MECHANICAL LINEAR ACTUATORS

COMPACT MECHANICAL LINEAR ACTUATORS

MECHANICAL LINEAR ACTUATORS

ACCESSORIES
MECHANICAL LINEAR ACTUATORS

COMPACT MECHANICAL LINEAR ACTUATORS
- Part No. MAU3222SS
- Part No. MAU3222DS

MECHANICAL LINEAR ACTUATORS
- Part No. MAU5040SS
- Part No. MAU5040SW

MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX
- Part No. MAG5040SS
- Part No. MAGX5040SS
- Part No. MAU5040SW

CAD Download: https://www.imao.biz/en
ACCESSORIES

SHAFT LOCKS
Part No. MAU-SL

ONE-TOUCH SPINDLE LOCKS
Part No. QCSPL

POSITIONING PLATE
Part No. MAU5040-PS01

DIGITAL POSITION INDICATORS
Part No. SDP-02

DIGITAL POSITION INDICATORS
Part No. SDP-04

POINTER
Part No. ES3-A

SCALES
Part No. ES1N

ADAPTER SHAFTS
Part No. MAU-SH

PLASTIC KNURLED KNOBS
Part No. GH-N

PLASTIC SOLID DISK HANDWHEEL
Part No. EDHN-M

PLASTIC ANGLED-SPOKE HANDWHEELS
Part No. TWN-M

CAD Download: https://www.imao.biz/en
PLASTIC CRANK HANDLES
Part No. BCHN-M

PAIR OF STOPS
Part No. MAU5040-ST02

T-NUTS
Part No. L5-TST

GROOVE COVER
Part No. L5-GVC2000N
Conventional
Self-made linear actuators required selecting, making and assembling many parts.

No More Selfbuild!

Ready-to-use linear unit

MECHANICAL LINEAR ACTUATORS

IMAO’s pre-assembled Linear Unit can be used with simple manual adjustments without complex processes of parts selection, design and assembly. The internal parts are protected from dust by its aluminum profile body and dustproof sheet.

Compact Type!
Compact body fits in a small area!
2 sizes are available.

Stroke: 50mm
Very small!
Suitable for a narrow space.

Stroke: 100mm
Shorter & lighter body!
Same stroke but shorter & lighter!

CAD Download: https://www.imao.biz/en
Single Carriage **CCW CW**
Carriage moves along with rotation of the handle shaft.

Dual Carriage **CW**
Carriages move towards the center or opposite directions along with the rotation of the handle shaft.

Linkage Single Carriage **CCW CW**
The actuators can be used in pairs connected at linkage shafts.

Linkage Dual Carriage **CW**
Carriages move towards the center or opposite directions along with the rotation of the shaft. The actuators can be used in pairs connected at linkage shafts.
**Lineup**

**Compact**
Carriage moves along with rotation of the handle shaft.

**Compact Linkage**
With Handle Shaft  Without Handle Shaft
The actuators can be used in pairs connected at linkage shafts.

**Mechanism**
The abrasion resistance and self-lubricating material of sliding parts give the unit a longer lifetime against the load of up and down or sideways.

**Related Product**
Various accessories for actuators are available from IMAO.
- **SHAFT LOCKS**
- **DIGITAL POSITION INDICATORS**
- **ONE-TOUCH SPINDLE LOCKS**
  Secure locking of spindles with a quarter turn!
- **HANDWHEELS**
  Dedicated handwheels for actuators

CAD Download: https://www.imao.biz/en
MAU3222SS COMPACT MECHANICAL LINEAR ACTUATORS

Body | Carriage End Plates | Shaft | Dustproof Sheet
--- | --- | --- | ---
A6N01 aluminum Anodized Natural | Polyamide (glass-fiber reinforced) Black | S45C steel Black oxide finish | SUS304 stainless steel

Dimensions of End Plate (Both ends) Dimensions of Slots

Part Number | Rotative Direction | S | LB | Weight (kg)
--- | --- | --- | --- | ---
MAU3222SS-050R | CW | 50 | 117 | 0.19
MAU3222SS-050L | CCW |  |  | 
MAU3222SS-100R | CW | 100 | 167 | 0.26
MAU3222SS-100L | CCW |  |  | 

Related Product
Choose the optional elements for your needs.
- Shaft Locks
- Digital Position Indicators
- Pointer
- Scales
- Adapter Shafts
- Handwheels
- T-Nuts

CAD Download: https://www.imao.biz/en
How To Use

- **MAU3222SS-R**: Carriage moves toward the arrow direction by turning the Handle Shaft clockwise.
- **MAU3222SS-L**: Carriage moves toward the arrow direction by turning the Handle Shaft counterclockwise.
- Carriage moves 1mm per rotation of the Handle Shaft.

**Reference**
Technical Information of Mechanical Linear Actuators

CAD Download: https://www.imao.biz/en
MAU3222DS COMPACT MECHANICAL LINEAR ACTUATORS (Synchro-Use)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Rotative Direction</th>
<th>S</th>
<th>LB</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Handle Shaft</td>
<td>Without Handle Shaft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAU3222DS-050R</td>
<td>MAU3222DS-050Y</td>
<td>CW</td>
<td>50</td>
<td>117</td>
</tr>
<tr>
<td>MAU3222DS-050L</td>
<td>MAU3222DS-050Z</td>
<td>CCW</td>
<td>100</td>
<td>167</td>
</tr>
<tr>
<td>MAU3222DS-100R</td>
<td>MAU3222DS-100Y</td>
<td>CW</td>
<td>50</td>
<td>117</td>
</tr>
<tr>
<td>MAU3222DS-100L</td>
<td>MAU3222DS-100Z</td>
<td>CCW</td>
<td>100</td>
<td>167</td>
</tr>
</tbody>
</table>

Dimensions of End Plates (Both ends) Dimensions of Slots

CAD Download: https://www.imao.biz/en
How To Use

- Carriage moves toward the arrow direction by turning the Handle Shaft clockwise.
- Carriage moves toward the arrow direction by turning the Handle Shaft counterclockwise.
- Carriage moves 1mm per rotation of the Handle Shaft.

Parallel Use
Attach pulleys or sprockets to Linkage Shafts and align the carriages for movement in synchronization.

Serial Use
Connect two linkage Shafts using a coupling.

