

8040/55T CANNED CYCLE PARAMETERS

Pattern repeat	format:\	G66 X Z I C A I L M S E Q
Stock removal along the X axis		G68 X Z C D L M K F H S E Q
Stock removal along the Z axis		G69 X Z C D L M K F H S E Q
Turning cycle		G81 X Z Q R C D L M F H
Facing cycle with straight sections		G82 X Z Q R C D L M F H
Drilling cycle		G83 X Z I B D K H C
Tapping cycle		G83 X Z I B 0 D K
Turning cycle with circular arcs		G84 X Z Q R C D L M F H I K
Facing cycle with circular arcs		G85 X Z Q R C D L M F H I K
Longitudinal threadcutting		G86 X Z Q R K I B E D L C J A W
Face threadcutting		G87 X Z Q R K I B E D L C J A W
Grooving cycle along X axis		G88 X Z Q R C D K
Grooving cycle along Z axis		G89 X Z Q R C D K

G87 or G66,G68,G69 **X Z** have the standard meaning for all the cycles.

D F L M have the same meaning for the cycles.

Lets go over the other parameters for each cycle:

- A:** G66,-----main machining axis; 1=X, 0=Z
G86,G87-----penetration angle of the tool
- B:** G83,----- type of operation performed. B=0 will carry out tapping
B>0 will carry out drilling indicating drilling step
G86,G87 -----defines the depth of the threading passes
- C:** G66,G68,G69,G81,-----machining pass
G82,G84,G85,G88,G89----machining pass
G83-----approach distance along Z from previous step
G86,G87-----thread pitch
- D:** -----safety distance
- E:** G66,G68,G69,-----label number of the last block of the profile
- F:** -----feedrate for roughing pass
- H:** G68,G69,G81-82,G84-85--feedrate for finishing pass
G83-----withdrawal distance after each drilling step
- I:** G66-----X or Z residual stock depending on A
G83-----total drilling depth
G84,G85-----distance from initial point to the arc's center along X
G86,G87-----depth of the thread
- J:** G86,G87 -----exit from thread
- K:** G68,G69-----penetration feedrate for the valleys
G83,G88,G89-----dwell in hundredths of a second
G84,G85-----distance from initial point to the arc's center along Z
- L:** -----finishing pass along the X axis
- M:** -----finishing pass along the Z axis
- Q:** G66,G68,G69-----number of the program of the profile
G81,G82,G84-89-----X coordinate final point of the profile, thread, groove
- R:** G81,G82,G84-89-----Z coordinate final point of the profile, thread, groove
- S:** G66,G68,G69-----label number of the first block of the profile
- W:** G86,G87-----if parameter K has not been defined, it indicates angular
position of the spindle to thread's starting point.
possibility to make multiple entry threads