

# ORIGA SYSTEM PLUS

- ONE CONCEPT
- THREE DRIVE OPTIONS

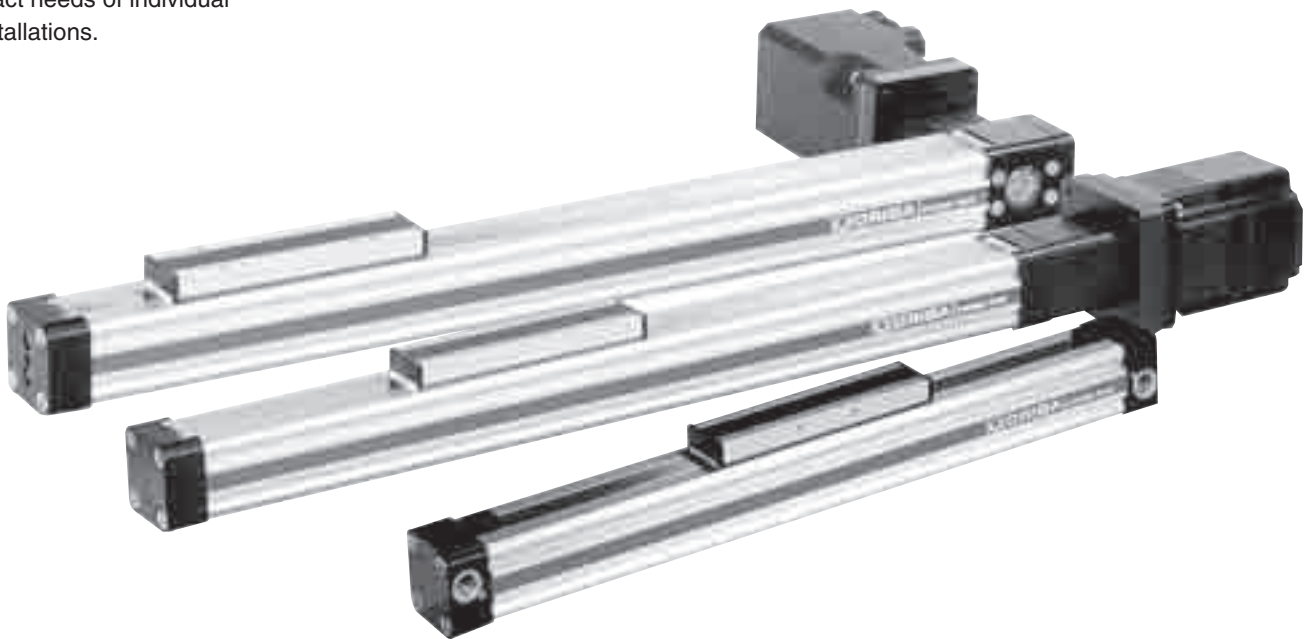
Based on the ORIGA rodless cylinder, proven in world wide markets, HOERBIGER-ORIGA now offers the complete solution for linear drive systems. Designed for absolute reliability, high performance, ease of use and optimised engineering the ORIGA SYSTEM PLUS satisfies even the most demanding applications.

## ORIGA SYSTEM PLUS

is a totally modular concept which offers the choice of pneumatic or electric actuation, with guidance and control modules to suit the exact needs of individual installations.

The actuators at the core of the system all have a common aluminium extruded profile, with double dovetail mounting rails on three

sides, these are the principle building blocks of the system to which all modular options are directly attached.














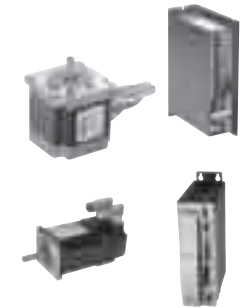

## SYSTEM MODULARITY

- **Electric Screw Drive**
  - For high force capability and accurate path and position control.
- **Electric Belt Drive**
  - For high speed applications, accurate path and position control and longer strokes.

