

REFERENCE CATALOGUE FOR KATEEL PRODUCTS





6 HI MILL-ETR/DTR



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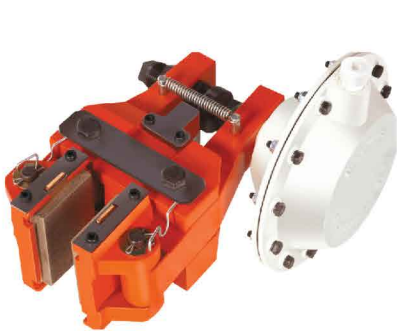
Process Line



6 HI MILL-ETR/DTR

STEEL MILLS :

KATEEL Brakes are used for 6-Hi and 4-Hi Mill Applications, Bridle Drives in both Galvanizing and Pickling Line, Pay-Off Reel, Colour Coating Line, Entry Accumulator & Exit Accumulator, Tension Reel, Electrolysis Line, Cranes; Hot Metal Cranes as well as EOT Cranes, Mobile Tripper Car, Charging Car, Quenching Car, Heavy duty Fan Motor etc.



Pneumatic Brakes



Hydraulic Disc Brakes



Emergency Disc Brakes (Hydraulic Fail-safe) directly mounted on Rope Drum Flange



Emergency Disc Brakes (Hydraulic Fail-safe) directly mounted on Rope Drum Flange



Emergency Disc Brakes (Hydraulic Fail-safe) directly mounted on Rope Drum Flange retrofitted for the existing crane



Electro-hydraulic Thruster Drum Brakes mounted on High Speed Side



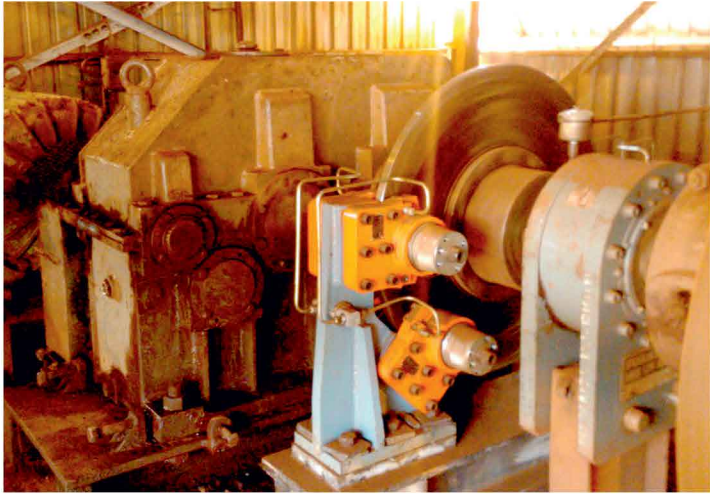
Electro-magnetic Disc Brakes mounted on High Speed Side

Kateel Brakes for Crane Application :

1. Electro-hydraulic Thruster Disc and Drum Brakes : for Service Braking application & Hoisting, CT and LT.
2. Electro-magnetic Disc and Drum Brakes: For service Braking application & Hoisting, CT, LT.
3. Hydraulic Fail-safe Disc Brakes : For Emergency Braking application- Brake shall be mounted directly on Rope Drum Flange.
4. Switching Frequency Ring / Encoder : to read speed of the hoist.
5. PLC Based control panel system: Collects signal

from Switching frequency ring / Encoder, and conveys command to the Hydraulic power pack to Open / Close Brake.

6. The PLC is set for indicating 10% of over speed, in case the drum starts rotating 10% above the set RPM, the feedback will go to the brake and the brake will apply automatically. The over speed is sensed by the encoder. In case of over speed due to any reason, the relay is energized and will switch off the Pump Motor and solenoids resulting in immediate application of brake



Kateel Smooth Braking Option - Downhill Conveyor



Kateel Smooth Braking Option - Downhill Conveyor



Flat Conveyor

WHAT IS SMOOTH BRAKING?

