Force Control Industries, Inc.
3660 Dixie Highway Fairfield, Ohio 45014 USA
Phone: 513-868-0900 Fax: 513-868-2105

Posistop Coupler Brake Specifications

The Coupler Brake is designed for indexing applications where cycle rates are too low to justify a clutch/brake (roughly less than 10 CPM) or in applications where the motor must reverse. The Coupler Brake utilizes a standard NEMA C-Face motor driving through a durable, keyless collet connection. Common applications include palletizers, indexing conveyors, shrink wrappers package and general material handling equipment. The Coupler Brakes are rated from 6 Ft. Lbs. to 450 Ft. Lbs. of torque.

Posistop **Coupler Brakes** may be assembled to obtain a broad range of torque ratings. The multiple disc and multiple spring design makes the Posistop **Coupler Brake** a very flexible brake. How the number of springs and how the stack is assembled determines the braking torque developed.

The following charts give an overview of all the combinations possible. Standard static torque ratings are shown in bold blue numbers. Optional non-standard ratings are also shown in the **Static Torque Rating Option Charts**.

MB-056 Specifications

Discs	No. Springs		
	3	4	6
	Torque Static (*Dynamic*)		
1	4.5	6	9
2	**9**	**12**	**18**
	Pressure to Release (*PSI*)		
	15	**20**	**30**

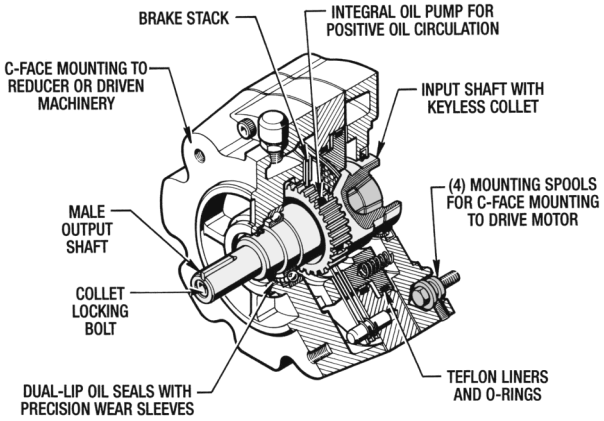
Thermal Rating (Hp Sec/Min)	Max. KE per Engagement (Ft. Lbs)	Piston Volume (Cu In)	*Inertia WK2 (Lb. Ft.^2)*	Max. Speed (RPM)	Weight (Lbs.)	Oil Capacity (Ounces)
30	4650	1.0	0.009	1800		

MB-210, MB-210L Specifications

Discs	No. Springs			
	2	3	4	6
	Torque Static (*Dynamic*)			
1	10	15	20	30
2	20	30	40	60
3	**30**	**45**	***60**	***90**
	Pressure to Release (*PSI*)			
	20	**28**	**35**	**51**

Thermal Rating (Hp Sec/Min)	Max. KE per Engagement (Ft. Lbs)	Piston Volume (Cu In)	*Inertia WK2 (Lb. Ft.^2)*	Max. Speed (RPM)	Weight (Lbs.)	Oil Capacity (Ounces)
25	6425	3	0.034	3600		

** Torque not available with 7/8" dia. collet*



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Posistop Motor Brake Specifications (Cont.)

MB-250 and MB-280 Specifications

Discs	No. Springs			
	2	4	6	8
	Torque Static (*Dynamic*)			
1	15	30	45	60
2	30	60	90	120
3	45	90	135	180
4	60	120	180	*240
5	75	150	225	*300
	Pressure to Release *(PSI)*			
	20	28	35	51

Thermal Rating (Hp Sec/Min)	Max. KE per Engagement (Ft. Lbs)	Piston Volume (Cu In)	*Inertia WK2 (Lb. Ft.^2)*	Max. Speed (RPM)	Weight (Lbs.)	Oil Capacity (Ounces)
50	18500	5	0.215	1800		

** Torque not available with 1 1/8" or 1 3/8" dia. collet*

MB-320 Specifications

Discs	No. Springs			
	3	4	6	9
	Torque Static (*Dynamic*)			
1	30	40	60	90
2	60	80	120	180
3	90	120	180	270
4	120	160	*240	*360
5	150	200	*300	⌂450
	Pressure to Release *(PSI)*			
	20	28	35	51

