

DORMER PRAMET

DIN ANSI SHARK LINE

MATERIAL SPECIFIC
APPLICATION TAPS

2020



 **DORMER**

SHARK LINE



Our material specific application-based range of DIN ANSI Shark Taps offer high performance and process security. This range has been expanded with two new tap designs for high strength steels above 1200 N/mm² and titanium alloys.

FEATURES AND BENEFITS

COLOR RING CODING

- The color ring on the tool shank identifies suitability for specific materials and enables **quick and easy tool selection**.

NEW

ROBUST GEOMETRY (Black Shark)

- Significant increase of cutting edge strength. This ensures **problem-free threading** of up to 2.5xD through holes (1.5xD blind holes) in high strength and heat resistant work-materials with hardness up to 45 HRC.

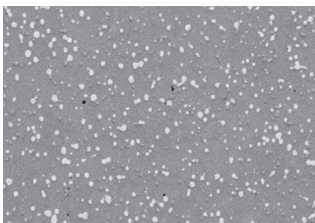
EDGE TREATMENT

(Black, Red, Yellow, Blue Shark)

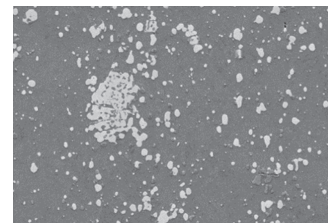
- Spiral flute taps incorporate a special edge treatment to increase strength and reduce the chance of micro-chipping on the cutting edges. This considerably improves **performance and tool life**.

MATERIAL

Shark taps are manufactured from a unique powder metallurgy tool steel different from any other HSS-E-PM. This provides an unbeatable combination of toughness and edge strength, allowing the taps to perform at higher cutting temperatures while offering excellent performance and longer tool life.



Unique HSS-E-PM material used for **SHARK TAPS**
(note the evenly dispersed grain structure)



Traditional HSS-E (M35)
material

GEOMETRY AND CHAMFER

The **E816, E817, E916, E917** taps feature a spiral point.

This supports:

- Process security
- Superior surface finish
- Highly accurate threads
- Through hole threading up to **2.5xD**



The **E805, E806, E905, E906** taps feature a spiral flute with constant rake angle. It has a balanced higher relief on the chamfer (cutting threads) and lower relief on the guidance threads. This supports:

- Process security
- Superior surface finish
- Highly accurate threads
- Blind hole threading up to **1.5xD**

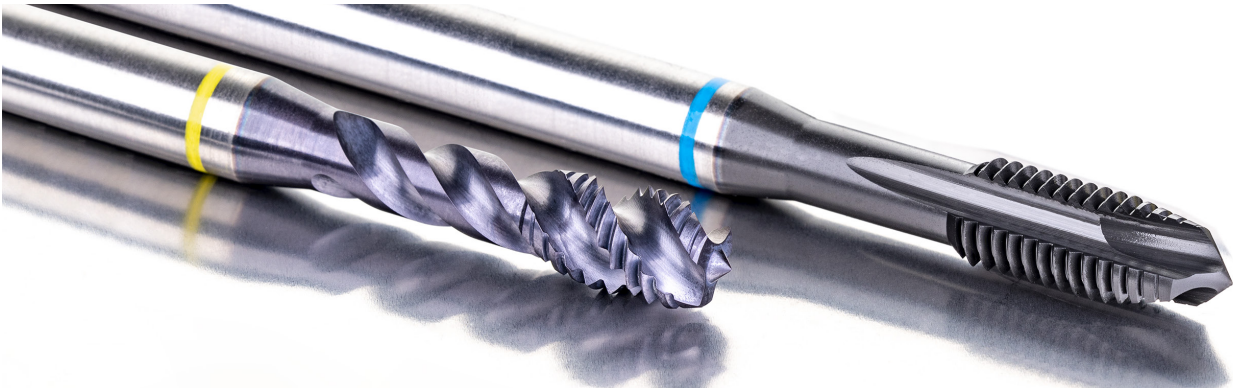


SHARK LINE



SHARK

MATERIAL SPECIFIC APPLICATION TAPS



STRUCTURAL, PLAIN CARBON & LOW ALLOY STEELS

STAINLESS STEELS

YELLOW SHARK



- **SURFACE TREATMENT**
TiAlN-Top coating with an additional edge treatment.
- **FLUTE GEOMETRY**
Available in spiral point for through holes and spiral flute (40° angle) for blind holes. Special flute geometry on Yellow Shark spiral flute taps prevents nest formation of chips, reducing the risk of re-cutting chips on reversal.
- **THREAD FORMS**
UNC, UNF, Metric and Metric Fine
- **PRODUCT CODES**
E624, E625, E764, E765, E808, E809, E908, E909

BLUE SHARK



- **SURFACE TREATMENT**
Super-B (TiAlN + WC/C) coated with an additional edge treatment.
- **FLUTE GEOMETRY**
Available in spiral point for through holes and spiral flute (40° angle) for blind holes.
- **BACK TAPERED**
Back taper on spiral flute taps further facilitates chip evacuation, reducing chipping on the last threads of the taps and also reducing torque when the tap reverses.
- **THREAD FORMS**
UNC, UNF, Metric and Metric Fine
- **PRODUCT CODES**
E628, E629, E768, E769, E812, E813, E912, E913



ALLOY STEELS

HIGH STRENGTH STEELS

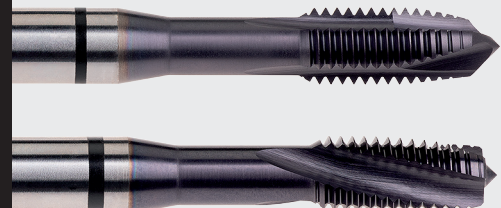
NEW

RED SHARK



- **SURFACE TREATMENT**
TiAlN-Top coated with an additional edge treatment.
- **FLUTE GEOMETRY**
Available in spiral point for through holes and spiral flute (45° angle) for blind holes.
- **BACK TAPERED**
Back taper on spiral flute taps further facilitates chip evacuation, reducing chipping on the last threads of the taps and also reducing torque when the tap reverses.
- **CUTTING GEOMETRY (SPIRAL FLUTE TAPS)**
The special three-radii profile with a constant rake angle along the flute length leads to better control of cutting properties and prevents nest formation of chips.
- **TAPPING ATTACHMENT (RECOMMENDATION)**
When using spiral flute Red Shark taps, it is recommended to use a tool holder with minimal float or soft start.
- **THREAD FORMS**
UNC, UNF, Metric and Metric Fine
- **PRODUCT CODES**
E626, E627, E766, E767, E810, E811, E910, E911

BLACK SHARK



- **SURFACE TREATMENT**
TiAlN-Top coating with an additional edge treatment.
- **FLUTE GEOMETRY**
Spiral point or low helix spiral flute geometries with low rake angle for good chip control and edge strength.
- **CUTTING GEOMETRY (SPIRAL FLUTE TAPS)**
The special three-radii profile with a constant rake angle along the flute length leads to better control of cutting properties and prevents nest formation of chips.
- **TAPPING ATTACHMENT (RECOMMENDATION)**
When using Black Shark taps, it is recommended to use synchronized (rigid) tapping.
- **THREAD FORMS**
UNC, UNF, Metric and Metric Fine
- **PRODUCT CODES**
E805, E806, E816, E817, E905, E906, E916, E917



CAST IRONS

WHITE SHARK



- **SURFACE TREATMENT**
TiAlN-Top coated.
- **FLUTE GEOMETRY**
Straight flute design gives excellent performance when threading both through and blind holes in short chipping materials.
- **INTERNAL COOLANT WITH AXIAL OUTLET**
Reduces interruptions of the production process by providing optimum chip evacuation in both horizontal and vertical blind hole machining.
- **THREAD FORMS**
UNC, UNF, Metric and Metric Fine
- **PRODUCT CODES**
E630, E631, E770, E771, E814, E815, E914, E915

	UNC	UNC	UNF	UNF	M	M	MF	MF	UNC	UNF	UNC	UNF	UNC	UNF	
	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI
	2BX	2BX	2BX	2BX	6HX	6HX	6HX	6HX	2B	2B	2B 3B	2B 3B	2B	2B	
	2XD	2.5XD	2XD	2.5XD	2XD	2.5XD	2XD	2.5XD	2.5XD	2.5XD	2.5XD	2.5XD	2.5XD	2.5XD	2.5XD
	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM
	C 2-3	E 1.5-2	C 2-3	E 1.5-2	C 2-3	E 1.5-2	C 2-3	E 1.5-2	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5
	SHARK E814 1/4 - 1"	SHARK E815 1/4 - 1"	SHARK E914 No.10 - 7/8	SHARK E915 1/4 - 1"	SHARK E630 M5 - M24	SHARK E631 M6 - M24	SHARK E770 M8 - M14	SHARK E771 M10 - M14	SHARK E809 No.4 - 1"	SHARK E909 No.10 - 1"	SHARK E813 No.4 - 1"	SHARK E913 No.10 - 1"	SHARK E811 No.4 - 1"	SHARK E911 no.10 - 1"	
ISO 513	12	12	12	12	13	13	13	13	14	14	15	15	17	17	
P	P1								■	■	■	■			
	P2								■	■	■	■	■	■	
	P3								■	■	■	■	■	■	
	P4								■	■	■	■	■	■	
M	M1										■	■			
	M2										■	■			
	M3										■	■			
	M4										■	■			
K	K1	■	■	■	■	■	■	■							
	K2														
	K3														
	K4														
	K5														
N	N1														
	N2														
	N3	■	■	■	■	■	■	■							
	N4	■	■	■	■	■	■	■							
S	S1												■	■	
	S2												■	■	
	S3												■	■	
	S4												■	■	
H	H1														
	H2														
	H3														
	H4														

■ Main application ▣ Secondary application

		UNC	UNF	M	MF	M	MF	M	MF	M	MF	UNC	UNF	UNC	UNF		
		DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	
		2BX	2BX	6H	6H	6H	6H	6H	6H	6HX	6HX	2B	2B	2B 3B	2B 3B		
		2.5XD	2.5XD	2.5XD	2.5XD	2.5XD	2.5XD	2.5XD	2.5XD	2.5XD	2.5XD	2XD	2XD	2.5XD	2.5XD		
		HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	
		B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3	
		TiAIN Top	TiAIN Top	TiAIN Top	TiAIN Top	Super B	Super B	TiAIN Top	TiAIN Top	TiAIN Top	TiAIN Top	TiAIN Top	TiAIN Top	TiAIN Top	TiAIN Top	Super B	Super B
		SHARK E816	SHARK E916	SHARK E625	SHARK E765	SHARK E629	SHARK E769	SHARK E627	SHARK E767	SHARK E817	SHARK E917	SHARK E808	SHARK E908	SHARK E812	SHARK E912		
		No.4-3/4	No.10-3/4	M4-M24	M8-M18	M4-M24	M8-M18	M3-M24	M8-M14	M3-M12	M8-M12	No.4-1"	No.10-1"	No.4-1"	No.10-1"		
		NEW	NEW							NEW	NEW						
ISO 513		18	18	19	19	20	20	21	21	22	22	23	23	24	24		
P	P1			■	■	▣	▣					■	■	▣	▣		
	P2			■	■	▣	▣	■	■			■	■	▣	▣		
	P3	▣	▣	▣	▣	▣	▣	■	■	▣	▣	▣	▣	▣	▣		
	P4	■	■	▣	▣	▣	▣	■	■	■	■	▣	▣	▣	▣		
M	M1					■	■							■	■		
	M2					■	■							■	■		
	M3					■	■							■	■		
	M4					■	■							■	■		
K	K1																
	K2																
	K3																
	K4																
	K5																
N	N1																
	N2																
	N3																
	N4																
S	S1	■	■					▣	▣	■	■						
	S2							▣	▣								
	S3	■	■					▣	▣	■	■						
	S4							▣	▣								
H	H1																
	H2																
	H3	▣	▣							▣	▣						
	H4																

