

The Apex product ranges have been widely operated worldwide giving Apex 25 years of accumulated marketing and manufacturing experience. The vision of our group leader and his relentless investment in modern precision machinery and sophisticated test instrument. Apex manufactures every possible component in house. Mass production systems that build product for stock and immediately delivery. The commitment to quality, price and delivery is unequalled by ANY competitors. This magnificent new facility, today allows Apex the great potential to develop more new products and key core components for the industry.



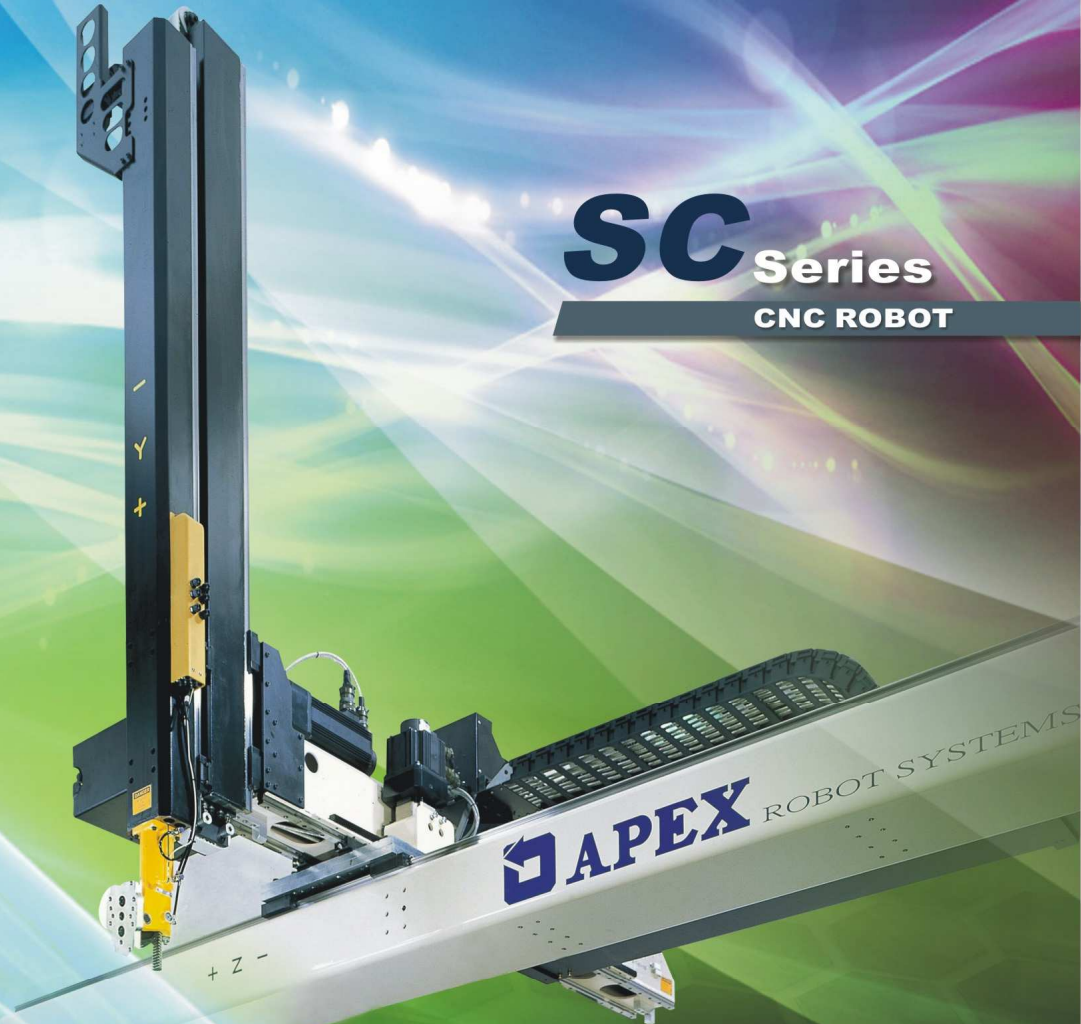
APEX DYNAMICS, INC.

No. 10, Keyuan 3rd Rd., Situn District, Taichung City
407, Taiwan (R.O.C.)
Tel: 886-4-23550219 Fax: 886-4-23550218
E-mail: sales@apexrobot.com
website: www.apexrobot.com

DAYA 04-24521567-2011.01.2000



APEX DYNAMICS, INC.



