

### **Cam Merkle Woodcarving**

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Catalogue #21, 2016

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### New For 2016







Cape Forge Knives Page 40

Welcome to our 21st catalogue. It was over 40 years ago that I started working full-time - in a large camera department of a local drug store. I had always been interested in photography (along with wildlife, electronics and woodworking). I worked in the photo industry for over 13 years and then left the security of working for someone else so I could carve birds for a living. Many thought I was crazy, but I had to try it. With much hard work (and a sprinkle of luck) it worked out very well. I was reflecting recently on how the world has changed since then. In 1975 pocket calculators were new and very expensive. There were no photocopiers, computers, video recorders or cameras, fax machines, cell phones, credit cards, or toll-free numbers. A catalogue like this one would be an expensive luxury available only from very large companies. We counted inventory weekly and mailed our purchase orders to suppliers, then waited 3-4 weeks for the order to arrive. There was no Sunday shopping, and the entire city shut down every Wednesday afternoon. The pace of life was slower then.

A lot has changed since then - some for the better and some not so much. But several things have endured through the past 4 decades. One of them is the consumer's desire to get the best value for our hard-earned dollar - especially when buying tools. Getting the best value for your money has been one of the guiding principles we have operated on since I started designing, making and selling tools in 1984. I have always made sure that every item we offer, whether it's one we make or something we're re-selling, provides good value and long life. All of the new products in this catalogue were selected and added because of the value they offer.

Late last year construction started on a large expansion to our shop. Part of this expansion is a dedicated classroom space that we expect to host a variety of carving and art related groups and workshops. We expect to be moving into our newly expanded space early in the new year. Stay tuned for more details!

Cam Merkle, President

#### **General Information**

Cam Merkle Woodcarving is a division of Razertip Industries Inc.. Hours of operation are Monday through Friday 9AM-5PM (CST). Other times available by appointment. We are closed on all Canadian holidays and the week between Christmas Day and New Year's Day. We're located at 301-9th Street North - in the north end of Martensville, Saskatchewan. Just look for two big metal buildings (one behind the other) with black and red accent stripes.

Prices in this catalogue are in Canadian Dollars (CAD) and are subject to applicable taxes and shipping charges (see our current order form for shipping costs). There is no minimum order size. For shipping we offer your choice of postal or courier delivery (more information on our order form). We make every effort to maintain consistent pricing for the duration of this catalogue, however, we reserve the right to change prices without notice.

Special note: Because of recent volatility in the Canadian Dollar vs. the US dollar it may be necessary to adjust prices. Current pricing is available online at store.razertip.com or by phoning us.

#### **Satisfaction Guaranty**

All items we sell are covered by a "30 day money back if not satisfied" guaranty. Should you be dissatisfied with any of our products for any reason, simply return it either in person or by regular mail (with proof of delivery, please), and we will immediately provide a full refund (including the cost of mailing it back to us if requested). A brief note or explanation of the reason for the return would be appreciated. At the time of publication, all information contained herein was accurate to the best of our knowledge, however, errors and omissions may occur. We will not be responsible for such errors or omissions except where our guaranty and return policy would allow. Liability is limited to the actual cost of goods sold and does not cover consequential damages or suitability of goods for a specific purpose.

#### To our Valued US and International Customers

All prices are shown in Canadian dollars (CAD). For credit card orders we will bill your card in CAD and your credit card company will automatically convert to your local currency. If you prefer to pay by cheque or money order, you may pay in USD or CAD. Please call if you're not sure.

#### On the Front Cover and Page 101:

"Forbidden Fruit - Carolina Parakeets" ©2014 Cam Merkle.

Miniature Carolina Parakeets on Apple Tree - Oil on Holly, Brass and Epoxy. Entered in World Miniatures Division, 2014 Ward World Championships,

We are your power carving specialists. Whether you're looking for a heavy rotary tool for fast rough-out work, a micromotor tool for finer work or an ultra-high speed turbine for extremely delicate work, we can meet your needs. We also have a great selection of burs of all types. Not only do we sell a great selection of tools and burs, but we service most of them right here in our shop, for fast turn-around and unmatched convenience. Not sure what tool is best for you? Give us a call - our expert advice is always free!

#### **Best Value Micromotor: Maxima 40**

Reasonably priced and offering excellent "bang for the buck", the Maxima 40 runs smoothly and quietly up to speeds of 40,000RPM, and the smaller handpiece has great balance and feel. The Maxima 40 is supplied with a variable-speed foot control, 1/8" collet and a quick-change 3/32" collet adapter, a rubber handpiece cradle, extra fuse, extra motor brushes and it comes with our unconditional one year warranty that covers everything (including bearings!).

Maxima 40 Set with 1/8" collet and 3/32" collet adapter # RK40	\$499.95
Handpiece only with 1/8" collet and 3/32" adapter # RH4018	\$359.90
Handpiece only with 3/32" collet # RH4032	\$330.00
Replacement motor brushes # RLBRUSH	\$11.50
Rubber Handpiece Cradle (replacement) # RRC-02	\$9.50
1/8" Collet #RCOL18-4501 or #RCOL18-PHP40	\$62.50
3/32" Collet #RCOL332-4501 or #RCOL332-PHP40	\$62.50
1/8" -3/32" Collet Adapter (as supplied with RK40) # R18-332	\$29.90
1/8"-1/16" Collet Adapter # R18-116	\$29.90

Collet Adapters let you use 3/32" or 1/16" bits in a 1/8" collet. The 3/32" is the same high quality adapter that is supplied with our new machines. It will work on most makes of Micromotor; saves time as changing of collets is no longer required.

Provides excellent bit concentricity.

\$29.90 ea.



# R18-332 1/8" to 3/32"



# R18-116 1/8" to 1/16'



Servicing what we sell: Should your Maxima, Grande or Mobile machines ever need servicing, we do it right here (including warranty claims!) - you'll get the same quick turnaround and guaranteed service you've come to expect from us. If you're more of a do-it-yourselfer, we can supply the parts and advice you need to perform some of your own repairs.

#### **Torque Upgrade: Maxima 80**

Using the same handpiece as the Maxima 40, the Maxima 80 offers an upgraded power supply for unmatched torque - up to 30% more torque than the Maxima 40. The all-metal case and heavier control circuit/transformer are designed to give you many years of service even with extensive use. The Maxima 80 is supplied with a variable-speed foot control, 1/8" collet and a quick-change 3/32" collet adapter, a rubber handpiece cradle, extra fuse, extra motor brushes and it comes with our unconditional one year warranty that covers everything, including bearings.

Maxima 80 Set with 1/8" collet, and 3/32" collet adapter # RK48	\$699.95
Handpiece only with 1/8" collet and 3/32" adapter # RH4018	\$359.90
Handpiece only with 3/32" collet # RH4032	\$330.00
Replacement motor brushes # RLBRUSH	\$11.50
Rubber Handpiece Cradle (replacement) # RRC-02	\$9.50
1/8" Collet #RCOL18-4501 or #RCOL18-PHP40	\$62.50
3/32" Collet #RCOL332-4501 or #RCOL332-PHP40	\$62.50
1/8"-3/32" Collet Adapter (as supplied with RK40/48) # R18-332	\$29.90
1/8"-1/16" Collet Adapter # R18-116	\$29.90
3/32" <b>Collet</b> #RCOL332-4501 or #RCOL332-PHP40 1/8"-3/32" <b>Collet Adapter</b> (as supplied with RK40/48) # R18-332	\$62.50 \$29.90



#### **Ultimate Portability: Mobile 1**

This is a truly portable micromotor. Its built-in rechargeable battery will provide up to 140 minutes of use. It can also be plugged in and used directly on 120-220V wall current. The handpiece has a 3/32" collet and is lightweight, comfortable and very smooth to use. There's even a soft pouch case that allows you to wear the unit over your neck or shoulder. Complete kit is supplied with a variable-speed power controller with forward and reverse, power cord/charger, 33,000RPM handpiece, foot control, handpiece cradle, soft pouch case and custom-fitted metal carrying case. One-year unconditional warranty covers everything except the batteries.

Mobile 1 Set w/ 3/32" collet # RKP33 \$449.95



Servicing what we sell: Should your Maxima, Grande or Mobile machines ever need servicing, we do it right here (including warranty claims!) - you'll get the same quick turnaround and guaranteed service you've come to expect from us. If you're more of a do-it-yourselfer, we can supply the parts and advice you need to perform some of your own repairs.

#### Low Price: Foredom 1070 Micromotor Kit

Great features and value in a lower-priced micromotor tool. Features speeds up to 38,000RPM with forward and reverse. Includes controller, handpiece with 3/32" collet, variable-speed foot control, handpiece cradle, collet wrenches, spare motor brushes and fuse. WIll operate on 120V or 220V current using the built-in selector switch. Optional on-off foot control available separately. 2-year limited Foredom warranty.

# FORK1070 **\$552.50** 

Additional accessories for the Foredom 1070:

On-off foot control # FORHP4-927 \$40.56 1/8" Collet # FORHP4-117B \$42.25



#### Superb Quality: NSK Power Carving Tools



Without a doubt some of the highest quality tools made come from NSK Japan. NSK tools feature lots of torque and incredibly smooth, vibration-free operation. They are built to outlast any other similar tool. Other features include quick-release bit change lever, easy to change collets and excellent constant speed control even at low RPM's. We have been using an NSK Electer in our shop since 1985 and have yet to find anything that can top its quality (although we are *very* impressed with our Maxima and Grande machines).

#### **NSK EVO**

The EVO features a digital controller that allows you to dial in the RPM's from 1,000 to 40,000. The digital control circuitry has touch-sensitive switches and the ability to change motor direction with one touch of a switch, even with the motor running at full speed! The motor (handpiece) also has an on-off switch built into it, so you can turn the motor on/off right at the handpiece. The controller will accept two handpieces (one is supplied with the unit). Supplied with 1/8" and 3/32" collets, one handpiece holder and a rubber handpiece cradle. 6-month NSK Warranty.

NSK EVO w/ one handpiece and 2 collets (1/8" and 3/32") # NSKEVO Please call for price\*

Replacement motor brushes for NSK motor (EVO, EMAX or GX) #NSKBRUSH
Replacement nose piece IH300 fits on EVO, GX or EMAX motor. # NSKIH300

Collet for GX, EMAX or EVO (choose from sizes below - special order approx. 2 weeks)

1/16" # NSKCOL16

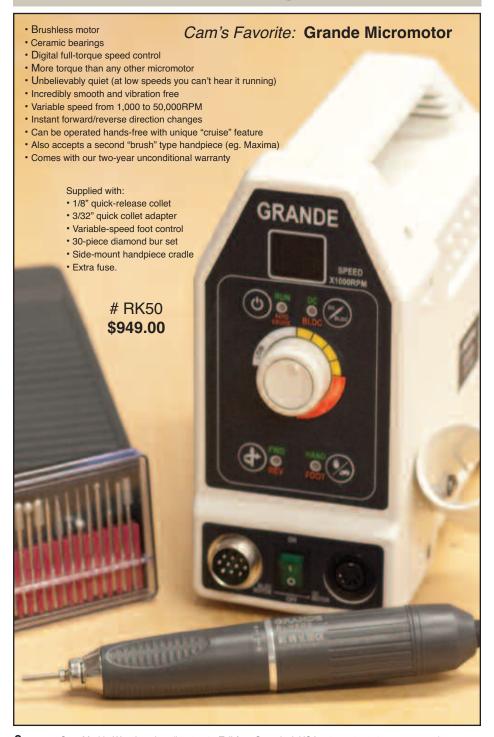
3/32" # NSKCOL32

1/8" # NSKCOL18

Please call for price\*

We stock many NSK bearings, dust seals and armatures, and we can service your NSK handpiece in-house. Other replacement parts for NSK products are available by special order. Call for pricing and delivery.

\*NSK does not allow dealers to advertise prices on their tools. Please call or email us for current pricing. We sincerely regret any inconvenience this may cause.



# **Handpiece Comparison**

All handpieces below are shown actual size to help you determine which one would best suit your needs. If you're still not sure, give us a call and we can work with you to determine your best choice.



If you are going to buy a flex-shaft tool, buy the best - Foredom. As a Foredom dealer and service depot, we can meet all of your power carving needs. We service what we sell. We also stock bearings and lots of other repair parts. If you don't see it here, give us a call - we would be happy to quote you on any Foredom product. (manufacturer's website: www.foredom.com)





### Foredom 1/3HP Woodcarving Kit Model 5400

For the carver who needs lots of power at various speed ranges. The 1/3HP TX motor is a powerful DC motor that provides smooth acceleration at speeds up to 15,000RPM, with high torque at all speeds (please note that TX motors do not have reverse). Supplied with a 1/3HP TX motor, standard shaft and sheath, foot control #SXR, #44T Handpiece with 3 collets (1/4",1/8", 3/32"), 47 piece accessory kit, 2 rotating bit holders, wrench and shaft grease. Accepts all standard Foredom handpieces. Free DVD included. 2-year warranty, CSA approved. # FOR5400 \$481.00



### Foredom Hang Up Chisel Carving Kit Model 2252

Ideally suited for chisel carving, this dream kit is smooth, quiet and powerful. The series LX motor is a high-torque, low RPM motor that offers more torque than you'll ever need, with a maximum speed of 5,000RPM. Included in the kit is a tabletop speed control for the LX motor, a model FOR50 chisel handpiece and 3 chisel sets with a total of 17 chisels. Also includes flex shaft grease and an accessory tray.

2-year warranty, CSA approved. # FOR2252 \$487.50



#### Foredom 1/6HP Industrial Kit Model SRH440

The SRH440 kit gives you the versatility of a reversing SR motor combined with extra-heavy industrial shaft strength. While the shaft is a bit stiffer than a standard Foredom shaft, it provides significantly more strength for heavy applications like stone and antler carving, or just for serious hogging-out in all types of wood. Includes motor, shaft, special #44HT handpiece, 3 collets (1/4", 1/8", 3/32"), foot control #SCT and a 10 pc. accessory kit. Will also accept #28HT and #30HT handpieces (see <a href="page 13">page 13</a>). Note: standard Foredom handpieces will not fit on this unit.

CSA approved, 2 year warranty. # FORSRH440 \$409.50



#### Foredom 1/3HP Industrial Kit Model TXH440

More powerful than any other flex shaft tool. Supplied with special handpiece #44HT, heavy-duty shaft and sheath, 3 collets (1/4", 1/8", 3/32"), foot control #SXR and a 10-piece accessory kit. 15,000RPM. This is a great tool for stone and antler carvers. *PLEASE NOTE:* TX motors *do not have reverse.* The TXH440 and SRH440 will only accept series HT handpieces (#28HT, #30HT and #44HT), as well as special square-drive shafts and sheaths. They are not interchangeable with regular Foredom accessories. Call if you are not sure which kit is best for your application. CSA approved, 2 year warranty. # FORTXH440 \$494.00



Accessories and Repair Parts					
	AC	Cessories ai	iu nepaii ra	1113	
Motor	Maintenance	Motor Brushes	Inner	Outer	Motor Sheath
Model	Kit	(per pair)	Shaft	Sheath	Connector
CC, DD, MM	FORMK9	FORMP119P		Standard Sheath	
(1/10HP)	\$28.54	\$14.30		FOR77	
R, RB	N/A	FORMP117P		\$22.04	
ח, חט	IN/A	\$14.30		\$22.04	
S, SR 1/8HP	FORMK8	FORMP2019P	FOR93	OR	FORUA111P
0, 011 1/0111	\$28.54	\$14.30	\$15.60	011	\$8.45
S, SR 1/6HP	FORMK10	FORMP132P		Neoprine Sheath	
0, 011 1/0111	\$28.54	\$14.30		FOR77N	
TX, LX	FORMK16	FORMP319P		\$23.40	
171, 1271	\$35.49	\$20.15			
TXH, SRH	N/A	FORMP319P	FOR10823	FOR10801TX	N/A
1741, 01111	1477	\$20.15	\$25.35	\$58.50	1471
H 1/4HP	N/A	FORMP2019P	FOR10805	FOR10802A	N/A
11 1/4111	14/7	\$14.30	\$24.05	\$58.50	14//\
All Shafts	All Shafts Shaft Lube (grease) 1 oz. tube #FORMS10006 \$6.37				
General Lube	Foredom Motor	and Handpiece Oil i	n small hypodermi	c dispenser #FOR	MS10005 \$6.83

Maintenance Kits: Include brushes, shaft, grease, instructions.

**Inner Shafts:** This is the part that is designed to break if the cutter suddenly stops - kind of a weak link to prevent motor damage. It's a good idea to always have a spare on hand.

Outer Sheaths: Standard sheaths (FOR77) are wire-wound - tough, but a bit less flexible. Neoprine sheaths (FOR77N) are somewhat more flexible. Any machine that will accept one will accept the other.

Motor Sheath Connector: The piece that connects the motor to the sheath. Note: attaches to the motor with a left-hand thread. Be sure to turn the connector "backwards" to a normal thread when removing and installing. Our in-stock selection of parts also includes switches, armatures, handpiece bearings, motor bearings, brushes, screws, springs, washers, field coils, bushings, oil wicks and more! We service handpieces and motors, from bearing replacement to complete rebuilds. We carry a good stock of Foredom repair parts and we can order most any part you need if we don't have it in stock.

### Foredom Handpieces (all shown actual size)

# 44

Foredom™ #44T or #44HT Handpiece Collet-type c/w 3/32", 1/8" & 1/4" (max) collets

Supplied with 1/4", 1/8" and 3/32" collets. Extra collets available (see below).

# FOR44T (fits most Foredom flex shafts i.e S, SR, TX, etc.) \$84.44

# FOR44HT (fits only Foredom Heavy-duty flex shafts i.e TXH440) \$88.34



Short version of 44T for use in tighter spaces. Supplied with 1/4", 1/8" and 3/32" collets. Extra collets available (see below). #FOR43T (fits most Foredom flex shafts) \$84.44

# 28

Foredom™ #28 or #28H Handpiece Collet-type c/w 3/32" & 1/8" (max) collets

Slim handpiece with tapered end. Supplied with 1/8" and 3/32" collets. Accepts bits up to 1/8".

# FOR28 (fits most Foredom flex shafts i.e S, SR, TX, etc.) \$84.44

# FOR28H (fits only Foredom Heavy-duty flex shafts i.e TXH440) \$88.34

#8

Foredom™ #8 Handpiece Collet-type c/w 3/32" & 1/8" (max) collets

Original slim handpiece with sliding guard. Supplied with 1/8" and 3/32" collets. # FOR8 (fits most Foredom flex shafts i.e S, SR, TX, etc.) \$84.44

Collets for #28, 28H or #8 handpiece: \$11.05 ea.

1/32" - #FOR601

1/16" - #FOR602

3/32" - #FOR603

1/8" - #FOR604

# 30

Foredom™ #30 or #30H Handpiece Chuck-type c/w key Max 5/32"

Chuck-type handpiece. Accepts cutters up to 5/32" (4mm) diameter. No collets needed. #FOR30 (fits most Foredom flex shafts i.e S, SR, TX, etc.) \$84.44 #FOR30H (fits only Foredom Heavy-duty flex shafts i.e TXH440) \$97.44

## Foredom™ Specialty Handpieces



See next page for individual chisels.

# Foredom™ Specialty Handpieces (cont.)



# Foredom™ 2" Angle-grinder Attachment



# **Accessories for 2" Angle Grinder**

Items contained in the kits below will fit the mandrel and hubs supplied with the grinder attachment. Extra hubs and mandrels are available for convenience, but it is not necessary to purchase extras when ordering a kit.



60-Pc. Wood Carving Kit # FORAK6903 \$103.94

- 1 2" Round Face Coarse Typhoon Disc,
- 1 2" CeramCut Blue Abrasive Wheel,
- 1 (pkg of 6) 2" Radial Bristle Discs, 80 grit.
- 5 2" Sanding Screens 1 ea: 60, 120, 240, 320, and 600 grit,
- 4 (pkgs of 5ea.) 2" Aluminum Oxide Sanding Discs: 60 grit, 80 grit, 120 grit, 220 grit,
- 1 (pkg of 25) 2" PSA Velcro Discs,
- 2 Disc Protector Pads



20-Pc. Stone Carving Kit # FORAK6901 \$102.64

- 1 2" Flexible Diamond Sanding Disc, 60 grit,
- 6 2" Diamond Microfinishing Sanding Disc, 1 each: 125 micron/120 grit,
  - 74 micron/220 grit, 45 micron/320 grit, 30 micron/400 grit, 20 micron/600 grit, 9 micron/1,200 grit,
- 1 2" Diamond Lapping Film Disc, 3 micron/4,000 grit
- 2 2" Cerium Oxide Trizact Polishing Discs
- 10 2" PSA Velcro Discs



**Typhoon Wheels** (mount with short hub) for rapid removal of wood, acrylic, plaster, hard rubber and fiberglass. All sizes and grits **\$50.64 ea.** 

Round Face Coarse # KB25628 Round Face Fine # KB25629 Flat Face Coarse # KB25626 Flat Face Fine # KB25627

2" PSA Velcro discs are required between 2" Disc Mandrel (page 15) and PSA Sanding discs. They insulate, prevent slippage and allow re-use of sanding discs.

Pkg/5 # FORA10041-5 **\$5.85** Pkg/25 # FORA10041-25 **\$20.80** 



2" PSA Ceramic Purple Sanding discs cut with less heat and loading than other discs. Use with most materials. Individually priced at \$1.82 per disc.

60 Grit # FORA5682 80 Grit # FORA5683 120 Grit # FORA5684 220 Grit # FORA5685

**Velcro Sanding Heads** vary the firmness of abrasive discs. Use with 2" PSA Velcro discs and PSA sanding discs. Mounts on Long Hub (included with grinder).

Extra-Firm 3/16" # FORA10043 \$14.30 Firm 5/16" # FORA10044 \$14.95 Medium 3/8" # FORA10045 \$15.60 Soft 5/8" # FORA10046 \$16.90

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Sanding Flap Wheels for fast clean-up work. Mounts with Short Hub (included with grinder).

\$3.25 each. 60 Grit # FORA2201 120 Grit # FORA2202 240 Grit # FORA2203

320 Grit # FORA2204 600 Grit # FORA2205 Pkg/5 Assorted (1 ea. grit) # FORAK2200 **\$13.65** 



1" & 2" Quick-Change Sanding Discs. Mount the quick-change arbor on the grinder for very quick disc changes.

10 discs per package.

1" \$5.20/pkg 2" \$7.80/pkg

1 45.20	Jipky 2 wi	.ou/pkg
Grit	1"	2"
60	FORA2241-10	FORA2261-10
120	FORA2242-10	FORA2262-10
240	FORA2243-10	FORA2263-10
320	FORA2244-10	FORA2264-10
600	FORA2245-10	FORA2265-10
2 ea. Asst	FORAK2240	FORAK2260



2" Radial Bristle discs (see page 37 for more detailed descriptions). Mount with either short or long hub. 6 discs per package. \$28.47/pkg

The second secon		0 .	
The state of the s	Grit	Colour	2"
	80	yellow	FORA4542-6
	120	white	FORA4543-6
	220	red	FORA4544-6
	400	blue	FORA4545-6
	Pumice(1200)	pink	FORA4546-6
	6-micron(3000)	peach	FORA4547-6
	1-Mic. (14000)	lt. green	FORA4548-6



Also available for Foredom Angle Grinder: Sanding Screens, Disc Holder Protector Pads (for sanding screens), Felt Wheels, and Cut-off Wheels. Call or visit our website for more details.

#### Belt Sander Attachment from Foredom®



All metal quality-machined aluminum belt sander attachment from Foredom (shown actual size below) has 3 permanently lubricated bearings. Hex key and 10 sandpaper belts (9/32"x10-1/8") included. Replacement belts available separately. Fits all #30 (chuck-style) Foredom handpieces. It's great for power sanding wood, metal, acrylic and composites quickly and easily. Use with # FORMAHH-30 handpiece holder for hands-free operation.







#### **Collet Adapters**

**# ADB16** Use 1/16" friction grip burs, forward or reverse, in 3/32" collet **\$18.15 ea.** This little adapter is amazing!



**# FORHPL4-3236** Similar to the 1/8-3/32" adapter (page 4), slightly less precision (not recommended for micromotors) **\$23.40 ea.** 

#### Speed Controls and Hangers for Foredom Flex-shaft machines

Variable-speed foot control as supplied in the 5240 kit -(page 10) fits all standard Foredom motors.\*

# FORECT1 \$50.70



Bench-top Speed control.
Plastic housing, red indicator lamp. Do your legs get sore from using the foot control for long periods? This is the answer! Also recommended for consistent speed control when using a power chisel

handpiece. Fits all standard Foredom motors.\* # FOREM1 \$94.90

Also available (in stock) for use with TX, TXH, LX and LXH Motors # FOREMX \$123.50

Heavy duty metal variablespeed foot control

as supplied in the 5200 kit (page 10) - fits all standard Foredom motors\*.

# FORSCT1 \$94.90 To fit TX, TXH, LX and LXH Motors # FORSXR1 \$115.70

\*Standard Foredom motors are series CC, S, and SR motors, including both 1/8HP and 1/6HP SR's.



#### **Foredom Motor Hanger:**

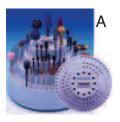
Clamped to your bench to hang your motor(s) securely. New design can hold one or two motors. Supplied with handpiece holder and accessory tray. A heavy-duty, very well-made hanger. # FORMH1 \$64.94 (Foredom tools not included)

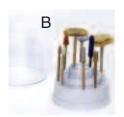
#### We are your authorized Foredom™ Service Depot!

If you are a do-it-yourselfer, we can supply many Foredom parts for you from stock. If you don't see it listed, give us a call. Parts listed (page 12) are only a sampling of some commonly requested parts. If you're not sure about doing repairs yourself, just send us your machine and we'll do it for you quickly and at a reasonable cost.

### **Power Carving - Bur Holders**

Organize your burs quickly and easily with one of these useful holders. From the large carousel to a small covered portable holder, each holder is well-made and very convenient. (Burs not included)







- A. Large rotating stand. 7"dia x 4"H. Holds 69-3/32" or 1/8" burs; 12-1/4" burs; 45-1/16" burs. # FOR10080 \$22.04
- B. Round covered holder. 2.5" dia x 2.5"H. 24 holes each 3/32" and 1/8". Max. 2" bur length. #FOR10088 \$5.14
- C. Sq. covered holder. 2.5"sq. x 2.25"H. Holds 34-3/32" burs; 18-1/8" burs. Max. 2" burs. #FOR10089 \$6.44
- 18

# **Power Carving Tools - Air Turbines**

#### **Ultra-High Speed Air Turbines**

One of Cam's favorite tools for detail and habitat work is an Ultra-high speed (UHS) turbine. We carry UHS tools from Turbo carver<sup>TM</sup> and NSK. All of these tools will spin 1/16" dental burs (often called "FG" or frictiongrip burs) at speeds between 320,000RPM and 400,000RPM (there is virtually no difference in cutting ability anywhere within this range). At these speeds, you can carve almost any material - including wood, most metals, glass, antler, bone, even stone and eggshell! See page 21 for selection of available burs.



Turbo carver™ is the smallest UHS tool we sell. The USA-made, 400,000RPM Turbocarver™ is an ideal entry-level/hobby grade tool that is small, lube-free, dependable, comfortable and economical. Should servicing be required, it will be necessary to send the unit back to the US manufacturer. Available with or without water spray option.



Kit# 1



Turbo Carver™ Kit #1. Everything you need except a compressor. Turbo carver™ with handpiece, air foot control, carbide and diamond bur, 5 micron air filter, pressure gauge, stencil, brush, face mask and instructional DVD. # TC2 \$383.50

Turbo Carver™ Kit #2. Water-spray kit. Includes everything in Kit #1; instead of the standard handpiece, includes a water-spray (WS) handpiece\* and reservoir. The WS handpiece sprays a fine water mist on the work surface, eliminating dust and cooling the bit. Can be used with or without mist. Great for working with hard materials like eggshell and antler. #TC2WS \$519.95

#### Parts and Accessories:

Handpiece (repl.) # TC550 \$246.95
5 Mic. Air Filter # TC-AF400 \$16.60
Pressure gauge # TC-AG400 \$35.00
Foot Control # TC-FC400 \$67.60
Router/Milling attachment # TCMILL \$33.75

\*Note: the water spray option is best purchased with a new handpiece (as opposed to adding it later). To add it later the handpiece must be sent to the USA. Conversion cost would be approx. \$150.00US plus shipping + 4 weeks.



FAQ: Will a UHS tool replace any of my other tools? Will it make them obsolete?

A). No. A UHS tool will compliment the tools you are currently using - it won't replace them. UHS tools are meant for very fine, precise detail work. For most carvers wishing to use power tools, this would be the third power tool purchase. First choice would be a flex-shaft tool (Foredom™) for bulk removal, rough-out work and sanding of large areas. Second would be a micromotor for smaller carved detail, texturing, and fine sanding. The UHS tool is unmatched for fine detail work, but it will not work for bulk carving or sanding.

FAQ: Can I use a UHS handpiece instead of a micromotor tool?

A). No. UHS handpieces complement your other tools. They accept only 1/16" shank burs and while they have great speed, they don't have much torque. They are mainly designed for very fine, delicate detail work. For most carvers we recommend a flex-shaft tool first, then a micromotor and then a UHS handpiece. If you aren't sure, give us a call!

# **Power Carving Tools - Air Turbines**

#### **NSK Presto II**

This is the top-of-the-line; as good as it gets in UHS tools. Typical of NSK tools, the Japanese-made, 320,000RPM Presto is lube-free, silky smooth, and very comfortable (it's also the quietest we've tested). Features an easy, twist bit release. The turbine is user-replaceable and kept in stock.



Presto Kit. Everything you need except a compressor. Includes handpiece, control unit (pressure regulator and gauge, air filter, moisture trap, handpiece stand), foot controller, bur push-in tool, wrench, tubing, and 1/4" NPT air connector. # NSKPRESTO2 Please call for price\*

Presto Handpiece only. # NSKPRESTO1 Please call for price\* Turbine Cartridge NSK Presto (does not fit Aqua) # NSKPR03 Please call for price\*

\*NSK does not allow dealers to advertise prices on their tools. Please call or email us for current pricing. We sincerely regret any inconvenience this may cause.

#### Compressor for UHS tools

This is a superb little compressor for any of the UHS tools we sell. It's small (14"x10"x8"), quiet (59db or around the loudness of an electric toothbrush), portable yet substantial (24lbs), and powerful enough (2.8CFM) to run your UHS tool for hours of continuous use. You can also use it with an airbrush if you wish. Comes complete with foot control and all hoses etc. needed to hook up a TurboCarver tool (other tools should hook up directly but may require an extra fitting). Lube-free with virtually no maintenance needed.

#TCCOMP \$449.95

# **Power Carving - Air Turbine Burs**

#### **Burs For Ultra-High Speed Air Turbines**

We have a full selection of high-quality FG (FG stands for "friction-grip") 1/16" shank burs to fit your ultrahigh speed air turbine. Carbide burs are used on all "softer" materials like wood, most metals, eggshell and soft stones (soapstone). Single-cut carbide burs leave a smooth cut, while cross-cut burs cut cooler and more quickly, but they leave fine ridges. **Diamonds** are essential for hard materials (like stone and glass): they will also work on softer materials (like wood). Stone burs are great for texturing and smoothing softer materials as well as pre-polishing in hard materials. Rubber polishers give a fine finish in most metals, but they must be used at reduced speeds or they will disintegrate. All burs (except rubber polishers) are rated for use in UHS handpieces up to 450,000RPM. All burs are shown actual size.

#### 1/16" Shank ("FG") Carbide Burs (Shown actual size)

Carbide Balls For shaping and texturing in wood, Carbide Needles and Sharp Tapers are ideal for and engraving metal. Good for bulk reduction. extremely fine cutting and engraving in most materials. 0.5mm head dia. # FG1.005 \$3.90 1.2mm head dia. # FG1.012 \$3.90 1.2mm long-shank # FG1.012L \$7.55 2.3mm head dia. # FG1.023 \$3.90

The point on these cutters is extremely sharp and prone to breaking if too much pressure is used. Sharp Taper # FG7611 \$11.30 Needle Point # FG48L.012 \$13.95 Sm. Needle Point # FG48.009 \$11.70

# **Power Carving - Air Turbine Burs**

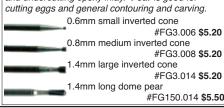
#### 1/16" Shank ("FG") Carbide Burs (Shown actual size)

Carbide Fissure Burs For outlining relief carvings, inlay, and bulk reduction in softer materials and for high-definition engraving in metal.



#### Carbide Inverted Cones and Pears

Cones are great for bright line engraving in metal and undercutting epoxy inlay. Pear is good for cutting eggs and general contouring and carving.



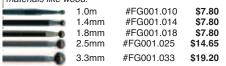
All of the burs shown on this page and the previous page can be used with a micromotor or Foredom tool in a 1/8" collet with adapter #R18-116, or in a 3/32" collet with adapter # ADB16 (see bottom of page).

#### 1/16" Shank ("FG") Diamond Burs (Shown actual size)

Diamond Footballs and Flames are used for contouring and fine shaping in wood and eggshells. Also used for carving hard materials like rock and glass, and for simulating sandblasting effects.



Round Diamond Burs for engraving and stippling on glass and stone, and to shape and contour softer materials like wood.



Diamond Wheels for grooves and sectioning.

| 2.3mm Knife-edge #FG023 \$26.00 |
| 3.5mm Wheel #FG035 \$26.00 |
| 5.0mm Wheel #FG050 \$26.00

Diamond Inverted Cone for undercutting and general reduction in most materials.

1.4mm inverted cone

#FG225.014 **\$7.80** 

Single-Point Diamond for extra-fine engraving on any surface. Single diamond point on tip does a superb job. A very unique and effective bur.

Single-Point #FGSP1 \$41.90

#### 1/16" Shank ("FG") Stones and Polishers (Shown actual size)

Stones for texturing. Used in much the same way as stones in a micromotor tool, but considerably more efficient at super-high speeds. White stones are finer and cut slower than green stones.



Rubber Polishers Are used for polishing metals. Can also be used on glass and stone. Reduced RPM's recommended.



1/16" "FG" Burs can also be used on your micromotor or Foredom tool with the adapters shown below. 1/16" collets are also available for some micromotor and Foredom handpieces. They cut a bit slower at speeds up to 50,000 but still perform well.

#### 1/16" Adapters





# ADB16 3/32" to 1/16" Adapter \$18.15

### **Power Carving - Cutters**

About the different types of cutters.....

There are so many cutters made today that it's hard to know which ones to use. We've "whittled" down from a selection of thousands to those shown here (just one of our many suppliers has over 1,200 different cutters to choose from!) All of the cutters we sell represent excellent value and long life if used properly. All cutters are first grade, true running, and have proven particularly useful for woodcarvers. They fall into two broad categories: Abrasive cutters and Sharp cutters.

**Abrasive Cutters** remove material by grinding it off in small particles (dust or small chips). Generally easy to control, they cut equally well in forward or reverse. Coarser abrasive cutters like the Typhoon burs on pages 29 & 30 can remove wood very quickly. Finer abrasive cutters like Ruby carvers on pages 24 & 25 cut slower but leave a smooth finish. Very fine abrasives include stones like those on pages 35 & 36 as well as sanders (pages 22 & 23). For most woodcarving, abrasive cutters are more commonly used than sharp cutters.

Sharp Cutters generally give a fast cut with a smooth finish. However, there are trade-offs. Most sharp cutters don't cut in reverse, making them awkward when it's necessary to carve against the grain. Sharp cutters may be harder to control and may have a tendency to grab into and run along the work being carved. Larger sharp cutters can be more dangerous when not used carefully as they will cut skin and bone more readily than the abrasives. I always wear a leather glove on my holding hand when using larger sharp cutters. Some sharp cutters are available in finer and coarser types, with the coarser ones cutting faster but having more tendency to dig and run. Finer sharp cutters work well for hard woods, most metals and soapstone while coarser ones work best on softer woods and aluminum. Sharp cutters are made from several different materials. Steel is the least expensive but quickest to dull. Carbide is more expensive to buy but lasts many times longer than steel. Carbide can also be used to cut many metals. My favorite sharp cutters are the solid carbide stump burs on page 26. Still have questions? Give us a call!

#### **Ceramic Sanding Bands**

3M's patented Cubitron™ ceramic aluminum oxide mineral sharpens itself with use, for an abrasive band that lasts 2 to 4 times longer than traditional bands. They provide faster stock removal with less heating and loading. Available in packs of 10 bands: 60, 80, 120, or 220 grit.



1/4x1/2" Bands (package of 10) \$5.07/pkg. 60 GRIT #FOR4912-10 80 GRIT #FOR4913-10 120 GRIT#FOR4914-10 220 GRIT#FOR4916-10 1/4x1/2" Mandrel; 3/32" shank # MSD324 \$6.50 1/4x1/2" Mandrel: 1/8" shank # MSD184 \$6.50 Actual size

1/2x1/2" Bands (package of 10) \$6.83/pkg.
60 GRIT # FOR4922-10 80 GRIT # FOR4923-10
120 GRIT# FOR4924-10 220 GRIT# FOR4926-10
1/2x1/2" Mandrel: 3/32" shank # MSD328 \$6.50

1/2x1/2" Mandrel: 1/8" shank # MSD188 \$6.50

Hint: When using sanding bands, they usually work better if you mount the band so that it extends out over the screw (as shown at right). Also works with Dura-GRIT™ drums (p. 28)

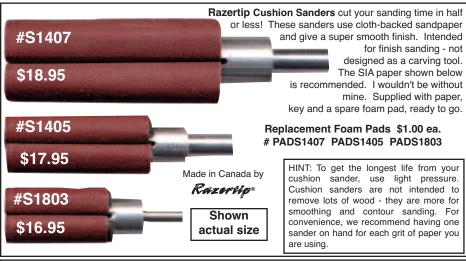


#### **Sanding Cones**

You'll wonder how you ever did without these handy miniature sanding mandrels and cones. They're quick, convenient and economical. Best of all, they do an incredible job of fine sanding and blending in those hard-to-reach areas that carvers encounter regularly. Available in two sizes and three grits. The large cones fit on a split tapered mandrel (#M20 below or # M22 on page 23). The small cones fit on a threaded mandrel #M100 or M7(page 23). They are all quick and easy to change, and the wrapped-paper design exposes new grit as the cones wear down. Must be used at speeds under 10,000 RPM for longer life and more control. Sold in packages of 10 per size/grit. Cones and mandrels shown actual size.



# **Power Carving - Sanders & Mandrels**

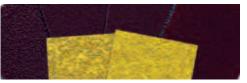


#### Swiss Sandpaper

Swiss Burgundy Sandpaper. Probably the best sandpaper made. Cloth-backed, very flexible, with very sharp grit that stays on the backing. Great for hand sanding or for use on the cushion sanders above. Also works very well when wrapped around a tapered or split mandrel (below). An exceptional product! Supplied in 4" rolls. \$4.35/yd all grits.

# SIA80 80 grit (fairly coarse)

# SIA220 220 grit (medium/fine)



# SIA120 120 grit (medium)

# SIA320 320 grit (fine)

substantial amounts of wood when used on our cushion sanders. Longer lasting and faster cutting than other

# SIA400 400 grit (very fine) # SIA600 600 grit (super fine) Swiss Yellow Sandpaper. Fairly stiff paper back and sharp grit. Great for making sanding sticks. Will remove sandpapers. 4" wide. #SIA1960.80 80 grit (very coarse) #SIA1960.120 120 grit (coarse) \$2.15/yd all grits. High quality mandrels can be used for many different operations. You can mount buffing or cut-off wheels, sanding pads, discs, de-fuzzing wheels and more. (See page 37 for "Ultra- Brite" de-fuzzing material). All Mandrels shown actual size. 3/32" shank screw head for discs and wheels. # M1 \$3.58 ea. 3/32" short shank screw head for discs and wheels. # M10 \$3.58 ea. 3/32" shank screw head for discs and wheels. # M2 \$3.58 ea. 1/8" shank screw head for discs and wheels. # M6 \$3.58 ea. 3/32" Large screw head for discs and wheels. Suitable for 1" Bristle Disks and large-hole disks # M13 \$3.58 ea. 1/8" shank tapered thread for felt buffs & small sanding cones (page 22). # M7 \$3.84 ea. Also available in 3/32" shank. # M100 \$5.95 ea. 3/32" shank split madrel for flap sanding - use Swiss paper (above) wrapped and secured with a small o-ring or small rubber band. # M21 \$3.84 ea. 3/32" shank tapered split madrel for sanding - use Swiss burgundy paper (above). Supplied with a template for a very effective soft sanding cone. Also holds large sanding cones (page 22). # M22 \$3.84 ea. Japanese-made tapered split mandrel (higher quality; photo on page 22) # M20 \$5.95 ea.

### Power Cutters - Ruby, Sapphire, Diamond

These cutters are coated with tiny particles of Ruby, Sapphire or Diamond. They can be used to carve, grind, texture or smooth. They are durable, long lasting, precise and easy to control. All have 3/32" shanks. **RUBY CARVERS** are the most economical and the most popular. Available in 3 grades: Standard, Rubynit (coarse), and Super-coarse. All are good for wood and many plastics.

SAPPHIRE CARVERS - coarse grade; longer lasting than rubies.

**DIAMOND CARVERS** are the most durable, lasting up to 5 times as long as rubies. They can be used on wood, some plastics, many metals and soft stones (ie Soapstone). They will also carve glass. Fairly fine grit.

