

atomrobot[®]
阿童木机器人

并联机器人

选型手册

Parallel Robot Selection Manual

D3PB



● 型号和符号

	D3PB	1100	P3	A1	E1	FXGX
机型	型号	负载	控制器类型	控制柜类型	视觉	
D3PB	450	P3: 3kg	A1: ATOMCONTROL	E1: ATOM-01 E2: ATOM-02 E3: 定制	F0G0: 无视觉 FXGX: 有视觉	
	600					
	800					
	1100					
	1200		A2: KEBA CONTROL			

● Model and Symbol

	D3P	1100	P3	A1	E1	FXGX
Robot type	Type	Load Type	Control Type	Control Cabinet	Vision Type	
D3PB	450	P3: 3kg	A1: ATOMCONTROL	E1: ATOM-01 E2: ATOM-02 E3: Custom	F0G0: Without vision FXGX: With vision	
	600					
	800					
	1100					
	1200		A2: KEBA CONTROL			

D3PB-450-P3



高速度
高精度
高稳定性
小巧、敏捷

High speed
High precision
High stability
Small and Agile

型号 Type		D3P-450-P3
轴数 Axes		3+1
最大负载 Payload		3kg
机器人本体 Manipulator	重量 Weight	41.5kg
	工作空间直径 Diameter	450mm
重复定位精度 repeatability	位置 Position	0.05mm
	旋转 Rotation	0.1°
旋转范围 Rotation range		±360°
允许负载最大旋转惯量 Allowable maximum moment of inertia		$31 \times 10^{-4} \text{kg} \cdot \text{m}^2$
主动臂角度范围 Angle range of actuated arm	上摆 Up	36.5°
	下摆 Down	65.5°
输入电源 Power supply	三相 Three-phase 380VAC -10%~+10%, 49~61HZ	
电源容量 Power capacity	3KVA	
额定功率 Rated Power	1.3kw	
保存温度 Storage temperature	-10°C~70°C	
工作环境 Work environment	-10°C~50°C, RH≤80%	
防护等级 Protection	IP55	

◆ 标准循环时间小于0.5s,满足追求最高速度和最小体积需求

The standard cycle time is less than 0.5s, meeting your pursuit for the maximum speed and the minimum volume.

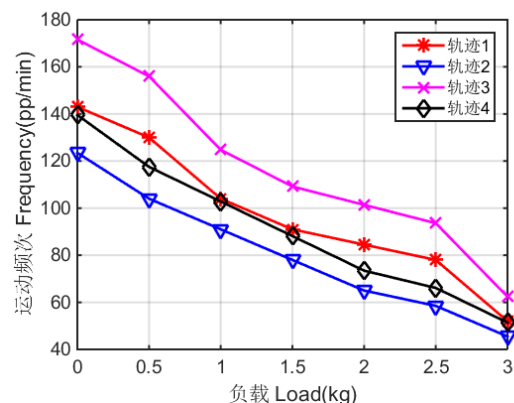
◆ 特殊旋转轴铰链设计, 轻松应对高强度高频次重复运动需求

Advanced design of Hooke joint in the rotational axis, enables the robot to easily cope with the high-intensity repetitive operation.

◆ 非常适于狭小空间内作业、3C制造等行业的高速高精生产作业, 主要用于小型工件的装配、搬运、检测等

The robot is ideal for narrow space operations, as well as high-speed and high-precision in 3C field. Widely used in assembly, handling and testing of small work pieces.

