MOTION & CONTROL™
NSK

MT-Frix™
Low-Friction Ball Screws

New!

Patent pending

Significantly reduced dynamic friction torque and heat generation help to maintain machine tool accuracy and deliver energy savings.



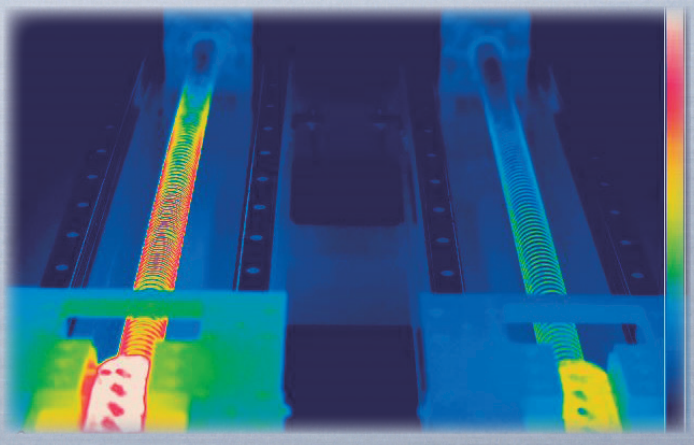
Features

1. Up to 50% less dynamic friction torque with same nut rigidity

Helps reduce declines in accuracy caused by heat generation and reduces energy consumption.

2. Compatible with existing mountings

Interchangeability with conventional models allows easy replacement in current equipment.



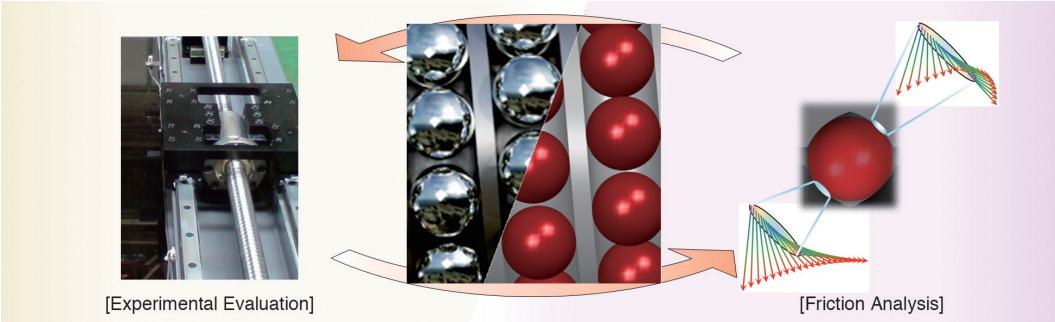
Conventional Product

MT-Frix Ball Screw

Tested heat generation

Optimized Contact Between Ball and Groove

With knowledge on the precise contact state between the ball and groove gained from NSK's unique analysis and production technologies, dynamic friction torque in MT-Frix ball screws is significantly reduced.

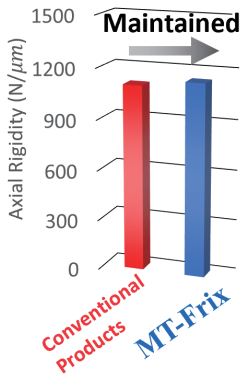


Reduces Dynamic Friction Torque by up to 50%

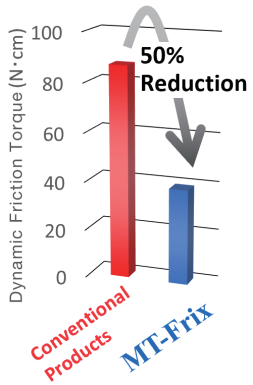
Friction torque in ball screws creates heat, which impacts accuracy and is a key source of energy waste. MT-Frix ball screws reduce dynamic friction torque by up to 50% while maintaining nut rigidity.
This helps lessen the decline in machine tool accuracy that occurs from heat generated during operation and reduces the energy used by the drive or for screw cooling.

(Nut Type: ZFRC4010-10, Shaft Dia.: 40 mm, Lead: 10 mm)

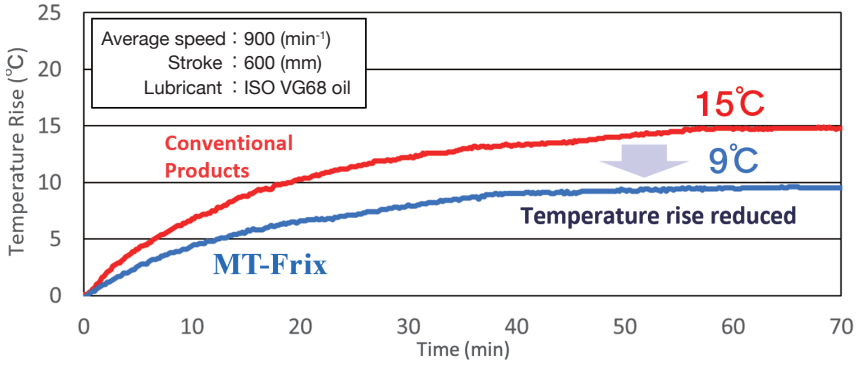
Note : Measured values shown may vary depending on equipment.



Comparison of nut rigidity



Comparison of dynamic friction torque



Comparison of temperature rise

Compatible with Existing Mountings

Mountings are fully interchangeable with those of conventional products, allowing MT-Frix ball screws to be used without costly equipment changes.

Applicable Specifications

Shaft Diameter	ø40 to ø63 mm
Lead	Lead / Shaft Dia. ≤ 1/2
Preload Type	Offset preload (Z preload)

Some configurations are not available.
Please contact NSK for details.

For more information about NSK products, please contact: www.nsk.com

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