Shape	Standard Ruby	Super Coarse Ruby	Standard Diamond	Shape	Standard Ruby	Super Coarse Ruby	Standard Diamond
-0	RUBY15 <b>\$12.95</b>	RUBYX15 <b>\$18.50</b>	D15 <b>\$19.20</b>		RUBY24 <b>\$14.25</b>	RUBYX24 <b>\$19.45</b>	D24 <b>\$24.65</b>
-	RUBY16 <b>\$12.95</b>	RUBYX16 <b>\$18.50</b>	D16 <b>\$19.20</b>		RUBY25	RUBYX25	D25
	RUBY17 <b>\$12.95</b>	RUBYX17 <b>\$18.50</b>	D17 <b>\$19.20</b>		<b>\$14.25</b> RUBY26	<b>\$19.45</b> RUBYX26	<b>\$24.65</b> D26
	RUBY18 <b>\$12.95</b>	RUBYX18 <b>\$18.50</b>	D18 <b>\$19.20</b>		\$14.25	\$19.45	\$24.65
	RUBY19 <b>\$12.95</b>	RUBYX19 <b>\$18.50</b>	D19 <b>\$19.20</b>		RUBY27 <b>\$14.25</b>	RUBYX27 <b>\$19.45</b>	D27 <b>\$24.65</b>
	RUBY20 <b>\$12.95</b>	RUBYX20 <b>\$18.50</b>	D20 <b>\$19.20</b>		RUBY29 <b>\$19.45</b>	RUBYX29 <b>\$27.30</b>	D29 <b>\$27.30</b>
0	RUBY21 <b>\$14.25</b>	RUBYX21 <b>\$19.45</b>	D21 <b>\$24.65</b>		RUBY30 <b>\$19.45</b>	RUBYX30 <b>\$27.30</b>	D30 <b>\$27.30</b>
	RUBY22 <b>\$14.25</b>	RUBYX22 <b>\$19.45</b>	D22 <b>\$24.65</b>		RUBY31		
	RUBY23 <b>\$14.25</b>	RUBYX23 <b>\$19.45</b>	D23 <b>\$24.65</b>		\$19.45	N/A	N/A

#### All Burs Shown Actual Size

Shape	Rubynit Coarse	Sapphire Coarse	Standard Diamond	Shape	Rubynit Coarse	Sapphire Coarse	Standard Diamond
	RUBYC11 <b>\$14.25</b>	SAP101 <b>\$20.15</b>	N/A		RUBYC31 <b>\$14.25</b>	SAP301 <b>\$16.85</b>	D601 <b>\$28.50</b>
	RUBYC12 <b>\$14.25</b>	SAP102 <b>\$20.15</b>	N/A		RUBYC32 <b>\$14.25</b>	SAP302 <b>\$16.85</b>	D602 <b>\$28.50</b>
Marin Street W.	RUBYC13 <b>\$14.25</b>	SAP103 <b>\$20.15</b>	D503 <b>\$31.15</b>		RUBYC33 <b>\$14.25</b>	SAP303 <b>\$16.85</b>	D603 <b>\$28.50</b>
	RUBYC14 <b>\$14.25</b>	SAP104 <b>\$20.15</b>	D504 <b>\$31.15</b>		RUBYC34 <b>\$14.25</b>	SAP304 <b>\$16.85</b>	D604 <b>\$28.50</b>
	RUBYC15 <b>\$14.25</b>	SAP105 <b>\$20.15</b>	D505 <b>\$31.15</b>		RUBYC35 <b>\$14.25</b>	SAP305 <b>\$16.85</b>	D605 <b>\$28.50</b>
	RUBYC16 <b>\$14.25</b>	SAP106 <b>\$20.15</b>	D506 <b>\$31.15</b>		RUBYC36 <b>\$14.25</b>	SAP306 <b>\$16.85</b>	D606 <b>\$28.50</b>

**Double-ended Pin Vise.** Pin vises act as a handle for your small burs, allowing you to use them as sanding or filing tools. Great for precise sanding and burnishing. This one comes with collets to accept 1/32", 1/16", 3/32", and 1/8" shanks (bits not included). Shown actual size.

Double-ended pin vise # GC58240 \$11.95



### Power Cutters - Ruby, Sapphire, Diamond

**Diamond Burs.** High quality diamond points with 3/32" shanks made for the dental industry. Very sharp grit, easy to control and made to last. "Safe-end" diamonds D22SE and D40SE have no grit on the ends. Perfect for layering feathers! **All Burs Shown Actual Size**.

	1.8mm ball	D001018	\$11.50		3.1mm Round Taper	HP199031	\$27.30
	2.9mm ball	D001029	\$12.95		4mm Football	D295040	\$19.45
	0.7mm Very Fine Point	HP539007	\$11.50		6mm Pear	D263060	\$19.45
	1.2mm Fine Point	HP247012	\$11.50	- 2000 to 1	5.1mm	D130051	\$19.45
	1.2mm Long Point	HP250012	\$14.25	***************************************	Cylinder 3.3mm Wheel	D304033	\$24.50
The same of	1.8mm Long Point	D250018	\$19.45		5.0mm Wheel	D304050	\$16.85
-	1mm Slender Point	HP249010	\$12.95	T	6.3mm Wheel	D304063	\$24.50
201001	1.4mm Point	HP249014	\$12.95	-	9.7mm Wheel	D304097	\$31.15
	1.6mm Point	D249016	\$15.50	-	1.6cm Wheel	HP340160	\$23.25
-	2.6mm Point	D22026	\$10.34	Safe-end Diam	onds (below) ha	ave no grit on	the end
- 11	2.3mm Taper Point	D166023	\$16.85		2.2mm Safe-end	D22SE	\$25.95
Henne	1.8mm Round Taper	HP199018	\$13.65	ALL STATES	4.0mm Safe-end	D40SE	\$25.95

#### Value-priced 30 Piece Diamond Set # DS301 \$16.50

30 piece diamond set with 3/32" shanks is great for all-around use. Lots of useful shapes for almost any type of carving and texturing. Fine grit diamonds give a controlled cut and a fairly smooth surface. High-tolerance shanks are safe to use with micromotor tools (will not damage collet). Superb value at only 55 cents per diamond! Sorry, they are not available individually.



#### Cleaners for Diamonds and Rubies:

"Wetstick" cleaning stone - used wet to clean diamonds. Restores diamond cutters to like-new condition. To use, soak in water for a minute or two, then run a spinning diamond into the wet stone until the diamond is clean. Not for use with rubies or sapphires. #WETSTICK \$4.55

**Diamond cleaning block** - used dry to clean diamonds. Simply push a spinning diamond cutter into the block to remove most debris quickly. Long-lasting. Not for use with rubies or sapphires. # DICLEAN \$25.95

Crepe block - cleans rubies, sapphires, texturing stones and sanding drums/belts. This handy little crepe block will fit into your toolbox and will last most carvers a lifetime. Used dry, you simply run your abrasive cutter into this block until the buildup in your cutter is removed. Not recommended for cleaning diamonds. # CLN \$2.00

Single-ended Pin Vise. Has a clever universal collet that will accept both 3/32" and 1/8" burs. Very comfortable and practical (bit not included). Shown actual size. Single-end vise # GC58282 \$21.15



# **Power Carving - Cutters**

### HS Steel Stump Burs (3/32" Shank) All Shown Actual Size

	HP218050	Coarse
	<b>\$9.95</b> F212050	5.0mm Bud Fine
	\$14.25	5.0mm Bud
	HP218060	Coarse
- Marie	\$11.65	6.0mm Bud
	F212060	Fine
	\$14.25	6.0mm Bud
	HP218070	Coarse
AND LABOR.	\$11.65	7.0mm Bud
	F212070	Fine
	\$15.50	7.0mm Bud
4	HP218080	Coarse
	\$12.80	8.0mm Bud
	F212080	Fine
	\$15.50	8.0mm Bud
	C215050	Coarse
	\$11.65	5.0mm Flame
CONTROL OF THE PARTY OF THE PAR	F215050	Fine
	\$14.25	5.0mm Flame
	C215060	Coarse
1000	\$11.65	6.0mm Flame
	F215060 <b>\$14.25</b>	Fine 6.0mm Flame
	C215070 <b>\$12.95</b>	Coarse 7.0mm Flame
1)))((1)	,	
	F215070	Fine
	\$19.65	7.0mm Flame
	C215080	Coarse
	\$12.95	8.0mm Flame
The second second	HP217050	Coarse 5.0mm
-	\$9.95	Inverted Pear
THE PERSON NAMED IN	HP217060	Coarse 6.0mm
-	\$11.65	Inverted Pear
- Continue	HP217070	Coarse 7.0mm
DESCRIPTION OF THE PARTY OF THE	\$11.65	Inverted Pear

3/32" Solid Carbide Stump Burs	3/32"	Solid	Carbide	Stump	<b>Burs</b>
--------------------------------	-------	-------	---------	-------	-------------

Similar to the HS steel stump burs above, but more aggressive, smoother-cutting and much, much longer lasting. They are worth every penny, especially if you carve hard woods. Cam's favorite.

	HP424GS.040 <b>\$43.50</b>	Coarse Carbide 4.0mm Bud
	HP424GS.060 <b>\$43.50</b>	Coarse Carbide 6.0mm Bud
The same of the sa	HP429MS.040 <b>\$43.50</b>	Fine Carbide 4.0mm Long Bud
	HP433MS.023 <b>\$43.50</b>	Fine Carbide 2.3mm Taper

	HP219050 <b>\$9.95</b>	Coarse 5.0mm Ball
	F217050 <b>\$14.25</b>	Fine 5.0mm Ball
	HP219060 <b>\$11.65</b>	Coarse 6.0mm Ball
	HP219070 <b>\$11.65</b>	Coarse 7.0mm Ball
	HP219080 <b>\$12.80</b>	Coarse 8.0mm Ball
	HP84040 <b>\$11.65</b>	Coarse 4.0mm Oval
	HP84050 <b>\$11.65</b>	Coarse 5.0mm Oval
	HP84070 <b>\$11.65</b>	Coarse 7.0mm Oval
H	HP135RS.100 <b>\$32.25</b> Very long-life	Surgical Stainless Coarse 10mm Sq. Cylinder
	HP216040 <b>\$9.95</b>	Coarse 4.0mm Cylinder
	HP216050 <b>\$9.95</b>	Coarse 5.0mm Cylinder
	HP216060 <b>\$9.95</b>	Coarse 6.0mm Cylinder
	HP216070 <b>\$11.65</b>	Coarse 7.0mm Cylinder
	HP216080 <b>\$12.80</b>	Coarse 8.0mm Cylinder

### 3/32" Eye Drills

By popular request - we are now carrying these useful burs that allow you to precisely locate and drill eye holes from 3mm to 8mm. Easy to use and very effective! All shown actual size.

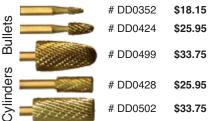
HP413-030	3mm <b>\$6.95</b>
HP413-040	4mm <b>\$8.75</b>
HP413-050	5mm <b>\$8.75</b>
HP413-060	6mm <b>\$9.95</b>
HP413-070	7mm <b>\$9.95</b>
HP413-080	8mm <b>\$11.85</b>
	HP413-040 HP413-050 HP413-060 HP413-070

Set of all 6 Eye Drills # EYEDRILLSET6 \$46.75

### **Power Carving - Sharp Cutters**

Goldies™ (3/32" Shank) Sharp, high-speed steel cutters coated with titanium nitride assure fast, clean, cool cutting. Easy to control and long-lasting. Excellent on soft and hard wood as well as brass and other softer metals. They are a perfect cutter for your micromotor tool and will give years of service.





Assorted Cutters. Great for all kinds of cutting from inlay work to fine detail. Dental quality burs are long-lasting and reasonably priced. 425SG is very aggressive while leaving a smooth finish. FOR1C and TP1C are not guite as aggressive. They are great for most metals including brass. Will fit in all small rotary tools (micromotor, Dremel, etc). Solid Carbide burs will last most carvers a lifetime when used for carving wood or soft metals.

Solid Carbide Cutters (3/32" Shank)			
-	1.4mm Round Flame	HP44E014	\$12.35
	6mm Bud	HP425SG	\$33.50
Solid Carbide Cutters (1/8" Shank)			
	3mm Flame	FORF1C	\$14.24
	3mm Tree-point	TP1C	\$13.33
	6mm Cross-cut Bud	HPL425	\$43.55

### Steel Carving Drills

High-temper steel carving drills are designed for internal carving of plastic and wood, as well as general drilling in soft materials. Very useful and very sharp.

Max. 25,000 RPM.

# CD1 1/16" diameter # CD2 3/32" diameter

# CD3 1/8" diameter

\$16.84 ea.

Shown Actual Size

Actual size illustrations: Did you know that every cutter, burner tip and paint brush, along with many other products in this catalogue, is shown at its exact size? You can order with confidence and no surprises when you receive your order.

High-speed Steel Cutters (3/32" Shank)			
	1mm Needle	HP207101	\$9.95
	1mm Pointed Cone	HP39010	\$4.55
-	2.1mm Pointed Cone	HP39021	\$4.55
	.7mm Square Cone	HP38007	\$4.55
	.9mm Inlay Bur	HP100A009	\$5.50
	2.3mm Square Cone	HP38023	\$4.55
No.	2.3mm Sq. Cylinder	HP34023	\$4.55
	1.8mm Round Taper	HP215018	\$7.75
	4.5mm Long Bud	HP79045	\$7.15
	7mm Ball Single-cut	HP196070	\$10.35
	7mm Mini Circular Saw	HP45040	\$7.75
	14mm Knife-edge	HP161KE-140	\$29.85

#### Vanadium Steel Engraving Burs

Useful for fine detail work on wood or soft metals. 3/32" shanks. Excellent value. Set of All 5 Burs (below) # KIT65 \$9.43

Also available individually as shown below \$2.28 ea.

	Small Ball	BUR-R2
	Medium Ball	BUR-R5
	Large Ball	BUR-R7
	Small inv. Cone	BUR-P3
-	Large Inv. Cone	BUR-P7

# Power Carving (Dura-GRIT (Shown Actual Size)

#### Dura-GRIT™ Tungsten-Carbide Abrasive Cutters (all have 1/8" Shank)

Tough cutters for tough jobs. Quite aggressive - we rate them between a Ruby Carver and a Typhoon™ bur-yet they leave quite a smooth finish. They are very controllable and they last and last. Grit will not tear loose and the edges stay sharp. Most Dura-GRIT cutters are available in your choice of several grits.



#### Screw-tip Burs (60 grit coarse or 80 grit medium)

Heads are screwed to the 1/8" shanks. Screwtip burs are best used in the "forward" direction. If you want to use "reverse", we recommend locking the threads with a drop of thin CA glue (page 41). \$18.75 ea. (except HT2)



Aspirin-tip Cylinder 60 grit # SR-ATB-060 80 grit # SR-ATB-080







Round-end Cylinder 60 grit # SR-REB-060 80 grit # SR-REB-080



Ball-end (sphere) 60 grit # SR-BEB-060 80 grit # SR-BEB-080





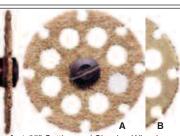
Hollow-tip Cylinder 1/2" 60 grit # SR-HT2-060 80 grit # SR-HT2-080 \$19.95 ea.



1.25" Mushroom Shaping Wheel Coarse 046 grit # SR-MSW-046 Medium 060 grit # SR-MSW-160 Fine 120 grit # SR-MSW-120



1" Cutting Wheel Medium 80 grit # SR-CW1-080 Fine 120 grit # SR-CW1-120 \$22.50 ea.



A. 1.25" Cutting and Shaping Wheel (grit covers face of cutter)

# SR-CS4-060 \$22.50 ea.

B. 1.25" Cutting wheel (grit only on edge)

# SR-CW4-060 \$21.25 ea.

Detail Sets include:

1/16" Cylinder (SR-SB6-\*) Inverted Cone (SR-IVC-\*) 1/16" Sphere (SR-SP6-\*) Grain of Wheat (SR-GOW-\*) PIA Flame (SR-PIA-\*) 3/16" Cutting Wheel (SR-CW2-\*) 3/8" Cutting Wheel (SR-CW3-\*)

\*Fine (240 grit) # SR-BLU-007F \*Medium (120 grit) # SR-BLU-007M \*Coarse (80 grit) # SR-BLU-007C

Value \$117.45 only \$97.50

Woodcarving Set includes: Cone Bur (SR-CTB-080) Aspirin-tip Bur (SR-ATB-080) Flat-head Bur (SR-FHB-080) Rounded-end Bur (SR-BEB-080) Ball-end Bur (SR-BEB-080) Hollow-tip Bur (SR-HTB-080)

Value \$119.70 only **\$99.75** 

DIY Woodworking Set includes: Mushroom Wheel (SR-MSW-060) Hollow-tip Cylinder (SR-HT2-080) Pointed Detail Bur (SR-PB8-080) Cutting Wheel (SR-CW4-060) #SR-YEL-004

#5K-YEL-004

Value \$79.95 only \$67.95

#### 1/4" Typhoon™ Carbide Burs All Cutters shown actual size Long Taper 5/16"x 1-1/2" Sanding Sleeve Fine # KB14115 15/16"x 1" (3/4"ID) Coarse # KB14114 Mounted on \$26.65 rubber mandrel. Ball-Nose 5/16"x 1-3/4" # KB43545 Coarse \$26.65 \$38.35 Fine ##KB14715 Coarse # KB14714 15° Taper 13/16"x 1-3/8" Ball-Nose # KB14179 Fine 13/16"x 1-1/4" # KB14178 Coarse # KB14735 Fine \$28.60 # KB14734 Coarse \$28.60 15° Taper 9/16"x 1" # KB14159 Fine Ball-Nose 9/16"x 3/4" # KB14158 Coarse # KB14713 Fine \$26.65 # KB14712 Coarse \$26.65 5° Taper 1 3/16"x 1-1/4" Flame 7/8"x 1-3/8" # KB14198 Coarse # KB14979 Fine Smooth-End # KB14978 Coarse \$28.60 \$30.55 Cylinder Flame 5/8"x 1-1/16" 13/16"x 1-1/4" # KB14958 Coarse # KB14535 Fine \$28.60 # KB14534 Coarse \$28.60 Flame 3/8"x 3/4" # KB14913 Fine Cvlinder # KB14912 Coarse 13/16"x 1-1/4" \$25.35 # KB14533 Fine Smooth-End\* Sphere 15/16" \$26.65 # KB14395 Coarse \$35.75 Cylinder 9/16"x 3/4" # KB14522 Coarse Smooth-End\* \$26.65 Sphere 9/16" # KB14313 Fine \*Smooth-end burs cut only on the sides, giving # KB14312 Coarse

#### Cutter and rotary tool quality vs. price

\$26.65

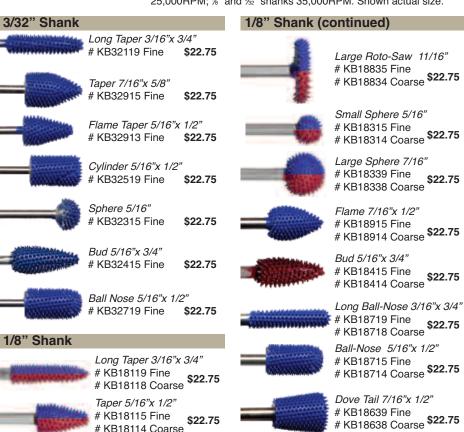
To get the best results and longest tool life be sure to choose a good rotary tool and buy the best cutters you can. Cheap rotary tools use either a bulky chuck system or a cheap 4-jaw collet. Bits will not run true in these collets or chucks, resulting in bit run-out that causes vibration and greatly reduces the bit's cutting ability, accuracy and life. All of our rotary tools use precision 3-jaw collets (or an actual Jacobs™ chuck in the #30 Foredom handpiece), resulting in a true-running bit that cuts efficiently, accurately and runs smoothly. All of the bits that we carry are very high quality, true-running bits that will last well when properly used and cared for. Remember - you get what you pay for, so there will always be a trade-off when you see a lower-priced bit. It's a good rule of thumb that the most expensive bits we sell are the most economical in the long run. Diamond burs cost less per running hour than rubies and solid carbide stump burs are a lot less expensive per running hour than high-speed steel (HSS) stump burs.

superb control!

# Typhoon Carbide Burs

### Typhoon™ Carbide Burs

Ideal for use on hard and soft wood, acrylic and fiberglass. Their unique structurally-aligned tungsten carbide points leave a smoother finish than other types of tungsten carbide burs. They last longer and don't load up as quickly. Maximum speeds: ¼" shanks 25,000RPM; ½" and ½" shanks 35,000RPM. Shown actual size.



#### Hint: Cleaning Typhoon™ Burs

Use a dense brass brush (at left) or a fine, sharp knife blade to remove debris from between the rows of teeth. Typhoon™ burs teeth are in rows, making them easier to clean and less likely to load up. Coarse (red) burs stay clean longer and are easier to clean. For difficult wood or sap build-ups, try soaking Typhoon™ burs for a few hours in oven cleaner and then rinsing in water, followed by brushing with the brass brush. Gummed up fillers or glue can sometimes be softened first by slightly heating the bur with a lighter before brushing (do not use a torch). To avoid damage to burs never use a file card or steel brush to clean burs.

FAQ: Coarse(red) vs. Fine(blue) - Which one is best?

Brass Brush Cleans Saburrtooth®, Typhoon™ and

Dura-GRIT™ Burs. Dense brass bristles remove

debris quickly and easily without damaging burs.

Cylinder 5/16"x 1/2" # KB18515 Fine

# KB18525 Fine

# KB18524 Coarse

# HB58 \$6.18

# KB18514 Coarse \$22.75

Smooth-end Cylinder 5/16"

\$22.75

That depends on your needs. Coarse (red) Typhoon burs are great for roughing out and rapid stock removal. They leave deeper grooves than the Fine (blue) burs, but our sanding cones (page 22) and cushion sanders (page 23) will remove these grooves quickly and easily. Fine burs give a bit more control, but don't cut as fast.

Cam likes Coarse for roughing especially in basswood, and Fine for detailed work and working with tupelo.

All Cutters shown actual size



The images below show each cutter divided into various available grits. Images are for illustration purposes only; the yellow portion shows what the fine tooth pattern looks like; green shows the coarse tooth pattern and orange shows extra-coarse tooth pattern. Any cutters you order will be a solid colour with only one tooth pattern; for example, the coarse cutter will be solid green, fine will be yellow, etc.) Dimensions below are approximate; images are shown actual size. For full images of each cutter visit our website.

#### 3/32" Shank Ball-nose Cylinder 1/4"x 2/3" Flame 1/4"x 1/2" # SAB32BN14F Fine # SAB32F14F Fine \$17.80 \$17.80 # SAB32F14C Coarse \$17.80 # SAB32BN14C Coarse \$17.80 Bud 1/4"x 3/4" Flame 3/8"x .6" # SAB32BUD14F Fine \$17.80 # SAB32F38F Fine \$17.80 # SAB32BUD14C Coarse \$17.80 # SAB32F38C Coarse \$17.80 Cylinder 1/4"x 1/2" Sphere 1/4" # SAB32C14F Fine \$17.80 # SAB32S14F Fine \$17.80 # SAB32C14C Coarse \$17.80 # SAB32S14C Coarse \$17.80 Roto-Saw 3/8"x 1/8" Smooth-end Cylinder 1/4"x 1/2" # SAB32C14SEF Fine # SAB32RS38F Fine \$17.80 \$17.80

# SAB32C14SEC Coarse \$17.80	# SAB32RS38C Coarse \$17.80	
Taper 1/4" x 3/4" # SAB32T18F Fine \$17.80 # SAB32T18C Coarse \$17.80		
1/8" Sha	ınk	
Ball-nose Cylinder 1/4"x 2/3" # SAB18BN14F Fine \$16.65 # SAB18BN14C Coarse \$16.65	Cylinder 1/4" x 3/4" # SAB18C18F Fine \$16.65 # SAB18C18C Coarse \$16.65	
Ball-nose Cylinder 1/4" x 3/4" # SAB18BN18F Fine \$16.65 # SAB18BN18C Coarse \$16.65	Smooth-end Cyl. 1/4" x 3/4" # SAB18C18SEF Fine \$16.65 # SAB18C18SEC Coarse \$16.65	
Bud 1/4"x 3/4" # SAB18BUD14F Fine \$17.80 # SAB18BUD14C Coarse \$17.80	Dove-tail 3/8"x 1/2" # SAB18DT38F Fine \$17.80 # SAB18DT38C Coarse \$17.80	
Radiused Cylinder 1/2"x 1/2" # SAB18C12R2F Fine \$19.90 # SAB18C12R2C Coarse \$19.90	Eye Cutter 3/8"x 3/4" # SAB18EC38F Fine \$17.80 # SAB18EC38C Coarse \$17.80	
Smooth-end Cylinder 1/2"x 1/2" # SAB18C12SEF Fine \$18.45 # SAB18C12SEC Coarse \$18.45	Flame 1/4"x 1/2" # SAB18F14F Fine \$17.80 # SAB18F14C Coarse \$17.80	
Cylinder 1/4"x 2/3" # SAB18C14F Fine \$17.80 # SAB18C14C Coarse \$17.80	Flame 3/8"x 5/8" # SAB18F38F Fine \$17.80 # SAB18F38C Coarse \$17.80	
Smooth-end Cylinder 1/4"x 2/3" # SAB18C14SEF Fine \$17.80 # SAB18C14SEC Coarse \$17.80	Roto-Saw 3/8"x 3/16" # SAB18RS38F Fine \$17.80 # SAB18RS38C Coarse \$17.80	

All Cutters shown actual size

#### 1/8" Shank (continued)



Roto-Saw 5/8"x 3/16" # SAB18RS58F Fine \$17.80 # SAB18RS58C Coarse \$17.80

Sphere 1/4" # SAB18S14F Fine \$17.80 # SAB18S14C Coarse \$17.80



Sphere 3/8"

# SAB18S38F Fine \$17.80

# SAB18S38C Coarse \$17.80

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Taper 1/4"x 1/2"

# SAB18T14F Fine \$17.80 # SAB18T14C Coarse \$17.80

Taper 1/8" x 3/4"
# SAB18T18F Fine \$17.80
# SAB18T18C Coarse \$17.80

#### 1/4" Shank



Ball-Nose 1/2"x 2" \$32.65 ea. Fine (Yellow) # SAB14BN12X2F Coarse (Green) # SAB14BN12X2C X-Coarse (Orange) # SAB14BN12X2XC



Smooth-end Cylinder 1/2"x 2" \$24.35 ea. Fine (Yellow) # SAB14C12X2SEF Coarse (Green) # SAB14C12X2SEC X-Coarse (Orange) # SAB14C12X2SEXC



Cylinder 5/8"x 1-1/4" \$21.95 ea. Fine (Yellow) # SAB14C58LF Coarse (Green) # SAB14C58LC X-Coarse (Orange) # SAB14C58LXC



Smooth-end Cylinder 5/8"x 1-1/4" **\$21.95 ea.** Fine (Yellow) # SAB14C58LSEF Coarse (Green) # SAB14C58LSEC X-Coarse (Orange) # SAB14C58LSEXC



Ball-Nose 1/4"x 1-3/4" \$20.80 ea. Fine (Yellow) # SAB14BN14F Coarse (Green) # SAB14BN14C X-Coarse (Orange) # SAB14BN14XC



Smooth-end Cylinder 1/4"x 1-3/4" \$20.80 ea. Fine (Yellow) # SAB14C14SEF Coarse (Green) # SAB14C14SEC X-Coarse (Orange) # SAB14C14SEXC



Cylinder 1/4"x 1-3/4" \$20.80 ea. Fine (Yellow) # SAB14C14F Coarse (Green) # SAB14C14C X-Coarse (Orange) # SAB14C14XC



Taper 1/4"x 1-3/8" **\$20.80 ea.** Fine (Yellow) # SAB14T14F Coarse (Green) # SAB14T14C X-Coarse (Orange) # SAB14T14XC

Brass Brush Cleans Saburrtooth®, Typhoon™ and Dura-GRIT™ Burs. Dense brass bristles remove debris quickly and easily without damaging burs.



All Cutters shown actual size

#### 1/4" Shank

Flame 3/8"x 3/4" \$20.80 ea. # SAB14F38F Fine # SAB14F38C Coarse # SAB14F38XC X-Coarse Flame 1/2"x 3/4" \$21.95 ea. # SAB14F12F Fine # SAB14F12C Coarse # SAB14F12XC X-Coarse

Ball-Nose 1/2"x 3/4" \$21.35 ea. # SAB14BN12F Fine # SAB14BN12C Coarse # SAB14BN12XC X-Coarse

Cvlinder 1/2"x 3/4" \$20.80 ea. # SAB14C12F Fine # SAB14C12C Coarse # SAB14C12XC X-Coarse Smooth-end Cylinder 1/2"x 3/4"

\$20.80 ea. # SAB14C12SEF Fine # SAB14C12SEC Coarse # SAB14C12SEXC X-Coarse

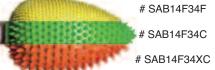
Taper 1/2"x 1" \$21.95 ea. # SAB14T12F Fine # SAB14T12C Coarse # SAB14T12XC X-Coarse

> Smooth-end Taper 1/2"x 1" \$21.95 ea. # SAB14T12SEF Fine # SAB14T12SEC Coarse # SAB14T12SEXC X-Coarse

Sphere 1/2" \$21.95 ea. # SAB14S12F Fine # SAB14S12C Coarse # SAB14S12XC X-Coarse

Ball-Nose 5/8"x 3/4" \$21.95 ea. # SAB14BN58F Fine # SAB14BN58C Coarse # SAB14BN58XC X-Coarse

Sphere 5/8" \$23.15 ea. # SAB14S58F Fine # SAB14S58C Coarse # SAB14S58XC X-Coarse Flame 3/4"x 1-1/4" \$25.55 ea.



Ball-Nose 3/4"x 1-1/4" \$25.55 ea.



Cylinder 3/4"x 1-1/4" \$24.35 ea.



Smooth-end Cylinder 3/4"x 1-1/4" \$24.35 ea.



# SAB14C34SEXC



Roto-Saw 3/4"x 1/4" \$20.80 ea. # SAB14RS34F Fine # SAB14RS34C Coarse # SAB14RS34XC X-Coarse

Dove Tail 3/4"x 1-3/8" \$25.55 ea.



# SAB14DT34F

# SAB14DT34C

# SAB14DT34XC

Smooth-end Dove Tail 3/4"x 1-3/8" \$25.55 ea.



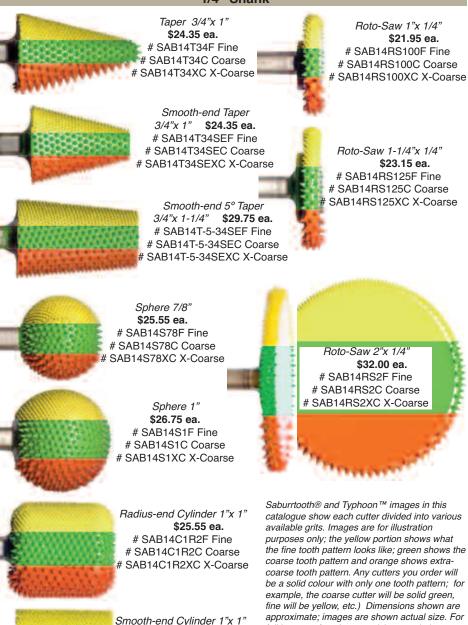
# SAB14DT34SEF

# SAB14C58LSEC

# SAB14DT34SEXC

All Cutters shown actual size

#### 1/4" Shank



**\$21.95 ea.** # SAB14C1SEF Fine

# SAB14C1SEC Coarse # SAB14C1SEXC X-Coarse full images of each cutter visit our website.

fine tooth pattern "F"

coarse tooth pattern "C" extra-coarse tooth pattern "XC"

# **Power Carving - Texturing**

Over the years our selection of texturing burs has grown to include tools ranging from very coarse to extremely fine, allowing you to create any kind of texture you want in almost any material you may want to carve. Most texturing burs work best at higher RPM's. I prefer to use at least 35,000RPM; 50,000RPM is even better if your machine will run that fast. All burs have 3/32" shanks. Following is a brief primer on the various options we offer:

**"V" Stones.** These are the hardest and most aggresive stones we carry. They can be used on almost any material including all metals, ceramic tile, porcelain, wood, acrylic, glass, marble and many types of stone. On softer materials like wood they can be used for shaping, carving or texturing and they last almost indefinitely.

**CeramCut Blue Stones.** Most of our customers use these for general texturing and smoothing of all types of wood. They also work well on hard metals and porcelain. Generally more aggresive than natural (white, brown or green) stones.

**Green (natural) Stones.** Very similar to brown stones - usually just slightly less aggressive, but a good choice for general texturing in medium carving woods and for gentle carving/shaping in softer carving woods like tupelo.

**Brown (natural) Stones.** A good choice for general texturing and delicate shaping/carving in basswood and other medium carving woods. Reasonably aggresive for texturing.

White (natural) Stones. Most often used for texturing tupelo and other soft carving woods. On basswood they texture gently - ideal for subtle texture, especially on miniature carvings where texture needs to be subtle.

**Ceramic Texturing Sticks.** Depending on the grit, you can use these sticks for everything from carving harder woods (ie holly or ebony with 120 grit) to very delicate texturing on a soft piece of tupelo with the 1200 grit. For starters, try a 300 grit and an 800 grit. Ceramic texturing sticks have become one of those "must-have" items for many carvers (including Cam).

All stones and texturing sticks can be shaped and trued with our diamond hone # 10343 on pages 36 & 38.

If you are not sure which option is best for you, please give us a call and we'll help you figure it out.



### **Power Carving - Texturing Stones**



# STBR10
# STBR10
# STBR12
# STBR15
# STBR16
# STBR17
# STBR503
# STBR509
# STBR510
# STBR516
# STBR516
# STBR516
# STBR516



#### **Diamond Hone**

Fine hone is great for dressing and shaping texturing sticks and all stones including "V" stones, white, green, brown and Ceramcut Blue. Simply run the spinning stone into the diamond hone to reshape. Can also be used to sharpen carbide. Overall approx. 6" x 3/4"

(diamond plate is approx. 2"x 3/4"). # 10343 \$11.64 ea.



### Ceramic Texturing Sticks

actual size



(Shown Actual Size)

Solid 3/32" diameter ceramic abrasive sticks will fit directly into your rotary tool. Each end can be shaped (dressed) with our diamond hone #10343 (above) in much the same way as conventional texturing stones. Ceramic sticks will outlast conventional stones by many times and when the edge wears down, you simply re-dress the stick, making it a bit shorter. Because they are uniform in diameter, they are absolutely vibration-free and they cut cleaner

and smoother than any other texturing tool. Ceramic sticks can be dressed down to a very fine point - much finer than any stone. Available in 8 grits from #120 for delicate vet controlled wood removal (great for bills and eye areas) to #1200 for very fine texturing in softer woods like tupelo. Coarser grits work very well when shaped to a flame or point and used much like a ruby or diamond. Finer grits can be shaped to very small cylinders or tapers for extremely fine detail work. Surface clean-up can be done quickly and easily with a fine bristle disk (page 37) for amazing results! Sticks can also be cut in half using a cut-off wheel (page 37), giving you 4 ends to shape instead of 2.

Grit	Colour	Item#
120	Emerald	CS0120
180	Gold	CS0180
300	Lt. Brown	CS0300
400	Lt. Orange	CS0400
600	Dk. Brown	CS0600
800	Blue	CS0800
1000	White	CS1000
1200	Red-orange	CS1200

\$21.95 ea.

## **Power Carving - Specialty Abrasives**

#### Scotchbrite™ Radial Bristle Discs (shown actual size)



3/4"

Scotch-Brite™ Radial Bristle discs are perfect for fine smoothing and polishing almost any material. Flexible plastic discs with embedded abrasive follow contours and smooth gently. Properly used, they will outlast most other abrasives. Great for defuzzing most woods as well as for polishing harder woods

Grit Size	Uses	Colour	9/16" <b>\$12.35/pkg 6</b>	3/4" \$12.35/pkg 6
80	Fast smoothing	Yellow	N/A	FOR4511-6
120	Fast smoothing	White	FOR4522-6	N/A
220	Light smoothing aggressive de-fuzzing	Red	FOR4523-6	FOR4513-6
400	De-fuzzing, de-burring, pre-polishing	Blue	FOR4524-6	FOR4514-6
Pumice (~1,200)	Light polishing, de-burring, scratch removal	Pink	FOR4526-6	FOR4516-6
6 Micron (~3,000)	Final polishing buffing	Peach	FOR4527-6	FOR4517-6
1 Micron (~14,000)	Very fine polishing fine buffing	Green	N/A	FOR4518-6

10-piece 3/4" set includes 1/8" mandrel, 3 each of 80, 400 and 6-Micron discs. # FOR88382 \$20.74

10-piece 1" set includes 1/8" mandrel, 3 each of 36, 80 and 120 discs. # FOR88381 \$32.76

and metals. Best used with 3 or 4 discs stacked together. Available in 9/16" or 3/4" diameters, and in 6 different grits. Colour-coded for convenience. \$12.35 per package of 6 (either size). Use with M1, M6, or M10 Mandrels, sold separately (page 23). 2" Radial Bristle discs are also available to fit the Foredom angle grinder (page 16).

#### Rotary Brushes, Felt and Cloth Buffers and Cut-off Wheels



All Shown



9/16" Black Bristle Brush for cleaning, polishing. (3/32"



shank) # MB25 \$2.54 shank) # MB7 \$3.58



3/4" Fine Steel Brush 3/4" Brass Brush for for de-burring and cleaning, de-burring cleaning. (3/32" (3/32" shank). # MB6 \$4.29



1" Fine Steel Brush for cleaning and de-burring. (1/8"shank) # MB838 \$4.88



3/4"x.025", 220 grit Corundum cut-off wheel cuts most metals. (fits Mandrels M1, M6 or M10. page 23) # GC1101310 \$20.75/ box of 100



1.5" Knife-edge hard felt wheel (fits Mandrels M100 or M7 pg.23). # FORKE5 \$7.15



1" Square-edge hard felt wheel (fits Mandrels M100 or M7 pg.23). # SE3RH \$1.69



1" Stitched cotton buffing wheel. (fits Mandrels M100 or M7 pg.23). # FORCB2 \$2.60

Polishing Compound Set of 4 compounds with instructions and one each of:

- \*emery (black): coarse, very fast cutting, for scratches on iron and steel. Not for gold or silver.
- \*tripoli (brown): general purpose. Good for most metals and many plastics. Useful for sharpening. ·white rouge: fast-cutting, high gloss finish. Great on plastics and hard metals.
- •red rouge: excellent for final polish on precious metals and for a very fine edge on cutting tools. # 4000 (set of 4 compounds) \$14.95



## **Power Carving - Specialty Abrasives (cont.)**



#### **Diamond Hone**

Fine hone is great for dressing and shaping texturing sticks and all stones including "V" stones, white, green, brown, and Ceramcut

Blue (pages 35 & 36). Simply run the spinning stone into the diamond hone to reshape. Can also be used to sharpen carbide. Overall approx. 6"x 3/4" (diamond plate is approx. 2"x 3/4"). # 10343 \$11.64 ea.

#### Ultra-Brite® Abrasive Pads for de-fuzzing

6" x 9" maroon abrasive pads are very versatile. As hand pads, they clean and leave a satin finish on most metals. Carvers use them to smooth bare wood and lacquer or varnish finishes. Cut them into 1" to 1.5" discs, mount two or three on a mandrel (M1, M10, or M6 page 23) and you've got a fantastic de-fuzzing wheel for smoothing basswood or tupelo (keep RPM's below 10,000). Cuts with regular scissors. # DH0700 \$1.75/ sheet

#### Micro Abrasive Sheets

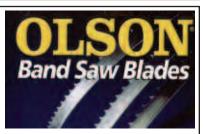
9" x 12" micro abrasive sheets can be used for stropping and polishing most metals. Great for making your own strops for knives, gouges, chisels, and "V" tools. Attach to a smooth, clean surface with double-sided tape or spray adhesive and use dry. 0.5 micron abrasive is equivalent to 9000 grit. # GR9000 \$3.75/ sheet

#### **Rubber-bonded Polishing Wheels and Rods**

We carry a good selection of metal polishing wheels and rods which use rubber-bonded abrasives. They are great for de-burring and preparing all metals used in habitat construction. For our complete selection, visit our online store at <a href="https://www.razertip.com">www.razertip.com</a> and search for "polishing".

## **Bandsaw Blades**

Bandsaws are one of the least understood machines that carvers use. Having the right blade can make a huge difference in the ease of cutting out your blanks. The Olson blades we sell are 3/16" deep, 4 teeth per inch (TPI), skip tooth. To demonstrate their great ability to cut curves, you can trace a dime on a thick block of wood and then cut entirely around *inside* the dime profile. Olson blades are very sharp, smooth cutting (for a 4TPI blade), and long-lasting. Each blade is precision-welded and guaranteed against defective welds. Available from stock in common sizes listed below. Other sizes are available by special order.



Is your blade size not listed here? Give us a call and we'll get the right size for you. It's still covered by our satisfaction guaranty and can be returned if you don't like it. If you do like it, we'll be happy to add your blade size and keep them in stock for you.

