

BRAKE ROLLERS BRAKE CONVEYOR ROLLERS

EUROROLL-Brake Rollers and EUROROLL-Brake-Conveyor-Rollers control the speed of the good to be conveyed on roller tracks whilst keeping the conveyed good at a constant run-off speed. This is achieved by means of a planetary gearing, which at each rotation presses the centrifugal brake discs against the roller body, raising it with proportional brake force up to the brake momentum. The distance of the brake rollers and the correct brake roller type are influenced by several factors.

1. Construction and capacity of the roller track
2. Declination of the roller
3. Characteristics of the good to be conveyed (size, weight, sensitivity, barrel-shaped)
4. Resistance of the Brake Roller
5. Environmental conditions, e.g. wet, cold or warm conditions

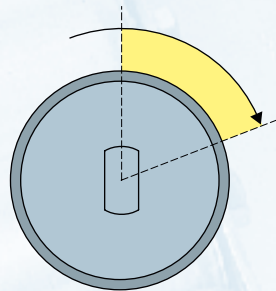
At least one brake roller or brake conveyor roller should be fitted per pallet place, only then a controlled speed without acceleration and increased force, can be achieved. The run-off-speed of the pallet should never be above 0.3 m/sec. When the brake rollers are correctly positioned the run-off speed is 0.1 – 0.2 m/sec. Depending on pallet weight and decline. It is important that the adjustment of the suspension of the brake rollers and brake conveyor rollers is correct. As a result of the friction between the brake roller and the good to be conveyed (conveyor roller or pallet), a slip free contact and a constant conveying speed is achieved. Applicable range of temperature -30°C up to $+45^{\circ}\text{C}$. A pallet weight from 80 kg up to 1400 kg. is possible, dependant on the usage.

Braking force diagram

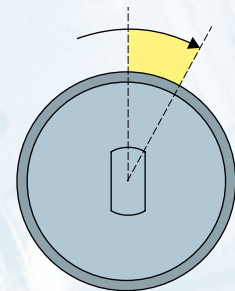
Braking force diagrams are a great help when choosing the correct type of brake rollers and brake conveyor rollers. Forces (which mainly arise due to acceleration), which exceed the characteristic curve, can overload and destroy the brake rollers. Therefore the brake rollers and brake conveyor rollers should be fitted in pallet distance in roller tracks or even closer to each other. This means that the pallet in each position is always in contact with a brake roller (it's a speed controller).



BTR Ø 89 reaction time after ≈ 130 mm



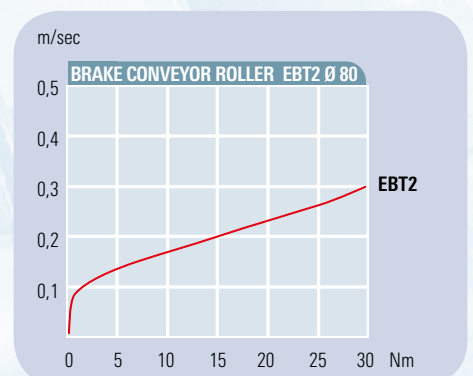
EBT2 reaction time after ≈ 63 mm



In comparison to the earlier Brake Conveyor Roller **BTR** dia. 89, the new EUROROLL-Brake Conveyor Roller **EBT2** has a considerably shorter reaction time.

The EUROROLL-Brake Conveyor Rollers are made with a **diameter of 80 mm**.

Each brake conveyor roller is delivered with a pair of fixed fasteners/holders and is therefore fitted in a way that it is approximately maximum 2 mm above the roller track. It is absolutely essential that each brake conveyor roller is precisely installed and checked. The height dimension needs to be determined and exactly adjusted by carrying out careful tests.



