



Kennametal Clamping System

Chip Control Geometry Designation

example: MG-MP = CNMG-432MP

Feed Rate Range
(for best results, use the center 60% of the range)

Kenloc Inserts	operation	insert style application	insert geometry	profile	feed rate – inches											
					.0015	.0025	.004	.006	.010	.016	.025	.040	.060	.100	.200	
medium machining	MG-MP				depth of cut – inches											
					.004	.006	.010	.016	.025	.040	.060	.100	.160	.250	.500	
					feed rate – (mm)											
					depth of cut – (mm)											
					0,04	0,063	0,1	0,16	0,25	0,4	0,63	1,0	1,6	2,5	5,0	
					0,1	0,16	0,25	0,4	0,63	1,0	1,6	2,5	4,0	6,3	10,0	

Depth of Cut Range
(for all inserts in the program, select smaller inserts for lighter cuts and larger inserts for heavy cuts)

Chipbreaker Geometry
(section is through nose radius of insert)

Pictorial View of Insert

Primary Workpiece Material Group

- steel
- non-ferrous
- stainless steel
- high-temp alloys
- cast iron
- hardened materials

Machining Operation

- (what the insert geometry is designed for)
- ▼▼▼▼ – fine finishing
 - ▼▼▼ – finishing
 - ▼▼ – medium machining
 - ▼ – roughing



For detailed grade/geometry recommendations, reference the **KENNA PERFECT Selection System**.

KENLOC
TURNING INSERTS
KENDEX
SCREW-ON
TOOLHOLDERS
BORING BARS
BORING HEADS
CARTRIDGES

Chip Control Geometries



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TURNING INSERTS

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Kenloc Inserts

operation	insert style application	insert geometry	profile	feed rate – inches																					
				.0015	.0025	.004	.006	.010	.016	.025	.040	.060	.100	.200	.004	.006	.010	.016	.025	.040	.060	.100	.160	.250	.500
				depth of cut – inches																					
wiper, finishing	MG-FW		10°	.008 - .016 (0,2 - 0,4) .010 - .080 (0,3 - 2,0)																					
wiper, medium machining	MG-MW		5°	.012 - .024 (0,3 - 0,6) .030 - .200 (0,8 - 5,1)																					
wiper, roughing	MM-RW		0°	.010 - .050 (0,3 - 1,3) .050 - .500 (1,3 - 12,7)																					
fine finishing	MG-FF		20°	.002 - .010 (0,1 - 0,3) .003 - .080 (0,1 - 2,0)																					
finishing sharp	GG-FS precision ground		12°	.003 - .010 (0,07 - 0,25) .008 - .080 (0,20 - 2,0)																					
finishing	GG-LF precision ground		10°	.005 - .020 (0,1 - 0,5) .020 - .120 (0,5 - 3,0)																					
finishing	MG-FP		15°	.004 - .012 (0,1 - 0,3) .010 - .100 (0,3 - 2,5)																					
finishing	MG-FN		10°	.005 - .012 (0,1 - 0,3) .010 - .100 (0,3 - 2,5)																					
finishing	MP-K		10°	.004 - .012 (0,1 - 0,3) .008 - .100 (0,2 - 2,5)																					
medium sharp	MG-MS		13°	.005 - .014 (0,12 - 0,35) .030 - .200 (0,76 - 5,0)																					
				feed rate – (mm)																					
				0,04	0,063	0,1	0,16	0,25	0,4	0,63	1,0	1,6	2,5	5,0	0,1	0,16	0,25	0,4	0,63	1,0	1,6	2,5	4,0	6,3	10,0
				depth of cut – (mm)																					



