

HIGH-SPEED SORTING ROBOT SH800



Maximum cadence 200 ppm



Arm reach 800 mm



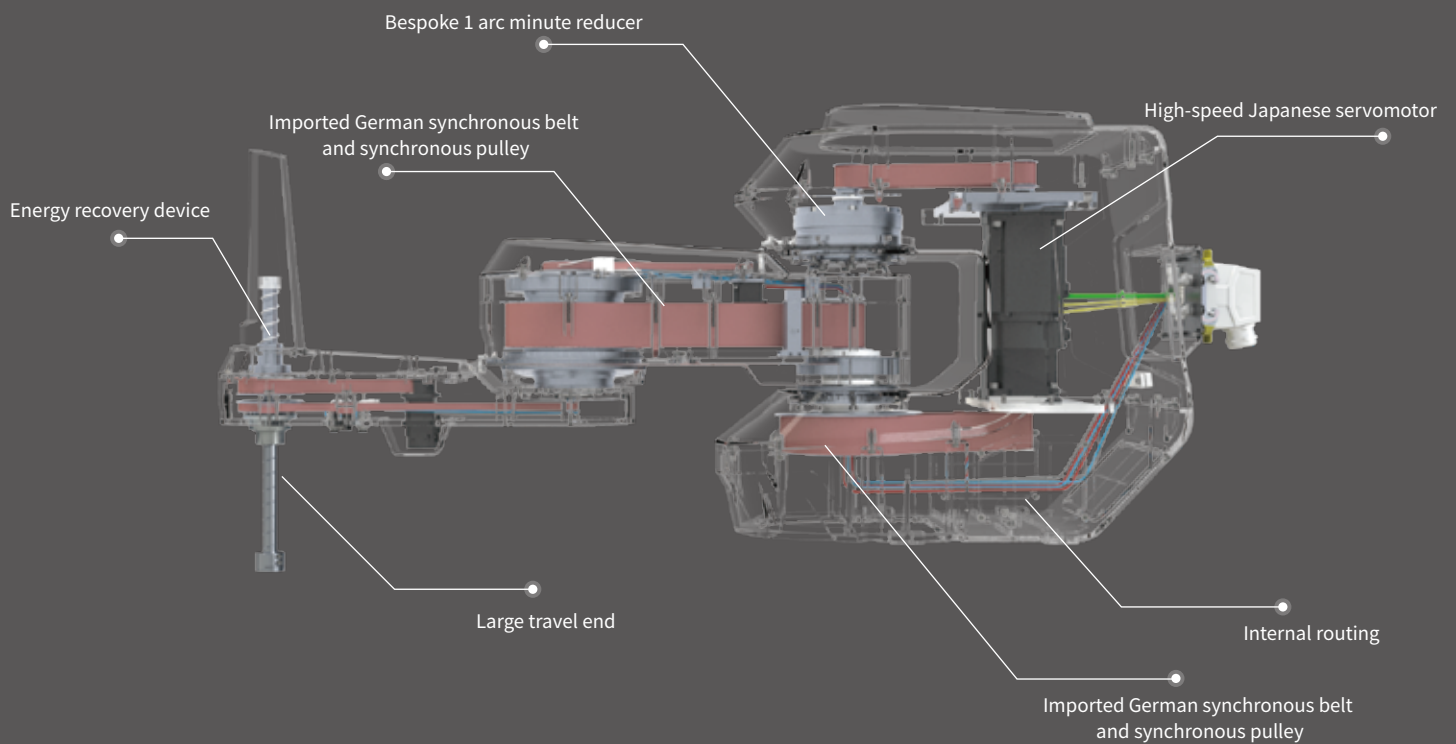
Depth 150 mm

- The Atomrobot SH800SCARA is a dedicated plane joint robot specially developed for high-speed sorting link of light and small materials, which has 4 degrees of freedom in space with translation along the X, Y and Z directions and the rotation around the Z-axis.
- The main body of moving components completely adopts ultra-light carbon fiber material, provided with innovative energy recovery design, therefore, high-speed picking / releasing performance of the robot has been significantly improved.
- The manipulator adopts pedestal-type installation, which occupies less space and enables more flexible layout, to be applicable to automatic packaging and sorting of various kinds of light materials.



CORE CONFIGURATION

- ❏ High-speed Japanese servomotor brings up to 200 ppm movement cadence
- ❏ Bespoke 1 arc minute reducer assures $\pm 0.1\text{mm}$ precision
- ❏ Equipped with imported German synchronous belt and synchronous pulley, it can give more than 2 years of maintenance-free and precision holding time.



Parameter

High Speed Flexibility Simple Modularization

Model		SH800
Degree of freedom		4
Max Payload		2kg
Weight		60kg
Working radius		800mm
Precision	Position	$\pm 0.05\text{mm}$
	Rotation	$\pm 0.05^\circ$
Max payload inertia		$0.12\text{kg}\cdot\text{m}^2$
Controller		atommotion

Movement range	
1-Axis ①	$\pm 110^\circ$
2-Axis ②	$\pm 130^\circ$
3-Axis ③	150mm
4-Axis ④	$\pm 360^\circ$

Installation environment	
Storage temperature	$-10^\circ\text{C}\sim 70^\circ\text{C}$
Working environment	$-10^\circ\text{C}\sim 50^\circ\text{C}$ RH $\leq 80\%$
Protection rating	IP55
Power supply	Three-phase 380VAC -10%~+10% 49~61HZ
Power capacity	6KVA
Rated power	4.2KW
Installation method	Installation of pedestal

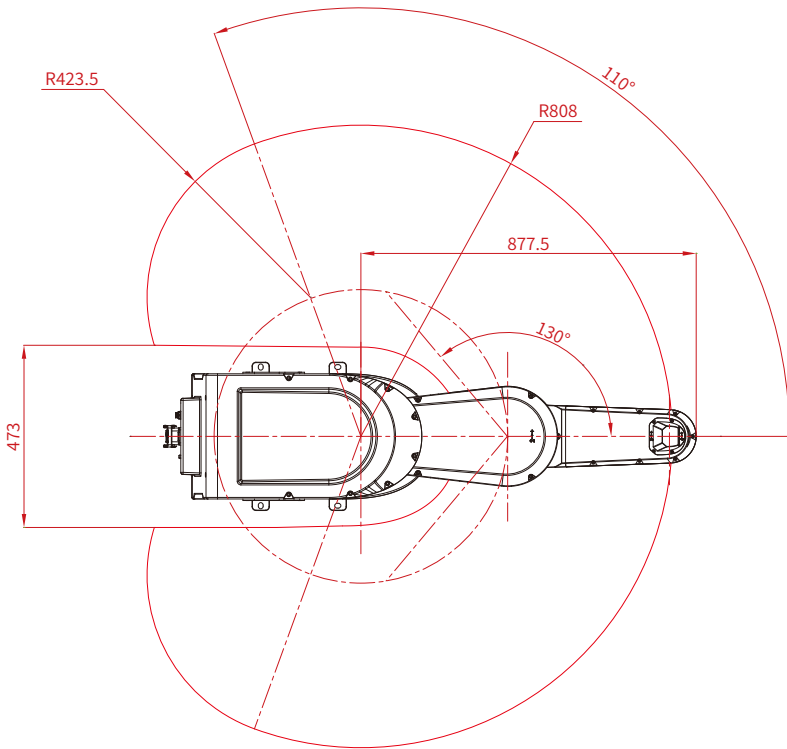
✓ Cadence parameters are data tested in the laboratory
The load is of standard weight, without picking / releasing actions in the process.

✓ Please consult us for the requirements for special service environments (dust, high-temperature, acid/alkali fog) and higher IP grade.

