

MCV450XL-RPC: Machine Overview

Factory Equipped Rotary Pallet Changer
for Increased Spindle Utilization

Full Machine Enclosure with Standard
Equipped Mist Collection Unit and 700
PSI High Pressure CTS System

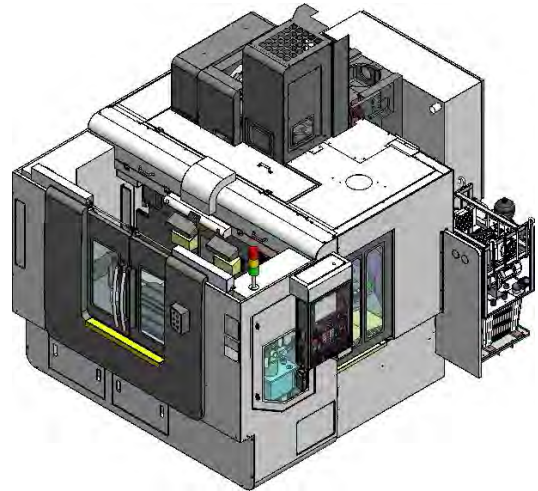
FANUC OiMF CNC Control - AICCI with
400 Block Look Ahead Fine Mold
Control Package

Heavy Duty Chip Scraper Type Chip
Conveyor with High Pressure CTS, Drum
Filtration, Cyclonic Filtration, and Mist
Collection

Thirty (30) Pocket Automatic Tool
Changer with Auto Tool Loading Door
for CAT40 Tooling

Built in Automatic Door Package and
Light Curtains for Production Ready
Machining. Hydraulic Clamping (8) Port
Factory Preparation

AMS[®]



Machine Envelope and Travels

Table Cross Travel (X Axis)	31.5" (800 mm)
Spindle Head Vertical Travel (Y Axis)	17.7" (450 mm)
Work Table Travel (Z Axis)	19.7" (500 mm)
Spindle Nose to Top of Pallet	3.74" (95mm)
Rapid Traverses (X, Y and Z Axes)	1575 ipm (40 M / min)

Machine Pallet

Pallet Size	31.5" x 17.7" (800 x 450 mm)
Maximum Work Load on the Pallet	770 lbs. (350 kg)
Pallet Height from Floor	42.7" (1085 mm)
Pallet Change Time	12 sec.

Spindle Specifications

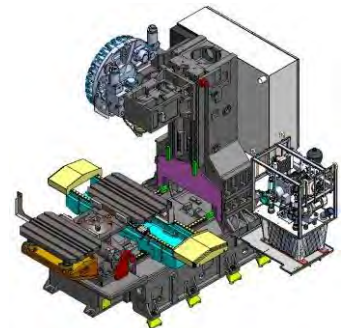
Spindle Speed	50 ~ 12,000 RPM
Spindle Ceramic Bearing Inside Diameter	70mm
Spindle Drive Motor	20 HP

Tooling and Magazine

Spindle Nose Taper	CAT 40
Type of Stored Tool	CAT #40 V-Flange / Pullstud: MAS Type I P40T
Standard Tool Storage Capacity	Thirty (30)
Maximum Tool Size (Diameter x Length)	(Diameter x Length) $\phi 2.95"$ x 9.84" ($\phi 75$ x 250 mm)
Maximum Tool Weight	17.6 lbs. (8 kg)
Chip to Chip Change Cycle Time	4.1 sec
Tool Selection	Random

Machine Dimensions and Requirements

Power Capacity (208V)	40 kVA
Standard Floor Space	Refer to Layout
Standard Net Weight	14,770 lbs. (6,700 kg)