■ Main application ▣ Secondary application

	UNC	UNF	UNC	UNF	M	MF	M	MF	M	MF	M	MF
	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI
	2B	2B	2BX	2BX	6H	6H	6H	6H	6H	6H	6HX	6HX
	2.5XD	2.5XD	1.5XD	1.5XD	2XD	2XD	2.5XD	2.5XD	2.5XD	2.5XD	1.5XD	1.5XD
	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM
	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3
	$\lambda 10^\circ$	$\lambda 10^\circ$	$\lambda 15^\circ$	$\lambda 15^\circ$	$\lambda 40^\circ$	$\lambda 40^\circ$	$\lambda 40^\circ$	$\lambda 40^\circ$	$\lambda 10^\circ$	$\lambda 10^\circ$	$\lambda 15^\circ$	$\lambda 15^\circ$
	SHARK E810 No.4 - 1"	SHARK E910 No.10 - 1"	SHARK E805 No.4 - 3/4 NEW	SHARK E905 No.10 - 3/4 NEW	SHARK E624 M4 - M24	SHARK E764 M8 - M18	SHARK E628 M4 - M24	SHARK E768 M8 - M18	SHARK E626 M3 - M24	SHARK E766 M8 - M14	SHARK E806 M3 - M12 NEW	SHARK E906 M8 - M12 NEW
ISO 513	26	26	27	27	28	28	29	29	30	30	31	31
P	P1				■	■	▣	▣				
	P2	■	■				▣	▣	■	■		
	P3	■	■	▣	▣		▣	▣			▣	▣
	P4	■	■	■	■	▣	▣	▣	■	■	■	■
M	M1						■	■				
	M2						■	■				
	M3						■	■				
	M4						■	■				
K	K1											
	K2											
	K3											
	K4											
	K5											
N	N1											
	N2											
	N3											
	N4											
S	S1	▣	▣	■	■				▣	▣	■	■
	S2	▣	▣						▣	▣		
	S3	▣	▣	■	■				▣	▣	■	■
	S4	▣	▣						▣	▣		
H	H1											
	H2											
	H3			▣	▣						▣	▣
	H4											

■ Main application ▣ Secondary application

WORKPIECE MATERIAL GROUPS (WMG)

ISO to select a cutting grade and geometry for a broad range of workpiece materials

General definition

i.e. steel, stainless steel...

P **M** **K** **S** **H**

Subgroup to navigate and select a tool by suitability for more specific range of workpiece materials

Definition by structure/composition

i.e. plain carbon steel, alloy steel...

P **M** **K** **N** **S** **H**

P1

P2

P3

P4

WMG to select and provide cutting conditions within a bandwidth of $\pm 10\%$

Definition by hardness/ultimate tensile strength

i.e. $160 < 220\text{HB}$, $620 < 900 \text{ n/mm}^2$...

P			
P1	P1.1	P1.2	P1.3
P2	P2.1	P2.2	P2.3
P3	P3.1	P3.2	P3.3
P4	P4.1	P4.2	P4.3

ABOUT DORMER PRAMET'S WORKPIECE MATERIAL CLASSIFICATION

Workpiece material groups ("WMG") are used to support easy and reliable selection of the right cutting tool and starting values for machining conditions in particular applications.

Dormer Pramet classifies workpiece materials into six differently colored groups;

- **Blue:** Steel and cast steel (P-group)
- **Yellow:** Stainless steel (M-group)
- **Red:** Cast iron (K-group)
- **Green:** Non-ferrous metals (N-group)
- **Orange:** High-temperature alloys (S-group)
- **Grey:** Hardened materials (H-group)

Each of these are divided into subgroups on the basis of their structure and/or composition. For example, P-group steel and cast steel is split into four subgroups, namely;

- **P1 – Free machining steel**
- **P2 – Plain carbon steel**
- **P3 – Alloy steel**
- **P4 – Tool steel**

A final division includes material properties, such as hardness and ultimate tensile strength. This is to provide our customers with a complete tool recommendation, including starting values for cutting speed and feed.

The table on the next page includes a description of each workpiece material group, as well as examples of commonly used designations

ISO	WMG (Workpiece Material Groups)	Ultimate tensile strength Mpa [N/mm ²]	Old Dormer AMG	Old Pramet ISO	
P	P1.1	Free machining sulfurized carbon steel with a hardness of < 220 HB	≤ 760	1.1	P1
	P1.2	Free machining sulfurized and phosphorized carbon steel with a hardness of < 180 HB	≤ 620	1.1	P1
	P1.3	Free machining sulfurized/phosphorized and leaded carbon steel with a hardness of < 160 HB	≤ 550	1.1	P1
	P2.1	Plain low carbon steel containing < 0.25%C with a hardness of < 180 HB	≤ 620	1.2	P2
	P2.2	Plain medium carbon steel containing < 0.55%C with a hardness of < 240 HB	≤ 830	1.3	P2
	P2.3	Plain high carbon steel containing > 0.55%C, with a hardness of < 300 HB	≤ 1030	1.5	P3
	P3.1	Alloy steel with a hardness of < 180 HB	≤ 620	1.4	P3
	P3.2	Alloy steel with a hardness of 180 – 260 HB	> 620 ≤ 900	1.4	P3
	P3.3	Alloy steel with a hardness of 260 – 360 HB	> 900 ≤ 1240	1.5	P4
	P4.1	Tool steel with a hardness of < 26 HRC	≤ 900	1.4	P3
	P4.2	Tool steel with a hardness of 26 – 39 RC	> 900 ≤ 1240	1.5	P4
	P4.3	Tool steel with a hardness of 39 – 45 HRC	> 1250 ≤ 1450	1.6	H1
	M	M1.1	Stainless steel, ferritic with a hardness of < 160 HB	≤ 520	2.1
M1.2		Stainless steel, ferritic with a hardness of 160 – 220 HB	> 520 ≤ 700	2.1	M1
M2.1		Stainless steel, martensitic with a hardness of < 200 HB	≤ 670	2.3	M2
M2.2		Stainless steel, martensitic with a hardness of 200 – 280 HB	> 670 ≤ 950	2.3	M2
M2.3		Stainless steel, martensitic with a hardness of 280 – 380 HB	> 950 ≤ 1300	2.4	M2
M3.1		Stainless steel, austenitic with a hardness of < 200 HB	≤ 750	2.2	M3
M3.2		Stainless steel, austenitic with a hardness of 200 – 260 HB	> 750 ≤ 870	2.2	M3
M3.3		Stainless steel, austenitic with a hardness of 260 – 300 HB	> 870 ≤ 1040	2.2	M3
M4.1		Stainless steel, austenitic-ferritic or super-austenitic with a hardness of < 300 HB	≤ 990	2.3	M4
M4.2		Stainless steel, precipitation hardening austenitic with a hardness of 300 – 380 HB	≤ 1320	2.4	M4
K	K1.1	Gray iron, ferritic or ferritic-pearlitic with a hardness of < 180 HB	≤ 190	3.1	K1
	K1.2	Gray iron, ferritic-pearlitic or pearlitic with a hardness of 180 – 240 HB	> 190 ≤ 310	3.2	K1
	K1.3	Gray iron, pearlitic with a hardness of 240 – 280 HB	> 310 ≤ 390	3.2	K1
	K2.1	Malleable iron, ferritic with a hardness of < 160 HB	≤ 400	3.3	K2
	K2.2	Malleable iron, ferritic or pearlitic with a hardness of 160 – 200 HB	> 400 ≤ 550	3.3	K2
	K2.3	Malleable iron, pearlitic with a hardness of 200 – 240 HB	> 550 ≤ 660	3.4	K2
	K3.1	Ductile (nodular/spheroidal) iron, ferritic with a hardness of < 180 HB	≤ 560	3.3	K3
	K3.2	Ductile (nodular/spheroidal) iron, ferritic or pearlitic with a hardness of 180 – 220 HB	> 560 ≤ 680	3.3	K4
	K3.3	Ductile (nodular/spheroidal) iron, pearlitic with a hardness of 220 – 260 HB	> 680 ≤ 800	3.4	K4
	K4.1	Austenitic cast iron with a hardness of < 180 HB	≤ 610		
	K4.2	Austenitic cast iron with a hardness of 180 – 240HB	> 610 ≤ 840		
	K4.3	Austempered ductile iron with a hardness of 240 – 280 HB	> 840 ≤ 980		
	K4.4	Austempered ductile iron with a hardness of 280 – 320 HB	> 980 ≤ 1130		
	K4.5	Austempered ductile iron with a hardness of 320 – 360 HB	> 1130 ≤ 1280		
	K5.1	Vermicular, compacted graphite iron with a hardness of < 180 HB			
K5.2	Vermicular, compacted graphite iron with a hardness of 180 – 220 HB				
K5.3	Vermicular, compacted graphite iron with a hardness of 220 – 260 HB				
N	N1.1	Pure aluminum and wrought aluminum alloys with a hardness of < 60 HB	≤ 240	7.1	N1
	N1.2	Wrought aluminum alloys with a hardness of 60 – 100 HB	> 240 ≤ 400	7.1	N1
	N1.3	Wrought aluminum alloys with a hardness of 100 – 150 HB	> 400 ≤ 590	7.2	N2
	N2.1	Cast aluminum alloys with a hardness of < 75 HB	≤ 240	7.3	N1
	N2.2	Cast aluminum alloys with a hardness of 75 – 90 HB	> 240 ≤ 270	7.3	N1
	N2.3	Cast aluminum alloys with a hardness of 90 < 140 HB	> 270 ≤ 440	7.3	N2
	N3.1	Free-cutting copper-alloys materials with excellent machining properties		6.3	N3
	N3.2	Short-chip copper-alloys with good to moderate machining properties		6.2	N3
	N3.3	Electrolytic copper and long-chip copper-alloys with moderate to poor machining properties		6.1	N4
	N4.1	Thermoplastic polymers		8.1	
N4.2	Thermosetting polymers		8.2		
N4.3	Reinforced polymers or composites		8.3		
S	S1.1	Titanium or titanium alloys, with a hardness of < 200 HB	≤ 660	4.1	S1
	S1.2	Titanium alloys, with a hardness of 200 – 280 HB	> 660 ≤ 950	4.2	S1
	S1.3	Titanium alloys, a hardness of 280 – 360 HB	> 950 ≤ 1200	4.3	S1
	S2.1	High-temperature Fe-based alloys with a hardness of < 200 HB	≤ 690		S2
	S2.2	High-temperature Fe-based alloys with a hardness of 200 – 280 HB	> 690 ≤ 970		S2
	S3.1	High-temperature Ni-based alloys with a hardness of < 280 HB	≤ 940	5.2	S3
	S3.2	High-temperature Ni-based alloys with a hardness of 280 – 360 HB	> 940 ≤ 1200	5.3	S3
	S4.1	High-temperature Co-based alloys with a hardness of < 240HB	≤ 800		S4
S4.2	High-temperature Co-based alloys with a hardness of 240 – 320 HB	> 800 ≤ 1070		S4	
H	H1.1	Chilled cast iron with a hardness of < 400 HB			
	H2.1	Hardened cast iron with a hardness < 55 HRC			H2
	H2.2	Hardened cast iron with a hardness > 55 HRC			H2
	H3.1	Hardened steel with a hardness of < 51 HRC		1.7	H3
	H3.2	Hardened steel with a hardness of 51 – 55 HRC		1.7	H3
	H4.1	Hardened steel with a hardness of 55 – 59 HRC		1.8	H4
H4.2	Hardened steel with a hardness of > 59 HRC		1.8	H4	

