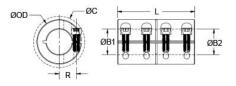




## MCLX-20-20-SS

Ruland MCLX-20-20-SS, 20mm x 20mm Rigid Coupling, 303 Stainless Steel, One-Piece Clamp Style, 42mm OD, 65mm Length





## Description

Ruland MCLX-20-20-SS is a one-piece rigid coupling with 20mm x 20mm bores, 42mm OD, and 65mm length. It has precision honed bores to ensure they are collinear and do not introduce misalignment or vibration into the system making it suitable for high precision servo appliactions as well as shaft to shaft connections. 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. MCLX-20-20-SS is made from 303 stainless steel with hardware of like material for consistent corrosion resistance. It is machined from solid bar stock that is sourced exclusively from North American mills and is RoHS3 and REACH compliant. MCLX-20-20-SS is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

## **Product Specifications**

B1 Max Shaft Penetration 32.5 mm B2 Max Shaft Penetration 32.5 mm   Outer Diameter (OD) 42 mm Bore Tolerance +0.050 mm / +0.012 mm   Length (L) 65 mm Clearance Diameter (C) MAX 48.9 mm   Recommended Shaft Tolerance +0.000 mm / -0.013 mm Forged Clamp Screw M6   Screw Material 18-8 300 Series Stainless Steel with Hex Wrench Size 5.0 mm   Nypatch® Screw Finish Bright Seating Torque 9.6 Nm   Screw Location (R) 15.4 mm Number of Screws 4 ea   Rated Torque 110 Nm Moment of Inertia 1.409 x 10 <sup>-4</sup> kg-m <sup>2</sup> Maximum Speed 4,000 RPM Full Bearing Support Required? No   Nypatch® Anti-Vibration Yes Yes Type 303 Austenitic, Non-Magnetic Bar   Temperature -40°F to 350°F (-40°C to 176°C) Finish Specification Bright, No Plating   Manufacturer Ruland Manufacturing Country of Origin USA   Weight (Ibs) 1.142400 UPC 634529013953   Tariff Code 8483.60.8000 UNSPC 31163009   Note 1 Performance ratings are for guidance only. The user	Product Specifications			
Duter Diameter (OD) 42 mm Bore Tolerance +0.050 mm / +0.012 mm   Length (L) 65 mm Clearance Diameter (C) MAX 48.9 mm   Recommended Shaft Tolerance +0.000 mm / -0.013 mm Forged Clamp Screw M6   Screw Material 18-8 300 Series Stainless Steel with Hex Wrench Size 5.0 mm   Nypatch® Screw Location (R) 15.4 mm Number of Screws 4 ea   Rated Torque 4.000 RPM Full Bearing Support Required? No   Maximum Speed 4.000 RPM Full Bearing Support Required? No   Nypatch® Yes Material Specification Type 303 Austenitic, Non-Magnetic Bar   Caro-Backlash? Yes Material Specification Bright, No Plating   Manufacturer Ruland Manufacturing Country of Origin USA   Weight (lbs) 1.142400 UPC G34529013953 Tariff Code   Note 1 Performance ratings are for guidance only. The user must determine suitability for a particular application. Prop 65	Bore (B1)	20 mm	Small Bore (B2)	20 mm
Length (L)65 mmClearance Diameter (C) MAX48.9 mmRecommended Shaft Tolerance+0.000 mm / -0.013 mmForged Clamp ScrewM6Screw Material18-8 300 Series Stainless Steel with Hex Wrench Size Nypatch®5.0 mmScrew FinishBrightSeating Torque9.6 NmScrew Location (R)15.4 mmNumber of Screws4 eaRated Torque110 NmMoment of Inertia1.409 x 10 <sup>4</sup> kg-m²Maximum Speed4,000 RPMFull Bearing Support Required?NoNypatch® Anti-Vibration Hardware?YesPrecision Honed Bores?YesZero-Backlash?YesMaterial SpecificationType 303 Austenitic, Non-Magnetic BarTemperature-40°F to 350°F (-40°C to 176°C)Finish SpecificationBright, No PlatingMaufacturerRuland ManufacturingCountry of OriginUSAWeight (Ibs)1.142400UPC634529013953Tariff Code8483.60.8000UNSPC31163009Note 1Performance ratings are for guidance only. The user must determine suitability for a particular application.Prop 65Marring This product can expose you to the chemical Nickel (metallic), known to the State of Californi	B1 Max Shaft Penetration	32.5 mm	B2 Max Shaft Penetration	32.5 mm
