

SPECIFICATIONS

		SIZE	16	25	32	40	50	63
ACTUAL BORE SIZE		in	0.63	1.00	1.25	1.50	2.00	2.50
		mm	16	25	32	38	50	64
BASE WEIGHT	[N] INTERNAL BEARING	lb	0.73	1.70	3.58	5.57	11.07	22.59
		kg	0.33	0.77	1.62	2.53	5.02	10.25
	[S] SOLID BEARING	lb	1.07	2.30	4.68	7.64	14.03	30.78
		kg	0.48	1.04	2.12	3.47	6.36	13.96
	[P] PROFILED RAIL	lb	1.25	2.94	5.89	9.91	17.22	31.64
		kg	0.57	1.33	2.67	4.5	7.81	14.35
WEIGHT PER UNIT OF STROKE	[N] INTERNAL & [S] SOLID	lb/in	0.082	0.134	0.233	0.306	0.513	0.879
		kg/mm	0.0015	0.0024	0.0042	0.0055	0.0092	0.0157
	[P] PROFILED RAIL	lb/in	0.102	0.192	0.316	0.491	0.701	1.153
		kg/mm	0.0018	0.0034	0.0056	0.0088	0.0125	0.0206
MAXIMUM STROKE LENGTH		in	206	206	205	203	203	103
		mm	5232	5232	5207	5156	5156	2616
AUXILIARY CARRIER; MIN. "D" BETWEEN CARRIERS		in	5.00	6.00	7.00	8.50	8.60	13.00
		mm	127.0	152.4	177.8	215.9	218.4	330.2
MAXIMUM OPERATING PRESSURE		PSI	100					
		bar	6.9					
TEMPERATURE RANGE		°F	20 to 140					
		°C	-7 to 60					

TIPS FOR MAXIMIZING BAND CYLINDER LIFE

TO GET THE MOST LIFE OUT OF YOUR MXP BAND CYLINDER FOLLOW THESE SIMPLE GUIDELINES WHEN SIZING A BAND CYLINDER FOR AN APPLICATION.

Four factors that affect the life of a band cylinder are **Load, Speed, Environment and Deceleration**. The following tips will help you select the appropriate band cylinder for a specific application's loads and speeds to maximize actuator life.

1 LOAD: KEEP THE LOAD FACTOR LESS THAN 1

Applications with multiple loads put additional stress on the band cylinder's bearing system. It is important to account for all these loads to make sure the bearing system is not over loaded. Both static and dynamic loads need to be addressed.

The formula below can be used to calculate the load factor:

$$L_f = \frac{M_x}{M_{x_{\max}}} + \frac{M_y}{M_{y_{\max}}} + \frac{M_z}{M_{z_{\max}}} + \frac{F_y}{F_{y_{\max}}} + \frac{F_z}{F_{z_{\max}}} \leq 1$$

2 SPEED: REDUCE SPEEDS

High speeds and cycle rates stress the band cylinder's guidance system more than slower applications. Keeping speeds reduced will optimize the life of the actuator.

