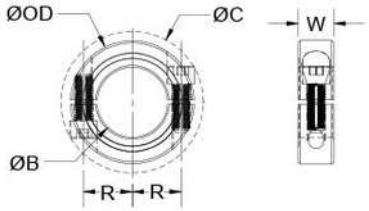
# MSPB-4-F

Ruland MSPB-4-F, 4mm Balanced Shaft Collar, Black Oxide Steel, Two-Piece Clamp Style, 16mm OD, 9mm Width








## Description

Ruland MSPB-4-F is a two-piece shaft collar with a 4mm bore, 16mm OD, and 9mm width. It has a balanced design with opposing screws for use in high RPM applications such as those found in motors and gearboxes. The clamp style design does not mar the shaft, is easy to remove, and is indefinitely adjustable. MSPB-4-F is commonly used for guiding, spacing, stopping, mounting, and component alignment. Equipment manufacturers benefit from the tightly controlled face to bore perpendicularity of Ruland shaft collars, TIR of ? 05mm. Perpendicularity is critical for alignment when the shaft collar is used as a load bearing face, mechanical stop, or for mounting components such as gears or bearings. Proprietary processes have been developed by Ruland to maintain superior fit, finish, and holding power. MSPB-4-F is stamped with the Ruland name and bore size for ease of identification. Halves are mated throughout the manufacturing process for proper fit and alignment. Forged screws test beyond DIN 912 12.9 standards to ensure maximum holding power. MSPB-4-F is manufactured from solid bar stock sourced from select North American mills and machined to a fine burr free finish. Ruland uses 1215 lead-free steel with a proprietary black oxide finish that produces a fine glossy finish while increasing holding power and resisting corrosion. MSPB-4-F is RoHS3 and REACH compliant and manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

## Product Specifications

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|---|---|---|---|
| **Bore (B1)** | 4 mm | **Bore Tolerance** | +0.050 mm / +0.012 mm |
| **Outer Diameter (OD)** | 16 mm | **Clearance Diameter (C) MAX** | 20.8 mm |
| **Width (W)** | 9 mm | **Width Tolerance** | +0.076 mm / -0.254 mm |
| **Recommended Gap** | 1.20 mm | **Recommended Shaft Tolerance** | +0.000 mm / -0.013 mm |
| **Forged Clamp Screw** | M3 x 8 | **Screw Material** | Alloy Steel |
| **Hex Wrench Size** | 2.5 mm | **Screw Finish** | Black Oxide |
| **Seating Torque** | 2.1 Nm | **Screw Location (R)** | 5.51 mm |
| **Number of Screws** | 2 ea | **Material Specification** | 1215 Carbon Steel Bar |
| **Finish Specification** | Hot Process Black Oxide, Impregnated with Naphthenic Oil, Centrifugally Dried | **Manufacturer** | Ruland Manufacturing |
| **Country of Origin** | USA | **Temperature** | -40°F to 350°F (-40°C to 176°C) |
| **Weight (lbs)** | 0.025600 | **UPC** | 634529213094 |
| **Tariff Code** | 8483.60.8000 | **UNSPC** | 31162811 |
| **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. Use the MSPB-4-F balanced shaft collar as it is received.
2. Wipe the bore clean.
3. Apply a thin coat of light oil to the shaft.
4. Place the collar onto the desired shaft location and tighten it using a 2.5 mm hex wrench until a slight resistance is felt.
5. Be sure to maintain the gap of 1.20 mm between the two halves of the collar during installation.
6. Wring collar into its final position and tighten the screw to the full recommended seating torque of 2.1 Nm using a 2.5 mm torque wrench.