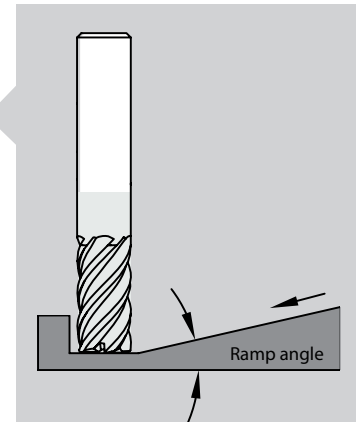


Technical Resources

STRAIGHT-LINE RAMP ADJUSTMENTS

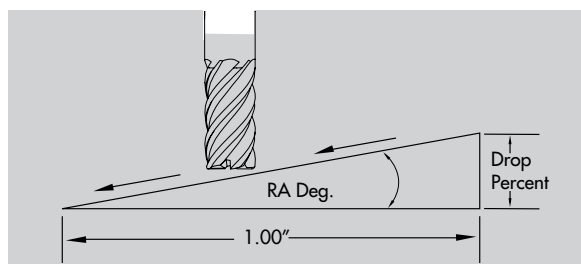
Straight-line ramp moves are an alternative method to enter the middle of a part. The following guide shows speed, feed and ramp angle data for different IMCO end mills.

Use the following guide for speed, feed and ramp angle parameters. Note that the terms "Same as chart," "Slotting speed in chart," and "Slotting IPT/MMPT," and "Helical ramp" (M223 and M233) reference the data shown in the speed and feed charts located in each tool series section. Not all tools are designed to allow the chip clearance required for straight-line ramping, as indicated in the guide.



Tool	Max Ramp Angle	SFM / MMPM	Feed	Max Ramp Depth	Max Ramp Length
IPT/C 7	Not recommended	-	-	-	-
IPT/C 9	Not recommended	-	-	-	-
IPT/C 11	Not recommended	-	-	-	-
IPT/C 13	Not recommended	-	-	-	-
APT/C 5	10°	Slotting speed	Slotting IPT or MMPT x .65	75% of D	(.75 x D) / drop per inch or mm
M525	2.5°	Slotting speed	Slotting IPT or MMPT x .75	50% of D	(.5 x D) / drop per inch or mm
M527	2.5°	Slotting speed	Slotting IPT or MMPT x .75	50% of D	(.5 x D) / drop per inch or mm
M503	2.5°	Slotting speed	Slotting IPT x .75	50% of D	(.5 x D) / drop per inch
M726	Not recommended	-	-	-	-
M706	Not recommended	-	-	-	-
M806	Not recommended	-	-	-	-
M924	2.5°	Slotting speed	Slotting IPT or MMPT x .75	50% of D	(.5 x D) / drop per inch or mm
M904	2.5°	Slotting speed	Slotting IPT x .75	50% of D	(.5 x D) / drop per inch
M905	2.5°	Slotting speed	Slotting IPT x .75	50% of D	(.5 x D) / drop per inch
M223	Helical ramp x 5	Same as chart	Same as chart	100% of D	(.75 x D) / drop per inch or mm
M233	Helical ramp x 5	Same as chart	Same as chart	100% of D	(.75 x D) / drop per inch or mm
M203	15°	Slotting speed	Slotting IPT or MMPT x .70	50% of D	(.5 x D) / drop per inch or mm
M202	15°	Slotting speed	Slotting IPT or MMPT x .70	50% of D	(.5 x D) / drop per inch or mm
E14	2.5°	Slotting speed	Slotting IPT or MMPT x .75	50% of D	(.5 x D) / drop per inch or mm
E13	2.5°	Slotting speed	Slotting IPT or MMPT x .75	50% of D	(.5 x D) / drop per inch or mm
E12	2.5°	Slotting speed	Slotting IPT or MMPT x .75	50% of D	(.5 x D) / drop per inch or mm
M104	2.5°	Slotting speed	Slotting IPT x .75	50% of D	(.5 x D) / drop per inch

D = Tool Diameter



Use this guide ► to determine the maximum ramp length.

Ramp Angle	Drop (per inch)	Drop (per mm)
0.5°	0.0088	0.224
1°	0.0175	0.445
2°	0.0375	0.953
2.5°	0.0438	1.113
3°	0.0525	1.334
5°	0.0875	2.223
10°	0.1750	4.445
15°	0.2625	6.668