



# M-One APC

Series by Maple



Endless Innovation

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**INTRODUCING**  
THE MAPLE  
M-One APC Series



[www.maple-tech.com.tw](http://www.maple-tech.com.tw)



## High Speed CNC Vertical Auto Pallet Change Machining Center

With globe demand increasing, limited factory floor space, and shortage of labor force.

Many companies have been looking for solutions that can help with these increasing problems.

Look no further, Maple Technology once again has the solution to increase production with the uses of smaller limited factory floor space.

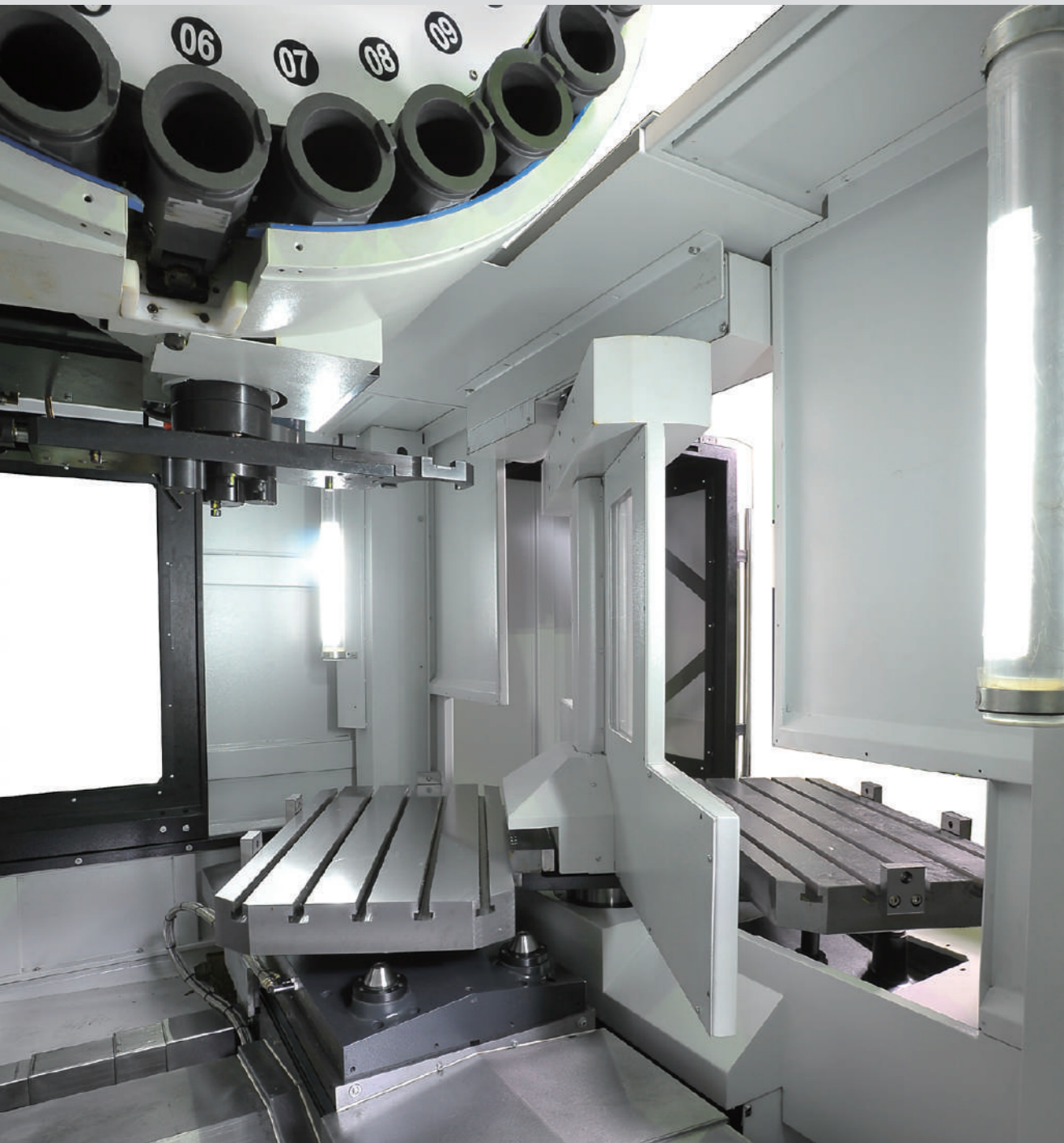
Introduction the M-One APC Series. With the M-One APC Series get 25% to 60% increase in productivity from one machine.

By not having to stop the machine after every machining cycle, this machine can work non-stop while you are changing your work pieces.

Not only can this machine increase your productivity, it can also decrease the usage of your plant floor.