Length	Item #	Price	Length	Item #	Price	Length	Item #	Price
56-1/8"	BLADE316.56	21.15	78"	BLADE316.078	24.55	101"	BLADE316.101	24.55
57"	BLADE316.57	21.15	80"	BLADE316.080	24.55	104.5"	BLADE316.1045	25.95
59"	BLADE316.59	23.35	82"	BLADE316.082	24.55	105"	BLADE316.105	25.95
60"	BLADE316.60	23.35	88"	BLADE316.88	24.55	105.5"	BLADE316.1055	25.95
62"	BLADE316.62	23.35	91"	BLADE316.091	24.55	106.5	BLADE316.1065	25.95
67"	BLADE316.67	23.35	92.5"	BLADE316.925	24.55	111"	BLADE316.111	25.95
70.5	BLADE316.705	24.55	93.5"	BLADE316.935	24.55	132"	BLADE316.132	25.95
71-3/4"	BLADE316.7175	24.55	94.5"	BLADE316.945	24.55	133"	BLADE316.133	25.95
72.5"	BLADE316.725	24.55	99.75	BLADE316.9975	24.55	145"	BLADE316.145	25.95
			100"	BLADE316.100	24.55			
	Custom sizes susilable. Call for prising and delivery							

Custom sizes available - Call for pricing and delivery

See page 96 for "The New Complete Guide to the Bandsaw" # BK3188 \$23.95

#### Sanding Sticks and Blocks

Very handy sanding sticks - available in 1/2" and 1" widths. Uses 11" long strips of sandpaper. Easy to load and use. Paper is held very firm. End tapers to a nice point. Works very well to smooth out growth rings on working decoys. A super-useful item! 10"

1/2" # FORZ-37-770 \$12.94 1" # FORZ-37-750 \$12.94

3/4" # FORZ-37-790 \$6.44

1-1/2" # FORZ-37-795 \$7.74

These great spring-loaded sanding blocks use a small belt - easily made from sandpaper of your choice with the 1" super-bond tape (sold below). Easy to load and reposition for long paper life. Works on flat and concave surfaces; a real time-saver! Available in 3/4" and 1/2"

long overall.

5-1/4" overall length. Supplied with one paper belt.

#### **Small Sanding Sticks and Belts**



These small sanding sticks are useful for all kinds of clean-up work on carvings of almost any size. Available in 5 different grits - each one colour-coded for easy identification of the different grits. Each stick comes with one belt installed. Belts are easily replaced by pushing on a springloaded mechanism that makes the stick shorter. Belts can also be rotated slightly to expose fresh grit on the pointed end of the stick. Actual size of stick is shown at right.

Sanding Sticks are **\$4.30** each Replacement belts are **\$13.95** /pkg 10

Grit	Handle Colour	Stick Item #	Pkg of 10 Replacement Belts Item #	Super- Bond tape
120	Red	GC11571	GC11576	for making
240	Blue	GC11572	GC11577	belts from almost any
320	Green	GC11573	GC11578	sandpaper.
400	Yellow	GC11574	GC11579	1"x 36 yd. Very sticky,
600	Black	GC11575	GC11580	very strong.

**Hint:** Sanding belts and blocks can easily be cleaned using a crepe block, like our Item # CLN on page 25. Simply rub the crepe briskly over the sandpaper surface to remove build-up. A crepe block also works great on ruby carvers, sanding drums and disks.

**Safety Tape.** Protect your fingers from cuts and abrasions with this easy-to-use, comfortable tape. Can be re-used several times before discarding. Roll is 2" wide x15' long **# FORA-6102 \$4.50/roll** 

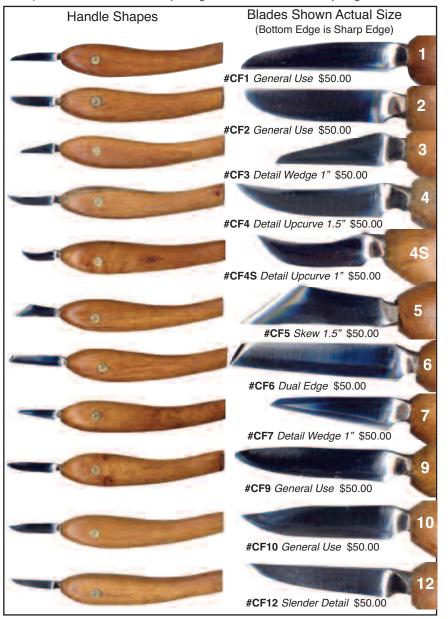
#### **Knife Care**

With any sharp tool it is important not to carve into wood after it has been sanded and to be very careful that the blade is kept protected at all times when not in use. Keep the knife well away from sandpaper that might be laying on your workbench and always be sure that the blade is sheathed or covered when transporting the knife in a toolbox. Never use the blade on anything other than clean, sound carving wood. Driftwood is brutal on fine blades; use disposable blades or abrasive power cutters for carving drftwood. It's a good idea to occasionally run fine blades over a strop. Don't wait until the blade gets dull - regular stropping before the blade dulls will keep the keen edge a lot longer.

Shown actual size

## **Hand Tools**

Cape Forge Knives. We are very pleased to carry these USA-made knives - quite possibly the best carving knives made today. Each knife is individually forged from W1 or W2 tool steel (many other blades start as steel strips), shaped and triple heat-treated to Rockwell 62C for unmatched edge-holding capability. Cape Forge knives have an unconditional guaranty - these tools are designed to last a life-time! Note: Because each knife is hand-made, blade shapes may vary slightly from the illustrations. Other shapes, including custom blade or handle shapes are available by special order (contact us if interested). Lots more information on Cape Forge and their knives at www.capeforge.com.



Leather sheath Fits any blade above #CFSHEATH \$3.50

## **Glue & Epoxy Putty**

#### Rapid Grip CA (Cyanoacrylate) Glue

Sometimes called super glue, CA glue is very versatile and popular for many applications from general repair to strengthening and fabrication. Rapid Grip CA glue is a premium high-quality glue that forms a very strong, permanent bond with almost any material.

Thin: Fast-cure, water-thin CA for soaking and strengthening wooden parts (bills, toes) and for gluing non-porous items (ceramic, plastics, etc.). Will wick into hairline cracks.

**Medium**: Fast-cure, general purpose for most gluing needs including most wood, leather, etc. Slight gap-filling ability.

Thick: Medium-cure, for building up and gluing porous materials.

Great gap-filling ability allows gluing of surfaces that don't conform well and dis-similar materials

well and dis-similar materials. **Accelerator:** Available in 2 oz. pump spray bottle. Instantly cures all CA glues on contact. Particularly useful with thick CA glue for gap-filling and building up thick areas.



Item #	Description	Price	Item #	Description	Price
RG100-1/2BO	THIN 1/2 oz. w/brush	6.95	RG200-4	MEDIUM 4 oz.	19.95
RG100-1	THIN 1 oz.	5.75	RG300-1/2BO	THICK 1/2 oz. w/brush	6.95
RG100-2GR	THIN 2g. tube	1.00	RG300-1	THICK 1 oz.	5.75
RG100-4	THIN 4 oz.	19.95	RG300-4	THICK 4 oz.	19.95
RG200-1/2BO	MED. 1/2 oz. w/brush	6.95	RGZAP-100	Activator Spray Bottle 2 oz.	10.95
RG200-1	MEDIUM 1 oz.	5.75			

#### Jeweller's Epoxy Glue (1 fl. oz. kit)

This is one of the best general-purpose epoxy glues we have used. It is a high-quality epoxy that dries quite clear and bonds very well to almost any surface. It sets up in 4 minutes. Ideal for setting tubing into habitat and for re-attaching lower mandibles on fish, bird and whale carvings, as well as any application where a relatively fast, permanent gap-filling glue joint is required. Mix equal amounts of parts A and B.

# GC120451 \$6.95



#### FAQ: How do I decide what type of glue is best?

A. Generally speaking, epoxy is best for filling gaps and potting things (like brass tubing in a base for example - just be sure to plug the end of the tubing before potting it into epoxy). Epoxy bonds to metal better than CA glue. Because it is a chemical cure (most epoxies will even cure underwater) it will set up even deep into a hole or inside the item being glued - or in green or damp wood. CA glue doesn't set well in a deep hole or where it doesn't have access to the air. You can even mix sawdust with epoxy to make a paste that varies in consistency from syrup-like to peanut-butter - or even thicker and use it like a putty or paste. CA glue also has many great uses. Thin CA is great for soaking (unfinished) delicate wooden parts like pointed bird beaks to strengthen them. Medium and thick CA can be used to quickly glue most materials together. If you break off a piece of your woodcarving, it can be put back into position and a drop of thin or medium CA applied for a repair that's nearly invisible. CA glue joints tend to be much thinner than epoxy joints. Both CA and epoxy accept paint well (especially when sealing with KT Sealer). CA and epoxy can be used on the same glue joint with no problem - for example you might wish to quickly tack something together with CA glue and then fill in any gaps with epoxy. Just be sure that the CA glue is dry before applying the epoxy. Still have questions? Give us a call and tell us what you want to do; we'll advise you on the best product for your application (even if it's a product we don't carry....).



#### Quickwood Epoxy Wood Filler

An easy to use 2-part epoxy putty - very popular for setting eyes, building up feet and making habitat. Much faster setup time than Aves® (next page) for those times when you're in a bit of a hurry (like the evening before the big competition). Great for small patching jobs. Will not shrink or crack. Can be carved, sanded or drilled when hard. Supplied in 2oz (55g) tube. # QWOOD \$11.95

## **Epoxy Putty (continued)**

#### Aves® Apoxie® Sculpt Epoxy Putty



2-part epoxy has a putty-like, smooth consistency, and is easy to mix and use. It is safe and waterproof with 0% shrinkage or cracking. Ample working time up to 2-3 hrs. Cures hard in 24 1/4 lb. # AV-AS025 \$12.85

1 lb. # AV-AS1 \$22.70

#### Aves® Safety Solvent



Great for smoothing, feathering, texturing and cleaning all types of uncured epoxy products from tools and brushes. Water clean-up. Very low odour and fumes.

Cam uses it whenever he works with epoxy putty.

1 oz. bottle # AV-SS1 \$6.10 4 oz. bottle # AV-SS4 \$11.90

#### Aves® Power Pack



A perfect way to try Aves products. Pack contains 1/4 lb each. Apoxie® Sculpt, Apoxie® Clay and

Fixit® Sculpt as well as 1 fl. oz. ea Apoxie® Paste and Aves® Safety Solvent. # AV-PP \$42.50

#### Aves® Apoxie® Clay Epoxy



Apoxie® Clay is the ultimate permanent, self-hardening synthetic clay. It combines the features and benefits of sculpting clay with those of epoxy. It offers enhanced detail properties, plasticity, accuracy and handling features, making it very user friendly. Apoxie® Clay offers superior

modeling, impressions and detail finishing, with a flat skin-like texture.

1 lb. # AV-AC1 \$25.65

#### Aves® Critter Clay™ Self-Hardening Clay



#1 choice of taxidermists and professionals worldwide because of its great detail, fine texture and low shrinkage rate. Air dries to a hard finish. It is a lightweight, extra strong, ready to use, moist, water-based modeling clay.

Safe, non-shrinking, non-cracking and nonhazardous. Accepts all paints. Critter Clay™ is used in wildlife art studios, museums, schools and motion picture studios.

1 lb. # AV-CC1 \$9.45 5 lb. # AV-CC5 \$22.70



#### Aves® Apoxie® Paste

Thinner than putty, thicker than epoxy glue. Fills gaps. Ideal for spreading and filling when putty is too thick. 1-3 hour working time; 24 hour cure. 1 oz. tube. # AV-AP1 \$11.15

#### A+B Epoxy Putty

This is an excellent 2-part putty - known for its easily workable properties. It hardens in approx. 1 hour, faster than Aves® but slower than Quickwood. 7 oz. (198.5g) kit contains equal amounts of parts A and B. Colour: White.

# AB07 \$14.25

#### **EpoxyBond™**

2.5 oz. kit This white general purpose epoxy putty gives 10-15 minutes working time. Sets in 1.5 hours or so. Water soluble before setting. Great for eyes and feet. # EB25 \$9.05





Yellow-Blue Epoxy Ribbon The choice of many pro's. This 2-part putty is supplied in ribbon form; simply cut off a small piece and knead the yellow and blue sides into each other. Forms a green-coloured putty that stays flexible even when hard. Very popular for feet and toes as well as setting eyes. Takes very fine detail. 15-20 min. working time; hardens in 1.5 hours or so. 1.1 oz (30g) ribbon. # EPGR30 \$7.15

#### FAQ: Are there any fillers that I can burn detail into?

A: Short answer: no. Now, before you go sending me an email telling me about the latest greatest filler that you just burned detail into, let me explain. All wood fillers and epoxies contain mostly synthetic (ie. plastic) components that will at best melt, or more likely disintegrate when heated hot enough to burn wood. Some fillers contain a percent of natural wood fibre, but there is still lots of plastic in them to melt. They get all squishy (pardon the technical term) when heated. This causes the glue to pull out of the mated wood surfaces in between burn lines, making the joint apparent. In my experience, there is no truly burnable filler (believe me, I've tried them all). That being said, some carvers have achieved limited success using a woodburning tip that has a bit of a bur on its edge, at very low heat. Basically they have been scratching the filler, not burning it. Temperature is critical here - just a bit too hot and you have a mess. Unfortunately a sharp, shiny tip like we supply on new Razertip pens won't give very good results in filler - you would have to scratch the tip up first. Best - and safest results are obtained by stoning texture into epoxy using ceramic sticks or texturing stones. In areas adjacent to neck joints it works well to incorporate a mixture of stoning and burning as you get closer to the joint itself. It is always best to keep a hot burning tip away from any glue or putty joints.

## Metal Rod, Tubing and Sheet



## **Brass Rod and Tubing**

Round Brass Tube (12" lengths)			Solid Brass Rod	(12" length	ıs)
Size	Item #	Price	Size Item # Pri		
1/16" (3 pcs/pkg) (1/32" inside)	KS1251	4.25/pkg	.020" (5 pcs/pkg)	KS1596	2.45/pkg
3/32" (3 pcs/pkg) (1/16" inside)	KS1268	4.40/pkg	1/32" (.031") (5 pcs/pkg)	KS1602	2.45/pkg
1/8" (3/32" inside)	KS0127	1.95 ea.	3/64" (.046") (4 pcs/pkg)	KS1619	2.45/pkg
5/32" (1/8" inside)	KS0128	2.35 ea.	1/16" (.063") (3 pcs/pkg)	KS1626	2.65/pkg
3/16" (5/32" inside)	KS0129	2.65 ea.	.072" (3 pcs/pkg)	KS1695	3.00/pkg
7/32" (3/16" inside)	KS0130	2.85 ea.	.081" (3 pcs/pkg)	KS1688	4.05/pkg
1/4" (7/32" inside)	KS0131	3.30 ea.	3/32" (.094")	KS0163	1.50 ea.
9/32" (1/4" inside)	KS0132	3.65 ea.	.114" (2 pcs/pkg)	KS1671	4.25/pkg
5/16" (9/32" inside)	KS0133	4.05 ea.	1/8" (.125")	KS0164	2.35 ea.
11/32" (5/16" inside)	KS0134	4.40 ea.	5/32" (.156")	KS0165	3.00 ea.
3/8" (11/32" inside)	KS0135	4.60 ea.	3/16" (.188")	KS0166	4.05 ea.
13/32" (3/8" inside)	KS0136	5.00 ea.	Round Brass Tube and	Rod (36" I	_engths)
7/16" (13/32" inside)	KS0137	5.20 ea.	Pick-up only - sorry, we c	annot ship 36	6" items.
15/32" (7/16" inside)	KS0138	5.40 ea.	1/16" Tube	KS1143	4.40 ea.
1/2" (15/32" inside)	KS0139	5.70 ea.	3/32" Tube	KS1144	4.60 ea.
17/32" (1/2" inside)	KS0140	6.20 ea.	1/8" Tube	KS1145	5.20 ea.
9/16" (17/32" inside)	KS0141	6.55 ea.	5/32" Tube	KS1146	6.20 ea.
19/32" (9/16" inside)	KS0142	6.70 ea.	1/16" Rod (2 pcs/pkg)	KS1160	5.00/pkg
5/8" (19/32" inside)	KS0143	7.15 ea.	3/32" Rod	KS1161	4.40 ea.
21/32" (5/8" inside)	KS0144	7.50 ea.	1/8" Rod KS1162 6.35 e		6.35 ea.
1/8" (2 pcs/pkg) Soft Brass (easy to bend)	KS1213	3.65/pkg	5/32" Rod	KS1163	8.30 ea.



#### Stay-Brite™ Lead-free Silver Bearing Solder

This is the best solder I've found for overall workability, ease of use and strength. Sold as a starting kit with a small 1/2 oz. bottle of flux and 1/2 oz. of Stay-Brite silver solder. Solder is also available by the foot (should always be used with flux). It's great for soldering brass and copper to make feet and toes as well as for making branches and other habitat items. Can be used with a regular soldering iron, but is up to 4 times stronger than regular electrical solder. Its characterisitics reduce the likelihood of previously soldered parts falling off when soldering more parts.

Solder/flux kit # GC54452 **\$51.00** 

Stay-Brite Solder 1/16" dia., sold per foot # GC54456-1 \$4.00/foot

## **Brass Tube, Sheet and Strips**

Square Brass Tube (12" lengths)			Brass Shee	Brass Sheet (cont.)			
Size	Item #	Price	.002" 5"x7" (3 sheets)	KS6101	8.65/pkg		
1/16" (2 pcs/pkg) (1/32" inside)	KS1497	4.05/pkg	.002" 12"x30" Roll	KS6005	24.10/roll		
3/32" (2 pcs/pkg) (1/16" inside)	KS1503	4.60/pkg	Brass Strips (1	2" lengths	)		
1/8" (3/32" inside)	KS0151	2.85 ea.	.016" x 1/4"	KS0230	1.50 ea.		
5/32" (1/8" inside)	KS0152	3.00 ea.	.016" x 1/2"	KS0231	1.70 ea.		
3/16" (5/32" inside)	KS0153	3.30 ea.	.016" x 3/4"	KS0233	1.95 ea.		
7/32" (3/16" inside)	KS0154	3.45 ea.	.016" x 1"	KS0232	2.65 ea.		
1/4" (7/32" inside)	KS0155	3.90 ea.	.016" x 2"	KS0234	4.60 ea.		
Rectangular & Hexago	Rectangular & Hexagon Brass Tube (12")			KS0235	1.70 ea.		
3/32" x 3/16" Rect.	KS0262	5.20 ea.	.025" x 1/2"	KS0236	2.10 ea.		
1/8" x 1/4" Rect.	KS0264	6.40 ea.	.025" x 3/4"	KS0238	2.85 ea.		
5/32" x 5/16" Rect.	KS0266	6.55 ea.	.025" x 1"	KS0237	3.90 ea.		
3/16" x 3/8" Rect.	KS0268	6.75 ea.	.025" x 2"	KS0239	7.35 ea.		
3/32" Hexagon	KS0271	2.65 ea.	.032" x 1/4"	KS0240	1.95 ea.		
1/8" Hexagon	KS0272	3.00 ea.	.032" x 1/2"	KS0241	2.50 ea.		
5/32" Hexagon	KS0273	5.00 ea.	.032" x 3/4"	KS0243	3.65 ea.		
3/16" Hexagon	KS0274	5.20 ea.	.032" x 1"	KS0242	4.60 ea.		
Brass S	heet	•	.032" x 2"	KS0244	9.30 ea.		
4-Assorted: 3"x6": .001", .002", .003" & 4"x4" .005"	KS0258	6.95/pkg	.064" x 1/4"	KS0245	2.50 ea.		
4"x10" .005"	KS0250	4.40 ea.	.064" x 1/2"	KS0246	4.90 ea.		
4"x10" .010"	KS0251	5.40 ea.	.064" x 3/4"	KS0247	6.95 ea.		
4"x10" .015"	KS0252	8.05 ea.	.064" x 1"	KS0248	9.40 ea.		
4"x10" .032"	KS0253	15.40 ea.	.064" x 2"	KS0249	17.35 ea.		

#### Self-locking tweezers

Just the thing for holding metal parts together for soldering. Squeeze the handle to open the jaws; they clamp shut on their own. Wooden handles keep fingers cool. I would be lost without a few of these in my shop.



## **Aluminum, Copper and Tin**

While brass is by far the best and most popular material for making feet and habitat, we occasionally get requests for other materials. Aluminum is ideal for making armatures for clay models (copper and brass can react and discolour many types of clay). Copper tube and sheet is also nice for habitat construction and we offer it here for those who prefer to use copper. Tin sheet can be used for inlay, embossing or punching and is not as prone to tarnishing as brass or copper. Tin and aluminum are not suitable to solder, but can be glued with epoxy glue.

Aluminum Tube (12" lengths)			Aluminum Sheet			
Size	Item #	Price	Size	Item #	Price	
1/16" (3 pcs/pkg) (1/32" inside)	KS1008	2.85/pkg	4" x 10" .016"	KS0255	2.85 ea.	
3/32" (3 pcs/pkg) (1/16" inside)	KS1015	3.00/pkg	4" x 10" .032"	KS0256	3.65 ea.	
1/8" (3 pcs/pkg) (3/32" inside)	KS1022	3.45/pkg	4" x 10" .064"	KS0257	6.20 ea.	
5/32" (1/8" inside)	KS0103	1.70 ea.	Copper Sheet			
3/16" (5/32" inside)	KS0104	1.70 ea.	4" x 10" .025"	KS0259	14.00 ea.	
7/32" (3/16" inside)	KS0105	1.95 ea.	Copper Tube (12" lengths)			
1/4" (7/32" inside)	KS0106	1.95 ea.	1/16" (3 pcs/pkg) (1/32" inside)	KS1176	3.45/pkg	
9/32" (1/4" inside)	KS0107	2.10 ea.	3/32" (3 pcs/pkg) (1/16" inside)	KS1186	4.05/pkg	
Tin Sh	Tin Sheet			KS0120	1.95 ea.	
4" x 10" .008"	KS0254	2.65 ea.	5/32" (1/8" inside)	KS0119	1.95 ea.	

#### Working with metal

**Cutting:** Cut tubing with a small cut-off wheel or a jeweller's saw to leave a round cross-section (cutting tubing with snips will crush the tubing). You can cut rod the same way (you can also use snips or shears on smaller diameter rod 1/8" or less). Sheet and strip stock can usually be cut with scissors or tin snips. Thicker sheets and strips can be cut with a jeweller's saw or scrollsaw with a fine jeweller's blade.

**Bending**: Most brass and copper will bend easily using fingers, pliers or a vise. Be careful when bending tubing as the sides can collapse. If you must bend tubing, try sliding a piece of rod inside where the bend will be to prevent wall collapse.

Joining: You can join two pieces of tubing by soldering a small rod into the joint. Telescoping the tubing to make a gradually diminishing branch diameter works very well with the brass tubing. Soldering: One of the great things about brass is that it accepts solder readily, however it is still very important that the metal is clean. Lightly sand any areas to be soldered with 400 grit or finer paper, and be sure to use a suitable flux. Generally speaking, the flux in the core of most electrical solders is not sufficient. With flux applied to the brass, touch a hot, clean\* soldering iron tip to the brass and melt a small amount of solder between the solder tip and the brass. The liquified solder will accelerate heat transfer into the brass. Be sure that the brass has fully heated and the solder has flowed fully around the joint. Remove the heat and let the joint cool fully before handling. A good silver solder will give a stronger joint than lead-based solder (see our Stay-Brite solder on page 44).

\*You can clean a hot soldering iron tip by lightly and rapidly wiping it into a damp sponge.

## **Reference Material - Study Casts**

All of our study casts are excellent quality, highly detailed and accurate. We currently carry bird casts by Bob Guge, Jeff Whiting, and Cam Merkle, and fish by Josh Guge and Clark Schreibeis. You'll be amazed how much easier carving, detailing and painting can be when you have a study cast handy. You can even practise your painting on them - acrylic paints strip off with denatured (ethyl) alcohol, so you can practice painting one cast several times. Size scale: LS = Lifesize; 1/2 LS, 1/3 LS, etc.



Bluebird, Eastern Fluffy LS # GUGE53 \$49.50

Blue Jay 1/2 LS # GUGE20 \$44.25

Blue Jay LS # GUGE13 \$53.25

**Blue Jay** 3/4 LS # GUGE46 **\$46.75** 

Bunting, Indigo LS # GUGE11 \$40.25

Cardinal LS (fluffy plumage) # GUGE08 \$46.75

Cardinal LS (summer plumage) # GUGE34 \$46.75

Cardinal on stump 1/2 LS # GUGE27 \$40.25 Chickadee, Blackcapped LS # GUGE04 \$40.25

Chickadee LS on pine branch # GUGE41 \$46.75

Dove, Mourning LS # GUGE12 \$53.25

Eagle, Bald on rock 1/5 LS # GUGE22 \$57.25

Finch, Purple on rock LS # GUGE35 \$46.75

Flicker, Northern on log 2/3 LS # GUGE39 \$49.50

Goldfinch LS on a stump # GUGE56 \$44.25 Goshawk, Northern on rock 1/3 LS # GUGE37 \$49.50

Grosbeak, Rosebreasted on stump LS # GUGE42 \$49.50

Hawk, Red-tailed 1/4 LS # GUGE16 \$49.50

Heron, Black-crowned Night 1/3 LS # GUGE23 \$46.75

Heron, Great Blue 1/5 LS # GUGE31 \$47.95

Jay, Steller's
by Cam Merkle
LS # SC098
\$45.50

## Study Casts (cont.)



**Killdeer** 2/3 LS # GUGE58 **\$46.75** 

Kingfisher 1/2 LS # GUGE15 \$44.25

Kinglet, Golden-crowned
LS, on
stump
# GUGE47
\$40.25

Loon, Common 1/2 LS # LOONWHI \$64.95 by Jeff Whiting

Merlin on rock 2/3 LS # GUGE36 \$49.50

Mockingbird 3/4 LS # GUGE50 \$49.50

Nuthatch, Red-breasted LS on stump # GUGE25 \$40.25 Nuthatch, White-breasted LS # GUGE03 \$44.25

Oriole, Northern LS #GUGE14 \$45.50

Owl, Barn 1/3 LS # GUGE44 \$49.50

Owl, Elf LS on rock # GUGE61 \$46.75

Owl, Great Horned by Cam Merkle 1/3 LS # SC087 \$45.50

Owl, Saw-whet 1/2 LS # GUGE17 \$40.25

Owl, Saw-whet 3/4 LS on stump # GUGE54 \$49.50 Owl,
Saw-whet
LS
on stump
# SAWWHI
\$64.95

by Jeff Whiting

Owl, Screech 1/2 LS # GUGE18 \$46.75

Owl, Snowy 1/3 LS on rock # GUGE33 \$59.75

Plover, Semipalmated or Killdeer LS # GUGE28 \$49.50

Puffin 1/2 LS on rock # GUGE26 \$49.50

Redpoll, Common LS on stump # GUGE43 \$46.75

Quail, Bobwhite LS # GUGE60 \$46.75

## **Study Casts (cont.)**





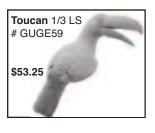










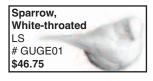
















Swallow, Barn LS # GUGE45 \$46.75

## **Fish Study Casts**

#### Fish Study casts by Josh Guge

Full-body fish study casts, great for carving reference or painting practice. Because they are free-standing, they can be dislayed on a table when painted. Fully scaled and beautifully detailed.

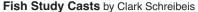


Bluegill 6.5" long # GUGEJ01 **\$51.95** 

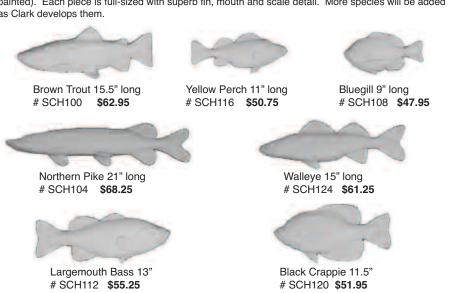


Smallmouth Bass # GUGEJ02 \$51.95

## **Fish Study Casts (cont.)**



Beautifully detailed casts capture the detail of fish like never before. World-champion Clark Schreibeis has produced these flat-backed casts for reference or painting practice (make a nice wall-mount when painted). Each piece is full-sized with superb fin, mouth and scale detail. More species will be added as Clark develops them.



## **Cast Study Bills**

Nothing can take the guess work out of bills and eyes like a study bill. All of our study bills are cast from the real thing (except the extinct birds), capturing all of the detail and subtle shapes of a live bird. They are all in-stock and available for immediate delivery. Photos of each bill are at www.razertip.com.

"Extinct" bills (below) are created from scratch by Cam. They represent Cam's best interpretation of what the live bird's bill would have looked like, based on extensive research.

"Full-head" bills (page 51) are similar to the earlier Miller style bills; cast from fresh specimens with little to no shrinkage and superb detail. We'll be adding more species as specimens become available.

"Taxidermy-style" bills (page 52) include the full bill and skull, along with eye sockets. They have the "shrink-prone" areas built up to resemble a live bird. Our supplier also makes many other species - mostly exotic - which we can special order (call for details).

#### **Extinct Species Study Bills**

Cam began researching Labrador ducks over 20 years ago and has recently committed to working on several pieces portraying other extinct species. His first completed piece featuring extinct birds was "Into the Light - Labrador ducks" (featured in previous catalogue). In preparation for this piece, Cam created a full-size "taxidermy-style" study bill for a male Labrador duck. We're making these bills available as resin casts, similar in style to the bills listed on page 51. Very detailed, this bill represents Cam's best interpretation of what a live, healthy bill would have looked like on a bird that's been extinct for over 135 years. It can be used for reference in carving or painting your own Labrador ducks, or it can also be used by a

taxidermist who may want to try re-creating a mount of a Labrador duck.

# SBLABDUCK \$17.50

## **Cast Study Bills (cont.)**

#### **Full-Head Study Bills**

Species	Item #	Price	Species
Bittern, American	SBABITT	\$17.50	Grouse, Spruce
Catbird, Gray	SBCATB	\$17.50	Gull, Franklin's
Coot, American	SBCOOT	\$17.50	Kingbird, Eastern
Dove, Mourning	SBMDOVE	\$17.50	Sandpiper, Solitary
Finch, House	SBHFINCH	\$17.50	Sapsucker,
Grebe, Western	SBWGREBE	\$17.50	Yellow-bellied
Grouse, Ruffed	SBRUFF	\$17.50	Vireo, Warbling
Grouse, Sharp-tailed	SBSHARPTAIL	\$17.50	Warbler, Tennesse

Species	Item #	Price
Grouse, Spruce	SBSPRUCE	\$17.50
Gull, Franklin's	SBFRGUL	\$17.50
Kingbird, Eastern	SBEKB	\$17.50
Sandpiper, Solitary	SBSOLSAND	\$17.50
Sapsucker, Yellow-bellied	SBYBSS	\$17.50
Vireo, Warbling	SBWVIREO	\$17.50
Warbler, Tennessee	SBTENWARB	\$17.50



#### Taxidermy-style Study Bills Sample photos below - See next page for full list



Great Blue Heron open bill

Pacific Loon

## Cast Study Bills (Taxidermy-style)

SB152	BRANT (PACIFIC)	21.50	SB294A	HERON, GREAT BLUE OPEN BILL	32.25
SB070	BUFFLEHEAD M	17.50	SB279	JAY, GRAY	17.50
SB072					32.25
	BUFFLEHEAD F	17.50	SB318	KESTREL, AMERICAN	
SB030	CANVASBACK M	17.50	SB293	LOON, COMMON	29.50
SB032	CANVASBACK F	17.50	SB800	LOON, PACIFIC	29.50
SB250	COOT, AMERICAN	17.50	SB014	MALLARD M	17.50
SB162	CRANE, SANDHILL	29.50	SB014A	MALLARD M OPEN BILL	21.50
SB280	CROW, COMMON	17.50	SB015	MALLARD F	17.50
SB264	DOVE, MOURNING	17.50	SB015A	MALLARD F OPEN BILL	17.50
SB262	DOVE, WHITE-WINGED	17.50	SB020	MERGANSER, AMERICAN M	17.50
SB076	DUCK, HARLEQUIN M	17.50	SB042	MERGANSER, AMERICAN F	17.50
SB074	DUCK, HARLEQUIN F	17.50	SB092	MERGANSER, HOODED M	17.50
SB144	DUCK, MANDARIN M	17.50	SB090A	MERGANSER, HOODED M OPEN	
				,	
SB146	DUCK, MANDARIN F	17.50	SB090	MERGANSER, HOODED F	17.50
SB096	DUCK, OLDSQUAW (LONG-TAIL) M	17.50	SB120	MERGANSER, RED-BREASTED M	17.50
SB094	DUCK, OLDSQUAW (LONG-TAIL) F	17.50	SB118	MERGANSER, RED-BREASTED F	17.50
SB018	DUCK, PINTAIL M	17.50	SB317	MERLIN M	21.50
SB019	DUCK, PINTAIL F	17.50	SB317A	MERLIN M OPEN BILL	32.25
SB062	DUCK, REDHEAD M	17.50	SB740	NIGHTHAWK, COMMON	19.95
SB064	DUCK, REDHEAD F	17.50	SB328	OWL, BARN	32.25
				,	
SB058	DUCK, RING-NECKED M	17.50	SB323	OWL, BARRED	32.25
SB056	DUCK, RING-NECKED F	17.50	SB319	OWL, BURROWING	32.25
SB124	DUCK RUDDY M	17.50	SB322	OWL, FLAMMULATED	32.25
SB006	DUCK, WOOD M	17.50	SB330	OWL, GREAT-HORNED	38.95
SB006A	DUCK, WOOD M OPEN BILL	21.50	SB321	OWL, SAW-WHET	32.25
SB008	DUCK, WOOD F	17.50	SB326	OWL, SCREECH	32.25
SB332	EAGLE, BALD CLOSED BILL	54.00	SB324	OWL, SNOWY	32.25
SB332A	EAGLE, BALD OPEN BILL	55.25	SB220	PARTRIDGE, CHUKAR	17.50
SB333	EAGLE, GOLDEN	54.00	SB224	PARTRIDGE, GRAY (HUN)	17.50
SB333A	EAGLE, GOLDEN OPEN BILL	55.25	SB200	PHEASANT, RING-NECKED M	17.50
SB082	EIDER, COMMON M	17.50	SB200H	PHEASANT, RING-NECKED F	17.50
SB084	EIDER, COMMON F	17.50	SB246	PRAIRIE CHICKEN	17.50
SB112	EIDER, KING M	17.50	SB270	PTARMIGAN, WILLOW	17.50
SB110	EIDER, KING F	17.50	SB912	PUFFIN, ATLANTIC	25.50
SB098	EIDER, PACIFIC M	17.50	SB910	PUFFIN, TUFTED	25.50
SB102	EIDER, PACIFIC F	17.50	SB235	QUAIL, BLUE SCALED	17.50
SB116	EIDER, SPECTACLED M	17.50	SB237	QUAIL, BOBWHITE	17.50
SB114	EIDER, SPECTACLED F	17.50	SB234	QUAIL, GAMBEL'S	17.50
SB108	EIDER, STELLER'S M	17.50	SB232	QUAIL, MOUNTAIN	17.50
SB106	EIDER, STELLER'S F	17.50	SB290	RAIL, SORA	17.50
SB309	FALCON, PEREGRINE	37.75	SB288	RAVEN (STUDY BILL IS BLACK)	21.50
SB702	FLICKER, NORTHERN	19.95	SB288A	RAVEN OPEN BILL (BLACK)	25.50
SB066	GADWALL M	17.50	SB500	ROLLER, LILAC-BREASTED	17.50
SB068	GADWALL F	17.50	SB034	SCAUP, GREATER M	17.50
SB252	GALLINULE, COMMON	17.50	SB036	SCAUP, GREATER F	17.50
SB254	GALLINULE, PURPLE	17.50	SB038	SCAUP, LESSER M	17.50
SB078	GOLDENEYE, BARROW'S M	17.50	SB040	SCAUP, LESSER F	17.50
SB080	GOLDENEYE, BARROW'S F	17.50	SB052	SCOTER, SURF M	17.50
SB048	GOLDENEYE, COMMON M	17.50	SB128	SCOTER, WHITE-WINGED M	17.50
SB046	GOLDENEYE, COMMON F	17.50	SB053	SHOVELER, NORTHERN M	17.50
SB099	GOOSE, BLUE	21.50	SB054	SHOVELER, NORTHERN F	17.50
SB130	GOOSE, CACKLING		SB256	SNIPE, WILSON'S (COMMON)	17.50
		21.50			
SB136	GOOSE, CANADA M	21.50	SB710	STARLING	17.50
SB022	GOOSE, ROSS'S	17.50	SB914	STILT, BLACK-NECKED	21.50
SB100	GOOSE, SNOW	17.50	SB171	SWAN, TRUMPETER	21.50
SB104		21.50	SB170A		33.50
	GOOSE, SPECKLE-BELLY			SWAN, TUNDRA	
SB104	GOOSE, WHITE-FRONTED	21.50	SB170B	SWAN, TUNDRA OPEN BILL	33.50
SB242	GROUSE, BLUE	17.50	SB088	TEAL, BLUE-WINGED M	17.50
SB228	GROUSE, RUFFED	17.50	SB086	TEAL, BLUE-WINGED F	17.50
SB229	GROUSE, SAGE	17.50	SB004	TEAL, CINNAMON M	17.50
				, -	
SB240	GROUSE, SHARP-TAILED	17.50	SB002	TEAL, CINNAMON F	17.50
SB226	GROUSE, SPRUCE	17.50	SB026	TEAL, GREEN-WINGED M	17.50
SB314	HAWK, COOPER'S M	32.25	SB028	TEAL, GREEN-WINGED F	17.50
SB325	HAWK, HARRIS'S	32.25	SB720	WAXWING, CEDAR	17.50
SB308	HAWK, RED-SHOULDERED	32.25	SB010	WIGEON, AMERICAN M	17.50
SB310	HAWK, RED-TAILED	37.75	SB012	WIGEON, AMERICAN F	17.50
SB312	HAWK, SHARP-SHINNED	32.25	SB258	WOODCOCK, AMERICAN M	17.50
SB291	HERON, BLACK-CROWN NIGHT	32.25	SB700	WOODPECKER, PILEATED	25.50
			30700	TOODI LONLII, I ILLAILD	20.00
SB294	HERON, GREAT BLUE	32.25			

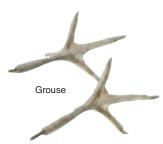
## **Cast Pewter Bird Feet**

We stock two styles of bird feet. All feet are excellent quality with minute detail faithfully reproduced. The full foot and leg (one piece) have been cast from the actual species so they are great for reference if you want to make your own feet, or you can use them directly in your carvings. The toes can be bent (carefully). "Bird toes" look great when sandwiched between the bird and base (looks like the bird is sitting on its toes). Larger feet are reinforced with a steel wire and some (like the Red-tailed Hawk) are made from 2 pieces to facilitate easier bending of the toes. All prices are per pair.



#### SONGBIRDS (1-piece unless noted)

SOMODINOS (1-piece uniess noteu)	,
Northern Oriole # FTORIOL	10.40
Belted Kingfisher # FTKFISH	11.90
Blue Jay # FTBJAY	13.35
Bluebird (Eastern) # FTBBIRD	8.90
Cardinal # FTCARD	10.40
Carolina Wren # FTCWREN	8.90
Chickadee # FTCHICK	8.90
Crow # FTCROW	27.00
Dove #FTDOVE	13.35
Dove (two piece) # FEETA09	13.35
Evening Grosbeak # FTEVENI	10.40
Goldfinch # FTGOLD	8.90
Herring Gull # FTHERGL	25.25
House Wren # FTHWREN	8.90
Meadowlark # FTMLARK	14.85
Pigeon # FTPIGON	13.35
Ring-Billed Gull # FTRBGUL	19.30
Road Runner # FTRDRUN	19.30
Robin # FTROBIN	13.35
Sora Rail # FTSORA	14.85
Titmouse # FTTMOUS	8.90
White-throated Sparrow #FTWTSPA	10.40
White-breasted Nuthatch #FTNUTHA	8.90
White-winged Dove # FTWDOVE	13.35
Wood Thrush # FTWTHR	10.40



#### UPLAND BIRDS (1-piece unless noted)

or LAND DINDS (1-biece dilless lio	ieu)
Bobwhite Quail # FTBOBWH	13.35
Chukar Partridge # FTCHUK	16.35
Gambel's Quail # FTGAMBL	13.35
Quail (two piece) # FEETA08	13.35
Grouse # FTGROUS	16.35
Grouse (two piece) # FEETA10	16.35
Pheasant # FTPHEAS	29.70
Woodcock # FTWCOCK	13.35



#### SHOREBIRDS (One piece)

13.35
27.00
27.00
13.35
11.90
17.85
11.90
10.40
19.30

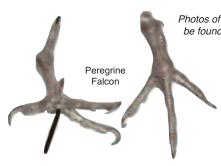


#### WATERFOWL (One piece)

WATER OWE (One piece)	
Bufflehead Standing # FTBUFFL	20.80
Canvasback Standing # FTCANVS	28.20
Green-winged Teal Standing # FTGWT	16.35
Green-winged Swimming # FTGWTFL	16.35
Mallard Standing # FTMALRD	25.25
Pintail Standing # FTPINTL	22.95
Wigeon Standing # FTWGEO	19.30
Wood Duck Standing # FTWDUCK	19.30
Wood Duck Swimming # FTWDUCK2	19.30

Photos of each foot we carry can be found at www.razertip.com.

## **Cast Pewter Bird Feet (cont.)**



Photos of each foot we carry can be found at www.razertip.com.

