



SOWA

HIGH PERFORMANCE TAPS

*We have taken the
guess work out of
your tap selection!*

HSSE-V3 ANSI SHANK Blue Ring

HSSE-V3 ANSI SHANK Yellow Ring

HSSE-V3 ANSI SHANK Orange Ring

SPIRAL POINT BLUE RING TAPS



Designed for high-speed tapping applications. Developed to withstand the high stress and high heat associated with high-speed CNC production or conventional tapping. Features a unique free-cutting design with a special tempering and geometry which contributes to extra tool life.

- Used in general machine tapping applications for mild carbon steels such as 1018, 1010, 1035, 1045, 1050 and 1065
- Up to 25 HRC

• 4.5 PITCH LEAD (INTERMEDIATE)



cutting conditions

Materials			Hardness (HRC)	Cutting Speed (FPM)
Main Group	Sub-Group	Condition		
Low carbon	1018, 1010, 1035	Normalized	<25	20-50
Medium carbon	1045, 1050, 1065	Normalized	<25	20-40
Aluminum	Unalloyed, cast	–	–	30-80
Brass/bronze	–	–	–	30-80
Copper	–	–	–	25-60
Cast iron	–	As cast	<15	20-40

■ HSSE-V3 SPIRAL POINT TAPS INCH

Tap	Threads Per Inch	No. Flutes	Thread Limits	Overall Length (in)	Thread Length (in)	Code No.	List Price \$
NC							
4	40	2	H2	1-7/8	.433	119-700	7.90
6	32	3	H3	2	.512	119-701	8.30
8	32	3	H3	2-1/8	.512	119-702	8.30
10	24	2	H3	2-3/8	.512	119-703	8.30
10	24	3	H3	2-3/8	.512	119-704	8.30
12	24	3	H3	2-3/8	.512	119-705	9.50
1/4	20	2	H3	2-1/2	.630	119-706	9.50
1/4	20	3	H3	2-1/2	.630	119-707	9.50
5/16	18	2	H3	2-23/32	.748	119-708	11.70
5/16	18	3	H3	2-23/32	.748	119-709	11.70
3/8	16	2	H3	2-15/16	.748	119-710	11.90
3/8	16	3	H3	2-15/16	.748	119-711	11.90
7/16	14	3	H3	3-5/32	.866	119-712	19.00
1/2	13	3	H3	3-3/8	.945	119-713	21.50
5/8	11	3	H3	3-13/16	1.102	119-714	33.10
3/4	10	3	H3	4-1/4	1.220	119-715	52.00
7/8	9	3	H4	4-11/16	1.339	119-716	67.30
1	8	3	H4	5-1/8	1.496	119-717	91.10
1-1/8	7	4	H4	5-7/16	1.732	119-718	132.00
1-1/4	7	4	H4	5-3/4	1.732	119-719	141.80
1-3/8	6	4	H4	6-1/16	2.000	119-720	186.20
1-1/2	6	4	H4	6-3/8	2.000	119-721	245.40

Tap	Threads Per Inch	No. Flutes	Thread Limits	Overall Length (in)	Thread Length (in)	Code No.	List Price \$
NF							
6	40	3	H2	2	.512	119-722	8.30
10	32	2	H3	2-3/8	.512	119-723	8.30
10	32	3	H3	2-3/8	.512	119-724	8.30
1/4	28	2	H3	2-1/2	.630	119-725	9.50
1/4	28	3	H3	2-1/2	.630	119-726	9.50
5/16	24	2	H3	2-23/32	.748	119-727	11.70
5/16	24	3	H3	2-23/32	.748	119-728	11.70
3/8	24	2	H3	2-15/16	.748	119-729	11.90
3/8	24	3	H3	2-15/16	.748	119-730	11.90
7/16	20	3	H3	3-5/32	.866	119-731	19.00
1/2	20	3	H3	3-3/8	.945	119-732	21.50
5/8	18	3	H3	3-13/16	1.102	119-733	33.10
3/4	16	3	H3	4-1/4	1.220	119-734	52.00
7/8	14	3	H4	4-11/16	1.339	119-735	67.30
1	12	3	H4	5-1/8	1.496	119-736	91.10
1-1/8	12	4	H4	5-7/16	1.732	119-737	132.00
1-1/4	12	4	H4	5-3/4	1.732	119-738	141.80
1-3/8	12	4	H4	6-1/16	2.000	119-739	194.70
1-1/2	12	4	H4	6-3/8	2.000	119-740	256.70

