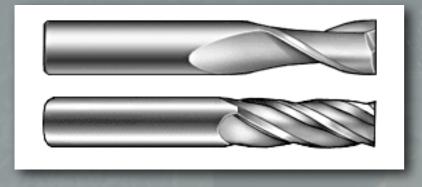
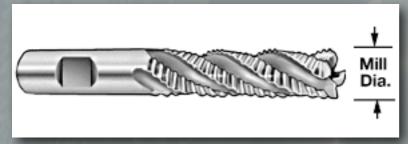


END MILL



SQUARE-END



ROUGHING



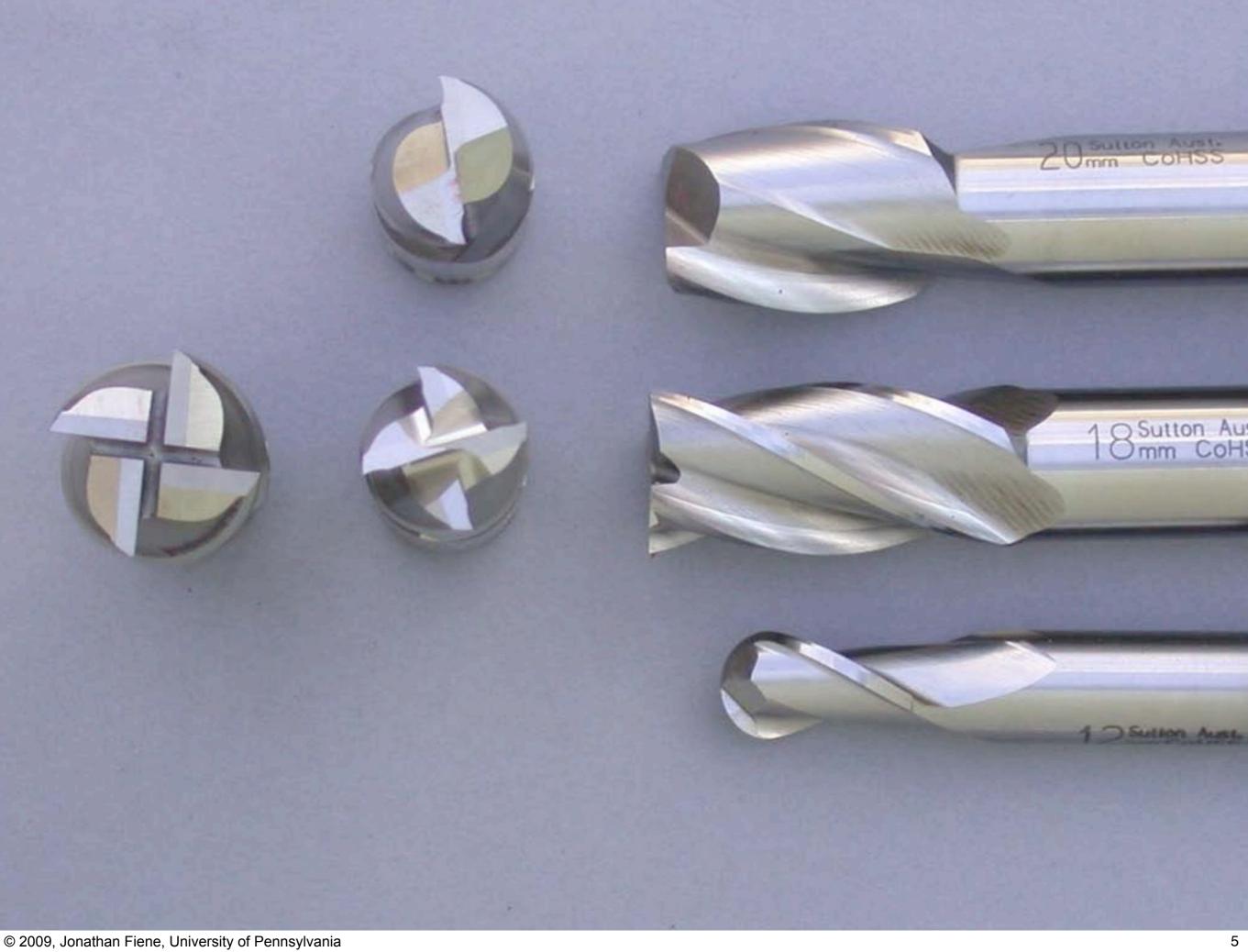
BALL-END



CORNER ROUNDING



CHAMFER MILLS



FLY CUTTER & FACE MILL

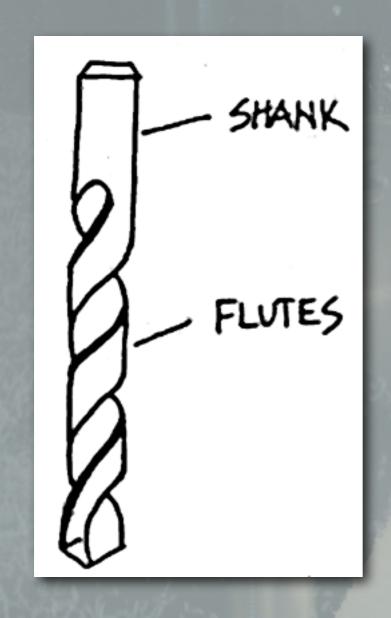


FLY CUTTER

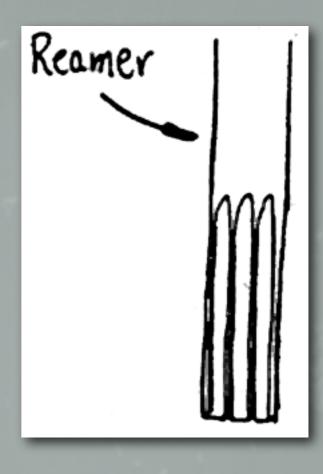
