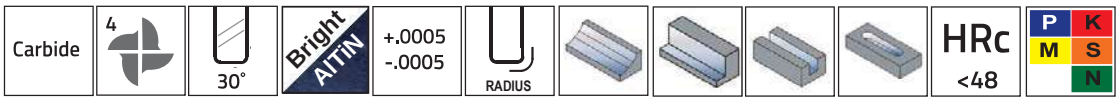
SERIES: CCMG-__-R(radius)

4 FLUTE MELIN MICRO RADIUS END MILLS



DIA D_1	SHK D_2	LOC L_2	RAD	OAL L_1	BRIGHT PART NAME	BRIGHT EDP	ALTIN EDP	DLC EDP
0.020	1/8	0.060	0.005	1-1/2	CCMG-.020-R005	H1754	H1755	H1756
0.025	1/8	0.075	0.005	1-1/2	CCMG-.025-R005	H1757	H1758	H1759
0.030	1/8	0.090	0.005	1-1/2	CCMG-.030-R005	H1760	H1761	H1762
0.031	1/8	0.093	0.005	1-1/2	CCMG-.031-R005	H1763	H1764	H1765
0.035	1/8	0.105	0.005	1-1/2	CCMG-.035-R005	H1766	H1767	H1768
0.039	1/8	0.117	0.005	1-1/2	CCMG-.039-R005	H1769	H1770	H2056
0.040	1/8	0.120	0.005	1-1/2	CCMG-.040-R005	H1771	H1772	H1773
0.040	1/8	0.120	0.010	1-1/2	CCMG-.040-R010	H1774	H1775	H1776
0.045	1/8	0.068	0.010	1-1/2	CCMGS-.045-R010	14715	54715	74715
0.045	1/8	0.135	0.005	1-1/2	CCMG-.045-R005	H1777	H1778	H1779
0.045	1/8	0.135	0.010	1-1/2	CCMG-.045-R010	H1780	H1781	H1782
0.047	1/8	0.141	0.005	1-1/2	CCMG-.047-R005	H1783	H1784	H1785
0.047	1/8	0.141	0.010	1-1/2	CCMG-.047-R010	H1786	H1787	H1788
0.050	1/8	0.150	0.005	1-1/2	CCMG-.050-R005	H1789	H1790	H1791
0.050	1/8	0.150	0.010	1-1/2	CCMG-.050-R010	H1792	H1793	H1794
0.055	1/8	0.165	0.005	1-1/2	CCMG-.055-R005	H1795	H1796	H1797
0.055	1/8	0.165	0.010	1-1/2	CCMG-.055-R010	H1798	H1799	H1800
0.060	1/8	0.180	0.005	1-1/2	CCMG-.060-R005	H1801	H1802	H1803
0.060	1/8	0.180	0.010	1-1/2	CCMG-.060-R010	H1804	H1805	H1806
0.062	1/8	0.186	0.005	1-1/2	CCMG-.062-R005	H1807	H1808	H1809
0.062	1/8	0.186	0.010	1-1/2	CCMG-.062-R010	H1810	H1811	H1812
0.062	1/8	0.186	0.015	1-1/2	CCMG-.062-R015	H1813	H1814	H1815
0.065	1/8	0.195	0.005	1-1/2	CCMG-.065-R005	H1816	H1817	H1818
0.065	1/8	0.195	0.010	1-1/2	CCMG-.065-R010	H1819	H1820	H1821
0.065	1/8	0.195	0.015	1-1/2	CCMG-.065-R015	H1822	H1823	H1824

sizes continued on next page

(product code PIC2)

