ORIGA SYSTEM PLUS „Simply the First“

for pneumatic and electric linear drive systems

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Parker

ENGINEERING YOUR SUCCESS.

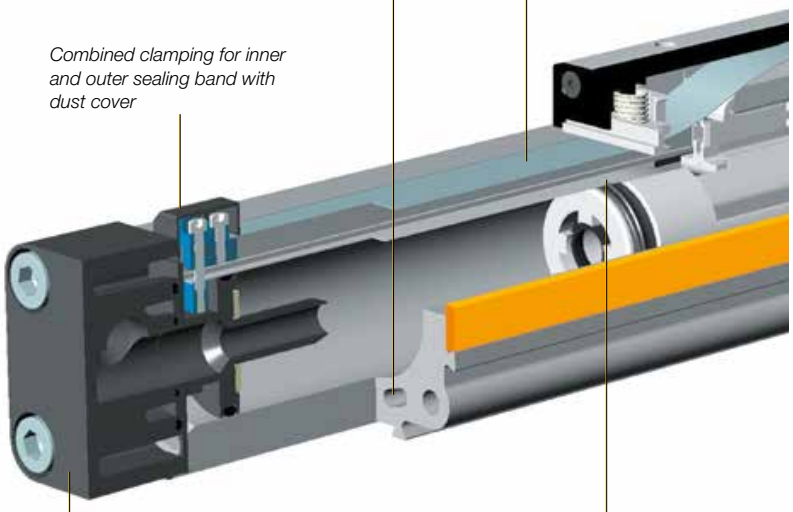
ORIGA SYSTEM PLUS
Pneumatic Linear Drives, the “ORIGINAL”

The Unique Modularity of the ORIGA SYSTEM PLUS is the Heart of

Rodless Pneumatic Cylinder
OSP-P and OSP-L

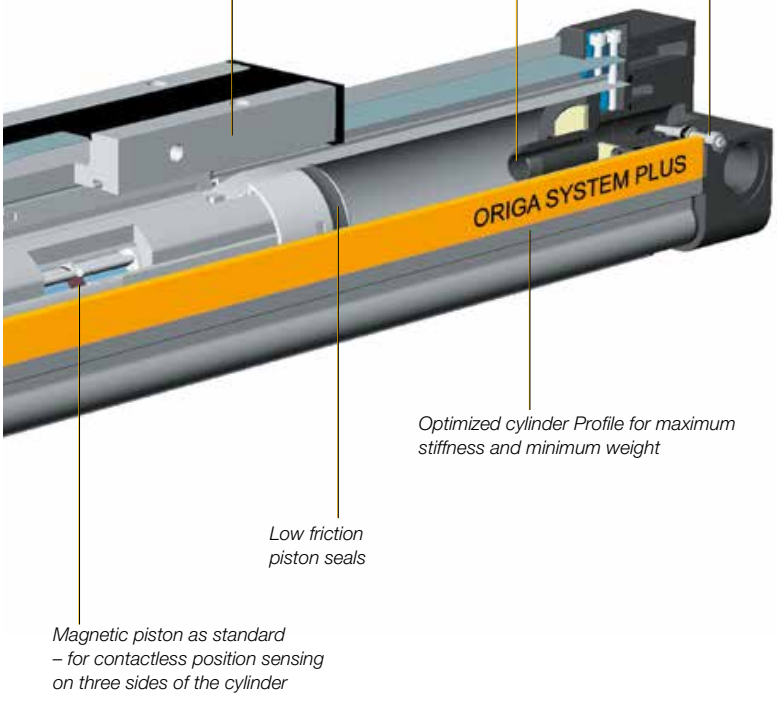
- Completely modular design
- Compact design
- Lowest leakage values
- Service intervals up to 8,000 km
- Equal force in both directions
- Widest capability for speed, load and movement profiles
- Low maintenance
- Easy to install
- Wiper system with automatic re-adjustment
- High side loads possible
- Integral dove tail rails on three sides provide many adaptation possibilities, e.g. linear guides, magnetic switches etc.
- Integral air passages enable both air connections at one end for easy mounting
- Stroke length up to 6,000 mm*
- Extensive range of attachements and accessories from the OSP Modular System

