



## Posistop Motor Brake Specifications

The Posistop Motor Brakes (MB Series) with multiple springs and multiple discs are very flexible brakes. They may be assembled to obtain a broad range of torque ratings. The spring set torque of the brake is determined by the number of springs and number of discs assembled. The following charts show all of the options however the ones in bold type are considered standard. Typically selecting the maximum number of discs and fewer springs to achieve the desired torque is ideal.

### MB-056 Specifications

| Discs | No. Springs                      |    |    |    |
|-------|----------------------------------|----|----|----|
|       | 2                                | 3  | 4  | 6  |
|       | <b>Torque Static (Dynamic)</b>   |    |    |    |
| 1     | 2                                | 3  | 4  | 6  |
| 2     | 2                                | 6  | 8  | 12 |
| 3     | 6                                | 9  | 12 | 18 |
|       | <b>Pressure to Release (PSI)</b> |    |    |    |
|       | 20                               | 30 | 40 | 60 |

| Thermal Rating (Hp Sec/Min) | Max. KE per Engage ment (Ft. Lbs) | Piston Volume (Cu In) | Inertia WK2 (Lb. Ft. ^2) | Max. Speed (RPM) | Weight (Lbs.) | Oil Capacity (Ounces) |
|-----------------------------|-----------------------------------|-----------------------|--------------------------|------------------|---------------|-----------------------|
| 30                          | 4650                              | 0.5                   | 0.009                    | 1800             |               |                       |

### MB-180, MB-210, MB-210L Specifications

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

| Thermal Rating (Hp Sec/Min) | Max. KE per Engage ment (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

### MB-250 and MB-280 Specifications

| Discs | No. Springs                      |     |     |      |
|-------|----------------------------------|-----|-----|------|
|       | 2                                | 4   | 6   | 8    |
|       | <b>Torque Static (Dynamic)</b>   |     |     |      |
| 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 |
|       | <b>Pressure to Release (PSI)</b> |     |     |      |
|       | 20                               | 28  | 35  | 51   |

| Thermal Rating (Hp Sec/Min) | Max. KE per Engage ment (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



## Posistop Motor Brake Specifications (Cont.)

### MB-320 Specifications

| Discs | No. Springs                      |     |      |      |
|-------|----------------------------------|-----|------|------|
|       | 3                                | 4   | 6    | 9    |
|       | <b>Torque Static (Dynamic)</b>   |     |      |      |
| 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 |
|       | <b>Pressure to Release (PSI)</b> |     |      |      |
|       | 20                               | 28  | 35   | 51   |

| Thermal Rating (Hp Sec/Min) | Max. KE per Engage ment (Ft. Lbs) | Piston Volume (Cu In) | Inertia WK2 (Lb. Ft.^2) | Max. Speed (RPM) | Weight (Lbs.) | Oil Capacity (Ounces) |
|-----------------------------|-----------------------------------|-----------------------|-------------------------|------------------|---------------|-----------------------|
| 70                          | 18500                             | 6                     | 0.215                   | 1800             |               |                       |

\* Minimum shaft diameter 1 5/8"

△ Minimum shaft diameter 1 7/8"

### MB-440 Specifications

| Discs | No. Springs                      |      |      |      |
|-------|----------------------------------|------|------|------|
|       | 6                                | 8    | 10   | 12   |
|       | <b>Torque Static (Dynamic)</b>   |      |      |      |
| 4     | 440                              | 590  | 750  | 900  |
| 9     | 990                              | 1340 | 1690 | 2030 |
|       | <b>Pressure to Release (PSI)</b> |      |      |      |
|       | 20                               | 30   | 40   | 60   |

