# Configuring a Conveyor

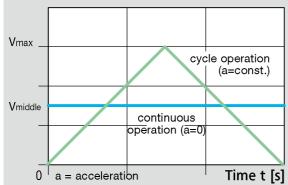
#### Drive selection

#### Speed - continuous operation to cycle operation

On one hand, the diagrams show the necessity of a higher maximum speed for cycle operation relative to continuous operation, on the other hand, they show a sample workflow of a cycle operation with soft start-up and standstill for a different action, e.g. for processing of the product.

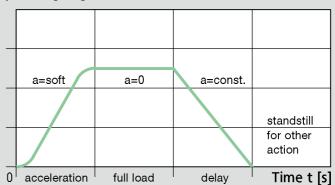
#### Continuous operation to cycle operation

#### Speed v [m/s]



#### Sample cycle operation

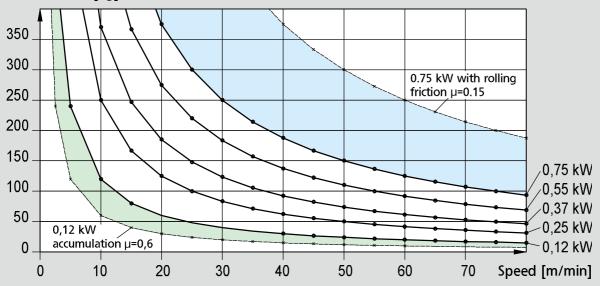
#### Speed v [m/s]



#### Motor selection based on load and speed

Based on the diagram the required motor power can be determined depending on the total load (product to be conveyed + conveyor medium) and the speed. The values contained correspond to a slide friction of  $\mu$ =0.3, as it is present for belt conveyors between belt and sheet metal.

#### Total load m [kg]



Sample influence on the permissible total load and speed if the coefficient of friction from a belt conveyor ( $\mu$ =0.3) to a roller conveyor ( $\mu$ =0.15) is reduced by half.

Sample influence on the permissible total load and speed if the coefficient of friction at continuous operation ( $\mu$ =0.3) to accumulated operation ( $\mu$ =0.6) is doubled.



#### Drive location

The head drive is positioned at the discharge end of the conveyor and pulls the transport medium (e.g. belt). This is the most typical, safest, and lowest-cost drive location. With certain restriction, you can also use a head drive on the infeed end of the conveyor, as a rear drive (pushing). However, this requires sufficient pre-tension to prevent buckling of the transport medium.

Center drives, also known as "under belt drives" or "mid mount drives" are designed so that the drive is fully below the top of the belt. These are typically used in reversing applications (reversible conveyor direction), as the transportation medium is always pulled and thus the issues of a pushing drive is avoided. Because the drive design includes a tension roller, a fixed installation length can be achieved. The two tension rollers are a reason why this drive is also called an "omega drive". Additionally it is possible to use knife edge transfers on both the infeed and discharge ends of the conveyor.

**Inner drives** with a drum motor; are ideal for narrow install conditions and clean environments because there are minimal external interferences and there are virtually no particle emissions.

### Drive type

For indirect drives; which is the predominate drive type offered, drive transmissions occurs via chain or timing bet. Different gear ratios enable more precise speed outputs and can compensate for misalignment.

With a direct drive the motor is directly connect to the drive shaft of the conveyor and thus offers lower maintenance and a more compact alternative to an indirect drive.

### Motor selection

mk offers a variety of stock motors from well-known manufacturers. The gearmotors consist of three-phase induction motors or direct-current motors, combined with Spiroplan gear units, worm gears and spur gears; which are class II IP54. Different motors, as well as UL and CSA approved or multi-range motors are also available. Visit www.mk-group.com to find a motor selection tool; which will help determine the optimum motor for your application.

### Speeds

The maximum conveyor speed depends on the selection of the motor, the load capacity, mode of operation and other influencing factors. The speed spefications are rated values and can deviate through RPM tolerance in the motor (up to ± 10%). For indirect drives; via chain or timing belt, the tolerance has tendency to shift in the positive range. Therefore on these drive the actual speed can be 20% higher than the rated speed. A higher speed also occurs when the device is operated in a facility with 60 Hz, such as the USA. In a precisely defined speed is required, this can be ensured with an mk Regolmat.

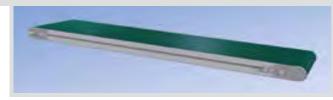
### Speed control

With the mk Reglomat, the speed of the conveyor, with three-phase current, can be regulated in the range of 1:7 (10-70 Hz) starting from the rated speed at 50 Hz. For inner drives (drum motors) the control range is 1:3 (20-60 Hz); and for direct-current in the range of 1:6 (0.25-1.5 A or 0.5-3 A).

## Configuring a Conveyor

Drive selection

### A - Head drives



AA

#### Head drive without motor

This drive version has an output shaft which can be connected to a conveyor with motor for parallel operation.



AC

#### Head drive, standard

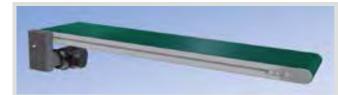
This drive version offers a variety of mounting possibilities of motors, gear units and sprockets.



ΑF

#### Head drive, direct

A compact and low-maintenance drive version with a motor that is mounted directly on the drive shaft.



AD

AG

#### Head drive, compact

A drive version with a small footprint, and ability to mount to small gearmotors, with DC or three-phase to it.



AM

#### Head drive, offset

The motor is positioned away from the discharge of the conveyor, via a series of sprockets and chains.



AS

#### Head drive, outside compact

A drive version ideal for small spaces and when the area above or below the conveyor needs to be clear.



ΑU

#### Head drive, outside

Thanks to a motor that is mounted laterally from the outside, the space below and above the conveyor remains free of interference contours.



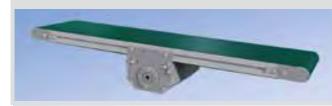
AQ

#### Head drive, dual-strand

A head drive specifically for dual-strand conveyors with more free space downward between the conveyor strands.



### B - Center drives



BA

#### Center drive, without motor

A drive unit mounted below the conveyor; enables connection on a conveyor with motor for parallel operation.



BC

#### Center drive, standard

Allows the possibility of reversing operation and selection of knife edges, on the infeed side, as well as the discharge side.



BF

#### Center drive, direct

A compact and low-maintenance drive version with a motor that is mounted directly on the drive shaft.

### C - Inner drives



CA

#### Drum motor

Maintenance-free and compact drive version without exterior interference contour with a motorized roller as drive roller.

Drive versions here shown exemplary on the belt conveyor

#### Drive location

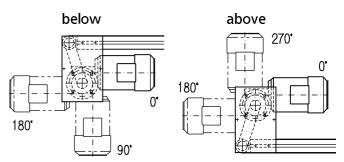
The "Drive Location" describes how and where the drive, including the motor, should be installed. The example below shows the drive mounted on the left discharge.



Discharge side Infeed side

#### Motor orientation

The motor orientation can be mounted at  $0^{\circ}$ ,  $90^{\circ}$ ,  $180^{\circ}$  and  $270^{\circ}$  as shown in the illustration. If there is no requirement from the customer, the drive location – discharge side/left/below with motor orientation  $0^{\circ}$  is delivered.



# Configuring a Conveyor

mk QuickDesigner – our online configurator



### Your conveyor at the touch of a button

With our online configurator, "mk QuickDesigner", you can quickly. Easily and specifically create your individual mk conveyor\*. There is no software to install.

Simply enter www.quickdesigner. com and click "Start", that's it.

All information entered will be immediately checked for feasibility, so that the optimal conveyor is always provided to you. All entry fields have an info button, with detailed information; to make the mk QuickDeisgner as easy and convenient as possible for you to use.

When your conveyor configuration is complete you will have the option of generating a CAD model and if desired a quote as well. In the "My Account" tab, the configurations you create and their associated models and quotes can be looked up at any time, and they can be edited.

When an order is placed, we have all relevant data in our system; which accelerates the order process and thus accelerates delivery. Even if you require a special solution, we design it based off the standard model you created; this provide a cost savings to you.



<sup>\*</sup>Conveyor systems, as of 2014: GUF-P Mini, GUF-P 2000, GUF-P 2041. Other systems to follow.











### mk QuickDesigner

- Fast, easy, and specific
- Always available, anywhere (24/7)
- Can be used in mobile applications
- Live view during the configuration
- CAD model and quote
- Save configurations and edit later
- Detailed help







# **Belt Conveyors**

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Selecting the conveyor system



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<b>GUF-P 2004</b>
Head drives
Tails

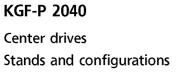


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## Contents belt conveyors



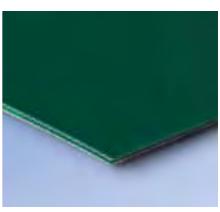


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Cleat types/sidewalls



**Application examples** 

# **Belt Conveyors**

### Selecting the conveyor system

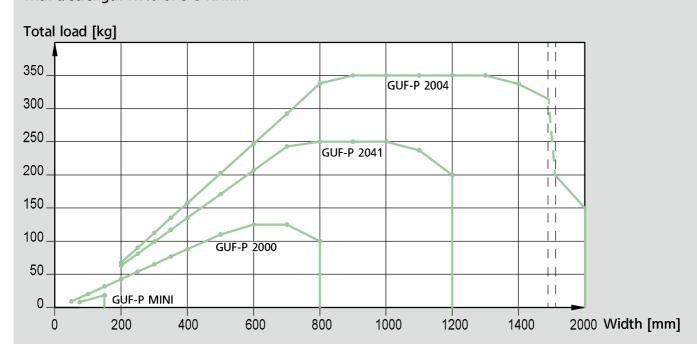
### Dimensions — technical information

Conveyor system	Conveyor width [mm]	Conveyor length [mm]	Total load* usually to [kg]	Speed to [m/min]	Tail ø [mm]	Reversing operation	Accumu- lated operation	Cycle operation
Belt conveyors								
GUF-P MINI	75/100/150	360-5000	25	50	22/32	•	•	•
GUF-P 2000	50-800	380-10000	75	80	10/12/ 19/52	•	•	•
GUF-P 2041	200-1200	540-10000	150	60	22/85	•	•	•
GUF-P 2004	200-2000	720-20000	200	60	105		•	•
Incline belt conv	eyors							
KFG-P 2000	300-700	1400-4000	40	15	52			•
Curved belt conveyors								
KGF-P 2040	300-600	90°/180°	30	30	19	•		
Dual belt conveyors								
DGF-P 2001	100-250	300-2000	15	15	25		•	•

<sup>\*</sup>Maximum load that is transported by the respective system with a usual configuration and for a usual application. The permissible load depends on the width, roller diameter, belt type, and pre-tension, as well as load distribution, operating mode, and envirenmental influences.

#### System selection based on load and conveyor width

Based on the diagram the permissible total load can be determined depending on the conveyor width per conveyor system. The values contained apply for the max. tail diameter per system and a belt with a strength K1% of 5-8 N/mm.





### Conveyor width

The conveyor width is the width of the conveyor frame; from outside edge to outside edge without tail and drive components. The belt is narrower than the width of the conveyor (between 10 and 50 mm, depending on the system); this is so that the belt self tracks as it runs.

### Conveyor length

The conveyer length is a nominal dimension, defined from the tip to tip of the conveyor ends in a tension-free state. The actual conveyor length is longer and is derived by considering the following aspects (all specifications are for an ambient temperature of 20°C):

- Tensioned length of the belt is approximately 0.3% of the belt length
- Belt length tolerance is up to 0.8% of the overall belt length
- Belt thickness adds to the overall length by 1 to 5 mm, per conveyor end
- Rollers protrude past the conveyor ends by 1 to 3.5 mm per end

If a conveyor with a precisely defined install length is required, this can be achieved via a center drive conveyor.

### Length-width ratio

To ensure safe and stable belt operation, the conveyor length to width ratio must not fall outside the specified range (1:1 to 50:1).

The ideal length to width ratio; without additional measures; is between 2:1 and 20:1. Meaning the belt is twice as long as it is wide, and up to 20 times as long as wide.

Typically length to width ratios of 1.5:1 to 2:1 are possible without restrictions, however this should be reviewed and tested. Lengths between 1:1 and 1.5:1 can only be achieved with additional design details and certain restrictions.

For longer conveyors, between 20:1 and 50:1, only transversely rigid belts should be used. At these lengths later forces on the belt are not permitted. Examples of lateral forces on the belt include: product being discharged off the side of the conveyor, product transfer and alignment via side rails as well as asymmetrical load distribution.

### Speeds

The maximum conveyor speed depends on the selection of the motor, load capacity, mode of operation and other influencing factor.

With an indirect chain drive at the drive roll (ø 50 mm) a speed up to 80 m/min is possible. The use of a timing belt for power transmission is recommended at speed above 30m/min; and is standard for 60 m/min and above, as well as indexing operations. Narrow conveyor rollers are balanced for speeds up to 60 m/min; at 100 m/min they are dynamically balanced.

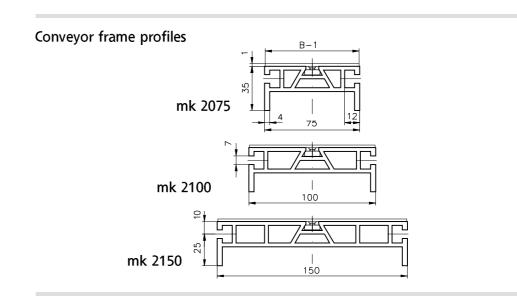
For high speeds it is ideal to used larger drive rollers, for example 80 m/min as a GUF-P 2000 as a BC with an Ø 88 mm drive roller.

### Speed control

Via mk Reglomat, the speed of the conveyor with a three-phase current can be regulated between 1:7 (10 to 70 Hz), with a starting speed rated at 50 Hz. For internal drive drum motors (drive version CA) the controller range is 1:3 (20 to 60 Hz). For direct-current the range is 1:6 (0.25 to 1.5A or 0.5 to 3A).

# Belt Conveyors GUF-P MINI















The minimal frame height, as well as the lower walls of the GUF-P MINI allow for direct placement of the conveyor on a machine bed. It is ideal for the direct discharge of light and small products, for example, out of an injection molding-machine. The small pulley diameters prevent large gaps at the product transfer. The profile

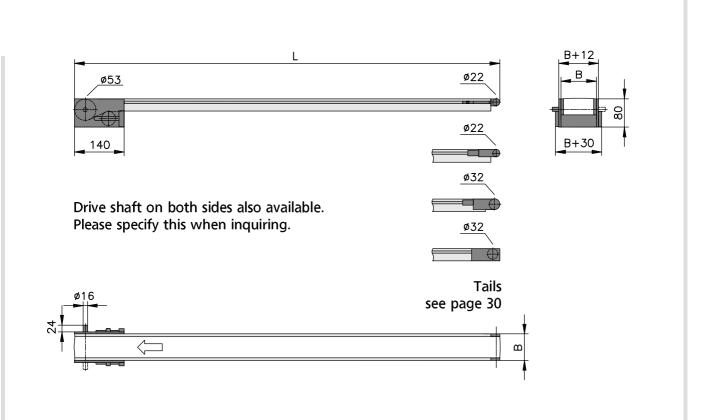
design ensures a torsion-resistant structure with good load-bearing proprieties; note that the values for total load, speeds, etc. are directly related and thus can vary. The drive roll of the various drive versions can be rubberized depending on application, so that motor torque can be optimally transmitted. Crowned drive rolls

and/or idler rolls simplify belt adjustment and tracking of the belt on the conveyor frame. A stainless steel slider bed is mounted under the running surface of the belt to achieve sustainable wear resistance. The design of the conveyor frame profile allows the return of the belt within the conveyor frame.

