## MDCS57-22-22-A

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Ruland MDCS57-22-22-A, 22mm x 22mm Single Disc Coupling, Aluminum, Clamp Style, 57.2mm OD, 58.8mm Length

OD

## Description

Ruland MDCS57-22-22-A is a clamp single disc coupling with 22mm x 22mm bores, 57.2mm OD, and 58.8mm length. It is zero-backlash and has a balanced design for reduced vibration at high speeds. The single disc design is comprised of two anodized aluminum hubs and two sets of thin stainless steel disc springs which can accommodate angular misalignment and axial motion, however does not allow for any parallel misalignment. MDCS57-22-22-A is lightweight and has low inertia making it well suited for applications with speeds up to 10,000 RPM. Hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. Ruland manufactures MDCS57-22-22-A to be torisionally rigid and an excellent fit for precise positioning stepper servo applications commonly found in semiconductor, solar, printing, machine tool, and test and measurement systems. It is machined from solid bar stock that is sourced exclusively from North American mills and RoHS3 and REACH compliant. MDCS57-22-22-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

| Product | Specifications |
|---------|----------------|

| Recommended Shaft Tolerance   +0.000 mm / -0.013 mm   Forged Clamp Screw   M6     Screw Material   Alloy Steel   Hex Wrench Size   5.0 mm     Screw Finish   Black Oxide   Seating Torque   16 Nm     Number of Screws   2 ea   Dynamic Torque Reversing   12.73 Nm     Angular Misalignment   1.0°   Dynamic Torque Non-Reversing   25.45 Nm     Parallel Misalignment   0.00 mm   Static Torque   50.9 Nm     Axial Motion   0.38 mm   Torsional Stiffness   113.0 Nm/Deg     Moment of Inertia   1.502 x 10 <sup>4</sup> kg-m <sup>2</sup> Maximum Speed   10,000 RPM     Full Bearing Support Required?   Yes   Zero-Backlash?   Yes     Balanced Design   Yes   Torque Wrench   TW/BT-4C-3/8-140     Recommended Hex Key   Matric Hex Keys   Material Specification   Hubs: 2024-T351 Aluminum Ba Disc Springs: Type 302 Stainles Steel     Temperature   -40°F to 200°F (-40°C to 93°C)   Finish Specification   Sulfuric Anodized MIL-A-8625 TI, Class 2 and ASTM B580 Type Black Anodize     Manufacturer   Ruland Manufacturing   Country of Origin   USA     Weight (lbs)   0.713200   UPC   634529154076 <t< th=""><th>r roudet opcomoations</th><th></th><th></th><th></th></t<>   | r roudet opcomoations          |  |                              |  |  |  |
|--|--------------------------------|--|------------------------------|--|--|--|
| Outer Diameter (OD)     57.2 mm     Bore Tolerance     +0.03 mm / -0.00 mm       Length (L)     58.8 mm     Hub Width (LH)     26.7 mm       Recommended Shaft Tolerance     +0.000 mm / -0.013 mm     Forged Clamp Screw     M6       Screw Material     Alloy Steel     Hex Wrench Size     5.0 mm       Screw Material     Alloy Steel     Hex Wrench Size     5.0 mm       Screw Material     Number of Screws     2 ea     Dynamic Torque Reversing     12.73 Nm       Angular Misalignment     1.0°     Dynamic Torque Non-Reversing     25.45 Nm       Parallel Misalignment     0.00 mm     Static Torque     50.9 Nm       Axial Motion     0.38 mm     Torsional Stiffness     113.0 Nm/Deg       Moment of Inertia     1.502 x 10 <sup>-4</sup> kg-m <sup>2</sup> Maximum Speed     10,000 RPM       Full Bearing Support Required?     Yes     Torque Wrench     TW-BT-4C-3/8-140       Recommended Hex Key     Matrici Hex Keys     Material Specification     Hubs: 2024-T351 Aluminum Ba Disc Springs: Type 302 Stainles: Steel       Temperature     -40°F to 200°F (-40°C to 93°C)     Finish Specification     Sulfuric Anodized MIL-A-8625 TI, Class 2 and ASTM E580 Typ. Black Anod  | Bore (B1)                      | 22 mm  | Small Bore (B2)              | 22 mm  |  |  |
