

PNEUMATIC ACTUATOR OVERVIEW



BAND CYLINDERS

MXP-N INTERNAL BEARING

APPLICATIONS:

- Guiding and supporting light loads
- Good for vertical applications or with externally guided loads

FEATURES:

- Durable self-lubricating internal bearing performance tested for millions of cycles

MXP-S SOLID BEARING

APPLICATIONS:

- Guiding and supporting medium loads
- Loads requiring increased Mx (roll) moment capacity

FEATURES:

- Increased moment capacity carrier design with self-lubricating bearings
- Trapezoidal bearing design maximizes bearing surface area for less pressure & less wear on bearing surfaces
- Isolated piston extends service life of the piston seals

MXP-P PROFILED RAIL BEARING

APPLICATIONS:

- Guiding and supporting heavy loads
- High speed and precision
- Vertical orientation or cantilevered loads

FEATURES:

- Long life recirculating ball bearings
- Largest moment load capacity
- Low carrier height
- Isolated piston extends service life of the piston seals

COMMON FEATURES:

- Non-wear stainless steel bands
- Adjustable internal end-of-stroke cushion
- Single piece high strength piston up to 28% stronger than competition

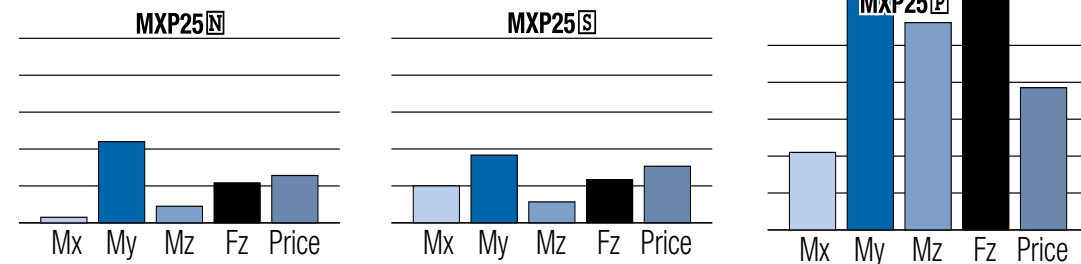
COMMON OPTIONS:

- Tube clamps
- Auxiliary carrier
- Adjustable and fixed shock absorbers
- Single end porting
- Reed or solid state position sensors
- Foot mount
- Inch or metric mounting
- Floating mount (N & S bearings only)

SPECIFICATIONS:

	16	25	32	40	50	63
BORE	in 0.63	1.00	1.25	1.50	2.00	2.50
SIZE	mm 16	25	32	38	50	64
MAX.	in 206	206	205	203	203	103
STROKE	mm 5232	5232	5207	5156	5156	2616
MAX.	lbf 30.7	78.5	123	177	305	491
THRUST	N 136	349	546	786	1356	2184
	16N	16S	16P	25N	25S	25P
	32N	32S	32P	40N	40S	40P
	50N	50S	50P	63N	63S	63P
*MAX.	lb 30	35	217	65	70	449
LOAD	N 133	156	965	289	311	1997
	512	667	2531	867	1001	3274
	1201	1401	4511	1646	2313	5747

*Auxiliary carrier doubles the load capacity and also increases My and Mz bending moment capacity.



BC3 INTERNAL BALL BEARING

APPLICATIONS:

- Guiding and supporting heavy loads

FEATURES:

- Reliable, maintenance free bearing system
- Bearing components are sealed and lubricated at the factory
- Hardened steel rail guides for high performance and repeatable accuracy
- Stainless steel sealing band system
- Adjustable internal end-of-stroke cushion
- Integral mounting system
- Isolated piston extends service life of the piston seals

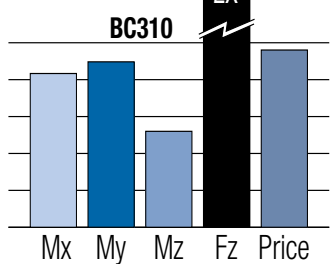
OPTIONS:

- Auxiliary carrier
- Dual 180° carrier
- Adjustable shock absorbers
- Foot mount
- Single end porting
- Tube supports
- Reed or solid state position sensors
- Inch or metric mounting

SPECIFICATIONS:

	10	15	20
BORE	in 1.00	1.50	2.00
SIZE	mm 25	32	50
MAX.	in 205	202	142
STROKE	mm 5207	5130	3606
MAX.	lbf 16	78	120
THRUST	N 71	347	534
	801	1334	1779
*MAX.	lb 5.0	60	120
LOAD	N 22	267	534
	801	1334	1779

*Auxiliary and dual 180° carrier doubles the load capacity and also increases My and Mz bending moment capacity.



