



List 1200 - EX-SPOT TiN-NC-LDS

List 1250 - EX-SPOT LS-NC-LDS

General Drilling Operations

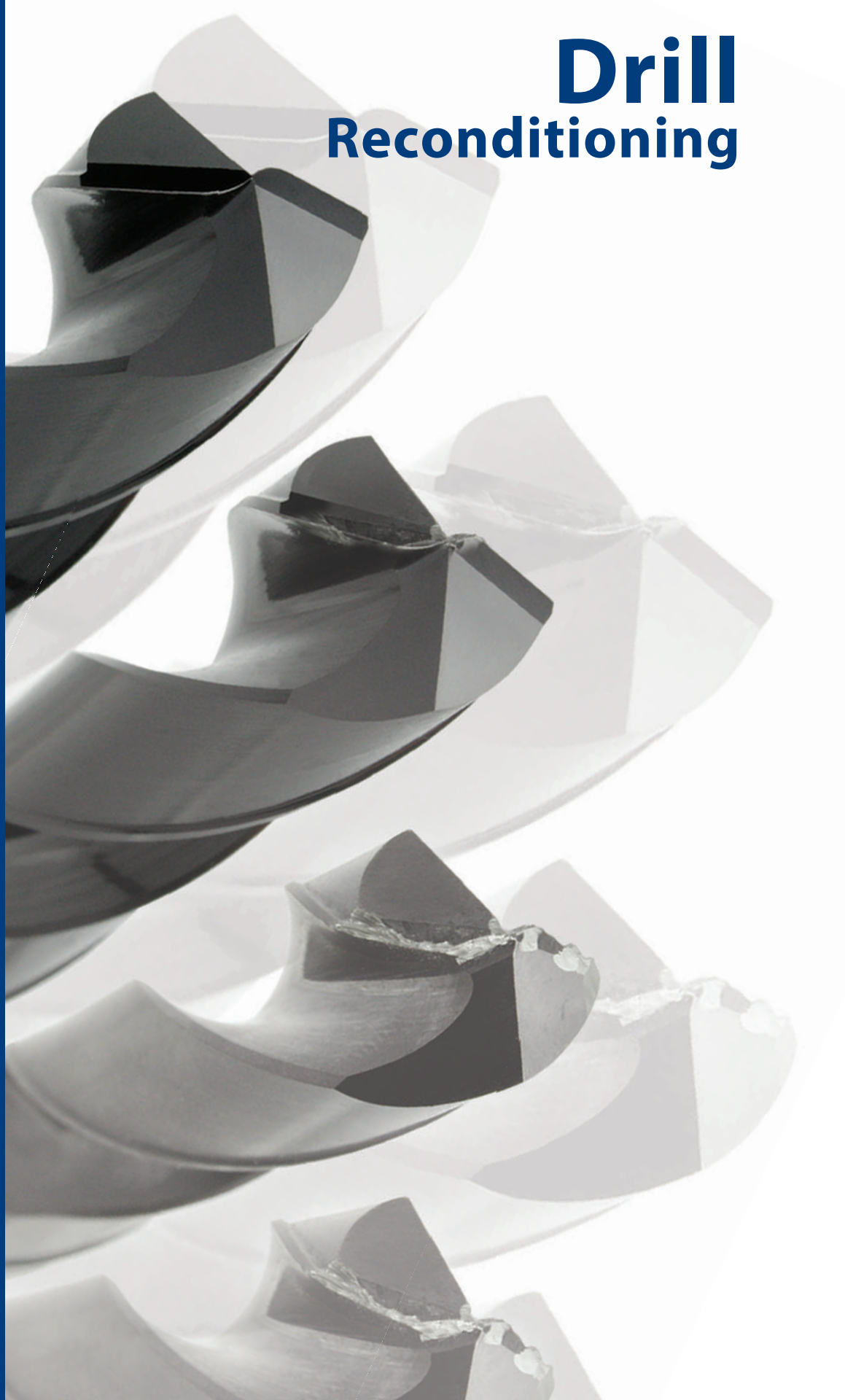
Work Material	Carbon Steels, Mild Steel 1010, 1050		Alloy Steels 4140, 4130		Stainless Steels 300SS, 400SS, 17-4PH		Cast Iron		Aluminum Alloy Casting		Special Alloy Steels, Hardened Steels			
											26-30 HRC		30-34 HRC	
Drilling Speed	105-130 SFM		65-85 SFM		25-40 SFM		85-105 SFM		165-325 SFM		30-45 SFM		25-40 SFM	
Drill Dia. mm	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR
3	3,850	0.001-0.003	2,400	0.001-0.003	1,060	0.001-0.003	3,100	0.001-0.003	8,000	0.004-0.009	1,220	0.001-0.003	1,060	0.001-0.003
4	2,900	0.002-0.004	1,800	0.002-0.004	800	0.002-0.004	2,400	0.002-0.005	6,000	0.005-0.010	910	0.002-0.004	800	0.002-0.004
6	1,900	0.002-0.005	1,180	0.002-0.005	530	0.002-0.005	1,600	0.002-0.005	4,000	0.005-0.011	610	0.002-0.005	530	0.002-0.005
8	1,400	0.003-0.006	900	0.003-0.006	400	0.003-0.006	1,200	0.003-0.006	3,000	0.007-0.012	450	0.003-0.006	400	0.003-0.006
10	1,120	0.004-0.007	710	0.004-0.007	320	0.004-0.007	950	0.004-0.007	2,400	0.009-0.014	360	0.004-0.007	320	0.004-0.007
12	950	0.005-0.008	600	0.005-0.008	270	0.005-0.008	800	0.005-0.008	2,000	0.010-0.016	300	0.005-0.008	270	0.005-0.008
16	720	0.006-0.011	450	0.006-0.011	200	0.006-0.011	600	0.006-0.011	1,500	0.012-0.019	220	0.006-0.011	200	0.006-0.011
20	560	0.008-0.013	360	0.008-0.013	160	0.008-0.013	480	0.008-0.013	1,200	0.016-0.024	180	0.008-0.013	160	0.008-0.013
25	450	0.010-0.018	290	0.010-0.018	130	0.010-0.018	380	0.010-0.018	960	0.020-0.029	150	0.010-0.018	130	0.010-0.018

1. The indicated speeds and feeds are for drilling with water soluble oil.
2. When using non-water soluble oil, reduce the drilling speed by 20%.
3. When centering on a curved or inclined surface, reduce the feed rate accordingly.
4. When using a coated tool, the drilling speed can be increased by 1.2 times the value in the table.



Drill

Reconditioning



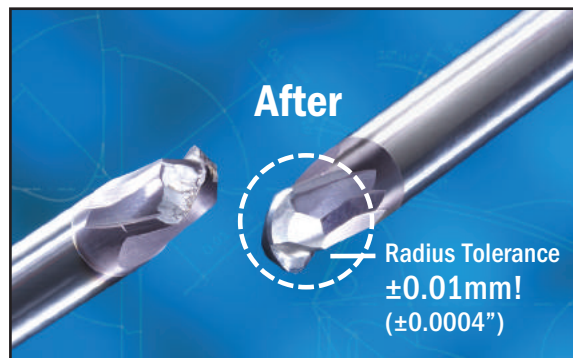
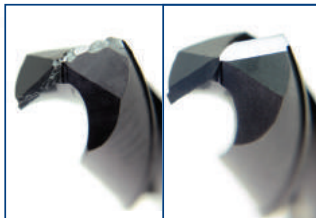


OSG Tool Reconditioning

OSG's Bensenville facility is the special cutting tool and regrinding authority based in the Chicago area. Through accurate and expedient regrinds of high-end cutting tools, OSG helps customers extend tool life and save money by restoring their used cutting tools to their original condition. In addition to regrinding, the Bensenville facility also manufactures custom drills, reamers, and other special cutting tools, performs product modifications and provides premium coating services.

Before:

After:



As part of the OSG Corporation (headquartered in Japan), the regrind facility is the only OSG authorized regrinding source in America. The regrinding program uses the same OSG manufacturing drawings, adheres to OSG's strict quality control standards and uses the same equipment for OSG manufacturing and inspection procedures. As one of the world's leading cutting tool manufacturers, OSG offers a global network of support to our customers.

Tool Reconditioning Lowers Costs

The primary benefit of tool reconditioning is clear: the reduction in overall tooling costs. As part of normal production, tool wear, chipping and breakage occurs often affecting tool performance and increasing manufacturing costs. By reconditioning high performance drills, end mills and taps, OSG helps manufacturers realize substantial cost savings through extended tool life without jeopardizing production quality or performance. Because OSG's reconditioned tools are manufactured to the same high level of quality and held to the same exacting standards that new tools are, customers of OSG's tool reconditioning services can expect the same high performance and quality they are accustomed with OSG's new tools even after regrinding multiple times.

Engineering & Sales Support

OSG reconditions OSG tools using the same prints as the original tools made in our plants around the world. By using original part drawings, tools are accurately reconditioned to the original specifications, so customers are assured that reconditioned tools realize the same high level of performance. Manufacturers can also work directly with OSG design engineers to customize tools for enhanced performance or to meet specific requirements.

OSG's national sales team provides tooling expertise in the field for onsite evaluations and recommendations for manufacturers to implement a customized reconditioning program. The goal is to help manufacturers reduce tool costs and inventory, optimize performance and enhance overall profits.



Contact your OSG representative or distributor to review your tool reconditioning program.



CNC Training

OSG CNC technicians are extensively trained on proper setup methodologies and reconditioning processes by an on-staff CNC trainer. Through their development, the CNC Technician training program moves operators through three levels where they are diligently monitored and certified/reevaluated annually to maintain consistency and quality in our tools. Technicians are also trained and certified/reevaluated annually by Quality Assurance to perform inspections to print on first piece and in process tools.

Inspector Training

In order to guarantee that our tools are reconditioned to the highest standards, inspectors also undergo annual training and certifications which involve standardized procedures. These are the same methods that are used in the OSG manufacturing facilities in Japan and around the world. Inspectors are trained to inspect and measure tools completely to the original tool prints.

Throughout the reconditioning process, the tools are also continuously inspected until 100% visual inspection ensures that no chipped or defective tools are received by the customer. The high tech inspection equipment used at the reconditioning facility is the same equipment used at all OSG locations. This includes in-house developed tool analyzers and state-of-the-art equipment with up to 300x magnification capabilities. The key to inspecting high performance, accurate reconditioned tools is assuring that they are held to the same inspection standards through the use of the same inspection methods as new OSG tools.

The Bensenville plant is subject to OSG's stringent JQA regrinding standards and is certified regularly by OSG Japan.

Equipment and Facility

In 2015, OSG opened a reconditioning facility which is equipped with state-of-the-art production and inspection equipment. The facility uses high precision 5-Axis CNC grinders throughout the reconditioning process for improved repeatability and precision.

OSG's weekly equipment Preventive Maintenance (PM) program ensures consistency and accuracy throughout the reconditioning process. Through this PM program, OSG's tool reconditioning performance will be consistent year after year.



THREADING

EXOPRO®

OSG's ultra-premium tooling series. Features supreme performance threading products with OSG's proprietary coatings for maximum cost-efficiency and productivity.

EXOCARB® Thread Mill

Premium sub-micrograin carbide thread mills suited for cast iron, steels, exotics and difficult-to-machine materials.

EXOCARB®

Ultra-high performance taps made from premium micrograin carbide used in automotive production, tapping hardened steels and threading the most abrasive of composite materials.

EXOTAP®

Ultra-premium taps made from VC-10 powdered metal high speed steel. EXOTAP® is the industry solution for difficult materials and applications, when no other tap seems to do the job.

HY-PRO®

Premium taps made from vanadium high speed steel and designed for a wide range of applications and industries.

HY-PRO® SEVEN

Semi-premium taps made from premium high speed steel for general purpose tapping applications.

GENERAL PURPOSE

Premium general purpose taps for general machining applications. Available in a variety of styles and coatings.





THREADING



Featured Threading Products

EXOPRO® XPF	EXOPRO® WHR-Ni		EXOPRO® CC-SUS	EXOPRO® Ti	EXOTAP® DC
P308-324	P353-355	P408-409	P350-352	P406-407	P457-464
					

Inch/Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric
Size Range	No. 0 - 1-3/4"	M1 - M45	No. 2 - 1"	M2.5 - M24	No. 2 - 1"	M2.5 - M24	No. 2 - 1"	M2 - M24	No. 2 - 1/2"	M2.5 - M12	1/4" - 1"	M6 - M24
Type	Form Tap		Spiral Flute		Spiral Point		Spiral Flute		Spiral Point		Straight Flute	
Number of Flutes	Fluteless		2, 3 & 4	3 & 4	2, 3 & 4	3 & 4	2, 3 & 4	2, 3 & 4	3		3, 4 & 5	
Solid/Coolant-Through	Solid & Coolant-Through		Solid				Solid		Solid		Solid & Coolant-Through	
Overall Length	DIN & Long Shank		DIN				DIN		ANSI		ANSI & DIN	
Limit/Tolerance	H		H	D	H	D	H	D	H	D	H	D
Substrate	HSS-CO		VC-10				HSSE		VC-10		VC-10	
Coating	V		HR				TiN		V		V	
Chamfer Length	Bottom, Modified Bottom & Plug		Modified Bottom & Plug				Modified Bottom		Plug			

P	Carbon Steels (1010, 1018)					
	Mild Steels, Alloy Steels (1050, 4140)					
	Die Steels (H13, D2)					
M	Stainless Steel (304SS, 420SS)					
K	Cast Iron					
	Ductile Cast Iron					
N	Aluminum Alloys (6061, 7075)					
S	Heat Resistant Alloys (Inconel 718)					
	Titanium Alloy (Ti-6Al-4V)					
H	Pre-Hardened Steel (P20)					
	Die Cast Steels (A2, S7)					
	Hardened Steels (D2)					





EXOTAP® A-TAP®				EXOTAP® VC-10 Series (VC-10Ti, VC-10Ni, VC-10)				EXOTAP® VA-3				EXOTAP® VCX		EXOCARB® VX	
P364-374		P416-421		P356-363		P410-415		P375-379		P422-424		P455		P484-485	
															
Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric
No. 0 - 1,3/4"	M1 - M45	No. 2 - 1"	M1.4 - M24	No. 2 - 1"	M3 - M12	No. 2 - 1"	M3 - M12	No. 2 - 1"	M3 - M18	No. 2 - 1"	M3 - M18	No. 6 - 1/2"	M3 - M12	No. 4 - 1/2"	M2.6 - M20
Spiral Flute		Spiral Point		Spiral Flute		Spiral Point		Spiral Flute		Spiral Point		Straight Flute		Straight Flute	
2, 3 & 4				2, 3 & 4	3 & 4	2, 3 & 4	3 & 4	2, 3 & 4	3 & 4	2, 3 & 4	3 & 4	4 & 5		4 & 5	4, 5 & 6
Solid & Coolant-Through				Solid				Solid				Solid		Solid	
DIN & Long Shank				ANSI				ANSI & Long Shank				ANSI		DIN	
H	D	H	D	H	D	H	D	H	D	H	D	H	D	H	D
VC-10				VC-10				HSSE				XPM		Carbide	
V				S/O & V				S/O, TiN, & V				V		V	
Bottom & Modified Bottom		Plug		Bottom & Modified Bottom		Plug		Bottom & Modified Bottom		Plug		Modified Bottom		Modified Bottom	

	✖				✖		
	✖				✖		
	✖		✖		✖	✖	
	✖		✖		✖		
	✖						
	✖						
	✖						
			✖				
			✖				
	✖		✖			✖	
	✖		✖			✖	
			✖			✖	✖

For OSG's complete tap offering please refer to the Application Guide on pages 281 or the Illustrated Index starting on page 282.

✖ 1st Choice ✖ 2nd Choice ✖ Recommended





Page Number					
	Work Material	Material Designation	Material Condition	Hardness	
				BHN	HRC
P	Low Carbon Steel	1010, 1018	Normalized	~190	~10
	Medium Carbon Steel	1035, 1045	Normalized	~208	~15
	High Carbon Steel	1065, 1095	Normalized	~253	~25
	Alloy Steel	4140, 4340, 8620	Normalized	253~301	25~32
		4140, 4340, 8620	Hardened	327~390	35~42
M	Stainless Steel	300 Series / 400 Series	Annealed	~253	~25
		300 Series / 400 Series	Hardened	327~390	35~42
		17-4, 15-5, A286	Annealed	~253	~25
		17-4, 15-5, A286	Hardened	327~390	35~42
K	Cast Iron	Nodular, Grey	As Cast	~208	~15
N	Aluminum Alloy	6061, 7075, 2011	Normalized	~150	
	Die Cast Aluminum	356AL, 390AL	As Cast	~150	
S	Nickel Based Alloy	Inconel 718, 625	Annealed	253~301	25~32
		Inconel 718	Hardened	327~390	35~42
		Hastelloy, Waspaloy	Normalized		25~40
		Kovar	Normalized		25~40
	Titanium Alloy	6Al4V	Annealed	253~301	25~32
		6Al4V, 6Al6V	Hardened	327~390	35~42
H	Tool Steel	D2, H13, P20, S7	Annealed	190~253	10~25
		H13	Hardened	327~450	35~48
		D2, A2	Hardened		48~55
		D2, A2	Hardened		55~70



TOOL SELECTOR

Find the Tapping Solution for your Application

www.osgtool.com/toolselector





Form Taps				Cut Taps									Pipe Taps
325-345	313-324	308-312	347-349	See Index	See Index	364-369 372-374	370-371	416-417 420-421	418-419	392	484-485	See Index	518-526
EXOTAP® NRT & HY-PRO® NRT	EXOPRO® XPF	EXOPRO® XPF-OIL <i>Coolant-Through</i>	Carbide	General	General <i>Coolant-Through</i>	EXOTAP® A-TAP® SFT	EXOTAP® A-TAP® SFT <i>Coolant-Through</i>	EXOTAP® A-TAP® POT	EXOTAP® A-TAP® POT <i>Coolant-Through</i>	HY-PRO® Synchro AL	EXOCARB® VX	Carbide	Pipe Taps
35-130	50-115	75-130	40-145	25-80	50-120	80-120	100-200	80-120	100-200	85-105	-	35-100	15-40
20-50	50-115	75-130	25-60	20-50	45-110	80-120	100-200	80-120	100-200	85-105	-	30-70	10-25
15-30	50-85	65-100	20-35	20-45	40-100	80-120	100-200	80-120	100-200	70-85	-	30-60	10-20
15-30	50-85	65-100	20-35	20-50	45-110	35-50	50-100	40-65	50-120	70-85	-	30-70	10-25
-	10-40	20-50	-	15-20	20-60	20-40	40-80	35-55	45-110	-	-	20-35	10-15
15-40	15-40	20-50	20-60	20-45	30-70	15-35	25-70	25-75	40-120	-	-	25-55	10-25
15-35	15-35	20-45	20-50	12-20	20-50	15-35	25-70	25-75	40-120	-	-	15-30	8-12
15-25	15-30	20-40	20-40	15-20	20-50	15-25	25-50	25-60	40-100	-	-	20-35	8-12
-	10-25	15-30	-	8-20	15-40	15-25	25-50	25-60	40-100	-	-	10-25	8-12
-	-	-	-	25-75	40-100	50-80	60-150	60-100	80-160	-	-	40-90	15-50
50-150	65-115	80-130	60-160	40-80	50-125	70-120	90-220	70-120	90-220	300-800	-	50-100	15-40
45-130	65-90	75-110	55-120	40-65	50-110	70-120	90-220	70-120	90-220	200-700	-	50-80	20-35
-	8-12	8-10	-	8-15	-	-	-	-	-	-	-	10-20	-
-	8-10	-	-	8-15	-	-	-	-	-	-	-	10-20	-
-	-	-	-	8-15	-	-	-	-	-	-	-	10-20	-
-	-	-	-	8-15	-	-	-	-	-	-	-	10-20	-
-	8-15	8-10	-	15-20	-	-	-	-	-	-	-	20-30	-
-	8-12	-	-	3-10	-	-	-	-	-	-	-	5-12	-
20-45	15-50	20-65	25-60	15-35	20-60	30-55	50-110	40-65	60-120	-	-	20-50	10-20
10-15	12-25	20-35	15-30	8-15	15-50	-	-	20-50	30-80	-	-	10-20	8-12
-	-	-	-	3-10	-	-	-	15-40	25-75	-	5-12	5-12	-
-	-	-	-	3-8	-	-	-	-	-	-	3-10	3-10	-

For EXOCARB® Thread Mills please refer to page 565-567.

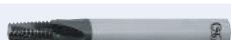
For conversions to RPM please refer to page 536.



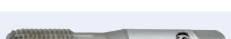
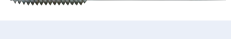


List	Item	Brand	Inch/ Metric	Material	Coating	Size Range	Features	Product Page/ Tech Page
------	------	-------	-----------------	----------	---------	---------------	----------	----------------------------

Thread Mills

41200		EXOCARB® Mini	Inch	Carbide	WXS [®] SS	No. 0 - No. 8	Miniature, Helical Flute	300	567
41300		EXOCARB® Mini	Metric	Carbide	WXS [®] SS	M1 - M5	Miniature, Helical Flute	301	567
41000	 NEW SIZES	EXOCARB®	Inch	Carbide	EXO [®]	No. 10 - 1"	Helical Flute	302-303	566
41100		EXOCARB®	Metric	Carbide	EXO [®]	M6 - M24	Helical Flute	304	566
41050	 NEW!	EXOCARB® Oil	Inch	Carbide	EXO [®]	¼ - 1"	Coolant-Through, Long Length, Helical Flute	305	566
41150		EXOCARB® Oil	Metric	Carbide	EXO [®]	M6 - M24	Coolant-Through, Long Length, Helical Flute	306	566
42000		EXOCARB® Pipe	Inch	Carbide	EXO [®]	⅜ - 2 ½	NPT, Helical Flute	307	566
42001		EXOCARB® Pipe	Inch	Carbide	EXO [®]	⅜ - 2 ½	NPTF, Helical Flute	307	566

Forming Taps

16050	 NEW SIZES	EXOPRO® XPF-OIL	Inch	HSS-Co	V	¼ - 1 ¾	Coolant-Through, DIN OAL	308-309
16150	 NEW SIZES	EXOPRO® XPF-OIL	Metric	HSS-Co	V	M6 - M45	Coolant-Through, DIN OAL	310-312
16250	 NEW SIZES	EXOPRO® XPF	Inch	HSS-Co	V	No. 0 - 1 ¾	DIN OAL	313-316
16350	 NEW SIZES	EXOPRO® XPF	Metric	HSS-Co	V	M1 - M45	DIN OAL	317-320
16255	 NEW!	EXOPRO® XPF-LS	Inch	HSS-Co	V	No. 5 - 1"	Long Shank	321-322
16355	 NEW!	EXOPRO® XPF-LS	Metric	HSS-Co	V	M3 - M20	Long Shank	323-324
14050		EXOTAP® NRT®	Inch	VC-10	V	No. 0 - ¾		325-327
14150		EXOTAP® NRT®	Metric	VC-10	V	M1.6 - M12		328-329
14001		HY-PRO® NRT®	Inch	HSS-CO	TiCN, TiN, Bright, S/O	No. 0 - ¾		330-342
14101		HY-PRO® NRT®	Metric	HSS-CO	TiCN, TiN, Bright, S/O	M1.6 - M12		343-345
285		HY-PRO® SEVEN	Inch	HSS	TiCN, TiN, Bright	No. 0 - ½		346
286		HY-PRO® SEVEN	Metric	HSS	TiCN, TiN, Bright	M3 - M12		346
14153		EXOCARB®	Metric	Carbide	Bright	M6 - M10	Carbide Inlaid, DIN/DIN	347
369		EXOCARB®	Metric	Carbide	Bright	M3 - M12	JIS	348
357		EXOCARB®	Metric	Carbide	Bright	M6 - M12	JIS, Long Shank	349



List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High														
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	6061 7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC

Thread Mills

41200	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☒	☒	☒	☐	☐
41300	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☒	☒	☒	☐	☐
41000	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☒	☒	☒	☐	☐
41100	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☒	☒	☒	☐	
41050	☒	☒	☒	☒	☒	☒	☒	☒	☒			☒	☒	☒	☒	☐	
41150	☒	☒	☒	☒	☒	☒	☒	☒	☒			☒	☒	☒	☒	☐	
42000	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☒	☒	☒	☐	
42001	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☒	☒	☒	☐	

Forming Taps

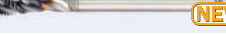
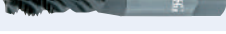
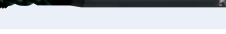
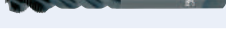
16050	☒	☒	☒	☒	☒	☒	☒	☒		☒	☒	☐	☐	☒	☐		
16150	☒	☒	☒	☒	☒	☒	☒	☒		☒	☒	☐	☐	☒	☐		
16250	☒	☒	☒	☒	☒	☒	☒	☒		☒	☒	☐	☐	☒	☐		
16350	☒	☒	☒	☒	☒	☒	☒	☒		☒	☒	☐	☐	☒	☐		
16255	☒	☒	☒	☒	☒	☒	☒	☒		☒	☒	☐	☐	☒	☐		
16355	☒	☒	☒	☒	☒	☒	☒	☒		☒	☒	☐	☐	☒	☐		
14050	☒	☒	☒	☒	☒	☒	☒	☐		☒	☒			☐			
14150	☒	☒	☒	☒	☒	☒	☒	☐		☒	☒			☐			
14001	☒	☒	☒	☐	☐	☐	☐	☐		☒	☒			☐			
14101	☒	☒	☒	☐	☐	☐	☐	☐		☒	☒			☐			
285	☒	☐								☒	☒						
286	☒	☐								☒	☒						
14153										☒	☒						
369										☒	☒						
357										☒	☒						

☐ good ☒ best



List	Item	Brand	Inch/ Metric	Material	Coating	Size Range	Features	Product Page/ Tech Page
------	------	-------	-----------------	----------	---------	---------------	----------	----------------------------

Spiral Fluted Taps

16450		EXOPRO®CC-SUS	Inch	HSSE	TiN	No. 2 - 1"	Variable Helix, DIN OAL	350-351
16455		EXOPRO®CC-SUS	Metric	HSSE	TiN	M2 - M24	Variable Helix, DIN OAL	352
335Ni		EXOPRO®WHR-Ni	Inch	VC10	HR	No. 2 - 1"	DIN OAL	353-354
336Ni		EXOPRO®WHR-Ni	Metric	VC10	HR	M2.5 - M24	DIN OAL	355
313Ti		EXOTAP®VC-10 Ti	Inch	VC-10	V	No. 2 - 1"		356
345Ti		EXOTAP®VC-10 Ti	Metric	VC-10	V	M2.5 - M12		357
313Ni		EXOTAP®VC-10 Ni	Inch	VC-10	V, S/O	No. 2 - 1"		358-359
345Ni		EXOTAP®VC-10 Ni	Metric	VC-10	S/O	M2.5 - M12		360
313		EXOTAP®VC-10	Inch	VC-10	V, S/O	No. 2 - 3/4"		361-362
345		EXOTAP®VC-10	Metric	VC-10	V, S/O	M3 - M12		363
16505		EXOTAP®A-TAP®	Inch	VC-10	V	No. 4 - 2"	Variable Helix, DIN OAL	364-366
16500		EXOTAP®A-TAP®	Metric	VC-10	V	M1.4 - M45	Variable Helix, DIN OAL	367-369
16545		EXOTAP®A-TAP® OIL	Inch	VC-10	V	1/4 - 2"	Variable Helix, Coolant-Through, DIN OAL	370
16540		EXOTAP®A-TAP® OIL	Metric	VC-10	V	M6 - M56	Variable Helix, Coolant-Through, DIN OAL	371
16525		EXOTAP®A-TAP® LS	Inch	VC-10	V	No. 6 - 1"	Variable Helix, Long Shank	372
16520		EXOTAP®A-TAP® LS	Metric	VC-10	V	M3 - M24	Variable Helix, Long Shank	373-374
303		EXOTAP VA-3®	Inch	HSSE	V, TiN, S/O	No. 2 - 1"		375-377
343		EXOTAP VA-3®	Metric	HSSE	V, TiN, S/O	M3 - M18		378
398		EXOTAP VA-3®	Inch	HSSE	S/O	No. 4 - 5/8"	Long Shank	379
220		HY-PRO® DIN	Inch	HSSE	S/O	No. 4 - 2"	DIN OAL	380
229		HY-PRO® DIN	Metric	HSSE	S/O	M3 - M20	DIN OAL	381
230		HY-PRO® DIN	Inch	HSSE	TiN	1/4 - 1"	Coolant-Through, DIN OAL	382
239		HY-PRO® DIN	Metric	HSSE	TiN	M6 - M20	Coolant-Through, DIN OAL	382





List No.	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
	1010 1018	1035 1045	1065															

Spiral Fluted Taps

16450	☐	☐	☐	☒		☒	☒	☐									
16455	☐	☐	☐	☒		☒	☒	☐									
335Ni								☐				☒				☐	
336Ni								☐				☒				☐	
313Ti				☐				☐				☒	☒	☐	☐		
345Ti				☐				☐				☒	☒	☐	☐		
313Ni								☐				☒	☐	☐	☐		
345Ni								☐				☒	☐	☐	☐		
313				☒	☐		☐	☒				☐	☐	☒	☐		
345				☒	☐		☐	☒				☐	☐	☒	☐		
16505	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
16500	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
16545	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
16540	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
16525	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
16520	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
303	☒	☐	☐			☒	☒	☐									
343	☒	☐	☐			☒	☒	☐									
398	☒	☐	☐			☒	☒	☐									
220	☐	☐	☒	☒	☐	☐	☐	☐	☐					☐			
229	☐	☐	☒	☒	☐	☐	☐	☐	☐					☐			
230	☐	☐	☒	☒	☒	☐	☐	☐	☐	☐	☐			☐			
239	☐	☐	☒	☒	☒	☐	☐	☐	☐	☐	☐			☐			

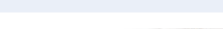
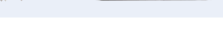
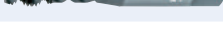
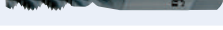
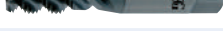
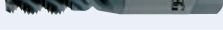
☐ good ☒ best





List	Item	Brand	Inch/ Metric	Material	Coating	Size Range	Features	Product Page/ Tech Page
------	------	-------	-----------------	----------	---------	---------------	----------	----------------------------

Spiral Fluted Taps

13013		HY-PRO® ALLOY	Inch	HSSE	V	¼ - ¾"	Coolant-Through, DIN OAL	383
13113		HY-PRO® ALLOY	Metric	HSSE	V	M6 - M20	Coolant-Through, DIN OAL	383
13014		HY-PRO® HXL	Inch	HSSE	S/O	½ - 2 ½"	DIN OAL	384
13024		HY-PRO® HXL-OIL	Inch	HSSE	S/O	½ - 2 ½"	Coolant-Through, DIN OAL	385
13015		HY-PRO® VXL	Inch	HSSE	S/O	½ - 2 ½"	DIN OAL	386
13025		HY-PRO® VXL-OIL	Inch	HSSE	S/O	½ - 2 ½"	Coolant-Through, DIN OAL	387
13116		HY-PRO® HXL-W	Metric	HSSE	S/O	M16 - M42	DIN OAL	388
13126		HY-PRO® HXL-W-OIL	Metric	HSSE	S/O	M16 - M42	Coolant-Through, DIN OAL	389
13117		HY-PRO® VXL-W	Metric	HSSE	S/O	M16 - M42	DIN OAL	390
13127		HY-PRO® VXL-W-OIL	Metric	HSSE	S/O	M16 - M42	Coolant-Through, DIN OAL	391
13058		HY-PRO® SYNCHRO AL	Inch	HSSE	V	No. 6 - ½"	Synchronized	392
13158		HY-PRO® SYNCHRO AL	Metric	HSSE	V	M3 - M12	Synchronized	392
295		HY-PRO® AL	Inch	HSSE	Bright	No. 4 - ⅜"		393
296		HY-PRO® AL	Metric	HSSE	Bright	M3 - M10		393
13019		HY-PRO® AL-DIN	Inch	HSSE	N	No. 2 - 7/16"	DIN OAL	394
13119		HY-PRO® AL-DIN	Metric	HSSE	N	M3 - M12	DIN OAL	394
290		HY-PRO®	Inch	HSSE	TiCN, S/O, Bright	No. 2 - 1 ½"		395-397
299		HY-PRO®	Metric	HSSE	TiCN, S/O, Bright	M3 - M30		398
297		HY-PRO® SEVEN	Inch	HSS	TiN, S/O, Bright	No. 3 - ½"		399
298		HY-PRO® SEVEN	Metric	HSS	TiN, S/O, Bright	M3 - M12		399
107		GENERAL PURPOSE	Inch	HSS	TiCN, TiN, S/O, Bright	No. 3 - ¾"		400
143		GENERAL PURPOSE	Metric	HSS	TiCN, TiN, S/O, Bright	M3 - M12		401
13020		GENERAL PURPOSE	Inch	HSSE	S/O	No. 6 - ⅝"		402



	P				M			K	N		S		H				
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High														
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC

Spiral Fluted Taps

13013			☐	☒	☐				☐		☐			☐	☐		
13113			☐	☒	☐				☐		☐			☐	☐		
13014	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐		
13024	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐		
13015	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐		
13025	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐		
13116	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐		
13126	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐		
13117	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐		
13127	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐		
13058										☒	☒						
13158										☒	☒						
295										☒	☒						
296										☒	☒						
13019										☒	☒						
13119										☒	☒						
290	☐	☒	☒	☒	☐	☐	☐	☐	☐					☐			
299	☐	☒	☒	☒	☐	☐	☐	☐	☐					☐			
297	☒	☒								☐	☐						
298	☒	☒								☐	☐						
107	☐	☐	☐						☐	☐	☐						
143	☐	☐	☐						☐	☐	☐						
13020	☐	☐	☐						☐	☐	☐						

☐ good ☒ best



List	Item	Brand	Inch/ Metric	Material	Coating	Size Range	Features	Product Page/ Tech Page
------	------	-------	-----------------	----------	---------	---------------	----------	----------------------------

Spiral Fluted Taps

123		GENERAL PURPOSE	Metric	HSSE	Bright	M3 - M24	JIS	403
918		GENERAL PURPOSE	Inch	HSS	Bright	No. 4 - 5/8"	Long Shank	404
389		EXOCARB®	Metric	Carbide	Bright	M3 - M12	JIS	405

Spiral Pointed Taps

13063		EXOPRO® Ti	Inch	VC-10	V	No. 2 - 1/2"	RHC/LHS	406
13163		EXOPRO® Ti	Metric	VC-10	V	M2.5 - M12	RHC/LHS	407
337Ni		EXOPRO® WHR-Ni	Inch	VC-10	HR	No. 2 - 1"	DIN OAL	408
338Ni		EXOPRO® WHR-Ni	Metric	VC-10	HR	M2.5 - M24	DIN OAL	409
312Ti		EXOTAP® VC-10 Ti	Inch	VC-10	V	No. 2 - 1"		410
344Ti		EXOTAP® VC-10 Ti	Metric	VC-10	V	M3 - M12		411
312Ni		EXOTAP® VC-10 Ni	Inch	VC-10	V, S/O	No. 2 - 1"		412
344Ni		EXOTAP® VC-10 Ni	Metric	VC-10	V, S/O	M2.5 - M12		413
312		EXOTAP® VC-10	Inch	VC-10	V, S/O	No. 2 - 3/4"		414
344		EXOTAP® VC-10	Metric	VC-10	V, S/O	M3 - M12		415
16515	 NEW SIZES	EXOTAP® A-TAP®	Inch	VC-10	V	No. 2 - 1"	DIN OAL	416
16510	 NEW SIZES	EXOTAP® A-TAP®	Metric	VC-10	V	M1.4 - M24	DIN OAL	417
16555	 NEW!	EXOTAP® A-TAP® OIL	Inch	VC-10	V	1/4 - 1"	Coolant-Through, DIN OAL	418
16550	 NEW!	EXOTAP® A-TAP® OIL	Metric	VC-10	V	M6 - M24	Coolant-Through, DIN OAL	419
16535	 NEW!	EXOTAP® A-TAP® LS	Inch	VC-10	V	No. 6 - 1"	Long Shank	420
16530	 NEW!	EXOTAP® A-TAP® LS	Metric	VC-10	V	M3 - M24	Long Shank	421
300		EXOTAP VA-3®	Inch	HSSE	V, TiN, S/O	No. 2 - 1"		422
342		EXOTAP VA-3®	Metric	HSSE	V, TiN, S/O	M3 - M18		423
397		EXOTAP VA-3®	Inch	HSSE	S/O	No. 4 - 5/8"	Long Shank	424



	P				M			K	N		S		H				
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														

Spiral Fluted Taps

123	☐	☐	☐						☐	☐	☐						
918	☐	☐	☐						☐	☐	☐						
389									☒	☒	☒						

Spiral Pointed Taps

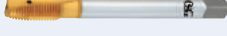
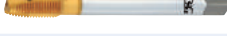
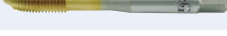
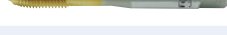
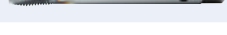
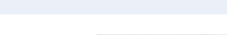
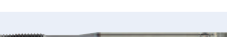
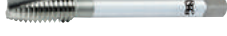
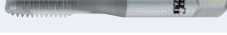
13063				☐				☐					☒	☐			
13163				☐				☐					☒	☐			
337Ni								☐				☒				☐	
338Ni								☐				☒				☐	
312Ti				☐				☐				☒	☒	☐	☐		
344Ti				☐				☐				☒	☒	☐	☐		
312Ni								☐				☒	☐	☐	☐		
344Ni								☐				☒	☐	☐	☐		
312				☒	☐		☐	☒				☐	☐	☒	☐		
344				☒	☐		☐	☒				☐	☐	☒	☐		
16515	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
16510	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
16555	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
16550	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
16535	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
16530	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
300	☒	☐	☐			☒	☒	☐									
342	☒	☐	☐			☒	☒	☐									
397	☒	☐	☐			☒	☒	☐									

☐ good ☒ best



List	Item	Brand	Inch/ Metric	Material	Coating	Size Range	Features	Product Page/ Tech Page
------	------	-------	-----------------	----------	---------	---------------	----------	----------------------------

Spiral Pointed Taps

320		EXOTIN	Inch	HSSE	TiN	No. 4 - 3/4"		425
250		HY-PRO® DIN	Inch	HSSE	S/O	No. 4 - 3/4"	DIN OAL	426
259		HY-PRO® DIN	Metric	HSSE	S/O	M3 - M20	DIN OAL	427
260		HY-PRO® DIN	Inch	HSSE	TiN	1/4 - 1"	Coolant-Through, DIN OAL	428
269		HY-PRO® DIN	Metric	HSSE	TiN	M6 - M20	Coolant-Through, DIN OAL	429
11015		HY-PRO® AERO-F	Inch	HSS-Co	TiN	No. 4 - 1"		430-432
11115		HY-PRO® AERO-F	Metric	HSS-Co	TiN	M3 - M14		433-434
13118		HY-PRO® RXL-W	Metric	HSSE	V	M16 - M42	DIN OAL & Extended OAL, For Through Holes, LHS	435
13059		HY-PRO® SYNCHRO AL	Inch	HSSE	V	No. 6 - 1/2"	Synchronized, RHC/LHS	436
13159		HY-PRO® SYNCHRO AL	Metric	HSSE	V	M3 - M12	Synchronized, RHC/LHS	436
11016		HY-PRO® AL-DIN	Inch	HSSE	N	No. 2 - 1/2"	DIN OAL	437
11116		HY-PRO® AL-DIN	Metric	HSSE	N	M3 - M12	DIN OAL	437
11017		HY-PRO® V DIN	Inch	HSSE	V	No. 4 - 1/2"	DIN OAL	438
11117		HY-PRO® V DIN	Metric	HSSE	V	M3 - M12	DIN OAL	438
280		HY-PRO®	Inch	HSSE	TiCN, S/O, Bright	No. 2 - 1 1/2"		439-441
289		HY-PRO®	Metric	HSSE	TiCN, S/O, Bright	M3 - M30		442
287		HY-PRO® SEVEN	Inch/ Metric	HSS	TiN, S/O, Bright	No. 0 - 1/2"		443
288		HY-PRO® SEVEN	Inch/ Metric	HSS	TiN, S/O, Bright	M3 - M12		443
105		GENERAL PURPOSE	Inch	HSS	TiCN, TiN, S/O, Bright	No. 0 - 3/4"		444-446
105B		GENERAL PURPOSE	Inch	HSS	S/O, Bright	No. 0 - 7/16"		447
105A		GENERAL PURPOSE	Inch	HSS	S/O, Bright	No. 4 - 1/2"	Assembly Type Taps	448
105+		GENERAL PURPOSE	Inch	HSS	TiN, Bright	No. 4 - No. 10	H7 Taps	448
105H		GENERAL PURPOSE	Inch	HSS	TiCN, S/O, Bright	No. 6 - 3/4"	±.005" Oversize	449





List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High														
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC

Spiral Pointed Taps

320	☐	☐	☒	☒	☒	☐	☐	☐	☐	☐	☐			☐			
250	☐	☐	☒	☒	☐	☐	☐	☐	☐					☐			
259	☐	☐	☒	☒	☐	☐	☐	☐	☐					☐			
260	☐	☐	☒	☒	☒	☐	☐	☐	☐	☐	☐			☐			
269	☐	☐	☒	☒	☒	☐	☐	☐	☐	☐	☐			☐			
11015	☒	☒	☒	☐	☐	☒	☒	☐	☐	☐	☐	☐	☐	☐			
11115	☒	☒	☒	☐	☐	☒	☒	☐	☐	☐	☐	☐	☐	☐			
13118	☒	☒	☒	☒	☒	☐	☐	☐	☒	☐	☐			☒	☐		
13059										☒	☒						
13159										☒	☒						
11016										☒	☒						
11116										☒	☒						
11017	☒	☒	☒	☒	☒	☒	☒	☐	☒					☐			
11117	☒	☒	☒	☒	☒	☒	☒	☐	☒					☐			
280	☐	☒	☒	☒	☐	☐	☐	☐	☐					☐			
289	☐	☒	☒	☒	☐	☐	☐	☐	☐					☐			
287	☒	☒								☐	☐						
288	☒	☒								☐	☐						
105	☐	☐	☐						☐	☐	☐						
105B	☐	☐	☐						☐	☐	☐						
105A	☐	☐	☐						☐	☐	☐						
105+	☐	☐	☐						☐	☐	☐						
105H	☐	☐	☐						☐	☐	☐						

☐ good ☒ best





List	Item	Brand	Inch/ Metric	Material	Coating	Size Range	Features	Product Page/ Tech Page
------	------	-------	-----------------	----------	---------	---------------	----------	----------------------------

Spiral Pointed Taps

142H		GENERAL PURPOSE	Metric	HSS	Bright	M4 - M12	+.005" Oversize	449
142		GENERAL PURPOSE	Metric	HSS	TiCN, TiN, S/O, Bright	M1.6 - M20		450
122		GENERAL PURPOSE	Metric	HSSE	S/O, Bright	M3 - M24	JIS	451
917		GENERAL PURPOSE	Inch	HSS	S/O, Bright	No. 4 - 5/8"	Long Shank	452
11118		GENERAL PURPOSE	Metric	HSS	S/O	M4 - M12	Extended Length	453
S111		GENERAL PURPOSE	Inch	HSS	Bright	No. 00	Miniature	454

Straight Fluted Taps

10051		EXOTAP® VCX	Inch	XPM	V	No. 6 - 1/2"		455
11051		EXOTAP® VCX	Metric	XPM	V	M3 - M12		455
305		EXOTAP-MOLD®	Inch	HSS-CO	Bright	No. 4 - 3/4"		456
10052		EXOTAP® DC	Inch	VC-10	V	1/4 - 1"	DIN OAL	457
11052		EXOTAP® DC	Metric	VC-10	V	M6 - M24	DIN OAL	458
10053		EXOTAP® DC-OIL	Inch	VC-10	V	1/4 - 1"	Coolant-Through, DIN OAL	459
11053		EXOTAP® DC-OIL	Metric	VC-10	V	M6 - M24	Coolant-Through, DIN OAL	460
11054		EXOTAP® DC	Metric	VC-10	V	M6 - M10	DIN Shank, DIN OAL	461
11055		EXOTAP® DC-OIL	Metric	VC-10	V	M6 - M12	Coolant-Through, DIN Shank, DIN OAL	462
10056		EXOTAP® DC	Inch	VC-10	V	1/4 - 3/4"		463
11056		EXOTAP® DC	Metric	VC-10	V	M6 - M14		463
10057		EXOTAP® DC-OIL	Inch	VC-10	V	1/4 - 1/2"	Coolant-Through	464
11057		EXOTAP® DC-OIL	Metric	VC-10	V	M6 - M14	Coolant-Through	464
240		HYPRO® DC	Inch	HSSE	N, Bright	No. 2 - 1/2"		465
241		HYPRO® DC	Metric	HSSE	N	M3 - M12		466





List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065							4140 4340	(30 HRC)						

Spiral Pointed Taps

142H	☐	☐	☐						☐	☐	☐						
142	☐	☐	☐						☐	☐	☐						
122	☐	☐	☐						☐	☐	☐						
917	☐	☐	☐						☐	☐	☐						
11118	☐	☐	☐						☐	☐	☐						
S111	☐	☐	☐						☐	☐	☐						

Straight Fluted Taps

10051				☐												☐	
11051				☐												☐	
305				☐	☐								☐	☐			
10052									☐		☐						
11052									☐		☐						
10053									☐		☐						
11053									☐		☐						
11054									☐		☐						
11055									☐		☐						
10056									☐		☐						
11056									☐		☐						
10057									☐		☐						
11057									☐		☐						
240									☐	☐	☐						
241									☐	☐	☐						

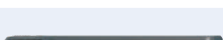
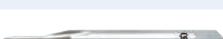
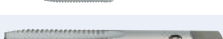
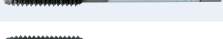
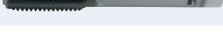
☐ good ☐ best





List	Item	Brand	Inch/ Metric	Material	Coating	Size Range	Features	Product Page/ Tech Page
------	------	-------	-----------------	----------	---------	---------------	----------	----------------------------

Straight Fluted Taps

101C		GENERAL PURPOSE	Inch	HSS	N, S/O	¼ - ¾"		467
141C		GENERAL PURPOSE	Metric	HSS	N, S/O	M6 - M12		467
101		GENERAL PURPOSE	Inch	HSS	TiCN, TiN, S/O, Bright	¼ - 1 ½"		468-469
101H		GENERAL PURPOSE	Inch	HSS	TiCN, S/O, Bright	¼ - ¾"	+0.005" Oversize	470
102		GENERAL PURPOSE	Inch	HSS	TiCN, TiN, S/O, Bright	No. 0 - No. 12		471-472
102H		GENERAL PURPOSE	Inch	HSS	S/O, Bright	No. 6 - No. 10	+0.005" Oversize	473
103		GENERAL PURPOSE	Inch	HSS	TiN, S/O, Bright	No. 8 - ½"	Three Flutes	474
104		GENERAL PURPOSE	Inch	HSS	S/O, Bright	No. 2 - 5/16"	Two Flutes	475
101N		GENERAL PURPOSE	Inch	HSS	Bright	No. 12 - 1"	UNEF	476
141		GENERAL PURPOSE	Metric	HSS	S/O, Bright	M1.6 - M36		477
121		GENERAL PURPOSE	Metric	HSS	S/O, Bright	M2 - M36	JIS	478
916		GENERAL PURPOSE	Inch	HSS	S/O	¼ - ¾"	Pulley Taps, Long Shank	479
S110		GENERAL PURPOSE	Inch	HSS	Bright	No. 00 - No. 000	Miniature	480
114		GENERAL PURPOSE	Inch	HSS-CO	N	No. 2 - ¼"	For Plastics	481
180		GENERAL PURPOSE	Inch	HSS	Bright	1 ⅛ - 2 ¼"	8 Pitch	482
101L		GENERAL PURPOSE	Inch	HSS	Bright	No. 6 - 1"	Left Hand	483
311		EXOCARB®VX	Inch	Carbide	V	No. 4 - ½"	DIN OAL	484
341		EXOCARB®VX	Metric	Carbide	V	M2.6 - M20	JIS	485
329		EXOCARB® Diamond	Inch	Carbide	DIA	No. 4 - ½"	UNJC, UNJF, DIN OAL	486
359		EXOCARB® Diamond	Metric	Carbide	DIA	M3 - M12	JIS	487
379		EXOCARB®	Metric	Carbide	EXO®	M6 - M12	Synchronized, Coolant-Through, JIS	488
319		EXOCARB®	Inch	Carbide	Bright	No. 4 - ½"	DIN OAL	489
10059		EXOCARB®	Inch	Carbide	Bright	No. 10 - 3/8"		490





List No.	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
	1010 1018	1035 1045	1065															

Straight Fluted Taps

101C									☒		☒						
141C									☒		☒						
101	☐	☐	☐						☐	☐	☐						
101H	☐	☐	☐						☐	☐	☐						
102	☐	☐	☐						☐	☐	☐						
102H	☐	☐	☐						☐	☐	☐						
103	☐	☐	☐						☐	☐	☐						
104	☐	☐	☐						☐	☐	☐						
101N	☐	☐	☐						☐	☐	☐						
141	☐	☐	☐						☐	☐	☐						
121	☐	☐	☐						☐	☐	☐						
916	☐	☐	☐						☐								
S110	☐	☐	☐						☐	☐	☐						
114																	
180	☐	☐	☐						☐	☐	☐						
101L	☐	☐	☐						☐	☐	☐						
311																☐	☒
341																☐	☒
329										☒	☒						
359										☒	☒						
379									☒	☒	☒						
319									☒	☒	☒						
10059									☒	☒	☒						

☐ good ☒ best



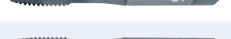
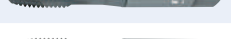
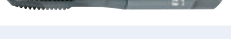
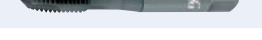
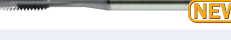


List	Item	Brand	Inch/ Metric	Material	Coating	Size Range	Features	Product Page/ Tech Page
------	------	-------	-----------------	----------	---------	---------------	----------	----------------------------

Straight Fluted Taps

10061		EXOCARB®	Metric	Carbide	Bright	M3 - M10	DIN OAL	491
349		EXOCARB®	Metric	Carbide	Bright	M1.4 - M24	JIS	492
356		EXOCARB®	Metric	Carbide	Bright	M6 - M12	JIS, Long Shank	493

Screw Thread Insert Taps

16260		EXOPRO® XPF	Inch	HSS-CO	V	No. 2 - 1"	STI, Forming Tap, DIN OAL	494-495
16360		EXOPRO® XPF	Metric	HSS-CO	V	M2 - M24	STI, Forming Tap, DIN OAL	496
315Ti		EXOTAP® VC-10 Ti	Inch	VC-10	V	No. 2 - ½"	STI, Spiral Fluted	497
315Ni		EXOTAP® VC-10 Ni	Inch	VC-10	V	No. 2 - ½"	STI, Spiral Fluted	498
315		EXOTAP® VC-10	Inch	VC-10	V, S/O	No. 2 - 1"	STI, Spiral Fluted	499
345STI		EXOTAP® VC-10	Metric	VC-10	V, S/O	M2 - M24	STI, Spiral Fluted	500
302		EXOTAP VA-3®	Inch	HSSE	V, S/O	No. 2 - 1"	STI, Spiral Fluted	501-502
343STI		EXOTAP VA-3®	Metric	HSSE	V, S/O	M2 - M24	STI, Spiral Fluted	503
13039		HYPRO® AL	Inch	HSSE	Bright, V	No. 2 - ½"	STI, Spiral Fluted	504
S108		GENERAL PURPOSE	Inch	HSS	Bright	No. 2 - 1"	STI, Spiral Fluted	505
S109		GENERAL PURPOSE	Metric	HSS	Bright	M2 - M24	STI, Spiral Fluted	506
314Ti		EXOTAP® VC-10 Ti	Inch	VC-10	V	No. 2 - ½"	STI, Spiral Pointed	507
314Ni		EXOTAP® VC-10 Ni	Inch	VC-10	V	No. 2 - ½"	STI, Spiral Pointed	508
314		EXOTAP® VC-10	Inch	VC-10	V, S/O	No. 2 - 1"	STI, Spiral Pointed	509
344STI		EXOTAP® VC-10	Metric	VC-10	V, S/O	M2 - M24	STI, Spiral Pointed	510
301		EXOTAP VA-3®	Inch	HSSE	V, S/O	No. 2 - 1"	STI, Spiral Pointed	511
342STI		EXOTAP VA-3®	Metric	HSSE	V, S/O	M2 - M24	STI, Spiral Pointed	512
13036		HYPRO® AL	Inch	HSSE	Bright, V	No. 2 - ½"	STI, Spiral Pointed	513
125		GENERAL PURPOSE	Inch	HSS	Bright	No. 2 - 1"	STI, Spiral Pointed	514



List No.	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
	1010 1018	1035 1045	1065															

Straight Fluted Taps

10061									☒	☒	☒						
349									☒	☒	☒						
356									☒	☒	☒						

Screw Thread Insert Taps

16260	☒	☒	☒	☒	☒	☒	☒	☒		☒	☒	☐	☐	☒	☐		
16360	☒	☒	☒	☒	☒	☒	☒	☒		☒	☒	☐	☐	☒	☐		
315Ti				☐				☐				☐	☒	☐	☐		
315Ni								☐				☒	☐	☐	☐		
315				☒	☐		☐	☒				☐	☐	☒	☐		
345STI				☒	☐		☐	☒				☐	☐	☒	☐		
302	☒	☐	☐			☒	☒	☐									
343STI	☒	☐	☐			☒	☒	☐									
13039										☒	☒						
S108	☐	☐	☐						☐	☐	☐						
S109	☐	☐	☐						☐	☐	☐						
314Ti				☐				☐				☐	☒	☐	☐		
314Ni								☐				☒	☐	☐	☐		
314				☒	☐		☐	☒				☐	☐	☒	☐		
344STI				☒	☐		☐	☒				☐	☐	☒	☐		
301	☒	☐	☐			☒	☒	☐									
342STI	☒	☐	☐			☒	☒	☐									
13036										☒	☒						
125	☐	☐	☐						☐	☐	☐						

☐ good ☒ best

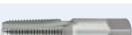
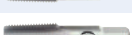
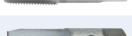


List	Item	Brand	Inch/ Metric	Material	Coating	Size Range	Features	Product Page/ Tech Page
------	------	-------	-----------------	----------	---------	---------------	----------	----------------------------

Screw Thread Insert Taps

127		GENERAL PURPOSE	Metric	HSS	Bright	M2 - M24	STI, Spiral Pointed	515
126		GENERAL PURPOSE	Inch	HSS	Bright	No. 2 - 1"	STI, Straight Fluted	516
128		GENERAL PURPOSE	Metric	HSS	Bright	M2 - M24	STI, Straight Fluted	517

Pipe Taps

308		EXOPIPE®	Inch	HSSE	TiN, S/O	1/16" - 1"	NPT	518
318		EXOPIPE®	Inch	HSSE	TiN, S/O	1/16" - 1"	NPTF	519
12053		HY-PRO® PIPE	Inch	HSSE	TiCN	1/8" - 1"	NPT, Interrupted	520
12054		HY-PRO® PIPE	Inch	HSSE	TiCN	1/8" - 1"	NPTF, Interrupted	520
328		EXOTAP-MOLD®	Inch	HSS-CO	Bright	1/8" - 3/4"	NPT, ANPT	521
108		TAPER PIPE	Inch	HSS	TiCN, TiN, S/O, Bright	1/16" - 2"	NPT, ANPT	522
108AL		GENERAL PURPOSE	Inch	HSS	Bright	1/8" - 1"	NPT	522
118		GENERAL PURPOSE	Inch	HSS	TiCN, TiN, S/O, Bright	1/16" - 2"	NPTF	523
108G		GENERAL PURPOSE	Inch	HSS	TiCN, S/O, Bright	1/8" - 2"	NPT, NPTF, ANPT, Interrupted Thread	524
S125		GENERAL PURPOSE	Inch	HSS	TiCN, S/O, Bright	1/8" - 1"	NPT, NPTF, Short Projection	524
12006		GENERAL PURPOSE	Inch	HSS	Bright	1/8" - 3/4"	NPTF, Special Short Projection	525
12007		GENERAL PURPOSE	Inch	HSS	Bright	1/8" - 3/4"	NPT	525
109		GENERAL PURPOSE	Inch	HSS	S/O, Bright	1/8" - 1"	NPS, NPSF	526

Round Dies

134		GENERAL	Inch	HSS	Bright	No. 0 - 1 1/2	Solid & Adjustable Round Split Dies	527-528
134P		GENERAL	Inch	HSS	Bright	1/8" - 1/2	Adjustable Round Split Dies, Taper Pipe	529
135		GENERAL	Metric	HSS	Bright	M2 - M30	Adjustable Round Split Dies	530

Thread Gages

15001		GENERAL	Inch	HSS	Bright	No. 2 - 1 1/2	GO/NOGO Set, Class 2B	531
15002		GENERAL	Metric	HSS	Bright	M3 - M24	GO/NOGO Set, Class 6H	532





	P				M			K	N		S		H				
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High														
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC

Screw Thread Insert Taps

127	☐	☐	☐						☐	☐	☐						
126	☐	☐	☐						☐	☐	☐						
128	☐	☐	☐						☐	☐	☐						

Pipe Taps

308	☐	☐				☒	☒	☒									
318	☐	☐				☒	☒	☒									
12053	☐	☒	☒	☒	☒	☐	☐	☐	☐					☐	☐		
12054	☐	☒	☒	☒	☒	☐	☐	☐	☐					☐	☐		
328	☐	☐	☐	☒	☒	☐	☐	☐						☒	☐		
108	☐	☐	☐						☐	☐	☐						
108AL										☒	☒						
118	☐	☐	☐						☐	☐	☐						
108G	☐	☐	☐						☐	☐	☐						
S125	☐	☐	☐						☐	☐	☐						
12006	☐	☐	☐						☐	☐	☐						
12007	☐	☐	☐						☐	☐	☐						
109	☐	☐	☐						☐	☐	☐						

☐ good ☒ best





EXOCARB® Thread Mill

Ideal for Steels, Exotics and Difficult to Machine Materials

List 41200

Miniature, Helical Flute

SPEED
FEED
P567

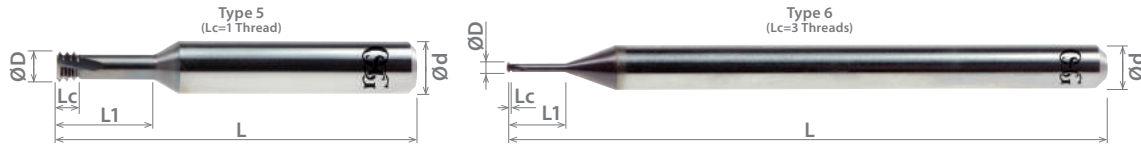
CARBIDE

SS

WXS®

11°

SHRINK
h6



Size	Threads Per Inch	Cutter Diameter	Overall Length	Length of Cut	Neck Length	Shank Diameter	No. of Flutes	Type	EDP Number	
		D	L	Lc	L1	d			SS	WXS®
0	80	0.045	1.625	0.013	0.162	1/8	3	5	4120000115	–
1	72	0.055		0.014	0.196				4120000215	–
1	64	0.055		0.016	0.198				–	4120000315
2, 3	56	0.064	1.661	0.054	0.189	1/4		6	–	4120000413
2	64	0.064		0.047	0.189				–	4120000513
3, 4	48	0.074		0.063	0.220				–	4120000613
4, 5, 6	40	0.083		0.075	0.248				–	4120000713
5	44	0.096		0.068	0.272				–	4120000813
6, 8	32	0.103		0.094	0.307				–	4120000913
8	36	0.129		0.083	0.354				–	4120001013

Packed: 1 pc.

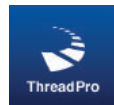
EDP's listed above are stocked standard.

Available in Super Smooth or WXS® coatings as shown above.

For internal threads only.



For more information on thread mill applications, including ThreadPro software, visit: www.osgtool.com/ThreadPro.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
41200	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

☐ good ☒ best





List 41300

Miniature, Helical Flute

SPEED
FEED
P567

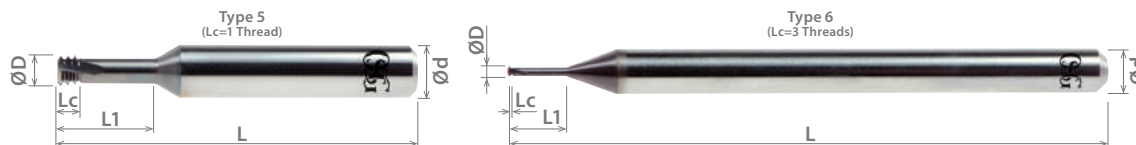
CARBIDE

SS

WXS®

11°

SHRINK
h6



Size	Threads Per Inch	Cutter Diameter	Overall Length	Length of Cut	Neck Length	Shank Diameter	No. of Flutes	Type	EDP Number	
		D	L	Lc	L1	d			SS	WXS®
M1	0.25	0.72	40	0.26	2.75	3	3	5	3900495	—
M1.2	0.25	0.91		0.26	3.25				3900496	—
M1.4	0.30	1.05		0.31	3.80				3900497	—
M1.6	0.35	1.20		0.36	4.35				3900498	—
M1.7, M1.8	0.35	1.30		0.36	4.85				3900499	—
M2	0.40	1.50		1.20	4.40				—	3900500
M2.5, M2.6	0.45	1.90	41	1.35	5.60	6		6	—	3900501
M3	0.50	2.40		1.50	6.50				—	3900502
M4	0.70	3.10		2.10	8.70				—	3900503
M5	0.80	4.00		2.40	10.80				—	3900504

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Super Smooth or WXS® coatings as shown above.

For internal threads only.

HTE

For more information on thread mill applications, including ThreadPro software, visit: www.osgtool.com/ThreadPro.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V	~35	35-45	45-50	50-70
	1018	1035	1065			4140	4340	7075					(30 HRC)	HRC	HRC	HRC	HRC
41300	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

☐ good ☒ best





EXOCARB® Thread Mill

Ideal for Steels, Exotics and Difficult to Machine Materials

List 41000 **NEW SIZES**

UNC/UNF/UNEF/UNS, Regular & Long Length, Helical Flute

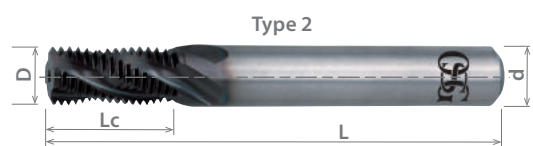
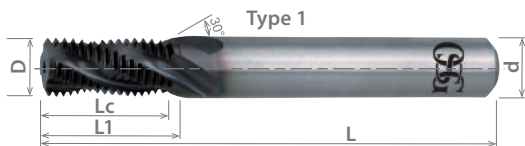
**SPEED
FEED**
P566

CARBIDE

EXO®

11-30°

**SHRINK
h6**



Size	Threads Per Inch	Cutter Diameter	Overall Length	Length of Cut	Neck Length	Shank Diameter	No. of Flutes	Type	EDP Number
		D	L	Lc	L1	d			
10	24 UNC	0.130	2.5	0.374	0.437	3/16	3	1	4100000411
	32 UNF			0.374	0.437				4100000511
12	24 UNC	0.160	3	0.331	0.374	1/4			4100000611
	28 UNF			0.323	0.358				4100000711
1/4	20 UNC	0.180		0.402	0.449				4100000811
	28 UNF			0.551	0.598				4100003211
				0.394	0.429				4100000911
	32 UNEF	0.190		0.535	0.571				4100003311
5/16	18 UNC	0.245		0.374	0.406			4100002811	
				0.500	—			4100001011	
				0.720	—	4100003411			
	24 UNF	0.500		—	4100001111				
32 UNEF	0.250	0.752		—	4100003511				
	3/8	16 UNC		0.469	—	4100002911			
				0.594	—	4100001211			
0.874				—	4100003611				
24 UNF		0.300		0.583	—	4100001311			
32 UNEF	0.310	0.874		—	4100003711				
	7/16	14 UNC		0.350	0.563	—		4100003011	
					0.713	0.783		3/8	1
1.071					1.142	4100003811			
0.701		0.752			4100001511				
1.051	1.098	4100003911							
1/2	20 UNF	0.768		—	2	2			4100001611
	13 UNC	1.079		—					4100004011
		0.750		—					4100001711
		20 UNF		1.098					—
9/16	12 UNC	0.430		0.752		—		4100003111	
			0.917	1.000		4	1	4100001811	
			1.335	1.417				4100004211	
	0.890	0.945	4100001911						
18 UNF	0.450	1.390	1.445	4100004311					
5/8	11 UNC	0.430	1.000	1.091	4100002011				
			1.453	1.547	4100004411				
			0.945	—	4100002111				
	18 UNF	0.495	1.500	—	4100004511				
3/4	10 UNC	0.620	1.201	—	5/8		2	4100002211	
			1.701	—				4100004611	
			1.126	—				4100002311	
	7/8	9 UNC	0.745	1.689				—	4100004711
4				1.335				—	4100002411
5				2.000				—	4100004811
4		1.358		—				4100002511	
14 UNF	5	2.000	—	4100004911					

Packed: 1 pc.
Available EXO® coating only.
For internal threads only.





List 41000 (Continued) **NEW SIZES**

UNC/UNF/UNEF/UNS, Regular & Long Length, Helical Flute



Size	Threads Per Inch	Cutter Diameter	Overall Length	Length of Cut	Neck Length	Shank Diameter	No. of Flutes	Type	EDP Number
		D	L	Lc	L1	d			
1	8 UNC	0.745	4	1.626	—	3/4	4	2	4100002611
			5	2.000	—				4100005011
	12 UNF		4	1.583	—				4100002711
			5	2.000	—				4100005111

Packed: 1 pc.
Available EXO® coating only.
For internal threads only.



For more information on thread mill applications, including ThreadPro software, visit: www.osgtool.com/ThreadPro.

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035 1045	1065			4140 4340											
41000	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☒	☒	☒	☐	☐

☐ good ☒ best





EXOCARB® Thread Mill

Ideal for Steels, Exotics and Difficult to Machine Materials

List 41100

Regular & Long Length, Helical Flute

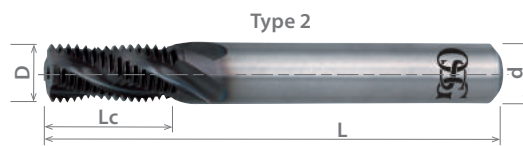
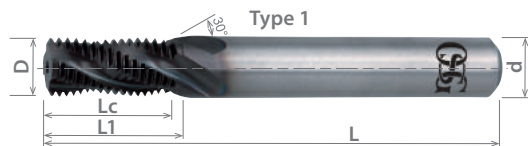
SPEED
FEED
P566

CARBIDE

EXO®

11°-30°

SHRINK
h6



Size	Threads Per Inch	Cutter Diameter	Overall Length	Length of Cut	Neck Length	Shank Diameter	No. of Flutes	Type	EDP Number	
		D	L	Lc	L1	d				
M6	1.00	4.5	60	10.00 13.00	15	6	3	1	4110000111 3900001	
M8	1.25	6.0	65	13.80	—			2	4110000311 3900012	
	1.00			17.50	—				4110000211 3900011	
				13.00	—					
M10	1.50			7.5	70	16.50 22.50		26	8	1
	1.25	16.25	4110000511							
	1.00	16.00	4110000411							
		21.00	3900021							
M12	1.75	9.5	85	21.00 26.30	28	10	4	4110000811 3900034		
	1.25			20.00				4110000711		
				26.30				3900032		
				24.00				—	4110001011 3900044	
M14	2.00	10.0	85	30.00	—	12		2	4110000911 3900043	
	1.50			22.50	—				3900054	
				30.00	—				4110001111 3900053	
				34.00	—					
M16	2.00	12.0	95	25.50	—	16	5		3900075	
	1.50			34.50	—				4110001211 3900073	
				42.50	—					
M20	2.50	16.0	105	31.50	—	20			5	3900086
	1.50			42.00	—			3900084		
				51.00	—					
M24	3.00	20.0	120	50.00	—					
	2.00									

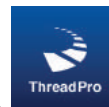
Packed: 1 pc.

Available EXO®coating only.

For internal threads only.



For more information on thread mill applications, including ThreadPro software, visit: www.osgtool.com/ThreadPro.



Work Material

List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High														
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
41100	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

☐ good ☐ best





List 41050 **NEW!**

UNC/UNF, Coolant-Through, Long Length, Helical Flute

**SPEED
FEED**
P566

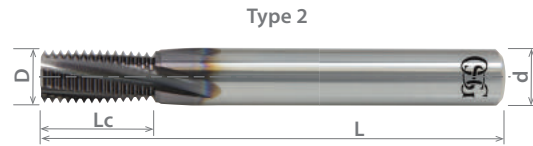
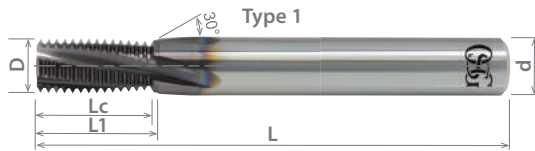
**COOLANT
THROUGH**

CARBIDE

EXO®

11°

**SHRINK
h6**



Size	Threads Per Inch	Cutter Diameter	Overall Length	Length of Cut	Neck Length	Shank Diameter	No. of Flutes	Type	EDP Number
		D	L	Lc	L1	d			
1/4	20 UNC	0.180	3	0.401	0.448	1/4	4	1	4105000111
	28 UNF			0.393	0.429				4105000211
5/16	18 UNC	0.245		0.500	—	5/16		2	4105000311
	24 UNF			0.500	—				4105000411
3/8	16 UNC	0.300		0.562	—	3/8		1	4105000511
	24 UNF			0.582	—				4105000611
7/16	14 UNC	0.350		0.712	0.783	3/8	2	4105000711	
	20 UNF			0.700	0.751			4105000811	
1/2	13 UNC	0.370		0.767	—	1/2	1	4105000911	
	20 UNF			0.750	—			4105001011	
9/16	12 UNC	0.430	4	0.917	1.000	9/16	5	1	4105001111
	18 UNF			0.889	0.944				4105001211
5/8	11 UNC	0.430		1.000	1.090	5/8	2	4105001311	
	18 UNF			0.944	—			4105001411	
3/4	10 UNC	0.620		1.200	—	3/4	6	2	4105001511
	16 UNF			1.125	—				4105001611
7/8	9 UNC	0.745		1.330	—	7/8	1	4105001711	
	14 UNF			1.358	—			4105001811	
1	8 UNC	0.745		1.625	—	1	2	4105001911	
	12 UNF			1.582	—			4105002011	

Packed: 1 pc.

Available EXO®coating only.

For internal threads only.



For more information on thread mill applications, including ThreadPro software, visit: www.osgtool.com/ThreadPro.

Work Material																
List No.	P					M			K	N		S		H		
	Carbon Steels				Alloy Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels		
	Low	Med.	High	High		300	400	17-4 PH		6061	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
	1010	1018	1035	1045	1065	4140	4340			7075						
41050	☒	☒	☒	☒	☒	☒	☒	☒	☒			☒	☒	☒	☒	☒

☐ good ☒ best



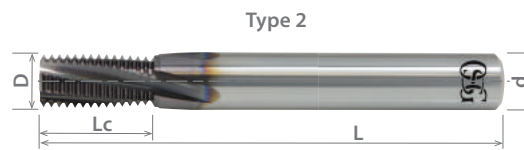
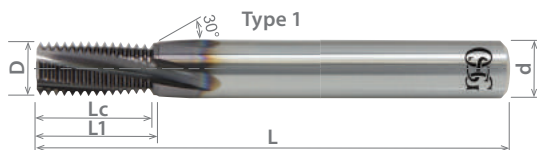


EXOCARB® Thread Mill

Ideal for Steels, Exotics and Difficult to Machine Materials

List 41150

Coolant-through, Long Length, Helical Flute



Size	Threads Per Inch	Cutter Diameter	Overall Length	Length of Cut	Neck Length	Shank Diameter	No. of Flutes	Type	EDP Number
		D	L	Lc	L1	d			
M6	1.00	4.5	60	13	15.0	6	4	1	8304701
		6.0	65	17	—			2	8304711
M8	1.25	6.0		17.5	—	8		1	8304712
M10	1.50	7.5	70	22.5	26.0				8304723
	1.00			21	10	8304721			
M12	1.75	9.5	85	26.3		28.0	8304734		
	1.25			26.3	5	8304732			
M14	2.00	10.0		30		—	2	8304744	
	1.50			30	—	8304743			
M16	2.00	12.0	95	34	—	8304754			
	1.50			34.5	—	8304753			
M20	2.50	16.0	105	42.5	—	16		8304775	
	1.50			42	—		8304773		
M24	3.00	20.0	120	51	—	20	6	8304786	
	2.00			50	—		8304784		

Packed: 1 pc.
Available EXO®coating only.
For internal threads only.

HTE

For more information on thread mill applications, including ThreadPro software, visit: www.osgtool.com/ThreadPro.



Work Material

List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
41150	☐	☐	☐	☐	☐	☐	☐	☐	☐			☐	☐	☐	☐	☐	☐

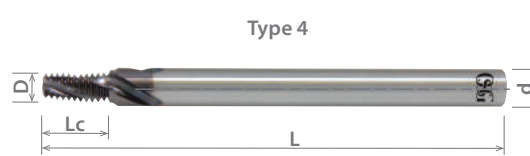
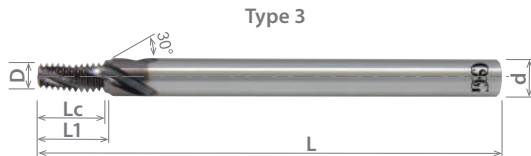
☐ good ☐ best





List 42000

NPT, Helical Flute



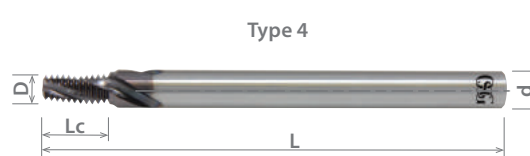
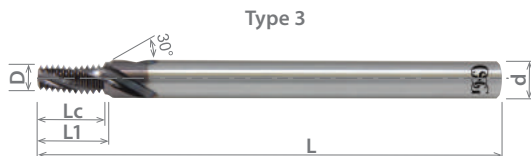
Size	Threads Per Inch	Cutter Diameter	Overall Length	Length of Cut	Neck Length	Shank Diameter	No. of Flutes	Type	EDP Number
		D	L	Lc	L1	d			
1/16	27	0.186	3	0.409	0.44	1/4	3	3	4200000111
1/8	27	0.286		0.409	—	5/16		4	4200000211
1/4 or 3/8	18	0.334		0.610	—	3/8		4	4200000311
1/2 or 3/4	14	0.575	4	0.787	—	5/8	4	3	4200000411
1 thru 2	11-1/2	0.785		0.957	1.04	1		4	4200000511
2-1/2	8	0.917		1.358	—	—		4	4200000611

Packed: 1 pc.
Available EXO®coating only.
For internal threads only.



List 42001

NPTF, Helical Flute



Size	Threads Per Inch	Cutter Diameter	Overall Length	Length of Cut	Neck Length	Shank Diameter	No. of Flutes	Type	EDP Number
		D	L	Lc	L1	d			
1/16	27	0.186	3	0.409	0.44	1/4	3	3	4200100111
1/8	27	0.286		0.409	—	5/16		4	4200100211
1/4 or 3/8	18	0.335		0.610	—	3/8		4	4200100311
1/2	14	0.575	4	0.787	—	5/8	4	3	4200100411
3/4	14	0.575		0.787	—	—		4	4200100711
1 or 1-1/4	11-1/2	0.785		0.957	1.04	1		3	4200100511
1-1/2 or 2	11-1/2	0.785	4	0.957	1.04	—	4	4	4200100811
2-1/2	8	0.917		1.358	—	—		4	4200100611

Packed: 1 pc.
Available EXO®coating only.
For internal threads only.



For more information on thread mill applications, including ThreadPro software, visit: www.osgtool.com/ThreadPro.

Work Material																	
	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340		300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
42000	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	
42001	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	

⊗ good ⊗ best





List 16050 **NEW SIZES**

Coolant-Through, DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	2B	3B
1/4 - 20 UNC	1.5P	H6	80	30	1605014216	0.2245	0.2295	H6	H4
	2.5P	H4			1605014204				
	H6	1605014206							
	4.5P	H6			1605014246				
1/4 - 28 UNF	1.5P	H6	80	30	1605014816	0.2318	0.2354	H6	H4
	2.5P	H4			1605014284				
	H6	1605014286							
	4.5P	H6			1605014846				
5/16 - 18 UNC	1.5P	H7	90	35	1605051617	0.2842	0.2898	H7	H5
	2.5P	H5			1605056185				
	H7	1605056187							
	4.5P	H7			1605051647				
5/16 - 24 UNF	1.5P	H7	90	35	1605056217	0.2912	0.02955	H7	H5
	2.5P	H5			1605056245				
	H7	1605056247							
	4.5P	H7			1605056447				
3/8-16 UNC	1.5P	H7	100	40	1605038117	0.3431	0.3495	H7	H5
	2.5P	H5			1605038165				
	H7	1605038167							
	4.5P	H7			1605038147				
3/8 - 24 UNF	1.5P	H7	100	40	1605038217	0.3537	0.358	H7	H5
	2.5P	H5			1605038245				
	H7	1605038247							
	4.5P	H7			1605038447				
7/16 - 14 UNC	1.5P	H8	100	43	1605076118	0.4011	0.4084	H8	H5
	2.5P	H5			1605076145				
	H8	1605076148							
	4.5P	H8			1605076448				
7/16 - 20 UNF	1.5P	H8	100	43	1605076218	0.412	0.4171	H8	H5
	2.5P	H5			1605076205				
	H8	1605076208							
	4.5P	H8			1605076248				
1/2 - 13 UNC	1.5P	H8	110	49	1605012118	0.4608	0.4686	H8	H5
	2.5P	H5			1605012135				
	H8	1605012138							
	4.5P	H8			1605012148				
1/2-20 UNF	1.5P	H8	100	49	1605012218	0.4745	0.4796	H8	H5
	2.5P	H5			1605012205				
	H8	1605012208							
	4.5P	H8			1605012248				
9/16 - 12 UNC	1.5P	H10	110	50	1605091110	0.5200	0.5285	H10	H7
	2.5P	H7			1605096127				
	H10	1605096120							
	4.5P	H10			1605091140				
9/16 - 18 UNF	1.5P	H10	100	50	1605091810	0.5342	0.5398	H10	H7
	2.5P	H7			1605096187				
	H10	1605096180							
	4.5P	H10			1605091840				
5/8 - 11 UNC	1.5P	H10	110	54	1605058150	0.5787	0.5879	H10	H7
	2.5P	H7			1605058117				
		H10			1605058110				

Packed: 1 pc.
Available V coating only.





