveyor into existing equipment.

	Dimensions – Technical Information	Notes
Conveyor length (L1+L2+L3)	variable to approx. 4000 mm	any increment possible
Conveyor width B	300 to 700 mm (in 100 mm increments) L1 min. = 400 mm, L3 min. = 610 mm	others on request
Drive Location	head right, head left	
Drive and Speed	to 15 m/min (50 ft/min)	others on request
Stands and Side Rails		see page 126
Load Capacity max.	depending on speed, incline and product, up to 30 kg (65 lbs)	higher on request
Bends	15, 30, 45 and 60°	others on request
Product	$\varnothing 10$ to 80 mm, L to 300 mm Weight to 500 g/each	others on request

# KFG-P 2000 AF

Belt Conveyors with Head Drive direct and Torque Arm

B20.00.010



**Features:**

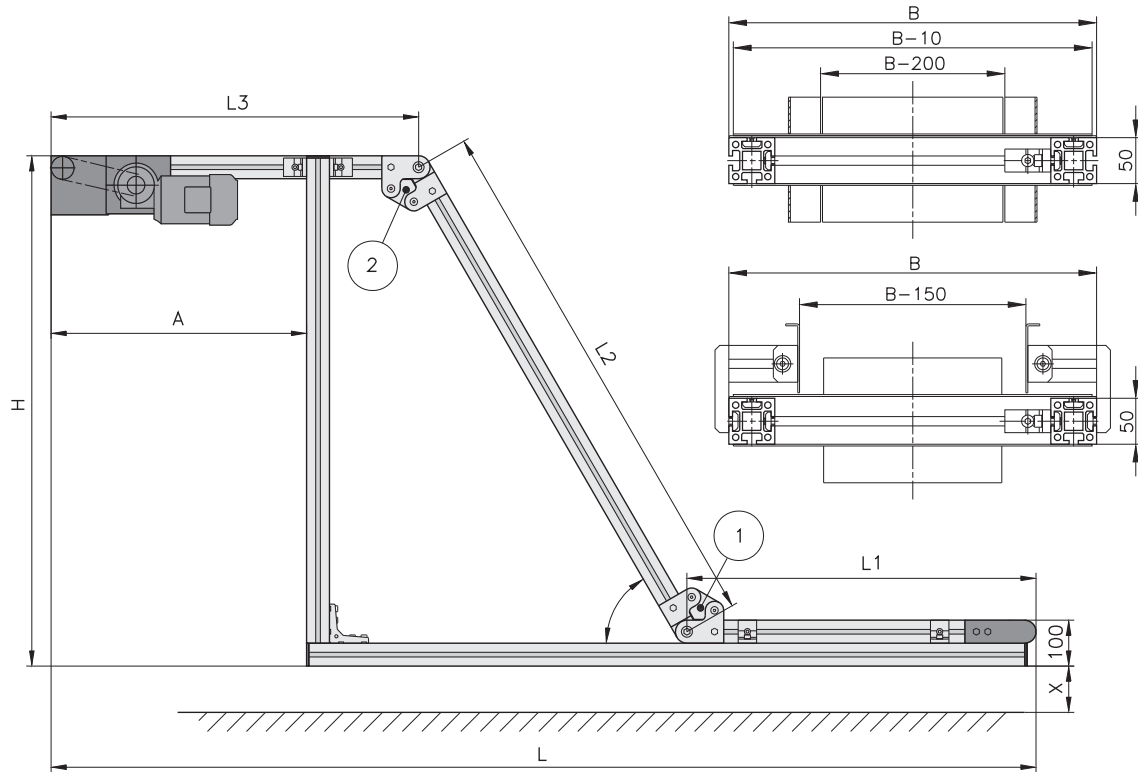
By placing the motor directly onto the drive shaft, this drive version minimizes not only the space required at the drive yet also the number of moving parts and maintenance requirements.

	Dimensions – Technical Information	Notes
Conveyor length (L1+L2+L3)	variable to approx. 4000 mm	any increment possible
Conveyor width B	300 to 700 mm (in 100 mm increments) L1 min. = 400 mm, L3 min. = 440 mm	others on request
Drive Location	head right, head left	
Drive and Speed	2.8; 3.6; 4.4; 5.4; 6.5; 7.7; 8.7; 10.9; 12.9 and 14.9 m/min	
Stands and Side Rails		see page 126
Load Capacity max.	depending on speed, incline and product, up to 30 kg (65 lbs)	higher on request
Bends	15, 30, 45 and 60°	others on request
Product	∅ 10 to 80 mm, L to 300 mm Weight to 500 g/each	others on request

# KFG-P 2000 AS

## Belt Conveyors with Outside Head Drive

B20.00.010



### Features:

mk offers a variety of motor options for Drive Version AS which are sized and selected for each application's specific speed and load requirements. The  $\varnothing 52$  mm drive roll provides good belt wrap and efficient motor power transmission, and the compact construction simplifies the integration of the conveyor into existing equipment.

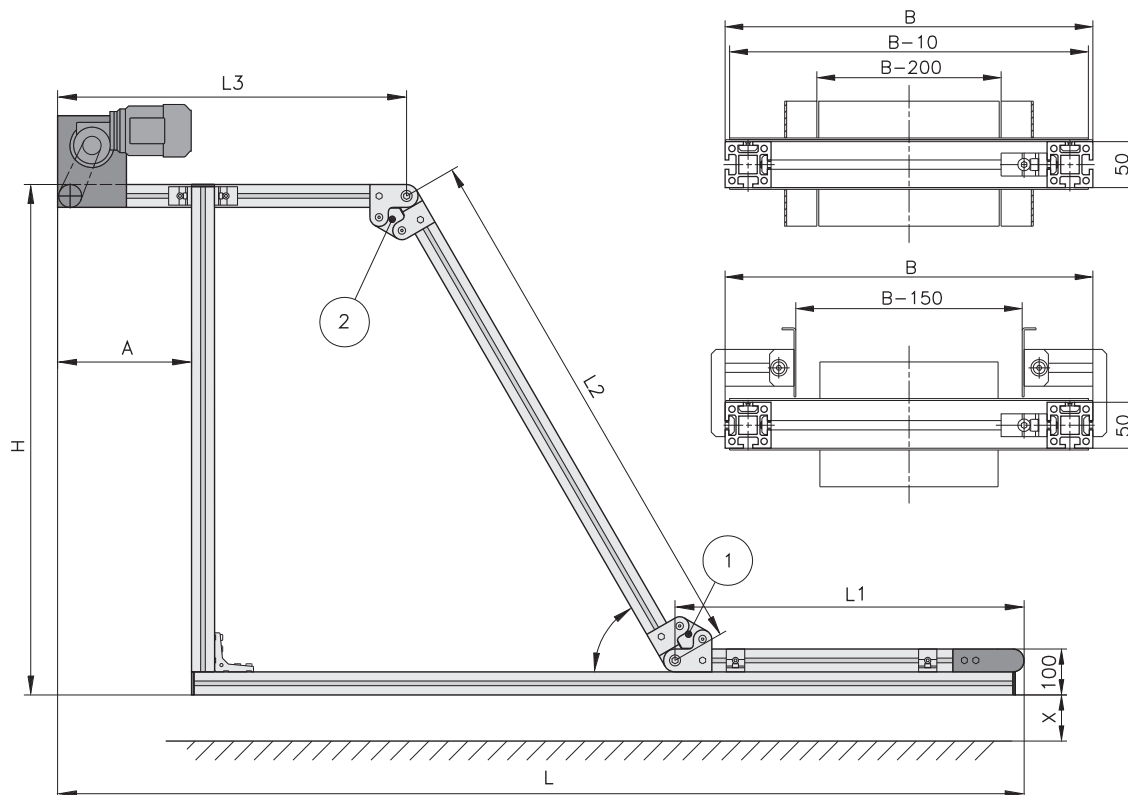
	Dimensions – Technical Information	Notes
Conveyor length (L1+L2+L3)	variable to approx. 4000 mm	any increment possible
Conveyor width B	300 to 700 mm (in 100 mm increments) L1 min. = 400 mm, L3 min. = 720 mm	others on request
Drive Location	head right, head left	
Drive and Speed	to 15 m/min (50 ft/min)	others on request
Stands and Side Rails		see page 126
Load Capacity max.	depending on speed, incline and product, up to 30 kg (65 lbs)	higher on request
Bends	15, 30, 45 and 60°	others on request
Product	$\varnothing 10$ to 80 mm, L to 300 mm Weight to 500 g/each	others on request



# KFG-P 2000 AU

Belt Conveyors with Outside Head Drive

B20.00.010



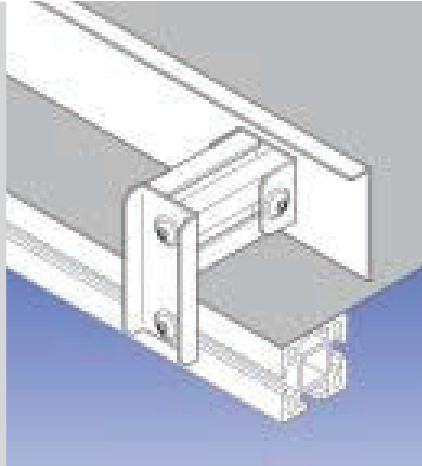
**Features:**

mk offers a variety of motor options for Drive Version AU which are sized and selected for each application's specific speed and load requirements. The  $\varnothing 52$  mm drive roll provides good belt wrap and efficient motor power transmission, and the compact construction simplifies the integration of the conveyor into existing equipment.

	Dimensions – Technical Information	Notes
Conveyor length (L1+L2+L3)	variable to approx. 4000 mm	any increment possible
Conveyor width B	300 to 700 mm (in 100 mm increments) L1 min. = 400 mm, L3 min. = 610 mm	others on request
Drive Location	head right, head left	
Drive and Speed	to 15 m/min (50 ft/min)	others on request
Stands and Side Rails		see page 126
Load Capacity max.	depending on speed, incline and product, up to 30 kg (65 lbs)	higher on request
Bends	15, 30, 45 and 60°	others on request
Product	$\varnothing 10$ to 80 mm, L to 300 mm Weight to 500 g/each	others on request

# KFG-P 2000

## Stands and Side Rails

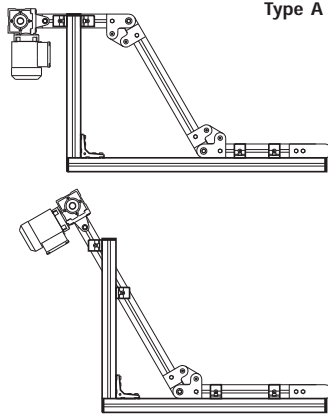
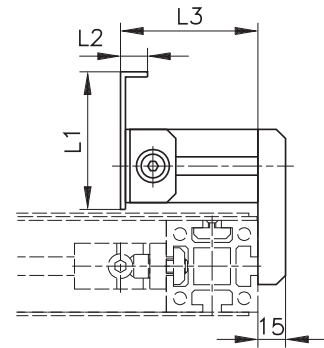


### Side Rails

Shown is our standard side rail for this conveyor style. It is designed to minimize the gap between the conveyor frame and the belt surface in order to avoid product loss and potential damage.

#### Side Rail SF 8.1

Height H = 75 mm and 100 mm



Type A

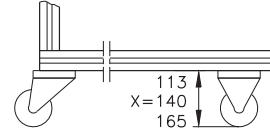
Stand width = B + 100

### Stands

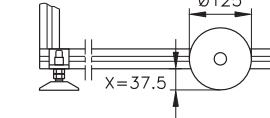
The stand types shown can be supplied with any leveling options.

Stand Version 1 features swivel casters with total lock brakes which guarantee stable support even at high speeds. Casters are available with  $\varnothing 75$  mm for  $x = 113$  mm,  $\varnothing 100$  mm for  $x = 140$  mm and  $\varnothing 125$  mm for  $x = 165$  mm.

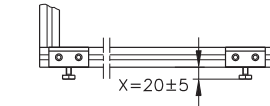
Version 1



Version 2



Version 3



### Order Example

To correctly quote and manufacture your conveyor, we need the following information:

KFG-P 2000 Configuration Type S

Drive AC motor orientation 90° as shown

Speed 15 m/min

Width B = 500 mm

Length dimensions:

L = 2000 mm; L1 = 500 mm; L2 = 1000;

L3 = 600; H = 1000 mm

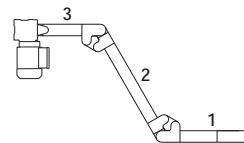
Bend 1 = 60°; Bend 2 = 60°

Cleat type T20 with Side Rail 8.1

Stand type A, Version 3, Leveling Pad x = 20 mm

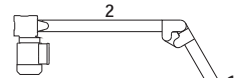
### Configurations

Type S



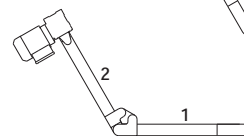
L, L1, L2, L3, H  
Bends 1 + 2

Type K



L, L1, L2, H  
Bends 1

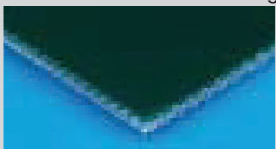
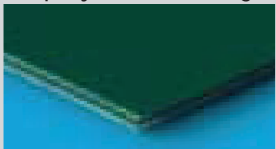
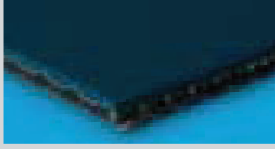
Type L







L, L1, L2, H  
Bends 1

### Belts

The belt types shown are our standards, and are suitable for most applications. In addition to these we can offer a variety of special belts.

Belt type	Surface Texture	Allowable Temperature	Thickn. (mm)	Properties	Min. Pulley $\phi$	Transport	Material	Belt Category
Transilon E6/2 UO/U2-M green, K10241								
	smooth	-30 - +100°C	1.9	FDA suitable, extremely laterally stiff, antistatic	50 mm	continuous inclined	Urethane	4
Ropanyl EM 6/2 0+02 green M2 FG, K10263 for Conveyor width to 500 mm								
	smooth	-10 - +80°C	1.85	Oil and grease resistant, FDA suitable, extremely laterally stiff	14 mm	continuous inclined	Urethane	2
Ropanyl EM05 10/2 00+03 blue M2 FG, K10264 for Conveyor width as of 500 mm								
	smooth	-20 - +60°C	2.4	Oil and grease resistant, FDA suitable, extremely laterally stiff	50 mm	continuous inclined	Urethane	4

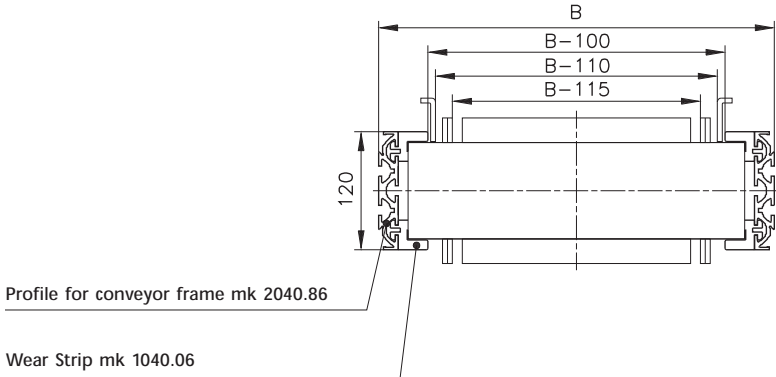
### Cleats

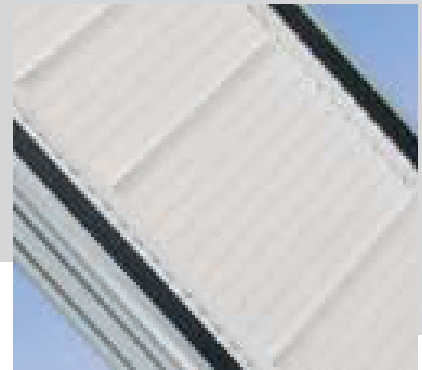
	Cleat type	Height (H)	Color					Weight app.g/m	Lateral $d_{min}$ Drum $\phi$ appx. mm	Longitudinal		
			PVC		PU					$d_{min}$ appx. mm	Underside	Topside
			green	white	colorl.	green	white					
	K10 for K10241		•	•	•			60	50	52	52	
	PKL for K10263/4						•		50	52	52	
	T20U for K10241	20						140	50			
	T30U	30						180	50			
	T40U	40						220	50			
	T50U	50						250	50			
	T60U	60						280	50			
	MT20 for K10263/4	20							30			
	MT35	35							50			
	WK20 for K10263/4	20									40	
	WK25	25									50	

# Incline Conveyors KFM-P 2040.86



Conveyor frame cross-section





With its compact design using our aluminum profile systems, Conveyor System KFM-P 2040.86 is ideally suited for continuous duty applications in multiple shift environments. The modular belt (polypropylene) runs entirely on UHMW (PE1000) wear strips, and is designed for the removal or transport of plastic, packaged food, blow-molded parts or small metal stampings. The belt may be used for parts which range in

temperature from 5 to 105°C. On request, belting of Polyethylene (good shock resistance) or Acetal (longer life) are also available. With the modular construction using all the inherent benefits of our mk Profile Technology Systems, this conveyor can be readily integrated into new or existing equipment, or be used as a free-standing conveyor for bulk handling and loading applications. The conveyor frame

features T-slots to which accessories including stands, rails, hoppers or chutes can be easily mounted. Through this use of standard components, mk is in a position to deliver a truly versatile conveyor. Customer specific requirements, such as special hoppers, are possible on request. Depending on the product to be conveyed, please also consider our other Incline Conveyors featuring Modular Steel or Fabric belting.

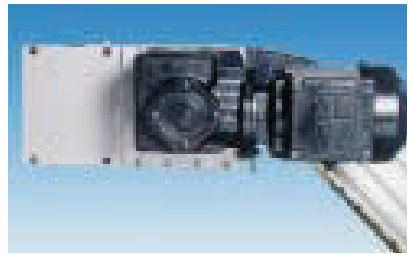
# Incline Conveyors

## KFM-P 2040.86

**Drive Version AC**



**Drive Version AS**



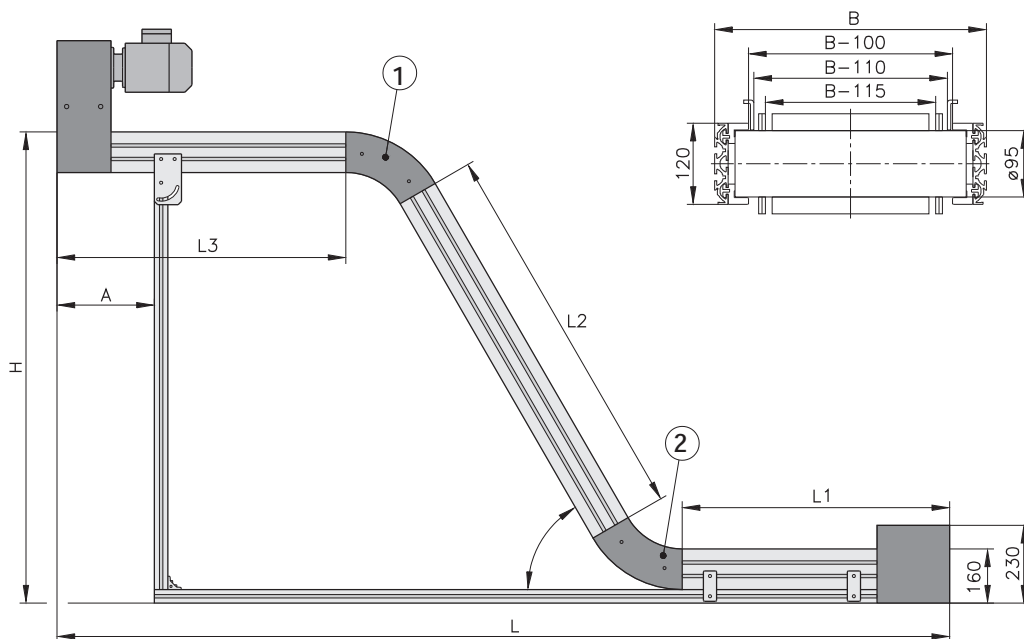
*Contents KFM-P 2040.86*

KFM-P 2040.86 AC – Head Drive –	132
KFM-P 2040.86 AS – Outside Head Drive –	133
KFM-P 2040.86 Stands and Side Rails	134
KFM-P 2040.86 Modular Belts	135

# KFM-P 2040.86 AC

## Incline Conveyors with Modular Belt, Head Drive

B20.86.801



### Features:

mk offers a variety of motor options for Drive Version AC which are sized and selected for each application's specific speed and load requirements. The molded drive sprockets conform to the underside of the belt and ensure proper grip and tracking. Through the use of hollow shaft motors, the drive can be mounted on either the left or right side using the same components.

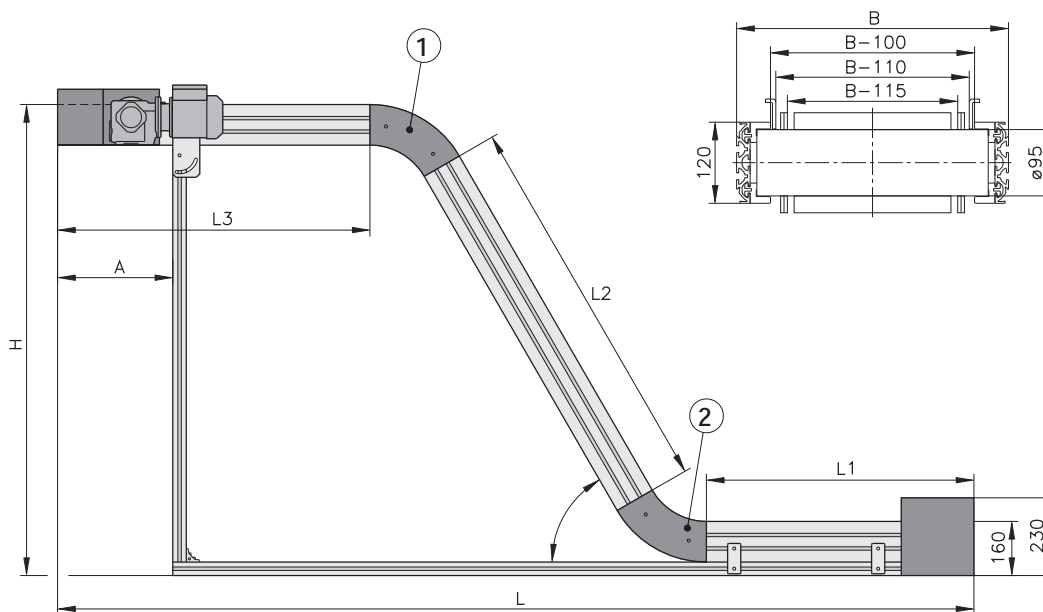
	Dimensions – Technical Information	Notes
Conveyor length L	depending on conveyor design and load to 10000 mm	any increment possible
Conveyor width B	210 to 710 mm (in 50 mm increments) L1 min. = 300 mm, L3 min. = 250 mm	others on request
Drive Location	head right below, head left below, head right above, head left above	
Drive and Speed	to 30 m/min (100 ft/min)	see page 144
Stands and Side Rails		see page 134
Load Capacity max.	depending on conveyor design and Conveyor length to 150 kg (330 lbs)	higher on request
Bends 1 and 2	15, 30, 45 and 60°	



# KFM-P 2040.86 AS

*Incline Conveyors with Modular Belt, Outside Head Drive*

B20.86.802



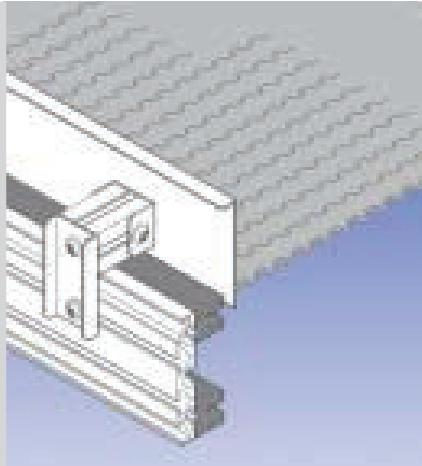
**Features:**

Drive Version AS provides a very low profile whereby the conveyor can be placed into areas with tight space constraints. The overall height of the drive assembly is held to an absolute minimum.

	Dimensions – Technical Information	Notes
<b>Conveyor length L</b>	depending on conveyor design and load to 10000 mm	any increment possible
<b>Conveyor width B</b>	210 to 710 mm (in 50 mm increments) L1 min. = 300 mm, L3 min. = 400 mm	others on request
<b>Drive Location</b>	head right, head left	
<b>Drive and Speed</b>	to 30 m/min (100 ft/min)	see page 144
<b>Stands and Side Rails</b>		see page 134
<b>Load Capacity max.</b>	depending on conveyor design and Conveyor length to 150 kg (330 lbs)	higher on request
<b>Bends 1 and 2</b>	15, 30, 45 and 60°	

# KFM-P 2040.86

## Stands and Side Rails



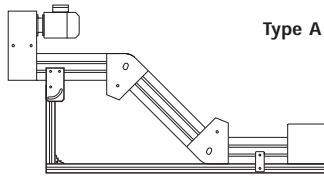
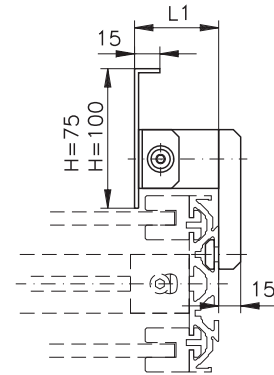
### Side Rails

The example shows our standard side rails. They are designed to minimize the gap between the conveyor frame and the modular belt surface in order to avoid product loss and potential damage. The guide rolls at the inclines are also entirely covered.

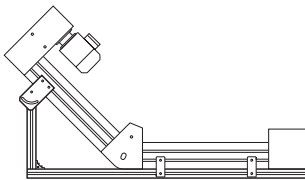
#### Side Rail SF 8.1

Height  $H = 75$  mm,  $L1 = 55$  mm

Height  $H = 100$  mm,  $L1 = 55$  mm



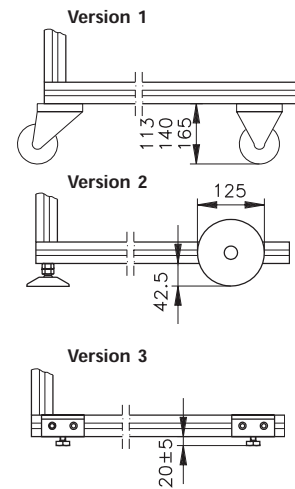
Type A



### Stands

The stand types shown can be furnished with any leveling options. If ordering Conveyor Type G, all stands of the mk Conveyor Technology System can be utilized.

Stand type 1 features swivel casters with total lock brakes which guarantee stable support even at high speeds. Casters are available with  $\varnothing 75$  mm for  $x = 113$  mm,  $\varnothing 100$  mm for  $x = 140$  mm and  $\varnothing 125$  mm for  $x = 165$  mm.



### Order Example

To correctly quote and manufacture your conveyor, we need the following information:

KFM-P 2040.86 Configuration Type S

Drive Version AC, motor orientation  $0^\circ$  as shown

Speed 15 m/min

Width  $B = 460$  mm

Dimensions:  $L=2000$  mm;  $L1=500$  mm;  $H=1000$  mm

Bend 1 =  $60^\circ$ ; Bend 2 =  $60^\circ$

Cleat Height,  $H1 = 25$  mm (see page 135)

Side Rail Type SF8.1  $H = 75$  mm

Stand Type A, Version 1,

Roll  $\varnothing 75$  mm

### Configurations

Type S   $L, L1, H, \alpha$

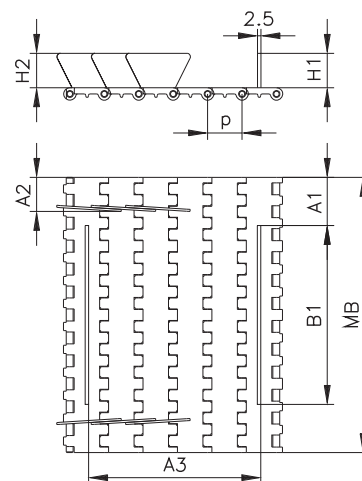
Type K   $L, H, \alpha$

Type L   $L, H, \alpha$

Type G   $L, \alpha$

# KFM-P 2040.86

## Modular Belts



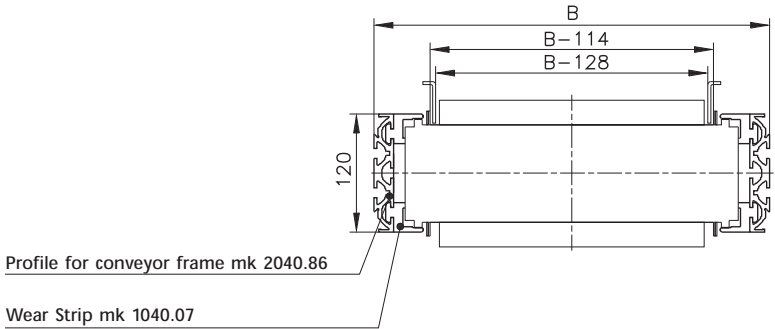
MB1

Belt type	MB1
A1 (without Sidewalls/with Sidewalls)	25/33.5 mm
A2	29 mm
MB	150 - 650 mm
Cleat Height, H1	25/50 mm
Sidewall Height, H2	25/50 mm
Cleat Spacing, A3	25 mm increments
Color	white, green
Pitch	25 mm
Belt Thickness	9 mm
Material	PP, PE, POM
FDA/USDA Suitability	partial
Technical Properties	PP + 5 - + 105° C PE - 70 - + 65° C POM low friction coefficient

# Incline Conveyors KFS-P 2040.86



Conveyor frame cross-section





With its compact design using our aluminum profile systems, Conveyor System KFS-P 2040.86 is ideally suited for continuous duty applications in multiple shift environments. The belt is guided entirely on UHMW (PE1000) wear strips, and is designed for the removal or transport of stampings, castings, machined parts or bulk material handling. The belt is also available in stainless

steel, or with perforations. It is ideal for hot parts. With the modular construction using all the inherent benefits of our mk Profile Technology Systems, this conveyor can be readily integrated into new or existing equipment, or be used as a free-standing conveyor for bulk handling and loading applications. The conveyor frame features T-slots to which accessories including

stands, rails, hoppers or chutes can be easily mounted. Through this use of standard components, mk is in a position to deliver a truly versatile conveyor. Customer specific requirements, such as special hoppers, are possible on request. Depending on the product to be conveyed, please also consider our other Incline Conveyors featuring Modular Plastic or Fabric belting.

# Incline Conveyors

## KFS-P 2040.86

**Drive Version AC**



**Drive Version AS**

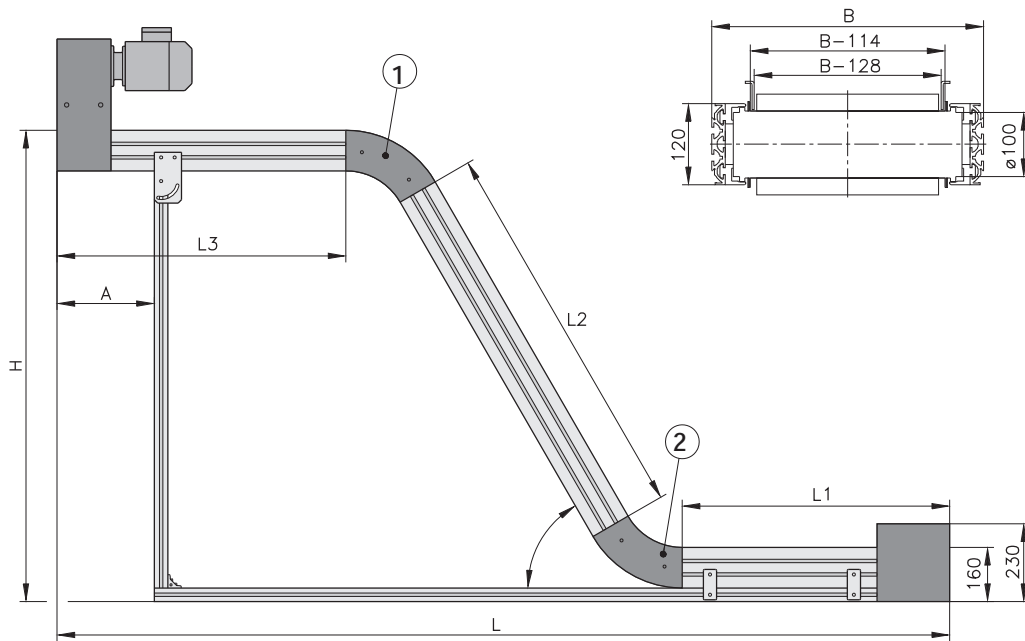


*Contents KFS-P 2040.86*

KFS-P 2040.86 AC – Head Drive –	140
KFS-P 2040.86 AS – Outside Head Drive –	141
KFS-P 2040.86 Stands and Side Rails	142
KFS-P 2040.86 Modular Belts	143

# KFS-P 2040.86 AC

## Incline Steel Link Belt Conveyor, Head Drive



### Features:

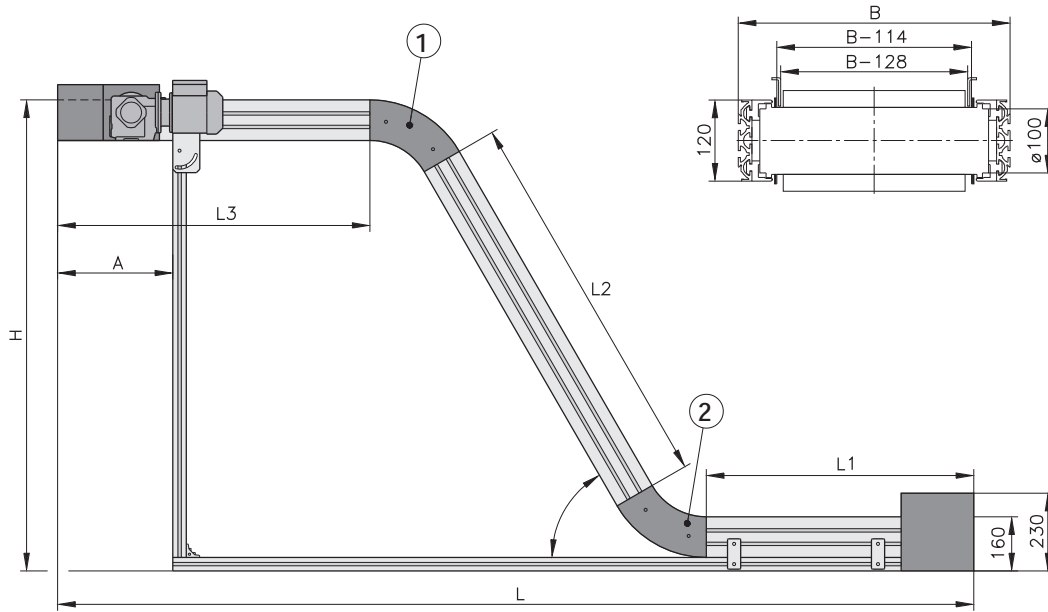
mk offers a variety of motor options for Drive Version AC which are sized and selected for each application's specific speed and load requirements. Steel drive sprockets positively engage roller chains on the underside of the belt and ensure proper grip and tracking. Through the use of hollow shaft motors, the drive can be mounted on either the left or right side using the same components.

	Dimensions – Technical Information	Notes
Conveyor length L	depending on conveyor design and load to 10000 mm	any increment possible
Conveyor width B	210 to 710 mm (in 50 mm increments) L1 min. = 300 mm, L3 min. = 250 mm	others on request
Drive Location	head right below, head left below, head right above, head left above	
Drive and Speed	to 12 m/min (39 ft/min)	see page 144
Stands and Side Rails		see page 142
Load Capacity max.	depending on conveyor design and Conveyor length to 150 kg (330 lbs)	higher on request
Bends 1 and 2	15, 30, 45 and 60°	



# KFS-P 2040.86 AS

*Incline Steel Link Belt Conveyor, Outside Head Drive*



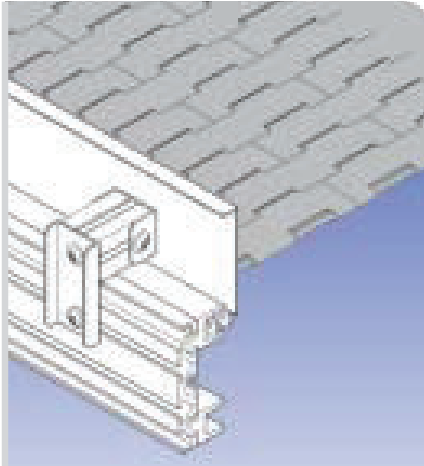
**Features:**

Drive Version AS provides a very low profile whereby the conveyor can be placed into areas with tight space constraints. The overall height of the drive assembly is held to an absolute minimum.

	Dimensions – Technical Information	Notes
<b>Conveyor length L</b>	depending on conveyor design and load to 10000 mm	any increment possible
<b>Conveyor width B</b>	210 to 710 mm (in 50 mm increments) L1 min. = 300 mm, L3 min. = 400 mm	others on request
<b>Drive Location</b>	head right, head left	
<b>Drive and Speed</b>	to 12 m/min (39 ft/min)	see page 144
<b>Stands and Side Rails</b>		see page 142
<b>Load Capacity max.</b>	depending on conveyor design and Conveyor length to 150 kg (330 lbs)	higher on request
<b>Bends 1 and 2</b>	15, 30, 45 and 60°	

# KFS-P 2040.86

## Stands and Side Rails

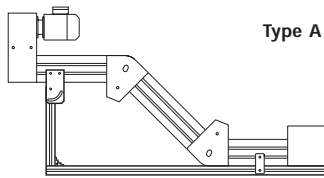
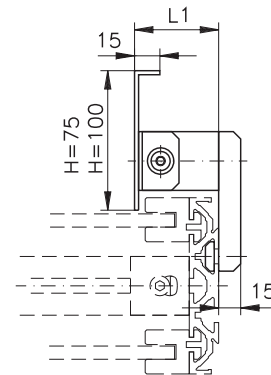


### Side Rails

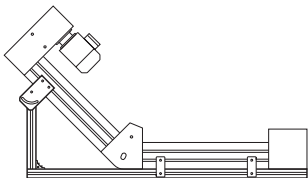
The example shows our standard side rails. They are designed to minimize the gap between the conveyor frame and the modular belt surface in order to avoid product loss and potential damage. The guide rolls at the inclines are also entirely covered.

#### Side Rail SF 8.1

Height H = 75 mm  
Height H = 100 mm



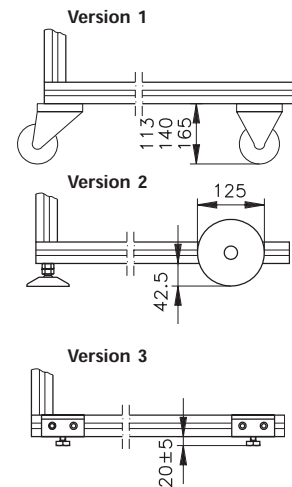
Type A



### Stands

The stand types shown can be furnished with any leveling options. If ordering Conveyor Type G, all stands of the mk Conveyor Technology System can be utilized.

Stand type 1 features swivel casters with total lock brakes which guarantee stable support even at high speeds. Casters are available with  $\varnothing 75$  mm for  $x = 113$  mm,  $\varnothing 100$  mm for  $x = 140$  mm and  $\varnothing 125$  mm for  $x = 165$  mm.



### Order Example

To correctly quote and manufacture your conveyor, we need the following information:

KFS-P 2040.86 Version Type S

Drive Version AC, motor orientation  $0^\circ$  as shown

Speed 10 m/min

Width B = 460 mm

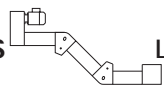
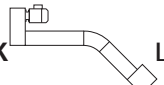

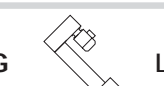
Length: L=2000 mm; L1=500 mm; H=1000 mm

Bend 1 =  $60^\circ$ ; Bend 2 =  $60^\circ$

Cleat Height, H = 20 mm (see page 143) with Sidewall

Stand Type A, Version 1, Roll  $\varnothing 75$  mm

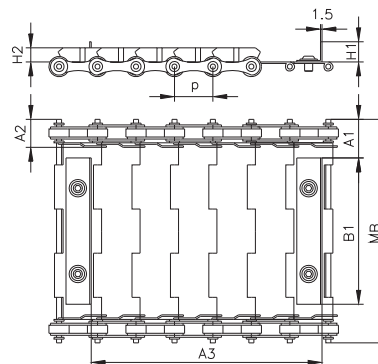
### Configurations

		Drive	AC	AS
Type S	 L, L1, H, $\alpha$	B20.40....	606	610
Type K	 L, H, $\alpha$	B20.40....	607	611
Type L	 L, H, $\alpha$	B20.40....	608	612
Type G	 L, $\alpha$	B20.40....	605	609

# KFS-P 2040.86

## Modular Belts

SK1



Belt type	SK1
A1 (without Sidewalls/with Sidewalls)	38.1 mm
A2	25.5 mm
MB	146.5 - 645.5 mm
Cleat Height, H1	20/40 mm
Sidewall Height, H2	14 mm
Cleat Spacing, A3	38.1 mm increments
Color	steel
Pitch	38.1 mm
Belt Thickness	13 mm
Material	steel
FDA/USDA Suitability	no
Technical Properties	steel wear resistant heat resistant to 300° C shockproof low friction

# Incline Conveyors

## *Motor Information*

### **Motor selection**

As a standard, mk offers a variety of motors. Although the selection varies by country with respect to local voltage standards and safety regulations, international availability is a key requirement. Typically, we supply inverter-duty right-angle gearmotors for heavy-duty requirements and parallel shaft gearmotors for lower speed and load applications. All motors are readily available from mk.

### **Motor voltage**

As a standard, mk provides motors which comply with the normal, expected electrical requirements of the country where they are manufactured. International motors are also available for conveyors designed for export.

### **Motor power**

Motors are sized to each individual conveyor style, size and performance requirements. The typical range is between 0.09 KW and 0.55 KW (1/8 hp and 3/4 hp).

### **Speeds**

The maximum belt speed for the Incline Conveyors is approximately 30 m/min (100 ft/min), or 12 m/min (39 ft/min) for the KFS-P 2040.86. This is dependant on the total load, the type of transport, the conveyor length and the conveyor configuration.

### **Speed Control**

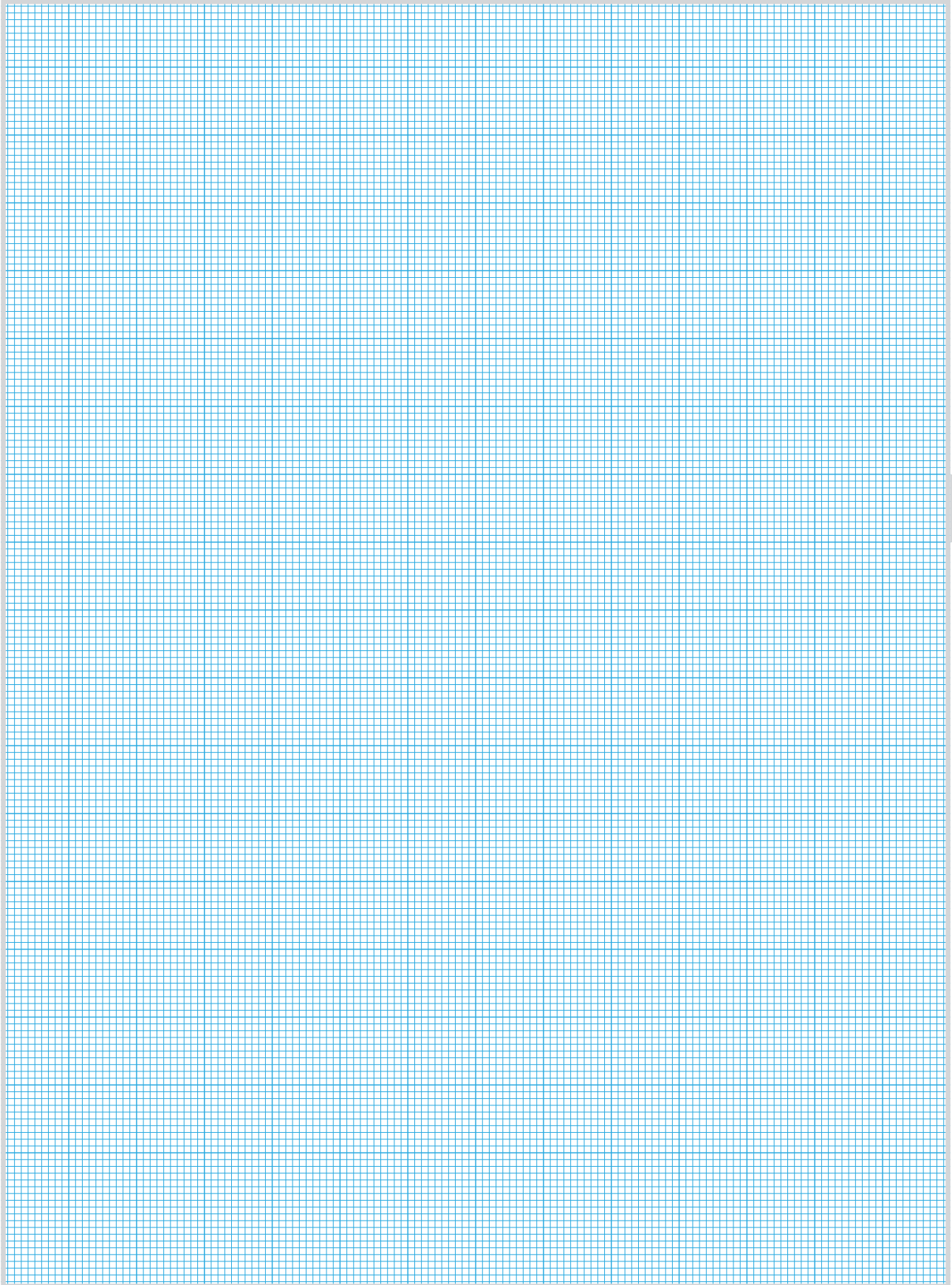
Frequency inverters with a variable speed range of 1:7 are available for AC motors.