Recommended Shaft Tolerance+0.000 mm / -0.013 mmForged Clamp ScrewM6Screw Material18-8 300 Series Stainless Steel with Hex Wrench Size Nypatch®5.0 mmScrew FinishBrightSeating Torque9.6 NmScrew Location (R)15.4 mmNumber of Screws4 eaRated Torque110 NmMoment of Inertia1.409 x 10 <sup>-4</sup> kg-m <sup>2</sup> Maximum Speed4,000 RPMFull Bearing Support Required?NoNypatch® Anti-Vibration Hardware?YesPrecision Honed Bores?YesZero-Backlash?YesMaterial Specification BarType 303 Austenitic, Non-Magnetic BarTemperature-40°F to 350°F (-40°C to 176°C)Finish Specification Binght, No PlatingBright, No PlatingWeight (lbs)1.142400UPC634529013953Tariff Code8483.60.8000UNSPC31163009Note 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 Californi	Outer Diameter (OD)	42 mm	Bore Tolerance	+0.050 mm / +0.012 mm
Screw Material 18-8 300 Series Stainless Steel with Hex Wrench Size Nypatch® 5.0 mm   Screw Finish Bright Seating Torque 9.6 Nm   Screw Location (R) 15.4 mm Number of Screws 4 ea   Rated Torque 110 Nm Moment of Inertia 1.409 x 10 <sup>-4</sup> kg-m <sup>2</sup> Maximum Speed 4,000 RPM Full Bearing Support Required? No   Nypatch® Anti-Vibration Yes Precision Honed Bores? Yes   Zero-Backlash? Yes Material Specification Type 303 Austenitic, Non-Magnetic Bar   Temperature -40°F to 350°F (-40°C to 176°C) Finish Specification Bright, No Plating   Manufacturer Ruland Manufacturing Country of Origin USA   Weight (lbs) 1.142400 UPC 634529013953   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 Nickel (metallic), known to the State of Californi	Length (L)	65 mm	Clearance Diameter (C) MAX	48.9 mm
Nypatch®   Screw Finish Bright Seating Torque 9.6 Nm   Screw Location (R) 15.4 mm Number of Screws 4 ea   Rated Torque 110 Nm Moment of Inertia 1.409 x 10 <sup>-4</sup> kg-m <sup>2</sup> Maximum Speed 4,000 RPM Full Bearing Support Required? No   Nypatch® Anti-Vibration Yes Precision Honed Bores? Yes   Zero-Backlash? Yes Material Specification Type 303 Austenitic, Non-Magnetic Bar   Temperature -40°F to 350°F (-40°C to 176°C) Finish Specification Bright, No Plating   Manufacturer Ruland Manufacturing Country of Origin USA   Weight (lbs) 1.142400 UPC 634529013953   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	Recommended Shaft Tolerance	+0.000 mm / -0.013 mm	Forged Clamp Screw	M6
Screw Location (R) 15.4 mm Number of Screws 4 ea   Rated Torque 110 Nm Moment of Inertia 1.409 x 10 <sup>-4</sup> kg-m <sup>2</sup> Maximum Speed 4,000 RPM Full Bearing Support Required? No   Nypatch® Anti-Vibration Yes Precision Honed Bores? Yes   Zero-Backlash? Yes Material Specification Type 303 Austenitic, Non-Magnetic Bar   Temperature -40°F to 350°F (-40°C to 176°C) Finish Specification Bright, No Plating   Manufacturer Ruland Manufacturing Country of Origin USA   Weight (lbs) 1.142400 UPC 634529013953   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 Nickel (metallic), known to the State of Californian	Screw Material		Hex Wrench Size	5.0 mm
Rated Torque110 NmMoment of Inertia1.409 x 10 <sup>-4</sup> kg-m²Maximum Speed4,000 RPMFull Bearing Support Required?NoNypatch® Anti-Vibration Hardware?YesPrecision Honed Bores?YesZero-Backlash?YesMaterial Specification BarType 303 Austenitic, Non-Magnetic BarTemperature-40°F to 350°F (-40°C to 176°C)Finish Specification 	Screw Finish	Bright	Seating Torque	9.6 Nm