List 16050 (Continued) **NEW SIZES**

Coolant-Through, DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	2B	3B
5/8 - 11 UNC	4.5P	H10	110	54	1605058140	0.5787	0.5879	H7	H7
5/8 - 18 UNF	1.5P	H10	100	54	1605058810	0.5967	0.6023	H10	H7
	2.5P	H7			1605058187				
	4.5P	H10			1605058180				
	1.5P	H10			1605058840				
3/4 - 10 UNC	1.5P	H10	125	61	1605034110	0.699	0.7092	H10	H7
	2.5P	H7			1605034107				
	4.5P	H10			1605034100				
	1.5P	H10			1605034140				
3/4 - 16 UNF	2.5P	H7	110	61	1605034610	0.7181	0.7245	H10	H7
	4.5P	H10			1605034167				
	1.5P	H10			1605034160				
	4.5P	H10			1605034640				
7/8 - 9 UNC	1.5P	H11	140	67	1605078911	0.8183	0.8297	H11	H8
	2.5P	H8			1605078908				
	4.5P	H11			1605078901				
	1.5P	H11			1605078941				
7/8 - 14 UNF	1.5P	H11	125	67	1605078111	0.8386	0.8459	H11	H8
	2.5P	H8			1605078148				
	4.5P	H11			1605078141				
	1.5P	H8			1605078149				
1" - 8	2.5P	H11	160	76	1605078142	0.9363	0.949	H11	H8
	4.5P	H11			1605018111				
	1.5P	H8			1605001088				
	2.5P	H11			1605001081				
1" - 12	4.5P	H11	140	76	1605018411	0.9575	0.966	H11	H8
	1.5P	H11			1605011211				
	2.5P	H8			1605001128				
	4.5P	H11			1605001121				
1, 1/8 - 7	2.5P	H13	180	72	1605011241	1.0521	1.0667	H13	-
1, 1/8 - 8	2.5P	H11	180	72	1605011878	1.0613	1.074	H11	-
1, 1/8 - 12	2.5P	H11	150	60	1605011888	1.0825	1.091	H11	-
1, 1/4 - 7	2.5P	H13	180	72	1605011826	1.1771	1.1917	H13	-
1, 1/4 - 8	2.5P	H11	180	72	1605012578	1.1863	1.199	H11	-
1, 1/4 - 12	2.5P	H11	150	60	1605012588	1.2075	1.216	H11	-
1, 3/8 - 6	2.5P	H14	200	80	1605012526	1.29	1.307	H14	-
1, 3/8 - 8	2.5P	H13	200	80	1605013768	1.3113	1.324	H13	-
1, 3/8 - 12	2.5P	H11	170	68	1605013788	1.3325	1.341	H11	-
1, 1/2 - 6	2.5P	H15	200	80	1605013126	1.415	1.432	H15	-
1, 1/2 - 8	2.5P	H13	200	80	1605011268	1.4363	1.449	H13	-
1, 1/2 - 12	2.5P	H11	170	68	1605011288	1.4575	1.466	H11	-
1, 5/8 - 8	2.5P	H13	200	80	1605012126	1.5613	1.574	H13	-
1, 3/4 - 5	2.5P	H16	220	88	1605016288	1.648	1.6684	H16	-
1, 3/4 - 8	2.5P	H13	200	80	1605017558	1.6863	1.699	H13	-
					1605017588				

Packed: 1 pc.
Available V coating only.

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
16050	☐	☐	☐	☐	☐	☐*	☐*	☐*		☐	☐	☐	☐	☐	☐		
SFM	75-130	75-130	65-100	65-100	20-65	20-50	20-45	15-40		80-130	75-110	8-10	8-10	50-100	8-20		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☐ best





List 16150 **NEW SIZES**

Coolant-Through, DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	6H	4H
M6 x 1.0	1.5P	D8	80	30	1615060118	5.49	5.59	D8	D5
	2.5P	D5			1615006015				
	4.5P	D8			1615006018				
M6 x 0.75	1.5P	D7	80	30	1615067517	5.62	5.69	D7	D4
	2.5P	D4			1615006754				
	4.5P	D7			1615006757				
M7 x 1.0	1.5P	D8	80	30	1615070118	6.49	6.59	D8	D5
	2.5P	D5			1615007015				
	4.5P	D8			1615007018				
M8 x 1.25	1.5P	D9	90	35	1615081219	7.36	7.49	D9	D5
	2.5P	D5			1615008255				
	4.5P	D9			1615008259				
M8 x 1.0	1.5P	D8	90	35	1615080118	7.49	7.59	D8	D5
	2.5P	D5			1615008015				
	4.5P	D8			1615008018				
M8 x 0.75	1.5P	D7	80	30	1615087517	7.62	7.69	D7	D4
	2.5P	D4			1615008754				
	4.5P	D7			1615008757				
M10 X 1.5	1.5P	D10	100	39	1615010110	9.24	9.39	D10	D6
	2.5P	D6			1615010156				
	4.5P	D10			1615010150				
M10 x 1.25	1.5P	D9	100	39	1615010119	9.36	9.49	D9	D5
	2.5P	D5			1615010255				
	4.5P	D9			1615010259				
M10 x 1.0	1.5P	D8	90	35	1615010118	9.49	9.59	D8	D5
	2.5P	D5			1615010015				
	4.5P	D8			1615010018				
M12 x 1.75	1.5P	D11	110	49	1615012711	11.11	11.23	D11	D6
	2.5P	D6			1615012756				
	4.5P	D11			1615010751				
M12 x 1.5	1.5P	D11	100	49	1615012111	11.24	11.39	D11	D6
	2.5P	D6			1615012156				
	4.5P	D11			1615012151				
M12 x 1.25	1.5P	D10	100	49	1615012210	11.36	11.49	D10	D6
	2.5P	D6			1615012256				
	4.5P	D10			1615012250				
M12 x 1.0	1.5P	D10	100	49	1615012110	11.49	11.59	D10	D6
	2.5P	D6			1615012106				

Packed: 1 pc.
Available V coating only.





List 16150 (Continued) **NEW SIZES**

Coolant-Through, DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	6H	4H
M12 x 1.0	4.5P	D10	100	49	1615012140	11.49	11.59	D10	D6
M14 x 2.0	1.5P	D12	110	50	1615014212	12.98	13.18	D12	D7
	2.5P	D7			1615014027				
	4.5P	D12			1615014022				
M14 x 1.5	1.5P	D12	100	50	1615014242	13.24	13.39	D11	D6
	2.5P	D11			1615014511				
	4.5P	D11			1615014156				
M16 x 2.0	1.5P	D12	110	54	1615014541	14.98	15.18	D12	D7
	2.5P	D7			1615016212				
	4.5P	D12			1615016207				
M16 x 1.5	1.5P	D11	100	54	1615016202	15.24	15.39	D11	D6
	2.5P	D6			1615016242				
	4.5P	D11			1615016111				
M18 x 2.5	1.5P	D12	125	55	1615016152	16.73	16.98	D12	D7
	2.5P	D7			1615016151				
	4.5P	D12			1615016141				
M18 x 1.5	1.5P	D11	110	55	1615018212	17.24	17.39	D11	D6
	2.5P	D6			1615018257				
	4.5P	D11			1615018252				
M20 x 2.5	1.5P	D12	140	61	1615018242	18.73	18.98	D12	D7
	2.5P	D7			1615018151				
	4.5P	D12			1615018141				
M20 x 1.5	1.5P	D11	125	61	1615020212	19.24	19.39	D11	D6
	2.5P	D6			1615020257				
	4.5P	D11			1615020252				
M22 x 2.5	1.5P	D12	140	67	1615020242	20.73	20.98	D12	D7
	2.5P	D7			1615020111				
	4.5P	D12			1615020156				
M22 x 2.0	1.5P	D12	140	67	1615020151	20.98	21.18	D12	D7
	2.5P	D7			1615020141				
	4.5P	D12			1615022512				
M22 x 1.5	1.5P	D11	125	67	1615022257	21.24	21.39	D11	D6
	2.5P	D6			1615022252				
	4.5P	D11			1615022252				

Packed: 1 pc.
Available V coating only.

continued on next page

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010	1035	1065			4140	4340	300		400	17-4 PH	6061	7075	80-130	75-110	8-10	8-10
16150	☐	☐	☐	☐	☐	☐*	☐*	☐*		☐	☐	☐	☐	☐	☐		
SFM	75-130	75-130	65-100	65-100	20-65	20-50	20-45	15-40		80-130	75-110	8-10	8-10	50-100	8-20		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☐ best





List 16150 (Continued) **NEW SIZES**

Coolant-Through, DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	6H	4H
M24 x 3.0	1.5P	D15	160	68	1615024315	22.47	22.78	D15	D9
	2.5P	D9			1615024309				
		D15			1615024305				
	4.5P	D9			1615024349				
M24 x 2.0		D15	140	68	1615024345	22.98	23.18	D13	D7
	1.5P	D13			1615024223				
	2.5P	D7			1615024207				
		D13			1615024203				
M24 x 1.5	4.5P	D13	140	68	1615024243	23.24	23.39	D11	D6
	1.5P	D11			1615024111				
	2.5P	D6			1615024156				
		D11			1615024151				
M27 x 3.0	4.5P	D11	160	64	1615024141	25.47	25.78	D15	-
	2.5P	D15			1615027309				
M30 x 3.5	2.5P	D15	180	72	1615030350	28.22	28.57	D15	-
M33 x 3.5	2.5P	D16	180	72	1615033350	31.22	31.57	D16	-
M36 x 4.0	2.5P	D17	200	80	1615036411	33.96	34.37	D17	-
M42 x 4.5	2.5P	D17	200	80	1615042451	39.71	40.16	D17	-
M45 x 4.5	2.5P	D17	220	88	1615045451	42.71	43.16	D17	-

Packed: 1 pc.

Available V coating only.

EP

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
16150	☐	☐	☐	☐	☐	☐*	☐*	☐*		☐	☐	☐	☐	☐	☐		
SFM	75-130	75-130	65-100	65-100	20-65	20-50	20-45	15-40		80-130	75-110	8-10	8-10	50-100	8-20		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good

☐ best





List 16250 **NEW SIZES**

HSS-CO
V

DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln		Min	Max	2B	3B
0 - 80 UNF	1.5P	H3	40	9	1625008013	0.0536	0.0549	H3	H2
	2.5P	H2			1625000802				
	H3				1625000803				
	4.5P	H3			1625008043				
1 - 64 UNC	1.5P	H3	45	9	1625016413	0.0650	0.0666	H3	H2
	2.5P	H2			1625001642				
	H3				1625001643				
	4.5P	H3			1625016443				
1 - 72 UNF	1.5P	H3	45	9	1625017213	0.0659	0.0673	H3	H2
	2.5P	H2			1625001722				
	H3				1625001723				
	4.5P	H3			1625017243				
2 - 56 UNC	1.5P	H3	45	11	1625025613	0.0769	0.0787	H3	H2
	2.5P	H2			1625002562				
	H3				1625002563				
	4.5P	H3			1625025643				
2 - 64 UNF	1.5P	H3	45	11	1625026413	0.0780	0.0796	H3	H2
	2.5P	H2			1625002642				
	H3				1625002643				
	4.5P	H3			1625026443				
3 - 48 UNC	1.5P	H3	50	11	1625034813	0.0884	0.0905	H3	H2
	2.5P	H2			1625003482				
	H3				1625003483				
	4.5P	H3			1625034843				
3 - 56 UNF	1.5P	H3	50	11	1625035613	0.0899	0.0917	H3	H2
	2.5P	H2			1625003562				
	H3				1625003563				
	4.5P	H3			1625035643				
4 - 40 UNC	1.5P	H5	56	19	1625044015	0.0993	0.1018	H5	H3
	2.5P	H3			1625004403				
	H5				1625004405				
	4.5P	H5			1625044045				
4 - 48 UNF	1.5P	H3	56	19	1625044815	0.1014	0.1035	H5	H3
	2.5P	H2			1625004483				
	H3				1625004485				
	4.5P	H3			1625044845				
5 - 40 UNC	1.5P	H5	56	19	1625054015	0.1123	0.1148	H5	H3
	2.5P	H3			1625005403				
		H5			1625005405				

Packed: 1 pc.
Available V coating only.

continued on next page

EP

Work Material																	
	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
16250	☐	☐	☐	☐	☐	☐*	☐*	☐*		☐	☐	☐	☐	☐			
SFM	50-115	50-115	50-85	50-85	20-65	15-40	15-35	10-30		65-115	65-90	8-12	8-15	50-100	8-25		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☐ best



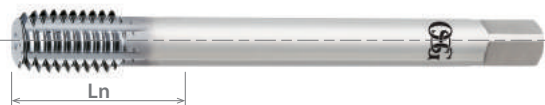


List 16250 (Continued) **NEW SIZES**

HSS-CO

V

DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	2B	3B
5 - 40 UNC	4.5P	H5	56	19	1625054045	0.1123	0.1148	H5	H3
	1.5P	H5			1625054415				
5 - 44 UNF	2.5P	H3	56	19	1625005443	0.1134	0.1157	H5	H3
	H5				1625005445				
	4.5P	H5			1625054445				
6 - 32 UNC	1.5P	H5	56	21	1625063215	0.1221	0.1252	H5	H3
	2.5P	H3			1625006323				
	H5				1625006325				
	4.5P	H5			1625063245				
6 - 40 UNF	1.5P	H5	56	21	1625064015	0.1253	0.1278	H5	H3
	2.5P	H3			1625006403				
	H5				1625006405				
	4.5P	H5			1625064045				
8 - 32 UNC	1.5P	H5	63	22	1625083215	0.1481	0.1512	H5	H3
	2.5P	H3			1625008323				
	H5				1625008325				
	4.5P	H5			1625083245				
8 - 36 UNF	1.5P	H5	63	22	1625083615	0.1498	0.1526	H5	H3
	2.5P	H3			1625008363				
	H5				1625008365				
	4.5P	H5			1625083645				
10 - 24 UNC	1.5P	H6	70	25	1625010216	0.1688	0.1729	H6	H4
	2.5P	H4			1625010244				
	H6				1625010246				
	4.5P	H6			1625010249				
10 - 32 UNF	1.5P	H6	70	26	1625010316	0.1741	0.1772	H6	H4
	2.5P	H4			1625010324				
	H6				1625010326				
	4.5P	H6			1625010346				
12 - 24 UNC	1.5P	H7	80	30	1625012417	0.1948	0.1989	H7	H5
	2.5P	H5			1625012245				
	H7				1625012247				
	4.5P	H7			1625012447				
12 - 28 UNF	1.5P	H7	80	30	1625012817	0.1978	0.2014	H7	H5
	2.5P	H5			1625012285				
	H7				1625012287				
	4.5P	H7			1625012847				
1/4 - 20 UNC	1.5P	H6	80	32	1625014216	0.2245	0.2295	H6	H4
	2.5P	H4			1625014204				
	H6				1625014206				
	4.5P	H6			1625014246				
1/4 - 28 UNF	1.5P	H6	80	32	1625014816	0.2318	0.2354	H6	H4
	2.5P	H4			1625014284				
	H6				1625014286				
	4.5P	H6			1625014846				
5/16 - 18 UNC	1.5P	H7	90	35	1625051617	0.2842	0.2898	H7	H5
	2.5P	H5			1625056185				
	H7				1625056187				
	4.5P	H7			1625051647				

Packed: 1 pc.
Available V coating only.

EP





List 16250 (Continued) **NEW SIZES**



DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)

Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	2B	3B
5/16 - 24 UNF	1.5P	H7	90	35	1625056217	0.2912	0.2955	H7	H5
	2.5P	H5			1625056245				
	4.5P	H7			1625056249				
3/8 - 16 UNC	1.5P	H7	100	40	1625038117	0.3431	0.3495	H7	H5
	2.5P	H5			1625038165				
	4.5P	H7			1625038167				
3/8 - 24 UNF	1.5P	H7	100	40	1625038147	0.3537	0.3580	H7	H5
	2.5P	H5			1625038217				
	4.5P	H7			1625038245				
7/16 - 14 UNC	1.5P	H7	100	43	1625038247	0.4011	0.4084	H7	H5
	2.5P	H5			1625038249				
	4.5P	H7			1625076118				
7/16 - 20 UNF	1.5P	H8	100	43	1625076145	0.4120	0.4171	H8	H5
	2.5P	H5			1625076148				
	4.5P	H8			1625076149				
1/2 - 13 UNC	1.5P	H8	110	49	1625076218	0.4608	0.4686	H8	H5
	2.5P	H5			1625076205				
	4.5P	H8			1625076208				
1/2 - 20 UNF	1.5P	H8	100	49	1625076248	0.4745	0.4796	H8	H5
	2.5P	H5			1625012118				
	4.5P	H8			1625012135				
9/16 - 12 UNC	1.5P	H8	110	50	1625012138	0.5200	0.5280	H10	H7
	2.5P	H5			1625012148				
	4.5P	H8			1625012218				
9/16 - 18 UNF	1.5P	H7	100	50	1625012205	0.5342	0.5398	H10	H7
	2.5P	H5			1625012208				
	4.5P	H8			1625091117				
5/8 - 11 UNC	1.5P	H7	110	54	1625091127	0.5787	0.5879	H10	H7
	2.5P	H5			1625096120				
	4.5P	H7			1625096127				
5/8 - 18 UNF	1.5P	H10	100	54	1625096147	0.5967	0.6023	H10	H7
	2.5P	H5			1625096180				
	4.5P	H10			1625096187				

Packed: 1 pc.
Available V coating only.

continued on next page



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
16250	☒	☒	☒	☒	☒	☒	☒	☒		☒	☒	☐	☐	☒	☐		
SFM	50-115	50-115	50-85	50-85	20-65	15-40	15-35	10-30		65-115	65-90	8-12	8-15	50-100	8-25		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☒ best



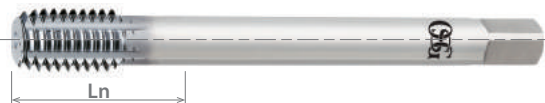


List 16250 (Continued) **NEW SIZES**

HSS-CO

V

DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	2B	3B
3/4 - 10 UNC	1.5P	H10	125	62	1625034110	0.6990	0.7092	H10	H7
	2.5P	H7			1625034107				
		H10			1625034100				
	4.5P	H10			1625034140				
3/4 - 16 UNF	1.5P	H10	110	62	1625034610	0.7181	0.7245	H10	H7
	2.5P	H7			1625034167				
		H10			1625034160				
	4.5P	H10			1625034640				
7/8 - 9 UNC	1.5P	H11	140	67	1625078911	0.8183	0.8297	H11	H8
	2.5P	H8			1625078908				
		H11			1625078901				
	4.5P	H11			1625078941				
7/8 - 14 UNF	1.5P	H11	125	67	1625078111	0.8386	0.8459	H11	H8
	2.5P	H8			1625078148				
		H11			1625078141				
	4.5P	H11			1625078149				
1" - 8 UNC	1.5P	H11	160	76	1625018111	0.9363	0.949	H11	H8
	2.5P	H8			1625001088				
		H11			1625001081				
	4.5P	H11			1625018411				
1" - 12 UNF	1.5P	H11	140	76	1625011211	0.9575	0.9660	H11	H8
	2.5P	H8			1625001128				
		H11			1625001121				
	4.5P	H11			1625011241				
1 1/8 - 7 UNC	2.5P	H13	180	72	1625011878	1.0521	1.0667	H13	—
1 1/8 - 8 UNS	2.5P	H11	180	72	1625011888	1.0613	1.074	H11	—
1 1/8 - 12 UNF	2.5P	H11	150	60	1625011826	1.0825	1.091	H11	—
1 1/4 - 7 UNC	2.5P	H13	180	72	1625012578	1.1771	1.1917	H13	—
1 1/4 - 8 UNS	2.5P	H11	180	72	1625012588	1.1863	1.199	H11	—
1 1/4 - 12 UNF	2.5P	H11	150	60	1625012526	1.2075	1.216	H11	—
1 3/8 - 6 UNC	2.5P	H14	200	80	1625013768	1.29	1.307	H14	—
1 3/8 - 8 UNS	2.5P	H13	200	80	1625013788	1.3113	1.324	H13	—
1 3/8 - 12 UNF	2.5P	H14	170	68	1625013126	1.3325	1.341	H11	—
1 1/2 - 6 UNC	2.5P	H15	200	80	1625011268	1.415	1.432	H15	—
1 1/2 - 8 UNS	2.5P	H13	200	80	1625011288	1.4363	1.449	H13	—
1 1/2 - 12 UNF	2.5P	H11	170	68	1625012126	1.4575	1.466	H11	—
1 5/8 - 8 UNS	2.5P	H13	200	80	1625016288	1.5613	1.574	H13	—
1 3/4 - 5 UNC	2.5P	H16	220	88	1625017558	1.648	1.6684	H16	—
1 3/4 - 8 UNS	2.5P	H13	200	80	1625017588	1.6863	1.699	H13	—

Packed: 1 pc.

Available V coating only.

EP

Work Material

List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
16250	☐	☐	☐	☐	☐	☐*	☐*	☐*		☐	☐	☐	☐	☐	☐		
SFM	50-115	50-115	50-85	50-85	20-65	15-40	15-35	10-30		65-115	65-90	8-12	8-15	50-100	8-25		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☐ best





List 16350 **NEW SIZES**



DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	6H	4H
M1 x 0.25	1.5P	D5	40	6	1635012515	0.88	0.90	D5	D3
	2.5P	D5			1635012525				
	4.5P	D5			1635012545				
M1.2 x 0.35	1.5P	D5	40	7	1635012215	1.08	1.10	D5	D3
	2.5P	D5			1635012225				
	4.5P	D5			1635012245				
M1.4 x 0.3	1.5P	D5	40	8	1635014315	1.26	1.28	D5	D3
	2.5P	D5			1635014325				
	4.5P	D5			1635014345				
M1.6 x 0.35	1.5P	D5	40	9	1635016315	1.42	1.46	D5	D3
	2.5P	D3			1635016353				
	4.5P	D5			1635016355				
M1.7 x 0.35	1.5P	D5	40	9	1635017315	1.52	1.56	D5	D3
	2.5P	D3			1635017353				
	4.5P	D5			1635017355				
M1.8 X 0.35	1.5P	D5	40	9	1635017345	1.62	1.66	D5	D3
	2.5P	D3			1635018315				
	4.5P	D5			1635018353				
M2 x 0.4	1.5P	D5	45	9	1635018355	1.80	1.84	D5	D3
	2.5P	D3			1635024155				
	4.5P	D5			1635002043				
M2.5 x 0.45	1.5P	D5	50	11	1635002045	2.27	2.32	D5	D3
	2.5P	D3			1635025415				
	4.5P	D5			1635025453				
M2.6 x 0.45	1.5P	D5	50	11	1635025455	2.38	2.42	D5	D3
	2.5P	D5			1635025445				
	4.5P	D5			1635026415				
M3 x 0.5	1.5P	D5	56	19	1635026425	2.75	2.80	D5	D3
	2.5P	D3			1635030515				
	4.5P	D5			1635003053				
M3 x 0.35	1.5P	D5	56	19	1635003055	2.83	2.89	D5	D3
	2.5P	D3			1635030545				
	4.5P	D5			1635033515				

Packed: 1 pc.
Available V coating only.

continued on next page

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
16350	☐	☐	☐	☐	☐	☐*	☐*	☐*		☐	☐	☐	☐	☐	☐		
SFM	50-115	50-115	50-85	50-85	20-65	15-40	15-35	10-30		65-115	65-90	8-12	8-15	50-100	8-25		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☐ best



**List 16350 (Continued) NEW SIZES**

DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	6H	4H
M3.5 x 0.6	1.5P	D6	56	21	1635035616	3.19	3.26	D6	D4
	2.5P	D4			1635035064				
	4.5P	D6			1635035066				
M4 x 0.7	1.5P	D6	63	22	1635040716	3.64	3.71	D6	D4
	2.5P	D4			1635004074				
	4.5P	D6			163504076				
M4 x 0.5	1.5P	D6	63	22	1635040516	3.75	3.80	D6	D4
	2.5P	D4			1635004054				
	4.5P	D6			163504056				
M4.5 x 0.75	1.5P	D6	70	27	1635045716	4.13	4.19	D6	D4
	2.5P	D4			1635045754				
	4.5P	D6			1635045756				
M5 x 0.8	1.5P	D7	70	27	1635050817	4.59	4.67	D6	D4
	2.5P	D4			1635005084				
	4.5P	D7			1635005087				
M5 x 0.5	1.5P	D5	70	27	1635050515	4.75	4.80	D5	D3
	2.5P	D3			1635005053				
	4.5P	D5			1635005055				
M6 x 1.0	1.5P	D8	80	32	1635060118	5.49	5.59	D8	D5
	2.5P	D5			1635006015				
	4.5P	D8			1635006018				
M6 X 0.75	1.5P	D7	80	32	1635067517	5.62	5.69	D6	D4
	2.5P	D4			1635006754				
	4.5P	D7			1635006757				
M7 x 1.0	1.5P	D8	80	30	1635070118	6.49	6.59	D8	D5
	2.5P	D5			1635007015				
	4.5P	D8			1635007018				
M8 x 1.25	1.5P	D9	90	35	1635081219	7.36	7.49	D9	D5
	2.5P	D5			1635008255				
	4.5P	D9			1635008259				
M8 x 1.0	1.5P	D8	90	35	1635080118	7.49	7.59	D8	D5
	2.5P	D5			1635008015				
	4.5P	D8			1635008018				
M8 x 0.75	1.5P	D7	80	30	1635087517	7.62	7.69	D6	D4
	2.5P	D4			1635008754				
	4.5P	D7			1635008757				

Packed: 1 pc.
Available V coating only.



List 16350 (Continued) **NEW SIZES**



DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)

Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	6H	4H
M10 x 1.5	1.5P	D10	100	39	1635010110	9.24	9.39	D10	D6
	2.5P	D6			1635010156				
		D10			1635010150				
	4.5P	D10			1635010140				
M10 x 1.25	1.5P	D9	100	39	1635010119	9.36	9.49	D9	D5
	2.5P	D5			1635010255				
		D9			1635010259				
	4.5P	D9			1635010149				
M10 x 1.0	1.5P	D8	90	35	1635010118	9.49	9.59	D8	D5
	2.5P	D5			1635010015				
		D8			1635010018				
	4.5P	D8			1635010148				
M12 x 1.75	1.5P	D11	110	49	1635012171	11.11	11.23	D11	D6
	2.5P	D6			1635012756				
		D11			1635012751				
	4.5P	D11			1635012541				
M12 x 1.5	1.5P	D11	100	49	1635012111	11.24	11.39	D11	D6
	2.5P	D6			1635012156				
		D11			1635012151				
	4.5P	D11			1635012141				
M12 x 1.25	1.5P	D10	100	49	1635012210	11.36	11.49	D10	D6
	2.5P	D10			1635012220				
		D10			1635012240				
	4.5P	D10			1635012110				
M12 x 1.0	1.5P	D10	100	49	1635012110	11.49	11.59	D10	D6
	2.5P	D10			1635012120				
		D10			1635012140				
	4.5P	D10			1635012140				
M14 x 2.0	1.5P	D12	110	50	1635014212	12.98	13.18	D12	D7
	2.5P	D7			1635014027				
		D12			1635014022				
	4.5P	D12			1635014242				
M14 x 1.5	1.5P	D11	100	50	1635014511	13.24	13.39	D11	D6
	2.5P	D6			1635014156				
		D11			1635014151				
	4.5P	D11			1635014541				
M16 x 2.0	1.5P	D12	110	54	1635016212	14.98	15.18	D12	D7
	2.5P	D7			1635016207				
		D12			1635016202				
	4.5P	D12			1635016242				
M16 x 1.5	1.5P	D11	100	54	1635016111	15.24	15.39	D11	D6
	2.5P	D6			1635016156				
		D11			1635016151				
	4.5P	D11			1635016141				
M18 x 2.5	1.5P	D12	125	55	1635018212	16.73	16.98	D12	D7
	2.5P	D7			1635018257				
		D12			1635018252				
	4.5P	D12			1635018242				

Packed: 1 pc.
Available V coating only.

continued on next page

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
16350	☐	☐	☐	☐	☐	☐*	☐*	☐*		☐	☐	☐	☐	☐	☐		
SFM	50-115	50-115	50-85	50-85	20-65	15-40	15-35	10-30		65-115	65-90	8-12	8-15	50-100	8-25		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☐ best





HSS-CO

V

List 16350 (Continued) **NEW SIZES**

DIN Overall Length, Bottom (1.5P-2P), Modified Bottom (2.5P-3P), Plug (4P-4.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	6H	4H
M18 x 1.5	1.5P	D11	110	55	1635018111	17.24	17.39	D11	D6
	2.5P	D6			1635018156				
	4.5P	D11			1635018151				
M20 x 2.5	1.5P	D12	140	61	1635018141	18.73	18.98	D12	D7
	2.5P	D7			1635020212				
	4.5P	D12			1635020257				
M20 x 1.5	1.5P	D11	125	61	1635020252	19.24	19.39	D11	D6
	2.5P	D6			1635020242				
	4.5P	D11			1635020111				
M22 x 2.5	1.5P	D12	140	67	1635020156	20.73	20.98	D12	D7
	2.5P	D12			1635020151				
	4.5P	D12			1635020141				
M22 x 2.0	1.5P	D12	140	67	1635022512	20.98	21.18	D12	D7
	2.5P	D12			1635022522				
	4.5P	D12			1635022542				
M22 x 1.5	1.5P	D11	125	67	1635022212	21.24	21.39	D11	D6
	2.5P	D11			1635022111				
	4.5P	D11			1635022121				
M24 x 3	1.5P	D15	160	68	1635022141	22.47	22.78	D15	D9
	2.5P	D15			1635024315				
	4.5P	D15			1635024325				
M24 x 2.0	1.5P	D13	140	68	1635024345	22.98	23.18	D13	-
	2.5P	D13			1635024123				
	4.5P	D13			1635024223				
M24 x 1.5	1.5P	D11	140	68	1635024243	23.24	23.39	D11	-
	2.5P	D11			1635024111				
	4.5P	D11			1635024121				
M27 x 3.0	2.5P	D15	160	64	1635024141	22.47	22.78	D15	-
M30 x 3.5	2.5P	D15	180	72	1635027039	28.22	28.57	D15	-
M33 x 3.5	2.5P	D16	180	72	1635030350	31.22	31.57	D16	-
M36 x 4.0	2.5P	D17	200	80	1635033350	33.96	34.37	D17	-
M42 x 4.5	2.5P	D17	200	80	1635036411	39.71	40.16	D17	-
M45 x 4.5	2.5P	D17	220	88	1635042451	42.71	43.16	D17	-

Packed: 1 pc.

Available V coating only.

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
16350	☐	☐	☐	☐	☐	☐*	☐*	☐*		☐	☐	☐	☐	☐	☐		
SFM	50-115	50-115	50-85	50-85	20-65	15-40	15-35	10-30		65-115	65-90	8-12	8-15	50-100	8-25		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☐ best





List 16255 **NEW!**

HSS-CO V

Long Shank, Modified Bottom (2.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	2B	3B
5 - 40 UNC	2.5P	H5	80	19	1625554025	0.1123	0.1148	H5	H3
			120		1625554255				
5 - 44 UNF	2.5P	H5	80	19	1625554425	0.1134	0.1157	H5	H3
			120		1625554205				
6 - 32 UNC	2.5P	H5	80	21	1625563225	0.1221	0.1252	H5	H3
			120		1625563255				
6 - 40 UNF	2.5P	H5	80	21	1625564025	0.1253	0.1278	H5	H3
			120		1625564255				
8 - 32 UNC	2.5P	H5	80	22	1625583225	0.1481	0.1512	H5	H3
			120		1625583255				
8 - 36 UNF	2.5P	H5	80	22	1625583625	0.1498	0.1526	H5	H3
			120		1625586255				
10 - 24 UNC	2.5P	H6	100	25	1625510226	0.1688	0.1729	H6	H4
			150		1625510426				
10 - 32 UNF	2.5P	H6	100	26	1625510326	0.1741	0.1772	H6	H4
			150		1625510256				
12 - 24 UNC	2.5P	H7	100	30	1625512227	0.1948	0.1989	H7	H5
			150		1625512427				
12 - 28 UNF	2.5P	H7	100	30	1625512827	0.1978	0.2014	H7	H5
			150		1625512257				
1/4 - 20 UNC	2.5P	H6	100	32	1625514226	0.2245	0.2295	H6	H4
			150		1625514026				
1/4 - 28 UNF	2.5P	H6	100	32	1625514826	0.2318	0.2354	H6	H4
			150		1625514256				
5/16 - 18 UNC	2.5P	H7	110	35	1625551127	0.2842	0.2898	H7	H5
			150		1625556127				
5/16 - 24 UNF	2.5P	H7	110	35	1625551227	0.2912	0.2955	H7	H5
			150		1625551427				
3/8 - 16 UNC	2.5P	H7	120	40	1625538127	0.3431	0.3495	H7	H5
			150		1625538627				
3/8 - 24 UNF	2.5P	H7	120	40	1625538227	0.3537	0.3580	H7	H5
			150		1625538427				
7/16 - 14 UNC	2.5P	H8	120	43	1625571128	0.4011	0.4084	H8	H5
			150		1625576128				
7/16 - 20 UNF	2.5P	H8	120	43	1625571228	0.4120	0.4171	H8	H5
			150		1625576228				
1/2 - 13 UNC	2.5P	H8	150	49	1625512128	0.4608	0.4686	H8	H5
			180		1625512328				

Packed: 1 pc.
Available V coating only.
Shank diameter is standard ANSI.

continued on next page

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
16255	☐	☐	☐	☐	☐	☐*	☐*	☐*		☐	☐	☐	☐	☐	☐		
SFM	50-115	50-115	50-85	50-85	20-65	15-40	15-35	10-30		65-115	65-90	8-12	8-15	50-100	8-25		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☐ best





List 16255 (Continued) **NEW!**

HSS-CO

V

Long Shank, Modified Bottom (2.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	2B	3B
1/2 - 20 UNF	2.5P	H8	150	49	1625512228	0.4745	0.4796	H8	H5
			180		1625512028				
9/16 - 12 UNC	2.5P	H7	150	50	1625591127	0.5200	0.5285	H10	H7
			180		1625591227				
9/16 - 18 UNF	2.5P	H7	150	50	1625591827	0.5342	0.5398	H10	H7
			180		1625596827				
5/8 - 11 UNC	2.5P	H7	150	54	1625558127	0.5787	0.5879	H10	H7
			180		1625558257				
5/8 - 18 UNF	2.5P	H7	150	54	1625558827	0.5967	0.6023	H10	H7
			180		1625551827				
3/4 - 10 UNC	2.5P	H7	180	61	1625534127	0.6990	0.7092	H10	H7
			220		1625534027				
3/4 - 16 UNF	2.5P	H7	180	61	1625534627	0.7181	0.7245	H10	H7
			220		1625531627				
7/8 - 9 UNC	2.5P	H8	180	67	1625579828	0.8183	0.8297	H11	H8
			220		1625575258				
7/8 - 14 UNF	2.5P	H8	180	67	1625578128	0.8386	0.8459	H11	H8
			220		1625578428				
1" - 8 UNC	2.5P	H8	180	76	1625518208	0.9363	0.949	H11	H8
			220		1625518258				
1" - 12 UNF	2.5P	H8	180	76	1625511428	0.9575	0.966	H11	H8
			220		1625514208				

Packed: 1 pc.

Available V coating only.

Shank diameter is standard ANSI.

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
16255	☒	☒	☒	☒	☒	☒	☒	☒		☒	☒	☐	☐	☒	☐		
SFM	50-115	50-115	50-85	50-85	20-65	15-40	15-35	10-30		65-115	65-90	8-12	8-15	50-100	8-25		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☒ best



List 16355 **NEW!**

HSS-CO V

Long Shank, Modified Bottom (2.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	2B	3B
M3 x 0.5	2.5P	D5	80 120	19	1635530525 1635535025	2.75	2.8	D5	D3
M3 x 0.35	2.5P	D5	80 120	19	1635530325 1635533525	2.83	2.89	D5	D3
M3.5 x 0.6	2.5P	D6	80 120	21	1635535226 1635535626	3.19	3.26	D6	D4
M4 x 0.7	2.5P	D6	80 120	22	1635540726 1635547256	3.64	3.71	D6	D4
M4 x 0.5	2.5P	D6	80 120	22	1635540526 1635545256	3.75	3.8	D6	D4
M4.5 x 0.75	2.5P	D6	90 120	27	1635545726 1635545526	4.13	4.19	D6	D4
M5 x 0.8	2.5P	D7	100 150	27	1635550827 1635550257	4.59	4.67	D7	D4
M5 x 0.5	2.5P	D5	100 150	27	1635550525 1635550255	4.75	4.8	D5	D3
M6 x 1.0	2.5P	D8	100 150	32	1635561028 1635561258	5.49	5.59	D8	D5
M6 x 0.75	2.5P	D7	100 150	32	1635560727 1635567527	5.62	5.69	D7	D4
M7 x 1.0	2.5P	D8	100 150	30	1635571258 1635571028	6.49	6.59	D8	D5
M8 x 1.25	2.5P	D9	110 150	35	1635581229 1635582529	7.36	7.49	D9	D5
M8 x 1.0	2.5P	D8	110 150	35	1635581258 1635581028	7.49	7.59	D8	D5
M8 x 0.75	2.5P	D7	110 150	30	1635580727 1635587527	7.62	7.69	D7	D4
M10 x 1.5	2.5P	D10	120 150	39	1635510120 1635510520	9.24	9.39	D10	D6
M10 x 1.25	2.5P	D9	120 150	39	1635510129 1635510229	9.36	9.49	D9	D5
M10 x 1.0	2.5P	D8	120 150	35	1635510128 1635510258	9.49	9.59	D8	D5
M12 x 1.75	2.5P	D11	150 180	49	1635512721 1635512751	11.11	11.23	D11	D6
M12 x 1.5	2.5P	D11	150 180	49	1635512121 1635512251	11.24	11.39	D11	D6

Packed: 1 pc.
Available V coating only.
Shank diameter is standard ANSI.

continued on next page

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
16355	☐	☐	☐	☐	☐	☐*	☐*	☐*		☐	☐	☐	☐	☐	☐		
SFM	50-115	50-115	50-85	50-85	20-65	15-40	15-35	10-30		65-115	65-90	8-12	8-15	50-100	8-25		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☐ best





List 16355 (Continued) **(NEW!)**

HSS-CO

V

Long Shank, Modified Bottom (2.5P)



Tap Size	Lead	Thread Limit	Overall Length	Neck Length	EDP Number	Tap Drill Size		Class of Fit	
				Ln	V	Min	Max	2B	3B
M12 x 1.25	2.5P	D10	150	49	1635512520	11.41	11.49	D10	D6
			180		1635512250				
M12 x 1.0	2.5P	D10	150	49	1635512120	11.52	11.59	D10	D6
			180		1635512210				
M14 x 2.0	2.5P	D12	150	50	1635514222	12.98	13.18	D10	D7
			180		1635514252				
M14 x 1.5	2.5P	D11	150	50	1635514121	13.24	13.39	D11	D6
			180		1635514521				
M16 x 2.0	2.5P	D12	150	54	1635516222	14.98	15.18	D12	D7
			180		1635516252				
M16 x 1.5	2.5P	D11	150	54	1635516121	15.24	15.39	D11	D6
			180		1635516521				
M18 x 2.5	2.5P	D12	150	55	1635518252	16.73	16.98	D12	D7
			180		1635518552				
M18 x 1.5	2.5P	D11	150	55	1635518121	17.24	17.39	D11	D6
			180		1635518521				
M20 x 2.5	2.5P	D12	180	61	1635520252	18.73	18.98	D12	D7
			220		1635520222				
M20 x 1.5	2.5P	D11	180	61	1635520121	19.24	19.39	D11	D6
			220		1635520521				

Packed: 1 pc.

Available V coating only.

Shank diameter is standard ANSI.

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
16355	☐	☐	☐	☐	☐	☐*	☐*	☐*		☐	☐	☐	☐	☐	☐		
SFM	50-115	50-115	50-85	50-85	20-65	15-40	15-35	10-30		65-115	65-90	8-12	8-15	50-100	8-25		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☐ best





List 14050

Bottom (2P-2.5P), Short Bottom (1P-1.5P)



Tap Size	Lead	Thread Limit	EDP Number	Tap Drill Size		Class of Fit	
			V	Min	Max	2B	3B
0 - 80 UNF	1.5P	H2	1405000008	0.0536	0.0549	H3	H2
		H3	1405000108				
	2.5P	H2	1405000208				
		H3	1405000308				
1 - 64 UNC	1.5P	H2	1405000408	0.0650	0.0666	H3	H2
		H3	1405000508				
	2.5P	H2	1405000608				
		H3	1405000708				
2 - 56 UNC	1.5P	H2	1405000808	0.0769	0.0787	H3	H2
		H3	1405000908				
	2.5P	H4	1405001008				
		H2	1405001108				
3 - 48 UNC	1.5P	H3	1405001208	0.0884	0.0905	H3	H2
		H4	1405001308				
	2.5P	H2	1405001408				
		H3	1405001508				
4 - 40 UNC	1.5P	H4	1405001608	0.0993	0.1018	H5	H3
		H5	1405001708				
	2.5P	H3	1405001808				
		H4	1405001908				
5 - 40 UNC	1.5P	H3	1405002008	0.1123	0.1148	H5	H3
		H4	1405002108				
	2.5P	H5	1405002208				
		H3	1405002308				
6 - 32 UNC	1.5P	H4	1405002408	0.1221	0.1253	H5	H3
		H5	1405002508				
	2.5P	H3	1405002608				
		H4	1405002708				

Packed: 1 pc.
Available V coating only.

continued on next page **EXT**

Work Material													
List No.	P					M			K	N		S	H
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium
	Low	Med.	High	4140	4340	300	400	17-4 PH		6061	Casting	Inconel	6Al4V (30 HRC)
	1010	1035	1045	1065	1065	300	400	17-4 PH		7075			
14050	☒	☒	☒	☒	☒	☒	☒	☐		☒	☒		☐
SFM	35-130	20-50	15-30	15-30	15-20	15-50	15-50	15-40		65-150	65-130		10-15

☐ good ☒ best





List 14050

Bottom (2P-2.5P), Short Bottom (1P-1.5P)



VC10

V



Tap Size	Lead	Thread Limit	EDP Number	Tap Drill Size		Class of Fit	
			V	Min	Max	2B	3B
8 - 32 UNC	1.5P	H3	1405004008	0.1481	0.1513	H5	H3
		H4	1405004108				
		H5	1405004208				
	2.5P	H6	1405004308				
		H3	1405004408				
		H4	1405004508				
10 - 24 UNC	1.5P	H5	1405004608	0.1688	0.1730	H6	H4
		H6	1405004708				
		H3	1405004808				
	2.5P	H4	1405004908				
		H5	1405005008				
		H6	1405005108				
10 - 32 UNF	1.5P	H3	1405005208	0.1741	0.1773	H6	H4
		H4	1405005308				
		H5	1405005408				
	2.5P	H6	1405005508				
		H3	1405005608				
		H4	1405005708				
12 - 24 UNC	1.5P	H5	1405005808	0.1948	0.199	H7	H5
		H6	1405005908				
		H3	1405006008				
	2.5P	H4	1405006108				
		H5	1405006208				
		H6	1405006308				
1/4 - 20 UNC	1.5P	H5	1405006408	0.2245	0.2296	H6	H4
		H6	1405006508				
		H7	1405006608				
	2.5P	H5	1405006708				
		H6	1405006808				
		H7	1405006908				
1/4 - 28 UNF	1.5P	H8	1405007008	0.2318	0.2354	H6	H4
		H5	1405007108				
		H6	1405007208				
	2.5P	H5	1405007308				
		H6	1405007408				
		H7	1405007508				
5/16 - 18 UNC	1.5P	H8	1405007608	0.2842	0.2898	H7	H5
		H5	1405007708				
		H6	1405007808				
	2.5P	H7	1405007908				
		H4	1405008008				
		H5	1405008108				
	1.5P	H6	1405008208	0.2842	0.2898	H7	H5
		H7	1405008308				
		H5	1405008408				
	2.5P	H6	1405008508				
		H7	1405008608				
		H8	1405008708				
	1.5P	H9	1405008808				

Packed: 1 pc.
Available V coating only.

EXT





List 14050

Bottom (2P-2.5P), Short Bottom (1P-1.5P)



Tap Size	Lead	Thread Limit	EDP Number	Tap Drill Size		Class of Fit	
			V	Min	Max	2B	3B
5/16 - 18 UNC	2.5P	H5	1405008908	0.2842	0.2898	H7	H5
		H6	1405009008				
		H7	1405009108				
		H8	1405009208				
		H9	1405009308				
5/16 - 24 UNF	1.5P	H4	1405009408	0.2913	0.2955	H7	H5
		H5	1405009508				
		H6	1405009608				
		H7	1405009708				
		H8	1405009808				
	2.5P	H4	1405009908				
		H5	1405010008				
		H6	1405010108				
		H7	1405010208				
		H8	1405010308				
3/8 - 16 UNC	1.5P	H5	1405010408	0.3431	0.3495	H7	H5
		H6	1405010508				
		H7	1405010608				
		H8	1405010708				
		H9	1405010808				
	2.5P	H5	1405010908				
		H6	1405011008				
		H7	1405011108				
		H8	1405011208				
		H9	1405011308				
3/8 - 24 UNF	1.5P	H4	1405011408	0.3538	0.358	H7	H5
		H5	1405011508				
		H6	1405011608				
		H7	1405011708				
		H8	1405011808				
	2.5P	H4	1405011908				
		H5	1405012008				
		H6	1405012108				
		H7	1405012208				
		H8	1405012308				

Packed: 1 pc.
Available V coating only.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting			35-45 HRC	45-50 HRC	50-70 HRC	
	1010 1018	1035 1045	1065			4140 4340	6061 7075			Inconel	6Al4V (30 HRC)						
14050	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐			☐			
SFM	35-130	20-50	15-30	15-30	15-20	15-50	15-50	15-40		65-150	65-130			10-15			

☐ good ☐ best





List 14150

Bottom (2P-2.5P), Short Bottom (1P-1.5P)



Tap Size	Lead	Thread Limit	EDP Number	Tap Drill Size		Class of Fit	
			V	Min	Max	2B	3B
M1.6 x 0.35	2.5P	D3	1415000008	1.42	1.46	D5	D3
		D5	1415000108				
M1.7 x 0.35	2.5P	D3	1415000208	1.52	1.56	D5	D3
		D5	1415000308				
M2 x 0.4	2.5P	D3	1415000408	1.80	1.84	D5	D3
		D5	1415000508				
M2.5 x 0.45	2.5P	D3	1415000608	2.27	2.32	D5	D3
		D5	1415000708				
M2.6 x 0.45	2.5P	D3	1415000808	2.37	2.42	D5	D3
		D5	1415000908				
M3 x 0.5	1.5P	D3	1415001008	2.75	2.80	D5	D3
		D5	1415001108				
	2.5P	D3	1415001208				
		D5	1415001308				
M3.5 x 0.6	1.5P	D4	1415001408	3.19	3.26	D6	D4
		D6	1415001508				
	2.5P	D4	1415001608				
		D6	1415001708				
M4 x 0.7	1.5P	D4	1415001808	3.64	3.71	D6	D4
		D6	1415001908				
	2.5P	D4	1415002008				
		D6	1415002108				
M5 x 0.8	1.5P	D4	1415002208	4.59	4.67	D7	D4
		D7	1415002308				
	2.5P	D4	1415002408				
		D7	1415002508				
M6 x 1.0	1.5P	D5	1415002608	5.49	5.59	D8	D5
		D8	1415002708				
	2.5P	D5	1415002808				
		D8	1415002908				
M8 x 1.25	1.5P	D5	1415003008	7.36	7.49	D9	D5
		D9	1415003108				
	2.5P	D5	1415003208				
		D9	1415003308				
M10 x 1.5	1.5P	D6	1415003808	9.24	9.39	D10	D6
		D10	1415003908				
	2.5P	D6	1415004008				
		D10	1415004108				
M10 x 1.25	1.5P	D5	1415004608	9.36	9.49	D9	D5
		D9	1415004708				
	2.5P	D5	1415004808				
		D9	1415004908				
M10 x 1.0	1.5P	D5	1415003408	9.49	9.59	D9	D5
		D9	1415003508				
	2.5P	D5	1415003608				
		D9	1415003708				

Packed: 1 pc.
Available V coating only.





List 14150 (Continued)

Bottom (2P-2.5P), Short Bottom (1P-1.5P)



Tap Size	Lead	Thread Limit	EDP Number	Tap Drill Size		Class of Fit	
			V	Min	Max	2B	3B
M12 x 1.75	1.5P	D6	1415004208	11.11	11.29	D11	D6
		D11	1415004308				
	2.5P	D6	1415004408				
		D11	1415004508				

Packed: 1 pc.
Available V coating only.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
14150	☒	☒	☒	☒	☒	☒	☒	☐		☒	☒			☐			
SFM	35-130	20-50	15-30	15-30	15-20	15-50	15-50	15-40		65-150	65-130			10-15			

☐ good ☒ best





List 14001

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



HSS-CO

TiCN

TiN

CrN

S/O

BR



Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
0 - 80 UNF	1.5P	H2	1400100000	1400100001	1400100005	1400100006	1400100008	0.0536	0.0549	H3	H2
		H3	1400100100	1400100101	1400100105	-	1400100108				
	2.5P	H2	1400100200	1400100201	1400100205	-	1400100208				
		H3	1400100300	1400100301	1400100305	-	1400100308				
		H4	1400100400	1400100401	1400100405	-	1400100408				
		H5	1400100500	1400100501	1400100505	-	1400100508				
		H6	1400100600	1400100601	-	-	1400100608				
1 - 64 UNC	2.5P	H7	1400100700	1400100701	-	-	1400100708	0.0650	0.0666	H3	H2
		H2	1400100800	1400100801	1400100805	-	1400100808				
		H3	1400100900	1400100901	1400100905	-	1400100908				
		H4	1400101000	1400101001	1400101005	-	1400101008				
		H5	1400101100	1400101101	1400101105	-	1400101108				
		H6	1400101200	1400101201	-	-	1400101208				
		H7	1400101300	1400101301	-	-	1400101308				
1 - 72 UNF	1.5P	H2	1400101400	1400101401	1400101405	-	1400101408	0.0659	0.0673	H3	H2
		H3	1400101500	1400101501	1400101505	-	1400101508				
	2.5P	H2	1400101600	1400101601	1400101605	-	1400101608				
		H3	1400101700	1400101701	1400101705	-	1400101708				
		H4	1400101800	1400101801	1400101805	-	1400101808				
		H5	1400101900	1400101901	1400101905	-	1400101908				
		H6	1400102000	1400102001	1400102005	-	1400102008				
2 - 56 UNC	1.5P	H7	1400102100	1400102101	-	-	1400102108	0.0769	0.0787	H3	H2
		H2	1400102200	1400102201	1400102205	-	1400102208				
	2.5P	H3	1400102300	1400102301	1400102305	1400102306	1400102308				
		H4	1400102400	1400102401	1400102405	-	1400102408				
		H2	1400102500	1400102501	1400102505	-	1400102508				
		H3	1400102600	1400102601	1400102605	-	1400102608				
		H4	1400102700	1400102701	1400102705	-	1400102708				
2 - 64 UNF	2.5P	H5	1400102800	1400102801	1400102805	-	1400102808	0.0780	0.0796	H3	H2
		H6	1400102900	1400102901	1400102905	-	1400102908				
		H7	1400103000	1400103001	1400103005	-	1400103008				
		H2	1400103100	1400103101	1400103105	-	1400103108				
		H3	1400103200	1400103201	1400103205	-	1400103208				
		H4	1400103300	1400103301	1400103305	-	1400103308				
		H5	1400103400	1400103401	-	-	1400103408				
3 - 48 UNC	2.5P	H6	1400103500	1400103501	-	-	1400103508	0.0884	0.0905	H3	H2
		H7	1400103600	1400103601	-	-	1400103608				
		H8	-	-	-	-	1400157808				
		H9	-	-	-	-	1400157908				
		H2	1400103700	1400103701	1400103705	-	1400103708				
		H3	1400103800	1400103801	1400103805	-	1400103808				
		H4	1400103900	1400103901	1400103905	-	1400103908				
3 - 56 UNF	2.5P	H5	1400104000	1400104001	-	-	1400104008	0.0899	0.0917	H3	H2
		H6	1400104100	1400104101	-	-	1400104108				
		H7	1400104200	1400104201	-	-	1400104208				
		H2	1400104300	1400104301	1400104305	-	1400104308				
		H3	1400104400	1400104401	1400104405	-	1400104408				
		H4	1400104500	1400104501	1400104505	-	1400104508				
		H5	1400104600	1400104601	1400104605	-	1400104608				
		H6	1400104700	1400104701	1400104705	-	1400104708				
		H7	1400104800	1400104801	-	-	1400104808				

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.





List 14001 (Continued)

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



HSS-CO

TiCN

TiN

CrN

S/O

BR

Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
4 - 40 UNC	1.5P	H3	1400104900	1400104901	1400104905	1400104906	1400104908	0.0993	0.1018	H5	H3
		H4	1400105000	1400105001	1400105005	-	1400105008				
		H5	1400105100	1400105101	1400105105	-	1400105108				
		H6	1400157300	1400157301	1400157305	-	1400157308				
		H7	1400157400	1400157401	1400157405	-	1400157408				
	2.5P	H2	1400105200	1400105201	1400105205	-	1400105208				
		H3	1400105300	1400105301	1400105305	1400105306	1400105308				
		H4	1400105400	1400105401	1400105405	-	1400105408				
		H5	1400105500	1400105501	1400105505	-	1400105508				
		H6	1400105600	1400105601	1400105605	-	1400105608				
		H7	1400105700	1400105701	1400105705	-	1400105708				
		H8	-	-	-	-	1400158008				
		H9	-	-	-	-	1400158108				
		H10	-	-	-	-	1400158208				
		H14	-	-	-	-	1400159808				
	4.5P	H2	1400105800	1400105801	1400105805	-	1400105808				
		H3	1400105900	1400105901	1400105905	-	1400105908				
		H4	1400106000	1400106001	1400106005	-	1400106008				
		H5	1400106100	1400106101	1400106105	-	1400106108				
		H6	1400106200	1400106201	1400106205	-	1400106208				
		H7	1400106300	1400106301	1400106305	-	1400106308				
4 - 48 UNF	2.5P	H2	1400106400	1400106401	1400106405	-	1400106408	0.1014	0.1035	H5	H3
		H3	1400106500	1400106501	1400106505	-	1400106508				
		H4	1400106600	1400106601	1400106605	-	1400106608				
		H5	1400106700	1400106701	1400106705	-	1400106708				
		H6	1400106800	1400106801	-	-	1400106808				
		H7	1400106900	1400106901	-	-	1400106908				
		H2	1400107000	1400107001	1400107005	-	1400107008				
	4.5P	H3	1400107100	1400107101	1400107105	-	1400107108				
		H4	1400107200	1400107201	-	-	1400107208				
		H5	1400107300	1400107301	-	-	1400107308				
		H6	1400107400	1400107401	-	-	1400107408				
		H7	1400107500	1400107501	-	-	1400107508				
5 - 40 UNC	2.5P	H2	1400107600	1400107601	-	-	1400107608	0.1123	0.1148	H5	H3
		H3	1400107700	1400107701	1400107705	-	1400107708				
		H4	1400107800	1400107801	-	-	1400107808				
		H5	1400107900	1400107901	1400107905	-	1400107908				
		H6	1400108000	1400108001	1400108005	-	1400108008				
		H7	1400108100	1400108101	1400108105	-	1400108108				
	4.5P	H2	1400108200	1400108201	1400108205	-	1400108208				
		H3	1400108300	1400108301	1400108305	-	1400108308				
		H4	1400108400	1400108401	1400108405	-	1400108408				
		H5	1400108500	1400108501	1400108505	-	1400108508				
		H6	1400108600	1400108601	1400108605	-	1400108608				
		H7	1400108700	1400108701	1400108705	-	1400108708				

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.

continued on next page



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
14001	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐			☐			
SFM	35-100	20-50	15-25	15-25	15-20	15-40	15-40	10-25		50-90	45-100			10-15			

☐ good ☐ best





List 14001 (Continued)

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
5 - 44 UNF	2.5P	H2	1400108800	1400108801	1400108805	—	1400108808	0.1135	0.1157	H5	H3
		H3	1400108900	1400108901	1400108905	—	1400108908				
		H4	1400109000	1400109001	1400109005	—	1400109008				
		H5	1400109100	1400109101	1400109105	—	1400109108				
		H6	1400109200	1400109201	1400109205	—	1400109208				
		H7	1400109300	1400109301	1400109305	—	1400109308				
		H2	1400109400	1400109401	1400109405	—	1400109408				
	4.5P	H3	1400109500	1400109501	1400109505	—	1400109508				
		H4	1400109600	1400109601	1400109605	—	1400109608				
		H5	1400109700	1400109701	1400109705	—	1400109708				
		H6	1400109800	1400109801	1400109805	—	1400109808				
		H7	1400109900	1400109901	1400109905	—	1400109908				
6 - 32 UNC	1.5P	H3	1400110000	1400110001	1400110005	—	1400110008	0.1221	0.1253	H5	H3
		H4	1400110100	1400110101	1400110105	—	1400110108				
		H5	1400110200	1400110201	1400110205	1400110206	1400110208				
		H6	1400157500	1400157501	—	—	—				
		H7	1400157600	1400157601	—	—	—				
		H8	1400157700	1400157701	—	—	—				
	2.5P	H2	1400110300	1400110301	1400110305	—	1400110308				
		H3	1400110400	1400110401	1400110405	1400110406	1400110408				
		H4	1400110500	1400110501	1400110505	—	1400110508				
		H5	1400110600	1400110601	1400110605	1400110606	1400110608				
		H6	1400110700	1400110701	1400110705	—	1400110708				
		H7	1400110800	1400110801	1400110805	—	1400110808				
		H8	1400110900	1400110901	1400110905	—	1400110908				
		H9	1400111000	1400111001	1400111005	—	1400111008				
		H10	1400111100	1400111101	1400111105	—	1400111108				
		H11	—	—	—	—	1400158308				
		H12	—	—	—	—	1400158408				
		H14	—	—	—	—	1400159908				
	4.5P	H2	1400111200	1400111201	1400111205	—	1400111208				
		H3	1400111300	1400111301	1400111305	—	1400111308				
		H4	1400111400	1400111401	1400111405	—	1400111408				
		H5	1400111500	1400111501	1400111505	—	1400111508				
		H6	1400111600	1400111601	1400111605	—	1400111608				
		H7	1400111700	1400111701	1400111705	—	1400111708				
		H8	1400111800	1400111801	1400111805	—	1400111808				
		H9	1400111900	1400111901	1400111905	—	1400111908				
		H10	1400112000	1400112001	1400112005	—	1400112008				
6 - 40 UNF	2.5P	H2	1400112100	1400112101	1400112105	—	1400112108	0.1253	0.1278	H5	H3
		H3	1400112200	1400112201	1400112205	—	1400112208				
		H4	1400112300	1400112301	1400112305	—	1400112308				
		H5	1400112400	1400112401	1400112405	—	1400112408				
		H6	1400112500	1400112501	1400112505	—	1400112508				
		H7	1400112600	1400112601	1400112605	—	1400112608				
		H8	1400112700	1400112701	1400112705	—	1400112708				
		H9	1400112800	1400112801	1400112805	—	1400112808				
		H10	1400112900	1400112901	1400112905	—	1400112908				
	4.5P	H2	1400113000	1400113001	1400113005	—	1400113008				
		H3	1400113100	1400113101	1400113105	—	1400113108				

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.





List 14001 (Continued)



HSS-CO

TiCN

TiN

CrN

S/O

BR

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)

Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
6 - 40 UNF	4.5P	H4	1400113200	1400113201	1400113205	—	1400113208	0.1253	0.1278	H5	H3
		H5	1400113300	1400113301	1400113305	—	1400113308				
		H6	1400113400	1400113401	1400113405	—	1400113408				
		H7	1400113500	1400113501	1400113505	—	1400113508				
		H8	1400113600	1400113601	1400113605	—	1400113608				
		H9	1400113700	1400113701	1400113705	—	1400113708				
		H10	1400113800	1400113801	1400113805	—	1400113808				
8 - 32 UNC	1.5P	H3	1400113900	1400113901	1400113905	—	1400113908	0.1481	0.1513	H5	H3
		H4	1400114000	1400114001	1400114005	—	1400114008				
		H5	1400114100	1400114101	1400114105	1400114106	1400114108				
	2.5P	H2	1400114200	1400114201	1400114205	—	1400114208				
		H3	1400114300	1400114301	1400114305	—	1400114308				
		H4	1400114400	1400114401	1400114405	—	1400114408				
		H5	1400114500	1400114501	1400114505	1400114506	1400114508				
		H6	1400114600	1400114601	1400114605	—	1400114608				
		H7	1400114700	1400114701	1400114705	—	1400114708				
		H8	1400114800	1400114801	1400114805	—	1400114808				
		H9	1400114900	1400114901	1400114905	—	1400114908				
		H10	1400115000	1400115001	1400115005	—	1400115008				
		H11	—	—	—	—	1400158508				
		H12	—	—	—	—	1400158608				
		H14	—	—	—	—	1400160008				
	4.5P	H2	1400115100	1400115101	1400115105	—	1400115108				
		H3	1400115200	1400115201	1400115205	—	1400115208				
		H4	1400115300	1400115301	1400115305	—	1400115308				
		H5	1400115400	1400115401	1400115405	—	1400115408				
		H6	1400115500	1400115501	1400115505	—	1400115508				
		H7	1400115600	1400115601	1400115605	—	1400115608				
		H8	1400115700	1400115701	1400115705	—	1400115708				
		H9	1400115800	1400115801	1400115805	—	1400115808				
		H10	1400115900	1400115901	1400115905	—	1400115908				
8 - 36 UNF	2.5P	H2	1400116000	1400116001	1400116005	—	1400116008	0.1498	0.1527	H5	H3
		H3	1400116100	1400116101	1400116105	—	1400116108				
		H4	1400116200	1400116201	1400116205	—	1400116208				
		H5	1400116300	1400116301	1400116305	—	1400116308				
		H6	1400116400	1400116401	1400116405	—	1400116408				
		H7	1400116500	1400116501	1400116505	—	1400116508				
		H8	1400116600	1400116601	1400116605	—	1400116608				
		H9	1400116700	1400116701	1400116705	—	1400116708				
		H10	1400116800	1400116801	1400116805	—	1400116808				
	4.5P	H2	1400116900	1400116901	1400116905	—	1400116908				
		H3	1400117000	1400117001	1400117005	—	1400117008				
		H4	1400117100	1400117101	1400117105	—	1400117108				
		H5	1400117200	1400117201	1400117205	—	1400117208				
		H6	1400117300	1400117301	1400117305	—	1400117308				

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.

continued on next page



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065							4140 4340	7075			(30 HRC)			
14001	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐			☐			
SFM	35-100	20-50	15-25	15-25	15-20	15-40	15-40	10-25		50-90	45-100			10-15			

☐ good ☐ best





List 14001 (Continued)

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
8 - 36 UNF	4.5P	H7	1400117400	1400117401	1400117405	—	1400117408	0.1498	0.1527	H5	H3
		H8	1400117500	1400117501	1400117505	—	1400117508				
		H9	1400117600	1400117601	1400117605	—	1400117608				
		H10	1400117700	1400117701	1400117705	—	1400117708				
10 - 24 UNC	1.5P	H3	1400117800	1400117801	1400117805	—	1400117808	0.1688	0.1730	H6	H4
		H4	1400117900	1400117901	1400117905	—	1400117908				
		H5	1400118000	1400118001	1400118005	—	1400118008				
		H6	1400157100	1400157101	1400157105	—	1400157108				
	2.5P	H2	1400118100	1400118101	1400118105	—	1400118108				
		H3	1400118200	1400118201	1400118205	—	1400118208				
		H4	1400118300	1400118301	1400118305	—	1400118308				
		H5	1400118400	1400118401	1400118405	—	1400118408				
		H6	1400118500	1400118501	1400118505	—	1400118508				
	4.5P	H7	1400118600	1400118601	1400118605	—	1400118608				
		H8	1400118700	1400118701	1400118705	—	1400118708				
		H9	1400118800	1400118801	1400118805	—	1400118808				
		H10	1400118900	1400118901	1400118905	—	1400118908				
		H2	1400119000	1400119001	1400119005	—	1400119008				
		H3	1400119100	1400119101	1400119105	—	1400119108				
		H4	1400119200	1400119201	1400119205	—	1400119208				
		H5	1400119300	1400119301	1400119305	—	1400119308				
		H6	1400119400	1400119401	1400119405	—	1400119408				
		H7	1400119500	1400119501	1400119505	—	1400119508				
10 - 32 UNF	1.5P	H8	1400119600	1400119601	1400119605	—	1400119608				
		H9	1400119700	1400119701	1400119705	—	1400119708				
		H10	1400119800	1400119801	1400119805	—	1400119808				
	2.5P	H3	1400119900	1400119901	1400119905	—	1400119908				
		H4	1400120000	1400120001	1400120005	—	1400120008				
		H5	1400120100	1400120101	1400120105	—	1400120108				
		H6	1400157200	1400157201	1400157205	—	1400157208				
		H2	1400120200	1400120201	1400120205	—	1400120208				
		H3	1400120300	1400120301	1400120305	—	1400120308				
		H4	1400120400	1400120401	1400120405	1400120406	1400120408				
		H5	1400120500	1400120501	1400120505	1400120506	1400120508				
		H6	1400120600	1400120601	1400120605	—	1400120608				
		H7	1400120700	1400120701	1400120705	1400120706	1400120708				
	4.5P	H8	1400120800	1400120801	1400120805	—	1400120808				
		H9	1400120900	1400120901	1400120905	—	1400120908				
		H10	1400121000	1400121001	1400121005	—	1400121008				
		H11	—	—	—	—	1400158708				
		H12	—	—	—	—	1400158808				
		H14	—	—	—	—	1400160108				
		H2	1400121100	1400121101	1400121105	—	1400121108				
		H3	1400121200	1400121201	1400121205	—	1400121208				
		H4	1400121300	1400121301	1400121305	—	1400121308				
		H5	1400121400	1400121401	1400121405	—	1400121408				
		H6	1400121500	1400121501	1400121505	—	1400121508				
		H7	1400121600	1400121601	1400121605	—	1400121608				
		H8	1400121700	1400121701	1400121705	—	1400121708				
		H9	1400121800	1400121801	1400121805	—	1400121808				
		H10	1400121900	1400121901	1400121905	—	1400121908				

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.





List 14001 (Continued)



HSS-CO

TiCN

TiN

CrN

S/O

BR

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)

Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
12 - 24 UNC	2.5P	H2	1400122000	1400122001	1400122005	—	1400122008	0.1948	0.1990	H7	H5
		H3	1400122100	1400122101	1400122105	—	1400122108				
		H4	1400122200	1400122201	1400122205	—	1400122208				
		H5	1400122300	1400122301	1400122305	—	1400122308				
		H6	1400122400	1400122401	1400122405	—	1400122408				
		H7	1400122500	1400122501	1400122505	—	1400122508				
		H8	1400122600	1400122601	1400122605	—	1400122608				
		H9	1400122700	1400122701	1400122705	—	1400122708				
		H10	1400122800	1400122801	1400122805	—	1400122808				
	4.5P	H2	1400122900	1400122901	1400122905	—	1400122908				
		H3	1400123000	1400123001	1400123005	—	1400123008				
		H4	1400123100	1400123101	1400123105	—	1400123108				
		H5	1400123200	1400123201	1400123205	—	1400123208				
		H6	1400123300	1400123301	1400123305	—	1400123308				
		H7	1400123400	1400123401	1400123405	—	1400123408				
		H8	1400123500	1400123501	1400123505	—	1400123508				
		H9	1400123600	1400123601	1400123605	—	1400123608				
		H10	1400123700	1400123701	1400123705	—	1400123708				
12 - 28 UNF	2.5P	H2	1400123800	1400123801	1400123805	—	1400123808	0.1978	0.2014	H7	H5
		H3	1400123900	1400123901	1400123905	—	1400123908				
		H4	1400124000	1400124001	1400124005	—	1400124008				
		H5	1400124100	1400124101	1400124105	—	1400124108				
		H6	1400124200	1400124201	1400124205	—	1400124208				
		H7	1400124300	1400124301	1400124305	—	1400124308				
		H8	1400124400	1400124401	1400124405	—	1400124408				
		H9	1400124500	1400124501	1400124505	—	1400124508				
		H10	1400124600	1400124601	1400124605	—	1400124608				
	4.5P	H2	1400124700	1400124701	1400124705	—	1400124708				
		H3	1400124800	1400124801	1400124805	—	1400124808				
		H4	1400124900	1400124901	1400124905	—	1400124908				
		H5	1400125000	1400125001	1400125005	—	1400125008				
		H6	1400125100	1400125101	1400125105	—	1400125108				
		H7	1400125200	1400125201	1400125205	—	1400125208				
		H8	1400125300	1400125301	1400125305	—	1400125308				
		H9	1400125400	1400125401	1400125405	—	1400125408				
		H10	1400125500	1400125501	1400125505	—	1400125508				
1/4 - 20 UNC	1.5P	H5	1400125600	1400125601	1400125605	—	1400125608	0.2245	0.2296	H6	H4
		H6	1400125700	1400125701	1400125705	1400125706	1400125708				
		H7	1400125800	1400125801	1400125805	—	1400125808				
		H8	1400125900	1400125901	1400125905	—	1400125908				
	2.5P	H2	1400126000	1400126001	1400126005	—	1400126008				
		H3	1400126100	1400126101	1400126105	1400126106	1400126108				
		H4	1400126200	1400126201	1400126205	—	1400126208				
		H5	1400126300	1400126301	1400126305	1400126306	1400126308				
		H6	1400126400	1400126401	1400126405	—	1400126408				

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.

continued on next page



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340					7075			(30 HRC)			
14001																	
SFM	35-100	20-50	15-25	15-25	15-20	15-40	15-40	10-25		50-90	45-100			10-15			

☐ good ☐ best





List 14001 (Continued)

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



HSS-CO

TiCN

TiN

CrN

S/O

BR



Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
1/4 - 20 UNC	2.5P	H7	1400126500	1400126501	1400126505	—	1400126508	0.2245	0.2296	H6	H4
		H8	1400126600	1400126601	1400126605	—	1400126608				
		H9	1400126700	1400126701	1400126705	—	1400126708				
		H10	1400126800	1400126801	1400126805	—	1400126808				
		H11	—	—	—	—	1400158908				
		H12	—	—	—	—	1400159008				
		H13	—	—	—	—	1400159108				
	4.5P	H2	1400126900	1400126901	1400126905	—	1400126908				
		H3	1400127000	1400127001	1400127005	—	1400127008				
		H4	1400127100	1400127101	1400127105	—	1400127108				
		H5	1400127200	1400127201	1400127205	—	1400127208				
		H6	1400127300	1400127301	1400127305	—	1400127308				
		H7	1400127400	1400127401	1400127405	—	1400127408				
		H8	1400127500	1400127501	1400127505	—	1400127508				
1/4 - 28 UNF	1.5P	H4	1400127800	1400127801	1400127805	—	1400127808	0.2318	0.2354	H6	H4
		H5	1400127900	1400127901	1400127905	—	1400127908				
		H6	1400128000	1400128001	1400128005	—	1400128008				
		H7	1400128100	1400128101	1400128105	—	1400128108				
		H2	1400128200	1400128201	1400128205	—	1400128208				
	2.5P	H3	1400128300	1400128301	1400128305	—	1400128308				
		H4	1400128400	1400128401	1400128405	—	1400128408				
		H5	1400128500	1400128501	1400128505	—	1400128508				
		H6	1400128600	1400128601	1400128605	—	1400128608				
		H7	1400128700	1400128701	1400128705	—	1400128708				
		H8	1400128800	1400128801	1400128805	—	1400128808				
		H9	1400128900	1400128901	1400128905	—	1400128908				
		H10	1400129000	1400129001	1400129005	—	1400129008				
		H11	—	—	—	—	1400159208				
	4.5P	H2	1400129100	1400129101	1400129105	—	1400129108				
		H3	1400129200	1400129201	1400129205	—	1400129208				
		H4	1400129300	1400129301	1400129305	—	1400129308				
		H5	1400129400	1400129401	1400129405	—	1400129408				
		H6	1400129500	1400129501	1400129505	—	1400129508				
		H7	1400129600	1400129601	1400129605	—	1400129608				
		H8	1400129700	1400129701	1400129705	—	1400129708				
		H9	1400129800	1400129801	1400129805	—	1400129808				
		H10	1400129900	1400129901	1400129905	—	1400129908				
5/16 - 18 UNC	1.5P	H6	1400130000	1400130001	1400130005	—	1400130008	0.2842	0.2898	H7	H5
		H7	1400130100	1400130101	1400130105	—	1400130108				
		H8	1400130200	1400130201	1400130205	—	1400130208				
		H9	1400130300	1400130301	1400130305	—	1400130308				
	2.5P	H2	1400130400	1400130401	1400130405	—	1400130408				
		H3	1400130500	1400130501	1400130505	—	1400130508				
		H4	1400130600	1400130601	1400130605	—	1400130608				
		H5	1400130700	1400130701	1400130705	1400130706	1400130708				
		H6	1400130800	1400130801	1400130805	—	1400130808				
		H7	1400130900	1400130901	1400130905	—	1400130908				
		H8	1400131000	1400131001	1400131005	—	1400131008				

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.





List 14001 (Continued)

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



HSS-CO

TiCN

TiN

CrN

S/O

BR

Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
5/16 - 18 UNC	2.5P	H9	1400131100	1400131101	1400131105	—	1400131108	0.2842	0.2898	H7	H5
		H10	1400131200	1400131201	1400131205	—	1400131208				
	4.5P	H2	1400131300	1400131301	1400131305	—	1400131308				
		H3	1400131400	1400131401	1400131405	—	1400131408				
		H4	1400131500	1400131501	1400131505	—	1400131508				
		H5	1400131600	1400131601	1400131605	—	1400131608				
		H6	1400131700	1400131701	1400131705	—	1400131708				
		H7	1400131800	1400131801	1400131805	—	1400131808				
		H8	1400131900	1400131901	1400131905	—	1400131908				
		H9	1400132000	1400132001	1400132005	—	1400132008				
		H10	1400132100	1400132101	1400132105	—	1400132108				
5/16 - 24 UNF	1.5P	H4	1400132200	1400132201	1400132205	—	1400132208	0.2913	0.2955	H7	H5
		H5	1400132300	1400132301	1400132305	—	1400132308				
		H6	1400132400	1400132401	1400132405	—	1400132408				
		H7	1400132500	1400132501	1400132505	—	1400132508				
	2.5P	H8	1400132600	1400132601	1400132605	—	1400132608				
		H2	1400132700	1400132701	1400132705	—	1400132708				
		H3	1400132800	1400132801	1400132805	—	1400132808				
		H4	1400132900	1400132901	1400132905	—	1400132908				
		H5	1400133000	1400133001	1400133005	—	1400133008				
		H6	1400133100	1400133101	1400133105	—	1400133108				
		H7	1400133200	1400133201	1400133205	—	1400133208				
		H8	1400133300	1400133301	1400133305	—	1400133308				
	4.5P	H9	1400133400	1400133401	1400133405	—	1400133408				
		H10	1400133500	1400133501	1400133505	—	1400133508				
		H2	1400133600	1400133601	1400133605	—	1400133608				
		H3	1400133700	1400133701	1400133705	—	1400133708				
		H4	1400133800	1400133801	1400133805	—	1400133808				
		H5	1400133900	1400133901	1400133905	—	1400133908				
		H6	1400134000	1400134001	1400134005	—	1400134008				
		H7	1400134100	1400134101	1400134105	—	1400134108				
		H8	1400134200	1400134201	1400134205	—	1400134208				
		H9	1400134300	1400134301	1400134305	—	1400134308				
		H10	1400134400	1400134401	1400134405	—	1400134408				
		H11	—	—	—	—	1400159308				
		H12	—	—	—	—	1400159408				
3/8 - 16 UNC	1.5P	H5	1400134500	1400134501	1400134505	—	1400134508	0.3431	0.3495	H7	H5
		H6	1400134600	1400134601	1400134605	—	1400134608				
		H7	1400134700	1400134701	1400134705	—	1400134708				
		H8	1400134800	1400134801	1400134805	—	1400134808				
	2.5P	H9	1400134900	1400134901	1400134905	—	1400134908				
		H4	1400135000	1400135001	1400135005	—	1400135008				
		H5	1400135100	1400135101	1400135105	—	1400135108				
		H6	1400135200	1400135201	1400135205	—	1400135208				
		H7	1400135300	1400135301	1400135305	—	1400135308				

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.

continued on next page



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
14001	☐	☐	☐	○	○	○	○	○		☐	☐			○			
SFM	35-100	20-50	15-25	15-25	15-20	15-40	15-40	10-25		50-90	45-100			10-15			

☐ good ☐ best





List 14001 (Continued)

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



HSS-CO

TiCN

TiN

CrN

S/O

BR



Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
3/8 - 16 UNC	2.5P	H8	1400135400	1400135401	1400135405	—	1400135408	0.3431	0.3495	H7	H5
		H9	1400135500	1400135501	1400135505	—	1400135508				
		H10	1400135600	1400135601	1400135605	—	1400135608				
		H11	1400135700	1400135701	1400135705	—	1400135708				
		H12	1400135800	1400135801	1400135805	—	1400135808				
	4.5P	H4	1400135900	1400135901	1400135905	—	1400135908				
		H5	1400136000	1400136001	1400136005	—	1400136008				
		H6	1400136100	1400136101	1400136105	—	1400136108				
		H7	1400136200	1400136201	1400136205	—	1400136208				
		H8	1400136300	1400136301	1400136305	—	1400136308				
		H9	1400136400	1400136401	1400136405	—	1400136408				
		H10	1400136500	1400136501	1400136505	—	1400136508				
		H11	1400136600	1400136601	1400136605	—	1400136608				
		H12	1400136700	1400136701	1400136705	—	1400136708				
3/8 - 24 UNF	1.5P	H4	1400136800	1400136801	1400136805	—	1400136808	0.3538	0.358	H7	H5
		H5	1400136900	1400136901	1400136905	—	1400136908				
		H6	1400137000	1400137001	1400137005	—	1400137008				
		H7	1400137100	1400137101	1400137105	—	1400137108				
		H8	1400137200	1400137201	1400137205	—	1400137208				
	2.5P	H4	1400137300	1400137301	1400137305	—	1400137308				
		H5	1400137400	1400137401	1400137405	—	1400137408				
		H6	1400137500	1400137501	1400137505	—	1400137508				
		H7	1400137600	1400137601	1400137605	—	1400137608				
		H8	1400137700	1400137701	1400137705	—	1400137708				
		H9	1400137800	1400137801	1400137805	—	1400137808				
		H10	1400137900	1400137901	1400137905	—	1400137908				
	4.5P	H11	1400138000	1400138001	1400138005	—	1400138008				
		H12	1400138100	1400138101	1400138105	—	1400138108				
		H4	1400138200	1400138201	1400138205	—	1400138208				
		H5	1400138300	1400138301	1400138305	—	1400138308				
		H6	1400138400	1400138401	1400138405	—	1400138408				
		H7	1400138500	1400138501	1400138505	—	1400138508				
		H8	1400138600	1400138601	1400138605	—	1400138608				
		H9	1400138700	1400138701	1400138705	—	1400138708				
		H10	1400138800	1400138801	1400138805	—	1400138808				
		H11	1400138900	1400138901	1400138905	—	1400138908				
		H12	1400139000	1400139001	1400139005	—	1400139008				
		H13	—	—	—	—	1400159508				
7/16 - 14 UNC	2.5P	H4	1400139100	1400139101	1400139105	—	1400139108	0.4011	0.4084	H8	H5
		H5	1400139200	1400139201	1400139205	—	1400139208				
		H6	1400139300	1400139301	1400139305	—	1400139308				
		H7	1400139400	1400139401	1400139405	—	1400139408				
		H8	1400139500	1400139501	1400139505	—	1400139508				
		H9	1400139600	1400139601	1400139605	—	1400139608				
		H10	1400139700	1400139701	1400139705	—	1400139708				
		H11	1400139800	1400139801	1400139805	—	1400139808				
		H12	1400139900	1400139901	1400139905	—	1400139908				
	4.5P	H4	1400140000	1400140001	1400140005	—	1400140008				
		H5	1400140100	1400140101	1400140105	—	1400140108				
	4.5P	H6	1400140200	1400140201	1400140205	—	1400140208				
		H7	1400140300	1400140301	1400140305	—	1400140308				

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.





