

# STANDARD CARBIDE

## Flat Ends



Taper Per Side	Tool No.	Tip Dia.	Flt. Lgth	Shk Dia.	OAL	Large Dia.	
<b>1/2 DEG</b>	KK-102-CB	3/32	1/2	1/8	2	0.10248	3 Flute
	KK-103-CB	3/32	3/4	1/8	2 1/2	0.10684	3 Flute
	KK-105-CB	3/32	1 1/4	1/8	3	0.11556	3 Flute
	KK-201-CB	1/8	1/4	3/16	2 1/2	0.12936	3 Flute
	KK-2015-CB	1/8	3/8	3/16	2 1/2	0.13154	3 Flute
	KK-202-CB	1/8	1/2	3/16	2 1/2	0.13373	3 Flute
	KK-203-CB	1/8	3/4	3/16	2 1/2	0.13809	3 Flute
	KK-204-CB	1/8	1	3/16	3	0.14245	3 Flute
	KK-205-CB	1/8	1 1/4	3/16	3	0.14681	3 Flute
	KK-206-CB	1/8	1 1/2	3/16	3 1/2	0.15118	3 Flute
	KK-303-CB	3/16	3/4	1/4	2 1/2	0.20059	3 Flute
	KK-305-CB	3/16	1 1/4	1/4	3	0.20931	3 Flute
	KK-307-CB	3/16	1 3/4	1/4	4	0.21804	3 Flute
	KK-313-CB	3/16	3 1/4	3/8	6	0.24421	3 Flute
	KK-403-CB	1/4	3/4	3/8	2 1/2	0.26309	3 Flute
	KK-405-CB	1/4	1 1/4	3/8	3	0.27181	3 Flute
	KK-409-CB	1/4	2 1/4	3/8	4 1/2	0.28926	3 Flute
	KK-413-CB	1/4	3 1/4	3/8	6	0.30671	3 Flute
	KK-605-CB	3/8	1 1/4	1/2	3 1/2	0.39681	3 Flute
	KK-609-CB	3/8	2 1/4	1/2	5	0.41426	3 Flute
	KK-613-CB	3/8	3 1/4	1/2	6	0.43171	3 Flute
	KK-805-CB	1/2	1 1/4	9/16	4	0.52181	3 Flute
	KK-809-CB	1/2	2 1/4	9/16	5	0.53926	3 Flute
	KK-813-CB	1/2	3 1/4	5/8	6	0.55671	3 Flute
KK-1009-CB	5/8	2 1/4	3/4	5	0.66426	3 Flute	
KK-1013-CB	5/8	3 1/4	3/4	6	0.68171	3 Flute	
KK-1017-CB	5/8	4 1/4	3/4	7	0.69916	3 Flute	
KK-1209-CB	3/4	2 1/4	7/8	5	0.78926	3 Flute	
KK-1213-CB	3/4	3 1/4	7/8	6	0.80671	3 Flute	
KK-1217-CB	3/4	4 1/4	1	7	0.82416	3 Flute	
KK-1221-CB	3/4	5 1/4	1	8	0.84161	3 Flute	

