

# PERMA-GRIT HAND TOOLS

## HAND TOOLS

Perma-Grit Tools are made of Tungsten Carbide Grit, one of the hardest elements available, second only to diamonds. They are specifically designed and developed for aircraft builders, woodworkers, and modelers. These tools will cut, sand and shape tough composite materials, saving homebuilders hours of building time. Ideal for fuselage shaping and wing building, these tools are highly recommended by several kit-plane manufacturers. Available in coarse (180) & fine (320) grit.



Model No.	Part No.	Description	Price
F-101	12-00040	230mm x 38mm Flat Fine File	\$10.30
F-102	12-00041	230mm x 38mm Flat Coarse	\$9.90
R-200F	12-00042	230mm x 26mm / 36mm diameter Fine	\$10.30
R-200C	12-00043	230mm x 26mm / 36mm diameter Coarse	\$10.75
R-201C	12-00044	230mm x 38mm Tangent Coarse	\$10.30
R-201F	12-00045	230mm x 38mm Tangent Fine	\$9.95
R-202C	12-00046	18mm diameter tube Coarse	\$10.80
R-202F	12-00047	18mm diameter tube Fine	\$10.80
R-203C	12-00048	12mm diameter tube Coarse	\$10.60
R-203F	12-00049	12mm diameter tube Fine	\$10.60
R-204C	12-00050	6 mm round Coarse grit	\$10.30
R-204F	12-00051	6 mm round Fine grit	\$9.95
S-204C	12-00052	6 mm square Coarse grit	\$10.30
S-204F	12-00053	6 mm square Fine grit	\$10.30
R-101	12-00054	230mm x 38mm diameter Internal Fine grit	\$10.30
R-102	12-00055	230mm x 38mm diameter Internal Coarse grit	\$10.75
Set 8C	12-00056	contains: 8 popular shapes in Tool Roll F-101, F102, R-200C, R-201C, R-202C, R-203C, R-204C, S-204C	\$64.25
Set 8F	12-00057	contains: 8 popular shapes in Tool Roll F-101, F102, R-200F, R-201F, R-202F, R-203F, R-204F, S-204F	\$71.75
TR1	12-00058	Tool Roll - Holds 8 tools, red plastic w/velcro fastener	\$5.80

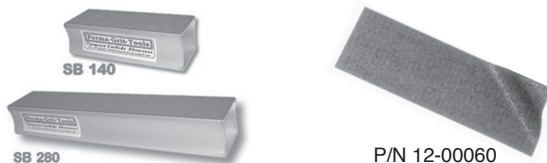
## ROTARY FILES

Supplied with a 3mm integral arbor so they may be used in reversible drive drills and hobby drills. These files are well balanced and run smoothly, and cur a wide range of materials with little need for secondary finishing. Available in coarse and fine grit.



Model No.	Part No.	Description	Price
RF1C	12-00070	Narrow Cone coarse	\$13.10
RF1F	12-00071	Narrow Cone fine	\$13.10
RF2C	12-00072	Wide Cone Coarse	\$13.10
RF2F	12-00073	Wide Cone Fine	\$13.10
RF3C	12-00074	Drum Coarse	\$13.10
RF3F	12-00075	Drum Fine	\$13.10
RF4C	12-00076	Pancake Coarse	\$13.10
RF4F	12-00077	Pancake Fine	\$13.10
RF5C	12-00078	Domehead Coarse	\$12.95
RF5F	12-00079	Domehead Fine	\$13.10
RF6C	12-00080	1/8 diameter Rod Coarse	\$12.85
RF6F	12-02247	1/8 diameter Rod Fine	\$12.85

## SANDING BLOCKS & FLEXI-STRIPS



These versatile sanding blocks are ideal for sanding large areas, creating straight edges, producing dihedral angles, profiling leading edges, feathering trailing edges, and more. The sanding blocks are coarse grit on one side and fine grit on the opposing side. The flexible grit strips can be cut and shaped to any form, external or internal.

