OPS – P : Guide Systems
For Heavy Duty Applications
Rodless cylinder SOP-P with guide systems for use in heavy duty application

STARLINE Recirculating Ball Bearing Guide

STARLINE with variable Stop VS

HD guide with variable Stop VS

STARLINE Recirculating ball bearing guide for very high loads and precision
- Polished and hardened steel guide rail
- For very high loads in all directions
- Integrated wiper system
- High precision
- Guide carriage with dimensions compatible with SLIDELINE and PROLINE
- Option: with variable stop for simple stroke limitation

Heavy Duty Guide HD
Recirculating ball bearing guide for heavy loads and greatest accuracy
- Guide system: 4-row recirculating ball bearing guide
- Polished and hardened steel guide rail
- For highest loads in all directions
- Integrated wiper system
- High precision
- Guide carriage with dimensions compatible with GUIDELINE
- Option: with variable stop for simple stroke limitation
- Also available for electric linear drives series OSP-E

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size Ø</td>
<td>16 to 50 mm</td>
</tr>
<tr>
<td>Stroke lengths *</td>
<td>up to 3700 mm</td>
</tr>
<tr>
<td>Max. load</td>
<td>7500 N</td>
</tr>
<tr>
<td>Moments</td>
<td>up to 580 Nm</td>
</tr>
<tr>
<td>Speed</td>
<td>Ø16 up to 3 m/s, Ø25-50 up to 5 m/s</td>
</tr>
</tbody>
</table>

* longer strokes on request

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<thead>
<tr>
<th>Characteristics</th>
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<tbody>
<tr>
<td>Size Ø</td>
<td>25 to 50 mm</td>
</tr>
<tr>
<td>Stroke lengths *</td>
<td>up to 3700 mm</td>
</tr>
<tr>
<td>Max. load</td>
<td>18000 N</td>
</tr>
<tr>
<td>Moments</td>
<td>up to 1400 Nm</td>
</tr>
<tr>
<td>Speed</td>
<td>up to 5 m/s</td>
</tr>
</tbody>
</table>

* longer strokes on request
SFI – plus: Displacement Measuring System
Contactless magnetic displacement measuring system for OSP-P rodless cylinders with speeds up to 10 m/s

SENSOFLEX SFI-plus
incremental displacement measuring system

- Contactless magnetic displacement measuring system with a simple compact design
- Universally applicable through free choice of drive
- Easy retrofit to existing installations
- Easy to fit
- Displacement length up to 32 m
- Resolution 0.1 mm (option: 1 mm)
- Displacement speed up to 10 m/s
- Degree of protection IP 67
- Vibration- and impact-resistant
- Suitable for almost any control or display unit with a counter input
- Also available for electric screw drives series OSP-E
OSP-E... CONTILEVER aXIS FOR Multi-Axis Applications
Electric linear drive with belt drive and integrated recirculation ball bearing guide for vertical movement

The belt-driven cantilever axis OSP-E...BV now completes the ORIGA SYSTEM PLUS range of electric linear drives. It is especially suitable for vertical lifting movements in multi-axis systems.

- Very accurate repeatability with high dynamics
- Fixed drive head for low moving mass
- Integrated precision steel rail with recirculating ball bearing guide
- Very low vibration
- Outstanding price/performance ratio
- Based on the successful heavy duty OSP-E...BHD series
- Reliable, dynamic running characteristics, especially in combination with the gearboxes and AC servomotors in the HOERBIGER-ORIGA programme

<table>
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<tr>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size Ø</td>
<td>20&quot;, 25 mm</td>
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<tr>
<td>Stroke lengths</td>
<td>up to 1500 mm</td>
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<tr>
<td>Action force</td>
<td>up to 1000 N</td>
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<tr>
<td>Speed</td>
<td>up to 5 m/s</td>
</tr>
<tr>
<td>Acceleration</td>
<td>up to 20 m/s²</td>
</tr>
</tbody>
</table>

* Delivery time on request

Cantilever axis OSP-E...BV
OSP-E: New Drive and Control System
For electric belt and screw drives

2-phase Stepper Motors PD2 and PD4 with integrated power amplifier
- High torque stepper motor
- 9-pin D-sub-connector as standard
- Good price/performance ratio
- Integrated RPM monitoring
- Pulse and direction input
- Optional brake and encoder
- Simple control by Si-100 motor controller or PLC
- Degree of protection IP54

