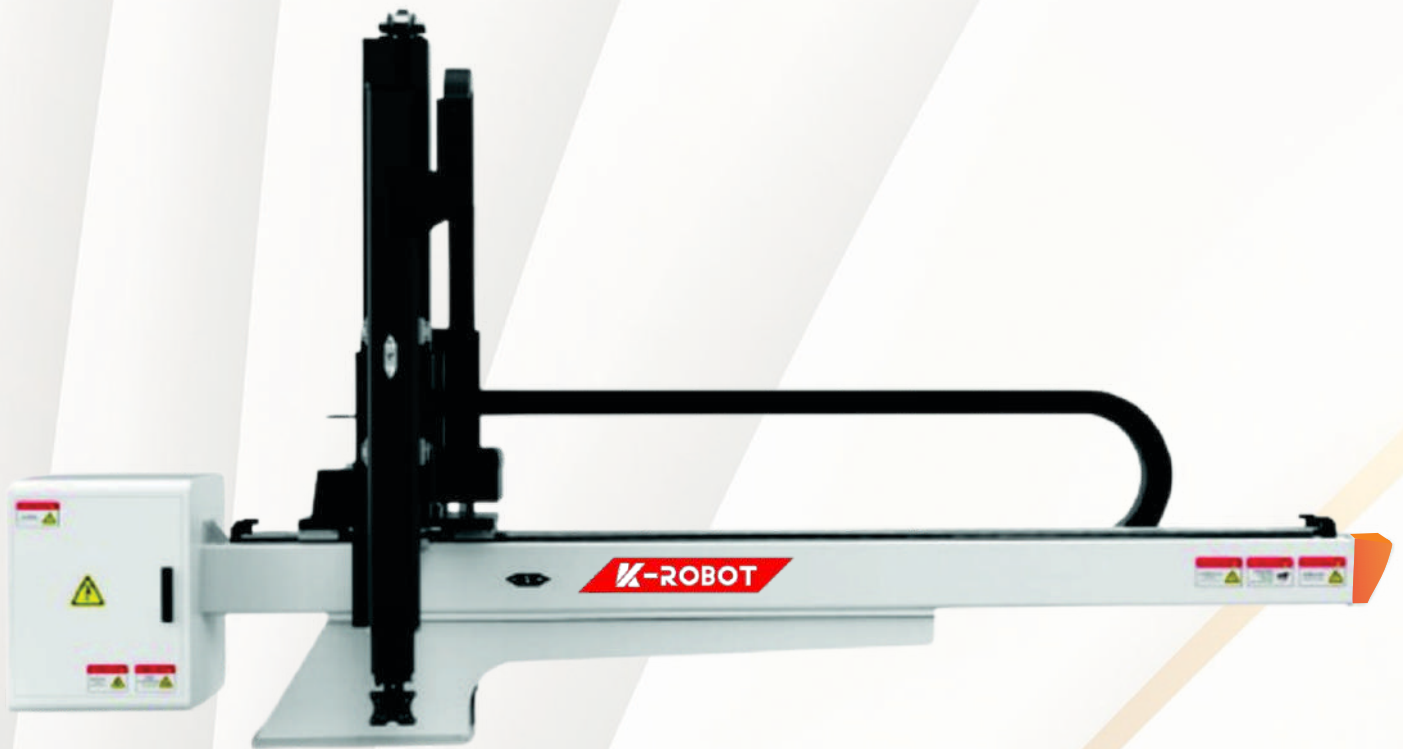


Kanehiro

ROBOT AND AUTOMATION SYSTEMS FOR INJECTION MOLDING MACHINES



K-ROBOT

<http://kanehiro-corp.com/en/>



Control System Architecture



Injection Molding Machine

30 - 1500 Ton



Arm Payload

2 - 30 kg



Mechanical Structure

2 - 30 kg



Servo Motor

Absolute Encoder / Incremental Encoder



Field Bus Protocol Communication

CANopen / EtherCAT



Control System

Professional Closed Loop System



Flexible Configuration

Meet the different budgets

S

ST

FT

LT

Lite

Pro

Max

IN MOLD LABELING (Side Entry Robot)