Pileated Woodpecker

WOODPECKERS (One piece)

#### BIRDS OF PREY (1-piece unless noted)

Broad-winged Hawk # FTBWHWK	20.80
•	
Cooper's Hawk # FTCOOPR	25.25
Kestrel # FTKESTR	13.35
Peregrine Falcon # FTPEREG	29.70
Red-tailed Hawk # FTRTHWK (2-pc.)	29.70
Screech Owl # FTOWL	11.90
Sharp-shinned Hawk # FTSSHIN	17.85



# Mini Pelican

## BIRD TOES ONLY (No legs) Size 1 24mm long # FEET

Size 2 30mm long	# FEETA02	7.75
Size 3 44mm long	# FEETA03	8.10
Size 4 34mm long	# FEETA04	7.75
Size 5 39mm long	# FEETA05	8.10
Size 6 51mm long	# FEETA06	8.90
Bluebird # FTOEB	В	8.90
Blue Jay # FTOEB	JAY	13.35
Cardinal # FTOEC	ARD	8.90
Chickadee #FTOE	CHIC	8.90
Downy Woodpecker	# FTOEDOWN	8.90
House Wren #FTO	EHWREN	8.90
Kestrel # FTOEKES	ST	13.35
Red-bellied Woodped	cker # FTOERBWPECK	13.35
Red-breasted Nuthat	ch # FTOERBNUT	8.90
Robin # FTOEROB	N	13.35
Saw-whet Owl #FT	OESAWOWL	11.90

7.50

#### MINI FEET (1- piece)

(measurement shown is length of centre toe)	
Ultra Mini Duck size 1 (11mm) # FTUMD1	8.90
Ultra Mini Duck size 2 (16mm) # FTUMD2	8.90
Mini Duck (23mm) # FTMD1X1	10.40
Mini Pelican (30mm) # FTPELIC	13.35
Mini Goose (33mm) # FTGOOSE	13.35
Mini Road Runner (30mm) # FTRRUN	13.35





Calif. Quail

20.80

	Caiii. Qu
Pewter Antlers, Curls and Top-Knots	
Calif. Quail top-knot (LS) # FTCQTN	8.90
Mountain Quail top-knot (LS) # FTMQTN	8.90
Mallard tail Curls (LS) # FTMALCURL	8.90
Mini Deer Antlers (small) approx 1.3" long	
# FTANTLERS	14.85

Mini Deer Antlers (large) approx 2" long # FTANTLERL

#### Tips on using pewter feet

- If you can't find the exact species you need, you may substitute another similar species (i.e. use Whitethroated sparrow feet on a House sparrow carving). See our "Eye, Foot, and Bill Chart" on pages 63-66.
- · Bird toes bend easily.
- Try putting a pin into the bird's body and setting the bird directly on its toes, so that no leg is visible. Works great, especially on "puffier" birds.
- All pewter feet and legs: it is best to bend them one time only, otherwise they may break when you try to bend them back. Whenever possible, try not to bend the leg portion and keep the bending of toes to a minimum. If a sharp bend is required, try soaking foot in hot water prior to bending. You may also try cutting a slot in the underside of the toe you wish to bend.

# Wood Basswood - Jelutong - Tupelo

**HOW TO ORDER WOOD**: Wood is sold by the measured board foot (MBF). One MBF is equivalent to a piece of wood 12"x12"x1" thick, or 144 cubic inches. To establish the MBF of a piece of wood, you multiply the length x width x thickness and divide by 144. For example, a piece of wood 4"x6"x14" = 336 cu. inches divided by 144 equals 2.333MBF. At \$6.90/MBF, basswood would cost \$16.10; tupelo would cost \$41.99.

"Cash and carry" / freight collect pricing: Cost per board foot when picking up wood at our store or if wood is being shipped freight collect (for example shipping costs billed to your UPS account).

"Shipped" pricing: Because wood is heavy and fairly expensive to ship, our "shipped" wood pricing includes a \$3.00 per board foot shipping surcharge to offset the additional costs we incur to ship wood. Our regular shipping charges will still apply (as shown on our order form).

**Buying wood online:** Wood is available on our online store at www.razertip.com. Follow the "Carving Woods" link on the left-hand side. You can then select from any of the dimensions shown (i.e. Jelutong 4"x12"). Order the length you want in inches. Everything shown on our online store is available for immediate shipping.

If you need wood in dimensions other than those listed on the online store (or if you don't use the internet), please don't hesitate to call us on our toll-free line. We'll do our best to get exactly the wood you want. For fax and mail orders, we may need to call you and let you know your options if your specific requirements cannot be met (be sure to include contact information on your order form!).

**Basswood** (Canada/USA). One of the most popular woods for bird, fish and animal carvers because of cost and carvability. It can be easily worked with power tools, too. All of our basswood is top quality Northern wood. Order the block size you desire and we will ship one as close to it as possible. Available in thicknesses from 2-6"; random widths up to 8" or 9". At time of printing we have an excellent supply of all sizes on hand.

#### Basswood - Cash and Carry

2" Thickness # BASS2 \$6.60/Mbf
3" Thickness # BASS3 \$6.90/Mbf
4" Thickness # BASS4 \$6.90/Mbf
5"+Thickness # BASS5 \$10.90/Mbf
\*Note: ALL BASSWOOD 4.5" AND THICKER (regardless of width), OR WIDER THAN 8" (regardless of thickness) WILL BE PRICED AS 5" WOOD.

#### Basswood - Shipped

2" Thickness # BASSF2 \$9.60/Mbf
3" Thickness # BASSF3 \$9.90/Mbf
4" Thickness # BASSF4 \$9.90/Mbf
5"+Thickness # BASSF5 \$13.90/Mbf\*
\*Note: ALL BASSWOOD 4.5" AND THICKER (regardless of width), OR WIDER THAN 8" (regardless of thickness) WILL BE PRICED AS 5" WOOD.

As of this printing we have a good selection of Canadian Basswood in stock in thicknesses from 2" to nearly 7", with widths up to 14". This is some of the nicest basswood we've ever had. If you have a larger project in mind be sure to contact us - chances are we'll have some basswood to do the job!

**Jelutong** (Malaysia). A favorite of wood pattern makers, Jelutong is very even-tempered and carves beautifully with hand or power tools. It sands very easily, too. It is slightly more open-grained than Bass or Tupelo, making it ideal for natural finish carvings as well as for birds, animals, and habitat. A member of the rubber tree family, Jelutong will occasionally have small latex "canals" inside the wood which can result in a small void (generally around 1/16"x1/4") that can easily be filled with a small wedge or chip of jelutong. All of our Jelutong is premium grade, 2x12" and 4x12" in any length you want up to 8 feet.

We can rip narrower pieces on request (ie 4", 6", or 8" wide).

#### Jelutong - Cash and Carry

2" Thickness # JELU2 **\$11.50/Mbf**4" Thickness # JELU4 **\$12.65/Mbf** 

#### Jelutona - Shipped

2" Thickness # JELUF2 \$14.50/Mbf 4" Thickness # JELUF4 \$15.65/Mbf

**Tupelo** (Southern USA). Tupelo is the wood of choice for many competitive carvers, including many world champions. While Tupelo can be worked with hand tools, it is more often worked with power tools. It is light weight, sands very smooth, and takes very fine detail well. Our Tupelo is cut and dried to our specifications and is available in a variety of sizes in thicknesses from 2" to 8" or more. Tupelo is preferred by most of the world champion wildfowl carvers in the U.S. and Canada.

#### Tupelo - Cash and Carry

4" Thickness # TUPELO4 \$18.00/Mbf 5"+ Thickness # TUPELO5 \$20.00/Mbf

#### Tupelo - Shipped

4" Thickness # TUPELOF4 \$21.00/Mbf 5"+ Thickness # TUPELOF5 \$23.00/Mbf

**Butternut** is becoming more scarce every year, and we regret that we are unable to maintain a reliable supply. We are constantly on the lookout for a source for Butternut and we will list any available stock on our website if and when it becomes available.

## **Patterns and Blanks**

**New Patterns and Blanks by Cam Merkle**. Cam has recently released two new carving and pattern books covering a wide variety of waterfowl, shorebirds and songbirds. Basswood blanks from any of the patterns are available and any of the patterns can be purchased separately. We recommend buying the books as they also contain some superb reference photos for each pattern. **\$24.95 each** 



#### Volume 1 - Waterfowl & Shorebirds.

19 different patterns for 16 species of waterfowl and shorebirds. Included for each species are great reference photos that you will find invaluable when carving and painting. Also includes brief carving tips to help you avoid common mistakes, as well as a bit of interesting trivia for each species.

36 pages, 54 colour photos. 11x17" Coil-bound.



#### Volume 2 - Songbirds.

24 different patterns for 20 songbirds. Included for each species are great reference photos that you will find invaluable when carving and painting your project. Also includes brief carving tips to help you avoid common mistakes, as well as a bit of interesting trivia for each species.

44 pages, 163 colour photos. 11x17" Coil-bound.

Item #	Description	Size	Price		
Blaı	Blanks from Volume 1 Waterfowl & Shorebirds				
BL01-28	Blue-winged Teal Drake	LS	22.00		
BL01-30	Green-winged Teal Drake	LS	22.00		
BL01-4	Bufflehead Drake	LS	22.00		
BL01-6	Canvasback Drake	3/4LS	21.00		
BL01-18	Mallard Drake	1.2LS	15.50		
BL01-20	Pintail Drake	1/2LS	15.50		
BL01-22	Redhead Drake	3/4LS	20.00		
BL01-24	Ruddy Duck Drake	LS	22.00		
BL01-34	Wood Duck Drake	1/2LS	13.25		
BL01-2	American Avocet	2/3LS	15.50		
BL01-8	Canada Goose Feeding	1/2LS	17.75		
BL01-10	Canada Goose Resting	1/2LS	17.75		
BL01-16A	Common Loon High Head	40%LS	20.00		
BL01-16B	Common Loon Swimming	1/3LS	18.75		
BL01-12	Great Blue Heron	1/5LS	13.25		
BL01-14M	Labrador Duck Drake	1/2LS	15.50		
BL01-14F	Labrador Duck Hen	1/2LS	15.50		
BL01-26	Least Sandpiper	LS	11.00		
BL01-32	Willet	3/4LS	17.75		

#### Each blank includes glass eyes and a pattern.

Chestnut-backed Chickadee .....



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Item #	Description	Size	Price		
Blanks from Volume 2 Songbirds					
BL02-2A	Red-winged Blackbird Perched	LS	13.25		
BL02-2B	Red-winged Blackbird Open-wing	LS	17.75		
BL02-4	Yellow-headed Blackbird	LS	13.25		
BL02-6	Mountain Bluebird Male	LS	11.00		
BL02-8	Gray Catbird	LS	13.25		
BL02-10A	Black-capped Chickadee Regular	LS	10.00		
BL02-10B	Black-capped Chickadee Puffy	LS	10.00		
BL02-12A	Chestnut-backed Chickadee Upright	LS	10.00		
BL02-12B	Chestnut-backed Chickadee Down	LS	10.00		
BL02-14	Brown-headed Cowbird	LS	13.25		
BL02-16Y	Northern Flicker (Yellow-shafted)	2/3LS	12.25		
BL02-16R	Northern Flicker (Red-shafted)	2/3LS	12.25		
BL02-18	Blue Grosbeak	LS	12.25		
BL02-20	Rose-breasted Grosbeak	LS	13.25		
BL02-22	Costa's Hummingbird	LS	7.75		
BL02-24A	Ruby-throated Hummingbird Perched	LS	7.75		
BL02-24B	Ruby-throated Hummingbird Flying w/ Columbine Flower	LS	16.50		
BL02-26	Gray Jay	LS	18.75		
BL02-28	Steller's Jay	LS	16.50		
BL02-30	Dark-eyed Junco	LS	11.00		
BL02-32	American Robin	LS	13.25		
BL02-34	Yellow-bellied Sapsucker	LS	14.50		
BL02-36	Clay-coloured Sparrow	LS	10.00		
BL02-38	Bohemian Waxwing	LS	11.00		
BL02-40	Cedar Waxwing	LS	11.00		
Each blank includes glass eyes and a pattern.					

## **Patterns and Blanks**

Patterns and Blanks by Cam Merkle. Each pattern is carefully researched and drawn so you will find them useful whether you want to carve them directly, or use for reference to draw your own pattern. Bird blank price includes wood cutout, eyes and pattern; whale and dolphin blanks include wood cutout and a pattern. Our blanks are cut to order, so if you are coming out to buy blanks please phone at least one day ahead and let us know what you want so the blank(s) will be ready when you get here. We can also cut out blanks from patterns you supply. Prices are for Basswood blanks. Other woods may be available; call for further information.

Item #	Description	Size	Price	Item #	Description	Size	е	Price
Waterfowl			,		Loons			
BL001	Blue-winged Teal M	3/4 LS	13.25	BL067	Ultra Mini	4.75" L	. 9	9.50
BL003	Bufflehead M	1/3 LS	15.50	BL012	Mini	6.5" L	1	12.25
BL007	Canvasback M	LS	29.75	BL014	Medium	9.25" L	. 1	18.75
				BL017	Large 1/2 LS	12" L	2	23.25
BL009	Canvasback M	1/2 LS	13.25	BL015	High head, puffy neck	9.75" L	. 2	20.00
BL010	Canvasback F	LS	29.75	BL018	Full size	21" L	6	67.25
BL021	Mallard M	3/4 LS	22.00	Songbirds				
BL022	Mallard M	LS	35.25	BL084			11.00	
BL025	Pintail M	3/4 LS	20.00	BL062	Blackbird, Yellow-headed		7/8 L	S 11.00
BL026	Pintail M	LS	26.50	BL047	Blue Jay		1/2 L	S 9.00
BL027	Pintail F	1/2 LS	15.50	BL048	Blue Jay		2/3 L	S 10.50
BL028	Pintail F	3/4 LS	20.00	BL049	Blue Jay		LS	13.25
BL029	Pintail F	LS	26.50	BL085	Kingfisher, Belted		1/2 L	S 10.00
				BL052	Magpie, crouched squawking		1/2 L	S 9.00
BL030	Redhead M	LS	31.00	BL053	Magpie, crouched squawking		3/4 L	S 14.00
BL032	Wigeon M	3/4 LS	16.50	BL054	BL054 Magpie, crouched squawking		LS	23.25
BL034	Wood Duck M	LS	24.25	BL057 Meadowlark, Western LS		LS	11.00	

	Birds of Prey				
BL038	Burrowing Owl	LS	24.25		
BL079	Bald Eagle on Rock	1/3 LS	13.25		
BL039	Kestrel (perched)	1/2 LS	11.00		
BL041	Kestrel (perched)	LS	18.75		
BL068	Great Horned Owl	1/2 LS	23.75		
BL087	Great Horned Owl	1/3 LS	16.50		
BL078	Saw-whet Owl	1/2 LS	11.00		
BL083	Saw-whet Owl	LS	22.75		
BL080	Swainson's Hawk (Bust)	LS	18.00		

Snorebirds				
BL036 American Avocet LS 22.00				
See Page 56 for more shorebird blanks				
Whales and Dolphins				

Whales and Dolphins				
BL063	Killer Whale Calf	6" L	9.00	
BL066	Killer Whale Female	9.25" L	15.50	
BL064	Killer Whale Female	11.5" L	25.50	
BL065	Bottlenose Dolphin	8" L	10.00	

Studynotes for many of the above projects are listed on page 82.

#### To order a pattern only

Substitute the letters "PA" for "BL" (example "#PA078" for a Saw-whet owl pattern only; #BL078 for a blank). Cost is \$2.00 per pattern.

Patterns are included with each blank.

**About copyright:** All of our patterns are copyrighted. You may photocopy them for your personal use only.

Costa's Hummingbird :--



They is within a vision and a polyader for the control of the cont



## **Glass Eyes**

Clear (Flint) Eyes w/Round Black Pupils						
Size	#	Price	Г	Size	#	Price
3mm	EY3	1.25		9mm	EY9	2.50
4mm	EY4	1.25		10mm	EY10	2.65
5mm	EY5	1.25	l	11mm	EY11	2.95
6mm	EY6	1.40	l	12mm	EY12	3.85
7mm	EY7	1.55		13mm	EY13	4.00
8mm	EY8	1.75		14mm	EY14	6.30

Solid Black Glass Eyes						
Size	#	Price	Г	Size	#	Price
3mm	EY3BL	1.25		7mm	EY7BL	1.55
4mm	EY4BL	1.25		8mm	EY8BL	1.75
5mm	EY5BL	1.25		9mm	EY9BL	2.50
6mm	EY6BL	1.40	L	10mm	EY10BL	2.65

All eye prices are per pair. Loon eyes are also great for some Grebes....

Coloured Eyes w/Round Black Pupils						
Size	#	Price	П	Size	#	Price
3mm	EY3(*)	1.40		9mm	EY9(*)	2.80
4mm	EY4(*)	1.40		10mm	EY10(*)	3.10
5mm	EY5(*)	1.40		11mm	EY11(*)	3.65
6mm	EY6(*)	1.55		12mm	EY12(*)	4.60
7mm	EY7(*)	1.75		13mm	EY13(*)	4.85
8mm	EY8(*)	2.05		14mm	EY14(*)	7.00

\*Colour Codes: YL = Yellow RD = Red HZ = Hazel BR = Brown DB = Dark Brown

Loon Eyes - Red w/ Small Black Pupil						
Size	#	Price		Size	#	Price
6mm	EY6LN	3.85		11mm	EY11LN	5.45
7mm	EY7LN	3.85		12mm	EY12LN	5.45
8mm	EY8LN	3.85		13mm	EY13LN	6.10
9mm	EY9LN	3.85		14mm	EY14LN	6.10
10mm	EY10LN	3.85				

	Competition Grade Ey					
Size	Clear #	Clear Price	Coloured #	Coloured Price		
5mm	CEY5	3.20	CEY5(*)	3.85		
6mm	CEY6	3.20	CEY6(*)	3.85		
7mm	CEY7	3.20	CEY7(*)	3.85		
8mm	CEY8	3.20	CEY8(*)	3.85		
9mm	CEY9	3.20	CEY9(*)	3.85		
10mm	CEY10	4.20	CEY10(*)	5.05		
11mm	CEY11	4.60	CEY11(*)	5.45		
12mm	CEY12	4.75	CEY12(*)	5.90		

es	w/Hour	па віаск	Pupiis		
	Size	Clear #	Clear	Coloured	Coloured
	Size	Cleal #	Price	#	Price
	14mm	CEY14	7.00	CEY14(*)	8.00
	16mm	CEY16	8.00	CEY16(*)	9.65
	18mm	CEY18	8.90	CEY18(*)	11.00
	20mm	CEY20	10.35	CEY20(*)	12.45
	22mm	CEY22	11.55	CEY22(*)	13.65

/Dound Block Bunil

(\*) Colour Codes -See "Coloured Eyes" above

Oval Pupil Eyes				
Size	Item #	Price		
3mm	EY3OVAL	1.80		
4mm	EY4OVAL	1.80		

Clear eyes with black oval-shaped pupils are great for reptiles and small animals! Larger sizes can be ordered.

All eye prices are per pair.

Price

8.40

8.40

9.50

9.80

8.75

9.95

15.05

Item #

EY16OWL

EY16STOWL

EY16BE

EY18BE

EY18OWL

EY20OWL

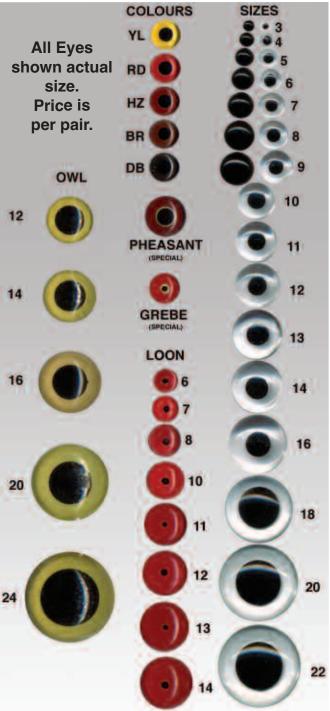
EY24STOWL

			Speci	alty	/ Eyes	
Size	Description	Item #	Price		Size	Description
8mm	Grebe	EY8GRB	4.20	1	16mm	Misc. Owl, Yellow
10mm	Misc. Owl, Yellow	EY100WL	6.70		16mm	Misc. Owl, Straw
11mm	Ring-necked Pheasant	EY11PH	7.70		16mm	Bald Eagle
12mm	Saw Whet / Boreal/ Burrowing Owl, Yellow	EY120WL	7.55		18mm	Bald Eagle
12mm	As above, Straw colour	EY12STOWL	7.55		18mm	Misc. Owl, Yellow
14mm	Screech / Long or Short- Eared Owl, Yellow	EY14OWL	8.40		20mm	Great Horned Owl, Yellow
14mm	As above, Straw colour	EY14STOWL	8.40		24mm	Lg. Great Horned Owl, Straw

We can get almost anything you need - give us a call!

Try us for whatever your eye needs are. We can also supply eyes with slit and eliptical pupils as well as lizard, amphibian and snake eyes.

## Glass Eyes (cont)



With one of the best selections of eyes for carvers in Western Canada (if not all of Canada), we can supply any of your glass eye needs. Our money back guarantee and fast shipping on eye orders means you can buy eyes from us with confidence. We usually have over 4,000 pairs in stock, including special pupil shapes and custom eye colours. Everything listed is available for immediate shipping.

Standard (Production)
Grade Eyes (not on wire).
Very nice machine-made
eyes. Reasonably priced and
consistent in size and pupil
diameter. Available in clear
with black pupil, solid black,
or 5 colours. Coloured eyes
have baked enamel backs.
Colours:

brown (BR)
dark brown (DB)
hazel (HZ)
red (RD)
yellow (YL)

To order a 7mm red eye, order Item # EY7**RD**. A 12mm brown eye would be # EY12**BR**.

#### **Competition Grade Eyes**

(not on wire). Our best eyes. Basic colour selection is same as standard grade eyes. Can also be custom painted for species requiring slightly different colour. We recommend that you let us know which species the eyes are for so we can get the proper colouration.

Colour Codes (insert Code

for (\*) in Item # - page 58):

**BR** = Brown

**DB** = Dark Brown

**HZ** = Hazel

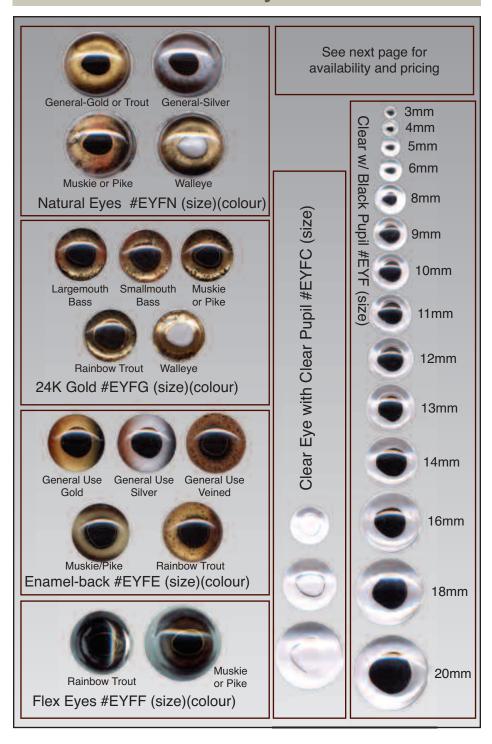
YL = Yellow

RD = Red

Also available as clear eyes with black pupil.

All eye prices are per pair.

## **Fish Eyes**



# Fish Eyes (cont.)

Clear (Flint) w/ Black Pupil				
Size	#	Price		
3mm	EYF03	3.29		
4mm	EYF04	3.29		
5mm	EYF05	3.29		
6mm	EYF06	3.29		
8mm	EYF08	3.51		
9mm	EYF09	3.51		
10mm	EYF10	5.63		
11mm	EYF11	5.63		
12mm	EYF12	5.76		
13mm	EYF13	6.21		
14mm	EYF14	6.21		
16mm	EYF16	6.71		
18mm	EYF18	7.16		
20mm	EYF20	7.34		

20mm	20mm EYF20			
Clear (Flint) w/ Clear Pupil				
Size	#	Price		
8mm	EYFC08	3.29		
10mm	EYFC10	3.51		
12mm	EYFC12	5.76		
14mm	EYFC14	6.21		
16mm	EYFC16	6.71		

18mm EYFC18 7.16

Muskie / Pike EYFE06MPK EYFE08MPK	5.00
EYFE06MPK EYFE08MPK	5.00
EYFE08MPK	-
	5.40
EYFE10MPK	5.85
EYFE12MPK	6.80
EYFE14MPK	8.91
EYFE16MPK	9.09
EYFE18MPK	9.36
EYFE20MPK	9.63
Rainbow Trou	ıt:
EYFE06RT	5.00
EYFE08RT	5.40
EYFE10RT	5.85
EYFE12RT	6.80
EYFE14RT	8.91
EYFE16RT	9.09
EYFE18RT	9.36
EYFE20RT	9.63
	EYFE14MPK EYFE16MPK EYFE18MPK EYFE20MPK Rainbow Trou EYFE06RT EYFE08RT EYFE10RT EYFE12RT EYFE14RT EYFE16RT EYFE16RT EYFE18RT

We can supply other fish, reptile
and amphibian eyes by specia
order. Just tell us your needs
and we will do our best to supply
great eyes for your next project.

Natural Fish Eyes Our best, most realistic glass eyes							
Size	Species	Item #	Price				
10mm	Gen. Gold	EYFN10GNG	12.87				
12mm	Gen. Gold	EYFN12GNG	12.87				
14mm	Gen. Gold	EYFN14GNG	12.87				
16mm	Gen. Gold	EYFN16GNG	14.04				
18mm	Gen. Gold	EYFN18GNG	14.04				
20mm	Gen. Gold	EYFN20GNG	15.21				
10mm	Gen. Silver	EYFN10GNS	12.87				
12mm	Gen. Silver	EYFN12GNS	12.87				
14mm	Gen. Silver	EYFN14GNS	12.87				
16mm	Gen. Silver	EYFN16GNS	14.04				
18mm	Gen. Silver	EYFN18GNS	14.04				
20mm	Gen. Silver	EYFN20GNS	15.21				
10mm	Muskie / Pike	EYFN10MPK	12.87				
12mm	Muskie / Pike	EYFN12MPK	12.87				
14mm	Muskie / Pike	EYFN14MPK	12.87				
16mm	Muskie / Pike	EYFN16MPK	14.04				
18mm	Muskie / Pike	EYFN18MPK	14.04				
20mm	Muskie / Pike	EYFN20MPK	15.21				
10mm	Walleye	EYFN10WA	12.87				
12mm	Walleye	EYFN12WA	12.87				
14mm	Walleye	EYFN14WA	12.87				
16mm	Walleye	EYFN16WA	14.04				
18mm	Walleye	EYFN18WA	14.04				
20mm	Walleye	EYFN20WA	15.21				

Enar	nel-back	ed for General	Use
Size	Colour	Item #	Price
3mm	GOLD	EYFE03GNG	4.10
4mm	GOLD	EYFE04GNG	4.10
5mm	GOLD	EYFE05GNG	4.10
6mm	GOLD	EYFE06GNG	4.10
8mm	GOLD	EYFE08GNG	4.41
10mm	GOLD	EYFE10GNG	5.00
12mm	GOLD	EYFE12GNG	5.27
14mm	GOLD	EYFE14GNG	5.85
16mm	GOLD	EYFE16GNG	6.75
18mm	GOLD	EYFE18GNG	7.02
20mm	GOLD	EYFE20GNG	7.61
6mm	SILVER	EYFE06GNS	4.10
8mm	SILVER	EYFE08GNS	4.41
10mm	SILVER	EYFE10GNS	5.00
12mm	SILVER	EYFE12GNS	5.27
14mm	SILVER	EYFE14GNS	5.85
16mm	SILVER	EYFE16GNS	6.75
18mm	SILVER	EYFE18GNS	7.02

24k	Gold-backed S	Species-Speci	fic
Size	Species	Item #	Price
12mm	Bass-LgMouth	EYFG12LB	7.02
14mm	Bass-LgMouth	EYFG14LB	9.09
16mm	Bass-LgMouth	EYFG16LB	9.36
12mm	Bass-SmMouth	EYFG12SB	7.02
14mm	Bass-SmMouth	EYFG14SB	9.09
16mm	Bass-SmMouth	EYFG16SB	9.36
8mm	Muskie / Pike	EYFG08PK	5.85
10mm	Muskie / Pike	EYFG10PK	6.44
12mm	Muskie / Pike	EYFG12PK	7.16
14mm	Muskie / Pike	EYFG14PK	9.09
16mm	Muskie / Pike	EYFG16PK	9.36
18mm	Muskie / Pike	EYFG18PK	9.68
20mm	Muskie / Pike	EYFG20PK	9.95
8mm	Rainbow Trout	EYFG08RT	5.85
10mm	Rainbow Trout	EYFG10RT	6.44
12mm	Rainbow Trout	EYFG12RT	7.16
14mm	Rainbow Trout	EYFG14RT	9.09
16mm	Rainbow Trout	EYFG16RT	9.36
18mm	Rainbow Trout	EYFG18RT	9.68
20mm	Rainbow Trout	EYFG20RT	9.95
8mm	Walleye	EYFG08WA	5.85
10mm	Walleye	EYFG10WA	6.44
12mm	Walleye	EYFG12WA	7.16
14mm	Walleye	EYFG14WA	9.09
16mm	Walleye	EYFG16WA	9.36
18mm	Walleye	EYFG18WA	9.68
20mm	Walleye	EYFG20WA	9.95

En	(continued)								
Size	Colour	Item #	Price						
6mm	VEINED	EYFE06GNV	5.27						
8mm	VEINED	EYFE08GNV	5.58						
10mm	VEINED	EYFE10GNV	5.99						
12mm	VEINED	EYFE12GNV	6.71						
14mm	VEINED	EYFE14GNV	8.51						
16mm	VEINED	EYFE16GNV	8.78						
18mm	VEINED	EYFE18GNV	9.09						
20mm	VEINED	EYFE20GNV	9.36						

(n	(not glass but extremely realistic)							
Size	Species	Item #	Price					
12mm	Rainbow Trout/Crappie	EYFF12RBCR	9.27					
14mm	Walleye	EYFF14WE	11.43					
12mm	LM Bass/Muskie/Pike	EYFF12LMNP	9.27					
14mm	LM Bass/Muskie/Pike	EYFF14LMNP	10.53					
16mm	LM Bass/Muskie/Pike	EYFF16LMNP	10.53					
18mm	LM Bass/Muskie/Pike	EYFF18LMNP	10.53					
20mm	LM Bass/Muskie/Pike	EYFF20LMNP	11.43					

Flex™ Fish Eyes

All eyes listed above are normally kept in stock for immediate shipping. For special orders allow up to 3 weeks.

20mm SILVER EYFE20GNS 7.61

## **Vision Aids**

# *Opti*VISOR

Having trouble seeing the fine detail? We have the solution! From our convenient clip-on magnifiers through economical Opti-SIGHT™ magnifiers to the top-of-the-line OptiVISOR™ Optical Glass Binocular Magnifier and OptiVISOR™ LX headband magnifiers, you'll find a

magnifier to suit your needs. They are all comfortable to wear, easy on the eyes and made from quality optical glass or acrylic. All offer a "binocular" view for accurate depth perception.



Opti-SIGHT™ magnifier includes 3 easy-to-change optical grade acrylic prismatic lenses: #3 (14" focus, 1.75X), #4 (10" focus, 2.00X), and #5 (8" focus, 2.50X). Visor tilts up for normal viewing and down for magnification. Good for short-duration and hobby use (headband can get uncomfortable if worn for long periods).

Note: Frame colour will varv. # OPTISIGHT \$38.35



Clip-on Magnifier can be used with most eyeglass frames in front of your existing prescription lenses, or can be attached to the binocular frame (included). Easily pivots up when not in use. Great for smaller tasks. Available in your choice of 2 different magnifications. For most applications, the #3 is the best choice.

Magnifier w/ #3 lens (14" focus, 1.75X) # VISORCO-3 \$38.35 Magnifier w/ #4 lens (10" focus, 2.00X) # VISORCO-4 \$38.35



OptiVISOR™ and OptiVISOR™ LX. Top-of-the-line headband magnifier. The original OptiVISOR™ features adjustable side pivots, an adjustable full headband with a leather and orthopedic felt-padded comfort band and precision-ground optical glass lenses for unsurpassed quality and durability. The OptiVISOR™ LX uses the same headband but incorporates optical acrylic prismatic lenses for reduced weight and cost. OptiVISOR™ and OptiVISOR™ LX are your best choices for the least eye and head fatigue, especially when used for extended periods.

OptiVisor™ LX #3 (acrylic). 1.75X magnification, 14" focus # VISORLX3 \$42.85 OptiVisor™ #3 (glass). 1.75X magnification, 14" focus # VISOR3 \$59.50 OptiVisor™ #4 (glass). 2.0X magnification, 10" focus # VISOR4 \$59.50

If you can't read this you need an Ontivisor!

Replacement or extra Glass Lenses (fit OptiVISOR or OptiVISOR LX):

**#3** (# LP3) or **#4** (# LP4) \$36.25 ea #5 8" focus, 2.5X magnification # LP5 \$36.25

#7 6" focus, 2.75X magnification # LP7 \$38.35

#10 4" focus, 3.5X magnification # LP10 \$38.35 Replacement leather comfort band for Optivisor or Optivisor LX # VISORPT3 \$7.80



OptiLOUPE™ 2.5X monocular adds 2.5x magnification to visor for Optivisor™ and OptiVISOR LX only; will not fit Clip-on or OptiSIGHT™. Attaches to either side; swings away when not in use.

# OPTILOUPE \$13.25



New! VisorLIGHT will fit on most headband magnifiers, illuminating the magnified viewing area. It easily adjusts up or down for maximum illumination. Xenon laserbeam bulb gives 6000 candle-power brightness and up to 5 hours of battery life with 2 - AA batteries (not included). A very convenient, hands-free way to get more light on your work. # VISORLIGHT \$32.45 (visor not included)

FAQ: How do I know which lens I should get?

A. Generally, the #3 lens is your best starting point. It gives the best combination of magnification and comfort. You can work around 14" away from your eyes and you still have good depth-of-field (meaning that things somewhat closer as well as further than 14" will still be easily seen). With higher magnifications, the focus distance gets closer, depth-of-field drops quickly and eye fatigue is more likely. As my eyes get older (along with the rest of me) I still use my #3 visor, but use the #4 more, and I've added a #7 for my very fine work. I put an OptiLOUPE on my #4 visor - it's unbeatable for super-tiny detail and removing slivers.

## Eye, Foot, Bill & Study Cast Reference Chart (pgs.63-66)

How to use this chart. Use this chart to find availability of eyes, feet, study bills and study casts for most species of North American birds (as well as a few exotics like Toucans and Rollers).

Eyes (cat p.58-61): Most common size and colour is shown. Use as a guide; variations in size and colour will occur from one individual to another. Be sure to consult further reference if exact size and colour is important. In most instances, black eyes and dark brown eyes can be interchanged with good results. Colours used in this chart are as follows:

LB=Light brown; BR=Medium brown; DB=Dark brown; HZ=Hazel; RD=Red; GR=Green; DY=Deep yellow;

LY=Light yellow, YL=Medium yellow, BL= Black. Other colours as listed.

**Feet** (cat. p.53,54): If a suitable cast pewter foot is made, it will be listed in this column. The number shown is our catalogue# (minus the "FT" prefix). ie: under Brewer's Blackbird, "BJAY" would indicate our cat# "FTBJAY". Feet for a Blue Jay could be used, as there are no feet made specifically for the blackbird.

Substituting Feet: Where an "Sub" appears under the Cast Foot column, there is a cast foot that could be substituted. Sometimes the best substitute foot will be listed beside the "Sub", indicating which foot would give the closest match. Where the best substitute is not listed, (Sub - call) you can contact us with some measurements for your bird and we will provide a suitable foot. Substitute feet will be close to correct, but not a perfect match.

**Bills** (cat. p.50-52): If box is grey, no bills are available for this species. Otherwise, the bill number will be indicated (minus the "SB" prefix). ie: Bald Eagle indicates "332" - use # SB332; Catbird indicates "CATB" - use # SBCATB. "+" behind the bill number indicates that multiple bill choices exist (ie. full-head bill and taxidermy bills are available). **Study Casts** (cat. p.47-50): If a cast is available, it will be indicated here, along with its scale. ie: Bald Eagle indicates "1/5 LS" (Life-size), while the Indigo Bunting indicates LS.