List 14001 (Continued)



HSS-CO

TiCN

TiN

CrN

S/O

BR

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)

Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
7/16 - 14 UNC	4.5P	H8	1400140400	1400140401	1400140405	—	1400140408	0.4011	0.4084	H8	H5
		H9	1400140500	1400140501	1400140505	—	1400140508				
		H10	1400140600	1400140601	1400140605	—	1400140608				
		H11	1400140700	1400140701	1400140705	—	1400140708				
		H12	1400140800	1400140801	1400140805	—	1400140808				
7/16 - 20 UNF	2.5P	H4	1400140900	1400140901	1400140905	—	1400140908	0.412	0.4171	H8	H5
		H5	1400141000	1400141001	1400141005	—	1400141008				
		H6	1400141100	1400141101	1400141105	—	1400141108				
		H7	1400141200	1400141201	1400141205	—	1400141208				
		H8	1400141300	1400141301	1400141305	—	1400141308				
		H9	1400141400	1400141401	1400141405	—	1400141408				
	4.5P	H10	1400141500	1400141501	1400141505	—	1400141508				
		H11	1400141600	1400141601	1400141605	—	1400141608				
		H12	1400141700	1400141701	1400141705	—	1400141708				
		H4	1400141800	1400141801	1400141805	—	1400141808				
		H5	1400141900	1400141901	1400141905	—	1400141908				
		H6	1400142000	1400142001	1400142005	—	1400142008				
		H7	1400142100	1400142101	1400142105	—	1400142108				
		H8	1400142200	1400142201	1400142205	—	1400142208				
		H9	1400142300	1400142301	1400142305	—	1400142308				
		H10	1400142400	1400142401	1400142405	—	1400142408				
		H11	1400142500	1400142501	1400142505	—	1400142508				
		H12	1400142600	1400142601	1400142605	—	1400142608				
1/2 - 13 UNC	2.5P	H4	1400142700	1400142701	1400142705	—	1400142708	0.4608	0.4686	H8	H5
		H5	1400142800	1400142801	1400142805	—	1400142808				
		H6	1400142900	1400142901	1400142905	—	1400142908				
		H7	1400143000	1400143001	1400143005	—	1400143008				
		H8	1400143100	1400143101	1400143105	—	1400143108				
		H9	1400143200	1400143201	1400143205	—	1400143208				
	4.5P	H10	1400143300	1400143301	1400143305	—	1400143308				
		H11	1400143400	1400143401	1400143405	—	1400143408				
		H12	1400143500	1400143501	1400143505	—	1400143508				
		H4	1400143600	1400143601	1400143605	—	1400143608				
		H5	1400143700	1400143701	1400143705	—	1400143708				
		H6	1400143800	1400143801	1400143805	—	1400143808				
		H7	1400143900	1400143901	1400143905	—	1400143908				
		H8	1400144000	1400144001	1400144005	—	1400144008				
		H9	1400144100	1400144101	1400144105	—	1400144108				
		H10	1400144200	1400144201	1400144205	—	1400144208				
		H11	1400144300	1400144301	1400144305	—	1400144308				
		H12	1400144400	1400144401	1400144405	—	1400144408				
1/2- 20 UNF	2.5P	H4	1400144500	1400144501	1400144505	—	1400144508	0.4745	0.4796	H8	H5
		H5	1400144600	1400144601	1400144605	—	1400144608				
		H6	1400144700	1400144701	1400144705	—	1400144708				
		H7	1400144800	1400144801	1400144805	—	1400144808				

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.

continued on next page



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
	1010 1018	1035 1045	1065	4140 4340													
14001	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐			☐			
SFM	35-100	20-50	15-25	15-25	15-20	15-40	15-40	10-25		50-90	45-100			10-15			

☐ good ☐ best





List 14001 (Continued)

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



HSS-CO

TiCN

TiN

CrN

S/O

BR



Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
1/2- 20 UNF	2.5P	H8	1400144900	1400144901	1400144905	-	1400144908	0.4745	0.4796	H8	H5
		H9	1400145000	1400145001	1400145005	-	1400145008				
		H10	1400145100	1400145101	1400145105	-	1400145108				
		H11	1400145200	1400145201	1400145205	-	1400145208				
		H12	1400145300	1400145301	1400145305	-	1400145308				
	4.5P	H4	1400145400	1400145401	1400145405	-	1400145408				
		H5	1400145500	1400145501	1400145505	-	1400145508				
		H6	1400145600	1400145601	1400145605	-	1400145608				
		H7	1400145700	1400145701	1400145705	-	1400145708				
		H8	1400145800	1400145801	1400145805	-	1400145808				
		H9	1400145900	1400145901	1400145905	-	1400145908				
		H10	1400146000	1400146001	1400146005	-	1400146008				
		H11	1400146100	1400146101	1400146105	-	1400146108				
		H12	1400146200	1400146201	1400146205	-	1400146208				
		H13	-	-	-	-	1400159608				
		H14	-	-	-	-	1400159708				
9/16 - 12 UNC	2.5P	H4	1400146300	1400146301	1400146305	-	1400146308	0.5200	0.5285	H10	H7
		H5	1400146400	1400146401	1400146405	-	1400146408				
		H6	1400146500	1400146501	1400146505	-	1400146508				
		H7	1400146600	1400146601	1400146605	-	1400146608				
		H8	1400146700	1400146701	1400146705	-	1400146708				
		H9	1400146800	1400146801	1400146805	-	1400146808				
		H10	1400146900	1400146901	1400146905	-	1400146908				
	4.5P	H11	1400147000	1400147001	1400147005	-	1400147008				
		H12	1400147100	1400147101	1400147105	-	1400147108				
		H4	1400147200	1400147201	1400147205	-	1400147208				
		H5	1400147300	1400147301	1400147305	-	1400147308				
		H6	1400147400	1400147401	1400147405	-	1400147408				
		H7	1400147500	1400147501	1400147505	-	1400147508				
		H8	1400147600	1400147601	1400147605	-	1400147608				
9/16 - 18 UNF	2.5P	H9	1400147700	1400147701	1400147705	-	1400147708	0.5342	0.5398	H10	H7
		H10	1400147800	1400147801	1400147805	-	1400147808				
		H11	1400147900	1400147901	1400147905	-	1400147908				
		H12	1400148000	1400148001	1400148005	-	1400148008				
	4.5P	H4	1400148100	1400148101	1400148105	-	1400148108				
		H5	1400148200	1400148201	1400148205	-	1400148208				
		H6	1400148300	1400148301	1400148305	-	1400148308				
		H7	1400148400	1400148401	1400148405	-	1400148408				
		H8	1400148500	1400148501	1400148505	-	1400148508				
		H9	1400148600	1400148601	1400148605	-	1400148608				
		H10	1400148700	1400148701	1400148705	-	1400148708				
	4.5P	H11	1400148800	1400148801	1400148805	-	1400148808				
		H12	1400148900	1400148901	1400148905	-	1400148908				
		H4	1400149000	1400149001	1400149005	-	1400149008				
		H5	1400149100	1400149101	1400149105	-	1400149108				
		H6	1400149200	1400149201	1400149205	-	1400149208				
		H7	1400149300	1400149301	1400149305	-	1400149308				
		H8	1400149400	1400149401	1400149405	-	1400149408				
		H9	1400149500	1400149501	1400149505	-	1400149508				
		H10	1400149600	1400149601	1400149605	-	1400149608				
		H11	1400149700	1400149701	1400149705	-	1400149708				
		H12	1400149800	1400149801	1400149805	-	1400149808				

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.





List 14001 (Continued)

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



HSS-CO

TiCN

TiN

CrN

S/O

BR

Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
5/8 - 11 UNC	2.5P	H4	1400149900	1400149901	1400149905	—	1400149908	0.5786	0.5879	H10	H7
		H5	1400150000	1400150001	1400150005	—	1400150008				
		H6	1400150100	1400150101	1400150105	—	1400150108				
		H7	1400150200	1400150201	1400150205	—	1400150208				
		H8	1400150300	1400150301	1400150305	—	1400150308				
		H9	1400150400	1400150401	1400150405	—	1400150408				
		H10	1400150500	1400150501	1400150505	—	1400150508				
		H11	1400150600	1400150601	1400150605	—	1400150608				
		H12	1400150700	1400150701	1400150705	—	1400150708				
	4.5P	H4	1400150800	1400150801	1400150805	—	1400150808				
		H5	1400150900	1400150901	1400150905	—	1400150908				
		H6	1400151000	1400151001	1400151005	—	1400151008				
		H7	1400151100	1400151101	1400151105	—	1400151108				
		H8	1400151200	1400151201	1400151205	—	1400151208				
		H9	1400151300	1400151301	1400151305	—	1400151308				
		H10	1400151400	1400151401	1400151405	—	1400151408				
		H11	1400151500	1400151501	1400151505	—	1400151508				
		H12	1400151600	1400151601	1400151605	—	1400151608				
5/8 - 18 UNF	2.5P	H4	1400151700	1400151701	1400151705	—	1400151708	0.5967	0.6023	H10	H7
		H5	1400151800	1400151801	1400151805	—	1400151808				
		H6	1400151900	1400151901	1400151905	—	1400151908				
		H7	1400152000	1400152001	1400152005	—	1400152008				
		H8	1400152100	1400152101	1400152105	—	1400152108				
		H9	1400152200	1400152201	1400152205	—	1400152208				
		H10	1400152300	1400152301	1400152305	—	1400152308				
		H11	1400152400	1400152401	1400152405	—	1400152408				
		H12	1400152500	1400152501	1400152505	—	1400152508				
	4.5P	H4	1400152600	1400152601	1400152605	—	1400152608				
		H5	1400152700	1400152701	1400152705	—	1400152708				
		H6	1400152800	1400152801	1400152805	—	1400152808				
		H7	1400152900	1400152901	1400152905	—	1400152908				
		H8	1400153000	1400153001	1400153005	—	1400153008				
		H9	1400153100	1400153101	1400153105	—	1400153108				
		H10	1400153200	1400153201	1400153205	—	1400153208				
		H11	1400153300	1400153301	1400153305	—	1400153308				
		H12	1400153400	1400153401	1400153405	—	1400153408				
3/4 - 10 UNC	2.5P	H6	1400153500	1400153501	1400153505	—	1400153508	0.6990	0.07092	H10	H7
		H7	1400153600	1400153601	1400153605	—	1400153608				
		H8	1400153700	1400153701	1400153705	—	1400153708				
		H9	1400153800	1400153801	1400153805	—	1400153808				
		H10	1400153900	1400153901	1400153905	—	1400153908				
		H11	1400154000	1400154001	1400154005	—	1400154008				
		H12	1400154100	1400154101	1400154105	—	1400154108				
		H13	1400154200	1400154201	1400154205	—	1400154208				
		H14	1400154300	1400154301	1400154305	—	1400154308				

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.

continued on next page

HYT

Work Material																		
List No.	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High															
	1010 1018	1035 1045	1065			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
14001	☒	☒	☒	☐	☐	☐	☐	☐		☒	☒			☐				
SFM	35-100	20-50	15-25	15-25	15-20	15-40	15-40	10-25		50-90	45-100			10-15				

☐ good ☒ best





List 14001 (Continued)

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	2B	3B
3/4 - 10 UNC	4.5P	H6	1400154400	1400154401	1400154405	—	1400154408	0.6990	0.07092	H10	H7
		H7	1400154500	1400154501	1400154505	—	1400154508				
		H8	1400154600	1400154601	1400154605	—	1400154608				
		H9	1400154700	1400154701	1400154705	—	1400154708				
		H10	1400154800	1400154801	1400154805	—	1400154808				
		H11	1400154900	1400154901	1400154905	—	1400154908				
		H12	1400155000	1400155001	1400155005	—	1400155008				
		H13	1400155100	1400155101	1400155105	—	1400155108				
		H14	1400155200	1400155201	1400155205	—	1400155208				
		H6	1400155300	1400155301	1400155305	—	1400155308				
		H7	1400155400	1400155401	1400155405	—	1400155408				
		H8	1400155500	1400155501	1400155505	—	1400155508				
		H9	1400155600	1400155601	1400155605	—	1400155608				
		H10	1400155700	1400155701	1400155705	—	1400155708				
3/4 - 16 UNF	2.5P	H6	1400155800	1400155801	1400155805	—	1400155808	0.7181	0.7245	H10	H7
		H7	1400155900	1400155901	1400155905	—	1400155908				
		H8	1400156000	1400156001	1400156005	—	1400156008				
		H9	1400156100	1400156101	1400156105	—	1400156108				
		H10	1400156200	1400156201	1400156205	—	1400156208				
		H11	1400156300	1400156301	1400156305	—	1400156308				
		H12	1400156400	1400156401	1400156405	—	1400156408				
	4.5P	H6	1400156500	1400156501	1400156505	—	1400156508				
		H7	1400156600	1400156601	1400156605	—	1400156608				
		H8	1400156700	1400156701	1400156705	—	1400156708				
		H9	1400156800	1400156801	1400156805	—	1400156808				
		H10	1400156900	1400156901	1400156905	—	1400156908				
		H11	1400157000	1400157001	1400157005	—	1400157008				
		H12	1400157100	1400157101	1400157105	—	1400157108				

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.



Work Material

List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels				Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
14001	☒	☒	☒	☐	☐	☐	☐	☐		☒	☒			☐			
SFM	35-100	20-50	15-25	15-25	15-20	15-40	15-40	10-25		50-90	45-100			10-15			

☐ good ☒ best





List 14101

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



HSS-CO

TiCN

TiN

CrN

S/O

BR



Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	6H	4H
M1.6 x 0.35	2.5P	D3	1410100000	1410100001	1410100005	-	1410100008	1.42	1.46	D5	D3
		D5	1410100100	1410100101	1410100105	-	1410100108				
M1.7 x 0.35	2.5P	D3	1410100200	1410100201	1410100205	-	1410100208	1.52	1.56	D5	D3
		D5	1410100300	1410100301	1410100305	-	-				
M2 x 0.4	1.5P	D3	1410100400	1410100401	1410100405	1410100406	1410100408	1.8	1.84	D5	D3
		D5	1410100500	1410100501	1410100505	-	1410100508				
		D3	1410100600	1410100601	1410100605	-	1410100608				
		D4	-	-	-	-	1410106108				
	2.5P	D5	1410100700	1410100701	1410100705	-	1410100708				
		D6	-	-	-	-	1410106208				
		D7	-	-	-	-	1410106308				
		D8	-	-	-	-	1410106408				
M2.5 x 0.45	1.5P	D3	1410100800	1410100801	1410100805	1410100806	1410100808	2.27	2.32	D5	D3
		D5	1410100900	1410100901	1410100905	-	1410100908				
		D3	1410101000	1410101001	1410101005	-	1410101008				
		D4	-	-	-	-	1410106508				
	2.5P	D5	1410101100	1410101101	1410101105	1410101106	1410101108				
		D6	-	-	-	-	1410106608				
		D7	-	-	-	-	1410106708				
		D8	-	-	-	-	1410106808				
M2.6 x 0.45	2.5P	D3	1410101200	1410101201	1410101205	-	-	2.37	2.42	D5	D3
		D5	1410101300	1410101301	1410101305	-	-				
M3 x 0.5	1.5P	D3	1410101400	1410101401	1410101405	1410101406	1410101408	2.75	2.80	D5	D3
		D5	1410101500	1410101501	1410101505	-	1410101508				
		D6	1410106000	-	-	-	-				
		D3	1410101600	1410101601	1410101605	-	1410101608				
	2.5P	D4	-	-	-	-	1410106908				
		D5	1410101700	1410101701	1410101705	-	1410101708				
		D6	-	-	-	-	1410107008				
		D7	-	-	-	-	1410107108				
		D8	-	-	-	-	1410107208				
		D9	-	-	-	-	1410107308				
		D10	-	-	-	-	1410107408				
		D11	-	-	-	-	1410107508				
M3.5 x 0.6	1.5P	D5	1410110700	-	-	-	-	3.19	3.26	D6	D4
		D4	1410101800	1410101801	1410101805	-	1410101808				
	2.5P	D6	1410101900	1410101901	1410101905	-	1410101908				
		D4	1410102000	1410102001	1410102005	-	1410102008				
		D5	-	-	-	-	1410107608				

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

continued on next page



Work Material																		
List No.	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High															
	1010 1018	1035 1045	1065			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
14101	☒	☒	☒	☐	☐	☐	☐	☐		☒	☒			☐				
SFM	35-100	20-50	15-25	15-25	15-20	15-40	15-40	10-25		50-90	45-100			10-15				

☐ good ☒ best





List 14101 (Continued)

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



HSS-CO

TiCN

TiN

CrN

S/O

BR



Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	6H	4H
M3.5 x 0.6	2.5P	D6	1410102100	1410102101	1410102105	—	1410102108	3.19	3.26	D6	D4
		D7	—	—	—	—	1410107708				
		D8	—	—	—	—	1410107808				
	4.5P	D4	1410102200	1410102201	1410102205	—	1410102208				
		D6	1410102300	1410102301	1410102305	—	1410102308				
		D6	1410102400	1410102401	1410102405	1410102406	1410102408				
M4 x 0.7	1.5P	D6	1410102500	1410102501	1410102505	—	1410102508	3.64	3.71	D6	D4
		D4	1410102600	1410102601	1410102605	—	1410102608				
		D5	—	—	—	—	1410107908				
		D6	1410102700	1410102701	1410102705	—	1410102708				
		D7	—	—	—	—	1410108008				
		D8	—	—	—	—	1410108108				
	2.5P	D9	—	—	—	—	1410108208				
		D10	—	—	—	—	1410108308				
		D11	—	—	—	—	1410108408				
		D4	1410102800	1410102801	1410102805	—	1410102808				
		D6	1410102900	1410102901	1410102905	—	1410102908				
M5 x 0.8	1.5P	D4	1410103000	1410103001	1410103005	—	1410103008	4.59	4.67	D7	D4
		D7	1410103100	1410103101	1410103105	—	1410103108				
		D4	1410103200	1410103201	1410103205	—	1410103208				
	2.5P	D5	—	—	—	—	1410108508				
		D6	—	—	—	—	1410108608				
		D7	1410103300	1410103301	1410103305	—	1410103308				
		D8	—	—	—	—	1410108708				
		D9	—	—	—	—	1410108808				
		D10	—	—	—	—	1410108908				
		D11	—	—	—	—	1410109008				
	4.5P	D14	—	—	—	—	1410110508				
		D4	1410103400	1410103401	1410103405	—	1410103408				
		D7	1410103500	1410103501	1410103505	—	1410103508				
		D7	1410103600	1410103601	1410103605	—	1410103608				
M6 x 1.0	1.5P	D8	1410103700	1410103701	1410103705	—	1410103708	5.49	5.59	D8	D5
		D5	1410103800	1410103801	1410103805	—	1410103808				
		D6	—	—	—	—	1410109108				
	2.5P	D7	—	—	—	—	1410109208				
		D8	1410103900	1410103901	1410103905	1410103906	1410103908				
		D9	—	—	—	—	1410109308				
		D10	—	—	—	—	1410109408				
		D11	—	—	—	—	1410109508				
		D12	—	—	—	—	1410109608				
		D13	—	—	—	—	1410109708				
		D14	—	—	—	—	1410110608				
	4.5P	D5	1410104000	1410104001	1410104005	—	1410104008				
		D8	1410104100	1410104101	1410104105	—	1410104108				
M8 x 1.25	1.5P	D5	1410104200	1410104201	1410104205	—	1410104208	7.36	7.49	D9	D5
		D9	1410104300	1410104301	1410104305	—	1410104308				
	2.5P	D5	1410104400	1410104401	1410104405	—	1410104408				
		D9	1410104500	1410104501	1410104505	1410104506	1410104508				
	4.5P	D5	1410104600	1410104601	1410104605	—	1410104608				
		D9	1410104700	1410104701	1410104705	—	1410104708				

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.





List 14101 (Continued)

Plug (4P-4.5P), Bottom (2P-2.5P), Short Bottom (1P-1.5P)



HSS-CO

TiCN

TiN

CrN

S/O

BR

Tap Size	Lead	Thread Limit	EDP Number					Tap Drill Size		Class of Fit	
			Bright	S/O	TiN	CrN	TiCN	Min	Max	6H	4H
M10 x 1.5	1.5P	D6	1410104800	1410104801	1410104805	—	1410104808	9.24	9.39	D10	D6
		D10	1410104900	1410104901	1410104905	—	1410104908				
	2.5P	D6	1410105000	1410105001	1410105005	—	1410105008				
		D7	—	—	—	—	1410109808				
		D8	—	—	—	—	1410109908				
		D9	—	—	—	—	1410110008				
		D10	1410105100	1410105101	1410105105	—	1410105108				
		D11	—	—	—	—	1410110108				
		D12	—	—	—	—	1410110208				
		D13	—	—	—	—	1410110308				
	4.5P	D6	1410105200	1410105201	1410105205	—	1410105208				
		D10	1410105300	1410105301	1410105305	—	1410105308				
M12 x 1.75	1.5P	D6	1410105400	1410105401	1410105405	—	1410105408	11.11	11.29	D11	D6
		D11	1410105500	1410105501	1410105505	—	1410105508				
	2.5P	D6	1410105600	1410105601	1410105605	—	1410105608				
		D11	1410105700	1410105701	1410105705	—	1410105708				
	4.5P	D6	1410105800	1410105801	1410105805	—	1410105808				
		D11	1410105900	1410105901	1410105905	—	1410105908				

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
14101	☒	☒	☒	☐	☐	☐	☐	☐		☒	☒			☐			
SFM	35-100	20-50	15-25	15-25	15-20	15-40	15-40	10-25		50-90	45-100			10-15			

☐ good ☒ best





List 285

Bottom (1.5P-2P)



HSS

TiCN

TiN

BR



Tap Size	Class of Fit	EDP Number		
		Bottom (1.5P-2P)		
		Bright	TiN	TiCN
0 - 80 UNC	2B	2864200	2864205	2864208
2 - 56 UNC		2864400	2864405	2864408
3 - 48 UNC		2864600	2864605	2864608
4 - 40 UNC		2864800	2864805	2864808
6 - 32 UNC		2865000	2865005	2865008
8 - 32 UNC		2865200	2865205	2865208
10 - 24 UNC		2865400	2865405	2865408
10 - 32 UNF		2865600	2865605	2865608
1/4 - 20 UNC		2865800	2865805	2865808
1/4 - 28 UNF		2866000	2866005	2866008
5/16 - 18 UNC		2866200	2866205	2866208
5/16 - 24 UNF		2866400	2866405	2866408
3/8 - 16 UNC		2866600	2866605	2866608
3/8 - 24 UNF		2866800	2866805	2866808
7/16 - 14 UNC		2867000	2867005	2867008
7/16 - 20 UNF		2867200	2867205	2867208
1/2 - 13 UNC		2867400	2867405	2867408
1/2 - 20 UNF		2867600	2867605	2867608

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

See page 560 for tap drill recommendations.

HY7

List 286

Bottom (1.5P-2P)



HSS

TiCN

TiN

BR

Tap Size	Class of Fit	EDP Number		
		Bottom (1.5P-2P)		
		Bright	TiN	TiCN
M3 x 0.5	6H	2868100	2868105	2868108
M4 x 0.7		2868300	2868305	2868308
M5 x 0.8		2868500	2868505	2868508
M6 x 1.0		2868700	2868705	2868708
M8 x 1.25		2868900	2868905	2868908
M10 x 1.5		2869100	2869105	2869108
M12 x 1.75		2869300	2869305	2869308

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

See page 562 for tap drill recommendations.

HY7

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
285	☒	☐								☒	☒						
286	☒	☐								☒	☒						
SFM	35-100	20-50								45-100	45-100						

☐ good ☒ best





List 14153

Carbide Inlaid Forming Tap, DIN/DIN, Bottom (1.5P-2P)



Tap Size	Thread Limit	Overall Length	Shank Diameter	EDP Number
				Bottom (1.5P-2P)
				Bright
M6 x 1.0	RH7	80	6	1415310100
M8 x 1.25		90	8	1415310200
M10 x 1.5		100	10	1415310400
M10 x 1.25		100	10	1415310300

Packed: 1 pc.
Available Bright finish only.
See page 562 for tap drill recommendations.



Work Material																			
List No.	P					M			K	N		S		H					
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels					
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035 1045	1065			4140 4340													
14153																			
SFM										65-150	50-120								

☐ good ☐ best





CARBIDE

BR

List 369

JIS, Forming Tap, Plug (4P-4.5P), Bottom (1.5P-2P)



Tap Size	Thread Limit	Overall Length	EDP Number	
			Plug	Bottom
			Bright	Bright
M3 x 0.5	RH5	46	8315054	8315055
M4 x 0.7	RH6	52	8315060	8315061
M5 x 0.8	RH6	60	8315066	8315067
M6 x 1.0	RH7	62	8315072	8315073
M8 x 1.25	RH7	70	8315084	8315085
M10 x 1.5	RH7	75	8315096	8315097
M10x 1.25	RH7	75	8315102	8315103
M12 x 1.75	RH8	82	8315114	8315115
M12 x 1.5	RH7	82	8315120	8315121
M12 x 1.25	RH7	82	8315126	8315127

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

See page 562 for tap drill recommendations.

HTE

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
369										☐	☐						
SFM										65-150	50-120						

☐ good ☐ best





List 357

Forming Tap, Long Shank, JIS, Bottom (1.5P-2P)

CARBIDE

BR



Tap Size	Thread Limit	Overall Length	EDP Number
			Bottom (1.5P-2P)
			Bright
M6 x 1.0	RH7	100	8315633
M8 x 1.25	RH7	150	8315639
M10 x 1.5	RH7	150	8315645
M10 x 1.25	RH7	150	8315649
M12 x 1.75	RH8	150	8315653
M12 x 1.5	RH7	150	8315657
M12 x 1.25	RH8	150	8315661

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

See page 562 for tap drill recommendations.

HTE

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
357																	
SFM										65-150	50-120						

☐ good ☒ best





List 16450

DIN Overall Length, Modified Bottom (2.5P-3P)

HSSE

TiN

Var.



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Modified Bottom (2.5P-3P)
				TiN
2 - 56 UNC	H2	2	45	1645002562
3 - 48 UNC	H2		50	1645003482
4 - 40 UNC	H2		56	1645004402
4 - 48 UNF	H2		56	1645004482
5 - 40 UNC	H2		56	1645005402
6 - 32 UNC	H2		56	1645006322
6 - 40 UNF	H3			1645006323
6 - 40 UNF	H2		56	1645006402
8 - 32 UNC	H2		63	1645008322
8 - 32 UNC	H3			1645008323
8 - 36 UNF	H2		63	1645008362
10 - 24 UNC	H2		70	1645010242
10 - 24 UNC	H3			1645010243
10 - 32 UNF	H2		70	1645010322
10 - 32 UNF	H3			1645010323
12 - 24 UNC	H3		80	1645012243
12 - 28 UNF	H3		80	1645012283
1/4 - 20 UNC	H3		80	1645014203
1/4 - 20 UNC	H5			1645014205
1/4 - 28 UNF	H3		80	1645014283
1/4 - 28 UNF	H4			1645014284
5/16 - 18 UNC	H3	3	90	1645056183
5/16 - 18 UNC	H5			1645056185
5/16 - 24 UNF	H3		90	1645056243
5/16 - 24 UNF	H4			1645056244
3/8 - 16 UNC	H3		100	1645038163
3/8 - 16 UNC	H5			1645038165
3/8 - 24 UNF	H3		90	1645038243
3/8 - 24 UNF	H4			1645038244
7/16 - 14 UNC	H3		100	1645076143
7/16 - 14 UNC	H5			1645076145
7/16 - 20 UNF	H3		100	1645076203
7/16 - 20 UNF	H5			1645076205
1/2 - 13 UNC	H3		110	1645012133
1/2 - 13 UNC	H5			1645012135
1/2 - 20 UNF	H3		100	1645012203
1/2 - 20 UNF	H5			1645012205
9/16 - 12 UNC	H3		110	1645096123
9/16 - 12 UNC	H5			1645096125
9/16 - 20 UNF	H3		100	1645096183
9/16 - 20 UNF	H5			1645096185
5/8 - 11 UNC	H3		110	1645058113
5/8 - 11 UNC	H5			1645058115
5/8 - 18 UNF	H3		100	1645058183
5/8 - 18 UNF	H5			1645058185

Packed: 1 pc.

Available TiN coating only.

*Tap drill size is 65%-70% of thread.

*Recommended drill is EX-SUS-GOLD drills for stainless steel.

EP





List 16450 (Continued)

DIN Overall Length, Modified Bottom (2.5P-3P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Modified Bottom (2.5P-3P)
				TiN
3/4 - 10 UNC	H3	4	125	1645034103
	H5			1645034105
3/4 - 16 UNF	H3		110	1645034163
	H5			1645034165
7/8 - 9 UNC	H4		140	1645078094
	H6			1645078096
7/8 - 14 UNF	H4		125	1645078144
	H6			1645078146
1" - 8 UNC	H4		160	1645010084
	H6			1645010086
1" - 12 UNF	H4		140	1645010124
	H6			1645010126

Packed: 1 pc.

Available TiN coating only.

*Tap drill size is 65%-70% of thread.

*Recommended drill is EX-SUS-GOLD drills for stainless steel.

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
16450	☐	☐	☐	☒		☒	☒	☐									
SFM	50-80	50-80	30-80	50-100		20-35	20-35	15-25									

☐ good ☒ best





List 16455

DIN Overall Length, Modified Bottom (2.5P-3P)

HSSE

TiN

Var.



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Modified Bottom (2.5P-3P)
				TiN
M2 x 0.4	D3	2	45	1645502043
M2.5 x 0.45	D3		50	1645525453
M2.6 x 0.45	D3		50	1645526453
M3 x 0.5	D4		56	1645503054
M4 x 0.7	D4		63	1645504074
M5 x 0.8	D4		70	1645505084
M6 x 1	D3	3	80	1645506103
	D5			1645506105
M8 X 1.25	D4		90	1645508124
	D6			1645508126
M10 x 1.5	D4		100	1645510154
	D6			1645510156
M12 x 1.75	D4		110	1645512174
	D6			1645512176
M14 x 2	D5		110	1645514205
	D7			1645514207
M16 x 2	D5		110	1645516205
	D7			1645516207
M18 x 2.5	D7	4	125	1645518257
M20 x 2.5	D8		140	1645520258
M24 x 3	D9		160	1645524309

Packed: 1 pc.

Available TiN coating only.

*Tap drill size is 65%-70% of thread.

*Recommended drill is Ex-SUS-Gold drills for stainless steel.

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340	300	400	17-4 PH	6061 7075		Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
	1010 1018	1035 1045	1065	4140 4340	300	400	17-4 PH	6061 7075		Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
16455	☐	☐	☐	☒		☒	☒	☐									
SFM	50-80	50-80	30-80	50-100		20-35	20-35	15-25									

☐ good ☒ best





List 335Ni

DIN Overall Length, Modified Bottom (2.5P-3P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P-3P)	
				HR	
2 - 56 UNC	H2	2	45	3350002562	
4 - 40 UNC	H2		56	3350004402	
	H3			3350004403	
6 - 32 UNC	H2		56	3350006322	
	H3			3350006323	
8 - 32 UNC	H2		63	3350008322	
	H3			3350008323	
10 - 24 UNC	H3		70	3350010243	
	H5			3350010245	
10 - 32 UNC	H2		70	3350010322	
	H3			3350010323	
1/4 - 20 UNC	H3		80	3350014203	
	H5			3350014205	
1/4 - 28 UNF	H3		80	3350014283	
	H4			3350014284	
5/16 - 18 UNC	H3		90	3350516183	
	H5			3350516185	
5/16 - 24 UNF	H3		90	3350516243	
	H5			3350516245	
3/8 - 16 UNC	H3		100	3350038163	
	H5			3350038165	
3/8 - 24 UNF	H3		90	3350038243	
	H4			3350038244	
7/16 - 14 UNC	H3		100	3350716143	
	H5			3350716145	
7/16 - 20 UNF	H3		100	3350716203	
	H5			3350716205	
1/2 - 13 UNC	H3		110	3350012133	
	H5			3350012135	
1/2 - 20 UNF	H3		100	3350012203	
	H5			3350012205	
9/16 - 18 UNC	H3	4	100	3350096183	
	H5			3350096185	
5/8 - 11 UNC	H3		110	3350058113	
	H5			3350058115	
5/8 - 18 UNC	H3		100	3350058183	
	H5			3350058185	
3/4 - 10 UNC	H3		125	3350034103	
	H5			3350034105	

Packed: 1 pc.
Available HR coating only.

continued on next page



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
335Ni								○				⊗				○	
SFM								8-20				8-15				8-12	

☐ good ☒ best





List 335Ni (Continued)

DIN Overall Length, Modified Bottom (2.5P-3P)

VC10

HR



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Modified Bottom (2.5P-3P)
				HR
3/4 - 16 UNF	H3	4	110	3350034163
	H5			3350034165
7/8 - 19 UNC	H3		140	3350078093
	H5			3350078095
7/8 - 14 UNF	H3		125	3350078143
	H5			3350078145
1" - 8 UNC	H3		160	3350001083
	H5			3350001085
1" - 12 UNF	H3		140	3350001123
	H5			3350001125

Packed: 1 pc.

Available HR coating only.

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
335Ni								☐				☒				☐	
SFM								8-20				8-15				8-12	

☐ good ☒ best





List 336Ni

DIN Overall Length, Modified Bottom (2.5P-3P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Modified Bottom (2.5P-3P)
				HR
M2.5 x 0.45	D3	3	50	3360250453
M3 x 0.5	D3		56	3360003053
M4 x 0.7	D4		63	3360004074
M5 x 0.8	D4		70	3360005084
M6 x 1.0	D5		80	3360006105
M6 x 0.75	D5		80	3360006755
M8 x 1.25	D5		90	3360008255
M8 x 1.0	D5		90	3360008105
M10 x 1.5	D6		100	3360010156
M10 x 1.25	D5		100	3360010255
M12 x 1.75	D6		100	3360012756
M12 x 1.5	D6		110	3360012156
M14 x 2.0	D7		100	3360014207
M14 x 1.5	D6		110	3360014156
M16 x 2.0	D7		100	3360016207
M16 x 1.5	D6		110	3360016156
M18 x 2.5	D7		110	3360018257
M18 x 1.5	D6		125	3360018156
M20 x 2.5	D8		125	3360020258
M20 x 1.5	D6		140	3360020156
M22 x 2.5	D8		125	3360022258
M22 x 1.5	D6		140	3360022156
M24 x 3.0	D8	4	140	3360024308
M24 x 1.5	D6		160	3360024156

Packed: 1 pc.
Available HR coating only.

EP

Work Material																	
	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
336Ni								☐				☒				☐	
SFM								8-20				8-15				8-12	

☐ good ☒ best





List 313Ti

Modified Bottom (2.5P-3P)



VC10

V

10°



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P-3P)
			V
2 - 56 UNC	H2	3	1305710108
4 - 40 UNC	H2		1305710208
6 - 32 UNC	H2		1305710408
6 - 32 UNC	H3		1305710508
6 - 40 UNF	H2		1305710608
8 - 32 UNC	H2		1305710708
8 - 32 UNC	H3		1305710808
8 - 36 UNF	H2		1305710908
10 - 24 UNC	H3		1305711008
10 - 32 UNF	H2		1305711108
10 - 32 UNF	H3		1305711208
1/4 - 20 UNC	H3		1305711308
1/4 - 20 UNC	H5		1305711408
1/4 - 28 UNF	H3		1305711508
1/4 - 28 UNF	H4		1305711608
1/4 - 28 UNF	H5		1305711608
5/16 - 18 UNC	H3		1305711708
5/16 - 18 UNC	H5		1305711808
5/16 - 24 UNF	H3		1305711908
5/16 - 24 UNF	H4		1305712008
3/8 - 16 UNC	H3		1305712108
3/8 - 16 UNC	H5		1305712208
3/8 - 24 UNF	H3		1305712308

Packed: 1 pc.

Available V coating only.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P-3P)
			V
3/8 - 24 UNF	H4	3	1305712408
7/16 - 14 UNC	H3		1305712508
7/16 - 14 UNC	H5		1305712608
7/16 - 20 UNF	H3		1305712708
7/16 - 20 UNF	H5		1305712808
1/2 - 13 UNC	H3		1305712908
1/2 - 13 UNC	H5		1305713008
1/2 - 20 UNF	H3		1305713108
1/2 - 20 UNF	H5		1305713208
9/16 - 18 UNC	H3		1305713308
9/16 - 18 UNC	H5		1305713408
5/8 - 11 UNC	H3	4	1305713508
5/8 - 18 UNF	H3		1305713608
5/8 - 18 UNF	H5		1305713708
3/4 - 10 UNC	H5		1305713808
3/4 - 16 UNF	H3		1305713908
3/4 - 16 UNF	H5		1305714008
7/8 - 9 UNC	H3		1305714208
7/8 - 9 UNC	H5		1305714308
7/8 - 14 UNC	H3		1305714408
7/8 - 14 UNC	H5		1305714508
1" - 8 UNC	H5		1305714108

Packed: 1 pc.

Available V coating only.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
313Ti				○				○				□	□	○	○		
SFM				15-30				8-20				8-15	8-15	15-35	10-20		

○ good □ best





List 345Ti

Modified Bottom (2.5P-3P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P-3P)
			V
M2.5 x 0.45	D3	3	1316210008
M3 x 0.5	D3		1316210108
M4 x 0.7	D4		1316210208
M5 x 0.8	D4		1316210308
M6 x 1.0	D5		1316210408
M8 x 1.25	D5		1316210508
M10 x 1.5	D6		1316210708
M10 x 1.25	D5		1316210608
M12 x 1.75	D6		1316210808
M12 x 1.25	D5		1316210908

Packed: 1 pc.

Available V coating only.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035 1045	1065			4140 4340											
345Ti				○				○				⊗	⊗	○	○		
SFM				15-30				8-20				8-15	8-15	15-35	10-20		

□ good □ best





List 313Ni

Modified Bottom (2.5P-3P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Bottom (1.5P - 2P)	Modified Bottom (2.5P - 3P)	
			S/O	S/O	V
2 - 56 UNC	H2	2	—	1770701	—
4 - 40 UNC	H2		1770501	1719001	1719008
	H3		1770601	1719101	—
6 - 32 UNC	H2	3	0140101	1720701	—
	H3		1770001	1709101	1709108
	H5		—	1709201	—
	H7		—	1770101	—
8 - 32 UNC	H2		0140201	—	—
	H3		—	1709301	1709308
	H5		—	1709401	—
10 - 24 UNC	H3		—	1719501	1719508
	H5		—	1719601	—
10 - 32 UNF	H2		0140301	1770201	—
	H3		1770301	1709501	1709508
	H4		—	1770401	—
	H5		—	1709601	—
1/4 - 20 UNC	H3		0140401	1719701	1719708
	H5		—	1719801	—
	H7		—	1771401	—
1/4 - 28 UNF	H3		0140501	1709701	1709708
	H4		0140601	—	—
	H5		—	1709801	—
5/16 - 18 UNC	H3		—	1719901	1719908
	H5		—	1720001	—
	H7		—	1771201	—
5/16 - 24 UNF	H3		0140701	1709901	1709908
	H4		—	0140801	—
	H5		—	1710001	—
3/8 - 16 UNC	H3	4	1771001	1720101	1720108
	H5		—	1720201	—
	H7		—	1771101	—
3/8 - 24 UNF	H3		0140901	1710101	1710108
	H4		0141001	—	—
	H5		—	1710201	—
7/16 - 14 UNC	H3		—	1720301	—
	H5		—	1720401	—
7/16 - 20 UNF	H3		0141101	1710301	—
	H5		0141201	1710401	—
1/2 - 13 UNC	H3		1770901	1720501	1720508
	H5		—	1720601	—
1/2 - 20 UNF	H3		0141301	1710501	1710508
	H5		0141401	1710601	—
	H7		—	1771301	—
9/16 - 18 UNF	H3		0141501	—	—
	H5		0141601	—	—
5/8 - 11 UNC	H3		—	1710701	—
5/8 - 18 UNF	H3		—	1710801	—
	H5		—	1710901	—

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.





List 313Ni (Continued)

Modified Bottom (2.5P-3P), Bottom (1.5P-2P)



VC10

V

S/O

10°

Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Bottom (1.5P - 2P)		Modified Bottom (2.5P - 3P)
			S/O	S/O	V
3/4 - 10 UNC	H3	4	—	1770801	—
	H5		—	1711001	—
3/4 - 16 UNF	H3		—	1711101	—
	H5		—	1711201	—
7/8 - 9 UNC	H3		—	1711401	—
	H5		—	1711501	—
7/8 - 14 UNF	H3		—	1711601	—
	H5		—	1711701	—
1" - 8 UNC	H3		—	1711301	—
	H5		—	1711301	—

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035 1045	1065			4140 4340											
345Ni								○				⊗	○	○	○		
SFM								8-20				8-15	8-15	15-35	10-20		

☐ good ☒ best





List 345Ni

Modified Bottom (2.5P-3P)



VC10

S/O



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P-3.P)
			S/O
M2.5 x 0.45	D3	3	1316110001
M3 x 0.5	D3		1316110101
M4 x 0.7	D4		1316110201
M5 x 0.8	D4		1316110301
M6 x 1.0	D5		1316110401
M8 x 1.25	D5		1316110501
M10 x 1.5	D6		1316110701
M10 x 1.25	D5		1316110601
M12 x 1.75	D6		1316110801

Packed: 1 pc.

Available Steam Oxide finish only.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035 1045	1065														
345Ni								☐				☒	☐	☐	☐		
SFM								8-20				8-15	8-15	15-35	10-20		

☐ good ☒ best



List 313

Modified Bottom (2.5P-3P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number			
			Bottom (1.5P-2P)		Modified Bottom (2.5P-3.P)	
			S/O	V	S/O	V
2 - 56 UNC	H2	2	0141701	0141708	1754001	1754008
4 - 40 UNC	H2		0141801	0141808	1752001	1752008
	H3		-	-	1754101	1754108
	H4		-	-	1754201	1754208
5 - 40 UNC	H2		-	-	1752101	1752108
6 - 32 UNC	H2		-	-	1754301	1754308
	H3		0141901	0141908	1752201	1752208
	H4		0142001	0142008	1754401	1754408
	H5		-	-	1754501	1754508
8 - 32 UNC	H2		0142101	0142108	1754601	1754608
	H3		0142201	0142208	1752301	1752308
	H4		0142301	0142308	1754701	1754708
	H5		-	-	1754801	1754808
	H6		-	-	1754901	1754908
10 - 24 UNC	H3	3	-	-	1752401	1752408
10 - 32 UNF	H5		-	-	1703001	1703008
	H2		0142401	0142408	1703101	1703108
	H3		0142501	0142508	1752501	1752508
	H4		0142601	0142608	1703201	1703208
1/4 - 20 UNC	H5		-	-	1703301	1703308
	H3		-	-	1703401	1703408
	H5		-	-	1752601	1752608
1/4 - 28 UNF	H3		-	-	1703501	1703508
	H4		0142701	0142708	1752701	1752708
	H5		0142801	0142808	1703601	1703608
	H6		-	-	1703701	1703708
5/16 - 18 UNC	H3		-	-	1703801	1703808
	H5		-	-	1752801	1752808
	H5		-	-	1703901	1703908
5/16 - 24 UNF	H3		0142901	0142908	1752901	1752908
	H4		0143001	0143008	1704001	1704008
	H5		-	-	1704101	1704108
	H6		-	-	1704201	1704208
3/8 - 16 UNC	H3		-	-	1753001	1753008
	H5		-	-	1704301	1704308
3/8 - 24 UNF	H3		0143101	0143108	1753101	1753108
	H4		0143201	0143208	1704401	1704408

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

continued on next page **EXT**

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
313				☒	☐		☐	☒				☐	☐	☒	☐		
SFM				15-30	10-25		12-45	8-20				8-15	8-15	15-35	10-20		

☐ good ☒ best





List 313 (Continued)

Modified Bottom (2.5P-3P), Bottom (1.5P-2P)



VC10

V

S/O

15°



Tap Size	Thread Limit	No. of Flutes	EDP Number			
			Bottom (1.5P-2P)		Modified Bottom (2.5P-3P)	
			S/O	V	S/O	V
3/8 - 24 UNF	H5	3	—	—	1704501	1704508
	H6		—	—	1704601	1704608
7/16 - 14 UNC	H3		—	—	1753201	1753208
	H5		—	—	1704701	1704708
7/16 - 20 UNF	H3		0143301	0143308	1753301	1753308
	H5		0143401	0143408	1704801	1704808
1/2 - 13 UNC	H3		—	—	1753401	1753408
	H5		—	—	1704901	1704908
1/2 - 20 UNF	H3		0143501	0143508	1753501	1753508
	H5		0143601	0143608	1705001	1705008
5/8 - 11 UNC	H3	4	—	—	1753601	1753608
5/8 - 18 UNF	H3		—	—	1753701	1753708
	H5		—	—	1705101	1705108
3/4 - 10 UNC	H3		—	—	1753801	1753808
3/4 - 16 UNF	H3		—	—	1753901	1753908

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K Cast Iron	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels				Aluminum		Nickel Alloy Inconel	Titanium 6Al4V (30 HRC)	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
313				☉	◯		◯	☉				◯	◯	☉	◯		
SFM				15-30	10-25		12-45	8-20				8-15	8-15	15-35	10-20		

☐ good ☐ best



List 345

Modified Bottom (2.5P-3P)



VC10

V

S/O

15°



Tap Size	Thread Limit	No. of Flutes	Modified Bottom (2.5P-3.P)	
			S/O	V
M3 x 0.5	D3	3	1705501	1705508
M4 x 0.7	D4		1705601	1705608
M5 x 0.8	D4		1705701	1705708
M6 x 1.0	D5		1705801	1705808
M8 x 1.25	D5		1705901	1705908
M10 x 1.5	D6		1706101	1706108
M10 x 1.25	D5		1706001	1706008
M12 x 1.75	D6		1706201	1706208

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
345				☐	☐		☐	☐				☐	☐	☐	☐		
SFM				15-30	10-25		12-45	8-20				8-15	8-15	15-35	10-20		

☐ good ☐ best





List 16505 **NEW SIZES**

DIN Overall Length, Modified Bottom (2P-3P), Bottom (1.5P-2P)



VC10

V

Var.



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number	
				Ln	Bottom (1.5P)	Mod Bottom (2.5P)
					V	V
4 - 40 UNC	H2	2	56	19	1650508908	1650500108
4 - 48 UNF	H2		56	19	1650509008	1650500208
5 - 40 UNC	H2		56	19	1650509108	1650500308
5 - 44 UNF	H2		56	19	1650509208	1650500408
6 - 32 UNC	H2	3	56	21	1650509308	1650500608
	H3				1650509408	1650500508
6 - 40 UNF	H2	3	56	21	1650509508	—
		2			—	1650500708
8 - 32 UNC	H2	3	63	22	1650509608	—
	H3				1650509708	—
	H2	2			—	1650500908
	H3				—	1650500808
8 - 36 UNF	H2	3	63	22	1650509808	—
		2			—	1650501008
10 - 24 UNC	H3	3	70	26	1650509908	—
		2			—	1650501108
10 - 32 UNF	H2	3	70	26	1650510008	—
	H3				1650510108	—
	H2	2			—	1650501308
	H3				—	1650501208
12 - 24 UNC	H3	3	80	32	1650510208	—
		2			—	1650501408
12 - 28 UNF	H3	3	80	32	1650510308	—
		2			—	1650501508
12 - 32 UNEF	H3	3	80	32	1650510408	—
		2			—	1650505608
1/4 - 20 UNC	H3	3	80	32	1650510608	—
	H5				1650510708	—
	H3	2			—	1650501708
	H5				—	1650501608
1/4 - 28 UNF	H3	3	80	32	1650510908	—
	H4				1650510808	—
	H3	2			—	1650501908
	H4				—	1650501808
1/4 - 32 UNEF	H3	2	80	32	1650510508	1650505708
		3			1650511008	—
5/16 - 18 UNC	H3	3	90	35	1650511108	1650502108
	H5				1650511208	1650502008
5/16 - 24 UNF	H3		90	35	1650511308	1650502308
	H4				1650511408	1650502208
5/16 - 32 UNEF	H3		80	35	1650511508	1650505808
	H3				1650511608	1650502508
3/8 - 16 UNC	H5		100	39	1650511708	1650502408
	H3				1650511808	1650502708
3/8 - 24 UNF	H4		90	35	1650511908	1650502608
	H3				1650512008	—
3/8 - 32 UNEF	H4		90	35	—	1650505908
	H3				1650512108	1650502908
7/16 - 14 UNC	H3		100	43	1650512208	1650502808
	H5	—			—	

Packed: 1 pc.
Available V coating only.

EXT





List 16505 (Continued) **NEW SIZES**

DIN Overall Length, Modified Bottom (2P-3P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length Ln	EDP Number	
					Bottom (1.5P) V	Mod Bottom (2.5P) V
7/16 - 20 UNF	H3	3	100	43	1650512308	1650503108
	H5				1650512408	1650503008
7/16 - 28 UNEF	H4		90	43	1650512508	1650506008
1/2 - 13 UNC	H3		110	49	1650512608	1650503308
	H5				1650512708	1650503208
1/2 - 20 UNF	H3		100	49	1650512808	1650503508
	H5				1650512908	1650503408
1/2 - 28 UNEF	H4		100	49	1650513008	1650506108
9/16 - 12 UNC	H3		110	50	—	1650503708
	H5				—	1650503608
9/16 - 18 UNF	H3		100	50	—	1650503908
	H5				—	1650503808
9/16 - 24 UNEF	H4	4	100	50	—	1650506208
5/8-11 UNC	H3		110	54	—	1650504108
	H5				—	1650504008
5/8 - 18 UNF	H3		100	54	—	1650504308
	H5				—	1650504208
5/8 - 24 UNEF	H4		100	54	—	1650506308
11/16 - 24 UNEF	H4		110	55	—	1650506408
3/4 - 10 UNC	H3		125	61	—	1650504508
	H5				—	1650504408
3/4 - 16 UNF	H3		110	61	—	1650504708
	H5				—	1650504608
3/4 - 20 UNEF	H5		110	61	—	1650506508
13/16 - 20 UNEF	H5		125	61	—	1650506608
7/8 - 9 UNC	H4		140	67	—	1650504908
	H6				—	1650504808
7/8 - 14 UNF	H4		125	67	—	1650505108
	H6				—	1650505008
7/8 - 20 UNEF	H5		125	67	—	1650506708
15/16 - 20 UNEF	H5		140	68	—	1650506808
1 - 8 UNC	H4		160	76	—	1650505208
	H6				—	1650505308
1 - 12 UNF	H6		140	76	—	1650505408
	H4				—	1650505508
1 - 20 UNEF	H5		140	76	—	1650506908
1 - 8 UNS	H8		160	76	—	1650507008
1,1/8 - 7 UNC	H9		180	97	—	1650507108
1,1/8 - 8 UNS	H9		180	97	—	1650507208
1,1/8 - 12 UNF	H8		150	78	—	1650507308
1,1/4 - 7 UNC	H10		180	100	—	1650507408
1,1/4 - 8 UNS	H9		180	100	—	1650507508
1,1/4 - 12 UNF	H8		150	78	—	1650507608
1,3/8 - 6 UNC	H10		200	115	—	1650507708

Packed: 1 pc.
Available V coating only.

continued on next page **EXT**

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
16505	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			☐			
SFM	80-120	80-120	80-120	35-50	20-40	15-35	15-35	15-25	50-80	70-120	70-120			30-55			

☐ good ☐ best





List 16505 (Continued) **NEW SIZES**

DIN Overall Length, Modified Bottom (2P-3P), Bottom (1.5P-2P)



VC10



Var.



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number	
					Bottom (1.5P)	Mod Bottom (2.5P)
				Ln	V	V
1,3/8 - 8 UNS	H9	4	200	115	—	1650507808
1,3/8 - 12 UNF	H8		170	91	—	1650507908
1,1/2 - 6 UNC	H10		200	115	—	1650508008
1,1/2 - 8 UNS	H9		200	115	—	1650508108
1,1/2 - 12 UNF	H8		170	91	—	1650508208
1,5/8 - 8 UNS	H10		200	110	—	1650508308
1,3/4 - 5 UNC	H11		220	120	—	1650508408
1,3/4 - 8 UNS	H10		200	101	—	1650508508
1,7/8 - 8 UNS	H10		225	125	—	1650508608
2 - 4,1/2 UNC	H12		250	140	—	1650508708
2 - 8 UNS	H10		225	122	—	1650508808

Packed: 1 pc.

Available V coating only.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting						
	1010 1018	1035 1045	1065			4140 4340											
16505	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
SFM	80-120	80-120	80-120	35-50	20-40	15-35	15-35	15-25	50-80	70-120	70-120			30-55			

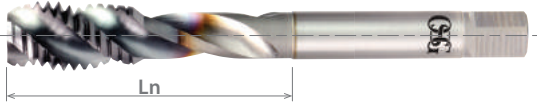
☐ good ☒ best





List 16500 **NEW SIZES**

DIN Overall Length, Modified Bottom (2P-3P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number	
					Bottom (1.5P)	Mod Bottom (2.5P)
				Ln	V	V
M1.4 x 0.3	D2	2	40	12	—	1650003008
M1.6 x 0.35	D3		40	14	—	1650003108
M1.7 x 0.35	D3		40	14	—	1650003208
M2 x 0.4	D3		45	10	—	1650003408
M2 x 0.25	D2		45	10	—	1650003308
M2.2 x 0.45	D3		45	11	—	1650003608
M2.2 x 0.25	D2		45	11	—	1650003508
M2.3 x 0.4	D3		45	13	—	1650003708
M2.5 x 0.45	D3		50	14	—	1650003908
M2.5 x 0.35	D3		50	14	—	1650003808
M2.6 x 0.45	D3		50	14	—	1650004008
M3 x 0.5	D3	3	56	19	1650009808	1650000108
M3 x 0.35	D2	2	56	19	1650009708	—
	D3				—	1650004108
M3.5 x 0.6	D3	3	56	21	1650010008	—
		2			—	1650004308
		3			1650009908	—
M3.5 x 0.35	D3	2	56	21	—	1650004208
		3			1650010208	1650000308
M4 x 0.7	D4	3	63	22	1650010108	1650000208
M4 x 0.5	D3		63	22	1650010408	1650004508
M4.5 x 0.75	D4		70	27	1650010308	1650004408
M4.5 x 0.5	D3		70	27	1650010608	1650000508
M5 x 0.8	D4		70	27	1650010508	1650000408
M5 x 0.5	D3		70	27	1650010708	1650004608
M5.5 x 0.5	D3		80	32	1650011008	1650000808
M6 x 1.0	D5		80	32	1650010908	1650000708
M6 x 0.75	D4		80	32	1650010808	1650000608
M6 x 0.5	D3		80	32	1650011208	1650004808
M7 x 1.0	D5		80	30	1650011108	1650004708
M7 x 0.75	D4		80	30	1650011508	1650001008
M8 x 1.25	D5		90	35	1650011408	1650000908
M8 x 1.0	D5		90	35	1650011308	1650004908
M8 x 0.75	D4		80	33	1650011808	1650005208
M9 x 1.25	D5		90	35	1650011708	1650005108
M9 x 1.0	D5		90	35	1650011608	1650005008
M9 x 0.75	D4		90	35	1650012208	1650001308
M10 x 1.5	D6		100	39		

Packed: 1 pc.
Available V coating only.

[continued on next page](#) **EXT**

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
16500	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
SFM	80-120	80-120	80-120	35-50	20-40	15-35	15-35	15-25	50-80	70-120	70-120			30-55			

☐ good ☒ best





List 16500 (Continued) **NEW SIZES**

DIN Overall Length, Modified Bottom (2P-3P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number	
					Bottom (1.5P)	Mod Bottom (2.5P)
				Ln	V	V
M10 x 1.25	D5	3	100	39	1650012108	1650001208
M10 x 1.0	D5		90	35	1650012008	1650001108
M10 X 0.75	D4		90	35	1650011908	1650005308
M11 x 1.5	D6		100	43	1650012608	1650005608
M11 x 1.25	D5		100	43	1650012508	—
M11 X 1.0	D5		90	43	1650012408	1650005508
M11 x 0.75	D4		90	43	1650012308	1650005408
M12 x 1.75	D6		110	49	1650013008	1650001708
M12 x 1.5	D6		100	49	1650012908	1650001608
M12 x 1.25	D6		100	49	1650012808	1650001508
M12 x 1.0	D5		100	49	1650012708	1650001408
M14 x 2.0	D7		110	50	—	1650001908
M14 x 1.5	D6		100	50	—	1650001808
M14 x 1.25	D6		100	50	—	1650005808
M14 x 1.0	D5		100	50	—	1650005708
M15 X 1.5	D6		100	54	—	1650006008
M15 x 1.0	D5		100	54	—	1650005908
M16 x 2.0	D7		110	54	—	1650002108
M16 x 1.5	D6		100	54	—	1650002008
M16 x 1.0	D5		100	54	—	1650006108
M17 x 1.5	D6		100	55	—	1650006208
M17 x 1.0	D5		100	55	—	1650006308
M18 x 2.5	D7	4	125	55	—	1650002308
M18 x 2.0	D7		125	55	—	1650006508
M18 x 1.5	D6		110	55	—	1650002208
M18 x 1.0	D5		100	55	—	1650006408
M20 x 2.5	D7		140	61	—	1650002508
M20 x 2.0	D7		140	61	—	1650006708
M20 x 1.5	D6		125	61	—	1650002408
M20 x 1.0	D5		125	61	—	1650006608
M22 x 2.5	D7		140	67	—	1650002708
M22 x 2.0	D7		140	67	—	1650006908
M22 x 1.5	D6		125	67	—	1650002608
M22 x 1.0	D5		125	67	—	1650006808
M24 x 3.0	D8		160	68	—	1650002908
M24 x 2.0	D7		140	68	—	1650007108
M24 x 1.5	D6		140	68	—	1650002808
M24 x 1.0	D5		140	68	—	1650007008
M27 x 3.0	D10		160	80	—	1650007408
M27 x 2.0	D8		140	60	—	1650007308
M27 x 1.5	D8		140	60	—	1650007208
M30 x 3.5	D11		180	100	—	1650007708
M30 x 2.0	D9		150	75	—	1650007608
M30 x 1.5	D8		150	75	—	1650007508
M33 x 3.5	D11		180	100	—	1650008008
M33 x 2.0	D9		160	75	—	1650007908
M33 x 1.5	D8		160	75	—	1650007808
M36 x 4.0	D11		200	115	—	1650008408
M36 X 3.0	D10		200	115	—	1650008308

Packed: 1 pc.
Available V coating only.

EXT





List 16500 (Continued) **NEW SIZES**

DIN Overall Length, Modified Bottom (2P-3P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number	
					Bottom (1.5P)	Mod Bottom (2.5P)
				Ln	V	V
M36 x 2.0	D9	4	170	85	—	1650008208
M36 x 1.5	D8		170	85	—	1650008108
M39 x 4.0	D11		200	110	—	1650008508
M42 x 3.0	D12		200	100	—	1650008808
M42 x 2.0	D9		200	100	—	1650008708
M42 x 4.5	D12		170	70	—	1650008908
M42 x 1.5	D8		170	70	—	1650008608
M45 x 4.5	D12		220	120	—	1650009108
M45 x 3.0	D10		200	100	—	1650009008
M48 x 5.0	D13		250	140	—	1650009508
M48 x 3.0	D11		225	115	—	1650009408
M48 x 2.0	D9		190	80	—	1650009308
M48 x 1.5	D8		190	80	—	1650009208
M56 x 5.5	D14		250	130	—	1650009608

Packed: 1 pc.

Available V coating only.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy Inconel	Titanium 6Al4V (30 HRC)	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
16500	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐		☒				
SFM	80-120	80-120	80-120	35-50	20-40	15-35	15-35	15-25	50-80	70-120	70-120			30-55			

☐ good ☒ best





List 16545 NEW!

Coolant-Through, DIN Overall Length, Modified Bottom (2.5P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Mod Bottom (2.5P) V
1/4 - 20 UNC	H5	3	80	30	1654500108
1/4 - 28 UNF	H4		80	30	1654500208
5/16 - 18 UNC	H5		90	35	1654500308
5/16 - 24 UNF	H4		90	35	1654500408
3/8 - 16 UNC	H5		100	39	1654500508
3/8 - 24 UNF	H4		90	35	1654500608
7/16 - 14 UNC	H5		100	43	1654500708
7/16 - 20 UNF	H5		100	43	1654500808
1/2 - 13 UNC	H5		110	49	1654500908
1/2 - 20 UNF	H5		100	49	1654501008
9/16 - 12 UNC	H5		110	50	1654501108
9/16 - 18 UNF	H5		100	50	1654501208
5/8 - 11 UNC	H5		110	54	1654501308
5/8 - 18 UNC	H5		100	54	1654501408
3/4 - 10 UNC	H5	4	125	61	1654501508
3/4 - 16 UNF	H5		110	61	1654501608
7/8 - 9 UNC	H6		140	67	1654501708
7/8 - 14 UNF	H6		125	67	1654501808
1 - 8 UNC	H6		160	76	1654501908
1 - 12 UNC	H6		140	76	1654502008
1,1/8 - 7 UNC	H9		180	97	1654502108
1,1/8 - 8 UNS	H9		180	97	1654502208
1,1/8 - 12 UNF	H8		150	78	1654502308
1,1/4 - 7 UNC	H10		180	100	1654502408
1,1/4 - 8 UNS	H9		180	100	1654502508
1,1/4 - 12 UNF	H8		150	78	1654502608
1,3/8 - 6 UNC	H10		200	115	1654502708
1,3/8 - 8 UNS	H9		200	115	1654502808
1,3/8 - 12 UNF	H8		170	91	1654502908
1,1/2 - 6 UNC	H10		200	115	1654503008
1,1/2 - 8 UNS	H9		200	115	1654503108
1,1/2 - 12 UNF	H8		170	91	1654503208
1,5/8 - 8 UNS	H10		200	110	1654503308
1,3/4 - 5 UNC	H11		220	120	1654503408
1,3/4 - 8 UNS	H10		200	101	1654503508
1,7/8 - 8 UNS	H10		225	125	1654503608
2 - 4,1/2 UNC	H12		250	140	1654503708
2 - 8 UNS	H10		225	122	1654503808
					1654503908

Packed: 1 pc.

Available V coating only.

EXT

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High														
	1010 1018	1035 1045	1065	4140 4340		300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
16545	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
SFM	100-200	100-200	100-200	50-100	40-80	25-70	25-70	25-50	60-150	90-220	90-220			50-100			

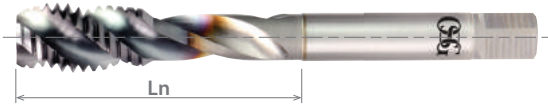
☐ good ☒ best





List 16540 **NEW!**

Coolant-Through, DIN Overall Length, Modified Bottom (2.5P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Mod Bottom (2.5P) V
M6 x 1.0	D5	3	80	30	1654000208
M6 x 0.75	D4		80	30	1654000108
M7 x 1.0	D5		80	30	1654000308
M8 x 1.25	D5		90	35	1654000608
M8 x 1.0	D5		90	35	1654000508
M8 X 0.75	D4		80	33	1654000408
M9 x 1.25	D5		90	35	1654000708
M10 x 1.5	D6		100	39	1654001008
M10 x 1.25	D5		100	39	1654000908
M10 x 1.0	D5		90	35	1654000808
M11 x 1.5	D6		100	43	1654001108
M12 x 1.75	D6		110	49	1654001508
M12 x 1.5	D6		100	49	1654001408
M12 x 1.25	D6		100	49	1654001308
M12 x 1.0	D5		100	49	1654001208
M14 x 2.0	D7		110	50	1654001708
M14 x 1.5	D6		100	50	1654001608
M15 x 1.5	D6		100	54	1654001808
M16 x 2.0	D7		110	54	1654002008
M16 x 1.5	D6		100	54	1654001908
M17 x 1.5	D6		100	55	1654002108
M18 x 2.5	D7	4	125	55	1654002308
M18 x 1.5	D6		110	55	1654002208
M20 x 2.5	D7		140	61	1654002508
M20 x 1.5	D6		125	61	1654002408
M22 x 2.5	D7		140	67	1654002808
M22 x 2.0	D7		140	67	1654002708
M22 x 1.5	D6		125	67	1654002608
M24 x 3.0	D8		160	68	1654003108
M24 x 2.0	D7		140	68	1654003008
M24 x 1.5	D6		140	68	1654002908
M27 x 3.0	D10		160	80	1654003208
M30 x 3.5	D11		180	100	1654003308
M33 x 3.5	D11		180	95	1654003408
M36 x 4.0	D11		200	115	1654003508
M39 x 4.0	D11		200	110	1654003608
M42 x 4.5	D12		200	100	1654003708
M45 x 4.5	D12		220	120	1654003808
M48 x 5.0	D13		250	140	1654003908
M56 x 5.5	D14		250	130	1654004008

Packed: 1 pc.

Available V coating only.

EXT

Work Material

List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
16540	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
SFM	100-200	100-200	100-200	50-100	40-80	25-70	25-70	25-50	60-150	90-220	90-220			50-100			

☐ good ☒ best





List 16525 NEW!

Long Shank, Modified Bottom (2.5P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Mod Bottom (2.5P)
					V
6 - 32 UNC	H3	2	120	21	1652500608
6 - 40 UNF	H2		100	21	1652500708
8 - 32 UNC	H3		120	22	1652500908
8 - 36 UNF	H2		100	22	1652501008
10 - 24 UNC	H3		125	26	1652501108
10 - 32 UNF	H3		150	26	1652501308
12 - 24 UNC	H3		125	32	1652501408
12 - 28 UNF	H3		125	32	1652501508
1/4 - 20 UNC	H5		150	32	1652501708
1/4 - 28 UNF	H4		150	32	1652501908
5/16 - 18 UNC	H5	3	150	35	1652502108
5/16 - 24 UNF	H4		150	35	1652502308
3/8 - 16 UNC	H5		150	39	1652502508
3/8 - 24 UNF	H4		150	35	1652502708
7/16 - 14 UNC	H5		150	60	1652502908
7/16 - 20 UNF	H5		150	60	1652503108
1/2 - 13 UNC	H5		180	72	1652503308
1/2 - 20 UNF	H5		180	72	1652503508
9/16 - 12 UNC	H5		180	72	1652503708
9/16 - 18 UNF	H5		180	72	1652503908
5/8 - 11 UNC	H5	4	180	72	1652504108
5/8 - 18 UNF	H5		180	72	1652504308
3/4 - 10 UNC	H5		200	80	1652504508
3/4 - 16 UNF	H5		200	80	1652504708
7/8 - 9 UNC	H6		200	80	1652504908
7/8 - 14 UNF	H6		200	80	1652505108
1 - 8 UNC	H6		200	88	1652505308
1 - 12 UNF	H6		200	88	1652505508

Packed: 1 pc.

Available V coating only.

Shank diameter is standard ANSI.



Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
	1010 1018	1035 1045	1065	4140 4340													
16525	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
SFM	80-120	80-120	80-120	35-50	20-40	15-35	15-35	15-25	50-80	70-120	70-120			30-55			

☐ good ☒ best





List 16520 **NEW!**

Long Shank, Modified Bottom (2.5P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Mod Bottom (2.5P) V
M3 x 0.5	D3	3	100	19	1652001308
M3 x 0.35	D3		100	21	1652001208
M3.5 x 0.6	D3		100	21	1652001508
M3.5 x 0.35	D3		100	21	1652001408
M4 x 0.7	D4		100	22	1652001708
M4 x 0.5	D3		100	22	1652001608
M4.5 x 0.75	D4		100	27	1652001908
M4.5 x 0.5	D3		100	27	1652001808
M5 x 0.8	D4		125	27	1652002108
M5 x 0.5	D3		125	27	1652002008
M5.5 x 0.5	D3		125	32	1652002208
M6 x 1.0	D5		150	32	1652002708
M6 x 0.75	D4		150	32	1652002508
M6 x 0.5	D3		125	32	1652002308
M8 x 1.25	D5		150	35	1652003708
M8 x 1.0	D5		150	35	1652003508
M8 x 0.75	D4		150	33	1652003308
M10 x 1.5	D6		150	39	1652005108
M10 x 1.25	D5		150	39	1652004908
M10 x 1.0	D5		150	35	1652004708
M10 x 0.75	D4		150	35	1652004508
M12 x 1.75	D6		180	72	1652006708
M12 x 1.5	D6		180	72	1652006508
M12 x 1.25	D6		180	72	1652006308
M12 x 1.0	D5		180	72	1652006108
M14 x 2	D7		150	60	1652007108
M14 x 1.5	D6		150	60	1652007008
M14 x 1.25	D6		150	60	1652006908
M14 x 1.0	D5		150	60	1652006808
M15 x 1.5	D6		160	64	1652007308
M15 x 1.0	D5		160	64	1652007208
M16 x 2.0	D7		180	70	1652007708
M16 x 1.5	D6		160	64	1652007508
M16 x 1.0	D5		160	64	1652007408
M18 x 2.5	D7	4	180	72	1652008308
M18 x 2.0	D7		180	72	1652008208
M18 x 1.5	D6		180	72	1652008108
M18 x 1.0	D5		180	72	1652008008
M20 x 2.5	D7		200	80	1652008708
M20 x 2.0	D7		200	80	1652008608

Packed: 1 pc.

Available V coating only.

Shank diameter is standard ANSI.

continued on next page **EXT**

Work Material

List No.	P					M			K	N		S		H			
	Carbon Steels				Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High	Alloy Steels		300	400	17-4 PH		6061	Casting	Inconel	6Al4V				
	1010	1035	1045	1065		4140	4340			7075			(30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
16520	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
SFM	80-120	80-120	80-120	35-50	20-40	15-35	15-35	15-25	50-80	70-120	70-120			30-55			

☐ good ☒ best





List 16520 (Continued) **NEW!**

Long Shank, Modified Bottom (2.5P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Mod Bottom (2.5P) V
M20 x 1.5	D6	4	200	80	1652008508
M20 x 1.0	D5		200	80	1652008408
M22 x 2.5	D7		200	80	1652009108
M22 x 2.0	D7		200	80	1652009008
M22 x 1.5	D6		200	80	1652008908
M22 x 1.0	D5		200	80	1652008808
M24 x 3.0	D8		200	83	1652009508
M24 x 2.0	D7		200	83	1652009408
M24 x 1.5	D6		200	83	1652009308
M24 x 1.0	D5		200	83	1652009208

Packed: 1 pc.

Available V coating only.

Shank diameter is standard ANSI.

EXT

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
	1010 1018	1035 1045	1065	4140 4340													
16520	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
SFM	80-120	80-120	80-120	35-50	20-40	15-35	15-35	15-25	50-80	70-120	70-120			30-55			

☐ good ☒ best





List 303

Modified Bottom (2.5P-3P), Bottom (1.5P-2P)



HSSE

V

TiN

S/O

45°



Tap Size	Thread Limit	No. of Flutes	EDP Number				
			Bottom (1.5P - 2P)		Modified Bottom (2.5P - 3P)		
			S/O	V	S/O	TiN	V
2 - 56 UNC	H2	2	0135401	0135408	1748901	—	—
3 - 48 UNC	H2		0135501	0135508	1748701	—	—
4 - 40 UNC	H2	3	—	—	1763901	1763905	1763908
			0135601	0135608	1732001	—	1732008
	H3	2	—	—	1748001	—	—
		3	0135701	0135708	1722001	—	1722008
		2	—	—	1748101	—	—
			1748301	—	1748201	—	—
4 - 48 UNF	H2	3	—	—	1748401	—	—
5 - 40 UNC	H2		0135801	0135808	1748801	—	—
6 - 32 UNC	H2		0135901	0135908	1732101	—	1732108
	H3		0136001	0136008	1724201	—	1724208
	H4		0136101	0136108	1732201	1732205	1732208
	H5		—	—	1746701	—	—
	H7		1746801	—	1722201	—	1722208
6 - 40 UNF	H2		1746901	—	—	—	—
	H3		0136201	0136208	1748501	—	—
8 - 32 UNC	H2		—	—	1748601	—	—
	H3		0136301	0136308	1724301	—	1724308
	H4		0136401	0136408	1732301	1732305	1732308
	H5		1747101	—	1747001	—	—
	H6		—	—	1722301	—	1722308
	H7		—	—	1747201	—	—
8 - 36 UNF	H3		—	—	1747301	—	—
10 - 24 UNC	H2		0136501	0136508	—	—	—
	H3		0136601	0136608	1724501	—	1724508
	H5		0136701	0136708	1732401	1732405	1732408
	H7		1749501	—	1749401	—	—
10 - 32 UNF	H2		—	—	1749601	—	—
	H3		0136801	0136808	1724601	—	1724608
	H4		0136901	0136908	1732501	1732505	1732508
	H5		—	—	1747401	—	—
	H6		1747501	—	1722501	—	1722508
	H7		—	—	1747601	—	—
12 - 24 UNC	H3		—	—	1747701	—	—
12 - 28 UNF	H3		0137001	0137008	1749701	—	—
			—	—	1749801	—	—

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide, V or TiN coatings as shown above.

continued on next page



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
303																	
SFM	25-80	20-50	20-45			20-45	20-45	8-20									

☐ good ☒ best




List 303 (Continued)

Modified Bottom (2.5P-3P), Bottom (1.5P-2P)



HSSE

V

TiN

S/O

45°



Tap Size	Thread Limit	No. of Flutes	EDP Number				
			Bottom (1.5P - 2P)		Modified Bottom (2.5P - 3P)		
			S/O	V	S/O	TiN	V
1/4 - 20 UNC	H2	3	—	—	1762601	—	—
	H3		0137101	0137108	1732601	1732605	1732608
	H5		0137201	0137208	1722601	—	1722608
	H7		—	—	1762701	—	—
1/4 - 28 UNF	H2		—	—	1763401	—	—
	H3		0137301	0137308	1732701	1732705	1732708
	H4		0137401	0137408	1722701	—	1722708
	H5		1763601	—	1763501	—	—
	H6		—	—	1763701	—	—
	H7		—	—	1763801	—	—
	H7		—	—	1763801	—	—
5/16 - 18 UNC	H3		0137501	0137508	1732801	1732805	1732808
	H5		0137601	0137608	1722801	—	1722808
	H7		—	—	1762201	—	—
5/16 - 24 UNF	H3		0137701	0137708	1732901	1732905	1732908
	H4		0137801	0137808	1722901	—	1722908
	H5		1763201	—	1763101	—	—
	H7		—	—	1763301	—	—
3/8 - 16 UNC	H3		0137901	0137908	1733001	1733005	1733008
	H5		0138001	0138008	1723001	—	1723008
	H7		—	—	1761801	—	—
3/8 - 24 UNF	H3		0138101	0138108	1733101	1733105	1733108
	H4		0138201	0138208	1723101	—	1723108
	H5		1763001	—	1762901	—	—
7/16 - 14 UNC	H3		0138301	0138308	1733201	1733205	1733208
	H5		—	—	1723201	—	1723208
	H7		—	—	1761701	—	—
7/16 - 20 UNF	H3		0138401	0138408	1733301	1733305	1733308
	H5		0138501	0138508	1723301	—	1723308
	H7		—	—	1762801	—	—
	H7		—	—	1762801	—	—
1/2 - 13 UNC	H3		0138601	0138608	1733401	1733405	1733408
	H5		0138701	0138708	1723401	—	1723408
	H7		—	—	1750001	—	—
1/2 - 20 UNF	H3		0138801	0138808	1733501	1733505	1733508
	H5		0138901	0138908	1723501	—	1723508
	H6		—	—	1762401	—	—
	H7		—	—	1762501	—	—
9/16 - 12 UNC	H3	3	—	—	1749901	1749905	1749908
		4	0139001	0139008	1726001	—	1726008
9/16 - 18 UNF	H3	3	—	—	1762301	1762305	1762308
		4	0139101	0139108	1726101	—	1726108
5/8 - 11 UNC	H3	3	—	—	1749101	1749105	1749108
		4	0139201	0139208	1733601	—	1733608
		3	—	—	1749201	—	—
	H5	4	0139301	0139308	—	—	—
		3	—	—	1749301	—	—
	H7	3	—	—	1749301	—	—
5/8 - 18 UNF	H3	3	—	—	—	1761905	1761908
		4	0139401	0139408	1733701	—	1733708
	H5	3	—	—	1762001	—	—
		4	0139501	0139508	—	—	—
	H7	3	—	—	1762101	—	—

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide, V or TiN coatings as shown above.

EXT





List 303 (Continued)

Modified Bottom (2.5P-3P), Bottom (1.5P-2P)



HSSE

V

TiN

S/O

45°

Tap Size	Thread Limit	No. of Flutes	EDP Number				
			Bottom (1.5P - 2P)		Modified Bottom (2.5P - 3P)		
			S/O	V	S/O	TiN	V
3/4 - 10 UNC	H3	4	0139601	0139608	1733801	1733805	1733808
	H6		0139701	0139708	—	—	—
3/4 - 16 UNF	H3		0139801	0139808	1733901	1733905	1733908
	H5		0139901	0139908	—	—	—
7/8 - 9 UNC	H4		—	—	1726201	—	1726208
7/8 - 14 UNF	H4		0140001	0140008	1726301	—	1726308
1 - 8 UNC	H4		—	—	1726401	—	1726408
1 - 12 UNF	H4		—	—	1749001	—	—

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide, V or TiN coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy Inconel	Titanium 6Al4V (30 HRC)	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
303																	
SFM	25-80	20-50	20-45			20-45	20-45	8-20									

☐ good ☒ best





List 343

Modified Bottom (2.5P-3P)



HSSE

V

TiN

S/O

45°



Tap Size	Thread Limit	No. of Flutes	EDP Number			
			Bottom (1.5P - 2P)	Modified Bottom (2.5P - 3P)		
			S/O	S/O	TiN	V
M3 x 0.5	D3	3	1755001	1755101	—	—
	D4		—	1746401	—	—
M4 x 0.7	D4		1755301	1755401	1755405	1755408
M5 x 0.8	D4		1755601	1755701	1755705	1755708
M6 x 1.0	D5		1755901	1756001	1756005	1756008
M8 x 1.25	D5		1756201	1756301	1756305	1756308
M8 x 1.0	D5		1746501	1746601	—	—
M10 x 1.5	D6		1756501	1756601	1756605	1756608
M10 x 1.25	D5		—	1745701	—	—
M12 x 1.75	D6		1756801	1756901	1756905	1756908
M12 x 1.25	D5		—	1745801	—	—
M14 x 2.0	D7		1755801	1746001	—	—
M14 x 1.5	D6		1756101	1745901	—	—
M16 x 2.0	D7		1755501	1746201	—	—
M16 x 1.5	D6		1755201	1746101	—	—
M18 x 1.5	D6	4	—	1746301	—	—

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide, V or TiN coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
343																	
SFM	25-80	20-50	20-45			20-45	20-45	8-20									

☐ good ☐ best





List 398

Long Shank, Modified Bottom (2.5P-3P), Bottom (1.5P-2P)



HSSE

S/O

30°



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number	
					Bottom (1.5P - 2P)	Modified Bottom (2.5P - 3P)
			L	Ln	S/O	S/O
4 - 40 UNC	H2	3	4	0.843	—	1766101
			6		0143701	—
6 - 32 UNC	H3		4	1.031	—	1766301
			6		0143801	1766501
8 - 32 UNC	H3		4	1.125	—	1766701
			6		0143901	1766901
10 - 24 UNC	H3		4	1.312	—	1767101
			6		—	1767301
			4		—	1767501
10 - 32 UNF	H3		6		0144001	1767701
1/4 - 20 UNC	H3		4	1.500	—	1767901
			6		0144101	1768101
			6		0144201	1768301
5/16 - 18 UNC	H3		6	1.687	0144301	1768501
5/16 - 24 UNF	H3		6		—	1768601
3/8 - 16 UNC	H3		6	1.875	0144401	1768701
3/8 - 24 UNF	H3		6		0144501	1768801
7/16 - 14 UNC	H3		6		0144601	1768901
7/16 - 20 UNF	H3		6		—	1769001
1/2 - 13 UNC	H3		6		—	1769101
1/2 - 20 UNC	H3		6		—	1769201
5/8 - 11 UNC	H3	4	6		—	1769301

Packed: 1 pc.

Available Steam Oxide finish only.

Neck length is designed for reaching 50% deeper holes than ANSI standard taps.