**strokes up to 41 m on request*



Electromechanical Linear Drives

Both Standard Series and Special Solutions



Electromechanical Linear Drives OSP-E

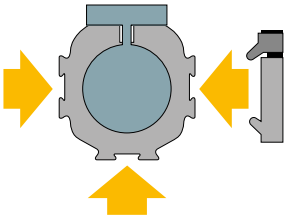
- Easy to install
- Low maintenance
- Extensive range of attachements and accessories from the OSP Modular System

Characteristics OSP-E with screw

- Precise positioning and repeatability
- High action forces
- Detailed information see page 6 ff

Characteristics OSP-E with belt

- High speeds for dynamic movement
- Ideal for point-to-point applications
- Detailed information see page 6 ff



Modular system components are simply clamped on

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OSP-P and OSP-L: The Multitalents

ORIGA Cylinders Set the Standards

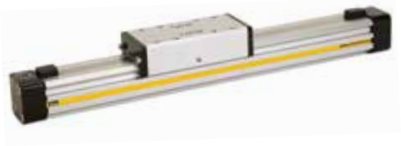
NEW

Rodless Pneumatic Cylinder OSP-L

- PU-Inner sealing band
- Lowest leakage values
- Low slight friction force
- Ø 25, Ø 32, Ø 40 mm

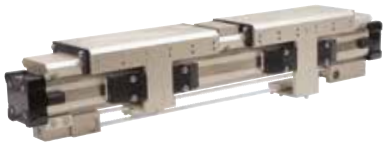
NEW

Compact Plain Bearing Guide BASIC GUIDE



- Compact: guide rail integrated in the cylinder profile
- Robust Plain Bearing Guide for high lifetime

Bi-Part Version OSP-P 40



- Accurate bi-parting movement through toothed belt synchronization
- Adjustable polymer slide units
- Optimum slow speed performance

Rodless Pneumatic Cylinder OSP-P

- Proven stainless steel innerband
- Outstanding lifetime
- Temperature range -40 to 120°C
- Speed 0.005 m/s - 30 m/s
- Ø 10 - 80 mm
- For EX-Area 2 GD

Tandem Cylinder OSP-P /OSP-L

- Higher load capacity
- Increased support
- Any stroke length

SENSOFLEX SFI-plus measuring system

- Contactless magnetic displacement measuring system
- Resolution 0.1 mm or 1 mm
- Displacement speed up to 10 m/s
- Suitable for almost any control or display unit with a counter input
- Also available for series OSP-E

OSP-L **OSP-P** **Basic Guide** **OSP-P** **OSP-P Bi-Part** **Sensoflex SFI-plus**

VOE version with integrated valves, for OSP-P, OSP-L and BASIC GUIDE

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Also with Numerous Variants

Clean Room Cylinder certified to DIN EN ISO 14644-1, OSP-P

- Clean Room Classification
  ISO Class 4 at v_m = 0.4 m/s
  ISO Class 5 at v_m = 0.5 m/s
- Ø 16, 25, 32 mm
- Suitable for smooth slow speed operation down to v_{min} = 0.005 m/s
- Also available for OSP-E

Qualification Certificate on request

OSP-P Cleanroom

The first rodless cylinder certified to ATEX, Category 2GD, OSP-P

- Classification:
  II 2GD c T4 T135°C -10°C≤Ta≤60°C
- Also available for Basic Guide and Slideline
- Ø 10 to 80 mm
- Action force 3,470 N at 8 bar
- Service interval 8,000 km
- Temperature Range -10 bis +80°C
  others on request

