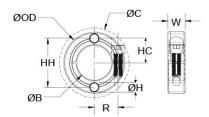




## FHD-MCL-23-F

Ruland FHD-MCL-23-F, 23mm Face Mount Shaft Collar with Drilled Hole, Black Oxide Steel, One-Piece Clamp Style, 45mm OD, 15mm Width





## **Description**

Ruland FHD-MCL-23-F is a one-piece shaft collar with a 23mm bore, 45mm OD, and 15mm width. FHD-MCL-23-F has drilled holes for mounting shaft collars to sprockets, pulleys, metallic plates, or other components. Drilled holes give the user flexibility to choose inch or metric mounting hardware that best suits the application. The clamp style design does not mar the shaft, is easy to remove, and is indefinitely adjustable. Equipment manufacturers benefit from the tightly controlled face to bore perpendicularity (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. FHD-MCL-23-F is stamped with the Ruland name and bore size for ease of identification. Forged screws test beyond DIN 912 12.9 standards to ensure maximum holding power. FHD-MCL-23-F is machined from solid bar stock to a fine burr free finish and sourced exclusively from North American mills. 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. It is RoHS3 and REACH compliant and manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

**Product Specifications** 

| Product Specifications |                                                                                                                                                                                                                                                                               |                             |                                                                                     |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------|
| Bore (B1)              | 23 mm                                                                                                                                                                                                                                                                         | Bore Tolerance              | +0.050 mm / +0.012 mm                                                               |
| Outer Diameter (OD)    | 45 mm                                                                                                                                                                                                                                                                         | Clearance Diameter (C) MAX  | 52.1 mm                                                                             |
| Width (W)              | 15 mm                                                                                                                                                                                                                                                                         | Width Tolerance             | +0.076 mm / -0.254 mm                                                               |
| Hole to Center (HC)    | 17.00 mm                                                                                                                                                                                                                                                                      | Hole to Hole (HH)           | 34.00 mm                                                                            |
| Hole Diameter (H)      | 6.35 mm                                                                                                                                                                                                                                                                       | Recommended Shaft Tolerance | +0.000 mm / -0.013 mm                                                               |
| Forged Clamp Screw     | M6 x 16                                                                                                                                                                                                                                                                       | Screw Material              | Alloy Steel                                                                         |
| Hex Wrench Size        | 5.0 mm                                                                                                                                                                                                                                                                        | Screw Finish                | Black Oxide                                                                         |
| Seating Torque         | 16 Nm                                                                                                                                                                                                                                                                         | Screw Location (R)          | 17.50 mm                                                                            |
| Number of Screws       | 1 ea                                                                                                                                                                                                                                                                          | Torque Wrench               | TW:BT-4C-3/8-140                                                                    |
| Recommended Hex Key    | Metric Hex Keys                                                                                                                                                                                                                                                               | Material Specification      | 1215 Carbon Steel Bar                                                               |
| Temperature            | -40°F to 350°F (-40°C to 176°C)                                                                                                                                                                                                                                               | Finish Specification        | Hot Process Black Oxide,<br>Impregnated with Naphthenic Oil,<br>Centrifugally Dried |
| Manufacturer           | Ruland Manufacturing                                                                                                                                                                                                                                                          | Country of Origin           | USA                                                                                 |
| Weight (lbs)           | 0.271639                                                                                                                                                                                                                                                                      | UPC                         | 63452937678                                                                         |
| 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                | <b>WARNING</b> 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 <a href="https://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> . |                             |                                                                                     |
|                        |                                                                                                                                                                                                                                                                               |                             |                                                                                     |