Taper Per Side	Tool No.	Tip Dia.	Flt. Lgth	Shk Dia.	OAL	Large Dia.	
<b>1 DEG</b>	K-102-CB	3/32	1/2	1/8	2	0.11120	3 Flute
	K-103-CB	3/32	3/4	3/16	2 1/2	0.11993	3 Flute
	K-104-CB	3/32	1	3/16	3	0.12865	3 Flute
	K-105-CB	3/32	1 1/4	3/16	3	0.13738	3 Flute
	K-106-CB	3/32	1 1/2	1/4	3 1/2	0.14610	3 Flute
	K-201-CB	1/8	1/4	3/16	2 1/2	0.13373	3 Flute
	K-2015-CB	1/8	3/8	3/16	2 1/2	0.13809	3 Flute
	K-202-CB	1/8	1/2	3/16	2 1/2	0.14245	3 Flute
	K-203-CB	1/8	3/4	1/4	2 1/2	0.15118	3 Flute
	K-204-CB	1/8	1	1/4	3	0.15990	3 Flute
	K-205-CB	1/8	1 1/4	1/4	3	0.16863	3 Flute
	K-206-CB	1/8	1 1/2	1/4	3 1/2	0.17735	3 Flute
	K-208-CB	1/8	2	1/4	4	0.19480	3 Flute
	K-303-CB	3/16	3/4	1/4	2 1/2	0.21368	3 Flute
	K-305-CB	3/16	1 1/4	1/4	3	0.23113	3 Flute
	K-307-CB	3/16	1 3/4	1/4	4	0.24858	3 Flute
	K-308-CB	3/16	2	5/16	4	0.25730	3 Flute
	K-309-CB	3/16	2 1/4	3/8	4 1/2	0.26603	3 Flute
	K-310-CB	3/16	2 1/2	3/8	5	0.27475	3 Flute
	K-313-CB	3/16	3 1/4	3/8	6	0.30093	3 Flute
	K-403-CB	1/4	3/4	3/8	2 1/2	0.27618	3 Flute
	K-405-CB	1/4	1 1/4	3/8	3	0.29363	3 Flute
	K-406-CB	1/4	1 1/2	3/8	3 1/2	0.30235	3 Flute
	K-408-CB	1/4	2	3/8	4	0.31980	3 Flute
K-409-CB	1/4	2 1/4	3/8	4 1/2	0.32853	3 Flute	
K-413-CB	1/4	3 1/4	3/8	6	0.36343	3 Flute	
K-605-CB	3/8	1 1/4	1/2	3 1/2	0.41863	3 Flute	
K-609-CB	3/8	2 1/4	1/2	5	0.45353	3 Flute	
K-613-CB	3/8	3 1/4	1/2	6	0.48843	3 Flute	
K-803-CB	1/2	3/4	5/8	3	0.52618	3 Flute	
K-805-CB	1/2	1 1/4	9/16	4	0.54363	3 Flute	
K-809-CB	1/2	2 1/4	5/8	5	0.57853	3 Flute	
K-813-CB	1/2	3 1/4	5/8	6	0.61343	3 Flute	
K-1009-CB	5/8	2 1/4	3/4	5	0.70353	3 Flute	
K-1013-CB	5/8	3 1/4	3/4	6	0.73843	3 Flute	
K-1017-CB	5/8	4 1/4	1	7	0.77333	3 Flute	
K-1209-CB	3/4	2 1/4	7/8	5	0.82853	3 Flute	
K-1213-CB	3/4	3 1/4	7/8	6	0.86343	3 Flute	
K-1217-CB	3/4	4 1/4	1	7	0.89833	3 Flute	
K-1221-CB	3/4	5 1/4	1	8	0.93323	3 Flute	

CALL FOR AVAILABILITY 1-888-531-0430



TO ORDER COATINGS,  
 Add a suffix to the part number given above.  
 for TiAIN Coated, add the suffix "TiAIN"  
 for TiCN Coated, add the suffix "TiCN"  
 If no suffix is given uncoated Carbide will ship.

