Depaneling Robot

JR3000 ERT

Reduces the stress on PC boards

Router Cutting Method

High precision spindle motor makes stress free cuts for smooth and easy depaneling.
Cuts straight lines, curves and angles.

New Functions

LED shows when to change bits

Router Wear Signal

We've added an indicator to display router bit sharpness. When the robot's cumulative work hours exceed the limit you set, the switchbox LED shows you it is time to replace the router bit.
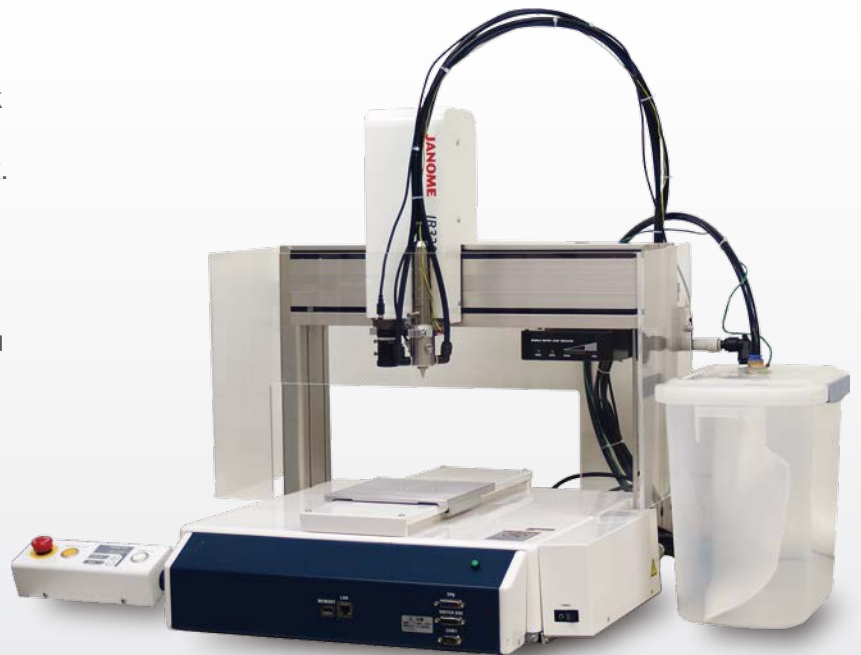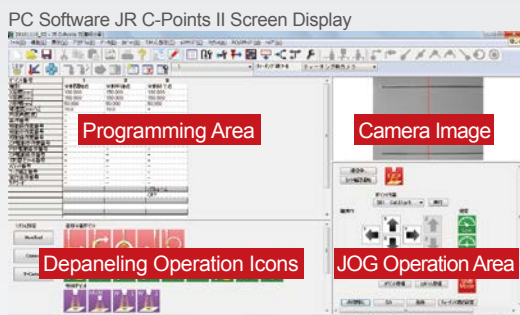
Cut just the right amount

Tool Offset Function

We've added an editing function which lets you offset the router bit diameter. You can incorporate CAD for easy and precise cutting.

Teaching Data → Inner Area Offset | Outer Area Offset

Easy router positioning

USB Camera Teaching (Optional)

Set points using a camera image on your PC screen. Teaching is easy: just choose the job you want from among the icons.

Setup Example (with optional camera)

