

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 1200N/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)

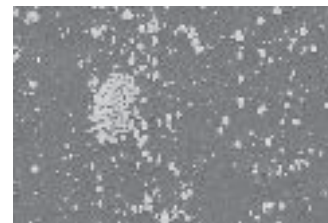
- Spiral flute taps incorporate a special edge treatment to increase strength and reduce the chance of micro-chipping on the cutting edges. This considerably improves **performance and tool life**.

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





STRUCTURAL, PLAIN CARBON & LOW ALLOY STEELS

STAINLESS STEELS

YELLOW SHARK



BLUE SHARK



- **SURFACE TREATMENT**
TiAIN-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

- **SURFACE TREATMENT**
Super-B (TiAIN + 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

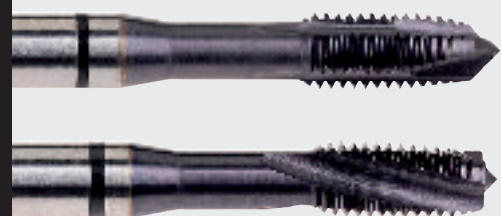
HIGH STRENGTH STEELS

NEW

RED SHARK



BLACK 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

- **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 product on 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
	1.6	1.6	1.6	1.6	6HX	6HX	6HX	6HX	2E	2E	2B 2U	2B 2U	2E	2E
														
	2XD	2.5XD	2XD	2.5XD	2XD	2.5XD	2XD	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
	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
														
														
	TA 1.76	TA 1.76	TA 1.76	TA 1.76	TA 1.76	TA 1.76	TA 1.76	TA 1.76	TA 1.76	TA 1.76	TA 1.76	TA 1.76	TA 1.76	TA 1.76
														
														
	SHARK E814	SHARK E815	SHARK E914	SHARK E915	SHARK E630	SHARK E631	SHARK E770	SHARK E771	SHARK E809	SHARK E909	SHARK E813	SHARK E913	SHARK E811	SHARK E911
	1/4- 1"	1/4- 1"	No.10- 7/8	1/4- 1"	M5- M24	M6- M24	M8- M14	M10- M14	No.4- 1"	No.10- 1"	No.4- 1"	No.10- 1"	No.4- 1"	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 applicat on ■ Secondary applicat on

		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
		1.6	1.6	6H	6H	6H	6H	6H	6H	6HX	6HX	2E	2E	2B 3D	2B 3D
															
		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
		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
															
															
															
		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														

		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
		2E	2E	1.6x	1.6x	6H	6H	6H	6H	6H	6Hx	6Hx	6Hx
		1.5xD	1.5xD	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
		SHARK E810	SHARK E910	SHARK E805	SHARK E905	SHARK E624	SHARK E764	SHARK E628	SHARK E768	SHARK E626	SHARK E766	SHARK E806	SHARK E906
		No.4- 1°	No.10- 1°	No.4- 3/4	No.10- 3/4	M4- M24	M8- M18	M4- M24	M8- M18	M3- M24	M8- M14	M3- M12	M8- M12
				NEW	NEW							NEW	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 applicat on ▣ Secondary applicat on

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 is 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

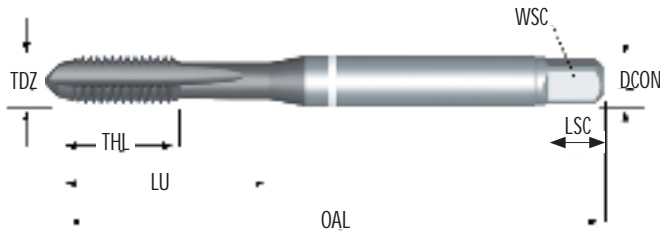
E814	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3	K3.1	K3.2	K3.3	K4.1	K4.2	K4.3
E914	■98	■72	■56	■141	■115	▧92	■125	■95	▧79	■115	■89	▧66
E815	K4.4	K4.5	K5.1	K5.2	K5.3	N3.2	N4.2					
E915	▧56	▧46	■131	■98	▧75	▧98	■49					

E814 / E914

Designed for semi-bot oming or through hole tapping in Cast Iron applicat ons. Premium HSCo Powder Metal substrate with TiAlN-Top Coat ng combine to of er superior abrasion resistance, higher operat ng speeds, improved thread quality, reduced cycle t mes and longer tool life.

