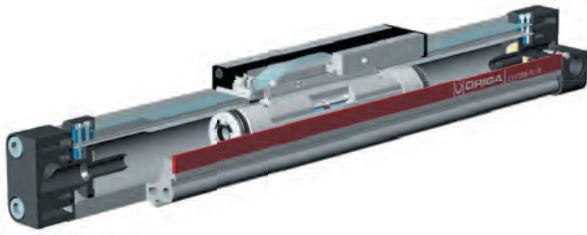


# ORIGA SYSTEM PLUS OSP-P

**Pneumatic Drives**  
the ORIGINAL rodless cylinders



## Stainless steel sealing system

- Low friction for longest seal life (8,000 km)
- Extreme temperatures (- 40°C to + 120°C)
- Widest operating speed range (0.005 m/s to 30 m/s)
- Suitable for extremely demanding environments

## Broadest size range

- Diameters: 10, 16, 25, 32, 40, 50, 63, 80 mm
- Any length of stroke up to 10,000 mm (up to 41,000 mm on request)

## Most choice of integrated options

Mountings, brakes, sensors, encoders, control valves, extended cushioning, shock absorbers, intermediate stops

## Special Versions



for use in EX-Areas



for clean room applications certified to DIN EN ISO 14644-1



stainless steel 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  $v = 0.005 - 0.2 \text{ m/s}$



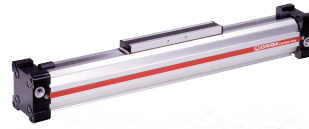
high speed version  $v_{\text{max.}} = 30 \text{ m/s}$



cylinders with extremely long strokes up to 41 m



...Simply the first modular guide options for the widest scope of applications



**OSP-P Standard Internal Guide**  
Single, Tandem, Duplex, Low Cost



**SLIDELINE Composite Plain Guide**  
Economic, Rigid, Moderate Speeds



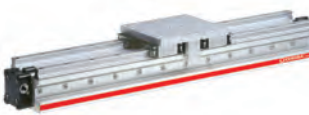
**POWERSLIDE V-Roller Guide**  
Robust, Harsh Environments



**PROLINE Roller Guide**  
Smooth, Quiet, Highly Dynamic



**STARLINE Recirculating Ball Bearing Guide**  
Precision, Highly Rigid, Variable Stops



**HD Guide Heavy Duty, Twin Rail**  
Max. Precision, Loading, Rigidity, Stability

## Why does Origa offer the best Rodless Cylinders?

### Action Force [N] values for D.25 mm

**ORIGA** 252 N

Competitors 205 - 230 N

### Max. Stroke [mm]

**ORIGA** up to 41,000 mm

Competitors 5,000 - 8,000 mm

### Min. Speed [m/s]

**ORIGA** 0.005 m/s

Competitors 0.1 m/s

### Max. Speed [m/s]

**ORIGA** 30 m/s

Competitors 3 - 10 m/s

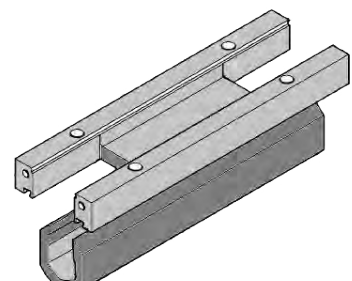
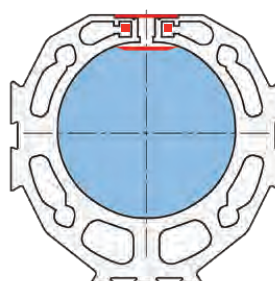
### Temp. Range [°C]

**ORIGA** -40 to 120°C

Competitors -20 to 80°C

0

## ORIGA Stainless Steel Sealing Bands



P-A1P707E00HAD00X

The right to introduce technical modifications is reserved

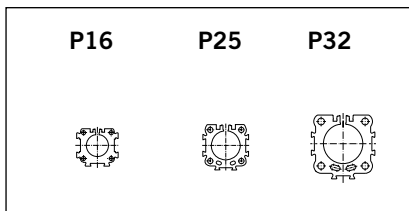
Characteristics		Pressure quoted as gauge pressure	
Characteristics	Symbol	Unit	Description
<b>General Features</b>			
Type			Rodless Cylinder
Series			OSP-P
System			Double-acting, with cushioning, position sensing capability
Mounting			see drawings
Air connection			Threaded
Ambient and medium temperature range	T <sub>min</sub> T <sub>max</sub>	°C °C	-10 – other temperature ranges +80 on request
Weight (Mass)		kg	See table below
Installation			In any position
Medium			Filtered, unlubricated compressed air (other media on request)
Lubrication			Permanent grease lubrication (additional oil mist lubrication not required) Option: special slow speed grease
Material	Cylinder profile		Anodized aluminium
	Carrier (piston)		Anodized aluminium
	End caps		Aluminium, lacquered
	Sealing bands		Corrosion resistant steel
	Seals		NBR (Option: Viton®)
	Screws		Stainless steel
	Covers		Anodized aluminium
	Guide plate		Plastic
Max. operating pressure*	p <sub>max</sub>	bar	8