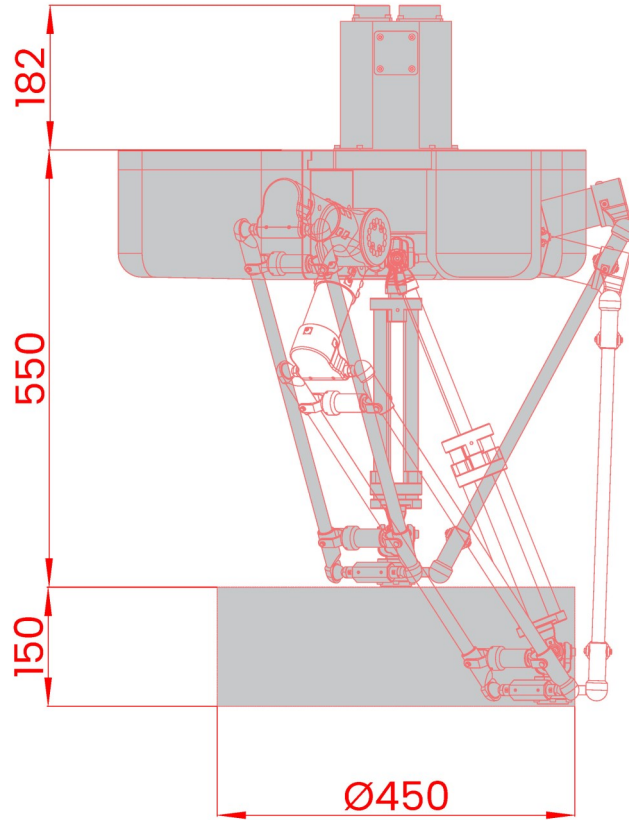
● 负载-频次 Load-Frequency



名称 Name	循环模式 Model	运动距离 Distance
轨迹1 Trajectory1	P1 → P2 → P3 → P4 → P3 → P2 → P1	h=25, b=305
轨迹2 Trajectory2	P1 → P2 → P3 → P4 → P3 → P2 → P1	h=25, b=500
轨迹3 Trajectory3	P1 → P2 → P3 → P2 → P1	h=25, b=305
轨迹4 Trajectory4	P1 → P2 → P3 → P2 → P1	h=25, b=500

特别注意: 图中节拍时间在实际条件下测得, 但根据实际运用情况的不同 (工具数据、路径半径、夹具启动等), 节拍时间也会发生变化。

外形尺寸及运动范围
Outline dimensions and Working range (mm)



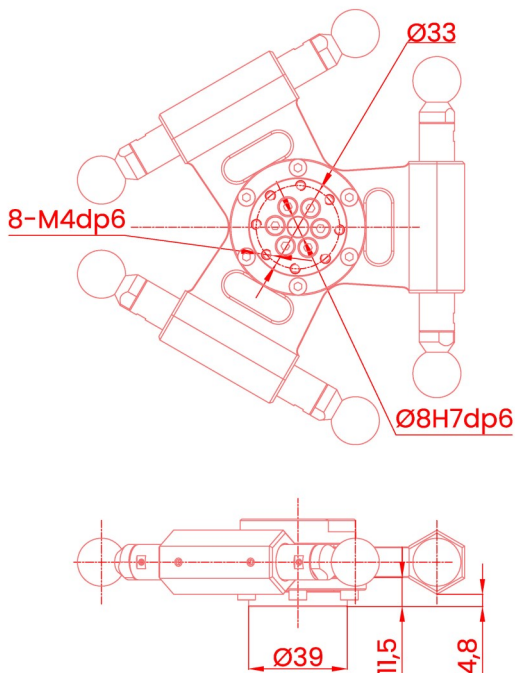
说明:

图示下部加深部分为机器人末端下表面几何中心的运动范围

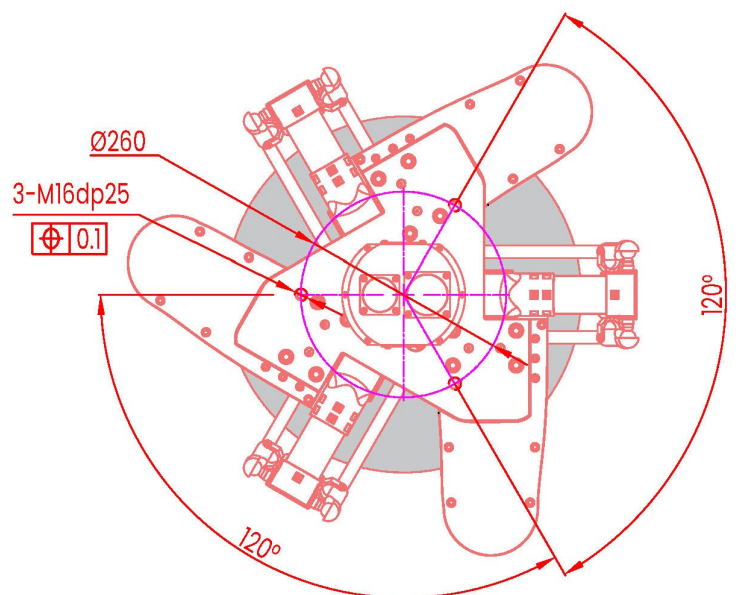
Instruction:

The bottom gray part is the workplace of bottom surface 's center point of the end, which is a cylinder .

