

# PSC Tech Topics

## PSC's Torque Density Provides Longer Equipment Life and Significant Cost Savings



### Why Choose PSC Disc Couplings?

- Longer equipment life with industry leading high torque density and low restoring forces
- Quick and easy installation with self piloting, fully assembled, and collapsible disc pack cartridges
- Better balance with precisely manufactured components and piloting features



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PSC's Series 57 disc couplings are a great fit for many applications. Much like other disc couplings, PSC's couplings provides a long life and low maintenance solution. However, PSC's unique torque density is what differentiates them from other disc coupling manufacturers.

Torque density is the amount of torque a coupling can transmit divided by the coupling's overall diameter. This simple value has a significant impact on the cost of a coupling. Higher torque dense couplings generally cost less.

For instance, gear couplings are typically the most torque dense couplings on the market. In terms of cost per in-lb [Nm] of torque transfer, they are generally regarded as having the lowest up front cost. Unfortunately, low upfront cost products generally have wearable parts, maintenance requirements, and general consumables that end up costing the end user throughout the useable life of the product. This cost is not only the physical cost of parts and maintenance, but it is also the opportunity cost of equipment downtime.

A long life, low maintenance disc coupling is a great alternative to couplings requiring frequent maintenance or consumable wear parts. Traditionally, the downside with disc couplings is a high upfront cost, but PSC is bending the cost curve down. How is this possible? Torque Density! Below are pictures of a competitor (Left) and the PSC Series 57-516 disc coupling (Right).



	Rexnord Thomas XTSR71-726	Rexnord Thomas XTSR52-726	PSC Series 57-516
Torque (in-lbs)	2,630	2,630	3,000
Diameter (in)	3.74	3.74	2.73
Weight (lbs)	6.83	3.90	2.28
Std Max Bore (in)	1.63	1.75	1.50
Spec Max Bore (in)	2.38	2.38	2.63

These couplings are virtually identical in performance; however, the PSC Series 57-516 is over 1" [25.4mm] less in diameter. This provides significant cost savings, lower mass, better balance, and allows for much longer life of connected equipment.