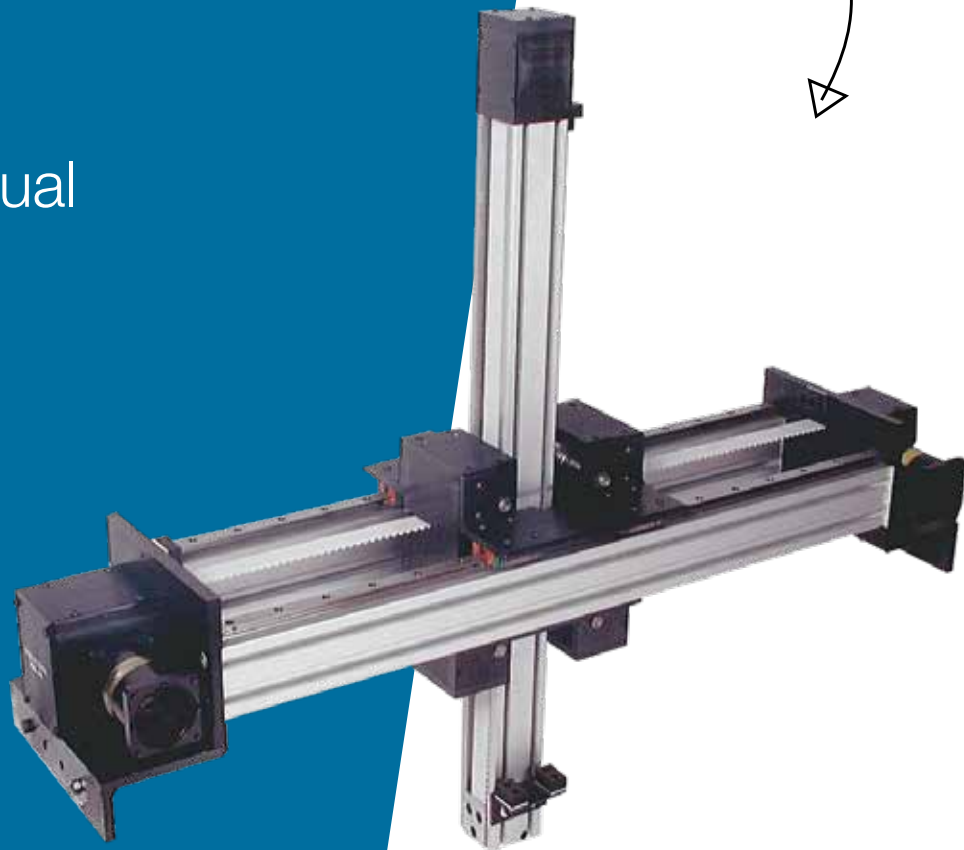




BELT DRIVEN HSXZ

User Manual

*We make
things MOVE®*





SCOPE OF THIS MANUAL

This instruction manual supports Bimba standard components only. If special components, including but not limited to serial hubs, power supplies, and drivers, are included based on a customer's specifications or special request, it is the customer's responsibility to consult support materials and technical support specific to these special components provided by the third party manufacturers. Bimba assumes no liability for misuse, misapplication, or support for components that are not the Bimba brand. Only authorized personnel are permitted to disassemble the linear actuators. All linear actuators have serial numbers at the drive ends. Please use this number for any inquiries.

WARNING

Using the equipment in a manner not specified in this manual can impair the safety of the equipment.

