

ATRUMP MACHINERY, INC.

Web site: www.atrump.com

Company Name:

Date: October 2nd, 2012

Address:

Tel:

City, State, Zip

Email:

Contact Name:

Proposal #:

Atrump RF-5000 OFFICE STYLE MILL M-400W CNC Machining Center

The **Atrump OFFICE STYLE MILL Model RF-5000** 3 or 4 Axis CNC Bed Mill is the "Solution" to solve your Machining Problems. This machine is offered with a large variety of optional items. Options include the **10** Station armless Bi-Directional Automatic Tool Changer (ATC) unit, rigid tapping, spindle speed **8K**, vacuum system for graphite machining, heavy duty casters and many more listed within.

This machine is very easy to use because of the Powerful, versatile, and **Very Easy to use Centroid M-400W** Windows Based Conversational CNC Control. This 3D machining control can process extremely long 3D programs measured in Giga bytes or miles of paper tape.

It is constructed as a heavy duty machine for its size and is able to machine metal, as well as soft materials efficiently. This Machine has been specially designed with 13.75 inches of Rigid Z Axis travel.

The machine is able to machine with cutters up to **0.787 inch** diameter. It has linear guide ways on all axes and AC Axis motors providing smooth high speed machining.

All 3 axes have a closed loop feedback for increased machining accuracy

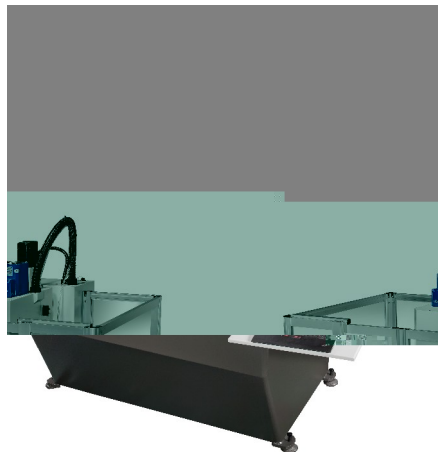
Safety in a full lexan enclosure (OPT.), with sliding front doors. Machining chips are easily removed from the front of the machine. The machine table is close to the chip pan for easy and fast cleanout.

This machine has a 5 gallon coolant tank which has a convenient coolant level sight glass.

Atrump machine is proud to offer this Complete Machine package.

RF-5000 Office style mill with Centroid M400W Control

Travels: X = 15.7" Y = 9.45" Z = 13.75"



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GENERAL DESCRIPTION : Bed Type Rigid Machining Center

Machine Frame:..... FC-30 Meehanite - **2 Part Casting**

ISO 9001 Certified Quality Assurance

Fully Ribbed Meehanite Machine Tool Casting..... Bed and Column

Box Column Casting

Machine Casting Weight: **685 lbs.**

Machine with enclosure and controller..... 1,287lbs

Full Enclosure is Lexan

Operational Area Requirements: **108" Wide x 108" Deep x 90" High**

Machine Height:..... **86.6"**

Axis Way System..... Linear Guideways

Precision Ground C7 HD Single Nut Ball Screws: X, Y, & Z Axes

Built into the Base & Front Chip Pan Coolant reservoir: ... **4 Gallon Capacity 1/8 HP Pump**

Machine is Built in Taiwan

Standard one shot lube and optional Smart Auto Lubrication system with Low Oil Level Beeper and auto shut down

MACHINE TRAVEL and TABLE:

X-axis..... **15.37 inches**

Y-axis..... **9.45 inches**

Z-Axis..... **13.75 inches**

Table Size:..... **32 x 9.45" Hardened and Precision Ground**

High Precision Ballscrews on all axes with 0.98" Diameter

100% Laser Compensation on all three Axes

T-Slots..... (4)

Floor to Table Top..... **40.35 "**

Max. Table Load..... 220 Lbs.

Machine size end to end with guards **79.00 " wide 68.00" deep**

Without arm for control 57" x 48"

Closed Loop AC Servo Drive System..... (3) Delta Servo AC 0.75 KW

Rapid Traverse Rate..... AC Motor 220 IPM

Y axis Way Covers.....(Nylon)..... Front and Rear

Extra wide Saddle improve rigidity of the Y Axis

Air Requirement..... 90-100 PSI @ 4fpm (**05-06Mpa**)

Full Enclosure with 1 Lexan Front Doors

SPINDLE:

Rigid Head Design

Programmable Spindle Motor..... **1.55 HP 230 VAC 3 Ph. 6.31 Amp. 9 KVA**

Spindle Bearings..... ABEC Class 7 P4 :Offer run out less than 0.000015

Spindle Torque..... **5.9 Ft/Lbs.**

Programmable Spindle Speeds:..... 70-8000

Tooling: **Cat #30**

Min/Max. distance from spindle nose to table surface.. **1.18"/ 14.95"**

Distance from Spindle C/L to Column..... 10"

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ATC Unit (Optional)

Umbrella Type ATC Unit with **10 Stations**
 Max tool Length..... **7"**
 ATC Time **8 Seconds**
 Retention Knob..... **Standard 45***

Max Tool Dia..... **3.93"**
 Max weight..... **11 lbs**
 Air Required..... **85 PSI**
 Not Field retrofittable

SPECIFICATIONS

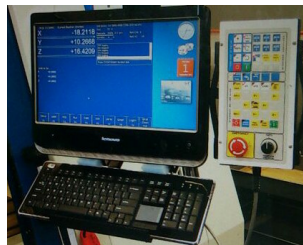
Positioning Accuracy	X,Y,Z	+/- 0.00078	
Repeatability	X,Y,Z	+/- 0.00078	Ground Single Nut
Screw Accuracy	X,Y,Z	0.00196 Inch per/foot	Ball Lead Screws

CONTROL FEATURES "Centroid M-400W-ATC Control" Very Easy To use Control

- * Automatic Tool Changer Control **Windows Software Operating System Version 3.21**
- * Intercon **Conversational Programming** System with 15" or larger Color LCD Monitor
- * **Irregular Pocket Clean out with Islands Software (Standard)**
- * **DXF File Import and Machining with Machining Time Calculation (Optional Item)**
- * **Graphics Math Help**..... Pictural help with Automatic value transfer to your program
- * Automatic Mill Round or Rectangular Pockets * Frame Mill * Lines and Arcs
- * **Graphics 2D & 3D** * Face Mill * Thread Milling
- * SUB-repeat of programmed events with or without offset, mirror image or rotation
- * Cutter compensation..... 200 sets for both Height and Diameter
- * Drilling cycles Multiple types.... Deep hole, Peck drill, Automatic Bolt Hole and Line hole drilling

COMPUTER HARDWARE FEATURES:

Atrump Machinery and Centroid provide this High Speed computer system for our machine. 3D machining requires the ability to process extremely long programs measured in giga bytes, which we have been doing for many years. We control this machine with the highest quality computer with an Windows operating system which has an one year warranty to the end user. Atrump integrates the Standard Centroid GPIO4D Drive interface and MPU11 Motion controller into this superior and seamless CNC Controlled machine tool.



PC Based 32 Bit DSP Technology
 USB 2.0 Port Standard
 Mouse, & Parallel Ports
 Pentium High Speed CPU
 Reads 600 Blocks per second.
 "No Pause" 3 axis Constant Velocity High Speed Machining
 Max. Program size 640 Kbytes. Std.
 Part Program Length 1.2 Gb Program (With Optional Unlimited File Size Software included)
15 Inch Color LCD with Graphics
 Unlimited Time Self-Contained Memory Back-Up system.
 Control unit Keypad with Tactile and Audible Feedback
 Continuous and Incremental Jog keyboard Pushbuttons

Updatable Software

G-Code Back Graphics and Run Graphics while in cut mode

Laser Compensation and Accuracy Compensation Enhanced added Option

Backlash Compensation and Axis Drag detection and Graphing

Standard G & M Code Programming (Fanuc Style 97% Compatible)

Menu Driven Program Editing and Modification

Absolute/Incremental Programming

Inch/Metric Conversion

Least Increment Input..... 0.0001" Standard Resolution

Manual Feedrate Override :..... 5-200 %

Machine Feedrate Display Multi Functional:

On the LCD Screen in actual IPM during machining

On the LCD Screen in % override during Idle

Programmable Automatic Corner Slow down

Courtesan and Polar Coordinate Programming

Tool Radius Compensation and Height Compensation 200 Sets

Plus and Minus Tool length offsets

Automatic Tool Length setting Optional TT-1 Unit

Program Dwells

Manual Data Input (MDI) via Keyboard

Machine Parameters may be "Locked" to Prevent Unauthorized Access

Multiple Absolute Zero's (Optional WCS G54 to G59 18 sets total)

Math Help Screens

Manual Data Input (MDI) via Keyboard

Machine Parameters may be "Locked" to Prevent Unauthorized Access

Multiple Program Storage (up to 2500 programs or memory size limitation)

MOTOR and DRIVE FEATURES:

Three Axis Microprocessor CNC (Fourth Axis Capability Optional)

