



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



ENGINEERING YOUR SUCCESS.

P-A5P041GB

ORIGA SYSTEM PLUS - Simply the First

ORIGA SYSTEM PLUS

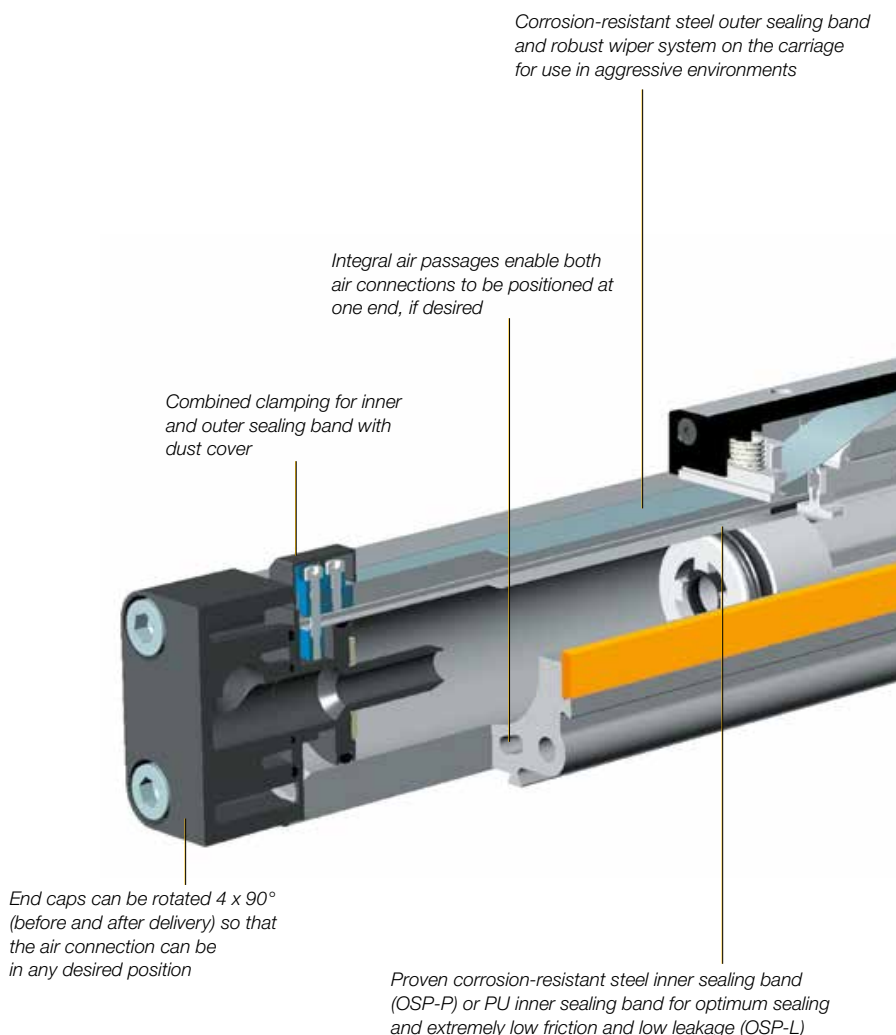
Pneumatic Linear Drives, the “ORIGINAL”

