All-Axis Servo Driven Type
Swing Type
Side Entry Type
For Vertical Molding Machine
Stock System
Product Series Guide P11

FRA-0515S/D/DS

IoT technique contributes to high-precision take-out and improved productivity
Latest technology helps solve problems at the production site

CE For CE supported languages, please contact our sales department.

PAT.

Clamping force 50 - 150 tf

High precision (Advanced vibration control)

Optimized design + Power-saving

Low posture (Double speed mechanism)

All-axis servo-driven

Remote monitoring

JSME Medal for New Technology · The JMF's Energy-Efficient Machinery Award · MACHINE DESIGN AWARD · reddot award 2019 winner

Active Vibration Control

The FRA senses its own vibrations and eliminates them automatically.
Equipped with the world's most advanced vibration control technology that enables a variety of operations with speed and accuracy such as insert molding, which demand repeatability.

IoT system "INTU LINE" INTU™ LINE

INTU LINE displays production counts, uptime ratio, operation status, cycle times, error counts, stoppage log, and production floor photos.
When trouble occurs, the FRA's IoT system shares your robot's error data with Yushin to help service personnel diagnose the problem.

New controller "E-touch V"

The E-touch V is designed with ergonomics in mind and is presented in a vertical, dual screen format with main and sub screens, allowing the use of smartphone-like touch controls.

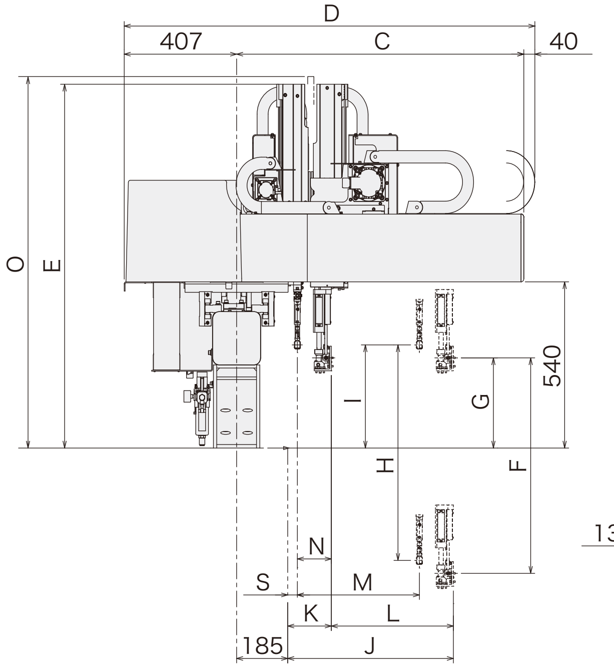
Standard Specifications

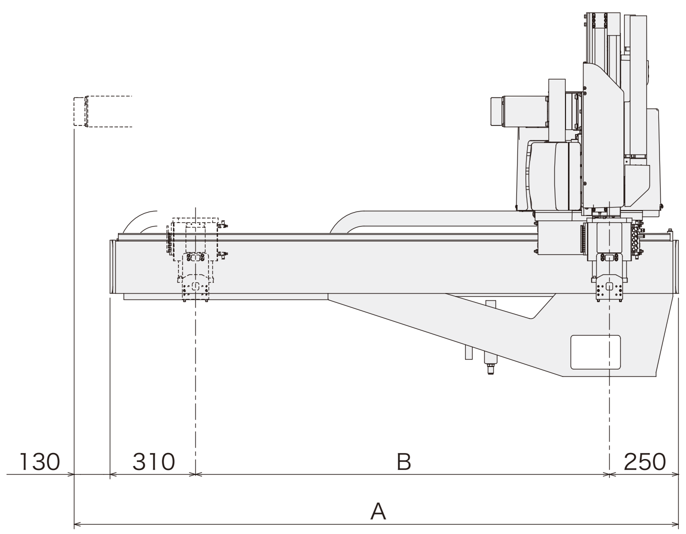
Power supply	Drive method	Controller model	Working air pressure	Flip angle
3-phase 200 VAC/220 VAC/230 VAC (50/60 Hz)	Digital servo motor 3/5-axis	E-touch V	0.49 MPa	90°

Model	Power consumption	Traverse stroke [mm]	Kick stroke [mm]		Vertical stroke [mm]		Air consumption [NL/cycle]	Payload [kg]	Noise [dBA]	Target IMM clamp capacity [tf]
			Main arm	Sub arm	Main arm	Sub arm				
FRA-0515S	2.3 kVA 200 VAC 6.5 A	(1100) 1500 (1700) (1900) (2200) (2500)	500	—	700 (850)	—	5.5 ECO Vacuum OFF 1.9 ECO Vacuum ON	5 《11》	74.7	50-150
FRA-0515D			442	442		700 (850)				
FRA-0515DS	3.8 kVA 200 VAC 10.8 A		318	318			10.8 ECO Vacuum OFF 3.6 ECO Vacuum ON			