■ HSSE-V3 SPIRAL POINT TAPS METRIC

Nominal Size and Pitch	No. Flutes	Thread Limits	Overall Length (in)	Thread Length (in)	Code No.	List Price \$
M2 x .4	2	D3	1-3/4	.433	119-750	19.30
M2.5 x .45	2	D3	1-13/16	.512	119-751	15.40
M3 x .5	3	D3	1-15/16	.433	119-752	13.10
M3.5 x .6	3	D4	2	.512	119-753	9.50
M4 x .7	3	D4	2-1/8	.512	119-754	9.50
M4.5 x .75	3	D4	2-3/8	.512	119-755	9.50
M5 x .8	3	D4	2-3/8	.512	119-756	11.00
M6 x 1	3	D5	2-1/2	.630	119-757	11.00
M7 x 1	3	D5	2-23/32	.630	119-758	13.70
M8 x 1	3	D5	2-23/32	.748	119-759	13.70
M8 x 1.25	3	D5	2-23/32	.748	119-760	13.70
M10 x 1.25	3	D5	2-15/16	.748	119-761	21.80
M10 x 1.5	3	D6	2-15/16	.748	119-762	21.80
M12 x 1.25	3	D5	3-3/8	.945	119-763	24.60
M12 x 1.75	3	D6	3-3/8	.945	119-764	24.60
M14 x 1.5	3	D6	3-19/32	.984	119-765	36.90
M14 x 2	3	D7	3-19/32	.984	119-766	36.90
M16 x 1.5	3	D6	3-13/16	1.102	119-767	43.50
M16 x 2	3	D7	3-13/16	1.102	119-768	43.50
M18 x 1.5	3	D6	4-1/32	1.102	119-769	53.40
M18 x 2.5	3	D7	4-1/32	1.102	119-770	53.40
M20 x 1.5	3	D5	4-15/32	1.220	119-771	69.40
M20 x 2.5	3	D6	4-15/32	1.220	119-772	69.40
M22 x 1.5	3	D6	4-11/16	1.339	119-773	82.70
M22 x 2.5	3	D6	4-11/16	1.339	119-774	82.70
M24 x 1.5	3	D5	4-29/32	1.339	119-775	96.30
M24 x 3	3	D7	4-29/32	1.339	119-776	96.30
M27 x 1.5	4	D7	5-1/8	1.181	119-777	123.50
M27 x 3	4	D7	5-1/8	1.181	119-778	123.50
M30 x 1.5	4	D7	5-7/16	1.378	119-779	141.80
M30 x 3.5	4	D7	5-7/16	1.378	119-780	141.80

SPIRAL FLUTE BLUE RING TAPS



Designed for high-speed tapping applications. Developed to withstand the high stress and high heat associated with high-speed CNC production or conventional tapping. Features a unique free-cutting design with a special tempering and geometry which contributes to extra tool life.

- Used in general machine tapping applications for mild carbon steels such as 1018, 1010, 1035, 1045, 1050 and 1065
- Up to 25 HRC

• 2.5 PITCH LEAD (BOTTOMING)

■ HSSE-V3 SPIRAL FLUTE TAPS INCH

Tap	Threads Per Inch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	List Price \$
NC							
4	40	2	H2	1-7/8	.433	119-800	15.20
6	32	3	H3	2	.512	119-801	13.70
8	32	3	H3	2-1/8	.512	119-802	17.10
10	24	3	H3	2-3/8	.512	119-803	16.70
1/4	20	3	H3	2-3/8	.630	119-804	17.10
5/16	18	3	H3	2-1/2	.748	119-805	21.70
3/8	16	3	H3	2-23/32	.748	119-806	26.10
7/16	14	3	H3	2-15/16	.866	119-807	39.00
1/2	13	3	H3	3-3/8	.945	119-808	42.70
5/8	11	4	H3	3-13/16	1.102	119-809	55.40
3/4	10	4	H3	4-1/4	1.220	119-810	70.30
7/8	9	4	H4	4-11/16	1.339	119-811	107.30
1	8	4	H4	5-1/8	1.496	119-812	142.90
1-1/8	7	4	H4	5-7/16	1.732	119-813	217.30
1-1/4	7	4	H4	5-3/4	1.732	119-814	233.10
1-3/8	6	4	H4	6-1/16	2.000	119-815	312.70
1-1/2	6	4	H4	6-3/8	2.000	119-816	357.10

