



CNC ROUTERS
LASER ENGRAVER CUTTERS
CNC MILLS & CNC LATHES
CNC PLASMA CUTTERS
CAD/CAM SOFTWARE
REPAIRS & UPGRADES OF ALL CNC



SUCCESS FROM DAY 1

Computerized Tools
For Transforming
Ideas Into Reality



DIGITAL FABLAB PRODUCTS FOR STEM, CAREER, & TECHNICAL EDUCATION



Dear Educators:

Thank you for reviewing this years catalog. One of the highlights of the 2013-2014 school year was having our CNC router and laser used in the SkillsUSA™ Cabinet Making Competition. The logo on the right was made on the laser and the router cut out the pocket for it to be inlayed in the cabinet. If you have never been to the skills competition you are really missing a great opportunity for you and your students.



Forest Scientific Corporation provides a 36 month on-site parts & labor warranty on all new machines we manufacture unless otherwise noted, 24 month on-site warranty on all lasers, and 18 month on-site warranty on all upgrades and used machines. Invest with confidence knowing that you will be well supported. If you own any older CNC machines, no matter who built it, we can update it and make it better than when it was new. When you have any questions or need creative strategies to finance your order, please do not hesitate to call me any time at 1-800-956-4056 X 1001 or my cell 814-671-7660.

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*All pricing & specifications subject to change without notice
This Catalog pricing effective 7/1/2014*

Sincerely,

John E. Martincic
President
jem@forestscientific.com

A+



CALL FOR FREE ON-SITE DEMONSTRATION OR DVD



All Trademarks belong to their respective owners

Forest Scientific Competitive Advantages

The more research you do, the more convinced that although Forest Scientific Corporation is not always the lowest price, it is the best value for your school.

1. **Made in the USA.**
2. **On-site parts & labor 36 month warranty** on all new CNC machines made by Forest Scientific Corporation. Most of our competitors warranties are 1 year and parts only. This means that you will save the \$3,000.00- \$6,000.00 that others charge to have someone come on-site per visit from the factory if a problem occurs during the warranty. **Do not assume other manufacturers will come to your school for free. They won't.**
3. Unless otherwise specified, **all FSC machines come fully assembled.** Most of our competitors will require 40-80+ hours of your time to assemble the machine. Our machines are often running within an hour of arrival if the electricity & airline are ready.
4. Our CNC controls connect to the computer through USB or Cat 5, not outdated parallel port, serial port, ISA ports, or other port that requires a DOS or other outdated computer. **Do not assume that the technology is current.** Most of the machines on the market are out of date.
5. Hardened, profiled, made in Ohio, **Precision THK linear ways and bearings not just wheels running on plate steel or angle iron.** These machines cannot be bumped out of place like most of the machines on the market in the same price range.
6. Grease fitting on each linear bearing for a long life. Grease & grease gun provided.
7. **All our CNC machines use industry standard G&M codes,** not a proprietary language. Thus you are teaching marketable skills, not just playing with a dead end toybot.
8. You can **use any CAD/CAM software producing industry standard G-Codes** such as Mastercam, Surfcam, Edgecam, Enroute, Vcarve, Rhinocam, and more.
9. **On-site training** is available for you and your students to ensure a successful start. It is more effective to be trained on your own equipment than to go to a training site. With your approval, students are trained to assist and help train other students.
10. **Written & video tutorials** are available to show your students while teaching classes.
11. **Welded steel frames,** rather than bolt together frames, will hold up better in the long term because there is nothing to work loose or get out of alignment over time.
12. Additional training available on-site and over the internet.
13. Free phone and internet support is available nearly 24/7. Versus being charged by the minute to get help. You can talk to someone in the evening and on weekends so you are not limited to office hours.
14. The stepper & servo motors on our machines are generally much stronger than others selling for a similar price. (1200 oz/in vs 200 oz/in will be more reliable)
15. Our plasma tables have replaceable leafs that you can easily make by shearing steel so you won't need to buy expensive table parts and pay to ship them across the country.
16. Forest Scientific Corporation machines and upgrades are designed to be able to be updated at a low cost when technology changes.
17. All machines have an Emergency Stop and safety stickers to remind users to operate the machine safely.
18. Local Dealers providing local support second to none.

If you have any questions or need clarification call John at 1-800-956-4056 X1001.

The Michelangelo 3D Modeler

Innovative CNC router designed for classroom use
TECH ED, DRAFTING, WOODWORKING, ART



TRAVEL

X=35" Y=13.5" Z=8.5"
 Z Clearance 6.5"

TOOLING

Router Wrenches.....1 Set
 Collets.....1/4", 1/2"

ELECTRICAL

Main Power..... 110V 20A
 Spindle Motor.....3 1/4 HP 10K-21K RPM

**Maximum Fully Enclosed size
 to fit through a 36" Door**

Michelangelo Stepper Version \$19,999.00
Michelangelo Hybrid Servo Version \$21,999.00

**Includes Vacuum table system
 &
 Dust collection system**

See page 6 for additional accessories

BT BENCH TOP SERIES CNC ROUTER



BenchTop Series Router Models
 Great for tight budgets, when space is limited, when your shop is upstairs, or getting through narrow doorways

*Fully Assembled
 Not a KIT*

| | | |
|--------------|-------------|-----------------|
| BT 24"X 24" | \$ 9,999.00 | Dust Collection |
| BT 48" x 24" | \$11,999.00 | Hood \$500.00 |
| BT 48" x 48" | \$12,999.00 | |
| BT 48" x 96" | \$14,999.00 | 8" Z travel |

*Includes: standard table,
 3-1/4HP router, wrenches,
 and starter set of bits can
 operate on 110V 20A*

Save by Putting on your own bench or make a stand.

Optional Aluminum Stands:

BT 24X24 Stand \$1,299.00
 BT 48x24 Stand \$1,499.00
 BT 48x48 Stand \$1,599.00
 BT 48x96 Stand \$1,999.00

Note: Aluminum stands
 require assembly

Convert-A-Table PLASMA CUTTER / ROUTER



With Plasma Configuration



With Router configuration

Convert-A-Table CNC Router / Plasma Models

- CAT 48" x 20" (fits through 36" door) \$17,999.00
- CAT 48" x 48" \$18,999.00
- CAT 48" x 96" \$21,999.00

Includes: Plasma water table, router clamping table, 3-1/4HP router, welded steel stand, dust hood, and starter set of bits and clamping table with deluxe clamp set. Operates on 110V 20A 8." Z Travel Add the torch unit from page 6. These machines are only available with our powerful stepper based control.

Convert-A-Table easily changes from a CNC Router to a CNC Plasma cutter. This is a great option if you have very limited space and only need one function at a time. The disadvantages are that you only have one machine instead of 2 and these machines can not have a vacuum table system due to the conversion between router and plasma. The 48"X20" machine makes it possible to fit through a standard 36" door. This is heavy duty frame that can plow through wood with the robust 3-1/4HP router. Light duty machines advertising routing that can barely support a fractional HP router.