SC Series
CNC ROBOT

APEX ROBOT SYSTEMS

SC 750/950 SERIES

3 AXIS SERVO DRIVEN CNC ROBOT

- Light weight high speeds model for modern electrical injection molding machine.
- 3 axis CNC servomotor driven. Free tracking programming with pulse generator.
- Window XP base DSP control system with USB port. Easy to upload / download programs.
- All the necessary functions built in as standard. No extra charge.
- Able to storage teach program download or upload to PC through USB port.



All moving axis rides on hardened tool steel rail with bearing guide. Less friction quiet smooth movement ideal for high speeds application.

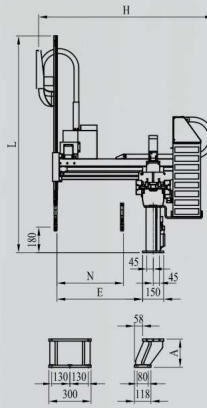
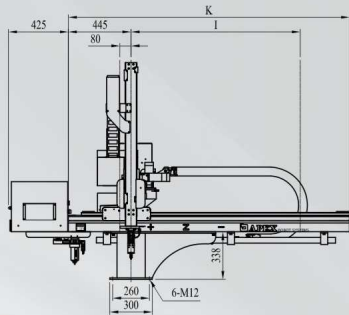


Alloy aluminum extrusion arm. Thin wall design for tight mold space and high speeds take-out.

SC750W

Mechanical Drawings

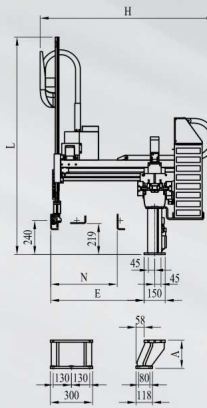
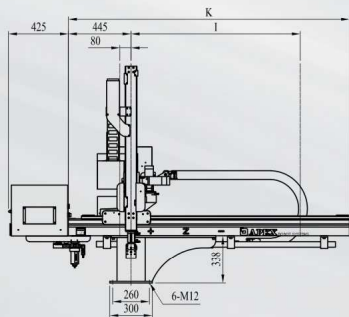
SC750G~SC950G



A
100
150
200
250
300
350

Model No.	E	H	I	K	L	N
SC750G	487	1121	1020	1814	1550	352
SC950G	607	1241	1300	2094	1750	472

SC750W~SC950W



A
100
150
200
250
300
350

Model No.	E	H	I	K	L	N
SC750W	543	1121	1020	1814	1550	352
SC950W	663	1241	1300	2094	1750	472

Technical Specifications

Model No.		Stroke (mm)			Max. Payload (Kg)	Net Weight (Kg)	Operating Air Pressure
		Crosswise (N)	Vertical	Traverse (l)			
SC750G	Single-stage with gripper	352	750	1020	3	180	5 bar
SC950G	Single-stage with gripper	472	950	1300	3	185	
SC750W	Single-stage with wrist	352	750	1020	3	185	
SC950W	Single-stage with wrist	472	950	1300	3	190	

Operation Voltage: AC 220V single phase

Application

14 spare inputs and 12 spare outputs for interfacing with other ancillary equipment.

1. Parts removal:

- (A) 3 Axis synchronised movement reduce complexity and cost to build end-arm-tooling.
- (B) Able to reach parts with hooks and undercuts using unconventional paths such as curves, etc.

2. Stack and array:

Each cycle can handle up to 9 stack areas with individual stack formats. Can also place parts onto 100 points on the same surface.

3. Insert and grid:

Each cycle can place 9 different insertion materials into the mould, fed from a single point, grid pallet, or multi-station.

4. 3D Path:

The robot can follow teaching point-to-point path to move.

It lets the track move smoothly and shorten the cycle time.

5. Inspection:

- Reject program: Detects signal from the moulding machine, set the reject part count and places part in different area.
- Inspection program: Places part in different area for QC inspection, for example every 100 cycles.
- Test-mould program: Allows checking of parts at the beginning of each automatic moulding cycle before cycle counter starts.
- Weight program: Checks part quality from electronic weigh scale and separates defect parts.
- Cycle counter: Counts the total number of moulding cycles. If counting good parts only, inspection cycle and defect parts are not included in count total.



Hand-Held Pendant

One key per function design is easy to use. Pulse generator manually moves the robot to designated location for safe and easy programming.

Multi-language support and conversation programming are user-friendly and guide the operator easily throughout all operations.

Each teachable program can store up to 500 steps and each step can hold 10 parallel motion sequences.

All speeds can be adjusted on a percentage scale.

