

Mondel Engineering
400D Heavy Duty Disc Brakes

Heavy Duty Disc Brakes



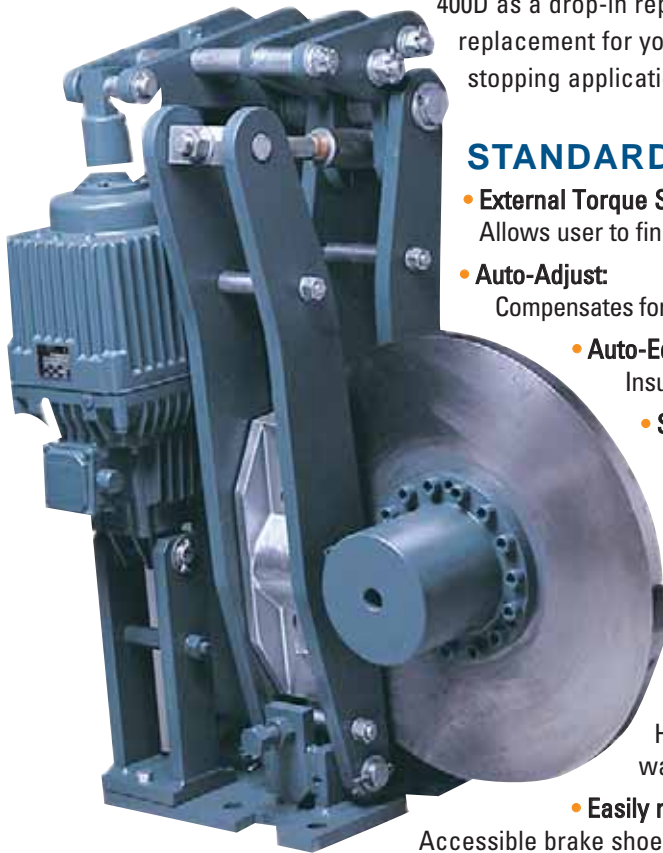
MAGNETEK



UNCOMMON POWER

400D Heavy Duty Disc Brakes

Magnetek, the industry leader in industrial braking systems, offers a complete line of Heavy Duty Disc Brakes designed for a variety of high speed, high performance applications. Our advanced design features, combined with our heavy duty steel construction and superior components, make this range of brakes your best choice for applications requiring optimal performance, reliability and durability. Plus, Mondel Disc Brakes are designed to be easy to service and maintain. Need a customized braking system for your application? Mondel Disc Brakes can be customized to meet your specific needs. Use our 400D as a drop-in replacement for existing disc brakes or, with modifications, as a replacement for your existing drum brakes in high duty cycle, high speed or high torque stopping applications.



STANDARD FEATURES

- **External Torque Spring:**
Allows user to fine tune braking torque per application
- **Auto-Adjust:**
Compensates for lining wear automatically
- **Auto-Equalization:**
Insures equal shoe clearance at all times
- **Steel-backed Anti-friction Bronze Bushings:**
Installed at all main pivot points; reduces maintenance and enhances brake performance
- **Stainless steel pivot pins:**
Non-corrosive—low maintenance
- **Hy-Thrust Actuator:**
High performance, high duty cycle, waterproof thruster
- **Easily replaceable brake shoes:**
Accessible brake shoe mounting hardware reduces maintenance time
- **Non-asbestos brake linings**
- **CSA Approved**

OPTIONAL FEATURES

- Time Delay on “Set” and “Release”
- Manual latching hand release
- Limit Switches for release proving
- Braketronic™ Controller
- Nitride Corrosion Protection
- Dual disk brake mounting plate

APPLICATIONS INCLUDED

- Marine Port Terminals
- Steel Mills
- Ship Loaders
- Port Cranes
- Shipyard Cranes
- Offshore Drilling Rigs
- Large Gantry Cranes
- Swing Span Bridges
- Bascule Bridges
- Verticle Lift Bridges

ADVANTAGES OF MONDEL'S HY-THRUST™ ACTUATOR*

Our Hy-Thrust electro-hydraulic actuators are proven, high performance, reliable units that will provide years of trouble-free service in tough operating conditions. Our mechanically isolated hydraulic pumping unit insures no fluid contamination of the motor stator.

