

Competitive Analysis

Competitive Analysis:
Rexnord Omega Elastomeric Coupling versus the competition

Analysis Factors:

- Capacity
- Endurance
- Fatigue, starts and stops
- Flex element material
- Resistance
- Strength
- Test results

Why Choose Rexnord?

- We deliver lowest total cost of ownership
- We provide valuable expertise
- We offer solutions to enhance ease of doing business

Rexnord Omega Elastomeric Couplings

Competitive environment:

Interested in finding out how Rexnord® Omega® Elastomeric Couplings compare against other couplings in the industry, such as split-in-half bonded rubber tire couplings? Read this sheet for examples of key competitive analysis factor information and test results demonstrating how Rexnord Omega Elastomeric Couplings come out ahead.

Key advantages of the Rexnord Omega Elastomeric Coupling over the competition:

Capacity

- Rexnord Omega is rated up to 425,250 in-lbs maximum rating; the competition is rated up to 39,503 in-lbs

Endurance

- Rexnord Omega has two to four times longer life than the competition in regenerative dynamometer testing

Fatigue, starts and stops

- Rexnord Omega has three to six times longer life on reverse torque, high-cycle fatigue testing than the competition

Flex element material

- Rexnord Omega uses a high-purity polyurethane for the flexible element; the competition uses rubber, a weaker elastomer
- At 7,000 psi, the Rexnord Omega Elastomeric Coupling’s polyurethane formulation has approximately twice the tensile strength of rubber
- The competition adds 7 percent filler (talc and silica) to their elastomer

Resistance

- Rexnord Omega provides chemical and environmental resistance against solvents, oils, sunlight, ozone, and oxidation; one competitor's coupling is not resistant against these elements and is attacked when subjected to these elements

Strength

- Rexnord Omega has twice the material strength than the competition

For more advantages of the Rexnord Omega Elastomeric Coupling and results on regenerative dynamometer and reverse torque testing, see the back of this sheet.



Rexnord Omega Elastomeric Coupling

**Information in this document has been researched to ensure all facts can be substantiated. If you have more questions, please contact your local Rexnord Account Executive, or 262-796-4060.*

Differentiation through testing

Regenerative dynamometer test results

A regenerative dynamometer is a 3,600 RPM test stand with misalignment and torque. The Rexnord Omega Elastomeric Coupling performed two to four times better than the competition in this test. The Rexnord Omega Elastomeric Coupling E4 elements were subjected to 300 percent of rating (1,650 in-lbs) at 4 degrees of angular misalignment. The Rexnord Omega Elastomeric Coupling completed 100 million cycles in this test. A competitor's two E4 elements survived only 42.4 and 26.6 million cycles.

Reverse torque test results

The Rexnord Omega Elastomeric Coupling performed three to six times better — and twice the load — than the competition in the reverse torque test. The reverse torque test simulated equipment starts and stops by subjecting the Rexnord Omega Elastomeric Coupling's E20 elements to $\pm 160\%$ of torque rating ($\pm 1,840$ in-lbs). The Rexnord Omega Elastomeric Coupling completed 1 million cycles in this test. The competition only accepted 1,000 in-lbs of torque before over twisting to the physical limit of the test stand, creating bonding failure. A competitor's four coupling E20 elements failed at 188,000, 162,000, 308,000 and 205,000 cycles, or between 1/3 and 1/6 of the life of the Rexnord Omega Elastomeric Coupling (and at only 54 percent of the standard load at which Rexnord tests the Rexnord Omega Elastomeric Couplings).

Additional advantages of the Rexnord Omega Elastomeric Coupling over the competition



Weight balance

The Rexnord Omega element halves are weight matched to Rexnord's precise standard; one competitor's coupling element halves fail this standard 70 percent of the time. The coupling half element weight difference in one instance was 430 percent higher than the Rexnord limit for paired Rexnord Omega Elastomeric half elements. Weight matching half elements is important for optimum coupling balance and equipment life.

Vibration damping

The Rexnord Omega dampens vibration better than the competition with its polyurethane flexible element, a superior damping material compared to rubber. Damping is critical to extending equipment life by protecting it from the damaging effects of vibrational, thermal and electrical energy.

Warranty

Rexnord offers a full five-year warranty; the competition offers a limited five-year, pro-rated warranty.