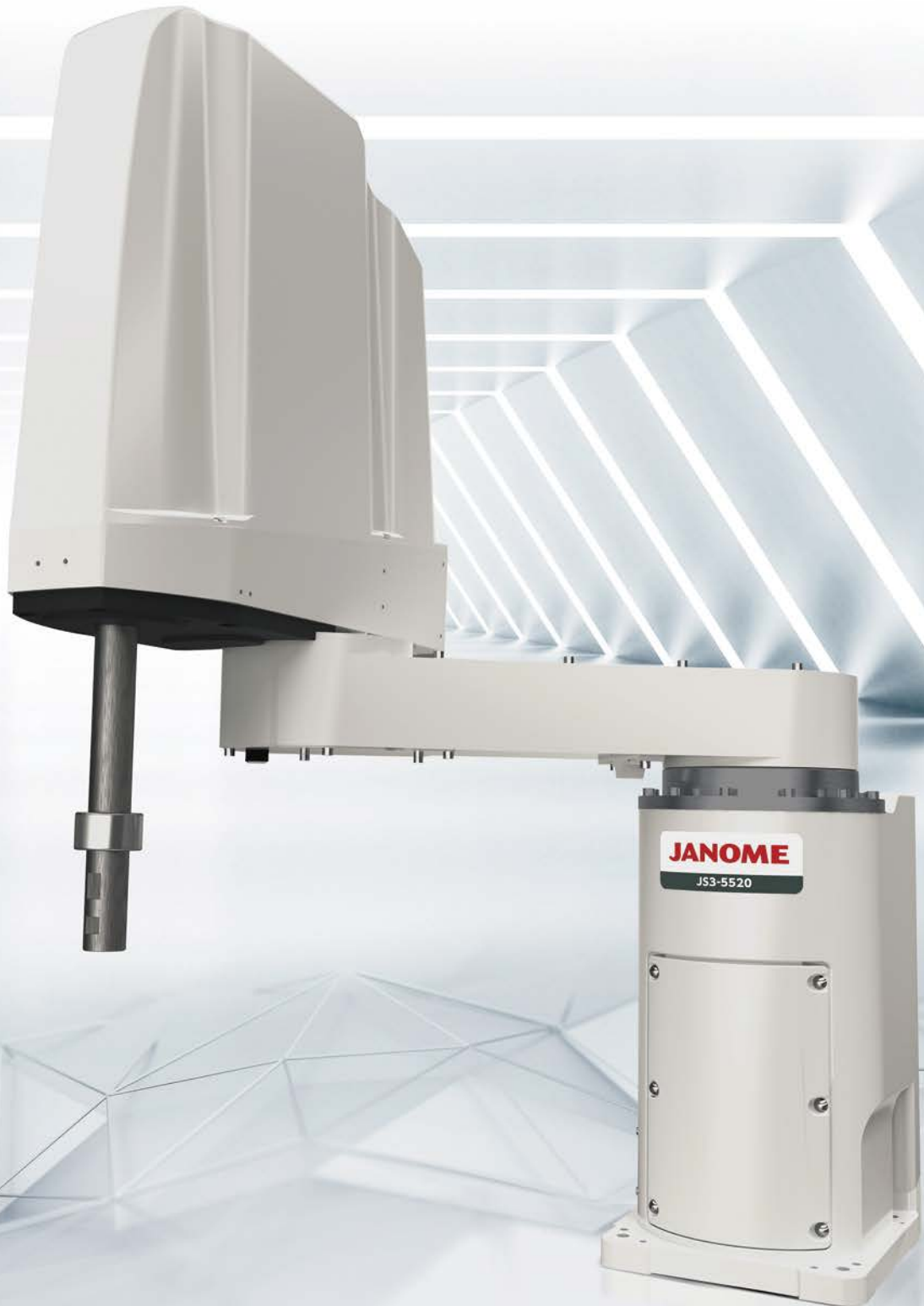


JANOME

SCARA ROBOT

JS3 SERIES



Cut costs with our user-friendly, fast and high

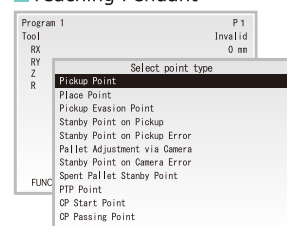
Highly rigid SCARA robot arm offers high speed, high precision and heavy payload capabilities! Using our own easy-to-use software, setup is simple, and the JS3 is useful for a wide range of jobs, from high-speed small parts pick-and-place transport to high-precision assembly.

