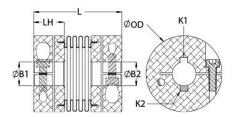




BCK36-18-16-A

Ruland BCK36-18-16-A, 1 1/8" x 1" Bellows Coupling with Keyways, High Stiffness, Aluminum, 2.250", OD 3.235" Length





Description

Ruland BCK36-18-16-A is a high stiffness bellows coupling with 1.1250" x 1.0000" bores, 2.250" OD, 3.235" length, and 1/4" x 1/4" keyways. It has fewer convolutions than comparably sized increased misalignment styles allowing for increased torsional stiffness making it the ideal choice for precision positioning applications. BCK36-18-16-A is comprised of two anodized aluminum hubs and a stainless steel bellows for lightweight and low inertia. It is also engineered with a balanced design for reduced vibration at high speeds up to 10,000 RPM. The thin walls of the bellows are able to flex while remaining rigid under torsional loads allowing for the accommodation of all forms of misalignment. Hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. BCK36-18-16-A is machined from meticulously selected bar stock that is sourced exclusively from North American mills. It is carefully made in our ISO 9001:2015 advanced manufacturing facility in Marlborough, MA under strict controls using proprietary processes. BCK36-18-16-A is RoHS3, REACH, and Conflict Minerals compliant.

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Bore (B1)	1.1250 in	Small Bore (B2)	1.0000 in			
Keyway (K1)	1/4 in	Keyway (K2)	1/4 in			
B1 Max Shaft Penetration	1.496 in	B2 Max Shaft Penetration	1.496 in			
Outer Diameter (OD)	2.250 in	Bore Tolerance	+0.004 in / +0.001 in			
Length (L)	3.235 in	Length Tolerance	+/- 0.030 in			
Hub Width (LH)	1.050 in	Recommended Shaft Tolerance	+0.0000 in / -0.0005 in			
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	132 lb-in	Angular Misalignment	2.0°			
Dynamic Torque Non-Reversing	265 lb-in	Parallel Misalignment	0.012 in			
Static Torque	530 lb-in	Axial Motion	0.030 in			
Torsional Stiffness	1200 lb-in/Deg	Moment of Inertia	0.5607 lb-in ² (1.641 x 10 ⁻⁴ kg-m ²)			
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 Bar	Temperature	-40°F to 200°F (-40°C to 93°C)			
	Bellows: Type 321 Stainless Steel					
Finish Specification	Sulfuric Anodized MIL-A-8625 Type II, Class 2 and ASTM B580 Type B	Bellows Attachment Method	Ероху			
	Black Anodize					
Manufacturer	Ruland Manufacturing	Country of Origin	USA			
Weight (lbs)	0.704200	UPC	634529308431			
Tariff Code	8483.60.8000	UNSPC	31163018			
Note 1	Stainless steel hubs are available upon request.					
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 metal bellows. Under					
	normal/typical conditions the hubs are capable of holding up to the rated torque of the metal bellows. In some					
			shafts are undersized, slippage on the			
	·	que of the metal bellows. Keyways a	·			
	torque capacity in the shaft/hub con	nection when required. Please cons	uit technical support for more			

Installation Instructions

- 1. Align the bores of the BCK36-18-16-A bellows coupling on the shafts that are to be joined and determine if the misalignment parameters are within the limits of the coupling. (*Angular Misialignment*: 2.0 °, *Parallel Misalignment*: 0.012 in, *Axial Motion*: 0.030 in)
- 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.
- 4. 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 1.496 in.