

HIGH PRODUCTIVITY VERTICAL MACHINING CENTERS

High Productivity Vertical Machining Centers

The MCV-450XL provides high value for investment in terms of the cost per component. The platform is built on linear roller guides to achieve high speed and high precision machining. The machines are designed, manufactured, assembled, and tested to perform under very demanding working conditions.



High Speed Spindles

The MCV-450XL is equipped with a rigid, high speed 12,000 RPM spindle designed for a wide range of applications. The machine can be equipped with either a CAT40 or HSK A63.



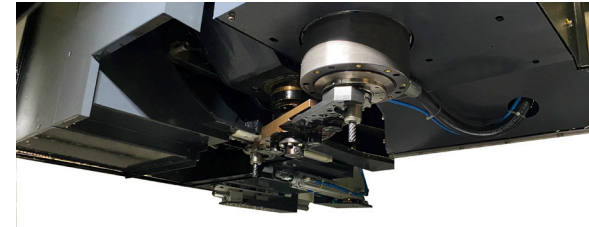
Ease of Operation

The machine's design provides an optimal 36.4" loading height, easy access to the spindle, ease of chip removal, and maintenance friendliness. A rear access door for the tool changer is available for ease of tool loading.



Quality and Inspection

The machine geometric accuracies are fully inspected to ensure the highest accuracy standards. The high precision laser unit is used for inspecting positioning accuracy and repeatability. The ball bar tester is used for inspecting the geometric error and ensures superior circular accuracy.



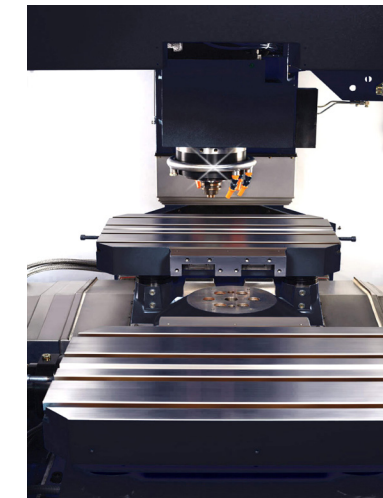
Automatic Tool Changer

The MCV-450XL comes with a 20 tool ATC as a standard option with the ability to upgrade to a 30 tool ATC. The machine uses a high-speed servo-driven motor to reduce tool change times.

Automatic Pallet Changer

The automatic pallet changer allows for increased productivity. Two options are available for the MCV-450XL:

ROTARY AUTOMATIC PALLET CHANGER		
Pallet Size	in (mm)	31.5 x 17.7 (800 x 450)
Maximum Load on Pallet	lb (kg)	770 (350)
Pallet Changing Time	sec	12
LINEAR AUTOMATIC PALLET CHANGER		
Pallet Size	in (mm)	31.5 x 17.1 (800 x 435)
Maximum Load on Pallet	lb (kg)	600 (300)
Pallet Changing Time	sec	17



Rotary Automatic Pallet Changer

Coolant System

Through coolant increases tool life, allows higher cutting speeds, and clears chips during deep hole drilling. The MCV-450XL comes with a high pressure coolant through spindle system (725 PSI) and is equipped with a mist collector.



Chip Conveyor

The MCV-450XL is available with various chip handling systems suited for your application. Scraper or hinge belt type conveyors are offered for cast iron and steel applications.



CNC Controller

The MCV-450XL comes with a Fanuc 0iMF controller with an 10.4" color LCD screen as a standard option. The Fanuc package comes standard with Fanuc tool life management and AI Contour Control II with 400 block look-ahead for high speed machining.

