

# EMCO® & EMCO-Simplatroll®

*making machines friendly*

The brands emco & emco-simplatroll stand for uncompromised quality in products as well the services. Products that are safe & reliable and service that makes our products and your machines perform efficiently.



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# EMCO® & EMCO-Simplatroll®

Brakes, Clutches & Combinations

PRODUCT CATALOGUE 2012



**Emco Dynatorq Pvt. Ltd.**  
(Formerly Emco Lenze Pvt. Ltd.)

ISO 9001:2008 Company



ISO 9001 : 2008



QAC/R91/1264  
QAC/R91/1382



ISO 9001:2008 Company

**Emco Dynatorq Pvt. Ltd.**  
(Formerly Emco Lenze Pvt. Ltd.)

CIN NO. : U74999MH1991PTC061109

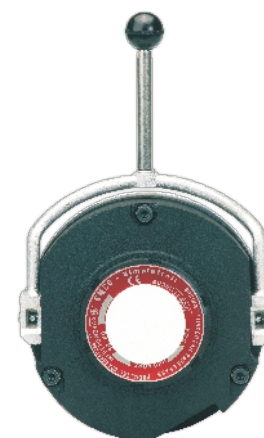
PRODUCT CAT. / Rev. 1



**We make products  
that help make  
life brighter, easier,  
and healthier.**

We make products that are part of the machines that make products or provide services that are a part of our day to day life. Be it textiles, pharmaceuticals products, food products, electric energy, tyres, containers, automobiles or baggage handling at airports.

And we are doing it since the last three decades - manufacturing industrial brakes, clutches, clutch-brake combinations and other motion control products - products that drive the industries...

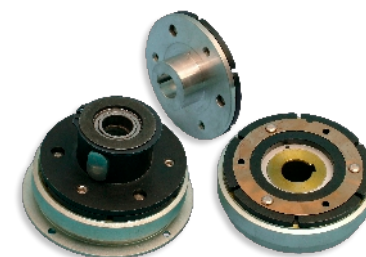


## Electromagnetic Spring Applied Fail safe Brakes

Type 14.458 (UL & CUL approved brakes)

- Fail safe.
- Torque up to 5000 Nm.
- Non asbestos friction linings.
- Twin friction surfaces.
- Low inertia rotors.
- Hard chrome plated armature plates and flanges.
- Dead-man type manual hand release.
- Class 'F' coil insulation.
- Tacho mounting provision possible.
- Dust protection seal.
- German low-wear non asbestos lining available on request.
- Zero backlash rotor available on request - especially for servo motors.
- Air-gap monitoring and motor protection possible through microswitch.
- Climate control version brakes available.

**APPLICATION AREAS** Brake motors • Cranes and hoists • Servo motors • Machine tools • Packaging machines Golf carts • Presses • Printing machinery • Steel Plants • Industrial washing machines • Tyre making machinery Hospital beds • Robotics • Tower cranes • Goods lifts • Construction machinery • Coil winding machinery X-ray machines • Wheel chair • Wire drawing machinery • Battery operated electric vehicles • Textile machinery



## Shaft & Flange Mounted Electromagnetic Clutches

Type 14.105 (Torque up to 2500 Nm)

- Single plate dry type.
- Zero backlash.
- Residual free.
- Fast switching times.
- High operating reliability.
- High operating frequency.
- Compact dimensions.
- Simple construction.
- Unique Pre-stressed spring.
- Stationary field (no slip rings).
- Consistent operating characteristics.
- Slotted armature for torque stability.
- Coil with class 'F' insulation.
- Special non asbestos friction material.
- Low inertia of rotating parts.
- Raw materials to DIN standards.
- No restriction on mounting positions.
- Non asbestos German liner available on request.

**APPLICATION AREAS** Textile machinery • Cement making machinery • Crane and hoists for traverse application Conveyors • Material handling • Stone polishing machines • Wire drawing machinery



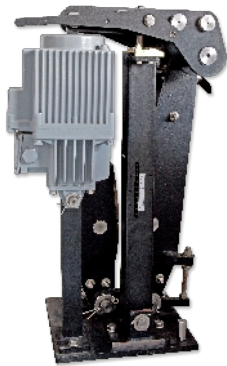
## Flange Mounted Electromagnetic Brakes

Type 14.115 (Torque up to 2500 Nm)

- Single plate dry type.
- Zero backlash.
- Residual free.
- Fast switching times.
- High operating reliability.
- High operating frequency.
- Compact dimensions.
- Simple Construction.
- Maintenance free.
- Long life.
- Unique pre-stressed spring.
- Stationary field (no slip rings).
- Consistent operating characteristics.
- Slotted armature for torque stability.
- Coil with class 'F' insulation.
- Special non asbestos friction material.
- Low inertia of rotating parts.
- Raw materials to DIN standards.
- No restriction on mounting positions.
- Non asbestos German liner available on request.