Reference
Technical Information of Mechanical Linear Actuators
MAU5040SS MECHANICAL LINEAR ACTUATORS

### Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Rotative Direction</th>
<th>Stroke S</th>
<th>Trapezoidal Thread</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAU5040SS-100R</td>
<td>CW</td>
<td>100</td>
<td>Tr14×3</td>
<td>1.5</td>
</tr>
<tr>
<td>MAU5040SS-100L</td>
<td>CCW</td>
<td>100</td>
<td>Tr14×3</td>
<td>1.5</td>
</tr>
<tr>
<td>MAU5040SS-150R</td>
<td>CW</td>
<td>150</td>
<td>Tr14×3</td>
<td>1.7</td>
</tr>
<tr>
<td>MAU5040SS-150L</td>
<td>CCW</td>
<td>150</td>
<td>Tr14×3</td>
<td>1.7</td>
</tr>
<tr>
<td>MAU5040SS-200R</td>
<td>CW</td>
<td>200</td>
<td>Tr14×3</td>
<td>1.9</td>
</tr>
<tr>
<td>MAU5040SS-200L</td>
<td>CCW</td>
<td>200</td>
<td>Tr14×3</td>
<td>1.9</td>
</tr>
<tr>
<td>MAU5040SS-250R</td>
<td>CW</td>
<td>250</td>
<td>Tr14×3</td>
<td>2.1</td>
</tr>
<tr>
<td>MAU5040SS-250L</td>
<td>CCW</td>
<td>250</td>
<td>Tr14×3</td>
<td>2.1</td>
</tr>
<tr>
<td>MAU5040SS-300R</td>
<td>CW</td>
<td>300</td>
<td>Tr14×3</td>
<td>2.3</td>
</tr>
<tr>
<td>MAU5040SS-300L</td>
<td>CCW</td>
<td>300</td>
<td>Tr14×3</td>
<td>2.3</td>
</tr>
</tbody>
</table>

### Related Product

- Choose the optional elements for your needs.
- For actuators with customized stroke, see [MAU5040SS].
- One-Touch Spindle Locks
- Positioning Plate
- Digital Position Indicators
- Adapter Shafts
- Handwheels
- Pair of Stops
- T-Nuts
- Groove Cover

CAD Download: https://www.imao.biz/en
How To Use

- **MAU5040SS-R**: Carriage moves toward the arrow direction by turning the Handle Shaft clockwise.
- **MAU5040SS-L**: Carriage moves toward the arrow direction by turning the Handle Shaft counterclockwise.
- Carriage moves 3mm per rotation of the Handle Shaft.

### Horizontal Use

### Vertical Use

**Reference**
Technical Information of Mechanical Linear Actuators

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**MAUX5040SS**
MECHANICAL LINEAR ACTUATORS (Customized Stroke)

**On Request**

**Feature**
- The stroke of **MAU5040SS** is customizable.
- For ordering, specify the stroke.

**Note**
Body length : LB = Stroke S + 101mm

---

**Part Number**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Stroke S</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAUX5040SS-A</td>
<td>R(CW) 160~290</td>
</tr>
<tr>
<td>MAUX5040SS-B</td>
<td>L(CCW) 310~500</td>
</tr>
<tr>
<td>MAUX5040SS-C</td>
<td>510~700</td>
</tr>
</tbody>
</table>

**Delivery Time**
- 15 Working Days

**Reference**
Technical Information of Mechanical Linear Actuators

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CAD Download : https://www.imao.biz/en
**MAG5040SS**

**MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX**

<table>
<thead>
<tr>
<th></th>
<th>Carriage/End Plates</th>
<th>Shaft</th>
<th>Trapezoidal Nut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>A6N01 aluminum</td>
<td>S45C steel</td>
<td>CAC302 copper alloy</td>
</tr>
<tr>
<td></td>
<td>Anodized Natural</td>
<td>Black oxide finish</td>
<td></td>
</tr>
<tr>
<td>Screw</td>
<td>ZDC2 die-cast zinc</td>
<td>SCM435 steel</td>
<td>S45C steel</td>
</tr>
<tr>
<td></td>
<td>Chrome plated</td>
<td>Trivalent chromate</td>
<td>Electroless nickel plated</td>
</tr>
<tr>
<td>Dustproof Sheet</td>
<td>SUS304H stainless</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Gearbox can be positioned at every 90 degree.

**Dimensions**

- **A**: 56
- **B**: 52.5
- **2-M4×0.7 Depth 6**
- **ϕ 6 Depth 6**
- **4-M4×0.7 Depth 6**
- **ϕ 8h7**
- **Dimensions of 6 slots**

**View A**

- **LB**: Trapezoidal Thread 13 Tr14×3
- **50**: 50
- **50**: 50
- **40**: 40
- **40**: 40
- **30**: 30
- **20**: 20
- **20**: 20
- **10**: 10
- **49**: 49
- **21**: 21
- **22**: 22
- **23.5**: 23.5
- **45**: 45
- **P.C.D.29**: P.C.D.29

**View B**

- **1.5**: 1.5
- **40**: 40
- **5.15**: 5.15
- **1.95**: 1.95
- **6.45**: 6.45

**CAD Download**: [https://www.imao.biz/en](https://www.imao.biz/en)
### How To Use

- **MAG5040SS-R**: Carriage moves toward the arrow direction by turning the shaft clockwise.
- **MAG5040SS-L**: Carriage moves toward the arrow direction by turning the shaft counterclockwise.
- Carriage moves 3mm per rotation of the shaft.
- Gearbox can be positioned at every 90 degree.

### Reference

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

---

### MAG5040SS MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX (Customized Stroke)

**On Request**

**Ordering Example**

**MAGX5040SS-AL**

**Part Number**

**170**

**Stroke S**

**Part Number**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>S Desired Length (by 10mm)</th>
<th>Delivery Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAGX5040SS-A</td>
<td>160~290</td>
<td>15 Working Days</td>
</tr>
<tr>
<td>MAGX5040SS-B</td>
<td>310~500</td>
<td></td>
</tr>
<tr>
<td>MAGX5040SS-C</td>
<td>510~700</td>
<td></td>
</tr>
</tbody>
</table>

**Note**

- The stroke length of **MAGX5040SS** is customizable.
- For ordering, specify the stroke.

**Reference**

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

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### Related Product

Choose the optional elements for your needs.

- For actuators with customized stroke, see **MAGX5040SS**
- One-Touch Spindle Locks
- Positioning Plate
- Digital Position Indicators
- Adapter Shafts
- Handwheels
- Pair of Stops
- T-Nuts
- Groove Cover
MAU5040SW
MECHANICAL LINEAR ACTUATORS (Dual Carriage)

<table>
<thead>
<tr>
<th>Body</th>
<th>Carriage End Plates</th>
<th>Shaft</th>
<th>Trapezoidal Nut</th>
<th>Screw</th>
<th>Dustproof Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6N01 aluminum</td>
<td>ZDC2 die-cast zinc</td>
<td>S45C steel</td>
<td>CAC902 copper</td>
<td>SCM435 steel</td>
<td>SUS304H stainless steel</td>
</tr>
<tr>
<td>Anodized Natural</td>
<td>Chrome plated</td>
<td>black oxide finish</td>
<td>alloy</td>
<td>Tantalum chromate</td>
<td></td>
</tr>
</tbody>
</table>

**Dimensions of End Plate (Both ends)**

**Dimensions of 6 Slots**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>S</th>
<th>LB</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAU5040SW-100</td>
<td>100</td>
<td>356</td>
<td>2.4</td>
</tr>
<tr>
<td>MAU5040SW-150</td>
<td>150</td>
<td>456</td>
<td>2.8</td>
</tr>
</tbody>
</table>

**Related Product**

Choose the optional elements for your needs.
- For actuators with customized stroke, see [MAUX5040SW].
- One-Touch Spindle Locks
- Positioning Plate
- Digital Position Indicators
- Adapter Shafts
- Handwheels
- Pair of Stops
- T-Nuts
- Groove Cover

CAD Download: https://www.imao.biz/en
How To Use

- Two carriages move toward the arrow directions by turning the Handle Shaft clockwise.
- Two carriages move against the arrow directions by turning the Handle Shaft counterclockwise.
- Pitch between two carriages increases or decreases 6mm per rotation of the Handle Shaft.

