Overview
Mitsumi’s Standard Precision Positioning stages are ideal as adjustment units for inspection, assembly and processing instruments, jigs and etc. Compared to legacy (high precision) positioning stages, Mitsumi’s Standard Positioning Stages, developed with adequate level of precision (i.e. straightness, parallelism, parallelism of motion) for assembly automation-related applications are lower in price.

Features
1. Low price
By streamlining the functionality and precision level that is acceptable for automation-related applications (not for optical, experimental use), lower price of 20%-35% is achieved.
2. Short delivery time
All styles are shipped in 3 days

Product Lineup
22 Styles are available.
Cross-Roller Stages
3 Types x 3 Sizes = 9 Models
Rack & Pinion, Dovetail Stages (To be released in April 2010)
3 Types x 3 Sizes = 9 Models
Long-travel, Rack & Pinion, Dovetail Stages (To be released in April 2010)
2 Types x 2 Sizes = 4 Models

Guiding Mechanism
Cross-Roller Guide
Cross-roller guides incorporate two cross rollers connecting upper and lower plate resulting in high precision positioning.
Dovetail Slide
This mechanism consists of two precision ground flat surfaces sliding against each other. Due to direct contact between upper and lower aluminum alloy plates, stage is not suited for high moment load.

Allowable Load
What’s “Allowable Load”? What’s “Allowable Moment Load”?
Allowable load means “maximum weight” measured in N[kgf], that can be applied to stage, with center of the load aligned with center of the positioning stage, within which a positioning stage operates with characteristics specified in the catalog.
What’s “Allowable Moment Load”? Allowable moment load means “maximum weight” measured in N·m, within which a positioning stage operates with characteristics specified in the catalog. Please note that specifications shown in this catalog are based on a configuration where a positioning stage is installed in a horizontal position.

Handling of Positioning Stages
Recommended Operating Environment: 22±5°C, 20~70% RH (No dew condensation)
Operating Conditions: 10~50°C, 20~70% RH (No dew condensation)

How to Mount Stages
How to Mount Cross-Roller Stages
How to Mount Dovetail Stages

Comparison Table
Comparison table (High precision stages vs. Standard precision stages)

Cross-Roller Stages

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Stage Size</th>
<th>High Precision Stage Settings (mm)</th>
<th>Standard Precision Stage Settings (mm)</th>
<th>Price</th>
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<tbody>
<tr>
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<td>X-Axis</td>
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Dovetail Stages

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Long-Travel, Dovetail Stages

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High Precision Stages (Existing Products)

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Standard Precision Stages

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35% Price Reduction!!
Shorter “Days to Ship”

29% Price Reduction!!

20% Price Reduction!!
**Assembly (Positioning)**

**Retaining Ring Insertion Unit**

The center of the product needs to be aligned with guide in order to insert a retaining ring inside the product.

*Zoom-up*

Fine adjustment by 0.01mm - Enable to adjust the inserter guide by 0.01mm after positioning product accurately. Reduce adjustment time - Improve adjustment units to be fine-adjustable and user-friendly even by untrained workers.

**Machining (Press)**

**Thermal Transfer Unit**

Subtle misalignment occurs between upper and lower plates when thermal transfer heater plate is heated.

Fine adjustment by 0.1mm - Enable to easily adjust XY-axis position.

**Machining (Press)**

**Punching Unit**

Reduce changeover time - save time and effort to locate pipes with varying lengths. Minimize variation - minimize Lot-to-Lot adjustment time.

**Machining (Welding)**

**Welding Torch Adjustment Unit**

Secure repeatability - Enable to keep the torch aligned thereby securing adjustment repeatability by adopting a positioning stage instead of adjusting the clamp holder.
STANDARD PRECISION POSITIONING STAGES -CROSS-ROLLER-

[Standard Precision] Cross-Roller Stages

- Features: Low-price, fine-adjustable by 0.01mm with micrometer head.
FEATURES: Low-price, suitable for rapid feed.

New X-Axis Stages

New XY-Axis Stages

New Z-Axis Stages

To be released in April 2010

STANDARD PRECISION POSITIONING STAGES - DOVETAIL & PINION -

[Standard Precision] Dovetail Stages
STANDARD PRECISION POSITIONING STAGES -LONG-TRAVEL, DOVETAIL RACK & PINION. -

[Standard Precision] Long-travel, Dovetail Stages

To be released in April 2010


Applicable to various works - making it easier to adjust detection points when roll diameters vary due to the product thickness.

Improve adjustment precision - enables quantitative fine adjustment of a dial gauge, instead of trial and error approach.

Improve safety - Attaching dial gauge to positioning stage prevents the gage from sliding off.

Minimum Reading (Vernier Scale Indication): 0.1mm/Scale

Knob cover HDCVR15 (sold separately): Increases knob diameter by simply putting on an adjustment screw of ø15.

For larger quantity orders 'Day to ship' may differ from published catalog term.

Improves adjustment precision - enables quantitative fine adjustment of a dial gauge, instead of trial and error approach.

Improve safety - Attaching dial gauge to positioning stage prevents the gage from sliding off.

Applicable to various works - making it easier to adjust detection points when roll diameters vary due to the product thickness.

Work (Paper, Fiber, Resin)

Reflection Type Displacement Sensor

Sends signals upon completing rolling-up for roll exchange