Performance IML robot is for high speed and multiple cavities production

Label Magazine

- Customer optimization design,
- Modular design,
- Quick-changing

Stacking Unit

- Modular design,
- Flexible design,
- Servo Motor,
- Conveyor

Static System

- Performance Static Generator,
- Simple Operation,
- Adjustable 0-20KV

Safety

- Interlocking main safety door,
- Maintenance doors between robot and I.M.M.

Products Type

- Lid,
- Round,
- Oval,
- Rectangular,
- Polygonal

Label type

- Flat,
- Wrap-around 3 & 5 sides,
- Wrap-around with Bottom,
- 3D Label



I.M.M.

- 200 – 550 Ton,
- For high speed packaging I.M.M.



Pro

Max

IN MOLD LABELING (Top Entry Robot)

Apply to long cycle product and more economical solution.



Labeling EOAT

Robot

- 3 or 5 axis servo robot,
- High Rigidity and Stability,
- Stacking Function,
- Simple operation

I.M.M.

150 – 1000 Ton



Label Magazine

- Customized optimization design,
- Modular design,
- Quick-changing

Static System

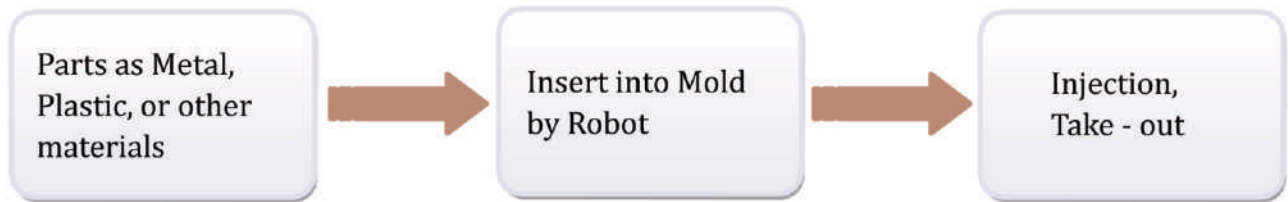
- Performance Static Generator,
- Simple operation,
- Adjustable 0 – 20KV



Pro

Max

Insert Molding (Overmold)



EOAT (End of Arm Tooling)

- High precision,
- Modularized,
- Customized

Servo Robot

- Positioning accuracy,
- Flexible,
- Reliable



Output

- Conveyor



Safety Guarding

- Safety protection,
- Safety interlock



Feeder of inserts

- Automatic,
- Semi-automatic,
- Manual



Medical Products Application

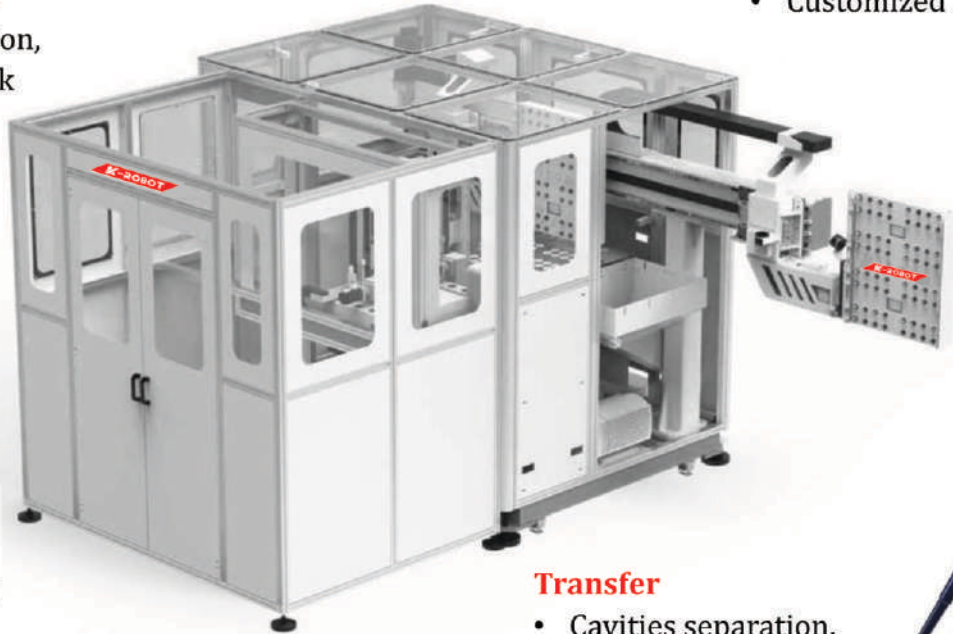
Blood Collection Tube Take-out and packing System