Shank diameter is standard ANSI.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
398	☐	○	○			☐	☐	○									
SFM	25-80	20-50	20-45			20-45	20-45	8-20									

☐ good ☐ best





List 220

DIN Overall Length, Modified Bottom (2.5P - 3P)



HSSE

S/O

45°



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				S/O	
4 - 40UNC	2B	3	56	2211401	
6 - 32 UNC			56	2212401	
8 - 32 INC			63	2217801	
10 - 24 UNC			70	2213401	
10 - 32 UNF			70	2218801	
1/4 - 20 UNC			80	2230001	
1/4 - 28 UNF			80	2230401	
5/16 - 18 UNC			90	2230801	
5/16 - 24 UNF			90	2231201	
3/8 - 16 UNC			100	2231601	
3/8-24 UNF		4	100	2231801	
7/16 - 14 UNC			100	2232001	
7/16 - 20 UNF			100	2232201	
1/2 - 13 UNC			110	2232401	
1/2 - 20 UNF			100	2232601	
5/8 - 11 UNC			110	2233201	
5/8 - 18 UNF			100	2233401	
3/4 - 10 UNC			125	2233601	
3/4 - 16 UNF			110	2233801	
7/8 - 9 UNC			140	2244001	
7/8 - 14 UNF			125	2239201	

Packed: 1 pc.
Available Steam Oxide finish only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				S/O	
1 - 8 UNC	2B	4	160	2244401	
1 - 12 UNF			140	2239601	
1,1/8 - 7 UNC			180	2247201	
1,1/8 - 12 UNF			150	2245001	
1,1/8 - 8 UNS			180	2247601	
1,1/4 - 7 UNC			180	2247701	
1,1/4 - 12 UNF			150	2245601	
1,1/4 - 8 UNS			180	2247901	
1,3/8 - 6 UNC			200	2248001	
1,3/8 - 8 UNS			200	2248201	
1,3/8 - 12 UNF		5	170	2246201	
1,1/2 - 6 UNC			200	2248301	
1,1/2 - 8 UNS			200	2248501	
1,1/2 - 12 UNF			170	2246801	
1,5/8 - 8 UNS			200	2248601	
1,3/4 - 5 UNC			220	2248701	
1,3/4 - 8 UNS			200	2248801	
1,7/8 - 8 UNS			225	2248901	
2 - 4,1/2 UNC			250	2249001	
2 - 8 UNS			225	2249101	

Packed: 1 pc.
Available Steam Oxide finish only.



Work Material																			
List No.	P					M			K	N		S		H					
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels					
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065																
220	☐	☐	☒	☒	☐	☐	☐	☐	☐					☐					
SFM	25-80	20-50	20-45	20-50	15-30	20-45	20-40	15-20	25-75					15-35					

☐ good ☒ best





List 229

DIN Overall Length, Modified Bottom (2.5P-3P)



HSSE

S/O



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				S/O	
M3 x 0.5	6H	3	56	2290401	
M4 x 0.7			63	2290601	
M5 x 0.8			70	2290801	
M6 x 1.0			80	2291001	
M8 x 1.25			90	2291401	
M10 x 1.5			100	2291801	
M10 x 1.25			100	2291701	
M12 x 1.75			110	2292301	
M12 x 1.5			100	2292201	

Packed: 1 pc.
Available Steam Oxide finish only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				S/O	
M12 x 1.25	6H	3	100	2292101	
M14 x 2.0			110	2292601	
M14 x 1.5			100	2292501	
M16 x 2.0		4	110	2292901	
M16 x 1.5			100	2292801	
M18 x 2.5			125	2293201	
M18 x 1.5			110	2293001	
M20 x 1.5			140	2293601	
M20 x 1.5			125	2293401	

Packed: 1 pc.
Available Steam Oxide finish only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
229	☐	☐	☒	☒	☐	☐	☐	☐	☐					☐			
SFM	25-80	20-50	20-45	20-50	15-30	20-45	20-40	15-20	25-75					15-35			

☐ good ☒ best





List 230

Coolant-Through, DIN Overall Length, Modified Bottom (2.5P-3P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				TiN	
1/4 - 20 UNC	2B	3	80	2330005	
1/4 - 28 UNF			80	2330405	
5/16 - 18 UNC			90	2330805	
5/16 - 24 UNF			90	2331205	
3/8 - 16 UNC			100	2331605	
3/8 - 24 UNF			100	2331805	
7/16 - 14 UNC			100	2332005	
7/16 - 20 UNF			100	2332205	
1/2 - 13 UNC			110	2332405	
1/2 - 20 UNF			100	2332605	

Packed: 1 pc.
Available TiN finish only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				TiN	
9/16 - 18 UNF	2B	4	100	2333005	
5/8 - 11 UNC			110	2333205	
5/8 - 18 UNF			100	2333405	
3/4 - 10 UNC			125	2333605	
3/4 - 16 UNF			110	2333805	
7/8 - 9 UNC			140	2334005	
7/8 - 14 UNF			125	2334205	
1 - 8 UNC			160	2334405	

Packed: 1 pc.
Available TiN finish only.



List 239

Coolant-Through, DIN Overall Length, Modified Bottom (2.5P-3P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				TiN	
M6 x 1.0	6H	3	80	2391005	
M8 x 1.25			90	2391405	
M10 x 1.5			100	2391805	
M10 x 1.25			100	2391705	
M12 x 1.75			110	2392305	
M12 x 1.5			100	2392205	
M12 x 1.25			100	2392105	
M14 x 2.0			110	2392605	

Packed: 1 pc.
Available TiN finish only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				TiN	
M14 x 1.5	6H	3	100	2392505	
M16 x 2.0			110	2392905	
M16 x 1.5			100	2392805	
M18 x 2.5		4	125	2393205	
M18 x 1.5			110	2393005	
M20 x 2.5			140	2393605	
M20 x 1.5			125	2393405	

Packed: 1 pc.
Available TiN finish only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
230	☐	☐	☒	☒	☒	☐	☐	☐	☐	☐	☐			☐			
239	☐	☐	☒	☒	☒	☐	☐	☐	☐	☐	☐			☐			
SFM	50-120	45-110	40-100	45-110	20-60	20-70	30-50	20-50	40-100	50-125	50-110			20-60			

☐ good ☒ best





List 13013

Coolant-Through, DIN Overall Length, Bottom (1.5P-2P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Bottom (1.5P - 2P)	
				V	
1/4 - 20 UNC	2B	3	80	1301300508	
1/4 - 28 UNF			80	1301300608	
5/16 - 18 UNC			90	1301300708	
5/16 - 24 UNF			90	1301300808	
3/8 - 16 UNC			100	1301300908	
3/8 - 24 UNF			100	1301301008	
7/16 - 14 UNC			100	1301301108	

Packed: 1 pc.
Available V coating only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Bottom (1.5P - 2P)	
				V	
7/16 - 20 UNF	2B	3	100	1301301208	
1/2 - 13 UNC			110	1301301308	
1/2 - 20 UNF			100	1301301408	
5/8 - 11 UNC		4	110	1301301508	
5/8 - 18 UNF			100	1301301608	
3/4 - 10 UNC			125	1301301708	
3/4 - 16 UNF			110	1301301808	

Packed: 1 pc.
Available V coating only.



List 13113

Coolant-Through, DIN Overall Length, Bottom (1.5P-2P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Bottom (1.5P - 2P)	
				V	
M6 x 1.0	6H	3	80	1311300508	
M8 x 1.25			90	1311300608	
M10 x 1.5			100	1311300808	
M10 x 1.25			100	1311300708	
M12 x 1.75			110	1311301108	
M12 x 1.5			100	1311301008	
M12 x 1.25			100	1311300908	
M14 x 2.0			110	1311301308	

Packed: 1 pc.
Available V coating only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Bottom (1.5P - 2P)	
				V	
M14 x 1.5	6H	3	100	1311301208	
M16 x 2.0			110	1311301508	
M16 x 1.5			100	1311301408	
M18 x 2.5		4	125	1311301708	
M18 x 1.5			110	1311301608	
M20 x 2.5			140	1311301908	
M20 x 1.5			125	1311301808	

Packed: 1 pc.
Available V coating only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High														
	1010 1018	1035 1045	1065	4140 4340		300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
13013			☐	☒	☐				☐		☐			☐	☐		
13113			☐	☒	☐				☐		☐			☐	☐		
SFM			40-100	45-110	20-60				40-100		50-110			20-60	15-50		

☐ good ☒ best





List 13014

Horizontal Applications, DIN Overall Length, Modified Bottom (2.5P-3P)



HSSE

S/O

15°



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				S/O	
1/2 - 13 UNC	2B	4	110	1301402601	
1/2 - 20 UNF			100	1301402701	
9/16 - 12 UNC			110	1301400101	
9/16 - 18 UNF			100	1301400201	
5/8 - 11 UNC			110	1301400301	
5/8 - 18 UNF			100	1301400401	
3/4 - 10 UNC			125	1301400501	
3/4 - 16 UNF			110	1301402801	
7/8 - 9 UNC		5	140	1301400601	
7/8 - 14 UNF			125	1301402901	
1 - 8 UNC			160	1301400701	
1 - 12 UNF			140	1301403001	
1 1/8 - 7 UNC			180	1301400901	
1 1/8 - 8 UNS			180	1301401101	
1 1/8 - 12 UNF			150	1301403101	
1 1/4 - 7 UNC			180	1301401201	
1 1/4 - 8 UNS			180	1301401401	

Packed: 1 pc.
Available Steam Oxide finish only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				S/O	
1 1/4 - 12 UNF	2B	5	150	1301403201	
1 3/8 - 6 UNC			200	1301401501	
1 3/8 - 8 UNS			200	1301401701	
1 3/8 - 12 UNF			170	1301403901	
1 1/2 - 6 UNC			200	1301401801	
1 1/2 - 8 UNS			200	1301402001	
1 1/2 - 12 UNF			170	1301403301	
1 5/8 - 8 UNS		6	200	1301402101	
1 3/4 - 5 UNC			220	1301403501	
1 3/4 - 8 UNS			200	1301402201	
1 7/8 - 8 UNS			225	1301402301	
2 - 4 1/2 UNC			250	1301403601	
2 - 8 UNS			225	1301402401	
2 1/4 - 4 1/2 UNC			280	1301403701	
2 1/4 - 8 UNS			250	1301404001	
2 1/2 - 4 UNC			315	1301403801	
2 1/2 - 8 UNS			275	1301402501	

Packed: 1 pc.
Available Steam Oxide finish only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High							6061	Casting	Inconel					
	1010	1035	1065							7075			6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1045															
13014	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐		
SFM	25-80	20-50	20-45	20-50	15-20	20-45	20-45	15-20	25-75					15-35	8-15		

☐ good ☒ best





List 13024

Horizontal Applications, Coolant-Through, DIN Overall Length,
Modified Bottom (2.5P-3P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				S/O	
1/2 - 13 UNC	2B	4	110	1302402601	
1/2 - 20 UNF			100	1302402701	
9/16 - 12 UNC			110	1302400101	
9/16 - 18 UNF			100	1302400201	
5/8 - 11 UNC			110	1302400301	
5/8 - 18 UNF			100	1302400401	
3/4 - 10 UNC			125	1302400501	
3/4 - 16 UNF			110	1302402801	
7/8 - 9 UNC		5	140	1302400601	
7/8 - 14 UNF			125	1302402901	
1 - 8 UNC			160	1302400701	
1 - 12 UNF			140	1302403001	
1,1/8 - 7 UNC			180	1302400901	
1,1/8 - 8 UNS			180	1302401101	
1,1/8 - 12 UNF			150	1302403101	
1,1/4 - 7 UNC			180	1302401201	
1,1/4 - 8 UNS			180	1302401401	

Packed: 1 pc.
Available Steam Oxide finish only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				S/O	
1,1/4 - 12 UNF	2B	5	150	1302403201	
1,3/8 - 6 UNC			200	1302401501	
1,3/8 - 8 UNS			200	1302401701	
1,3/8 - 12 UNF			170	1302403901	
1,1/2 - 6 UNC			200	1302401801	
1,1/2 - 8 UNS			200	1302402001	
1,1/2 - 12 UNF			170	1302403301	
1,5/8 - 8 UNS		6	200	1302402101	
1,3/4 - 5 UNC			220	1302403501	
1,3/4 - 8 UNS			200	1302402201	
1,7/8 - 8 UNS			225	1302402301	
2 - 4,1/2 UNC			250	1302403601	
2 - 8 UNS			225	1302402401	
2,1/4 - 4,1/2 UNC			280	1302403701	
2,1/4 - 8 UNS			250	1302404001	
2,1/2 - 4 UNC			315	1302403801	
2,1/2 - 8 UNS			275	1302402501	

Packed: 1 pc.
Available Steam Oxide finish only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
13024	☐	☐	☐	☐	☐	☐	☐	☐	☐					☐	☐		
SFM	50-120	45-110	40-100	45-110	20-60	30-70	30-70	20-50	40-100					20-60	15-50		

☐ good ☐ best





List 13015

Vertical Applications, DIN Overall Length, Modified Bottom (2.5P-3P)



HSSE

S/O



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				S/O	
1/2 - 13 UNC	2B	3	110	1301502601	
1/2 - 20 UNF			100	1301502701	
9/16 - 12 UNC			110	1301500101	
9/16 - 18 UNF		4	100	1301500201	
5/8 - 11 UNC			110	1301500301	
5/8 - 18 UNF			100	1301500401	
3/4 - 10 UNC			125	1301500501	
3/4 - 16 UNF			110	1301502801	
7/8 - 9 UNC			140	1301500601	
7/8 - 14 UNF			125	1301502901	
1 - 8 UNC			160	1301500701	
1 - 12 UNF			140	1301503001	
1,1/8 - 7 UNC			180	1301500901	
1,1/8 - 8 UNS			180	1301501101	
1,1/8 - 12 UNF			150	1301503101	
1,1/4 - 7 UNC		5	180	1301501201	
1,1/4 - 8 UNS			180	1301501401	

Packed: 1 pc.
Available Steam Oxide finish only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				S/O	
1,1/4 - 12 UNF	2B	5	150	1301503201	
1,3/8 - 6 UNC			200	1301501501	
1,3/8 - 8 UNS			200	1301501701	
1,3/8 - 12 UNF			170	1301503401	
1,1/2 - 6 UNC			200	1301501801	
1,1/2 - 8 UNS			200	1301502001	
1,1/2 - 12 UNF		6	170	1301503301	
1,5/8 - 8 UNS			200	1301502101	
1,3/4 - 5 UNC			220	1301503501	
1,3/4 - 8 UNS			200	1301502201	
1,7/8 - 8 UNS			225	1301502301	
2 - 4,1/2 UNC			250	1301503601	
2 - 8 UNS			225	1301502401	
2,1/4 - 4,1/2 UNC			280	1301503701	
2,1/4 - 8 UNS			250	1301504001	
2,1/2 - 4 UNC			315	1301503801	
2,1/2 - 8 UNS			275	1301502501	

Packed: 1 pc.
Available Steam Oxide finish only.



Work Material																		
List No.	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340												
13015	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐			
SFM	25-80	20-50	20-45	20-50	15-20	20-45	20-45	15-20	25-75					15-35	8-15			

☐ good ☒ best





List 13025

Vertical Applications, Coolant-Through, DIN Overall Length,
Modified Bottom (2.5P-3P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				S/O	
1/2 - 13 UNC	2B	3	110	1302502601	
1/2 - 20 UNF			100	1302502701	
9/16 - 12 UNC		4	110	1302500101	
9/16 - 18 UNF			100	1302500201	
5/8 - 11 UNC			110	1302500301	
5/8 - 18 UNF			100	1302500401	
3/4 - 10 UNC			125	1302500501	
3/4 - 16 UNF			110	1302502801	
7/8 - 9 UNC			140	1302500601	
7/8 - 14 UNF			125	1302502901	
1 - 8 UNC			160	1302500701	
1 - 12 UNF			140	1302503001	
1,1/8 - 7 UNC			180	1302500901	
1,1/8 - 8 UNS			180	1302501101	
1,1/8 - 12 UNF		5	150	1302503101	
1,1/4 - 7 UNC			180	1302501201	
1,1/4 - 8 UNS			180	1302501401	

Packed: 1 pc.
Available Steam Oxide finish only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				S/O	
1,1/4 - 12 UNF	2B	5	150	1302503201	
1,3/8 - 6 UNC			200	1302501501	
1,3/8 - 8 UNS			200	1302501701	
1,3/8 - 12 UNF			200	1302503901	
1,1/2 - 6 UNC			200	1302501801	
1,1/2 - 8 UNS			200	1302502001	
1,1/2 - 12 UNF		6	170	1302503301	
1,5/8 - 8 UNS			200	1302502101	
1,3/4 - 5 UNC			220	1302503501	
1,3/4 - 8 UNS			200	1302502201	
1,7/8 - 8 UNS			225	1302502301	
2 - 4,1/2 UNC			250	1302503601	
2 - 8 UNS			225	1302502401	
2,1/4 - 4,1/2 UNC			280	1302503701	
2,1/4 - 8 UNS			250	1302504001	
2,1/2 - 4 UNC			315	1302503801	
2,1/2 - 8 UNS			275	1302502501	

Packed: 1 pc.
Available Steam Oxide finish only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V	~35	35-45	45-50	50-70
	1018	1035	1065			4340	7075				(30 HRC)	HRC	HRC	HRC	HRC		
13025	☐	☐	☐	☐	☐	☐	☐	☐	☐					☐	☐		
SFM	50-120	45-110	40-100	45-110	20-60	30-70	30-70	20-50	40-100					20-60	15-50		

☐ good ☐ best





List 13116

Horizontal Applications, DIN Overall Length, Modified Bottom (2.5P-3P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Modified Bottom (2.5P - 3P)
				S/O
M16 x 2.0	D7	4	180	1311602501
	D17 (6H +0.005")		110	1311602401
			110	1311602301
M20 x 2.5	D8		140	1311600101
	D18 (6H +0.005")		200	1311600201
			140	1311601601
M24 x 3.0	D9	5	160	1311600401
	D19 (6H +0.005")		160	1311600501
			200	1311601701
M27 x 3.0	D9		160	1311600601
	D19 (6H +0.005")		200	1311600701
			180	1311601801
M30 x 3.5	D10		180	1311600801
	D20 (6H +0.005")		250	1311600901
			180	1311601901
M33 x 3.5	D10		180	1311601001
	D20 (6H +0.005")		250	1311601101
			180	1311602001
M36 x 4.0	D11		200	1311601201
	D21 (6H +0.005")		250	1311601301
			200	1311602101
M42 x 4.5	D11	6	200	1311601401
	D21 (6H +0.005")		300	1311601501
			200	1311602201

Packed: 1 pc.

Available Steam Oxide finish only.

Note: +0.005" available for threads that will be heat treated after tapping.



Work Material																		
List No.	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340												
13116	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐			
SFM	25-80	20-50	20-45	20-50	15-20	20-45	20-45	15-20	25-75					15-35	8-15			

☐ good ☒ best





List 13126

Horizontal Applications, Coolant-Through, DIN Overall Length,
Modified Bottom (2.5P-3P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number
				Modified Bottom (2.5P - 3P)
				S/O
M16 x 2.0	D7	4	110	1312602401
	D17 (6H +0.005")		180	1312602501
			110	1312602301
M20 x 2.5	D8		140	1312600101
	D18 (6H +0.005")		200	1312600201
			140	1312601601
M24 x 3.0	D9	5	160	1312600401
	D19 (6H +0.005")		200	1312600501
			160	1312601701
M27 x 3.0	D9		160	1312600601
	D19 (6H +0.005")		200	1312600701
			160	1312601801
M30 x 3.5	D10		180	1312600801
	D20 (6H +0.005")		250	1312600901
			180	1312601901
M33 x 3.5	D10		180	1312601001
	D20 (6H +0.005")		250	1312601101
			180	1312602001
M36 x 4.0	D11		200	1312601201
	D21 (6H +0.005")		250	1312601301
			200	1312602101
M42 x 4.5	D11	6	200	1312601401
			300	1312601501
	D21 (6H +0.005")		200	1312602201

Packed: 1 pc.

Available Steam Oxide finish only.

Note: +0.005" available for threads that will be heat treated after tapping.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
13126	☐	☐	☐	☐	☐	☐	☐	☐	☐					☐	☐		
SFM	50-120	45-110	40-100	45-110	20-60	30-70	30-70	20-50	40-100					20-60	15-50		

☐ good ☐ best





List 13117

Vertical Applications, DIN Overall Length, Modified Bottom (2.5P-3P)



HSSE

S/O

45°



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Modified Bottom (2.5P - 3P)
				S/O
M16 x 2.0	D7	4	110	1311702401
	D17 (6H +0.005")		180	1311702501
			110	1311702301
M20 x 2.5	D8		140	1311700101
	D18 (6H +0.005")		200	1311700201
			140	1311701601
M24 x 3.0	D9	5	160	1311700401
	D19 (6H +0.005")		200	1311700501
			160	1311701701
M27 x 3.0	D9		160	1311700601
	D19 (6H +0.005")		200	1311700701
			160	1311701801
M30 x 3.5	D10		180	1311700801
	D20 (6H + 0.005)		250	1311700901
			180	1311701901
M33 x 3.5	D10		180	1311701001
	D20 (6H + 0.005)		250	1311701101
			180	1311702001
M36 x 4.0	D11		200	1311701201
	D21 (6H + 0.005)		250	1311701301
			200	1311702101
M42 x 4.5	D11	6	200	1311701401
	D21 (6H + 0.005)		300	1311701501
			200	1311702201

Packed: 1 pc.

Available Steam Oxide finish only.

Note: +0.005" available for threads that will be heat treated after tapping.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
13117	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐		
SFM	25-80	20-50	20-45	20-50	15-20	20-45	20-45	15-20	25-75					15-35	8-15		

☐ good ☒ best





List 13127

Vertical Applications, Coolant-Through, DIN Overall Length,
Modified Bottom (2.5P-3P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Modified Bottom (2.5P - 3P)
				S/O
M16 x 2.0	D7	4	110	1312702401
	D17 (6H +0.005")		180	1312702501
			110	1312702301
M20 x 2.5	D8		140	1312700101
	D18 (6H +0.005")		200	1312700201
			140	1312701601
M24 x 3.0	D9	5	160	1312700401
	D19 (6H +0.005")		200	1312700501
			160	1312701701
M27 x 3.0	D9		160	1312700601
	D19 (6H +0.005")		200	1312700701
			160	1312701801
M30 x 3.5	D10		180	1312700801
	D20 (6H +0.005")		250	1312700901
			180	1312701901
M33 x 3.5	D10		180	1312701001
	D20 (6H +0.005")		250	1312701101
			180	1312702001
M36 x 4.0	D11		200	1312701201
	D21 (6H +0.005")		250	1312701301
			200	1312702101
M42 x 4.5	D11	6	200	1312701401
			300	1312701501
	D21 (6H +0.005")		200	1312702201

Packed: 1 pc.

Available Steam Oxide finish only.

Note: +0.005" available for threads that will be heat treated after tapping.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
13127	☒	☒	☒	☒	☐	☐	☐	☐	☒					☒	☐		
SFM	50-120	45-110	40-100	45-110	20-60	30-70	30-70	20-50	40-100					20-60	15-50		

☐ good ☒ best





HY-PRO® SYNCHRO AL

High Speed Tapping of Aluminum and Aluminum Alloy

List 13058

Modified Bottom (2.5P-3P)



HSSE

V

45°



Tap Size	Class of Fit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			V
6 - 32 UNC	2B	2	1305800108
8-32 UNC			1305800208
10 - 24 UNC			1305800308
10 - 32 UNF			1305800408
1/4 - 20 UNC			1305800508
1/4 - 28 UNF			1305800608

Packed: 1 pc.

Available V coating only.



Tap Size	Class of Fit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			V
5/16 - 18 UNC	2B	2	1305800708
5/16 - 24 UNF			1305800808
3/8 - 16 UNC			1305800908
3/8 - 24 UNF			1305801008
1/2 - 13 UNC			1305801108
1/2 - 20 UNF			1305801208

Packed: 1 pc.

Available V coating only.



List 13158

Modified Bottom (2.5P-3P)



HSSE

V

45°



Tap Size	Class of Fit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			V
M3 x 0.5	6H	2	1315800108
M4 x 0.7			1315800208
M5 x 0.8			1315800308
M6 x 1.0			1315800408
M8 x 1.25			1315800508

Packed: 1 pc.

Available V coating only.



Tap Size	Class of Fit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			V
M10 x 1.5	6H	2	1315800708
M10 x 1.25			1315800608
M12 x 1.75			1315800908
M12 x 1.5			1315800808

Packed: 1 pc.

Available V coating only.



Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
	1010 1018	1035 1045	1065	4140 4340													
13058										☒	☒						
13158										☒	☒						
SFM										300-800	200-700						

☐ good ☒ best





List 295

Modified Bottom (2.5P-3P)



HSSE

BR

50°



Tap Size	Class of Fit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
4 - 40 UNC	H2	2	Bright
	H3		2951300
6 - 32 UNC	H2		2951400
	H3		2952500
8 - 32 UNC	H2		2952600
	H3		2953100
10 - 24 UNC	H2		2953200
	H3		2953800
10 - 32 UNF	H2		2954300
	H3		2954400
	H5		2954600

Packed: 1 pc.
Other coatings available upon request.
Specify treatment at time of order.



Tap Size	Class of Fit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
1/4 - 20 UNC	H3	2	Bright
	H5		2955000
1/4 - 28 UNF	H3		2955200
	H5		2955600
5/16 - 18 UNC	H3		2956200
	H5		2956400
5/16 - 24 UNF	H3		2956800
	H4		2956900
3/8 - 16 UNC	H3		2957400
	H5		2957600
3/8 - 24 UNF	H3		2958000

Packed: 1 pc.
Other coatings available upon request.
Specify treatment at time of order.



List 296

Modified Bottom (2.5P-3P)



HSSE

BR

50°



Tap Size	Class of Fit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
M3 X 0.5	D3	2	Bright
	D4		2963300
M4 x 0.7	D4		2963400
M5 x 0.8	D5		2963500
M6 x 1.0	D5		2963600

Packed: 1 pc.
Other coatings available upon request.
Specify treatment at time of order.



Tap Size	Class of Fit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
M8 x 1.25	D5	2	Bright
M10 x 1.5	D6		2963800
M10 x 1.25	D5		2964100
			2964000

Packed: 1 pc.
Other coatings available upon request.
Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High									Inconel					
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	6061 7075	Casting		6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
295										☐	☐						
296										☐	☐						
SFM										40-80	40-65						

☐ good ☒ best





List 13019

DIN Overall Length, Modified Bottom (2.5P-3P)



HSSE

N

50°



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				N	
2 - 56 UNC	H2	2	45	1301900103	
4 - 40 UNC	H2		56	1301900203	
6 - 32 UNC	H3	3	56	1301900303	
8 - 32 UNC	H3		63	1301900403	
10 - 24 UNC	H3		70	1301900503	
10 - 32 UNF	H3		70	1301900603	
1/4 - 20 UNC	H3		80	1301900703	
1/4 - 20 UNF	H5		80	1301900803	
1/4 - 28 UNF	H3		80	1301900903	
5/16 - 18 UNC	H3		90	1301901003	
	H5		90	1301901103	

Packed: 1 pc.
Available Nitride finish only.



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				N	
5/16 - 24 UNF	H3	3	90	1301901203	
3/8 - 16 UNC	H3		100	1301901303	
3/8 - 16 UNC	H5		100	1301901403	
3/8 - 24 UNF	H3		100	1301901503	
1/2 - 13 UNC	H3		110	1301901903	
1/2 - 13 UNC	H5		110	1301902003	
1/2 - 20 UNF	H3		110	1301902103	
7/16 - 14 UNC	H3		100	1301901603	
7/16 - 14 UNC	H5		100	1301901703	
7/16 - 20 UNF	H3		100	1301901803	

Packed: 1 pc.
Available Nitride finish only.



List 13119

DIN Overall Length, Modified Bottom (2.5P-3P)



HSSE

N

50°



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				N	
M3 X 0.5	D3	3	56	1311900103	
M4 x 0.7	D4		63	1311900303	
M5 x 0.8	D4		70	1311900403	
M6 x 1.0	D5		80	1311900503	
M8 x 1.25	D5		90	1311900803	

Packed: 1 pc.
Available Nitride finish only.



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Modified Bottom (2.5P - 3P)	
				N	
M10 x 1.5	D6	3	100	1311901003	
M10 x 1.25	D5		100	1311900903	
M12 x 1.75	D6		110	1311901303	
M12 x 1.5	D5		100	1311901203	
M12 x 1.25	D5		100	1311901103	

Packed: 1 pc.
Available Nitride finish only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
13019										☒	☒						
13119										☒	☒						
SFM										40-80	40-65						

☐ good ☒ best





List 290

Modified Bottom (2.5P-3P)



HSSE

TiCN

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Modified Bottom (2.5P - 3P)		
			Bright	Steam Oxide	TiCN
2 - 56 UNC	H2	2	2905600	2905601	2905608
3 - 48 UNC	H2		2906000	2906001	2906008
4 - 40 UNC	H2		2906400	2906401	2906408
	H3		2911400	2911401	2911408
	H4		2916500	2916501	2916508
	H5		2916600	2916601	2916608
4 - 48 UNF	H2		2916800	2916801	2916808
5 - 40 UNC	H2		2907000	2907001	2907008
6 - 32 UNC	H2		2907400	2907401	2907408
	H3		2912400	2912401	2912408
	H5		2917400	2917401	2917408
	H7		2917500	2917501	2917508
	H11		2917700	2917701	2917708
6 - 40 UNF	H2	3	2907200	2907201	2907208
8 - 32 UNC	H2		2907800	2907801	2907808
	H3		2912800	2912801	2912808
	H5		2917800	2917801	2917808
	H7		2918000	2918001	2918008
	H11		2918100	2918101	2918108
10 - 24 UNC	H3		2913400	2913401	2913408
	H5		2918400	2918401	2918408
	H11		2923400	2923401	2923408
10 - 32 UNF	H2		2908800	2908801	2908808
	H3		2913800	2913801	2913808
	H5		2918800	2918801	2918808
	H7		2919000	2919001	2919008
	H11		2919100	2919101	2919108
12 - 24 UNC	H3		2923600	2923601	2923608
12 - 28 UNF	H3		2923800	2923801	2923808
1/4 - 20 UNC	H2		2928000	2928001	2928008
	H3		2930000	2930001	2930008
	H5		2940000	2940001	2940008
	H7		2940200	2940201	2940208
	H11		2940300	2940301	2940308
1/4 - 28 UNF	H2		2930300	2930301	2930308
	H3		2930400	2930401	2930408
	H4		2935400	2935401	2935408
	H5		2940400	2940401	2940408
	H7		2940600	2940601	2940608

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

continued on next page



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
290	☐	☒	☒	☒	☐	☐	☐	☐	☐					☐			
SFM	50-90	40-80	40-60	40-80	20-60	40-80	40-80	30-50	30-80					20-60			

☐ good ☒ best



List 290 (Continued)

Modified Bottom (2.5P-3P)



HSSE

TiCN

S/O

BR

45°



Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Modified Bottom (2.5P - 3P)		
			Bright	Steam Oxide	TiCN
1/4 - 28 UNF	H11	3	2940700	2940701	2940708
5/16 - 18 UNC	H2		2930600	2930601	2930608
	H3		2930800	2930801	2930808
	H5		2940800	2940801	2940808
	H7		2941000	2941001	2941008
	H11		2941100	2941101	2941108
5/16 - 24 UNF	H2		2926400	2926401	2926408
	H3		2931200	2931201	2931208
	H4		2936200	2936201	2936208
	H5		2941200	2941201	2941208
	H6		2941300	2941301	2941308
	H7		2941400	2941401	2941408
	H11		2941500	2941501	2941508
3/8 - 16 UNC	H2		2931500	2931501	2931508
	H3		2931600	2931601	2931608
	H5		2941600	2941601	2941608
	H7		2942100	2942101	2942108
	H11		2941900	2941901	2941908
3/8 - 24 UNF	H2		2926800	2926801	2926808
	H3		2931800	2931801	2931808
	H4		2936800	2936801	2936808
	H5		2941800	2941801	2941808
	H7		2941700	2941701	2941708
	H11		2942300	2942301	2942308
7/16 - 14 UNC	H3		2932000	2932001	2932008
	H5		2942000	2942001	2942008
	H7		2943100	2943101	2943108
	H11		2943300	2943301	2943308
7/16 - 20 UNF	H3		2932200	2932201	2932208
	H5		2942200	2942201	2942208
	H7		2949000	2949001	2949008
	H11		2942800	2942801	2942808
1/2 - 13 UNC	H3		2932400	2932401	2932408
	H5		2942400	2942401	2942408
	H7		2942500	2942501	2942508
	H11		2942700	2942701	2942708
1/2 - 20 UNF	H2		2927600	2927601	2927608
	H3		2932600	2932601	2932608
	H5		2942600	2942601	2942608
	H7		2942900	2942901	2942908
	H11		2943000	2943001	2943008
9/16 - 12 UNC	H3	4	2948600	2948601	2948608
9/16 - 18 UNF	H3		2948800	2948801	2948808
5/8 - 11 UNC	H3		2933200	2933201	2933208
	H5		2943200	2943201	2943208
5/8 - 18 UNF	H3		2933400	2933401	2933408
3/4 - 10 UNC	H3		2933600	2933601	2933608
	H5		2943600	2943601	2943608
3/4 - 16 UNF	H3		2933800	2933801	2933808
	H5		2943800	2943801	2943808

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.





List 290 (Continued)

Modified Bottom (2.5P-3P)



HSSE

TiCN

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Modified Bottom (2.5P - 3P)		
			Bright	Steam Oxide	TiCN
7/8 - 9 UNC	H5	4	2944000	2944001	2944008
7/8 - 14 UNF	H4		2939200	2939201	2939208
1 - 8 UNC	H5		2944400	2944401	2944408
1 - 12 UNF	H4		2939600	2939601	2939608
1,1/8 - 7 UNC	H6		—	2947201	—
1,1/8 - 8 UNS	H6		—	2947601	—
1,1/8 - 12 UNF	H5		—	2945001	—
1,1/4 - 7 UNC	H6		—	2947701	—
1,1/4 - 8 UNS	H6		—	2947901	—
1,1/4 - 12 UNF	H5		—	2945601	—
1,3/8 - 6 UNC	H6		—	2948001	—
1,3/8 - 8 UNS	H6		—	2948201	—
1,3/8 - 12 UNF	H5		—	2946201	—
1,1/2 - 6 UNC	H6		—	2948301	—
1,1/2 - 8 UNS	H6		—	2948501	—
1,1/2 - 12 UNF	H5		—	2946801	—

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.



Work Material																			
List No.	P					M			K	N		S		H					
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels					
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340													
290	☐	☒	☒	☒	☐	☐	☐	☐	☐					☐					
SFM	50-90	40-80	40-60	40-80	20-60	40-80	40-80	30-50	30-80					20-60					

☐ good ☒ best




List 299

Modified Bottom (2.5P-3P)



HSSE

TiCN

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Modified Bottom (2.5P - 3P)		
			Bright	S/O	TiCN
M3 x 0.5	D3	3	2990400	2990401	2990408
	D11		—	2993101	—
M3.5 x 0.6	D4		2990500	2990501	2990508
	D11		—	2993301	—
M4 x 0.7	D4		2990600	2990601	2990608
	D11		—	2993501	—
M5 x 0.8	D4		2990800	2990801	2990808
	D11		—	2993701	—
M6 x 1.0	D5		2991000	2991001	2991008
	D11		—	2993901	—
M7 x 1.0	D5		2991100	2991101	2991108
	D11		—	2994101	—
M8 x 1.25	D5		2991400	2991401	2991408
	D11		—	2994501	—
M8 x 1.0	D5		2991300	2991301	2991308
	D11		—	2994301	—
M10 x 1.5	D6		2991800	2991801	2991808
	D11		—	2995101	—
M10 x 1.25	D5		2991700	2991701	2991708
	D11		—	2994901	—
M10 x 1.0	D5		2991600	2991601	2991608
	D11		—	2994701	—
M12 x 1.75	D6		2992300	2992301	2992308
	D11		—	2995701	—
M12 x 1.5	D6		2992200	2992201	2992208
	D11		—	2995501	—
M12 x 1.25	D5		2992100	2992101	2992108
	D11		—	2995201	—
M14 x 2.0	D7	4	—	2992601	—
M14 x 1.5	D6		—	2992501	—
M16 x 2.0	D7		—	2992901	—
M16 x 1.5	D6		—	2992801	—
M18 x 2.5	D7		—	2993201	—
M18 x 1.5	D6		—	2993001	—
M20 x 1.5	D8		—	2993601	—
M20 x 1.5	D6		—	2993401	—
M22 x 2.5	D8		—	2994001	—
M22 x 1.5	D6		—	2993801	—
M24 x 3.0	D8		—	2994401	—
M24 x 1.5	D6		—	2994201	—
M27 x 3.0	D8		—	2994801	—
M27 x 1.5	D6		—	2994601	—
M30 x 3.5	D9		—	2995301	—
M30 x 1.5	D6		—	2995001	—

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
	1010 1018	1035 1045	1065	4140 4340													
299	☐	☒	☒	☒	☐	☐	☐	☐	☐					☐			
SFM	50-90	40-80	40-60	40-80	20-60	40-80	40-80	30-50	30-80					20-60			

☐ good ☒ best





List 297

Bottom (1.5P-2P)



HSS

TiN

S/O

BR

50°



Tap Size	Class of Fit	No. of Flutes	EDP Number		
			Bottom (1.5P - 2P)		
			Bright	S/O	TiCN
3 - 48 UNC	2B	2	2984500	2984501	2984505
3 - 56 UNF			2984600	2984601	2984605
4 - 40 UNC			2985000	2985001	2985005
4 - 48 UNF			2986400	2986401	2986405
5 - 40 UNC		3	2986500	2986501	2986505
6 - 32 UNC			2985200	2985201	2985205
6 - 40 UNF			2986600	2986601	2986605
8 - 32 UNC			2985300	2985301	2985305
8 - 36 UNF			2986700	2986701	2986705
10 - 24 UNC			2985400	2985401	2985405
10 - 32 UNF			2985500	2985501	2985505

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

HY7

Tap Size	Class of Fit	No. of Flutes	EDP Number		
			Bottom (1.5P - 2P)		
			Bright	S/O	TiCN
12 - 24 UNC	2B	3	2986800	2986801	2986805
1/4 - 20 UNC			2985600	2985601	2985605
1/4 - 28 UNF			2985700	2985701	2985705
5/16 - 18 UNC			2985800	2985801	2985805
5/16 - 24 UNF			2985900	2985901	2985905
3/8 - 16 UNC			2986000	2986001	2986005
3/8 - 24 UNF			2986100	2986101	2986105
7/16 - 14 UNC			2986900	2986901	2986905
7/16 - 20 UNF			2987000	2987001	2987005
1/2 - 13 UNC			2986200	2986201	2986205
1/2 - 20 UNF			2986300	2986301	2986305

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

HY7

List 298

Bottom (1.5P-2P)



HSS

TiN

S/O

BR

50°



Tap Size	Class of Fit	No. of Flutes	EDP Number		
			Bottom (1.5P - 2P)		
			Bright	S/O	TiCN
M3 x 0.5	6H	2	2988000	2988001	2988005
M4 x 0.7		3	2988100	2988101	2988105
M5 x 0.8			2988200	2988201	2988205
M6 x 1.0			2988300	2988301	2988305

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

HY7

Tap Size	Class of Fit	No. of Flutes	EDP Number		
			Bottom (1.5P - 2P)		
			Bright	S/O	TiCN
M8 x 1.25	6H	3	2988400	2988401	2988405
M10 x 1.5			2988500	2988501	2988505
M12 x 1.75			2988600	2988601	2988605

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

HY7

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
297																	
298																	
SFM	50-90	40-80								30-80	30-80						

☐ good ☐ best





List 107

Plug (4P-4.5P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number							
			Bottom (1.5P - 2P)				Plug (4P - 4.5P)			
			Bright	S/O	TiN	TiCN	Bright	S/O	TiN	TiCN
3 - 48 UNC	H2	2	1406100	—	—	—	1406000	—	—	—
4 - 40 UNC	H2		1406500	1406501	1406505	1406508	1406400	1406401	1406405	1406408
5 - 40 UNC	H2		1407100	—	—	1407108	1407000	—	—	1407008
6 - 32 UNC	H2		5001500	—	5001505	5001508	5001400	—	5001405	—
	H3		1412500	1412501	1412505	1412508	1412400	1412401	1412405	1412408
8 - 32 UNC	H2	3	5001900	—	—	5001908	5001800	—	—	5001808
	H3		1412900	1412901	1412905	1412908	1412800	—	1412805	1412808
10 - 24 UNC	H3		1413300	1413301	1413305	1413308	1413200	—	1413205	1413208
10 - 32 UNF	H2		5002700	—	5002705	5002708	5002600	—	—	—
	H3		1413500	1413501	1413505	1413508	1413400	—	1413405	1413408
12 - 24 UNC	H3		1413700	1413701	—	1413708	1413600	—	—	—
1/4 - 20 UNC	H3		1430100	1430101	1430105	1430108	1430000	1430001	1430005	1430008
	H5		5003500	—	5003505	5003508	5003400	—	5003405	5003408
1/4 - 28 UNF	H3		1430300	—	1430305	1430308	1430200	—	1430205	1430208
5/16 - 18 UNC	H3		1430500	1430501	1430505	1430508	1430400	1430401	1430405	1430408
	H5		5004700	—	5004705	5004708	5004600	—	—	5004608
5/16 - 24 UNF	H3		1430700	—	1430705	1430708	1430600	—	1430605	1430608
3/8 - 16 UNC	H3		1430900	1430901	1430905	1430908	1430800	1430801	1430805	1430808
	H5		5005500	—	5005505	5005508	5005400	—	—	5005408
3/8 - 24 UNF	H3		1431100	—	1431105	1431108	1431000	—	1431005	1431008
7/16 - 14 UNC	H3		1431300	—	1431305	1431308	1431200	—	1431205	1431208
	H5		5006200	—	5006205	—	—	—	—	—
7/16 - 20 UNF	H3		1431700	—	1431705	1431708	1431600	—	1431605	1431608
1/2 - 13 UNC	H3	4	1432100	1432101	1432105	1432108	1432000	1432001	1432005	1432008
	H5		5007100	—	—	5007108	5007000	—	—	5007008
1/2 - 20 UNF	H3		1432500	—	1432505	1432508	1432400	—	1432405	1432408
5/8 - 11 UNC	H3		1432900	—	1432905	1432908	1432800	—	—	1432808
5/8 - 18 UNF	H3		1433300	—	1433305	1433308	1433200	—	—	1433208
3/4 - 10 UNC	H3		1433700	—	1433705	1433708	1433600	—	1433605	1433608
3/4 - 16 UNF	H3		1434100	—	1434105	1434108	1434000	—	—	1434008

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
107	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 143

Plug (4P-4.5P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number					
			Bottom (1.5P - 2P)			Plug (4P - 4.5P)		
			Bright	S/O	TiCN	Bright	TiN	TiCN
M3 x 0.5	D3	2	1985200	1985201	1985208	1985100	1985105	—
M4 x 0.7	D4	3	1985500	1985501	1985508	1985400	1985405	1985408
M5 x 0.8	D4		1985800	1985801	1985808	1985700	1985705	1985708
M6 x 1.0	D5		1986100	1986101	1986108	1986000	1986005	1986008
M8 x 1.25	D5		1986400	1986401	1986408	1986300	1986305	1986308
M10 x 1.5	D6		1986700	1986701	1986708	1986600	1986605	1986608
M12 x 1.75	D6		1987000	1987001	1987008	1986900	1986905	1986908

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.



Work Material																		
List No.	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
	1010 1018	1035 1045	1065			4140 4340												
143	☐	☐	☐						☐	☐	☐							
SFM	25-80	20-50	20-45						25-75	40-80	40-65							

☐ good ☒ best





List 13020

Plug (3.5P-4.5P), Bottom (1.5P-2P)

HSS

S/O



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			S/O	S/O
6 - 32 UNC	H3	3	1302001401	1302000101
8 - 32 UNC	H3		1302001501	1302000201
10 - 24 UNC	H3		1302001601	1302000301
10 - 32 UNF	H3		1302001701	1302000401
1/4 - 20 UNC	H3		1302001801	1302000501
1/4 - 28 UNF	H3		1302001901	1302000601
5/16 - 18 UNC	H3		1302002001	1302000701

Packed: 1 pc.

Available Steam Oxide only.

STT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			S/O	S/O
5/16 - 24 UNF	H3	3	1302002101	1302000801
3/8 - 16 UNC	H3		1302002201	1302000901
3/8 - 24 UNF	H3		1302002301	1302001001
1/2 - 13 UNC	H3		1302002401	1302001101
5/8 - 11 UNC	H3	4	1302002501	1302001201
5/8 - 18 UNF	H3		1302002601	1302001301

Packed: 1 pc.

Available Steam Oxide only.

STT

Work Material

List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
13020	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 123

JIS, Modified Bottom (2.5P-3P)

HSSE

BR



Tap Size	Class of Fit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			Bright
M3 x 0.5	2	3	11544
M4 x 0.7			11556
M5 x 0.8			11571
M6 x 1.0			11583
M8 x 1.25			11601
M10 x 1.5			11621
M10 x 1.25			11624
M12 x 1.75			11650
M12 x 1.5			11653
M14 x 2.0			11680

Packed: 1 pc.

Other coatings available upon request.
Specify treatment at time of order.

Note: List 123 Taps will normally produce JIS Class II and ISO 6H Limits.

STT

Tap Size	Class of Fit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			Bright
M14 x 1.5	2	3	11683
M16 x 2.0			11705
M16 x 1.5			11708
M18 x 2.5		4	11730
M18 x 1.5			11735
M20 x 2.5			11757
M20 x 1.5			11762
M22 x 2.5			11772
M24 x 3.0			11799

Packed: 1 pc.

Other coatings available upon request.

Specify treatment at time of order.

Note: List 123 Taps will normally produce JIS Class II and ISO 6H Limits.

STT

Work Material

List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
123	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





GENERAL PURPOSE LS

List 918

Long Shank*, Plug (4P-4.5P), Bottom (1.5P-2P)

HSS

BR



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Bottom (1.5P - 2P)	Plug (4P - 4.5P)
				Bright	Bright
4 - 40 UNC	H2	2	4	1296100	1296000
6 - 32 UNC	H3		4	1296300	1296200
			6	1296500	1296400
8 - 32 UNC	H3	3	4	1296700	1296600
			6	1296900	1296800
10 - 24 UNC	H3		4	1297100	1297000
			6	1297300	1297200
10 - 32 UNF	H3		4	1297500	1297400
			6	1297700	1297600
1/4 - 20 UNC	H3		4	1297900	1297800
			6	1298100	1298000

Packed: 1 pc.

Other coatings available upon request.

Specify treatment at time of order.

*Shank diameter is standard ANSI.

STT

Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Bottom (1.5P - 2P)	Plug (4P - 4.5P)
				Bright	Bright
1/4 - 28 UNF	H3	3	6	1298300	1298200
5/16 - 18 UNC	H3		6	1298500	1298400
3/8 - 16 UNC	H3		6	1298700	1298600
7/16 - 14 UNC	H3		6	1298900	1298800
1/2 - 13 UNC	H3		6	1299100	1299000
5/8 - 11 UNC	H3	4	6	1299300	1299200

Packed: 1 pc.

Other coatings available upon request.

Specify treatment at time of order.

*Shank diameter is standard ANSI.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy Inconel	Titanium 6Al4V (30 HRC)	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
918	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 389

JIS, Modified Bottom (2.5P-3P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Modified Bottom (2.5P - 3P)
			Bright	Bright
M3 x 0.5	OH3	3	8315255	8315254
M4 x 0.7			8315261	8315260
M5 x 0.8			8315267	8315266
M6 x 1.0			8315273	8315272
M8 x 1.25	OH4		8315285	8315284
M10 x 1.5			8315297	8315296
M10 x 1.25			8315303	8315302
M12 x 1.75			8315315	8315314

Packed: 1 pc.
Other coatings available upon request.
Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
389																	
SFM									40-90	50-100	50-80						

☐ good ☒ best





List 13063

RHC/LHS for Through Hole, Plug (4P - 4.5P)

VC10

V

LHS



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 4.5P)
			V
2 - 56 UNC	H2	3	1306300108
4 - 40 UNC	H2		1306300208
6 - 32 UNC	H3		1306300308
8 - 32 UNC	H3		1306300408
10 - 24 UNC	H3		1306300508
10 - 32 UNF	H3		1306300608
1/4 - 20 UNC	H3		1306300708
1/4 - 28 UNF	H5		1306300808
5/16 - 18 UNC	H3		1306300908
5/16 - 18 UNC	H3		1306301008

Packed: 1 pc.
Available V coating only.

EP

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 4.5P)
			V
5/16 - 18 UNC	H5	3	1306301108
5/16 - 24 UNC	H3		1306301208
3/8 - 16 UNC	H3		1306301308
3/8 - 16 UNC	H5		1306301408
3/8 - 24 UNF	H3		1306301508
7/16 - 14 UNC	H3		1306301608
7/16 - 20 UNF	H3		1306301708
1/2 - 13 UNC	H3		1306301808
1/2 - 13 UNC	H5		1306301908
1/2 - 20 UNF	H3		1306302008

Packed: 1 pc.
Available V coating only.

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
13063				○				○					○	○			
SFM				15-50				8-20					8-20	15-35			

□ good □ best





List 13163

RHC/LHS for Through Hole, Plug (4P - 4.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 4.5P)
			V
M2.5 x 0.45	D3	3	1316300108
M3 x 0.5	D3		1316300208
M4 x 0.7	D4		1316300308
M5 x 0.8	D4		1316300408
M6 x 1.0	D5		1316300508

Packed: 1 pc.
Available V coating only.

EP

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 4.5P)
			V
M8 x 1.25	D5	3	1316300808
M10 x 1.5	D6		1316301008
M10 x 1.25	D5		1316300908
M12 x 1.75	D6		1316301308
M12 x 1.25	D5		1316301108

Packed: 1 pc.
Available V coating only.

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
13163				○				○					□	○			
SFM				15-50				8-20					8-20	15-35			

○ good □ best



List 337Ni

DIN Overall Length, Plug (5P)

VC10

HR



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Plug (5P)	
				HR	
2 - 56 UNC	H2	2	45	3370002562	
4 - 40 UNC	H2	3	56	3370004402	
	H3			3370004403	
4 - 48 UNF	H2	2	56	3370004482	
6 - 32 UNC	H2	3	56	3370006322	
	H3			3370006323	
8 - 32 UNC	H2		63	3370008322	
	H3			3370008323	
10 - 24 UNC	H2		70	3370010242	
	H3			3370010243	
10 - 32 UNF	H2		70	3370010322	
	H3			3370010323	
1/4 - 20 UNC	H3		80	3370014203	
	H5			3370014205	
1/4 - 28 UNF	H3		80	3370014283	
	H4			3370014284	
5/16 - 18 UNC	H3		90	3370516183	
	H5			3370516185	
5/16 - 24 UNF	H3		90	3370516243	
	H5			3370516245	
3/8 - 16 UNC	H3	100	3370038163		
	H5		3370038165		
3/8 - 24 UNF	H3	90	3370038243		
	H5		3370038245		
7/16 - 14 UNC	H3	100	3370716143		

Packed: 1 pc.
Available HR coating only.

EP

Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Plug (5P)	
				HR	
7/16 - 14 UNC	H5	3	100	3370716145	
7/16 - 20 UNF	H3		100	3370716203	
	H5			3370716205	
1/2 - 13 UNC	H3		110	3370012133	
	H5			3370012135	
1/2 - 20 UNF	H3		100	3370012203	
	H5			3370012205	
9/16 - 18 UNC	H3		100	3370916183	
	H5	3370916185			
5/8 - 11 UNC	H3	110	3370058113		
	H5		3370058115		
5/8 - 18 UNF	H3	100	3370058183		
	H5		3370058185		
3/4 - 10 UNC	H3	4	125	3370034103	
	H5		3370034105		
3/4 - 16 UNC	H3		110	3370034163	
	H5			3370034165	
7/8 - 19 UNC	H3		140	3370078093	
	H5			3370078095	
7/8 - 14 UNF	H3		125	3370078143	
	H5			3370078145	
1 - 8 UNC	H3		160	3370001083	
	H5			3370001085	
1 - 12 UNF	H3		140	3370001123	
	H5			3370001125	

Packed: 1 pc.
Available HR coating only.

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035 1045	1065			4140 4340											
337Ni								○				□				○	
SFM								8-20				8-15				8-12	

☐ good ☒ best



List 338Ni

DIN Overall Length, Plug (5P)

VC10

HR



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Plug (5P)	HR
M2.5 x 0.45	D3	2	50	3380250453	
M3 x 0.5	D3		56	3380003053	
M4 x 0.7	D4	3	63	3380004074	
M5 x 0.8	D4		70	3380005084	
M6 x 1.0	D5		80	3380006105	
M6 x 0.75	D5		80	3380006755	
M8 x 1.25	D5		90	3380008255	
M8 x 1.0	D5		90	3380008105	
M10 x 1.5	D6		100	3380010156	
M10 x 1.25	D5		100	3380010255	
M12 x 1.75	D6		110	3380012756	
M12 x 1.5	D6		100	3380012156	

Packed: 1 pc.
Available HR coating only.

EP

Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Plug (5P)	HR
M14 x 2.0	D7	3	110	3380014207	
M14 x 1.5	D6		100	3380014156	
M16 x 2.0	D7		110	3380016207	
M16 x 1.5	D6		100	3380016156	
M18 x 2.5	D7		125	3380018257	
M18 x 1.5	D6		110	3380018156	
M20 x 2.5	D8		140	3380020258	
M20 x 1.5	D6		125	3380020156	
M22 x 2.5	D8		140	3380022258	
M22 x 1.5	D6		125	3380022156	
M24 x 3.0	D8	4	160	3380024308	
M24 x 1.5	D6		140	3380024156	

Packed: 1 pc.
Available HR coating only.

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
338Ni								○				⊗				○	
SFM								8-20				8-15				8-12	

☐ good ☒ best





List 312Ti

Plug (4.5P-5.5P)



VC10

V



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4.5P-5.5P)
			V
2 - 56 UNC	H2	3	1105610108
4 - 40 UNC	H2		1105610208
6 - 32 UNC	H2		1105610408
	H3		1105610508
6 - 40 UNF	H2		1105610608
8 - 32 UNC	H2		1105610708
	H3		1105610808
8 - 36 UNF	H2		1105610908
10 - 24 UNC	H2		1105611008
	H3		1105611108
10 - 32 UNF	H2		1105611208
	H3		1105611308
1/4 - 20 UNC	H3		1105611408
	H5		1105611508
1/4 - 28 UNF	H3		1105611608
	H4		1105611708
5/16 - 18 UNC	H3		1105611808
	H5		1105611908
5/16 - 24 UNF	H3		1105612008
	H4		1105612108
3/8 - 16 UNC	H3		1105612208
	H5		1105612308
3/8 - 24 UNF	H3		1105612408

Packed: 1 pc.
Available V coating only.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4.5P-5.5P)
			V
3/8 - 24 UNF	H4	3	1105612508
7/16 - 14 UNC	H3		1105612608
	H5		1105612708
7/16 - 20 UNF	H3		1105612808
	H5		1105612908
1/2 - 13 UNC	H3		1105613008
	H5		1105613108
1/2 - 20 UNF	H3		1105613208
	H5		1105613308
9/16 - 18 UNF	H3		1105613408
	H5		1105613508
5/8 - 11 UNC	H3		1105613608
5/8 - 18 UNF	H3	4	1105613708
	H5		1105613808
3/4 - 10 UNC	H5		1105613908
3/4 - 16 UNF	H3		1105614008
	H5		1105614208
7/8 - 9 UNC	H3		1105614308
	H5		1105614408
7/8 - 14 UNF	H3		1105614508
	H5		1105614608
1 - 8 UNC	H5		1105614708

Packed: 1 pc.
Available V coating only.

EXT

Work Material																		
List No.	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
	1010 1018	1035 1045	1065			4140 4340												
312Ti				○				○					⊞	⊞	○	○		
SFM				15-30				8-20					8-15	8-15	15-35	10-20		

□ good □ best





List 344Ti

Plug (4.5P-5.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4.5P-5.5P)
			V
M3 x 0.3	D3	3	1115810108
M4 x 0.7	D4		1115810208
M5 x 0.8	D4		1115810308
M6 x 1.0	D5		1115810408

Packed: 1 pc.
Available V coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4.5P-5.5P)
			V
M8 x 1.25	D5	3	1115810508
M10 x 1.5	D6		1115810708
M10 x 1.25	D5		1115810608
M12 x 1.75	D6		1115810808

Packed: 1 pc.
Available V coating only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035 1045	1065			4140 4340											
344Ti				○				○				⊗	⊗	○	○		
SFM				15-30				8-20				8-15	8-15	15-35	10-20		

□ good □ best





List 312Ni

Plug (4.5P-5.5P)



VC10

V

S/O



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4.5P-5.5P)	
			S/O	V
2 - 56 UNC	H2	2	1772201	–
4 - 40 UNC	H2	3	1776201	1776208
	H3		1776301	–
	H4	2	1772001	–
4 - 48 UNF	H2	2	1772101	–
6 - 32 UNC	H2	3	1771501	–
	H3		1706301	1706308
	H5		1706401	–
	H7		1771601	–
8 - 32 UNC	H3		1706501	1706508
	H4		1771701	–
	H5		1706601	–
10 - 24 UNC	H3		1706701	1706708
	H5		1706801	–
10 - 32 UNF	H2		1771801	–
	H3		1706901	1706908
	H4		1771901	–
	H5		1707001	–
	H7		1707101	1707108
1/4 - 20 UNC	H5		1707201	–
	H7		1772301	–
	H3		1707301	1707308
1/4 - 28 UNF	H4		1772401	–
	H5		1707401	–
	H7		1707501	1707508
5/16 - 18 UNC	H5		1707601	–
5/16 - 24 UNF	H3		1707701	1707708

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or V coatings as shown above.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4.5P-5.5P)	
			S/O	V
5/16 - 24 UNF	H5	3	1707801	–
3/8 - 16 UNC	H3		1707901	1707908
	H5		1708001	–
3/8 - 24 UNF	H3		1708101	1708108
	H5		1708201	–
7/16 - 14 UNC	H3		1708301	–
	H5		1708401	–
7/16 - 20 UNF	H3		1708501	1708508
	H5		1708601	–
1/2 - 13 UNC	H3		1708701	1708708
	H5		1708801	–
1/2 - 20 UNF	H3		1708901	1708908
	H5		1709001	–
9/16 - 18 UNC	H3	4	1717201	–
	H5		1717301	–
5/8 - 11 UNC	H3		1717401	–
	H5		1717501	–
5/8 - 18 UNF	H3		1717601	–
	H5		1717701	–
3/4 - 10 UNC	H3		1717801	–
	H5		1717901	–
3/4 - 16 UNF	H3		1718001	–
	H5		1718101	–
7/8 - 9 UNC	H3		1718201	–
	H5		1718301	–
7/8 - 14 UNF	H3		1718401	–
	H5		1718501	–
1 - 8 UNC	H5		1718601	–

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035 1045	1065			4140 4340											
312Ni								○				⊞	○	○	○		
SFM								8-20				8-15	8-15	15-35	10-20		

☐ good ☒ best





List 344Ni

Plug (4.5P-5.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4.5P-5.5P)	
			S/O	V
M2.5 x 0.45	D3	2	1115710001	1115710008
M3 x 0.5	D3	3	1115710101	1115710108
M4 x 0.7	D4		1115710201	1115710208
M5 x 0.8	D4		1115710301	1115710308
M6 x 1.0	D5		1115710401	1115710408

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or V coatings as shown above.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4.5P-5.5P)	
			S/O	V
M8 x 1.25	D5	3	1115710501	1115710508
M10 x 1.25	D5		1115710601	1115710608
M10 x 1.5	D6		1115710701	1115710708
M12 x 1.75	D6		1115710801	1115710808

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
344Ni								○				⊗	○	○	○		
SFM								8-20				8-15	8-15	15-35	10-20		

☐ good ☒ best





List 312

Plug (4.5P-5.5P)



VC10

V

S/O



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4.5P-5.5P)	
			S/O	V
2 - 56 UNC	H2	2	1759001	1759008
	H2		1757001	1757008
4 - 40 UNC	H3		1759101	1759108
	H4		1759201	1759208
	H5		1759301	1759308
5 - 40 UNC	H2	3	1757101	1757108
6 - 32 UNC	H2		1759401	1759408
	H3		1757201	1757208
	H4		1759501	1759508
	H5		1759601	1759608
	H6		1759701	1759708
8 - 32 UNC	H2		1759801	1759808
	H3		1757301	1757308
	H4		1759901	1759908
	H5		1760001	1760008
	H6		1760101	1760108
10 - 24 UNC	H3		1757401	1757408
	H5		1760201	1760208
			1760301	1760308
10 - 32 UNF	H3		1757501	1757508
	H4		1760401	1760408
	H5		1760501	1760508
	H6		1760601	1760608
1/4 - 20 UNC	H3		1757601	1757608
	H5		1700201	1700208
1/4 - 28 UNF	H3		1757701	1757708
	H4		1700301	1700308

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4.5P-5.5P)	
			S/O	V
1/4 - 28 UNF	H5	3	1700401	1700408
	H6		1700501	1700508
5/16 - 18 UNC	H3		1757801	1757808
	H5		1700601	1700608
5/16 - 24 UNF	H3		1757901	1757908
	H4		1700701	1700708
	H5		1700801	1700808
	H6		1700901	1700908
3/8 - 16 UNC	H3		1758001	1758008
	H5		1701001	1701008
3/8 - 24 UNF	H3		1758101	1758108
	H4		1701101	1701108
	H5		1701201	1701208
	H6		1701301	1701308
7/16 - 14 UNC	H3		1758201	1758208
	H5		1701401	1701408
7/16 - 20 UNF	H3		1758301	1758308
	H5		1701501	1701508
1/2 - 13 UNC	H3	4	1758401	1758408
	H5		1701601	1701608
1/2 - 20 UNF	H3		1758501	1758508
	H5		1701701	1701708
5/8 - 11 UNC	H3		1758601	1758608
5/8 - 18 UNF	H3		1758701	1758708
	H5		1701801	1701808
3/4 - 10 UNC	H3		1758801	1758808
3/4 - 16 UNF	H3		1758901	1758908

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
312				☒	☐		☐	☒				☐	☐	☒	☐		
SFM				15-30	10-25		12-45	8-20				8-15	8-15	15-35	10-20		

☐ good ☐ best





List 344

Plug (4.5P-5.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4.5P-5.5P)	
			S/O	V
M3 x 0.5	D3	3	1702201	1702208
M4 x 0.7	D4		1702301	1702308
M5 x 0.8	D4		1702401	1702408
M6 x 1.0	D5		1702501	1702508

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4.5P-5.5P)	
			S/O	V
M8 x 1.25	D5	3	1702601	1702608
M10 x 1.5	D6		1702801	1702808
M10 x 1.25	D5		1702701	1702708
M12 x 1.75	D6		1702901	1702908

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035 1045	1065			4140 4340											
344				☒	☐		☐	☒				☐	☐	☒	☐		
SFM				15-30	10-25		12-45	8-20				8-15	8-15	15-35	10-20		

☐ good ☒ best



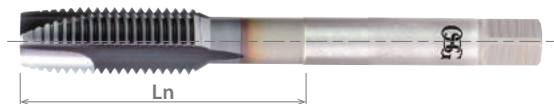
List 16515 **NEW SIZES**

DIN Overall Length, Plug (3.5P-4.5P)



VC10

v



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number	
				Ln	Plug (3.5P - 4.5P)	
					V	
2 - 56 UNC	H2	2	45	13	1651505608	
2 - 64 UNF	H2		45	13	1651505708	
3 - 48 UNC	H2		50	14	1651505808	
3 - 56 UNF	H2		50	14	1651505908	
4 - 40 UNC	H2		56	19	1651500108	
4 - 48 UNF	H2		56	19	1651500208	
5 - 40 UNC	H2		56	19	1651500308	
5 - 44 UNF	H2		56	19	1651500408	
6 - 32 UNC	H2		3	56	21	1651500608
	H3					1651500508
6 - 40 UNF	H2			56	21	1651500708
8 - 32 UNC	H2			63	22	1651500908
	H3					1651500808
8 - 36 UNF	H2			63	22	1651501008
10 - 24 UNC	H3			70	26	1651501108
10 - 32 UNF	H2			70	26	1651501308
	H3	1651501208				
12 - 24 UNC	H3	80		32	1651501408	
12 - 28 UNF	H3	80		32	1651501508	
12 - 32 UNEF	H3	80		32	1651506008	
1/4 - 20 UNC	H3	3		80	32	1651501708
	H5					1651501608
1/4 - 28 UNF	H3			80	32	1651501908
	H4					1651501808
1/4 - 32 UNEF	H3		80	32	1651506108	
5/16 - 18 UNC	H3		90	38	1651502108	
	H5				1651502008	
5/16 - 24 UNF	H3		90	38	1651502308	
	H4				1651502208	
5/16 - 32 UNEF	H3		80	38	1651506208	
3/8 - 16 UNC	H3		100	43	1651502508	
	H5				1651502408	
3/8 - 24 UNF	H3	90	39	1651502708		
	H5			1651502608		
3/8 - 32 UNEF	H3	90	39	1651506308		
7/16 - 14 UNC	H3	100	32	1651502908		
	H5			1651502808		

Packed: 1 pc.
Available V coating only.

EXT

Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P)
					V
7/16 - 20 UNF	H3 H5	3	100	32	1651503108 1651503008
7/16 - 28 UNEF	H4		90	32	1651506408
1/2 - 13 UNC	H3 H5		110	34	1651503308 1651503208
1/2 - 20 UNF	H3 H5		100	34	1651503508 1651503408
1/2 - 28 UNEF	H4		100	34	1651506508 1651503708
9/16 - 12 UNC	H3 H5		110	37	1651503608 1651503908
9/16 - 18 UNF	H3 H5		100	37	1651503808 1651503808
9/16 - 24 UNEF	H4		100	37	1651506608 1651504108
5/8 - 11 UNC	H3 H5		110	39	1651504008 1651504308
5/8 - 18 UNF	H3 H5		100	39	1651504208 1651506708
5/8 - 24 UNEF	H4		100	39	1651506708 1651506808
11/16 - 24 UNEF	H4		110	43	1651506808 1651504508
3/4 - 10 UNC	H3 H5		125	43	1651504508 1651504408
3/4 - 16 UNF	H3 H5		110	43	1651504708 1651504608
3/4 - 20 UNEF	H5		110	43	1651506908 1651507008
13/16 - 20 UNEF	H5		125	43	1651507008 1651504908
7/8 - 9 UNC	H4 H6		140	47	1651504908 1651504808
7/8 - 14 UNF	H4 H6		125	47	1651505108 1651505008
7/8 - 20 UNEF	H5		125	47	1651507108 1651507208
15/16 - 20 UNEF	H5		140	53	1651507208 1651505308
1 - 8 UNC	H4 H6		160	53	1651505308 1651505208
1 - 12 UNF	H4 H6		140	53	1651505508 1651505408
1 - 20 UNEF	H5		140	53	1651505408 1651507308

Packed: 1 pc.
Available V coating only.

EXT

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High							6061	Casting						
	1010 1018	1035 1045	1065	4140 4340		300	400	17-4 PH		7075		Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
16515	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐		☒				
SFM	80-120	80-120	80-120	40-65	35-55	25-75	25-60	25-60	60-100	70-120	70-120			40-65			

☐ good ☒ best



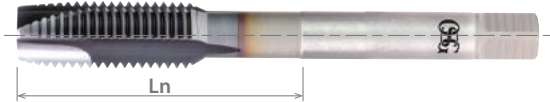
List 16510 NEW SIZES

DIN Overall Length, Plug (3.5P-4.5P)



VC10

V



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P) V
M1.4 x 0.3	D2	2	40	9	1651003008
M1.6 x 0.35	D3		40	9	1651003108
M1.7 x 0.35	D3		40	11	1651003208
M2 x 0.4	D3		45	12	1651003408
M2 x 0.25	D2		45	12	1651003308
M2.2 x 0.45	D3		45	13	1651003608
M2.2 x 0.25	D2		45	13	1651003508
M2.3 x 0.4	D3		45	13	1651003708
M2.5 x 0.45	D3		50	14	1651003908
M2.5 x 0.35	D3		50	14	1651003808
M2.6 x 0.45	D3		50	14	1651004008
M3 x 0.5	D3	3	56	19	1651000108
M3 x 0.35	D3		56	19	1651004108
M3.5 x 0.6	D3		56	21	1651004308
M3.5 x 0.35	D3		56	21	1651004208
M4 x 0.7	D4		63	22	1651000308
M4 x 0.5	D3		63	22	1651000208
M4.5 x 0.75	D4		70	27	1651004508
M4.5 x 0.5	D3		70	27	1651004408
M5 x 0.8	D4		70	27	1651000508
M5 x 0.5	D3		70	27	1651000408
M5.5 x 0.5	D3		70	32	1651004608
M6 x 1.0	D5		80	32	1651000808
M6 x 0.75	D4		80	32	1651000708
M6 x 0.5	D3		80	32	1651000608
M7 x 1.0	D5		80	33	1651004808
M7 x 0.75	D4		80	33	1651004708
M8 x 1.25	D5		90	38	1651001008
M8 x 1.0	D5		90	38	1651000908
M8 x 0.75	D4		90	33	1651004908
M9 x 1.25	D5		90	39	1651005208
M9 x 1.0	D5		90	39	1651005108
M9 x 0.75	D4		90	39	1651005008
M10 x 1.5	D6		100	43	1651001308
M10 x 1.25	D5		100	43	1651001208
M10 x 1.0	D5		90	43	1651001108

Packed: 1 pc.
Available V coating only.

EXT

Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P) V
M10 x 0.75	D4	3	90	40	1651005308
M11 x 1.5	D6		100	29	1651005608
M11 x 1.0	D5		90	29	1651005508
M11 x 0.75	D4		90	29	1651005408
M12 x 1.75	D6		1100	32	1651001708
M12 x 1.5	D6		100	32	1651001608
M12 x 1.25	D6		100	32	1651001508
M12 x 1.0	D5		100	32	1651001408
M14 x 2.0	D7		110	36	1651001908
M14 x 1.5	D6		100	36	1651001808
M14 x 1.25	D6		100	36	1651005808
M14 x 1.0	D5	4	100	36	1651005708
M15 x 1.5	D6		100	36	1651006008
M15 x 1.0	D5		100	36	1651005908
M16 x 2.0	D7		100	36	1651002108
M16 x 1.5	D6	3	110	36	1651002008
M16 x 1.0	D5		100	36	1651006108
M17 x 1.5	D6		100	36	1651006308
M17 x 1.0	D5		100	36	1651006208
M18 x 2.5	D7	4	125	43	1651002308
M18 x 2.0	D7		125	43	1651006508
M18 x 1.5	D6		110	43	1651002208
M18 x 1.0	D5		110	43	1651006408
M20 x 2.5	D7	3	140	44	1651002508
M20 x 2.0	D7		140	44	1651006708
M20 x 1.5	D6		125	44	1651002408
M20 x 1.0	D5		125	44	1651006608
M22 x 2.5	D7	4	140	44	1651002708
M22 x 2.0	D7		140	44	1651006908
M22 x 1.5	D6		125	44	1651002608
M22 x 1.0	D5		125	44	1651006808
M24 x 3.0	D8	3	160	51	1651002908
M24 x 2.0	D7		140	51	1651007108
M24 x 1.5	D6		140	51	1651002808
M24 x 1.0	D5		140	51	1651007008

Packed: 1 pc.
Available V coating only.

EXT

Work Material																			
List No.	P					M			K	N		S		H					
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels					
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340													
16510	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			☐					
SFM	80-120	80-120	80-120	40-65	35-55	25-75	25-60	25-60	60-100	70-120	70-120			40-65					

☐ good ☐ best





List 16555 NEW!

Coolant-Through, DIN Overall Length, Plug (3.5P-4.5P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P) V
1/4 - 20 UNC	H5	3	80	30	1655500108
1/4 - 28 UNF	H4		80	30	1655500208
5/16 - 18 UNC	H5		90	35	1655500308
5/16 - 24 UNF	H4		90	35	1655500408
3/8 - 16 UNC	H5		100	39	1655500508
3/8 - 24 UNF	H4		90	35	1655500608
7/16 - 14 UNC	H5		100	32	1655500708
7/16 - 20 UNF	H5		100	32	1655500808
1/2 - 13 UNC	H5		110	34	1655500908
1/2 - 20 UNF	H5		100	34	1655501008

Packed: 1 pc.
Available V coating only.

EXT

Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P) V
9/16 - 12 UNC	H5	3	110	37	1655501108
9/16 - 18 UNF	H5		100	37	1655501208
5/8 - 11 UNC	H5		110	39	1655501308
5/8 - 18 UNF	H5		100	39	1655501408
3/4 - 10 UNC	H5		125	43	1655501508
3/4 - 16 UNF	H5		110	43	1655501608
7/8 - 9 UNC	H6		140	47	1655501708
7/8 - 14 UNF	H6		125	47	1655501808
1 - 8 UNC	H6		160	53	1655501908
1 - 12 UNF	H6		140	53	1655502008

Packed: 1 pc.
Available V coating only.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010	1035	1065			4140	4340	300		400	17-4 PH	7075		30 HRC			
16555	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
SFM	100-200	100-200	100-200	50-120	45-110	40-120	40-120	40-100	80160	90-220	90-220			60-120			

☐ good ☒ best



List 16550 **NEW!**

Coolant-Through, DIN Overall Length, Plug (3.5P-4.5P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P) V
M6 x 1.0	D5	3	80	30	1655000208
M6 x 0.75	D4		80	30	1655000108
M7 x 1.0	D5		80	30	1655000308
M8 x 1.25	D5		90	35	1655000608
M8 x 1.0	D5		90	35	1655000508
M8 x 0.75	D4		80	30	1655000408
M9 x 1.25	D5		90	35	1655000708
M10 x 1.5	D6		100	39	1655001008
M10 x 1.25	D5		100	39	1655000908
M10 x 1.0	D5		90	35	1655000808
M11 x 1.5	D5		100	29	1655001108
M12 x 1.75	D6		110	32	1655001508
M12 x 1.5	D6		100	32	1655001408
M12 x 1.25	D6		100	32	1655001308
M12 x 1.0	D5		100	32	1655001208
M14 x 2.0	D7		110	36	1655001708

Packed: 1 pc.
Available V coating only.

EXT

Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P) V
M14 x 1.5	D6	4	100	36	1655001608
M15 x 1.5	D6		100	36	1655001808
M16 x 2.0	D7	3	110	36	1655002008
M16 x 1.5	D6		100	36	1655001908
M17 x 1.5	D6	4	100	36	1655002108
M18 x 2.5	D7		125	43	1655002308
M18 x 1.5	D6	4	110	43	1655002208
M20 x 2.5	D7		140	44	1655002508
M20 x 1.5	D6	4	125	44	1655002408
M22 x 2.5	D7		140	44	1655002808
M22 x 2.0	D7	4	140	44	1655002708
M22 x 1.5	D6		125	44	1655002608
M24 x 3.0	D8	3	160	51	1655003108
M24 x 2.0	D7		140	51	1655003008
M24 x 1.5	D6	4	140	51	1655002908

Packed: 1 pc.
Available V coating only.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
16550	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
SFM	100-200	100-200	100-200	50-120	45-110	40-120	40-120	40-100	80160	90-220	90-220			60-120			

☐ good ☒ best





List 16535 NEW!

Long Shank, Plug (3.5P-4.5P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P) V
6 - 32 UNC	H3	3	120	21	1653501008
6 - 40 UNF	H2		100	21	1653501108
8 - 32 UNC	H3		120	22	1653501308
8 - 36 UNF	H2		100	22	1653501408
10 - 24 UNC	H3		125	26	1653501508
10 - 32 UNF	H3		150	27	1653501708
12 - 24 UNC	H3		125	32	1653501808
12 - 28 UNF	H3		125	32	1653501908
1/4 - 20 UNC	H5		150	34	1653502108
1/4 - 28 UNF	H4		150	34	1653502308
5/16 - 18 UNC	H5		150	41	1653502508
5/16 - 24 UNF	H4		150	41	1653502708
3/8 - 16 UNC	H5		150	48	1653502908
3/8 - 24 UNF	H4		150	48	1653503108

Packed: 1 pc.
Available V coating only.
Shank diameter is standard ANSI.

EXT

Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P) V
7/16 - 14 UNC	H5	3	150	60	1653503308
7/16 - 20 UNF	H5		150	60	1653503508
1/2 - 13 UNC	H5		180	72	1653503708
1/2 - 20 UNF	H5		180	72	1653503908
9/16 - 12 UNC	H5		180	72	1653504108
9/16 - 18 UNF	H5		180	72	1653504308
5/8 - 11 UNC	H5		180	72	1653504508
5/8 - 18 UNF	H5		180	72	1653504708
3/4 - 10 UNC	H5		200	80	1653504908
3/4 - 16 UNF	H5		200	80	1653505108
7/8 - 9 UNC	H6		200	80	1653505308
7/8 - 14 UNF	H6		200	80	1653505508
1 - 8 UNC	H6		200	80	1653505708
1 - 12 UNF	H6		200	80	1653505908

Packed: 1 pc.
Available V coating only.
Shank diameter is standard ANSI.

EXT

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
16535	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
SFM	80-120	80-120	80-120	40-65	35-55	25-75	25-60	25-60	60-100	70-120	70-120			40-65			

☐ good ☒ best





List 16530 NEW!

Long Shank, Plug (3.5P-4.5P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P) V
M3 x 0.5	D3	3	100	21	1653001308
M3 x 0.35	D3		100	21	1653001208
M3.5 x 0.6	D3		100	24	1653001508
M3.5 x 0.35	D3		100	24	1653001408
M4 x 0.7	D4		100	28	1653001708
M4 x 0.5	D3		100	28	1653001608
M4.5 x 0.75	D4		100	32	1653001908
M4.5 x 0.5	D4		100	32	1653001808
M5 x 0.8	D4		125	35	1653002108
M5 x 0.5	D3		125	35	1653002008
M5.5 x 0.5	D3		125	38	1653002208
M6 x 1.0	D5		150	42	1653002708
M6 x 0.75	D4		150	42	1653002508
M6 x 0.5	D3		125	42	1653002308
M8 x 1.25	D5		150	55	1653003708
M8 x 1.0	D5		150	55	1653003508
M8 x 0.75	D4		150	47	1653003308
M10 x 1.5	D6		150	64	1653005108
M10 x 1.25	D5		150	64	1653004908
M10 x 1.0	D5		150	64	1653004708
M10 x 0.75	D4		150	64	1653004508
M12 x 1.75	D6	4	180	72	1653006708
M12 x 1.5	D6		180	72	1653006508
M12 x 1.25	D6		180	72	1653006308
M12 x 1.0	D5		180	72	1653006108
M14 x 2.0	D7		150	60	1653007108

Packed: 1 pc.
Available V coating only.
Shank diameter is standard ANSI.

