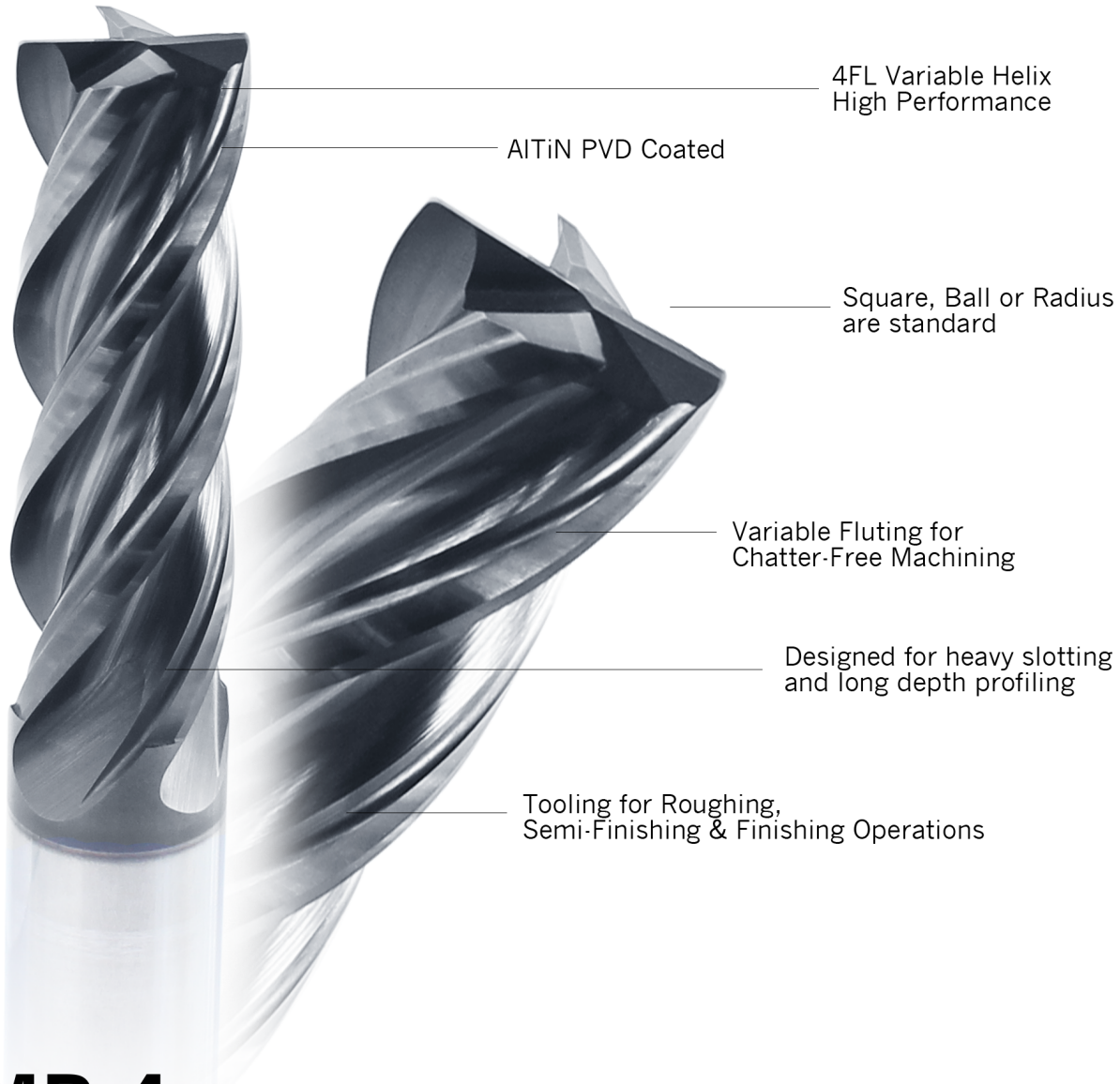




4FL Solid Carbide Variable Helix

Outstanding performance in milling Stainless Steel, Tool Steel, and in all types of ferrous materials



4FL Variable Helix
High Performance

AlTiN PVD Coated

Square, Ball or Radius
are standard

Variable Fluting for
Chatter-Free Machining

Designed for heavy slotting
and long depth profiling

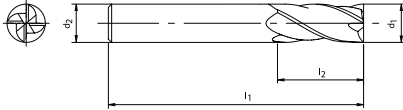
Tooling for Roughing,
Semi-Finishing & Finishing Operations

VMP-4

Powerful, Precise, and Reliable Tools

MP Tool's new VMP-4 (solid carbide four-flute variable-helix end mill) provides a powerful design that offers users substantial improvements in tool life, and it serves as a multi-functional tool. By incorporating several new design features, VMP-4 helps diminish vibration, allowing faster feed rates and improved surface finishes. VMP design allows for roughing and finishing in both peripheral and slotting operations in all types of ferrous materials.

