Press Release November 2025

Okuma Corporation

High Productivity through Process Integration and Automation Enabled by Machines Featuring Outstanding Accuracy Stability and Machining Performance

Compact Multitasking Machines

MULTUS U1000
MULTUS U2000

Okuma has developed two new compact multitasking machines, the **MULTUS U1000** and **MULTUS U2000**, that combine our core strengths of exceptional long-term accuracy stability with powerful cutting performance, while achieving one of the smallest machine width in their class.

The MULTUS U1000 and MULTUS U2000 feature a turning spindle compatible with 6-inch chucks and 8-inch chucks. respectively. Both models come standard with a high-capacity magazine that holds up to 80 tools, enabling efficient machining of a wide variety of parts, while achieving one of the smallest machine width in their class.

Today, manufacturers face increasing demands such as more complex geometries and the growing use of difficult-to-cut materials like titanium in medical components, and growing requirements for miniaturization and higher functionality of medium- and small-size parts for precision equipment, EVs, and robotic systems. Because of their outstanding accuracy stability and elite-level cutting performance, the MULTUS U1000 and U2000 deliver exceptional productivity through process integration and automation.

- **Industry-leading floor-space productivity through outstanding accuracy stability and machining performance**
  - **Designed for parts sized ϕ150 mm × L200 mm or smaller, which account for roughly 40% of all multitasking machine inquiries, these models maximize the machining area while minimizing the required floor space, all while maintaining machining performance equivalent to previous models.**
  - **Compact footprint for allowing installation even in space-constrained factory environments**
    (8.2 m² installation area, which is 41% less area than the MULTUS U3000)
  - **Features exceptional accuracy stability and consistently delivers high-accuracy machining even for long runs of continuous operation under fluctuating ambient temperatures.**
  - **Provides machining performance for seamless integration by allowing direct reuse of cutting conditions previously applied in process-splitting operations.**
- **Enables continuous operation for long runs of high-mix production in a single compact machine.**
  - **While being equipped with a standard 80-tool ATC magazine, which is twice the capacity of the MULTUS U3000, the machines have a machine width of only 3,510 mm, the smallest in their class (25% narrower than the MULTUS U3000).**
  - **Minimizes operator tool-change frequency even in high-mix production requiring a greater variety of tools than before.**

- **◆ Machine design ready for a wide range of automation to match customer production environments, which combines process integration and automation in a compact package for even higher floor-space productivity**
  - **• Flat machine front design allows robots to approach the machine as closely as possible when loading and unloading workpieces, enabling highly compact robot cells.**
  - **• Enables mounting of a loader directly on the machine for further reducing the footprint of mass-production part machining cells.**
- **◆ High-accuracy, stable operation for long runs of continuous operation for day/night and holiday production**
  - **• Significantly improved indexing accuracy of the turret rotary axis and turning spindle enables higher-accuracy machining of increasingly precise medium- and small-size parts.**
  - **• Okuma's intelligent 5-Axis Auto Tuning technology ensures long-term stability and high-accuracy performance in 5-axis machining.**
  - **• Machine-mounted AI is used to monitor machine conditions and prevents unexpected failures for helping to prevent production losses.**

In production sites facing challenges such as labor shortages and passing on machining skills, whilst high-mix production continues to expand, companies are under increasing pressure to strengthen competitiveness in quality, cost, and delivery times. The MULTUS U1000 and MULTUS U2000 provide exceptional productivity through process integration and automation, which is achievable only with machines that offer both outstanding accuracy stability and powerful cutting performance.

Background

In recent years, product diversification driven by evolving customer needs and rapid technological innovation has shortened product life cycles and accelerated the shift toward high-mix production. High-mix production requires multiple machining processes, with each process needing operator intervention for setup and transfer of workpieces. Furthermore, variations in how workpieces are mounted on the machine introduce the risk of dimensional inconsistency across processes.

At the same time, in production sites, the labor shortage is becoming increasingly severe, securing personnel for tasks such as workpiece setup and transfer has become increasingly difficult, and there is also a shortage of skilled workers capable of consistently mounting workpieces on machines with the required accuracy. As part geometries become more complex, accuracy requirements become stricter, and delivery times become shorter due to intensifying competition, production sites are being pressed to achieve even higher levels of quality and productivity.

Against this backdrop, demand is rising for multitasking machines that consolidate multiple machining processes into a single unit, enabling high-mix production while minimizing workpiece setup and transfer. Moreover, with limited factory space, manufacturers are seeking compact, easy-to-deploy multitasking machines capable of long runs of stable, high-accuracy continuous operation.

