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

ORIGA

ENGINEERING YOUR SUCCESS.

ORIGA SYSTEM PLUS
pneumatic and electric

The ORIGA SYSTEM PLUS is the heart of both standard series and special solutions.

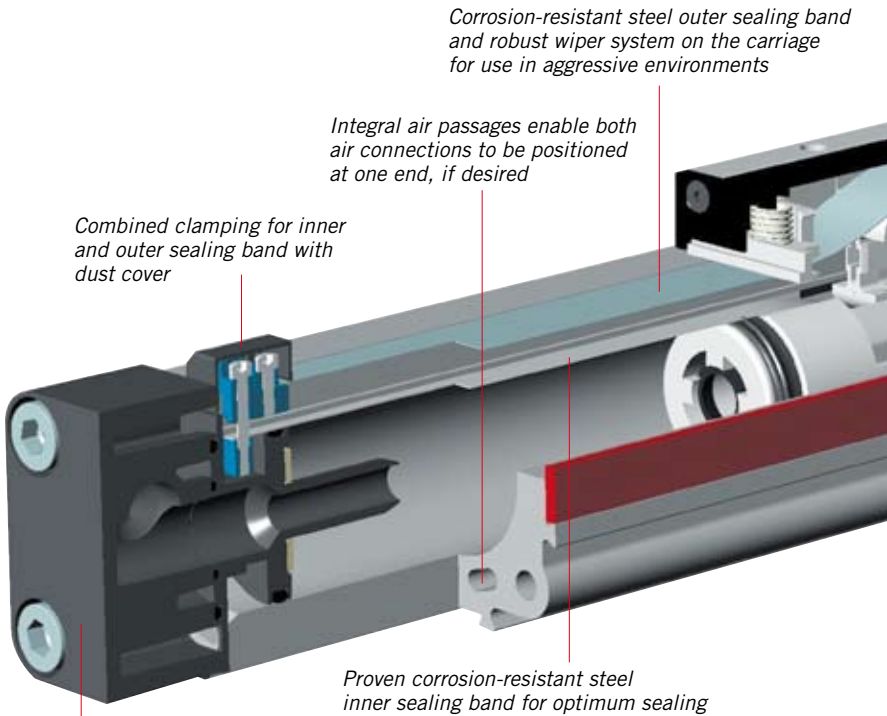
Its unique modularity cannot be matched by any other product on the market.

Rodless pneumatic cylinder OSP-P

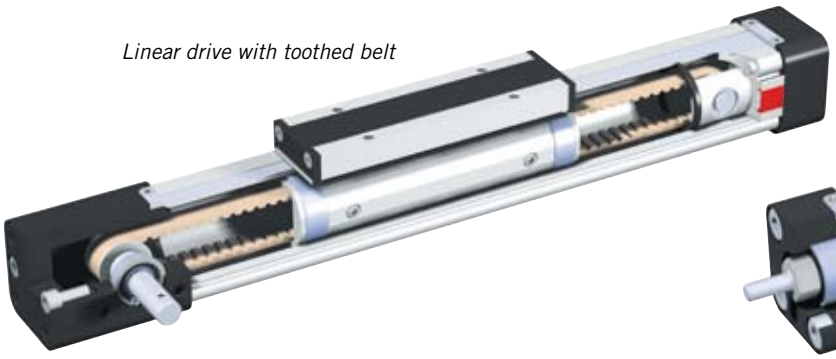
- Completely modular design
- Space saving design
- Long lifetime
- Internal guide system
- High loads and moments
- Equal force in both directions
- Service intervals up to 8000 km
- For a wide range of loads, speeds and motion profiles

Electric linear drives OSP-E

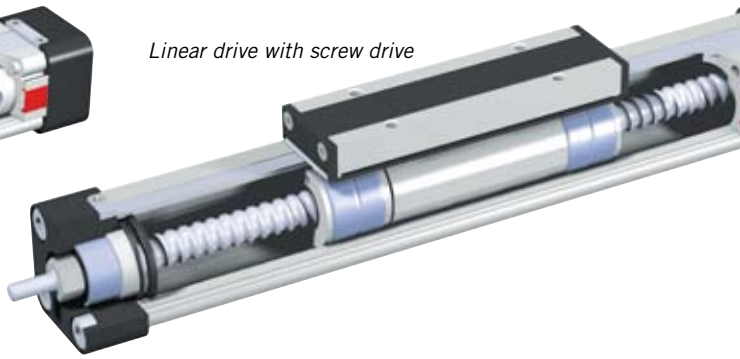
- High speed operation
- Accurate path and position control
- Low maintenance
- High action force
- Excellent slow speed characteristics
- Ideal for precise traverse operations and lifting applications



