

M-410*i*HS/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 servo-driven robot with an integrated mechanical and control unit designed for a variety of manufacturing, palletizing and system processes.

M-410*i* 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.

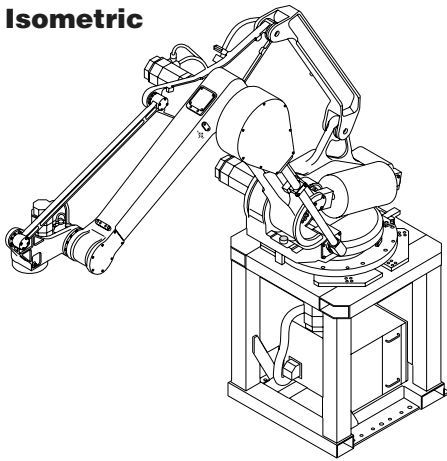
Reliability Features

- 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.

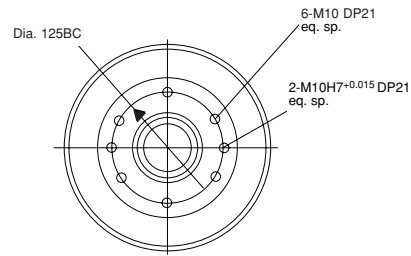
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M-410iHS/HW Dimensions

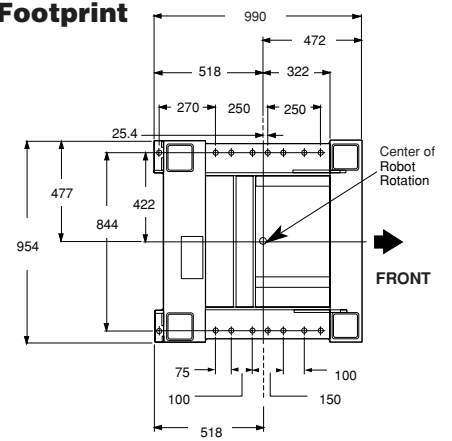
Isometric



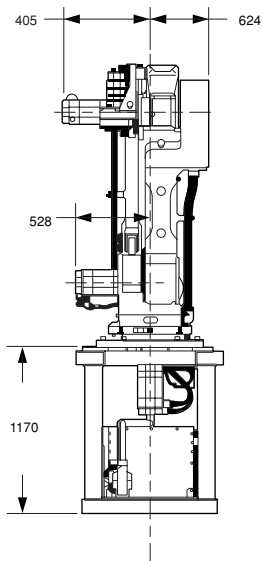
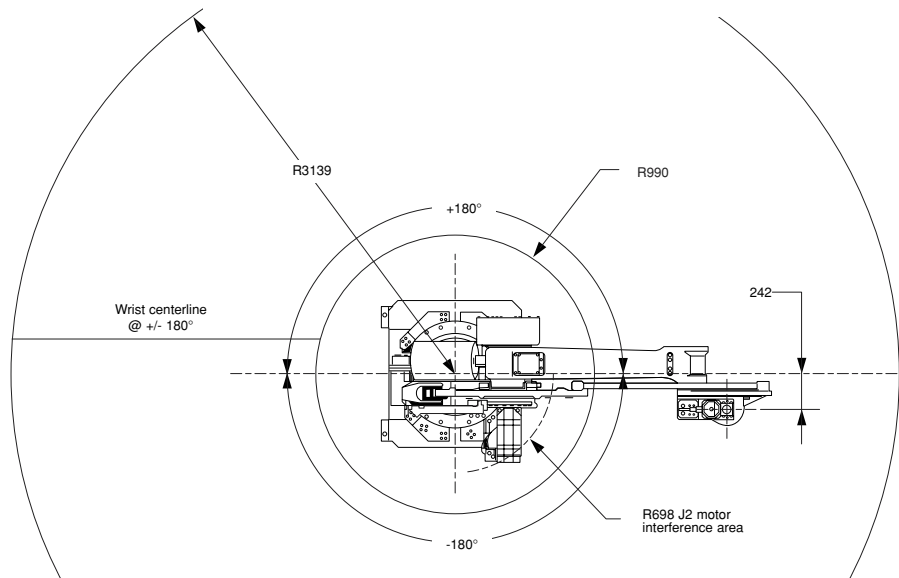
Wrist



