



TITAN series

Full servo Traverse beam robot

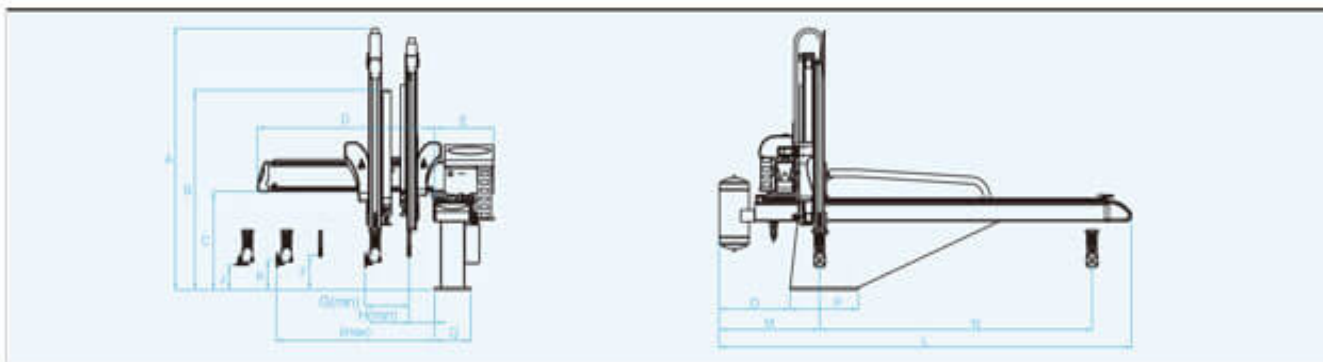


/ General Specification

Power Source	Working Pressure	Max.Allowed Pressure	Drive System	Swivel
1 Φ / AC AC220V $\pm$ 20V 50 / 60 HZ	5Kgf / cm ² 0.49Mpa	8Kgf / cm ² 0.8Mpa	AC Servo Motor	90 ° Fixed Pneumatic

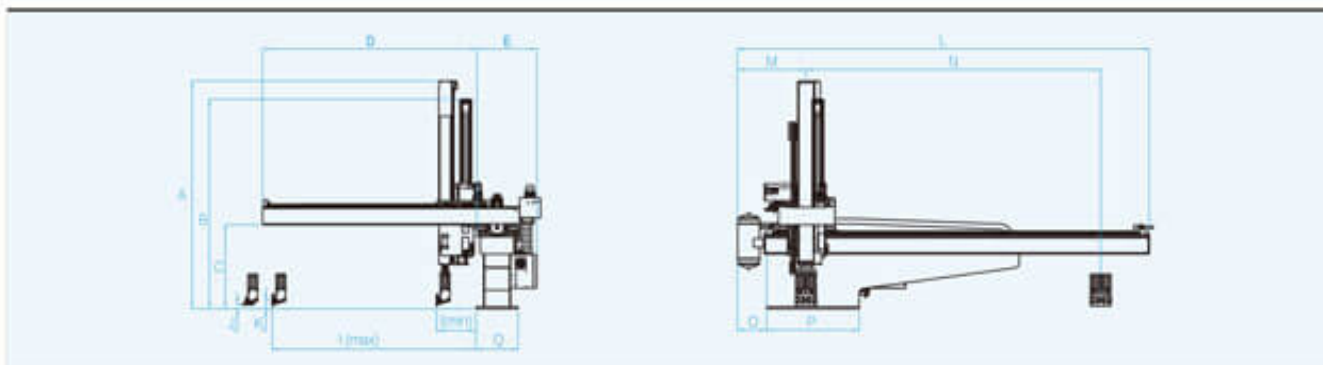
* 3 phase for T2200 and above models.