Linear drive with toothed belt



Linear drive with screw drive

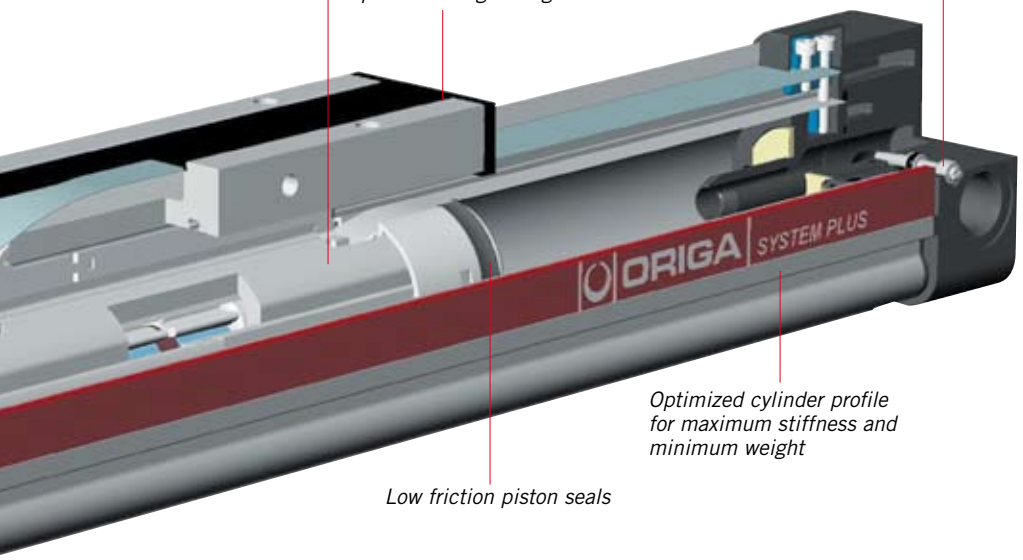


The OSP-P – the ORIGINAL rodless pneumatic cylinder

Magnetic piston as standard – for contactless position sensing on three sides of the cylinder

New low profile piston/carriage design

Adjustable end cushioning at both ends as standard



Optimized cylinder profile for maximum stiffness and minimum weight

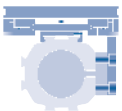
Low friction piston seals

Modular system components

Pneumatic linear drive with integrated valves VOE

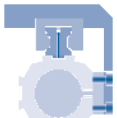
Plain bearing guide SLIDELINE

Roller guide POWERSLIDE

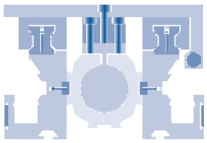


Aluminium roller guide PROLINE

Recirculating ball bearing guide STARLINE



Heavy duty guide HD



Variable stop VS

Pneumatic active brake

Pneumatic passive brake

Incremental displacement measuring system Sensoflex SFI-plus

Clevis mounting

Inversion mounting

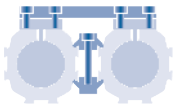
End cap mounting

Mid section support

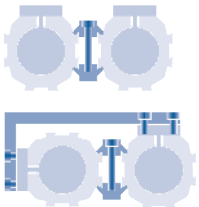
Adapter profile

T-slot profile

Duplex connection



Multiplex connection



Magnetic switch

Cable cover

OSP-P multitalented

Thanks to its adaptability and its wide range of specific-purpose variants, the OSP-P provides the optimum solution for any application

Special versions

For use in EX-areas

For Clean Room applications certified to DIN ISO 14644-1

Stainless version for special applications

With special pneumatic cushioning system for cycle time optimization for Ø 16 to 50 mm – on request

High temperature version for temperatures up to +120 °C

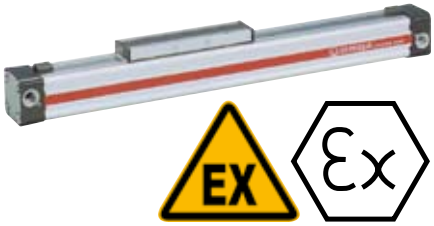
Low temperature version for temperatures down to -40 °C

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 40 m

The first rodless cylinder to be certified to ATEX, Category 2GD OSP-P.. ATEX, Ø 16 to 80 mm



- Category:
  ⟨Ex⟩ II 2GD c T4 T135°C -10°C≤Ta≤60°C

Clean Room cylinder OSP-P Ø 16, 25, 32 mm certified to DIN EN ISO 14644-1

- Clean Room classification
  ISO Class 4 at v_m = 0.14 m/s
  ISO Class 5 at v_m = 0.5 m/s
- Suitable for smooth slow speed operation down to v_{min} = 0.005 m/s