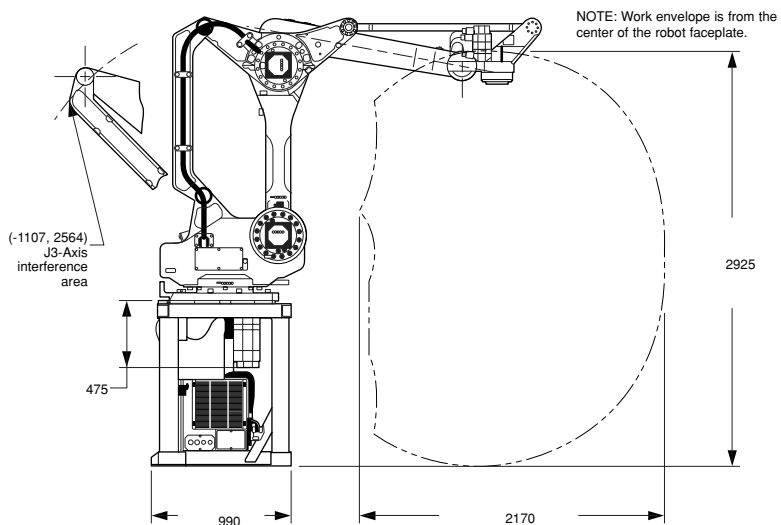
Footprint



Top



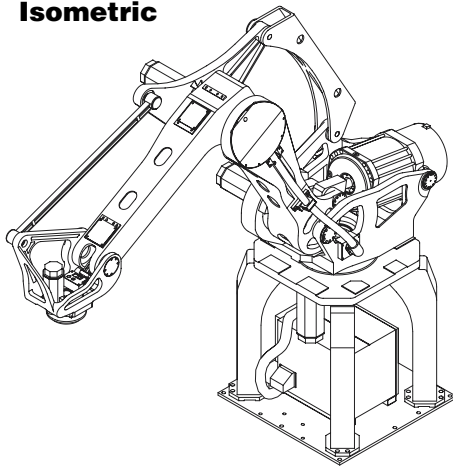
Front



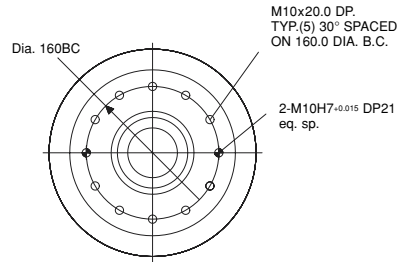
Side

M-410iWW Dimensions

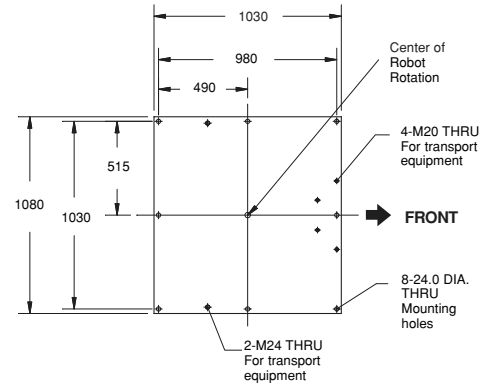
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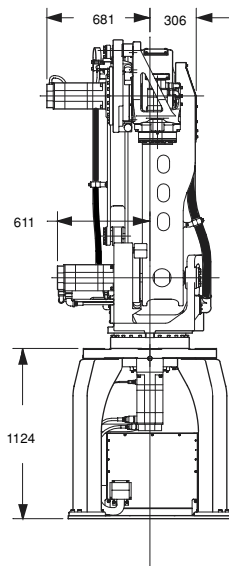
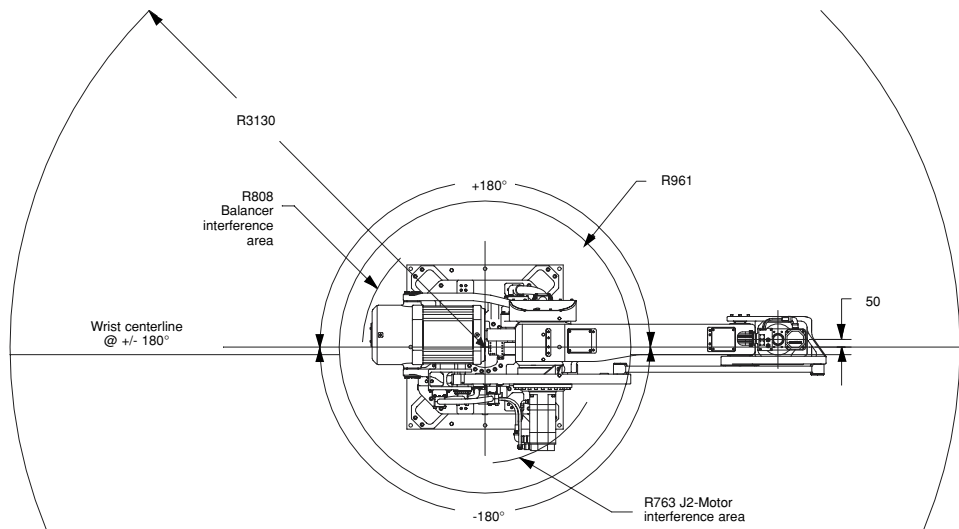
Wrist



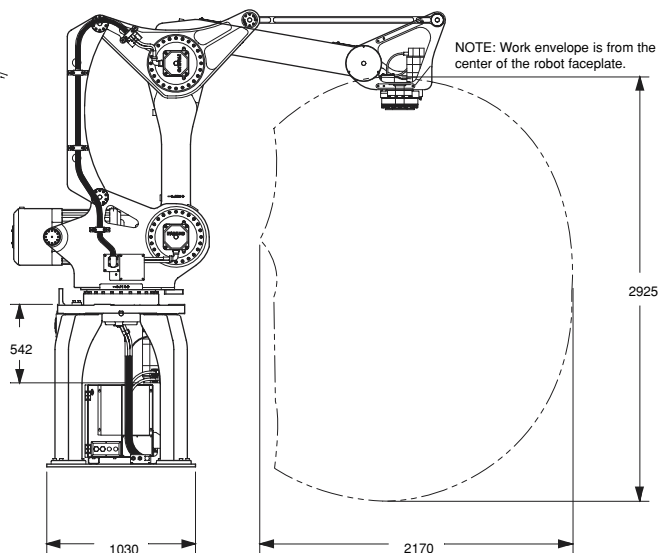
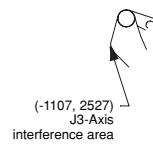
Footprint



Top



Front



Side

M-410i Robotic Palletizing Applications



M-410iHS/HW/WW Specifications

Items		M-410iHS	M-410iHW	M-410iWW
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·s ²)	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		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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