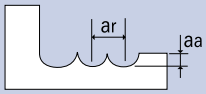
List 8990: 2 Flute, Stub Length, Long Neck, Ball End

Contouring

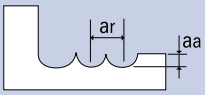
Hardness	-				-			
Work Material	Copper, Aluminum				Copper Alloy, Aluminum Alloy			
Depth of Cut								
Mill Dia. mm	Neck Length mm	Speed RPM	Feed IPM	Aa (Inch)	Ar (Inch)	Speed RPM	Feed IPM	Aa (Inch)	Ar (Inch)
0.1	0.3	38,400	8.86	0.00020	0.00039	32,000	4.72	0.00020	0.00031
0.1	0.5	38,400	7.09	0.00020	0.00039	32,000	3.78	0.00020	0.00031
0.15	0.3	38,400	10.12	0.00031	0.00079	32,000	5.39	0.00031	0.00059
0.15	0.5	38,400	8.86	0.00031	0.00079	32,000	4.72	0.00031	0.00083
0.15	1	38,400	7.09	0.00020	0.00039	32,000	3.78	0.00020	0.00043
0.2	0.3	38,400	17.72	0.00079	0.00157	32,000	9.45	0.00079	0.00118
0.2	0.5	38,400	17.72	0.00079	0.00157	32,000	9.45	0.00079	0.00118
0.2	1	38,400	8.86	0.00079	0.00157	32,000	4.72	0.00079	0.00118
0.2	1.5	38,400	8.86	0.00079	0.00157	32,000	4.72	0.00079	0.00118
0.3	0.6	38,400	35.43	0.00079	0.00236	32,000	18.90	0.00079	0.00177
0.3	1	38,400	26.57	0.00079	0.00236	32,000	14.17	0.00079	0.00177
0.3	1.5	38,400	26.57	0.00079	0.00236	32,000	14.17	0.00079	0.00177
0.3	2	38,400	26.57	0.00079	0.00236	32,000	14.17	0.00079	0.00177
0.4	1	38,400	35.43	0.00098	0.00394	32,000	18.90	0.00098	0.00295
0.4	2	32,400	26.57	0.00098	0.00394	27,000	14.17	0.00098	0.00295
0.4	3	32,400	26.57	0.00098	0.00394	27,000	14.17	0.00098	0.00295
0.4	4	32,400	26.57	0.00039	0.00236	27,000	14.17	0.00039	0.00177
0.5	1	38,400	44.29	0.00157	0.00394	32,000	23.62	0.00157	0.00295
0.5	2	38,400	35.43	0.00157	0.00394	32,000	18.90	0.00157	0.00295
0.5	3	32,400	26.57	0.00157	0.00394	27,000	14.17	0.00157	0.00295
0.5	4	32,400	26.57	0.00157	0.00394	27,000	14.17	0.00157	0.00295
0.5	5	25,200	17.72	0.00157	0.00394	21,000	9.45	0.00157	0.00295
0.6	1	38,400	88.58	0.00354	0.00472	32,000	56.69	0.00315	0.00472
0.6	2	38,400	66.46	0.00354	0.00472	32,000	42.52	0.00315	0.00472
0.6	3	36,000	36.93	0.00354	0.00472	30,000	23.62	0.00315	0.00472
0.6	4	36,000	36.93	0.00354	0.00472	30,000	23.62	0.00315	0.00472
0.6	5	36,000	36.93	0.00354	0.00472	30,000	23.62	0.00315	0.00472
0.6	6	30,000	22.17	0.00354	0.00472	25,000	14.17	0.00315	0.00472
0.8	2	32,400	66.46	0.00472	0.00630	27,000	42.52	0.00433	0.00630
0.8	3	32,400	66.46	0.00472	0.00630	27,000	42.52	0.00433	0.00630
0.8	4	32,400	66.46	0.00472	0.00630	27,000	42.52	0.00433	0.00630
0.8	6	28,800	36.93	0.00472	0.00472	24,000	23.62	0.00433	0.00472
0.8	8	26,400	22.17	0.00472	0.00472	22,000	14.17	0.00433	0.00472
1	2	33,600	73.82	0.00591	0.00787	28,000	47.24	0.00551	0.00787
1	3	33,600	73.82	0.00591	0.00787	28,000	47.24	0.00551	0.00787
1	4	33,600	73.82	0.00591	0.00787	28,000	47.24	0.00551	0.00787
1	5	25,200	44.29	0.00591	0.00787	21,000	28.35	0.00551	0.00787
1	6	25,200	44.29	0.00591	0.00787	21,000	28.35	0.00551	0.00787
1	8	25,200	44.29	0.00591	0.00591	21,000	28.35	0.00551	0.00591
1	10	21,600	29.53	0.00472	0.00472	18,000	18.90	0.00433	0.00472
1	12	21,600	29.53	0.00472	0.00472	18,000	18.90	0.00433	0.00472
1.5	4	24,000	88.58	0.00945	0.01181	20,000	56.69	0.00866	0.01181
1.5	6	21,600	73.82	0.00945	0.01181	18,000	47.24	0.00866	0.01181
1.5	12	20,400	44.29	0.00945	0.00945	17,000	28.35	0.00866	0.00945
1.5	18	15,600	29.53	0.00709	0.00709	13,000	18.90	0.00630	0.00709
2	4	19,800	103.35	0.01181	0.02205	16,500	66.14	0.01063	0.02205
2	6	19,800	103.35	0.01181	0.02205	16,500	66.14	0.01063	0.02205
2	8	19,800	103.35	0.01181	0.02205	16,500	66.14	0.01063	0.02205
2	10	16,800	73.82	0.01181	0.02205	14,000	47.24	0.01063	0.02205
2	12	16,800	73.82	0.01181	0.02205	14,000	47.24	0.01063	0.02205
2	14	16,800	73.82	0.01181	0.02205	14,000	47.24	0.01063	0.02205
2	16	16,800	73.82	0.01181	0.01654	14,000	47.24	0.01063	0.01654
2	20	13,200	36.93	0.01181	0.01654	11,000	23.62	0.01063	0.01654
2	25	13,200	36.93	0.01181	0.01654	11,000	23.62	0.01063	0.01654
3	10	14,400	88.58	0.01575	0.03307	12,000	56.69	0.01417	0.03307
3	12	12,000	88.58	0.01575	0.03307	10,000	56.69	0.01417	0.03307
3	14	12,000	88.58	0.01575	0.03307	10,000	56.69	0.01417	0.03307
3	16	12,000	44.29	0.01575	0.03307	10,000	28.35	0.01417	0.03307

