

atomrobot[®]
阿童木机器人

并联机器人

选型手册

Parallel Robot Selection Manual

D3P



● 型号和符号

	D3P	1100	P3	A1	E1	FXGX
机型	型号	负载	控制器类型	控制柜类型	视觉	
D3P	800	P3: 3kg P5: 5kg P8: 8kg	A1: ATOMCONTROL A2: KEBA CONTROL	E1: ATOM-01 E2: ATOM-02 E3: 定制	F0G0: 无视觉 FXGX: 有视觉	
	1100					
	1300					
	1400					
	1600					

● Model and Symbol

	D3P	1100	P3	A1	E1	FXGX
Robot type	Type	Load Type	Control Type	Control Cabinet	Vision Type	
D3P	800	P3: 3kg P5: 5kg P8: 8kg	A1: ATOMCONTROL A2: KEBA CONTROL	E1: ATOM-01 E2: ATOM-02 E3: Custom	F0G0: Without vision FXGX: With vision	
	1100					
	1300					
	1400					
	1600					

D3P-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	D3P-800-P3	
轴数 Axes	3+1	
最大负载 Payload	3kg	
机器人本体 Manipulator	重量 Weight	88.8kg
	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	31×10 ⁻⁴ kg·m ²	
主动臂角度范围 Angle range of actuated arm	上摆 Up	30.2°
	下摆 Down	63.6°
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	2.35kw	
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.

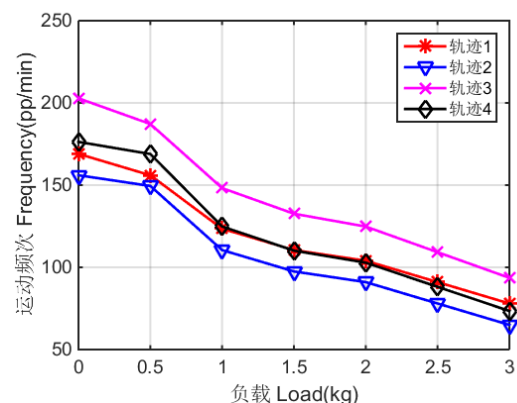
- ◆ 特殊旋转轴铰链设计, 轻松应对高强度高频次重复运动需求

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

- ◆ 非常适于食品、医药等行业的高速生产作业, 主要用于小型物料的装配、搬运、分拣等

The robot is ideal for high-speed production in food and medicine industry. Widely used in assembly, handling and pick-and-place of small materials.

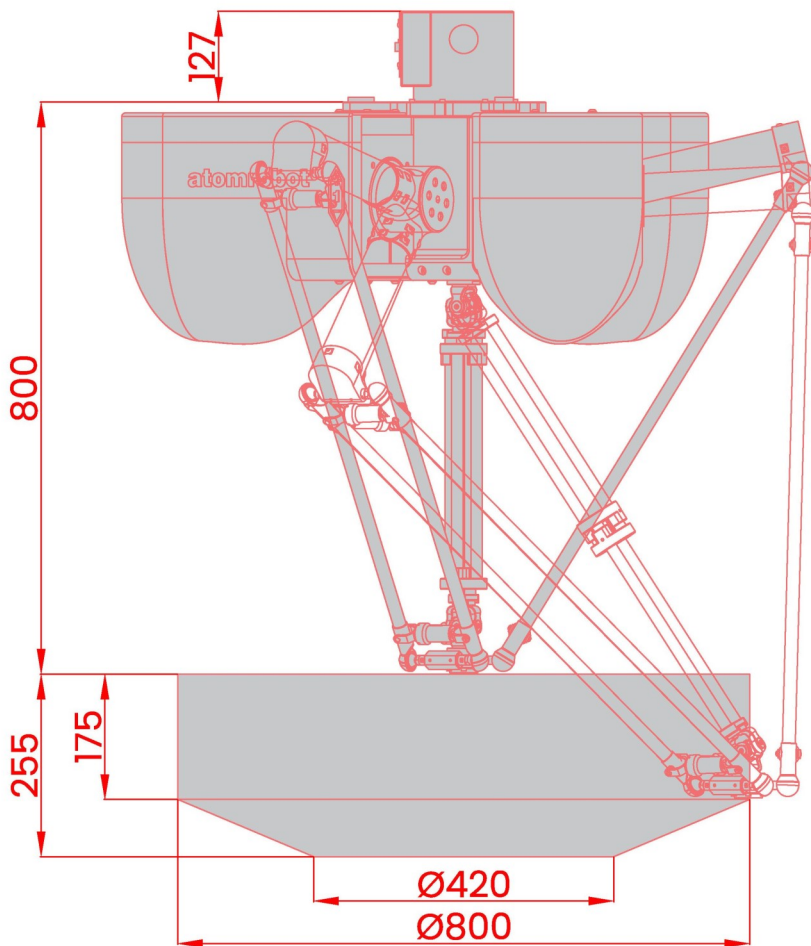
● 负载-频次 Load-Frequency



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。

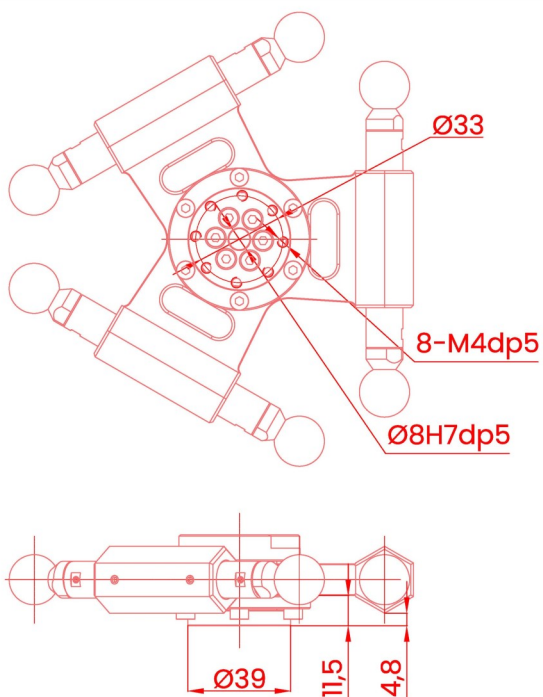
外形尺寸及运动范围
Outline dimensions and Working range (mm)



