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CRYOTRON MAGNADRIVES

Electro Magnetic Clutches and Brakes

www.cmdindia.com

"Cryotron Magnadrives" is a prominent and leading manufacturer of Industrial Electromagnetic Brakes & Clutches. The company is backed by over a decade of expertise and excellence. It has been initiated by first generation entrepreneurs. Its founders have invaluable hands on work experience in various engineering sectors.

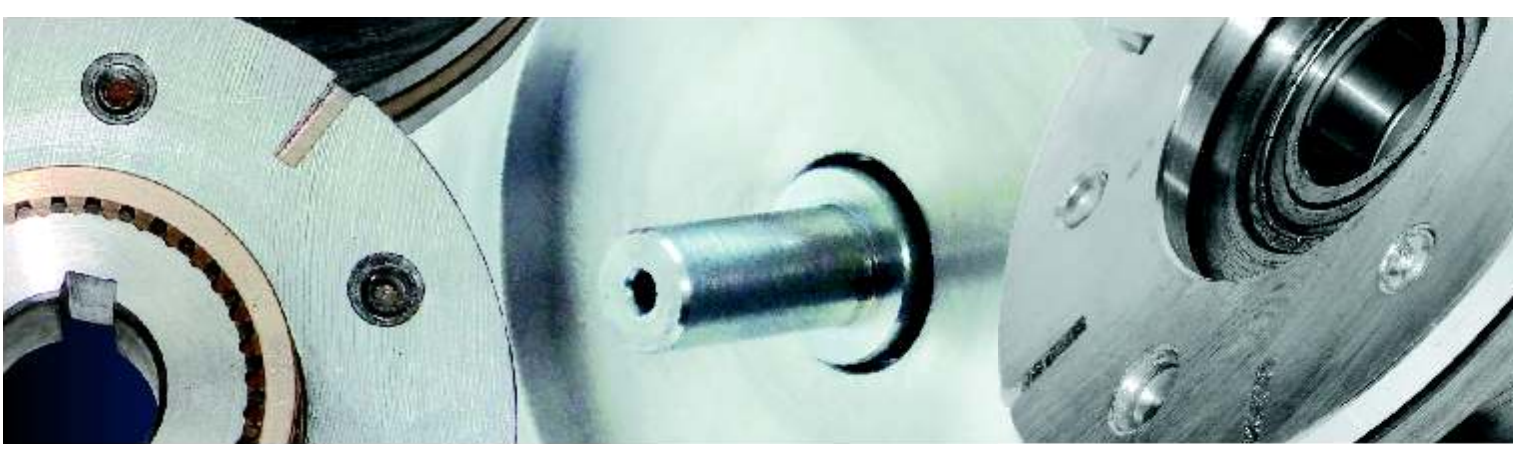
We are not visible but we touch you in your daily lives. We drive most of your machines be it in machine tools, textile machines, packaging machines, hoists & cranes, industrial elevators, special motorized vehicles, printing machines, liquid filling machines, material handling and many more.

We provide innovative, technically advanced, reliable and economical solutions to different segments of various industries. "Building Customer Loyalty" our motive has earned us an everlasting relation with our customers in many industries.

Cryotron Magnadrives sets high quality standards for its products and services. It is an ISO 9001:2008 certified company with accreditation from Bureau Veritas. Our dedicated and efficient team and self reliant design and development facilities enhance our versatility for developing tailor made solutions to meet every client's requirements.

Our strengths are :

- Indigenously manufactured high quality brakes and clutches incorporating high-grade components.
- Wide range of catalogue products which can meet various application demands.
- Economical customized solutions designed and conceptualized to meet client specific requirements.
- Reliable and short delivery schedules.
- Wide network of dealers and distributors.



Our Product Range :

Spring Applied DC Fail Safe Brake: FBR

FBR Series brakes, as the name suggests this is a typical Fail Safe Brake or a Safety Brake. The braking torque is achieved by several compression springs acting upon the armature plate. This floating plate in turn transmits braking torque on the rotor with friction material which gets sandwiched between the mounting flange and armature. The brake is released electrically by applying DC voltage. Upon excitation the armature plate attracts towards the stator and the rotor gets released. When power is discontinued or interrupted the braking torque is instantly achieved by the compression springs. This brake also has an optional and unique manual release feature.

