



**CLUTCHES & BRAKES SELECTION CHART - BY MOTION TYPE**

Motion	Type	Models/Sizes	Max Torque lb-in (Nm)	Max RPM	Actuation Method
<b>Starting</b> 	Wrap Spring Clutch	DL-30, 33	30 (3.4)	1200	DC
	Wrap Spring Clutch	MAC-30, 45, 45 w/BC	150 (16)	1200	DC
	Wrap Spring Clutch	BBC-29	25 (2.83)	1800	DC
	Friction Clutch	CS-11, 15, 17, 22, 26, 30	125 (14.2)	5000	DC
	Friction Clutch	CSC-11, 15, 17, 22, 26, 30	125 (14.2)	5000	DC
	Friction Clutch	CF-11, 15, 17, 22, 26, 30	125 (14.2)	5000	DC
	Friction Clutch	CFC-11, 15, 17, 22, 26, 30	125 (14.2)	5000	DC
	Tooth Clutch	TC-19, TCR-19	250 (28.2)	5000	DC
	Tooth Clutch	TCP-19	50 (5.6)	5000	DC
	Friction Clutch	MCS / MDC	Custom Engineered Product - Consult Factory		
<b>Indexing</b> 	Wrap Spring Clutch	PSI-2, 4, 5, 6, 8	2500 (282.5)	1800	Mechanical
	Wrap Spring Clutch	SAC-2, 4, 5, 6	500 (56.5)	1800	AC, DC Solenoid or AIR
	Wrap Spring Clutch/Brake	Super CB-5, 6, 7, 8, 10	5,000 (565)	750	AC, DC Solenoid or AIR
	Wrap Spring Clutch/Brake	Standard CB-2, 4, 5, 6, 7, 8, 10	5,000 (565)	1800	AC, DC Solenoid or AIR
	Wrap Spring Clutch	ACCE-7	1500 (169.5)	400	AC, DC Solenoid or AIR
	Wrap Spring Clutch	ACCE-7 Heavy Duty	2500 (282.5)	400	AC, DC Solenoid or AIR
	Wrap Spring Clutch	ACCM-7	1500 (169.5)	400	Mechanical
	Wrap Spring Clutch	ACCM-7 Heavy Duty	2500 (282.5)	400	Mechanical
	Wrap Spring Clutch	SP-2, 4, 5, 6	500 (56.5)	1500	AC, DC or AIR
	Wrap Spring Clutch	BIMAC B-1, B-2	75 (8.475)	1500	AC or DC Solenoid
<b>Slipping</b> 	Wrap Spring Clutch	BDSC Sizes 2, 4	9 (1.059)	200	N/A
	Wrap Spring Clutch	CTS-25, 50	28 (3.164)	150	N/A
	Feedback Device	TFD-30,40	12 (106)	300/120**	DC
<b>Stopping</b> 	Friction Brake	BF-11, 15, 17, 22, 26, 30	125 (14.13)	5000	DC
	Friction Brake	MBF-26, 30, 40, 50, 60, 80, 100 (L & S)	3540 (400)	5000	DC
<b>Holding</b> 	Wrap Spring Brake	BDNB	250 (28.23)	200	N/A
	Friction Brake	BF-11, 15, 17, 22, 26, 30	125 (14.13)	5000	DC
	Friction Brake	BRP-15, 17, 19, 23, 26, 28, 30, 40, 50, 60, 70	1000 (113)	5000	DC
	Friction Brake	SB-15, 17, 19, 23, 26, 28, 30, 40, 50, 60, 70	1200 (135.6)	5000	DC
	Friction Brake	FSB-15, 17	3 (0.34)	5000	DC
	Friction Brake	AKB-17, 19, 26, 30, 40, 50	470 (53)	5000	DC
	Friction Brake	PMB-30, 40, 50, 60, 65, 75, 85, 100, 120	4250 (480)	3000	DC
	Friction Brake	MBF-26, 30, 40, 50, 60, 80, 100 (L & S)	3540 (400)	5000	DC
	Multiple Disc Brake	MDB	Custom Engineered Product - Consult Factory		

\*Consult factory for higher speeds

\*\*Intermittent/Continuous

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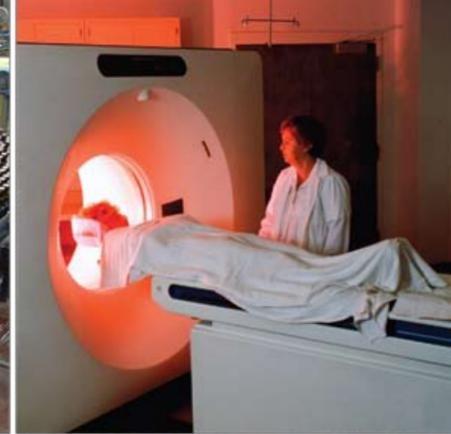
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**Clutch and Brake Solutions**  
Electromagnetic Friction and Wrap Spring

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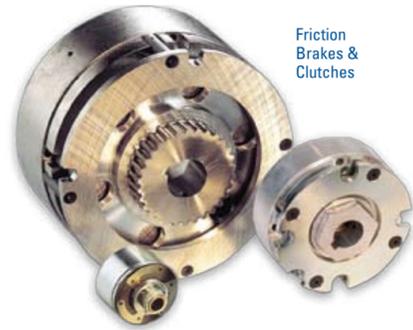
Helping you build a better machine, **faster.**

