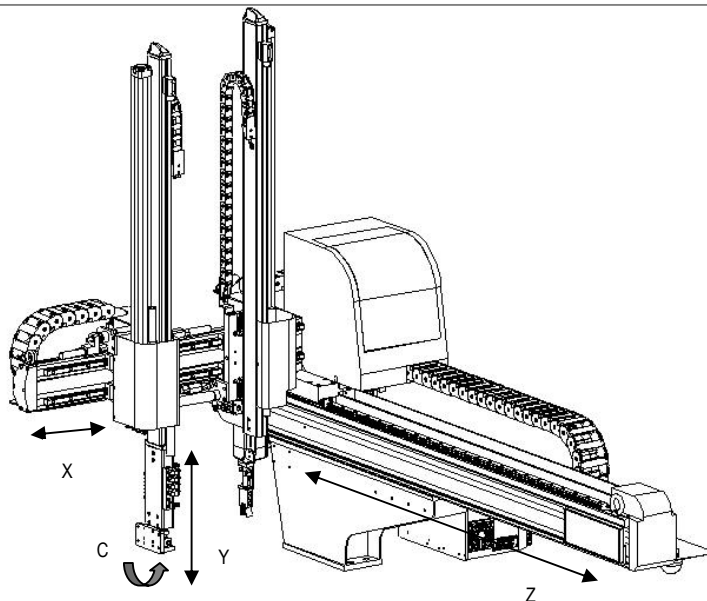


PRICE PAGE (Budgetary Cost Summary)

Item : MACH-300S (Take Out Robot for 200 ~ 350 Tons IMM)

- Descent Arm (Y Axis) : **Pneumatic Operation (Nozzle Center Location)**
 - Aluminum Extrusion, Non-Telescopic, Festo Actuator, NSK Linear Guide
- Traverse Stroke (Z Axis) : **Digital AC Servo Operation**
 - High Strength Aluminum Frame, Timing Belt Driven, Yaskawa Servo Motor / Drive, NSK LinearMotionGuide
- Kick Stroke (X Axis) : **Pneumatic Operation, Quick Set up by manual.**
 - Single Arm Support, Festo Actuator, NSK Linear Guide
- 90 Deg Wrist Flip for flat placement of Parts (C-Axis) : Pneumatic Drive (Festo Actuator)
- HYNC-200 LCD Screen Controller (Detail Information is Attached)
- Body Attached Control Box (Servo Amplifier, DC Power Volt Generator, Servo Control Board, Molding Machine Interface board, Main Control Board, Noise Filter Etc)
- Custom Engineered Adaptor Plate to fit molding machines
- SPI Robot/IMM Electrical Interface : Euromap 12
- One Vacuum circuits (Sensor included)
- One Gripper Circuit with Monitoring Sensor input
- One Pressure Circuit with Monitoring Sensor input
- One Printed Manual
- Individually Packaged in Wood Pallet

Budgetary Price for MACH-300S : \$ 16,500.00 / Unit



ROBOT SPECIFICATION

X : 250 mm (9.8 Inch)

Y : 1050 mm (41.3 Inch)

Z : 1500 mm (59.5 Inch)

C : 90 Deg

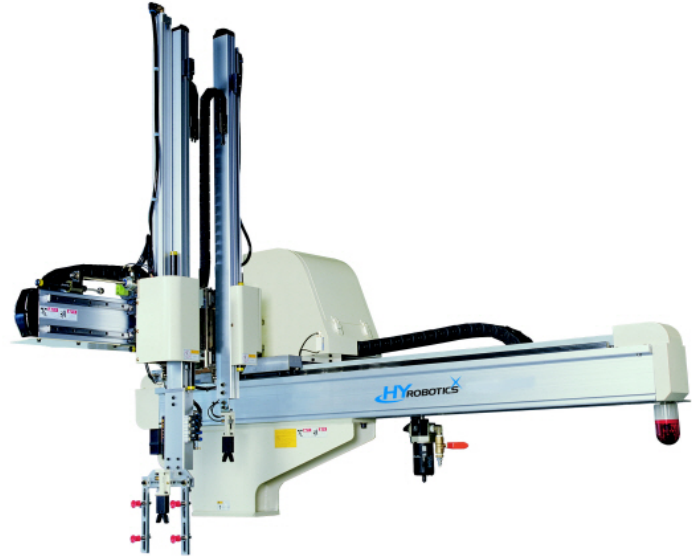
Max Payload : 3.5 Kg (8 lb) *

* Recommended

Optional Information is attached.

