PBDA Series Pen Cylinders

The smallest diameter linear round body cylinders in the world allow OEM machine and tool designers to miniaturize devices, machines, and automated processes. Conforms to Non-ion as standard. Straight forward and easy mounting.

- Integrated Speed Control Option
- High Temperature Option
- Bore Sizes from 2.5 mm to 16 mm
- Stroke Adjustment Option
- Stainless Steel Tubes
- RoHS Compliance

Improve the performance and reduce the size of your next generation machine. Koganei sets the standard for supplying innovative high-quality solutions with unmatched reliability. Optimized designs, with a wide variety of styles and sizes, increase speed to market as well as provide solutions for most applications. Expedite deliveries with product stocked in the USA.

KOGANEI is committed to your success from concept, to initial design, to final delivery and beyond.

Operations

Double Acting
Double Acting Adjustable Cushions
Double Acting Clean System with Dust Collecting Port
Double Acting Double Rod
Double Acting Dual Stroke
Double Acting Heat Resistant
Double Acting Integrated Speed Controls
Double Acting Linear Bearing
Double Acting Low Pressure Hydraulic
Double Acting Non-Rotating
Double Acting Pull Side Stroke Adjusting
Double Acting Push Side Stroke Adjusting
Double Acting Tandem
Single Acting Pull
Single Acting Pull Non-Rotating
Single Acting Push
Single Acting Push Clean System
Single Acting Push Non-Rotating

PBDA Series Pen Cylinders

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Model	Operation	Bore mm	Standard Strokes mm [in]	Max Stroke mm [in]	Port Size metric [imperial]	Max Force - Push N [lbf]	Max Force - Pull N [lbf]	Speed Range mm/s [in/s]	Pressure Range MPa [psi]	Temperature Range °C [°F]
PBDA	Double Acting	6	5 - 60 [upon request]	100 [3.9]	M5 x 0.8 [upon request]	19.8 [4.5]	14.8 [3.3]	50 - 750 [2.0 - 29.5]	0.12 - 0.7 [17.4 - 101.5]	0 - 70 [32 - 158]
PBDA	Double Acting	10	5 - 150 [upon request]	150 [5.9]	M5 x 0.8 [upon request]	55 [12.4]	46.2 [10.4]	50 - 750 [2.0 - 29.5]	0.08 - 0.7 [11.6 - 101.5]	0 - 70 [32 - 158]
PBDA	Double Acting	16	5 - 200 [upon request]	200 [7.9]	M5 x 0.8 [upon request]	141 [32]	127 [29]	50 - 750 [2.0 - 29.5]	0.06 - 0.7 [8.7 - 101.5]	0 - 70 [32 - 158]
PBDAC	Double Acting Adjustable Cushions	10	25 - 100 [upon request]	150 [5.9]	M5 x 0.8 [upon request]	55 [12.4]	46.2 [10.4]	100 - 1000 [3.9 - 39.4]	0.2 - 0.7 [29.0 - 101.5]	0 - 70 [32 - 158]

