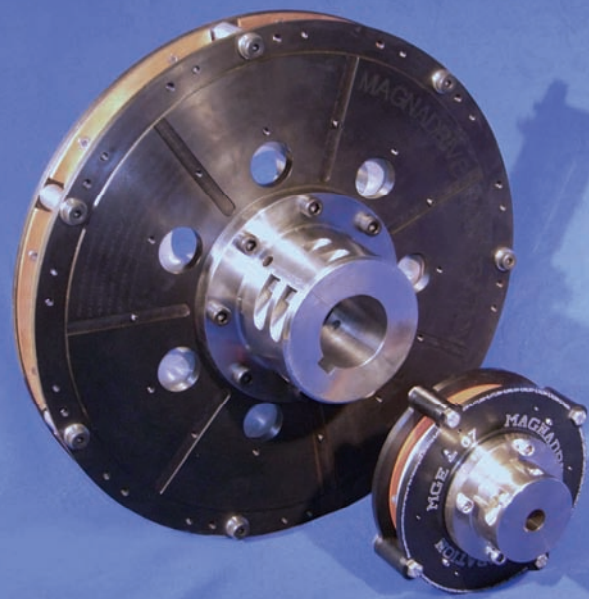


MagnaDrive™

The Next Industrial Revolution

Disturbed By: POWER PLA



MGE **MagnaGuard** **Economizer Coupling**

1/2 — 500 Hp

Key Features & Benefits:

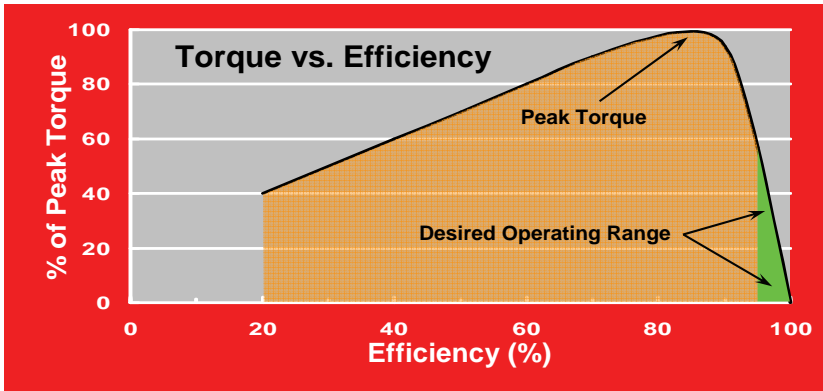
- Lowest Total Cost of Ownership
- Efficient Torque Transfer
- Accepts Misalignment
- Cushioned Start
- Eliminates Vibration Transfer Between Motor and Load
- Permits Shock Loading
- Low Maintenance
- Simple Installation
- Reduces Maintenance & Operation Costs
- Increases Seal & Bearing Life
- Meets ANSI B73 and API 610 Standards
- “Green” Technology

Ideal for Applications Subject To:

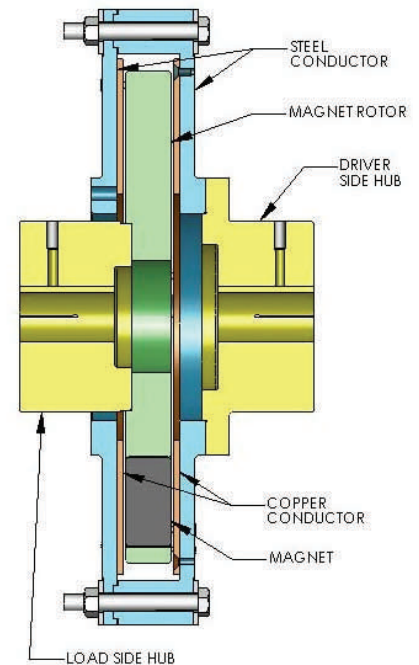
- Vibration
- Periodic Load Seizure
- Pulsating Loads
- Thermal Expansion

Principle of Operation

An MGE consists of two separate components that have no physical contact. A precision machined aluminum rotor containing powerful permanent rare-earth-magnets is mounted on one shaft. A conductor consisting of a steel housing with copper rings mounts on the other shaft. The coupling's ability to transmit torque is created by the relative motion between the copper conductor and the magnets. This motion creates a magnetic field in the copper that interacts with the permanent magnets, thus transmitting torque across the air gap. MagnaDrive products are designed to minimize Electro Magnetic Interference (EMI). The flux level from each coupling is lower than the EMI emitted by the associated motor.



Note: The above torque curve is a generalization of various sizes of magnetic couplings. Coupling selection is based on each application's speed, horsepower, and desired efficiency. Please consult MagnaDrive for proper selection based on your application's requirements



MGE Coupling Data				
Model	Weight (less hubs)	Dimensions (inches)		
	lb	A (Diameter)	B (Length overall)	C (Length center member)
MGE-01	5.0	4.75	2.75	1.25
MGE-01 (2)	5.3	4.75	2.75	1.25
MGE-03	7.5	6.50	4.00	1.25
MGE-07	20	9.25	6.06	2.50
MGE-11	49	13.13	6.60	2.50
MGE-15	83	17.13	10.50	3.00
MGE-19	127	21.13	10.50	3.00

Meets ANSI B73 and API 610 Standards

MagnaDrive's "Green" disconnected torque-transfer technology reduces your total cost of ownership by lowering maintenance and operating costs, increasing process availability, and improving system reliability.