Characteristics	Description
Size Ø	10 to 80 mm
Stroke lengths *	to 6000 mm
Action force	3470 N at 8 bar
Positional accuracy	Standard up to ± 3 mm
Service interval	8000 km
Temperature range	-10 to +80°C others on request
* strokes up to 40 m on request	

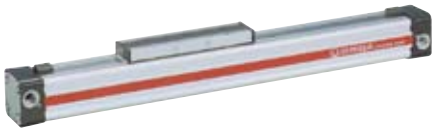
OSP-P with integrated valves

... with particular strengths
... for specialized applications

Standard versions

Rodless pneumatic cylinder OSP-P Ø 10 to 80 mm

OSP-P: Ø 10 ,16, 25, 32 mm



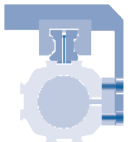
OSP-P: Ø 40, 50, 63, 80 mm

Tandem cylinder OSP-P Ø 10 to 80 mm

- Higher load capacity
- Increased support
- Any stroke length

SENSOFLEX SFI-plus Incremental displacement measuring system

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



Guide systems for special applications see page 10 - 11

Brakes for special applications see page 12

OSP-E: electric linear drives with toothed belt for linear and multi-axis applications

High speeds, absolute reliability, precise movements:
the latest technology transforms OSP-E electric linear drives into universally adaptable actuators.

Vertical linear drive OSP-E..BV with toothed belt and integrated recirculating ball bearing guide

Vertical linear drive OSP-E..BV with toothed belt and integrated recirculating ball bearing guide

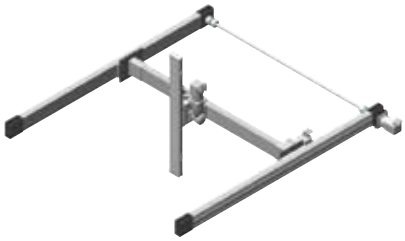
The belt-driven vertical linear drive OSP-E..BV completes the ORIGA SYSTEM PLUS programme of electric linear drives. It is ideal for vertical lifting movements in multi-axis systems.

- Fixed drive head for low moving mass
- Integrated recirculating ball bearing guide for high bending moments
- Magnetic switch set for contactless position sensing
- Easy to install
- Low maintenance
- High acceleration and speed
- Drive shaft versions with clamp shaft or plain shaft
- Power transmission by toothed belt
- Moving axis profile
- Complete motor and control packages

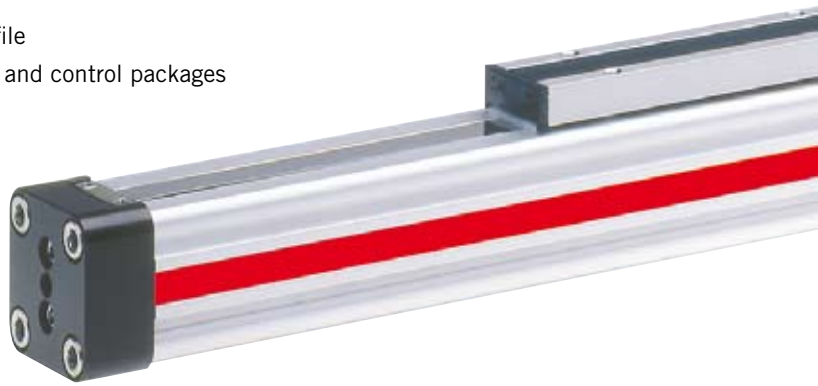
Characteristics	Description
Size Ø	20, 25 mm
Stroke lengths	up to 1500 mm
Action force	up to 1000 N
Speed	up to 5 m/s
Acceleration	up to 20 m/s^2

Multi-axis system solutions

E.g. 3D system solution based on heavy duty linear drives OSP-E..BHD and belt-driven, vertical linear drive OSP-E..BV



Linear drive OSP-E..B with toothed belt



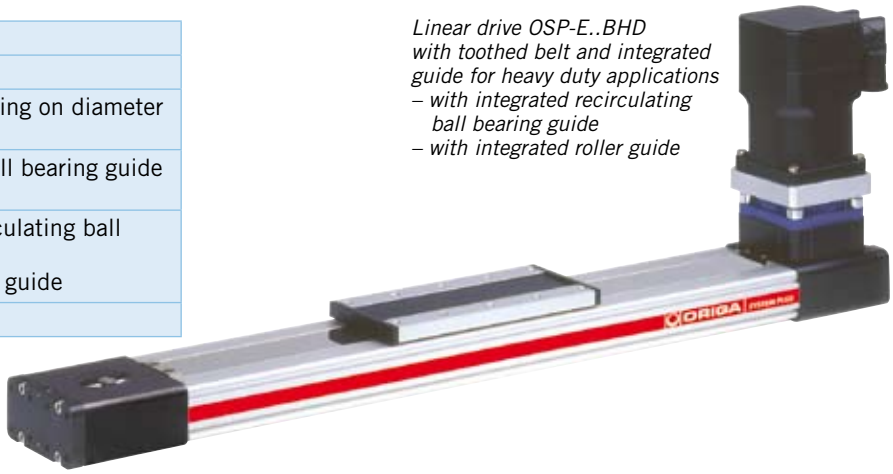
Guide systems for special applications see page 10 - 11