Thermal Rating (Hp Sec/Min)	Max. KE per Engagement (Ft. Lbs)	Piston Volume (Cu In)	*Inertia WK2 (Lb. Ft.^2)*	Max. Speed (RPM)	Weight (Lbs.)	Oil Capacity (Ounces)
25	6425	3	0.034	1800		

** Minimum shaft diameter 1 5/8"*

⌂ Minimum shaft diameter 1 7/8"

***NOTE:** Maximum speed—1800 RPM except sizes MB-180 and MB210 which is 3600 RPM in horizontal and vertical down position.*

CF—Consult factory

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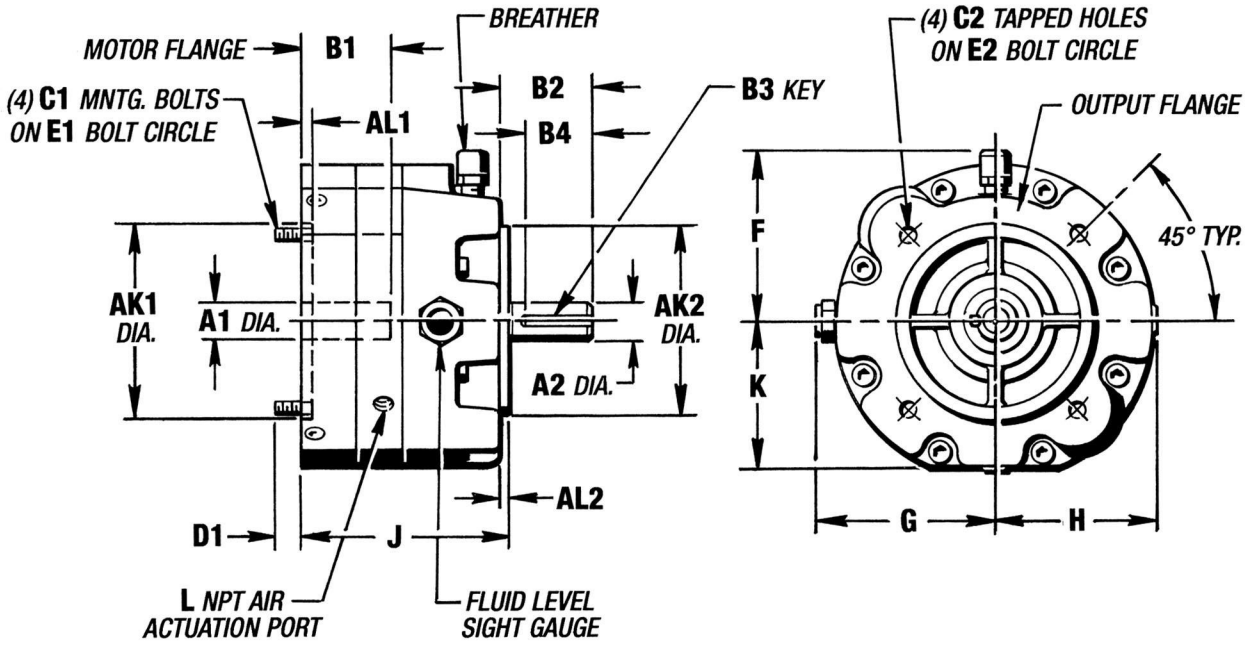
Posistop Motor Brake Dimensions (Inches)



