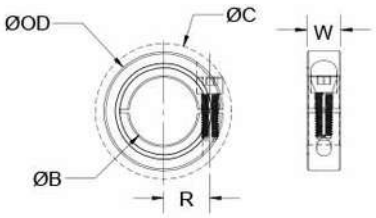
MCL-21-F

Ruland MCL-21-F, 21mm One-Piece Shaft Collar, Black Oxide Steel, Clamp Style, 42mm OD, 15mm Width







Description

Ruland MCL-21-F is a one-piece shaft collar with a 21mm bore, 42mm OD, and 15mm width. The clamp style design does not mar the shaft, is easy to remove, and is indefinitely adjustable. It is commonly used for guiding, spacing, stopping, mounting, and component alignment. 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. MCL-21-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. MCL-21-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. MCL-21-F is RoHS3 and REACH compliant and manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

Bore (B1)	21 mm	**Bore Tolerance**	+0.050 mm / +0.012 mm
Outer Diameter (OD)	42 mm	**Clearance Diameter (C) MAX**	49.5 mm
Width (W)	15 mm	**Width Tolerance**	+0.076 mm / -0.254 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)	16.00 mm	**Number of Screws**	1 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)**	0.254200
UPC	634529012062	**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 MCL-21-F one-piece 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 with the groove side as the work surface. Tighten the collar using a 5.0 mm hex wrench until a slight resistance is felt.
5. Wring collar into its final position and tighten the screw to the full recommended seating torque of 16 Nm using a 5.0 mm torque wrench.