... with high speeds
... for dynamic movement

Linear drive OSP-E..BHD with toothed belt and integrated guide for heavy duty applications

Characteristics	Description
Size Ø	25, 32, 50 mm
Max. action force F_A	up to 3120 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 5700 mm recirculating ball bearing guide up to 7000 mm roller guide
Temperature range	-30 to +80°C

Linear drive OSP-E..BHD with toothed belt and integrated guide for heavy duty applications
– with integrated recirculating ball bearing guide
– with integrated roller guide

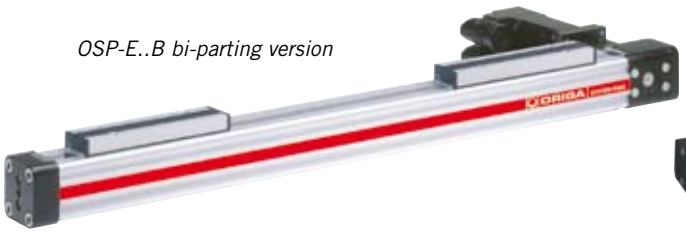


Linear drive OSP-E..B with toothed belt

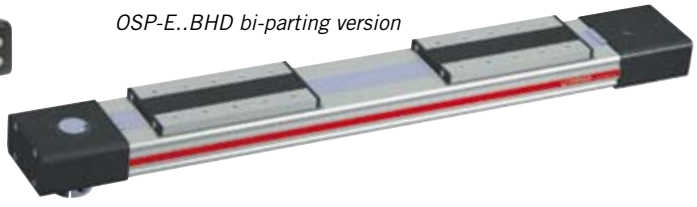
Characteristics	Description
Size Ø	25, 32, 50 mm
Max. action force F_A	425 N depending on diameter and speed
Speed v_{max}	5 m/s depending on diameter
Stroke lengths	max. 5000 mm (max. 2x2500 mm BP Version)
Temperature range	-30 to +80°C

Linear drive with toothed belt for perfectly synchronized bi-parting movements

OSP-E..B bi-parting version



OSP-E..BHD bi-parting version



OSP-E: electric linear drives with screw drive for linear and multi-axis applications

High speeds, absolute reliability, precise movements: the latest technology transforms OSP-E electric linear drives into universally adaptable

Linear drives with screw drive, optionally with carriage or piston rod

The complete modularity of ORIGA SYSTEM PLUS enables electric linear drives with screw drive to be used, when appropriate. Both carriage and piston rod versions are available, covering all market requiremens for linear drives with screw drive.

Linear drives OSP-E..SBR, STR, with ball screw drive or trapezoidal screw drive and piston rod

Linear drive with piston rod and belt gearbox
– with ball screw drive OSP-E..SBR
– with trapezoidal screw drive OSP-E..STR

Linear drive with piston rod
– with ball screw drive OSP-E..SBR
– with trapezoidal screw drive OSP-E..STR

Linear drives with ball screw drive

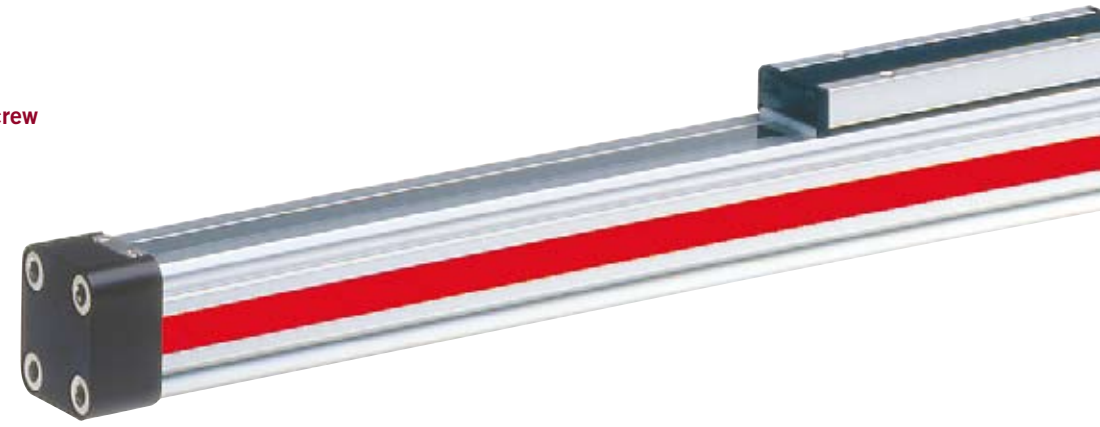
- best solution for accurate positioning
- outstanding running characteristics
- high speeds

