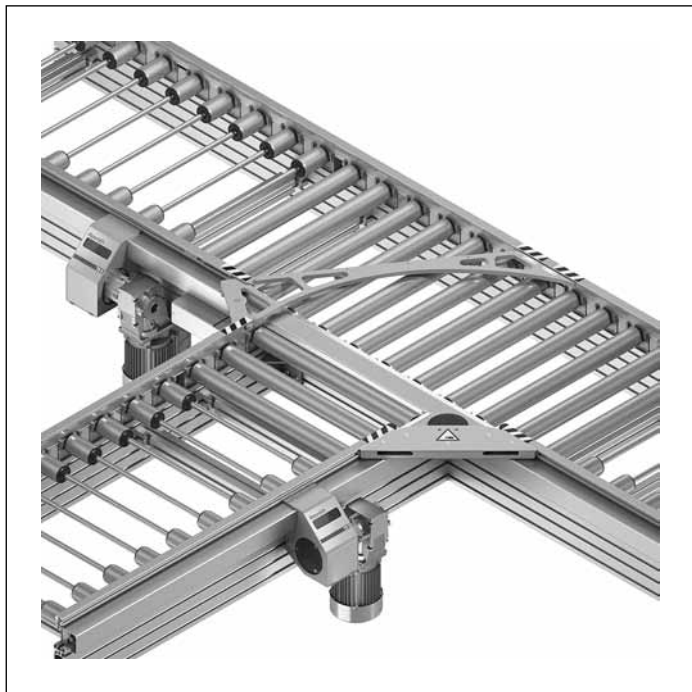


Curves/diverters/ junctions

5

Design	5-2
CU 5/XH, CU 5/H curves	5-4
DI 5/XH, DI 5/H diverters	5-8
JU 5/XH, JU 5/H junctions	5-13
Limits for the permissible gravity center position for junctions and diverters	5-17
Three-way diverter DI 5/XH-3W, DI 5/H-3W	5-18
Limits for the permissible gravity center position for the three-way diverter	5-22

Design



Curves, diverters, and junctions are available for branching transport of workpiece pallets. The inlet and outlet of these modules are separately driven via king shafts.

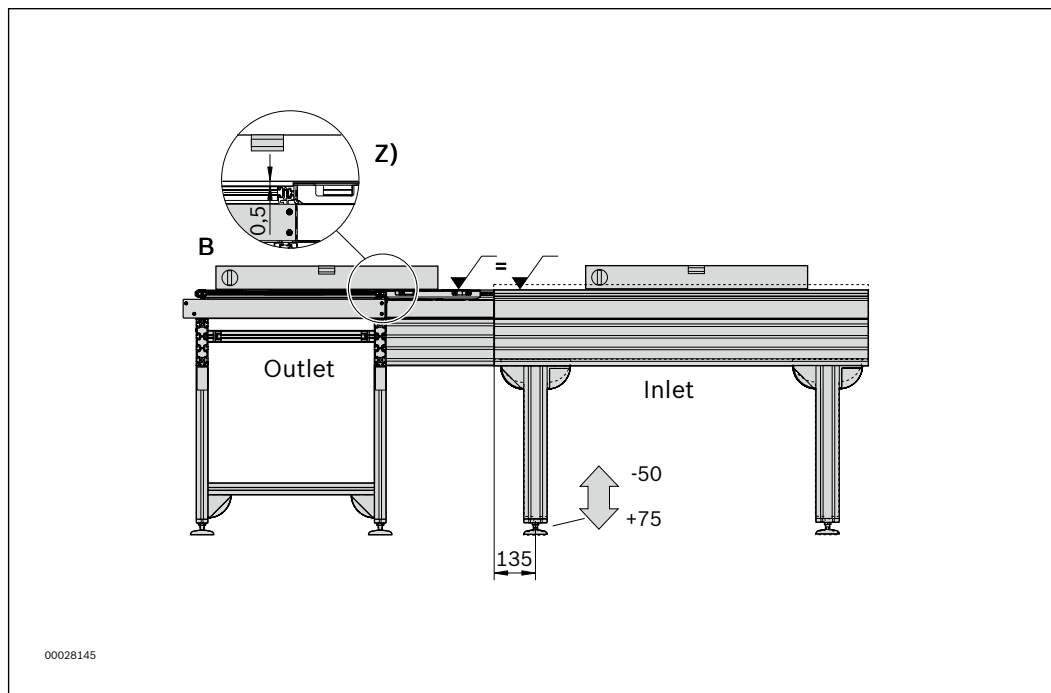
Due to the function, the transport height of the main and secondary sections (inlet and outlet) has a slight difference. This is why curves, diverters, and junctions must always be arranged with an opposite orientation (see the graphic).

Permissible loads

m_G (kg)	v_N (m/min)
max. 260	12
max. 300	9

m_G = total mass of workpiece pallet

Higher weights available on request.
Can be adapted to different transport speeds.

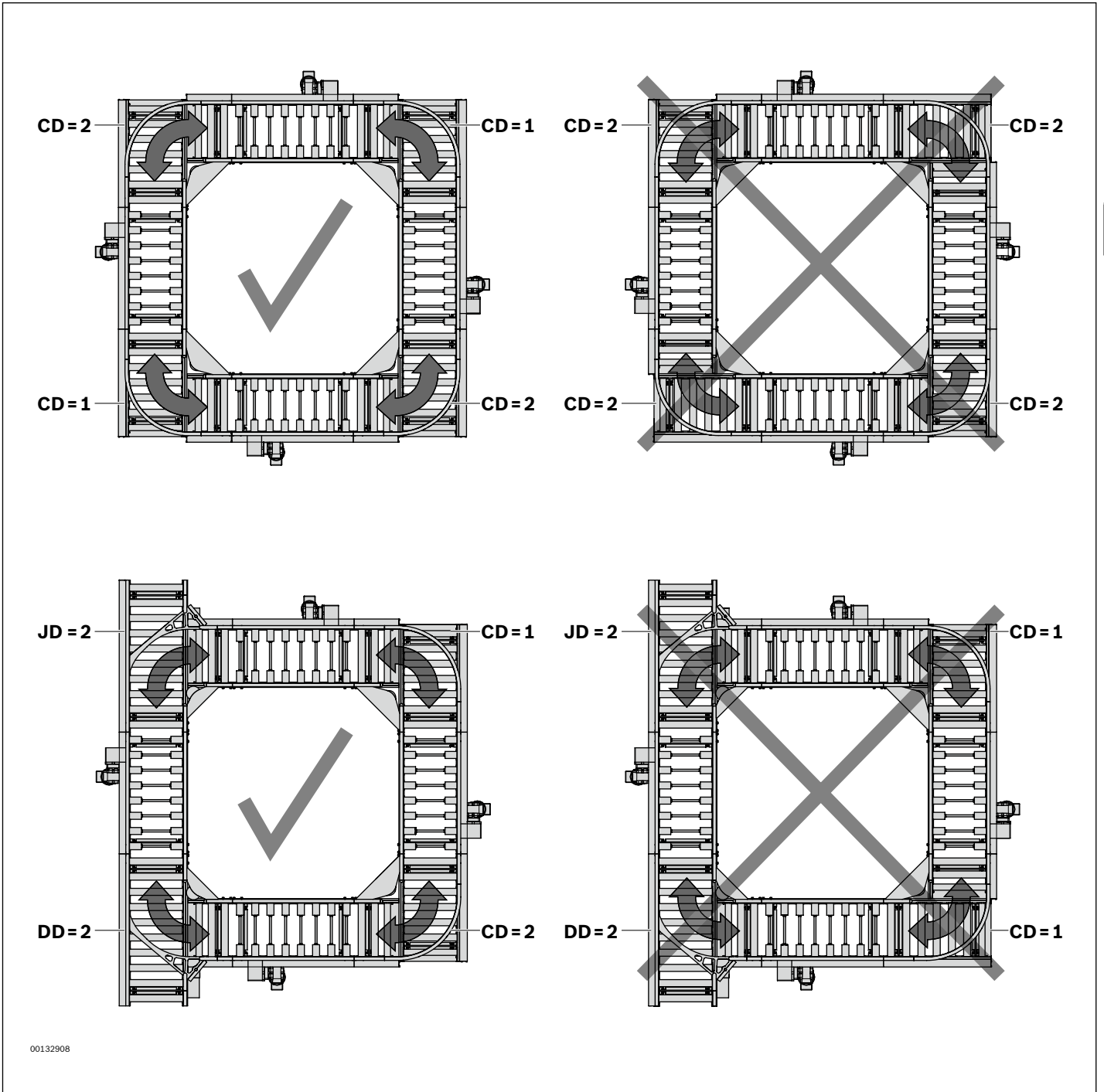


Note:

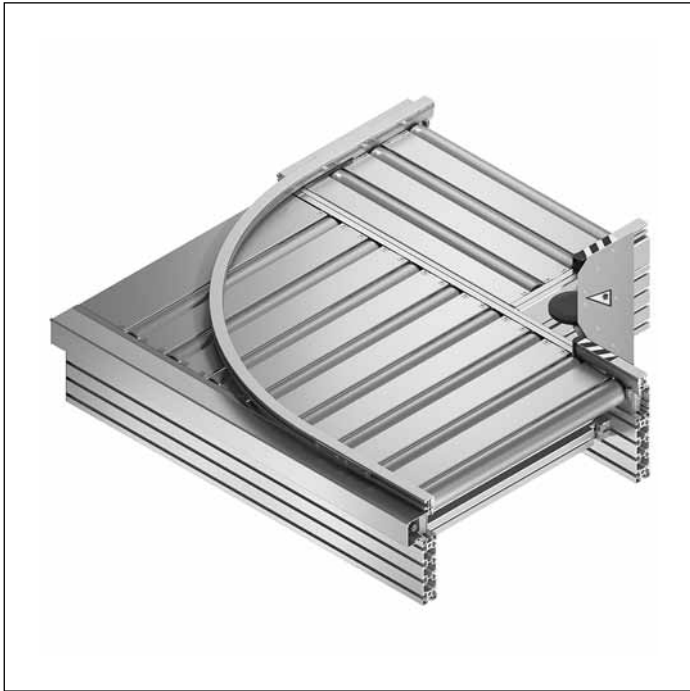
At curves, diverters and junctions, functional considerations mean that there is 0.5 mm difference between the transport height of the main and secondary section (inlet and outlet) (**Z**).

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Arrangement of curves, diverters, and junctions



CU 5/XH, CU 5/H curves



Condition on delivery:

- ▶ Ready-to-install.

Optional:

- ▶ assembled protective covers
- ▶ (protective covers cannot be ordered separately)

Use:

The curve is a ready-for-operation module for branching transport of workpiece pallets. Curves can be driven either on the inside or on the outside.

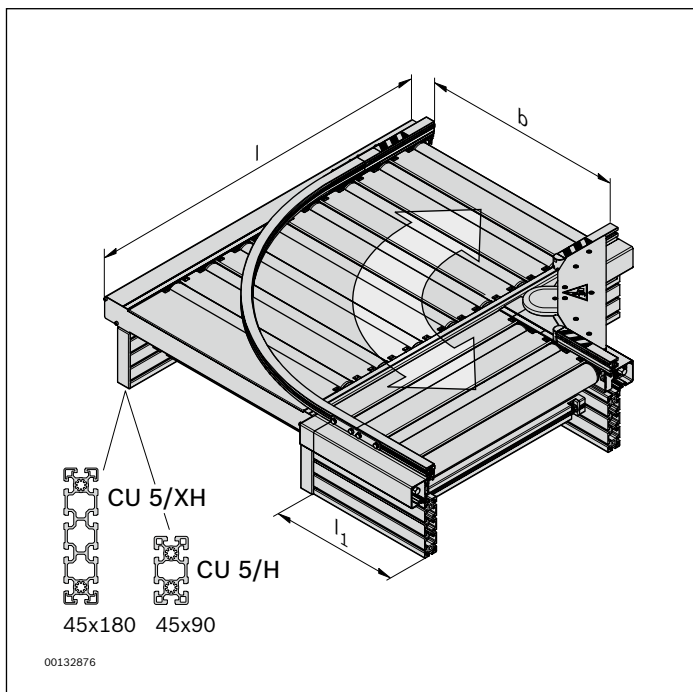
Note:

The curve is not suitable for accumulation operation. Permissible loads, see page 5-6

Version:

- ▶ Reversible operation possible
- ▶ Accumulation operation not permitted
- ▶ Support profile made of anodized aluminum
- ▶ Lateral guide profile made of steel, polymer, or aluminum in an anodized aluminum support
- ▶ Driven via king shaft with bevel gears made of sintered metal
- ▶ Roller spacing $p = 130$
- ▶ Full rollers
- ▶ m_g up to 300 kg (where $v = 9$ m/min)

Ordering information



CU 5/XH, CU 5/H curves

b (mm)	l_{WT} (mm)	N	LG	CD ¹⁾	DSM ²⁾	DST ³⁾	TR	SC ⁴⁾	Material number
455	455; 650	10	1; 2; 3	1; 2	1; 2	1; 2	1; 2	1; 2	3 842 998 526 (CU 5/XH)
650	650; 845	11	1; 2; 3	1; 2	1; 2	1; 2	1; 2	1; 2	3 842 998 525 (CU 5/H)
845	845; 1040	13	1; 2; 3	1; 2	1; 2	1; 2	1; 2	1; 2	b = ... mm

l_{WT} = ... mm
 N = ...
 LG = ...
 CD = ...
 DSM = ...
 DST = ...
 TR = ...
 SC = ...

¹⁾ CD = curve direction,
 1: left
 2: right

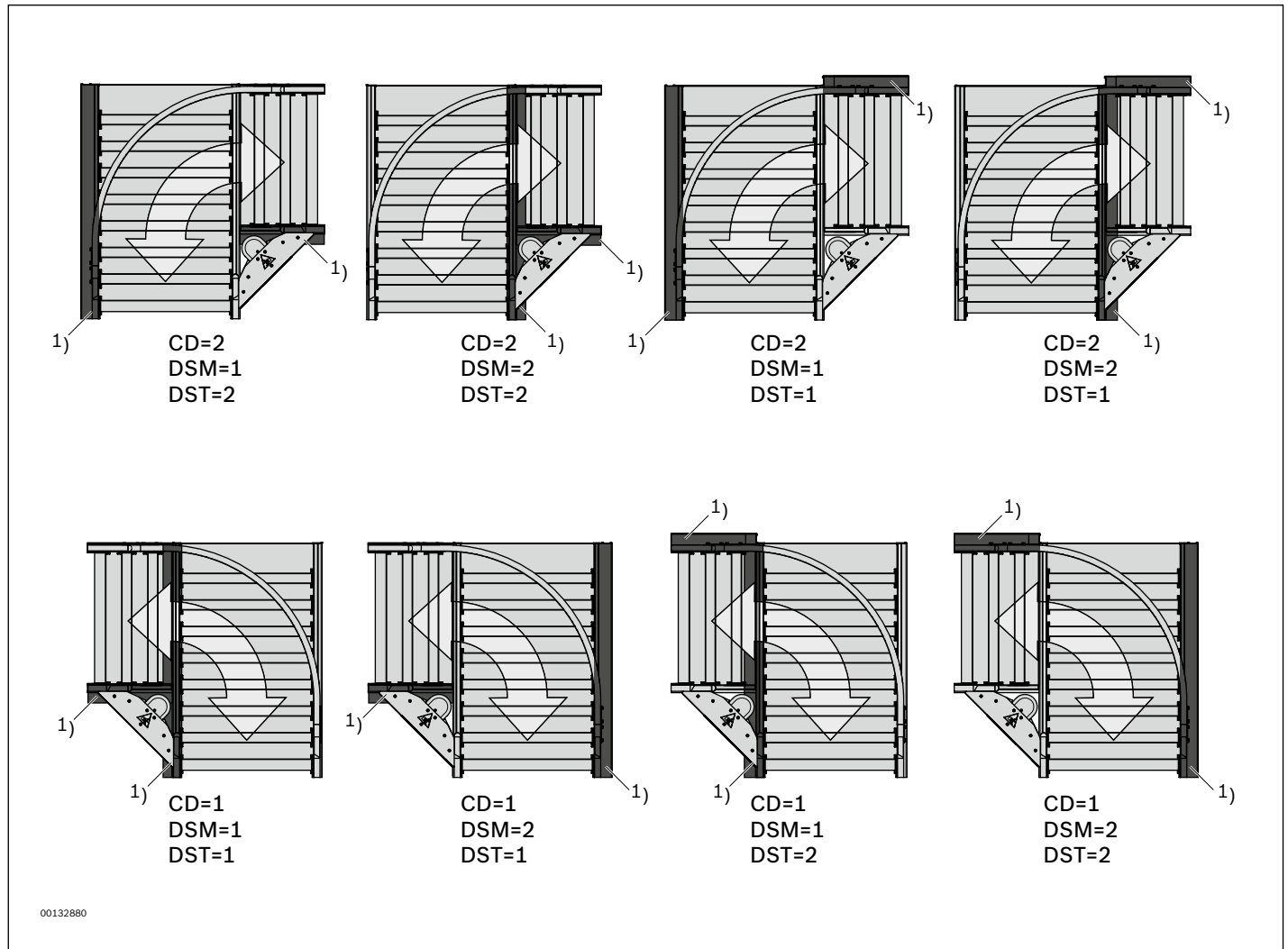
²⁾ DSM = King shaft installation on main
 section
 1: left
 2: right