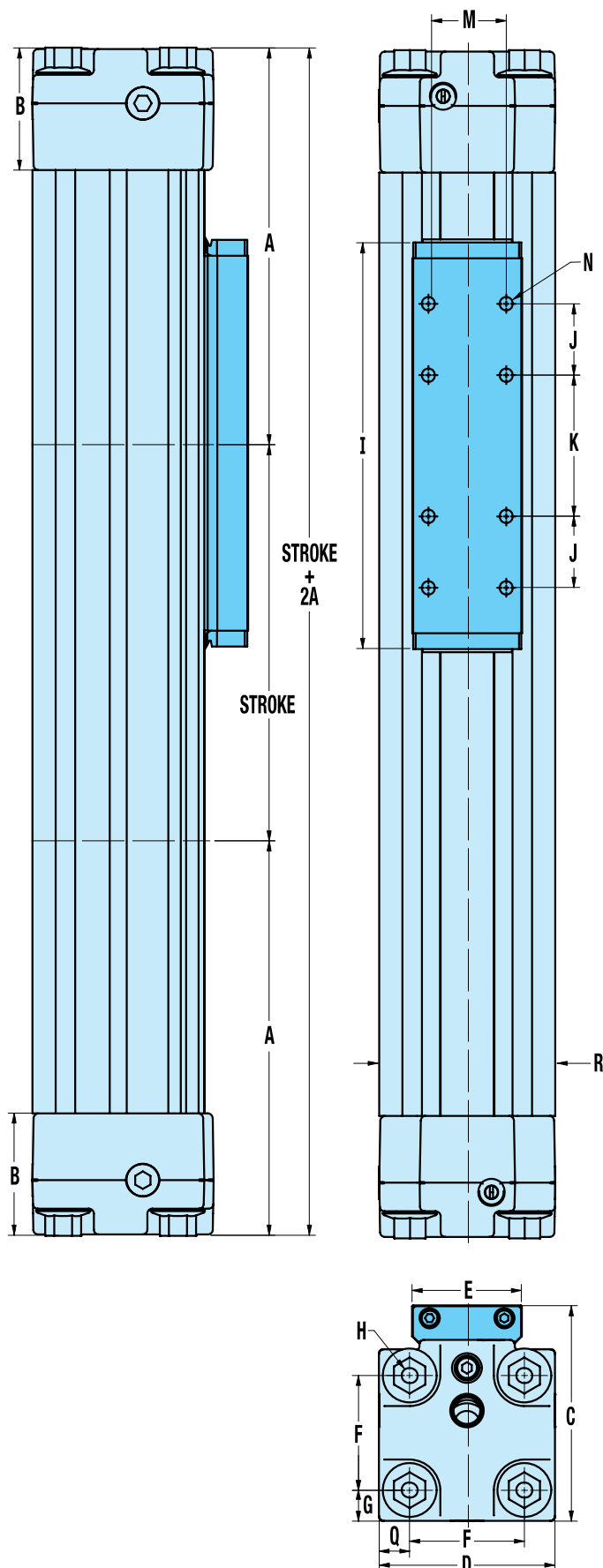
3 ENVIRONMENT: KEEP CONTAMINATION OFF BAND AND MOVING SURFACES

Contamination will decrease band cylinder service life. Service life can be improved by orienting the band and bearing system 180 degrees from the contamination source. For instance, if solid particulates are falling on the actuator, it is best to try to orient the band cylinder so that the band and bearing system are shielded from the particulates.

4 DECELERATION: DECELERATE WITH SHOCK ABSORBERS

Shock absorbers provide the most controlled and reliable deceleration at the end of stroke. Stopping in a controlled fashion will significantly decrease the inertia loads on the carrier bearings, extending cylinder life. The best location for shock absorbers is at the center of gravity of the load.

N-INTERNAL BEARING ACTUATOR DIMENSIONS



	MXP16	MXP25	MXP32	MXP40	MXP50	MXP63
A	3.13	3.94	4.90	5.82	6.29	8.45
mm	79.6	100.2	124.5	147.7	159.8	214.5
B	0.55	1.11	1.50	1.50	1.97	1.97
mm	14.0	28.3	38.1	38.0	50.0	50.0
C	1.55	2.07	2.67	2.98	3.86	4.76
mm	39.3	52.6	67.8	75.8	98.1	120.8
D	1.18	1.65	2.18	2.52	3.01	3.94
mm	30.0	42.0	55.4	64.0	78.7	100.0
E	0.83	0.83	1.36	1.61	2.13	2.44
mm	21.0	21.0	34.5	41.0	54.0	62.0
F	0.85	1.10	1.42	1.81	2.25	2.87
mm	21.5	27.9	36.1	46.0	57.2	73.0
G	0.17	0.25	0.38	0.35	0.43	0.53
mm	4.3	6.3	9.7	9.0	10.8	13.5
H	#8-32 (8)	#10-24 (8)	1/4-20 (8)	1/4-20 (8)	5/16-18 (8)	5/16-18 (8)
mm	M4x0.7 (8)	M5x0.8 (8)	M6x1.0 (8)	M6x1.0 (8)	M8x1.25 (8)	M8x1.25 (8)
I	3.78	4.45	5.04	5.87	6.57	9.69
mm	96.0	113.0	128.0	149.0	166.8	246.0
J	0.59	0.79	0.89	0.63	1.13	1.18
mm	15.0	20.0	22.5	15.9	28.6	30.0
K	1.18	1.57	1.75	3.00	2.25	4.33
mm	30.0	40.0	44.5	76.2	57.2	110.0
M	0.63	0.59	0.96	1.05	1.50	1.69
mm	16.0	15.0	24.5	26.7	38.1	43.0
N	#6-32 (8)	#8-32 (8)	#10-32 (8)	1/4-20 (8)	5/16-18 (8)	3/8-16 (8)
mm	M3x0.5 (8)	M4x0.7 (8)	M5x0.8 (8)	M6x1.0 (8)	M8x1.25 (8)	M10x1.5 (8)
Q	0.17	0.28	0.38	0.35	0.43	0.53
mm	4.3	7.0	9.7	9.0	10.8	13.5
R	1.18	1.65	2.18	2.52	3.10	3.94
mm	30.00	42.00	55.37	64.00	78.74	100.00