

# Mistral Pneumatic Brakes



An Altra Industrial Motion Company



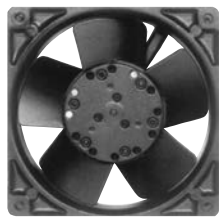


## Mistral Pneumatic Brakes

Mistral comes from the stable of one of the world's foremost innovators of pneumatic operated tension brakes.

Wichita's design and research engineers have absorbed the needs of the corrugating and paper converting industry for an improved mill-roll-stand brake to suit current and future performance requirements. Many painstaking hours of design and consultation with the market have resulted in this compact high performance brake.

For modern corrugator and paper converting line speeds the Mistral brakes have the ideal parameters for existing and future machines. It paves the way to increase production output.



### Integrated Cooling

A high performance, low energy cooling fan is housed within the brake to provide high heat dissipation - a must for higher productivity through controlled tension at high web speeds.

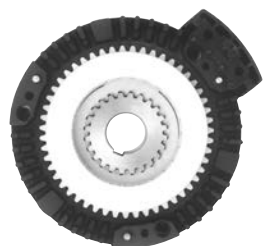
### Fine Tuning

The brake may be fitted with a variable number of actuators, allowing precise selection of brake torque capacity for optimum tension control.



### Front Cover Fixing

By removing just three cap screws, the front cover can be removed, allowing easy and fast access to the internal parts, which will also automatically disconnect the air and electricity supply.



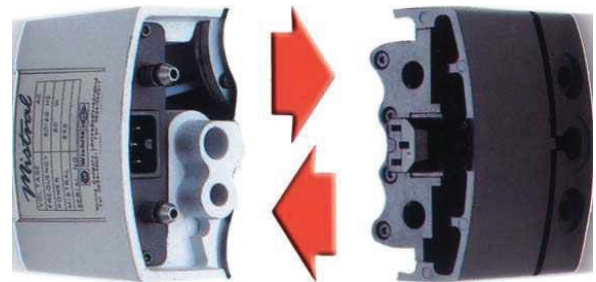
### Brake Installation

A three bolt attachment is used to affix the brake to the arm of the mill-roll-stand and an optional spigot location makes installation, to both new and existing machines, a simple operation.

## Features

### Safety

Mistral has integral guarding, eliminating the cost and effort of fitting extra guarding. Another safety feature is that the pneumatic and electrical supply is automatically disconnected when the front cover is removed.



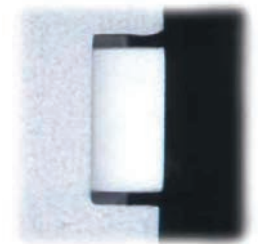
*Neat and tidy air and electrical connections.*

### Compact Design

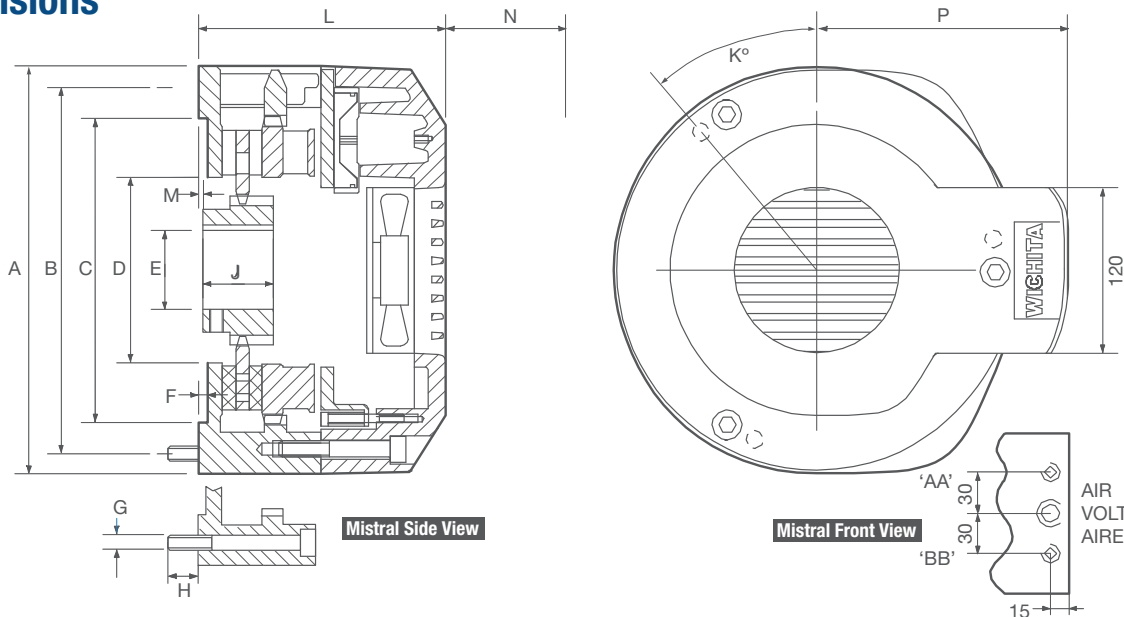
Because Mistral brakes are only 295 or 410 mm diameter, not only do they enhance the aesthetics of the mill-roll-stand, they also allow the operator to pick up small part reels used in short batch runs. For automatic reel loading machines the brakes offer the option of infrared and speed sensors fitted within the brake.

