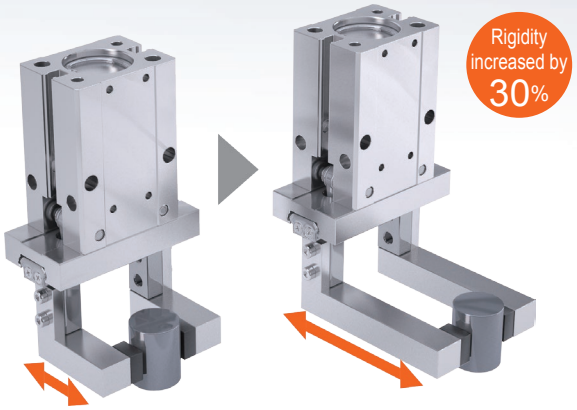
Linear Slide Hand LSH-HP1 Series

Increased linear guide performance

High rigidity

Increased amount of overhang

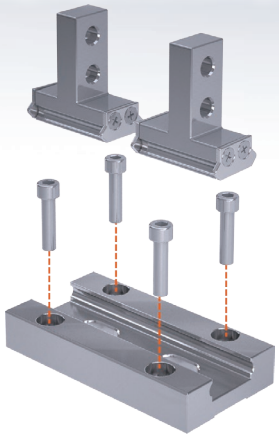
By improving the guide rigidity beyond that of conventional products, the allowable moment has been increased.



High precision

Repeatability ±0.01 mm

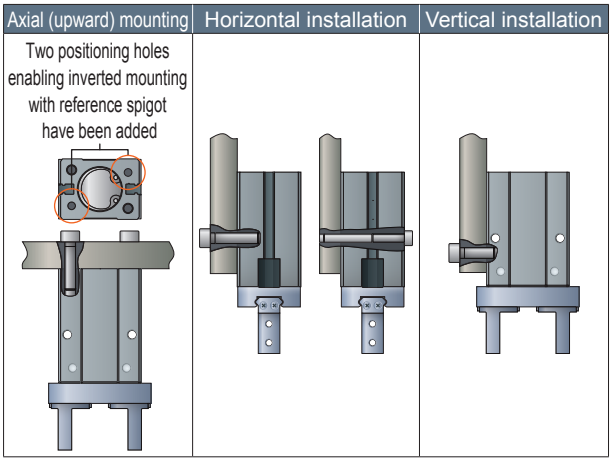
High rigidity and high precision are achieved with a structure integrating the guide rail and finger.



Increased flexibility in design

Can be mounted on three directions

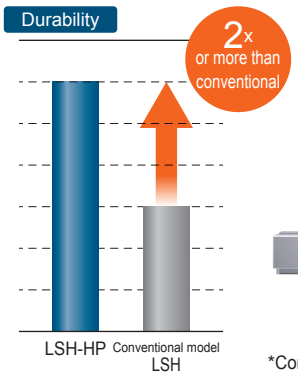
Axial (upward) mounting	Horizontal installation	Vertical installation
Two positioning holes enabling inverted mounting with reference spigot have been added		

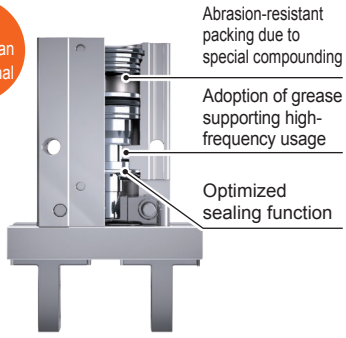


Long service life

Double the durability of conventional models*

Packing design has been optimized. Highly advanced sliding technology has enabled durability twice that of conventional models.



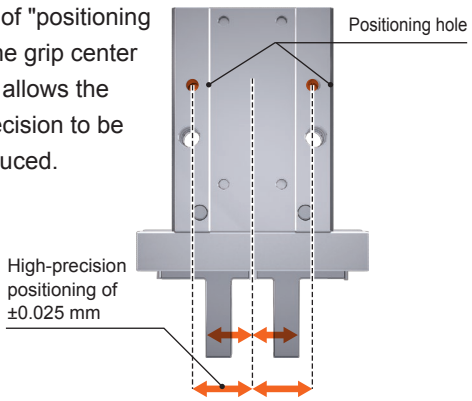


*Compared with our conventional LSH model.

