G32 Cycle
Parralel Threading
For ISO Program on Mazak Machine

1st

G0	X8.0	Z-5.0	
G0	X5.0		Start point
G32	X5.0	Z10.0	F0.8

Threading cycle	5.0 = 1st pass Diameter	10.0 = Thread length	0.8 = I thread lead

G0	X8.0	Retract point

2nd

G0	X8.0	Z-4.942	
G0	X4.8		
G32	X4.8	Z10	F0.8
G0	X8.0		

4.8 = 2nd pass Diameter

-4.942 = 2nd pass start flank infeed angle 30Deg

-5 + 0.1*TAN30 = - 4.942

3rd

G0	X8.0	Z-…	
G0	X…		
G32	X…	Z10	F0.8
G0	X8.0		

… = 3rd pass Diameter and so on

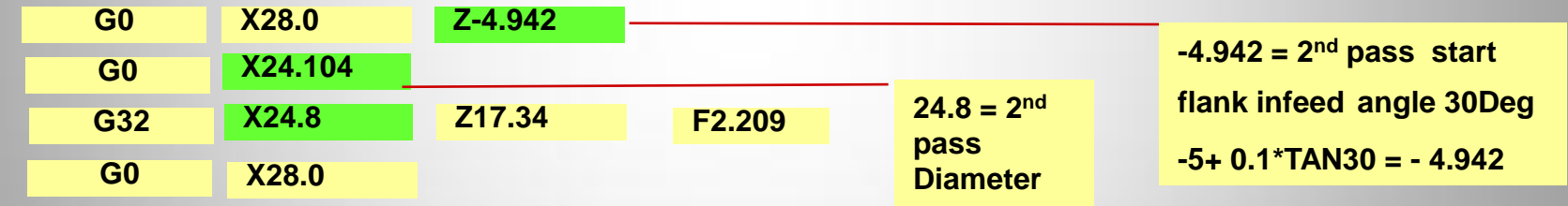# G32 Cycle
Conical Threading
For ISO Program on Mazak Machine

1st

G0	X28.0	Z-5.0

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G0	X24.304

———————————————— **Start point**

G32	X25.0	Z17.34	F2.209

Threading cycle	25.0 = 1st pass Diameter at Z 17.34	17.34 = Thread length	2.209 = l thread lead

G0	X28.0

———————————————— **Retract point**

2nd

G0	X28.0	Z-4.942

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G0	X24.104

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G32	X24.8	Z17.34	F2.209

| | | | | 24.8 = 2nd pass Diameter |

-4.942 = 2nd pass start flank infeed angle 30Deg

-5+ 0.1*TAN30 = - 4.942

3rd

G0	X28.0	Z-…

G0	X…

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G32	X…	Z17.34	F2.209

… = 3rd pass Diameter and so on

G0	X28.0
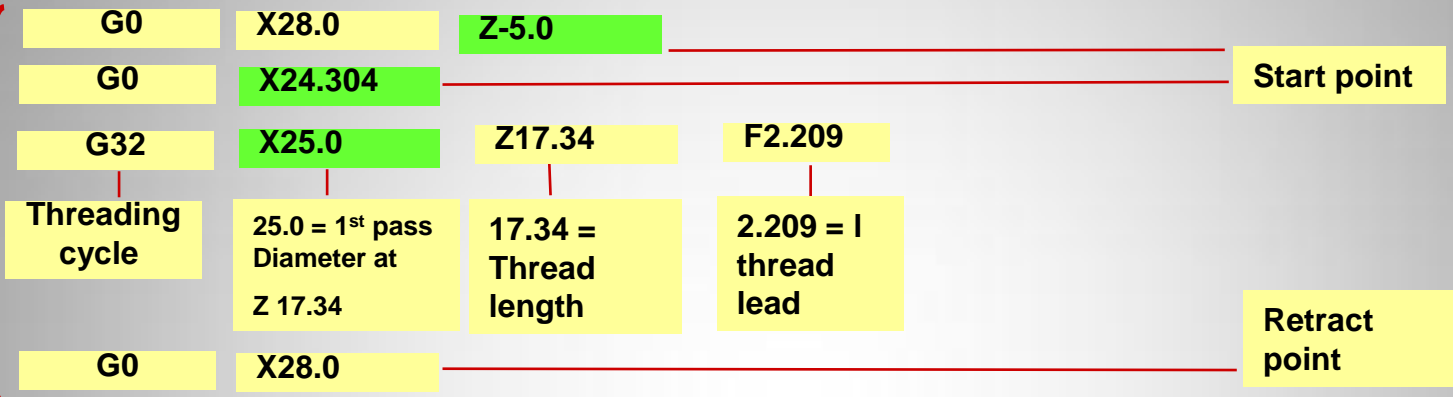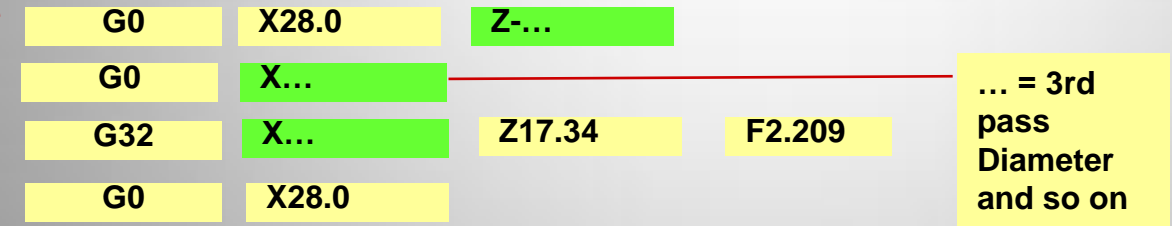
G76 Canned Cycle
Parallel Threading Constant Volume
For ISO Program on Mazak Machine