User Friendly Teaching

Teach using our interactive teaching pendant or get a hands-on feel for the robot's operation teaching via our PC software. Shorten your equipment setup time and easily make fine adjustments while running the robot.

Standard
Pick & Place

Teaching Pendant

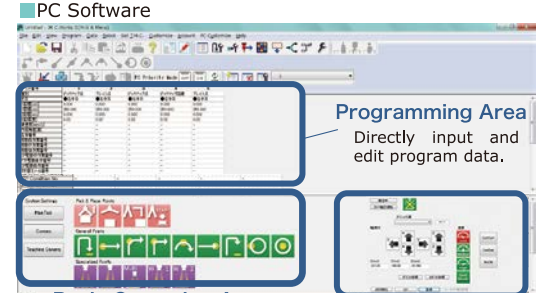


JOG to job position

Choose operation

Program complete!

PC Software




Programming Area
Directly input and edit program data.

Basic Operation Area
Easy Teaching : just click the icons.

Robot Operation Area

NEW
Pick & Place model has all the standard operations you need, plus convenient Pick & Place icons to save time during teaching.



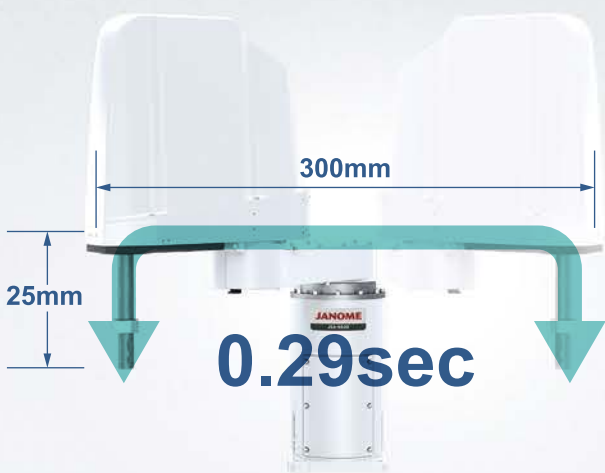


Cable Interference Prevention

Axis tip available with interior hand wiring and piping for compact, streamlined hand installation.

Works Fast!

Our standard cycle time is top class: 0.29sec, with a maximum speed of 8,300mm/sec, helpful for shorter tact times and greater efficiency.



Abundant Communication Functions

Our dedicated controller has a LAN port as standard equipment, and is compatible with 6 field networks.

- CC-Link
- DeviceNet
- PROFIBUS
- EtherNet/IP
- PROFINET
- CANopen



Built-in Simple PLC Function

The robot comes with its own simple PLC function for basic communication with external devices; no need for a separate PLC.

```

PLC Program 1
001 Id #genIn3
002 and #genIn5
003 out #genOut1
004 mps
005 Id #mv(1)
006 or #mv(2)
007 and #genIn2
008 out #genOut2
009 out #mv(3)
010 mrd
011 and #mv(3)
012 set #genOut3
    
```

Highly functional SCARA Robot!

With our easy-to-use teaching software, make fine adjustments while the robot runs.
 For high-precision assembly.



Model

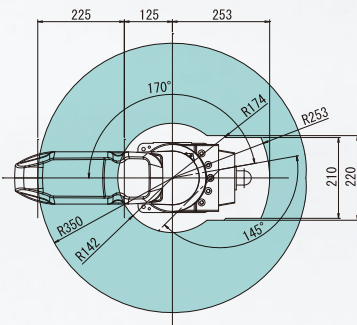
JS3 - 35 20

Maximum Arm Length J3 Axis Operating Range

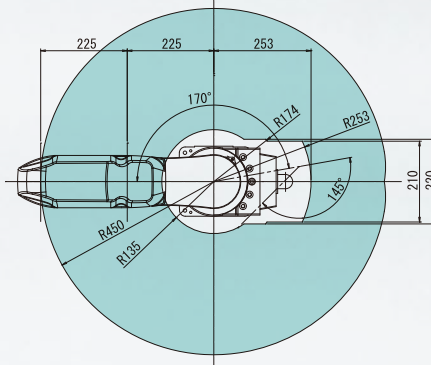
35: 350mm 20: 200mm
 45: 450mm
 55: 550mm