法兰 Flange (mm)



基座安装 Base installation (mm)



D3PB-600-P3



高速度
高精度
高稳定性
小巧、敏捷

High speed
High precision
High stability
Small and Agile

型号 Type	D3PB-600-P3	
轴数 Axes	3+1	
最大负载 Payload	3kg	
机器人本体 Manipulator	重量 Weight	66kg
	工作空间直径 Diameter	600mm
重复定位精度 repeatability	位置 Position	0.05mm
	旋转 Rotation	0.1°
旋转范围 Rotation range	±360°	
允许负载最大旋转惯量 Allowable maximum moment of inertia	31×10 ⁻⁴ kg·m ²	
主动臂角度范围 Angle range of actuated arm	上摆 Up	36.5°
	下摆 Down	65.5°
输入电源 Power supply	三相 Three-phase 380VAC -10%~+10%, 49~61HZ	
电源容量 Power capacity	3KVA	
额定功率 Rated Power	2.4kw	
保存温度 Storage temperature	-10°C~70°C	
工作环境 Work environment	-10°C~50°C, RH≤80%	
防护等级 Protection	IP55	

◆ 标准循环时间小于0.5s,满足追求最高速度和最小体积需求

The standard cycle time is less than 0.5s, meeting your pursuit for the maximum speed and the minimum volume.

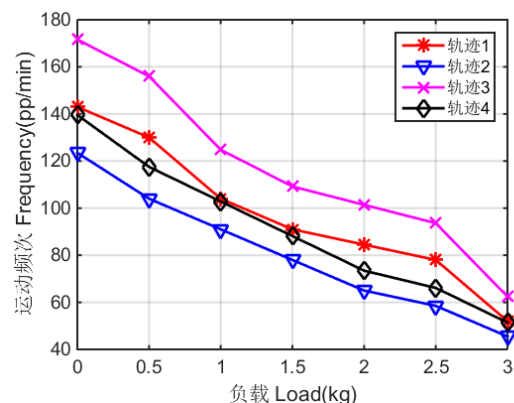
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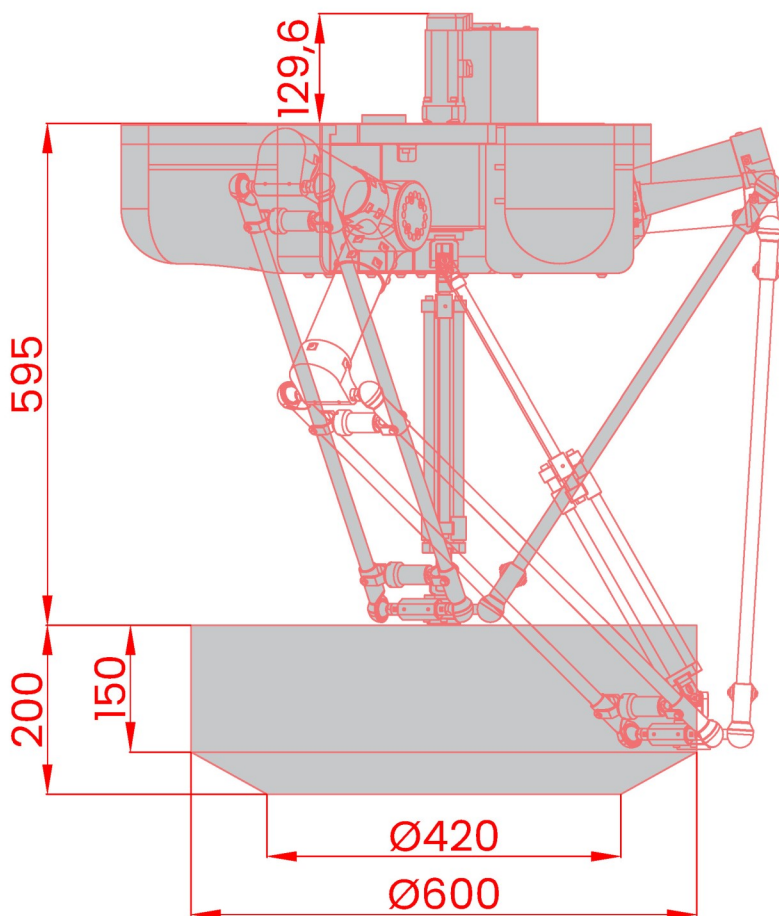
● 负载-频次 Load-Frequency



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外形尺寸及运动范围
Outline dimensions and Working range (mm)

