

High-speed SCARA robotic arm

Fast automated part handling is the key to achieving uninterrupted 24-hour production.



Patent Strategy

Patented station design ensures zero interference with machine operations and maintenance access.

Smart Machining

Reserved space for offline gauging with automated data feedback for precise tool offset compensation.

Flexible Integration

Supports Single-tray, Track, or Drawer-type layouts. Fully compatible with Syntec, Delta, and Mitsubishi systems.

High-Efficiency SCARA

High-precision multi-jointed SCARA arm with a robust vertical Z-axis for rapid, stable cycles.

High-Efficiency Automated Machining Unit for CNC Lathes

The Force One SCARA Automation System is engineered specifically for CNC lathes. By integrating a high-speed SCARA robot with a modular pallet system, it delivers stable and high-efficiency automated loading and unloading.

Featuring a patented mechanical configuration, the system is designed to avoid interference with the machine's safety doors. This ensures unhindered access for operation, maintenance, and cleaning while significantly boosting throughput and reducing labor dependency.

Ideally suited for batch production of small-to-medium parts, this system enables the rapid deployment of high-efficiency, smart machining cells.



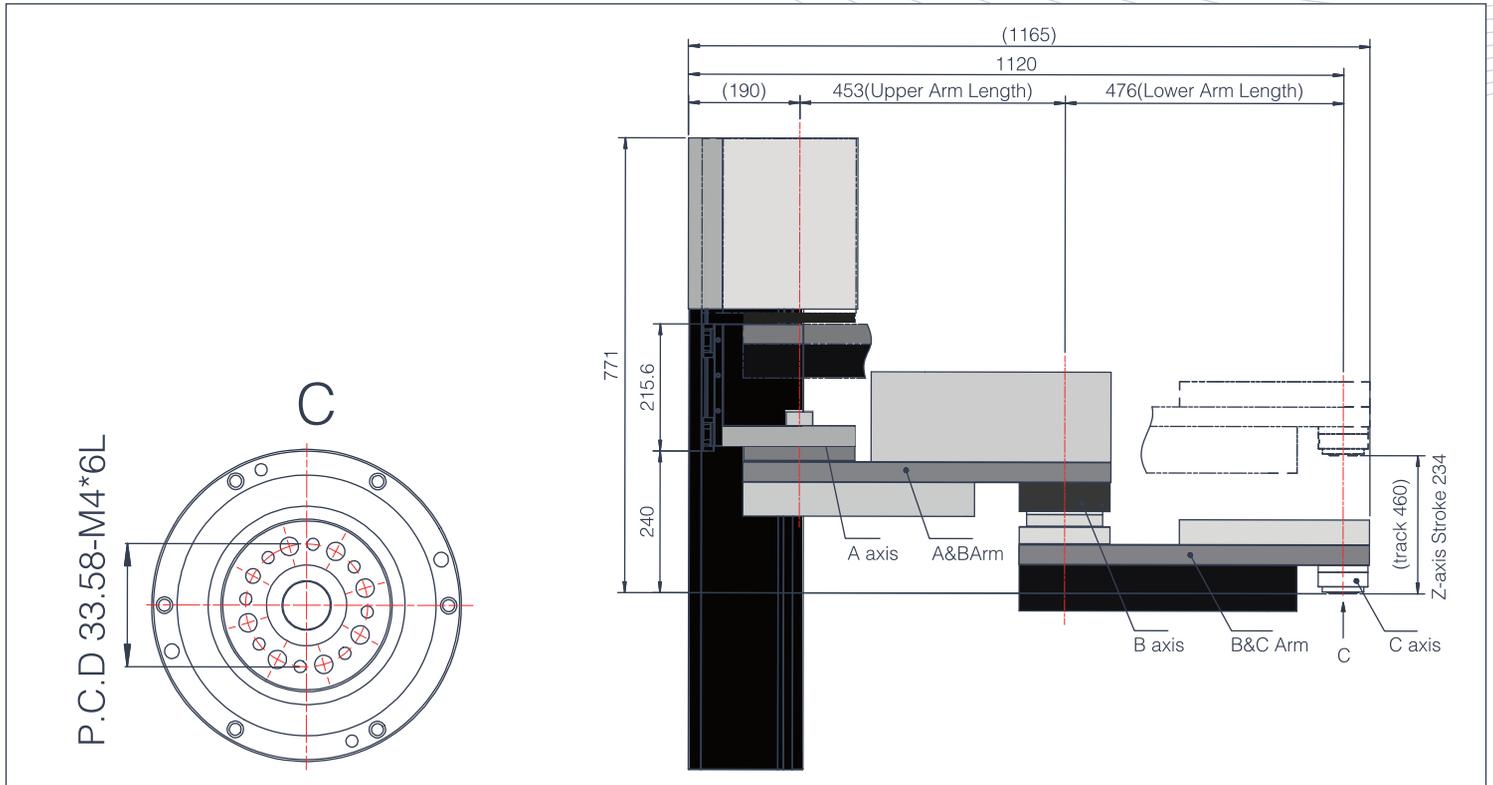
◀ Top view

Adaptable to multiple loader types to accommodate different production scales and part geometries.