³⁾ DST = King shaft installation on
 secondary section
 1: left
 2: right

⁴⁾ SC = protective covers
 1: without protective covers
 2: with protective covers

Description of further parameters, see page 0-3
 Ordering examples, see page 5-6

Order examples



¹⁾ Drive side

Permissible loads

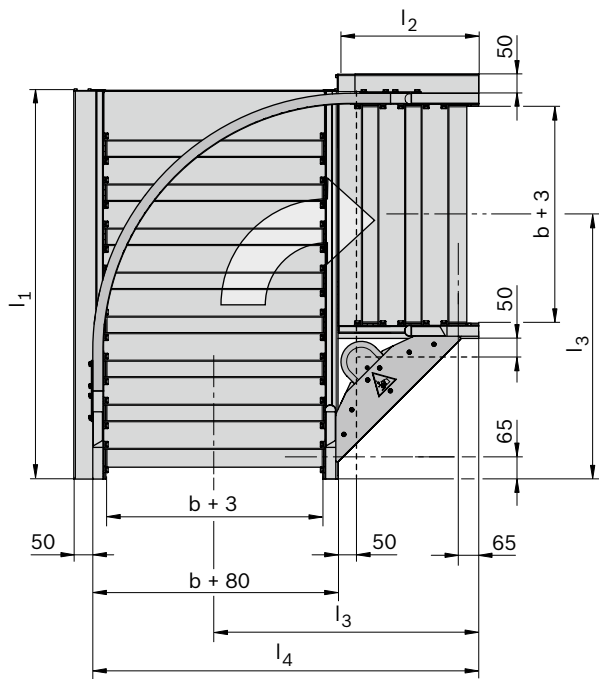
m_G (kg)	v_N (m/min)
max. 260	12
max. 300	9

m_G = total mass of workpiece pallet

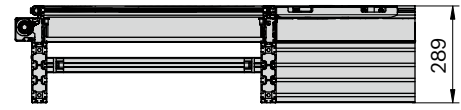
Higher weights available on request.
 Can be adapted to different transport speeds.

Dimensions

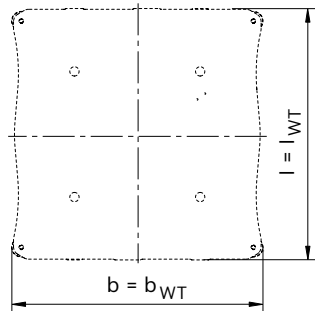
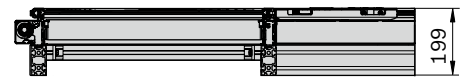
CU 5/H, CU 5/XH curve



CU 5/XH



CU 5/H



CU 5/XH: 3 842 998 526

CU 5/H: 3 842 998 525

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$b^{1)}$ (mm)	$l_{WT}^{2)}$ (mm)	N	$l_1^{3)}$ (mm)	$l_2^{4)}$ (mm)	$l_3^{5)}$ (mm)	l_4 (mm)
455	455; 650	10	921.5	382.5	650	917.5
650	650; 845	11	1149	415	780	1145
845	845; 1040	13	1376.5	447	910	1372.5

¹⁾ b = track width in direction of transport

²⁾ l_{WT} = workpiece pallet length (in direction of transport)

³⁾ l_1 = length of main section

⁴⁾ l_2 = length of secondary section

⁵⁾ l_3 = length of secondary section up to center of main section

Description of further parameters, see page 0-3

DI 5/XH, DI 5/H diverters



Condition on delivery:

- ▶ Ready-to-install.

Optional:

- ▶ Protective covers mounted (protective covers cannot be ordered separately)

Use:

The diverter is a ready-for-operation module for branching transport of workpiece pallets. The king shaft installation for the main or secondary section can be installed on either side. The diverter is controlled as an active element via a pneumatic cylinder ($p = 5 \dots 6$ bar).

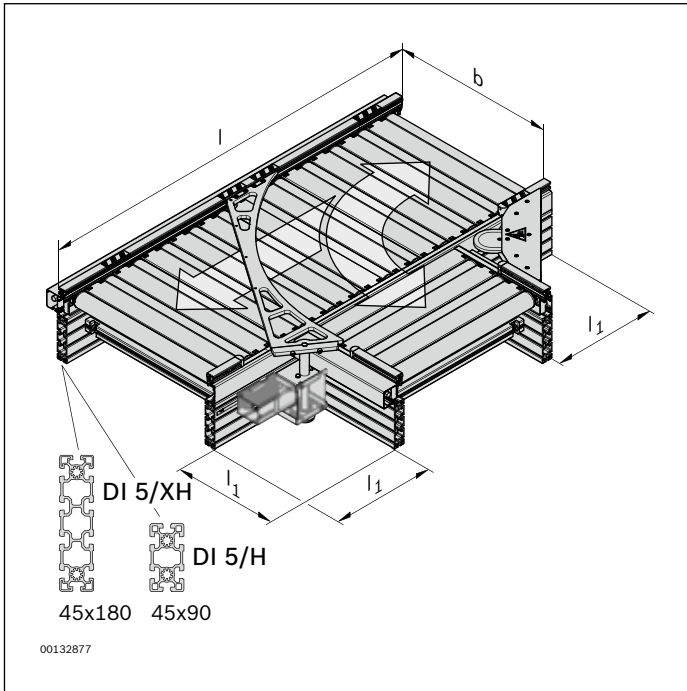
Note:

The diverter is not suitable for accumulation operation. Permissible loads, see page 5-10

Version:

- ▶ Reversible operation possible
- ▶ Accumulation operation not permitted
- ▶ Support profile made of anodized aluminum
- ▶ Lateral guide profile made of steel, polymer, or aluminum in an anodized aluminum support
- ▶ Driven via king shaft with bevel gears made of sintered metal
- ▶ Roller spacing $p = 130$
- ▶ Full rollers
- ▶ m_G up to 300 kg (where $v = 9$ m/min)
- ▶ Pneumatic push-in fitting: 6 mm

Ordering information



DI 5/XH, DI 5/H diverters

b (mm)	l_{WT} (mm)	N	LG	DD¹⁾	DSM²⁾	DST³⁾	TR	SC⁴⁾	Material number
455	455; 650	13	1; 2; 3	1; 2	1; 2	1; 2	1; 2	1; 2	3 842 998 529 (DI 5/XH)
650	650; 845	15	1; 2; 3	1; 2	1; 2	1; 2	1; 2	1; 2	3 842 998 528 (DI 5/H)
845	845; 1040	17	1; 2; 3	1; 2	1; 2	1; 2	1; 2	1; 2	b = ... mm l _{WT} = ... mm N = ... LG = ... DD = ... DSM = ... DST = ... TR = ... SC = ...

