

# **Backlash-Free Couplings for High-Tech Applications**



Oldham couplings are available in inch and metric bore sizes from 1/8" to 1-1/8" (3mm to 30mm)

Oldham couplings are comprised of two aluminum hubs with drive tenons that mate with a floating center member. This design results in a highly customizable shaft coupling which can easily combine inch to metric, different bore dimensions, and keyed shafts. Oldham couplings are especially useful in applications where parallel misalignment is present. However, they are used in many non-misalignment applications as well due to their light bearing loads, low inertia, electrical isolation, and cost effectiveness.

Commonly used in encoder applications, the beam coupling has multiple spiral cuts machined into a single piece of aluminum. This design offers low inertia and accommodation of angular and parallel misalignment as well as axial motion. The cut pattern ensures backlash-free operation and allows for a small amount of shock absorption. Stainless steel versions are also available for applications requiring higher torque transmission capabilities and corrosion resistance.

All Ruland products are RoHS and REACH compliant and are manufactured in Marlborough, Massachusetts. Special designs, cut patterns for specific applications, keyways, and combination inch to metric bores are also available.

For high technology applications such as test and measurement, inspection, liquid handling, semi-conductor, solar panel production equipment, print and packaging automation as well as medical devices, Ruland manufactures a variety of components including oldham couplings and beam couplings.



Beam couplings are available in inch and metric bore sizes from 3/32" to 3/4" (2mm to 19mm)

## **Why Ruland Couplings?**

- Select materials, proprietary processes, and extra manufacturing steps to ensure superior performance
- Six types of zero-backlash motion control couplings for a variety of application needs
- Carefully made in our Marlborough, MA factory with large stocks for immediate delivery
- Special designs available



#### **Shaft Collar**

Superior fit, finish, and holding power Precise face/bore perpendicularity for proper alignment Steel, aluminum, plastic, 303 & 316 stainless steel



### **Quick Clamping Shaft Collar**

Designed for quick set up and easy repositioning Innovative clamp design requires no tools Light weight anodized aluminum



### **Rigid Coupling**

Nypatch® anti-vibration hardware Precision honed bores for proper fit and alignment 1 and 2 piece styles with or without keyway



#### **Bellows Coupling**

Zero-backlash, aluminum hubs for low inertia Stainless steel bellows for high torsional stiffness Balanced design for speeds up to 10,000 RPM



#### **Beam Coupling**

Zero-backlash, suitable for all types of misalignment Multiple beams for improved torsional rigidity and torque Available in aluminum and stainless steel



### **Oldham Coupling**

Zero-backlash, low bearing loads, low inertia Good overall performance, electrically isolating High parallel misalignment capability



## **Jaw Coupling**

Zero-backlash, dampens impulse loads Elastomer element in choice of 3 durometers Easily combine inch to metric and keyed to keyless



### **Disc Coupling**

Zero-backlash, high torsional stiffness Single disc style for compact installations Double disc style for high misalignment