| Length (L)   58.8 mm   Hub Width (LH)   26.7 mm     Recommended Shaft Tolerance   +0.000 mm /-0.013 mm   Forged Clamp Screw   M6     Screw Material   Alloy Steel   Hex Wrench Size   5.0 mm     Screw Finish   Black Oxide   Seating Torque   16 Nm     Number of Screws   2 ea   Dynamic Torque Reversing   12.73 Nm     Angular Misalignment   1.0°   Dynamic Torque Reversing   25.45 Nm     Parallel Misalignment   0.00 mm   Static Torque   50.9 Nm     Axial Motion   0.38 mm   Torsional Stiffness   113.0 Nm/Deg     Moment of Inertia   1.502 x 10 <sup>-4</sup> kg-m <sup>2</sup> Maximum Speed   10.000 RPM     Full Bearing Support Required?   Yes   Zero-Backlash?   Yes     Balanced Design   Yes   Torque Wrench   TW_BT-4C-3/8-140     Recommended Hex Key   Matric Hex Keys   Material Specification   Hubs: 2024-T351 Aluminum Ba     Bilack Anodize   Material Specification   Stifturic Anodized MIL-A-8625 TIL (Case 2 and ASTM B580 Typ Black Anodize     Manufacturer   Ruland Manufacturing   Country of Origin   USA     Weight (lbs)   0.713200   UPC   | B1 Max Shaft Penetration       | 27.6 mm  | B2 Max Shaft Penetration     | 27.6 mm  |  |  |
| Recommended Shaft Tolerance     +0.000 mm / -0.013 mm     Forged Clamp Screw     M6       Screw Material     Alloy Steel     Hex Wrench Size     5.0 mm       Screw Finish     Black Oxide     Seating Torque Reversing     12.73 Nm       Angular Misalignment     1.0°     Dynamic Torque Reversing     25.45 Nm       Parallel Misalignment     0.00 mm     Static Torque     50.9 Nm       Axial Motion     0.38 mm     Torsional Stiffness     113.0 Nm/Deg       Moment of Inertia     1.502 x 10 <sup>-4</sup> kg-m <sup>2</sup> Maximum Speed     10,000 RPM       Full Bearing Support Required?     Yes     Zero-Backlash?     Yes       Balanced Design     Yes     Torque Wrench     TW:BT-4C-3/8-140       Recommended Hex Key     Matric Hax Keys     Material Specification     Hubs: 2024-1351 Aluminum Ba<br>Disc Springs: Type 302 Stainles<br>Steel       Temperature     -40°F to 200°F (-40°C to 93°C)     Finish Specification     Sulfuric Anodized MIL-A-8625 '<br>II, Class 2 and ASTM B580 Type<br>Black Anodize       Manufacturer     Ruland Manufacturing     Country of Origin     USA       Weight (Ibs)     0.713200     UPC     634529154076       Tariff Code <td>Outer Diameter (OD)</td> <td>57.2 mm</td> <td>Bore Tolerance</td> <td>+0.03 mm / -0.00 mm</td>   | Outer Diameter (OD)            | 57.2 mm  | Bore Tolerance               | +0.03 mm / -0.00 mm  |  |  |
| Screw Material   Alloy Steel   Hex Wrench Size   5.0 mm     Screw Finish   Black Oxide   Seating Torque   16 Nm     Number of Screws   2 ea   Dynamic Torque Reversing   12.73 Nm     Angular Misalignment   1.0°   Dynamic Torque Non-Reversing   25.45 Nm     Parallel Misalignment   0.00 mm   Static Torque   50.9 Nm     Axial Motion   0.38 mm   Torsional Stiffness   113.0 Nm/Deg     Moment of Inertia   1.502 x 10 <sup>-4</sup> kg-m <sup>2</sup> Maximum Speed   10,000 RPM     Full Bearing Support Required?   Yes   Zero-Backlash?   Yes     Balanced Design   Yes   Torque Wrench   TW:BT-4C-3/8-140     Recommended Hex Key   Metric Hex Keys   Material Specification   Hubs: 2024-T351 Aluminum Ba<br>Disc Springs: Type 302 Stainles<br>Steel     Temperature   -40°F to 200°F (-40°C to 93°C)   Finish Specification   Sulfuric Anodized MIL-A-8625<br>II, Class 2 and ASTM B580 Typ<br>Black Anodize     Manufacturer   Ruland Manufacturing   Country of Origin   USA     Weight (Ibs)   0.713200   UPC   634529154076     Tariff Code   8483.60.8000   UNSPC   31163008     Note 2   <   | Length (L)                     | 58.8 mm  | Hub Width (LH)               | 26.7 mm  |  |  |
| Screw Finish     Black Oxide     Seating Torque     16 Nm       Number of Screws     2 ea     Dynamic Torque Reversing     12.73 Nm       Angular Misalignment     1.0°     Dynamic Torque Non-Reversing     25.45 Nm       Parallel Misalignment     0.00 mm     Static Torque     50.9 Nm       Axial Motion     0.38 mm     Torsional Stiffness     113.0 Nm/Deg       Moment of Inertia     1.502 x 10 <sup>-4</sup> kg-m <sup>2</sup> Maximum Speed     10,000 RPM       Full Bearing Support Required?     Yes     Zero-Backlash?     Yes       Balanced Design     Yes     Torque Wrench     TW:BT-4C-3/8-140       Recommended Hex Key     Metric Hex Keys     Material Specification     Hubs: 2024-T351 Aluminum Ba<br>Disc Springs: Type 302 Stainles<br>Steel       Temperature     -40°F to 200°F (-40°C to 93°C)     Finish Specification     Sulfuric Anodized MIL-A-8625 TI, Class 2 and ASTM B580 Type<br>Black Anodize       Manufacturer     Ruland Manufacturing     Country of Origin     USA       Weight (Ibs)     0.713200     UPC     634529154076       Tariff Code     8483.60.8000     UNSPC     31163008       Note 1     Stainless steel hubs are av   | Recommended Shaft Tolerance    | +0.000 mm / -0.013 mm  | Forged Clamp Screw           | M6   |  |  |