Solid Carbide End Mill 4 Flute Variable Helix AlTiN Coated



Design Specs

- Standard performance carbide end mill
- AlTiN Coated - Other upon request
- Slotting/Side/Face/Profile Milling
- Special Steps/Lengths upon request
- Greater chip clearance

Application:

Outstanding performance in milling Stainless Steel, Tool Steel, Copper, Bronze and General Purpose

d_1 Diameter	d_2 Shank	l_2 LOC	l_1 OAL	Square EDP#	Coated Price	.015	.030	.060	.090	.125	Coated Price	Ball EDP#	Coated Price
3/16	3/16	7/16	2"	31000C	\$16.36	31002C	31004C				\$19.63	31012C	\$19.63
1/4	1/4	3/8	2"	31020C	\$19.67	31022C	31024C	31026C	31028C		\$23.60	31032C	\$23.60
1/4	1/4	3/4	2-1/2	31040C	\$22.25	31042C	31044C	31046C	31048C		\$26.70	31052C	\$26.70
5/16	5/16	13/16	2-1/2	31060C	\$27.40	31062C	31064C	31066C	31068C		\$32.88	31072C	\$32.88
3/8	3/8	1/2	2-1/2	31080C	\$28.74	31082C	31084C	31086C	31088C	31090C	\$34.49	31092C	\$34.49
3/8	3/8	1"	2-1/2	31100C	\$33.37	31102C	31104C	31106C	31108C	31110C	\$40.04	31112C	\$40.04
7/16	7/16	1"	2-3/4	31120C	\$44.08	31122C	31124C	31126C	31128C	31130C	\$52.90	31132C	\$52.90
1/2	1/2	5/8	2-1/2	31140C	\$47.48	31142C	31144C	31146C	31148C	31150C	\$56.98	31152C	\$56.98
1/2	1/2	1"	3"	31160C	\$52.84	31162C	31164C	31166C	31168C	31170C	\$63.41	31172C	\$63.41
1/2	1/2	1-1/4	3"	31180C	\$56.34	31182C	31184C	31186C	31188C	31190C	\$67.61	31192C	\$67.61
5/8	5/8	1-1/4	3-1/2	31200C	\$99.50	31202C	31204C	31206C	31208C	31210C	\$119.40	31212C	\$119.40
3/4	3/4	7/8	4"	31220C	\$126.69	31222C	31224C	31226C	31228C	31230C	\$152.03	31232C	\$152.03
3/4	3/4	1-1/2	4"	31240C	\$136.68	31242C	31244C	31246C	31248C	31250C	\$164.02	31252C	\$164.02
1"	1"	1-1/2	4"	31260C	\$203.11	31262C	31264C	31266C	31268C	31270C	\$243.73	31272C	\$243.73

*Non-standard requirements are available upon request including length, chamfer and radius with different tolerances

Extended Neck Reach

Diameter	Shank	LOC	OAL	LBS	Neck	Square EDP#	Coated Price	RAD	Radius EDP#	Coated Price
3/8	3/8	1/2	4"	2-1/8	.355	31500C	\$56.39	.030	31504C	\$61.39
3/8	3/8	1/2	6"	3-3/8	.355	31520C	\$78.33	.030	31524C	\$83.33
1/2	1/2	5/8	4"	2-1/4	.475	31540C	\$85.95	.030	31544C	\$90.95
1/2	1/2	5/8	6"	3-3/8	.475	31560C	\$119.32	.030	31564C	\$124.32
1/2	1/2	5/8	8"	4-1/2	.475	31580C	\$157.43	.030	31584C	\$162.43
5/8	5/8	3/4	4"	2-3/8	.593	31600C	\$127.56	.030	31604C	\$132.56
5/8	5/8	3/4	6"	3-3/8	.593	31620C	\$175.56	.030	31624C	\$180.56
5/8	5/8	3/4	8"	4-1/2	.593	31640C	\$233.14	.030	31644C	\$238.14
3/4	3/4	1"	6"	3-3/8	.712	31660C	\$243.02	.030	31664C	\$248.02
3/4	3/4	1"	8"	4-1/2	.712	31680C	\$319.24	.030	31684C	\$324.24
3/4	3/4	1"	12"	7"	.712	31700C	\$440.06	.030	31704C	\$445.06
1"	1"	1-1/4	6"	3-3/8	.950	31720C	\$376.51	.030	31724C	\$381.51
1"	1"	1-1/4	8"	4-1/2	.950	31740C	\$494.14	.030	31744C	\$499.14
1"	1"	1-1/4	12"	7"	.950	31760C	\$694.37	.030	31764C	\$699.37

*Non-standard requirements are available upon request including length, chamfer and radius with different tolerances