DIN ANSI Machine Tap, White Shark for Cast Iron

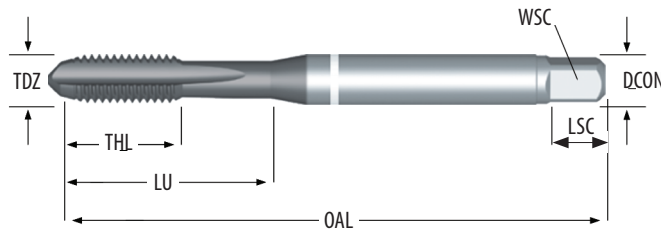
E814	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3	K3.1	K3.2	K3.3	K4.1	K4.2	K4.3
E914	■98	■72	■56	■141	■115	▣92	■125	■95	▣79	■115	■89	▣66
E815	K4.4	K4.5	K5.1	K5.2	K5.3	N3.2	N4.2					
E915	▣56	▣46	■131	■98	▣75	▣98	■49					

E814 / E914

Designed for semi-bottoming or through hole tapping in Cast Iron applications. Premium HSCo Powder Metal substrate with TiAlN-Top Coating combine to offer superior abrasion resistance, higher operating speeds, improved thread quality, reduced cycle times and longer tool life.

E815 / E915

Coolant through design allows for higher tapping speeds and better tool life. This design eliminates the problems associated with inadequate coolant supply in some applications. Full Bottoming.



Pack Qty = 1 pc

TDZ UNC	TDZ UNF	TPI	OAL [inch]	THL [inch]	LU [inch]	DCON [inch]	WSC [inch]	LSC [inch]	NOF [-]	[mm]	[inch]	Limits	E814	E815	E914	E915
	10	32	2.756	0.551	1.102	0.194	0.150	0.250	4	4.10	N21	H4	—	—	7350222	—
1/4	20	28	3.150	0.591	0.984	0.255	0.189	0.310	4	5.10	N7	H5	7350203	7350231	—	—
	28	28	3.150	0.591	0.984	0.255	0.189	0.310	4	5.50	N3	H5	—	—	7350223	—
	28	28	3.150	0.591	0.984	0.255	0.189	0.310	4	5.50	N3	H4	—	—	—	7350240
5/16	18	18	3.543	0.709	1.339	0.318	0.236	0.380	4	6.60	F	H5	7350204	—	—	—
5/16	18	18	3.543	0.787	1.339	0.318	0.236	0.380	4	6.60	F	H5	—	7350232	—	—
5/16	24	24	3.543	0.709	1.339	0.318	0.236	0.380	4	6.90	I	H5	—	—	7350224	—
5/16	24	24	3.543	0.787	1.339	0.318	0.236	0.380	4	6.90	I	H5	—	—	—	7350241
3/8	16	16	3.937	0.787	1.535	0.381	0.284	0.440	4	8.00	5/16	H5	7350205	7350233	—	—
3/8	24	24	3.543	0.787	1.476	0.381	0.284	0.440	4	8.50	Q	H5	—	—	7350225	7350242
7/16	14	14	3.937	0.787	—	0.323	0.240	0.410	4	9.40	U	H5	7350206	7350234	—	—
7/16	20	20	3.937	0.787	—	0.323	0.240	0.410	4	9.90	25/64	H5	—	—	7350226	7350243
1/2	13	13	4.331	0.906	—	0.367	0.273	0.440	4	10.80	27/64	H5	7350207	7350235	—	—
1/2	20	20	3.937	0.827	—	0.367	0.273	0.440	4	11.50	29/64	H5	—	—	7350227	7350244
5/8	11	11	4.331	0.906	—	0.480	0.358	0.560	4	13.50	17/32	H5	7350208	7350236	—	—
5/8	18	18	3.937	0.827	—	0.480	0.358	0.560	4	14.50	37/64	H5	—	—	7350228	7350245
3/4	10	10	4.921	1.181	—	0.590	0.439	0.690	4	16.50	21/32	H5	7350209	7350237	—	—
3/4	16	16	4.331	0.906	—	0.590	0.439	0.690	4	17.50	11/16	H6	—	—	7350229	—
3/4	16	16	4.331	0.906	—	0.590	0.439	0.690	4	17.50	11/16	H5	—	—	—	7350246
7/8	9	9	5.512	1.339	—	0.697	0.520	0.750	4	19.50	49/64	H6	7350220	7350238	—	—
7/8	14	14	4.921	0.906	—	0.697	0.520	0.750	4	20.40	13/16	H6	—	—	7350230	7350247
1"	8	8	6.299	1.417	—	0.800	0.597	0.810	4	22.25	7/8	H6	7350221	7350239	—	—
1"	12	12	5.512	1.063	—	0.800	0.597	0.810	4	23.25	59/64	H6	—	—	—	7350248

E814	E815	E914	E915
UNC	UNC	UNF	UNF
DIN ANSI	DIN ANSI	DIN ANSI	DIN ANSI
2BX	2BX	2BX	2BX
2XD	2.5XD	2XD	2.5XD
HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM
C 2-3	E 1.5-2	C 2-3	E 1.5-2
TiAlN Top	TiAlN Top	TiAlN Top	TiAlN Top
1/4 – 1"	1/4 – 1"	No.10 – 7/8	1/4 – 1"
E814	E815	E914	E915

Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

DIN ANSI Machine Tap, White Shark for Cast Iron

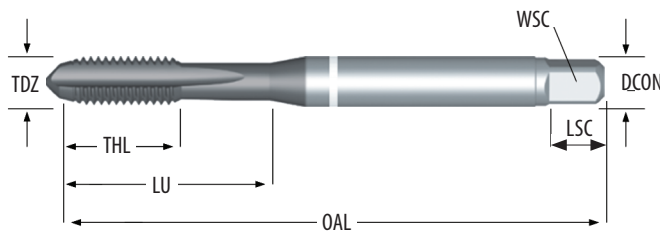
E630	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3	K3.1	K3.2	K3.3	K4.1	K4.2	K4.3
E770	■98	■72	■56	■141	■115	▧92	■125	■95	▧79	■115	■89	▧66
E631	K4.4	K4.5	K5.1	K5.2	K5.3	N3.2	N4.2					
E771	▧56	▧46	■131	■98	▧75	▧98	■49					

E630 / E770

Designed for semi-bottoming or through hole tapping in Cast Iron applications. Premium HSCo Powder Metal substrate with TiAlN-Top Coating combine to offer superior abrasion resistance, higher operating speeds, improved thread quality, reduced cycle times and longer tool life.

E631 / E771

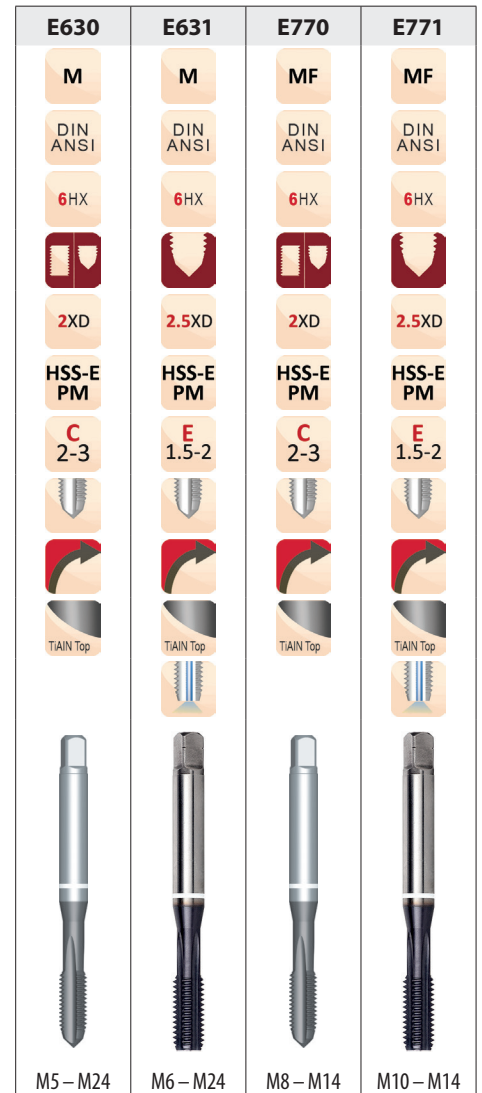
Coolant through design allows for higher tapping speeds and better tool life. This design eliminates the problems associated with inadequate coolant supply in some applications. Full Bottoming.



