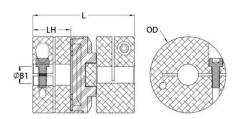




## MOCT41-10-A

Ruland MOCT41-10-A, 10mm Oldham Coupling Hub, Aluminum, Clamp Style, 41.3mm OD, 18.0mm Length





## **Description**

Ruland MOCT41-10-A is a clamp oldham coupling hub with a 10mm bore, 41.3mm OD, and 18.0mm length. It is a component of a three-piece design consisiting of two anodized aluminum 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. MOCT41-10-A 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. MOCT41-10-A 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

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Angular Misalignment  0.5°  Parallel Misalignment  0.10 in (0.25 mm)  Max Parallel Misalignment  0.10 in (0.25 mm)  Max Parallel Misalignment  0.163 in (4.13 mm)  Axial Motion  0.006 in (0.15 mm)  Moment of Inertia  1.473 x 10° kg-m²  Maximum Speed  4,500 RPM  Recommended Inserts  0D26/41-AT, 0D26/41-NL, OD26/41-NL, OD26/41-NL, OD26/41-NL, OD26/41-PEK  Zero-Backlash?  Yes  Balanced Design  Yes  Mechanical Fuse?  Yes  UPC  634529059463  Country of Origin  USA  Material Specification  Sulfuric Anodized MIL-A-862: II, Class 2 and ASTM B580 T Black Anodize  Manufacturer  Ruland Manufacturing  Temperature  Acetal Disk -10°F to 150°F (-1 to 54°C)  PEK Disk -10°F to 130°F (-2 to 54°C)  PEK Disk -10°F to 300°F (-2 to 148°C)  Weight (lbs)  0.142900  Tariff Code  8483.60.8000  UNSPC  31163015  Note 1  "Now available in stainless steel!"  Note 2  "Performance ratings are for guidance only. The user must determine suitability for a particular applica  Note 3  "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. In some of	r roduct opecifications				
Hub Width (LH) 18.0 mm	Bore (B1)	10 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 Alloy Steel  Screw Finish Black Oxide Seating Torque 4.6 Nm  Hex Wrench Size 3.0 mm Torque Specifications Torque ratings vary with inseselection  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 1.47 x x 10° kg-m² Maximum Speed 4,500 RPM  Recommended Inserts OD26/41-NL, OD26/41-NL, OD26/41-NL, OD26/41-PEK  Zero-Backlash? Yes Balanced Design Yes  Country of Origin USA Material Specification 2024-T351 Aluminum Bar  Finish Black Anodized Finish Specification Sulfuric Anodized MIL-A-862  II, class 2 and ASTM B580 T Black Anodize  Manufacturer Ruland Manufacturing Temperature Acetal Disk -10°F to 130°F (-2 to 54°C)  PEEK Disk -10°F to 130°F (-2 to 148°C)  Weight (lbs) 0.142900 Tariff Code 8483.60.8000  UNSPC 31163015  Note 1 "Now available in stainless stee!!"  Note 2 "Performance ratings are for guidance only. The user must determine suitability for a particular applica Note 3 "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some of the couplings are passed on the physical limitations/failure point of the torque disks.	B1 Max Shaft Penetration	18.0 mm	Bore Tolerance	+0.03 mm / -0.00 mm	
Number of Screws  1 ea Screw Material Alloy Steel Screw Finish Black Oxide Seating Torque 4.6 Nm Torque Specifications Torque ratings vary with inservations selection Angular Misalignment O.5° Parallel Misalignment O.163 in (4.13 mm) Axial Motion O.006 in (0.15 mm) Max Parallel Misalignment O.163 in (4.13 mm) Axial Motion O.006 in (0.15 mm) Moment of Inertia Axia No <sup>-5</sup> kg-m <sup>2</sup> Maximum Speed	Hub Width (LH)	18.0 mm	Length (L)	50.8 mm	
Black Oxide   Seating Torque   4.6 Nm	Recommended Shaft Tolerance	+0.000 mm / -0.013 mm	Forged Clamp Screw	M4	