BC2 SOLID BEARING

APPLICATIONS:

- Guiding and supporting medium loads

FEATURES:

- Increased moment capacity carrier design w/ self-lubricating bearings
- Adjustable carrier for maintaining consistent bearing surfaces
- Stainless steel sealing band system
- Adjustable internal end-of-stroke cushion
- Formed steel piston bracket
- Isolated piston extends service life of the piston seals

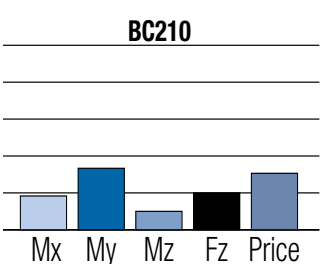
OPTIONS:

- Auxiliary carrier
- Four ported head
- Floating mount
- Foot mount
- Tube support
- Adjustable shock absorbers
- Reed or solid state position sensors
- Inch or metric mounting

SPECIFICATIONS:

	05	10	12	15	20	25
BORE	in 0.50	1.00	1.25	1.50	2.00	2.50
SIZE	mm 12	25	32	40	50	63
MAX.	in 171	350	288	298	274	163
STROKE	mm 4343	8890	7315	7569	6959	4140
MAX.	lbf 16	78	120	176	310	495
THRUST	N 71	347	534	783	1379	2202
	801	1334	1779	2202	2202	2202
*MAX.	lb 5.0	60	120	180	300	400
LOAD	N 22	267	534	801	1334	1779

*Auxiliary carrier doubles the load capacity and also increases My and Mz bending moment capacity.



CABLE CYLINDERS

CC DOUBLE-ACTING

APPLICATIONS:

- Loads that are externally guided and supported

FEATURES:

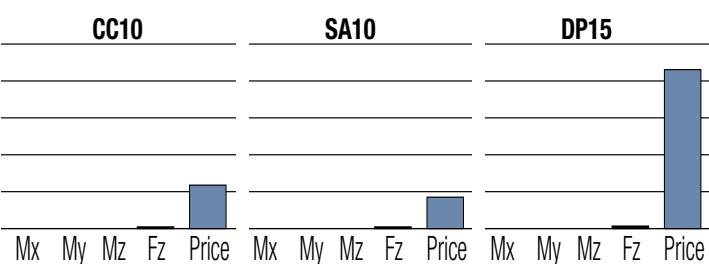
- Nylon jacketed aircraft grade cables
- Unique gland seals provide leak free seal for cables
- Adjustable internal end-of-stroke cushions
- Actuator may be located remotely from load and contamination
- Stroke lengths up to 60 feet with optional tube couplers

OPTIONS:

- Pneumatic or hydraulic power
- 3 ported head
- Steel tube
- Seals of Viton® material
- Reed position sensors
- Automatic tensioner***
- Caliper disc brake***
- Tube coupler***
- ***Not available for SA

SPECIFICATIONS:

	05	07	10	15	20	25	30	40	50	52
BORE	in 0.50	0.75	1.00	1.50	2.00	2.50	3.00	4.00	5.00	2.00
SIZE	mm 13	19	25	38	51	64	76	102	127	51
MAX.	in 54	138	282	280	281	281	280	279	134	280
STROKE	mm 1372	3505	7163	7112	7137	7137	7112	7087	3404	7112
MAX.	lbf 19	43	78	174	618	972	1398	1249	1919	1532
THRUST	N 85	191	347	774	2749	4324	6219	5556	8536	6815



TC TRACK- GUIDE RODS & BEARING

APPLICATIONS:

- Guiding and supporting light loads

FEATURES:

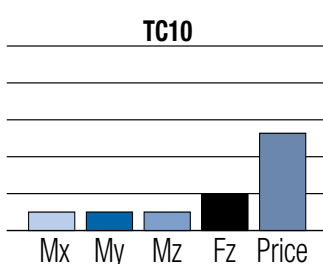
- Nylon jacketed aircraft grade cables
- Lightweight aluminum design
- Unique gland seals provide leak free seal for cables
- Adjustable internal end-of-stroke cushion

