



Electric Clutch Solutions for Mobile Off-Highway Applications



An Altra Industrial Motion Company

WARNER ELECTRIC PROVIDES POWER TRANSMISSION SOLUTIONS FOR MOBILE OFF-HIGHWAY APPLICATIONS

Warner Electric provides precision engineered clutches to meet the critical requirements of the highly-specialized machines and vehicles built for specific commercial work, often operating in harsh weather environments.



Warner utilizes advanced technologies and materials, together with extensive application expertise and world-class engineering capability to provide reliable, efficient, cost-effective clutch solutions to our customers. For this reason, many of the world's leading off-highway OEM's and end-users choose Warner's proven products for their power transmission needs.

Warner engineers are keenly aware that many types of unique off-highway vehicles require small clutch quantities. In response to often low-volume requests, Warner clutches designed for this particular market are provided as basic units which allow OEMs to economically customize each clutch to fit their specific application.

Highly-engineered Warner clutches reduce costly downtime and maximize operational efficiency in a wide array of agriculture, construction equipment, mining, heavy-duty truck, forestry, electric vehicle and mobile lift & crane applications.

www.AltraMobileOffHighway.com

WHY DO CUSTOMERS SELECT **WARNER ELECTRIC** CLUTCHES?



Problem: A major hydro-seeder manufacturer needed clutches that could meet their application need for high torque and simplicity of control to replace two mechanical designs used previously. The clutches needed to have mounting flexibility so that re-design of other drive train components would be minimized.

Solution: Warner Electric engineers provided an SF 825 clutch with custom spring and hub design to easily retrofit in place of the customer's existing mechanical clutches. Two clutches allow operators to control both sprayer and mixer systems easily instead of having to manually engage the previous mechanical clutches. The high torque clutch design ensures that the unit can drive through intermittent torque spikes in the mixer process.

WARNER ELECTRIC CLUTCHES DESIGNED SPECIFICALLY FOR MOBILE OFF-HIGHWAY APPLICATIONS

Warner Electric offers two distinct product families for use in Mobile Off-Highway applications:

SF Series are available in diameters ranging from 8" to 12.5", with torque ranges up to 1,000 ft.lbs. in a stationary field configuration.

PC Series units extend the product range to 1,800 ft.lbs. in a 15.25" diameter in a brush holder, magnet, armature design.

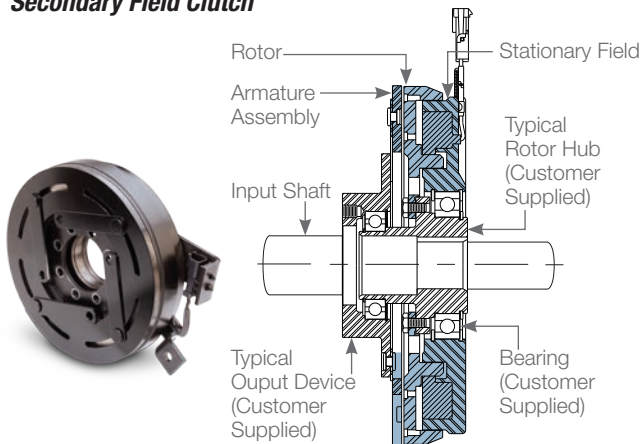
Both families include leaf spring armature designs for clean release. They also offer two-pole or four-pole magnetic circuit designs to achieve the highest torque capacity for a given unit diameter. Finally, both are designed without friction material so that friction face contamination is a non-issue.

The SF and PC product lines are provided as a "Basic" product design so that short-line manufacturers can customize the units with their own bearings and input/output hubs without incurring the costs associated with a proprietary, high-volume design.

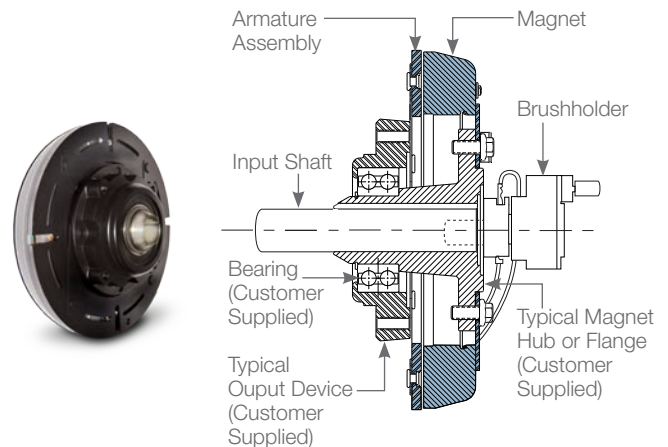
Operating Torque Capacity

Model	Overall Dia.	Static Torque	Mounting	Max. Speed	Voltage
PC 825 - 2 Pole	8 1/4"	250 lb ft	F	2000	12V
PC 825 - 4 Pole	8 1/4"	400 lb ft	F	2000	12V
PC 1000 - 2 Pole	10"	500 lb ft	F	2000	12V
PC 1000 - 4 Pole	10"	700 lb ft	F	2000	12V
PC 1250 - 2 Pole	12 1/2"	700 lb ft	F	2000	12V
PC 1250 - 4 Pole	12 1/2"	1000 lb ft	F	2000	12V
PC 1525 - 2 Pole	15 1/4"	1250 lb ft	F	2000	12V
PC 1525 - 4 Pole	15 1/4"	1800 lb ft	F	2000	12V
SF 825 - 2 Pole	8 1/4"	175 lb ft	B	2000	12V
SF 825 - 4 Pole	8 1/4"	400 lb ft	B	2000	12V
SF 1000 - 2 Pole	10"	300 lb ft	B	2000	12V
SF 1000 - 4 Pole	10"	700 lb ft	B	2000	12V
SF 1250 - 2 Pole	12 1/2"	700 lb ft	B	2000	12V
SF 1250 - 4 Pole	12 1/2"	1000 lb ft	B	2000	12V

SF Design Secondary Field Clutch



PC Design Primary Clutch



WHY DO CUSTOMERS SELECT WARNER ELECTRIC CLUTCHES?