### **Rating**

All standard motors are built to IP 54 (IP = International Protection) standards, whereby higher standards are available on request.

### **Additional notes**

The motors are primarily designed for continuous duty. Operating motors at very low frequency (below 70% of normal) may require additional cooling. Motors with encoders, clutches, brakes, thermal overload protection or indexing capabilities are also available.



# Incline Conveyors

## *Application Examples*



**KFG-P 2000 for elevating small parts**



**KFG-P 2000  
drive version AF**



**Belt supports keep  
the belt to the frame**



KFG-P 2000 tail with integrated transfer conveyor



KFG-P 2000 without side rail.  
The corrugated edge provides containment



Mobile KFG-P 2000 with bend  
for elevation change



Hopper conveyor for adding small parts using stainless steel hopper

# Incline Conveyors

## *Application Examples*



**KFM-P 2040.86 with food grade belting**



**KFM-P 2040.86 for hot products with  
changeable size parts reservoir**





**KFM-P 2040.86 for bridging a traffic route**







**Solid support of the KFM-P 2040.86 for conveying heavy loads**

# mk Timing Belt Conveyor



*Contents mk Timing Belt Conveyor*

	ZRF-P 2010	152
	ZRF-P 2040.02	164
	Properties of Timing Belts	171
	Timing Belt Conveyor Application Examples	172

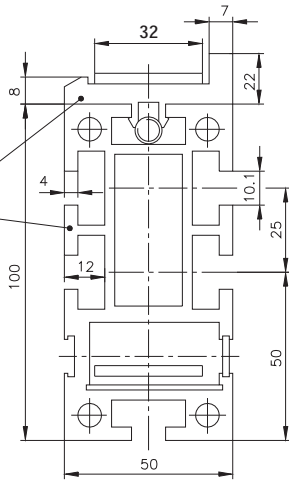
# Timing Belt Conveyor ZRF-P 2010



Conveyor frame  
cross-section

Wear Strip mk 1041

Profile for conveyor frame 2010





Timing Belt Conveyor System ZRF-P 2010 is designed for the transport of heavy pallets or structurally rigid products. Due to the positive engagement of the belt teeth and the sprockets, the belts are synchronized and the conveyors are ideal for indexing applications. A notable feature of this conveyor system is the UHMW wear strips, which prevent contact between the product and the frame profiles.

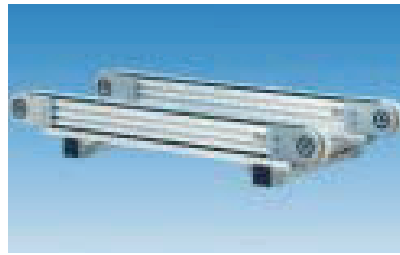
The wear strips have a low coefficient of friction, and provide good wear resistance over a broad temperature range (continuous to 65° C, or 149° F).

A further design feature is the belt return, which occurs within the frame profile itself. This is a safety benefit, and also serves to protect the belt. In addition, T-slots are accessible on three sides on the profile frame for the

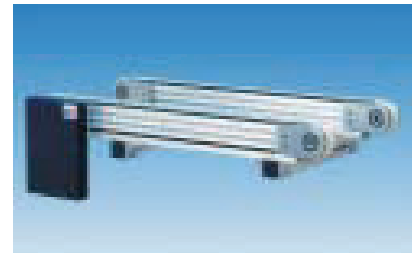
attachment of stands, side rails, sensors and stops (10 mm opening). A variety of belt coatings are available, providing further options for specific product and project related handling applications. In combination with the wide and varied drive options, System ZRF-P 2010 serves as a key element for the manufacture of larger automation and material handling systems.

# Timing Belt Conveyor ZRF-P 2010

**Drive Version AA**



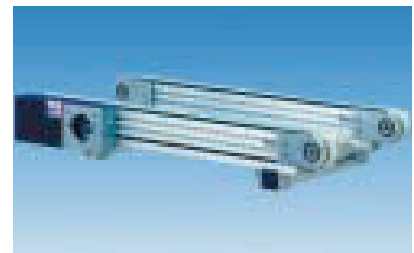
**Drive Version AC**



**Drive Version AF**



**Drive Version AS**



**Drive Version BC**



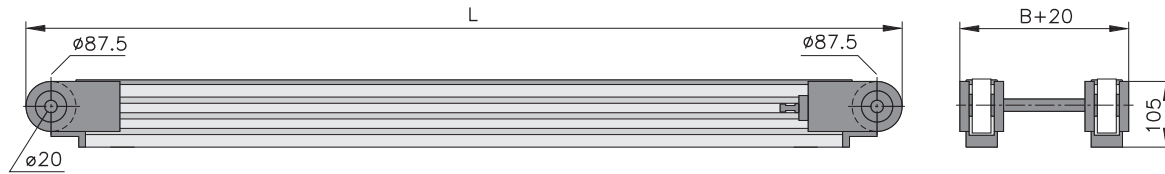
## *Contents ZRF-P 2010*

ZRF-P 2010 AA – Head Drive without Motor – ex. for multiple lanes	156
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ZRF-P 2010 AF – Head Drive direct –	158
ZRF-P 2010 AS – Outside Head Drive –	159
ZRF-P 2010 BC – Center Drive –	160
ZRF-P 2010 Motor Information	161
ZRF-P 2010 Wear Strips	162
ZRF-P 2010 Pallets	163

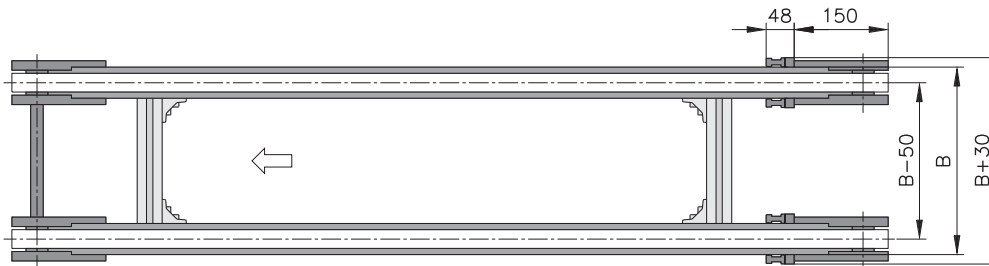
# ZRF-P 2010 AA

## Timing Belt Conveyor with Head Drive without Motor

B20.10.350



Wear Strip Options see page 162



### Features:

Drive Version AA is primarily used where multiple lanes are to be slave driven, either parallel or in-line, using a single drive motor. Frames are our rigid mk 2010 profile, and these conveyors are ideal for both integrated and stand-alone applications. The drive sprockets feature a hollow bore, and power transmission is accomplished by installing a  $\varnothing 20$  mm shaft with 6 mm shaft key (DIN 6885). Use of fixtured timing belts is not possible with this drive version.

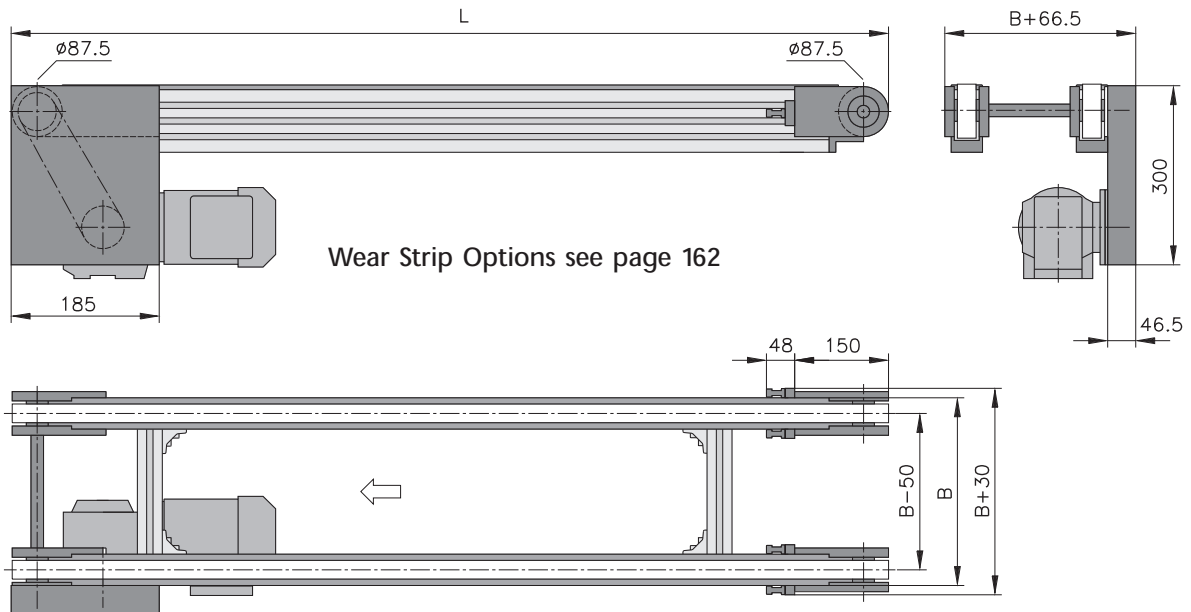
	Dimensions – Technical Information	Notes
Conveyor length L	between 500 - 6000 mm	any increment possible
Conveyor width B	200 to 1000 mm	
Timing Belt Width	32 mm	see page 171
Drive and Speed	to 30 m/min (100 ft/min)	see page 161
Stands and Side Rails		see page 262
Load Capacity max.	100 kg (220 lbs)	higher on request



# ZRF-P 2010 AC

Timing Belt Conveyor with Head Drive

B20.10.351



### Features:

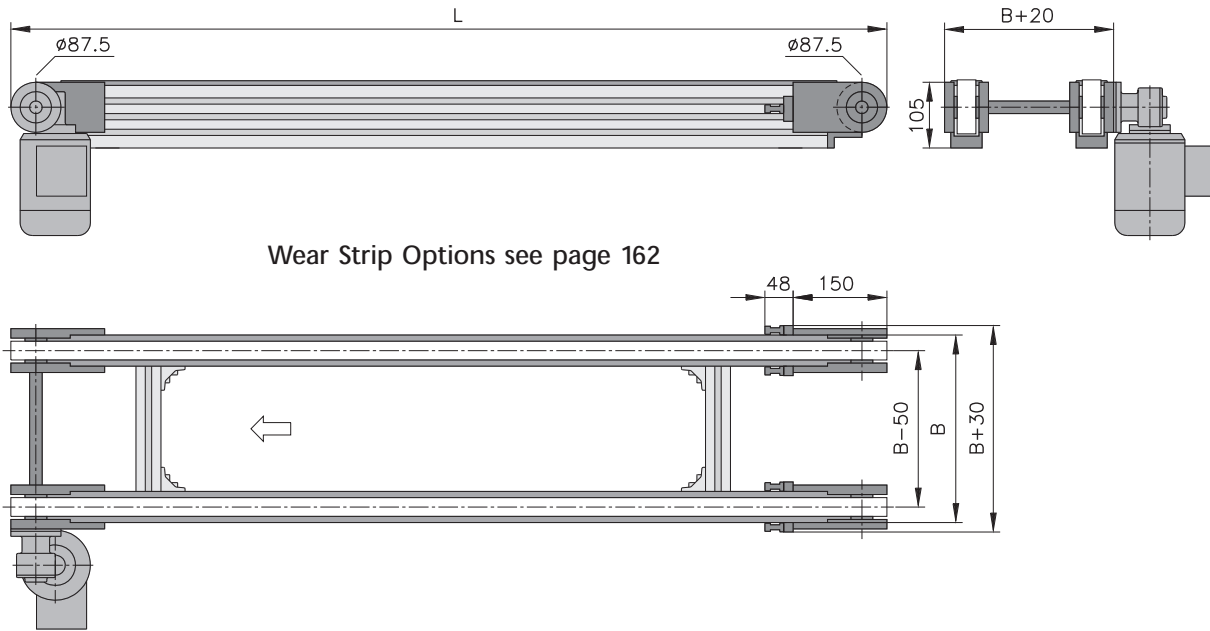
mk offers a variety of motor options for Drive Version AC which are sized and selected for each application's specific speed and load requirements. Use of high torque motors is possible due to positive drive system. Use of fixtured timing belts is not possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 500 - 6000 mm	any increment possible
Conveyor width B	200 to 1000 mm	
Timing Belt Width	32 mm	see page 171
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 161
Stands and Side Rails		see page 262
Load Capacity max.	100 kg (220 lbs)	higher on request

# ZRF-P 2010 AF

Timing Belt Conveyor with Head Drive direct

B20.10.357



Wear Strip Options see page 162

## Features:

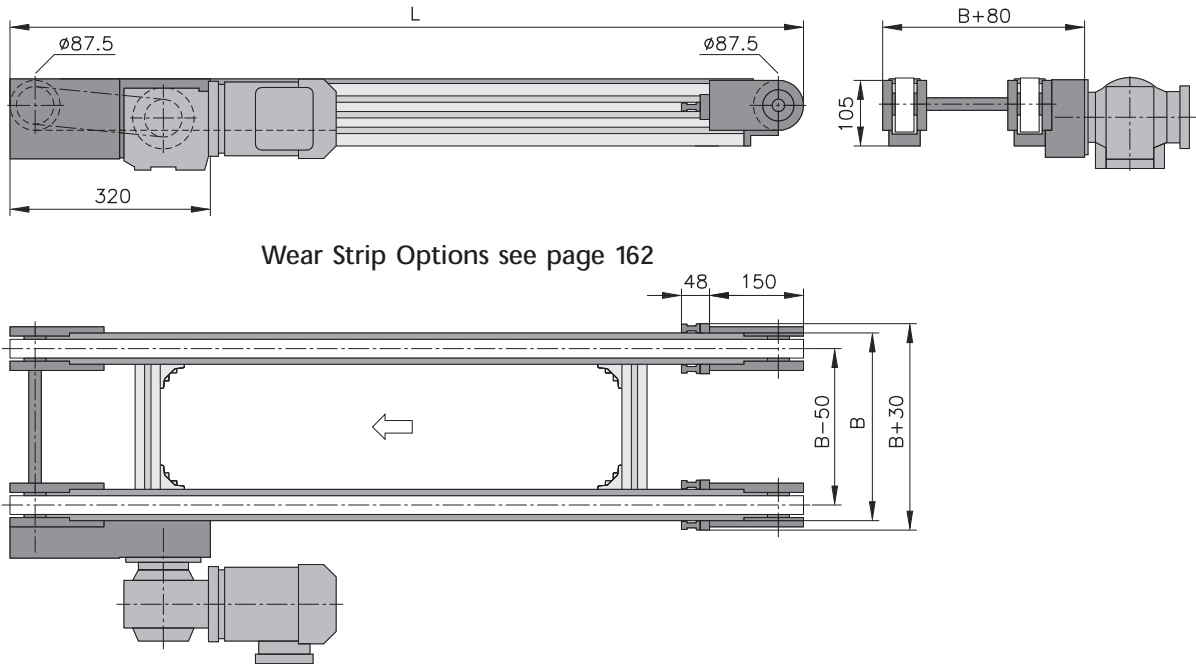
By placing the motor directly onto the drive shaft, this drive version minimizes not only the space required at the drive yet also the number of moving parts and maintenance requirements. Use of fixtured timing belts is not possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 500 - 6000 mm	any increment possible
Conveyor width B	200 to 1000 mm	
Timing Belt Width	32 mm	see page 171
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 161
Stands and Side Rails		see page 262
Load Capacity max.	100 kg (220 lbs)	higher on request

# ZRF-P 2010 AS

Timing Belt Conveyor with Outside Head Drive

B20.10.355



Wear Strip Options see page 162

**Features:**

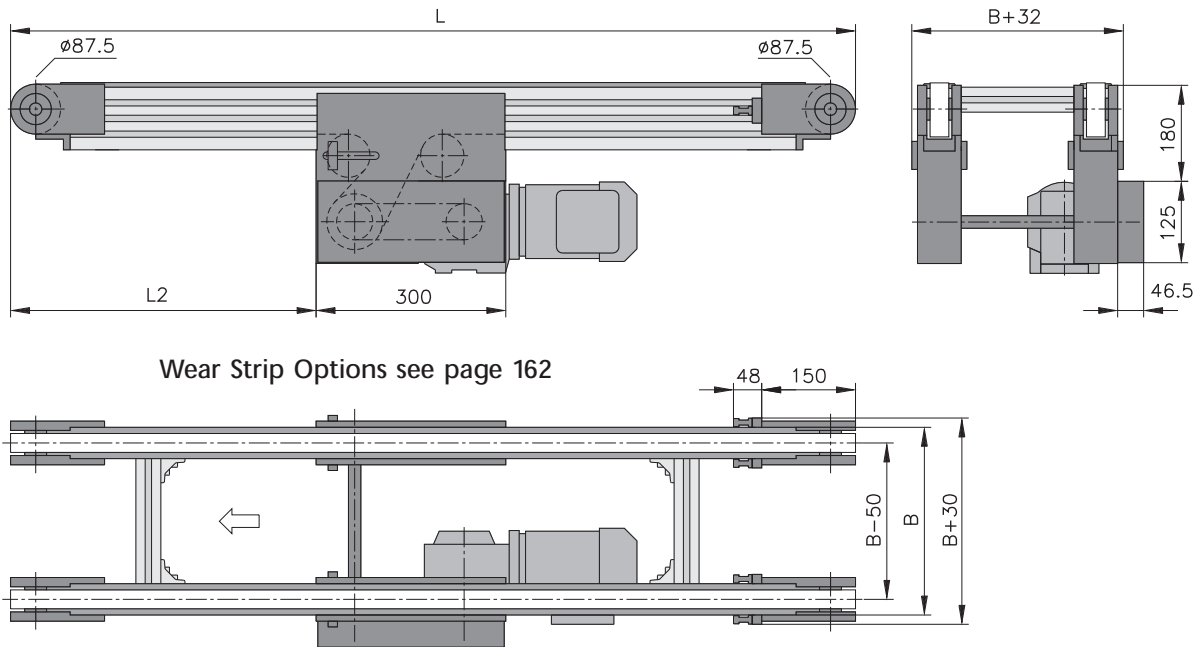
Drive Version AS features motor placement on the outside of the conveyor frame. This is often used in situations where the conveyor frame must be as unobstructed as possible, or where the motor must remain clean. The overall height of the drive assembly is held to an absolute minimum. Use of fixtured timing belts is not possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 700 - 6000 mm	any increment possible
Conveyor width B	200 to 1000 mm	
Timing Belt Width	32 mm	see page 171
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 161
Stands and Side Rails		see page 262
Load Capacity max.	100 kg (220 lbs)	higher on request

# ZRF-P 2010 BC

## Timing Belt Conveyor with Center Drive

B20.10.356



### Features:

mk offers a variety of motor options for Drive Version BC, which are sized and selected for each application's individual speed and load requirements. The compact design, and the ability to place the drive location anywhere along the conveyor frame (during manufacture), simplifies the integration of this conveyor into new or existing equipment. Use of timing belts with fixtures is not possible with this drive version. Use of fixtured timing belts is not possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 700 - 6000 mm	any increment possible
Conveyor width B	200 to 1000 mm	
Timing Belt Width	32 mm	see page 171
Drive Location	right, left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 161
Stands and Side Rails		see page 262
Load Capacity max.	100 kg (220 lbs)	higher on request

# ZRF-P 2010

## Motor Information



### Motor selection

As a standard, mk offers a variety of motors.

Although the selection varies by country with respect to local voltage standards and safety regulations, international availability is a key requirement. Typically, we supply inverter-duty right-angle gearmotors for heavy-duty requirements and parallel shaft gearmotors for lower speed and load applications.

All motors are readily available from mk.

### Motor voltage

As a standard, mk provides motors which comply with the normal, expected electrical requirements of the country where they are manufactured. International motors are also available for conveyors designed for export.

### Motor power

Motors are sized to each individual conveyor style, size and performance requirements. The typical range is between 0.09 KW and 0.37 KW (1/8 hp and 1/2 hp).

### Speeds

The maximum belt speed for ZRF-P 2010 conveyors is approximately 30m/min (100 ft/min). This is dependant on the total load, the type of transport with respect to indexing or accumulation, and the conveyor length.

### Speed Control

Frequency inverters with a variable speed range of 1:7 are available for AC motors.

### Rating

All standard motors are built to IP 54 (IP = International Protection) standards, whereby higher standards are available on request.

### Additional notes

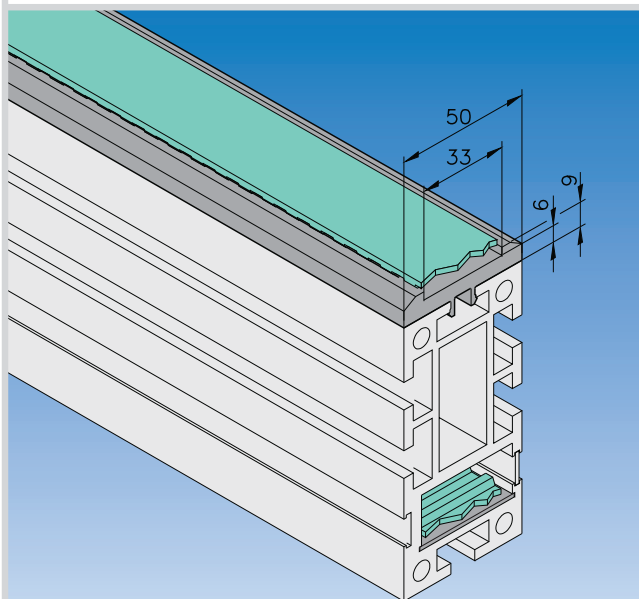
The motors are primarily designed for continuous duty. Operating motors at very low frequency (below 70% of normal) may require additional cooling. Motors with encoders, clutches, brakes, thermal overload protection or indexing capabilities are also available.

# ZRF-P 2010

## Wear Strips

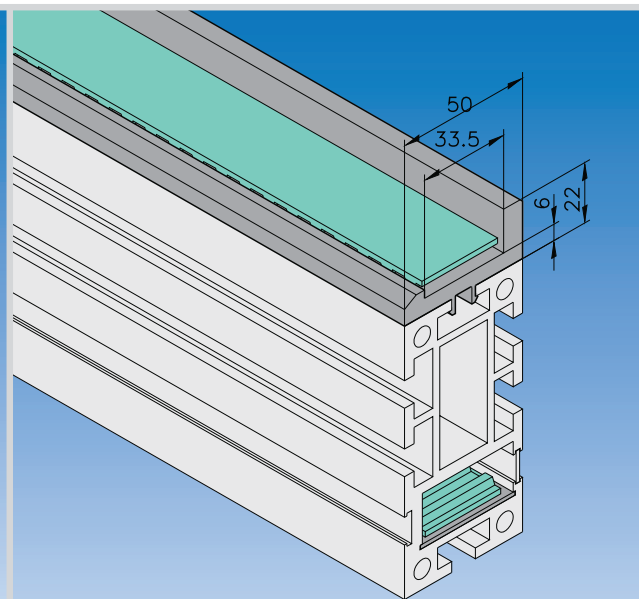
mk Guide- and Wear Strips feature low friction and high wear resistance. The wear strips are made of PE-UHMW (PE-1000). Temperature max. 65° C (149° F).

**Option A**



Wear Strip mk 1042, 22.42.2000

**Option B**



Wear Strip mk 1041, 22.41.2000

# ZRF-P 2010

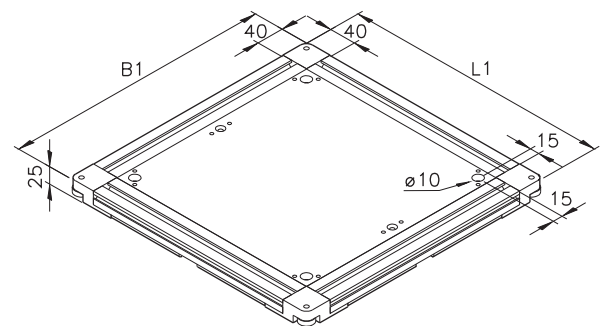
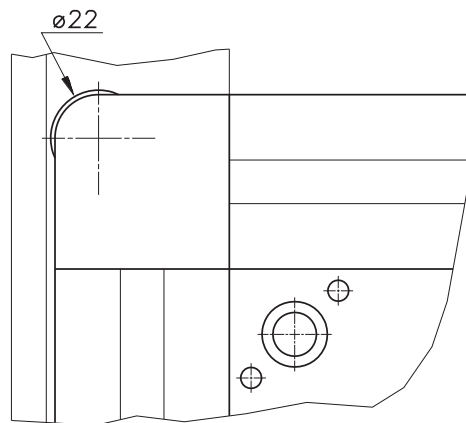
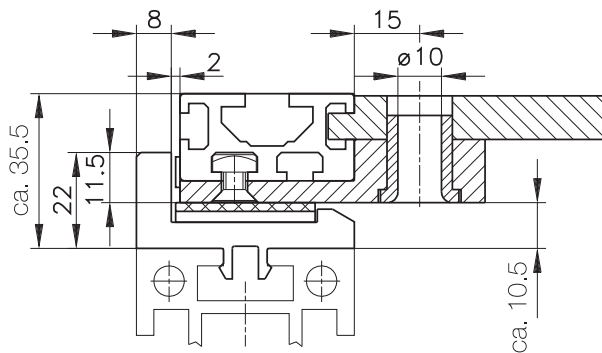
## Pallets



mk offers individually customized pallets. They serve primarily to accept a workpiece, whereby they often travel by various stations on the way from A to B. They can also be the repository of information as to the identity of the product or the processes performed.

By using a standard mk structural profile around the perimeter of the actual support plate, pallet WT2025.41 is perfect for attaching accessories such as metal strips for proximity sensors, or for fixed or bumper stops. The actual pallet dimensions are variable.

Wear strips are attached to the underside of the pallet to minimize friction during accumulation. The surface is made using 10 mm thick aluminum and provides plenty of room for product-specific fixtures. The corners of the pallet are manufactured with ball bearings which ensure smooth transfer of the pallet between conveyor systems. Precise location and/or lifting of the pallet for certain operations is accomplished using bushings at the corners.



### Rework

Upon request we can rework the pallet for your particular application. We can also provide pallets per your drawings.

# Timing Belt Conveyor ZRF-P 2040.02

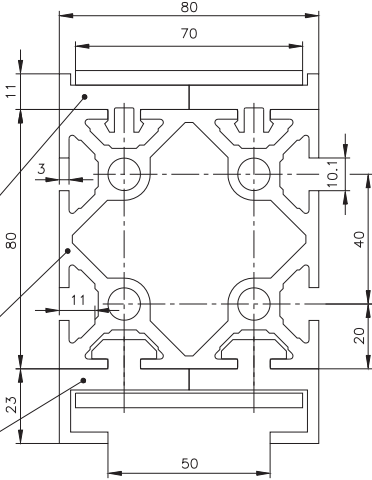


Conveyor frame  
cross-section for example  
Conveyor width 80 mm

Wear Strip mk 1040.12

Profile for conveyor frame mk 2040.03

Wear Strip mk 1040.13





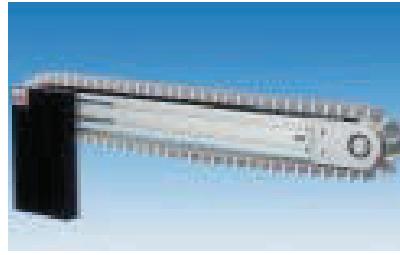


Timing Belt Conveyor System ZRF-P 2040.02 is designed especially for product indexing applications where a cleated, or fixtured belt is required, or for wider timing belt applications. Timing belts are available with a variety of backing materials, or with welded fixtures. Many cleats are available. Plain cleats, as shown

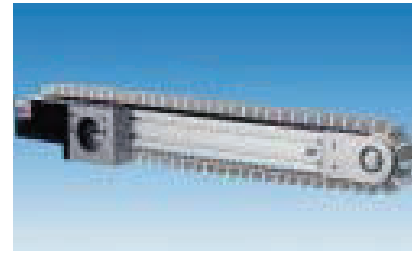
at left, are used for product separation. Others are available with threaded inserts for customer installed fixtures. This conveyor is ideal for special conveying requiring positioning or loading of products. Depending on the product and the application, custom fixtures and other belt widths are available.

# Timing Belt Conveyor ZRF-P 2040.02

Drive Version AC



Drive Version AS



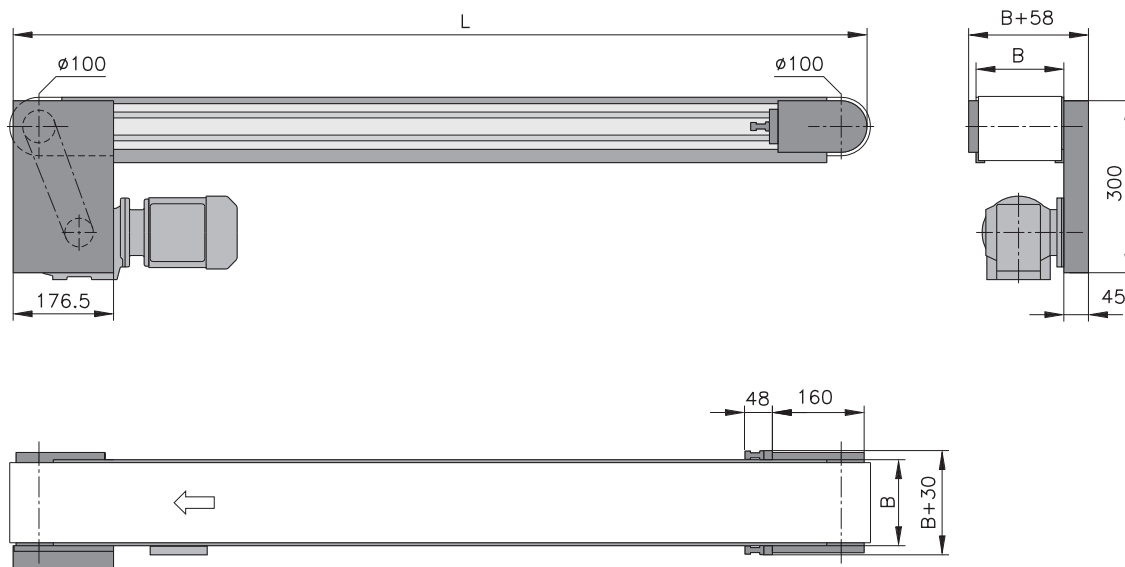
## *Contents ZRF-P 2040.02*

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ZRF-P 2040.02 Motor Information	170

# ZRF-P 2040.02 AC

## Timing Belt Conveyor with Head Drive

B20.40.301



### Features:

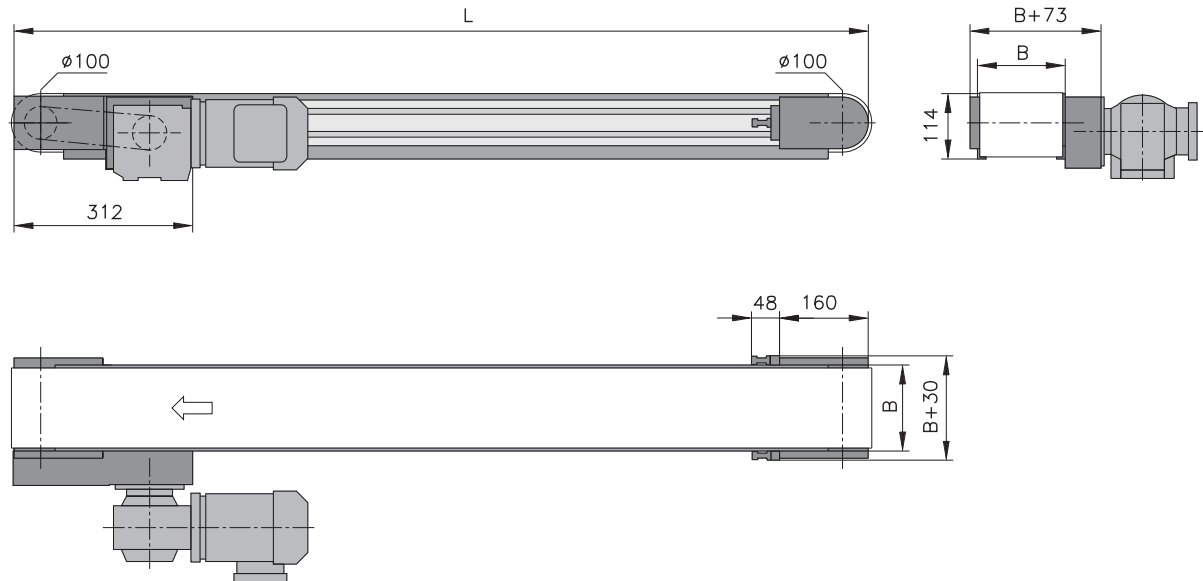
mk offers a variety of motor options for Drive Version AC which are sized and selected for each application's specific speed and load requirements. Use of timing belts with fixtures possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 650 - 6000 mm	any increment possible
Conveyor width B	40/80/120/160 mm	others on request
Timing Belt Width	32/70/110/150 mm	
Timing Belt Type		see page 171
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 170
Stands and Side Rails		see page 262
Load Capacity max.	to 200 kg (440 lbs)	higher on request

# ZRF-P 2040.02 AS

Timing Belt Conveyor with Outside Head Drive

B20.40.302



### Features:

Drive Version AS features motor placement on the outside of the conveyor frame. This is often used in situations where the conveyor frame must be as unobstructed as possible, or where the motor must remain clean. The overall height of the drive assembly is held to an absolute minimum. Use of timing belts with fixtures is possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 650 - 6000 mm	any increment possible
Conveyor width B	40/80/120/160 mm	others on request
Timing Belt Width	32/70/110/150 mm	
Timing Belt Type		see page 171
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 170
Stands and Side Rails		see page 262
Load Capacity max.	to 200 kg (440 lbs)	higher on request

# ZRF-P 2040.02

## *Motor Information*

### **Motor selection**

As a standard, mk offers a variety of motors. Although the selection varies by country with respect to local voltage standards and safety regulations, international availability is a key requirement. Typically, we supply inverter-duty right-angle gearmotors for heavy-duty requirements and parallel shaft gearmotors for lower speed and load applications. All motors are readily available from mk.

### **Motor voltage**

As a standard, mk provides motors which comply with the normal, expected electrical requirements of the country where they are manufactured. International motors are also available for conveyors designed for export.

### **Motor power**

Motors are sized to each individual conveyor style, size and performance requirements. The typical range is between 0.18 KW and 0.37 KW (1/4 hp and 1/2 hp).

### **Speeds**

The maximum belt speed for ZRF-P 2040.02 conveyors is approximately 30m/min (100 ft/min). This is dependant on the total load, the type of transport with respect to indexing or accumulation, and the conveyor length.

### **Speed Control**

Frequency inverters with a variable speed range of 1:7 are available for AC motors.

### **Rating**

All standard motors are built to IP 54 (IP = International Protection) standards, whereby higher standards are available on request.

### **Additional notes**

The motors are primarily designed for continuous duty. Operating motors at very low frequency (below 70% of normal) may require additional cooling. Motors with encoders, clutches, brakes, thermal overload protection or indexing capabilities are also available.

# Timing Belt Conveyor

## Properties of Timing Belts



The standard toothed belts are made of two materials and have a high-strength steel cord reinforced belt. The belts have a T10 pitch and a width of 32 mm (others available on request). Different backings can be used to ensure optimum transport.

++ = excellent, + = good, +- = fair, - = poor

Properties of belts/backings	Polyurethane	Polyamide PAR/PAZ	PVC white FDA	Rubber, coarse structure (supergrip)*	Linatex
Moisture resistance	+				+
Resistant against oil and grease	+		+-	+	+-
Suitable for food (FDA-conformity)			+		
Abrasion resistance	+				+-
Tear resistant					++
Wear resistance				+	
Adhesion property (continuous/inclined conveying)				+	++
Anti-frictional property (accumulated conveying)	-	+			-
Cut-resistance	+				
Low noise		+ (PAZ)			
Color	diverse	green	white	petrol	red
Temperature resistance	up to 60°C	up to 60°C	-40/+100°C	-10/+90°C	-40/+70°C
Hardness	60° Shore A		65° Shore A	40° Shore A	40° Shore A
Typical applications	General transport, wood, metal, glass	Accumulated operation	Food (unpacked)	Wood, paper, packaging, inclined conveyor	Wood, paper, textile, faster transport

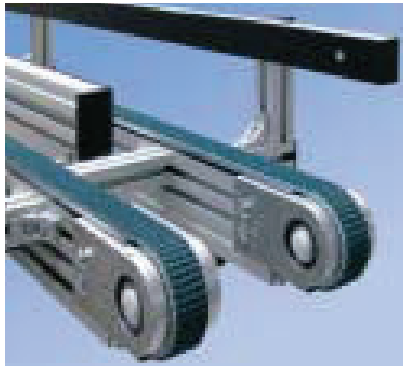
\*not suitable for use in the ZRF-P 2010 except with conveyor frame rework.

# Timing Belt Conveyor

## *Application Examples*



**Timing Belt Conveyor  
ZRF-P 2004 with fixtures**



**Timing Belt Conveyor  
with supergrip backing**



**Timing Belt Conveyor with  
bolted on fixtures**





Adjustable width dual-lane timing belt conveyor with cleats



Timing Belt Conveyor with telescoping frame and drip pan



Timing Belt with threaded inserts

# Timing Belt Conveyor

## *Application Examples*



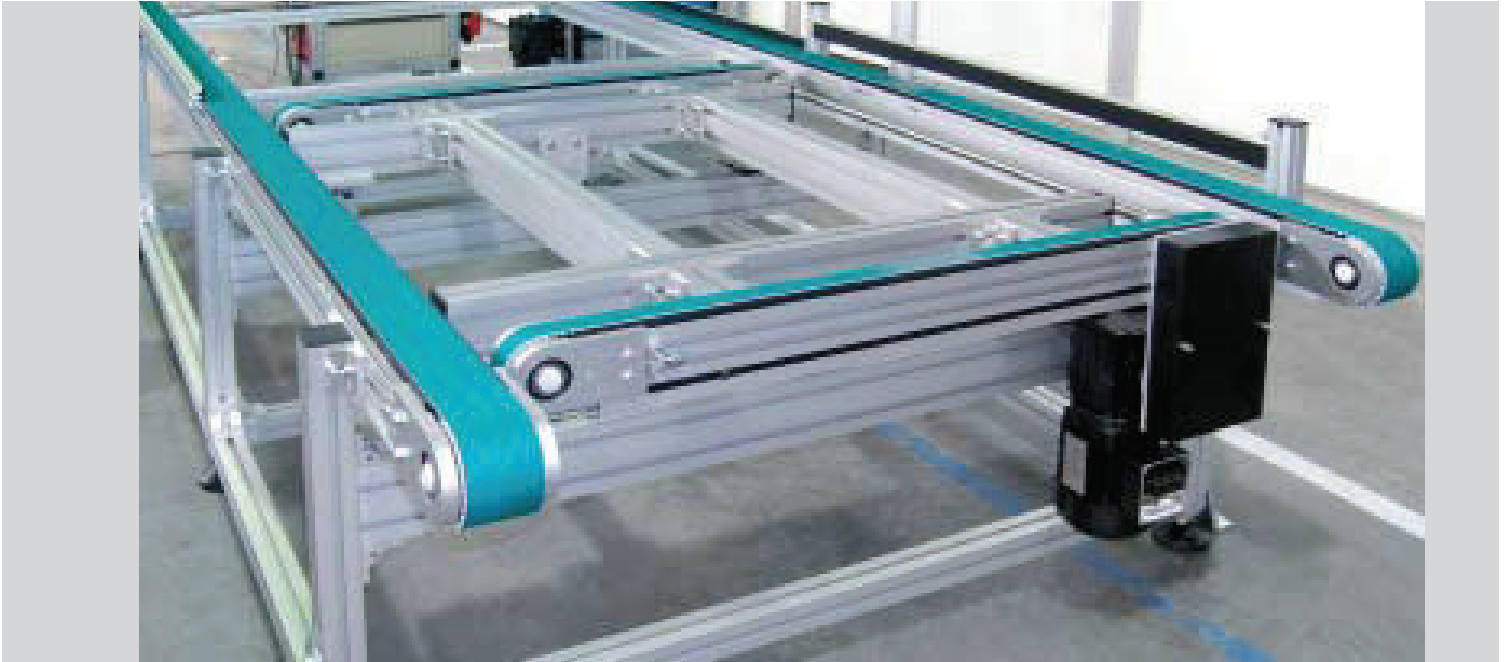
ZRF-P 2010 with drive version BC and side rails



ZRF-P 2010 with shaft guard



ZRF-P 2010 with cantilevered tail



ZRF-P 2010 as right-angle transfer



ZRF-P 2010 with cleats



ZRF-P 2010 with customer-specific painting of the drive motor

# Timing Belt Conveyor

## *Application Examples*



**ZRF-P 2040.02 with threaded bushings recessed in the timing belt and installed, customer-specific cleats**



**ZRF-P 2040.02 with customer-specific side rail for parallel conveying of two workpieces**



**ZRF-P 2040.02 with drive version AC**



ZRF-P 2040.02 with drive version AC  
and with prismatic cleats

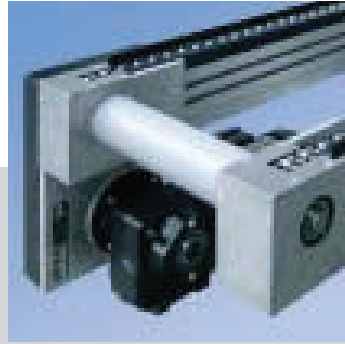


Tail ZRF-P 2040.02 with prismatic cleats




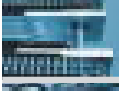




Customer-specific ZRF with partial  
lateral cleat sections

# mk Chain Conveyors



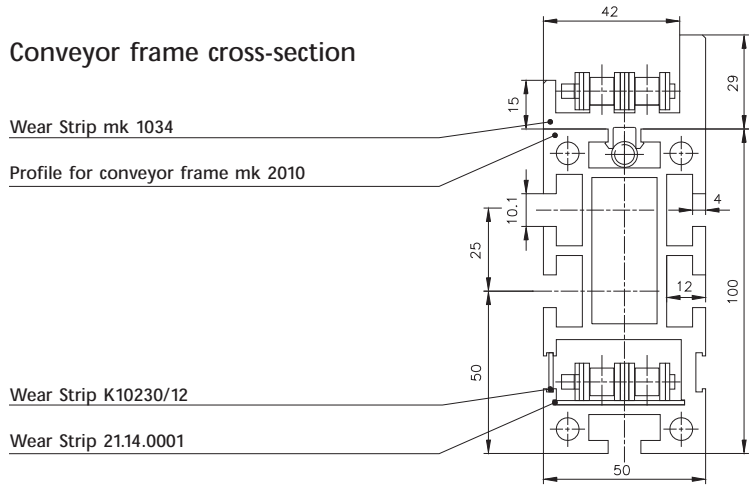
*Contents mk Chain Conveyors*

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	Chain Conveyors Chains	216
	Chain Conveyors Application Examples	218
	Chain Conveyors Pallets	220

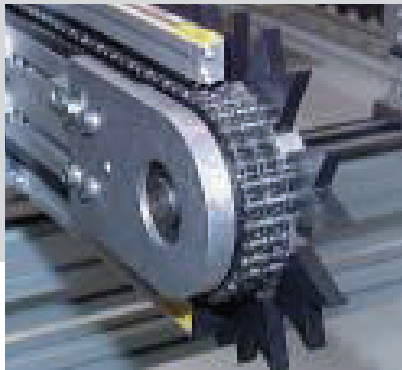
# Chain Conveyors KTF-P 2010



Conveyor frame cross-section







Chain Conveyor System KTF-P 2010 is designed for the transport of heavy pallets. The different chain and wear strip options make for an extremely low-maintenance and robust conveyor. The wear strips have a low coefficient of friction, and provide good wear resistance over a broad temperature range (continuous to 65° C, or 149° F). Another design feature is the chain return, which

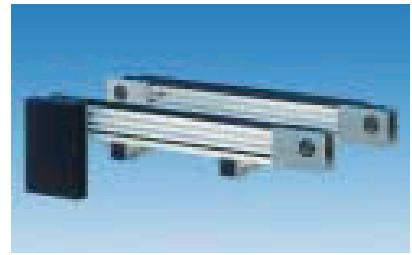
occurs within the frame profile itself. T-slots are accessible on three sides on the profile frame for the attachment of stands, side rails, sensors and stops (10 mm opening). In combination with the wide and varied drive options, System KTF-P 2010 serves as a key element for the manufacture of larger automation and material handling systems.

