

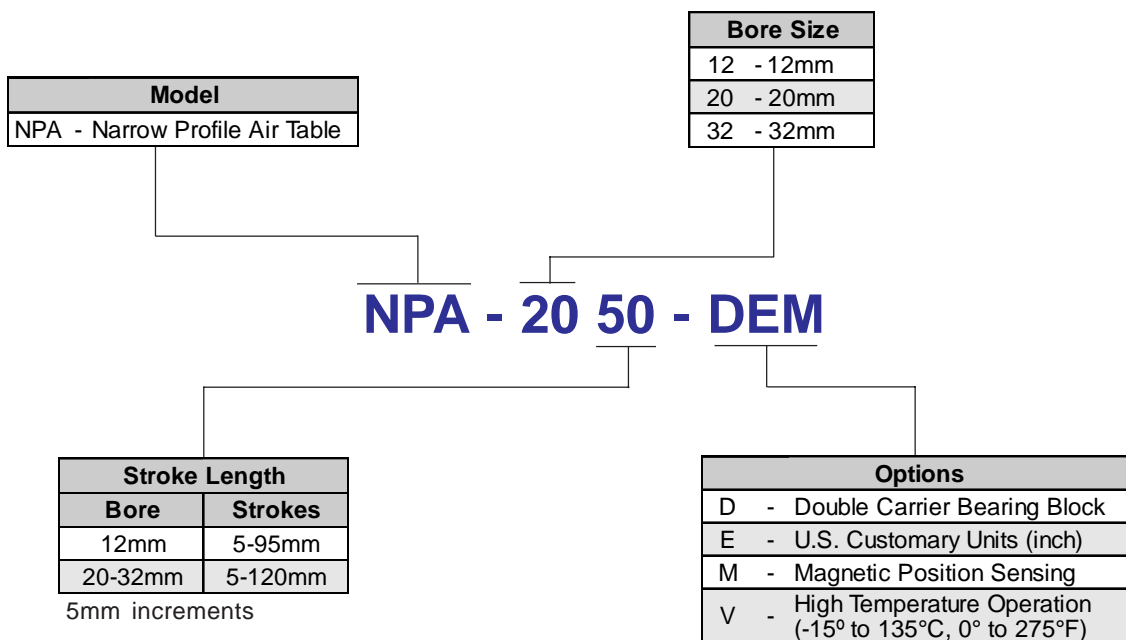


New Product Bulletin

Narrow Profile Air Table Actuator

The NPA actuator provides precise load guiding with a recirculating ball rail above its bore. Two bearing styles are offered (single/double bearing block) to accommodate both lower cost and higher precision/cost applications. With standard strokes up to 120mm, the NPA offers longer travel length than any competitive actuator of its type.