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

Rodless Pneumatic Cylinder OSP-P and OSP-L

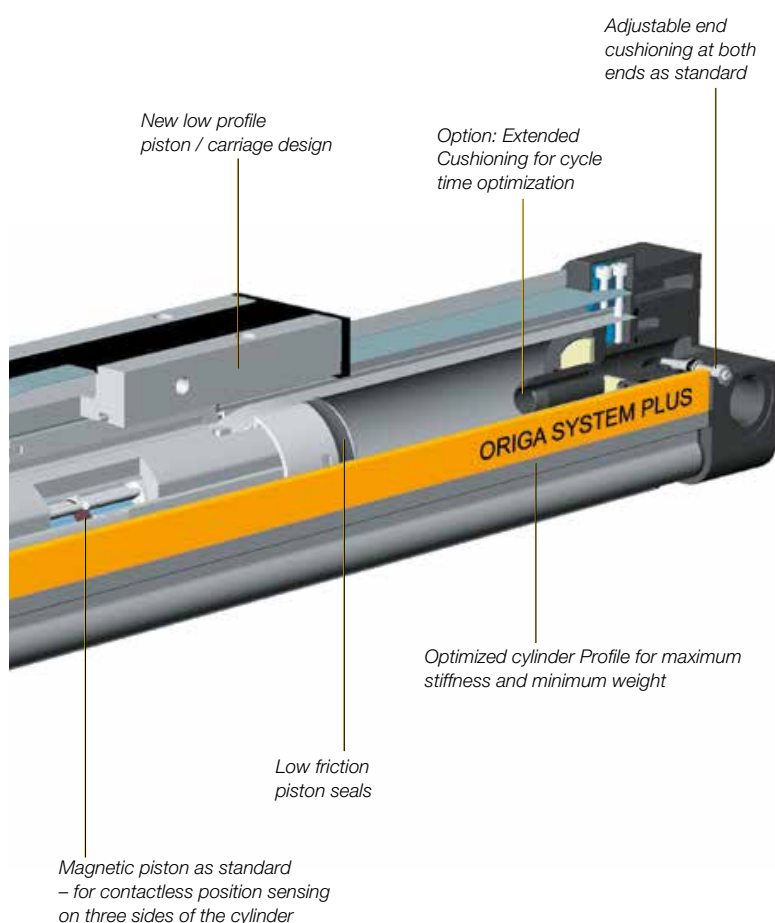
- Completely modular design
- Compact design
- Lowest leakage values
- Service intervals up to 8,000 km
- Equal force in both directions
- Widest capability for speed, load and movement profiles
- Low maintenance
- Easy to install
- Wiper system with automatic re-adjustment
- High side loads possible
- 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 attachments 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 attachments and accessories from the OSP Modular System

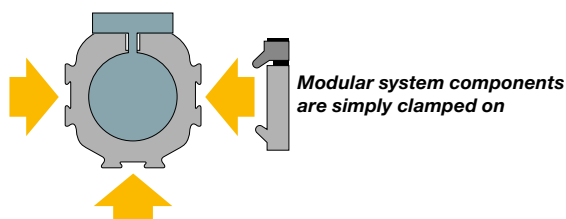
Characteristics OSP-E with screw

- 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



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ORIGA SYSTEM PLUS - Simply the First

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



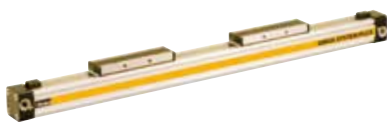
- Accurate bi-parting movement through toothed belt synchronization
- Adjustable polymer slide units
- Optimum slow speed performance

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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ORIGA SYSTEM PLUS - Simply the First

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



Parker Hannifin Corporation
Pneumatic Division Europe - Origa

OSP-E

Electromechanical Linear Actuators for High Dynamics, Reliability and

Ball Screw Actuator OSP-E..SB



- Precise positioning and repeatability
- 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 repeatability
- 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



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ORIGA SYSTEM PLUS - Simply the First

id 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

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

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

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

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..BHD



OSP-E..BV



OSP-E..Bi-Part



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Pneumatic Division Europe - Origa

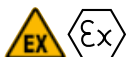
Guide Systems

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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ORIGA SYSTEM PLUS - Simply the First

OSP: Brakes for High Loads and Forces

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

Integrated Active Brake

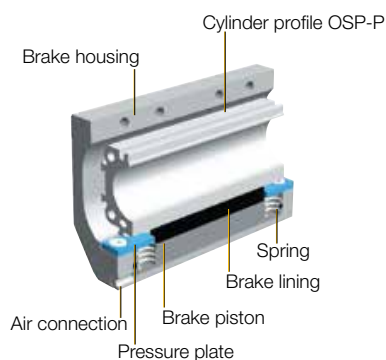
For standard cylinders,
with "SLIDELINE" plain bearing guide and
with "PROLINE" aluminium roller guide

- 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

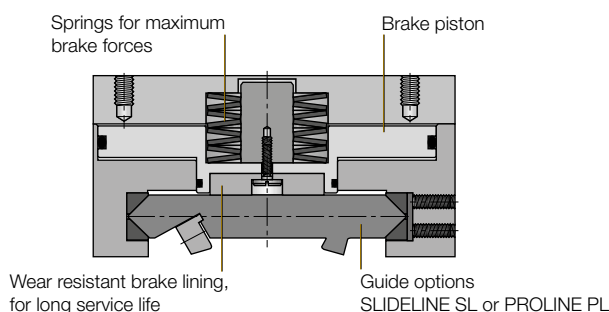
For cylinders with SLIDELINE plain bearing guide
and with PROLINE aluminium roller guide

- 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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ORIGA SYSTEM PLUS - Simply the First

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 nipples
- 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.



RL-Sizing



EL-Sizing



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.



ORIGA-Cylinder

Expertise and Quality for more than 40 years !