EOAT (End of Arm Tooling)

- High precision,
- Multicavity,
- Customized

Safety Guarding

- Safety protection,
- Safety interlock



Output

- Boxing,
- Boxes loading

Transfer

- Cavities separation,
- Permutation,
- Sampling



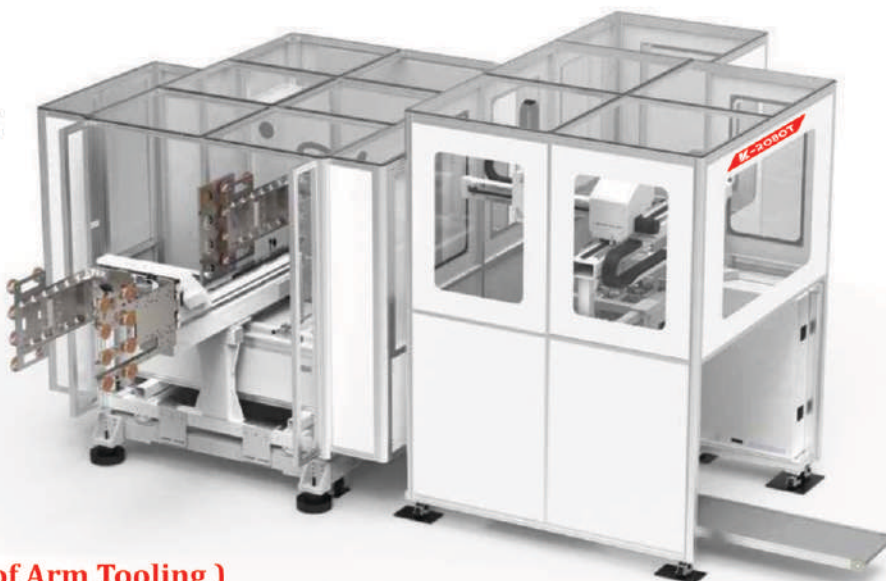
Petri Dish Take-out and Packing System

Safety Guarding

- Safety protection,
- Safety interlock

Transfer

- Assembly,
- Stacking,
- Conveying



Packing Unit

- Bag cutting,
- Bagging,
- Sealing

EOAT (End of Arm Tooling)