# Chain Conveyors KTF-P 2010

**Drive Version AA**



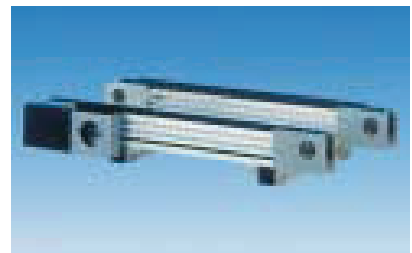
**Drive Version AC**



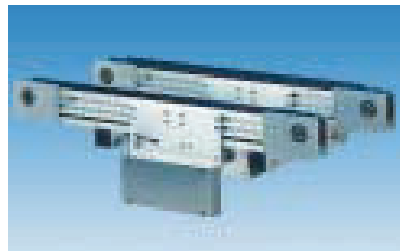
**Drive Version AF**



**Drive Version AS**



**Drive Version BC**



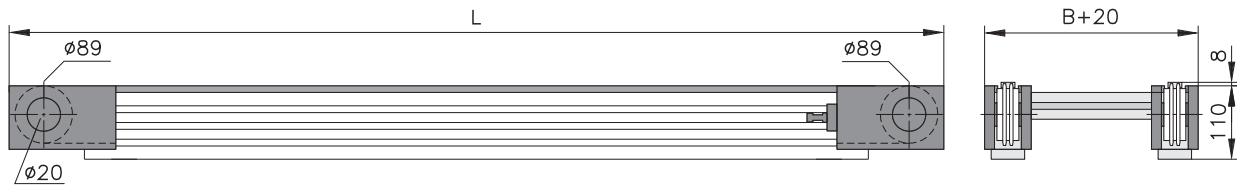
## *Contents KTF-P 2010*

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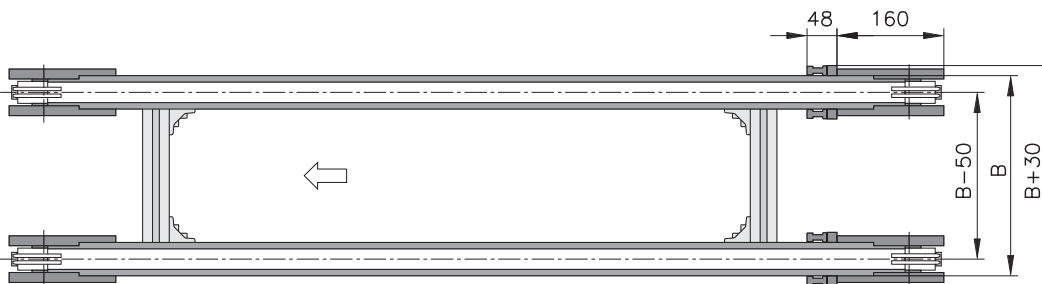
# KTF-P 2010 AA

## Chain Conveyors with Head Drive without Motor

B20.10.450



Wear Strip Options see page 190



### Features:

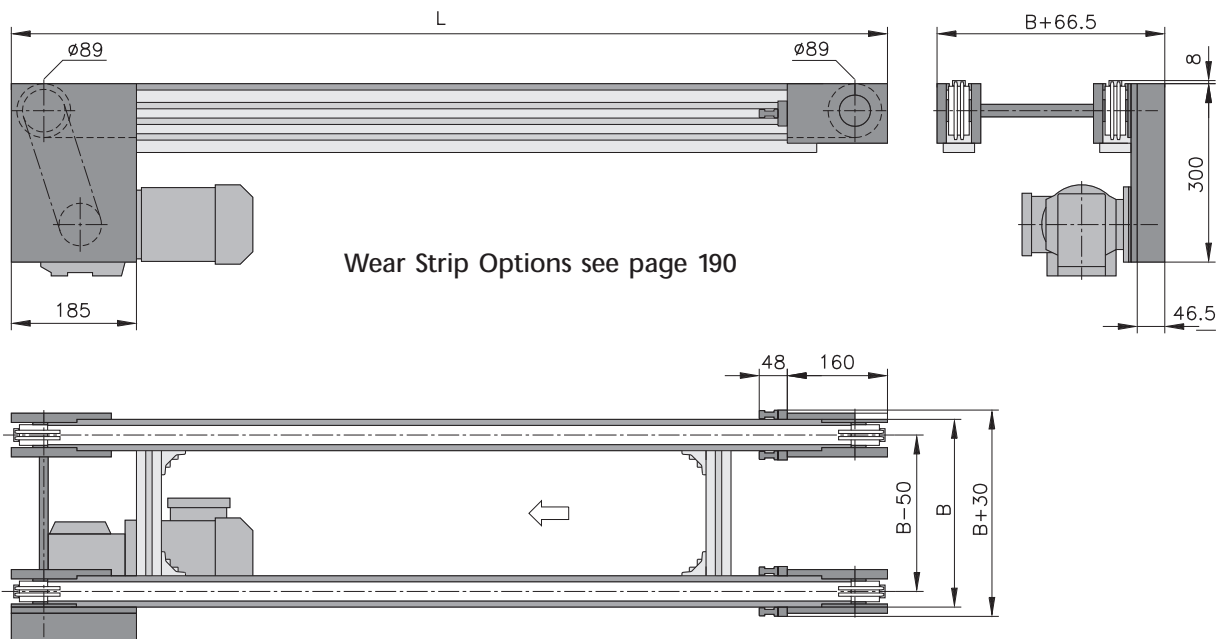
Drive Version AA is primarily used where multiple lanes are to be slave driven, either parallel or in-line, using a single drive motor. Frames are our rigid mk 2010 profile, and these conveyors are ideal for both integrated and stand-alone applications. The drive sprockets feature a hollow bore, and power transmission is accomplished by installing a  $\phi 20$  mm shaft with 6 mm shaft key (DIN 6885). Use of attachment chain is not possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 500 - 10000 mm	any increment possible
Conveyor width B	200 to 2000 mm	
Chain	1/2" single or dual strand	see page 216
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 189
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request

# KTF-P 2010 AC

Chain Conveyors with Head Drive

B20.10.453



**Features:**

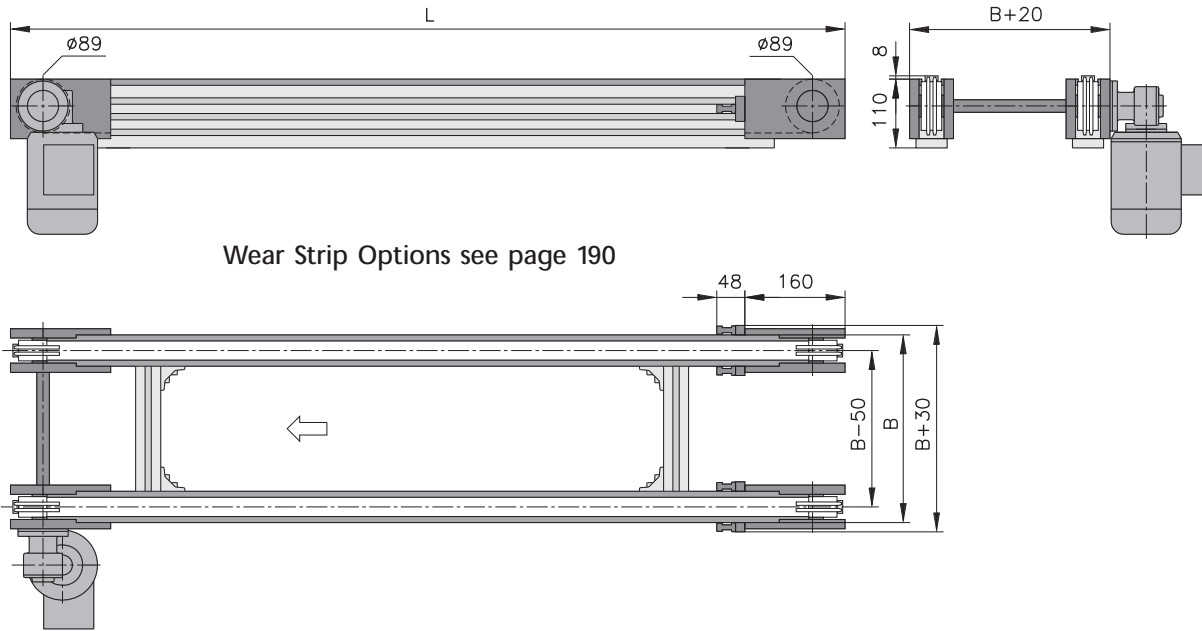
mk offers a variety of motor options for Drive Version AC which are sized and selected for each application's specific speed and load requirements. Use of attachment chain is not possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 500 - 10000 mm	any increment possible
Conveyor width B	200 to 2000 mm	
Chain	1/2" single or dual strand	see page 216
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 189
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request

# KTF-P 2010 AF

## Chain Conveyors with Head Drive direct

B20.10.459



### Features:

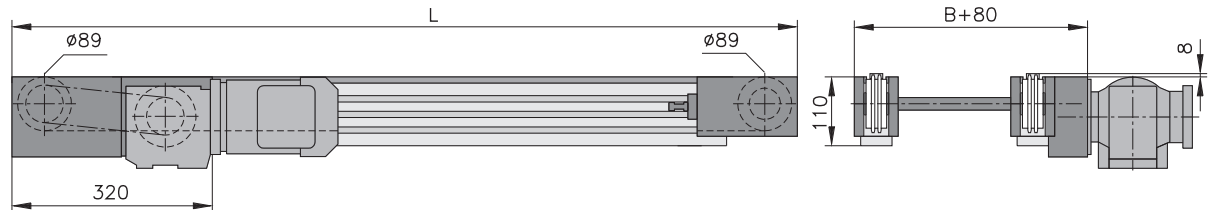
By placing the motor directly onto the drive shaft, this drive version minimizes not only the space required at the drive yet also the number of moving parts and maintenance requirements. Use of attachment chain is not possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 700 - 10000 mm	any increment possible
Conveyor width B	200 to 2000 mm	
Chain	1/2" single or dual strand	see page 216
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 189
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request

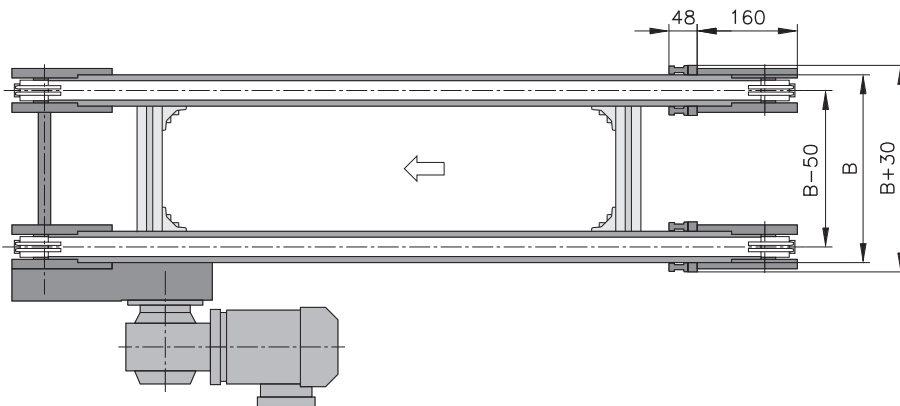
# KTF-P 2010 AS

Chain Conveyors with Outside Head Drive

B20.10.457



Wear Strip Options see page 190



### Features:

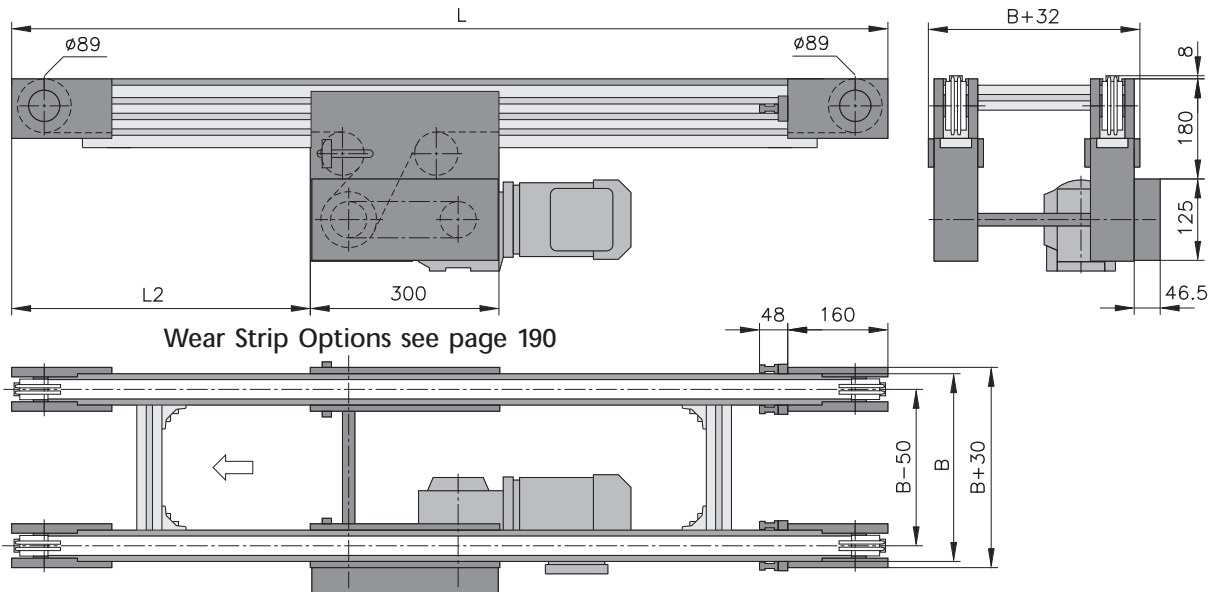
Drive Version AS features motor placement on the outside of the conveyor frame. This is often used in situations where the conveyor frame must be as unobstructed as possible, or where the motor must remain clean. The overall height of the drive assembly is held to an absolute minimum. Use of attachment chain is not possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 700 - 10000 mm	any increment possible
Conveyor width B	200 to 2000 mm	
Chain	1/2" single or dual strand	see page 216
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 189
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request

# KTF-P 2010 BC

## Chain Conveyors with Center Drive

B20.10.458



### Features:

mk offers a variety of motor options for Drive Version BC, which are sized and selected for each application's individual speed and load requirements. The compact design, and the ability to move the drive location anywhere along the conveyor frame (during manufacture), simplifies the integration of this conveyor into new or existing equipment. Use of attachment chain is not possible with this drive version.

	Dimensions – Technical Information	Notes
Conveyor length L	between 700 - 10000 mm	any increment possible
Conveyor width B	200 to 2000 mm	
Chain	1/2" single or dual strand	see page 216
Drive Location	right, left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 189
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request



# KTF-P 2010

## Motor Information



### Motor selection

As a standard, mk offers a variety of motors. Although the selection varies by country with respect to local voltage standards and safety regulations, international availability is a key requirement. Typically, we supply inverter-duty right-angle gearmotors for heavy-duty requirements and parallel shaft gearmotors for lower speed and load applications. All motors are readily available from mk.

### Motor voltage

As a standard, mk provides motors which comply with the normal, expected electrical requirements of the country where they are manufactured. International motors are also available for conveyors designed for export.

### Motor power

Motors are sized to each individual conveyor style, size and performance requirements. The typical range is between 0.09 KW and 0.55 KW (1/8 hp and 3/4 hp).

### Speeds

The maximum belt speed for KTF-P 2010 conveyors is approximately 30m/min (100 ft/min). This is dependant on the total load, the type of transport with respect to indexing or accumulation, and the conveyor length.

### Speed Control

Frequency inverters with a variable speed range of 1:7 are available for AC motors.

### Rating

All standard motors are built to IP 54 (IP = International Protection) standards, whereby higher standards are available on request.

### Additional notes

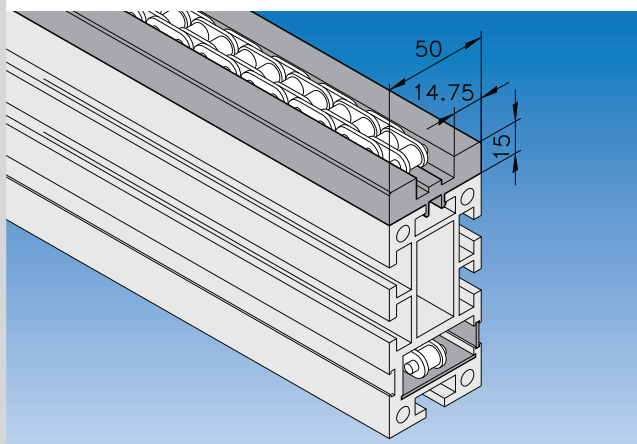
The motors are primarily designed for continuous duty. Operating motors at very low frequency (below 70% of normal) may require additional cooling. Motors with endocers, clutches, brakes, thermal overload protection or indexing capabilities are also available.

# KTF-P 2010

## Wear Strips

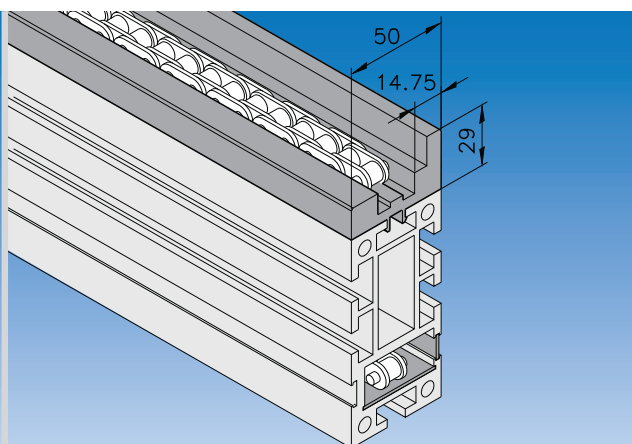
mk Guide- and Wear Strips feature low friction and high wear resistance. The wear strips are made of PE-UHMW (PE-1000). Temperature max. 65° C (149° F).

### Option A



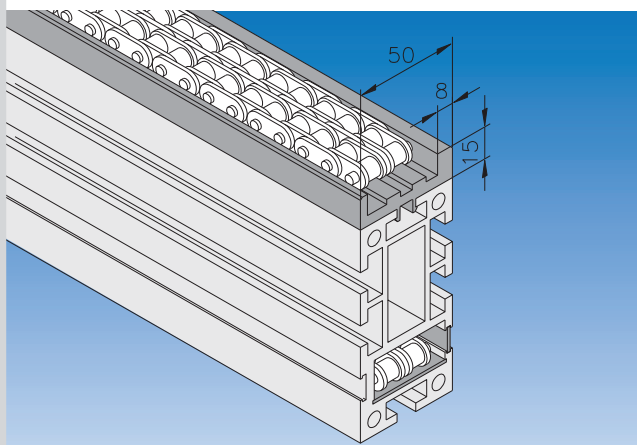
Wear Strip above mk 1037, 22.37.2000  
Wear Strip below 21.14.0001  
Closure Strip K10230/12

### Option B



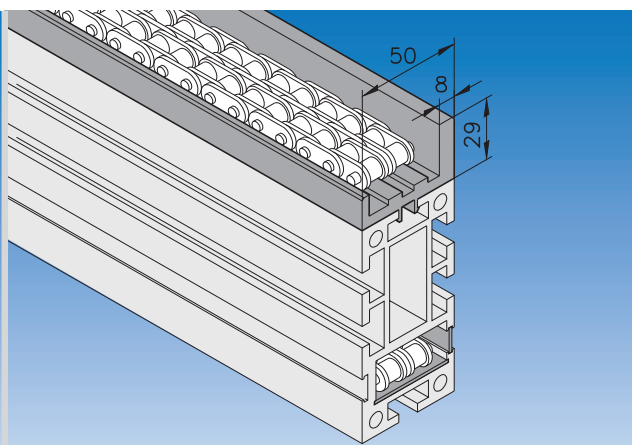
Wear Strip above mk 1038, 22.38.2000  
Wear Strip below 21.14.0001  
Closure Strip K10230/12

### Option C

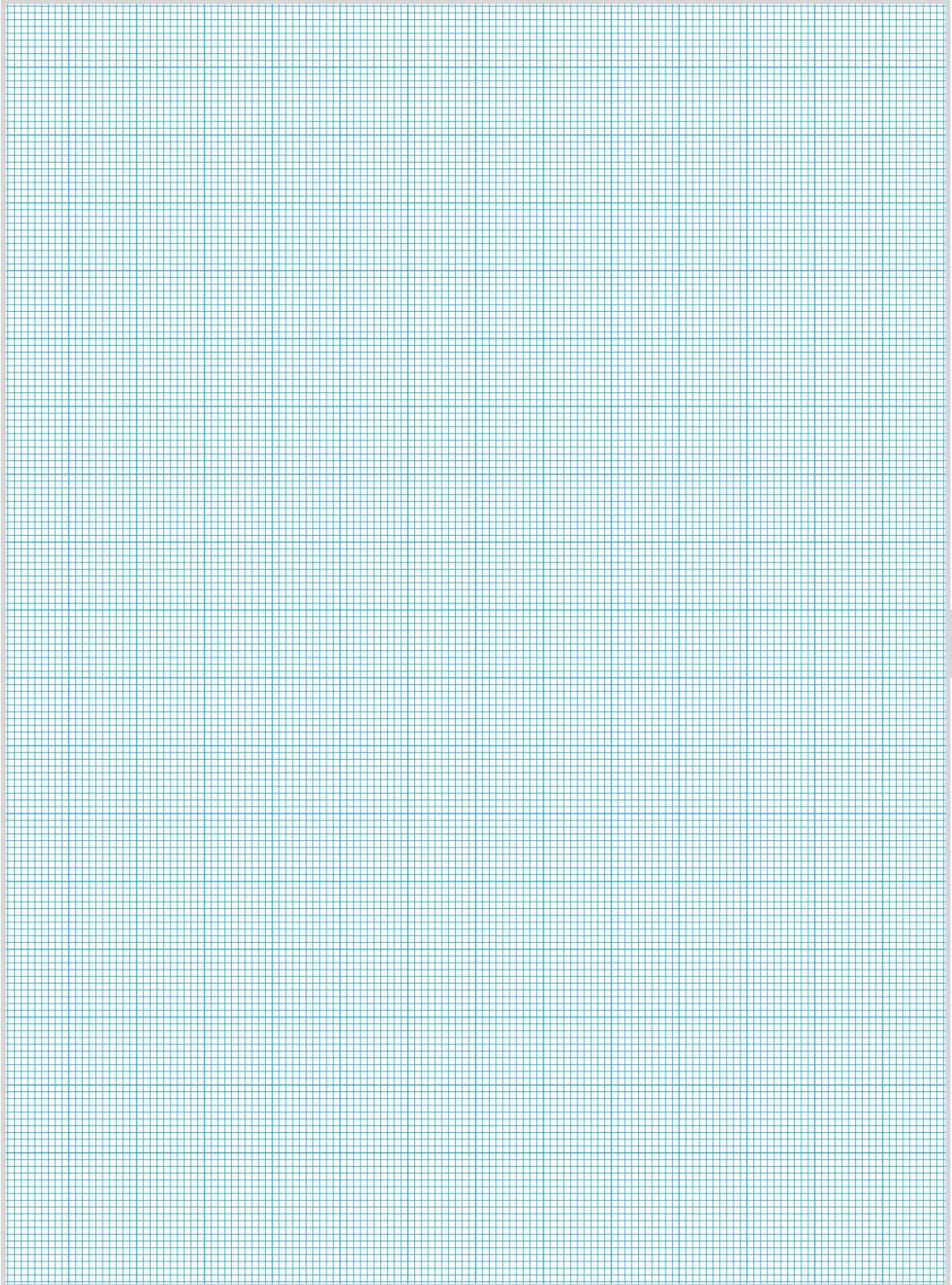


Wear Strip above mk 1033, 22.33.2000  
Wear Strip below 21.14.0001  
Closure Strip K10230/12

### Option D



Wear Strip above mk 1034, 22.34.2000  
Wear Strip below 21.14.0001  
Closure Strip K10230/12



# Chain Conveyors SRF-P 2010

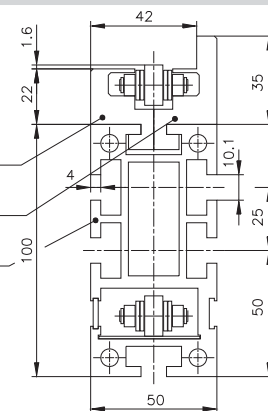


Conveyor frame cross-section

Wear Strip mk 1048

Wear Strip mk 1047

Profile for conveyor frame mk 2010



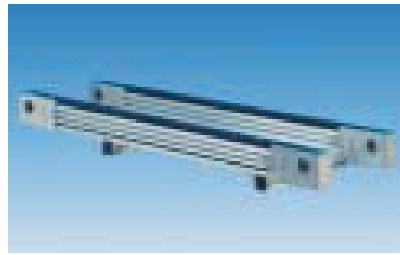


Accumulating Roller Chain Conveyor SRF-P 2010 is designed for the transport and accumulation of loads up to 200 kg (440 lbs). As pallets travel on the large idler rollers, the conveyor is very quiet even at accumulation zones. The force required to hold accumulating pallets is minimal. Typical applications include pro-

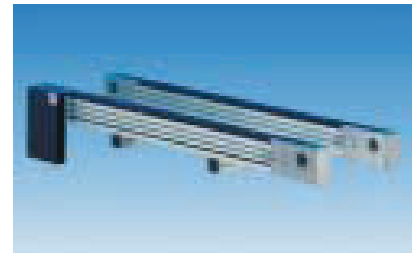
duct transfer between workstations or accumulation of products between processes. Entire handling systems can be designed using this conveyor system. T-slots are accessible on three sides on the profile frame for the attachment of stands, side rails, sensors and stops (10 mm opening).

# Chain Conveyors SRF-P 2010

**Drive Version AA**



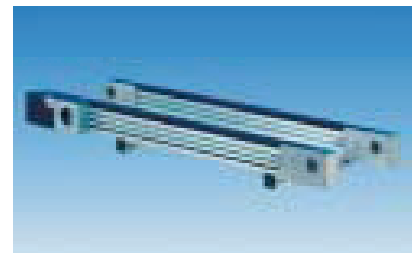
**Drive Version AC**



**Drive Version AF**



**Drive Version AS**



**Drive Version BC**



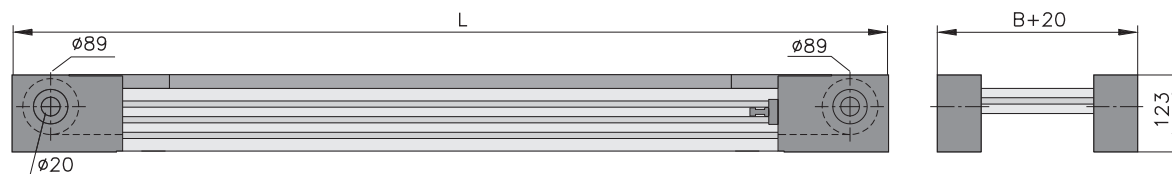
## *Contents SRF-P 2010*

SRF-P 2010 AA – Head Drive without Motor –	196
SRF-P 2010 AC – Head Drive –	197
SRF-P 2010 AF – Head Drive direct –	198
SRF-P 2010 AS – Outside Head Drive –	199
SRF-P 2010 BC – Center Drive –	200
SRF-P 2010 Motor Information	201
SRF-P 2010 Wear Strips	202

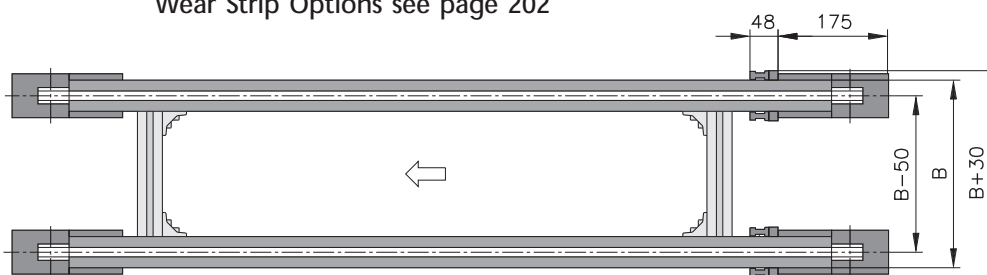
# SRF-P 2010 AA

Accumulating Roller Chain Conveyor with Head Drive, without Motor

B20.10.554



Wear Strip Options see page 202



### Features:

Drive Version AA is primarily used where multiple lanes are to be slave driven, either parallel or in-line, using a single drive motor. Frames are our rigid mk 2010 profile, and these conveyors are ideal for both integrated and stand-alone applications. The drive sprockets feature a hollow bore, and power transmission is accomplished by installing a  $\varnothing 20$  mm shaft with 6 mm shaft key (DIN 6885).

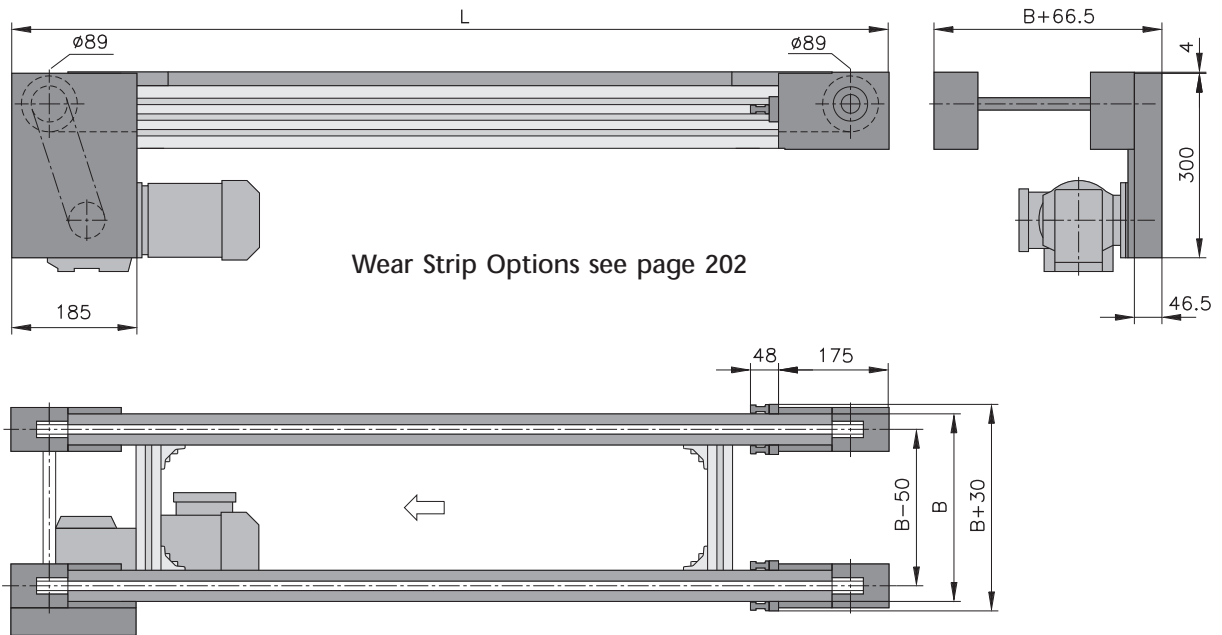
	Dimensions – Technical Information	Notes
Conveyor length L	between 500 - 10000 mm	any increment possible
Conveyor width B	200 to 2000 mm	
Chain	Accumulating Roller Chain 1/2" with Plastic or Steel Roller	see page 216
Drive and Speed	to 30 m/min (100 ft/min)	see page 201
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request



# SRF-P 2010 AC

Accumulating Roller Chain Conveyor with Head Drive

B20.10.555



**Features:**

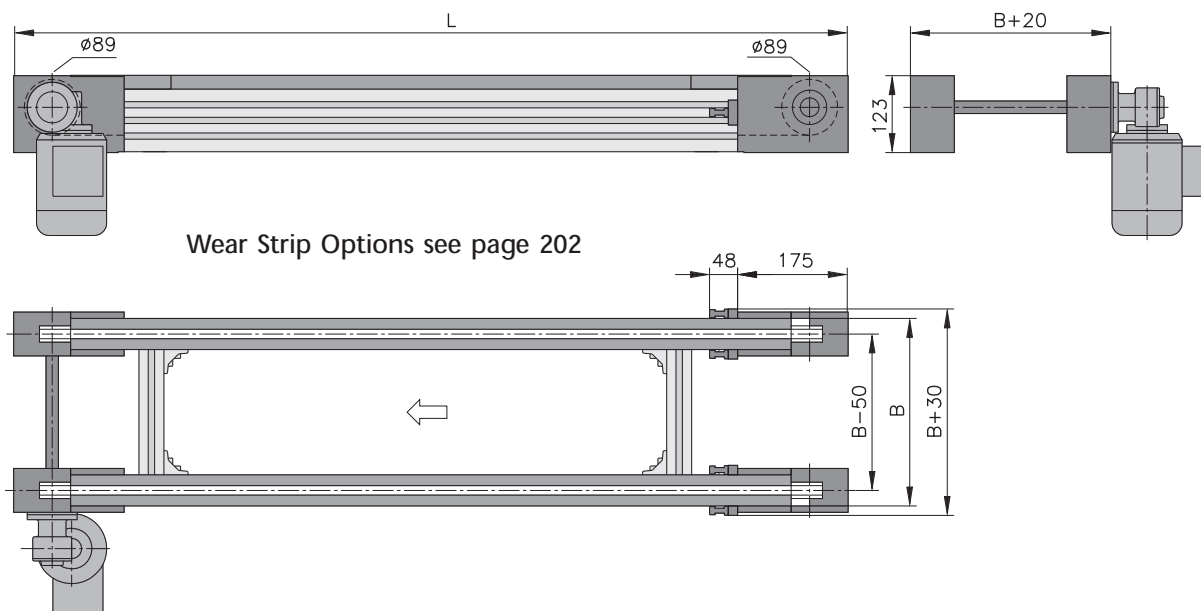
mk offers a variety of motor options for Drive Version AC which are sized and selected for each application's specific speed and load requirements.

	Dimensions – Technical Information	Notes
Conveyor length L	between 500 - 10000 mm	any increment possible
Conveyor width B	200 to 2000 mm	
Chain	Accumulating Roller Chain 1/2" with Plastic or Steel Roller	see page 216
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 201
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request

# SRF-P 2010 AF

Accumulating Roller Chain Conveyor with Head Drive direct

B20.10.561



### Features:

By placing the motor directly onto the drive shaft, this drive version minimizes not only the space required at the drive yet also the number of moving parts and maintenance requirements.

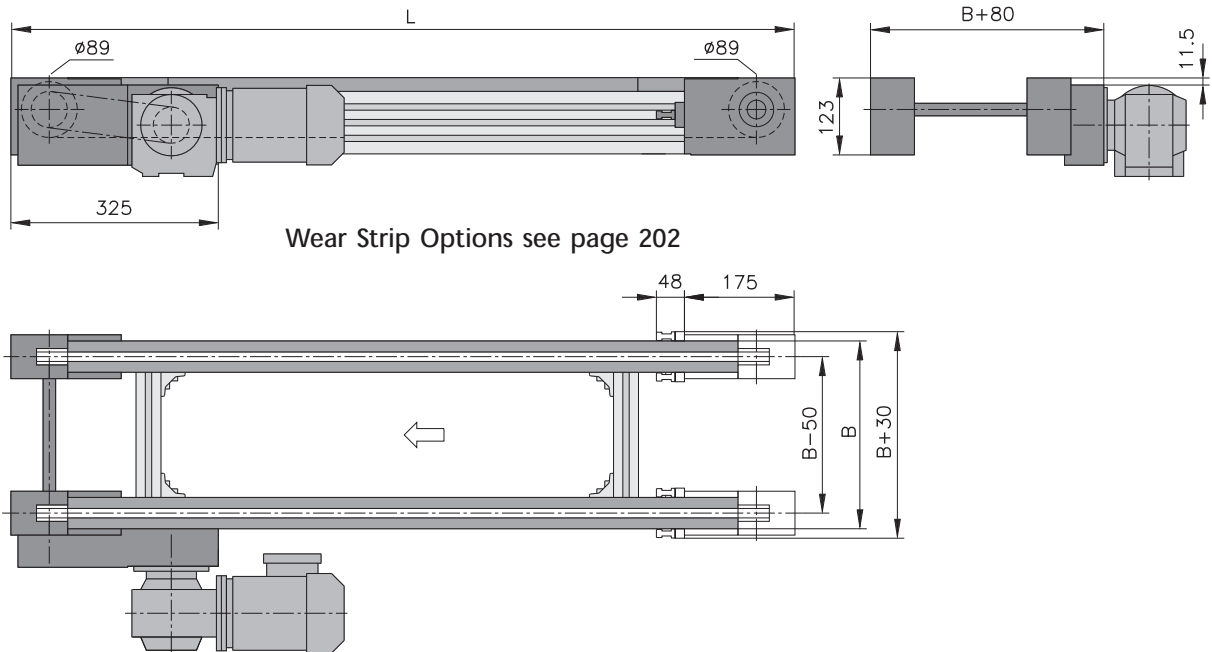
	Dimensions – Technical Information	Notes
Conveyor length L	between 500 - 10000 mm	any increment possible
Conveyor width B	200 to 2000 mm	
Chain	Accumulating Roller Chain 1/2" with Plastic or Steel Roller	see page 216
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 201
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request

# SRF-P 2010 AS

Accumulating Roller Chain Conveyor with Outside Head Drive



B20.10.559



Wear Strip Options see page 202

**Features:**

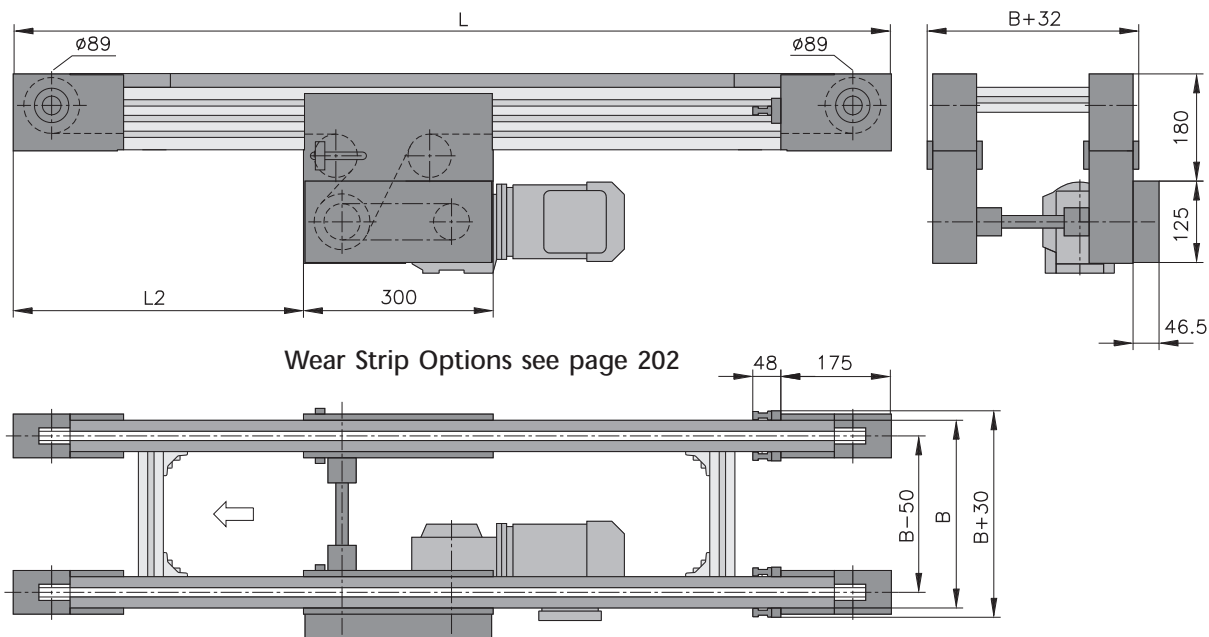
Drive Version AS features motor placement on the outside of the conveyor frame. This is often used in situations where the conveyor frame must be as unobstructed as possible, or where the motor must remain clean. The overall height of the drive assembly is held to an absolute minimum.

	Dimensions – Technical Information	Notes
Conveyor length L	between 700 - 10000 mm	any increment possible
Conveyor width B	200 to 2000 mm	
Chain	Accumulating Roller Chain 1/2" with Plastic or Steel Roller	see page 216
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 201
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request

# SRF-P 2010 BC

## Accumulating Roller Chain Conveyor with Center Drive

B20.10.560



### Features:

mk offers a variety of motor options for Drive Version BC, which are sized and selected for each application's individual speed and load requirements. The compact design, and the ability to assemble the drive location anywhere along the conveyor frame (during manufacture), simplifies the integration of this conveyor into new or existing equipment.

	Dimensions – Technical Information	Notes
Conveyor length L	between 700 - 10000 mm	any increment possible
Conveyor width B	200 to 2000 mm	
Chain	Accumulating Roller Chain 1/2" with Plastic or Steel Roller	see page 216
Drive Location	right, left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 201
Stands and Side Rails		see page 262
Load Capacity max.	200 kg (440 lbs)	higher on request

# SRF-P 2010

## Motor Information



### Motor selection

As a standard, mk offers a variety of motors. Although the selection varies by country with respect to local voltage standards and safety regulations, international availability is a key requirement. Typically, we supply inverter-duty right-angle gearmotors for heavy-duty requirements and parallel shaft gearmotors for lower speed and load applications. All motors are readily available from mk.

### Motor voltage

As a standard, mk provides motors which comply with the normal, expected electrical requirements of the country where they are manufactured. International motors are also available for conveyors designed for export.

### Motor power

Motors are sized to each individual conveyor style, size and performance requirements. The typical range is between 0.09 KW and 0.55 KW (1/8 hp and 3/4 hp).

### Speeds

The maximum belt speed for SRF-P 2010 conveyors is approximately 30m/min (100 ft/min). This is dependant on the total load, the type of transport with respect to indexing or accumulation, and the conveyor length.

### Speed Control

Frequency inverters with a variable speed range of 1:7 are available for AC motors.

### Rating

All standard motors are built to IP 54 (IP = International Protection) standards, whereby higher standards are available on request.