OSP-P..Atex

Special Versions*

- For use in EX-Areas
- For Clean Room applications certified to DIN ISO 14644-1
- Stainless Steel version for special applications
- High temperature version for temperatures up to +120 °C
- Low temperature version for temperatures down to -40 °C
- Slow speed version v = 0.005 to 0.2 m/s
- High speed version v_{max} = 30 m/s
- Extremely long cylinders, stroke lengths up to 41 m
- Cushioning system for cycle time optimization

** Special Versions are not available for all series*

Active and Passive Brakes
see page 10

Guide Systems
see page 8, 9

Magnetically Coupled P1Z
Ø 16 to 40 mm

P1Z

OSP-E

Electromechanical Linear Actuators for High Dynamics, Reliability an

Ball Screw Actuator
OSP-E..SB

- Precise positioning and repeatablility
- High force output
- Excellent slow speed
- Complete motor and control packages
- Diverse range of accessories and mountings
- Integrated drive and guidance system
- Easy installation
- Low maintenance
- Clean Room Version on request

Characteristics	Description
Size	25, 32, 50 mm
Pitch	5, 10, 25 mm depending on diameter
Max. Action force F_A	up to 1,500 N depending on diameter and speed
Speed v_{max}	max. 1.25 m/s depending on diameter
Stroke lengths	up to 3,200 mm depending on diameter
Temperature range	-20 to +80°C

OSP-E..SB

Trapezoidal Screw Actuator
OSP-E..ST

- Precise positioning and repeatablility
- High force output
- Complete motor and control packages
- Diverse range of accessories and mountings
- Integrated drive and guidance system
- Easy installation
- Low maintenance

Characteristics	Description
Size	25, 32, 50 mm
Pitch	4, 6 mm depending on diameter
Max. Action force F_A	up to 2,500 N depending on diameter and speed
Speed v_{max}	max. 0.15 m/s depending on diameter
Stroke lengths	up to 2,500 mm depending on diameter
Temperature range	-20 to +70°C

OSP-E..ST

Belt Actuator
OSP-E..B

- High speed and dynamic
- Ideal for precise point-to-point applications
- Long available strokes
- Complete motor and control packages
- Diverse range of accessories and mountings
- Integrated drive and guidance system
- Easy installation
- Low maintenance

Characteristics	Description
Size	25, 32, 50 mm
Max. Action force F_A	425 N depending on diameter and speed
Speed v_{max}	5 m/s depending on diameter
Stroke lengths	max. 5,000 mm (max. 2x2,500 mm BP Version)
Temperature range	-30 to +80°C

OSP-E..B

ıd Accurate Positioning

Belt Actuator
OSP-E..BHD

- High speed and dynamics
- High loads
- Ideal for multi-axis applications
- Diverse range of multi-axis connection elements
- Integrated ball bearing guide or integrated roller guide
- Complete motor and control packages
- Easy installation
- Low maintenance
- Optional integrated planetary gearbox

Characteristics	Description
Size	20, 25, 32, 50 mm
Max. Action force F_A	up to 3,120 N depending on diameter and speed
Speed v_{max}	5 m/s recirculating ball bearing guide 10 m/s roller guide
Stroke lengths	up to 5,700 mm recirculating ball bearing guide up to 7,000 mm roller guide
Temperature range	-30 to +80°C

OSP-E..BHD

Vertical Belt Actuator
OSP-E..BV

- Fixed actuator head for low moving mass
- High acceleration and speed
- Integrated ball bearing guide for high bending moments
- Complete motor and control packages
- Magnetic switch set for contactless position sensing
- Drive shaft versions with clamp shaft or plain shaft
- Easy installation
- Low maintenance

Characteristics	Description
Size	20, 25 mm
Max. Action force F_A	up to 1,000 N
Speed v_{max}	up to 5 m/s
Stroke lengths	up to 1,500 mm
Temperature range	-30 to +80°C

OSP-E..BV

Tandem- or Bi-Parting-Version

- Tandem version for higher moment support
- Bi-Parting Version for perfectly synchronised bi-parting movements
- Optional parallel belt gear
- Special options on request