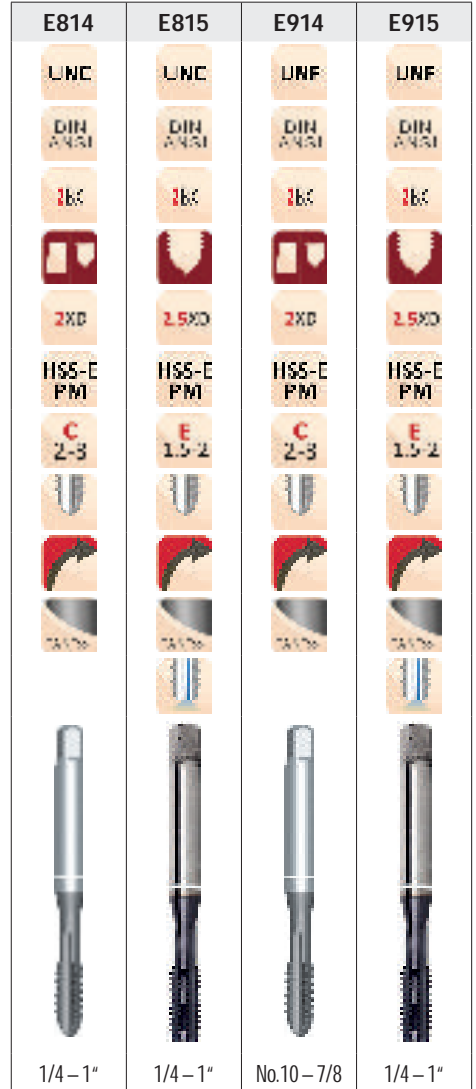
E815 / E915

Coolant through design allows for higher tapping speeds and bet er tool life. This design eliminates the problems associated with inadequate coolant supply in some applicat ons. Full Bot oming.



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



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

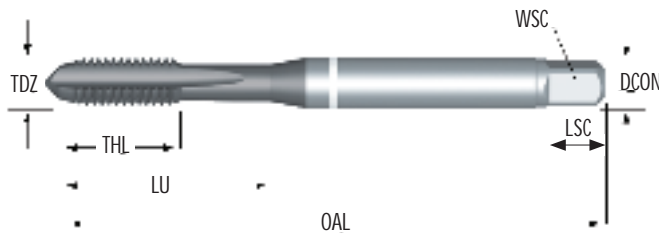
E630	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3	K3.1	K3.2	K3.3	K4.1	K4.2	K4.3
E770	■98	■72	■56	■141	■115	▧92	■125	■95	▧79	■115	■89	▧66
E631	K4.4	K4.5	K5.1	K5.2	K5.3	N3.2	N4.2					
E771	▧56	▧46	■131	■98	▧75	▧98	■49					

E630 / E770

Designed for semi-bot oming or through hole tapping in Cast Iron applicat ons. Premium HSCo Powder Metal substrate with TiAlN-Top Coat ng combine to of er superior abrasion resistance, higher operat ng speeds, improved thread quality, reduced cycle t mes and longer tool life.

E631 / E771

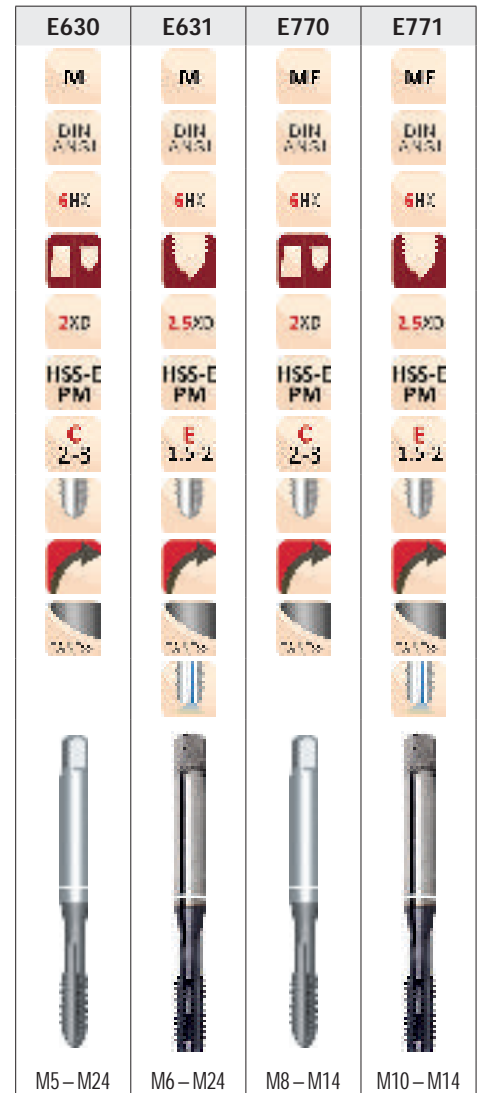
Coolant through design allows for higher tapping speeds and bet er tool life. This design eliminates the problems associated with inadequate coolant supply in some applicat ons. Full Bot oming.



