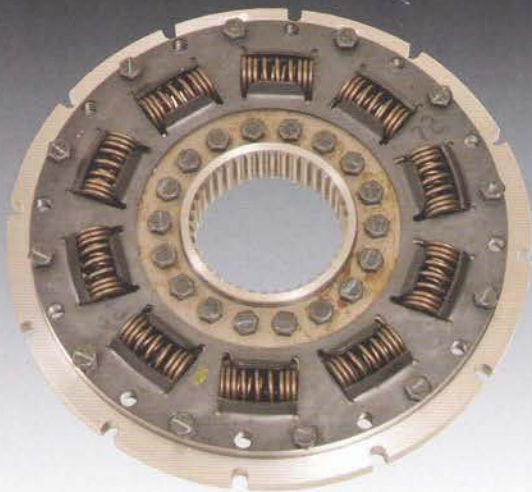


**IF OUR COUPLINGS  
DON'T FIT YOUR  
APPLICATION . . .**

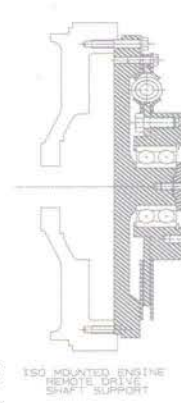
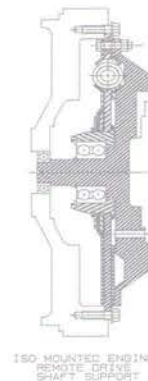
**WE'LL CHANGE  
OUR DESIGN.**





### TYPICAL APPLICATIONS:

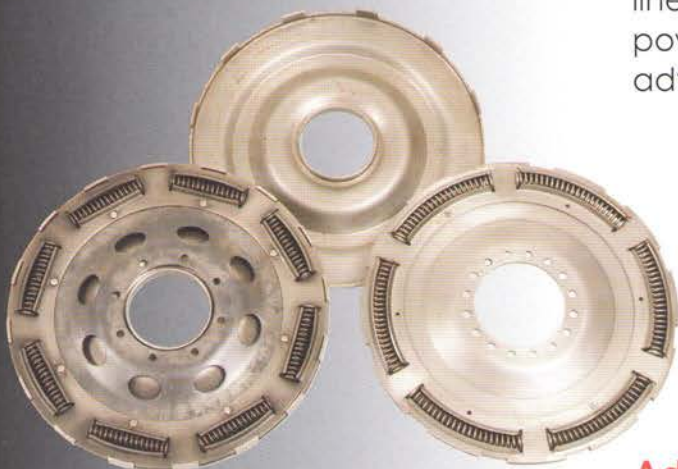
- ▶ Agriculture Vehicles
- ▶ Construction Equipment
- ▶ Industrial Equipment
- ▶ Marine
- ▶ Mining Equipment



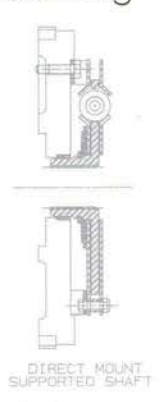
### SPRING COUPLINGS vs DRIVE PLATES

Although not all applications require torsional compliance, Torsion Control Products' engineers will evaluate your application and determine if a spring coupling would provide an advantage over a conventional drive plate.

TCP has engineered and developed a comprehensive line of Spring Couplings used in a wide variety of powertrain applications. These devices offer the following advantages in most applications.

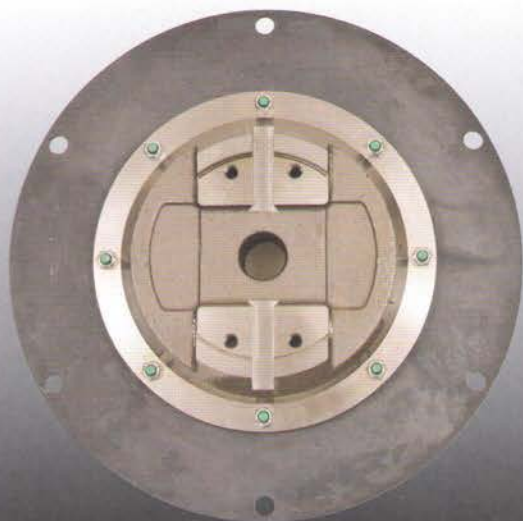


- ▶ Torsional vibration attenuation
- ▶ Resonance isolation
- ▶ Overload and shock load protection
- ▶ Noise reduction
- ▶ Improved bearing / gear life
- ▶ Increased system durability



### Advantages of using Torsion Control Products' Spring Couplings:

- ▶ All steel construction for long life
- ▶ Lubricated and non-lubricated environments
- ▶ Space efficient design
- ▶ Temperature extremes do not affect performance or durability
- ▶ Performance can be optimized for a given application
- ▶ Multistage stiffness for optimized system tuning
- ▶ Controlled coulomb damping
- ▶ Drop-in replacement for original drive plates, no spacers required
- ▶ Integral shaft support capability eliminates the need for additional bearing support



