Positioning and orientation

Design 8-2
PE 5 positioning unit 8-3
Assembly kit for positioning unit 8-4
Protective sleeves for PE 5 8-5
Positioning and orientation

Design

In order to process workpieces and maintain production tolerances, workpiece pallets must be stopped and positioned in the processing station.

In doing so, the workpiece pallets can be exactly positioned by up to ±0.3 mm and the system can absorb vertical process forces of up to 4000 N.

Applications:
- For exact positioning and to lift the workpiece pallet from the conveyor transport surface: PE 5 8-3.
- For a manual workstation with low demands on positioning accuracy and if there are no forces on the workpiece pallet, a VE 5 9-6 stop gate alone may be sufficient.

Figures:
PE 5 positioning unit with protective covers and sleeves, installed with an assembly kit in an ST 5/H section.
Top figure: top position
Bottom figure: bottom position
Positioning and orientation

PE 5 positioning unit

Application:
Positioning a workpiece pallet in a manual or automated processing station with high demands on positioning accuracy (±0.3 mm).

Version:
- Can be used with all WT 5 workpiece pallets
- Installation from above also possible
- Lift over conveyor medium 4 mm
- Positioning accuracy: ±0.3 mm
- Permissible vertical process force with center load: up to 4000 N

2) If assembling in an ST 5/H section, place legs directly in front of and behind the PE 5.
3) Permissible vertical process force if assembled in the section. Higher process forces of up to 15000 N possible with direct support (on request).

Scope of delivery:
Incl. fastening material for mounting the PE 5 in ST 5/XH conveyor sections.

Delivery condition:
Assembled

Required accessories:
Assembly kit 3 842 996 185 is required if assembling in ST 5/H conveyor sections.
VE 5/D-300 stop gate 9-7 or VE 5/200 stop gate 9-6
Switch brackets 9-11

1) Only for sizes b = 650/845 mm, for sizes b = 455 mm the workpiece pallet can only be queried at the stop gate.

The following is needed to query the position of the positioning unit (engaged/not engaged) on the cylinder:

Sensor

<table>
<thead>
<tr>
<th>Contact</th>
<th>Cable length (m)</th>
<th>No.</th>
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</thead>
<tbody>
<tr>
<td>PNP</td>
<td>3</td>
<td>0 830 100 631</td>
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<tr>
<td></td>
<td>5</td>
<td>0 830 100 632</td>
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<tr>
<td></td>
<td>5</td>
<td>0 830 100 634</td>
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</table>
Positioning and orientation

Assembly kit for positioning unit

Application:
Mounting the PE 5 positioning unit in the ST 5/H conveyor unit 8-3

Version:
— Centering lugs for pre-positioning and fast assembly

Mounting location:
On section profile.

Scope of delivery:
2 profiles for height compensation
Incl. cover caps and fastening material for assembly

Delivery condition:
Not assembled.

Assembly kit for PE 5

<table>
<thead>
<tr>
<th>l_{wt}</th>
<th>No.</th>
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<tbody>
<tr>
<td>455; 650; 845; 1040</td>
<td>3 842 996 185</td>
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</tbody>
</table>

l_{wt} = workpiece pallet length
Positioning and orientation

Protective sleeves for PE 5

**Application:**
Trap guard to clip in the openings in the protective covers over the lifting plungers of the PE 5. See the assembly instructions for the installation dimensions.

**Material:** PA

**Required accessories:**
Protective covers for conveyor unit, 4-4

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**Required protective sleeves for PE 5**

<table>
<thead>
<tr>
<th>b (mm)</th>
<th>( l_{WT} ) (mm)</th>
<th>No. A</th>
<th>b (mm)</th>
<th>( l_{WT} ) (mm)</th>
<th>No. B</th>
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<tbody>
<tr>
<td>455</td>
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<td>650</td>
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<td>650</td>
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<tr>
<td>845</td>
<td>1040</td>
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</tbody>
</table>

\( b = \) track width of the positioning unit in the direction of transport
\( l_{WT} = \) workpiece pallet length
Positioning and orientation