

# A-520i

## Applications

PLANNING SOLUTIONS



### Basic Description

The A-520i is a high-speed fouraxis, modular construction, electric servo-driven robot, designed for a variety of manufacturing and system processes. The FANUC Robotics' A-520i is engineered for precision, high-speed operation, user-friendly set-up, and maximum reliability.

### A-520i, the Solution for:

- ‡ Material handling
- ‡ Mechanical assembly
- ‡ Packing
- ‡ Machine load/unload
- ‡ Testing and sampling

### Features

- ‡ Axes speeds up to 720 degrees/sec.
- ‡ Brakes on axes 1 and 3
- ‡ 45 kg vertical force for part pressing operations
- ‡ Brushless AC servo motors minimize motor maintenance
- ‡ Direct-coupled drives on all axes
- ‡ Grease fittings on all lubrication points for quick and easy maintenance
- ‡ Sealed bearings and drives
- ‡ All motors, cables and tooling services are located internally for protection from environment.

### Benefits

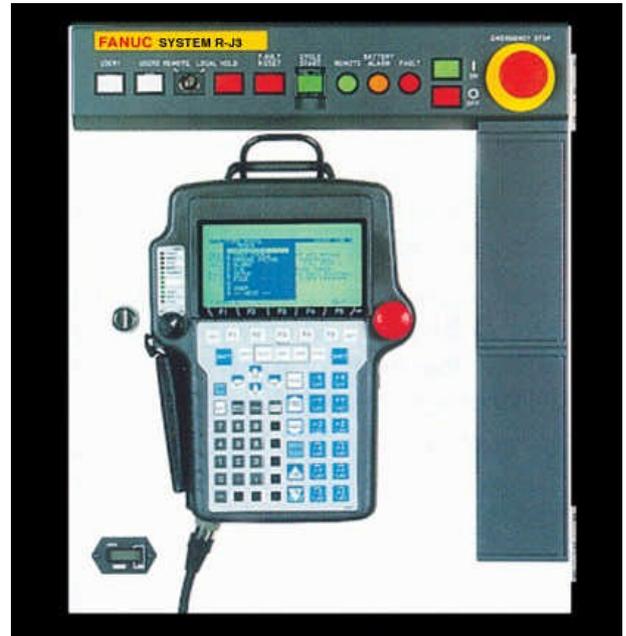
- ‡ SCARA (selective compliance assembly robot arm) design makes the robot extremely stiff in the vertical direction but gives it some lateral compliance for assembly applications.
- ‡ SCARA configuration provides very high-speed, precise positioning.
- ‡ Rear-located vertical axis improves clearance for restrictive installations.
- ‡ Low profile joint 3 arm increases clearance for restrictive installations.
- ‡ Low profile, small footprint increases installation flexibility.
- ‡ Hollow-joint construction encloses all cable routing to eliminate snagging.
- ‡ End effector connector built into robot shoulder reduces cable routing.
- ‡ Absolute serial encoders eliminate the need for calibration at power-up.

### Invert Mount Benefits

- ‡ Floor space savings
- ‡ Cycle time improvement
- ‡ Increased work envelope allows manipulation of larger parts
- ‡ Allows use of large tooling

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## A-520i Specifications

Items		
Axis	4	
Max. Payload (kg)	20	
Max. Reach (mm)	900	
Repeatability (mm)	± 0.05	
Interference radius (mm)	238 (floor), 50 (ceiling)	
Motion range (degrees)	J1	300 mm
	J2	300
	J3	300
	J4	540
Motion speed (degrees/sec.)	J1	800 mm/sec
	J2	350
	J3	350
	J4	720
Wrist moment (kgf·m)	J4	2.4
Wrist inertia (kgf·cm·s <sup>2</sup> )	J4	3.0
Mechanical brakes	Axis 1, 3	
Mechanical weight (kg)	300	
Mounting method	Floor, ceiling	
Installation environment	Temperature °C	0 to 45
	Humidity	Normally: 75% or less Short term (within a month): 95% or less No condensation
Vibration (m/s <sup>2</sup> )	4.9 or less	
IP Rating(s)	IP 54	
Ceiling mount	Requires reconfiguring mechanical unit	