How to Order



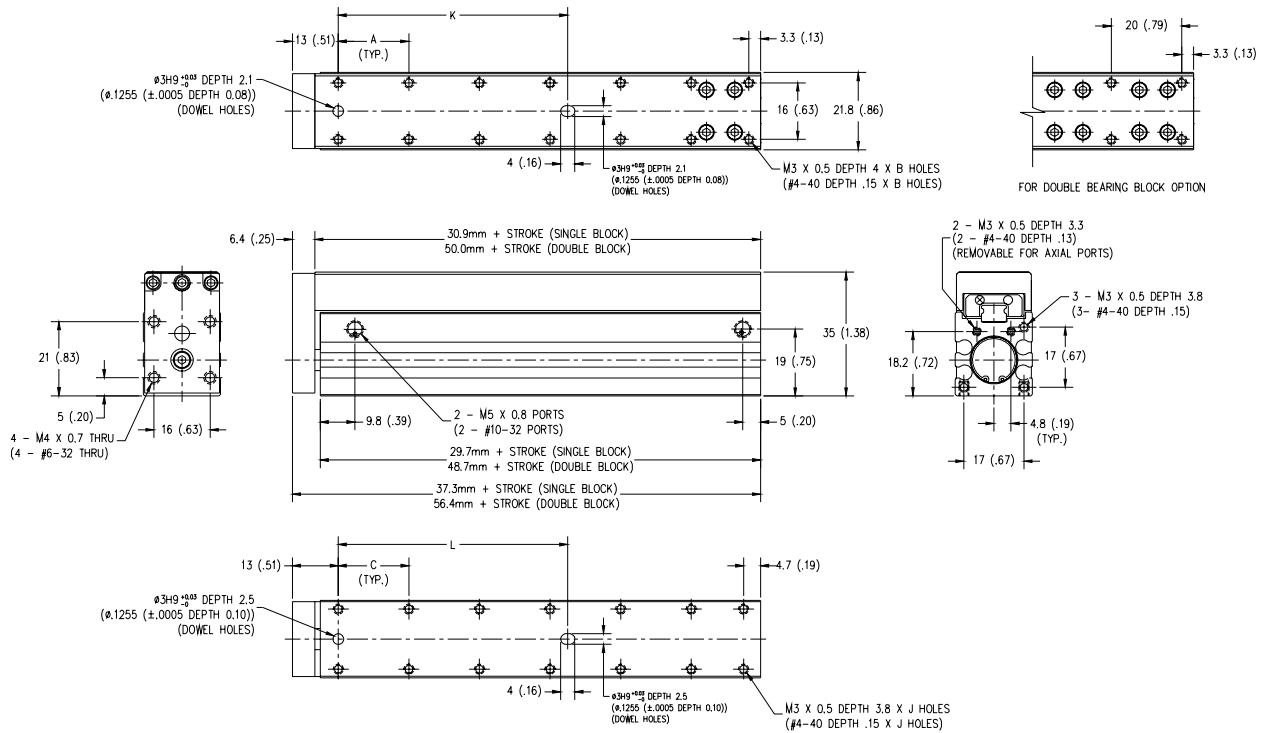
List Prices

Bore	Base Price by Stroke				Options		
	5-35mm	40-65mm	70-95mm	100-120mm	D	M	V
12mm	\$225.30	\$242.60	\$300.00	n/a	\$68.50	\$4.75	\$6.00
20mm	280.00	325.00	400.00	485.00	140.00	5.70	7.50
32mm	400.00	425.00	500.00	625.00	175.00	6.50	9.00

