



DAITO

Coping Machine

DBi 500



Coping Machine

Obi500

Fast. Seamless. Precise.

The Obi500 is a robotic system that uses a 6-axis articulated robot equipped with a plasma torch to automatically perform 3D machining (coping).

By automating processes such as notching and edge beveling of small structural steel sections, which previously relied on manual labor, it significantly reduces the workload and ensures consistent machining quality.

Advanced cutting control utilizing the properties of plasma enables smooth, seamless cut surfaces, allowing anyone to perform uniform, high-quality machining regardless of their skill level.

Furthermore, by converting CAD data into machining data, teaching-less robot operation is achieved, eliminating the need for traditional robot teaching and programming, thus reducing the burden on operators.

This allows human resources to shift to more advanced and value-added tasks, contributing to effective labor savings.

Obi500 supports the balance between efficiency and quality in manufacturing environments, powerfully assisting in the realization of creative and valuable work.



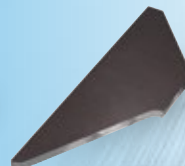
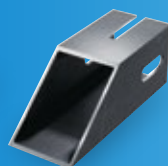
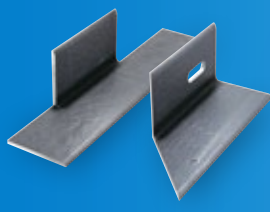
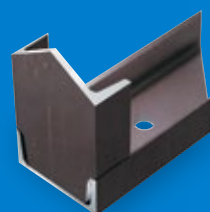
Product
Video