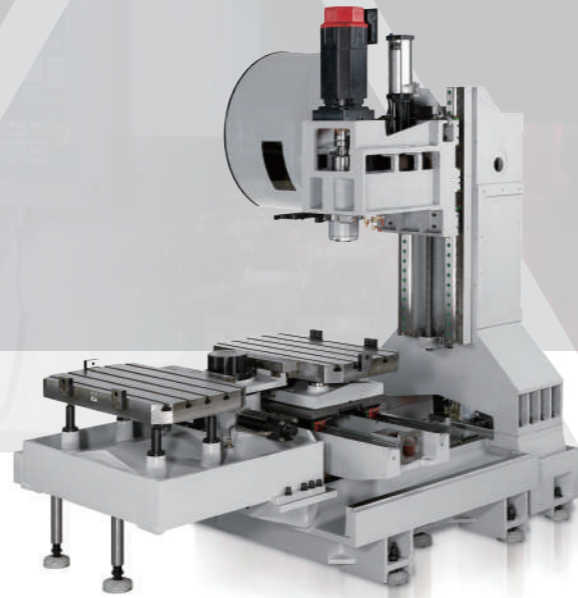
The M-One Series machine only needs an extra 30% of your floor space compare to a standard vertical machining center.

Maple Technology once again brings the M-One APC Series machining center with "endless innovation".



## FOUNDATION FOR QUALITY

**The Perfect Platform** No matter what the project a house, a skyscraper, or a suspension bridge the soundness of the structure is determined by the sturdiness of the foundation. The same principle applies to our APC machining centers. It all starts with the base and column structures. How well the machine cuts is tied to the sturdiness of the basic structure.



**High Quality Industrial Cast-Iron Structure** Cast iron provides up to ten times the damping capacity of steel. That's why Maple uses cast iron for all major components. Our castings are reinforced with heavy ribs to resist flex and damp vibrations, and inspected thoroughly before and after machining to ensure they are free of flaws.

**Wide-Stance Design** Our wide-stance design allow maximum structural loading with efficient use of materials. They provide a rigid and stable machining platform that resists flex, distributes cutting forces effectively, and making the machine more stable regardless of the direction of the cutting force.

## Spindle Features

- Built in (High Speed Equipment)
- Belt Driven (Standard Equipment)
- In-Line (Mid Range Equipment)
- 2-Step Gear Box (Heavy Duty Equipment)



## Control Panel



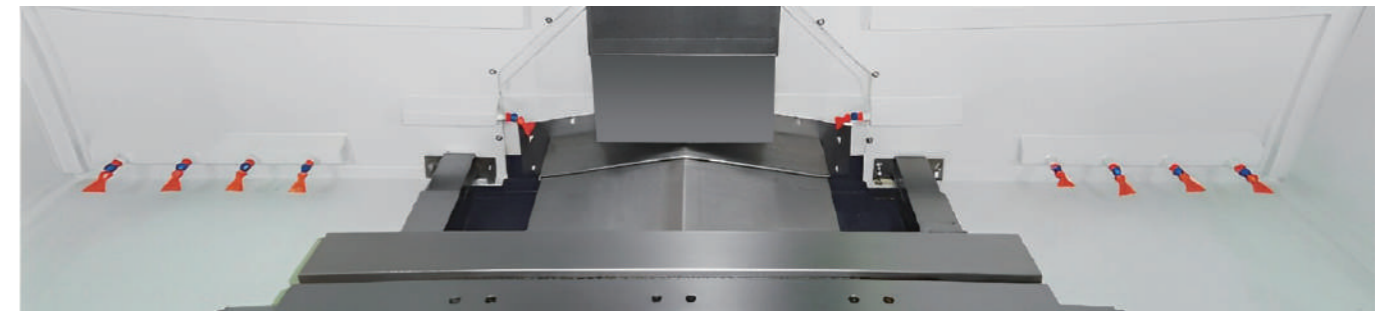
## 4 way swival control panel

The M-One APC model machining center features one and only 4 way swival control panel. By being able to swival multiple axis, the user can adjust the monitor to the perfect viewing position that the operator desires.



## Chip removal back wash

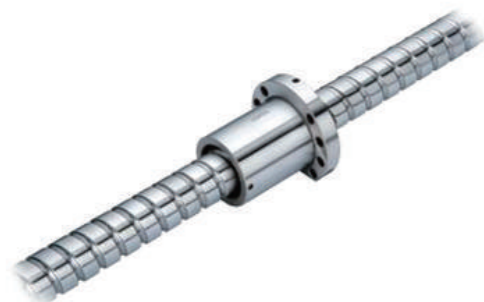
The M-One APC Series does not stop working. Therefore all M-One APC series come with standard chip removal back wash system. With the limited amount of time allowed to clean the machine, the chip removal back wash system will do the cleaning for you.