EXT

Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P) V
M14 x 1.5	D6	4	150	60	1653007008
M14 x 1.25	D6		150	60	1653006908
M14 x 1.0	D5		150	60	1653006808
M15 x 1.5	D6		160	64	1653007308
M15 x 1.0	D5	3	160	64	1653007208
M16 x 2.0	D7		180	72	1653007708
M16 x 1.5	D6		160	64	1653007508
M16 x 1.0	D4		160	64	1653007408
M18 x 2.5	D7	4	180	72	1653008308
M18 x 2.0	D7		180	72	1653008208
M18 x 1.5	D6		180	72	1653008108
M18 x 1.0	D5		180	72	1653008008
M20 x 2.5	D7	3	200	80	1653008708
M20 x 2.0	D7	4	200	80	1653008608
M20 x 1.5	D6		200	80	1653008508
M20 x 1.0	D5		200	80	1653008408
M22 x 2.5	D7	3	200	80	1653009108
M22 x 2.0	D7	4	200	80	1653009008
M22 x 1.5	D6		200	80	1653008908
M22 x 1.0	D5		200	80	1653008808
M24 x 3.0	D8	3	200	80	1653009508
M24 x 2.0	D7	4	200	80	1653009408
M24 x 1.5	D6		200	80	1653009308
M24 x 1.0	D5		200	80	1653009208

Packed: 1 pc.
Available V coating only.
Shank diameter is standard ANSI.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
	1010 1018	1035 1045	1065	4140 4340													
16530	☒	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐			☒			
SFM	80-120	80-120	80-120	40-65	35-55	25-75	25-60	25-60	60-100	70-120	70-120			40-65			

☐ good ☐ best





List 300

Plug (3.5P-4.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Plug (3.5P - 4.5P)		
			S/O	TiN	V
2 - 56 UNC	H2	2	1734601	-	1734608
	H3		1734701	-	1734708
	H4		1725501	-	-
3 - 48 UNC	H2		1725601	-	-
	H2		1730001	1730005	1730008
	H3		1734801	-	1734808
4 - 40 UNC	H4		1725801	-	-
	H5		1734901	-	1734908
	H6		1726801	-	-
4 - 48 UNF	H2		1726901	-	-
	H4		1727001	-	-
	H2		1730101	-	1730108
5 - 40 UNC	H2	3	1735801	-	1735808
	H3		1730201	-	1730208
	H3		1739801	1739805	1739808
6 - 32 UNC	H4		1727101	-	-
	H5		1737101	-	1737108
	H7		1727201	-	-
6 - 40 UNF	H2		1727301	-	-
	H3		1727401	-	-
	H2		1735901	-	1735908
8 - 32 UNC	H3		1730301	1730305	1730308
	H4		1727501	-	-
	H5		1737201	-	1737208
8 - 36 UNF	H7		1727601	-	-
	H2		1727701	-	-
10 - 24 UNC	H3		1730401	1730405	1730408
	H4		1727801	-	-
	H5		1727901	-	-
10 - 32 UNF	H2	3	1736501	-	1736508
	H3		1730501	1730505	1730508
	H4		1776401	-	1776408
12 - 24 UNC	H5		1737301	-	1737308
	H6		1728001	-	-
	H7		1728101	-	-
12 - 28 UNF	H3		1728201	-	-
	H3		1728301	-	-
	H2		1736601	-	1736608
1/4 - 20 UNC	H3		1730601	1730605	1730608
	H5		1737401	-	1737408
	H7		1728401	-	-
1/4 - 28 UNF	H2		1736701	-	1736708
	H3		1730701	1730705	1730708

Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Plug (3.5P - 4.5P)		
			S/O	TiN	V
1/4 - 28 UNF	H4	3	1736801	-	1736808
	H5		1728501	-	-
	H6		1728601	-	-
5/16 - 18 UNC	H7		1728701	-	-
	H3		1730801	1730805	1730808
	H5		1738301	-	1738308
5/16 - 24 UNF	H7		1728801	-	-
	H3		1730901	1730905	1730908
	H4		1736901	-	1736908
3/8 - 16 UNC	H5		1728901	-	-
	H6		1729001	-	-
	H7		1729101	-	-
3/8 - 24 UNF	H3		1731001	1731005	1731008
	H5		1738401	-	1738408
	H7		1729201	-	-
7/16 - 14 UNC	H3	3	1731101	1731105	1731108
	H4		1737001	-	1737008
	H5		1729301	-	-
7/16 - 20 UNF	H7		1729401	-	-
	H3		1731201	1731205	1731208
	H5		1738501	-	1738508
1/2 - 13 UNC	H3		1731301	1731305	1731308
	H5		1738601	-	1738608
	H7		1731401	1731405	1731408
1/2 - 20 UNF	H3		1738701	-	1738708
	H5		1729501	-	-
	H7		1731501	1731505	1731508
9/16 - 12 UNC	H3	3	1738801	-	1738808
	H5		1725001	1725005	1725008
	H7		1725101	1725105	1725108
9/16 - 18 UNF	H3		1731601	1731605	1731608
	H5		1738901	-	1738908
	H7		1729601	-	-
5/8 - 11 UNC	H3		1731701	1731705	1731708
	H5		1729701	-	-
	H7		1729801	-	-
5/8 - 18 UNF	H3		1731801	1731805	1731808
	H5		1731901	1731905	1731908
	H7		1725201	1725205	1725208
3/4 - 10 UNC	H3	3	1725301	1725305	1725308
	H5		1725401	1725405	1725408
	H7		1729901	-	-
3/4 - 16 UNF	H3				
	H5				
	H7				
7/8 - 9 UNC	H3				
	H5				
	H7				
7/8 - 14 UNF	H3				
	H5				
	H7				
1 - 8 UNC	H3				
	H5				
	H7				
1 - 12 UNF	H3				
	H5				
	H7				

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide, TiN or V coatings as shown above.



Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide, TiN or V coatings as shown above.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
300	☐	○	○			☐	☐	○									
SFM	25-80	20-50	20-45			20-45	20-45	8-20									

☐ good ☐ best





List 342

Plug (3.5P-4.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Plug (3.5P - 4.5P)		
			S/O	TiN	V
M3 x 0.5	D3	3	1750101	—	1750108
M3.5 x 0.6	D4		1772901	—	—
M4 x 0.7	D4		1750401	1750405	1750408
M5 x 0.8	D4		1750701	1750705	1750708
M6 x 1.0	D5		1751001	1751005	1751008
M7 x 1.0	D5		1773401	—	—
M8 x 1.25	D5		1751301	1751305	1751308
M8 x 1.0	D5		1773201	—	—
M10 x 1.5	D6		1751601	1751605	1751608

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide, TiN or V coatings as shown above.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Plug (3.5P - 4.5P)		
			S/O	TiN	V
M10 x 1.25	D5	3	1773101	—	—
M12 x 1.75	D6		1751901	1751905	1751908
M12 x 1.25	D5		1772701	—	—
M14 x 2.0	D7		1772601	—	—
M14 x 1.5	D6		1772801	—	—
M16 x 1.5	D6		1773001	—	—
M16 x 2.0	D7		1773501	—	—
M18 x 1.5	D6		1773301	—	—

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide, TiN or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
342	☒	☐	☐			☒	☒	☐									
SFM	25-80	20-50	20-45			20-45	20-45	8-20									

☐ good ☒ best





List 397

Long Shank, Plug (3.5P-4.5P)



HSSE

S/O



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P) S/O
4 - 40 UNC	H2	2	4	0.843	1764001
			6		1766201
6 - 32 UNC	H3	2	4	1.031	1764101
			6		1764201
8 - 32 UNC	H3	3	4	1.125	1764301
			6		1764401
10 - 24 UNC	H3	3	4	1.312	1764501
			6		1764601
10 - 32 UNF	H3	3	4	1.312	1764701
			6		1764801
1/4 - 20 UNC	H3	3	4	1.5	1764901
			6		1765001

Packed: 1 pc.

Available Steam Oxide finish only.

Note: Neck length is designed for reaching 50% deeper holes than ANSI standard taps.

Shank diameter is standard ANSI.

EXT

Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P) S/O
1/4 - 28 UNF	H3	3	6	1.687	1765101
5/16 - 18 UNC	H3		6	1.687	1765201
5/16 - 24 UNF	H3		6	1.875	1765701
3/8 - 16 UNC	H3		6	1.875	1765301
3/8 - 24 UNF	H3		6	-	1765801
7/16 - 14 UNC	H3		6	-	1765401
7/16 - 20 UNF	H3		6	-	1765901
1/2 - 13 UNC	H3		6	-	1765501
1/2 - 20 UNF	H3		6	-	1766001
5/8 - 11 UNC	H3		6	-	1765601

Packed: 1 pc.

Available Steam Oxide finish only.

Note: Neck length is designed for reaching 50% deeper holes than ANSI standard taps.

Shank diameter is standard ANSI.

EXT

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
397	☐	☐	☐			☐	☐	☐									
SFM	25-80	20-50	20-45			20-45	20-45	8-20									

☐ good ☐ best



List 320

Plug (3.5P-4.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			TiN
4 - 40 UNC	H2	2	1740005
5 - 40 UNC	H2		1740105
6 - 32 UNC	H3		1740205
	H5		1742005
	H7		1742105
8 - 32 UNC	H3	3	1740305
10 - 24 UNC	H3		1740405
10 - 32 UNF	H3		1740505
	H5		1742205
	H7		1742305
1/4 - 20 UNC	H3		1740605
1/4 - 28 UNF	H3		1740705
	H5		1742405
	H7		1742505
5/16 - 18 UNC	H3		1740805

Packed: 1 pc.
Available TiN coating only.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			TiN
5/16 - 24 UNF	H3	3	1740905
	H5		1742605
	H7		1742705
3/8 - 16 UNC	H3		1741005
3/8 - 24 UNF	H3		1741105
7/16 - 14 UNC	H5		1742805
	H3		1741205
7/16 - 20 UNF	H3		1741305
1/2 - 13 UNC	H3		1741405
1/2 - 20 UNF	H3		1741505
5/8 - 11 UNC	H3		1741605
5/8 - 18 UNF	H3		1741705
3/4 - 10 UNC	H3		1741805
3/4 - 16 UNF	H3		1741905

Packed: 1 pc.
Available TiN coating only.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting			Inconel	6Al4V	~35 HRC	35-45 HRC
	1010 1018	1035 1045	1065	4140 4340						7075			(30 HRC)				
320	☐	☐	☒	☒	☒	☐	☐	☐	☐	☐	☐			☐			
SFM	25-80	20-50	20-45	20-50	15-20	20-45	15-20	8-20	25-75	40-80	40-65			15-35			

☐ good ☒ best





List 250

DIN Overall Length, Plug (3.5P-4.5P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number
				Plug (3.5P - 4.5P)
				S/O
4 - 40 UNC	2B	2	56	2511401
6 - 32 UNC		2	56	2512401
8 - 32 UNC		3	63	2517801
10 - 24 UNC		3	70	2513401
10 - 32 UNF		3	70	2518801
1/4 - 20 UNC		3	80	2530001
1/4 - 28 UNF		3	80	2530401
5/16 - 18 UNC		3	90	2530801
5/16 - 24 UNF		3	90	2531201
3/8 - 16 UNC		3	100	2531601

Packed: 1 pc.
Available Steam Oxide finish only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number
				Plug (3.5P - 4.5P)
				S/O
3/8 - 24 UNF	2B	3	100	2531801
7/16 - 14 UNC		3	100	2532001
7/16 - 20 UNF		3	100	2532201
1/2 - 13 UNC		3	110	2532401
1/2 - 20 UNF		3	100	2532601
5/8 - 11 UNC		3	110	2533201
5/8 - 18 UNF		3	100	2533401
3/4 - 10 UNC		3	125	2533601
3/4 - 16 UNF		3	110	2533801

Packed: 1 pc.
Available Steam Oxide finish only.



Work Material																			
List No.	P					M			K	N		S		H					
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels					
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340													
250	☐	☐	☒	☒	☐	☐	☐	☐	☐					☐					
SFM	25-80	20-50	20-45	20-50	15-30	20-45	20-40	15-20	25-75					15-35					

☐ good ☒ best





List 259

DIN Overall Length, Plug (3.5P-4.5P)



HSSE

S/O



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number
				Plug (3.5P - 4.5P)
				S/O
M3 x 0.5	6H	3	56	2590401
M4 x 0.7		3	63	2590601
M5 x 0.8		3	70	2590801
M6 x 1.0		3	80	2591001
M8 x 1.25		3	90	2591401
M10 x 1.5		3	100	2591801
M10 x 1.25		3	100	2591701
M12 x 1.75		3	110	2592301
M12 x 1.5		3	100	2592201

Packed: 1 pc.
Available Steam Oxide finish only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number
				Plug (3.5P - 4.5P)
				S/O
M12 x 1.25	6H	3	100	2592101
M14 x 2.0		3	110	2592601
M14 x 1.5		3	100	2592501
M16 x 2.0		3	110	2592901
M16 x 1.5		3	100	2592801
M18 x 2.5		3	125	2593201
M18 x 1.5		3	110	2593001
M20 x 2.5		3	140	2593601
M20 x 1.5		3	125	2593401

Packed: 1 pc.
Available Steam Oxide finish only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
259	☐	☐	☒	☒	☐	☐	☐	☐	☐					☐			
SFM	25-80	20-50	20-45	20-50	15-30	20-45	20-40	15-20	25-75					15-35			

☐ good ☒ best





List 260

Coolant-Through, DIN Overall Length, Plug (3.5P-4.5P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number
				Plug (3.5P - 4.5P)
				TiN
1/4 - 20 UNC	2B	3	80	2630005
1/4 - 28 UNF			80	2630405
5/16 - 18 UNC			90	2630805
5/16 - 24 UNF			90	2631205
3/8 - 16 UNC			100	2631605
3/8 - 24 UNF			100	2631805
7/16 - 14 UNC			100	2632005
7/16 - 20 UNF			100	2632205
1/2 - 13 UNC			110	2632405

Packed: 1 pc.
Available TiN coating only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number
				Plug (3.5P - 4.5P)
				TiN
1/2 - 20 UNF	2B	3	100	2632605
9/16 - 18 UNC			100	2633005
5/8 - 11 UNC			110	2633205
5/8 - 18 UNF			100	2633405
3/4 - 10 UNC			125	2633605
3/4 - 16 UNF			110	2633805
7/8 - 9 UNC			140	2634005
7/8 - 14 UNF			125	2634205
1 - 8 UNC			160	2634405

Packed: 1 pc.
Available TiN coating only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
260	☐	☐	☒	☒	☒	☐	☐	☐	☐	☐	☐			☐			
SFM	50-120	45-110	40-100	45-110	20-60	20-70	30-50	20-50	40-100	50-125	50-110			20-60			

☐ good ☒ best





List 269

Coolant-Through, DIN Overall Length, Plug (3.5P-4.5P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number
				Plug (3.5P - 4.5P)
				TiN
M6 x 1.0	6H	3	80	2691005
M8 x 1.25			90	2691405
M10 x 1.5			100	2691805
M10 x 1.25			100	2691705
M12 x 1.75			110	2692305
M12 x 1.5			100	2692205
M12 x 1.25			100	2692105
M14 x 2.0			110	2692605

Packed: 1 pc.
Available TiN coating only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number
				Plug (3.5P - 4.5P)
				TiN
M14 x 1.5	6H	3	100	2692505
M16 x 2.0			110	2692905
M16 x 1.5			100	2692805
M18 x 2.5			125	2693205
M18 x 1.5			110	2693005
M20 x 2.5			140	2693605
M20 x 1.5			125	2693405

Packed: 1 pc.
Available TiN coating only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035	1065			4140	4340					7075		(30 HRC)			
269	☐	☐	☒	☒	☒	☐	☐	☐	☐	☐	☐			☐			
SFM	50-120	45-110	40-100	45-110	20-60	20-70	30-50	20-50	40-100	50-125	50-110			20-60			

☐ good ☒ best





List 11015

Plug (4P-5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 5P)
			TiN
4 - 40 UNC	H3	3	1101500105
	H4		1101505605
	H5		1101500305
	H6		1101500205
	H7		1101505705
	H8		1101515505
4 - 48 UNF	H3		1101515605
	H4		1101515705
	H5		1101515805
	H6		1101515905
	H7		1101506505
	H8		1101506605
6 - 32 UNC	H3		1101500405
	H4		1101505805
	H5		1101500505
	H6		1101500605
	H7		1101500705
	H8		1101500805
	H9		1101506705
	H10		1101506805
	H11		1101506905
	H3		1101507005
	H4		1101507105
6 - 40 UNF	H5		1101507205
	H6		1101507305
	H7		1101507405
	H8		1101507505
	H9		1101507605
	H10		1101507705
	H11		1101507805
	H3		1101500905
	H4		1101501005
	H5		1101501105
	H6		1101501205
8 - 32 UNC	H7		1101501305
	H8		1101501405
	H9		1101507905
	H10		1101508005
	H11		1101508105
	H3		1101508205
	H4		1101508305
	H5		1101508405
	H6		1101508505
	H7		1101508605
	H8		1101508705
8 - 36 UNF	H9		1101508805
	H10		1101508905
	H11		1101509005

Packed: 1 pc.
Available TiN coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 5P)
			TiN
10 - 24 UNC	H3	3	1101509105
	H4		1101509205
	H5		1101509305
	H6		1101509405
	H7		1101509505
	H8		1101509605
	H9		1101509705
	H10		1101509805
	H11		1101509905
	H3		1101501505
	H4		1101501605
10 - 32 UNF	H4		1101516005
	H5		1101501705
	H6		1101501805
	H7		1101501905
	H8		1101502005
	H9		1101502105
	H10		1101506005
	H11		1101506105
	H12		1101506205
	H3		1101516105
	H4		1101516205
12 - 28 UNC	H5		1101516305
	H6		1101516405
	H7		1101516505
	H8		1101516605
	H9		1101516705
	H10		1101516805
	H11		1101516905
	H3		1101510005
	H4		1101510105
	H5		1101510205
	H6		1101510305
1/4 - 20 UNC	H7		1101510405
	H8		1101510505
	H9		1101510605
	H10		1101510705
	H11		1101510805
	H3		1101502205
	H4		1101505505
	H5		1101502305
	H6		1101502405
	H7		1101502505
	H8		1101502605
1/4 - 28 UNF	H9		1101502705
	H10		1101502805
	H11		1101506305
	H12		1101506405

Packed: 1 pc.
Available TiN coating only.





List 11015 (Continued)

Plug (4P-5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 5P)
			TiN
5/16 - 18 UNC	H3	3	1101510905
	H4		1101511005
	H5		1101511105
	H6		1101511205
	H7		1101511305
	H8		1101511405
	H9		1101511505
	H10		1101511605
	H11		1101511705
	H3		1101502905
	H4		1101505905
5/16 - 24 UNF	H5	3	1101503005
	H6		1101503105
	H7		1101503205
	H8		1101503305
	H9		1101503405
	H10		1101503505
	H11		1101511805
	H3		1101511905
	H4		1101512005
	H5		1101512105
	H6		1101512205
3/8 - 16 UNC	H7	3	1101512305
	H8		1101512405
	H9		1101512505
	H10		1101512605
	H11		1101512705
	H12		1101512805
	H3		1101503605
	H4		1101512905
	H5		1101503705
	H6		1101503805
	H7		1101503905
3/8 - 24 UNF	H8	3	1101504005
	H9		1101504105
	H10		1101504205
	H11		1101513005
	H3		1101513105
	H4		1101513205
	H5		1101513305
	H6		1101513405
	H7		1101513505
	H8		1101513605
	H9		1101513705
7/16 - 14 UNC	H10	3	1101513805
	H11		1101513905

Packed: 1 pc.
Available TiN coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 5P)
			TiN
7/16 - 20 UNF	H3	3	1101504305
	H4		1101514005
	H5		1101504405
	H6		1101504505
	H7		1101504605
	H8		1101504705
	H9		1101504805
	H10		1101514105
	H11		1101514205
	H3		1101514305
	H4		1101514405
1/2 - 13 UNC	H5	3	1101514505
	H6		1101514605
	H7		1101514705
	H8		1101514805
	H9		1101514905
	H10		1101515005
	H11		1101515105
	H3		1101504905
	H4		1101515205
	H5		1101505005
	H6		1101505105
1/2 - 20 UNF	H7	3	1101505205
	H8		1101505305
	H9		1101505405
	H10		1101515305
	H11		1101515405
	H3		1101517005
	H5		1101517105
	H6		1101517205
	H7		1101517305
	H8		1101517405
	H9		1101517505
9/16 - 18 UNC	H3	4	1101517605
	H5		1101517705
	H6		1101517805
	H7		1101517905
	H8		1101518005
	H9		1101518105
	H10		1101518205
	H11		1101518305
	H3		1101518405
	H5		1101518505
	H6		1101518605
5/8 - 11 UNC	H7	4	1101518705
	H8		1101518805
	H9		1101518905
	H10		1101519005
	H11		1101519105
	H3		1101519205
	H5		1101519305
	H6		1101519405
	H7		1101519505
	H8		1101519605
	H9		1101519705
5/8 - 18 UNF	H10	4	1101519805
	H11		1101519905

Packed: 1 pc.
Available TiN coating only.

continued on next page

Work Material																
List No.	P					M			K	N		S		H		
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels		
	Low 1010 1018	Med. 1035 1045	High 1065	4140 4340		300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
11015	☒	☒	☒	☐	☐	☒	☒	☐	☐	☐	☐	☐	☐	☐		
SFM	25-80	20-50	20-45	20-50	15-30	20-45	20-45	15-20	25-75	40-80	40-65	8-15	8-15	15-35		

☐ good ☒ best





List 11015 (Continued)

Plug (4P-5P)



HSS-CO

TiN



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 5P)
			TiN
3/4 - 10 UNC	H3	4	1101518605
	H5		1101518705
3/4 - 16 UNF	H3		1101518805
	H5		1101518905
	H6		1101519005
	H7		1101519105
	H8		1101519205
	H9		1101519305
	H10		1101519405
	H11		1101519505

Packed: 1 pc.
Available TiN coating only.

HYT

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 5P)
			TiN
7/8 - 9 UNC	H6	5	1101519605
	H6		1101519705
7/8 - 14 UNF	H7		1101519805
	H8		1101519905
	H9		1101520005
	H10		1101520105
	H11		1101520205
1 - 12 UNF	H12		1101520305
	H6		1101520405
	H7		1101520505
	H8		1101520605
	H9		1101520705
	H10		1101520805
	H11		1101520905
	H12		1101521005

Packed: 1 pc.
Available TiN coating only.

HYT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
11015	☒	☒	☒	☐	☐	☒	☒	☐	☐	☐	☐	☐	☐	☐			
SFM	25-80	20-50	20-45	20-50	15-30	20-45	20-45	15-20	25-75	40-80	40-65	8-15	8-15	15-35			

☐ good ☒ best



List 11115

Plug (4P-5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 5P)
			TiN
M3 x 0.5	H3	3	1111500105
	H5		1111500205
	H4		1111500905
	H6		1111501005
	H7		1111501105
	H8		1111501205
	H9		1111501305
	H10		1111501405
	H11		1111501505
	H4		1111500305
	H5		1111500405
M4 x 0.7	H6		1111501605
	H7		1111501705
	H8		1111501805
	H9		1111501905
	H10		1111502005
	H11		1111502105
M5 x 0.8	H4		1111500505
	H5		1111500605
	H6		1111502205
	H7		1111502305
	H8		1111502405
	H9		1111502505
	H10		1111502605
M6 x 1.0	H11		1111502705
	H5		1111500705
	H6		1111502805
	H7		1111502905
	H8		1111503005
	H9		1111503105
	H10		1111503205
	H11		1111503305
	H12		1111503405

Packed: 1 pc.
Available TiN coating only.
Note: List 11115 metric taps are manufactured to H-limits rather than D-limits.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 5P)
			TiN
M8 x 1.25	H5	3	1111500805
	H6		1111503505
	H7		1111503605
	H8		1111503705
	H9		1111503805
	H10		1111503905
	H11		1111504005
	H12		1111504105
	H5		1111507005
	H6		1111507105
	H7		1111507205
	H8		1111507305
M8 x 1.0	H9		1111507405
	H10		1111507505
	H11		1111507605
	H5		1111504905
	H6		1111505005
	H7		1111505105
M10 x 1.5	H8		1111505205
	H9		1111505305
	H10		1111505405
	H11		1111505505
	H12		1111505605
	H5		1111504205
M10 x 1.25	H6		1111504305
	H7		1111504405
	H8		1111504505
	H9		1111504605
	H10		1111504705
	H11		1111504805
M12 x 1.75	H6		1111507705
	H7		1111507805
	H8		1111507905
	H9		1111508005
	H10		1111508105
	H11		1111508205

Packed: 1 pc.
Available TiN coating only.
Note: List 11115 metric taps are manufactured to H-limits rather than D-limits.

[continued on next page](#)



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
11115																	
SFM	25-80	20-50	20-45	20-50	15-30	20-45	20-45	15-20	25-75	40-80	40-65	8-15	8-15	15-35			

☐ good ☐ best





List 11115 (Continued)

Plug (4P-5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 5P)
			TiN
M12 x 1.5	H6	3	1111506405
	H7		1111506505
	H8		1111506605
	H9		1111506705
	H10		1111506805
	H11		1111506905

Packed: 1 pc.

Available TiN coating only.

Note: List 11115 metric taps are manufactured to H-limits rather than D-limits.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (4P - 5P)
			TiN
M12 x 1.25	H5	3	1111505705
	H6		1111505805
	H7		1111505905
	H8		1111506005
	H9		1111506105
	H10		1111506205
M14 x 1.5	H11	4	1111506305
	H6		1111508305
	H7		1111508405
	H8		1111508505
	H9		1111508605
	H10		1111508705
	H11		1111508805

Packed: 1 pc.

Available TiN coating only.

Note: List 11115 metric taps are manufactured to H-limits rather than D-limits.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
11115	☒	☒	☒	☐	☐	☒	☒	☐	☐	☐	☐	☐	☐	☐			
SFM	25-80	20-50	20-45	20-50	15-30	20-45	20-45	15-20	25-75	40-80	40-65	8-15	8-15	15-35			

☐ good ☒ best





List 13118

DIN Overall Length & Extended Length, Plug (4.5P-5.5P),
RHC/LHS for Through Holes



HSSE

V

LHS

15°



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Plug (4P - 5P)	
				TiN	
M16 x 2.0	D7	4	110	1311802408	
	D17 (6H +0.005")		180	1311802508	
			110	1311802308	
M20 x 2.5	D8	5	140	1311800108	
	D18 (6H +0.005")		200	1311800208	
			160	1311801608	
M24 x 3.0	D9		160	1311800408	
	D19 (6H +0.005")		200	1311800508	
			160	1311801708	
M27 x 3.0	D9		160	1311800608	
	D19 (6H +0.005")		200	1311800708	
			160	1311801808	

Packed: 1 pc.
Available V coating only.
Note: +0.005" available for threads
that will be heat treated after tapping.



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Plug (4P - 5P)	
				TiN	
M30 x 3.5	D10	5	180	1311800808	
	D20 (6H +0.005")		250	1311800908	
			180	1311801908	
M33 x 3.5	D10		180	1311801008	
	D20 (6H +0.005")		250	1311801108	
		180	1311802008		
M36 x 4.0	D11	6	180	1311801208	
	D21 (6H +0.005")		250	1311801308	
			200	1311802108	
M42 x 4.5	D11		200	1311801408	
			300	1311801508	
	D21 (6H +0.005")		200	1311802208	

Packed: 1 pc.
Available V coating only.
Note: +0.005" available for threads
that will be heat treated after tapping.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
13118	☒	☒	☒	☒	☒	☐	☐	☐	☒	☐	☐			☒	☐		
SFM	50-120	45-110	40-100	45-110	20-60	30-70	30-70	20-50	40-100	30-80	30-80			20-60	15-50		

☐ good ☒ best





HY-PRO® SYNCHRO AL

High Speed Tapping of Aluminum and Aluminum Alloy

List 13059

Synchronized, Plug (5.5P-6.5P), **RHC/LHS for Through Holes**



HSSE

V

LHS

20°



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (5.5P - 6.5P)
			V
6 - 32 UNC	2B	2	1305900108
8 - 32 UNC			1305900208
10 - 24 UNC			1305900308
10 - 32 UNF			1305900408
1/4 - 20 UNC			1305900508
1/4 - 28 UNF			1305900608

Packed: 1 pc.
Available V coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (5.5P - 6.5P)
			V
5/16 - 18 UNC	2B	2	1305900708
5/16 - 24 UNF			1305900808
3/8 - 16 UNC			1305900908
3/8 - 24 UNF			1305901008
1/2 - 13 UNC			1305901108
1/2 - 13 UNF			1305901208

Packed: 1 pc.
Available V coating only.



List 13159

Synchronized, Plug (5.5P-6.5P), **RHC/LHS for Through Holes**



HSSE

V

LHS

20°



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (5.5P - 6.5P)
			V
M3 x 0.5	6H	2	1315900108
M4 x 0.7			1315900208
M5 x 0.8			1315900308
M6 x 1.0			1315900408
M8 x 1.25			1315900508

Packed: 1 pc.
Available V coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (5.5P - 6.5P)
			V
M10 x 1.5	6H	2	1315900708
M10 x 1.25			1315900608
M12 x 1.75			1315900908
M12 x 1.5			1315900808

Packed: 1 pc.
Available V coating only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
13059										☐	☐						
13159										☐	☐						
SFM										300-800	200-700						

☐ good ☒ best





List 11016

DIN Overall Length, Plug (3.5P-4.5P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Plug (3.5P - 4.5P)	
				N	
2 - 56 UNC	H2	2	45	1101600103	
4 - 40 UNC	H2		56	1101600203	
6 - 32 UNC	H3		56	1101600303	
8 - 32 UNC	H3	3	63	1101600403	
10 - 24 UNC	H3		70	1101600503	
10 - 32 UNF	H3		70	1101600603	
1/4 - 20 UNC	H3		80	1101600703	
1/4 - 28 UNF	H5		80	1101600803	
1/4 - 28 UNF	H3		80	1101600903	
5/16 - 18 UNC	H3		90	1101601003	
	H5			1101601103	

Packed: 1 pc.
Available Nitride treatment only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Plug (3.5P - 4.5P)	
				N	
5/16 - 24 UNF	H3	3	90	1101601203	
3/8 - 16 UNC	H3		100	1101601303	
	H5		100	1101601403	
3/8 - 24 UNF	H3		100	1101601503	
7/16 - 14 UNC	H3		100	1101601603	
	H5		100	1101601703	
7/16 - 20 UNF	H3		100	1101601803	
1/2 - 13 UNC	H3		110	1101601903	
	H5		110	1101602003	
1/2 - 20 UNF	H3		110	1101602103	

Packed: 1 pc.
Available Nitride treatment only.



List 11116

DIN Overall Length, Plug (3.5P-4.5P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Plug (3.5P - 4.5P)	
				N	
M3 x 0.5	D3	3	56	1111600103	
M4 x 0.7	D4		63	1111600303	
M5 x 0.8	D4		70	1111600403	
M6 x 1.0	D5		80	1111600503	
M8 x 1.25	D5		90	1111600803	

Packed: 1 pc.
Available Nitride treatment only.



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Plug (3.5P - 4.5P)	
				N	
M10 x 1.5	D6	3	100	1111601003	
M10 x 1.25	D5		100	1111600903	
M12 x 1.75	D6		110	1111601303	
M12 x 1.5	D5		100	1111601203	
M12 x 1.25	D5		100	1111601103	

Packed: 1 pc.
Available Nitride treatment only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High														
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
11016										☒	☒						
11116										☒	☒						
SFM										40-80	40-65						

☐ good ☒ best





List 11017

DIN Overall Length, Plug (3.5P-4.5P)



HSSE

V



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Plug (3.5P - 4.5P)	
				V	
4 - 40 UNC	H2	2	56	1101700108	
6 - 32 UNC	H3		56	1101700208	
8 - 32 UNC	H3		63	1101700308	
10 - 24 UNC	H3	3	70	1101700408	
10 - 32 UNF	H3		70	1101700508	
1/4 - 20 UNC	H3		80	1101700608	
1/4 - 28 UNF	H3		80	1101700708	
5/16 - 18 UNC	H3		90	1101700808	

Packed: 1 pc.
Available V coating only.

HYT

Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Plug (3.5P - 4.5P)	
				V	
5/16 - 24 UNF	H3	3	90	1101700908	
3/8 - 16 UNC	H3		100	1101701008	
3/8 - 24 UNF	H3		100	1101701108	
7/16 - 14 UNC	H3		100	1101701208	
7/16 - 20 UNF	H3		100	1101701308	
1/2 - 13 UNC	H3		110	1101701408	
1/2 - 20 UNF	H3		110	1101701508	

Packed: 1 pc.
Available V coating only.

HYT

List 11117

DIN Overall Length, Plug (3.5P-4.5P)



HSSE

V



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Plug (3.5P - 4.5P)	
				V	
M3 x 0.5	D3	3	56	1111700108	
M4 x 0.7	D4		63	1111700308	
M5 x 0.8	D4		70	1111700408	
M6 x 1.0	D5		80	1111700508	

Packed: 1 pc.
Available V coating only.

HYT

Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	
				Plug (3.5P - 4.5P)	
				V	
M8 x 1.25	D5	3	90	1111700808	
M10 x 1.5	D6		100	1111701008	
M12 x 1.75	D6		110	1111701308	

Packed: 1 pc.
Available V coating only.

HYT

Work Material

List No.	P						M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels	300	400	17-4 PH	Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High								6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340														
11017	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐					☐			
11117	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐					☐			
SFM	50-90	40-80	40-60	40-80	20-60	40-80	40-80	30-50	30-80						20-60			

☐ good ☐ best





List 280

Plug (3.5P-4.5P)



HSSE

TiCN

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Plug (3.5P - 4.5P)		
			Bright	S/O	TiCN
2 - 56 UNC	H2	2	2805600	2805601	2805608
3 - 48 UNC	H2		2806000	2806001	2806008
4 - 40 UNC	H2		2806400	2806401	2806408
	H3		2811400	2811401	2811408
	H4		2816300	2816301	2816308
	H5		2816400	2816401	2816408
4 - 48 UNF	H2		2816500	2816501	2816508
5 - 40 UNC	H2		2807000	2807001	2807008
6 - 32 UNC	H2		2807400	2807401	2807408
	H3		2812400	2812401	2812408
	H4		2812500	2812501	2812508
	H5		2817400	2817401	2817408
	H6		2817500	2817501	2817508
	H7		2817600	2817601	2817608
6 - 40 UNF	H11		2817700	2817701	2817708
	H2	3	2807600	2807601	2807608
8 - 32 UNC	H2		2807800	2807801	2807808
	H3		2812800	2812801	2812808
	H4		2812900	2812901	2812908
	H5		2817800	2817801	2817808
	H6		2817900	2817901	2817908
	H7		2818000	2818001	2818008
	H11		2818100	2818101	2818108
8 - 36 UNF	H2		2808000	2808001	2808008
10 - 24 UNC	H3		2813400	2813401	2813408
	H5		2818400	2818401	2818408
	H11		2823400	2823401	2823408
	H2		2808800	2808801	2808808
10 - 32 UNF	H3		2813800	2813801	2813808
	H4		2813900	2813901	2813908
	H5		2818800	2818801	2818808
	H6		2818900	2818901	2818908
	H7		2819000	2819001	2819008
	H11		2819100	2819101	2819108
12 - 24 UNC	H2		2809000	2809001	2809008
12 - 28 UNF	H3		2809200	2809201	2809208
1/4 - 20 UNC	H2		2809400	2809401	2809408
	H3		2830000	2830001	2830008
	H5		2840000	2840001	2840008

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

continued on next page



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
280	☐	☒	☒	☒	☐	☐	☐	☐	☐					☐			
SFM	50-90	40-80	40-60	40-80	20-60	40-80	40-80	30-50	30-80					20-60			

☐ good ☒ best



List 280 (Continued)

Plug (3.5P-4.5P)



HSSE

TiCN

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Plug (3.5P - 4.5P)		
			Bright	S/O	TiCN
1/4 - 20 UNC	H7	3	2854800	2854801	2854808
	H11		2855000	2855001	2855008
1/4 - 28 UNF	H2		2809600	2809601	2809608
	H3		2830400	2830401	2830408
	H4		2835400	2835401	2835408
	H5		2840400	2840401	2840408
	H6		2840500	2840501	2840508
	H7		2840600	2840601	2840608
	H11		2840700	2840701	2840708
5/16 - 18 UNC	H3		2830800	2830801	2830808
	H5		2840800	2840801	2840808
	H7		2855600	2855601	2855608
	H11		2855800	2855801	2855808
5/16 - 24 UNF	H2		2826400	2826401	2826408
	H3		2831200	2831201	2831208
	H4		2836200	2836201	2836208
	H5		2841200	2841201	2841208
	H6		2841300	2841301	2841308
	H7		2841400	2841401	2841408
	H11		2841500	2841501	2841508
3/8 - 16 UNC	H3		2831600	2831601	2831608
	H5		2841600	2841601	2841608
	H7		2856400	2856401	2856408
	H11		2856600	2856601	2856608
3/8 - 24 UNF	H2		2826800	2826801	2826808
	H3		2831800	2831801	2831808
	H4		2836800	2836801	2836808
	H5		2841800	2841801	2841808
	H6		2841900	2841901	2841908
	H7		2841700	2841701	2841708
	H11		2856800	2856801	2856808
7/16 - 14 UNC	H3		2832000	2832001	2832008
	H5		2842000	2842001	2842008
	H7		2842100	2842101	2842108
	H11		2842300	2842301	2842308
7/16 - 20 UNF	H3		2832200	2832201	2832208
	H5		2842200	2842201	2842208
	H7		2842500	2842501	2842508
	H11		2843000	2843001	2843008
1/2 - 13 UNC	H3		2832400	2832401	2832408
	H5		2842400	2842401	2842408
	H7		2842800	2842801	2842808
	H11		2857400	2857401	2857408
1/2 - 20 UNF	H2		2827600	2827601	2827608
	H3		2832600	2832601	2832608
	H5		2842600	2842601	2842608
	H7		2842700	2842701	2842708
	H11		2842900	2842901	2842908
9/16 - 12 UNC	H3		2857600	2857601	2857608
9/16 - 18 UNF	H3		2857800	2857801	2857808
5/8 - 11 UNC	H3		2833200	2833201	2833208
	H5		2843200	2843201	2843208

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.





List 280 (Continued)

Plug (3.5P-4.5P)



HSSE

TiCN

S/O

BR

Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Plug (3.5P - 4.5P)		
			Bright	S/O	TiCN
5/8 - 18 UNF	H3	3	2833400	2833401	2833408
	H5		2843400	2843401	2843408
	H7		2858000	2858001	2858008
3/4 - 10 UNC	H3		2833600	2833601	2833608
	H5		2843600	2843601	2843608
	H7		2833800	2833801	2833808
3/4 - 16 UNF	H3		2843800	2843801	2843808
	H5		2844000	2844001	2844008
	H7		2839200	2839201	2839208
7/8 - 9 UNC	H5	4	2844400	2844401	2844408
7/8 - 14 UNF	H4		2839600	2839601	2839608
1 - 8 UNC	H5		-	2849801	-
1 - 12 UNF	H4		-	2850201	-
1,1/8 - 7 UNC	H6		-	2845001	-
1,1/8 - 8 UNS	H6		-	2850401	-
1,1/8 - 12 UNF	H5		-	2850801	-
1,1/4 - 7 UNC	H6		-	2845601	-
1,1/4 - 8 UNS	H6		-	2851001	-
1,1/4 - 12 UNF	H5		-	2851401	-
1,3/8 - 6 UNC	H6		-	2846201	-
1,3/8 - 8 UNS	H6		-	2851601	-
1,3/8 - 12 UNF	H5		-	2852001	-
1,1/2 - 6 UNC	H6		-	2846801	-
1,1/2 - 8 UNS	H6		-	-	-
1,1/2 - 12 UNF	H5		-	-	-

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S	H				
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
280	☐	☒	☒	☒	☐	☐	☐	☐	☐					☐			
SFM	50-90	40-80	40-60	40-80	20-60	40-80	40-80	30-50	30-80					20-60			

☐ good ☒ best



List 289

Plug (3.5P-4.5P)



HSSE

TiCN

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Plug (3.5P - 4.5P)		
			Bright	S/O	TiCN
M3 x 0.5	D3	3	2890400	2890401	2890408
	D11		—	2893101	2893108
M3.5 x 0.6	D4		2890500	2890501	2890508
	D11		—	2893301	2893308
M4 x 0.7	D4		2890600	2890601	2890608
	D11		—	2893501	2893508
M5 x 0.8	D4		2890800	2890801	2890808
	D11		—	2893701	2893708
M6 x 1.0	D5		2891000	2891001	2891008
	D11		—	2893901	2893908
M7 x 1.0	D5		2891100	2891101	2891108
	D11		—	2894101	2894108
M8 x 1.25	D5		2891400	2891401	2891408
	D11		—	2894501	2894508
M8 x 1.0	D5		2891300	2891301	2891308
	D11		—	2894301	2894308
M10 x 1.5	D6		2891800	2891801	2891808
	D11		—	2895101	2895108
M10 x 1.25	D5		2891700	2891701	2891708
	D11		—	2894901	2894908
M10 x 1.0	D5		2891600	2891601	2891608
	D11		—	2894701	2894708
M12 x 1.75	D6		2892300	2892301	2892308
	D11		—	2895701	2895708
M12 x 1.5	D6		2892200	2892201	2892208
	D11		—	2895501	2895508
M12 x 1.25	D5		2892100	2892101	2892108
	D11		—	2895201	2895208
M14 x 2.0	D7		—	2892601	2892608
M14 x 1.5	D6		—	2892501	2892508
M16 x 2.0	D7		—	2892901	2892908
M16 x 1.5	D6		—	2892801	2892808
M18 x 2.5	D7		—	2893201	2893208
M18 x 1.5	D6		—	2893001	2893008
M20 x 2.5	D8		—	2893601	2893608
M20 x 1.5	D6		—	2893401	2893408
M22 x 2.5	D8	4	—	2894001	—
M22 x 1.5	D6		—	2893801	—
M24 X 3.0	D8		—	2894401	—
M24 x 1.5	D6		—	2894201	—
M27 x 3.0	D8		—	2894801	—
M27 x 1.5	D6		—	2894601	—
M30 x 3.5	D9		—	2895301	—
M30 x 1.5	D6		—	2895001	—

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.



Work Material

List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High	4140 4340		300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
289	☐	☒	☒	☒	☐	☐	☐	☐	☐					☐			
SFM	50-90	40-80	40-60	40-80	20-60	40-80	40-80	30-50	30-80					20-60			

☐ good ☒ best





List 287

Plug (4.5P-5.5P)



Tap Size	Class of Fit	No. of Flutes	EDP Number		
			Plug (4.5P - 5.5P)		
			Bright	S/O	TiN
0 - 80 UNC	2B	2	2884100	2884101	2884105
1 - 64 UNC	2B		2884200	2884201	2884205
1 - 72 UNF	2B		2884300	2884301	2884305
2 - 56 UNC	2B		2884400	2884401	2884405
3 - 48 UNC	2B		2884500	2884501	2884505
3 - 56 UNF	2B		2884600	2884601	2884605
4 - 40 UNC	2B		2885000	2885001	2885005
	3B		2880000	2880001	2880005
4 - 48 UNF	2B		2886400	2886401	2886405
5 - 40 UNC	2B		2886500	2886501	2886505
	2B		2885200	2885201	2885205
6 - 32 UNC	3B		2880200	2880201	2880205
6 - 40 UNF	2B		2886600	2886601	2886605
8 - 32 UNC	3B		2885300	2885301	2885305
	3B		2880300	2880301	2880305
8 - 36 UNF	2B		2886700	2886701	2886705
10 - 24 UNC	2B		2885400	2885401	2885405
	3B		2880400	2880401	2880405
10 - 32 UNF	2B		2885500	2885501	2885505
	3B		2880500	2880501	2880505

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.



Tap Size	Class of Fit	No. of Flutes	EDP Number		
			Plug (4.5P - 5.5P)		
			Bright	S/O	TiN
12 - 24 UNC	2B	2	2886800	2886801	2886805
	2B		2885600	2885601	2885605
1/4 - 20 UNC	3B	3	2880600	2880601	2880605
	2B		2885700	2885701	2885705
1/4 - 28 UNC	3B	2	2880700	2880701	2880705
	2B		2885800	2885801	2885805
5/16 - 18 UNC	3B	3	2880800	2880801	2880805
	2B		2885900	2885901	2885905
5/16 - 24 UNF	3B	3	2880900	2880901	2880905
	2B		2886000	2886001	2886005
3/8 - 16 UNC	3B	2B	2881000	2881001	2881005
	2B		2886100	2886101	2886105
3/8 - 24 UNF	3B	2B	2881100	2881101	2881105
	2B		2886200	2886201	2886205
7/16 - 14 UNC	2B	2B	2886900	2886901	2886905
	2B		2887000	2887001	2887005
7/16 - 20 UNF	2B	3B	2886200	2886201	2886205
	3B		2881200	2881201	2881205
1/2 - 13 UNC	2B	2B	2886300	2886301	2886305
	3B		2881300	2881301	2881305
1/2 - 20 UNF	2B	3B			
	3B				

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.



List 288

Plug (4.5P-5.5P)



Tap Size	Class of Fit	No. of Flutes	EDP Number		
			Plug (4.5P - 5.5P)		
			Bright	S/O	TiN
M3 x 0.5	6H	2	2888000	2888001	2888005
M4 x 0.7			2888100	2888101	2888105
M5 x 0.8			2888200	2888201	2888205

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.



Tap Size	Class of Fit	No. of Flutes	EDP Number		
			Plug (4.5P - 5.5P)		
			Bright	S/O	TiN
M6 x 1.0	6H	3	2888300	2888301	2888305
M8 x 1.25			2888400	2888401	2888405
M10 x 1.5			2888500	2888501	2888505
M12 x 1.75			2888600	2888601	2888605

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.



Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
287	☐	☐								☐	☐						
288	☐	☐								☐	☐						
SFM	50-90	40-80								30-80	30-80						

☐ good ☒ best





List 105

No. 0 ~ No. 6 (4.5P-5.5P), >No. 8 (3.5P-4.5P)

HSS	TiCN	TiN	S/O	BR
-----	------	-----	-----	----



Tap Size	Thread Limit	No. of Flutes	EDP Number							
			Plug (4.5P - 5.5P)				Plug (3.5P - 4.5P)			
			Bright	S/O	TiN	TiCN	Bright	S/O	TiN	TiCN
0 - 80 UNF	H1	2	1200000	1200001	-	1200008	-	-	-	-
	H2		1205000	1205001	1205005	1205008	-	-	-	-
	H3		1210000	1210001	-	1210008	-	-	-	-
1 - 64 UNC	H1		1200200	1200201	-	1200208	-	-	-	-
	H2		1205200	1205201	-	1205208	-	-	-	-
1 - 72 UNF	H1		1200400	1200401	-	1200408	-	-	-	-
	H2		1205400	1205401	1205405	1205408	-	-	-	-
2 - 56 UNC	H1		1200600	-	1200605	1200608	-	-	-	-
	H2		1205600	1205601	1205605	1205608	-	-	-	-
	H3		1210600	1210601	-	1210608	-	-	-	-
	H5		1215600	1215601	-	1215608	-	-	-	-
2 - 64 UNF	H1		1200800	-	-	1200808	-	-	-	-
	H2		1205800	1205801	1205805	1205808	-	-	-	-
3 - 48 UNC	H1		1201000	-	-	1201008	-	-	-	-
	H2		1206000	1206001	1206005	1206008	-	-	-	-
	H3		1211000	1211001	-	1211008	-	-	-	-
	H5		2002100	-	-	2002108	-	-	-	-
3 - 56 UNF	H1		1201200	-	-	1201208	-	-	-	-
4 - 36 UNS	H2		1206200	1206201	1206205	1206208	-	-	-	-
	H2		1206800	1206801	-	-	-	-	-	-
4 - 40 UNC	H1		1201400	-	1201405	1201408	-	-	-	-
	H2		1206400	1206401	1206405	1206408	-	-	-	-
	H3		1211400	1211401	-	1211408	-	-	-	-
	H5		1216400	1216401	-	1216408	-	-	-	-
4 - 48 UNF	H1		1201600	-	-	-	-	-	-	-
	H2		1206600	1206601	1206605	1206608	-	-	-	-
5 - 40 UNC	H1		1202000	-	-	1202008	-	-	-	-
	H2		1207000	1207001	1207005	1207008	-	-	-	-
	H5		2003300	-	-	2003308	-	-	-	-
5 - 44 UNF	H2		1207200	1207201	1207205	1207208	-	-	-	-
6 - 32 UNC	H1	3	1202400	-	1202405	1202408	-	-	-	-
	H2		1207400	1207401	1207405	1207408	-	-	-	-
	H3		1212400	1212401	1212405	1212408	-	-	-	-
	H4	3	-	-	-	1212608	-	-	-	-
	H5		2003900	-	2003905	2003908	-	-	-	-
6 - 40 UNF	H1	2	1217400	1217401	-	1217408	-	-	-	-
	H2		1202600	-	-	-	-	-	-	-
	H5		1207600	1207601	1207605	1207608	-	-	-	-
8 - 32 UNC	H1	2	2004200	-	-	2004208	-	-	-	-
	H2		-	-	-	-	1202800	-	1202805	1202808
	H3		-	-	-	-	1207800	1207801	1207805	1207808
	H4	3	-	-	-	-	1212800	1212801	1212805	1212808
	H5		-	-	-	-	2005000	-	2005005	2005008
8 - 36 UNF	H1	2	-	-	-	-	-	1213201	-	-
	H2		-	-	-	-	1217800	1217801	-	1217808
10 - 24 UNC	H1	3	-	-	-	-	1203200	-	-	1203208
	H2		-	-	-	-	1208200	1208201	1208205	1208208
	H3	2	-	-	-	-	1203400	-	1203405	1203408
	H4		-	-	-	-	-	1213601	-	-
	H5		-	-	-	-	1208400	1208401	1208405	1208408
			-	-	-	-	1213400	1213401	1213405	1213408
			-	-	-	-	2006500	-	2006508	2006508
			-	-	-	-	2006600	-	2006605	2006608

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.





List 105 (Continued)

No. 0 ~ No. 6 (4.5P-5.5P), >No. 8 (3.5P-4.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number							
			Plug (4.5P - 5.5P)				Plug (3.5P - 4.5P)			
			Bright	S/O	TiN	TiCN	Bright	S/O	TiN	TiCN
10 - 32 UNF	H1	2	-	-	-	-	1203800	-	1203805	1203808
		3	-	-	-	-	-	1214001	-	-
	H2	2	-	-	-	-	1208800	1208801	-	1208808
	H3		-	-	-	-	1213800	1213801	1213805	1213808
	H4		-	-	-	-	2006000	-	-	2006008
H5	-		-	-	-	1218800	1218801	-	1218808	
12 - 24 UNC	H1	2	-	-	-	-	1204200	-	-	-
H3	-		-	-	-	1214200	1214201	1214205	1214208	
12 - 28 UNF	H3		-	-	-	-	1214400	1214401	1214405	1214408
1/4 - 20 UNC	H1	2	-	-	-	-	1220000	1220001	1220005	1220008
	H2		-	-	-	-	1225000	1225001	1225005	1225008
	H3		-	-	-	-	1230000	1230001	1230005	1230008
		3	-	-	-	-	1230200	1230201	1230205	1230208
		2	-	-	-	-	1240000	1240001	1240005	1240008
	H5	3	-	-	-	-	1240200	-	-	1240208
1/4 - 28 UNF	H1	2	-	-	-	-	1220400	-	-	1220408
	H2	3	-	-	-	-	1225400	-	1225405	1225408
	H3	2	-	-	-	-	1225600	-	1225605	1225608
	H4	2	-	-	-	-	1230400	1230401	1230405	1230408
		3	-	-	-	-	1235400	-	-	1235408
5/16 - 18 UNC	H1	2	-	-	-	-	1220800	-	1220805	1220808
	H2		-	-	-	-	1225800	-	1225805	1225808
	H3		-	-	-	-	1230800	1230801	1230805	1230808
		3	-	-	-	-	1231000	1231001	1231005	1231008
	H5	2	-	-	-	-	1240800	-	1240805	1240808
		3	-	-	-	-	1241000	1241001	1241005	1241008
5/16 - 24 UNF	H1	2	-	-	-	-	1221200	-	-	1221208
	H2	3	-	-	-	-	1226200	-	1226205	1226208
	H3	2	-	-	-	-	1226400	-	1226405	1226408
			-	-	-	-	1231200	1231201	1231205	1231208
	H4	3	-	-	-	-	1236200	-	-	1236208
-	-		-	-	1236400	-	-	1236408		
3/8 - 16 UNC	H1	3	-	-	-	-	1221600	-	-	1221608
	H2		-	-	-	-	1226600	1226601	1226605	1226608
	H3		-	-	-	-	1231600	1231601	1231605	1231608
	H5		-	-	-	-	1241600	1241601	1241605	1241608
3/8 - 24 UNF	H1	3	-	-	-	-	1221800	-	-	1221808
	H2		-	-	-	-	1226800	-	1226805	1226808
	H3		-	-	-	-	1231800	1231801	1231805	1231808
	H4		-	-	-	-	1236800	-	1236805	1236808
7/16 - 14 UNC	H2	2	-	-	-	-	1227000	-	-	1227008
	H3		-	-	-	-	1232000	1232001	1232005	1232008
	H5		-	-	-	-	1242000	-	1242005	1242008

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.

[continued on next page](#)



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
105	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 105 (Continued)

No. 0 ~ No. 6 (4.5P-5.5P), >No. 8 (3.5P-4.5P)

HSS	TiCN	TiN	S/O	BR
-----	------	-----	-----	----



Tap Size	Thread Limit	No. of Flutes	EDP Number							
			Plug (4.5P - 5.5P)				Plug (3.5P - 4.5P)			
			Bright	S/O	TiN	TiCN	Bright	S/O	TiN	TiCN
7/16 - 20 UNF	H2	3	-	-	-	-	1227200	-	-	1227208
	H3		-	-	-	-	1232200	1232201	1232205	1232208
	H5		-	-	-	-	1242200	-	1242205	1242208
1/2 - 13 UNC	H1		-	-	-	-	1222400	-	-	1222408
	H2		-	-	-	-	1227400	-	1227405	1227408
	H3		-	-	-	-	1232400	1232401	1232405	1232408
	H5		-	-	-	-	1242400	-	1242405	1242408
1/2 - 20 UNF	H1		-	-	-	-	1222600	-	-	1222608
	H2		-	-	-	-	1227600	-	-	1227608
	H3		-	-	-	-	1232600	1232601	1232605	1232608
	H5		-	-	-	-	1242600	-	-	1242608
5/8 - 11 UNC	H3		-	-	-	-	1233200	1233201	1233205	1233208
	H5		-	-	-	-	1243200	-	1243205	1243208
5/8 - 18 UNF	H3		-	-	-	-	1233400	1233401	1233405	1233408
	H5		-	-	-	-	2013000	-	2013005	2013008
3/4 - 10 UNC	H3		-	-	-	-	1233600	1233601	1233605	1233608
	H5		-	-	-	-	1243600	-	1243605	1243608
3/4 - 16 UNF	H3		-	-	-	-	1233800	1233801	-	1233808
	H5		-	-	-	-	2013400	-	2013405	2013408

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
105	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 105B

Bottom (1.5P-2P)

HSS

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	
			Bright	S/O
0 - 80 UNF	H1	2	1200100	—
	H2		3000100	—
1 - 64 UNC	H2		1205300	—
1 - 72 UNC	H1		1200500	—
	H2		1205500	—
2 - 56 UNC	H1		1200700	—
	H2		1205700	1205701
3 - 48 UNC	H2		1206100	1206101
3 - 56 UNF	H2		1206300	—
4 - 40 UNC	H2		1206500	1206501
4 - 48 UNF	H2		1206700	—
5 - 40 UNC	H2		1207100	1207101
5 - 44 UNF	H2		1207300	—
6 - 32 UNC	H2		1207500	—
	H3		1212500	1212501
	H7		3003100	—
6 - 40 UNF	H2		1207700	1207701

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

STT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	
			Bright	S/O
8 - 32 UNC	H2	2	1207900	—
	H3		1212900	1212901
	H7		1214700	—
8 - 36 UNF	H2		1208300	—
10 - 24 UNC	H2		1208500	—
	H3		1213500	1213501
10 - 32 UNF	H1		1200900	—
	H2		1208900	—
	H3		1213900	1213901
12 - 24 UNC	H3		1214300	1214301
12 - 28 UNF	H3		1214500	1214501
1/4 - 20 UNC	H3		1230100	1230101
1/4 - 28 UNF	H2		1225500	—
5/16 - 18 UNC	H3		1230500	1230501
	H3		1230900	1230901
5/16 - 24 UNF	H3		1231300	1231301
3/8 - 16 UNC	H4		1236500	—
	H3	3	1231700	1231701
7/16 - 14 UNC	H3		1232100	—

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

STT

Work Material

	P					M			K	N		S	H				
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High									Inconel					
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	6061 7075	Casting		6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
105B	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good

☒ best





List 105A

Assembly Type Tap, Plug (4P-4.5P)

HSS

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4P - 4.5P)	
			Bright	S/O
4 - 40 UNC	H2	2	1605400	1605401
5 - 40 UNC	H2		1606000	-
6 - 32 UNC	H3		1611400	1611401
8 - 32 UNC	H3		1611800	1611801
10 - 24 UNC	H3		1612200	1612201
10 - 32 UNF	H3		1612400	1612401

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

STT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4P - 4.5P)	
			Bright	S/O
12 - 24 UNC	H3	2	1612600	1612601
1/4 - 20 UNC	H3		1630000	1630001
5/16 - 18 UNC	H3	3	1630400	-
3/8 - 16 UNC	H3		1630800	-
1/2 - 13 UNC	H3		1631600	-

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

STT

List 105+ (H7)

No. 4 ~ No. 6 (4.5P-5.5P), >No. 8 (3.5P-4.5P)

HSS

TiN

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number			
			Plug (4.5P - 5.5P)		Plug (3.5P - 4.5P)	
			Bright	TiN	Bright	TiN
4 - 40 UNC	H7	2	2003100	-	-	-
6 - 32 UNC	H7		1720800	1720805	-	-
8 - 32 UNC	H7		-	-	1721200	1721205
10 - 24 UNC	H7		-	-	1721600	-
10 - 32 UNF	H7		-	-	1721800	1721805
			-	-	-	-

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
105A	☐	☐	☐						☐	☐	☐						
105+	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☐ best





List 105H

+0.005" Oversize, Plug (4P-4.5P)

HSS

TiCN

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Plug (4P - 4.5P)		
			Bright	S/O	TiCN
6 - 32 UNC	+0.005	2	1592000	1592001	1592008
8 - 32 UNC			1592800	1592801	1592808
10 - 24 UNC			1593400	1593401	1593408
10 - 32 UNF			1593600	1593601	1593608
1/4 - 20 UNC			1590000	1590001	1590008
1/4 - 28 UNF			1590200	1590201	1590208
5/16 - 18 UNC			1590800	1590801	1590808
5/16 - 24 UNF			1591200	-	1591208

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Tap Size	Thread Limit	No. of Flutes	EDP Number		
			Plug (4P - 4.5P)		
			Bright	S/O	TiCN
3/8 - 16 UNC	+0.005	3	1591600	1591601	1591608
3/8 - 24 UNF			1591800	1591801	1591808
7/16 - 14 UNC			1594000	1594001	1594008
7/16 - 20 UNF			1594200	1594201	1594208
1/2 - 13 UNC			1592400	1592401	1592408
1/2 - 20 UNF			1592600	1592601	1592608
5/8 - 11 UNC			1593200	1593201	1593208
3/4 - 10 UNF			1593800	1593801	1593808

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

List 142H

+0.005" Oversize, Plug (3.5P-4.5P)

HSS

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (3.5 - 4.5P)	
			Bright	
M4 x 0.7	+0.005"	2	1101200100	
M5 x 0.8			1101200300	
M6 x 1.0			1101200500	

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (3.5 - 4.5P)	
			Bright	
M8 x 1.25	+0.005"	3	1101200700	
M10 x 1.5			1101200900	
M12 x 1.75			1101201100	

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065									4140 4340					
105H	☐	☐	☐						☐	☐	☐						
142H	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 142

Plug (3.5P-4.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number			
			Plug (3.5P - 4.5P)			
			Bright	S/O	TiN	TiCN
M1.6 x 0.35	D3	2	1981500	—	—	—
M2 x 0.4	D3		1982000	1982001	—	—
M2.5 x 0.45	D3		1982100	1982101	—	—
M3 x 0.5	D3		1980100	1980101	1980105	1980108
M3.5 x 0.6	D4		1982200	1982201	—	—
M4 x 0.7	D4		1980400	1980401	1980405	1980408
M4.5 x 0.75	D4		1982300	1982301	—	—
M5 x 0.8	D4		1980700	1980701	1980705	—
M6 x 1.0	D5		1981000	1981001	1981005	1981008
M7 x 1.0	D5		1982400	1982401	—	—
M8 x 1.25	D5		1981300	1981301	1981305	1981308
M8 x 1.0	D5		1981400	1981401	—	—
M10 x 1.5	D6		1982500	1982501	—	—
M10 x 1.25	D5		1981600	1981601	1981605	1981608
M10 x 1.0	D5		1982700	1982701	—	—
M12 x 1.75	D6	3	1982600	1982601	—	—
M12 x 1.5	D6		1981900	1981901	1981905	1981908
M12 x 1.25	D5		1982900	—	—	—
M14 x 2.0	D7		1982800	1982801	—	—
M14 x 1.5	D6		1983100	1983101	—	—
M14 x 1.25	D5		1983800	—	—	—
M16 x 2.0	D7		1983000	1983001	—	—
M16 x 1.5	D6		1983300	—	—	—
M18 x 2.5	D7		1983200	1983201	—	—
M18 x 1.5	D6		1983500	—	—	—
M20 x 2.5	D7	3	1983400	1983401	—	—
M20 x 1.5	D6	4	1983700	—	—	—
		3	1983900	—	—	—
			1983600	—	—	—

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.



Work Material																	
	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
142	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 122

JIS, Plug (4.5P-5.5P)

HSSE

S/O

BR



Tap Size	Class of Fit	No. of Flutes	EDP Number	
			Plug (4.5P - 5.5P)	
			Bright	S/O
M3 x 0.5	JIS 2	3	15368	16710
M4 x 0.7			15386	16714
M5 x 0.8			15401	—
M6 x 1.0			15413	16722
M8 x 1.25			15431	16728
M10 x 1.5			15456	16734
M10 x 1.25			15460	—
M12 x 1.75			15480	—
M12 x 1.5			15483	—
M14 x 2.0			15509	—
M14 x 1.5			15512	—
M16 x 2.0			15557	—
M16 x 1.5			15560	—
M18 x 2.5			15593	—
M18 x 1.5			15601	—
M20 x 2.5			15629	—
M20 x 1.5			15637	—
M22 x 2.5			15645	—
M24 x 3.0			15673	—

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
122	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





GENERAL PURPOSE LS

List 917

Long Shank*, Plug (3.5P-4.5P)

HSS

S/O

BR



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Plug (3.5P - 4.5P)	
				Bright	S/O
4 - 40 UNC	H2	2	4"	1294000	-
6 - 32 UNC	H3		4"	1294100	-
			6"	1294200	1294201
8 - 32 UNC	H3		4"	1294300	1294301
			6"	1294400	1294401
10 - 24 UNC	H3		4"	1294500	1294501
			6"	1294600	1294601
10 - 32 UNF	H3		4"	1294700	1294701
			6"	1294800	1294801
1/4 - 20 UNC	H3		4"	1294900	1294901
			6"	1295000	1295001
1/4 - 28 UNF	H3	3	4"	-	1293901
			6"	1295100	1295101
5/16 - 18 UNC	H3		4"	2103000	-
			6"	1295200	-
		2	4"	-	1293501
			6"	-	1293701
5/16 - 24 UNF	H3	3	4"	-	1295701
			6"	2103600	-
			6"	-	1293301
3/8 - 16 UNC	H3		4"	2103800	2103801
			6"	1295300	1295301
3/8 - 24 UNF	H3		4"	-	1295801
			6"	2104400	2104401
7/16 - 14 UNC	H3		6"	1295400	1295401
7/16 - 20 UNF	H3		6"	2105200	-
1/2 - 13 UNC	H3		4"	-	1299401
			6"	1295500	1295501
1/2 - 20 UNF	H3		6"	2106000	-
5/8 - 11 UNC	H3		6"	1295600	-

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

*Shank diameter is standard ANSI

STT

Work Material																		
List No.	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron 300 400 17-4 PH	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High															
	1010 1018	1035 1045	1065															
917	☐	☐	☐						☐	☐	☐							
SFM	25-80	20-50	20-45						25-75	40-80	40-65							

☐ good

☒ best





List 11118

Extended Length, Plug (3.5P-4.5P)

HSS

S/O



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Plug (3.5P - 4.5P)
				S/O
M4 x 0.7	D4	2	4"	1111800201
			6"	1111800301
M5 x 0.8	D4		4"	1111800401
			6"	1111800501
M6 x 1.0	D5		4"	1111800601
			6"	1111800701

Packed: 1 pc.
Available Steam Oxide coating only.

STT

Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Plug (3.5P - 4.5P)
				S/O
M8 x 1.25	D5	3	4"	1111800801
			6"	1111800901
M10 x 1.5	D6		4"	1111801001
			6"	1111801101
M12 x 1.75	D6		4"	1111801201
			6"	1111801301

Packed: 1 pc.
Available Steam Oxide coating only.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy Inconel	Titanium 6Al4V (30 HRC)	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			300	400	17-4 PH		6061 7075	Casting			~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
11118	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





GENERAL PURPOSE

Miniature

List S111

Plug (3.5P-4.5P)

HSS

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			Bright
00 - 90 UNS	H1	2	1050000
	H2		1320000

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.

STT

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			Bright
00 - 96 UNS	H1	2	1080000
	H2		2056000

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.

STT

Specifications & Dimensions

Tap Size	Basic O.D.	Basic P.D.	Overall Length	Thread Length	Square Length	Shank Diameter	Square Size
00-90	0.047	0.0398	1-9/16	1/4	3/16	0.141	0.110
00-96	0.047	0.0402	1-9/16	1/4	3/16	0.141	0.110
000-120	0.034	0.0286	1-1/2	3/16	3/16	0.141	0.110

Suggested Hole Size Limits for Different Lengths of Engagement

Tap Size	Depth of Thread Hole					
	Up to 1/3D		1/3 to 1/2D		1/2 to 3D	
	Min.	Max.	Min.	Max.	Min.	Max.
00-90	0.0373	0.0385	0.0380	0.0392	0.0388	0.0400
00-96	0.0379	0.0393	0.0388	0.0406	0.0397	0.0415
000-120	0.0260	0.0270	0.0270	0.0280	0.0275	0.0285

Work Material

List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
S111	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best



List 10051

Modified Bottom (2.5P-3P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			V
6 - 32 UNC	H3	4	1005110508
8 - 32 UNC	H3		1005110808
10 - 24 UNC	H3		1005111008
10 - 32 UNF	H3		1005111208
1/4 - 20 UNC	H5		1005111408
1/4 - 28 UNF	H4		1005111608

Packed: 1 pc.
Available V coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			V
5/16 - 18 UNC	H5	5	1005111808
5/16 - 24 UNF	H4		1005112008
3/8 - 16 UNC	H5		1005112208
3/8 - 24 UNF	H4		1005112408
1/2 - 13 UNC	H5		1005113008
1/2 - 20 UNF	H5		1005113208

Packed: 1 pc.
Available V coating only.



List 11051

Modified Bottom (2.5P-3P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			V
M3 x 0.5	D3	4	1105100108
M4 x 0.7	D4		1105100208
M5 x 0.8	D4		1105100308
M6 x 1.0	D5		1105100408
M8 x 1.25	D5	5	1105100508
M8 x 1.0	D5		1105100608

Packed: 1 pc.
Available V coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			V
M10 x 1.5	D6	5	1105100708
M10 x 1.25	D5		1105100808
M10 x 1.0	D5		1105100908
M12 x 1.75	D6		1105101008
M12 x 1.5	D6		1105101108
M12 x 1.25	D6		1105101208

Packed: 1 pc.
Available V coating only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
10051				☐												☐	
11051				☐												☐	
SFM				15-20												8-15	

☐ good ☒ best





List 305

Plug (3.5P-4.5P)



HSS-CO

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			Bright
4 - 40 UNC	H2	3	1745000
6 - 32 UNC	H3		1745100
8 - 32 UNC	H3		1745200
10 - 24 UNC	H3		1745300
10 - 32 UNF	H3		1745400
1/4 - 20 UNC	H3	4	1734000
1/4 - 28 UNF	H3	3	1745600
	H3		1739000
5/16 - 18 UNC	H3	4	1734100
5/16 - 24 UNF	H3		1739100

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			Bright
3/8 - 16 UNC	H3	4	1734200
3/8 - 24 UNF	H3		1739200
7/16 - 14 UNC	H3		1739600
7/16 - 20 UNF	H3		1739700
1/2 - 13 UNC	H3		1734300
1/2 - 20 UNF	H3		1739300
5/8 - 11 UNC	H3		1734400
5/8 - 18 UNF	H3		1739400
3/4 - 10 UNC	H3		1734500
3/4 - 16 UNF	H3		1739500

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

EXT

Work Material																		
List No.	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
	1010 1018	1035 1045	1065	4140 4340														
305				☐	☐										☐	☐		
SFM				20-40	15-20										15-35	8-15		

☐ good ☐ best



List 10052

DIN Overall Length, Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Modified Bottom (1.5P - 2P)
				V
1/4" - 20 UNC	H3	4	80	1005200108
	H5			1005200208
1/4 - 28 UNF	H3		80	1005200308
5/16 - 18 UNC	H3		90	1005200408
	H5			1005200508
5/16 - 24 UNF	H3		90	1005200608
3/8 - 16 UNC	H3		100	1005200708
	H5			1005200808
3/8 - 24 UNF	H3		100	1005200908
7/16 - 14 UNC	H3		100	1005201008
	H5			1005201108
7/16 - 20 UNF	H3		100	1005201208
	H5			1005201308
1/2 - 13 UNC	H3	5	110	1005201408
	H5			1005201508
1/2 - 20 UNF	H3		100	1005201608
	H5			1005201708
9/16 - 12 UNC	H3		110	1005201808
	H5			1005201908
9/16 - 18 UNF	H3		100	1005202008
	H5			1005202108
5/8 - 11 UNC	H3		110	1005202208
	H5			1005202308
5/8 - 18 UNF	H3		100	1005202408
	H5			1005202508
3/4 - 10 UNC	H3		125	1005202608
	H5			1005202708
3/4 - 16 UNF	H3		110	1005202808
	H5			1005202908
7/8 - 9 UNC	H3		140	1005203008
	H5			1005203108
7/8 - 14 UNF	H3		125	1005203208
	H5			1005203308
1 - 8 UNC	H3		160	1005203408
	H5			1005203508

Packed: 1 pc.
Available V coating only.



Work Material																			
List No.	P					M			K	N		S		H					
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels					
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065																
10052									☐		☐								
SFM									25-75		40-65								

good best





List 11052

DIN Overall Length, Bottom (1.5P-2P)



VC10

V



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Bottom (1.5P - 2P)
				V
M6 x 1.0	D5	3	80	1105200108
M8 x 1.25	D5		90	1105200208
M10 x 1.5	D6	4	100	1105200508
M10 x 1.25	D6		100	1105200408
M10 x 1.0	D5		90	1105200308
M12 x 1.75	D6		110	1105200808
M12 x 1.5	D6		100	1105200708
M12 x 1.25	D6		100	1105200608
M14 x 2.0	D7	5	110	1105201008
M14 x 1.5	D7		100	1105200908
M16 x 2.0	D7		110	1105201208
M16 x 1.5	D6		110	1105201108
M18 x 2.5	D7		125	1105201508
M18 x 2.0	D7		125	1105201408
M18 x 1.5	D6		110	1105201308
M20 x 2.5	D7		140	1105201808
M20 x 2.0	D7		140	1105201708
M20 x 1.5	D6		125	1105201608
M22 x 2.5	D8		140	1105202108
M22 x 2.0	D8		140	1105202008
M22 x 1.5	D6		125	1105201908
M24 x 3.0	D8		160	1105202408
M24 x 2.0	D8		140	1105202308
M24 x 1.5	D6		140	1105202208

Packed: 1 pc.

Available V coating only.

EXT

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High							6061	Casting	Inconel	6Al4V (30 HRC)				
	1010	1035	1065	4140 4340		300	400	17-4 PH		7075				~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
11052																	
SFM									25-75		40-65						

☐ good ☒ best



List 10053

Coolant-Through, DIN Overall Length, Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Bottom (1.5P - 2P)
				V
1/4 - 20 UNC	H3	4	80	1005300108
	H5			1005300208
1/4 - 28 UNF	H3		80	1005300308
5/16 - 18 UNC	H3		90	1005300408
	H5			1005300508
5/16 - 24 UNF	H3		90	1005300608
3/8 - 16 UNC	H3		100	1005300708
	H5			1005300808
3/8 - 24 UNF	H3		100	1005300908
7/16 - 14 UNC	H3		100	1005301008
	H5			1005301108
7/16 - 20 UNF	H3		100	1005301208
	H5			1005301308
1/2 - 13 UNC	H3	5	110	1005301408
	H5			1005301508
1/2 - 20 UNF	H3		100	1005301608
	H5			1005301708
9/16 - 12 UNC	H3		110	1005301808
	H5			1005301908
9/16 - 18 UNF	H3		100	1005302008
	H5			1005302108
5/8 - 11 UNC	H3		110	1005302208
	H5			1005302308
5/8 - 18 UNF	H3		100	1005302408
	H5			1005302508
3/4 - 10 UNC	H3		125	1005302608
	H5			1005302708
3/4 - 16 UNF	H3		110	1005302808
	H5			1005302908
7/8 - 9 UNC	H3		140	1005303008
	H5			1005303108
7/8 - 14 UNF	H3		125	1005303208
	H5			1005303308
1 - 8 UNC	H3		160	1005303408
	H5			1005303508

Packed: 1 pc.
Available V coating only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035 1045	1065			4140 4340											
10053									☐		☐						
SFM									40-100		50-110						

 good  best





List 11053

Coolant-Through, DIN Overall Length, Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Bottom (1.5P - 2P)
				V
M6 x 1.0	D5	3	80	1105300108
M8 x 1.25	D5		90	1105300208
M10 x 1.5	D6	4	100	1105300408
M10 x 1.25	D6		100	1105300308
M12 x 1.75	D6		110	1105300608
M12 x 1.5	D6		100	1105300508
M12 x 1.25	D6		100	1105302508
M14 x 2.0	D7		110	1105300808
M14 x 1.5	D7	5	100	1105300708
M16 x 2.0	D7		110	1105301208
M16 x 1.5	D6		110	1105301108
M18 x 2.5	D7		125	1105301508
M18 x 2.0	D7		125	1105301408
M18 x 1.5	D6		110	1105301308
M20 x 2.5	D7		140	1105301808
M20 x 2.0	D7		140	1105301708
M20 x 1.5	D6		125	1105301608
M22 x 2.5	D8		140	1105302108
M22 x 2.0	D8		140	1105302008
M22 x 1.5	D6		125	1105301908
M24 x 3.0	D8		160	1105302408
M24 x 2.0	D8		140	1105302308
M24 x 1.5	D6		140	1105302208

Packed: 1 pc.

Available V coating only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
11053																	
SFM									40-100		50-110						

☐ good ☒ best





List 11054

DIN Shank, DIN Overall Length, Bottom (1.5P-2P)



VC10

V



Tap Size	Thread Limit	No. of Flutes	Overall Length	Shank Diameter	EDP Number
					Bottom (1.5P - 2P)
					V
M6 x 1.0	D5	3	80	6	1105400108
M8 x 1.25	D5	4	90	8	1105400208
M10 x 1.5	D6		100	10	1105400308

Packed: 1 pc.

Available V coating only.

EXT

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010	1035 1045	1065							7075							
11054																	
SFM									25-75		40-65						

☐ good ☒ best





List 11055

Coolant-Through, DIN Shank, DIN Overall Length, Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Shank Diameter	EDP Number
					Bottom (1.5P - 2P)
					V
M6 x 1.0	D5	3	80	6	1105500108
M8 x 1.25	D5		90	8	1105500208
M10 x 1.5	D6	4	100	10	1105500308
M12 x 1.75	D6		110	9	1105500408

Packed: 1 pc.

Available V coating only.



Work Material																			
List No.	P					M			K	N		S		H					
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels					
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065 4140 4340																
11055																			
SFM									40-100		50-110								

☐ good ☒ best



List 10056

Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Bottom (1.5P - 2P)
			V
1/4 - 20 UNC	H3	4	1005600108
	H5		1005600208
1/4 - 28 UNF	H3		1005600308
5/16 - 18 UNC	H3		1005600408
	H5		1005600508
5/16 - 24 UNF	H3		1005600608
3/8 - 16 UNC	H3		1005600708
	H5		1005600808
3/8 - 24 UNF	H3		1005600908
7/16 - 14 UNC	H3		1005601008
	H5		1005601108
7/16 - 20 UNF	H3		1005601208
	H5		1005601308
1/2 - 13 UNC	H3		1005601408
	H5		1005601508

Packed: 1 pc.
Available V coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Bottom (1.5P - 2P)
			V
1/2 - 20 UNF	H3	4	1005601608
	H5		1005601708
9/16 - 12 UNC	H3	5	1005601808
	H5		1005601908
9/16 - 18 UNF	H3		1005602008
	H5		1005602108
5/8 - 11 UNC	H3		1005602208
	H5		1005602308
5/8 - 18 UNF	H3		1005602408
	H5		1005602508
3/4 - 10 UNC	H3		1005602608
	H5		1005602708
3/4 - 16 UNF	H3		1005602808
	H5		1005602908

Packed: 1 pc.
Available V coating only.



List 11056

Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Bottom (1.5P - 2P)
			V
M6 x 1.0	D5	3	1105600108
M8 x 1.25	D5	4	1105600208
M10 x 1.5	D6		1105600508
M10 x 1.25	D6		1105600408
M10 x 1.0	D5		1105600308

Packed: 1 pc.
Available V coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Bottom (1.5P - 2P)
			V
M12 x 1.75	D6	4	1105600808
M12 x 1.5	D6		1105600708
M12 x 1.25	D6		1105600608
M14 x 2.0	D7	5	1105601008
M14 x 1.5	D7		1105600908

Packed: 1 pc.
Available V coating only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
10056																	
11056																	
SFM									25-75		40-65						

☐ good ☐ best





List 10057

Coolant-Through, Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Bottom (1.5P - 2P)
			V
1/4 x 20 UNC	H3	4	1005700108
	H5		1005700208
1/4 x 28 UNF	H3		1005700308
5/16 x 18 UNC	H3		1005700408
	H5		1005700508
5/16 x 24 UNF	H3		1005700608
3/8 x 16 UNC	H3		1005700708
	H5		1005700808
3/8 x 24 UNF	H3		1005700908

Packed: 1 pc.
Available V coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Bottom (1.5P - 2P)
			V
7/16 x 14 UNC	H3	4	1005701008
	H5		1005701108
7/16 x 20 UNF	H3		1005701208
	H5		1005701308
1/2 x 13 UNC	H3		1005701408
	H5		1005701508
1/2 x 20 UNF	H3		1005701608
	H5		1005701708

Packed: 1 pc.
Available V coating only.



List 11057

Coolant-Through, Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Bottom (1.5P - 2P)
			V
M6 x 1.0	D5	3	1105700108
M8 x 1.25	D5	4	1105700208
M10 x 1.5	D6		1105700408
M10 x 1.25	D6		1105700308

Packed: 1 pc.
Available V coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Bottom (1.5P - 2P)
			V
M12 x 1.75	D6	4	1105700608
M12 x 1.5	D6		1105700508
M14 x 2.0	D7		1105700808
M14 x 1.5	D7	5	1105700708

Packed: 1 pc.
Available V coating only.



Work Material

	P					M			K	N		S		H					
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels					
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035 1045	1065																
10057									☐		☐								
11057									☐		☐								
SFM									40-100		50-110								

☐ good ☒ best





List 240

Plug (3.5P-4.5P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number			
			Bottom (1.5P - 2P)		Plug (3.5P - 4.5P)	
			Bright	Nitride	Bright	Nitride
2 - 56 UNC	H2	3	2492900	—	2492800	—
4 - 40 UNC	H2		2493100	—	2493000	—
5 - 40 UNC	H3		—	2401203	—	2401103
6 - 32 UNC	H3		—	2401603	—	2401503
8 - 32 UNC	H3		—	2493203	—	2401903
10 - 24 UNC	H3		—	2402403	—	2402303
10 - 32 UNF	H3		—	2402803	—	2402703
1/4 - 20 UNC	H3		—	2403203	—	2493303
1/4 - 28 UNF	H5	4	—	2403603	—	2493403
5/16 - 18 UNC	H3		—	2493603	—	2493503
5/16 - 24 UNF	H5		—	2404403	—	2404303
3/8 - 16 UNC	H3		—	2493803	—	2493703
3/8 - 24 UNF	H5		—	2494003	—	2493903
7/16 - 14 UNC	H3		—	2494203	—	2494103
7/16 - 20 UNF	H3		—	2494403	—	2494303
1/2 - 13 UNC	H3		—	2406403	—	2406303
1/2 - 20 UNF	H3		—	2494603	—	2494503
			—	2494803	—	2494703
			—	2407603	—	2407503
			—	2408003	—	2407903

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1035 1045	1065			4140 4340											
240																	
SFM									25-75	40-80	40-65						

☐ good ☒ best





List 241

Plug (3.5P-4.5P), Bottom (1.5P-2P)



HSSE

N



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Nitride	Nitride
M3 x 0.5	D3	3	2410203	2494903
M4 x 0.7	D4		2495003	2410303
M5 x 0.8	D5		2410603	2495103
M6 x 1.0	D5		2410803	2495203
M8 x 1.25	D5		2411203	2411103
M10 x 1.5	D6	4	2495403	2411703
M10 x 1.25	D5		2411603	2495303
M12 x 1.75	D6		2495503	2412103

Packed: 1 pc.

