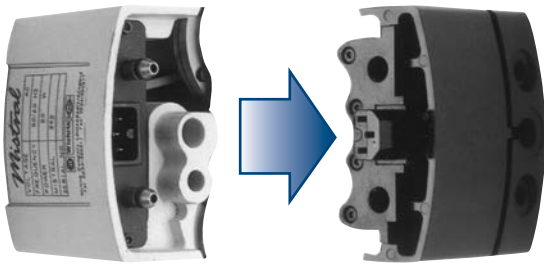


Tension Brakes

Mistral Tension Brakes



Wichita Mistral pneumatic tension brake is attuned to the needs of the corrugating market for which it was originally designed. It is also a versatile product which is



finding favour in additional tensioning applications. Wichita designers and engineers consulted extensively with mill roll stand manufacturers and users to offer a tension brake ideally

suited to the needs of this particular market. The result is a compact, high performance, versatile brake capable of handling the tensioning needs of the latest machine designs, as well as existing equipment. The Mistral paves the way for increasing line speeds by 164 cm/sec. from 810 ft./min. (or slower) to 1,140 ft./min.

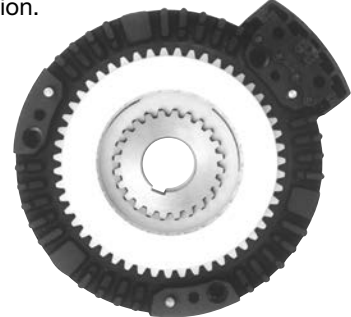


Safety

Mistral's integral guarding eliminates the cost and effort of installing external guards. Operator safety is further enhanced by automatic air and electric disconnects when the front cover is removed.

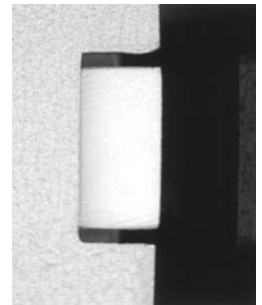
Mounting Ease

Three bolts mount the brake to the arm of the mill roll stand or machine frame and an optional pilot location makes fitting to both new and existing machines a simple operation.



Wear Indicator

A brake wear indicator, which is conveniently located for easy visual inspection, means no down time to check remaining friction material life.



Easy Connection

Air and electrical connections are easily accessible for fast, simple installation and maintenance.

Compact Design, Modern Styling

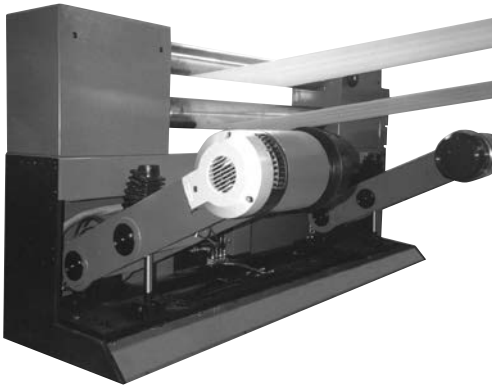
Mistral brakes are compact at only 29.46mm or 40.89mm in diameter. Their size facilitates the pickup of small, part reels used in short batch runs. For automatic reel loading machines, Mistral offers optional infrared and speed sensor installation within the brake. Their modern, industrial styling enhances the appearance of any machine on which they are used.

Fine Tuning

Each brake may be specified with a varying number of pneumatic actuators, allowing precise selection of brake torque capacity for optimum tension control.

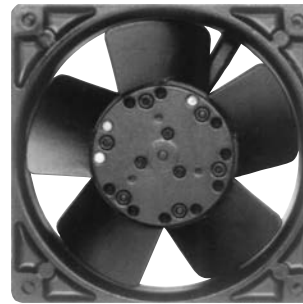
Front Cover Removal

By removing just three cap screws, the Mistral's front cover can be detached for easy and fast access to internal parts. Cover removal automatically disconnects both air and electricity.