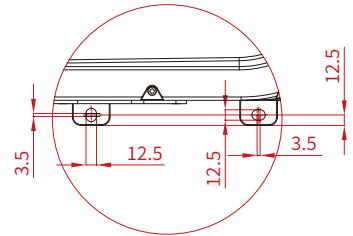


Dimension Diagram

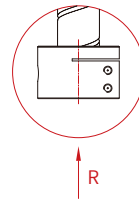
Workspace



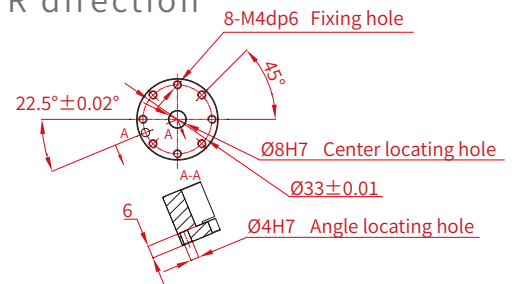
Installation hole $\frac{I}{2:1}$



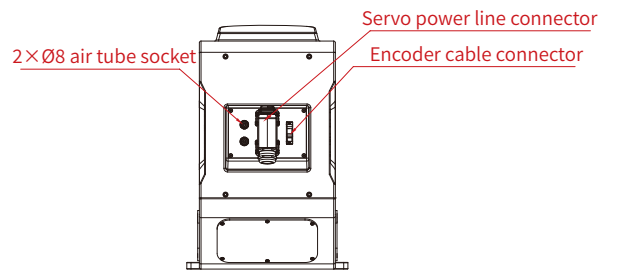
Flange hole $\frac{II}{5:1}$



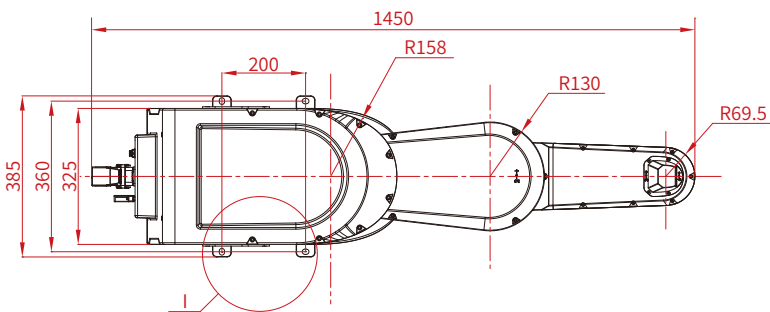
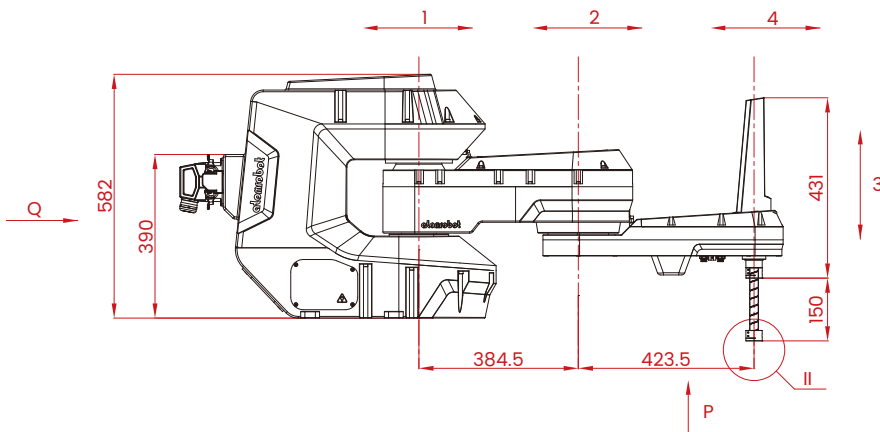
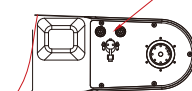
R direction



Q direction



P direction 2xØ8 air tube socket



HIGH SPEED ST SERIAL SCARA



Max payload 8.4kg



Max speed 240ppm (0.25s)



High precision $\pm 0.02\text{mm}$



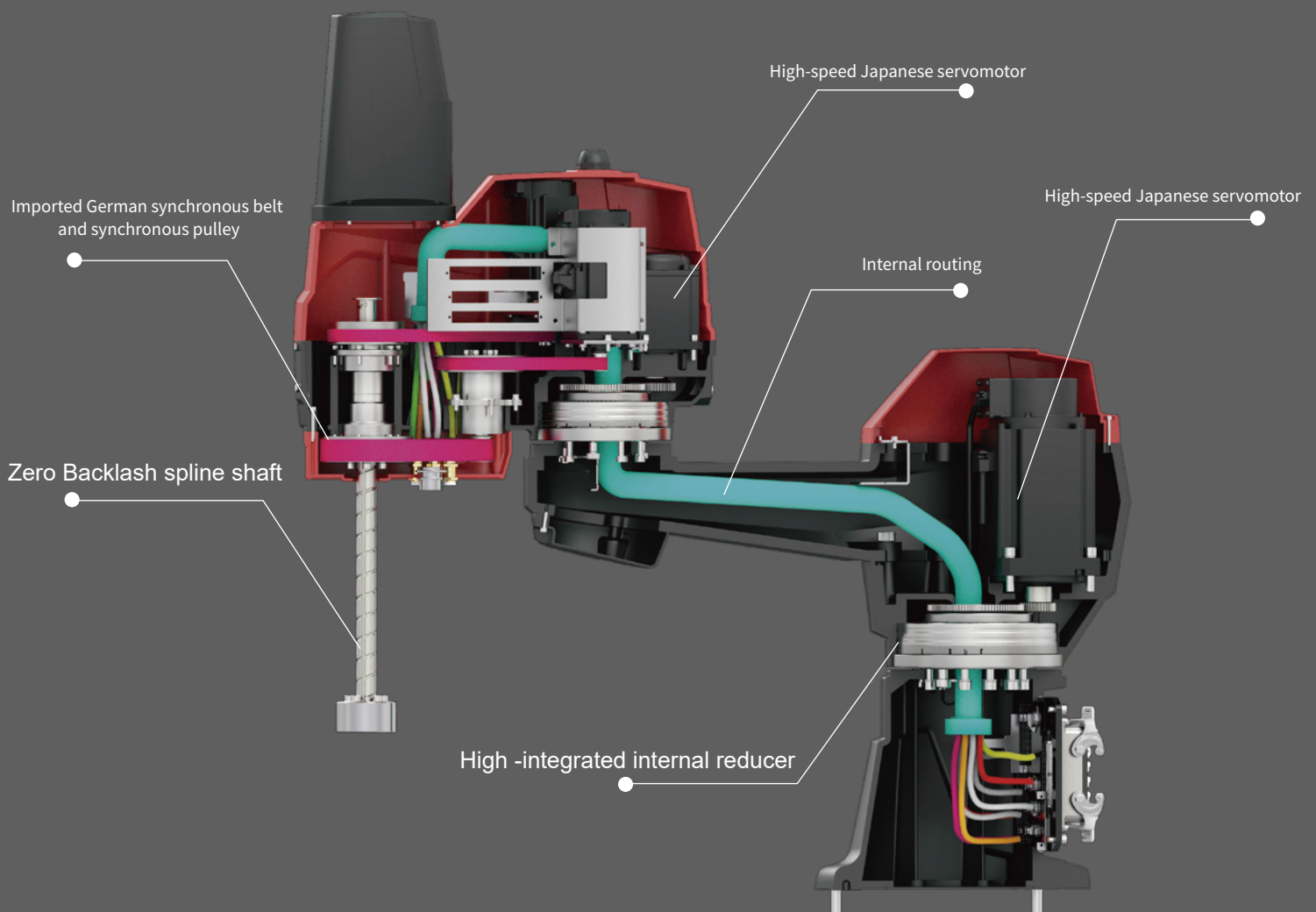
Angle range 360°

- The ST series Scara is a flat joint robot developed by Atomrobot Robot for high-speed and high-precision sorting.
- The robot arm and the reducer adopt an integrated design and use unique tooth shape. While providing large loads and high speed, the volume of the robot is greatly reduced.
- The robot adopts internal wiring, high integration, the highest protection level can reach IP65, the external interface position is diverse, available for ground and ceiling installation, suitable for various applications.




CORE CONFIGURATION

- High-speed Japanese servomotor brings up to 240 ppm movement cadence
- Bespoke 1 arc minute reducer assures $\pm 0.02\text{mm}$ precision
- Equipped with imported German synchronous belt and synchronous pulley, it can give more than 2 years of maintenance-free and precision holding time.



