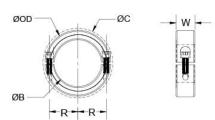




## **SPH-51-F**

Ruland SPH-51-F, 3 3/16" Heavy Duty Shaft Collar, Black Oxide Steel, Two-Piece Clamp Style, 5" OD, 1.375" Width





## **Description**

Ruland SPH-51-F is a two-piece heavy duty shaft collar with a 3.1875" bore, 5" OD, and 1.375" 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 ? .002"). 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. SPH-51-F is stamped with the Ruland name and bore size for ease of identification. This heavy duty shaft collars have larger ODs and screws for higher holding power. Halves are mated throughout the manufacturing process for proper fit and alignment. Forged screws test beyond ANSI standards to ensure maximum holding power. SPH-51-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. SPH-51-F is RoHS3 and REACH compliant and manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

**Product Specifications** 

Outer Diameter (OD)       5 in       Clearance Diameter (C) MAX       5.397 in         Width (W)       1.375 in       Width Tolerance       +0.003 in / -0.010         Recommended Gap       0.188 in       Recommended Shaft Tolerance       +0.0000 in / -0.00         Forged Clamp Screw       1/2-20 x 1 3/4       Screw Material       Alloy Steel         Hex Wrench Size       3/8 in       Screw Finish       Black Oxide         Seating Torque       1612 lb-in       Screw Location (R)       2.063 in         Number of Screws       2 ea       Axial Load       20000 lbs         Material Specification       1215 Bar or A519 Hot Finished       Finish Specification       Hot Process Black Impregnated with Centrifugally Dried         Manufacturer       Ruland Manufacturing       Country of Origin       USA         Temperature       -40°F to 350°F (-40°C to 176°C)       Weight (lbs)       4.224500         UPC       634529024362       Tariff Code       8483.60.8000         UNSPC       31162811         Note 1       Performance ratings are for guidance only. The user must determine suitability for a particular product can expose you to the chemical Ethylene Thiourea, known to the California to cause cancer and birth defects or other reproductive harm. For more informatic	i roddot opoomodiono			
Width (W) 1.375 in Width Tolerance +0.003 in / -0.010 Recommended Gap 0.188 in Recommended Shaft Tolerance +0.0000 in / -0.00 Forged Clamp Screw 1/2-20 x 1 3/4 Screw Material Alloy Steel Hex Wrench Size 3/8 in Screw Finish Black Oxide Seating Torque 1612 lb-in Screw Location (R) 2.063 in Number of Screws 2 ea Axial Load 20000 lbs Material Specification 1215 Bar or A519 Hot Finished 1026 Carbon Steel Impregnated with Centrifugally Dried Manufacturer Ruland Manufacturing Country of Origin USA Temperature -40°F to 350°F (-40°C to 176°C) Weight (lbs) 4.224500 UNSPC 31162811 Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular of the chemical Ethylene Thiourea, known to the California to cause cancer and birth defects or other reproductive harm. For more informatic	Bore (B)	3.1875 in	Bore Tolerance	+0.004 in / -0.000 in
Recommended Gap  0.188 in  Recommended Shaft Tolerance +0.0000 in / -0.00  I/2-20 x 1 3/4  Screw Material  Alloy Steel  Alloy Steel  Black Oxide  Seating Torque 1612 lb-in  Screw Location (R)  2.063 in  Number of Screws  2 ea  Axial Load 20000 lbs  Material Specification 1215 Bar or A519 Hot Finished 1026 Carbon Steel 1026 Carbon Steel 1026 Carbon Steel  Ruland Manufacturing  Country of Origin  USA  Temperature  -40°F to 350°F (-40°C to 176°C)  Weight (lbs) 4.224500  UNSPC 31162811  Note 1  Performance ratings are for guidance only. The user must determine suitability for a particular propersion of the chemical Ethylene Thiourea, known to the California to cause cancer and birth defects or other reproductive harm. For more informatice in the commended Shaft Tolerance +0.0000 in / -0.00  Alloy Steel +0.0000 in / -0.00  Alloy Steel  Floating  Alloy Steel  Floating  Alloy Steel  Floating  Alloy Steel  Floating  Alloy Steel  Alloy Steel  Alloy Steel  Floating  Alloy Steel  Floating  Alloy Steel  Alloy Steel  Alloy Steel  Alloy Steel  Floating  Alloy Steel  Contriping  Country of Origin  Bot Act Act Act Act Act Act Act Act Act Ac	Outer Diameter (OD)	5 in	Clearance Diameter (C) MAX	5.397 in
Forged Clamp Screw  1/2-20 x 1 3/4  Screw Material  Alloy Steel  Hex Wrench Size  3/8 in  Screw Finish  Black Oxide  Seating Torque  1612 lb-in  Screw Location (R)  2.063 in  Number of Screws  2 ea  Axial Load  20000 lbs  Material Specification  1215 Bar or A519 Hot Finished 1026 Carbon Steel  Finish Specification  Hot Process Black Impregnated with Centrifugally Dried  Manufacturer  Ruland Manufacturing  Country of Origin  USA  Temperature  -40°F to 350°F (-40°C to 176°C)  Weight (lbs)  4.224500  UNSPC  31162811  Performance ratings are for guidance only. The user must determine suitability for a particular particular prop 65  WARNING This product can expose you to the chemical Ethylene Thiourea, known to the California to cause cancer and birth defects or other reproductive harm. For more informatical cause cancer and birth defects or other reproductive harm. For more informatical cause cancer and birth defects or other reproductive harm. For more informatical cause cancer and birth defects or other reproductive harm. For more informatical cause cancer and birth defects or other reproductive harm. For more informatical cause cancer and birth defects or other reproductive harm. For more informatical cause cancer and birth defects or other reproductive harm. For more informatical cause cancer and birth defects or other reproductive harm. For more informatical cause cancer and birth defects or other reproductive harm.	Width (W)	1.375 in	Width Tolerance	+0.003 in / -0.010 in