\* Pressure quoted as gauge pressure

#### Weight (Mass) kg

Cylinder series (basic cylinder)	Weight (Mass) kg	
	at 0 mm stroke	per 100 mm stroke
OSP-P16	0.22	0.1
OSP-P25	0.65	0.197
OSP-P32	1.44	0.354

#### Size Comparison



# Clean Room Cylinder

## Ø 16 – 32 mm

### Rodless Cylinder

certified to  
**DIN EN ISO 14644-1**



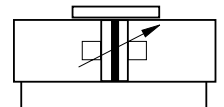
#### Standard Versions:

- Double-acting with adjustable end cushioning
- With magnetic piston for position sensing
- Stainless steel screws

#### Special Versions:

- Slow speed lubrication
- Viton® seals

#### Series OSP-P.



#### Features:

- Clean room classification  
ISO Class 4 at v<sub>m</sub> = 0.14 m/s  
ISO Class 5 at v<sub>m</sub> = 0.5 m/s
- suitable for smooth slow speed operation up to v<sub>min</sub> = 0.005 m/s
- optional stroke length up to 1200 mm (longer strokes on request)
- Low maintenance
- Compact design with equal force and velocity in both directions
- Aluminium piston with bearing rings to support high direct and cantilever loads



For **magnetic switches** see P-1.45.100E, P-1.45.104E, P-1.45.105E  
For **mountings** and **accessories** see P-1.45.001E to 009E

## Certification

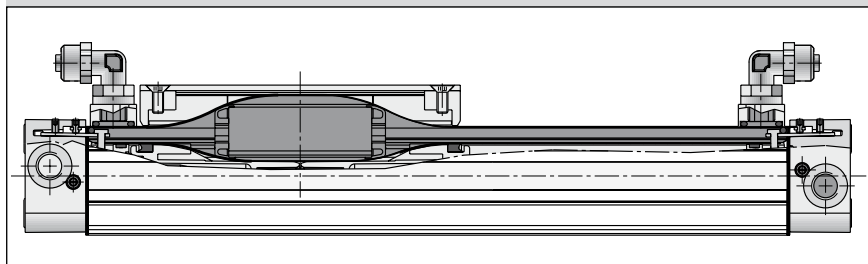
Based on the Parker Origa rodless cylinder, proven in world wide markets, Parker Origa now offers the only rodless cylinder on the market with a certification from IPA Institute for the cleanroom specification according to DIN EN ISO 14644-1.



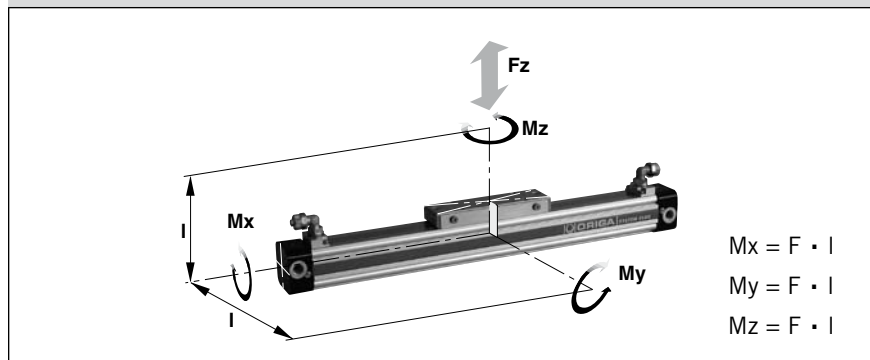
## Function:

The clean room cylinders of the ORIGA SYSTEM PLUS (OSP-P) combines the efficiency of the Parker Origa slot seal system with vacuum protection against progressive wear and contamination from the sliding components. A partial vacuum drawn between inner and outer sealing bands prevents emission into the clean room. To achieve the necessary vacuum a suction flow of ca. 4 m<sup>3</sup>/h is required.