No charge option: E

Narrow Profile Air Table Actuator

Dimensions NPA-12

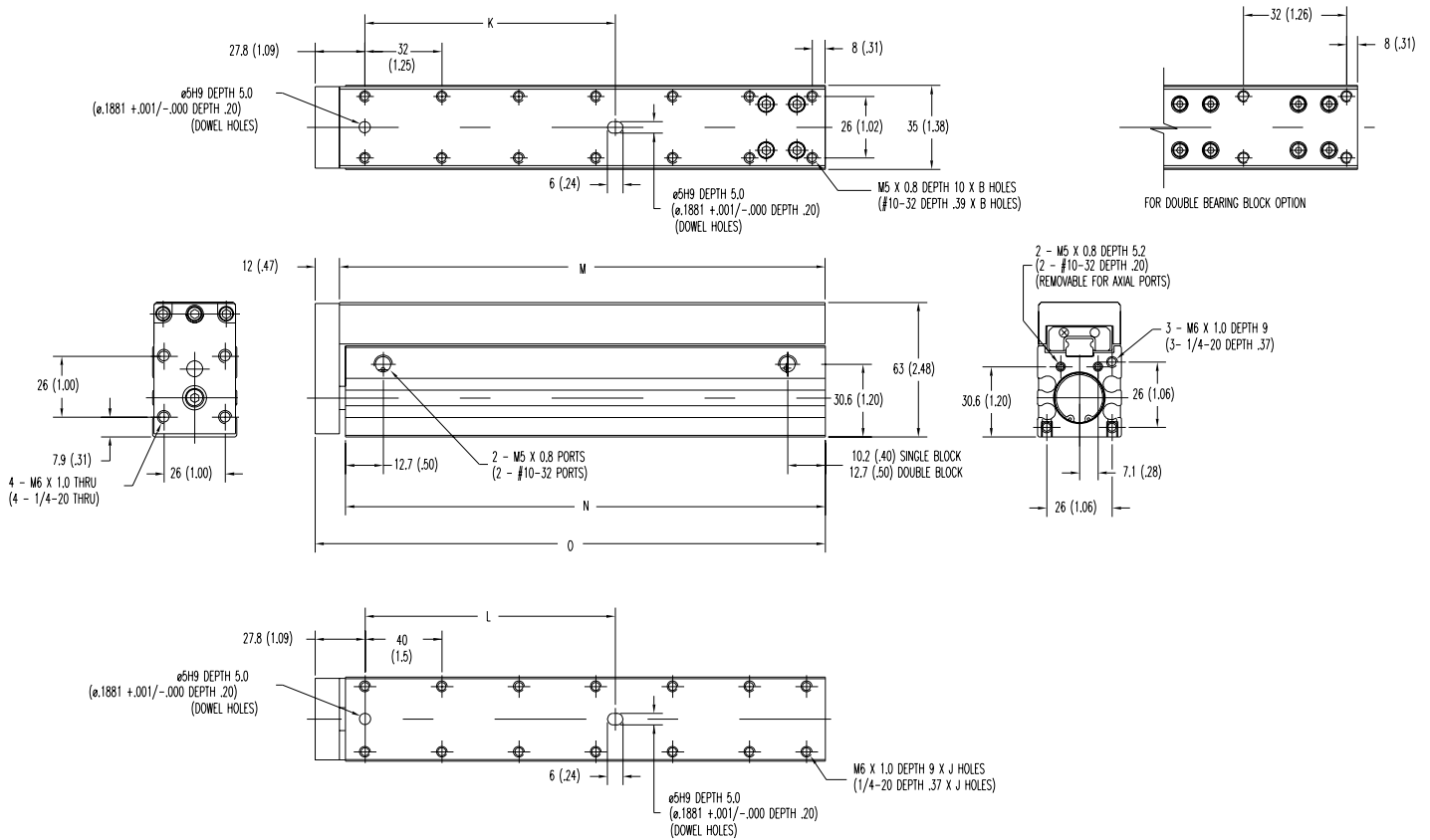


Stroke	A	B	BB*	C	CC*	J	JJ*	K	KK*	L	LL*
5	26 (1.02)	4	6	25 (0.98)	20 (0.79)	4	6	26 (1.02)	45 (1.77)	25 (0.98)	44 (1.73)
10	31 (1.22)	4	6	30 (1.18)	20 (0.79)	4	6	31 (1.22)	50 (1.97)	30 (1.18)	49 (1.92)
15	36 (1.42)	4	6	35 (1.37)	20 (0.79)	4	6	36 (1.42)	55 (2.17)	35 (1.37)	54 (2.12)
20	41 (1.61)	4	6	40 (1.57)	20 (0.79)	4	8	41 (1.61)	60 (2.36)	40 (1.57)	59 (2.32)
25	20 (0.79)	6	8	20 (0.79)	20 (0.79)	6	8	46 (1.81)	65 (2.56)	45 (1.77)	64 (2.51)
30	20 (0.79)	6	8	20 (0.79)	20 (0.79)	6	8	51 (2.01)	65 (2.56)	50 (1.96)	65 (2.56)
35	20 (0.79)	8	8	20 (0.79)	20 (0.79)	8	8	56 (2.20)	65 (2.56)	55 (2.16)	65 (2.56)
40	20 (0.79)	8	8	20 (0.79)	20 (0.79)	8	10	61 (2.40)	65 (2.56)	60 (2.36)	65 (2.56)
45	20 (0.79)	8	10	20 (0.79)	20 (0.79)	8	10	65 (2.56)	65 (2.56)	65 (2.56)	65 (2.56)
50	20 (0.79)	8	10	20 (0.79)	20 (0.79)	8	10	65 (2.56)	65 (2.56)	65 (2.56)	65 (2.56)
55	20 (0.79)	8	10	20 (0.79)	20 (0.79)	8	10	65 (2.56)	65 (2.56)	65 (2.56)	65 (2.56)
60	20 (0.79)	10	10	20 (0.79)	20 (0.79)	10	12	65 (2.56)	65 (2.56)	65 (2.56)	65 (2.56)
65	20 (0.79)	10	12	20 (0.79)	20 (0.79)	10	12	65 (2.56)	65 (2.56)	65 (2.56)	65 (2.56)
70	20 (0.79)	10	12	20 (0.79)	20 (0.79)	10	12	65 (2.56)	65 (2.56)	65 (2.56)	65 (2.56)
75	20 (0.79)	10	12	20 (0.79)	20 (0.79)	10	12	65 (2.56)	65 (2.56)	65 (2.56)	65 (2.56)
80	20 (0.79)	12	12	20 (0.79)	20 (0.79)	12	14	65 (2.56)	65 (2.56)	65 (2.56)	65 (2.56)
85	20 (0.79)	12	14	20 (0.79)	20 (0.79)	12	14	65 (2.56)	65 (2.56)	65 (2.56)	65 (2.56)
90	20 (0.79)	12	14	20 (0.79)	20 (0.79)	12	14	65 (2.56)	65 (2.56)	65 (2.56)	65 (2.56)
95	20 (0.79)	14	14	20 (0.79)	20 (0.79)	12	16	65 (2.56)	65 (2.56)	65 (2.56)	65 (2.56)