Pack Qty = 1 pc

TDZ M	TDZ MF	P [mm]	OAL [mm]	THL [mm]	LU [mm]	DCON [inch]	▧ WSC [inch]	LSC [mm]	NOF [-]	NOF [mm]	NOF [inch]	Limits	E630	E631	E770	E771
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.

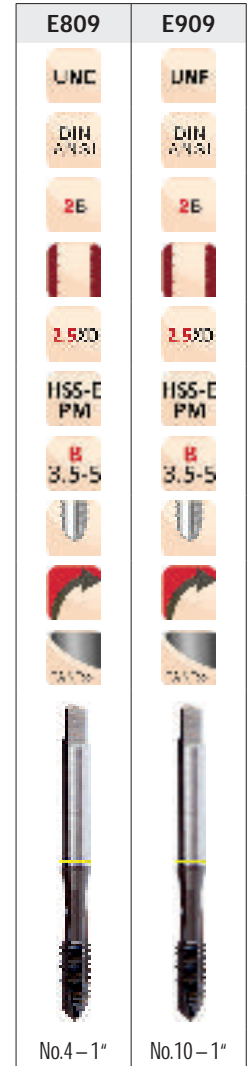
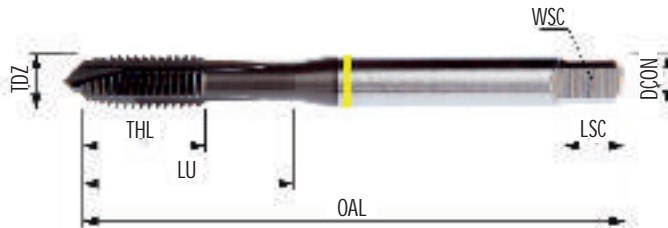


DIN ANSI Machine Tap, Yellow Shark for Low Alloy Steels

E809	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	
E909	■102	▣112	■115	■85	■75	▣66	▣62	▣49	▣43	▣36	▣33	■167	▣98	■49	

E809 / E909

Designed for through hole tapping in low Alloy Steel 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.



Pack Qty = 1 pc

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	WSC	LSC	NOF	NOF	NOF	Limits	E809	E909
		[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	7350469	—
6		32	2.205	0.433	0.787	0.141	0.108	0.190	3	2.85	N36	H2	7350470	—
8		32	2.480	0.512	0.827	0.168	0.129	0.250	3	3.50	N29	H3	7350471	—
10		24	2.756	0.551	1.102	0.194	0.150	0.250	3	3.90	N25	H3	7350472	—
	10	32	2.756	0.551	1.102	0.194	0.150	0.250	3	4.10	N21	H3	—	7350482
1/4		20	3.150	0.591	0.984	0.255	0.189	0.310	3	5.10	N7	H5	7350473	—
	1/4	28	3.150	0.591	0.984	0.255	0.189	0.310	3	5.50	N3	H4	—	7350483
5/16		18	3.543	0.709	1.339	0.318	0.236	0.380	3	6.60	F	H5	7350474	—
	5/16	24	3.543	0.709	1.339	0.318	0.236	0.380	3	6.90	I	H4	—	7350484
3/8		16	3.937	0.787	1.535	0.381	0.284	0.440	3	8.00	5/16	H4	7350475	—
	3/8	24	3.543	0.787	1.476	0.381	0.284	0.440	3	8.50	Q	H4	—	7350485
7/16		14	3.937	0.787	—	0.323	0.240	0.410	3	9.40	U	H5	7350476	—
	7/16	20	3.937	0.787	—	0.323	0.240	0.410	3	9.90	25/64	H5	—	7350486
1/2		13	4.331	0.906	—	0.367	0.273	0.440	3	10.80	27/64	H5	7350477	—
	1/2	20	3.937	0.827	—	0.367	0.273	0.440	3	11.50	29/64	H5	—	7350487
5/8		11	4.331	0.906	—	0.480	0.358	0.560	3	13.50	17/32	H5	7350478	—
	5/8	18	3.937	0.827	—	0.480	0.358	0.560	3	14.50	37/64	H5	—	7350488
3/4		10	4.921	1.181	—	0.590	0.439	0.690	3	16.50	21(32)	H5	7350479	—
	3/4	16	4.331	0.906	—	0.590	0.439	0.690	3	17.50	11/16	H5	—	7350489
7/8		9	5.512	1.339	—	0.697	0.520	0.750	4	19.50	49/64	H6	7350480	—
	7/8	14	4.921	0.906	—	0.697	0.520	0.750	4	20.40	13/16	H6	—	7350490
1"		8	6.299	1.417	—	0.800	0.597	0.810	4	22.25	7/8	H6	7350481	—
	1"	12	5.512	1.063	—	0.800	0.597	0.810	4	23.25	59/64	H6	—	7350491

