



**CINCINNATI
MACHINES**

***DUPLEX
HI-POWERMATIC
PRODUCTION
MILLING
CENTER***

With CINCINNATI MACHINES Duplex Hi-PowerMatic Production Milling Center, the milling of all kinds of square and rectangular parts just got a whole lot quicker and easier. With the standard EZ Auto Machining Wizard, the operator simply places the part on the table, pushes a few buttons, and the machine will accurately auto position the part, clamp the part, and tell the control exactly where the part is. No more special fixtures or jigs, no more manually clamping the part, no more manually indicating the part before entering info into the control. All of this makes the machine so productive that we have included dual chip conveyors to keep up with the all of the metal shavings produced.



CINCINNATI MACHINES Duplex Hi-PowerMatic Production Milling Center is a complete Wizard when it comes to milling all kinds of square and rectangular parts.

These Heavy-Duty Machines feature rock solid meehanite castings, 2-speed gear box, spindle drives up to 50hp per spindle, large 50 NT or 60 NT Spindles, and twin chip conveyors. Depending upon the machine size, face mills up to 17" diameter can be used



The EZ-Automated Machining Wizard is almost magical when it comes to the milling of square and/or rectangular parts from a few inches in size, up to 9ft long.

The operator enters part size into the control



Then actuates the EZ-Position Arm and places the part securely against the EZ-position arm.

Then EZ-Clamps the part



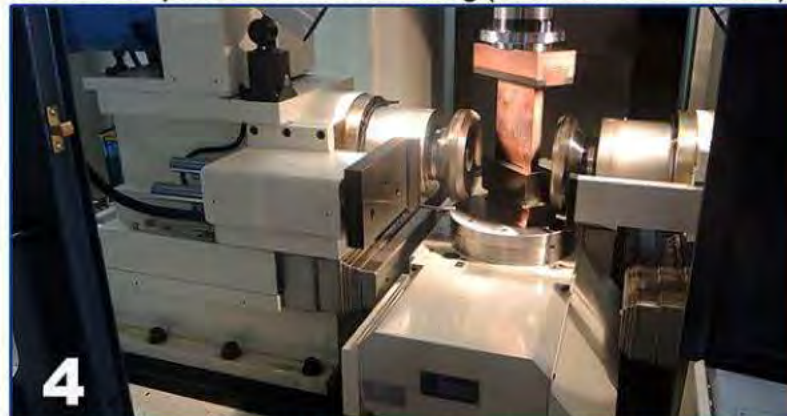
and retracts the EZ-Position Arm

Then, the EZ-Measure Arm automatically measures the part, and both sides of the part are milled simultaneously.



For 2-sided machines (no index table), the process is complete. For 4-sided machines the index table rotates 90° to mill other 2 sides.

There are options for 8-sided milling (Chamfer the 4 corners)



EZ-Measure after milling is also an available option. Larger machines have an EZ-Swing away clamp bridge to assist in loading larger parts

EZ
AUTOMATED
MACHINING
Wizard



CAN IT
GET ANY
EASIER
THAN THIS

**AUTOMATIC
PART
POSITIONING,
CLAMPING,
AND SETUP**
AUTOMATIC 2/4-SIDED MACHINING
AUTOMATIC 4-CORNER CHAMFERING



CINCINNATI MACHINES Duplex Hi-PowerMatic 2-SIDED Production Milling Center is a complete Wizard when it comes to milling all kinds of square and rectangular parts. This 2-Sided series is designed for heavy-duty milling of rectangular parts, but will also accommodate square parts.

There are also machines in this series that can machine long narrow parts up to 9ft long



500-248 CNC DUPLEX
HI-POWERMATIC
PRODUCTION CENTER



DON'T SEND A BOY TO DO A MAN'S JOB



With combined available cutting power of up to 100hp, Cincinnati Machines 500-248 Hi-PowerMatic Production Milling Center is a real BEAST of a machine.

The EZ-AUTOMATED MACHINING WIZARD provides automatic part positioning, clamping, and setup.

Combining the BEAST and the WIZARD makes the Hi-PowerMatic one of the most productive square and rectangular part milling machines in existence.

Cutting capacity	No. of Axes	3
	Cutting size Min. / Max. (Width)	100 / 500 mm (4" to 19.7")
	Max. Cutter Diameter	425 mm (17")
Spindle box & spindle	Max. cutting length	1500 mm (59")
	Distance between spindle nose	220 ~ 600 mm
	Spindle motor	35HP (22 / 26kw)
	Spindle taper	NT-60 Taper
	Spindle speed variable speed	50-300 rpm
Z-axis (Longitudinal, table)	Max. longitudinal travel(Z-axis)	2250 mm
	Max. spindle travel(X,Y-axes)	400 mm
X-axis (Right spindle)	Servo motor (Z,W-axes)	4 kw
	Servo motor (X,Y-axes)	3 kw (X,Y, no A axis)
Y-axis (Left spindle)	Dia. of ball screw (Z-axis)	ø63 P12
	Dia. of ball screw (X,Y-axes)	ø50 P10
W-axis (Rotator)	Rapid feed (Z-axis)	240 ipm
	Rapid feed (X,Y-axes)	240 ipm
	Worktable area (mm)	600 x 2200
Index table	Dimensions (mm)	--
	max. load.	--
Oil tank capacity	Hydraulic unit	
	Lubrication oil tank	
Others	Machine dimension	4000 x 6000
	W x L x H (mm)	x 2300
		17 tons

