COARSE TOOTH ROUGHING SINGLE END MILLS

Coarse Tooth Cobalt TiN, TiCN & TiAlN Coated Roughing End Mills

INTERSTATE · HERTEL · Niagara Cutter

Mill Dia. (In.)	Shk. Dia. (In.)	LOC (In.)	OAL (In.)	No. of Flutes	TiN Coated: Interstate Order #	TiN Coated: Interstate Price Ea.	TiN Coated: Hertel Order #	TiN Coated: Hertel Price Ea.	TiN Coated: Niagara Cutter List REM710 Order #	TiN Coated: Niagara Cutter List REM710 Price Ea.	TiCN Coated: Hertel Order #	TiCN Coated: Hertel Price Ea.	TiCN Coated: Niagara Cutter List REM710 Order #	TiCN Coated: Niagara Cutter List REM710 Price Ea.	TiAlN Coated: Hertel Order #	TiAlN Coated: Hertel Price Ea.
3/16	3/8	1/2	2 3/8	4	80262124	$29.54	[1]84511625	$35.59	45523289	$48.43	[1]84213842	$37.29	45517133	$50.78	62852678	$40.65
1/4	3/8	5/16	2 1/8	3	80260177	25.00	44839173	43.38			44839025	47.72			62852660	43.43
1/4	3/8	5/8	2 7/16	3	80260169	30.34										
1/4	3/8	5/8	2 7/16	4			06821979	35.96	45523305	48.43	87144606	37.67	45523347	50.78	62852637	54.38
1/4	3/8	7/8	2 11/16	3	80260185	29.37	44839165	48.51			44839017	53.36			62852603	51.35
1/4	3/8	1 1/8	2 15/16	3	80260193	29.37	44839157	33.83			44839009	37.23			62852629	51.35
1/4	3/8	1 1/4	3 1/16	4					*45523339	57.76			45517141	60.43	62852611	51.35
1/4	3/8	1 1/4	3 1/8	3			84512144	34.83			84213727	44.44				
1/4	3/8	1 3/8	3 1/8	3	80262157	56.96										
9/32	3/8	3/4	2 1/2	3	80262298	41.95										
5/16	3/8	7/16	2 3/16	3	80260219	39.38										
5/16	3/8	3/4	2 1/2	3	80260201	33.36										
5/16	3/8	3/4	2 1/2	4			06821987	35.96	45523370	48.43	87144622	37.67	45523412	50.78	62852579	34.84
5/16	3/8	1 1/8	2 15/16	3	80260235	51.28										
5/16	3/8	1 3/8	3 1/8	4									45517158	60.50		
5/16	3/8	1 3/8	3 3/16	4	80262306	40.10										
11/32	3/8	3/4	2 1/2	3	80262314	41.13										
3/8	3/8	7/16	2 3/16	4	80262413	39.38										
3/8	3/8	3/4	2 1/2	4	80260243	29.84	06821995	35.96	45523420	48.43	87144630	37.67	45523461	50.78	62852538	43.43
3/8	3/8	1 1/8	2 15/16	4	80260268	29.37	44839140	55.46			44838993	61.00			62852553	48.45
3/8	3/8	1 1/2	3 1/4	4			62913314	45.62	45523453	57.76	84213735	44.44	45517166	60.50	62852520	51.35
3/8	3/8	1 5/8	3 3/16	4	80262421	34.80	84511641	41.93								
13/32	3/8	1	2 11/16	4	80262447	58.61										
7/16	3/8	1	2 11/16	4	80260284	48.91	62913298	47.13	45523495	71.73	84213859	55.18	45517174	75.11	62852488	51.06
7/16	1/2	1 1/4	3 1/4	4			84511567	46.62								
15/32	1/2	1 1/4	3 1/4	4	80262504	59.17										
1/2	1/2	1/2	2 1/2	3	45403748	38.64	[4]06822225	46.54								
1/2	1/2	5/8	2 5/8	4	80260318	33.43	44839132	61.84			44838985	68.02			62852447	54.84
1/2	1/2	1	3	4	80260300	33.43	44839124	42.64			44838951	42.64	45541075	64.04	62852413	56.53
1/2	1/2	1 1/4	3 1/4	4	80260326	39.08	06822001	47.09	45523511	63.46	02499424	49.43	45523560	66.64	62852421	58.63
1/2	1/2	1 5/8	3 5/8	4	80260359	43.98	44839116	51.65			44838969	51.65	45541083	77.35	62852397	77.05
1/2	1/2	2	4	4	80260334	52.10	06822092	62.77	45523552	84.61	87144648	65.75	45517182	88.65	62852405	78.02
1/2	1/2	2 1/2	4 1/2	4	80260367	64.64							45541091	97.87		
1/2	1/2	3	5	4	50260348	76.45							45541109	110.56		
9/16	1/2	1 1/8	3 3/8	4	80262579	47.07	91192716	56.71			84511559	59.54	45517190	81.02	62852371	64.75
5/8	5/8	5/8	2 3/4	3	45403755	52.99	06822233	63.86			62914445	52.61			62852363	56.96
5/8	5/8	3/4	2 1/8	4	80260375	50.75							45541117	70.58		
5/8	5/8	1 1/4	3 3/8	4	80260383	53.02							45541125	73.31		
5/8	5/8	1 5/8	3 3/4	4	80260409	47.41	06822019	57.13	45523602	77.00	87144655	59.96	45523685	80.79	62852348	72.08
5/8	5/8	2 1/8	4 1/4	4	80260391	64.12										
5/8	5/8	2 1/2	4 5/8	4	80260417	61.22	06822100	73.76	*45523651	99.41	87144663	77.40	45517208	104.18	62852314	93.85
5/8	5/8	3 1/8	5 1/4	4	80260425	81.79							45541141	128.29		
11/16	5/8	1 5/8	3 3/4	4	80262595	82.10										
3/4	5/8	1 5/8	3 3/4	4	80260482	69.24							45517232	102.81		
3/4	3/4	3/4	3	4	80260458	56.01	06822241	67.48	45524808	92.03			45517224	96.26		