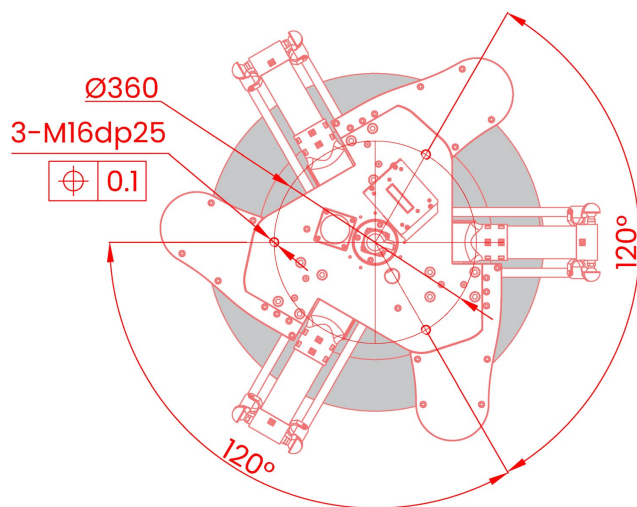
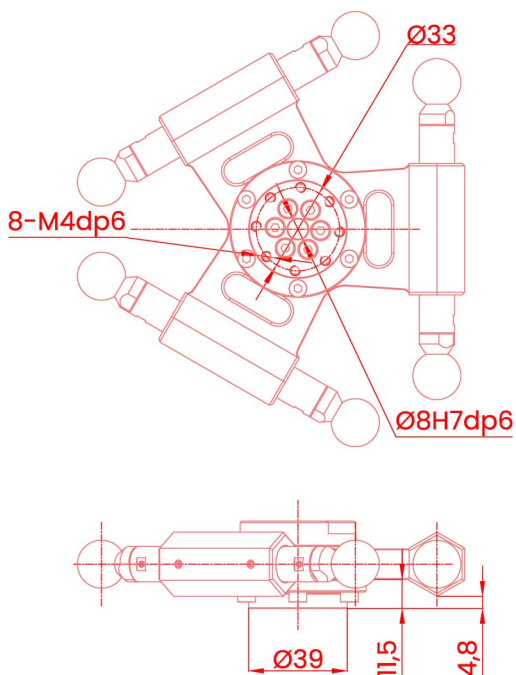


说明：
图示下部加深部分为机器人末端下表面几何中心的运动范围，上部为圆柱空间，并在下部向内收敛。

Instruction:
The bottom gray part is the workplace of bottom surface 's center point of the end, which is composed of a cylinder at the top and a circular truncated cone at the bottom.

法兰 Flange (mm)

底座安装 Base installation (mm)



D3PB-800-P3



高速度
高精度
高稳定性
低高度

High speed
High precision
High stability
Lower height

型号 Type		D3PB-800-P3
轴数 Axes		3+1
最大负载 Payload		3kg
机器人本体 Manipulator	重量 Weight	83.8kg
	工作空间直径 Diameter	800mm
重复定位精度 repeatability	位置 Position	0.05mm
	旋转 Rotation	0.1°
旋转范围 Rotation range		±360°
允许负载最大旋转惯量 Allowable maximum moment of inertia		$31 \times 10^{-4} \text{ kg} \cdot \text{m}^2$
主动臂角度范围 Angle range of actuated arm	上摆 Up	47.3°
	下摆 Down	60.2°
输入电源 Power supply	三相 Three-phase 380VAC -10%~+10%, 49~61HZ	
电源容量 Power capacity	6KVA	
额定功率 Rated Power	2.4kw	
保存温度 Storage temperature	-10°C~70°C	
工作环境 Work environment	-10°C~50°C, RH≤80%	
防护等级 Protection	IP55	

◆ 标准循环时间小于0.45s,满足追求最高速度和最小体积需求

The standard cycle time is less than 0.45s, meeting your pursuit for the maximum speed and economic.