Current Ratings of Standard Actuators	
	Current
Actuator	@460V/60Hz/3Ph
ED23	0.44
ED30	0.38
ED50	0.43
ED80	1.11
ED121	1.11
ED201	1.19
ED301	1.28

*Hy-Thrust Actuators are available as separate standard components. Consult Magnetek for more information.

Standard Features

- Fast response times
- High switching frequency—1200 to 2000 operations per hour
- Long service life—20 million switching cycles
- Working fluid operating range—13° F (-25° C) through 122° F (50° C)
- Available for 230VAC, 460VAC, 575VAC/3ph/60Hz as standard

Optional Features

- Stepless, externally adjustable time delays, Setting, Releasing or Both
- Special hydraulic fluids for operating in extreme ambient temperatures
- Corrosion Protection
- Stator completely encapsulated into motor housing under vacuum
- Explosion-proof and flame-proof units

TABLE 1.0 Brake Selection Guide

Disc Diameter (Inches)		12.00	14.00	15.75	17.00	17.75	19.70	21.00	22.00	24.00	24.80	28.00	29.00	31.50	34.00	35.40	38.00	39.40	49.20	50.00	Single Brake Shaft Load (Lbs)		
Brake Type	Actuator Type	Maximum Torque (Lb.Ft.)																					
DT1	ED23	230	275	315																	535		
	DT2	ED23				290	305	345	370	395	435	450	515	535	590							497	
		ED30				435	455	515	555	590	650	675	775	805	885								746
		ED50				740	775	880	950	1005	1110	1150	1320	1375	1505								1272
	ED80				1205	1270	1440	1550	1640	1810	1880	2150	2245	2460								2075	
DT3	ED30					495	535	570	630	655	755	785	865	945	990	1070	1115					760	
	ED50					840	915	970	1075	1115	1285	1345	1475	1610	1690	1825	1900					1295	
	ED80					1375	1490	1580	1750	1825	2100	2190	2410	2630	2755	2980	3100					2105	
	ED121					2100	2280	2420	2680	2790	3210	3350	3685	4020	4215	4560	4745					3220	
	ED201					3330	3610	3830	4245	4415	5085	5310	5840	6370	6675	7220	7510					5098	
	ED301					4730	5130	5445	6035	6275	7230	7545	8295	9055	9485	10260	10675					7245	
DT5	ED121												3430	3770	4115	4310	4665	4850	6200	6310	3295		
	ED201												5430	5970	6515	6825	7385	7680	9820	9990	5214		
	ED301												7715	8485	9260	9700	10495	10920	13955	14200	7409		

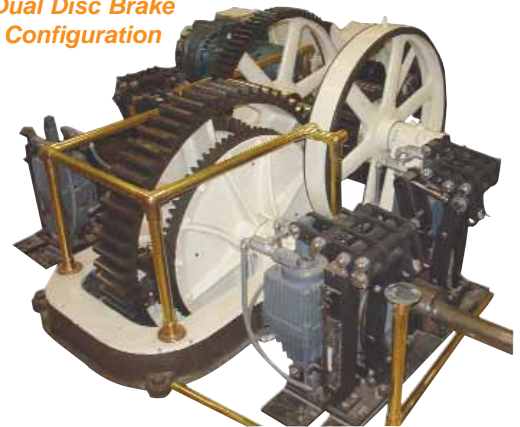
MOUNTING BASE OPTIONS

- The 400D Series Disc Brake is designed to fit AISE-NEMA dimensional mounting parameters with the addition of optional mounting adapter plates.
- Disc brake mounting plates may be modified to match existing mounting requirements. Contact factory for details.

Main Assembly



Dual Disc Brake Configuration

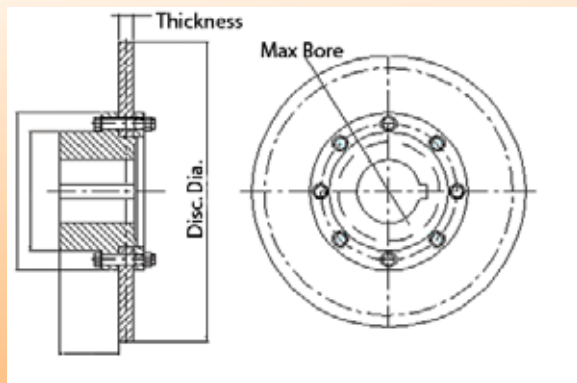


BRAKE DISCS

Our stress relieved and ground alloy steel discs are available standard or can be custom designed to meet your specifications. Discs can be provided with integral hubs or machined to facilitate mounting via a coupling (finished or rough bored).

