

## VERTICAL MACHINING CENTER

**NEW!**

**MCV-1100i/1300**

*Rigid construction, unsurpassed quality, high accuracy and excellent performance under severe machining conditions.*



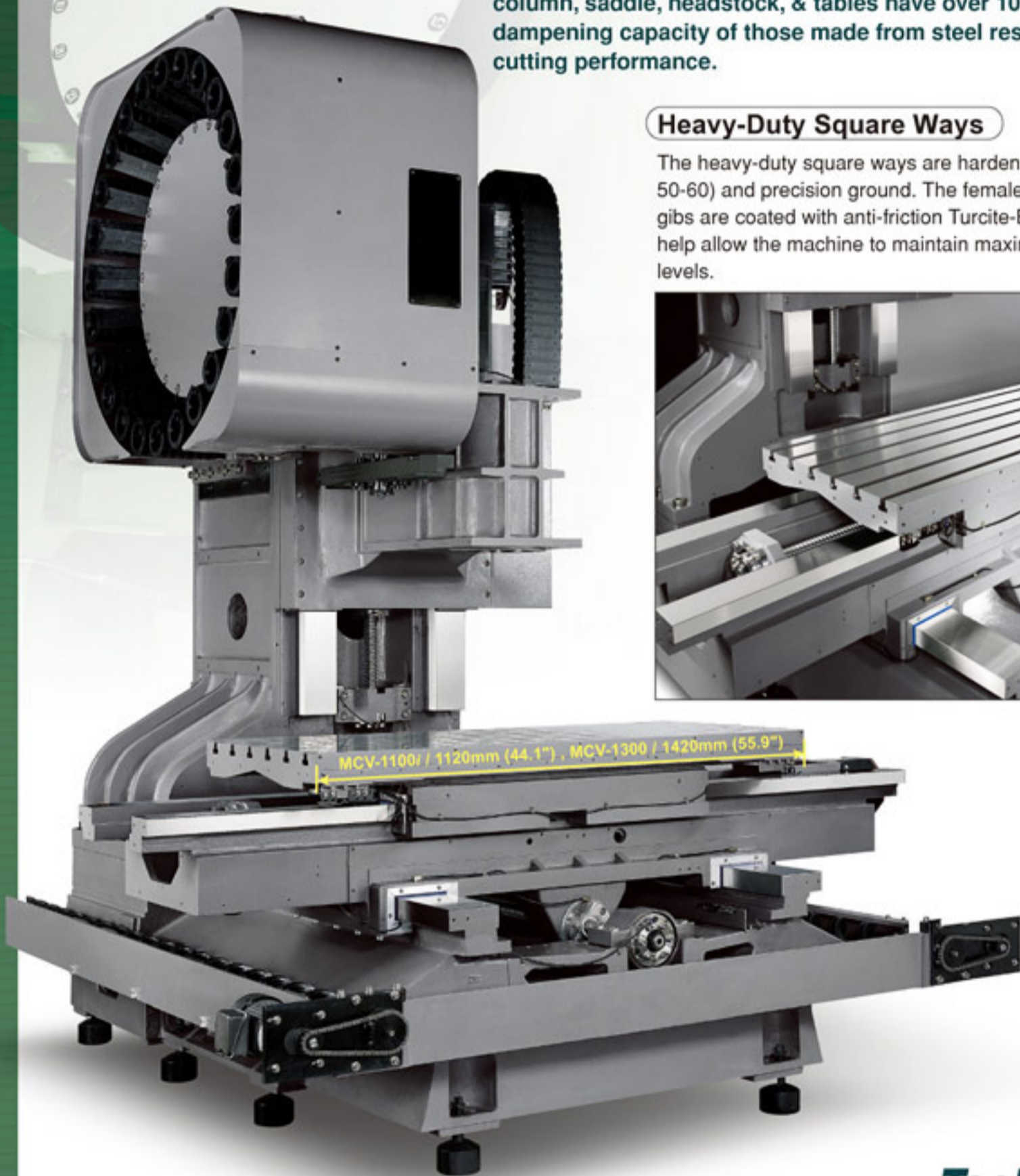
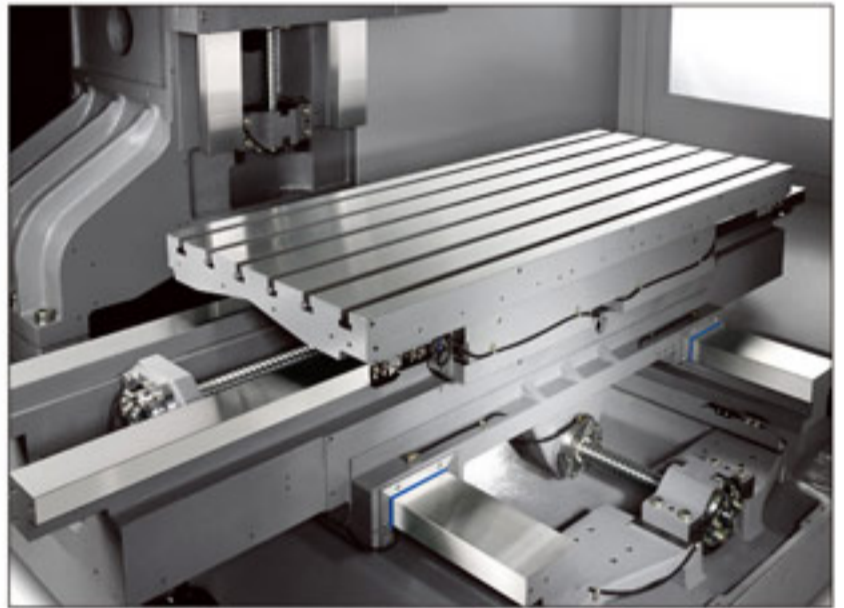
- Powerful spindle motor
- Massive cast iron base for extra stability
- Wide column design for extra rigidity
- X travel from 1,100mm to 1,300mm
- Table size from 1,120x610mm to 1,420x610mm
- Rapid rates up to 20 M/minute
- 4,000 RPM standard (6,000 RPM optional)
- Easy to use membrane touch-pad control station
- Easy moving operator door
- No chip or coolant leaks expensive floating tap holders and prevents thread distortion and thread pullout.

