

PL320

HIGHLY VERSATILE PALLETIZING ROBOT

KEY BENEFITS

Versatile, high-speed robot for palletizing applications

High allowable moment of inertia handles unbalanced loads effectively

One-piece upper arm for reduced mass and increased durability

Highly reliable

SPECIFICATIONS

320 kg payload

3,159 mm horizontal reach

3,024 mm vertical reach

0.05 mm repeatability

APPLICATION

Case Palletizing

Bag Palletizing

De-Palletizing

Layer Picking

Layer Forming

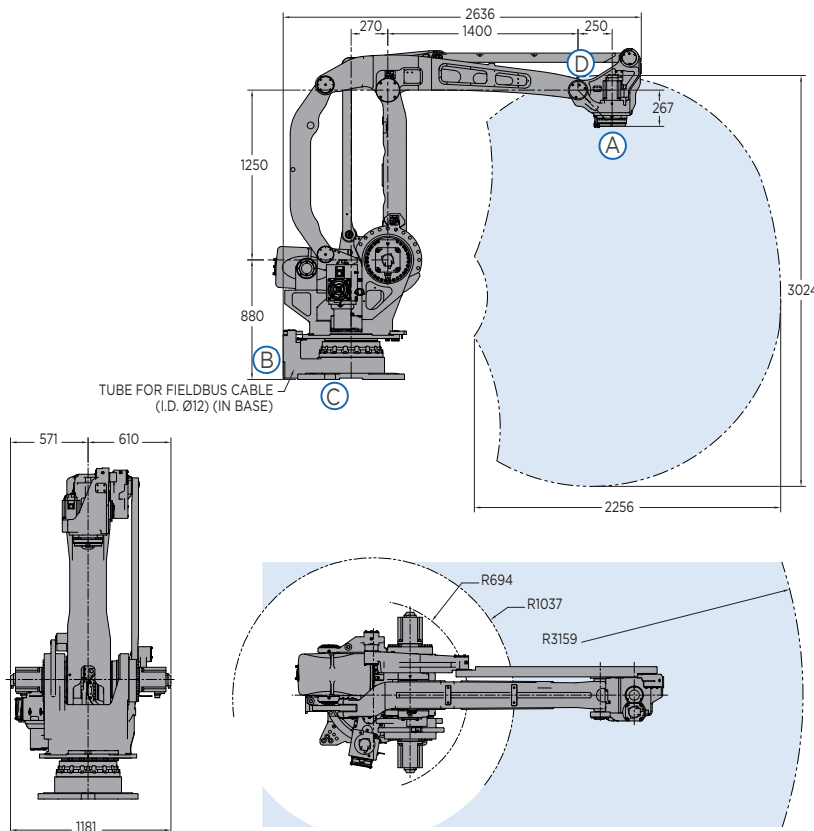
CONTROLLER

YRC1000

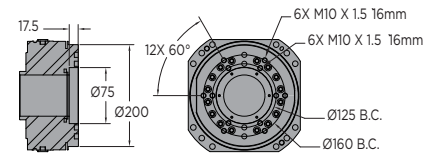


- Increase productivity with the powerful and efficient 4-axis PL320 robot.
- Performance-driven design and large work envelope enables a variety of palletizing applications, order picking and other logistical tasks for end-of-line or distribution automation.
- Exceptionally fast axis speeds and acceleration reduce cycle time and increase production throughput.
- 75 mm T-axis pass-through facilitates easy connections to end-of-arm tool.
- T-axis features high allowable moment of inertia; asymmetric loads are handled effectively without compromising speed or performance.
- Parallel-link design for strength, rigidity and stabilization of high moment/inertia loads. Heavy-duty bearings provide smooth arm rotation.
- Internally routed airlines and cables from base to the end-of-arm tool maximizes reliability.
- Cable installation tube facilitates fieldbus routing to the upper arm and/or gripper.
- 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 PL320 has an IP67 rated wrist and IP54 body as standard.
- The PL320 can be floor-mounted. Brakes are included on all axes.
- Compact YRC controller utilizes the lightweight teach pendant with intuitive programming.
- Available with PalletSolver® software for fast and easy creation of palletizing patterns.

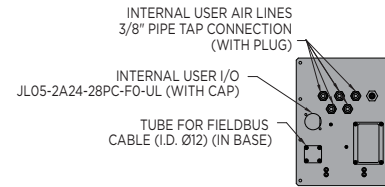
PL320 ROBOT



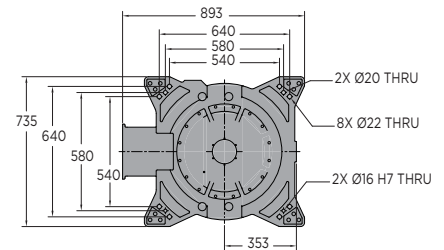
VIEW A



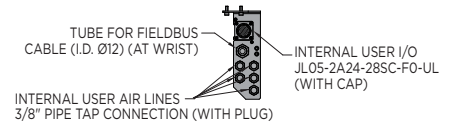
VIEW B



VIEW C



VIEW D



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

SPECIFICATIONS

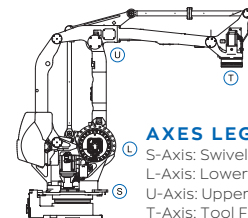
| Axes | Maximum motion range | Maximum speed | Allowable moment | Allowable moment of inertia |
|------|----------------------|---------------|------------------|-----------------------------|
| | degrees | °/sec | N·m | kg·m ² |
| S | ±180 | 120 | - | - |
| L | +90/-45 | 110 | - | - |
| U | +15.5/-120 | 110 | - | - |
| T | ±360 | 300 | - | 160 |

Mounting Options: Floor
 * 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 | PL320 |
|-------------------------|------|-------------------------|
| Controlled axes | | 4 |
| Maximum payload | kg | 320 |
| Repeatability | mm | 0.05 |
| Horizontal reach | mm | 3,159 |
| Vertical reach | mm | 3,024 |
| Weight | kg | 1,680 |
| Internal user I/O cable | | 24 conductors w/ ground |
| Internal user air line | | (5) 3/8" connection |
| Power requirements | | 380-480 VAC |
| Power rating | kVA | 9.5 |

OPTIONS

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



AXES LEGEND

- S-Axis: Swivel Base
- L-Axis: Lower Arm
- U-Axis: Upper Arm
- T-Axis: Tool Flange



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