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Model	Operation	Bore mm	Standard Strokes mm [in]	Max Stroke mm [in]	Port Size metric [imperial]	Max Force - Push N [lbf]	Max Force - Pull N [lbf]	Speed Range mm/s [in/s]	Pressure Range MPa [psi]	Temperature Range °C [°F]
PBDAC	Double Acting Adjustable Cushions	16	25 - 100 [upon request]	300 [11.8]	M5 x 0.8 [upon request]	141 [32]	127 [29]	100 - 1000 [3.9 - 39.4]	0.1 - 0.7 [14.5 - 101.5]	0 - 70 [32 - 158]
CS-PBDA	Double Acting Clean System with Dust Collecting Port	6	5 - 60 [upon request]	100 [3.9]	M5 x 0.8 [upon request]	19.8 [4.5]	14.8 [3.3]	50 - 300 [2.0 - 11.8]	0.15 - 0.7 [21.8 - 101.5]	0 - 60 [32 - 140]
CS-PBDA	Double Acting Clean System with Dust Collecting Port	10	5 - 150 [upon request]	150 [5.9]	M5 x 0.8 [upon request]	55 [12.4]	46.2 [10.4]	50 - 300 [2.0 - 11.8]	0.1 - 0.7 [14.5 - 101.5]	0 - 60 [32 - 140]
CS-PBDA	Double Acting Clean System with Dust Collecting Port	16	5 - 200 [upon request]	200 [7.9]	M5 x 0.8 [upon request]	141 [32]	127 [29]	50 - 300 [2.0 - 11.8]	0.1 - 0.7 [14.5 - 101.5]	0 - 60 [32 - 140]
PBDAD	Double Acting Double Rod	10	5 - 60 [upon request]	60 [2.4]	M5 x 0.8 [upon request]	46.2 [10.4]	46.2 [10.4]	50 - 750 [2.0 - 29.5]	0.1 - 0.7 [14.5 - 101.5]	0 - 70 [32 - 158]
PBDAD	Double Acting Double Rod	16	5 - 100 [upon request]	100 [3.9]	M5 x 0.8 [upon request]	127 [29]	127 [29]	50 - 750 [2.0 - 29.5]	0.1 - 0.7 [14.5 - 101.5]	0 - 70 [32 - 158]
PBDAW	Double Acting Dual Stroke	10	5 - 60 [upon request]	120 [4.7]	M5 x 0.8 [upon request]	55 [12.4]	46.2 [10.4]	50 - 750 [2.0 - 29.5]	0.08 - 0.7 [11.6 - 101.5]	0 - 70 [32 - 158]
PBDAW	Double Acting Dual Stroke	16	5 - 60 [upon request]	120 [4.7]	M5 x 0.8 [upon request]	141 [32]	127 [29]	50 - 750 [2.0 - 29.5]	0.06 - 0.7 [8.7 - 101.5]	0 - 70 [32 - 158]
PBDAF	Double Acting Heat Resistant	6	5 - 60 [upon request]	100 [3.9]	M5 x 0.8 [upon request]	19.8 [4.5]	14.8 [3.3]	50 - 500 [2.0 - 19.7]	0.3 - 0.7 [43.5 - 101.5]	0 - 150 [32 - 302]
PBDAF	Double Acting Heat Resistant	10	5 - 150 [upon request]	150 [5.9]	M5 x 0.8 [upon request]	55 [12.4]	46.2 [10.4]	50 - 500 [2.0 - 19.7]	0.2 - 0.7 [29.0 - 101.5]	0 - 150 [32 - 302]
PBDAF	Double Acting Heat Resistant	16	5 - 200 [upon request]	200 [7.9]	M5 x 0.8 [upon request]	141 [32]	127 [29]	50 - 500 [2.0 - 19.7]	0.15 - 0.7 [21.8 - 101.5]	0 - 150 [32 - 302]
PBDAU	Double Acting Integrated Speed Controls	10	15 - 60 [upon request]	150 [5.9]	M5 x 0.8 [upon request]	55 [12.4]	46.2 [10.4]	50 - 300 [2.0 - 11.8]	0.1 - 0.7 [14.5 - 101.5]	0 - 70 [32 - 158]
PBDAU	Double Acting Integrated Speed Controls	16	15 - 60 [upon request]	200 [7.9]	M5 x 0.8 [upon request]	141 [32]	127 [29]	50 - 300 [2.0 - 11.8]	0.1 - 0.7 [14.5 - 101.5]	0 - 70 [32 - 158]
PBDAA	Double Acting Linear Bearing	10	25 - 100 [upon request]	300 [11.8]	M5 x 0.8 [upon request]	55 [12.4]	46.2 [10.4]	50 - 750 [2.0 - 29.5]	0.12 - 0.7 [17.4 - 101.5]	0 - 70 [32 - 158]
PBDAA	Double Acting Linear Bearing	16	25 - 100 [upon request]	500 [19.7]	M5 x 0.8 [upon request]	141 [32]	127 [29]	50 - 750 [2.0 - 29.5]	0.1 - 0.7 [14.5 - 101.5]	0 - 70 [32 - 158]