HI-POWER^MATIC



Model No.		420-454n	420-498n
Cutting capacity	Max. width of workpiece	100 mm (4")	100 mm (4")
	Max. length of work piece	1200 mm (54")	2200 mm (98")
	Cutter diameter	Ø125 mm (5")	Ø125 mm (5")
Travel& table	Travel of table X-axis	1600 mm (64")	2700 mm (108")
	Travel of spindle	180 mm (7")	180 mm (7")
Feed speed	Rapid feed speed X-axis	8 m/min (320ipm)	8 m/min (320ipm)
	Rapid feed speed ZL/ZR-axes	8 m/min (320ipm)	8 m/min (320ipm)
	ZL/ZR		
	Manual feed speed	1-1500 mm/min. (1-60ipm)	1-1500 mm/min. (1-60ipm)
Spindle	Spindle	NT50 equivalent	NT50 equivalent
	Dimensions of spindle nose	Ø40 mm	Ø40 mm
	Spindle speed	200~1000 rpm	200~1000 rpm
	Spindle motor output	15 kw × 2 (20hp)	15 kw × 2 (20hp)
Motor	Feed motor X,ZL,ZR,WL,WR axes	3	3
	X,ZL,ZR,WL,WR		
Misc.	Voltage	220V (Transformer)	220V (Transformer)
	Machine weight	10.5 tons	14.5 tons
	Machine dimension W × L × H (mm)	3800 × 5500 × 2400	2400 × 8500 × 1600

FULLY AUTOMATED 4-SIDED MACHINING

**CINCINNATI
MACHINES**

With CINCINNATI MACHINES *i-Series* Duplex Hi-PowerMatic Production Milling Center, 4-sided milling of all kinds of square and rectangular parts just got a whole lot quicker and easier. Just think about it, the operator simply rough places the part on the table, pushes a button, and the machine will accurately auto position the part, clamp the part, and tell the control exactly where the part is. No more special fixtures or jigs, no more manually clamping the part, no more manually indicating the part and entering info into the control. All of this makes the machine so productive that on the larger machines we have included dual chip conveyors to keep up with the all of the metal shavings produced.



45° index table provides 4-corner chamfer milling



CINCINNATI MACHINES *i-Series* Duplex Hi-PowerMatic Production Milling Center is a complete Wizard when it comes to 4-sided milling of all kinds of square and rectangular parts.

These Heavy-Duty Machines feature rock solid meehanite castings, 2-speed gear box, spindle drives up to 50hp per spindle, large 50 NT or 60 NT Spindles, your choice of 45°, 90° or 135° index tables up to 55" square, and twin chip conveyors. Depending upon the machine size, face mills up to 17" diameter can be used

iS Series
Machines are
specifically
designed for high
production
milling of small
parts, and feature
10" diameter
index tables and
can handle parts
up to 6" high, &
16" and 20" long



iS Series Specifications

Model No.		420-2416iS	520-2616iS
Cutting capacity	Width x Length of workpiece	20x20 mm ~ 400x400 mm	20x20 mm ~ 500x500 mm
	Max. thickness of workpiece	110 / 150 mm (Ø125/160 mm cutter)	110 / 150 mm (Ø125/160 mm cutter)
	Table loading capacity	300 kg	350 kg
Travel & table	Travel of table Z-axis	600 mm	650 mm
	Travel of head X / Y-axes	210 mm	210 mm
	Rapid feed speed Z-axis	15 m / min	15 m / min
Feed speed	Rapid feed speed X / Y-axes	15 m / min	15 m / min
	Manual feed speed	1-1500 mm / min	1-1500 mm / min
	Spindle (with oil circulating groove)	NT50 equivalent	NT50 equivalent
Spindle	Dimensions of spindle nose	Ø40 ~ Ø125 mm / Ø160 mm cutter	Ø40 ~ Ø125 mm / Ø160 mm cutter
	Spindle speed	200 ~ 1600 rpm	200 ~ 1600 rpm
	Cutter diameter	Ø160 mm (Ø125 mm)	Ø160 mm (Ø125 mm)
Motor	Spindle motor output	15 kw	15 kw
	Feed motor Z-axis	2 kw	2 kw
	X / Y-axes	3 kw x 2	3 kw x 2
	W-axis Vertical clamp servo motor	3 kw	3 kw
Work table	A (index table)	1 kw	3 kw
	Indexing degree of table, dia. 250mm	0° / 45° / 90° / 135°	0° / 45° / 90° / 135°
Others	Machine weight	6.5 tons	7.2 tons
	Machine dimension W x L x H (mm)	W :3450 x L:2600 x H:2300	W :3450 x L:2700 x H:2400

