

Power Carving



Presentation by Bill Haskell (September 9, 2001)

- Power carving, as I define it, is the use of electric power tools in the process of removing material (usually wood) to create a shape, form, or texture.
- When carving and there is a need to remove a lot of material, I believe that how it is removed is unimportant, but the efficiency and ease of removing it is.
- Hand carving is a wonderful skill, and people like Nikolai Ossipov are skilled artisans who do a masterful job of creating shape and form with chisels, gouges, and knives. However, I do not possess his kind of talent, or patience.
- Therefore, I use power tools whenever it makes the process of removing and shaping material easier. I may then fashion the final form with files, rifflers, and yes, hand carving tools.
- What I'm going to cover today is some of the kinds of power tools available for removing material, carving, and texturing, and attempt to address some of the attributes of each kind of tool.
- Attached is a listing of the kind of tools available, many of which I use, as well as a listing of where to buy them and approximate prices.

Power Carving Tool Types

<p>Multi-toothed blades</p>	<p><u>Arbortech</u></p> <ul style="list-style-type: none"> • Industrial Pro Kit with 4" disc with 3 carbide teeth mounts on a right-angle die grinder • Mini-Grinder with 2" steel blade also mounts on a right-angle die grinder <p><u>Lancelot</u></p> <ul style="list-style-type: none"> • Chain-saw style 4" disc • 14 or 22 Teeth 	<ul style="list-style-type: none"> • Extremely aggressive and will remove large quantities of material rapidly • Good for hogging out • A little like carving with a chain saw • Used for texturing also
<p>Reciprocating Chisels & Gouges</p>	<p><u>Automach</u></p> <ul style="list-style-type: none"> • Japanese made reciprocating tool with wide variety of cutting tips • Tools comes in both a hand-held model and a flexible cable style <p><u>Arbortech</u></p> <ul style="list-style-type: none"> • New hand held model 	<ul style="list-style-type: none"> • Good quality power assisted carving tool • Extra blades (size and style) available • Jacobs chuck accessory can mounted for use as a rotary tool • 10,000 vibrations per minute • Cutting tips activated only with pressure • 11,000 vibrations per minute
<p>Flexible Shaft</p>	<ul style="list-style-type: none"> • Small hand piece • Rotary carving • Foredom style • Various other brands available 	<ul style="list-style-type: none"> • Good rotary tool for fine work • Tons of bits available (burrs, rasps, etc.) • Not for significant material removal • A lot of use or pressure can break the cable spring • Foot speed control
<p>Reciprocating Hand Pieces</p>	<p><u>Flex Shaft</u> – Hand piece and shaft for Foredoms, Dremels, and others</p> <p><u>Hand Piece</u> - Wood Carvers Supply for Foredoms, Mastercarvers, Dremels, and others</p>	<ul style="list-style-type: none"> • Fit to existing flexible shaft carvers • 16 Flex Cut blades available in various gouge, v-parting, and chisel configurations

Power Carving Tool Types (Continued)

<p>Pneumatic Die grinder</p>	<ul style="list-style-type: none"> • Many brands available 	<ul style="list-style-type: none"> • Good for gross rotary work and material removal using a rotary rasp (1/4" collet) • Good power and torque • Requires air compressor • Inexpensive
<p>Pneumatic Detail tool</p>	<ul style="list-style-type: none"> • High Speed • Similar to dental tool • Several models available 	<ul style="list-style-type: none"> • Excellent for detail and piercing work • Lots of bits available • Faster than flexible cable and will not break like a flexible cable • Range of expensive to inexpensive models available • Foot and tool speed control • More powerful than flexible shaft • Good for Roto Zip bit • Requires air compressor
<p>Burrs, carvers, blades, etc.</p>	<ul style="list-style-type: none"> • There are all kinds of burrs, rotary rasps, tri-carvers, and other items • 1/16", 3/32", 1/8" and 1/4" collet sizes • Roto-Zip 	<ul style="list-style-type: none"> • Wood Carvers Supply, Inc. has the most extensive inventory I have seen • The Roto-Zip is good for material removal - bits can be purchased at Sears

Note: Be conscious of collet size and match to the size of rotary burs and cutters

Power Carving Tool Sources & Prices

Product	Sources	Approximate Price
Arbortech Woodcarvers	<u>Pro Kit</u> (4"blade with 3 carbide teeth – Woodcraft, Treeline, Lee Valley and Arbortech (go to web site) <u>Mini-Grinder</u> - (2"blade) Woodcraft and Arbortech web site <u>Power Chisel</u> – Arbortech and Woodcraft	\$99 \$145 \$80 w/o die-grinder \$160
Automach	Woodcraft, The Cutting Edge	\$300 Hand Held \$400 Flexible Shaft
Flexible Shaft	<u>Foredom</u> (18,000 RPM) – Treeline, Woodcraft, Lee Valley, The Cutting Edge <u>Dura Flex</u> (11,500-16,000 RPM) Collets from 1/32"-1/8" – Craft Supplies, Treeline <u>Mastercarver</u> (0-26,000 RPM) 1/3 HP, 1/4", 1/8", 3/32" collets – Wood Carvers Supply	Starting at \$240 \$100 \$300
Reciprocating Carver Hand Pieces	<u>Hand Piece</u> – Wood Carvers Supply <u>Flex Shaft</u> – Shaft and Hand piece - Woodcraft <u>Flexcut</u> – Blades for reciprocating carvers - Woodcraft	\$60 \$50-60 \$11-15 each
Lancelot	14 and 22 Teeth disks for right angle die-grinder – Lee Valley and Woodcraft	\$38 each
Pneumatic Die Grinder	Enco and other machine tool suppliers	Starting at \$30
Pneumatic Detail Tools	<u>Micro Carver</u> (56,000 RPM) – Woodcraft <u>Powercrafter</u> (400,000 RPM) – Craft Supplies, Treeline, and Packard	\$74 \$299

Power Carving Tool Source Contact Information

Company	Telephone No.	Web Site
<i>Arbortech</i>	61-8-9249 1944	www.arbortech.com.au
<i>Craft Supplies USA</i>	800-551-8876	www.woodturnerscatalog.com
<i>Enco</i>	800-USE-ENCO	www.use-enco.com
<i>Lee Valley</i>	800-871-8158 Orders 800-267-8735 Information	
<i>Packard</i>	800-683-8876 Orders 828-859-6762	
<i>The Cutting Edge</i>	800-790-7980 Orders 713-981-9228 Information	www.cuttingedgetools.com
<i>Treeline</i>	800-683-8876 Order 828-859-6762 Information	
<i>Wood Carvers Supply, Inc</i>	800-284-6229 Orders 941-698-0123 Information	www.woodcarverssupply.com
<i>Woodcraft</i>	800-225-1153 Orders 800-535-4486 Information	