DIA D_1	SHK D_2	LOC L_2	RAD	OAL L_1	BRIGHT PART NAME	BRIGHT EDP	ALTIN EDP	DLC EDP
0.070	1/8	0.210	0.005	1-1/2	CCMG-.070-R005	H1825	H1826	H1827
0.070	1/8	0.210	0.010	1-1/2	CCMG-.070-R010	H1828	H1829	H1830
0.070	1/8	0.210	0.015	1-1/2	CCMG-.070-R015	H1831	H1832	H1833
0.075	1/8	0.225	0.005	1-1/2	CCMG-.075-R005	H1834	H1835	H1836
0.075	1/8	0.225	0.010	1-1/2	CCMG-.075-R010	H1837	H1838	H1839
0.075	1/8	0.225	0.015	1-1/2	CCMG-.075-R015	H1840	H1841	H1842
0.078	1/8	0.234	0.005	1-1/2	CCMG-.078-R005	H1843	H1844	H1845
0.078	1/8	0.234	0.010	1-1/2	CCMG-.078-R010	H1846	H1847	H1848
0.078	1/8	0.234	0.015	1-1/2	CCMG-.078-R015	H2036	H2037	H2038
0.080	1/8	0.240	0.005	1-1/2	CCMG-.080-R005	H1849	H1850	H1851
0.080	1/8	0.240	0.010	1-1/2	CCMG-.080-R010	H1852	H1853	H1854
0.080	1/8	0.240	0.015	1-1/2	CCMG-.080-R015	H1855	H1856	H1857
0.085	1/8	0.255	0.005	1-1/2	CCMG-.085-R005	H1858	H1859	H1860
0.085	1/8	0.255	0.010	1-1/2	CCMG-.085-R010	H1861	H1862	H1863
0.085	1/8	0.255	0.015	1-1/2	CCMG-.085-R015	H1864	H1865	H1866
0.090	1/8	0.270	0.005	1-1/2	CCMG-.090-R005	H1867	H1868	H1869
0.090	1/8	0.270	0.010	1-1/2	CCMG-.090-R010	H1870	H1871	H1872
0.090	1/8	0.270	0.015	1-1/2	CCMG-.090-R015	H1873	H1874	H1875
0.093	1/8	0.279	0.005	1-1/2	CCMG-.093-R005	H1876	H1877	H1878
0.093	1/8	0.279	0.010	1-1/2	CCMG-.093-R010	H1879	H1880	H1881
0.093	1/8	0.279	0.015	1-1/2	CCMG-.093-R015	H1882	H1883	H1884
0.093	1/8	0.279	0.020	1-1/2	CCMG-.093-R020	H1885	H1886	H1887
0.095	1/8	0.285	0.005	1-1/2	CCMG-.095-R005	H1888	H1889	H1890
0.095	1/8	0.285	0.010	1-1/2	CCMG-.095-R010	H1891	H1892	H1893
0.095	1/8	0.285	0.015	1-1/2	CCMG-.095-R015	H1894	H1895	H1896
0.100	1/8	0.300	0.005	1-1/2	CCMG-.100-R005	H1897	H1898	H1899
0.100	1/8	0.300	0.010	1-1/2	CCMG-.100-R010	H1900	H1901	H1902
0.100	1/8	0.300	0.015	1-1/2	CCMG-.100-R015	H1903	H1904	H1905
0.125	1/8	0.500	0.005	1-1/2	CCMG-404-R005	H1906	H1907	H1908
0.125	1/8	0.500	0.010	1-1/2	CCMG-404-R010	11067	51067	71067
0.125	1/8	0.500	0.015	1-1/2	CCMG-404-R015	15422	55422	75422
0.125	1/8	0.500	0.020	1-1/2	CCMG-404-R020	11069	51069	71069
0.125	1/8	0.500	0.030	1-1/2	CCMG-404-R030	11071	51071	71071

LARGER Sizes In **Full Line** Catalog

SPEED & FEED:

2, 3, & 4 FLUTES: AMG, EMG, & CCMG SERIES

MATERIAL	CONDITIONS	START-ING SFM	FL	CUTTING DIAMETER							
				.005 - .015	.015 - .030	.030 - .045	.045 - .060	.060 - .075	.075 - .090	.090 - .105	.105 - .125
				CHIP PER TOOTH							
STAINLESS STEELS	**ISO-M**										
Precipitation											
13-8, 15-5, 17-4PH	Slotting @ ≤ 10% of D	90	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005
	Profiling @ 6% of D Axial / ≤ 20% of D Radial	250	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005
Austenitic											
302, 303, 304L, 316L	Slotting @ ≤ 15% of D	100	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005
	Profiling @ 6% of D Axial / ≤ 30% of D Radial	250	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005
Martensitic											
403, 410, 416	Slotting @ ≤ 15% x D	100	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005
	Profiling @ 6% of D Axial / ≤ 30% of D Radial	250	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005
HIGH TEMP ALLOYS	**ISO-S**										
Cobalt Base											
Stellite, Haynes 25, 188, X-40,	Slotting @ 7% of D	50	2 or 4	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004
L-605	Profiling @ 5% of D Axial / ≤ 20% of D Radial	80	2 or 4	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004
Nickel Base											
Inconel 600, 625, 718, Nickel 200,	Slotting @ 7% of D	40	2 or 4	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004
270, Invar, Monel 400, 405, K-Monel, PermaNickel 300, Incoly 600	Profiling @ 5% of D Axial / ≤ 20% of D Radial	60	2 or 4	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004
Iron Base											
Incoloy 800-802, Multimet N-155,	Slotting @ 7% of D	80	2 or 4	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004
Timken 16-26-6	Profiling @ 5% of D Axial / ≤ 20% of D Radial	100	2 or 4	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004
STEELS	**ISO-P**										
High Strength Steels											
4140, 4340, 52100	Slotting @ ≤ 15% of D	100	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005
	Profiling @ 6% of D Axial / ≤ 30% of D Radial	180	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005
High Alloy Steels - Mold & Die											
A-2, P20, 01, 02, D2, H-13	Slotting @ ≤ 10% of D	125	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005
	Profiling @ 6% of D Axial / ≤ 20% of D Radial	250	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005
Medium Alloy Steels											
200, 250, 300	Slotting @ ≤ 15% of D	125	2 or 4	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006
	Profiling @ 6% of D Axial / ≤ 30% of D Radial	250	2 or 4	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006
Low Alloy Steels-Maraging											
10XX, 11XX, 13XX	Slotting @ ≤ 15% of D	150	2 or 4	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006	0.0007	0.0007
	Profiling @ 6% of D Axial / ≤ 35% of D Radial	300	2 or 4	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006	0.0007	0.0007
CAST IRONS	**ISO-K**										
Ductile Iron											
Ductile Cast Iron	Slotting @ 15% of D	100	2 or 4	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006	0.0007	0.0007
	Profiling @ 10% of D Axial / ≤ 25% of D Radial	250	2 or 4	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006	0.0007	0.0007
Cast Iron											
Grey Cast Iron	Slotting @ 25% of D	125	2 or 4	0.0004	0.0004	0.0005	0.0006	0.0008	0.0008	0.0010	0.0010
	Profiling @ 10% of D Axial / ≤ 35% of D Radial	400	2 or 4	0.0004	0.0004	0.0005	0.0006	0.0008	0.0008	0.0010	0.0010
TITANIUMS	**ISO-S**										
Titanium Alloys											
6AL-4V, ASTM 1, 2, 3, 6AL-2S	Slotting @ ≤ 15% of D	125	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005
For 5553, decrease SFM and IPM by 25%	Profiling @ 6% of D Axial / ≤ 20% of D Radial	250	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005
ALUMINUM	**ISO-N**										
Aluminum Alloys											
6061-T6, 7075	Slotting @ ≤ 15% of D	650	2 or 4	0.0004	0.0004	0.0005	0.0006	0.0008	0.0008	0.0010	0.0010
	Profiling @ 10% of D Axial / ≤ 35% of D Radial	775	2 or 4	0.0004	0.0004	0.0005	0.0006	0.0008	0.0008	0.0010	0.0010

For complete speed and feed charts:
See Full Line Catalog or www.melintool.com

Note: All technical data provided are suggested starting points. They may be increased or decreased depending on machine condition, depth of cut, finish required, coolant, etc.