- Stack mold,
- Customized



Consumer Goods Application

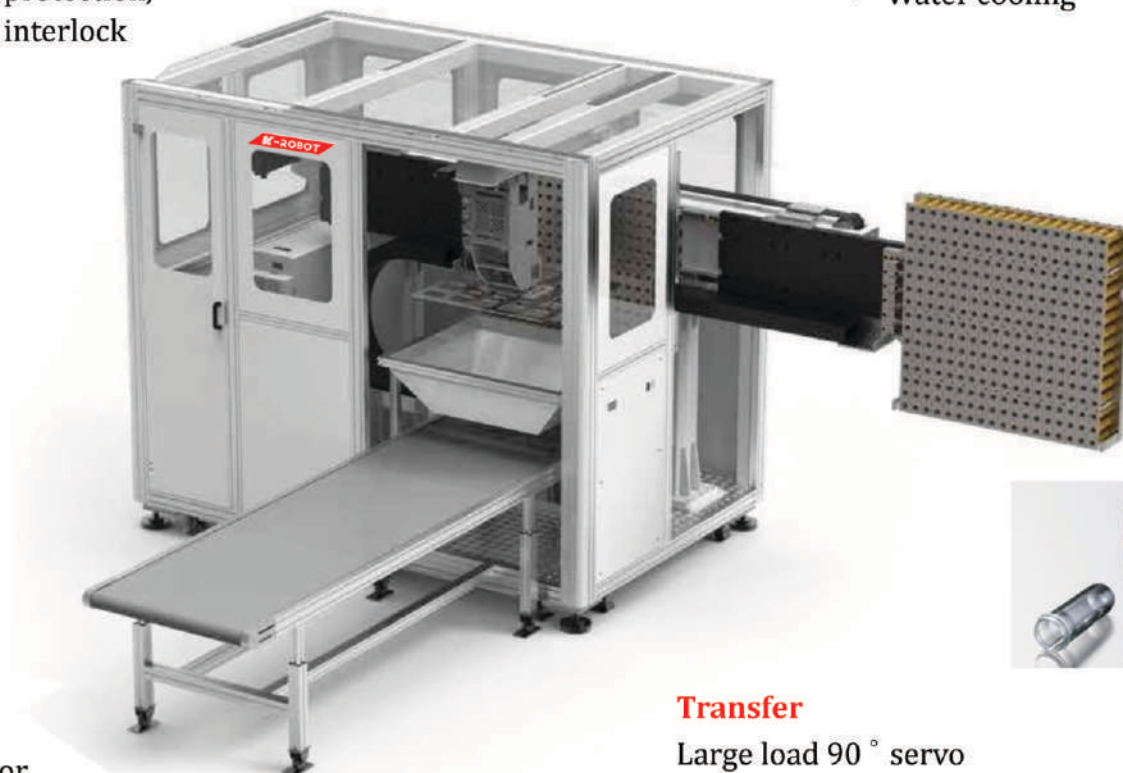
PET Perform Take-out and cooling System

Safety Guarding

- Safety protection,
- Safety interlock

EOAT (End of Arm Tooling)

- High precision,
- Multicavity,
- 2/3 Stations,
- Water cooling



Output

- Conveyor,
- Cooled products

Transfer

Large load 90 ° servo
Rotation unit

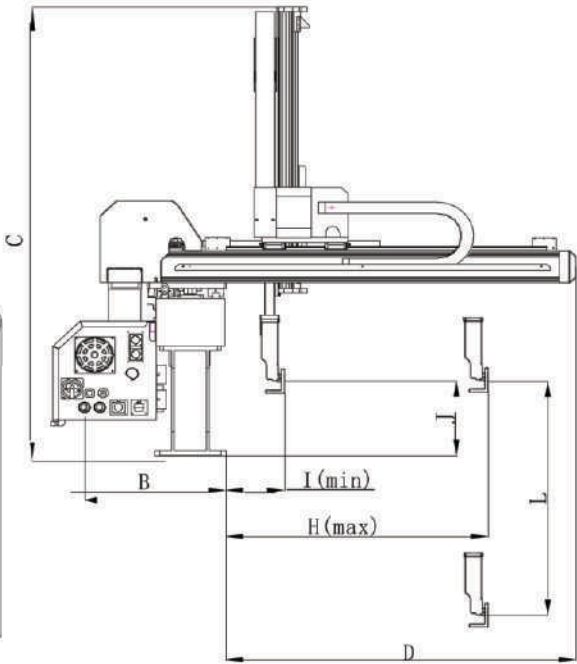
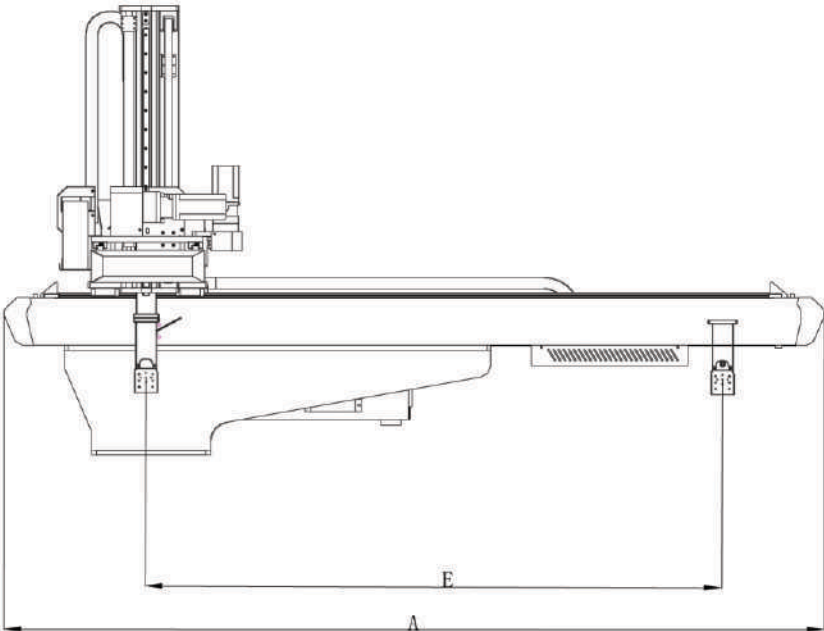


