

## Router Cutting Method Depaneling Robot **JR3000ERT / EBV**

### Space Saving

### No Dust Collector/No PLC

No need to prepare a separate dust collector or PLC. Our built-in simple PLC function makes communicating with external devices easy.

### Smooth Path Control

### Cuts Complicated Shapes

Highly functional robot with CP (continuous path) control effectively cuts on curved lines and angles.

### Know When to Replace the Bit

### Router Wear Signal

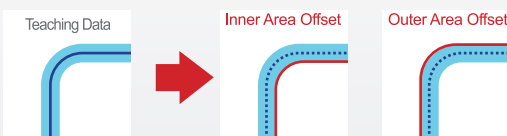
We've added an indicator to display router bit sharpness. When the robot's cumulative work time exceeds your set limit, the switchbox LED shows it is time to replace the bit.

\*For the JR3303EBV you can set cumulative work time (hours), total cutting distance or number of run cycles.

### Use CAD for Accurate Cutting

### Tool Offset Function

We've added an editing function for offsetting the router bit diameter. You can also incorporate DXF files, Gerber data and JPEG file for easy and precise cutting.

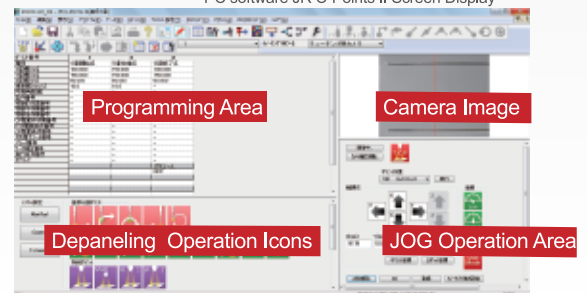


### Easy Router Positioning

### 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.

PC software JR C-Points II Screen Display

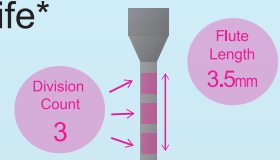


## New JR3303EBV functions for reducing your operating cost

### Extended Router Bit Life\*

Set your flute length (default 3.5mm) and division count (2 to 9), and increase your router bit life up to 9 times.

\*Varies according to the division count you set.

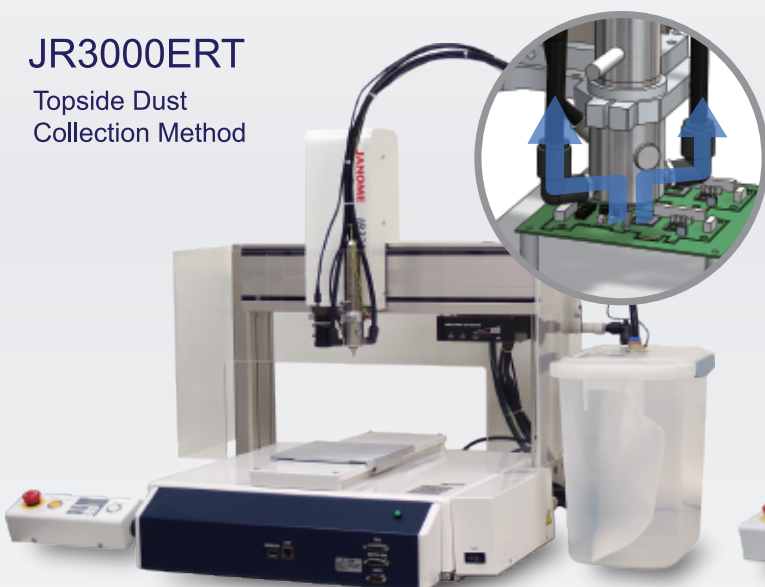


### Less Frequent Spindle Maintenance

Dust particles are collected from below, without burdening the spindle motor, which in turn needs maintenance less frequently than the topside dust collection method.

