

Rigid Couplings for Medical Applications



Medical applications benefit from the high torque capacity and torsional stiffness of the rigid coupling.

Ruland rigid couplings are zero-backlash, torsionally stiff, and offer a high torque capacity. Straight bore couplings are precision honed for proper fit and alignment, which is important for applications that require strict control of tolerances. Precision honed bores assure a larger percentage of shaft contact for greater torque transmission. Nypatch® anti-vibration hardware prevents the screws from loosening during operation for increased performance and reliability.

Ruland rigid couplings are available in high grade aluminum for low inertia, lead-free carbon steel for increased holding power, and 303 stainless steel for sanitized environments. A large number of standard sizes are available in straight and step bore combinations ranging from 1/8" to 2" (3 to 50 mm). 316 stainless steel rigid couplings are also available by special order and utilize 316 stainless steel hardware for extra corrosion resistance. Special designs, keyways, and combination inch to metric bores are also offered.

All Ruland products are RoHS and REACH compliant. Rigid couplings are part of Ruland's complete product line which includes shaft collars and five types of flexible couplings with zero-backlash: beam couplings, bellows couplings, oldham couplings, disc couplings, and curved jaw couplings.

Ruland offers rigid couplings for a wide variety of medical applications including test and measurement, imaging, patient positioning, and liquid handling such as chromatography and drug discovery.



Proprietary machining processes ensure a fine finish and superior performance.

Why Ruland Rigid Couplings?

- Precision honed bores on straight bore rigid couplings for superior shaft alignment, fit and holding power
- Proprietary Nypatch® coating on hardware resists vibration and maintains holding power
- Balanced design on two-piece rigid couplings for higher RPM capabilities
- Carefully made in our Marlborough, MA factory with large stocks 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

