## Curves/diverters/junctions

### Design

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### Limits for the permissible gravity center position for junctions and diverters

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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 is provided on pages 2-3.
Curves/diverters/junctions

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 conveyor speed

<table>
<thead>
<tr>
<th>(m_{\text{wt}}) (kg)</th>
<th>(v_{\text{N}}) (m/min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. 260</td>
<td>12</td>
</tr>
<tr>
<td>Max. 300</td>
<td>9</td>
</tr>
</tbody>
</table>

\(m_{\text{wt}}\) = workpiece pallet weight
Curves/diverters/junctions

Arrangement of curves, diverters, and junctions

CD = 2

JD = 2

DD = 2

CD = 1

CD = 2

CD = 1

CD = 2

CD = 1

CD = 1

CD = 1
Curves/divers/junctions

CU 5/XH, CU 5/H curves

Application:
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.

Version:
- 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

Delivery condition:
Ready-to-install
Optional: assembled protective covers
(protective covers cannot be ordered separately)

CU 5/XH, CU 5/H curves

<table>
<thead>
<tr>
<th>b ((\text{mm}))</th>
<th>(l_{\text{WT}}) ((\text{mm}))</th>
<th>LG</th>
<th>BG</th>
<th>CD</th>
<th>DSM</th>
<th>DST</th>
<th>SC</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>455</td>
<td>455; 650</td>
<td>1; 2; 3</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>3 842 998 526 (CU 5/XH)</td>
</tr>
<tr>
<td>650</td>
<td>650; 845</td>
<td>1; 2; 3</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>3 842 998 525 (CU 5/H)</td>
</tr>
<tr>
<td>845</td>
<td>845; 1040</td>
<td>1; 2; 3</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td></td>
</tr>
</tbody>
</table>

1) \(b\) = track width in direction of transport
2) \(l_{\text{WT}}\) = workpiece pallet length (in direction of transport)
3) \(LG\) = lateral guide material
   1: steel
   2: polymer
   3: aluminum
4) \(BG\) = bevel wheel material
   1: polymer
   2: sintered metal
5) \(CD\) = curve direction, see the order examples \(\Rightarrow 5-5\)
6) \(DSM\) = king shaft installation on main section, see the order examples \(\Rightarrow 5-5\)
7) \(DST\) = king shaft installation on secondary section, see the order examples \(\Rightarrow 5-5\)
8) \(SC\) = protective covers
   1: without protective covers
   2: with protective covers
Curves/diverters/junctions

CU 5/XH, CU 5/H curves

Order examples:

Permissible conveyor speed

<table>
<thead>
<tr>
<th>$m_{WT}$ (kg)</th>
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</tr>
</tbody>
</table>

$m_{WT}$ = workpiece pallet weight
Curves/diverters/junctions

DI 5/XH, DI 5/H diverters

Application:
The diverter is a ready-for-operation module for branching transport of workpiece pallets. The drive side can be selected for the main and secondary section. The diverter is controlled as an active element via a pneumatic cylinder (p = 5-6 bar).

Note:
The diverter is not suitable for accumulation operation.

Version:
- 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

Delivery condition:
Ready-to-install

Optional: assembled protective covers
(protective covers cannot be ordered separately)

DI 5/XH, DI 5/H diverters

<table>
<thead>
<tr>
<th>b (mm)</th>
<th>lWT (mm)</th>
<th>LG</th>
<th>BG</th>
<th>DD</th>
<th>DSM</th>
<th>DST</th>
<th>SC</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>455</td>
<td>455-650</td>
<td>1-2; 3</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>3 842 998 529 (DI 5/XH)</td>
</tr>
<tr>
<td>650</td>
<td>650-845</td>
<td>1-2; 3</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>3 842 998 528 (DI 5/H)</td>
</tr>
<tr>
<td>845</td>
<td>845-1040</td>
<td>1-2; 3</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td>B = ... mm</td>
</tr>
</tbody>
</table>

1) b = track width in direction of transport
2) lWT = workpiece pallet length (in direction of transport)
3) LG = lateral guide material
   1: steel
   2: polymer
   3: aluminum
4) BG = bevel wheel material
   1: polymer
   2: sintered metal
5) DD = diverter direction, see the order examples [3] 5-7
6) DSM = king shaft installation on main section, see the order examples [3] 5-7
7) DST = king shaft installation on secondary side, see the order examples [3] 5-7
8) SC = protective covers
   1: without protective covers
   2: with protective covers
Curves/diverters/junctions

DI 5/XH, DI 5/H diverters

Order examples:

Permissible conveyor speed

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$m_{WT}$ = workpiece pallet weight

The following is needed for inquiry of the diverter arm position on the cylinder:

Sensor holder on cylinder

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Contact</th>
<th>Cable length (m)</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNP</td>
<td>3</td>
<td>0 830 100 631</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0 830 100 632</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>R 412 004 576</td>
<td>10</td>
</tr>
<tr>
<td>NPN</td>
<td>3</td>
<td>0 830 100 633</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0 830 100 634</td>
<td>10</td>
</tr>
</tbody>
</table>
Curves/diverters/junctions

JU 5/XH, JU 5/H junctions

Application:
The junction is a module for branching transport of workpiece pallets. The drive side can be selected for the main and secondary section.
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.

Version:
- 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

Delivery condition:
Ready-to-install

Optional: assembled protective covers
(protective covers cannot be ordered separately)

<table>
<thead>
<tr>
<th>JU 5/XH, JU 5/H junctions</th>
<th>b (mm)</th>
<th>lWT (mm)</th>
<th>LG</th>
<th>BG</th>
<th>JD</th>
<th>DSM</th>
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<td>1; 2</td>
<td>1; 2</td>
<td>1; 2</td>
<td></td>
<td>b = ... mm</td>
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b = track width in direction of transport
lWT = workpiece pallet length (in direction of transport)
LG = lateral guide material
1: steel
2: polymer
3: aluminum
BG = bevel wheel material
1: polymer
2: sintered metal
JD = junction direction, see the order examples 5-9
DSM = king shaft installation on main section, see the order examples 5-9
DST = king shaft installation on secondary side, see the order examples 5-9
SC = protective covers
1: without protective covers
2: with protective covers
Curves/diverters/junctions

**JU 5/XH, JU 5/H junctions**

**Order examples:**

![Diagram of JU 5/XH, JU 5/H junctions]

- JD=2
- DSM=1
- DST=1

- JD=2
- DSM=2
- DST=1

- JD=2
- DSM=1
- DST=2

- JD=2
- DSM=2
- DST=2

- JD=1
- DSM=1
- DST=2

- JD=1
- DSM=2
- DST=2

- JD=1
- DSM=1
- DST=1

- JD=1
- DSM=2
- DST=1

1) Drive side

**Permissible conveyor speed**

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