MAUX5040SW MECHANICAL LINEAR ACTUATORS (Dual Carriage, Customized Stroke)

Ordering Example

MAUX5040SW-B 240 Stroke S

<table>
<thead>
<tr>
<th>Part Number</th>
<th>S (by 10mm)</th>
<th>Delivery Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAUX5040SW-A</td>
<td>160~220</td>
<td></td>
</tr>
<tr>
<td>MAUX5040SW-B</td>
<td>230~280</td>
<td>15 Working Days</td>
</tr>
<tr>
<td>MAUX5040SW-C</td>
<td>290~340</td>
<td></td>
</tr>
</tbody>
</table>

Feature
- The stroke of MAUX5040SW is customizable.
- For ordering, specify the stroke.

Note
Body length : LB = Stroke S × 2 + 156mm

Reference
Technical Information of Mechanical Linear Actuators

CAD Download : https://www.imao.biz/en
MAG5040SW MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX (Dual Carriage)

On Request

<table>
<thead>
<tr>
<th>Body</th>
<th>Carriage/End Plates</th>
<th>Shaft</th>
<th>Trapezoidal Nut</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6N01 aluminum</td>
<td>ZDC2 die-cast zinc</td>
<td>S45C steel</td>
<td>CAC302 copper</td>
</tr>
<tr>
<td>Anodized Natural</td>
<td>Chrome plated</td>
<td>Black oxide</td>
<td>alloy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>finish</td>
<td></td>
</tr>
<tr>
<td>Screw</td>
<td>Dustproof Sheet</td>
<td>Gearbox</td>
<td></td>
</tr>
<tr>
<td>SCM435 steel</td>
<td>SUS304H stainless</td>
<td>S45C steel</td>
<td></td>
</tr>
<tr>
<td>Trivalent chromate</td>
<td>steel</td>
<td>Electroless</td>
<td>nickel plated</td>
</tr>
</tbody>
</table>

Gearbox can be positioned at every 90 degree.

Dimensions of 6 slots

CAD Download: https://www.imao.biz/en
## Part Number

<table>
<thead>
<tr>
<th>Part Number</th>
<th>S</th>
<th>LB</th>
<th>Weight (kg)</th>
<th>Delivery Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAG5040SW-100</td>
<td>100</td>
<td>356</td>
<td>2.9</td>
<td>10 Working Days</td>
</tr>
<tr>
<td>MAG5040SW-150</td>
<td>150</td>
<td>456</td>
<td>3.3</td>
<td>15 Working Days</td>
</tr>
</tbody>
</table>

## Related Product

Choose the optional elements for your needs.
- For actuators with customized stroke, see [MAGX5040SW](#).
- One-Touch Spindle Locks
- Positioning Plate
- Digital Position Indicators
- Adapter Shafts
- Handwheels
- Pair of Stops
- T-Nuts
- Groove Cover

## Note

The gearbox will be delivered with mounted to Mechanical Linear Actuators in the orientation as in the figure below.

## Reference

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

## How To Use

- Two carriages move toward the arrow directions by turning Handle Shaft clockwise.
- Two carriages move against the arrow directions by turning Handle Shaft counterclockwise.
- Pitch between two carriages increases or decreases 6mm per rotation of the shaft.
- Gearbox can be positioned at every 90 degree.

## Feature

- The stroke length of [MAGX5040SW](#) is customizable.
- For ordering, specify the stroke.

## Note

Body length : LB = Stroke S×2+156mm

## Reference

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

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**MAGX5040SW** MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX (Dual Carriage, Customized Stroke)

**CAD Download**: https://www.imao.biz/en
MAU5040DS  MECHANICAL LINEAR ACTUATORS (Synchro-Use)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Rotative Direction</th>
<th>S</th>
<th>LB</th>
<th>Weight (kg)</th>
<th>Delivery Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAU5040DS-100R</td>
<td>CW</td>
<td>100</td>
<td>201</td>
<td>1.5</td>
<td>10 Working Days</td>
</tr>
<tr>
<td>MAU5040DS-100L</td>
<td>CCW</td>
<td>150</td>
<td>251</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>MAU5040DS-150R</td>
<td>CW</td>
<td>200</td>
<td>301</td>
<td>1.9</td>
<td></td>
</tr>
<tr>
<td>MAU5040DS-150L</td>
<td>CCW</td>
<td>250</td>
<td>351</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>MAU5040DS-200R</td>
<td>CW</td>
<td>300</td>
<td>401</td>
<td>2.3</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions of End Plate (Both ends)

Reference
Technical Information of Mechanical Linear Actuators

CAD Download: https://www.imao.biz/en
How To Use

Linkage Shaft *)  End Plate

Mounting Hole for Digital Position Indicator
2 Mounting Holes for One-Touch Spindle Lock
4 Mounting Holes for Positioning Plate
Handle Shaft *)

*) The shaft is one component and the both ends of the shaft rotate synchronously.

Carriage moves toward the arrow direction by turning the Handle Shaft clockwise.
Carriage moves toward the arrow direction by turning the Handle Shaft counterclockwise.
Carriage moves 3mm per rotation of the Handle Shaft.

Parallel Use
Attach pulleys or sprockets to Linkage Shafts and align the carriages for movement in synchronization.

Serial Use
Connect two Linkage Shafts using a coupling.

Related Product
Choose the optional elements for your needs.
- For actuators with customized stroke, see MAUX5040DS.
- One-Touch Spindle Locks
- Positioning Plate
- Digital Position Indicators
- Adapter Shafts
- Handwheels
- Pair of Stops
- T-Nuts
- Groove Cover

MAUX5040DS
MECHANICAL LINEAR ACTUATORS (Synchro-Use, Customized Stroke)

Ordering Example
MAUX5040DS-BR 450
Part Number Stroke S

Feature
- The stroke of MAUX5040DS is customizable.
- For ordering, specify the stroke.