Available Nitride treatment only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			35-45 HRC	45-50 HRC	50-70 HRC	
	1018	1035 1045	1065			4140 4340											
241																	
SFM									25-75	40-80	40-65						

☐ good ☒ best





List 101C

Plug (3.5P-4.5P), Bottom (1.5P-2P)

HSS

N

S/O



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Nitride-S/O	Nitride-S/O
1/4 - 20 UNC	H3	4	1600207	1600107
	H5		1600407	1600307
1/4 - 28 UNF	H3		1600607	1600507
5/16 - 18 UNC	H3		1600807	1600707
	H5		1601007	1600907
5/16 - 24 UNF	H3		1601207	1601107
3/8 - 16 UNC	H3		1601407	1601307
	H5		1601607	1601507
3/8 - 24 UNF	H3		1601807	1601707
7/16 - 14 UNC	H3		1602007	1601907
	H5		1602207	1602107
7/16 - 20 UNF	H3		1602407	1602307
	H5		1602607	1602507
1/2 - 13 UNC	H3		1602807	1602707
	H5		1603007	1602907

Packed: 1 pc.

Available Nitride/Steam Oxide treatment only.

STT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Nitride-S/O	Nitride-S/O
1/2 - 20 UNF	H3	4	1603207	1603107
	H5		1603407	1603307
9/16 - 12 UNC	H3		1603607	1603507
9/16 - 18 UNF	H3		1603807	1603707
	H5		1600007	-
5/8 - 11 UNC	H3		1604007	1603907
	H5		1604807	1604707
5/8 - 18 UNF	H3		1604207	1604107
	H5		1605207	-
3/4 - 10 UNC	H3		1604407	1604307
	H3		1604607	1604507
3/4 - 16 UNF	H5		1605007	1604907

Packed: 1 pc.

Available Nitride/Steam Oxide treatment only.

STT

List 141C

Plug (3.5P-4.5P), Bottom (1.5P-2P)

HSS

N

S/O



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Nitride-S/O	Nitride-S/O
M6 x 1.0	D5	3	1608207	1608107
M8 x 1.25	D5	4	1608407	1608307

Packed: 1 pc.

Available Nitride/Steam Oxide treatment only.

STT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Nitride-S/O	Nitride-S/O
M10 x 1.5	D6	4	1608607	1608507
M12 x 1.75	D6		1608807	1608707

Packed: 1 pc.

Available Nitride/Steam Oxide treatment only.

STT

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
101C									☐		☐						
141C									☐		☐						
SFM									25-75		40-65						

☐ good

☐ best





List 101

Taper (5P and up), Plug (3.5P-4.5P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number									
			Bottom (1.5P - 2P)			Plug (3.5P - 4.5P)			Taper (5P and up)			
			Bright	S/O	TiCN	Bright	S/O	TiN	TiCN	Bright	S/O	TiCN
1/4 - 20 UNC	H1	4	1100200	—	1100208	1100100	—	—	1100108	1100000	—	1100008
	H2		1110200	—	1110208	1110100	—	—	1110108	1110000	—	1110008
	H3		1120200	1120201	1120208	1120100	1120101	1120105	1120108	1120000	1120001	1120008
	H5		1140200	—	1140208	1140100	—	—	1140108	—	—	—
1/4 - 28 UNF	H1		1100500	—	—	1100400	—	—	—	—	—	—
	H2		1110500	—	1110508	1110400	—	—	—	—	—	—
	H3		1120500	1120501	1120508	1120400	1120401	1120405	1120408	1120300	—	1120308
	H4		1130500	—	—	1130400	—	—	—	—	—	—
5/16 - 18 UNC	H1		1100800	—	—	1100700	—	—	—	—	—	—
	H2		1110800	—	—	1110700	—	—	1110708	1008800	—	—
	H3		1120800	1120801	1120808	1120700	1120701	1120705	1120708	1120600	1120601	1120608
	H5		1140800	—	1140808	1140700	—	—	1140708	—	—	—
5/16 - 24 UNF	H1		1101100	—	—	1101000	—	—	—	—	—	—
	H2		1111100	—	1111108	1111000	—	—	—	—	—	—
	H3		1121100	1121101	1121108	1121000	1121001	1121005	1121008	1120900	1120901	1120908
	H4		1131100	—	1131108	1131000	—	—	—	—	—	—
3/8 - 16 UNC	H1		1101400	—	—	1101300	—	—	—	—	—	—
	H2		1111400	—	—	1111300	—	—	—	—	—	—
	H3		1121400	1121401	1121408	1121300	1121301	1121305	1121308	1121200	1121201	1121208
	H5		1141400	—	1141408	1141300	—	—	1141308	—	—	—
3/8 - 24 UNF	H1		1101700	—	1101708	1101600	—	—	—	—	—	—
	H2		1111700	—	—	1111600	—	—	1111608	—	—	—
	H3		1121700	1121701	1121708	1121600	1121601	1121605	1121608	1121500	1121501	1121508
	H4		1131700	—	1131708	1131600	—	—	1131608	—	—	—
7/16 - 14 UNC	H2		—	—	—	1051600	—	—	1051608	—	—	—
	H3		1122000	—	1122008	1121900	—	—	1121908	1121800	—	1121808
	H5		1142000	—	—	1141900	—	—	—	—	—	—
7/16 - 20 UNF	H2		—	—	—	1112200	—	—	—	—	—	—
	H3		1122300	1122301	1122308	1122200	1122201	1122205	1122208	1122100	1122101	1122108
	H5		1142300	—	1142308	1142200	—	—	1142208	—	—	—
1/2 - 13 UNC	H1		1102600	—	—	1102500	—	—	—	—	—	—
	H2		1112600	—	—	1112500	—	—	—	—	—	—
	H3		1122600	1122601	1122608	1122500	1122501	1122505	1122508	1122400	1122401	1122408
	H5		1142600	—	—	1142500	—	—	1142508	—	—	—
1/2 - 20 UNF	H1		1102900	—	—	1102800	—	—	—	—	—	—
	H3		1122900	1122901	1122908	1122800	1122801	1122805	1122808	1122700	1122701	1122708
	H5		1142900	—	1142908	1142800	—	—	—	—	—	—
9/16 - 12 UNC	H3		1123200	1123201	1123208	1123100	1123101	—	1123108	1123000	1123001	1123008
	H5		1061100	—	1061108	1143100	—	—	1143108	—	—	—
9/16 - 18 UNF	H2		—	—	—	1113400	—	—	—	—	—	—
	H3		1123500	1123501	1123508	1123400	1123401	—	1123408	1123300	1123301	1123308
	H5		1143500	—	1143508	1143400	—	—	1143408	—	—	—
5/8 - 11 UNC	H1		—	—	—	1103700	—	—	—	—	—	—
	H2		1063200	—	—	1113700	—	—	—	—	—	—
	H3		1123800	1123801	1123808	1123700	1123701	1123705	1123708	1123600	1123601	1123608
	H5		1143800	—	1143808	1143700	—	—	1143708	—	—	—
5/8 - 18 UNF	H1		—	—	—	1104000	—	—	—	—	—	—
	H2		—	—	—	1114000	—	—	—	—	—	—
	H3		1124100	1124101	1124108	1124000	1124001	1124005	1124008	1123900	1123901	1123908
	H5		1144100	—	1144108	1144000	—	—	1144008	—	—	—
11/16 - 11 UNS	H3		1124400	—	1124408	1124300	—	—	1124308	1124200	—	—

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.





List 101

Taper (5P and up), Plug (3.5P-4.5P), Bottom (1.5P-2P)

HSS	TiCN	TiN	S/O	BR
-----	------	-----	-----	----

Tap Size	Thread Limit	No. of Flutes	EDP Number									
			Bottom (1.5P - 2P)			Plug (3.5P - 4.5P)				Taper (5P and up)		
			Bright	S/O	TiCN	Bright	S/O	TiN	TiCN	Bright	S/O	TiCN
11/16 - 16 UNS	H3	4	1124700	-	1124708	1124600	-	-	1124608	1124500	-	1124508
3/4 - 10 UNC	H1		1066500	-	-	1008900	-	-	-	-	-	-
	H2		-	-	-	1114900	-	-	-	-	-	-
	H3		1125000	1125001	1125008	1124900	1124901	1124905	1124908	1124800	-	1124808
	H5		1145000	-	1145008	1144900	-	-	1144908	-	-	-
3/4 - 16 UNF	H1		-	-	-	1105200	-	-	1105208	-	-	-
	H2		-	-	-	1115200	-	-	-	-	-	-
	H3		1125300	1125301	1125308	1125200	1125201	1125205	1125208	1125100	-	1125108
	H5		1145300	-	1145308	1145200	-	-	1145208	-	-	-
7/8 - 9 UNC	H1		1069200	-	-	-	-	-	-	-	-	-
	H2		-	-	-	1009000	-	-	-	-	-	-
	H4		1135600	1135601	1135608	1135500	1135501	1135505	1135508	1135400	-	1135408
	H6		1145500	-	1145508	-	-	-	-	-	-	-
7/8 - 14 UNF	H2		-	-	-	1115800	-	-	-	-	-	-
	H4		1135900	1135901	1135908	1135800	1135801	1135805	1135808	1135700	-	1135708
	H6		-	-	-	1145800	-	-	1145808	-	-	-
	H1		1071900	-	-	1071800	-	-	1071808	-	-	-
1 - 8 UNC	H2		-	-	-	1116100	-	-	-	-	-	-
	H4		1136200	1136201	1136208	1136100	1136101	1136105	1136108	1136000	1136001	1136008
	H6		-	-	-	1146100	-	-	1146108	-	-	-
	H4		1136500	-	1136508	1136400	-	-	1136408	1136300	-	1136308
1 - 12 UNF	H4	6	-	-	-	1116700	-	-	1116708	-	-	-
1 - 14 UNS	H2		1136800	1136801	1136808	1136700	1136701	-	1136708	1136600	1136601	1136608
1, 1/8 - 7 UNC	H4		1137100	1137101	1137108	1137000	1137001	-	1137008	1136900	-	1136908
1, 1/8 - 12 UNF	H4		1137400	1137401	1137408	1137300	1137301	-	1137308	1137200	1137201	1137208
1, 1/4 - 7 UNC	H4		1137700	1137701	1137708	1137600	-	-	1137608	1137500	-	1137508
1, 1/4 - 12 UNF	H4		1138000	1138001	1138008	1137900	1137901	-	1137908	1137800	-	1137808
1, 3/8 - 6 UNC	H4		1138300	-	1138308	1138200	-	-	1138208	1138100	1138101	-
1, 3/8 - 12 UNF	H4		1138600	1138601	1138608	1138500	1138501	-	1138508	1138400	1138401	1138408
1, 1/2 - 6 UNC	H4		1138900	1138901	1138908	1138800	1138801	-	1138808	1138700	1138701	1138708
1, 1/2 - 12 UNF	H4		1139200	1139201	1139208	1139100	1139101	-	1139108	1139000	1139001	1139008

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

STT

Work Material																	
List No.	P				M			K	N		S		H				
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
101	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best




List 101H

+ .005" Oversize, Plug (3.5P-4.5P), Modified Bottom (2.5P-3P)

HSS

TiCN

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number				
			Modified Bottom (2.5P - 3P)		Plug (3.5P - 4.5P)		
			Bright	TiCN	Bright	S/O	TiCN
1/4 - 20 UNC	+ 0.005	4	1009100	1009108	1590100	1590101	1590108
1/4 - 28 UNF			—	—	1590300	1590301	1590308
5/16 - 18 UNC			1009200	1009208	1590700	1590701	1590708
5/16 - 24 UNF			—	—	1591100	—	1591108
3/8 - 16 UNC			1009300	1009308	1591300	—	1591308
3/8 - 24 UNF			—	—	1591500	—	1591508
7/16 - 14 UNC			—	—	1591900	—	—
7/16 - 20 UNF			—	—	1592100	—	—
1/2 - 13 UNC			1009400	1009408	1592500	—	1592508
1/2 - 20 UNF			—	—	1592700	—	1592708
5/8 - 11 UNC			1125700	—	1593700	—	1593708
5/8 - 18 UNF			—	1125708	1125900	1125901	1125908
3/4 - 10 UNC			—	—	1594700	—	1594701

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			35-45 HRC	45-50 HRC	50-70 HRC	
	1010 1018	1035 1045	1065			4140 4340											
101H	☐	☐	☐						☐	☐	☐		6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 102

Taper (5P and up), Plug (3.5P-4.5P), Bottom (1.5P-2P)

HSS	TiCN	TiN	S/O	BR
-----	------	-----	-----	----



Tap Size	Thread Limit	No. of Flutes	EDP Number											
			Bottom (1.5P - 2P)				Plug (3.5P - 4.5P)				Taper (5P and up)			
			Bright	S/O	TiN	TiCN	Bright	S/O	TiN	TiCN	Bright	S/O	TiN	TiCN
0 - 80 UNF	H1	2	1000200	1000201	1000205	1000208	1000100	1000101	1000105	1000108	1000000	1000001	-	1000008
	H2		1010200	-	-	1010208	1010100	-	1010105	1010108	-	-	-	-
1 - 64 UNC	H1		1000500	1000501	-	-	1000400	1000401	-	-	1000300	-	-	-
	H2		1008000	-	-	1008008	1010400	-	-	1010408	-	-	-	-
1 - 72 UNF	H1	2	1000800	1000801	-	-	1000700	1000701	-	-	1000600	1000601	-	1000608
	H2		1010800	-	-	1010808	1010700	-	-	1010708	-	-	-	-
2 - 56 UNC	H1		1001100	-	-	1001108	1001000	-	-	-	1000900	-	-	-
	H2		1011100	1011101	1011105	1011108	1011000	1011001	1011005	1011008	1010900	1010901	-	1010908
2 - 64 UNF	H1	3	1001400	-	-	-	1001300	-	-	-	-	-	-	-
	H2		1011400	1011401	-	-	1011300	1011301	-	-	1011200	-	-	-
3 - 48 UNC	H1		-	-	-	-	1001600	-	-	-	-	-	-	-
	H2		1011700	1011701	-	1011708	1011600	1011601	-	1011608	1011500	1011501	-	1011508
3 - 56 UNF	H1	3	-	-	-	-	1001900	-	-	-	-	-	-	-
	H2		1012000	1012001	-	1012008	1011900	1011901	-	1011908	1011800	1011801	-	-
4 - 36 UNS	H2		1012900	1012901	-	-	1012800	-	-	-	1012700	-	-	-
4 - 40 UNC	H1		1002300	-	-	-	1002200	-	-	-	1002100	-	-	-
	H2	3	1012300	1012301	1012305	1012308	1012200	1012201	1012205	1012208	1012100	1012101	-	1012108
4 - 48 UNF	H1		-	-	-	-	1002500	-	-	-	-	-	-	-
	H2		1012600	1012601	-	1012608	1012500	1012501	-	1012508	1012400	-	-	1012408
5 - 40 UNC	H1		1003200	-	-	-	1003100	-	-	-	-	-	-	-
	H2		1013200	1013201	1013205	1013208	1013100	1013101	1013105	1013108	1013000	1013001	-	1013008
5 - 44 UNF	H1	3	1003400	-	-	1003408	-	-	-	-	-	-	-	-
	H2		1013500	1013501	-	1013508	1013400	1013401	-	1013408	1013300	1013301	-	1013308
6 - 32 UNC	H1		1003800	-	-	-	1003700	-	-	-	1003600	-	-	-
	H2		1013800	-	1013805	1013808	1013700	-	1013705	1013708	1013600	-	-	1013608
6 - 40 UNF	H3		1023800	1023801	1023805	1023808	1023700	1023701	1023705	1023708	1023600	1023601	-	1023608
	H2	2	-	-	-	-	-	-	1068105	-	-	-	-	-
		3	1014100	1014101	1014105	-	1014000	1014001	1014005	-	1013900	-	-	1013908

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

continued on next page

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
102	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☐ best



List 102 (Continued)

Taper (5P and up), Plug (3.5P-4.5P), Bottom (1.5P-2P)

HSS	TiCN	TiN	S/O	BR
-----	------	-----	-----	----



Tap Size	Thread Limit	No. of Flutes	EDP Number											
			Bottom (1.5P - 2P)				Plug (3.5P - 4.5P)				Taper (5P and up)			
			Bright	S/O	TiN	TiCN	Bright	S/O	TiN	TiCN	Bright	S/O	TiN	TiCN
8 - 32 UNC	H1	4	1004400	—	—	—	1004300	—	—	1004308	1004200	—	—	1004208
	H2		1014400	—	1014405	—	1014300	—	1014305	1014308	1014200	—	—	—
	H3		1024400	1024401	1024405	1024408	1024300	1024301	1024305	1024308	1024200	1024201	—	1024208
	H7		1019900	—	—	—	1019800	—	—	—	—	—	—	—
8 - 36 UNF	H1		—	—	—	—	1004600	—	—	—	—	—	—	—
	H2		1014700	1014701	1014705	—	1014600	1014601	1014605	—	1014500	1014501	—	—
10 - 24 UNC	H1		1005000	1005001	—	—	1004900	—	—	—	1004800	—	—	—
	H2		1015000	—	—	1015008	1014900	—	—	—	1014800	—	1014805	1014808
	H3		1025000	1025001	1025005	1025008	1024900	1024901	1024905	1024908	1024800	1024801	—	—
	H7		1008700	—	—	—	1008600	—	—	—	—	—	—	—
10 - 32 UNF	H1		1005300	—	—	—	1005200	—	—	—	1005100	—	—	—
	H2		1015300	—	1015305	1015308	1015200	—	—	1015208	1015100	—	1015105	—
	H3		1025300	1025301	1025305	1025308	1025200	1025201	1025205	1025208	1025100	1025101	1025105	1025108
	H7		1028600	—	—	—	1028500	—	—	—	—	—	—	—
12 - 24 UNC	H1		—	—	—	—	1005500	—	—	—	—	—	—	—
	H3		1025600	1025601	—	1025608	1025500	1025501	1025505	1025508	1025400	1025401	—	1025408
12 - 28 UNF	H1		—	—	—	—	1005800	—	—	—	—	—	—	—
	H3		1025900	1025901	1025905	1025908	1025800	1025801	—	1025808	1025700	1025701	—	1025708

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
102	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 102H

+.005" Oversize, Plug (3.5P-4.5P)

HSS

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (3.5P - 4.5P)	
			Bright	S/O
6 - 32 UNC	+ 0.005	3	1593500	—
8 - 32 UNC		4	1594300	—

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (3.5P - 4.5P)	
			Bright	S/O
10 - 24 UNC	+ 0.005	4	1594900	—
10 - 32 UNF			1595100	1595101

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy Inconel	Titanium 6Al4V (30 HRC)	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
102H	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good

☐ best





List 103

Three Flute, Plug (3.5P-4.5P), Bottom (1.5P-2P)

HSS

TiN

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number					
			Bottom (1.5P - 2P)			Plug (3.5P - 4.5P)		
			Bright	S/O	TiN	Bright	S/O	TiCN
8 - 32 UNC	H1	3	1040200	—	—	1040100	—	—
	H2		1045200	—	—	1045100	—	—
	H3		1050200	—	—	1050100	—	—
			—	—	—	1040700	—	—
10 - 24 UNC	H1		—	—	—	1045700	—	—
	H2		1050800	—	—	1050700	—	—
	H3		—	—	—	—	—	—
10 - 32 UNF	H2		1046100	—	—	1046000	—	—
	H3		1051100	1051101	1051105	1051000	1051001	1051005
1/4 - 20 UNC	H1		1059300	—	—	1160100	—	—
	H2		1035600	—	—	1165100	—	—
	H3		1170200	1170201	1170205	1170100	1170101	1170105
	H5		1180200	—	—	1180100	—	—
			1170500	1170501	1170505	1170400	1170401	1170405
1/4 - 28 UNF	H3		—	—	—	1160700	—	—
5/16 - 18 UNC	H1		1170800	—	—	1170700	—	1170705
	H3		1180800	—	—	1180700	—	—
	H5		—	—	—	—	—	—
5/16 - 24 UNF	H3		1171100	1171101	1171105	1171000	1171001	1171005
3/8 - 16 UNC	H1		1046200	—	—	1161300	—	—
	H3		1171400	1171401	1171405	1171300	1171301	1171305
	H5		1181400	—	—	1181300	—	—
3/8 - 24 UNF	H3		1171700	1171701	1171705	1171600	1171601	1171605
7/16 - 14 UNC	H3		1172000	—	—	1171900	—	—
7/16 - 20 UNF	H3		1054700	—	—	1172200	—	—
1/2 - 13 UNC	H3		1172600	1172601	1172605	1172500	1172501	1172505
1/2 - 20 UNF	H3		1059300	—	—	1172800	—	—

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
103	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☐ best





List 104

Two Flute, Plug (3.5P-4.5P), Bottom (1.5P-2P)

HSS

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number			
			Bottom (1.5P - 2P)		Plug (3.5P - 4.5P)	
			Bright	S/O	Bright	S/O
2 - 56 UNC	H1	2	1060200	—	1060100	—
	H2		1065200	—	1065100	—
3 - 48 UNC	H2		1065800	—	1065700	—
4 - 40 UNC	H1		1007900	—	1061300	—
	H2		1066400	—	1066300	—
5 - 40 UNC	H2		1067300	—	1067200	—
5 - 44 UNF	H2		—	—	1067500	—
6 - 32 UNC	H1		1008100	—	1062800	—
	H2		1067900	—	1067800	—
	H3		1072900	1072901	1072800	1072801
6 - 40 UNF	H2		1016400	—	1068100	—
8 - 32 UNC	H2		1068500	—	1068400	—
	H3		1073500	1073501	1073400	1073401
10 - 24 UNC	H2		1069100	—	1069000	—
	H3		1074100	1074101	1074000	1074001
10 - 32 UNF	H1		1026200	—	1026100	—
	H2		1069400	—	1069300	—
	H3		1074400	1074401	1074300	1074301
1/4 - 20 UNC	H3		1195200	1195201	1195100	1195101
1/4 - 28 UNF	H3		1195500	1195501	1195400	1195401
5/16 - 18 UNC	H3		1195800	—	1195700	—

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

STT

Work Material																	
List No.	P				M			K	N		S		H				
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
104	☐	☐	☐					☐	☐	☐							
SFM	25-80	20-50	20-45					25-75	40-80	40-65							

☐ good
 ☐ best




List 101N

HSS

BR

UNEF, Plug (3.5P-4.5P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Bright	Bright
12 - 32 UNEF	H3	4	1670200	1670100
1/4 - 32 UNEF	H3		1680200	1680100
5/16 - 32 UNEF	H3		1680400	1680300
3/8 - 32 UNEF	H3		1680600	1680500
7/16 - 28 UNEF	H3		1680800	1680700
1/2 - 28 UNEF	H3		1681000	1680900
9/16 - 24 UNEF	H3		1681200	1681100
5/8 - 24 UNEF	H3		1681400	1681300
11/16 - 24 UNEF	H3	6	1681600	1681500
3/4 - 20 UNEF	H3		1681800	1681700
13/16 - 20 UNEF	H3		1682000	1681900
7/8 - 20 UNEF	H3		1682200	1682100
15/16 - 20 UNEF	H3		1682400	1682300
1 - 20 UNEF	H3		1682600	1682500

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
101N	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 141

Taper (5P and up), Plug (3.5P-4.5P), Bottom (1.5P-2P)

HSS

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number				
			Bottom (1.5P - 2P)		Plug (3.5P - 4.5P)		Taper (5P and up)
			Bright	S/O	Bright	S/O	Bright
M1.6 x 0.35	D3	3	—	—	1978800	—	—
M2 x 0.4	D3		1977400	—	1977300	—	—
M2.5 x 0.45	D3		1972300	1972301	1972200	1972201	—
M3 x 0.5	D3	4	1970200	1970201	1970100	1970101	1970000
M3.5 x 0.6	D4		1972600	1972601	1972500	1972501	—
M4 x 0.7	D4		1970500	1970501	1970400	1970401	1970300
M4.5 x 0.75	D4		1972900	1972901	1972800	1972801	—
M5 x 0.8	D4		1970800	1970801	1970700	1970701	1970600
M6 x 1.0	D5		1971100	1971101	1971000	1971001	1970900
M7 x 1.0	D5		1973200	1973201	1973100	1973101	—
M8 x 1.25	D5		1971400	1971401	1971300	1971301	1971200
M8 x 1.0	D5		1973500	1973501	1973400	1973401	—
M10 x 1.5	D6		1971700	1971701	1971600	1971601	1971500
M10 x 1.25	D6		1974100	1974101	1974000	1974001	—
M10 x 1.0	D6		1973800	1973801	1973700	1973701	—
M12 x 1.75	D6		1972000	1972001	1971900	1971901	1971800
M12 x 1.5	D6		1974700	—	1974600	—	—
M12 x 1.25	D5		1974400	1974401	1974300	1974301	—
M14 x 2.0	D7		1975300	—	1975200	1975201	1975100
M14 x 1.5	D6		1977700	—	1977600	—	—
M14 x 1.25	D5		1975000	—	1974900	—	—
M16 x 2.0	D7		1975900	1975901	1975800	1975801	1975700
M16 x 1.5	D6		1975600	1975601	1975500	1975501	—
M18 x 2.5	D7		1976500	—	1976400	1976401	—
M18 x 1.5	D6		1976200	1976201	1976100	—	—
M20 x 2.5	D7		1977100	1977101	1977000	1977001	1966900
M20 x 1.5	D6		1976800	1976801	1976700	—	—
M24 x 3.0	D8		1977200	—	1977500	—	1978000
M30 x 3.5	D9		1978200	—	1978300	—	1978400
M36 x 4.0	D9		—	—	1978600	—	1978700

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

STT

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
141	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best



List 121

JIS, Taper (5P and up), Plug (4.5P-5.5P), Bottom (1.5P-2P)

HSS

S/O

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number				
			Bottom (1.5P - 2P)		Plug (4.5P - 5.5P)		Taper (5P and up)
			Bright	S/O	Bright	S/O	Bright
M2 x 0.4	JIS 2	3	233	-	232	-	-
M2.3 x 0.4			293	-	292	-	-
M2.6 x 0.45			353	-	352	-	-
M3 x 0.5			393	22606	392	22605	391
M3.5 x 0.6			413	-	412	-	411
M4 x 0.7			453	22612	452	22611	451
M4.5 x 0.75			-	-	482	-	-
M5 x 0.8			513	22618	512	22617	511
M6 x 1.0			583	22622	582	22621	581
M6 x 0.75		4	593	-	592	-	591
M7 x 1.0			-	-	612	-	-
M8 x 1.25			643	22628	642	22627	641
M8 x 1.0			653	-	652	-	651
M8 x 0.75			-	-	662	-	-
M9 x 1.25			-	-	692	-	-
M10 x 1.5			733	22634	732	22633	731
M10 x 1.25			743	22638	742	22637	741
M10 x 1.0			753	-	752	-	751
M11 x 1.5			-	-	792	-	-
M12 x 1.75			853	22644	852	22643	851
M12 x 1.5			-	-	862	-	-
M12 x 1.25			873	-	872	-	871
M12 x 1.0			883	-	882	-	881
M14 x 2.0			983	-	982	-	981

Tap Size	Thread Limit	No. of Flutes	EDP Number				
			Bottom (1.5P - 2P)		Plug (4.5P - 5.5P)		Taper (5P and up)
			Bright	S/O	Bright	S/O	Bright
M14 x 1.5	JIS 2	4	993	-	992	-	991
M14 x 1.25			1003	-	1002	-	1001
M16 x 2.0			1113	-	1112	-	1111
M16 x 1.5			1123	-	1122	-	1121
M16 x 1.0			-	-	1142	-	-
M18 x 2.5			1253	-	1252	-	1251
M18 x 2.0			-	-	1262	-	-
M18 x 1.5			1273	-	1272	-	1271
M20 x 2.5			1393	-	1392	-	1391
M20 x 1.5			1413	-	1412	-	1411
M22 x 2.5			1503	-	1502	-	1501
M22 x 1.5			1523	-	1522	-	-
M24 x 3.0			1603	-	1602	-	1601
M24 x 1.5			-	-	1632	-	-
M26 x 3.0			1713	-	1712	-	1711
M26 x 1.5			1733	-	1732	-	1731
M28 x 1.5			1823	-	1822	-	1821
M30 x 3.5			1843	-	1842	-	1841
M30 x 1.5			1873	-	1872	-	1871
M32 x 1.5			1933	-	1932	-	1931
M33 x 1.5			1983	-	1982	-	1981
M34 x 1.5			2033	-	2032	-	2031
M36 x 1.5			2143	-	2142	-	2141

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High														
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
121	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best



List 916

Long Shank, Plug (3.5P-4.5P)

HSS

S/O



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Plug (3.5P - 4.5P)
				S/O
1/4 - 20 UNC	H3	4	6	1290001
			8	1290201
5/16 - 18 UNC			6	1290401
			8	1290601
3/8 - 16 UNC			6	1290801
			8	1291001
			10	1291201
7/16 - 14 UNC			6	1291401
			8	1291601

Packed: 1 pc.
Available Steam Oxide finish only.

STT

Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number
				Plug (3.5P - 4.5P)
				S/O
1/2 - 13 UNC	H3	4	6	1292001
			8	1292201
			10	1292401
			12	1292601
5/8 - 11 UNC			6	1292801
			8	1293001
			10	1293201
			12	1293401
3/4 - 10 UNC			10	1293601
			12	1293801

Packed: 1 pc.
Available Steam Oxide finish only.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
916	☐	☐	☐						☐								
SFM	25-80	20-50	20-45						25-75								

☐ good ☒ best



GENERAL PURPOSE

Miniature Taps

List S110

Plug (3.5P-4.5P), Bottom (1.5P-2P)

SPEED
FEED
P22

HSS

BR



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Bright	Bright
000 - 120 UNC	H1	2	1020000	1010000
	H2		-	1929000
00 - 90 UNC	H1		1040000	1030000
	H2		2055000	3370000

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Bright	Bright
00 - 96 UNC	H1	2	1070000	1060000
	H2		1322000	3380000

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Specifications & Dimensions

Tap Size	Basic O.D.	Basic P.D.	Overall Length	Thread Length	Square Length	Shank Diameter	Square Size
00-90	0.047	0.0398	1-9/16	1/4	3/16	0.141	0.110
00-96	0.047	0.0402	1-9/16	1/4	3/16	0.141	0.110
000-120	0.034	0.0286	1-1/2	3/16	3/16	0.141	0.110

Suggested Hole Size Limits for Different Lengths of Engagement

Tap Size	Depth of Thread Hole					
	Up to 1/3D		1/3 to 1/2D		1/2 to 3D	
	Min.	Max.	Min.	Max.	Min.	Max.
00-90	0.0373	0.0385	0.0380	0.0392	0.0388	0.0400
00-96	0.0379	0.0393	0.0388	0.0406	0.0397	0.0415
000-120	0.0260	0.0270	0.0270	0.0280	0.0275	0.0285

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
S110	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☐ best





List 114

Plug (3.5P-4.5P), Bottom (1.5P-2P)

**SPEED
FEED**
P22

HSS-CO

N



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Nitride	Nitride
2 - 56 UNC	2B+ H7	3	3141903 3141303	3141803 3141203
4 - 40 UNC	2B+ H7	4	3142903 3142303	3142803 3142203
6 - 32 UNC	2B+ H7		3144903 3144303	3144803 3144203
8 - 32 UNC	2B+ H7		3145903 3145303	3145803 3145203

Packed: 1 pc.
Available Nitride coating only.

STT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Nitride	Nitride
10 - 24 UNC	2B+ H7	4	3146903 3146303	3146803 3146203
10 - 32 UNF	2B+ H7		3146503 3146703	3146403 3146603
1/4 - 20 UNC	2B+ H7		3147903 3147303	3147803 3147203

Packed: 1 pc.
Available Nitride coating only.

STT

The H7 series are designed for tapping thermoplastic materials such as nylon and vinyl.

The 2B+ are designed for tapping thermosetting, reinforced plastics and laminated plastics such as epoxy, bakelite, fiberglass, etc. The 2B+ limit is based on the actual products limit and machining properties, taking the guess work out of H limit selection.

Oversize 2B+ Series = +.0005"~.001" over 2B thread limit.

Work Material															
List No.	P					M			K	N		S		Other	
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Thermo Plastics	Thermosetting Plastics
	Low	Med.	High												
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	6061 7075	Casting	Inconel		
114														☐	☐
SFM														33-66	33-66

☐ good ☒ best





GENERAL PURPOSE

8 Pitch Taps

List 180

HSS

BR

Plug (3.5P-4.5P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Bright	Bright
1,1/8 - 8	H5	4	1690200	1690100
1,1/4 - 8	H5		1690500	1690400
1,3/8 - 8	H5	6	1690800	1690700
1,1/2 - 8	H5		1691100	1691000

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Bright	Bright
1,5/8 - 8	H6	6	1691400	1691300
1,3/4 - 8	H6		1691700	1691600
2 - 8	H6		1692300	1692200
2,1/4 - 8	H6		8020000	8019000

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.



Work Material

List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
180	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☐ best





List 101L

Left Hand, Plug (3.5P-4.5P), Bottom (1.5P-2P)

HSS

BR

LH



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Bright	Bright
6 - 32 UNC	H3	3	1650200	1650100
6 - 40 UNF	H2		1650400	1650300
8 - 32 UNC	H3		1650600	1650500
8 - 36 UNF	H2	4	1650800	1650700
10 - 24 UNC	H3		1651000	1650900
10 - 32 UNF	H3		1651200	1651100
1/4 - 20 UNC	H3		1660200	1660100
1/4 - 28 UNF	H3		1660400	1660300
5/16 - 18 UNC	H3		1660600	1660500
5/16 - 24 UNF	H3		1660800	1660700
3/8 - 16 UNC	H3		1661000	1660900
3/8 - 24 UNF	H3		1661200	1661100
7/16 - 14 UNC	H3		1661400	1661300

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Bright	Bright
7/16 - 20 UNF	H3	4	1661600	1661500
1/2 - 13 UNC	H3		1661800	1661700
1/2 - 20 UNF	H3		1662000	1661900
9/16 - 12 UNC	H3		1662200	1662100
9/16 - 18 UNF	H3		1662400	1662300
5/8 - 11 UNC	H3		1662600	1662500
5/8 - 18 UNF	H3		1662800	1662700
3/4 - 10 UNC	H3		1663400	1663300
3/4 - 16 UNF	H3		1663600	1663500
7/8 - 9 UNC	H4		1663800	1663700
7/8 - 14 UNF	H4		1664000	1663900
1 - 8 UNC	H4		1664200	1664100
1 - 12 UNF	H4		1664400	1664300

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.



Work Material

	P					M			K	N		S	H				
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
101L	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good

☐ best





List 311

DIN Overall Length, Modified Bottom (2.5P-3P)

CARBIDE

V



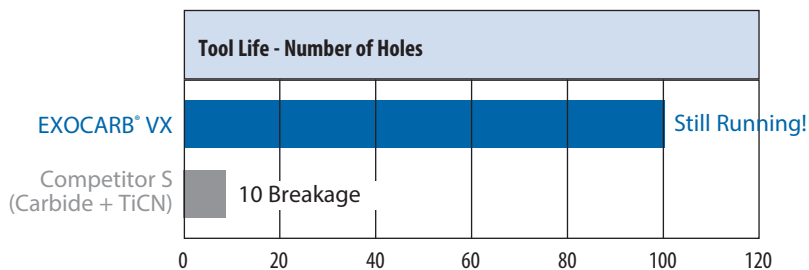
Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	Recommended WH-70 Drill Size
				Modified Bottom (2.5P - 3P)	
				V	
4 - 40 UNC	2B	4	56	3110108	2.3mm
6 - 32 UNC			56	3110208	2.8mm
8-32 UNC			63	3110308	3.5mm
10 - 24 UNC			70	3110408	4.0mm
10 - 32 UNF			70	3110508	4.2mm
1/4 - 20 UNC		5	80	3110608	5.3mm
1/4 - 28 UNF			80	3110708	5.6mm
5/16 - 18 UNC			90	3110808	6.8mm
5/16 - 24 UNF			90	3110908	7.1mm
3/8 - 16 UNC			100	3111008	8.2mm
3/8 - 24 UNF			100	3111108	8.7mm
7/16 - 14 UNC			100	3111208	9.6mm
7/16 - 20 UNC			100	3111308	10.1mm
1/2 - 13 UNC			110	3111408	11.1mm
1/2 - 20 UNF			110	3111508	11.7mm

Packed: 1 pc.

Available V coating only.

HTE

EXOCARB® VX Tap Performance:	
Tool:	List 311 1/4-20 NC
Material:	D2 (55HRC)
Speed:	100 RPM
Depth:	1.5D
Coolant:	Cutting Oil
Drill used:	EXOCARB® SH-DRL



Tapping Guidelines

1. Set tapping speed between 3 ~ 10 SFM.
2. Choose largest hole-size possible, within the recommended tolerance range.
3. Use a non-water soluble cutting fluid.
4. Use highly rigid machine and tool holders.
5. Tapping by hand is NOT recommended.
6. For tapping length over 1.5D, step feed is recommended.

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1018	1045	1065			4140	4340					7075		(30 HRC)			
311																	
SFM																3-10	3-10

☐ good ☒ best





List 341

JIS, Modified Bottom (2.5P-3P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number	Recommended WH-70 Drill Size
				Modified Bottom (2.5P - 3P)	
				V	
M2.6 x 0.45	OH3	4	44	8330049	2.2mm
M3 x 0.5	OH3		46	8330055	2.6mm
M4 x 0.7	OH3		52	8330061	3.4mm
M5 x 0.8	OH3		60	8330067	4.3mm
M6 x 1.0	OH3	5	62	8330073	5.2mm
M8 x 1.25	OH3		70	8330085	7.0mm
M8 x 1.0	OH3		70	8330087	7.2mm
M10 x 1.5	OH3		75	8330097	8.8mm
M10 x 1.25	OH3		75	8330099	9.0mm
M10 x 1.0	OH3		70	8330101	9.2mm
M12 x 1.75	OH3		82	8330115	10.6mm
M12 x 1.5	OH3		82	8330117	10.8mm
M12 x 1.25	OH4	6	80	8330119	11.0mm
M12 x 1.0	OH3		70	8330121	11.2mm
M14 x 2.0	OH4		88	8330123	12.4mm
M14 x 1.5	OH3		88	8330125	12.8mm
M16 x 2.0	OH4		95	8330131	14.4mm
M16 x 1.5	OH3		95	8330133	14.8mm
M18 x 2.5	OH4		95	8330139	16.0mm
M18 x 1.5	OH4		95	8330141	16.8mm
M20 x 2.5	OH4		100	8330147	18.0mm
M20 x 1.5	OH4		95	8330149	18.8mm

Packed: 1 pc.
Available V coating only.



Tapping Guidelines

1. Set tapping speed between 3 ~ 10 SFM.
2. Choose largest hole-size possible, within the recommended tolerance range.
3. Use a non-water soluble cutting fluid.
4. Use highly rigid machine and tool holders.
5. Tapping by hand is NOT recommended.
6. For tapping length over 1.5D, step feed is recommended.

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V	~35	35-45	45-50	50-70
	1018	1035	1045			4140	4340	7075					(30 HRC)	HRC	HRC	HRC	HRC
341																	
SFM																	

☐ good ☒ best





List 329

CARBIDE

DIA

UNJC, UNJF, DIN Overall Length, Modified Bottom (2.5P-3P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number
				Modified Bottom (2.5P - 3P)
				Diamond
4 - 40 UNC	2B	3	56	3297016
	3B			3291216
6 - 32 UNC	2B		56	3297116
	3B			3291316
8 - 32 UNC	2B		63	3297216
	3B			3291416
10 - 24 UNC	2B	4	70	3297316
	3B			3291516
10 - 32 UNF	2B		70	3297416
	3B			3291616
1/4 - 20 UNC	2B		80	3297516
	3B			3291716
1/4 - 28 UNF	2B		80	3297616
	3B			3291816
5/16 - 18 UNC	2B		90	3297716
	3B			3298516
5/16 - 24 UNF	2B		90	3297816
	3B			3298616
3/8 - 16 UNC	2B		100	3297916
	3B			3298716
3/8 - 24 UNF	2B		100	3298016
	3B			3298816
7/16 - 14 UNC	2B	5	100	3298116
	3B			3298916
7/16 - 20 UNF	2B		100	3298216
	3B			3299016
1/2 - 13 UNC	2B		110	3298316
	3B			3299116
1/2 - 20 UNF	2B		110	3298416
	3B			3299216

Packed: 1 pc.

Available Diamond coating only.

*3B fit taps conform to UNJ Aerospace internal threading applications.



Work Material																	
List No.	P					M			K	N		S		Other			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	MMC	Copper Alloys	Fiberglass	Cobalt-Chrome
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)				
	1010 1018	1035 1045	1065														
329										☒	☒			☒	☐	☒	
SFM										60-160	55-120			30-60	40-80	30-60	

☐ good ☒ best





List 359

JIS, Modified Bottom (2.5P-3P)

CARBIDE

DIA



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number
				Modified Bottom (2.5P - 3P)
				Diamond
M3 x 0.5	6H	3	46	3590116
M4 x 0.7		4	52	3590216
M5 x 0.8			60	3590316
M6 x 1.0			62	3590416
M8 x 1.25	6H	4	70	3590516
M10 x 1.5		5	75	3590616
M12 x 1.75			82	3590716

Packed: 1 pc.
Available Diamond coating only.

HTE

Work Material																	
List No.	P					M			K	N		S		Other			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	MMC	Copper Alloys	Fiberglass	Cobalt-Chrome
	Low	Med.	High														
	1010 1018	1035 1045	1065			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)				
359										☒	☒			☒	☐	☒	
SFM										60-160	55-120			30-60	40-80	30-60	

☐ good ☒ best





List 379

Synchronized, Coolant-Through, JIS, Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Shank Diameter	EDP Number
					Bottom (1.5P-2P)
					EXO®
M6 x 1.0	OH3	3	100	6	8315722
M8 x 1.25	OH4	4		8	8315728
M10 x 1.5	OH4			8	8315734
M10 x 1.25	OH4			8	8315736
M12 x 1.75	OH4			10	8315739
M12 x 1.5	OH4			10	8315742
M12 x 1.25	OH4			10	8315745

Packed: 1 pc.
Available EXO® coating only.

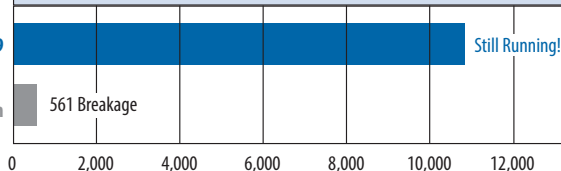


List 379 Tap Performance:

Tool:	List 379 M8x1.25
Material:	Cast Iron
Speed:	3,000 RPM (246 SFM)
Depth:	1 inch
Coolant:	Water soluble oil

Tool Life - Number of Tapped Holes

List 379
Competition



Recommended Tapping Conditions for List 379:

Material	Speed (SFM)
Aluminum Alloy Casting	250 - 1,000
Cast Iron	150 - 330
Brass, Brass Casting	150 - 330
Magnesium Alloy Casting	250 - 1,000

Work Material

	P					M			K	N		S		Other			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	MMC	Copper Alloys	Fiberglass	Cobalt-Chrome
	Low	Med.	High														
	1010 1018	1035 1045	1065	4140 4340		300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)				
379																	
SFM									150-330	250-1,000	250-1,000				150-330		30-60

☐ good ☐ best





List 319

DIN Overall Length, Bottom (1.5P-2P)



Tap Size	Class of Fit	No. of Flutes	Overall Length	EDP Number
				Bottom (1.5P - 2P)
				Bright
4 - 40 UNC	2B	3	56	3190000
6 - 32 UNC			56	3190100
8 - 32 UNC			63	3190200
10 - 24 UNC			70	3190300
10 - 32 UNF			70	3190400
1/4 - 20 UNC			80	3190500
1/4 - 28 UNF			80	3190600
5/16 - 18 UNC		4	90	3190700
5/16 - 24 UNF			90	3191500
3/8 - 16 UNF			100	3190900
3/8 - 24 UNF			100	3191000
7/16 - 14 UNC			100	3191100
7/16 - 24 UNF			100	3191200
1/2 - 13 UNC			110	3191300
1/2 - 20 UNF			110	3191400

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		Other			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron 300 400 17-4 PH	Aluminum		Nickel Alloy	Titanium	MMC	Copper Alloys 40-80	Fiberglass 30-60	Cobalt-Chrome 15-40
	Low	Med.	High														
	1010 1018	1035 1045	1065							6061 7075	Casting	Inconel	6Al4V (30 HRC)				
319									☒	☒	☒				☒	☐	☒
SFM									40-90	60-160	55-120				40-80	30-60	15-40

☐ good ☒ best





CARBIDE

BR

List 10059

Bottom (1.5P-2P)



Tap Size	Class of Fit	No. of Flutes	EDP Number
			Modified Bottom (1.5P - 2P)
			Bright
10 - 24 UNC	2B	4	1005910100
10 - 32 UNF			1005910200
12 - 24 UNC			1005910300
1/4 - 20 UNC			1005910400
1/4 - 28 UNF			1005910500

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

HTE

Tap Size	Class of Fit	No. of Flutes	EDP Number
			Modified Bottom (1.5P - 2P)
			Bright
5/16 - 18 UNC	2B	4	1005910600
5/16 - 24 UNF			1005910700
3/8 - 16 UNC			1005910800
3/8 - 24 UNF			1005910900

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

HTE

Work Material

	P					M			K	N		S		Other			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	MMC	Copper Alloys	Fiberglass	Cobalt-Chrome
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)				
	1010 1018	1035 1045	1065														
10059									☒	☒	☒				☒	☐	☒
SFM									40-90	60-160	55-120				40-80	30-60	15-40

☐ good ☒ best



CARBIDE



☐ good ☒ best



CARBIDE

BR

List 349

JIS, Modified Bottom (2.5P-3.5P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Bottom (1.5P - 2P)	Modified Bottom (2.5P - 3P)
				Bright	Bright
M1.4 x 0.3	OH2	3	34	22800	24000
M1.6 x 0.35	OH3		36	22801	24001
M1.7 x 0.35	OH3		36	22802	24002
M1.8 x 0.35	OH3		36	22803	24003
M2 x 0.4	OH3		40	22804	24004
M2.3 x 0.4	OH3		42	22806	24006
M2.5 x 0.45	OH3		44	22807	24007
M2.6 x 0.45	OH3		44	22808	24008
M3 x 0.5	OH3		46	22810	24010
M4 x 0.7	OH3		52	22814	24014
M5 x 0.8	OH3		60	22817	24017
M6 x 1.0	OH3		62	22820	24020
M8 x 1.25	OH4	4	70	22830	24030
M8 x 1.0	OH3		70	22831	24031
M10 x 1.5	OH4		75	22833	24033
M10 x 1.25	OH4		75	22834	24034
M10 x 1.0	OH3		75	22835	24035
M12 x 1.75	OH5		82	22837	24037
M12 x 1.5	OH4		82	22839	24039
M12 x 1.25	OH4		80	22840	24040
M12 x 1.0	OH3		80	22841	24041
*M14 x 2.0	OH4		88	24046	24045
*M14 x 1.5	OH4		88	24048	24047
*M16 x 2.0	OH5		95	24052	24051
*M16 x 1.5	OH4		95	24054	24053
*M18 x 2.5	OH5		100	24056	24055
*M18 x 1.5	OH4		95	24060	24059
*M20 x 2.5	OH5		105	24062	24061
*M20 x 1.5	OH4		95	24066	24065
*M22 x 2.5	OH5		115	24068	24067
*M22 x 1.5	OH4		95	24072	24071
*M24 x 3.0	OH5		120	24074	24073
*M24 x 1.5	OH4		95	24078	24077

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

*Brazed Carbide

HTE

Work Material

	P				M			K	N		S		Other				
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	MMC	Copper Alloys	Fiberglass	Cobalt-Chrome
	Low	Med.	High														
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	6061 7075	Casting	Inconel				
349								☒	☒	☒					☒	☐	☒
SFM								40-90	60-160	55-120					40-80	30-60	15-40

☐ good ☒ best





List 356

JIS, Long Shank, Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	EDP Number	
				Bottom (1.5P - 2P)	
				Bright	
M6 x 1.0	OH3	3	100	22929	
M8 x 1.25	OH4	4	150	22933	
M10 x 1.5	OH4		150	22941	
M10 x 1.25	OH4		150	22945	
M10 x 1.0	OH4		150	22949	
M12 x 1.75	OH4		150	22953	

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		Other			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	MMC	Copper Alloys	Fiberglass	Cobalt-Chrome
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)				
	1010 1018	1035 1045	1065			4140 4340											
356																	
SFM									40-90	60-160	55-120				40-80	30-60	15-40

☐ good ☒ best





List 16260

DIN Overall Length, Modified Bottom (2.5P)

HSS-CO

V

STI



Tap Size	Lead	Thread Limit	Overall Length	EDP Number	Tap Drill Size		Class of Fit	
				V	Min	Max	2B	3B
2 - 56 UNC	2.5P	H1	56	1626000108	0.0994	0.1013	H2	H1
		H2		1626000208				
4 - 40 UNC		H2	63	1626000308	0.1309	0.1333	H3	H2
		H3		1626000408				
4 - 48 UNF		H2	56	1626000508	0.1281	0.1299	H3	H2
		H3		1626000608				
6 - 32 UNC		H2	70	1626000708	0.1613	0.1637	H3	H2
		H3		1626000808				
6 - 40 UNF		H2	70	1626000908	0.1569	0.1590	H3	H2
		H3		1626001008				
8 - 32 UNC		H2	80	1626001108	0.1873	0.1895	H3	H2
		H3		1626001208				
8 - 36 UNF		H2	80	1626001308	0.1849	0.1870	H3	H2
		H3		1626001408				
10 - 24 UNC		H3	80	1626001508	0.2210	0.2238	H4	H3
		H4		1626001608				
10 - 32 UNF		H3	80	1626001708	0.2138	0.2160	H4	H3
		H4		1626001808				
1/4 - 20 UNC		H3	90	1626001908	0.2868	0.2899	H4	H3
		H4		1626002008				
1/4 - 28 UNF		H3	90	1626002108	0.2769	0.2879	H4	H3
		H4		1626002208				
5/16 - 18 UNC		H4	100	1626002308	0.3537	0.2568	H5	H4
		H5		1626002408				
5/16 - 24 UNF		H4	90	1626002508	0.3440	0.3462	H5	H4
		H5		1626002608				
3/8 - 16 UNC		H5	100	1626002708	0.4215	0.4248	H6	H5
		H6		1626002808				
3/8 - 24 UNF		H5	90	1626002908	0.4070	0.4091	H6	H5
		H6		1626003008				
7/16 - 14 UNC		H5	110	1626003108	0.4907	0.4938	H7	H5
		H7		1626003208				
7/16 - 20 UNF		H5	100	1626003308	0.4758	0.4777	H7	H5
		H7		1626003408				
1/2 - 13 UNC		H5	110	1626003508	0.5570	0.5600	H7	H5
		H7		1626003608				
1/2 - 20 UNF		H5	100	1626003708	0.5383	0.5402	H7	H5
		H7		1626003808				
9/16 - 12 UNC		H7	110	1626003908	0.6251	0.6282	H9	H7
		H9		1626004008				
9/16 - 18 UNF		H7	100	1626004108	0.6057	0.6077	H9	H7
		H9		1626004208				
5/8 - 11 UNC		H7	125	1626004308	0.6928	0.6961	H9	H7
		H9		1626004408				
5/8 - 18 UNF		H7	110	1626004508	0.6682	0.6702	H9	H7
		H9		1626004608				
3/4 - 10 UNC		H7	140	1626004708	0.8241	0.8276	H9	H7
		H9		1626004808				
3/4 - 16 UNF		H7	125	1626004908	0.7980	0.8002	H9	H7
		H9		1626005008				

Packed: 1 pc.
Available V coating only.

EP





List 16260

DIN Overall Length, Modified Bottom (2.5P)



Tap Size	Lead	Thread Limit	Overall Length	EDP Number	Tap Drill Size		Class of Fit	
				V	Min	Max	2B	3B
7/8 - 9 UNC	2.5P	H7	160	1626005108	0.9573	0.9606	H10	H7
		H10		1626005208				
7/8 - 14 UNF		H7	140	1626005308	0.9297	0.9316	H10	H7
		H10		1626005408				
1 - 8 UNC		H8	180	1626005508	1.0925	1.0966	H11	H8
		H11		1626005608				
1 - 12 UNF		H8	140	1626005708	1.0636	1.0658	H11	H8
		H11		1626005808				

Packed: 1 pc.
Available V coating only.

EP

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061	Casting	Inconel	6Al4V	~35	35-45	45-50	50-70
	1018	1035	1065			4140	4340					7075		(30 HRC)	HRC	HRC	HRC
16260	☒	☒	☒	☒	☒	☒	☒	☒		☒	☒	☐	☐	☒	☐		
SFM	50-115	50-115	50-85	50-85	20-65	15-40	15-35	30-Oct		65-115	65-90	8-12	8-15	50-100	12-25		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☒ best





List 16360

DIN Overall Length, Modified Bottom (2.5P)

HSS-CO

V

STI



Tap Size	Lead	Thread Limit	Overall Length	EDP Number	Tap Drill Size	
				V	Min	Max
M2 x 0.4	2.5P	D3	50	1636000108	2.32	2.35
M2.5 x 0.45		D3	56	1636000208	2.85	2.89
M3 x 0.5		D3	63	1636000308	3.39	3.43
M4 x 0.7		D4	70	1636000408	4.54	4.59
M5 x 0.8		D4	80	1636000508	5.61	5.67
M6 x 1.0		D5	90	1636000608	6.76	6.83
M8 x 1.25		D6	100	1636000708	8.95	9.03
M10 x 1.5		D8	100	1636000808	11.15	11.23
M12 x 1.75		D9	110	1636000908	13.33	13.43
M14 x 2.0		D10	110	1636001008	15.52	15.63
M16 x 2.0		D10	125	1636001108	17.52	17.63
M18 x 2.5		D10	140	1636001208	19.87	20.00
M20 x 2.5		D10	160	1636001308	21.87	22.00
M22 x 2.5		D10	160	1636001408	23.87	24.00
M24 x 3.0		D11	160	1636001508	26.23	26.38

Packed: 1 pc.
Available V coating only.

EP

Work Material																	
List No.	P					M			K Cast Iron	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels				Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
16360	☒	☒	☒	☒	☒	☒	☒	☒		☒	☒	☐	☐	☒	☐		
SFM	50-115	50-115	50-85	50-85	20-65	15-40	15-35	30-Oct		65-115	65-90	8-12	8-15	50-100	12-25		

*For Stainless Steel, please use non-water-soluble coolant.

☐ good ☒ best





List 315Ti **NEW!**

Spiral Fluted, Modified Bottom (2.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P)
			V
2 - 56 UNC	H2	3	31540108
4 - 40 UNC	H2		31540208
6 - 32 UNC	H3		31540308
8 - 32 UNC	H3		31540408
10 - 32 UNF	H3		31540508

Packed: 1 pc.
Available V coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P)
			V
1/4 - 28 UNF	H3	3	31540608
5/16 - 24 UNF	H3		31540708
3/8 - 24 UNF	H3		31540808
7/16 - 20 UNF	H4		31540908
1/2 - 20 UNF	H4		31541008

Packed: 1 pc.
Available V coating only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
315Ti				○				○				○	Ⓢ	○	○		
SFM				15-30				8-20				8-15	8-15	15-35	10-20		

○ good ◻ best





List 315Ni **NEW!**

Spiral Fluted, Modified Bottom (2.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P)
			V
2 - 56 UNC	H2	3	31520108
4 - 40 UNC	H2		31520208
6 - 32 UNC	H3		31520308
8 - 32 UNC	H3		31520408
10 - 32 UNF	H3		31520508

Packed: 1 pc.
Available V coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P)
			V
1/4 - 28 UNF	H3	3	31520608
5/16 - 24 UNF	H3		31520708
3/8 - 24 UNF	H3		31520808
7/16 - 20 UNF	H4		31520908
1/2 - 20 UNF	H4		31521008

Packed: 1 pc.
Available V coating only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
315Ni								○				⊗	○	○	○		
SFM								8-20				8-15	8-15	15-35	10-20		

☐ good ☒ best





List 315

Spiral Fluted, Modified Bottom (2.5P-3P)



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Modified Bottom (2.5P - 3P)	
			S/O	V
2 - 56 UNC	H2	2	1715701	1715708
3 - 48 UNC	H2		31500101	31500108
4 - 40 UNC	H2		1715801	1715808
4 - 48 UNF	H2		31500201	31500208
6 - 32 UNC	H2	3	1715901	1715908
	H3		1716001	1716008
6 - 40 UNF	H2		31500301	31500308
8 - 32 UNC	H2		1716101	1716108
	H3		1716201	1716208
8 - 36 UNF	H2		31500401	31500408
10 - 24 UNC	H2		31500501	31500508
	H3		31500601	31500608
10 - 32 UNF	H2		1716301	1716308
	H3		1716401	1716408
1/4 - 20 UNC	H2		31500701	31500708
	H3		31500801	31500808
1/4 - 28 UNF	H2		1716501	1716508
	H3		1716601	1716608
5/16 - 18 UNC	H3		31500901	31500908
	H4		31501001	31501008
5/16 - 24 UNF	H2	4	31501101	31501108
	H3		1716701	1716708
3/8 - 16 UNC	H3		31501201	31501208
	H4		31501301	31501308
3/8 - 24 UNF	H2		31501401	31501408
	H3		31501501	31501508
7/16 - 14 UNC	H3		31501601	31501608
	H4		31501701	31501708

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Modified Bottom (2.5P - 3P)	
			S/O	V
7/16 - 20 UNF	H3	3	31501801	31501808
	H4		31501901	31501908
1/2 - 13 UNC	H3		31502001	31502008
	H4		31502101	31502108
1/2 - 20 UNF	H3	4	31502201	31502208
	H4		31502301	31502308
9/16 - 12 UNC	H3		31502401	31502408
	H4		31502501	31502508
9/16 - 18 UNF	H3		31502601	31502608
	H4		31502701	31502708
5/8 - 11 UNC	H3		31502801	31502808
	H4		31502901	31502908
5/8 - 18 UNF	H3		31503001	31503008
	H4		31503101	31503108
3/4 - 10 UNC	H3		31503201	31503208
	H5		31503301	31503308
3/4 - 16 UNF	H3		31503401	31503408
	H4		31503501	31503508
7/8 - 9 UNC	H3		31503601	31503608
	H5		31503701	31503708
7/8 - 14 UNF	H3	5	31503801	31503808
	H4		31503901	31503908
1 - 8 UNC	H4		31504001	31504008
	H6		31504101	31504108
1 - 12 UNF	H4	6	31504201	31504208
	H6		31504301	31504308

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
315				☐	☐		☐	☐				☐	☐	☐	☐		
SFM				15-30	10-25		12-45	8-20				8-15	8-15	15-35	10-20		

☐ good ☐ best





List 345STI

Spiral Fluted, Modified Bottom (2.5P-3P)



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Modified Bottom (2.5P - 3P)	
			S/O	V
M2 x 0.4	D2	2	34500101	34500108
M2.5 x 0.45	D2		34500201	34500208
M3 x 0.5	D2	3	34500301	34500308
M4 x 0.7	D3		34500401	34500408
M5 x 0.8	D3		34500501	34500508
M6 x 1	D3		34500601	34500608
M8 x 1.25	D3		34500701	34500708
M10 x 1.5	D4		34500801	34500808

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Modified Bottom (2.5P - 3P)	
			S/O	V
M12 x 1.75	D4	3	34500901	34500908
M14 x 2	D5		34501001	34501008
M16 x 2	D5	4	34501101	34501108
M18 x 2.5	D5		34501201	34501208
M20 x 2.5	D5		34501301	34501308
M22 x 2.5	D5		34501401	34501408
M24 x 3	D6		34501501	34501508

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
315STI				☒	☐		☐	☒				☐	☐	☒	☐		
SFM				15-30	10-25		12-45	8-20				8-15	8-15	15-35	10-20		

☐ good ☒ best





List 302

Spiral Fluted, Modified Bottom (2.5P-3P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number			
			Bottom (1.5P - 2P)		Modified Bottom (2.5P - 3P)	
			S/O	V	S/O	V
2 - 56 UNC	H2	2	0144701	0144708	1713501	-
3 - 48 UNC	H2		30200101	30200108	-	-
4 - 40 UNC	H2		0144801	0144808	1713601	-
4 - 48 UNF	H2		30200201	30200208	-	-
6 - 32 UNC	H2	3	0144901	0144908	1713701	-
	H3		0145001	0145008	1713801	-
6 - 40 UNF	H2		0145101	0145108	30200301	30200308
	H3		0145201	0145208	1713901	-
8 - 32 UNC	H3		0145301	0145308	1714001	-
	H4		0145401	0145408	30200401	30200408
8 - 36 UNF	H2		30200501	30200508	-	-
10 - 24 UNC	H2		0145501	0145508	30200701	30200708
	H3		0145601	0145608	30200801	30200808
10 - 32 UNF	H2		0145701	0145708	1714101	-
	H3		0145801	0145808	1714201	-
	H4		0145901	0145908	-	-
1/4 - 20 UNC	H2		0146001	30201008	30201001	0146008
	H3		0146101	0146108	30201101	30201108
1/4 - 28 UNF	H2		0146201	0146208	1714301	-
	H3		0146301	0146308	1714401	-
5/16 - 18 UNC	H3		0146401	0146408	30201201	30201208
	H4		0146501	0146508	30201301	30201308
5/16 - 24 UNF	H2		0146601	0146608	1714501	-
	H3		0146701	0146708	30201401	30201408
3/8 - 16 UNC	H3		0146801	0146808	30201501	30201508
	H4		0146901	0146908	30201601	30201608
3/8 - 24 UNF	H2		0147001	0147008	30201701	30201708
	H3		0147101	0147108	30201801	30201808
7/16 - 14 UNC	H3		0147201	0147208	30201901	30201908
	H4		0147301	0147308	30202101	30202108
7/16 - 20 UNF	H3		0147401	0147408	30202201	30202208
	H4		0147501	0147508	30202301	30202308
1/2 - 13 UNC	H3	4	0147601	30202408	30202401	0147608
	H4		0147701	0147708	30202501	30202508
1/2 - 20 UNF	H3		0147801	30202608	30202601	0147808
	H4		0147901	0147908	30202701	30202708
9/16 - 12 UNC	H3		30202901	30202908	30202801	30202808
	H4		30203201	30203208	30203101	30203108
9/16 - 18 UNF	H3		0148001	0148008	30203301	30203308
	H4		30203501	30203508	30203401	30203408

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

continued on next page **EXT**

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
302	☐	○	○			☐	☐	○									
SFM	25-80	20-50	20-45			20-45	20-45	8-20									

☐ good ☐ best





List 302

Spiral Fluted, Modified Bottom (2.5P-3P), Bottom (1.5P-2P)



Tap Size	Thread Limit	No. of Flutes	EDP Number			
			Bottom (1.5P - 2P)		Modified Bottom (2.5P - 3P)	
			S/O	V	S/O	V
5/8 - 11 UNC	H3	4	30203701	30203708	30203601	30203608
	H4		30203901	30203908	30203801	30203808
5/8 - 18 UNF	H3		0148101	0148108	30204101	30204108
	H4		30204301	30204308	30204201	30204208
3/4 - 10 UNC	H3		30204501	30204508	30204401	30204408
	H5		30204701	30204708	30204601	30204608
3/4 - 16 UNF	H3		30204901	30204908	30204801	30204808
	H4		0148201	0148208	30205101	30205108
7/8 - 9 UNC	H3		30205301	30205308	30205201	30205208
	H5		30205501	30205508	30205401	30205408
7/8 - 14 UNF	H3		30205701	30205708	30205601	30205608
	H4		0148301	0148308	30205901	30205908
1 - 8 UNC	H4		30206301	30206308	30206201	30206208
	H6		30206501	30206508	30206401	30206408
1 - 12 UNF	H4		30206701	30206708	30206601	30206608
	H6		30206901	30206908	30206801	30206808

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
302																	
SFM	25-80	20-50	20-45			20-45	20-45	8-20									

☐ good ☒ best





List 343STI

Spiral Fluted, Modified Bottom (2.5P-3P)



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Modified Bottom (2.5P - 3P)	
			S/O	V
M2 x 0.4	D2	2	34300101	34300108
M2.5 x 0.45	D2		34300201	34300208
M3 x 0.5	D2	3	34300301	34300308
M4 x 0.7	D3		34300401	34300408
M5 x 0.8	D3		34300501	34300508
M6 x 1.0	D3		34300601	34300608
M8 x 1.25	D3		34300701	34300708
M10 x 1.5	D4		34300801	34300808
M12 x 1.75	D4		34300901	34300908

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or V coatings as shown above.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Modified Bottom (2.5P - 3P)	
			S/O	V
M14 x 2.0	D5	4	34301001	34301008
M16 x 2.0	D5		34301101	34301108
M18 x 2.5	D5		34301201	34301208
M20 x 2.5	D5		34301301	34301308
M22 x 2.5	D5		34301401	34301408
M24 x 3.0	D6		34301501	34301508

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
343STI	☒	☐	☐			☒	☒	☐									
SFM	25-80	20-50	20-45			20-45	20-45	8-20									

☐ good ☒ best





List 13039 **NEW!**

Spiral Fluted, Modified Bottom (2.5P)



HSSE

V

BR

STI



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Modified Bottom (2.5P - 3P)	
			Bright	V
2 - 56 UNC	H2	2	1303900100	1303900108
4 - 40 UNC	H2		1303900200	1303900208
6 - 32 UNC	H2		1303900300	1303900308
8 - 32 UNC	H2		1303900400	1303900408
10 - 32 UNF	H2		1303900500	1303900508
1/4 - 20 UNC	H3		1303900600	1303900608
1/4 - 28 UNF	H3		1303900700	1303900708

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

HYT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Modified Bottom (2.5P - 3P)	
			Bright	V
5/16 - 18 UNC	H3	2	1303900800	1303900808
5/16 - 24 UNF	H3		1303900900	1303900908
3/8 - 16 UNC	H3		1303901000	1303901008
3/8 - 24 UNF	H3		1303901100	1303901108
7/16 - 20 UNF	H4		1303901200	1303901208
1/2 - 20 UNF	H4		1303901300	1303901308

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request.

Specify treatment at time of order.

HYT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
13039																	
SFM										40-80	40-65						

☐ good ☒ best





List S108

Spiral Fluted, Bottom (1.5P-2P)

HSS

BR

STI



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	
			Bright	
2 - 56 UNC	H2	2	8003000	
3 - 48 UNC	H2		10800100	
4 - 40 UNC	H2		8003600	
4 - 48 UNF	H2		10800200	
6 - 32 UNC	H2	3	8005400	
	H3		8005700	
6 - 40 UNF	H2		10800300	
8 - 32 UNC	H2		8006900	
	H3		8007200	
8 - 36 UNF	H2		10800400	
10 - 24 UNC	H2		8007800	
	H3		8008100	
10 - 32 UNF	H2		8008700	
	H3		8009000	
1/4 - 20 UNC	H2		8010900	
	H3		8011200	
1/4 - 28 UNF	H2		8011800	
	H3		8012100	
5/16 - 18 UNC	H3		8013000	
	H4		8013300	
5/16 - 24 UNF	H2	4	8013600	
	H3		8013700	
3/8 - 16 UNC	H3		8015400	
	H4		8015700	
3/8 - 24 UNF	H2		8015800	
	H3		8015900	
7/16 - 14 UNC	H3		8017000	
	H4		10800500	

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STI

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	
			Bright	
7/16 - 20 UNF	H3	3	8017400	
	H4		8017500	
1/2 - 13 UNC	H3		8018000	
	H4		10800600	
1/2 - 20 UNF	H3	4	8018400	
	H4		10800700	
9/16 - 12 UNC	H3		10800800	
	H4		10800900	
9/16 - 18 UNF	H3		10801000	
	H4		10801100	
5/8 - 11 UNC	H3		10801200	
	H4		10801300	
5/8 - 18 UNF	H3		10801400	
	H4		10801500	
3/4 - 10 UNC	H3		10801600	
	H5		10801700	
3/4 - 16 UNF	H3		10801800	
	H4		10801900	
7/8 - 9 UNC	H3		10802000	
	H5		10802100	
7/8 - 14 UNF	H3		10802200	
	H4		10802300	
1 - 8 UNC	H4		10802400	
	H6		10802500	
1 - 12 UNF	H4		10802600	
	H6		10802700	

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STI

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
S108	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good☒ best



List S109

Spiral Fluted, Modified Bottom (2.5P-3P)

HSS

BR

STI



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			Bright
M2 x 0.4	D2	2	10900100
M2.5 x 0.45	D2		10900200
M3 x 0.5	D2	3	10900300
M4 x 0.7	D3		10900400
M5 x 0.8	D3		10900500
M6 x 1.0	D3		10900600
M8 x 1.25	D3		10900700
M10 x 1.5	D4		10900800
M12 x 1.75	D4		10900900

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			Bright
M14 x 2.0	D5	4	10901000
M16 x 2.0	D5		10901100
M18 x 2.5	D5		10901200
M20 x 2.5	D5		10901300
M22 x 2.5	D5		10901400
M24 x 3.0	D6		10901500

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
S109	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 314Ti **NEW!**

Spiral Pointed, Plug (3.5P-4.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			V
2 - 56 UNC	H2	2	31440108
4 - 40 UNC	H2	3	31440208
6 - 32 UNC	H3		31440308
8 - 32 UNC	H3		31440408
10 - 32 UNF	H3		31440508

Packed: 1 pc.
Available V coating only.



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			V
1/4 - 28 UNF	H3	3	31440608
5/16 - 24 UNF	H3		31440708
3/4 - 24 UNF	H3		31440808
7/16 - 20 UNF	H4		31440908
1/2 - 20 UNF	H4		31441008

Packed: 1 pc.
Available V coating only.



Work Material																		
List No.	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
	1010 1018	1035 1045	1065			4140 4340												
314Ti				○				○				○	⊗	○	○			
SFM				15-30				8-20					8-15	8-15	15-35	10-20		

□ good □ best





List 314Ni **NEW!**

Spiral Pointed, Plug (3.5P-4.5P)



VC10

V

STI



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			V
2 - 56 UNC	H2	3	31440108
4 - 40 UNC	H2		31440208
6 - 32 UNC	H3		31440308
8 - 32 UNC	H3		31440408
10 - 32 UNF	H3		31440508

Packed: 1 pc.
Available V coating only.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			V
1/4 - 28 UNF	H3	3	31440608
5/16 - 24 UNF	H3		31440708
3/4 - 24 UNF	H3		31440808
7/16 - 20 UNF	H4		31440908
1/2 - 20 UNF	H4		31441008

Packed: 1 pc.
Available V coating only.

EXT

Work Material

List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
314Ni				4140 4340				☐				☒	☐	☐	☐		
SFM								8-20				8-15	8-15	15-35	10-20		

☐ good ☒ best



List 314

Spiral Pointed, Plug (4.5P-5.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4.5P - 5.5P)	
			S/O	V
2 - 56 UNC	H2	2	1714601	1714608
3 - 48 UNC	H2		31400101	31400108
4 - 40 UNC	H2		1714701	1714708
4 - 48 UNF	H2		31400201	31400208
6 - 32 UNC	H2	3	1714801	1714808
	H3		1714901	1714908
6 - 40 UNF	H2		31400301	31400308
8 - 32 UNC	H2		1715001	1715008
	H3		1715101	1715108
8 - 36 UNF	H2		31400401	31400408
10 - 24 UNC	H2		31400501	31400508
	H3		31400601	31400608
10 - 32 UNF	H2		1715201	1715208
	H3		1715301	1715308
1/4 - 28 UNC	H2		1715401	1715408
	H3		1715501	1715508
5/16 - 24 UNC	H3		1715601	1715608
1/4 - 20 UNC	H2		31400701	31400708
	H3		31400801	31400808
5/16 - 18 UNC	H2	4	31400901	31400908
	H3		31401001	31401008
5/16 - 24 UNF	H2		31401101	31401108
3/8 - 16 UNC	H3		31401201	31401208
	H4		31401301	31401308
3/8 - 24 UNF	H2		31401401	31401408
	H3		31401501	31401508
7/16 - 14 UNC	H3		31401601	31401608
	H4		31401701	31401708

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or V coatings as shown above.



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4.5P - 5.5P)	
			S/O	V
7/16 - 20 UNF	H3	3	31401801	31401808
	H4		31401901	31401908
1/2 - 13 UNC	H3		31402001	31402008
	H4		31402101	31402108
1/2 - 20 UNF	H3	4	31402201	31402208
	H4		31402301	31402308
9/16 - 12 UNC	H3		31402401	31402408
	H4		31402501	31402508
9/16 - 18 UNF	H3		31402601	31402608
	H4		31402701	31402708
5/8 - 11 UNC	H3		31402801	31402808
	H4		31402901	31402908
5/8 - 18 UNF	H3		31403001	31403008
	H4		31403101	31403108
3/4 - 10 UNC	H3		31403201	31403208
	H5		31403301	31403308
3/4 - 16 UNF	H3		31403401	31403408
	H4		31403501	31403508
7/8 - 9 UNC	H3		31403601	31403608
	H5		31403701	31403708
7/8 - 14 UNF	H3	4	31403801	31403808
	H4		31403901	31403908
1 - 8 UNC	H4		31404001	31404008
	H6		31404101	31404108
1 - 12 UNF	H4	4	31404201	31404208
	H6		31404301	31404308

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or V coatings as shown above.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
314				☐	☐		☐	☐				☐	☐	☐	☐		
SFM				15-30	10-25		12-45	8-20				8-15	8-15	15-35	10-20		

☐ good ☐ best





List 344STI

Spiral Pointed, Plug (4.5P-5.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4.5P - 5.5P)	
			S/O	V
M2 X 0.4	D2	2	34400101	34400108
M2.5 X 0.45	D2		34400201	34400208
M3 X 0.5	D2	3	34400301	34400308
M4 X 0.7	D3		34400401	34400408
M5 X 0.8	D3		34400501	34400508
M6 X 1.0	D3		34400601	34400608
M8 X 1.25	D3		34400701	34400708
M10 X 1.5	D4		34400801	34400808
M12 X 1.75	D4		34400901	34400908

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (4.5P - 5.5P)	
			S/O	V
M14 X 2.0	D5	4	34401001	34401008
M16 X 2.0	D5		34401101	34401108
M18 X 2.5	D5		34401201	34401208
M20 X 2.5	D5		34401301	34401308
M22 X 2.5	D5		34401401	34401408
M24 X 3.0	D6		34401501	34401508

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
344STI				☐	☐		☐	☐				☐	☐	☐	☐		
SFM				15-30	10-25		12-45	8-20				8-15	8-15	15-35	10-20		

☐ good ☒ best





List 301

Spiral Pointed, Plug (3.5P-4.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (3.5P - 4.5P)	
			S/O	V
2 - 56 UNC	H2	2	1712401	1712408
3 - 48 UNC	H2		30100101	30100108
4 - 40 UNC	H2		1712501	1712508
4 - 48 UNF	H2		30100201	30100208
6 - 32 UNC	H2	3	1712601	1712608
	H3		1712701	1712708
6 - 40 UNF	H3		30100301	30100308
8 - 32 UNC	H2		1712801	1712808
	H3		1712901	1712908
8 - 36 UNF	H2		30100401	30100408
10 - 24 UNC	H2		30100501	30100508
	H3		30100601	30100608
10 - 32 UNF	H2		1713001	1713008
	H3		1713101	1713108
1/4 - 20 UNC	H2		30100701	30100708
	H3		30100801	30100808
1/4 - 28 UNF	H2		1713201	1713208
	H3		1713301	1713308
5/16 - 18 UNC	H3		30100901	30100908
	H4		30101101	30101108
5/16 - 24 UNF	H2		30101201	30101208
	H3		1713401	1713408
3/8 - 16 UNC	H3		30101301	30101308
	H4		30101401	30101408
3/8 - 24 UNF	H2		30101501	30101508
	H3		30101601	30101608
7/16 - 14 UNC	H3		30101701	30101708
	H4		30101801	30101808

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or V coatings as shown above.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (3.5P - 4.5P)	
			S/O	V
7/16 - 20 UNF	H3	3	30101901	30101908
	H4		30102101	30102108
1/2 - 13 UNC	H3		30102201	30102208
	H4		30102301	30102308
1/2 - 20 UNF	H3		30102401	30102408
	H4		30102501	30102508
9/16 - 12 UNC	H3		30102601	30102608
	H4		30102701	30102708
9/16 - 18 UNF	H3		30102801	30102808
	H4		30102901	30102908
5/8 - 11 UNC	H3		30103101	30103108
	H4		30103201	30103208
5/8 - 18 UNF	H3		30103301	30103308
	H4		30103401	30103408
3/4 - 10 UNC	H3		30103501	30103508
	H5		30103601	30103608
3/4 - 16 UNF	H3		30103701	30103708
	H4		30103801	30103808
7/8 - 9 UNC	H3		30103901	30103908
	H5		30104101	30104108
7/8 - 14 UNF	H3		30104201	30104208
	H4		30104301	30104308
1 - 8 UNC	H4		30104401	30104408
	H6		30104501	30104508
1 - 12 UNF	H4		30104601	30104608
	H6		30104701	30104708

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
301	☒	☐	☐			☒	☒	☐									
SFM	25-80	20-50	20-45			20-45	20-45	8-20									

☐ good ☒ best





List 342STI

Spiral Pointed, Plug (3.5P-4P)



HSSE

V

S/O

STI



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (3.5P - 4.5P)	
			S/O	V
M2 x 0.4	D2	2	34200101	34200108
M2.5 x 0.45	D2		34200201	34200208
M3 x 0.5	D2	3	34200301	34200308
M4 x 0.7	D3		34200401	34200408
M5 x 0.8	D3		34200501	34200508
M6 x 1.0	D3		34200601	34200608
M8 x 1.25	D3		34200701	34200708
M10 x 1.5	D4		34200801	34200808

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (3.5P - 4.5P)	
			S/O	V
M12 x 1.75	D4	3	34200901	34200908
M14 x 2.0	D5		34201001	34201008
M16 x 2.0	D5		34201101	34201108
M18 x 2.5	D5		34201201	34201208
M20 x 2.5	D5		34201301	34201308
M22 x 2.5	D5	4	34201401	34201408
M24 x 3.0	D6		34201501	34201508

Packed: 1 pc.

EDP's listed above are stocked standard.

Available in Steam Oxide or V coatings as shown above.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
342STI	☒	☐	☐			☒	☒	☐									
SFM	25-80	20-50	20-45			20-45	20-45	8-20									

☐ good ☒ best





List 13036 NEW!

Spiral Pointed, Plug (3.5P - 4.5P)



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (3.5P - 4.5P)	
			Bright	V
2 - 56 UNC	H2	2	1103600100	1103600108
4 - 40 UNC	H2		1103600200	1103600208
6 - 32 UNC	H2	3	1103600300	1103600308
8 - 32 UNC	H3		1103600400	1103600408
10 - 32 UNF	H3		1103600500	1103600508
1/4 - 20 UNC	H3		1103600600	1103600608
1/4 - 28 UNF	H3		1103600700	1103600708

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Plug (3.5P - 4.5P)	
			Bright	V
5/16 - 18 UNC	H3	3	1103600800	1103600808
5/16 - 24 UNF	H3		1103600900	1103600908
3/8 - 16 UNC	H3		1103601000	1103601008
3/8 - 24 UNF	H3		1103601100	1103601108
7/16 - 20 UNF	H4		1103601200	1103601208
1/2 - 20 UNF	H4		1103601300	1103601308

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request.
Specify treatment at time of order.