*Double letter dimensions represent double bearing block option.

Narrow Profile Air Table Actuator

Dimensions NPA-20



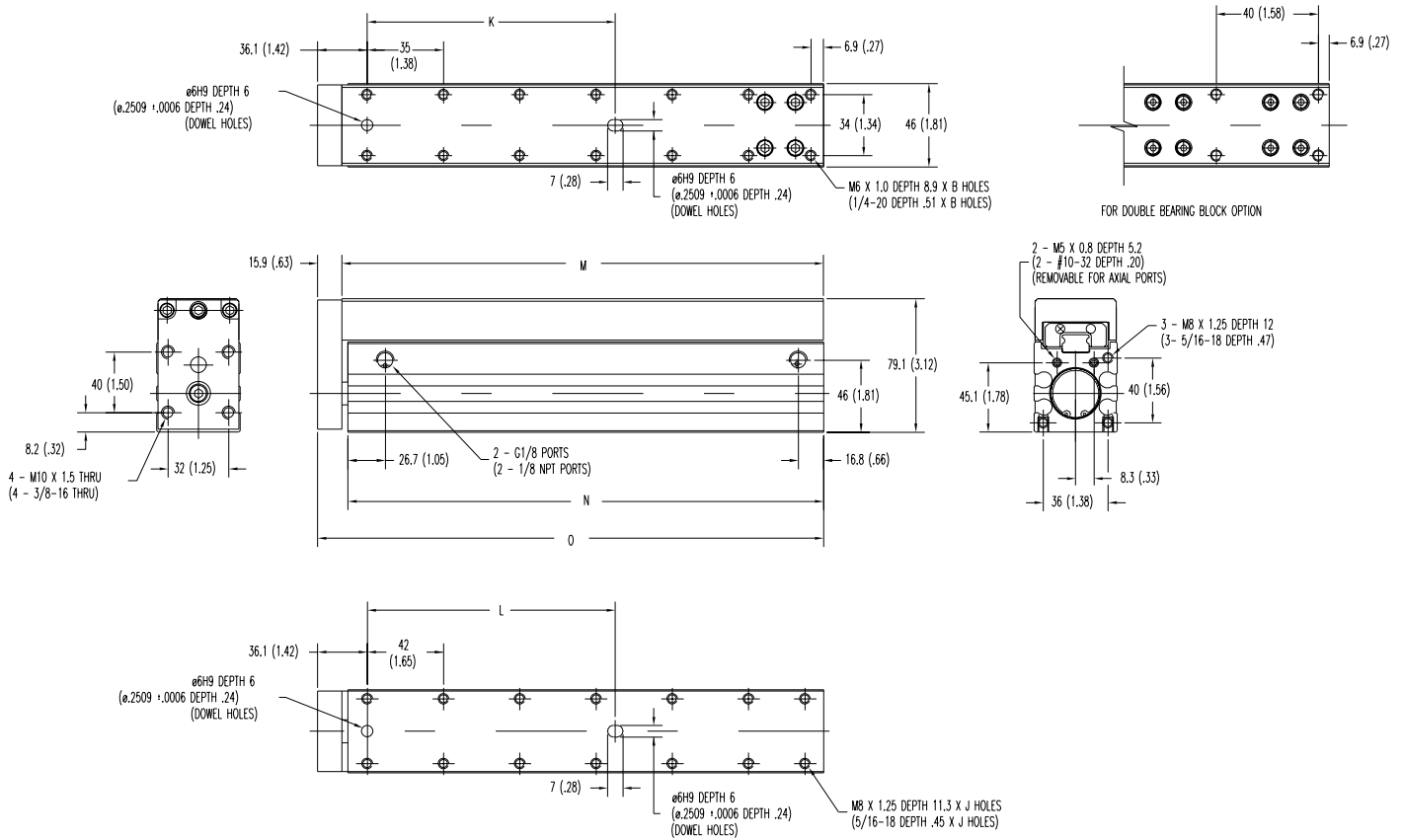
English Dimensions in Parentheses

Double Letter Dimensions represent double bearing block option ("-D")

Stroke	B	BB	J	JJ	K	KK	L	LL	M	MM	N	NN	O	OO
5mm	4	6	4	6	40 (1.58)	50 (1.97)	40 (1.58)	50 (1.97)	64 (2.50)	105 (4.12)	62 (2.42)	103 (4.04)	64 (2.52)	105 (4.14)
10mm	4	6	4	6	40 (1.58)	50 (1.97)	40 (1.58)	60 (2.36)	69 (2.70)	110 (4.32)	67 (2.62)	108 (4.23)	69 (2.62)	110 (4.33)
15mm	4	6	4	6	40 (1.58)	50 (1.97)	40 (1.58)	60 (2.36)	74 (2.90)	120 (4.71)	72 (2.81)	118 (4.63)	74 (2.81)	120 (4.73)
20mm	4	6	4	6	50 (1.97)	50 (1.97)	50 (1.97)	60 (2.36)	79 (3.09)	120 (4.71)	77 (3.01)	118 (4.63)	79 (3.01)	120 (4.73)
25mm	4	8	6	8	50 (1.97)	50 (1.97)	50 (1.97)	60 (2.36)	89 (3.49)	125 (4.91)	87 (3.41)	123 (4.82)	89 (3.41)	125 (4.92)
30mm	4	8	6	8	50 (1.97)	50 (1.97)	50 (1.97)	60 (2.36)	89 (3.49)	130 (5.10)	87 (3.41)	128 (5.02)	89 (3.41)	130 (5.12)
35mm	4	8	6	8	50 (1.97)	50 (1.97)	50 (1.97)	70 (2.76)	94 (3.69)	135 (5.30)	92 (3.60)	133 (5.22)	94 (3.60)	135 (5.32)
40mm	6	8	6	8	50 (1.97)	50 (1.97)	50 (1.97)	70 (2.76)	99 (3.88)	140 (5.50)	97 (3.80)	138 (5.41)	99 (3.80)	140 (5.51)
45mm	6	8	6	8	50 (1.97)	50 (1.97)	50 (1.97)	70 (2.76)	104 (4.08)	150 (5.89)	102 (4.00)	148 (5.81)	104 (4.00)	150 (5.91)
50mm	6	8	6	8	60 (2.36)	60 (2.36)	60 (2.36)	70 (2.76)	109 (4.28)	150 (5.89)	107 (4.19)	148 (5.81)	109 (4.19)	150 (5.91)
55mm	6	10	6	8	60 (2.36)	60 (2.36)	60 (2.36)	70 (2.76)	119 (4.67)	155 (6.09)	117 (4.59)	153 (6.00)	119 (4.59)	155 (6.10)