¹⁾ DD = diverter direction
 1: left
 2: right

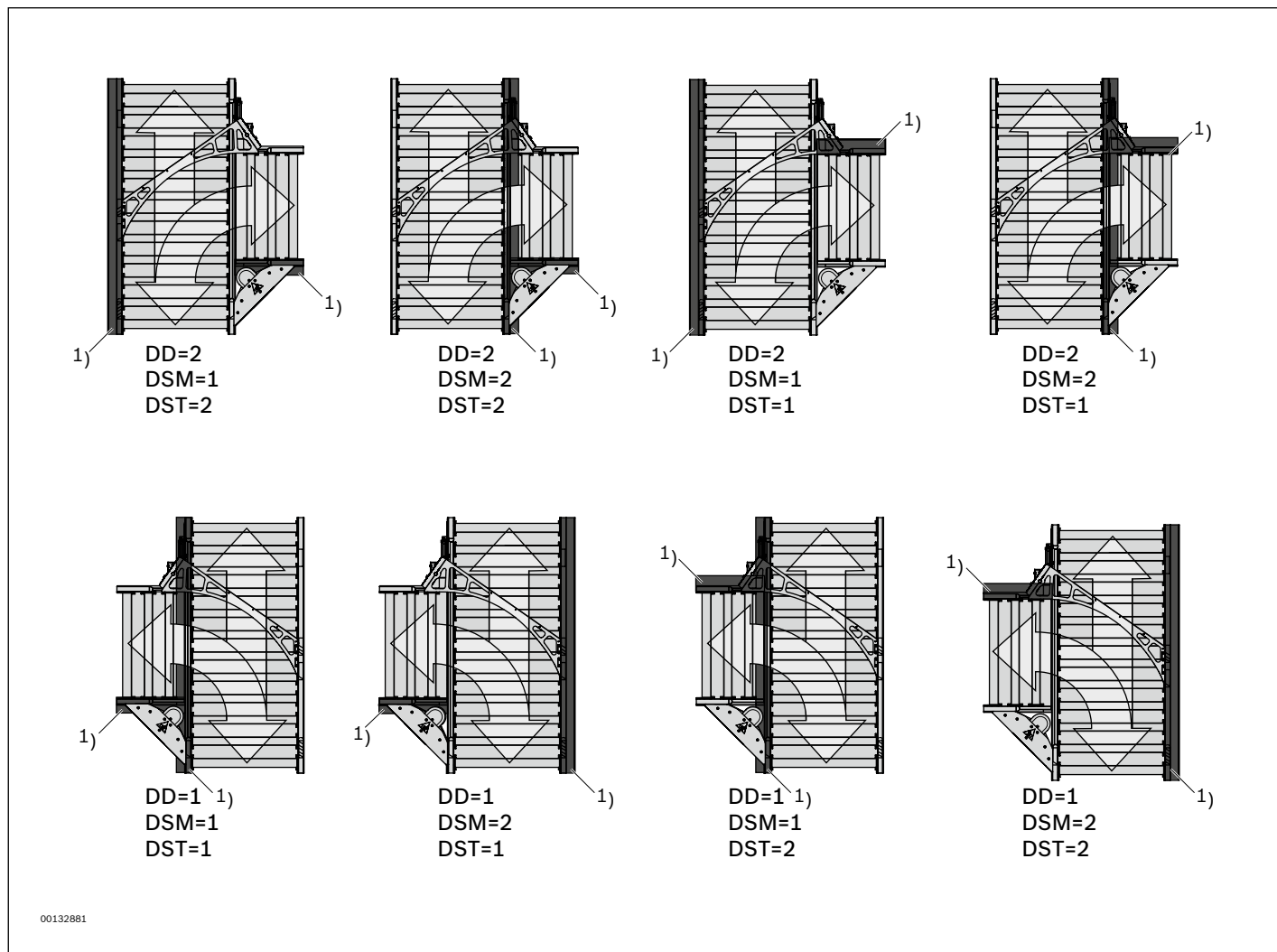
²⁾ DSM = King shaft installation on main section
 1: left
 2: right

³⁾ DST = King shaft installation on secondary section
 1: left
 2: right

⁴⁾ SC = protective covers
 1: without protective covers
 2: with protective covers

Description of further parameters, see page 0-3
 Ordering examples, see page 5-10

Order examples



¹⁾ Drive side

Permissible loads

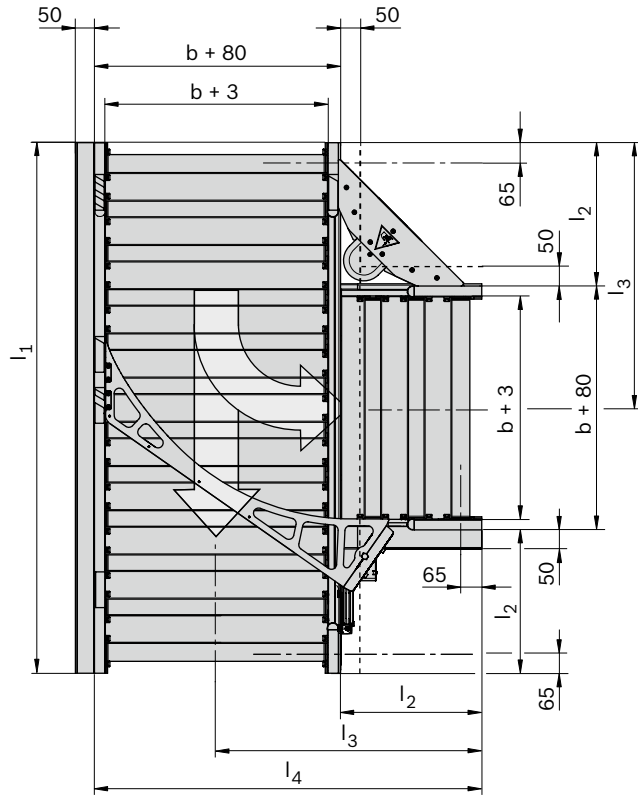
m_G (kg)	v_N (m/min)
max. 260	12
max. 300	9

m_G = total mass of workpiece pallet

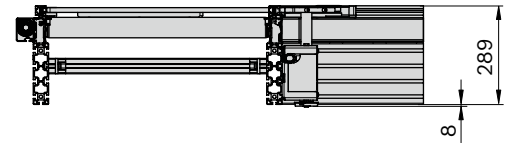
Higher weights available on request.
 Can be adapted to different transport speeds.
 Diverter arm position inquiry on request.

