



Shark Line

Material specific application taps

New products 2018





INTRODUCTION

Our material specific application-based range of DIN Shark Taps offer high **performance** and **process security**. This range has been expanded with two new tap designs for blind hole threading up to 3xD in stainless steels and steels.

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

- **ADVANCED GEOMETRY**

Significant reduction in axial forces and torque compared to conventional taps. This ensures **problem-free threading** of 3xD blind holes in stainless steels and steels with tensile strength up to 1200 N/mm².

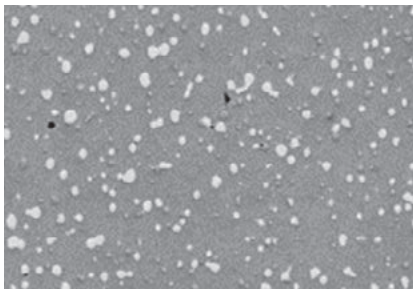
- **EDGE TREATMENT (Red, Yellow, Blue Shark)**

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**.

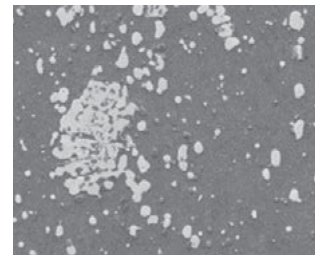


MATERIAL

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

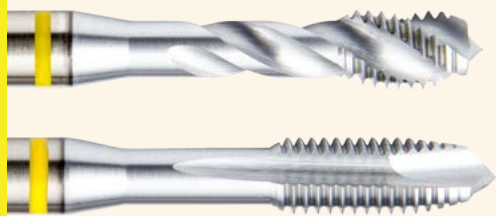
GEOMETRY AND CHAMFER

NEW

The new E412 & E414 taps feature a 48° spiral flute with constant rake angle and are back tapered. This supports:

- Threading up to 3xD
- Low torque
- Excellent threads at both high and low speeds
- Superior surface finish
- Process security



**STRUCTURAL, PLAIN CARBON & LOW ALLOY STEELS****YELLOW SHARK****• SURFACE TREATMENT**

Hard chrome plating (Cr) with an additional edge treatment prevents built up edge when tapping in materials prone to sticking to the cutting edges.

• 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

Metric and Metric Fine

• PRODUCT CODES

E297, E298, E299, E300

YELLOW SHARK**3xD NEW****• SURFACE TREATMENT**

TiAlN-Top coating with an additional edge treatment.

• FLUTE GEOMETRY

Spiral flute angle of 48° facilitates smooth and fast chip evacuation, making it suitable for threading deep blind holes (3xD). The increased thread relief also enables higher cutting speeds in high strength steels.

• CUTTING GEOMETRY

The special 3-radii profile with a constant rake angle all along the flute length leads to a better control of cutting properties and prevents nest formation of chips.

• BACK TAPERED

Back taper further facilitates chip evacuation, reducing chipping on the last threads of the taps and also reducing torque when the tap reverses.

• TOOL HOLDING recommendation

When using 48° spiral flute Yellow Shark taps, it is recommended to use a tool holder with minimal float or soft start.

• THREAD FORMS

Metric

• PRODUCT CODE

E412



STAINLESS STEELS

BLUE SHARK



- **SURFACE TREATMENT**

Steam-tempered or 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**

Metric, Metric Fine and G(BSP)

- **PRODUCT CODES**

E238, E239, E240, E241, E382, E383, E384

BLUE SHARK

3xD NEW



- **SURFACE TREATMENT**

Super-B (TiAlN + WC/C) coating with an additional edge treatment.

- **FLUTE GEOMETRY**

Spiral flute angle of 48° facilitates smooth and fast chip evacuation, making it suitable for threading deep blind holes (3xD). The increased thread relief ensures process security when tapping resilient materials such as stainless steel.

- **CUTTING GEOMETRY**

The special 3-radii profile with a constant rake angle all along the flute length leads to a better control of cutting properties and prevents nest formation of chips.

