Basic 2-D Cutting Model

called “depth of cut, \( t_o \)”, in Kalpakjian & Schmid Fig. 8.2, but this is inconsistent with Kalpakjian & Schmid Fig. 8.42

\( f \): Feed (per revolution)

\( d \): Depth of cut

\( \phi \): Shear angle (small in practice)

\( \alpha \): Rake angle (measured from tool face to \( y \)-axis)

\( t_c \): Chip thickness