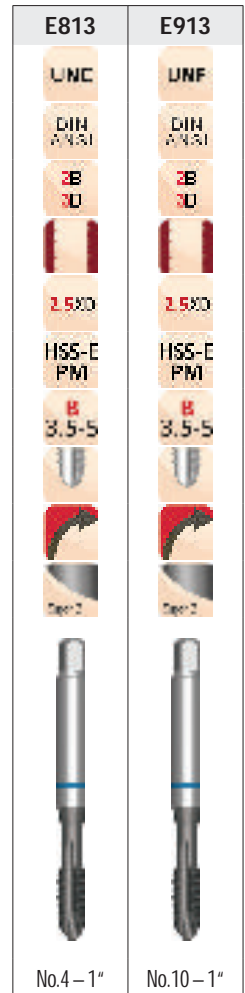
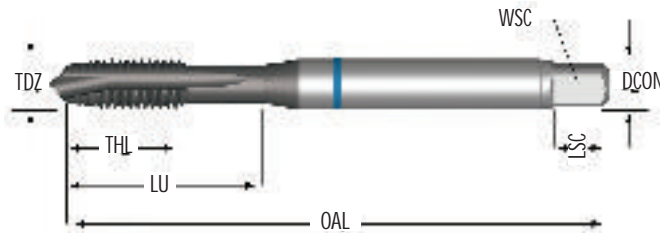
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

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
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.



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

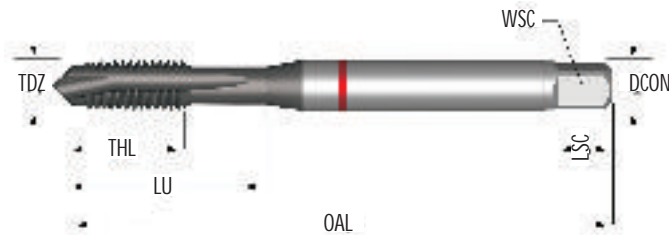
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

DIN ANSI Machine Tap, Red Shark for Alloy Steels

E811	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	S1.2	S2.1	S3.1	S4.1				
E911	■79	■82	■66	■56	■49	■43	▣33	▣10	▣13	▣10	▣7				

E811 / E911

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.



E811	E911
UNC	UNF
DIN ANSI	DIN ANSI
2E	2E
2.5X0	2.5X0
HSS-E PM	HSS-E PM
15	15
3.5-5	3.5-5
No.4 – 1"	No.10 – 1"

