YASKAWA

GP280

POWERFUL HIGH-SPEED 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

280 kg payload

2,446 mm horizontal reach

2,962 mm vertical reach

0.05 mm repeatability

APPLICATION

Material Handling

Machine Tending

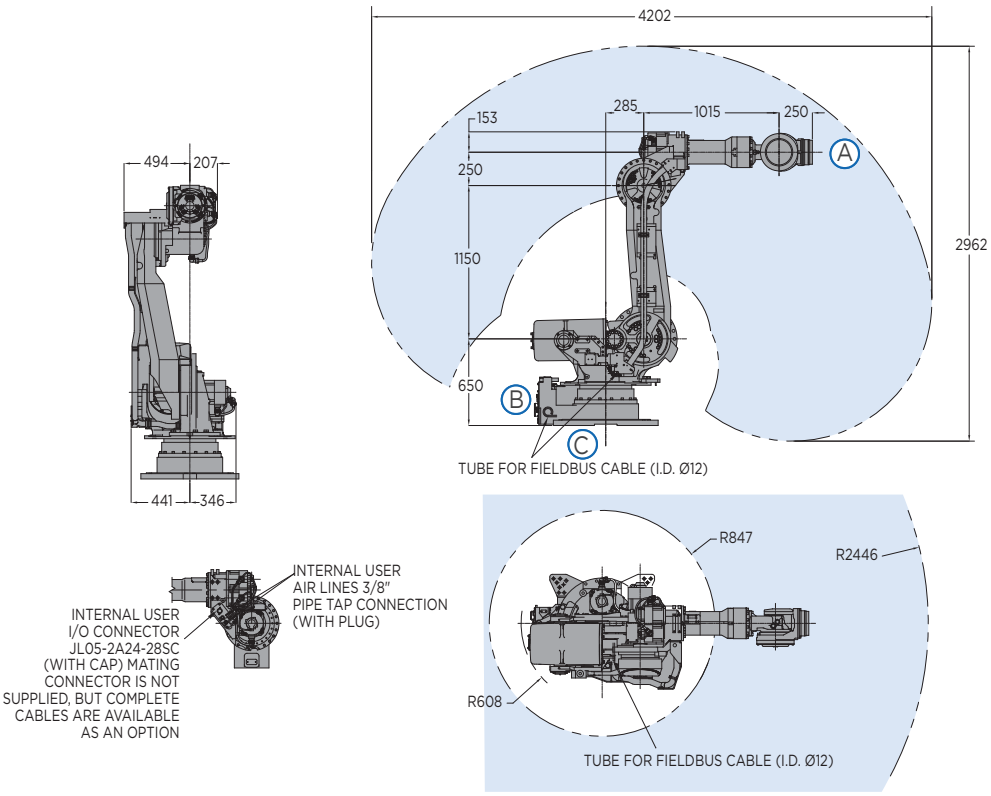
Press Tending

CONTROLLER

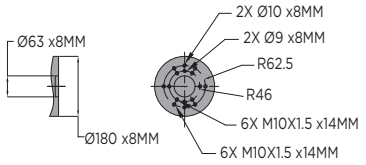
YRC1000

- Increase productivity with the powerful and efficient six-axis GP280 robot.
- 280-kg payload capacity and high moment of inertia ratings provide superior performance for large part and heavy payload 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.
- Large work envelope extends behind robot, allowing space for robot tool storage or maintenance.
- Wide wrist motion range eliminates interference and improves application flexibility.
- Reduced interference design allows close proximity placement of robots for high-density workcells.
- Ideal for “jigless” applications where robot positions part for processing by other robots or two robots handle a single part.
- 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 GP280 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 GP280 can be floor-mounted. Brakes are included on all axes.
- Compact YRC controller utilizes a lightweight standard teach pendant with intuitive programming.

GP280 ROBOT



VIEW A



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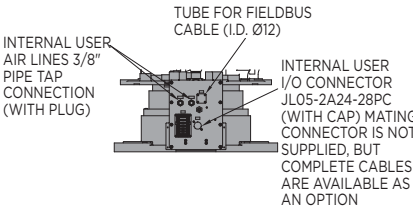

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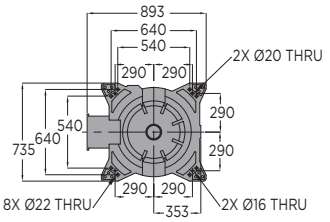


All dimensions are metric (mm) and for reference only.
Request detailed drawings for all design/engineering requirements.

SPECIFICATIONS

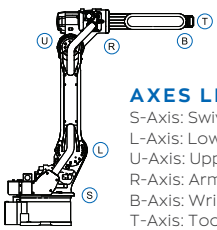
Axes	Maximum motion range	Maximum speed	Allowable moment	Allowable moment of inertia
	degrees	°/sec	N•m	kg•m²
S	±180	90	–	–
L	+76/-60	80	–	–
U	+197/-77.8	90	–	–
R	±360	115	1,333	142
B	±125	110	1,333	142
T	±360	190	706	79

Specifications for GP280 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	GP280
Controlled axes		6
Maximum payload	kg	280
Repeatability	mm	0.05
Horizontal reach	mm	2,446
Vertical reach	mm	2,962
Weight	kg	1,300
Internal user I/O cable		24 conductors w/ ground
Internal user air line		(2) 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

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