Integral Cooling

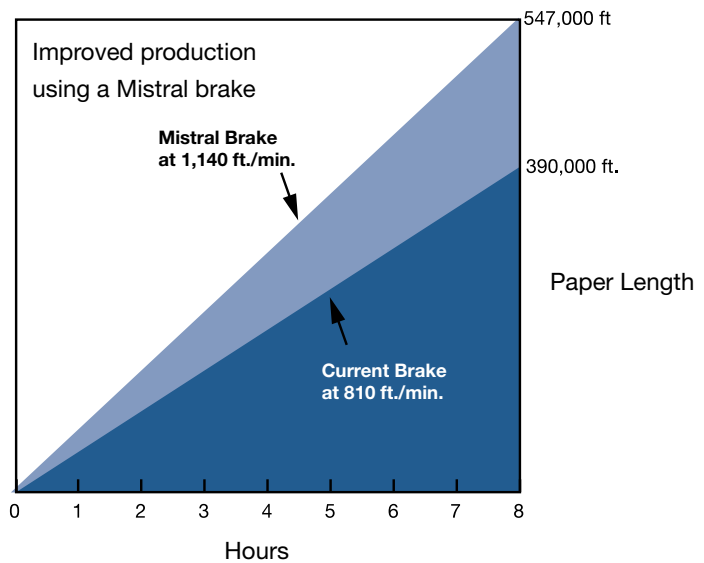
A rugged, high performance, low energy usage fan is housed within the brake for high heat dissipation - a must for increased productivity through controlled tension at many roll speeds.



Fan Data and Connection Data

Model	Fan Voltages	Fan Power	Electric	Pneum.
200	220 VAC or/order	20W	M16	1/8 BSP
	110 VAC or/order		PG9	1/8 BSP
	24 VDC		3/8 NPT	1/8 NPT
280	220 VAC or/order	18W	M16	1/8 BSP
	110 VAC or/order		PG9	1/8 BSP
	24 VDC		3/8 NPT	1/8 NPT

Performance Curve



Wichita Tension Products - order or see Tension Control Systems Catalogue

From the air cooled Modevo to the renowned Kopper Kool range, Wichita has a brake to suit all tension control duties in converting applications. For optimum control, including flying splice operations, we offer the modular Altra range of tension controllers. Please contact your Wichita representative to find out more and to request a copy of our Tension Control Systems catalogue, or visit wichita.co.uk and look at our product range, then choose Tension Products.