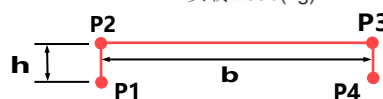
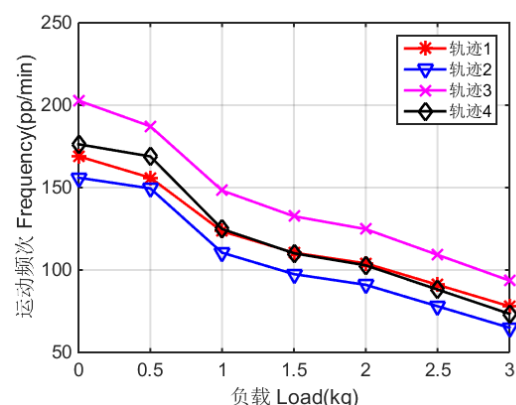
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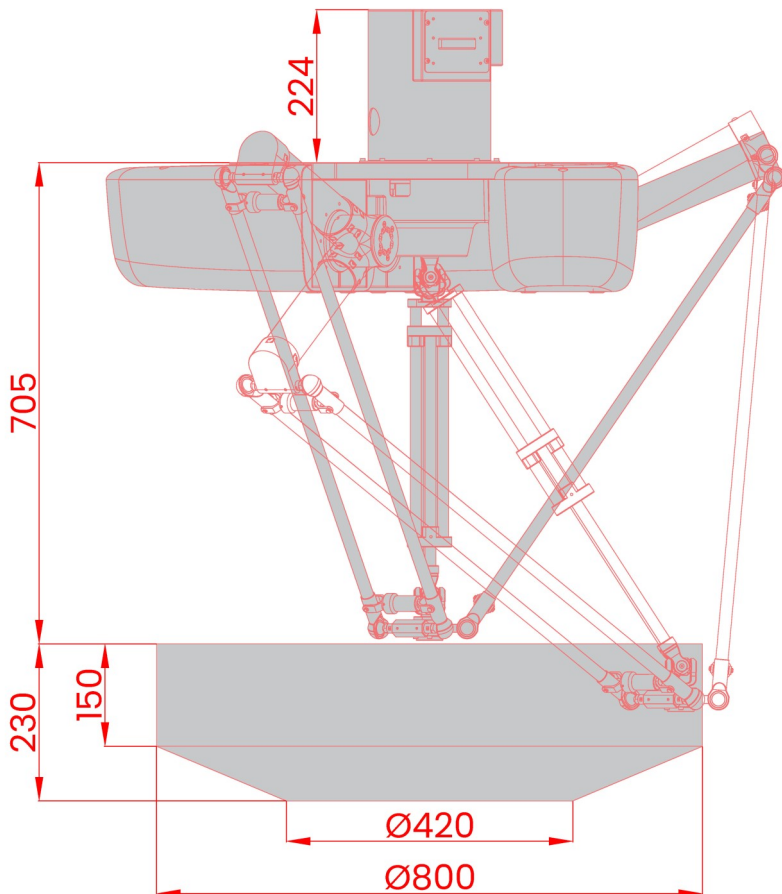
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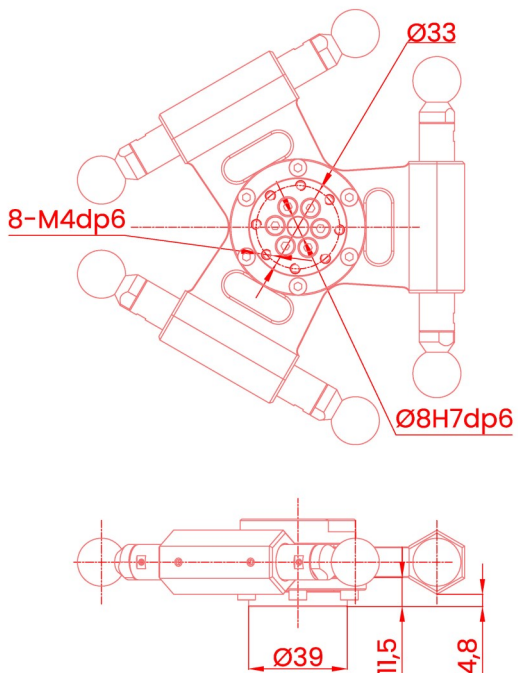
外形尺寸及运动范围
Outline dimensions and Working range (mm)



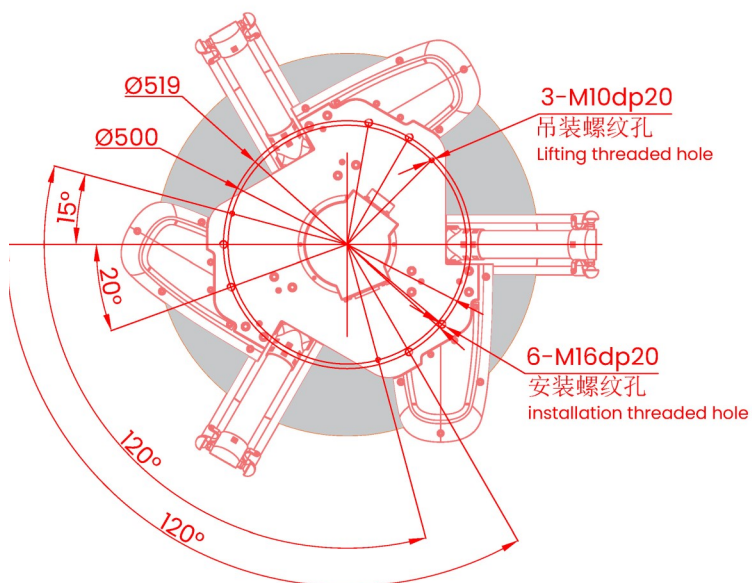
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Instruction:
The bottom gray part is the workplace of bottom surface's center point of the end, which is composed of a cylinder at the top and a circular truncated cone at the bottom.