# ORIGA SYSTEM PLUS

– ONE CONCEPT

– THREE DRIVE OPTIONS

<p><b>Basic Linear Drive</b> – Standard Version</p> <ul style="list-style-type: none"> <li>● Series OSP-P (pneumatic)*</li> <li>● Series OSP-E Belt, Belt Bi-parting, Belt with integrated Roller Guide</li> <li>● Series OSP-E Screw (Ball Screw)</li> <li>● Series OSP-E SBR</li> </ul>		<p><b>Linear Guides</b> – SLIDELINE</p> <ul style="list-style-type: none"> <li>● Series OSP-P (pneumatic)*</li> <li>● Series OSP-E Screw</li> </ul>	
<p><b>Clevis Mounting</b></p> <ul style="list-style-type: none"> <li>● Series OSP-P (pneumatic)*</li> <li>● Series OSP-E Belt</li> <li>● Series OSP-E Screw</li> </ul>		<p><b>Linear Guides</b> – POWERSLIDE</p> <ul style="list-style-type: none"> <li>● Series OSP-P (pneumatic)*</li> <li>● Series OSP-E Belt</li> <li>● Series OSP-E Screw</li> </ul>	
<p><b>End Cap Mounting</b></p> <ul style="list-style-type: none"> <li>● Series OSP-P (pneumatic)*</li> <li>● Series OSP-E Belt</li> <li>● Series OSP-E Screw</li> </ul>		<p><b>Linear Guides</b> – GUIDELINE</p> <ul style="list-style-type: none"> <li>● Series OSP-P (pneumatic)*</li> <li>● Series OSP-E Belt</li> <li>● Series OSP-E Screw</li> </ul>	
<p><b>Mid-Section Support</b></p> <ul style="list-style-type: none"> <li>● Series OSP-P (pneumatic)*</li> <li>● Series OSP-E Belt</li> <li>● Series OSP-E Screw</li> </ul>		<p><b>Linear Guides</b> – PROLINE</p> <ul style="list-style-type: none"> <li>● Series OSP-P (pneumatic)*</li> <li>● Series OSP-E Belt</li> <li>● Series OSP-E Screw</li> </ul>	
<p><b>Inversion Mounting</b></p> <ul style="list-style-type: none"> <li>● Series OSP-P (pneumatic)*</li> <li>● Series OSP-E Belt</li> <li>● Series OSP-E Screw</li> </ul>		<p><b>Proximity Sensors</b></p> <ul style="list-style-type: none"> <li>● Series OSP-P (pneumatic)*</li> <li>● Series OSP-E Belt</li> <li>● Series OSP-E Screw</li> </ul>	
<p><b>Multi-Axis Connection System</b></p> <ul style="list-style-type: none"> <li>● Adapter Plates</li> <li>● Intermediate Drive Shafts</li> </ul>		<p><b>Electric Motors and Control Packages*</b></p> <ul style="list-style-type: none"> <li>● Stepper Motor and Controller</li> <li>● Servo Motor and Controller</li> <li>● Gear Heads</li> </ul> <p><b>Consult Factory for Motor Selection</b></p>	
		<p><b>Gearboxes</b></p> <ul style="list-style-type: none"> <li>● Planetary</li> <li>● Belt Gear – OSP-E SBR</li> </ul>	