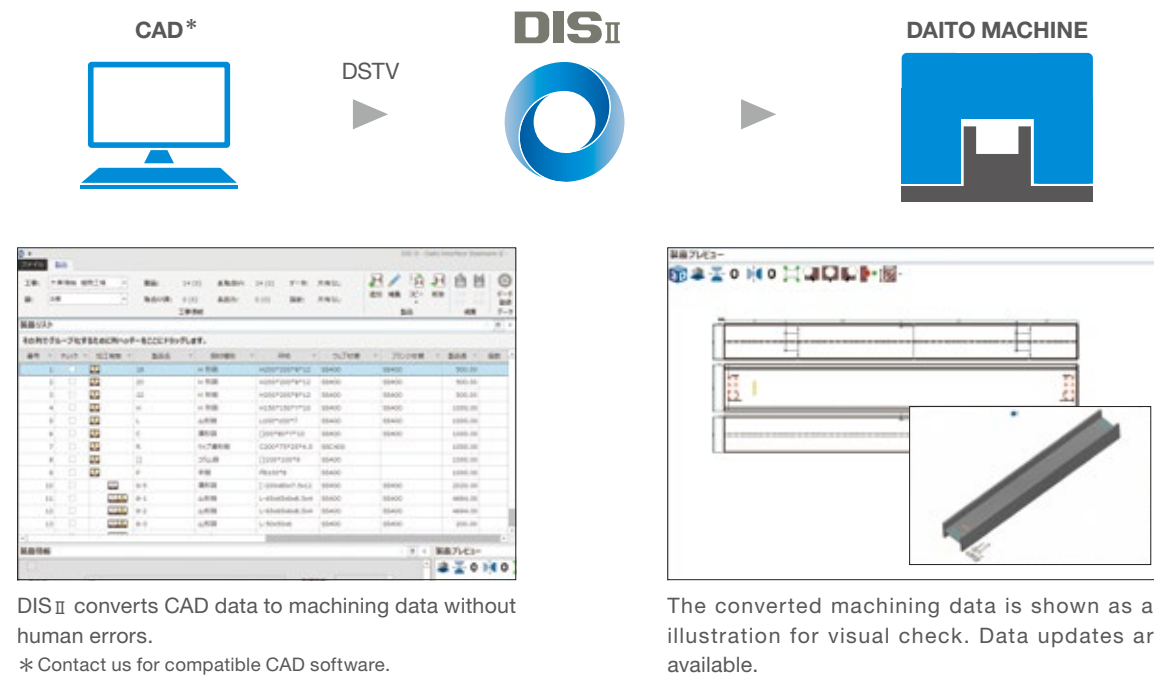
Product
Website



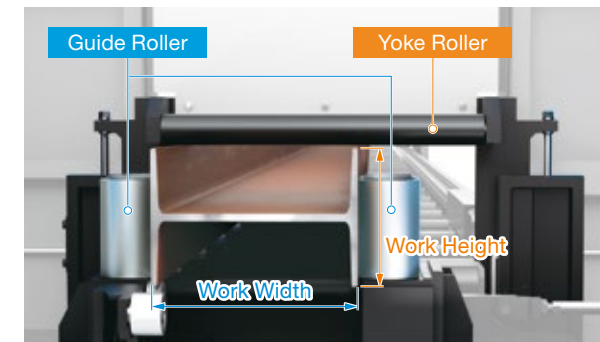
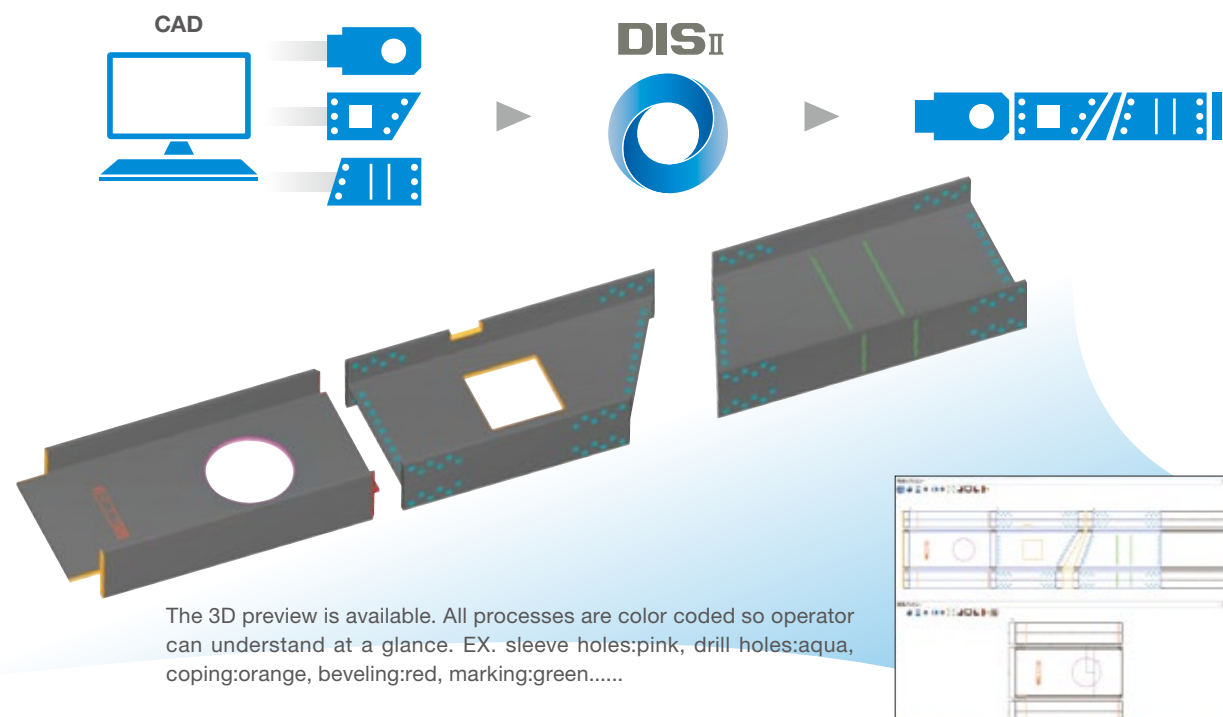
Image PV