■ NF

10	32	3	H3	2-3/8	.512	119-817	16.70
1/4	28	3	H3	2-1/2	.630	119-818	17.10
5/16	24	3	H3	2-23/32	.748	119-819	21.70
3/8	24	3	H3	2-15/16	.748	119-820	26.10
7/16	20	3	H3	2-15/16	.866	119-830	39.00
1/2	20	3	H3	3-3/8	.945	119-821	42.70
5/8	18	4	H3	3-13/16	1.102	119-822	55.40
3/4	16	4	H3	4-1/4	1.220	119-823	70.30
7/8	14	4	H4	4-11/16	1.339	119-824	107.30
1	12	4	H4	5-1/8	1.496	119-825	142.90
1-1/8	12	4	H4	5-7/16	1.732	119-826	217.30
1-1/4	12	4	H4	5-3/4	1.732	119-827	233.10
1-3/8	12	4	H4	6-1/16	2.000	119-828	312.70
1-1/2	12	4	H4	6-3/8	2.000	119-829	357.10

cutting conditions				
Materials			Hardness (HRC)	Cutting Speed (FPM)
Main Group	Sub-Group	Condition		
Low carbon	1018, 1010, 1035	Normalized	<25	20-50
Medium carbon	1045, 1050, 1065	Normalized	<25	20-40
Aluminum	Unalloyed, cast	-	-	30-80
Brass/bronze	-	-	-	30-80
Copper	-	-	-	25-60
Cast iron	-	As cast	<15	20-40

■ HSSE-V3 SPIRAL FLUTE TAPS METRIC

Nominal Size and Pitch	No. Flutes	Thread Limits	Overall Length (in)	Thread Length (in)	Code No.	List Price \$
M3 x .5	3	D3	1-15/16	.433	119-840	19.60
M3.5 x .6	3	D4	2	.512	119-841	19.60
M4 x .7	3	D4	2-1/8	.512	119-842	19.60
M5 x .8	3	D4	2-3/8	.512	119-843	19.60
M6 x 1	3	D5	2-1/2	.630	119-844	19.60
M7 x 1	3	D5	2-23/32	.630	119-845	30.00
M8 x 1	3	D5	2-23/32	.748	119-846	30.00
M8 x 1.25	3	D5	2-23/32	.748	119-847	30.00
M10 x 1.25	3	D5	2-15/16	.748	119-848	44.90
M10 x 1.5	3	D6	2-15/16	.748	119-849	44.90
M12 x 1.25	3	D5	3-3/8	.945	119-850	49.00
M12 x 1.75	3	D6	3-3/8	.945	119-851	49.00
M14 x 1.5	3	D6	3-19/32	.984	119-852	62.00
M14 x 2	3	D7	3-19/32	.984	119-853	62.00
M16 x 1.5	3	D6	3-13/16	1.102	119-854	78.80
M16 x 2	3	D7	3-13/16	1.102	119-855	78.80
M18 x 1.5	4	D6	4-1/32	1.102	119-856	114.00
M18 x 2.5	4	D7	4-1/32	1.102	119-857	114.00
M20 x 1.5	4	D5	4-15/32	1.220	119-858	134.40
M20 x 2.5	4	D6	4-15/32	1.220	119-859	134.40
M22 x 1.5	4	D6	4-11/16	1.339	119-860	145.30
M22 x 2.5	4	D6	4-11/16	1.339	119-861	145.30
M24 x 1.5	4	D5	4-29/32	1.339	119-862	156.20
M24 x 3	4	D7	4-29/32	1.339	119-863	156.20
M27 x 1.5	4	D7	5-1/8	1.181	119-864	253.60
M27 x 3	4	D7	5-1/8	1.181	119-865	253.60
M30 x 1.5	4	D7	5-7/16	1.378	119-866	272.20
M30 x 3.5	4	D7	5-7/16	1.378	119-867	272.20

SPIRAL POINT YELLOW RING TAPS



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hsse-v3% Vanadium

- Superior performance in hardened tool steels such as 4140, 4340, H13, D2. • **4.5 PITCH LEAD (INTERMEDIATE)**
- Up to 35 HRC

