

Straight Flute Accu-Reamer

Series 200 Fractional	Hardness	Vc (sfm)		DC • in						
				1/16	1/8	3/16	1/4	5/16	3/8	1/2
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	150 (120-180)	RPM	9168	4584	3056	2292	1834	1528	1146
			Fr	0.0018	0.0035	0.0053	0.0071	0.0088	0.0106	0.0141
			Feed (ipm)	16.5	16.0	16.2	16.3	16.1	16.2	16.2
		75 (60-90)	RPM	4584	2292	1528	1146	917	764	573
			Fr	0.0016	0.0031	0.0047	0.0062	0.0078	0.0093	0.0124
			Feed (ipm)	7.3	7.1	7.2	7.1	7.2	7.1	7.1
		55 (44-66)	RPM	3362	1681	1121	840	672	560	420
			Fr	0.0009	0.0019	0.0028	0.0037	0.0046	0.0056	0.0074
			Feed (ipm)	3.0	3.2	3.1	3.1	3.1	3.1	3.1
		115 (92-138)	RPM	7029	3514	2343	1757	1406	1171	879
			Fr	0.0015	0.0030	0.0045	0.0060	0.0075	0.0090	0.0120
			Feed (ipm)	10.5	10.5	10.5	10.5	10.5	10.5	10.5
M	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 50100	70 (56-84)	RPM	4278	2139	1426	1070	856	713	535
			Fr	0.0015	0.0030	0.0045	0.0060	0.0075	0.0090	0.0120
			Feed (ipm)	6.4	6.4	6.4	6.4	6.4	6.4	6.4
		45 (36-54)	RPM	2750	1375	917	688	550	458	344
			Fr	0.0009	0.0019	0.0028	0.0037	0.0046	0.0056	0.0074
			Feed (ipm)	2.5	2.6	2.6	2.5	2.5	2.6	2.5
	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	40 (32-48)	RPM	2445	1222	815	611	489	407	306
			Fr	0.0010	0.0020	0.0029	0.0039	0.0049	0.0059	0.0078
			Feed (ipm)	2.4	2.4	2.4	2.4	2.4	2.4	2.4
		25 (20-30)	RPM	1528	764	509	382	306	255	191
			Fr	0.0006	0.0013	0.0019	0.0025	0.0031	0.0038	0.0050
			Feed (ipm)	0.9	1.0	1.0	1.0	0.9	1.0	1.0
K	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F 440F	75 (60-90)	RPM	4584	2292	1528	1146	917	764	573
			Fr	0.0010	0.0020	0.0029	0.0039	0.0049	0.0059	0.0078
			Feed (ipm)	4.6	4.6	4.4	4.5	4.5	4.5	4.5
		55 (44-66)	RPM	3362	1681	1121	840	672	560	420
			Fr	0.0008	0.0015	0.0023	0.0030	0.0038	0.0045	0.0060
			Feed (ipm)	2.7	2.5	2.6	2.5	2.6	2.5	2.5
	STAINLESS STEELS (DIFFICULT) 304, 316, 321, 13-8 PH, 15-5PH, 17-4 PH, Custom 450	35 (28-42)	RPM	2139	1070	713	535	428	357	267
			Fr	0.0010	0.0020	0.0029	0.0039	0.0049	0.0059	0.0078
			Feed (ipm)	2.1	2.1	2.1	2.1	2.1	2.1	2.1
		25 (20-30)	RPM	1528	764	509	382	306	255	191
			Fr	0.0006	0.0013	0.0019	0.0025	0.0031	0.0038	0.0050
			Feed (ipm)	0.9	1.0	1.0	1.0	0.9	1.0	1.0
K	CAST IRONS Gray, Malleable, Ductile	125 (100-150)	RPM	7640	3820	2547	1910	1528	1273	955
			Fr	0.0020	0.0040	0.0060	0.0081	0.0101	0.0121	0.0161
			Feed (ipm)	15.3	15.3	15.3	15.5	15.4	15.4	15.4
		95 (76-114)	RPM	5806	2903	1935	1452	1161	968	726
			Fr	0.0020	0.0040	0.0060	0.0081	0.0101	0.0121	0.0161
			Feed (ipm)	11.6	11.6	11.6	11.8	11.7	11.7	11.7