Linear Interpolation, 3 Axis Simultaneous

Delta AC servo drive system and (3) 0.75 Kw Motors

290 IPM feed rates and a closed loop feedback system for improved accuracy

Fiber Optic Data Transfer for closed loop axis control

Loss of Feedback Detection, with all Closed Loop Motors

Limit Switches on all Axes and in both directions (Standard)

Circular Interpolation, any Two Axes

Helical Thread Milling Interpolation

Cutter (D) and Tool Length (H) Compensation up to 200 Tools

Backlash Compensation and Axis Drag detection and Graphing

Machine introduction price..... 19,960.00

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Pt. #. ON-LINE SOFTWARE OPTIONS Updated 7-11

10600	Extended Multiple work coordinate systems (G59--+10)	\$	275.00
10625	Scaling and Mirror (G50 & G51) and Coordinate System Rotation.....	\$	195.00
10630	Unlimited Part Program Size.....(640 KB is Std).....	\$	495.00

10670	Second language (Spanish or French).....	\$ 250.00
10730	Intercon Off-Line Conversational Software for your PC.....	\$ 600.00
	Installation and Training are not included and must be quoted (Windows System Only)	
RE681	Program manual (additional copies).....	\$ 75.00
10740	Centroid Engraving Software.....(Software alone \$ 450.00)	
	Software/Installation/Manual and Training.....	\$ 750.00
10730	Offline Intercon Shop Floor Program..(Does Not Make G-Codes).....	\$ 850.00
10810	Rigid Tapping (Not available on all machines and includes 10620).....	\$ 495.00
10814	DXF File Input Software .(Read in DXF and make Intercon Program).....	\$ 275.00
10850	Coordinate System Rotation.....	\$ 195.00

HARDWARE OPTIONS

1.	52 Piece table clamping set.....	\$ 175.00
2.	Auto Mist system with Flexible nozzle or Prog. Coolant System.....	\$ 725.00
3.	External USB 3.5" Floppy Drive.....	\$ 225.00
4.	Water Tight Manual Data Input (MDI) via Keyboard	\$ 665.00
5.	*RPM-80 Upgrade the Spindle RPM from 8000 to 12,000 RPM.....	\$
6.	*10ATC 10 station Auto tool changer Cat 30...(Available 2013).....	
7.	Centroid MPG 100 step/revolution with metal handwheel.....	\$ 425.00
8.	Extended Warranty Parts and Labor for 1 year.....	\$ 2,650.00
9.	Full enclosure.....	\$ 2,000.00
10.	High voltage Transformer 440 or 480 to 220 VAC.....	\$ P.O.R.

Pt. # DIGITIZING & PROBING

10220	TT-1 Tool Length Touch Off Kit w/software (Price Includes Training).....	\$ 995.00
10405	DP-4 Probe Centroid Probing cycles; 6 types for settings fixtures and tool offsets..... (Software and Probe & Training).....	\$ 1,950.00
10770	DP-4 Centroid Digitizing software w/all Surface probe, multiple patch, and grid type.....(Includes: Mold Magic Software Training).....	\$ 3,450.00
10772	Toolroom Pkg: DP4 Probing & TT1 Tool Setter & WCS (Price Includes Training).....	\$ 2,900.00

Note: * is Factory upgrade only item.

F.O.B. POINT

All shipments are F.O.B. Pomona California.

With out of state or outside of our delivery area a local rigger is recommended. We will follow the customers recommendation and/or preferred rigger. Please note that any rigger used, must be fully insured, and must provide ATRUMP with a copy of Insurance coverage **prior** to pick up, or delivery of the machinery to them. Insurance is required for all riggers without exception. Customers wishing to move the machinery themselves, prepayment of the machine is required.

DELIVERY

Approximately 8 to 12 weeks after receipt of a firm purchase order and down payment.

All orders are Subject to credit approval.

A Delivery schedule will be established at the time of your order.

Rigging into local and standard access shop floor is not included in our price summery.

WARRANTY

- 1) Atrump warrants all products it sells to be free from defects in material and workmanship for (1 Year) from the date of installation of the machine tool.
- 2) This warranty applies to all products when properly used in a normal industrial environment, and which are properly maintained.
- 3) This Warranty does not cover parts broken due to a machine Crash, or abuse of the machine tool. (Abuse will be determined by Atrump)
- 4) The warranty shall not apply to the 3 phase spindle motor when customer is using any type of phase converter. Only a CNC Rotary Phase Converter is acceptable.

PAYMENT TERMS OF SALE

50% with order 50% before shipment.

Financing is available. Leasing with terms up to 60 months.

Best Regards

Elrod Machine

This Quote is Valid for 30 days from issue

All Specifications listed are considered correct at printing, but are subject to change without notice.