



MOCT41-20-SS

Ruland MOCT41-20-SS, 20mm Oldham Coupling Hub, 303 Stainless Steel, Clamp Style, 41.3mm OD, 18.0mm Length



Description

Ruland MOCT41-20-SS is a clamp oldham coupling hub with a 20mm bore, 41.3mm OD, and 18.0mm length. It is a component of a three-piece design consisiting of two stainless steel hubs press fit onto a center disk. This three-piece design allows for a highly customizable coupling that easily combines clamp or set screw hubs with inch, metric, keyed, and keyless bores. Disks are available in three materials allowing the user to tailor coupling performance to their application. MOCT41-20-SS can accommodate all forms of misalignment and is especially useful in applications with high parallel misalignment (up to 10% of the OD). It operates with low bearing loads protecting sensitive system components such as bearings and has a balanced design for reduced vibration at speeds up to 6,000 RPM. Hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. MOCT41-20-SS is machined from bar stock that is sourced exclusively from North American mills and is RoHS3 and REACH compliant. It is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

B1 Max Shaft Penetration 18.0 mm Bore Tolerance +0.03 mm / -0.00 mm Hub Width (LH) 18.05 mm Length (L) 50.8 mm Recommended Shaft Tolerance +0.000 mm / -0.013 mm Forged Clamp Screw M4 Number of Screws 1 ea Screw Material 18-8 300 Series Stainless Steel Screw Finish Bright Seating Torque 2.5 Nm Hex Wrench Size 3.0 mm Torque Specifications Torque ratings vary with insert selection Angular Misalignment 0.163 in (4.13 mm) Axial Motion 0.001 in (0.25 mm) Max Parallel Misalignment 0.163 in (4.13 mm) Axial Motion 0.006 in (0.15 mm) Moment of Inertia 3.984 x 10 ⁻⁵ kg-m ² Maximum Speed 4,500 RPM Recommended Inserts OD26/41-NL, OD26/41-NL, OD26/41-NL, OD26/41-PEK Full Bearing Support Required? Yes Zero-Backlash? Yes Balanced Design Yes Mechanical Fuse? Yes Balanced Design Yes Mechanical Fuse? Yes UPC 634529121061 Country of Origin USA Material Specification Bright, No Plating Manufacturer R	Product Specifications			
Hub Width (LH)18.05 mmLength (L)50.8 mmRecommended Shaft Tolerance+0.000 mm / -0.013 mmForged Clamp ScrewM4Number of Screws1 eaScrew Material18-8 300 Series Stainless SteelScrew FinishBrightSeating Torque2.5 NmHex Wrench Size3.0 mmTorque SpecificationsTorque ratings vary with insert selectionAngular Misalignment0.5°Parallel Misalignment0.010 in (0.25 mm)Max Parallel Misalignment0.163 in (4.13 mm)Axial Motion0.006 in (0.15 mm)Moment of Inertia3.984 x 10*5 kg·m²Maximum Speed4,500 RPMRecommended InsertsOD26/41-AT, OD26/41-NL, OD26/41-PEKFull Bearing Support Require?YesZero-Backlash?YesBalanced DesignYesMechanical Fuse?YesUPC634529121061Courtry of OriginUSAMaterial SpecificationBright, No Plating BarFinishBrightFinish SpecificationBright, No Plating BarManufacturerRuland ManufacturingTemperatureAcetal Disk -10°F to 130°F (-23°C to 54°C) PEEK Disk -10°F to 130°F (-23°C to 54°C) PEEK Disk -10°F to 300°F (-23°C to 54°C)Weight (Ibs)0.337400Tariff Code8483.60.8000UNSPC31163015"Performance ratings are for guidance only. The user must determine suitability for a particular application."	Bore (B1)	20 mm	Outer Diameter (OD)	41.3 mm
Recommended Shaft Tolerance +0.000 mm / -0.013 mm Forged Clamp Screw M4 Number of Screws 1 ea Screw Material 18-8 300 Series Stainless Steel Screw Finish Bright Seating Torque 2.5 Nm Hex Wrench Size 3.0 mm Torque Specifications Torque ratings vary with insert selection Angular Misalignment 0.5° Parallel Misalignment 0.010 in (0.25 mm) Max Parallel Misalignment 0.163 in (4.13 mm) Axial Motion 0.006 in (0.15 mm) Moment of Inertia 3.984 x 10° ⁶ kg-m ² Maximum Speed 4,500 RPM Recommended Inserts OD26/41-AT, OD26/41-NL, OD26/41-NL, OD26/41-NEK Full Bearing Support Required? Yes Zero-Backlash? Yes Balanced Design Yes Mechanical Fuse? Yes UPC 634529121061 Country of Origin USA Material Specification Bright, No-Plating Manufacturer Ruland Manufacturing Temperature Acetal Disk -10°F to 130°F (-23°C to 55°) Nylon Disk -10°F to 130°F (-23°C to 54°C) PEEK Disk -10°F to 130°F (-23°C to 54°C) PEEK Disk -10°F to 130°F (-23°C to 54°C) Weight (lbs) 0.337400 Tariff Code	B1 Max Shaft Penetration	18.0 mm	Bore Tolerance	+0.03 mm / -0.00 mm
