

Highly-productive Robot System

# ServoROT<sup>®</sup> series

This is a workpiece loading/unloading automation system that delivers the “simple operability” and “reduced setup time” required to deal with the issues posed by multiproduct, variable quantity production and the shortage of labor.

With the robot and material supply section developed as packages, the TAKAMAZ **ServoROT series** doesn't just improve productivity but also greatly helps to reduce the burden on the operator.

## ServoROT-X1 **NEW**

Use of the FANUC CRX series collaborative robot, which does not require a safety fence, allows configuration of a safe and reliable supply system. In addition, the collet chuck can be changed.

\* Max. weight capacity: 20 kg

\* 12-inch operation panel adopted

## ServoROT-00

A flat-type workpiece stocker is used to address flexible needs. The robot base is angled so as not to obstruct the space required for setup at the lathe.



## ServoROT-01

A multi-layer tray is integrated as a supply device, allowing prolonged unmanned operation.



### ServoROT<sup>®</sup> series

#### Reduced personnel costs

This system loads/unloads workpieces with a robot that is integrated with a material supply section. It realizes unmanned operation day and night, and improves production efficiency by maintaining cutting quality, ensuring stable loading, and allowing multi-machine control.

#### Wide range of variations

Taking this robot + material supply system as a base, various other needs can also be met, with washing units, gauging systems and so on.

#### Simple setup

With the integrated robot + material supply section construction, setup can be completed just by teaching on site.

#### Retrofitting on previous models too

The system can be retrofitted to an existing machine provided there is a space of 1.8 x 0.9 meters in front of it. Consultations are welcome.



Machine Specifications	Item		00	01	X1	
	Articulated Robot (FANUC)	Model		LR Mate 200iD/7L	LR Mate 200iD/7L	CRX-10iA/L or CRX-20iA/L
		Detailed specifications	Solenoid valve	Closed center type x 3	Closed center type x 3	—
			Main breaker	10A/3-phase	10A/3-phase	15A/3-phase
			USB connector	Provided	Provided	Provided
			Input power supply	200-230V	200-230V	200-230V
		Axes		6	6	6
		Weight capacity (including workpiece + hand)		7kg	7kg	10kg or 20kg
		Hand shape		Options available	Options available	Options available
		Arm length		911mm	911mm	1,418mm
		Robot weight		27kg	27kg	41kg
		Positional repeatability		±0.01	±0.01	±0.04
		Ingress protection		IP67	IP67	IP67
		Installation angle		15°	15°	15°
		Feed rate	Collaboration mode			1,000mm/s
High-speed mode				2,000mm/s or 1,000mm/s		
Loading/ Unloading	Tray type		TP331D(SANKO)	TP331D(SANKO)	Product drawers customized for the workpieces	
	Tray size		335mm×335mm	335mm×335mm		
	Number of trays		2	4		
	Space for trays		800mm×550mm	470mm×390mm		
	System		Flat	4 drawers		
External Dimensions	Height		2,240mm	2,170mm	2,000mm	
	Width		1,880mm	1,870mm	1,630mm	
	Depth		725mm	725mm	960mm	
Air Source	Supplied air		Dry air	Dry air	Dry air	
	Pipe diameter		φ8/1 pc.	φ8/1 pc.	φ8/1 pc.	
Electricity	Power capacity		3.2KVA	3.0KVA	3.2KVA	
Controller Specifications (TAKAMAZ Lathes)	Touch panel		Selectable (no standard PLC)	Selectable (no standard PLC)	PLC touch panel is mandatory	
Controller Specifications (Other than TAKAMAZ)	PLC + touch panel		Mandatory	Mandatory		
Connection*1 (TAKAMAZ Lathes)	IO-Link		Selectable	Selectable		
Connection*2 (Other than TAKAMAZ)	Communication network		Selectable	Selectable	Selectable	

※ 1 : Because a ladder program at the lathe side is used, the system can be operated without installing a PLC at the supply device side.

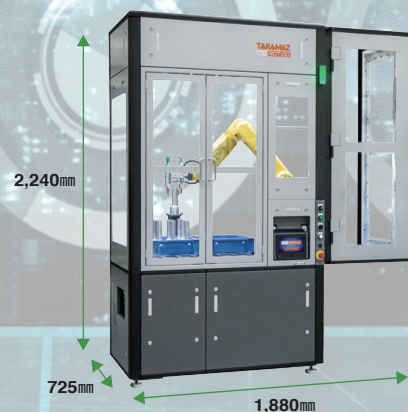
※ 2 : When connected to equipment other than TAKAMAZ, the ServoROT needs to be equipped with a PLC. Connection is possible using the equipped PLC's communication protocol.

Ethernet IP, FL-net and CC-LINK connections have been proven in the field. For other networks, please consult us.

Note: The costs of on-site installation and transportation need to be considered separately.

## FLOOR SPACE

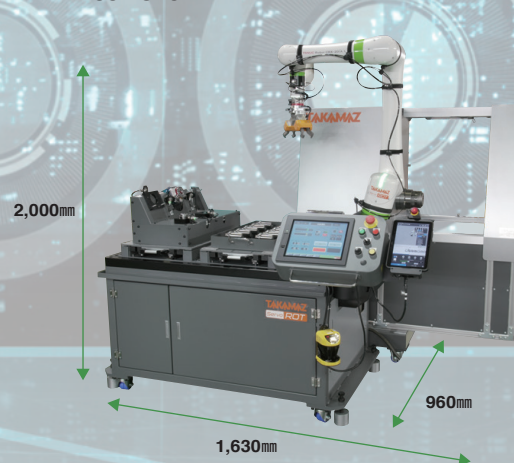
### ServoROT-00



### ServoROT-01



### ServoROT-X1



# TAKAMAZ

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