High precision X-Y Stage

New Product for SPE Industry

Designed by a machine tool manufacturer

In addition to less than $1\mu m$ repeatability, our X-Y stage has focused on fine dynamic accuracy.

This X-Y stage is suitable for processes that need constant axes

movement speed and synchronized accuracy of two or more axes.

Displayed at

SEMICON JAPAN

2024 exhibition

New Product

High precision X-Y stage

for Semiconductor Process Equipment

YASDA's X-Y stage improved its rolling and pitching accuracy and minimized its waving errors.

Our high precision X-Y stage draws out high dynamic performance using fine servo optimization.

Referential Accuracy of one Linier Axis in ± 150 mm

• Straightness (Vertical) : $1.0\,\mu\mathrm{m}$ • Straightness (Horizontal) : $1.0\,\mu\mathrm{m}$ • Pitching accuracy : 1.3''• Yawing accuracy : 1.3''• Repeatability : $\pm 0.1\,\mu\mathrm{m}$

Machine Specifications

X axes Travel : 730mm
Y axes Travel : 780mm
Maximum velocity : 250mm /sec
Maximum acceleration : 3m /s^2

X3 mm X2 X2 X2 X2

W 1,943 mm



Table □305 mm



This unit is a demonstration model. We can customize our stages meeting customers' specifications and requirements.

YASDA PRECISION TOOLS K.K.



Why YASDA, a machining center manufacture makes X-Y Stage?



Machining centers are indispensable equipment for variety of industries such as automotive, aerospace, medical and semiconductor.

Aiming for the Best, not for the biggest

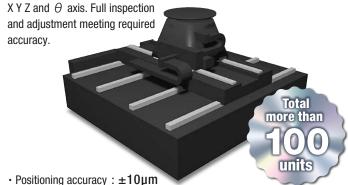
YASDA supports manufacturing around the world, providing customers with high quality, high-precision solutions to the cutting edge of technology using our ultra-high-precision machines.



Contract Manufacturing Examples

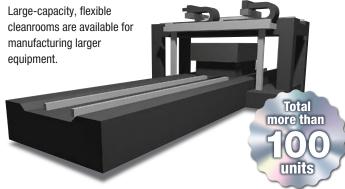
YASDA, a top-level machining center manufacture has deep know-how and technologies of machine design and development. Utilizing these competences, we expand our business field to high-precision positioning unit manufacture for semiconductor industries. *Product image for illustration purposes only. Actual products may vary.

OEM Stage for semiconductor test equipment



• Straightness (Vertical): ±5µm • X axis Travel : 400mm • Repeatability : ±2.5µm • Y axis Travel : 500mm

OEM Stage for Flat Panel Display process equipment



• X axis Travel : 3,000mm • Pitching accuracy : $\leq 15''$ • Y axis Travel : 5,000mm • Repeatability : $\pm 2\mu m$

Assembly equipment •



Stone surface plate : JIS 0 Class

 $\begin{array}{lll} \bullet \ 1,200 \times 2,000 \text{mm} \ \ \text{Gunits} \\ \bullet \ 1,000 \times 1,500 \text{mm} \ \ \text{Junits} \\ \end{array} \begin{array}{lll} \bullet \ \ 1,800 \times 3,600 \text{mm} \ \ \text{Junits} \\ \bullet \ \ 2,000 \times 3,000 \text{mm} \ \ \text{Junits} \\ \end{array}$



Autocollimator (Taylor Hobson): 2 units

For adjustment and measurement of linier guides' straightness at the hand-scraping process.



Laser calibration system (Keysight): 2 units

For calibration and measurement of repeatability, positioning accuracy etc. of the finished table units. These laser systems are held in a precisely temperature-controlled room.

Please contact us.

YASDA Precision Tools K.K. Factory No. 2

https://ypos.jp