OSP-E..Bi-Part

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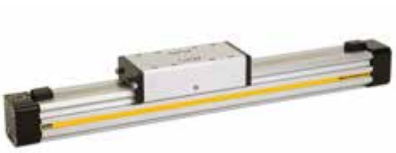
Guide Systems

Extensive Product Range for a Variety of Applications

NEW

Compact Plain Bearing Guide
BASIC GUIDE BG

- Compact: Guide rail integrated in cylinder tube profile
- Robust plain bearing guide for long lifetime
- Wiper system and grease nipples for long lifetime integrated in the guide carriage
- Simple to (re-) adjust
- Optional corrosion-resistant version
- ATEX version is also available



Characteristics	Description
Size Ø	25 to 50 mm
Stroke lengths *	up to 6,000 mm
Max. load	up to 2,000 N
Max. moments	up to 165 Nm
Speed	up to 2 m/s

* longer strokes on request

Basic Guide

Plain Bearing Guide
SLIDELINE SL

- For medium loads
- Anodized aluminium guide rail
- Low friction, adjustable plastic sliding elements
- Active and passive brake options
- Optional corrosion-resistant version
- ATEX version is also available

Characteristics	Description
Size Ø	16 to 80 mm
Stroke lengths *	up to 5,500 mm
Max. load	up to 2,500 N
Max. moments	up to 260 Nm
Speed	up to 2 m/s

* longer strokes on request

Slideline

Roller Guide
POWERSLIDE PS

- For tough application conditions
- Anodised aluminium guide carriage with v-rollers having 2 rows of ball bearings
- Hardened steel guide rail
- Several guide sizes can be used on the same drive
- Robust roller cover with wiper and grease nipple
- Optional corrosion-resistant version

Characteristics	Description
Size Ø	16 to 50 mm
Stroke lengths *	up to 3,500 mm
Max. load	up to 4,000 N
Max. moments	up to 350 Nm
Speed	up to 3 m/s

* longer strokes on request

Powerslide

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Aluminium Roller Guide PROLINE PL

- For high velocities
- Smooth operation - low noise
- High load and moment capacity in all directions
- Crosswise arranged rollers on needle bearings
- High precision through ground and calibrated tracks
- Integrated wiper system
- Optional with active or passive brake
- Compatible with SLIDELINE plain bearing guide

Characteristics	Description
Size Ø	16 to 50 mm
Stroke lengths	up to 3,750 mm
Max. load	up to 3,111 N
Max. moments	up to 249 Nm
Speed	up to 10 m/s

Proline

Recirculating Ball Bearing Guide STARLINE STL

- For very high loads in all directions
- High precision
- Precision-ground, hardened steel guide rails
- Integrated wiper system
- Mounting dimensions of guide carriage are compatible with SLIDELINE and PROLINE
- Optional with variable stop for simple stroke limitation

Characteristics	Description
Size Ø	16 to 50 mm
Stroke lengths *	up to 3,700 mm
Max. load	up to 7,500 N
Max. moments	up to 580 Nm
Speed	up to 5 m/s

* longer strokes on request

Starline

Recirculating Ball Bearing Guide HEAVY DUTY GUIDE HD

- For highest loads in all directions
- Highest precision
- Guide with 4-row recirculating ball bearing system
- Precision-ground, hardened steel guide rail
- Integrated wiper system
- Mounting dimensions of guide carriage are compatible with GUIDELINE
- Optional with variable stop for simple stroke limitation
- Optional with Intermediate stop module for HD25

Characteristics	Description
Size Ø	25 to 50 mm
Stroke lengths *	up to 3,700 mm
Max. load	up to 18,000 N
Max. moments	up to 1,400 Nm
Speed	up to 5 m/s

* longer strokes on request

Heavy Duty Guide

Option: Variable Stop - provides simple stroke limitation for STARLINE STL and Heavy Duty Guide HD

- Steplessly adjustable over the whole stroke length
- For each cylinder diameter, two types of shock absorber are available