Pack Qty = 1 pc

TDZ M	TDZ MF	P	OAL	THL	LU	DCON	▧ WSC	LSC	NOF			Limits	E630	E631	E770	E771
		[mm]	[mm]	[mm]	[mm]	[inch]	[inch]	[mm]	[-]	[mm]	[inch]					
5		0.80	70	13	25	0.194	0.150	6	4	4.20	N19	D4	7350249	—	—	—
6		1.00	80	15	25	0.255	0.189	8	4	5.00	N9	D5	—	7350265	—	—
6	8	1.00	80	15	30	0.255	0.189	8	4	5.00	N9	D5	7350250	—	—	—
8		1.25	90	18	35	0.318	0.236	10	4	7.00	J	D5	—	—	7350259	—
8		1.25	90	18	35	0.318	0.236	10	4	6.80	H	D5	7350251	—	—	—
8		1.25	90	20	34	0.318	0.236	10	4	6.80	H	D5	—	7350266	—	—
	10	1.00	90	20	35	0.381	0.284	11	4	9.00	T	D6	—	—	7350260	—
	10	1.25	100	20	39	0.381	0.284	11	4	8.80	11/32	D6	—	—	7350261	7350274
10		1.50	100	20	39	0.381	0.284	11	4	8.50	Q	D6	7350252	7350267	—	—
	12	1.25	100	21	—	0.367	0.273	11	4	10.80	27/64	D6	—	—	7350262	7350275
	12	1.50	100	21	—	0.367	0.273	11	4	10.50	Z	D6	—	—	7350263	7350276
12		1.75	110	23	—	0.367	0.273	11	4	10.30	Y	D6	7350253	7350268	—	—
	14	1.50	100	21	—	0.429	0.320	13	4	12.50	31/64	D7	—	—	7350264	7350277
14		2.00	110	23	—	0.429	0.320	13	4	12.00	15/32	D7	7350254	7350269	—	—
16		2.00	110	23	—	0.480	0.358	14	4	14.00	35/64	D7	7350255	7350270	—	—
18		2.50	125	30	—	0.542	0.404	16	4	15.50	39/64	D7	7350256	7350271	—	—
20		2.50	140	30	—	0.652	0.487	18	4	17.50	11/16	D7	7350257	7350272	—	—
24		3.00	160	38	—	0.760	0.567	19	4	21.00	53/64	D8	7350258	7350273	—	—

Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

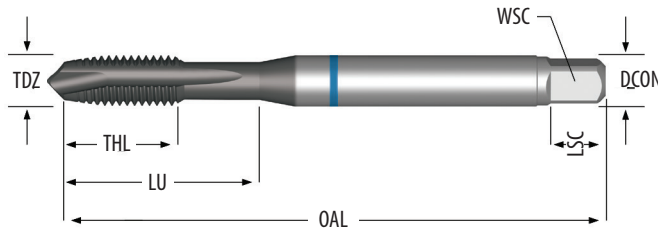


DIN ANSI Machine Tap, Blue Shark for Stainless Steel

	P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1	M2.2
E813	79	89	92	66	59	52	49	39	33	30	23	62	52	56	46
E913	M3.1	M3.2	M3.3	M4.1											
	39	33	30	20											

E813 / E913

Designed for superior performance through hole tapping in a wide range of Stainless Steel types. Premium HSCo Powder Metal substrate with Super-B (TiAlN+WC/C) Coating combined with an additional edge treatment to offer improved thread quality and longer tool life. Available in both 2B and 3B Class of Fit to cover a wide range of applications.





E813	E913
UNC	UNF
DIN ANSI	DIN ANSI
2B 3B	2B 3B
2.5XD	2.5XD
HSS-E PM	HSS-E PM
B 3.5-5	B 3.5-5
Super B	Super B
No.4 – 1"	No.10 – 1"

Pack Qty = 1 pc

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	WSC	LSC	NOF	NOF	NOF	Limits	E813	E913
		[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
4		40	2.205	0.354	0.709	0.141	0.108	0.190	3	2.35	N43	H2	7350278	—
6		32	2.205	0.433	0.787	0.141	0.108	0.190	3	2.85	N36	H3	7350279	—
8		32	2.480	0.512	0.827	0.168	0.129	0.250	3	3.50	N29	H3	7350280	—
10		24	2.756	0.551	1.102	0.194	0.150	0.250	3	3.90	N25	H3	7350281	—
	10	32	2.756	0.551	1.102	0.194	0.150	0.250	3	4.10	N21	H3	—	7350299
1/4		20	3.150	0.591	0.984	0.255	0.189	0.310	3	5.10	N7	H5	7350282	—
1/4		20	3.150	0.591	0.984	0.255	0.189	0.310	3	5.10	N7	H3	7350283	—
	1/4	28	3.150	0.591	0.984	0.255	0.189	0.310	3	5.50	N3	H5	—	7350300
	1/4	28	3.150	0.591	0.984	0.255	0.189	0.310	3	5.50	N3	H3	—	7350301
5/16		18	3.543	0.709	1.339	0.318	0.236	0.380	3	6.60	F	H5	7350284	—
5/16		18	3.543	0.709	1.339	0.318	0.236	0.380	3	6.60	F	H3	7350285	—
	5/16	24	3.543	0.709	1.339	0.318	0.236	0.380	3	6.90	I	H4	—	7350302
	5/16	24	3.543	0.709	1.339	0.318	0.236	0.380	3	6.90	I	H3	—	7350303
3/8		16	3.937	0.787	1.535	0.381	0.284	0.440	3	8.00	5/16	H3	7350287	—
3/8		16	3.937	0.787	1.535	0.381	0.284	0.440	3	8.00	5/16	H5	7350286	—
	3/8	24	3.543	0.787	1.476	0.381	0.284	0.440	3	8.50	Q	H4	—	7350304
	3/8	24	3.543	0.787	1.476	0.381	0.284	0.440	3	8.50	Q	H3	—	7350305
7/16		14	3.937	0.787	—	0.323	0.240	0.410	4	9.40	U	H5	7350288	—
	7/16	20	3.937	0.787	—	0.323	0.240	0.410	4	9.90	25/64	H5	—	7350306
1/2		13	4.331	0.906	—	0.367	0.273	0.440	4	10.80	27/64	H5	7350289	—
1/2		13	4.331	0.906	—	0.367	0.273	0.440	4	10.80	27/64	H3	7350290	—
	1/2	20	3.937	0.827	—	0.367	0.273	0.440	4	11.50	29/64	H5	—	7350307
	1/2	20	3.937	0.827	—	0.367	0.273	0.440	4	11.50	29/64	H3	—	7350308
5/8		11	4.331	0.906	—	0.480	0.358	0.560	4	13.50	17/32	H5	7350291	—
5/8		11	4.331	0.906	—	0.480	0.358	0.560	4	13.50	17/32	H3	7350292	—
	5/8	18	3.937	0.827	—	0.480	0.358	0.560	4	14.50	37/64	H5	—	7350309

Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	WSC	LSC	NOF			Limits	E813	E913
		[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[-]	[mm]			
	5/8	18	3.937	0.827	—	0.480	0.358	0.560	4	14.50	37/64	H3	—	7350310
3/4		10	4.921	1.181	—	0.590	0.439	0.690	4	16.50	21/32	H5	7350293	—
3/4		10	4.921	1.181	—	0.590	0.439	0.690	4	16.50	21/32	H3	7350294	—
	3/4	16	4.331	0.906	—	0.590	0.439	0.690	4	17.50	11/16	H5	—	7350311
	3/4	16	4.331	0.906	—	0.590	0.439	0.690	4	17.50	11/16	H3	—	7350312
7/8		9	5.512	1.339	—	0.697	0.520	0.750	4	19.50	49/64	H6	7350295	—
7/8		9	5.512	1.339	—	0.697	0.520	0.750	4	19.50	49/64	H4	7350296	—
	7/8	14	4.921	0.906	—	0.697	0.520	0.750	4	20.40	13/16	H6	—	7350313
	7/8	14	4.921	0.906	—	0.697	0.520	0.750	4	20.40	13/16	H4	—	7350314
1"		8	6.299	1.417	—	0.800	0.597	0.810	4	22.25	7/8	H6	7350297	—
1"		8	6.299	1.417	—	0.800	0.597	0.810	4	22.25	7/8	H4	7350298	—
	1"	12	5.512	1.063	—	0.800	0.597	0.810	4	23.25	59/64	H6	—	7350315
	1"	12	5.512	1.063	—	0.800	0.597	0.810	4	23.25	59/64	H4	—	7350316

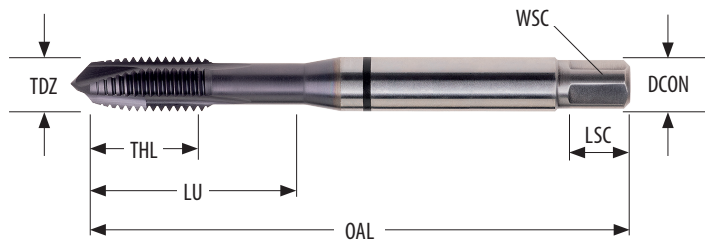
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

DIN-ANSI Machine Tap Black Shark for Hard Alloys, Plug Style

E816	P3.2	P3.3	P4.3	S1.2	S1.3	S3.1	S3.2	H3.1						
E916	■55	■42	■32	■42	■26	■16	■10	▣22						

E816 / E916

Designed for high performance through hole tapping in high strength and heat resistant work-materials with hardness up to 45HRC. The TiAlN-Top coating combined with geometry that significantly increases cutting edge strength, provides excellent performance and consistency in hard and difficult to machine materials.



E816	E916
UNC	UNF
DIN ANSI	DIN ANSI
2BX	2BX
2.5XD	2.5XD
HSS-E PM	HSS-E PM
B 3.5-5	B 3.5-5
TiAlN Top	TiAlN Top
No.4 – 3/4	No.10 – 3/4

Pack Qty = 1 pc

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	WSC	LSC	NOF			Limits	E816	E916
		[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
4		40	2.205	0.472	0.827	0.141	0.108	0.190	3	2.35	N43	H2	7812046	—
6		32	2.480	0.551	0.866	0.168	0.129	0.250	3	2.85	N36	H3	7812047	—
8		32	2.756	0.610	1.102	0.194	0.150	0.250	3	3.50	N29	H3	7812048	—
10		24	3.150	0.669	1.024	0.255	0.189	0.310	3	3.90	N25	H3	7812049	—
	10	32	3.150	0.669	1.024	0.255	0.189	0.310	3	4.10	N21	H3	—	7812107
1/4		20	3.543	0.807	1.378	0.318	0.236	0.380	3	5.10	N7	H5	7812100	—
	1/4	28	3.543	0.807	1.339	0.318	0.236	0.380	3	5.50	N3	H4	—	7812108
5/16		18	3.937	0.906	1.535	0.381	0.236	0.440	3	6.60	F	H5	7812101	—
	5/16	24	3.937	0.906	1.535	0.381	0.284	0.440	3	6.90	I	H4	—	7812109
3/8		16	3.937	0.787	1.535	0.381	0.236	0.440	3	8.00	5/16	H5	7812102	—
	3/8	24	3.937	0.787	1.535	0.381	0.284	0.440	3	8.50	Q	H4	—	7812110
7/16		14	3.937	0.787	—	0.323	0.240	0.410	4	9.40	U	H5	7812103	—
	7/16	20	3.937	0.787	—	0.323	0.240	0.440	4	9.90	25/64	H5	—	7812111
1/2		13	4.331	0.906	—	0.367	0.273	0.440	4	10.80	27/64	H5	7812104	—
	1/2	20	4.331	0.906	—	0.367	0.273	0.440	4	11.50	29/64	H5	—	7812112
5/8		11	4.331	0.906	—	0.480	0.358	0.560	4	13.50	17/32	H5	7812105	—
	5/8	18	4.331	0.906	—	0.480	0.358	0.560	4	14.50	37/64	H5	—	7812113
3/4		10	4.921	1.181	—	0.590	0.440	0.690	4	16.50	21/32	H5	7812106	—
	3/4	16	4.921	1.181	—	0.590	0.440	0.690	4	17.50	11/16	H5	—	7812114

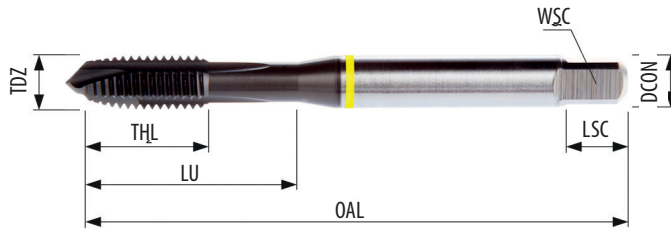
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

DIN ANSI Machine Tap, Yellow Shark for Low Alloy Steels

E625	P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	N3.1	N3.2	N3.3	
E765	■102	▣112	■115	■85	■75	▣66	▣62	▣49	▣43	▣36	▣33	■167	▣98	■49	

E625 / E765

Designed for high performance through hole tapping in most medium Alloy Steels. The TiAlN-Top Coating combined with an additional edge treatment provides excellent performance and consistency in high production applications.



