

GP400R

HEAVY-PAYLOAD, 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

400 kg payload

3,518 mm horizontal reach

4,908 mm vertical reach

0.1 mm repeatability

APPLICATION

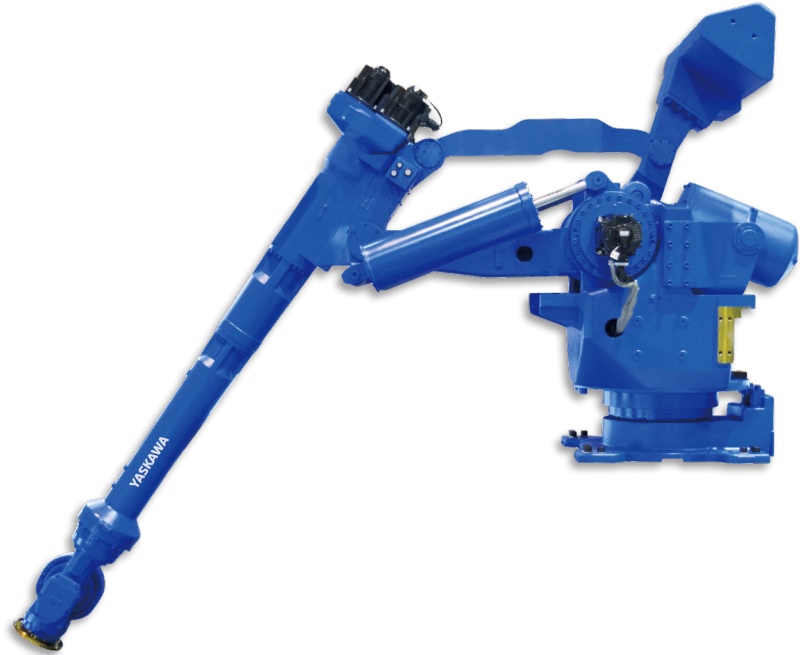
Material Handling

Machine Tending

Press Tending

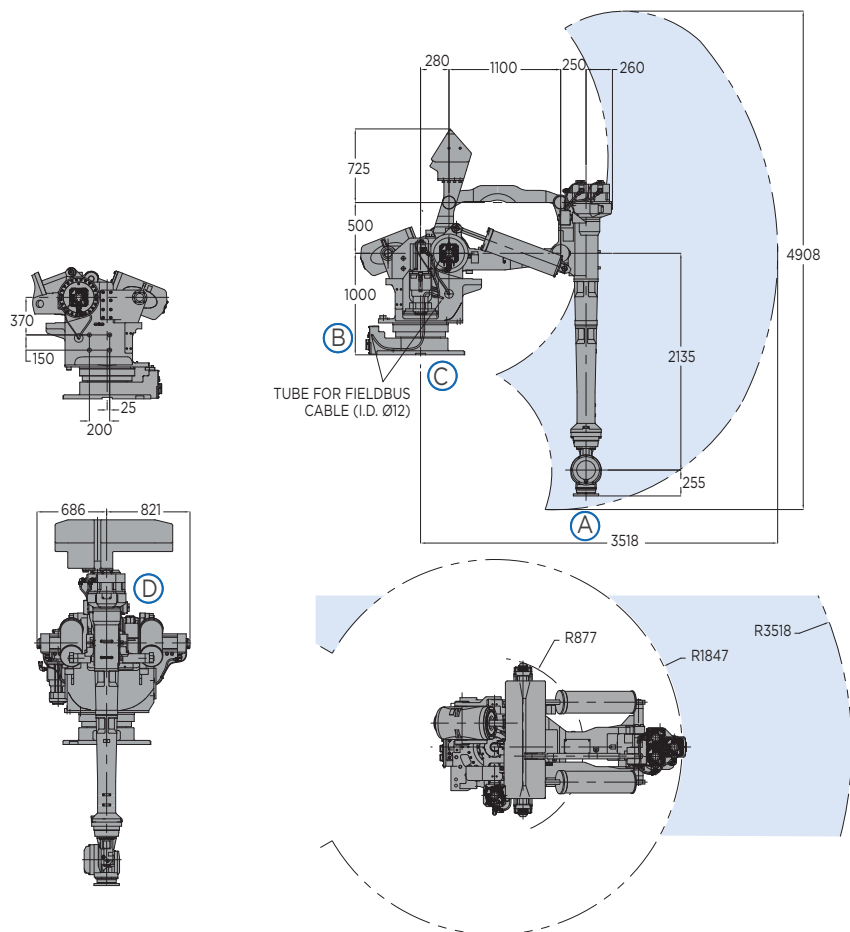
CONTROLLER

YRC1000

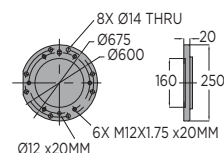


- Increase productivity with the powerful and efficient six-axis GP400R shelf-mounted robot.
- 400 kg payload capacity and wide working envelope provide superior performance in machine and press tending, and other heavy-payload applications.
- Exceptionally fast axis speeds and acceleration capabilities reduce cycle time and increase production output.
- Full six-axis capability with parallel-link construction for strength, rigidity and stabilization of high moment/inertia loads. Heavy-duty bearings provide smooth arm rotation.
- Used for loading and unloading of parts, the GP400R 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 allows easy access to parts in tight spots and avoids potential interference with fixtures, 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.
- Modular robot harness design for improved diagnostics and maintenance.
- Home position data can be saved without battery connection for easy maintenance.
- The GP400R has an IP67-rated wrist and an IP30 body standard.
- Compact YRC controller utilizes the lightweight teach pendant with intuitive programming.

GP400R ROBOT



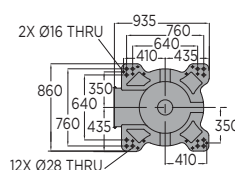
VIEW A



VIEW B

INTERNAL USER AIR LINES 3/8" PIPE TAP CONNECTION (WITH PLUG)
INTERNAL USER I/O CONNECTOR JL05-2A28-2IPC (WITH CAP) MATING CONNECTOR IS NOT SUPPLIED, BUT COMPLETE CABLES ARE AVAILABLE AS AN OPTION
TUBE FOR FIELDBUS CABLE (I.D. Ø12)

VIEW C



VIEW D

INTERNAL USER I/O CONNECTOR JL05-2A20-29SC (WITH CAP) MATING CONNECTOR IS NOT SUPPLIED, BUT COMPLETE CABLES ARE AVAILABLE AS AN OPTION
INTERNAL USER I/O CONNECTOR JL05-2A18-1SC (WITH CAP) MATING CONNECTOR IS NOT SUPPLIED, BUT COMPLETE CABLES ARE AVAILABLE AS AN OPTION
INTERNAL USER I/O CONNECTOR JL05-2A22-14SC (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	±150	80	-	-
L	+20/-122	80	-	-
U	+120/-9	80	-	-
R	±360	80	1960	150
B	±120	80	1960	150
T	±360	160	833	50

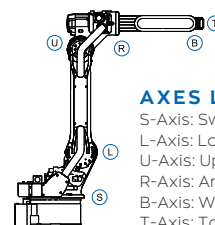
Mounting Options: Shelf

* 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	GP400R
Controlled axes		6
Maximum payload	kg	400
Repeatability	mm	0.1
Horizontal reach	mm	3,518
Vertical reach	mm	4,908
Weight	kg	3,560
Internal user I/O cable		21 conductors w/ ground
Internal user air line		(2) 3/8" connection
Power requirements		380-480 VAC
Power rating	kVA	7

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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