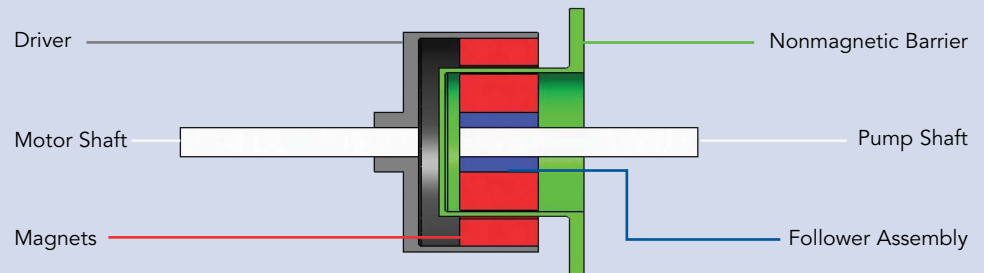




Dexter Magnetic Couplings

No seals, no leaks, no contamination

More than 300,000
Dexter-designed
magnetic couplings
have been put
in service



Because magnetic couplings can transfer motion, force or torque across a solid barrier, no seals are required between the driving motor and the harsh or hazardous operating environment. Without a seal, there is no risk of leak or contamination. Magnetic couplings can also be used to transfer motion, force or torque into an environment such as vacuum, the human body or a high purity or sterile environment without risk of contamination.

No contact during motion: wear is greatly reduced

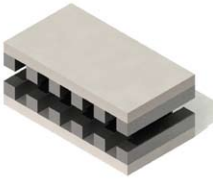



In most cases, the moving parts do not come into contact during motion so wear is greatly reduced, leading to higher reliability and lower maintenance. Whether your operating environment is corrosive, high pressure or at elevated temperature, magnetic couplings may allow you to place your motor in a more comfortable operating environment and without dynamic seals. This more robust design can increase the life of the system by orders of magnitude.

Magnetic couplings deliver precise motion

In a magnetic coupling, the RPM of the driven system exactly matches that of the driving system. Magnetic couplings can therefore be used in metering pumps to accurately dispense specific quantities of liquid. They can also be used to precisely position devices inside harsh or pristine environments. Magnetic couplings can do double duty. Magnetic couplings can transfer torque, and most are used just this way. But they can also be used as positioning devices, as position stops, as sensors or as detectors. They can be designed to operate at constant torque when variation in torque can damage sensitive equipment.

Dexter Magnetic Couplings

These four basic configurations can be used as starting points in the design of the ideal torque coupling for your application.

	Linear Motion	Rotation
Planar Configuration	 <p>Example: Width = 1.5 in Length = 2.75 in Force = 80 N</p>	 <p>Example: Diameter = 6 in Torque = 30 N•m</p>
Cylindrical Configuration	 <p>Example: OD = 3.5 in Length = 4 in Force = 440 N</p>	 <p>Example: OD = 3.5 in Length = 4 in Torque = 14 N•m</p>

Beyond these basic configurations, Dexter can provide additional designs and functionality to handle the harshest of environments and the most demanding performance characteristics. We can scale to any device size or performance specifications you need.

If you would like a quote on your application, please visit <http://www.dextermag.com/Coupling-RFQ.aspx> and complete our Magnetic Coupling Design RFQ Worksheet.



Magnetic Technologies

www.dextermag.com/magnetic-couplings.aspx
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 800-345-4082

	Torque	Dimensions	Conditions	Specs
Linear Drive for Safety Valve in Subsurface Deep Oil and Gas Well Completions				
	1200 lb force	~6.0 in dia x ~20 in len	<ul style="list-style-type: none"> ▶ 200 °C ▶ 20,000 psi ▶ H₂S ▶ Well bore fluids 	
RPM Sensor for Hydraulic Fluid Metering Pump				
	≥ 1.8 in-oz	~0.6 in dia x ~2.4 in len	<ul style="list-style-type: none"> ▶ 250 °C ▶ 80 psi ▶ Hydraulic fluid 	▶ Limited length on driver side
Drive for Chemical Pump				
	12 ft-lb of torque @ 3600 rpm	~3.5 in dia x ~5.5 in len	<ul style="list-style-type: none"> ▶ 180 °C ▶ 30 psi ▶ Isocyanide 	▶ Hard start
Drive for Titanium Vat Agitator 150				
	150 ft-lb of torque @100 rpm	~6 in dia x ~14 in len	<ul style="list-style-type: none"> ▶ 350 °C ▶ Vacuum ▶ Titanium vapor 	<ul style="list-style-type: none"> ▶ Self supporting follower ▶ Long output shaft ▶ Features for integration ▶ Max diameter ~6.0 in
Drive for Undersea Application				
	10 ft-lb @ 120 rpm	~4.5 in dia x ~5.5 in len	<ul style="list-style-type: none"> ▶ 250 °C ▶ 800 ft deep salt water 	<ul style="list-style-type: none"> ▶ Offset drive ▶ Self supporting ▶ Follower~3.25 in dia x 1.5 len
Valve Position Sensor Drive				
	1.5 in-oz @ near static	~1 in dia x ~3.5 in len		<ul style="list-style-type: none"> ▶ Sealed application ▶ Sensing valve position ▶ Low cost
Self-Positioning Holding Unit				
			▶ Room temperature	<ul style="list-style-type: none"> ▶ Fully detachable coupling ▶ Device needs to hold unit ▶ Device must help position item