Graphical Programming Interface

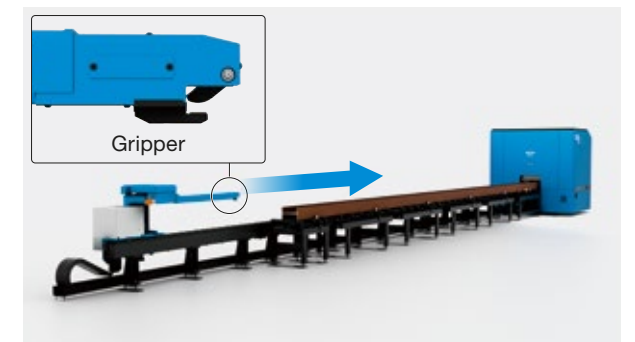


Automatic Nesting and Optimising



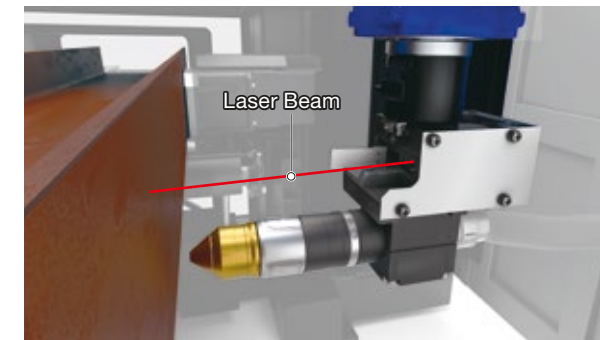
WIDTH / HEIGHT MEASUREMENT

When materials are brought in, they are clamped using guide rollers and yoke rollers. At the same time, the material size is measured and checked to ensure it matches the processing program.



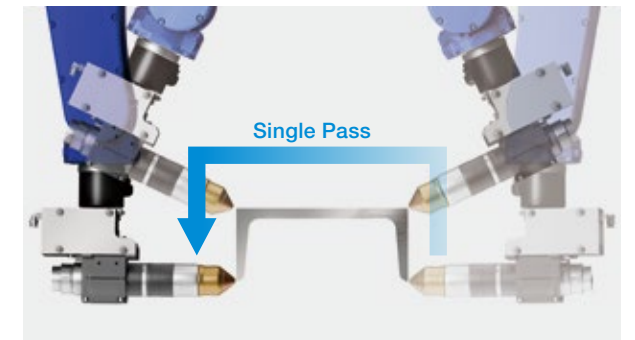
CARRIAGE SYSTEM

A carriage system is used for material feeding, enabling accurate feeding and positioning even for long materials. Furthermore, a sensor built into the gripper detects material gripping misalignment, preventing processing errors. The carriage can be positioned on either the left or right side of the conveyor (please specify when ordering).



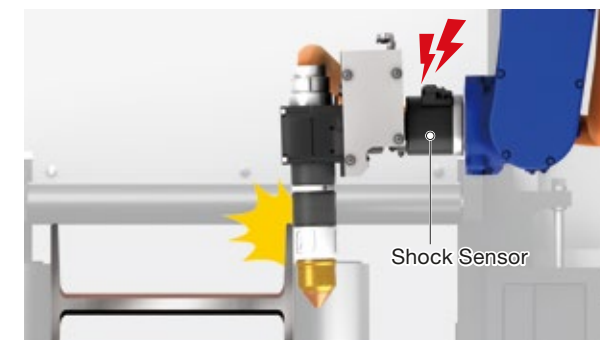
MATERIAL DETECTION USING LASER SENSORS

The positional deviation and actual dimensions of the material are accurately measured using a laser sensor and reflected in the processing.



A SMOOTH AND UNIFORM CUT SURFACE

Even at corners where plate thickness changes, it achieves a smooth and uniform cut surface. Angles and channels can be efficiently cut in a single pass, resulting in a beautiful, step-free cut surface, while also contributing to reduced processing time and extended consumable lifespan.



SHOCK SENSOR

In the unlikely event that the plasma torch interferes with the material, the shock sensor will react and immediately shut down the torch, preventing damage.



COMPACT AND SECURE FULL COVER

The machine itself features an environmentally conscious, fully enclosed structure. This prevents the robot from being exposed, protecting it from sparks and dust, and ensuring a safe and comfortable working environment. Furthermore, the control panel is located separately, allowing for a compact overall design.