Brakes available from 4 Nm to 400 Nm torque in 9 sizes. Miniature series from 0.5 Nm onwards also available. Operating volts range from 24 to 190 Volts DC.

Electromagnetic Brake (Normally Off): EBR

EBR series brake typically consists of a stationery field coil embedded with friction material. It is used mainly to stop rotating motion instantly. It functions by electrically energizing the field coil with designated DC voltage. Upon excitation it magnetizes the moving armature plate and brings it to a halt instantaneously. When the applied voltage is discontinued the sinusoidal wave spring fitted on armature retracts it to its original position. Hence the brake is released. Various designs of armature plate mountings are available for easy configuration onto the equipment.

EBR brakes are available in torque range from 6 Nm to 480 Nm in 7 sizes. Torque transmission is free of any back lash. Miniature series for low torques from 0.5 Nm to 5 Nm and higher braking torques of 650 Nm to 2500 Nm available in HT Series.

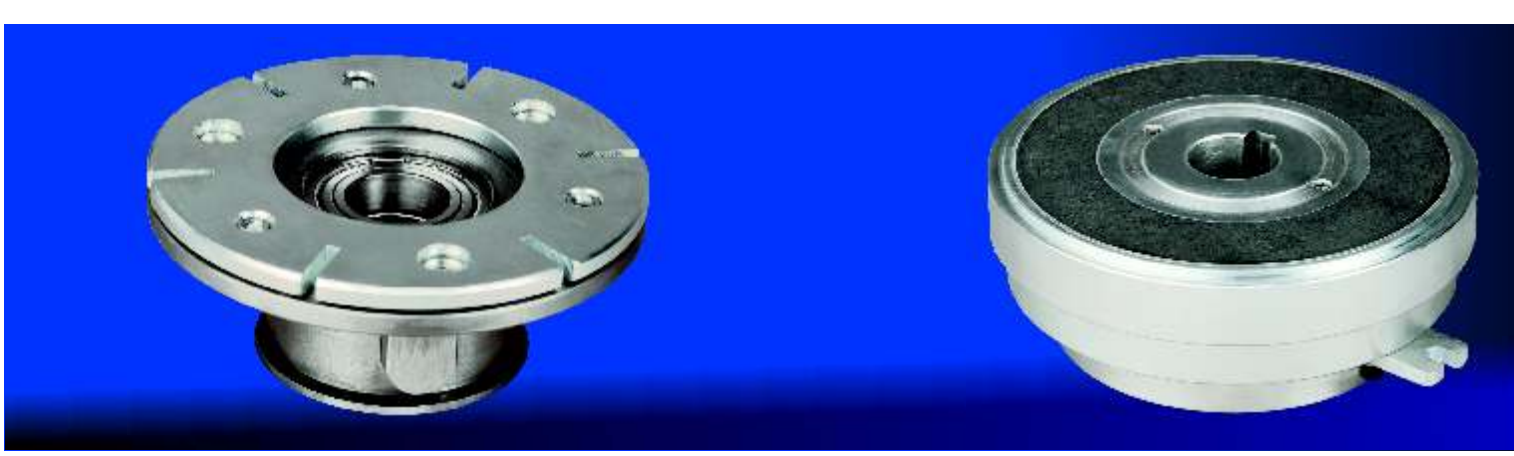
Electromagnetic Clutch (Normally Off) : ECL

ECL Series Clutch consists of Stationary field coil and has the Rotor embedded with friction material rotating around it. The armature plate is fitted with a pre stressed sinusoidal spring which gets attracted towards the rotor when the coil is actuated. Hence rotational motion gets transmitted from the drive shaft on which the rotor is fitted, to the driven shaft on which the armature plate is mounted. The armature plate is available in three designs to facilitate easy mounting configurations. When the voltage is discontinued the pre stressed spring pulls back the armature plate and clutch is disengaged. Commonly used in applications where split or parallel shafts need to be connected by an electromagnetic coupling.

ECL & SMC series clutches are available in torque range from 6 Nm to 480 Nm in 7 sizes. Torque transmission is free of any back lash. Miniature series for low torques from 0.5 Nm to 5 Nm and higher torques of 650 Nm to 2500 Nm available in HT Series.