Dimensions

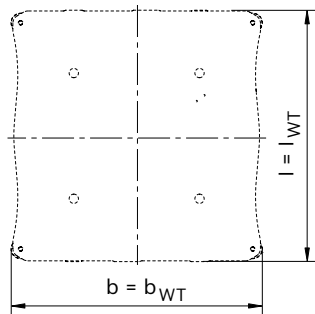
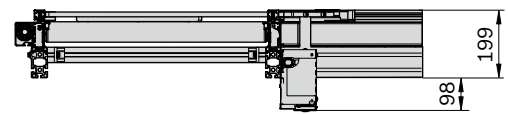
DI 5/H, DI 5/XH diverter



DI 5/XH



DI 5/H



DI 5/XH: 3 842 998 529
 DI 5/H: 3 842 998 528

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$b^{1)}$ (mm)	$l_{WT}^{2)}$ (mm)	N	$l_1^{3)}$ (mm)	$l_2^{4)}$ (mm)	$l_3^{5)}$ (mm)	l_4 (mm)
455	455; 650	13	1300	382.5	650	917.5
650	650; 845	15	1560	415	780	1145
845	845; 1040	17	1820	447	910	1372.5

¹⁾ b = track width in direction of transport

²⁾ l_{WT} = workpiece pallet length (in direction of transport)

³⁾ l_1 = length of main section

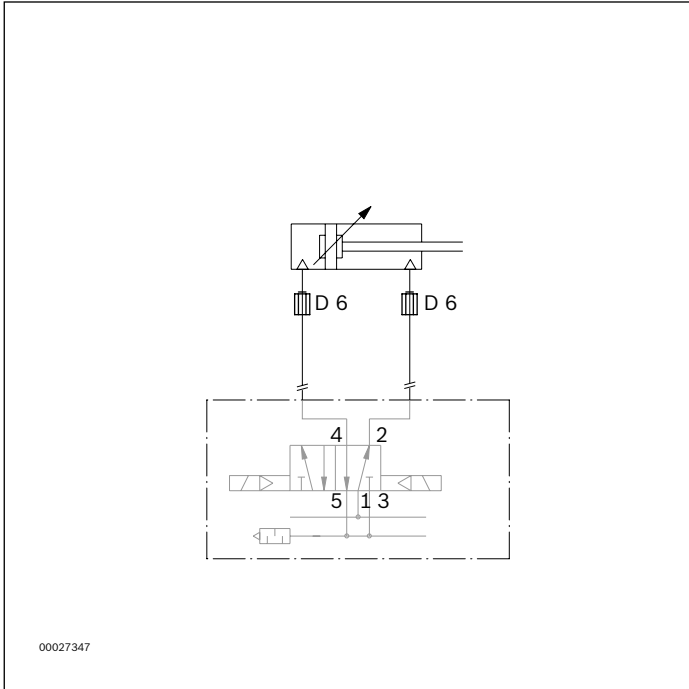
⁴⁾ l_2 = length of secondary section

⁵⁾ l_3 = length of secondary section up to center of main section

Description of further parameters, see page 0-3

Circuit diagram

DI 5/H, DI 5/XH diverter



JU 5/XH, JU 5/H junctions



Condition on delivery:

- ▶ Ready-to-install.

Optional:

- ▶ Protective covers mounted (protective covers cannot be ordered separately)

Use:

The junction is a module for branching transport of workpiece pallets. The king shaft installation for the main or secondary section can be installed on either side. The junction is a passive element without any control. The workpiece pallet moves the diverter arm into position.

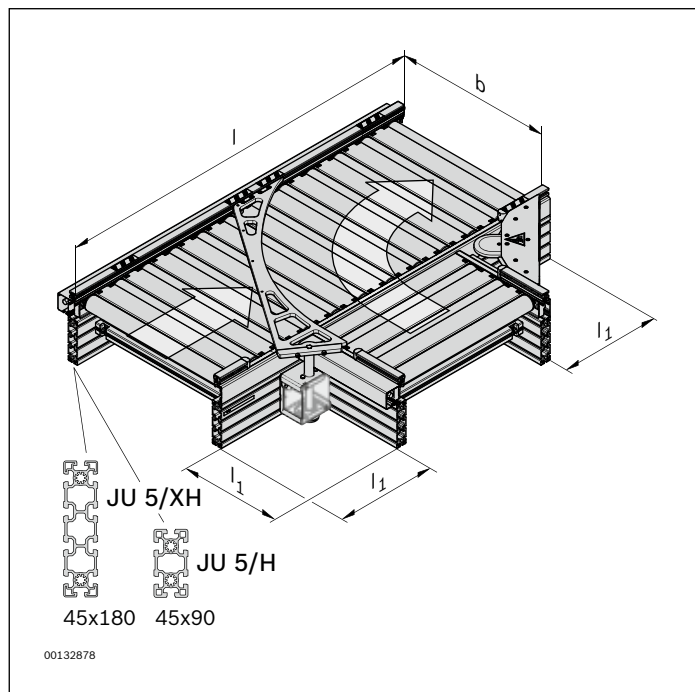
Note:

The junction is not suitable for accumulation operation. Permissible loads, see page 5-15

Version:

- ▶ Reversible operation not permitted
- ▶ Accumulation operation not permitted
- ▶ Support profile made of anodized aluminum
- ▶ Lateral guide profile made of steel, polymer, or aluminum in an anodized aluminum support
- ▶ Driven via king shaft with bevel gears made of sintered metal
- ▶ Roller spacing $p = 130$
- ▶ Full rollers
- ▶ m_e up to 300 kg (where $v = 9$ m/min)

Ordering information



JU 5/XH, JU 5/H junctions

b (mm)	l_{WT} (mm)	N	LG	JD¹⁾	DSM²⁾	DST³⁾	TR	SC⁴⁾	Material number
455	455; 650	13	1; 2; 3	1; 2	1; 2	1; 2	1; 2	1; 2	3 842 998 531 (JU 5/XH)
650	650; 845	15	1; 2; 3	1; 2	1; 2	1; 2	1; 2	1; 2	3 842 998 530 (JU 5/H)
845	845; 1040	17	1; 2; 3	1; 2	1; 2	1; 2	1; 2	1; 2	b = ... mm

l_{WT} = ... mm

N = ...

LG = ...

JD = ...

DSM = ...

DST = ...

TR = ...

SC = ...

¹⁾ JD = Junction direction
 1: left
 2: right

²⁾ DSM = King shaft installation on main section
 1: left
 2: right

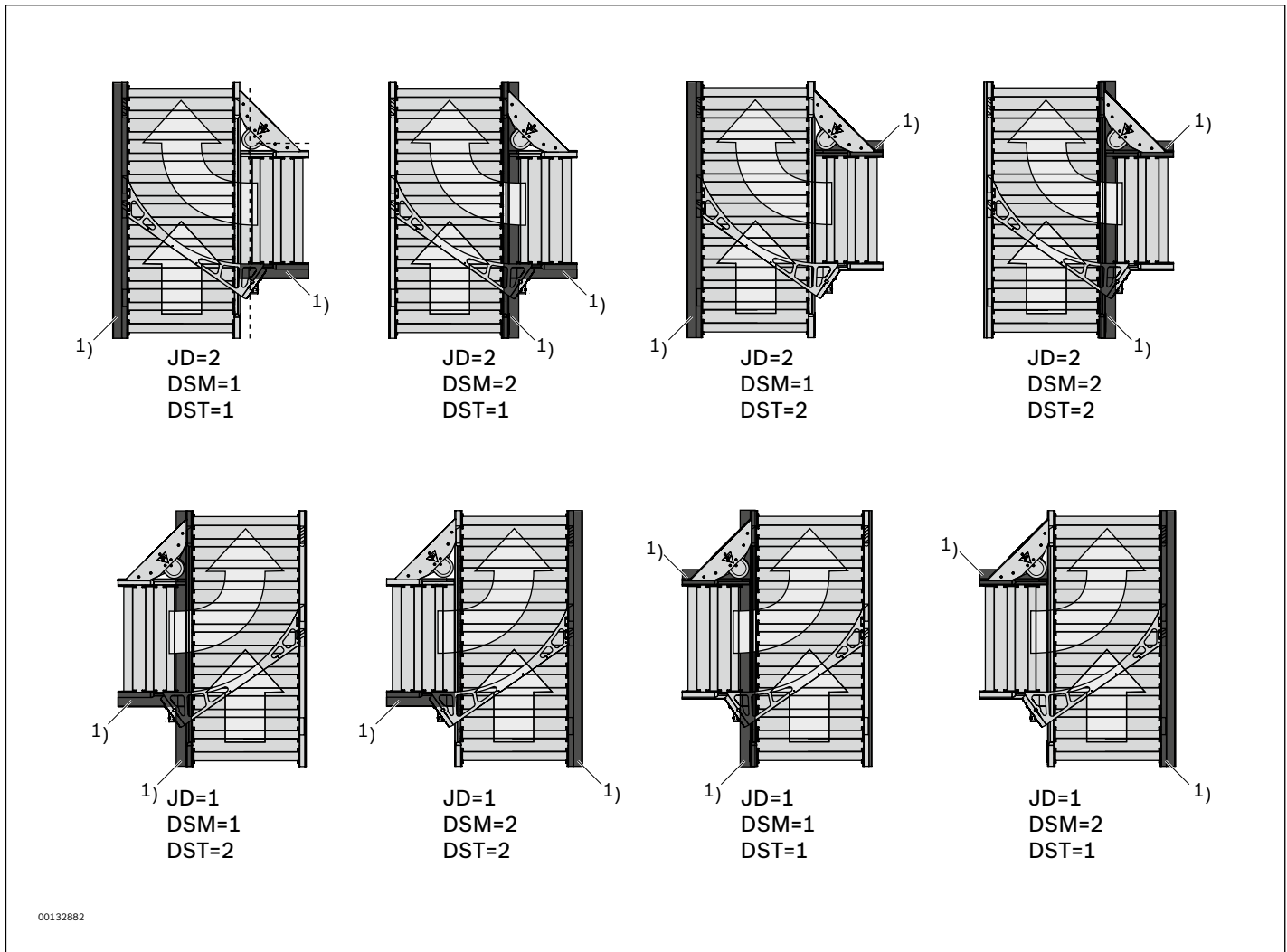
³⁾ DST = King shaft installation on secondary section
 1: left
 2: right