Operating Ranges

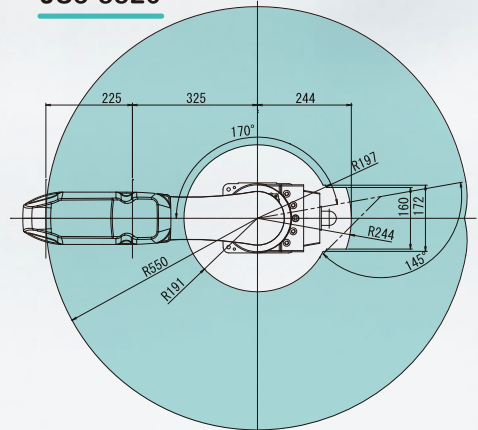
JS3-3520



JS3-4520



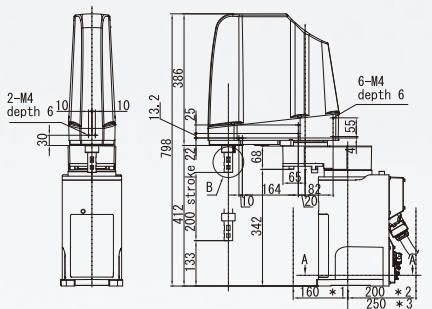
JS3-5520



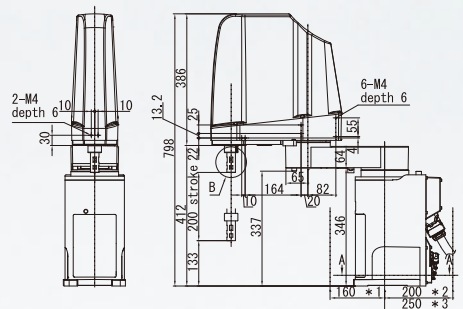
External Dimensions

Robot Unit

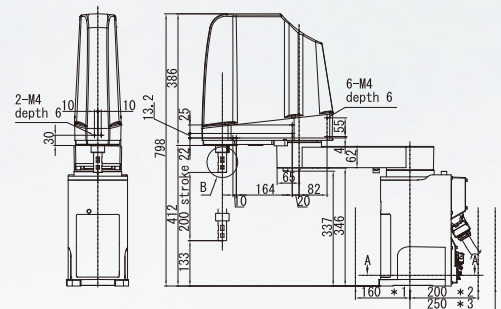
JS3-3520



JS3-4520



JS3-5520

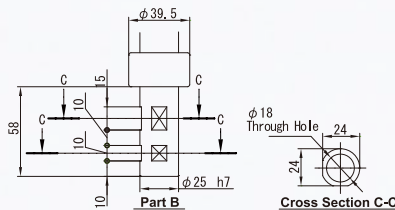
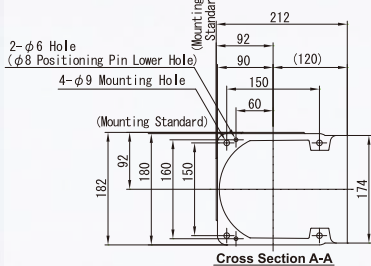


*1: Necessary clearance for battery replacement. *2: Necessary distance for the controller cable minimum bend radius. *3: Necessary clearance for controller cable connection.

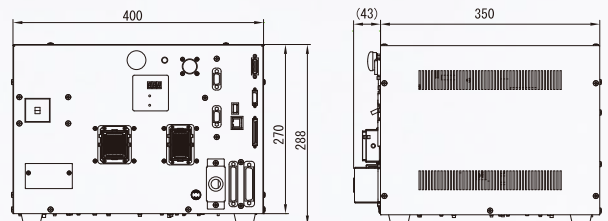
Robot Unit (Common to All Sizes)

Base Installation Point

Hand Attachment Point



Controller (Common to All Sizes)