| Number of Screws     2 ea     Dynamic Torque Reversing     12.73 Nm       Angular Misalignment     1.0°     Dynamic Torque Non-Reversing     25.45 Nm       Parallel Misalignment     0.00 mm     Static Torque     50.9 Nm       Axial Motion     0.38 mm     Torsional Stiffness     113.0 Nm/Deg       Moment of Inertia     1.502 x 10 <sup>-4</sup> kg-m <sup>2</sup> Maximum Speed     10,000 RPM       Full Bearing Support Required?     Yes     Zero-Backlash?     Yes       Balanced Design     Yes     Torque Wrench     TW:BT-4C-3/8-140       Recommended Hex Key     Metric Hex Keys     Material Specification     Hubs: 2024-T351 Aluminum Bac<br>Disc Springs: Type 302 Staine:<br>Steel       Temperature     -40°F to 200°F (-40°C to 93°C)     Finish Specification     Sulfuric Anodized MIL-A-8625<br>II, Class 2 and ASTM B580 Type<br>Black Anodize       Manufacturer     Ruland Manufacturing     Country of Origin     USA       Weight (lbs)     0.713200     UPC     634529154076       Tariff Code     8483.60.8000     UNSPC     31163008       Note 1     Stainless steel hubs are available upon request.     Note 3       Note 2     Torque ratings are at maxim   | Screw Material                 | Alloy Steel  | Hex Wrench Size              | 5.0 mm   |  |  |
| Angular Misalignment1.0°Dynamic Torque Non-Reversing25.45 NmParallel Misalignment0.00 mmStatic Torque50.9 NmAxial Motion0.38 mmTorsional Stiffness113.0 Nm/DegMoment of Inertia1.502 x 10 <sup>-4</sup> kg-m²Maximum Speed10,000 RPMFull Bearing Support Required?YesZero-Backlash?YesBalanced DesignYesTorque WrenchTW:BT-4C-3/8-140Recommended Hex KeyMetric Hex KeysMaterial SpecificationHubs: 2024-T351 Aluminum Ba<br>Disc Springs: Type 302 Stainles<br>SteelTemperature-40°F to 200°F (-40°C to 93°C)Finish SpecificationSulfuric Anodized MIL-A-8625 T<br>II, Class 2 and ASTM B580 Type<br>Black AnodizeManufacturerRuland ManufacturingCountry of OriginUSAWeight (lbs)0.713200UPC634529154076Note 1Stainless steel hubs are available upon request.Note 1Note 2Torque ratings are at maximum misalignment.Note 4Note 4Torque ratings for the couplings are based on the physical limitations/failure point of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used and torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible be   | Screw Finish                   | Black Oxide  | Seating Torque               | 16 Nm  |  |  |
| Parallel Misalignment0.00 mmStatic Torque50.9 NmAxial Motion0.38 mmTorsional Stiffness113.0 Nm/DegMoment of Inertia1.502 x 10 <sup>4</sup> kg-m²Maximum Speed10,000 RPMFull Bearing Support Required?YesZero-Backlash?YesBalanced DesignYesTorque WrenchTW:BT-4C-3/8-140Recommended Hex KeyMetric Hex KeysMaterial SpecificationHubs: 2024-T351 Aluminum Ba<br>Disc Springs: Type 302 Stainle:<br>SteelTemperature-40°F to 200°F (-40°C to 93°C)Finish SpecificationSulfuric Anodized MIL-A-8625 °<br>II, Class 2 and ASTM B580 Typ<br>Black AnodizeManufacturerRuland ManufacturingCountry of OriginUSAWeight (Ibs)0.713200UPC634529154076Tariff Code8483.60.8000UNSPC31163008Note 1Stainless steel hubs are available upon request.Note 1Note 2Torque ratings are at maximum misalignment.Note 4Note 4Torque ratings are for guidance only. The user must determine suitability for a particular application<br>normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippago o<br>shaft is possible below the rated torque of the disc springs. In so<br>cases, especially when the shaft/hub connection when required. Please consult technical support for more   | Number of Screws               | 2 ea   | Dynamic Torque Reversing     | 12.73 Nm   |  |  |
