

GP165R

HIGH-SPEED, SHELF-MOUNTED ROBOT

KEY BENEFITS

Shelf mounting saves floorspace, expands work envelope and improves access to parts

High payload and inertia ratings for large, heavy part processing

Engineered for easy installation, operation and maintenance

Single robot-to-controller cable connection enables fast setup

SPECIFICATIONS

165 kg payload

3,140 mm horizontal reach

4,782 mm vertical reach

0.05 mm repeatability

APPLICATION

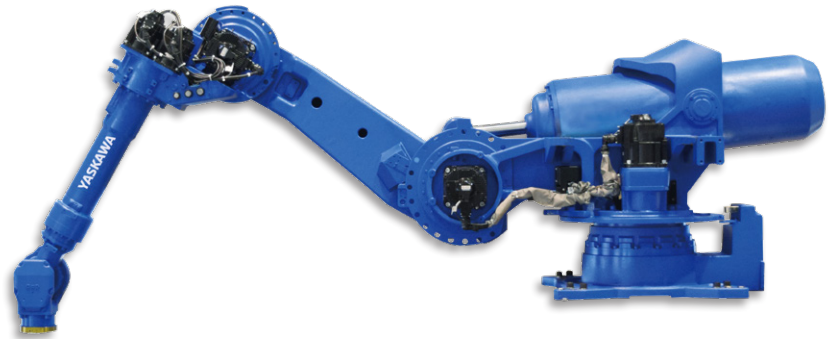
Machine Tending

Material Handling

Press Tending

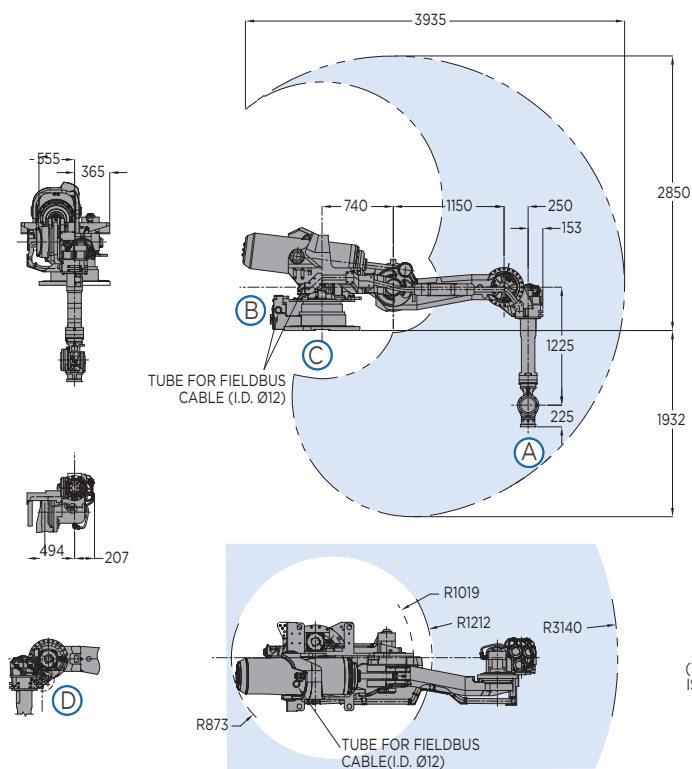
CONTROLLER

YRC1000

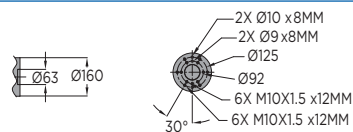


- Increase productivity with the powerful and efficient six-axis GP165R shelf-mounted robot.
- 165 kg payload capacity and wide working envelope provide superior performance in machine and press tending, and other heavy-payload applications.
- Exceptionally fast axis speeds and acceleration capabilities reduce cycle time and increase production output.
- Used for loading and unloading of parts, the GP165R can help to eliminate inconsistencies of a manual process for applications such as turning, milling and grinding.
- High moment and inertia ratings enable the robot to accommodate a wide range of large, heavy parts for all material types.
- Streamlined upper arm features a slim wrist profile and reduces robot width, allowing easier reach into confined spaces and improving application flexibility.
- Cables and air lines are routed through robot base to upper arm to increase cable life, enhance safety and reduce teaching time.
- 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 GP165R 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.
- Compact YRC controller utilizes the lightweight teach pendant with intuitive programming.

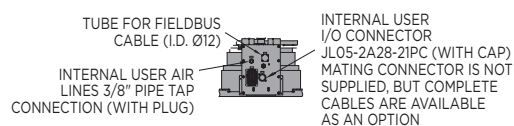
GP165R ROBOT



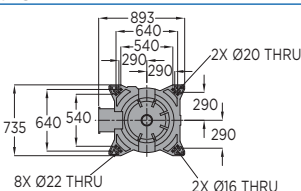
VIEW A



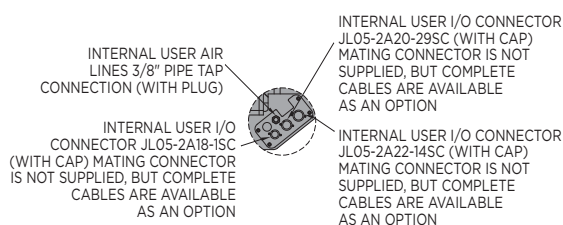
VIEW B



VIEW C



VIEW D



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	105	-	-
L	+80/-130	105	-	-
U	+78/-79.4	105	-	-
R	±360	175	921	85
B	±130	150	921	85
T	±360	240	490	45

Specifications for GP165R with XP package may be different.

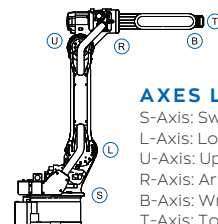
Mounting Options: Shelf

* 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	GP165R
Controlled axes		6
Maximum payload	kg	165
Repeatability	mm	0.05
Horizontal reach	mm	3,140
Vertical reach	mm	4,782
Weight	kg	1,760
Internal user I/O cable		24 conductors w/ ground
Internal user air line		(1) 3/8" connection
Power requirements		380-480 VAC
Power rating	kVA	5

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

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