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Model	Operation	Bore mm	Standard Strokes mm [in]	Max Stroke mm [in]	Port Size metric [imperial]	Max Force - Push N [lbf]	Max Force - Pull N [lbf]	Speed Range mm/s [in/s]	Pressure Range MPa [psi]	Temperature Range °C [°F]
PBDAH	Double Acting Low Pressure Hydraulic	6	5 - 60 [upon request]	100 [3.9]	M5 x 0.8 [upon request]	19.8 [4.5]	14.8 [3.3]	5 - 300 [0.2 - 11.8]	0.3 - 0.7 [43.5 - 101.5]	0 - 60 [32 - 140]
PBDAH	Double Acting Low Pressure Hydraulic	10	5 - 150 [upon request]	150 [5.9]	M5 x 0.8 [upon request]	55 [12.4]	46.2 [10.4]	5 - 300 [0.2 - 11.8]	0.2 - 0.7 [29.0 - 101.5]	0 - 60 [32 - 140]
PBDAH	Double Acting Low Pressure Hydraulic	16	5 - 200 [upon request]	200 [7.9]	M5 x 0.8 [upon request]	141 [32]	127 [29]	5 - 300 [0.2 - 11.8]	0.15 - 0.7 [21.8 - 101.5]	0 - 60 [32 - 140]
PBDAL	Double Acting Non-Rotating	10	5 - 60 [upon request]	100 [3.9]	M5 x 0.8 [upon request]	55 [12.4]	46.2 [10.4]	50 - 500 [2.0 - 19.7]	0.1 - 0.7 [14.5 - 101.5]	0 - 70 [32 - 158]
PBDAL	Double Acting Non-Rotating	16	5 - 60 [upon request]	150 [5.9]	M5 x 0.8 [upon request]	141 [32]	127 [29]	50 - 500 [2.0 - 19.7]	0.1 - 0.7 [14.5 - 101.5]	0 - 70 [32 - 158]
PBDAE	Double Acting Pull Side Stroke Adjusting	10	15 - 150 [upon request]	150 [5.9]	M5 x 0.8 [upon request]	55 [12.4]	46.2 [10.4]	50 - 750 [2.0 - 29.5]	0.08 - 0.7 [11.6 - 101.5]	0 - 70 [32 - 158]
PBDAE	Double Acting Pull Side Stroke Adjusting	16	15 - 200 [upon request]	200 [7.9]	M5 x 0.8 [upon request]	141 [32]	127 [29]	50 - 750 [2.0 - 29.5]	0.06 - 0.7 [8.7 - 101.5]	0 - 70 [32 - 158]
PBDAP	Double Acting Push Side Stroke Adjusting	10	15 - 60 [upon request]	60 [2.4]	M5 x 0.8 [upon request]	55 [12.4]	46.2 [10.4]	50 - 750 [2.0 - 29.5]	0.08 - 0.7 [11.6 - 101.5]	0 - 70 [32 - 158]
PBDAP	Double Acting Push Side Stroke Adjusting	16	15 - 100 [upon request]	100 [3.9]	M5 x 0.8 [upon request]	141 [32]	127 [29]	50 - 750 [2.0 - 29.5]	0.06 - 0.7 [8.7 - 101.5]	0 - 70 [32 - 158]
PBDAT	Double Acting Tandem	10	0 - 30 [upon request]	150 [5.9]	M5 x 0.8 [upon request]	110 [25]	46.2 [10.4]	50 - 750 [2.0 - 29.5]	0.15 - 0.7 [21.8 - 101.5]	0 - 70 [32 - 158]
PBDAT	Double Acting Tandem	16	0 - 30 [upon request]	150 [5.9]	M5 x 0.8 [upon request]	181 [41]	127 [29]	50 - 750 [2.0 - 29.5]	0.15 - 0.7 [21.8 - 101.5]	0 - 70 [32 - 158]
PBTA	Single Acting Pull	6	5 - 30 [upon request]	30 [1.2]	M3 x 0.5 [upon request]	3.5 [0.8]	11.3 [2.5]	50 - 750 [2.0 - 29.5]	0.12 - 0.7 [17.4 - 101.5]	0 - 70 [32 - 158]
PBTA	Single Acting Pull	10	5 - 30 [upon request]	30 [1.2]	M5 x 0.8 [upon request]	5.9 [1.3]	40.3 [9.1]	50 - 750 [2.0 - 29.5]	0.08 - 0.7 [11.6 - 101.5]	0 - 70 [32 - 158]
PBTA	Single Acting Pull	16	5 - 30 [upon request]	30 [1.2]	M5 x 0.8 [upon request]	9.8 [2.2]	117 [26]	50 - 750 [2.0 - 29.5]	0.06 - 0.7 [8.7 - 101.5]	0 - 70 [32 - 158]
PBTAL	Single Acting Pull Non-Rotating	10	5 - 30 [upon request]	30 [1.2]	M5 x 0.8 [upon request]	5.9 [1.3]	40.3 [9.1]	50 - 500 [2.0 - 19.7]	0.1 - 0.7 [14.5 - 101.5]	0 - 70 [32 - 158]