Technical Data

MGE Coupling Specification Data										
Model	Sample Rating at 1800 RPM (HP)		Sample Rating at 3600 RPM (HP)		Power Rating*	Maximum Operating Torque (Note 1)		Peak Torque Rating		Max. RPM
	1.3 Service Factor	1.8 Service Factor	1.3 Service Factor	1.8 Service Factor	HP per 100 RPM (1)	ft-lb	in-lb	ft-lb	in-lb	
MGE-01	2.3	1.6	4.6	3.2	0.065	3.4	40.8	8.8	105	5000
MGE-01 (2)	3.4	2.5	6.8	5	0.10	5.0	60.0	13.2	158	5000
MGE-03	8.9	6.4	17.8	12.8	0.32	17.0	205	33.8	405	4000
MGE-07	24	17	48	34	1.11	58.2	698	91.7	1100	6800
MGE-11	85	61	170	122	4.20	217	2604	325	3900	4500
MGE-15	226	163	452	326	10.90	572	6864	858	10,300	3600
MGE-19	427	308	NA	NA	21.00	1081	12,972	1621	19,450	3000

(1) Based on minimum efficiency of 95% (2) With high capacity magnet rotor

Standard MGE Hub Data (Special sizes also available)				
Model	Weight (lb) (approx.)	Standard DBSE* range (inches)	Standard shaft diameters (inches)	Maximum shaft diameter
MGE-01				
Motor side	Integral	.25 - 1.50	.375, .500, .625, .750, .875	0.875
Load side	Integral		.375, .500, .625, .750, .875	
MGE-03				
Motor side	1.5	.25 - 2.00	.625, .750, .875, 1.125, 1.375	1.375
Load side	1.5		.625, .750, .875, 1.125, 1.375	
MGE-07				
Motor side	6	.25 - 3.50	.875, 1.125, 1.375, 1.625	1.750
Load side	5		.875, 1.125, 1.625	
MGE-11				
Motor side	11	.25 - 3.50	1.125, 1.375, 1.625, 1.875, 2.125, 2.375	2.625
Load side	9		1.125, 1.375, 1.625	
MGE-15				
Motor side	23	.25 - 4.50	1.500 to 3.500, increments of 0.125	3.544 (90 mm)
Load side	18		1.500 to 3.500, increments of 0.125	
MGE-19				
Motor side	23	.25 - 4.50	1.500 to 3.500, increments of 0.125	3.544 (90 mm)
Load side	18		1.500 to 3.500, increments of 0.125	

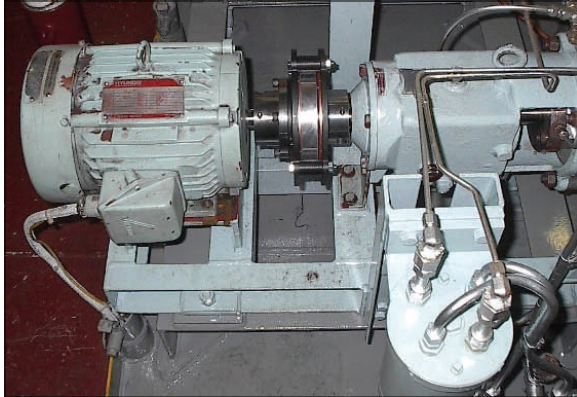
* DBSE = Distance Between Shaft Ends

Hubs bored per AGMA Standard 9002-A86 Class 1 clearance fit
Standard hub material is alloy steel

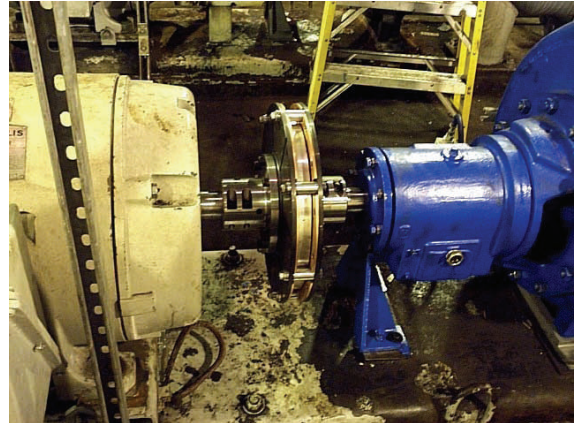
MagnaDrive

C O R P O R A T I O N

MGE Sample Installations



MGE-07, 20HP, 3600RPM, Oil & Gas,
Oil Transfer Pump, Oil Tanker



MGE-15, 150HP, 1800RPM, Power Plant,
Pump – Lime Slurry Scrubber, Becker, MN



MGE-11, 50HP, 3600RPM
HVAC, Hospital, Salt Lake City, UT



MGE-11, 100HP, 3600RPM, Pulp & Paper Plant, Clean
Condensate Pump, St. Helens, OR

About MagnaDrive

MagnaDrive Corporation was founded in 1999, and is based out of Bellevue, WA. The company's breakthrough magnetic technology provides a cost effective solution to increase reliability and lower maintenance expense while achieving energy savings and process control. The impact and potential of the technology was recognized by Industry Week magazine, which selected MagnaDrive as Technology of the Year in 2001. MagnaDrive was selected by Inc. Magazine as one of the 500 fastest growing private companies in the United States. Recently, Deloitte & Touche named MagnaDrive one of the 100 fastest growing technology companies in North America. MagnaDrive offers a family of products to accomplish a broad range of operating objectives: Reliability, Speed Control, Torque Management, Cushioned Start, Vibration Control and Misalignment Tolerance.

Deloitte
Technology Fast 100

Inc.
500

IndustryWeek 
Technology of the Year

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