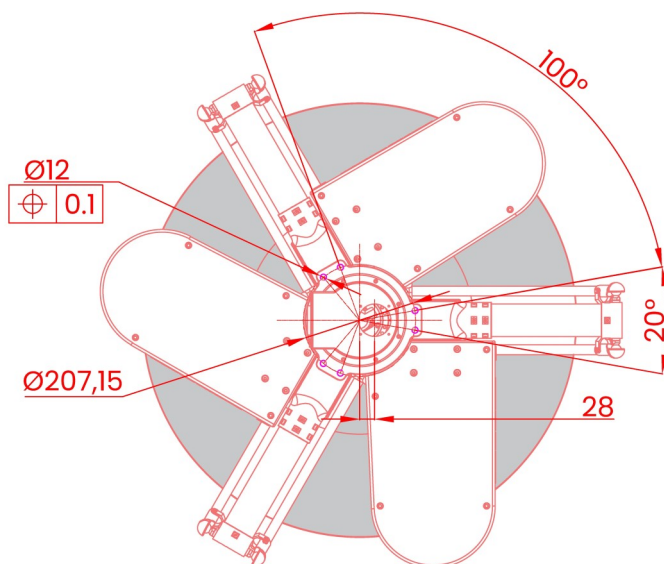
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图示下部加深部分为机器人末端下表面几何中心的运动范围，上部为圆柱空间，并在下部向内收敛。

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)



基座安装 Base installation (mm)



D3P-1100-P3



高速度
高稳定性
大空间
经济实用

High speed
High stability
Large space
Economic & Practical

型号 Type	D3P-1100-P3	
轴数 Axes	3+1	
最大负载 Payload	3kg	
机器人本体 Manipulator	重量 Weight	90.5kg
	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	80 × 10 ⁻⁴ kg · m ²	
主动臂角度范围 Angle range of actuated arm	上摆 Up	24.5°
	下摆 Down	73.5°
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	

◆ 标准循环时间小于0.4s,满足追求最高速度和最经济需求

The standard cycle time is less than 0.4s, meeting your pursuit for the maximum speed and economic.

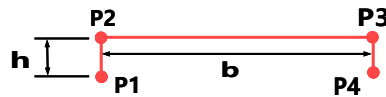
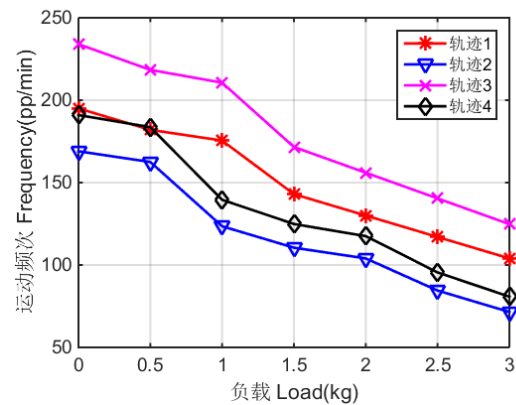
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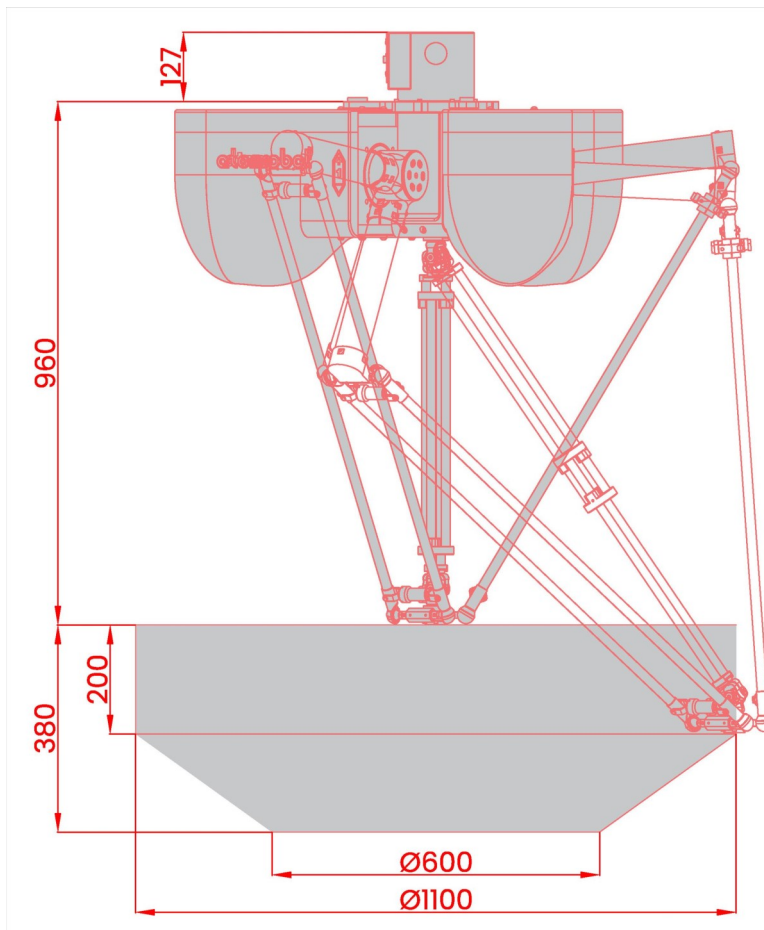
● 负载-频次 Load-Frequency



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



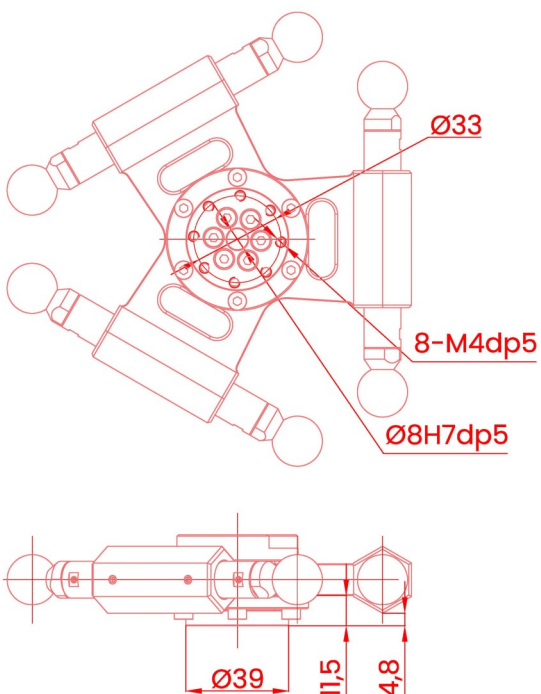
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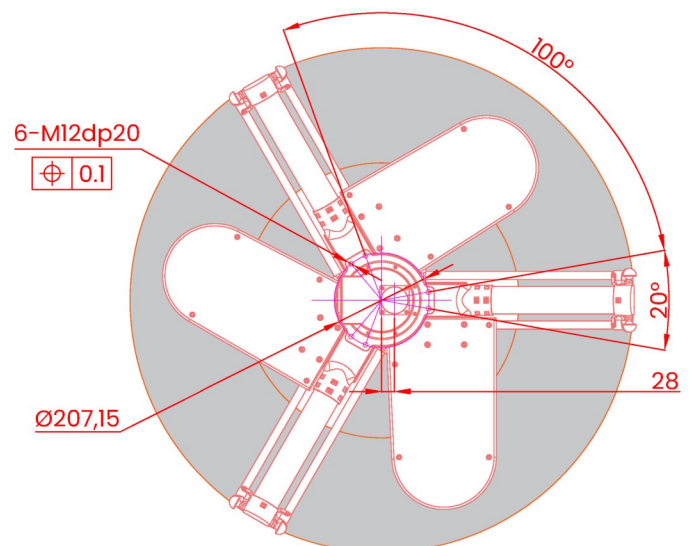
Instruction:

