



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.

**Bright Finish Available**  
Add "B" to the end of the Code No.  
e.g. 123-650B

• **2.5 PITCH LEAD (BOTTOMING)**

## HSSE-V3 SPIRAL FLUTE TAPS METRIC SIZES

Nominal Size and Pitch	No. Flutes	Thread Limits	O/A Length (in)	Thread Length (in)	Code No.	Price \$
M3 x .5	3	D3	2-3/8	.197	123-650	10.60
M3.5 x .6	3	D4	2-3/8	.236	123-651	10.60
M4 x .7	3	D4	2-3/8	.276	123-652	10.60
M5 x .8	3	D4	2-3/8	.315	123-654	10.80
M6 x 1	3	D5	2-1/2	.394	123-656	11.10
M7 x 1	3	D5	2-23/32	.394	123-657	15.10
M8 x 1	3	D5	2-23/32	.492	123-659	15.10
M8 x 1.25	3	D5	2-23/32	.492	123-658	15.10
M10 x 1.25	3	D5	2-15/16	.591	123-661	17.60
M10 x 1.5	3	D6	2-15/16	.591	123-660	17.60
M12 x 1.25	3	D5	3-3/8	.689	123-663	30.10
M12 x 1.75	3	D6	3-3/8	.689	123-662	30.10
M14 x 1.5	3	D6	3-19/32	.787	123-665	35.10
M14 x 2	3	D7	3-19/32	.787	123-667	35.10
M16 x 1.5	3	D6	3-13/16	.787	123-668	38.10
M16 x 2	3	D7	3-13/16	.787	123-669	38.10
M18 x 1.5	4	D6	4-1/32	.984	123-670	65.10
M18 x 2.5	4	D7	4-1/32	.984	123-671	65.10
M20 x 1.5	4	D5	4-15/32	.984	123-672	78.90
M20 x 2.5	4	D6	4-15/32	.984	123-673	78.90
M22 x 1.5	4	D6	4-11/16	.984	123-674	92.60
M22 x 2.5	4	D6	4-11/16	.984	123-675	92.60
M24 x 1.5	4	D5	4-29/32	1.181	123-676	125.20
M24 x 3	4	D7	4-29/32	1.181	123-677	125.20
M27 x 1.5	4	D7	5-1/8	1.181	123-678	158.20
M27 x 3	4	D7	5-1/8	1.181	123-679	158.20
M30 x 1.5	4	D7	5-7/16	1.378	123-680	184.10
M30 x 3.5	4	D7	5-7/16	1.378	123-681	184.10

### 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	4140, 4340	Normalized	<32	20-30
Titanium	Commercially pure	Annealed	<32	15-30
Aluminum	Cast, wrought	-	-	30-90

### cutting speed (fpm)

	10	20	30	40	50	60	70	80	90	100
Tool Steels										
Medium Carbon										
Alloyed High Carbon High Strength										
Titanium										
Aluminum										

  

hardness (hrc)		0	5	10	15	20	25	30	35	35	40
Tool Steels											
Medium Carbon											
Alloyed High Carbon High Strength											
High Strength											
Titanium											
Aluminum											

LOW / MEDIUM CARBON STEELS

ALLOY / HIGH CARBON STEELS

STAINLESS STEEL

HIGH TENSILE