# Electric Linear Drive Systems, Modular Components - Overview

Linear Drives	OSP-E25 -BHD <sup>1)</sup>	OSP-E32 -BHD <sup>1)</sup>	OSP-E50 -BHD <sup>1)</sup>	OSP-E25 -B <sup>2)</sup>	OSP-E32 -B <sup>2)</sup>	OSP-E50 -B <sup>2)</sup>	OSP-E25 -BP <sup>3)</sup>	OSP-E32 -BP <sup>3)</sup>	OSP-E50 -BP <sup>3)</sup>
Effective action force [N]	550-1070	1030-1870	1940-3120	50	100 - 150	300 - 425	50	100 - 150	300 - 425
Velocity v [m/s]	10,0/5	10,0/5	10,0/5	2,0	3,0	5,0	2,0	3,0	5,0
Magnetic piston (three sides)	□	□	□	□	□	□	□	□	□
Free choice of stroke length [mm] **	1 - 7000	1 - 7000	1 - 7000	1 - 3000	1 - 5000	1 - 5000	1 - 1500 x 2	1 - 2500 x 2	1 - 2500 x 2
Temperature range [°C] *	- 30 - + 80	- 30 - + 80	- 30 - + 80	- 30 - + 80	- 30 - + 80	- 30 - + 80	- 30 - + 80	- 30 - + 80	- 30 - + 80
Stainless steel parts	X	X	X	X	X	X	X	X	X
Tandem piston	○	○	○	○	○	○	○	○	○
<b>Self-Guidance</b>									
L [N]	986/3000	1348/1000	3704/15000	160	300	850	160	300	850
M [Nm]	64/500	115/1000	365/1800	12	25	80	12	25	80
Ms [Nm]	11/50	19/120	87/180	2	8	16	2	8	16
Mv [Nm]	64/500	115/1400	365/2500	8	16	32	8	16	32
<b>Slideline</b>									
L [N]	-	-	-	X	X	X	X	X	X
M [Nm]	-	-	-	X	X	X	X	X	X
Ms [Nm]	-	-	-	X	X	X	X	X	X
Mv [Nm]	-	-	-	X	X	X	X	X	X
<b>Proline</b>									
L [N]	-	-	-	986	1348	3582	986	1348	3582
M [Nm]	-	-	-	44	84	287	44	84	287
Ms [Nm]	-	-	-	19	33	128	19	33	128
Mv [Nm]	-	-	-	44	84	287	44	84	287
<b>Powerslide</b>									
L [N]	-	-	-	910 - 1190	1400 - 2300	3000 - 4000	910 - 1190	1400 - 2300	3000 - 4000
M [Nm]	-	-	-	63 - 175	70 - 175	250 - 350	63 - 175	70 - 175	250 - 350
Ms [Nm]	-	-	-	14 - 20	20 - 50	90 - 140	14 - 20	20 - 50	90 - 140
Mv [Nm]	-	-	-	63 - 175	70 - 175	250 - 350	63 - 175	70 - 175	250 - 350
<b>Guideline</b>									
L [N]	○	○	○	1650 - 2500	1650 - 2500	4400 - 8000	1650 - 2500	1650 - 2500	4400 - 8000
M [Nm]	○	○	○	115	145	500	115	145	500
Ms [Nm]	○	○	○	75	90	375	75	90	375
Mv [Nm]	○	○	○	90	115	355	90	115	355
Guideline with shock absorber for cushioning	○	○	○	○	○	○	○	○	○
<b>Aktiv brake</b>									
Braking force at 6 bar (brake surface dry) [N]	X	X	X	○	○	○	○	○	○
<b>Slideline SL / Proline PL with brakes</b>									
<b>Aktiv brake</b>									
Braking force (no pressure, brake surface dry) [N]	X	X	X	○	○	○	○	○	○
<b>Passiv brake Multibrake</b>									
Braking force (no pressure, brake surface dry) [N]	X	X	X	○	○	○	○	○	○
<b>Accessories</b>									
<b>Magnetic switches</b>									
RS (closer, opener)	○	○	○	○	○	○	○	○	○
Elektronik switches ES (PNP, NPN)	○	○	○	○	○	○	○	○	○
<b>Displacement measuring systems</b>									
SFI - incremental	○	○	○	○	○	○	○	○	○
SFA - absolute	○	○	○	○	○	○	○	○	○
<b>Motor package (stepper/servo)</b>	○	○	○	○	○	○	○	○	○
<b>Gearbox (integrated planetary gearbox)</b>	○	○	○	-	-	-	-	-	-
<b>Mountings</b>									
Clevis Mounting	X	X	X	○	○	○	○	○	○
End Cap Mounting / Mid-section Support	○	○	○	○	○	○	○	○	○
Inversion Mounting	X	X	X	○	○	○	○	○	○
Adapter Profile / T-Nut Profile	○	○	○	○	○	○	○	○	○
<b>Multi-Axis Connection System</b>									
Adapter Plates	○	○	○	○	○	○	○	○	○
Intermediate Drive Shafts	○	○	○	○	○	○	○	○	○
<b>Special Drives</b>									
Clean Room Cylinders	X	X	X	X	X	X	X	X	X

□ = Standard version  
○ = Option  
X = Currently not available  
\* = other temperature ranges on request  
\*\* = **exc. safety clearance from mechanical end position**  
other stroke lengths on request