■ HSSE-V3 SPIRAL POINT TAPS INCH

Tap	Threads Per Inch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	List Price \$
NC							
2	56	2	H2	1-3/4	.433	122-550	11.60
3	48	2	H2	1-13/16	.512	122-552	11.60
4	40	2	H2	1-7/8	.433	123-296	7.90
4	40	2	*H3	1-7/8	.433	122-554*	7.90
6	32	3	H3	2	.512	123-300	8.30
8	32	3	H3	2-1/8	.512	123-302	8.30
10	24	3	H3	2-3/8	.512	123-304	8.30
12	24	3	H3	2-3/8	.512	123-306	9.50
1/4	20	3	H3	2-1/2	.630	123-308	9.50
5/16	18	3	H3	2-23/32	.748	123-310	11.70
3/8	16	3	H3	2-15/16	.748	123-312	11.90
7/16	14	3	H3	3-5/32	.866	123-314	19.00
1/2	13	3	H3	3-3/8	.945	123-316	21.50
5/8	11	3	H3	3-13/16	1.102	123-318	33.10
3/4	10	3	H3	4-1/4	1.220	123-320	52.00
7/8	9	3	H4	4-11/16	1.339	123-321	67.30
1	8	4	H4	5-1/8	1.496	123-323	91.10
1-1/8	7	4	H4	5-7/16	1.732	123-364	132.00
1-1/4	7	4	H4	5-3/4	1.732	123-367	141.80
1-3/8	6	4	H4	6-1/16	2.000	123-371	186.20
1-1/2	6	4	H4	6-3/8	2.000	123-363	245.40

Tap	Threads Per Inch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	List Price \$
NF							
6	40	3	H3	2	.512	123-334	8.30
10	32	3	H3	2-3/8	.512	123-338	8.30
1/4	28	3	H3	2-1/2	.630	123-342	9.50
5/16	24	3	H3	2-23/32	.748	123-344	11.70
3/8	24	3	H3	2-15/16	.748	123-346	11.90
7/16	20	3	H3	3-5/32	.866	123-348	19.00
1/2	20	3	H3	3-3/8	.945	123-350	21.50
5/8	18	3	H3	3-13/16	1.102	123-352	33.10
3/4	16	3	H3	4-1/4	1.220	123-353	52.00
7/8	14	3	H4	4-11/16	1.339	123-359	67.30
1	12	4	H4	5-1/8	1.496	123-361	91.10
1	14	4	H4	5-1/8	1.496	123-360	91.10
1-1/8	12	4	H4	5-7/16	1.732	123-365	132.00
1-1/4	12	4	H4	5-3/4	1.732	123-369	141.80
1-3/8	12	4	H4	6-1/16	2.000	123-373	194.70
1-1/2	12	4	H4	6-3/8	2.000	123-375	256.70

*SPECIAL LIMIT

cutting conditions

Materials			Hardness (HRC)	Cutting Speed (FPM)
Main Group	Sub-Group	Condition		
Tool steels	01, A-2,D-2 H-13,P-20	Annealed	<35	15-25
Medium Carbon	1030, 1035 1038,1040 1045, 1050	Normalized	<28	20-40
Alloyed high carbon	1065, 1070, 1080, 1090 1095, 1561, 1572	Normalized	<32	20-30
High strength Titanium	4140, 4340	Normalized	<32	20-30
	Commercially pure	Annealed	<32	15-30
Aluminum	Cast, wrought	-	-	30-90

■ HSSE-V3 SPIRAL POINT TAPS METRIC

Nominal Size and Pitch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	List Price \$
M2 x .4	2	D3	1-3/4	.433	123-502	19.30
M2.5 x .45	2	D3	1-13/16	.512	123-504	15.40
M3 x .5	3	D3	1-15/16	.433	123-505	13.10
M3.5 x .6	3	D4	2	.512	123-506	9.50
M4 x .7	3	D4	2-1/8	.512	123-507	9.50
M4.5 x .75	3	D4	2-3/8	.512	123-508	9.50
M5 x .8	3	D4	2-3/8	.512	123-509	11.00
M6 x 1	3	D5	2-1/2	.630	123-510	11.00
M7 x 1	3	D5	2-23/32	.630	123-511	13.70
M8 x 1	3	D5	2-23/32	.748	123-512	13.70
M8 x 1.25	3	D5	2-23/32	.748	123-513	13.70
M10 x 1.25	3	D5	2-15/16	.748	123-516	21.80
M10 x 1.5	3	D6	2-15/16	.748	123-515	21.80
M12 x 1.25	3	D5	3-3/8	.945	123-518	24.60
M12 x 1.75	3	D6	3-3/8	.945	123-517	24.60
M14 x 1.5	3	D7	3-19/32	.984	123-519	36.90
M14 x 2	3	D6	3-19/32	.984	123-520	36.90
M16 x 1.5	3	D6	3-13/16	1.102	123-522	43.50
M16 x 2	3	D7	3-13/16	1.102	123-521	43.50
M18 x 1.5	4	D6	4-1/32	1.102	123-523	53.40
M18 x 2.5	4	D7	4-1/32	1.102	123-524	53.40
M20 x 1.5	4	D5	4-15/32	1.220	123-525	69.40
M20 x 2.5	4	D6	4-15/32	1.220	123-526	69.40
M22 x 1.5	4	D6	4-11/16	1.339	123-527	82.70
M22 x 2.5	4	D6	4-11/16	1.339	123-528	82.70
M24 x 1.5	4	D5	4-29/32	1.339	123-529	96.30
M24 x 3	4	D7	4-29/32	1.339	123-530	96.30
M27 x 1.5	4	D7	5-1/8	1.181	123-531	123.50
M27 x 3	4	D7	5-1/8	1.181	123-532	123.50
M30 x 1.5	4	D7	5-7/16	1.378	123-533	141.80
M30 x 3.5	4	D7	5-7/16	1.378	123-534	141.80