/ T1500-1900WS-S3/WD-S5



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
T1500WS-S3 WD-S5	2210	1690	835	1560	525	310	390	215	1325	205	245	3640	890	2400	630	600	320
T1700WS-S3 WD-S5	2270	1790	835	1740	525	310	390	215	1505	205	245	3960	890	2700	630	600	320
T1900WS-S3 WD-S5	2400	1860	835	1920	525	310	390	215	1685	205	245	3960	890	2700	630	600	320

/ T2200-4000WS-S3



Model	A	B	C	D	E	I(max)	I(min)	J	K	L	M	N	O	P	Q
T2200WS-S3	2580	1950	955	2225	715	2110	450	50	90	4895	860	3500	350	1100	500
T2500WS-S3	2660	2100	955	2545	715	2435	475	60	110	4895(5945)	840	3500(4500)	350	1100	500
T3000WS-S3	2900	2400	955	2945	715	2825	475	60	110	5945	840	4500	350	1100	500
T4000WS-S3	3440	3050	955	3425	715	3275	475	/	/	7705	655	6000	350	1100	500

* All statements here subject to change without advance notice.



Dongguan Alfa Automation Technology Limited

Add: Songmushan Village, Dalang Town, Dongguan,
Guangdong, China.

T : +86-769-8318 0326 F : +86-769-8318 0329

E : info@alfarobot.com

Alfa Industrial Corporation

Add: Weitang Town, Xiangcheng District, Suzhou, Jiangsu

T : +86-512-6590 2388 F : +86-512-6590 4888

E : suzhou@alfarobot.com

/ Titan Series



650–6000 T

Recommended I.M.M.



15–50 kg

Loading



± 0.2 mm

Repeat Precision



2.3 sec

Min. take out time



14 sec

Dry cycle time

- Titan series robot is applicable to all types of horizontal injection molding machines of 650T to 6000T for take out product. All axis are driven by AC servo motor, the minimum take out time is 2.3s.
- Dry cycle time is within 14s. High repeat precision $\pm 0.2\text{mm}$. Program can be set freely according to actual need.
- High performance of take out function is suitable for quick take out or complicated take out application.
- Robot arm is telescopic stage and runner arm can be added for three platen mould (for model 1500-1900)

/ Main Specification

Model	T1500WS-S3	T1500WD-S5	T1700WS-S3	T1700WD-S5	T1900WS-S3
Power Capacity (KVA)	2.3	3.7	2.3	3.7	2.3
Recommended I.M.M. (ton)	650-1000	650-1000	800-1300	800-1300	1000-1600
Traverse Stroke (mm)	2400	2400	2700	2700	2700
Crosswise Stroke (mm)	1030	P:720 R:720	1210	P:900 R:900	1390
Vertical Stroke (mm)	1500	1500	1700	1700	1900
Max.Loading (Kg)	25	25	25	25	25
Dry Take Out Time (sec)	2.3	2.3	2.6	2.6	2.9
Dry Cycle Time (sec)	14	14	15	15	19
Air Consumption (NI/cycle)	29	29	33	33	38
Net Weight (Kg)	700-900	700-900	800-1000	800-1000	850-1050

Model	T1900WD-S5	T2200WS-S3	T2500WS-S3	T3000WS-S3	T4000WS-S3
Power Capacity (KVA)	3.7	4.5	5.1	5.1	6.9
/ Recommended I.M.M. (ton)	1000-1600	1300-2500	1600-3000	2500-4000	3000-6000
Traverse Stroke (mm)	2700	3500	3500	4500	6000
Crosswise Stroke (mm)	P:1080 R:1080	1660	1960	2350	2800
Vertical Stroke (mm)	1900	2200	2500	3000	4000
Max.Loading (Kg)	25	35	50	50	50
Dry Take Out Time (sec)	2.9	4.0	4.5	5.2	6.5
Dry Cycle Time (sec)	19	21	23	24	28
Air Consumption (NI/cycle)	38	63	104	120	140
Net Weight (Kg)	850-1050	3130	3250	4300	4800

* All statements here subject to change without advance notice.

* T1500-1900 repeat precision is $\pm 0.2\text{mm}$, T2200-4000 is $\pm 0.3\text{mm}$.

Titan series

Full servo Traverse beam robot

Product characteristics

3 axis driven by AC servo motor(S3)

Vertical&Crosswise&Traverse axis are all driven by AC servo motor, high speed in take out action.