### Wear Indicator

Fitted with a prominently positioned visual wear indicator, there is no need to lose valuable production time or even stop the machine to check the brake for wear.



## Dimensions



| Model(l) | A   | B   | C      | D      | E  | F | G     | H  | J  | K  | L   | M   | N  | P     |
|----------|-----|-----|--------|--------|----|---|-------|----|----|----|-----|-----|----|-------|
| 200      | 295 | 260 | 220 H7 | N/A    | 60 | 6 | 3xM12 | 25 | 50 | 40 | 178 | 0   | 70 | 182.5 |
| 280      | 410 | 355 | N/A    | 175 H7 | 65 | 0 | 3xM16 | 30 | 60 | 20 | 192 | 9.5 | 80 | 240.5 |

| Model | Fan Voltages                              | Fan Power | Electric              | Pneum.                        |
|-------|---|-----------|-----------------------|-------------------------------|
| 200   | 220VAC or/oder<br>110VAC or/oder<br>24VDC | 20 W      | M16<br>PG9<br>3/8 NPT | 1/8 BSP<br>1/8 BSP<br>1/8 NPT |
| 280   | 220VAC or/oder<br>110VAC or/oder<br>24VDC | 25 W      | M16<br>PG9<br>3/8 NPT | 1/8 BSP<br>1/8 BSP<br>1/8 NPT |

| Actuator/Inlet | 'AA' | 'BB' |
|----------------|------|------|
| 200/2          | 2    | 0    |
| 200/4          | 2    | 2    |
| 200/6          | 2    | 4    |
| 280/3          | 3    | 0    |
| 280/6          | 3    | 3    |
| 280/9          | 3    | 6    |

## Performance

| Model                   | Dynamic Slipping Torque Capacity |                    |                    | Heat Transfer Capacity |          |               | Max Speed            | Inertia of Rotating Parts | Weight      |                |
|-------------------------|----------------------------------|--------------------|--------------------|------------------------|----------|---------------|----------------------|---------------------------|-------------|----------------|
|                         | Torque Universal Friction        |                    |                    | No Fan                 | With Fan |               |                      |                           | Total Brake | Rotating Parts |
|                         | @ 0.2 bar*                       | @ 5.5 bar          | @ 6 bar            |                        | Cont.    | 30 Min On/Off |                      |                           | [kg]        | [kg]           |
|                         | [Nm]                             | [Nm]               | [Nm]               | [kW]                   | [kW]     | [kW]          | [min <sup>-1</sup> ] | [kgm <sup>2</sup> ]       | [kg]        | [kg]           |
| 200/2<br>200/4<br>200/6 | 7<br>14<br>22                    | 198<br>396<br>594  | 216<br>432<br>648  | 1.1                    | 2.4      | 2.8           | 2860                 | 0.032                     | 35          | 4.5            |
| 280/3<br>280/6<br>280/9 | 15<br>29<br>44                   | 402<br>803<br>1205 | 438<br>876<br>1315 | 1.4                    | 4.8      | 5.2           | 2090                 | 0.076                     | 50          | 9.4            |

\* Torque value at 0.2 bar is for full quantity of actuators.  
Torque at minimum quantity of actuators is shown in (parenthesis)

Torque at zero air pressure = zero Nm

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Worldwide Support and Distributors

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