**A****STANDARD CARBIDE****Flat Ends**

Taper Per Side	Tool No.	Tip Dia.	Flt. Lgth	Shk Dia.	OAL	Large Dia.	Flute	Taper Per Side	Tool No.	Tip Dia.	Flt. Lgth	Shk Dia.	OAL	Large Dia.	Flute
1-1/2	KX-102-CB	3/32	1/2	3/16	2 1/2	0.11993	3 Flute	2 DEG	L-102-CB	3/32	1/2	3/16	2 1/2	0.12867	3 Flute
	KX-103-CB	3/32	3/4	1/4	2 1/2	0.13302	3 Flute		L-103-CB	3/32	3/4	1/4	2 1/2	0.14613	3 Flute
	KX-104-CB	3/32	1	1/4	3	0.14611	3 Flute		L-104-CB	3/32	1	1/4	3	0.16359	3 Flute
	KX-105-CB	3/32	1 1/4	3/16	3	0.15920	3 Flute		L-105-CB	3/32	1 1/4	1/4	3	0.18105	3 Flute
	KX-106-CB	3/32	1 1/2	1/4	3	0.17229	3 Flute		L-202-CB	1/8	1/2	3/16	2 1/2	0.15992	3 Flute
	KX-154-CB	7/64	1	3/16	3	0.16136	3 Flute		L-203-CB	1/8	3/4	1/4	2 1/2	0.17738	3 Flute
	KX-202-CB	1/8	1/2	3/16	2 1/2	0.15118	3 Flute		L-204-CB	1/8	1	1/4	3	0.19484	3 Flute
	KX-203-CB	1/8	3/4	1/4	2 1/2	0.16427	3 Flute		L-205-CB	1/8	1 1/4	1/4	3	0.21230	3 Flute
	KX-204-CB	1/8	1	3/16	3	0.17736	3 Flute		L-206-CB	1/8	1 1/2	1/4	3 1/2	0.22976	3 Flute
	KX-205-CB	1/8	1 1/4	1/4	3	0.19045	3 Flute		L-208-CB	1/8	2	5/16	4	0.26468	3 Flute
	KX-206-CB	1/8	1 1/2	1/4	3 1/2	0.20354	3 Flute		L-210-CB	1/8	2 1/2	5/16	4	0.29960	3 Flute
	KX-208-CB	1/8	2	1/4	4	0.22972	3 Flute		L-303-CB	3/16	3/4	1/4	2 1/2	0.23988	3 Flute
	KX-209-CB	1/8	2 1/4	5/16	4	0.24281	3 Flute		L-305-CB	3/16	1 1/4	3/8	3	0.27480	3 Flute
	KX-212-CB	1/8	3	3/8	5	0.28208	3 Flute		L-307-CB	3/16	1 3/4	3/8	3 1/2	0.30972	3 Flute
	KX-253-CB	5/32	3/4	1/4	2 1/2	0.19552	3 Flute		L-309-CB	3/16	2 1/4	1/2	5	0.34464	3 Flute
	KX-254-CB	5/32	1	1/4	3	0.20861	3 Flute		L-313-CB	3/16	3 1/4	1/2	6	0.41448	3 Flute
	KX-255-CB	5/32	1 1/4	1/4	3	0.22170	3 Flute		L-403-CB	1/4	3/4	3/8	2 1/2	0.30238	3 Flute
	KX-256-CB	5/32	1 1/2	1/4	3 1/2	0.23479	3 Flute		L-405-CB	1/4	1 1/4	3/8	3	0.33730	3 Flute
	KX-258-CB	5/32	2	5/16	4	0.26097	3 Flute		L-408-CB	1/4	2	1/2	4	0.38968	3 Flute
	KX-303-CB	3/16	3/4	3/8	2 1/2	0.22677	3 Flute		L-409-CB	1/4	2 1/4	1/2	5	0.40714	3 Flute
	KX-304-CB	3/16	1	1/4	3	0.23986	3 Flute		L-413-CB	1/4	3 1/4	1/2	6	0.47698	3 Flute
	KX-305-CB	3/16	1 1/4	3/8	3	0.25295	3 Flute		L-605-CB	3/8	1 1/4	1/2	3 1/2	0.46230	3 Flute
	KX-307-CB	3/16	1 3/4	3/8	3 1/2	0.27913	3 Flute		L-609-CB	3/8	2 1/4	1/2	5	0.53214	3 Flute
	KX-309-CB	3/16	2 1/4	3/8	4 1/2	0.30531	3 Flute		L-613-CB	3/8	3 1/4	5/8	6	0.60198	3 Flute
	KX-313-CB	3/16	3 1/4	3/8	6	0.35767	3 Flute		L-805-CB	1/2	1 1/4	5/8	3 1/2	0.58730	3 Flute
	KX-403-CB	1/4	3/4	3/8	2 1/2	0.28927	3 Flute		L-809-CB	1/2	2 1/4	3/4	5	0.65714	3 Flute
	KX-405-CB	1/4	1 1/4	3/8	3	0.31545	3 Flute		L-813-CB	1/2	3 1/4	3/4	6	0.72698	3 Flute
	KX-406-CB	1/4	1 1/2	3/8	3 1/2	0.32854	3 Flute		L-1009-CB	5/8	2 1/4	7/8	5	0.78214	3 Flute
	KX-409-CB	1/4	2 1/4	3/8	4 1/2	0.36781	3 Flute		L-1013-CB	5/8	3 1/4	7/8	6	0.85198	3 Flute
	KX-413-CB	1/4	3 1/4	1/2	6	0.42017	3 Flute		L-1017-CB	5/8	4 1/4	1	7	0.92182	3 Flute
	KX-605-CB	3/8	1 1/4	1/2	3 1/2	0.44045	3 Flute		L-1209-CB	3/4	2 1/4	1	5	0.90714	3 Flute
	KX-609-CB	3/8	2 1/4	1/2	5	0.49281	3 Flute		L-1213-CB	3/4	3 1/4	1	6	0.97698	3 Flute
KX-613-CB	3/8	3 1/4	9/16	6	0.54517	3 Flute									
KX-805-CB	1/2	1 1/4	5/8	3 1/2	0.56545	3 Flute									
KX-806-CB	1/2	1 1/2	5/8	3 1/2	0.57855	3 Flute									
KX-809-CB	1/2	2 1/4	5/8	5	0.61781	3 Flute									
KX-813-CB	1/2	3 1/4	3/4	6	0.67017	3 Flute									
KX-1009-CB	5/8	2 1/4	3/4	5	0.74281	3 Flute									
KX-1013-CB	5/8	3 1/4	7/8	6	0.79517	3 Flute									
KX-1017-CB	5/8	4 1/4	1	7	0.84753	3 Flute									
KX-1209-CB	3/4	2 1/4	7/8	5	0.86781	3 Flute									
KX-1213-CB	3/4	3 1/4	1	6	0.92017	3 Flute									

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 for TiCN Coated, add the suffix "TiCN"  
 If no suffix is given uncoated Carbide will ship.