Model #	Part No.	Description	Price
SB140	12-00064	140mm x 51mm Coarse one side, fine opp.	\$21.25
SB280	12-00065	280mm x 51mm Coarse one side, fine opp.	\$31.25
SB560	12-00066	560mm x 51mm Coarse one side, fine opp.	\$47.50
FXT-103	12-00060	51mm x 280mm Fine Grit Strip	\$10.75
FXT-104	12-00061	51mm x 280mm Coarse Grit Strip	\$10.75
FXT-106	12-00062	51mm x 140mm Fine Grit Strip	\$8.30
FXT-107	12-00063	51mm x 140mm Coarse Grit Strip	\$8.30

## 3/8" INCH NEEDLE FILE KIT WITH HANDLE

Set of 5 files: Hand, Round, Halfround, Square and 3-Square Extremely versatile tools, popular for detailed work. These file cuts in any direction and does not clog easily. Cuts quickly leaving an excellent finish.  
P/N 12-01752.....\$51.95

## ROTARY CUTTING DISCS

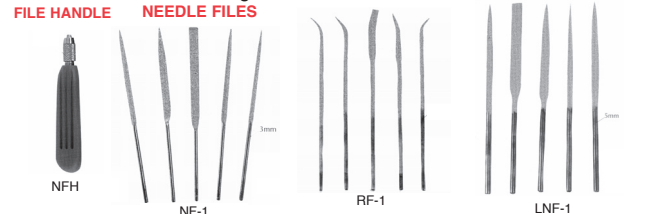


These durable cutting discs are available in two sizes (19mm and 32mm) and come complete with a 3mm steel arbor to fit hobby drills. Will cut all woods, piano wire, composites, ceramics, stone, etc.

Model No.	Part No.	Description	Price
RD1	12-00067	19mm diameter disc with arbor	\$11.50
RD2	12-00068	32mm disc with arbor	\$12.95
RD3	12-00069	19 & 32mm disc with arbor	\$20.75

## NEEDLE FILES

These extremely versatile tools are excellent for shaping and finishing. They will cut in any direction and do not clog easily. Our needle files cut quickly and leave an excellent finish. Very popular for detail work. Furnished in Medium 280 grit. **RIFFLER FILES** **LARGE NEEDLE FILES**



Model No.	Part No.	Description	Price
NF1H	12-00081	Set of 5 needle files w/ Handle	\$45.25
NF1	12-00082	Set of 5 needle files w/o Handle	\$42.50
NF-F	12-00083	Flat needle file	\$4.15
NF-K	12-00084	Knife needle file only	\$10.80
NF-R	12-00085	Round needle file only	\$10.80
NF-S	12-00086	Square needle file only	\$10.80
NF-T	12-00087	Triangle needle file only	\$10.60
RIF-1	12-00088	Set of 5 Riffler files w/ Handle	\$48.95
RIF-1	12-00089	Set of 5 Riffler files w/o Handle	\$42.50
RIF-F	12-00090	Flat Riffler file only	\$10.80
RIF-H	12-00091	Half-round Riffler file only	\$10.80
RIF-R	12-00092	Round Riffler file only	\$10.80
RIF-S	12-00093	Square Riffler file only	\$10.80
RIF-T	12-00094	Triangle Riffler file only	\$10.80
LNF-1	12-00095	Set of 5 Large needle files / no handle	\$47.50
LNF-F	12-00096	Flat Large needle file only	\$12.40
LNF-H	12-00097	Half-Round Large needle file only	\$12.40
LNF-R	12-00098	Round Large needle file only	\$12.40
LNF-S	12-00099	Square Large needle file only	\$12.40
LNF-T	12-00100	Triangle Large needle file only	\$12.40
NFH	12-00101	Needle File handle only	\$4.20

## LARGE NEEDLE FILE HANDLE

Comfortable plastic handle with brass collet to accept all large (18cms) needle files. Overall length 115mm. Collect 5mm

PN 12-01927.....\$32.25

AIRCRAFT SPRUCE WEST  
CORONA, CA • (877) 4-SPRUCE

AIRCRAFT SPRUCE EAST  
PEACHTREE CITY, GA • (877) 477-7823