Convert-A-Table & Eco Plasma Options:

- Automatic Torch Height \$2,899.00
- Maker-Fab Torch Break Away \$1,000.00
- Plasma Torch systems see page 6



Shown with optional Hypertherm system

ECO Series Router / Plasma Cutter

This is our only model that requires assembly for those that don't mind a little work to save money. 8.5" Z travel

- ECO 4x2 \$9,497.00
- ECO 4x4 \$11,497.00
- ECO 4x8 \$12,897.00
- Water table add \$800.00
- \$1,500.00
- \$2,200.00

Options: Includes either Router Configuration or Plasma configuration to have both add \$899.00
On-site Assembly & Training \$2,500.00

Maker-Fab CNC ROUTER & PLASMA



Maker-Fab Series Router Models

| | |
|---------------------------------------|-------------|
| RMF 48" x 20" (fits through 36" door) | \$14,999.00 |
| RMF 48" x 48" | \$15,999.00 |
| RMF 48" x 96" | \$16,999.00 |

Includes: standard table, 3-1/4HP router, wrenches, welded steel stand, dust hood, and starter set of bits can operate on 110V 8.5" Z Travel

Maker-Fab Series Plasma Models

| | |
|---------------------------------------|-------------|
| PMF 48" x 20" (fits through 36" door) | \$15,999.00 |
| PMF 48" x 48" | \$16,999.00 |
| PMF 48" x 96" | \$17,999.00 |

Includes: Welded steel frame with integrated Water Table, Choose from a torch system below.

Maker-Fab & HS Plasma Options:

| | | | |
|------------------------|------------|----------------------------|------------|
| Automatic Torch Height | \$2,899.00 | Maker-Fab Torch Break Away | \$1,000.00 |
|------------------------|------------|----------------------------|------------|

Hypertherm Plasma Cutters with machine torch and machine interface

| | | | | |
|--------------|------------|-----------------|-------------------------|----------|
| Powermax 45 | \$2,699.00 | Pierce 3/8" cut | P45 consumable package | \$600.00 |
| Powermax 65 | \$3,699.00 | Pierce 1/2" cut | P65 consumable package | \$700.00 |
| Powermax 85 | \$4,599.00 | Pierce 5/8" cut | P85 consumable package | \$800.00 |
| Powermax 105 | \$6,299.00 | Pierce 3/4" cut | P105 consumable package | \$980.00 |

ECO, BT, Michelangelo, Maker-FAB & Standard HS Router Options

Vacuum Table System Upgrades:

110V systems

| | |
|--------------------------|-------------|
| 24X24 Vac System upgrade | \$ 2,500.00 |
| 36X30 Vac System upgrade | \$ 3,500.00 |
| 48X24 Vac System upgrade | \$ 3,500.00 |

220V 3PH systems

| | |
|----------------------------------|-------------|
| 48X48 Vac System upgrade | \$ 4,000.00 |
| 48X96 Vac System upgrade | \$ 4,500.00 |
| 60X120 Vac System upgrade | \$ 7,500.00 |
| If Vac Table Sys added later add | \$1,500.00 |

Collet Style Spindle Upgrades:

| | |
|------------------------------|-------------|
| 2.2HP 1PH High Freq. spindle | \$ 2,700.00 |
| 5HP 3 PH High Freq. spindle | \$ 3,900.00 |
| 10HP 3 PH High Freq. spindle | \$ 5,900.00 |

Other Options:

| | |
|------------------------------------|-------------|
| 4" Rotary 4th Axis for std. models | \$3,999.00 |
| 6" Rotary 4th Axis for std. models | \$4,999.00 |
| Milling Head for Metals | \$ 1,899.00 |
| Vinyl Cutting head | \$ 599.00 |
| Velocity touch digitizing probe | \$ 999.00 |
| Velocity tool touch off | \$ 299.00 |
| Velocity remote jog pendant | \$ 599.00 |
| Deluxe Clamping Kit | \$ 495.00 |
| Computer/monitor on swing Arm | \$1,499.00 |
| Dust Control Computer Cab | \$ 699.00 |
| Increase HS or MF router to 12" Z | \$1,999.00 |
| 56-D2 Razor Cardboard cutter | \$ 495.00 |
| 57-Pen Router Bit with pens | \$ 89.00 |

HS CNC ROUTER

Our most popular model



HS48X48

shown with optional 5 HP Spindle & Vac sys

HS Series Router Models

Standard model for education and small shop

| | |
|---------------|-------------|
| HS 48" x 24" | \$19,999.00 |
| HS 48" x 48" | \$21,999.00 |
| HS 48" x 96" | \$23,999.00 |
| HS 60" x 120" | \$27,999.00 |

Includes: standard table, 3-1/4HP router, wrenches, welded steel stand, dust hood, and starter set of bits can operate on 110V 20A 10.5" Z Travel
The floor space is about 2' larger than the work area. the actual travel is 2" greater than the work size listed.

HS Series routers feature Closed Loop Hybrid Servo Technology for reliable rapid speeds in excess of 500 IPM.

See page 6 for additional accessories

Guitar Making CNC Router



USED CNC MACHINES

SAVE THOUSANDS \$\$\$\$

FIRST COME, FIRST SERVE. CALL TO RESERVE YOUR MACHINE

We have used Routers, Mills, & Lathes in stock. All of our used machines have been updated and have an 18 month on-site warranty. *Competitors offer only a one year parts only warranty on their new equipment.* With our updates, most will perform better than when new. Used machines are often half the price of new. Our used inventory is constantly changing so they are not pictured here.

These Values Start at \$4,499.00

Call 1-800-956-4056 to find your bargain.

The LuthierMax Series of CNC routers was designed for guitar making in collaboration with engineers from Fender® Guitars (who are using this model) and www.guitarbuilding.org to make this machine student friendly and robust. Fixtures built into the table make it easy to machine your own guitar necks and bodies for both standard size and longer base guitars in your classroom. This is the largest fully assembled CNC router that fits through a standard 36" classroom door. Travels X49" Y20" Z8.5"
Floor space approximately 76' X 34". All models (except ATC model) use 110V normal wall outlet electric. *Servo & ATC models have a larger footprint that will not fit through the 36" door opening. Call for more info.*

LuthierMax CNC Router Models:

| | |
|------------------------------------|-------------|
| LuthierMax CNC Router 110V,20A | \$14,999.00 |
| LuthierMax CNC Router Hy Servo | \$19,999.00 |
| LuthierMax PRO with ATC CNC Router | \$39,999.00 |

LuthierMax Options:

| | |
|----------------------------------|------------|
| Vacuum Table System | \$3,500.00 |
| Guitar Making Class Start up kit | \$2,999.00 |
| Guitar Making CNC Bit Kit | \$500.00 |

HSIPRO HEAVY DUTY CNC ROUTER



Features:

CENTROID CNC Control

for the Ultimate in High Speed 3D Contouring

No computer needed at the machine.

Shown with:

**8 Position ATC
Optional 4th Axis
10 HP HSD Spindle**

HSIPRO Models used in labs that require high production speeds & ultimate 3D performance such as 3D Modeling, Cabinet making, and WOODlinks programs: These models feature the Centroid closed loop servo control system with remote Jog panel & Vac table system. Require 120V 20A for electronics & 230V 3PH for Vac Table sys.