### **GUF-P MINI AA**

### Belt conveyor with head drive without motor

#### B20.75.009



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 integration of this conveyor into new or existing equipment. Additional features include a  $\emptyset$  53 mm crowned drive roll, separate belt tension roller, easy belt tracking at the tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. The use of cleated belts is not possible with this drive version. The  $\emptyset$  16 mm output shaft has a usable length of 19 mm and includes a 5 x 5 x 16 mm shaft key (DIN 6885).

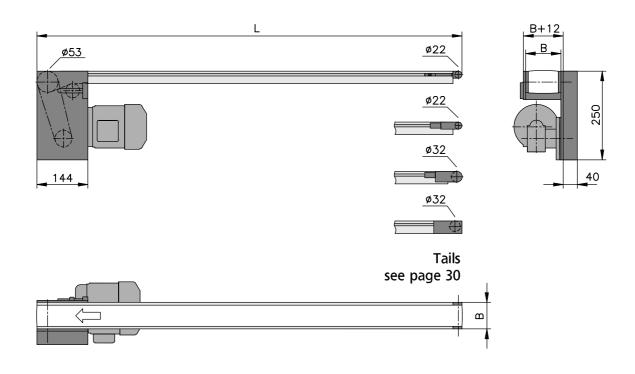
	Dimensions – technical information	Notes
Conveyor length L	between 360-5000 mm	any increment possible
Conveyor width B	75 mm, 100 mm and 150 mm	
Belt width	B-15 mm	belts see from page 84
Drive and speed	to 60 m/min (200 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 25 kg (55 lbs) section load to 10 kg (22 lbs)/m	see chart on page 20

## **GUF-P MINI AC**



Belt conveyor with head drive, standard

#### B20.75.001



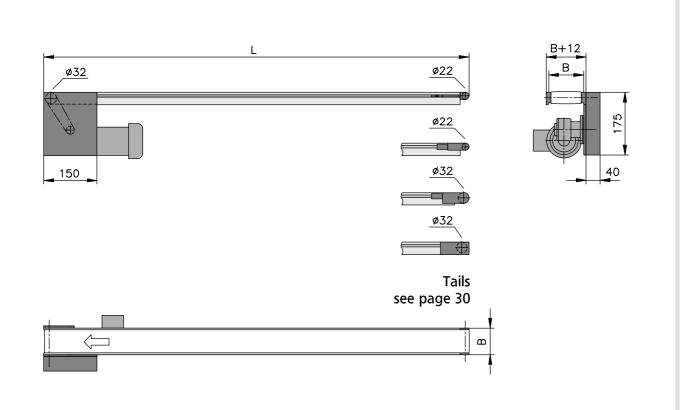
The compact frame is ideal for integrating this conveyor into new or existing equipment. Additional features include a Ø 53 mm crowned drive roll, separate belt tension roller, easy belt tracking at the tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. The use of cleated belts is not possible with this drive version.

	Dimensions – technical information	Notes
Conveyor length L	between 360-5000 mm	any increment possible
Conveyor width B	75 mm, 100 mm and 150 mm	
Belt width	B-15 mm	belts see from page 84
Drive location	discharge side left/right below	infeed side on request
Drive and speed	to 60 m/min (200 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 25 kg (55 lbs) section load to 10 kg (22 lbs)/m	see chart on page 20

## **GUF-P MINI AD**

Belt conveyor with head drive, compact

#### B20.75.033



The compact frame is ideal for integrating this conveyor into new or existing equipment. The Ø 32 mm drive roll allows for the use of cleated belts. Compared to drive version AC, this version is significantly more compact.

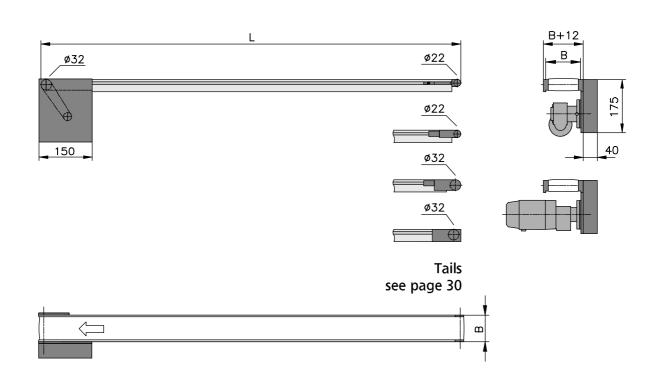
	Dimensions – technical information	Notes
Conveyor length L	between 370-5000 mm	any increment possible
Conveyor width B	75 mm, 100 mm and 150 mm	
Belt width	B-15 mm	belts see from page 84
Drive location	discharge side left/right below	infeed side on request
Drive and speed	to 15 m/min (50 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 15 kg (33 lbs) section load to 10 kg (22 lbs)/m	see chart on page 20

## **GUF-P MINI AG**



Belt conveyor with head drive, compact

#### B20.75.004



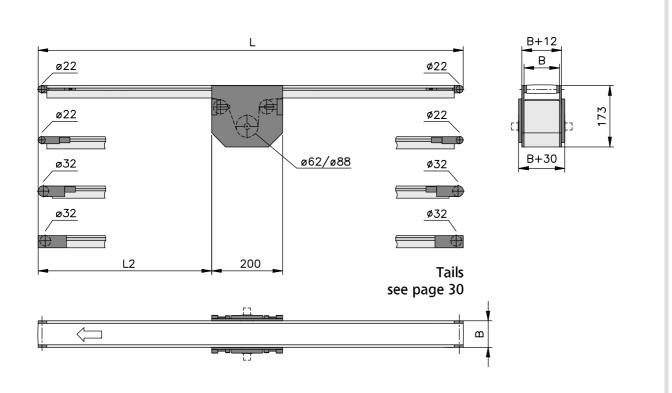
mk offers a variety of motor options for drive version AG, which are sized and selected for each application's individual speed and load requirements. The compact frame is ideal for integrating this conveyor into new or existing equipment. Additional features include a Ø 32 mm crowned drive roll, easy belt tensioning and tracking at the tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot designed frame. The Ø 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 370-5000 mm	any increment possible
Conveyor width B	75 mm, 100 mm and 150 mm	
Belt width	B-15 mm	belts see from page 84
Drive location	discharge side left/right below	infeed side on request
Drive and speed	to 15 m/min (50 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 15 kg (33 lbs) section load to 10 kg (22 lbs)/m	see chart on page 20

### **GUF-P MINI BA**

Belt conveyor with center drive without motor

#### B20.75.030



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. The travel direction is reversible. Use of cleated belts is not possible with this drive version. The crowned drive roll features a Ø 20 mm hollow shaft with a shaft key according to DIN 6885.

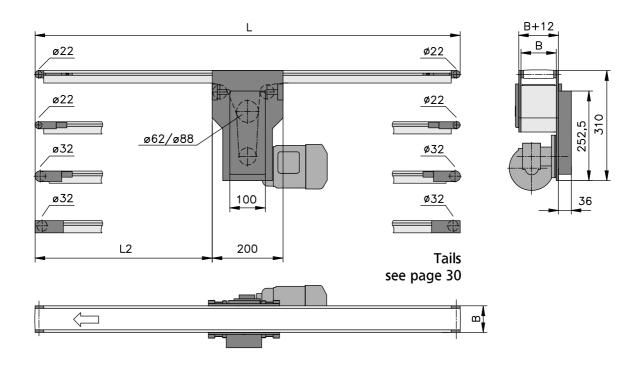
	Dimensions – technical information	Notes
Conveyor length L	between 550-5000 mm	any increment possible
Conveyor width B	75 mm, 100 mm and 150 mm	
Belt width	B-15 mm	belts see from page 84
Drive and speed	to 60 m/min (200 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 25 kg (55 lbs) section load to 10 kg (22 lbs)/m	see chart on page 20

## **GUF-P MINI BC**



Belt conveyor with center drive, standard

#### B20.75.005

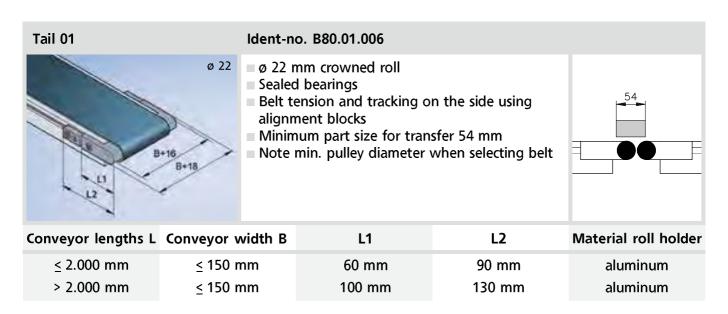


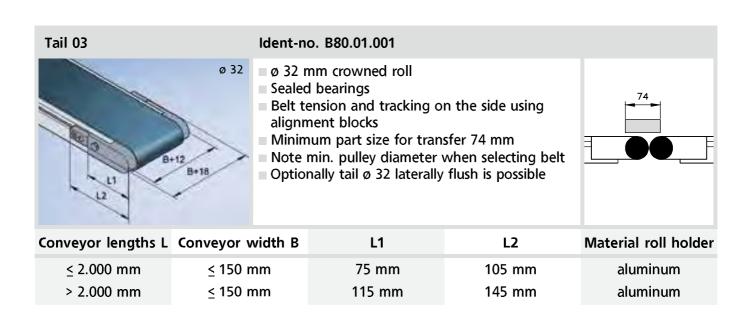
mk offers a variety of motor options for drive version BC, which are sized and selected for each application's individual speed and load requirements. The compact design, and the ability to move the drive location anywhere along the conveyor frame, simplifies the integration of this conveyor into new or existing equipment. The travel direction is reversible. Use of cleated belts is not possible with this drive version.

	Dimensions – technical information	Notes
Conveyor length L	between 550-5000 mm	any increment possible
Conveyor width B	75 mm, 100 mm and 150 mm	
Belt width	B-15 mm	belts see from page 84
Drive location	left/right below	
Drive and speed	to 60 m/min (200 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 25 kg (55 lbs) section load to 10 kg (22 lbs)/m	see chart on page 20

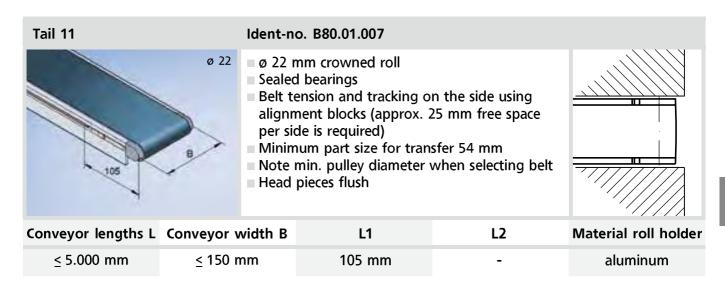
## **GUF-P MINI**

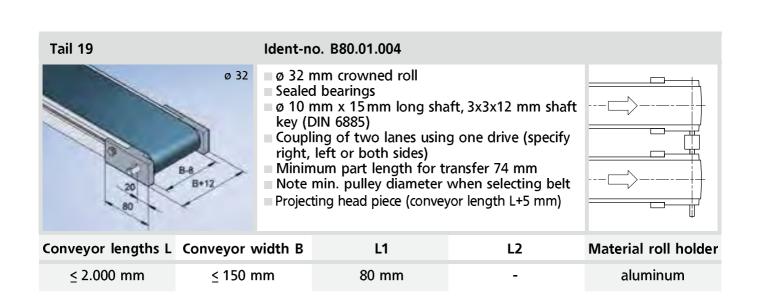
#### Tails







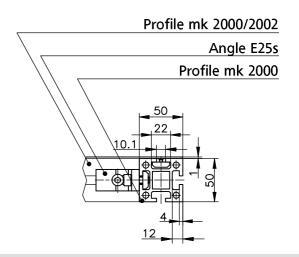




# Belt Conveyors GUF-P 2000



### 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

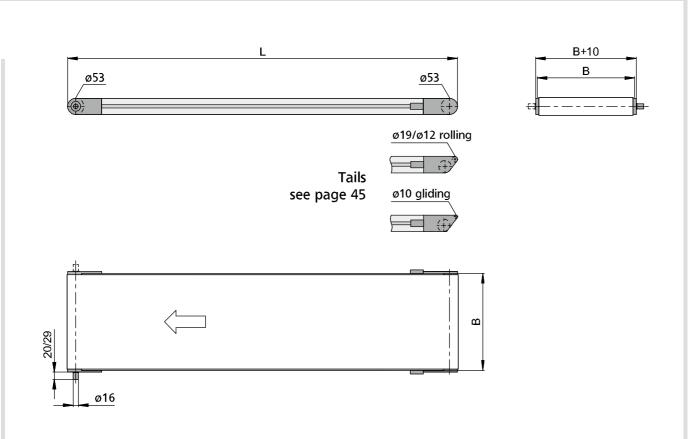
the ø 53 mm drive roll, which is available with either steel or rubberized versions depending on the application. All mk belt conveyor systems feature crowned rolls which significantly simplify belt adjustment. T-slots (10 mm opening) run the length of the conveyor frame, they can be used for integration into existing equipment as well as for mounting of standard or

customer-specific stands, side rails and other accessories. Additional details include a stainless steel slider bed mounted to the conveyor frame which reduces the 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.

## **GUF-P 2000 AA**

Belt conveyor with head drive without motor

#### B20.00.009



Drive version AA is often used when 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 ø 53 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 profile frame. Cleated belts may be used with this drive version. The ø 16 mm output shaft has a usable length of 20 mm for chain drive or 29 mm for timing belt drive. Both feature a shaft key according to DIN 6885.