FACE MILL

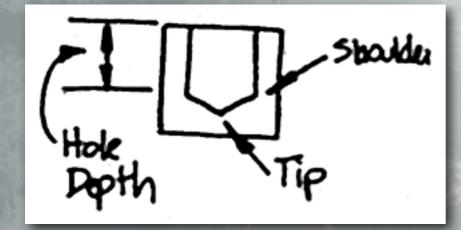


TWIST DRILLS & REAMERS

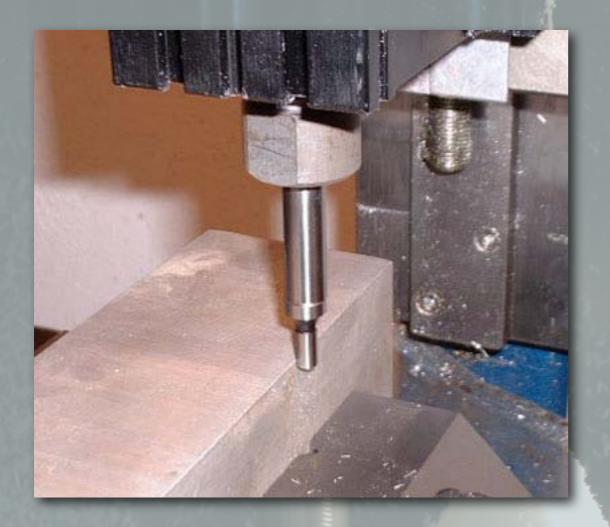


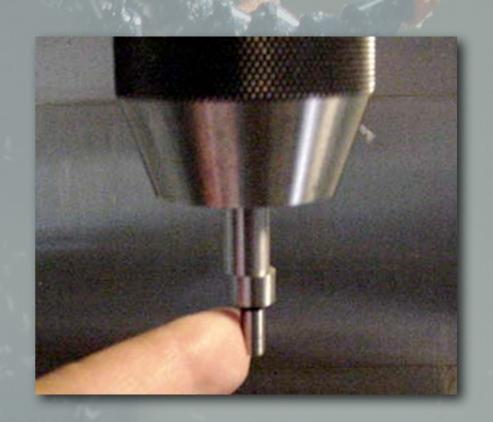


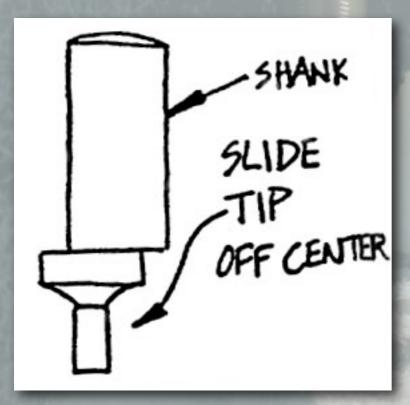


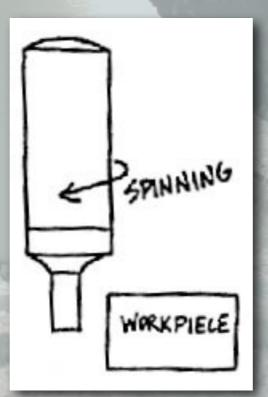


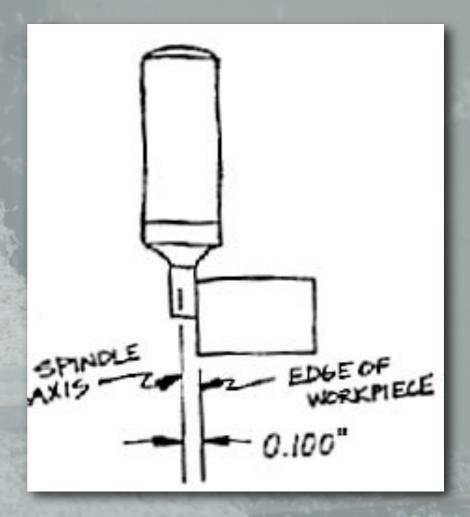
EDGE FINDER (A.K.A. WIGGLER)





