



ISO 9001:2000

SWING TYPE SPRUE AND PARTS PICKING ROBOT.

# TOPIV series

TOPIV-450 (for IMM 30~60 tons)	TOPIV-950 (for IMM 300~450 tons)
TOPIV-550 (for IMM 60~100 tons)	TOPIV-TWIN450 (for IMM 30~60 tons)
TOPIV-650 (for IMM 100~150 tons)	TOPIV-TWIN550 (for IMM 60~100 tons)
TOPIV-750 (for IMM 150~300 ton)	TOPIV-TWIN650 (for IMM 100~150 tons)



# Systems that work, designed and built by



## TOPIV-series

SWING TYPE SPRUE AND PARTS PICKING ROBOT.

Realize best products quality and safety for customers

- ✓ ISO 9001 Qualified Production Process
- ✓ CE certified standard components and parts
- ✓ Simple but modernized design for 21st Century Injection Molding Plants

### Additional Feature

- Developed to minimize exposure of pneumatic and electric line for longer life operation in harsh plant environment.
- Easy to adjust ascent complete position for door clearance
- Kick stroke and location adjustment are easier than ever.
- Easy to maintenance, service, part order with 3 dimensional parts drawing and list.
- Long life Festo cylinder and reliable components.



Accumulated know-how over 30 years in Injection Molding Process realized, developed and approved TOPIV Robot Controller. ( 4 th Generation )

- ◆ Easy manipulation and Better safety
- ◆ Mode Selection Method realizes over 100 different motion pattern.
- ◆ Tough TOPIV handy controller for harsh operation environment
- ◆ SPI, Euromap IMM robot operation, interlock and safety.
- ◆ LED displays each operation, IMM interlock, I.O signal
- ◆ IMM and Robot Emergency Stop function
- ◆ One touch Auto Operation
- ◆ High quality and soft touch buttons
- ◆ Minimize TOPIV Controller damage with Magneto Case
- ◆ Minimize installation foot print with body attached IMM interlock box
- ◆ High heat resistance Handy Controller Case



# people who know and care ! HYRobotics.!



## TOPIV-TWIN

Double arm take our robot for 3 Plate mold

### Feature

- Double arm take out robot for 3 plate mold
- Double arms allow to take out sprue and parts from 3 plate mold at the same time and release different location.
- Multi Point Suction cups , vacuum and grip parts verification sensor realize better safety control for mold protection and minimize loss time.

### High Speed plus continuous dependability

- High Speed, safety and easy to operation with less maintenance realize real high speed operation.
- Stable, dependable operation is achieved by our use of shock absorbers at the end of robot movement.

### One touch adjustment assure quicker robot set-up time

- One-touch adjustment of turning angle and release direction
- Simple adjustment is made by unfastening a lock nut and sliding the rotating cylinder

### High speed take out and reduced speed product drop-off

- Dual control valves provide high speed take-out and slower parts release.
- These feature allow safety for operator and parts protection.

### Fast take out cycle : 0.7 seconds

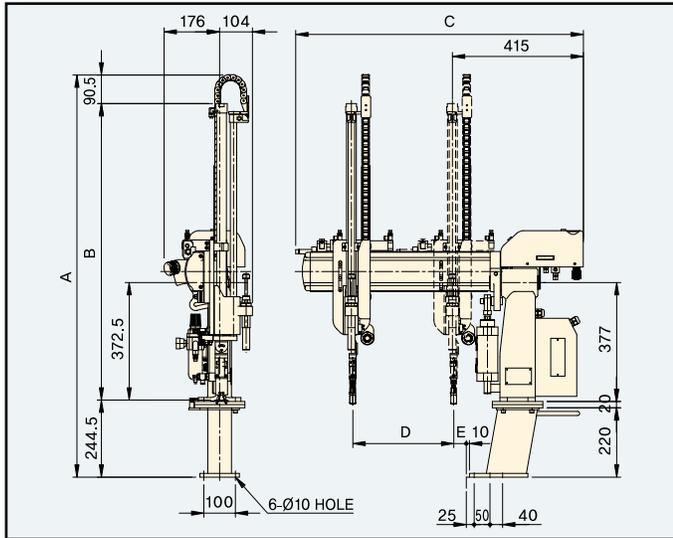
- With a dry cycle part removal of 0.7 seconds in the mold ( TOPIV-A550 ) , high speed injection molding cycles are achieved.