60mm	6	10	6	10	60 (2.36)	60 (2.36)	60 (2.36)	70 (2.76)	119 (4.67)	160 (6.28)	117 (4.59)	158 (6.20)	119 (4.59)	160 (6.30)
65mm	6	10	8	10	60 (2.36)	60 (2.36)	60 (2.36)	70 (2.76)	124 (4.87)	165 (6.48)	122 (4.78)	163 (6.40)	124 (4.78)	165 (6.50)
70mm	8	10	8	10	60 (2.36)	60 (2.36)	60 (2.36)	70 (2.76)	129 (5.06)	170 (6.68)	127 (4.98)	168 (6.59)	129 (4.98)	170 (6.70)
75mm	8	10	8	10	70 (2.76)	70 (2.76)	70 (2.76)	70 (2.76)	134 (5.26)	180 (7.07)	132 (5.18)	178 (6.99)	134 (5.18)	180 (7.09)
80mm	8	10	8	10	70 (2.76)	70 (2.76)	70 (2.76)	70 (2.76)	139 (5.46)	180 (7.07)	137 (5.37)	178 (6.99)	139 (5.37)	180 (7.09)
85mm	8	12	8	10	70 (2.76)	70 (2.76)	70 (2.76)	70 (2.76)	149 (5.85)	185 (7.27)	147 (5.77)	183 (7.19)	149 (5.77)	185 (7.29)
90mm	8	12	8	10	70 (2.76)	70 (2.76)	70 (2.76)	70 (2.76)	149 (5.85)	190 (7.46)	147 (5.77)	188 (7.38)	149 (5.77)	190 (7.48)
95mm	8	12	8	10	70 (2.76)	70 (2.76)	70 (2.76)	70 (2.76)	154 (6.05)	195 (7.66)	152 (5.96)	193 (7.58)	154 (5.96)	195 (7.68)
100mm	10	12	8	12	70 (2.76)	70 (2.76)	70 (2.76)	70 (2.76)	159 (6.24)	200 (7.86)	157 (6.16)	198 (7.78)	159 (6.16)	200 (7.88)
105mm	10	12	10	12	70 (2.76)	70 (2.76)	70 (2.76)	70 (2.76)	164 (6.44)	210 (8.25)	162 (6.36)	208 (8.17)	164 (6.36)	210 (8.27)
110mm	10	12	10	12	70 (2.76)	70 (2.76)	70 (2.76)	80 (3.15)	169 (6.64)	210 (8.25)	167 (6.56)	208 (8.17)	169 (6.56)	210 (8.27)
115mm	10	12	10	12	70 (2.76)	70 (2.76)	70 (2.76)	80 (3.15)	179 (7.03)	215 (8.45)	177 (6.95)	213 (8.37)	179 (6.95)	215 (8.47)
120mm	10	14	10	12	70 (2.76)	70 (2.76)	70 (2.76)	80 (3.15)	179 (7.03)	220 (8.65)	177 (6.95)	218 (8.56)	179 (6.95)	220 (8.66)