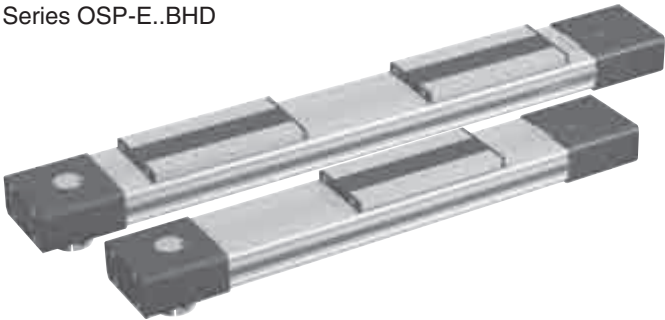
<sup>1)</sup> = Electric Linear Drive (Belt, with integrated Roller Guide / or Recirculating Ball Bearing Guide  
- Option: Bi-parting  
<sup>2)</sup> = Electric Linear Drive (Belt)  
<sup>3)</sup> = Electric Linear Drive (Belt Bi-parting)  
<sup>4)</sup> = Electric Linear Drive (Ball screw)  
<sup>5)</sup> = Electric Linear Drive (Trapezoidal Screw)  
<sup>6)</sup> = Electric Linear Drive (Trapezoidal Screw with extending Rod)  
<sup>7)</sup> = Electric Linear Drive (Ball screw with extending Rod)

# Electric Linear Drive Systems, Modular Components - Overview

	OSP-E25 -S <sup>4)</sup>	OSP-E32 -S <sup>4)</sup>	OSP-E50 -S <sup>4)</sup>	OSP-E25 -SBR <sup>7)</sup>	OSP-E32 -SBR <sup>7)</sup>	OSP-E50 -SBR <sup>7)</sup>
	250	600	1500	260	550 – 1090	750 – 1680
	0,25	0,5	1,25	0,25	0,25 – 0,5	0,25 – 1,25
	□	□	□	□	□	□
	1 - 1100	1 - 2000	1 - 3200	1 – 500	1 – 500	1 – 500
	- 20 – + 80	- 20 – + 80	- 20 – + 80	-20 – +80	-20 – +80	-20 – +80
	X	X	X	X	X	X
	○	○	○	-	-	-
	500	1200	3000	-	-	-
	12	25	80			
	2	8	16	-	-	-
	8	16	32	-	-	-
	675	925	2000	-	-	-
	34	60	180			
	14	29	77	-	-	-
	34	60	180	-	-	-
	986	1348	3582	-	-	-
	44	84	287	-	-	-
	19	33	128	-	-	-
	44	84	287	-	-	-
	910 - 1190	1400 - 2300	3000 - 4000	-	-	-
	63 - 175	70 - 175	250 - 350	-	-	-
	14 - 20	20 - 50	90 - 140	-	-	-
	63 - 175	70 - 175	250 - 350	-	-	-
	1650 - 2500	1650 - 2500	4400 - 8000	-	-	-
	115	145	500			
	75	90	375	-	-	-
	90	115	355			
	○	○	○	-	-	-
	○	○	○	-	-	-
	○	○	○	-	-	-
	○	○	○	-	-	-
	○	○	○	○	○	○
	○	○	○	○	○	○
	○	○	○	-	-	-
	○	○	○	-	-	-
	○	○	○	○	○	○
	-	-	-	-	-	-
	○	○	○	-	-	-
	○	○	○	○	○	○
	○	○	○	-	-	-
	○	○	○	○	○	○
	○	○	○	○	○	○
	○	○	○	○	○	○
	X	X	X	X	X	X

# A COMPLETE SYSTEM – SIX DRIVE OPTIONS FOR ALL REQUIREMENTS

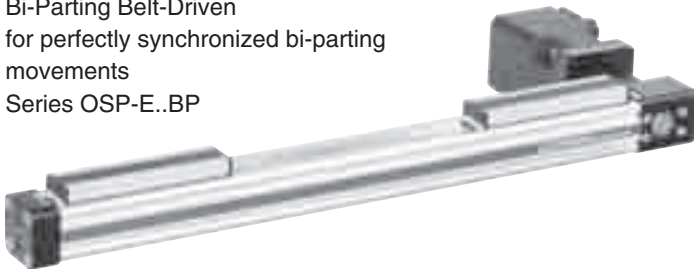
Belt-Driven with Integrated Roller Guide or integrated Recirculating Ball Bearing Guide  
Series OSP-E..BHD



