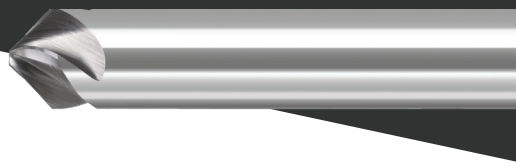
CASTELAR TOOL

CMS4

SPEEDS AND FEEDS



	WORK MATERIAL	CUT TYPE	SFM	IPT			
				1/4"Ø	3/4"Ø	1/2"Ø	3/4"Ø
ALUMINUM	**ALUMINUM ALLOYS** Low Silicon Content 20xx; 50xx; 60xx; 70xx	Small Chamfer	805-1045	0.002-0.0023	0.0031-0.0037	0.004-0.005	0.0049-0.0063
		Full LOC Chamfer	725-940	0.0014-0.0018	0.0022-0.0028	0.003- 0.004	0.0036-0.005
	CAST ALUMINUM High Silicon Content A-38x; A-39x; B39x	Small Chamfer	595-770	0.0024-0.0027	0.0037-0.0043	0.0049-0.0058	0.0061-0.0073
		Full LOC Chamfer	535-690	0.002-0.0023	0.0031-0.0037	0.004-0.005	0.0049-0.0063
NON-FERROUS	**COPPER, BRASS, & BRONZE** 39 to 48 HRc Manganese Bronze, Tin, Bronze, Beryllium Copper	Small Chamfer	380-495	0.0021-0.0025	0.0033-0.0039	0.0043-0.0053	0.0053-0.0067
		Full LOC Chamfer	340-445	0.0013-0.0017	0.002-0.0026	0.0026-0.0036	0.0032-0.0046
	COMPOSITES, PLASTICS & FIBERGLASS ABS, Polycarbonate, PVC, Polypropylene	Small Chamfer	645-835	0.002-0.0023	0.0031-0.0037	0.004-0.005	0.0049-0.0063
		Full LOC Chamfer	580-750	0.0013-0.0017	0.002-0.0026	0.0026-0.0036	0.0032-0.0046
CARBON STEEL	**LOW CARBON STEELS** ≤ 38 HRc 10xx; 11xx; 12xx; 12Lxx, 15xx	Small Chamfer	510-660	0.0011-0.0015	0.0018-0.0024	0.0023-0.0033	0.0028-0.0042
		Full LOC Chamfer	455-590	0.0007-0.0011	0.0011-0.0018	0.0015-0.0025	0.0019-0.0032
	MEDIUM CARBON STEELS ≤ 38 HRc 13xx; 41xx; 43xx; 86xx, 92xx;	Small Chamfer	170-220	0.001-0.0014	0.0016-0.0022	0.0021-0.003	0.0026-0.0038
		Full LOC Chamfer	150-195	0.0007-0.001	0.001-0.0017	0.0014-0.0023	0.0018-0.0029
TOOL STEEL	**TOOL & DIE STEELS** ≤ 38 HRc A2; A3; D2; H11; H13; M1; O-1;	Small Chamfer	170-220	0.0011-0.0015	0.0018-0.0024	0.0023-0.0033	0.0028-0.0042
		Full LOC Chamfer	150-195	0.0007-0.0011	0.0011-0.0018	0.0015-0.0025	0.0019-0.0032
	TOOL & DIE STEELS 39 to 48 HRc P20; P21; S-136; PX-5	Small Chamfer	125-165	0.0006-0.001	0.0009-0.0016	0.0012-0.0022	0.0015-0.0028
		Full LOC Chamfer	110-145	0.0004-0.0008	0.0006-0.0012	0.0008-0.0017	0.001-0.0022
HARDENED STEEL	**HARDENED STEELS** 48 to 57 HRc	Small Chamfer	85-110	0.001-0.0014	0.0016-0.0022	0.0021-0.003	0.0026-0.0038
		Full LOC Chamfer	75-95	0.0007-0.001	0.001-0.0017	0.0014-0.0023	0.0018-0.0029
	HARDENED STEELS 58 to 65HRc	Small Chamfer	75-95	0.0006-0.001	0.0009-0.0016	0.0012-0.0022	0.0015-0.0028
		Full LOC Chamfer	65-85	0.0004-0.0008	0.0006-0.0012	0.0008-0.0017	0.001-0.0022
STAINLESS STEEL	**MARTENSITIC** 72 - 85 HRb 410; 416; 420; 430F; 440C;	Small Chamfer	380-495	0.0012-0.0016	0.0019-0.0025	0.0025-0.0035	0.0031-0.0045
		Full LOC Chamfer	340-445	0.0008-0.0012	0.0012-0.0019	0.0016-0.0026	0.002-0.0033
	AUSTENITIC 79 - 85 HRb; 25 - 41 HRc 304; 304L; 316; 316L; 320;	Small Chamfer	170-220	0.0011-0.0015	0.0017-0.0023	0.0022-0.0032	0.0027-0.0041
		Full LOC Chamfer	150-195	0.0007-0.0011	0.0011-0.0018	0.0014-0.0024	0.0017-0.003
	DIFFICULT TO MACHINE 31 - 50 HRc 13-8 PH; 15-5 PH; 17-4 PH;	Small Chamfer	125-165	0.0008-0.0012	0.0012-0.0019	0.0016-0.0026	0.002-0.0033
		Full LOC Chamfer	110-145	0.0004-0.0008	0.0007-0.0013	0.0008-0.0018	0.0009-0.0023
CAST IRON	**GRAY** 100 - 200 HRb	Small Chamfer	425-550	0.0012-0.0016	0.0019-0.0025	0.0025-0.0035	0.0031-0.0045
		Full LOC Chamfer	380-495	0.0008-0.0012	0.0012-0.0019	0.0016-0.0026	0.002-0.0033
	DUCTILE 150 - 300 HRb	Small Chamfer	380-495	0.0012-0.0016	0.0019-0.0025	0.0025-0.0035	0.0031-0.0045
		Full LOC Chamfer	340-445	0.0008-0.0012	0.0012-0.0019	0.0016-0.0026	0.002-0.0033
	MALLEABLE 150 - 310 HRb	Small Chamfer	315-410	0.0011-0.0015	0.0017-0.0023	0.0022-0.0032	0.0027-0.0041
		Full LOC Chamfer	285-370	0.0001-0.0003	0.0001-0.0005	0.0002-0.0008	0.0003-0.0011
SUPER ALLOYS	**TITANIUM ALLOYS** 70 - 100 HRb; 25 - 36 HRc Ti61AL4V; Grades 5-38	Small Chamfer	100-130	0.0006-0.001	0.001-0.0016	0.0013-0.0023	0.0016-0.003
		Full LOC Chamfer	90-115	0.0004-0.0008	0.0007-0.0013	0.0008-0.0018	0.0009-0.0023
	HIGH TEMP ALLOYS 83 - 99 HRb; 30 - 52 HRc Inconel; Monel; A286; Rene;	Small Chamfer	55-75	0.0006-0.001	0.001-0.0016	0.0013-0.0023	0.0016-0.003
		Full LOC Chamfer	50-65	0.0004-0.0008	0.0007-0.0013	0.0008-0.0018	0.0009-0.0023