- **BACK TAPERED**

Back taper further facilitates chip evacuation, reducing chipping on the last threads of the taps and also reducing torque when the tap reverses.

- **TOOL HOLDING recommendation**

When using 48° spiral flute Blue Shark taps, it is recommended to use a tool holder with minimal float or soft start.

- **THREAD FORMS**

Metric

- **PRODUCT CODE**

E414

SHARK LINE**ALLOY STEELS****RED SHARK****• SURFACE TREATMENT**

Bright or 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. Special flute geometry on the spiral flute taps prevents nest formation of chips.

• 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 3-radii profile with a constant rake angle all along the flute length leads to better control of cutting properties and prevents nest formation of chips.

• TOOL HOLDING Recommendation

When using spiral flute Red Shark taps, it is recommended to use a tool holder with minimal float or soft start.

• THREAD FORMS

Metric

• PRODUCT CODES

E255, E256, E260, E261

SHARK

MATERIAL SPECIFIC APPLICATION TAPS



NON-FERROUS MATERIALS

GREEN SHARK



- **SURFACE TREATMENT**

Bright or Super-B (TiAlN + WC/C) coated with an additional edge treatment.

- **FLUTE GEOMETRY**

Available in spiral point for through holes and spiral flute (35° angle) for blind holes.

- **CUTTING GEOMETRY**

The special 3-radii profile with a constant rake angle all along the flute length leads to a better control of cutting properties and prevents nest formation of chips.

- **THREAD FORMS**

Metric

- **PRODUCT CODES**

E471, E472, E473, E474

CAST IRONS

WHITE SHARK



- **SURFACE TREATMENT**

Steam-tempered or TiAlN-Top coated.

- **FLUTE GEOMETRY**

Straight flute design gives excellent performance when threading both through and blind holes in short chipping materials.

- **THREAD FORMS**

Metric

- **PRODUCT CODES**

E201, E252, E390

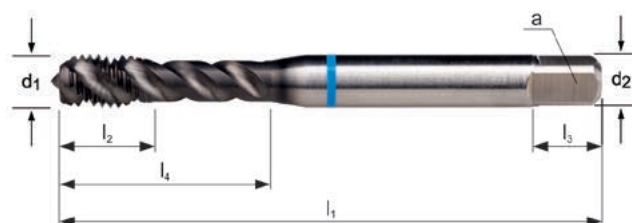
	M	M	M	M	M	M	M	M	M	M	M	M	M	
	DIN 371	DIN 376	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	
	6HX	6HX	6HX	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	
	2XD	2XD	2XD	2.5XD	2.5XD	2.5XD	2.5XD	2.5XD	2.5XD	2.5XD	2XD	3XD	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	
	C 2-3	C 2-3	C 2-3	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	
	ST	ST	TiAIN	Cr		TiAIN Top	ST	Super B		Super B	Cr	TiAIN Top		
	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	
	E201	E252	E390	E297	E255	E256	E240	E241	E471	E472	E298	E412	E260	
	M3 - M10	M8 - M24	M3 - M20	M3 - M30	M3 - M20	M3 - M20	M3 - M30	M3 - M20	M3 - M20	M3 - M20	M3 - M30	M3 - M30	M3 - M20	
												NEW		
AMG	228	228	228	237	238	238	239	239	240	240	248	249	250	
ISO														
1.1				■25					●25			■25		P 1
1.2				■22					●22	●40		■22		P 1
1.3				■18					●18	●32		■18		P 2
1.4				●16	■16	■30			●16			●16	■35	P 3
1.5				●10	●7	■17	●7		●10			●10	■16	P 4
1.6					●4	●11							●4	H 1
1.7														H 3
1.8														H 4
2.1							■8	■14				●14		M 1
2.2							■7	■10				●10		M 3
2.3							■5	■6				●6		M 2
2.4														S 2
3.1	■15	■15	■30											K 1
3.2	■8	■8	■25											K 2
3.3	■15	■15	■35											K 3
3.4	●8	●8	●25											K 4
4.1														S 1
4.2					●2	●3							●2	S 2
4.3														S 3
5.1														S 1
5.2					●2	●3							●2	S 2
5.3														S 3
6.1				■12					●12		■12			N 3
6.2	●20	●20	●30	●30					■30	■45	●30			N 4
6.3				■20					■20	●35	■20			N 3
6.4	●5	●5	●5											N 4
7.1									■16	●35		●16		N 1
7.2									■35	■45		●16		N 1
7.3									■20	■30		●35		N 1
7.4	●15	●15	●20						●15	■20		●35		N 2
8.1									■25	●30				O
8.2	■10	■10	■15											O
8.3														O
9.1														H
10.1														O