### Additional notes

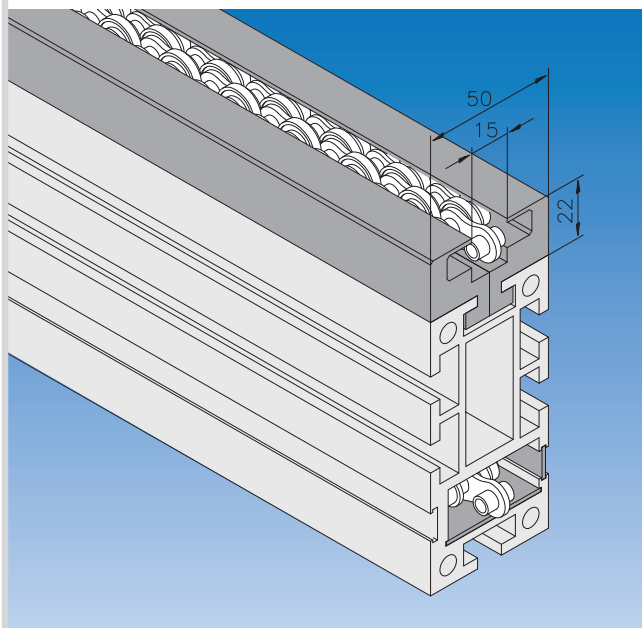
The motors are primarily designed for continuous duty. Operating motors at very low frequency (below 70% of normal) may require additional cooling. Motors with encoders, clutches, brakes, thermal overload protection or indexing capabilities are also available.

# SRF-P 2010

## Wear Strips

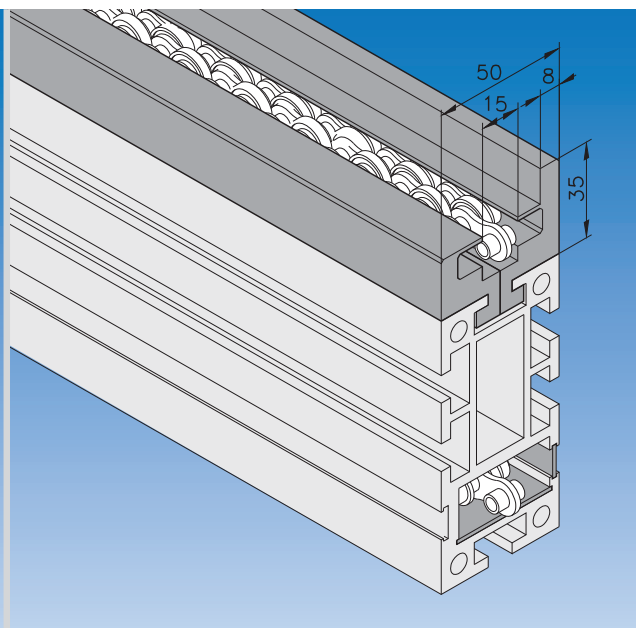
mk Guide- and Wear Strips feature low friction and high wear resistance. The wear strips are made of PE-UHMW (PE-1000). Temperature max. 65° C (149° F).

**Option A**

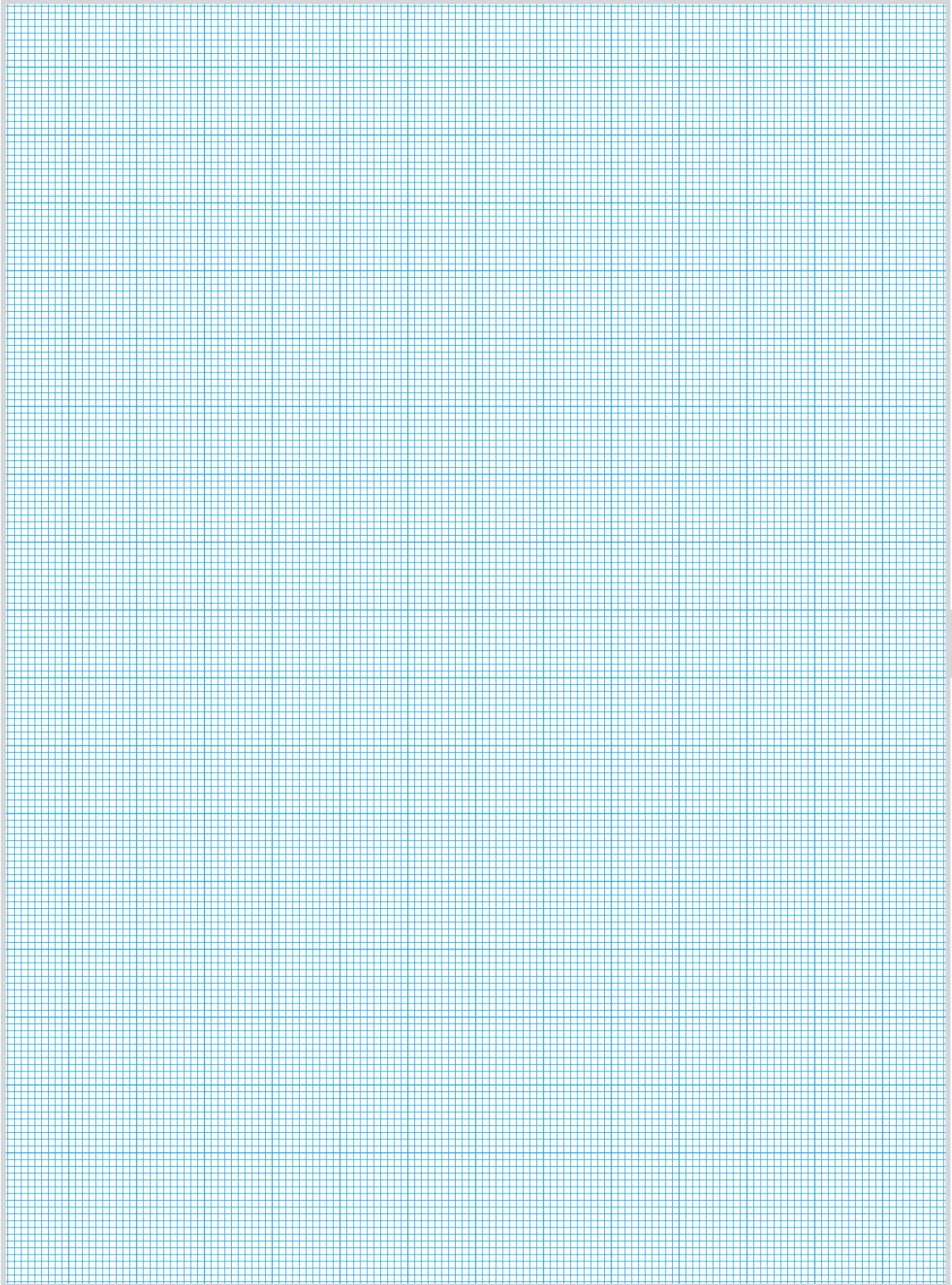


Wear Strip above mk 1048, 22.48.2000  
Wear Strip below 21.14.0001  
Closure Strip K10230/12

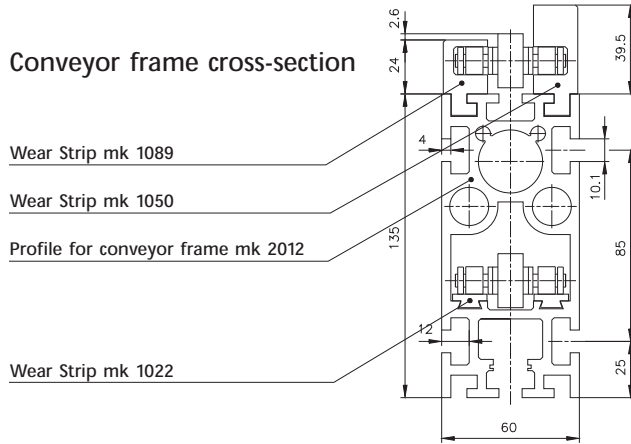
**Option B**



Wear Strip above right mk 1047, 22.47.2000  
Wear Strip above left mk 1048, 22.48.2000  
Wear Strip below 21.14.0001  
Closure Strip K10230/12



# Chain Conveyors SRF-P 2012





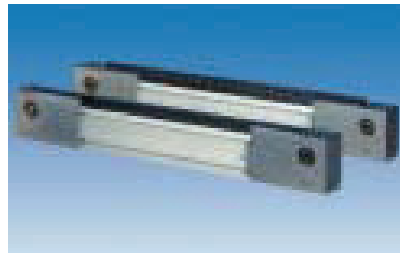


Accumulating Roller Chain Conveyor SRF-P 2012 is designed for the transport and accumulation of loads up to 300 kg (660 lbs). As pallets travel on the large idler rollers, the conveyor is very quiet even at accumulation zones. The force required to hold accumulating pallets is minimal. Typical applications include product transfer between worksta-

tions or accumulation of products between processes. Entire handling systems can be designed using this conveyor system. T-slots are accessible on three sides on the profile frame for the attachment of stands, side rails, sensors and stops (10 mm opening). mk offers a low-maintenance design for extending service intervals.

# Chain Conveyors SRF-P 2012

**Drive Version AA**



**Drive Version AC**



**Drive Version AS**



**Drive Version BC**



**Drive Version BF**



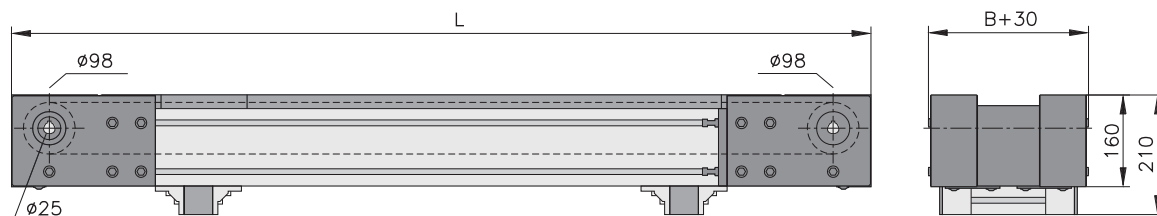
## Contents SRF-P 2012

SRF-P 2012 AA – Head Drive without Motor – ex. for multiple lanes	208
SRF-P 2012 AC – Head Drive –	209
SRF-P 2012 AS – Outside Head Drive –	210
SRF-P 2012 BC – Center Drive –	211
SRF-P 2012 BF – Center Drive direct –	212
SRF-P 2012 Motor Information	213
SRF-P 2012 Wear Strips	214
SRF-P 2012 Optional features for extended maintenance intervals	215

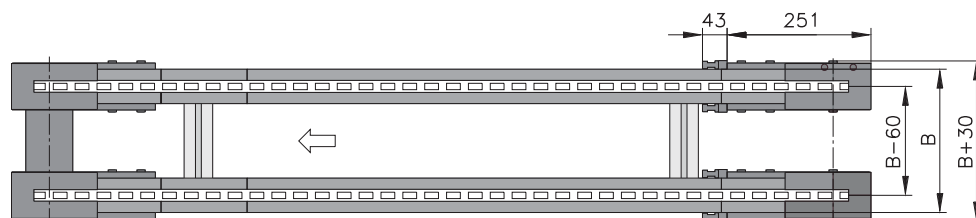
# SRF-P 2012 AA

## Accumulating Roller Chain Conveyor with Head Drive without Motor

B20.12.008



Wear Strip Options see page 214



### Features:

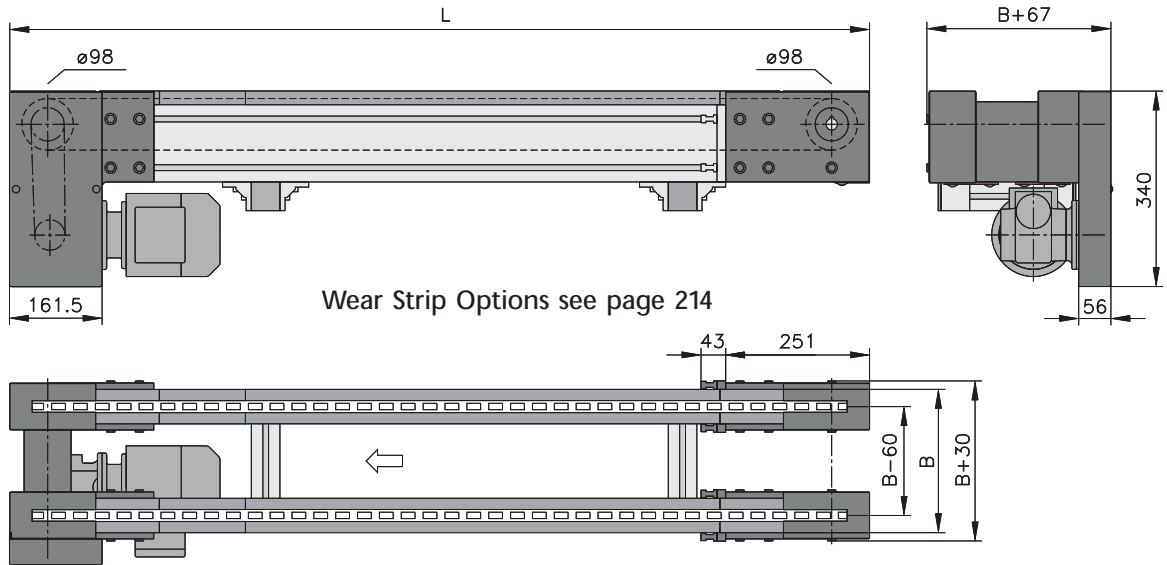
Drive Version AA is primarily used where multiple lanes are to be slave driven, either parallel or in-line, using a single drive motor. Frames are our rigid mk 2012 profile, and these conveyors are ideal for both integrated and stand-alone applications. The drive sprockets feature a hollow bore, and power transmission is accomplished by installing a  $\varnothing 25$  mm shaft with 8 mm shaft key (DIN 6885).

	Dimensions – Technical Information	Notes
Conveyor length L	between 1000 - 10000 mm	any increment possible depending on chain pitch
Conveyor width B	200 to 2000 mm	
Chain	Accumulating Roller Chain 3/4" with Plastic or Steel Roller	see page 216
Drive and Speed	to 30 m/min (100 ft/min)	see page 213
Stands and Side Rails		see page 262
Load Capacity max.	300 kg	higher on request

# SRF-P 2012 AC

Accumulating Roller Chain Conveyor with Head Drive

B20.12.007



**Features:**

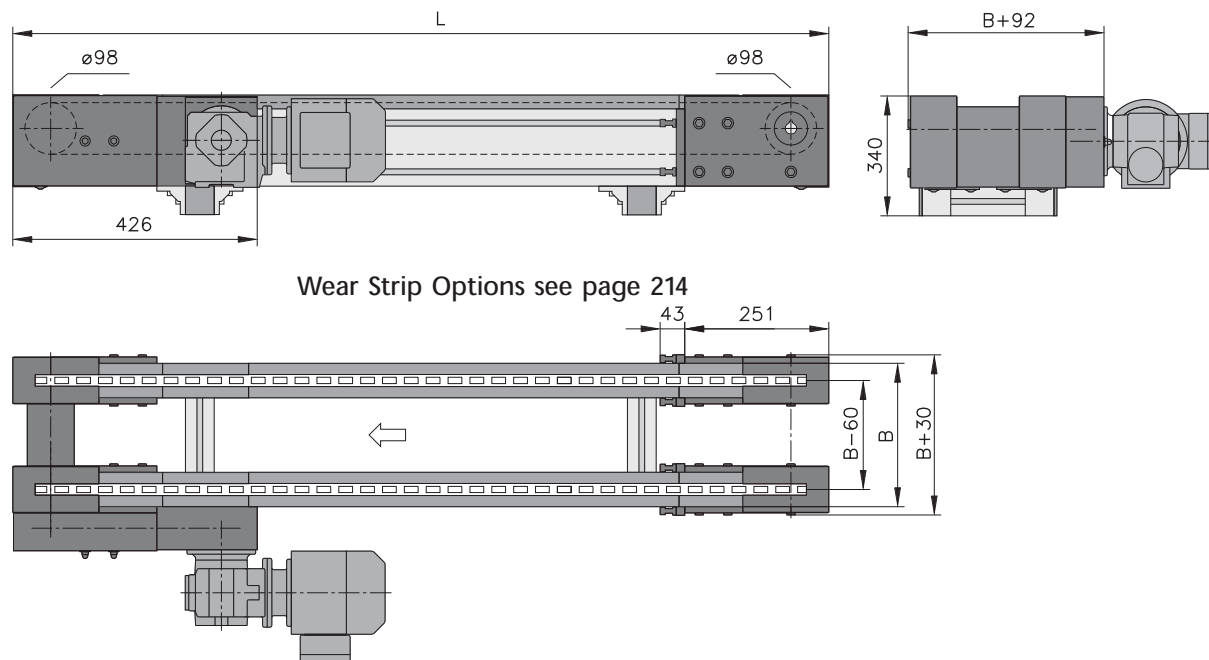
mk offers a variety of motor options for Drive Version AC which are sized and selected for each application's specific speed and load requirements.

	Dimensions – Technical Information	Notes
Conveyor length L	between 1000 - 10000 mm	any increment possible depending on chain pitch
Conveyor width B	200 to 2000 mm	
Chain	Accumulating Roller Chain 3/4" with Plastic or Steel Roller	see page 216
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 213
Stands and Side Rails		see page 262
Load Capacity max.	300 kg	higher on request

# SRF-P 2012 AS

## Accumulating Roller Chain Conveyor with Outside Head Drive

B20.12.009



Wear Strip Options see page 214

### Features:

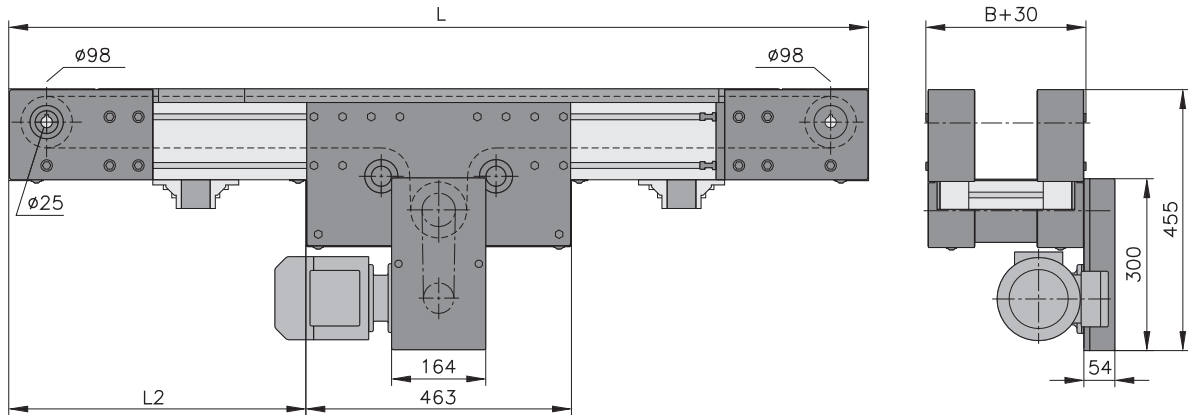
Drive Version AS features motor placement on the outside of the conveyor frame. This is often used in situations where the conveyor frame must be as unobstructed as possible, or where the motor must remain clean. The overall height of the drive assembly is held to an absolute minimum.

	Dimensions – Technical Information	Notes
Conveyor length L	between 1000 - 10000 mm	any increment possible depending on chain pitch
Conveyor width B	200 to 2000 mm	
Chain	Accumulating Roller Chain 3/4" with Plastic or Steel Roller	see page 216
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 213
Stands and Side Rails		see page 262
Load Capacity max.	300 kg	higher on request

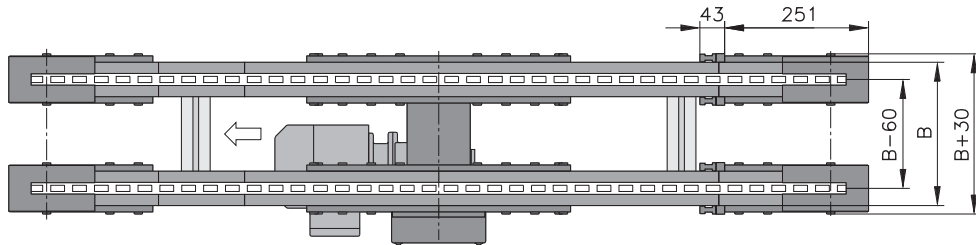
# SRF-P 2012 BC

## Accumulating Roller Chain Conveyor with Center Drive

B20.12.010



Wear Strip Options see page 214



### Features:

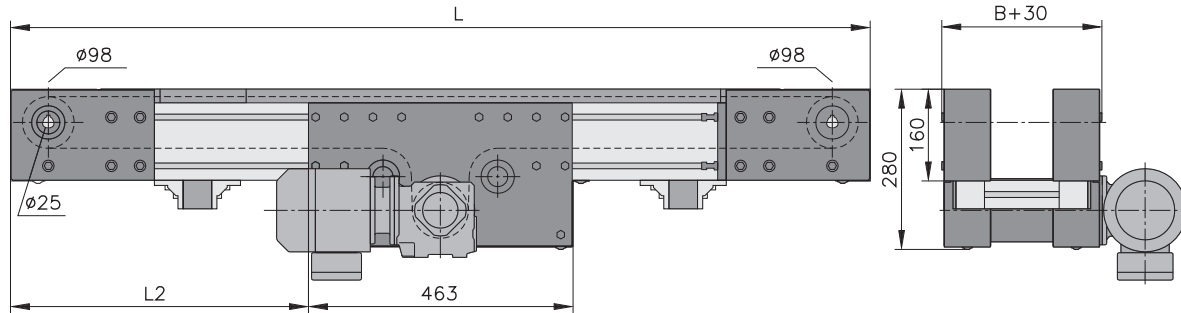
mk offers a variety of motor options for Drive Version BC, which are sized and selected for each application's individual speed and load requirements. The compact design, and the ability to move the drive location anywhere along the conveyor frame, simplifies the integration of this conveyor into new or existing equipment.

	Dimensions – Technical Information	Notes
Conveyor length L	between 1000 - 10000 mm	any increment possible depending on chain pitch
Conveyor width B	200 to 2000 mm	
Chain	Accumulating Roller Chain 3/4" with Plastic or Steel Roller	see page 216
Drive Location	right, left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 213
Stands and Side Rails		see page 262
Load Capacity max.	300 kg	higher on request

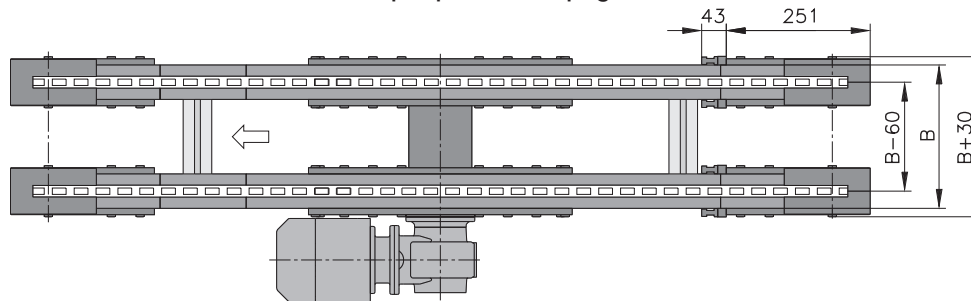
# SRF-P 2012 BF

## Accumulating Roller Chain Conveyor with Center Drive direct

B20.12.011



Wear Strip Options see page 214



### Features:

By placing the motor directly onto the drive shaft, this drive version minimizes not only the space required at the drive yet also the number of moving parts and maintenance requirements. The compact design, and the ability to move the drive location anywhere along the conveyor frame, simplifies the integration of this conveyor into new or existing equipment.

	Dimensions – Technical Information	Notes
Conveyor length L	between 1000 - 10000 mm	any increment possible depending on chain pitch
Conveyor width B	200 to 2000 mm	
Chain	Accumulating Roller Chain 3/4" with Plastic or Steel Roller	see page 216
Drive Location	head right, head left	
Drive and Speed	to 30 m/min (100 ft/min)	see page 213
Stands and Side Rails		see page 262
Load Capacity max.	300 kg	higher on request



### Motor selection

As a standard, mk offers a variety of motors. Although the selection varies by country with respect to local voltage standards and safety regulations, international availability is a key requirement. Typically, we supply inverter-duty right-angle gearmotors for heavy-duty requirements and parallel shaft gearmotors for lower speed and load applications.

All motors are readily available from mk.

### Motor voltage

As a standard, mk provides motors which comply with the normal, expected electrical requirements of the country where they are manufactured. International motors are also available for conveyors designed for export.

### Motor power

Motors are sized to each individual conveyor style, size and performance requirements. The typical range is between 0.18 KW and 0.75 KW (1/4 hp and 1 hp).

### Speeds

The maximum belt speed for SRF-P 2012 conveyors is approximately 30m/min (100 ft/min). This is dependant on the total load, the type of transport with respect to indexing or accumulation, and the conveyor length.

### Speed Control

Frequency inverters with a variable speed range of 1:7 are available for AC motors.

### Rating

All standard motors are built to IP 54 (IP = International Protection) standards, whereby higher standards are available on request.

### Additional notes

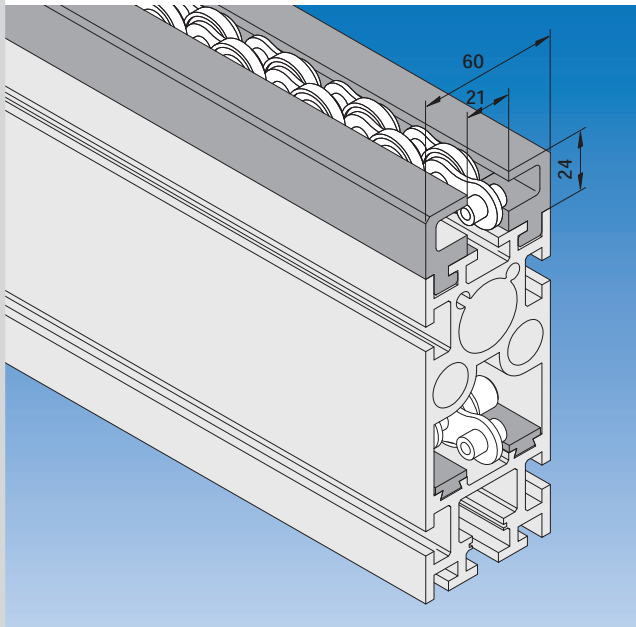
The motors are primarily designed for continuous duty. Operating motors at very low frequency (below 70% of normal) may require additional cooling. Motors with endocers, clutches, brakes, thermal overload protection or indexing capabilities are also available.

# SRF-P 2012

## Wear Strips

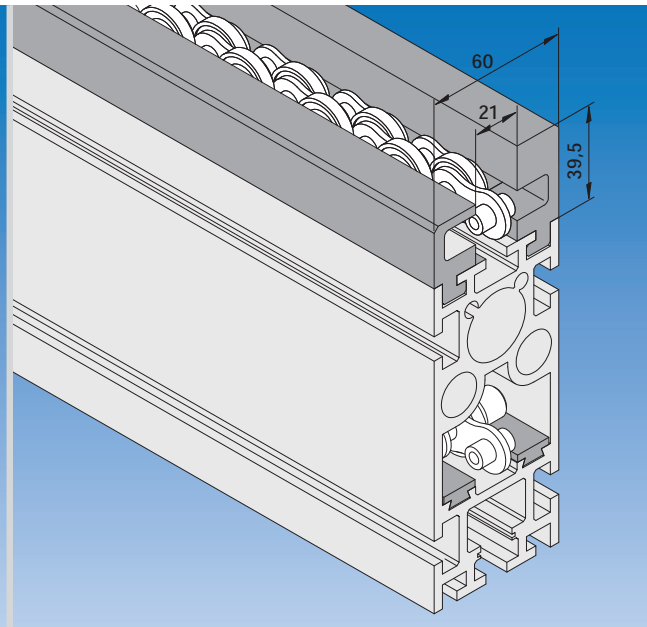
mk Guide- and Wear Strips feature low friction and high wear resistance. The wear strips are made of PE-UHMW (PE-1000). Temperature max. 65° C (149° F).

**Option A**



Wear Strips above mk 1089, 22.89.2000  
Wear Strip below mk 1022, 22.22.2000

**Option B**



Wear Strip above right mk 1050, 22.50.2000  
Wear Strip above left mk 1089, 22.89.2000  
Wear Strip below mk 1022, 22.22.2000

### Maintenance Aid

mk offers a maintenance aid in its standard range. To replace accumulating roller chain, relax the chain tension by loosening the tail assembly. The installed maintenance aid simplifies chain replacement by allowing the removal of a section of wear strip. Move the chain until the connection link, identifiable by a blue ring, reaches this open section of the conveyor. The accumulating roller chain can now be removed and replaced.



### Service Indicator

mk offers an optional service indicator, which provides a visual reference as to the need for tensioning or replacing the chain. This indicator is installed behind the tail stock and features easily understood green, yellow and red zones.

- Green: Chain tensioning allowed, shortening not required.
- Yellow: Chain length should be reduced by 2 links, as long as the maximum chain stretch of 3% has not been exceeded. Plan length reduction (or chain replacement) for the next service interval.
- Red: Chain length must be reduced by 2 links, as long as the maximum chain stretch of 3% has not been exceeded.

The allowable chain stretch is 3% maximum. Chain stretch is a normal occurrence, and the speed and severity of this stretch is dependant on a variety of environmental and operational factors.

## Accessories

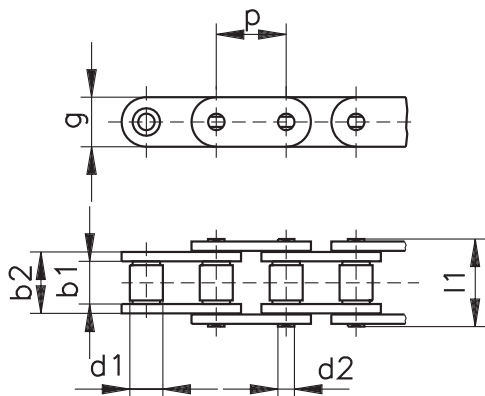
### Lube Station

Use of the optional constant lubrication station eliminates the need for manual lubrication of the chain. The integrated oil brushes continuously coat the chain with lubricant. The required reservoir is located at the tail as shown, or can be ordered installed on the side of the conveyor.

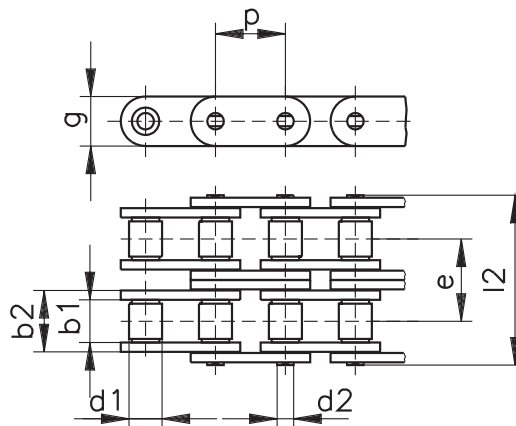


# Chain Conveyors

## Chains



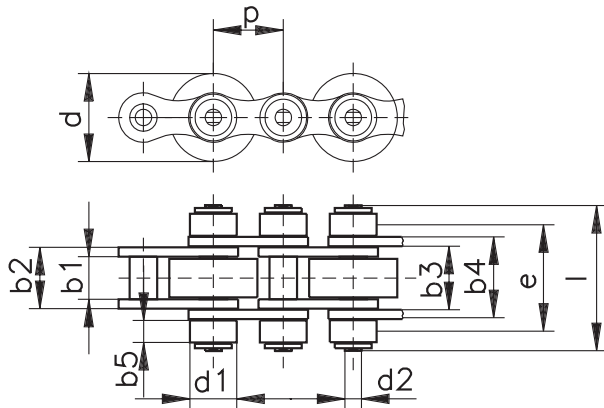
to 60° C/140° F (Specials to 120° C/248° F)



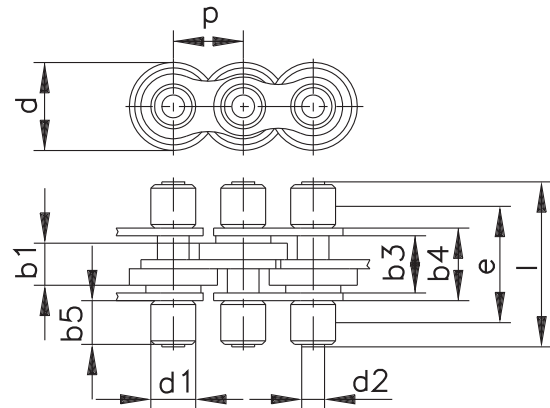
to 60° C/140° F (Specials to 120° C/248° F)

Dimensions	Single-Strand Roller Chain with straight links  <b>KTF-P 2010</b>  Chain K11402 Connecting Link K114020001	Dimensions	Dual-Strand Roller Chain with straight links  <b>KTF-P 2010</b>  Chain K11416 Connecting Link K114160001
p	12,70 (1/2" x 5/16")	p	12,70 (1/2" x 5/16")
b1	7,75	b1	7,75
b2	11,30	b2	11,30
b3	•	b3	•
b4	•	b4	•
d1	8,51	d1	8,51
g	11,50	g	11,80
d2	4,45	d2	4,45
l1	17,00	l1	•
l2	•	l2	31,00
e	•	e	13,92
l	•	l	•
b5	•	b5	•
d	•	d	•

\* St = Steel Roller, PI = Plastic Roller, CL = Connecting Link



to 60° C/140° F (Specials to 120° C/248° F)



to 60° C/140° F (Specials to 120° C/248° F)

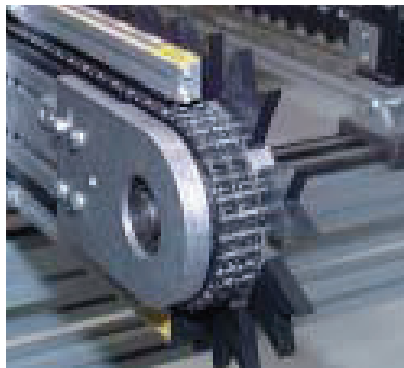
Dimensions	Accumulating Roller Chain Plastic or Steel Rollers		Dimensions	Accumulating Roller Chain Plastic or Steel Rollers	
	SRF-P 2010	SRF-P 2012		SRF-P 2010	SRF-P 2012
	Chain St* <b>K11418</b> CL St* <b>K114180001</b> Chain PI* <b>K11435</b> CL PI* <b>K114350001</b>	Chain St* <b>K11406</b> CL St* <b>K114060001</b> Chain PI* <b>K11407</b> CL PI* <b>K114070001</b>		Chain St* <b>K11421</b> CL St* <b>K114210001</b> Chain PI* <b>K11420</b> CL PI* <b>K114200001</b>	Chain St* <b>K11423</b> CL St* <b>K114220001</b> Chain PI* <b>K11422</b> CL PI* <b>K114220001</b>
p	12,70 (1/2")	19,05 (3/4")	p	12,70 (1/2")	19,05 (3/4")
b1	7,75	11,68	b1	9,20	11,70
b3	11,15	15,62			
b3	11,40	15,80	b3	11,40	15,80
b4	14,70	20,00	b4	14,50	19,55
d1	8,50	12,00	d1	8,51	12,07
g	•	•	g	•	•
d2	4,45	5,72	d2	4,45	5,72
l1	•	•	l1	•	•
l2	•	•	l2	•	•
e	•	•	e	18,70	31,50
l	27,00	48,00	l	27,00	45,00
b5	4,00	11,50	b5	6,25	12,73
d	16,00	24,00	d	16,00	24,00

# Chain Conveyors

## *Application Examples*



**SRF-P 2012 with BC drive and side rail  
for extra-wide products**



**KTF-P 2010 with  
prismatic holders**



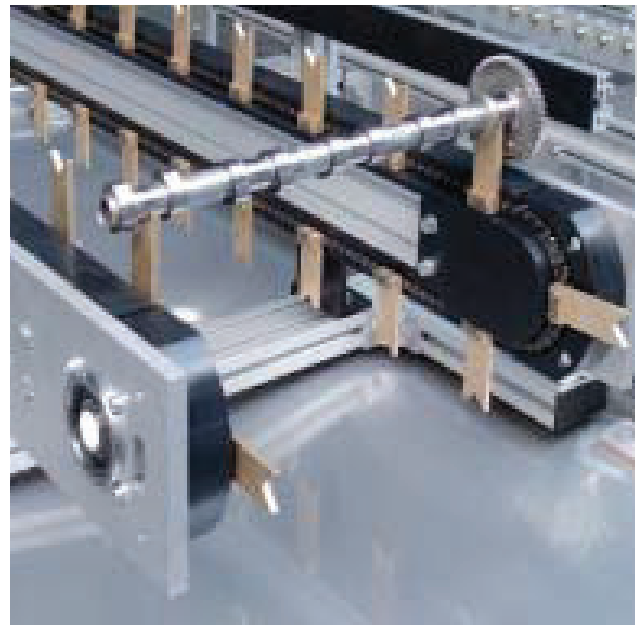
**KTF-P 2010 with adjustable  
side rails and adjustable  
handles for frequently  
changing product widths**



**KTF-P 2040 with incline angle and special attachments which ensure horizontal positioning of the product during inclined transport**



**SRF-P 2012 with lift and transfer unit KTF-P 2010**



**KTF-P 2040 with attachments**

# Chain Conveyors

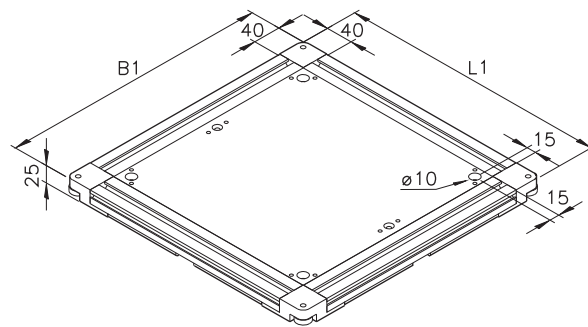
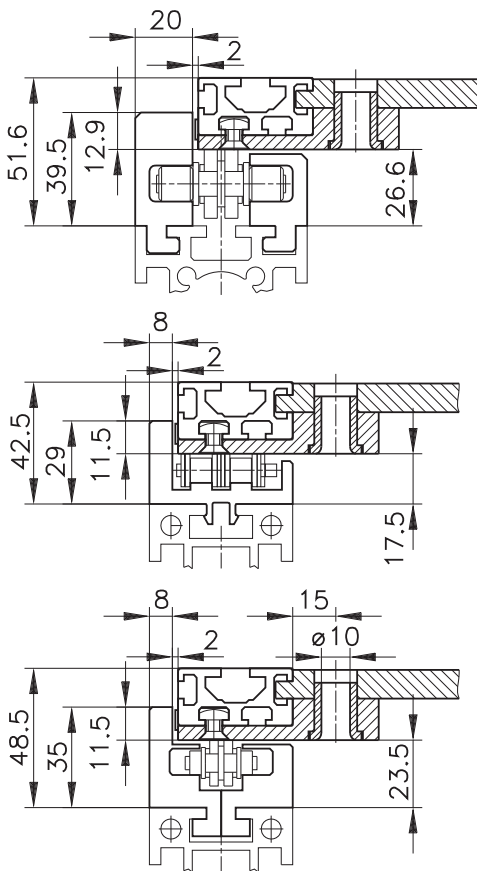
## Pallets



mk offers individually customized pallets. They serve primarily to accept a workpiece, whereby they often travel by various stations on the way from A to B. They can also be the repository of information as to the identity of the product or the processes performed.

By using a standard mk structural profile around the perimeter of the actual support plate, pallet WT2025.41 is perfect for attaching accessories such as metal strips for proximity sensors, or for fixed or bumper stops. The actual pallet dimensions are variable.

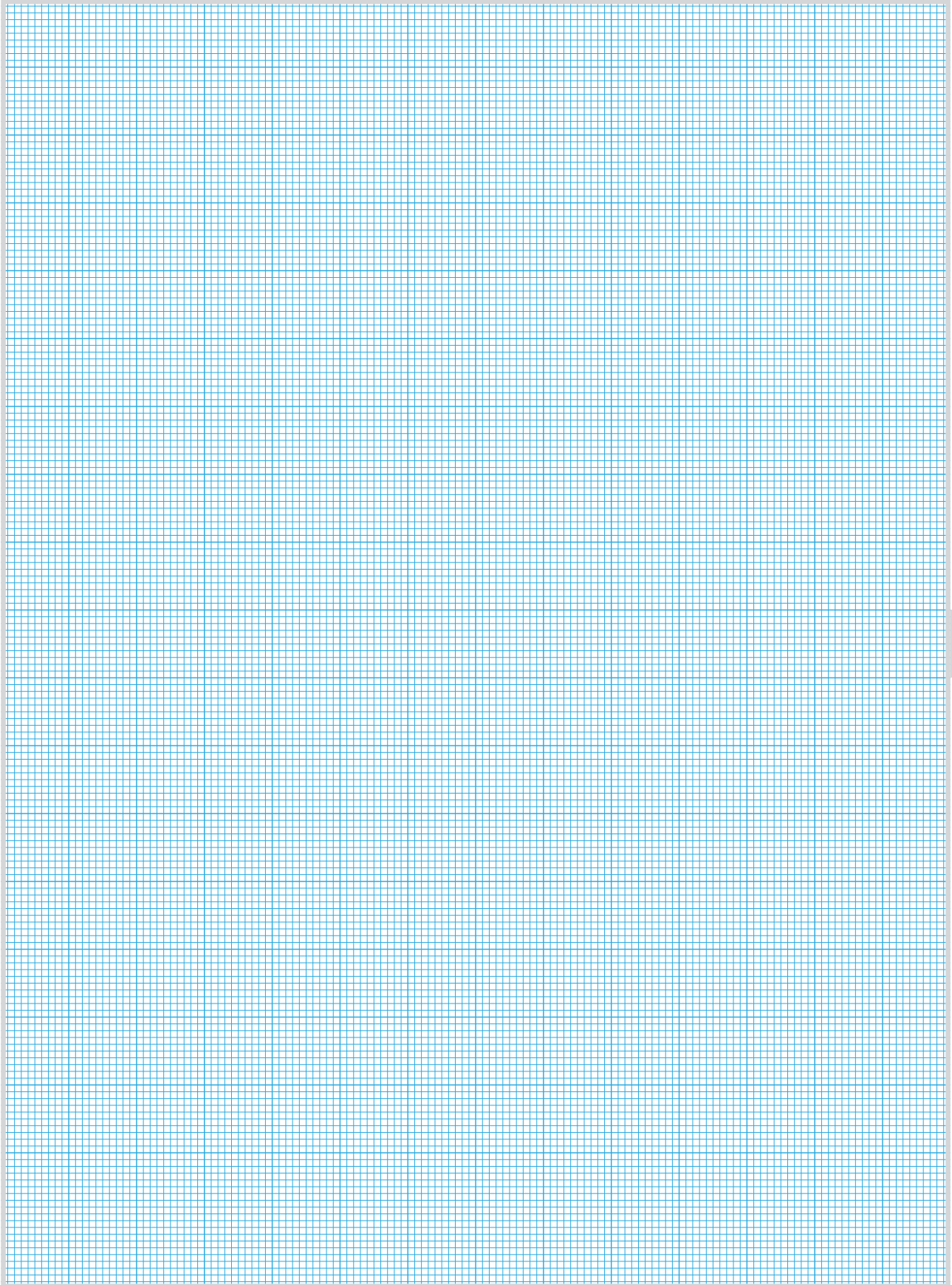
Wear strips are attached to the underside of the pallet to minimize friction during accumulation. The surface is made using 10 mm thick aluminum and provides plenty of room for product-specific fixtures. The corners of the pallet are manufactured with ball bearings which ensure smooth transfer of the pallet between conveyor systems. Precise location of the pallet for certain operations is accomplished using bushings at the corners.



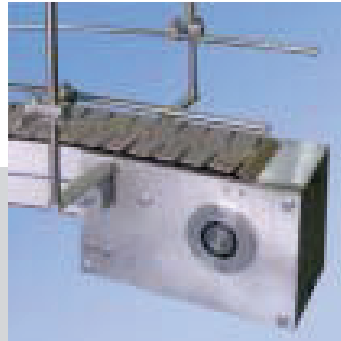
## Rework

Upon request we can rework the pallet for your particular application. We can also provide pallets per your drawings.