With Economy Standard Open Frame

| | | |
|--------------|---|-------------|
| HSIPROE4X4 | Economy Pro model with 3-1/4HP router, MDF table | \$32,999.00 |
| HSIPROE4X8 | Economy Pro model with 3-1/4HP router, MDF table | \$34,999.00 |
| HSIPRO4X4 | 5HP Collet style High Freq spindle, Phenolic table | \$37,999.00 |
| HSIPRO4X8 | 5HP Collet style High Freq spindle, Phenolic table | \$39,999.00 |
| HSIPRO4X4 | 10HP Collet style High Freq spindle, Phenolic table | \$39,999.00 |
| HSIPRO4X8 | 10HP Collet style High Freq spindle, Phenolic table | \$41,999.00 |
| HSIPROATC4X4 | 5HP ATC High Freq spindle, 8 pos ATC Phenolic table | \$47,999.00 |
| HSIPROATC4X8 | 5HP ATC High Freq spindle, 8 pos ATC Phenolic table | \$49,999.00 |

With extra Heavy Duty Frame as pictured above

| | | |
|-----------------|--|-------------|
| HSIPROATC4X4HD | 5HP ATC High Freq spindle, 8 pos ATC Phenolic table | \$57,999.00 |
| HSIPROATC4X8HD | 5HP ATC High Freq spindle, 8 pos ATC Phenolic table | \$59,999.00 |
| HSIPROATC4X4HD | 10HP ATC High Freq spindle, 8 pos ATC Phenolic table | \$64,999.00 |
| HSIPROATC4X8HD | 10HP ATC High Freq spindle, 8 pos ATC Phenolic table | \$66,999.00 |
| HSIPROATC5X10HD | 10HP ATC High Freq spindle, 8 pos ATC Phenolic table | \$71,999.00 |

Options for HSIPRO Models:

| | | | |
|--------------------------------------|-------------|-----------------------|-------------|
| Reverse Engineering Probe & software | \$ 9,999.00 | Tool Touch off Probe | \$ 1,500.00 |
| 150MM Rotary 4th Axis | \$11,999.00 | 100MM Rotary 4th Axis | \$ 9,999.00 |

HS CNC PLASMA CUTTER



Machines for educational training, prototyping, design, and industrial production worldwide



HSPA 48X48 WITH HIGH END ATH

HS Series Plasma Models

Basic w/basic integrated ATH, & PMAX 45

Basic ATH all controls are on-screen & have economy magnetic break away

HSPB 48" x 48" \$26,999.00

HSPB 48" x 96" \$28,999.00

HSPB 60" x 120" \$31,999.00

Advanced w/High end ATH, PMAX 45

HSPA 48" x 48" \$33,999.00

HSPA 48" x 96" \$36,999.00

HSPA 60" x 120" \$39,999.00

Pro w/High end ATH, M39, & PMAX 45

HSP-PRO 48" x 48" \$49,999.00

HSP-PRO 48" x 96" \$54,999.00

HSP-PRO 60" x 120" \$59,999.00

High Definition Plasma HPR260XD

HSP-PRO4x8HD \$180,000.00

FULLY ASSEMBLED HEAVY DUTY STEEL FRAME WITH WATER TABLE

Magnetic Breakaway

Tethered magnetic breakaway for consistent positioning during cutting and retention after collision or consumable change. Powerful magnets and keyed mounting plate for fast and repeatable repositioning of the torch.



Normal



Tripped



Magnetic Back



Automatic Torch Height Control

Provides programmable pierce height, pierce delay, and running height control.



Hypertherm ATH used on A & Pro models the HSPB uses our economy ATH system

Features

- * Automatic Conversion of DXF File to Tool Path
- * Convert scanned in files to toolpaths
- * Water Table with Removable Leafs
- * Heavy Duty Welded Steel Construction
- * Hypertherm Plasma cutters for CNC included
- * Actual machine torch included
- * Automatic Torch Height Control (Accounts for warping & uneven metal)

Utility Requirements

Electrical

Computer 120V 20A

Plasma 208-480V

Air

100 PSI at 10 scfm Clean,

Dry, Oil Free Air

MITHEY SERIES

Machines for educational training, prototyping, design, and industrial production worldwide

MITHEY MILL

X - Travel 9" (23cm)
 Y - Travel 5" (13cm)
 Z - Travel 6.25"(15.88cm)
 Table 2.75" X 13"
 (7 X 33 cm)
 110V 20A



| | |
|---------------------------------------|--------------|
| MMSV Stepper Standard version | \$ 9,999.00 |
| MMHY Hybrid Servo Standard Version | \$ 10,999.00 |
| MMSVB Stepper Ball Screw version | \$ 12,499.00 |
| MMHYB Hybrid Servo Ball Screw version | \$13,499.00 |

Mitey Mill Options:

| | |
|-----------------|------------|
| 4" Vise | \$ 250.00 |
| 4" 4th Axis | \$2,999.00 |
| 10K RPM Spindle | \$ 300.00 |

MITHEY LATHE

X - Travel 4.25" (10.8cm)
 Center Distance 8"(20cm)
 Swing over bed 3.5" (8cm)
 Swing over carriage 1.88"
 (4.78cm)
 110V 20A



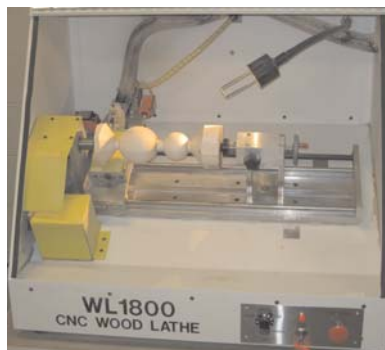
| | |
|---------------------------------------|-------------|
| MLSV Stepper Standard version | \$ 9,999.00 |
| MLHY Hybrid Servo Standard Version | \$10,999.00 |
| MLSVB Stepper Ball Screw version | \$11,499.00 |
| MLHYB Hybrid Servo Ball Screw version | \$12,499.00 |

Mitey Lathe Options:

| | |
|---------------------------|------------|
| Deluxe QC tooling package | \$1,999.00 |
| Threading capability | \$ 999.00 |
| Knurling tooling | \$ 200.00 |

MITHEY WOOD LATHE

18"X 4" Capacity
 (45 X 10 cm)
 110V 20A



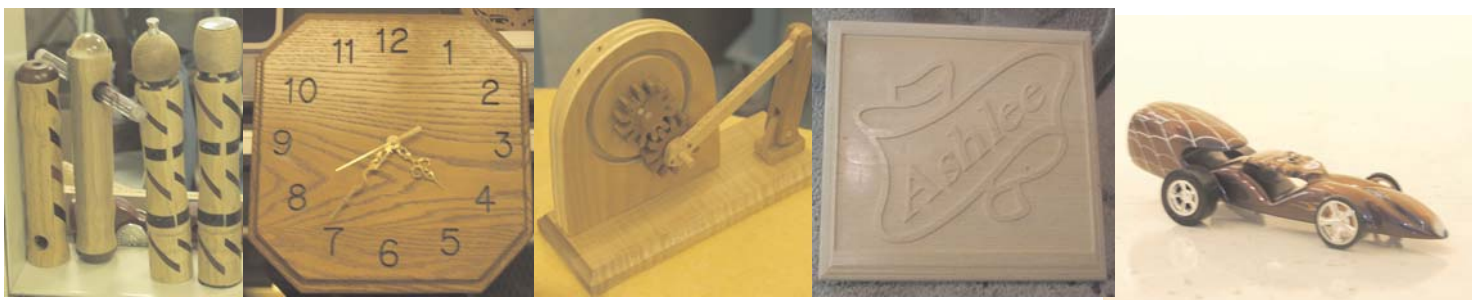
| | |
|----------------------|-------------|
| MWLS Stepper Version | \$9,999.00 |
| MWLHS Hybrid Servo | \$11,999.00 |