ST SERIAL

Models and Parameters

				
Model		ST-480-A	ST-480-B	ST-620-A
Axes		4	4	4
Max Payload		8.4kg	8.4kg	8.4kg
Weight		47kg	47kg	51kg
Stroke		480mm	480mm	620mm
Precision	Position	±0.02mm	±0.02mm	±0.02mm
	Rotation	±0.05°	±0.05°	±0.05°
Max speed*		240pp/min	240pp/min	220pp/min
Max payload inertia		0.43kg·m ²	0.43kg·m ²	0.43kg·m ²
Controller		atommotion	atommotion	atommotion
Movement range	1-Axis ①	±180°	±180°	±180°
	2-Axis ②	±110°	±110°	±110°
	3-Axis ③	±100mm	±100mm	±100mm
	4-Axis ④	±180°	±180°	±180°
Installation environment	Storage temperature	-10°C~70°C		
	Working environment	-10°C~50°C RH≤80%		
	Protection rating	IP55/IP65		
	Power supply	Three-phase 380VAC -10%~+10% 49~61HZ		
	Power capacity	6KVA		
	Rated power	3.6KW		
	Installation method	Ground	Ceiling	Ground

* payload2kg, 25mm-300mm-25mm Trajectory



☑ Cadence parameters are data tested in the laboratory
The load is of standard weight, without picking / releasing actions in the process.

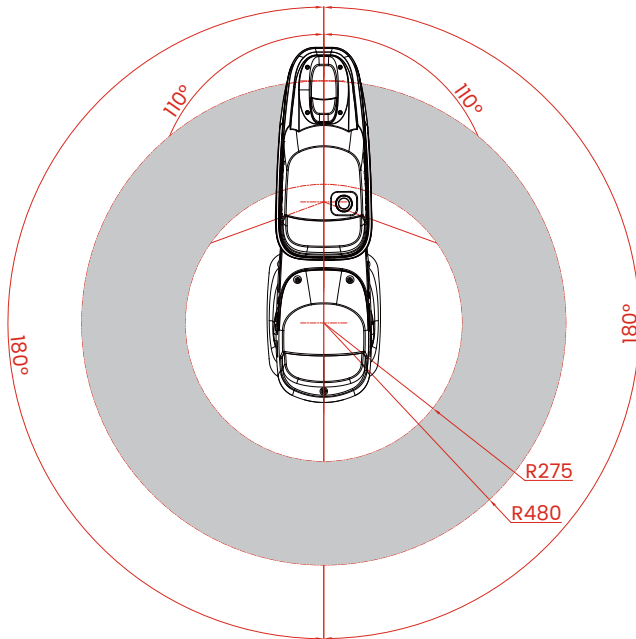
☑ Please consult us for the requirements for special service environments (dust, high-temperature, acid/alkali fog) and higher IP grade.



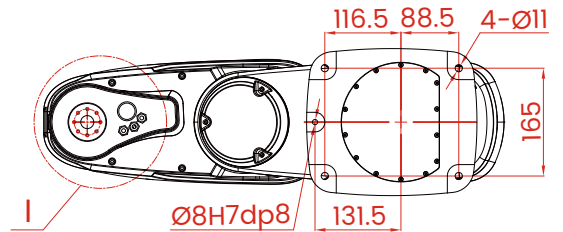
Model		ST-620-B	ST-800-A	ST-800-B
Axes		4	4	4
Max Payload		8.4kg	8.4kg	8.4kg
Weight		51kg	55kg	55kg
Stroke		620mm	800mm	800mm
Precision	Position	±0.02mm	±0.02mm	±0.02mm
	Rotation	±0.05°	±0.05°	±0.05°
Max speed*		220pp/min	200pp/min	200pp/min
Max payload inertia		0.43kg·m ²	0.43kg·m ²	0.43kg·m ²
Controller		atommotion	atommotion	atommotion
Movement range	1-Axis ①	±180°	±180°	±180°
	2-Axis ②	±110°	±153°	±150°
	3-Axis ③	±100mm	±100mm	±100mm
	4-Axis ④	±180°	±180°	±180°
Installation environment	Storage temperature	-10°C~70°C		
	Working environment	-10°C~50°C RH≤80%		
	Protection rating	IP55/IP65		
	Power supply	Three-phase 380VAC -10%~+10% 49~61HZ		
	Power capacity	6KVA		
	Rated power	3.6KW		
Installation method		Ceiling	Ground	Ceiling

DRAWING

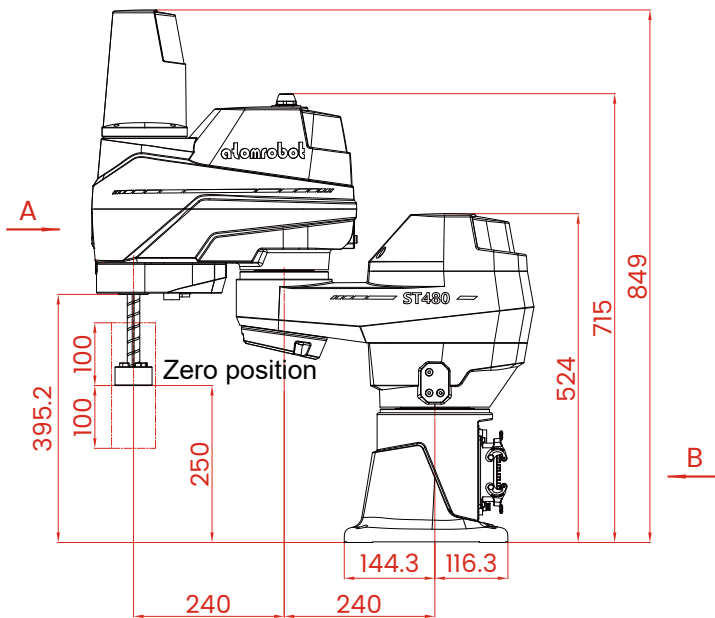
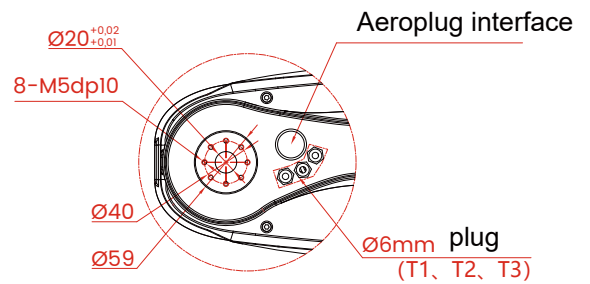
Workspace



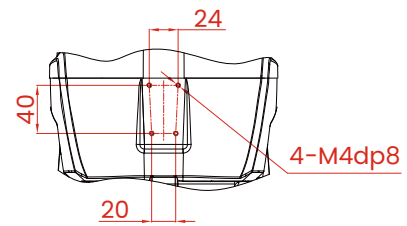
Installation hole



Flange hole $\frac{1}{2:1}$

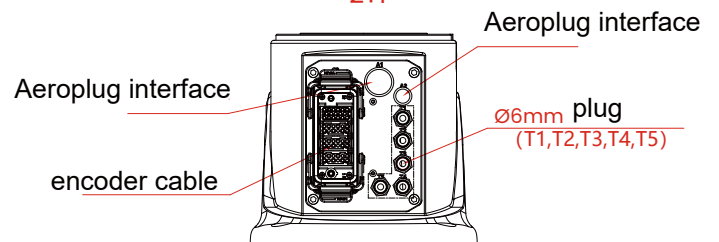
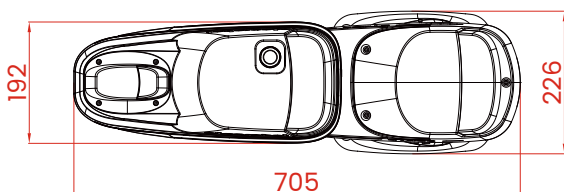