⁴⁾ SC = protective covers
 1: without protective covers
 2: with protective covers

Description of further parameters, see page 0-3

Ordering examples, see page 5-15

Order examples



¹⁾ Drive side

Permissible loads

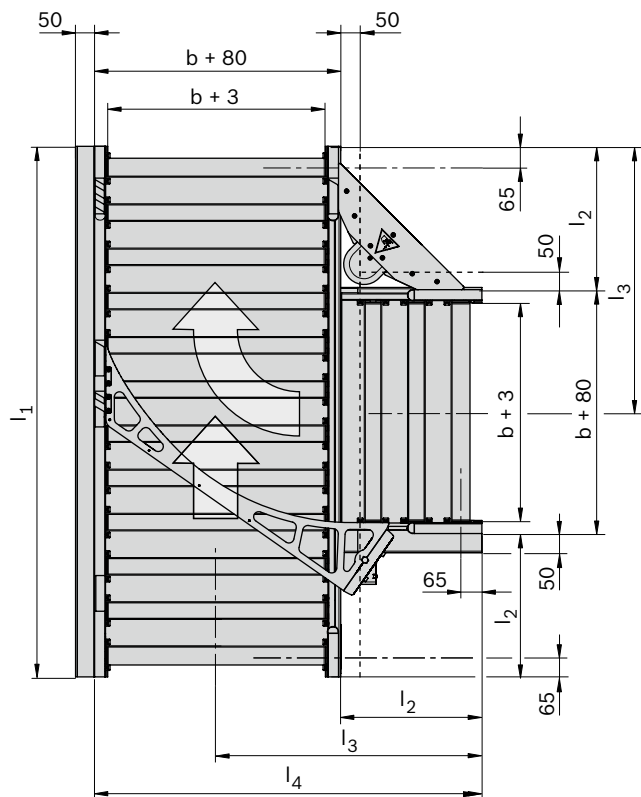
m_e (kg)	v_N (m/min)
max. 260	12
max. 300	9

m_e = total mass of workpiece pallet

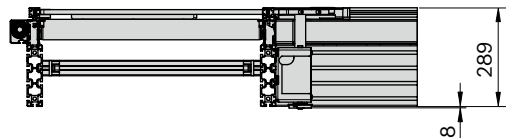
Higher weights available on request.
 Can be adapted to different transport speeds.

Dimensions

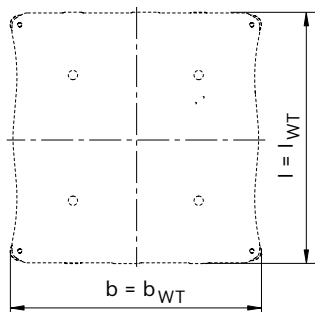
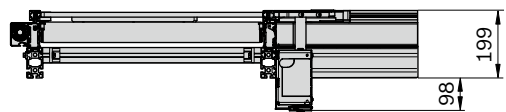
JU 5/H, JU 5/XH junction



JU 5/XH



JU 5/H



JU 5/XH: 3 842 998 531
 JU 5/H: 3 842 998 530

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$b^{1)}$ (mm)	$l_{WT}^{2)}$ (mm)	N	$l_1^{3)}$ (mm)	$l_2^{4)}$ (mm)	$l_3^{5)}$ (mm)	l_4 (mm)
455	455; 650	13	1300	382.5	650	917.5
650	650; 845	15	1560	415	780	1145
845	845; 1040	17	1820	447	910	1372.5

¹⁾ b = track width in direction of transport

²⁾ l_{WT} = workpiece pallet length (in direction of transport)