2-phase Stepper Motor Controller Si-100
- RS-232 interface as standard
- Simple user-friendly programming
- Pulse and direction outputs
- Other freely assignable inputs and outputs
- Optional MMI-01 panel

AC Servomotors
- High dynamics with neodymium magnets
- Easy fitting to OSP-E series linear drives
- RPM monitoring with resolver or high resolution encoder
- Insulation class F to DIN 57530 and degree of protection IP64
- Optional with holding brake
- Easy to combine with planetary gearbox

AC Servo-Amplifier
- Digital servo-amplifier to CE and UL standards
- Feedback of resolver and sin/cos encoder
- With Can-Connect as standard, also analogue and digital I/O
- Optional Profibus DP or I/O extension
- Intelligent, simple parameterization with PC

Planeten- und Winkelgetriebe
- Planetary gearbox LPB⁺ for especially space-saving installation in conjunction with belt drive OSP-E..BHD
- Planetary gearbox LP⁺ for easy, flexible mounting on OSP-E electric linear drives
- Angular gearbox SK⁺ for special installation situations
- Gear ratios:
  1-stage: \( i = 3.5 \) and \( i = 10 \)
  2-stage: \( i = 25 \), \( i = 50 \) and \( i = 100 \)
- Rotary play:
  for 1-stage LP⁺ and LPB⁺: < 8 angular minutes
  for SK⁺: < 4 angular minutes

Belt Gearbox
- Free choice of dimensions for flexible motor mounting
- Belt gearbox for OSP-E screw drives
- Gear ratios \( i = 1 \) and \( i = 2 \)
- Short installation length – mounted parallel to motor axis
AZ : Standard Cylinder dimension 32 to 100 mm, to ISO 15552
Now with new profile tube – for space – saving mounting of magnetic switches in T-slots

Standard Cylinder AZ
- Well-proven cylinder series with high versatility and comprehensive accessories programme, designed for contactless position sensing as standard.

Versions
- Profil tube or tie-rod version
- Double acting
- With through piston rod
- High temperature version (150°C)
- ATEX version
- Position of air connections can be selected
- Piston rods available in various materials and with internal or external thread

T-Slot Magnetic Switches
- Available as Electronic- or Reed Switch
- Cable with open end or connector M8
- With adaptor for dovetail slot mounting
NZ : Standard Compact Cylinder dimension 12 to 100mm
The universal cylinder

Compact Cylinder NZ
- Completes the NZ series Ø 12 – 25 mm
- To ISO 21287, the new standard for compact cylinders
- Wide range of versions
- With through piston rod
- Non-rotating version
- Piston rod with internal or external thread
- Position sensing with magnetic switches either in dovetail slot version (Type RS, ES) or in T-slot version (Type RST, EST)
- Same comprehensive accessories programme as for the proven AZ cylinder

T-Slot Magnetic Switches
- Available as electronic- or reed switch
- Cable with open end or connector M8
- With adaptor for dovetail slot mounting

Profile sections Ø 32, 50, 80 mm
FZ : Guided Cylinder dimension 20 to 50mm
Linear drives with accurate guidance, even in tight spaces

Guided Cylinders FZ
- High precision
- Compact design
- Wide range of mounting options

Versions
- With Sliding Guidance
  - especially suitable for side loadings
  - high rotation resistance / stiffness
  - high torque and lateral load capacity
- With Recirculating Ball Bearing Guidance
  - for high precision with heavy loads
  - and low-friction movement

Applications
- Lifting
- Pushing
- Stopping
- Stopping with stop bracket

Mounting Possibilities
- Flat mounting from above
- Side mounting
- Flat mounting from below
- End face mounting
- T-slot mounting

Profile sections Ø 20, 32, 50 mm
Airfit A25: the New One-Inch Generation
With new technology for higher efficiency

Air Preparation Units airfit A25 in Modulbauweise
- New filter technology for even higher flow rates (30µm, 5µm)
- 1 µm dust filter
- Metal bowl with chemical-resistant plastic inner bowl as standard
- Pressure range up to 17.5 bar
- Maximum flow rate > 20000 l/min
- Protection against excess secondary pressure as standard
- ATEX version
- Private Label version possible

Other Modules
- Filter-Regulator A25K
- Pilot-operated Pressure Regulator A25RV
- Start/Stop Valve A25DS
- Shut-off Valve A25DV
- Submicrofilter and Activated Carbon Filter A25MF, A25MC
- Porting Block Kit A25X