HARVEY TOOL

Speeds & Feeds

Product Table: Variable Pitch End Mills for Titanium Alloys - Ball
Characteristics: 3x, 5x Length of Cut, 6 Flutes
Series: 6965xx-C10, 6966xx-C10, 6967xx-C10, 6968xx-C10

Material		Hardness	SFM	1/16		5/64		3/32		1/8		3/16		1/4	
				HEM	Finish	HEM	Finish	HEM	Finish	HEM	Finish	HEM	Finish	HEM	Finish
Pure Nickel	Nickel 200, Nickel 201	< 75 HRB	285	.0008	.0016	.0010	.0016	.0013	.0016	.0019	.0014	.0029	.0017	.0038	.0020
		75 - 98 HRB	250	.0007	.0014	.0009	.0014	.0011	.0014	.0016	.0012	.0024	.0015	.0032	.0018
Nickel Alloy	Hastelloy C-22, Inconel 625, Waspaloy, René 41, Inconel 718, Incoloy 20	75 - 98 HRB	80	.0004	.0011	.0005	.0011	.0006	.0011	.0010	.0010	.0014	.0012	.0019	.0014
		21 - 36 HRC	75	.0006	.0011	.0007	.0011	.0008	.0011	.0010	.0010	.0014	.0012	.0019	.0014
		36 - 50 HRC	70	.0004	.0010	.0005	.0010	.0006	.0010	.0008	.0009	.0012	.0011	.0016	.0013
Pure Titanium	Ti Grade 1, Ti Grade 2, Ti Grade 3, Ti Grade 4, Ti Grade 7, Ti Grade 12	< 75 HRB	300	.0012	.0017	.0015	.0017	.0018	.0018	.0026	.0015	.0039	.0019	.0052	.0023
		75 - 98 HRB	275	.0011	.0015	.0014	.0015	.0016	.0016	.0022	.0013	.0033	.0017	.0044	.0021
		21 - 36 HRC	250	.0008	.0016	.0010	.0016	.0012	.0016	.0017	.0015	.0025	.0017	.0033	.0019
Titanium Alloy	Ti 3Al-2.5V, Ti 6Al-4V, Ti 10V-2Fe-3Al	21 - 36 HRC	180	.0006	.0012	.0008	.0012	.0009	.0012	.0014	.0010	.0020	.0013	.0027	.0016
		36 - 50 HRC	160	.0006	.0013	.0007	.0013	.0009	.0013	.0012	.0012	.0018	.0014	.0024	.0016
Cobalt Alloy	ASTM F562, ASTM F90, ASTM F75, ASTM F799	75 - 98 HRB	210	.0004	.0012	.0005	.0012	.0007	.0012	.0011	.0011	.0017	.0013	.0022	.0015
		21 - 36 HRC	170	.0004	.0012	.0006	.0012	.0007	.0012	.0011	.0011	.0016	.0013	.0021	.0015
		36 - 50 HRC	65	.0000	.0009	.0002	.0009	.0003	.0009	.0007	.0008	.0011	.0010	.0014	.0012

Milling Process	ADOC	RDOC
HEM (High Efficiency Milling)	Up to Max LOC	Up to 10% Diameter
Finishing	Up to Max LOC	4%-6% Diameter

Please note:

All posted speed and feed parameters are suggested starting values that may be increased given optimal setup conditions. If less than minimum Axial or Radial DOC values are used, increased feed rates are possible. If greater than maximum Axial or Radial DOC values are used, decreased feed rates may be needed.

If you require additional information, Harvey Tool has a team of technical experts available to assist you through even the most challenging applications. Please contact us at **800-645-5609** or **Harveytech@harveyperformance.com.**

WARNING: Cutting tools may shatter under improper use. Government regulations require use of safety glasses and other appropriate safety equipment in the vicinity of use.