### Ball screw

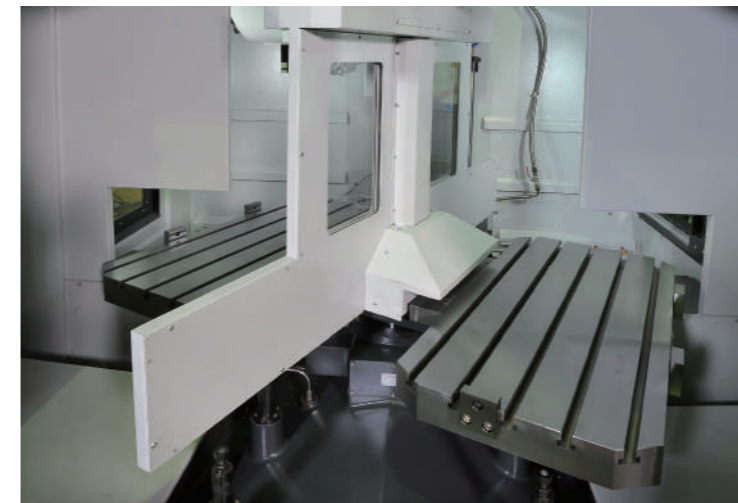
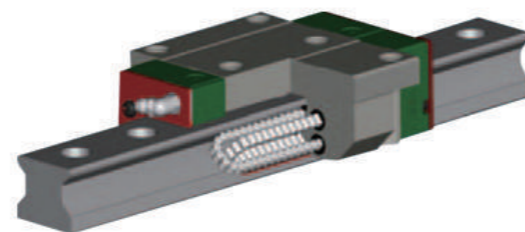
M-One models uses high accuracy ballscrews constructed of high quality important materials that have been heat treated to prevent wear from usage.

Also, the ballscrews are created with inner tubing. This design reduces noise from ballscrews travel by 20-40% compare to other standard ballscrews.



### Roller linear guideway

All M-One series models uses roller type linear guide way. High strength rollers have a great weight load capacity. Furthermore, the roller type guide ways are designed to have unbelievable tilt resistance. With P-grade roller type linear guide ways, perfect flatness is guaranteed from every part machined.



## Table change time

When every second counts, a fast table change is very important. We the M-One APC fast table change is what we do. Our table change time from the moment of lift off with complete 180 degree turn only takes less than 7 seconds.

## Machine Specifications:

		M-One6	M-One8	M-One10
<b>TABLE</b>				
Work range	mm	600 x 400	850 x 500	1000 x 500
Number of Pallets	piece	2	2	2
T-Slot of tables	mm	100*14*3	100*18*5	100*18*5
Table Change Time	Sec.	5	5	10
Max Weight on Table	kgs	200 x 2	300 x 2	300 x 2
<b>TRAVEL</b>				
X Axis	mm	600	850	1000
Y Axis	mm	400	500	500
Z Axis	mm	550	600	600
Spindle Nose to Table(min to max)	mm	150-700	150-750	150-750
<b>SPINDLE</b>				
Spindle Taper		ISO40	ISO40	ISO40
Spindle Max Speed	r.p.m.		(ISO40)10,000rpm,(ISO50)6,000rpm	
Drive Type			Belt Driven	
Spindle motor-Mitsubishi	kw	5.5/7.5	7.5/11	7.5/11
Spindle motor-Fanuc	kw	7.5/11	11/15	11/15
Spindle motor-Siemens	kw	7	11	11
Spindle motor-Heidenhain	kw	7.5	10	10
<b>ATC</b>				
Tool Quantity		24Tools	24Tools	24Tools
Tool change type		Arm Type	Arm Type	Arm Type
Max. tool diameter&length	mm	Φ80/300	Φ80/300	Φ80/300
Max. tool weight	kgs	8	8	8
Handle Type			ISO40 (BT, CAT, DIN, HSK, SK)	
Tool change time		T-T:1.8	T-T:1.8	T-T:1.8
<b>MOTOR</b>				
Servo motor X/Y/Z axis-FANUC	kw	1.8/1.8/3.0 BS	3.0/3.0/3.0 BS	3.0/3.0/3.0 BS
Servo motor X/Y/Z axis-Mitsubishi	kw	1.5/1.5/3.0 BS	3.0/3.0/3.0 BS	3.0/3.0/3.0 BS
Servo motor X/Y/Z axis-Siemens	kw	2.85/2.85/3.55 BS	3.55/3.55/5.5 BS	3.55/3.55/5.5 BS
Servo motor X/Y/Z axis-Heidenhain	kw	2.9/2.9/3.9 BS	3.9/3.9/4.6 BS	3.9/3.9/4.6 BS
3-Axis cutting feed rate	mm/min	12000	12000	12000
3-Axis rapid feed rate	M/min	36/36/36	36/36/36	24/24/24
3-Axis rapid feed rate(opt.)	M/min	48/48/48	48/48/48	36/36/36
<b>OTHER</b>				
Machine Size	L*W*H(M)	2270 x 3400 x 2300 mm	2800 x 3685 x 3100 mm	2800 x 3685 x 3100 mm
Machine Weight	kgs	5000	7300	7500