0=m repeat times of final finishing

20=r run out length =20/10*lead = 1.6

60=a Tip angle – thread for Flank infeed

0.0 =d finishing allowance

P02060

R0.0

| G76 | | | | | | |

G76	X5.0	Z10.0	R0.0	P0.5	Q0.11	F0.8
Threading cycle constant Volume Chips	5.0 = Minor Diameter	10.0 = Thread length	0.0 = i Radial difference on length	0.5 = k Thread height in radius value	0.11 = Δd first cutting depth in radius value	0.8 = l thread lead
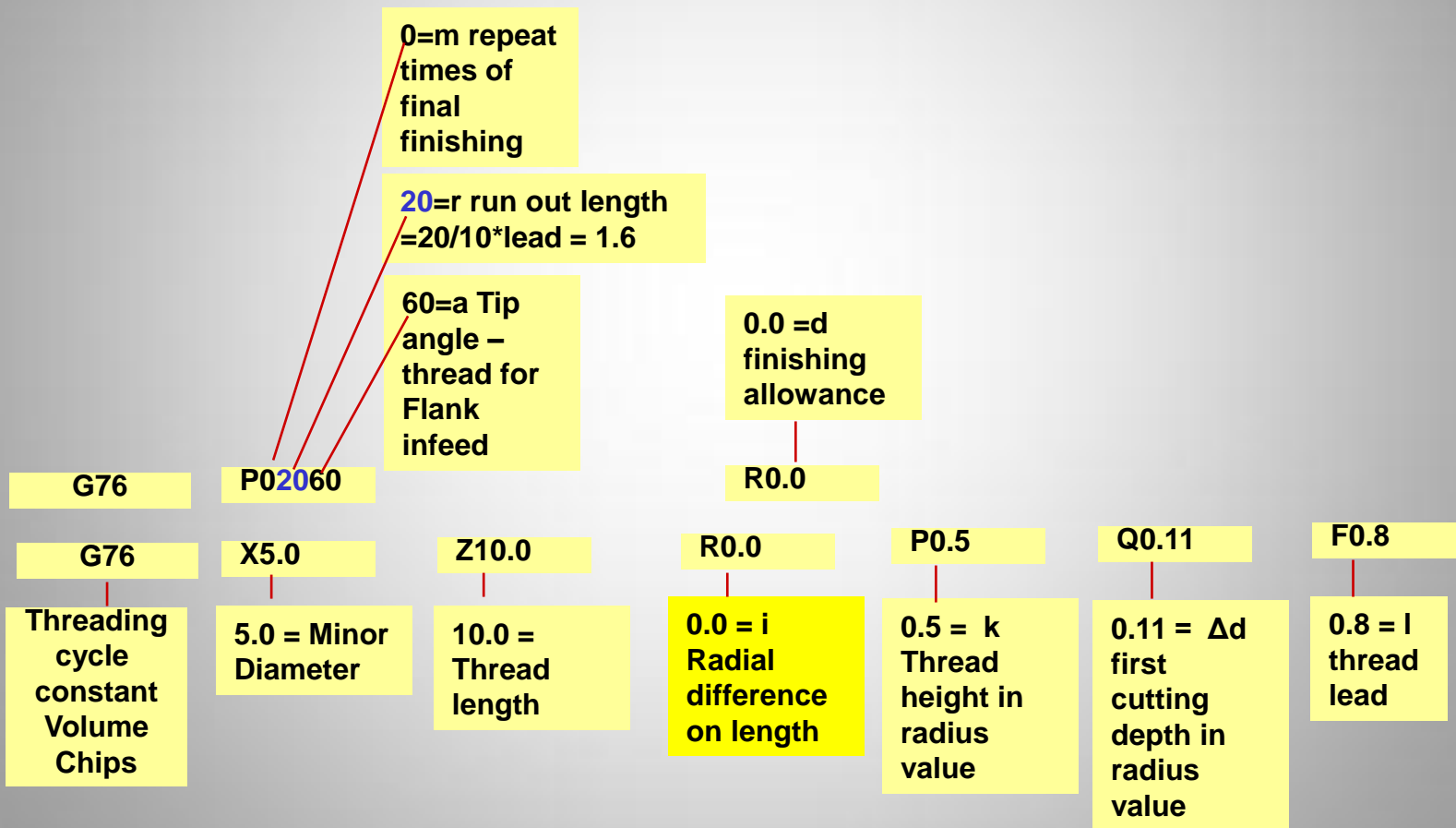
G76 Canned Cycle
Conical Threading Constant Volume
For ISO Program on Mazak Machine

0=m repeat times of final finishing

20=r run out length =20/10*lead = 4.418

60=a Tip angle – thread for Flank infeed

0.0 =d finishing allowance

G76	P02060		R0.0			
G76	X29.06	Z17.34	R0.5399	P1.644	Q0.456	F2.209
Threading cycle constant Volume Chips	29.06 = Minor Diameter	17.34 = Thread length	0.5399 = i Radial difference on length	1.644 = k Thread height in radius value	0.456 = Δd first cutting depth in radius value	2.209 =l thread lead