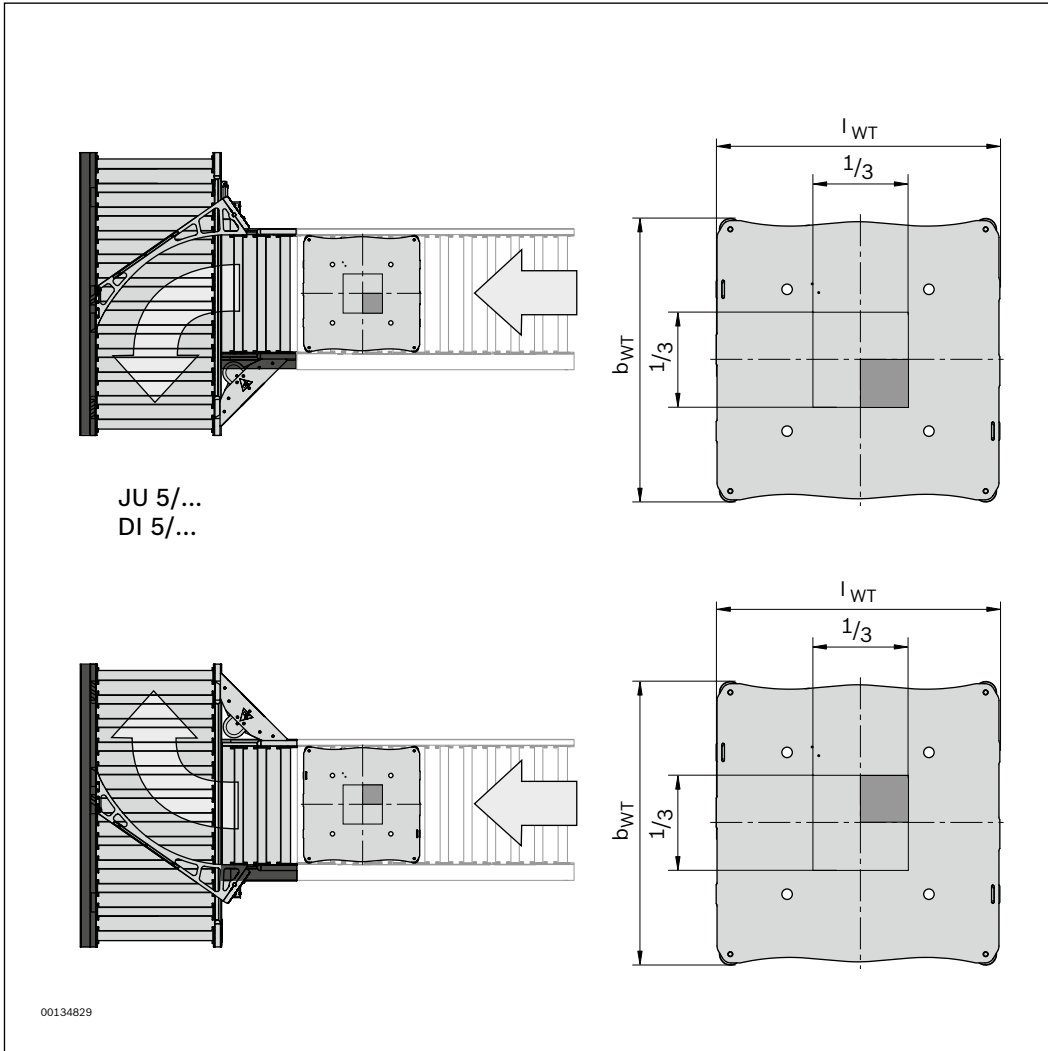
³⁾ l_1 = length of main section

⁴⁾ l_2 = length of secondary section

⁵⁾ l_3 = length of secondary section up to center of main section

Description of further parameters, see page 0-3

Limits for the permissible gravity center position for junctions and diverters



With the illustrated gravity center position transport problems may occur at the transition from the secondary section to the main section. General information on the gravity center position, see page 2-3

Three-way diverter DI 5/XH-3W, DI 5/H-3W



Condition on delivery:

- ▶ Ready-to-install.

Optional:

- ▶ Protective covers mounted (protective covers cannot be ordered separately)

Use:

The three-way diverter is a ready-for-operation module for branching off workpiece pallets in two directions or combining from two directions. The king shaft installation for the main or secondary section can be installed on either side. The diverter is controlled as an active element via a pneumatic cylinder ($p = 5 \dots 6$ bar).

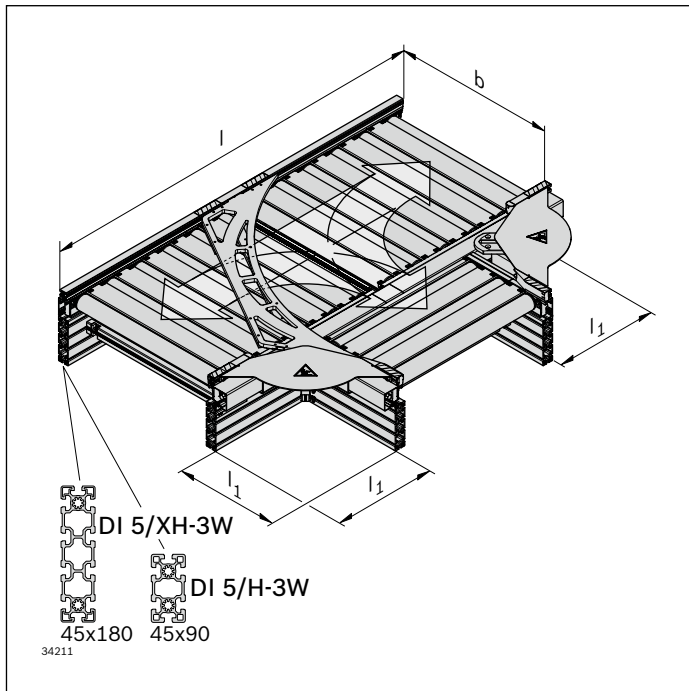
Note:

The three-way diverter is not suitable for accumulation operation.
Permissible loads, see page 5-20

Version:

- ▶ Reversible operation possible
- ▶ Accumulation operation not permitted
- ▶ Support profile made of anodized aluminum
- ▶ Lateral guide profile made of steel, polymer, or aluminum in an anodized aluminum support
- ▶ Driven via king shaft with bevel gears made of sintered metal
- ▶ Roller spacing $p = 130$
- ▶ Full rollers
- ▶ m_g up to 300 kg (where $v = 9$ m/min)
- ▶ Pneumatic push-in fitting: 6 mm

Ordering information



DI 5/XH, DI 5/H diverters

b (mm)	l_{WT} (mm)	N	LG	DSM¹⁾	DST²⁾	TR	SC³⁾	Material number
455	455; 650	13	1; 2; 3	1; 2	1; 2	1; 2	1; 2	3 842 998 807 (DI 5/XH-3W)
650	650; 845	15	1; 2; 3	1; 2	1; 2	1; 2	1; 2	3 842 998 808 (DI 5/H-3W)
845	845; 1040	17	1; 2; 3	1; 2	1; 2	1; 2	1; 2	b = ... mm l _{WT} = ... mm N = ... LG = ... DSM = ... DST = ... TR = ... SC = ...

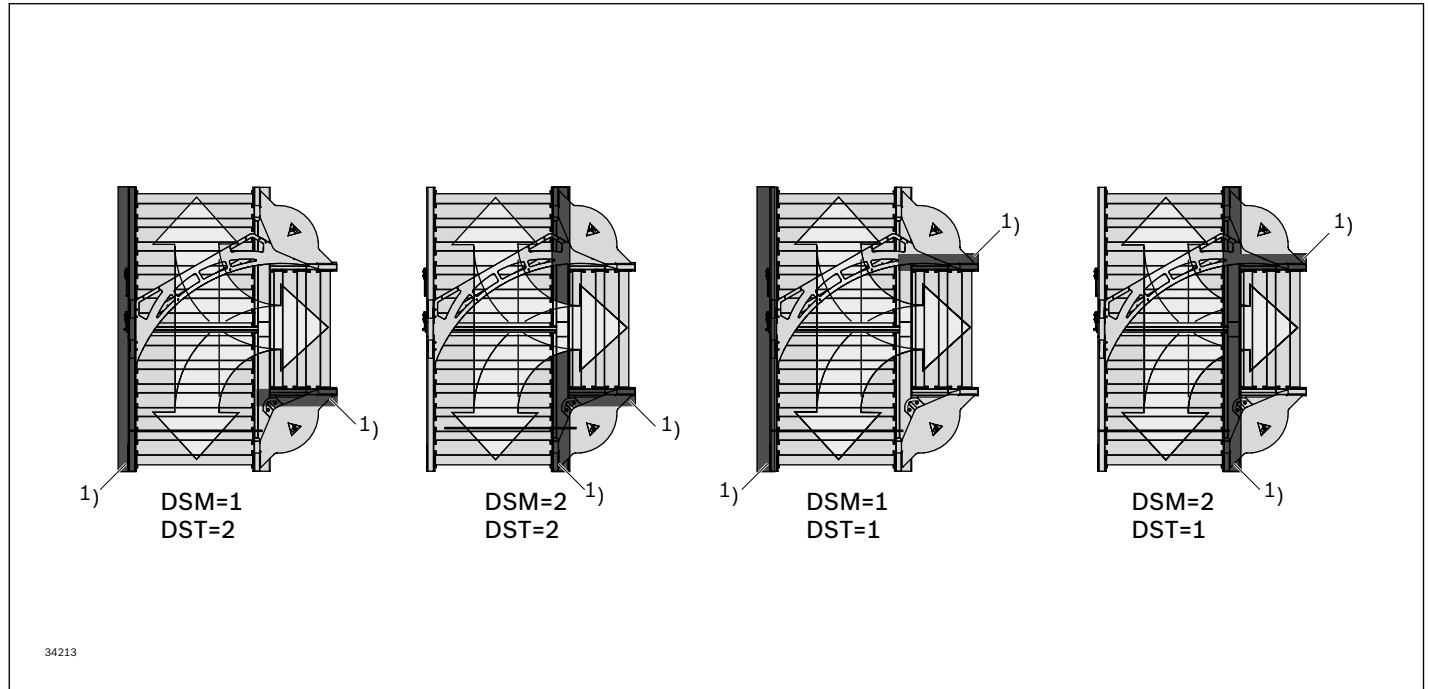
¹⁾ DSM = King shaft installation on main section
 1: left
 2: right