Problem: Adding an electric clutch to a concrete saw system adds both convenience and safety to these high demand, but potentially dangerous systems. The application has multiple design challenges. The system must be able to work reliably despite load spikes that can occur when cutting the concrete. High levels of moisture from the cutting coolant could contaminate a clutch with friction material. Lastly, the unit must work in both hot and cold weather situations.

Solution: The Warner Electric SF 1000 clutch provides torque to exceed the application requirement. By allowing the sharp diamond tipped blade to be disconnected from the engine, the cutting system can be driven from one location to the next using engine power rather than pushed manually if the blade were to continue to run.

Belted Drives and Sheaves

TB Wood's

Belted Drives

Chambersburg, PA - USA
1-888-829-6637 – Press #5

For application assistance:
1-888-829-6637 – Press #7

Couplings

Ameridrives Couplings

*Mill Spindles, Ameriflex,
Ameridisc*

Erie, PA - USA
1-814-480-5000

Gear Couplings

San Marcos, TX - USA
1-800-458-0887

Ameridrives Power Transmission

*Universal Joints, Drive Shafts,
Mill Gear Couplings*

Green Bay, WI - USA
1-920-593-2444

Bibby Turboflex

*Disc, Gear, Grid Couplings,
Overload Clutches*

Dewsbury, England
+44 (0) 1924 460801

Boksburg, South Africa
+27(0) 11 918 4270

Guardian Couplings

*Engineered Flywheel Couplings,
Engine Housings and Pump Mounts,
Flexible Shaft Couplings*

Michigan City, IN - USA
1-219-874-5248

Huco Dynatork

*Precision Couplings and
Air Motors*

Hertford, England
+44 (0) 1992 501900

Chambersburg, PA - USA
1-888-829-6637

Couplings Cont.

Lamiflex Couplings

*Flexible Couplings, Bearing
Isolators, and Coupling Guards*

São Paulo, SP - Brasil
+55 (11) 5679-6533

TB Wood's

Elastomeric Couplings

Chambersburg, PA - USA
1-888-829-6637 – Press #5

For application assistance:
1-888-829-6637 – Press #7

General Purpose Disc Couplings

San Marcos, TX - USA
1-888-449-9439

**Electromagnetic
Clutches and Brakes**

Inertia Dynamics

*Spring Set Brakes; Power On and
Wrap Spring Clutch/Brakes*

New Hartford, CT - USA
1-800-800-6445

Matrix International

*Electromagnetic Clutches
and Brakes, Pressure Operated
Clutches and Brakes*

Brechin, Scotland
+44 (0) 1356 602000

New Hartford, CT - USA
1-800-825-6544

Warner Electric

*Electromagnetic Clutches
and Brakes*

New Hartford, CT - USA
1-800-825-6544

For application assistance:
1-800-825-9050

Saint Barthélemy d'Anjou, France
+33 (0)2 41 21 24 24

*Precision Electric Coils and
Electromagnetic Clutches and
Brakes*

Columbia City, IN - USA
1-260-244-6183

**Engineered
Bearing Assemblies**

Kilian Manufacturing

*Engineered Bearing
Assemblies*

Syracuse, NY - USA
1-315-432-0700

Gearing

Bauer Gear Motor

Geared Motors

Esslingen, Germany
+49 (711) 3518-0

Somerset, NJ - USA
1-732-469-8770

Boston Gear

*Enclosed and Open Gearing,
Electrical and Mechanical
P.T. Components*

Charlotte, NC - USA
1-800-825-6544

For application assistance:
1-800-816-5608

**Nuttall Gear and
Delroyd Worm Gear**

*Worm Gear and
Helical Speed Reducers*

Niagara Falls, NY - USA
1-716-298-4100

**Heavy Duty
Clutches and Brakes**

Industrial Clutch

*Pneumatic and Oil Immersed
Clutches and Brakes*

Waukesha, WI - USA
1-262-547-3357

Svendborg Brakes

*Industrial Brakes and
Brake Systems*

Vejstrup, Denmark
+45 63 255 255

Twiflex Limited

Caliper Brakes and Thrusters

Twickenham, England
+44 (0) 20 8894 1161

**Heavy Duty
Clutches and Brakes Cont.**

Wichita Clutch

*Pneumatic Clutches
and Brakes*

Wichita Falls, TX - USA
1-800-964-3262

Bedford, England
+44 (0) 1234 350311

Linear Products

Warner Linear

Linear Actuators

Belvidere, IL - USA
1-800-825-6544

For application assistance:
1-800-825-9050

Saint Barthélemy d'Anjou,
France
+33 (0)2 41 21 24 24

Overrunning Clutches

Formsprag Clutch

*Overrunning Clutches
and Holdbacks*

Warren, MI - USA
1-800-348-0881 – Press #1

For application assistance:
1-800-348-0881 – Press #2

Marland Clutch

*Roller Ramp and Sprag Type
Overrunning Clutches
and Backstops*

South Beloit, IL - USA
1-800-216-3515

Stieber Clutch

*Overrunning Clutches
and Holdbacks*

Heidelberg, Germany
+49 (0) 6221-30470

For information concerning our
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check our website
www.altramotion.com.cn



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