PC Software JR C-Points II Screen Display

Programming Area

Camera Image

Depaneling Operation Icons

JOG Operation Area

Specifications

	Model Item	JR3203ERT	JR3303ERT	JR3403ERT (Double Column Type Only)	JR3503ERT [7]	JR3603ERT [7]
Depaneling Range Limit	X & Y Axes	195×190mm	295×315mm	395×395mm	505×505mm	505×615mm
	Z Axis	35mm	90mm	82mm	95mm	95mm
Max. PTP Speed [1]	X & Y Axes	700mm/sec	900mm/sec			
	Z Axis	250mm/sec	400mm/sec			
Max. CP Speed [1]	XYZ Combined	600mm/sec	850mm/sec			
Repeatability [2]	X Axis	±0.006mm	±0.007mm		±0.008mm	±0.008mm
	Y Axis					±0.01mm
	Z Axis					±0.008mm
Cutting Trajectory Precision		0.2mm（nominal standard)				
External Dimensions (excl. cables and protrusions)		W350×D439×H632mm	W618×D586×H657mm	W647×D640×H665mm	W678×D731×H665mm	W790×D731×H665mm
Weight (Robot & Attachments)		26kg	42kg	51kg	48kg	49kg
Control Method		PTP（Point to Point), CP（Continuous Path)				
Interpolation		3-dimensional linear and arc interpolation				
Teaching Pattern		● Offline via a PC ● Direct via an optional teaching pendant				
Screen Display Options	Unit	mm, inch				
	Languages	● Dedicated PC Software: English, German, Japanese, Simplified Chinese, Traditional Chinese ● Teaching Pendant: English, German, Japanese, Italian, Spanish, French, Korean, Simplified Chinese, Traditional Chinese, Czech, Vietnamese				
Program Capacity		999 Programs				
Database Capacity [3]		Up to 32,000 points				
External Input/Output	I/O-SYS	16 Inputs/ 16 Outputs (using a dedicated I/O for depaneling)				
	I/O-1 [4]	8 Inputs/ 8 Outputs (including 4 relay outputs) *optional				
	I/O-MT [4]	Controls up to 2 external motors *optional				
	I/O-S	Interlock device connector *optional				
	Fieldbus	CC-Link / DeviceNet / PROFIBUS / PROFINET / CANopen / EtherNet/IP *optional				
	COM1	RS232C 1ch （For external devices, COM1)				
	LAN	Ethernet connector for PC (connect to JR C-Points II software, operate the robot using control commands)				
Power Source		AC100～120V±10%/ AC200～240V±10% (single phase)				
Power Consumption		250W				
Operating Environment Temperature		0～40℃				
Relative Humidity		20～90% (without condensation)				
Supplied Air Pressure [5]		0.5Mpa （5kgf/cm^2） *Dry Air				
Air Consumption Volume [6]		200Nℓ/min				
Spindle Motor	Drive Method	DC Brushless Motor				
	Rated Output	21W				
	Rated Rotating Speed	40,000r/min				
	Chuck	Collet Chuck Method （φ3.175mm)				
Router Bit Gauge		φ0.8mm				
Vacuum		Ejector Method				
Filter Box Dimensions		W215xD305xH305mm				
Applicable Board Materials		Glass Epoxy, Paper Phenol, etc. （maximum board thickness 1.6mm)				

<Notes>

*1 Maximum speed can vary depending upon conditions.

*2 Repeatability was measured at a constant temperature for the robot unit only and does not represent a guarantee of absolute precision.

*3 Point data memory capacity reduces as additional function data settings/point job data/sequencer data are added, due to the shared data storage area.

*4 For the JR3203ERT choose only one optional add-on I/O-1 or I/O-MT.

*5 Be sure to use dry air. Supplying air containing moisture or oil can damage the device.

*6 If the air volume is low, the vacuum will lose pressure, thereby reducing its dust collection efficiency.

*7 The JR3503ERT and JR3603ERT do not come with a safety cover. Please prepare on the end-user's side. Also, the JR3503ERT and JR3603ERT are not declared CE compliant for import into the EEA.

<Standard Accessories>

・ Power Cord　　・ Spindle Motor Set　　・ Router Bits (cutters)　　・ Filter Unit　　・ Vacuum Nozzle (Spare)

・ I/O-S Connector　　・ Safety Cover (except for JR3503ERT and JR3603ERT)　　・ Switchbox　　・ Operation Manual （CD-ROM)

<Options>

・ Teaching Pendant　　・ I/O-1 Cable　　・ I/O-MT Cable　　・ PC Software （JR C-Points II）Windows® 7/Windows® 8.1/Windows® 10 Compatible

・ USB Camera Set（Includes: USB Camera (Watec), USB Cable, Ferrite Core, Mark Sticker, etc.)

• Before using your robot, read the operation manual and be sure to use the robot correctly.
• Specifications may change without notice to improve product quality.
• If you have any questions, please contact us at the telephone number listed below, or visit our website.

Janome Sewing Machine Co., Ltd.

Industrial Equipment Sales Division

1463 Hazama-machi, Hachioji-shi, Tokyo 193-0941

Tel: +81-42-661-6301 FAX: +81-42-661-6302

E-mail : j-industry@gm.janome.co.jp

URL: http://www.janome.co.jp/industrial.html