Note
Body length : LB = Stroke S + 101mm

Reference
Technical Information of Mechanical Linear Actuators

CAD Download : https://www.imao.biz/en
MAG5040DS  MECHANICAL LINEAR ACTUATORS
WITH ADJUSTABLE GEARBOX (Synchro-Use)

- **On Request**

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>A6N01 aluminum Anodized Natural</td>
</tr>
<tr>
<td>Carriage/End Plates</td>
<td>ZDC2 die-cast zinc Chrome plated</td>
</tr>
<tr>
<td>Shaft</td>
<td>S45C steel Black oxide finish</td>
</tr>
<tr>
<td>Trapezoidal Nut</td>
<td>CAC302 copper alloy</td>
</tr>
<tr>
<td>Screw</td>
<td>SCM435 steel Trivalent chromate</td>
</tr>
<tr>
<td>Dustproof Sheet</td>
<td>SUS304H stainless steel</td>
</tr>
<tr>
<td>Gearbox</td>
<td>S45C steel Electroless nickel plated</td>
</tr>
</tbody>
</table>

Gearbox can be positioned at every 90 degree.

CAD Download: https://www.imao.biz/en
### Related Product

Choose the optional elements for your needs.
- For actuators with customized stroke, see [MAGX5040DS](#).
- One-Touch Spindle Locks
- Positioning Plate
- Digital Position Indicators
- Adapter Shafts
- Handwheels
- Pair of Stops
- T-Nuts
- Groove Cover

### How To Use

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Rotative Direction</th>
<th>S</th>
<th>LB</th>
<th>Weight (kg)</th>
<th>Delivery Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAG5040DS-100R</td>
<td>CW</td>
<td>100</td>
<td>201</td>
<td>2.0</td>
<td>10 Working Days</td>
</tr>
<tr>
<td>MAG5040DS-100L</td>
<td>CCW</td>
<td>160</td>
<td>310</td>
<td>3.0</td>
<td>15 Working Days</td>
</tr>
<tr>
<td>MAG5040DS-150R</td>
<td>CW</td>
<td>150</td>
<td>251</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>MAG5040DS-150L</td>
<td>CCW</td>
<td>250</td>
<td>351</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>MAG5040DS-200R</td>
<td>CW</td>
<td>200</td>
<td>301</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>MAG5040DS-200L</td>
<td>CCW</td>
<td>300</td>
<td>401</td>
<td>2.8</td>
<td></td>
</tr>
</tbody>
</table>

### How To Use

- Carriage moves toward the arrow direction by turning Handle Shaft clockwise.
- Carriage moves toward the arrow direction by turning Handle Shaft counterclockwise.
- Gearbox can be positioned at every 90 degree.
- The shafts are linked and the both ends of the shaft rotate synchronously.

### Note

The gearbox will be delivered with mounted to Mechanical Linear Actuators in the orientation as in the figure above.

### Reference

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

### MAGX5040DS

**Mechanical Linear Actuators with Adjustable Gearbox**

(Synchro-Use, Customized Stroke)

### Feature

- The stroke length of [MAG5040DS](#) is customizable.
- For ordering, specify the stroke.

### Ordering Example

**MAGX5040DS-BR**

Part Number: 450

Stroke S: 160~290

<table>
<thead>
<tr>
<th>Part Number</th>
<th>S Desired Stroke (by 10mm)</th>
<th>Delivery Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAGX5040DS-A</td>
<td>R(CW) 160~290</td>
<td>15 Working Days</td>
</tr>
<tr>
<td>MAGX5040DS-B</td>
<td>L(CCW) 310~500</td>
<td></td>
</tr>
<tr>
<td>MAGX5040DS-C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Note

Body length: LB = Stroke S + 101mm

### Reference

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

**CAD Download**: [https://www.imao.biz/en](https://www.imao.biz/en)
MAU5040DW MECHANICAL LINEAR ACTUATORS (Dual Carriage, Synchro-Use)

On Request

<table>
<thead>
<tr>
<th>Body</th>
<th>Carriage End Plates</th>
<th>Shaft</th>
<th>Trapezoidal Nut</th>
<th>Screw</th>
<th>Dustproof Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6N01 aluminum Anodized Natural</td>
<td>ZDC2 die-cast zinc Chrome plated</td>
<td>S45C steel black oxide finish</td>
<td>CAC902 copper alloy</td>
<td>SCM435 steel Tinalent chromate</td>
<td>SUS304H stainless steel</td>
</tr>
</tbody>
</table>

### Dimensions of End Plate (Both ends)

- **A**: 88
- **B**: 51
- **LB**: 40
- **Trapezoidal Thread**: Tr14×3
- **2-M4×0.7 Depth 6**: 21
- **Φ 6 Depth 6**: 49
- **4-M4×0.7 Depth 6**: 30
- **5**: 10
- **50**: 10
- **22**: 23.5
- **20**: 20
- **45**: 45
- **19.5**: 19.5
- **5.15**: 5.15
- **17.5**: 17.5

### Dimensions of 6 Slots

- **6-M6×1 Depth 8**: 55
- **12**: 12
- **7**: 7
- **30**: 30
- **20**: 20
- **5**: 5
- **19.5**: 19.5
- **5.15**: 5.15
- **17.5**: 17.5

### Related Product

Choose the optional elements for your needs.
- For actuators with customized stroke, see MAUX5040DW.
- One-Touch Spindle Locks
- Positioning Plate
- Digital Position Indicators
- Adapter Shafts
- Handwheels
- Pair of Stops
- T-Nuts
- Groove Cover

### Reference

Technical Information of Mechanical Linear Actuators

### CAD Download

https://www.imao.biz/en
How To Use

- Two carriages move toward the arrow directions by turning the Handle Shaft clockwise.
- Two carriages move against the arrow directions by turning the Handle Shaft counterclockwise.
- Pitch between two carriages increases or decreases 6mm per rotation of the Handle Shaft.

Parallel Use

MAUX5040DW MECHANICAL LINEAR ACTUATORS (Dual Carriage, Synchro-Use, Customized Stroke)

Ordering Example

MAUX5040DW-CY Part Number 290 Stroke S

Feature

- The stroke of [MAUX5040DW] is customizable.
- For ordering, specify the stroke.

