

SHOPS MITH SPEED CHART

OPERATIONS	WOOD (Average Work)		IRON or STEEL		SOFT METALS		PLASTICS	
	HEADSTOCK PULLEY POSITION	RPM WITH SPEED CHANGER	HEADSTOCK PULLEY POSITION	RPM WITH SPEED CHANGER	HEADSTOCK PULLEY POSITION	RPM WITH SPEED CHANGER	HEADSTOCK PULLEY POSITION	RPM WITH SPEED CHANGER
Sawing	3	3400	—	—	—	—	2	1800-2500
Drilling (w/High Speed Drills)	2-3	1800-3000	1-2	450-2500	2-3	2400-6100	1-3	600-5000
Disc Sanding	2	1800	2	1800	2	1800	1	1000-1500
Lathe Rough. 3" Dia. & Und.	1	600-1300	—	—	—	—	1-2	600-2000
Lathe Roughing Over 3" Dia.	1	450-600	—	—	—	—	1	450-1000
Lathe Cutting 3" Dia. & Und.	2	1200-2800	—	—	—	—	1-2	1000-3000
Lathe Cutting Over 3" Dia.	1	450-1200	—	—	—	—	1	450-1200
Lathe Finish. 3" Dia. & Und.	3	1800-4000	—	—	—	—	1-3	1200-4000
Lathe Finishing Over 3" Dia.	2	600-1800	—	—	—	—	1	450-1500
Jigsawing or Saber Sawing	1	900	1	650	1	650-900	1	900
Filing on Jigsaw	1	450	1	450	1	450	1	750
Jointing	3	3600-4500	—	—	—	—	—	—
Shaping	3	4500-6000	—	—	—	—	3	4000-5500
Dadoing or Rabbeting	3	3400	—	—	—	—	—	—
Mortising (Up to 1/2")	2	2200	—	—	—	—	1-3	600-4000
Routing or Carving	3	5000-6000	—	—	—	—	3	6000
Cutting (Flexible Wheel)	—	—	3	2800-3800	3	2800-3800	3	2800-3600
Wire Brushing—Coarse	—	—	1	600	1	600	—	—
Wire Brushing—Fine	—	—	3	3000	3	3000	—	—
Buffing	—	—	3	4600	3	3800	2-3	1750-3500
Lambswool Polishing	—	—	3	4600	3	3800	3	1750-3500
Grinding	—	—	2	1900-3100	2	1900-3100	2	1900-3100
Drum Sanding	2	2000	—	—	—	—	2	2000



NOTE 1 — These speeds are approximations only. In general, use lower speeds for larger diameters; use higher speeds for smaller diameters and for smooth finishing operations. For safety's sake, **use lower speeds when in doubt.**

NOTE 2 — This chart does not include all operations which can be performed on SHOPS MITH or all materials that can be handled. Many SHOPS MITH operations can be performed on such materials as composition board, glass, ceramics, bone, ivory, etc.