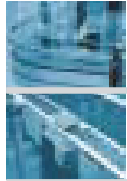




# mk Flat Top Chain Conveyors



*Contents mk Flat Top Chain Conveyors*



SBF-P 2254

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Application Examples

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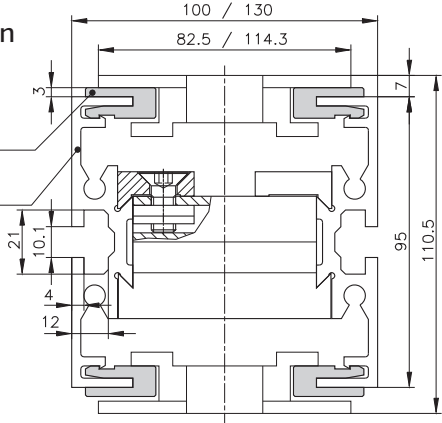
# Flat Top Chain Conveyors SBF-P 2254

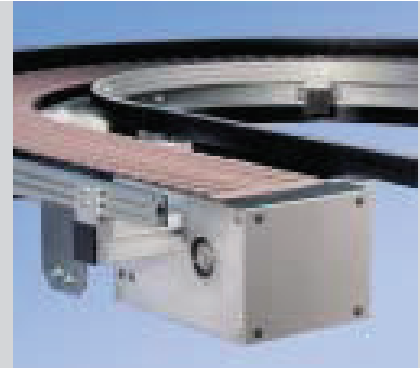


Conveyor frame cross-section

Wear Strip mk 1044

Profile for conveyor frame mk 2254





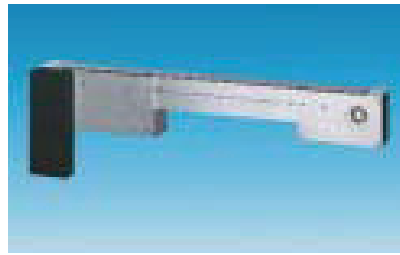
The modular mk Flat Top Chain Conveyor System SBF-P 2254 is ideal for product handling in either stand-alone or integrated applications. Applications can be found in the packaging, manufacturing, bottling, glass, food, medical and pharmaceutical industries. Conveyors can be manufactured quickly and economically using the various individual components. Due to their modular

construction, later reconfigurations necessitated by product or production changes can be accomplished with relatively little effort. The system is available in two standard widths and can accept chain from a variety of suppliers. Conveyor frames are manufactured using our Profile mk 2254 which features a 10 mm T-slot. Accessories such as side rails, stands, etc. can be easily

mounted to the conveyor at any time. The chain is completely guided using wear strips on the running side as well as the return. A special feature of the modular design is the use of individual subassemblies. Components designed specifically for this conveyor system ensure a simple and quick assembly of the individual elements into a complex material handling system.

# Flat Top Chain Conveyors SBF-P 2254

Drive Version AC



*Contents SBF-P 2254*

SBF-P 2254 AC – Head Drive –

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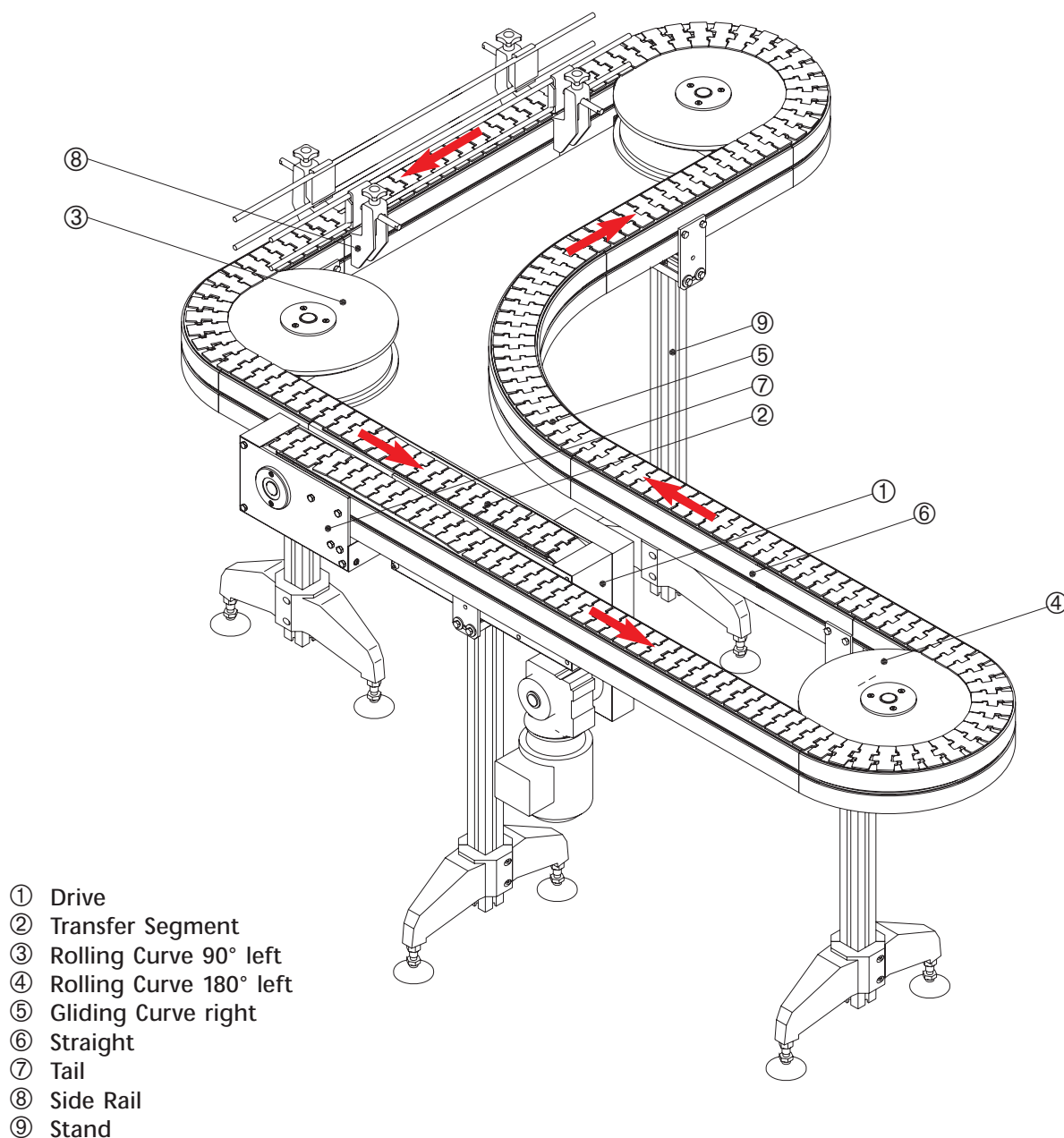


# SBF-P 2254

## Ordering instructions

Various factors need to be considered when configuring Flat Top Chain conveyors. The total belt length, as well as the number of curves, the product to be conveyed, the conveyor environment, the product weight and the line speed all influence the motor power requirement. Motors will be

specified by mk depending on the above factors for each specific application. For systems which are to be completely installed by mk, please note that the direction (left/right) for the drive, transfer segments and curves must be defined in the direction in which the conveyor runs, i.e. towards the drive.

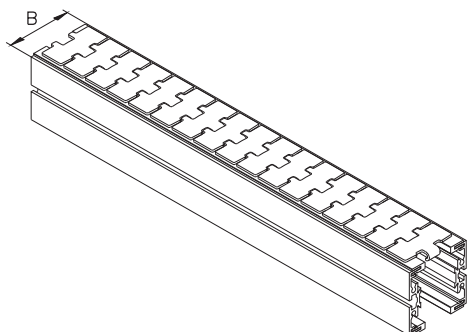
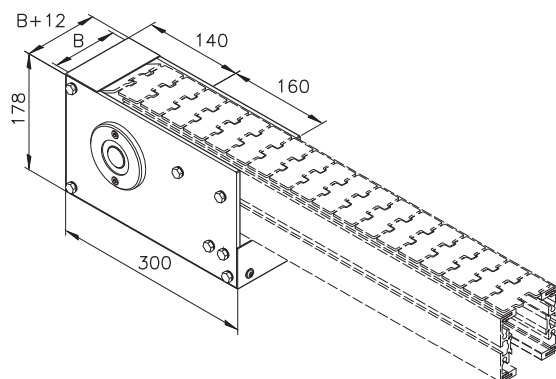
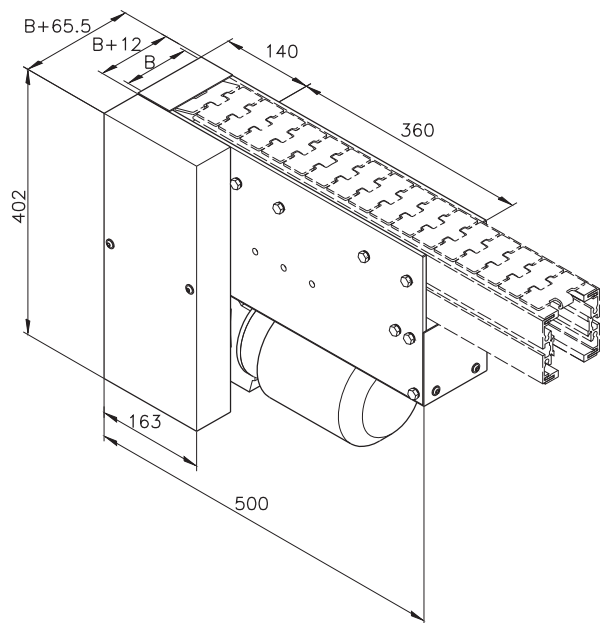




## Order Example

Name	Details	Ident-No.
Drive	Head/Left 230/400 VAC, 50 Hz Speed 20-100 ft/min Frequency Inverter Frame Width 100 mm	B01.00.409
Transfer Segment	right	B37.00.002
Rolling Curve 90°	left	B36.00.428
Straight L1	700 mm	B08.00.409
Rolling Curve 180°	left	B36.00.428
Straight L2	380 mm	B08.00.409
Gliding Curve 90°	(R = 500 mm) right	B36.00.414
Straight L3	700 mm	B08.00.409
Rolling Curve 180°	left	B36.00.428
Straight L4	670 mm	B08.00.409
Transfer Segment	left	B37.00.002
Tail		B80.00.409
Side Rail	SF10.1	B17.00.020
4 x Stands	System 52.5 (H = 700 mm)	B67.05.008
Chain		K114510031

# SBF-P 2254



## Drive AC

The motor can be located on the left (as shown) or right side. Motor power requirements typically vary between 1/3 - 3/4 Hp. Line speeds of up to 130 fpm are possible.

Width B	Chain Width B1	Type	Ident-Nr.
100 mm	82,5 mm	sideflexing	<b>B01.00.409*</b>
130 mm	114,3 mm	sideflexing	<b>B01.00.410*</b>

\*without profiles and chain

## Tail

The tail, consisting of aluminum side plates and stainless steel covers, guides the belt precisely onto the running surface using high quality belt returns.

Width B	Chain Width B1	Type	Ident-Nr.
100 mm	82,5 mm	sideflexing	<b>B80.00.409*</b>
130 mm	114,3 mm	sideflexing	<b>B80.00.410*</b>

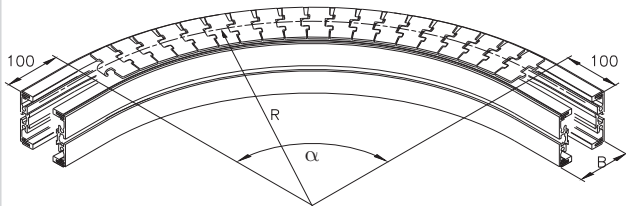
\*without profiles and chain

## Straight

Manufactured using our Profile mk 2254, the conveyor frame is extremely rigid. The belt is guided above and below using standard mk UHMW wear strips.

Width B	Chain Width B1	Ident-Nr.
100 mm	82,5 mm	<b>B08.00.409*</b>
130 mm	114,3 mm	<b>B08.00.410*</b>

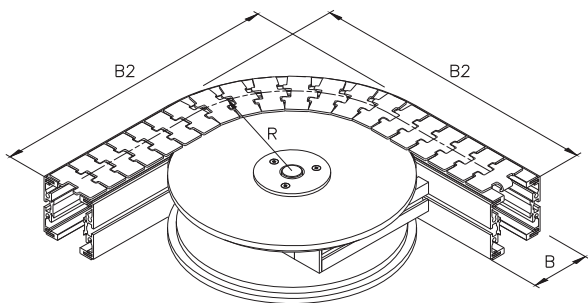
\*Assemblies with connecting elements, less chain



## Gliding Curve

UHMW guides the belt throughout the entire curve. This ensures that the belting never contacts the frame profiles. Economical to use, these gliding curves are primarily used with shorter conveyors as their application is limited to lighter loads and lower speeds.

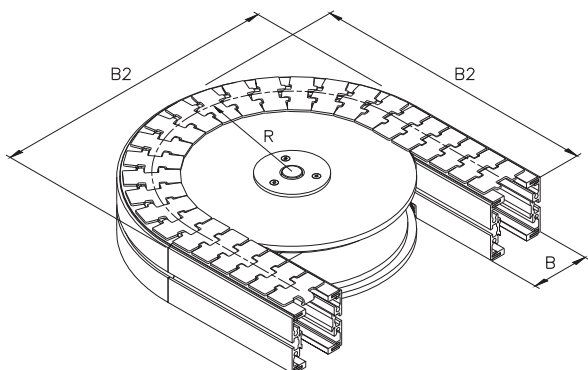
Width B	Chain Width B1	R	Ident-Nr.
100 mm	82,5 mm	300 mm	<b>B36.00.416*</b>
100 mm	82,5 mm	500 mm	<b>B36.00.414*</b>
130 mm	114,3 mm	300 mm	<b>B36.00.417*</b>
130 mm	114,3 mm	610 mm	<b>B36.00.415*</b>



## Rolling Curve 90°

Designed using idler disks, the rolling curves significantly reduce the friction and tensile forces on the belt. As such, they are used where longer conveyor lengths, higher loads and higher speeds are required.

Width B	Chain Width B1	B2	R	Ident-Nr.
100 mm	82,5 mm	500 mm	200 mm	<b>B36.00.428*</b>
130 mm	114,3 mm	530 mm	200 mm	<b>B36.00.429*</b>

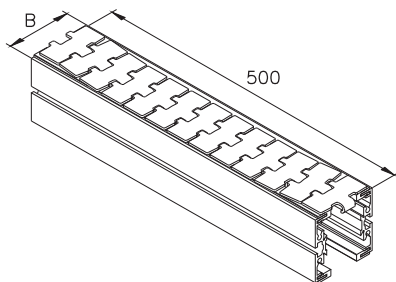
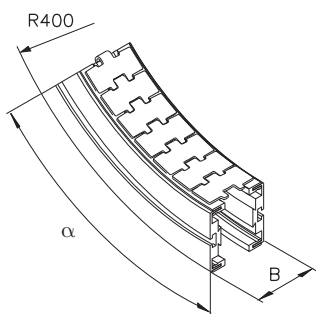


## Rolling Curve 180°

Designed using idler disks, the rolling curves significantly reduce the friction and tensile forces on the belt. As such, they are used where longer conveyor lengths, higher loads and higher speeds are required.

Width B	Chain Width B1	B2	R	Ident-Nr.
100 mm	82,5 mm	500 mm	200 mm	<b>B36.00.430*</b>
130 mm	114,3 mm	530 mm	200 mm	<b>B36.00.431*</b>

\* Assemblies with connecting elements, less chain



## Vertical Bend

The vertical bend is designed for elevation changes. Depending on the product, we recommend cleated belts to prevent product slippage. As with all conveyor assemblies, wear strips ensure no contact between belting and frame profiles.

Width B	Chain Width B1	Type	Ident-Nr.
100 mm	82,5 mm	15°	<b>B36.00.434*</b>
100 mm	82,5 mm	30°	<b>B36.00.435*</b>
100 mm	82,5 mm	45°	<b>B36.00.436*</b>
130 mm	114,3 mm	15°	<b>B36.00.438*</b>
130 mm	114,3 mm	30°	<b>B36.00.439*</b>
130 mm	114,3 mm	45°	<b>B36.00.440*</b>

## Transfer Segment



Using the transfer segment, products can be moved between conveyors on parallel lanes. With the precise guides and minimal gap, products remain very stable during transfer.

Width B	Chain Width B1	L	Ident-Nr.
100 mm	82,5 mm	500 mm	<b>B37.00.002*</b>
130 mm	114,3 mm	500 mm	<b>B37.00.003*</b>

\*Assemblies with connecting elements, less chain

## Flat Top Chains

The belting shown in the tables below are our normal standards.  
Other belts and materials are available.

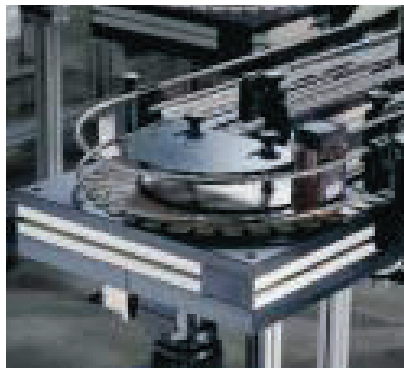
Side Flexing	Frame Width	Chain Width	R min	Ident Nr.	Material	Degree of hardness cleat	
	<b>Plastic Chains</b>						
	100	82,5	R200	<b>K114510031</b>	Acetal		
	100	82,5	R500	<b>K114510030</b>	Acetal		
	130	114,3	R200	<b>K114510090</b>	Acetal		
	130	114,3	R500	<b>K114510085</b>	Acetal		
	<b>Plastic Chains with Cleats</b>						
	100	82,5	R200	<b>K114510045</b>	Acetal	45 shore A	
	100	82,5	R200	<b>K114510044</b>	Acetal	60 shore A	
	Side Flexing	Frame Width	Chain Width	R min	Ident Nr.	Material	
		<b>Steel Chains</b>					
100		82,5	R500	<b>K114510047</b>	Carbon Steel, hardened		
100		82,5	R200	<b>K114510022</b>	Stainless Steel		
100		82,5	R500	<b>K114510024</b>	Stainless Steel		
130		114,3	R610	<b>K114510063</b>	Carbon Steel, hardened		
130		114,3	R500	<b>K114510062</b>	Stainless Steel		
130		114,3	R610	<b>K114510061</b>	Stainless Steel		

# Flat Top Chain Conveyors

## *Application Examples*



**180° Curve**



**Rolling Curve 180° with  
adjustable side rails**



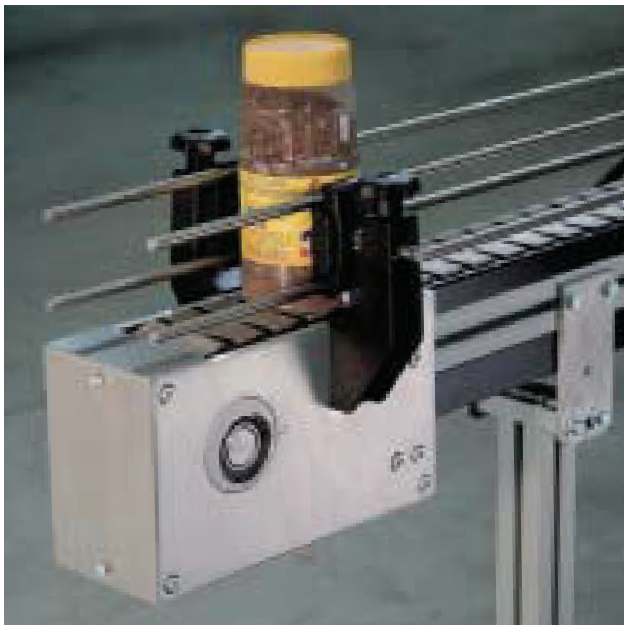
**90° Curve with side rails**



Stand 52.5



Transfer Segment with side rails



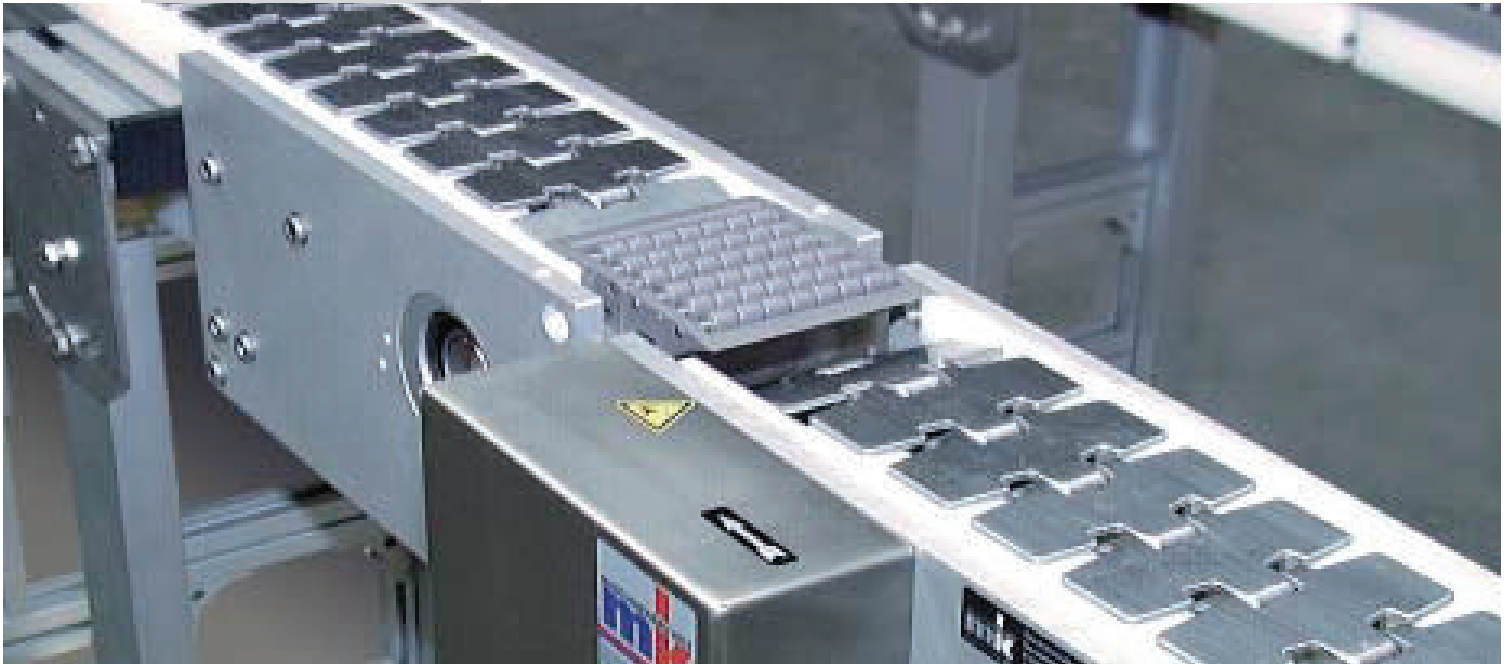
Tail



Standard side rails with width adjustment

# Flat Top Chain Conveyors

## *Application Examples*



**Mini-roller insert for bridging gaps when conveying small products**



**Flat top chain with cleats**

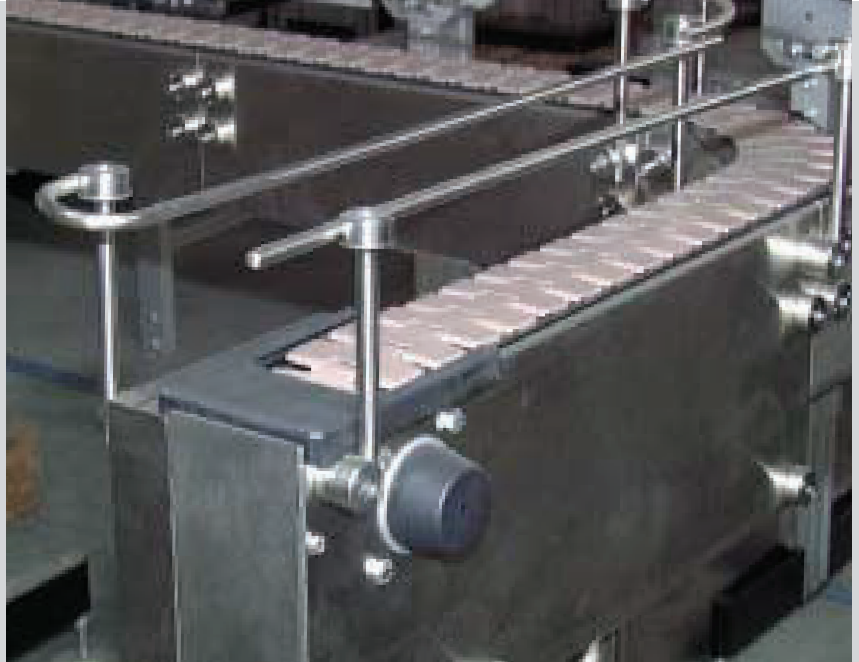


**Section with small space requirements, e.g. for cooling the conveyed product**





**Transfer Segment  
with Steel Chain**



**Use of the SBF-P 2254 with stainless steel  
covers for use in the food industry**



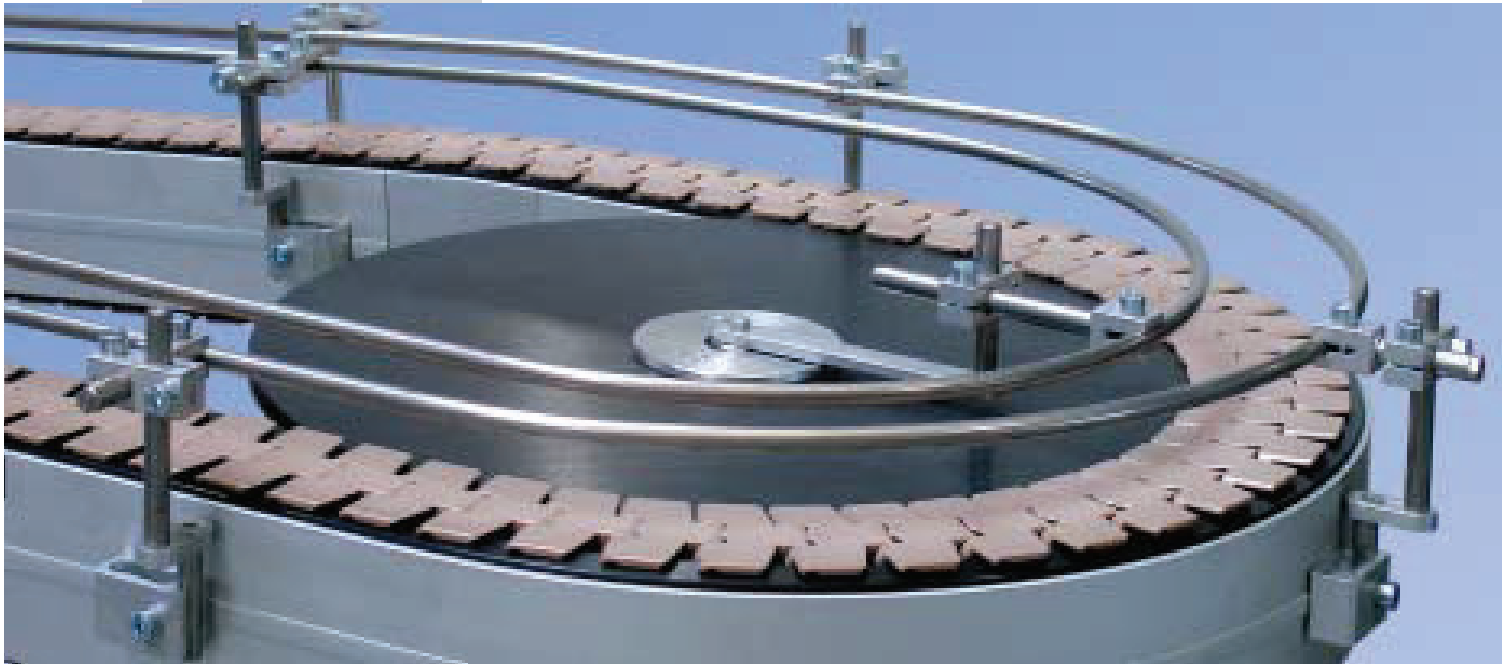
**Transfer Segments from two sides**



**Flat top chain with welded cleats**

# Flat Top Chain Conveyors

## *Application Examples*



180° Curve



Short vertical bend for forming  
a storage area with several levels



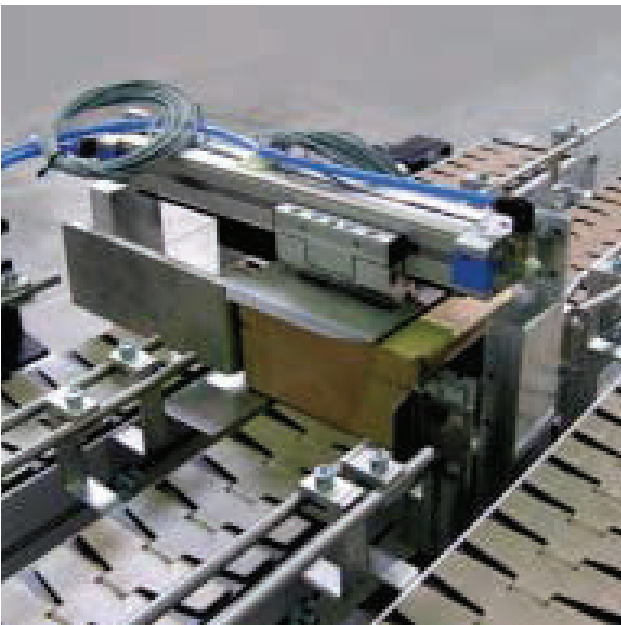
Tail with side rails



Curve with adjustable side rails



SBF-P 2254 tail and side rails

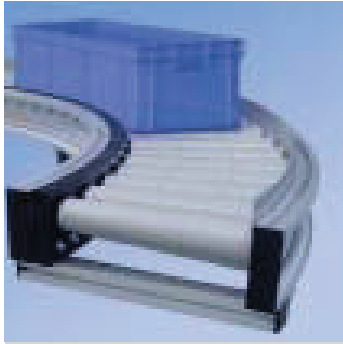


SBF-P 2254 with transfer pusher,  
e.g. for the packaging industry


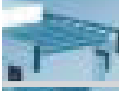






Dual-lane flat top chain conveyors

# mk Roller Conveyors



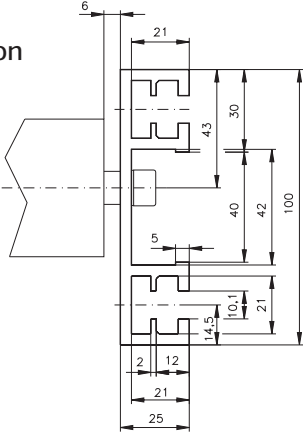
## Contents mk Roller Conveyors

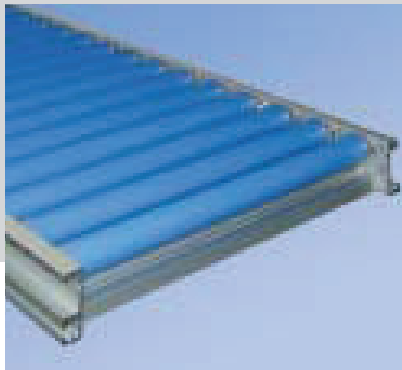
	RBS-P 2065/2066	242
	RBS-P 2255	246
	RBT-P 2255	250
	RBM-P 2255	254
	Rollers	258
	Application Examples	260

# Roller Conveyors RBS-P 2065/2066



Conveyor frame cross-section





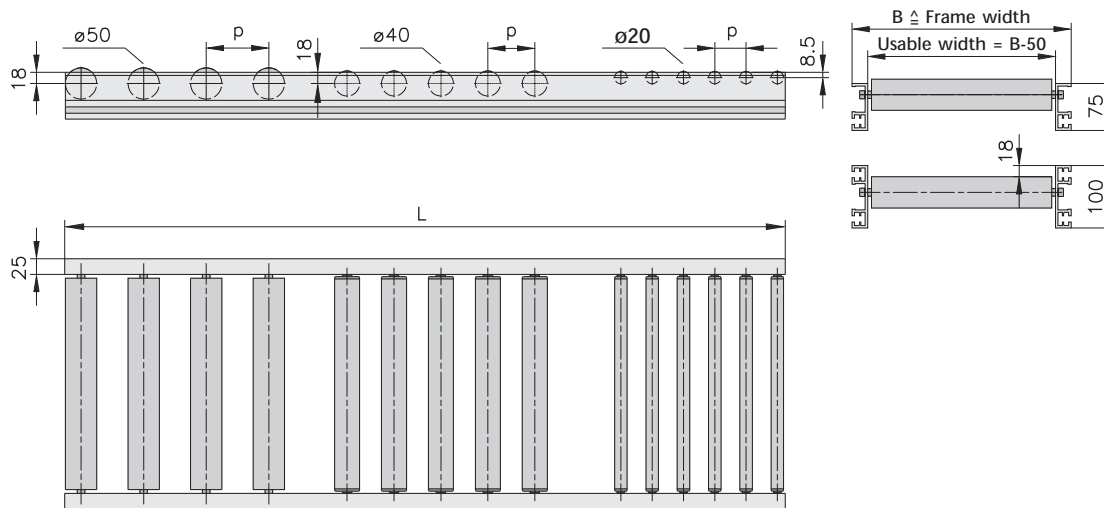
mk Roller Conveyors are used in a wide variety of industrial applications. Various frame and drive designs, including gravity rollers, driven rollers using belt, chain or tangential drives, as well as different roller types make this an extremely flexible system with wide-ranging applications. The conveyors are available either straight or as curves.

The 20, 40 and 50 mm roller diameters ensure continuous and uninterrupted motion of large and small products alike. All mk conveyor frames include T-slots for the attachment of stands, side rails and other accessories.

# RBS-P 2065/2066

## Gravity Roller Conveyor, Straight

ø 20: B61.00.001/ø 40: B61.00.002/ø 50: B61.00.003



### Features:

The gravity roller conveyors 2065 or 2066 are excellent solutions for roller conveyor requirements. With the mk 2065 profile, the rollers protrude beyond the top edge of the profile. This enables extra wide workpieces to be conveyed too. The mk 2066 profile is simultaneously used as a side rail.

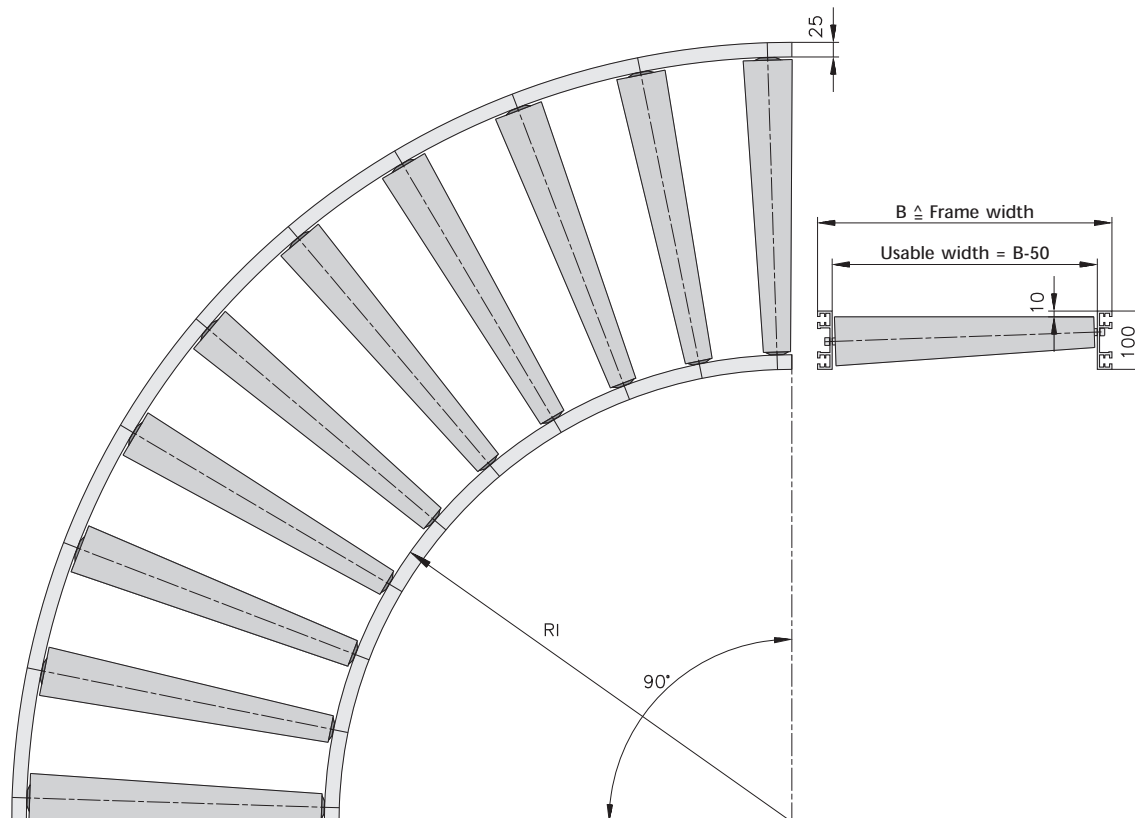
	Dimensions – Technical Information	Notes
Frame width B ø 20 Plastic	150, 200, 250, 300 and 350 mm	Ident.-Nr.: B61.00.001
ø 40 Plastic	250, 350, 450, 550 and 650 mm	Ident.-Nr.: B61.00.002
ø 50 Plastic	250, 350, 450, 550 and 650 mm	Ident.-Nr.: B61.00.003
ø 50 Steel, ZN	250 - 1050 mm	in 100 mm increments
Conveyor length L		200 - 5000 mm
Roller pitch P ø 20	25, 50 and 75 mm	
ø 40	50, 75, 100 and 125 mm	
ø 50	75, 100, 125, 150, 175, 200, 225 and 250 mm	
Frame profile	mk 2065 or mk 2066	
Roller types	Type 30, 32, 43-46, 58 and 59	see page 258



# RBS-P 2065/2066

## Gravity Roller Conveyor, Curve

B61.00.004

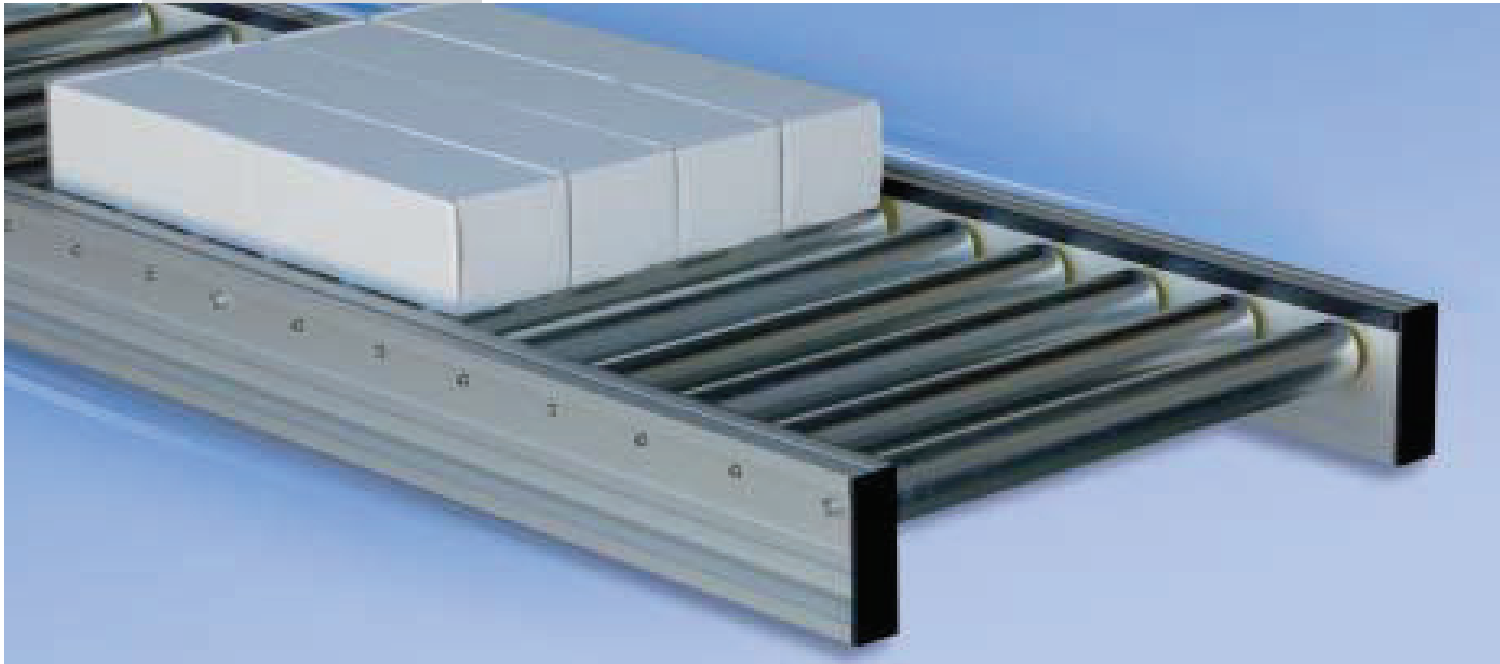


### Features:

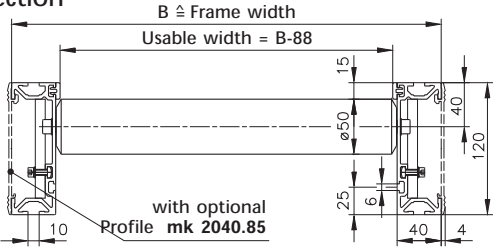
The gravity roller conveyors of System 2066 are noted primarily for their simple construction. The use of conical rollers ensures proper orientation of products is maintained along the conveyor.

	Dimensions – Technical Information							Notes
Frame width B	250 - 800 mm							in 50 mm increments
Inner radius RI	800 (for NB = 300; 400; 500; 600; 700; 800)							
	850 (for NB = 250; 350; 450; 550; 650; 750)							
Product length	150	200	250	300	350	450	550	
rec. Roller quantity	21	17	15	13	11	10	9	
Frame profile	mk 2066							
Roller types	Type 47 and 48							see page 258

# Roller Conveyors RBS-P 2255



Conveyor frame cross-section





The Roller Conveyors RBS-P 2255 is designed for light to medium weight product transfers. Products may be moved either by hand, or by gravity in decline applications. Gravity rollers are most often used for picking applica-

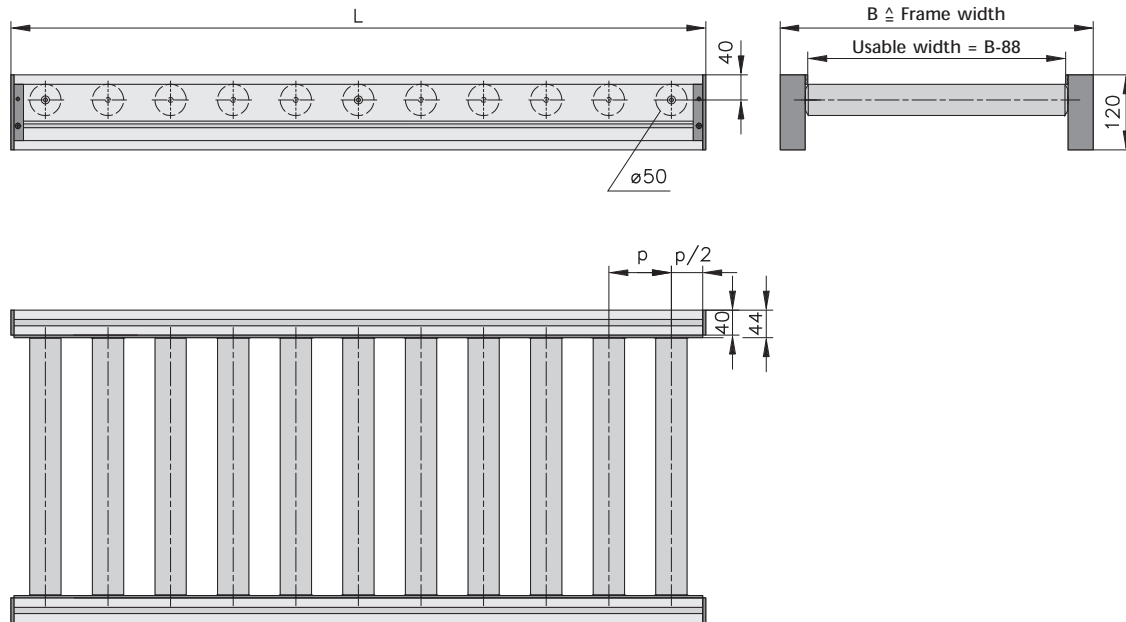
tions, as accumulating storage, or within assembly or packaging lines. The Gravity Roller Conveyors are available in straight or curved sections, and may be combined with our Driven Roller Conveyors (RBT and RBM). All conveyors are

manufactured using our new Roller Conveyor Profile mk 2255 which features longitudinal T-slots for easy mounting of side rails, stands, sensors or other accessories.