Options

- Plain Disc—Includes mounting holes
- One piece integral hub disc—Rough bore or finished bore with Keyway
- Coupled—Disc mounted to appropriate wheel coupling
- Ventilated Disc—Consult Factory



Standard brake discs include a hub and disc assembly.

Standard Disc Data

Brake Type	Diameter (Inches)	Standard Disc Thickness																			
		12.0	14.0	15.8	17.0	17.8	19.7	21.0	22.0	24.0	24.8	27.8	29.0	31.5	34.0	35.5	38.0	39.4	49.2	50.0	
DT1	0.50	*	*																		
DT2	0.75				*			*													
DT3	1.00									*			*								
DT5	1.50															*		*			
		*	—AISE Standard Size																		

Magnetek's Material Handling Group

ELECTROMOTIVE SYSTEMS, TELEMOTIVE, MONDEL ENGINEERING

Dedicated to providing the industry expertise, products and services to enhance the success of our customers.

Headquartered in Menomonee Falls, Wisconsin with manufacturing facilities in both Wisconsin and Ontario, Canada, Magnetek's Material Handling Group offers the following products and services.

Engineered Systems & Solutions

Project Evaluation
Application Solutions
Engineering Design
PLC/PC Program Development
System Manufacturing
Project Management
Installation Assistance
Field Startup and Test
Customer Training
Maintenance Support

IMPULSE® AC Adjustable Frequency Drives

230, 460, and 575 Volt Power Platforms
.25- 1,500 Hp
Exclusive Application Software
Specific Crane & Hoist Software

OmniPulse™ DSD Digital Drives

AC in/DC out
15-800 Hp

MAC™•2000 Motor Acceleration Control

Single & 2 Speed—up to 15.2 Amps
Contactor Panels

Variable Speed Motor Control Panels

Standard Pre-Engineered Systems
Custom Engineered Systems

Motors & Accessories

Standard Inverter Duty AC Induction Motors
Flux Vector Designed Motors

Power Delivery Systems

ELECTROBAR® — 90, 110, 250, 350 Amps
ELECTROBAR® FS — 90, 125, 250, 400 Amps
ELECTROBAR ELITE® — 60, 100, 130, 200 Amps
ELECTROBAR® HX — 400, 700, 1000, 1500 Amps
FABA® Conductor Bar Systems — 100 Amps

ELECTROMOTIVE™ Festooning Systems

Standard Duty
Heavy Duty
Mill Duty

SBP® & SBP® Pendant Push Button Stations

Standard 2 thru 12 Button Stations
Custom Configured Stations

Radio Remote Control Systems

Pre Engineered Radio Control Systems

telePilot™
telePendant™
10K Series
SCS®—Stepless Control System

Engineered Radio Control Systems

18K Series
Exclusive Application Software
Specific Crane & Hoist Software
Locomotive Control Systems
Data Communication

Collision Avoidance Systems

Laser Guard®
Reflex®

Brakes

200S Industrial Shoe Brakes

4"–19" Diameter
6–2,650 Lb. Ft. Torque
AC, DC, Hydraulic Actuators
AC Explosion-proof Actuators

AISE-NEMA 300M Mill Duty Shoe Brakes

5"–30" Diameter
10–11,000 Lb. Ft. Torque
AC, DC, Hydraulic Actuators
AC Explosion-proof Actuators

400D Heavy Duty Disc Brakes

12"–50" Diameter
50–30,000 Lb. Ft. Torque
AC, DC, Hydraulic Actuators
AC Explosion-proof Actuators

Bracketronic™ Control System

Bracketronic Controller
Standard Pre-engineered Panel
Mill Duty Foot Pedal (optional)

Brake Kit

Remote Air/Hydraulic Bridge Brake Conversion Kit



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www.magnetekmh.com

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In USA:

P.O. Box 13615
Milwaukee, WI 53213
Phone: 1-800-288-8178

N49 W13650 Campbell Drive
Menomonee Falls, WI 53051
Fax: 1-800-298-3503

In Canada:

2610 Dunwin Drive
Mississauga, Ontario L5L 1J5
Phone: 1-905-828-1526
Fax: 1-905-828-5707
Toll Free: 1-800-792-7253