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FD-1012/M12×1.25

Generic FD-1012/M12×1.25 Cylinder Floating Joint Instruction Manual

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of the Generic FD-1012/M12×1.25 Cylinder Floating Joint. Please read these instructions thoroughly before using the product to ensure safe and efficient performance. Retain this manual for future reference.

2. Product Overview

The FD-1012/M12×1.25 is a cylinder floating joint designed to absorb misalignment between a cylinder and its driven load. This flexibility helps prevent damage to the cylinder rod and extends the lifespan of the entire pneumatic system. It features a M12*1.25mm thread size and is constructed with a plastic body and stainless steel exterior finish.

Figure 1: Generic FD-1012/M12×1.25 Cylinder Floating Joint. This image displays the floating joint, highlighting its threaded connection and main body structure.

Key Features:

- **Model:** FD-1012/M12×1.25
- **Thread Size:** M12*1.25mm
- **Material:** Plastic body with Stainless Steel exterior finish
- Designed to compensate for minor misalignments

3. Setup and Installation

Proper installation is crucial for the optimal performance and longevity of the floating joint. Follow these steps carefully:

1. **Preparation:** Ensure that the cylinder rod and the driven load have compatible M12*1.25mm female threads. Clean both threads to remove any debris or contaminants.
2. **Attachment to Cylinder Rod:** Carefully thread the floating joint onto the cylinder rod. Hand-tighten first, then use an appropriate wrench to secure it firmly. Do not overtighten, as this can damage the threads or the joint itself.
3. **Attachment to Load:** Connect the other end of the floating joint to the driven load. Ensure proper alignment before tightening. The floating mechanism will accommodate minor angular or parallel misalignments.
4. **Verification:** After installation, manually move the cylinder rod and the load through their full range of motion to confirm smooth operation and verify that the floating joint is functioning correctly without binding.

Note: Always refer to the specifications of your cylinder and load for specific torque recommendations.

4. Operating Principles

The FD-1012/M12×1.25 floating joint is designed to provide a flexible connection between a pneumatic or hydraulic cylinder and its load. Its internal mechanism allows for slight angular and parallel deviations, preventing stress on the cylinder rod and piston. This is particularly beneficial in applications where perfect alignment is difficult to achieve or maintain due to manufacturing tolerances or dynamic operating conditions.
The joint operates passively, adjusting its position as needed during the cylinder's stroke. No external power or control is required for its floating function.

5. Maintenance

The Generic FD-1012/M12×1.25 Cylinder Floating Joint is designed for minimal maintenance. However, regular inspection is recommended to ensure continued reliable operation.

- **Visual Inspection:** Periodically check the joint for any signs of wear, cracks, or damage to the plastic body or metal components.
- **Thread Integrity:** Ensure that the threaded connections remain secure and free from loosening.
- **Cleanliness:** Keep the joint free from excessive dust, dirt, or corrosive substances that could impede its movement or degrade materials.
- **Lubrication:** No specific lubrication is required for the internal floating mechanism under normal operating conditions.

If significant wear or damage is observed, the joint should be replaced to prevent potential system failures.

6. Troubleshooting

This section addresses common issues that may arise during the use of the floating joint.

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Joint feels stiff or binds	Excessive misalignment; debris in joint; overtightened connections	Check system alignment; clean joint; ensure connections are tightened to specification, not overtightened.
Unusual noise during operation	Component wear; loose connections; excessive load	Inspect for wear and replace if necessary; re-tighten connections; verify load is within system limits.
Visible damage to joint body	Impact; material fatigue; chemical exposure	Replace the floating joint immediately.
Threads are stripped or damaged	Overtightening; cross-threading; improper installation	Replace the floating joint and ensure correct installation procedures are followed.

7. Specifications

The following are the technical specifications for the Generic FD-1012/M12×1.25 Cylinder Floating Joint:

- **Model:** FD-1012/M12×1.25
- **Thread Size:** M12*1.25mm (equivalent to #0-80 in some listings)
- **Material:** Plastic (body), Stainless Steel (exterior finish/metal type)
- **Fastener Type:** Hex
- **Color:** Silver
- **Thread Style:** Right Hand
- **Thread Coverage:** Fully Threaded
- **Product Dimensions (L x W x H):** 1.77 x 1.1 x 0.55 inches
- **Item Weight:** 3.53 ounces
- **Country/Region of Manufacture:** China
- **UPC:** 773774498570

8. Warranty and Support

Warranty information for this Generic product is not provided in this manual. For details regarding warranty coverage, returns, or technical support, please contact the seller or the manufacturer directly through your purchase platform. Ensure you have your purchase details, including the ASIN (B0FRS64LXK) and model number (FD-1012/M12×1.25), available when contacting support.