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OSP: Brakes for High Loads and Forces

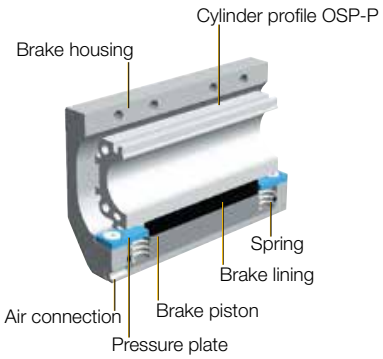
Dynamic Braking out of the Motion, Safe Maintaining Positions Even with Changing Loads

Integrated Active Brake

For standard cylinders,
with "SLIDELINE" plain bearing guide and
with "PROLINE" aluminium roller guide

- Brake actuation by compressed air
- Brake return by spring force
- Completely corrosion-resistant
- Maintaining position even with changing loads

Characteristics	Description
Size Ø	25 to 80 mm
Max. braking force	up to 4,000 N at 6 bar
Braking surface	dry



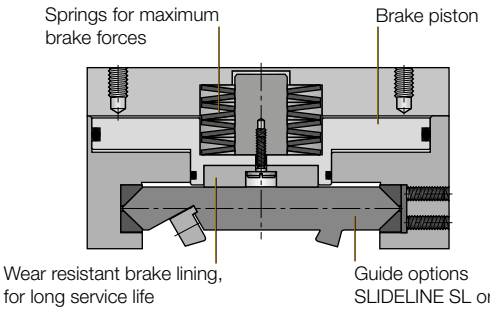
Active Brake

Integrated Passive Brake

For cylinders with SLIDELINE plain bearing guide and with PROLINE aluminium roller guide

- Blocking function for energy failure
- Actuation by spring force
- Release by compressed air
- Can stop at any intermediate position during movement

Characteristics	Description
Size Ø	25 to 80 mm
Max. braking force	up to 2,900 N
Operating pressure	4.5 to 8 bar



Passive Brake

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HMR

Electromechanical Linear Actuator with Screw or Toothed Belt

NEW

Toothed Belt for Highly Dynamic Movements
HMR-B

NEW

Screw for Precise Positioning
HMR-S

Characteristics	Description
Size	85, 110, 150, 180, 240 mm
Motor orientation	4 x 90°
Max. action force F_A	up to 4,000 N depending on diameter and torque
Speed v_{max}	max. 5 m/s depending on diameter
Stroke length	up to 6,000 mm depending on diameter
Temperature range	-20 to +80°C

Characteristics	Description
Size	85, 110, 150, 180, 240 mm
Pitch	5, 10, 16, 20, 25, 32 mm depending on diameter
Max. action force F_A	up to 5,500 N depending on diameter and torque
Speed v_{max}	max. 1.6 m/s depending on diameter
Stroke length	up to 4,000 mm depending on diameter
Temperature range	-20 to +80°C

- Basic profile for assembling directly to the machine base
- Reinforced profile for self-supporting assembly
- Integrated T-slots for attaching from below and from the side
- Central lubrication via externally accessible lubricating nippels
- Integrated, adjustable position switch for end positions and homing
- Integrated shock absorbers for both end positions
- Optional cover for protection class IP54

HMR

RL-Sizing / EL-Sizing / Easy-Drive

Userfriendly Sizing and Commissioning

RL-Sizing
Configuration software for pneumatic linear drives

The RL-Sizing software provides the sizing for pneumatic linear drives in a matter of seconds.

The user simply inputs his technical operating conditions, e.g. installation position, travel distance or weight for the motion task.

RL-sizing independently calculates static and dynamic motion conditions according to the input information.

In a matter of seconds, the suitable linear drives are ready for selection.

EL-Sizing
Configuration software for electromechanical linear drives

Time-consuming calculations of static and dynamic movement parameters are carried out automatically by the program.

EL-Sizing saves valuable time by avoiding complex recalculations.