Linear drives with trapezoidal screw drive

- high action forces
- self-locking characteristics
- silent running

Characteristics	Description	
Version	with ball screw drive	with trapezoidal screw drive
Size Ø	25, 32, 50 mm	25, 32, 50 mm
Max. action force F_A	1200 depending on diameter and speed	3300 depending on diameter and speed
Speed v_{max}	1.25 m/s depending on diameter	0.125 m/s depending on diameter
Stroke length	max. 500 mm	max. 500 mm
Temperature range	-20 to +80°C	-20 to +70°C

Clean Room linear drive with ball screw drive OSP-E..SB certified to DIN EN ISO 14644-1



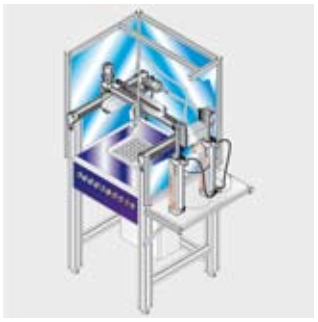
... with high forces
... for accurate positioning

Multi-axis system solutions

The combination of modular ORIGA SYSTEM PLUS electric linear drives with mounting elements tailored to specific applications enables Parker Origa to offer highly flexible system solutions. A comprehensive range of gearboxes, motors and accessories enables a complete customer-specific solution to be supplied from a single source.

Whether it's a one-off application or a generic handling solution: the OSP-E electric linear drives are highly adaptable system carriers for the most diverse applications.

The dynamism and precision of linear drives with screw drive and toothed belt can be easily combined through the modularity of ORIGA SYSTEM PLUS.



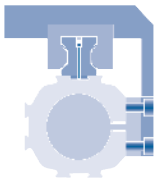
Positioning and filling: precision in three dimensions

Handling systems: fast, accurate and reliable

Linear drives with ball screw drive or trapezoidal screw drive OSP-E..SB, ST

Linear drive
– with ball screw drive OSP-E..SB
– with trapezoidal screw drive OSP-E..ST

Characteristics	Description	
Version	with ball screw drive	with trapezoidal screw drive
Size Ø	25, 32, 50 mm	25, 32, 50 mm
Pitch	5, 10, 25 mm depending on diameter	4, 6 mm depending on diameter
Max. action force F_A	up to 1500 N depending on diameter and torque	up to 2500 N depending on diameter and torque
Speed v_{max}	max. 1.25 m/s depending on diameter	max. 0.15 m/s depending on diameter
Stroke length	up to 3200 mm depending on diameter	up to 2500 mm depending on diameter
Temperature range	-20 to +80°C	-20 to +70°C



Guide systems for special applications see page 10 - 11

Guide systems: maximum flexibility for op

From the ORIGA cylinder, the pioneer of rodless cylinders, to the comprehensive ORIGA SYSTEM PLUS. Incomparable system modularity opens up great flexibility and simplifies machine design, servicing and maintenance.

SLIDELINE
Cost-effective plain bearing guide for medium loads

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

Characteristics	Description
Size Ø	16 to 80 mm
Stroke lengths *	up to 5500 mm
Max. load	up to 2500 N
Max. moments	up to 260 Nm
* longer strokes on request	

POWERSLIDE
Roller guide for heavy loads and hard application conditions

- Anodized aluminium guide carriage with adjustable rollers with 2 rows of ball bearings
- Hardened steel guide rail
- Several guide sizes can be used on the same drive
- Tough roller cover with wiper and grease nipple
- Optional corrosion-resistant version

Characteristics	Description
Size Ø	16 to 50 mm
Stroke lengths *	up to 3500 mm
Max. load	up to 4000 N
Max. moments	up to 350 Nm
Speed	up to 3 m/s
* longer strokes on request	

PROLINE
Compact aluminium roller guide for high loads and speeds

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

Characteristics	Description
Size Ø	16 to 50 mm
Stroke lengths *	up to 3750 mm
Max. load	up to 3111 N
Max. moments	up to 249 Nm
Speed	up to 10 m/s

