



2-303-14-2-0



2-304-14-0-0



4-138-10-1-0



4-140-10-1-0



4-150-07-3-0



SQUARE NEEDLE FILES

Product Code	Length (Inch)	Teeth Per Inch (TPI)	Type of Cut
Without handle			
2-303-14-2-0	5 1/2	86	Smooth
2-303-14-4-0	5 1/2	122	Dead Smooth
2-303-16-0-0	6 1/4	56	Bastard
2-303-16-1-0	6 1/4	66	Second
2-303-16-2-0	6 1/4	86	Smooth
2-303-16-4-0	6 1/4	122	Dead Smooth
2-303-18-0-0	7	56	Bastard
2-303-18-2-0	7	86	Smooth

Features

- Perfect for fine filing and polishing jobs. Used by engravers, precision engineers, instrument makers, watchmakers and goldsmiths.
- Square shape, surface tapered to a point. Surfaces double cut.



HALF ROUND NEEDLE FILES

Product Code	Length (Inch)	Teeth Per Inch (TPI)	Type of Cut
Without handle			
2-304-14-0-0	5 1/2	56	Bastard
2-304-14-2-0	5 1/2	86	Smooth
2-304-14-4-0	5 1/2	122	Dead Smooth
2-304-16-0-0	6 1/4	56	Bastard
2-304-16-1-0	6 1/4	66	Second
2-304-16-2-0	6 1/4	86	Smooth
2-304-16-4-0	6 1/4	122	Dead Smooth
2-304-18-0-0	7	56	Bastard
2-304-18-2-0	7	86	Smooth

Features

- Perfect for fine filing and polishing jobs. Used by engravers, precision engineers, instrument makers, watchmakers and goldsmiths.
- Surfaces taper to a point. Flat and convex surfaces double cut.



MILL SAW FILE

Engineering Files

Product Code	Length (Inch)	Width (Inch)	Height (Inch)	Teeth Per Inch (TPI)	Type of Cut
Without handle - One Round Edges					
4-138-08-1-0	8	25/32	1/8	46	Bastard
4-138-10-1-0	10	1	5/32	41	Bastard
4-138-12-1-0	12	1 13/16	3/16	36	Bastard

Without handle - Two Round Edges

4-140-06-1-0	6	5/8	7/64	46	Bastard
4-140-08-1-0	8	25/32	1/8	41	Bastard
4-140-10-1-0	10	1	5/32	36	Bastard

Features

- Designed for circular, felling and gang saws with fine toothing, including bandsaws. Excels at draw and fine filing, polishing and deburring work.
- Used in the engineering industry as a lathe and deburring file.
- File is parallel and thin with surface and edge having single cut and one round edge.



FLAT CHISEL BIT FILE

Engineering File

Product Code	Length (Inch)	Width (Inch)	Height (Inch)
4-150-07-3-0	7	1/2	1/8

Features

- Designed for filing of square ground cutters.
- File is flat.