E625	E765
M	MF
DIN ANSI	DIN ANSI
6H	6H
2.5XD	2.5XD
HSS-E PM	HSS-E PM
B 3.5-5	B 3.5-5
M4 – M24	M8 – M18

Pack Qty = 1 pc

TDZ M	TDZ MF	P	OAL	THL	LU	DCON	WSC	LSC	NOF			Limits	E625	E765
		[mm]	[mm]	[mm]	[mm]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
4		0.70	63	12	21	0.168	0.129	6	3	3.30	N30	D4	7350492	—
5		0.80	70	13	25	0.194	0.150	6	3	4.20	N19	D4	7350493	—
6		1.00	80	15	30	0.255	0.189	8	3	5.00	N9	D5	7350494	—
	8	1.00	90	18	35	0.318	0.236	10	3	7.00	J	D5	—	7350503
8		1.25	90	18	35	0.318	0.236	10	3	6.80	H	D5	7350495	—
	10	1.25	100	20	39	0.381	0.284	11	3	8.80	11/32	D6	—	7350504
10		1.50	100	20	39	0.381	0.284	11	3	8.50	Q	D6	7350496	—
	12	1.25	100	21	—	0.367	0.273	11	3	10.80	27/64	D6	—	7350505
	12	1.50	100	21	—	0.367	0.273	11	3	10.50	Z	D6	—	7350506
12		1.75	110	23	—	0.367	0.273	11	3	10.30	Y	D6	7350497	—
	14	1.50	100	21	—	0.429	0.320	13	3	12.50	31/64	D7	—	7350507
14		2.00	110	23	—	0.429	0.320	13	3	12.00	15/32	D7	7350498	—
	16	1.50	100	21	—	0.480	0.358	14	3	14.50	9/16	D7	—	7350508
16		2.00	110	23	—	0.480	0.358	14	3	14.00	35/64	D7	7350499	—
	18	1.50	110	24	—	0.542	0.404	16	3	16.50	41/64	D7	—	7350509
18		2.50	125	30	—	0.542	0.404	16	3	15.50	39/64	D7	7350500	—
20		2.50	140	30	—	0.652	0.487	18	3	17.50	11/16	D7	7350501	—
24		3.00	160	38	—	0.760	0.567	19	4	21.00	53/64	D8	7350502	—

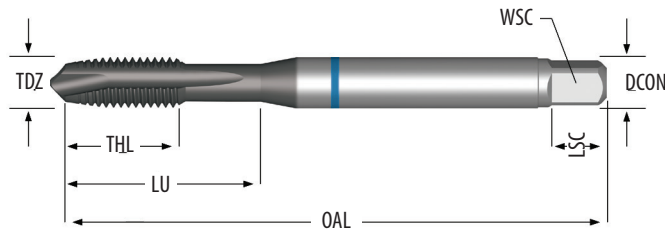
Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

DIN ANSI Machine Tap, Blue Shark for Stainless Steel

	P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1	M2.2
E629	▣79	▣89	▣92	▣66	▣59	▣52	▣49	▣39	▣33	▣30	▣23	■62	■52	■56	■46
E769	▣M3.1	▣M3.2	▣M3.3	▣M4.1											
	■39	■33	■30	■20											

E629 / E769

Designed for superior performance through hole tapping in a wide range of Stainless Steel types. Premium HSCo Powder Metal substrate with Super-B (TiAlN+WC/C) Coating combined with an additional edge treatment to offer improved thread quality and longer tool life. Available in both 2B and 3B Class of Fit to cover a wide range of applications.



E629	E769
M	MF
DIN ANSI	DIN ANSI
6H	6H
2.5XD	2.5XD
HSS-PM	HSS-PM
B 3.5-5	B 3.5-5
Super B	Super B
M4 – M24	M8 – M18

Pack Qty = 1 pc

TDZ M	TDZ MF	P [mm]	OAL [mm]	THL [mm]	LU [mm]	DCON [inch]	WSC [inch]	LSC [inch]	NOF [-]			Limits	E629	E769
4		0.70	63	12	21	0.168	0.129	6	3	3.30	N30	D4	7350317	—
5		0.80	70	13	25	0.194	0.150	6	3	4.20	N19	D4	7350318	—
6		1.00	80	15	30	0.255	0.189	8	3	5.00	N9	D5	7350319	—
	8	1.00	90	18	35	0.318	0.236	10	3	7.00	J	D5	—	7350328
8		1.25	90	18	35	0.318	0.236	10	3	6.80	H	D5	7350320	—
	10	1.25	100	20	39	0.381	0.284	11	3	8.80	11/32	D6	—	7350329
10		1.50	100	20	39	0.381	0.284	11	3	8.50	Q	D6	7350321	—
	12	1.25	100	21	—	0.367	0.273	11	4	10.80	27/64	D6	—	7350330
	12	1.50	100	21	—	0.367	0.273	11	4	10.50	Z	D6	—	7350331
12		1.75	110	23	—	0.367	0.273	11	4	10.30	Y	D6	7350322	—
	14	1.50	100	21	—	0.429	0.320	13	4	12.50	31/64	D7	—	7350332
14		2.00	110	23	—	0.429	0.320	13	4	12.00	15/32	D7	7350323	—
	16	1.50	100	21	—	0.480	0.358	14	4	14.50	9/16	D7	—	7350333
16		2.00	110	23	—	0.480	0.358	14	4	14.00	35/64	D7	7350324	—
	18	1.50	110	24	—	0.542	0.404	16	4	16.50	41/64	D7	—	7350334
18		2.50	125	30	—	0.542	0.404	16	4	15.50	39/64	D7	7350325	—
20		2.50	140	30	—	0.652	0.487	18	4	17.50	11/16	D7	7350326	—
24		3.00	160	38	—	0.760	0.567	19	4	21.00	53/64	D8	7350327	—

Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

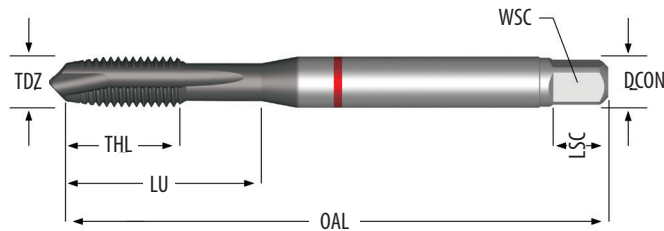
DIN ANSI Machine Tap, Red Shark for Alloy Steels

E627	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	S1.2	S2.1	S3.1	S4.1				
E767	■79	■82	■66	■56	■49	■43	▣33	▣10	▣13	▣10	▣7				

E627 / E767

Designed for high performance through hole tapping in most medium Alloy Steels. The TiAlN-Top Coating combined with an additional edge treatment provides excellent performance and consistency in high production applications.

DORMER



E627	E767
M	MF
DIN ANSI	DIN ANSI
6H	6H
2.5XD	2.5XD
HSS-E PM	HSS-E PM
B 3.5-5	B 3.5-5
Super B	Super B
M3 – M24	M8 – M14

Pack Qty = 1 pc

TDZ M	TDZ MF	P	OAL	THL	LU	DCON	WSC	LSC	NOF			Limits	E627	E767
		[mm]	[mm]	[mm]	[mm]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
3		0.50	56	9	18	0.141	0.108	5	3	2.50	N40	D3	7350414	—
4		0.70	63	12	21	0.168	0.129	6	3	3.30	N30	D4	7350415	—
5		0.80	70	13	25	0.194	0.150	6	3	4.20	N19	D4	7350416	—
6		1.00	80	15	30	0.255	0.189	8	3	5.00	N9	D5	7350417	—
	8	1.00	90	18	35	0.318	0.236	10	3	7.00	J	D5	—	7350426
8		1.25	90	18	35	0.318	0.236	10	3	6.80	H	D5	7350418	—
	10	1.25	100	20	39	0.381	0.284	11	3	8.80	11/32	D6	—	7350427
10		1.50	100	20	39	0.381	0.284	11	3	8.50	Q	D6	7350419	—
	12	1.50	100	21	—	0.367	0.273	11	3	10.50	Z	D6	—	7350428
12		1.75	110	23	—	0.367	0.273	11	3	10.30	Y	D6	7350420	—
	14	1.50	100	21	—	0.429	0.320	13	3	12.50	31/64	D7	—	7350429
14		2.00	110	23	—	0.429	0.320	13	3	12.00	15/32	D7	7350421	—
16		2.00	110	23	—	0.480	0.358	14	3	14.00	35/64	D7	7350422	—
18		2.50	125	30	—	0.542	0.404	16	4	15.50	39/64	D7	7350423	—
20		2.50	140	30	—	0.652	0.487	18	4	17.50	11/16	D7	7350424	—
24		3.00	160	38	—	0.760	0.567	19	4	21.00	53/64	D8	7350425	—

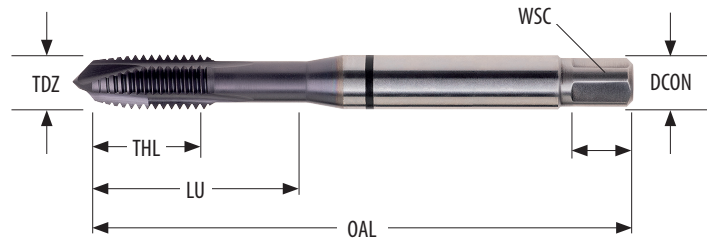
Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

DIN-ANSI Machine Tap Black Shark for Hard Alloys, Plug Style

E817	P3.2	P3.3	P4.3	S1.2	S1.3	S3.1	S3.2	H3.1						
E917	■55	■42	■32	■42	■26	■16	■10	▣22						

E817 / E917

Designed for high performance through hole tapping in high strength and heat resistant work-materials with hardness up to 45HRC. The TiAlN-Top coating combined with geometry that significantly increases cutting edge strength, provides excellent performance and consistency in hard and difficult to machine materials.