- EOAT has Multi-station cooling design, each cavity has vacuum and water cooling to save the cooling time in mold (It can save the 70% cooling time in mold).
- 2 or 3 stations design on EOAT, to execute take-out and cooling circularly.
- Modular design, it just need change the EOAT of different mold.

THINWALL



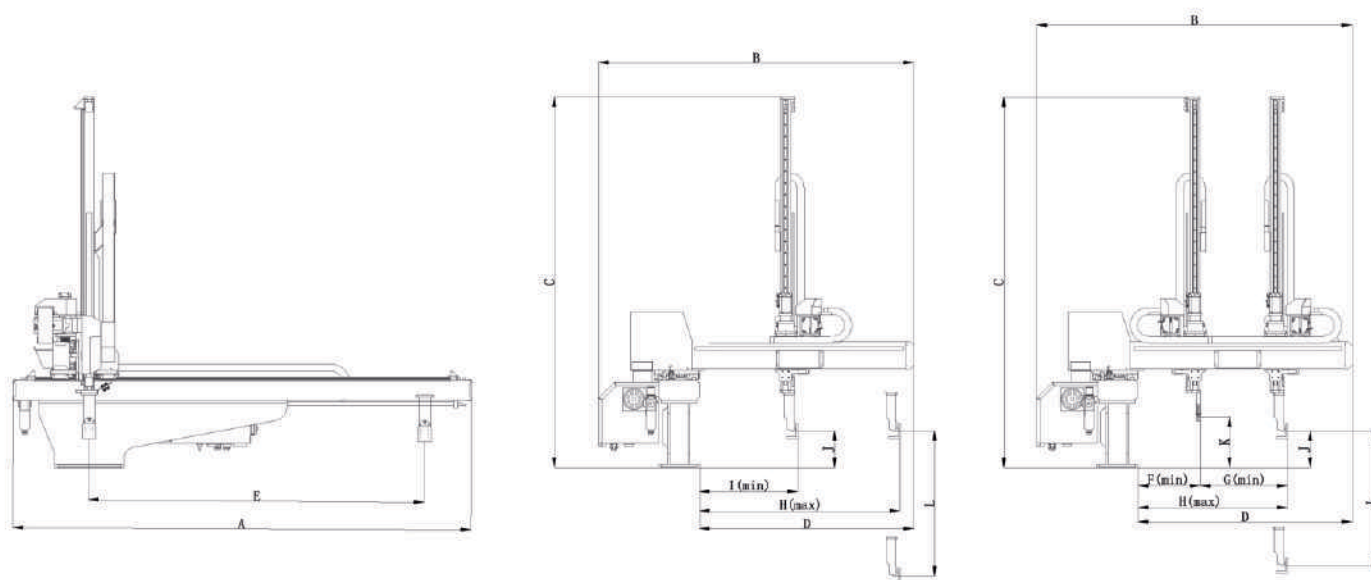
MODEL	IMM	TRAVERSE Z	CROSSWISE X	VERTICAL Y	PAYLOAD	TAKE-OUT	CYCLE	WEIGHT
	TON	MM	MM	MM	KG	SEC	SEC	KG
KHB750ST	30T – 100T	1600	735	750	5	0.6 TO 0.9	5	550
KHB900ST	100T – 180T	1600		900			5	600
KHB1200ST	180T – 350T	1800		1200			6	650