Mechanical features

- ✓ Traverse Beam is a high strength, Aluminum extrusion file provide maximum rigidity and durability with high precision robot position..
- ✓ True AC Digital Brushless Servo Motor ensure each step of robot operation under precision and high speed.
- ✓ AC digital servo amplifiers ensure precision location for each step.
- ✓ NSK Linear runner block bearings, fully enclosed on precision-machined rails provide high strength and precision operation of robot.
- ✓ Festo Actuator for vertical motion and 90 Deg Wrist Rotation for parts placement on conveyor or stacking machines
- ✓ Aluminum extruded profile descent arm for light weight with high strength.
- ✓ Vacuum generator with sensing switch at the end of robot arm, it is easy to reach and confirm sensing.
- ✓ Pneumatic circuits for part and sprue grip.
- ✓ Removable alignment pins, When used will positively locate the end of arm tool to the vertical arm
- ✓ Custom Adapter Plate for IMM.



Product Arm Vertical Axis

MACH series vertical motion operated by Festo Pneumatic Actuator with single stage motion with NSK Linear Motion Guide. Precision location in every cycle with high speed take out application is possible with MACH Series Robot. Also high quality, strong shock absorber ensure long operation without interruption.

Product Arm Kick Axis

Single support arm design for light and fast application but with rigidity and stability. Fest Actuator ensure every operation is same position with speed which set by operator.

Traverse Axis

Digital AC brushless servo motor with optical encoder provides fast, smooth and accurate performance. Multiple traverse Axis Position can be allowed with servo operation. Also Horizontal Stacking, Gate cutting Automation can be realized with 2ndary Automation Equipment (Option may need to apply).

CONTROLLER FEATURES

HYNC-200 : SOFT TOUCH KEYPAD WITH LCD SCREEN . (FOR MACH SERIES ROBOT)

Main specification

- HYNC-200 Provide easy and simplified motion control for injection molding Automation using soft keypad with LCD Screen. Each Mode selection step will allow easy molded parts take out automation and minimize your set up time and thus maximize your profit.
-
- ✓ Powerful hand held control pendant with soft key pad and LCD Screen..
 - ✓ Magnetic Back Plate on controller to reduce dropping by butter fingered.
 - ✓ Developed specially for the molding industry by automation engineer with years of experience in the filed.
 - ✓ Programming required no special skill or knowledge with mode selection procedures or saved motion pattern in the control. Manual , Step by Step, Auto operation.
 - ✓ Mold take our Routine are made by mode selection method in program.
 - ✓ Individual Timer set up for precision operation of robot
 - ✓ LCD screen shows Counter, Input / Output signal, step and timer control
 - ✓ Minimal floor space required, Handy control pendant mounted small space of molding machines with body attached control box.
 - ✓ Selectable sprue placement during outbound or return traverse motion.
 - ✓ Selectable posture control at product extract side.
 - ✓ Selectable fixed mold half or moving mold half product extraction.
 - ✓ Languages: English and Korean
 - ✓ Conveyor or secondary equipment start signal.
 - ✓ Defective product rejecting circuit.
 - ✓ Servo Axis has function for stacking on conveyor.
 - ✓ Robot Ejector control can be selected for maximum productivity
 - ✓ Undercut feature installed in side of mold to get way from core
 - ✓ Vertical Swivel or External Nipper operation is possible with optional mechanism
 - ✓ Mold Manager can save up to 99 new mold
 - ✓ Position with Servo Motor can be set with Jog Button.
 - ✓ English Manual ensure all operation and maintenance.