$\frac{A}{2:1}$

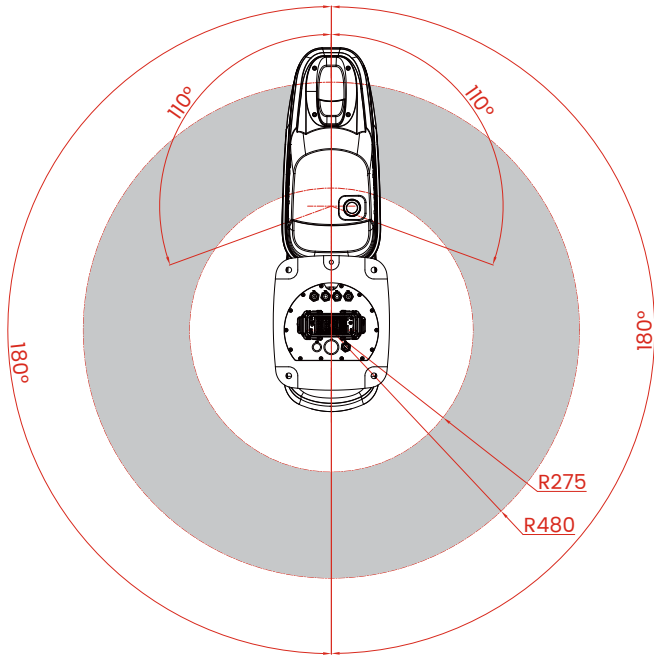


Backside

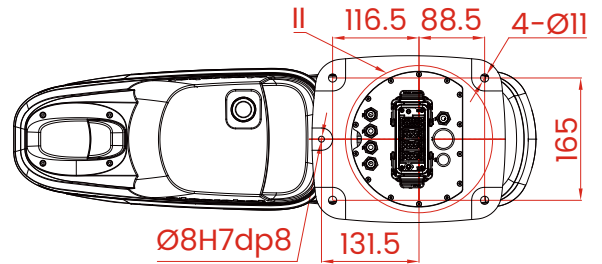
$\frac{B}{2:1}$



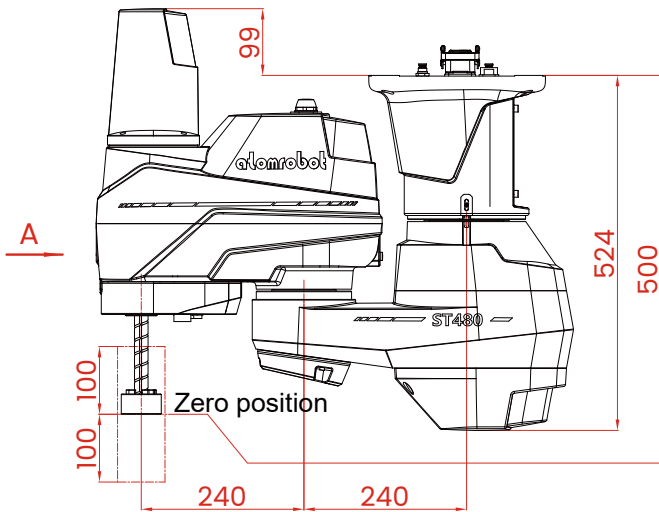
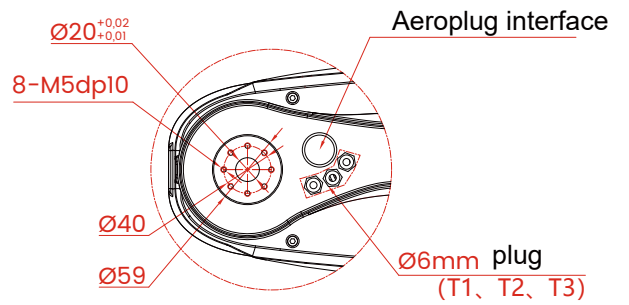
Workspace



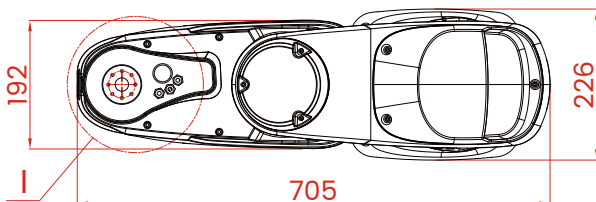
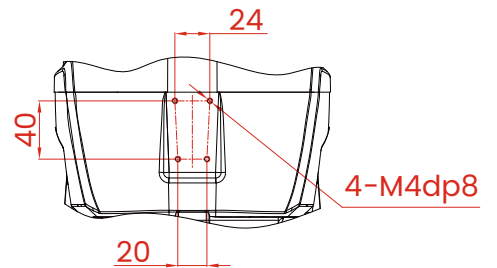
Installation hole



Flange hole $\frac{1}{2:1}$

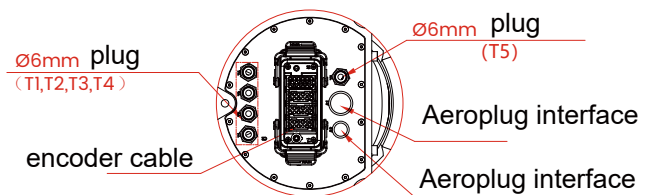


$\frac{A}{2:1}$

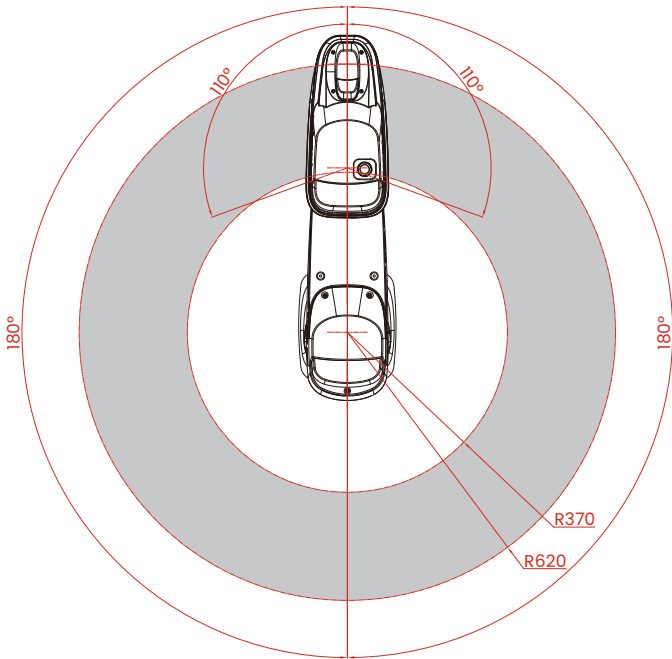


Bottom

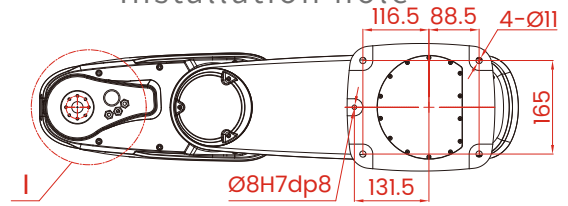
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Workspace

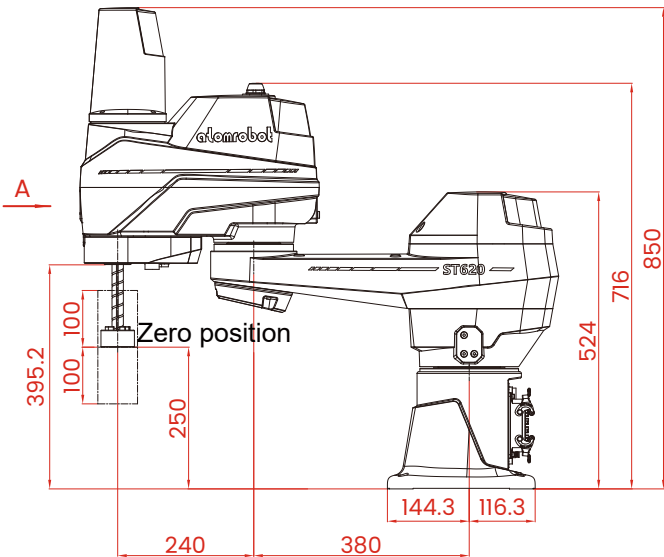
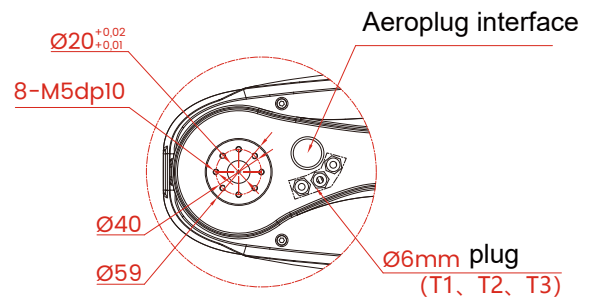