Species	Eye Size & Colour	Cast Foot	Bill	Study Cast
Anhinga	9BR			
Avocet	8DB			
Bittern, American	14YL		AMBIT	
Bittern, Least	8YL			
Blackbird,				
Brewer's	6YL	BJAY		
Red-winged	5BL or DB	ROBIN		
Rusty (male)	5LY	ROBIN		
Rusty (female)	5YL	ROBIN		
Tri-coloured	5BL or DB	ROBIN		
Yellow-headed	6BL or DB	BJAY		
Bluebird, Eastern	5BL or DB	BBIRD		LS-#07 & #53
Bluebird, Mountain	6BL or DB	EVENI		
Blue Jay	9DB	BJAY or #07	285	#13%, 20%, 46%
Bobolink	5BL	Sub - call		
Brant, Pacific	11DB		152	
Bulfinch	6DB	Sub - call		
Bunting, Indigo	5BL	BBIRD		LS-#11
Lark	5BL	ORIOL		
Lazuli	5BL	BBIRD		
Painted	5BL	BBIRD		
Snow	4-5BL	ORIOL		
Buzzard	12DB			
Canary	3BL	01 or CHICK		
Cardinal	5BL	CARD	#B	LS #08 or #34 1/2LS #27
Catbird	5BL	06 or ROBIN	CATB	
Chickadee (all)	4BL	01 or CHICK		LS #04, 24, or 41
Chicken, Domestic	10HZ			
Condor	16DB			
Coot	8RD		250/COOT	
Cormorant,				
Double-crested	12GR			
Olivaceous	12GR			
Cowbird	6BL	06/ROBIN		
Crane, Common	12YL			

Species	Eye Size & Colour	Cast Foot	Bill	Study Cast
Crane, Sandhill	12YL		162	
Whooping	12YL			
Creeper, Brown	5BL	Sub - call		
Crossbill	5BL	03 or EVENI		
Crow	11DB	CROW	280	
Cuckoo, Yellow-billed	7BR			
Curlew, Eskimo	8BR			
Curlew, Long-billed	9DB			
Dipper	5BL	Sub - call		
Dowicher, Long-billed	7DB			
Dowicher, Short-billed	7DB			
Dove, Mourning	7DB	09 or DOVE	264+MD	LS #12
Dove, Turtle	7BR			
Dove, White-winged	8DY	WDOVE	262	
Duck:				
Black Duck (both)	11BR	MAL	014/015	
Blue-wing Teal both	9BR	GWT	088/086	
Bufflehead M	9BR	BUFFL	070	
Bufflehead F	8BR	BUFFL	072	
Canvasback M	10RD	CANVS	030	
Canvasback F	10BR	CANVS	032	
Cinnamon Teal M	9RD	GWT	004	
Cinnamon Teal F	9BR	GWT	002	
Gadwall both	10BR	MAL	066/064	
Garganey both	9BR			
Gold'ey,Barrows M	10YL		078	
Gold'ey,Barrows F	10LY		080	
Gold'ey,Common M	10YL		048	
Gold'ey,Common F	10LY		046	
Green-wing Teal M	10LB/HZ	GWT	026	
Green-wing Teal F	10LB	GWT	028	
Harlequin M	9DB		076	
Harlequin F	9BR		074	
Labrador M	11HZ		SBLAB	
Long-tailed M	9LB		096	
Long-tailed F	9BR		094	

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Species	Eye Size & Colour	Cast Foot	Bill	Study Cast	Species	Eye Size & Colour	Cast Foot	Bill	Study Cast
Duck: (cont.)					Grebe, Horned	8RD*			
Mallard both	11BR	MAL	014/015		Grebe, Pied-billed	7RD/7BR			
Mandarin both	11LB	WDUCK	144/146		Grebe, Red-necked	10BR			
Pintail both	10BR	PINTL	018/019		Grebe, Western	12RD*		WGREB	
Pochard M	10RD				Grosbeak, Blue	6BL	EVENI		
Pochard F	10BR				Grosbeak, Evening	6BL	EVENI		
Redhead M	10YL		062		Grosbeak, Pine	7DB or BL	ROBIN		
Redhead F	10BR		064		Grosbeak, Rose-breasted	6BL	EVENI		LS #42
Ring-necked M	9YL		058		Grouse, Blue	8HZ		242	
Ring-necked F	9BR		056		Grouse, Ruffed	9HZ	10	228+	
Ruddy both	9DB		124		Grouse, Sage	10BR		229	
Scaup, greater M	10YL		034		Grouse, Sharp-tailed	10HZ	GROUS	240+	
Scaup, greater F	10DY		036		Grouse, Spruce	9BR	10	226+	
Scaup, lesser M	9YL		038		Gull, California	11BR			
Scaup, lesser F	9DY		040		Gull, Franklin's	9BR		FRGUL	
Shoveller M	10YL	PINTL	053		Gull, Herring	12YL	HERGL		
Shoveller F	10BR	PINTL	054		Gull, Laughing	9BR			
Smew	10DB				Gull, Ring-billed	10YL	RBGUL		
Tufted	10YL				Gyrfalcon	14DB			
Whistling fulvous	10BR		140		Hawk, Broad-winged	10LB	BWHWK		
Wigeon M	10HZ/LB	WGEO	010		Hawk, Cooper's	10RD	COOPR	314	
Wigeon F	10BR	WGEO	012		Hawk, Ferruginous	12BR			
Wood Duck M	11RD	WDUCK	006		Hawk, Harris'	12BR		325	
Wood Duck F	11BR	WDUCK	008		Hawk, Harrier/Marsh	12DB		020	
Eagle, Bald	16 Straw		332	1/5LS #22	Hawk, Red-shouldered	12DB		308	
Eagle, Golden	18DB		333		Hawk, Red-tailed	13DB	RTHWK	310	1/4SL #16
Egret, Cattle	7YL				Hawk, Rough-legged	13BR		0.0	17102#10
Egret, Snowy	7YL				Hawk, Sharp-shinned	9RD	SSHIN	312	
Eider, Common	10BR		082/084		Hawk, Sparrow	9DB	KESTR	318	1/2LS #29
Eider, King M	10DB		112		Hawk, Swainson's	13DB			
Eider, King F	9BR		110		Hawk Owl, Northern	12YL			
Eider, Spectacled	9BLUE		116/114		Heron, Blk. Crown Nite	12YL		291	1/3LS #23
Eider, Steller's M	8BL		108		Heron, Great Blue	14YL		294	1/5LS #31
Eider, Steller's F	8BR		106		Heron, Green	11LY	GHERON	201	17020 #01
Falcon, Prairie	13DB	PEREG			Hummingbird:	1121	GITETION		
Falcon, Peregrine	13DB	PEREG	309	1/4LS #30	Allen's	3BL			
Finch, House	5BL	WTSPA	HFINCH		Anna's	3BL			
Finch, Purple	5BL	WTSPA		LS #35	Broad-billed	3BL			
Flicker, Northern	7DB/BL	FLICK	702	2/3LS #39	Calliope	3BL			
Gallinule, Common	10DB		252		Costa's	3BL			
Gallinule, Purple	10RD		254		Ruby-throated	3BL			
Godwit, Hudsonian	7DB		204						
Godwit, Marbled	8DB				Rufous	3BL			
		GOLD		10 #56	Ibis, White	9GRAY	DIAV	070	
Goldfinch Goose, Blue	4BL	GOLD	099	LS #56	Jay, Gray	8DB or BL	BJAY	279	
	12BR				Jay, Scrub	7DB or BL	BJAY		1.0 #00000
Goose, Cackling	10DB	MINI	130		Jay, Steller's	7DB or BL	BJAY		LS #SC098
Goose, Canada	12DB	IVIIIVI	136		Junco	4BL	EVENI		
Goose, Ross's	12BR		022		Kestrel	9DB	KESTR	318	1/2LS #29
Goose, Snow	12BR		100		Killdeer	8DB	KILDR	FILE	2/3LS #58
Goose, White-fronted	12BR		104		Kingbird, Eastern	7DB	ROBIN	EKB	
Goshawk	13RD			1/3LS #37	Kingbird, Western	7DB	ORIOL		
Grackle, Common	7BL		289		Kingfisher, Belted	9DB	KFISH		1/2 LS #15
Grebe, Eared	8RD*				Kinglet, Gold-crowned	4BL	CHICK		LS #47

Knot, Red         6           Lark, Horned         6           Longspur, Lapland         5           Loon, Arctic(Pacific)         1           Loon, Common         1           Loon, Red-throated         1           Loon, Yellow-billed         1           Magpie, Black-billed         9           Martin, Purple         7           Meadowlark         7           Merganser, Common         1           Merganser, Hood M         9           Merganser, Hood F         9           Merganser, Red-breasted both         1           Merlin         1	48L	CHICK  EVENI Sub - call  MLARK CARD MLARK	800 293	%LS LOONWHI	Plover, Killdeer Plover, Piping Plover, Semipalmated Plover, Snowy Prairie Chicken, Greater Prairie Chicken Lesser Ptarmigan, Rock Ptarmigan, White-tailed Ptarmigan, Willow	8DB 7DB 7DB 7DB 10HZ 10HZ 8DB 8DB 8DB	KILDR SEMPLOV SEMPLOV SEMPLOV	246	2/3LS #58 LS #28 LS #28
Lark, Horned 6 Longspur, Lapland 5 Loon, Arctic(Pacific) 1 Loon, Common 1 Loon, Red-throated 1 Loon, Yellow-billed 9 Martin, Purple 7 Meadowlark 7 Merganser, Common 1 Merganser, Hood M 9 Merganser, Hood F 9 Merganser, Red-breasted both Merlin 1	58BL 55BL 12LOON 14LOON 14LOON 14LOON 17BL 17DB 10RD 19YL 19BR	Sub - call  MLARK CARD	293	%LS LOONWHI	Plover, Semipalmated Plover, Snowy Prairie Chicken, Greater Prairie Chicken Lesser Ptarmigan, Rock Ptarmigan, White-tailed Ptarmigan, Willow	7DB 7DB 10HZ 10HZ 8DB 8DB	SEMPLOV		
Longspur, Lapland   5	58L 12LOON 14LOON 12LOON 14LOON 99DB 77BL 77DB 10RD 99YL	Sub - call  MLARK CARD	293	%LS LOONWHI	Plover, Snowy Prairie Chicken, Greater Prairie Chicken Lesser Ptarmigan, Rock Ptarmigan, White-tailed Ptarmigan, Willow	7DB 10HZ 10HZ 8DB 8DB			LS #28
Loon, Arctic(Pacific)         1           Loon, Common         1           Loon, Red-throated         1           Loon, Yellow-billed         1           Magpie, Black-billed         9           Martin, Purple         7           Meadowlark         7           Merganser, Common         1           Merganser, Hood M         9           Merganser, Hood F         9           Merganser, Red-breasted both         1           Merlin         1	12LOON	MLARK CARD	293	%LS LOONWHI	Prairie Chicken, Greater Prairie Chicken Lesser Ptarmigan, Rock Ptarmigan, White-tailed Ptarmigan, Willow	10HZ 10HZ 8DB 8DB	SEMPLOV		
Loon, Common         1           Loon, Red-throated         1           Loon, Yellow-billed         1           Magpie, Black-billed         9           Martin, Purple         7           Meadowlark         7           Merganser, Common         1           Merganser, Hood M         9           Merganser, Hood F         9           Merganser, Red-breasted both         1           Merlin         1	14LOON 12LOON 14LOON 14LOON 19DB 7BL 7DB 10RD 9YL	CARD	293	%LS LOONWHI	Prairie Chicken Lesser Ptarmigan, Rock Ptarmigan, White-tailed Ptarmigan, Willow	10HZ 8DB 8DB			
Loon, Red-throated         1           Loon, Yellow-billed         1           Magpie, Black-billed         9           Martin, Purple         7           Meadowlark         7           Merganser, Common         1           Merganser, Hood M         9           Merganser, Hood F         9           Merganser, Red-breasted both         1           Merlin         1	12LOON 14LOON 9DB 7BL 7DB 10RD 9YL	CARD		%LS LOONWHI	Ptarmigan, Rock Ptarmigan, White-tailed Ptarmigan, Willow	8DB 8DB		271	
Loon, Yellow-billed         1           Magpie, Black-billed         9           Martin, Purple         7           Meadowlark         7           Merganser, Common         1           Merganser, Hood M         9           Merganser, Hood F         9           Merganser, Red-breasted both         1           Merlin         1	14LOON 9DB 7BL 7DB 10RD 9YL	CARD	020/042		Ptarmigan, White-tailed Ptarmigan, Willow	8DB		271	
Magpie, Black-billed         9           Martin, Purple         7           Meadowlark         7           Merganser, Common         1           Merganser, Hood M         9           Merganser, Hood F         9           Merganser, Red-breasted both         1           Merlin         1	PDB 7BL 7DB 10RD PYL PBR	CARD	020/042		Ptarmigan, Willow			271	
Martin, Purple         7           Meadowlark         7           Merganser, Common         1           Merganser, Hood M         9           Merganser, Hood F         9           Merganser, Red-breasted both         1           Merlin         1	7BL 7DB 10RD 9YL 9BR	CARD	020/042		0 1	8DB			
Meadowlark         7           Merganser, Common         1           Merganser, Hood M         9           Merganser, Hood F         9           Merganser, Red-breasted both         1           Merlin         1	7DB 10RD 9YL 9BR		020/042		D. W. Alleria			270	
Merganser, Common         1           Merganser, Hood M         9           Merganser, Hood F         9           Merganser, Red-breasted both         1           Merlin         1	10RD 9YL 9BR	MLARK	020/042		Puffin, Atlantic	8DB	WDUCK	912	1/2LS #26
Merganser, Hood M 9  Merganser, Hood F 9  Merganser, Red-breasted both 1  Merlin 1	9YL 9BR		020/042		Puffin, Horned	9DB	WDUCK		
Merganser, Hood F 9 Merganser, Red-breasted both 1 Merlin 1	9BR				Puffin, Tufted	9GRAY	WDUCK	910	
Merganser, Red-breasted both 1 Merlin 1			092		Pyrrhuloxia	6DB	CARD		
Red-breasted both Merlin 1	10RD		090		Quail, Bobwhite	8DB	BOBWH	237	LS #60
Merlin 1	IOIID		120/118		Quail, California	8BR	08		
			120/110		Quail, Gambel's	8BR	GAMBL	234	
Manager 10	10DB	KESTR	317	2/3LS #36	Quail, Mountain	8BR	08	232	
Mockingbird 8	BDB	Sub - call		3/4LS #50				235	
Murre, Common 1	11DB				Quail, Scaled	8BR	08	235	
Murre, Thin-billed 1	10DB				Rail, Clapper	10HZ	GHERON2		
Murrelet, Marbled 7	7DB				Rail, Sora	6DB	SORA	290	
Myna, Crested 8	3YL	Sub - call			Rail, Virginia	6HZ			
Nighthawk, Common 9	9BL		740		Rail, Yellow	8DB			
Nutcracker, Clark's 8	BDB	ROBIN			Raven	10DB		288	
Nuthatch, Pygmy 4	4BL	CHICK			Redpoll, Common	4BL	WTSPA		LS #43
Nuthatch,Redbreasted 4	4BL	Toe-RBNUT		LS #25	Redpoll, Hoary	4BL	TMOUS		
Nuthatch, White Br. 5	5BL	NUTHA		LS #03	Redstart, American	4DB			
Oriole, Northern 5	5DB or BL	ORIOL		LS #14	Roadrunner	10YL	RDRUN		1/2LS #55
Osprey 1	14YL				Robin, American	7DB	ROBIN		
Ovenbird 5	5BL	HWREN			Sanderling	6BL	LSTPP		LS #09
Owl, Barn 1	14DB		328	1/3LS #44	Sandpiper, Least	4BL	LSTPP		
Owl, Barred 1	18BLUE		323		Sandpiper, Pectoral	7DB	YLEG		
Owl, Boreal 1	120WL				Sandpiper, Solitary	6BL	YLEG	SOLSA	
Owl, Burrowing 1	11YL		319		Sandpiper, Spotted	6BL	SPOT		
	12BL		322		Sandpiper, Upland	8DB	WILLE		
Owl, Great Gray 2	20YL				Sandpiper, Western	5BL	LSTPP		
	20OWL		330	1/3LS #SC087	Sapsucker, Yellow-belly	7DB	RHWP	YBSS	
	140WL		000	11020 1100001	Scoter, Black (common)	9DB		148	
	120WL		321	LS, 54% 17%	Scoter, Surf M	9LT.GRY		052	
	14STOWL	OWL	326	1/2LS #18	Scoter, Surf F	9BR			
	140WL	OWL	320	1/2L3 #10	Scoter,White-winged M	10WHITE		128	
	18OWL		324	1/3LS #33	Scoter, White-winged F	10DB			
			324	1/3L3 #33	Shrike, Loggerhead	8DB	ROBIN		2/3LS #51
	9YL	0111117	000		Shrike, Northern	8DB	ROBIN		2/3LS #51
-	BBR	CHUK	220		Siskin, Pine	4BL	GOLD		2/3L3 #31
	BHZ		224					050	
	20 LT.GRY	MINI			Snipe, Wilson's	7DB	KILDR	256	
	20LT.GRY	MINI			Sparrow, Chipping	4BL	CWAX		
	5DB				Sparrow, Harris'	5BL	WTSPA		
	5DB				Sparrow, House	5BR	WTSPA		
Phalarope, Wilson's 6	5DB				Sparrow, Song	5BL	CWREN		
Pheasant, Ringnecked 1	11PHEAS		200		Sparrow, Tree	5BL	WTSPA		LS #02
Phoebe, Say's 7	7BL				Sparrow, Vesper	5BL	CWAX		
Pigeon 8	BDY	PIGON			Sparrow, White-crowned	5BR	WTSPA		
Plover, Golden 7	7DB	KILDR			Sparrow, White-throated	5BR	WTSPA		LS #01
Plover, Black-bellied 7	7DB	BPLOV			Spoonbill, Roseate	12YL			

Species	Eye Size & Colour	Cast Foot	Bill	Study Cast	Species	
Starling	6DB or BL	BJAY	710		Veery	T
Stilt, Black-necked	8DB		914		Vireo, Red-eyed	
Swallow, Bank	6BL	CWAX			Vireo, Solitary	T
Swallow, Barn	6DB	CWAX		LS #48	Vireo, Warbling	T
Swallow, Cliff	6BL	CWAX			Vulture, Black	I
Swallow, Tree	6BL	CWAX			Vulture, Turkey	
Swan, Trumpeter	13BR		171		Warbler (most)	
Swan, Tundra	13BR		170		Warbler, Tennessee	
Swift, Chimney	6BL				Warbler, Yellowrumped	
Tanager, Scarlet	6DB or BL	ORIOL			Waterthrush, Northern	
Tanager, Summer	6DB or BL	ORIOL		LS #38	Waxwing, Bohemian	
Tanager, Western	6DB or BL	ORIOL		LS #38	Waxwing, Cedar	
Tern, Arctic	7DB				Whimbrel	
Tern, Black	7BL				Whip-poor-will	
Tern, Caspian	10DB				Willet	
Tern, Common	8DB				Woodcock	
Tern, Forster's	8DB				Woodpecker, Downy	
Tern, Least	7DB			LS #40	Woodpecker, Hairy	
Tern, Royal	12DB			1/2LS #40	Woodpecker, 3-toed	
Thrasher, Brown	6YL	ROBIN		1/2L3 #40	Woodpecker, Pileated	
					Woodpecker,Red-headed	d
Thrasher. Curve-billed	8YL	ROBIN			Wren, Beweck's	
Thrush, Hermit	6DB or BL	ORIOL			Wren, Cactus	
Thrush, Swainson's	6DB or BL	ORIOL			Wren, Carolina	
Thrush, Varied	6DB	ORIOL			Wren, House	
Thrush, Wood	6DB	WTHR			Wren, Long-billed Marsh	
Titmouse	4BL	TMOUS			Wren, Winter	
Towhee, Spotted	6RD	EVE		LS #47	Yellowlegs, Greater	
Toucan	8-10DB			1/3LS #59	Yellowlegs, Lesser	
Turkey, Wild	12BR				Yellowthroat, Common	
Turnstone, Black	6DB				Eye Cha	
Turnstone, Ruddy	6DB				Unauthoriz	ze
Abrasives	15-17,	22,23,34-36	Dura-		dex 28	-
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Bandsaw Blades	u		Eye C		63-66	
Blanks			Feet		53 54	

Species	Eye Size & Colour	Cast Foot	Bill	Study Cast
Veery	6DB			
Vireo, Red-eyed	5RD			
Vireo, Solitary	5DB			
Vireo, Warbling	5BL		WVIREO	
Vulture, Black	12BR			
Vulture, Turkey	13BR			
Warbler (most)	4BL	CHICK		
Warbler, Tennessee	4BL	CHICK	TENWA	
Warbler, Yellowrumped	4BL	CHICK		LS #21
Waterthrush, Northern	5BL	HWREN		
Waxwing, Bohemian	5BL	BBIRD		
Waxwing, Cedar	5BL	TMOUS	720	LS #05
Whimbrel	9DB			
Whip-poor-will	8BL			
Willet	8DB	WILLE		
Woodcock	9BR	WCOCK	258	2/3LS #49
Woodpecker, Downy	6BL	DOWNY		LS #06 & #57
Woodpecker, Hairy	7DB	RHWP		
Woodpecker, 3-toed	7DB	RHWP		
Woodpecker, Pileated	11Lt.YL	PILEA	700	
Woodpecker,Red-headed	7BR	RHWP		
Wren, Beweck's	4BL	HWREN		
Wren, Cactus	4BL	HWREN		
Wren, Carolina	4BL	CWREN		LS #32
Wren, House	4BL	HWREN		
Wren, Long-billed Marsh	4BL	HWREN		
Wren, Winter	4BL	HWREN		
Yellowlegs, Greater	8DB	WILLE		
Yellowlegs, Lesser	7DB	YLEGS		
Yellowthroat, Common	4BL	CWAX		

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### **Airbrush Paints**



Chroma Airbrush Paints \$4.35 ea. 2 oz. (60 ml.) Bottle

Chroma airbrush paints have been refined and newly reformulated, representing the finest in co-polymer technology. They use a polyurethane binder and give a nice velvet matte finish. Water-based and nontoxic, they can be used on almost any paintable surface, and they can be mixed with Jo Sonja's paints. All colours are supplied in 60ml (2 oz) bottles. \$4.35 per bottle.

#### Free Colour Chart available on request.

Colour		Item #	Colour		Item # Co			Item #
Blue Interference		JC508	Green Interference		JC506	Raw Sienna		JC493
Blue Violet		JC534	Golden Glow		JC518	Raw Umber		JC495
Brilliant Green		JC519	Gold Oxide		JC521	Sable		JC501
Brown Earth		JC523	Indian Yellow		JC526	Smoked Pearl		JC511
Burnt Sienna		JC494	Magenta		JC527	Taupe		JC504
Burgundy		JC524	Napthol Crimson		JC489	Titanium White		JC486
Burnt Umber		JC496	Napthol Red Lt.		JC528	Turquoise		JC532
Canary		JC513	Nimbus Grey		JC491	Ultramarine Blue		JC490
Carbon Black		JC497	Nutmeg		JC502	Vermillion		JC533
Cerulean Blue		JC525	Paynes Grey		JC492	Violet Interference		JC509
Chestnut		JC500	Peach		JC529	Warm White		JC487
Driftwood		JC498	Pthalo Blue		JC530	Yellow-green Interference		JC507
Ebony		JC499	Phthalo Green		JC520	Yellow Oxide		JC488
			Purple		JC531			

The following colours have been discontinued and are available while stock lasts at \$2.50/bottle:

Azure #JC516 Indigo #JC515

#### **Iridescent Powders**



This is the best thing made for that metallic iridescent sheen on many birds. Each set contains 11 different colours: Blue, Blue-Green, Copper, Emerald, Gold, Red, Rouge Flambe, Super Green, Antique Silver, Violet, Pearl White. A little of this stuff goes a long way. HINT: Mix with transparent paint washes (acrylic or oil). Shows best over dark colours (black or dark brown). Available in 2 different sized sets - the small set is a great way to try them out; the large set will last most carvers a very long time.

Small Set ~0.5 grams\*/colour # IRID-SM \$8.50 Large Set ~7 grams\*/colour # IRID-LG \$29.70

Individual Colours available \$4.75 / 7 grams\*:

IRIDBLUE IRIDBLUEGREEN IRIDCOPPER IRIDEMERALD IRIDGOLD IRIDRED IRIDROUGE IRIDSGREEN IRIDSILVER IRIDVIOLET IRIDWHITE

Note: Some colours are more dense than others, so some colours will appear to fill the container more than others. \*Weights are approximate.

# Attelier\*

## **Atelier® Free Flow Paints**

ARTISTS' ACRYLIC	Atelier® Free Flow Colours 2 oz. (60 ml.) bottle							
Colour	Item #	Price	П	Colour		Item #	Price	
Titanium White		JA105	9.10		Cerulean Blue Hue		JA115	10.60
Arylamide Yellow Light		JA108	11.80		Pthalo Blue		JA103	9.10
Cadmium Yellow Light		JA133	16.80		Cobalt Turquoise Light		JA135	22.05
Cadmium Yellow Medium		JA111	16.80		Pthalo Green		JA104	9.10
Arylamide Yellow Deep		JA124	11.80		Viridian Green Hue		JA114	9.10
Cadmium Orange		JA129	16.80		Permanent Green Light		JA120	10.60
Pyrrole Orange		JA127	11.80		Chromium Green Oxide		JA116	10.60
Red Gold		JA128	11.80		Yellow Ochre	-	JA106	9.10
Cadmium Red Light		JA130	16.80		Light Red Ochre		JA102	9.10
Pyrrole Red		JA109	11.80		Burnt Sienna Natural		JA112	9.10
Napthol Crimson		JA126	11.80		Transparent Burnt Sienna		JA122	10.60
Cadmium Red Medium		JA131	16.80		Indian Red Oxide		JA118	10.60
Permanent Alizarine		JA134	16.80		Raw Umber		JA113	9.10
Quinacridone Magenta		JA110	11.80		Raw Sienna Natural		JA136	9.10
Dioxazine Purple		JA125	11.80		Transparent Raw Sienna		JA123	10.60
French Ultramarine Blue		JA107	10.60	Burnt Umber			JA100	9.10
Pthalo Blue (Red Shade)		JA121	10.60		Carbon Black		JA101	9.10
Cobalt Blue Hue		JA117	10.60		Paynes Grey		JA119	10.60

Atelier® Free Flow is the most fluid and vivid acrylic on the market. It's a professional quality acrylic with unique characteristics and maximum pigment load. It uses the latest advances in pigment and polymer technology. Atelier® Free Flow glides from the brush with very little dilution required (great for fine detail), but if desired it can also be diluted significantly (i.e washes) with little or no break-down. This ensures brilliant pigment strength is retained. Painting light over dark colours is far easier, and the integrity of the paint itself remains strong and durable. It dries to a velvet matte finish with rich and vibrant colour, and it's compatible with Chroma Air Brush paints and Jo Sonja's paints and mediums.



#### Need Help with Colour?



#### Keith Mueller Color Harmony & Dynamic Mixing Guide

The best tool for understanding colour and colour harmony, along with understanding how pigments work together to create colour. Complete with manual. 18"x24" #KM100 \$59.95

## Jo Sonja's Paints

Used by many of the world's best carvers, Jo Sonja's paints differ from regular acrylics in several ways. First, they are an acrylic gouache (pronounced "gwash"), meaning they are somewhat more opaque than other acrylics. Second, they are not shiny like other acrylics. They give a suede matte finish for life-like plumage on bird carvings or a pleasing finish on flat surfaces. Gloss can be increased by adding gloss varnish directly to the paint. They are one of the most economical paints around. I recommend that you get a few of the mediums (page 70), especially the flow medium and retarding medium. Jo Sonja's paints will mix readily with other brands of acrylic paints.

Regular Jo Sonia's Colours 2.5 oz. (75 ml.) tube



## Free colour chart available on request - Item # J3889

Metallic and Iridescent Colours

Metallic Colours 2.5 oz. Item # Price

Req	gular J	o Sonja	a's Co	lc	ours 2.5 oz. (75 r	nl.) tub	е		Г
Colour		Item #	Price	Γ	Colour		Item #	Price	Ш
Amethyst	-	J001	4.60		Olive Green		J600	4.60	ᄖ
Antique Green		J592	4.60		Opal		J026	4.60	ıL
Aqua		J002	4.60	l	Orange		J700	7.40	lĿ
Blue Violet		J699	4.60	l	Pacific Blue		J601	4.60	Œ
Brilliant Green		J003	4.60		Paynes Grey	130	J031	4.60	
Brilliant Magenta		J594	4.60		Perm. Alizarine		J602	7.40	l
Brilliant Violet		J595	4.60		Pine Green	1	J027	4.60	lĿ
Brown Earth		J004	4.60		Plum Pink		J028	4.60	lĿ
Brown Madder		J606	7.40	l	Provincial Beige		J029	4.60	1
Burgundy		J005	4.60		Prussian Blue Hue	480	J030	4.60	Ľ
Burnt Sienna		J006	4.60		Phthalo Blue		J032	4.60	L
Burnt Umber		J007	4.60		Phthalo Green	100	J033	4.60	
Cad. Orange		J607	9.50		Purple Madder		J610	7.40	
Cad. Scarlet		J008	9.50		Raw Sienna		J034	4.60	ľ
Cad. Yellow Lt.		J009	9.50		Raw Umber	200	J035	4.60	
Cad. Yellow Mid.		J010	9.50		Red Earth		J036	4.60	
Carbon Black		J011	4.60		Red Violet	15	J611	7.40	Г
Celadon		J596	4.60		Rose Pink		J037	4.60	l
Cobalt Blue Hue		J012	4.60		Sap Green		J612	4.60	I
Colony Blue		J013	4.60		Sapphire		J038	4.60	
Diox. Purple	100	J014	9.50		Skin Tone Base		J603	4.60	Ī
Fawn		J015	4.60		Smoked Pearl		J039	4.60	lŀī
French Blue		J016	4.60		Storm Blue		J040	4.60	
Gold Oxide		J017	4.60		Teal Green		J041	4.60	اار
Green Light		J597	4.60		Titanium White		J048	4.60	۱-
Green Oxide		J018	4.60		Transp. Magenta		J042	9.50	5
Hookers Green		J608	4.60	l	Turners Yellow		J043	4.60	"t
Indian Red Oxide	- 23	J019	4.60	l	Ultra. Blue		J045	4.60	w b
Indian Yellow		J609	4.60	l	Ultra. Blue Deep		J044	4.60	d
Jade		J020	4.60		Unbleach Titanium		J604	4.60	u u
Jaune Brilliant		J598	4.60		Vermillion		J046	4.60	tł
Moss Green		J021	4.60		Warm White		J047	4.60	o p
Naples Yellow Hue		J599	4.60		Yellow Deep		J593	4.60	Ċ
Napthol Crimson		J022	4.60		Yellow Green		J697	4.60	b (l
Napthol Red Lt.		J023	4.60		Yellow Light		J049	4.60	a
Nimbus Grey		J024	4.60		Yellow Orange		J698	4.60	Α
Namuan Orani		IOOE	4.60		Vallani Oniala		IOFO	4.60	1 -

Violet Iridescent		J3155	7.40
Turquoise Irides.		J3154	7.40
Red Iridescent	1	J3150	7.40
Green Iridescent		J3151	7.40
Gold Iridescent		J3153	7.40
Blue Iridescent		J3152	7.40
Iridescent Colou	rs 2 oz.	bottles	
Silver		J055	7.75
Rose Gold	- 1	J701	7.75
Rich Gold		J054	7.75
Pale Gold		J053	7.75
Burnish Copper		J052	7.75
Pearl White		J051	7.75

Regular Colo	urs 8 c	z. Bot	tles
Colour		Item #	Price
Burnt Umber		J3306	11.15
Carbon Black		J3310	11.15
Raw Umber	- 1	J3334	11.15
Titanium White		J3347	11.15
Warm White		J3346	
Unbleach Titanium		J3419	11.15

Speedball® India Ink
Cam uses this ink as a
'black" medium. You
won't find a deeper, richer
black anywhere. Use it to
dilute burnt umber or raw
umber for a warm rich black

unlike anything you've ever seen. Waterthin consistency. Cleans up with ammonia
or ammonia-based window cleaner. Very
permanent and water-resistant once dry.
Cam has even used it straight out of the
bottle on a textured and sealed black bird
(like a blackbird, crow or raven) with
amazing results. A little goes a long way.
Available in 2 sizes.

J050 **4.60** 2 oz. bottle # SP3338 **\$8.95** l6 oz. bottle # SP3378 **\$19.50** 

Yellow Oxide

J025 **4.60** 

Norweg. Orange

## Jo Sonja's Paints (cont.)

#### **About Jo Sonia's Mediums**

**Flow Medium:** Allows paint to flow from brush easily. Good for diluting paint. Cam always uses Flow Medium with Jo Sonia's paints.

**Retarder and Antiquing Medium:** Extends drying and curing time without affecting the finish. Useful for blending techniques as well as when diluting Jo Sonja's paints for airbrush.

Varnishes: Not technically a medium, you can add Poly Varnish to toughen paints or to increase the gloss.

**Airbrushing:** A mixture of 75% water, 25% Flow Medium, and a few drops each of Matte Varnish and Retarder makes a great airbrush medium. Use this mixture to dilute Jo Sonja's paints to a light-cream consistency to use them in your airbrush.

Jo Sonja's Mediums and Misc. Products								
Description	Item #	Price	Description	Item #	Price	Description	Item #	Price
All-Purpose Sealer 2 oz. Bottle 8 oz. Bottle	J3602 J3702	2.85 8.95	Retarder/Antiquing 2 oz. Bottle 4 oz. Bottle 8 oz. Bottle	J3603 J3653 J3703	2.85 5.85 8.95	Gesso 8 oz. Bottles White Black	J3711 J3713	8.95 8.95
<u>Clear Glaze</u> <u>Medium</u> 8 oz. Bottle	J3708	11.10	Tannin Blocking Sealer 8 oz. Bottle	J3704	8.95	Texture Paste White 11 oz. Jar	J3720	10.15
Flow Medium 2 oz. Bottle 8 oz. Bottle	J3607 J3707	2.85 8.95	Crackle Pack 2 oz. 1 ea. Crackle and Decor Crackle	J3844	5.05	Texture Paste White 2.5oz. Tube Black 2.5oz. Tube	J3847 J3848	6.55 6.55
Poly Gloss Varnish 2 oz. Bottle 8 oz. Bottle	J3601 J3701	3.20 11.10	Other Jo Sonja's			Jo Sonja's Liquid Brush Soap (works with all		
Poly Matte Varnish 2 oz. Bottle 8 oz. Bottle	Varnish J3600 <b>3.20</b> J3700 <b>11.1</b>		available by sp Please ir		ei.	paint types) 2 oz. Bottle 8 oz. Bottle	J3859 J3860	3.90 9.25

Jo Sonja's Packaged Sets	Item #	Price
10 x 20ml (2/3 oz.) Palette Sampler Set contains: Carbon Black, Warm White, Titanium White, Burgundy, Napthol Red Light, Yellow Light, Ultra Blue Deep, Pine Green, Brown Earth, Rich Gold.	J3901	24.00
10 x 20ml (2/3 oz.) Great Beginnings Sampler Set contains: Carbon Black, Titanium White, Napthol Crimson, Red-Violet, Yellow Deep, Brilliant Green, Vermillion, Ultramarine Blue, Raw Umber, Rich Gold.	J3931	24.00
12 x 20ml (2/3 oz.) Creative Possibilities Colour Sampler Set contains: Carbon Black, Titanium White, Napthol Red Light, Napthol Crimson, Yellow Light, Yellow- Orange, Yellow-Green, Amethyst, Dioxazine Purple, Blue-Violet, Aqua, Pine Green.	J3875	37.25
6 x 20ml (2/3 oz.) Metallic Set contains: Pearl White, Silver, Pale Gold, Rich Gold, Burnished Copper, Rose Gold.	J3873	19.60
6 x 20ml (2/3 oz.) Iridescent Set contains (all iridescent colours): Blue, Gold, Green, Red, Turquoise, Violet.	J3874	19.60

#### Jo Sonja's Carvers Paint Set

A great way to get started with Jo Sonja's paints. Includes 18 of the most popular bird carver's colours along with 2 oz. Flow Medium and 2 oz. Retarding Medium. Colours include: Carbon Black, Titanium White, Unbleached Titanium, Brilliant Green, Brown Earth, Burnt Umber, Diox. Purple, Napthol Red Light, Nimbus Gray, Paynes Gray, Pthalo Blue, Pthalo Green, Raw Sienna, Raw Umber, Smoked Pearl, Ultra Blue Deep, Yellow Light, Yellow Oxide. Regular price \$93.40 # J18K \$84.00

## **Airbrushes**

We sell select airbrushes from Badger, Harder & Steenbeck and Iwata. Each airbrush we offer is selected for its value, quality and serviceability. We carry a full stock of replacement parts and accessories for each and every one of these airbrushes, so you can be assured that the airbrush you buy today will serve you for many years to come, even if something breaks or wears out. If you're not sure which airbrush would be right for you, don't hesitate to get in touch with us and we'll help you select the best airbrush for your needs.



Iwata products are covered by their Premier Service Plan - offering a 5 year warranty as well as superb customer service.

Considered by many to be the finest airbrushes available today, Iwata airbrushes have set the standard for precision and reliability. We stock five different Iwata models. We would also be pleased to provide a quote on any Iwata brush not listed here. Every Iwata airbrush we stock (except the SAR) has a dual-purpose, cutaway and pre-set handle for easy clean-up and precise paint flow control. They all use teflon needle packing, permitting use of automotive and other solvent-based paints if desired. Those with gravity-feed colour cups ensure easy cleanup and superb paint flow. They also incorporate a single-piece auxiliary lever/needle-chucking guide for easy assembly.

#### Revolution Series

*SAR Airbrush*. A single-action siphon-feed brush that's ideal for basecoating and painting larger surfaces. Single-action brushes are easier to use than dual-action brushes, making them a great choice for a first airbrush. Comes with one jar and a wrench. Accepts Com-Art paint bottles if using an Iwata no-rust cap for 1 oz. jars. Extra jars and caps are available (see next page). # IW-R1000 \$154.00



#### Hi-Performance (HP) Series

**HP-B Plus.** Our top Iwata pick for carvers. 1/16 oz. colour cup gives great versatility from very fine work to blocking in small areas. 0.2mm precision nozzle and needle for high-precision detail spraying.

# IW-H2001 \$303.50

**HP-A Plus**. Same as the HP-B Plus, except with a 1/32 oz. colour cup. A good brush exclusively for fine work.

# IW-H1001 \$303.50



#### Hi-Line Series

HP-BH. Essentially the same as the HP-B Plus, with the addition of lwata's exclusive Micro Air Control (MAC) Valve. The MAC enables infinite control of airflow at the head of the airbrush. With one quick turn you can spray anything between a coarse stippling effect to a fine spray pattern. # IW-H2100 \$374.00



#### Custom Micron Plus Series

CM-C Plus. For the elite professional who demands precise and accurate control of very detailed spraying. The CM-C Plus is built to be the best of the best. Specially machined and hand-fitted, and using lwata's exclusive matched-head assembly for the ultimate in atomization and control. It uses a high precision 0.23mm nozzle and has a 1/3 oz. colour cup. # IW-ICM4500 \$702.00



**Special Package** includes Smart Jet compressor and HP-B Plus airbrush.



Everything you need to get airbrushing with the best, at a saving of \$80.

# IW-KIT01 \$599.00

(sorry, no substitutions are available for this special package)

## **Iwata Compressors and Accessories**



#### **Iwata Neo Air Compressor**

A truly portable compressor that can be used almost anywhere. Very quiet, small and light. Works on 120-240V. Output .37CFM @ 15PSI (max). Airbrush holder and hose included. 5.1"x3.9"x2.5", .95lbs (.43kg). # IW-IS30 \$223.00



#### Iwata Smart Jet compressor

What a super little compressor! Quiet and *very* small; very low vibration, auto-shut-off. Includes built-in airbrush holder, pressure gauge, moisture trap and hose for Iwata airbrushes. 10"x7"x6". 8lbs (3.6kg). # IW-IS850 \$375.50



#### **Iwata Power Jet Lite Compressor**

Kind of a souped-up version of the Smart Jet. Powerful 1/6HP twin pump delivers twice as much CFM (up to 1.2 CFM) as the Smart Jet. Automatically shuts off when not in use. Has a pressure regulator for easy, precise pressure control. It's not a silent compressor, but is very quiet - you could use it almost anywhere.

Includes built-in airbrush holder, regulator, gauge, moisture trap and hose for Iwata airbrushes.

10"x12"x6", 17.5lbs (8kg). # IW-IS925 \$494.50



#### **Iwata Power Jet Pro Compressor**

It's like getting two complete compressors! Has all the features of the Power Jet Lite, but this one is designed to run two airbrushes at the same time. Supplied with two each of quick-disconnect ports, pressure gauges, air regulators, moisture traps, hoses and airbrush holders. 13"x9"x7", 26.5lbs (11.9kg) # IW-IS975 \$645.50

#### **Iwata Accessories and Replacement Parts**

Need a replacement part for your airbrush? We stock a full range of needles, nozzles and other parts that may need replacing from time to time. If you need something not listed here please let us know - or check our website - if we don't stock it we can get it for you.

ı	10' Braided hose # IW-BT010 10' Straight black hose # IW-DTI-10	\$37.55 \$22.70	Nozzle for all HP-A, B and Plus # IW-I080-7 Nozzle for CM-C, CM-C Plus # IW-I535-2B	\$56.40 \$85.05
	10' Coiled cobra hose # IW-CTI-10	\$39.65	Adapter - Iwata brush on Badger hose	*
l	Quick-connect coupler # IW-I160-3	\$23.40	# IW-J002	\$12.35
l	Extra male end for quick coupler above		Airbrush cleaner 8 oz. bottle # IW-6500-8	\$7.45
l	# IW-I160-4	\$11.35	Super-lube 1/2 oz. tube # IW-015001	\$13.45
l	Needle 0.2mm, HP-A, HP-A+ # IW-I075-1	\$19.55	No-rust cap for 1 oz. jars on SAR airbrush	
ı	Needle 0.2mm, HP-B, HP-B+ # IW-I075-2	\$19.55	# IW-I49020	\$8.55ea.
	Needle 0.23mm, CM-C, CM-C+ # IW-I540-2	\$37.55	Clear 1 oz. jar fits above lid (for use on SAR	,
I	Needle for SAR Airbrush # IW-I717-1	\$13.50	# IW-I450-1	\$6.30ea.

#### **Paasche Replacement Parts**

Since the Paasche AB was discontinued a few years ago, we no longer carry any Paasche airbrushes. But we will continue to stock replacement needles and hoses as long as they are available. Other parts can be ordered.

10' Braided hose # PA-A1810	\$20.20	12 Needles for Right-handed AB #PA-A116	\$41.20
6' Plastic hose # PA-HP186	\$12.10	12 Needles for Left-handed AB #PA-A116LH	\$41.20

# Badger Airbrush

Badger™ brushes are value-priced, reliable workhorses, used by artists of all skill levels. All Badger™ airbrushes carry a lifetime labour warranty and are fully backed by Badger's exceptional customer service. We stock an extensive selection of airbrushes, parts and accessories. We would also be happy to order any Badger™ products not listed here.

#### 100 Series

**Model 100SG** Dual-action, internal mix, gravity feed with a built-in 1/32 oz. fluid cavity. Perfect for quick, easy colour changes and fast clean-up. Hose extra.



with FINE needle # 100-8 \$155.00

with MEDIUM needle # 100-9 \$155.00

Model 100G (not shown) Same as 100SG but with larger 1/16oz. fluid cavity. Hose extra. w/ FINE needle # 100-3 \$166.50

#### 150 Series

Model 150 Siphon-feed version of the 100SG. The 150 holds much more paint, allowing user to spray longer between refills. Great for blocking in and painting larger areas. Has the same feel and trigger action as the 100SG and uses the same needles and tips. Supplied w/ 2 jars, a hanger and a colour cup. Hose extra.





#### Badger™ Abrasive Gun and Accessories:

"Mini Sandblaster" is great for etching glass and giving a satin finish to metals prior to painting. Supplied with 12 oz. abrasive, dust mask and hose. 30PSI recommended, low CFM. # 260-1 \$81.00

Abrasive for Abrasive Gun:

12 oz. # 50-260 **\$10.15** 5 lb # 50-270 **\$35.10 Replacement tip** for 260-1 Abrasive Gun # 50-263 **\$8.80 Rebuild kit** (tip, pickup tube and adjusting screw) # 50-271 **\$14.20** 

#### Badger™ Air Hoses

(all hoses have fittings from Badger™ airbrush to a standard 1/4" NPT compressor fitting).

10 foot Braided hose (for general compressor use - reduces condensation) # 50-2011

10 foot Braided hose with in-line drainable moisture trap # 50-2025

10 foot Clear vinyl hose (you can see any moisture in the line) # 50-2030

8 foot thin black vinyl hose (recommended for CO2) # 50-0011

\$28.35

\$49.65

\$19.95

Needles, Tips, Replacement parts for Badger™ Airbrushes:

 Needles:
 Fine # 50-0401
 Medium # 50-0402
 Heavy # 50-0403
 \$10.15

 Tip Only:
 Fine # 50-0391
 Medium # 50-0392
 Heavy # 50-0393
 \$10.80

 Tip and Head:
 Fine # 50-0381
 Medium # 50-0382
 Heavy # 50-0383
 \$24.00

Complete head assembly (tip, head, regulator, teflon washer):

Fine # 50-0161 Medium # 50-0162 Heavy # 50-0163 **\$25.65 Spray Regulators:** Fine # 50-0371 Medium # 50-0372 Heavy # 50-0373 **\$11.50** 

Tire Adapter: used w/ a propel regulator, allows use of an inflated tire for air. # 50-029 \$12.50

Propel Regulator: for use with tire adapter or Badger™ propellant. # 50-200 \$12.50

1/42 A destator. To use with the daupter of Backer of #50-200 \$12.5

1/4" Adapter from Badger male end to 1/4" female end #50-023 \$6.90

Lower Valve Assembly: fits models 100, 150, 155, 175, 200 & 360 # 50-036 \$24.30

Valve "O" ring models 100/150/175/200 #50-0141 \$1.70 Trigger: fits models 100, 150, 200 #50-019 \$10.15

**Teflon Head Washer:** fits models 100, 150, 200 # 50-055 **\$4.05** 

Moisture Trap w/ 1/4" standard fittings: # 50-051 \$72.90 Regulator, filter and gauge w/ 1/4" std. fittings: # 50-054 \$93.15 Mini Air Flow Regulator (1/4" NPT Fittings): # 50-2035 \$18.60

Double Airbrush hanger: # 125 \$39.15

REGDAB Needle Juice (lubricant): 1 oz. bottle # 122 \$7.80

Badger™ Airbrush DVD "The Art of Airbrushing Wildfowl Carvings" (60 minutes)

Many useful steps and tips on using the 100SG. Includes basic maintenance procedures. #BD113 \$25.65 Needle, fine for series 200 airbrushes #50-0172 \$13.10



# **Harder & Steenbeck Airbrushes**

When we first encountered Harder & Steenbeck airbrushes we were blown away by their quality, innovation, attention to detail and user-friendliness. The Infinity is arguably the nicest airbrush on the market today. Harder & Steenbeck has been building airbrushes in Germany for over 50 years and have proven themselves among the best airbrushes made.