Belt-Driven with Integral Guidance  
Series OSP-E..B



Bi-Parting Belt-Driven  
for perfectly synchronized bi-parting movements  
Series OSP-E..BP



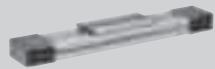



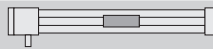

Ball Screw-Driven  
Series OSP-E..S




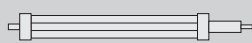


Screw-Driven with extending rod  
Series OSP-E..SR (with Trapezoidal Screw)  
Series OSP-E..SBR (with Ball Screw)



# STANDARD VERSIONS, OPTIONS AND ACCESSORIES

Description	<b>Belt-Driven – Basic Versions</b>		
	Belt-Driven with Integrated Roller Guide	Belt-Driven	Bi-Parting Belt-Driven
			
Standard Versions			
Options	<ul style="list-style-type: none"> <li>– Bi-Parting</li> <li>– Integrated Planetary Gearbox</li> <li>– Actuating Direction</li> </ul>	<ul style="list-style-type: none"> <li>– Drive Shaft Options</li> </ul>	<ul style="list-style-type: none"> <li>– Drive Shaft Options</li> </ul>
<b>Mountings</b>			
Clevis Mounting	–	O	O
End Cap Mounting	O	O	O
Mid-Section Support	O	O	O
Inversion Mounting	–	O	O
<b>Accessories</b>			
Proximity Sensors	O	O	O
Motor Mountings	O	O	O
<b>Linear Guides</b>	O	O	O
<b>Multi-Axis Connection System</b>	O	O	O

Description	<b>Screw-Driven – Basic Versions</b>	
	Ball Screw-Driven	Screw-Driven with extending Rod – with Ball Screw
		
Standard Versions		
Options	<ul style="list-style-type: none"> <li>– Pitch options</li> </ul>	<ul style="list-style-type: none"> <li>– Flange Mounting</li> <li>– Trunnion Mounting</li> <li>– Piston Rod Mountings</li> </ul>
<b>Mountings</b>		
Clevis Mounting	O	–
End Cap Mounting	O	O
Mid-Section Support	O	O
Inversion Mounting	O	–
<b>Accessories</b>		
Magnetic Switches	O	O
Motor Mountings	O	O
<b>Linear Guides</b>	O	–
<b>Multi-Axis Connection System</b>	O	O

# APPLICATION EXAMPLES FOR ELECTRIC LINEAR DRIVE SYSTEMS

## Auto Handling

- high speed pick and place movements



## Material Handling Systems

- vertical and horizontal transfer movements



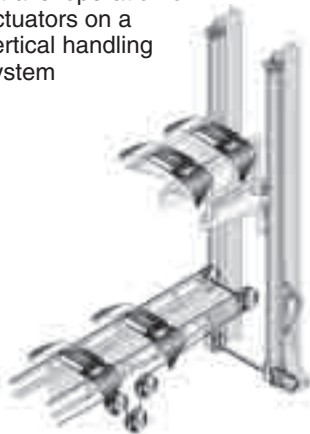
## Punching Machines

- accurate feeding and positioning



## Mechanical Handling

- parallel operation of actuators on a vertical handling system



## Profile Cutting Machines

- intricate profile movements of water jets and lasers



## Slitting Machines

- high speed traverse applications for the slicing of papers and textiles



## Spray Coating

- synchronized high speed bi-parting movements



## Automatic Doors and Guards

- simple bi-parting operation



## Automated Filling Machines

- accurate 3-axis positioning



## Ergonomic Workstations

- adjustment of working levels



**Robotic Installations**

- traverse of robots between work stations



**Milling Machines**

- precise slow speed feeding in 2-axis



**Conveyor Systems**

- simple cross-transfer actuators



**Spraying Equipment**

- precision reciprocating action



**Measuring Systems**

- optical curvature gauging using synchronised bi-parting actuation



**Ventilation Systems**

- adjustment of air dampers



**Mobile Lifting Systems**

- lifting devices for industrial safety



**Medical Equipment**

- adjustment of orthopaedic beds



**Conveyor Systems**

- centering of packages on conveyor lines