STARLINE recirculating ball bearing guide

ptimized functionality

STARLINE
Recirculating ball bearing guide for very high loads and precision

- Precision-ground, hardened steel guide rail
- For very high loads in all directions
- Integrated wiper system
- High precision
- 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 3700 mm
Max. load	up to 7500 N
Max. moments	up to 580 Nm
Speed	Ø16 to 3 m/s Ø25-50 to 5 m/s
* longer strokes on request	

Heavy duty guide HD
Recirculating ball bearing guide for highest loads and precision

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

Characteristics	Description
Size Ø	25 to 50 mm
Stroke lengths *	up to 3700 mm
Max. load	up to 18000 N
Max. moments	up to 1400 Nm
Speed	up to 5 m/s
* longer strokes on request	

Option – variable stop
– for STARLINE guide
– for HD heavy duty guide

The variable stop provides simple stroke limitation

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

OSP-P: brakes for high loads and braking forces

Intelligent modular design for optimized functionality

– Position-holding with changing loads

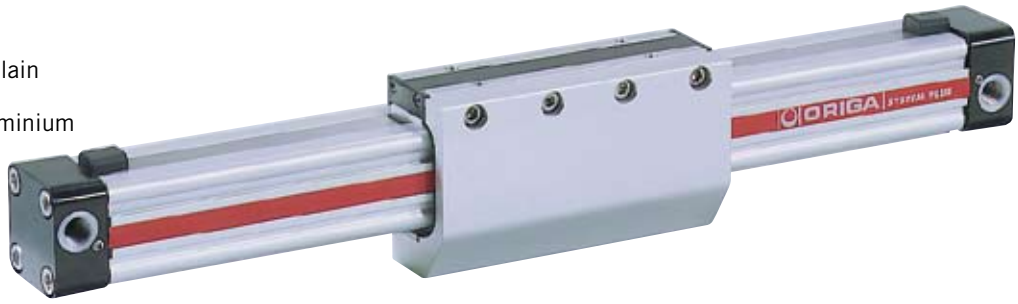
– Blocking function in case of energy failure

– Intermediate stops possible

– Also for dynamic braking of moving load

Integrated active brake

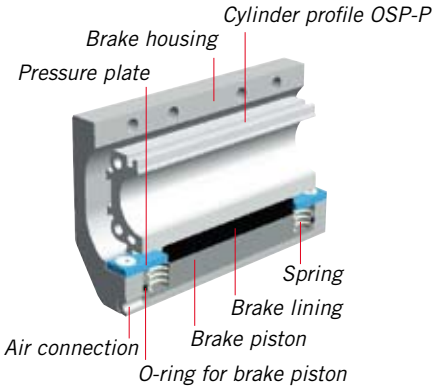
– for standard cylinders
– for cylinders with SLIDELINE plain bearing guide
– for cylinders with PROLINE aluminium roller guide



Characteristics	Description
Size Ø	25 to 80 mm
Max. braking force	up to 4000 N at 6 bar
Braking surface	dry

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

Integrated active brake



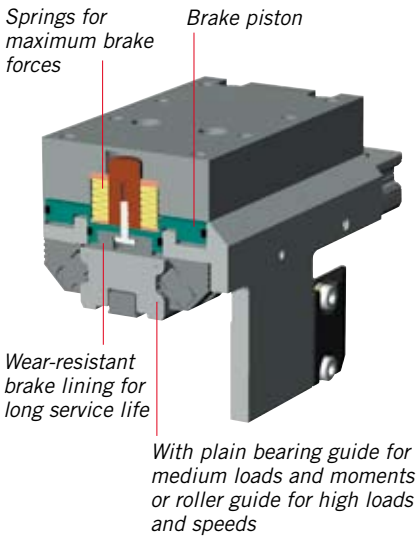
Integrated passive brake

– for cylinders with SLIDELINE plain bearing guide
– for cylinders with PROLINE aluminium roller guide

Characteristics	Description
Size Ø	25 to 80 mm
Max. braking force	up to 2900 N
Operating pressure	4.5 to 8 bar

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

Integrated passive brake

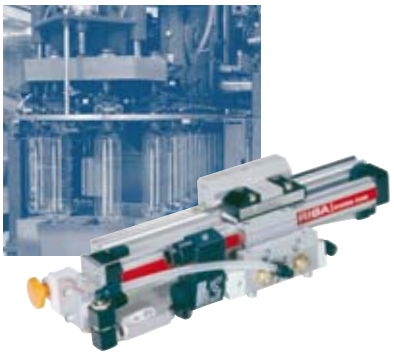


ORIGA SYSTEM PLUS macrocomponents and system solutions

The OSP-P rodless cylinder is the ideal system carrier for high performance macrocomponents and systems. Its advantage lies in the intelligent combination of several customer-specific functions into compact, cost-effective assemblies.