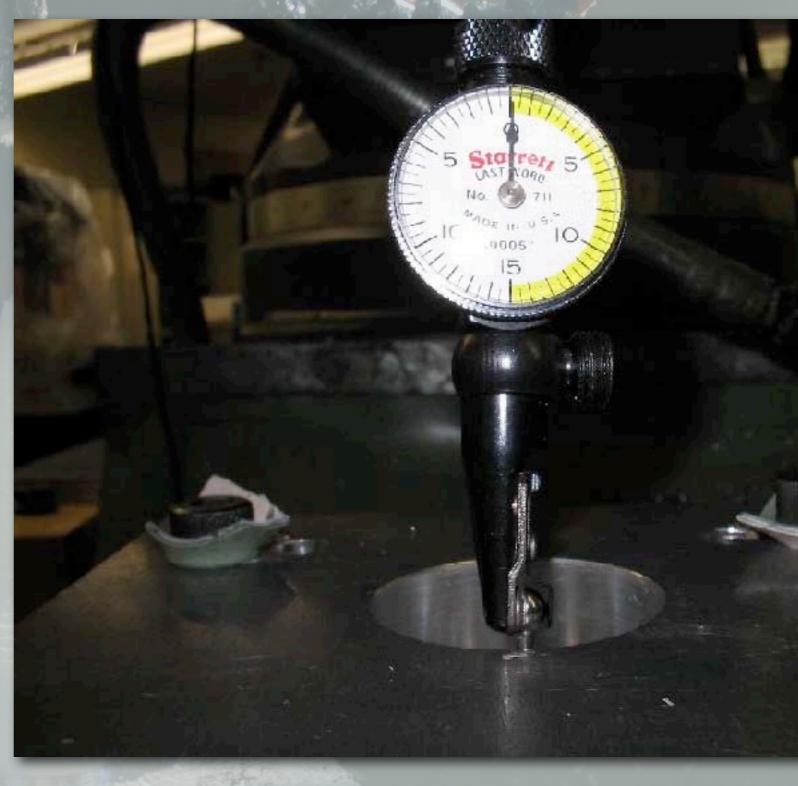


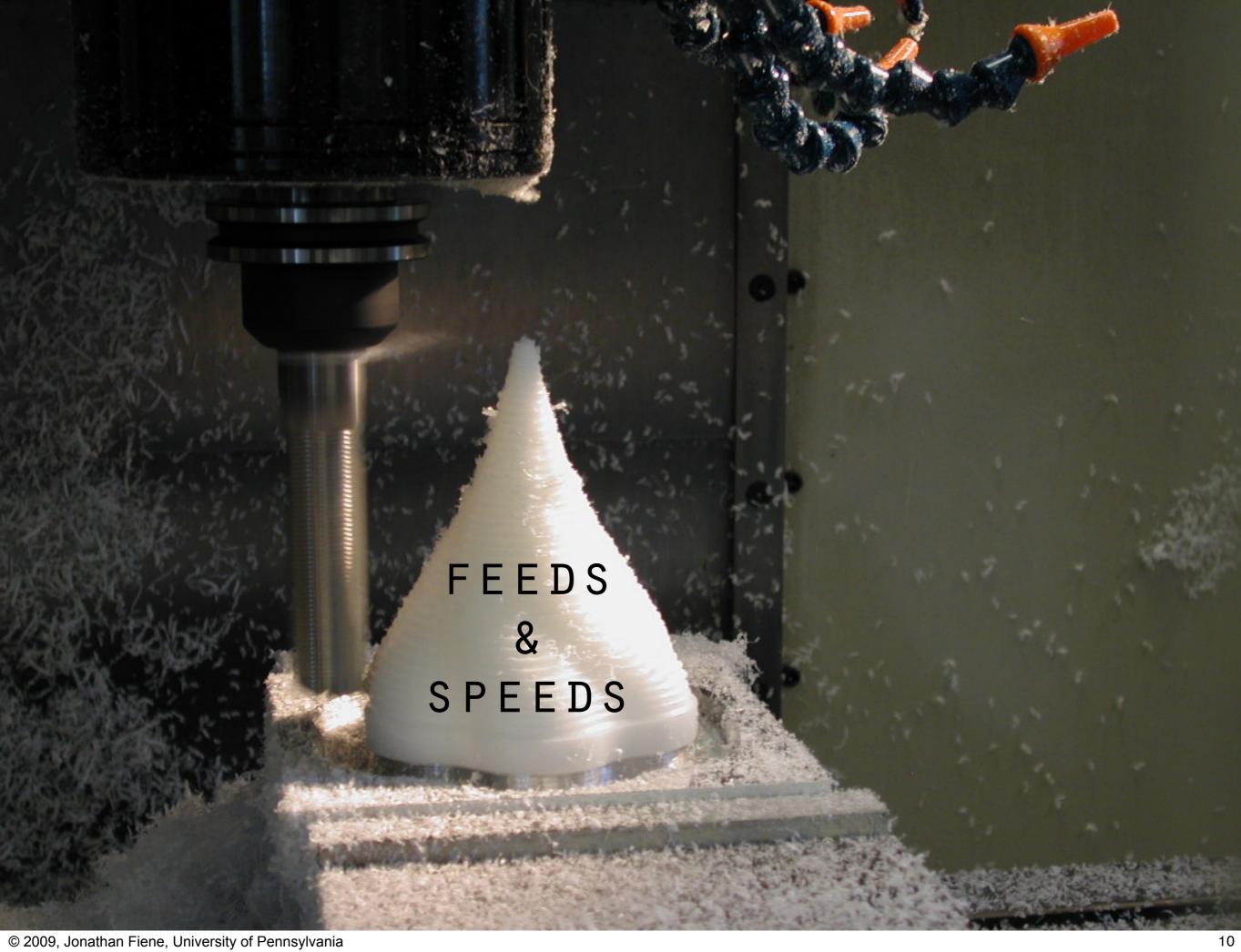




DIAL INDICATOR







CUTTING SPEED GUIDELINES

	HIGH-SPEED STEEL	CARBIDE
PLASTICS	500	800
ALUMINUM	300	600
BRASS	200	400
MILD STEEL	75	250
STAINLESS	50	100
SPEEDS IN SURFACE	FEET PER MINUT	E (SFPM)

MILL/DRILL SPINDLE SPEED

GIVES SPINDLE SPEED IN RPM

FOR

CUTTING SPEED IN FEET PER MINUTE (FPM)