Hex Wrench Size  3.0 mm  Torque Specifications  Torque ratings vary with inseselection  Angular Misalignment  0.5°  Parallel Misalignment  0.163 in (4.13 mm)  Axial Motion  Moment of Inertia  1.473 x 10°5 kg-m²  Maximum Speed  4,500 RPM  Recommended Inserts  OD26/41-AT, OD26/41-NL, OD26/41-NL, OD26/41-NL, OD26/41-PEK  Zero-Backlash?  Yes  Balanced Design  Yes  Mechanical Fuse?  Yes  UPC  634529059463  Country of Origin  USA  Material Specification  Sulfuric Anodized MIL-A-862: II, Class 2 and ASTM B580 T Black Anodize  Manufacturer  Ruland Manufacturing  Temperature  Acetal Disk -10°F to 150°F (-2 to 54°C)  PEEK Disk -10°F to 300°F (-2 to 54°C)  PEEK Disk -10°F to 300°F (-2 to 148°C)  Weight (Ibs)  0.142900  Tariff Code  8483.60.8000  UNSPC  31163015  Note 1  "Now available in stainless steel!"  Note 2  "Performance ratings are for guidance only. The user must determine suitability for a particular applica  "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some of	Number of Screws	1 ea	Screw Material	Alloy Steel	
Angular Misalignment  0.5° Parallel Misalignment 0.163 in (4.13 mm) Axial Motion 0.006 in (0.15 mm)  Max Parallel Misalignment 0.163 in (4.13 mm) Axial Motion 0.006 in (0.15 mm)  Moment of Inertia 1.473 x 10°5 kg-m² Maximum Speed 4,500 RPM  Recommended Inserts 0D26/41-AT, 0D26/41-NL, 0D26/41-PEK  Zero-Backlash? Yes Balanced Design Yes Mechanical Fuse? Yes UPC 634529059463  Country of Origin USA Material Specification 2024-T351 Aluminum Bar  Finish Black Anodized Finish Specification Sulfuric Anodized MIL-A-862: II, Class 2 and ASTM B580 T Black Anodize  Manufacturer Ruland Manufacturing Temperature Acetal Disk -10°F to 150°F (-2 to 54°C) PEEK Disk -10°F to 130°F (-2 to 54°C) PEEK Disk -10°F to 300°F (-2 to 54°C) PEEK Disk -10°F to 150°F (-2 to	Screw Finish	Black Oxide	Seating Torque	4.6 Nm	
Max Parallel Misalignment       0.163 in (4.13 mm)       Axial Motion       0.006 in (0.15 mm)         Moment of Inertia       1.473 x 10.5 kg-m²       Maximum Speed       4,500 RPM         Recommended Inserts       OD26/41-AT, OD26/41-NL, OD26/41-NL, OD26/41-PEK       Full Bearing Support Required?       Yes         Zero-Backlash?       Yes       Balanced Design       Yes         Mechanical Fuse?       Yes       UPC       634529059463         Country of Origin       USA       Material Specification       2024-T351 Aluminum Bar         Finish       Black Anodized       Finish Specification       Sulfuric Anodized MIL-A-862! II, Class 2 and ASTM B580 T Black Anodize         Manufacturer       Ruland Manufacturing       Temperature       Acetal Disk -10°F to 150°F (-2 to 54°C) PEEK Disk -10°F to 130°F (-2 to 54°C) PEEK Disk -10°F to 300°F (-2 to 54°C) PEEK Disk -10°F to 300°F (-2 to 148°C)         Weight (lbs)       0.142900       Tariff Code       8483.60.8000         UNSPC       31163015         Note 1       "Now available in stainless stee!!"         Note 2       "Performance ratings are for guidance only. The user must determine suitability for a particular applica         Note 3       "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some of the	Hex Wrench Size	3.0 mm	Torque Specifications	Torque ratings vary with insert selection	