As soon as all your values have been entered, one button click brings up a list of all suitable linear drives in seconds.

Complete linear drive / motor packages can also be selected.

Easy-Drive
Configuration and parameterization for electromechanical drive systems

Software for the configuration and parameterization of electromechanical linear actuators also for programming of motion profiles, individual and interlinked sequences.

DOWNLOAD

RL-Sizing

DOWNLOAD

EL-Sizing

DOWNLOAD

Easy-Drive

ORIGA Service

Fast, Efficient, Cost-Effective

1 Service Packs, Seal Kits and Spare Parts

Due to the simple design of ORIGA rodless cylinders, you can readily carry out your own maintenance and repair using original spare parts.

- At www.parker-origa.com you will find the service partner nearest to you; provide them with the type designation of your cylinder (type plate under the labelled cover strip), and within 2 to 3 working days you can receive the relevant service packs,seal kits or spare parts by express delivery.
- The fitting instructions show you, in simple steps, how to repair the cylinder yourself using standard tools, to restore its original performance characteristics.

2 Premium Service

We recommend our Standard Service: The complete, expert reconditioning with original replacement parts.

- Simply send your cylinder to your nearest service partner. You will find the contact details at www.parker-origa.com. We undertake to recondition your cylinder and to return it to you within 2 to 3 working days of the date of receipt.
- An emergency same-day service is available on request.
- ORIGA Service – the cost-effective solution.

3 Cylinder Service in the Field

For cylinders running under critical conditions and for those with extremely long strokes, it is sometimes more convenient to have them serviced in the field.

- Contact us and arrange an appointment. At www.parker-origa.com you will find the service partner nearest to you.
- Our service team can carry out all standard service work on site - preferably during the routine general overhaul of your machine or production line.

The type label is under the imprinted cover strip.

ORIGA-Cylinder

Expertise and Quality for more than 40 years !

Contact

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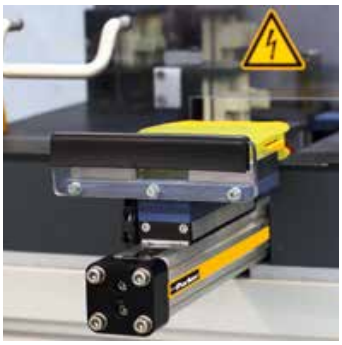
Application-Specific System Solutions

ORIGA SYSTEM PLUS OSP:
Basic Concept of Intelligent and Multifunctional Solutions

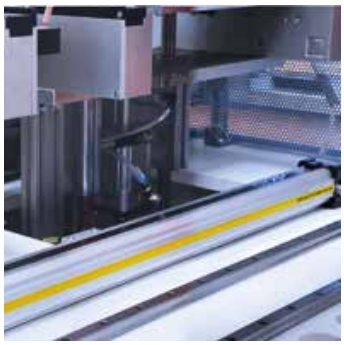
1
Durability Test Bench
Durability test of switch actuators and gear simulation

3
Food Processing
Handling and conveying of dough pieces in a lye application machine

5
Deburring of Alloy Wheels
Vertical and horizontal movement of sawing units



2
Handling of Electronic Components
Feeding components into a laser inscription and functional test unit



4
Assembly of a Modular Steering Kit
Feeding components to be assembled on a carrier pallet

6
Quality Inspection
Approaching ultrasonic testing heads to the testee

1 2 3 4 5 6

Door Operating System
A complete ready-to-install assembly comprising linear drive and integrated control and safety functions

Sub-System-Component
Used in a plastic blowmoulding machine - for forming plastic bottles

Clean Room Pneumatic Cylinders
An integrated vacuum system prevents particle emissions from the inside of the actuator

Linear Drive for Roll Cleaning
Used in the sheet metal, film, paper, printing and surface coating industry

Overhead Thrust Unit
Used to distribute items on a conveyor, e. g. in airport intallations

Customized Cylinders with Integrated Valve Technology
Used for external doors and sliding step activation

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MX – Mexico, Apodaca
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