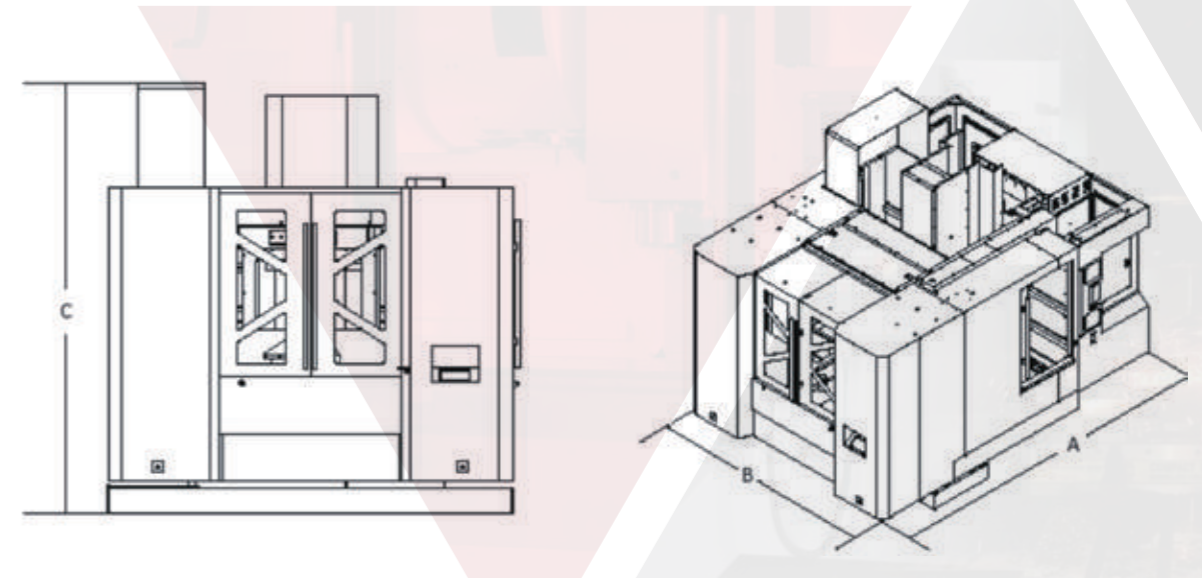
### STANDARD ACCESSORIES

- Arm Type Automatic Tool Changer BT-40 (24-tools)
- Fully Enclosed Guard
- Swiveling Control Box
- Low Energy Work Light
- LED 3 Color Warning Light
- Volumetric Type Automatic Lubricator
- Cutting Coolant and Air System
- Auto Power Off
- Rigid tapping
- Tool Box
- Leveling Screws & Blocks
- Operation Manual
- Mechanical Oil Coolant Separator
- Air Gun

### OPTIONAL ACCESSORIES

- Arm Type Automatic Tool Changer BT40 (30/32-Tools)
- Chain Type Automatic Tool Changer BT40 (32/40-Tools)
- Arm Type Automatic Tool Changer BT50 (24-Tools)
- Chain Type Automatic Tool Changer BT50 (32-Tools)
- Direct Drive Spindle (12000,15000 rpm)
- Built-in Spindle (18000,24000 rpm)
- Coolant Through Spindle (CTS)
- Air Through Spindle (ATS)
- Chain Chip Conveyor
- Linear Scale
- CNC Rotary Table
- Automatic Doors
- Coolant Gun
- Transformer
- Automatic Part Probe
- Automatic Tool Setter
- Maple 2-Step Gear Box-BT40 (6000,8000 rpm)
- Maple 2-Step Gear Box-BT50 (6000,8000 rpm)
- ZF Gear Box

## Machine layout



M-One APC Series Machine Dimensions			
Series	M-One6 APC	M-One8 APC	M-One10 APC
Dimension A	3400 mm	3685 mm	3685 mm
Dimension B	2270 mm	2800 mm	2800 mm
Dimension C	2300 mm	3100 mm	3100 mm

## Machine APC work table size and diagram

