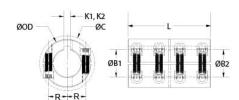




MSPC-14-12-F

Ruland MSPC-14-12-F, 14mm x 12mm Rigid Coupling, Black Oxide Steel, Two-Piece Clamp Style With Keyway, 34mm OD, 50mm Length





Description

Ruland MSPC-14-12-F is a two-piece rigid coupling with 14mm x 12mm bores, 34mm OD, 50mm length, and 5mm x 4mm keyways. MSPC-14-12-F has opposing hardware for a balanced design. Proprietary Nypatch® anti-vibration coating on hardware allows for even seating of the screw, repeated screw installations, prevents galling, and maintains high holding power. It eliminates the need to treat screws upon receipt greatly reducing installation time. Forged screws test beyond DIN 912 12.9 standards to ensure maximum holding power. Tightly controlled bore tolerance of +.050mm/+.012mm is maintained. MSPC-14-12-F is made from 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 machined from solid bar stock that is sourced exclusively from North American mills and is RoHS3 and REACH compliant. MSPC-14-12-F is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

Keyway (K1)5 mmKeyway (K2)4 mmB1 Max Shaft Penetration25.0 mmB2 Max Shaft Penetration25.0 mmOuter Diameter (OD)34 mmBore Tolerance+0.050 mm / +0.012 mmLength (L)50 mmRecommended Gap1.60 mmRecommended Shaft Tolerance+0.000 mm / -0.013 mmForged Clamp ScrewM5Screw MaterialAlloy Steel with Nypatch®Hex Wrench Size4.0 mmScrew FinishBlack OxideSeating Torque9.5 NmNumber of Screws8 eaRated Torque200 NmMoment of Inertia4.504 x 10.5 kg-m²Maximum Speed4,000 RPMFull Bearing Support Required?NoNypatch® Anti-Vibration Hardware?YesZero-Backlash?YesBalanced DesignYesMaterial Specification1215 Carbon Steel BarTemperature-40°F to 350°F (-40°C to 17Finish SpecificationHot Process Black Oxide, Impregnated with Naphthenic Oil, Centrifugally DriedManufacturerRuland ManufacturingCountry of OriginUSAWeight (lbs)0.561300UPC634529016664Tariff Code8483.60.8000UNSPC31163009Note 1Performance ratings are for guidance only. The user must determine suitability for a particular application	Product Specifications			
B1 Max Shaft Penetration 25.0 mm B2 Max Shaft Penetration 25.0 mm Outer Diameter (OD) 34 mm Bore Tolerance +0.050 mm / +0.012 mm Length (L) 50 mm Recommended Gap 1.60 mm Recommended Shaft Tolerance +0.000 mm / -0.013 mm Forged Clamp Screw M5 Screw Material Alloy Steel with Nypatch® Hex Wrench Size 4.0 mm Screw Finish Black Oxide Seating Torque 9.5 Nm Number of Screws 8 ea Rated Torque 200 Nm Moment of Inertia 4.504 x 10 ⁻⁵ kg-m ² Maximum Speed 4,000 RPM Full Bearing Support Required? No Nypatch® Anti-Vibration Hardware? Zero-Backlash? Yes Balanced Design Yes Material Specification 1215 Carbon Steel Bar Temperature -40°F to 350°F (-40°C to 17°C	Bore (B1)	14 mm	Small Bore (B2)	12 mm
Outer Diameter (OD) 34 mm Bore Tolerance +0.050 mm/+0.012 mm Length (L) 50 mm Recommended Gap 1.60 mm Recommended Shaft Tolerance +0.000 mm/-0.013 mm Forged Clamp Screw M5 Screw Material Alloy Steel with Nypatch® Hex Wrench Size 4.0 mm Screw Finish Black Oxide Seating Torque 9.5 Nm Number of Screws 8 ea Rated Torque 200 Nm Moment of Inertia 4.504 x 10.5 kg-m² Maximum Speed 4,000 RPM Full Bearing Support Required? No Nypatch® Anti-Vibration Hardware? Yes Zero-Backlash? Yes Balanced Design Yes Material Specification 1215 Carbon Steel Bar Temperature -40°F to 350°F (-40°C to 17°C to	Keyway (K1)	5 mm	Keyway (K2)	4 mm
