



## SP408 - Multi Flute Single-End Non-Center Cutting Cobalt End Mills



### September 2006 Pricing

Flute Dia	Shank Dia	Length of Cut	Overall Length	# F	Uncoated EDP	Uncoated List	TiN EDP	TiN List	TiCN EDP	TiCN List	TiAlN EDP	TiAlN List
1/8	3/8	3/8	2 5/16	4	46668	\$11.20	46769	\$11.76	46870	\$12.32	46971	\$12.32
5/32	3/8	1/2	2 3/8	4	46669	\$11.20	46770	\$11.76	46871	\$12.32	46972	\$12.32
3/16	3/8	1/2	2 3/8	4	46670	\$11.20	46771	\$11.76	46872	\$12.32	46973	\$12.32
7/32	3/8	5/8	2 7/16	4	46671	\$11.20	46772	\$11.76	46873	\$12.32	46974	\$12.32
1/4	3/8	5/8	2 7/16	4	46672	\$11.20	46773	\$11.76	46874	\$12.32	46975	\$12.32
1/4	3/8	1 1/4	3 1/16	4	46673	\$15.68	46774	\$16.46	46875	\$17.25	46976	\$17.25
1/4	3/8	1 3/4	3 9/16	4	46674	\$19.04	46775	\$20.05	46876	\$20.94	46977	\$20.94
9/32	3/8	5/8	2 7/16	4	46675	\$11.20	46776	\$11.76	46877	\$12.32	46978	\$12.32
5/16	3/8	3/4	2 1/2	4	46676	\$11.20	46777	\$11.76	46878	\$12.32	46979	\$12.32
5/16	3/8	1 3/8	3 1/8	4	46677	\$15.68	46778	\$16.46	46879	\$17.25	46980	\$17.25
5/16	3/8	2	3 3/4	4	46678	\$19.04	46779	\$20.05	46880	\$20.94	46981	\$20.94
11/32	3/8	3/4	2 1/2	4	46679	\$11.20	46780	\$11.76	46881	\$12.32	46982	\$12.32
3/8	3/8	3/4	2 1/2	4	46680	\$11.20	46781	\$11.76	46882	\$12.32	46983	\$12.32
3/8	3/8	1 1/2	3 1/4	4	46681	\$15.68	46782	\$16.46	46883	\$17.25	46984	\$17.25
3/8	3/8	2 1/2	4 1/4	4	46682	\$20.94	46783	\$21.95	46884	\$23.07	46985	\$23.07
13/32	3/8	1	2 11/16	4	46683	\$16.80	46784	\$17.70	46885	\$18.48	46986	\$18.48
7/16	3/8	1	2 11/16	4	46684	\$16.24	46785	\$17.02	46886	\$17.92	46987	\$17.92
7/16	1/2	1 3/4	3 3/4	4	46685	\$21.95	46786	\$23.07	46887	\$24.19	46988	\$24.19
15/32	1/2	1 1/4	3 1/4	4	46686	\$16.58	46787	\$17.36	46888	\$18.26	46989	\$18.26
1/2	3/8	1	2 11/16	4	46687	\$17.36	46788	\$18.26	46889	\$19.15	46990	\$19.15
1/2	1/2	1 1/4	3 1/4	4	46688	\$16.02	46789	\$16.80	46890	\$17.58	46991	\$17.58
1/2	1/2	1 1/4	3 1/4	6	46689	\$16.02	46790	\$16.80	46891	\$17.58	46992	\$17.58
1/2	1/2	2	4	4	46690	\$21.73	46791	\$22.85	46892	\$23.86	46993	\$23.86
1/2	1/2	3	5	4	46691	\$23.30	46792	\$24.42	46893	\$25.65	46994	\$25.65
17/32	1/2	1 3/8	3 3/8	4	46692	\$20.94	46793	\$21.95	46894	\$23.07	46995	\$23.07
9/16	1/2	1 3/8	3 3/8	4	46693	\$21.39	46794	\$22.51	46895	\$23.52	46996	\$23.52
19/32	1/2	1 3/8	3 3/8	4	46694	\$23.74	46795	\$24.98	46896	\$26.10	46997	\$26.10
5/8	1/2	1 3/8	3 3/8	4	46695	\$21.73	46796	\$22.85	46897	\$23.86	46998	\$23.86
5/8	5/8	1 5/8	3 3/4	4	46696	\$23.18	46797	\$24.30	46898	\$25.54	46999	\$25.54
5/8	5/8	1 5/8	3 3/4	6	46697	\$23.18	46798	\$24.30	46899	\$25.54	47000	\$25.54
5/8	5/8	2 1/2	4 5/8	4	46698	\$30.24	46799	\$31.81	46900	\$33.26	47001	\$33.26
5/8	5/8	4	6 1/8	4	46699	\$37.86	46800	\$39.76	46901	\$41.66	47002	\$41.66
21/32	1/2	1 5/8	3 5/8	4	46700	\$20.94	46801	\$21.95	46902	\$23.07	47003	\$23.07