Work Material																			
List No.	P					M			K	N		S		H					
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels					
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065																
13036										☐	☐								
SFM										40-80	40-65								

☐ good ☒ best





List 125

Spiral Pointed, Plug (3.5P-4.5P)

HSS

BR

STI



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			Bright
2 - 56 UNC	H2	2	7002600
3 - 48 UNC	H2		7003200
4 - 40 UNC	H1		1820400
	H2		1824000
4 - 48 UNF	H2		7004400
5 - 40 UNC	H2		7005000
6 - 32 UNC	H2		1824800
	H3		1830400
6 - 40 UNF	H2		7007100
8 - 32 UNC	H2		1825200
	H3		1830800
8 - 36 UNF	H2		7008600
10 - 24 UNC	H2		1825600
	H3		7009800
10 - 32 UNF	H2		1825800
	H3		7010700
1/4 - 20 UNC	H2	3	1826400
	H3		1832000
1/4 - 28 UNF	H2		1826600
	H3		1832200
5/16 - 18 UNC	H3		7014700
	H4		7015300
5/16 - 24 UNF	H2		7015900
	H3		7016200
3/8 - 16 UNC	H3		7017100
	H4		7017400
3/8 - 24 UNF	H2		7018000
	H3		7018300

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STI

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			Bright
7/16 - 14 UNC	H3	3	12500100
	H4		12500200
7/16 - 20 UNF	H3		12500300
	H4		12500400
1/2 - 13 UNC	H3		12500500
	H4		12500600
1/2 - 20 UNF	H3		12500700
	H4		12500800
9/16 - 12 UNC	H3		12500900
	H4		12501000
9/16 - 18 UNF	H3		12501100
	H4		12501200
5/8 - 11 UNC	H3		12501300
	H4		12501400
5/8 - 18 UNF	H3		12501500
	H4		12501600
3/4 - 10 UNC	H3	4	12501700
	H5		12501800
3/4 - 16 UNF	H3		12501900
	H4		12502000
7/8 - 9 UNC	H3		12502100
	H5		12502200
7/8 - 14 UNF	H3		12502300
	H4		12502400
1 - 8 UNC	H4		12502500
	H6		12502600
1 - 12 UNF	H4		12502700
	H6		12502800

Packed: 1 pc.
EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STI

Work Material

	P					M			K	N		S		H			
List No.	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High							6061	Casting						
	1010 1018	1035 1045	1065			4140 4340	300	400		17-4 PH	7075		Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
125	☐	☐	☐						☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 127

Spiral Pointed, Plug (3.5P-4P)

HSS

BR

STI



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			Bright
M2 x 0.4	D2	2	12700100
M2.5 x 0.45	D2		12700200
M3 x 0.5	D2		12700300
M4 x 0.7	D3		12700400
M5 x 0.8	D3		12700500
M6 x 1.0	D3	3	12700600
M8 x 1.25	D3		12700700
M10 x 1.5	D4		12700800

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Plug (3.5P - 4.5P)
			Bright
M12 x 1.75	D4	3	12700900
M14 x 2.0	D5		12701000
M16 x 2.0	D5		12701100
M18 x 2.5	D5		12701200
M20 x 2.5	D5		12701300
M22 x 2.5	D5		12701400
M24 x 3.0	D6	4	12701500

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
127	○	○	○						○	○	○						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 126

Straight Fluted, Plug (3.5P-4.5P), Bottom (1.5P-2P)

HSS

BR

STI



Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Bright	Bright
No.2 - 56 UNC	H2	3	6002700	6002600
No.3 - 48 UNC	H2		6003300	6003200
No.4 - 40 UNC	H1		6004600	6004500
	H2		1804100	1804000
No.4 - 48 UNF	H2		12600200	12600100
	H2		6006100	6006000
No.6 - 32 UNC	H2		6006700	6006600
	H3		1810500	1810400
No.6 - 40 UNF	H2		6007600	6007500
	H2		6008200	6008100
No.8 - 32 UNC	H3		1810900	1810800
	H2		12600400	12600300
No.10 - 24 UNC	H2	4	1805700	1805600
	H3		6010300	6010200
No.10 - 32 UNF	H2		1805900	1805800
	H3		1811500	1811400
1/4" - 20 UNC	H2		6013300	6013200
	H3		1812100	1812000
1/4" - 28 UNF	H2		1806700	1806600
	H3		6014500	6014400
5/16" - 18 UNC	H3		1812500	1812400
	H4		6015700	6015600
5/16" - 24 UNF	H2		12600600	12600500
	H3		6016600	6016500
3/8" - 16 UNC	H3		1812900	1812800
	H4		12600800	12600700
3/8" - 24 UNF	H2		6018400	6018300
	H3		6018700	6018600

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STI

Tap Size	Thread Limit	No. of Flutes	EDP Number	
			Bottom (1.5P - 2P)	Plug (3.5P - 4.5P)
			Bright	Bright
7/16" - 14 UNC	H3	4	6019600	1813200
	H4		6019900	6019800
7/16" - 20 UNF	H3		1813500	1813400
	H4		12601000	12600900
1/2" - 13 UNC	H3		6022000	1813600
	H4		12601200	12601100
1/2" - 20 UNF	H3		1813900	1813800
	H4		12601400	12601300
9/16" - 12 UNC	H3		12601600	12601500
	H4		12601800	12601700
9/16" - 18 UNF	H3		12602000	12601900
	H4		12602200	12602100
5/8" - 11 UNC	H3		12602400	12602300
	H4		12602600	12602500
5/8" - 18 UNF	H3		12602800	12602700
	H4		12603000	12602900
3/4" - 10 UNC	H3		12603200	12603100
	H5		12603400	12603300
3/4" - 16 UNF	H3		12603600	12603500
	H4		12603800	12603700
7/8" - 9 UNC	H3		12604000	12603900
	H5		12604200	12604100
7/8" - 14 UNF	H3		12604400	12604300
	H4		12604600	12604500
1" - 8 UNC	H4		12604800	12604700
	H6		12605000	12604900
1" - 12 UNF	H4		12605200	12605100
	H6		12605400	12605300

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STI

Work Material

List No.	P				M			K	N		S		H				
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
126	☐	☐	☐					☐	☐	☐							
SFM	25-80	20-50	20-45					25-75	40-80	40-65							

☐ good ☒ best





List 128

Straight Fluted, Modified Bottom (2.5P-3P)

HSS

BR

STI



Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			Bright
M2 x 0.4	D2	2	12800100
M2.5 x 0.45	D2		12800200
M3 x 0.5	D2	3	12800300
M4 x 0.7	D3		12800400
M5 x 0.8	D3		12800500
M6 x 1.0	D3		12800600
M8 x 1.25	D3		12800700
M10 x 1.5	D4		12800800

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

EXT

Tap Size	Thread Limit	No. of Flutes	EDP Number
			Modified Bottom (2.5P - 3P)
			Bright
M12 x 1.75	D4	3	12800900
M14 x 2.0	D5		12801000
M16 x 2.0	D5		12801100
M18 x 2.5	D5	4	12801200
M20 x 2.5	D5		12801300
M22 x 2.5	D5		12801400
M24 x 3.0	D6		12801500

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
128	☐	☐	☐	4140 4340					☐	☐	☐						
SFM	25-80	20-50	20-45						25-75	40-80	40-65						

☐ good ☒ best





List 308

NPT



Tap Size	No. of Flutes	EDP Number	
		NPT	
		S/O	TiN
1/16 - 27	4	1735001	1735005
1/8 - 27 (Sm. Shk)		1735201	1735205
1/8 - 27 (Lg. Shk)		1735101	1735105
1/4 - 18		1735301	1735305
3/8 - 18		1735401	1735405

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or TiN coatings as shown above.



Tap Size	No. of Flutes	EDP Number	
		NPT	
		S/O	TiN
1/2 - 14	4	1735501	1735505
3/4 - 14	5	1735601	1744805
1 - 11,1/2	4	1735701	1744905
	5	1735701	1744905

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or TiN coatings as shown above.



Troubleshooting

Problem	Causes	Solutions
Chipping	- Excessive Tapping Speed - Misalignment - Hole Size is Too Small - Poor Tapping Fluid	- Increase Tapping Speed to 15-18 SFM - Adjust and Use Radial Float Tapping Head - Check Hole Size - Use a Heavy Duty Lubricant
Poor Finish (Chatter Mark)	- Excessive Tapping Speed - Excessive Hook Angle - Poor Tapping Fluid	- Reduce Tapping Speed to 10-15 SFM - Adjust Hook Angle During Re grind - Use Cutting Oil or Tapping Lubricant
Stop Mark	- Excessive Tapping Speed - Poor Tapping Head - Poor Setup	- Reduce Tapping Speed to 10-15 SFM - Use Floating Tapping Head - Special Design Taps or Threadmill

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
308	○	○				☐	☐	☐									
SFM	15-40	10-25				10-25	10-25	8-12									

○ good □ best





List 318

NPTF



Tap Size	No. of Flutes	EDP Number	
		NPT	
		S/O	TiN
1/16 - 27	4	1737501	1737505
1/8 - 27 (Sm. Shk)		1737701	1737705
1/8 - 27 (Lg. Shk)		1737601	1737605
1/4 - 18		1737801	1737805
3/8 - 18		1737901	1737905

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or TiN coatings as shown above.

EXT

Tap Size	No. of Flutes	EDP Number	
		NPT	
		S/O	TiN
1/2 - 14	4	1738001	1738005
3/4 - 14	5	1738101	1739905
1 - 11, 1/2	4	1738201	1744605
	5		

Packed: 1 pc.
EDP's listed above are stocked standard.
Available in Steam Oxide or TiN coatings as shown above.

EXT

Troubleshooting

Problem	Causes	Solutions
Chipping	- Excessive Tapping Speed - Misalignment - Hole Size is Too Small - Poor Tapping Fluid	- Increase Tapping Speed to 15-18 SFM - Adjust and Use Radial Float Tapping Head - Check Hole Size - Use a Heavy Duty Lubricant
Poor Finish (Chatter Mark)	- Excessive Tapping Speed - Excessive Hook Angle - Poor Tapping Fluid	- Reduce Tapping Speed to 10-15 SFM - Adjust Hook Angle During Re grind - Use Cutting Oil or Tapping Lubricant
Stop Mark	- Excessive Tapping Speed - Poor Tapping Head - Poor Setup	- Reduce Tapping Speed to 10-15 SFM - Use Floating Tapping Head - Special Design Taps or Threadmill

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
318	☐	☐				☒	☒	☒									
SFM	15-40	10-25				10-25	10-25	8-12									

☐ good ☒ best





List 12053

NPT, Interrupted



HSSE

TiCN



Tap Size	No. of Flutes	EDP Number
		NPT, Interrupted
		TiCN
1/8 - 27 (Sm. Shk)	3	1205300108
1/8 - 27 (Lg. Shk)		1205300208
1/4 - 18		1205300308

Packed: 1 pc.
Available TiCN coating only.



Tap Size	No. of Flutes	EDP Number
		NPT, Interrupted
		TiCN
3/8 - 18	5	1205300408
1/2 - 14		1205300508
3/4 - 14		1205300608
1 - 11, 1/2		1205300708

Packed: 1 pc.
Available TiCN coating only.



List 12054

NPTF, Interrupted



HSSE

TiCN



Tap Size	No. of Flutes	EDP Number
		NPTF, Interrupted
		TiCN
1/8 - 27 (Sm. Shk)	3	1205400108
1/8 - 27 (Lg. Shk)		1205400208
1/4 - 18		1205400308

Packed: 1 pc.
Available TiCN coating only.



Tap Size	No. of Flutes	EDP Number
		NPTF, Interrupted
		TiCN
3/8 - 18	5	1205400408
1/2 - 14		1205400508
3/4 - 14		1205400608
1 - 11, 1/2		1205400708

Packed: 1 pc.
Available TiCN coating only.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
12053	☐	☒	☒	☒	☒	☐	☐	☐	☐					☐	☐		
12054	☐	☒	☒	☒	☒	☐	☐	☐	☐					☐	☐		
SFM	15-40	10-25	10-20	10-25	10-15	10-25	10-25	8-12	15-50					10-20	8-12		

☐ good ☒ best



List 328

NPT, ANPT



Tap Size	No. of Flutes	EDP Number
		NPT, ANPT
		Bright
1/8 - 27 (Lg. Shk)	4	1736000
1/4 - 18		1736100
3/8 - 18		1736200

Packed: 1 pc.
EDP's listed above are stocked standard,
other coatings available upon request.
Specify treatment at time of order.

EXT

Tap Size	No. of Flutes	EDP Number
		NPT, ANPT
		Bright
1/2 - 14	4	1736300
3/4 - 14	5	1736400

Packed: 1 pc.
EDP's listed above are stocked standard,
other coatings available upon request.
Specify treatment at time of order.

EXT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065			4140 4340											
328	☐	☐	☐	☒	☒	☐	☐	☐						☒	☐		
SFM	15-40	10-25	10-20	10-25	10-15	10-25	10-25	8-12						10-20	8-12		

☐ good ☒ best





List 108

NPT, ANPT



HSS	TiCN	TiN	S/O	BR
-----	------	-----	-----	----

Tap Size	No. of Flutes	EDP Number			
		NPT, ANPT			
		Bright	S/O	TiN	TiCN
1/16 - 27	4	1310000	1310001	1310005	1310008
1/8 - 27 (Sm. Shk)		1310200	1310201	1310205	1310208
1/8 - 27 (Lg. Shk)		1310100	1310101	1310105	1310108
1/4 - 18		1310300	1310301	1310305	1310308
3/8 - 18		1310400	1310401	1310405	1310408
1/2 - 14		1310500	1310501	1310505	1310508

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Tap Size	No. of Flutes	EDP Number			
		NPT, ANPT			
		Bright	S/O	TiN	TiCN
3/4 - 14	5	1310600	1310601	1310605	1310608
1 - 11, 1/2		1310700	1310701	1310705	1310708
1, 1/4 - 11, 1/2	7	1310800	1310801	-	1310808
1, 1/2 - 11, 1/2		1310900	1310901	-	1310908
2 - 11, 1/2		1311000	1311001	-	1311008

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

List 108AL

NPT, For Aluminum

HSS	BR
-----	----



Tap Size	No. of Flutes	EDP Number	
		NPT	
		Bright	
1/8 - 27 (Lg. Shk)	4	1311100	
1/4 - 18		1311200	
3/8 - 18		1311400	
1/2 - 14		1311800	

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Tap Size	No. of Flutes	EDP Number	
		NPT	
		Bright	
3/4 - 14	5	1311500	
1 - 11, 1/2		1311600	

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065	4140 4340													
108	☐	☐	☐						☐	☐	☐						
108AL										☒	☒						
SFM	15-40	10-25	10-20						15-50	15-40	20-35						

☐ good ☒ best





List 118

NPTF

HSS	TiCN	TiN	S/O	BR
-----	------	-----	-----	----



Tap Size	No. of Flutes	EDP Number			
		NPTF			
		Bright	S/O	TiN	TiCN
1/16 - 27	4	1312500	1312501	1312505	1312508
1/8 - 27 (Sm. Shk)		1312700	1312701	1312705	1312708
1/8 - 27 (Lg. Shk)		1312600	1312601	1312605	1312608
1/4 - 18		1312800	1312801	1312805	1312808
3/8 - 18		1312900	1312901	1312905	1312908
1/2 - 14		1313000	1313001	1313005	1313008

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Tap Size	No. of Flutes	EDP Number			
		NPTF			
		Bright	S/O	TiN	TiCN
3/4 - 14	5	1313100	1313101	1313105	1313108
1 - 11,1/2		1313200	1313201	—	1313208
1,1/4 - 11,1/2		1313300	1313301	—	1313308
1,1/2 - 11,1/2	7	1313400	1313401	—	1313408
2 - 11,1/2		1313500	1313501	—	1313508

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
118	☐	☐	☐						☐	☐	☐						
SFM	15-40	10-25	10-20						15-50	15-40	20-35						

☐ good ☒ best





GENERAL PURPOSE

List 108G

Interrupted Thread, NPT, NPTF, ANPT

HSS	TiCN	S/O	BR
-----	------	-----	----



Tap Size	No. of Flutes	EDP Number					
		NPT, ANPT, Interrupted Thread			NPTF, Interrupted Thread		
		Bright	S/O	TiCN	Bright	S/O	TiCN
1/8 - 27 (Sm. Shk)	5	1315200	1315201	1315208	3310500	3310501	3310508
1/8 - 27 (Lg. Shk)		1315100	1315101	1315108	3310100	3310101	3310108
1/4 - 18		1315300	1315301	1315308	3310900	3310901	3310908
3/8 - 18		1315400	1315401	1315408	1311300	1311301	1311308
1/2 - 14		1315500	1315501	1315508	1311700	1311701	1311708
3/4 - 14		1315600	1315601	1315608	1312100	1312101	1312108
1 - 11, 1/2		1315700	1315701	1315708	3312500	3312501	3312508
1, 1/4 - 11, 1/2	7	1315800	1315801	1315808	3312900	3312901	3312908
1, 1/2 - 11, 1/2		1315900	1315901	1315908	-	-	-
2 - 11, 1/2		1316000	1316001	-	-	-	-

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.



List S125

Short Projection, NPT, NPTF

HSS	TiCN	S/O	BR	15°
-----	------	-----	----	-----



Tap Size	No. of Flutes	Projection	EDP Number					
			NPT, ANPT, Interrupted Thread			NPTF, Interrupted Thread		
			Bright	S/O	TiCN	Bright	S/O	TiCN
1/8 - 27 (Lg. Shk)	4	0.2344	1250500	1250501	1250508	1250600	1250601	1250608
1/4 - 18		0.3750	1251300	1251301	1251308	1251400	1251401	1251408
3/8 - 18		0.3750	1251700	1251701	1251708	1251800	1251801	1251808
1/2 - 14		0.4687	1252100	1252101	1252108	1252200	1252201	1252208
3/4 - 14	5	0.4531	1252500	1252501	1252508	1252600	1252601	1252608
1 - 11, 1/2		0.5781	1252900	1252901	1252908	1253000	1253001	1253008

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.



Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High							6061	Casting	Inconel	6Al4V				
	1010 1018	1035 1045	1065	4140 4340		300	400	17-4 PH		7075			(30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
108G	☐	☐	☐						☐	☐	☐						
S125	☐	☐	☐						☐	☐	☐						
SFM	15-40	10-25	10-20						15-50	15-40	20-35						

☐ good ☒ best





List 12006

Special Short Projection, NPTF

HSS

BR



Tap Size	No. of Flutes	Projection	EDP Number
			NPTF, Short Projection
			Bright
1/8 - 27 (Lg. Shk)	4	0.204	1200600100
		0.167	1200600600
1/4 - 18		0.306	1200600200
		0.251	1200600700
3/8 - 18		0.306	1200600300
		0.251	1200600800

Packed: 1 pc.
Available Bright finish only.

STT

Tap Size	No. of Flutes	Projection	EDP Number	
			NPTF, Short Projection	
			Bright	
1/2 - 14	4	0.393	1200600400	
		0.322	1200600900	
3/4 - 14	5	0.393	1200600500	
		0.322	1200601000	

Packed: 1 pc.
Available Bright finish only.

STT

List 12007

NPT

HSS

BR



Tap Size	No. of Flutes	EDP Number	
		NPT	
		Bright	
1/8 - 27 (Lg. Shk)	4	1200700200	
1/4 - 18		1200700400	
3/8 - 18		1200700500	

Packed: 1 pc.
Available Bright finish only.

STT

Tap Size	No. of Flutes	EDP Number	
		NPT	
		Bright	
1/2 - 14	4	1200700600	
3/4 - 14	5	1200700700	

Packed: 1 pc.
Available Bright finish only.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
12006	☐	☐	☐						☐	☐	☐						
12007	☐	☐	☐						☐	☐	☐						
SFM	15-40	10-25	10-20						15-50	15-40	20-35						

☐ good ☒ best





List 109

NPS, NPSF

HSS

S/O

BR



Tap Size	No. of Flutes	EDP Number			
		NPS		NPSF	
		Bright	S/O	Bright	S/O
1/8 - 27 (Sm. Shk)	4	1330200	1330201	1332700	1332701
1/8 - 27 (Lg. Shk)		1330100	1330101	1332600	1332601
1/4 - 18		1330300	1330301	1332800	1332801
3/8 - 18		1330400	1330401	1332900	1332901
1/2 - 14	5	1330500	1330501	1333000	1333001
3/4 - 14		1330600	1330601	1333100	1333101
1 - 11, 1/2		1330700	1330701	1333200	1333201

Packed: 1 pc.

EDP's listed above are stocked standard, other coatings available upon request. Specify treatment at time of order.

STT

Work Material																	
List No.	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels 4140 4340	Die Steels	Stainless Steels			Cast Iron	Aluminum		Nickel Alloy Inconel	Titanium 6Al4V (30 HRC)	Hardened Steels			
	Low	Med.	High			300	400	17-4 PH		6061 7075	Casting			~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
	1010 1018	1035 1045	1065														
109	☐	☐	☐						☐	☐	☐						
SFM	15-40	10-25	10-20						15-50	15-40	20-35						

☐ good ☒ best





List 134

Solid Round Dies, Special Alloy Tool Steel

HSS

BR



Size	Major Diameter	Outside Diameter	Thickness	EDP Number
0 - 80 UNF	0.060	5/8"	1/4"	2723000
1 - 72 UNF	0.073			2723300
2 - 56 UNC	0.086			2723400
2 - 64 UNF				2723500
3 - 48 UNC	0.099			2723600
3 - 56 UNF				2723700

Packed: 1 pc.
Available Bright finish only.

STT

Size	Major Diameter	Outside Diameter	Thickness	EDP Number
4 - 40 UNC	0.112	5/8"	1/4"	2724000
4 - 48 UNF				2724100
5 - 40 UNC	0.125			2724200
6 - 32 UNC	0.138			2724400
6 - 40 UNF				2724600
8 - 32 UNC	0.164			2724700

Packed: 1 pc.
Available Bright finish only.

STT

List 134

Adjustable Round Split Dies, Special Alloy Tool Steel

HSS

BR



Size	Major Diameter	Outside Diameter	Thickness	EDP Number
0 - 80 UNF	0.0600	13/16	1/4	2726000
1/16 - 64 UNC	0.0625	13/16	1/4	2700100
1 - 64 UNC	0.0730	13/16	1/4	2726200
1 - 72 UNF		13/16	1/4	2726300
2 - 56 UNC	0.0860	13/16	1/4	2726400
2 - 64 UNF		13/16	1/4	2726500
3/32 - 48 UNC	0.0937	13/16	1/4	2700200
3 - 48 UNC	0.0990	13/16	1/4	2726600
3 - 56 UNF		13/16	1/4	2726700
4 - 36 UNS	0.1120	13/16	1/4	2726900
4 - 40 UNC		13/16	1/4	2727000
4 - 48 UNF		13/16	1/4	2727100
5 - 40 UNC	0.1250	13/16	1/4	2727200
5 - 44 UNF		13/16	1/4	2727300
1/8 - 40 UNC	0.1250	13/16	1/4	2700300
6 - 32 UNC	0.1380	13/16	1/4	2727400
6 - 40 UNF		1	3/8	2728800
5/32 - 32 UNC	0.1562	13/16	1/4	2727600
5/32 - 36 UNF		13/16	1/4	2700400
8 - 32 UNC	0.1640	13/16	1/4	2700500
8 - 36 UNF		1	3/8	2727700
3/16 - 24 UNC	0.1875	13/16	1/4	2729100
3/16 - 32 UNF		13/16	1/4	2727800
10 - 24 UNC		1	3/8	2700600
		1	3/8	2702400
		13/16	1/4	2700700
		1	3/8	2702500
		13/16	1/4	2728000
		1	3/8	2729400

Packed: 1 pc.
Available Bright finish only.

STT

Size	Major Diameter	Outside Diameter	Thickness	EDP Number
10 - 32 UNF	0.1900	13/16	1/4	2728200
		1	3/8	2729600
12 - 24 UNC	0.2160	13/16	1/4	2728300
12 - 28 UNF		1	3/8	2729700
7/32 - 24 UNC	0.2187	13/16	1/4	2728400
		13/16	1/4	2700800
1/4 - 20 UNC	0.2500	13/16	1/4	2701000
		1	3/8	2702800
		1 - 5/16	7/16	2704100
		1 - 1/2	1/2	2706100
		2	5/8	2710000
		1	3/8	2702900
1/4 - 24 UNF	0.2500	13/16	1/4	2701200
		1	3/8	2703000
		1 - 5/16	7/16	2704300
1/4 - 28 UNF	0.2500	1 - 1/2	1/2	2706300
		2	5/8	2710100
		1	3/8	2703100
1/4 - 32 UNS*	0.3125	13/16	1/4	2701400
		1	3/8	2703200
		1 - 5/16	7/16	2704500
		1 - 1/2	1/2	2706500
		2	5/8	2710400
		13/16	1/4	2701500
		1	3/8	2703300
		1 - 5/16	7/16	2704600
		1 - 1/2	1/2	2706600
		2	5/8	2710500
		1	3/8	2703400
5/16 - 18 UNC		13/16	1/4	2701400
		1	3/8	2703200
		1 - 5/16	7/16	2704500
		1 - 1/2	1/2	2706500
		2	5/8	2710400
5/16 - 24 UNF		13/16	1/4	2701500
		1	3/8	2703300
		1 - 5/16	7/16	2704600
		1 - 1/2	1/2	2706600
		2	5/8	2710500
5/16 - 32 UNS*		1	3/8	2703400

Packed: 1 pc.
Available Bright finish only.

continued on next page

STT





List 134

HSS

BR

Adjustable Round Split Dies, Special Alloy Tool Steel



Size	Major Diameter	Outside Diameter	Thickness	EDP Number		
3/8 - 16 UNC	0.3750	1	3/8	2703500		
		1 - 5/16	7/16	2704800		
		1 - 1/2	1/2	2706800		
		2	5/8	2710700		
3/8 - 24 UNF		1	3/8	2703600		
		1 - 5/16	7/16	2704900		
		1 - 1/2	1/2	2706900		
		2	5/8	2710800		
7/16 - 14 UNC	0.4375	1	3/8	2703700		
		1 - 5/16	7/16	2705000		
		1 - 1/2	1/2	2707000		
		2	5/8	2710900		
7/16 - 20 UNF		1	3/8	2703800		
		1 - 5/16	7/16	2705100		
		1 - 1/2	1/2	2707100		
		2	5/8	2711000		
1/2 - 13 UNC	0.5000	1 - 5/16	7/16	2705200		
		1 - 1/2	1/2	2707200		
		2	5/8	2711100		
		1 - 5/16	7/16	2705300		
1/2 - 20 UNF		1 - 1/2	1/2	2707300		
		2	5/8	2711200		
		9/16 - 12 UNC	0.5625	1 - 1/2	1/2	2707400
				2	5/8	2711300
9/16 - 18 UNF	1 - 1/2			1/2	2707500	
	2			5/8	2711400	
	5/8 - 11 UNC	0.6250		1 - 1/2	1/2	2707600
				2	5/8	2711500
2 - 1/2			3/4	2713400		

Packed: 1 pc.
Available Bright finish only.

STT

Size	Major Diameter	Outside Diameter	Thickness	EDP Number	
5/8 - 18 UNF	0.6250	1 - 1/2 2	1/2 5/8	2707700 2711600	
11/16 - 11 UNS	0.06875	2	5/8	2711700	
11/16 - 16 UNS		2	5/8	2711800	
3/4 - 10 UNC	0.7500	2 2 - 1/2	5/8 3/4	2712000 2713800	
3/4 - 16 UNF		2 2 - 1/2	5/8 3/4	2712100 2713900	
		0.8750	2 2 - 1/2	5/8 3/4	2712200 2714000
7/8 - 14 UNF			2 2 - 1/2	5/8 3/4	2712300 2714100
	1.0000		2 - 1/2 3	3/4 1	2714200 2715000
1 - 12 UNF			2 - 1/2 3	3/4 1	2714300 2715100
		1 - 14 UNS	2 - 1/2 3	3/4 1	2714400 2715200
1.1250			1,1/8 - 7 UNC 1,1/8 - 12 UNF	3 3	1 1
		1.2500	1,1/4 - 7 UNC 1,1/4 - 12 UNF	3 3	1 1
1.3750			1,3/8 - 6 UNC 1,3/8 - 12 UNF	3 3	1 1
	1.5000	1,1/2 - 6 UNC 1,1/2 - 12 UNF	3 3	1 1	2715900 2716000

Packed: 1 pc.
Available Bright finish only.

STT



List 134P

Adjustable Round Split Dies, Taper Pipe

HSS

BR



Size	Outside Diameter	Thickness	EDP Number
1/8 - 27	1	3/8	2734000
	1-1/2	1/2	2734100
1/4 - 18	1-1/2	1/2	2734200
	2	5/8	2734400

Packed: 1 pc.
Available Bright finish only.



Size	Outside Diameter	Thickness	EDP Number
3/8 - 18	1-1/2	1/2	2734300
	2	5/8	2734500
1/2 - 14	2	5/8	2734600

Packed: 1 pc.
Available Bright finish only.





List 135

Adjustable Round Split Dies

HSS

BR



Size	Outside Diameter	Thickness	EDP Number
M2 X 0.4	20	7	46011
M2.3 X 0.4	20	7	46015
M2.5 X 0.45	20	7	46017
M2.6 X 0.45	20	7	46020
M3 X 0.5	20	7	46023
M3.5 X 0.6	25	9	46064
M4 X 0.7	20	7	46029
M4 X 0.7	25	9	46068
M4.5 X 0.75	25	9	46070
M5 X 0.8	20	7	46034
M5 X 0.8	25	9	46074
M6 X 1	20	7	46038
M6 X 1.0	25	9	46079
M6 X 0.75	25	9	46080
M7 X 1.0	25	9	46082
M8 X 1.25	25	9	46085
M8 X 1.0	25	9	46086
M8 X 0.75	25	9	46087
M9 X 1.25	25	9	46089
M10 X 1.5	25	9	46093
M10 X 1.5	38	13	46142
M10 X 1.25	38	13	46143
M10 X 1.0	38	13	46144
M11 X 1.5	38	13	46147

Packed: 1 pc.
Available Bright finish only.

STT

Size	Outside Diameter	Thickness	EDP Number
M12 X 1.75	25	9	1351120
M12 X 1.75	38	13	46152
M12 X 1.5	38	13	46153
M12 X 1.25	38	13	46154
M12 X 1.0	38	13	46155
M14 X 2.0	38	13	46163
M14 X 1.5	38	13	46164
M14 X 1.25	38	13	46165
M16 X 2.0	50	16	46227
M16 X 1.5	50	16	46228
M16 X 1.0	50	16	46230
M18 X 2.5	50	16	46239
M18 X 1.5	50	16	46241
M20 X 2.5	50	16	46251
M20 X 1.5	50	16	46253
M22 X 2.5	50	16	46263
M22 X 1.5	50	16	46265
M24 X 3.0	50	16	46276
M24 X 1.5	50	16	46279
M26 X 3.0	57	20	46329
M26 X 1.5	57	20	46331
M28 X 1.5	57	20	46341
M30 X 3.5	57	20	46344
M30 X 1.5	57	20	46347

Packed: 1 pc.
Available Bright finish only.

STT





List 15001

Go/NoGo, Class 2B

HSS

BR



Gage Size	Class of Fit	Gage Length (Inch)		Pitch Diameter (Inch)		EDP Number	
		Go	NoGo	Go	NoGo	Short Form	Long Form*
2 - 56 UNC	2B	1/4	3/16	0.0744	0.0772	1500100100	1500100100LF
2 - 64 UNF	2B	1/4	3/16	0.0759	0.0786	1500100200	1500100200LF
3 - 48 UNC	2B	1/4	3/16	0.0855	0.0885	1500100300	1500100300LF
3 - 56 UNF	2B	1/4	3/16	0.0874	0.0902	1500100400	1500100400LF
4 - 40 UNC	2B	5/16	7/32	0.0958	0.0991	1500100500	1500100500LF
4 - 48 UNF	2B	5/16	7/32	0.0985	0.1016	1500100600	1500100600LF
5 - 40 UNC	2B	5/16	7/32	0.1088	0.1121	1500100700	1500100700LF
5 - 44 UNF	2B	5/16	7/32	0.1102	0.1134	1500100800	1500100800LF
6 - 32 UNC	2B	5/16	7/32	0.1177	0.1214	1500100900	1500100900LF
6 - 40 UNF	2B	5/16	7/32	0.1218	0.1252	1500101000	1500101000LF
8 - 32 UNC	2B	13/32	9/32	0.1437	0.1475	1500101100	1500101100LF
8 - 36 UNF	2B	13/32	9/32	0.146	0.1496	1500101200	1500101200LF
10 - 24 UNC	2B	13/32	9/32	0.1629	0.1672	1500101300	1500101300LF
10 - 32 UNF	2B	13/32	9/32	0.1697	0.1736	1500101400	1500101400LF
12 - 24 UNC	2B	13/32	9/32	0.1889	0.1933	1500101500	1500101500LF
12 - 28 UNF	2B	13/32	9/32	0.1928	0.197	1500101600	1500101600LF
1/4 - 20 UNC	2B	1/2	5/16	0.2175	0.2224	1500101700	1500101700LF
1/4 - 28 UNF	2B	1/2	5/16	0.2268	0.2311	1500101800	1500101800LF
5/16 - 18 UNC	2B	1/2	5/16	0.2764	0.2817	1500101900	1500101900LF
5/16 - 24 UNF	2B	1/2	5/16	0.2854	0.2902	1500102000	1500102000LF
3/8 - 16 UNC	2B	3/4	3/8	0.3344	0.3401	1500102100	1500102100LF
3/8 - 24 UNF	2B	3/4	3/8	0.3479	0.3528	1500102200	1500102200LF
7/16 - 14 UNC	2B	3/4	3/8	0.3911	0.3972	1500102300	1500102300LF
7/16 - 20 UNF	2B	3/4	3/8	0.405	0.4104	1500102400	1500102400LF
1/2 - 13 UNC	2B	3/4	3/8	0.45	0.4565	1500102500	1500102500LF
1/2 - 20 UNF	2B	3/4	3/8	0.4675	0.4731	1500102600	1500102600LF
9/16 - 12 UNC	2B	7/8	1/2	0.5084	0.5152	1500102700	1500102700LF
9/16 - 18 UNF	2B	7/8	1/2	0.5264	0.5323	1500102800	1500102800LF
5/8 - 11 UNC	2B	7/8	1/2	0.566	0.5732	1500102900	1500102900LF
5/8 - 18 UNF	2B	7/8	1/2	0.5889	0.5949	1500103000	1500103000LF
3/4 - 10 UNC	2B	7/8	1/2	0.685	0.6927	1500103100	1500103100LF
3/4 - 16 UNF	2B	7/8	1/2	0.7094	0.7159	1500103200	1500103200LF
7/8 - 9 UNC	2B	1	5/8	0.8028	0.811	1500103300	1500103300LF
7/8 - 14 UNF	2B	1	5/8	0.8286	0.8356	1500103400	1500103400LF
1 - 8 UNC	2B	1	5/8	0.9188	0.9276	1500103500	1500103500LF
1 - 12 UNF	2B	1	5/8	0.9459	0.9535	1500103600	1500103600LF
1 - 14 UNS	2B	1	5/8	0.9536	0.9609	1500103700	1500103700LF
1,1/8 - 7 UNC	2B	1	5/8	1.0322	1.0416	1500103800	1500103800LF
1,1/8 - 12 UNF	2B	1	5/8	1.0709	1.0787	1500103900	1500103900LF
1,1/4 - 7 UNC	2B	1 1/4	3/4	1.1572	1.1668	1500104000	1500104000LF
1,1/4 - 12 UNF	2B	1	3/4	1.1959	1.2039	1500104100	1500104100LF
1,3/8 - 6 UNC	2B	1 1/4	3/4	1.2667	1.2771	1500104200	1500104200LF
1,3/8 - 12 UNF	2B	1	3/4	1.3209	1.3291	1500104300	1500104300LF
1,1/2 - 6 UNC	2B	1 1/4	3/4	1.3917	1.4022	1500104400	1500104400LF
1,1/2 - 12 UNF	2B	1	3/4	1.4459	1.4542	1500104500	1500104500LF

Packed: 1 pc.

Available Bright finish only.

OSG Inch Thread Plug Gages are manufactured to Class X tolerances per ANSI B1.2 (Unified Inch Screw Threads).

OSG Thread Gages are made from High Speed Steel (HSS) to 64 HRC.

Short Form Certificates of Conformance are available with gages for no charge.

*Long Form Certificates available upon request.





List 15002

Go/NoGo, Class 6H

HSS

BR



Gage Size	Class of Fit	Gage Length (mm)		Pitch Diameter (mm)		EDP Number	
		Go	NoGo	Go	NoGo	Short Form	Long Form*
M3 x 0.5	6H	7.9	5.6	2.675	2.775	1500200100	1500200100LF
M3.5 x 0.6	6H	7.9	5.6	3.11	3.222	1500200200	1500200200LF
M4 x 0.7	6H	10.3	7.1	3.545	3.663	1500200300	1500200300LF
M5 x 0.8	6H	10.3	7.1	4.48	4.605	1500200400	1500200400LF
M6 x 0.75	6H	12.7	7.9	5.513	5.645	1500200500	1500200500LF
M6 x 1	6H	12.7	7.9	5.35	5.5	1500200600	1500200600LF
M7 x 1	6H	12.7	7.9	6.35	6.5	1500200700	1500200700LF
M8 x 1	6H	12.7	7.9	7.35	7.5	1500200800	1500200800LF
M8 x 1.25	6H	12.7	7.9	7.188	7.348	1500200900	1500200900LF
M10 x 1	6H	19	9.5	9.35	9.5	1500201000	1500201000LF
M10 x 1.25	6H	19	9.5	9.188	9.348	1500201100	1500201100LF
M10 x 1.5	6H	19	9.5	9.026	9.206	1500201200	1500201200LF
M12 x 1.25	6H	19	9.5	11.188	11.368	1500201300	1500201300LF
M12 x 1.5	6H	19	9.5	11.026	11.216	1500201400	1500201400LF
M12 x 1.75	6H	19	9.5	10.863	11.063	1500201500	1500201500LF
M14 x 1.5	6H	22.2	12.7	13.026	13.216	1500201600	1500201600LF
M14 x 2	6H	22.2	12.7	12.701	12.913	1500201700	1500201700LF
M16 x 1.5	6H	22.2	12.7	15.026	15.216	1500201800	1500201800LF
M16 x 2	6H	22.2	12.7	14.701	14.913	1500201900	1500201900LF
M18 x 1.5	6H	22.2	12.7	17.026	17.216	1500202000	1500202000LF
M18 x 2.5	6H	22.2	12.7	16.376	16.6	1500202100	1500202100LF
M20 x 1.5	6H	22.2	12.7	19.026	19.216	1500202200	1500202200LF
M20 x 2.5	6H	22.2	12.7	18.376	18.6	1500202300	1500202300LF
M22 x 1.5	6H	25.4	15.9	21.026	21.216	1500202400	1500202400LF
M22 x 2.5	6H	25.4	15.9	20.376	20.6	1500202500	1500202500LF
M24 x 1.5	6H	25.4	15.9	23.026	23.226	1500202600	1500202600LF
M24 x 2	6H	25.4	15.9	22.701	22.925	1500202700	1500202700LF
M24 x 3	6H	25.4	15.9	22.051	22.316	1500202800	1500202800LF

Packed: 1 pc.

Available Bright finish only.

OSG Metric Thread Plug Gages are manufactured to Class X tolerances per ANSI B1.16M (Metric M Series Screw Threads).

OSG Thread Gages are made from High Speed Steel (HSS) to 62/64 HRC.

Short Form Certificates of Conformance are available with gages for no charge.

***Long Form Certificates available upon request.**



THREADING

Technical





Tap and Screw Thread Terminology

Allowance: The minimum clearance or maximum interference which is intended between mating parts.

Angle of Thread: The angle included between the flanks of a thread measured in an axial plane.

Back Taper: A slight taper on the threaded portion of the tap, making the pitch diameter near the shank smaller than that at the chamfer.

Basic: The theoretical or nominal standard size from which all variations are made.

Chamfer: The tapered and relieved cutting teeth at the front end of the threaded section. Common types of chamfer are taper, 8 to 10 threads long, plug, 3 to 5 threads, semi (or modified) bottom = 2.5 - 3 threads and bottoming, 1-1/2 threads.

Crest: The top surface joining the two sides or flanks of a thread.

Cutting Face: The leading side of the land.

Flute: The longitudinal channels formed on a tap to create cutting edges on the thread profile.

Heel: The following side of the land.

Height of Thread: In profile, distance between crest and bottom section of thread measured to the axis.

Hook Face: A concave cutting face of the land. This may be varied for different materials and conditions.

Interrupted Thread: Alternate teeth are removed in the thread helix on a tap having an odd number of flutes.

Land: Threaded sections between the flutes of a tap.

Lead of Thread: The distance a screw thread advances axially in one turn.

Major Diameter: The largest diameter of the screw or nut on a straight screw thread.

Minor Diameter: The smallest diameter of the screw or nut on a straight screw thread.

Neck: The reduced diameter, on some taps, between the threaded portion and the shank.

Pitch: The distance from a point on one thread to a corresponding point on the next thread, measured parallel to the axis.

Pitch Diameter: On a straight screw thread, the diameter of an

imaginary cylinder where the width of the thread and the width of the space between threads is equal.

Point Diameter: The diameter at the leading end of the chamfered portion.

Radial: The straight face of a land, the plane of which passes through the axis of the tap.

Rake: The angle of the cutting face of the land in relation to an axial plane intersecting the cutting face at the major diameter.

Relief: The removal of metal behind the cutting edge to provide clearance between the part being threaded and a portion of the threaded land. Also, see back taper.

Chamfer Relief: The gradual decrease in land height from cutting edge to heel on the chamfered portion of the tap land to provide radial clearance for the cutting edge.

Con-eccentric Relief: Radial relief in the thread form starting back of a concentric margin.

Eccentric Thread Relief: Radial relief in the thread form starting at the cutting edge and continuing to the heel.

Root: The bottom surface joining the flanks of two adjacent threads.

Side or Flank Thread: The surface of the thread which connects the crest to the root.

Shank: The portion of the tap by which it is held.

Spiral Point: An oblique cutting edge ground into the lands to provide a shear cutting action on the first few threads.

Square: The squared end of the tap shank by which the tap is driven.

Thread: The helical formed portion of the tap which produces the pitch in a pre-existing hole.

Thread Lead Angle: The angle made by the helix of the thread at the pitch diameter, with a plane perpendicular to the axis.

Threads per Inch: The number of threads in one inch of length.

Thread:

Single: A thread in which lead is equal to pitch.

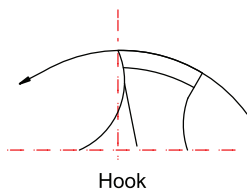
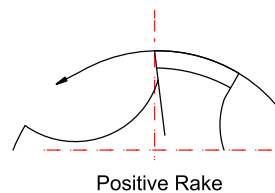
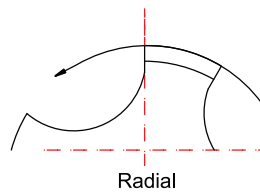
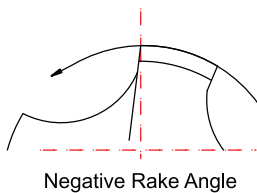
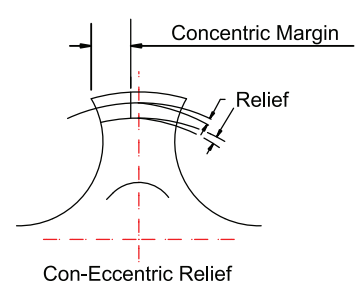
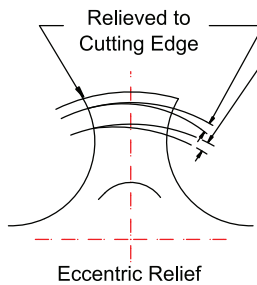
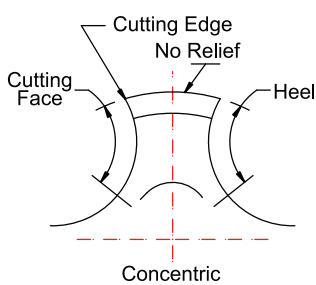
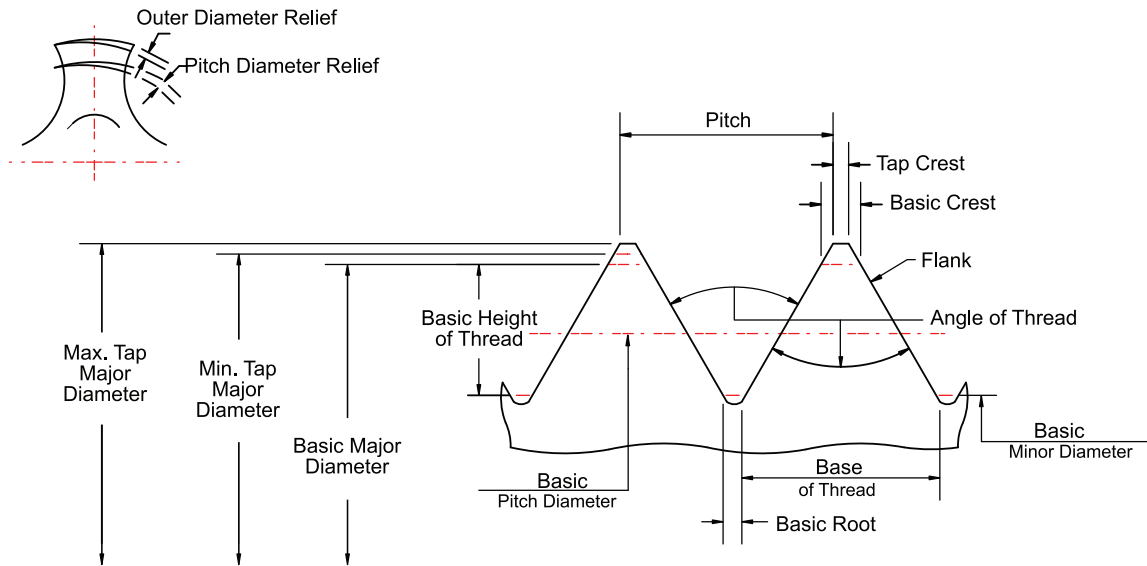
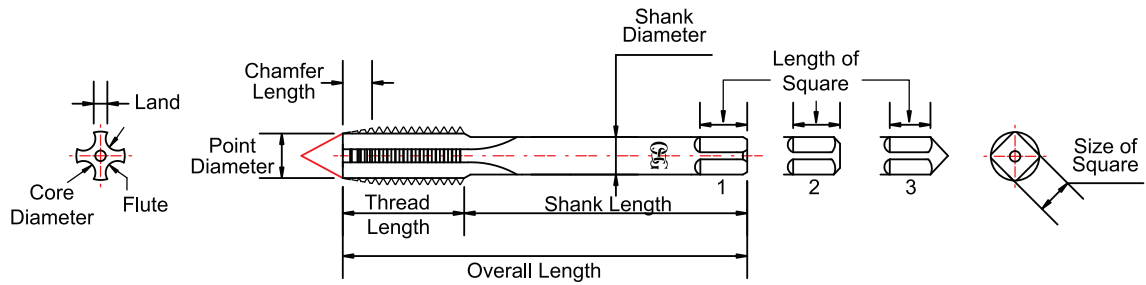
Double: A thread in which lead is equal to twice the pitch.

Triple: A thread in which lead is equal to triple the pitch.





Illustration of Tap Terms





Tapping Speed Guide

SFM to RPM Conversion charts

Surface Footage	Conversion Table - Surface Feet Per Minute (SFM) to Revolutions Per Minute (RPM) - Inch														
	5	10	15	20	25	30	40	50	60	70	80	90	100	125	150
Tap Size	Revolutions Per Minute														
0	318	637	955	1273	1592	1910	2547	3183	3820	4457	5093	5730	6367	7958	9550
1	262	523	785	1047	1308	1570	2093	2616	3140	3663	4186	4710	5233	6541	7849
2	222	444	666	888	1110	1333	1777	2221	2665	3109	3553	3998	4442	5552	6663
3	193	386	579	772	965	1158	1543	1929	2315	2701	3087	3473	3859	4823	5788
4	171	341	512	682	853	1023	1364	1705	2046	2388	2729	3070	3411	4263	5116
5	153	306	458	611	764	917	1222	1528	1834	2139	2445	2750	3056	3820	4584
6	138	277	415	554	692	830	1107	1384	1661	1938	2214	2491	2768	3460	4152
8	116	233	349	466	582	699	932	1165	1398	1630	1863	2086	2329	2912	3494
10	101	201	302	402	503	603	804	1005	1206	1407	1608	1809	2011	2513	3016
12	88	177	265	354	442	531	707	884	1061	1238	1415	1592	1769	2211	2653
1/4	76	153	229	306	382	458	611	764	917	1070	1222	1375	1528	1910	2292
5/16	61	122	183	244	306	367	489	611	733	856	978	1100	1222	1528	1834
3/8	51	102	153	204	255	306	407	509	611	713	815	917	1019	1273	1528
7/16	44	87	131	175	218	262	349	437	524	611	699	786	873	1091	1310
1/2	38	76	115	153	191	229	306	382	458	535	611	688	764	955	1146
9/16	34	68	102	136	170	204	272	340	407	475	543	611	679	849	1019
5/8	31	61	92	122	153	183	244	306	367	428	489	550	611	764	914
3/4	25	51	76	102	127	153	204	255	306	357	407	458	509	637	764
7/8	22	44	65	87	109	131	175	218	262	306	349	393	437	546	655
1	19	38	57	76	96	115	153	191	229	267	306	344	382	478	573

Surface Footage	Conversion Table - Surface Feet Per Minute (SFM) to Revolutions Per Minute (RPM) - Metric														
	5	10	15	20	25	30	40	50	60	70	80	90	100	125	150
Tap Size	Revolutions Per Minute														
M3	162	323	485	647	809	970	1294	1617	1941	2264	2587	2911	3234	4043	4851
M4	121	243	364	485	606	728	970	1213	1455	1698	1941	2183	2426	3032	3639
M5	97	194	291	388	485	582	776	970	1164	1358	1552	1747	1941	2426	2911
M6	81	162	243	323	404	485	647	809	970	1132	1294	1455	1617	2021	2426
M8	61	121	182	243	303	364	485	606	728	849	970	1092	1213	1516	1819
M10	49	97	146	194	243	291	388	485	582	679	776	873	970	1213	1455
M12	40	81	121	162	202	243	323	404	485	566	647	728	809	1011	1213
M14	35	69	104	139	173	208	277	347	416	485	554	624	693	866	1040
M16	30	61	91	121	152	182	243	303	364	424	485	546	606	758	910
M18	27	54	81	108	135	162	216	270	323	377	431	485	539	674	809
M20	24	49	73	97	121	146	194	243	291	340	388	437	485	606	728
M24	20	40	61	81	101	121	162	202	243	283	323	364	404	505	606

Formulas

SFM (Surface Feet per Minute) = $0.262 \times \text{RPM} \times D$

RPM (Revolutions Per Minute) = $(3.82 \times \text{SFM}) / D$

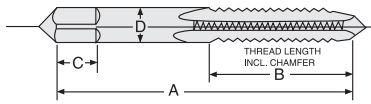
Note: D = Diameter (Must be in inches)



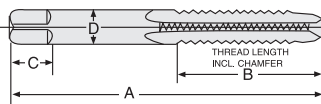


ANSI General Tap Dimensions (USCTI Table 302)

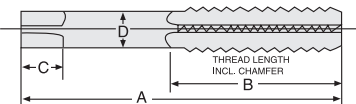
Blank Style 1



Blank Style 2



Blank Style 3



Nominal Diameter Range - Inches		Mach. Screw Size No.	Nominal Fractional Diameter Inches	Nominal Metric Diameter Millimeters	Style	Tap Dimensions - Inches				
Over	To (Incl.)					Overall Length A	Thread Length B	Square Length C	Shank Diameter D	Size of Square
0.052	0.065	0	1/16	—	1	1 5/8	5/16	3/16	0.141	0.110
0.065	0.078	1	—	M1.8	1	1 11/16	3/8	3/16	0.141	0.110
0.078	0.091	2	—	M2, M2.2	1	1 3/4	7/16	3/16	0.141	0.110
0.091	0.104	3	3/32	M2.5	1	1 13/16	1/2	3/16	0.141	0.110
0.104	0.117	4	—	—	1	1 7/8	9/16	3/16	0.141	0.110
0.117	0.130	5	1/8	M3, M3.15	1	1 15/16	5/8	3/16	0.141	0.110
0.130	0.145	6	—	M3.5	1	2	11/16	3/16	0.141	0.110
0.145	0.171	8	5/32	M4	1	2 1/8	3/4	1/4	0.168	0.131
0.171	0.197	10	3/16	M4.5, M5	1	2 3/8	7/8	1/4	0.194	0.152
0.197	0.223	12	7/32	—	1	2 3/8	15/16	9/32	0.220	0.165
0.223	0.260	14	1/4	M6, M6.3	2	2 1/2	1	5/16	0.255	0.191
0.260	0.323	—	5/16	M7, M8	2	2 23/32	1 1/8	3/8	0.318	0.238
0.323	0.385	—	3/8	M10	2	2 15/16	1 1/4	7/16	0.381	0.286
0.385	0.448	—	7/16	—	3	3 5/32	1 7/16	13/32	0.323	0.242
0.448	0.510	—	1/2	M12, M12.5	3	3 3/8	1 21/32	7/16	0.367	0.275
0.510	0.573	—	9/16	M14	3	3 19/32	1 21/32	1/2	0.429	0.322
0.573	0.635	—	5/8	M16	3	3 13/16	1 13/16	9/16	0.480	0.360
0.635	0.709	—	11/16	M18	3	4 1/32	1 13/16	5/8	0.542	0.406
0.709	0.760	—	3/4	—	3	4 1/4	2	11/16	0.590	0.442
0.760	0.823	—	13/16	M20	3	4 15/32	2	11/16	0.652	0.489
0.823	0.885	—	7/8	M22	3	4 11/16	2 7/32	3/4	0.697	0.523
0.885	0.948	—	15/16	M24	3	4 29/32	2 7/32	3/4	0.760	0.570
0.948	1.010	—	1	M25	3	5 1/8	2 1/2	13/16	0.800	0.600
1.010	1.073	—	1 1/16	M27	3	5 1/8	2 1/2	7/8	0.896	0.672
1.073	1.135	—	1 1/8	—	3	5 7/16	2 9/16	7/8	0.896	0.672
1.135	1.198	—	1 3/16	M30	3	5 7/16	2 9/16	1	1.021	0.766
1.198	1.260	—	1 1/4	—	3	5 3/4	2 9/16	1	1.021	0.766
1.260	1.323	—	1 5/16	M33	3	5 3/4	2 9/16	1 1/16	1.108	0.831
1.323	1.385	—	1 3/8	—	3	6 1/16	3	1 1/16	1.108	0.831
1.385	1.448	—	1 7/16	M36	3	6 1/16	3	1 1/8	1.233	0.925
1.448	1.510	—	1 1/2	—	3	6 3/8	3	1 1/8	1.233	0.925
1.510	1.635	—	1 5/8	M39	3	6 11/16	3 3/16	1 1/8	1.305	0.979
1.635	1.760	—	1 3/4	M42	3	7	3 3/16	1 1/4	1.430	1.072
1.760	1.885	—	1 7/8	—	3	7 5/16	3 9/16	1 1/4	1.519	1.139
1.885	2.010	—	2	M48	3	7 5/8	3 9/16	1 3/8	1.644	1.233
2.010	2.135	—	2 1/8	—	3	8	3 9/16	1 3/8	1.769	1.327
2.135	2.260	—	2 1/4	M56	3	8 1/4	3 9/16	1 7/16	1.894	1.420
2.260	2.385	—	2 3/8	—	3	8 1/2	4	1 7/16	2.019	1.514
2.385	2.510	—	2 1/2	—	3	8 3/4	4	1 1/2	2.100	1.575
2.510	2.635	—	2 5/8	M64	3	8 3/4	4	1 1/2	2.250	1.669
2.635	2.760	—	2 3/4	—	3	9 1/4	4	1 9/16	2.350	1.762
2.760	2.885	—	2 7/8	M72	3	9 1/4	4	1 9/16	2.475	1.856
2.885	3.010	—	3	—	3	9 3/4	4 9/16	1 5/8	2.543	1.907
3.010	3.135	—	3 1/8	—	3	9 3/4	4 9/16	1 5/8	2.668	2.001
3.135	3.260	—	3 1/4	M80	3	10	4 9/16	1 3/4	2.793	2.095
3.260	3.385	—	3 3/8	—	3	10	4 9/16	1 3/4	2.883	2.162
3.385	3.510	—	3 1/2	—	3	10 1/4	4 15/16	2	3.008	2.256
3.510	3.635	—	3 5/8	M90	3	10 1/4	4 15/16	2	3.133	2.350
3.635	3.760	—	3 3/4	—	3	10 1/2	5 5/16	2 1/8	3.217	2.413
3.760	3.885	—	3 7/8	—	3	10 1/2	5 5/16	2 1/8	3.342	2.506
3.885	4.010	—	4	M100	3	10 3/4	5 5/16	2 1/2	3.467	2.600

Note: Unless otherwise specified, all OSG taps conform to the dimensions listed above in USCTI Table 302.





Spiral Pointed and Spiral Fluted, JIS (Table 350)

Diameter	Pitch	General Dimensions - Metric					Ground Thread Limits Class	Pitch Diameter Limit		
		Overall Length A	Length of Thread B	Length of Square C	Shank Diam. D	Size of Square E		Basic	Minimum	Maximum
M2	0.4	40	15	5	3	2.5	2	1.740	1.750	1.770
M2.3	0.4	42	15	5	3	2.5	2	2.040	2.050	2.070
M2.6	0.45	44	16	5	3	2.5	2	2.308	2.318	2.333
M3	0.5	46	18	6	4	3.2	2	2.675	2.685	2.700
M3.5	0.6	48	18	6	4	3.2	2	3.110	3.120	3.135
M4	0.7	52	20	7	5	4	2	3.545	3.555	3.575
M4.5	0.75	55	20	7	5	4	2	4.013	4.023	4.043
M5	0.8	60	22	7	5.5	4.5	2	4.480	4.490	4.510
M6	0.75	62	20	7	6	4.5	2	5.513	5.523	5.543
	1	62	24	7	6	4.5	2	5.350	5.360	5.380
M7	1	65	6	8	6.2	5	2	6.350	6.360	6.380
	0.75	62	20	8	6.2	5	2	7.513	7.525	7.550
M8	1	70	30	8	6.2	5	2	7.350	7.360	7.380
	1.25	70	30	8	6.2	5	2	7.188	7.198	7.223
M9	1.25	72	30	8	7	5.5	2	8.188	8.198	8.223
	1	70	30	8	7	5.5	2	9.350	9.362	9.387
M10	1.25	75	32	8	7	5.5	2	9.188	9.198	9.223
	1.5	75	32	8	7	5.5	2	9.026	9.041	9.066
M11	1.5	80	38	9	8	6	2	10.026	10.041	10.066
	1	70	30	9	8.5	6.5	2	11.350	11.365	11.395
M12	1.25	80	38	9	8.5	6.5	2	11.188	11.203	11.233
	1.5	82	38	9	8.5	6.5	2	11.026	11.041	11.071
M14	1.75	82	38	9	8.5	6.5	2	10.863	10.878	10.908
	1.25	80	38	11	10.5	8	2	13.188	13.203	13.233
M14	1.5	88	42	11	10.5	8	2	13.026	13.041	13.071
	2	88	42	11	10.5	8	2	12.701	12.716	12.746
M16	1	75	30	13	12.5	10	2	15.350	15.365	15.395
	1.5	95	45	13	12.5	10	2	15.026	15.041	15.071
M18	2	95	45	13	12.5	10	2	14.701	14.716	14.746
	1.5	95	45	14	14	11	2	17.026	17.041	17.071
M18	2	95	45	14	14	11	2	16.701	16.716	16.751
	2.5	100	48	14	14	11	2	16.376	16.396	16.431
M20	1.5	95	45	15	15	12	2	19.026	19.041	19.076
	2.5	100	48	15	15	12	2	18.376	19.396	18.431
M22	1.5	95	45	16	17	13	2	21.026	21.041	21.076
	2.5	115	55	16	17	13	2	20.376	20.396	20.431
M24	1.5	95	45	18	19	15	2	23.026	23.041	23.076
	3	120	58	18	19	15	2	22.051	22.071	22.111
M26	1.5	95	45	18	20	15	2	25.026	25.041	25.076
	3	130	62	18	20	15	2	24.051	24.071	24.076
M28	1.5	105	45	8	21	17	2	27.026	27.041	27.076
M30	1.5	105	45	20	23	17	2	29.026	29.041	29.076
	3.5	135	65	20	23	17	2	27.727	27.747	27.787
M32	1.5	105	45	22	24	19	2	31.026	31.041	31.076
M33	1.5	110	45	22	25	19	2	32.026	32.041	32.076
M34	1.5	110	45	24	26	21	2	33.026	33.041	33.076
M36	1.5	110	45	24	28	21	2	35.026	35.041	35.076

Note: Dimensions are in millimeters



Spiral Point Taps: Lists 105, 105A, 105B, 125, 142, 917*



Major Diameter	Overall Length A	Thread Length B	Neck Length (C)	Thread+Neck Length B'	Neck Diameter d1
#4	1.88	0.31	0.25	0.56	0.0827
#5	1.94	0.31	0.31	0.62	0.0945
#6	2.00	0.38	0.31	0.69	0.0984
#8	2.13	0.38	0.38	0.76	0.1260
#10	2.38	0.50	0.38	0.88	0.1378
#12	2.38	0.50	0.44	0.94	0.1614
1/4	2.50	0.63	0.38	1.01	0.1850
5/16	2.72	0.69	0.44	1.13	0.2362
3/8	2.94	0.75	0.50	1.25	0.2835
7/16	3.16	0.88	0.43	1.31	0.3165
1/2	3.38	0.94	0.43	1.37	0.3606
5/8	3.81	1.09	0.47	1.56	0.4720
3/4	4.25	1.22	0.49	1.71	0.5823
M3	1.94	0.31	0.31	0.62	0.0906
M3.5	2.00	0.38	0.31	0.69	0.1063
M4	2.13	0.38	0.38	0.76	0.1181
M4.5	2.38	0.50	0.38	0.88	0.1339
M5	2.38	0.50	0.38	0.88	0.1496
M6	2.50	0.63	0.38	1.01	0.1850
M7	2.72	0.69	0.44	1.13	0.2244
M8	2.72	0.69	0.44	1.13	0.2480
M10	2.94	0.75	0.50	1.25	0.3150
M12	3.38	0.94	0.43	1.37	0.3598
M14	3.59	1.00	0.47	1.47	0.4213
M16	3.81	1.09	0.47	1.56	0.4720
M18	4.03	1.09	0.51	1.60	0.5343
M20	4.47	1.22	0.55	1.77	0.6441

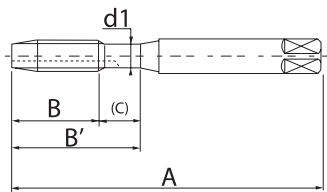
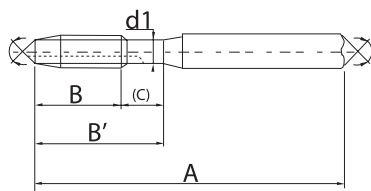
Thread Length B is a minimum value

*List 917 (long shank standard) is same value except overall length.

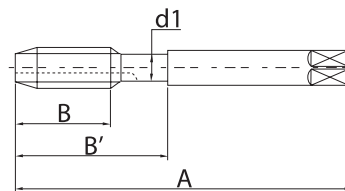


OSG General Tap Dimensions

Spiral Flute Taps: List 107, 143, S108, 918*



5/16~3/8, M7~M10



7/16~3/4, M12~M20

Major Diameter	Overall Length A	Thread Length B	Neck Length (C)	Thread+Neck Length B'	Neck Diameter d1
#4	1.88	0.31	0.25	0.56	0.083
#5	1.94	0.31	0.31	0.62	0.095
#6	2.00	0.38	0.31	0.69	0.098
#8	2.13	0.38	0.38	0.76	0.126
#10	2.38	0.50	0.38	0.88	0.138
#12	2.38	0.50	0.44	0.94	0.161
1/4	2.50	0.63	0.38	1.01	0.185
5/16	2.72	0.69	0.44	1.13	0.236
3/8	2.94	0.75	0.50	1.25	0.284
7/16	3.16	0.88	0.43	1.31	0.317
1/2	3.38	0.94	0.43	1.37	0.361
5/8	3.81	1.09	0.47	1.56	0.472
3/4	4.25	1.22	0.49	1.71	0.582
M3	1.94	0.31	0.31	0.62	0.091
M3.5	2.00	0.38	0.31	0.69	0.106
M4	2.13	0.38	0.38	0.76	0.118
M4.5	2.38	0.50	0.38	0.88	0.134
M5	2.38	0.50	0.38	0.88	0.150
M6	2.50	0.63	0.38	1.01	0.185
M7	2.72	0.69	0.44	1.13	0.224
M8	2.72	0.69	0.44	1.13	0.248
M10	2.94	0.75	0.50	1.25	0.315
M12	3.38	0.94	0.43	1.37	0.360
M14	3.59	1.00	0.47	1.47	0.421
M16	3.81	1.09	0.47	1.56	0.472
M18	4.03	1.09	0.51	1.60	0.534
M20	4.47	1.22	0.55	1.77	0.644

Thread Length B is a minimum value

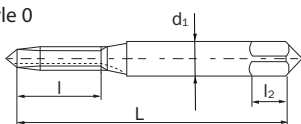
*List 918 (long shank standard) is same value except overall length.



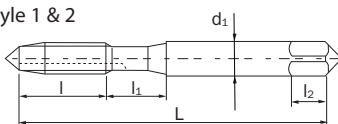


Straight Flute Taps: Lists 101, 101C, 101N, 101H, 101L, 102, 102H, 103, 104, 141, 180

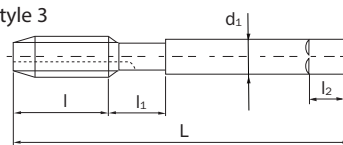
Style 0



Style 1 & 2



Style 3



Major Diameter	Threads Per Inch	Style	Overall Length	Thread Length	Reduced Neck Length	Thread + Reduced	Neck Diameter	Square Length	Shank Diameter	Size of Square
			L	l	l ₁	l + l ₁		l ₂	d ₁	a
#0	80	0	1.63	0.31	-	-	-	0.19	0.141	0.11
#1	64	0	1.69	0.38	-	-	-	0.19	0.141	0.11
#1	72	0	1.69	0.38	-	-	-	0.19	0.141	0.11
#2	56	0	1.75	0.44	-	-	-	0.19	0.141	0.11
#2	64	0	1.75	0.44	-	-	-	0.19	0.141	0.11
#3	48	0	1.81	0.5	-	-	-	0.19	0.141	0.11
#3	56	0	1.81	0.5	-	-	-	0.19	0.141	0.11
#4	40	1	1.88	0.38	0.50	0.88	0.0827	0.19	0.141	0.11
#4	48	1	1.88	0.38	0.50	0.88	0.0827	0.19	0.141	0.11
#5	40	1	1.94	0.38	0.56	0.94	0.0945	0.19	0.141	0.11
#5	44	1	1.94	0.38	0.56	0.94	0.0945	0.19	0.141	0.11
#6	32	1	2	0.47	0.53	1	0.0984	0.19	0.141	0.11
#6	40	1	2	0.47	0.53	1	0.0984	0.19	0.141	0.11
#8	32	1	2.13	0.47	0.66	1.13	0.126	0.25	0.168	0.131
#8	36	1	2.13	0.47	0.66	1.13	0.126	0.25	0.168	0.131
#10	24	1	2.38	0.63	0.62	1.25	0.1378	0.25	0.194	0.152
#10	32	1	2.38	0.63	0.62	1.25	0.1378	0.25	0.194	0.152
#12	24	1	2.38	0.63	0.68	1.31	0.1614	0.28	0.22	0.165
#12	28	1	2.38	0.63	0.68	1.31	0.1614	0.28	0.22	0.165
1/4	20	2	2.5	0.75	0.63	1.38	0.185	0.31	0.255	0.191
1/4	28	2	2.5	0.75	0.63	1.38	0.185	0.31	0.255	0.191
5/16	18	2	2.72	0.83	0.73	1.56	0.2362	0.38	0.318	0.238
5/16	24	2	2.72	0.83	0.73	1.56	0.2362	0.38	0.318	0.238
3/8	16	2	2.94	0.94	0.75	1.69	0.2835	0.44	0.381	0.286
3/8	24	2	2.94	0.94	0.75	1.69	0.2835	0.44	0.381	0.286
7/16	14	3	3.16	1.07	0.62	1.69	0.3165	0.41	0.323	0.242
7/16	20	3	3.16	1.07	0.62	1.69	0.3165	0.41	0.323	0.242
1/2	13	3	3.38	1.15	0.66	1.81	0.3606	0.44	0.367	0.275
1/2	20	3	3.38	1.15	0.66	1.81	0.3606	0.44	0.367	0.275
9/16	12	3	3.59	1.25	0.69	1.94	0.4211	0.5	0.429	0.322
9/16	18	3	3.59	1.25	0.69	1.94	0.4211	0.5	0.429	0.322
5/8	11	3	3.81	1.36	0.64	2	0.472	0.56	0.48	0.36
5/8	18	3	3.81	1.36	0.64	2	0.472	0.56	0.48	0.36
11/16	11	3	4.03	1.36	0.77	2.13	0.5341	0.63	0.542	0.406
11/16	16	3	4.03	1.36	0.77	2.13	0.5341	0.63	0.542	0.406
3/4	10	3	4.25	1.50	0.72	2.22	0.5823	0.69	0.59	0.442
3/4	16	3	4.25	1.50	0.72	2.22	0.5823	0.69	0.59	0.442
13/16	12	3	4.47	1.50	0.88	2.38	0.6441	0.69	0.652	0.489
13/16	16	3	4.47	1.50	0.88	2.38	0.6441	0.69	0.652	0.489
7/8	9	3	4.69	1.67	0.83	2.5	0.6872	0.75	0.697	0.523
7/8	14	3	4.69	1.67	0.83	2.5	0.6872	0.75	0.697	0.523
15/16	12	3	4.91	1.50	1.00	2.5	0.7502	0.75	0.76	0.57
15/16	16	3	4.91	1.50	1.00	2.5	0.7502	0.75	0.76	0.57
1	8	3	5.13	1.88	0.84	2.72	0.7902	0.81	0.8	0.6
1	12	3	5.13	1.88	0.84	2.72	0.7902	0.81	0.8	0.6
1	14	3	5.13	1.88	0.84	2.72	0.7902	0.81	0.8	0.6
1 1/8	7	3	5.44	2.14	0.80	2.94	0.8662	0.88	0.896	0.672
1 1/8	8	3	5.44	1.88	1.06	2.94	0.8662	0.88	0.896	0.672
1 1/8	12	3	5.44	1.88	1.06	2.94	0.8662	0.88	0.896	0.672
1 1/4	7	3	5.75	2.14	0.86	3	1.0112	1	1.021	0.766
1 1/4	8	3	5.75	1.88	1.12	3	1.0112	1	1.021	0.766
1 1/4	12	3	5.75	1.88	1.12	3	1.0112	1	1.021	0.766

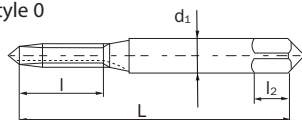




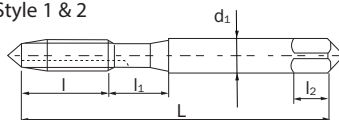
OSG General Tap Dimensions

Straight Flute Taps: Lists 101, 101C, 101N, 101H, 101L, 102, 102H, 103, 104, 141, 180

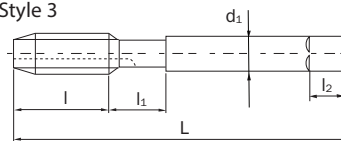
Style 0



Style 1 & 2



Style 3



Major Diameter	Threads Per Inch	Style	Overall Length	Thread Length	Reduced Neck Length	Thread + Reduced	Neck Diameter	Square Length	Shank Diameter	Size of Square
			L	l	l ₁	l + l ₁		l ₂	d ₁	a
1 3/8	6	3	6.06	2.50	0.66	3.16	1.0702	1.06	1.08	0.831
1 3/8	8	3	6.06	1.88	1.28	3.16	1.0702	1.06	1.08	0.831
1 3/8	12	3	6.06	1.88	1.28	3.16	1.0702	1.06	1.08	0.831
1 1/2	6	3	6.38	2.50	0.88	3.38	1.2232	1.13	1.233	0.925
1 1/2	8	3	6.38	1.88	1.50	3.38	1.2232	1.13	1.233	0.925
1 1/2	12	3	6.38	1.88	1.50	3.38	1.2232	1.13	1.233	0.925
1 5/8	8	3	6.69	1.88	1.50	3.38	1.2952	1.13	1.305	0.979
1 3/4	8	3	7	1.88	1.71	3.59	1.4174	1.25	1.43	1.072
2	8	3	7.63	1.88	1.93	3.81	1.6314	1.38	1.644	1.233
2 1/4	8	3	8.25	1.88	2.12	4	1.8814	1.894	1.894	1.42

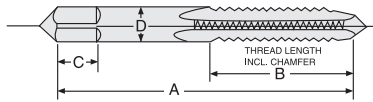
Major Diameter	Threads Per Inch	Style	Overall Length	Thread Length	Reduced Neck Length	Thread + Reduced	Neck Diameter	Square Length	Shank Diameter	Size of Square
			L	l	l ₁	l + l ₁		l ₂	d ₁	a
M2	0.4	0	1.75	0.44	-	-	-	0.19	0.141	0.11
M2.5	0.45	0	1.81	0.50	-	-	-	0.19	0.141	0.11
M3	0.5	1	1.94	0.30	0.64	0.94	0.0906	0.19	0.141	0.11
M3.5	0.6	1	2	0.35	0.65	1	0.1063	0.19	0.141	0.11
M4	0.7	1	2.13	0.41	0.72	1.13	0.1181	0.25	0.168	0.131
M4.5	0.75	1	2.38	0.44	0.81	1.25	0.1339	0.25	0.194	0.152
M5	0.8	1	2.38	0.47	0.78	1.25	0.1496	0.25	0.194	0.152
M6	1	2	2.5	0.59	0.79	1.38	0.185	0.31	0.255	0.191
M7	1	2	2.72	0.59	0.97	1.56	0.2244	0.38	0.318	0.238
M8	1	2	2.72	0.59	0.97	1.56	0.248	0.38	0.318	0.238
M8	1.25	2	2.72	0.74	0.82	1.56	0.248	0.38	0.318	0.238
M10	1	2	2.94	0.89	0.80	1.69	0.315	0.44	0.381	0.286
M10	1.25	2	2.94	0.89	0.80	1.69	0.315	0.44	0.381	0.286
M10	1.5	2	2.94	0.89	0.80	1.69	0.315	0.44	0.381	0.286
M12	1.25	3	3.38	1.03	0.78	1.81	0.3606	0.44	0.367	0.275
M12	1.5	3	3.38	1.03	0.78	1.81	0.3606	0.44	0.367	0.275
M12	1.75	3	3.38	1.03	0.78	1.81	0.3606	0.44	0.367	0.275
M14	1.25	3	3.59	1.18	0.76	1.94	0.4213	0.5	0.429	0.322
M14	1.5	3	3.59	1.18	0.76	1.94	0.4213	0.5	0.429	0.322
M14	2	3	3.59	1.18	0.76	1.94	0.4213	0.5	0.429	0.322
M16	1.5	3	3.81	1.18	0.82	2	0.472	0.56	0.48	0.36
M16	2	3	3.81	1.18	0.82	2	0.472	0.56	0.48	0.36
M18	1.5	3	4.03	1.48	0.65	2.13	0.5343	0.63	0.542	0.406
M18	2.5	3	4.03	1.48	0.65	2.13	0.5343	0.63	0.542	0.406
M20	1.5	3	4.47	1.48	0.90	2.38	0.6441	0.69	0.652	0.489
M20	2.5	3	4.47	1.48	0.90	2.38	0.6441	0.69	0.652	0.489



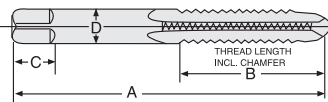


Screw Thread Inserts General Tap Dimensions - Inch (USCTI Table 322)

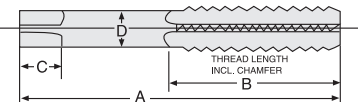
Blank Style 1



Blank Style 2



Blank Style 3



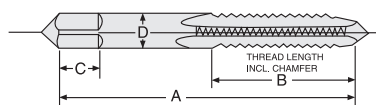
Nominal Size	Threads Per Inch		Blank Design No.	Tap Dimensions (Inch)					Table 302 Blank Equivalent
	UNC	UNF		A	B	C	D	Size of Square	
1	64	—	1	1.810	0.500	0.190	0.141	0.110	No. 3
2	56	—	1	1.880	0.560	0.190	0.141	0.110	No. 4
	—	64	1	1.880	0.560	0.190	0.141	0.110	No. 4
3	48	—	1	1.940	0.630	0.190	0.141	0.110	No. 5
	—	56	1	1.940	0.630	0.190	0.141	0.110	No. 5
4	40	—	1	2.000	0.690	0.190	0.141	0.110	No. 6
	—	48	1	2.000	0.690	0.190	0.141	0.110	No. 6
5	40	—	1	2.130	0.750	0.250	0.168	0.131	No. 8
6	32	—	1	2.380	0.880	0.250	0.194	0.152	No. 10
	—	40	1	2.130	0.750	0.250	0.168	0.131	No. 8
8	32	—	1	2.380	0.940	0.280	0.220	0.165	No. 12
	—	36	1	2.380	0.940	0.280	0.220	0.165	No. 12
10	24	—	2	2.500	1.000	0.310	0.255	0.191	1/4
	—	32	2	2.500	1.000	0.310	0.255	0.191	1/4
12	12	—	2	2.720	1.130	0.380	0.318	0.238	5/16
1/4	20	—	2	2.720	1.130	0.380	0.318	0.238	5/16
	—	28	2	2.720	1.130	0.380	0.318	0.238	5/16
5/16	18	—	2	2.940	1.250	0.440	0.381	0.286	3/8
	—	24	2	2.940	1.250	0.440	0.381	0.286	3/8
3/8	16	—	3	3.380	1.660	0.440	0.367	0.275	1/2
	—	24	3	3.160	1.440	0.410	0.323	0.242	7/16
7/16	14	—	3	3.590	1.660	0.500	0.429	0.322	9/16
	—	20	3	3.380	1.660	0.440	0.367	0.275	1/2
1/2	13	—	3	3.810	1.810	0.560	0.480	0.360	5/8
	—	20	3	3.590	1.660	0.500	0.429	0.322	9/16
9/16	12	—	3	4.030	1.810	0.630	0.542	0.406	11/16
	—	18	3	3.810	1.810	0.560	0.480	0.360	5/8
5/8	11	—	3	4.250	2.000	0.690	0.590	0.442	3/4
	—	18	3	4.030	1.810	0.630	0.542	0.406	11/16
3/4	10	—	3	4.690	2.220	0.750	0.697	0.523	7/8
	—	16	3	4.470	2.000	0.690	0.652	0.489	13/16
7/8	9	—	3	5.130	2.500	0.810	0.800	0.600	1"
	—	14	3	5.130	2.500	0.810	0.800	0.600	1"
1	8	—	3	5.750	2.560	1.000	1.021	0.766	1 1/4
	—	12	3	5.440	2.560	0.880	0.896	0.672	1 1/8

These taps are oversize to the extent that the internal thread they produce will accommodate a helical coil screw thread insert, which at final assembly will accept a screw thread of the normal size and pitch.

