



OPEN  
BILLS

CAD/CAM CAPABILITIES  
PRECISION MACHINING  
CNC MACHINING  
GRINDING  
TURNING  
HONING

## CARR Machine & Tool, Inc.

1301 Jarvis Avenue • Elk Grove Village, IL 60007  
(847) 593-8003 Phone • (847) 593-8007 Fax

June 19, 1998

**PURCHASE ORDER # 061998RC**

*File*

To:  
ADVANCED MACHINERY SALES, INC.  
1135 Jansen Farm Drive  
Elgin, IL 60123

Re: AMS #P0625JMA

4-40x20

<u>ITEM</u>	<u>PRICE</u>
FADAL VMC 4020	\$83,500.00
High Torque Vector Drive	3,500.00
Extended "Z" Travel to 28"	4,000.00

- Rigid Tapping
- 3 1/2" Floppy Disc Drive
- 4MB Expanded NC Memory
- Servo Coolant Nozzle
- Servo Tool Changer Turret
- 30 Position Tool Changer

Special Discount (4,990.00)

Grand Total \$94,000.00

Freight will be included: F.O.B. Sagan and Sons, Elk Grove Village, IL

Signed *Richard H. Carr*  
Richard H. Carr, President, CARR Machine & Tool, Inc.

Signed *James J. Markby*  
James J. Markby Advanced Machinery Sales, Inc.

June 19, 1998

CARR Machine & Tool, Inc.

Proposed New CNC Machining Center

<u>ITEM</u>	<u>PRICE</u>
FADAL VMC 4020	\$83,500.00
High Torque Vector Drive	3,500.00
Extended "Z" Travel to 28"	4,000.00
<ul style="list-style-type: none"><li>• Rigid Tapping</li><li>• 3 1/2" Floppy Disc Drive</li><li>• 4MB Expanded NC Memory</li><li>• Servo Coolant Nozzle</li></ul>	3,995.00
<ul style="list-style-type: none"><li>• Servo Tool Changer Turret</li><li>• 30 Position Tool Changer</li></ul>	3,995.00
Special Discount	(5,500.00)
Grand Total	<del>\$93,490.00</del>

Freight will be included

FOB SPRING

94,500

# Advanced Machinery Sales, Inc.

1998

Mr. Richard Carr  
**CARR MACHINE & TOOL, INC.**  
 1301 Jarvis Avenue  
 Elk Grove Village, IL 60007

Dear Richard,

We are pleased to propose the following Fadal Vertical Machining Center for your consideration:

## PROPOSAL

One Fadal VMC 4020 Vertical Machining Center equipped with:

- 22.5 HP High Torque AC Spindle (10,000 RPM-220 ft/lbs. Torque)
  - 28" Extended "Z" Axis
  - Rigid Tapping
  - 3.5" Floppy Disk Drive
  - 4MB Expanded NC Program Memory
  - Servo Coolant Nozzle
  - Servo Tool Changer Turret
  - 30 Position Tool Changer
  - Program Rotation & Scaling *Request*
  - 1,000 Lines Per Second Processing *3D*
  - Custom Macro *2 1/2*
  - Quick-Rite Semi-Conversational Programming
- One Shipping Charge - F.O.B. Chatsworth, CA

Sub Total  
 Less Discount  
 Total Investment

\$ 83,500.00  
 3,500.00  
 4,000.00  
 2,750.00  
 1,195.00  
 2,250.00  
 2,700.00  
 5,000.00  
 4,500.00  
 995.00  
 995.00  
 1,995.00  
 995.00  
 1,400.00  
~~\$ 115,775.00~~  
~~- 18,575.00~~  
 \$ 97,200.00

**Terms:** 10% initial payment, balance due 10 days after installation  
**Availability:** Approximately 4 weeks after receipt of order  
**Installation:** Included by AMS' factory-trained technicians  
**Training:** Included for 2 people for 3 days at AMS' Elgin, IL Tech Center  
**Shipping:** F.O.B. Chatsworth, CA - included above  
**Rigging:** Responsibility of Carr Machine & Tool, Inc.  
**Warranty:** 1 year parts and labor  
**Note:** This offer is valid for a period of 30 days and intended for acceptance by July 10, 1998.

*94800.*  
*94000*

Thank you for your consideration and we pledge our ongoing commitment to serving your business needs.

Sincerely,

**Advanced Machinery Sales, Inc.**

*James J. Markby*

James J. Markby  
 Machine Tool Sales

FADAL ! WHAT'S NEW?

- \* Temperature controlled spindle and ball screws
- \* 10,000 rpm spindle - dual range, 22.5hp high torque spindle motor (option)
- \* Patented locking drawbar - eliminate tool pull-out from spindle under heavy cuts
- \* 1.57 dia. ball screws x,y and z axis
- \* Greater axis thrust - up to 3800 lbs.
- \* AC servo drive axis motors - no brushes
- \* Heidenhain digital servo motor encoders for .000010" feedback resolution
- \* 900 ipm rapid traverse (x,y ) 700 (z)
- \* Vector drive spindle drive - constant rpm under load - longer tool life, up to 3 times more torque
- \* New two belt (poly-v) spindle drive system vs. old 6 belt v-belt design
- \* Spindle nose air purge - protects front spindle bearing from contamination
- \* Three sets of ABEC class 7 spindle bearings vs. two sets on old design
- \* Larger (80 mm) spindle bearing diameter - new spacing, better support
- \* Steel gibbs w/ Turcite - formerly aluminum - no flex
- \* New stronger servo motor and ball screw mounts
- \* 600 ipm cutting feedrates vs. 375 ipm on previous models
- \* Hi-pressure (300 psi), metered lubrication system improves way lubrication
- \* Under side of table ways are covered protecting them from chips
- \* Rigid tapping (option)
- \* Through spindle coolant (250 psi) (option)
- \* 30 position tool changer (option)
- \* Servo tool for quicker tool selection (option)
- \* Tool Load Compensation - adaptive feed rate control (option)
- \* Renishaw TS-27R table mounted tool setting probe (option)
- \* Renishaw MP12 probe for in program cycle probing of part datum points (option)

88HS Control

- \* 1000 blocks per second processing - 255 block look ahead
- \* Up to 16MB NC ram memory (option)
- \* Raised key keyboard
- \* Floppy disk drive on front panel (option)
- \* Macro functions
- \* Tool life management
- \* Graphic program verification functions
- \* Fadal Quick Code semi conversational programming function
- \* Background editing
- \* 99 tool offsets / 48 fixture offsets
- \* 32-bit main CPU - formerly 16-bit
- \* Axis scaling functions
- \* Distance to go display
- \* One button axis homing function for all axes
- \* Actual spindle speed and program feedrate display
- \* Large character axis display for convenient machine monitoring

ADD : 30HP , 300 ft/lb. "VERY HIGH TORQUE" SPINDLE