# RBS-P 2255

## Gravity Roller Conveyor, Straight

B61.02.001



### Features:

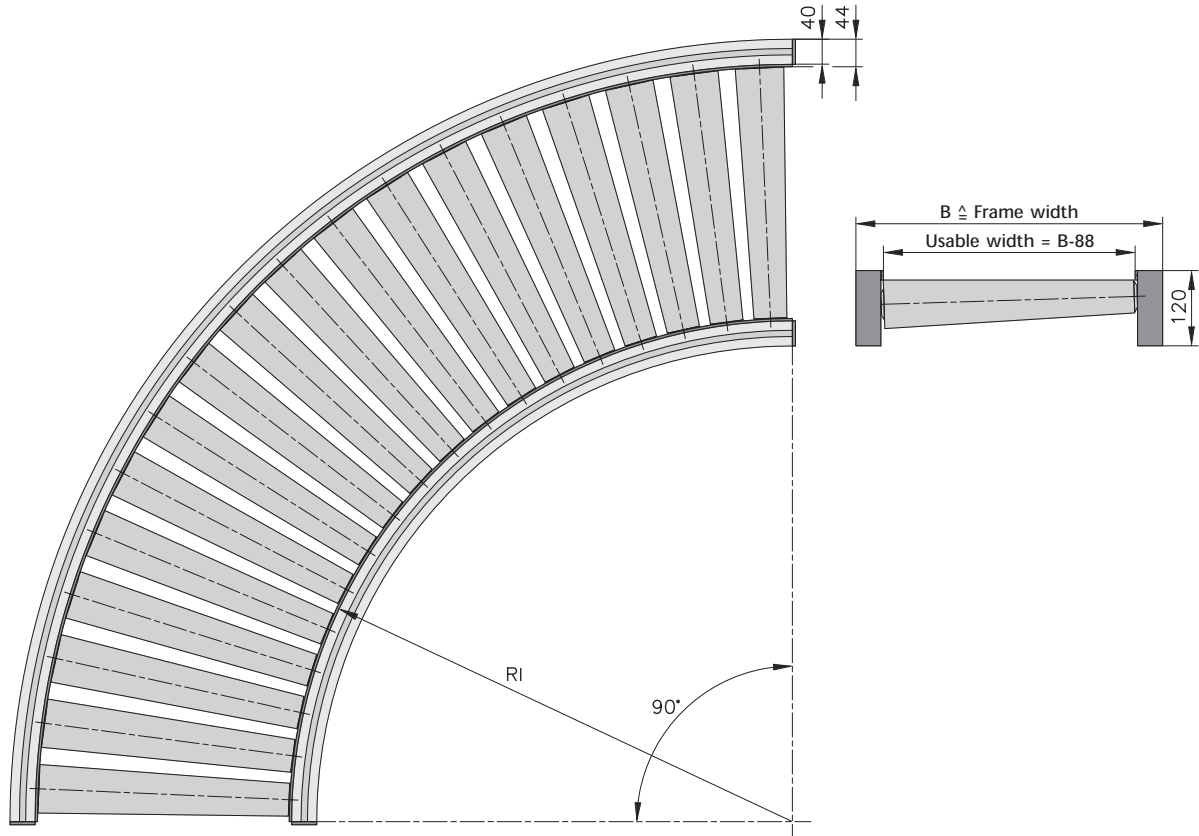
The Gravity Roller Conveyor is manufactured using Profile mk 2255. The anodized structural extrusions are punched for three pitch options, and designed for use with a roller diameter of 50 mm.

	Dimensions – Technical Information	Notes
Roller diameter	50 mm	Plastic/Steel, ZN
Frame width B	290, 390, 490, 590 and 690 mm	
Conveyor length L	500 - 10.000 mm	
Roller pitch p	75, 100 and 125 mm	
Frame profile	mk 2255	
Roller types	Plastic 43 + 44 or Steel 45 + 46	see page 258
Stands	Stand S53.1	see page 262
Max. load	to 100 kg/m and 400 kg total load depending on frame width and roller type	higher on request

# RBS-P 2255

Gravity Roller Conveyor, Curve

B61.02.002



**Features:**

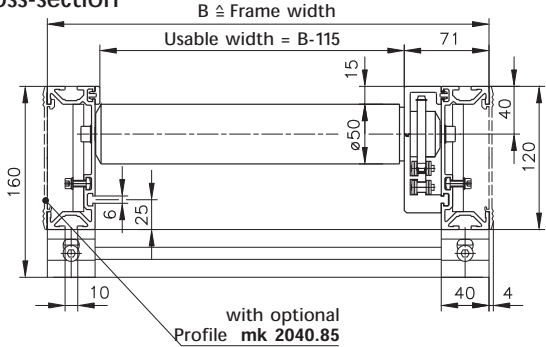
The Gravity Roller Conveyor is manufactured using Profile mk 2255. The anodized structural extrusions are punched for a 5° pitch, and designed for use with a roller diameter of 50 mm.

	Dimensions – Technical Information	Notes
Roller diameter	50 mm conical	Plastic
Frame width B	290, 390, 490, 590 and 690 mm	
Inner radius RI	800 mm	
Roller pitch	5° / number of rollers: 18	
Frame profile	mk 2255	
Roller types	Type 47 and 48	see page 258
Stands	Stand S53.1	see page 262
Max. load	to 100 kg/90° depending on conveyor angle and roller type	higher on request

# Roller Conveyors RBT-P 2255



Conveyor frame cross-section





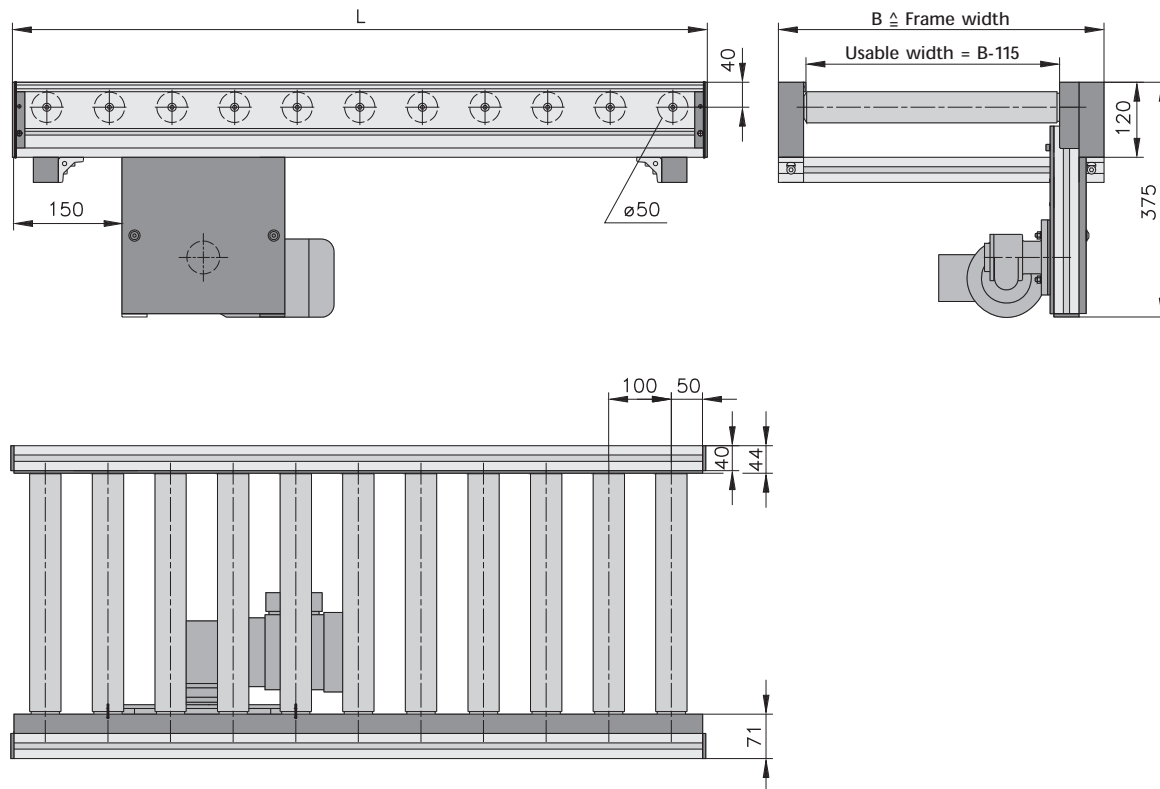
The tangential chain roller conveyor is used wherever long, motor driven conveyor sections are required. Rollers feature integrated sprockets which are driven tangentially using ½" roller chain which is guided along an enclosed, low-friction wear strip. Tangential chain roller conveyors may also be used in

dirty or oily environments. The tangential chain roller conveyors are available in straight or curved sections, and can be combined with other System 2255 conveyor (RBS and RBM). The longitudinal T-slots along the frame can be used for direct mounting of side rails, stands, sensors or other accessories.

# RBT-P 2255

## Tangential Chain Roller Conveyor, Straight

B61.02.003



### Features:

The Tangential Chain Roller Conveyor is manufactured using Profile mk 2255. The anodized structural extrusions are punched for 100 mm pitch and designed for use with a roller diameter of 50 mm.

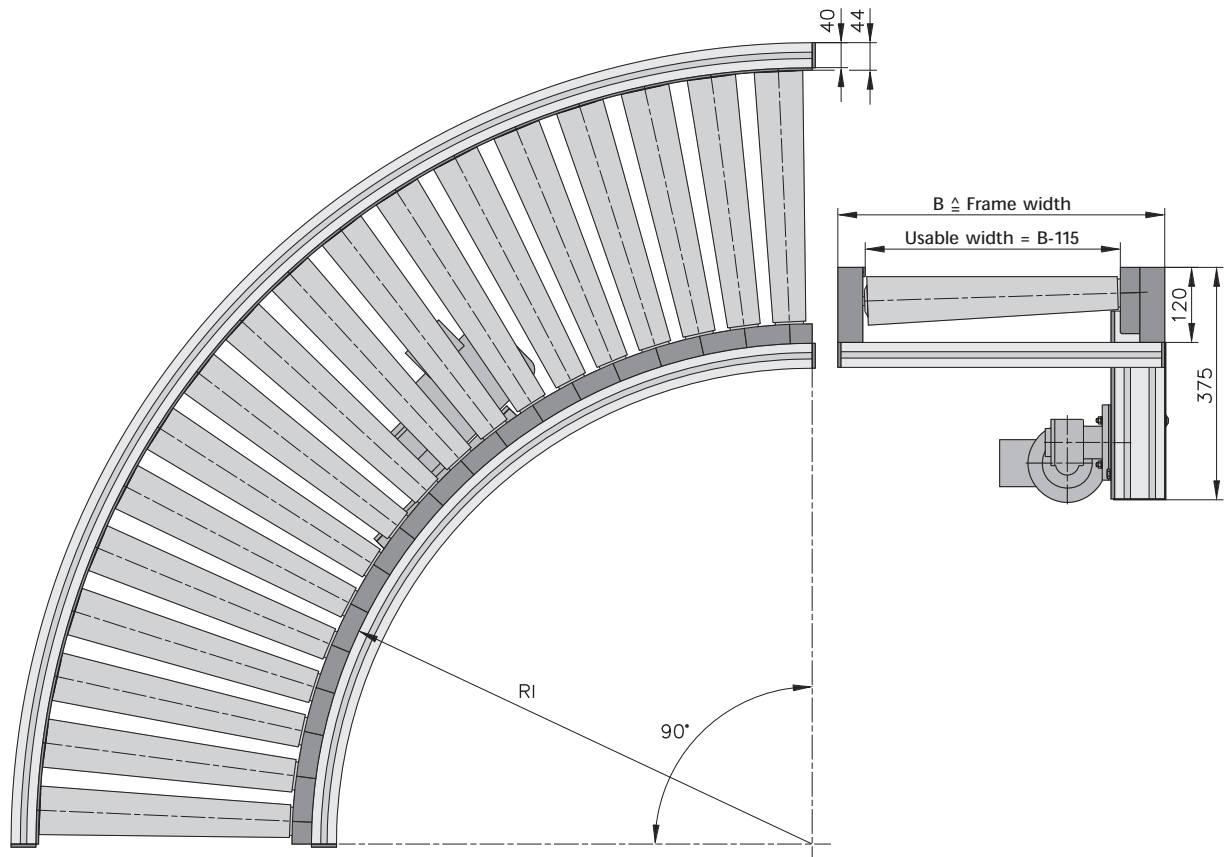
	Dimensions – Technical Information	Notes
Roller diameter	50 mm	Steel, ZN
Frame width B	420, 520, 620 and 720 mm	
Conveyor length L	600 - 10000 mm	others on request
Roller pitch	75, 100, 125, 150, 175 and 200 mm	
Frame profile	mk 2255	
Roller types	Type 49 and 57, 60 or 61	see page 258
Stands	Stand S53.1	see page 262
Max. load	to 100 kg/m and 400 kg total load depending on frame width and roller type	higher on request



# RBT-P 2255

## Tangential Chain Roller Conveyor, Curve

B61.02.004



### Features:

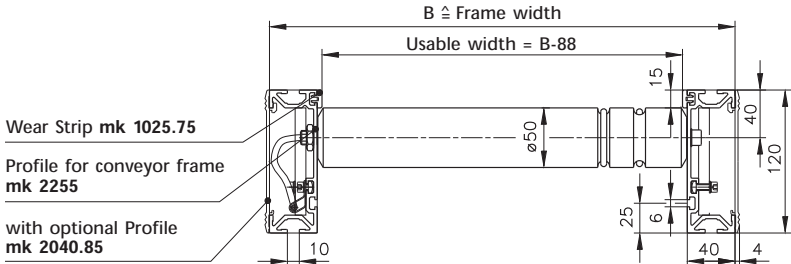
The Tangential Chain Roller Conveyor is manufactured using Profile mk 2255. The anodized structural extrusions are punched for a 5° pitch, and designed for use with a roller diameter of 50 mm.

	Dimensions – Technical Information	Notes
Roller diameter	50 mm conical	Plastic
Frame width B	420, 520, 620 and 720 mm	
Inner radius RI	800 mm	
Roller pitch	5° / number of rollers: 18	
Frame profile	mk 2255	
Roller types	Type 50	see page 258
Stands	Stand S53.1	see page 262
Max. load	to 100 kg/90° depending on conveyor angle and roller type	higher on request

# Roller Conveyors RBM-P 2255



Conveyor frame cross-section





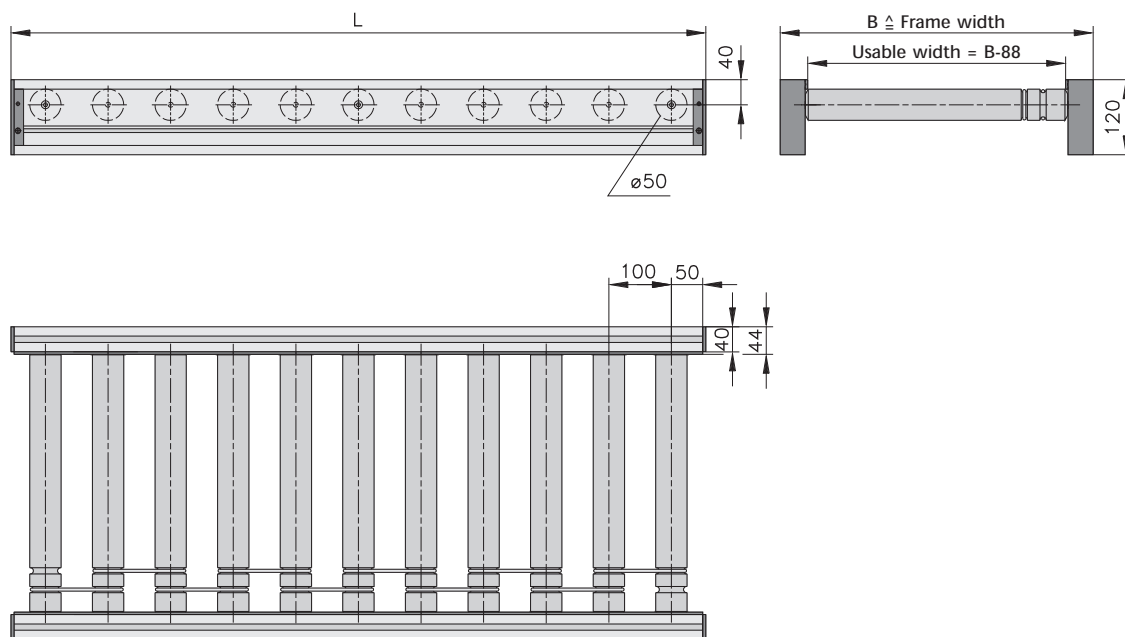
The Drive Roller Conveyor features a motorized roller which drives up to 9 additional idler rollers. With this type of drive segmentation it is possible to design these conveyors with varying speeds or start/stop functions. This allows application possibilities such as segmentation of products, stopping and storage, whereby more complex system processes can be supported. The

speed and direction of the motorized rollers is accomplished using a control module. The Drive Roller Conveyors are available in straight or curved sections, and can be combined with other System 2255 conveyor (RBS and RBT). The longitudinal T-slots along the frame can be used for direct mounting of side rails, stands, sensors or other accessories.

# RBM-P 2255

## Drive Roller Conveyor, Straight

B61.02.005



### Features:

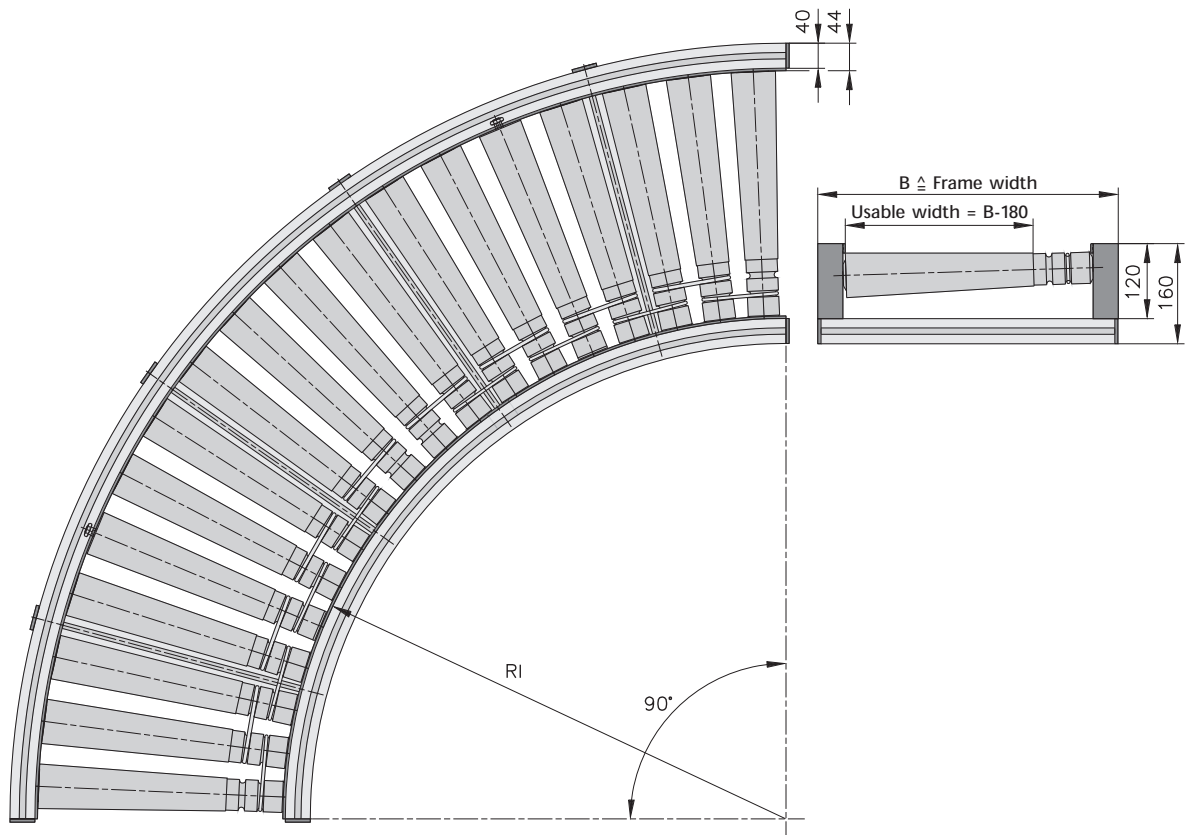
The Drive Roller Conveyor is manufactured using Profile mk 2255. The anodized structural extrusions are punched for 100 mm pitch and designed for use with a roller diameter of 50 mm.

	Dimensions – Technical Information	Notes
Roller diameter	50 mm	Steel, ZN
Frame width B	380, 480, 580 and 680 mm	
Conveyor length L	500 - 10.000 mm	
Roller pitch	100 mm	
Frame profile	mk 2255	
Roller types	Type 51, 53 and 55	see page 258
Stands	Stand S53.1	see page 262
Max. load	to 55 kg/m and 275 kg total load depending on frame width and roller type	higher on request

# RBM-P 2255

Drive Roller Conveyor, Curve

B61.02.006



### Features:

The Drive Roller Conveyor is manufactured using Profile mk 2255. The anodized structural extrusions are punched for a 5° pitch, and designed for use with a roller diameter of 50 mm.

	Dimensions – Technical Information	Notes
Roller diameter	50 mm conical	Plastic
Frame width B	380, 480, 580 and 680 mm	
Inner radius RI	800 mm	
Roller pitch	5° / number of rollers: 18	
Frame profile	mk 2255	
Roller types	Type 52, 54 and 56	see page 258
Stands	Stand S53.1	see page 262
Max. load	to 55 kg/90° depending on conveyor angle and roller type	higher on request

# Roller Conveyors

## Rollers

\* Motorized Roller

\*\*for RBS-P 2065/66 / RBS-P 2255

### Gravity Roller Conveyor straight

Roller	ø	Color	Usable width**	Material	Mounting	Friction	Form	Load/Roller
Type 30	20 mm	blue	B-50/ -	Plastic	spring shaft ø 6 mm	-	cylinder	9 kg
Type 32	40 mm	blue	B-50/ -	Plastic	spring shaft ø 8 mm	-	cylinder	12 kg
Type 43	50 mm	grey	B-50/B-88	Plastic	threaded M8	-	cylinder	7 kg - 35 kg
Type 44	50 mm	grey	B-50/B-88	Plastic	spring shaft ø 8 mm	-	cylinder	7 kg - 35 kg
Type 45	50 mm	silver	B-50/B-88	Steel, ZN	threaded M8	-	cylinder	35 kg
Type 46	50 mm	silver	B-50/B-88	Steel, ZN	spring shaft ø 8 mm	-	cylinder	35 kg
Type 58	20 mm	grey	B-50/B-88	Plastic	spring shaft ø 6 mm	-	cylinder	5 kg
Type 59	40 mm	grey	B-50/B-88	Plastic	spring shaft ø 8 mm	-	cylinder	11 kg

### Gravity Roller Conveyor curve

Roller	ø	Color	Usable width**	Material	Mounting	Friction	Form	Load/Roller
Type 47	50 mm	grey	B-88	Plastic	threaded M8	-	conical	40 kg
Type 48	50 mm	grey	B-88	Plastic	spring shaft ø 8 mm	-	conical	40 kg

### Tangential Chain Roller Conveyor straight

Roller	ø	Color	Usable width**	Material	Mounting	Friction	Form	Load/Roller
Type 49	50 mm	silver	B-115	Steel, ZN	threaded M8	-	cylinder	145 kg
Type 61	50 mm	silver	B-115	Steel, ZN	threaded M8	adjustable	cylinder	72 kg

### Tangential Chain Roller Conveyor curve

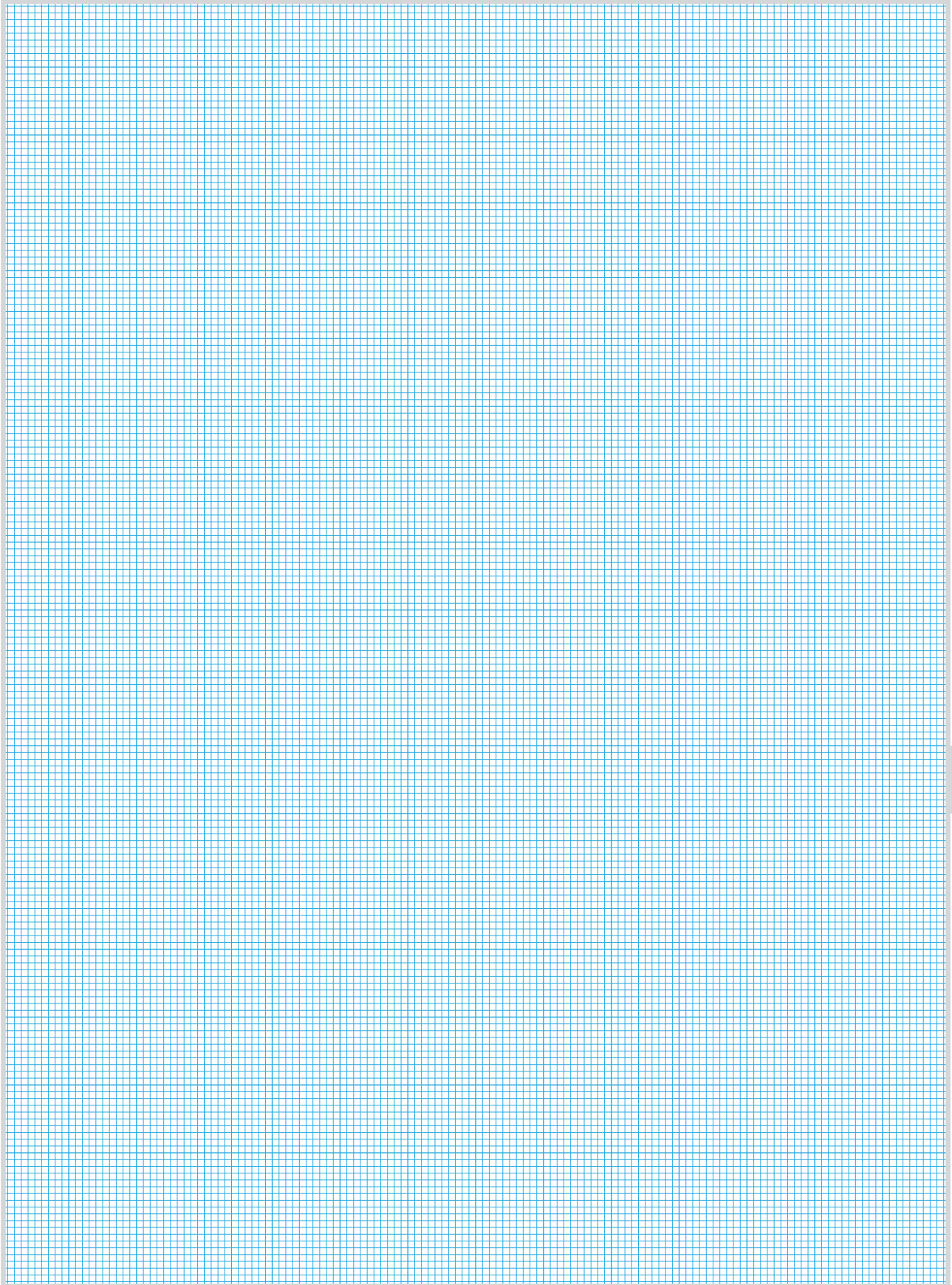
Roller	ø	Color	Usable width**	Material	Mounting	Friction	Form	Load/Roller
Type 50	50 mm	grey	B-115	Plastic	threaded M8	-	conical	40 kg

### Drive Roller Conveyor straight

Roller	ø	Color	Usable width**	Material	Mounting	Friction	Form	Load/Roller
Type 51	50 mm	silver	B-88	Steel, ZN	threaded M8	-	cylinder	30 kg
Type 53*	50 mm	silver	B-88	Steel, ZN	threaded M8/ ext. thread M12x1	-	cylinder	30 kg
Type 55	50 mm	silver	B-88	Steel, ZN	spring shaft ø 8	-	cylinder	30 kg

### Drive Roller Conveyor curve

Roller	ø	Color	Usable width**	Material	Mounting	Friction	Form	Load/Roller
Type 52	50 mm	grey	B-180	Plastic	threaded M8	-	conical	30 kg
Type 54*	50 mm	grey	B-180	Plastic	threaded M8/ ext. thread M12x1	-	conical	30 kg
Type 56	50 mm	grey	B-180	Plastic	spring shaft ø 8 mm	-	conical	30 kg



# Roller Conveyors

## *Application Examples*



RBT-P 2255 with integrated lift and transfer conveyor, belt loading capacity 100 kg/m with additional side rails and drip pan

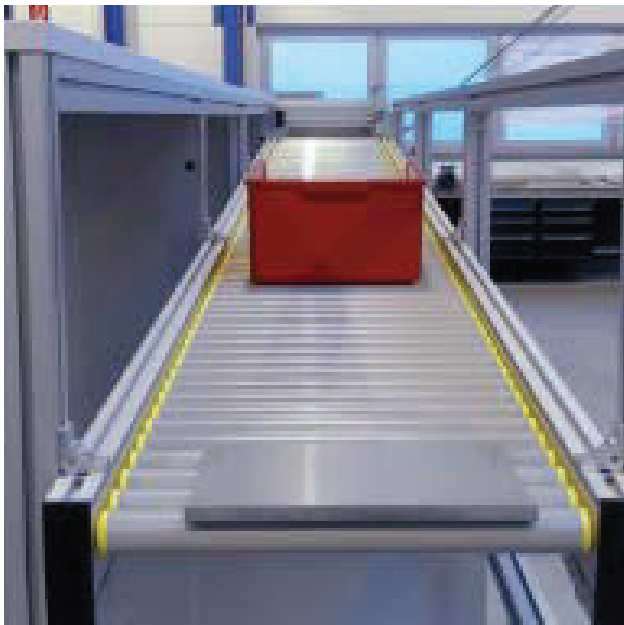


Combination of Tangential Chain and Driven Roller Conveyors





Combination of turn table and RBT-P 2255 with buffer table for order picking tasks and  $\varnothing$  50 mm steel rollers. Driven via tangential chain drive



RBS-P 2255 with  $\varnothing$  40 mm plastic rollers














Customer-specific roller conveyor

# mk Stands

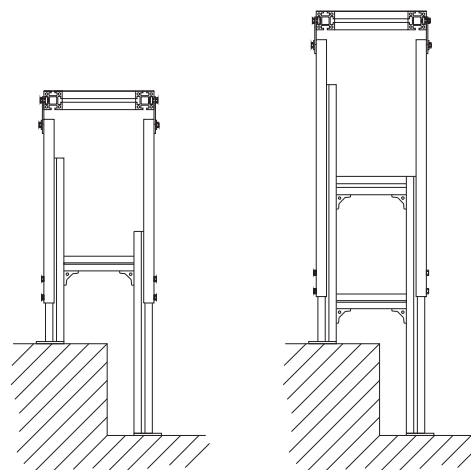
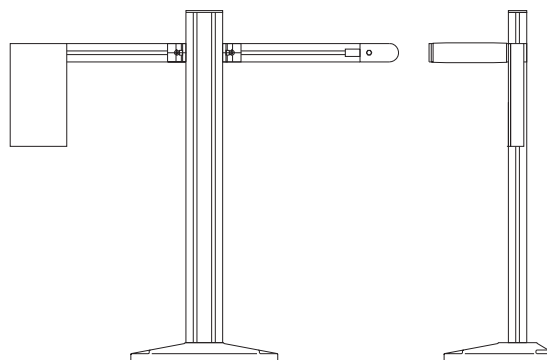
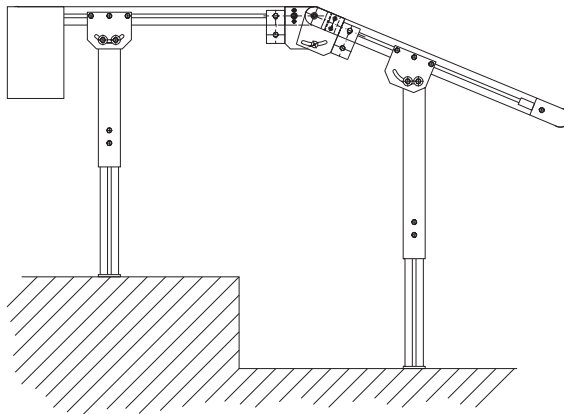
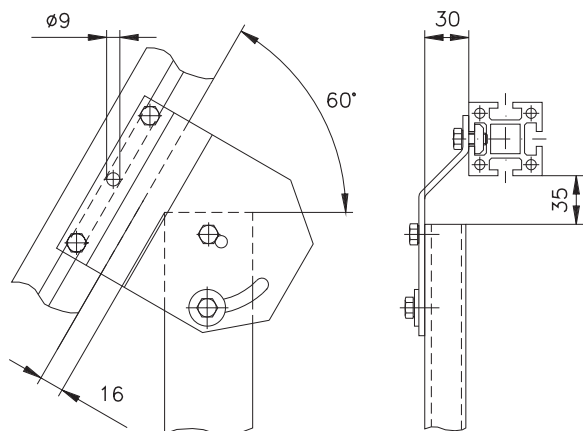
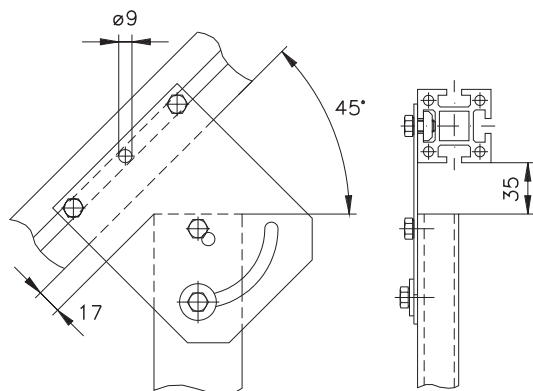
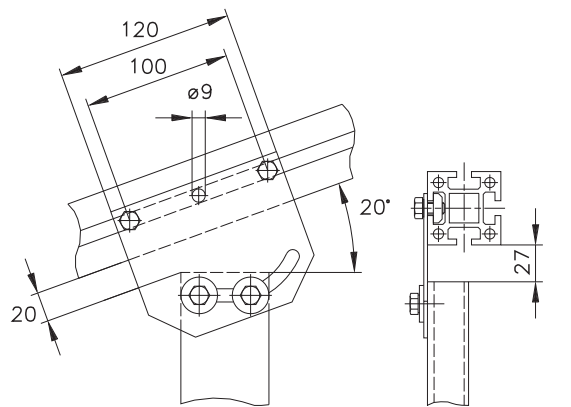


## Contents mk Stands

	Conveyor Stand Options	264
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	Stand 55.1	269
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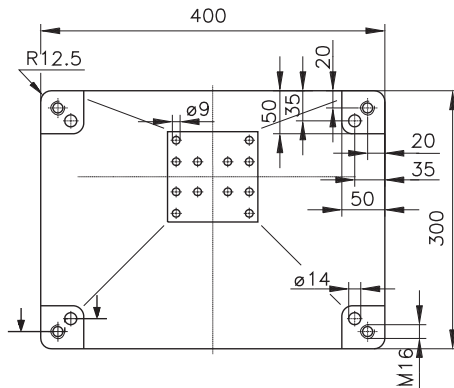
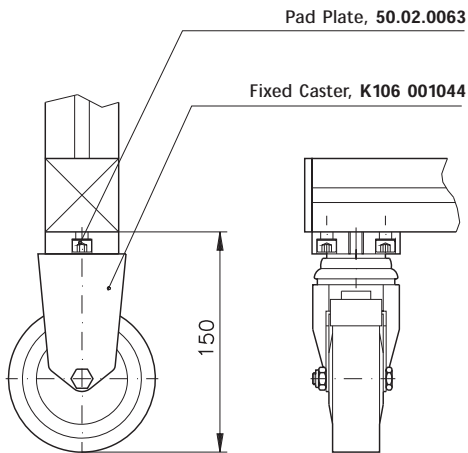
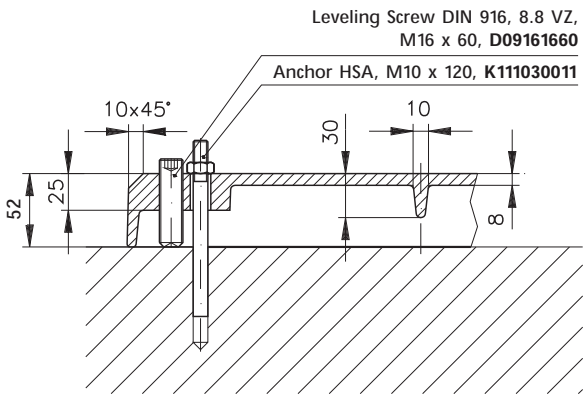
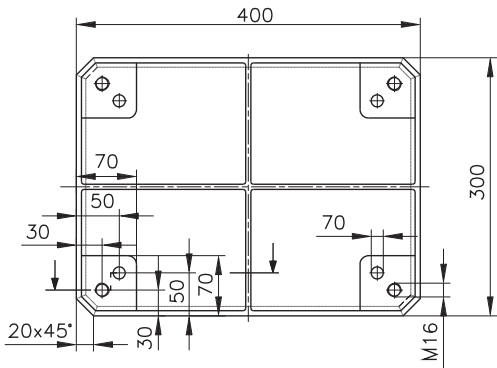
# Stands

## Conveyor Stand Options

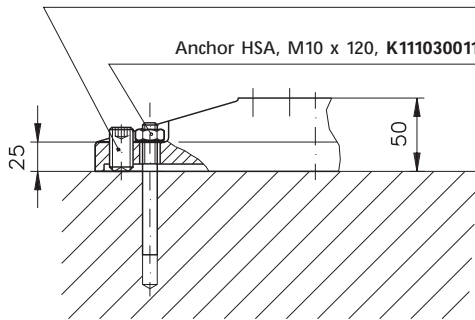


# Stands

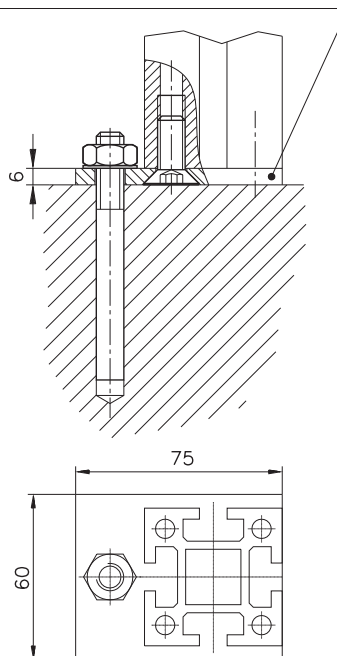
## Floor Options



Leveling Screw DIN 916, 8.8 VZ,  
M16 x 60, D09161660



50.02.0025





## Stand

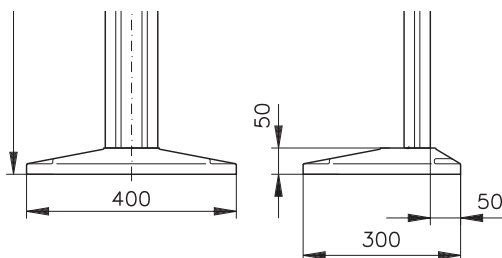
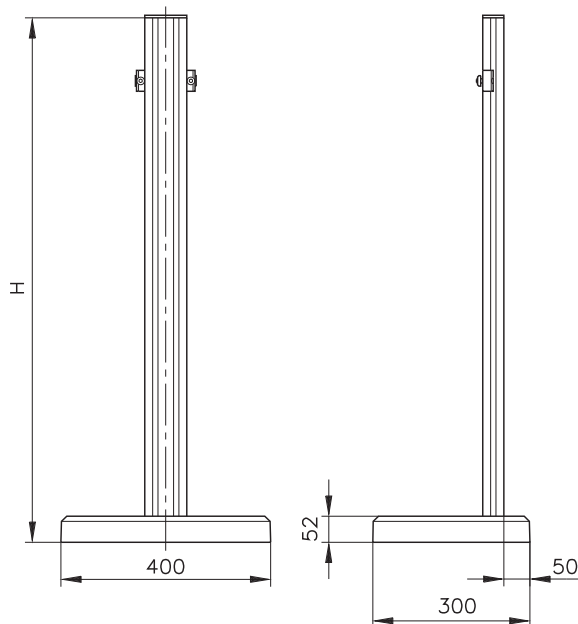
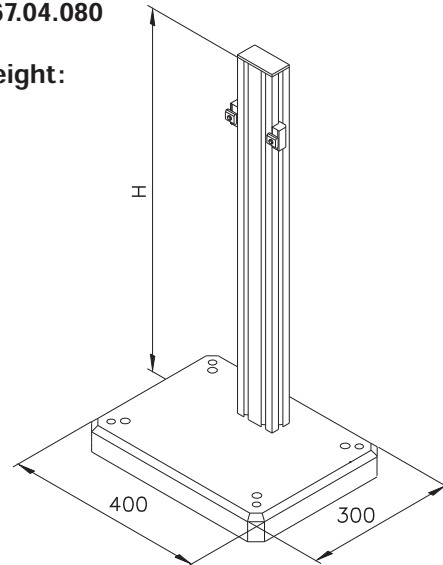
### Stand 54.80

Pedestal stand with Profile mk 2040.41 (40x80 mm) for short and small, lightweight conveyors. Allows height and incline adjustment.

Ident Nr. B67.04.080

#### Standard Height:

- H 500 mm
- H 750 mm
- H 1000 mm
- H 1250 mm
- H 1500 mm



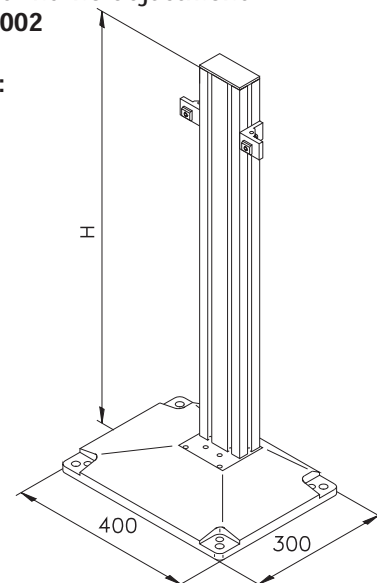
### Stand 51.2

Pedestal stand with Profile mk 2004 (50x100 mm) for short and small, lightweight conveyors. Allows height and incline adjustment.