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Model	Operation	Bore mm	Standard Strokes mm [in]	Max Stroke mm [in]	Port Size metric [imperial]	Max Force - Push N [lbf]	Max Force - Pull N [lbf]	Speed Range mm/s [in/s]	Pressure Range MPa [psi]	Temperature Range °C [°F]
PBTAL	Single Acting Pull Non-Rotating	16	5 - 30 [upon request]	30 [1.2]	M5 x 0.8 [upon request]	9.8 [2.2]	117 [26]	50 - 500 [2.0 - 19.7]	0.1 - 0.7 [14.5 - 101.5]	0 - 70 [32 - 158]
PBSA	Single Acting Push	2.5	5 - 10 [upon request]	10 [0.4]	4 X 2.5 barb [upon request]	2.2 [0.5]	1.2 [0.3]	50 - 300 [2.0 - 11.8]	0.34 - 0.7 [49.3 - 101.5]	0 - 60 [32 - 140]
PBSA	Single Acting Push	4	5 - 20 [upon request]	20 [0.8]	4 X 2.5 barb [upon request]	6 [1.3]	2.8 [0.6]	50 - 300 [2.0 - 11.8]	0.34 - 0.7 [49.3 - 101.5]	0 - 60 [32 - 140]
PBSA	Single Acting Push	6	5 - 60 [upon request]	75 [3.0]	M3 x 0.5 [upon request]	16.3 [3.7]	3.5 [0.8]	50 - 750 [2.0 - 29.5]	0.12 - 0.7 [17.4 - 101.5]	0 - 70 [32 - 158]
PBSA	Single Acting Push	10	5 - 60 [upon request]	105 [4.1]	M5 x 0.8 [upon request]	49.1 [11]	5.9 [1.3]	50 - 750 [2.0 - 29.5]	0.08 - 0.7 [11.6 - 101.5]	0 - 70 [32 - 158]
PBSA	Single Acting Push	16	5 - 60 [upon request]	120 [4.7]	M5 x 0.8 [upon request]	131 [29]	9.8 [2.2]	50 - 750 [2.0 - 29.5]	0.06 - 0.7 [8.7 - 101.5]	0 - 70 [32 - 158]
CS-PBSA	Single Acting Push Clean System	6	5 - 60 [upon request]	75 [3.0]	M5 x 0.8 [upon request]	19.8 [4.5]	3.5 [0.8]	50 - 300 [2.0 - 11.8]	0.3 - 0.7 [43.5 - 101.5]	0 - 60 [32 - 140]
CS-PBSA	Single Acting Push Clean System	10	5 - 60 [upon request]	105 [4.1]	M5 x 0.8 [upon request]	55 [12.4]	5.9 [1.3]	50 - 300 [2.0 - 11.8]	0.15 - 0.7 [21.8 - 101.5]	0 - 60 [32 - 140]
CS-PBSA	Single Acting Push Clean System	16	5 - 60 [upon request]	120 [4.7]	M5 x 0.8 [upon request]	141 [32]	9.8 [2.2]	50 - 300 [2.0 - 11.8]	0.15 - 0.7 [21.8 - 101.5]	0 - 60 [32 - 140]
PBSAL	Single Acting Push Non-Rotating	10	5 - 60 [upon request]	60 [2.4]	M5 x 0.8 [upon request]	49.1 [11]	5.9 [1.3]	50 - 500 [2.0 - 19.7]	0.1 - 0.7 [14.5 - 101.5]	0 - 70 [32 - 158]
PBSAL	Single Acting Push Non-Rotating	16	5 - 60 [upon request]	60 [2.4]	M5 x 0.8 [upon request]	131 [29]	9.8 [2.2]	50 - 500 [2.0 - 19.7]	0.1 - 0.7 [14.5 - 101.5]	0 - 70 [32 - 158]