# STANDARD CARBIDE

## Flat Ends



Taper Per Side	Tool No.	Tip Dia.	Flt. Lgth	Shk Dia.	OAL	Large Dia.		Taper Per Side	Tool No.	Tip Dia.	Flt. Lgth	Shk Dia.	OAL	Large Dia.		
<b>3 DEG</b>	M-103-CB	3/32	3/4	3/16	2 1/2	0.17237	3 Flute	<b>3 DEG</b>	M-504-CB	5/16	1	1/2	3	0.41782	3 Flute	
	M-104-CB	3/32	1	1/4	3	0.19857	3 Flute		M-507-CB	5/16	1 3/4	1/2	4	0.49644	3 Flute	
	M-105-CB	3/32	1 1/4	1/4	3	0.22478	3 Flute		M-604-CB	3/8	1	1/2	3	0.47982	3 Flute	
	M-106-CB	3/32	1 1/2	1/4	3 1/2	0.25000	3 Flute		M-605-CB	3/8	1 1/4	1/2	3 1/2	0.50000	3 Flute	
	M-107-CB	3/32	1 3/4	3/8	3 1/2	0.27719	3 Flute		M-609-CB	3/8	2 1/4	5/8	5	0.61085	3 Flute	
	M-108-CB	3/32	2	5/16	4	0.30339	3 Flute		M-613-CB	3/8	3 1/4	3/4	6	0.71567	3 Flute	
	M-110-CB	3/32	2 1/2	3/8	4 1/2	0.35580	3 Flute		M-616-CB	3/8	4	7/8	6	0.79428	3 Flute	
	M-154-CB	7/64	1	1/4	3	0.21382	3 Flute		M-620-CB	3/8	5	1	8	0.89910	3 Flute	
	M-155-CB	7/64	1 1/4	1/4	3	0.24003	3 Flute		M-805-CB	1/2	1 1/4	3/4	4	0.63103	3 Flute	
	M-156-CB	7/64	1 1/2	5/16	3	0.26623	3 Flute		M-809-CB	1/2	2 1/4	3/4	5	0.73585	3 Flute	
	M-158-CB	7/64	2	3/8	4	0.31864	3 Flute		M-813-CB	1/2	3 1/4	7/8	6	0.84067	3 Flute	
	M-203-CB	1/8	3/4	1/4	2 1/2	0.20362	3 Flute		M-816-CB	1/2	4	1	7	0.91928	3 Flute	
	M-204-CB	1/8	1	1/4	3	0.22982	3 Flute		M-1009-CB	5/8	2 1/4	7/8	5	0.86085	3 Flute	
	M-205-CB	1/8	1 1/4	3/8	3	0.25603	3 Flute		M-1013-CB	5/8	3 1/4	1	6	0.95567	3 Flute	
	M-206-CB	1/8	1 1/2	3/8	3 1/2	0.28223	3 Flute		M-1209-CB	3/4	2 1/4	1	5	0.98585	3 Flute	
	M-208-CB	1/8	2	3/8	4	0.33464	3 Flute		<b>4 DEG</b>	N-0004-CB	1/32	1	3/16	3	0.17111	2 Flute
	M-209-CB	1/8	2 1/4	3/8	4 1/2	0.36085	3 Flute			N-004-CB	1/16	1	1/4	3	0.20236	3 Flute
	M-210-CB	1/8	2 1/2	7/16	4 1/2	0.38705	3 Flute			N-103-CB	3/32	3/4	1/4	2 1/2	0.19865	3 Flute
	M-212-CB	1/8	3	1/2	5	0.43946	3 Flute			N-104-CB	3/32	1	1/4	3	0.23361	3 Flute
	M-216-CB	1/8	4	9/16	6	0.54428	3 Flute			N-203-CB	1/8	3/4	1/4	2 1/2	0.22990	3 Flute
	M-253-CB	5/32	3/4	1/4	2 1/2	0.23487	3 Flute			N-204-CB	1/8	1	3/8	3	0.26486	3 Flute
	M-254-CB	5/32	1	3/8	3	0.26107	3 Flute			N-206-CB	1/8	1 1/2	3/8	3 1/2	0.33479	3 Flute
	M-255-CB	5/32	1 1/4	3/8	3	0.28728	3 Flute			N-208-CB	1/8	2	1/2	4	0.40472	3 Flute
	M-256-CB	5/32	1 1/2	3/8	3 1/2	0.31348	3 Flute			N-210-CB	1/8	2 1/2	1/2	5	0.47465	3 Flute
	M-257-CB	5/32	1 3/4	3/8	3 1/2	0.33969	3 Flute			N-303-CB	3/16	3/4	3/8	2 1/2	0.29240	3 Flute
	M-258-CB	5/32	2	3/8	4	0.36589	3 Flute			N-305-CB	3/16	1 1/4	3/8	3	0.36233	3 Flute
	M-303-CB	3/16	3/4	3/8	2 1/2	0.26612	3 Flute			N-313-CB	3/16	3 1/4	3/4	6	0.64205	3 Flute
M-304-CB	3/16	1	3/8	3	0.29232	3 Flute	N-316-CB	3/16		4	3/4	6	0.74694	3 Flute		
M-305-CB	3/16	1 1/4	3/8	3	0.31853	3 Flute	N-403-CB	1/4		3/4	3/8	2 1/2	0.35490	3 Flute		
M-306-CB	3/16	1 1/2	3/8	3 1/2	0.34473	3 Flute	N-405-CB	1/4		1 1/4	1/2	3 1/2	0.42483	3 Flute		
M-308-CB	3/16	2	1/2	4	0.39714	3 Flute	N-409-CB	1/4		2 1/4	5/8	5	0.56469	3 Flute		
M-310-CB	3/16	2 1/2	1/2	5	0.44955	3 Flute	N-413-CB	1/4		3 1/4	3/4	6	0.70455	3 Flute		
M-313-CB	3/16	3 1/4	9/16	6	0.52817	3 Flute	N-416-CB	1/4	4	1	7	0.80944	3 Flute			
M-316-CB	3/16	4	5/8	6	0.60678	3 Flute	N-605-CB	3/8	1 1/4	9/16	4	0.54983	3 Flute			
M-320-CB	3/16	5	3/4	7	0.71160	3 Flute	N-609-CB	3/8	2 1/4	3/4	5	0.68969	3 Flute			
M-403-CB	1/4	3/4	3/8	2 1/2	0.32862	3 Flute	N-613-CB	3/8	3 1/4	7/8	6	0.82955	3 Flute			
M-404-CB	1/4	1	3/8	3	0.35482	3 Flute	N-616-CB	3/8	4	1	7	0.93444	3 Flute			
M-405-CB	1/4	1 1/4	3/8	3	0.37500	3 Flute	N-805-CB	1/2	1 1/4	3/4	3 1/2	0.67483	3 Flute			
M-408-CB	1/4	2	1/2	4	0.45964	3 Flute	N-809-CB	1/2	2 1/4	7/8	5	0.81469	3 Flute			
M-409-CB	1/4	2 1/4	1/2	5	0.48585	3 Flute	N-813-CB	1/2	3 1/4	1	6	0.95455	3 Flute			
M-413-CB	1/4	3 1/4	5/8	6	0.59067	3 Flute										
M-416-CB	1/4	4	3/4	6	0.66928	3 Flute										
M-420-CB	1/4	5	1	8	0.77410	3 Flute										

