

## 2-Flute Double End Regular Length HSCO

Excellent tool geometry for slotting, keying and general purpose milling, plus the added economy offered by the double-end design.

- 2 helical flutes
- Centre cutting
- Double end with weldon shank

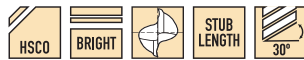


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Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	Code No.	Price \$
<b>Inch</b>					
1/8	3/8	3/8	3-1/16	103180	25.83
5/32	3/8	7/16	3-1/8	103182	25.83
3/16	3/8	7/16	3-1/8	103184	25.83
7/32	3/8	1/2	3-1/8	103186	24.38
1/4	3/8	1/2	3-1/8	103188	25.83
9/32	3/8	9/16	3-1/8	103190	24.38
5/16	3/8	9/16	3-1/8	103192	25.83
11/32	3/8	9/16	3-1/8	103194	25.83
3/8	3/8	9/16	3-1/8	103196	24.38
13/32	1/2	9/16	3-1/8	103198	40.24
7/16	1/2	13/16	3-3/4	103200	40.24
15/32	1/2	13/16	3-3/4	103202	30.54
1/2	1/2	13/16	3-3/4	103204	40.24
9/16	5/8	1-1/8	4-1/2	103206	67.23
5/8	5/8	1-1/8	4-1/2	103208	67.21
11/16	3/4	1-5/16	5	103210	61.34
3/4	3/4	1-5/16	5	103212	79.21
1	1	1-5/8	5-7/8	103220	114.61

## 2-Flute Double End Stub Length Miniature HSCO

Tools under Miniature End Mills have 3/16" shank diameter without flats. Designed with positive rake angle geometry and a high helix angle to ensure free cutting action. Flute design provides good strength behind the cutting edge. Suitable for finishing of precision components such as watch, camera and electronic apparatus molds.



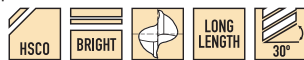
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Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	Code No.	Price \$
<b>Inch</b>					
1/32	3/16	3/64	2	103281	19.87
3/64	3/16	1/16	2	103282	18.96
1/16	3/16	3/32	2	103283	18.01
5/64	3/16	1/8	2	103284	17.57
3/32	3/16	9/64	2	103285	19.30
7/64	3/16	5/32	2	103286	15.39
1/8	3/16	3/16	2	103288	18.01
9/64	3/16	7/32	2	103289	17.01
5/32	3/16	15/64	2	103290	19.09
11/64	3/16	1/4	2	103291	18.01
3/16	3/16	9/32	2	103292	15.39

## 2-Flute Double End Long Length Miniature HSCO

Longer flute length. Suitable for finishing of precision components such as watch, camera and electronic apparatus molds.

- Long length
- 2 helical flutes
- Double end with straight shank



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Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	Code No.	Price \$
<b>Inch</b>					
1/16	3/16	7/32	2-1/2	103452	19.43
5/64	3/16	1/4	2-1/2	103453	19.43
3/32	3/16	9/32	2-5/8	103454	19.43
7/64	3/16	9/32	2-5/8	103455	20.63
1/8	3/16	3/4	3-1/8	103456	19.51
9/64	3/16	3/4	3-1/8	103457	21.97
5/32	3/16	7/8	3-1/4	103458	20.71
11/64	3/16	7/8	3-1/4	103459	19.51
3/16	3/16	1	3-3/8	103460	20.71

## 2-Flute Double End Regular Length Miniature HSCO

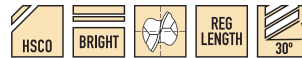
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Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	Code No.	Price \$
<b>Inch</b>					
1/32	3/16	3/32	2-1/4	103441	19.87
3/64	3/16	9/64	2-1/4	103442	18.96
1/16	3/16	3/16	2-1/4	103443	18.01
5/64	3/16	15/64	2-1/4	103444	18.01
3/32	3/16	9/32	2-1/4	103445	18.01
7/64	3/16	21/64	2-1/4	103446	18.01
1/8	3/16	3/8	2-1/4	103447	18.01
9/64	3/16	13/32	2-1/4	103448	17.01
5/32	3/16	7/16	2-1/4	103449	17.01
11/64	3/16	1/2	2-1/4	103450	17.01
3/16	3/16	1/2	2-1/4	103451	18.01

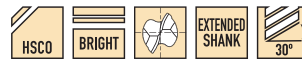
## 2-Flute Ball Nose Regular Length HSCO



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Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	Comb. Shank Code No.	Price \$	Weldon Flat Code No.	Price \$
<b>Inch</b>							
1/8	3/8	3/8	2-5/16	103801	26.46	103394	24.51
3/16	3/8	1/2	2-3/8	103802	19.83	103395	24.51
1/4	3/8	5/8	2-7/16	103803	21.04	103396	24.51
5/16	3/8	3/4	2-1/2	103804	19.83	103397	26.69
3/8	3/8	3/4	2-1/2	-	-	103398	26.69
7/16	1/2	1	3	103806	28.08	103399	39.80
1/2	1/2	1	3	-	-	103400	39.89
5/8	5/8	1-3/8	3-1/2	103808	47.81	103402	58.43
3/4	3/4	1-5/8	3-7/8	103809	61.13	103404	77.02
7/8	3/4	2	4-1/4	103810	70.35	103405	106.44
1	1	2-1/4	4-3/4	103811	108.55	103406	123.21

## 2-Flute Ball Nose Extended Shank HSCO



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Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Length Below Shank	Overall Length (in.)	Comb. Shank Code No.	Price \$	Weldon Flat Code No.	Price \$
<b>Inch</b>								
1/8	3/8	3/8	13/16	2-3/8	103821	26.34	103410	34.10
3/16	3/8	1/2	1-1/8	2-11/16	103822	26.34	103411	34.10
1/4	3/8	5/8	1-1/2	3-1/16	103823	26.34	103412	34.10
5/16	3/8	3/4	1-3/4	3-5/16	-	-	103413	42.63
3/8	3/8	3/4	1-3/4	3-5/16	103825	26.45	103414	42.63
7/16	1/2	1	1-7/8	3-11/16	-	-	103415	53.01
1/2	1/2	1	2-1/4	4	103827	31.98	103416	56.15
5/8	5/8	1-3/8	2-3/4	4-5/8	-	-	103417	76.73
3/4	3/4	1-5/8	3-3/8	5-3/8	-	-	103418	97.88
1	1	2-1/2	5	7-1/4	103830	118.69	103419	153.34