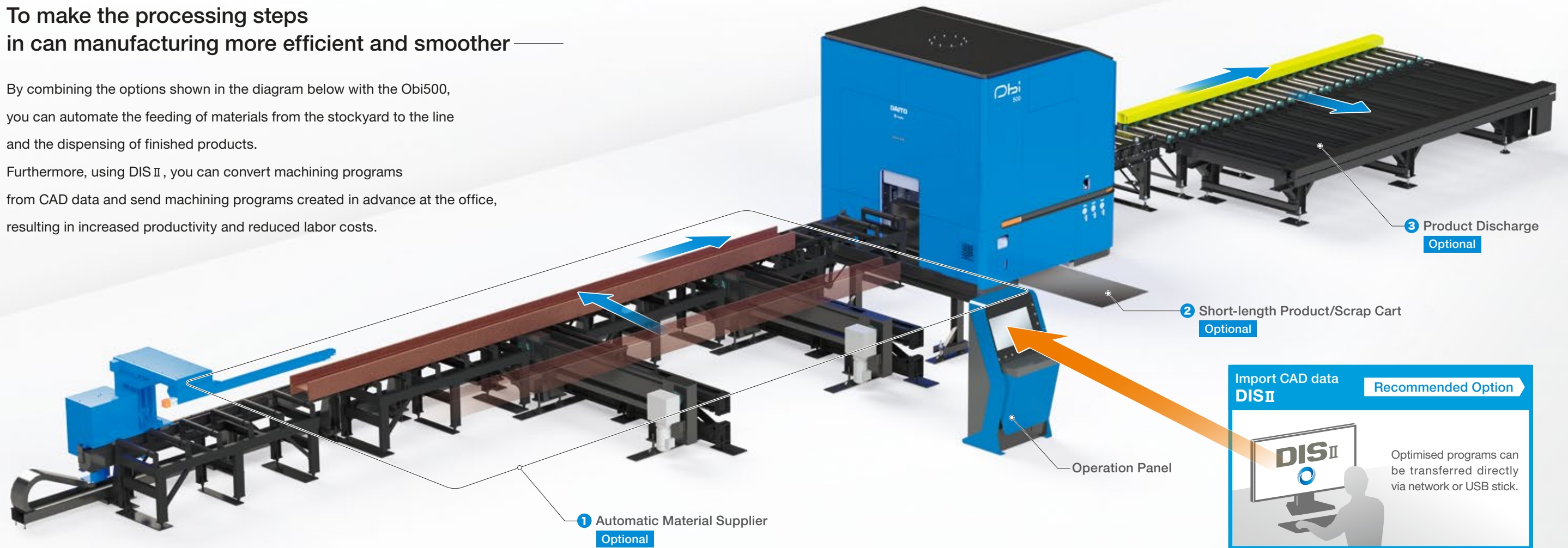
* The customer is responsible for arranging the dust collector and ductwork.

Automatic Operation

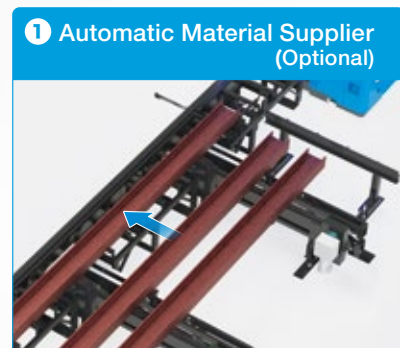
To make the processing steps in can manufacturing more efficient and smoother

By combining the options shown in the diagram below with the Obi500, you can automate the feeding of materials from the stockyard to the line and the dispensing of finished products.

Furthermore, using DIS II, you can convert machining programs from CAD data and send machining programs created in advance at the office, resulting in increased productivity and reduced labor costs.



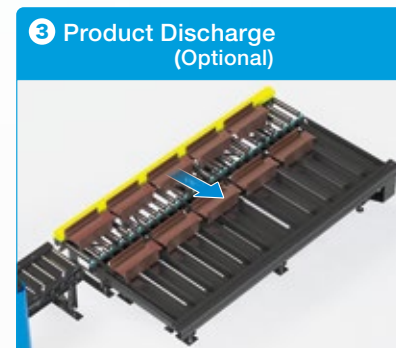
Examples of sheet metal fabrication



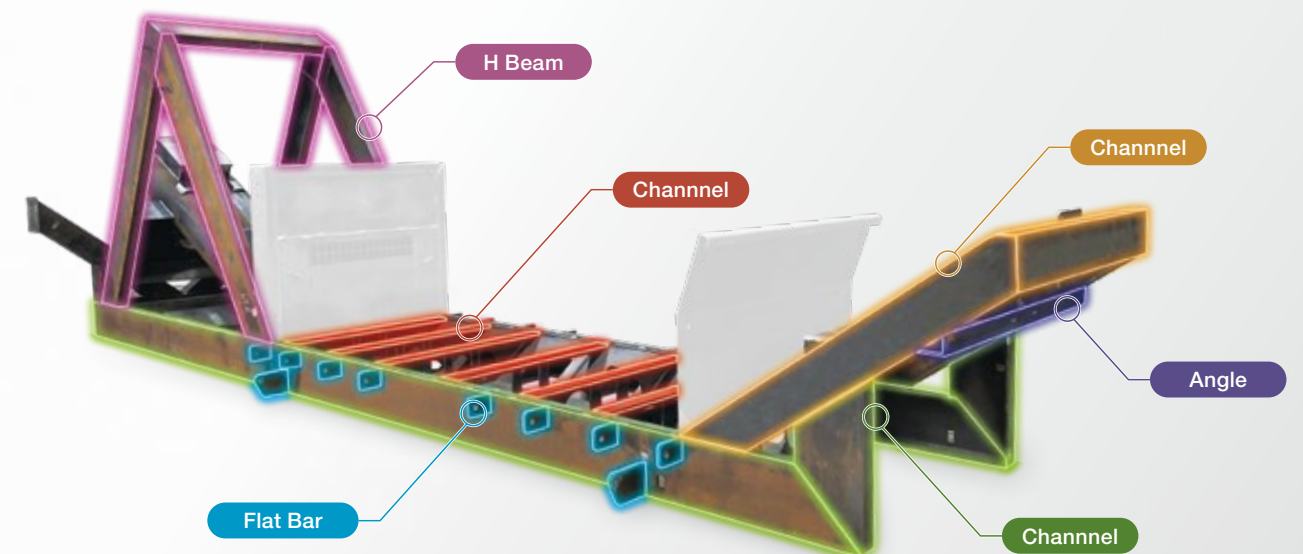
Materials are supplied by chained suppliers and lift pushers.