Coatings are available including: TiCN and TiAlN

**A****STANDARD CARBIDE****Flat Ends**

Taper Per Side	Tool No.	Tip Dia.	Flt. Lgth	Shk Dia.	OAL	Large Dia.		Taper Per Side	Tool No.	Tip Dia.	Flt. Lgth	Shk Dia.	OAL	Large Dia.		
<b>5 DEG</b>	O-102-CB	3/32	1/2	1/4	2 1/2	0.18124	3 Flute	<b>5 DEG</b>	O-509-CB	5/16	2 1/4	3/4	5	0.70671	3 Flute	
	O-103-CB	3/32	3/4	1/4	2 1/2	0.22499	3 Flute		O-604-CB	3/8	1	5/8	3 1/2	0.54998	3 Flute	
	O-104-CB	3/32	1	3/8	3	0.26873	3 Flute		O-605-CB	3/8	1 1/4	5/8	4	0.59373	3 Flute	
	O-105-CB	3/32	1 1/4	3/8	3	0.31248	3 Flute		O-609-CB	3/8	2 1/4	7/8	5	0.76871	3 Flute	
	O-106-CB	3/32	1 1/2	3/8	3 1/2	0.35622	3 Flute		O-613-CB	3/8	3 1/4	1	6	0.94369	3 Flute	
	O-108-CB	3/32	2	1/2	4	0.44371	3 Flute		O-805-CB	1/2	1 1/4	3/4	4	0.71873	3 Flute	
	O-155-CB	7/64	1 1/4	3/8	3	0.32773	3 Flute		O-806-CB	1/2	1 1/2	7/8	4	0.76247	3 Flute	
	O-203-CB	1/8	3/4	1/4	2 1/2	0.25000	3 Flute		O-809-CB	1/2	2 1/4	1	5	0.89371	3 Flute	
	O-204-CB	1/8	1	3/8	3	0.29998	3 Flute		<b>6 DEG</b>	P-004-CB	1/16	1	5/16	3	0.27271	3 Flute
	O-205-CB	1/8	1 1/4	3/8	3	0.34373	3 Flute			P-104-CB	3/32	1	5/16	3	0.30396	3 Flute
	O-206-CB	1/8	1 1/2	3/8	3 1/2	0.37500	3 Flute			P-204-CB	1/8	1	3/8	3	0.33521	3 Flute
	O-207-CB	1/8	1 3/4	1/2	4	0.43122	3 Flute			P-406-CB	1/4	1 1/2	5/8	3 1/2	0.56530	3 Flute
	O-208-CB	1/8	2	1/2	4	0.47496	3 Flute		<b>7 DEG</b>	R-0003-CB	1/32	3/4	1/4	2 1/2	0.21542	2 Flute
	O-210-CB	1/8	2 1/2	5/8	5	0.56245	3 Flute			R-0004-CB	1/32	1	3/8	3	0.27656	2 Flute
	O-212-CB	1/8	3	3/4	5	0.64994	3 Flute			R-001-CB	1/16	1/4	1/4	2	0.12389	3 Flute
	O-253-CB	5/32	3/4	3/8	2 1/2	0.28749	3 Flute			R-002-CB	1/16	1/2	1/4	2 1/2	0.18528	3 Flute
	O-254-CB	5/32	1	3/8	3	0.33123	3 Flute			R-003-CB	1/16	3/4	3/8	3	0.24667	3 Flute
	O-255-CB	5/32	1 1/4	3/8	3	0.37498	3 Flute			R-004-CB	1/16	1	3/8	3	0.30806	3 Flute
	O-256-CB	5/32	1 1/2	1/2	3 1/2	0.41872	3 Flute			R-054-CB	5/64	1	3/8	3	0.32356	3 Flute
