

Compact 6 Axis Robots

New, Unique SlimLine Design

- Industry Leading Cycle Rates
- Best in Class Motion Range
- High Rigidity Arm = Ultra High Speed
- Leader in Compact 6 Axis Robots
- Robust SlimLine Design for Increased Flexibility
- Compact Wrist Design for Superior Agility
- ISO 3 Clean & ESD Compliant Models Available

EPSON C3 robots lead the industry with best in class cycle time, precision and motion range. They are high speed, compact 6 axis robots that provide superior performance for even the most demanding and complex applications.

Unique to the C3 is the new SlimLine design which features a slim body and compact wrist pitch axis design. This allows the robot to easily reach into confined and restricted work spaces from many angles with smooth motion not achievable with competitive models. The SlimLine body and compact wrist of the C3 enables greater motion range and less mechanical restrictions, making C3 robots the most compact and flexible 6 axis robots available in the market today.

The tight integration of powerful motors and amplifiers along with ultra high resolution feedback and superior controls provide unmatched motion performance including higher acceleration and deceleration rates as well as advanced linear interpolated motion. All 6 joints of the C3 are on average 32.4% faster than equivalent competitor models in it's class. The J5 axis is exceptionally advanced and is up to 43.9% faster than competitive models.

EPSON C3 robots are ideal for small parts assembly, dispensing, lab automation, medical device assembly, machine tending, material handling, packaging, electronics and many other applications.

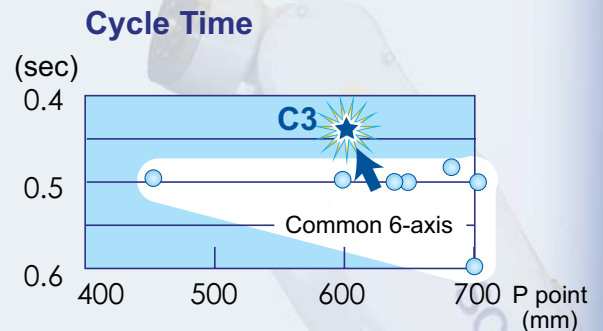


Robust SlimLine Design

Industry Leading Cycle Rates

C3 robots are up to 43.9% faster than similar sized competitor models. With the ability to maximize part throughput for even the most demanding cycle time requirements C3 robots lead the industry with best in class cycle rates. This means more parts per minute and higher profits.

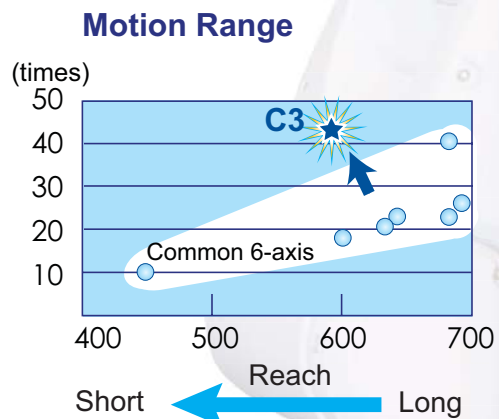
Fast
↑
Cycle time
↓
Slow



Best in Class Motion Range

The unique new SlimLine Design of the C3 allows for increased motion range. The slim body and compact wrist provide maximum work envelope usage with an extremely compact footprint.

High
↑
Motion range to footprint
↓
Low



ISO 3 Clean & ESD Compliant Models Available

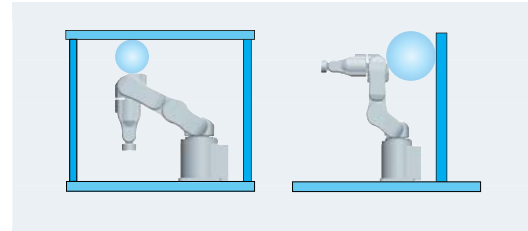
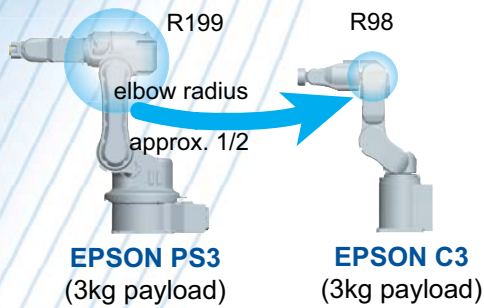
C3 robots are available in ISO 3 Clean configurations and are always ESD compliant. This makes the EPSON C3 ideal for those sensitive applications where electrostatic discharge can create defective parts such as in the electronics industry.



