

VEVOR SBR16-C 1500L

VEVOR SBR16-1500mm Linear Rail Set Instruction Manual

Model: SBR16-C 1500L

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1. INTRODUCTION

This manual provides essential instructions for the safe and efficient use of your VEVOR SBR16-1500mm Linear Rail Set. This linear motion system is designed for precision applications in automated machinery, including CNC routers, mills, lathes, and other industrial equipment. Please read this manual thoroughly before installation and operation to ensure proper function and longevity of the product.

2. SAFETY INSTRUCTIONS

Always adhere to the following safety guidelines to prevent injury and damage to the equipment:

- Wear appropriate personal protective equipment (PPE) such as safety glasses and gloves during installation and maintenance.
- Ensure the work area is clean, well-lit, and free from obstructions.
- Disconnect power from any machinery before installing or servicing the linear rail set.
- Handle components with care to avoid pinching or crushing injuries.
- Do not exceed the specified dynamic or static load capacities.
- Keep children and unauthorized personnel away from the work area.
- If any component is damaged, do not use the product. Contact VEVOR support for replacement parts.

3. PRODUCT OVERVIEW

The VEVOR SBR16-1500mm Linear Rail Set provides precise and smooth linear motion. It consists of two SBR16 linear guide rails and four SBR16UU bearing blocks, designed for high precision, wear resistance, and low noise operation.



Image 3.1: Overview of the VEVOR SBR16-1500mm Linear Rail Set, highlighting its robust design and key features like thickened material, anti-corrosion properties, high load-bearing capacity, and multiple specifications.

3.1. Components

The complete linear rail kit includes:

- **2 x SBR16 Linear Rail Shafts:** Each 1500mm (59 inches) long, made from high-quality carbon steel with a chrome-plated surface for durability and rust resistance.
- **4 x SBR16UU Bearing Blocks:** Constructed with GCr15 bearing steel and an aluminum alloy casing, featuring internal high-precision linear bearings for smooth, low-friction movement.

SMOOTH & UNOBSTRUCTED MANIPULATION

SBR16 Linear Guide Rail with 2 Guide Rails and 4 Slide Blocks

Multiple Specifications: SBR12/16/20/25



DIY router / lathe / mill sled



DIY trainer rocker plate



CNC Machine

Image 3.2: The two SBR16 linear guide rails and four SBR16UU bearing blocks included in the set.

3.2. Key Features

- **High Precision Smooth Motion:** Built-in ball bearings ensure low friction and precise movement.
- **Durable Construction:** Rails are made of carbon steel, and blocks feature GCr15 bearing steel with an aluminum alloy casing.
- **Corrosion Resistance:** Chrome-plated surface on the rails provides protection against rust and allows operation in wet environments.
- **High Load Capacity:** Designed to withstand significant dynamic and static loads, suitable for various heavy machinery.
- **Dust-proof Design:** Equipped with dust-proof clips to prevent contamination of the bearings, ensuring long-term stable operation.

High Precision Smooth Motion

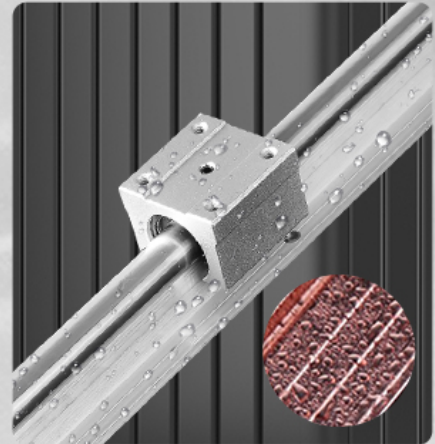
Built-in ball bearing, Low friction movement



Dust-proof Clip
Avoid Bearing
Contamination



Pre-lubrication
Ensures Long-term
Stable Operation



Chrome Plated Surface
Fearless of Wet
Environment

Image 3.3: Detailed view of the SBR16UU block, illustrating the internal ball bearings, dust-proof clip, and pre-lubrication for smooth, long-term operation.

Highly Stable & Non-deformable

Large load-bearing capacity for various heavy machinery and industrial applications



Image 3.4: Illustration of the linear rail's load-bearing capacity, showing dynamic load (774 N / 80 kg) and static load (1180 N / 120 kg) per block, indicating high stability and non-deformable characteristics.