Brake Size	Motor Mounting Flange								Output Flange								Overall Dimensions					
	A1	C1	B1 Min.	B1 Max.	D1	E1	AK1	AL1	A2	B2	B3	B4.	C2	E2	AK2	AL2	F	G	H	J	K	L (NPT)
056	0.625	3/8-16	1.44	2.00	.62	5.88	4.50	0.25	.875	2.13	3/16	1.70	3/8-16	5.88	4.50	0.18	4.12	4.38	3.84	5.00	3.38	1/8”
	0.875		1.38	2.13																		
210	0.875	1/2-13	1.75	2.75	.86	7.25	8.50	0.19	0.875	2.13	3/16	1.41	1/2-13	7.25	8.50	0.25	5.80	4.50	4.50	6.52	4.78	1/8”
	1.125								1.125	2.63	1/4	1.78										
	1.375								1.375	3.13	5/16	2.41										
210L	0.875	1/2-13	2.50	3.50	.86	7.25	8.50	0.19	0.875	2.13	3/16	1.41	1/2-13	7.25	8.50	0.25	5.80	4.50	4.50	7.28	4.78	1/8”
	1.125								1.125	2.63	1/4	1.78										
	1.375								1.375	3.13	5/16	2.41										
250	1.125	1/2-13	1.63	3.88	.75	7.25	8.50	.19	1.125	2.63	1/4	1.75	1/2-13	7.25	8.5	.25	7.00	5.50	5.50	10.00	5.50	1/4”
	1.375		1.88	4.00					1.375	3.50	5/16	2.75										
	1.625		2.00	4.00					1.625	4.00	3/8	3.25										
280	1.625	1/2-13	2.00	4.00	.75	9.00	10.50	.19	1.625	4.00	3/8	3.25	1/2-13	9.00	10.50	.25	5.50	5.50	5.50	10.37	5.50	1/4”
	1.875		2.25	4.63					1.875	4.00	3/8	3.25										
320	1.625	5/8-11	2.50	4.88	.88	11.00	12.50	.19	1.625	3.00	3/8	1.88	5/8-11	11.00	12.50	.25	7.75	6.00	5.63	10.50	6.44	1/4”
	1.875		2.88	4.88					1.875	5.12	1/2	3.50										

Consult Factory for non-standard bore sizes and thru-shaft configurations.

	Brake Size					
	056	210	210L	250	280	320
Fluid Capacity	1 Pt.	1 Qt.	1 Qt.	2 Qts.	2 Qts.	5 Qts.
Weight (Lbs.)	15	45	45	100	108	160

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How To Order Posistop Motor Brake

MB | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | / Valve 10

"N"=No Valve
See Valves specifications and ordering number for valve options.

(1, 2 & 3) Model

0 5 6	= 56
2 1 0	= 210
2 1 L	= 210L
2 5 0	= 250
2 8 0	= 280
3 2 0	= 320

(4) Shaft Diameter

A	= 5/8"
B	= 7/8"
C	= 1 1/8"
D	= 1 1/4"
E	= 1 3/8"
F	= 1 5/8"
G	= 1 7/8"

(5, 6 & 7) Static Torque (Lb. Ft.)

0 0 2	= 2	**0 8 0**	= 80
0 0 3	= 3	**0 9 0**	= 90
0 0 4	= 4	**1 2 0**	=120
0 0 6	= 6	**1 3 5**	= 135
0 0 9	= 9	**1 5 0**	= 150
0 1 0	= 10	**1 6 0**	= 160
0 1 2	= 12	**1 8 0**	= 180
0 1 5	= 15	**2 0 0**	= 200
0 1 8	= 18	**2 2 5**	= 225
0 2 0	= 20	**2 4 0**	= 240
0 3 0	= 30	**2 7 0**	= 270
0 4 0	= 40	**3 0 0**	= 300
0 4 5	= 45	**3 6 0**	= 360
0 6 0	= 60	**4 5 0**	= 450
0 7 5	= 75		

(8) Shaft Diameter

A	= 5/8"
B	= 7/8"
C	= 1 1/8"
D	= 1 1/4"
E	= 1 3/8"
F	= 1 5/8"
G	= 1 7/8"

(9) Mounting

A	= Horizontal
V	= Vertical Output Up
R	= Vertical Output Down

V   **R**

Coupler Shaft Diameter Availability (4), (8)

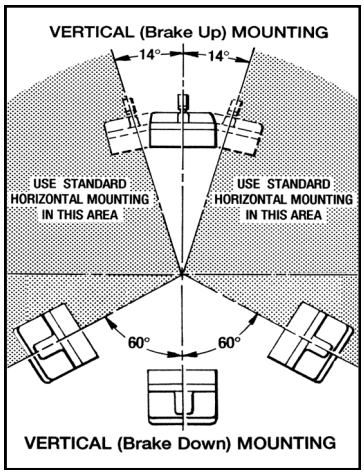
A1, A2	056	180	210	210L	250	280	320
5/8"	X						
7/8"	X	X*	X*	X*			
1 1/8"		X	X	X	X	X	
1 3/8"		X	X	X	X	X	X
1 5/8"					X	X	X
1 7/8"					X	X	X

*Notes: * Must be 45 Lb. Ft. or less.*

Horizontal/Vertical Mounting

The illustrations below indicate when it is necessary to select vertical mounting based on the angle of installation.

MB-056



MB-180 thru MB-320