SC SERIES

3 AXIS SERVO DRIVEN CNC ROBOT WITH TELESCOPIC ARM.

- 3 Axis synchronised movement CNC servo drive robot with telescopic vertical arm.
- Free tracking control programming with pulse generator.
- Rigid structure built for steady movement and precise positioning with heavy payloads.
- Multi-Function program built in as standard.



Telescopic



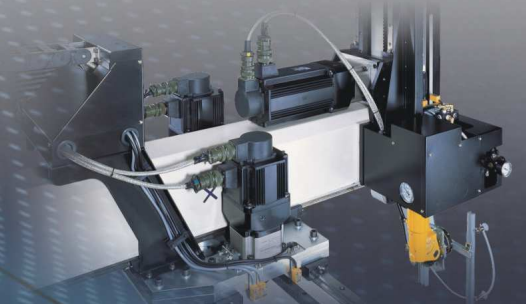
Single stage



Cable guide protection on all electrical wires and air hoses.



Positive servomotor drives with rack and pinion gear on 3 axis.



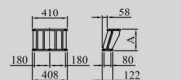
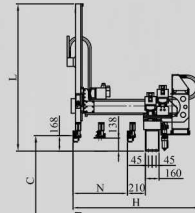
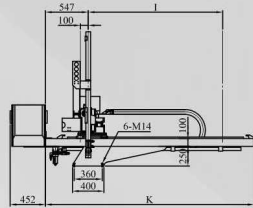
Rapid acceleration and deceleration reduces the cycle time, maintains positional precision, accuracy and repeatability.

Mechanical Drawings

+ Z -



SC900~SC1300

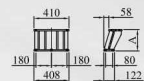
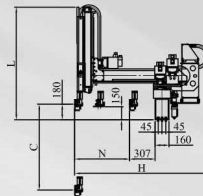
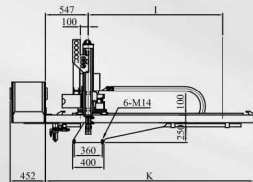


A
100
150
200
250
300
350

Model No.	C	H	I	K	L	N
SC900	900	1472	1710	2746	1739	600
SC1100	1100	1652	1950	2986	1939	780
SC1300	1300	1772	2130	3166	2139	900

Extension traverse available: 2600mm & 3000mm

SC900D~SC1300D

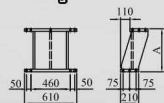
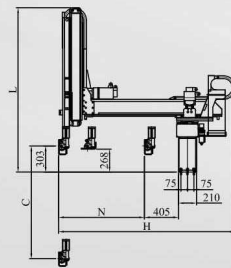
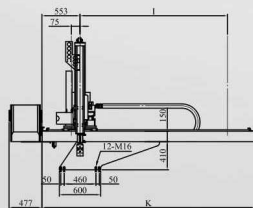


A
100
150
200
250
300
350

Model No.	C	H	I	K	L	N
SC900D	900	1569	1710	2746	1325	600
SC1100D	1100	1749	1950	2986	1405	780
SC1300D	1300	1869	2130	3166	1505	900

Extension traverse available: 2600mm & 3000mm

SC1500D~SC2000D

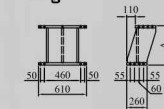
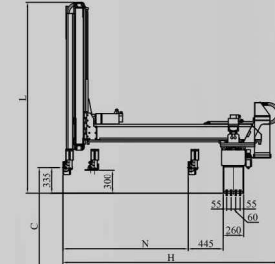
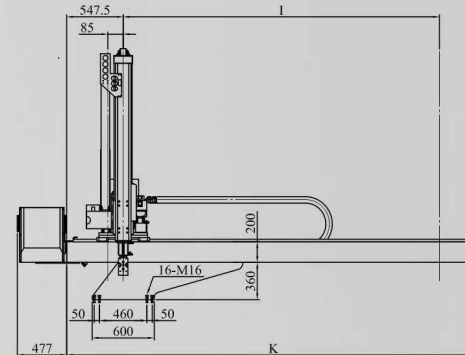


A
300
400
500

Model No.	C	H	I	K	L	N
SC1500D	1500	2058	2190	3156	1920	950
SC1700D	1700	2298	2310	3276	2040	1190
SC2000D	2000	2538	2490	3456	2160	1430

Extension traverse available: 3000mm & 3500mm

SC2500D~SC3000D



A
300
400
500

Model No.	C	H	I	K	L	N
SC2500D	2500	2750	3010	4005	2442	1550
SC3000D	3000	3170	3010	4005	2682	1970