Specifications

Model	JS3-3520	JS3-4520	JS3-5520
Number of Control Axes	4 Axes		
Drive Method	AC Servomotor		
Position Detection Method	Absolute Encoder		
Arm Length	Maximum (J1+J2)	350mm	550mm
	J1 Arm	125mm	325mm
	J2 Arm	225mm	
Operation Range	J1 Axis	340°(±170°)	
	J2 Axis	290°(±145°)	
	J3 Axis	200mm	
	J4 Axis	720°(±360°)	
Portable Mass	Maximum 6 kg (Rating 3kg)		
Acceptable Moment of Inertia	Maximum 0.12kgm ² (Rating 0.01kgm ²)		
Maximum Speed	J1+J2+J4 Axes Combined ^{*1}	6900mm/sec	8300mm/sec
	J3 Axis	2080mm/sec	
	J4 Axis	2500°/sec	
Standard Cycle Time ^{*2}	0.29sec		
Repeatability ^{*3}	J1+J2 Axes Combined	±0,010mm	±0,012mm
	J3 Axis	±0,010mm	
	J4 Axis	±0,004°	
J3 Axis Resistance ^{*4}	165N		
Robot Mass	36kg	36kg	37kg
Tool Wiring	<ul style="list-style-type: none"> · I/O-H 8 Hand Inputs/8 Hand Outputs · LAN Cable <100BASE-TX> 		
Air Piping	Primary: Ø6×2 Tubes, Secondary: Ø4×8 Tubes ^{*5}		
Control Method	PTP (Point to Point), CP (Continuous Path)		
Interpolation	3-dimensional linear and arc interpolation		
Teaching Method	Remote Teaching (JOG), Manual Data Input (MDI)		
Teaching Pattern	<ul style="list-style-type: none"> · Direct teaching using optional Teaching Pendant · Offline teaching using optional JR C-Points II PC Software · CAD Data (DXF, Gerber, jpeg) compatible 		
Program Capacity	Maximum 999 Programs		
Database Capacity ^{*6}	Maximum 32,000 Points		
Simple PLC Function	Maximum 1000 Steps		
Screen Display Languages	PC Software	English, Japanese, German, Chinese (both Simplified & Traditional)	
	Teaching Pendant	English, Japanese, German, Italian, Spanish, French, Korean, Chinese (both Simplified & Traditional), Czech, Vietnamese	
External Input/Output	LAN	For robot control via control commands and connection to JR C-Points II PC Software	
	MEMORY	USB Memory Connector (for saving and reading out teaching & customizing data, and for upgrading system software)	
	I/O-SYS ^{*7}	15 Inputs/14 Outputs	
	I/O-1 ^{*7}	18 Inputs/22 Outputs (including 4 relay outputs)	
	I/O-S	for safety device connection	
	I/O-H ^{*7}	8 Hand Inputs/8 Hand Outputs	
	COM1.COM2	RS-232C (External Device Control & COM Commands)	
	I/O-MT ^{*7} (Optional)	Motor Control, Auxiliary Axes 2 Channels	
	Field Networks (Optional)	CC-Link, DeviceNet, PROFIBUS, PROFINET, CANopen, EtherNet/IP	
	Other	Teaching Pendant Connector	
Power Supply	AC200~240V (single phase) ±10% (50/60Hz)		
Power Consumption	1600W		
Operating Environment	Environment Temperature	0~40°C	
	Relative Humidity	45~85% (no condensation)	
	Elevation	Not exceeding 1000m above sea level	

*1: This is the J1, J2 and J4 axes' maximum speed with a control point on a flat X-Y surface. (The control point is a position 30mm from the center of the J4 axis' rotation.)

*2: Value when bearing a 2kg load. Cycle time may increase when precision workpiece positioning is necessary or due to the robot's operating position(s).

*3: Repeatability is not a guarantee of absolute precision.

*4: The downwards pressing force at the tip of the load when the robot is bearing its maximum load and the J1, J2 and J4 axes are at rest.

An excess load error may occur if a pressing force is applied for an extended period of time.

*5: The Ø4 secondary piping is used when the optional solenoid valve is added.

*6: The point data memory capacity may reduce as additional function data settings/point job data/sequencer data are added, due to the shared storage area.

*7: Please choose either NPN or PNP polarity.

<Standard Accessories>

· Operation Manual(CD-ROM) · Short Connectors for (Teaching Pendant, I/O-S and I/O-SYS) · Robot to Controller Connector Cable

<Options>

· Teaching Pendant · Operation Box · Controller Power Cord · I/O-1 Cable & Connector · I/O-MT Cable & Connector
 · Solenoid Valve (NPN/PNP) · Hand Output Cable · Hand Input Cable · Curled Tube for Hand Cables · Built-in Hand Wiring & Tubing
 · External Wiring & Tubing Box · Mechanical Stopper for J1 Range Modification · J1/J2 Adjustment Tool · PC Software JR C-Points II(Windows®7/8.1/10 compatible)

• Before using the robot, please read the operation manual and make sure you are using 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.

C33-00(02.0)EN 2018.07-000

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