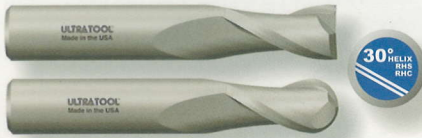
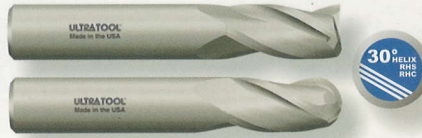


Single End Standard Length End Mills by ULTRATOOL®

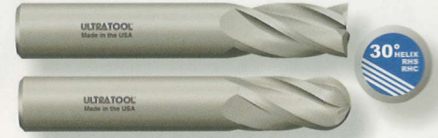
Series 330S Square End  
330B Ball End • Two Flute



Series 362S Square End  
362B Ball End • Three Flute



Series 320S Square End  
320B Ball End • Four Flute



The Ultra-Tool® Series 330, 362, and 320 represents the industry's best value in a general purpose design. These end mills are more than capable of handling 75% of milling applications due to robust geometry, quality craftsmanship, and best-in-class carbide substrate. Most importantly, the Series 330, 362, and 320 all benefit from the Tool Alliance® duo of proprietary & value-added features: SmoothGrind® & SmoothContricity®, with SmoothCoat® and SmoothEdge® available individually for an extra charge. Additionally, special radii and clearance necks can quickly be added to any size.

Detailed Speeds and Feeds instructions can be located on Page #55.

Standard features:

SmoothGrind® SmoothContricity®

Available options:

SmoothCoat® SmoothEdge®



SFR Ultra-Tool End Mill Specs:  
Cutting Diam +.000/-0.002  
Shank Diam +.0000/-0.0003



Diam	LOC	OAL	Shank	330S EDP#	330B EDP#	362S EDP#	362B EDP#	320S EDP#	320B EDP#
1/64	3/64	1-1/2	1/8	33001	33101	36201	36301	32001	32101
1/32	3/32	1-1/2	1/8	33002	33102	36202	36302	32002	32102
3/64	3/16	1-1/2	1/8	33003	33103	36203	36303	32003	32103
1/16	3/16	1-1/2	1/8	33004	33104	36204	36304	32004	32104
5/64	1/4	1-1/2	1/8	33005	33105	36205	36305	32005	32105
3/32	3/8	1-1/2	1/8	33006	33106	36206	36306	32006	32106
7/64	1/2	1-1/2	1/8	33007	33107	36207	36307	32007	32107
1/8	1/2	1-1/2	1/8	33008	33108	36208	36308	32008	32108
9/64	1/2	2"	3/16	33009	33109	36209	36309	32009	32109
5/32	9/16	2"	3/16	33010	33110	36210	36310	32010	32110
11/64	9/16	2"	3/16	33011	33111	36211	36311	32011	32111
3/16	5/8	2"	3/16	33012	33112	36212	36312	32012	32112
13/64	5/8	2-1/2	1/4	33013	33113	36213	36313	32013	32113
7/32	5/8	2-1/2	1/4	33014	33114	36214	36314	32014	32114
15/64	3/4	2-1/2	1/4	33015	33115	36215	36315	32015	32115
1/4	3/4	2-1/2	1/4	33016	33116	36216	36316	32016	32116
17/64	3/4	2-1/2	5/16	33017	33117	36217	36317	32017	32117
9/32	3/4	2-1/2	5/16	33018	33118	36218	36318	32018	32118
19/64	13/16	2-1/2	5/16	33019	33119	36219	36319	32019	32119
5/16	13/16	2-1/2	5/16	33020	33120	36220	36320	32020	32120
21/64	13/16	2-1/2	3/8	33021	33121	36221	36321	32021	32121
11/32	13/16	2-1/2	3/8	33022	33122	36222	36322	32022	32122
23/64	1"	2-1/2	3/8	33023	33123	36223	36323	32023	32123
3/8	1"	2-1/2	3/8	33024	33124	36224	36324	32024	32124
25/64	1"	2-3/4	7/16	33025	33125	36225	36325	32025	32125
13/32	1"	2-3/4	7/16	33026	33126	36226	36326	32026	32126
27/64	1"	2-3/4	7/16	33027	33127	36227	36327	32027	32127
7/16	1"	2-3/4	7/16	33028	33128	36228	36328	32028	32128
29/64	1"	3"	1/2	33029	33129	36229	36329	32029	32129
15/32	1"	3"	1/2	33030	33130	36230	36330	32030	32130
31/64	1"	3"	1/2	33031	33131	36231	36331	32031	32131
1/2	1"	3"	1/2	33032	33132	36232	36332	32032	32132
9/16	1-1/4	3-1/2	9/16	33034	33134	36234	36334	32034	32134
5/8	1-1/2	3-1/2	5/8	33036	33136	36236	36336	32036	32136
11/16	1-1/2	4"	3/4	33038	33138	36238	36338	32038	32138
3/4	1-1/2	4"	3/4	33040	33140	36240	36340	32040	32140
7/8	1-1/2	4"	7/8	33044	33144	36244	36344	32044	32144
1"	1-1/2	4"	1"	33048	33148	36248	36348	32048	32148
1-1/4	2"	4-1/2	1-1/4	33080	33180	36280	36380	32080	32180