

# MOTOMAN GP20

Handling & General Applications  
with the GP Series



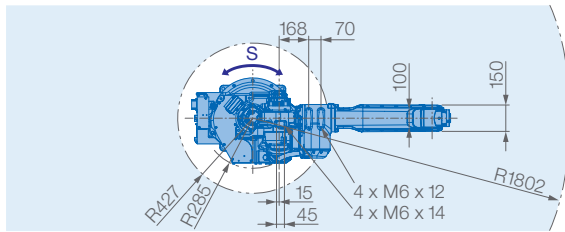
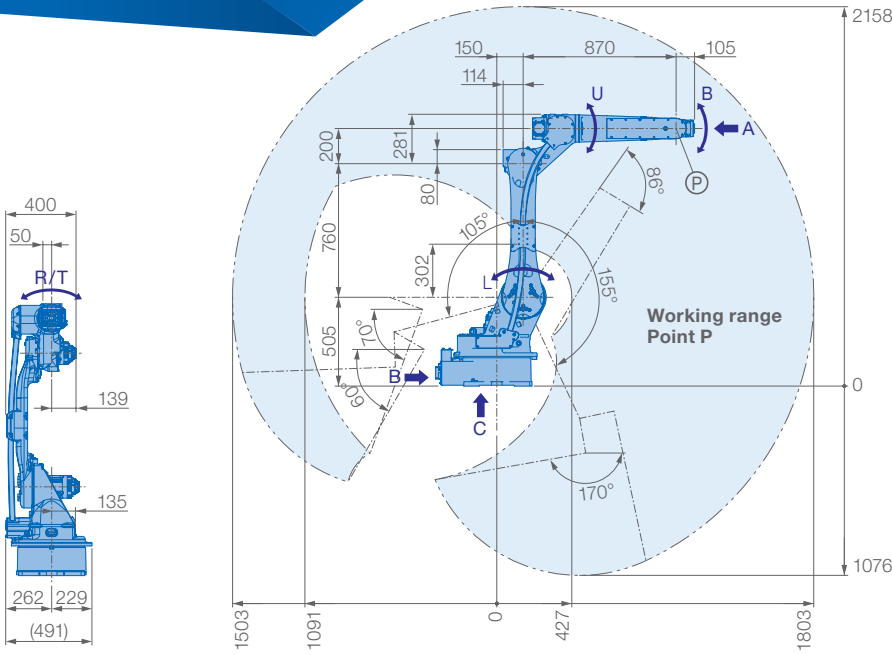
The MOTOMAN GP20 is a very versatile 6-axis industrial robot for payloads up to 20 kg. It has a reach of 1,802 mm and can achieve very fast cycle times with excellent repeatability.

The slim design, especially of the wrist allows the use in many applications, e.g. workpiece handling or machine loading/unloading. Due to its stable and IP67 protected wrist, the GP20 is also very well suited for machining or grinding operations.

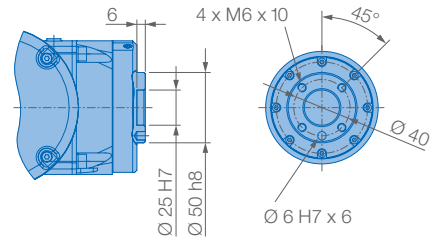
Combined with the proven Teach pendant, the robot can be perfectly integrated in automation environments. With the innovative operating concept of the SmartPendant, it offers a very good entry into industrial automation.

## KEY BENEFITS

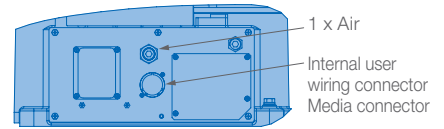
- Slim design
- Versatile – large range of potential applications
- Powerful: 20 kg payload
- Large working range: 1,802 mm
- Stable, low-vibration wrist
- Fast movements due to high axis speeds and acceleration
- Easy commissioning, operation and maintenance



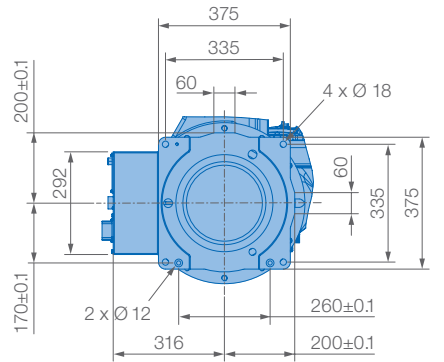
View A



View B



View C

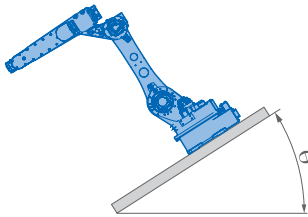
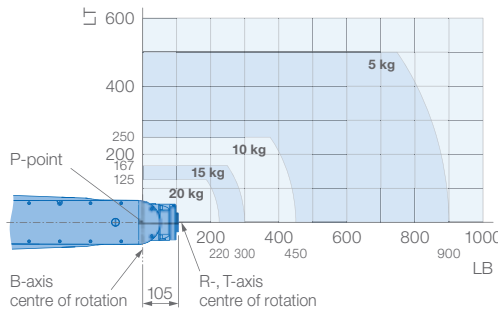


Mounting options: Floor, ceiling, wall, tilt\*  
 IP Protection: IP54 (body S, L, U), IP67 (wrist)  
 \* tilt with condition of angle – see table left side

**Prevent interaction of the robot with:**

- Corrosive gases, liquids or explosive gases
- Exposure to water, oil or dust
- Excessive electrical noise (plasma)

**Allowable wrist load**



Robot installation angle $\theta$ [deg.]	S-axis operating range [deg.]
$0 \leq \theta \leq 30$	$\pm 180$ max. no limit
$30 < \theta \leq 35$	$\pm 60$ max.
$35 < \theta$	$\pm 30$ max.

**Specifications GP20**

Axes	Maximum motion range [°]	Maximum speed [°/s]	Allowable moment [Nm]	Allowable moment of inertia [kg · m <sup>2</sup> ]	Controlled axes	
					6	
S	$\pm 180$	210	–	–	Max. payload [kg]	20
L	+155/–105	210	–	–	Repeatability [mm]	$\pm 0.02$
U	+160/–86	265	–	–	Max. working range R [mm]	1802
R	$\pm 200$	420	44	2.3	Temperature [°C]	0 to +45
B	$\pm 140$	420	44	2.3	Humidity [%]	20 – 80
T	$\pm 455$	720	24.5	1.2	Weight [kg]	250
					Power supply, average [kVA]	2.0

**Yaskawa Europe GmbH**

Robotics Division  
 Yaskawastraße 1  
 85391 Allershausen  
 Germany

Tel. +49 (0) 8166 90-0  
 robotics@yaskawa.eu  
 www.yaskawa.eu

YR-1-06VX25-20-A00  
 C-03-2024, A-No. 195934

All drawing dimensions in mm. Technical data may be subject to change without previous notice. Please request detailed drawings at robotics@yaskawa.eu.