***Our Couplings Are Designed For Off-Highway Applications.***



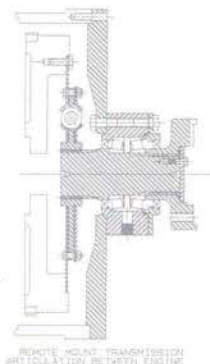
# PLINGS FOR

# S / POWERSHIFT / HYBRID TRANSMISSIONS

## ATIONS

**SPRING COUPLINGS** have been a part of powertrains for over 80 years. Torsion Control Products has developed a line of Spring Couplings specifically for the Tier III and Tier IV engine configurations. These products address the torsional characteristics unique to the Tier upgrades that produce more power in smaller packages with lower operating speeds.

Thru the evaluation of many different applications using Torsional Vibration Analysis, TCP engineers have created products that address the needs of most applications. Whether it is in Agricultural products, Mining, Industrial Equipment, Marine or Construction applications, chances are we have a product and performance that will address the needs of your application.



If we don't we will create a configuration and performance for you.

**Typical Ratings:** 20 to 20,000 lb-ft (27 to 27,000 N-m)

**Typical Environment:** Dry, Lubricated, Sealed or Unsealed.

**Performance:** Consistent throughout the life of the product.

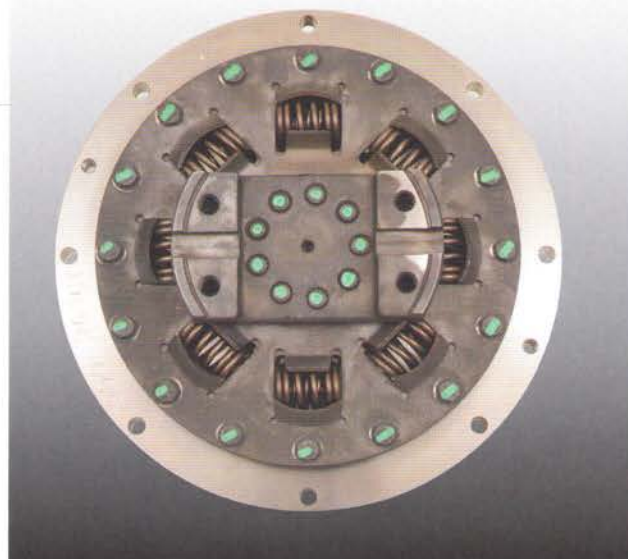
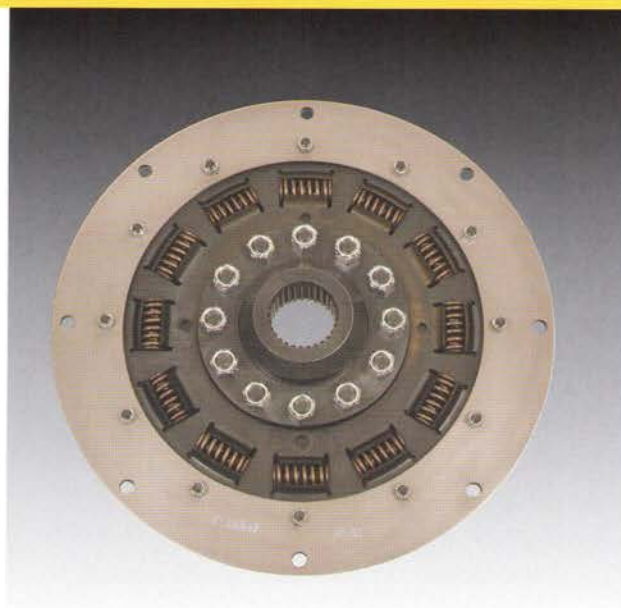
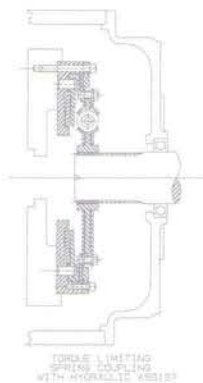
**Long Life:** Torsion Control Products couplings are designed to produce long life in any environment.

**Proven Durability:** In the roughest applications steel couplings continue to operate, continue to attenuate driveline torsionals.