	O-257-CB	5/32	1 3/4	1/2	4	0.46247	3 Flute			R-102-CB	3/32	1/2	1/4	2 1/2	0.21653	3 Flute
	O-258-CB	5/32	2	1/2	4	0.50000	3 Flute			R-104-CB	3/32	1	3/8	3	0.33931	3 Flute
	O-303-CB	3/16	3/4	3/8	2 1/2	0.31874	3 Flute			R-106-CB	3/32	1 1/2	1/2	3 1/2	0.46209	3 Flute
	O-304-CB	3/16	1	3/8	3	0.36248	3 Flute		R-202-CB	1/8	1/2	1/4	2 1/2	0.24778	3 Flute	
	O-305-CB	3/16	1 1/4	1/2	3 1/2	0.40623	3 Flute		R-203-CB	1/8	3/4	3/8	2 1/2	0.30917	3 Flute	
	O-306-CB	3/16	1 1/2	1/2	3 1/2	0.44997	3 Flute		R-204-CB	1/8	1	3/8	3	0.37056	3 Flute	
	O-307-CB	3/16	1 3/4	1/2	4	0.49372	3 Flute		R-206-CB	1/8	1 1/2	1/2	3 1/2	0.49334	3 Flute	
	O-308-CB	3/16	2	5/8	4	0.53746	3 Flute		R-208-CB	1/8	2	5/8	4	0.61612	3 Flute	
	O-310-CB	3/16	2 1/2	5/8	5	0.62495	3 Flute		R-212-CB	1/8	3	7/8	5	0.86168	3 Flute	
	O-312-CB	3/16	3	3/4	5	0.71244	3 Flute		R-253-CB	5/32	3/4	3/8	2 1/2	0.34042	3 Flute	
	O-313-CB	3/16	3 1/4	7/8	6	0.75619	3 Flute		R-305-CB	3/16	1 1/4	1/2	3 1/2	0.49445	3 Flute	
O-316-CB	3/16	4	1	7	0.88742	3 Flute	R-403-CB	1/4	3/4	1/2	3	0.43417	3 Flute			
O-403-CB	1/4	3/4	1/2	3	0.38124	3 Flute	R-404-CB	1/4	1	1/2	3	0.49556	3 Flute			
O-404-CB	1/4	1	1/2	3	0.42498	3 Flute	R-405-CB	1/4	1 1/4	5/8	3 1/2	0.55695	3 Flute			
O-405-CB	1/4	1 1/4	1/2	3 1/2	0.46873	3 Flute	R-409-CB	1/4	2 1/4	7/8	5	0.80251	3 Flute			
O-406-CB	1/4	1 1/2	9/16	3 1/2	0.51247	3 Flute	R-605-CB	3/8	1 1/4	3/4	4	0.68195	3 Flute			
O-407-CB	1/4	1 3/4	5/8	4	0.55622	3 Flute	R-609-CB	3/8	2 1/4	1	5	0.92751	3 Flute			
O-408-CB	1/4	2	5/8	4	0.59996	3 Flute	R-805-CB	1/2	1 1/4	7/8	4	0.80695	3 Flute			
O-409-CB	1/4	2 1/4	3/4	5	0.64371	3 Flute	R-808-CB	1/2	2	1	5	0.99112	3 Flute			
O-410-CB	1/4	2 1/2	3/4	5	0.68745	3 Flute	R-809-CB	1/2	2 1/4	1	4 3/4	1.05251	4 Flute			
O-413-CB	1/4	3 1/4	7/8	6	0.81869	3 Flute	<b>8 DEG</b>	8-202-CB	1/8	1/2	3/8	3	0.26550			
O-416-CB	1/4	4	1	7	0.94992	3 Flute		8-203-CB	1/8	3/4	3/8	3	0.33581			
O-504-CB	5/16	1	1/2	3	0.48798	3 Flute										
O-507-CB	5/16	1 3/4	5/8	4	0.61872	3 Flute										