MITHEY ROUTER

Travels
 18"X x 9"Y x 6.5"Z
 (45X x 23Y x 16Z cm)
 110V 20A



| | |
|----------------------|-------------|
| MRLS Stepper Version | \$9,999.00 |
| MRLHS Hybrid Servo | \$11,999.00 |



CNC WOOD LATHE



Ready to connect to Central Dust Collection

WL4000

- * Cut up to a 40" X 10" Part
- * Hardened Profiled Rails
- * Spindle #2MT int Taper
- * Tailstock #2MT int Taper
- * Ball Drive Screws
- * Anti Backlash Nuts
- * 1 or 5 HP Spindle Motor
- * Ready for dust collector
- * Compatible with CAD/CAM
- * Uses G&M Codes
- * 36 Month On-Site warranty



WL4000 Positive Locking Tail Stock

Machines:

| | | | |
|------------------------------|---------------------------|--------------|-------------------------|
| WL4000 | Standard Stepper 120V 20A | \$ 24,999.00 | |
| WL4000HY | Hybrid Servo 120V 20A | \$ 26,999.00 | |
| WL4000PRO (faster & 5HP 3PH) | 220V 30A 3PH | \$ 35,999.00 | Used machines \$\$ CALL |

Great Value Metal CNC Machines

MODEL 1865 CNC MILL



- * X - Travel 18"
- * Y - Travel 6"
- * Z - Travel 5" Quill travel
- * Max Z Clearance 16"
- * Table 9.5"Y x 32" X
- * 800 LBS

Features

- * Manual or CNC operation
- * Cuts Steel
- * Industry Standard G-Codes
- * On Screen Simulation

Specifications

- * 2 HP 115V Spindle Motor
- * 12 Variable Speed 110-2580
- * 1200 Oz in Hybrid Servos
- * Standard R8 Spindle
- * Drill Chuck Included
- * 5/8" X 5 TPI Ballscrew

1865HS Mill - Hybrid Servo Version \$11,999.00

1865S Mill - Economy Stepper Version \$ 9,999.00

Optional Fixed position Steel stand \$ 750.00

Optional Mobile Adjustable height stand \$ 2,500.00

Optional accessory kit \$1,999.00 includes R8 Collet Set Assortment of End Mills, Vise, Hold Down Set



ETTMILL85

- * X - Travel 8.75"
- * Y - Travel 5"
- * Z - Travel 6.25"
- * Table 2.75" X 13"
- * 3/8" Mill Holder

**Economy Table top open
CNC Lathe or Mill
Your Choice
\$4,997.00**

ETTLATHE48



- X - Travel 4.25"
- Center Distance 8"
- Swing over bed 3.5"
- Swing over carriage 1.88"

GET OLD MACHINES OUT OF THE JUNK PILE

We Service all brands

Stretch your budget

Unlike new equipment, upgrades usually do not come out of your own budget. Most upgrades are financed through other budgets including: district repair budgets; technology funds since we are changing the computer in the machine; or through special needs funds. Once these machines are upgraded, they will be much easier for a special needs student to be successful. Upgrades often make it possible for the vocational-technical supervisor to tap into funds that otherwise would not be available. Equipment purchased under Perkins can often be repaired under Perkins. Also, it is often much easier to get school boards to approve repairs on existing equipment than purchasing new equipment. Depending on the machine, most upgrades range from 1/2 to 1/20th of the replacement cost of a machine and will usually allow it to operate better than new.

CNC Upgrade Price: Includes everything needed - software, electronics, install, 18 month warranty, and training. Add CAM software and a modern PC computer with 2 USB 2.0 Ports.

Upgrade Older Forest Scientific Serial Velocity Controls to USB \$1,999.00



Light Machines
CNC Router
VC-LMCR
Upgrade \$5,999.00

IF YOU DO NOT SEE YOUR MACHINE, CALL FOR A QUOTE



Light Machines
Spectralight Mill
VC-SLM
Upgrade \$4,999.00



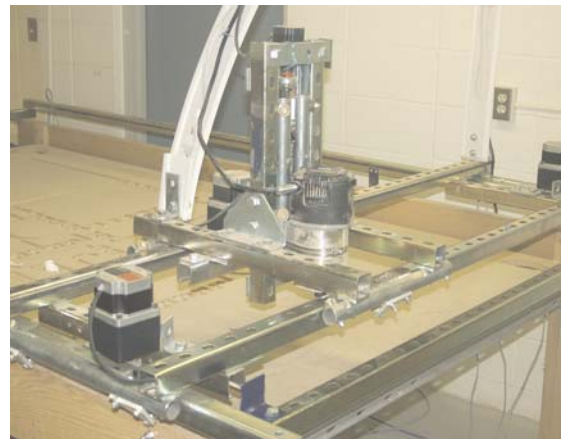
Light Machines
Spectralight Lathe
VC-SLL
Upgrade 4,999.00



Light Machines
Pro Light Lathe or Mill
VC-PL
Upgrade \$5,999.00



All Techno Routers
Under 4'X4'
VC-Techno
Upgrade \$4,999.00



All Shopbot Routers
VC-SHOPB
Upgrade \$4,999.00
VC-SHOPBCL\$6,999.00
for Closed loop version



For a fraction of replacement cost, update old DOS machines to Windows



All Phoenix/ Magnum/
Paxton Wood Lathes
VC-PMPPL
Upgrade \$6,499.00



All Phoenix/ Magnum/
Paxton Routers VC-PMPPR
Upgrade \$6,999.00
Vac pump \$1,999.00



All Paxton Lathes VC-PPL
Upgrade \$4,999.00



D&M 3 or 4 & Lab Volt 5400 Mills
VC-DMM34 Upgrade \$4,999.00
D&M 3, 4, or Lab Volt 5300 Lathe
VC-DML34 Upgrade \$4,999.00



D&M 5 or Lab Volt 5500
VC-DML5
Upgrade \$5,999.00



D&M 5, 6 or Lab Volt 5600
VC-DMM5
Upgrade \$5,999.00



All Emco Compact 5 Lathes
VC-CP5L
Upgrade \$6,499.00



Emco Compact 5 Lathes
If it has a Tool Turret
Add VC-CPTT \$499.00



ALL Emco F1 Mills
VC-EF1M
Upgrade \$6,999.00



All Denford Routers
VC-DFMR
Upgrade \$4,999.00



All Denford MicroMills, Scantek, LabVolt, B&G, Scantek, LabVolt, B&G, & Midwest
VC-DFMM Upgrade \$4,999.00

All Denford MicroLathes, Scantek, LabVolt, B&G, & Midwest
VC-DFML Upgrade \$4,999.00

CAD/CAM SOFTWARE OPTIONS

Please consult with your dealer to find the best package to meet your needs. They may have options not listed here.