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法兰 Flange (mm)



底座安装 Base installation (mm)



D3P-1100-P5



高速度
高稳定性
大空间
经济实用

High speed
High stability
Large space
Economic & Practical

型号 Type	D3P-1100-P5	
轴数 Axes	3+1	
最大负载 Payload	5kg	
机器人本体 Manipulator	重量 Weight	90.5kg
	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	80 × 10 ⁻⁴ kg · m ²	
主动臂角度范围 Angle range of actuated arm	上摆 Up	24.5°
	下摆 Down	73.5°
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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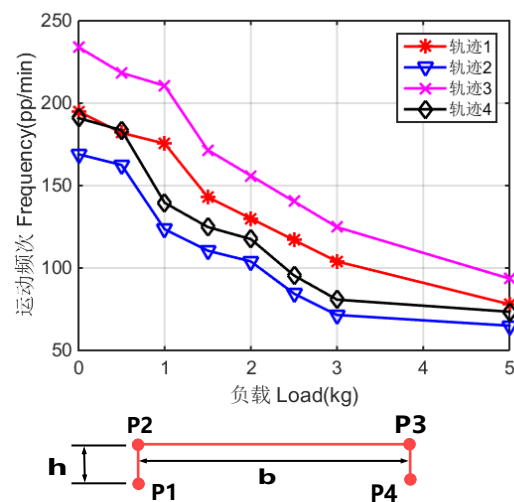
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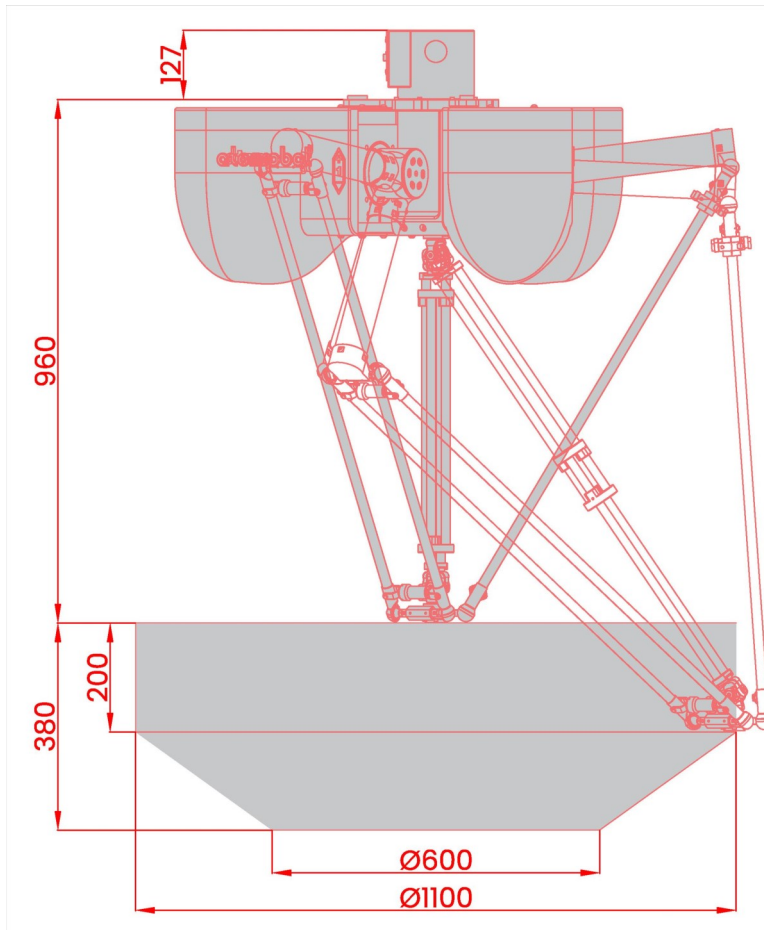
● 负载-频次 Load-Frequency



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



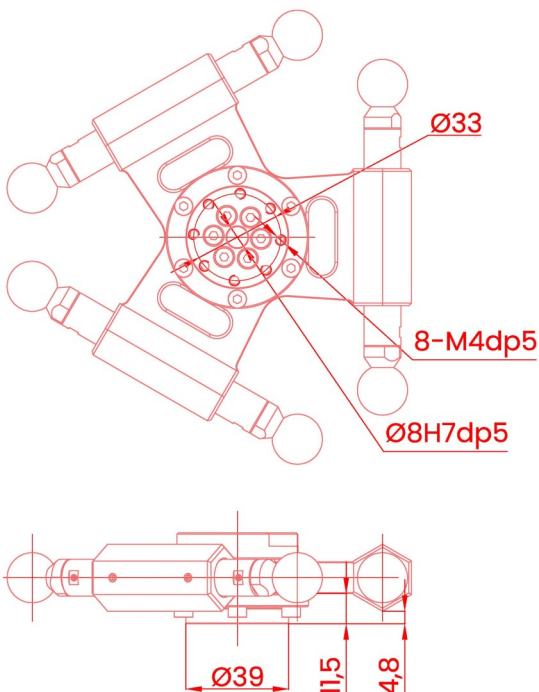
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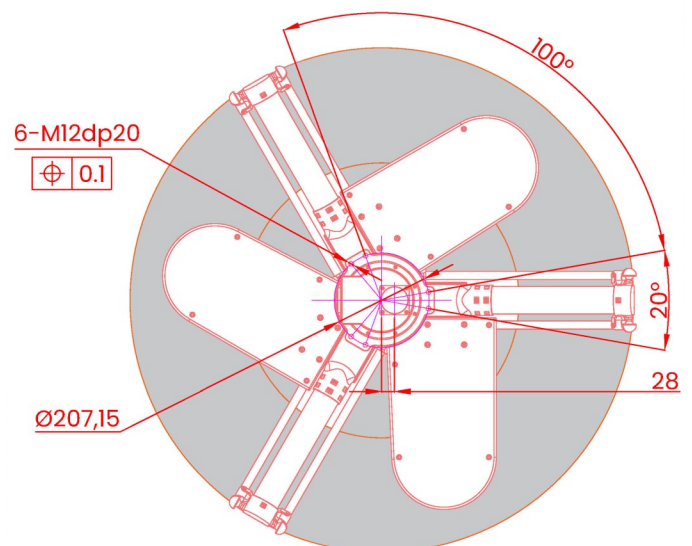
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法兰 Flange (mm)