Contact



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

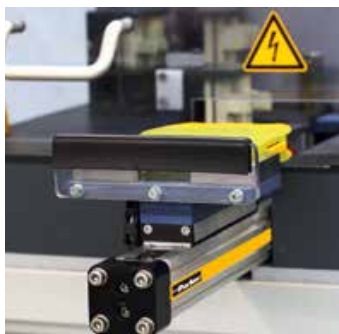
Handling and conveying of dough pieces in a lye application machine



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



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ORIGA SYSTEM PLUS - Simply the First



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 installations



Customized Cylinders with Integrated Valve Technology

Used for external doors and sliding step activation

Parker Worldwide

Europe, Middle East, Africa

AE – United Arab Emirates, Dubai

Tel: +971 4 8127100
parker.me@parker.com

AT – Austria, Wiener Neustadt

Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Eastern Europe, Wiener Neustadt

Tel: +43 (0)2622 23501 900
parker.easteurope@parker.com

AZ – Azerbaijan, Baku

Tel: +994 50 2233 458
parker.azerbaijan@parker.com

BE/LU – Belgium, Nivelles

Tel: +32 (0)67 280 900
parker.belgium@parker.com

BY – Belarus, Minsk

Tel: +375 17 209 9399
parker.belarus@parker.com

CH – Switzerland, Etoy

Tel: +41 (0)21 821 87 00
parker.switzerland@parker.com

CZ – Czech Republic, Klecany

Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst

Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup

Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid

Tel: +34 902 330 001
parker.spain@parker.com

FI – Finland, Vantaa

Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France, Contamine s/Arve

Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

GR – Greece, Athens

Tel: +30 210 933 6450
parker.greece@parker.com

HU – Hungary, Budapest

Tel: +36 23 885 470
parker.hungary@parker.com

IE – Ireland, Dublin

Tel: +353 (0)1 466 6370
parker.ireland@parker.com

IT – Italy, Corsico (MI)

Tel: +39 02 45 19 21
parker.italy@parker.com

KZ – Kazakhstan, Almaty

Tel: +7 7272 505 800
parker.easteurope@parker.com

NL – The Netherlands, Oldenzaal

Tel: +31 (0)541 585 000
parker.nl@parker.com

NO – Norway, Asker

Tel: +47 66 75 34 00
parker.norway@parker.com

PL – Poland, Warsaw

Tel: +48 (0)22 573 24 00
parker.poland@parker.com

PT – Portugal, Leca da Palmeira

Tel: +351 22 999 7360
parker.portugal@parker.com

RO – Romania, Bucharest

Tel: +40 21 252 1382
parker.romania@parker.com

RU – Russia, Moscow

Tel: +7 495 645-2156
parker.russia@parker.com

SE – Sweden, Spånga

Tel: +46 (0)8 59 79 50 00
parker.sweden@parker.com

SK – Slovakia, Banská Bystrica

Tel: +421 484 162 252
parker.slovakia@parker.com

SL – Slovenia, Novo Mesto

Tel: +386 7 337 6650
parker.slovenia@parker.com

TR – Turkey, Istanbul

Tel: +90 216 4997081
parker.turkey@parker.com

UA – Ukraine, Kiev

Tel: +380 44 494 2731
parker.ukraine@parker.com

UK – United Kingdom, Warwick

Tel: +44 (0)1926 317 878
parker.uk@parker.com

ZA – South Africa, Kempton Park

Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

North America

CA – Canada, Milton, Ontario

Tel: +1 905 693 3000

US – USA, Cleveland

Tel: +1 216 896 3000

Asia Pacific

AU – Australia, Castle Hill

Tel: +61 (0)2-9634 7777

CN – China, Shanghai

Tel: +86 21 2899 5000

HK – Hong Kong

Tel: +852 2428 8008

IN – India, Mumbai

Tel: +91 22 6513 7081-85

JP – Japan, Tokyo

Tel: +81 (0)3 6408 3901

KR – South Korea, Seoul

Tel: +82 2 559 0400

MY – Malaysia, Shah Alam

Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington

Tel: +64 9 574 1744

SG – Singapore

Tel: +65 6887 6300

TH – Thailand, Bangkok

Tel: +662 186 7000-99

TW – Taiwan, Taipei

Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires

Tel: +54 3327 44 4129

BR – Brazil, Sao Jose dos Campos

Tel: +55 800 727 5374

CL – Chile, Santiago

Tel: +56 2 623 1216

MX – Mexico, Apodaca

Tel: +52 81 8156 6000



Parker Hannifin GmbH

Pat-Parker-Platz 1

D-41564 Kaarst (Germany)

Tel: +49 2131 4016-0

Fax: +49 2131 4016-9199

E-Mail: parker.germany@parker.com

Internet: www.parker.com, www.parker-origa.com