## Cast Iron Construction

LEADWELL uses only top quality well-ribbed castings. Finite Element Analysis (FEA) is used on each new casting to determine the size and location of all internal ribs ensuring high torsional stiffness and minimum vibration. The cast iron base column, saddle, headstock, & tables have over 10 times the dampening capacity of those made from steel resulting in superior cutting performance.

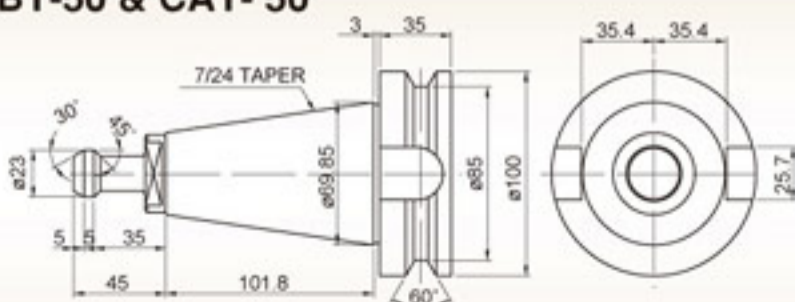
### Heavy-Duty Square Ways

The heavy-duty square ways are hardened to HS67-75 (HRC 50-60) and precision ground. The female square ways and gibs are coated with anti-friction Turcite-B. These features help allow the machine to maintain maximum accuracy levels.

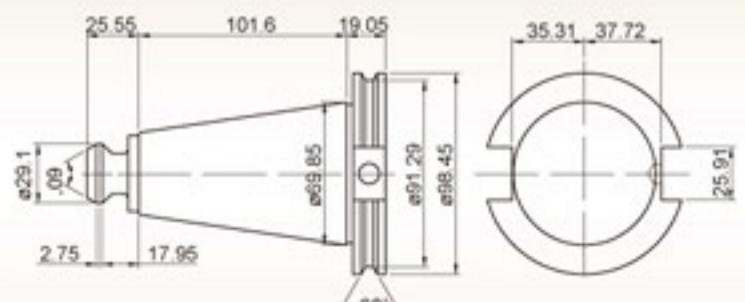


## Tool Drawing

### BT-50 & CAT-50



BT-50



CAT-50

## Side-Mounted Tooling System

The tool magazine is isolated from the machining area. An automatic door keeps chips from contaminating the tools' tapered shanks. Having the next tool ready near the spindle during current tool machining, drastically reduces tool change time. Our MCV series also offer multifarious choice for the ATC system option. We have 24 tools arm type ATC system and 20 tools drum type system ATC for different working need.

## Automatic Tool Changing System

The high-speed ATC activates a high-pressure air blast to clean the spindle taper and the ATC tool pot to ensure accurate tool holding. Tools are automatically returned to their original location, eliminating tool interference from oversized tools in the magazine for arm type ATC.