Optional Specifications (Budgetary cost & not included in quote)		
Mechanical Options:	Unit Cost	Check
<ul style="list-style-type: none"> S-Arm for Separate Runner Removal for 3 Plate Molds Application, Vertical and Kick Operation comes with Festo Pneumatic cylinder. 	\$ 3,900.00	
<ul style="list-style-type: none"> Servo posture & wrist (A & C Axis Servo Posture with harmonic Drive) 	N/A	
<ul style="list-style-type: none"> 90 Degree Chuck Swivel (A Axis) : Pneumatic 	N/A	
<ul style="list-style-type: none"> 180 Degree Chuck Swivel (A Axis) : Pneumatic 	N/A	
<ul style="list-style-type: none"> Traverse Stroke Extension (200 mm) : L Type 	\$ 850.00	
<ul style="list-style-type: none"> Additional Vacuum generator with Sensing System (Up to 4) : Order Release Function 	N/A	
<ul style="list-style-type: none"> Additional Pressure circuit (Up to 4) : Order Release Function 	N/A	
<ul style="list-style-type: none"> Automatic Pump for central lubrication systems 	N/A	
<ul style="list-style-type: none"> Robot Spare Part Kit (4 Proximity Sensor, 2 Chuck Rotation Sensor, 5 Solenoid Valve, 6 Relay) 	\$ 650.00	
<ul style="list-style-type: none"> Gate Cutting Pressure circuit (End of Traverse Beam) : Hardware is not included 	\$ 1,250.00	
<ul style="list-style-type: none"> Safety guarding, Heavy wire mesh, Black Extruded Steel supports , swing door : Price upon request 		

Electrical Standard / Options: NEXIA Series Robot	Cost	Check
<ul style="list-style-type: none"> Red Strobe Light (End of Traverse Beam) : \$ 350.00 Value 	Standard	
<ul style="list-style-type: none"> LED Target / Current Counter (End of Traverse Beam) : 4 Digit : \$ 1,850.00 Value 	Standard	
<ul style="list-style-type: none"> Single Phase, 3KVA Transformer (Required for voltage above 220 VAC) : \$ 450.00 Value 	Standard	
<ul style="list-style-type: none"> Indexing Conveyor Control(Every cycle it will generate pulse signal for indexing conveyor) \$ 250.00 Value 	Standard	
<ul style="list-style-type: none"> Insert Molding / Stacking Program with User input \$ 850.00 Value 	N/A	
<ul style="list-style-type: none"> SPI (Euromap 12) Version Plug (Molding Machines Side : Wiring is not included) 	\$ 185.00	
<ul style="list-style-type: none"> Additional Paper copy of Operation, Maintenance manual 	\$ 35.00	
<ul style="list-style-type: none"> Downstream Automation Communication wire in Plastics Box (5 meter : 16') from Robot Board 	N/A	



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End of Arm Tooling : (From 80 ~ 1000 Tons IMM)	Cost	Check
<ul style="list-style-type: none"> • Custom End of Arm Tooling : Price upon Request 		
<ul style="list-style-type: none"> • Standard End of Arm tooling (4 Point Suction) : 30 mm Suction Cups , 4 Point, Frame, Stems <ul style="list-style-type: none"> ○ For 50 ~ 250 Tons Machines \$ 250.00 Value 	Standard	
<ul style="list-style-type: none"> • Sprue Gripper with Sensor (Narrow) : Standard \$ 185.00 Value 	\$ 185.00	
<ul style="list-style-type: none"> • Sprue Gripper with Sensor (Wide Style) 	\$ 195.00	
<ul style="list-style-type: none"> • 8" x 9" Frame Size for user with small parts (32 Suctions cups 8 Stem, 3 Bracket with some accessories) <ul style="list-style-type: none"> ○ For 50 ~ 250 Tons Machines 	\$ 260.00	
<ul style="list-style-type: none"> • 8" x 9" Frame Size (Angle adjustable : 32 Suctions cups 8 Stem, 3 Bracket , 8 Angle Adjustable bracket with some accessories) <ul style="list-style-type: none"> ○ For 50 ~ 250 Tons Machines 	\$ 360.00	
<ul style="list-style-type: none"> • 10" x 12" Frame Size for user with small parts (32 Suctions cups 8 Stem, 3 Bracket with some accessories) <ul style="list-style-type: none"> ○ For 250 ~ 400 Tons Machines 	\$ 280.00	
<ul style="list-style-type: none"> • 10" x 12" Frame Size (Angle adjustable : 32 Suctions cups 8 Stem, 3 Bracket , 8 Angle Adjustable bracket with some accessories) <ul style="list-style-type: none"> ○ For 250 ~ 400 Tons Machines 	\$ 380.00	
<ul style="list-style-type: none"> • 20" x 10" Frame Size (Custom Padded Finger x 2ea, 6 Suction Cups with 6 Stems, 1 Sprue Gripper , 4 Frame) <ul style="list-style-type: none"> ○ For 400 ~ 650 	\$ 1,850.00	
<ul style="list-style-type: none"> • 30" x 15" Frame Size (Custom Padded Finger x 2ea , 8 Suction Cups with 8 Stems, 2 Sprue Gripper , 4 Frame) <ul style="list-style-type: none"> ○ For 650 ~ 1000 	\$ 2,850.00	
<ul style="list-style-type: none"> • 40" x 20" Frame Size (Custom Padded Finger x 2ea , 10 Suction Cups with 10Stems, 2 Sprue Gripper, 4 Frame) <ul style="list-style-type: none"> ○ Over 1000 Tons. 	\$ 3,850.00	