Pack Qty = 1 pc

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	▣ WSC	LSC	NOF			Limits	E811	E911
		[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	7350391	—
6		32	2.205	0.433	0.787	0.141	0.108	0.190	3	2.85	N36	H2	7350392	—
8		32	2.480	0.512	0.827	0.168	0.129	0.250	3	3.50	N29	H3	7350393	—
10		24	2.756	0.551	1.102	0.194	0.150	0.250	3	3.90	N25	H3	7350394	—
	10	32	2.756	0.551	1.102	0.194	0.150	0.250	3	4.10	N21	H3	—	7350404
1/4		20	3.150	0.591	0.984	0.255	0.189	0.310	3	5.10	N7	H5	7350395	—
	1/4	28	3.150	0.591	0.984	0.255	0.189	0.310	3	5.50	N3	H4	—	7350405
5/16		18	3.543	0.709	1.339	0.318	0.236	0.380	3	6.60	F	H5	7350396	—
	5/16	24	3.543	0.709	1.339	0.318	0.236	0.380	3	6.90	I	H4	—	7350406
3/8		16	3.543	0.787	1.535	0.381	0.284	0.440	3	8.00	5/16	H4	7350397	—
	3/8	24	3.543	0.787	1.476	0.318	0.284	0.440	3	8.50	Q	H4	—	7350407
7/16		14	3.937	0.787	—	0.323	0.240	0.410	3	9.40	U	H5	7350398	—
	7/16	20	3.937	0.787	—	0.323	0.240	0.410	3	9.90	25/64	H5	—	7350408
1/2		13	4.331	0.906	—	0.367	0.273	0.440	3	10.80	27/64	H5	7350399	—
	1/2	20	3.937	0.827	—	0.367	0.273	0.440	3	11.50	29/64	H5	—	7350409
5/8		11	4.331	0.906	—	0.480	0.358	0.560	3	13.50	17/32	H5	7350400	—
	5/8	18	3.937	0.827	—	0.480	0.358	0.560	3	14.50	37/64	H5	—	7350410
3/4		10	4.921	1.181	—	0.590	0.439	0.690	4	16.50	21/32	H5	7350401	—
	3/4	16	4.331	0.906	—	0.590	0.439	0.690	4	17.50	11/16	H5	—	7350411
7/8		9	5.512	1.339	—	0.697	0.520	0.750	4	19.50	49/64	H6	7350402	—
	7/8	14	4.921	0.906	—	0.697	0.520	0.750	4	20.40	13/16	H6	—	7350412
1"		8	6.299	1.417	—	0.800	0.597	0.810	4	22.25	7/8	H6	7350403	—
	1"	12	5.512	1.063	—	0.800	0.597	0.810	4	23.25	59/64	H6	—	7350413

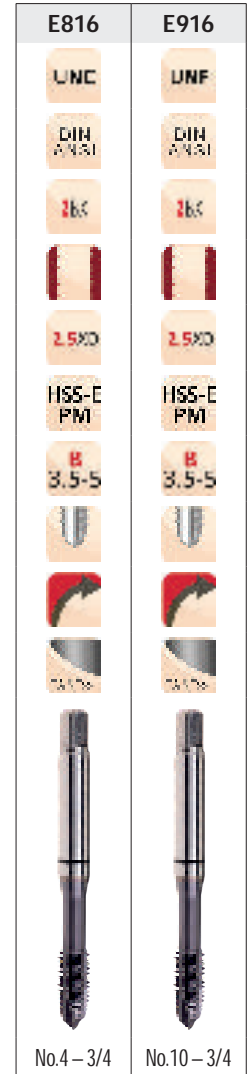
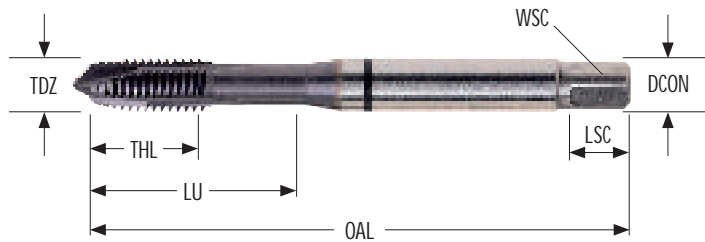
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

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.



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

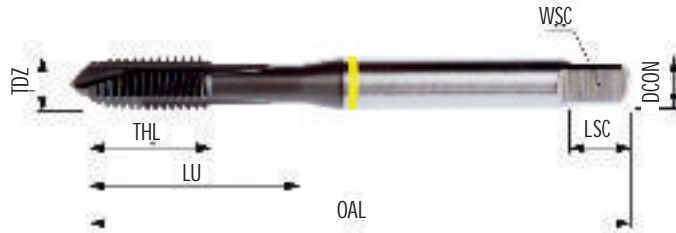
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

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
8 3.5-5	8 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	—