## High Productivity Options

### 4th Axis Rotary Table Option

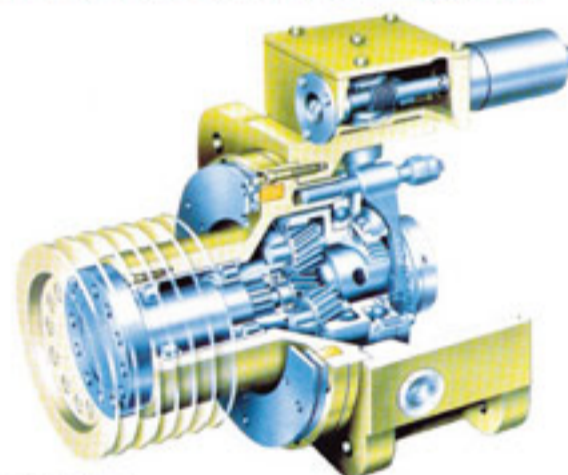
This 4th axis rotary table option boosts productivity by allowing more machining with a single set-up. It also can turn the MCV-Series machine into a 4 Axis contouring machine which adds versatility.



### High Torque Spindle Option

The cutting torque is maximized by combining the German ZF-2-speed gear box with the oil cooled main spindle. The gearbox has its own separate lubrication system.

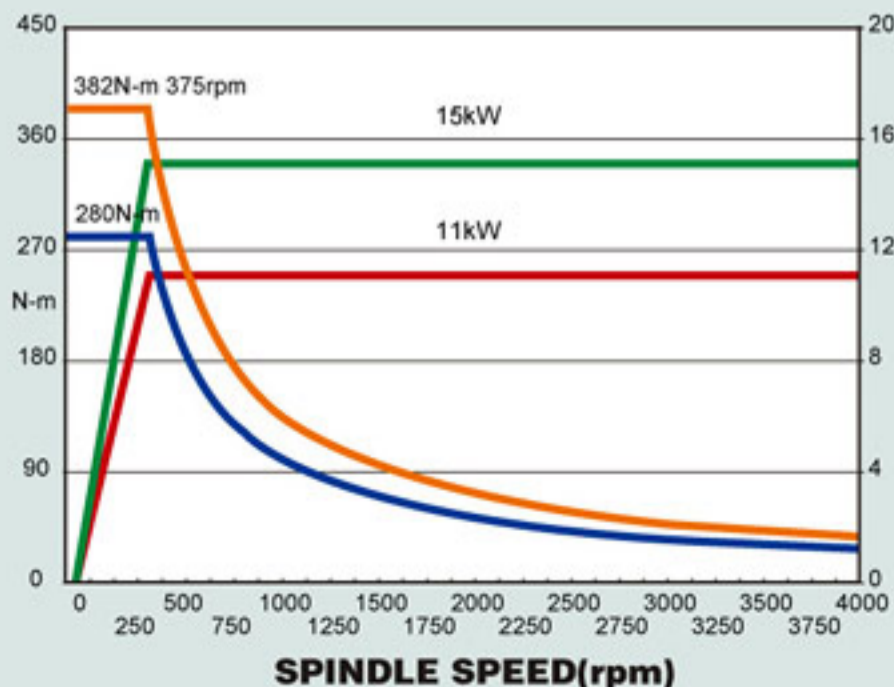
The two speed spindle option advantages are:



- Over 95% efficiency
- Quiet gears
- Heat is not transmitted to the main spindle
- Gear vibration is not transmitted to the main spindle
- Minimum backlash

## Power Output Diagram

- Continuous motor torque(N-m)
- 30 min motor torque(N-m)
- Continuous rated output(KW)
- 30 min rated output(KW)



