M-410iHS/HW/WW

Basic Description

The FANUC Robotics M-410*i* series of robots is engineered for precision, high-speed/high payload operation, user-friendly setup and maximum reliability supported by our extensive service and parts network. The M-410*i* is a four-axis, modular construction, electric servodriven robot with an integrated mechanical and control unit designed for a variety of manufacturing, palletizing and system processes.

M-410i the Solution for:

- Palletizing
- Depalletizing
- Layer handling
- Press tending
- Machine load/unload

Features

- 4 axes of motion
- 3 standard models for different payload requirements:
- M-410*i*HS: 100 kg capacity
- M-410*i*HW: 250 kg capacity
- M-410*i*WW: 400 kg capacity
- +/- 0.5 mm repeatability
- Axes speed up to 300 degrees/sec.
- 2,925 mm vertical reach



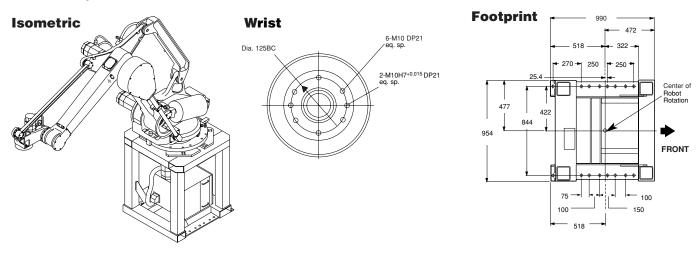
Benefits

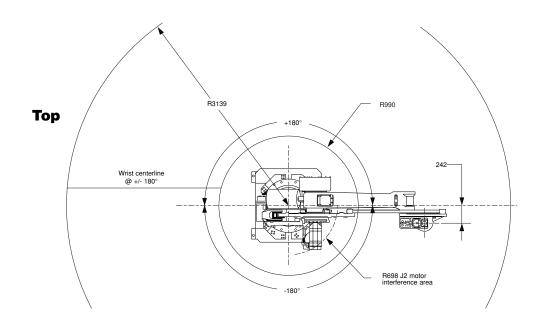
- Fastest cycle times in robot class.
- Highest payload in robot class.
- Integrated mechanical and control unit mounted internal to robot base saves plant floor space.
- Large work envelope allows robot operation in a variety of plant installations.
- Small footprint increases installation flexibility.
- Easy program creation and editing.
- Supports PalletTool software for palletizing setup.
- Can operate in environments ranging from harsh to traditional factory floor.

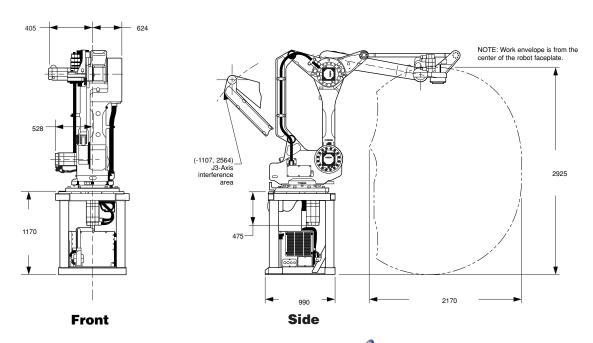
Reliability Features

- Integrated mechanical and control unit design eliminates cabling and connections.
- Brushless AC servo motors minimize motor maintenance.
- Sealed bearings and drives provide protection and improve reliability.
- Directly-coupled drive on all axes results in higher reliability and reduced maintenance costs.
- Absolute serial encoder positioning eliminates calibration at power up.
- Vertical articulation eliminates "elbow" collision problems related to SCARA robots.
- User I/O, power wiring and air supply tubing internal to robot arm.
- Quick-change servo amplifiers reduce maintenance time.

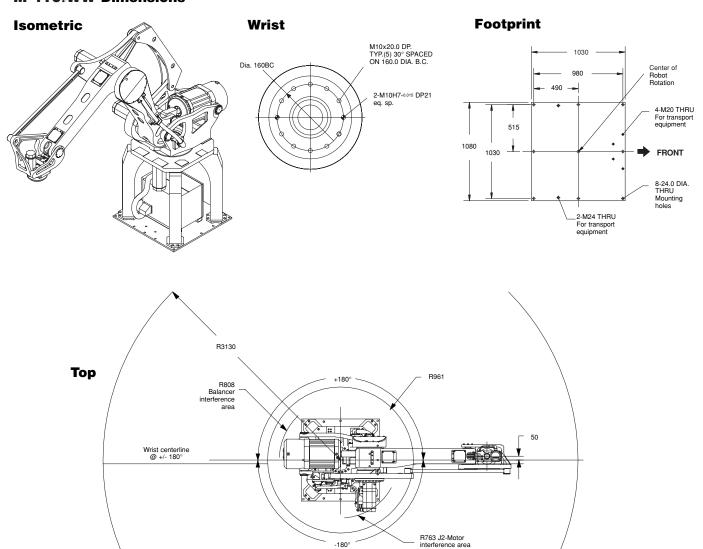
M-410*i*HS/HW Dimensions

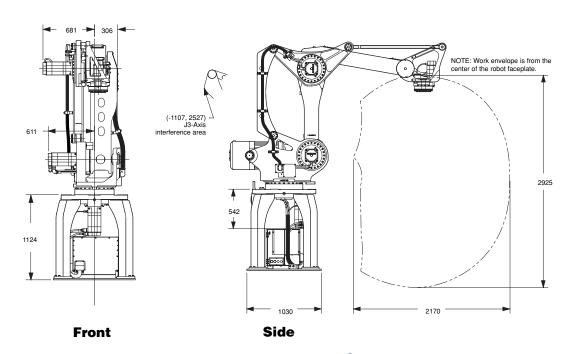






M-410iWW Dimensions





M-410i Robotic Palletizing Applications





M-410iHS/HW/WW Specifications

| Items | | M-410 <i>i</i> HS | M-410 <i>i</i> HW | M-410 <i>i</i> WW | | |
|--------------------------------|----------|----------------------------|-------------------|--|--|--|
| Axes | | 4 | 4 | 4 | | |
| Payload (kg) | | 100 | 250 | 400 | | |
| Reach (mm) | | 3139 | 3139 | 3130 | | |
| Repeatability (mm) | | ± 0.5 | ± 0.5 | ± 0.5 | | |
| Interference radius (mm) | | 990 | 990 | 961 | | |
| Motion range (degrees) | J1 | 360 | 360 | 360 | | |
| | J2 | 145 | 145 | 145 | | |
| | J3 | 135 | 135 | 135 | | |
| | J4 | 540 | 540 | 540 | | |
| Motion speed (degrees/sec.) | J1 | 130 | 85 | 70 | | |
| | J2 | 120 | 90 | 70 | | |
| | J3 | 135 | 100 | 70 | | |
| | J4 | 300 | 190 | 180 | | |
| Wrist inertia (kgf•cm•s²) | J4 | 500 | 1000 | 2000 | | |
| Mechanical brakes | | All axes | All axes | All axes | | |
| Mechanical weight (kg) | | 1570 | 1570 | 2430 | | |
| Mounting method | | Floor (upright) | Floor (upright) | Floor (upright) | | |
| Installation environment | | | | | | |
| Temperature °C | | 0 to 45 | 0 to 45 | 0 to 45 | | |
| Humidity | Humidity | | | Normally: 75% or less Short term (within a month): 95% or less No condensation | | |
| Vibration (m/s ²) | | 4.9 or less (0.5G or less) | | | | |
| IP Rating (s) | | N/A | N/A | N/A | | |

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