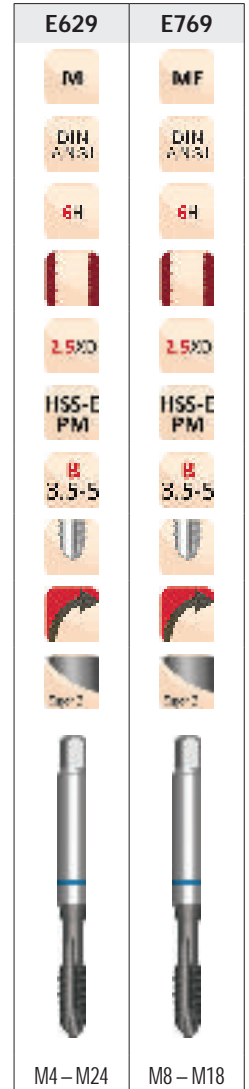
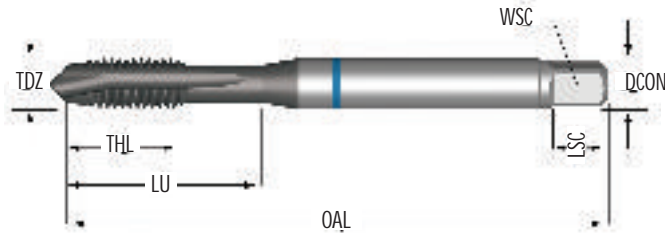
Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

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.



Pack Qty = 1 pc

TDZ M	TDZ MF	P [mm]	OAL [mm]	THL [mm]	LU [mm]	DCON [inch]	WSC [inch]	LSC [inch]	NOF [-]	Flute [mm]	Flute [inch]	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	—

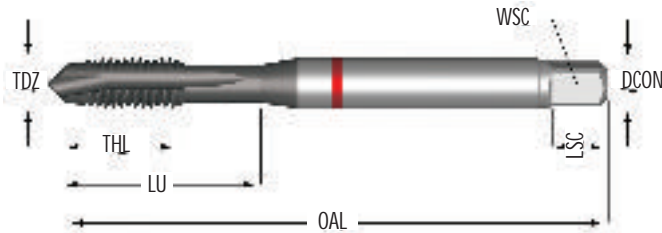
Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

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.



E627	E767
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	—

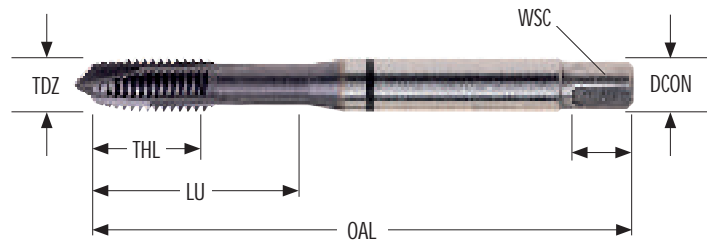
Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

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 [mm]	OAL [mm]	THL [mm]	LU [mm]	DCON [inch]	WSC [inch]	LSC [inch]	NOF [-]	Flute 1 [mm]	Flute 2 [inch]	Limits	E817	E917
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

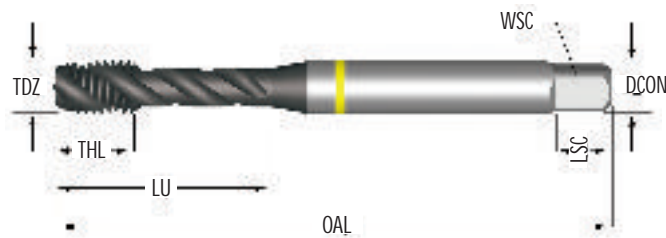
Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

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
2E	2E
HSS-E PM	HSS-E PM
C 2-3	C 2-3
40°	40°
40°	40°
No.4 - 1"	No.10 - 1"

Pack Qty = 1 pc

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	WSC	LSC	NOF	Flute	Flute	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

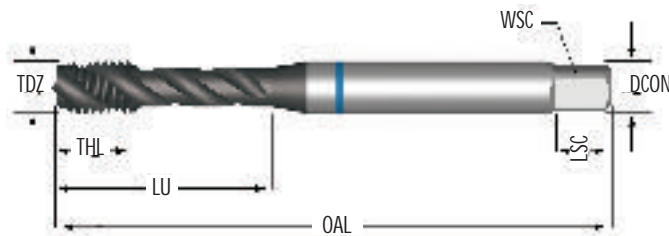
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