MODEL	A	B	C	D	E	H	I	J	L
KHB750ST	2350	500	1375	1050	1600	735	120	220	750
KHB900ST			1450						900
KHB1200ST			1600		1800				1200



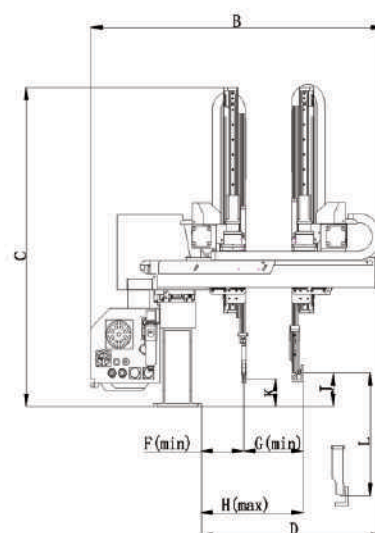
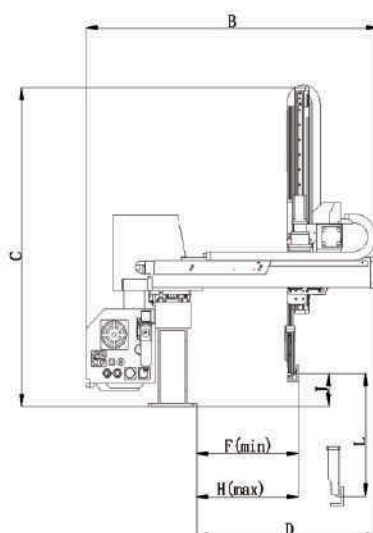
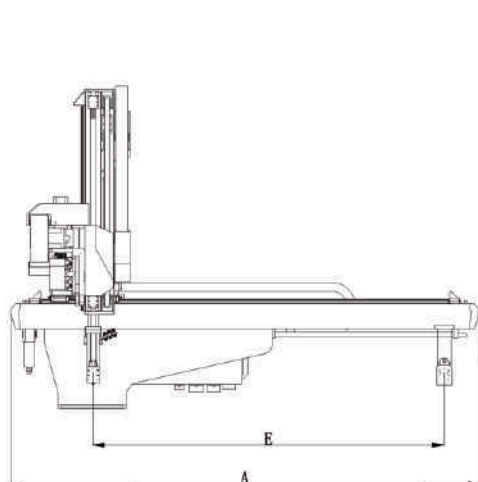
MODEL	IMM	TRAVERSE Z	CROSSWISE X	VERTICAL Y	PAYLOAD	TAKE- OUT	CYCLE	WEIGHT
	TON	mm	mm	mm	Kg	Sec	Sec	Kg
KHX750S	30 - 180	1400	600	750	5	1.5	5.5	300
KHX750D		1400	600	750		2	6	320
KHX900S		1600	600	900		1.5	5.5	300
KHX900D		1600	600	900		2	6	320
KHX1100S	200 - 300	1600*	850	1100	5	2	6.5	340
KHX1100D				1100		2	6.5	365
KHX1300S				1300		2.5	7	380
KHX1300D		1800		1300		2.5	7	405