EnRoute, for Routers, Plasmas, & Mills

LAB PACKS Require Master Seat Purchase

New seats of EnRoute 5

| | |
|-----------------------------|-------------|
| EnRoute Plus or FAB | \$ 1,299.00 |
| EnRoute Pro (Master Seat) | \$ 1,999.00 |
| 5-Pack/Clients EnRoute Pro | \$ 2,999.00 |
| 10-Pack/Clients EnRoute Pro | \$ 3,999.00 |
| 20-Pack/Clients EnRoute Pro | \$ 4,999.00 |

Upgrade pricing from EnRoute 3 OR 4 to EnRoute 5

| | |
|---|------------|
| 3 or 4 Pro to EnRoute 5 Pro | \$ 499.00 |
| 3 or 4 Plus to EnRoute5 Plus | \$ 499.00 |
| 3 or 4 Plus to EnRoute 5 Pro | \$1,399.00 |
| 3 or 4 Pro to EnRoute 5 Pro above 5 seats | \$ CALL |
| Upgrade from EnRoute 5 Plus to 5 Pro | \$1,000.00 |

Vetric CAD/CAM for CNC Routers & Mills

40 educational seats in a single lab or classroom

VCarve Pro \$ 599.00

Aspire \$1,995.00

For Lathe, Mill, or Router



Each Lab pack includes:

FULL commercial versions of SURFCAM

Academic Lab Packs

New Seats of Surfcam

| | |
|----------|------------|
| 1 User | \$ 799.00 |
| 5 Users | \$2,699.00 |
| 10 Users | \$3,699.00 |
| 20 Users | \$5,499.00 |
| 25 Users | \$5,999.00 |

Upgrade from previous version of Surfcam and 1 year Maintenance

| | |
|--|--------------|
| Upgrade 1 Educational seat of Surfcam | \$ 400.00 |
| Upgrade 2 Educational seats of Surfcam | \$ 600.00 |
| Upgrade 3 Educational seats of Surfcam | \$ 800.00 |
| Upgrade 4 Educational seats of Surfcam | \$ 1,000.00 |
| Upgrade 5 or more Educational seats of Surfcam | \$ 1,200.00* |

NOTE: ANNUAL MAINTENANCE PURCHASE REQUIRED

Rhinoceros 3D CAD only

Rhino for Students, Faculty, & Schools

| | |
|-------------------------------------|-----------|
| Single User | \$195.00 |
| Upgrade from earlier version | \$ 95.00 |
| Rhino/Flamingo/Penguin/Bongo Bundle | \$ 495.00 |

Rhino for Schools Only

| | |
|-------------------------------------|------------|
| Educational Lab License | \$975.00 |
| Lab Upgrade from earlier version | \$295.00 |
| Rhino/Flamingo/Penguin/Bongo Bundle | \$2,700.00 |

Rhino is quickly becoming a favorite in college FabLabs as well as middle schools and high schools because it is powerful, cost effective, and easy to teach. Combined with RhinoCAM below, you can easily go from design to production quickly.

RhinoCAM & VisualCAM Pro for Solidworks^{2,3,4,5}, Mill, Turn

| # Seats | ProMill or Lathe | Pro Mill & Lathe | Annual Maintenance M or L | Mill & Lathe |
|----------|------------------|------------------|---------------------------|--------------|
| 5 Seats | \$1,250.00 | \$ 2,250.00 | 5 Seats \$ 500.00 | \$ 800.00 |
| 10 Seats | \$2,250.00 | \$ 3,500.00 | 10 Seats \$ 700.00 | \$ 900.00 |
| 25 Seats | \$5,625.00 | \$ 6,650.00 | 25 Seats \$1,200.00 | \$1,500.00 |
| 50 Seats | \$7,500.00 | \$15,000.00 | 50 Seats \$1,800.00 | \$2,100.00 |

Teacher Key with above Lab Pack Purchase \$600.00

CREATE G-CODES WITH CAM IN SOLIDWORKS

RhinoCAM, VisualCam, * VisualCAM for Solidworks Campus CAM Unlimited Seats \$4,500.00 / year

VECTOR ART - PREMADE ART 2D for LASERS, Mills, Routers & Plasma 3D for Routers & Mills only

Instant Success for your students

| | | |
|-----------------|--------|----------------|
| Vector Art 1 \$ | 299.00 | over 6K images |
| Vector Art 2 \$ | 299.00 | over 5K images |
| Vector Art 3 \$ | 299.00 | over 6K images |

| | | |
|------------------|--------|----------------------|
| Vector Art 3D \$ | 499.00 | Animal Collection |
| Vector Art 3D \$ | 299.00 | WoodWork Collection |
| Vector Art 3D \$ | 199.00 | Signmaker Collection |

Curriculum and DVD Training available for all above CAD/CAM packages \$995.00 Each

Laser Engraver / Cutters



FVLS 2.3 16"X12" Table Top Laser

| | | |
|---------------------------------------|-----------------------------|-------------|
| FVLS-2.3 (16"X12") With 10 Watt Laser | Able to cut .125 thick wood | \$11,999.00 |
| FVLS-2.3 (16"X12") With 25 Watt Laser | Able to cut .25 thick wood | \$12,999.00 |
| FVLS-2.3 (16"X12") With 30 Watt Laser | Able to cut .3 thick wood | \$13,999.00 |
| Cutting Table FVLS-2.3 | \$ 499.00 | |
| Rotary Fixture FVLS-2.3 | \$ 1,499.00 | |

All VersaLasers are available in your choice of

Red, Blue, Green, Purple, or Yellow

FVLS 3.5 24"X12" Table Top Laser

| | | |
|---------------------------------------|-----------------------------|-------------|
| FVLS-3.5 (24"X12") With 10 Watt Laser | Able to cut .125 thick wood | \$13,999.00 |
| FVLS-3.5 (24"X12") With 25 Watt Laser | Able to cut .25 thick wood | \$14,999.00 |
| FVLS-3.5 (24"X12") With 30 Watt Laser | Able to cut .3 thick wood | \$15,999.00 |
| FVLS-3.5 (24"X12") With 40 Watt Laser | Able to cut .4 thick wood | \$16,999.00 |
| FVLS-3.5 (24"X12") With 50 Watt Laser | Able to cut .5 thick wood | \$18,999.00 |
| Cutting Table FVLS-3.5 | \$ 699.00 | |
| Rotary Fixture FVLS-3.5 | \$ 1,599.00 | |