1. Use a rigid and precise machine and holder.
2. Please adjust the speed and feed when the cutting depth is large or when machines with low rigidity are used.
3. Use a water soluble fluid.
4. Use a non-water-soluble cutting fluid if the machined surface and accuracy are of critical importance.
5. Always use a cutting fluid recommended by the cutting fluid manufacturer as the workpiece may discolor.

CONTINUED

List 8990: 2 Flute, Stub Length, Long Neck, Ball End (Continued)

Contouring

Hardness		-				-			
Work Material		Copper, Aluminum				Copper Alloy, Aluminum Alloy			
Depth of Cut									
Mill Dia.	Neck Length	Speed RPM	Feed IPM	Aa (Inch)	Ar (Inch)	Speed RPM	Feed IPM	Aa (Inch)	Ar (Inch)
mm	mm								
3	20	12,000	44.29	0.01575	0.03307	10,000	28.35	0.01417	0.03307
3	25	12,000	44.29	0.01575	0.03307	10,000	28.35	0.01417	0.03307
3	30	10,800	36.93	0.01575	0.03307	9,000	23.62	0.01417	0.03307
4	10	10,800	118.11	0.03937	0.05118	9,000	75.59	0.03543	0.05118
4	15	10,800	9.84	0.03937	0.05118	9,000	56.69	0.03543	0.05118
4	20	4,800	59.06	0.03937	0.05118	7,000	37.80	0.03543	0.05118
4	25	4,800	59.06	0.03937	0.05118	7,000	37.80	0.03543	0.05118
4	30	4,800	59.06	0.03150	0.05118	7,000	37.80	0.02756	0.05118
4	40	6,000	36.93	0.02756	0.05118	5,000	23.62	0.02362	0.05118
6	10	10,800	132.87	0.04724	0.07087	9,000	85.04	0.04331	0.07087
6	15	10,800	132.87	0.04724	0.07087	9,000	85.04	0.04331	0.07087
6	20	8,400	73.82	0.04724	0.07087	7,000	47.24	0.04331	0.07087
6	30	7,200	73.82	0.04724	0.07087	6,000	47.24	0.04331	0.07087
6	50	6,000	44.29	0.03150	0.07087	5,000	28.35	0.02756	0.07087

1. Use a rigid and precise machine and holder.
2. Please adjust the speed and feed when the cutting depth is large or when machines with low rigidity are used.
3. Use a water soluble fluid.
4. Use a non-water-soluble cutting fluid if the machined surface and accuracy are of critical importance.
5. Always use a cutting fluid recommended by the cutting fluid manufacturer as the workpiece may discolor.