²⁾ DST = King shaft installation on secondary section
 1: left
 2: right

³⁾ SC = protective covers
 1: without protective covers
 2: with protective covers

Description of further parameters, see page 0-3
 Ordering examples, see page 5-20

Order examples



¹⁾ Drive side

Permissible loads

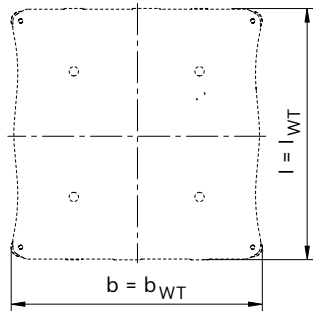
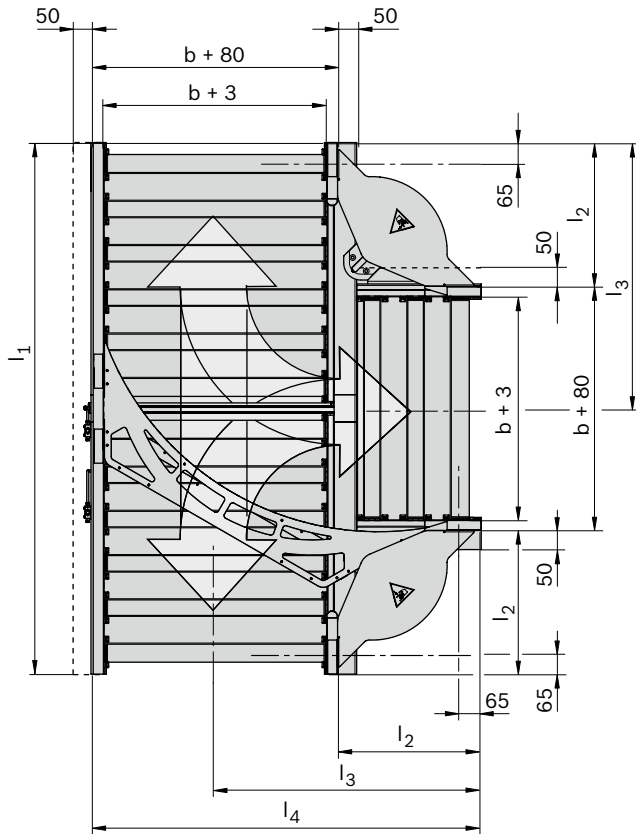
m_G (kg)	v_N (m/min)
max. 260	12
max. 300	9

m_G = total mass of workpiece pallet

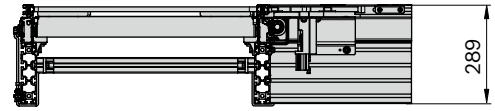
Higher weights available on request.
 Can be adapted to different transport speeds.
 Diverter arm position inquiry on request.

Dimensions

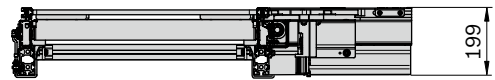
Diverter DI 5/XH-3W, DI 5/H-3W



DI 5/XH-3W



DI 5/H-3W



DI 5/XH-3W: 3 842 998 807
 DI 5/H-3W: 3 842 998 808

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$b^{1)}$ (mm)	$l_{WT}^{2)}$ (mm)	N	$l_1^{3)}$ (mm)	$l_2^{4)}$ (mm)	$l_3^{5)}$ (mm)	l_4 (mm)
455	455; 650	13	1300	382.5	650	917.5
650	650; 845	15	1560	415	780	1145
845	845; 1040	17	1820	447	910	1372.5

¹⁾ b = track width in direction of transport

²⁾ l_{WT} = workpiece pallet length (in direction of transport)

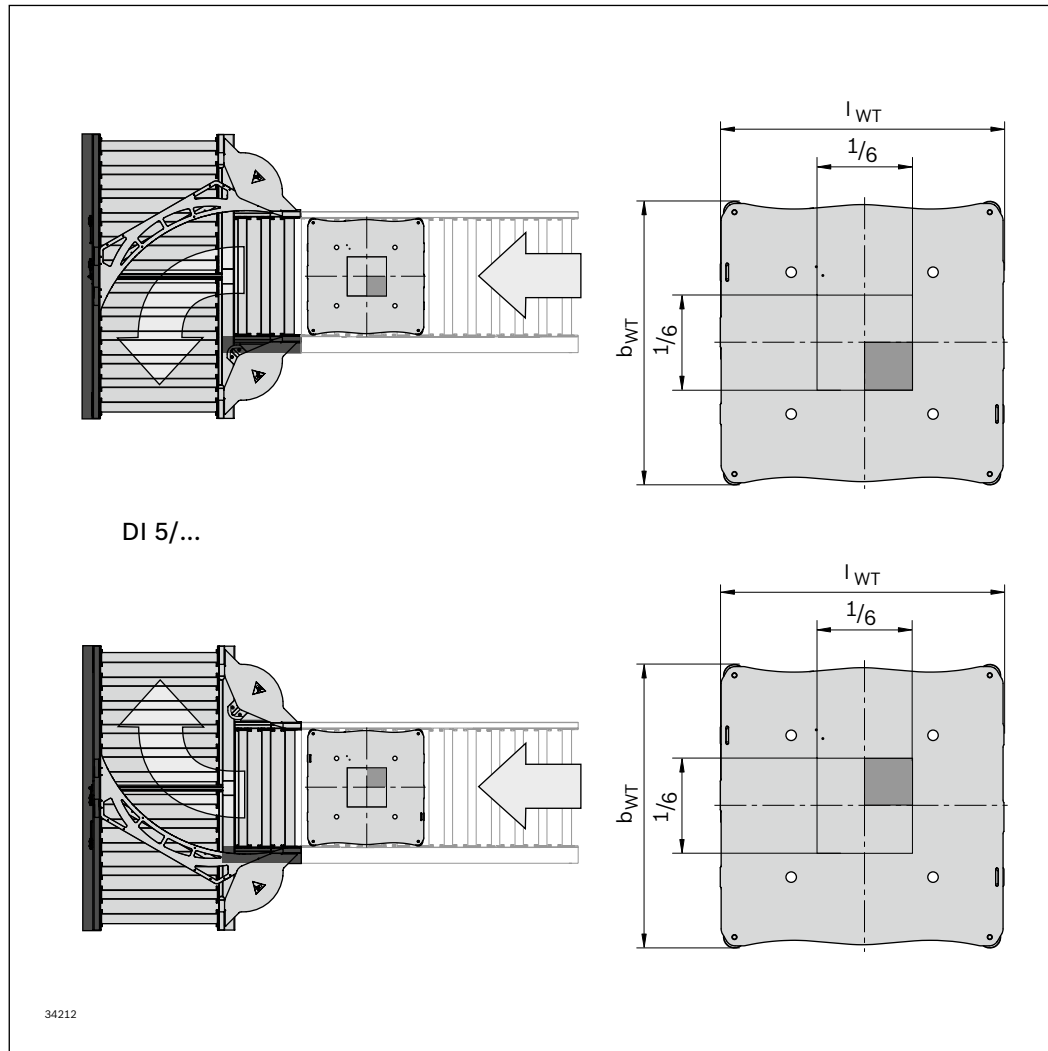
³⁾ l_1 = length of main section

⁴⁾ l_2 = length of secondary section

⁵⁾ l_3 = length of secondary section up to center of main section

Description of further parameters, see page 0-3

Limits for the permissible gravity center position for the three-way diverter



With the illustrated gravity center position transport problems may occur at the transition from the secondary section to the main section. General information on the gravity center position, see page 2-3

Note:

With $b_{WT} = 650$ mm and load center $1/6$, eccentric, $m_G = \text{max. } 200$ kg