MODEL	A	B	C	D	E	F	G	H	I	J	K	L
KHX750S	1800	1200	1540	800	1400	/	/	650	160	190	/	750
KHX750D	2000		1600		1600	140	130				210	750
KHX900S						/	/				/	900
KHX900D						140	130				210	900
KHX1100S	2350	1600	1920	1100	1600	/	/	850			/	1100
KHX1100D			2160		1800	140	130				210	1100
KHX1300S						/	/				/	1300
KHX1300D						2550	140				130	210



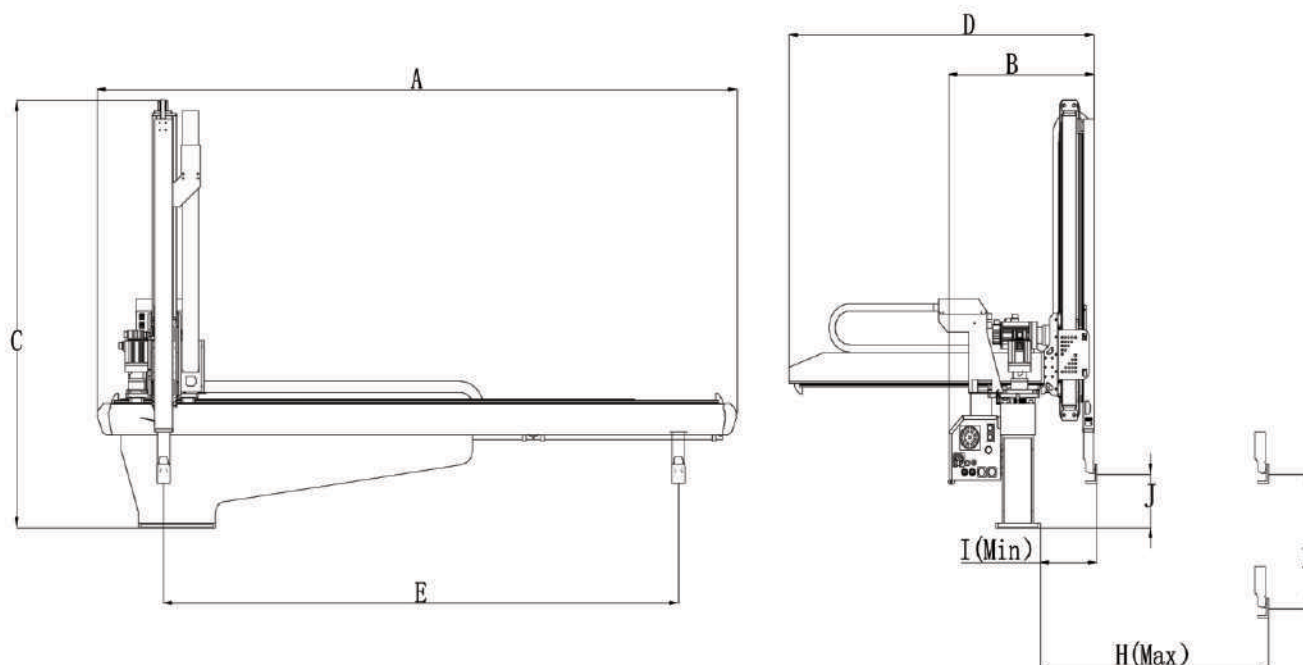
MODEL	IMM	TRAVERSE Z	CROSSWISE X	VERTICAL Y	PAYLOAD	TAKE- OUT	CYCLE	WEIGHT
	TON	mm	mm	mm	Kg	Sec	Sec	Kg
KHX750ST	30 - 180	1400	600	750	5	1.5	5.5	300
KHX750DT		1400	600	750		2	6	320
KHX900ST		1600	600	900		1.5	5.5	300
KHX900DT		1600	600	900		2	6	320