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	Series 200 Fractional	Hardness	Vc (sfm)	DC • in							
	1/16			1/8	3/16	1/4	5/16	3/8	1/2		
N	ALUMINUM ALLOYS 2017, 2024, 356, 6061, 7075	≤ 80 Bhn or ≤ 47 HRb	270	RPM	16502	8251	5501	4126	3300	2750	2063
			(216-324)	Fr	0.0025	0.0050	0.0075	0.0100	0.0125	0.0150	0.0200
				Feed (ipm)	41.3	41.3	41.3	41.3	41.3	41.3	41.3
		≤ 150 Bhn or ≤ 88 HRb	230	RPM	14058	7029	4686	3514	2812	2343	1757
			(184-276)	Fr	0.0025	0.0050	0.0075	0.0100	0.0125	0.0150	0.0200
				Feed (ipm)	35.1	35.1	35.1	35.1	35.1	35.1	35.1
	COPPER ALLOYS Alum Bronze, C110, Muntz Brass	≤ 140 Bhn or ≤ 3 HRc	115	RPM	7029	3514	2343	1757	1406	1171	879
			(92-138)	Fr	0.0013	0.0026	0.0038	0.0051	0.0064	0.0077	0.0102
				Feed (ipm)	9.1	9.1	8.9	9.0	9.0	9.0	9.0
		≤ 200 Bhn or ≤ 23 HRc	95	RPM	5806	2903	1935	1452	1161	968	726
			(76-114)	Fr	0.0013	0.0026	0.0038	0.0051	0.0064	0.0077	0.0102
				Feed (ipm)	7.5	7.5	7.4	7.4	7.4	7.5	7.4
S	HIGH TEMP ALLOYS (NICKEL, COBALT, IRON BASE) Inconel 601, 617, 625, Incoloy 800, Monel 400, Rene, Waspaloy	≤ 220 Bhn or ≤ 19 HRc	20	RPM	1222	611	407	306	244	204	153
			(16-24)	Fr	0.0008	0.0015	0.0023	0.0030	0.0038	0.0045	0.0060
				Feed (ipm)	1.0	0.9	0.9	0.9	0.9	0.9	0.9
		≤ 320 Bhn or ≤ 34 HRc	15	RPM	917	458	306	229	183	153	115
			(12-18)	Fr	0.0006	0.0013	0.0019	0.0025	0.0031	0.0038	0.0050
				Feed (ipm)	0.6	0.6	0.6	0.6	0.6	0.6	0.6
		≤ 425 Bhn or ≤ 45 HRc	10	RPM	611	306	204	153	122	102	76
			(8-12)	Fr	0.0004	0.0007	0.0011	0.0015	0.0018	0.0022	0.0029
				Feed (ipm)	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	TITANIUM ALLOYS Pure Titanium, Ti6Al4V, Ti6Al2Sn4Zr2Mo, Ti4Al4Mo2Sn0.5Si, Ti-6Al4V	≤ 275 Bhn or ≤ 28 HRc	45	RPM	2750	1375	917	688	550	458	344
			(36-54)	Fr	0.0015	0.0030	0.0045	0.0060	0.0075	0.0090	0.0120
				Feed (ipm)	4.1	4.1	4.1	4.1	4.1	4.1	4.1
		≤ 350 Bhn or ≤ 38 HRc	35	RPM	2139	1070	713	535	428	357	267
			(28-42)	Fr	0.0010	0.0020	0.0029	0.0039	0.0049	0.0059	0.0078
				Feed (ipm)	2.1	2.1	2.1	2.1	2.1	2.1	2.1
		≤ 440 Bhn or ≤ 47 HRc	25	RPM	1528	764	509	382	306	255	191
			(20-30)	Fr	0.0006	0.0013	0.0019	0.0025	0.0031	0.0038	0.0050
				Feed (ipm)	0.9	1.0	1.0	1.0	0.9	1.0	1.0
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 475 Bhn or ≤ 50 HRc	20	RPM	1222	611	407	306	244	204	153
			(16-24)	Fr	0.0004	0.0008	0.0012	0.0016	0.0019	0.0023	0.0031
				Feed (ipm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
		≤ 655 Bhn or ≤ 60 HRc	14	RPM	856	428	285	214	171	143	107
			(11-17)	Fr	0.0003	0.0007	0.0011	0.0014	0.0018	0.0021	0.0028
				Feed (ipm)	0.3	0.3	0.3	0.3	0.3	0.3	0.3

Bhn (Brinell) HRc (Rockwell C) HRb (Rockwell B)

rpm = Vc x 3.82 / DC

ipm = Fr x rpm

increase speed and feed 30 percent when using coated reamers

reduce speed and feed for materials harder than listed

refer to the SGS Tool Wizard® for complete technical information (www.kyocera-sgstool.com)