Coatings are available including: TiCN and TiAlN

# STANDARD CARBIDE

## Flat Ends



Taper Per Side	Tool No.	Tip Dia.	Flt. Lgth	Shk Dia.	OAL	Large Dia.	
<b>10 DEG</b>	T-0002-CB	1/32	1/2	1/4	2 1/2	0.20758	2 Flute
	T-0003-CB	1/32	3/4	3/8	2 1/2	0.29575	2 Flute
	T-002-CB	1/16	1/2	3/8	2 1/2	0.23883	3 Flute
	T-002A-CB	1/16	1/2	1/4	2 1/2	0.23883	3 Flute
	T-003-CB	1/16	3/4	3/8	2 1/2	0.32700	3 Flute
	T-004-CB	1/16	1	1/2	3	0.41516	3 Flute
	T-005-CB	1/16	1 1/4	1/2	3 1/2	0.50000	3 Flute
	T-102-CB	3/32	1/2	3/8	2 1/2	0.27008	3 Flute
	T-102A-CB	3/32	.445	1/4	2 1/2	0.25000	3 Flute
	T-103-CB	3/32	3/4	3/8	2 1/2	0.35825	3 Flute
	T-106-CB	3/32	1 1/2	5/8	3 1/2	0.62274	3 Flute
	T-203-CB	1/8	3/4	3/8	2 1/2	0.37500	3 Flute
	T-204-CB	1/8	1	1/2	3	0.47766	3 Flute
	T-205-CB	1/8	1 1/4	5/8	3 1/2	0.56583	3 Flute
	T-206-CB	1/8	1 1/2	3/4	4	0.65399	3 Flute
	T-254-CB	5/32	1	1/2	3	0.50000	3 Flute
	T-258-CB	5/32	2	7/8	4	0.86132	3 Flute
	T-303-CB	3/16	3/4	1/2	3	0.45199	3 Flute
	T-305-CB	3/16	1 1/4	5/8	3 1/2	0.62500	3 Flute
	T-309-CB	3/16	2 1/4	1	5	0.98099	3 Flute
	T-403-CB	1/4	3/4	5/8	3	0.51450	3 Flute
	T-404-CB	1/4	1	5/8	3	0.60266	3 Flute
	T-405-CB	1/4	1 1/4	3/4	4	0.69083	3 Flute
T-408-CB	1/4	2	1	5	0.95532	4 Flute	
T-605-CB	3/8	1 1/4	7/8	4	0.81583	3 Flute	
T-805-CB	1/2	1 1/4	1	4	0.94083	3 Flute	
T-809-CB	1/2	2 1/4	1	4 3/4	1.29349	4 Flute	
<b>11 DEG</b>	TK-0003-CB	1/32	3/4	3/8	3	0.32282	2 Flute
	TK-003-CB	1/16	3/4	3/8	3	0.35407	3 Flute
	TK-103-CB	3/32	3/4	3/8	3	0.38532	3 Flute
	TK-203-CB	1/8	3/4	3/8	3	0.41657	3 Flute
<b>12 DEG</b>	TL-106-CB	3/32	1 1/2	5/8	4	0.73150	3 Flute
	TL-202-CB	1/8	1/2	3/8	2 1/2	0.33756	3 Flute
	TL-204-CB	1/8	1	9/16	3	0.55011	3 Flute
	TL-404-CB	1/4	1	3/4	3	0.67511	3 Flute

Taper Per Side	Tool No.	Tip Dia.	Flt. Lgth	Shk Dia.	OAL	Large Dia.	
<b>15 DEG</b>	V-0001-CB	1/32	1/4	1/4	2	0.16523	2 Flute
	V-0003-CB	1/32	3/4	1/2	2 1/2	0.43318	2 Flute
	V-001-CB	1/16	1/4	1/4	2	0.19648	3 Flute
	V-003-CB	1/16	3/4	1/2	2 1/2	0.46443	3 Flute
	V-101-CB	3/32	1/4	1/4	2	0.22773	3 Flute
	V-102-CB	3/32	1/2	3/8	2 1/2	0.36170	3 Flute
	V-103-CB	3/32	3/4	1/2	3	0.49568	3 Flute
	V-104-CB	3/32	1	3/4	3	0.62965	3 Flute
	V-106-CB	3/32	1 1/2	1	4	0.89760	3 Flute
	V-202-CB	1/8	1/2	1/2	2 1/2	0.39295	3 Flute
	V-203-CB	1/8	1 1/16	1/2	3	0.50000	3 Flute
	V-204-CB	1/8	1	3/4	3	0.66090	3 Flute
	V-206-CB	1/8	1 1/2	1	4	0.92885	3 Flute
	V-206A-CB	1/8	1 1/2	1/2	4	0.92885	3 Flute
	V-304-CB	3/16	1	3/4	3	0.72340	3 Flute
	V-304A-CB	3/16	1	1/2	3	0.72340	3 Flute
	V-305-CB	3/16	1 1/4	7/8	4	0.85738	3 Flute
	V-404-CB	1/4	.933	3/4	3	0.75000	3 Flute
	V-404A-CB	1/4	1	1/2	3	0.78590	3 Flute
	V-405-CB	1/4	1 1/4	1	4	0.91988	3 Flute
	V-405A-CB	1/4	1 1/4	1/2	3 1/2	0.91988	3 Flute
	V-406-CB	1/4	1 1/2	3/4	4	1.05385	3 Flute
	V-504-CB	5/16	1	7/8	4	0.84890	3 Flute
	V-606-CB	3/8	1 1/2	3/4	4	1.17855	4 Flute
	V-805-CB	1/2	1 1/4	3/4	3 1/2	1.16988	4 Flute