See Page 18 for Items to Engrave



Inlay



Engrave

FVLS3.6 Free Standing Laser with Integrated cart

| | | |
|---------------------------------------|----------------------------|-------------|
| FVLS-3.6 (24"X12") With 25 Watt Laser | Able to cut .25 thick wood | \$16,999.00 |
| FVLS-3.6 (24"X12") With 30 Watt Laser | Able to cut .3 thick wood | \$17,999.00 |
| FVLS-3.6 (24"X12") With 40 Watt Laser | Able to cut .4 thick wood | \$19,999.00 |
| FVLS-3.6 (24"X12") With 50 Watt Laser | Able to cut .5 thick wood | \$20,999.00 |
| FVLS-3.6 (24"X12") With 60 Watt Laser | Able to cut .6 thick wood | \$22,999.00 |
| Cutting Table FVLS-3.6 | \$ 1,499.00 | |
| Rotary Fixture FVLS-3.6 | \$ 1,915.00 | |



ALL LASERS REQUIRE FUME EXHAUST

Recommended Portable blower exhaust kit for all systems \$ 500.00

Optional In-Room Filtration Systems (for when you can't vent outside)

| | | | |
|-------------|------------|------------------------|------------|
| For FVLS2.3 | \$2,999.00 | For FVLS3.6 or FVLS4.6 | \$5,999.00 |
| For FVLS3.5 | \$3,999.00 | For FVLS6.6 | \$6,999.00 |

CALL 1-800-956-4056 FOR MONTHLY PROMOTIONAL OFFERS



FVLS-4.6 (24"X18") Free Standing Laser with Integrated cart

| | | |
|---------------------------------------|----------------------------|-------------|
| FVLS-4.6 (24"X18") With 25 Watt Laser | Able to cut .25 thick wood | \$18,999.00 |
| FVLS-4.6 (24"X18") With 30 Watt Laser | Able to cut .3 thick wood | \$19,999.00 |
| FVLS-4.6 (24"X18") With 40 Watt Laser | Able to cut .4 thick wood | \$21,999.00 |
| FVLS-4.6 (24"X18") With 50 Watt Laser | Able to cut .5 thick wood | \$23,999.00 |
| FVLS-4.6 (24"X18") With 60 Watt Laser | Able to cut .6 thick wood | \$24,999.00 |
| Cutting Table FVLS-4.6 | | \$ 1,499.00 |
| Rotary Fixture FVLS-4.6 | | \$ 1,699.00 |

**All VersaLasers are available in your choice of
Red, Blue, Green, Purple, or Yellow**

Software Options for a Quick Start:

| | | |
|-----------------------------|------------|------------------------------------|
| Corel Draw Academic | \$ 110.00 | (most effective, easiest to learn) |
| Corel Draw 50 Seat License | \$1,795.00 | (50 Seat License) |
| Vector Art 1 (6000 +images) | \$ 299.00 | (instant success) |
| Vector Art 2 (5000 +images) | \$ 299.00 | (more success options) |
| Vector Art 3 (6000 +images) | \$ 299.00 | (more success options) |
| 1 Touch Photo Software | \$ 295.00 | (for the best quality photos) |

**Call for free
DEMO DVD
OR
ON-SITE DEMO**



Laser Marble



Cut wood



FVLS-6.6 (32"X18") Free Standing Laser with Integrated cart

| | | |
|---------------------------------------|----------------------------|-------------|
| FVLS-6.6 (32"X18") With 25 Watt Laser | Able to cut .25 thick wood | \$21,999.00 |
| FVLS-6.6 (32"X18") With 30 Watt Laser | Able to cut .3 thick wood | \$22,999.00 |
| FVLS-6.6 (32"X18") With 40 Watt Laser | Able to cut .4 thick wood | \$23,999.00 |
| FVLS-6.6 (32"X18") With 50 Watt Laser | Able to cut .5 thick wood | \$24,999.00 |
| FVLS-6.6 (32"X18") With 60 Watt Laser | Able to cut .6 thick wood | \$26,999.00 |
| Cutting Table FVLS-6.6 | | \$ 1,499.00 |
| Rotary Fixture FVLS-6.6 | | \$ 1,915.00 |

See Page 18 for Items to Engrave



Rotary



Cutting Table



CALL 1-800-956-4056 FOR MONTHLY PROMOTIONAL OFFERS

Professional & Industrial Lasers for FabLabs & Commercial Grade Usage



Professional Lasers Free Standing Laser with Integrated cart

| | | |
|---|-------------------|-------------|
| FPLS4.75 with 75 Watt laser 1 head | 24"X18" work area | \$32,999.00 |
| FPLS6.75 with 75 Watt Laser 1 head | 32"X18" work area | \$34,999.00 |
| FPLS6.150D with 150 Watt dual 75 Watt lasers 1 head | 32"X18" work area | \$52,999.00 |
| FPLS6.150DSS with 150 Watt dual 75 Watt lasers 2 lines simult | 32"X18" work | \$54,999.00 |
| Dual Head option | | \$2,799.00 |
| HDPFO & Collimator | | \$2,999.00 |
| Air Assist option with cone & Backsweep & Compressor | | \$6,999.00 |
| Cutting Table FPLS-6.6 | | \$1,499.00 |
| Pin Table FPLS6.6 | | \$ 599.00 |
| Rotary Fixture FPLS-6.6 | | \$1,999.00 |
| Extended Rotary Fixture for Baseball Bats | | \$2,799.00 |



Professional Multi-Wave Lasers Free Standing Laser with Integrated cart

Multi-Wave lasers are able to engrave directly on bare metal as well as cut through foils including steel .01 thick

| | | |
|---|---------|-------------|
| FPLSMW with 75W Co2 Laser and 40 Watt Fiber Laser | 32"X18" | \$74,999.00 |
|---|---------|-------------|

This machine with 2 lasers gives you the best of a C02 laser and the extended capabilities A Multi-Wave fiber laser.

| | |
|--|------------|
| Air Assist option with cone & Backsweep & Compressor | \$6,999.00 |
| Cutting Table FPLS-6.6 | \$1,499.00 |
| Pin Table FPLS6.6 | \$ 599.00 |
| Rotary Fixture FPLS-6.6 | \$1,999.00 |
| Extended Rotary Fixture for Baseball Bats | \$2,799.00 |

Note: The models and configurations listed here are the most popular that we have offered. Please call with any questions because there are many other configurations available.



with Class 4 Pass through feature



Industrial Series Lasers Free Standing Laser with Integrated cart

| | |
|---|--------------|
| FILS9.75 36"X24" with 150 Watts, with cutting table, rotary, Air assist including compressor | \$ 92,000.00 |
| FILS12.75 48"X24" with 150 Watts, with cutting table, rotary, Air assist including compressor | \$ 95,000.00 |

MISC Items For Use With Laser



Anodized pens
 \$1.99 Ea
 NTW020 Black
 NTW021 Red
 NTW022 Blue



Rosewood



Maple



Wood Twist Pens \$2.59 Ea
 WTW015 Maple Classic
 WTW016 Rosewood Classic

Mechanical Pencil \$3.49 Ea
 WHK040 Maple Classic
 WTW041 Rosewood Classic

Alder Sheets

WUS 083 4" X 12" X 3/32" Thick \$49.99
 WTH 025 4" X 12" X 1/4" Thick \$69.99
 WTH 024 4" X 24" X 1/8" Thick \$89.99