SPIRAL FLUTE YELLOW RING TAPS



Designed for high-speed tapping applications. Developed to withstand the high stress and high heat associated with high-speed CNC production tapping. Features a unique free-cutting design with a special tempering and geometry which contributes to extra tool life.

hsse-v3% Vanadium

- Superior performance in hardened tool steels such as 4140, 4340, H13, D2.
- **2.5 PITCH LEAD (BOTTOMING)**
- Up to 35 HRC

*SPECIAL LIMIT

■ HSSE-V3 SPIRAL FLUTE TAPS INCH

Tap	Threads Per Inch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	List Price \$
NC							
2	56	2	H2	1-3/4	.433	122-500	18.20
3	48	2	H2	1-13/16	.512	122-502	18.20
4	40	2	H2	1-7/8	.250	123-362	15.20
4	40	2	*H3	1-7/8	.250	122-506*	15.20
6	32	3	H2	2	.313	123-366	13.70
8	32	3	H2	2-1/8	.313	123-368	17.10
10	24	3	H3	2-3/8	.417	123-370	16.70
1/4	20	3	H3	2-1/2	.500	123-372	17.10
5/16	18	3	H3	2-23/32	.556	123-374	21.70
3/8	16	3	H3	2-15/16	.625	123-376	26.10
7/16	14	3	H3	3-5/32	.714	123-378	39.00
1/2	13	3	H3	3-3/8	.769	123-380	42.70
5/8	11	4	H3	3-13/16	.909	123-452	55.40
3/4	10	4	H3	4-1/4	1.000	123-454	70.30
7/8	9	4	H4	4-11/16	1.111	123-466	107.30
1	8	4	H4	5-1/8	1.250	123-469	142.90
1-1/8	7	4	H4	5-7/16	1.429	123-471	217.30
1-1/4	7	4	H4	5-3/4	1.429	123-473	233.10
1-3/8	6	4	H4	6-1/16	1.667	123-475	312.70
1-1/2	6	4	H4	6-3/8	1.667	123-477	357.10

■ HSSE-V3 SPIRAL FLUTE TAPS METRIC

Tap	Threads Per Inch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	List Price \$
NF							
10	32	3	H3	2-3/8	.417	123-382	16.70
1/4	28	3	H3	2-1/2	.500	123-384	17.10
5/16	24	3	H3	2-23/32	.556	123-386	21.70
3/8	24	3	H3	2-15/16	.625	123-388	26.10
7/16	20	3	H3	3-5/32	.714	123-389	39.00
1/2	20	3	H3	3-3/8	.769	123-392	42.70
5/8	18	4	H3	3-13/16	.909	123-462	55.40
3/4	16	4	H3	4-1/4	1.000	123-464	70.30
7/8	14	4	H4	4-11/16	1.111	123-468	107.30
1	12	4	H4	5-1/8	1.250	123-470	142.90
1	14	4	H4	5-1/8	1.250	123-465	142.90
1-1/8	12	4	H4	5-7/16	1.429	123-472	217.30
1-1/4	12	4	H4	5-3/4	1.429	123-474	233.10
1-3/8	12	4	H4	6-1/16	1.667	123-476	312.70
1-1/2	12	4	H4	6-3/8	1.667	123-478	357.10

cutting conditions

Materials			Hardness (HRC)	Cutting Speed (FPM)
Main Group	Sub-Group	Condition		
Tool steels	01, A-2,D-2 H-13,P-20	Annealed	<35	15-25
Medium Carbon	1030, 1035 1038, 1040 1045, 1050	Normalized	<28	20-40
Alloyed high carbon	1065, 1070, 1080, 1090 1095, 1561, 1572	Normalized	<32	20-30
High strength Titanium	4140, 4340 Commercially pure	Normalized Annealed	<32 <32	20-30 15-30
Aluminum	Cast, wrought	-	-	30-90