Narrow Profile Air Table Actuator

Dimensions NPA-32



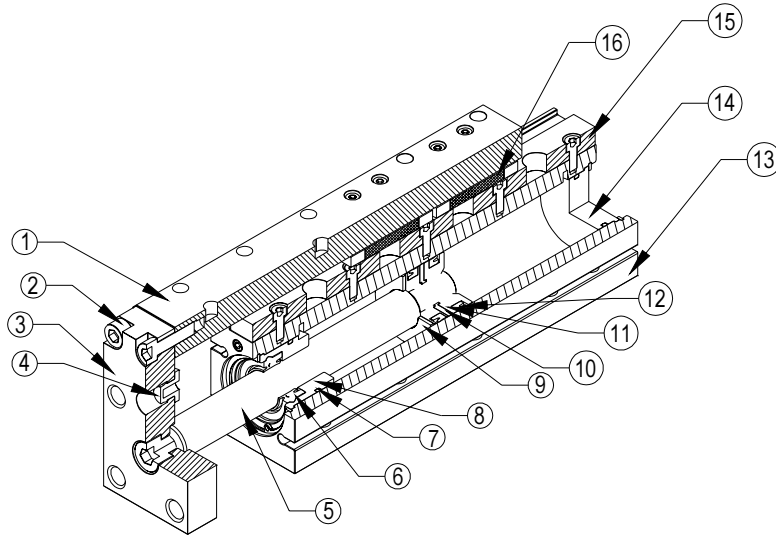
English Dimensions in Parentheses

Double Letter Dimensions represent double bearing block option ("-D")