Moment of Inertia 1.473 x 10 <sup>-5</sup> kg·m <sup>2</sup> Maximum Speed 4,500 RPM  Recommended Inserts  OD26/41-AT, OD26/41-NL, OD26/41-NL, OD26/41-NL, OD26/41-PEK  Zero-Backlash? Yes Balanced Design Yes  Mechanical Fuse? Yes UPC 634529059463  Country of Origin USA Material Specification Sulfuric Anodized MIL-A-862: II, Class 2 and ASTM B580 T Black Anodize  Manufacturer  Ruland Manufacturing Temperature Acetal Disk -10°F to 150°F (-2 to 54°C) PEEK Disk -10°F to 300°F (-2 to 148°C)  Weight (Ibs) 0.142900 Tariff Code 31163015  Note 1 "Now available in stainless steel!" Note 2 "Performance ratings are for guidance only. The user must determine suitability for a particular applica Note 3 "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. In some of	Angular Misalignment	0.5°	Parallel Misalignment	0.010 in (0.25 mm)	
Recommended Inserts  OD26/41-AT, OD26/41-NL, OD26/41-NL, OD26/41-NL, OD26/41-PEK  Zero-Backlash?  Yes  Balanced Design  Yes  Mechanical Fuse?  Yes  UPC  634529059463  Country of Origin  USA  Material Specification  Sulfuric Anodized MIL-A-862: II, Class 2 and ASTM B580 T Black Anodize  Manufacturer  Ruland Manufacturing  Temperature  Acetal Disk -10°F to 150°F (-2 to 54°C)  PEEK Disk -10°F to 300°F (-2 to 148°C)  Weight (Ibs)  0.142900  Tariff Code  31163015  Note 1  "Now available in stainless stee!!"  Note 2  "Performance ratings are for guidance only. The user must determine suitability for a particular applica  "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. In some of	Max Parallel Misalignment	0.163 in (4.13 mm)	Axial Motion	0.006 in (0.15 mm)	
Zero-Backlash? Yes Balanced Design Yes  Mechanical Fuse? Yes UPC 634529059463  Country of Origin USA Material Specification 2024-T351 Aluminum Bar  Finish Black Anodized Finish Specification Sulfuric Anodized MIL-A-862: II, Class 2 and ASTM B580 T Black Anodize  Manufacturer Acatal Disk -10°F to 150°F (-1 to 65°) Nylon Disk -10°F to 130°F (-2 to 54°C) PEEK Disk -10°F to 300°F (-2 to 148°C)  Weight (Ibs) 0.142900 Tariff Code 8483.60.8000  UNSPC 31163015  Note 1 "Now available in stainless stee!!"  Note 2 "Performance ratings are for guidance only. The user must determine suitability for a particular applica Note 3 "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. In some of	Moment of Inertia	1.473 x 10 <sup>-5</sup> kg-m <sup>2</sup>	Maximum Speed	4,500 RPM	
Mechanical Fuse?       Yes       UPC       634529059463         Country of Origin       USA       Material Specification       2024-T351 Aluminum Bar         Finish       Black Anodized       Finish Specification       Sulfuric Anodized MIL-A-862: II, Class 2 and ASTM B580 T Black Anodize         Manufacturer       Ruland Manufacturing       Temperature       Acetal Disk -10°F to 150°F (-2 to 54°C) PEEK Disk -10°F to 130°F (-2 to 54°C) PEEK Disk -10°F to 300°F (-2 to 54°C)         Weight (lbs)       0.142900       Tariff Code       8483.60.8000         UNSPC       31163015         Note 1       "Now available in stainless steel!"         Note 2       "Performance ratings are for guidance only. The user must determine suitability for a particular applical conditions the hubs are capable of holding up to the rated torque of the disks. In some of the couplings are based on the physical limitations/failure point of the torque disks. normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some of the couplings are passed on the physical limitations/failure point of the torque disks.	Recommended Inserts		Full Bearing Support Required?	Yes	
Country of Origin  USA  Black Anodized  Finish  Black Anodized  Finish Specification  Sulfuric Anodized MIL-A-8628 II, Class 2 and ASTM B580 T Black Anodize  Manufacturer  Ruland Manufacturing  Temperature  Acetal Disk -10°F to 150°F (-2 to 54°C) PEEK Disk -10°F to 130°F (-2 to 148°C)  Weight (lbs)  0.142900  Tariff Code  8483.60.8000  UNSPC  31163015  Note 1  "Now available in stainless steel!"  Note 2  "Performance ratings are for guidance only. The user must determine suitability for a particular applica  "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some of	Zero-Backlash?	Yes	Balanced Design	Yes	