Reduced processes on site

High-precision positioning of ±0.025 mm

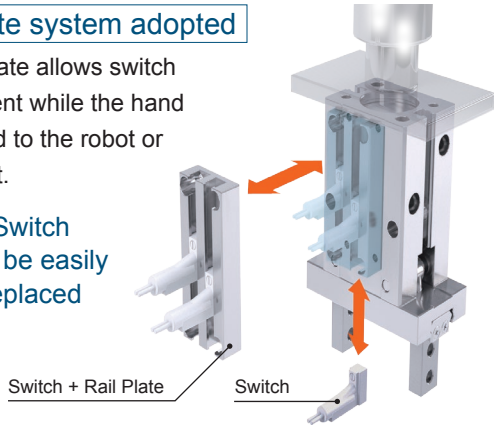
The addition of "positioning holes" with the grip center as reference allows the centering precision to be easily reproduced.



Rail plate system adopted

The rail plate allows switch replacement while the hand is attached to the robot or equipment.

Switch can be easily replaced

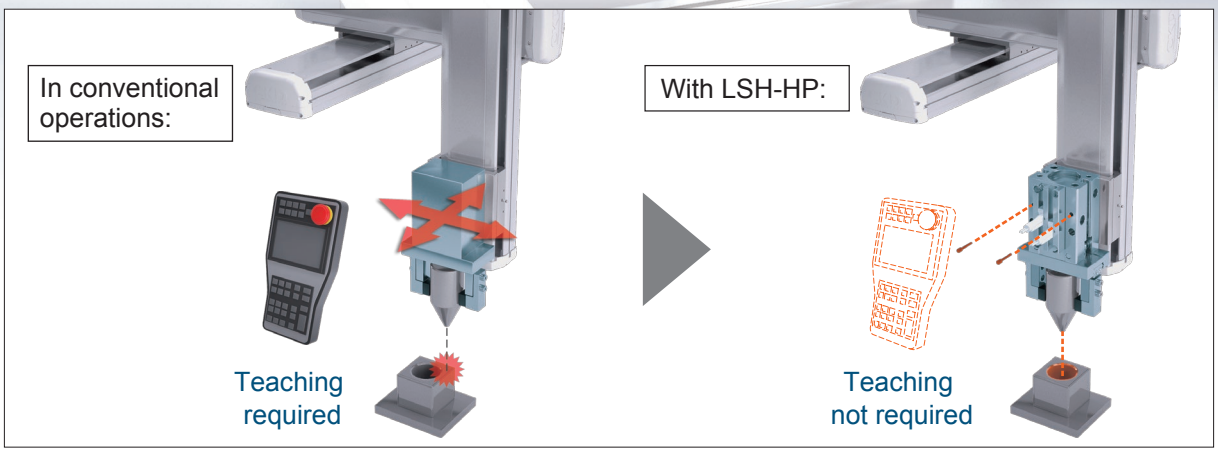


Increased productivity begins with the Linear Slide Hand

Usage Examples: Reduction of processes on site

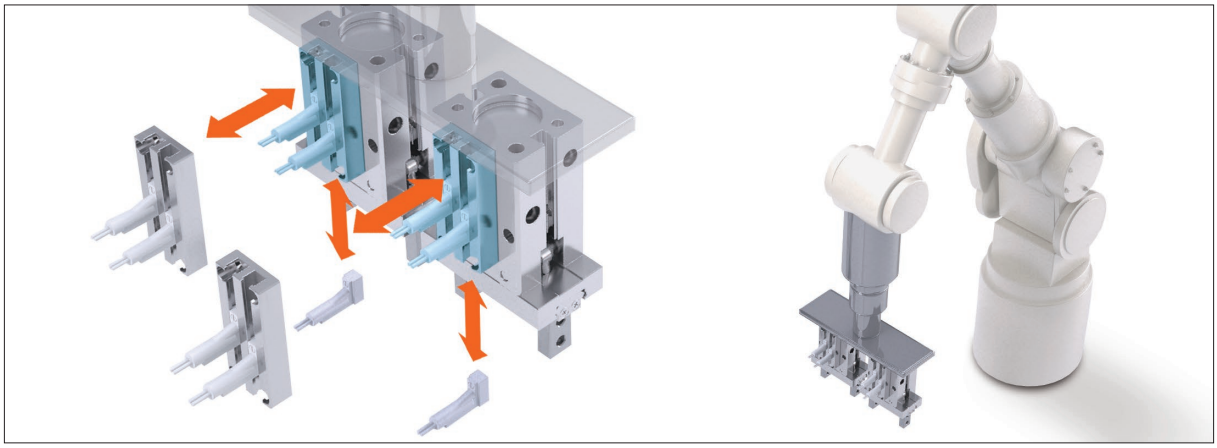
Replacement of body

Positioning holes that guarantee centering precision enable highly reproducible mounting, with no fine adjustment required. This contributes to reduced mounting adjustment work-hours and improved reproducibility.