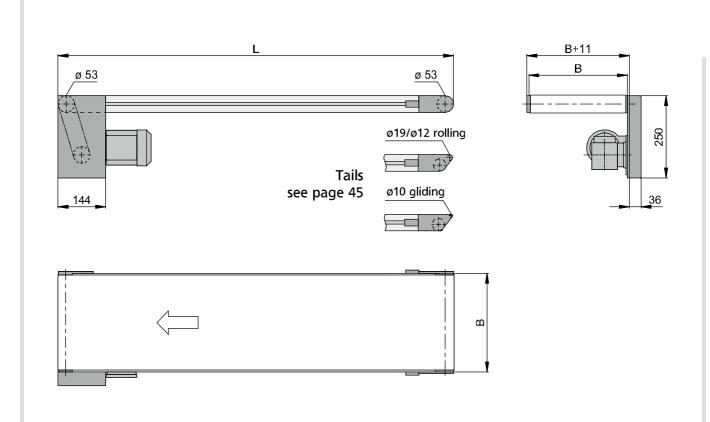
	Dimensions – technical information	Notes
Conveyor length L	between 380 – 10000 mm	any increment possible
Conveyor width B	50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request
Belt width	B-10 mm	belts see from page 84
Drive and speed	to 80 m/min (260 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 75 kg (165 lbs) section load to 25 kg (55 lbs)/m	see chart on page 20

## **GUF-P 2000 AC**



Belt conveyor with head drive, standard

#### B20.00.002



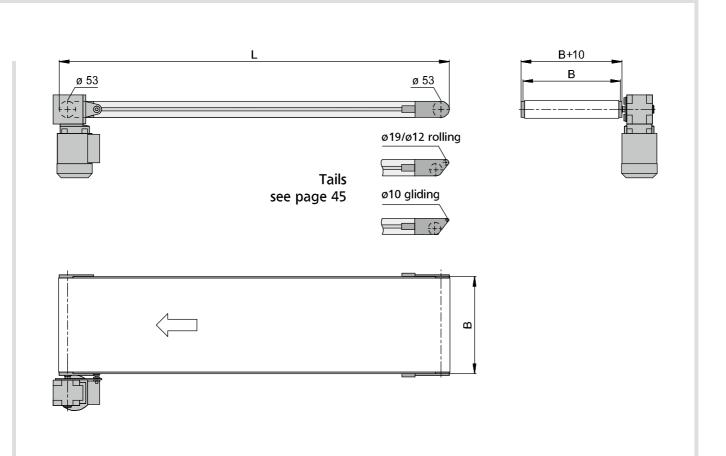
The series 50 frame is ideal for most general purpose conveying applications. Additional features include a Ø 53 mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot profile frame. Cleated belts may be used with this drive version.

	Dimensions – technical information	Notes
Conveyor length L	between 410 – 10000 mm	any increment possible
Conveyor width B	50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request
Belt width	B-10 mm	belts see from page 84
Drive location	discharge side left/right below/above	infeed side on request
Drive and speed	to 80 m/min (260 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 75 kg (165 lbs) section load to 25 kg (55 lbs)/m	see chart on page 20

## **GUF-P 2000 AF**

Belt conveyor with head drive, direct

#### B20.00.011



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

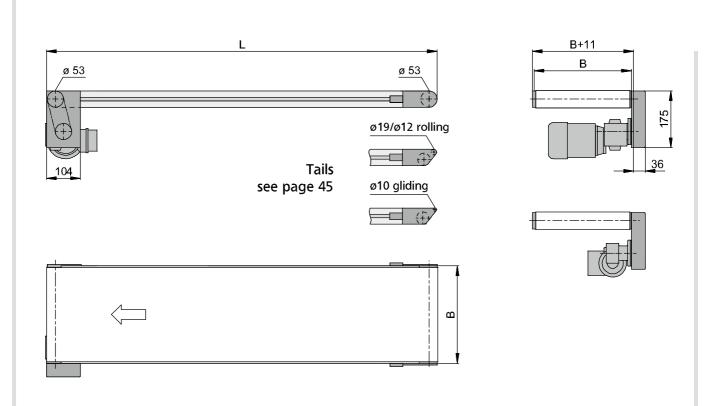
	Dimensions – technical information Notes		
Conveyor length L	between 410-10000 mm any increment poss		
Conveyor width B	50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm others on request		
Belt width	B-10 mm	belts see from page 84	
Drive location	discharge side left/right	infeed side on request	
Drive and speed	2.8; 3.7; 4.5; 5.5; 6.7; 7.9; 8.9; 11.2; 13.2 and 15.2 m/min	.9; see chart on page 12	
Stands and side rails		see from page 262	
Load capacity	total load to 30 kg (65 lbs) section load to 25 kg (55 lbs)/m	see chart on page 20	

## **GUF-P 2000 AG**



Belt conveyor with head drive, compact

#### B20.00.005



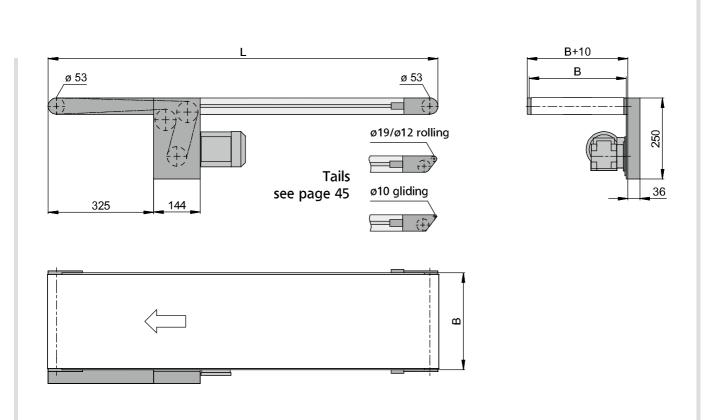
Drive version AG differs from version AC due to the use of small geared motors. The series 50 frame is ideal for most general purpose conveying applications. Additional features include a Ø 53 mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot profile 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 380-6000 mm any increment possib			
Conveyor width B	50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm others on request			
Belt width	B-10 mm	belts see from page 84		
Drive location	discharge side left/right below/above	infeed side on request		
Drive and speed	to v=15 m/min (50 ft/min)	see chart on page 12		
Stands and side rails		see from page 262		
Load capacity	total load to 30 kg AC / 15 kg DC section load to 25 kg (55 lbs)/m	see chart on page 20		

## **GUF-P 2000 AM**

Belt conveyor with head drive, offset

#### B20.00.003



This conveyor is ideal for feeding parts into or out of equipment. Additional features for the drive version AM include a Ø 53 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 profile frame. Cleated belts may be used with this drive version.

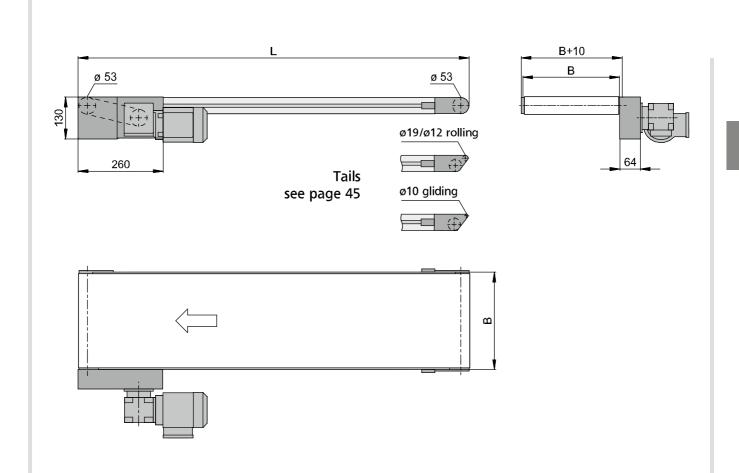
	Dimensions – technical information Notes			
Conveyor length L	between 750-10000 mm any increment possib			
Conveyor width B	50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm others on request			
Belt width	B-10 mm	belts see from page 84		
Drive location	discharge side left/right below	infeed side on request		
Drive and speed	to 80 m/min (260 ft/min)	see chart on page 12		
Stands and side rails		see from page 262		
Load capacity	total load to 75 kg (165 lbs) section load to 25 kg (55 lbs)/m	see chart on page 20		

## **GUF-P 2000 AS**



Belt conveyor with head drive, outside

#### B20.00.008



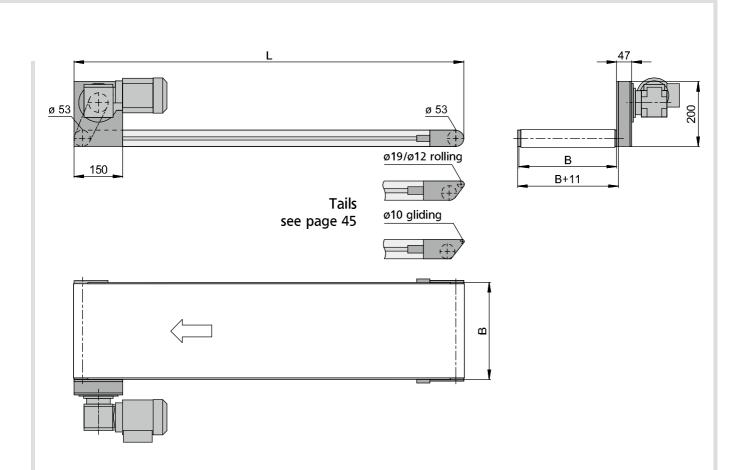
The overall height of the conveyor with drive version AS is held to an absolute minimum. Additional features include a Ø 53 mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a stainless steel slider bed fastened to an aluminum T-slot profile frame. Cleated belts may be used with this drive version.

	Dimensions – technical information Notes				
Conveyor length L	between 550-10000 mm any increment possible				
Conveyor width B	50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm				
Belt width	B-10 mm	belts see from page 84			
Drive location	discharge side left/right infeed side on reque				
Drive and speed	to 80 m/min (260 ft/min)	see chart on page 12			
Stands and side rails		see from page 262			
Load capacity	total load to 75 kg (165 lbs) section load to 25 kg (55 lbs)/m	see chart on page 20			

## **GUF-P 2000 AU**

Belt conveyor with head drive, outside

#### B20.00.020



Drive version AU features motor placement outside of the conveyor frame. This is often used in applications 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 Ø 53 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 profile frame. Cleated belts may be used with this drive version.

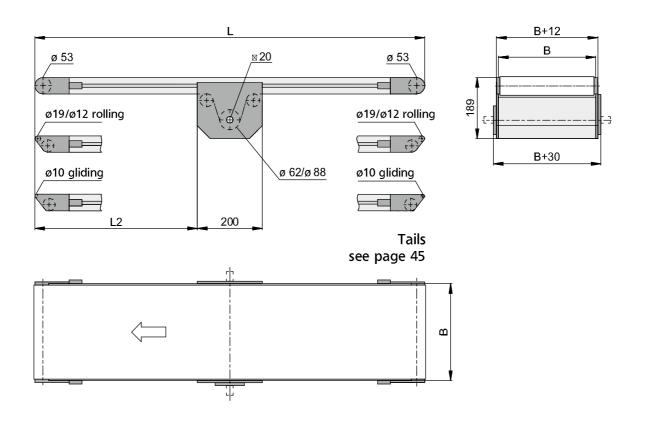
	Dimensions – technical information Notes		
Conveyor length L	between 430-10000 mm any increment possi		
Conveyor width B	50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request	
Belt width	B-10 mm	belts see from page 84	
Drive location	discharge side left/right below/above	infeed side on request	
Drive and speed	to 80 m/min (260 ft/min)	see chart on page 12	
Stands and side rails		see from page 262	
Load capacity	total load to 75 kg (165 lbs) section load to 25 kg (55 lbs)/m	see chart on page 20	

### **GUF-P 2000 BA**



Belt conveyor with center drive without motor

#### B20.00.001



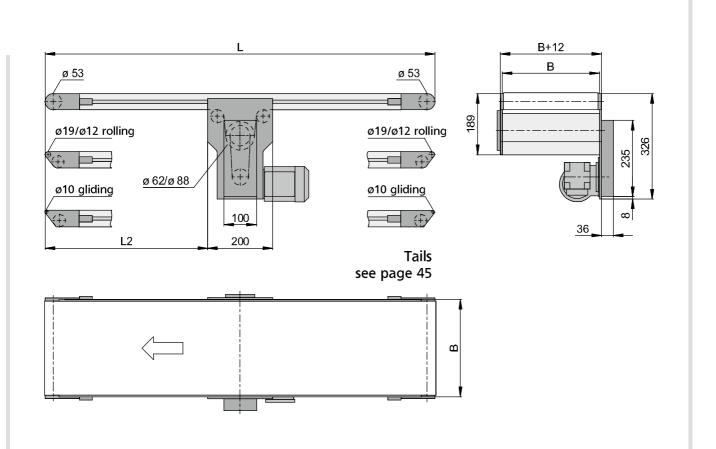
Drive version BA is used primarily when slave driving multiple conveyor lanes, in parallel; using one drive motor is required. The compact design, and the ability to move the drive location anywhere along the conveyor frame, simplifies the integration of this conveyor into new or existing equipment. The travel direction is reversible. The use of knife edges, both on the infeed side, as well as the discharge side is possible. The use of cleated belts is not possible with this drive version. The drive roll features a Ø 20 mm hollow shaft with 6 mm keyway (DIN 6885).

	Dimensions – technical information Notes			
Conveyor length L	between 700-10000 mm any increment possible			
Conveyor width B	50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm	others on request		
Belt width	B-10 mm	belts see from page 84		
Drive and speed	to 80 m/min (260 ft/min)	see chart on page 12		
Stands and side rails		see from page 262		
Load capacity	total load to 75 kg (165 lbs) section load to 25 kg (55 lbs)/m	see chart on page 20		

## **GUF-P 2000 BC**

### Belt conveyor with center drive, standard

#### B20.00.004



The compact conveyor frame, and the ability to move the drive (Version BC) location anywhere along the conveyor frame, simplifies the integration of this conveyor into new or existing equipment. The travel direction is reversible. The use of knife edges, both on the infeed side, as well as the discharge side is possible. The use of cleated belts is not possible with this drive version.

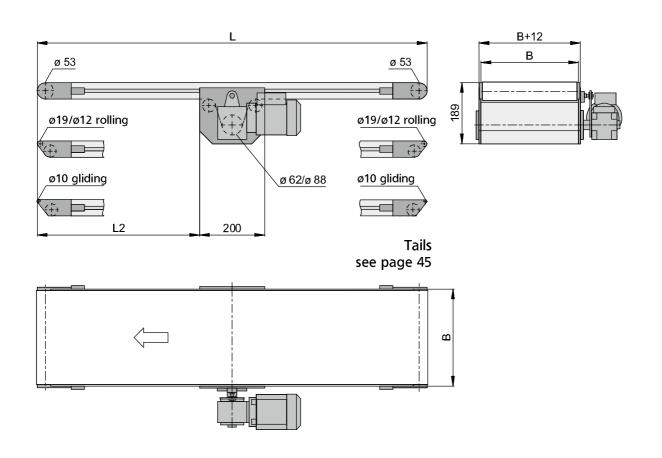
	Dimensions – technical information Notes			
Conveyor length L	between 700-10000 mm any increment possibl			
Conveyor width B	50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm others on request			
Belt width	B-10 mm	belts see from page 84		
Drive location	left/right below			
Drive and speed	to 80 m/min (260 ft/min) see chart on page 12			
Stands and side rails		see from page 262		
Load capacity	total load to 75 kg (165 lbs) section load to 25 kg (55 lbs)/m	see chart on page 20		

### **GUF-P 2000 BF**



Belt conveyor with center drive, direct

#### B20.00.012

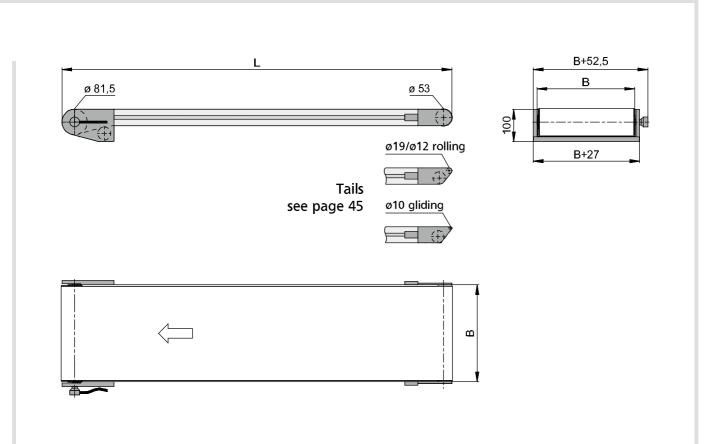


Thanks to the motor mounted directly onto the drive shaft, for this drive version BF, the spatial requirements and maintenance are reduced to a minimum. The compact design, and the ability to move the drive location anywhere along the conveyor frame, simplifies the integration of this conveyor into new or existing equipment. The travel direction is reversible. The use of knife edges, both on the infeed side, as well as the discharge side is possible. The use of cleated belts is not possible with this drive version.