Installation hole

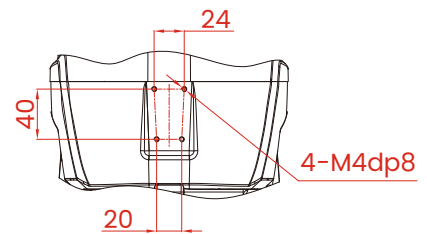


Flange hole

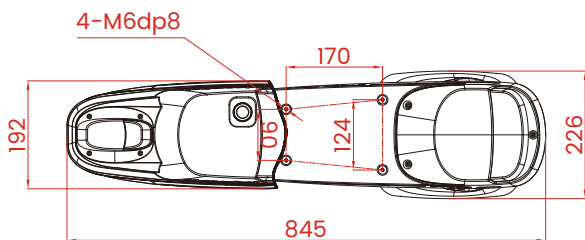
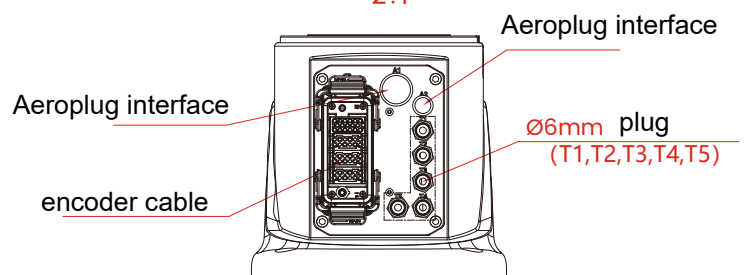
$\frac{1}{2:1}$



$\frac{A}{2:1}$

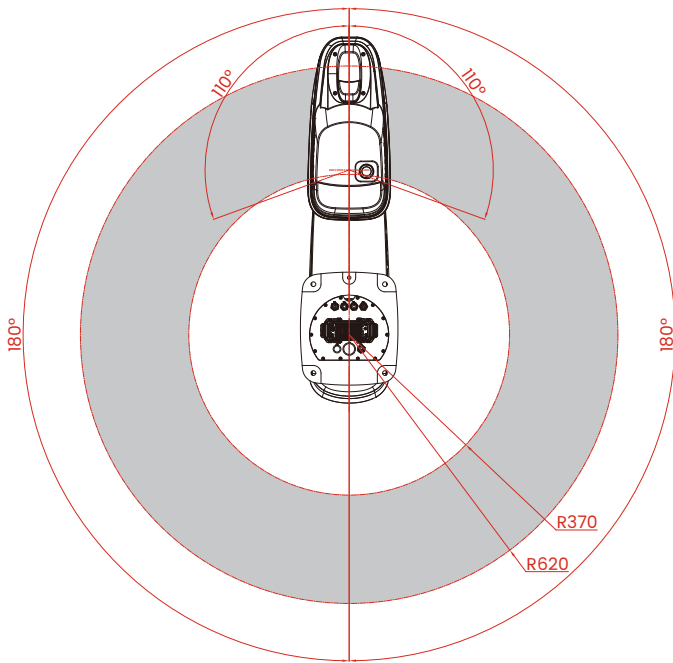


Backside $\frac{B}{2:1}$

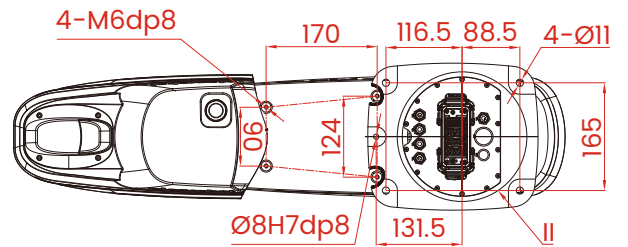


DRAWING

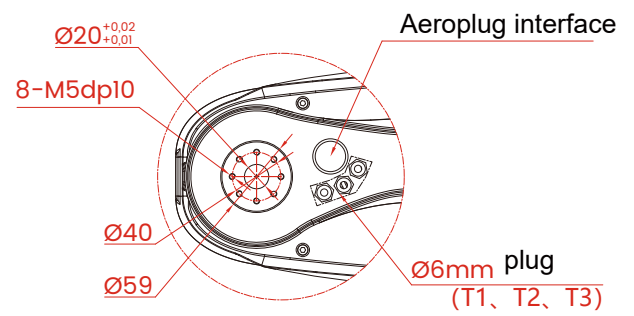
Workspace



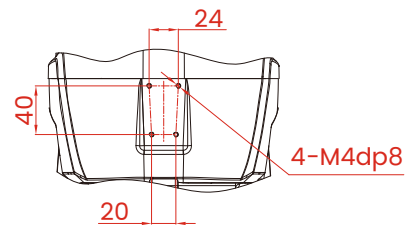
Installation hole



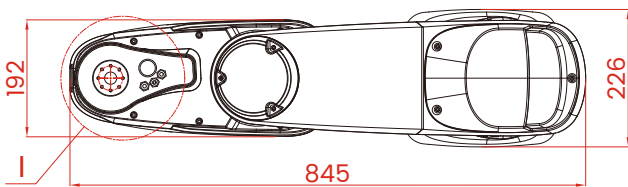
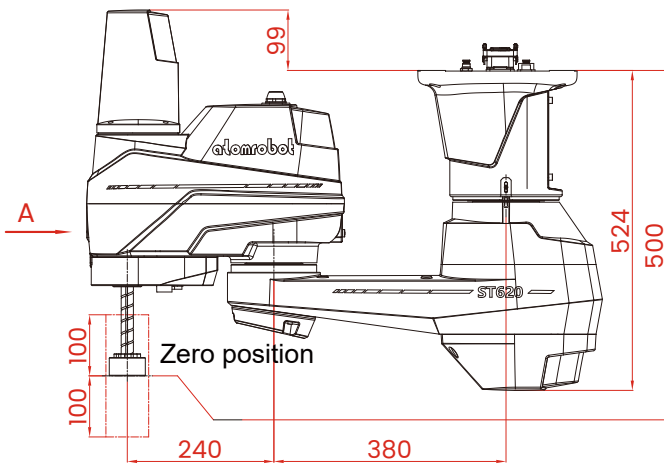
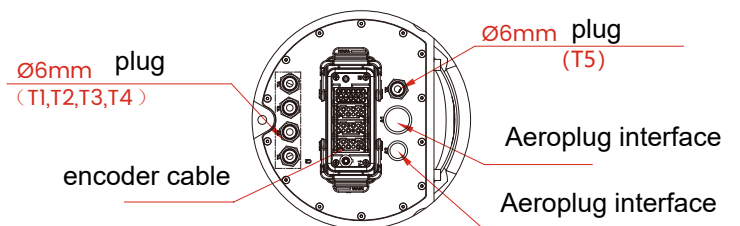
Flange hole $\frac{1}{2:1}$