Note

Body length : LB = Stroke S × 2 + 156mm

<table>
<thead>
<tr>
<th>Part Number</th>
<th>S (by 10mm)</th>
<th>Delivery Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAUX5040DW-A</td>
<td>160~220</td>
<td>15 Working Days</td>
</tr>
<tr>
<td>MAUX5040DW-B</td>
<td>230~280</td>
<td></td>
</tr>
<tr>
<td>MAUX5040DW-C</td>
<td>290~340</td>
<td></td>
</tr>
</tbody>
</table>

Reference

Technical Information of Mechanical Linear Actuators
MAG5040DW  MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX
(Dual Carriage, Synchro-Use)

On Request

<table>
<thead>
<tr>
<th>Body</th>
<th>Carriage/End Plates</th>
<th>Shaft</th>
<th>Trapezoidal Nut</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6N01 aluminum</td>
<td>ZDC2 die-cast zinc</td>
<td>S45C steel</td>
<td>CAC302 copper alloy</td>
</tr>
<tr>
<td>Anodized</td>
<td>Chrome plated</td>
<td>Black oxide finish</td>
<td></td>
</tr>
<tr>
<td>Natural</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Screw: SCM435 steel
Dustproof Sheet: Trivalent chromate
Gearbox: SUS304H stainless steel

Electroless nickel plated

Gearbox can be positioned at every 90 degree.

Dimensions of 6 slots:
- 2-M4×0.7 Depth 6
- 4-M4×0.7 Depth 6
- 6-M6×1 Depth 8

CAD Download: https://www.imao.biz/en
### Related Product
Choose the optional elements for your needs.
- For actuators with customized stroke, see [MAGX5040DW].
- One-Touch Spindle Locks
- Positioning Plate
- Digital Position Indicators
- Adapter Shafts
- Handwheels
- Pair of Stops
- T-Nuts
- Groove Cover

### How To Use
- Two carriages move toward the arrow directions by turning Handle Shaft clockwise.
- Two carriages move against the arrow directions by turning Handle Shaft counterclockwise.
- Pitch between two carriages increases or decreases 6mm per rotation of the shaft.
- Gearbox can be positioned at every 90 degree.

*) The shafts are linked and the both ends of the shaft rotate synchronously.

### Reference
- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators
How To Change Gearbox Position

1. The clearance between carriage and end plate should be 3mm at least.

2. Remove four hex socket head cap screws attached to the gearbox.

3. The gearbox is free to rotate and change the position at every 90 degree.

4. Fix the gearbox at the desired position with four hex socket head cap screws.

Note: Do not pull the gearbox to the axial direction.

CAD Download: https://www.imao.biz/en
Dimensions of Gearbox

- Dimensions of Gearbox at 90 degrees rotation
  (For dimensions of Gearbox at 270 degrees, invert the drawing below.)

- Dimensions of Gearbox at 180 degrees rotation

CAD Download: https://www.imao.biz/en
Technical Information of Mechanical Linear Actuators

Allowable Load

<table>
<thead>
<tr>
<th>Type</th>
<th>F₁ (N)</th>
<th>F₂ (N)</th>
<th>F₃ (N)</th>
<th>F₄ (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAU3222*S</td>
<td>30</td>
<td>15</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>MAU5040*S</td>
<td>600</td>
<td>300</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>MAG5040*S</td>
<td>–</td>
<td>–</td>
<td>300</td>
<td>150</td>
</tr>
</tbody>
</table>

Note: The values above are for Actuators placed on a flat surface.

Allowable Moment

<table>
<thead>
<tr>
<th>Type</th>
<th>M₁ (N·m)</th>
<th>M₂ (N·m)</th>
<th>M₃ (N·m)</th>
<th>M₄ (N·m)</th>
<th>M₅ (N·m)</th>
<th>M₆ (N·m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAU3222*S</td>
<td>0.3</td>
<td>0.2</td>
<td>0.3</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>MAU5040*S</td>
<td>9</td>
<td>8</td>
<td>10</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>MAG5040*S</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>4.5</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: The values above are for Actuators placed on a flat surface.

Allowable Rotation Speed

When using a motor, rotation speed must be within;
150min⁻¹ for MAU3222**
250min⁻¹ for MAU5040** MAG5040**

CAD Download: https://www.imao.biz/en
**MAU-SL SHAFT LOCKS**

**MAU3222-SL**

- **2-M5×0.8 for Mounting Knob**
- **Φ6 for Mounting Position Indicator**
- **Brass Pad**

**MAU3222-SL02**

- **For M3 Socket-Head Cap Screw**
- **(Both Sides)**

---

### Feature

- Avoid the shaft rotating. The brass pad of the knob prevents the shaft from damage.
- Can be used with [MAU3222].

### Supplied With

- 2 of M3×0.5-14L Hex Socket Head Screw

### How To Use

**MAU3222-SL**

The position of the knob follows the mounting direction.

**MAU3222-SL02**

- Use with [SDP-02].
- Mounting direction can be changed.

---

**Table**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Weight (g)</th>
<th>Proper Adapter Shaft</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAU3222-SL</td>
<td>58</td>
<td>MAU3222-SH</td>
</tr>
<tr>
<td>MAU3222-SL02</td>
<td>78</td>
<td></td>
</tr>
</tbody>
</table>

**Body**

<table>
<thead>
<tr>
<th></th>
<th>Knob</th>
<th>Stud</th>
<th>Pad</th>
</tr>
</thead>
<tbody>
<tr>
<td>S45C steel</td>
<td>Electroless nickel plated</td>
<td>SUS304 stainless steel</td>
<td>Brass (Low cadmium)</td>
</tr>
</tbody>
</table>

---

### Note

- This product does not have bearing or guiding functions.
- Shocks or vibrations may loosen the lock.
- Can not be used with [MAU5040**] or [MAG5040**].

---

CAD Download: https://www.imao.biz/en
QCSPL ONE-TOUCH SPINDLE LOCKS

QCSPL-OG
(Plastic knob, Orange)

QCSPL-BK
(Plastic knob, Black)

QCSPL-S
(Metal knob)

★ Key Point
Secure locking of spindles with one-touch action!

<table>
<thead>
<tr>
<th>Type</th>
<th>Housing</th>
<th>Knob</th>
<th>Clamp Collar</th>
</tr>
</thead>
<tbody>
<tr>
<td>QCSPL-OG</td>
<td>Polyamide plastic</td>
<td>Polyamide plastic</td>
<td>SUS630</td>
</tr>
<tr>
<td>QCSPL-BK</td>
<td>glass-fiber reinforced</td>
<td>glass-fiber reinforced</td>
<td>stainless</td>
</tr>
<tr>
<td>QCSPL-S</td>
<td>Black matte</td>
<td>SCST3 stainless steel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Equivalent to SUS304)</td>
<td>(Equivalent to SUS304)</td>
<td></td>
</tr>
</tbody>
</table>

Plastic Knob

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange</td>
<td>QCSPL0414-OG 50</td>
</tr>
<tr>
<td>Black</td>
<td>QCSPL0414-BK 50</td>
</tr>
</tbody>
</table>

Metal Knob

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Weight (g)</th>
<th>Allowable Holding Torque(Nm)</th>
<th>Suitable shaft dia. (h7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange</td>
<td>QCSPL0414-S 70</td>
<td>4</td>
<td>φ 14</td>
</tr>
</tbody>
</table>

Feature

- One-touch Spindle Locks enable quick and secure locking of shafts with one click of the knob.
- When One-touch Spindle Lock is operated, the knob clicks and the shaft is locked with a steady force. This provides reliable locking of shafts.