4. SETUP & INSTALLATION

The VEVOR SBR16-1500mm Linear Rail Set is designed for straightforward installation. Follow these steps for proper assembly:

1. **Prepare the Mounting Surface:** Ensure the surface where the linear rails will be mounted is clean, flat, and level. Any unevenness can affect the performance and lifespan of the system.
2. **Position the Rails:** Carefully place the SBR16 linear rails onto the prepared mounting surface. Ensure they are parallel and correctly aligned according to your application's requirements.
3. **Mount the Rails:** Secure the linear rails using appropriate fasteners through the accurately positioned mounting holes. Tighten fasteners evenly to avoid distortion of the rail.
4. **Install the Bearing Blocks:** Align each SBR16UU bearing block with the end of its respective linear rail. Gently push the bearing block onto the rail until it slides smoothly into position. Do not force the blocks.
5. **Attach to Application:** Once the rails and blocks are installed, attach your moving component (e.g., CNC carriage, machine table) to the SBR16UU blocks using suitable bolts.
6. **Verify Movement:** Manually move the attached component along the rails to ensure smooth, unobstructed motion. Check for any binding or excessive friction.

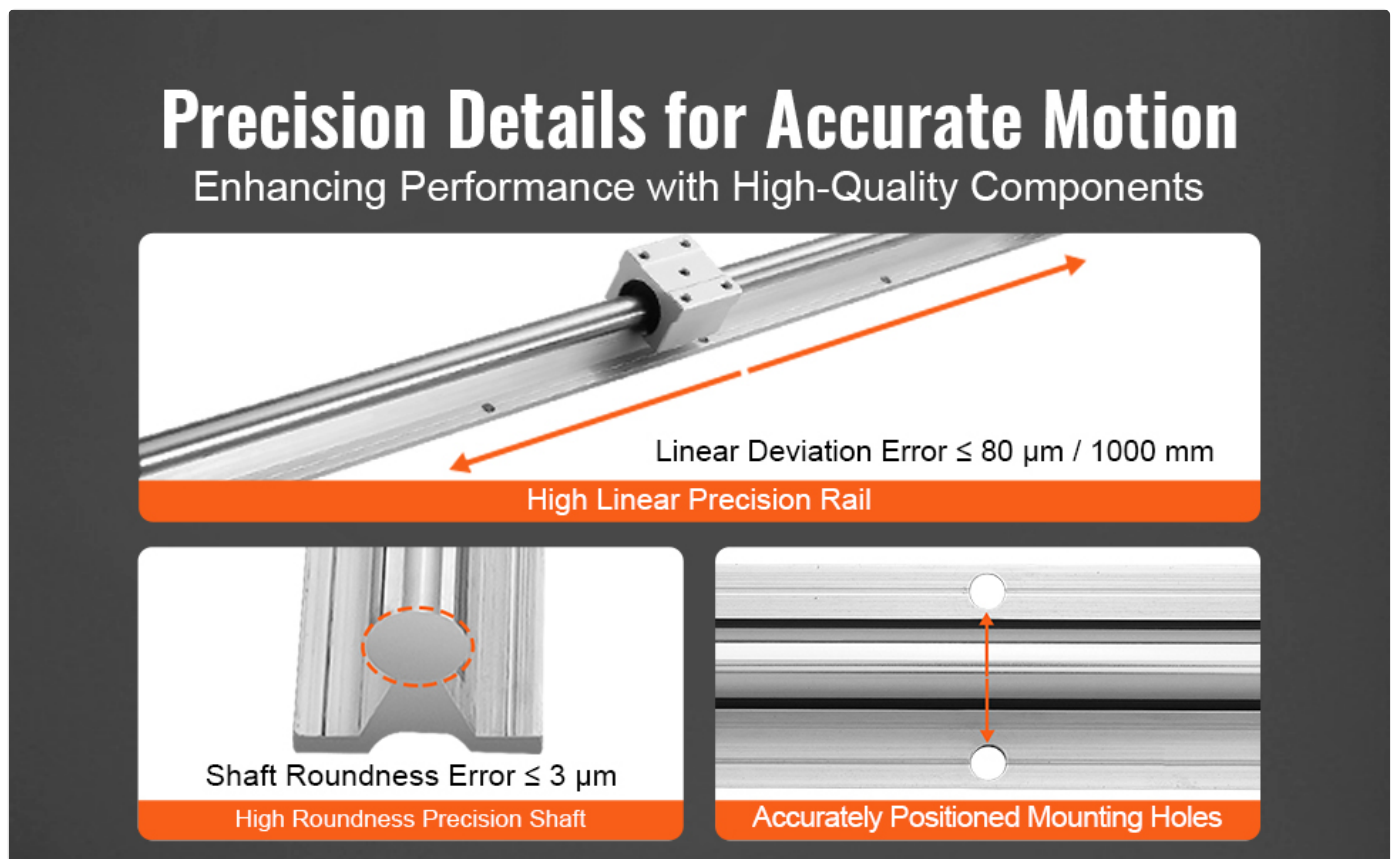


Image 4.1: Illustration of precision details for accurate motion, including linear deviation error ($\leq 80 \mu\text{m} / 1000 \text{ mm}$), shaft roundness error ($\leq 3 \mu\text{m}$), and accurately positioned mounting holes for easy installation.

5. OPERATION

The VEVOR SBR16-1500mm Linear Rail Set is designed for integration into various automated systems. Once properly installed, its operation is typically controlled by the host machine (e.g., CNC controller). Ensure that the linear motion system is correctly integrated and calibrated with your equipment.

- **Load Distribution:** Distribute the load evenly across the bearing blocks to maximize performance and lifespan.
- **Operating Environment:** While the rails are corrosion-resistant, avoid exposing them to excessive dust, debris, or corrosive chemicals that could compromise bearing integrity.