基座安装 Base installation (mm)



D3P-1300-P3



高速度
高稳定性
大空间
经济实用

High speed
High stability
Large space
Economic & Practical

型号 Type		D3P-1300-P3
轴数 Axes		3+1
最大负载 Payload		3kg
机器人本体 Manipulator	重量 Weight	93.5kg
	工作空间直径 Diameter	1300mm
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		$80 \times 10^{-4} \text{ kg} \cdot \text{m}^2$
主动臂角度范围 Angle range of actuated arm	上摆 Up	24.6°
	下摆 Down	78.5°
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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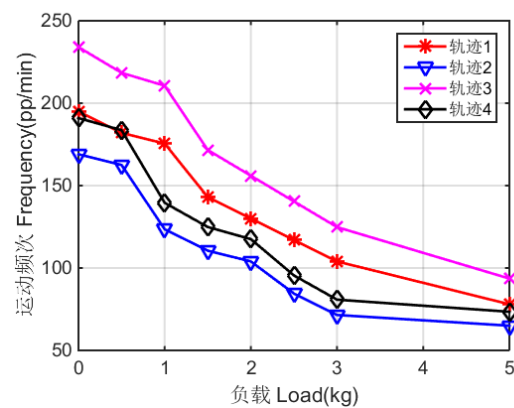
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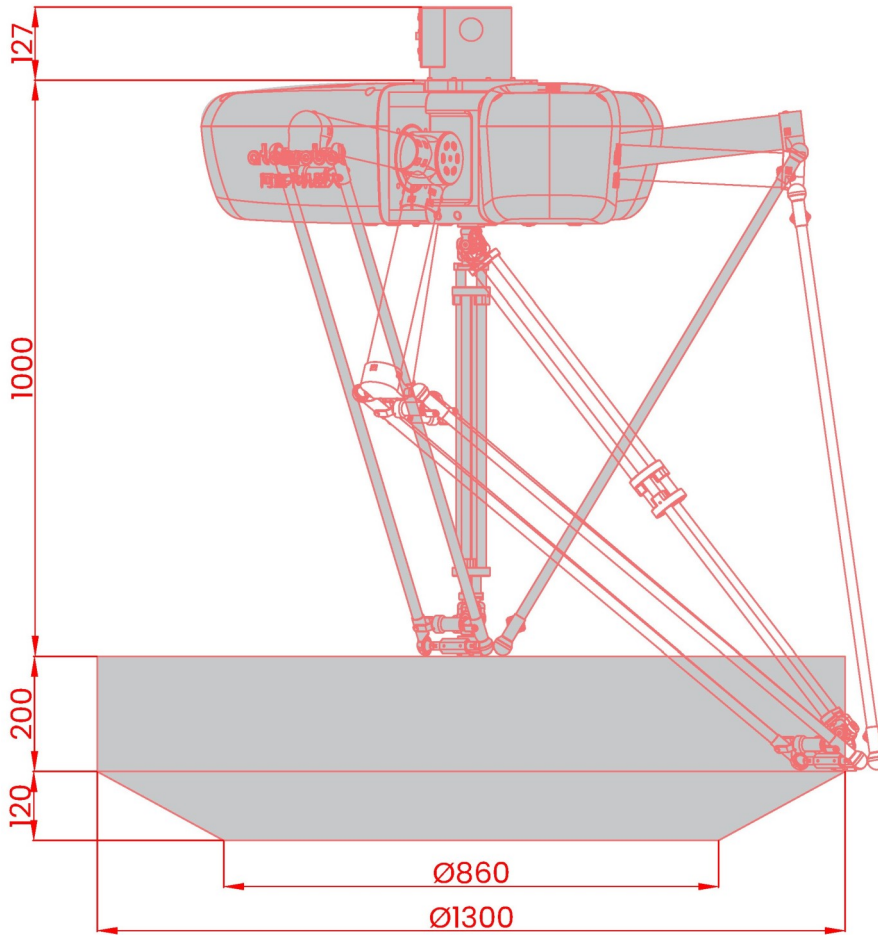
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外形尺寸及运动范围
Outline dimensions and Working range (mm)



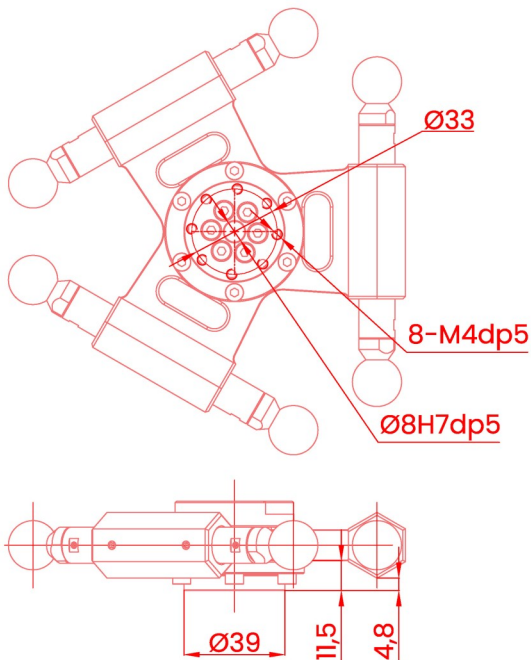
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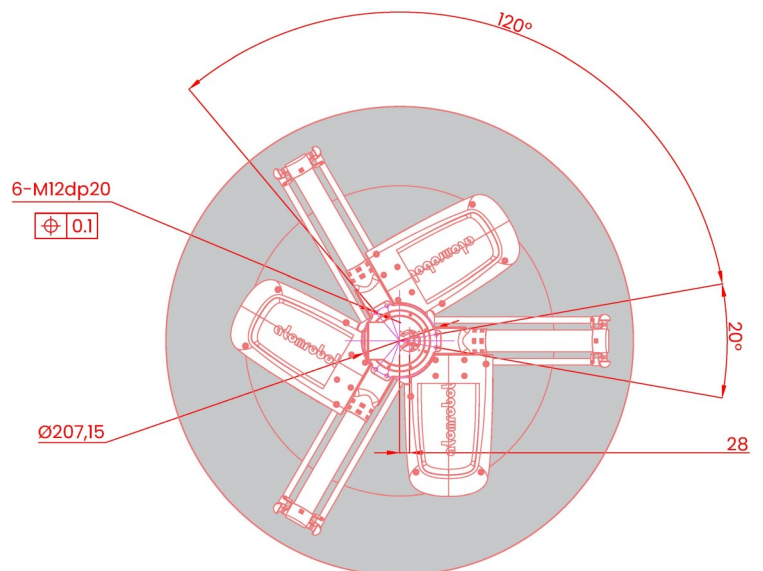
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法兰 Flange (mm)