**APPLICATION AREAS** Brake motors • Machine tools • Textile machines • Special purpose machines Industrial washing machines • Coil winding machines • Wire drawing machinery • Packaging machines





## Electro-hydraulic Disc Brakes

### Type EHT 1/2/3 & EHT 21

- Shoe clearance balancing device and shoe alignment device constantly maintain the clearance of brake shoes on both sides, eliminating the need to adjust and avoid one side of brake shoe rubbing onto disc brake.
- Self-lubricating bearings at main hinge points bring high efficiency of transmission and long life.
- Thrusters with delay system.
- Self compensation device.
- Torque adjustable springs with torque scale and anti-wear sintered linings.
- Brake linings are plug-in type, thereby allowing easy replacement.
- Swift reaction thrusters having long life-span.
- Torque ranging from 280 to 20,000 Nm.

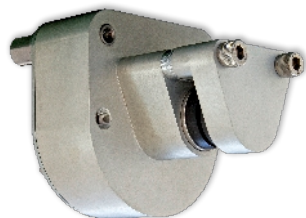
**APPLICATION AREAS** Rolling Mills • Gantry Cranes • Port Cranes • Mining Equipment • Paper Mills • Conveyors  
Cement Plants • Wire Drawing Machines • Mooring Winches



## Pneumatically/Spring Applied Caliper Disc Brakes

- Maximum torque 270 Nm @ 160 PSI air pressure. **(for Pneumatically Applied Brake)**
- Maximum torque 81 Nm @ 70 PSI release pressure. **(for Spring Applied Brake)**
- Removable friction linings.
- Aluminum housing.
- Double acting piston.
- Non asbestos friction linings.

**APPLICATION AREAS** Steel mills • Cranes • Conveyors • Wind turbines • Textile machinery • Paper industries  
Wire drawing machinery • Test rigs • Tyre industries • Printing machines • Mines • Special purpose machines  
Bulk material handling equipment • Cable machinery • Sugar centrifuges • Ball mills • Nuclear power plants  
Cement mills and plants • Hydro turbines



## Spring Applied Air Release Caliper Disc Brakes

- 85 PSI release pressure.
- Aluminum construction.
- 2640 sq. mm. total friction pad area.
- Unlimited disc diameter.
- Replaceable friction pads.
- Non-asbestos friction material.

**APPLICATION AREAS** Steel mills • Cranes • Conveyors • Wind turbines • Textile machinery • Paper industries  
Wire drawing machinery • Test rigs • Tyre industries • Printing machines • Mines • Special purpose machines  
Bulk material handling equipment • Cable machinery • Sugar centrifuges • Ball mills • Nuclear power plants  
Cement mills and plants • Hydro turbines



## Electro-magnetic Caliper Disc Brake

- Max. tangential force - 4800 Newton
- Max disc dia. - 1000mm, Max disc thickness - 15 mm.
- Fail safe.
- Non asbestos friction linings.
- Twin friction surfaces.
- Hard Chrome plated Armature plate.
- Class 'F' coil insulation. (Class 'H' can be supplied on request).
- German low wear non-asbestos lining available on request.
- Air gap monitoring and motor protection possible through Microswitch.

**APPLICATION AREAS** Steel Mills • Cranes Conveyors • Wind Turbines • Textile Machinery • Paper Industry  
Wire Drawing Machinery • Tyre Industry • Mines • SPMs • Bulk Material Handling Equipments • Cable Machinery  
Ball Mills • Cement Plants • Hydro Turbines.

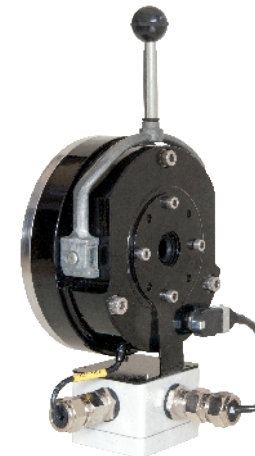


## Spring Applied Explosion Proof Brakes

*Designated for use in Gas Group 1 and Gas group 2 A and 2 B for zone 1 and 2 area.  
Certified and approved by Central Mining Research Institute, Dhanbad*

- IP 65 protection
- Fail safe.
- Torque up to 5000 Nm.
- Non asbestos friction linings.
- Twin friction surfaces.
- Low inertia rotors.
- Hard chrome plated armature plates & flanges.
- Manual hand release.
- Class 'F' coil insulation.
- Dust protection seal.
- German low-wear non asbestos lining available on request.