| Axial Motion0.38 mmTorsional Stiffness113.0 Nm/DegMoment of Inertia1.502 x 10 <sup>-4</sup> kg-m²Maximum Speed10,000 RPMFull Bearing Support Required?YesZero-Backlash?YesBalanced DesignYesTorque WrenchTW:BT-4C-3/8-140Recommended Hex KeyMetric Hex KeysMaterial SpecificationHubs: 2024-T351 Aluminum Ba<br>Disc Springs: Type 302 Stainles<br>SteelTemperature-40°F to 200°F (-40°C to 93°C)Finish SpecificationSulfuric Anodized MIL-A-8625 T<br>II, Class 2 and ASTM B580 Type<br>Black AnodizeManufacturerRuland ManufacturingCountry of OriginUSAWeight (lbs)0.713200UPC634529154076Tariff Code8483.60.8000UNSPC31163008Note 1Stainless steel hubs are available upon request.Note 2Note 3Performance ratings are for guidance only. The user must determine suitability for a particular applicationNote 4Torque ratings for the couplings are based on the physical limitations/failure point of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional<br>torque capacity in the shaft/hub connection when required. Please consult technical support for more  | Angular Misalignment           | 1.0°   | Dynamic Torque Non-Reversing | 25.45 Nm   |  |  |
| Moment of Inertia   1.502 x 10 <sup>-4</sup> kg-m <sup>2</sup> Maximum Speed   10,000 RPM     Full Bearing Support Required?   Yes   Zero-Backlash?   Yes     Balanced Design   Yes   Torque Wrench   TW:BT-4C-3/8-140     Recommended Hex Key   Metric Hex Keys   Material Specification   Hubs: 2024-T351 Aluminum Ba<br>Disc Springs: Type 302 Stainles<br>Steel     Temperature   -40°F to 200°F (-40°C to 93°C)   Finish Specification   Sulfuric Anodized MIL-A-8625 TII, Class 2 and ASTM B580 Type<br>Black Anodize     Manufacturer   Ruland Manufacturing   Country of Origin   USA     Weight (lbs)   0.713200   UPC   634529154076     Tariff Code   8483.60.8000   UNSPC   31163008     Note 1   Stainless steel hubs are available upon request.   Note 2     Note 3   Performance ratings are for guidance only. The user must determine suitability for a particular application normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In so cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o shaft is possible below the rated torque of the disc springs. In so cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o shaft is possible below the rated torque of the disc springs. In so cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o sha  | Parallel Misalignment          | 0.00 mm  | Static Torque                | 50.9 Nm  |  |  |
| Full Bearing Support Required?YesZero-Backlash?YesBalanced DesignYesTorque WrenchTW:BT-4C-3/8-140Recommended Hex KeyMetric Hex KeysMaterial SpecificationHubs: 2024-T351 Aluminum Ba<br>Disc Springs: Type 302 Stainles<br>SteelTemperature-40°F to 200°F (-40°C to 93°C)Finish SpecificationSulfuric Anodized MIL-A-8625<br>II, Class 2 and ASTM B580 Type<br>Black AnodizeManufacturerRuland ManufacturingCountry of OriginUSAWeight (Ibs)0.713200UPC634529154076Tariff Code8483.60.8000UNSPC31163008Note 1Stainless steel hubs are available upon request.Note 2Note 2Torque ratings are at maximum misalignment.Torque ratings are for guidance only. The user must determine suitability for a particular applicationNote 3Performance ratings are for guidance only. The user must determine suitability for a particular application<br>normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In ormal/typical conditions the hubs are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional<br>torque capacity in the shaft/hub connection when required. Please consult technical support for more   | Axial Motion                   | 0.38 mm  | Torsional Stiffness          | 113.0 Nm/Deg   |  |  |
| Balanced DesignYesTorque WrenchTW/BT-4C-3/8-140Recommended Hex KeyMetric Hex KeysMaterial SpecificationHubs: 2024-T351 Aluminum Ba<br>Disc Springs: Type 302 Stainler<br>SteelTemperature-40°F to 200°F (-40°C to 93°C)Finish SpecificationSulfuric Anodized MIL-A-8625 TII, Class 2 and ASTM B580 Type<br>Black AnodizeManufacturerRuland ManufacturingCountry of OriginUSAWeight (lbs)0.713200UPC634529154076Tariff Code8483.60.8000UNSPC31163008Note 1Stainless steel hubs are available upon request.Note 1Note 2Torque ratings are at maximum misalignment.Torque ratings are for guidance only. The user must determine suitability for a particular applicationNote 3Performance ratings are for guidance only. The user must determine suitability for a particular applicationNote 4Note 4Torque ratings for the couplings are based on the physical limitations/failure point of the disc springs. Un<br>normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. Un<br>normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. Un<br>normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional<br>torque capacity in the shaft/hub connection when required. Please consult technical support for more  | Moment of Inertia              | 1.502 x 10 <sup>-4</sup> kg-m <sup>2</sup>   | Maximum Speed                | 10,000 RPM   |  |  |