基座安装 Base installation (mm)



D3P-1400-P3



高速度
高稳定性
大空间
经济实用

High speed
High stability
Large space
Economic & Practical

型号 Type	D3P-1400-P3	
轴数 Axes	3+1	
最大负载 Payload	3kg	
机器人本体 Manipulator	重量 Weight	96.5kg
	工作空间直径 Diameter	1400mm
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	80×10 ⁻⁴ kg·m ²	
主动臂角度范围 Angle range of actuated arm	上摆 Up	28°
	下摆 Down	73°
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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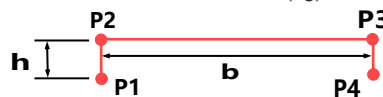
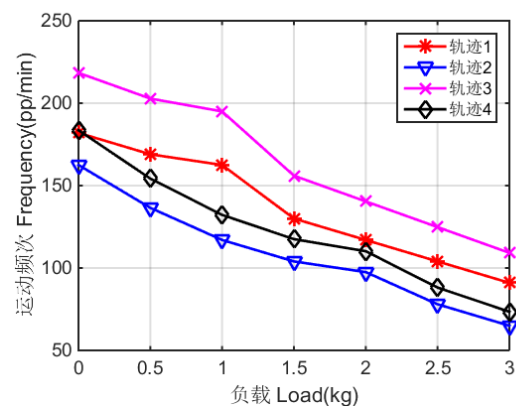
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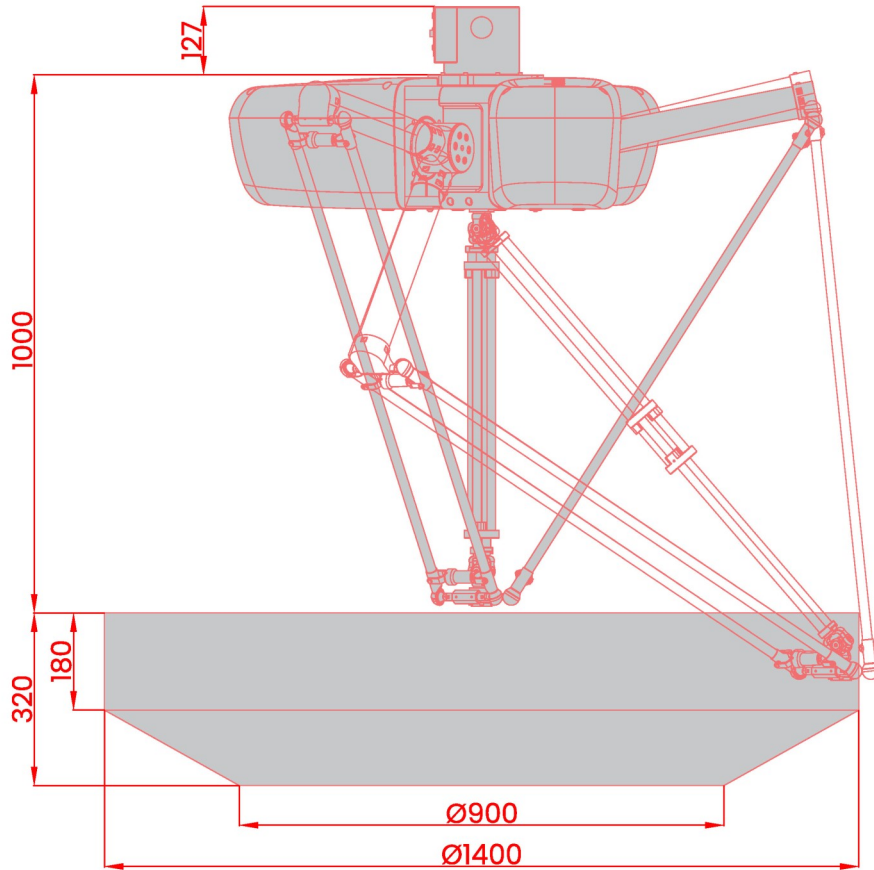
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Outline dimensions and Working range (mm)



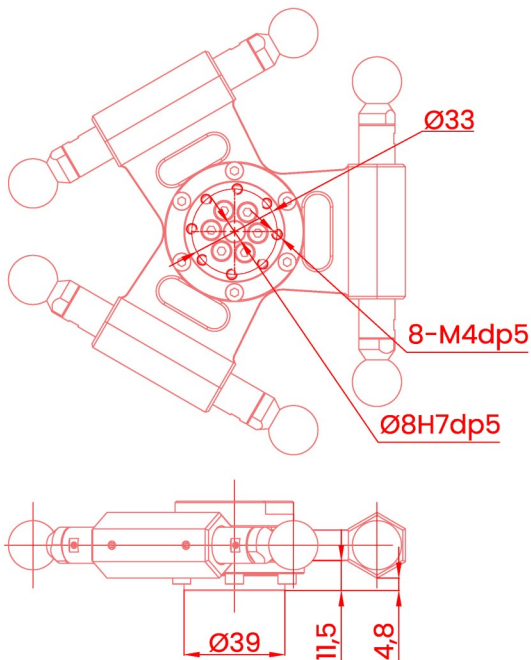
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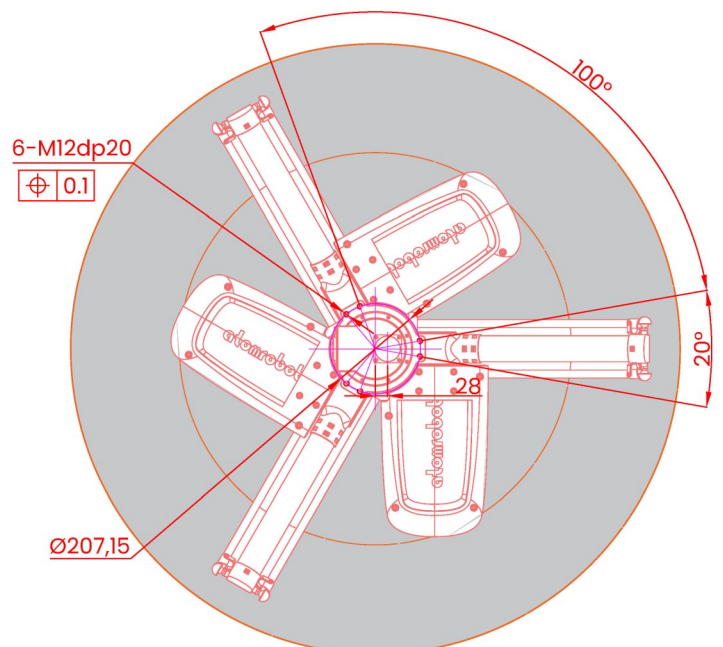
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法兰 Flange (mm)