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	operation	insert style application	insert geometry	profile	feed rate – inches											
					.0015	.0025	.004	.006	.010	.016	.025	.040	.060	.100	.200	
					depth of cut – inches											
					.004	.006	.010	.016	.025	.040	.060	.100	.160	.250	.500	
Kenloc Inserts	medium machining	GP* precision ground		10° 							.012-.020 (0,3-0,5)			.060-.125 (1,5-3,2)		
	medium machining	MG-MP		6° 						.006-.020 (0,2-0,5)				.030-.200 (0,8-5,1)		
	medium machining	MG-P		10° 						.006-.020 (0,15-0,5)				.030-.200 (0,75-5,0)		
	medium machining	MG-MN		0° 						.006-.020 (0,2-0,5)				.020-.200 (0,5-5,1)		
	medium machining	MG-CT		15° 	OD Turning					.005-.020 (0,13-0,5)				.040-.115 (1,0-3,0)		
					Outward Facing					.010-.020 (0,25-0,5)				.010-.040 (0,25-1,0)		
	medium machining	MS (single sided)		20° 						.006-.015 (0,2-0,4)				.025-.090 (0,6-2,3)		
	roughing	MG-RP		5° 						.008-.025 (0,2-0,6)				.045-.250 (1,1-6,4)		
	roughing	MG-RN		0° 						.010-.025 (0,3-0,6)				.045-.250 (1,1-6,4)		
	roughing	MG-UN		0° 						.008-.020 (0,2-0,5)				.030-.150 (0,8-3,8)		
heavy roughing	MM-RM (single sided)		0° 						.010-.040 (0,3-1,0)				.050-.500 (1,3-12,7)			

*35° and 55° geometries are single sided.

feed rate – (mm)											
0,04	0,063	0,1	0,16	0,25	0,4	0,63	1,0	1,6	2,5	5,0	
depth of cut – (mm)											
0,1	0,16	0,25	0,4	0,63	1,0	1,6	2,5	4,0	6,3	10,0	

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operation	insert style application	insert geometry	profile	feed rate – inches																		
				.0015	.0025	.004	.006	.010	.016	.025	.040	.060	.100	.200								
				depth of cut – inches																		
				.004	.006	.010	.016	.025	.040	.060	.100	.160	.250	.500								
heavy roughing ▼	MM-RP		0° 												.008 - .030 (0,2 - 1,0)							
															.050 - .400 (1,3 - 10,0)							
heavy roughing ▼	MM-RH (single sided)		20° 												.015 - .050 (0,4 - 1,3)							
															.050 - .500 (1,3 - 12,7)							
wiper, finishing	MT-FW		5° 												.003 - .013 (0,1 - 0,3)							
															.008 - .060 (0,2 - 1,5)							
wiper, medium finishing	MT-MW		0° 												.005 - .020 (0,1 - 0,5)							
															.016 - .130 (0,4 - 3,3)							
fine finishing ▼▼▼	GM precision ground		5° 												.002 - .008 (0,1 - 0,2)							
															.008 - .040 (0,2 - 1,0)							
fine finishing ▼▼▼	MT-11		5° 												.003 - .010 (0,1 - 0,3)							
															.008 - .050 (0,2 - 1,3)							
fine finishing ▼▼▼	MT-UF		5° 												.002 - .010 (0,1 - 0,3)							
															.005 - .050 (0,1 - 1,3)							
finishing ▼▼▼	GT-HP precision ground		15° 												.007 - .015 (0,2 - 0,4)							
															.025 - .090 (0,6 - 2,3)							
finishing ▼▼▼	GT-LF precision ground		5° 												.007 - .015 (0,2 - 0,4)							
															.030 - .090 (0,8 - 2,3)							
finishing ▼▼▼	MT-LF		5° 												.007 - .015 (0,2 - 0,4)							
															.030 - .090 (0,8 - 2,3)							

feed rate – (mm)										
0,04	0,063	0,10	0,16	0,25	0,4	0,63	1,0	1,6	2,5	5,0
0,1	0,16	0,25	0,4	0,63	1,0	1,6	2,5	4,0	6,3	10,0
depth of cut – (mm)										



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	operation	insert style application	insert geometry	profile	feed rate – inches											
					depth of cut – inches											
					.0015	.0025	.004	.006	.010	.016	.025	.040	.060	.100	.200	
					.004	.006	.010	.016	.025	.040	.060	.100	.160	.250	.500	
Screw-On Inserts	medium machining	MT-MF														
Kendex positive Inserts	finishing	_GF precision ground														
Kendex positive Inserts	medium machining	_MR														
					feed rate – (mm)											
					depth of cut – (mm)											
					0,04	0,063	0,1	0,16	0,25	0,4	0,63	1,0	1,6	2,5	5,0	
					0,1	0,16	0,25	0,4	0,63	1,0	1,6	2,5	4,0	6,3	10,0	

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