MODEL	A	B	C	D	E	F	G	H	I	J	K	L
KHX750ST	2050	1280	1180	800	1400	/	/	650	160	190	/	750
KHX750DT						140	130				210	750
KHX900ST	2050	1250	1250	800	1400	/	/	650	160	190	/	900
KHX900DT						140	130				210	900



MODEL	IMM	TRAVERSE Z	CROSSWISE X	VERTICAL Y	PAYLOAD	TAKE- OUT	CYCLE	WEIGHT
	TON	mm	mm	mm	Kg	Sec	Sec	Kg
KHS1200ST	500 - 2000	1800	1000	1200	5	1.5	5.5	300
KHS1600ST		2500	1250	1600	10	3	8	625
KHS2000ST		3500	1600	2000	20	6.5	15	970



MODEL	A	B	C	D	E	H	I	J	L
KHS1200ST	2450	500	1500	1550	1600	1000	325	175	1200
KHS1600ST	3750	500	2200	1780	3000	1250	330	260	1600
KHS2000ST	4250	1100	2400	2350	3500	1600	385	365	2000

SUITABLE FOR IMM 30T - 250T

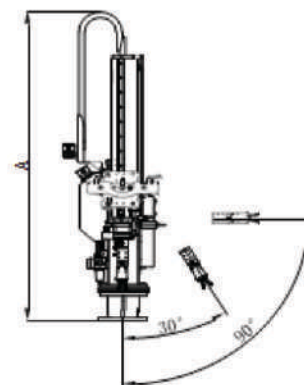
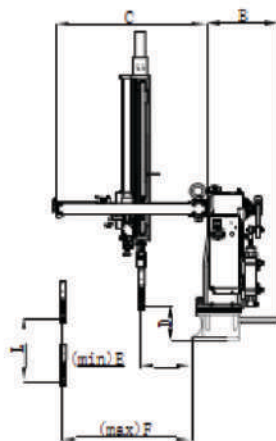
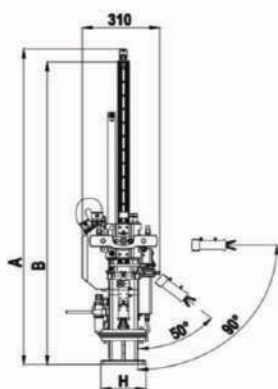
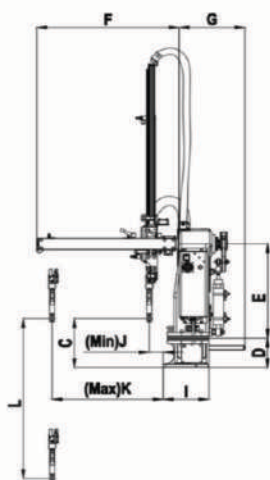
Model	X-650(V)	X-750(V)	X-850(V)	XW800
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Type	Single section				TELECOPIC
Suitable I.M.M (Ton)	50-180	100-180	100-180	100-180	
Vertical (mm)	650	750	850	800	
Crosswise Max. Reach (mm)	550	550	550	550	
Crosswise Stroke (mm)	120	120	120	120	
Swing Angle (°)	50°-90°				30°-90°
Gripper Rotation (°)	90°				
Max Payload (KG)	2				
Drive	Pneumatic				
Air Pressure (Kgf/cm ²)	5-7				
Air consumption (NL/cycle)	7.5				
Power Source	Single-phase AC220VA				
Net Weight (KG)	50	54	58	70	

Model	X-650(V)	X-750(V)	X-850(V)	XW-800
A	1430	1530	1630	1270
B	300			
C	210			
D	160			
E	400			
F	550			
G	300			
H	180			
I	210			
J	50			
K	390			
L	650	750	850	800



CONTROLLER



KANEHIRO CORPORATION

HEAD OFFICE :

TOKYO (JAPAN)

REGIONAL OFFICES :

Delhi / Mumbai (INDIA)

Dubai (UAE)

Shanghai / Shenzhen (CHINA)



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