Assortments to get you off to a quick start

With many items you can sell to raise funds these kits can generate 3X their cost or more

Intro. Laser materials kit \$ 595.00
 Standard Laser materials kit \$ 1,595.00
 Expanded Laser materials kit \$ 2,995.00



Pen Boxes

WHK044 Maple Double Pen Box \$4.99
 WHK045 Rosewood Double Pen box \$5.99
 WHK119 Rosewood Single Oval Pen Box \$5.49
 WHK118 Maple Single Oval Pen Box \$4.49



SUS018 Cermark metal marking 250G \$149.00



Cermark

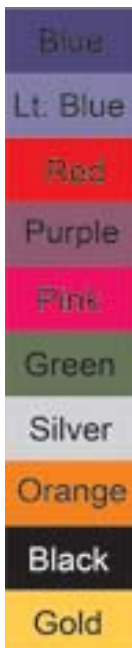


SUS030 Cermark metal marking spray can \$99.00

VISIT www.forestscientific.com for more ideas.

Anodized Aluminum Tags for use with Laser

Tags are available in lots of 50. You can mix styles and colors to get to a total quantity discount. (ie. If you get 250 purple color and 250 black the total is 500.)



Tags

50 .95 ea
 100-250 .90 ea
 300+ .75 ea



GI



Hydrant



Bone



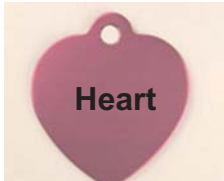
Shamrock



Star



T-Shirt



Heart



Circle



Collar Slider



Shield

Camo in GI Style dog tag only.

| Nickel | | Color 24" Ball Chain | |
|------------------|----------------|----------------------|--------|
| 1/2" Split Rings | 24" Ball chain | (same as tags) | |
| 50 | .20 | 50 | .75 ea |
| 100-250 | .18 | 100-250 | .65 ea |
| 300+ | .16 | 300 | .60 ea |

Color 24" Ball Chain (same as tags)
 50 .85 ea
 100-250 .75 ea
 300+ .65 ea



Guitar Pick



Collar Rivet



House

CNC Accessories

Most common educational use excerpts from our tooling catalog

| Part # | Cutting Dia | Shank Dia | Length | Price |
|--|-------------|-----------|--------|---------|
| Straight bottom cutting Panel cutting bit | | | | |
| 49-SST198 Str. 2 flute bit | 1/8" | 1/4" | 2-1/2" | \$21.00 |
| 49-SST220 Str. 2 flute bit | 1/4" | 1/4" | 2-1/2" | \$25.00 |
| 24-102-0885P Str. plunge bit | 1/2" | 1/2" | 2-1/2" | \$35.00 |

| Economy Upspiral Flat bottom end mill | | | | |
|--|-------------|-----------|--------|---------|
| Part # | Cutting Dia | Shank Dia | Length | Price |
| 24-106-0202 1/8" Up | 1/8" | 1/4" | 2" | \$25.00 |
| 49-SRU118 1/4" Up | 1/4" | 1/4" | 2-1/2" | \$25.00 |
| 49-SRU153 1/2" Up | 1/2" | 1/2" | 3" | \$49.00 |

| Small Bits (BN=ball nose FN=flat nose) | | | | |
|---|-------------|-----------|--------|---------|
| Part # | Cutting Dia | Shank Dia | Length | Price |
| 31-VSC3dfn-500 2 flute | 1/64" | 1/8" | 1-1/2" | \$34.00 |
| 31-VSC3dbn-500 2 flute | 1/64" | 1/8" | 1-1/2" | \$38.00 |
| 31-VSC3dfn-503 2 flute | 1/16" | 1/8" | 1-1/2" | \$20.00 |
| 31-VSC3dbn-503 2 flute | 1/16" | 1/8" | 1-1/2" | \$22.00 |
| 31-VSC3dfn-501 2 flute | 1/32" | 1/8" | 1-1/2" | \$23.00 |
| 31-VSC3dbn-501 2 flute | 1/32" | 1/8" | 1-1/2" | \$24.00 |

| Down Spiral bits (prevent chipping on top) | | | | |
|--|-------------|-----------|--------|---------|
| Part # | Cutting Dia | Shank Dia | Length | Price |
| 49-SRD203 | 1/8" | 1/4" | 2" | \$25.00 |
| 49-SRD218 | 1/4" | 1/4" | 2" | \$25.00 |
| 49-SRD253 | 1/2" | 1/2" | 3" | \$49.00 |

| Plungable round over bits | | | | |
|----------------------------------|-------------|-----------|--------|---------|
| Part # | Cutting Dia | Shank Dia | Length | Price |
| 49-SE1568 1/8" radius | 1/8" | 1/4" | 2" | \$19.00 |
| 49-SE1572 1/4" radius | 1/4" | 1/4" | 2" | \$22.00 |
| 49-SE1580 3/8" radius | 1/2" | 1/2" | 2-1/4" | \$26.00 |
| 49-SE1582 1/2" radius | 1" | 1/2" | 2-1/4" | \$29.00 |



Compression up/down spiral

| Item # | A | B | Shank | \$ |
|-------------|------|--------|-------|---------|
| 24-107-0402 | 1/4" | 7/8" | 1/4" | \$38.00 |
| 24-107-0815 | 1/2" | 1-1/8" | 1/2" | \$67.00 |

Mitey Series Accessories

| Mill | | | | |
|--------------|---|--------------------------|-----------|----------|
| 41-7402 | 1/8 | End Mill | 3/8 shank | \$ 19.00 |
| 41-7403 | 3/16 | End Mill | 3/8 shank | \$ 19.00 |
| 41-7404 | 1/4 | End Mill | 3/8 shank | \$ 19.00 |
| 41-7406 | 3/8 | End Mill | 3/8 shank | \$ 19.00 |
| 41-7400 | 6 piece set 1/8, 5/32, 3/16, 1/4, 5/16, 3/8 | | | \$ 99.00 |
| 41-3551 | Milling Vise 2" | | | \$125.00 |
| 35-428-9020 | Milling Vise 4" | | | \$250.00 |
| 41-3079 | 3/8 | End Mill Holder | | \$ 75.00 |
| 41-6079 | 1/4 | End Mill Holder | | \$ 75.00 |
| 41-6081 | 1/8 | End Mill Holder | | \$ 75.00 |
| 41-3020 | 5/32 | Hex T-driver | | \$ 10.00 |
| 41-3013 | Step block hold down set | | | \$ 50.00 |
| 41-1072 | 1/4" | drill Chuck, with access | | \$ 65.00 |
| 41-32540 | High-speed Belt mill or lathe | | | \$ 42.00 |
| Lathe | | | | |
| 41-1191 | Lathe Live Center | | | \$ 80.00 |
| 41-11940 | 60° Carbide tool bit | | | \$ 19.00 |
| 41-11950 | Right Hand, HSS (1/4" SQ) | | | \$ 19.00 |
| 41-11960 | Left Hand, HSS (1/4" SQ) | | | \$ 19.00 |
| 41-3086 | Cut Of Tool Blade | | | \$ 24.00 |
| 41-3002 | Cut-off Tool Holder & Tool | | | \$ 95.00 |
| 41-3003 | 1/4" Tool Post | | | \$ 75.00 |