法兰 Flange (mm)



基座安装 Base installation (mm)



D3PB-1100-P3



高速度
高精度
高稳定性
低高度

High speed
High precision
High stability
Lower height

型号 Type		D3PB-1100-P3
轴数 Axes		3+1
最大负载 Payload		3kg
机器人本体 Manipulator	重量 Weight	85.5kg
	工作空间直径 Diameter	1100mm
重复定位精度 repeatability	位置 Position	0.05mm
	旋转 Rotation	0.1°
旋转范围 Rotation range		±360°
允许负载最大旋转惯量 Allowable maximum moment of inertia		$31 \times 10^{-4} \text{kg} \cdot \text{m}^2$
主动臂角度范围 Angle range of actuated arm	上摆 Up	39.2°
	下摆 Down	77.1°
输入电源 Power supply		三相 Three-phase 380VAC -10%~+10%, 49~61HZ
电源容量 Power capacity		10KVA
额定功率 Rated Power		2.4kw
保存温度 Storage temperature		-10°C~70°C
工作环境 Work environment		-10°C~50°C, RH≤80%
防护等级 Protection		IP55

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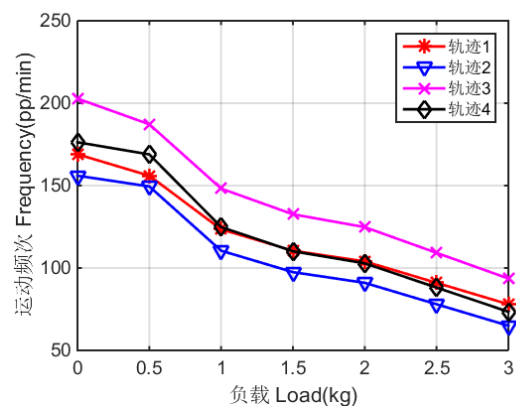
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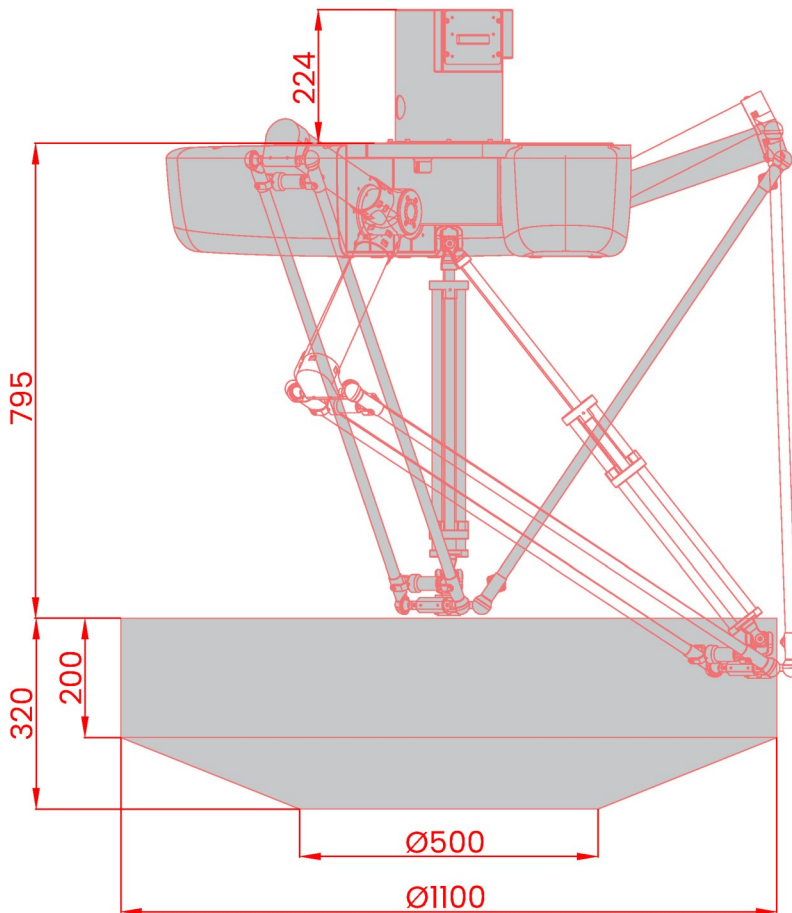
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外形尺寸及运动范围
Outline dimensions and Working range (mm)