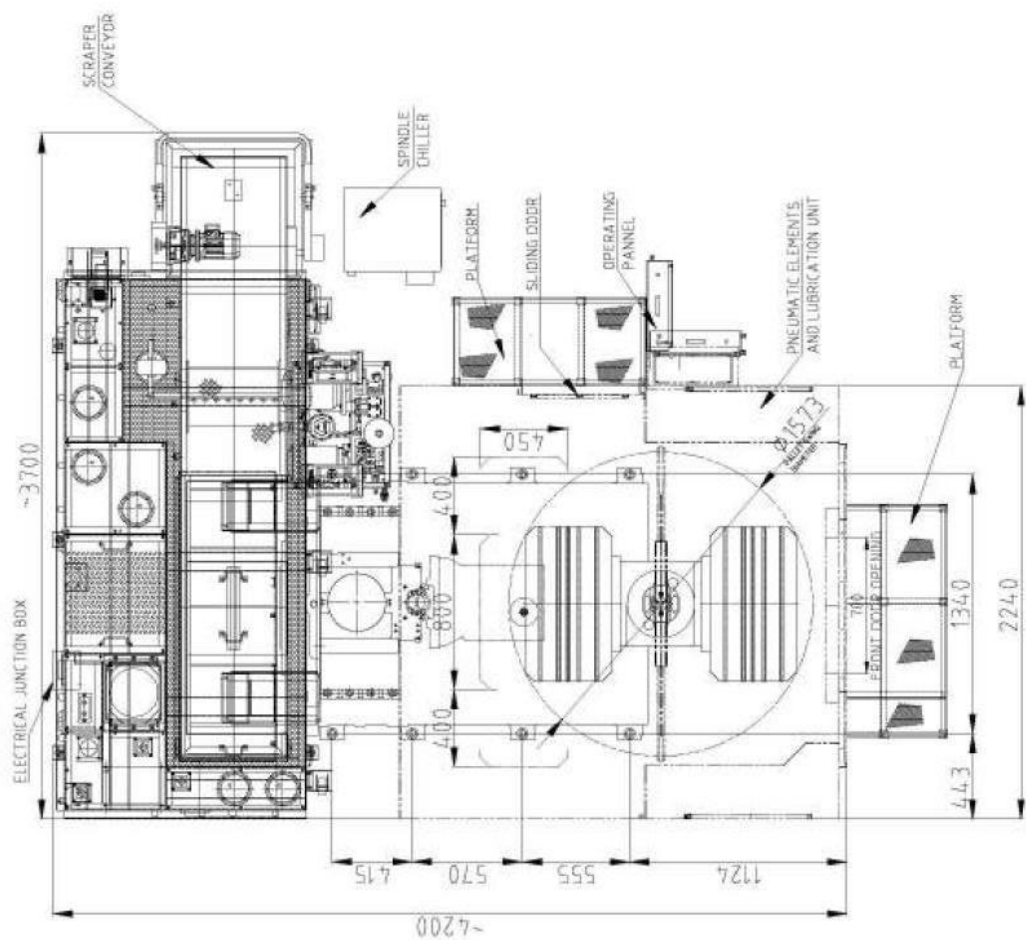


Machine Standard Package

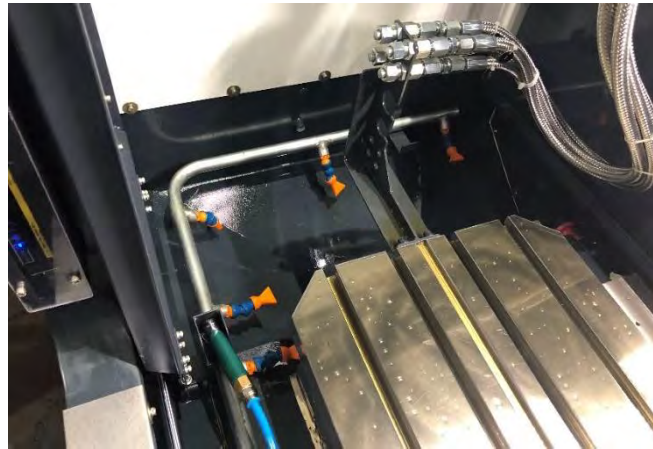
12,000 RPM – 20HP Direct Drive Spindle	STD
Big Plus Spindle Modification	STD
FANUC OiMF Control w/ 10.4" Screen	STD
Front Auto Door with Omron Light Curtains	STD
30 Tool Magazine w/ Automatic Load Door	STD
(2) 800mm x 450mm Size Pallets	STD
Full Machine Enclosure with Losma Mist Collection	STD
Rear Discharge 700PSI High Pressure CTS Coolant Tank	STD
AICCI with 400 Block Look Ahead	STD
Drum Filtration and Cyclonic Filtration Upgrade for Coolant System	STD
Hydraulic Clamping Preparation (8) Port	STD
Spindle Chiller for 12,000RPM Spindle	STD
CE Specification	STD