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Clutches and Brakes - Electromagnetic Friction and The Genuine Wrap Spring™



Friction Brakes & Clutches



The Genuine Wrap Spring™

Building Our Business On a Strong Foundation

Danaher Motion has a long history of manufacturing quality brakes and clutches. At our roots are strong brand names such as Deltran, API (American Precision Industries) and Warner PSI, coming to you now as **Deltran**. We have over 100 years of combined manufacturing experience and a proven ability to provide these core values:

- Quality**—Deltran products are made in our modern Amherst, NY factory which is ISO9001/2000 and AS9100 certified for its Design, Manufacturing and Assembly of Clutches and Brakes.
- Delivery**—Our Clutches and Brakes are delivered on time, every time! With over 780 models available in stock for immediate delivery, Deltran is without peer in customer satisfaction.
- Cost**—Kaizen is our way of life. These are not just words for promotional literature. Continuous improvement is a daily practice for Deltran. Through our Danaher Business System (DBS) manufacturing methodology, we take lean manufacturing to the next level. We supply our customers with benchmark pricing worldwide by combining DBS, our international supply base and vast investments in tooling and equipment.
- Innovation**—Deltran has a wide variety of standard clutches and brakes that can be utilized in many applications. We also pride ourselves on ground up designs where we work with you, one engineer to another, to provide a complete custom solution for your unique application. Ask us about our highly engineered solutions from small volume aerospace and defense to high volume automotive applications, all at competitive cost.



For customer service and applications support in North America, please call our Danaher Motion Assistance Center (DMAC) at 1-540-633-3400. For other Danaher Motion locations please see the back of this brochure.

Selecting Clutches and Brakes

Finding just the right clutch or brake product can be a daunting task. The selection process hinges on the application with many variables to take into consideration. Often times there are several clutch or brake options that might do the job—the key is finding the best solution for your application.

- Clutch and Brake Technologies**—We offer Wrap Spring and Electromagnetic Friction Clutches and Brakes. See our full line catalog for product specifications and operation; design and application examples, plus engineering guidelines.
- Selection by Motion Type**—The Selection Chart by Motion Type identifies our standard products by the basic motions of START, INDEX, SLIP, STOP and HOLD. Each of these motion types are noted by an icon on the left side of this chart. If you know that your application requires a specific motion, this chart may be a helpful place to start your clutch and brake selection.

**Special Needs?**  
Whether it's a ground-up design or value-added assembly we have a custom engineered solution to meet your needs.

Wrap Spring Clutch/Brakes



Clutch and brake products are used in a wide range of applications and markets.



- Medical**
- Our brakes are used in medical equipment as holding brakes to consistently hold a load in position at a specific stopping point. Our clutches are used to drive belts and cables for patient lifts and other medical applications.
- Patient tables and lifts
  - Patient beds
  - Mammography equipment
  - Pill dispensing machines
  - Nuclear imaging (C.A.T. Scan)
  - Digital Imaging
  - X-ray machinery



- Semiconductor and Electronic Assembly**
- Our clutch/brake technology assures high reliability and quality while being cost effective in semiconductor applications.
- Wafer handling robots
  - Inspection test systems
  - Pick and place machines
  - Automated die bonding equipment
  - Product handling storage elevator
  - Surface mount technology (SMT)



- Material Handling/Packaging**
- Long life and reliability are key attributes for clutches and brakes used in material handling and packaging applications.
- Conveyor systems
  - Baggage handling conveyors
  - Pick and place machines
  - Strapping machines
  - Food labelling systems
  - Food dispensing
  - Egg packing equipment
  - Crimping machines



- Aerospace and Defense**
- Wrap spring and friction units are used in commercial and military aircraft vehicles and equipment.
- Autopilot systems
  - Satellites
  - Fuel control
  - Tank gun turret
  - Helicopter actuators
  - Onboard instrumentation
  - Valves
  - Air cabin control backup systems
  - Missiles/precision guided munition

Friction Brakes & Clutches



Friction Custom Engineered Products



- Automotive**
- Cars, vans and SUV's utilize wrap spring clutches, custom power-off brakes and power-on tooth clutches in many applications.
- Cinch/latch mechanisms for doors & trunks
  - Actuators
  - Cruise control
  - Power liftgate
  - Transaxles
  - Power sliding doors



- Electric Vehicle Systems**
- Friction brakes are utilized in many battery-powered vehicle applications including lift trucks and golf cars.
- Scissor lifts
  - Electric hoists and cranes
  - Steering applications
  - Lift trucks
  - By wire applications
  - Golf cars



- Office Automation**
- Wrap spring and friction clutches and brakes are widely used in office equipment.
- Copiers
  - Label dispensing
  - Staplers
  - Electric system vehicle equipment
  - Folding machines
  - Printers
  - Wire stitchers



- Agricultural**
- Wrap spring and friction clutches and brakes are used in agricultural equipment.
- Seeders
  - Balers
  - Tractors
  - Ride on lawnmowers
  - Harvesters
  - Electric vehicle systems equipment