## JR3000ERT

Topside Dust Collection Method



## JR3303EBV

Underside Dust Collection Method  
Patent Pending



# Specifications

Model		JR3203ERT	JR3303ERT (EBV)	JR3403ERT	JR3503ERT	JR3603ERT
Depaneling Range Limit	X & Y Axes	195×190mm	295×315mm	395×395mm	505×505mm	505×615mm
	Z Axis	35mm	90mm (- + <sup>7</sup> )	82mm	95mm	95mm
Max. PTP Speed <sup>*1</sup>	X & Y Axes	700mm/sec	900mm/sec (800mm/sec)	900mm/sec		
	Z Axis	250mm/sec	400mm/sec			
Max. CP Speed <sup>*1</sup>	XYZ Combined	600mm/sec	850mm/sec			
Repeatability <sup>*2</sup>	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 (W618×D602×H659mm)	W647×D640×H665mm	W678×D731×H665mm	W790×D731×H665mm
Weight (Robot & Attachments)		26kg	42kg (50kg)	Single Column: 48kg Double Column: 51kg	48kg	49kg
Control Method		PTP (Point to Point), CP (Continuous Path)				
Interpolation		3-dimensional linear and arc interpolation				
Teaching Pattern		<ul style="list-style-type: none"> <li>● Offline via a PC</li> <li>● Direct via an optional teaching pendant</li> </ul>				
Screen Display Options	Unit	mm, inch				
	Languages	<ul style="list-style-type: none"> <li>● Dedicated PC Software: English, German, Japanese, Simplified &amp; Traditional Chinese</li> <li>● Teaching Pendant: English, Japanese, German, Italian, Spanish, French, Korean, Simplified &amp; Traditional Chinese, Czech, Vietnamese</li> </ul>				
Program Capacity		999 Programs				
Database Capacity <sup>*3</sup>		Up to 32,000 points				
External Input/Output	I/O-SYS	16 Inputs/ 16 Outputs (using a dedicated I/O cable for depaneling <sup>*8</sup> )				
	I/O-1 <sup>*4</sup>	8 Inputs/ 8 Outputs (including 4 relay outputs) *optional (included as a standard accessory with the JR3303EBV)				
	I/O-MT <sup>*4</sup>	Controls up to 2 external motors *optional				
	I/O-S	Interlock device connector				
	Fieldbus	EtherNet/IP / PROFINET / CC-Link / DeviceNet / PROFIBUS / CANopen *optional				
	COM	RS232C 1ch (For external devices, COM1) *COM2 and COM3 are optional.				
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°C				
Relative Humidity		20~90% (without condensation)				
Supplied Air Pressure <sup>*5</sup>		0.5~1.0Mpa (5~10kgf/cm <sup>2</sup> ) *Dry Air				
Air Consumption Volume <sup>*6</sup>		200N l/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		W215×D305×H305mm				
Applicable Board Materials		Glass Epoxy, Paper Phenol, etc. (maximum board thickness 1.6mm)				

\*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. Make sure to supply an air volume of at least 200Nl/min.

\*7 The workpiece mounting height is fixed with the JR3303EBV, therefore the Z-Axis moving range is not set.

\*8 The JR3303EBV is connected via I/O-1.

## <Standard Accessories>

- Power Cord
- Spindle Motor Set
- Router Bits (cutters)
- Filter Unit
- Vacuum Nozzle (Spare)
- Safety Cover (except for JR3503ERT and JR3603ERT)
- Switchbox
- Operation Manual (CD-ROM)
- I/O-S Connector
- Wrench

## <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 (Water), USB Cable, Ferrite Core, Mark Sticker, etc.)
- Safety Cover (for JR3503ERT only)

### JR3203ERT

Single Column Type



### JR3303ERT

Double Column Type



### JR3403ERT

Single Column or Double Column Type



### JR3503ERT

Single Column Type

### JR3603ERT

Single Column Type

### JR3303EBV

Double Column Type



\*For the JR3403ERT, only the Double Column Type is declared CE compliant for import into the EEA.

**If you would like us to test cut your PCB, please contact us!**

• 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.

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