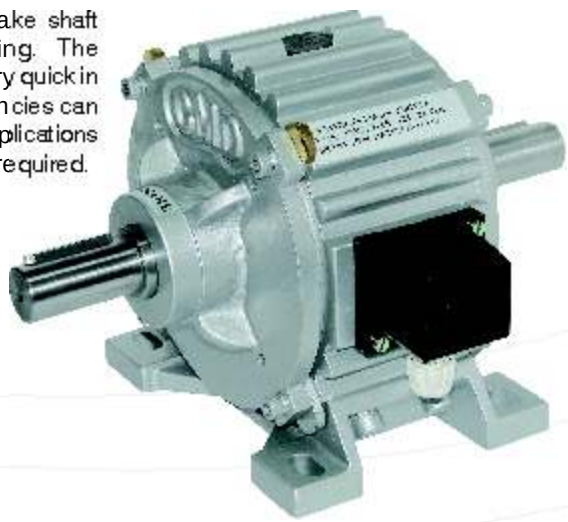
Electromagnetic Shaft Mounted Clutch : SMC

SMC series clutch is functionally similar to an ECL series clutch in operation. The stator is integrated with the rotor through a bearing and is maintained in the stationary mode on the machine by an anti rotation arm. This arm is locked by a lug provided on the stator. This feature of pre assembling the stator and rotor facilitates easy incorporation into any machine system. Assembling is made very simple and less time consuming.



Electromagnetic Clutch Brake Combination: CBC

CBC series units are pre-assembled in an enclosure with split shafts at both ends. DC voltage is applied to clutch and brake intermittently to achieve start-stop cycle. The design is sturdy and compact. The Clutch and Brake coils are normally off type and energized when DC voltage is applied to the either coil. The unit consists of a dual plate floating armature. The movement for brake or clutching is achieved by sliding on gear hub. When voltage is applied to clutch coil it attracts armature assembly towards the rotor and torque is transmitted to the output shaft by the armature and it rotates. When the supply to the clutch is discontinued it is instantly diverted to the brake coil. This in turn results in the clutch shaft being isolated and the output or brake shaft being stopped from revolving. The intermittent cycle achieved is very quick in response and thus high frequencies can be achieved. It is used in applications where high start stop cycles are required.



CBC & HSCBC series clutches are available in torque range from 6 Nm to 480 Nm in 7 sizes. Torque transmission is free of any back lash.

Electromagnetic Hollow Shaft Clutch Brake: HSCBC

HSCBC series units are identical to CBC series units. The unique feature of this module is that it is used in flange mounted motors. Its designed to suit standard flanges of motors and gear boxes. It has B5 mounting provision that is directly equivalent to standard motor configurations. The input is hollow to suit a standard B5 motor and the output is identical to the output of standard motor of the corresponding size. In typical application it is mounted in between a gear box and the motor. Widely used for high frequency start stops like CBC series. Functioning is similar to CBC modules as well. The similar split shaft assembly is incorporated to achieve desired results. The unit is more compact in construction. The usage of couplings etc is eliminated and it provides a silent and vibration free transmission of torque without chances of any run outs and misalignment.

Electromagnetic Single Shaft Double Clutch: DCU

DCU series unit is an assembly of two ECL series clutches mounted on a single shaft. It is functionally similar to ECL type clutches. It is incorporated in applications where variable speeds and reversing of drives etc are desired. It can be used as a single input and dual output device. The shaft in this case becomes the input and clutch with bearing hubs mounted on either side of unit is the output. Similarly the bearing mounted hubs can be used as dual inputs and the shaft can be converted as a single output if the application demands such a drive. The unit is very versatile in function.

DCU & SCB series clutches are available in torque range from 6 Nm to 480 Nm in 7 sizes. Torque transmission is free of any back lash.

Electromagnetic Single Shaft Clutch Brake: SCB

SCB series unit is an assembly of an ECL and EBR series clutch and brake on a single shaft. It functions similar to normally off type Brakes and Clutches. Similar to DCU series, it can be incorporated for various applications. The single clutch can act as a parallel drive input with design bearing mounted hub used with the clutch. The two ends of the shaft are acting as dual outputs and the brake is used to control both ends of the shaft simultaneously. In short it can work as a single input with dual output unit fitted with a common brake for both the outputs.