E817	E917
M	MF
DIN ANSI	DIN ANSI
6HX	6HX
2.5XD	2.5XD
HSS-E PM	HSS-E PM
B 3.5-5	B 3.5-5
M3 – M12	M8 – M12

Pack Qty = 1 pc

TDZ M	TDZ MF	P	OAL	THL	LU	DCON	▣ WSC	LSC	 NOF			Limits	E817	E917
		[mm]	[mm]	[mm]	[mm]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
3		0.50	63	15	22	0.168	0.129	6	3	2.50	N40	D3	7812115	—
4		0.70	70	16	28	0.194	0.150	6	3	3.30	N30	D4	7812116	—
5		0.80	80	17	26	0.255	0.189	8	3	4.20	N19	D4	7812117	—
6		1.00	90	21	35	0.318	0.236	10	3	5.00	N9	D5	7812118	—
8		1.25	100	23	39	0.381	0.284	11	3	6.80	H	D5	7812119	—
	8	1.00	100	23	39	0.381	0.284	11	3	7.00	J	D5	—	7812122
10		1.50	100	20	38	0.381	0.284	11	3	8.50	Q	D6	7812120	—
	10	1.25	100	20	38	0.381	0.284	11	3	8.80	11/32	D5	—	7812123
12		1.75	110	23	-	0.367	0.273	11	4	10.30	Y	D6	7812121	—
	12	1.25	110	23	-	0.367	0.273	11	4	10.80	27/64	D5	—	7812124
	12	1.50	110	23	-	0.367	0.273	11	4	10.50	Z	D5	—	7812125

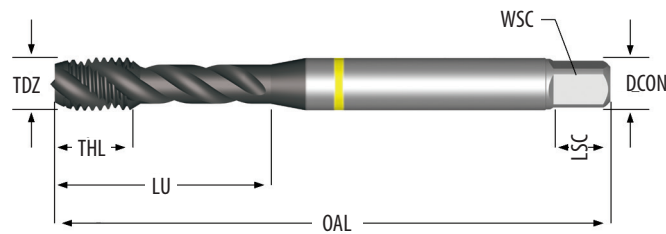
Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

DIN ANSI Machine Tap, Yellow for Low Alloy Steels

E808	P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	N3.1	N3.2	N3.3	
E908	■102	▣112	■115	■85	■75	▣66	▣62	▣49	▣43	▣36	▣33	■167	▣98	■49	

E808 / E908

Designed for blind hole tapping in low Alloy Steel applications. Premium HSCo Powder Metal substrate with TiAlN-Top Coating combined with a special 40° Spiral Flute geometry prevents nesting and reduces the risk of re-cutting chips on reversal allowing taps to operate at higher speeds while providing improved thread quality.



E808	E908
UNC	UNF
DIN ANSI	DIN ANSI
2B	2B
2XD	2XD
HSS-E PM	HSS-E PM
C 2-3	C 2-3
λ 40°	λ 40°
TiAlN Top	TiAlN Top
No.4 – 1"	No.10 – 1"

Pack Qty = 1 pc

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	WSC	LSC	NOF			Limits	E808	E908
		[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
4		40	2.205	0.256	0.709	0.141	0.108	0.236	3	2.35	N43	H2	7350510	—
6		32	2.205	0.256	0.787	0.141	0.108	0.190	3	2.85	N36	H2	7350511	—
8		32	2.480	0.276	0.827	0.168	0.129	0.250	3	3.50	N29	H3	7350512	—
10		24	2.756	0.315	1.102	0.194	0.150	0.250	3	3.90	N25	H3	7350513	—
	10	32	2.756	0.315	1.102	0.194	0.150	0.250	3	4.10	N21	H3	—	7350523
1/4		20	3.150	0.394	0.984	0.255	0.189	0.310	3	5.10	N7	H5	7350514	—
	1/4	28	3.150	0.394	0.984	0.255	0.189	0.310	3	5.50	N3	H4	—	7350524
5/16		18	3.543	0.472	1.339	0.318	0.236	0.380	3	6.60	F	H5	7350515	—
	5/16	24	3.543	0.472	1.339	0.318	0.236	0.380	3	6.90	I	H4	—	7350525
3/8		16	3.937	0.591	1.535	0.381	0.284	0.440	3	8.00	5/16	H4	7350516	—
	3/8	24	3.543	0.591	1.476	0.381	0.284	0.440	3	8.50	Q	H4	—	7350526
7/16		14	3.937	0.591	—	0.323	0.240	0.410	3	9.40	U	H5	7350517	—
	7/16	20	3.937	0.591	—	0.323	0.240	0.410	3	9.90	25/64	H5	—	7350527
1/2		13	4.331	0.709	—	0.367	0.273	0.440	3	10.80	27/64	H5	7350518	—
	1/2	20	3.937	0.709	—	0.367	0.273	0.440	3	11.50	29/64	H5	—	7350528
5/8		11	4.331	0.787	—	0.480	0.358	0.560	4	13.50	17/32	H5	7350519	—
	5/8	18	3.937	0.591	—	0.480	0.358	0.560	4	14.50	37/64	H5	—	7350529
3/4		10	4.921	0.984	—	0.590	0.439	0.690	4	16.50	21/32	H5	7350520	—
	3/4	16	4.331	0.984	—	0.590	0.439	0.690	4	17.50	11/16	H5	—	7350530
7/8		9	5.512	0.984	—	0.697	0.520	0.750	4	19.50	49/64	H6	7350521	—
	7/8	14	4.921	0.984	—	0.697	0.520	0.750	4	20.40	13/16	H6	—	7350531
1"		8	6.299	1.181	—	0.800	0.597	0.810	4	22.25	7/8	H6	7350522	—
	1"	12	5.512	1.063	—	0.800	0.597	0.810	4	23.25	59/64	H6	—	7350532

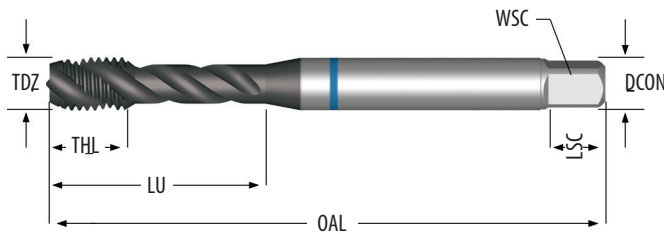
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

DIN ANSI Machine Tap, Blue Shark for Stainless Steel

	P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1	M2.2
E812	79	89	92	66	59	52	49	39	33	30	23	62	52	56	46
E912	M3.1	M3.2	M3.3	M4.1											
	39	33	30	20											

E812 / E912




Designed for superior performance blind hole tapping in a wide range of Stainless Steel types. Premium HSCo Powder Metal substrate with Super-B (TiAlN+WC/C) Coating combined with an additional edge treatment and a 40° Flute angle facilitates better chip evacuation offering improved thread quality and longer tool life. Available in both 2B and 3B Class of Fit to cover a wide range of applications.



E812	E912
UNC	UNF
DIN ANSI	DIN ANSI
2B 3B	2B 3B
2.5XD	2.5XD
HSS-E PM	HSS-E PM
C 2-3	C 2-3
40°	40°
TiAlN Top	TiAlN Top
No.4 – 1"	No.10 – 1"

Pack Qty = 1 pc

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	WSC	LSC	NOF			Limits	E812	E912
		[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[°]	[mm]	[inch]			
4		40	2.205	0.256	0.709	0.141	0.108	0.236	3	2.35	N43	H2	—	—
6		32	2.205	0.256	0.787	0.141	0.108	0.190	3	2.80	N36	H3	7350336	—
8		32	2.480	0.276	0.827	0.168	0.129	0.250	3	3.50	N29	H3	7350337	—
10		24	2.756	0.315	1.102	0.194	0.150	0.250	3	3.90	N25	H3	7350338	—
	10	32	2.756	0.315	1.102	0.194	0.150	0.250	3	4.10	N21	H3	—	7350356
1/4		20	3.150	0.394	0.984	0.255	0.189	0.310	3	5.10	N7	H5	7350339	—
1/4		20	3.150	0.394	0.984	0.255	0.189	0.310	3	5.10	N7	H3	7350340	—
	1/4	28	3.150	0.394	0.984	0.255	0.189	0.310	3	5.50	N3	H5	—	7350357
	1/4	28	3.150	0.394	0.984	0.255	0.189	0.310	3	5.50	N3	H3	—	7350358
5/16		18	3.543	0.472	1.339	0.318	0.236	0.380	3	6.60	F	H5	7350341	—
5/16		18	3.543	0.472	1.339	0.318	0.236	0.380	3	6.60	F	H3	7350342	—
	5/16	24	3.543	0.472	1.339	0.318	0.236	0.380	3	6.90	I	H4	—	7350359
	5/16	24	3.543	0.472	1.339	0.318	0.236	0.380	3	6.90	I	H3	—	7350360
3/8		16	3.937	0.591	1.535	0.381	0.284	0.440	3	8.00	5/16	H5	7350343	—
3/8		16	3.937	0.591	1.535	0.381	0.284	0.440	3	8.00	5/16	H3	7350344	—
	3/8	24	3.543	0.591	1.476	0.318	0.284	0.440	3	8.50	Q	H4	—	7350361
	3/8	24	3.543	0.591	1.476	0.318	0.284	0.440	3	8.50	Q	H3	—	7350362
7/16		14	3.937	0.591	—	0.323	0.240	0.410	4	9.40	U	H5	7350345	—
	7/16	20	3.937	0.591	—	0.323	0.240	0.410	4	9.90	25/64	H5	—	7350363

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	☐ WSC	LSC	 NOF			Limits	E812	E912
		[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
1/2		13	4.331	0.709	—	0.367	0.273	0.440	4	10.70	27/64	H5	7350346	—
1/2		13	4.331	0.709	—	0.367	0.273	0.440	4	10.70	27/64	H3	7350347	—
	1/2	20	3.937	0.709	—	0.367	0.273	0.440	4	11.50	29/64	H5	—	7350364
	1/2	20	3.937	0.709	—	0.367	0.273	0.440	4	11.50	29/64	H3	—	7350365
5/8		11	4.331	0.787	—	0.480	0.358	0.560	4	13.50	17/32	H5	7350348	—
5/8		11	4.331	0.787	—	0.480	0.358	0.560	4	13.50	17/32	H3	7350349	—
	5/8	18	3.937	0.591	—	0.480	0.358	0.560	4	14.50	37/64	H5	—	7350366
	5/8	18	3.937	0.591	—	0.480	0.358	0.560	4	14.50	37/64	H3	—	7350367
3/4		10	4.921	0.984	—	0.590	0.439	0.690	4	16.50	21/32	H5	7350350	—
3/4		10	4.921	0.984	—	0.590	0.439	0.690	4	16.50	21/32	H3	7350351	—
	3/4	16	4.331	0.984	—	0.590	0.439	0.690	4	17.50	11/16	H5	—	7350368
	3/4	16	4.331	0.984	—	0.590	0.439	0.690	4	17.50	11/16	H3	—	7350369
7/8		9	5.512	0.984	—	0.697	0.520	0.750	4	19.50	49/64	H6	7350352	—
7/8		9	5.512	0.984	—	0.697	0.520	0.750	4	19.50	49/64	H4	7350353	—
	7/8	14	4.921	0.984	—	0.697	0.520	0.750	4	20.40	13/16	H6	—	7350370
	7/8	14	4.921	0.984	—	0.697	0.520	0.750	4	20.40	13/16	H4	—	7350371
1"		8	6.299	1.181	—	0.800	0.597	0.810	4	22.25	7/8	H6	7350354	—
1"		8	6.299	1.181	—	0.800	0.597	0.810	4	22.25	7/8	H4	7350355	—
	1"	12	5.512	1.063	—	0.800	0.597	0.810	4	23.25	59/64	H6	—	7350372
	1"	12	5.512	1.063	—	0.800	0.597	0.810	4	23.25	59/64	H4	—	7350373