■ HSSE-V3 SPIRAL FLUTE TAPS METRIC

Nominal Size and Pitch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	List Price \$
M3 x .5	3	D3	2-3/8	.197	123-650	19.60
M3.5 x .6	3	D4	2-3/8	.236	123-651	19.60
M4 x .7	3	D4	2-3/8	.276	123-652	19.60
M5 x .8	3	D4	2-3/8	.315	123-654	19.60
M6 x 1	3	D5	2-1/2	.394	123-656	19.60
M7 x 1	3	D5	2-23/32	.394	123-657	30.00
M8 x 1	3	D5	2-23/32	.492	123-659	30.00
M8 x 1.25	3	D5	2-23/32	.492	123-658	30.00
M10 x 1.25	3	D5	2-15/16	.591	123-661	44.90
M10 x 1.5	3	D6	2-15/16	.591	123-660	44.90
M12 x 1.25	3	D5	3-3/8	.689	123-663	49.00
M12 x 1.75	3	D6	3-3/8	.689	123-662	49.00
M14 x 1.5	3	D6	3-19/32	.787	123-665	62.00
M14 x 2	3	D7	3-19/32	.787	123-667	62.00
M16 x 1.5	3	D6	3-13/16	.787	123-668	78.80
M16 x 2	3	D7	3-13/16	.787	123-669	78.80
M18 x 1.5	4	D6	4-1/32	.984	123-670	114.00
M18 x 2.5	4	D7	4-1/32	.984	123-671	114.00
M20 x 1.5	4	D5	4-15/32	.984	123-672	134.40
M20 x 2.5	4	D6	4-15/32	.984	123-673	134.40
M22 x 1.5	4	D6	4-11/16	.984	123-674	145.30
M22 x 2.5	4	D6	4-11/16	.984	123-675	145.30
M24 x 1.5	4	D5	4-29/32	1.181	123-676	156.20
M24 x 3	4	D7	4-29/32	1.181	123-677	156.20
M27 x 1.5	4	D7	5-1/8	1.181	123-678	253.60
M27 x 3	4	D7	5-1/8	1.181	123-679	253.60
M30 x 1.5	4	D7	5-7/16	1.378	123-680	272.20
M30 x 3.5	4	D7	5-7/16	1.378	123-681	272.20

SPIRAL POINT ORANGE RING TAPS



DESIGNED FOR
STAINLESS STEEL



INCH

• 4.5 PITCH LEAD (INTERMEDIATE)

HSSE-V3 SPIRAL POINT TAPS INCH

Tap	Threads Per Inch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	List Price \$
NC							
4	40	2	H2	1-7/8	.433	124-930	8.60
6	32	3	H3	2	.512	124-931	9.20
8	32	3	H3	2-1/8	.512	124-932	9.20
10	24	3	H3	2-3/8	.512	124-933	9.20
1/4	20	3	H3	2-1/2	.630	124-934	10.40
5/16	18	3	H3	2-23/32	.748	124-935	12.90
3/8	16	3	H3	2-15/16	.748	124-936	13.20
7/16	14	3	H3	3-5/32	.866	124-937	20.90
1/2	13	3	H3	3-3/8	.945	124-938	23.70
5/8	11	3	H3	3-13/16	1.102	124-939	36.50
3/4	10	3	H3	4-1/4	1.220	124-940	57.20
7/8	9	3	H4	4-11/16	1.339	124-941	74.00
1	8	3	H4	5-1/8	1.496	124-942	100.20

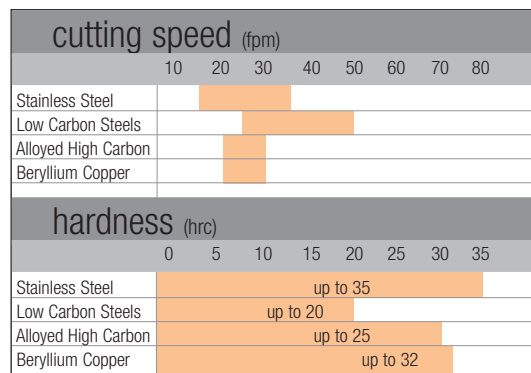
Tap	Threads Per Inch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	List Price \$
NF							
10	32	3	H3	2-3/8	.512	124-945	9.00
1/4	28	3	H3	2-1/2	.630	124-946	10.40
5/16	24	3	H3	2-23/32	.748	124-947	12.90
3/8	24	3	H3	2-15/16	.748	124-948	13.20
7/16	20	3	H3	3-5/32	.866	124-949	20.90
1/2	20	3	H3	3-3/8	.945	124-950	23.70
5/8	18	3	H3	3-13/16	1.102	124-951	36.50
3/4	16	3	H3	4-1/4	1.220	124-952	57.20
7/8	14	3	H4	4-11/16	1.339	124-953	74.00
1	12	3	H4	5-1/8	1.496	124-954	100.20

hsse-v3% Vanadium

- Superior geometry & design for a variety of Stainless Steels up to 35 hrc

Also Cuts through:

- Low Carbon Steels
- Medium Carbon Steels
- Alloyed High Carbon



METRIC

HSSE-V3 SPIRAL POINT TAPS METRIC

Nominal Size and Pitch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	List Price \$
M3 x .5	3	D3	1-15/16	.433	124-955	14.50
M4 x .7	3	D4	2-1/8	.512	124-956	10.40
M5 x .8	3	D4	2-3/8	.512	124-957	12.10
M6 x 1	3	D5	2-1/2	.630	124-958	12.10
M8 x 1.25	3	D5	2-23/32	.748	124-959	15.10
M10 x 1.25	3	D5	2-15/16	.748	124-960	24.00
M10 x 1.5	3	D6	2-15/16	.748	124-961	24.00
M12 x 1.75	3	D6	3-3/8	.945	124-962	27.20
M14 x 2	3	D6	3-19/32	.984	124-897	40.60
M16 x 2	3	D7	3-13/16	1.102	124-899	47.90
M18 x 2.5	3	D7	4-1/32	1.102	124-901	58.80
M20 x 2.5	3	D6	4-1/4	1.220	124-903	76.40
M22 x 2.5	3	D6	4-11/16	1.339	124-905	91.00
M24 x 3	3	D7	4-29/32	1.339	124-907	105.90

cutting conditions				
Materials				
Main Group	Sub-Group	Condition	Hardness (HRC)	Cutting Speed (FPM)
Stainless Steel	200 Series,	Annealed	<28	20-35
	300 Series,	Annealed	<28	20-35
	17-4, 15-5	Annealed	<25	15-25
	AM286	Annealed	<25	15-25
	400 Series	Annealed	<29	20-35
	400 Series	Hardened	<35	15-20
Low Carbon Steels	17-4PH, 15-5	Hardened	<35	15-20
	A286	Hardened	<35	15-20
	1010, 1018	Normalized	<20	25-50
	1050, 1065,	Normalized	<25	20-30
Alloyed high carbon	1070, 1080			
	1090, 1095,			
	1561, 1572			
Beryllium Copper	4140, 4340		<32	20-30

SPIRAL FLUTE ORANGE RING TAPS



DESIGNED FOR
STAINLESS STEEL



INCH

• 2.5 PITCH LEAD (BOTTOMING)

■ HSSE-V3 SPIRAL FLUTE TAPS INCH

Tap	Threads Per Inch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	List Price \$
NC							
4	40	2	H2	1-7/8	.250	124-965	16.70
6	32	3	H2	2	.313	124-966	15.10
8	32	3	H2	2-1/8	.313	124-967	18.80
10	24	3	H3	2-3/8	.417	124-968	18.40
1/4	20	3	H3	2-1/2	.500	124-969	18.80
5/16	18	3	H3	2-23/32	.556	124-970	23.90
3/8	16	3	H3	2-15/16	.625	124-971	28.80
7/16	14	3	H3	3-5/32	.714	124-972	42.90
1/2	13	3	H3	3-3/8	.769	124-973	46.90
9/16	12	4	H3	3-19/32	.880	124-974	51.50
5/8	11	4	H3	3-13/16	.909	124-975	60.90
3/4	10	4	H3	4-1/4	1.000	124-976	77.40
7/8	9	4	H4	4-11/16	1.111	124-977	118.00
1	8	4	H4	5-1/8	1.250	124-978	157.20

NF

10	32	3	H3	2-3/8	.417	124-979	18.40
1/4	28	3	H3	2-1/2	.500	124-980	18.80
5/16	24	3	H3	2-23/32	.556	124-981	23.90
3/8	24	3	H3	2-15/16	.625	124-982	28.80
7/16	20	3	H3	3-5/32	.714	124-984	42.90
1/2	20	3	H3	3-3/8	.769	124-983	46.90
5/8	18	4	H3	3-13/16	1.909	124-984	60.90
3/4	16	4	H3	4-1/4	1.000	124-985	77.40
7/8	14	4	H4	4-11/16	1.111	124-986	118.00
1	12	4	H4	5-1/8	1.250	124-987	157.20