- **Speed and Acceleration:** Operate within the recommended speed and acceleration limits of your overall machine

design to prevent premature wear.

6. MAINTENANCE

Regular maintenance ensures the optimal performance and extends the lifespan of your linear rail set. While the system is designed for minimal maintenance, periodic checks are recommended.

- **Lubrication:** The bearing blocks come pre-lubricated. For long-term stable operation, periodic re-lubrication with compatible grease is recommended, especially in high-use applications or after extended periods of inactivity.
- **Cleaning:** Regularly clean the linear rails and bearing blocks to remove any accumulated dust, chips, or debris. Use a clean, lint-free cloth. Avoid abrasive cleaners.
- **Inspection:** Periodically inspect the rails and blocks for any signs of wear, damage, or corrosion. Check for loose fasteners and tighten them as necessary.
- **Dust-proof Clips:** Ensure the dust-proof clips on the bearing blocks are intact and functioning correctly to prevent contamination.

7. TROUBLESHOOTING

If you encounter issues with your linear rail set, consider the following common troubleshooting steps:

Problem	Possible Cause	Solution
Rough or sticky movement	Lack of lubrication, debris on rails, misalignment, damaged bearing.	Clean rails and re-lubricate. Check for proper alignment. Inspect bearings for damage.
Excessive noise	Lack of lubrication, worn bearings, loose components.	Apply grease. Inspect and replace worn bearings if necessary. Tighten all fasteners.
Play or looseness in movement	Worn bearings, loose mounting bolts, incorrect installation.	Inspect and replace worn bearings. Check and tighten all mounting bolts. Re-evaluate installation steps.
Corrosion on rails	Exposure to moisture or corrosive agents, damaged chrome plating.	Clean and apply rust preventative. Ensure proper environmental conditions. Replace if severe.

If problems persist after attempting these solutions, please contact VEVOR customer support.

8. SPECIFICATIONS

Detailed technical specifications for the VEVOR SBR16-1500mm Linear Rail Set:

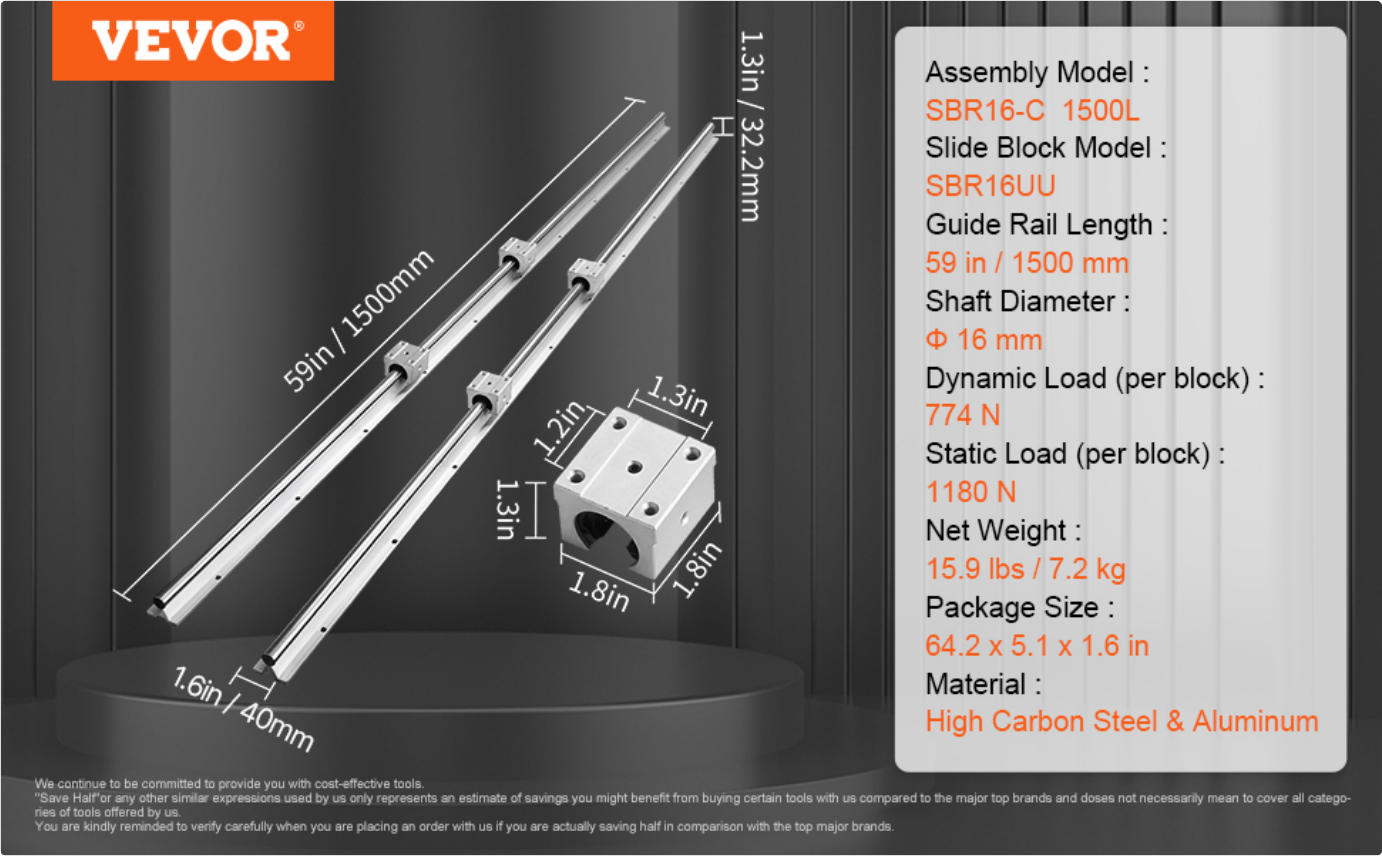


Image 8.1: Infographic displaying key specifications and dimensions for the SBR16-C 1500L Linear Rail Set.

Attribute	Value
Model	SBR16-C 1500L
Rail Type	SBR16
Rail Length	1500 mm (59 inches)
Shaft Diameter	16 mm
Bearing Blocks	4 x SBR16UU
Dynamic Load (per block)	774 N
Static Load (per block)	1180 N
Net Weight	7.3 kg (15.9 lbs)
Material	High Carbon Steel & Aluminum
Compatible Lubricant	Grease
Overall Dimensions (L x W x H)	150 x 4 x 3.2 cm
GTIN / UPC	840349990309

9. WARRANTY & SUPPORT

For warranty information, technical support, or to inquire about replacement parts, please contact VEVOR customer service directly. Refer to your purchase documentation or the official VEVOR website for contact details.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question