**APPLICATION AREAS** Mines • Flame and explosion proof applications • Petro-chemical plants

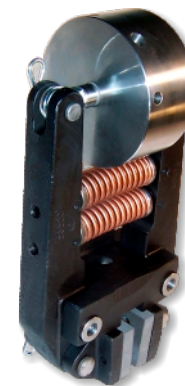


## DC Spring Applied Brakes (IP 65)

### Type 14.450 & 14.461

- 'Deadman Type' Manual Release
- Brake outer diameter completely enclosed (Higher protection can be easily realised)
- Compact Size
- Easy Installation
- Rust Protection to All Metal Parts
- Coil with 'F' Class Insulation
- Non Asbestos friction liner
- Use of Special Bonding Agent
- Tacho Mounting provision possible
- Microswitch available on request
- Low rotor inertia
- Cold climate versions available

**APPLICATION AREAS** Cranes & Hoists • Machine tools • Textile machines • Packaging machines • Conveyors  
Construction machinery • Windmills • Printing machines • Elevators • Pallet truck drives

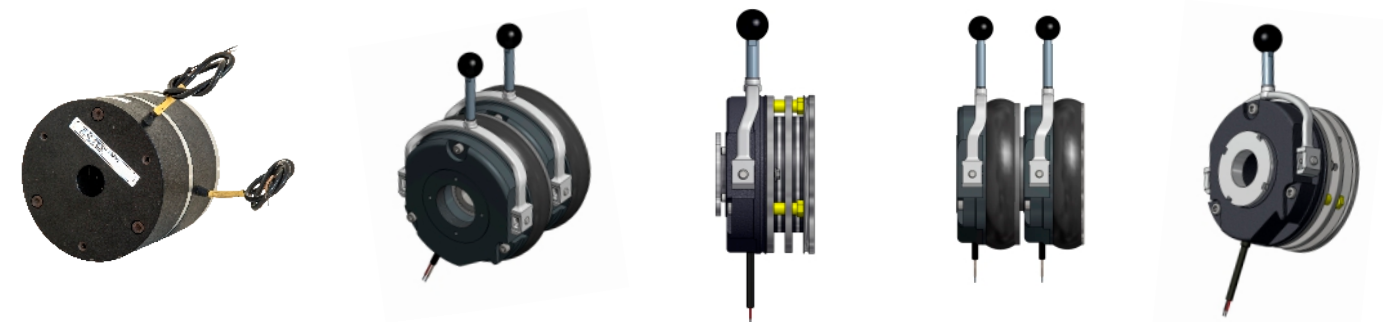


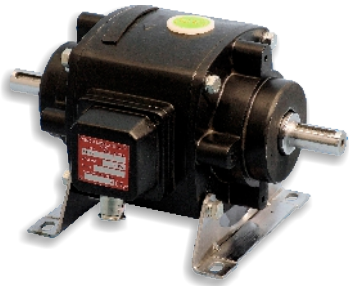
## Pneumatically/Spring Applied Caliper Disc Brakes

- Torque up to 2300 Nm (24 inch diameter disc).
- Non asbestos friction linings.
- Friction linings removable by pulling clip pin and removing caliper shoe.
- High temperature air diaphragm manufactured from special material.
- Stainless steel cylinder and piston.
- Calipers can be mounted at 45 degree spacings.
- Torque can be multiplied by using multiple calipers.
- Maximum disc diameter 36 inches.
- Higher torque possible (3650 Nm) by using 36 inch diameter disc.
- 1900 pound static braking force at 80 PSI.

**APPLICATION AREAS** Steel mills • Cranes • Conveyors • Wind turbines • Textile machinery • Paper industries  
Wire drawing machinery • Test rigs • Tyre industries • Printing machines • Mines • Special purpose machines  
Bulk material handling equipment • Cable machinery • Sugar centrifuges • Ball mills • Nuclear power plants  
Cement mills and plants • Hydro turbines

Also Available : **Double Brake & Double Rotor Brake**





## Electromagnetic Clutch-Brake Combinations

Type 14.800 & 14.125

- Five sizes up to 120 Nm.
- Asbestos free friction linings.
- Two axis height available for each size.
- Low inertia armature.
- Patented air-gap adjustment from outside without dis-mantling the unit.
- Backlash free armature available on request.
- Modular design.
- Class 'F' insulation.
- Sealed unit - enclosure class 'IP 44'.
- High operating reliability.

**APPLICATION AREAS** Machine tools • Packaging machines • Welding machines • Conveyors  
Special purpose machines



## AC Spring Applied Fail Safe Brakes

Type 1000

- Suitable for metric motor frames.
- Fast installation.
- Fast wear adjustment.
- Fast acting.
- Negligible maintenance.
- Higher brake torque.
- Friction disc, made of non asbestos type friction material, can withstand higher surface temperatures.
- More number of operations per hour.
- Manual release.
- Torque up to 44 Nm.