Stroke	B	BB	J	JJ	K	KK	L	LL	M	MM	N	NN	O	OO
5mm	4	6	4	4	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	80 (3.16)	105 (4.12)	78 (3.08)	102 (4.04)	78 (3.80)	121 (4.76)
10mm	4	6	4	4	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	85 (3.35)	110 (4.32)	83 (3.27)	107 (4.23)	83 (3.99)	126 (4.96)
15mm	4	6	4	6	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	90 (3.55)	120 (4.71)	88 (3.47)	118 (4.63)	88 (4.19)	136 (5.35)
20mm	4	6	4	6	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	95 (3.75)	120 (4.71)	93 (3.67)	118 (4.63)	93 (4.39)	136 (5.35)
25mm	4	6	4	6	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	100 (3.94)	125 (4.91)	98 (3.86)	123 (4.82)	98 (4.59)	141 (5.55)
30mm	4	6	4	6	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	105 (4.14)	130 (5.10)	103 (4.06)	128 (5.02)	103 (4.78)	146 (5.74)
35mm	6	6	4	6	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	110 (4.34)	135 (5.30)	108 (4.26)	133 (5.22)	108 (4.98)	151 (5.94)
40mm	6	6	6	6	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)	120 (4.73)	140 (5.50)	118 (4.65)	137 (5.41)	118 (5.37)	156 (6.14)
45mm	6	6	6	6	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)	120 (4.73)	145 (5.69)	118 (4.65)	142 (5.61)	118 (5.37)	161 (6.33)
50mm	6	6	6	6	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)	125 (4.93)	150 (5.89)	123 (4.85)	147 (5.81)	123 (5.57)	166 (6.53)
55mm	6	8	6	8	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)	130 (5.13)	160 (6.28)	128 (5.04)	158 (6.20)	128 (5.77)	176 (6.92)
60mm	6	8	6	8	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)	135 (5.32)	160 (6.28)	133 (5.24)	158 (6.20)	133 (5.96)	176 (6.92)
65mm	8	8	6	8	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)	140 (5.52)	165 (6.48)	138 (5.44)	163 (6.40)	138 (6.16)	181 (7.12)
70mm	8	8	6	8	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)	145 (5.72)	170 (6.68)	143 (5.63)	167 (6.59)	143 (6.36)	186 (7.32)
75mm	8	8	6	8	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)	150 (5.91)	175 (6.87)	148 (5.83)	172 (6.79)	148 (6.55)	191 (7.51)
80mm	8	8	8	8	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)	160 (6.31)	180 (7.07)	158 (6.22)	177 (6.99)	158 (6.95)	196 (7.71)
85mm	8	10	8	8	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)	160 (6.31)	185 (7.27)	158 (6.22)	182 (7.19)	158 (6.95)	201 (7.91)
90mm	8	10	8	10	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)	165 (6.50)	190 (7.47)	163 (6.42)	188 (7.38)	163 (7.14)	206 (8.11)
95mm	10	10	8	10	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)	170 (6.70)	200 (7.86)	168 (6.62)	198 (7.78)	168 (7.34)	216 (8.50)
100mm	10	10	8	10	76 (2.99)	76 (2.99)	76 (2.99)	76 (2.99)	175 (6.90)	200 (7.86)	173 (6.82)	198 (7.78)	173 (7.54)	216 (8.50)
105mm	10	10	8	10	76 (2.99)	76 (2.99)	76 (2.99)	76 (2.99)	180 (7.09)	205 (8.06)	178 (7.01)	202 (7.97)	178 (7.73)	221 (8.70)
110mm	10	10	8	10	76 (2.99)	76 (2.99)	76 (2.99)	76 (2.99)	185 (7.29)	210 (8.25)	183 (7.21)	207 (8.17)	183 (7.93)	226 (8.89)
115mm	10	12	10	10	76 (2.99)	76 (2.99)	76 (2.99)	76 (2.99)	190 (7.49)	215 (8.45)	188 (7.41)	212 (8.37)	188 (8.13)	231 (9.09)
120mm	10	12	10	10	76 (2.99)	76 (2.99)	76 (2.99)	76 (2.99)	200 (7.88)	220 (8.65)	198 (7.80)	218 (8.56)	198 (8.52)	236 (9.29)