OPTIONS:

- Automatic tensioner
- Caliper disc brake
- 3 ported head
- Pneumatic or hydraulic power
- Steel tube
- Seals of Viton® material
- Reed position sensors

SPECIFICATIONS:

	05	07	10	15
BORE	in 0.50	0.75	1.00	1.50
SIZE	mm 13	19	25	38
MAX.	in 67	78	78	78
STROKE	mm 1702	1981	1981	1981
MAX.	lbf 5	11	30	78
THRUST	N 22	49	133	347
	62	178	400	400
MAGNETIC	lb 5	14	38	100
STRENGTH	N 22	62	169	445



MAG CYLINDERS

MG CYLINDER

APPLICATIONS:

- Environmentally sensitive applications that require low contamination
- If magnetic coupling strength is exceeded the piston and carrier will decouple - a safety benefit in many applications

FEATURES:

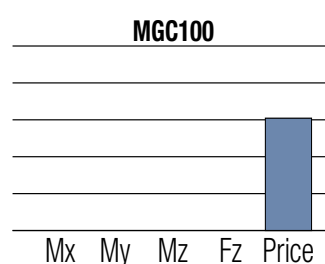
- Field repairable to minimize downtime
- Fully enclosed design keeps contaminants from entering or lubricants from exiting actuator body
- Three coupling strengths available
- Stainless steel tubing

OPTIONS:

- Pneumatic or hydraulic power
- Floating mount
- Foot mount
- Reed or solid state position sensors

SPECIFICATIONS:

	025	038	062	100
BORE	in 0.25	0.38	0.62	1.00
SIZE	mm 6	10	16	25
MAX.	in 26	32	39	56
STROKE	mm 660	813	991	1422
MAX.	lbf 5	11	30	78
THRUST	N 22	49	133	347
	62	178	400	400
MAGNETIC	lb 5	14	38	100
STRENGTH	N 22	62	169	445



MGS SLIDE

APPLICATIONS:

- Environmentally sensitive applications that require low contamination
- If magnetic coupling strength is exceeded the piston and carrier will decouple - a safety benefit in many applications

FEATURES:

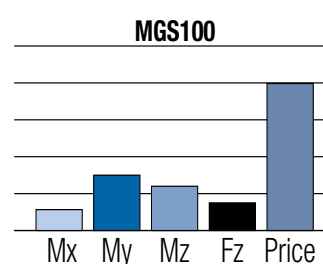
- Fully enclosed design keeps contaminants from entering or lubricants from exiting actuator body
- Low profile rigid design
- Stainless steel tubing
- Hardened steel shafts

OPTIONS:

- Pneumatic or hydraulic power
- Choose either sintered bronze or linear ball bearings
- Shock absorbers
- Proximity sensors
- Reed or solid state position sensors

SPECIFICATIONS:

	038	062	100
BORE	in 0.38	0.62	1.00
SIZE	mm 10	16	25
MAX.	in 30	60	80
STROKE	mm 762	1524	2032
MAX.	lbf 11	30	78
THRUST	N 49	133	347
	111	294	347
MAGNETIC	lb 14	40	90
LOAD	N 62	178	400



ROD CYLINDER SLIDES

PB POWER-BLOCK SLIDE

APPLICATIONS:

- Withstands heavy side loads
- Great for conveyor line stops
- Load lifting applications

FEATURES:

- Internal urethane bumpers
- Composite bearings
- Standard internal piston magnet for switch sensing
- Lightweight aluminum design

OPTIONS:

- Stop collars and bumpers
- Dual tooling plate option
- Reed or solid state position sensors

SPECIFICATIONS:

	17	20
BORE	in 1.06	1.25
SIZE	mm 27	32
MAX.	in 3	3
STROKE	mm 76	76
MAX.	lbf 88	123
THRUST	N 391	547
	88	123
MAGNETIC	lb 20	25
LOAD	N 76	89

BENDING MOMENTS DIAGRAM

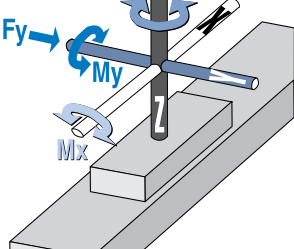
Reference for all comparison graphs

Mx = Roll

My = Pitch

Mz = Yaw

Fz = Load



PB2 POWER-BLOCK2 SLIDE

APPLICATIONS:

- Withstands heavy side loads
- Great for conveyor line stops
- Load lifting applications

FEATURES:

- Internal urethane bumpers
- Operating pressure up to 150 PSI
- 10,000,000 cycle rating
- Standard internal piston magnet for switch sensing
- Lightweight aluminum design

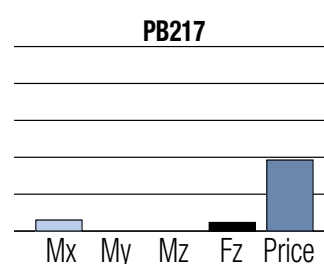
OPTIONS:

- Choose composite or linear ball bearings
- Reed or solid state position sensors

SPECIFICATIONS:

	10	17	20	32
BORE	in 0.63	1.06	1.25	2.00
SIZE	mm 16	27	32	51
MAX.	in 4	6	6	6
STROKE	mm 102	152	152	152
**MAX.	lbf 46	132	184	471
THRUST	N 205	587	818	2095
	46	132	184	471
MAGNETIC	lb 16	38	48	70
LOAD	N 71	169	214	311

** Maximum thrust at 150 PSI



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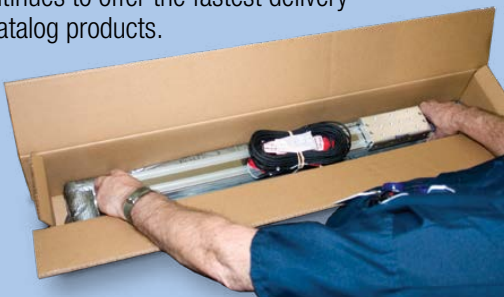


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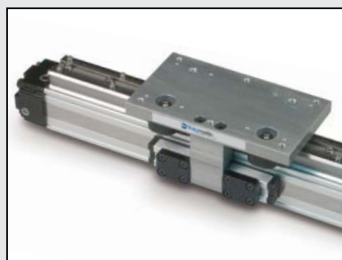


INNOVATIVE PRODUCTS



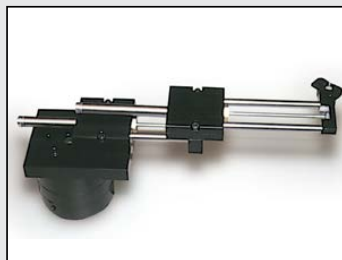
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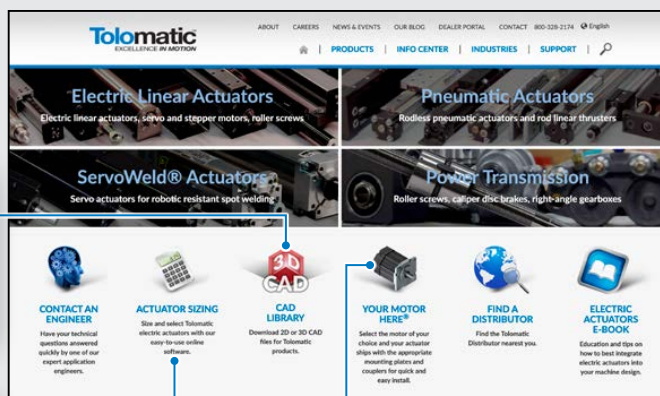
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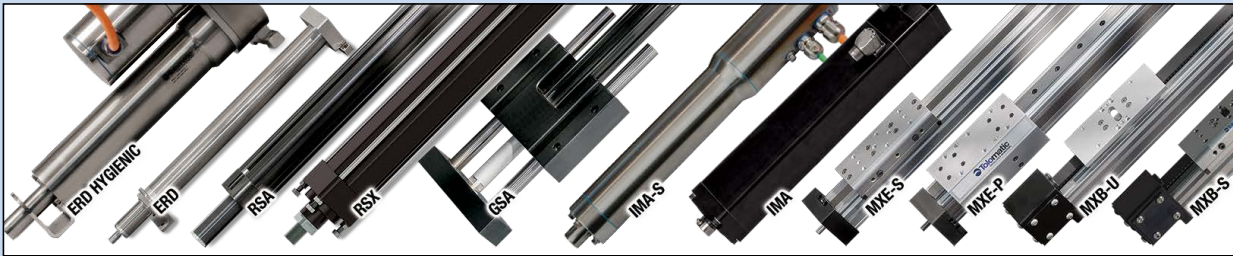


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