| Recommended Hex KeyMetric Hex KeysMaterial SpecificationHubs: 2024-T351 Aluminum Ba<br>Disc Springs: Type 302 Stainler<br>SteelTemperature-40°F to 200°F (-40°C to 93°C)Finish SpecificationSulfuric Anodized MIL-A-8625 T<br>II, Class 2 and ASTM B580 Type<br>Black AnodizeManufacturerRuland ManufacturingCountry of OriginUSAWeight (lbs)0.713200UPC634529154076Tariff Code8483.60.8000UNSPC31163008Note 1Stainless steel hubs are available upon request.Note 2Note 2Torque ratings are at maximum misalignment.Torque ratings for the couplings are based on the physical limitations/failure point of the disc springs. Un<br>normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional<br>torque capacity in the shaft/hub connection when required. Please consult technical support for more | Full Bearing Support Required? | Yes  | Zero-Backlash?               | Yes  |  |  |
| Disc Springs: Type 302 Stainlet<br>SteelTemperature-40°F to 200°F (-40°C to 93°C)Finish SpecificationSulfuric Anodized MIL-A-8625<br>II, Class 2 and ASTM B580 Type<br>Black AnodizeManufacturerRuland ManufacturingCountry of OriginUSAWeight (lbs)0.713200UPC634529154076Tariff Code8483.60.8000UNSPC31163008Note 1Stainless steel hubs are available upon request.Note 2Note 2Torque ratings are at maximum misalignment.Note 3Note 3Performance ratings are for guidance only. The user must determine suitability for a particular application<br>normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. Un<br>normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional<br>torque capacity in the shaft/hub connection when required. Please consult technical support for more  | Balanced Design                | Yes  | Torque Wrench                | TW:BT-4C-3/8-140   |  |  |
| II, Class 2 and ASTM B580 Type<br>Black AnodizeManufacturerRuland ManufacturingCountry of OriginUSAWeight (lbs)0.713200UPC634529154076Tariff Code8483.60.8000UNSPC31163008Note 1Stainless steel hubs are available upon request.Note 2Note 2Torque ratings are at maximum misalignment.Note 3Note 3Performance ratings are for guidance only. The user must determine suitability for a particular applicationNote 4Torque ratings for the couplings are based on the physical limitations/failure point of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional<br>torque capacity in the shaft/hub connection when required. Please consult technical support for more   | Recommended Hex Key            | <u>Metric Hex Keys</u>   | Material Specification       | Hubs: 2024-T351 Aluminum Bar,<br>Disc Springs: Type 302 Stainless<br>Steel             |  |  |
| Weight (lbs)0.713200UPC634529154076Tariff Code8483.60.8000UNSPC31163008Note 1Stainless steel hubs are available upon request.Note 2Torque ratings are at maximum misalignment.Note 3Performance ratings are for guidance only. The user must determine suitability for a particular applicationNote 4Torque ratings for the couplings are based on the physical limitations/failure point of the disc springs. Un<br>normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional<br>torque capacity in the shaft/hub connection when required. Please consult technical support for more  | Temperature                    | -40°F to 200°F (-40°C to 93°C)   | Finish Specification         | Sulfuric Anodized MIL-A-8625 Type<br>II, Class 2 and ASTM B580 Type B<br>Black Anodize |  |  |
| Tariff Code8483.60.8000UNSPC31163008Note 1Stainless steel hubs are available upon request.Note 2Torque ratings are at maximum misalignment.Note 3Performance ratings are for guidance only. The user must determine suitability for a particular applicationNote 4Torque ratings for the couplings are based on the physical limitations/failure point of the disc springs. Un<br>normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional<br>torque capacity in the shaft/hub connection when required. Please consult technical support for more   | Manufacturer                   | Ruland Manufacturing   | Country of Origin            | USA  |  |  |