Hex Wrench Size  3/8 in  Screw Finish  Black Oxide  Seating Torque  1612 lb-in  Screw Location (R)  2.063 in  Number of Screws  2 ea  Axial Load  20000 lbs  Material Specification  1215 Bar or A519 Hot Finished 1026 Carbon Steel  Finish Specification  Manufacturer  Ruland Manufacturing  Country of Origin  USA  Temperature  -40°F to 350°F (-40°C to 176°C)  Weight (lbs)  4.224500  UPC  634529024362  Tariff Code  8483.60.8000  UNSPC  31162811  Performance ratings are for guidance only. The user must determine suitability for a particular particular propers.  AWARNING This product can expose you to the chemical Ethylene Thiourea, known to the California to cause cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm.	Recommended Gap	0.188 in	Recommended Shaft Tolerance	+0.0000 in / -0.0010 in
Seating Torque  1612 lb-in  Screw Location (R)  2.063 in  Axial Load  20000 lbs  Material Specification  1215 Bar or A519 Hot Finished 1026 Carbon Steel  Manufacturer  Ruland Manufacturing  Country of Origin  USA  Temperature  -40°F to 350°F (-40°C to 176°C)  Weight (lbs)  4.224500  UNSPC  31162811  Performance ratings are for guidance only. The user must determine suitability for a particular prop 65  WARNING This product can expose you to the chemical Ethylene Thiourea, known to the California to cause cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm.	Forged Clamp Screw	1/2-20 x 1 3/4	Screw Material	Alloy Steel
Number of Screws  2 ea  Axial Load  20000 lbs  Material Specification  1215 Bar or A519 Hot Finished 1026 Carbon Steel  Manufacturer  Ruland Manufacturing  Country of Origin  USA  Temperature  -40°F to 350°F (-40°C to 176°C)  Weight (lbs)  4.224500  UPC  634529024362  Tariff Code  8483.60.8000  UNSPC  31162811  Performance ratings are for guidance only. The user must determine suitability for a particular of the chemical Ethylene Thiourea, known to the California to cause cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm.	Hex Wrench Size	3/8 in	Screw Finish	Black Oxide
Material Specification  1215 Bar or A519 Hot Finished 1026 Carbon Steel  Manufacturer  Ruland Manufacturing  Country of Origin  USA  Temperature  -40°F to 350°F (-40°C to 176°C)  Weight (Ibs)  4.224500  UNSPC  31162811  Performance ratings are for guidance only. The user must determine suitability for a particular prop 65  MARNING This product can expose you to the chemical Ethylene Thiourea, known to the California to cause cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm.	Seating Torque	1612 lb-in	Screw Location (R)	2.063 in
Impregnated with Centrifugally Dried  Manufacturer Ruland Manufacturing Country of Origin USA  Temperature -40°F to 350°F (-40°C to 176°C) Weight (lbs) 4.224500 UPC 634529024362 Tariff Code 8483.60.8000 UNSPC 31162811  Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular particular properties. WaRNING This product can expose you to the chemical Ethylene Thiourea, known to the California to cause cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm. For more informatical cancer and birth defects or other reproductive harm.	Number of Screws	2 ea	Axial Load	20000 lbs
Temperature -40°F to 350°F (-40°C to 176°C) Weight (lbs) 4.224500 UPC 634529024362 Tariff Code 8483.60.8000 UNSPC 31162811  Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular particular properties.  WARNING This product can expose you to the chemical Ethylene Thiourea, known to the California to cause cancer and birth defects or other reproductive harm. For more informatical productive harm.	Material Specification		Finish Specification	Hot Process Black Oxide, Impregnated with Naphthenic Oil Centrifugally Dried
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California to cause cancer and birth defects or other reproductive harm. For more informati	Note 1	Performance ratings are for guidance only. The user must determine suitability for a particular application.		
<u>www.roswamings.ca.gov</u> .	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 <a href="https://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> .		

## **Installation Instructions**

- 1. Use the SPH-51-F heavy duty 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 3/8 in hex wrench until a slight resistance is felt.
- 5. Be sure to maintain the gap of 0.188 in 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 1612 lb-in using a 3/8 in torque wrench.