

Quality Motion Control Products



for the Amusement Industry



An Introduction to Hilliard

The Hilliard Corporation, a pioneer in engineering solutions since 1905, has a complete line of motion control products for the amusement industry. In the 1920s, a Hilliard friction clutch was installed on the Elmira, N.Y. carousel pictured on the front cover. It remained in use until the 1970s, when the carousel was dismantled.

Hilliard's product line solves some of the most common problems in the industry, including frequent downtime, safety, and maintenance.

We've developed solutions for our customers' demanding applications and we're confident that we can do the same for you. Our value-added designs can be simply integrated into your product, or custom-designed and rapidly prototyped to fit your needs. Just call us or fax us with your requirements and together, we can keep your world going 'round!

Motion control solutions

for
Concession Go-Karts
Grounds and Maintenance Equipment
Mobile and Fixed Park Rides
Thrill Show and Stage Equipment

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Centrifugal Clutch

Our complete line of centrifugal clutches are engineered to provide a long service life, even in the most demanding applications.

Features and Benefits

- Load-free starting
- Soft start-ups
- Overload protection
- Less vibration
- Longer product life

Applications

- Concession go-karts
- Grounds and maintenance equipment
- Small engine-powered equipment
- Speed limiting brakes



Industrial Centrifugal



Heavy-Duty Linkless



Light-Duty Centrifugal



MT Overrunning Clutch (Freewheel)

Hilliard's line of overrunning clutches are ideally suited for backstopping and dual drive applications.

Features and Benefits

- High overrunning speeds
- Internal or external mounting
- Optional torque arm available

Applications

- Mobile and fixed park rides
- Thrill show and stage equipment
- Safety bars



with optional torque arm

Electric Brakes



The Hilliard family of brakes are engineered for maximum flexibility and long, dependable service life. Our electric brakes are electromagnetically released when voltage is applied and spring-engaged when current is interrupted. They provide reliable routine or emergency stopping and holding.

Features and Benefits

- Heavy-duty friction disc
- Fully epoxy-potted coil
- Easy-to-adjust wear bolts
- Wall or bearing mounted
- C-face mounting

Applications

- Mobile and fixed park rides
- Thrill show and stage equipment



Caliper Disc Brakes

Light-Duty Mechanical



Hilliard's mechanical disc brake is engineered for light-duty dynamic braking and holding applications.

Features and Benefits

- Low cost
- Easy installation
- Heavy-duty friction pads
- Floating caliper requires no adjustments

Applications

- Concession go-karts
- Grounds and maintenance equipment
- Mobile and fixed park rides

Caliper Disc Brakes

Spring Applied

Spring applied caliper brakes are designed for disc, rail, emergency stopping, and holding applications.

Features and Benefits

- Pneumatically released
- Hydraulically released
- Electrically released
- Automatic pad wear compensators

Applications

- Mobile and fixed park rides
- Thrill show and stage equipment



Pneumatically released



Electrically released



Hydraulically released



Electrically released

Direct Applied

Direct applied caliper brakes are designed for light-to heavy-duty dynamic braking applications.

Features and Benefits

- Pneumatically applied
- Mechanically applied
- Hydraulically applied
- Easy friction pad replacement

Applications

- Mobile and fixed park rides
- Thrill show and stage equipment



Mechanically applied



Pneumatically applied



Hydraulically applied

Drive Systems

Wheel Clutch, Go-Kart Differential, Hilliard Bi-Directional Differential



Wheel Clutch



Go-Kart Differential



Hilliard Bi-Directional Differential

These economical drive systems allow two-wheel, positive drive with reduced steering effort. Designed for ease of installation, they replace complicated and archaic “wheel on wheel” drive systems.

Features and Benefits

- Low steering effort
- Instant clutch engagement
- Two-wheel positive drive
- Unidirectional and bi-directional models

Applications

- Grounds and maintenance equipment
- Concession go-karts
- Utility vehicles
- Turnstiles



Hand Disconnect Clutch

The hand disconnect clutch is engineered to provide the operator with full control of clutch engagement. This clutch can be engaged and disengaged either by hand or remotely using a cylinder or solenoid.

Features and Benefits

- Slow or rapid engagement of drive equipment
- Reliable, long life
- Adjustable torque setting
- Over center locking design
- Oil bath or dry operation

Applications

- Mobile and fixed park rides
- Stationary power units
- Trailer-mounted power equipment



Overload Protection Devices

Overload Release Clutch

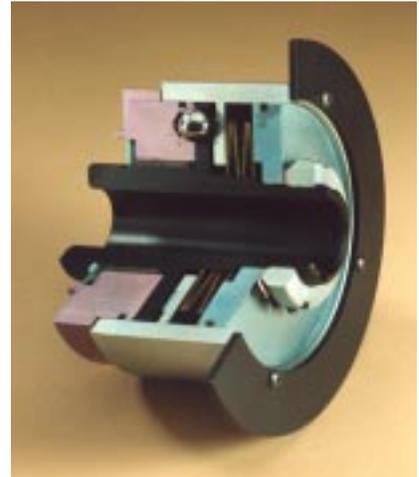
The overload release clutches are available in pneumatically or mechanically actuated models. Both types provide reliable torque control to ensure equipment protection.

Features and Benefits

- Bi-directional operation
- Single- or multi-position engagement
- Adjustable torque setting

Applications

- Mobile and fixed park rides
- Grounds and maintenance equipment
- Thrill show and stage equipment



Friction Torque Limiter

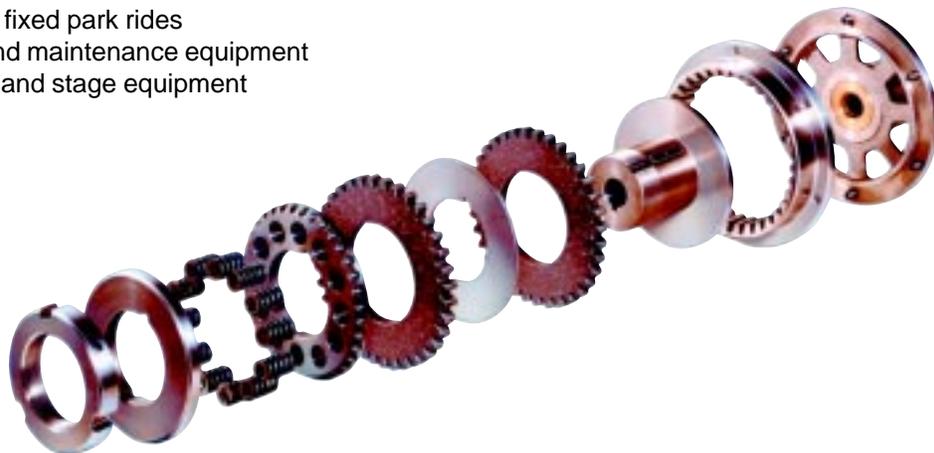
Hilliard friction torque limiters are engineered for intermittent and continuous slip applications, while still transmitting the adjusted torque.

Features and Benefits

- Smooth torque control
- Single-nut adjustment
- Dry operation
- Low maintenance

Applications

- Mobile and fixed park rides
- Grounds and maintenance equipment
- Thrill show and stage equipment





Specially engineered products since 1905

Since The Hilliard Corporation was established in 1905, it has been a reliable source of quality industrial products, such as:

Industrial Clutches and Brakes
Hilco Oil Reclaimers, Filters, and Cartridges
Turbine and Engine Starters
Star Filter Presses



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