### Dependable operation

- Low friction linear roller guide installed on Kick Slide guide.
- Linear bearing guides on ascending stroke guarantee fast, reliable operation
- HYRobotics Know-How realizes high speed and reliable operation with maintenance free.

## ■ Dimension(mm)

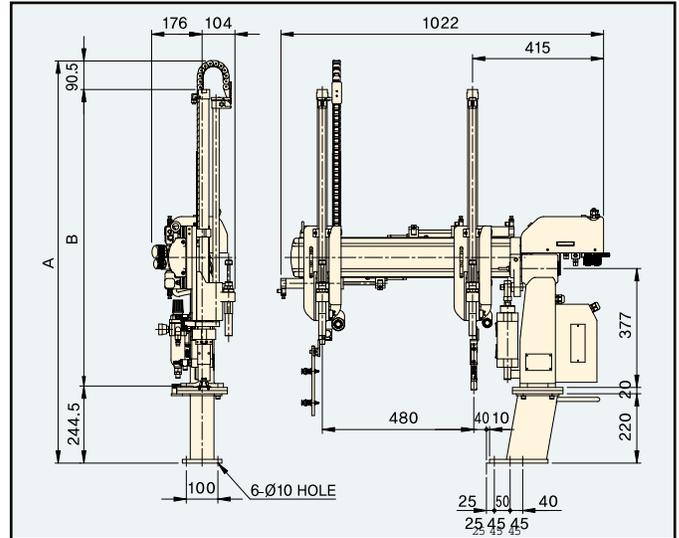
### TOPIV-A, X, XC series



MODEL	A	B	C	D	E
TOP IV -A, X, XC 450	1175	840	910	320	40
TOP IV -A, X, XC 550	1275	940			
TOP IV -A, X, XC 650	1375	1040	1110	520	
TOP IV -A, X, XC 750	1475	1140			
TOP IV -A, X, XC 950	1675	1340			

MODEL	A	B
TOP IV -TWIN 450	1175	840
TOP IV -TWIN 550	1275	940
TOP IV -TWIN 650	1375	1040

### TOPIV-TWIN series



## ■ Specification

- ▶ Power : 100Vac-240Vac, 0.6A, 50/60Hz
- ▶ Take out cycle : 0.7 sec (TOPIV-A550)
- ▶ Control : Sequence Program
- ▶ Total dry cycle : 3.2 sec (TOPIV-A550)
- ▶ Pneumate pressure : 0.4 to 0.5 Mpa (70 PSI)
- ▶ Noise : 66 dB
- ▶ Max Payload : 2 kg

## ■ Standard Specifications

MODEL	IMM	Descent (mm)	Kick Stroke (mm)	Swing Angle (Deg)	Ascent Position (mm)	Air Consumption (ℓ (normal)/cycle)	Net Weight (kg)
TOP IV -A, X, XC 450	for IMM 30~60tons	450	90	50~90	100	7	34
TOP IV -A, X, XC 550	for IMM 60~100tons	550				8	35
TOP IV -A, X, XC 650	for IMM 100~150tons	650				9	36
TOP IV -A, X, XC 750	for IMM 150~300tons	750	10			37	
TOP IV -A, X, XC 950	for IMM 300~450tons	950	12			38	
TOP IV -TWIN 450	for IMM 30~60tons	450	90			11	44
TOP IV -TWIN 550	for IMM 60~100tons	550		13	46		
TOP IV -TWIN 650	for IMM 100~150tons	650		15	48		

## ■ Option

A-TYPE	Sprue picking only
X-TYPE	Sprue picking and 90 ° Wrist Rotation ( Parts with sprue protection on conveyor)
XC-TYPE	Sprue Picking and 90 ° Wrist Rotation plus end of arm vacuum tooling ( 4 point )



### General Safety Information

Read and understand all instructions. Failure to understand / follow all instructions listed in manual may results in serious personal injury and damage.

Systems that work, designed and built by people who know and care ! HYRobotics.! HYRobotics has achieved remarkable results in the development of Servo and pneumatic take out Robot for plastics injection molding process since 1980s. More than 1/4 century know-how in injection molding process, new generation 7 Axis servo control technologies, optimized simple pneumatic control, high speed and dependable mechanism and accumulated plastics molding field information was all integrated into the HYRobotics robot system. HYRobotics automation systems are dependable, comfortable and economical for your injection molding process with better safety operation that you can rely on. We are dedicated people who know and care for the Plastic Injection Molding Industry.



HYROBOTICS IN USA





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