Door operating system

A complete ready-to-install assembly comprising linear drive and integrated control and safety functions – used on the VT 612

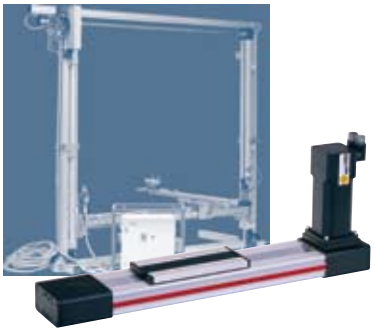


Macrocomponent used in a plastic blow-moulding machine – for forming plastic bottles

The drive moves a filler neck which inflates the PET bottle with high pressure air (40 bar) in the forming die.

Clean room pneumatic cylinders

These pneumatic cylinders are equipped with wear-resistant components for use in Clean Rooms. Particle emissions from the cylinder are prevented by the integration of an internal vacuum system.



3D multi-axis system with heavy duty electric linear drives

used in measuring system for various scanning and measuring processes

Customized cylinders with integrated valve technology

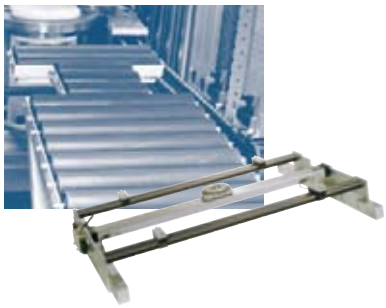
used for external doors and sliding step activation on the ICN Schindler