Ident Nr. B67.04.002

#### Standard Height:

- H 500 mm
- H 750 mm
- H 1000 mm
- H 1250 mm
- H 1500 mm



Stands are for conveyors less than 250 mm wide

Stand

## Stand 53.22

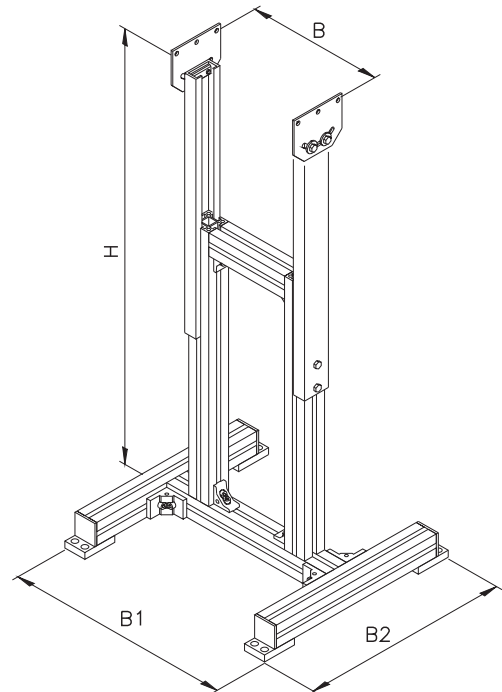
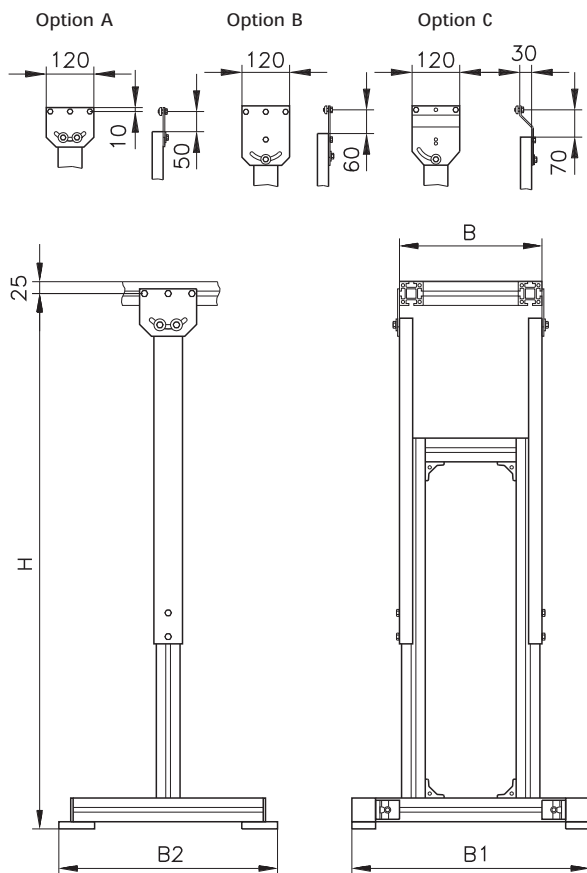
Medium-duty telescoping stand with Profile mk 2000 (50x50 mm) for medium length, lightweight conveyors. Allows height and incline adjustment.  
**Ident Nr. B67.06.008**

**Standard Height:**

- H 450 mm ± 25 mm
- H 500 mm ± 50 mm
- H 600 mm ± 50 mm
- H 700 mm ± 100 mm
- H 800 mm ± 150 mm
- H 1000 mm ± 200 mm

**Standard Width:**

- B = 150 - 800 mm
- B1 = 500 - 1000 mm
- B2 = 460 - 660 mm



Stand can be used with fixed and swivel casters

## Stand

# Stand 52.5

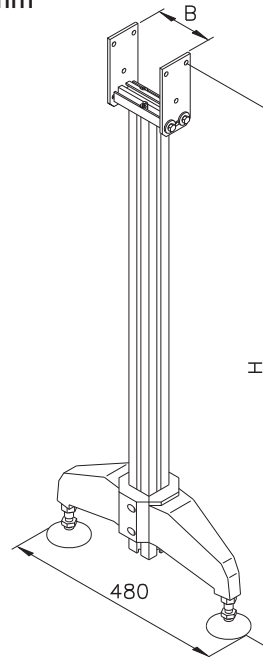
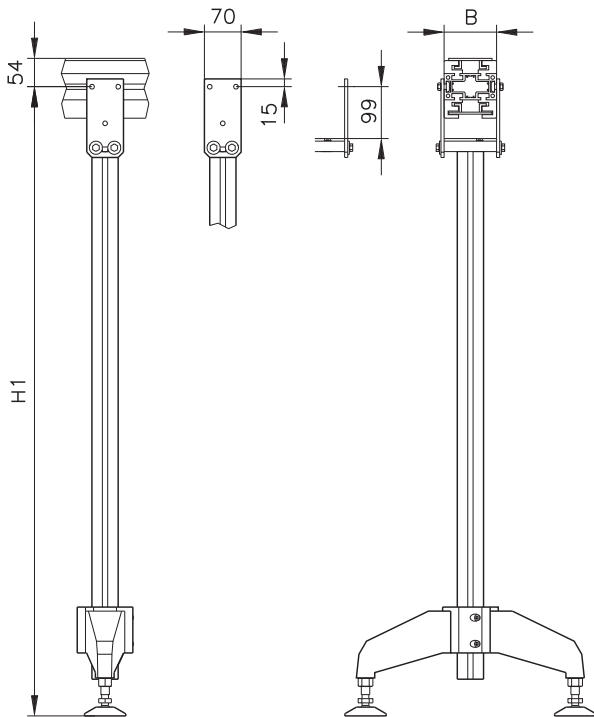
Stand for narrow conveyors with Profile mk 2000 (50x50 mm).  
Allows height and incline adjustment.  
**Ident Nr. B67.05.008**

### Standard Height:

H 500 mm - 1500 mm  
± 70 mm

### Standard Width:

B = 100 mm  
B = 130 mm  
B = 205 mm





*Stand*



## Stand 55.1

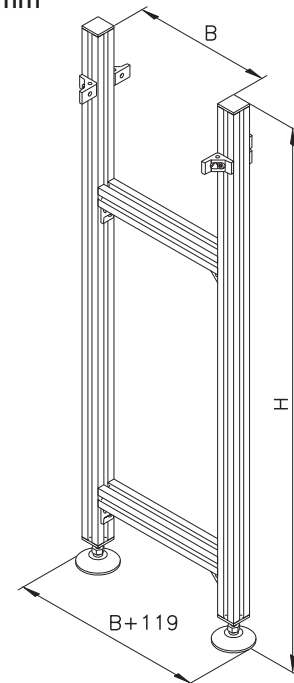
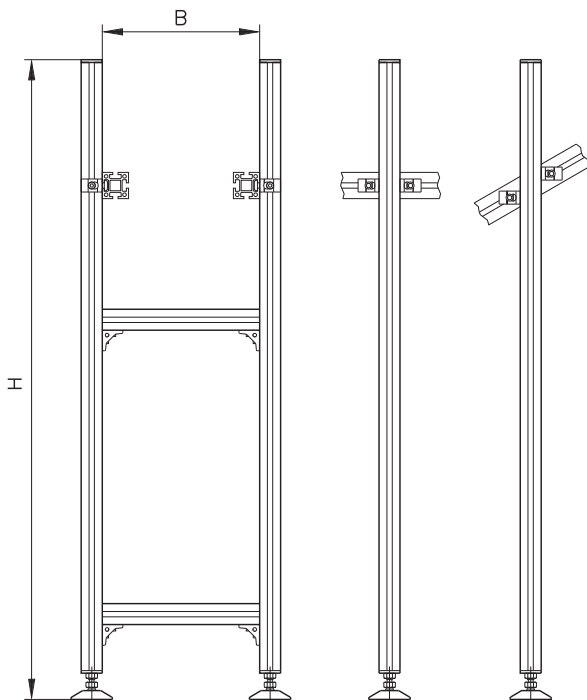
Simple stand with Profile  
 mk 2040.40 (40x40 mm).  
 Allows height and incline adjustment.  
**Ident Nr. B67.06.011**

**Standard Height:**

- H 500 mm = 500 mm
- H 750 mm = 750 mm
- H 1000 mm = 1000 mm
- H 1200 mm = 1200 mm

**Standard Width:**

B = 100 - 1200 mm





## Stand

# Stand 53.1

Light-duty telescoping stand with Profile mk 2001 (25x50 mm).  
Allows height and incline adjustment.  
**Ident Nr. B67.06.001**

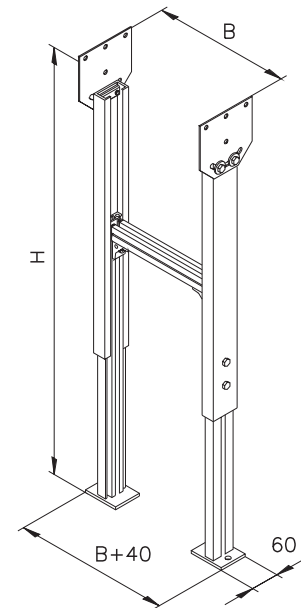
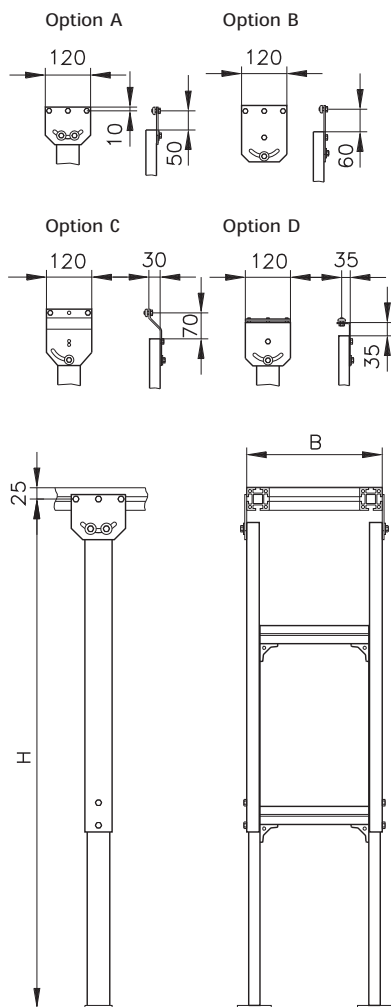
### Standard Height:

H 325 mm ± 25 mm  
H 400 mm ± 50 mm  
H 550 mm ± 100 mm  
H 700 mm ± 150 mm  
H 850 mm ± 200 mm  
H 1000 mm ± 200 mm  
H 1200 mm ± 200 mm

### Standard Width:

B = 100 - 1200 mm

As of H 700 mm  
with 2 braces



Stand

## Stand 53.11

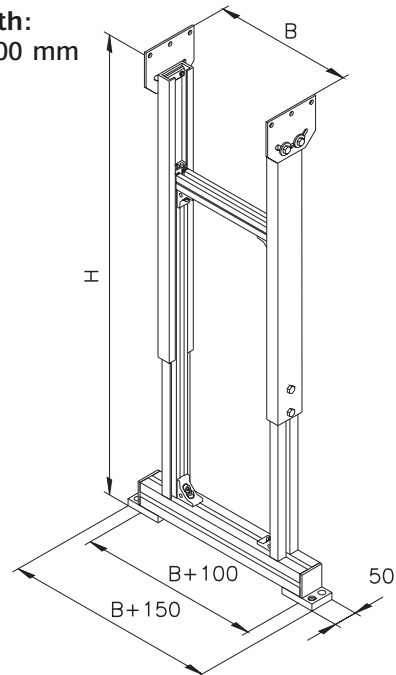
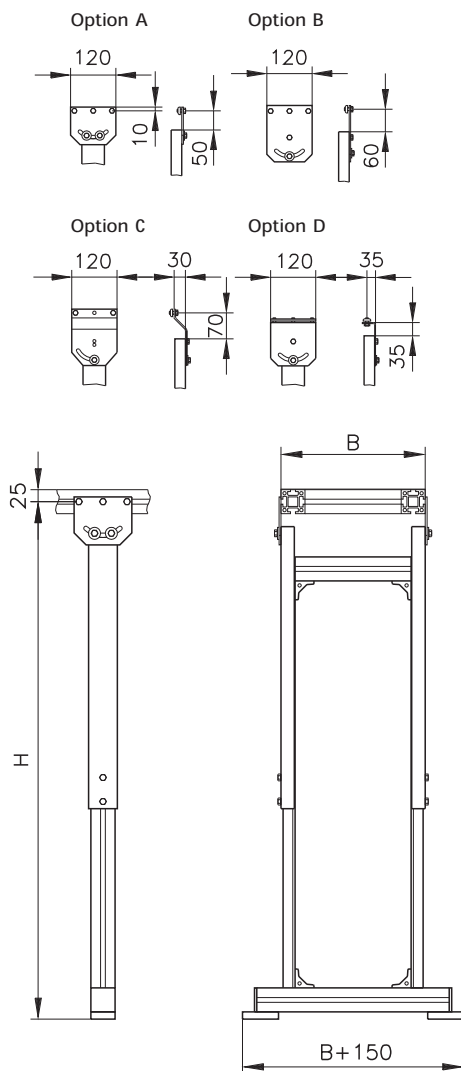
Light-duty telescoping stand with Profile mk 2001 (25x50 mm).  
 Allows height and incline adjustment.  
**Ident Nr. B67.06.002**

**Standard Height:**

- H 400 mm ± 25 mm
- H 450 mm ± 25 mm
- H 500 mm ± 50 mm
- H 600 mm ± 50 mm
- H 700 mm ± 100 mm
- H 800 mm ± 150 mm
- H 1000 mm ± 200 mm
- H 1200 mm ± 200 mm

**Standard Width:**

B = 100 - 500 mm



Stand can be used with fixed and swivel casters



## Stand

# Stand 53.2

Medium-duty telescoping stand with Profile mk 2000 (50x50 mm).  
Allows height and incline adjustment.  
**Ident Nr. B67.06.003**

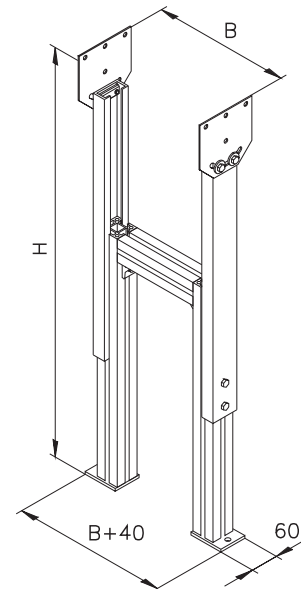
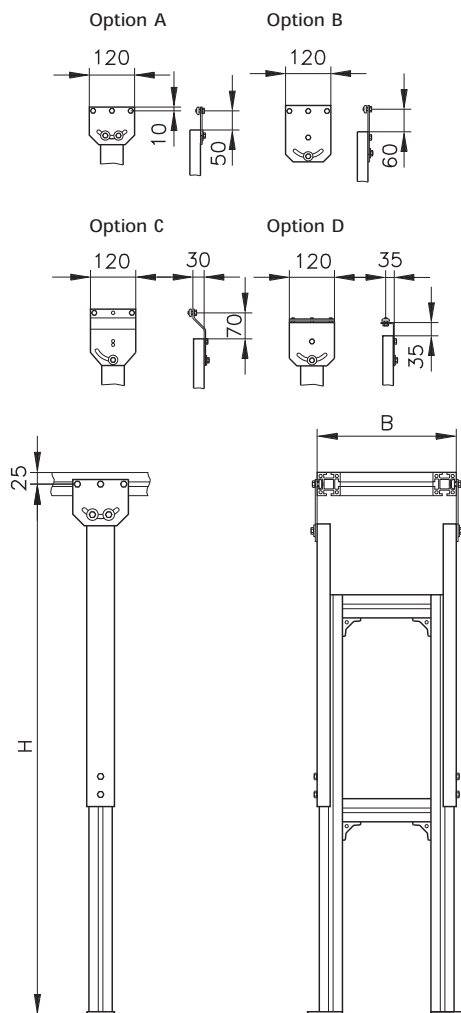
### Standard Height:

- H 325 mm ± 25 mm
- H 400 mm ± 50 mm
- H 550 mm ± 100 mm
- H 700 mm ± 150 mm
- H 850 mm ± 200 mm
- H 1000 mm ± 200 mm
- H 1200 mm ± 200 mm

### Standard Width:

B = 200 - 1500 mm

As of H 700 mm  
with 2 braces



Stand

## Stand 53.21

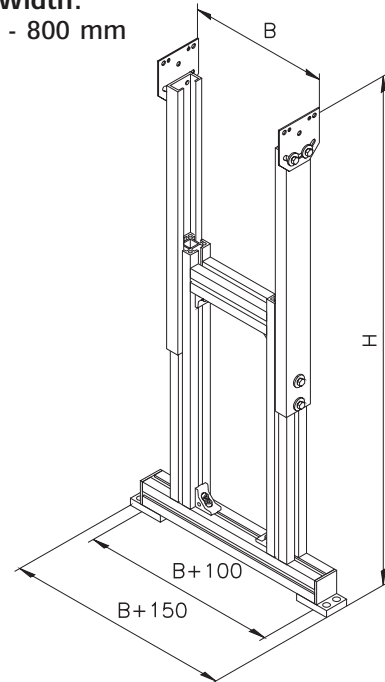
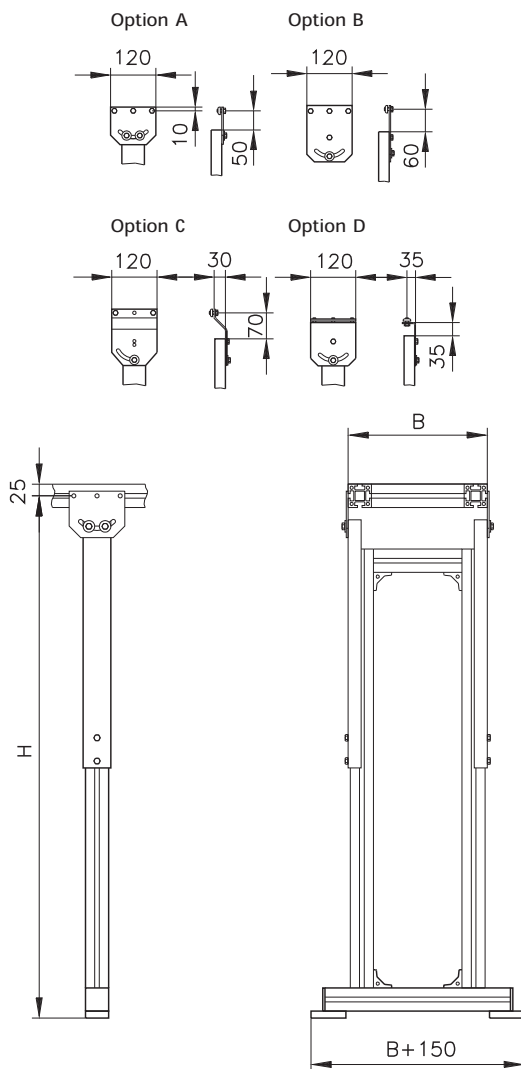
Medium-duty telescoping stand with Profile mk 2000 (50x50 mm).  
 Allows height and incline adjustment.  
**Ident Nr. B67.06.004**

**Standard Height:**

- H 400 mm ± 25 mm
- H 450 mm ± 25 mm
- H 500 mm ± 50 mm
- H 600 mm ± 50 mm
- H 700 mm ± 100 mm
- H 800 mm ± 150 mm
- H 1000 mm ± 200 mm
- H 1200 mm ± 200 mm

**Standard Width:**

B = 200 - 800 mm



Stand can be used with fixed and swivel casters



## Stand

# Stand 31

Heavy-duty telescoping stand with Profile mk 2000 (50x50 mm).  
Allows height and incline adjustment.  
**Ident Nr. B67.03.002**

### Standard Height:

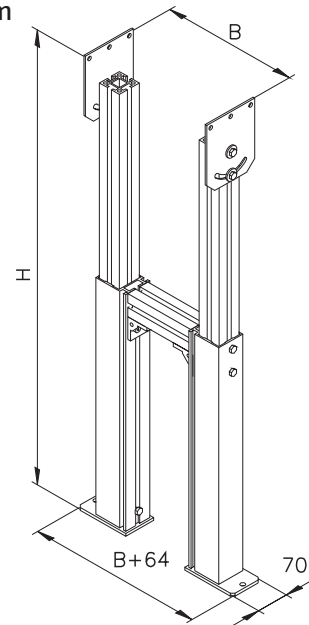
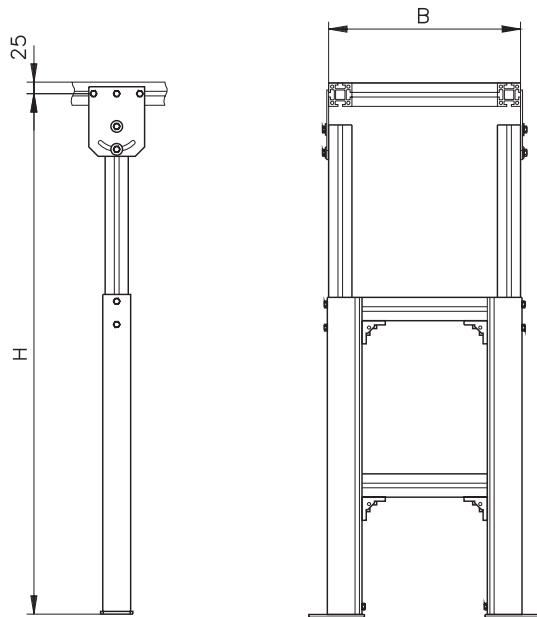
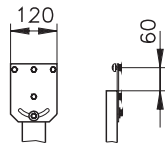
H 325 mm ± 25 mm  
H 400 mm ± 50 mm  
H 550 mm ± 100 mm  
H 700 mm ± 150 mm  
H 850 mm ± 200 mm  
H 1000 mm ± 250 mm  
H 1150 mm ± 300 mm  
H 1500 mm ± 300 mm  
H 2000 mm ± 300 mm

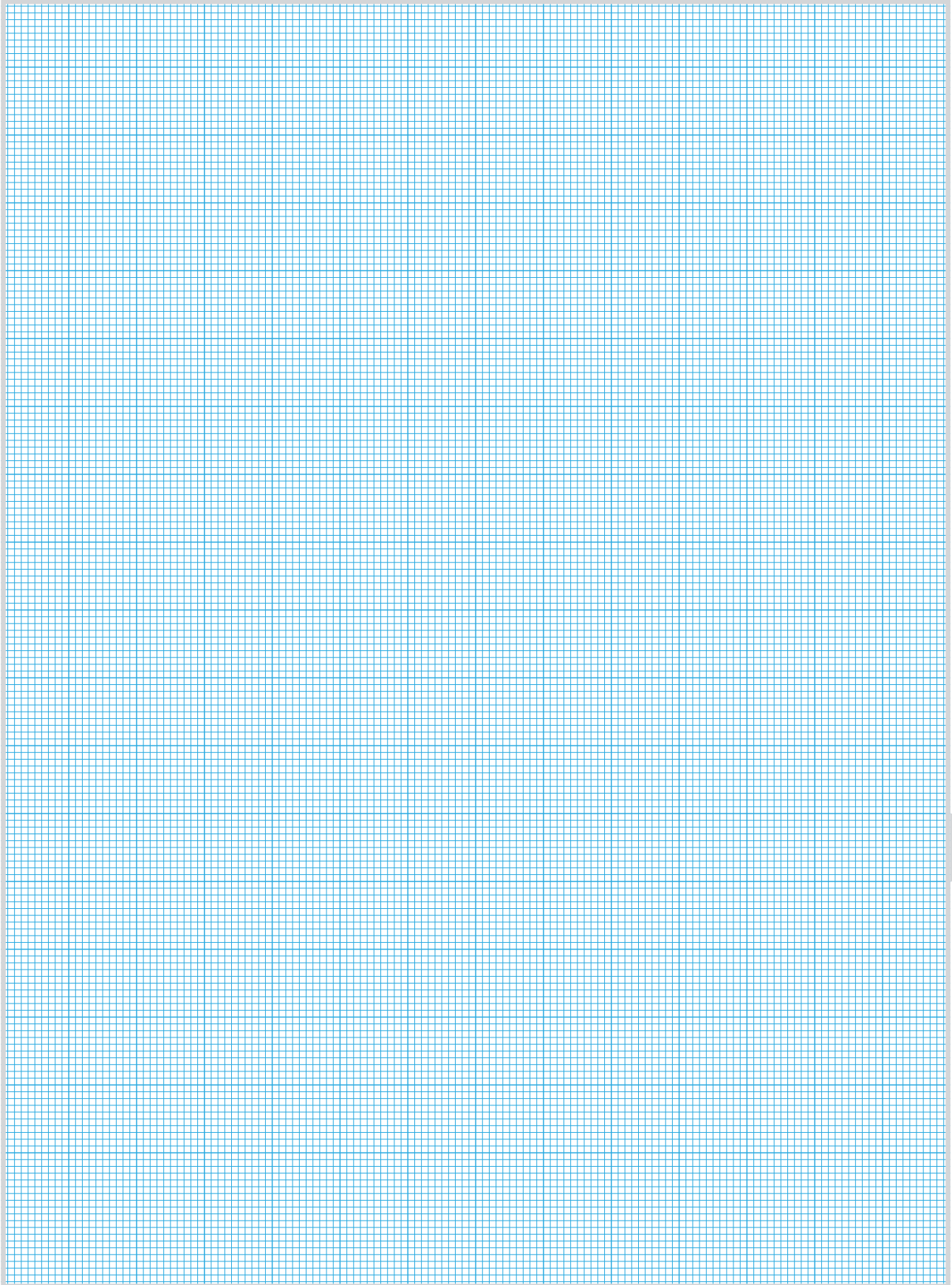
### Standard Width:

B = 500 - 2000 mm

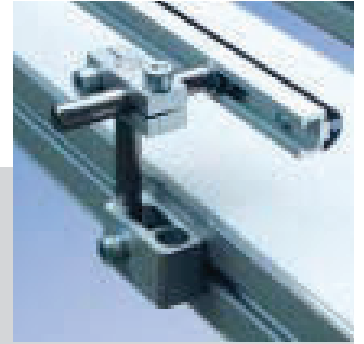
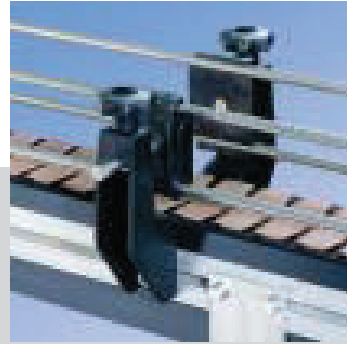
As of H 1150 mm  
with 2 braces

Option B





# mk Side Rails





*Contents mk Side Rails*



Side Rails

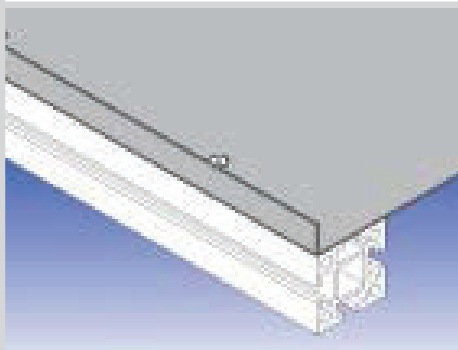
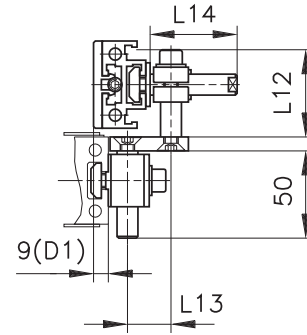
278



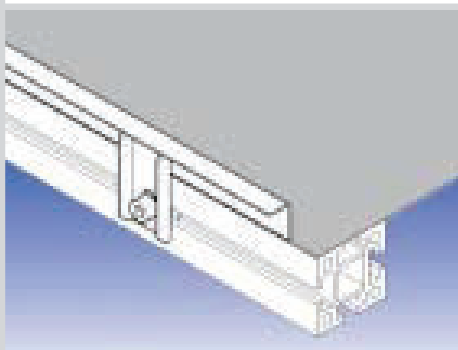
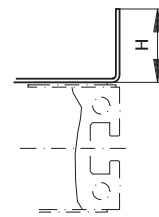
# Side Rails

Guiding products properly is one of the most important considerations when planning a conveyor system. For this reason, mk offers a wide selection of fixed and adjustable side rails. Simple adjustability enables quick changeovers for products of varying sizes. In addition, electrically or pneumatically adjustable side rails are available on request.

**Order Example:**  
 Side Rail 02  
 Type21  
 L12 = 50 mm  
 L13 = 50 mm  
 L14 = 75 mm  
 Length = 1000 mm  
 both sides

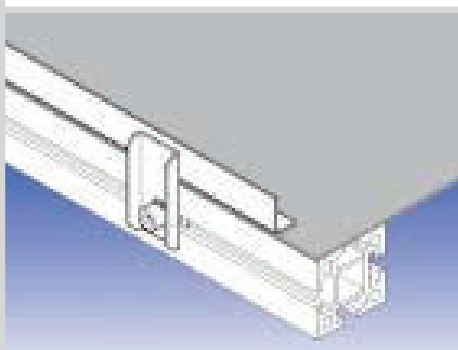
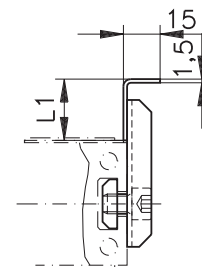


System SF1.3 **B17.00.003**  
 Height 10 - 50 mm



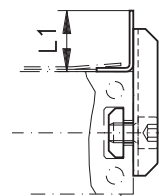
System SF2.1 **B17.00.004**

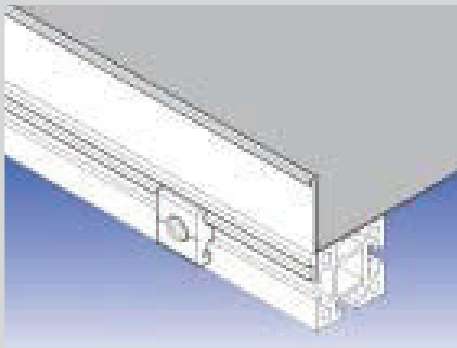
Variable	Value
L1	25
	50
	75



System SF2.2 **B17.00.005**

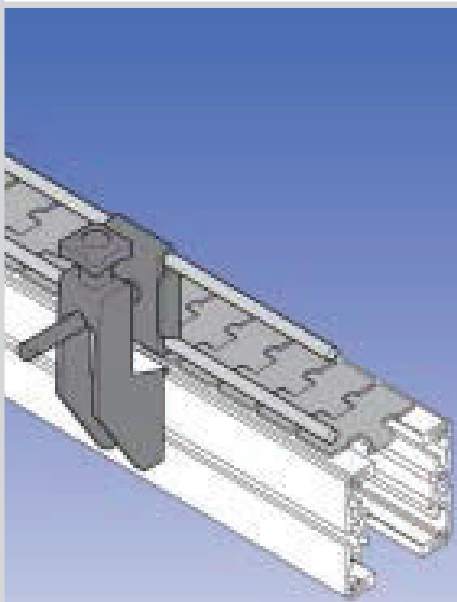
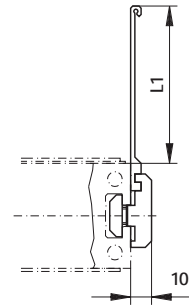
Variable	Value
L1	25
	50
	75





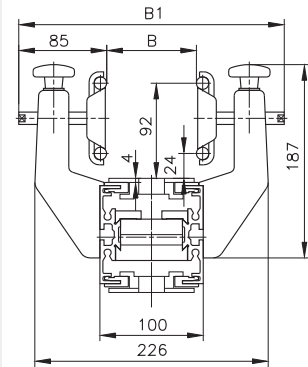
System SF7.1      **B17.00.025**

Variable	GUF-P2000	GUF-P2041
L1	25	30
	50	55
	75	80

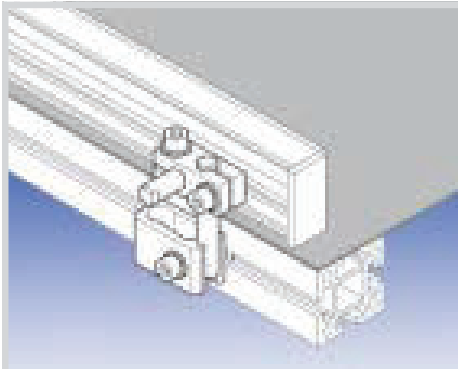


System SF10.1      **B17.00.020**  
 for straight run

System SF10.2      **B17.00.021**  
 for curve



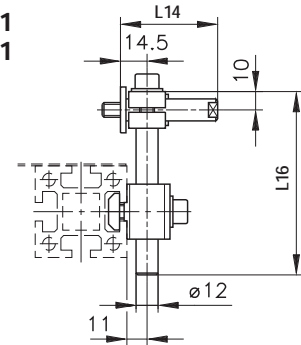
# Side Rails



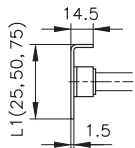
Side Rail 01 complete  
Separate holder HSF01

**B17.00.101**  
**B27.01.001**

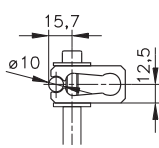
Variable	Value
L14	50, 75, 100 mm
L16	75, 100, 150, 200 mm



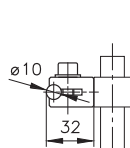
## Rail options



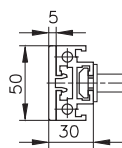
Type 01



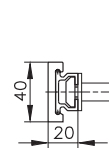
Type 11



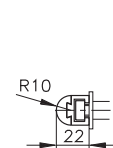
Type 12



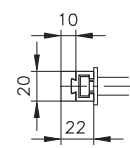
Type 21



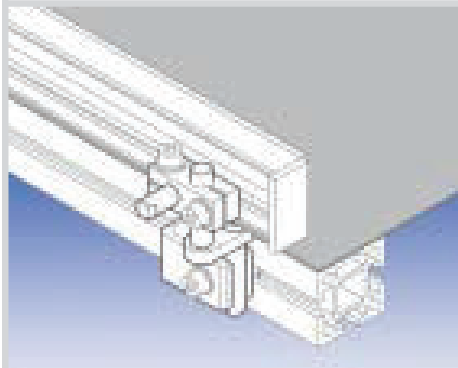
Type 22



Type 23



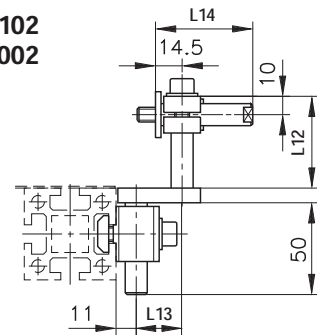
Type 24



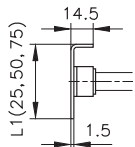
Side Rail 02 complete  
Separate holder HSF02

**B17.00.102**  
**B27.01.002**

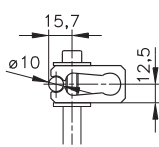
Variable	Value
L12	50, 75, 100, 150 mm
L13	25, 50 mm
L14	50, 75, 100 mm



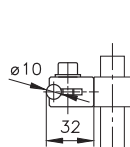
## Rail options



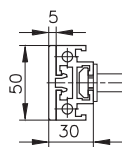
Type 01



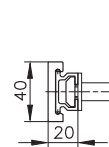
Type 11



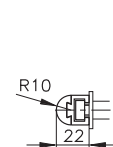
Type 12



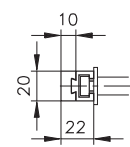
Type 21



Type 22



Type 23



Type 24

## Order Example

We require the following information to ensure smooth processing of enquiries:

B17.00.101 for GUF-P MINI

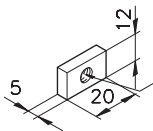
L14 = 100 mm, L16 = 150 mm

Type 01, L<sub>1</sub> = 50 mm

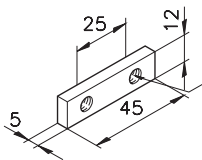
## Nuts

Square nuts are mk's preferred mounting hardware for accessory components attached to the T-slot. When compared to Slot Nuts and T-Nuts they have a much higher load-bearing capacity due to their larger size and surface area.

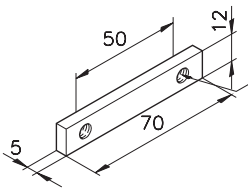
### For GUF-P MINI: 7 mm



Nut 1, Steel Zn  
**M6 34.02.0001**  
 without chamfer

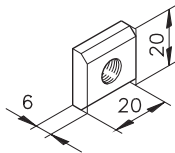


Nut 2/25, Steel Zn  
**M6 34.02.0002**



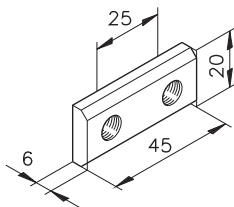
Nut 2/50, Steel Zn  
**M6 34.02.0003**

### For conveyor series 40 and 50: 10 mm



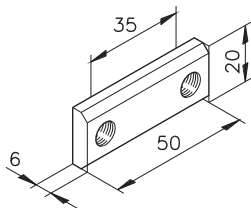
25 40 50 60

Nut 1, Steel Zn  
**M6 34.02.0008**  
**M8 34.01.0001**



25 40 50 60

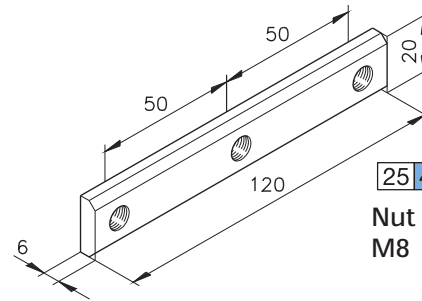
Nut 2/25, Steel Zn  
**M6 34.02.0010**  
**M8 34.01.0002**



25 40 50 60

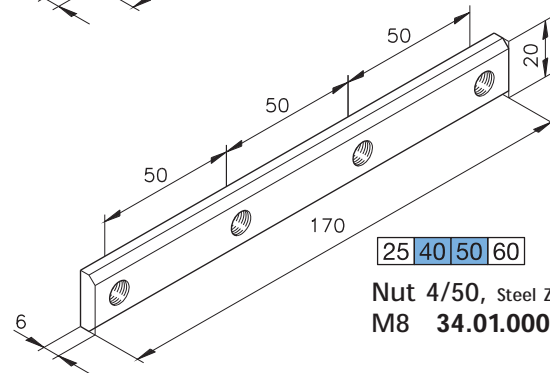
Nut 2/35, Steel Zn  
**M8 34.01.0011**

### For conveyor series 40 and 50: 10 mm



25 40 50 60

Nut 3/50, Steel Zn  
**M8 34.01.0006**



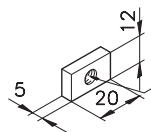
25 40 50 60

Nut 4/50, Steel Zn  
**M8 34.01.0007**

### Nuts for last-minute assembly

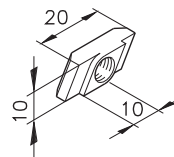
The following components are designed to be inserted into the profiles after an assembly has been finished, or when the profile ends are inaccessible and the standard square nuts can no longer be slid into the T-slots.

### For GUF-P MINI: 7 mm



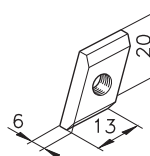
Nut 1, Steel Zn  
**M6 34.02.0013**  
 with chamfer

### For conveyor series 40 and 50: 10 mm



25 40 50 60

T-Nut, Steel Zn  
**M6 34.07.0002**  
**M8 34.06.0002**




25 40 50 60

Slot Nut, Steel Zn  
**M6 34.04.0001**  
**M8 34.03.0001**

# mk Accessories



## Contents *mk Accessories*

	Electronic Accessories	284
	Sensor Brackets	285
	End Stops	286
	Drip Pan	287
	Application Examples	288



# Accessories

## Electronic Accessories

The integration of conveyor systems with existing equipment is becoming ever more complex. On request mk provides not only complete solutions from the control concept until handover at the customer, but also wiring on the terminal box, input/output modules or field bus system according to customer specification. Even if your electronic requirements are minimal, you can rely on a complete system of standard components.

### Frequency Inverters for mk Conveyor Systems

mk frequency inverters can be purchased individually, or as an integral component of your conveyor system.

#### Frequency inverter for DC motors

Input: 230VAC, 50Hz

Range: 1:10; 1.5 - 15 m/min

E - Number	Name
ERE180DC/3A	Reglomat until 0,25 KW 180/200V DC
ERE180DC/3ARV	Reglomat with reversing option
ERE24DC/5A	Reglomat until 90W 24V DC

**Note:** Due to different voltage requirements, the controllers described here are not available in North America.

#### Frequency inverter for AC motors

Input: 230VAC, 50Hz

Range: 1:7

Reversing option available

3 digital inputs, e.g. for external release, switch-over between fixed parametrizable frequencies, connection of a light barrier etc.

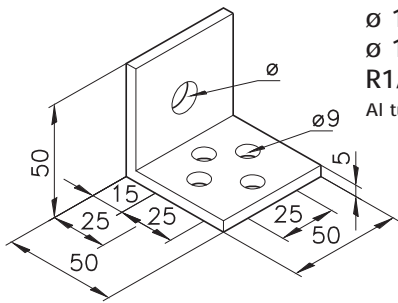
1 analog input 0V to +10V DC

1 digital output 24V DC / 50mA

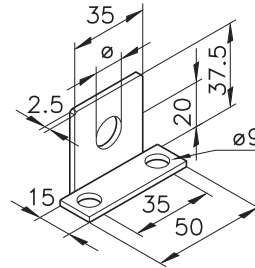
E - Number	Name
ERE230AC/0.25	Reglomat until 0,18 KW Motor power
ERE230AC/0.25RV	Reglomat with reversing option
ERE230AC/0.37	Reglomat until 0,25 KW Motor power
ERE230AC/0.37RV	Reglomat with reversing option
ERE230AC/0.55	Reglomat until 0,37 KW Motor power
ERE230AC/0.55RV	Reglomat with reversing option
ERE230AC/0.75	Reglomat until 0,55 KW Motor power
ERE230AC/0.75RV	Reglomat with reversing option



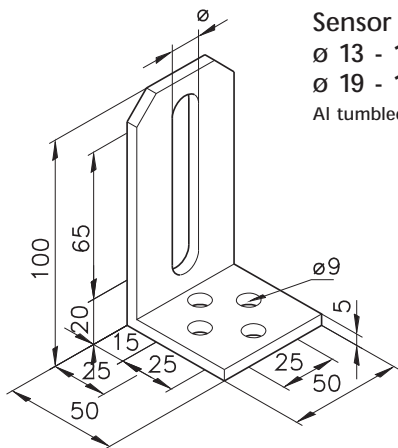
## Sensor Brackets



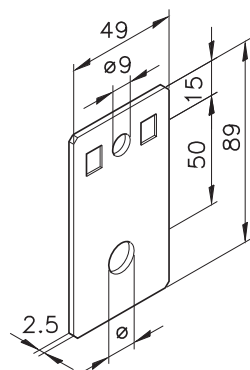
**Sensor Bracket A**  
 Ø 13 - 16.00.0000  
 Ø 19 - 16.00.0001  
 R1/4" - 16.05.0011  
 Al tumbled



**Sensor Bracket E**  
 Ø 9 - 16.00.0026  
 Ø 13 - 16.00.0027  
 Ø 19 - 16.00.0028  
 Steel, ZN



**Sensor Bracket B**  
 Ø 13 - 16.00.0006  
 Ø 19 - 16.00.0007  
 Al tumbled

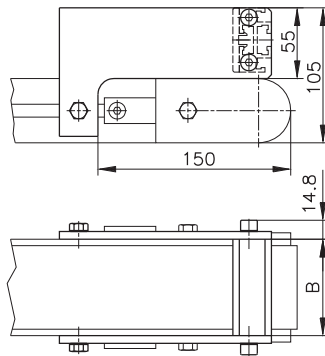


**Sensor Bracket C**  
 Ø 9 - 16.00.0011  
 Ø 13 - 16.00.0012  
 Ø 19 - 16.00.0013  
 Steel, ZN

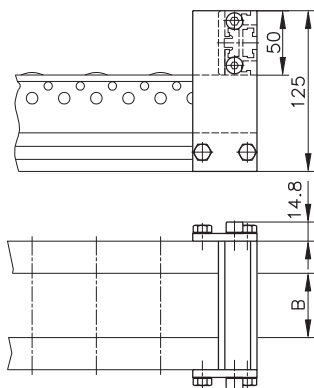
# Accessories

## End Stops

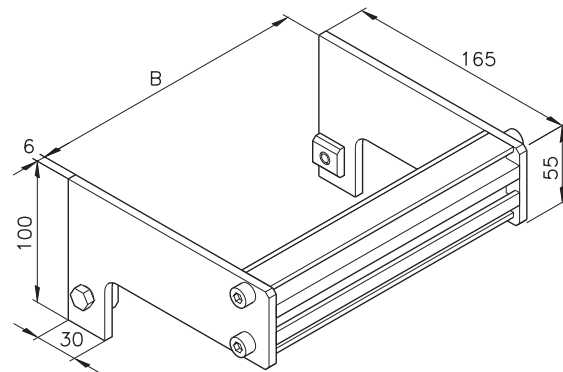
Processes often require that products be stopped or accumulated, especially on belt and roller conveyors. For this reason, mk offers End Stop SBP1. It is easily installed using the available conveyor frame T-slots. A notable feature of this stop is the included wear strip, which prevents product damage.



