

KEYSEAT CUTTERS - CARBIDE

Technical Information

Keyseat Cutters - Carbide																	
Material Guidet		Machinability	Hardness	SFM	Chip Load (IPT) By Effective Cutter Diameter												
					1/16	5/64	3/32	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1
COBALT BASE ALLOYS	Stellite, HS-21, Haynes 25/188, X-40, L-605	Difficult	29-37 38-45	70 50	.0008	.00010	.00012	.00016	.00024	.00032	.00039	.00047	.00055	.00063	.00079	.00095	.00126
					.0007	.00009	.00010	.00014	.00021	.00028	.00035	.00042	.00049	.00056	.00070	.00084	.00111
NICKEL BASE ALLOYS	Inconel - 625/718, Waspalloy, Rene, Hastelloy	Difficult	29-37 38-45	70 50	.0008	.00010	.00012	.00016	.00024	.00032	.00039	.00047	.00055	.00063	.00079	.00095	.00126
					.0007	.00009	.00010	.00014	.00021	.00028	.00035	.00042	.00049	.00056	.00070	.00084	.00111
IRON BASE ALLOYS	Incoloy 800-802, Multimet N-155, Timken 16-25-6, Carpenter 22-b3	Difficult	29-37 38-45	70 50	.0008	.00010	.00012	.00016	.00024	.00032	.00039	.00047	.00055	.00063	.00079	.00095	.00126
					.0007	.00009	.00010	.00014	.00021	.00028	.00035	.00042	.00049	.00056	.00070	.00084	.00111
MONEL	Monel - 65% Nickel	Difficult	29-37 38-45	70 50	.0008	.00010	.00012	.00016	.00024	.00032	.00039	.00047	.00055	.00063	.00079	.00095	.00126
					.0007	.00009	.00010	.00014	.00021	.00028	.00035	.00042	.00049	.00056	.00070	.00084	.00111
TITANIUM ALLOYS	Commercially Pure, 6AL-4V, STM 1/2/3, 6AL-25N-4Zr-2Mo-Si	Difficult	29-37 38-45	150 75	.0008	.00010	.00012	.00016	.00024	.00032	.00039	.00047	.00055	.00063	.00079	.00095	.00126
					.0007	.00009	.00010	.00014	.00021	.00028	.00035	.00042	.00049	.00056	.00070	.00084	.00111
STAINLESS STEEL (PH)	13/8, 15/5, 17-4	Difficult	29-37 38-45	150 90	.0008	.00010	.00012	.00016	.00024	.00032	.00039	.00047	.00055	.00063	.00079	.00095	.00126
					.0007	.00009	.00010	.00014	.00021	.00028	.00035	.00042	.00049	.00056	.00070	.00084	.00111
STAINLESS STEEL (AUSTENITIC)	303, 303Se	Free-Machining	29-37	450	.00014	.00017	.00021	.00028	.00041	.00055	.00069	.00083	.00097	.00110	.00138	.00166	.00221
	304, 304L, 316, 316L, 200 Series	Difficult	29-37 38-45	200 100	.00013 .00011	.00016 .00014	.00019 .00017	.00025 .00022	.00038 .00033	.00050 .00045	.00063 .00056	.00076 .00067	.00088 .00078	.00100 .00089	.00126 .00111	.00151 .00134	.00200 .00178
STAINLESS STEEL (MARTENSITIC)	416	Free-Machining	29-37	450	.00014	.00017	.00021	.00028	.00041	.00055	.00069	.00083	.00097	.00110	.00138	.00166	.00221
	403, 410, 440	Difficult	29-37 38-45	200 100	.00013 .00011	.00016 .00014	.00019 .00017	.00025 .00022	.00038 .00033	.00050 .00045	.00063 .00056	.00076 .00067	.00088 .00078	.00100 .00089	.00126 .00111	.00151 .00134	.00200 .00178
HIGH STRENGTH TOOL STEELS	4340, 6150, 5210, A2, D2, P20, H11, H13, S2, O1	Difficult	29-37 38-45	100-200 90-150	.00013	.00016	.00019	.00025	.00038	.00050	.00063	.00076	.00088	.00100	.00126	.00151	.00200
					.00011	.00014	.00017	.00022	.00033	.00045	.00056	.00067	.00078	.00089	.00111	.00134	.00178
MEDIUM ALLOY STEELS	4140, 8620, 52100	Moderate	29-37	200	.00013	.00016	.00019	.00025	.00038	.00050	.00063	.00076	.00088	.00100	.00126	.00015	.00200
CARBON STEELS	1018, 1045, 1117, 1215, 1300 Series	Free-Machining	29-37	600	.00014	.00017	.00021	.00028	.00041	.00055	.00069	.00083	.00097	.00110	.00138	.00166	.00221
DUCTILE	Ductile Cast Irons	Moderate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CAST IRONS	Gray Cast Irons	Moderate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALUMINUM	2014, 2024, 6061 - (T1 - T6), 7075, Die Cast, Extruded	Free-Machining	≤ 28	475-1000	.00037	.00042	.00051	.00068	.00102	.00136	.00170	.00204	.00238	.00272	.00340	.00408	.00545
					.00038	.00047	.00056	.00076	.00113	.00151	.00189	.00227	.00265	.00303	.00408	.00454	.00605
MAGNESIUM	AZ31B, AZ61A, AZ91D, AM60	Free-Machining	≤ 28	1500	.00038	.00047	.00056	.00076	.00113	.00151	.00189	.00227	.00265	.00303	.00378	.00454	.00605
COPPER, COPPER ALLOYS	C101 (Oxygen-Free Copper), C110 (Electrolytic Tough-Pitch Copper)	Free-Machining	≤ 28	225-550	.00030	.00038	.00045	.00061	.00091	.00121	.00151	.00182	.00212	.00242	.00303	.00363	.00484
BRASS, BRONZE	Brass, C260 (Cartridge Brass), Alum/Bronze, Low Silicon Bronze	Free-Machining	≤ 28	225-550	.00030	.00038	.00045	.00061	.00091	.00121	.00151	.00182	.00212	.00242	.00303	.00363	.00484
COMPOSITES	G-10 Fiberglass, Graphite, Graphite/Epoxy, Plastics	Moderate/ Difficult	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-