Heavy duty electric linear drive

used in handling and packing machines for concrete paving slabs

Linear drive for roll cleaning

used in the sheet metal, film, paper, printing and surface coating industries



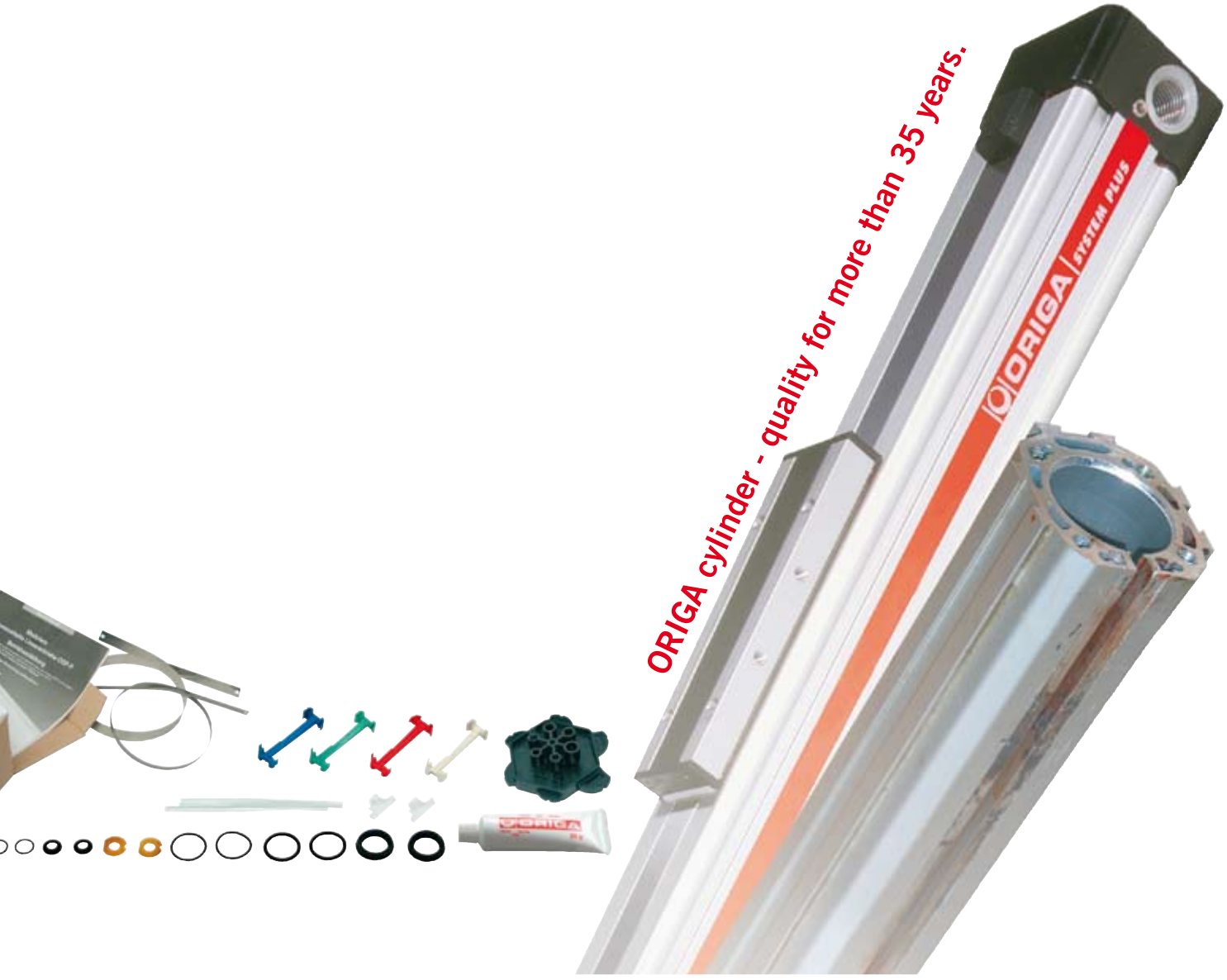
Overhead thrust unit

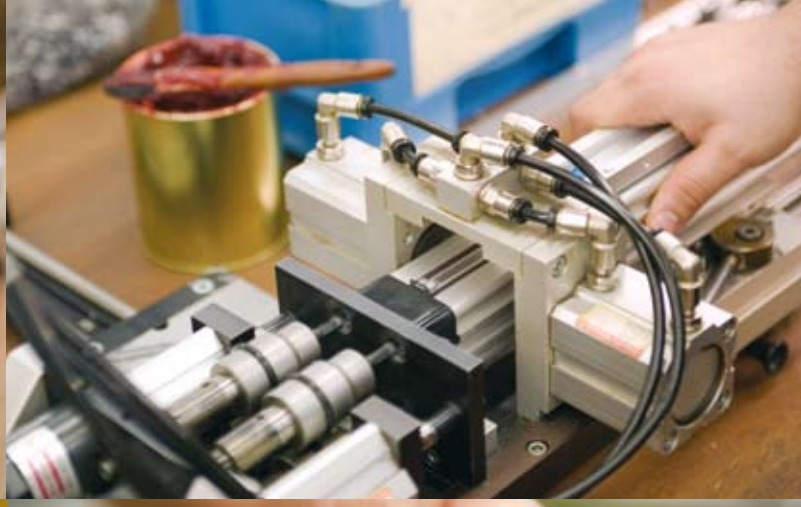
used to distribute items on a conveyor, e.g. in airport installations

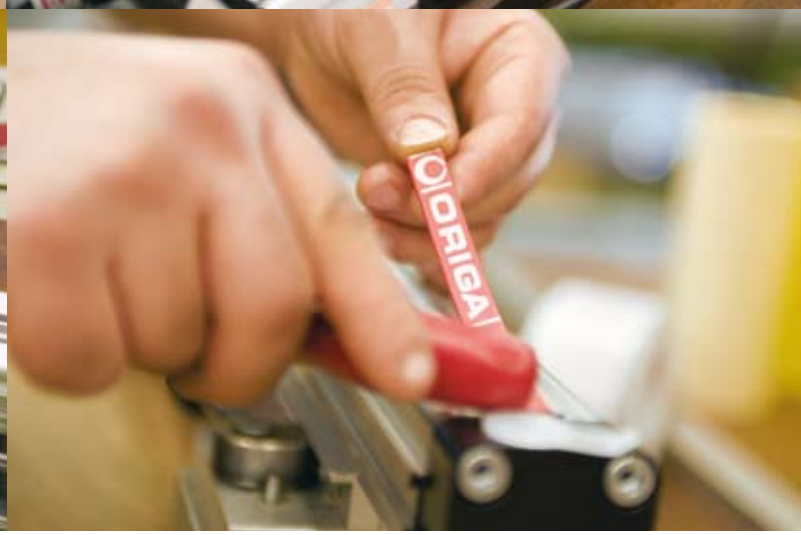
ORIGA Service
– fast, efficient, cost-effective

3 ways to effective maintenance

ORIGA Service – a new lease of life for your rodless cylinders.
Because your OSP-P is worth it.
The original rodless pneumatic cylinder still offers unique performance characteristics and unrivalled lifetime.
However, even OSP-P wearing parts are subject to deterioration.
The ORIGA Service will restore your OSP-P cylinder to its original condition and performance





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 Standard Service with manufacturer's legal warranty

We recommend our Standard Service: the complete, expert reconditioning with original replacement parts includes a further 24 months' manufacturer's legal warranty.

- 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. Our Standard Service costs are the same worldwide.

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.

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