	M	M	M	M	M	M	MF	MF	MF	MF	G	
	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 371≤10 376≥12	DIN 374	DIN 374	DIN 374	DIN 374	DIN 5156	
	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	Normal	
	2.5XD	2.5XD	2.5XD	3XD	2.5XD	2.5XD	2.5XD	2.5XD	2XD	2XD	2XD	
	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	B 3.5-5	B 3.5-5	C 2-3	C 2-3	C 2-3	
	λ45°	λ40°	λ40°	λ48°	λ35°	λ35°			λ40°	λ40°	λ40°	
	TAIN Top	ST	Super B	Super B		Super B	Cr	ST	Cr	ST	ST	
	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	SHARK LINE	
	E261	E238	E239	E414	E473	E474	E299	E384	E300	E383	E382	L114
	M3 - M20	M3 - M30	M3 - M20	M3 - M20	M3 - M20	M3 - M20	M4 - M30	M6 - M20	M4 - M30	M6 - M20	1/8 - 1"	Set
				NEW								
	250	251	251	252	253	253	271	272	276	277	318	334
AMG												ISO
1.1					●25		■25		■25			P 1
1.2			●22		●22	●40	■22		■22			P 1
1.3			●18	●32	●18	●32	■18		■18			P 2
1.4	■35		●16	●27			●16		●16			P 3
1.5	■20	●7	●10	●13			●10	●7	●10	●7	●7	P 4
1.6	●11											H 1
1.7												H 3
1.8												H 4
2.1		■8	■14	■16				■8		■8	■8	M 1
2.2		■7	■10	■12				■7		■7	■7	M 3
2.3		■5	■6	■8				■5		■5	■5	M 2
2.4				■6								S 2
3.1												K 1
3.2												K 2
3.3												K 3
3.4												K 4
4.1												S 1
4.2	●3											S 2
4.3												S 3
5.1												S 1
5.2	●3											S 2
5.3												S 3
6.1					●12		■12		■12			N 3
6.2					■30	■45	●30		●30			N 4
6.3					■20	●35	■20		■20			N 3
6.4												N 4
7.1					■16	●35						N 1
7.2					■35	■45						N 1
7.3					■20	■30						N 1
7.4					●15	■20						N 2
8.1					■25	●30						O
8.2												O
8.3												O
9.1												H
10.1												O

E414 • M Machine Tap Spiral Flute 48°, Back Tapered, Blue Shark

E414 ■ 2.1 2.2 2.3 2.4
• 1.3 1.4 1.5

E414 M 6H HSS-E PM C 2-3



E414

NEW



M3 - M20

M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	z		l ₄ mm	E414
3	0.50	56	6	3.5	2.7	6	3	2.5	18	E414M3
4	0.70	63	7	4.5	3.4	6	3	3.3	21	E414M4
5	0.80	70	8	6.0	4.9	8	3	4.2	25	E414M5
6	1.00	80	10	6.0	4.9	8	3	5.0	30	E414M6
8	1.25	90	13	8.0	6.2	9	3	6.8	35	E414M8
10	1.50	100	15	10.0	8.0	11	3	8.5	39	E414M10
12	1.75	110	18	9.0	7.0	10	3	10.3	-	E414M12
14	2.00	110	20	11.0	9.0	12	3	12.0	-	E414M14
16	2.00	110	20	12.0	9.0	12	4	14.0	-	E414M16
20	2.50	140	25	16.0	12.0	15	4	17.5	-	E414M20

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**.