	Dimensions – technical information	Notes		
Conveyor length L	between 700-10000 mm any increment possi			
Conveyor width B	50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800 mm others on request			
Belt width	B-10 mm belts see from page 8			
Drive location	left/right below			
Drive and speed	5; 6,3; 8; 9,5; 11,5; 13,5; 15,2; 19,3; see chart on page 1 23; 26; 36,6; 45,7 and 57 m/min			
Stands and side rails		see from page 262		
total load to 75 kg (165 lbs) see chart on page section load to 25 kg (55 lbs)/m		see chart on page 20		

## **GUF-P 2000 CA**

### Belt conveyor with drum motor



The drive version CA with drum motor is the most compact drive version available for system GUF-P 2000. 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. The use of cleated belts is not possible with this drive version.

	Dimensions – technical information Notes			
Conveyor length L	between 440-10000 mm any increment possil			
Conveyor width B	200, 250, 300, 350, 400, 500, 600, 700 and 800 mm others on request			
Belt width	B-10 mm	belts see from page 84		
Drive location	discharge side left/right			
Drive and speed	to 60 m/min (200 ft/min) see chart on page 12			
Stands and side rails		see from page 262		
Load capacity	total load to 55 kg (121 lbs) section load to 25 kg (55 lbs)/m	see chart on page 20		

## **GUF-P 2000**

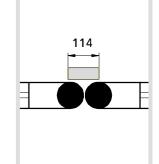




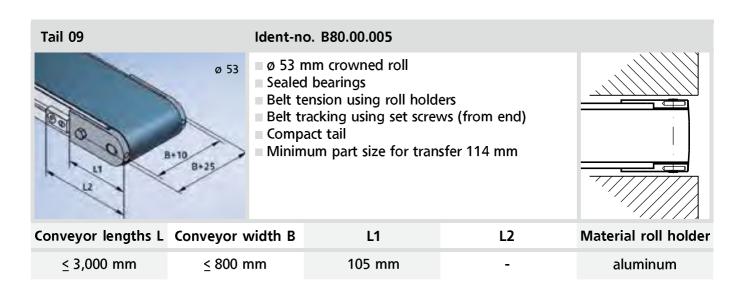


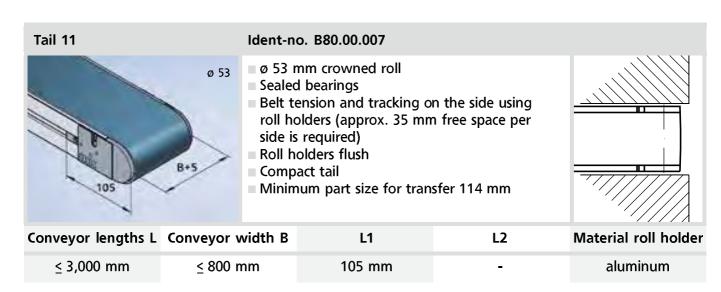
#### Ident-no. B80.00.001

- ø 53 mm crowned roll
- Sealed bearings
- Belt tension and tracking on the side using alignment blocks
- Minimum part size for transfer 114 mm



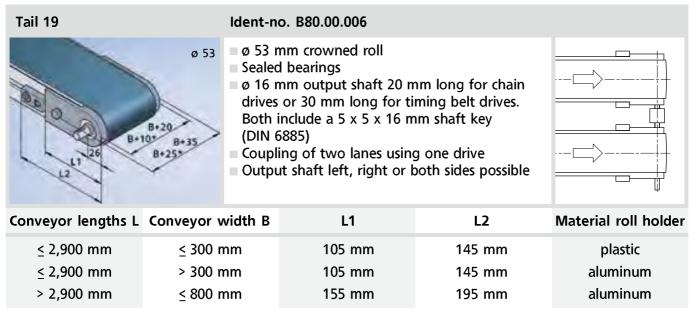
Conveyor lengths L	Conveyor width B	L1	L2	Material roll holder
≤ 2,900 mm	≤ 300 mm	105 mm	145 mm	plastic
≤ 2,900 mm	> 300 mm	105 mm	145 mm	aluminum
> 2,900 mm	≤ 800 mm	155 mm	195 mm	aluminum



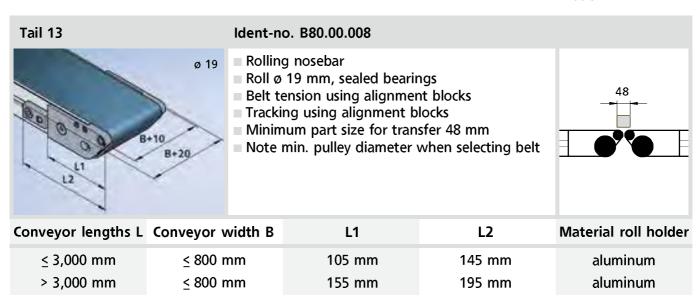


## **GUF-P 2000**

#### Tails

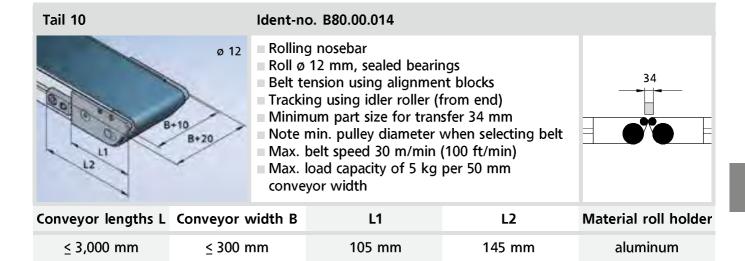


\*does not apply for the drive side





aluminum

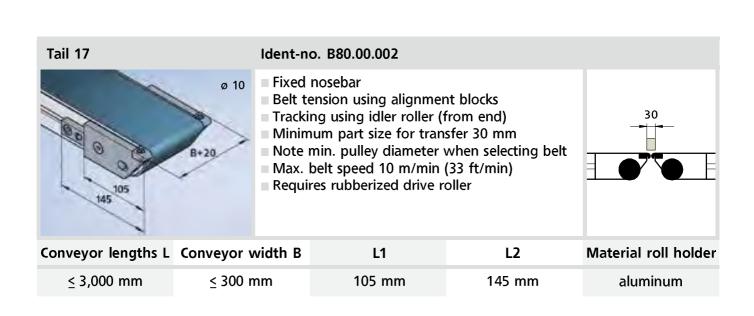


155 mm

195 mm

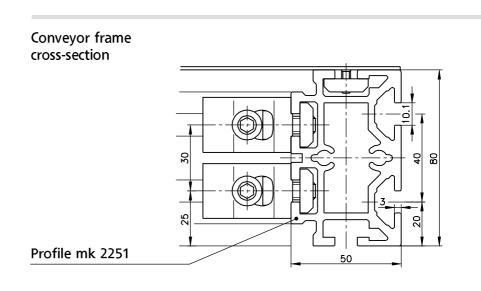
> 3,000 mm

< 300 mm

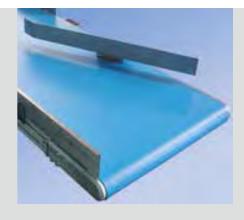


# Belt Conveyors GUF-P 2041















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 higher loads. The components use in the drive and tail assemblies are also specifically designed to handle these loads. The standard Ø 85 mm drive roll for this system

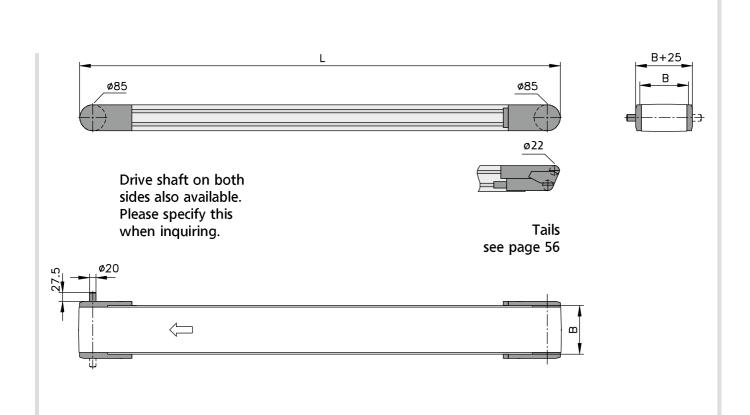
further ensures that all available motor power is transferred to the belt. An additional advantage of this system is an almost unlimited selection of belt types, including cleats and sidewalls. Each side of the conveyor frame features two profile system T-slots (10 mm opening) for integration into existing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

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

## **GUF-P 2041 AA**

### Belt conveyor with head drive without motor

#### B20.40.009



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 an  $\emptyset$  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 profile frame. Cleated belts may be used with this drive version. The  $\emptyset$  20 mm output shaft has a usable length of 27.5 mm and includes a 6 x 6 x 22 mm shaft key (DIN 6885).

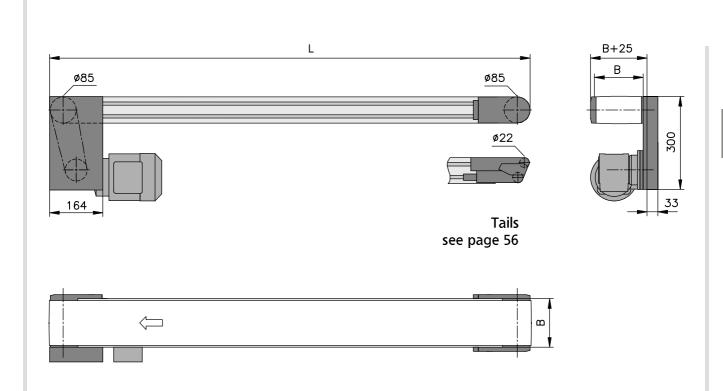
	Dimensions – technical information Notes		
Conveyor length L	between 540-10000 mm any increment possik		
Conveyor width B	200 to 1200 mm (in 100 mm increments) others on request		
Belt width	B-15 mm	belts see from page 84	
Drive and speed	to 60 m/min (200 ft/min)	see chart on page 12	
Stands and side rails		see from page 262	
Load capacity	total load to 150 kg (330 lbs) section load to 50 kg (110 lbs)/m	see chart on page 20	

## **GUF-P 2041 AC**



Belt conveyor with head drive, standard

#### B20.40.001



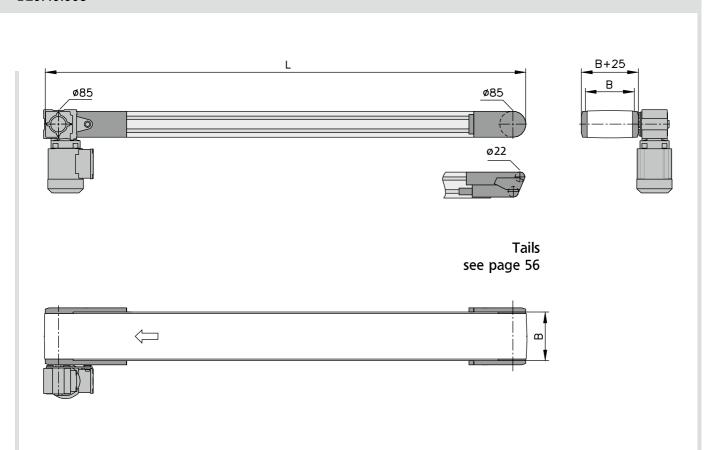
The compact frame is ideal for integrating this conveyor into new or existing equipment. Additional features include an Ø 85 mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a galvanized steel slider bed fastened to an aluminum T-slot profile frame. Cleated belts may be used with this drive version.

	Dimensions – technical information Notes	
Conveyor length L	between 540-10000 mm any increment possil	
Conveyor width B	200 to 1200 mm (in 100 mm increments) others on request	
Belt width	B-15 mm	belts see from page 84
Drive location	discharge side left/right below/above	infeed side on request
Drive and speed	to 60 m/min (200 ft/min) see chart on page 12	
Stands and side rails		see from page 262
Load capacity	total load to 150 kg (330 lbs) section load to 50 kg (110 lbs)/m	see chart on page 20

## GUF-P 2041 AF

### Belt conveyor with head drive, direct

#### B20.40.008



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

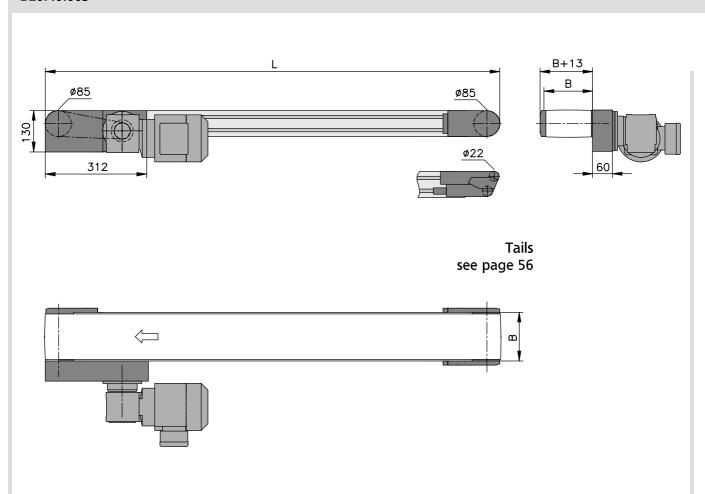
	Dimensions – technical information	Notes	
Conveyor length L	between 560-10000 mm	any increment possible	
Conveyor width B	200 to 1200 mm (in 100 mm increments)	others on request	
Belt width	B-15 mm	belts see from page 84	
Drive location	discharge side left/right	infeed side on request	
Drive and speed	4,7; 6; 7,5; 9; 11; 13; 14,5; 18,5; 22; 25; 35; 43,5 and 54,5 m/min	see chart on page 12	
Stands and side rails		see from page 262	
Load capacity	total load to 100 kg (220 lbs) see chart on page section load to 50 kg (110 lbs)/m		

## **GUF-P 2041 AS**



Belt conveyor with head drive, outside

#### B20.40.003



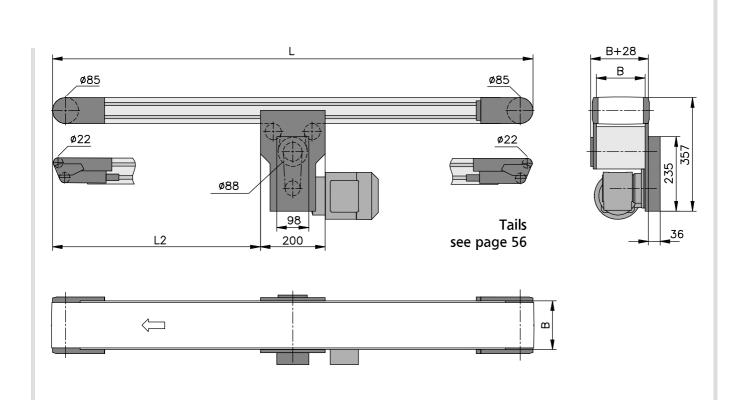
The conveyor can be placed very close to equipment. Additional features include an Ø 85 mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a galvanized steel slider bed fastened to an aluminum T-slot profile frame. Cleated belts may be used with this drive version.