"Quick-fix" rear handle (similar to handle on Infinity) for Evolution # HS123663 \$39.05

Harder & Steenbeck airbrushes are backed by a 10-year limited warranty and they offer unrivalled customer service if needed.

# **Harder & Steenbeck Airbrushes (cont.)**



# **Airbrush Accessories (cont.)**

#### Harder & Steenbeck Replacement Parts (will fit either Infinty or Evolution):

 Needles:
 0.15mm
 # HS127920
 \$21.95
 0.2mm
 # HS123730
 \$20.25
 0.4mm
 # HS123740
 \$20.25

 Nozzles:
 0.15mm
 # HS127912
 \$29.70
 0.2mm
 # HS123822
 \$27.00
 0.4mm
 # HS123832
 \$27.00

Nozzle/Needle Sets (with standard air cap):

0.15mm # HS127903 \$76.55 0.2mm # HS123703 \$73.60 0.4mm # HS123713 \$73.60 Nozzle/Needle Sets (for Infinty Fineline with crown air cap; can also be used with Infinty/Evolution):

0.15mm # HS126823 \$87.50 0.4mm # HS126843 \$87.50

Needle Cap # HS123213 \$8.80

Seal Kit set of seal washers for Infinity, Evolution, Focus and Grafo airbrushes #HS123910 \$16.20
Front Air Cap Seal # HS123190 \$5.35
Teflon Needle Seal # HS123450 \$9.40

Front Nozzle Teflon Seal # HS123180 \$5.35

Front Nozzle Teflon Seal # HS1223180 \$9.40 Screwdriver for Needle Seal # HS123933 \$15.35

Seal Removal Tool # HS117233 \$5.85

#### Harder & Steenbeck Parts and Accessories (will fit any Harder & Steenbeck Airbrush):

 QC Braided Hose 3M # HS125903
 \$54.70
 QC Braided Hose Adjustable 3M # HS125913
 \$67.85

 Modular Airbrush Holder w/air manifold # HS110193
 \$58.05
 Extension for HS110193
 # HS110203
 \$24.65

 1-Meter Air Hose for modular holder # HS110273
 \$34.30

Airbrush Holder (tabletop) # HS126953 \$35.05 Nozzle cleaning set # HS117400 \$33.50 No

Micro Cup # HS126334 \$13.20 5ml. Metal Cup # HS123333 \$18.60

Lid for 2ml. Metal Cup #HS123563 \$9.60 Lid for Fine-pressure control air valve # HS126353 \$56.85

05 Airbrush Holder "Duo" # HS270200 \$48.60 Nozzle cleaning needle (included in set) # HS117403 \$29.05

2ml. Metal Cup # HS123323 \$18.60 50ml. Plastic Cup # HS124410 \$29.05

Lid for 5ml. Metal Cup #HS123463 \$10.95 \$56.85 Standard air valve # HS123353 \$31.00



8 oz. Iwata
Airbrush Cleaner
Fast-acting, odourless,
environmentally safe.
Use with all airbrushes.
# IW-6500-8 \$7.45



#### Iwata Cleaning Station

Now you can clean your airbrush without any overspray with Iwata's portable cleaning station. Simply insert your airbrush into the top and spray directly into the jar. The built-in felt filter traps any spray inside the glass jar which can then be easily cleaned. Filter is also easily cleaned and can be re-used many times. Works with most airbrush makes and models.

Includes jar, lid, 1 spare filter and airbrush support bracket as shown.

# IW-NAC-201 \$38.50

#### Iwata Pistol Grip Filter

Iwata Pistol Grip Fil Attaches directly to the airbrush. 5 micron filter element assures clean, dry air to your airbrush. Easy to check and clean without removing unit from the brush. Also acts as a comfortable handle to reduce muscle tension and improve control.

# IW-FA450 \$42.55

dle to ension atrol. 42.55

Quick couplers fit between airbrush and hose for quick airbrush changes.



To fit Iwata or Harder & Steenbeck:
Quick-connect set # IW-I160-3 \$23.40
Extra male end only (fits on airbrush):

For Iwata brushes: # IW-I160-4 \$11.35 For H&S brushes: #HS104063 \$10.80 For Badger brushes: #HS104083 \$10.80 For Paasche brushes: #HS104323 \$10.80 Female Q-C fitting only fits on hose:

For Iwata hoses: # HS104403 \$18.90 For Badger hoses: # HS104473 \$18.90

DVD "Airbrush Workshop" contains useful general airbrush information as well as specific information on Harder & Steenbeck airbrushes.

90 minutes. A real bargain! # HS-DVD \$6.75



DVD "Airbrush Techniques - Start to Finish" covers all aspects of airbrushing. Ideal for beginners or as a refresher for those with some experience. # BD103 \$24.30



# Painting and Misc. Supplies

# Need Help with Colour?

# Keith Mueller Colour Harmony and Dynamic Mixing Guide

The best tool for understanding colour and colour harmony, along with understanding how pigments work together to create colour. Complete with manual. 18"x24" # KM100 \$59.95



### **Vermiculating Pen**



### **Suction Pick-up Tool**

#### Model Pal™ Suction Pickup Tool

Simplify handling of glass eyes with this ingenious little device. Simply squeeze the bulb, touch the silicone tip to the front of an eye and release the bulb. Vacuum will hold the eye while you position it. To release, simply squeeze the bulb again. Works on all eyes from 3mm up. Supplied with 3 different tips. # 20520 \$21.25



#### **All Brushes Shown Actual Size**

We carry select brushes by Silver Brush, Loew Cornell and Robert Simmons, offering a full selection of brushes from synthetic to the finest quality Kolinsky sable. Every one of our brushes comes with our money-back guaranty (as does everything in this catalogue). The brushes we carry have all been selected because of their suitability for wildlife painting, especially on wood. They represent good value and will have a long useful life if cared for properly. Please be sure to contact us if you have questions about which brush would best suit your needs.

Ultra Mini™ By Silver Brush. Golden Taklon hair and Comfort Grip™ handles give superb control with most paints. Excellent for miniature carvings and for ultra-fine detail on any surface. One of our most popular series of brushes.

All brushes are shown actual size. Overall length approx. 6". \$7.88 each

#2400S12/0 (Round)

#2400S20/0 (Round)

#2403S10/0 (Filbert)

#2407S20/0 (Script Liner)

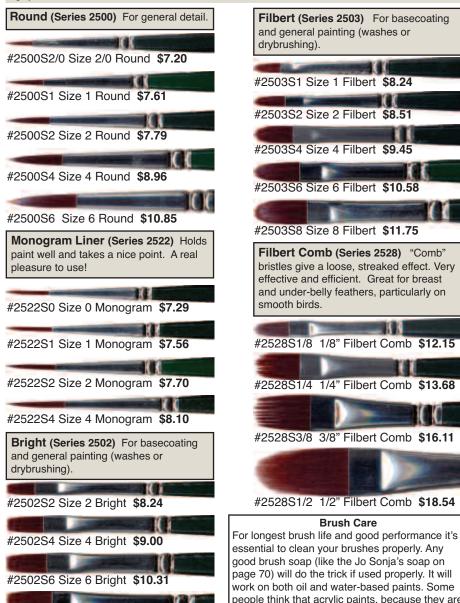
#2402S20/0 (Monogram Liner)

**Loew Cornell Brushes** These brushes have become our most popular brushes for general and fine detail work. They offer excellent value per dollar. The 7020 Round Series take and hold a point better than any other brush in their price range. The Oval mop is a superb base-coating and general brush for larger work. We're sure you will love these brushes.



#### **All Brushes Shown Actual Size**

Ruby Satin™ By Silver Brush. Revolutionary synthetic with the look and feel of interlocked bristle - even more durable than natural hair! Springier, livelier bristle than other brushes. These brushes excel at detail and control on rougher surfaces (like wood), with acrylic or oil paints. They hold paint well, and release it well, too. Highly recommended.



For longest brush life and good performance it's essential to clean your brushes properly. Any good brush soap (like the Jo Sonja's soap on page 70) will do the trick if used properly. It will work on both oil and water-based paints. Some people think that acrylic paints, because they are water-based, need only be cleaned with water. In fact acrylic paints are the most difficult paints to clean properly from brushes because they begin drying in the bristles and once they start to set up they are no longer water-soluble and will ruin a brush after only a few uses.

#2502S8 Size 8 Bright \$11.21

#2502S10 Size 10 Bright \$12.65

#### **All Brushes Shown Actual Size**

**Rennaissance Fine Red Sable** By Silver Brush. Finest pure red sable from selected marten tails create a range of superb sable brushes with a natural spring and generous paint holding capacity. Renaissance brushes come to a fine point or sharp chisel edge that resists splitting. The professionals' choice in a wide variety of sizes and shapes for oils, acrylics or watercolours.

**Round (Series 7100)** Good for general detail work. Provides excellent control for vermiculation or other fine detail.



#7100S2 Size 2 Round \$9.72





# Basecoating Brushes

Silver White ™ white Taklon synthetic brushes are still some of the best brushes for basecoating bird carvings.



#1502S8 Size 8 Bright \$7.18



#1502S10 Size 10 Bright \$7.79



#1503S8 Size 8 Filbert \$7.20

#### **Sealing Brush**

Sterling Studio Taklon brush is ideal for use with KT Super Sealer (page 82) We recommend dedicating this brush solely to sealing.



#6011S1/2 1/2" Stroke \$3.65

#### Filbert or Cats Tongue (Series 7110)

The best brushes made for "Featherstrokes" or "Flicking" techniques, where complete curved feather shapes can be painted quickly and efficiently. The larger sizes (#8 and up) are best suited for this technique. Can also be used for basecoating and general painting (washes or drybrushing).



#7110S4 Size 4 Filbert \$12.15



#7110S6 Size 6 Filbert \$16.47



#7110S8 Size 8 Filbert \$23.72



#7110S10 Size 10 Filbert \$29.95



#7110L18 Size 18 Filbert \$59.54



#7110L20 Size 20 Filbert \$70.20

#### Robert Simmons Liner (SeriesE51)

A super little fine detail brush at a very reasonable price.



#E51S10/0 Size 10/0 Round \$7.25

#### All Brushes Shown Actual Size

Scharff Series 3000 Kolinsky Sable. Cam started using Scharff Kolinsky brushes over 8 years ago. They are without a doubt the finest detail brush he has ever used. It's difficult to accurately describe them without sounding a bit like snake-oil salesmen. Scharff 3000 brushes are used by many of the world's best bird carvers, and once you have used one, you will appreciate why. They take and hold a point better than any other brush, and they easily release paint on contact. The control they afford is unmatched, allowing you to paint a generous number of consistent, super-fine lines before having to reload.

If you are experiencing limitations with your current brushes, we highly recommend that you try one or two of these amazing brushes (size 2 or 3 are most useful to start with). Yes - they are expensive, but well worth every penny.

Like every brush, with use they will eventually wear, diminishing their extra-fine point holding ability. When this happens they are still a superb general purpose brush with great control for coarser detail and precision blending, or for applying gloss varnish to feather shafts.



### Sealer



#### KT Super Sealer™

This revolutionary sealer may be just what you've been looking for. Alcohol based KT Super Sealer doesn't give off the strong fumes of other sealers. It brushes on easily and seals well with no filling in of fine detail. Cam switched from Deft to KT many years ago and he is still amazed at how well it works. Available in natural colour (clear) and white. The white allows you to seal and basecoat in one step - eliminating gesso which can fill up fine detail. The white KT Sealer is unmatched for sealing metal parts like habitat components (leaves) and for sealing pewter feet before painting them. Bonds to most metals very well and provides the proper "tooth" for your paint to adhere to. Sold in 8 oz. bottles.

Clear # KT8C \$15.95

White # KT8W \$15.95

Here's a tip on using KT Sealer: Set aside one brush just for sealing (like our sealing brush on page 80). Shake the KT's really well, then pour some into a small container. Dip the brush in and go about spreading sealer over your carving. Work down the runs with your brush, then let the carving dry (it doesn't take long). Repeat for any subsequent coats. To clean your brush, simply wipe it dry on a piece of paper towel, then set it aside. Next time you go to use it, just dip it into your KT's and it will be all ready to use! If you will be using both clear and white KT Sealer we recommend that you use separate brushes for each. Should you need to clean KT Sealer from a brush or anything else you can use alcohol as a solvent.

Note: KT Sealer promotes itself as a sealer that allows you to burn in your detail after sealing. While I do know a few carvers who use it this way. I have found that most who try burning through KT sealer are unhappy with the results. I also have some concerns over the wisdom/safety of burning through any synthetic product. For these reasons, I do not recommend burning through KT Sealer. That being said, it's still the best sealer I have ever used when applied as a final sealing coat.

# Cam Merkle Studynotes

As a result of many requests, I have made available illustrated notes from most of my carving classes. Many people have found these notes useful for reminding them of steps used in previous carvings, and others have used them to tackle a carving they might not have otherwise done. As with the patterns and blanks, new species are added from time to time, so be sure to ask about anything not listed here. Notes include information on reference line layout, blocking out the cuts, rounding, texturing and painting, as well as a pattern. Over the years my studynotes have become more and more sophisticated. The Great Horned Owl and the Costa's Hummingbird are printed in full colour 8½ x11"books. They contain many photos to guide you through every step of the project. All studynotes also include a pattern.

See pages 56 & 57 for a listing of available blanks.

Standard Studynotes (no colour)			
Chickadee, Black-capped	NOTECHICK	\$5.00	
Heron, Great Blue	NOTEGBH	\$5.00	
Hummingbird, Ruby-throat (male) with Columbine Flower	NOTEHUMCL	\$5.00	
Hummingbird, Ruby-throat (male) perched	NOTEHUM	\$5.00	
Loon, Common	NOTELN	\$5.00	
Magpie, Black-billed	NOTEMAG	\$5.00	
Mallard (drake)	NOTEMAL	\$5.00	
Wood Duck (drake)	NOTEWD	\$5.00	

Studynotes with full-colour painting notes			
Blackbird, Red-winged (male)	NOTERWB	\$7.00	
Bluebird, Mountain (male)	NOTEMBB	\$7.00	
Bluejay	NOTEBJ	\$7.00	
Eagle, Bald (on rock)	NOTEBE	\$7.00	
Jay, Steller's	NOTESJ	\$7.00	
Kingfisher, Belted	NOTEKFISH	\$7.00	
Owl, Saw-whet	NOTESAW	\$7.00	
Sandpiper, Least	NOTELST	\$7.00	

Full-colour Studynote Books			
Hummingbird, Costa's (male)	NOTECOSTAS	\$10.00	
Owl, Great Horned	NOTEGHOWL	\$10.00	

### **Books - New Titles**



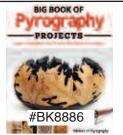
Woodburning
Project & Pattern Treasury
by Deborah Pompano
Paperback 176 pgs. \$29.95
A true treasury of techniques,
tools, patterns and inspiriation.
Great first pyrography book or
addition to your resource library.



by D. Roghair, and J. Doere Paperback 80 pgs. \$20.35 Carve an eagle from a tree trunk or log. Covers all aspects of chainsaw carving. 4 projects: Eagle Head Plaque, Standing Eagle with Fish, Eagle Soaring, Eagle Bench.



Carving Bears
by Desiree Hajney
Paperback 48 pgs. \$16.99
Patterns, reference photos and
carving tips for Black, Grizzly and
Polar Bears by one of the bestknown animal carvers in the world.



Big Book of Pyrography Projects from Woodcarving Illustrated Paperback 128 pgs. \$23.99 Expert techniques and 23 all-time favorite projects from world-renowned artists. Covers multiple materials, tool selection and care as well as an inspiring gallery.



Complete Guide to Band Saws by Mark Duginske Paperback 200 pgs. \$23.95 Essential guide to everything

Essential guide to everything needed to know in order to purchase, setup, use, and maintain a band saw.



Peregrine Falcon by Floyd Scholz HC 160 pages \$35.95

Start-to-finish for carving, painting and assembling this amazing, dynamic and complex sculpture of a Peregrine attacking a Greenwinged Teal. An amazing book!



Duck Decoys: Classic Carving Projects Made Easy by Tom Matus Paperback 80 pgs. \$17.95

Complete, simple instruction to carve a male Mallard decoy. Perfect for anyone wanting to learn to carve a working decoy.



Wings on the Water by S. Maslowski Hardcover 240 pgs. \$47.95

The Great Gallery of Ducks, Geese and Loons. Over 24 species of waterfowl shown in breathtaking photographs. Perfect for carving reference or bird enthusiasts.



Caricature Carving
(Best of Woodcarving Illustrated)
Paperback 144 pgs. \$23.95

30 of the best caricature carving projects from WCI magazine. Projects and gallery will appeal to carvers of all skill levels.

### **Books - Recent Titles**

Carving Patterns & Photos by Cam Merkle. Cam's first two books covering a wide variety of waterfowl. shorebirds and songbirds. Each species covered includes one or more detailed patterns, high-quality reference photos that you'll find invaluable when carving and painting, species-specific carving tips to help you avoid common mistakes, as well as a bit of interesting trivia for each species.



Volume 1 - Waterfowl & Shorebirds

19 different patterns for 16 species of waterfowl and shorebirds including Avocet, Blue-winged and Greenwinged Teal, Bufflehead, Canada Goose, Common Loon, Canvasback, Great-blue Heron, Labrador Duck, Least Sandpiper, Mallard, Pintail, Redhead, Ruddy Duck, Willet, Wood Duck.

36 pages, 54 colour photos. 11x17" Coil-bound. \$24.95



Volume 2 - Songbirds

24 different patterns for 20 songbirds including Red-winged and Yellow-headed Blackbirds, Mountain Bluebird, Gray Catbird, Black-capped and Chestnut-backed Chickadees, Brown-headed Cowbird, Northern Flicker (red and vellow-shafted), Rosebreasted and Blue Grosbeaks, Gray & Steller's Jays, Costa's & Ruby-throated Hummingbirds, Junco, Robin, Bohemian & Cedar Waxwings, Clay-coloured Sparrow, Yellow-bellied Sapsucker. 44 pages, 163 colour photos. 11x17" Coil-bound. \$24.95



Whittling the Old Sea Captain Revised edition by Mike Shipley Paperback 40 pgs. \$15.60

More than 100 step-by-step photos guide you in carving, painting and staining the salty Old Sea Captain and his crew



**Relief Carving Wood Spirits** (Revised Edition) by Lora S. Irish Paperback 144 pages \$23.95

Everything from preparing wood to finishing - no technique is left out. Includes tips for realistic & detailed facial features like windswept hair. eyelids, beards, and moustaches.



Carving Fantasy & Legend Figures in Wood (Revised) by Shawn Cipa

Paperback 120 pages \$24.00

Expert guidance for carving and painting great creatures of legend, including wizards, dragons, faeries, mermaids and more.



by Laura S. Irish Paperback 128 pages \$24.00

Everything you need to know for relief carving animals, landscapes, flowers, borders, Celtic knots and more. Includes 10 original new project patterns.



**Carving The Native American** by John Burke Paperback 104 pages \$24.00

Takes you step-by-step to create an expressive Native American bust, from a clay model to staining and finishing. For carvers of any experience level.



Whittling the Country Bear & His Friends by Mike Shipley

Paperback 64 pages \$18.00

Carve and paint 12 whimsical woodland creatures including bears, moose, rabbits and beavers with step-by-step instructions and easy-to-use patterns.

# **Books - Recent Titles (cont.)**



101 Artistic Relief Patterns for Woodcarvers, Woodburners & Crafters by Lora S. Irish Paperback 122 pgs. \$23.95 Line-drawn and shaded versions of each pattern for dozens of

potential uses. As with all of Lora's

books, this one is superb.



**Big Book of Whittle Fun** by Chris Lubkemann Paperback 128 pgs. **\$15.55** 

This 6x9" book is filled with great little projects and games that are enjoyable to make and fun to use. For carvers of any skill level.



Carving the Screech Owl by Jeffrey A. Moore Paperback 96 pgs. \$24.00 Starting with a rough blank you'll learn texturing, painting and making habitat and feet. Includes pattern and photos of reference as well as how-to information.



Carving Folk Art Figures
by Shawn Cipa
Paperback 80 pgs. \$17.95
Patterns & Instructions for Angels,
Moons, Santas, Cats, Snowmen &
Wizards. 160 full-colour step-bystep photos cover all aspects of
these delightful folk-art carvings.



by Randy True
Booklet 32 pages \$15.60
Make ordinary pencils come to life
with Santa pencils, Wood Spirits,
Leprechauns and even Uncle Sam.
Includes dozens of step-by-step
illustrations and patterns.



by Harold Enlow
Paperback 144 pgs. \$23.95
Learn to carve faces with life and
expression with the legendary
Harold Enlow. Learn about
different types of faces as well as
eyes, lips, nose, hair and ears.



Woodcarving
Techniques & Projects for the First-Time Carver by Everett Ellenwood Paperback 136 pgs. \$18.00

Learn to transfer patterns, use and sharpen tools, work safely, pick the right wood. Easy projects included.



Intarsia:
Woodworking for Beginners
by Kathy Wise
Paperback 128 pgs. \$23.95

Covers all apsects of intarsia with more than 40 lessons, 20 patterns, reference photos, materials lists and more. Useful for all skill levels.



Carving Animals:
Bunnies and Chipmunks
by Rosalyn Daisey
Hard Cover 256 pgs. \$54.00

2 Rabbit & 2 Chipmunk projects.
739 colour photos for superb instruction for carvers of any level.

# **Books - Recent Titles (cont.)**



Carving Santas from Around the World by Cyndi Joslyn Paperback 96 pgs. # BK1872 \$17.95



Carving Wooden Finger Puppets and Cane Toppers by Ross Oar # BK3898 \$17.95



Stickmaking A Complete Course A. Jones & C. George Paperback 176 pgs. # BK3683 \$27.55



Lettering & Sign Carving Workbook by Betty Padden Paperback 160 pgs. # BK4529 \$23.95



Woodcarving Course & Reference Manual by Chris Pye Paperback 160 pgs. # BK4567 \$23.95



Guide to Sharpening, Tools & Setting Up Shop Paperback 144 pgs. # BK4758 \$23.95



Woodcarving Magic by Bjarne Jespersen Paperback 128 pgs. # BK5236 \$23.95



Relief Carving Projects and Techniques Paperback 144 pgs. # BK5588 \$23.95



Handcarved Christmas Best of WCI Paperback 144 pgs. # BK6059 \$23.95



Gunstock Carving by Bill Janney Paperback 96 pgs. # BK166X \$23.95



Inspirational Relief Carving by Bill Judt Paperback 124 pgs. # BK2054 \$23.95



Easy Woodcarving by Cyndi Joslyn Paperback 152 pgs. # BK2887 \$17.95



Carving the Head in the Classic European Tradition M. Geisler-Moroder # BK3026 \$17.95



Hand Carving Snowmen & Santas by Mike Shipley Paperback 64 pgs. # BK1295 \$17.95



Whittling Little Folk by Harley Refsal Paperback 128 pgs. # BK5182 \$20.35



Woodcarving the Nativity by Shawn Cipa Paperback 88 pgs. # BK202X \$17.95



Carving Horse Portraits in Relief by Kurt Koch Paperback 72 pgs. # BK1805 \$17.95



Halloween Woodcarving by Cyndi Joslyn Paperback 128 pgs. # BK2891 \$20.35



Carving Wooden Santas, Elves & Gnomes by Ross Oar # BK3836 \$20.35



Whittling Country Folk (Revised) by Mike Shipley Paperback 88 pgs. # BK8398 \$17.95



Celtic Carved Lovespoons by S.Littley & C.Griffin Paperback 152 pgs. # BK2097 \$21.55



Fine Art of Carving Lovespoons by David Western Paperback 200 pgs. # BK3744 \$29.95



Sculpting the Female Face & Figure in Wood by Ian Norbury # BK7421 \$29.95



Complete Beginner's Woodcarving Workbook by Mary Duke Guldan # BK7452 \$15.60



Carving Wooden Critters by Diane Harto-Ernst Paperback 48 pgs. # BK7711 \$9.60



Building Wooden Snowshoes and Snowshoe Furniture by Gil Gilpatrick # BK4857 \$23.95



Make Your Own Walking Sticks by Charles R. Self Paperback 152 pgs. # BK3201 \$23.95



Carving Gargoyles, Grotesques & Other Creatures of Myth by Shawn Cipa # BK3294 \$23.95



Whittling Vol. 2 by WCI Magazine 112 pgs. # BKSIPWH2 \$12.00



Old Time Whittling by Keith Randich Booklet 32 pgs. # BK7742 \$12.00

# **Books - Bird Carving**



#### Antique Style Duck Decoys

by Tom Matus
A complete guide to
history-rich decoys. Lots
of how-to info and a photo
gallery; for carvers or
collectors. 138 pgs.
SC 8.5x11" \$23.95



#### Carving Award-Winning Songbirds

by L. Corbett Carving, sculpting and painting techniques. A superb book; very highly recommended. 248 pgs. SC 8.5x11" \$35.95



# Waterfowl Carving with J.D. Sprankle

Covers carving and painting of 25 species. 256 pgs. 424 b/w photos, 16 colour pages. SC 8.5x11" \$35.95



### Half-Size Osprey

by Al Jordan
From Wildfowl Carving's
Workbench Projects
series. Includes all steps
to complete this
magnificent bird of prey.
80 pgs. Coil-bound
8.5x11" \$29.95



# Duck Decoys: Classic Carving Projects Made Easy by Tom Matus Carve a male Mallard decoy. Perfect for anyone wanting to learn to carve a working decoy. 80 pgs. SC 8.5x11" \$17.95



#### The Golden Eagle

by Floyd Scholz. Look over Floyd's shoulder as he works through this most ambitious carving of a life-size Golden Eagle in flight. Floyd shares his thoughts, sketches and how-to information. 96 pages. HC 11x8.5" \$41.95



#### Birds of Prey

by Floyd Scholz 17 species of hawks, falcons, eagles & osprey. Includes a section on carving and painting a Kestrel. 500 photos, 35 drawings. 318 pages. HC 9x12" \$71.95



#### Owls

by Floyd Scholz 16 owls: Horned, Snowy, Screech, Long-Eared, Barn, Elf, Spotted, Gray, Burrowing, Pygmy, Sawwhet, Boreal, Barred, Flammulated, Hawk-owl, & Short-eared. 512 pgs. HC 9x12" \$96.00



#### The Illustrated Bald Eagle

by Denny Rogers Covers virtually every aspect of eagle anatomy. Useful for all types of artwork. Includes colour and painting information. 96 pgs.

SC 9x12" \$29.95



#### Illustrated Owl: Screech and Snowy

by Denny Rogers
Ultimate reference for
both owls. 150 drawings
and paint charts included.
248 pages.
SC 8.5x11" \$35.95



# Barred and Great Horned

by Denny Rogers Ultimate reference for 3 owls. 200 drawings and paint charts included. 248 pages. SC 8.5x11" \$35.95



#### Illustrated Birds of Prey

by Denny Rogers
Red-tailed Hawk, Kestrel
and Peregrine Falcon are
covered in over 200
pages of superb
illustrations. Includes
painting reference.
238 pages.
SC 8.5x11" \$41.95

# **Books - Bird Carving (cont.)**



Songbird Carving Vol. 1 by Rosalyn Daisey Rosalyn Daisey's books are among the best bird carving books available. Vol. 1 covers Titmouse, Goldfinch, Wren and Catbird. 256 pages. HC 8.5x11" \$54.00



Songbird Carving Vol. 2 by Rosalyn Daisey More great instruction from Rosalyn Daisey. Vol. 2 covers Cardinal, Sparrow, Robin and Blue Jay. 272 pages. HC 8.5x11" \$54.00



Chick Carving by Rosalyn Daisey Carve a life-like baby Chickadee, Bluebird, Quail, Killdeer or Wood Duck duckling. 208 pgs. HC 8.5x11" \$59.95



Carving
by Rosalyn Daisey
The best book available
on game bird carving.
Covers Doves (flying and
perched) as well as

perched) as well as Woodcock and Bob-white quail. 240 pgs.
HC 8.5x11" \$59.95



Shorebird Carving by Rosalyn Daisey Another superb book by Rosalyn Daisey. Covers Semi-palmated Plover, Sanderling (flying), Greater Yellowlegs and Dunlin. 256 pgs. HC 8.5x11" \$59.95



Carving and Painting a Black-Capped Chickadee with Ernie Muehlmatt

with Ernie Muehlmatt Carve a chickadee and a branch from one piece of wood. Full instructions from start to finish. 92 pages. SC 7x9" \$23.95



Carving North American
Hummingbirds by

C.Solomon & D.Hamilton Covers Costa's, Anna's, Black-chin & Rufous as well as an extensive habitat section. 64 pages. SC 8.5x11" \$23.95



Hummingbirds

by Erik Hanson
Stunning photos and
natural history on 12
North American species.
Includes information on
attracting hummingbirds.
60 colour photos. 160
pgs. SC 6x9" \$26.35



Decoys: Sixty Living and Outstanding North American Carvers

by Loy S. Harrell Jr.
Decoys by 60 of the best
in the field. All species are
represented, but each
artist has also carved a
drake Wood Duck so you
can compare styles.
248 pages.

HC 11x8.5" \$54.00



Carver's Portfolio
Vol. 1 - Dabbling Ducks

by Bruce Burke
The ultimate pattern,
photo and painting
reference w/ 12 species
of dabbling ducks, both
hen and drake. 154 pgs.
HC 8.5x11" \$41.95



Decorative Decoy Carver's Portfolio Vol. 2 - Diving Ducks by Bruce Burke

The ultimate reference for 12 species of diving ducks, both hen and drake. 160 pgs.
HC 8.5x11" \$41.95



Loon Carving Patterns & Techniques

by Jeffrey Whiting Covers carving, detailing and painting. Life-size and 1/2 size patterns cover swimming, standing, flying, and stretching. The best loon reference! SC 18 pgs. 13x19" \$34.75

# **Books - Bird Carving and Reference**



#### Shorebirds - Beautiful Beachcombers

by A. Morris
Beautiful photographs of
most of our shorebirds.
Descriptions of breeding,
non-breeding and juvenile
plumages included. 160
pgs. SC 6x9" \$23.95



#### #BK1325

Wading and Shorebirds by Roger S. Everett

An excellent photographic reference for wading and shorebird carvers and bird watchers.
SC 9x6" 48 pgs. \$11.95



#### Waterfowl Identification - the LeMaster Method

by R. LeMaster Handy little pocket guide will help you learn to quickly and accurately identify all species of North American ducks in various plumages. 76 pages. Coil-bound 7x4.5" \$11.95



#### Guide to Ducks and Geese

by C. Hagner Large colourful photos of almost every waterfowl species in North America. Great reference and an interesting read. 108 pgs. SC 6x9" \$26.35



#### Championship Waterfowl Patterns Vol. 4 by Pat Godin

36 high-quality pattern designs from Pat's 12 years of entries in World Shootin' Rig competition. Includes instructional material for this style of decoy. Covers hens and drakes of Pintail, Mallard, Black Duck, American and Eurasian Wigeon, Canvasback, Common & Barrow's Goldeneye, Long-tailed Duck, Greater Bluebill, White-winged Scoter and Redbreasted Merganser. 50 pgs. SC 20x14" \$58.80



#### Contemporary Gunning Decoys

by Michael Harde
One of the few books
covering the making of
gunning decoys.
Techniques for 3 different
birds, covering diverse
approaches to each
project. 44 pages.
Coil-bound
12x15" \$29.95



#### Eastern Bluebird by Laura Lucio

Step-by-step. Includes habitat construction, highly detailed patterns, paint schedules, feet and leg construction, reference photos and shop safety. 44 pages. Coil-bound 12x15" \$35.95



Miniature Snowy Owl by Keith Mueller

Carving, texturing, and painting a Snowy Owl. Described as the most comprehensive Workbench Project to date. 12x15" 48 pgs. Coil-bound \$41.95



American Goldfinch by Victor Paroyan

More than 200 photos teach from rough-out to painting. Also carving a daisy and bud. Very detailed and thorough explanations. 38 pages. Coil-bound 12x15" \$41.95



Lifesize Merlin by Greg Woodard

Step-by-step details on creating this spectacular preening Merlin from a single block of wood. Also info on making your own eyes and oil painting techniques. 40 pgs. Coil-bound 12x15" \$41.95



#### Green-Winged Teal Pair

by Glen McMurdo
From Wildfowl Carving's
Workbench Projects
series. Includes 340
photos, carving, texturing
and painting hen and
drake. 80 pgs. Coilbound 8.5x11" \$29.95

# **Books - Bird Carving and Reference**



Carving Pattern Book by Prairie Canada Carvers

The Prairie Canada Carving club from Winnipeg has been actively promoting carving for over 25 years. In celebration of the 25th anniversary of their show they have published this pattern book with over 30 original patterns by award-winning carvers. The patterns cover a wide range of subjects from birds and animals to chip carving, relief carving and intarsia. There's also lots of "how-to" information and tips - even plans for a nifty center-line marking tool. This is a one-of-a-kind book that's sure to have something for everyone.

54 pages. Coil-bound 17x11" \$25.00



Chainsaw Carving an Eagle

by J. Doren & D. Roghair Complete step-by-step guide to 4 different projects: Eagle head, soaring Eagle, Eagle with fish, and an Eagle bench. 80 pages. SC 8.5x11" \$16.95



Wild Guide - Owls by C. Berger Very comprehensive book on most owl species - a must have for serious owl carvers. 130 pages. SC 6x9" \$23.95



Owls of North America by Jeffrey Whiting Covers 19 species. Includes pattern and painting reference along with natural history info and a gallery of owl art by many artists. 152 pages. HC 10x12" \$47.95



Small Mountain Owls by Scott Rashid Great information. 160 photos of Flammulated, Northern Pygmy, Northern Saw-whet, and Boreal Owls. 160 pages. SC 8.5x11" \$39.95



Screech Owl by Jeffrey A. Moore Starting with a rough blank you'll learn texturing, painting and making habitat and feet. Includes pattern and reference photos. 96 pgs. SC \$24.00

#### Wild Bird Guides

Each of these books provides excellent, detailed reference on a single bird species. Each one is filled with photographs from all possible angles, as well as lots of other useful information about the featured bird. They are super for drawing your own patterns or for figuring out that tricky part of the bird that you can't find information on elsewhere. All are 7"x9", Soft-cover, between 85 and 110 pages. \$23.95 ea.



Black-capped Chickadee #BK2686X



Downy Woodpecker #BK27246



Great Horned Owl #BK26894



Northern Cardinal #BK31006



Ruby-throated Hummingbird #BK26886



Tufted Titmouse #BK29672

## **Reference Material - Photo Booklets**

We are very proud to offer you reference photo booklets: some by photographer Dean Davenport (DD) and others by Cam Merkle (CM). Each booklet contains excellent quality photos taken from various angles, with the carver and artist in mind. Most are 8.5"x5.5" booklets (8.5"x11" booklets are indicated) containing great reference photos that you will find most useful for your carving and painting projects. More species are being added - check our website for updates.

5.5"x8.5" Booklets are \$9.95 ea.

8.5"x11" Booklets are\$14.95 ea.



Avocet, American 36 Photos CM # PBAA01





Bluebird, Mountain 39 Photos CM # PBMBB01



Brant, Pacific 52 Photos CM 11"x8.5" Booklet # PBPB01 \$14.95



Chickadee, Black-capped (Basic) 32 Photos DD

# PBCH01



Chickadee, Black-capped (open-wing and advanced poses) 34 Photos CM # PBCH02



Gadwall M&F 32 Photos DD # PBGA01



Goldeneye Duck (both hen & drake) 32 Photos DD # PBGO01



Goldfinch, American (Female) 36 Photos CM # PBGF02



Goldfinch, American (Male) 36 Photos CM # PBGF01



Goose, Canada (flying, stretching) 20 Photos DD # PBCG02



Goose, Canada (standing, swimming) 32 Photos DD # PBCG01



Grebe, Eared (some with baby) 36 Photos CM # PBEG01



Grosbeak, Pine (Female) 24 Photos DD # PBPG01



Hawk, Swainson's 36 Photos CM # PBSH01





Junco, Dark-eyed 38 Photos CM # PBDEJ01



Killdeer 36 Photos CM # PBKD01



# **Reference Material - Photo Booklets**



Loon, Common 36 Photos CM # PBLO01



Mallard Drake 20 Photos DD # PBMA01



Mallard Hen 20 Photos DD # PBMA02



Plover, Semipalmated 38 Photos CM # PBSP01







Pelican, White 83 Photos CM 11"x8.5" Booklet # PBAWP01 \$14.95



Ruddy Duck (M&F) (swimming, standing) 24 Photos CM # PBRD01



Raven, Common 36 Photos CM # PBRV01



Redpoll, Common 36 Photos CM # PBCR01



Robin, American

# PBROB01



Sandpiper, Upland



Sandpiper, Solitary 36 Photos CM # PBSSP01

24 Photos CM # PBUS01





Sparrow, Chipping 46 Photos CM # PBCHS01

Sparrow, Clay-coloured 41 Photos CM # PBCCS01

Tern, Black 40 Photos CM # PBBT01

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Towhee, Spotted 38 Photos CM



Turnstone, Ruddy 57 Photos CM 11"x8.5" Booklet # PBRT01 \$14.95



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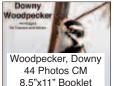


40 Photos CM # PBCW01



# PBST01

Whimbrel 36 Photos CM 11"x8.5" Booklet # PBWH01 \$14.95



# PBDW01 \$14.95



48 Photos CM # PBHW01



Willet 38 Photos CM # PBWI 01

# **Books - Birds/Animals/Chainsaw**



by Hal MacIntosh Covers selection and use of chainsaws for carving. Includes carving to finishing steps as well as tool selection and care. A very thorough volume, well illustrated, 168 pgs. SC 8.5x11" \$33,60



Art of Chainsaw Carving by Jessie Groeschen

Overview of the art form. photo gallery, how-to section. 160 pages. SC 8.5x11" \$23.95



#### Chainsaw Carving a Bear

by Jamie Doeren Step-by-step instruction for 3 projects: Bear Cub in a Stump, Caricature Bear with Welcome Sign and Growling Grizzly. 72 pgs. SC 8.5x11" \$24.00



Wild Guide - Bears by C. Fergus

Covers North American bears very thoroughly. Great information, essential for bear lovers. 118 pages. SC 6x9" \$23.95



Bear - The Artist's Ultimate Reference by Doug Lindstrand Photographs, field illustrations and natural history notes covering all species of bear. 114 pages.

\$23.95

SC 8.5x11"

#BK1953

Deer - The Artist's **Ultimate Reference** by Doug Lindstrand Photographs, field illustrations and natural history notes covering all species of deer, 114 pas. SC 8.5x11" \$23.95



#### Drawing Mammals

by Doug Lindstrand Stunning colour photos for 20 favorite mammals and techniques on drawing them. Superb reference for carvers and painters. 208 pages.

SC 9x12" \$35.95



#### Carving the Elk

by Dale Power Step-by-step instruction with over 250 colour photos, 3 patterns and information on various positions. Also burning the hair and mounting on a base. 64 pages. SC 8.5x11" \$15.55

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There are several reasons why a book you're looking for may not be included in our catalogue: a) it may be new enough that it could not be included in this catalogue (check our website). b) it may be out of print and no longer available. c) it may not be of sufficient quality or value for us to include it in our catalogue. d) we may not be aware of it.

We do our best to make sure the latest and best carving and carving-related books are included in our catalogue and on our online store. Each title is checked for quality and value before we'll include it - unfortunately there are some poor-quality books out there and we don't feel comfortable selling any of them. Books do go out of print fairly regularly. When really good titles are scheduled to go out of print we'll do our best to stock up on them so that we have stock available as long as possible (and never at inflated prices). If you're looking for a book that you don't see listed here or on our website, don't hesitate to contact us. If we're familiar with it, we'll be happy to advise you of the book's print status and quality. If it's a title we're not aware of, we'll check it out and may be able to bring it in for you.

# **Books - Mammals/Fish/Aquatics**



Realistic Dogs by J. Kochan

For more advanced carvers. Covers anatomy to texturing for many diverse species. 68 pages.

SC 8.5x11" \$21.55



Carving Patterns by F. Russell

Over 80 high-quality patterns of birds, fish and animals, taken from Frank's many years of teaching. 130 pages. SC 8.5x11" **\$17.95** 



The Carver's Book of Aquatic Animals

Covers anatomy, patterns, behaviour and carving techniques for sharks, turtles, ravs, whales, alligators and manatees. Lots of colour photos and patterns. 174 pages. HC 9x12" \$47.95



#### Freshwater Fish Carving

by J. Filger A beautifully done book giving detailed, concise instruction on carving and painting a Bluegill, Black Crappie, Rainbow Trout & Channel Catfish. 224 pgs. HC 8.5x11" \$42.00



Freshwater Fish by Malcolm Greenhaigh

The natural history of 160 native European species, some of which also occur in North America. An indispensable reference. 250 colour photos and illustrations. 192 pages. HC 9x9" \$47.95



#BK27674

Whale Carving by R. Cloutier

All steps necessary to carve and paint a Sperm and Fin Whale, 120 colour photos. Includes patterns for Humpback, Blue, Right and Grey Whales. 112 pages. SC 11x8.5" \$20.35



#### Basic Fishing Lure Carving

by G. Hays Try your hand at making your own fishing lures with this comprehensive guide. Colour photos, patterns, tips and tricks. 64 pages. SC 8.5x11" \$17.95



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by Rich Rousseau Everything you need to know to make your own wooden lures that really catch fish. Includes a gallery of historic and contemporary wooden lures. 176 pages. SC 9x6" \$23.95



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by Rosalyn Daisey 2 Rabbit and 2 Chipmunk projects. 739 colour photos for superb instruction for carvers of any level. 256 pages. HC 8.5x11" **\$54.00** 



#### Wildlife Carving in Relief Revised 2nd Ed. by Lora Irish

Nearly 50 beautiful patterns and step-by-step instruction makes this book very useful to relief carvers of all skill levels. 178 pages.

