

Desktop Robot
CAST-PR3

JANOME

100% Versatile! — The new CAST-PR3 desktop robot



CAST

Multi-purpose, desktop size machine to support small-volume, high-quality cell production. Comes in: 4-axis control, 3-axis control, and 2-axis control.

- 700 mm/sec maximum speed (X, Y axes)
- ± 0.01 mm repeatable positioning accuracy (X, Y axes)
- Software available for easy operation (optional)
- Robot language programs for higher functionality

Janome Sewing Machine Co., Ltd.

Unit Specifications

Item		4-axes	3-axes	2-axes
Work envelope	X axis		350 mm	
	Y axis		350 mm	
	Z axis	100 mm		
	R axis	360°		
Maximum speed*4	X axis		700 mm/s ^{*1}	
	Y axis		700 mm/s ^{*2}	
	Z axis	200 mm/s ^{*1}	300 mm/s ^{*1}	
	R axis	720/s ^{*3}		
Pose repeatability*5 (positioning accuracy)	X axis		± 0.01 mm	
	Y axis		± 0.01 mm	
	Z axis		± 0.02 mm	
	R axis	± 0.05°		
Maximum load	Tool	2 kg	10 kg	6 kg
	Work piece			
Unit weight		Approx. 44 kg	Approx. 42 kg	Approx. 37 kg
Ambient operating temperature		0 - 40 °C		
Transport and storage temperature		-10 to 60 °C		
Power supply voltage		AC 100 - 120V ± 10% , AC 200 - 240V ± 10% 50/60Hz		
Power consumption		300 VA		
Grounding		Type D grounding		

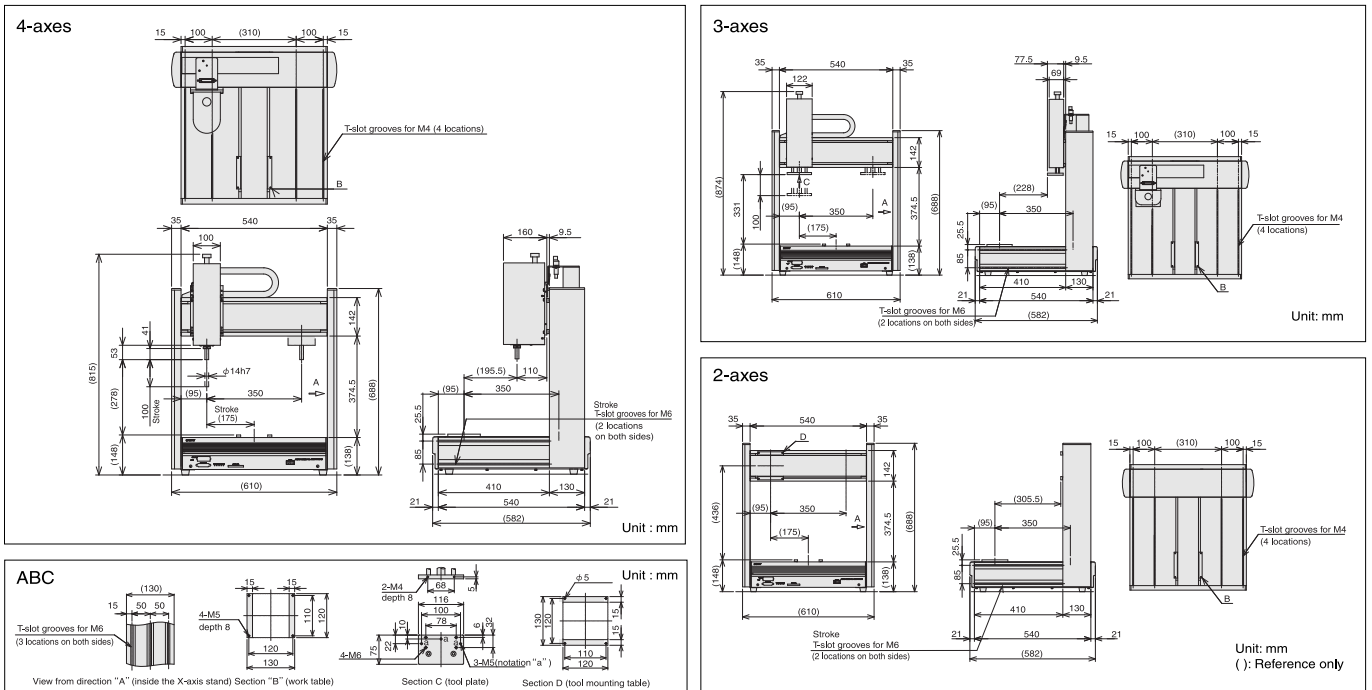
*1. When the tool is 1.5 kg or less. Set the speed based on the use conditions. *2. When the work piece is 6 kg or less, set the speed based on the use conditions. *3. When the tool inertia is 45 kg/cm² or less, set the speed based on the use conditions.*4. Speed can be set. May not reach the specified value depending on the travel distance. *5. Conditions: Temperature 20 ± 0.2 °C measured from one direction.

Control Specifications

Drive method	5-phase pulse motor (open loop control)
Movement method	PTP, CP
Control axis count	Maximum of 4 axes (simultaneous control of all axes possible)
Speed control	7 - 700 mm/s (CP control setting value 0.1 - 500 mm/s) ^{*6}
Programming method	Full open: robot language in LUNA; A-card (optional): contains standard software
Program capacity	Full open: total 176 Kbyte; A-card (optional): max. of 40 work programs ^{*7}
Teaching method	Direct teaching using teaching pendant (optional) Off-line teaching using a personal computer (optional)
Point data storage capacity	Full open: 3,072 points per program; A-card (optional): max. of 2,500 points ^{*8}
Multitask function (full open specification use possible)	LUNA tasks: 9 tasks (operating 1, peripheral 8) System tasks: 1 PLC tasks: 1
Internal PLC function	Programming method: Boolean algebra; operating status: independent of main unit operation; I/O: uses user I/O
User I/O points ^{*9}	Full open: 40 points each I/O; A-card: 22 points each I/O
Serial I/F	RS232C: 1 channel (general purpose)

*6. When the A Card(optional) is used, the speed range changes. Refer to the operation manual for details. *7. Work program is a program of point data of different work positions The number of available point data changes depending on the A Card specifications. *8. At max. of 40 work programs, the number of available point data is 60, not the number of max. points. *9. Some of the user I/O are pre-assigned as part of the system. For details refer to the operation manual.

External Dimensions



⚠ Safety Notice: For your safety, please read the operation manual carefully before using the product.

● Specifications and appearance are subject to change without prior notice.

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