Replacement of switch

The switch can be replaced without detaching the hand from the robot or equipment.



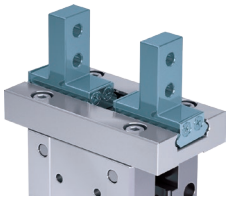
Extensive series variation

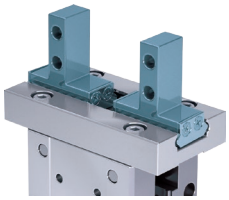

Standard

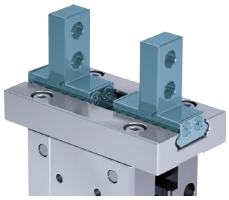

With rubber cover

Long stroke length

Long stroke length + with rubber cover


Basic opening/closing direction tap


Side tap


Opening/closing direction through hole

Linear Slide Hand with Length Measuring Function LSH-HP2 Series

High precision

Repeatability ±0.02 mm

A new sensor system is adopted and integrated, achieving higher repeatability than ever before.

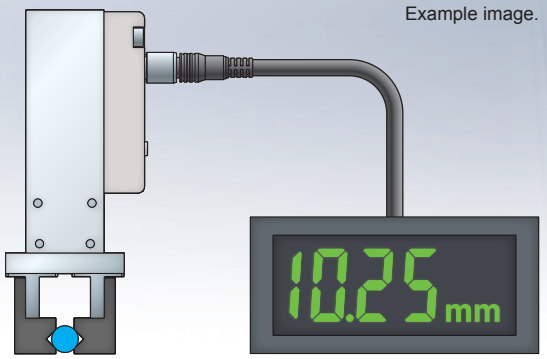
Linearity FS ±0.5%

With correction adapter: FS±0.5%

Without correction adapter: FS±3%

A correction adapter is adopted to improve the linear accuracy.

Example image.

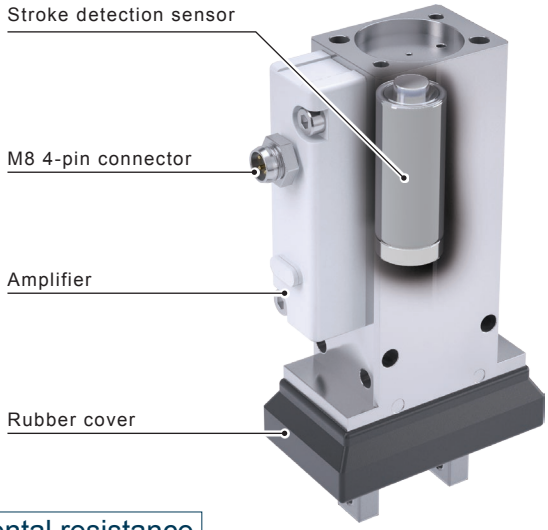


Integrated structure

First in the industry

Adopts an LVDT* sensor highly resistant to vibration and impact.
A displacement sensor is built into the body, achieving a high-precision integrated structure.

* LVDT is short for Linear Variable Differential Transformer, a sensor that converts mechanical displacement into electric signal for output.



Linearity correction adapter

Environmental resistance

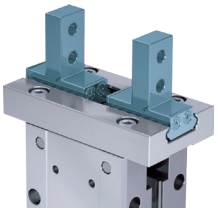
The IP65 equivalent amplifier and rubber cover prevent the ingress of cutting chips and water drops.

