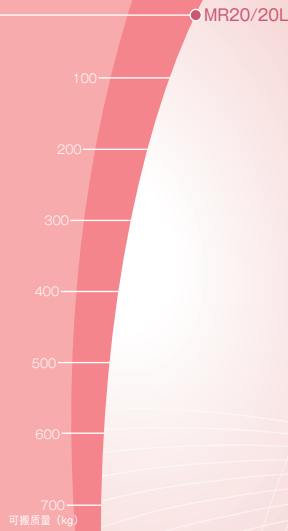


动作自如的7轴“腕”机器人

Flexible motion "Arm" robot with 7-axes

MR20/20L



采用能做更复杂动作的7轴结构

- 可适用于先前的6轴结构所无法实现的在狭窄空间及有障碍物的场所下使用！

紧凑的机身，强有力的手臂

- 可实现节省空间的布局。
可实现节省空间的布局。紧凑的机身提供了宽裕的可搬重量20kg 最大30kg^{※1}

7-axes structure

- Flexible and complex positioning and motion can be available by 7-axes structure.

Compact body, powerful arm

- Minimizing installation space.
- Payload 20kg MAX 30kg^{*1}

※1 在可搬重量为30kg时，动作范围受限。
Limited envelope within 30kg

MR20/20L

◆ 本体仕様

Robot specifications

项目 Item	规格 Specifications	
机器人类型 Robot model	MR20-02	MR20L-01
结构 Construction	关节形 Articulated construction	
自由度 Number of axes	7	
驱动方式 Drive system	AC伺服方式 AC servo system	
最大动作范围 Max. operating area	J1	±3.14rad(±180°)
	J2	+0.96~-2.09rad(+55~-120°)
	J7	±3.14rad(±180°)
	J3	+2.35~-2.89rad(+135~-166°)
	J4	±3.14rad(±180°)
	J5	±2.35rad(±135°) ±2.42rad(±139°)
最大速度 Max. speed	J1	±2.96rad/s(170°/s)
	J2	2.96rad/s(170°/s)
	J7	2.96rad/s(170°/s)
	J3	2.96rad/s(170°/s)
	J4	4.36rad/s(250°/s) 6.28rad/s(360°/s)
	J5	4.36rad/s(250°/s) 6.28rad/s(360°/s)
可搬重量*1 Payload*1	20kg (*1)	
	J4	80.8N·m 49N·m
手腕扭矩 Wrist torque	J5	80.8N·m 49N·m
	J6	44.1N·m 23.5N·m
	J4	6.0kgm ² 1.6kgm ²
手腕惯性力矩*2 Wrist moment of inertia*2	J5	6.0kgm ² 1.6kgm ²
	J6	2.3kgm ² 0.8kgm ²
	位置重复精度*3 Position repeat accuracy*3	
最高使用空气压力 Maximum working air pressure	0.49MPa(5.0kgf/cm ²)以下	
周围温度 Ambient temperature	0~45°C	
设置条件 Installation	地面安装、悬吊安装 Floor mounted/ceiling mounted	
耐环境性*4 Environmental resistance*4	相当于IP65 (防尘防水) Meets the IP65 standard (for dust and waterproofing)	
本体量 Robot mass	230kg	

1[rad] = 180/π[°], 1[N·m] = 1/9.8[kgf·m]

手臂上搭载的负荷为第1手臂或J3轴上部中任意一者。

To mount a load to the robot arm, it must be loaded either to the forearm or to the upper part of the J3 axis.