$\frac{A}{2:1}$

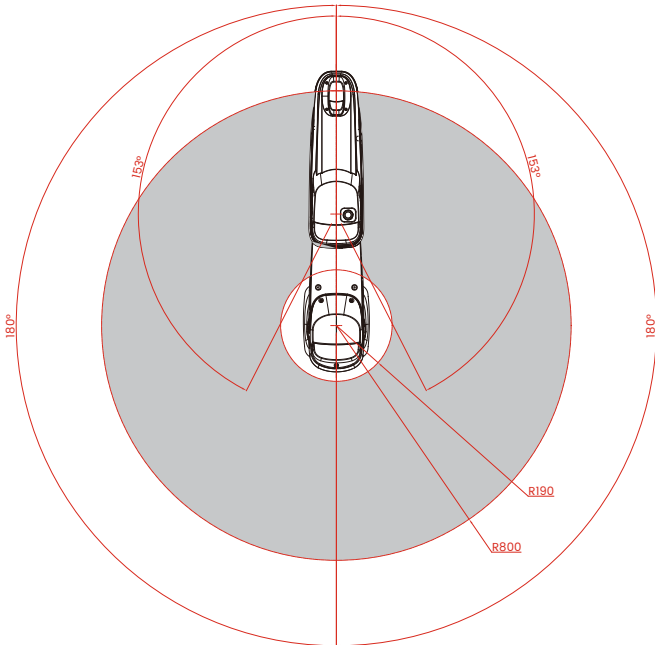


Bottom $\frac{1}{2:1}$

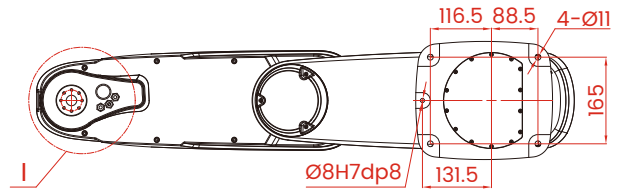


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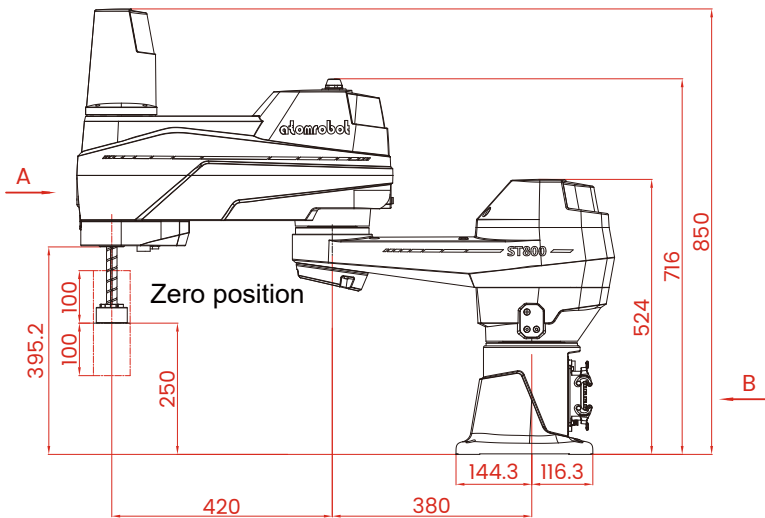
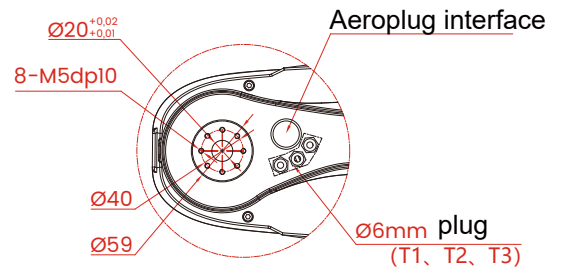
Workspace



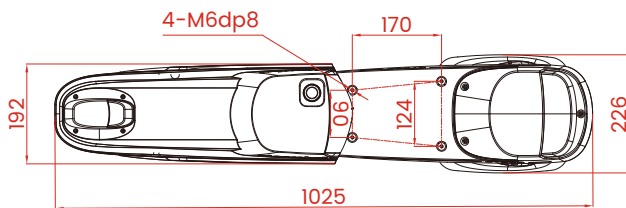
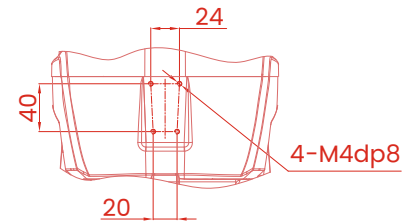
Installation hole



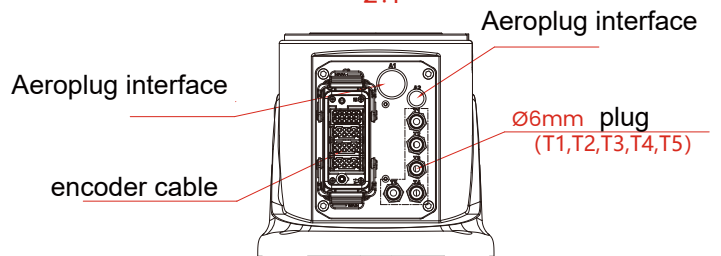
Flange hole $\frac{1}{2:1}$



$\frac{A}{2:1}$

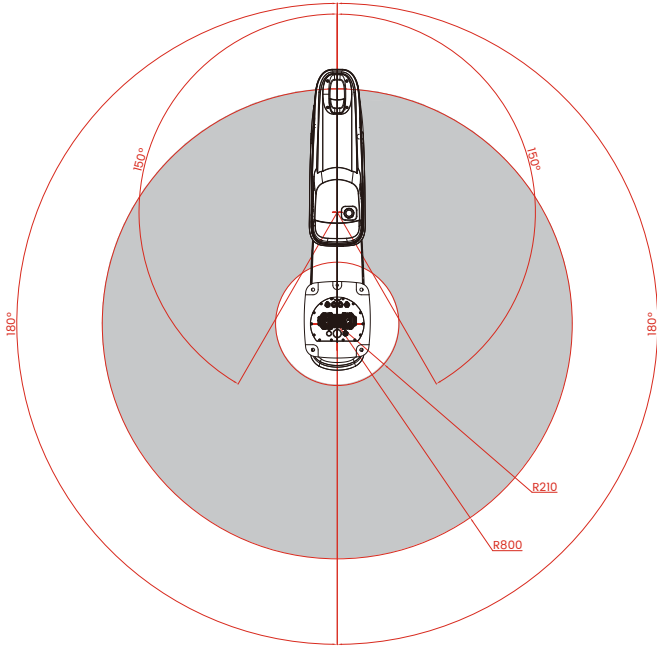


Backside $\frac{B}{2:1}$

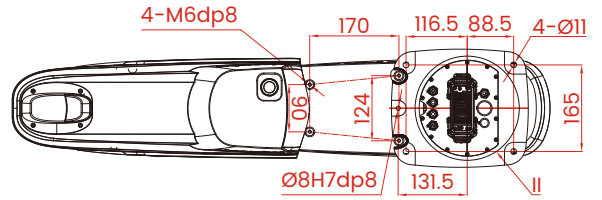


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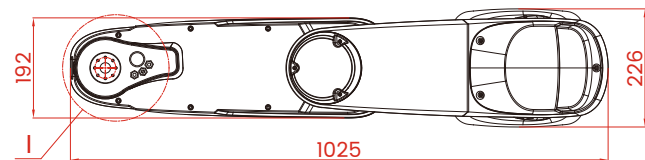
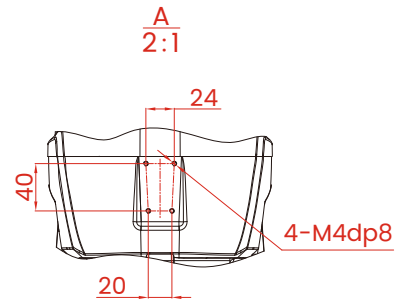
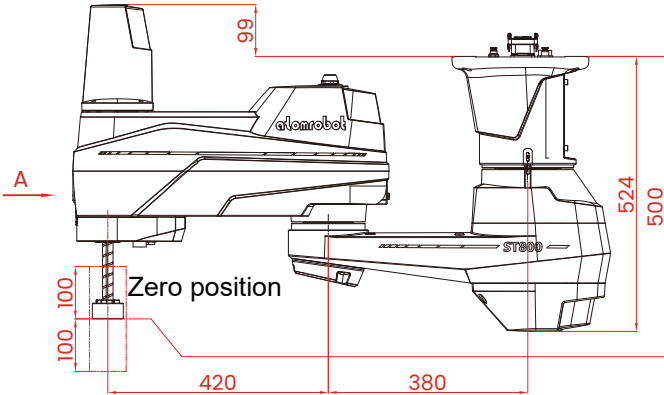
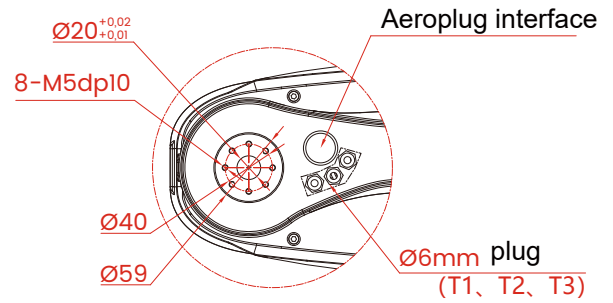
Workspace