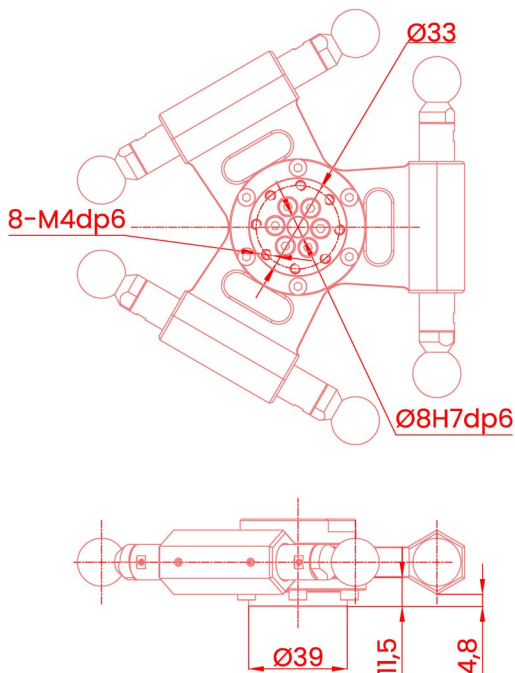
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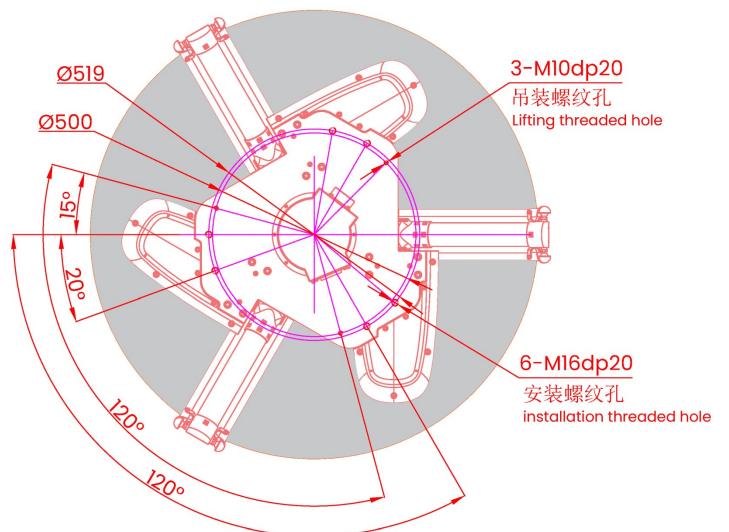
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法兰 Flange (mm)



基座安装 Base installation (mm)



3-M10dp20
吊装螺纹孔
Lifting threaded hole

6-M16dp20
安装螺纹孔
installation threaded hole

D3PB-1200-P3



高速度
高稳定性
大空间
低高度

High speed
High stability
Large space
Lower Height

型号 Type		D3PB-1200-P3
轴数 Axes		3+1
最大负载 Payload		3kg
机器人本体 Manipulator	重量 Weight	88.6kg
	工作空间直径 Diameter	1200mm
重复定位精度 repeatability	位置 Position	0.05mm
	旋转 Rotation	0.1°
旋转范围 Rotation range		±360°
允许负载最大旋转惯量 Allowable maximum moment of inertia		$31 \times 10^{-4} \text{kg} \cdot \text{m}^2$
主动臂角度范围 Angle range of actuated arm	上摆 Up	34.5°
	下摆 Down	86.5°
输入电源 Power supply	三相 Three-phase 380VAC -10%~+10%, 49~61HZ	
电源容量 Power capacity	10KVA	
额定功率 Rated Power	6.1kw	
保存温度 Storage temperature	-10°C~70°C	
工作环境 Work environment	-10°C~50°C, RH≤80%	
防护等级 Protection	IP55	