Spindle Probe & Tool Setter Options



Tool Breakage Detection



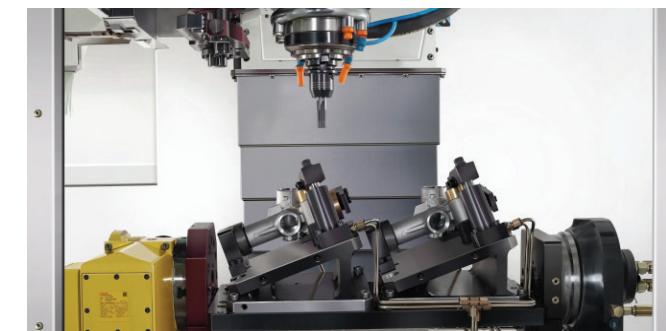
Tool Setter



Spindle Probe

Turnkey Solutions

Our application engineering team has a wide experience in identifying the machining processes and providing suitable work holding and tooling solutions from the automotive industry to the high precision and accuracy solutions for aerospace and mold-making industries. This includes the support in selecting the most suitable machines and designing the fixtures and identifying the ideal cutting tools for the selected process.



Automation Solutions

The MCV-450XL is made suitable for automation interface of various types. With the experience of providing machining solutions, we are capable of augmenting the manufacturing process while integrating automation solutions. Whether it be semi-automated with auto-unloading or fully automated with unmanned operations, there are a myriad of options to choose from when suiting the machining process and layout. Automation solutions provide enhanced productivity, output consistency, and minimized dependency on man power.

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MCV 2020

Your local distributor is:

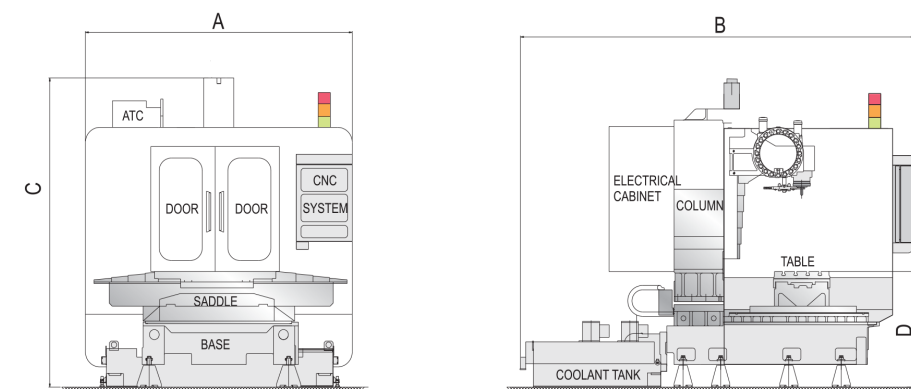
MCV-450XL

VERTICAL MACHINING CENTER



SPECIFICATIONS

CAPACITY	Units	MCV-450
X-Axis Travel	in (mm)	31.5 (800)
Y-Axis Travel	in (mm)	17.7 (450)
Z-Axis Travel	in (mm)	19.7 (500)
Distance from Spindle Face to Table Top	in (mm)	6.9 - 26.6 (175 - 675)
Distance from Floor to Table Top	in (mm)	36.4 (925)
TABLE		
Table Size	in (mm)	39.4 x 17.7 (1,000 x 450)
T-Slot Dimensions	N x W x P	4 x 18 x 100
Maximum Load on Table	lb (kg)	1,100 (500)
SPINDLE & AXES		
Spindle Taper	-	CAT40
Spindle Speed	RPM	12,000
Spindle Drive Motor	-	20 HP
Rapid Traverse X, Y, & Z Axes	ipm (m/min)	1,575/1,575/1,575 (40/40/40)
Linear Roller Guide	-	Linear Motion
AUTOMATIC TOOL CHANGER		
Tool Storage Capacity	-	20 (30 Optional)
Tool Change System	-	Twin Arm
Tool Selection	-	Bi-Directional
Maximum Tool Diameter	in (mm)	2.95 (75)
Maximum Tool Length	in (mm)	9.8 (250)
Maximum Tool Weight	lb (kg)	11.6 (8)
CONTROL		Fanuc Oi-MF



MACHINE DIMENSIONS				
	Width (A)	Depth (B)	Height (C)	D
in (mm)	86.6 (2,200)	122 (3,100)	104.3 (2,650)	36.4 (925)

Machine shown with rear discharge coolant system.
 Specifications subject to change without notice.