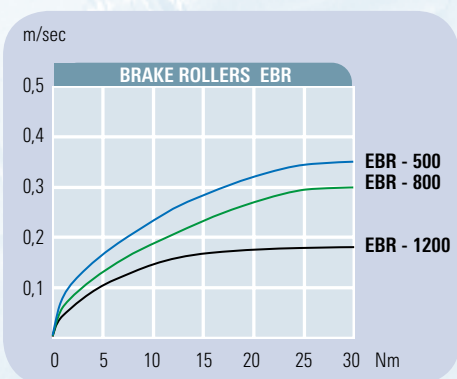
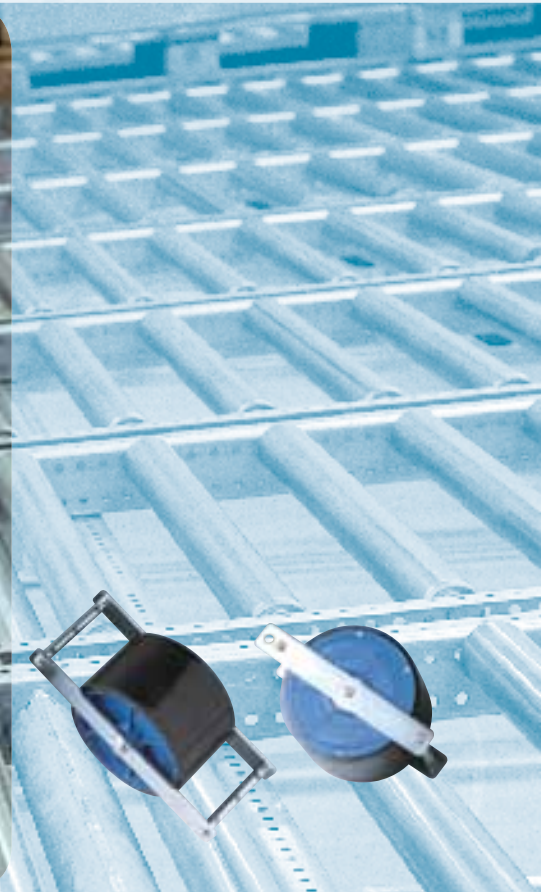
PVC-coated or knurled brake conveyor roller

EUROROLL offers for use with steel pallets or plastic pallets, brake conveyor rollers with a shrunk-on PVC coat for the entire roller length respectively and a knurling of the tube at the contact surface of the pallet.



EUROROLL[®] BRAKE ROLLERS BRAKE CONVEYOR ROLLERS

areas of application



Dependent on the kind of installation EUROROLL-Brake Rollers can be supplied with short or long mountings. An extensive range of accessories, to install brake rollers and adjust them correctly, supplements the product range.

2 kinds of installation are possible:
Direct or indirect speed control of the pallet to be conveyed.

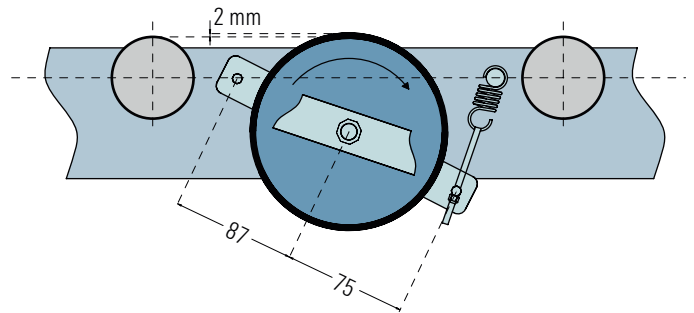
TYPES OF INSTALLATION

Direct speed controlling:

With direct speed controlling the EUROROLL-Brake Roller has direct contact with the pallet. The brake roller is spring suspended and has to be 2 mm above roller level of the conveyor.

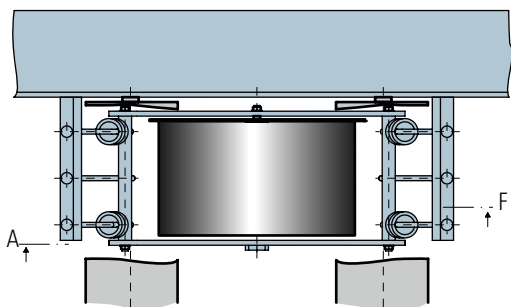
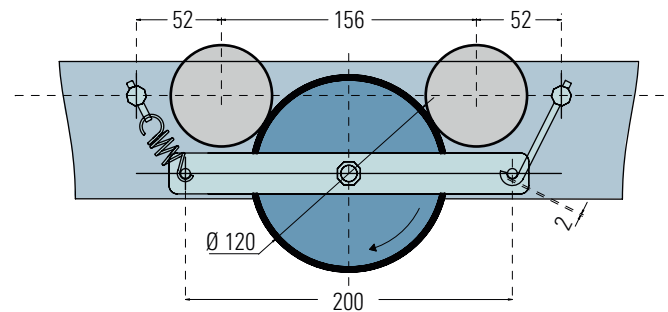
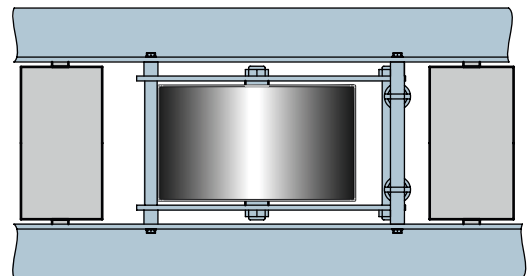
Indirect speed controlling:

In many cases the indirect speed control is preferred as the contact of the pallet is transferred by means of 2 conveyor rollers. 4 springs take over the optimal contact, 2 hook screws, fitted loosely, secure the brake roller. In order to improve the contact between brake roller, conveyor roller and pallet, self-adhesive friction covers should be fitted to the conveyor roller, which are in contact with the Brake Roller.