Altra Sonic



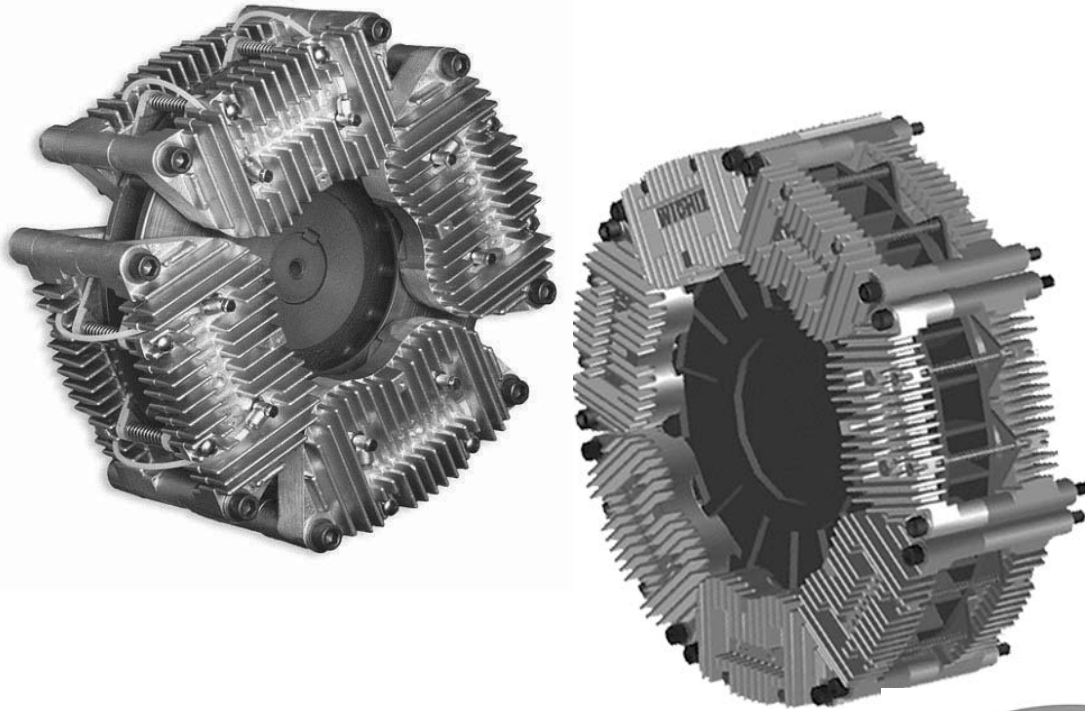
Altra Steady



Altra Easy

Tension Brakes Air Cooled

ModEvo Tension Brakes



Brake Discs and Cooling

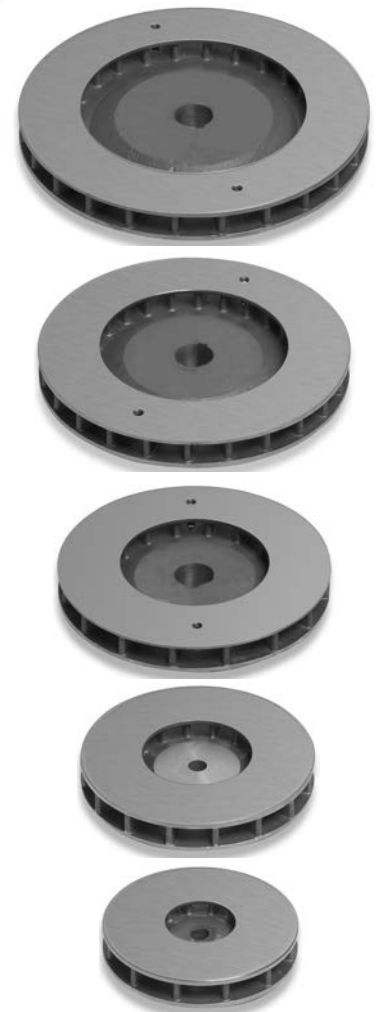
The ModEvo brake disc was developed at the Bedford, UK factory using Finite Element Analysis techniques to ensure maximum strength with minimum weight. The design is optimized to make best use of the cooling air available at slow speeds, and being bidirectional, it achieves high heat dissipation capacity in either rotational direction. An optional electric cooling fan is available where space is limited or more extreme heat handling is required.

Available in five sizes: 250 mm, 300 mm, 350 mm, 400 mm and 450 mm diameters, all discs are the same thickness and use the same brake modules and actuators. Each disc can be specified with a minimum of a single module, up to the maximum number of modules that can be fitted

around the disc. This allows torque-handling capabilities ranging from a maximum of 893 Nm for the 250 mm disc, up to 4313Nm for the 450 mm disc.

NOTE: If using a high speed ductile iron disc the catalog heat rating should be reduced by 10% as the thermal conductivity of the ductile iron is less than grey cast iron.

Maximum Rotational Speed		
Disc Diameter mm	Standard Speed rev./min.	High Speed rev./min.
250	2,250	3,375
300	1,900	2,850
350	1,650	2,475
400	1,450	2,175
450	1,250	1,875



Actuator Options

Newly developed rolling diaphragm actuators are used in ModEvo, producing more force than previous designs to allow higher torque ratings. However, the sensitivity for which rolling diaphragms are favoured is not compromised. Three actuator options are available, offering clamping forces of 100%, 60% or 25%.

The finned, die cast aluminum brake module is common to all brake disc diameters. Each module houses two pairs of actuators, and allows friction pads to be changed quickly without dismantling the module.



100%

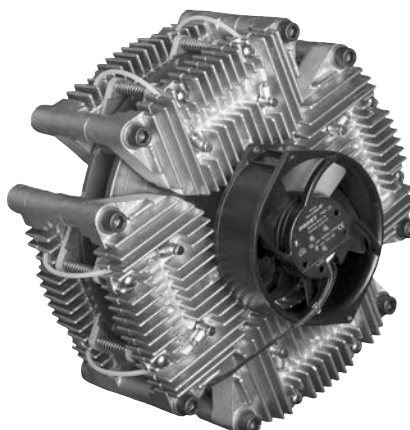


60%



25%

ModEvo 300/8 with Fan



Brake Size (fan Diameter)	24v DC	115v AC	230v AC
250 (150 mm)	Yes	Yes	Yes
300 (150 mm)	Yes	Yes	Yes
350 (150 mm)	Yes	Yes	Yes
400 (150 mm)	Yes	Yes	Yes
(200 mm)	not available	Yes	Yes
450 (150 mm)	Yes	Yes	Yes
(200 mm)	not available	Yes	Yes
(250 mm)	not available	Yes	Yes

Optional Guard

The optional guard has a plastic front with 'ModEvo' molded in and a metal ventilated perimeter.

Mounting is by four brackets on customer's machine frame.

The centre of the guard is designed such that it may be cut-out by customer to suit the diameter of the shaft in through-shaft installations.

Other low cost guards are also available.

The mesh guard below is designed to fit the Modevo 250mm and 350mm. It has a sturdy welded steel construction.

