

MACHINEMATE®

Punching and Nibbling

CNC Software Option



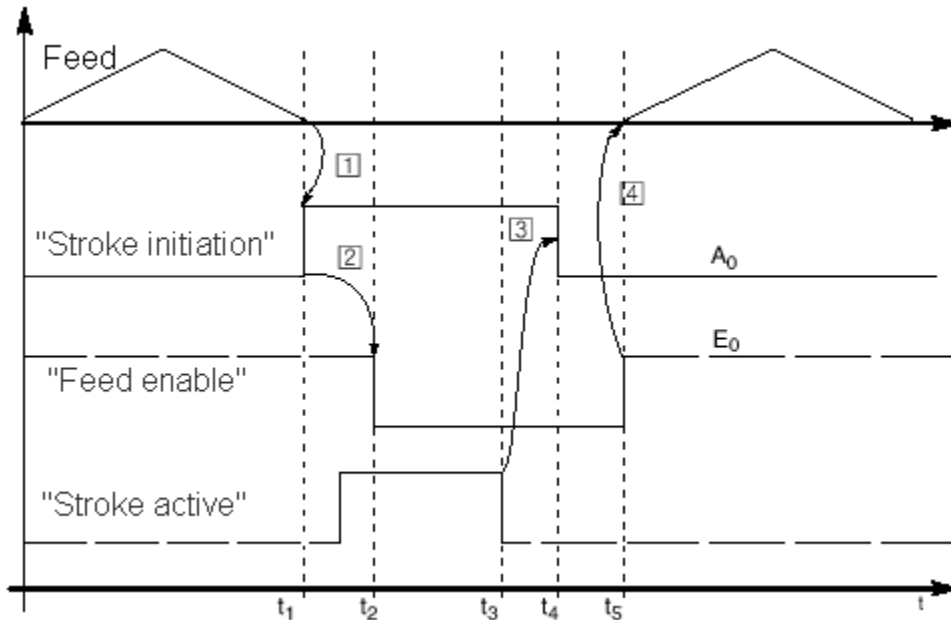
Picture from a successful 2005 retrofit of Amada Vela II Punch Press

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MACHINE MATE Punching/Nibbling Option

The below diagram illustrates a **punching** or **nibbling** cycle (the interaction between the mechanical motion of the punch stroke and the programmed axis motion):



M20 is Punching and Nibbling off.

M25 is Punching on. An optional E value can be used to define a step between each punch along the programmed motion. With no E value the punch occurs at the block's end point. An optional O value can be used to define a dwell at each punch. With no O value the punch occurs immediately upon arriving at the block's end point.

M26 is Punching on with a predefined dwell at each punch.

M27 is Punching on but will no delay. M27 disables the dwell activated by M26.

M22 is Nibbling on. The required E value defines the step between each punch along the programmed nibbling motion.

M20 is the default M-code after any CNC control reset action.

All punching and nibbling operations are compatible with linear and circular interpolation moves (i.e., G0, G1, G2, G3, G12, G13).

These operations are also compatible with a rotary axis configured for a tangential relationship to the motions of the linear axes. With this machine configuration, the punch can be rotated by an axis, as shown in the figure to the right.