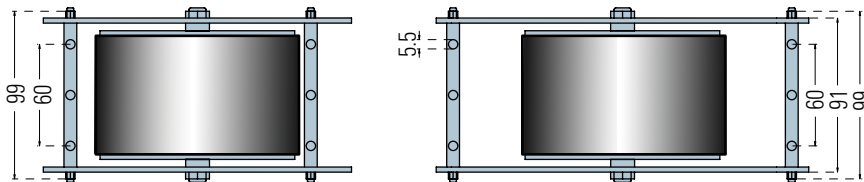
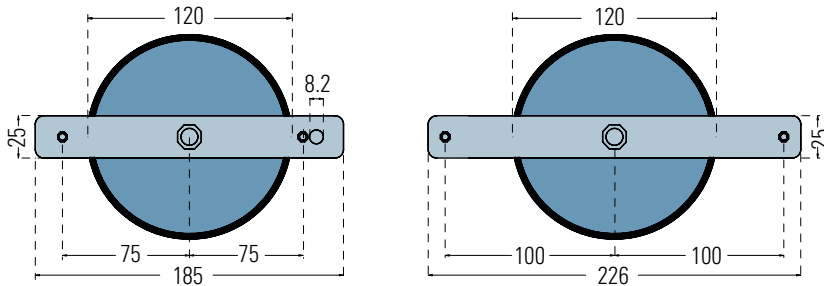
DETERMINATION OF THE BRAKE ROLLER SUSPENSION

Carrying rollers	Pitch	Grid -R	Fastener short -K long -L	Screw hook -HB	Spring suspension -FB
Ø 60	78	26	L	HB 73	40
Ø 60	100	50	K	HB 90	65
Ø 60	104	52	K	HB 90	65
Ø 60	120	48	L	HB 90	50
Ø 60	125	50	L	HB 90	50
Ø 60	130	52	L	HB 90	40
Ø 60	144	48	L	HB 67	40
Ø 60	150	50	L	HB 67	30
Ø 63	130	52	L	HB 90	50
Ø 63	156	52	L	HB 67	30
Ø 80	125	50	L	HB 90	65
Ø 80	130	52	L	HB 90	65
Ø 80	150	50	L	HB 90	50
Ø 80	156	52	L	HB 90	50
Ø 50	75	37.5	K	HB 90	65
Ø 50	100	50	K	HB 90	50
Ø 50	104	52	K	HB 90	50
Ø 50	125	50	L	HB 67	40
Ø 50	130	52	L	HB 67	40
Ø 90	175	25	L	HB 67	30

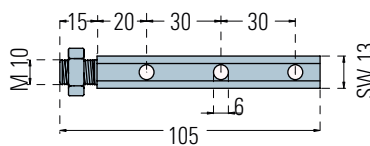


EUROROLL® BRAKE ROLLERS

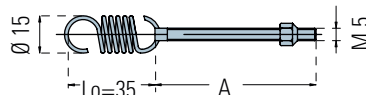
fitting examples, technical data, accessories



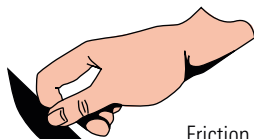
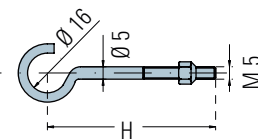
Suspension pin



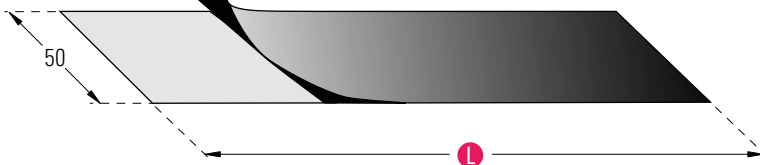
Spring suspension A = 30, 40, 50, 65



Screw hook H = 67, 73, 88 or 90 mm



Friction lining for conveyor roller



The EUROROLL-Brake Roller can be delivered – as required – with short or long holders/fasteners.