Supplied With

- 2 of Flat round washer (Stainless Steel)

How To Use

Usage examples to mount on Mechanical Linear Actuators.

- Mechanical Linear Actuator With Adjustable Gear Box MAG5040
- Mechanical Linear Actuator MAU5040

Reference

Please refer to another QCSPL page for further information.

Note

- Allowable Tightening Torque for Mounting Screws is 1.5N.m.
- Tightening with torque greater than the allowable tightening torque may cause failure by deformation of the body.
- Can not be used with MAU3222.

CAD Download: https://www.imao.biz/en
MAU5040-PS01  POSITIONING PLATE

Feature
Enables to change the orientation of One-Touch Spindle Locks and Digital Position Indicators for every 90 degrees.

Supplied With
2 of M4×0.7-10L Hex Socket Countersunk Head Screw

How To Use
Mount Positioning Plate to the End Plate of actuators with the included hex-socket countersunk head screws.

For rotating One-Touch Spindle Lock

For rotating Digital Position Indicator

Part Number | Weight (g)
--- | ---
MAU5040-PS01 | 63

Body
S45C steel Chrome plated

Note
Can not be used with MAU3222**.

CAD Download : https://www.imao.biz/en
SDP-02 DIGITAL POSITION INDICATORS

**Feature**
Easy to read the feed amount of Compact Mechanical Linear Actuators.

**Supplied With**
1 of rubber cushion (with adhesive tape)

**Technical Information**
Working temperature : Up to 80℃

### Reference
Please refer to another SPD-02 page for further information at our website.

### Note
- Ensure that the start-up revolution speed is 1/3 or less of the allowable revolution speed.
- Do not give rapid acceleration or sudden stop.
- These position indicators cannot be used in applications where the shaft moves in axial direction.
- Can not be used with MAU5040** MAG5040**

<table>
<thead>
<tr>
<th>Window Position</th>
<th>Rotative Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Style H</td>
<td>Style F</td>
</tr>
<tr>
<td>To install on shaft at lower eye level</td>
<td>Window is visual at eye level</td>
</tr>
<tr>
<td>CW Forward Counting</td>
<td>CCW Backward Counting</td>
</tr>
<tr>
<td>CCW Forward Counting</td>
<td>CW Backward Counting</td>
</tr>
</tbody>
</table>

**Display Example**

<table>
<thead>
<tr>
<th>000</th>
<th>010</th>
<th>999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow Line indicates decimal point.</td>
<td>Forward counting from &quot;000&quot;</td>
<td>Backforward counting from &quot;000&quot;</td>
</tr>
</tbody>
</table>

**Housing**
Polyamide (nylon6) plastic Orange

**SDP-02H**
**SDP-02V**
**SDP-02F**

Hex Socket Setscrew M3×0.5
Fixing Pin

Rubber Cushion (included)

MECHANICAL LINEAR ACTUATORS

COMPACT MECHANICAL LINEAR ACTUATORS

ACCESSORIES

CAD Download : https://www.imao.biz/en
<table>
<thead>
<tr>
<th>Type</th>
<th>Window Style</th>
<th>Rotative Direction</th>
<th>Display Per Rotation</th>
<th>Allowable Rotation Speed (min⁻¹)</th>
<th>Weight (g)</th>
<th>Proper Compact Mechanical Linear Actuators *)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDP-02</td>
<td>H</td>
<td>R</td>
<td>1B 010</td>
<td>500</td>
<td>20</td>
<td>MAU3222SS</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>R</td>
<td>2B 020</td>
<td></td>
<td></td>
<td>MAU3222DS</td>
</tr>
</tbody>
</table>

*) Compact Mechanical Linear Actuators uses M6×1 Thread (Pitch 1mm). Carriage moves 1mm per rotation of the Handle Shaft.

**Ordering Example**

**SDP-02 H L - 1B**

**How To Install**

- Stick the rubber cushion to the back of the indicator, slide the indicator onto the shaft to the end plate. Then tighten the included setscrew.

**How To Use**

- Compact Mechanical Linear Actuator MAU3222

  - To mount SDP-02 on MAU3222, use with MAU3222-SL02.
**SDP-04** DIGITAL POSITION INDICATORS

**Feature**
- Easy to read the feed amount of Mechanical Linear Actuator.
- Display figure height : 6mm

**Supplied With**
One rubber cusion

**Technical Information**
Working temperature : Up to 80°C

**Reference**
Please refer to another [SDP-04] page for further information at our website.

**Note**
- Ensure that the start-up revolution speed is 1/3 or less of the allowable revolution speed.
- Do not give rapid acceleration or sudden stop.
- These position indicators cannot be used in applications where the shaft moves in axial direction.
- Can not be used with [MAU3222]**.

<table>
<thead>
<tr>
<th>Window Position</th>
<th>Style H</th>
<th>Style F</th>
<th>Style V</th>
</tr>
</thead>
<tbody>
<tr>
<td>To install on shaft at lower eye level</td>
<td>Window is visible at eye level</td>
<td>Install on vertical shaft</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Display Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
</tr>
<tr>
<td>Yellow Line indicates decimal point.</td>
</tr>
</tbody>
</table>

**Rotative Direction**
- **R**
  - CW Forward Counting
  - CCW Backward Counting
- **L**
  - CW Forward Counting
  - CCW Backward Counting

CAD Download : https://www.imao.biz/en
<table>
<thead>
<tr>
<th>Type</th>
<th>Window Style</th>
<th>Rotative Direction</th>
<th>Spindle Thread Pitch Per Rotation</th>
<th>Allowable Rotation Speed (min⁻¹)</th>
<th>Weight (g)</th>
<th>Proper Mechanical Linear Actuators *)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDP-04</td>
<td>H R F L</td>
<td>3B 0030 **)</td>
<td>500</td>
<td>50</td>
<td>MAU5040<em>S MAUX5040</em>S MAG5040<em>S MAGX5040</em>S</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6B 0060 ***)</td>
<td>250</td>
<td></td>
<td>MAU5040<em>W MAUX5040</em>W MAG5040<em>W MAGX5040</em>W</td>
<td></td>
</tr>
</tbody>
</table>

*) Mechanical Linear Actuator uses Tr14x3 Trapezoidal Thread (Pitch 3mm).

**) [MAU5040*S] [MAUX5040*S] [MAG5040*S] [MAGX5040*S] Carriage moves 3mm per rotation of the Handle Shaft.

***) [MAU5040*W] [MAUX5040*W] [MAG5040*W] [MAGX5040*W] Pitch between two carriages increases or decreases 6mm per rotation of the shaft.

