

GP180

HIGH-SPEED, HIGH-PAYLOAD ROBOT

KEY BENEFITS

High payload for heavy part processing

Engineered for easy installation, operation and maintenance

Single robot-to-controller cable connection enables fast setup

SPECIFICATIONS

180 kg payload

2,702 mm horizontal reach

3,393 mm vertical reach

0.05 mm repeatability

APPLICATION

Machine Tending

Material Handling

Press Tending

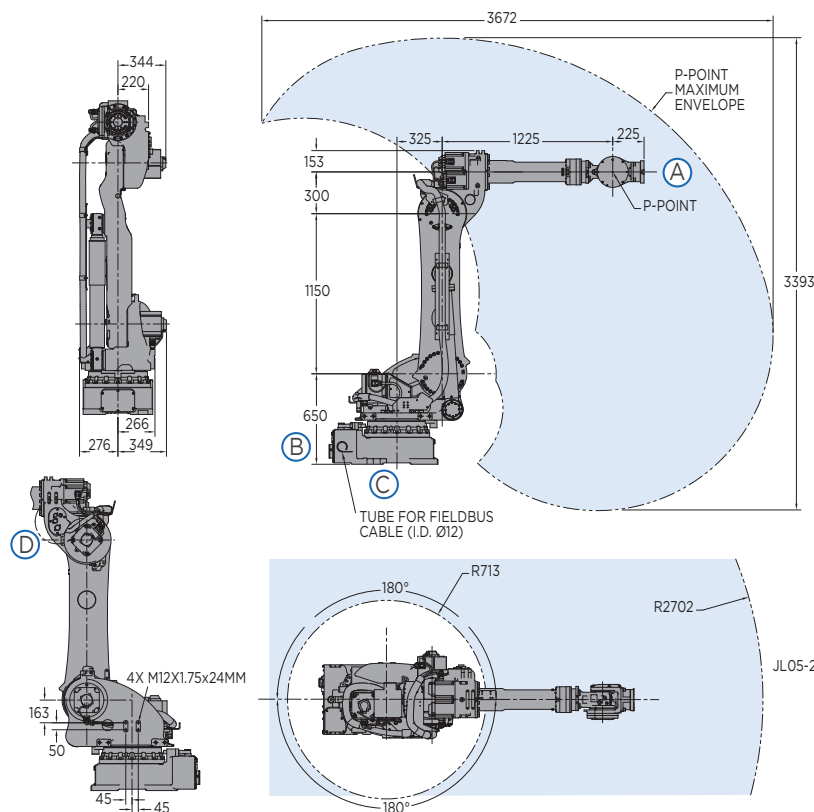
CONTROLLER

YRC1000

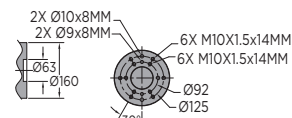


- Increase productivity with the powerful and efficient GP180 robot.
- 180-kg payload capacity and wide working envelope provide superior performance for handling applications.
- Exceptionally fast axis speeds and acceleration capabilities reduce cycle time and increase production output.
- Streamlined upper arm allows easy access to parts in tight spots and avoids potential interference with fixtures, improving application flexibility.
- Wide wrist motion range eliminates interference and improves application flexibility.
- Reduced interference design allows close proximity placement of robots for high-density workcells.
- High moment and inertia ratings allow handling of larger and heavier payloads.
- Cable installation tube facilitates fieldbus routing through the S-axis.
- Single power and control cable reduces wiring time and increases work efficiency.
- Modular robot harness design for improved diagnostics and maintenance.
- Home position data can be saved without battery connection for easy maintenance.
- The GP180 has an IP67-rated wrist and an IP54 body standard. An XP (eXtra Protection) package that increases the body protection rating to IP65 is available.
- The GP180 can be floor-mounted. Brakes are included on all axes.
- Pre-wired for servo gripper which allows a wider range of product handling.
- Compact YRC controller utilizes the lightweight standard teach pendant with intuitive programming.

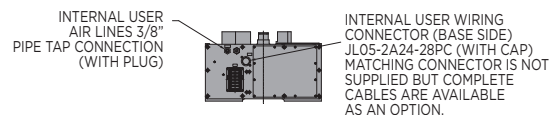
GP180 ROBOT



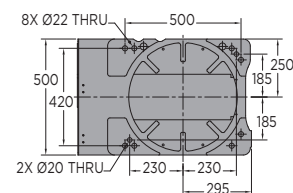
VIEW A



VIEW B



VIEW C



VIEW D

INTERNAL USER WIRING CONNECTOR FOR EXTERNAL AXIS (POWER CABLE) TYPE IS JL05-2A18-1SC (WITH CAP) MATCHING CONNECTOR IS NOT SUPPLIED BUT COMPLETE CABLES ARE AVAILABLE AS AN OPTION.

INTERNAL USER WIRING CONNECTOR (EXTERNAL AXIS POWER CABLE) TYPE IS JL05-2A20-29SC (WITH CAP) MATING CONNECTOR IS NOT SUPPLIED BUT COMPLETE CABLES ARE AVAILABLE AS AN OPTION.

INTERNAL USER AIR LINES 3/8\"/>

INTERNAL USER WIRING CONNECTOR (CASING SIDE) TYPE IS JL05-2A24-28SC (WITH CAP) MATING CONNECTOR IS NOT SUPPLIED BUT COMPLETE CABLES ARE AVAILABLE AS AN OPTION.

All dimensions are metric (mm) and for reference only. Request detailed drawings for all design/engineering requirements.

SPECIFICATIONS

Axes	Maximum motion range	Maximum speed	Allowable moment	Allowable moment of inertia
	degrees	°/sec	N·m	kg·m ²
S	±180	125	-	-
L	+76/-60	115	-	-
U	+90/-86	125	-	-
R	±360	182	1,000	90
B	±130	175	1,000	90
T	±360	265	618	46.3

Specifications for GP180 with XP package may be different.

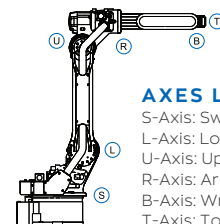
Mounting Options: Floor

* The MLX300 software option is not available for use with arc or spot welding applications. MLX300 fieldbus cards, I/O cards and vision equipment must be purchased separately from the supplier. All peripherals are programmed using a PLC.

Item	Unit	GP180
Controlled axes		6
Maximum payload	kg	180
Repeatability	mm	0.05
Horizontal reach	mm	2,702
Vertical reach	mm	3,393
Weight	kg	1,020
Internal user I/O cable		24 conductors w/ ground
Internal user air line		(1) 3/8\"/>

OPTIONS

- Robot risers and base plates
- Extended length manipulator cables
- Wide variety of fieldbus cards
- External axes
- PLC integration via MLX300 software option*
- Functional Safety Unit (FSU)
- MotoSight™ 2D and 3D vision



AXES LEGEND

S-Axis: Swivel Base
L-Axis: Lower Arm
U-Axis: Upper Arm
R-Axis: Arm Roll
B-Axis: Wrist Bend
T-Axis: Tool Flange

YASKAWA

YASKAWA AMERICA, INC. 100 Automation Way | Miamisburg, OH 45342
937.847.6200 | motoman.com

Technical specifications subject to change without notice. | Motoman is a registered trademark. All other marks are the trademarks and registered trademarks of Yaskawa America, Inc. DS-881 ©2021 Yaskawa America, Inc. JANUARY 2021