Holder/fastener long: **-L**
Holder/fastener short: **-K**

With a 4 % declination the brake rollers should be supplied with the following maximum loading weights:

Loading weight 500 kg: **EBR 500**
Loading weight 800 kg: **EBR 800**
Loading weight 1200 kg: **EBR 1200**

Order example: EBR 800 - L
EUROROLL-Brake Roller with long holders/fasteners for 800 kg/pallet

Suspension pin: **AAB**
Suspension pin to fix the brake roller

Spring suspension in different lengths:
Length A = 30 mm: **FB 30**
Length A = 40 mm: **FB 40**
Length A = 50 mm: **FB 50**
Length A = 65 mm: **FB 65**

Screw hook in different lengths:
Length H = 67 mm: **HB 67**
Length H = 73 mm: **HB 73**
Length H = 88 mm: **HB 88**
Length H = 90 mm: **HB 90**

Friction lining for the conveyor roller (self-adhesive) for indirect installation (please state length):

RNN – L

EUROROLL-BRAKE ROLLERS

Roller type	Allowed pallet weights	Mounting short -K Mounting long -L	Suspension pin	Spring suspension for different length	Screw hook	Friction lining /Length L
EBR 500	500 kg	-K or -L	AAB	FB 30, FB 40, FB 50, FB 65	HB 67, HB73, HB 88, HB90
EBR 800	800 kg	-K or -L	AAB	FB 30, FB 40, FB 50, FB 65	HB 67, HB73, HB 88, HB90
EBR 1200	1200 kg	-K or -L	AAB	FB 30, FB 40, FB 50, FB 65	HB 67, HB73, HB 88, HB90

TYPES OF INSTALLATION

Brake conveyor roller dia. 80 mm with fixed fasteners/holders
Load up to 1400 kg: **EBT2S**

The measure of the fitting length **EL** (in mm)

Design of the bracing tube:

Tube bright steel: - **B**

Tube galvanised: - **I**

Deep-freeze design: - **TK**

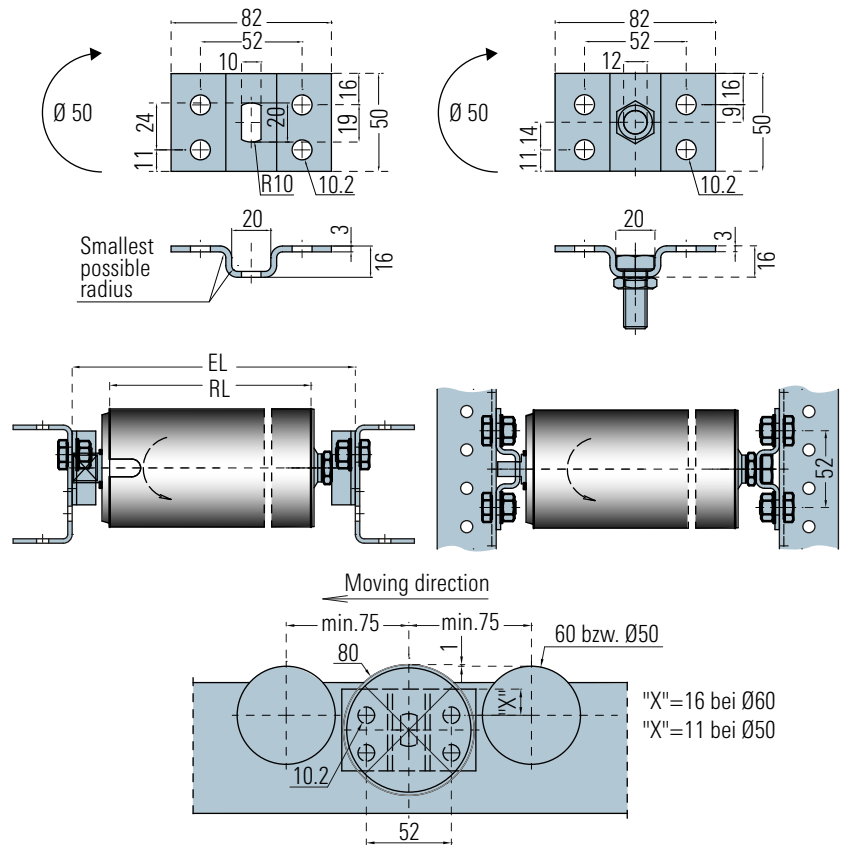
Rubberised for steel- and plastic pallets: - **G**

Knurled tube for plastic pallets: - **R**

The fastener/holder needs to be installed with a turn of 180° when using bracing tubes with dia. 50 mm.