Argentina

T: 54 (11) 6777-6777
F: 54 (11) 4441-4467
info.ar@dormerpramet.com

Australia

T: 1300 131 274
F: 1300 809 510
info.au@dormerpramet.com

Austria

T: +31 10 2080 240
F: +31 10 2080 282
info.at@dormerpramet.com

Belgium & Luxembourg

T: +32 3 440 59 01
F: +32 3 449 15 43
info.be@dormerpramet.com

Brazil

T: +55 11 5660 3000
F: +55 11 5667 5883
info.br@dormerpramet.com

Canada

T: (888) 336 7637
En Français: (888) 368 8457
F: (905) 542 7000
cs.canada@dormerpramet.com

China

T: +86 21 2416 0508
F: +86 21 5442 6315
info.cn@dormerpramet.com

Croatia

T: +385 98 407 489
info.hr@dormerpramet.com

Czech Republic

T: +420 583 381 111
F: +420 583 215 401
info.cz@dormerpramet.com

Denmark

T: 808 82106
F: +46 35 16 52 90
info.se@dormerpramet.com

Finland

T: 0205 44 7003
F: 0205 44 7004
info.fi@dormerpramet.com

France

T: +33 (0)2 47 62 57 01
F: +33 (0)2 47 62 52 00
info.fr@dormerpramet.com

Germany

T: +49 9131 933 08 70
F: +49 9131 933 08 742
info.de@dormerpramet.com

Hungary

T: +36-96 / 522-846
F: +36-96 / 522-847
info.hu@dormerpramet.com

India

T: +91 11 4601 5686
info.in@dormerpramet.com

Italy

T: +39 02 38 04 51
F: +39 02 38 04 52 43
info.it@dormerpramet.com

Kazakhstan

T: +7 771 305 11 45
info.kz@dormerpramet.com

Mexico

T: +52 (555) 7293981
F: +52 (555) 7293981
cs.mexico@dormerpramet.com

Netherlands

T: +31 10 2080 240
F: +31 10 2080 282
info.nl@dormerpramet.com

New Zealand

T: 0800 800 922
info.int@dormerpramet.com

Norway

T: 800 10 113
F: +46 35 16 52 90
info.se@dormerpramet.com

Poland

T: +48 32 78-15-890
F: +48 32 78-60-406
info.pl@dormerpramet.com

Portugal

T: +351 21 424 54 21
F: +351 21 424 54 25
info.pt@dormerpramet.com

Romania

T: +4(0)730 015 885
info.ro@dormerpramet.com

Russia

T: +7 495 775 10 28
F: +7 (499) 763 38 90
info.ru@dormerpramet.com

Slovakia

T: +421 (41) 764 54 60
F: +421 (41) 763 74 49
info.sk@dormerpramet.com

Slovenia

T: +385 98 407 489
info.si@dormerpramet.com

Spain

T: +34 935717722
F: +34 935717765
info.es@dormerpramet.com

Sweden

responsible for **Iceland**
T: +46 35 16 52 96
F: +46 35 16 52 90
info.se@dormerpramet.com

Switzerland

T: +31 10 2080 240
F: +31 10 2080 282
info.ch@dormerpramet.com

Turkey

T: +90 533 212 45 47
info.tr@dormerpramet.com

Ukraine

T: +38 056 376 51 19
F: +38 056 376 51 20
info.ua@dormerpramet.com

United Kingdom

responsible for **Ireland**
T: 0870 850 4466
F: 0870 850 8866
info.uk@dormerpramet.com

United States of America

T: (800) 877-3745
F: (847) 783-5760
cs@dormerpramet.com

Other countries

South America

T: +55 11 5660 3000
F: +55 11 5667 5883
info.br@dormerpramet.com

Central and Eastern Europe

T: +420 583 381 526
F: +420 583 381 401
info.rcee@dormerpramet.com

Rest of the World

Dormer Pramet International UK
T: +44 1246 571338
F: +44 1246 571339
info.int@dormerpramet.com

Dormer Pramet International CZ

T: +420 583 381 520
F: +420 583 215 401
info.int.cz@dormerpramet.com