

# EPSON RS-Series Robots

EPSON®  
EXCEED YOUR VISION

## High Performance SCARA Plus

- New, Unique Work Space Design
- Industry Leading Work Envelope Usage
- Arm Lengths 350 and 550mm
- Superior Cycle Throughput
- Zero Footprint Robot
- Extremely Flexible for Cell or Line Assembly
- ISO 3 Clean & ESD Options
- Fully Integrated Options including:  
Vision Guidance, .Net Connectivity, EtherNet/IP,  
DeviceNet, Profibus, Expansion I/O and more



## Industry Leading Work Space Design

EPSON RS-Series robots are the most unique and flexible SCARAs available in the market today. Exclusive to the RS-Series robots is our new work space design which maximizes work envelope usage. By designing the arm structure so that Joint 2 can maneuver under Joint 1, RS-Series robots utilize the entire workspace underneath the arm. As a result, there is no lost space in the center of the work envelope. No other robot vendor offers a 350mm SCARA arm which can work on pallets as large as 494mm x 494mm. A pallet size this large would normally require a SCARA arm which is almost double the size. Imagine now being able to use a 350mm arm for applications that used to require a much larger 750mm arm – What a great saving of valuable floor space!

RS-Series are literally zero footprint robots. They are capable of easy integration into compact assembly cells. The unique work space design of RS-Series robots improves cycle time vs. other “old” SCARA designs - With the ability to maneuver back under itself for the shortest movements possible instead of having to move around itself, EPSON RS-Series robots deliver superior cycle rates. This means more parts processed in less time, while using a fraction of floor space which results in more profits for our customers.

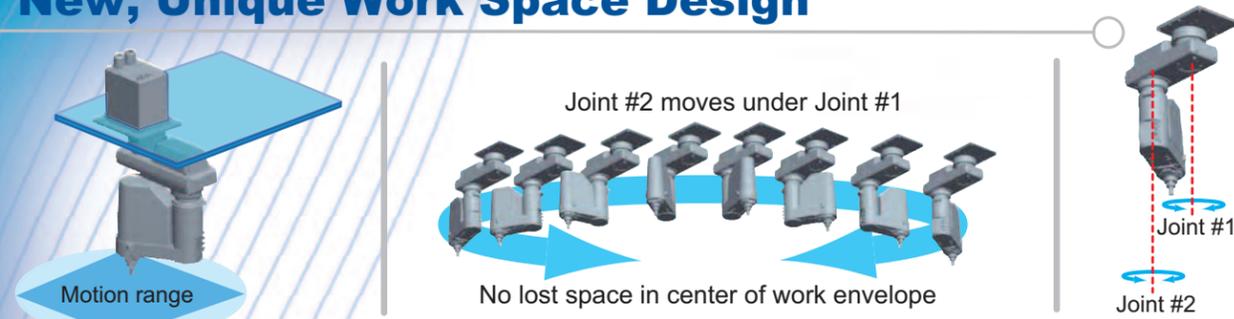
All these exclusive features make the EPSON RS-Series robots the most versatile and inimitable SCARAs available in the market today. Enjoy all the benefits of a typical SCARA robot plus more!



# The Best Just Got Better

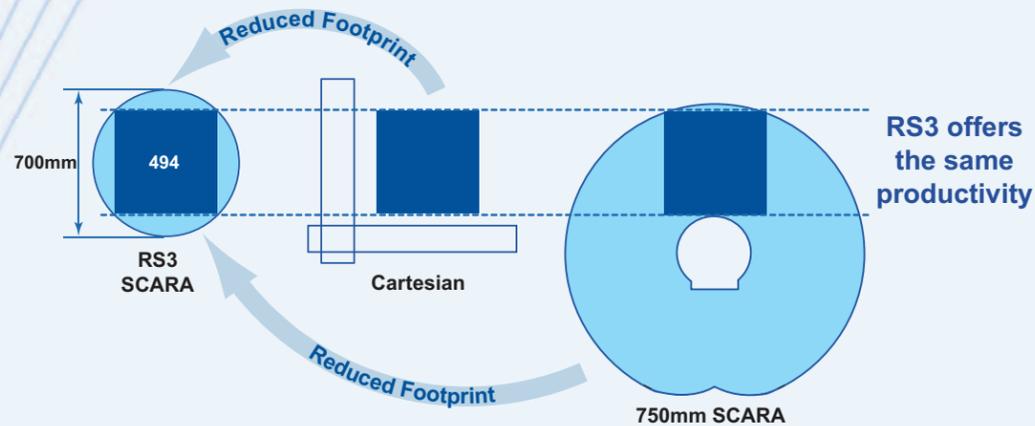
# EPSON RS-Series Robots - Series High Performance SCARA Plus

## New, Unique Work Space Design



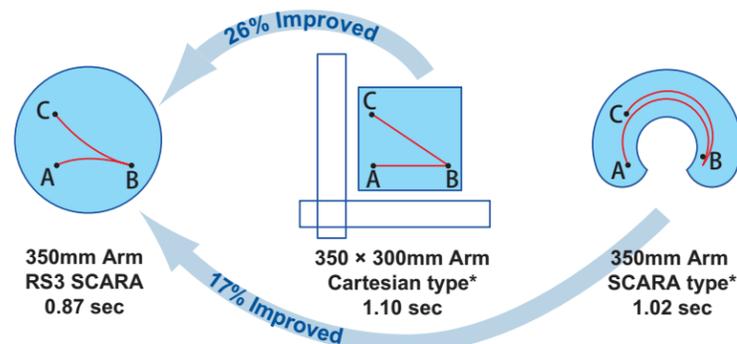
With a new innovative arm structure the RS-Series robots utilize the entire workspace underneath the arm, defeating the "old" SCARA design limitations of lost space in the center of the work envelope.