Specialty Router Tooling

| | |
|--|----------|
| 56-D2 Razor Cardboard cutter | \$495.00 |
| 57-Pen Router Bit with pens 1/2" Shank | \$ 89.00 |
| 57-Replacement Pen set | \$ 19.00 |
| 57-Diamond Drag Engraving Bit 1/4" Shank | \$249.00 |
| 57-Diamond Drag Engraving Bit 1/2" Shank | \$249.00 |

Individual 3-D Router Bits

| Part # | Cutting Dia | Shank Dia | Length | Price |
|------------------------|-------------|-----------|--------|---------|
| 49-SRU103 (Flatnose) | 1/8" | 1/4" | 2" | \$39.00 |
| 49-SBNU125 (Ballnose) | 1/8" | 1/4" | 2" | \$39.00 |
| 49-SRU123 (Flatnose) | 1/4" | 1/4" | 3" | \$39.00 |
| 49-SBNU250 (Ballnose) | 1/4" | 1/4" | 2-1/2" | \$39.00 |
| 31-SPCLE250(Ballnose/) | 1/4" | 1/4" | 4" | \$79.00 |
| 49-SRU153 (Flatnose) | 1/2" | 1/2" | 3" | \$49.00 |
| 49-SRU167 (Flatnose) | 1/2" | 1/2" | 4" | \$69.00 |
| 49-SBNU500 (Ballnose) | 1/2" | 1/2" | 3" | \$79.00 |
| 31-SPCLE500 (Ballnose) | 1/2" | 1/2" | 4" | \$89.00 |

HSD & ATC Tool Holders & Collets

| | | |
|---------------|-----------------------|----------|
| 52-A1741H0001 | ISO30 ATC Tool Holder | \$275.00 |
| 52-7501A9300 | ISO 30 tool forks | \$150.00 |
| 55-04232-1/8 | ER32 Collet 1/8" | \$75.00 |
| 55-04232-1/4 | ER32 Collet 1/4" | \$75.00 |
| 55-04232-1/2 | ER32 Collet 1/2" | \$75.00 |
| 55-04232-05 | ER32 Collet 5MM | \$75.00 |
| 55-04616 | ER32 Wrench | \$40.00 |
| 55-04615 | ER25 Wrench | \$40.00 |
| 55-04225-1/8 | ER25 Collet 1/8" | \$75.00 |
| 55-04225-1/4 | ER25 Collet 1/4" | \$75.00 |
| 55-04225-1/2 | ER25 Collet 1/2" | \$75.00 |

Lettering V-Groove bit CUT DIA Shank

| | | | | |
|-------------|------------------------|-------|------|---------|
| 49-SLIN062 | 10 Degree | 1/16" | 1/4" | \$35.00 |
| 24-132-9002 | 60/90 Double ended bit | 1/4" | | \$50.00 |
| 49-SCVG260 | 90 Degree | 1/4" | 1/4" | \$18.00 |
| 49-SCVG264 | 60 Degree | 1/4" | 1/4" | \$16.00 |
| 49-SE1502 | 90 Degree | 1/2" | 1/4" | \$19.00 |
| 49-SE1503 | 90 Degree | 1/2" | 1/2" | \$21.00 |
| 49-SE1560 | 60 Degree | 1/2" | 1/2" | \$21.00 |

Spoil Board Bit

For resurfacing your MDF table or spoil boards

| | | |
|------------------|--------------------|----------|
| 49-spoil-25 | spoil board bit | \$299.00 |
| 49-spoil-insert | inserts 10 pack | \$ 24.99 |
| 49-spoil-screw | replacement screw | \$ 3.25 |
| 49-spoil--wrench | replacement wrench | \$10.00 |

Router Collets/ Accessories

| | | |
|-----------------------------|-----------------------------|---------|
| 1/2"Router Collet | 34-42950 | \$23.00 |
| 1/4"Router Collet | 34-42999 | \$23.00 |
| 3/8"Router Collet | 34-42975 | \$23.00 |
| 3HPPorter Cable Rout Wrench | 34-42596 | \$25.00 |
| 53-RB102 | 1/4" to 1/8" Collet reducer | \$23.00 |
| 49-SE6390 | 1/2" to 1/8" Collet reducer | \$17.00 |

CNC Router/Wood Lathe Accessories

Vacuum Table Gasketing / hold down supplies

| | | |
|---|-------------|---------|
| Router Gasket (Forest Scientific Vac pump | 11-800 | \$89.00 |
| Router Gasket (softer for Venturi Magnum routers) | 11-801 | \$89.00 |
| 1/16"X1/2"Adhesive router gasket | 23-8694k11 | \$35.00 |
| 1/8"X1/2"Adhesive router gasket | 23-8694k16 | \$39.00 |
| 3/16"X1/2"Adhesive router gasket | 23-8694k17 | \$45.00 |
| 1/4"X1/2"Adhesive router gasket | 23-8694k12 | \$49.00 |
| Double sided Masking tape | 23-76405A13 | \$13.00 |

CNC Wood Lathe tooling

| | | |
|-----------------------------------|-----------|----------|
| FS Wood Lathe Tool | 30-46-415 | \$ 99.00 |
| Universal Carbide Cutter (magnum) | 28-700 | \$125.00 |
| HSS Cutter Big Lathe (magnum) | 28-720 | \$120.00 |
| HSS Cutter Small Lathe (magnum) | 28-735 | \$120.00 |
| Modify HSS holder for carbide | 11-901 | \$180.00 |

Replacement parts for Magnum/Phoenix

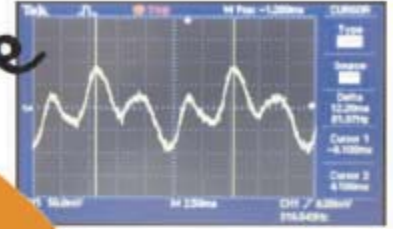
| | | |
|----------------------------------|---------------------|----------|
| Replacement Venturi | 29-NZHI13BS-T01-T02 | \$119.00 |
| Replacement Flexi motor coupling | 11-425 | \$ 99.00 |
| Phoenix EZM Belt | 32-2L200 | \$ 16.00 |
| Limit Switches (magnum) | 39-SW128-ND | \$ 15.00 |

STEM Revolution

$$v = \sqrt{T/\mu} \quad v = \lambda f$$
$$\lambda = 2L \quad \rightarrow \quad f = \frac{\sqrt{T/\mu}}{2L}$$

v = velocity
T = tension force
 μ = mass/length
 λ = wavelength
f = frequency
L = string length

Science



Technology

Math



Engineering



<http://www.guitarbuilding.org/>

NSF-ATE DUE0903336



Forest Scientific Corporation
408 Emert Road
Tionesta, PA 16353, USA
814-463-5006 Voice
814-463-0292 Fax
1-800-956-4056 Toll-Free
sales@forestscientific.com

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