基座安装 Base installation (mm)



D3P-1600-P3



高速度
高稳定性
大空间
经济实用

High speed
High stability
Large space
Economic & Practical

型号 Type	D3P-1600-P3	
轴数 Axes	3+1	
最大负载 Payload	3kg	
机器人本体 Manipulator	重量 Weight	96.8kg
	工作空间直径 Diameter	1600mm
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	80×10 ⁻⁴ kg·m ²	
主动臂角度范围 Angle range of actuated arm	上摆 Up	28°
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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%	
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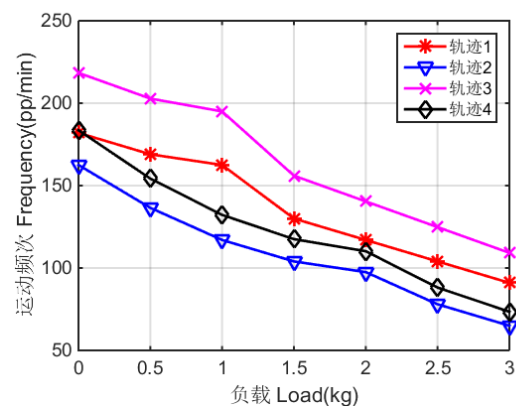
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The robot is ideal for high-speed production in food and medicine industry. Widely used in assembly, handling and pick-and-place of small materials.

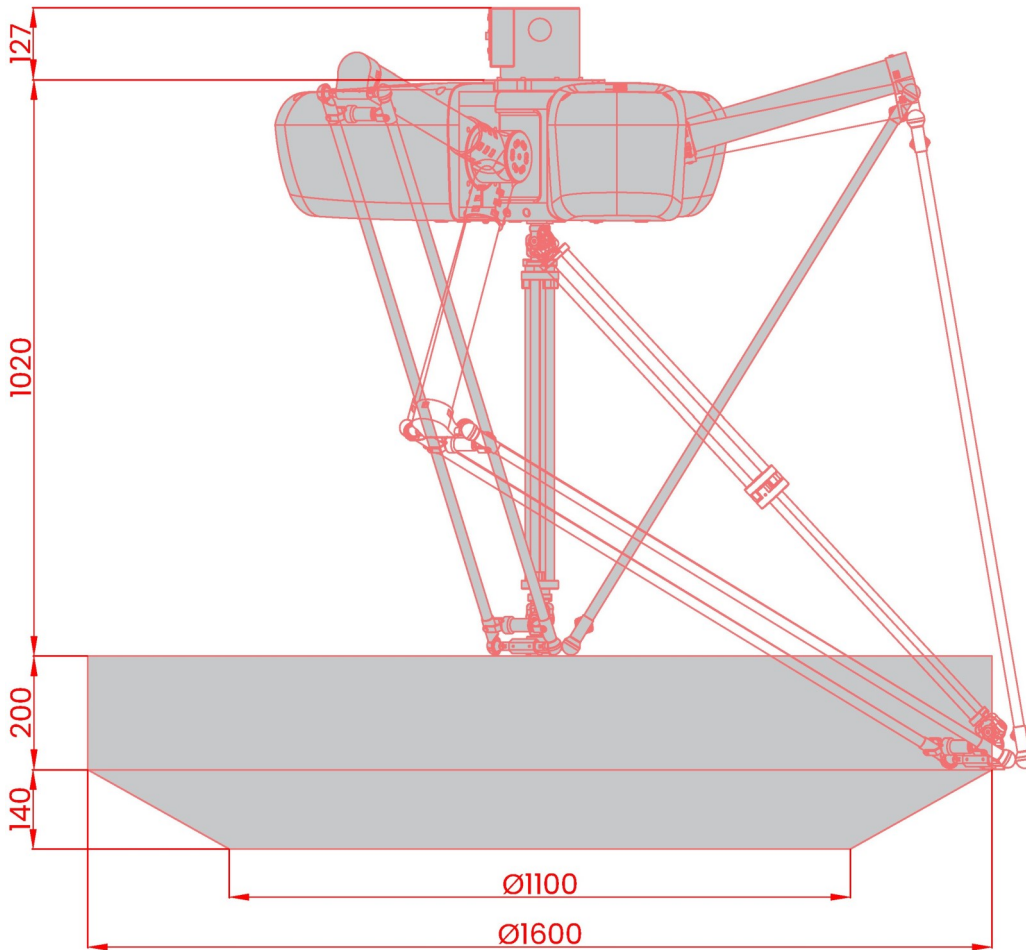
● 负载-频次 Load-Frequency



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。

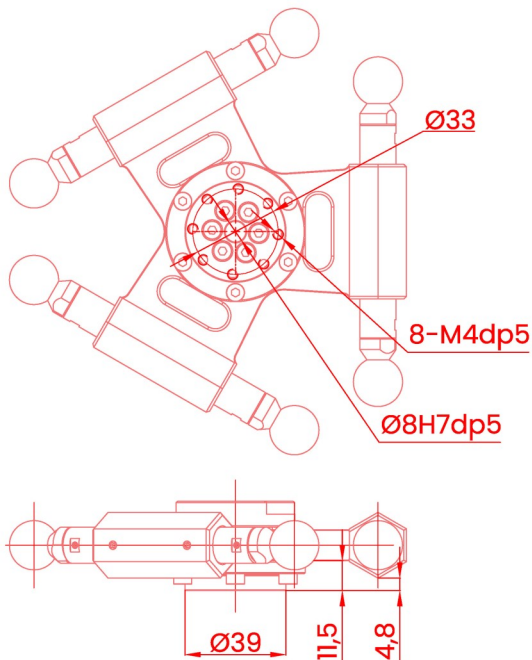
外形尺寸及运动范围
Outline dimensions and Working range (mm)