1. It is an Intelligent Braking system that regulates the speed of the conveyor.
2. It ensures a controlled "smooth Braking process, resulting in less wear and stress on the mechanical components of the brake system.
3. Smooth Braking option can be used for any of the following:
-Conveyor Systems, Wind Turbines, Escalators, Mine Winders, Large Ventilation Fans Etc.

THE ADVANTAGES OF SMOOTH BRAKING OPTION:

1. Controlled and precise Braking regardless of the load.
2. A cost-effective solution compared to any other braking system.
3. The maintenance costs of the main assemblies like Belt, Gearboxes, Motors, etc. will be significantly reduced due to less wear and stress on these components.
4. The lower wear and stress on the main assemblies increases the overall safety of the entire system.

STACKER RECLAIMER



BRAKES | BRAKE PADS | RAIL CLAMPS | CLUTCH BUTTONS



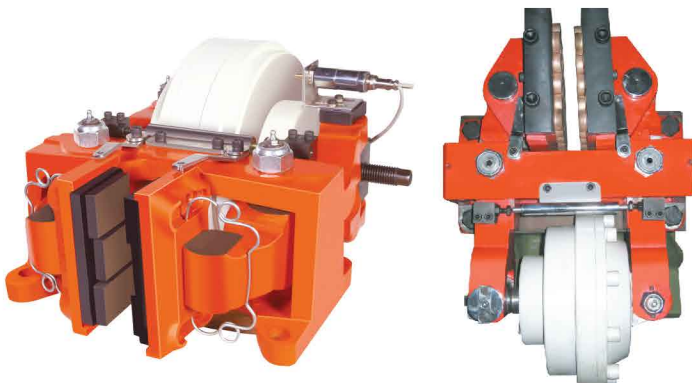
Stacker and Reclaimer



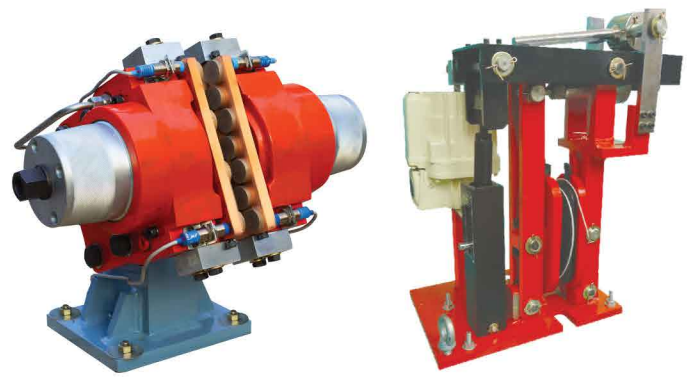
Hydraulic Disc Brakes mounted on Trippler Wheel in Port Conveyor



Thruster Drum Brake mounted on Charging and Discharging car in Steel Industry

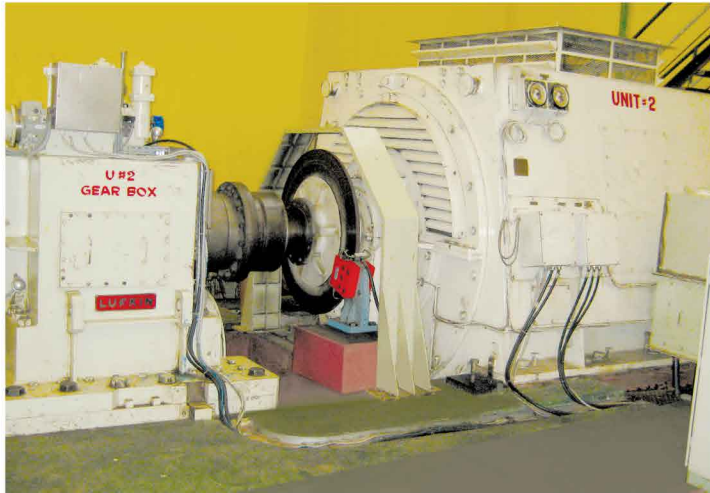


Hydraulic Disc Brakes



Hydraulic Disc Brake

Electro-hydraulic Thruster Disc Brake



Kateel Hydraulic Disc Brake mounted on 20MW Generator in Hydro Turbine. The brake is mounted on the fly wheel between Generator and Gear Box



Kateel Pneumatic Disc Brakes mounted on 6000KW Pump Motor with a rated RPM of 1500 & max RPM of 1800 and a Braking torque of 30,000 N m used in Nuclear power plant.

