Warner Electric

Boston Gear

TB Wood's

Formsprag Clutch

Wichita Clutch

Marland Clutch

Industrial Clutch

Bauer Gear Motor

Svendborg Brakes

**Nuttall Gear** 

Warner Linear

Delroyd Worm Gear

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Ameridrives Couplings

Inertia Dynamics

Matrix International

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**Twiflex Limited** 

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Excerpted From

# The Efficient Drive System



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#### Excerpted From

## **The Efficient Drive System**

### Coupling Manufacturers Discuss Trends, Challenges and Future Outlook

by Matthew Jaster

Senior Editor, Power Transmission Engineering

It's a fact that drive systems wouldn't function properly or efficiently without couplings. They quietly go about their business of transferring motion from one drive element to the next. In the PT market today, couplings have the unique challenge of satisfying a variety of customer needs including tighter tolerances, higher speeds and a more versatile selection process.

"In the last three to five years, some of the biggest industry improvements have come as the result of the consolidation in the industry. Today more customers have easier access to service and support of a broader range of products locally than they did five or 10 years ago," says Mark O'Neil, director of engineering at Altra Couplings.

#### **Challenges Ahead**

With technology rapidly changing and price always a factor, many coupling manufacturers have to aggressively seek out new industries and raise the bar on the quality of their own products. Additional challenges include redesign, higher speeds and changing the perception of couplings in the PT market.

"There are several advancements in electrical generator technology that are being developed that will require very high-speed reliable couplings. These new applications are still many years away from large-scale production, but they offer some of the most challenging opportunities for coupling design," O'Neil says. "On the other end of the spectrum is the constant cost pressure of a global market. Engineering and production are continuously challenged to provide quality products that meet the customers' requirements at a competitive price. We are continuously working on new materials to provide our customers with longer life, higher torque ratings and increased misalignment capabilities to allow us to differentiate ourselves in the market."

#### Stock vs. Custom

Like other power transmission components, coupling manufacturers need to provide a balance of stock and custom products. Custom couplings provide better results for high performance applications, but a shelf full of stock products is equally important.



The Torsiflex coupling from Altra is designed for process pump applications.

"Altra Couplings provides a full range of couplings solutions from off-the-shelf products to very highly-engineered products. A significant part of our business involves taking standard, off-the-shelf products and modifying them to meet specific customer requirements. One of the advantages of our wide range of product offering is that a customer can build an entire plant with couplings from one company.

Whether it's a critical process compressor running at 15,000 rpm or a fractional horsepower pump, all needs can be met with one supplier with established pricing," says O'Neil.

#### **Customer Feedback**

Faster lead times seem to be top of the list when it comes to customer demands, followed by technical support, larger inventories and longer life.

"Our customers are looking for longer life from couplings to reduce their downtime. They are looking for shorter delivery to reduce their inventory costs. They are looking for greater misalignment capability to reduce the time to install the equipment. They are also looking for more power density: smaller, lighter couplings that transmit more torque with less impact on the drive and driven equipment," O'Neil adds.

#### **Future Considerations**

Couplings will continue to get more compact, with efforts to make them more easily configured for quick delivery. But what else will be contributing factors to the success of coupling manufacturers in the near future?

"The coupling industry has seen a significant amount of consolidation in the last five years, and we would expect to see continued movement in that direction.

Additionally, we would expect to see continued global expansion of those established companies into the non-traditional manufacturing countries," O'Neil says.

#### **About Altra Industrial Motion**

Altra Industrial Motion (NASDAQ:AIMC) is a leading multinational designer, producer and marketer of a wide range of electromechanical power transmission products. The company brings together strong brands covering over 40 product lines with production facilities in nine countries.

Altra's leading brands include Boston Gear, Warner Electric, TB Wood's, Formsprag Clutch, Wichita Clutch, Industrial Clutch, Ameridrives Couplings, Kilian Manufacturing, Marland Clutch, Nuttall Gear, Bauer Gear Motor, Svendborg Brakes, Stieber Clutch, Twiflex Limited, Bibby Turboflex, Matrix International, Inertia Dynamics, Huco Dynatork, Lamiflex Couplings, Ameridrives Power Transmission, Delroyd Worm Gear and Warner Linear. For information on any of these technology leaders, visit www.AltraMotion.com or call 815-389-3771.



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