

### 2-Flute Ball Nose Double End HSCO & HSS



Speeds & Feeds > P. A43

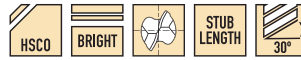
Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	HSCO Code No.	Price \$	HSS Code No.	Price \$
<b>Inch</b>							
1/8	3/8	3/8	3-1/16	104174	52.84	104226	41.33
3/16	3/8	7/16	3-1/8	104176	44.50	104228	42.95
1/4	3/8	1/2	3-1/8	104178	56.06	104230	37.15
5/16	3/8	9/16	3-1/8	104180	56.06	104232	21.48
3/8	3/8	9/16	3-1/8	104182	52.84	104234	37.15
7/16	1/2	13/16	3-3/4	104184	74.60	104236	52.15
1/2	1/2	13/16	3-3/4	104186	77.51	104238	54.20
5/8	5/8	1-1/8	4-1/2	104188	100.61	104240	92.06
3/4	3/4	1-5/16	5	104190	154.62	104242	72.38
1	1	1-5/8	5-7/8	104192	202.91	104244	162.45

### 2-Flute Ball Nose Double End Stub Length Mini HSCO



Helical flute on the nose radius. Suitable for high efficiency copying process and cutting of die mold corner radius.

- Stub length
- 2 helical flutes, ball end
- Double end with straight shank



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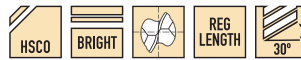
Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	Code No.	Price \$
<b>Inch</b>					
1/16	3/16	3/32	2	103270	42.88
3/32	3/16	9/64	2	103271	42.88
1/8	3/16	3/16	2	103272	37.51
5/32	3/16	15/64	2	103273	36.10
3/16	3/16	9/32	2	103274	39.80

### 2-Flute Ball Nose Double End Regular Length Mini HSCO



Helical flute on the nose radius. Suitable for high efficiency copying process and cutting of die mold corner radius.

- Regular length
- 2 helical flutes, ball end
- Double end with straight shank



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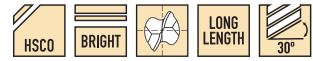
Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	Code No.	Price \$
<b>Inch</b>					
1/32	3/16	3/32	2	103420	48.37
3/64	3/16	1/16	2	103421	48.65
1/16	3/16	3/32	2	103488	43.60
5/64	3/16	1/8	2	103489	44.02
3/32	3/16	9/64	2	103490	43.60
7/64	3/16	21/64	2-1/4	103491	48.50
1/8	3/16	3/8	2-1/4	103492	38.42
9/64	3/16	13/32	2-1/4	103493	38.95
5/32	3/16	7/16	2-1/4	103494	38.12
11/64	3/16	1/2	2-1/4	103495	38.95
3/16	3/16	1/2	2-1/4	103496	42.77

### 2-Flute Ball Nose Double End Long Length Mini HSCO



Longer flute length. Helical flute on the nose radius. Suitable for high efficiency copying process and cutting of die mold corner radius.

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



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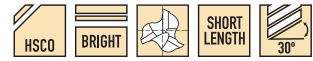
Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	Code No.	Price \$
<b>Inch</b>					
1/16	3/16	7/32	2-1/2	103497	46.19
3/32	3/16	9/32	2-5/8	103499	44.44
1/8	3/16	3/4	3-1/8	103501	43.11
5/32	3/16	7/8	3-1/4	103503	45.76
3/16	3/16	1	3-3/8	103504	41.46

### 3-Flute Short Length Throwaway HSCO



Well balanced web design to minimize deflection and chattering. High accuracy for outside diameter is guaranteed under the strict tolerance control.

- 3 helical flutes
- Single end with weldon shank



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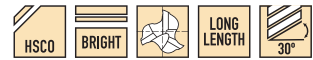
Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	Code No.	Price \$
<b>Inch</b>					
1/16	1/4	3/32	31/32	103580	14.89
3/32	1/4	5/32	1-1/64	103582	14.89
1/8	1/4	3/16	1-3/32	103584	14.89
5/32	1/4	1/4	1-9/32	103586	14.89
3/16	1/4	9/32	1-11/32	103588	14.89
7/32	1/4	5/16	1-13/32	103590	14.89
1/4	1/4	3/8	1-13/32	103592	14.89

### 3-Flute Long Length Throwaway HSCO



Well balanced web design to minimize deflection and chattering. High accuracy for outside diameter is guaranteed under the strict tolerance control.

- 3 helical flutes
- Single 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>					
1/16	1/4	5/32	1-3/32	103594	16.69
5/64	1/4	7/32	1-3/16	103596	16.18
3/32	1/4	1/4	1-1/4	103598	16.18
7/64	1/4	9/32	1-9/32	103600	16.18
1/8	1/4	5/16	1-11/32	103602	16.69
9/64	1/4	11/32	1-7/16	103604	16.18
5/32	1/4	3/8	1-17/32	103606	16.69
11/64	1/4	13/32	1-19/32	103608	13.59
3/16	1/4	7/16	1-21/32	103610	16.69
13/64	1/4	15/32	1-11/16	103612	16.18
7/32	1/4	1/2	1-3/4	103614	16.69
15/64	1/4	9/16	1-13/16	103616	13.08
1/4	1/4	5/8	1-3/4	103618	16.69