## MACHINE SPECIFICATIONS

ITEM	MODEL	MCV-1100/		MCV-1300	
		Type	DRUM (STD.)	ARM (OPT.)	DRUM (STD.)
<b>A.T.C.</b>					
<b>CAPACITY</b>	<b>Unit</b>				
X axis travel	mm (in)	1100 (43.3)		1300 (51.1)	
Y axis travel	mm (in)	635 (25)		635 (25)	
Z axis travel	mm (in)	445+165 (17.5+6.4)	610 (24)	445+165 (17.5+6.4)	610 (24)
Distance from spindle nose to table surface	mm (in)	125-570 (4.9-22.4)	125-735 (4.9-28.9)	125-570 (4.9-22.4)	125-735 (4.9-28.9)
Distance from spindle nose to column surface	mm (in)	622 (24.4)		622 (24.4)	
<b>TABLE</b>					
Table size (LxW)	mm (in)	1120x610 (44x24)		1420x610 (56x24)	
Max. table load weight	kg (lb)	1000 (2200)		1000 (2200)	
T-slot size	mm	18Tx100x6		18Tx100x6	
<b>SPINDLE</b>					
Spindle speeds	rpm	4000		4000	
Spindle nose (nominal size, No.)		7/24 Taper, No.50		7/24 Taper, No.50	
Spindle bearing inner diameter	mm	90 (3.54)		90 (3.54)	
<b>FEEDRATE</b>					
Rapid traverse X,Y,Z	M/min (IPM)	20 (787.4)		20 (787.4)	
Max. cutting feedrate	M/min (IPM)	10 (393)		10 (393)	
<b>A.T.C.</b>					
Tool storage capacity	pcs	20	24	20	24
Max. tool diameter (with adjacent tools)	mm (in)	125 (4.9)		125 (4.9)	
Max. tool length	mm (in)	250 (9.8)	300 (11.8)	250 (9.8)	300 (11.8)
Tool change time T-T(C-C)	sec	15 (20)	3 (10)	15 (20)	3 (10)
<b>MOTORS</b>					
Spindle motor (30min) FANUC	KW (HP)	15 (20)		15 (20)	
X,Y,Z axis motor	KW (HP)	4/4/7 (5.4/5.4/9.3)		4/4/7 (5.4/5.4/9.3)	
<b>MACHINE SIZE</b>					
Height of machine (H)	mm (in)	3100 (122)		3100 (122)	
Floor space (LxW)	mm (in)	3570x3600 (140.5x141.7)		3570x3600 (140.5x141.7)	
Total machine weight	kg (lb)	7250 (15950)		7250 (15950)	
Power requirement	KVA	30		30	
Computer control	FANUC	0i-MC		0i-MC	

### STANDARD ACCESSORIES

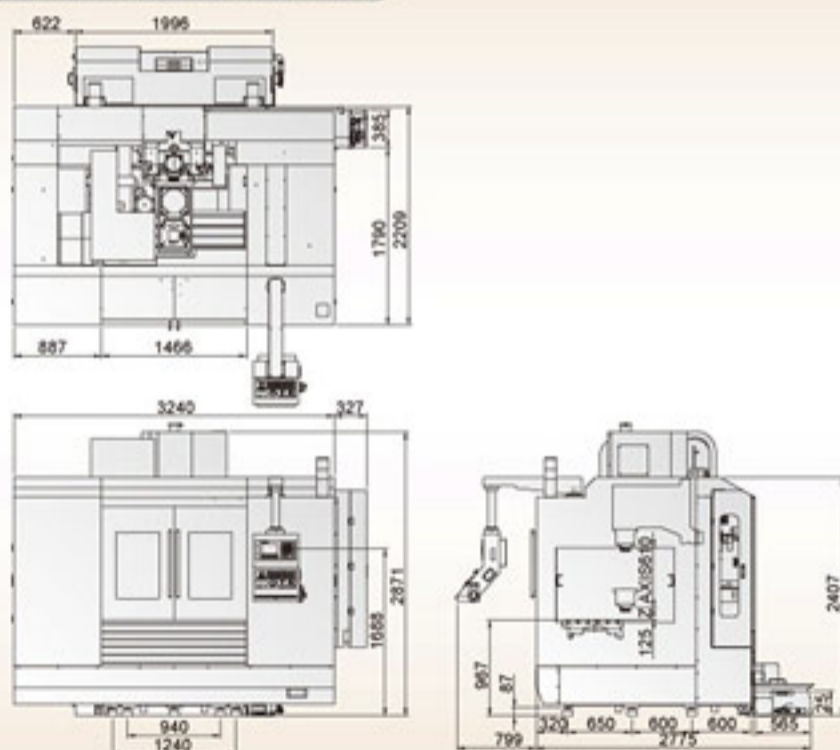
- RS232 interface
- Rigid tapping
- Fully enclosure guarding
- Chip conveyor(auger type)
- Work light
- Alarm lamp
- Heat exchanger
- Remote MPG
- Coolant system including coolant tank
- Lubrication system
- Leveling screws and pads
- Maintenance tool box
- 4000 rpm spindle
- Tool tip air blow system
- Air purge
- Shower coolant system

### OPTIONAL ACCESSORIES

- Extra coolant tank
- 6000rpm spindle
- Spindle oil chiller
- Two speed gearbox
- C.T.S preparation
- Linear scales
- Tool overload detection
- Auto tool length measurement
- Automatic workpiece measurement
- Simple tool life management
- Chip conveyor outside machine & chip bucket
- Oil skimmer
- Coolant gun
- Rotary table preparation
- Manual tail stock for rotary table
- Through hole drill kit
- Auto counter for work piece
- DNC link software
- Automatic power off
- Oil collector
- BT-40 spindle
- Spindle output switching function

### OUTLINE DIMENSIONAL DRAWING

Unit:mm



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※ All performance are based on 220V/3PH/60HZ. Specification are subject to change without notice.

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