This box receives short products and scrap that cannot be fed through the machine. When collecting them, it is pulled out of the machine.
* Construction of a pit of 300mm or more is recommended.



The products are diverted to the product yard.



Specifications

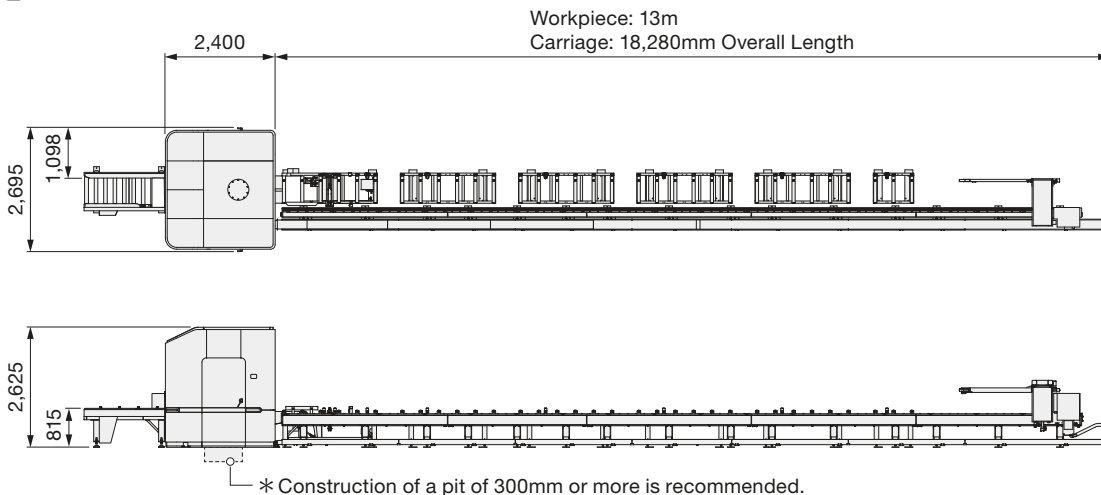
Obi500						
Work (mm)	Capacity	 ^{*1}	Min. 100 × 50 Max. 500 × 250	Min. Work Length	Auto Cycle	1,500mm
			Min. 75 × 75 Max. 450 × 175			
		 ^{*1}	Min. 50 × 50 Max. 200 × 200	Work Feeder	Feeding System	Carriage with AC Servo Drive
			Min. 75 × 40 Max. 380 × 100		Feeding Speed	Max. 40m/min
					Max. Indexible Weight	2,000kg
		 ^{*1}	Min. 50 × 50 Max. 200 × 200	Motor Output ^{*2}	Plasma	35.7kW
	Robot				2.5kW	
	Hydraulic				2.8kW	
	Others				2.6kW	
		Min. 50 Max. 300	Total		43.6kW	
Thickness ^{*1}	Max.	25	Power Consumption		75A (AC200V)	
	Min.	2.3	Machine Weight		4,000kg	

* 1 For the details of specific workpiece application, contact DAITO.

* 2 This is the value when all options are selected.

* The dust collector is not included.

Overall Dimensions (mm)



* Please contact us for detailed layout information.

Specifications/outlook are subject to change without notice.

DAITO

Empower. Create. Fabricate.

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