Technical support is available from:

Bimba Manufacturing Company
25150 S Governors Hwy University Park, Illinois 60484
Phone: 708-534-8544 Toll Free: 800-44-BIMBA Fax: 708-235-2014
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GENERAL INFORMATION

OPERATING RANGES

TEMPERATURE RANGES FOR NORMAL OPERATION OF THE ACTUATOR COMPONENTS	
Linear Bearings	-15° C to 240° C
Ball Bearings	-30° C to 250° C
Gear Reducers	-50° C to 232° C
Standard Belt	0° C to 80° C
Low Temperature Belt	-25° C to 5° C
High Temperature Belt	20° C to 110° C



INSTALLATION

MOUNTING TO THE Z-AXIS

The bottom of the Z-axis extrusion has a set of 4-6mm tapped holes. When mounting a plate to the extrusion, be sure that the plate is flat to ensure a complete mating surface. If the plate is not flat, or if the bolts are too long, this action could produce a loose fit and allow vibration and excess noise. This could result in a premature failure in the bracket and/or Z -axis extrusion with an unsafe condition.

MOUNTING THE ACTUATOR

Support of the linear actuator should only be on the aluminum angles at the ends of the actuator. The angles are designed to support the actuator from these two ends. The user should be sure to properly align the ends and not induce any twisting into the actuator ends, which could bind up the drives and make running of the drive belt tight.

MOUNTING THE MOTOR

Actuators provided with gear reducers typically include a motor mounting adapter and shaft pinion. Follow the instructions provided with the pinion for proper motor installation.

All other methods of driving the input shaft should include the use of a high quality flexible coupling. Hard coupling directly to the actuator shaft can cause excess wear and could cause a failure of the actuator.

NOTE: Bimba recommends the use of motors with a properly sized fail-safe brake on all vertical applications.

ALIGNMENTS

Care should be taken when aligning linear actuators with a moving machine component. Make sure that any bending or twisting of the actuator from other machine components is eliminated or minimized in reference to the linear actuator.



MAINTENANCE

GENERAL

General maintenance of the linear actuators is to keep the actuator belt clean to keep dirt from accumulating inside the actuator. Inspection of the actuator, clamps, tee bolts, mounting hardware, and other parts should be done periodically to insure proper alignment and that the operation did not change from the initial installation.

LUBRICATION

The HSXZ actuator has the Self-Lubricant Linear Guideway System for Increased Life; do not use grease. Use only oil as mentioned below. The linear guide blocks are of the self-lubricant type. These blocks require oil installed into the side of the block through the side access hole on the side of the extrusion. Simply remove the plug in the extrusion, drive the carriage to the middle, align the oil fitting with the access hole in the block side, remove the setscrew, and install the oil directly into the block. Lubrication for these linear bearings is recommended at least every 10,000km of travel.

Grease is recommended at linear speeds up to 3 meters per second and oil lubrication above 3 meters per second. The maximum speed of the actuators should be 5 meters per second. Consult Bimba for application data.

Grease should be a lithium-based lubricant. The amount of re-lubrication of grease is 5cm³ per bearing block. Oil should be 30~150cst with a feeding rate of 0.3cm³/hour per bearing block. Review your part number for the appropriate number of bearing blocks installed in your actuator.

The drive and take-up pulleys use sealed, deep groove ball bearings with a lifetime lubricant so that no maintenance is required.

If your unit has a built-in reducer, this should be checked for heat build up and excess noise. This should indicate re-lubrication requirements only.

BELT TENSIONING

The belt driven linear actuators are pre-tensioned at the factory. Field adjustments should not be required. If the actuator is disassembled or the belt needs tensioned after replacement, please contact Bimba for proper tension procedures.



SPARE PARTS

DISASSEMBLY

Call Bimba before any disassembly of the linear actuator. Bimba's warranty may be voided if the customer disassembles the linear actuator.