| Note 1Stainless steel hubs are available upon request.Note 2Torque ratings are at maximum misalignment.Note 3Performance ratings are for guidance only. The user must determine suitability for a particular applicationNote 4Torque ratings for the couplings are based on the physical limitations/failure point of the disc springs. Un<br>normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional<br>torque capacity in the shaft/hub connection when required. Please consult technical support for more   | Weight (lbs)                   | 0.713200   | UPC                          | 634529154076   |  |  |
| Note 2   Torque ratings are at maximum misalignment.     Note 3   Performance ratings are for guidance only. The user must determine suitability for a particular application     Note 4   Torque ratings for the couplings are based on the physical limitations/failure point of the disc springs. Un normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In so cases, especially when the smallest standard bores are used or where shafts are undersized, slippage or shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional torque capacity in the shaft/hub connection when required. Please consult technical support for more   | Tariff Code                    | 8483.60.8000   | UNSPC                        | 31163008   |  |  |
| Note 3Performance ratings are for guidance only. The user must determine suitability for a particular applicationNote 4Torque ratings for the couplings are based on the physical limitations/failure point of the disc springs. Un<br>normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In so<br>cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o<br>shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional<br>torque capacity in the shaft/hub connection when required. Please consult technical support for more  | Note 1                         | Stainless steel hubs are available upon request.   |                              |  |  |  |
| Note 4 Torque ratings for the couplings are based on the physical limitations/failure point of the disc springs. Un normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In so cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional torque capacity in the shaft/hub connection when required. Please consult technical support for more  | Note 2                         | Torque ratings are at maximum misalignment.  |                              |  |  |  |
| normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In so cases, especially when the smallest standard bores are used or where shafts are undersized, slippage o shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional torque capacity in the shaft/hub connection when required. Please consult technical support for more  | Note 3                         | Performance ratings are for guidance only. The user must determine suitability for a particular application. |                              |  |  |  |
|  | Note 4                         | torque capacity in the shaft/hub connection when required. Please consult technical support for more         |                              |  |  |  |







**WARNING** This product can expose you to chemicals including Ethylene Thiourea and Nickel (metallic), known to the State of California to cause cancer, and Ethylene Thiourea known to the State of California to cause birth defects or other reproductive harm. For more information go to <u>www.P65Warnings.ca.gov</u>.

Installation Instructions

- Align the bores of the MDCS57-22-22-A single disc coupling on the shafts that are to be joined and determine if the misalignment parameters are within the limits of the coupling. (*Angular Misialignment:* 1.0°, *Parallel Misalignment:* 0.00 mm, *Axial Motion:* 0.38 mm)
- 2. Fully tighten the M6 screw on the first hub to the recommended seating torque of 16 Nm using a 5.0 mm hex torque wrench.
- 3. Before tightening the screw on the second hub, rotate the coupling by hand to allow it to reach its free length.
- Tighten the screw on the second hub to the recommended seating torque. Make sure the coupling remains axially relaxed and the misalignment angle remains centered along the length of the coupling.
- 5. The shafts may extend into the relieved portion of the bore as long as it does not exceed the shaft penetration length of 27.6 mm.