AND

TOOL DIAMETER IN INCHES

FEED RATE

FEED RATE = CHIP LOAD X TEETH X SPINDLE SPEED

GIVES FEED RATE IN INCHES PER MINUTE

FOR

CHIP LOAD IN INCHES PER TOOTH

AND

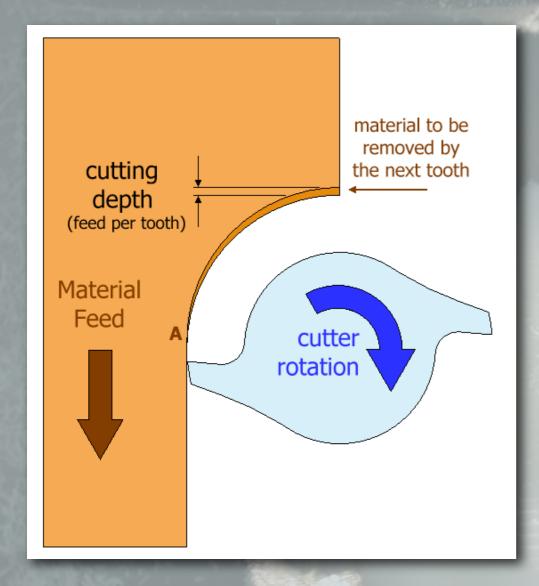
SPINDLE SPEED IN RPM

TYPICAL CHIP LOADS:

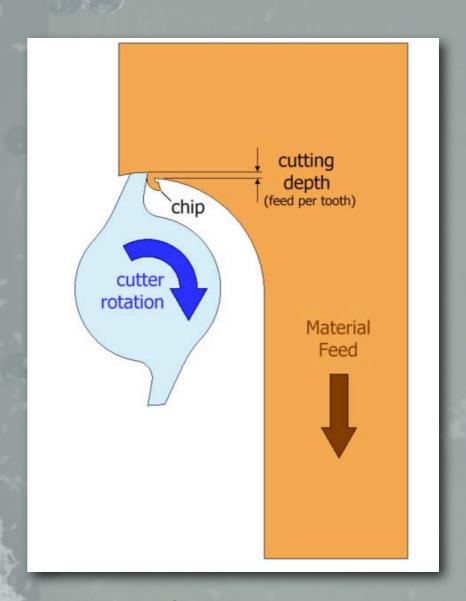
ROUGHING 0.005"

FINISHING 0.001-0.002"

CUTTING DIRECTION



CONVENTIONAL (CHIP)



CLIMB