3/4	3/4	1 1/4	3 1/2	4	80260466	49.11	44839108	60.22			44838944	60.22	45541166	90.46	62852272	85.94
3/4	3/4	1 5/8	3 7/8	4	80260490	54.44	[2]06822027	65.61	45523719	88.44	[2]87144671	68.76	45523768	92.65		
3/4	3/4	2 1/2	4 3/4	4	80260474	63.52	44839090	74.05			44838936	74.05			62852801	113.15
3/4	3/4	3	5 1/4	4	80260508	71.25	06822126	85.86	45524782	115.70	87144689	89.94	45517216	121.22	62852819	113.19
3/4	3/4	4	6 1/4	4			84213669	111.83			84511526	141.26			62852843	135.85
3/4	3/4	4 1/8	6 3/8	4	80260516	101.71							45541208	161.05		
13/16	3/4	1 7/8	4 1/8	4	80262603	132.96										
7/8	3/4	1 1/8	3 3/8	5	80260524	82.80							*45541224	107.58		
7/8	3/4	1 7/8	4 1/8	5	80260565	78.15	06822035	94.15			87144713	98.59	45517240	132.85	62852215	111.72
7/8	3/4	3 1/2	5 3/4	5									45517257	161.68		
7/8	7/8	1 1/8	3 3/8	5	80262611	89.07							*45541240	127.02		
7/8	7/8	1 7/8	4 1/8	5	80260532	74.27	84213677	89.50			84213768	93.87	45517265	127.77	62852207	111.72
7/8	7/8	3 1/2	5 3/4	5	80260540	90.16	91192724	108.60			75987495	113.91	45517273	154.92	62852199	145.87
1	3/4	3/4	3	5									45517323	110.66		
1	3/4	1 1/8	3 3/8	6	80260581	84.59										
1	3/4	1 1/2	3 3/4	5	80260599	95.51			45525011	130.30			45517315	136.67		
1	3/4	1 7/8	4 1/8	5			06822043	97.16			62914353	110.24			62852181	117.91
1	3/4	2	4 1/4	5	80260623	84.88	91192732	102.26			62914346	113.94			62852165	123.04
1	3/4	3	5 1/4	5	80260607	125.52										
1	3/4	4	6 1/4	5	80260615	131.26										
1	1	1 1/8	3 5/8	5	80260656	126.52										
1	1	1 5/8	4 1/8	5	80260664	100.87										
1	1	2	4 1/2	5	80260649	81.93	06822050	98.72	45523966	133.05	87144721	103.45	45524055	139.41	84511401	103.45
1	1	3	5 1/2	5	80260672	103.83	84213701	125.09	45523982	170.29	84511542	131.17	45517281	178.56	62852140	166.26
1	1	4	6 1/2	5	80260680	111.13	06822134	133.89	45525003	180.44	87144739	140.16	45517299	188.91	84511419	140.16
1	1	6	8 1/2	5	80260730	150.14	91192740	180.89	45525029	246.24	75987511	189.58	45517307	258.08	62852124	242.64
1 1/8	1	2	4 1/2	6	80260706	115.88	06822068	139.60					45517331	199.50		
1 1/8	1	3 1/2	6	6	80260839	123.43	91193086	148.72								
1 1/4	3/4	3/4	3	6					*45524287	170.70			45517398	178.97		
1 1/4	3/4	1 1/8	3 3/8	6	80260896	130.31										
1 1/4	3/4	2	4 1/4	6	80260722	116.10	[3]91192757	139.87								
1 1/4	1 1/4	2	4 1/2	6	80260748	108.79	06822076	131.06	*45524394	236.30	87144754	137.32	45517349	185.11	84511427	137.32
1 1/4	1 1/4	3	5 1/2	6	80260763	143.15	06822118	172.48	*45524295	232.49	87144762	180.80				
1 1/4	1 1/4	4	6 1/2	6	80260771	159.31	75987537	191.93	45525169	261.27	87144770	203.11			84511435	203.11
1 1/4	1 1/4	6	8 1/2	6	80260912	227.52	91192773	274.13	45525185	373.18	87144788	290.05				
1 1/2	3/4	3/4	3	6					*45524402	178.75			*45517471	187.44		

[1] 3 Flute [2]OAL: 3¾" [3]OAL: 4½" [4] 4 Flute *Limited Supply

- Best for heavy cuts, deep slotting and pocketing applications
- Excellent in all steels and ferrous materials
- 2" Shanks have combination drive
- Can be run at heavier feed rates with less chatter and vibration

Surface Treatments:

TiN (Titanium Nitride)
- For general purpose use
- Extends tool life
- Reduces chipping
- Provides an ability to increase machining speeds by 10-20% vs. uncoated tools

TiCN (Titanium Carbonitride)
- For stainless steel, medium hard ferrous and nonferrous materials
- Extends tool life
- Has excellent lubricity and prevents "edge buildup"
- Provides excellent heat and wear resistance
- Provides an ability to increase machining speeds by 30-50% vs. uncoated tools

TiAlN (Titanium Aluminum Nitride)
- For harder materials, high temperature and titanium alloys
- Excellent in cast and nodular irons
- For use at higher machining speeds
- At proper speeds, can be run in dry conditions
- Provides outstanding heat and wear resistance
- Provides an ability to increase machining speeds by 30-50% vs. TiCN coated tools

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