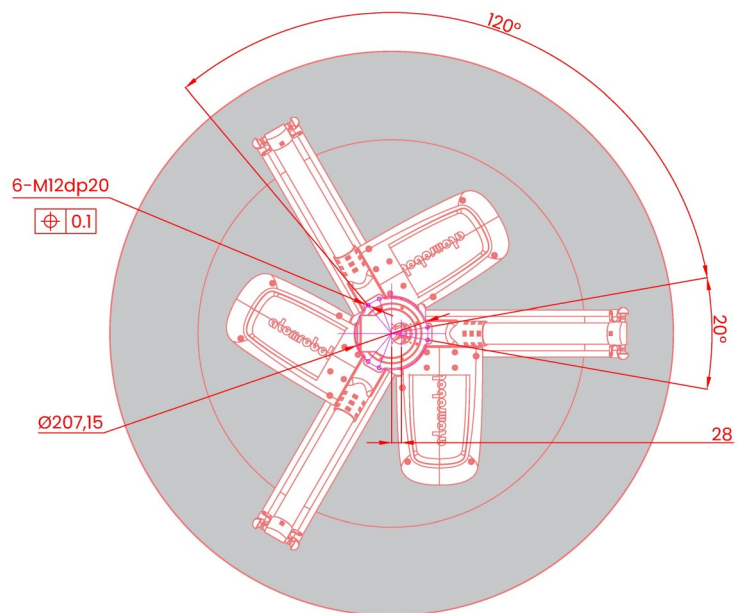
说明：
图示下部加深部分为机器人末端下表面几何中心的运动范围，上部为圆柱空间，并在下部向内收敛。

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)



基座安装 Base installation (mm)



D3P-1100-P8



高稳定性
大空间
重负载
经济实用

High stability
Large space
Heavy load
Economic & Practical

型号 Type		D3P-1100-P8
轴数 Axes		3+1
最大负载 Payload		8kg
机器人本体 Manipulator	重量 Weight	128kg
	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		$250 \times 10^{-4} \text{kg} \cdot \text{m}^2$
主动臂角度范围 Angle range of actuated arm	上摆 Up	13.5°
	下摆 Down	78.5°
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	

◆ 标准循环时间小于0.6s,满足追求最高负载和最经济需求

The standard cycle time is less than 0.6s, meeting your pursuit for the maximum load and economic.

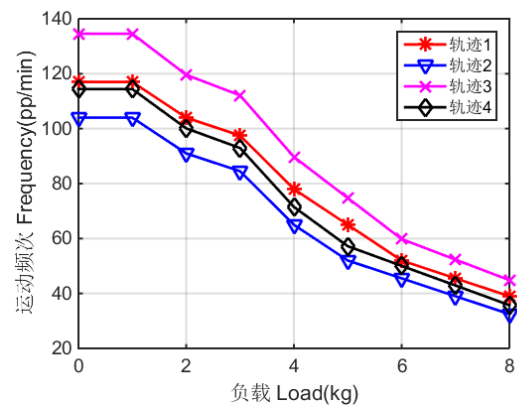
◆ 特殊旋转轴铰链设计, 轻松应对高强度高频次重复运动需求

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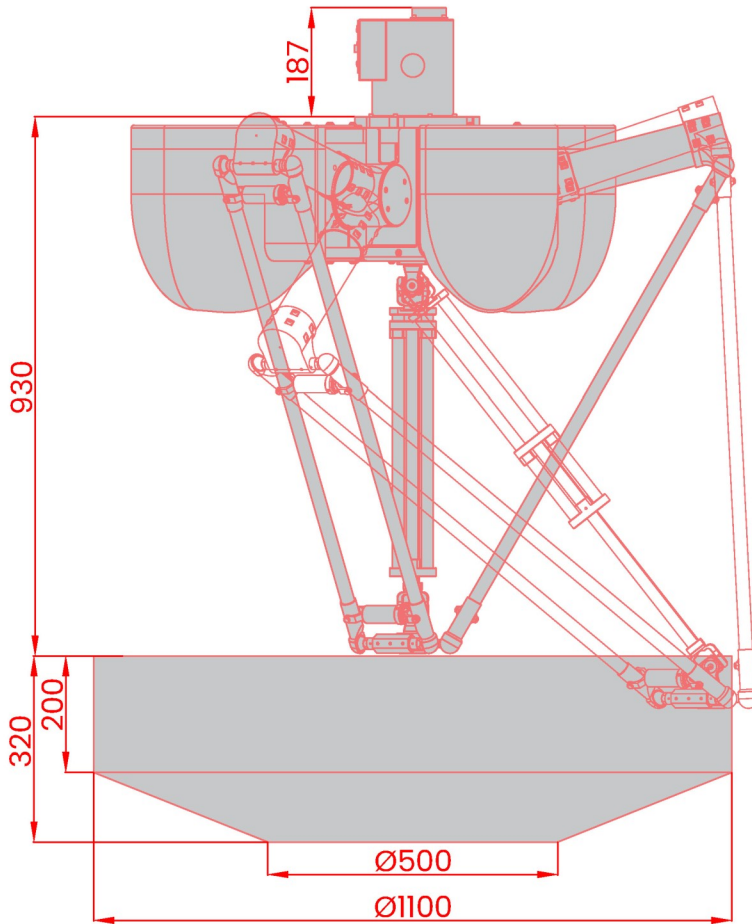
● 负载-频次 Load-Frequency



