2.9.29 CANNED CYCLES (73, G74, G76, G77, G80 TO G89, G98, G99)[†]

Canned cycles (G73, G74, G76, G77, G80 to G89, G98, G99) are simplified programs that contain specific movements over a number of blocks in one block. 14 types of cycles are available, and G80 code is commanded for cancelling them.

Table 2.24

G code	Plunging	At hole bottom	Retraction	Application
G73	Wood pecker feed	-	Rapid traverse	High speed deep hole drilling
G74	Feed	Spindle forward running after dwell	Spindle reversing after feed	Reverse tapping
G76	Feed	Spindle index-ing → shift	Rapid traverse → shift, spindle start	Boring
G77	Spindle index-ing → shift → rapid traverse → shift → spindle start → feed	Dwell	Rapid traverse → spindle indexing → shift → rapid traverse → shift, spindle start	Back boring
G80	-	-	-	Cancel
G81	Feed	-	Rapid traverse	Drilling
G82	Feed	Dwell	Rapid traverse	Spot, facing
G83	Wood pecker feed	-	Rapid traverse	Deep hole drilling
G84	Feed	Spindle revers-ing after dwell	Spindle forward running after feed	Tapping
G85	Feed	-	Feed	Boring
G86	Feed	Spindle stop	Rapid traverse → Spindle start	Boring
G87	Feed	Spindle stop	Manual retraction → Spindle start	Boring
G88	Feed	Spindle stop after dwell	Manual retraction → Spindle start	Boring
G89	Feed	Dwell	Feed	Boring