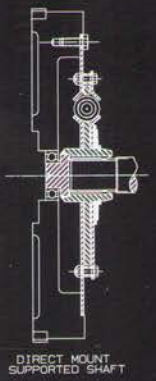
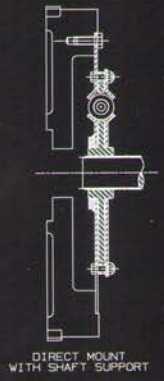
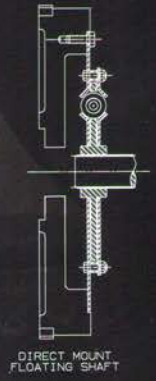
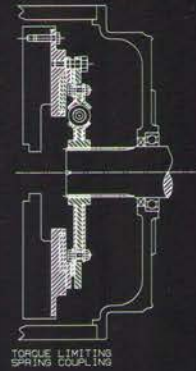
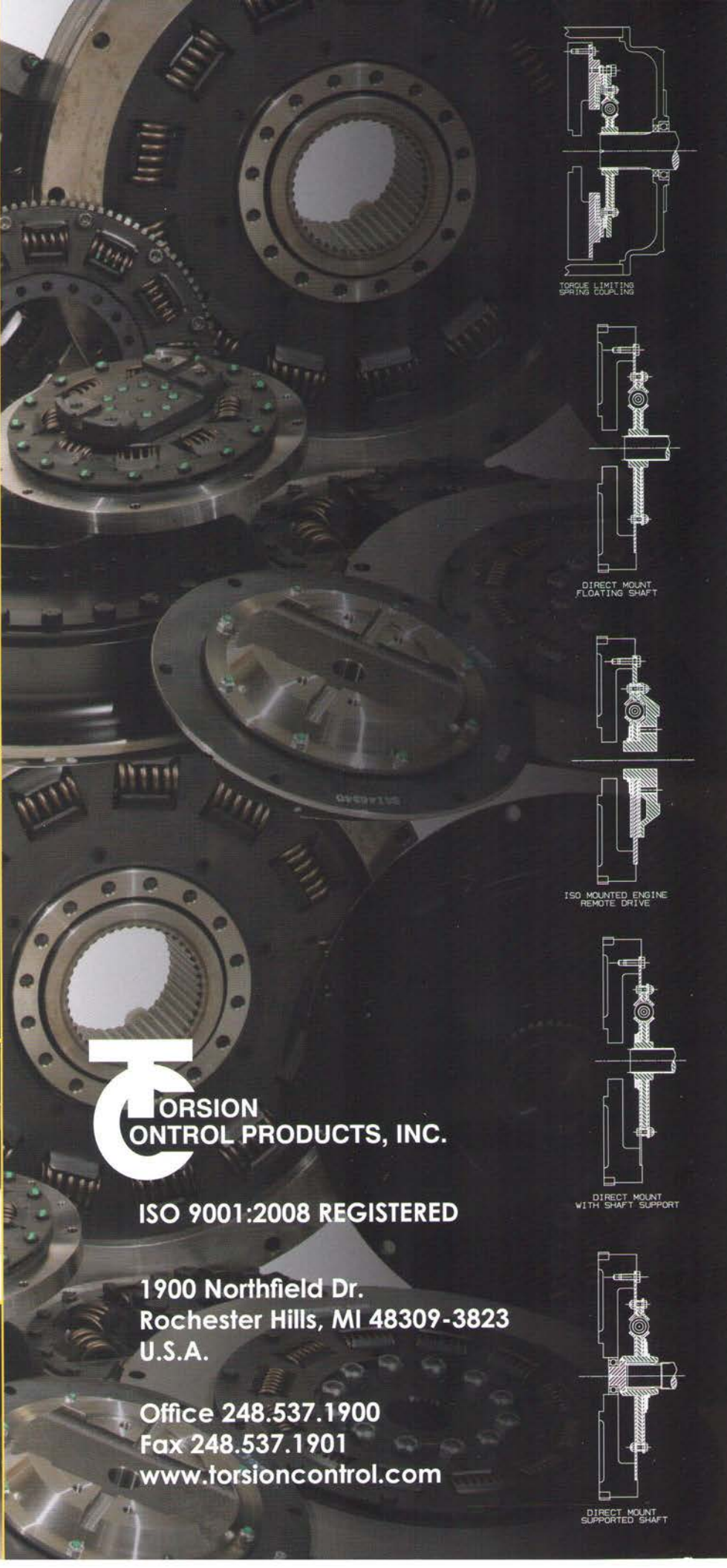
**Tuning Capability using "SMART DAMPING":** Thru the use of our unique Smart Damping system our products supply damping when needed and pure isolation when damping is detrimental. This reduces torsional spikes at start up and shut down, improves durability and increases coupling life. Our engineers will perform a torsional vibration analysis on your application and provide the performance that will serve you best.

Let Torsion Control Products Provide a Smart Coupling for you. **ISO 9001:2008 REGISTERED**

Get more details. Call for more information.



**Torsion Control Products, Inc.**  
Office: 248.537.1900 Fax: 248.537.1901  
[www.torsioncontrol.com](http://www.torsioncontrol.com)



**TORSION  
CONTROL PRODUCTS, INC.**

**ISO 9001:2008 REGISTERED**

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