Ordering Example: SDP-04 H L - 3B

**How To Install**

- φ 6 Mounting Hole for Digital Position Indicator
- 22 Handle Shaft
- End Plate
- Rubber Cusion
- Hex. Socket Setscrew

Stick the rubber cushion to the back of the indicator, slide the indicator onto the shaft to the end plate. Then tighten the included setscrew.

**How To Use**

- Install on Mechanical Linear Actuator
- Install on Adjustable Gearbox of Mechanical Linear Actuator

CAD Download: https://www.imao.biz/en
### ES3-A Pointer

**Part Number** | **Weight (g)**
---|---
ES3-A | 1

**Note**
- This pointer is adhesive-mount. Ensure that the mounting surface is dry and clean before mount.
- The pointer tip can be bent.

### ES1N Scales

**Part Number**

<table>
<thead>
<tr>
<th>ES1N-U50R</th>
<th>ES1N-U5050</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>L</strong></td>
<td>50</td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>40</td>
</tr>
</tbody>
</table>

**Part Number**

<table>
<thead>
<tr>
<th>ES1N-U50R</th>
<th>ES1N-U100R</th>
<th>ES1N-U50L</th>
<th>ES1N-U100L</th>
<th>ES1N-U5050</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>L</strong></td>
<td>50</td>
<td>100</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>40</td>
<td>90</td>
<td>40</td>
<td>90</td>
</tr>
<tr>
<td><strong>No. of Mounting-Hole Mark</strong></td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Weight (g)</strong></td>
<td>0.8</td>
<td>1.6</td>
<td>0.8</td>
<td>1.6</td>
</tr>
</tbody>
</table>

**Note**
- This scale is adhesive-mount. Ensure that the mounting surface is dry and clean before mount.
- Scales are not designed for accurate measurement.

**How To Use**

- **Pointer** ES3-A
- **Scale** ES1N (L=50)
- **Compact Mechanical Linear Actuator** MAU3222 (Stroke 100)
- **Compact Mechanical Linear Actuator** MAU3222 (Stroke 50)

**Body**
- A1050P aluminum
- Graduations etched

**Mounting-hole Marks**

### CAD Download
https://www.imao.biz/en
MAU-SH ADAPTER SHAFTS

MAU3222-SH

<table>
<thead>
<tr>
<th>Part Number</th>
<th>d (h8)</th>
<th>A</th>
<th>L</th>
<th>L₁</th>
<th>L₂</th>
<th>D (h7)</th>
<th>D₁ (±0.03)</th>
<th>C</th>
<th>P</th>
<th>Lf</th>
<th>M</th>
<th>Weight (g)</th>
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<tr>
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MAU5040-SH

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<th>L₂</th>
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<th>C</th>
<th>P</th>
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<th>M</th>
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<table>
<thead>
<tr>
<th>Rated Product</th>
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</thead>
<tbody>
<tr>
<td>■ Handwheel for MAU3222-SH</td>
</tr>
<tr>
<td>· GH-N</td>
</tr>
<tr>
<td>■ Handwheel for MAU5040-SH</td>
</tr>
<tr>
<td>· GH-N</td>
</tr>
<tr>
<td>· EDHN-M</td>
</tr>
<tr>
<td>· TWN-M</td>
</tr>
<tr>
<td>· BCHN-M</td>
</tr>
</tbody>
</table>

Body
S45C steel
Black oxide finish

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### How To Use

#### MAU3222-SH
- **How to Fix**
  Fix the Adapter Shaft using setscrews included to the Handle Shaft of Compact Mechanical Linear Actuators.

![Setscrew (included)](image)

#### Mounting Example
- **Shaft Lock**
  MAU3222-SL

- **Digital Position Indicator**
  SDP-02

- **Adapter Shaft**
  MAU3222-SH-26

#### MAU5040-SH
- **How to Fix**
  Fix the Adapter Shaft using setscrews included to the Handle Shaft of Mechanical Linear Actuators.

![Setscrew (included)](image)

#### Mounting Example
- **One-Touch Spindle Locka**
  QCSPL04

- **Digital Position Indicator**
  SDP-04

- **Adapter Shaft**
  MAU5040-SH-62

### Note
To produce an adapter shaft at customers, we recommend to follow the specifications below.

- **MAU3222-SH**
  O.D. of Shaft: $\phi$ 10h7  Surface Roughness: $\uparrow\uparrow$

- **MAU5040-SH**
  $<\text{For use with One-Touch Spindle Locks}>$
  O.D. of Shaft: $\phi$ 14h7 Surface Roughness: $\uparrow\uparrow$

  $<\text{For use with Digital Position Indicators}>$
  O.D. of Shaft: $\phi$ 14h9 Surface Roughness: $\uparrow\uparrow$

### Supplied With
- **MAU3222-SH**: 2 of M3x0.5-2.5L Hex Socket Setscrew
- **MAU5040-SH**: 2 of M4x0.7-4L Hex Socket Setscrew

---

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GH-N  PLASTIC KNURLED KNOBS

**Reference**

Please refer to another GH-N page for further information at our website.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>D (H9)</th>
<th>d</th>
<th>H</th>
<th>D2</th>
<th>D1</th>
<th>H2</th>
<th>Lf</th>
<th>S</th>
<th>A</th>
<th>H1</th>
<th>M</th>
<th>Weight (g)</th>
<th>Proper Adapter Shaft</th>
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<td>17</td>
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<td>23</td>
<td>18</td>
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<td>3</td>
<td>7</td>
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<td></td>
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</table>

**Knob** | **Handle** | **Hub** | **Center Cap**
---|---|---|---
Polypropylene Black matte | Polyamide Black matte | Brass (Low cadmium) | Polyamide Black matte

M Hex. Socket Setscrew (Included)

CAD Download: https://www.imao.biz/en
### EDHN-M

**PLASTIC SOLID DISK HANDWHEEL**

*On Request*

#### EDHN-R-M
(With Revolving Handle)

#### EDHN-F-M
(With Revolving Fold-Away Handle)

<table>
<thead>
<tr>
<th>Handwheel</th>
<th>Hub</th>
<th>Center cap</th>
<th>Handle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polypropylene Black matte</td>
<td>SUM24L steel Black oxide finish</td>
<td>Polycetal plastic Light gray Only for EDHN80F-M Polypropylene Black matte</td>
<td>Polyamide Black matte</td>
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</table>

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### EDHN-R-M (With Revolving Handle)

<table>
<thead>
<tr>
<th>Part Number</th>
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<th>d (H7)</th>
<th>H</th>
<th>D2</th>
<th>S</th>
<th>A</th>
<th>B</th>
<th>H1</th>
<th>R</th>
<th>Weight (g)</th>
<th>Delivery Time</th>
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<tbody>
<tr>
<td>EDHN 80R-M</td>
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<td>8</td>
<td>29</td>
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<td>5</td>
<td>15.5</td>
<td>45</td>
<td>30.5</td>
<td>106</td>
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</tr>
<tr>
<td>EDHN100R-M</td>
<td>102</td>
<td>10</td>
<td>34</td>
<td>30</td>
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<td>18</td>
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<td>39</td>
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<tr>
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<td>39.5</td>
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<td>6</td>
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<td></td>
<td>307</td>
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</tr>
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### EDHN-F-M (With Revolving Fold-Away Handle)