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#### Carving Bears

by Desiree Hainey Patterns, reference photos and carving tips for Black, Grizzly and Polar Bears by one of the bestknown animal carvers in the world. 48 pages.

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using both traditional and rotary tools. Lots of great photos quide vou along each step of the way. 5 patterns are also included. 80 pages SC 8.5x11" \$15.55



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Great Book of Fairy Patterns by Lora S. Irish More than 100 fairy patterns for carvers and artists. An interesting section on history and anatomy as well as various fairy types and their appearances. 186 pgs. SC 8.5x11" \$23.95



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and David Hamilton

Features the work of 14 top artists and 5 complete step-by-step carving projects. 105 pages SC 8.5x11" \$23.95



#### Carving Gargoyles, Grotesques, and Other Creatures of Myth

by Shawn Cipa 2 complete projects stepby-step and 26 more patterns. Finishing techniques include agedstone appearance. 160 pas. SC 8.5x11" \$23.95



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1930's classic reprint shows how to make lots of items from chains and ball-in-cage to buildings in bottles. 90 pages SC 16x9" \$11.95



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by Chris Lubkemann

Make fun, easy keepsakes with simple tools and found twigs. 68 pages SC 8.5x11" \$11.95



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by Lora S. Irish Over 200 original patterns with instruction for Celtic knot, textures, twists and braids. Great for carving or pyrography patterns. 200 pages SC 8.5x11" **\$23.95** 

# **Books - General Carving & Sharpening**



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23 sections covering almost all aspects of carving from a master carver.

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Wood and tool selection, classic techniques - even power tools! 224 pages SC 8.5x11" \$29.95



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getting started through
painting. Gallery included.
64 pages
SC 8.5x11" \$15.55



#### Woodcarving Noah's Ark

by Shawn Cipa
Detailed plans and
carving and painting
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his wife, the Ark, and 14
Pairs of Animals.
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Shows techniques used by acclaimed carvers as well as a gallery. Includes step-by-step bark carving of a human face. 96 pgs. SC 8.5x11" \$23.95



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Old world folk art from one piece of wood. Discover this fascinating style - simple and beautiful projects. 72 pages SC 8.5x11" \$27.55



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Wood Worker's Guide to Sharpening by J. English

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Profile patterns for everything from dragons to mice, pigs, racoons and more. Great starting point for caricatures, too. SC 8.5x11" \$11.95



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Power Carving Manual by Fox Books

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New Complete Guide to the Bandsaw by Mark Duginske

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by Woodcarving Illustrated Contains info on selecting and using carving and burning tools and cutters as well as step-by-step projects.

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A huge collection of masterful carvings by one of the world's best carvers. Sure to inspire! 152 pages SC 8.5x11" \$29.95



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moldings, relief, a ball cap
and a wren in the round.
160 pages

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#### American Avocet DVD set with Del Herbert. 2 informationpacked DVD's cover start-to-

packed DVD's cover start-tofinish carving and painting an Avocet as only Del can. \$51.95



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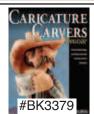


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3 DVD Set: Power Carving Fur, Feathers & Fins with Frank Bussell

Learn how to carve and texture a rabbit, mallard, and bass with power tools. Over 3-1/2 hours total instruction. \$38.95

# **Books - Caricature**



Caricature Carvers Showcase

by the Caricature Carvers of North America Includes patterns, design, biographies, carving and painting techniques from 30 artists. 124 pages SC 8.5x11" \$23.95



#### Caricature Carving From Head to Toe

by Dave Stetson
A step-by-step guide to
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projects - Santa, Cowboy
and Ball player. 92 pgs.
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sizes, from simple to notso-simple. 64 pages
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Photos, patterns and step-by-step instruction for 8 Scottish golfers.

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by Bill Howrilla 12 different projects to impress your golfing friends. These delightful pieces capture

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by Gary Batte A delightful book with 68 fun patterns. Loads of fun and easy-tocarve small projects!

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### **Pyrography Kits by Sue Walters**



Peregrine Falcon #SWP01



Chickadee & Pine #SWP02



Chipmunk on Rock #SWP03



#SWP04



Tiger Portrait #SWP05

5 complete kits each include step-by-step instruction manual, basswood, pattern, transfer paper and sandpaper. The manual includes introductory burning info, concise instructions including photos, tips and troubleshooting advice, spare pattern and a colour photo of the finished project. \$23.95 each



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# 2-DVD Set: Pyrography Workshop - Hawk with Sue Walters

2 DVD set covers everything. Includes 16 page booklet, 2 patterns. Complete a hawk in 10 lessons from one of the world's best woodburning artists. \$29.95



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Burning Night: The Art of Negative Space Woodburning with Sue Walters

15 lessons help you create stunning results by engraving through a burnt surface, opening new possibilities for pyrography. \$29.95

# **Pyrography Paper**

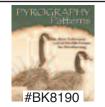
Specially designed paper for pyrographic artists. Draw directly on it, or use it in your laser or inkjet printer. The ink needs to air dry when using an inkjet printer since the paper is not porous. Once attached to your burning surface (usually with masking tape), you can burn right through it! Speeds up pattern layout and provides faster, more consistent results. Supplied in a package of 50 sheets 8.5"x11". #PYROPAPER50 \$10.20

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Pyrography Patterns by Sue Walters 30 designs (line and shaded) for woodburning or drawing can either be used "as-is" or as reference to make your own. Also includes 10

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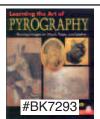
Great Book of Woodburning

by Lora S. Irish Filled with useful tips and techniques. A great addition to existing pyrography books; highly recommended. 200 pages SC 8.5x11" \$23.95



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educate. Highly
recommended. 66 pages
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#### Learn to Burn

by Simon Easton
A step-by-step guide to
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pyrography. Includes
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projects for making
decorative gifts and 50
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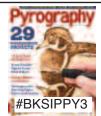
written. 208 pages

SC 8.5"x11" \$29.95



#### Pyrography Basics

by Lora S. Irish
Techniques and exercises
for beginners. A great
starter book covers basic
tools, materials and
techniques with 7 skillbuilding projects.
32 pages
SC 8.5"x11" \$12.00



Pyrography Volume 3 -2013 - The Art & Craft of Woodburnina

Woodburning
3rd Pyrography annual
from Fox Books is a
wealth of the latest
information, techniques
and tips from the world's
top artists. Magazine
112 pgs. \$11.95



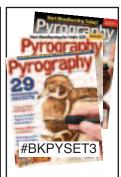
# Pyrography Volume 2 - 2012 - 17 New Projects -

Beginner to Advanced 2nd Pyrography annual from Fox Books filled with tips from making your own patterns to adding colour. Includes a buyers guide. Magazine 112 pgs. \$11.95



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Lifelike Pyrography from Photographs by Nedra Denison Use your own photos to create original artwork. Packed with tips and hints, a step-by-step demo and examples of various projects. 70

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Pyrography Patterns by Nedra Denison

14 patterns from Nedra's original woodburnings, suitable for all levels of woodburning artist from beginner to advanced. 36 pages SC 8.5x10" \$19.15



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The Art of Pyrography
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New Limits by Nedra
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experimention with new
techniques and materials,
including gourds, burls
and more. Many new
patterns and a gallery by a
variety of artists.
66 pages
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Big Book of Pyrography Projects from Woodcarving

Illustrated
Expert techniques and 23
all-time favorite projects
in multiple materials.
Includes tool selection
and care and an inspiring
gallery. 128 pages
SC 8.5x11" \$23.99



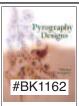
Step by Step Pyrography by Bob Neill.

Learn to embelish common items with Bob's simple, yet elegant designs. A great starter book, filled with ideas and designs, as well as how-to tips. 80 pages SC 8.5x11" \$15.55



Woodburning Basics by Dick Armstrong

Written mainly for beginners using a simple solid-tipped burner. 3 projects will teach skills useful to artists of all skill levels. 66 pages SC 8.5x11" \$17.95



Pyrography Designs
by Norma Gregory

Very high-quality designs of birds, mammals, flowers, herbs, water life, farms and cottages and Celtic knotwork, all free of copyright. 114 pages SC 8.5" x11" \$15.55





2-DVD Set: Woodburning with Cheryl Dow. Instruction from a weeklong seminar packed it into 2 DVD's. Shows dozens of tips and techniques. Includes patterns. Approx. 5 hours total. \$59,95





Woodburning with Cheryl Dow Vol. 1 14 patterns. Basic information on tips & techniques. \$16.75



Woodburning with Cheryl Dow Vol. 2 11 new patterns with more techniques. \$16.75



Woodburning with Cheryl Dow Vol. 3 10 large, more advanced patterns. \$16.75



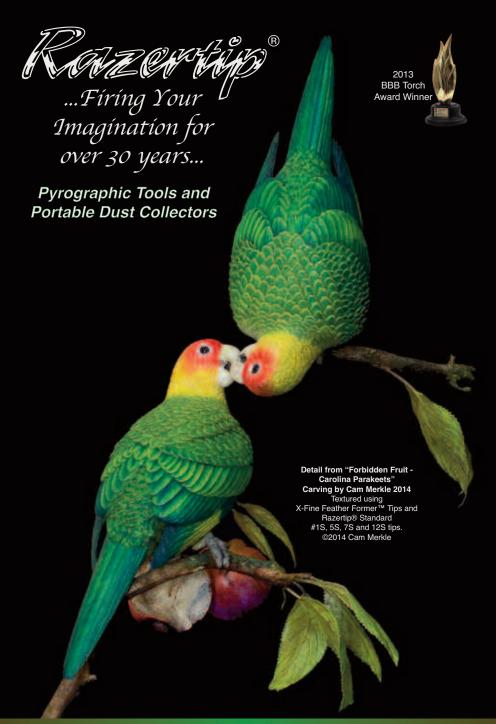
Woodburning with Cheryl Dow Vol. 4 Over 50 patterns with basic burning information. \$16.75



Woodburning with Cheryl Dow Vol. 5 40 Patterns with instruction and tips for each. \$26.40

#### Can I Use My Razertip Tools?

Many of the books and videos (especially the newest ones) are using Razertip tools, but some show other brands. We're often asked if Razertip tools can do the work shown in these books. The answer is yes. With the world's largest selection of tip shapes and a choice of interchangeable or fixed tip pens, Razertip pens can indeed do it all. If you are not sure how Razertip will perform with a specific technique, just give us a call on our toll-free line or drop us an email and we will be glad to help you!



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Catalogue #R21 Effective Jan 1, 2016 Tip Index on Page 131

# Razerijo SS-D10



The SS-D10 is Razertip's workhorse, with many features not found on any other burner. Dual handpiece capability allows you to have 2 pens plugged in at the same time and change between them at the flick of a switch. This is particularly useful if your work calls for frequent handpiece or cord changes. It saves time and wear on the connectors. The SS-D10's extra low-end temperature adjustment allows you to turn the heat down further if the "1" setting is still too hot. If you are sculpting wax or detailing plastics, you'll love the extra range available on the low end of the SS-D10. Choice of regular or heavy-duty pen included.

SS-D10 burner w/ 1-std. pen & 1-18 gauge extra-flex cord cat# SS-DF(pen#) Example - w/ F1L pen #SS-DF(F1L)

\$197.50 (120V w/ std. pen)

SS-D10 burner w/ 1-heavy-duty pen & 1-16 gauge HD cord cat# SS-DHD(pen#) Example - w/ HD1L pen #SS-DHD(HD1L)

**\$202.50** (120V w/ HD pen)

# Kazeviyp® sk



Don't let the SK's small size fool you. It's packed with the same power and circuitry as the SS-D10, so it's great as a starter unit or as a second burner for the serious artist. So what's the difference from the SS-D10? The SK will accept only one handpiece at a time, making it necessary to unplug and plug in handpieces when changing over, and it doesn't have the extra-low-end temperature adjustment. Other than that, it's essentially the same unit as the SS-D10. Choice of regular or heavy-duty pen included.

**SK burner** w/ 1-standard pen & 1-18 ga. extra-flex cord cat# SK(pen#) Example - w/ F1L pen use #SK(F1L)

**\$158.95** (120V w/ std. pen)

SK burner w/ 1-heavy-duty pen & 1-16 ga.HD cord cat# SK(pen#) Example - w/ HD1L pen, #SK(HD1L)

**\$163.95** (120V w/ HD pen)

# Razerap Pyrographic Tools

#### **Europe**

220/240V (50/60Hz) Razertip burners specially made to be used in Europe. Both SK and SS-D10\* models are compliant with European safety standards (CE Mark) and European Reduction of Hazardous Substances directives (RoHS). Can be supplied with European plug, British plug, or Italian plug. Other plugs also available by request. Price includes standard pen & standard cord. Add \$5.15 for HD pen/cord.

SK (Europe) w/ Eurocord #EUSK \$169.50 SS-D10\* (Europe) w/ Eurocord #EUSS-D10 \$207.95 SK (Europe) w/ 3-prong British plug #GBSK \$184.75 SS-D10\* (Europe) w/ British plug #GBSS-D10 \$223.50 SK (Europe) w/ Italian plug #ITSK \$169.50 SS-D10\* (Europe) w/ Italian plug #ITSS-D10 \$207.95

SS-D10 burners for Europe do not have the extra-low end temp adjustment feature.

#### Australia/New Zealand

220/240V (50/60Hz) Razertip burners specially made to be used in Australia. Both SK and SS-D10 models are certified to Australian C-Tick standards. Supplied with Australian power plug. Price includes standard pen and standard cord.

Add \$5.15 for HD pen/cord.

C

SK (Australia) #AUSK **\$169.50** SS-D10 (Australia) #AUSS-D10 **\$207.95** 

Razertip® pyrographic tools have been setting the standard for hot-wire pyrographic tools since the mid 1980's. They feature near instant heat response and ultra-sharp tips (120+ lines per inch). Choose among three different handpiece types: standard pens are the smallest and coolest; HD pens are cool and tough; and the BPH pen allows you to change tips or even make your own tips. With hundreds of stock tip shapes, most of which are unique to Razertip®, we can meet your pyrographic needs whatever they may be. We take your safety seriously, too. Our CSA C/US safety certification covers both Canada and the USA, making Razertip® tools the only line of hot-wire pyrographs that can legally be sold in every province and state in North America.

If you're looking for great value in a lifetime-quality tool at a competitive price, Razertip® can fit the bill, with two different power supplies. Both are made to stand up to serious professional use, yet are simple enough for a child to operate (under adult supervision). Both the SS-D10 and the SK share the following features (features marked \*\* are unique to Razertip®):

- ▶ 10 amp output provides the fastest tip-heat recovery in the industry\*\*
- ▶ ideal wide-range temperature control: won't scorch wood at "1" through to "red-hot" at 10
- ▶ all models are safety certified or listed/compliant\*\* (CSA#LR95555)
- ▶ super-flexible adapter cords (in standard or heavy-duty)\*\*will accept most any brand of pen
- ▶ indexed handpiece indicator lights\*\* can help confirm proper pen and cord operation
- ▶ ultra-stable control circuitry\*\* for consistent burns even when turned on-and-off-and-on again
- removeable and reversible handpiece cords allow use of extra-flex or heavy-duty cords
- laser-welding technology\*\*
- unconditional warranty\*\* covers everything (and we mean everything!) for 3 years on the power supply and one year on all handpieces including fixed tips. Even if you drop your pen and break the tip - it's covered!\*\*

# Razerup Pyrographic Tools

## Value-Priced Starter Packages

Just getting started with pyrography? Not quite sure what you need? We'll make it a bit easier for you with one of our starter packages. Packages are available for carvers, general pyrography, gourd artists and wood turners. Each package contains the most useful pens/tips/cords for your particular interest.

#### Package #1 - Carving

#### Includes:

- 1- Power supply (SK or SS-D10)
- 1- Standard Cord #CORD1FL
- 1- Heavy-Duty Cord #CORD1HD
- 1- Tip Cleaner #CLEANER
- 1- Large Skew Std. pen #F1L
- 1- Small Spear Std. pen #F5S
- 1- Small Round Skew Std. pen #F7S
- 1- HD Quill Maker pen #HD5MC



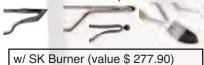
w/ SK Burner (value \$277.90) # KIT01-SK **\$265.70** 

w/ SS-D10 Burner (value \$316.45) # KIT01-SSD **\$299.95** 

### Package #3 - Gourd Art

#### Includes:

- 1- Power supply (SK or SS-D10)
- 1- Standard Cord #CORD1FL
- 1- Heavy-Duty Cord #CORD1HD
- 1- Tip Cleaner #CLEANER
- 1- Small Skew Std. pen #F1S
- 1- 1/16" Ball Std. pen #F99.015
- 1- Gourd Cutter Std. pen #F9G.17
- 1- Med/Small Shader pen #HD5MSP



w/ SK Burner (value \$ 277.90) # KIT03-SK **\$265.70** 

w/ SS-D10 Burner (value \$316.45) # KIT03-SSD **\$299.95** 

# Package #2 - Pyrography

#### Includes:

- 1- Power supply (SK or SS-D10)
- 1- Standard Cord #CORD1FL
- 1- Heavy-Duty Cord #CORD1HD
- 1- Tip Cleaner #CLEANER
- 1- Medium Knife Std. pen #F14M
- 1- Small Round Std. pen #F2S
- 1- 1/16" Ball Std. pen #F99.015
- 1- HD Medium Shader pen #HD30M



w/ SK Burner (value \$ 277.90) # KIT02-SK **\$265.70** 

w/ SS-D10 Burner (value \$316.45) # KIT02-SSD **\$299.95** 

### Package #4 - Woodturning

#### Includes:

- 1- Power supply (SK or SS-D10)
- 1- Standard Cord #CORD1FL
- 1- Heavy-Duty Cord #CORD1HD
- 1- Tip Cleaner #CLEANER
- 2- Interchangeable-tip pens #BPH
- 1- Set of 5 ball tips #SET99X5
- 1- Pkg of assorted Tip wire #TW6.AST
- 1- HD Med Wide Spear pen #HD5MH
- 1- HD Spear Shader #HD5MP



w/ SK Burner (value \$321.85) # KIT04-SK **\$305.00** 

w/ SS-D10 Burner (value \$360.30)

# KIT04-SSD **\$342.50** 

# Razeriip Handpiece Cords

Razertip® cords incorporate many unique features that make them the most reliable cord on the market. All of our RCA connectors are precision-machined, then carefully inspected, fitted, and electrically reinforced. In other words, they're made to handle the current and tugging like no other plug. Then we install our unique flexible strain relief behind the plug. The strain relief spreads the flexing of the cord over a larger area, assuring many years of dependable service. Our super-flexible cable gives you unmatched comfort and control too.

FAQ: What's the difference between Standard and Heavy-duty cords?

A). Standard "FL" cords (black plugs) use an 18-gauge cord for maximum flexibility. Heavy-Duty "HD" cords (red plugs) use a 16-gauge cord for maximum current flow, but it's not quite as flexible. For fastest tip heat recovery the HD cord is recommended. Any of our pens work on either cord, but HD pens perform best with HD cords.



#1 Cord One male connector on each end. Supplied with Razertip® burners. Available in "FL" (super-flexible) or "HD" (heavy-duty). Also allows use of Razertip® pens on most other burners (except Detail Master which uses #CORD3). 1M (39") long.

# CORD1FL (39") \$17.50

# CORD1HD (39") \$18.50

A 12" version of the #1 cord is available for use as a patch cord on Colwood burners:

# CORD7FL (12") \$16.50

# CORD7HD (12") \$17.50



#2 Cord One male, one female. Allows you to use other pens (Detailer, Nibs, Optima) on a Razertip® power supply. Can also be used as an extension cord on the #1 or #7 cords. 1M (39") long.

# CORD2HD (39") \$18.50



#3 Cord One male, one 1/4" phone plug. Use Razertip® pens on power supplies with a 1/4" phone jack (Detail Master, etc.). 1M (39") long.

# CORD3FL (39") \$18.50

# CORD3HD (39") \$19.50



#4 Cord Use Razertip® pens on power supplies with two "U" connectors (Colwood). Attaches to box with screws. 1M (39") long.

# CORD4FL (39") \$17.50

# CORD4HD (39") \$18.50



#5 Cord Allows you to use Razertip® pens on power supplies that have two banana connectors. Not available in HD. 1M (39") long.

# CORD5FL (39") \$17.50



#8 Cord Adapter cord to use Detail Master pens on Razertip® power supplies. Available in HD only. 12" long.

# CORD8HD (12") \$18.50

Need a cord that's not listed here? No Problem! We can make cords with special ends or in special lengths.

#### Adapters



Adapts Optima, Colwood or Nibs pens to a Razertip® standard cord. (CORD1FL, CORD1HD, CORD7FL, CORD7HD) # AD1 \$4.75

> Adapts Detail Master or similar pen to a Razertip® power supply. # AD2 \$6.25

Adapts Razertip® pens to Colwood, Nibs, Optima etc. # AD4 \$5.75

# Razerup Accessories

#### Tip Cleaner



Another Razertip® exclusive! This ingenious tool removes carbon buildup from most sharp Razertip® tips quickly and easily. Prolongs tip life (compared to using abrasives). One hand operation; works without turning off power. Includes a flip-away blade cover for safety.

#### # CLEANER \$11.95

Note: We suggest that you never use abrasives to clean burner tips. Abrasives wear your tip out and will cause it to carbon up quicker than if you scraped it. We realize that some manufacturers advocate abrasives to clean tips. Either they don't know about scraping or they have other motives (i.e. selling you more tips). Scraping works best!

For tips that can't be scraped (scale tips, Feather Formers™, ball tips), use a dense brass brush.

#### Grips and Clips (all shown actual size)



Replacement foam grip for standard Razertip pens. # GRIP \$1.65 ea.



Handpiece clip with adhesive back # CLIP \$2.25 ea.



Extra-thick foam grip fits standard Razertip pens. Great for extra comfort, especially if you have sensitive fingers or like to burn at high heat settings. Also popular with artists who prefer the feel of a larger pen.
# GRIPL \$1.65 ea.



This is the foam grip that is supplied with Razertip's ventilated HD pens. It will also fit on the earlier, nonvented HD pens (you may have to cut the original grip off first). This grip will only fit on a heavy-duty (HD) pen - the inner hole is too big for a standard pen. # GRIPHD \$1.65 ea.

#### **Coloured ID Rings for Pens**

What a great idea! Several of our customers suggested that we provide a simple way for them to quickly tell one pen from the other without having to pick it up and look carefully at the tip. These "O"-rings are the solution. Sold in a set of 24 (3 each of 8 colours), they can be rolled onto the pen body (just behind the grip is a good place) in any combination to quickly ID different pens by the ring colours. For example, I have a red ring on my #1S pen and a white ring on my #7S pen. Also helpful to distinguish your pens from others in classes or workshops. They are re-usable and will fit Standard or HD pens.



24 rings, 3 ea. black, blue, green, orange, purple, red, white, yellow. # RINGSET24 \$3.99 Also available individually # RING516(colour) eg: RING516BLUE @ 20 cents each



# Razertip General Information

Razertip Industries Inc. is open Monday through Friday 9AM-5PM. We are closed for all Canadian holidays and for the week between Christmas and New Year's Day. We are located at 301- 9th Street North - in the north end of Martensville, Saskatchewan. Just look for a big metal building *with black and red accent stripes*.

#### **Pricing and Currency Rates**

All prices shown are effective Jan. 1, 2016 and are subject to applicable taxes and shipping charges. Direct orders billed to credit cards will be billed in Canadian dollars. Because of this, the actual cost to US customers will vary with currency exchange rates. US dollar prices are subject to fluctuations with currency markets. Please call if you are unsure how exchange rates work. We make every effort to maintain consistent pricing for the duration of this catalogue, however, we reserve the right to change prices and specifications without notice.

At the time of publication, all information in this catalogue was accurate to the best of our knowledge, however, errors and omissions may occur. We will not be responsible for such errors or omissions except where our guaranty and return policy would allow. Liability is limited to the actual cost of goods sold and does not cover consequential damages or suitability of goods for a specific purpose.

#### Razertip® and the Environment

Longevity: Razertip® products are intended to last many, many years. Although we live in a "throw-away" world where many items are not practical to repair, Razertip products are designed to be serviced instead of being discarded. No "planned obsolescence" here! People who bought Razertip tools 30 years ago are still using them today with superb results and compatibility with all of our current pens and accessories.

**Energy efficiency:** Razertip has always made the most energy efficient power supplies in the world. Capable of producing over 1400 degrees F (bright red tip) while using less than 30 watts of power, they truly are the best choice. We make every effort to use suppliers and sources as close to home as possible to reduce environmental manufacturing impact.



#### Razertip's Exclusive Unconditional Warranty

When we say unconditional, we mean it! Here's the deal - if any Razertip® or Razaire™ product fails within the warranty period for any reason whatsoever - simply return the item(s) to us and we will make it right.

This includes your satisfaction with our products. For example, if you buy a pen and later decide that the tip doesn't meet your needs, send it back and we'll re-tip it with the tip of your choice at no charge.

If you need service after the warranty has expired, be sure to contact us. Razertip products are designed to last many years and we can retip or otherwise repair most products in a very cost-effective manner. Please, don't throw it out without checking with us first.

(Alas, we were unable to rescue the SK shown at left after a truck drove over it. The customer got a replacement unit under warranty).

#### Tips

**The Tips** that started it all back in 1985! "Razer" sharp and super fine. Tips are sharpened and polished to a Razer-sharp edge. Many Razer-tips can burn over 120 lines per inch right out of the package! We make over 860 different tip configurations plus custom tips, most in your choice of fixed or interchangeable styles. All of our pens and fixed tips carry a full one year *unconditional* warranty. If a fixed tip fails after one year, don't throw it out! It costs only \$6.00" (except for scale tips and Feather Formers which are actual cost of tip) including shipping and taxes to have it replaced. Interchangeable tips are *unconditionally* warranted for 90 days.

**Tip Replacement Service.** We have the ability to re-tip *any brand or make of hot-wire tool made*, including Detail Master, Colwood, Nibs, Optima, and any others. The cost for re-tipping of Detail Master standard or vented pens is a flat fee of \$10.00°. Detail Master extra heavy-duty re-tips cost \$20.00° (we use the same tip alloy as the original tip was made from but the re-tip is laser-weld reinforced to be even stronger than the original). Re-tipping of most other non-Razertip® pens cost \$8.00°. All re-tipping fees *include applicable tax and return shipping by standard mail.* And we stand behind the new tip with a full, *unconditional* 6 month warranty that covers everything including your satisfaction. You'll get two day in-shop turnaround and a warranty that's better than the new pen had. When returning pens for re-tipping, please return only the pen. Don't send any grips, storage tubes, or anything else. If it can be removed from the pen, remove it before mailing. Canada Post charges only \$1.25 for a package under 2cm thick, but they want a fortune (often over \$9.00) for packages over 2cm thick, so we may not return clear storage tubes or bulkier items unless you are willing to pay the additional shipping charges. Please contact us if you have any questions.

<sup>\*</sup>Cost for Canada and US only. Additional shipping charges apply for international service. Call for details.

# Razeriip Pen Features

#### Laser-welded tips

- Less stress in manufacturing means that the industry's longest lasting tips will now last even longer!
  - ▶ Every tip is laser-welded into every Razertip® pen.

#### Front Ventilation Ports \*

- No hot air trapped inside.
- Less contact between tip posts and pen body for cooler operation.
- ▶ Ceramic front plug (HD pens) and polymer plug (Standard pens)

#### Corrugated Front Pen Body

- Beneath our comfortable foam grip lies our exclusive corrugated pen barrel, with more surface area for better cooling
- Less direct contact between the pen body and the foam grip also means cooler operation.

#### **Comfortable Foam Grips**

▶ Keeps your fingers comfortable while allowing for superb control.

#### Mid-Body Ventilation Slots

▶ That hot air has to go somewhere. Slots are strategically placed to not interfere with comfortable operation.

#### **Advanced Polymer Construction**

Using the most advanced temperature resistant resins available today, this pen is built to provide years of dependable service.

#### Tapered Rear Pen Body

They are all about quality and comfort. Never before has this much design and engineering gone into woodburning tools.

#### **Rear Ventilation Slots (HD only)**

HD and BPH pens have additional ventilation at the very back of the pen for the coolest operation ever!

Pens shown actual size.

#### Warranty information

We're proud of each and every item we make, and we stand behind them with the best warranty in the industry: our exclusive *Unconditional* Warranty. If anything (and we mean anything) goes wrong, for any reason, with your Razertip® or Razaire™ product in the warranty period, we will repair or replace it at no charge.

Razertip® power supplies: 3 years

Razertip® pens, cords and accessories (including fixed tips): 1 year

Razertip® Interchangeable tips: 3 months

Razaire 530™ Dust Collector: 5 years (fan); 10 years (cabinet and electronics)

Razaire™ Accessories: 1 year

# RAZEA HIPS (All pens and tips shown actual size)



**#BPH Binding-post Interchangeable-tip Pen** is the most versatile pen available. Great for those who want to make their own tips or for those rarely-used-but-still-important tips. Every pyrographer should have at least one! **Versatile:** Make your own tips from almost any heating wire! Accepts tip wire from 16-22 ga. as well as all Razertip® tips. You can even mount two tips in the head at the same time for double-line burning (HD cord recommended; higher heat setting required).

**Dependable:** Stainless-steel binding-post screws hold your tip wire securely against a double-slotted stainless-steel nut that is easily tightened with a small slot screwdriver. The screw can easily be removed for cleaning. **Comfortable:** The binding-post screws and nuts on this pen act as an effective heatsink, slowing the transfer of heat from the tip into the pen body. Made with the same pen body as our HD pens, the BPH is cooler on your fingers than any other interchangeable-tip handpiece, and it's built to last a lifetime.

Supplied with basic "V" loop tip and 3" lengths of HD, Standard and Light Duty tip wire. # BPH \$32.50

All Razertip® pens have a well-earned reputation for:

**Dependability:** Both Standard and HD pens are built to last a lifetime and provide dependable service. Should you ever wear out, damage, or even stop using a particular tip shape, your tip can be factory-replaced quickly and economically (see page 107).

**Comfort:** These pens operate up to 5 times cooler than other pens. For high-heat users, Razertip® pen bodies will cool off much quicker than any others. You won't find a more comfortable pen anywhere!



**Standard Fixed-tip Pens:** Available with your choice of hundreds of different tip types, Razertip® pens have set the standard worldwide. Our Standard pens are the smallest, most comfortable pens made today. They are ideal for any application where fine detail is desirable. For pricing and availability, see pages 110-130.



Heavy-Duty Fixed-tip Pens: With a larger pen body than our Standard pens, HD pens are built for maximum durability. They have heavier connector posts and heavier tips. HD pens require a higher heat setting than most Standard pens and are best used with a heavy-duty (HD) cord. While still capable of very fine detail, they are ideal for applications where the flat side of the tip is used (shading, feather shaft-making, etc.) or in schools or clubs where inexperienced users can be hard on equipment. For pricing and availability see pages 110-130.

FAQ: I am currently using a different brand of woodburning tool. Can Razertip® pens be adapted to my burner?

A). Yes! We make adapter cords that let you use our pens on virtually any hot-wire burner power supply (page 105).

FAQ: Will Razertip® pens work the same on my burner as on a Razertip® burner?

A). That depends on your needs and the specific burner you are using. Razertip® pens give the fullest heat range and most stable temperatures when used on Razertip® burners. Some non-Razertip® burners may still burn too hot at their lowest setting while others may cause Razertip® pen bodies to heat up prematurely, but all hot-wire type burners will make the tip hot. Contact us for more specific information on your burner.

FAQ: Can I use my old non-Razertip® pens on a Razertip® power supply?

A). Most other pens will work fine on a Razertip® power supply. One possible exception: larger tips require a higher operating voltage to heat them fully, so some of the larger Detail Master tips may not heat fully or recover heat very quickly. As with any special application, if you are not sure, please contact us.

# Razeriyo Tips

Razertip® offers over 860 different tip and pen shapes and styles, plus custom tips. With so many to choose from we realize that selecting the right tip may be a bit of a challenge. We've grouped tips together according to their most common uses (see tip index on page 131 to see the groupings). If you're not sure which tip or pen is best for your needs, please drop us a line or give us a call and we will help you pick just the right tool.

#### Heavy-Duty (HD) vs. Standard Tips

Generally speaking, standard tips and standard fixed-tip pens are your best choice for fine detail work. They recover their heat more quickly than HD pens and tips and most people find the standard pens more comfortable to hold.

Heavy-duty pens and tips are your best choice for shading and applications where more "flat" pressure will be placed on the tip or where the tip will be used for cutting. HD pens and tips also will stand up better to harder use. For this reason they tend to be more popular with schools.

#### Fixed-tip vs. Interchangeable

For the most part our advice is to use fixed-tip pens for those tip shapes that you will use a lot. Consider getting one or two #BPH interchangeable-tip pens for lesser-used or home-made tips. BPH pens have also proven very popular with Feather Former™ and Scale Tips.

Fixed-tip pens allow you to work with your fingers closer to your work surface, giving you better control over fine work. The laser-welded tip is usually more rigid than in a BPH pen - again - better control. Fixed-tip pens are absolutely essential when cutting any material, especially plastics or anything that melts. Melted material can get into contact areas on BPH pens and cause the tip to stop heating.

All of our pens are relatively cool to operate, but BPH pens are generally the coolest-operating pens available. If you have very sensitive fingers or if you work at high heat settings you may find the BPH pens to be your best choice. One word of advice, however - if you decide on BPH pens and are planning on changing tips, be sure to buy at least 2 pens because changing tips on a hot pen is no fun (also if you have 2 pens you won't need to change tips as often).

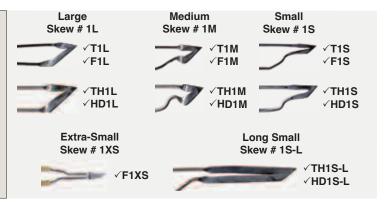
# Sharp Tips for Fine Lines (pages 110-113)

All tips shown actual size

All "sharp" tips are supplied "Razer"-sharp and are capable of burning up to 120 lines per inch right out of the package. Different tip shapes have somewhat different applications, but all sharp tips are ideally suited for fine detail work such as feathers or hair on carved or flat surfaces. Some sharp tips are also used for cutting plastics, paper, fabric, gourds, leather and thin wood.

#### Skew Tips, Traditional (Series 1)

Very versatile tips. General use tip for pyrography, cutting and fine detail. #1L is often supplied with new burners. #1S-L is used for cutting gourds as well as detail work and long reach.



#### Availability and Price Key:

- $\sqrt{T(\#)}$  = Standard tip only \$6.00
- √TH(#) = Heavy-duty tip only \$6.25
- √F(#) = Fixed-tip Standard Pen \$28.50
- √HD(#) = Fixed-tip Heavy-duty Pen \$32.50

# Sharp Tips for Fine Lines (continued)...

# Skew Tips, Pointed (Series 13)

Medium skew with a sharper angle than a standard skew for those who prefer a more pointed tip. For general fine detailing of feathers and hair.



All Tips Shown Actual Size.

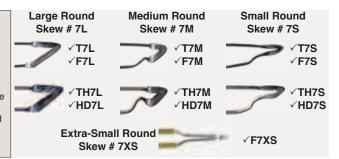
# Skew Tips, Flat-angle (Series 4)

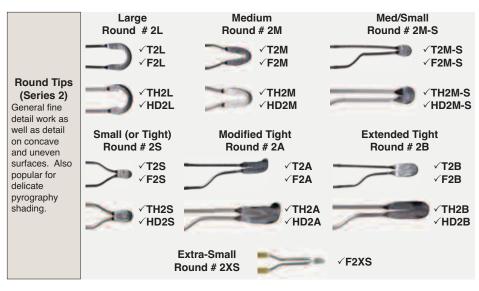
General detail work, used in much the same way as Traditional Skew (Series 1) tips, but for those who prefer a flatter angle to the tip end. Ideal for situations where it is necessary to work at or near right angles to the work surface.



# Skew Tips, Round-ended (Series 7)

General detail work. Great for fine detail on feathers, hair, or sculpted surfaces. Works very well on concave surfaces, like the low areas on "bumped" feathers. Popular with more advanced bird and animal carvers.





## Sharp Tips for Fine Lines (continued)...

# Spear Tips (Series 5)

Fine or extremely fine detail work. Excels at working in confined spaces and for delicate undercutting. Spear tips are also popular for general pyrography, wood-turning and gourd work. Large Heavy-duty Spear can be used for detail but is also very popular for cutting.

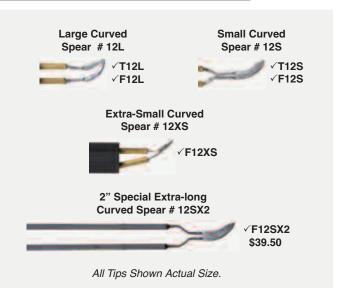
Our special extra-long spear pens and curved spear pens will only get hot at the very tip, not along their entire length. This allows you to reach into deep spaces without fear of burning your entry points.



Remember - every Razertip® pen carries our exclusive 1 year *unconditional* warranty.

# Spear Tips, Curved (Series 12)

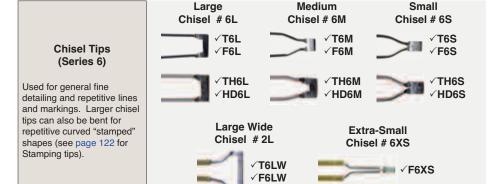
A Razertip® exclusive! Curved spear tips allow you to reach into areas otherwise unreachable. The point of the tip overhangs the pen barrel, allowing the hot point to contact the surface even in very tight areas. Sliding the foam grip back on the pen will extend your reach. Unbeatable for reaching into undercuts and other hardto-access places. Can also be used for general fine detail. The #12XS is the finest tip available, capable of extremely fine marks and dots.



Availability and Price Key:

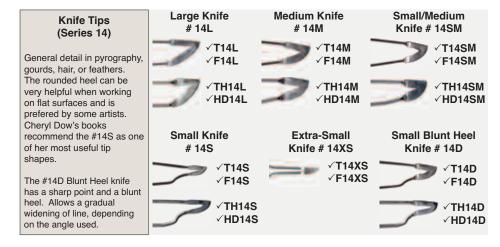
- $\sqrt{T(\#)}$  = Standard tip only \$6.00
- (#) = Standard tip only \$0.00
- √TH(#) = Heavy-duty tip only \$6.25 √F(#) = Fixed-tip Standard Pen \$28.50
- √HD(#) = Fixed-tip Heavy-duty Pen \$32.50

# Sharp Tips for Fine Lines (continued)...





All Tips Shown Actual Size.



## Sharp Tips for Wide Detail Lines (pages 114 & 115)

"Wide-line" sharp tips are used mainly for feather and hair detail. They don't burn as fine as the fine-line sharp tips, and tend to give a shallower texture. This is the style of texturing prefered by many top carvers including Larry Barth and Pat Godin

#### Coarse Detail Tips (Series 17)

Used in much the same way as Series 7 Round Skew tips, but yielding a wider detail line. HD versions yield a slightly thicker line than standard versions.



#### Wide-Groove Detail Tips (Series 71)

Even wider than Series 17 tips, these tips have a steel blade welded onto the end. They can burn a groove up to 3/32" wide. They take a bit longer to heat up but once heated, they hold their heat better than a wire tip. They are also much stronger than a plain wire tip. The 6mm tip holds heat a bit better than the 4mm but is not quite as nimble. Use an HD cord with all Series 71 tips for best results.



# Larry Barth Detail Tips (Series 36)

Designed by multi-time World-champion Larry Barth, these tips are made to his exact specifications. Larry uses these tips for virtually every aspect of burning detail, including his feather shafts. The sharpened angle of the blade is similar to that of a tapered texturing stone, allowing for easy transitions from burned texture to stoned texture.



# Michael Hosaluk Wide-Groove Medium Spear (Series 5)

Designed by renowned wood turner Michael Hosaluk. Mike uses this tip to burn defining lines on his wood turnings. Its unique design gives a heavier line and gives the tip more strength than thinner tips.

All Tips Shown Actual Size.

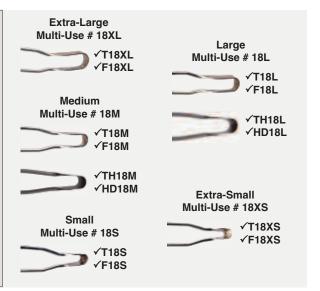
#### Availability and Price Key:

- $\sqrt{T(\#)}$  = Standard tip only \$6.00
- √TH(#) = Heavy-duty tip only \$6.25
- √F(#) = Fixed-tip Standard Pen \$28.50
- √HD(#) = Fixed-tip Heavy-duty Pen \$32.50

# Sharp Tips for Wide Detail Lines (continued)...

#### Multi-Use Tips (Series 18)

These Multi-Use tips, all unique to Razertip®, are probably the most versatile tips in the history of pyrography. They can all be used for fine feather and hair detail, widegroove detailing, and carving or relieving feathers and shafts. They can also be used for scaling, shading, and calligraphy. They are the only tip that can simulate "stoning" effects as well as "rippling" on feathers. Their unique shape makes them very tough and durable. They are available in 5 sizes - from extra-small to extra-large. Medium and large are the most popular. The small version is very useful for smaller songbirds around the size of a chickadee. The extrasmall version is great for miniatures and fine detail work



## Split-Making Tips

Designed for making subtle splits in feathers. They can take a bit of practice but the results can be very impressive.