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Screw FinishBrightSeating Torque2.5 NmHex Wrench Size3.0 mmTorque SpecificationsTorque ratings vary with insert selectionAngular Misalignment0.5°Parallel Misalignment0.010 in (0.25 mm)Max Parallel Misalignment0.163 in (4.13 mm)Axial Motion0.006 in (0.15 mm)Moment of Inertia3.984 x 10°5 kg·m²Maximum Speed4,500 RPMRecommended InsertsOD26/41-AT, OD26/41-NL, OD26/41-PEKFull Bearing Support Required? VesYesZero-Backlash?YesBalanced DesignYesMechanical Fuse?YesUPC634529121061Country of OriginUSAMaterial Specification BarTrype 303 Austenitic, Non-Magneti BarFinishBrightFinish SpecificationBright, No PlatingManufacturerRuland ManufacturingTemperatureAcetal Disk -10°F to 130°F (-23°C to 56°) Nylon Disk -10°F to 130°F (-23°C to 54°C) PEEK Disk -10°F to 300°F (-23°C to 54°C)Nylon Disk -10°F to 300°F (-23°C to 148°C)Weight (Ibs)0.337400Tariff Code843.60.8000UNSPC31163015"Performance ratings are for guidance only. The user must determine suitability for a particular application."	Recommended Shaft Tolerance	+0.000 mm / -0.013 mm	Forged Clamp Screw	M4
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Max Parallel Misalignment0.163 in (4.13 mm)Axial Motion0.006 in (0.15 mm)Moment of Inertia3.984 x 10° kg-m²Maximum Speed4,500 RPMRecommended InsertsOD26/41-AT, OD26/41-NL, OD26/41-PEKFull Bearing Support Required? VesYesZero-Backlash?YesBalanced DesignYesMechanical Fuse?YesUPC634529121061Country of OriginUSAMaterial SpecificationType 303 Austenitic, Non-Magneti BarFinishBrightFinish SpecificationBright, No PlatingManufacturerRuland ManufacturingTemperature Acetal Disk -10°F to 150°F (-23°C to 65°) Nylon Disk -10°F to 130°F (-23°C to 148°C)Weight (lbs)0.337400Tariff Code8483.60.8000UNSPC31163015"Performance ratings are for guidance only. The user must determine suitability for a particular application."	Hex Wrench Size	3.0 mm	Torque Specifications	
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OD26/41-PEKZero-Backlash?YesMechanical Fuse?YesUSAUPC634529121061Country of OriginUSAMaterial SpecificationType 303 Austenitic, Non-Magneti BarFinishBrightFinish SpecificationBright, No PlatingManufacturerRuland ManufacturingTemperatureAcetal Disk -10°F to 150°F (-23°C to 54°C) PEEK Disk -10°F to 130°F (-23°C to 54°C)Weight (lbs)0.337400Tariff Code8483.60.8000UNSPC31163015"Performance ratings are for guidance only. The user must determine suitability for a particular application."	Moment of Inertia	3.984 x 10 ⁻⁵ kg-m ²	Maximum Speed	4,500 RPM
Mechanical Fuse?YesUPC634529121061Country of OriginUSAMaterial SpecificationType 303 Austenitic, Non-Magneti BarFinishBrightFinish SpecificationBright, No PlatingManufacturerRuland ManufacturingTemperatureAcetal Disk -10°F to 150°F (-23°C to 65°) Nylon Disk -10°F to 130°F (-23°C to 54°C) PEEK Disk -10°F to 300°F (-23°C to 148°C)Weight (lbs)0.337400Tariff Code8483.60.8000UNSPC31163015"Performance ratings are for guidance only. The user must determine suitability for a particular application."	Recommended Inserts		Full Bearing Support Required?	Yes
Country of OriginUSAMaterial SpecificationType 303 Austenitic, Non-Magneti BarFinishBrightFinish SpecificationBright, No PlatingManufacturerRuland ManufacturingTemperatureAcetal Disk -10°F to 150°F (-23°C to 65°) Nylon Disk -10°F to 130°F (-23°C to 54°C) PEEK Disk -10°F to 300°F (-23°C to 148°C)Weight (lbs)0.337400Tariff Code8483.60.8000UNSPC31163015"Performance ratings are for guidance only. The user must determine suitability for a particular application."	Zero-Backlash?	Yes	Balanced Design	Yes