Telescopic arm

Telescopic arm of the robot adopts high rigidity linear guide and alloy aluminum beam, together with specially designed belt, greatly shortens the height of the vertical arms. It can not only increase speed and stability of the vertical stroke, but also can be application to low workshop.

Crosswise structure

Models of 1500-1900 is Unilateral structure

Models of 2200-4000 is frame structure

Swivel structure

Coordinate with moving platen or fixed platen to realize take-out. Fixed swivel angle is 90 degrees.

The main structure of the robot

crosswise and vertical arm are using high rigidity linear slide rail and aluminum alloy structure beam. It can meet the requirements of fast speed, less vibration, long service life, good parts interchangeability.

Driven structure

Traverse and vertical axis use special belt bypass mechanism. crosswise is driven by rack. Precision gearbox makes repeat precision is $\pm 0.15\text{mm}$

TJJD WD / WS / S3 / S5

Model: 1500/1700/1900/2200/2500/3000/4000

W: Telescopic stage

D: Double arms(Product arm+runner arm)

S: Single arm(product arm)

S3: Three-axis servo (Traverse-Y

$\pm$ /Vertical-Z $\pm$ /Crosswise-X $\pm$)

S5: Five-axis servo (Traverse-Y

$\pm$ /Vertical-Z $\pm$ /Crosswise-X

$\pm$ /A axis/B axis/C axis as optional)



Arm Type

Telescopic stage



Crosswise

Unilateral/frame structure



Servo

3 axis/5 axis



Linear Guide

All linear guides

Optional function

Air pressure scissors

Air pressure scissors can be installed for runner cutting

Photoelectric inspection on finished products

The sensor can be installed at conveyor. Place finished product on the conveyor to avoid hitting among products.

Tricolor light

Installed with tricolor light, user can easily check robot operating state from distance to workshop management. It can also distinguish the condition of the robots in auto, manual or failure status.

A&C axis servo driven

The end of arm rotary mechanism can be driven by AC servo motor with multiple angle and gestures.

Middle plate inspection

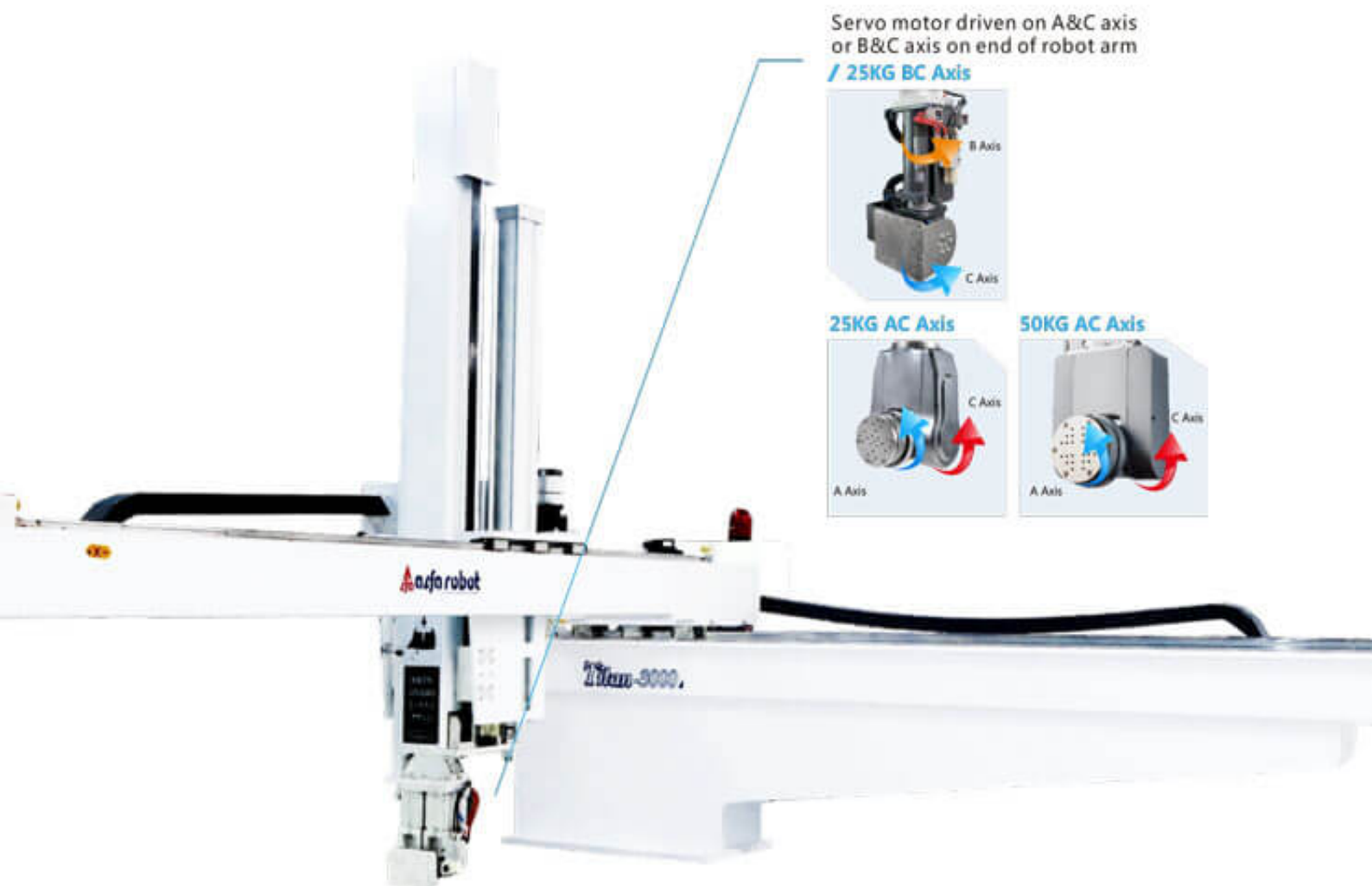
Position of the middle plate should be checked after mould opened end position to avoid runner arm from hitting middle-platen.