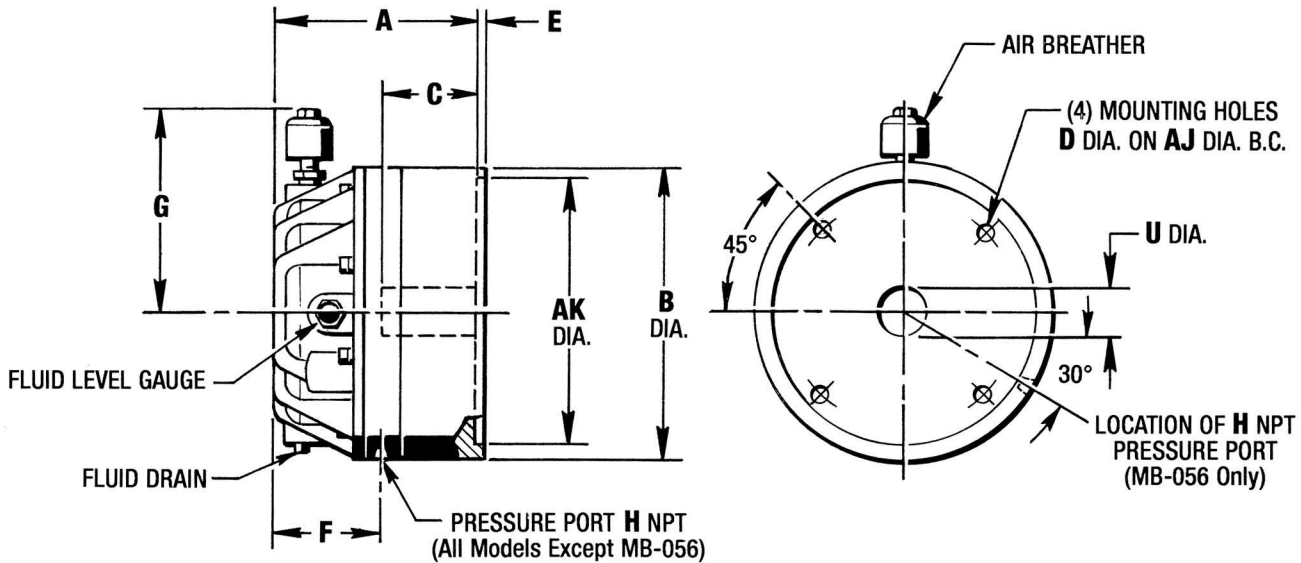
| Thermal Rating (Hp Sec/Min) | Max. KE per Engage ment (Ft. Lbs) | Piston Volume (Cu In) | Inertia WK2 (Lb. Ft.^2) | Max. Speed (RPM) | Weight (Lbs.) | Oil Capacity (Ounces) |
|-----------------------------|-----------------------------------|-----------------------|-------------------------|------------------|---------------|-----------------------|
| C/F                         | C/F                               | 47.4                  | 2.1                     | 1800             |               |                       |

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

CF—Consult factory



## Posistop Motor Brake Dimensions (Inches)

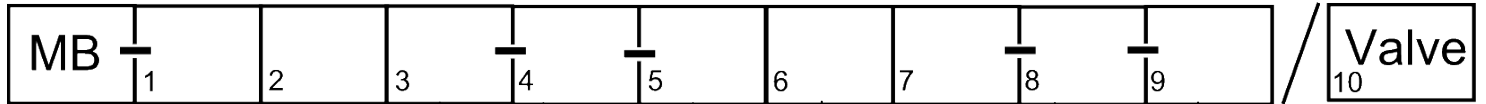


| Brake Size     | Dimensions (Inches) |       |      |      |        |      |      |      |       |         |         | Fluid Capacity | Weight Lbs. |         |
|----------------|---------------------|-------|------|------|--------|------|------|------|-------|---------|---------|----------------|-------------|---------|
|                | A                   | B     | C    |      | D Dia. | E    | F    | G    | H NPT | U* Dia. | AJ Dia. |                |             | AK Dia. |
|                |                     |       | Min. | Max. |        |      |      |      |       |         |         |                |             |         |
| <b>MB-056</b>  | 4.81                | 6.63  | 1.38 | 2.13 | 0.41   | 0.25 | 1.88 | 4.63 | 1/8"  | 0.625   | 5.88    | 4.50           | 6 oz.       | 15      |
| <b>MB-180</b>  | 6.13                | 8.81  | 1.75 | 2.75 |        |      | 3.38 | 5.75 |       | 0.875   |         |                |             |         |
| <b>MB-210</b>  | 6.13                | 8.81  | 1.75 | 2.62 | 0.53   | 0.19 | 3.38 | 5.75 | 1/8"  | 0.875   | 7.25    | 8.50           | 1 Qt.       | 45      |
| <b>MB-210L</b> | 6.88                |       | 2.50 | 3.50 |        |      |      |      |       | 1.125   |         |                |             |         |
| <b>MB-250</b>  | 10                  | 10.88 | 2.00 | 4.13 | 0.53   | 0.19 | 5.38 | 6.25 | 1/4"  | 1.125   | 7.25    | 8.50           | 2 QT.       | 100     |
| <b>MB-280</b>  |                     |       |      |      |        |      | 5.44 |      |       | 1.375   |         |                |             |         |
| <b>MB-320</b>  | 10.63               | 12.88 | 2.50 | 4.63 | 0.66   | 0.19 | 6.06 | 7.25 | 1/4"  | 1.375   | 11.00   | 12.50          | 5 Qt.       | 160     |
| <b>MB-440</b>  | 17.61               | 16.75 | 4.00 | 5.00 | 0.66   | 0.22 | 4.54 | 9.76 | 3/4"  | 1.625   |         |                |             |         |
|                |                     |       |      |      |        |      |      |      |       | 2.125   |         |                |             |         |
|                |                     |       |      |      |        |      |      |      |       | 2.375   |         |                |             |         |
|                |                     |       |      |      |        |      |      |      |       | 2.875   |         |                |             |         |
|                |                     |       |      |      |        |      |      |      |       | 3.375   |         |                |             |         |