Narrow Profile Air Table Actuator

Engineering Specifications

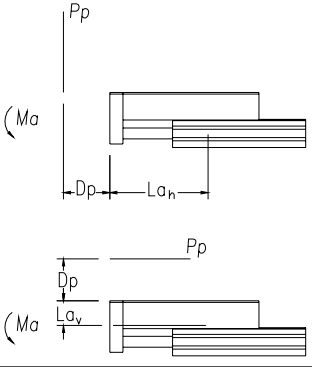
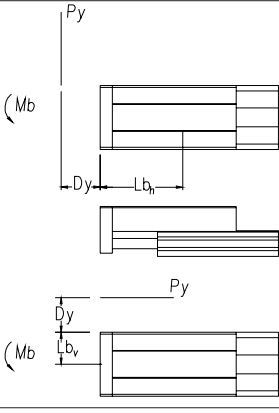
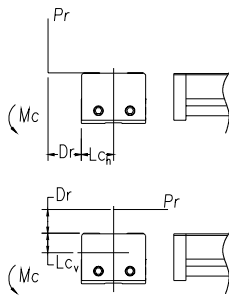


Part #	Description	Material
1	Table	Aluminum, anodized
2	SHCS	Steel, zinc plated
3	Tooling Plate	Aluminum, anodized
4	Retract Bumper	Urethane
5	Piston Rod	Stainless steel, hard chrome plated
6	Rod Seal	Nitrile (fluoroelastomer optional)
7	Rod Guide Seal	Nitrile (fluoroelastomer optional)
8	Rod Guide	Aluminum
9	Extend Bumper	Urethane
10	Magnet	Nitrile base
11	Piston	Aluminum
12	Piston Seal	Nitrile (fluoroelastomer optional)
13	Body	Aluminum, anodized
14	Rear Head	Aluminum
15/16	Table Bearing	Stainless steel

Operating Medium: Air
Maximum Operating Pressure: 10 bar (140 psi)
Temperature Range: -10° to 70°C (15° to 160°F)

Narrow Profile Air Table Actuator

Engineering Specifications

	$P_p = \frac{M_a \times 1000}{D_p + L_a} \text{ (Newtons)}$ <p> D_p = Distance from load point to body (mm) L_a = Moment arm (mm) see chart </p>
	$P_y = \frac{M_b \times 1000}{D_y + L_b} \text{ (Newtons)}$ <p> D_y = Distance from load point to body (mm) L_b = Moment arm (mm) see chart </p>
	$P_r = \frac{M_c \times 1000}{D_r + L_c} \text{ (Newtons)}$ <p> D_r = Distance from load point to body (mm) L_c = Moment arm (mm) see chart </p>

	Maximum Allowable Moment (Nm)					
	12mm		20mm		32mm	
	Standard	Option D	Standard	Option D	Standard	Option D
Ma	2.55	8.65	22.0	27.0	36.0	70.2
Mb	2.55	8.65	22.0	27.0	36.0	70.2
Mc	5.10	13.10	59.0	70.0	107.0	157.0

	Moment Lever Arm Constants (mm)					
	12mm		20mm		32mm	
	Standard	Option D	Standard	Option D	Standard	Option D
Lah	25 + stroke	32 + stroke	45 + stroke	46 + stroke	60 + stroke	38 + stroke
Lbh	25 + stroke	32 + stroke	45 + stroke	46 + stroke	60 + stroke	38 + stroke
Lav	10.9	10.9	21.2	21.2	22.0	22.0
Lbv	10.6	10.6	17.5	17.5	23.0	23.0
Lch	10.6	10.6	17.5	17.5	23.0	23.0
Lcv	10.9	10.9	21.2	21.2	22.0	22.0