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Supervise Installation / Interface and Training	
Customer Responsibilities	
<ul style="list-style-type: none"> Complete Molding Machine information, including robot-mounting pattern, must be received with purchase order Customer is responsible for any modifications to the injection-molding machine in order to Install HYRobotics Robot. This includes modifications to the stationary platen, such as drilling and tapping robot-mounting holes, as well as modifications to the operator's gate or the rear guard required to accommodate the robot. The quoted fee includes all labor and living expenses for one HYRobotics field service technician to perform wiring, testing, start-up and training at customer's location. Customer is responsible for uncrating of the robot. Under the supervision of HYRobotics engineer, mounting of the robot to the injection-molding machine recommended. Unpack and mount the robot to molding machines. HYRobotics will supply a custom engineered mounting adaptor and mounting hardware in the quotation. 	
1 Unit Installation Fee (For Standard Robot Only : 100 ~ 600 Tons Size) : 2 Days (SPI Interface Inspection, Checking Out, Adjustment and on sight training with demonstration of robot.) <ul style="list-style-type: none"> Standard Rate : \$650.00 / Days Operation and Basic Programming Training at HYRobotics : \$ 425.00 / Persons 	1,850.00
Travel Expenses / Airfare and Rental Car	Billed As Actual
Robot Interface	
Customer is responsible for providing a current robot interface package, preferably one in compliance with SPI's "Recommended guideline for Robot/Injection Molding Machine Electrical Interface." A copy of the guideline is available upon request. Please consult the injection molding machine manufacturer for the availability of a robot interface package. In the event a current robot interface is not available, the following signals from the molding machine are generally required. Please consult factory if signals are not available.	
<ul style="list-style-type: none"> IMM is in full automatic, Mold open complete, Mold closed complete, Safety door closed, Ejectors forward, Ejector backward, In addition, the following signals from the robot are available to the molding machine:	
<ul style="list-style-type: none"> Mold open authorize or the ability to permit clamp motion, Mold closed authorize or the ability to permit clamp motion, Ejectors forward authorize, Ejectors backward authorize, Cycle Start (Option) An additional fee may be required if a non-standard interface or other functions are required.	
Power Requirements and Air Consumption	
220 AC or 480 AC	
6 Kgf/cm ³ (80 PSI) Air Pressure Required.	
Dry air must be supplied to the robot	
NOTE: Any moisture or lubrication in the air supply will VOID the warranty with regards to the effected components	



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Delivery

Four weeks if from stock. Eight to Ten weeks if from non stock. Consult factory for specific delivery dates. All shipments times start at receipt of purchase order and down payment.

Terms and Payment Agreement

All prices are F.O.B. St.Louis MO ; Freight Collect. Standard payment terms are 25% with written purchase order; 75% net 30 days from the date of shipment. Upon acceptance of this quotation, you authorize HYRobotics to file a UCC Financing Statement along with a signed Security Agreement for the equipment described in this proposal. All sales are subject to HYRobotics's standard "Terms and Conditions" attached.

Warranty

The unit(s) is (are) covered by a twenty-four (24) month parts and Twelve (12) month labor service warranty after shipment, applicable only to the original customer after shipment from our facility, providing the problem is due to manufacturing defect.

The end-of-arm tooling and its original components have a (3) month warranty effective on the installation date

Order Confirmation

Pricing, specifications and deliveries are subject to our final confirmation.

Acceptance

Equipment pricing is valid for 30 days

End-of-Arm tooling and Secondary pricing is valid for 30 days



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