## Function Diagram



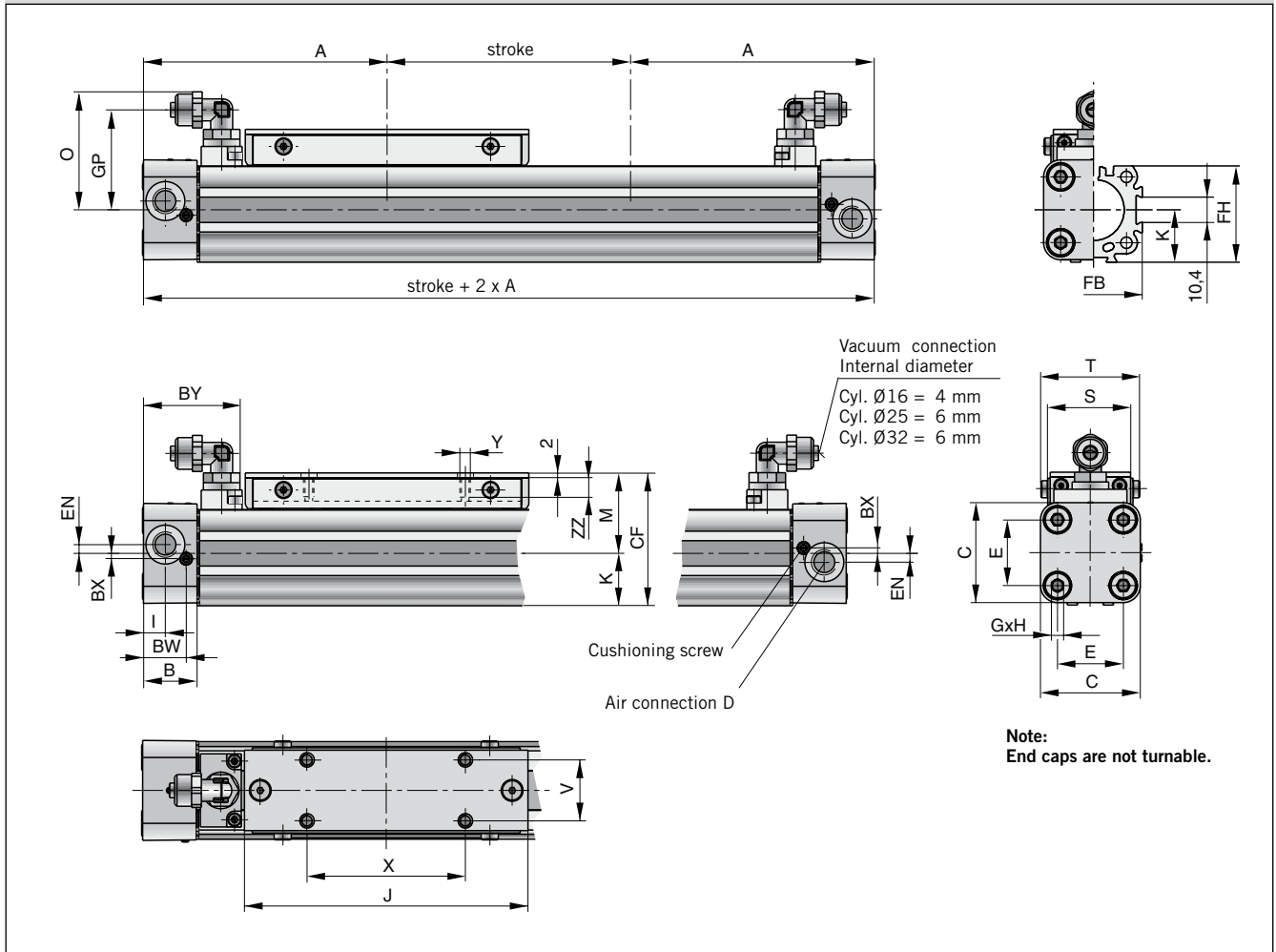
## Loads, Forces and Moments



Cylinder Series [mmØ]	Effective Force at 6 bar [N]	Max. Moment			Max. Load Fz [N]	Cushion length [mm]
		Mx [Nm]	My [Nm]	Mz [Nm]		
OSP-P16	78	0.45	4	0.5	120	11
OSP-P25	250	1.5	15	3.0	300	17
OSP-P32	420	3.0	30	5.0	450	20

Load and moment data are based on speeds  $v \leq 0.2$  m/s. The adjacent table shows the maximum values for light, shock-free operation which must not be exceeded even in dynamic operation.

**Dimensions (mm)**



**Dimension Table (mm)**

Cylinder Series	A	B	C	D	E	G	H	I	J	K	M	O	S
OSP-P16	65	14	30	M5	18	M3	9	5.5	69	15	25	31	24
OSP-P25	100	22	41	G1/8	27	M5	15	9	117	21.5	33	48.5	35
OSP-P32	125	25.5	52	G1/4	36	M6	15	11.5	152	28.5	40	53.6	38

Cylinder Series	T	V	X	Y	BW	BX	BY	CF	EN	FB	FH	GP	ZZ
OSP-P16	29.6	16.5	36	M4	10.8	1.8	28.5	40	3	30	27.2	25.7	7
OSP-P25	40.6	25	65	M5	17.5	2.2	40.5	54.5	3.6	40	39.5	41	8
OSP-P32	45	27	90	M6	20.5	2.5	47.1	68.5	5.5	52	51.7	46.2	10