METRIC

■ HSSE-V3 SPIRAL FLUTE TAPS METRIC

Nominal Size and Pitch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	List Price \$
M3 x .5	3	D3	1-15/16	.197	124-988	21.60
M4 x .7	3	D4	2-1/8	.276	124-989	21.60
M5 x .8	3	D4	2-3/8	.315	124-990	21.60
M6 x 1	3	D5	2-1/2	.394	124-991	21.60
M8 x 1.25	3	D5	2-23/32	.492	124-992	33.10
M10 x 1.25	3	D5	2-15/16	.591	124-993	49.40
M10 x 1.5	3	D6	2-15/16	.591	124-994	49.40
M12 x 1.75	3	D6	3-3/8	.689	124-995	53.90
M14 x 2	3	D7	3-19/32	.787	124-996	68.20
M16 x 2	3	D7	3-13/16	.787	124-997	86.80
M18 x 2.5	4	D7	4-1/32	.984	124-998	125.40
M20 x 2.0	4	D6	4-15/32	.984	124-999	147.80
M22 x 2.5	4	D6	4-11/16	.984	124-943	159.80
M24 x 3	4	D7	4-29/32	1.181	124-944	171.90

hsse-v3% Vanadium

- Superior geometry & design for a variety of Stainless Steels up to 35 hrc

Also Cuts through:

- Low Carbon Steels
- Medium Carbon Steels
- Alloyed High Carbon

	cutting speed (fpm)							
	10	20	30	40	50	60	70	80
Stainless Steel								
Low Carbon Steels								
Alloyed High Carbon								
Beryllium Copper								

	hardness (hrc)							
	0	5	10	15	20	25	30	35
Stainless Steel								up to 35
Low Carbon Steels								up to 20
Alloyed High Carbon								up to 25
Beryllium Copper								up to 32

cutting conditions				
Materials				Cutting Speed (FPM)
Main Group	Sub-Group	Condition	Hardness (HRC)	
Stainless Steel	200 Series,	Annealed	<28	20-35
	300 Series,	Annealed	<28	20-35
	17-4, 15-5	Annealed	<25	15-25
	AM286	Annealed	<25	15-25
	400 Series	Annealed	<29	20-35
	400 Series	Hardened	<35	15-20
	17-4PH, 15-5	Hardened	<35	15-20
Low Carbon Steels	1010, 1018	Normalized	<20	25-50
	Alloyed high carbon	1050, 1065,	Normalized	<25
1070, 1080				
1090, 1095,				
1561, 1572				
Beryllium Copper	4140, 4340		<32	20-30

Blue Ring HSSE-V3 Soft Steels up to 25HRC

Materials Main Group	Materials Sub-Group	Condition	Hardness (HRC)	Cutting Speed (FPM)
Low carbon	1018, 1010, 1035	Normalized	<25	20-50
Medium carbon	1045, 1050, 1065	Normalized	<25	20-40
Aluminum	Unalloyed, cast	–	–	30-80
Brass/bronze	–	–	–	30-80
Copper	–	–	–	25-60
Cast iron	–	As cast	<15	20-40

Yellow Ring HSSE-V3 Steels and other materials up to 35HRC

Materials Main Group	Materials Sub-Group	Condition	Hardness(HRC)	Cutting Speed (FPM)
Tool steels	01, A-2, D-2, H-13, P-20	Annealed	<35	15-25
Medium carbon	1030, 1035, 1038, 1040, 1045, 1050	Normalized	<28	20-40
Alloyed high carbon	1065, 1070, 1080, 1090, 1095, 1561, 1572	Normalized	<32	20-30
High strength	4140, 4340	Normalized	<32	20-30
Titanium	Commercially pure	Annealed	<32	15-30
Stainless Steel		Annealed	<29	20-30
Aluminum	Cast, wrought	–	–	30-90

Orange Ring HSSE-V3 for Stainless Steel and other materials

Materials Main Group	Materials Sub-Group	Condition	Hardness (HRC)	Cutting Speed (FPM)
Stainless steel	200 Series,	Annealed	<28	20-35
	300 Series, 17-4 PH, 15-5, A286	Annealed	<28	20-35
	400 Series	Annealed	<29	20-35
	400 Series	Hardened	35-42	15-20
	17-4PH, 15-5, A286	Hardened	35-42	15-20
Low Carbon Steels	1010, 1018	Normalized	<20	25-50
Alloyed High Carbon	1050, 1065, 1070, 1080, 1090, 1095, 1561, 1572	Normalized	<25	20-30
Beryllium Copper			<25	20-30

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