ORDERING SPARE PARTS

AVAILABLE SPARE PARTS:	HSXZ
Single Drive End Assembly	HSXZ-SD
Reducer Drive End Assembly	HSXZ-RD
Take-up End Assembly	B80-TU
Linear Belt	HSXZ-03
Bumpers	9306K62
Carriage Assembly	HSXZ-17

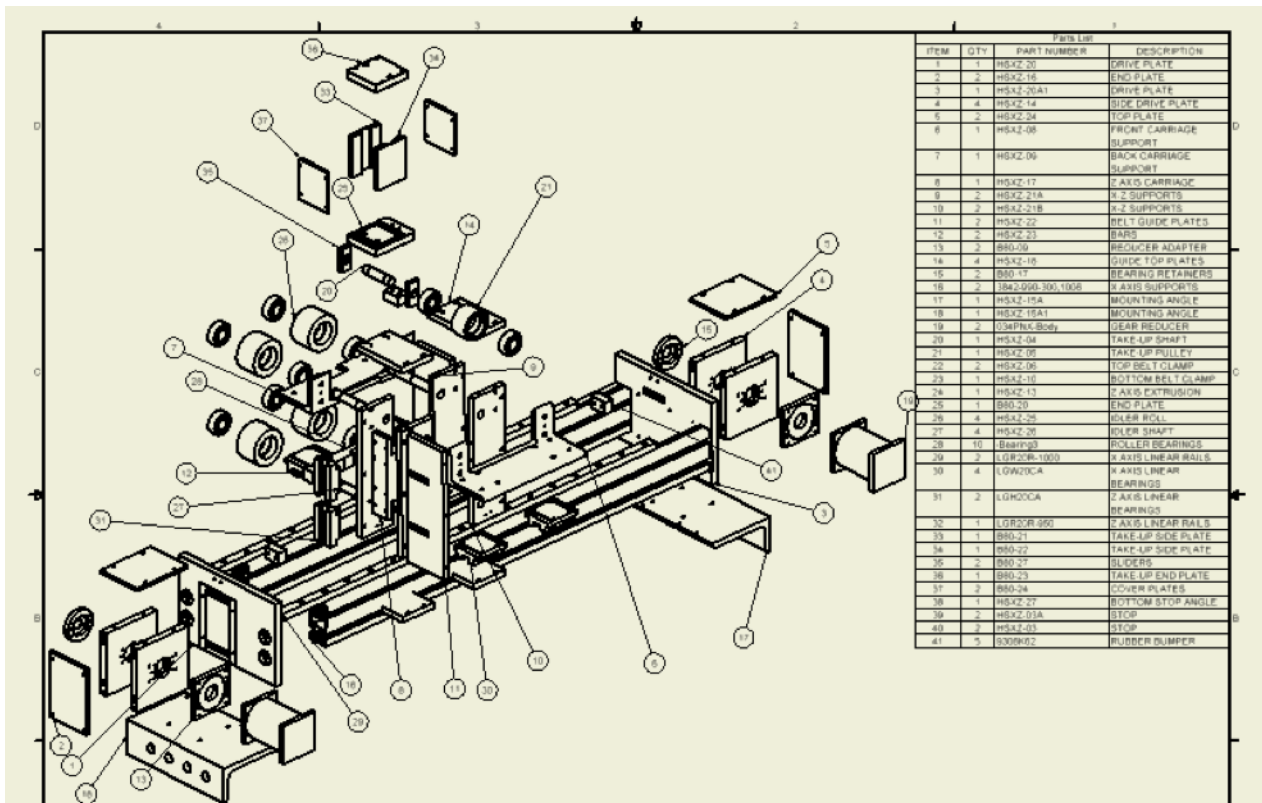
Please use the linear actuator serial number installed at the drive end for all inquires along with the original purchase order number (if available). Describe the part required and contact Bimba:

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TROUBLESHOOTING

COMMON ISSUES

ISSUE	CAUSE	SOLUTION
Belt noise	Belt running on extrusion body	Adjust belt tracking Add lubrication to belt grooves
Excess friction	Low lubrication	Lubricate bearing blocks
Improper positioning	Loose motor pinion	Remount motor pinion per instructions







TECHNICAL DOCUMENTS

Visit the Bimba website for additional models, drawings, and further documentation.
www.bimba.com

SUPPLIER CONTACT

To purchase electric motion products, accessories, or receive further information,
contact your local Bimba distributor or contact Bimba directly.

Bimba Manufacturing Headquarters

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