<table>
<thead>
<tr>
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<th>D</th>
<th>d (H7)</th>
<th>H</th>
<th>D2</th>
<th>S</th>
<th>A</th>
<th>B</th>
<th>H1</th>
<th>R</th>
<th>Weight (g)</th>
<th>Delivery Time</th>
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<tbody>
<tr>
<td>EDHN 80F-M</td>
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<td>8</td>
<td>38</td>
<td>25</td>
<td>18.5</td>
<td>9</td>
<td>15.5</td>
<td>45</td>
<td>28</td>
<td>133</td>
<td>2 Working days **</td>
</tr>
<tr>
<td>EDHN100F-M</td>
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<td>49</td>
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<td>307</td>
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</table>

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**Note**

*) These are machined handwheels of **EDHN-R**, **EDHN-F** to add the hole for setscrew. For further information, please refer to the catalog pages at our website.

**) Ordering 11 pcs or more, please ask us for the delivery time.

***) Can not be used with **MAU3222**.
TWN-M PLASTIC ANGLED-SPOKE HANDWHEELS

On Request

TWN-M (With Revolving Handle)

<table>
<thead>
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<th>H</th>
<th>D2</th>
<th>L</th>
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<th>B</th>
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<th>R</th>
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<th>Delivery Time</th>
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<td>35</td>
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<td>44</td>
<td>31</td>
<td>22</td>
<td>11</td>
<td>22</td>
<td>65</td>
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TWN-F-M (With Revolving Fold-Away Handle)

<table>
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<th>D</th>
<th>d (H7)</th>
<th>H</th>
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<th>L</th>
<th>C</th>
<th>B</th>
<th>H1</th>
<th>R</th>
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<tr>
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<td>8</td>
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<tr>
<td>TWN125F-M</td>
<td>125</td>
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Note

*) These are machined handwheels of TWN, TWN-F to add the hole for setscrew.
   For further information, please refer to the catalog pages at our website.

**) Ordering 11 pcs or more, please ask us for the delivery time.

***) Can not be used with MAU3222**. 

CAD Download: https://www.imao.biz/en
**BCHN-M**

**PLASTIC CRANK HANDLES**

*On Request*

---

**BCHN-R-M**

(With Revolving Handle)

**BCHN-F-M**

(With Revolving Fold-Away Handle)

<table>
<thead>
<tr>
<th>Crank</th>
<th>Hub</th>
<th>Handle</th>
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</thead>
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<tr>
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<td>SUM22L steel Black oxide finish</td>
<td>Polyamide plastic Black matte</td>
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**BCHN-R-M** (With Revolving Handle)

<table>
<thead>
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<th>d (H9)</th>
<th>Lf</th>
<th>A</th>
<th>H</th>
<th>D3</th>
<th>L</th>
<th>S</th>
<th>E</th>
<th>B</th>
<th>D4</th>
<th>H1</th>
<th>Weight (g)</th>
<th>Delivery Time</th>
</tr>
</thead>
<tbody>
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<td>64</td>
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<td>20</td>
<td>86</td>
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<td>5</td>
<td>17.5</td>
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<td>45</td>
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<td>2 Working days **)</td>
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<tr>
<td>BCHN 80R-M</td>
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<td>25</td>
<td>106</td>
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<td>BCHN100R-M</td>
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**BCHN-F-M** (With Revolving Fold-Away Handle)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>R</th>
<th>d (H9)</th>
<th>Lf</th>
<th>A</th>
<th>H</th>
<th>D3</th>
<th>L</th>
<th>S</th>
<th>E</th>
<th>B</th>
<th>D4</th>
<th>H1</th>
<th>Weight (g)</th>
<th>Delivery Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCHN 64F-M</td>
<td>64</td>
<td>8</td>
<td>20</td>
<td>86</td>
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<td>17.5</td>
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<td>23.5</td>
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<td>130</td>
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<td>BCHN100F-M</td>
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<td>24</td>
<td>128</td>
<td>124</td>
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<td>25</td>
<td>22</td>
<td>65</td>
<td>200</td>
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</tbody>
</table>

**Note**

*) These are machined handles of **BCHN-R**, **BCHN-F** to add the hole for setscrew.

For further information, please refer to the catalog pages at our website.

**) Ordering 11 pcs or more, please ask us for the delivery time.

***) Can not be used with **MAU3222**.

---

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IMAO CORPORATION
MAU5040-ST02  PAIR OF STOPS

Supplied With:
- 2 of M5×0.8-10L Hex-Socket Head Cap Screw
- 2 of round washer for M5 screws
- 2 of M5 T-Slot Nut

How To Use
For limiting the travel of Carriages on Actuators.

Part Number | Weight (g)
--- | ---
MAU5040-ST02 | 20

Body
Equivalent to A6N01 aluminum Anodized Natural color

Note
- Stops can be misaligned by shock or load from Carriages of Actuators.
- The surfaces inside the mounting holes and the both cut ends are not anodized.
- T-Nut can be inserted directly into the T-slot of the body. (Cannot be slide-inserted from the end plates.)
- Can not be used with MAU322**.

CAD Download: https://www.imao.biz/en
### L5-TST T-NUT

#### Stainless Steel

<table>
<thead>
<tr>
<th>Part Number</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Weight (g)</th>
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<td>4</td>
<td>M5x0.8</td>
<td></td>
</tr>
<tr>
<td>L5-TST5</td>
<td>8</td>
<td>3</td>
<td>M4x0.7</td>
<td></td>
</tr>
<tr>
<td>L5-TST4-SUS</td>
<td>9</td>
<td>4</td>
<td>M5x0.8</td>
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<tr>
<td>L5-TST5-SUS</td>
<td>9</td>
<td>4</td>
<td>M5x0.8</td>
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</tr>
</tbody>
</table>

#### Note

T-Nut can be inserted directly into the T-slot of the body. (Cannot be slide-inserted from the end plates.)

### L5-GVC2000N GROOVE COVER

#### PP Polypropylene plastic (Include Thermoplastic elastomer)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Length (m)</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L5-GVC2000N</td>
<td>2</td>
<td>27</td>
</tr>
</tbody>
</table>

#### How To Use

- **Spring Plunger**
  - Insert the nut into the groove. The spring plunger prevents the nut move freely inside the groove.

- **The nut can be inserted from any position on groove.**

- **Use the groove cover for unused groove on profile body.**

**CAD Download**: https://www.imao.biz/en