Belt Conveyor GUF-P 2000



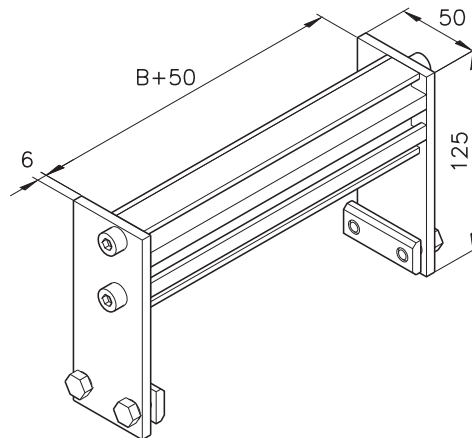
Roller Conveyors 2066



End Stop GUF2000

**B66.00.004**

incl. mounting hardware



End Stop Roller Conveyor

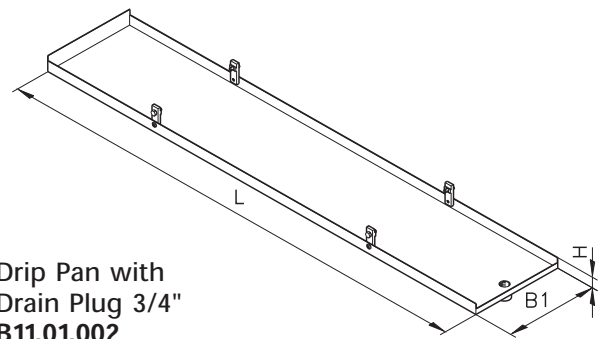
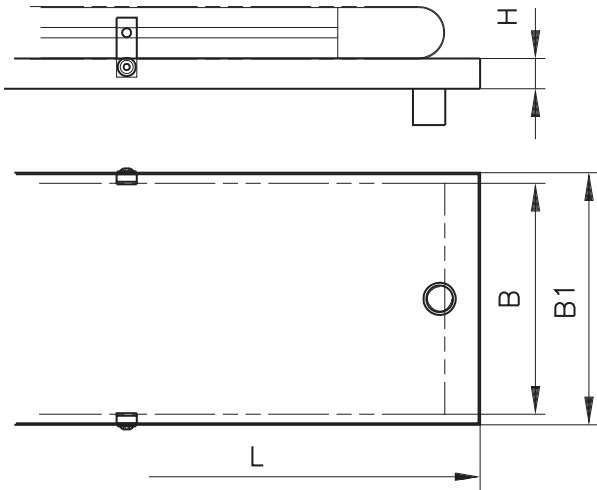
**B66.00.003**

incl. mounting hardware



## Drip Pan

Made of Stainless Steel, the drip pan can be fit to the requested height, width and length of the conveyor system. It is supplied standard with a 3/4" drain plug. Special configurations which take into consideration framing or other obstructions can be supplied as well.

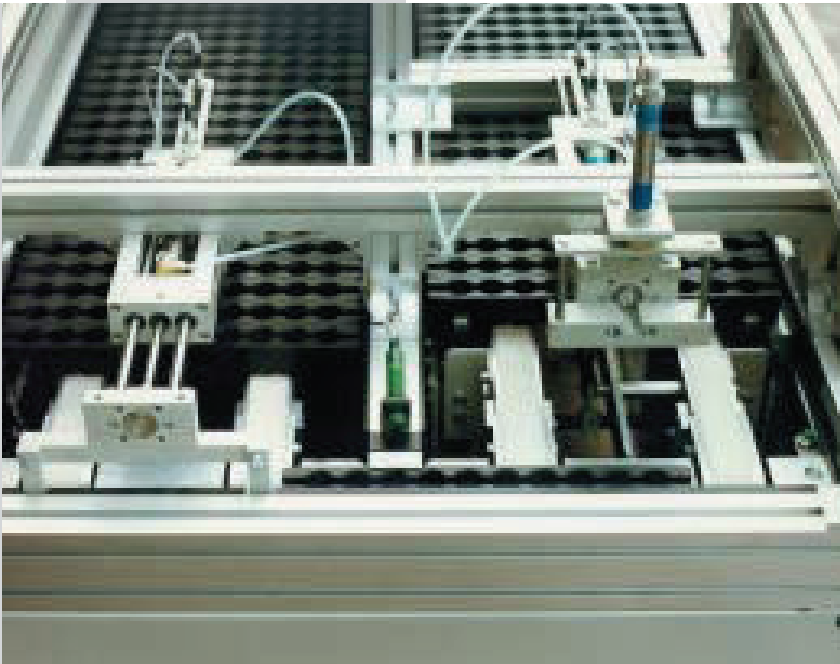


**Drip Pan with  
 Drain Plug 3/4"**  
**B11.01.002**

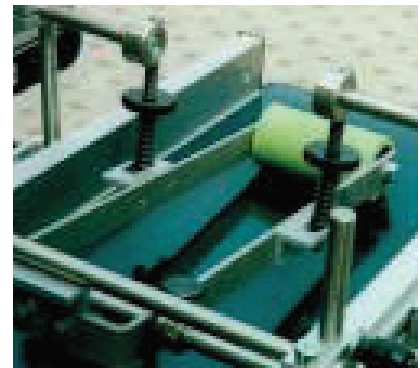
Stainless Steel  
 Holder Al tumbled

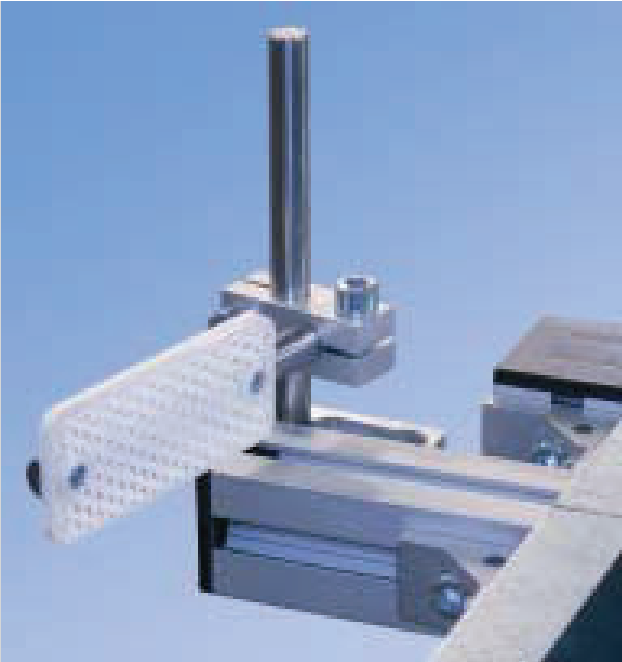
# Accessories

## *Application Examples*

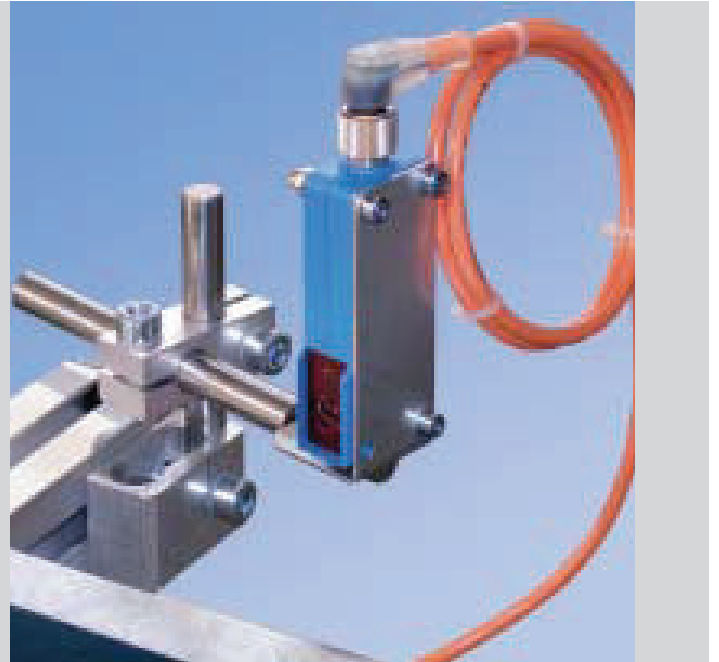


Safety switch





Sensor Brackets with reflector



Sensor Brackets



# mk Accumulation and Storage



*Contents mk Accumulation and Storage*



DTZ-P 2040

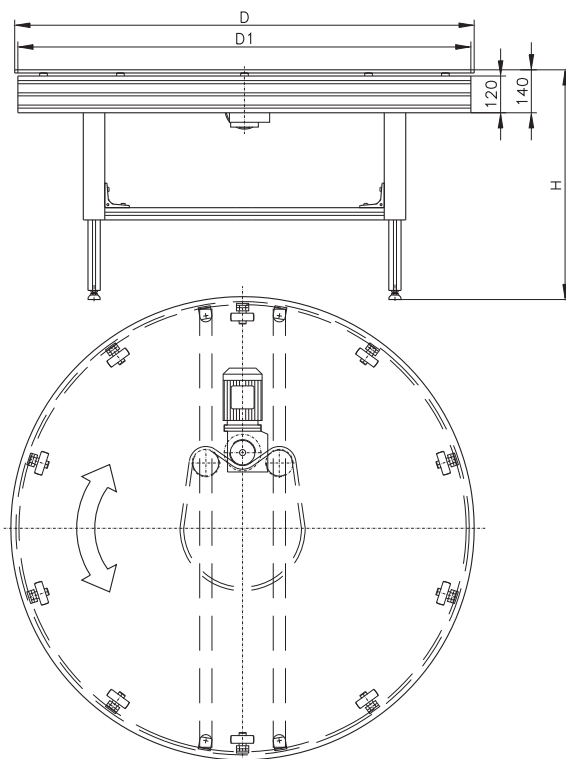
292



# DTZ-P 2040

*Turntable with Timing Belt driven*

B12.01.001

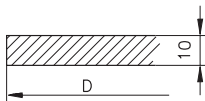


	Dimensions – Technical Information	Notes
∅ Turntable	D1 = 750, 1000, 1250, 1500 mm	others on request
∅ Surface	Dmin = D1-30, Dmax = D1+100	
Surface Plate		see page 293
Drive Design	Timing Belt	specials on request
v const (rev/min)	1 - 8 rev/min	others on request
Side Rails		see page 276
Height H	H = 500 - 1500 mm	others on request

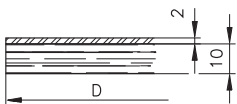


## Surface Plates

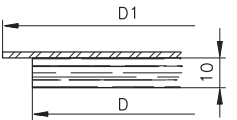
The following surface plates are our standards. Specials are possible on request.



**Option 1.1**  
Laminated Surface



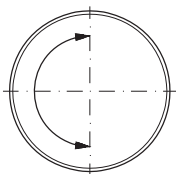
**Option 1.2**  
Laminated Surface with SS cover



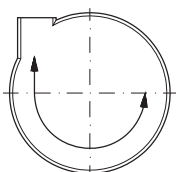
**Option 1.3**  
Laminated Surface with overhanging SS cover  
(for smaller products)

## Construction, Product Flow

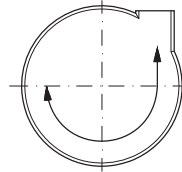
The following examples are standard configurations which can be combined. When designing diverters, the product weight and shape is critical to successful performance. The actual details of these diverters are therefore designed specifically to each customer's application. Because of our experience in the areas of material handling and conveying, mk can refer to numerous solutions offered in the past. Control integrated diverters are, therefore, also possible.



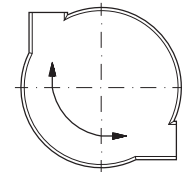
**Construction A**  
Optional clock- or counter-clockwise



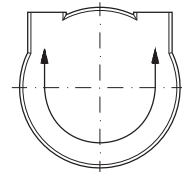
**Construction B**  
Optional clock- or counter-clockwise, chute left



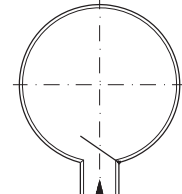
**Construction C**  
Optional clock- or counter-clockwise, chute right



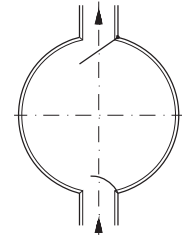
**Construction D**  
Optional clock- or counter-clockwise, chutes 90°



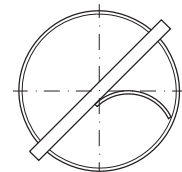
**Construction E**  
Optional clock- or counter-clockwise, chutes 180°



**Construction F**  
Optional clock- or counter-clockwise, chutes middle



**Construction G**  
Optional clock- or counter-clockwise, chutes 2 x middle, with diverters



**Construction H**  
Optional clock- or counter-clockwise, adjustable diverter





### Order Example:

DTZ-P 2040  
 D1 = 1000 mm  
 D = 1075 mm  
 H = 800 mm  
 Surface Option 1.1  
 v = 2 rev/min clockwise  
 Construction C

# mk Lift- and Transfer Stations



*Contents mk Lift- and Transfer Stations*

	Accumulating Conveyor with Lift	296
	Lift and Transfer	297
	Elevator	298
	Vertical Storage	299

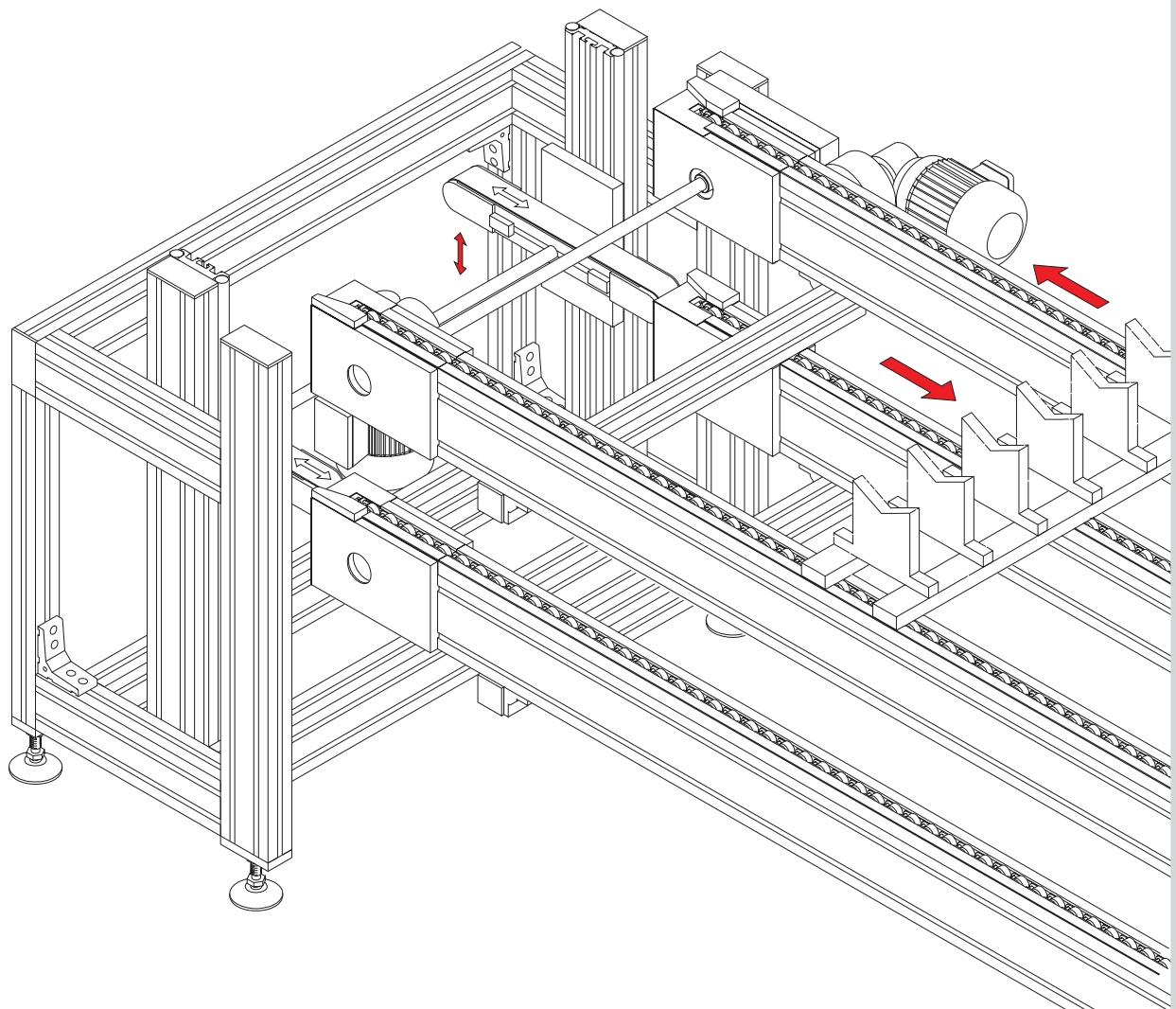
# Lift- and Transfer Stations

## *Accumulating Conveyor with Lift*

Elevator with conveyors, material handling line for headlamps on pallets

### **Standard Components:**

- Upper Conveyor: 2-Lane SRF-P 2012
- Linear Module: 2 x mk 2034 /2004
- Elevator Conveyor: 2-Lane GUF-P 2000
- Return Conveyor: SRF-P 2012
- mk Structural Profile Frame

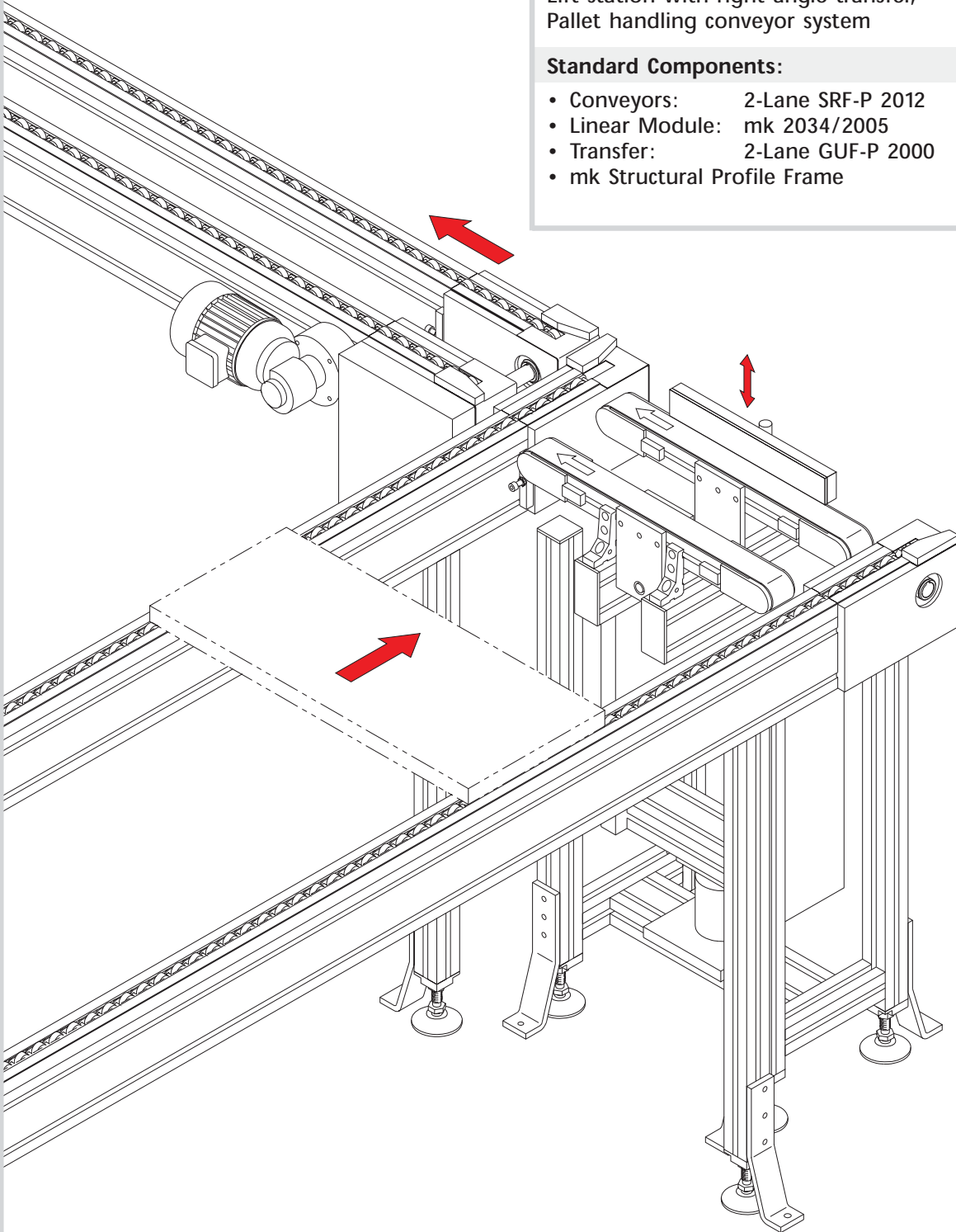


## Lift and Transfer

Lift station with right angle transfer,  
Pallet handling conveyor system

### Standard Components:

- Conveyors: 2-Lane SRF-P 2012
- Linear Module: mk 2034/2005
- Transfer: 2-Lane GUF-P 2000
- mk Structural Profile Frame



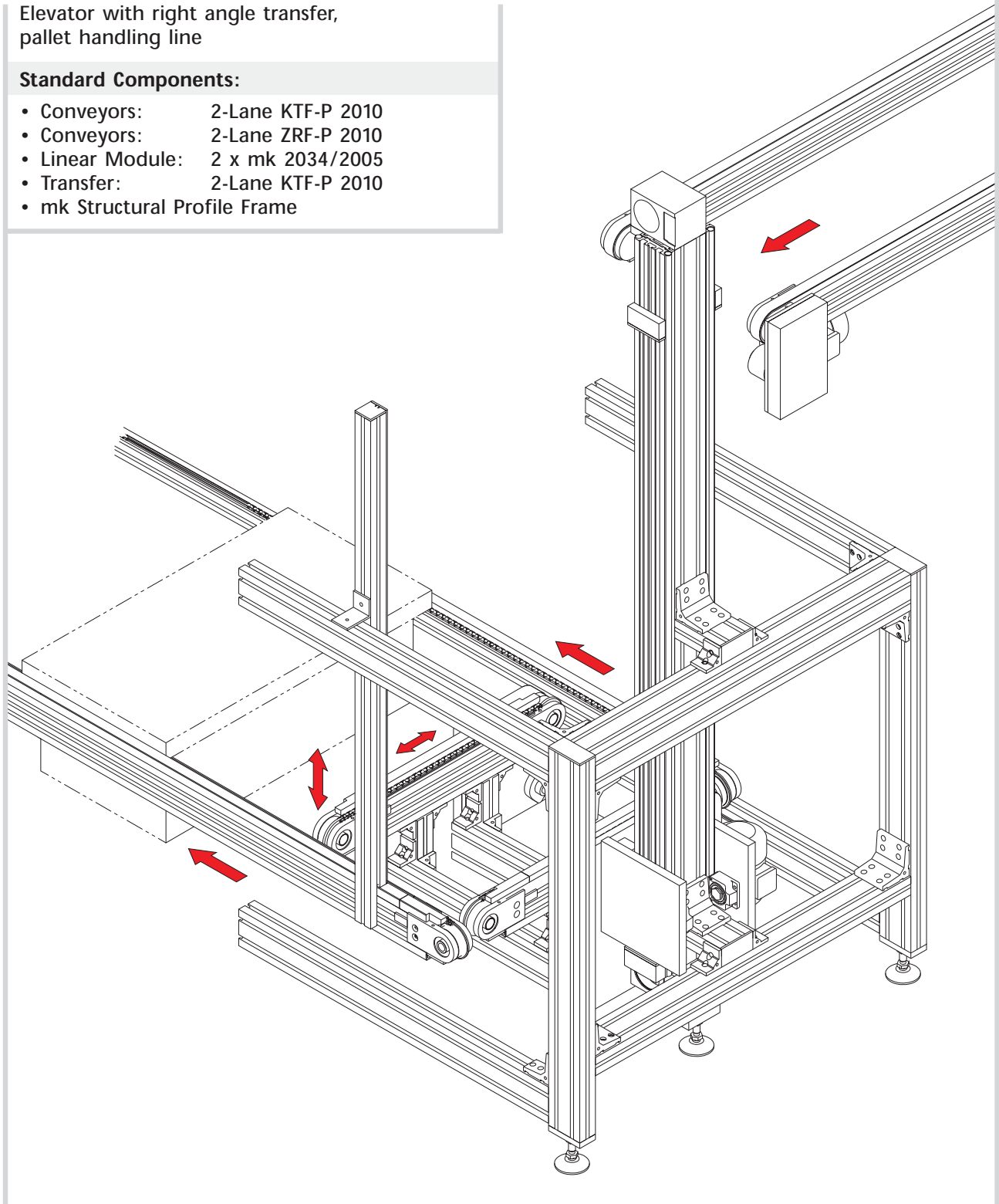
# Lift- and Transfer Stations

## *Elevator*

Elevator with right angle transfer,  
pallet handling line

### Standard Components:

- Conveyors: 2-Lane KTF-P 2010
- Conveyors: 2-Lane ZRF-P 2010
- Linear Module: 2 x mk 2034/2005
- Transfer: 2-Lane KTF-P 2010
- mk Structural Profile Frame

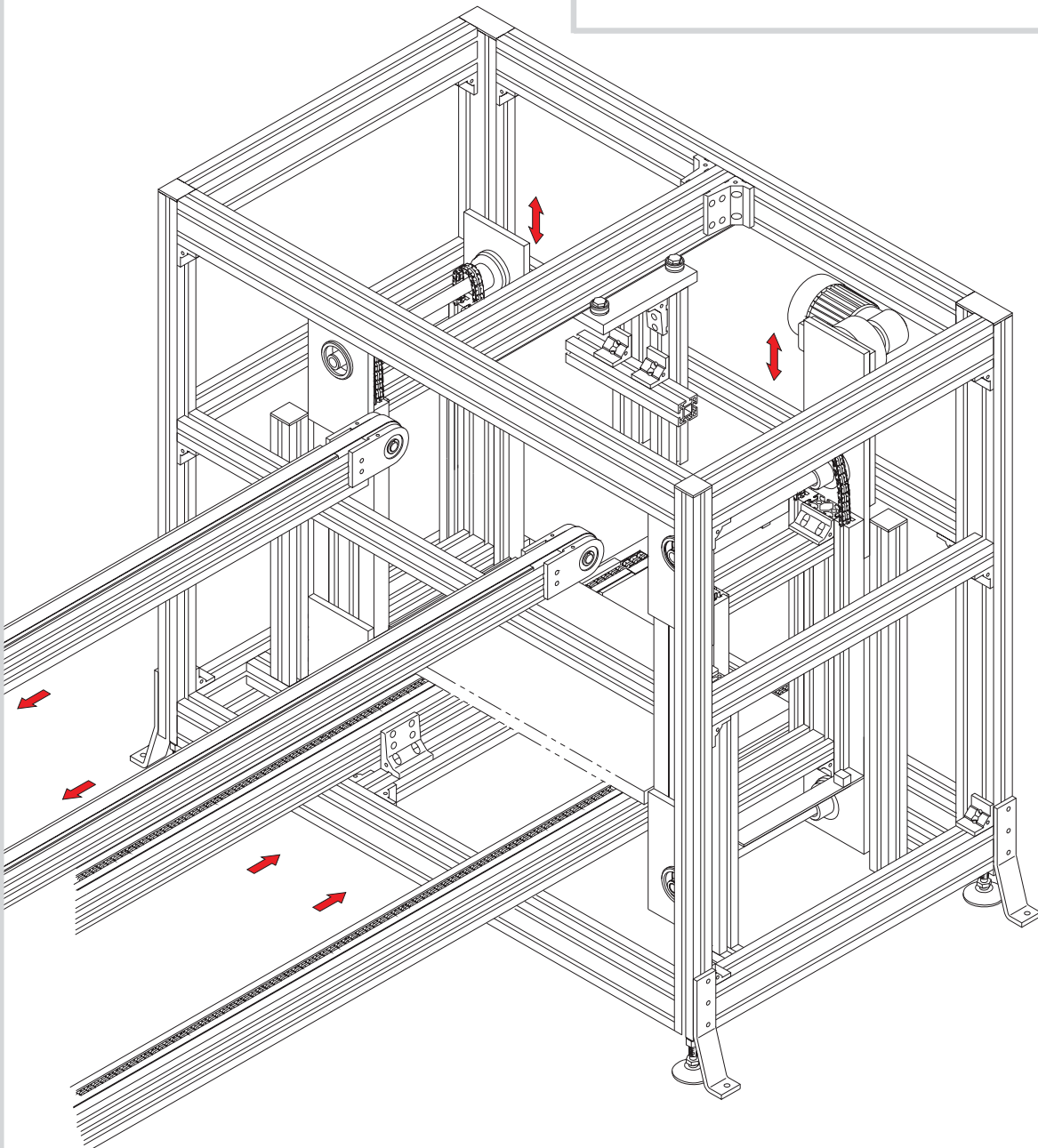


## Vertical Storage

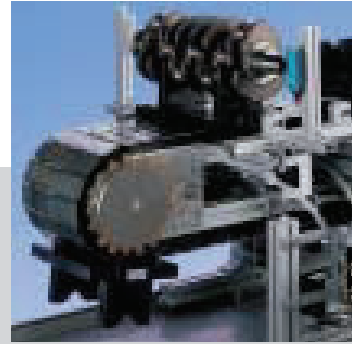
### Pallet Handling

#### Standard Components:

- Lower Conveyor: 2-Lane KTF-P 2010
- Linear Module: 2 x mk 2034/2005
- Upper Conveyor: 2-Lane ZRF-P 2010
- mk Structural Profile Frame



# Customer Specific Application Examples





*Contents Customer Specific Application Examples*



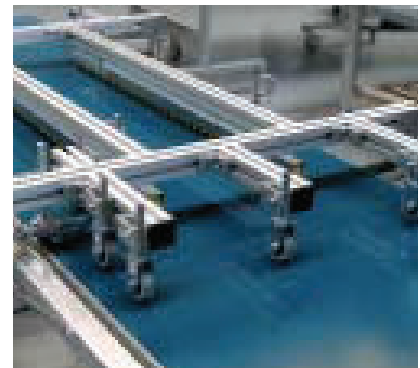
# Customer Specific Application Examples



GUF-P 2000 with protective cover made of welded fencing



Lifting unit with pallet lock



GUF-P 2000 with straightening  
unit for paper bags



**Inclined conveyor with FDA belt and sidewalls**



**Accumulating roller chain conveyors with infeed and outfeed segments**

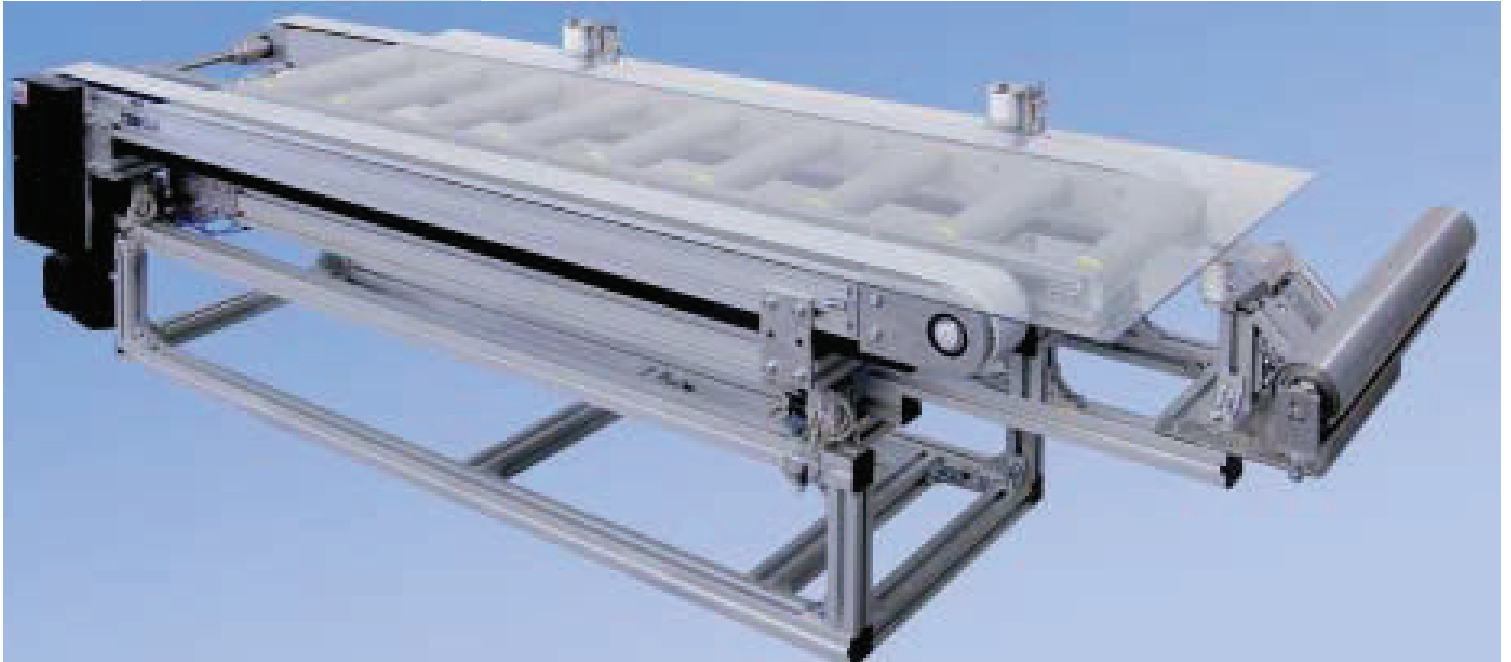


**Modular belt conveyors with brushes for metal sheets susceptible to scratching**



**V-belt conveyor combination**

## Customer Specific Application Examples



Twin timing belt conveyor with integrated lifting cylinder  
and roller conveyor for transporting glass panes



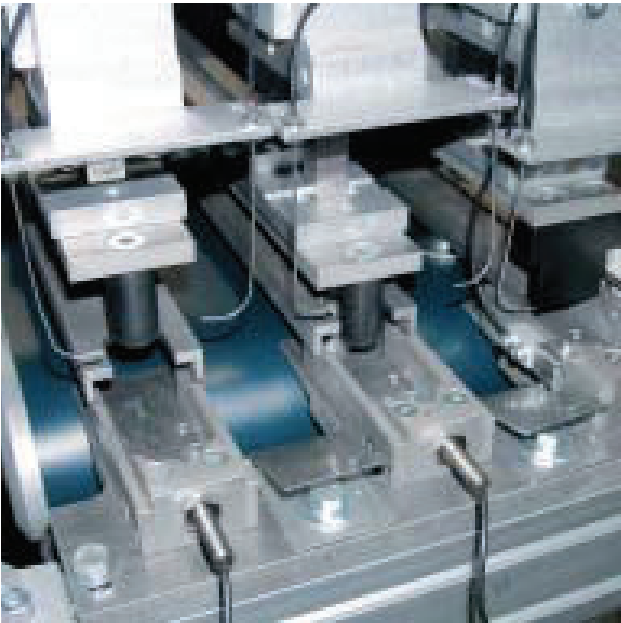
Flat top chain conveyors for  
transporting hot products



Timing belt conveyor combination  
with swiveling upper unit



Multiflex Chain Conveyor with special  
fixtures for moving candles



GUF-P 2041 with separator

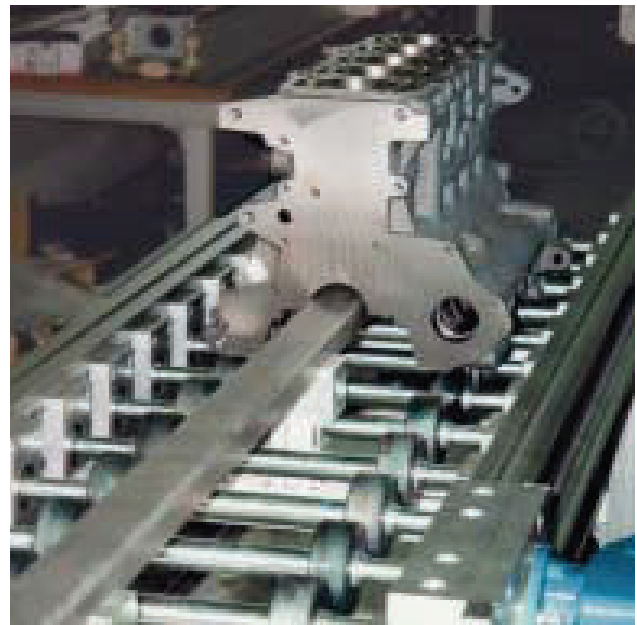


Hopper conveyor

## Customer Specific Application Examples



Special roller conveyor for transporting pallets  
integrated in a complete system



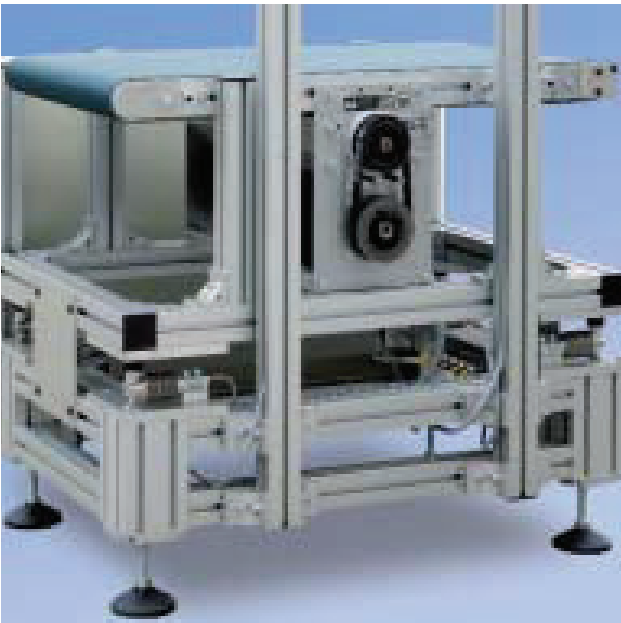
Roller conveyor with integrated  
parts guide for loading cleaning systems,  
in the automobile industry



Side Grip Conveyor for bottle or glass conveying



Transport and turning system with integrated CD labelling station



GUF-P 2000 in use for weighing technology



GUF-P 2000 with pneumatic pusher/deflector

# Customer Specific Application Examples

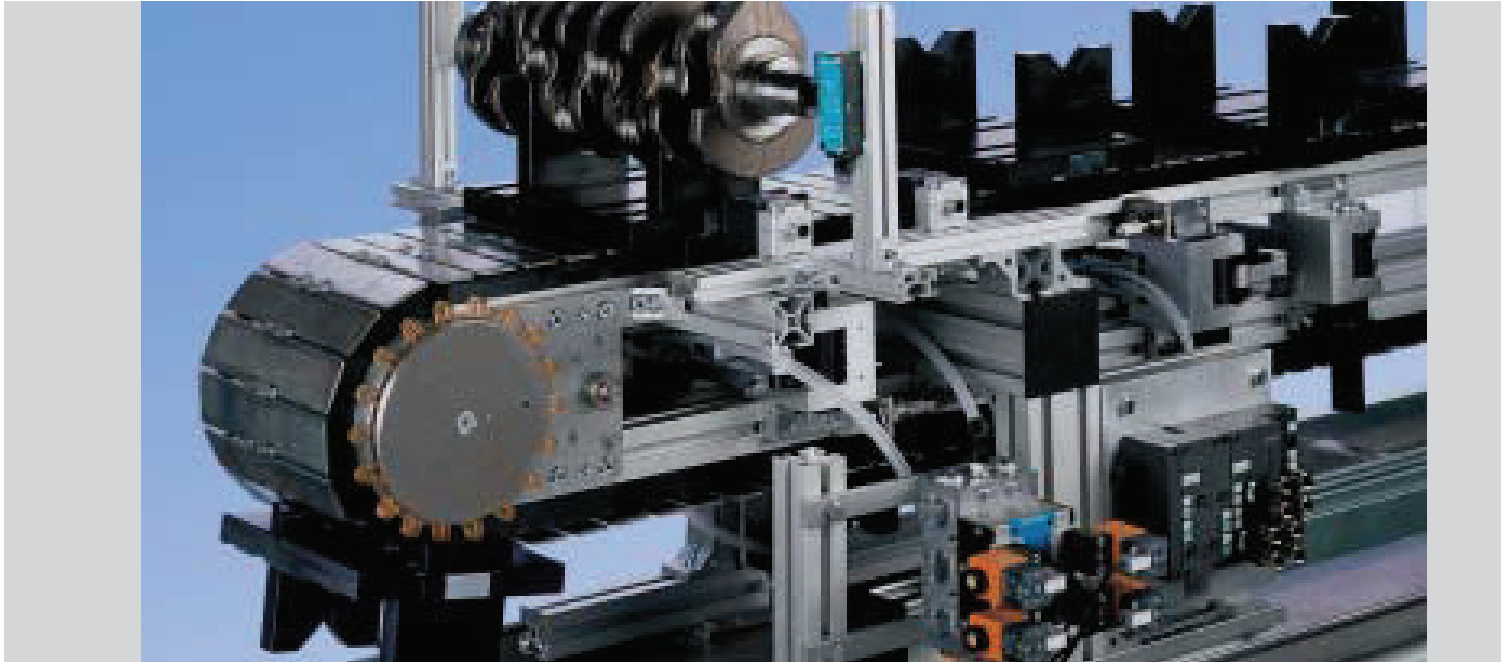


Steel belt conveyor



Dual-lane conveyor 2001 with  
integrated lift and transfer station





Accumulation-capable flat top chain conveyors with separation and positioning

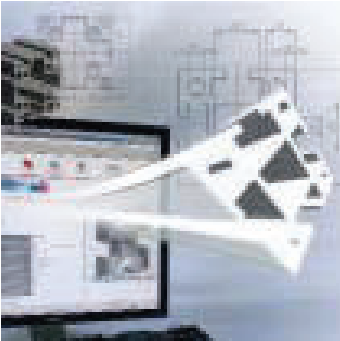


Table top chain conveyor




Accumulating table top chain conveyor with workpiece fixtures returning underneath

# Network and Support



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# mk CAD Parts Library



## Online-Version



Under [www.mk-group.com](http://www.mk-group.com) you find our CAD Parts Library.



There you will find CAD files via email.



Data formats for all common 2D and 3D CAD systems.



Individual components as well as configured assemblies.

## CAD Parts Library

On request we can also send you our electronical product catalog on CD-ROM.



On our CD-ROM you will find the following data formats: DXF 2D, DWG 2D, STEP 3D and IGES 3D.



The CD-ROM also features RFQ and Ordering forms, as well as parts lists.



Further advantages include product search functions according to product name and part number as well as a shopping cart function.



## Internet

Current information regarding mk products, trade shows, training, catalogs and other relevant news can be found on our home page.

- Check the status of your order at any time in using our new order tracking system.
- With your personal password you have direct access to all orders registered with our company.
- Order from our new online shop 24 hours a day.

## Configurator for guarding

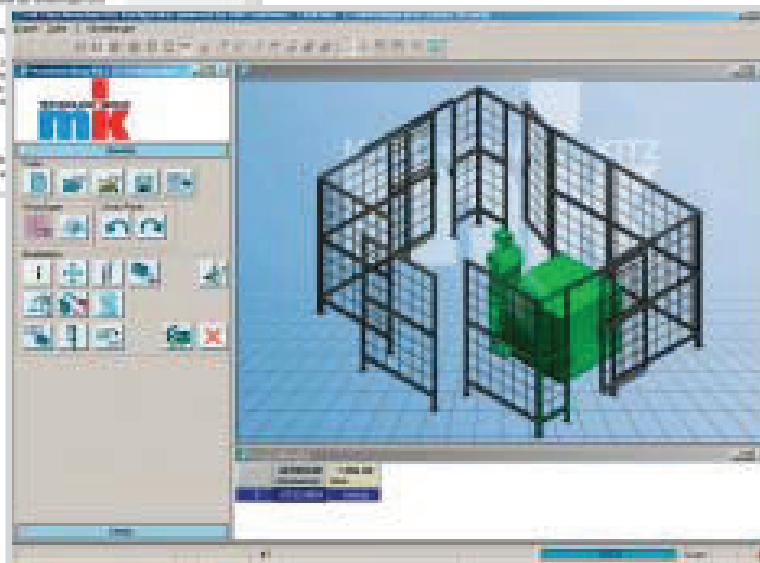
Design your guarding quickly and easily with the following advantages:

- Create guarding yourself without expensive engineering design
- Cost optimization thanks to the automatic selection of standard panels
- Very fast design, even of complex assemblies
- Software requires no additional CAD package
- Automatic creation of 3D guards on 2D floor plans
- Stand-alone configurator - no installation required
- Export 3D drawings in native file formats or exchange formats for further processing or inserting in your own CAD system
- Generation of parts lists for the guarding for placing an order with mk

## Internet



## 3D-Product-Configurator



We're there  
where you need us



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Each hour of machine downtime for one of your customers costs you money and reputation. That's why we are always at your side as a partner in an emergency. mk's numerous sales, production

and service locations in Germany, Europe and USA will support you with the expertise and service you have come to expect from us. And you don't only profit from our widespread local

presence after the sale. Right from the design phase our motto is: The implementation of economic and forward looking planning pays off. So use our international network.



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Portugal**



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Belgium**



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and Mexico**





















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