Specifications: *i-Series DUPLEX Hi-POWERMATIC*

Model No.		415-2440i	415-2860i	415-3260i	420-4090i	420-4090Wi	530-2860i	535-4090i	535-48100i
Cutting capacity	No. of Axes	4	4	4	4	4	4	4	4
	Cutting size (Width)	70 / 600 mm (2.8" - 24")	120 / 720 mm (4.8" - 28.8")	60 / 800 mm (2.4" - 32")	500 / 1000 mm (20" - 40")	500 / 1000 mm (20" - 40")	250 / 700 mm (10" - 28")	500 / 1000 mm (20" - 40")	400 / 1200mm (32" - 48")
	Max. Cutter Diameter	250 mm (10")	250 mm (10")	250 mm (10")	300 mm (12")	300 mm (12")	350 mm (14")	425 mm (17")	425mm (17")
Spindle box & spindle	Max. cutting length	40"	60"	60"	90"	90"	60"	90"	100"
	Distance between spindle nose	150~682 mm	230~850 mm	190~1000 mm	600~1200 mm	600~1200 mm	230~850 mm	600 ~ 1200 mm	520 ~ 1350mm
	Spindle motor	15HP (11kw)	15HP (11kw)	15HP (11kw)	20HP (15kw)	20HP (15kw)	30HP (22kw)	35HP (22 / 26kw)	30HP or 35HP (22 / 26kw)
	Spindle taper	NT-50					NT-60		
Spindle speed variable speed		50 ~ 900 rpm					50 ~ 300 rpm		
Z-axis (Longitudinal, table)	Max. longitudinal travel(Z-axis)	1000 mm (40")	1500 mm (60")	1500 mm (60")	2250 mm (90")	2250 mm (90")	1500 mm (60")	2250 mm (90")	2500mm (100")
	Max. spindle travel(X,Y-axes)	265 mm (10.6")	310 mm (12.4")	400 mm (16")	310 mm (12.4")	310 mm (12.4")	385 mm (15.4")	385 mm (15.4")	420mm (16.8")
	Servo motor (Z,W-axes)	2.9 kw / 2 kw	2.9 kw	2.9 kw	2.9 kw	2.9 kw	2.9 kw	4 kw	4kw
X-axis (Right spindle)	Servo motor (X,Y-axes)	1.5 kw	1.5 kw	1.5 kw	2 kw	2 kw	2 kw	3 kw	3kw
Y-axis (Left spindle)	Dia. of ball screw (Z-axis)	ø50 P10	ø50 P10	ø50 P10	ø63 P12	ø63 P12	ø50 P10	ø63 P12	ø63 P20
	Dia. of ball screw (X,Y-axes)	ø40 P10	ø40 P10	ø40 P10	ø40 P10	ø40 P10	ø40 P10	ø50 P10	ø50 P10
W-axis	Rapid feed (Z-axis)	6 m / min					6 m / min		
	Rapid feed (X,Y-axes)	6 m / min					6 m / min		
Work table	Worktable area (mm)	600 × 2000	720 × 2000	720 × 2000	800 × 2300	920 × 2300	700 × 2000	920 × 2300	800 × 2500
Index table	Dimensions (mm)	500 × 500 (20")	600 × 600 (24")	600 × 600 (24")	700 × 700 (28")	800 × 800 (32")	600 × 600 (24")	800 × 800 (32")	28" x 28" or 32" x 32"
	max. load	1200 kg	2500 kg	2500 kg	2800 kg	4000 kg	2500 kg	4000 kg	--
Oil tank capacity	Hydraulic unit	100L					100L		
	Lubrication oil tank	2L × 3					2L × 3		
Others	Machine dimension	3600 × 4500	3800 × 5500	3950 × 5600	4100 × 6500	4100 × 6500	3800 × 6000	4100 × 6500	4300 × 6700
	W × L × H (mm)	× 2300	× 2400	× 2400	× 2550	× 2550	× 2400	× 2550	× 2550
N.W.		10.5 tons	12 tons	13 tons	15 tons	16 tons	14 tons	17.5 tons	20 tons



i-Series DUPLEX Hi-POWERMATIC Production Milling Center

**With Automated 4-Sided Machining
and Optional 8-Sided Machining
for Automatic 4-Corner Chamfering**



XLi Series CNC DUPLEX HI-POWERMATIC **CINCINNATI MACHINES**

The ***XLi Series*** Duplex Hi-PowerMatic is the largest available 4-sided machine. This series comes with index tables up to 56"x 56", X-Axis travels up to 80", and upto a combined 100hp.

Weighing in at about 66,000lbs, your biggest concern may be setting up your chip haul away system.

Whether you need to machine large parts or stacks of smaller parts, the ***XLi Series*** Hi-PowerMatic Production Milling Center, with the ***EZ-AUTOMATED MACHINING Wizard***, is the most productive milling machine for square and rectangular parts available anywhere.