Length (L) 50 mm Recommended Gap 1.60 mm Recommended Shaft Tolerance +0.000 mm / -0.013 mm Forged Clamp Screw M5 Screw Material Alloy Steel with Nypatch® Hex Wrench Size 4.0 mm Screw Finish Black Oxide Seating Torque 9.5 Nm Number of Screws 8 ea Rated Torque 200 Nm Moment of Inertia 4.504 x 10 ⁻⁵ kg-m² Maximum Speed 4,000 RPM Full Bearing Support Required? No Nypatch® Anti-Vibration Hardware? Yes Zero-Backlash? Yes Balanced Design Yes Material Specification 1215 Carbon Steel Bar Temperature -40°F to 350°F (-40°C to 17°C) Finish Specification Hot Process Black Oxide, Impregnated with Naphthenic Oil, Centrifugally Dried Manufacturer Ruland Manufacturing Country of Origin USA Weight (lbs) 0.561300 UPC 634529016664 Tariff Code 8483.60.8000 UNSPC 31163009 Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular applic Prop 65 WARNING This product can expose you to the chemical Ethylene Thiourea, kn	B1 Max Shaft Penetration	25.0 mm	B2 Max Shaft Penetration	25.0 mm
Recommended Shaft Tolerance +0.000 mm / -0.013 mm Forged Clamp Screw M5 Screw Material Alloy Steel with Nypatch® Hex Wrench Size 4.0 mm Screw Finish Black Oxide Seating Torque 9.5 Nm Number of Screws 8 ea Rated Torque 200 Nm Moment of Inertia 4.504 x 10 ⁻⁵ kg-m² Maximum Speed 4,000 RPM Full Bearing Support Required? No Nypatch® Anti-Vibration Hardware? Zero-Backlash? Yes Balanced Design Yes Material Specification 1215 Carbon Steel Bar Temperature -40°F to 350°F (-40°C to 170 Finish Specification Impregnated with Naphthenic Oil, Centrifugally Dried Country of Origin USA Weight (lbs) 0.561300 UPC 634529016664 Tariff Code 8483.60.8000 UNSPC 31163009 Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular applic California to cause cancer and birth defects or other reproductive harm. For more information go to	Outer Diameter (OD)	34 mm	Bore Tolerance	+0.050 mm / +0.012 mm
Screw Material Alloy Steel with Nypatch® Seating Torque 9.5 Nm Number of Screws 8 ea Rated Torque 200 Nm Moment of Inertia 4.504 x 10 ⁻⁵ kg-m² Maximum Speed 4,000 RPM Full Bearing Support Required? No Nypatch® Anti-Vibration Hardware? Zero-Backlash? Yes Balanced Design Yes Material Specification 1215 Carbon Steel Bar Temperature -40°F to 350°F (-40°C to 17) Finish Specification Hot Process Black Oxide, Impregnated with Naphthenic Oil, Centrifugally Dried Country of Origin USA Weight (Ibs) 0.561300 UPC 634529016664 Tariff Code 8483.60.8000 UNSPC 31163009 Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular applic California to cause cancer and birth defects or other reproductive harm. For more information go to	Length (L)	50 mm	Recommended Gap	1.60 mm
Screw Finish Black Oxide Seating Torque 9.5 Nm Number of Screws 8 ea Rated Torque 200 Nm Moment of Inertia 4.504 x 10 ⁻⁵ kg-m² Maximum Speed 4,000 RPM Full Bearing Support Required? No Nypatch® Anti-Vibration Hardware? Yes Zero-Backlash? Yes Balanced Design Yes Material Specification 1215 Carbon Steel Bar Temperature -40°F to 350°F (-40°C to 17°F to 350°F to 350	Recommended Shaft Tolerance	+0.000 mm / -0.013 mm	Forged Clamp Screw	M5
Number of Screws 8 ea Rated Torque 200 Nm Moment of Inertia 4.504 x 10 ⁻⁵ kg-m² Maximum Speed 4,000 RPM Full Bearing Support Required? No Nypatch® Anti-Vibration Hardware? Zero-Backlash? Yes Balanced Design Yes Material Specification 1215 Carbon Steel Bar Temperature -40°F to 350°F (-40°C to 17) Finish Specification Hot Process Black Oxide, Impregnated with Naphthenic Oil, Centrifugally Dried Country of Origin USA Weight (Ibs) 0.561300 UPC 634529016664 Tariff Code 8483.60.8000 UNSPC 31163009 Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular applic California to cause cancer and birth defects or other reproductive harm. For more information go to	Screw Material	Alloy Steel with Nypatch®	Hex Wrench Size	4.0 mm
Moment of Inertia 4.504 x 10⁻⁵ kg-m² Maximum Speed 4,000 RPM Full Bearing Support Required? No Nypatch® Anti-Vibration Hardware? Yes Zero-Backlash? Yes Balanced Design Yes Material Specification 1215 Carbon Steel Bar Temperature -40°F to 350°F (-40°C to 17°F to 350°F to 350	Screw Finish	Black Oxide	Seating Torque	9.5 Nm