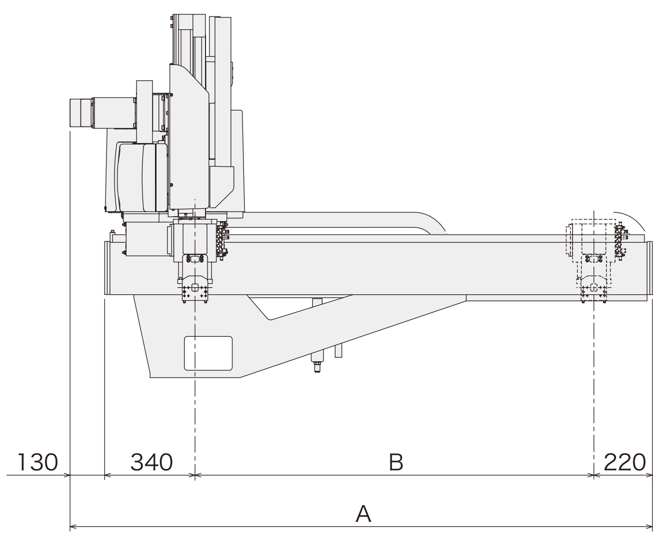
S type : Robot is equipped with main arm only. D type : Robot is equipped with main arm and sub arm. DS type : Robot is equipped with two main arms.
( ) : Modified stroke 《 》: Increased maximum payload
Payload includes the end-of-arm tool.
Traverse beam stanchion is standard equipment for traverse stroke over 1900 mm.

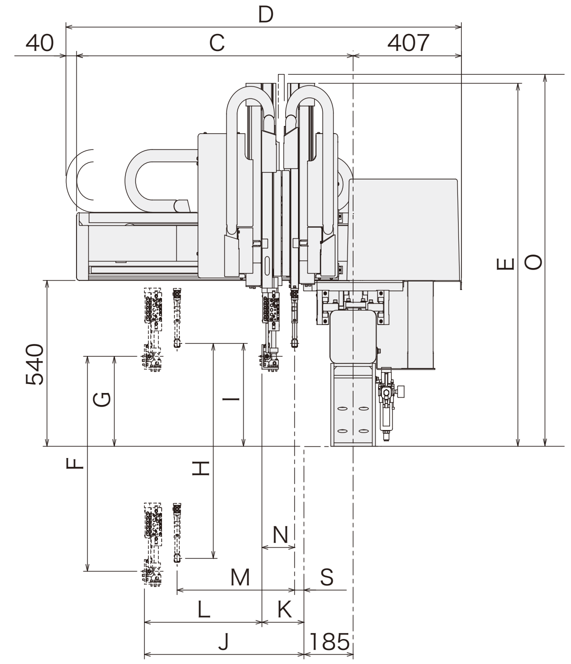
Rear (Non-operator) Side Discharge Direction [mm]



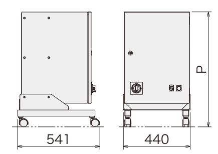


Operator Side Discharge Direction [mm]





Control Box [mm]



	P
C2 Type	600
C1 Type	500

[mm]

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	S
FRA-0515S	(1790) 2190 (2390) (2590) (2890) (3190)	(1100) 1500 (1700) (1900) (2200) (2500)	1040	1487	1182 (1254)	700 (850)	293	—	—	600	100	500	—	—	35
FRA-0515D								700 (850)	335		158	442	442	123	
FRA-0515DS									293		282	318	318	170	112

G
〈175〉 {175}

J	K	L	M	N	O	S
〈604〉 {604}	〈104〉 {167} 《104》	〈500〉 {437} 《500》	—	—	《1218》 (700 mm stroke only)	35
	〈162〉 {225} 《191》	〈442〉 {379} 《409》	〈442〉 {379} 《409》	〈127〉 {190} 《156》		
	〈268〉 {397} 《314》	〈318〉 {208} 《286》	〈318〉 {208} 《286》	〈178〉 {289} 《202》		〈108〉 {108} 《112》

( ) : Modified stroke
〈 〉: With increased wrist flip torque
{ } : With horizontal wrist rotation unit
《 》: With centralized automatic (manual) lubrication system

FRA-0515S/D/DS
All-Axis Servo Driven Type Take-Out Robot