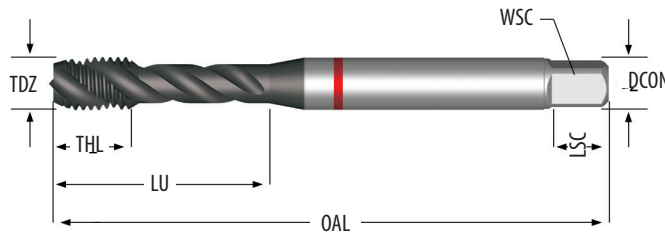
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

DIN ANSI Machine Tap, Red Shark for Alloy Steels

E810	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	S1.2	S2.1	S3.1	S4.1				
E910	■79	■82	■66	■56	■49	■43	▣33	▣10	▣13	▣10	▣7				

E810 / E910

Designed for high performance blind hole tapping in most medium Alloy Steels. The TiAlN-Top Coating combined with a special 45° Flute Geometry and an additional edge treatment provides excellent performance and consistency in high production applications. The back taper built into this design further facilitates chip evacuation and reduces torque when the tap reverses. It is recommended to use a toolholder with minimal float or soft start.



E810	E910
UNC	UNF
DIN ANSI	DIN ANSI
2B	2B
2.5XD	2.5XD
HSS-E PM	HSS-E PM
C 2-3	C 2-3
λ45°	λ45°
TiAlN Top	TiAlN Top
No.4 – 1"	No.10 – 1"

Pack Qty = 1 pc

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	WSC	LSC	NOF			Limits	E810	E910
		[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
4		40	2.205	0.256	0.709	0.141	0.108	0.236	3	2.35	N43	H2	7350430	—
6		32	2.205	0.256	0.787	0.141	0.108	0.190	3	2.85	N36	H2	7350431	—
8		32	2.480	0.276	0.827	0.168	0.129	0.250	3	3.50	N29	H3	7350432	—
10		24	2.756	0.315	1.102	0.194	0.150	0.250	3	3.90	N25	H3	7350433	—
	10	32	2.756	0.315	1.102	0.194	0.150	0.250	3	4.10	N21	H3	—	7350443
1/4		20	3.150	0.394	0.984	0.255	0.189	0.310	3	5.10	N7	H5	7350434	—
	1/4	28	3.150	0.394	0.984	0.255	0.189	0.310	3	5.50	N3	H4	—	7350444
5/16		18	3.543	0.472	1.339	0.318	0.236	0.380	3	6.60	F	H5	7350435	—
	5/16	24	3.543	0.472	1.339	0.318	0.236	0.380	3	6.9	I	H4	—	7350445
3/8		16	3.937	0.591	1.535	0.381	0.284	0.440	3	8.00	5/16	H4	7350436	—
	3/8	24	3.543	0.591	1.476	0.381	0.284	0.440	3	8.50	Q	H4	—	7350446
7/16		14	3.937	0.591	—	0.323	0.240	0.410	3	9.40	U	H5	7350437	—
	7/16	20	3.937	0.591	—	0.323	0.240	0.410	3	9.90	25/64	H5	—	7350447
1/2		13	4.331	0.709	—	0.367	0.273	0.440	3	10.80	27/64	H5	7350438	—
	1/2	20	3.937	0.709	—	0.367	0.273	0.440	3	11.50	29/64	H5	—	7350448
5/8		11	4.331	0.787	—	0.480	0.358	0.560	4	13.50	17/32	H5	7350439	—
	5/8	18	3.937	0.591	—	0.480	0.358	0.560	4	14.50	37/64	H5	—	7350449
3/4		10	4.921	0.984	—	0.590	0.439	0.690	4	16.50	21/32	H5	7350440	—
	3/4	16	4.331	0.984	—	0.590	0.439	0.690	4	17.50	11/16	H5	—	7350450
7/8		9	5.512	0.984	—	0.697	0.520	0.750	4	19.50	49/64	H6	7350441	—
	7/8	14	4.921	0.984	—	0.697	0.520	0.750	4	20.40	13/16	H6	—	7350451
1"		8	6.299	1.181	—	0.800	0.597	0.810	4	22.25	7/8	H6	7350442	—
	1"	12	5.512	1.063	—	0.800	0.597	0.810	4	23.25	59/64	H6	—	7350452

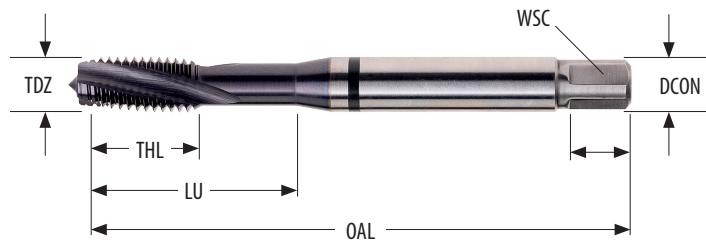
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

DIN-ANSI Machine Tap Black Shark for Hard Alloys, Spiral Flute

E805	P3.2	P3.3	P4.3	S1.2	S1.3	S3.1	S3.2	H3.1						
E905	■55	■42	■32	■42	■26	■16	■10	▣22						

E805 / E905

Designed for high performance blind hole tapping in high strength and heat-resistant work-materials with hardness up to 45HRC. The TiAlN-Top coating combined with geometry what significantly increases cutting edge strength, provides excellent performance and consistency in hard and difficult to machine materials.



E805	E905
UNC	UNF
DIN ANSI	DIN ANSI
2BX	2BX
1.5XD	1.5XD
HSS-E PM	HSS-E PM
C 2-3	C 2-3
λ 15°	λ 15°
TiAlN Top	TiAlN Top
No.4 – 3/4	No.10 – 3/4

Pack Qty = 1 pc

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	WSC	LSC	NOF			Limits	E805	E905
		[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
4		40	2.205	0.472	0.827	0.141	0.108	0.190	3	2.35	N43	H2	7812126	—
6		32	2.480	0.551	0.866	0.168	0.129	0.250	3	2.85	N36	H2	7812127	—
8		32	2.756	0.610	1.102	0.194	0.150	0.250	3	3.50	N29	H3	7812128	—
10		24	3.150	0.669	1.024	0.255	0.189	0.310	3	3.90	N25	H3	7812129	—
	10	32	3.150	0.669	1.024	0.255	0.189	0.310	3	4.10	N21	H3	—	7812137
1/4		20	3.543	0.807	1.378	0.318	0.236	0.380	3	5.10	N7	H5	7812130	—
	1/4	28	3.543	0.807	1.339	0.318	0.236	0.380	3	5.50	N3	H4	—	7812138
5/16		18	3.937	0.906	1.535	0.381	0.236	0.440	3	6.60	F	H5	7812131	—
	5/16	24	3.937	0.906	1.535	0.381	0.284	0.440	3	6.90	I	H4	—	7812139
3/8		16	3.937	0.787	1.535	0.381	0.236	0.440	3	8.00	5/16	H5	7812132	—
	3/8	24	3.937	0.787	1.535	0.381	0.284	0.440	3	8.50	Q	H4	—	7812140
7/16		14	3.937	0.787	-	0.323	0.240	0.410	4	9.40	U	H5	7812133	—
	7/16	20	3.937	0.787	-	0.325	0.240	0.440	4	9.90	25/64	H5	—	7812140
1/2		13	4.331	0.906	-	0.367	0.273	0.440	4	10.80	27/64	H5	7812134	—
	1/2	20	4.331	0.906	-	0.367	0.273	0.440	4	11.50	29/64	H5	—	7812142
5/8		11	4.331	0.906	-	0.480	0.358	0.560	4	13.50	17/32	H5	7812135	—
	5/8	18	4.331	0.906	-	0.480	0.358	0.560	4	14.50	37/64	H5	—	7812143
3/4		10	4.921	1.181	-	0.590	0.440	0.690	4	16.50	21/32	H5	7812136	—
	3/4	16	4.921	1.181	-	0.590	0.440	0.690	4	17.50	11/16	H5	—	7812144

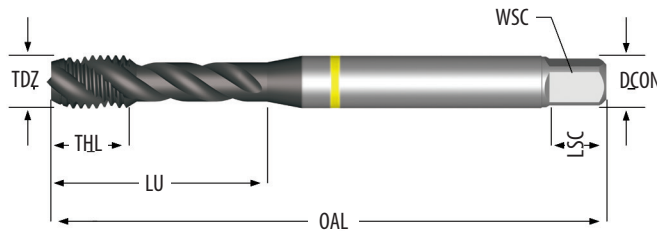
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

DIN ANSI Machine Tap, Yellow for Low Alloy Steels

E624	P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	N3.1	N3.2	N3.3	
E764	■102	▣112	■115	■85	■75	▣66	▣62	▣49	▣43	▣36	▣33	■167	▣98	■49	

E624 / E764

Designed for blind hole tapping in low Alloy Steel applications. Premium HSCo Powder Metal substrate with TiAlN-Top Coating combined with a special 40° Spiral Flute geometry prevents nesting and reduces the risk of re-cutting chips on reversal allowing taps to operate at higher speeds while providing improved thread quality.