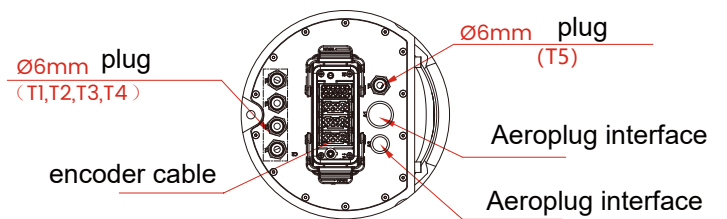
Installation hole



Flange hole $\frac{1}{2:1}$

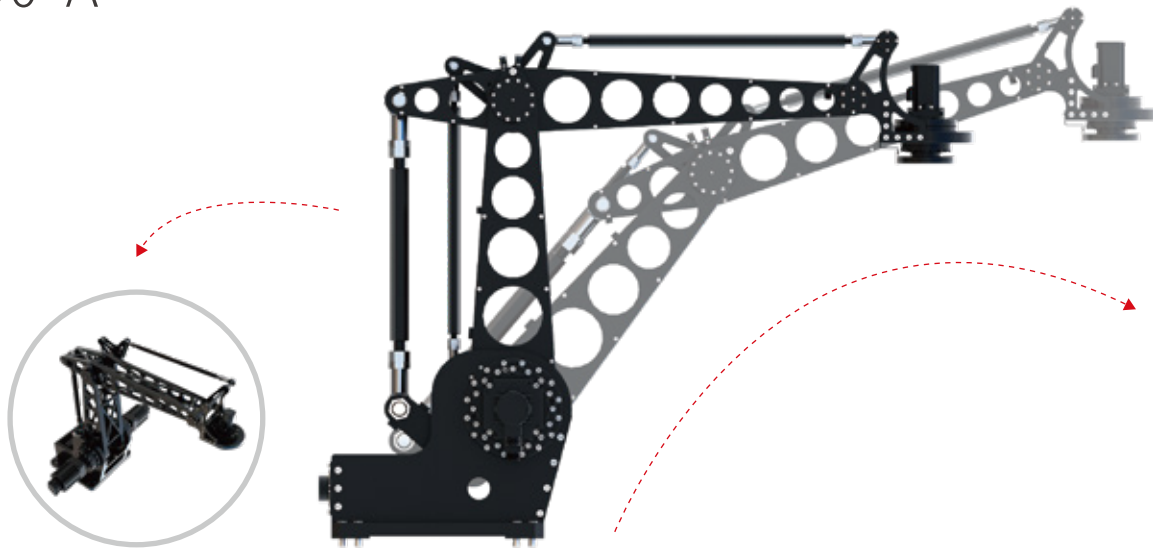


Bottom $\frac{1}{2:1}$



ATOM STACKING ROBOT

PT30-A



Floor Installation Design Higher working stability

The main body of arm is made of carbon fiber material, which makes it lighter

It is very applicable to the operation of large travel packing and palletizing work with **small and medium loads**.



Hoisting design



Lightweight



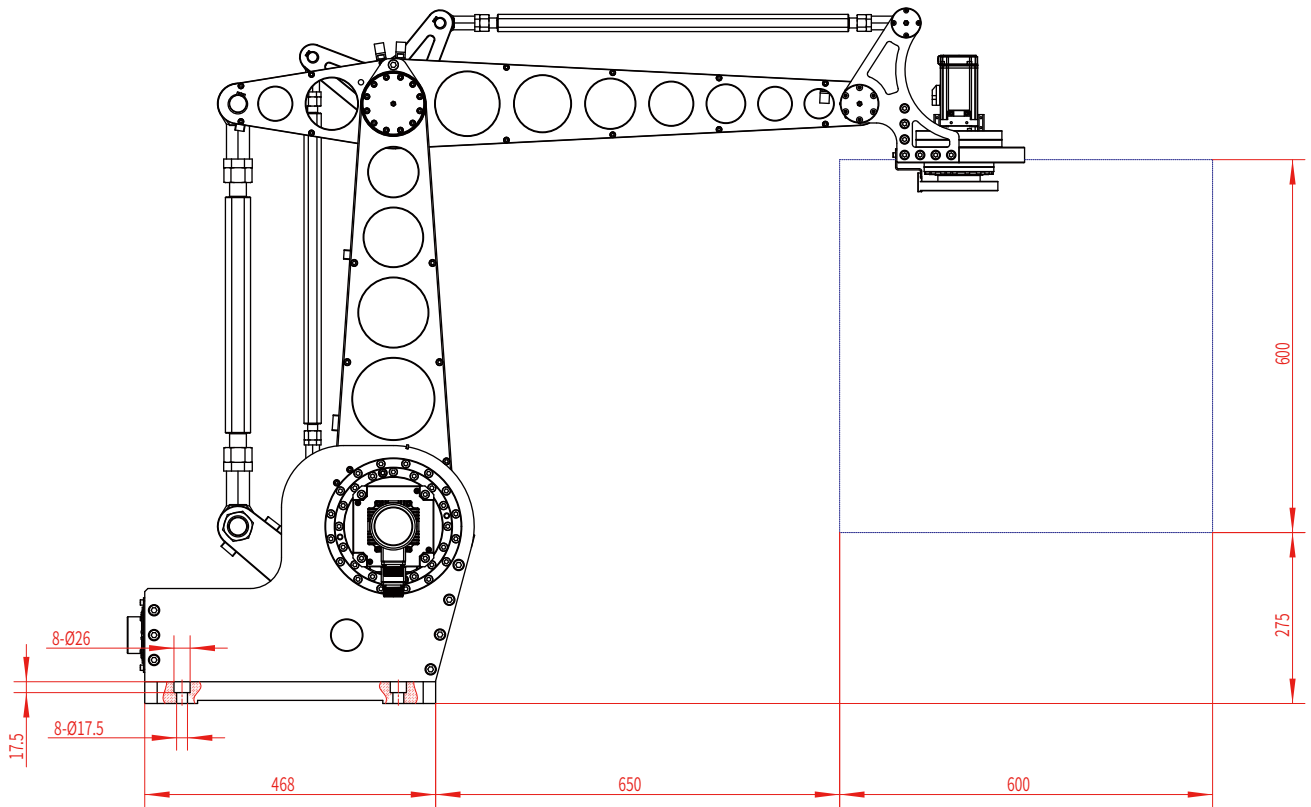
High speed



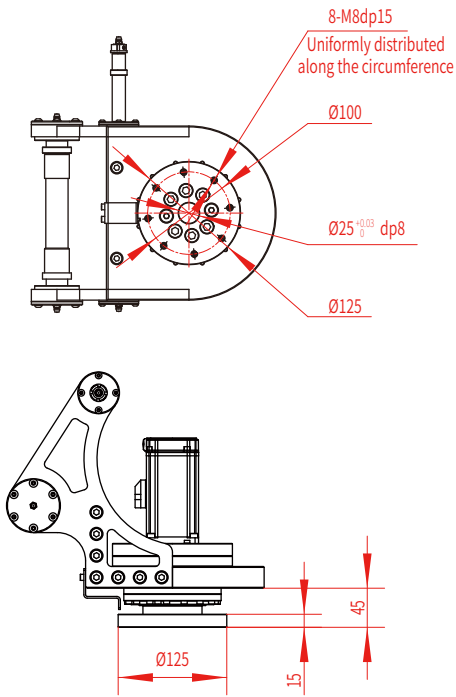
Low cost

Model			PT30-A		
Axes	3		Repeatability	Position	$\pm 0.1\text{mm}$
Max Payload	30kg			Rotation	$\pm 0.05^\circ$
Manipulator	Weight	120kg	Power supply	Three-phase 380VAC -10%~+10%, 49~61HZ	
	Workspace	600x600mm			
	Cadence	30ppm			
Range of Axis	X-axis	600mm	Rated power	5kw	
	Y-axis	600mm	Storage temperature	-10°C~70°C	
	X-Rot	360°	Working environment	0°C~50°C, RH \leq 80%	
			Protection rating	IP55	