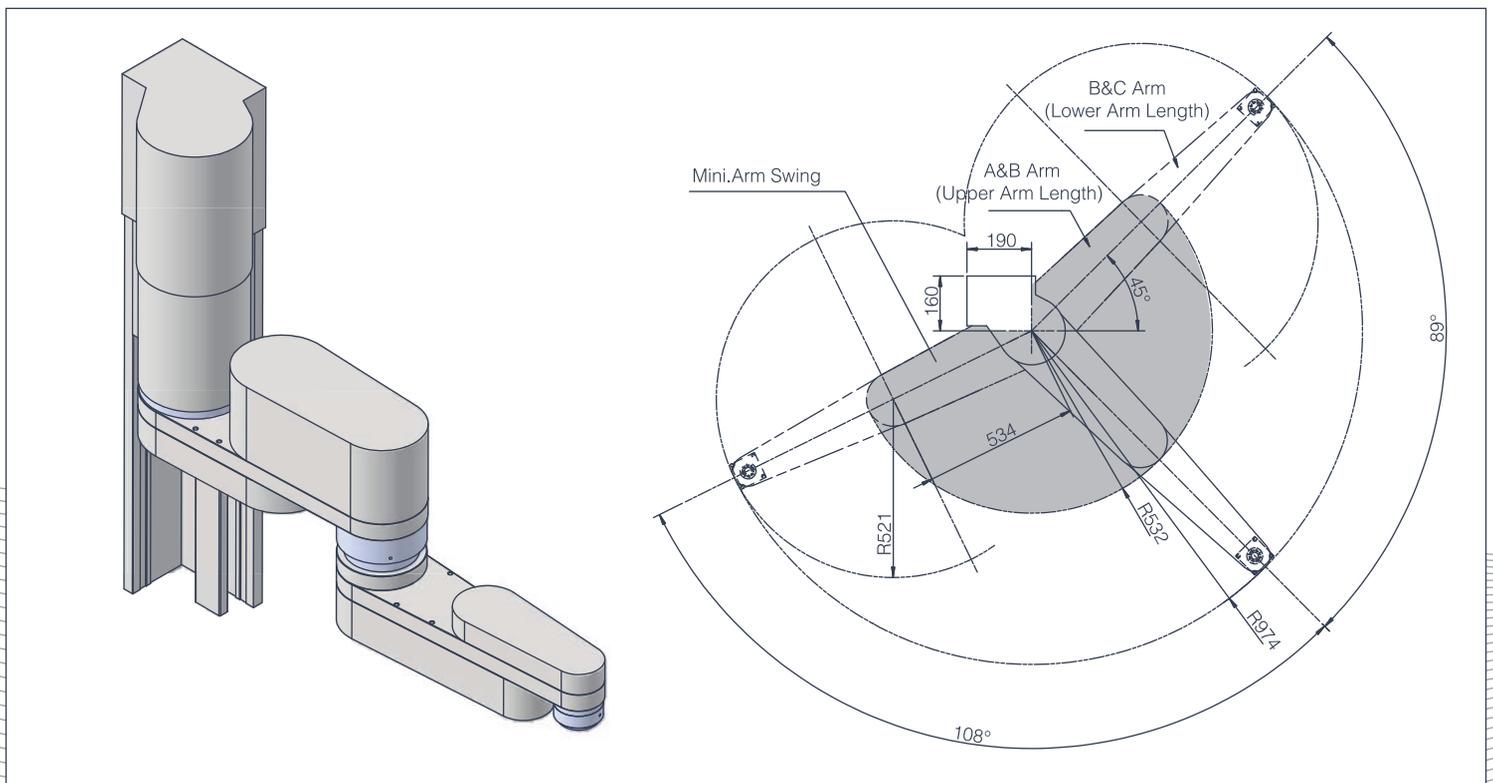


▲ CNC & Robot Loading Station

Relative Distance



Max. Rotation Range



Specifications

General Specifications			
Model	SC1000AP		
Loading capacity	15 kg		
Max. Working Radius	974 mm		
Control System	SYNTEC		
Mounting Interface (End-effector)	P.C.D. 33.5 (8-M4*6L)		
Rotational Axes			
Item	Axis A (Upper Arm)	Axis B (Lower Arm)	Axis C (Wrist Rotation)
Motor Power	400W	200W	200W
Motion Range	269* (180+899)	+3608 at A-axis 459 (ARM PASS).	+360°
Arm Length (Linkage)	454 mm	476 mm	-
Max. Speed (Est.)	180 /s	220 /s	450 /s
Linear Axis (Z-Axis)			
Item	Specification		
Function	Z-axis (Vertical Lift)		
Motor Power	750W (with Brake System)		
Driver/Electric Cylinder	SHENG LUNG SLME63 Type Electric Cylinder		
Operating Stroke	200 mm (Reference value)		
Max. Moving Speed	500 mm/s (Estimated value)		

Optional Accessories

- Single Tray Loader
Compact footprint with a simple structure; ideal for small to medium batch production.
- Carousel Loader
Multi-layer pallet configuration increases storage capacity and extends unmanned operation time.
- Flat Tray Loader
Designed for large or irregular workpieces with customizable layout options.
- Drawer Type Loader
Enables rapid manual replenishment and pallet exchange for enhanced operational convenience.



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