Mueller Split Maker (Series 35) Designed by World Champion Keith Mueller and exclusive to Razertip®, this tip allows for subtle and varying splits to be made quickly and easily. Made like a miniature boat hull, you use the end for a finer groove and gradually lay the tip down while sliding it along the feather surface, giving a gradually widening and smoothing split, which is easily accented or enhanced when you paint.



All Tips Shown Actual Size.



#### Simkin Split Makers (Series 34)

Designed by World Champion Wayne Simkin and exclusive to Razertip®, these tips allow you to make gently-curved splits of almost any length. Available individually as left or right-curved tips; also available in a set of either 2 tips or 2 pens.



√TH34.18LH \$8.50 √HD34.18LH \$34.75 √TH34.18RH \$8.50 √HD34.18RH \$34.75

Set of 2 "Simkin" Split tips (one each Left and Right) # SET2-TH34.18 \$15.50

Set of 2 "Simkin" Split pens (one each Left and Right) # SET2-HD34.18 \$62.75

## **Cutting Tips**

While many of our tips will cut, these tips excel at cutting. Use on fabrics, plastics, thin wood and leather, paper, stencils and gourds. For strength, reliability and longevity, we recommend using fixed-tip pens for cutting, especially when cutting materials that melt.

#### Large Skew # 1L



Our most popular cutting tip. Great for general cutting and trimming of plastics, thin wood, leather, stencils, fabric and paper.

#### Long Small Skew # 1S-L



Most often used for cutting and detailing gourds, but will also work for cutting other materials as well as for fine detail work.

#### Large Spear # 5L



Can be used for most of the same cutting and trimming applications as the Skew tip. Also particularly useful for cutting gourds.

# **Gourd Cutter**



√T9G.17 √F9G.17

Tempered tip is great for piercing/cutting gourds. Use at fairly high heat with a "sawing" action.

## Special-purpose Tips

#### Lamilae Making Tips (Series 3)

Specialized tip for forming the lamilae, or tooth-like serrations on duck bills. Has a triangular cross-section; the pointed end is pushed into the underside of the bill repeatedly, leaving realistic-looking lamilae. HD cord recommended.



#### √TH3 √HD3

#### Copper Spear Shader (Series 93)

In addition to shading and general pyrography, this tip can also be used for light soldering. HD cord recommended.



#### Burnishing Tips (Series 8)

Useful for burnishing bird bills and hooves on animal carvings. Can also be used as a very strong general pyrography tip. Excellent on leather. HD cord recommended.







√T98.060

√F98.060

## Bead-Maker Tips

Used to "push" material down, leaving a raised "bead". Popular with gourd artists and wood turners.

#### Bead Makers (Series 98)

Used to form round raised "beads" on any surface, but very popular on gourds and wood turnings. Each depression forms a portion of the bead radius.

HD cord recommended.

#### 3.0mm Bead Maker 4.7mm Bead Maker 6.0mm Bead Maker

✓T98.047 √T98.030 = √F98.030 <sup>•</sup> F98.047

Individual Beading Tips \$9.25 ea. Pens \$31.90 ea. Set of 3 Beading Tips # SET3-T98 \$24.95/set Set of 3 Beading Pens # SET3-F98 \$85.50/set

All Tips Shown Actual Size.

### **Availability and Price Key:**

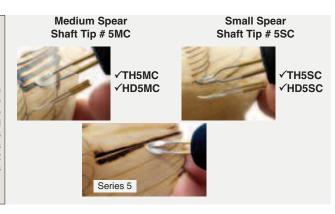
- √T(#) = Standard tip only \$6.00
- √TH(#) = Heavy-duty tip only \$6.25
- √F(#) = Fixed-tip Standard Pen \$28.50
- √HD(#) = Fixed-tip Heavy-duty Pen \$32.50

# Shaft-Making (or Quill-Making) Tips

Most commonly used for "raising" feather shafts or for layering wing and tail feathers on bird carvings. They have a square cross-sectional edge that won't "skate" when following a long line, and they leave a nice wide ramp into the raised area, reducing or eliminating the need to sand.

#### Spear-Shaped Shaft-Making Tips (Series 5)

Cam designed these tips back in 1991 while working on a life-size flying Magpie. He used this style of tip to raise all of the tail and flight feather shafts. Cam prefers this style of tip because it is ambidextrous, and the fine point allows him to get into corners that the Guge-style tip won't.





All Tips Shown Actual Size.

## Shaft-Making (or Quill-Making) Tips (continued)

#### **Traditional Skew-Shaped Shaft-Making Tips** (Series 15)

The original style of shaft (or quill) making tip is still prefered by many artists. Also popular as a shading tip.



# Shading Tips (pages 118 & 119)

As their name suggests, these tips are used primarily for shading on all surfaces. Shaders have slightly rounded edges so they won't dig into your work surface. Generally speaking, the spear and spoon shaders are the best ones to start with. Other tip shapes would be selected based on your preference and specific needs. HD cord recommended with all shading tips.

#### **Round Shading Tips** (Series 2)

Popular for general shading applications, round shaders excel at shading where outer margins are concave (like the inside of a circle or eve). Also popular for shading using circular motions on the surface.





TH2LC HD2LC

#### **Medium Round** Shader # 2MC



TH2MC HD2MC

#### Small Round Shader # 2SC



TH2SC HD2SC

#### Spear Shading Tips (Series 5)

One of our most popular shading tip styles. Spear shaders are for most shading techniques from straight lines to points and inside sharp corners. As with all shaders the edge can also be used for dark, crisp lines.

# Shader #5MP

**Medium Spear** 

√TH5MP √HD5MP Our most popular spear shader

#### Medium/Small Spear Shader # 5MSP



Small Spear Shader # 5SP



TH5SP HD5SP





All Tips Shown Actual Size.

#### Availability and Price Key:

- $\sqrt{T(\#)}$  = Standard tip only \$6.00
- √TH(#) = Heavy-duty tip only \$6.25
- √F(#) = Fixed-tip Standard Pen \$28.50
- √HD(#) = Fixed-tip Heavy-duty Pen \$32.50

## Shading Tips (continued)

#### **Chisel Shading Tips** (Series 6)

Useful for general shading applications. Also used for crisp, straight shaded edges as well as 90 degree corners, simulating shingles, etc.





Large Chisel

Medium Chisel Shader # 6MC



Small Chisel Shader # 6SC



#### 45-Degree Shading Tips (Series 16)

A very useful general-purpose Recommended shader. several popular pyrography books and articles.

#### Large 45-Degree Shader # 16L



TH16L HD16L

**TH30M** 

#### Medium 45-Degree Shader # 16M



Small 45-Degree Shader # 16S



#### **Spoon Shading Tips** (Series 30)

One of our most popular and versatile shading tips. They can be used for a wide variety of shadina applications techniques on all surfaces (flat. concave or convex). Also popular for working with wax.

#### Medium Spoon Shader # 30M



Our most popular shader

#### Small Spoon Shader # 30S



TH30S HD30S

#### Stainless Steel Transfer-Shader Tips (Series 73)

Steel blade is great for general shading. Also excellent for heat transfer of photocopied patterns onto almost any surface (wood, gourds, paper....). 10mm Transfer/shader with larger blade is best suited for transfer work, but can also be used to shade (takes a bit longer to heat than the 7mm tip).

#### Copper Spear Shader (Series 93)

In addition to shading and general pyrography, this tip can also be used for light soldering.

#### 7mm Transfer Shader # 73.07



#### 10mm Transfer Shader # 73.10



T73.10 F73.10

All Tips Shown Actual Size.



#### A Note about design, reliability and service:

We believe that a good tool should do exactly what it claims and do it well. As the primary designer of all Razertip® and Razaire™ tools, I design them first for myself. As a professional carver for over 30 years, I have a pretty good idea what I want in a tool. If I wouldn't buy it myself, I wouldn't expect you to. For that reason, we want to offer you exactly the type of service I expect from my favorite suppliers and tool makers. You have a full month to test drive anything we sell. If it's not what you expected, you can return it for exchange or for a full refund. If you have any suggestions that would improve our tools for your application, please, let us know. And don't ever throw out a broken pen or burner - they are almost always worth repairing.

We continue with our commitment to make the best pyrographic tools in the world and to provide the best customer service possible. Please do not hesitate to contact me directly if you have any questions, comments, concerns, or suggestions.

Cam Merkle, President, Razertip Industries Inc.

# Writing & Stylus Tips (pages 120 & 121)

Razertip's selection of writing and stylus tips is second to none. With ball stylus tips from 1/64" to 7/32" as well as wire tips in several different shapes and point sizes, we're sure to have the tip you need.

# Chisel Calligraphy Tips (Series 6)

Very similar to our small chisel tip, the 6SB has had the knife edge buffed so the tip will be less prone to digging into your work surface from any angle.

# Small Calligraphy Chisel # 6SB



All Tips Shown Actual Size.



# Brass Calligraphy Tips (Series 68)

The brass sleeve on these tips takes a bit longer to heat up but will maintain its heat more consistently than a plain wire tip. Very smooth to use and not at all prone to "digging in".

#### Large Brass Calligraphy # 68L



#### Medium Brass Calligraphy # 68M





√TH68M √HD68M

#### Writing Tips (Series 9)

Our original writing tips. They heat fairly quickly and recover their heat well. Good for general writing, signing and drawing.

#### 

TH68L

HD68L



Pointed Writing Tip # 9P

# Writing Tip # 9XS ✓T9XS ✓F9XS

Extra-Small



#### Ball Stylus Tips (Series 99; 0.4mm-2.3mm)

Chrome steel balls welded onto the end of the tip gives excellent heat retention (better as the ball is bigger). The polished ball ends are buttery-smooth to write and draw with. Line widths are consistent and repeatable in all directions. Our 1/64" ball tip is the smallest in the world.

## .4mm (1/64") Ball Stylus Tip # 99.004

√T99.004 \$10.00 √F99.004 \$32.50

## .8mm (1/32") Ball Stylus Tip # 99.008

√T99.008 √F99.008 √TH99.008 √HD99.008

#### 1.2mm (3/64") Ball Stylus Tip # 99.012

√T99.012 √F99.012

# 1.5mm (1/16") Ball 2.0mm (5/64") Ball 2.3mm (3/32") Ball Stylus Tip # 99.015 Stylus Tip # 99.020 Stylus Tip # 99.023

√T99.015 √F99.015 √F99.020 √T99.023 ✓TH99.015 ✓TH99.020

√HD99.020

#### Availability and Price Key:

- $\sqrt{T(\#)}$  = Standard tip only \$6.00
- √TH(#) = Heavy-duty tip only \$6.25
- ✓F(#) = Fixed-tip Standard Pen \$28.50

√HD(#) = Fixed-tip Heavy-duty Pen \$32.50

Note: Certain tips and pens are priced differently from prices shown at left. The price for each of these items will be listed beside the item.

HD99.015

## Writing & Stylus Tips (continued)

#### Ball Stylus Tips (Series 99; 3.0mm-5.5mm)

Nickel-plated brass balls with tip wire passing through the center of the ball gives very uniform heat. These tips take a while to heat up (the 5.5mm ball may take up to 90 seconds), but they hold their heat very well and are a joy to use. Great for writing thicker lines as well as shading and dimpling backgrounds.



4.7mm (3/16") Ball Stylus Tip # 99.047

√T99.047 √F99.047

5.5mm (7/32") Ball Stylus Tip # 99.055

√T99.055 √F99.055

## Wax Tips

Commonly used for working with jeweller's wax. Designed to be used at low temperature settings. Standard cord is recommended. "PK" Series tips are too weak to use on materials other than wax.



All Tips Shown Actual Size.

## Wax Writing Tips

Used for writing and drawing with beeswax when making Pysanky (Ukrainian Easter eggs). Designed to be used at low temperature settings. Different tube sizes for varying line widths. Supplied with cleaning needle.

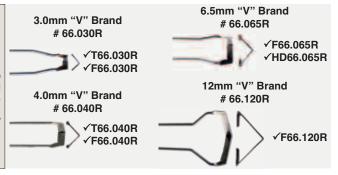
Fine Wax Writer Small Wax Writer **Medium Wax Writer** Large Wax Writer (22 ga. tube) # 79.22 (20 ga. tube) # 79.20 (18 ga. tube) # 79.18 (16 ga. tube) # 79.16 √T79.20 \$6.25 √T79.18 \$6.25 √T79.22 \$6.25 √T79.16 \$6.25 √F79.22 \$32.50 √F79.20 \$32.50 √F79.16 \$32.50 √F79.18 \$32.50

## Stamping (Branding) Tips

Great for repetitive designs on all surfaces.

# "V" Branding Tips (Series 66)

Used to "brand" or stamp 90 degree "V" shapes into all surfaces. Stamping corner-to-corner will give a square shape. Also excellent for "herringbone" patterns.



#### Circle Stamping Tips (Series 92)

Used to "brand" or stamp small circles into all surfaces. Copper tube is crimped on to the tip. Allow extra time for heating up and cooling down.

HD cord recommended.



# Square Stamping Tips (Series 96)

Used in the same way as the circle stampers (above). HD cord recommended.



## General Purpose Tips

Excellent for general, all-around use.

# General Pyrography Tips (Series 10)

For writing, shading, small scale marks, burnishing, and burning 2 parallel lines approximately 1/16" apart. Very durable.



Regular General Pyrography Tip # 10R ✓T10R ✓F10R

All Tips Shown Actual Size.

Remember - every Razertip® product carries our exclusive *unconditional* warranty.

#### Availability and Price Key:

- $\sqrt{T(\#)}$  = Standard tip only \$6.00
- √TH(#) = Heavy-duty tip only \$6.25
- √F(#) = Fixed-tip Standard Pen \$28.50
- √HD(#) = Fixed-tip Heavy-duty Pen \$32.50

## Steel Blank Tips

'Do-it-yourself" tip blanks with carbon steel welded on to the end can be used "as-is", or you can custom grind and polish them to desired shape and profile. The original idea for these tips came to us from world-champion carvers Clark Schreibeis and Jeff Compton. They grind the ends of these blanks to impart very fine texture to coral, among other things. Ideal for custom stamps, brands or whatever your imagination allows. They can also be made into superb custom calligraphy tips! "T" Tips \$6.00 ea "F" Pens \$28.50 ea.

#### Square Steel Skew Blanks (Series 70)

Square steel blank is welded to a skew tip on flat side of blank. HD cord recommended.

#### **Diamond Steel Skew** Blanks (Series 71)

Square steel blank is welded to a skew tip on corner of blank. HD cord recommended.

#### **Round Steel Skew Blanks** (Series 72)

Round steel blank is welded to a skew tip along length of blank. HD cord recommended.

#### **Square Steel Chisel** Blanks (Series 76)

Square steel blank is welded to a chisel tip on flat side of blank. HD cord recommended.

#### **Diamond Steel Chisel** Blanks (Series 75)

Square steel blank is welded to a chisel tip on corner of blank. HD cord recommended.

#### **Round Steel Chisel** Blanks (Series 74)

Round steel blank is welded to a chisel tip along length of blank. HD cord recommended.

#### **Square Steel Long Blanks** (Series 78)

Square steel blank is welded to a pointed tip at end of the blank. HD cord recommended.

#### Round Steel Long Blanks (Series 77)

Round steel blank is welded to a pointed tip at end of the blank. HD cord recommended.















































Large 1/8" x 6mm T77L.06 √F77L.06



Small 1/16" x 6mm T77S.06 F77S.06

## Tip Wire

This is the high-quality tip wire we use to make all Razer-tips. Use with #BPH Pen.

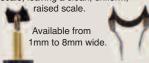
Heavy-Duty Wire (18Ga./ 0.040") 3pcs x 6" ea (18" total) # TW3.1806 \$6.25 Standard Wire (20Ga./ 0.032") 3pcs x 6" ea (18" total) # TW3.2006 \$6.25 Light Wire (22Ga./ 0.025") 3pcs x 6" ea (18" total) # TW3.2206 \$6.25 6-pc. Assortment: 6" x 2ea. of 18, 20 & 22ga (36" total) # TW6.AST \$9.80/set

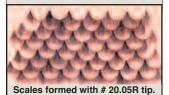
# Scale Tips (pages 124-126)

Our selection of scale tips is second to none. We make over 185 different tip shapes and styles, available in your choice of fixed or interchangeable tips. In addition to our stock scale tips listed below we can make custom scale tips for special projects like lizards, snakes or dragons. HD Cord is recommended for all scale tips.

### "Full-Scale" Tips (Series 20)

With each depression, these tips will form a full raised scale. They push down the wood behind the scale, leaving a clean, uniform,





Tip Width	Price	Reg. Curve #	Deep Curve #	Flat Curve #
1mm	Tip \$9.25	T20.01R	T20.01D	T20.01F
11111111	Pen \$31.90	F20.01R	F20.01D	F20.01F
2mm	Tip \$9.25	T20.02R	T20.02D	T20.02F
2111111	Pen \$31.90	F20.02R	F20.02D	F20.02F
3mm	Tip \$9.25	T20.03R	T20.03D	T20.03F
SIIIIII	Pen \$31.90	F20.03R	F20.03D	F20.03F
4mm	Tip \$9.25	T20.04R	T20.04D	T20.04F
4111111	Pen \$31.90	F20.04R	F20.04D	F20.04F
5mm	Tip \$9.25	T20.05R	T20.05D	T20.05F
DITITIO	Pen \$31.90	F20.05R	F20.05D	F20.05F
6mm	Tip \$9.25	T20.06R	T20.06D	T20.06F
OHIIII	Pen \$31.90	F20.06R	F20.06D	F20.06F
7mm	Tip \$10.80	T20.07R	T20.07D	T20.07F
71000	Pen \$33.50	F20.07R	F20.07D	F20.07F
8mm	Tip \$10.80	T20.08R	T20.08D	T20.08F
0111111	Pen \$33.50	F20.08R	F20.08D	F20.08F

Series 20 tips in sizes up to and including 6mm Regular curve, 5mm Deep curve and 8mm Flat curve have a steel blade welded onto the tip as shown above. Larger tips are formed completely from tip wire and are not as strong as the smaller steel-blade tips. HD cord recommended.

#### All Tips Shown Actual Size.

Tip Width	Price	Reg. Curve #	Deep Curve #	Flat Curve #
_	Tip \$9.25	T21.02R	T21.02D	T21.02F
2mm	Pen \$31.90	F21.02R	F21.02D	F21.02F
3mm	Tip \$9.25	T21.03R	T21.03D	T21.03F
3111111	Pen \$31.90	F21.03R	F21.03D	F21.03F
4mm	Tip \$9.25	T21.04R	T21.04D	T21.04F
4111111	Pen \$31.90	F21.04R	F21.04D	F21.04F
F	Tip \$9.25	T21.05R	T21.05D	T21.05F
5mm	Pen \$31.90	F21.05R	F21.05D	F21.05F
6mm	Tip \$9.25	T21.06R	T21.06D	T21.06F
оппп	Pen \$31.90	F21.06R	F21.06D	F21.06F
7mm	Tip \$10.80	T21.07R	T21.07D	T21.07F
7111111	Pen \$33.50	F21.07R	F21.07D	F21.07F
8mm	Tip \$10.80	T21.08R	T21.08D	T21.08F
OHIIII	Pen \$33.50	F21.08R	F21.08D	F21.08F
9mm	Tip \$10.80	T21.09R	T21.09D	T21.09F
SIIIII	Pen \$33.50	F21.09R	F21.09D	F21.09F
10mm	Tip \$10.80	T21.10R	T21.10D	T21.10F
TOTTITI	Pen \$33.50	F21.10R	F21.10D	F21.10F

Series 21 tips in sizes up to and including 8mm Regular curve, 6mm Deep curve and 8mm Flat curve have a steel blade welded onto the tip. Larger tips are formed completely from tip wire as shown above left. They are not as strong as the smaller steel-blade tips. All scales formed in the illustration to the left were made with a 9mm Regular curve tip. Scale sizes and curves were deliberately varied to illustrate the range of shapes possible from a single tip. Uniform scales are easily achieved too. HD cord recommended.

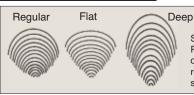
# "Half-Scale" Tips (Series 21)

With each depression, the halfscale tip forms two halves of a raised scale. This design allows for some variation in scale size as shown below.

Available from 2mm to 10mm wide.







#### Tip Curves

Scale curves and shapes vary from one species to another. Razertip scale tips are available with your choice of regular, deep or flat curves to work for most species. Be sure to check your reference before ordering so you get just the right look to your scales.

## Scale Tips (continued)

#### "Lateral Line" Tips (Series 25)

Used much like the half-scale tips, these tips have a "tunnel" that leaves a raised rib in the center. Scales



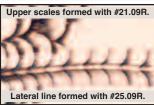
are burned in rows, leaving a raised lateral line.

Available from 2mm to 10mm wide.

#### Price and Availability:

Same as "Half-Scale" Series 21 tips (refer to the price chart on page 124). To order, substitute #25 in place of the original #21 shown in the chart. Example: 3mm Regular curve pen #F25.03R, \$31.90





#### "Realistic Full-Scale" Tips (Series 22)

Forms the most accurate scales possible, mimicking the real thing. Requires a bit more concentration; recommended for more advanced users.
Custom species-specific tips can also be made (call for details).

Available from 0.5mm to 10mm wide.

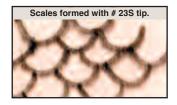
Scales formed with # 22.05R tip.				
		W 14		$\sim$
		C.M.	$\mathcal{T}$	
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	do a filly	100	ም ን	
TO AND	A TOTAL			200

Tip	Price	Reg.	Deep	Flat	
Width	FIICE	Curve #	Curve #	Curve #	
0.5mm	Tip \$11.30	T22.005R	T22.005D	T22.005F	
0.511111	Pen \$33.95	F22.005R	F22.005D	F22.005F	
1mm	Tip \$11.30	T22.01R	T22.01D	T22.01F	
1111111	Pen \$33.95	F22.01R	F22.01D	F22.01F	
2mm	Tip \$11.30	T22.02R	T22.02D	T22.02F	
2111111	Pen \$33.95	F22.02R	F22.02D	F22.02F	
3mm	Tip \$11.30	T22.03R	T22.03D	T22.03F	
Jillill	Pen \$33.95	F22.03R	F22.03D	F22.03F	
4mm	Tip \$11.30	T22.04R	T22.04D	T22.04F	
4111111	Pen \$33.95	F22.04R	F22.04D	F22.04F	
5mm	Tip \$11.30	T22.05R	T22.05D	T22.05F	
SIIIII	Pen \$33.95	F22.05R	F22.05D	F22.05F	
6mm	Tip \$11.30	T22.06R	T22.06D	T22.06F	
	Pen \$33.95	F22.06R	F22.06D	F22.06F	
7mm	Tip \$13.35	T22.07R	T22.07D	T22.07F	
///////	Pen \$36.00	F22.07R	F22.07D	F22.07F	
8mm	Tip \$13.35	T22.08R	T22.08D	T22.08F	
Omm	Pen \$36.00	F22.08R	F22.08D	F22.08F	
9mm	Tip \$13.35	T22.09R	T22.09D	T22.09F	
	Pen \$36.00	F22.09R	F22.09D	F22.09F	
10mm	Tip \$13.35	T22.10R	T22.10D	T22.10F	
10111111	Pen \$36.00	F22.10R	F22.10D	F22.10F	

Realistic Full-Scale Tips all have a steel blade welded onto the tip. Larger sizes will require a higher heat setting and longer heat-up and cool-down time. HD cord recommended.

# "Clark Schreibeis" Scaler (Series 23)

Designed by world-champion fish carver Clark Schreibeis and built exclusively by Razertip®! This tip is more of a "freehand" scale maker, allowing you to form raised scales of any size or shape. It takes a bit of practice to get the hang of this tip, but it is the most versatile freeform scaler you can get.



√TH23S \$6.25 √HD23S \$32.50

All Tips Shown Actual Size.

**Special shapes, sizes and styles.** Over the years we have made special scale tips for reptiles, snakes and fantasy creatures like dragons. Supply us with a drawing of the scale you want and we'll make just the right tip for you - at the same price as a similar "in-stock" tip. Most custom tips can be supplied as either fixed-tips or interchangeable tips.



## Scale Tips (continued)



Tip Width	Price	Reg. Curve #	Deep Curve #	Flat Curve #
2mm	Tip \$8.25	T26.02R	T26.02D	T26.02F
2111111	Pen \$30.90	F26.02R	F26.02D	F26.02F
3mm	Tip \$8.25	T26.03R	T26.03D	T26.03F
311111	Pen \$30.90	F26.03R	F26.03D	F26.03F
4mm	Tip \$8.25	T26.04R	T26.04D	T26.04F
4111111	Pen \$30.90	F26.04R	F26.04D	F26.04F
5mm	Tip \$8.25	T26.05R	T26.05D	T26.05F
SHIIII	Pen \$30.90	F26.05R	F26.05D	F26.05F
6mm	Tip \$8.25	T26.06R	T26.06D	T26.06F
OHIIII	Pen \$30.90	F26.06R	F26.06D	F26.06F
7mm	Tip \$8.25	T26.07R	T26.07D	T26.07F
7111111	Pen \$30.90	F26.07R	F26.07D	F26.07F
8mm	Tip \$8.25	T26.08R	T26.08D	T26.08F
8111111	Pen \$30.90	F26.08R	F26.08D	F26.08F
9mm	Tip \$9.75	T26.09R	T26.09D	T26.09F
	Pen \$32.50	F26.09R	F26.09D	F26.09F
10mm	Tip \$9.75	T26.10R	T26.10D	T26.10F
TOTTITT	Pen \$32.50	F26.10R	F26.10D	F26.10F
11	Tip \$9.75	T26.11R	T26.11D	T26.11F
11mm	Pen \$32.50	F26.11R	F26.11D	F26.11F
4.0	Tip \$9.75	T26.12R	T26.12D	T26.12F
12mm	Pen \$32.50	F26.12R	F26.12D	F26.12F
13mm	Tip \$9.75	T26.13R	T26.13D	T26.13F
1311111	Pen \$32.50	F26.13R	F26.13D	F26.13F
14mm	Tip \$9.75	T26.14R	T26.14D	T26.14F
14111111	Pen \$32.50	F26.14R	F26.14D	F26.14F

Series 26 tips are all formed from tip wire as shown above (left). They can be used to indicate scales as shown above (left). Leaving a bit of space between each scale when making the first row gives a more realistic scale pattern as shown on the lower half of the illustration above (the same technique works with Series 29 tips, too).



Tip	Price	Reg.	Deep	Flat
Width	Price	Curve #	Curve #	Curve #
2mm	Tip \$6.25	T29.02R	T29.02D	T29.02F
2111111	Pen \$28.80	F29.02R	F29.02D	F29.02F
3mm	Tip \$6.25	T29.03R	T29.03D	T29.03F
SIIIIII	Pen \$28.80	F29.03R	F29.03D	F29.03F
4mm	Tip \$6.25	T29.04R	T29.04D	T29.04F
4111111	Pen \$28.80	F29.04R	F29.04D	F29.04F
5mm	Tip \$6.25	T29.05R	T29.05D	T29.05F
SHIIII	Pen \$28.80	F29.05R	F29.05D	F29.05F
6mm	Tip \$6.25	T29.06R	T29.06D	T29.06F
ьтт	Pen \$28.80	F29.06R	F29.06D	F29.06F
7mm	Tip \$6.25	T29.07R	T29.07D	T29.07F
/111111	Pen \$28.80	F29.07R	F29.07D	F29.07F
8mm	Tip \$6.25	T29.08R	T29.08D	T29.08F
OHIIII	Pen \$28.80	F29.08R	F29.08D	F29.08F
9mm	Tip \$6.25	T29.09R	T29.09D	T29.09F
9111111	Pen \$28.80	F29.09R	F29.09D	F29.09F
10mm	Tip \$6.25	T29.10R	T29.10D	T29.10F
10111111	Pen \$28.80	F29.10R	F29.10D	F29.10F
11mm	Tip \$6.25	T29.11R	T29.11D	T29.11F
11mm	Pen \$28.80	F29.11R	F29.11D	F29.11F
10mm	Tip \$6.25	T29.12R	T29.12D	T29.12F
12mm	Pen \$28.80	F29.12R	F29.12D	F29.12F
13mm	Tip \$6.25	T29.13R	T29.13D	T29.13F
1311111	Pen \$28.80	F29.13R	F29.13D	F29.13F
14mm	Tip \$6.25	T29.14R	T29.14D	T29.14F
14mm	Pen \$28.80	F29.14R	F29.14D	F29.14F

Series 29 tips are all formed from tip wire as shown above (left). They leave a heavier groove than Series 26 tips, but they have the ability to vary the depth, curve and width of the scale shape. The top two rows (scales, above left) show uniform scale shape/size while the rows below show how variable the shape/size can be if desired.

All Tips Shown Actual Size.

# Razeriipo Tip Sets

Tip sets are a convenient and economical way to try a variety of tip shapes. We have designed these sets for specific users (pyrographers, bird carvers, gourd artists, etc.), so selecting just the right tip assortment could not be easier! All tips will fit in our #BPH interchangeable-tip pen. We highly recommend that you get at least 2 BPH pens; this will make changing tips much easier because you'll never have to change tips in a hot pen.

# Bird Carver's Micro 5-Tip Set

Contains 5 of our smallest fine detail tips (Skew #1S, Round #2S, Spear #5S, Chisel #6S and Round Skew #7S).







Heavy-Duty Tips (\$32.50 value) **SETHD5BC** \$23.60

#### Bird Carver's 8-Tip Set

Contains 8 of our most popular birdcarver's tips (Small Skew #1S, Medium Round #2M, Flat Skew #4M, Medium Spear #5M, Medium Chisel #6M, Large Round Skew #7L, Burnisher #8 and Writer #9).



Standard Tips (\$48.00 value)

√SET8 \$32.10

Heavy-Duty Tips (\$52.00 value) SETHD8 \$35.40

#### Pyrography 5 Tip Set

Contains Shader #TH30M, Writer #T9, Small Round #T2S, Small Spear #T5S and Transfer/ Shader #T73.07.



#### Gourd Artist 5 Tip Set

Contains Long Small Skew Cutter #TH1S-L, Gourd Cutter #T9G.17, Small HD Skew #TH1S, Small/Med Spear Shader #TH5MSP and 1/16" Ball Writer #T99.015.



#### **Ball Tip Sets**

Two "ball" tip sets: The small set of 5 includes 0.8mm(1/32"); 1.2mm(3/64"); 1.5mm(1/16"); 2.0mm(5/64"); and 2.3mm(3/32") tips. The larger set includes all 10 tips: the 5 above plus 0.4mm(1/64"); 3.0mm(1/8"); 3.9mm(5/32"); 4.7mm(3/16"); and 5.5mm(7/32") tips.



#### Other Sets Available:

Feather Former™ Sets (pages 128-130) Bead-Maker Tip Set (page 116) "Simkin" Split-Maker Sets (page 115)

#### Razertip's Exclusive Unconditional Warranty:

Covers everything (and we mean everything). One year on fixed-tip pens and 90 days on interchangeable tips. Re-tipping is always available - no charge during warranty period; \$6.00 for standard or HD tips or \$9.50 for any Feather Former™ tip replacement (post-paid) after warranty has expired. Complete details on page 107 or at www.razertip.com (click on the "warranty" link).

## Feather Formers™

All Tips Shown
Actual Size

Imagine texturing a bird carving in minutes instead of hours! Razertip's revolutionary Feather Formers™ let you define a feather and burn the barb texture in seconds. They're easy to learn and easy to use. There are 63 different Feather Formers™ available from 40 lines per inch to 250 lines per inch. Not only are Feather Formers™ faster to burn with, but painting a "Feather-Formed" surface is easier because the texture isn't too deep. You can easily paint accent marks at angles to the main texture, creating a very soft, natural look. Once your bird has been textured with Feather Formers™ you can come back with your regular pens to create stray barbs or splits as desired, or you can continue on with stoning techniques. The possibilities are endless!

See the Feather Former™ tips at work with video clips at www.razertip.com

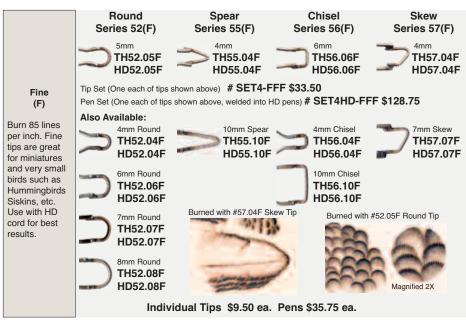
Feather Former™ tips are made from wrapped wire that burns multiple lines on contact. Feather and hair textures of almost any type can be achieved by using the bent portions (corners) of the various tip shapes (skew, spear, chisel and round). Sets of 4 tips are available in each different coarseness. Tip sets are a great way to get started with Feather Formers™ as they will allow you to achieve whatever texture you want. If using interchangeable tips we recommend that you have at least 2 of our #BPH pens on hand. This allows you to spend less time changing tips and also should prevent the need to change tips in a hot pen.

#### Round Spear Chisel Skew Ridiculously Series 52(RF) Series 55(RF) Series 56(RF) Series 57(RF) Fine (RF) 4mm 4mm 4mm 4mm What else TH52.04RF TH55.04RF TH56.04RF TH57.04RF could we call HD52.04RF HD55.04RF HD57.04RF HD56.04RF them? They burn 250 lines Tip Set (One each of tips shown above) # SET4-FFRF \$33.50 per inch, much Pen Set (One each of tips shown above, welded into HD pens) # SET4HD-FFRF \$128.75 finer than Also Available: anyone can burn with a 2mm Round 3mm Round Burned with #52.04RF Round Tip single-point tip. TH52.02RF TH52.03RF Great for very HD52.02RF HD52.03RF small miniature carvings. Use Individual Tips \$9.50 ea. Pens \$35.75 ea. Magnified 2X with standard or HD cord. All Tips Shown Actual Size

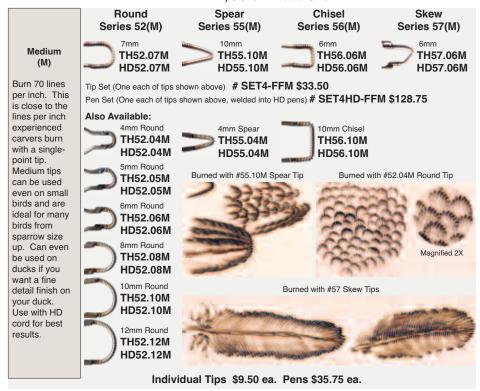


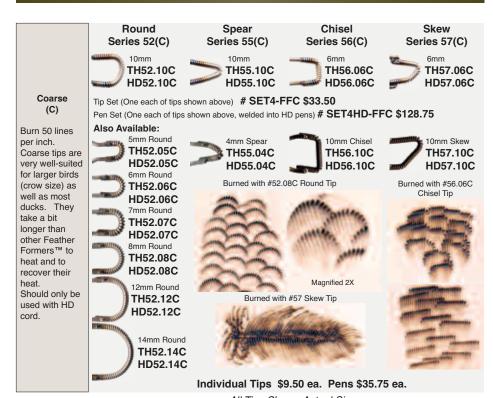
#### FAQ: How do I clean Feather Former™ tips?

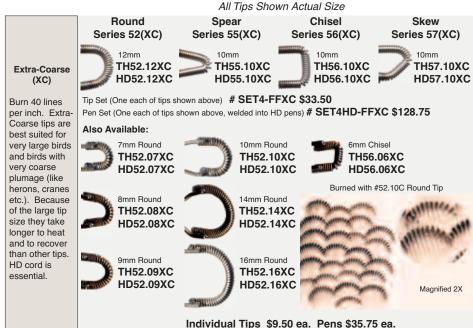
Use a dense brass brush (page 30). Simply brush the tip clean - the tip can be hot or cold when being cleaned in this way.



All Tips Shown Actual Size









Customize your Razaire<sup>™</sup> 530 to meet your needs! All accessories attach in seconds without any tools. It's easy to change from a table-top unit to a lap-top collector or even a 4" vacuum.



4" Inlet hose adapter Connect your Razaire™ 530 to many of your shop tools, to a lap-top carving tray, or even a cyclone lid. You can even use your Razaire™ 530 as a variable-suction vacuum cleaner using 4" vent hose from your local hardware store.

# ZA400 \$39.95



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Starter Packages

Motor Tool Hanger Hang your flex-shaft tool on the Razaire™ 530. Can be mounted on either side (unless the Exhaust Air Deflector is in place).

# ZA325 \$17.50

Lap-top tray This very comfortable tray lets you carve right in your lap (requires use of the 4" hose adapter and a length of 4" hose). But it's much more than just a lap tray. Stand it on edge and it excels at picking up dust from small stationary belt sanders and small grinders. The upper edges are not only comfortable to rest your arms on, they can also be used to fashion the lap tray into a drawer that conveniently stores away under your desk or bench. Approximately 13"x17"x2" deep. # ZA440 \$32.00



**Razertip Index** 

Exhaust Air Deflector Exhaust air normally discharges from the side of the Razaire™ 530. This adapter slips down over the exhaust, re-directing the air towards the back of the unit. Useful in classes, but it's also great to re-direct air in many other situations such as when using your Razaire™ 530 beside a tabletop sander or scrollsaw. It's also recommended that you use this deflector when using a Razaire™ 530 without the front hood. # ZA375 \$14.50

Extra 2" Filter Frame Snaps on to the front of your Razaire™ 530, allowing you to add as many filter stages as you want (one frame required per stage). Also a great way to make your own custom hoods for the Razaire™ 530 - attach a frame and build your custom hood onto it for a quick-release attachment.

# ZH1002 \$13.95

Grips, foam handpiece

#### 8" Front Hood (replacement) # ZA550-8 \$29.95

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# RAZOVOO 530

### World's Smallest Portable Dust Management System



The Razaire <sup>™</sup> 530 has been setting the standard for portable dust collectors since it was introduced in 1997. It is still the smallest. quietest, most powerful and versatile portable dust collector in the world. Because it's a modular system, it can handle the dust control needs of any small home workshop - from collecting dust at the source (rotary carving tools. belt sanders, etc.) to overall shop air filtration. How does it work? Dusty air enters the front of the unit, drawn in by a powerful impeller fan. Dust is trapped by a filter that removes over 90% of 3-4 micron sized particles (about the size of baby powder). Clean air is then exhausted out the side. Normally it is not necessary to carve inside the acrylic hood - working 6" in front of it usually provides satisfactory results. With enough suction to pick up shavings from a planer (with a 4" hose attached), the Razaire™ 530 can handle it all. The 2" filter is easily removed for

cleaning (filter is cleaned by tapping it into a plastic bag or a garbage can). Many cleanings are possible before replacement is necessary. The flameproof ABS cabinet has a built-in lamp holder to accept a standard swing-arm lamp (not included), providing excellent light where you need it - right at the intake. Includes an 8" acrylic hood that breaks down into 3 flat panels for portability. Several accessories are available for increased versatility - everything from higher efficiency filters or extra filter stages to a 4" hose adapter, a lap-top tray, a motor tool hanger, or a deflector to direct exhaust air towards the back. Our exclusive *unconditional* warranty covers the fan for 5 years and the cabinet and electronics for 10 full years! More technical information and instruction manual available at www.razertip.com. Razaire™ 530 w/ 2" filter frame, standard filter, 8" hood. # **Z530** \$399.00

A bit about CFM's: CFM (cubic feet per minute) is the way airflow is measured. The Razaire™ 530 fan is rated at 530 CFM, but you probably won't want to run it that high most of the time. The fan will develop up to 4 times as much vacuum (pull) as other portable dust collectors, so at high settings it can pull very fine dust particles right through the filter. To avoid this, turn the fan down or, if you need the extra suction, add a second filter stage.

#### Filters for Razaire™ 530

About Razaire™ filters 4 different filters are available. They work fine as single stage filters but are even better in pairs (stacked), increasing both the performance and life of the filter, with no discernable drop in suction. All filters are approximately 9.75"x10.5"x2".

Standard 30% efficient (green) filter. Best for general wood dust applications or as the first (front) stage when using higher efficiency filters. Easiest to clean and longest lasting. Superb in pairs! # ZF20 \$17.50

Medium 60% efficient filter\*. Good as a second stage, especially when collecting antler or bone particles. Easily cleanable and fairly long lasting. # ZF26 \$21.25 \*Colour may be either orange or white.

High 80% efficient (pink) filter. Our most efficient filter; best for hard to capture particles like soapstone and eggshell. Also good for maximum efficiency when a single stage is desirable. Because of the fine weave of this filter, it is not as easily cleaned as the others and will require more frequent replacement. For best results we recommend using it as a second stage with a standard filter in front. # ZF28 \$30.50

Activated Charcoal 30% Efficient (gray) filter. Can *reduce* many odours like burning wood, antler and eggshell. Recommended as a second stage as it will require frequent replacement if used alone. Note: This filter does not *eliminate* odours and it works best at low fan speed settings. #ZF24 \$23.50

Extra 2" Filter Frame. Snaps on to the front of your Razaire™ 530, allowing you to add as many filter stages as you want (one frame required per stage). Also a great way to make your own custom hoods for the Razaire™ 530 - attach a frame and build your custom hood on to it for a quick-release attachment. # ZH1002 \$13.95