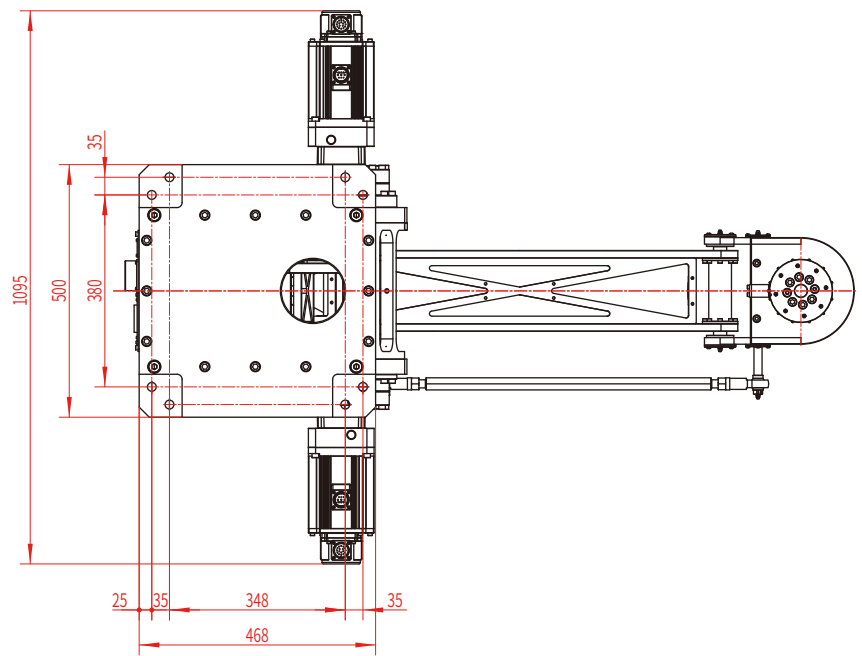
Overall Dimensions and Movement Range



Flange

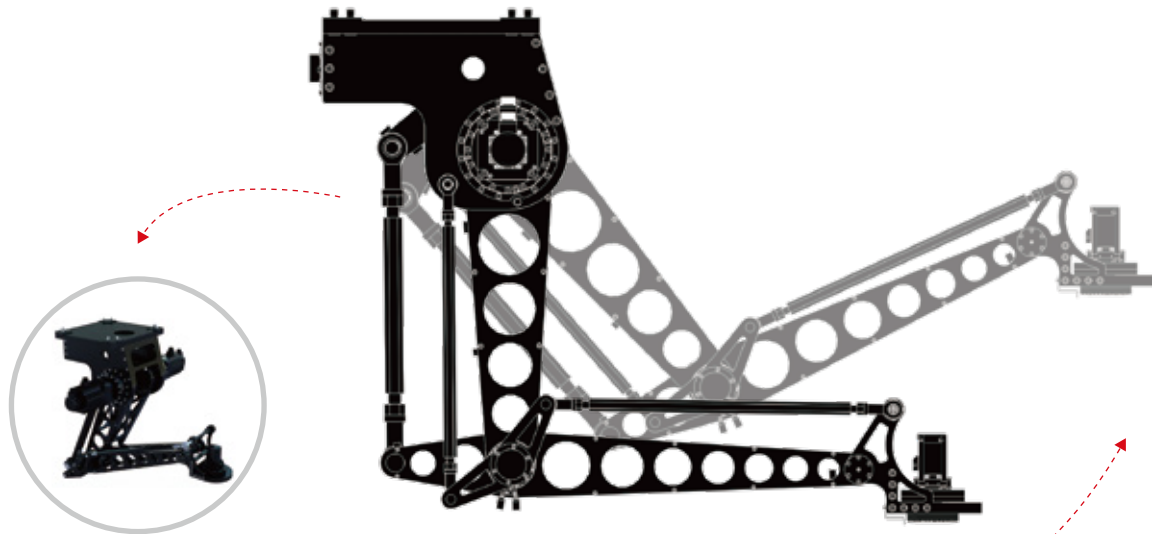


Base Installation



ATOM STACKING ROBOT

PT30-B



Inverted Design Higher space utilization

The main body of arm is made of carbon fiber material, which makes it lighter

It is very applicable to the operation of large travel packing and palletizing work with **small and medium loads**.



Hoisting design



Lightweight



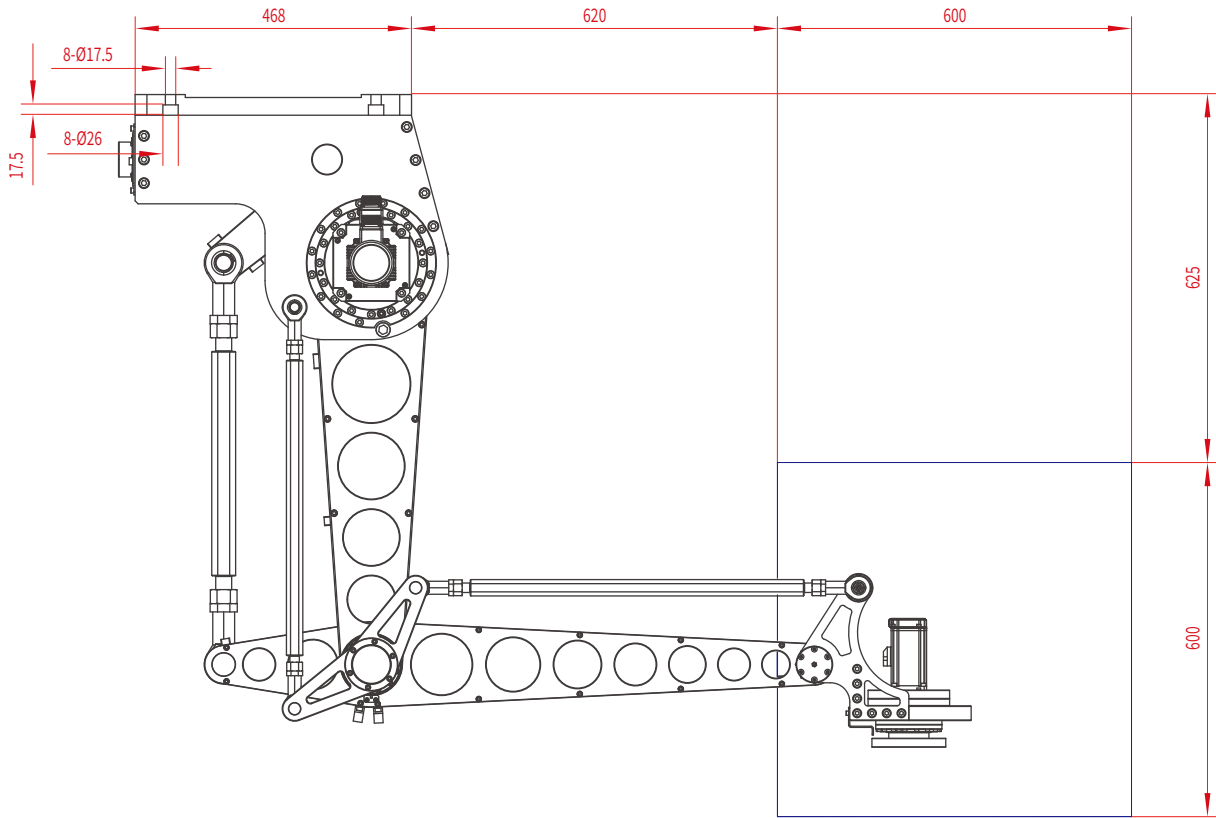
High speed



Low cost

Model			PT30-B		
Axes	3		Repeatability	Position	±0.1mm
Max Payload	30kg			Rotation	±0.05°
Manipulator	Weight	120kg	Power supply	Three-phase 380VAC -10%~+10%, 49~61HZ	
	Workspace	600x600mm			
	Beat	30ppm	Power capacity	7.5KVA	
Range of Axis	X-axis	600mm	Rated power	5kw	
	Y-axis	600mm	Storage temperature	-10°C~70°C	
	X-Rot	360°	Working environment	0°C~50°C, RH≤80%	
			Protection rating	IP55	

Overall Dimensions and Movement Range



Flange

Base Installation