APPLICATIONS

HYDRO TURBINES	MATERIAL HANDLING	WIND TURBINES
<ul style="list-style-type: none"> ➤ Brakes can be mounted on Flywheel Flanges or on a separate disc. 	<ul style="list-style-type: none"> ➤ Ship Loader ➤ Stacker Reclaimer ➤ Conveyors 	<ul style="list-style-type: none"> ➤ Yawing Brakes ➤ Rotor Brakes
STEEL INDUSTRY	CRANES	CABLE MACHINES
<ul style="list-style-type: none"> ➤ 6 Hi Mill & 4 Hi Mill ➤ Galvanizing Lines ➤ Pickling Lines ➤ Cranes ➤ Hot Metal Cranes (Service & Emergency) ➤ Pay-Offs & Take-Ups 	<ul style="list-style-type: none"> ➤ Lifting & Lowering ➤ Long Travel ➤ Cross Travel ➤ Emergency Brakes on Rope Drum Flange 	<ul style="list-style-type: none"> ➤ Wire Drawing Machines ➤ Stranding Machines ➤ Wire Rod Mills ➤ Pay-Offs & Take-Ups ➤ Bunching Machine
HIGH INTENSITY SECTOR	MINING	CEMENT MILLS
<ul style="list-style-type: none"> ➤ Nuclear Plants for 6 M.W Motors 	<ul style="list-style-type: none"> ➤ Winches ➤ Cranes ➤ Conveyors ➤ Ball Mills 	<ul style="list-style-type: none"> ➤ Conveyors






OUR RANGE OF DISC AND DRUM BRAKES

1.	Pneumatic Active Disc Brakes	Air Applied - Spring Released
2.	Pneumatic Fail-safe Disc Brakes	Spring Applied - Air released
3.	Hydraulic Active Disc Brakes	Hydraulically Applied - Spring Released
4.	Hydraulic Fail-safe Disc Brakes	Spring Applied - Hydraulically Released
5.	Mechanical Lever or Hand Knob Operated Disc Brakes	Manual
6.	Electro-hydraulic Thruster operated Disc Brakes & Drum Brakes	Fail-safe
7.	Electro-magnetic Disc Brakes & Drum Brakes	Fail-safe