Maximum Speed4,000 RPMFull Bearing Support Required?NoNypatch® Anti-Vibration Hardware?YesPrecision Honed Bores?YesZero-Backlash?YesMaterial SpecificationType 303 Austenitic, Non-Magnetic BarTemperature-40°F to 350°F (-40°C to 176°C)Finish SpecificationBright, No PlatingManufacturerRuland ManufacturingCountry of OriginUSAWeight (Ibs)1.142400UPC634529013953Tariff Code8483.60.8000UNSPC31163009Note 1Performance ratings are for guidance only. The user must determine suitability for a particular application.Prop 65MARNING This product can expose you to the chemical Nickel (metallic), known to the State of Californi	Screw Location (R)	15.4 mm	Number of Screws	4 ea
Nypatch® Anti-Vibration Hardware?YesPrecision Honed Bores?YesZero-Backlash?YesMaterial SpecificationType 303 Austenitic, Non-Magnetic BarTemperature-40°F to 350°F (-40°C to 176°C)Finish SpecificationBright, No PlatingManufacturerRuland ManufacturingCountry of OriginUSAWeight (Ibs)1.142400UPC634529013953Tariff Code8483.60.8000UNSPC31163009Note 1Performance ratings are for guidance only. The user must determine suitability for a particular application.Prop 65Marking This product can expose you to the chemical Nickel (metallic), known to the State of Californi	Rated Torque	110 Nm	Moment of Inertia	1.409 x 10 <sup>-4</sup> kg-m <sup>2</sup>
Airdware?   Zero-Backlash? Yes Material Specification Type 303 Austenitic, Non-Magnetic Bar   Temperature -40°F to 350°F (-40°C to 176°C) Finish Specification Bright, No Plating   Manufacturer Ruland Manufacturing Country of Origin USA   Weight (Ibs) 1.142400 UPC 634529013953   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 AwarNING This product can expose you to the chemical Nickel (metallic), known to the State of California)	Maximum Speed	4,000 RPM	Full Bearing Support Required?	No
Bar   B	Nypatch® Anti-Vibration Hardware?	Yes	Precision Honed Bores?	Yes
ManufacturerRuland ManufacturingCountry of OriginUSAWeight (lbs)1.142400UPC634529013953Tariff Code8483.60.8000UNSPC31163009Note 1Performance ratings are for guidance only. The user must determine suitability for a particular application.Prop 65MWARNING This product can expose you to the chemical Nickel (metallic), known to the State of California)	Zero-Backlash?	Yes	Material Specification	Type 303 Austenitic, Non-Magnetic Bar
Weight (lbs) 1.142400 UPC 634529013953   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 MWARNING This product can expose you to the chemical Nickel (metallic), known to the State of California	Temperature	-40°F to 350°F (-40°C to 176°C)	Finish Specification	Bright, No Plating
Tariff Code8483.60.8000UNSPC31163009Note 1Performance ratings are for guidance only. The user must determine suitability for a particular application.Prop 65MARNING This product can expose you to the chemical Nickel (metallic), known to the State of Californian Content in the state in the state of Californian Content in the sta	Manufacturer	Ruland Manufacturing	Country of Origin	USA
Note 1Performance ratings are for guidance only. The user must determine suitability for a particular application.Prop 65MWARNING This product can expose you to the chemical Nickel (metallic), known to the State of California	Weight (Ibs)	1.142400	UPC	634529013953
Prop 65	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	<b>WARNING</b> This product can expose you to the chemical Nickel (metallic), known to the State of California to cause cancer. For more information go to <u>www.P65Warnings.ca.gov</u> .		

Installation Instructions

- 1. Align the MCLX-20-20-SS one-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 5.0 mm torque wrench, tighten the inside screws to 4.8 Nm which is half the recommended seating torque. Repeat for the outside screws, again tightening to half of the recommended seating torque.
- 3. Tighten the screws to the full recommended seating torque of 9.6 Nm following the same pattern, starting with the inside screws first.