Full Bearing Support Required? No Nypatch® Anti-Vibration Hardware? Zero-Backlash? Yes Balanced Design Yes Material Specification 1215 Carbon Steel Bar Temperature -40°F to 350°F (-40°C to 17) Finish Specification Hot Process Black Oxide, Impregnated with Naphthenic Oil, Centrifugally Dried Country of Origin USA Weight (Ibs) 0.561300 UPC 634529016664 Tariff Code 8483.60.8000 UNSPC Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular applic California to cause cancer and birth defects or other reproductive harm. For more information go to	Number of Screws	8 ea	Rated Torque	200 Nm
Zero-Backlash?YesBalanced DesignYesMaterial Specification1215 Carbon Steel BarTemperature-40°F to 350°F (-40°C to 17°F linish SpecificationFinish SpecificationHot Process Black Oxide, Impregnated with Naphthenic Oil, Centrifugally DriedManufacturerRuland ManufacturingCountry of OriginUSAWeight (Ibs)0.561300UPC634529016664Tariff Code8483.60.8000UNSPC31163009Note 1Performance ratings are for guidance only. The user must determine suitability for a particular applicProp 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	Moment of Inertia	4.504 x 10 ⁻⁵ kg-m ²	Maximum Speed	4,000 RPM
Material Specification 1215 Carbon Steel Bar Temperature -40°F to 350°F (-40°C to 17 Finish Specification Hot Process Black Oxide, Impregnated with Naphthenic Oil, Centrifugally Dried Manufacturer Ruland Manufacturing Country of Origin USA Weight (lbs) 0.561300 UPC 634529016664 Tariff Code 8483.60.8000 UNSPC 31163009 Note 1 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 Ethylene Thiourea, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to	Full Bearing Support Required?	No		Yes
Finish Specification Hot Process Black Oxide, Impregnated with Naphthenic Oil, Centrifugally Dried Country of Origin USA Weight (Ibs) 0.561300 UPC 634529016664 Tariff Code 8483.60.8000 UNSPC Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular applic 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	Zero-Backlash?	Yes	Balanced Design	Yes
Impregnated with Naphthenic Oil, Centrifugally Dried Country of Origin USA Weight (Ibs) 0.561300 UPC 634529016664 Tariff Code 8483.60.8000 UNSPC 31163009 Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular application of 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	Material Specification	1215 Carbon Steel Bar	Temperature	-40°F to 350°F (-40°C to 176°C)
UPC 634529016664 Tariff Code 8483.60.8000 UNSPC 31163009 Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular applic Prop 65 AWARNING 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	Finish Specification	Impregnated with Naphthenic Oil,	Manufacturer	Ruland Manufacturing
UNSPC 31163009 Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular applic 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	Country of Origin	USA	Weight (lbs)	0.561300
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California to cause cancer and birth defects or other reproductive harm. For more information go to	Note 1	Performance ratings are for guidance only. The user must determine suitability for a particular application.		
	Prop 65	· · · · · · · · · · · · · · · · · · ·		

Installation Instructions

- 1. Align the MSPC-14-12-F two-piece rigid coupling on the two shafts to be connected. There should be no misalignment.
- 2. Tighten the Nypatch® screws in two stages, starting with the inside screws. Using a 4.0 mm torque wrench, tighten the inside screws to 4.75 Nm which is half the recommended seating torque. Repeat the process for the outside screws, tightening to half the recommended seating torque.
- 3. Be sure to maintain the gap of 1.60 mm between the two halves during installation.
- 4. Tighten the screws to the full recommended seating torque of 9.5 Nm following the same pattern,

starting with the inside screws first.

5. For optimum results do not exceed the shaft penetration length of 25.0 mm.