	Dimensions – technical information Notes	
Conveyor length L	between 700-10000 mm any increment possib	
Conveyor width B	200 to 1200 mm (in 100 mm increments) others on request	
Belt width	B-15 mm	belts see from page 84
Drive location	discharge side left/right	infeed side on request
Drive and speed	to 60 m/min (200 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 150 kg (330 lbs) section load to 50 kg (110 lbs)/m	see chart on page 20

### **GUF-P 2041 BC**

### Belt conveyor with center drive, standard

#### B20.40.004



The compact conveyor frame structure, and the ability to move the drive location anywhere along the conveyor frame, simplifies the integration of this conveyor into new or existing equipment. The travel direction is reversible. It is possible to use knife edges, both on the infeed side, and the discharge side. Use of cleated belts is not possible with this drive version.

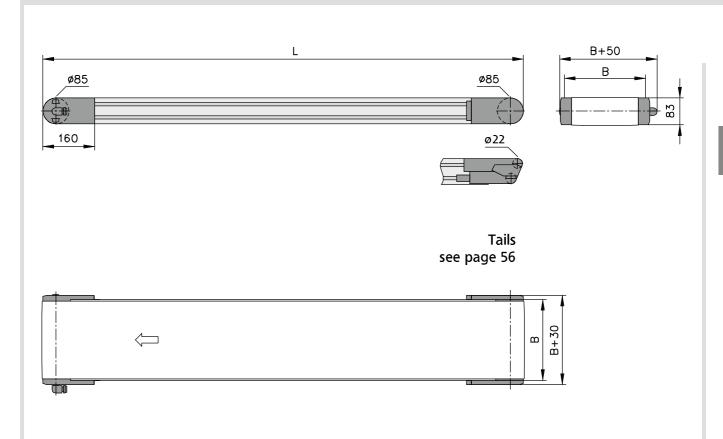
	Dimensions – technical information Notes		
Conveyor length L	between 800-10000 mm	any increment possible	
Conveyor width B	200 to 1200 mm (in 100 mm increments) others on request		
Belt width	B-15 mm	belts see from page 84	
Drive location	left/right below		
Drive and speed	to 60 m/min (200 ft/min) see chart on page 12		
Stands and side rails		see from page 262	
Load capacity	total load to 150 kg (330 lbs) see chart on page 20 section load to 50 kg (110 lbs)/m		

## GUF-P 2041 CA



### Belt conveyor with drum motor

#### B20.40.005

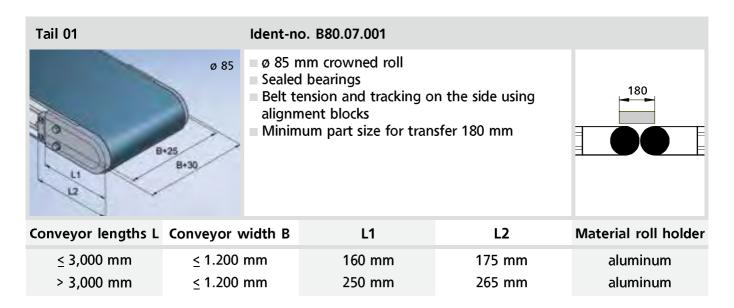


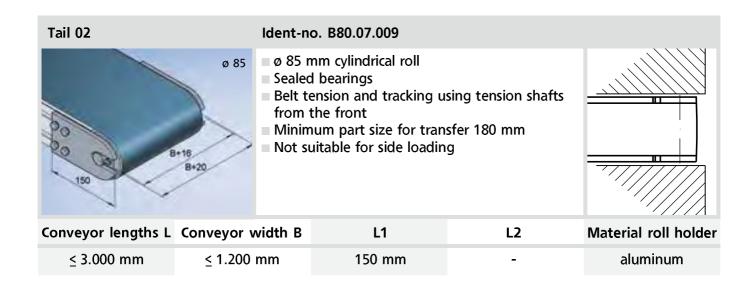
The drive version CA has a drum motor and is the most compact drive version available for system GUF-P 2041. By integrating the motor within the drive roll itself, there is no mechanical interference. The integration of this conveyor into equipment is therefore relatively simple.

	Dimensions – technical information Notes	
Conveyor length L	between 540-3000 mm any increment possi	
Conveyor width B	200, 250, 300, 350, 400, 500, 600, 700, 800, 900 and 1000 mm	others on request
Belt width	B-15 mm	belts see from page 84
Drive location	discharge side left/right	
Drive and speed	to 60 m/min (200 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 55 kg (121 lbs) section load to 50 kg (110 lbs)/m	see chart on page 20

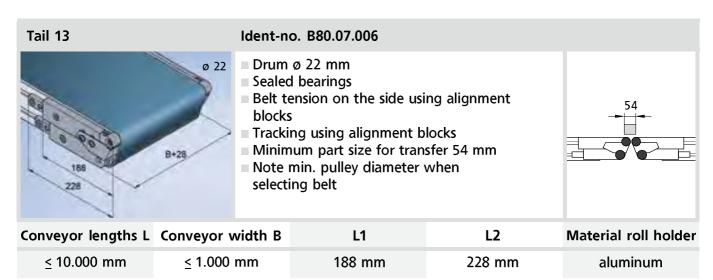
## **GUF-P 2041**

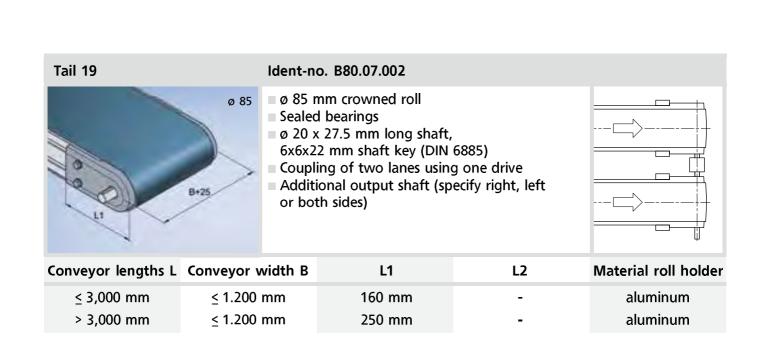
### Tails



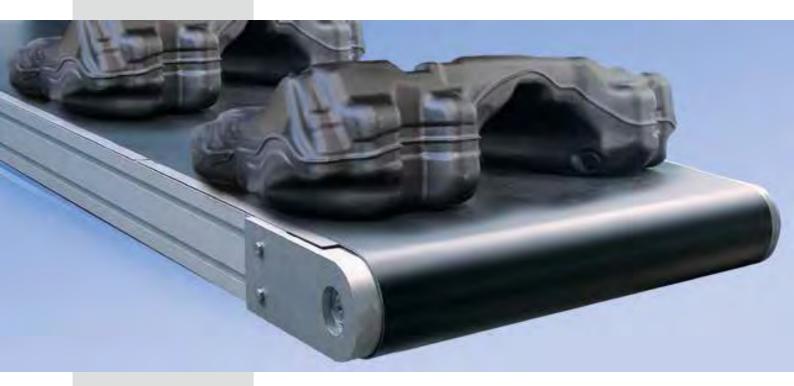


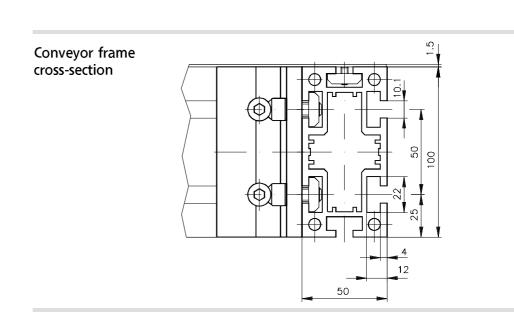






# Belt Conveyors GUF-P 2004















Besides the standard features of all mk Belt Conveyor Systems including crowned rolls for simple belt adjustment and low friction slider beds, System GUF-P 2004 is noted for its extremely heavy frame manufactured using our structural Profile mk 2004. With

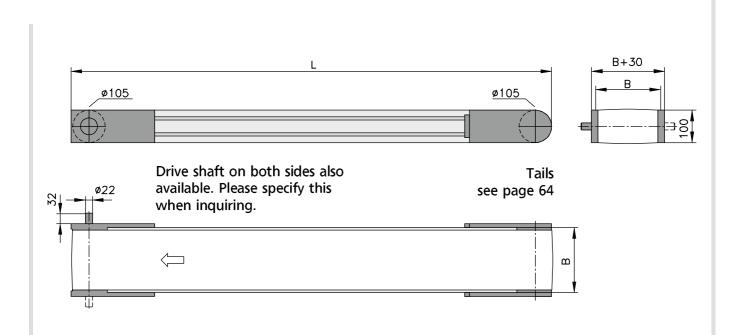
total load capacities up to 200 kg (440 lbs) and frame dimensions of up to 2,000 mm wide by 20 meters long, this conveyor is ideally suited for transporting large and bulky goods. The Ø 105 mm drive roll, which is available in either steel or rubberized, de-

pending on load; completes this conveyor. This is the largest belt conveyor we offer. In addition to the high load carrying capacity, this conveyor system is further enhanced by the large selection of standard accessories including side rails and heavy-duty stands.

### **GUF-P 2004 AA**

Belt conveyor with head drive without motor

#### B20.14.009



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  $\emptyset$  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 profile frame. Cleated belts may be used with this drive version. The  $\emptyset$  22 mm x 32 mm long output shaft includes a 6 x 6 x 32 mm shaft key (DIN 6885).

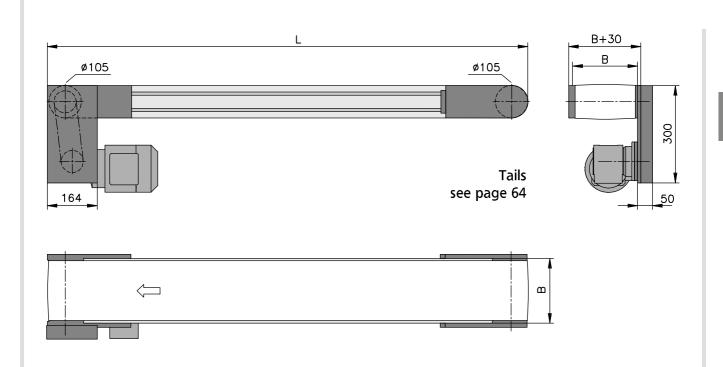
	Dimensions – technical information Notes	
Conveyor length L	between 720-20000 mm any increment possi	
Conveyor width B	200-2000 mm (in 100 mm increments) others on request	
Belt width	B-50 mm	belts see from page 84
Drive and speed	to 60 m/min (200 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 200 kg (440 lbs) section load to 75 kg (165 lbs)/m	see chart on page 20

### **GUF-P 2004 AC**



Belt conveyor with head drive, standard

### B20.14.001



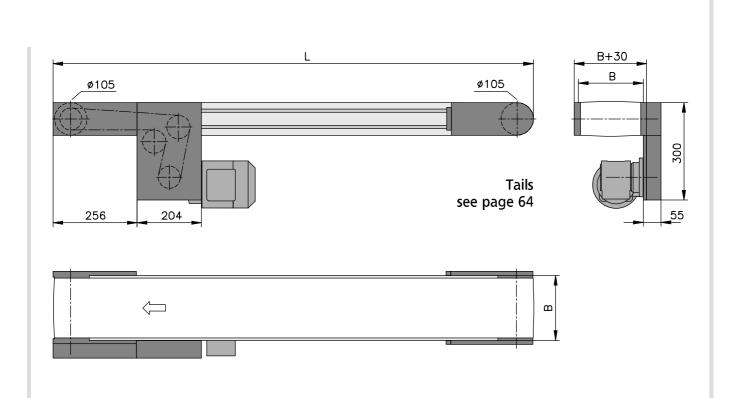
The compact frame is ideal for integrating this conveyor into new or existing equipment. Additional features include a Ø 105 mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a galvanized steel slider bed fastened to an aluminum T-slot profile frame. Cleated belts may be used with this drive version.

	Dimensions – technical information	Notes
Conveyor length L	between 720-20000 mm any increment poss	
Conveyor width B	200-2000 mm (in 100 mm increments) others on request	
Belt width	B-50 mm	belts see from page 84
Drive location	discharge side left/right below/above	infeed side on request
Drive and speed	to 60 m/min (200 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 200 kg (440 lbs) section load to 75 kg (165 lbs)/m	see chart on page 20

### **GUF-P 2004 AM**

Belt conveyor with head drive, offset

#### B20.14.003



This conveyor is ideal for feeding parts into or out of equipment. Features include a Ø 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 profile frame. Cleated belts may be used with this drive version.

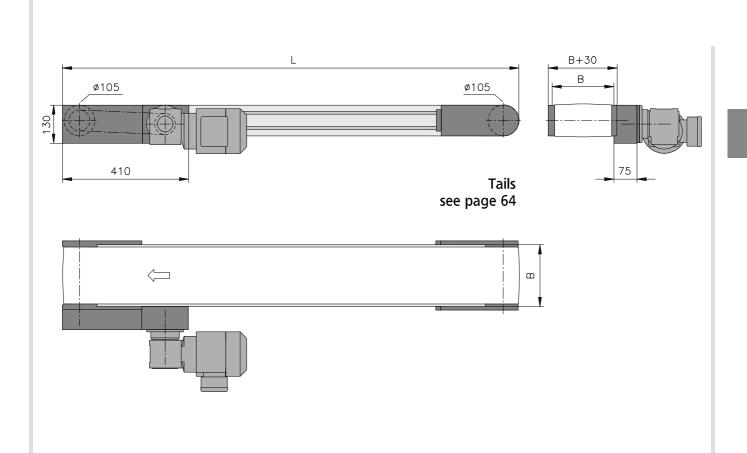
	Dimensions – technical information Notes	
Conveyor length L	between 920-20000 mm any increment poss	
Conveyor width B	200-2000 mm (in 100 mm increments)	others on request
Belt width	B-50 mm	belts see from page 84
Drive location	discharge side left/right below	infeed side on request
Drive and speed	to 60 m/min (200 ft/min)	see chart on page 12
Stands and side rails		see from page 262
Load capacity	total load to 200 kg (440 lbs) section load to 75 kg (165 lbs)/m	see chart on page 20

## **GUF-P 2004 AS**



Belt conveyor with head drive, outside

### B20.14.002

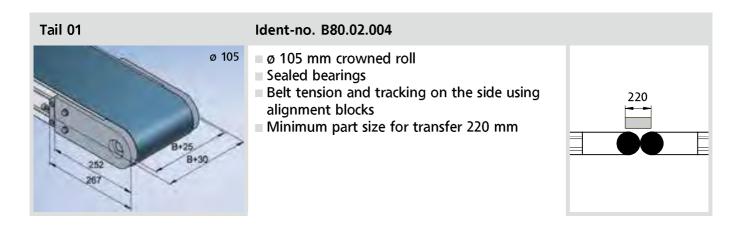


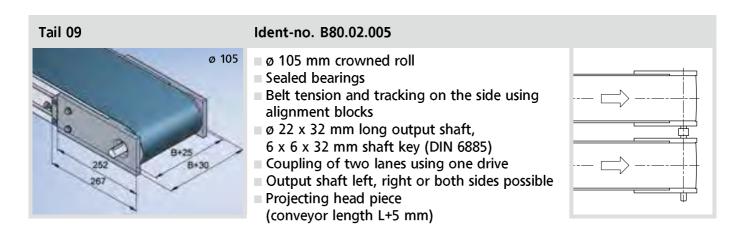
This conveyor model can be placed very close to equipment. Features include a Ø 105 mm crowned drive roll, easy belt tracking at the tail end, sealed ball bearings and a galvanized steel slider bed fastened to an aluminum T-slot designed frame. Cleated belts may be used with this drive version.