Order example: EBT2S – 872 – I

Brake conveyor roller with pivot holders for pallet weights up to 1400 kg, fitting lengths 872 mm, bracing tube galvanised



Brake conveyor roller dia. 80 mm with fixed fitting length of 124 mm: **EBT2S – 124**

Measure of the bracing tube:

Tube bright steel: - **B**

Tube galvanised: - **I**

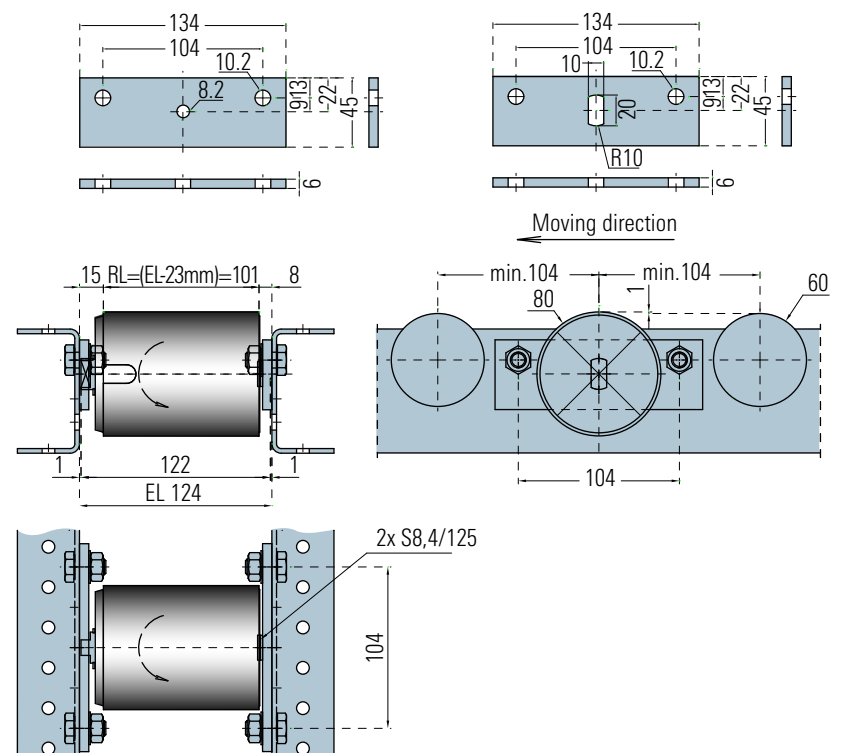
Deep-freeze design: - **TK**

Rubberised for steel and plastic pallets: - **G**

Knurled tube for plastic pallets: - **R**

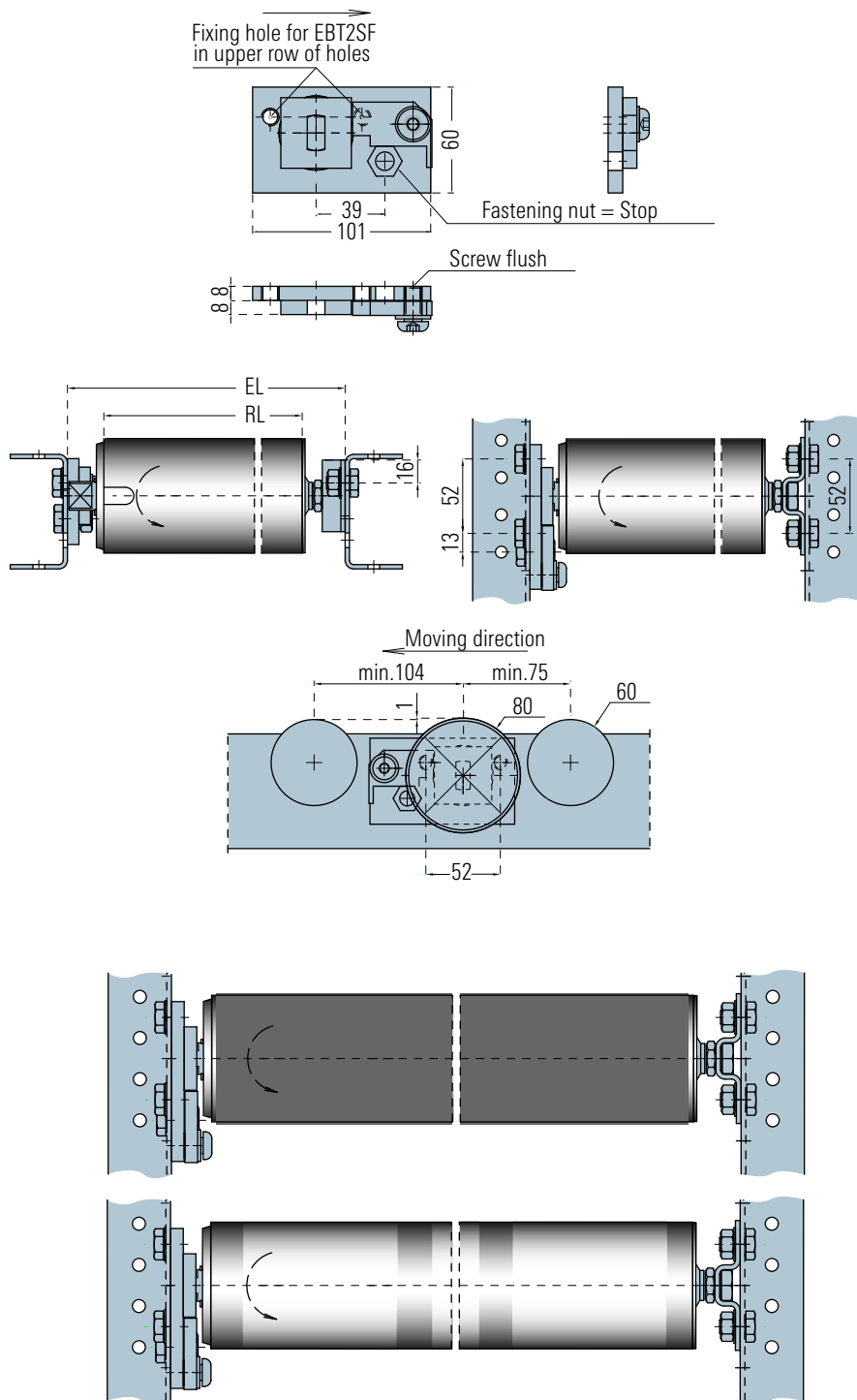
Order example: EBT2S - 124 - B

Brake conveyor roller with fixed fasteners/holders for pallet weights up to 1400 kg, for fitting length 124 mm, bracing tube bright steel



EUROROLL® BRAKE CONVEYOR ROLLERS DIA. 80 mm

dimensions, technical data



The one-sided brake conveyor roller was mainly developed for push-in-roller tracks and for picking tracks, where the pallets need to be pushed back. The function of the free outlet flow is integrated in the mounting of the brake roller conveyor. By changing the mounting, each brake conveyor roller can be converted to a one-sided function

Free-wheel fastener/holder: - F

Free-wheel fastener/holder for brake conveyor roller. Mechanical fasteners/holders (European Pattern of Use) to be used at push-in-roller tracks with brake momentum in only one direction.