11/16	1/2	1 5/8	3 5/8	4	46701	\$22.96	46802	\$24.08	46903	\$25.31	47004	\$25.31
11/16	5/8	1 5/8	3 3/4	4	46702	\$23.74	46803	\$24.98	46904	\$26.10	47005	\$26.10
23/32	1/2	1 5/8	3 5/8	4	46703	\$25.09	46804	\$26.32	46905	\$27.55	47006	\$27.55
3/4	1/2	1 5/8	3 5/8	4	46704	\$26.88	46805	\$28.22	46906	\$29.57	47007	\$29.57
3/4	5/8	1 5/8	3 3/4	4	46705	\$26.88	46806	\$28.22	46907	\$29.57	47008	\$29.57
3/4	3/4	1 5/8	3 7/8	4	46706	\$26.10	46807	\$27.44	46908	\$28.67	47009	\$28.67
3/4	3/4	1 5/8	3 7/8	6	46707	\$26.10	46808	\$27.44	46909	\$28.67	47010	\$28.67
3/4	3/4	3	5 1/4	4	46708	\$34.27	46809	\$35.95	46910	\$37.74	47011	\$37.74
3/4	3/4	4	6 1/4	4	46709	\$44.58	46810	\$46.82	46911	\$49.06	47012	\$49.06
25/32	5/8	1 7/8	4	4	46710	\$33.71	46811	\$35.39	46912	\$37.07	47013	\$37.07
13/16	5/8	1 7/8	4	4	46711	\$36.40	46812	\$38.19	46913	\$40.10	47014	\$40.10
27/32	5/8	1 7/8	4	6	46712	\$37.30	46813	\$39.20	46914	\$40.99	47015	\$40.99
7/8	5/8	1 7/8	4	6	46713	\$40.10	46814	\$42.11	46915	\$44.13	47016	\$44.13
7/8	3/4	1 7/8	4	4	46714	\$37.30	46815	\$39.20	46916	\$40.99	47017	\$40.99
7/8	7/8	1 7/8	4 1/8	4	46715	\$34.83	46816	\$36.62	46917	\$38.30	47018	\$38.30
7/8	7/8	3 1/2	5 3/4	4	46716	\$48.83	46817	\$51.30	46918	\$53.76	47019	\$53.76
7/8	7/8	5	7 1/4	4	46717	\$58.80	46818	\$61.71	46919	\$64.74	47020	\$64.74

Flute	Shank	Length	Overall	#	Uncoated	Uncoated	TiN	TiN	TiCN	TiCN	TiAlN	TiAlN
Dia	Dia	of Cut	Length	F	EDP	List	EDP	List	EDP	List	EDP	List
29/32	3/4	1 7/8	4 1/8	4	46718	\$43.79	46819	\$46.03	46920	\$48.16	47021	\$48.16
15/16	5/8	1 7/8	4	6	46719	\$48.83	46820	\$51.30	46921	\$53.76	47022	\$53.76
31/32	3/4	1 7/8	4 1/8	4	46720	\$50.06	46821	\$52.53	46922	\$55.10	47023	\$55.10
1	5/8	1 7/8	4	6	46721	\$44.02	46822	\$46.26	46923	\$48.38	47024	\$48.38
1	3/4	1 7/8	4 1/8	4	46722	\$37.30	46823	\$39.20	46924	\$40.99	47025	\$40.99
1	3/4	1 7/8	4 1/8	6	46723	\$37.30	46824	\$39.20	46925	\$40.99	47026	\$40.99
1	7/8	1 7/8	4 1/8	4	46724	\$37.30	46825	\$39.20	46926	\$40.99	47027	\$40.99
1	7/8	1 7/8	4 1/8	6	46725	\$37.30	46826	\$39.20	46927	\$40.99	47028	\$40.99
1	1	2	4 1/2	4	46726	\$39.54	46827	\$41.55	46928	\$43.46	47029	\$43.46
1	1	2	4 1/2	6	46727	\$39.54	46828	\$41.55	46929	\$43.46	47030	\$43.46
1	1	3	5 1/2	4	46728	\$52.30	46829	\$54.88	46930	\$57.57	47031	\$57.57
1	1	3	5 1/2	6	46729	\$52.30	46830	\$54.88	46931	\$57.57	47032	\$57.57
1	1	4	6 1/2	4	46730	\$60.37	46831	\$63.39	46932	\$66.42	47033	\$66.42
1	1	4	6 1/2	6	46731	\$60.37	46832	\$63.39	46933	\$66.42	47034	\$66.42
1	1	5	7 1/2	4	46732	\$71.46	46833	\$75.04	46934	\$78.62	47035	\$78.62
1	1	5	7 1/2	6	46733	\$71.46	46834	\$75.04	46935	\$78.62	47036	\$78.62
1	1	6	8 1/2	4	46734	\$80.19	46835	\$84.22	46936	\$88.26	47037	\$88.26
1	1	6	8 1/2	6	46735	\$80.19	46836	\$84.22	46937	\$88.26	47038	\$88.26