	Dimensions – technical information	Notes	
Conveyor length L	between 870-20000 mm any increment possib		
Conveyor width B	200-2000 mm (in 100 mm increments)	others on request	
Belt width	B-50 mm	belts see from page 84	
Drive location	discharge side left/right	infeed side on request	
Drive and speed	to 60 m/min (200 ft/min)	see chart on page 12	
Stands and side rails		see from page 262	
Load capacity	total load to 200 kg (440 lbs) section load to 75 kg (165 lbs)/m	see chart on page 20	

## **GUF-P 2004**

### Tails

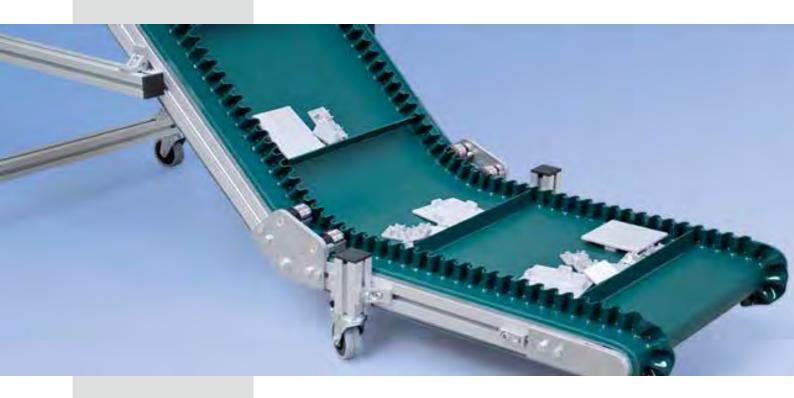




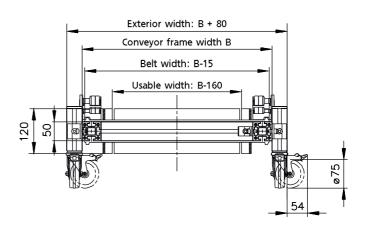
## Notes




# Incline Belt Conveyors KFG-P 2000



### Conveyor frame cross-section













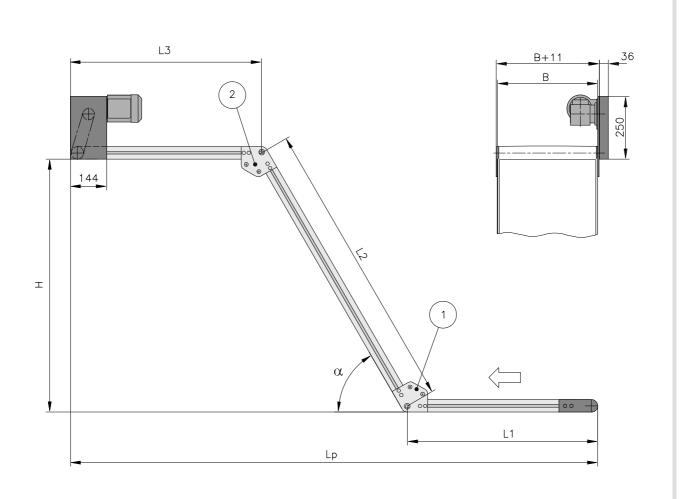
With its' compact design using our structural aluminum Profile mk 2000, Conveyor System KFG-P 2000 is ideally suited for continuous duty applications in a multiple shift environment. Used primarily for the transport of small parts, the belt is guided through the incline by

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. With all the inherent benefits of modular construction of 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.

## KFG-P 2000 AC

Incline belt conveyor with head drive, standard

### B20.00.010



The  $\emptyset$  53 mm drive roll provides good belt wrap and efficient motor power transmission; and the compact construction simplifies the integration of this conveyor into existing equipment.

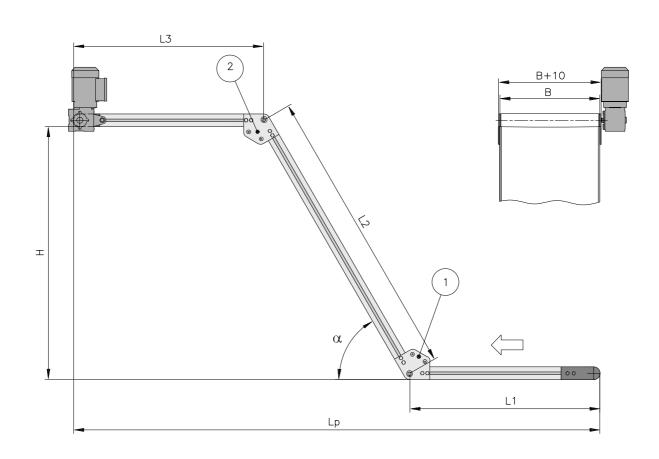
	Dimensions – technical information Notes	
Conveyor length L (L1+L2+L3)	variable to approx. 4000 mm any increment poss L1/L3 min. = 400, L2 min. = 600	
Conveyor width B	300 to 700 mm (in 100 mm increments)	others on request
Drive location	discharge side left/right below/above	
Drive and speed	to 15 m/min (50 ft/min)	others on request
Stands and side rails	see page 74	
Load capacity	total load to 40 kg (88 lbs) section load to 25 kg (55 lbs)/m, 5 kg/field	higher on request
Bends $\alpha$	30, 45 and 60°	others on request
Product	height to 55 mm, length to 300 mm	others on request

## KFG-P 2000 AF



Incline belt conveyor with head drive, direct

### B20.00.010



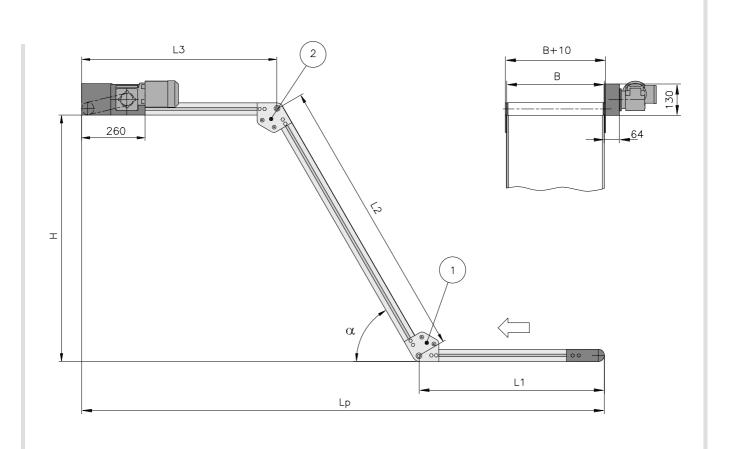
By mounting the motor directly onto the drive shaft, this drive version minimizes not only the space required at the drive but also the number of moving parts and maintenance requirements.

	Dimensions – technical information	Notes		
Conveyor length L (L1+L2+L3)	variable to approx. 4000 mm L1/L3 min. = 400, L2 min. = 600	any increment possible		
Conveyor width B	300 to 700 mm (in 100 mm increments)	others on request		
Drive location	discharge side left/right			
Drive and speed	2,8; 5,5; 11,2; 15,2 m/min	others on request		
Stands and side rails		see page 74		
Load capacity	total load to 40 kg (88 lbs) section load to 25 kg (55 lbs)/m, 5 kg/field	higher on request		
Bends $\alpha$	30, 45 and 60°	others on request		
Product	height to 55 mm, length to 300 mm	others on request		

## KFG-P 2000 AS

Incline belt conveyor with head drive, outside

### B20.00.010



The  $\emptyset$  53 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.

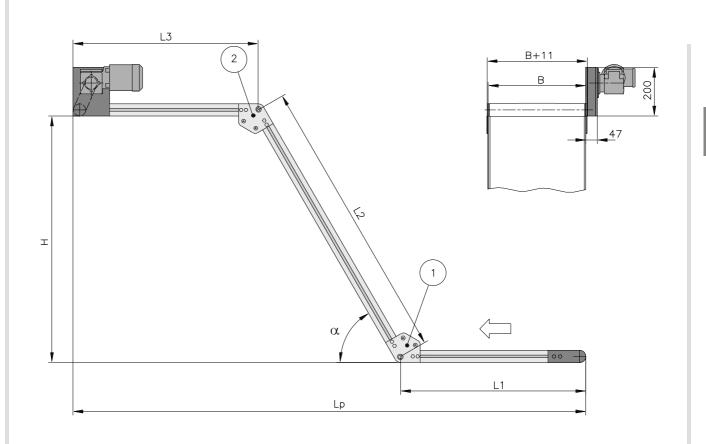
	Dimensions – technical information	Notes	
Conveyor length L (L1+L2+L3)	variable to approx. 4000 mm L1/L3 min. = 400, L2 min. = 600	any increment possible	
Conveyor width B	300 to 700 mm (in 100 mm increments)	others on request	
Drive location	discharge side left/right		
Drive and speed	to 15 m/min (50 ft/min)	others on request	
Stands and side rails		see page 74	
Load capacity	total load to 40 kg (88 lbs) section load to 25 kg (55 lbs)/m, 5 kg/field	higher on request	
Bends $\alpha$	30, 45 and 60°	others on request	
Product	height to 55 mm, length to 300 mm	others on request	

## KFG-P 2000 AU



Incline belt conveyor with head drive, outside

### B20.00.010



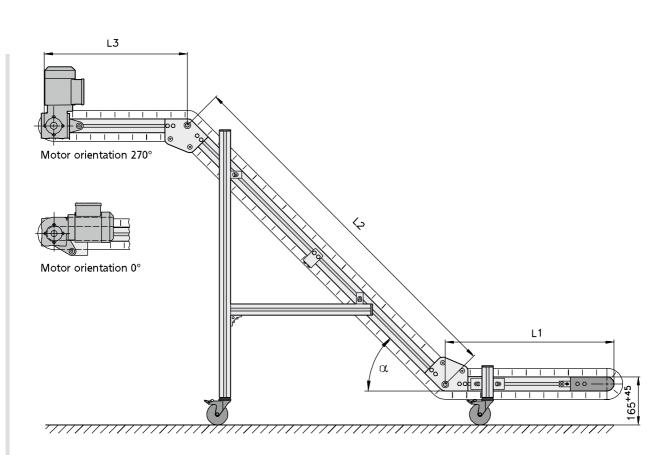
The  $\emptyset$  53 mm drive roll provides good belt wrap and efficient motor power transmission, and the compact construction simplifies the integration of this conveyor into existing equipment.

	Dimensions – technical information	Notes
Conveyor length L (L1+L2+L3)	variable to approx. 4000 mm L1/L3 min. = 400, L2 min. = 600	any increment possible
Conveyor width B	300 to 700 mm (in 100 mm increments)	others on request
Drive location	discharge side left/right below/above	
Drive and speed	to 15 m/min (50 ft/min)	others on request
Stands and side rails		see page 74
Load capacity	total load to 40 kg (88 lbs) section load to 25 kg (55 lbs)/m, 5 kg/field	higher on request
Bends $\alpha$	30, 45 and $60^{\circ}$	others on request
Product	height to 55 mm, length to 300 mm	others on request

### KFG-P 2000 ECO

Incline conveyor with fixed variants, fast availability

#### B20.00.015



ECO stands for economy, constructed out of high quality materials and fulfilling of customer requirements at an attractive price. Thanks to the limited number of options for this conveyor, fast delivery and high availability are ensured. With the optimum ratio of effective width to total width the conveyor is ideally suited for integration into existing systems. Thanks to the mobility it can be used as a movable conveyor unit for filling containers or wire-mesh boxes.

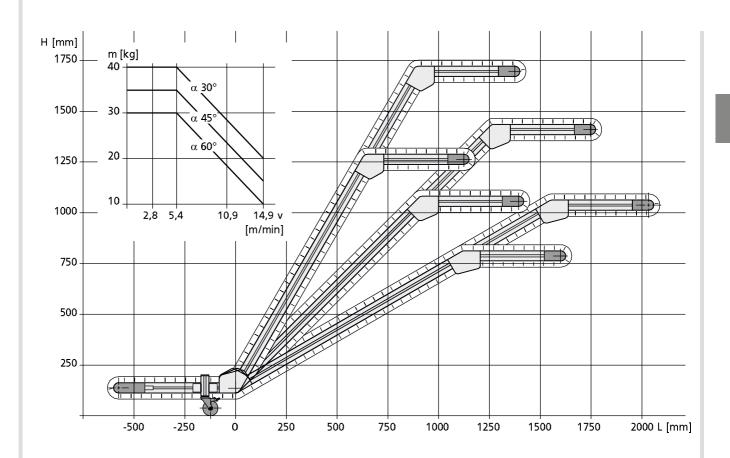
	Dimensions – technical information
Conveyor length L (L1+L2+L3)	2400/2900 mm (L1 = 600 mm, L2 = 1300/1800 mm, L3 = 500 mm)
Conveyor frame width B	400, 500, 600 mm (usable width: B-160 mm)
Drive location	discharge side left/right above, motor orientation 270°, for additional charge 0° $$
Drive and speed	2,8; 5,5; 11,2; 15,2 m/min, other speeds on request or via Reglomat
Load capacity	depending on incline and speed up to 40 kg
Bends $\alpha$	30, 45 and 60°
Product	height to 55 mm, length to 300 mm, weight to 5 kg/field
Belt	GU-V0106-028DG
Cleats and sidewalls	height lateral cleats MT30 and sidewalls 30 mm, Polyurethane, green for L2=1300 16 lateral cleats with cleat spacing of 303 mm for L2=1800 19 lateral cleats with cleat spacing of 308 mm

## KFG-P 2000 ECO





#### B20.00.015

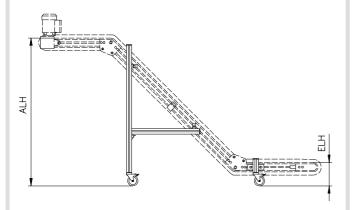


See the table (above) for the optimum variant for your application. Without additional information the conveyor is designed with a drive location 270° top, front left, and speed 5.4 m/min.

