**SIN-HL**

**Closed center rotating hydraulic cylinder**

**High-low clamping**

- Actuation of power chucks used for high-low clamping of thin-walled components in combination with SMW-AUTOBLOK chucks type KNCS-N, KNCS-NB, KNCS-NBX, HFKN, IEP or TS
- Closed or partial open center mounting applications

**Technical features**

- Symmetric piston areas for high-low clamping
- Pressure range 8-70 bar
- Horizontal or vertical installation
- Safety valves and excess pressure relief valve
- Central bore for coolant, oil or air with thread for rotary union
- Mounting from the rear side with bolts
- Stroke control via proximity switch or linear positioning system
- A 10 µm filter in pressure line is requested. Use oil HM32 ISO 3448

**Application/customer benefits**

- "High-low" clamping for thin-walled components

**Technical features**

- Symmetric piston areas for high-low clamping
- Pressure range 8-70 bar
- Horizontal or vertical installation
- Safety valves and excess pressure relief valve
- Central bore for coolant, oil or air with thread for rotary union
- Mounting from the rear side with bolts
- Stroke control via proximity switch or linear positioning system

**Standard equipment**

Closed center hydraulic cylinder with stroke control and mounting bolts (without proximity switch)

**Ordering example**

Closed center cylinder
SMW-AUTOBLOK 125 Id. No. 33093812
with rotary union (optional)

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**Dimensions and technical data**

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<tr>
<th>SMW-AUTOBLOK Type</th>
<th>Id. No.</th>
<th>A</th>
<th>B</th>
<th>C3</th>
<th>D3 (6x10°)</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>G1</th>
<th>H</th>
<th>I</th>
<th>K1</th>
<th>K2</th>
<th>K3</th>
<th>M</th>
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<td>M16x1.5 LH</td>
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**SMW-AUTOBLOK Type**

- **Roughing operation**
  - High gripping force
- **Finishing operation**
  - Low gripping force

**Result**

Without "high-low" clamping
With "high-low" clamping

**Without "high-low" clamping**

**Result**

With "high-low" clamping

For easily deformed components SMW-AUTOBLOK offers “high-low” clamping. The gripping force of the chuck can be reduced from a large amount of gripping force used in roughing, to a smaller amount of gripping force for a finishing cut. The combination between the SIN-HL cylinder and a SMW-AUTOBLOK “high-low” suitable chuck allows a monitored reduction in the gripping force. The component remains clamped in the chuck safety, however, the stress of the component can be released.

For more detailed information please ask our customer service.

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**Roughing operation**

**High gripping force**

**Finishing operation**

**Low gripping force**

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**Without "high-low" clamping**

**Result**

With "high-low" clamping

For additional information please ask our engineers.