CALL FOR AVAILABILITY 1-888-531-0430

TO ORDER COATINGS,  
 Add a suffix to the part number given above.  
 for TiAIN Coated, add the suffix "TiAIN"  
 for TiCN Coated, add the suffix "TiCN"  
 If no suffix is given uncoated Carbide will ship.



**A****STANDARD CARBIDE****Flat Ends**

Taper Per Side	Tool No.	Tip Dia.	Flt. Lgth	Shk Dia.	OAL	Large Dia.		Taper Per Side	Tool No.	Tip Dia.	Flt. Lgth	Shk Dia.	OAL	Large Dia.		
<b>20 DEG</b>	W-0001-CB	1/32	1/4	1/4	2	0.21324	2 Flute	<b>30 DEG</b>	Z-0001-CB	1/32	1/4	3/8	2 1/2	0.31993	2 Flute	
	W-0002-CB	1/32	1/2	1/2	2 1/2	0.39522	2 Flute		Z-001-CB	1/16	1/4	3/8	2 1/2	0.35118	3 Flute	
	W-001-CB	1/16	1/4	1/4	2	0.24449	3 Flute		Z-002-CB	1/16	1/2	3/8	2 1/2	0.63985	3 Flute	
	W-002-CB	1/16	1/2	1/2	2 1/2	0.42647	3 Flute		Z-101-CB	3/32	1/4	3/8	2 1/2	0.37500	3 Flute	
	W-102-CB	3/32	1/2	1/2	2 1/2	0.45772	3 Flute		Z-103-CB	3/32	3/4	1/2	3	0.95978	3 Flute	
	W-103-CB	3/32	3/4	3/4	3	0.63971	3 Flute		Z-201-CB	1/8	1/4	1/2	2 1/2	0.41368	3 Flute	
	W-202-CB	1/8	1/2	1/2	2 1/2	0.48897	3 Flute		Z-202-CB	1/8	1/2	1/2	2 1/2	0.70235	4 Flute	
	W-204-CB	1/8	1	1/2	3	0.85294	4 Flute		Z-204-CB	1/8	1	1/2	3	1.27970	4 Flute	
	W-304-CB	3/16	1	1/2	3	0.91594	4 Flute		Z-404-CB	1/4	1	3/4	3	1.40470	4 Flute	
	W-404-CB	1/4	1	1/2	3	0.97794	4 Flute		<b>40 DEG</b>	40-202-CB	1/8	1/2	1/2	2 5/8	0.96410	4 Flute
	W-406-CB	1/4	1 1/2	3/4	4	1.34191	4 Flute			40-203-CB	1/8	3/4	3/4	3 3/4	1.38370	4 Flute
	W-504-CB	5/16	1	3/4	3 1/4	1.04044	4 Flute		<b>45 DEG</b>	45-2015-CB	1/8	5/16	1/2	2 1/2	0.75000	4 Flute
	<b>22.5 DEG</b>	225-204-CB	1/8	1	1/2	3	0.95350			4 Flute	45-202-CB	1/8	1/2	1/2	2 5/8	1.12500
<b>25 DEG</b>		X-001-CB	1/16	1/4	3/8	2 1/2	0.29566	3 Flute		45-203-CB	1/8	3/4	5/8	3 1/4	1.62500	4 Flute
	X-002-CB	1/16	1/2	3/8	2 1/2	0.52881	3 Flute									
	X-101-CB	3/32	1/4	3/8	2 1/2	0.32691	3 Flute									
	X-103-CB	3/32	3/4	1/2	3	0.79322	3 Flute									
	X-201-CB	1/8	1/4	1/2	2 1/2	0.35816	3 Flute									
	X-202-CB	1/8	1/2	1/2	2 1/2	0.59131	4 Flute									
	X-204-CB	1/8	1	1/2	3	1.05762	4 Flute									
	X-404-CB	1/4	1	5/8	3	1.18262	4 Flute									

TO ORDER COATINGS,  
 Add a suffix to the part number given above.  
 for TiAlN Coated, add the suffix "TiAlN"  
 for TiCN Coated, add the suffix "TiCN"  
 If no suffix is given uncoated Carbide will ship.

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