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 ofering 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	2B
3B	3B
1.5X0	1.5X0
HSS-E PM	HSS-E PM
C 2-3	C 2-3
40°	40°
2.5X0	2.5X0
No.4 - 1"	No.10 - 1"

Pack Qty = 1 pc

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	WSC	LSC	NOF	Flute 1	Flute 2	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

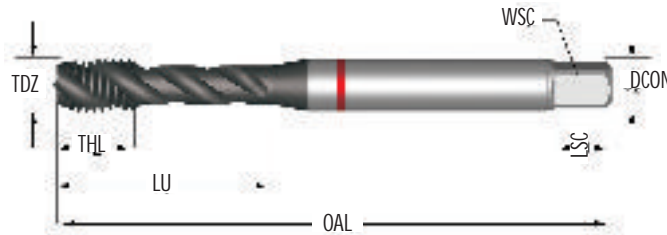
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

DIN ANSI Machine Tap, Red Shark for Alloy Steels

E810	P23	P31	P32	P33	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
2E	2E
2.5xD	2.5xD
HSS-E PM	HSS-E PM
C 2-3	C 2-3
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

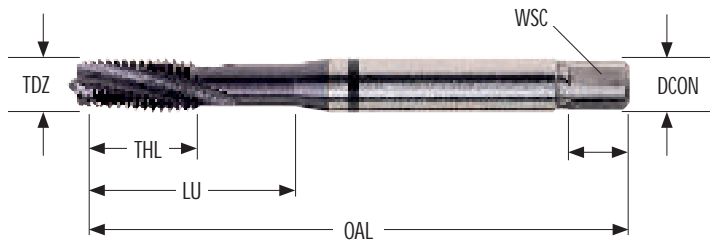
Note: Sizes up to 3/8" have male centers on both ends • Sizes over 3/8" have female centers on both ends.

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
36°	36°
1.5XD	1.5XD
HSS-E PM	HSS-E PM
C 2-3	C 2-3
15°	15°
3/16"	3/16"
No.4 - 3/4	No.10 - 3/4

Pack Qty = 1 pc

TDZ UNC	TDZ UNF	TPI	OAL	THL	LU	DCON	▧ WSC	LSC	NOF	Flute	Flute	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
40°	40°
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 [-]	[mm]	[inch]	Limits	E624	E764
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	—

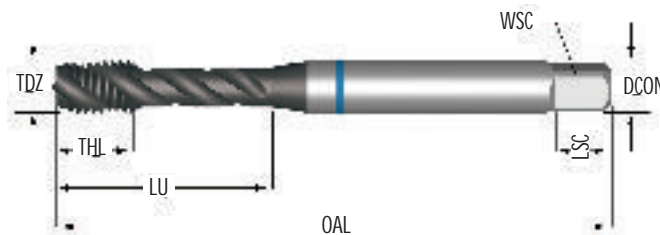
Note: Sizes up to M10 have male centers on both ends • Sizes over M10 have female centers on both ends.

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 ofering 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
TM	MF
DIN ANSI	DIN ANSI
6H	6H
2.5X0	2.5X0
HSS-E PM	HSS-E PM
C 2-3	C 2-3
40°	40°
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 [-]	Flute 1 [mm]	Flute 2 [inch]	Limits	E628	E768
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
45°	45°
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.

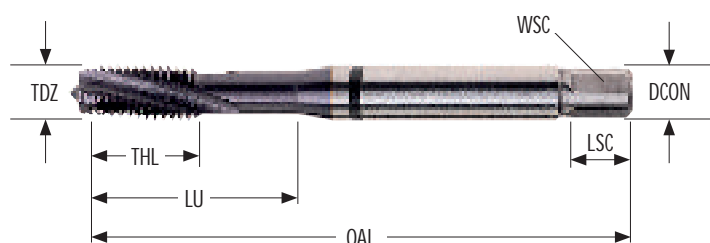
DIN-ANSI Machine Tap Black Shark for Hard Alloys, Spiral Flute

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.

DORMER




E806	E906
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					
Tolerance					
Hole Type	 Through hole	 Blind hole	 Through or blind hole		
Depth					
Material	 High Speed Cobalt Powder Metallurgy Steel				
Chamfer	 Plug chamfer	 Semi - bot oming	 Full - bot oming		
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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