Extensive series variation

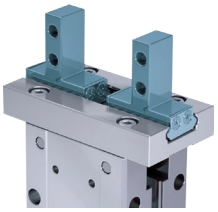
Amplifier side mounting

Amplifier front mounting

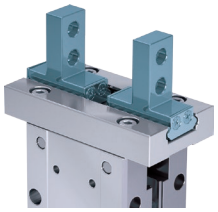
With rubber cover



Basic opening/closing direction tap



Side tap



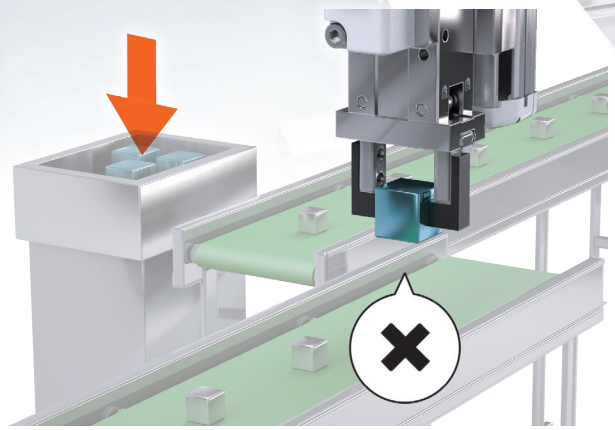
Opening/closing direction through hole

A new series that combines improved reliability and productivity.

Usage examples

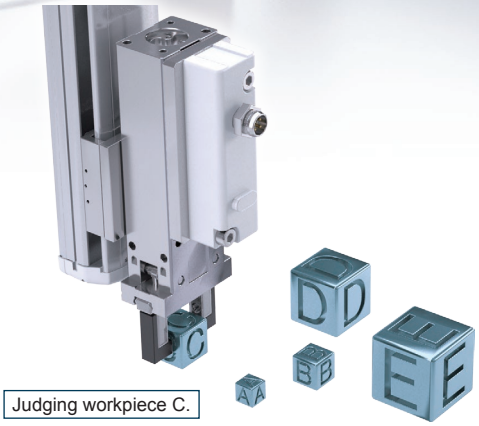
Workpiece foreign object judgment

Grips and measures simultaneously, reducing the number of inspection steps.



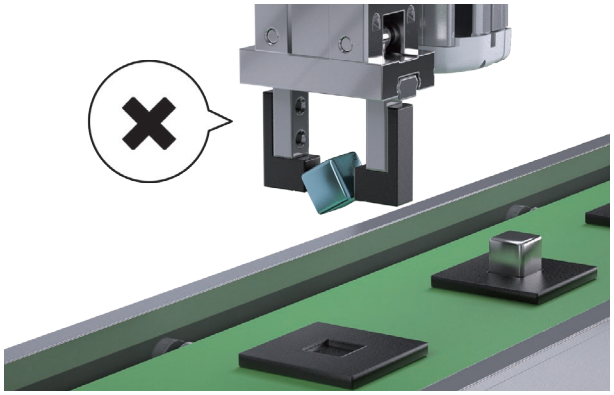
Workpiece model judgment

Capable of instantaneously judging minute differences in workpiece models.



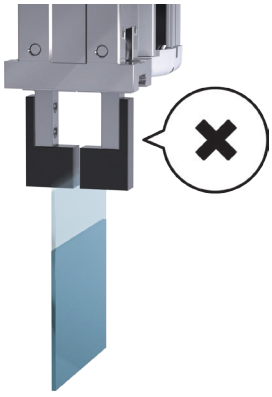
Gripping orientation judgment

By detecting misaligned orientations when gripped, contact accidents can be prevented at the transported destination.



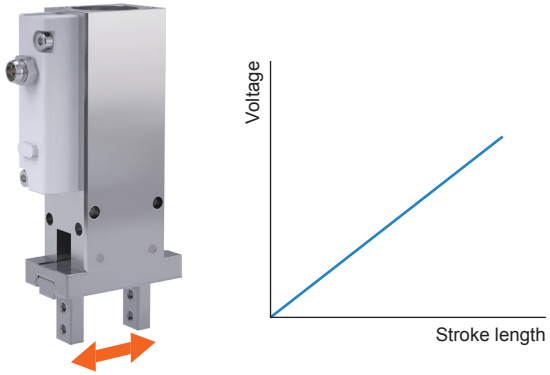
Minute workpiece gripping / missed grip judgment

Accurately judges whether even tiny workpieces were gripped or missed.



Elimination of human error

All strokes are output in detail, eliminating manual adjustment error as caused by conventional switches.



Predictive maintenance

Monitors abnormal wear and deformation of gripping jaws and jigs through changes in output to prevent equipment and robot damage.