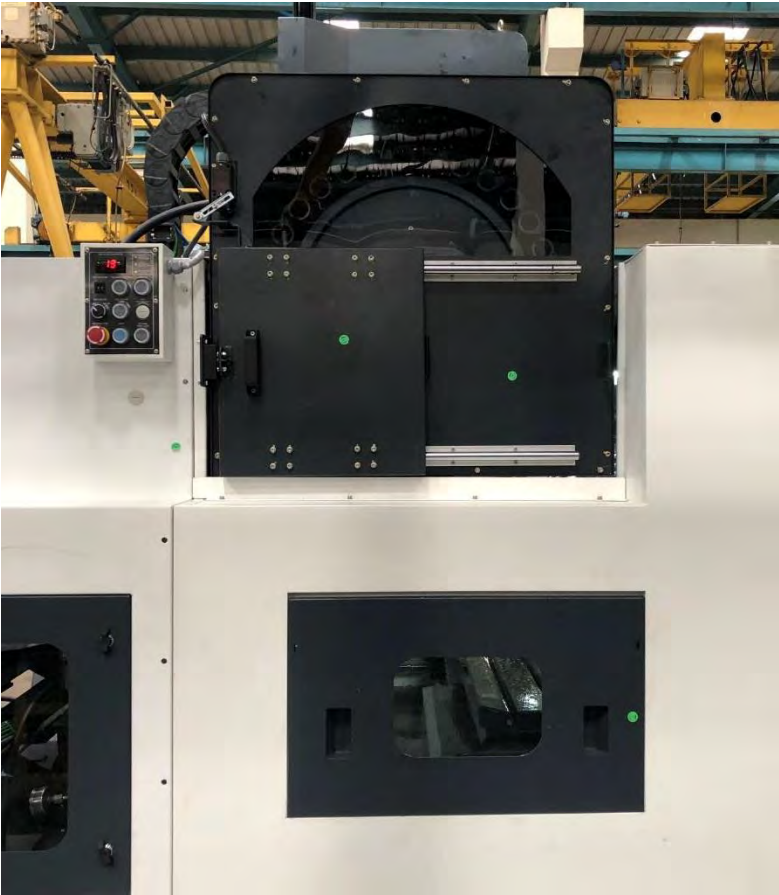
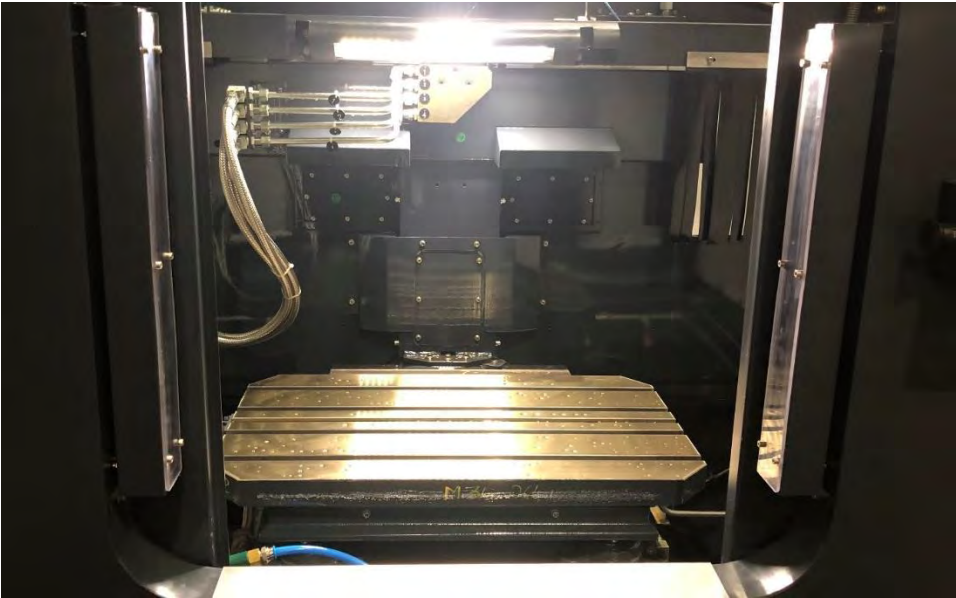
Machine Layout



Machine Package



Machine Package



Fanuc OiMF Control Package
10.4" LCD
Absolute / Increment Command
Addition of Custom Macro Common Variables
Addition of Workpiece Coordinate System
AI Nano CC
Alarm Display
Alarm History Display
Automatic Corner Override
Automatic Power Off
Background Editing
Backlash Compensation
Canned Cycles
Canned Cycles for Drilling
Circular Interpolation
Conical / Spiral Interpolation
Controllable Axes
Coordinate System Rotation
Custom Macro B
Cutting Feedrate Command
Cutting Feedrate Override
Cylindrical Interpolation
Decimal Point Programming / Pocket Calc Type Decimal Point Programming
Dry Run
Dwell
Emergency Stop
Ethernet Interface (RJ45)
Exact Stop
Exact Stop Mode
Extend Program Edit
FANUC Semi-Operator Panel
Feedrate Speed Setting
G Code Program Mirror Function
Graphic Display
Handle Interruption
Handle Wheel Feedrate
Handle Wheel Override
Helical Interpolation
HRV3 Control
Interpolation
Interpolation Pitch Error Compensation
Least Programmable Increment
Limit Check Before Movement
Linear Acceleration/Deceleration after Cutting Feed
Linear Interpolation
Machine Lock
Manual Reference Position Return

Metric / Inches Conversion
MST Function
Operation History Display
Operator Message History Display
Optional Chamfering / Corner R
Optional Single Block Skip
PC MCIA Memory Card Slot
Plane Selection
Playback
Polar Coordinate Command
Program Number Display
Program Restart
Program Single Block Number
Program Start / Movement Hold
Program Stop / Program End
Program Storage
Programmable Data Input
Rapid Movement Percentage
Rapid Positioning
Rapid Traverse Bell-Shaped Acceleration / Deceleration
Registered Program Number
Remote Diagnostic
Rigid Tapping
RS232 Interface
Run Hour and Parts Count Display
Scaling
Simultaneous Axes
Single Block
Single Direction Positioning
Soft Limit Setting
Spindle Positioning
Spindle Speed Override
Sub-Program Call
Tool Offset
Tool Offset Memory C
Tool Offset Value Counter Input
Tool Positioning Offset
Tool Radius Compensation C
Workpiece Coordinate System
Z Axis Lock