CNC Speeds and Feeds
Cheat Sheet

RPM = Spindle Speed

SFM = Surface Feet / Min

SMM = Surface Meter / Min

FEEDRATE = Linear Speed of an Axis

D = Diameter of Tool

#FLUTES = Amount of Flutes on Tool

CHIPLOAD = Thickness of Material taken out by a single tooth/flute

$RPM = (12 * SFM) / pi * D$

$RPM = (3.8 * SFM) / D$

$RPM = (1000 * SMM) / pi * D$

$RPM = (318 * SMM) / D$

$FEEDRATE = RPM * \#FLUTES * CHIPLOAD$

$FEEDRATE = RPM * FEED/REVOLUTION$