E624	E764
M	MF
DIN ANSI	DIN ANSI
6H	6H
2XD	2XD
HSS-E PM	HSS-E PM
C 2-3	C 2-3
λ40°	λ40°
TiAlN Top	TiAlN Top
M4 – M24	M8 – M18

Pack Qty = 1 pc

TDZ M	TDZ MF	P	OAL	THL	LU	DCON	WSC	LSC	NOF	Flute	Flute	Limits	E624	E764
		[mm]	[mm]	[mm]	[mm]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
4		0.70	63	7	21	0.168	0.129	6	3	3.30	N30	D4	7350533	—
5		0.80	70	8	25	0.194	0.150	6	3	4.20	N19	D4	7350534	—
6		1.00	80	10	30	0.255	0.189	8	3	5.00	N9	D5	7350535	—
	8	1.00	90	13	35	0.318	0.236	10	3	7.00	J	D5	—	7350544
8		1.25	90	13	35	0.318	0.236	10	3	6.80	H	D5	7350536	—
	10	1.25	100	15	39	0.381	0.284	11	3	8.80	11/32	D6	—	7350545
10		1.50	100	15	39	0.381	0.284	11	3	8.50	Q	D6	7350537	—
	12	1.25	100	15	—	0.367	0.273	11	3	10.80	27/64	D6	—	7350546
	12	1.50	100	15	—	0.367	0.273	11	3	10.50	Z	D6	—	7350547
12		1.75	110	18	—	0.367	0.273	11	3	10.30	Y	D6	7350538	—
	14	1.50	100	15	—	0.429	0.320	13	3	12.50	31/64	D7	—	7350548
14		2.00	110	20	—	0.429	0.320	13	3	12.00	15/32	D7	7350539	—
	16	1.50	100	15	—	0.480	0.358	14	4	14.50	9/16	D7	—	7350549
16		2.00	110	20	—	0.480	0.358	14	4	14.00	35/64	D7	7350540	—
	18	1.50	110	17	—	0.542	0.404	16	4	16.50	41/64	D7	—	7350550
18		2.50	125	25	—	0.542	0.404	16	4	15.50	39/64	D7	7350541	—
20		2.50	140	25	—	0.652	0.487	18	4	17.50	11/16	D7	7350542	—
24		3.00	160	30	—	0.760	0.567	19	4	21.00	53/64	D8	7350543	—

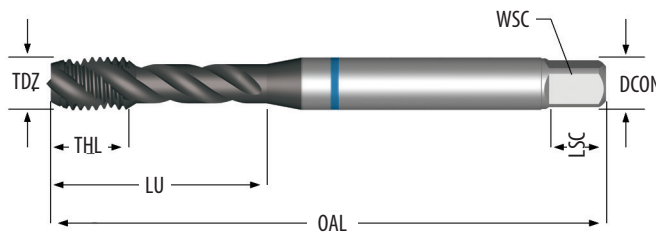
Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

DIN ANSI Machine Tap, Blue Shark for Stainless Steel

	P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1	M2.2
E628	▣79	▣89	▣92	▣66	▣59	▣52	▣49	▣39	▣33	▣30	▣23	▣62	▣52	▣56	▣46
E768	M3.1	M3.2	M3.3	M4.1											
	▣39	▣33	▣30	▣20											

E628 / E768

Designed for superior performance blind hole tapping in a wide range of Stainless Steel types. Premium HSCo Powder Metal substrate with Super-B (TiAlN+WC/C) Coating combined with an additional edge treatment and a 40° Flute angle facilitates better chip evacuation offering improved thread quality and longer tool life. Available in both 2B and 3B Class of Fit to cover a wide range of applications.



E628	E768
M	MF
DIN ANSI	DIN ANSI
6H	6H
2.5XD	2.5XD
HSS-E PM	HSS-E PM
C 2-3	C 2-3
λ40°	λ40°
TiAlN Top	TiAlN Top
M4 – M24	M8 – M18

Pack Qty = 1 pc

TDZ M	TDZ MF	P	OAL	THL	LU	DCON	WSC	LSC	NOF			Limits	E628	E768
		[mm]	[mm]	[mm]	[mm]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
4		0.70	63	7	21	0.168	0.129	6	3	3.30	N30	D4	7350374	—
5		0.80	70	8	25	0.194	0.150	6	3	4.20	N19	D4	7350375	—
6		1.00	80	10	30	0.255	0.189	8	3	5.00	N9	D5	7350376	—
	8	1.00	90	13	35	0.318	0.236	10	3	7.00	J	D5	—	7350385
8		1.25	90	13	35	0.318	0.236	10	3	6.80	H	D5	7350377	—
	10	1.25	100	15	39	0.381	0.284	11	3	8.80	11/32	D6	—	7350386
10		1.50	100	15	39	0.381	0.284	11	3	8.50	Q	D6	7350378	—
	12	1.50	100	15	—	0.367	0.273	11	4	10.50	Z	D6	—	7350387
12		1.75	110	18	—	0.367	0.273	11	4	10.30	Y	D6	7350379	—
	14	1.50	100	15	—	0.429	0.320	13	4	12.50	31/64	D7	—	7350388
14		2.00	110	20	—	0.429	0.320	13	4	12.00	15/32	D7	7350380	—
	16	1.50	100	15	—	0.480	0.358	14	4	14.50	9/16	D7	—	7350389
16		2.00	110	20	—	0.480	0.358	14	4	14.00	35/64	D7	7350381	—
	18	1.50	110	17	—	0.542	0.404	16	4	16.50	41/64	D7	—	7350390
18		2.50	125	25	—	0.542	0.404	16	4	15.50	39/64	D7	7350382	—
20		2.50	140	25	—	0.652	0.487	18	4	17.50	11/16	D7	7350383	—
24		3.00	160	30	—	0.760	0.567	19	4	21.00	53/64	D8	7350384	—

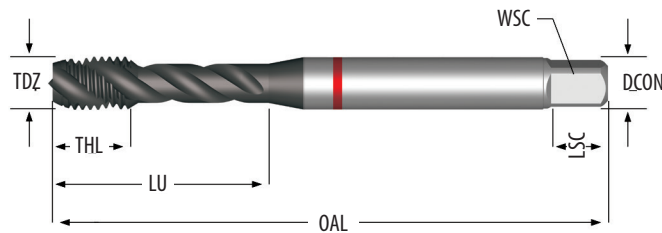
Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

DIN ANSI Machine Tap, Red Shark for Alloy Steels

E626	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	S1.2	S2.1	S3.1	S4.1				
E766	■94	■95	■79	■66	■59	■49	▣39	▣10	▣13	▣10	▣7				

E626 / E766

Designed for high performance blind hole tapping in most medium Alloy Steels. The TiAlN-Top Coating combined with a special 45° Flute Geometry and an additional edge treatment provides excellent performance and consistency in high production applications. The back taper built into this design further facilitates chip evacuation and reduces torque when the tap reverses. It is recommended to use a toolholder with minimal float or soft start.



E626	E766
M	MF
DIN ANSI	DIN ANSI
6H	6H
2.5XD	2.5XD
HSS-E PM	HSS-E PM
C 2-3	C 2-3
λ45°	λ45°
TiAlN Top	TiAlN Top
M3 – M24	M8 – M14

Pack Qty = 1 pc

TDZ M	TDZ MF	P	OAL	THL	LU	DCON	WSC	LSC	NOF			Limits	E626	E766
		[mm]	[mm]	[mm]	[mm]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
3		0.50	56	6	18	0.141	0.108	5	3	2.50	N40	D3	7350453	—
4		0.70	63	7	21	0.168	0.129	6	3	3.30	N30	D4	7350454	—
5		0.80	70	8	25	0.194	0.150	6	3	4.20	N19	D4	7350455	—
6		1.00	80	10	30	0.255	0.189	8	3	5.00	N9	D5	7350456	—
	8	1.00	90	13	35	0.318	0.236	10	3	7.00	J	D5	—	7350465
8		1.25	90	13	35	0.318	0.236	10	3	6.80	H	D5	7350457	—
	10	1.25	100	15	39	0.381	0.284	11	3	8.80	11/32	D6	—	7350466
10		1.50	100	15	39	0.381	0.284	11	3	8.50	Q	D6	7350458	—
	12	1.25	100	15	—	0.367	0.273	11	3	10.80	27/64	D6	—	7350467
12		1.75	110	18	—	0.367	0.273	11	3	10.30	Y	D6	7350459	—
	14	1.50	100	15	—	0.429	0.320	13	3	12.50	31/64	D7	—	7350468
14		2.00	110	20	—	0.429	0.320	13	3	12.00	15/32	D7	7350460	—
16		2.00	110	20	—	0.480	0.358	14	4	14.00	35/64	D7	7350461	—
18		2.50	125	25	—	0.542	0.404	16	4	15.50	39/64	D7	7350462	—
20		2.50	140	25	—	0.652	0.487	18	4	17.50	11/16	D7	7350463	—
24		3.00	160	30	—	0.760	0.567	19	4	21.00	53/64	D8	7350464	—

Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

DIN-ANSI Machine Tap Black Shark for Hard Alloys, Spiral Flute

E805	P3.2	P3.3	P4.3	S1.2	S1.3	S3.1	S3.2	H3.1						
E905	■55	■42	■32	■42	■26	■16	■10	▣22						

E806 / E906

Designed for high performance blind hole tapping in high strength and heat-resistant work-materials with hardness up to 45HRC. The TiAlN-Top coating combined with geometry what significantly increases cutting edge strength, provides excellent performance and consistency in hard and difficult to machine materials.





E806	E906
M	MF
DIN ANSI	DIN ANSI
6HX	6HX
1.5XD	1.5XD
HSS-E PM	HSS-E PM
C 2-3	C 2-3
λ15°	λ15°
TiAlN Top	TiAlN Top
M3 – M12	M8 – M12

Pack Qty = 1 pc

TDZ M	TDZ MF	P	OAL	THL	LU	DCON	WSC	LSC	NOF			Limits	E806	E906
		[mm]	[mm]	[mm]	[mm]	[inch]	[inch]	[inch]	[-]	[mm]	[inch]			
3		0.50	63	15	22	0.168	0.129	6	3	2.50	N40	D3	7812145	—
4		0.70	70	16	28	0.194	0.150	6	3	3.30	N30	D4	7812146	—
5		0.80	80	17	26	0.255	0.189	8	3	4.20	N19	D4	7812147	—
6		1.00	90	21	35	0.318	0.236	10	3	5.00	N9	D5	7812148	—
8		1.25	100	23	39	0.381	0.284	11	3	6.80	H	D5	7812149	—
	8	1.00	100	23	39	0.381	0.284	11	3	7.00	J	D5	—	7812152
10		1.50	100	20	38	0.381	0.284	11	3	8.50	Q	D6	7812150	—
12		1.75	110	23	-	0.367	0.273	11	4	10.30	Y	D6	7812151	—
	10	1.25	100	20	38	0.381	0.284	11	3	8.80	11/32	D5	—	7812153
	12	1.25	110	23	-	0.367	0.273	11	4	10.80	27/64	D5	—	7812155
	12	1.50	110	23	-	0.367	0.273	11	4	10.50	Z	D5	—	7812154

Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

Icon descriptions

Thread form	 Unified Coarse	 Unified Fine	 Metric coarse	 Metric fine	
Standard	 DIN ANSI				
Tolerance	 2B	 2B 3B	 2BX	 6H	 6HX
Hole Type	 Through hole	 Blind hole	 Through or blind hole		
Depth	 2XD	 2.5XD	 1.5XD		
Material	 HSS-E PM High Speed Cobalt Powder Metallurgy Steel				
Chamfer	 B 3.5-5 Plug chamfer	 C 2-3 Semi - bottoming	 E 1.5-2 Full - bottoming		
Flute Geometry	 Straight Flute	 Spiral Point	 15°	 40°	 45°
Direction	 Right				
Coating	 Titanium Aluminium Nitride - Top	 Titanium Aluminium Nitride + Tungsten Carbide Carbon			
Coolant	 Internal Coolant (Axial)				
Rating	 Main application	 Secondary application			

SIMPLY RELIABLE

As a professional you can judge the quality of work by just looking at the chip. Our chip is a clean and uncomplicated shape that in itself tells a story. It is a clear and consistent signal and that's why we use it as a symbol for being **Simply Reliable**.

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