Bar Bar Finish Bright Finish Specification Bright, No Plating Manufacturer Ruland Manufacturing Temperature Acetal Disk -10°F to 150°F (-23°C to 65°) Nylon Disk -10°F to 130°F (-23°C to 54°C) PEEK Disk -10°F to 300°F (-23°C to 148°C) Weight (Ibs) 0.337400 Tariff Code 8483.60.8000 UNSPC 31163015 The user must determine suitability for a particular application."	Mechanical Fuse?	Yes	UPC	634529121061
Manufacturer Ruland Manufacturing Temperature Acetal Disk -10°F to 150°F (-23°C to 65°) Nylon Disk -10°F to 130°F (-23°C to 54°C) Nylon Disk -10°F to 130°F (-23°C to 54°C) PEEK Disk -10°F to 300°F (-23°C to 148°C) Weight (Ibs) 0.337400 Tariff Code 8483.60.8000 UNSPC 31163015 Image: Second Sec	Country of Origin	USA	Material Specification	Type 303 Austenitic, Non-Magnetic Bar
weight (lbs) 0.337400 Tariff Code 8483.60.8000 UNSPC 31163015 "Performance ratings are for guidance only. The user must determine suitability for a particular application."	Finish	Bright	Finish Specification	Bright, No Plating
weight (lbs) 0.337400 Tariff Code 8483.60.8000 UNSPC 31163015 Image: State of guidance only. The user must determine suitability for a particular application. Note 1 "Performance ratings are for guidance only. The user must determine suitability for a particular application."	Manufacturer	Ruland Manufacturing	Temperature	Acetal Disk -10°F to 150°F (-23°C to 65°)
to 148°C) Weight (Ibs) 0.337400 Tariff Code 8483.60.8000 UNSPC 31163015 Performance ratings are for guidance only. The user must determine suitability for a particular application.'				5
UNSPC 31163015 Note 1 "Performance ratings are for guidance only. The user must determine suitability for a particular application."				
Note 1 "Performance ratings are for guidance only. The user must determine suitability for a particular application."	Weight (Ibs)	0.337400	Tariff Code	8483.60.8000
	UNSPC	31163015		
Note 2 "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. Under	Note 1	"Performance ratings are for guidar	nce only. The user must determine s	uitability for a particular application."
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"Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. Under normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some cases` especially when the smallest standard bores are used or where shafts are undersized` slippage on the shaft is possible below the rated torque of the disks. Keyways are available to provide additional torque capacity in the shaft/hub connection when required. Please consult technical support for more assistance."

AWARNING 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

- Align the bores of the MOCT41-20-SS oldham coupling hubs on the shafts that are to be joined and determine if the misalignment parameters are within the limits of the coupling. (*Angular Misalignment:* 0.5° *Parallel Misalignment:* 0.010 in (0.25 mm), *Axial Motion:* 0.006 in (0.15 mm))
- 2. Rotate the hubs on the shaft so the drive tenons are located 90° from each other.
- 3. Place a torque disk so one groove fits over the drive tenons of a hub and center the disk by hand.
- 4. Insert a shim with the thickness of the coupling's axial motion rating into the groove of the torque disk.
- 5. Slide the tenons of the second hub into the mating groove in the disk until it touches the shim stock.
- 6. Fully tighten the M4 screw(s) on each hub to the recommended seating torque of 2.5 Nm using a 3.0 mm hex torque wrench.
- 7. Remove the shim stock to leave a small gap between the top of the drive tenons and the torque disk to allow for axial movement.