Lubrication function

Manual central lubrication or auto lubrication can be equipped. For auto lubrication, when robot running times achieve setting value, it will lubricate automatically.

Quick EOAT changing

To realize the quick separation of the EOAT and the robot. It's simple and can save EOAT changing time.



Awarded with number of patents, ALFA is the optimal choice for injection molding enterprises



Easy operation



Fast speed



Long lifetime



Low noise

3 axis/ 5 axis Servo Motor System Function

Item	Description	LB system	Economical System	High-configure System
Pendant	Display screen size	7.0 inch	7.0 inch	7.0 inch
	Touch panel	•	•	•
	Controller USB	•	•	•
	Manual operation safety switch	•	✖	•
Storage Capacity	Number of mould data sets	100	100	100
Data Transmission Function	To use USB to copy same mold data from same model robot to another one to operate.	•	•	•
Operation Mode	Teach program	•	•	•
	Fixed mode	✖	•	•
Interpolation	Linear interpolation, Circular interpolation, Simultaneous movement	•	•	•
Program Function	Loops, Jump, Stack, Compare, Judgement, Arithmetic calculation	•	•	•
	Waiting position in side the mold, Single step operating	•	•	•
Stacking Function	Standard stacking program	•	•	•
	Non-standard stacking program	•	•	•
Record Function	Operation record	•	•	•
	Alarm record	•	•	•
	I/O record	•	•	•
QC Function	Sampling, Exclude the first few products, Remove rejected part, Production statistics	•	•	•
Safety Protective Motion	It will alarm while position setting is out of range, and the setting is not be stored.	•	•	•
	When triggering the hardware limit signal, it will stop and alarm.	•	•	•
User	Multiple users management	•	•	•
Spare I/O port	Standard spare Input/ Output	15/15	3/2	10/14
EOAT Circuit	Standard circuit: 2 vacuum, 2 grip	•	•	•
	Option - Max. extending circuit	8 vacuum / 8 grip circuits	4 vacuum / 4 grip circuits	8 vacuum / 8 grip circuits
IMM Interface	Option - EUROMAP 12 or 67	•	•	•
Application	Insert, In-mold labeling (IML) etc.	•	•	•

• standard function ✖ without this function

