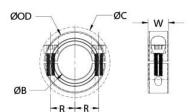




## MSP-21-ST

Ruland MSP-21-ST, 21mm Two-Piece Shaft Collar, 316 Stainless Steel, Clamp Style, 42mm OD, 15mm Width





## **Description**

Ruland MSP-21-ST is a two-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 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. MSP-21-ST 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. MSP-21-ST is manufactured from solid bar stock sourced from select North American mills and machined to a fine burr free finish. Ruland uses 316 stainless steel with hardware of like material for consistent corrosion resistance. Stainless steel hardware undergoes a proprietary surface treatment process to prevent galling. MSP-21-ST is RoHS3 and REACH compliant and manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

**Product Specifications** 

| Outer Diameter (OD)42 mmClearance Diameter (C) MAX49.5 mmWidth (W)15 mmWidth Tolerance+0.076 mm / -0.254 mmRecommended Gap1.59 mmRecommended Shaft Tolerance+0.000 mm / -0.013 mmForged Clamp ScrewM6 x 16Screw Material316 Stainless SteelHex Wrench Size5.0 mmScrew FinishBrightSeating Torque9.6 NmScrew Location (R)16.00 mmNumber of Screws2 eaMaterial SpecificationType 316L Austenitic, Non-Magnetic BarFinish SpecificationBright, No PlatingManufacturerRuland ManufacturingCountry of OriginUSATemperature-40°F to 350°F (-40°C to 176°C)Weight (lbs)0.252000UPC634529128893Tariff Code8483.60.8000UNSPC31162811Note 1Performance ratings are for guidance only. The user must determine suitability for a particular application.  | i roduct opecifications |  |                             |                                 |
|--|-------------------------|--|-----------------------------|---------------------------------|
| Width (W)15 mmWidth Tolerance+0.076 mm / -0.254 mmRecommended Gap1.59 mmRecommended Shaft Tolerance+0.000 mm / -0.013 mmForged Clamp ScrewM6 x 16Screw Material316 Stainless SteelHex Wrench Size5.0 mmScrew FinishBrightSeating Torque9.6 NmScrew Location (R)16.00 mmNumber of Screws2 eaMaterial SpecificationType 316L Austenitic, Non-Magnetic BarFinish SpecificationBright, No PlatingManufacturerRuland ManufacturingCountry of OriginUSATemperature-40°F to 350°F (-40°C to 176°C)Weight (lbs)0.252000UPC634529128893Tariff Code8483.60.8000UNSPC31162811Note 1Performance ratings are for guidance only. The user must determine suitability for a particular application.Prop 65WARNING This product can expose you to the chemical Nickel (metallic), known to the State of Californ | Bore (B)                | 21 mm  | Bore Tolerance              | +0.050 mm / +0.012 mm           |
| Recommended Gap  1.59 mm  Recommended Shaft Tolerance +0.000 mm / -0.013 mm  Forged Clamp Screw M6 x 16 Screw Material 316 Stainless Steel  Hex Wrench Size 5.0 mm Screw Finish Bright  Seating Torque 9.6 Nm Screw Location (R) 16.00 mm  Number of Screws 2 ea Material Specification Type 316L Austenitic, Non-Magnetic Bar  Finish Specification Bright, No Plating Manufacturer Ruland Manufacturing  Country of Origin USA Temperature -40°F to 350°F (-40°C to 176°C)  Weight (lbs) 0.252000 UPC 634529128893  Tariff Code 8483.60.8000 UNSPC 31162811  Performance ratings are for guidance only. The user must determine suitability for a particular application.  Prop 65   | Outer Diameter (OD)     | 42 mm  | Clearance Diameter (C) MAX  | 49.5 mm                         |
| Forged Clamp Screw  M6 x 16  Screw Material  316 Stainless Steel  Bright  Seating Torque  9.6 Nm  Screw Location (R)  Number of Screws  2 ea  Material Specification  Finish Specification  Bright, No Plating  Manufacturer  Country of Origin  Weight (Ibs)  0.252000  Weight (Ibs)  Temperature  VINSPC  316 Stainless Steel  46.00 mm  Manufacturing  Type 316L Austenitic, Non-Magnetic Bar  Ruland Manufacturing  40°F to 350°F (-40°C to 176°C)  634529128893  Fariff Code  8483.60.8000  UNSPC  31162811  Performance ratings are for guidance only. The user must determine suitability for a particular application.  Prop 65  | Width (W)               | 15 mm  | Width Tolerance             | +0.076 mm / -0.254 mm           |