Variant (L2 1300 mm)	<b>A</b> 1	A2	A3	<b>A</b> 4	A5	A6	A7	A8	<b>A</b> 9
Conveyor frame width B [mm]	400	400	400	500	500	500	600	600	600
Conveyor bend $\alpha$	30°	45°	60°	30°	45°	60°	30°	45°	60°
Variant (L2 1800 mm)	B1	В2	В3	В4	В5	В6	В7	В8	В9
Conveyor frame width B [mm]	400	400	400	500	500	500	600	600	600
Conveyor bend $\alpha$	30°	45°	60°	30°	45°	60°	30°	45°	60°



The swivel casters used can be locked in place and thus guarantee safe support, even at high conveyor speeds. Depending on the configuration, the stands are adapted in height and width, see ordering example on the right.



ELH = Feed height

ALH = Discharge height

B = Conveyor frame width

H = Height of the stand

L = Length of the stand profile

AW = Distance of the angle bracket to

the profile edge

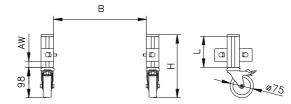
### KFG-P 2000

### Stands

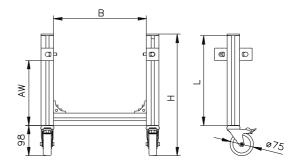
### Stand, incline conveyor, type ECO

This stand, developed especially for the incline conveyor and incline conveyor modular belt, is characterized by its simplicity and light structure with the mk profile 2040.40.

#### Stand, infeed side B67.06.014

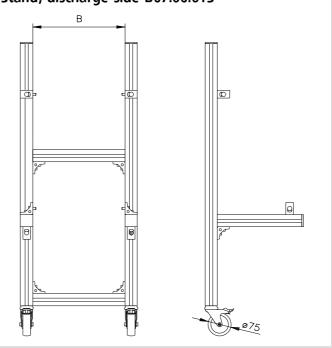


Feed height (ELH) = 166-349 mm



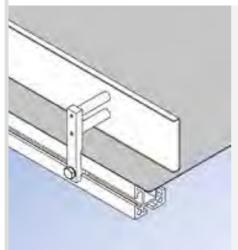
Feed height (ELH) = 350-500 mm

#### Stand, discharge side B67.06.015





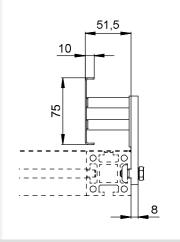
### Side rails



#### Side rails KFG-P 2000

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.

### B17.00.035 Height 75 mm, others on request



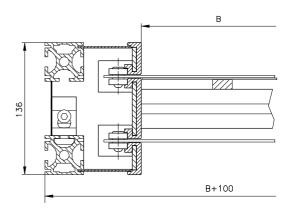
### Order example

KFG-P 2000 type S ( <b>B20.00.010</b> )	Type c	onfiguration
Drive AF, motor orientation 90° as shown		L3
Speed 15 m/min	Type S	
Width B = 500 mm		α2 \\L2
Length L1 = 500 mm; L2 = 1000 mm; L3 = 600 mm		$\alpha$ 1
Bend $\alpha$ 1 = 60°; bend $\alpha$ 2 = 60°	Type K	L3
Cleat type T20 with side rail B17.00.035	31	α2
Stand, incline conveyor, type ECO		
Feed height ELH = 200 mm		
Discharge height ALH = 1200 mm	Type L	L2
		α1 L1

# Curved Belt Conveyors KGF-P 2040



### Conveyor frame cross-section













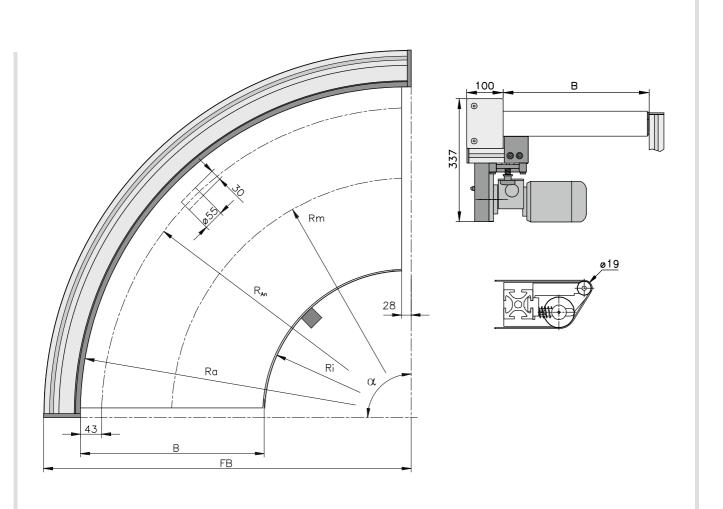
The conveyor system KGF-P 2040 is based on our Profile Series 40, and is compatible with all other mk conveyor systems. The exterior profile frame features 10 mm T-slots which allow for mounting of additional accessories such as side rails, sensors, etc. The structural profiles used ensure rigid

construction with excellent load bearing capacities, noting the values for maximum loads and speeds are directly dependent, and thus vary in relation. The conveyor features a Ø 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.

## KGF-P 2040 BC

### Curved belt conveyor center drive, standard

#### B20.40.020 for 90° curve, B20.40.021 for 180° curve



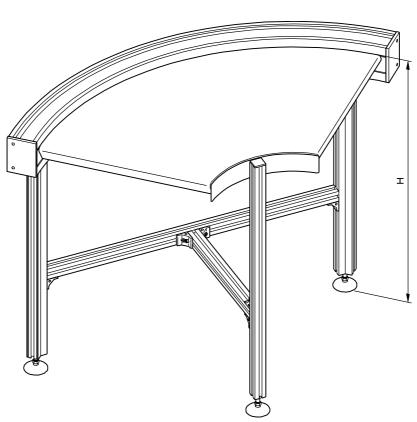
For this conveyor mk offers drive version BC, featuring usable belt widths of 300, 400, 500 and 600 mm for the conveyor radii  $90^{\circ}$  and  $180^{\circ}$ . The compact construction simplifies the integration of the conveyor within existing lines. The ø 55 mm drive roll ensures good grip and efficient motor power transfer.

	Dimensions – technical information	Notes
Conveyor angle $\alpha$	90° and 180°	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	
Drive location	below	
Drive and speed	5 to 30 m/min (15-100 ft/min) in Rm	others on request
Stands	standard, or with belt change support	
Load capacity	to 30 kg (65 lbs), depending on radius, speed and product	
Belts		belts see from page 84

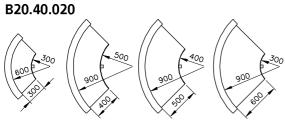
## KGF-P 2040

### Stands and configurations

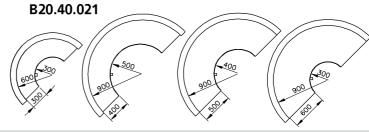




Radius Versions curve 90°



Radius Versions curve 180°



### Order example

#### KGF-P 2040

Version Ra 900 / Ri 500

Speed 15 m/min

Usable Width B = 400 mm

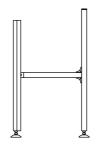
#### Belt type

Stands with (or without) belt change support

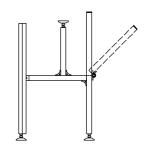
Height H = 800 mm

### Type configuration

type 1 standard

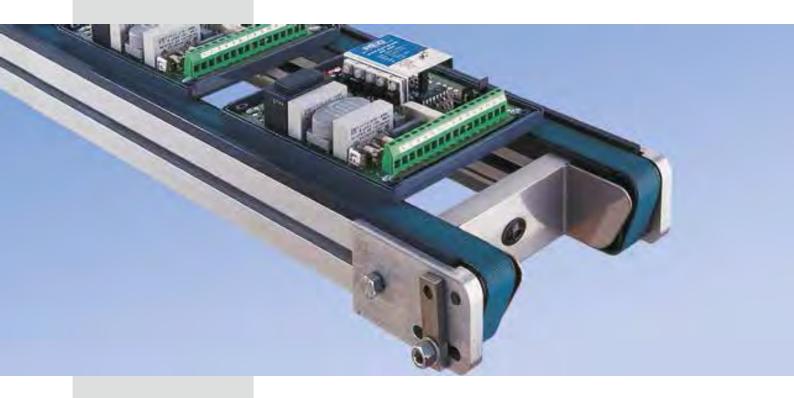


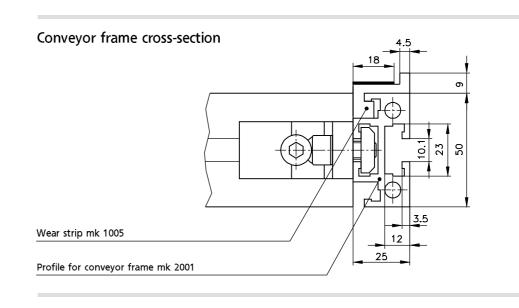
type 2 with belt change support\*



\*from usable belt widths B = 400 mm

# Dual Belt Conveyors DGF-P 2001















Conveyor System DGF-P 2001 is primarily designed for the transport of pallets. It is ideally suited to assembly areas, for example such as those in the electronics industry. The small diameter tail roll allows for the

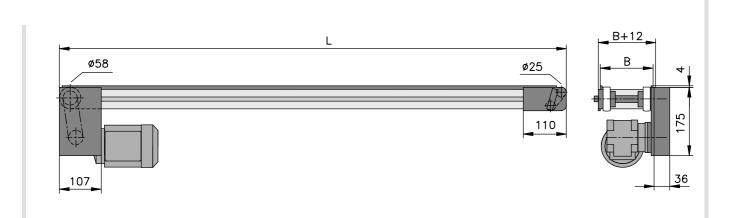
transfer of relatively short pallets. Belt tensioning is accomplished using the lower tail return roller. As the roll holders are not moved, a fixed overall length is achieved. The belts run entirely on standard mk UHMW wear strips. A maxi-

mum 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 done according to the customer's specifications.

## **DGF-P 2001 AC**

### Dual belt conveyor with head drive, standard

#### B20.11.701





The compact conveyor frame is ideal for integrating this conveyor into new or existing equipment. The ø 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	belts see from page 84	
Drive location	discharge side left/right below	infeed side on request	
Speed	to 15 m/min (50 ft/min) constant or variable		
Stands and side rails		see from page 262	
Load capacity	total load to 15 kg (33 lbs) section load to 10 kg (22 lbs)/m	higher on request	

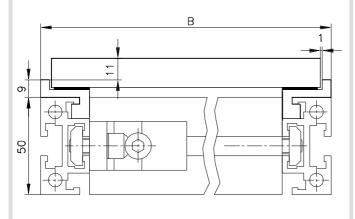


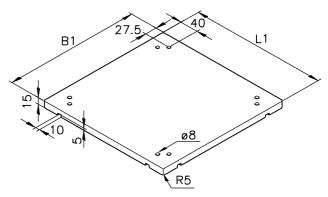


### DGF-P 2001

### **Pallets**

As standard, the pallets for Conveyor System DGF-P 2001 are manufactured using aluminum (2017A, or 3.1325). The width is fixed in relation to the conveyor (Pallet=B-11 mm). The minimum pallet 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 a customer-specific tooling, shown on the left.





### Rework

On request we can design specific pallets for your application or manufacture them according to the drawing you have created.

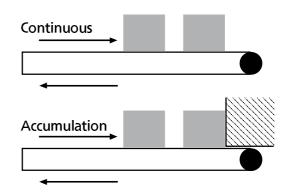
Belts

### General information

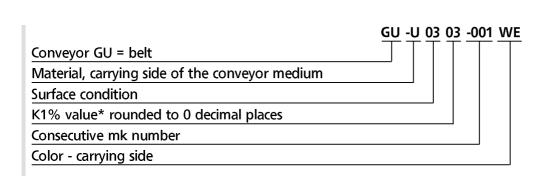
The belt types listed here meet the majority of customer requirements; additional belts are available upon request. Accumulation-capable belts are suitable for permanent accumulating-operation and are defined via the surface condition (coefficient of friction).

Belts that are for limited accumulation (or light accumulation) are not designed for steady accumulation operation. Limited accumulation is defined as movements, such as running against an end stop, or slight speed differences from one conveyor to the next or at lateral pushing (only with laterally stiff belts) of light loads.

The belts that are not capable of accumulating, also known as non-slip belts, are characterized by high surface friction or structured top surfaces.



### Order designation



Material		Surface condition			Color topside		
-F	Felt	01	accumulation	BL	transparent		
-R	Rubber (NBR)	02	limited accumulation	WE	white		
-T	Polyester (PET)	03	no accumulation	LB	blue		
-U	Polyurethan (PU)			DG	green		
-V	Polyvenylchlorid (PVC)			SW	black		

<sup>\*</sup>The K1% value is the force at which the belt is elongated by 1% per mm of width. It is an indication of the strength level and thus the load-bearing capacity of the belt.