**APPLICATION AREAS** Brake motors • Cranes and hoists • Servo motors • Machine tools • Packaging machines  
Golf carts • Presses • Goods lifts • Steel plants • Textile machinery • Tyre making machinery • Hospital beds  
Robotics • Tower cranes • Printing machinery • Construction machinery • Coil winding machinery • X-ray machines  
Wheel chair • Wire drawing machinery • Battery operated electric vehicles • Industrial washing machines



## AC Spring Applied Self Adjusting Fail Safe Brakes

Type 5000.

- Self adjusting.
- Suitable for metric motor frames.
- Fast installation.
- Torque up to 140 Nm.
- Negligible maintenance.
- Manual release.
- Fast acting.
- Air-gap monitoring and motor protection possible through micro switch.

**APPLICATION AREAS** Brake motors • Cranes and hoists • Servo motors • Machine tools • Packaging machines  
Golf carts • Presses • Goods lifts • Steel plants • Textile machinery • Tyre making machinery • Hospital beds  
Robotics • Tower cranes • Printing machinery • Construction machinery • Coil winding machinery • X-ray machines  
Wheel chair • Wire drawing machinery • Battery operated electric vehicles • Industrial washing machines



## Spring Applied Marine Duty Brakes

IP 66

- Fail safe.
- Torque up to 5000 Nm.
- Non asbestos friction linings.
- Twin friction surfaces.
- Low inertia rotors.
- Class 'F' coil insulation.
- Hard chrome plated armature plates and flanges.
- Tacho mounting provision possible.
- German low-wear non asbestos lining available on request.
- IP 67 brakes available on request.

**APPLICATION AREAS** Tower cranes • Portal cranes • Machine tools • Out door applications • Winches and drives  
Outdoor vehicle lifting jacks • Outdoor goods lifts.



Mounting Dimension : 44.2 mm

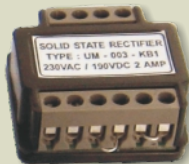
## Solid State Electronics Rectifiers\*

EH Series	Full Wave and Half Wave Rectifiers for 50/60 Hz VAC input		
Model	Input	Output	Dimensions in mm (L x W x H)
EH 720 AD	230 VAC	207 VDC, 2 Amp.	55 x 46.5 x 24h
EH 720 BD	115 VAC	103 VDC, 2 Amp.	
EH 720 CD	230 VAC	103 VDC, 2 Amp.	
EH 720 HHD	415 VAC	190 VDC, 2 Amp.	
EH 720 HHD - AV	415/480 VAC	190/215 VDC, 2 Amp. max	



Mounting Dimension : 48 mm

UM-Mini Series	Full Wave and Half Wave Rectifiers for 50/60 Hz VAC input		
Model	Input	Output	Dimensions in mm (L x W x H)
UM 001 HHD	415 VAC	190 VDC, 2 Amp.	54 x 24.5 x 22.5h
UM 001 HHD - AV	415/480 VAC	190/215 VDC, 2 Amp. max	
UM 001 CD	230 VAC	96 VDC, 2 Amp.	
UM 002 AD	230 VAC	190 VDC, 1 Amp.	
UM 002 BD	110 VAC	96 VDC, 1 Amp.	



Mounting Dimension : 29.4 mm

UM - 003 Series	Rectifier for Clutch/Brake combination 50/60 Hz VAC input		
Model	Input	Output	Dimensions in mm (L x W x H)
UM - 003 - KB1	230 VAC	190 VDC, 2 Amp. max	38.2 x 35.6 x 17.2h



Mounting Dimension : 44.2 mm

UM - 101 Series	With over excitation for fast Release of 'Normally On' Brake or fast engagement of 'Normally Off' Brake or Clutch, 50/60 Hz VAC input		
Model	Input	Output	Dimensions in mm (L x W x H)
UM - 101	415 VAC	190 VDC, 1 Amp.	54 x 24.5 x 22.5h
UM - 101 - AV	415/480 VAC	190/215 VDC, 2 Amp. max	
UM - 101 - A	230 VAC	96 VDC, 1 Amp.	



Mounting Dimension : 62 mm

UM 201 Series	Special rectifier for double coil Brake / Clutch. Can provide quick release/quick set and power saving features too.		
Model	Input	Output	Dimensions in mm (L x W x H)
UM - 201	415 VAC	190 VDC, 1 Amp.	72 x 55.5 x 31h
UM - 201 - AV	415 VAC $\pm$ 20%	190 VDC, 1 Amp.	
UM - 201 A	230 VAC	96 VDC, 1 Amp.	

### NOTE :

1. Suffix 'AV' in models above signify the rectifier is made with Avalanche Diodes.
2. For different AC Input Voltage contact us.