## Zero Footprint Robot



With the ceiling mount design and the 100% workspace utilization, RS-Series robots are a great alternative to cartesian, gantry and typical SCARA robots because they literally have a zero footprint - saving you valuable floor space.

## Superior Cycle Throughput



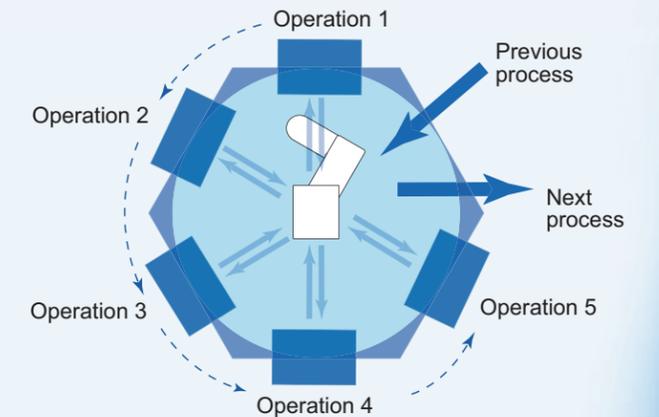
RS-Series robots maneuver under themselves for the shortest movements possible, delivering superior cycle rates.

\* Current EPSON Robots

## Optimized Workcell Design Examples

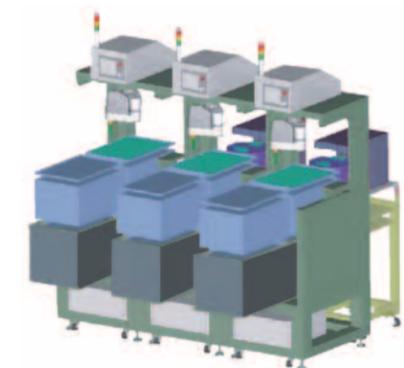
### Stand Alone Cell Design

The unique work envelope of EPSON RS-Series robots allow for unprecedented design flexibility with over 360 degrees of axis rotation for omni directional access. This makes RS-Series robots perfect for process heavy applications where large quantities of parts are presented to process or testing stations.



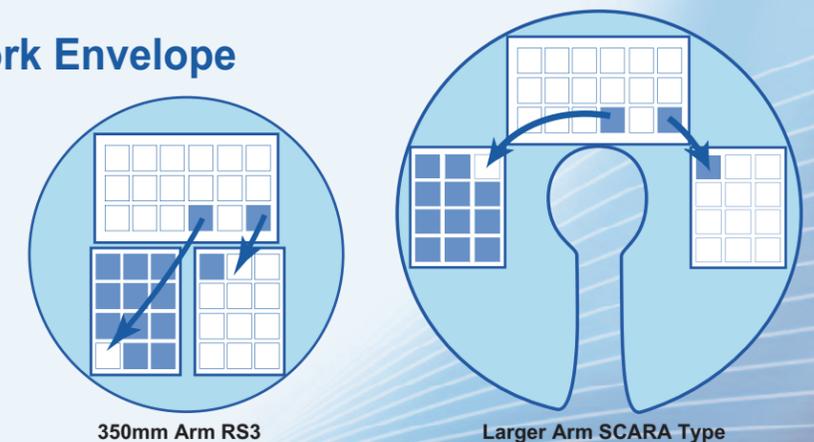
### Assembly Line Design

EPSON RS-Series robots are capable of easy integration into extremely compact line design layouts due to the unique workspace design, zero footprint and ceiling mount configuration.



### Multiple Pallets within Work Envelope

The new work space design of RS-Series robots allows for multiple pallets to be placed close together, maximizing the use of valuable floor space while also reducing cycle times.



# RS-Series Specifications

EPSON ROBOT MODEL			RS3-351	RS4-551
Arm Length (mm)		Horiz. (J1 + J2)	175 + 175 = 350	275 + 275 = 550
Payload (kg)		Max. / Rated	3 / 1	4 / 1
Repeatability	mm	J1 + J2	+/-0.010	+/-0.015
		J3		+/-0.01
	deg	J4		+/-0.01
Cycle Time w/ 1kg (sec)			0.34	0.39
Max. Operating Speed	mm/sec	J1 + J2	6,237	7,400
		J3		1,100
	deg/sec	J4		2,600
Motor Wattage (W)			400 / 200 / 150 / 100	400 / 400 / 150 / 100
Insertion Force			150N	
U inertia	kg·m <sup>2</sup>	Max. / Rated	0.05 / 0.005	
Axis Motion Range	Ceiling Mount	J1 (deg)	+/-225	
		J2 (deg)	+/-225	
		J3 (mm)	130*1 (100)*2	
		J4 (deg)	+/-720	
User Lines	Electric		15 lines	
	Air		ø4 x 1, ø6 x 2	
Z Axis Diameter (mm)			ø16	
Mounting Hole			95 x 95 x 160 (6-M6 @ 2 x 3)	
Weight (kg)			17	20
Environmental	Temperature		5 - 40 deg C	
	Humidity		10 - 80% (non condensing)	
Optional Configurations			ISO 3 Clean & ESD	
Robot Cables (Meters)			3M (standard) / 5M (optional) / 10M (optional)	
Available Controllers			Micro PowerDrive RC180 PC Based Controller RC620+	

\*1 Standard configuration

\*2 Clean & ESD configuration

## EPSON Robots

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Rev: EPSONRS-SeriesA

Available  
with 2 Different  
Controllers



**Micro PowerDrive  
RC180**



**PC Based Controller  
RC620+**



**RS3-351**

**RS4-551**