Finish  Black Anodized  Finish Specification  Sulfuric Anodized MIL-A-862: II, Class 2 and ASTM B580 T Black Anodize  Manufacturer  Ruland Manufacturing  Temperature  Acetal Disk -10°F to 150°F (-2 to 55°) Nylon Disk -10°F to 130°F (-2 to 54°C) PEEK Disk -10°F to 300°F (-2 to 148°C)  Weight (lbs)  0.142900  Tariff Code  8483.60.8000  UNSPC  31163015  Note 1  "Now available in stainless steel!"  Note 2  "Performance ratings are for guidance only. The user must determine suitability for a particular applica  Note 3  "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. In some of	Mechanical Fuse?	Yes	UPC	634529059463	
II, Class 2 and ASTM B580 T Black Anodize  Manufacturer  Ruland Manufacturing  Temperature  Acetal Disk -10°F to 150°F (-2 to 65°) Nylon Disk -10°F to 130°F (-2 to 54°C) PEEK Disk -10°F to 300°F (-2 to 148°C)  Weight (lbs)  0.142900  Tariff Code  8483.60.8000  UNSPC  31163015  Note 1  "Now available in stainless steel!"  Note 2  "Performance ratings are for guidance only. The user must determine suitability for a particular applica Note 3  "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some of	Country of Origin	USA	Material Specification	2024-T351 Aluminum Bar	
to 65°) Nylon Disk -10°F to 130°F (-2 to 54°C) PEEK Disk -10°F to 300°F (-2 to 148°C)  Weight (lbs)  0.142900 Tariff Code 8483.60.8000  UNSPC 31163015  Note 1 "Now available in stainless steel!"  Note 2 "Performance ratings are for guidance only. The user must determine suitability for a particular applica  Note 3 "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some of	Finish	Black Anodized	Finish Specification	Sulfuric Anodized MIL-A-8625 Type II, Class 2 and ASTM B580 Type B Black Anodize	
UNSPC 31163015  Note 1 "Now available in stainless steel!"  Note 2 "Performance ratings are for guidance only. The user must determine suitability for a particular applica  Note 3 "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks.  normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some of	Manufacturer	Ruland Manufacturing	Temperature	Nylon Disk -10°F to 130°F (-23°C to 54°C) PEEK Disk -10°F to 300°F (-23°C	
Note 1 "Now available in stainless steel!"  Note 2 "Performance ratings are for guidance only. The user must determine suitability for a particular applica  Note 3 "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks.  normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some of	Weight (lbs)	0.142900	Tariff Code	8483.60.8000	
Note 2 "Performance ratings are for guidance only. The user must determine suitability for a particular applica  Note 3 "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks.  normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some of	UNSPC	31163015			
Note 3 "Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some of	Note 1	"Now available in stainless steel!"			
normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. In some of	Note 2	"Performance ratings are for guidance only. The user must determine suitability for a particular application."			
1 ,	Note 3	"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."

## 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**

- Align the bores of the MOCT41-10-A 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 4.6 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.