PRESTIGIOUS PROJECTS

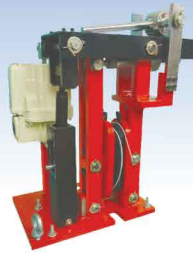
Katesol®

BRAKES | BRAKE PADS | RAIL CLAMPS | CLUTCH BUTTONS

#	COMPANY	PRODUCT POWER	APPLICATION
	1. Nuclear Power Corporation through BHEL - Bhopal	Pneumatic Disc Brakes	6 MW Motor
	2. Nuclear Power Corporation Kudankulam	Electro-hydraulic Thruster Drum Brake	Crane
	3. Nuclear Power Corporation-Tarapur	Pneumatic Disc Brake	6 MW Motor
	4. CG Power and Industrial Solutions Limited-Bhopal	Pneumatic Disc Brake	6 MW Motor
	5. TD Power System-Bangalore	Hydraulic Disc Brake	Up to 20 MW Generator
	6. Andritz Hydro Turbine-Bhopal	Hydraulic Disc Brake	Up to 40 MW Generator
	7. CG Power and Industrial Solutions Limited-Bhopal	Hydraulic Disc Brake	Up to 20 MW Generator
MINING			
	1. Orissa Mining Corporation (OMC)	Hydraulic Disc Brake with Smooth Braking System	Downhill Conveyor
	2. Tatasteel Naomundi Mines	Hydraulic Disc Brake with Smooth Braking System	Downhill Conveyor
	3. Macmet India Ltd.	Hydraulic Disc Brakes / Hydraulic Rail Clamp	Pipe Conveyor
	4. Ultratech Cement	Hydraulic Disc Brakes with Smooth Braking System	Conveyor
	5. Paradeep Port Trust	Hydraulic Disc Brakes / Thruster Disc Brake	Coal Handling Plant
	6. TRF, Kolkata	Electro-hydraulic Thruster Disc Brakes for Ship Unloaders	Long Travel
	7. Chennai Port Trust through L & T, Chennai	Electro-hydraulic Thruster Brakes	Stacker and Reclaimer
	8. TATA STEEL Joda	Hydraulic Disc Brakes with Smooth Braking System	Downhill Conveyor
	9. L & T Kolkata-Northern Coal Field Project	Hydraulic Disc Brakes with Smooth Braking System	Downhill Conveyor
	10. MSPL-Hospet	Hydraulic Disc Brakes with Smooth Braking System	Downhill Conveyor
	11. FL SMIDTH-Chennai	Hydraulic Brakes with Smooth Braking System	Downhill Conveyor
	12. Thyssenkrupp-Pune	Thruster Drum Brakes / Hydraulic Disc Brakes / Rail Clamp	Conveyor and Stacker
	13. BGR Energy-Chennai	Thruster Drum Brakes / Rail Clamp	Conveyor and Stacker
WINDER			
	1. A P Trivedi & Sons	Hydraulic Disc Brake	MINE WINDER
	2. Emce Winches, Holland	Hydraulic Disc Brake	WINCH
	3. Maheswari Mining Corporation	Hydraulic Disc Brake	WINCH
CRANE			
	1. MUKAND LIMITED-Mumbai	Hydraulic Disc Brakes with PLC panel / Hydraulic Rail Clamp	Crane
	2. KONE Crane-Pune	Hydraulic Disc Brakes with PLC panel / Hydraulic Rail Clamp	Crane
	3. Anupam Industries	Emergency Braking System used in Metro project – Riyadh	Crane
	4. Alpha Services	Emergency Braking System used in Metro project - Riyadh.	Crane
	5. Electro Mech	Hydraulic Disc Brakes	Emergency for Crane
	6. Avon Crane	Hydraulic Disc Brakes	Emergency for Crane
	7. TATA STEEL	Hydraulic Disc Brakes - Emergency Brake Hydraulic Rail Clamp	LD-II Hot Metal 250 T Crane
	8. JSW LIMITED-Kutch&Vasind	Hydraulic Disc Brakes with PLC panel and Hydraulic Power Pack.	Crane
	9. UNIQUE CRANE-Nashik	Hydraulic Disc Brakes with PLC panel and Hydraulic Power Pack.	Crane
STEEL			
	1. TATA Steel CRM	Drum Brakes Pneumatic brakes	Crane Process Line
	2. TATA Tin Plate	Hydraulic Disc Brake	Mill(ETR/DTR)
	3. CMI FPE	Hydraulic Disc Brake / Pneumatic Brake	Mill(ETR/DTR)
	4. JSW Group	Hydraulic Disc Brake / Thruster Brakes / Rail Clamp	Mill(ETR/DTR)
	5. Bhushan Group	Hydraulic Disc Brake / Pneumatic Brake	Mill(ETR/DTR)



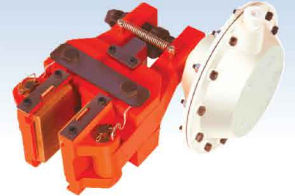
Hydraulic Disc Brake



EHT Disc Brake



Hydraulic Disc Brake



Pneumatic Brake



EHT Drum Brake



DC EM Drum Brake



Vertical Mounted Thruster Drum Brake



Pneumatic Brake



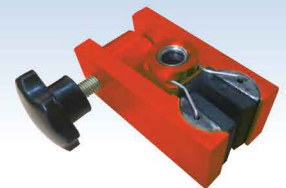
Hydraulic Rail Clamp



Electro-hydraulic Rail Clamp



Thruster



Manual Brake



Gear Coupling



Multispeed Gearbox



Friction Liner



Clutch Button

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