Belts



Price category, prices in ascending order

Price category, prices in ascending order												
Ident-no. and description	Accumu- lation	Material	Color	Surface texture	Min. ø tail	Perm. tempera- ture	Belt thickn. app.	Properties	Price cate- gory			
K1029003   GU-T0	105-003BL											
	yes	PET	colorless	woven	6 mm	-10 to 70 °C	1,2 mm	laterally stiff, antistatic, FDA suitable, oil tolerated*	2			
K1029008   GU-T0101-008BL												
/	yes	PET	colorless	woven	20 mm	-10 to 70 °C	1,3 mm	antistatic, FDA suitable, suitable for curved belt conveyor	2			
K1029028   GU-V0	106-028DG											
	yes	PVC	green	smooth	14 mm	-15 to 80 °C	1,8 mm	laterally stiff, FDA suitable, suitable for incline conveyor	2			
K1029015   GU-U0	107-015DG											
	yes	PU	green	smooth	40 mm	-10 to 70 °C	1,6 mm	laterally stiff, antistatic, oil tolerated*	3			
K1029010   GU-V0	103-010SW											
	yes	PVC	black	smooth	30 mm	-10 to 60 °C	1,8 mm	antistatic, suitable for curved belt conveyor	2			
K1029019   GU-F0	106-019SW											
<b>\</b>	yes	Felt	black	smooth	30 mm	-10 to 120 °C	2,5 mm	antistatic, suitable for curved belt conveyor	2			
K1029007   GU-U0	204-007WE											
	limited	PU	white	smooth	6 mm	-30 to 100 °C	1,3 mm	laterally stiff, antistatic, FDA suitable, oil tolerated*	3			
K1029050   GU-U0	205-050LB											
The same of the sa	limited	PU	blue	smooth	6 mm	-30 to 100 °C	1,3 mm	laterally stiff, antistatic, FDA suitable, oil tolerated*	3			

### Belts

Price category, prices in ascending order											
Ident-no. and description	Accumu- lation	Material	Color	Surface texture	Min. ø tail	Perm. tempera- ture	Belt thickn. app.	Properties	Price cate- gory		
K1029006   GU-V0203-006DG single-ply***											
~	limited	PVC	green	smooth	30 mm	-10 to 70 °C	0,8 mm	laterally stiff, antistatic	1		
K1029011   GU-U0205-011DG											
	limited	PU	green	smooth	50 mm	-15 to 80 °C	1,6 mm	laterally stiff, antistatic, FDA suitable, oil tolerated*	4		
K1029029   GU-U	0310-029DG	i									
1	no	PU	green	smooth	50 mm	-30 to 90 °C	2,4 mm	laterally stiff, FDA suitable, suitable for incline conveyor, oil tolerated*	4		
K1029001   GU-U	0302-001WI	E single-ply	***								
	no	PU	white	smooth	6 mm	-20 to 70 °C	0,7 mm	antistatic, FDA suitable, oil tolerated*	1		
K1029004   GU-U	0305-004WI	Ē									
	no	PU	white	smooth	6 mm	-30 to 80 °C	1,2 mm	laterally stiff, antistatic, FDA suitable, oil tolerated*	3		
K1029017   GU-U	0306-017W	E									
	no	PU	white	smooth	10 mm	-30 to 80 °C	1,4 mm	laterally stiff, antistatic, FDA suitable, oil tolerated*	3		
K1029030   GU-U	0308-030LB										
	no	PU	blue	smooth	6 mm	-30 to 100 °C	1,4 mm	laterally stiff, antistatic, FDA suitable, oil tolerated*	3		
K1029024   GU-U	)305-024LB										
	no	PU	blue	smooth	6 mm	-30 to 100 °C	1,5 mm	laterally stiff, antistatic, FDA suitable, oil tolerated*	3		





Price category, prices in ascending order

Price category, prices in ascending order									
Ident-no. and description	Accumu- lation	Material	Color	Surface texture	Min. ø tail	Perm. tempera- ture	Belt thickn. app.	Properties	Price cate- gory
K1029012   GU-U0	306-012DG	ì							
	no	PU	green	smooth	25 mm	-30 to 100 °C	1,4 mm	laterally stiff, antistatic, FDA suitable, oil tolerated*	3
K1029009   GU-V0	303-009DG	i i							
	no	PVC	green	smooth	25 mm	-10 to 70 °C	1,8 mm	antistatic, suitable for curved belt conveyor	2
K1029013   GU-V0	307-013DG	i							
	no	PVC	green	smooth	40 mm	-10 to 60 °C	2,0 mm	laterally stiff, antistatic	2
K1029005   GU-R0	303-005DG								
	no	NBR	green	woven	30 mm	0 to 80 °C	1,5 mm	antistatic, oil tolerated*, cut resistant**	3
K1029016   GU-U0	305-016DG	i							
	no	PU	green	structure	40 mm	-30 to 80 °C	1,9 mm	antistatic, oil tolerated*	4
K1029014   GU-V0	306-014DG	i							
	no	PVC	green	structure	50 mm	-10 to 60 °C	4,9 mm	laterally stiff, antistatic	3
K1029018   GU-V0	307-018SW								
	no	PVC	black	structure	40 mm	-10 to 60 °C	2,2 mm	laterally stiff, antistatic	2

- \* Depending on the type of the used oil, the oil tolerance of the belt must be checked.
- \*\* Cut resistant belts ensure a longer life for the transport of sharp-edged products, eg stampings.
- \*\*\* Single-ply belts are less robust and must not be pre-tensioned too forcefully.

#### Cleats and sidewalls

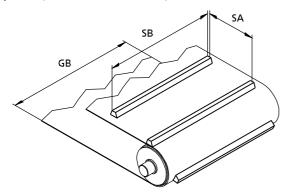
When selecting a cleat, please ensure that the belting and the cleat material are the same. Segmented lateral cleats as well as combinations of lateral and longitudinal cleats are possible. The distance from the cleats to the belt edge must be at least 2 mm.

The adhesive joints of the cleats generally have a more limited temperature range than the belt and cleat material itself.

Cleat material	Temperature range
PVC	-10 to +70°C
PU	-30 to +80°C
PE	-30 to +100°C

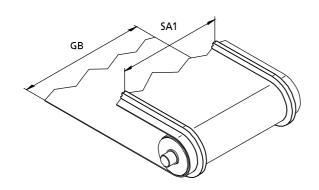
#### Lateral cleats, topside

act as a pusher for the transported product, especially on inclined conveyors.



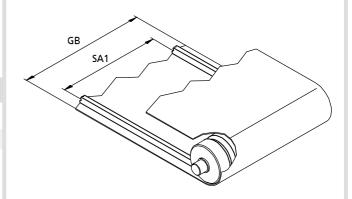
#### Longitudinal cleats, topside

are used primarily for guiding the belt, e.g. as in inclined conveyors.



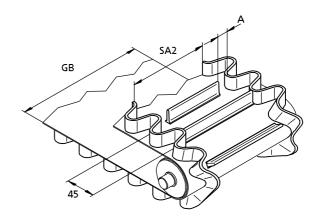
#### Longitudinal cleats, underside

are a belt guide option and are usually used if lateral forces act on the belt. Unevenness can occur in the belt in the area of longitudinal cleats.



#### Sidewalls, topside

can be used instead of side rails and are used in particular in inclined conveyors.



Cleats and sidewalls



### Longitudinal cleats (can also be used as lateral cleats)

Description			Mater	ial/color				Min. ø tail roll [mm]			
		PVC		PU	PU		Weight	Longitudinal cleats		Lateral cleats	
		green	white	colorless	green	[mm]	[g/m]	underside	topside	topside	
K6	4	•	•	•		30	25	40	30	30	
K10*	*6	٠	•	•	•	30	60	70	60	50	
K13	7,5	•	•	•		30	100	90	60	80	
K15	9.5 15 w	•		•		30	120	90	60	90	
K17	9,5	•	•	٠		30	180	90	90	100	
F20/3	3 20 m	•	•			30	75	70	50	70	
F30/8	30 0	•	•			45	290	120	90	120	

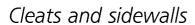
<sup>\*</sup>SA1 = minimum distance of the longitudinal cleats

<sup>\*\*</sup>This cleat must be used for belt guidance on the carrying side for the incline conveyor.

### Cleats and sidewalls

### Lateral cleats

Descripti	on		Materi		Min. ø tail roll [mm]		
		P\ green	/C white	P green	U white	Weight [g/m]	Lateral cleats topside
T20U	00 12			•	•	140	50
T30U	12 12			•	٠	180	50
T35U	12			•	•	200	50
T40U	12			٠	٠	220	50
T50U	12			•	•	250	50
T60U	09			•	•	280	50
T20	20	•	•			160	90





### Lateral cleats

Description		Materi		Min. ø tail roll [mm]		
	green	U white	Weight [g/m]	Lateral cleats topside		
L40			•	•	140	85
L60			•	•	180	85

### Sidewalls

Description							
	green	PVC white	blue	green	PU white	blue	Min. ø tail roll [mm]
WK20 20 25 25	•	•	•	•	•	•	40
WK25 25 25	•	•	•	•	•	•	50
WK30 30 25 25	•	•	•	•	•	•	50
WK35 35 25 25	•	•	•	•	•	•	70
WK40 25-30* 25-36*	•	•	•	•	•	•	80

The minimum distance of the sidewall to the edge of the belt is 5 mm.

<sup>\*</sup>Varies depending on version



GUF-P MINI with a center drive BC and with adjustable side rails for integration into an existing system



GUF-P MINI with head drive AF; as type-L incline conveyor, for parts transport to a lower conveyor level

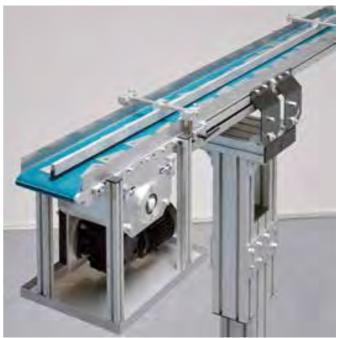




GUF-P MINI with center drive BC as special configuration with 5 conveyor lanes, inner conveyor lanes can be manually adjusted and guided by guide rods



GUF-P MINI with center drive BC as inclined conveyor, stand system 53.12



GUF-P MINI with single stand and drip pan underneath the motor for slightly oily punched parts



GUF-P 2000 with head drive AC with multi-strand side rails is discharge conveyor, complete with drip pan



Combination of 2x GUF-P 2000 for conveying slanted transport containers

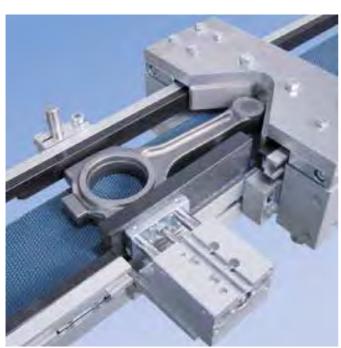


Mobile GUF-P 2000 featuring discharge chute with variable inclination angle





GUF-P 2000 AC with mechanism for folding and setting up paper bags upstream of the filling process



GUF-P 2000 for piston rods with pneumatic pressure cylinders mounted on the side for securing the product



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



GUF-P 2000 with comb-style cleated belt



GUF-P 2000 with head drive AC with wire mesh belt for conveyed goods to 150°C



GUF-P 2045 belt conveyor for integration in blister packaging systems with minimal installation space





GUF-P 2000 as cross conveyor and separator



GUF-P 2000 with integrated adjustment unit (VST 2011) for height adjustment of the scraper brushes



Accumulation table using parallel running GUF-P 2000 as flow, return and continuous conveyor



GUF-P 2000 with rolling knife edge and separator conveyor with head drive AF

Application examples INOX conveyors



Combination of INOX belt conveyor and angled belt conveyor for transport of praline balls with granulate



INOX vacuum belt conveyor with connections for vacuum pump



INOX vacuum belt conveyor with custom side rails





INOX belt conveyor with roller blade edge for the transfer/handling of small transport goods



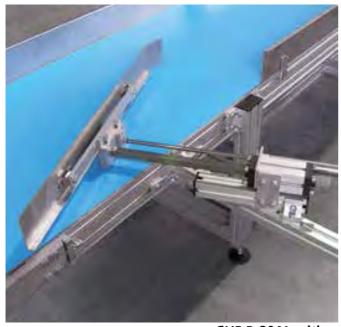
INOX belt conveyor with adjustable side rails



INOX belt conveyor with head drive AF



GUF-P 2041 with protective tunnel as discharge belt for rear axle parts



GUF-P 2041 with a pneumatic diverter



GUF-P 2041 with adjustable side rail





GUF-P 2041 with center drive BC, the frame can be adjusted in height via a hydraulic pump



GUF-P 2041 with head drive AC and 90 watt fans in the conveyor frame, Reglomat mounted on top of the conveyor frame



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



Conveyor combination of two GUF-P 2041 (with head drive AC) and KGF-P 2040 (with center drive BC) and with a Reglomat



GUF-P 2041, head drive AC with support pan and lateral cleats



GUF-P 2041 with an overhead, offset, head drive AC and with belt slide plates (on both sides) and front belt scraper at the discharge





Circulation system for manually sorting laundry on the basis of GUF-P 2041 and GUF-P 2000 conveyors with head drive AC



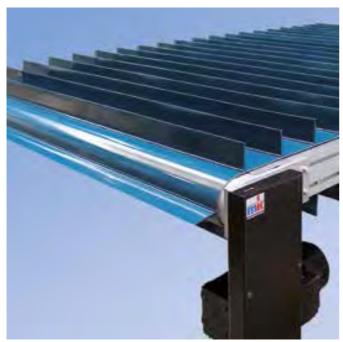
C-frame with recirculating ball bearing guides, each with 2 carriages for lifting or lowering the GUF-P 2004 conveyors



GUF-P 2004 with outside head drive AS as 2-level conveyor with drip pan on common base frame



GUF-P 2004 with head drive AS, lateral outside and robust special belt for punch scrap



GUF-P 2004 with head drive AC and lateral cleats



Conveyor belt combination of GUF-P 2004 with drum motor CA and 2-lane KTF-P 2004





GUF-P 2004 designed with maximum width B=2 m

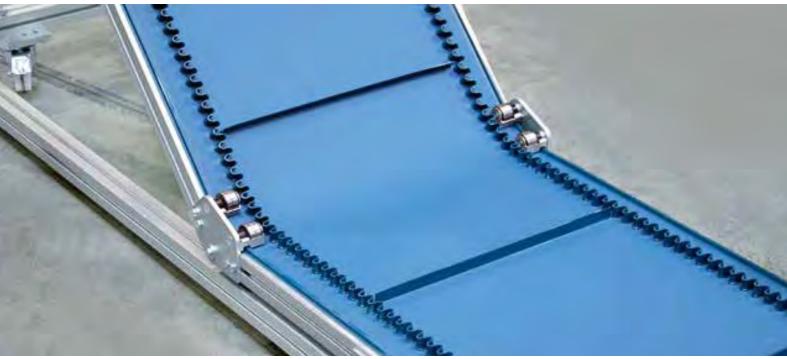


GUF-P 2004 with separate working and return side of belt



GUF-P 2004 as a conveyor line for automobile backrests, the topside of the belt is divided into numbered sections

Application examples incline conveyors



KFG-P 2000 with corrugated sidewalls, for product containment, and lateral cleats



KFG-P 2000 with head drive AU and 45° incline



KFG-P 2000 ECO with head drive AF and 60° incline variant B3 (B20.00.015-B3)





KFG-P 2000 with head drive AF as feed conveyor



Mobile KFG-P 2000, type K with side rail SF 9.1 (VA sheet steel, tilted) and transfer hopper at the beginning of the conveyor, including controller



KFG-P 2000 with head drive AC with side rail SF 8.1, belt guidance on both sides via longitudinal cleats K10

Application examples curved belt conveyors



KGF-P 2040 with center drive BI and hydraulic height adjustment of the conveyor stand via hand crank



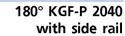
Combination of 90° and 180° KGF-P 2040 curved belt conveyors with center drive BI, reversible



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









KGF-P 2040 with center drive BI and rotating brush below the conveyor (return)

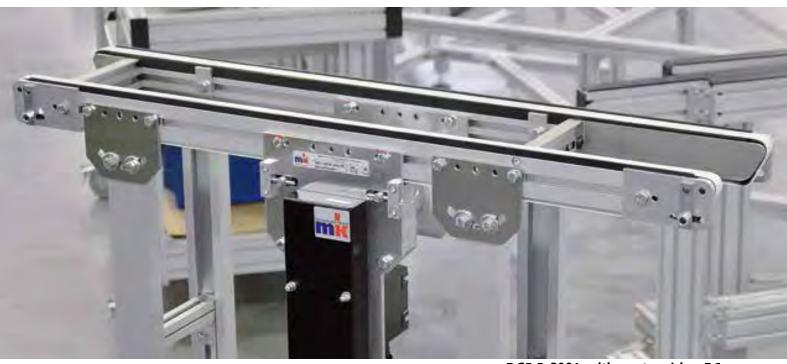


KGF-P 2040 for transfer to the belt conveyor without knife edge



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

Application examples dual belt conveyors



DGF-P 2001 with center drive BC



DGF-P 2001 with head drive AC and lifting station with V-Belt conveyor between the conveyor lanes





GUF-P 2000, dual-strand conveyor, the free space between the belts allows access from below



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



DGF-P 2001 with center drive BC