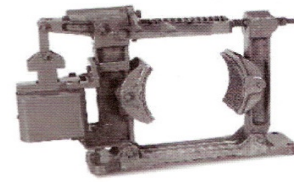


# A.C. Electro Magnetic Brake



"ANAND SYSTEM" are the pioneers of the Indian Crane Control gear Industry. With experience in this field for more than 25 years they offer you their most comprehensive range of industrial brakes already being used by various crane and machinery manufacturers.

Electro magnetic Brakes are used when a load must be stopped rapidly to prevent the load from rotating due to the motor automatic control whether it is a question of stopping at a pre-determined time or at selected points of travel or to prevent over travelling.

For fool-proof and safe operation of machinery, modern methods are necessary, which should not tax the operator very greatly. Any machine which requires its motion to be arrested, whether it is a lifting Crane, Hoist, Winch or Mining Haulage today employs a Electro Magnetic Brake, enabling the operator not only to arrest the motion but also to hold the load at any desired point without danger of falling, merely by release of the starting handle. One cannot possibly mis operate the Brake. Nothing safer than the Electro Magnetic Brake is available today.

Electro Magnetic Brakes also find its use in Paper Mills, Drives of certain textile machines, Sugar Mill Machinery, Rubber Mixing Mills, Centrifuges and certain hazardous machines, in which a complete stoppage of machine is necessary before handling of the contents. There is no limit to the use to which the Brake can be put whenever stopping of the machine is required.

To calculate the size of "ANAND SYSTEM" Electro magnetic Brake for a given application it is necessary to take into consideration the H.P. Rating and speed in R.P.M. to obtain the required retarding torque. The basic formula against which calculations are made is :

$$\begin{aligned} \text{Torque in Kg.M.} &= (71620 \times \text{H.P.}) / (\text{R.P.M.} \times 100) \\ &\text{OR} \\ &= (975 \times \text{KW}) / \text{RPM} \end{aligned}$$

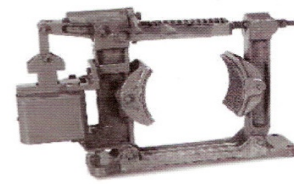
For minimum size of Electro Magnetic Brake and maximum efficiency the Brake should be mounted directly on the motor shaft. The application involving arduous duty with more self sustaining load characteristic such as hoist motions of Electric Crane hoists, skip hoist equipment, overload factor must be taken into consideration. In applications of this nature it is usual to assess the Brake torque required on the basis of 150% full load torque.

## **SINGLE PHASE ELECTRO MAGNETIC BRAKE Type:EMB**

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'ANAND SYSTEM' Electro Magnetic Single Phase A.C Brake is ruggedly constructed to withstand the effect of mechanical shocks and vibrations. The brake is manufactured to comply with B.S. Specification.

# A.C. Electro Magnetic Brake



## SELECTION CHART FOR SINGLE PHASE ELECTRO MAGNETIC BRAKES

Drum Dia in	Width of shoe face in	BRAKING TORQUE IN		* Approximate HP at 1000 r.p.m.	
		50% KGM.	100%	50%	100%
100	57	2.20	1.87	3	2.5
150	70	7.60	6.50	10	9.0
200	89	17.75	15.00	24	20.0
250	108	22.70	19.30	30	25.0
300	127	45.70	38.80	60	50.0
381	152	69.00	58.60	95	80.0

## ELECTRO MAGNET

The A.C. Electro magnet is built of high grade, low magnetic steel laminations each insulated from the adjacent one. The entire lot is tightly riveted and machined accurately to eliminate the air gap when the magnet circuit is closed. The coils are wound on bakelite bobbin and are thoroughly insulated.

A hand release lever is provided for manual release of the brake. A.C. E.M. Brakes can also be supplied with Dust Proof Cover made of sheet steel for only the magnet at extra cost.

The Electro Magnet is secured directly on to the brake lever. The magnet core is made of specially selected steel having very high permeability. The coil is varnished with 'F' class insulating material and made impervious to moisture.

This brake conforms to IPSS specification

Note : The design, dimensions and specifications are subject to alterations without prior notice due to constant development for better performance.