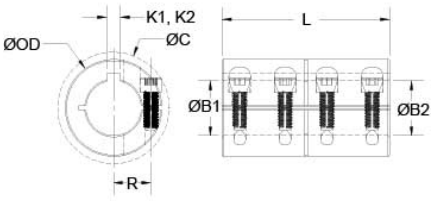
# CLC-28-28-F

Ruland CLC-28-28-F, 1-3/4" x 1-3/4" Rigid Coupling, Black Oxide Steel, One-Piece Clamp Style with Keyway, 3 1/8" OD, 4 1/2" Length






## Description

Ruland CLC-28-28-F is a one-piece rigid coupling with 1.7500" x 1.7500" bores, 3 1/8" OD, 4 1/2" length, and 3/8" x 3/8" keyways. It has precision honed bores to ensure they are collinear and do not introduce misalignment or vibration into the system making it suitable for high precision servo appliactions as well as shaft to shaft connections. Proprietary Nypatch® anti-vibration coating on hardware allows for even seating of the screw, repeated screw installations, prevents galling, and maintains high holding power. It eliminates the need to treat screws upon receipt greatly reducing installation time. Forged screws test beyond ANSI standards to ensure maximum holding power. Tightly controlled bore tolerance of +.002"/+.0005" is maintained. CLC-28-28-F is made from 1215 lead-free steel with a proprietary black oxide finish that produces a fine glossy finish while increasing holding power and resisting corrosion. It is machined from solid bar stock that is sourced exclusively from North American mills and is RoHS3 and REACH compliant. CLC-28-28-F is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

## Product Specifications

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|---|---|---|---|
| **Bore (B1)** | 1.7500 in | **Small Bore (B2)** | 1.7500 in |
| **Keyway (K1)** | 3/8 in | **Keyway (K2)** | 3/8 in |
| **B1 Max Shaft Penetration** | 2.250 in | **B2 Max Shaft Penetration** | 2.250 in |
| **Outer Diameter (OD)** | 3 1/8 in | **Bore Tolerance** | +0.0020 in / +0.0005 in |
| **Length (L)** | 4 1/2 in | **Clearance Diameter (C) MAX** | 3.365 in |
| **Recommended Shaft Tolerance** | +0.0000 in / -0.0005 in | **Forged Clamp Screw** | 3/8-24 |
| **Screw Material** | Alloy Steel with Nypatch® | **Hex Wrench Size** | 5/16 in |
| **Screw Finish** | Black Oxide | **Seating Torque** | 570 lb-in |
| **Screw Location (R)** | 1.305 in | **Number of Screws** | 4 ea |
| **Rated Torque** | 18500 in-lb | **Moment of Inertia** | 10.1899 lb-in$^2$ |
| **Maximum Speed** | 4,000 RPM | **Full Bearing Support Required?** | No |
| **Nypatch® Anti-Vibration Hardware?** | Yes | **Precision Honed Bores?** | Yes |
| **Zero-Backlash?** | Yes | **Material Specification** | 1215 Carbon Steel Bar |
| **Temperature** | -40°F to 350°F (-40°C to 176°C) | **Finish Specification** | Hot Process Black Oxide, Impregnated with Naphthenic Oil, Centrifugally Dried |
| **Manufacturer** | Ruland Manufacturing | **Country of Origin** | USA |
| **Weight (lbs)** | 6.267200 | **UPC** | 634529001844 |
| **Tariff Code** | 8483.60.8000 | **UNSPC** | 31163009 |
| **Note 1** | Performance ratings are for guidance only. The user must determine suitability for a particular application. | | |
| **Prop 65** | ⚠**WARNING** This product can expose you to the chemical Ethylene Thiourea, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. | | |

**Installation Instructions**

1. Align the CLC-28-28-F one-piece rigid coupling on the two shafts to be connected. There should be no misalignment.
2. Tighten the Nypatch® screws in two stages, starting with the inside screws. Using a 5/16 in torque wrench, tighten the inside screws to 285 lb-in which is half the recommended seating torque. Repeat for the outside screws, again tightening to half of the recommended seating torque.
3. Tighten the screws to the full recommended seating torque of 570 lb-in following the same pattern,

starting with the inside screws first.