*1: 最大可搬重量30kg (动作范围受限)

*2: 手腕容许惯性力矩因手腕负荷条件而不同, 请注意。

*3: 以JIS B 8432为依据。

*4: 不可使用有机溶剂、酸、碱、氟系、汽油系切削液等使密封部件劣化的液体。

*1: Max payload 30kg (limited envelope)

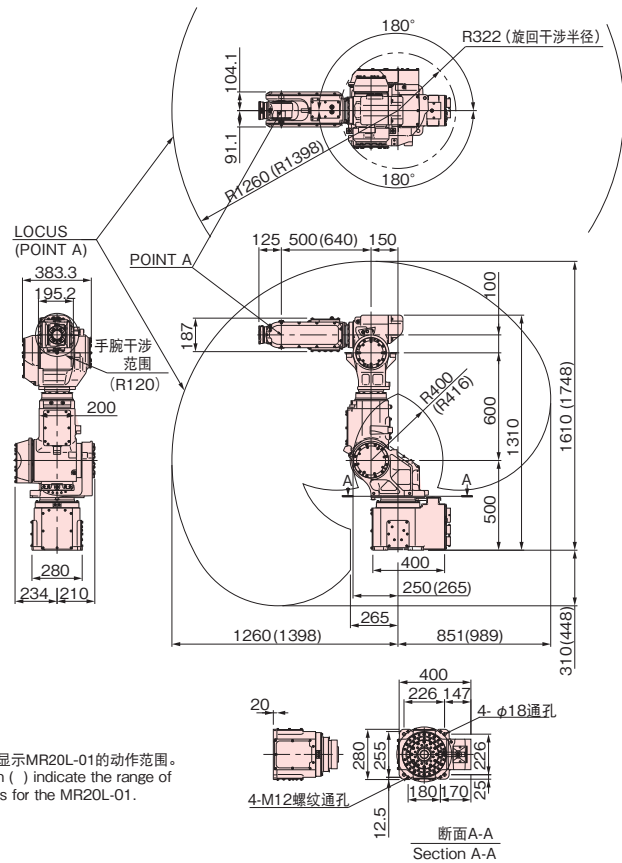
*2: Note that wrist moment of inertia varies depending on wrist load conditions.

*3: JIS B 8432 compliant.

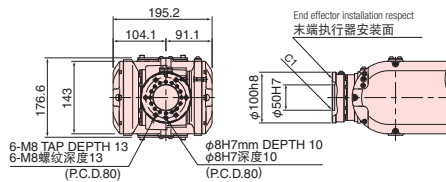
*4: Fluids that corrode the seal material, such as organic solvents, acids, alkalis, salts, and petroleum-based cutting fluids, cannot be used.

◆ 外形尺寸及动作范围

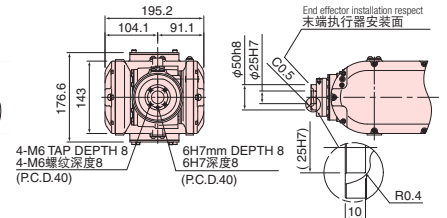
Exterior dimensions and operating envelope



MR20-02



MR20L-01

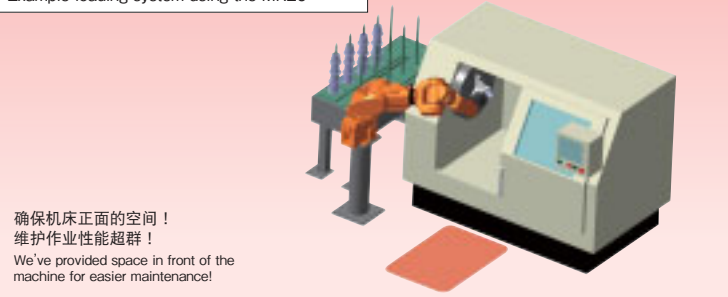


◆ 动作事例

Operating Case

使用MR20的装载系统例

Example loading system using the MR20



使用以往的机器人的情形

When using conventional robots



●本产品的额定功率、规格、外部尺寸等如需改良而变更, 恕不另行通告。

●如果本产品的最后使用者与军事相关, 或用于兵器等的制造, 可能成为“外汇及国际贸易管理法”规定的出口限制的对象。出口时, 请进行充分的审查和办理所需的出口手续。

*The specifications are subject to changes without notices.

*In case that an end user uses this product for military purpose or production of weapon, this product may be liable for the subject of export restriction stipulated in the Foreign Exchange and Foreign Trade Control Law. Please go through careful investigation and necessary formalities for export.

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