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



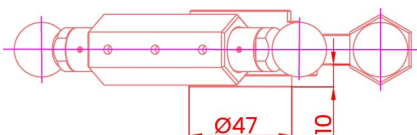
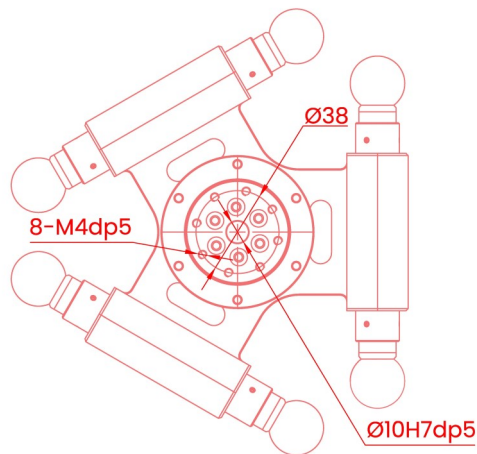
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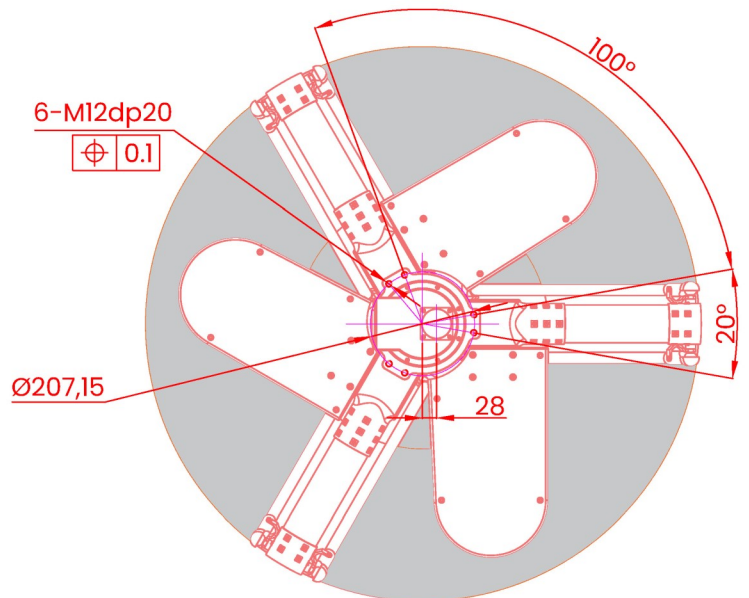
Instruction:

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法兰 Flange (mm)



基座安装 Base installation (mm)



D3P-1400-P8



高稳定性
大空间
重负载
经济实用

High stability
Large space
Heavy load
Economic & Practical

型号 Type		D3P-1400-P8
轴数 Axes		3+1
最大负载 Payload		8kg
机器人本体 Manipulator	重量 Weight	135kg
	工作空间直径 Diameter	1400mm
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		$250 \times 10^{-4} \text{kg} \cdot \text{m}^2$
主动臂角度范围 Angle range of actuated arm	上摆 Up	23.5°
	下摆 Down	68°
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
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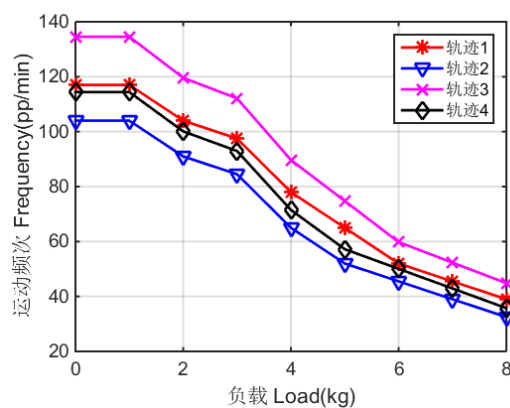
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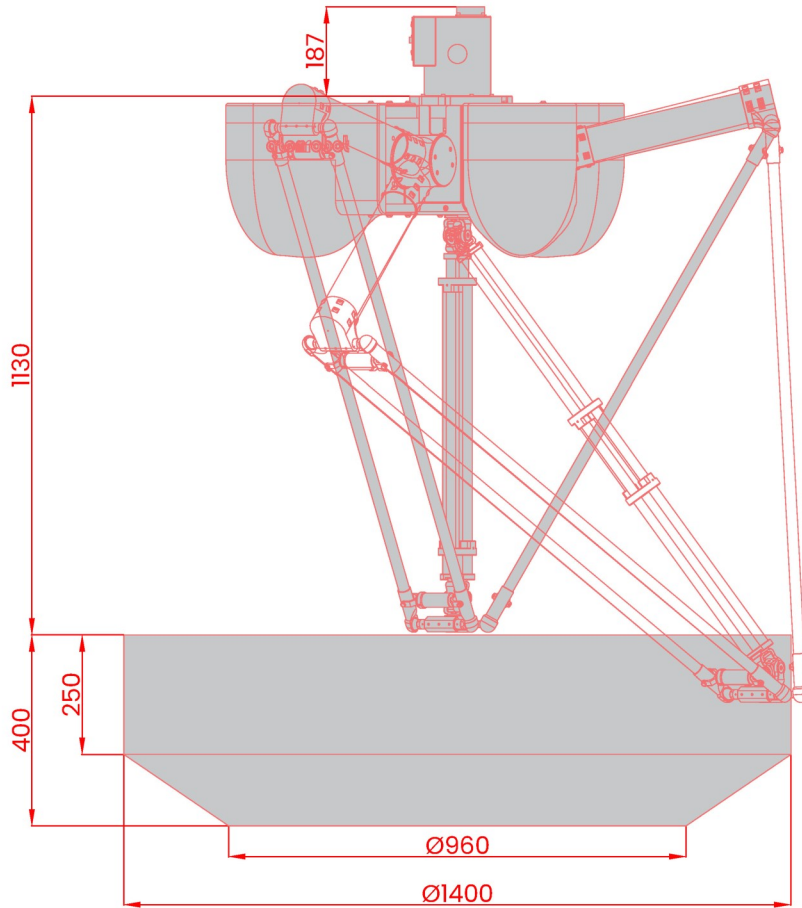
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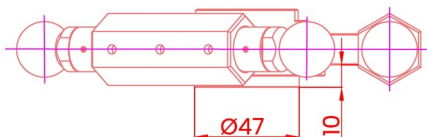
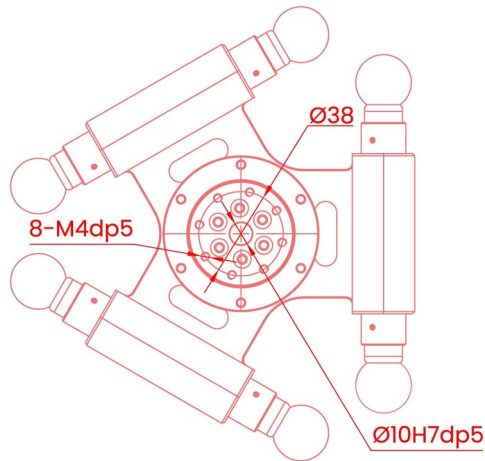
外形尺寸及运动范围
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