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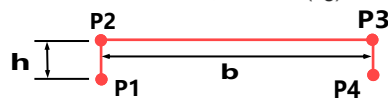
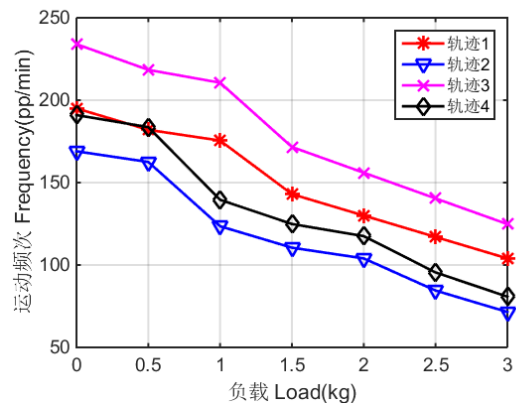
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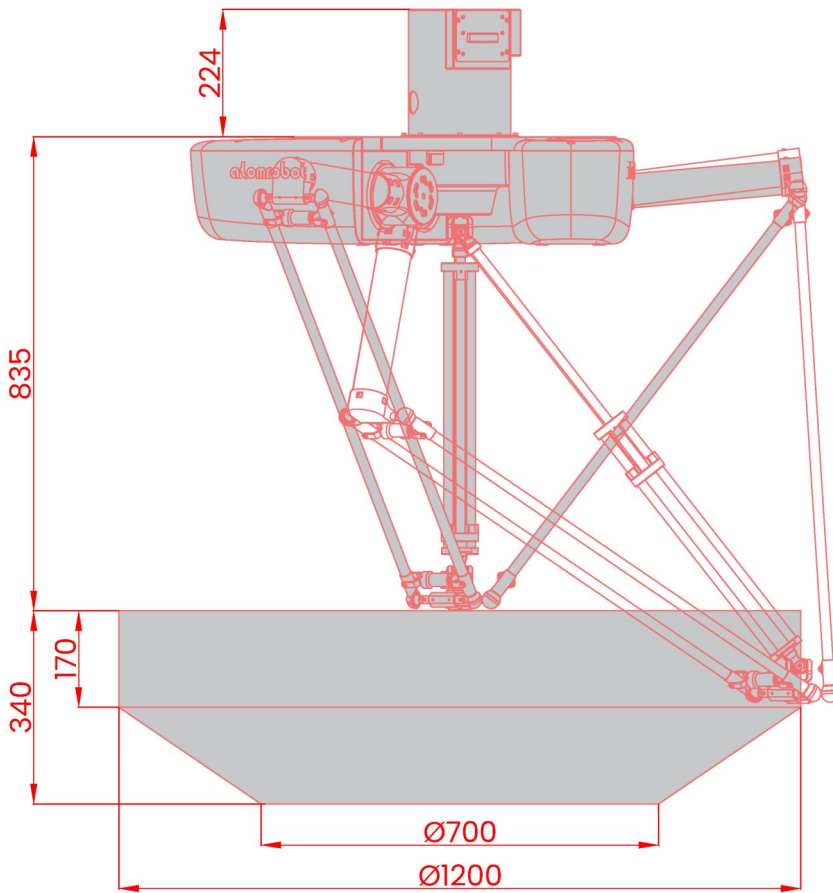
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外形尺寸及运动范围
Outline dimensions and Working range (mm)



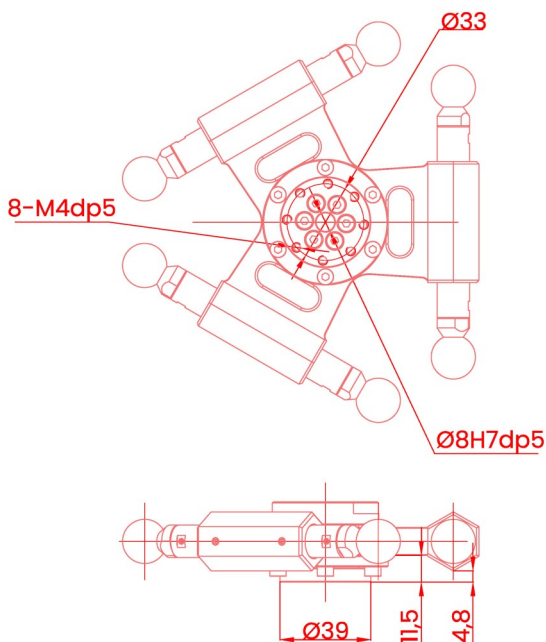
说明:

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Instruction:

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法兰 Flange (mm)



基座安装 Base installation (mm)