Salient Features :

- Back lash free transmission
- Non asbestos friction materials
- High operating frequency
- Good heat dissipation
- Class 'F' insulations
- Quick Excitation and fast switching
- Low operating noise
- Wide range of operating voltages
- Simple maintenance
- Compact designs
- Low wear and long life

Sectors of Applications

Machine Tools

Industrial Automation and conveyors5

Liquid Filling Machines

Packaging Machines

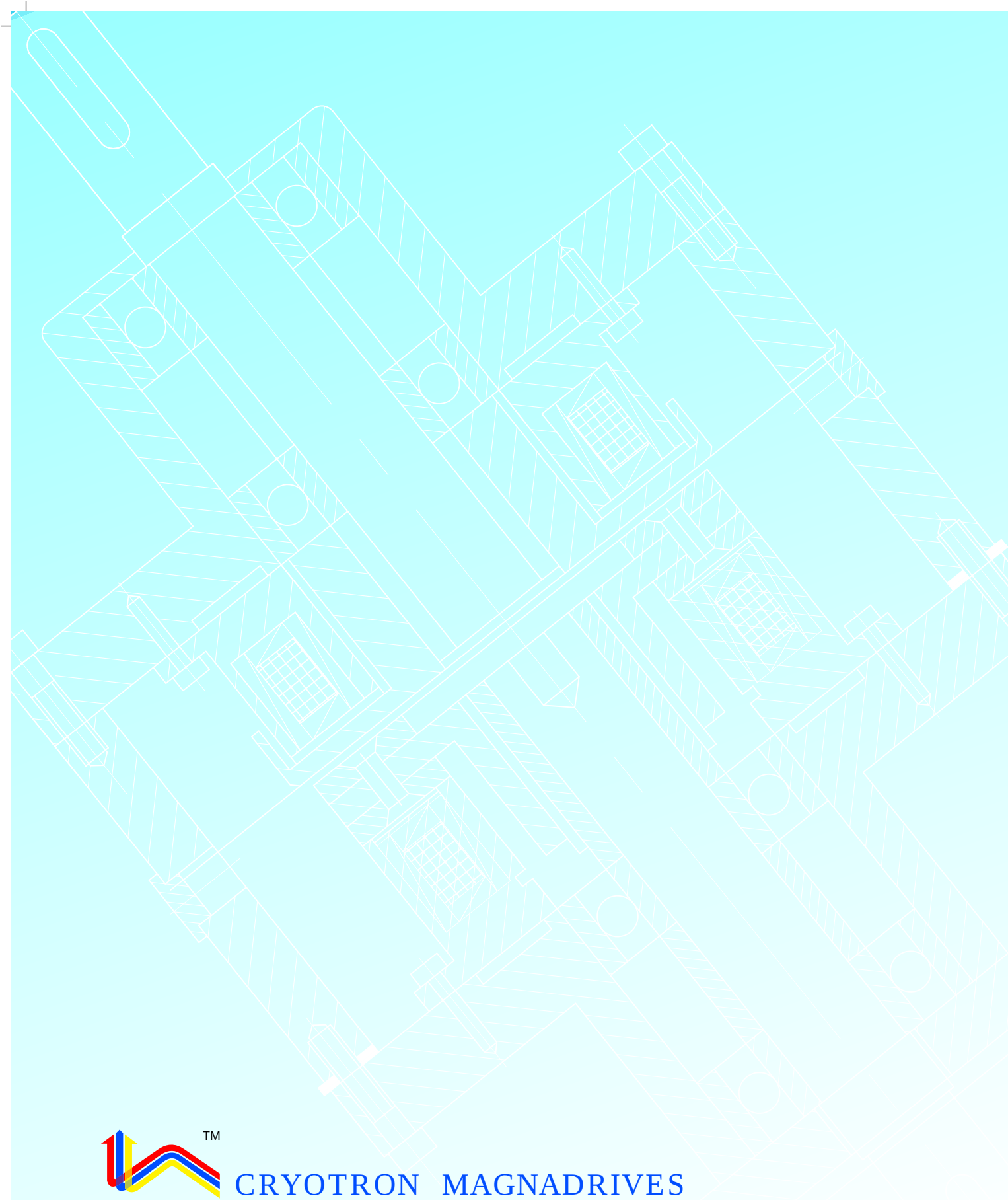
Cranes and Construction Machines

Material Handling Systems

Industrial Hoists

Textile Machines

And Many More...



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