Brake conveyor roller dia. 80 mm with free-wheel fastener/holder:

Load up to 1400 kg: **EBT2SF**

The measure of fitting length **EL** (in mm)

Design of the bracing tube:

Tube bright steel: - **B**

Tube galvanised: - **I**

Deep-freeze design: - **TK**

Rubberised for steel and plastic pallets: - **G**

Knurled tube for plastic pallets: - **R**

Order example: EBT2SF – 872 – I

Brake conveyor roller with free-wheel-fastener/holder for pallet weights up to 1400 kg, for fitting length 872 mm, bracing tube galvanised.

Rubber coating: - **G**

Brake roller coated with 5 mm hose. To improve the adhesion with steel and partly with plastic pallets.

Knurling: - **R**

Brake roller with knurling. To improve the adhesion with plastic pallets.

Order example: EBT2S – 1072 – B

Brake conveyor roller with fixed fastener/holder for pallet weights up to 1400 kg, for fitting length 1072 mm, bracing tube bright steel, with free-wheel holder

BRAKE CONVEYOR ROLLERS DIA. 80 mm

LAYOUT

Roller type	Allowed pallet weight	Deliverable type of fasteners/holders	Rollers zinc-plated	Rollers bright	Deep-freeze version	Knurling	Rubber coating
EBT2S	80-1400 kg	EBT2S, EBT2SF	-I	-B	-TK	-R	-G
EBT2S - 124	80-1400 kg	EBT2S, EBT2SF	-I	-B	-TK	-R	-G