EPSON C3

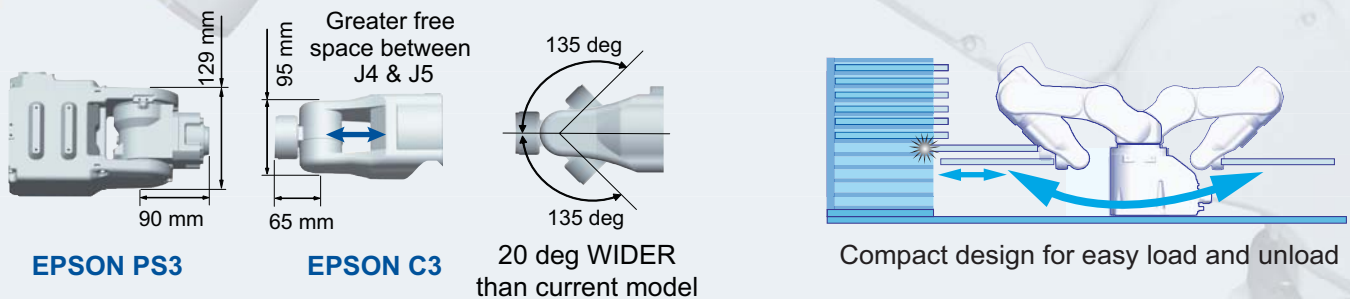
6 Axis Robots

New, Unique SlimLine Design

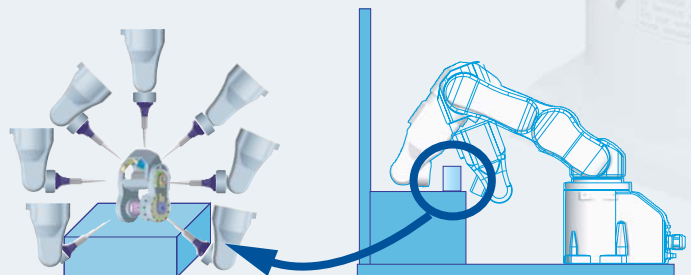


The enhanced new slim body and compact wrist design of the C3 allows for greater motion range and less mechanical restrictions. Designed for maximum performance, C3 robots have a good combination of high quality components for light weight arms and high rigidity. Furthermore, user bolt patterns have been added on each axis, for easy mounting of peripheral equipment. C3 robots are the compact footprint champion and the most flexible 6 axis robots available in the market today.

Compact Wrist Design



The unique compact wrist pitch axis design enables C3 robots to easily reach into confined and restricted work spaces from many angles with smooth motion. The increased motion range of the pitch axis allows superior flexibility for the end of arm tool to accomplish extremely complex applications.



EPSON C3 Specifications

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EPSON ROBOT MODEL		C3 6 Axis
Configuration		Articulated 6 Axis
Mounting Configurations		Table Top, Ceiling, Angled Wall (J1 motion restriction +/- 30 deg)
Payload		Rated 1 kg / Max. 3 kg (5 kg ^{*1})
Repeatability		+/-0.02 mm
Axis Rotation	J1 (Turning)	+/-170 deg
	J2 (Lower Arm)	-160 ~ +65 deg
	J3 (Upper Arm)	-51 ~ +225 deg
	J4 (Wrist Roll)	+/-200 deg
	J5 (Wrist Bend)	+/-135 deg
	J6 (Wrist Twist)	+/-360 deg
Horizontal Reach	to mounting face	665 mm
	to wrist center	600 mm
Vertical Reach	to mounting face	885 mm
	to wrist center	820 mm
Speed	J1	450 deg/sec
	J2	450 deg/sec
	J3	514 deg/sec
	J4	553 deg/sec
	J5	553 deg/sec
	J6	720 deg/sec
Cycle Time	1kg workload	0.37 sec
Allowable Moment	J4	4.41 N*m
	J5	4.41 N*m
	J6	2.94 N*m
Moment of Inertia	J4	0.15 kg*m ²
	J5	0.15 kg*m ²
	J6	0.1 kg*m ²
Motor Ratings	Axis 1	400 watts
	Axis 2	400 watts
	Axis 3	150 watts
	Axis 4	50 watts
	Axis 5	50 watts
	Axis 6	50 watts
Environment	Temperature	5 ~ 40 deg C
	Humidity	20 ~ 80% RH (no condensation)
	Other:	Keep away from: <ul style="list-style-type: none"> • Flammable /corrosive gases • Flammable /corrosive solvents • Water or oil and powder dust • Sources of electric noise
Weight		27 kg
User Lines		9 (D_sub) electric, 4 Pneumatic
Brakes		All axes
Safety Regulations		ANSI/RIA: R15.06-1999, CE JIS B 8433
Optional Arm Configurations	Clean and ESD	ISO 3 Clean & ESD
Available Controllers		Micro PowerDrive RC180 PC Based Controller RC620+

**Available
with 2 Different
Controllers**



**Micro PowerDrive
RC180**



**PC Based Controller
RC620+**

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*1 Some limitations exist at payloads above 3 kg. Contact EPSON Robots for details.
Specifications are subject to change without notice

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