Development Objectives

The new MULTUS U1000 and MULTUS U2000 were developed based on the following key concepts:

<1> Achieve industry-leading floor-space productivity through outstanding accuracy stability and machining performance

<2> Enable continuous operation for long runs of high-mix production in a single compact machine

<3> Machine design ready for a wide range of automation to match customer production environments, which combines compact process integration and automation for even higher floor-space productivity

<4> Achieve high-accuracy, stable operation for long runs of continuous operation for day/night and holiday production

User Benefits Delivered by Advanced Technologies

<1> Achieve industry-leading floor-space productivity through outstanding accuracy stability and machining performance

- Designed for parts sized ϕ150 mm × L200 mm or smaller, which account for roughly 40% of all multitasking machine inquiries, these models maximize the machining area while minimizing the required floor space, all while maintaining machining performance equivalent to previous models.

  X-axis travel: 550 mm, Y-axis travel: 220 mm, Z-axis travel: 880 mm

  Maximum machining diameter: 650 mm, Maximum machining length: 830 mm
- Compact machine that can be installed even in facilities with limited factory space

  8.2 m² installation area (41% less than the MULTUS U3000)
- Exceptional accuracy stability dramatically reduces accuracy errors due to thermal displacement during long runs of continuous operation with fluctuating ambient temperatures.

  Standard package includes **Thermo-Friendly Concept**, an intelligent technology that allows machines to autonomously and stably maintain a high level of accuracy.
- Provides machining performance for seamless integration by allowing direct reuse of cutting conditions previously applied in process-splitting operations.

  Turning capacity of 3.0 mm^2 and milling capacity of 321 cm^3/min (material: S45C)

<2> Enable continuous operation for long runs of high-mix production in a single compact machine

- While being equipped with a standard **80-tool** ATC magazine, which is **twice** the capacity of the MULTUS U3000, the machines achieve a class-leading **machine width of only 3,510 mm** (**25% narrower** than the MULTUS U3000).
- Minimizes operator tool-change frequency even in high-mix production requiring a greater variety of tools than before.

<3> Machine design ready for a wide range of automation to match customer production environments, which combines compact process integration and automation for even higher floor-space productivity

- Compact, easy-to-deploy robot cell

  Flat machine front design allows robots to approach the machine as closely as possible when loading and unloading workpieces for enabling highly compact robot cells.

- Compact on-machine loader cell

  Enables mounting of a workpiece loader directly on the machine for further reducing the footprint of mass-production part machining cells.

- Enhanced automation for high-mix production through integration with the **OMR Series** of mobile collaborative robots.

  Quickly automates the necessary machine tools and machining parts based on workload demands.

  No robot-specific knowledge or skills are required, as the robots do not require teaching or programming.

<4> Achieve high-accuracy, stable operation for long runs of continuous operation for day/night and holiday production

- Significantly improved indexing accuracy of the turret rotary axis and turning spindle enables higher-accuracy machining of increasingly precise medium- and small-size parts.

  Improved control performance through direct detection of rotary-axis accuracy and reduced sliding resistance, which is a primary cause of torsional error

- Okuma's intelligent **5-Axis Auto Tuning** technology ensures long-term stability and high-accuracy performance in 5-axis machining.

  The machine automatically measures geometric errors in 5-axis machining and quickly performs compensation.

  Tuning time has been dramatically reduced from 45 minutes manually to just **10 minutes** automatically.

- Built-in **AI Machine Diagnosis** feature for automatically monitoring the machine status and detecting early signs of failure

  Predictive maintenance detects potential faults in spindle bearings and feed-axis ball screws before they occur, preventing unexpected machine downtime and reducing production losses.

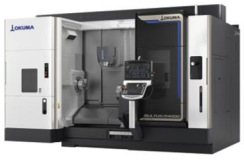
Extensive Lineup of MULTUS Multitasking Machines

Single-saddle specification (Upper turret only)

Two-saddle specification (Upper and lower turrets)

MULTUS U1000 MULTUS U2000

NEW



MULTUS U3000
MULTUS U4000
MULTUS U5000

Single-saddle specification (Upper turret only)