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



# How To Order Posistop Motor Brake



### (1, 2 & 3) Model

|     |        |
|-----|--------|
| 056 | = 56   |
| 180 | = 180  |
| 210 | = 210  |
| 21L | = 210L |
| 250 | = 250  |
| 280 | = 280  |
| 320 | = 320  |
| 440 | = 440  |

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

|     |       |     |        |
|-----|-------|-----|--------|
| 002 | = 2   | 135 | = 135  |
| 003 | = 3   | 150 | = 150  |
| 004 | = 4   | 160 | = 160  |
| 006 | = 6   | 180 | = 180  |
| 008 | = 8   | 200 | = 200  |
| 009 | = 9   | 225 | = 225  |
| 010 | = 10  | 240 | = 240  |
| 012 | = 12  | 270 | = 270  |
| 015 | = 15  | 300 | = 300  |
| 018 | = 18  | 360 | = 360  |
| 020 | = 20  | 440 | = 440  |
| 030 | = 30  | 450 | = 450  |
| 040 | = 40  | 590 | = 590  |
| 045 | = 45  | 750 | = 750  |
| 060 | = 60  | 900 | = 900  |
| 075 | = 75  | 990 | = 990  |
| 080 | = 80  | D40 | = 1340 |
| 090 | = 90  | G90 | = 1690 |
| 120 | = 120 | L30 | = 2030 |

### (8) Shaft Diameter

|   |              |
|---|--------------|
| A | = 5/8"       |
| 0 | = 7/8"       |
| 1 | = 1 1/8"     |
| 2 | = 1 1/4"     |
| 3 | = 1 3/8"     |
| 5 | = 1 5/8"     |
| 7 | = 1 7/8"     |
| C | = 2 1/8"     |
| D | = 2 1/4"     |
| E | = 2 3/8"     |
| J | = 71/80*     |
| K | = 90/100*    |
| L | = 112/132s*  |
| M | = 132M/160M* |
| N | = 160L/225*  |

\* SEW Eurodrive metric frame motors.

See Valves for valve specifications and ordering number. If no valve is needed use "N".

### (4) Mounting

#### Horizontal

- S = Std.
- T = Thru Shaft

#### Vertical

- 1 = Std. Brake Up
- 2 = Std. Brake Down
- 3 = Thru Shaft Brake Up
- 4 = Thru Shaft Brake Down

### (9) Encoder/Tachometer

- E = Encoder
- T = Tachometer
- N = None

### Posistop Mounting Options

|   | 056 | 180 | 210 | 210L | 250 | 280 | 320 | 440 |
|---|-----|-----|-----|------|-----|-----|-----|-----|
| S | X   | X   | X   | X    | X   | X   | X   | X   |
| T |     | X   | X   | X    | X   | X   | X   | X   |
| 1 | X   | X   | X   | X    | X   | X   | X   | X   |
| 2 | X   | X   | X   | X    | X   | X   | X   | X   |
| 3 |     | X   | X   | X    | X   | X   | X   | X   |
| 4 |     | X   | X   | X    | X   | X   | X   | X   |

### Posistop Shaft Diameter Options

| FU     | 056            | 180            | 210            | 210L           | 250            | 280            | 320 | 440            |
|--------|----------------|----------------|----------------|----------------|----------------|----------------|-----|----------------|
| 5/8"   | X <sup>1</sup> |                |                |                |                |                |     |                |
| 7/8"   | X <sup>1</sup> | X <sup>3</sup> | X <sup>3</sup> | X <sup>3</sup> |                |                |     |                |
| 1 1/8" |                | X              | X              | X              | X              | X              |     |                |
| 1 3/8" |                | X <sup>2</sup> | X <sup>2</sup> | X <sup>2</sup> | X              | X              | X   |                |
| 1 5/8" |                |                |                |                | X <sup>2</sup> | X <sup>2</sup> | X   |                |
| 1 7/8" |                |                |                |                | X <sup>2</sup> | X <sup>2</sup> | X   |                |
| 2 1/8" |                |                |                |                |                |                |     | X <sup>2</sup> |
| 2 3/8" |                |                |                |                |                |                |     | X <sup>2</sup> |

- NOTES
1. Not available with thru-shaft configuration
  2. Consult factory for thru-shaft configuration
  3. 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.