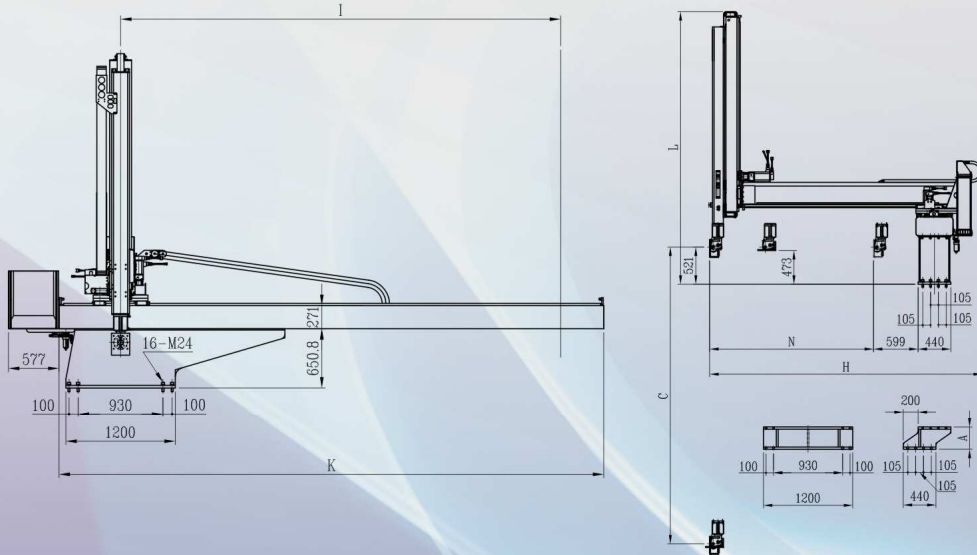
Extension traverse available: 4000 mm & 5000 mm

Technical Specifications

Model No.		Stroke(mm)			Max. payload (Kgs)	Net weight (Kgs)	Operating Air Pressure
		Crosswise(kick)(N)	Vertical(C)	Traverse(I)			
Sc900	Single-stage	600	900	1710	12	520	5 kg / cm ²
SC1100	Single-stage	780	1100	1950	12	530	
SC1300	Single-stage	900	1300	2130	12	540	
SC900D	Telescopic	600	900	1710	12	530	
SC1100D	Telescopic	780	1100	1950	12	540	
SC1300D	Telescopic	900	1300	2130	12	550	
SC1500D	Telescopic	950	1500	2190	30	710	
SC1700D	Telescopic	1190	1700	2310	30	730	
SC2000D	Telescopic	1430	2000	2490	30	750	
SC2500D	Telescopic	1550	2500	3010	50	980	
SC3000D	Telescopic	1970	3000	3010	50	1000	

Operation Voltage: AC 220V 3 phase

SC2500DH~SC4000DH



Model No.	C	H	I	K	L	N	A
SC2500DH	2500	3430	3360	4526	2970	1960	300
SC3000DH	3000	3430	3840	5006	3210	1960	400
SC3500DH	3500	3670	4320	5486	3450	2200	500
SC4000DH	4000	3670	4800	5966	3690	2200	600

Technical Specifications

Model No.		Stroke (mm)			Max. Payload (Kg)	Net Weight (Kg)	Operating Air Pressure
		Crosswise (kick)	Vertical	Traverse			
SC2500DH	Telescopic	1960	2500	3360	120	2310	5 kg / cm ²
SC3000DH	Telescopic	1960	3000	3840	120	2440	
SC3500DH	Telescopic	2200	3500	4320	120	2570	
SC4000DH	Telescopic	2200	4000	4800	120	2700	

Operation Voltage: AC 220V 3 phase



Equipped with AC brushless servomotors and individual control.
3 Axes can be synchronized move to designate point at the same time.
Accuracy within +/- 0.1mm.



Optional Touch Screen Pendant

- 8" Touch screen. AMD 500MHz CPU with DDR 512M Memory. Compatible with Window CE system and 512M CF memory card.
- Easy to operate with graphic symbol.
- Multiple languages can be selected.

Optional Accessories



SPI / Euromap plug



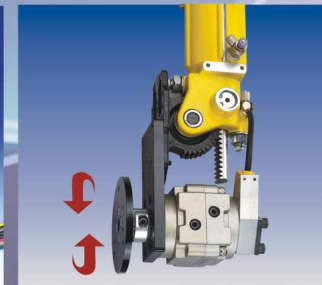
Additional vacuum generator



Pneumatic C axis rotation device on arm



End-of-arm tooling accessories



Pneumatic C axis rotation device on EOAT



C axis servo rotation device