

# SensiFlex<sup>®</sup>

## Tension Control Brakes

- DESIGN FEATURES
- TENSION CONTROL BRAKES

# MACH III CLUTCH INC.

## DESIGNED TO MEET THE NEEDS OF TODAY'S CONVERTING CUSTOMER

Tension control applications are unique. They require a brake that will operate smoothly throughout the entire converting process without the sticking, pulsing or cogging inherent in some brake designs. Heat caused by constant slip must be dissipated to prevent friction lining fade and premature brake failure. The brake must be capable of a broad range of torque output to supply the processing flexibility demanded from today's converting machinery. One pneumatic brake offers these features plus the added benefits of competitive price, simple installation and long, maintenance free service . . . SensiFlex® from Mach III Clutch, Inc.

### SensiFlex® DESIGN FEATURES

#### **Sensitivity = Flexibility**

A newly developed, patented actuator provides maximum sensitivity to the slightest air pressure changes for the broadest possible range of torque output and infinite controllability.

#### **Superior Heat Dissipation**

The unique, SensiFlex® brake design pulls cooler, ambient air into the brake then pushes it outward through radial holes to effectively dissipate the heat generated by constant slip.

Higher thermal horsepower capacity is achieved without the addition of fans or expensive water cooling equipment. Lower operating temperatures reduce the chance of lining fade and increase the wear life of the brake.

#### **Smooth, Low Maintenance Performance**

Precision machining assures parallel alignment of the friction and drive surfaces for smooth operation and even wear. A single, specially molded, low coefficient friction disc provides smooth performance and exceptionally long life.

#### **Simple Installation**

Compact, self-contained brakes provide easy, slide on the shaft installation with a single air line connection. Each unit is supplied standard with a customer selected bore size & keyway.



### EXCEPTIONAL APPLICATION ASSISTANCE & CUSTOMER SERVICE

Mach III's engineering, design and sales team provides support before, during and after the sale. Application analysis, selection assistance, reliable lead times and quick response to questions or field problems are components of every product manufactured by Mach III Clutch, Inc.

### GENERAL ENGINEERING INFORMATION

#### **Safety/Service Factor**

When calculating required torque, always use a service factor of 1.5 to 2. It is not recommended to select a clutch or brake for use at its maximum rated torque for continuous duty.

#### **Listed Torque Ratings**

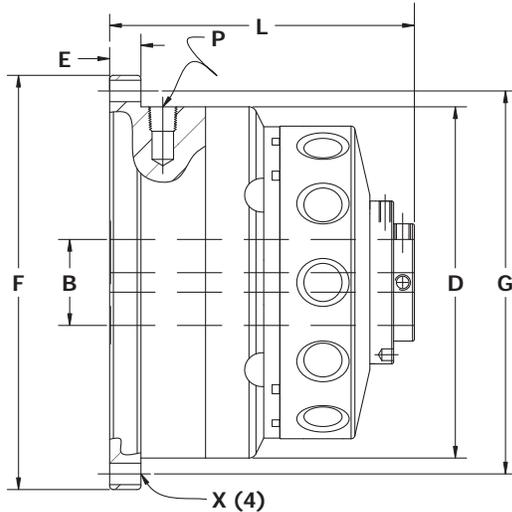
All torque ratings listed in this brochure are dynamic torque ratings. Brakes will reach their full rated design torque after a brief wear in period. The exact length of time for this to occur depends upon the application.

**Have Any Questions About Our Products?**

Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

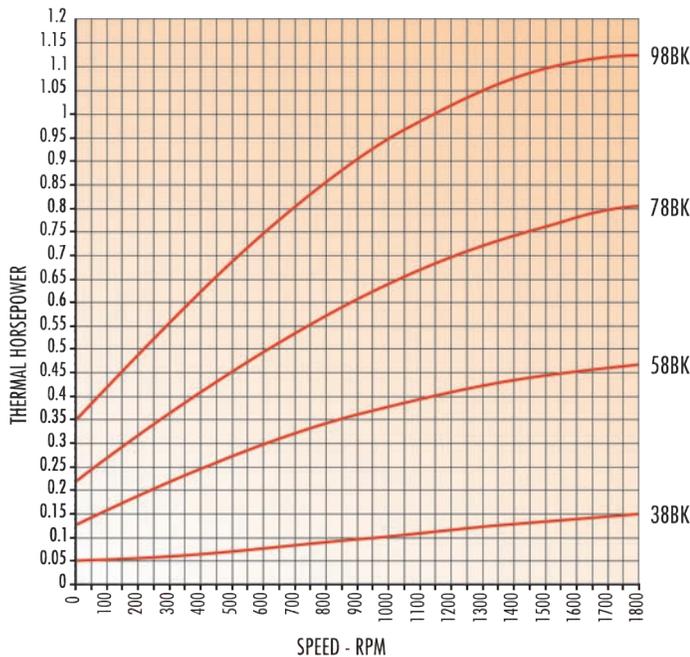
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## Tension Control Brakes

### HEAT DISSIPATION



### SPECIFICATIONS

| Product No. | Torque Rating @80 PSI | Heat Dissipation at 1800 RPM | Air Pressure To Engage Brake* | Weight-Lbs |
|-------------|-----------------------|------------------------------|-------------------------------|------------|
| 38BK        | 148 lb-in             | .14 tHP                      | 4 – 5 PSI                     | 7 lbs      |
| 58BK        | 409 lb-in             | .47 tHP                      | 5.5 – 6.5 PSI                 | 20 lbs     |
| 78BK        | 994 lb-in             | .81 tHP                      | 3.5 – 4.5 PSI                 | 41 lbs     |
| 98BK        | 1941 lb-in            | 1.13 tHP                     | 3 – 4 PSI                     | 74 lbs     |

\* Avoids possible inconsistent regulator output below 3 PSI

### REPLACEMENT PART KITS

| Kit        | Contents  | Part Number                                    |
|------------|---|--|
| Facing Kit | Low Coefficient Friction Disc,<br>Brass Mounting Screws                             | Add "FK" to the product number. (e.g. 58BK-FK) |
| Repair Kit | Low Coefficient Friction Disc,<br>Brass Mounting Screws,<br>Spring(s) and Diaphragm | Add "RK" to the product number. (e.g. 58BK-RK) |

### DIMENSIONS — inches

| PRODUCT No. | B Range        | D    | E   | F     | G     | L    | P NPT | X              |
|-------------|----------------|------|-----|-------|-------|------|-------|----------------|
| 38BK        | 5/8 to 7/8     | 3.97 | .31 | 4.63  | 4.312 | 3.21 | 1/16  | (4) 13/64 THRU |
| 58BK        | 1 to 1-3/8     | 5.62 | .50 | 6.63  | 6.125 | 4.87 | 1/8   | (4) 11/32 THRU |
| 78BK        | 1 to 1-7/8     | 7.00 | .50 | 8.25  | 7.625 | 6.12 | 1/8   | (4) 25/64 THRU |
| 98BK        | 1 3/8 to 2-1/8 | 8.79 | .56 | 10.25 | 9.500 | 7.26 | 1/4   | (4) 29/64 THRU |

SensiFlex® brakes include rotating components and should be guarded according to OSHA requirements and other federal, state and local regulations. It is the responsibility of the user to provide the necessary guarding.

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