MULTUS B200 Ⅱ

MULTUS B250 Ⅱ

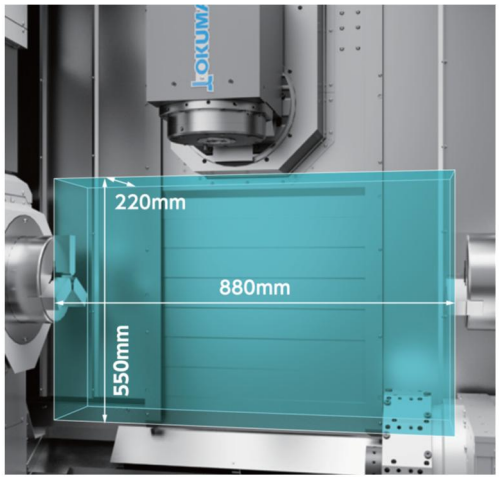
MULTUS B300 Ⅱ
MULTUS B400 Ⅱ

MULTUS B550
MULTUS B750

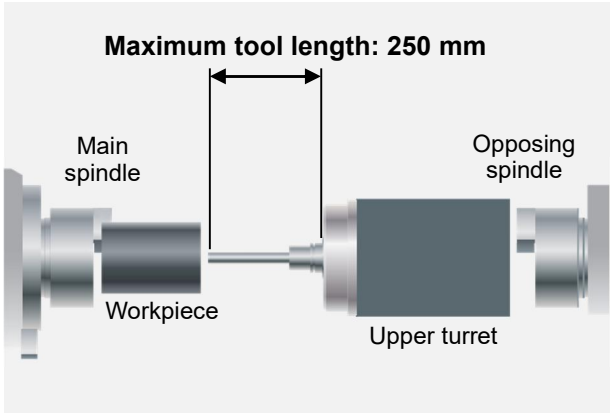
6 inches | 8 inches | 8 to 12 inches | 15 to 18 inches

Chuck size

Class-Leading Machining Area in a Compact Footprint

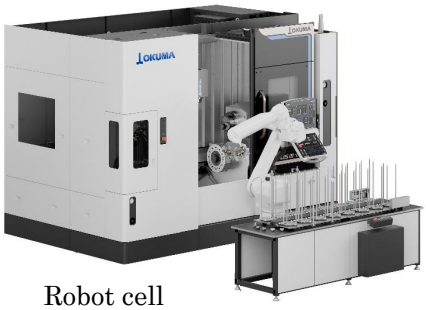


Largest machining area in its class



Enables internal diameter machining with tools up to 250 mm in length

Automation for Diverse Production Styles Using Minimum Floor Space



Robot cell

Mobile Collaborative Robot “OMR”

Bar feeder

On-machine loader cell

Product Specifications

Item		MULTUS U1000	MULTUS U2000
Standard chuck size		6 inches	8 inches
Machining capacity	Maximum machining diameter	650 mm	
	Maximum machining length	830 mm	
Travel	X-axis travel	550 mm	
	Y-axis travel	220 (±110) mm	
	Z-axis travel	880	
	C-axis control angle (Spindle rotary axis)	360° (minimum controlled increment: 0.0001°)	
	B-axis indexing angle (Turret rotary axis)	-30° to +210° (minimum controlled increment: 0.001°)	
Main spindle	Max. speed	6,000 min^{-1}	5,000 min^{-1}
	Max. power	11/7.5 (5 min/continuous) kW	22/15 (30 min/continuous) kW
	Spindle nose shape	ϕ140 flat	JIS A2-6
Opposing spindle	Max. speed	6,000 min^{-1}	5,000 min^{-1}
	Max. power	11/7.5 (5 min/continuous) kW	22/15 (30 min/continuous) kW
	Spindle nose shape	ϕ140 flat	JIS A2-6
Upper turret (Milling spindle)	Tool loading capacity	1 tool	
	Max. speed	12,000 min^{-1}	
	Max. power	16/11 (5 min/continuous) kW	
	Tool shank model	HSK-A63	
Lower turret	Tool loading capacity	12 tools	
	Max. speed	6,000 min^{-1}	
Rapid traverse speed		X-axis: 50 m/min, Y-axis: 40 m/min, Z-axis: 50 m/min	
ATC	Tool magazine capacity	80 tools	
	Max. tool diameter	90 mm (with no adjacent tool: 130 mm)	
	Max. tool length	250 mm	
	Max. tool weight	5 kg	
Machine size	Machine height	2,600 mm	
	Required floor space (width × depth)	3,510 mm × 2,345 mm (Including tank: 4,446 mm × 2,345 mm)	
	Machine weight	14,600 kg	
CNC unit		OSP-P500S	