1 1/8	7/8	2	4 1/2	6	46736	\$52.08	46837	\$54.66	46938	\$57.34	47039	\$57.34
1 1/8	1	2	4 1/2	4	46737	\$52.08	46838	\$54.66	46939	\$57.34	47040	\$57.34
1 1/8	1	2	4 1/2	6	46738	\$52.08	46839	\$54.66	46940	\$57.34	47041	\$57.34
1 1/8	1	4	6 1/2	6	46739	\$77.62	46840	\$81.54	46941	\$85.34	47042	\$85.34
1 1/4	7/8	2	4 1/4	6	46740	\$60.26	46841	\$63.28	46942	\$66.30	47043	\$66.30
1 1/4	1	2	4 1/2	6	46741	\$63.84	46842	\$67.09	46943	\$70.22	47044	\$70.22
1 1/4	1	4	6 1/2	6	46742	\$80.30	46843	\$84.34	46944	\$88.37	47045	\$88.37
1 1/4	1 1/4	2	4 1/2	6	46743	\$75.49	46844	\$79.30	46945	\$82.99	47046	\$82.99
1 1/4	1 1/4	3	5 1/2	6	46744	\$76.27	46845	\$80.08	46946	\$83.89	47047	\$83.89
1 1/4	1 1/4	4	6 1/2	6	46745	\$88.82	46846	\$93.30	46947	\$97.66	47048	\$97.66
1 1/4	1 1/4	5	7 1/2	6	46746	\$96.66	46847	\$101.47	46948	\$106.29	47049	\$106.29
1 1/4	1 1/4	6	8 1/2	6	46747	\$94.64	46848	\$99.34	46949	\$104.16	47050	\$104.16
1 3/8	1	2	4 1/2	6	46748	\$80.30	46849	\$84.34	46950	\$88.37	47051	\$88.37
1 1/2	1	2	4 1/2	6	46749	\$79.97	46850	\$84.00	46951	\$87.92	47052	\$87.92
1 1/2	1	4	6 1/2	6	46750	\$90.05	46851	\$94.53	46952	\$99.01	47053	\$99.01
1 1/2	1 1/4	2	4 1/2	6	46751	\$83.66	46852	\$87.81	46953	\$92.06	47054	\$92.06
1 1/2	1 1/4	3	5 1/2	6	46752	\$90.61	46853	\$95.09	46954	\$99.68	47055	\$99.68
1 1/2	1 1/4	4	6 1/2	6	46753	\$101.14	46854	\$106.18	46955	\$111.22	47056	\$111.22
1 1/2	1 1/4	5	7 1/2	6	46754	\$111.66	46855	\$117.26	46956	\$122.86	47057	\$122.86
1 1/2	1 1/4	6	8 1/2	6	46755	\$124.21	46856	\$130.37	46957	\$136.64	47058	\$136.64
1 1/2	1 1/4	8	10 1/2	6	46756	\$151.65	46857	\$159.26	46958	\$166.77	47059	\$166.77
1 3/4	1 1/4	2	4 1/2	6	46757	\$100.91	46858	\$105.95	46959	\$110.99	47060	\$110.99
1 3/4	1 1/4	3	5 1/2	6	46758	\$125.44	46859	\$131.71	46960	\$137.98	47061	\$137.98
1 3/4	1 1/4	4	6 1/2	6	46759	\$148.29	46860	\$155.68	46961	\$163.07	47062	\$163.07
2	1 1/4	2	4 1/2	8	46760	\$98.11	46861	\$103.04	46962	\$107.97	47063	\$107.97
2	1 1/4	3	5 1/2	8	46761	\$121.97	46862	\$128.02	46963	\$134.18	47064	\$134.18
2	1 1/4	4	6 1/2	8	46762	\$142.69	46863	\$149.86	46964	\$156.91	47065	\$156.91
2	2	2	5 3/4	4	46763	\$138.21	46864	\$145.15	46965	\$151.98	47066	\$151.98
2	2	2	5 3/4	6	46764	\$138.21	46865	\$145.15	46966	\$151.98	47067	\$151.98
2	2	4	7 3/4	4	46765	\$170.13	46866	\$178.64	46967	\$187.15	47068	\$187.15
2	2	4	7 3/4	6	46766	\$182.34	46867	\$191.41	46968	\$200.59	47069	\$200.59
2	2	6	9 3/4	6	46767	\$238.11	46868	\$249.98	46969	\$261.97	47070	\$261.97
2	2	8	11 3/4	6	46768	\$314.16	46869	\$329.84	46970	\$345.63	47071	\$345.63
<b>Flute Dia</b>		+0.001"	-0.000"		<b>Overall Length</b>		+0.062"	-0.000"			<b>Helix Angle 30°</b>	
<b>Shank Dia</b>		-0.0001"	-0.0005"						<b>Length of Cut</b>		+0.031"	-0.000"