| Hex Wrench Size  5.0 mm  Screw Finish Seating Torque  9.6 Nm  Screw Location (R)  16.00 mm  Type 316L Austenitic, Non-Magnetic Bar  Finish Specification  Bright, No Plating  Manufacturer  Ruland Manufacturing  Country of Origin  USA  Temperature  -40°F to 350°F (-40°C to 176°C)  Weight (lbs)  0.252000  UPC  634529128893  Tariff Code  8483.60.8000  UNSPC  31162811  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 Nickel (metallic), known to the State of Californ   | Recommended Gap         | 1.59 mm  | Recommended Shaft Tolerance | +0.000 mm / -0.013 mm           |
| Seating Torque 9.6 Nm Screw Location (R) 16.00 mm Number of Screws 2 ea Material Specification Type 316L Austenitic, Non-Magnetic Bar Finish Specification Bright, No Plating Manufacturer Ruland Manufacturing Country of Origin USA Temperature -40°F to 350°F (-40°C to 176°C) Weight (lbs) 0.252000 UPC 634529128893 Tariff Code 8483.60.8000 UNSPC 31162811 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 Nickel (metallic), known to the State of Californ   | Forged Clamp Screw      | M6 x 16  | Screw Material              | 316 Stainless Steel             |
| Number of Screws  2 ea  Material Specification  Type 316L Austenitic, Non-Magnetic Bar  Finish Specification  Bright, No Plating  Manufacturer  Ruland Manufacturing  Country of Origin  USA  Temperature  -40°F to 350°F (-40°C to 176°C)  Weight (Ibs)  0.252000  UPC  634529128893  Fariff Code  8483.60.8000  UNSPC  31162811  Performance ratings are for guidance only. The user must determine suitability for a particular application.  Prop 65  MARNING This product can expose you to the chemical Nickel (metallic), known to the State of Californ  | Hex Wrench Size         | 5.0 mm   | Screw Finish                | Bright                          |
| Magnetic Bar  Finish Specification Bright, No Plating Manufacturer Ruland Manufacturing Country of Origin USA Temperature -40°F to 350°F (-40°C to 176°C) Weight (lbs) 0.252000 UPC 634529128893 Tariff Code 8483.60.8000 UNSPC 31162811 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 Nickel (metallic), known to the State of Californ  | Seating Torque          | 9.6 Nm   | Screw Location (R)          | 16.00 mm                        |
| Country of Origin  USA  Temperature  -40°F to 350°F (-40°C to 176°C)  Neight (lbs)  0.252000  UPC  634529128893  Fariff Code  8483.60.8000  UNSPC  31162811  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 Nickel (metallic), known to the State of Californ   | Number of Screws        | 2 ea   | Material Specification      | ,                               |
| Weight (lbs)       0.252000       UPC       634529128893         Fariff 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 Nickel (metallic), known to the State of Californ  | Finish Specification    | Bright, No Plating   | Manufacturer                | Ruland Manufacturing            |
| Tariff Code  8483.60.8000  UNSPC  31162811  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 Nickel (metallic), known to the State of Californ   | Country of Origin       | USA  | Temperature                 | -40°F to 350°F (-40°C to 176°C) |
| 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 Nickel (metallic), known to the State of Californ  | Weight (lbs)            | 0.252000   | UPC                         | 634529128893                    |
| Prop 65  | 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 Nickel (metallic), known to the State of California to cause cancer. For more information go to <a href="https://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> . |                             |                                 |

## Installation Instructions

- 1. Use the MSP-21-ST two-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. Be sure to maintain the gap of 1.59 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 9.6 Nm using a 5.0 mm torque wrench.