

# Solutions from Ruland: Oldham Couplings for Printing Applications



*Oldham couplings have a three-piece design making them ideal for printing equipment that requires frequent removal or change out of rollers.*

Ruland oldham couplings consist of two hubs that mate to a torque transmitting center disk making them adaptable to a wide variety of printing applications. This three-piece design is ideal for equipment where the roller must be frequently changed out. Hubs can be left in place and the roller can be quickly removed by sliding the disk and assembly off the driving hub. Oldham couplings are highly customizable and can easily combine clamp and set screw hubs with inch, metric, keyed, and un-keyed bores. Hubs are standard in black anodized aluminum for improved lubricity, increased life, and low inertia. Ruland utilizes a proprietary hub machining process that leaves a smoother surface for interaction between the hub and disk leading to a longer life and increased performance.

Oldham couplings transmit torque by mating the slots on the center disk to the drive tenons on the hubs. They accommodate angular and axial misalignment, and are especially useful in applications where parallel misalignment is present. The replaceable center disk is available in acetal plastic for high torsional stiffness, nylon for shock absorption and noise reduction, and PEEK for high temperature and low out-gassing. In the event of wear or failure, the disk can be easily replaced restoring the coupling's original performance characteristics. Oldham couplings have the advantage of electrical isolation due to the non-conductive nature of the center disk preventing electrical currents from being passed to delicate instruments which can cause inaccurate data readings or damage.

Ruland offers oldham couplings with bore sizes ranging from 1/8" (3mm) to 1-1/8" (30mm). Stainless steel hubs are available upon request for use in high corrosion or clean room environments. Disks can be manufactured with a center hole to allow further shaft penetration or tapped holes to attach the disk to a hub so it stays in place during disassembly.

Ruland manufactures zero-backlash oldham couplings that accommodate high amounts of parallel misalignment with low bearing loads and have a balanced design for reduced vibration at higher speeds. Print equipment manufacturers benefit from the combination of flexibility and accuracy of motion. The three-piece design allows for in place servicing without machine disassembly, a useful feature for removing or changing out rollers.



*Oldham couplings are easily customizable matching clamp or set screw hubs with inch, metric, keyed, and un-keyed bores.*

## Why Ruland Oldham Couplings?

- Accommodate high amounts of parallel misalignment with low bearing loads for reduced system wear
- Ease of disassembly allows for rapid removal and change out of rollers
- Balanced design for reduced vibration at higher speeds
- Aluminum hubs for lightweight and low inertia
- RoHS2 and REACH compliant
- Carefully made in our Marlborough, Massachusetts factory and available for immediate delivery

### 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