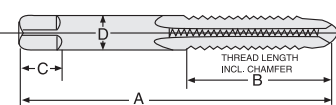


Screw Thread Inserts General Tap Dimensions - Metric (USCTI Table 322A)

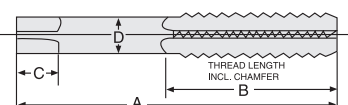
Blank Style 1



Blank Style 2



Blank Style 3



Nominal Size	Pitch		Blank Design No.	Tap Dimensions (Inch)					Table 302 Blank Equivalent
	M	MF		A	B	C	D	Size of Square	
M2.2	0.45	—	1	1.880	0.560	0.190	0.141	0.110	No. 4
M2.5	0.45	—	1	1.940	0.630	0.190	0.141	0.110	No. 5
M3	0.5	—	1	2.000	0.690	0.190	0.141	0.110	No. 6
M3.5	0.6	—	1	2.130	0.750	0.250	0.117	0.131	No. 8
M4	0.7	—	1	2.380	0.880	0.250	0.194	0.152	No. 10
M5	0.8	—	2	2.500	1.000	0.310	0.255	0.191	1/4
M6	1	—	2	2.720	1.130	0.380	0.318	0.238	5/16
M7	1	—	2	2.940	1.250	0.440	0.381	0.286	3/8
M8	1.25	—	2	2.940	1.250	0.440	0.381	0.286	3/8
	—	1	2	2.940	1.250	0.440	0.381	0.286	3/8
M10	1.5	—	3	3.380	1.660	0.440	0.367	0.275	1/2
	—	1.25	3	3.380	1.660	0.440	0.367	0.275	1/2
	—	1	3	3.160	1.440	0.410	0.323	0.242	7/16
M12	1.75	—	3	3.590	1.660	0.500	0.429	0.322	9/16
	—	1.5	3	3.590	1.660	0.500	0.429	0.322	9/16
	—	1.25	3	3.590	1.660	0.500	0.429	0.322	9/16
M14	2	—	3	4.030	1.810	0.630	0.542	0.406	11/16
	—	1.5	3	3.810	1.810	0.560	0.480	0.360	5/8
M16	2	—	3	4.250	2.000	0.690	0.590	0.442	3/4
	—	1.5	3	4.030	1.810	0.630	0.542	0.406	11/16
M18	2.5	—	3	4.690	2.220	0.750	0.697	0.523	7/8
	—	2	3	4.470	2.000	0.690	0.652	0.489	13/16
	—	1.5	3	4.470	2.000	0.690	0.652	0.489	13/16
M20	2.5	—	3	4.910	2.220	0.750	0.760	0.570	15/16
	—	2	3	4.910	2.220	0.750	0.760	0.570	15/16
	—	1.5	3	4.690	2.220	0.750	0.697	0.523	7/8
M22	2.5	—	3	5.130	2.500	0.810	0.800	0.600	1"
	—	2	3	5.130	2.500	0.810	0.800	0.600	1"
	—	1.5	3	4.910	2.220	0.750	0.760	0.570	15/16
M24	3	—	3	5.440	2.560	0.880	0.896	0.672	1 1/8
	—	2	3	5.130	2.500	0.880	0.896	0.672	1 1/16

These taps are oversize to the extent that the internal thread they produce will accommodate a helical coil screw thread insert, which at final assembly will accept a screw thread of the normal size and pitch.





Classes and Tap Recommendations

Size	Threads Per Inch		Basic Pitch Diameter	Unified Classes of Thread				American National Classes of Thread			
				CLASS 2B For General Applications		CLASS 3B For Closer Fits		CLASS 2		CLASS 3	
	NC UNC	NF UNF	All Classes Minimum	Pitch Diam. Limits Maximum	Rec.* Taps	Pitch Diam. Limits Maximum	Rec.* Taps	Pitch Diam. Limits Maximum	Rec.* Taps	Pitch Diam. Limits Maximum	Rec.* Taps
0	—	80	0.0519	0.0542	H2	0.0536	H1	0.0536	H1	0.0532	H1
1	64	—	0.0629	0.0655	H2	0.0648	H1	0.0648	H1	0.0643	H1
1	—	72	0.0640	0.0665	H2	0.0659	H1	0.0658	H1	0.0653	H1
2	56	—	0.0744	0.0772	H2	0.0765	H1	0.0764	H1	0.0759	H1
2	—	64	0.0759	0.0786	H2	0.0779	H1	0.0778	H1	0.0773	H1
3	48	—	0.0855	0.0885	H2	0.0877	H1	0.0877	H1	0.0871	H1
3	—	56	0.0874	0.0902	H2	0.0895	H1	0.0894	H1	0.0889	H1
4	40	—	0.0958	0.0991	H2	0.0982	H2	0.0982	H2	0.0975	H1
4	—	48	0.0985	0.1016	H2	0.1008	H1	0.1007	H1	0.1001	H1
5	40	—	0.1088	0.1121	H2	0.1113	H2	0.1112	H2	0.1105	H1
5	—	44	0.1102	0.1134	H2	0.1126	H1	0.1125	H1	0.1118	H1
6	32	—	0.1177	0.1214	H3	0.1204	H2	0.1204	H2	0.1196	H1
6	—	40	0.1218	0.1252	H2	0.1243	H2	0.1242	H2	0.1235	H1
8	32	—	0.1437	0.1475	H3	0.1465	H2	0.1464	H2	0.1456	H1
8	—	36	0.1460	0.1496	H2	0.1487	H2	0.1485	H2	0.1478	H1
10	24	—	0.1629	0.1672	H3	0.1661	H3	0.1662	H3	0.1653	H1
10	—	32	0.1697	0.1736	H3	0.1726	H2	0.1724	H2	0.1716	H1
12	24	—	0.1889	0.1933	H3	0.1922	H3	0.1922	H3	0.1913	H1
12	—	28	0.1928	0.1970	H3	0.1959	H3	0.1959	H3	0.1950	H1
1/4	20	—	0.2175	0.2224	H5	0.2211	H3	0.2211	H3	0.2201	H2
1/4	—	28	0.2268	0.2311	H4	0.2300	H3	0.2299	H3	0.2290	H1
5/16	18	—	0.2764	0.2817	H5	0.2803	H3	0.2805	H3	0.2794	H2
5/16	—	24	0.2854	0.2902	H4	0.2890	H3	0.2887	H3	0.2878	H1
3/8	16	—	0.3344	0.3401	H5	0.3387	H3	0.3389	H3	0.3376	H2
3/8	—	24	0.3479	0.3528	H4	0.3516	H3	0.3512	H3	0.3503	H1
7/16	14	—	0.3911	0.3972	H5	0.3957	H3	0.3960	H5	0.3947	H3
7/16	—	20	0.4050	0.4104	H5	0.4091	H3	0.4086	H3	0.4076	H1
1/2	13	—	0.4500	0.4565	H5	0.4548	H3	0.4552	H5	0.4537	H3
1/2	—	20	0.4675	0.4731	H5	0.4717	H3	0.4711	H3	0.4701	H1
9/16	12	—	0.5084	0.5152	H5	0.5135	H3	0.5140	H5	0.5124	H3
9/16	—	18	0.5264	0.5323	H5	0.5308	H3	0.5305	H3	0.5294	H2
5/8	11	—	0.5660	0.5732	H5	0.5714	H3	0.5719	H5	0.5702	H3
5/8	—	18	0.5889	0.5949	H5	0.5934	H3	0.5930	H3	0.5919	H2
3/4	10	—	0.6850	0.6927	H5	0.6907	H5	0.6914	H5	0.6895	H3
3/4	—	16	0.7094	0.7159	H5	0.7143	H3	0.7139	H3	0.7126	H2
7/8	9	—	0.8028	0.8110	H6	0.8089	H4	0.8098	H6	0.8077	H4
7/8	—	14	0.8286	0.8356	H6	0.8339	H4	0.8335	H4	0.8322	H2
1	8	—	0.9188	0.9276	H6	0.9254	H4	0.9264	H4	0.9242	H4
1	—	12	0.9459	0.9535	H6	0.9516	H4	0.9515	H4	0.9499	H4
1	—	14NS	0.9536	0.9609	H6	0.9590	H4	0.9585	H4	0.9572	H4
1-1/8	7	—	1.0322	1.0416	H8	1.0393	H4	1.0407	H4	1.0381	H4
1-1/8	—	12	1.0709	1.0787	H6	1.0768	H4	1.0765	H4	1.0749	H4
1-1/4	7	—	1.1572	1.1668	H8	1.1644	H4	1.1657	H4	1.1631	H4
1-1/4	—	12	1.1959	1.2039	H6	1.2019	H4	1.2015	H4	1.1999	H4
1-3/8	6	—	1.2667	1.2771	H8	1.2745	H4	1.2768	H4	1.2738	H4
1-3/8	—	12	1.3209	1.3291	H6	1.3270	H4	1.3265	H4	1.3249	H4
1-1/2	6	—	1.3917	1.4022	H8	1.3996	H4	1.4018	H4	1.3988	H4
1-1/2	—	12	1.4459	1.4542	H6	1.4522	H4	1.4515	H4	1.4499	H4
1-1/2	—	8	1.4188	1.4283	H7	1.4259	H5	1.4278	H7	1.4251	H5
1-5/8	—	8	1.5438	1.5535	H8	1.5510	H6	1.5531	H7	1.5503	H5
1-3/4	5	—	1.6201	1.6317	H9	1.6288	H7	1.6317	H9	1.6283	H7
1-3/4	8	8	1.6688	1.6786	H8	1.6762	H6	1.6785	H8	1.6756	H5
1-7/8	8	8	1.7938	1.8037	H8	1.8013	H6	1.8038	H8	1.8008	H6
2	4.5	—	1.8557	1.8681	H10	1.8650	H7	1.8684	H10	1.8646	H7
2	—	8	1.9188	1.9289	H8	1.9264	H6	1.9292	H8	1.9261	H6

ISO Metric Class of Threads				
CLASS 6H For Commercial Threads				
Size mm	Pitch mm	Pitch Dia. Limits (Inch)		Rec. Taps
		Min.	Max.	
M1.6	0.35	0.0541	0.0574	D3
M2	0.4	0.0686	0.0720	D3
M2.5	0.45	0.0870	0.0906	D3
M3	0.5	0.1054	0.1092	D3
M3.5	0.6	0.1225	0.1268	D4
M4	0.7	0.1396	0.1442	D4
M5	0.8	0.1764	0.1812	D4
M6	1.0	0.2107	0.2165	D5
M8	1.25	0.2830	0.2892	D5
M10	1.5	0.3554	0.3624	D6
M12	1.75	0.4277	0.4355	D6
M14	2.0	0.5001	0.5083	D7
M16	2.0	0.5788	0.5871	D7
M20	2.5	0.7235	0.7322	D7
M24	3.0	0.8682	0.8785	D8
M30	3.5	1.0917	1.1026	D9
M36	4.0	1.3151	1.3268	D9
M39	4.0	1.4331	1.4450	D9
M42	4.5	1.5385	1.5509	D10
M42	3.0	1.5768	1.5873	D8
M42	2.0	1.6024	1.6112	D7
M42	1.5	1.6152	1.6231	D6
M45	4.5	1.6566	1.6690	D10
M45	3.0	1.6949	1.7054	D8
M48	5.0	1.7619	1.7751	D10
M48	3.0	1.8130	1.8241	D9
M48	2.0	1.8386	1.8479	D7
M48	1.5	1.8514	1.8598	D6
M56	5.5	2.0641	2.0781	D11

D3 = Basic PD + 0.0009" to Basic PD + 0.0015"

D4 = Basic PD + 0.0012" to Basic PD + 0.0020"

D5 = Basic PD + 0.0015" to Basic PD + 0.0025"

D6 = Basic PD + 0.0018" to Basic PD + 0.0030"

D7 = Basic PD + 0.0019" to Basic PD + 0.0035"

D8 = Basic PD + 0.0024" to Basic PD + 0.0040"

D9 = Basic PD + 0.0025" to Basic PD + 0.0045"

H1 = Basic PD to Basic PD + 0.0005"

H2 = Basic PD + 0.0005" to Basic PD + 0.0010"

H3 = Basic PD + 0.0010" to Basic PD + 0.0015"

H4 = Basic PD + 0.0015" to Basic PD + 0.0020"

H5 = Basic PD + 0.0020" to Basic PD + 0.0025"

H6 = Basic PD + 0.0025" to Basic PD + 0.0030"

H4 = Basic PD + 0.0010" to Basic PD + 0.0020"





Pitch Diameter Limits

For External and Internal Screw Threads

Classes 2A, 3A and 2B, 3B, Unified Thread Form Classes 2 and 3, American National Thread Form

Size	Threads Per Inch		External Thread (Bolt)							Internal Thread (Nut)				
			Unified				American National			Basic Pitch Dia.	Unified		American National	
			Maximum		Minimum		Max.	Minimum			Maximum		Minimum	
	NC UNC	NF UNF	Class 2A	Class 3A Basic No.	Class 2A	Class 3A	Classes 2, 3 Basic Size No.	Class 2 No.	Class 3	All Classes Minimum Size No.	2B Size No.	3B Size No.	2 Size No.	3 Size No.
0		80	0.0514	0.0519	0.0496	0.0506	0.0519	0.0502	0.0506	0.0519	0.0542	0.0536	0.0536	0.0532
1	64		0.0623	0.0629	0.0603	0.0614	0.0629	0.0610	0.0615	0.0629	0.0655	0.0648	0.0648	0.0643
		72	0.0634	0.0640	0.0615	0.0626	0.0640	0.0622	0.0627	0.0640	0.0665	0.0659	0.0658	0.0653
2	56		0.0738	0.0744	0.0717	0.0728	0.0744	0.0724	0.0729	0.0744	0.0772	0.0765	0.0764	0.0759
		64	0.0753	0.0759	0.0733	0.0744	0.0759	0.0740	0.0745	0.0759	0.0786	0.0779	0.0778	0.0773
3	48		0.0848	0.0855	0.0825	0.0838	0.0855	0.0833	0.0839	0.0855	0.0885	0.0877	0.0877	0.0871
		56	0.0867	0.0874	0.0845	0.0858	0.0874	0.0854	0.0859	0.0874	0.0902	0.0895	0.0894	0.0889
4	40		0.0950	0.0958	0.0925	0.0939	0.0958	0.0934	0.0941	0.0958	0.0991	0.0982	0.0982	0.0975
		48	0.0978	0.0985	0.0954	0.0967	0.0985	0.0963	0.0969	0.0985	0.1016	0.1008	0.1007	0.1001
5	40		0.1080	0.1088	0.1054	0.1069	0.1088	0.1064	0.1071	0.1088	0.1121	0.1113	0.1112	0.1105
		44	0.1095	0.1102	0.1070	0.1083	0.1102	0.1079	0.1086	0.1102	0.1134	0.1126	0.1125	0.1118
6	32		0.1169	0.1177	0.1141	0.1156	0.1177	0.1150	0.1158	0.1177	0.1214	0.1204	0.1204	0.1196
		40	0.1210	0.1218	0.1184	0.1198	0.1218	0.1194	0.1201	0.1218	0.1252	0.1243	0.1242	0.1235
8	32		0.1428	0.1437	0.1399	0.1415	0.1437	0.1410	0.1418	0.1437	0.1475	0.1465	0.1464	0.1456
		36	0.1452	0.1460	0.1424	0.1439	0.1460	0.1435	0.1442	0.1460	0.1496	0.1487	0.1485	0.1478
10	24		0.1619	0.1629	0.1586	0.1604	0.1629	0.1596	0.1605	0.1629	0.1672	0.1661	0.1662	0.1653
		32	0.1688	0.1697	0.1658	0.1674	0.1697	0.1670	0.1678	0.1697	0.1736	0.1726	0.1724	0.1716
12	24		0.1879	0.1889	0.1845	0.1863	0.1889	0.1856	0.1865	0.1889	0.1933	0.1922	0.1922	0.1913
		28	0.1918	0.1928	0.1886	0.1904	0.1928	0.1897	0.1906	0.1928	0.1970	0.1959	0.1959	0.1950
1/4	20		0.2164	0.2175	0.2127	0.2147	0.2175	0.2139	0.2149	0.2175	0.2224	0.2211	0.2211	0.2201
		28	0.2258	0.2268	0.2225	0.2243	0.2268	0.2237	0.2246	0.2268	0.2311	0.2300	0.2299	0.2290
5/16	18		0.2752	0.2764	0.2712	0.2734	0.2764	0.2723	0.2734	0.2764	0.2817	0.2803	0.2805	0.2794
		24	0.2843	0.2854	0.2806	0.2827	0.2854	0.2821	0.2830	0.2854	0.2902	0.2890	0.2887	0.2878
3/8	16		0.3331	0.3344	0.3287	0.3311	0.3344	0.3299	0.3312	0.3344	0.3401	0.3387	0.3389	0.3376
		24	0.3468	0.3479	0.3430	0.3450	0.3479	0.3446	0.3455	0.3479	0.3528	0.3516	0.3512	0.3503
7/16	14		0.3897	0.3911	0.3850	0.3876	0.3911	0.3862	0.3875	0.3911	0.3972	0.3957	0.3960	0.3947
		20	0.4037	0.4050	0.3995	0.4019	0.4050	0.4014	0.4024	0.4050	0.4104	0.4091	0.4086	0.4076
1/2	13		0.4485	0.4500	0.4435	0.4463	0.4500	0.4448	0.4463	0.4500	0.4565	0.4548	0.4552	0.4537
		20	0.4662	0.4675	0.4619	0.4643	0.4675	0.4639	0.4649	0.4675	0.4731	0.4717	0.4711	0.4701
9/16	12		0.5068	0.5084	0.5016	0.5045	0.5084	0.5028	0.5044	0.5084	0.5152	0.5135	0.5140	0.5124
		18	0.5250	0.5264	0.5205	0.5230	0.5264	0.5223	0.5234	0.5264	0.5323	0.5308	0.5305	0.5294
5/8	11		0.5644	0.5660	0.5589	0.5619	0.5660	0.5601	0.5618	0.5660	0.5732	0.5714	0.5719	0.5702
		18	0.5875	0.5889	0.5828	0.5854	0.5889	0.5848	0.5859	0.5889	0.5949	0.5934	0.5930	0.5919
3/4	10		0.6832	0.6850	0.6773	0.6806	0.6850	0.6786	0.6805	0.6850	0.6927	0.6907	0.6914	0.6985
		16	0.7079	0.7094	0.7029	0.7056	0.7094	0.7049	0.7062	0.7094	0.7159	0.7143	0.7139	0.7126
7/8	9		0.8009	0.8028	0.7946	0.7981	0.8028	0.7958	0.7979	0.8028	0.8110	0.8089	0.8098	0.8077
		14	0.8270	0.8286	0.8216	0.8245	0.8286	0.8237	0.8250	0.8286	0.8356	0.8339	0.8335	0.8322
1	8		0.9168	0.9188	0.9100	0.9137	0.9188	0.9112	0.9134	0.9188	0.9276	0.9254	0.9264	0.9242
		12	0.9441	0.9459	0.9382	0.9415	0.9459	0.9403	0.9419	0.9459	0.9535	0.9516	0.9515	0.9499
		14NS	0.9519	0.9536	0.9463	0.9494	0.9536	0.9487	0.9500	0.9536	0.9609	0.9590	0.9585	0.9572
		7	1.0300	1.0322	1.0228	1.0268	1.0322	1.0237	1.0263	1.0322	1.0416	1.0393	1.0407	1.0381
1 1/8	7		1.0691	1.0709	1.0631	1.0664	1.0709	1.0653	1.0669	1.0709	1.0787	1.0768	1.0765	1.0749
		12	1.1550	1.1572	1.1476	1.1517	1.1572	1.1487	1.1513	1.1572	1.1668	1.1644	1.1657	1.1631
1 1/4	7		1.1941	1.1959	1.1879	1.1913	1.1959	1.1903	1.1919	1.1959	1.2039	1.2019	1.2015	1.1999
		12	1.2643	1.2667	1.2563	1.2607	1.2667	1.2566	1.2596	1.2667	1.2771	1.2745	1.2768	1.2738
1 3/8	6		1.3190	1.3321	1.3127	1.3162	1.3209	1.3153	1.3169	1.3209	1.3291	1.3270	1.3265	1.3249
		12	1.3893	1.3917	1.3812	1.3856	1.3917	1.3816	1.3846	1.3917	1.4022	1.3996	1.4018	1.3988
1 1/2	6		1.4440	1.4459	1.4376	1.4411	1.4459	1.4403	1.4419	1.4459	1.4542	1.4522	1.4515	1.4499





Classes and Tap Recommendations

Size	Threads Per Inch		Tap Major Diameter		Unified Classes of Thread					
					Class 2B For General Applications			Class 3B For Closer Fits		
	NC UNC	NF UNF	Minimum	Maximum	H Limit	Minimum	Maximum	H Limit	Minimum	Maximum
2	56	-	0.1107	0.1117	H2	0.9810	0.9860	H1	0.0976	0.0981
3	48	-	0.1279	0.1289	H2	0.1131	0.1136	H1	0.1126	0.1131
4	40	-	0.1463	0.1473	H2	0.1288	0.1293	H1	0.1283	0.1288
4	-	48	0.1409	0.1419	H2	0.1261	0.1266	H1	0.1256	0.1261
6	32	-	0.1807	0.1817	H3	0.1593	0.1598	H2	0.1588	0.1593
6	-	40	0.1723	0.1733	H2	0.1548	0.1553	H1	0.1543	0.1548
8	32	-	0.2067	0.2077	H3	0.1853	0.1858	H2	0.1848	0.1853
8	-	36	0.2022	0.2032	H2	0.1826	0.1831	H1	0.1821	0.1826
10	24	-	0.2465	0.2475	H3	0.2180	0.2185	H2	0.2175	0.2180
10	-	32	0.2327	0.2337	H3	0.2113	0.2118	H2	0.2108	0.2113
1/4	20	-	0.3177	0.3187	H3	0.2835	0.2840	H2	0.2830	0.2835
1/4	-	28	0.2985	0.2995	H3	0.2742	0.2747	H2	0.2737	0.2742
5/16	18	-	0.3874	0.3884	H4	0.3501	0.3506	H3	0.3496	0.3501
5/16	-	24	0.3690	0.3700	H3	0.3405	0.3410	H2	0.3400	0.3405
3/8	16	-	0.4592	0.4602	H4	0.4171	0.4176	H3	0.4166	0.4171
3/8	-	24	0.4315	0.4325	H3	0.4030	0.4035	H2	0.4025	0.4030
7/16	14	-	0.5333	0.5343	H4	0.4854	0.4859	H3	0.4849	0.4854
7/16	-	20	0.5052	0.5062	H4	0.4715	0.4720	H3	0.4710	0.4715
1/2	13	-	0.6032	0.6042	H4	0.5514	0.5519	H3	0.5509	0.5514
1/2	-	20	0.5677	0.5687	H4	0.5340	0.5345	H3	0.5335	0.5340
9/16	12	-	0.6741	0.6751	H4	0.6182	0.6187	H3	0.6177	0.6182
9/16	-	18	0.6374	0.6384	H4	0.6001	0.6006	H3	0.5996	0.6001
5/8	11	-	0.7467	0.7477	H4	0.6856	0.6861	H3	0.6851	0.6856
5/8	-	18	0.6999	0.7009	H4	0.6626	0.6631	H3	0.6621	0.6626
3/4	10	-	0.8835	0.8850	H5	0.8169	0.8174	H3	0.8159	0.8164
3/4	-	16	0.8342	0.8352	H4	0.7921	0.7926	H3	0.7916	0.7921
7/8	9	-	1.0232	1.0247	H5	0.9491	0.9496	H3	0.9481	0.9486
7/8	-	14	0.9708	0.9718	H4	0.9234	0.9239	H3	0.9224	0.9229
1	8	-	1.1666	1.1681	H6	1.0832	1.0842	H4	1.0822	1.0832
1	-	12	1.1116	1.1126	H6	1.0562	1.0572	H4	1.0552	1.0562

ISO Metric Class of Threads				
Class 6H For Commercial Threads				
Size mm	Pitch mm	Pitch Diameter Limits		Recommended Taps
		Min.	Max	
M2	0.40	0.0889	0.0909	D2
M2.5	0.45	0.1099	0.1120	D2
M3	0.50	0.1309	0.1332	D2
M4	0.70	0.1753	0.1783	D3
M5	0.80	0.2173	0.2203	D3
M6	1.00	0.2618	0.2654	D3
M8	1.25	0.3469	0.3508	D3
M10	1.50	0.4320	0.4357	D4
M12	1.75	0.5172	0.5224	D4
M14	2.00	0.6023	0.6078	D5
M16	2.00	0.6810	0.6867	D5
M18	2.50	0.7725	0.7786	D5
M20	2.50	0.8371	0.8574	D5
M22	2.50	0.9300	0.9361	D5
M24	3.00	1.0216	1.0289	D6





Machine Screw Taps - Ground Thread Unified and American National Form (Table 329)

Tap Size In	Threads Per Inch			Major Diameter			Basic Pitch Diam.	Pitch Diameter Limits							
	NC UNC	UF UNF	NS	Basic	Min.	Max.		H1 Limit		H2 Limit		H3 Limit		H7 Limit*	
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
0	-	80	-	0.0600	0.0605	0.0616	0.0519	0.0519	0.0524	0.0524	0.0529	-	-	-	-
1	64	-	-	0.0730	0.0736	0.0750	0.0629	0.0629	0.0634	0.0634	0.0639	-	-	-	-
1	-	72	-	0.0730	0.0736	0.0748	0.0640	0.0640	0.0645	0.0645	0.0650	-	-	-	-
2	56	-	-	0.0860	0.0867	0.0883	0.0744	0.0744	0.0749	0.0749	0.0754	-	-	-	-
2	-	64	-	0.0860	0.0866	0.0880	0.0759	0.0759	0.0764	0.0764	0.0769	-	-	-	-
3	48	-	-	0.0990	0.0999	0.1017	0.0855	0.0855	0.0860	0.0860	0.0865	-	-	-	-
3	-	56	-	0.0990	0.0997	0.1013	0.0874	0.0874	0.0879	0.0879	0.0884	-	-	-	-
4	-	-	36	0.1120	0.1135	0.1156	0.0940	-	-	0.0945	0.0950	-	-	-	-
4	40	-	-	0.1120	0.1133	0.1152	0.0958	0.0958	0.0963	0.0963	0.0968	-	-	-	-
4	-	48	-	0.1120	0.1129	0.1147	0.0985	0.0985	0.0990	0.0990	0.0995	-	-	-	-
5	40	-	-	0.1250	0.1263	0.1282	0.1088	0.1088	0.1093	0.1093	0.1098	-	-	-	-
5	-	44	-	0.1250	0.1263	0.1280	0.1102	-	-	0.1107	0.1112	-	-	-	-
6	32	-	-	0.1380	0.1401	0.1421	0.1177	0.1177	0.1182	0.1182	0.1187	0.1187	0.1192	0.1207	0.1212
6	-	40	-	0.1380	0.1393	0.1412	0.1218	0.1218	0.1223	0.1223	0.1228	-	-	-	-
8	32	-	-	0.1640	0.1661	0.1681	0.1437	0.1437	0.1442	0.1442	0.1447	0.1447	0.1452	0.1467	0.1472
8	-	26	-	0.1640	0.1655	0.1676	0.1460	0.1460	0.1465	0.1465	0.1470	-	-	-	-
10	24	-	-	0.1900	0.1927	0.1954	0.1629	0.1629	0.1634	0.1634	0.1639	0.1639	0.1644	0.1659	0.1664
10	-	32	-	0.1900	0.1921	0.1941	0.1697	0.1697	0.1702	0.1702	0.1707	0.1707	0.1712	0.1727	0.1732
12	24	-	-	0.2160	0.2187	0.2214	0.1889	0.1889	0.1894	-	-	0.1899	0.1904	-	-
12	-	28	-	0.2160	0.2183	0.2206	0.1928	0.1928	0.1933	-	-	0.1938	0.1943	-	-

*Major diameter for H7 Limit Taps is 0.002" larger than values shown in min. and max. columns.

LEAD TOLERANCE

A maximum lead deviation of plus or minus 0.0005" within any two threads not farther apart than one inch is permitted.

ANGLE TOLERANCE

6 to 9 threads per inch incl. = $\pm 25'$ in 1/2 angle.
10 to 80 threads per inch incl., = $\pm 30'$ in 1/2 angle.

FORMULA

Maximum major diameter = Basic + A.

Minimum major diameter = Basic + B.

For values of A and B see table 331.

PITCH DIAMETER LIMITS FOR TAPS THROUGH 1" DIAMETER

H1 Limit = Basic PD to basic PD + 0.0005".

H2 Limit = Basic PD + 0.0005" to Basic PD + 0.0001".

H3 Limit = Basic PD + 0.0010" to Basic PD + 0.0015".

H4 Limit = Basic PD + 0.0015" to Basic PD + 0.0020".

H5 Limit = Basic PD + 0.0020" to Basic PD + 0.0025".

H6 Limit = Basic PD + 0.0025" to Basic PD + 0.0030".

PITCH DIAMETER LIMITS FOR TAPS OVER 1" DIAMETER THROUGH 1-1/2" DIAMETER

H4 Limit = Basic PD + 0.0010" to Basic PD + 0.0020".

Fractional Size Taps - Ground Thread Unified and American National Form (Table 327)

Tap Size Inches	Threads Per Inch			Major Diameter			Basic Pitch Diam.	Pitch Diameter Limits											
	NC UNC	UF UNF	NS	Basic	Min.	Max.		H1 Limit		H2 Limit		H3 Limit		H4 Limit		H5 Limit		H6 Limit	
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4	20	—	—	0.2500	0.2533	0.2565	0.2175	0.2175	0.2180	0.2180	0.2185	0.2185	0.2190	—	—	0.2195	0.2200	—	—
1/4	—	28	—	0.2500	0.2523	0.2546	0.2268	0.2268	0.2273	0.2273	0.2278	0.2278	0.2283	0.2283	0.2288	—	—	—	—
5/16	18	—	—	0.3125	0.3161	0.3197	0.2764	0.2764	0.2769	0.2769	0.2774	0.2774	0.2779	—	—	0.2784	0.2789	—	—
5/16	—	24	—	0.3125	0.3152	0.3179	0.2854	0.2854	0.2859	0.2859	0.2864	0.2864	0.2869	0.2869	0.2874	—	—	—	—
3/8	16	—	—	0.3750	0.3790	0.3831	0.3344	0.3344	0.3349	0.3349	0.3354	0.3354	0.3359	—	—	0.3364	0.3369	—	—
3/8	—	24	—	0.3750	0.3777	0.3804	0.3479	0.3479	0.3484	0.3484	0.3489	0.3489	0.3494	0.3494	0.3499	—	—	—	—
7/16	14	—	—	0.4375	0.4422	0.4468	0.3911	0.3911	0.3916	0.3916	0.3921	0.3921	0.3926	—	—	0.3931	0.3936	—	—
7/16	—	20	—	0.4375	0.4408	0.4440	0.4050	0.4050	0.4055	0.4055	0.4060	0.4060	0.4065	—	—	0.4070	0.4075	—	—
1/2	13	—	—	0.5000	0.5050	0.5100	0.4500	0.4500	0.4505	0.4505	0.4510	0.4510	0.4515	—	—	0.4520	0.4525	—	—
1/2	—	20	—	0.5000	0.5033	0.5065	0.4675	0.4675	0.4680	0.4680	0.4685	0.4685	0.4690	—	—	0.4695	0.4700	—	—
9/16	12	—	—	0.5625	0.5679	0.5733	0.5084	0.5084	0.5089	0.5089	0.5094	0.5094	0.5099	—	—	0.5104	0.5109	—	—
9/16	—	18	—	0.5625	0.5661	0.5697	0.5264	0.5264	0.5269	0.5269	0.5274	0.5274	0.5279	—	—	0.5284	0.5289	—	—
5/8	11	—	—	0.6250	0.6309	0.6368	0.5660	0.5660	0.5665	0.5665	0.5670	0.5670	0.5675	—	—	0.5680	0.5685	—	—
5/8	—	18	—	0.6250	0.6286	0.6322	0.5889	0.5889	0.5894	0.5894	0.5899	0.5899	0.5904	—	—	0.5909	0.5914	—	—
11/16	—	—	11	0.6875	0.6934	0.6993	0.6285	—	—	—	—	0.6295	0.6300	—	—	—	—	—	—
11/16	—	—	16	0.6875	0.6915	0.6956	0.6469	—	—	—	—	0.6479	0.6484	—	—	—	—	—	—
3/4	10	—	—	0.7500	0.7565	0.7630	0.6850	0.6850	0.6855	0.6855	0.6860	0.6860	0.6865	—	0.8048	0.6870	0.6875	—	—
3/4	—	16	—	0.7500	0.7540	0.7581	0.7094	0.7094	0.7099	0.7099	0.7104	0.7104	0.7109	—	0.8306	0.7114	0.7119	—	—
7/8	9	—	—	0.8750	0.8822	0.8894	0.8028	0.8028	0.8033	0.8033	0.8038	—	—	0.8043	0.9208	—	—	0.8053	0.8058
7/8	—	14	—	0.8750	0.8797	0.8843	0.8286	0.8286	0.8291	0.8291	0.8296	—	—	0.8301	0.9479	—	—	0.8311	0.8316
1	8	—	—	1.0000	1.0081	1.0162	0.9188	0.9188	0.9193	0.9193	0.9198	—	—	0.9203	0.9556	—	—	0.9213	0.9218
1	—	12	—	1.0000	1.0054	1.0108	0.9459	—	—	—	—	—	—	0.9474	1.0342	—	—	—	—
1	—	—	14	1.0000	1.0047	1.0093	0.9536	—	—	0.9541	0.9546	—	—	0.9551	1.0729	—	—	0.9561	0.9566
1 1/8	7	—	—	1.1250	1.1343	1.1436	1.0322	—	—	—	—	—	—	1.0332	1.1592	—	—	—	—
1 1/8	—	12	—	1.1250	1.1304	1.1358	1.0709	—	—	—	—	—	—	1.0719	1.1979	—	—	—	—
1 1/4	7	—	—	1.2500	1.2593	1.2686	1.1572	—	—	—	—	—	—	1.1582	1.2687	—	—	—	—
1 1/4	—	12	—	1.2500	1.2554	1.2608	1.1959	—	—	—	—	—	—	1.1969	1.3229	—	—	—	—
1 3/8	6	—	—	1.3750	1.3859	1.3967	1.2667	—	—	—	—	—	—	1.2677	1.3937	—	—	—	—
1 3/8	—	12	—	1.3750	1.3804	1.3858	1.3209	—	—	—	—	—	—	1.3219	1.4479	—	—	—	—
1 1/2	6	—	—	1.5000	1.5109	1.5217	1.3917	—	—	—	—	—	—	1.3927	—	—	—	—	—
1 1/2	—	12	—	1.5000	1.5054	1.5108	1.4459	—	—	—	—	—	—	1.4469	—	—	—	—	—





Ground Thread Taps (USCTI Table 331)

The following tables and formula are used in determining the limits and tolerances for ground thread taps having a thread lead angle not in excess of 5°, unless otherwise specified.

LEAD TOLERANCE

A maximum lead deviation of $\pm 0.0005''$, within any two threads not farther apart than 1" is permitted.

ANGLE TOLERANCE

Threads Per Inch	Deviation in Half Angle
4 to 5-1/2 incl.	$\pm 20'$
6 to 9 incl.	$\pm 25'$
10 to 80 incl.	$\pm 30'$

FORMULA

Max. Major Dia. = Basic + A

Max. Pitch Dia. = Min. + D

Min. Major Dia. = Basic + B

Min. Pitch Dia. = Basic + C

In the above formula:

A = Constant to add = $0.130P$ for all Pitches

B = Major Diameter Tolerance = $0.087P$ for 48 Through 80 TPI
 = $0.076P$ for 36 Through 47 TPI
 = $0.065P$ for 4 Through 35 TPI

C = Amount over basic for minimum pitch diameter

D = Pitch diameter tolerance

Note: When the tap major diameter must be determined from a specified tap pitch diameter, the maximum major diameter equals the minimum specified pitch diameter minus Constant C, plus $0.64952P$, plus Constant A.

Threads Per Inch	A	B	C			D			
			To 5/8" Incl.	Over 5/8" to 2 1/2" Incl.	Over 2 1/2"	To 1" Incl.	Over 1" to 1 1/2" Incl.	Over 1 1/2" to 2 1/2" Incl.	Over 2 1/2"
80	0.0016	0.0011	0.0005	0.0010	0.0015	0.0005	0.0010	0.0010	0.0015
72	0.0018	0.0012	0.0005	0.0010	0.0015	0.0005	0.0010	0.0010	0.0015
64	0.0020	0.0014	0.0005	0.0010	0.0015	0.0005	0.0010	0.0010	0.0015
56	0.0023	0.0016	0.0005	0.0010	0.0015	0.0005	0.0010	0.0010	0.0015
48	0.0027	0.0018	0.0005	0.0010	0.0015	0.0005	0.0010	0.0010	0.0015
44	0.0030	0.0017	0.0005	0.0010	0.0015	0.0005	0.0010	0.0010	0.0015
40	0.0032	0.0019	0.0005	0.0010	0.0015	0.0005	0.0010	0.0010	0.0015
36	0.0036	0.0021	0.0005	0.0010	0.0015	0.0005	0.0010	0.0010	0.0015
32	0.0041	0.0020	0.0010	0.0010	0.0015	0.0005	0.0010	0.0010	0.0015
28	0.0046	0.0023	0.0010	0.0010	0.0015	0.0005	0.0010	0.0010	0.0015
24	0.0054	0.0027	0.0010	0.0010	0.0015	0.0005	0.0010	0.0015	0.0015
20	0.0065	0.0032	0.0010	0.0010	0.0015	0.0005	0.0010	0.0015	0.0015
18	0.0072	0.0036	0.0010	0.0010	0.0015	0.0005	0.0010	0.0015	0.0015
16	0.0081	0.0041	0.0010	0.0010	0.0015	0.0005	0.0010	0.0015	0.0020
14	0.0093	0.0046	0.0010	0.0015	0.0015	0.0005	0.0010	0.0015	0.0020
13	0.0100	0.0050	0.0010	0.0015	0.0015	0.0005	0.0010	0.0015	0.0020
12	0.0108	0.0054	0.0010	0.0015	0.0015	0.0005	0.0010	0.0015	0.0020
11	0.0118	0.0059	0.0010	0.0015	0.0020	0.0005	0.0010	0.0015	0.0020
10	0.0130	0.0065	—	0.0015	0.0020	0.0005	0.0010	0.0015	0.0020
9	0.0144	0.0072	—	0.0015	0.0020	0.0005	0.0010	0.0015	0.0020
8	0.0162	0.0081	—	0.0015	0.0020	0.0005	0.0010	0.0015	0.0020
7	0.0186	0.0093	—	0.0015	0.0020	0.0010	0.0010	0.0020	0.0025
6	0.0217	0.0108	—	0.0015	0.0020	0.0010	0.0010	0.0020	0.0025
5 1/2	0.0236	0.0118	—	0.0015	0.0020	0.0010	0.0015	0.0020	0.0025
5	0.0260	0.0130	—	0.0015	0.0020	0.0010	0.0015	0.0020	0.0025
4 1/2	0.0289	0.0144	—	0.0015	0.0020	0.0010	0.0015	0.0020	0.0025
4	0.0325	0.0162	—	0.0015	0.0020	0.0010	0.0015	0.0020	0.0025

For intermediate pitches, use values for next coarser pitch for C and D, but use formulas for A and B.





Metric Size Taps - Ground Thread (Table 337)

Nom- inal Size mm	Pitch mm	Major Diameter Inches			Standard Pitch Diameter Limits Inches														
		Basic	Min.	Max.	Basic Pitch Diam.	D3 Limits		D4 Limits		D5 Limits		D6 Limits		D7 Limits		D8 Limits		D9 Limits	
						Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.6	0.35	0.062992	0.0641	0.0651	0.054042	0.0550	0.0556	-	-	-	-	-	-	-	-	-	-	-	-
2.0	0.4	0.078740	0.0801	0.0811	0.068511	0.0695	0.0701	-	-	-	-	-	-	-	-	-	-	-	-
2.5	0.45	0.098425	0.0999	0.1009	0.086918	0.0879	0.0885	-	-	-	-	-	-	-	-	-	-	-	-
3.0	0.5	0.118110	0.1198	0.1208	0.105324	0.1063	0.1069	-	-	-	-	-	-	-	-	-	-	-	-
3.5	0.6	0.137795	0.1397	0.1407	0.122452	-	-	0.1237	0.1245	-	-	-	-	-	-	-	-	-	-
4.0	0.7	0.157480	0.1597	0.1613	0.139580	-	-	0.1408	0.1416	-	-	-	-	-	-	-	-	-	-
5.0	0.8	0.196850	0.1994	0.2010	0.176393	-	-	0.1776	0.1784	-	-	-	-	-	-	-	-	-	-
6.0	1.0	0.236220	0.2395	0.2411	0.210648	-	-	-	-	0.2122	0.2132	-	-	-	-	-	-	-	-
8.0	1.25	0.314960	0.3189	0.3214	0.282995	-	-	-	-	0.2843	0.2855	-	-	-	-	-	-	-	-
10	1.5	0.393700	0.3985	0.4010	0.355343	-	-	-	-	-	-	0.3572	0.3584	-	-	-	-	-	-
12	1.75	0.472440	0.4780	0.4805	0.427690	-	-	-	-	-	-	0.4295	0.4307	-	-	-	-	-	-
14	2.0	0.551180	0.5575	0.5600	0.500037	-	-	-	-	-	-	-	-	0.5020	0.5036	-	-	-	-
16	2.0	0.629920	0.6363	0.6388	0.578777	-	-	-	-	-	-	-	-	0.5807	0.5823	-	-	-	-
20	2.5	0.787400	0.7954	0.7979	0.723471	-	-	-	-	-	-	-	-	0.7254	0.7270	-	-	-	-
24	3.0	0.944880	0.9544	0.9583	0.868165	-	-	-	-	-	-	-	-	-	-	0.8706	0.8722	1.0942	1.0962
30	3.5	1.181100	1.1922	1.1961	1.091599	-	-	-	-	-	-	-	-	-	-	-	-	1.3176	1.3196
36	4.0	1.417320	1.4300	1.4339	1.315034	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LEAD TOLERANCE

A maximum lead deviation of ± 0.013 mm within any two threads not farther apart than 25 mm is permitted.

ANGLE TOLERANCE

Pitch (mm)

Over 0.25 to 2.5 Incl.

Over 2.5 to 4 Incl.

Over 4 to 6 Incl.

Deviation in Half Angle

$\pm 30'$

$\pm 25'$

$\pm 20''$

FORMULA

Min. Major Dia. = Basic + W

Max. Major Dia. = Min. + X

For Values of W, Y & Z, See Table 341

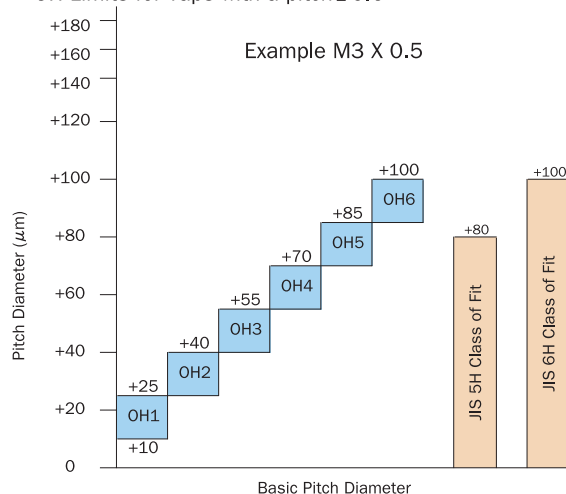
Max. Pitch Dia. = Basic + Y

Min. Pitch Dia. = Max. - Z

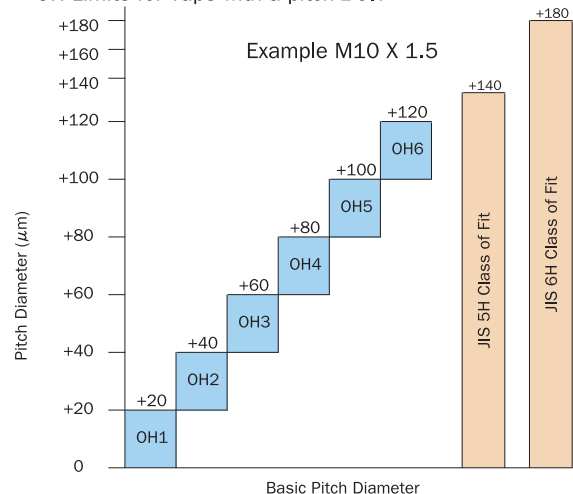
In all cases, the tap major and pitch diameter inch conversions have been rounded upwards to the next ten thousandth of an inch. Basic values agree with B1 Report—ISO Metric Screw Threads, Table 9B.

OH Tap Limits

OH Limits for Taps with a pitch ≤ 0.6



OH Limits for Taps with a pitch ≥ 0.7





Ground Thread Tap Limits (Table 341)

The following tables and formula are used in determining the limits and tolerances for ground thread metric taps unless otherwise specified. They apply only to metric threads having a 60° form with a P/8 flat at the major diameter of the basic thread form.

LEAD TOLERANCE

A maximum lead deviation of ± 0.013 mm within any two threads not farther apart than 25 mm is permitted.

ANGLE TOLERANCE

Pitch (mm)	Deviation in Half Angle
Over 0.25 to 2.5 incl.	$\pm 30'$
Over 2.5 to 4. incl.	$\pm 25'$
Over 4 to 6 incl.	$\pm 20'$

FORMULA

Min. Major Dia = Basic + W	Max. Pitch Dia. = Basic + Y
Max. Major Dia. = Min. + X	Min. Pitch Dia. = Max. - Z

W = Constant to add to Basic Major Diameter*

X = Major Diameter Tolerance

Y = Amount over Basic for Maximum Pitch Diameter

Z = Pitch Diameter Tolerance

*W = .080P Converted to inches

Note: When the tap major diameter must be determined from a specified tap pitch diameter, the minimum major diameter equals the maximum specified tap pitch diameter minus constant Y, plus the basic single height of thread, plus constant W.

Pitch		Symmetrical Thread Height 0.64952P (Inch)	Tap Limits for Metric Threads (inch)									
			W	X	Y				Z			
					M1.6 To M6.3 Incl.	Over M6.3 to M25 Incl.	Over M25 To M90 Incl.	Over M90	M1.6 To M6.3 Incl.	Over M6.3 to M25 Incl.	Over M25 To M90 Incl.	Over M90
mm	Inch Equiv.											
0.3	0.011811	0.007671	0.0009	0.0010	0.0015	0.0015	0.0020	0.0020	0.0006	0.0006	0.0008	0.0008
0.35	0.013779	0.008950	0.0011	0.0010	0.0015	0.0015	0.0020	0.0020	0.0006	0.0006	0.0008	0.0008
0.4	0.015748	0.010229	0.0013	0.0010	0.0015	0.0020	0.0020	0.0020	0.0006	0.0006	0.0008	0.0010
0.45	0.017716	0.011507	0.0014	0.0010	0.0015	0.0020	0.0020	0.0020	0.0006	0.0008	0.0008	0.0010
0.5	0.019685	0.012786	0.0016	0.0010	0.0015	0.0020	0.0020	0.0025	0.0006	0.0008	0.0010	0.0010
0.6	0.236220	0.015343	0.0019	0.0010	0.0020	0.0020	0.0025	0.0025	0.0008	0.0008	0.0010	0.0010
0.7	0.027559	0.017900	0.0022	0.0016	0.0020	0.0020	0.0025	0.0025	0.0008	0.0008	0.0010	0.0010
0.75	0.029527	0.019178	0.0024	0.0016	0.0020	0.0025	0.0025	0.0030	0.0008	0.0010	0.0010	0.0012
0.8	0.031496	0.020457	0.0025	0.0016	0.0020	0.0025	0.0025	0.0030	0.0008	0.0010	0.0010	0.0012
0.9	0.035433	0.023014	0.0028	0.0016	0.0020	0.0025	0.0025	0.0030	0.0008	0.0010	0.0010	0.0012
1.0	0.039370	0.025572	0.0032	0.0016	0.0025	0.0025	0.0030	0.0030	0.0010	0.0010	0.0012	0.0012
1.25	0.049212	0.031964	0.0039	0.0025	0.0025	0.0025	0.0030	0.0035	0.0010	0.0012	0.0012	0.0016
1.5	0.059055	0.038357	0.0047	0.0025	0.0025	0.0030	0.0030	0.0035	0.0010	0.0012	0.0012	0.0016
1.75	0.068897	0.044750	0.0055	0.0025	—	0.0030	0.0035	0.0040	—	0.0012	0.0016	0.0016
2.0	0.078740	0.051143	0.0063	0.0025	—	0.0035	0.0035	0.0040	—	0.0016	0.0016	0.0016
2.5	0.098425	0.063929	0.0079	0.0025	—	0.0035	0.0040	0.0045	—	0.0016	0.0016	0.0020
3.0	0.118110	0.076715	0.0095	0.0039	—	0.0040	0.0040	0.0050	—	0.0016	0.0020	0.0020
3.5	0.137795	0.089501	0.0110	0.0039	—	0.0040	0.0045	0.0050	—	0.0016	0.0020	0.0020
4.0	0.157480	0.102286	0.0126	0.0039	—	0.0040	0.0045	0.0055	—	0.0020	0.0020	0.0025
4.5	0.177165	0.115072	0.0142	0.0039	—	—	0.0050	0.0055	—	0.0020	0.0020	0.0025
5.0	0.196850	0.127858	0.0158	0.0039	—	—	0.0050	0.0060	—	—	0.0025	0.0025
5.5	0.216535	0.140644	0.0173	0.0039	—	—	0.0055	0.0060	—	—	0.0025	0.0025
6.0	0.236220	0.153430	0.0189	0.0039	—	—	0.0055	0.0060	—	—	0.0025	0.0025

For intermediate pitches use value for next coarser pitch.

Symmetrical Thread Height; Equivalent to the basic height, h, of the original American National Form.





ISO TOLERANCE SYSTEM

The ISO Metric Screw Thread Tolerance System provides for tolerance grades and tolerance positions (allowances) for the pitch diameter and crest diameter.

TOLERANCE GRADES

A series of numbers, 3 through 9, were established as symbols, to reflect the size of the tolerance; the higher the number the larger the tolerance.

FOR EXTERNAL THREADS - (LOWER CASE LETTER SYMBOLS)

- Tolerance Position "e" has a large allowance. The upper limit is below basic by a large amount.
- Tolerance Position "g" has a small allowance. The upper limit is below basic by a small amount.
- Tolerance Position "h" has no allowance and the upper limit is basic.

FOR INTERNAL THREADS - (CAPITAL LETTER SYMBOLS)

- Tolerance Position "G" has a small allowance. The lower limit is above basic by a small amount.
- Tolerance Position "H" has no allowance and the lower limit is basic.

SELECTION OF TOLERANCE CLASSES

Two factors determine the selection of a suitable tolerance class:

1. Length of thread engagement (short, normal or long)
2. Quality requirement (fine, medium or coarse) See table below for preferred tolerance classes.

TOLERANCE POSITIONS

They define the maximum-material limits of the pitch and crest diameters and indicate their relationship to the basic profile. For plating requirements and ease of assembly, a series of tolerance positions were established.

PREFERRED TOLERANCE CLASSES

Quality Requirement	External Thread (Bolts)									Internal Thread (Nuts)					
	Tolerance Position e (Large Allowance)			Tolerance Position g (Small Allowance)			Tolerance Position h (No Allowance)			Tolerance Position G (Small Allowance)			Tolerance Position H (No Allowance)		
	Length of Thread Engagement			Length of Thread Engagement			Length of Thread Engagement			Length of Thread Engagement			Length of Thread Engagement		
	Short	Normal	Long	Short	Normal	Long	Short	Normal	Long	Short	Normal	Long	Short		
FINE Close Fit Applications							3h-4h	4h	5h-4h				4H		
MEDIUM General Purpose Applications		6e	7e-6e	5g-6g	6g	7g-6g	5h-6h	6h	7h-6h	5G	6G	7G	5H		
COARSE Difficult Manufacturing Applications					8g	9g-8g					7G	8G			

Tolerance Position "e" is not to be applied to pitches finer than 0.5 mm. Tolerance classes 6g and 6H are for commercial screw, bolt and nut threads.

THREAD DESIGNATIONS

Basic Designations: The letter "M" and the nominal size (basic major diameter in millimeters) followed by "X" and the pitch in millimeters, designates metric screw threads. For coarse series thread, the "X" and pitch may be omitted.

Example: Coarse series threads; M6
other threads; M8 x 1

A complete designation comprises, in addition to the basic designation, the tolerance class symbol separated by a dash. When the pitch and crest diameter tolerance classes are identical, the symbol need only be given once.

Example: M20 x 2—6H

When the pitch and crest diameters have different tolerance classes, the pitch diameter symbol is followed by the crest diameter symbol.

Example: M6 x 0.75—5g—6g

To indicate a specified thread fit between mating parts, the internal thread tolerance class symbol is followed by that of the external thread, separated by a slash.

Example: M20 x 2—6H/5g—6g

When rounded root external threads are to be specified, the minimum root radius value shall be added to the tolerance class designation.

Example: M6—5g—6g 0.100R



Limiting Dimensions of Standard Series Threads for Commercial Screws, Bolts and Nuts (Inches)

Nom- inal Size Diam	Pitch P	Basic Thread Design- ation	External Thread (Bolt)									Internal Thread (Nut)						
			Tol Cl.	Allow- ance	Major Diameter		Pitch Diameter			Minor Diameter		Tol Cl.	Minor Diameter		Pitch Diameter			Major Dia.
					Max.	Min.	Max.	Min.	Tol.	Max.	Min.		Min.	Max.	Min.	Max.	Tol.	
1.6	0.35	M1.6	6g	0.0008	0.0622	0.0589	0.0533	0.0509	0.0024	0.0453	0.0419	6H	0.0481	0.0520	0.0541	0.0574	0.0033	0.0630
1.8	0.35	M1.8	6g	0.0008	0.0701	0.0668	0.0611	0.0588	0.0023	0.0531	0.0498	6H	0.0560	0.0598	0.0620	0.0652	0.0032	0.0709
2	0.4	M2.0	6g	0.0009	0.0779	0.0743	0.0677	0.0652	0.0025	0.0586	0.0549	6H	0.0617	0.0661	0.0686	0.0720	0.0034	0.0788
2.2	0.45	M2.2	6g	0.0009	0.0858	0.0819	0.0743	0.0716	0.0027	0.0640	0.0601	6H	0.0675	0.0723	0.0752	0.0788	0.0036	0.0867
2.5	0.45	M2.5	6g	0.0009	0.0976	0.0938	0.0861	0.0834	0.0027	0.0759	0.0719	6H	0.0793	0.0841	0.0870	0.0906	0.0036	0.0985
3	0.5	M3.0	6g	0.0009	0.1173	0.1132	0.1045	0.1016	0.0029	0.0931	0.0889	6H	0.0969	0.1023	0.1054	0.1092	0.0038	0.1182
3.5	0.6	M3.5	6g	0.0009	0.1369	0.1321	0.1216	0.1183	0.0033	0.1079	0.1030	6H	0.1123	0.1185	0.1225	0.1268	0.0043	0.1378
4	0.7	M4.0	6g	0.0009	0.1566	0.1512	0.1387	0.1352	0.0034	0.1227	0.1173	6H	0.1277	0.1347	0.1396	0.1442	0.0046	0.1575
4.5	0.75	M4.5	6g	0.0010	0.1762	0.1708	0.1571	0.1536	0.0035	0.1400	0.1345	6H	0.1452	0.1526	0.1580	0.1626	0.0046	0.1772
5	0.8	M5.0	6g	0.0010	0.1959	0.1900	0.1754	0.1717	0.0037	0.1572	0.1513	6H	0.1628	0.1706	0.1764	0.1812	0.0048	0.1969
6	1.0	M6.0	6g	0.0012	0.2351	0.2282	0.2096	0.2052	0.0044	0.1868	0.1797	6H	0.1936	0.2028	0.2107	0.2165	0.0058	0.2363
7	1.0	M7.0	6g	0.0011	0.2745	0.2675	0.2489	0.2446	0.0043	0.2262	0.2191	6H	0.2330	0.2422	0.2501	0.2559	0.0058	0.2756
8	1.25	M8.0	6g	0.0012	0.3138	0.3056	0.2818	0.2773	0.0045	0.2535	0.2454	6H	0.2617	0.2721	0.2830	0.2892	0.0062	0.3150
8	1.0	M8 x 1.0	6g	0.0011	0.3139	0.3069	0.2883	0.2840	0.0043	0.2656	0.2584	6H	0.2724	0.2816	0.2894	0.2952	0.0058	0.3150
10	1.5	M10	6g	0.0013	0.3924	0.3832	0.3540	0.3489	0.0051	0.3199	0.3102	6H	0.3298	0.3415	0.3554	0.3624	0.0070	0.3937
10	1.25	M10 x 1.25	6g	0.0012	0.3925	0.3843	0.3606	0.3560	0.0046	0.3322	0.3241	6H	0.3404	0.3508	0.3618	0.3680	0.0062	0.3937
12	1.75	M12	6g	0.0014	0.4711	0.4607	0.4263	0.4205	0.0058	0.3865	0.3758	6H	0.3979	0.4110	0.4277	0.4355	0.0078	0.4725
12	1.25	M12 x 1.25	6g	0.0012	0.4713	0.4630	0.4393	0.4342	0.0051	0.4109	0.4023	6H	0.4192	0.4295	0.4405	0.4475	0.0070	0.4725
14	2.0	M14	6g	0.0016	0.5496	0.5387	0.4985	0.4923	0.0062	0.4530	0.4412	6H	0.4660	0.4807	0.5001	0.5083	0.0082	0.5512
14	1.5	M14 x 1.5	6g	0.0013	0.5499	0.5407	0.5115	0.5061	0.0054	0.4774	0.4677	6H	0.4873	0.4990	0.5129	0.5203	0.0074	0.5512
16	2.0	M16	6g	0.0016	0.6284	0.6175	0.5772	0.5710	0.0062	0.5318	0.5199	6H	0.5447	0.5594	0.5788	0.5871	0.0083	0.6300
16	1.5	M16 x 1.5	6g	0.0014	0.6286	0.6194	0.5903	0.5849	0.0054	0.5561	0.5465	6H	0.5660	0.5777	0.5916	0.5990	0.0074	0.6300
18	2.5	M18	6g	0.0017	0.7070	0.6939	0.6430	0.6364	0.0066	0.5862	0.5725	6H	0.6022	0.6198	0.6448	0.6535	0.0087	0.7087
18	1.5	M18 x 1.5	6g	0.0013	0.7074	0.6982	0.6690	0.6636	0.0054	0.6349	0.6252	6H	0.6448	0.6565	0.6704	0.6777	0.0073	0.7087
20	2.5	M20	6g	0.0018	0.7857	0.7726	0.7218	0.7152	0.0066	0.6649	0.6513	6H	0.6809	0.6985	0.7235	0.7322	0.0087	0.7875
20	1.5	M20 x 1.5	6g	0.0014	0.7861	0.7769	0.7477	0.7423	0.0054	0.7136	0.7039	6H	0.7235	0.7352	0.7491	0.7565	0.0074	0.7875
22	2.5	M22	6g	0.0018	0.8644	0.8513	0.8005	0.7939	0.0066	0.7437	0.7300	6H	0.7597	0.7773	0.8023	0.8110	0.0087	0.8662
22	1.5	M22 x 1.5	6g	0.0014	0.8648	0.8556	0.8265	0.8211	0.0054	0.7924	0.7827	6H	0.8023	0.8140	0.8278	0.8352	0.0074	0.8662
24	3.0	M24	6g	0.0020	0.9429	0.9283	0.8662	0.8584	0.0078	0.7980	0.7817	6H	0.8171	0.8366	0.8682	0.8785	0.0103	0.9449
24	2.0	M24 x 2.0	6g	0.0016	0.9433	0.9324	0.8922	0.8856	0.0066	0.8467	0.8345	6H	0.8597	0.8744	0.8938	0.9025	0.0087	0.9449
27	3.0	M27	6g	0.0019	1.0611	1.0464	0.9843	0.9765	0.0078	0.9161	0.8999	6H	0.9352	0.9548	0.9863	0.9966	0.0103	1.0630
27	2.0	M27 x 2.0	6g	0.0016	1.0614	1.0505	1.0103	1.0037	0.0066	0.9648	0.9526	6H	0.9778	0.9925	1.0119	1.0206	0.0087	1.0630
30	3.5	M30	6g	0.0022	1.1790	1.1623	1.0895	1.0812	0.0083	1.0099	0.9917	6H	1.0320	1.0539	1.0917	1.1026	0.0109	1.1812
30	2.0	M30 x 2.0	6g	0.0016	1.1796	1.1686	1.1284	1.1218	0.0066	1.0829	1.0707	6H	1.0959	1.1106	1.1300	1.1387	0.0087	1.1812
33	3.5	M33	6g	0.0022	1.2971	1.2804	1.2076	1.1993	0.0083	1.1280	1.1099	6H	1.1501	1.1720	1.2098	1.2207	0.0109	1.2993
33	2.0	M33 x 2.0	6g	0.0016	1.2977	1.2867	1.2465	1.2399	0.0066	1.2011	1.1888	6H	1.2140	1.2287	1.2481	1.2568	0.0087	1.2993
36	4.0	M36	6g	0.0025	1.4149	1.3963	1.3126	1.3039	0.0087	1.2217	1.2017	6H	1.2469	1.2704	1.3151	1.3268	0.0117	1.4174
36	3.0	M36 x 3.0	6g	0.0020	1.4154	1.4007	1.3386	1.3309	0.0077	1.2705	1.2542	6H	1.2895	1.3091	1.3406	1.3510	0.0104	1.4174
39	4.0	M39	6g	0.0025	1.5330	1.5144	1.4307	1.4220	0.0087	1.3398	1.3198	6H	1.3650	1.3885	1.4332	1.4449	0.0117	1.5355
39	3.0	M39 x 3.0	6g	0.0020	1.5335	1.5188	1.4568	1.4490	0.0078	1.3886	1.3723	6H	1.4076	1.4272	1.4587	1.4691	0.0104	1.5355

Excerpt from American National Standard B1. 16-1972, American Gaging Practices for Metric Screw Threads; "In all cases the inch conversion values have been rounded toward the interior of the tolerance zone, that is, maximum limits have been rounded downward and minimum limits have been rounded upward. Due to the fact that the majority of machinery and measuring equipment in the United States is based on the inch system, all gages should be made to the inch conversions."

TAP RECOMMENDATIONS: The pitch diameter high limits of the recommended tap for 6H tolerance class is 40% of the product tolerance rounded to the nearest .0005."

Example: M10 x 1.5; product tolerance = .00070" x .40 = .0028" rounded to .0030". This is the amount over basic pitch diameter. Based on .0005" increments over basic pitch diameter, the recommended tap has a D6 high limit (.0030 ÷ .0005").



Straight & Taper Pipe Taps

Standards & Dimensions

General Dimensions (Table 311)

Nominal Size (inch)	Dimensions (inch)				
	Overall Length A	Thread Length B	Length of Square C	Shank Diameter D	Size of Square E
1/16	2-1/8	11/16	3/8	0.3125	0.234
1/8	2-1/8	3/4	3/8	0.3125	0.234
1/8	2-1/8	3/4	3/8	0.4375	0.328
1/4	2-7/16	1-1/16	7/16	0.5625	0.421
3/8	2-9/16	1-1/16	1/2	0.7000	0.531
1/2	3-1/8	1-3/8	5/8	0.6875	0.515
3/4	3-1/4	1-3/8	11/16	0.9063	0.679
1	3-3/4	1-3/4	13/16	1.1250	0.843
1-1/4	4	1-3/4	15/16	1.3125	0.984
1-1/2	4-1/4	1-3/4	1	1.5000	1.125
2	4-1/2	1-3/4	1-1/8	1.8750	1.406

Tolerances

Element	Range (inch)	Direction	Tolerance (inch)	
			Cut Thread	Ground Thread
Overall Length-A	1/16 to 3/4 incl.	Plus or Minus	1/32	1/32
	1 to 4 incl.	Plus or Minus	1/16	1/16
Thread Length-B	1/16 to 3/4 incl.	Plus or Minus	1/16	1/16
	1 to 1-1/4 incl.	Plus or Minus	3/32	3/32
Length of Square-C	1-1/2 to 4 incl.	Plus or Minus	1/8	1/8
	1/16 to 3/4 incl.	Plus or Minus	1/32	1/32
Shank Diameter-D	1 to 4 incl.	Plus or Minus	1/16	1/16
	1/16 to 1/8 incl.	Minus	0.0070	0.0015
Shank Diameter-D	1/4 to 1/2 incl.	Minus	0.0070	0.0020
	3/4 to 1 incl.	Minus	0.0090	0.0020
Size of Square-E	1-1/4 to 4 incl.	Minus	0.0090	0.0030
	1/16 to 1/8 incl.	Minus	0.0040	0.0040
Size of Square-E	1/4 to 3/4 incl.	Minus	0.0060	0.0060
	1 to 4 incl.	Minus	0.0080	0.0080

Thread Limits

Nominal Size (inch)	Threads per Inch NPT	*Gage Measurement (inch)			Taper per Foot (inch)			
		Projection	Tolerance (+/-)		Cut Thread		Ground Thread	
			Cut Thread	Ground Thread	Min.	Max.	Min.	Max.
1/16	27	.312	1/16	1/16	23/32	27/32	23/32	25/32
1/8	27	.312	1/16	1/16	23/32	27/32	23/32	25/32
1/4	18	.459	1/16	1/16	23/32	27/32	23/32	25/32
3/8	18	.454	1/16	1/16	23/32	27/32	23/32	25/32
1/2	14	.579	1/16	1/16	23/32	13/16	23/32	25/32
3/4	14	.565	1/16	1/16	23/32	13/16	23/32	25/32
1	11-1/2	.678	3/32	3/32	23/32	13/16	23/32	25/32
1-1/4	11-1/2	.686	3/32	3/32	23/32	13/16	23/32	25/32
1-1/2	11-1/2	.699	3/32	3/32	23/32	13/16	23/32	25/32
2	11-1/2	.667	3/32	3/32	23/32	13/16	23/32	25/32

*Distance small end of tap projects through American Standard Pipe Thread Ring Gage.



Taper Pipe Taps Ground Thread (Table 338)

American National Standard Taper Pipe Thread Form (NPT)
Aeronautical National Taper Pipe Thread Form (ANPT)
Dryseal American National Standard Taper Pipe Thread Form (NPTF)

Thread Limits

Nominal Size (inch)	Threads per Inch NPT	*Gage Measurement (inch)		Taper per Foot (inch)	
		Projection	Tolerance (+/-)	Min.	Max.
1/16	27	0.312	1/16	23/32	25/32
1/8	*27	0.312	1/16	23/32	25/32
1/4	18	0.459	1/16	23/32	25/32
3/8	18	0.454	1/16	23/32	25/32
1/2	14	0.579	1/16	23/32	25/32
3/4	14	0.565	1/16	23/32	25/32
1	11-1/2	0.678	3/32	23/32	25/32
1 1/4	11-1/2	0.686	3/32	23/32	25/32
1 1/2	11-1/2	0.699	3/32	23/32	25/32
2	11-1/2	0.667	3/32	23/32	25/32
2 1/2	8	0.925	3/32	47/64	25/32
3	8	0.925	3/32	47/64	25/32
3 1/2	8	0.938	1/8	47/64	25/32
4	8	0.950	1/8	47/64	25/32

*Distance small end of tap projects through an L1 American Standard Taper Pipe Thread Ring Gage (See Table 357 page 440).

Width of Flats - Taps

Threads Per Inch	Element	Width of Flats at Tap Crest and Roots			
		NPT		NPTF	
		Min.	Max.	Min.	Max.
27	Major Dia.	0.0014	.0041	0.0040	.0055
	Minor Dia.		.0041		.0040
18	Major Dia.	0.0021	.0057	0.0050	.0065
	Minor Dia.		.0057		.0050
14	Major Dia.	0.0027	.0064	0.0050	.0065
	Minor Dia.		.0064		.0050
11 1/2	Major Dia.	0.0033	.0073	0.0060	.0083
	Minor Dia.		.0073		.0060
8	Major Dia.	0.0048	.0090	0.0080	.0103
	Minor Dia.		.0090		.0030

Minimum minor diameter flats are not specified. May be as sharp as practicable.
Ground Thread Taps marked NPT may be used for NPT and ANPT applications.

Angle Tolerance

Threads Per Inch	Tolerance Half Angle
8	±25'
11 1/2 to 27 inclusive	±30'

Formula Values

Threads Per Inch	A	B	C	D	E
27	0.0267	0.0296	0.0257	0.0234	0.0251
18	0.0408	0.0444	0.0401	0.0377	0.0395
14	0.0535	0.0571	0.0525	0.0515	0.0533
11 1/2	0.0658	0.0696	0.0647	0.0614	0.0649
8	0.0966	0.1000	0.0946		

For essential dimensions of American National Standard Pipe Threads
(See Table 357 page 440).

Ground Thread American Standard Pipe Form Taps made to this table are to be marked NPT. Ground Thread Dryseal American National Standard Pipe Taps made to this table are to be marked NPTF. Ground Thread Taps, Aeronautical National Thread Form, made to this table are marked ANPT.

LEAD TOLERANCE

A maximum lead deviation of ±.0005" within any two threads not farther apart than one inch is permitted.

FORMULA FOR AMERICAN NATIONAL STANDARD PIPE FORM

Minimum major diameter = Measured pitch diameter +A.
Maximum major diameter = Measured pitch diameter +B.
Minimum minor diameter = Measured pitch diameter -B.
Maximum minor diameter = Measured pitch diameter -C.

FORMULA FOR DRYSEAL AMERICAN NATIONAL STANDARD PIPE FORM

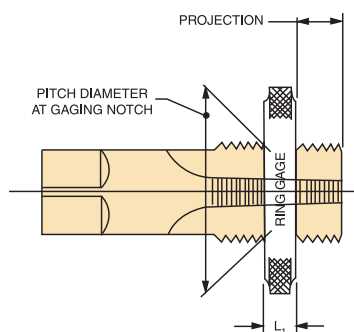
Minimum major diameter = Measured pitch diameter +D.
Maximum major diameter = Measured pitch diameter +E.
Minimum minor diameter = Maximum or smaller.
Maximum minor diameter = Measured pitch diameter -E.



Measurement of Taper Pipe Taps, Reaming Data and Tap Drill Sizes (Table 357)

Size	Projection				Ream Dia. Large End	Gage Width L1	Reamed Length L1 + L3	Tap Drill for Use w/ Reaming	Tap Drill for Use w/o Reaming
	NPT & NTF		SAE-SHORT						
	Min.	Max.	Min.	Max.					
1/16-27	0.250	0.375	0.222	0.259	0.2515	0.1600	0.2711	15/64	C
1/8-27	0.250	0.375	0.222	0.259	0.3340	0.1615	0.2726	21/64	Q
1/4-18	0.397	0.521	0.333	0.389	0.4472	0.2278	0.3945	27/64	7/16
3/8-18	0.392	0.516	0.333	0.389	0.5826	0.240	0.4067	9/16	9/16
1/2-14	0.517	0.641	0.429	0.500	0.7213	0.320	0.5343	11/16	45/64
3/4-14	0.503	0.627	0.429	0.500	0.9317	0.339	0.5533	57/64	29/32
1-11-1/2	0.584	0.772	-	-	1.1691	0.400	0.6609	1-1/8	1-9/64
1-1/4-11-1/2	0.592	0.780	-	-	1.1538	0.420	0.6809	1-15/32	1-31/64
1-1/2-11-1/2	0.606	0.792	-	-	1.7528	0.420	0.6809	1-45/64	1-23/32
2-11-1/2	0.574	0.760	-	-	2.2267	0.436	0.6969	2-3/16	2-3/16

Projection Thru Ring Gage



Reamed Hole Data

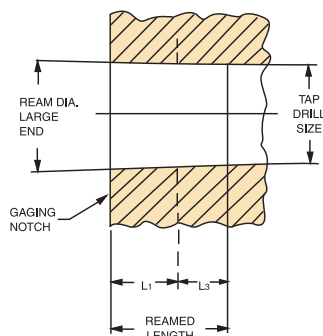


TABLE 335-STRAIGHT PIPE TAPS

Ground Threads

American National Standard Straight Pipe Thread Form
(NPS) (NPSC) (NPSM)

Thread Limits

Nominal Sizes (inch)	Threads Per Inch	Major Diameter			Pitch Diameter		
		Plug at Gaging Notch	Min. G	Max. H	Plug at Gaging Notch E	Min. K	Max. L
1/8	27	0.3983	0.4022	0.4032	0.3736	0.3746	0.3751
1/4	18	0.5286	0.5347	0.5357	0.4916	0.4933	0.4938
3/8	18	0.6640	0.6701	0.6711	0.6270	0.6287	0.6292
1/2	14	0.8260	0.8347	0.8357	0.7784	0.7806	0.7811
3/4	14	1.0364	1.0447	1.0457	0.9889	0.9906	0.9916
1	11 1/2	1.2966	1.3062	1.3077	1.2386	1.2402	1.2412
1 1/4	11 1/2	1.6413	1.6507	1.6522	1.5834	1.5847	1.5862
1 1/2	11 1/2	1.8803	1.8890	1.8912	1.8223	1.8237	1.8252
2	11 1/2	2.3542	2.3639	2.3654	2.2963	2.2979	2.2994
2 1/2	8	2.8454	2.8604	2.8619	2.7622	2.7640	2.7660
3	8	3.4718	3.4868	3.4883	3.3885	3.3904	3.3924
3 1/2	8	3.9721	3.9872	3.9887	3.8888	3.8908	3.8928
4	8	4.4704	4.4855	4.4870	4.3871	4.3891	4.3911

LEAD TOLERANCE

A maximum lead deviation of plus or minus .0005" within any two threads not farther apart than one inch is permitted.

Note

Taps made to these specifications are marked NPS and used for NPS, NPSC, and NPSM.

Angle Tolerance

Threads Per Inch	Deviation in Half Angle
8	± 25'
11 1/2 to 27 Incl.	± 30'

Formula for American National Standard Dryseal Pipe Form (NPS)

The maximum Pitch Diameter of tap is based upon an allowance deducted from the maximum product pitch diameter of NPSC or NPSM, whichever is smaller. The minimum Pitch Diameter of tap is derived by subtracting the ground thread pitch diameter tolerance for actual equivalent size as shown in Table 331, page 433, Col. D.

Nominal Size (inch)	Major Diameter		Minor Diameter
	Min. G	Max. H	Max.
1/8	H - 0.0010	K + A - 0.0010	M - B
1/4 to 3/4 Incl.	H - 0.0010	K + A - 0.0020	M - B
1 to 4 Incl.	H - 0.0015	K + A - 0.0021	M - B

Formula Values

Threads Per Inch	A	B	M
27	0.0296	0.0257	Actual
18	0.0444	0.0401	Measured
14	0.0571	0.0525	Pitch
11 1/2	0.0696	0.0647	Diameter
8	0.1000	0.0946	

TABLE 335-A-STRAIGHT PIPE TAPS

Ground Thread

American National Standard Straight Dryseal
Pipe Thread Form (NPSF)

Thread Limits

Nominal Size (inch)	Threads Per Inch	Major Diameter			Pitch Diameter		
		Min. G	Max. H	Plug at Gaging Notch E	Min. K	Max. L	Minor* Diam. Flat Max.
1/16	27	0.3008	0.3018	0.2812	0.2772	0.2777	0.004
1/8	27	0.3932	0.3942	0.3736	0.3696	0.3701	0.004
1/4	18	0.5239	0.5249	0.4916	0.4859	0.4864	0.005
3/8	18	0.6593	0.6603	0.6270	0.6213	0.6218	0.005
1/2	14	0.8230	0.8240	0.7784	0.7712	0.7717	0.005
3/4	14	1.0335	1.0345	0.9889	0.9817	0.9822	0.005
1	11 1/2	1.2933	1.2943	1.2386	1.2295	1.2305	0.006

*As specified or sharper.

The major diameter of standard taper pipe plug gages and the minor diameter of standard taper pipe ring gages used for gaging dryseal threads will be truncated .20p minimum to .25p maximum for all pitches.

Angle Tolerance

Threads Per Inch	Deviation in Half Angles
11 1/2 to 27 Incl.	± 30'

Formula for American National Standard Dryseal Pipe Form (NPSF)

Nominal Size (inch)	Major Diameter		Pitch Diameter		Max. Minor Diam.
	Min. G	Max. H	Min. K	Max. L	
1/6	H - 0.0010	K + Q - 0.0005	L - 0.0005	E - F	M - Q
1/8	H - 0.0010	K + Q - 0.0005	L - 0.0005	E - F	M - Q
1/4	H - 0.0010	K + Q - 0.0005	L - 0.0005	E - F	M - Q
3/8	H - 0.0010	K + Q - 0.0005	L - 0.0005	E - F	M - Q
1/2	H - 0.0010	K + Q - 0.0005	L - 0.0005	E - F	M - Q
3/4	H - 0.0010	K + Q - 0.0005	L - 0.0005	E - F	M - Q
1	H - 0.0010	K + Q - 0.0001	L - 0.0010	E - F	M - Q

Formula Values

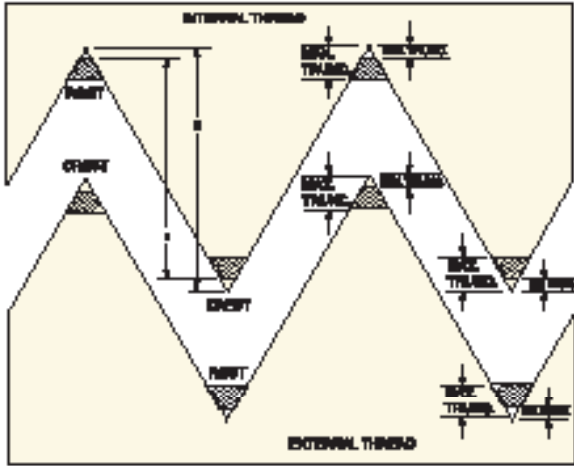
Threads Per Inch	E	F	M	Q
27	Pitch Diameter	0.0035	Actual	0.0251
18	of plug	0.0052	Measured	0.0395
14	at gaging	0.0067	Pitch	0.0533
11 1/2	notch	0.0081	Diameter	0.0649

LEAD TOLERANCE

A maximum lead deviation of ±.0005" within any two threads not farther apart than one inch is permitted.



American National General Pipe Threads (Table 357)

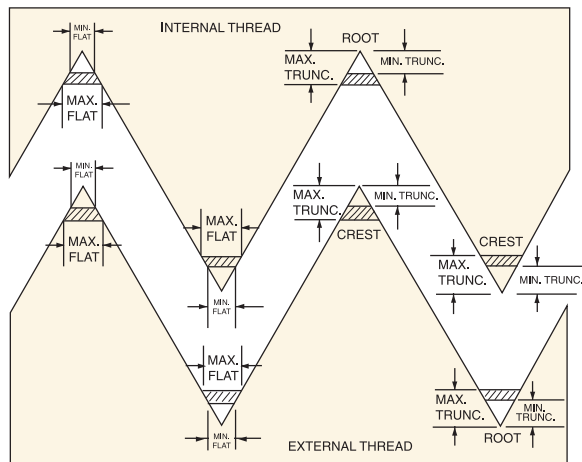


Crest and root limits for American National Standard External and Internal Taper Pipe Thread (NPT)

Threads Per Inch	Height Sharp V Thread (inch)	Height Pipe Thread Max (inch)	Truncation (inch)		Equivalent Width of Flat (inch)	
	H	h	Min	Max.	Min.	Max.
27	0.03208	0.02963	0.0012	0.0036	0.0014	0.0041
18	0.04811	0.04444	0.0018	0.0049	0.0021	0.0057
14	0.06186	0.05714	0.0024	0.0056	0.0027	0.0064
11 1/2	0.07531	0.06957	0.0029	0.0063	0.0033	0.0073
8	0.10825	0.10000	0.0041	0.0078	0.0048	0.0090

The limits specified above are intended to serve as a guide for establishing limits for the thread elements of taps, dies, and thread chasers. These limits may be required on the product. For complete specifications see latest edition of USE Standard B2.1. The Military Aeronautical Specification MIL-P-7105 agrees with all values given in this table.

Dryseal American National Standard Pipe Threads



Crest and root limits for Dryseal American National Standard External and Internal Pipe Threads (NPTF)

Threads Per Inch		Height Sharp V Thread (inch)	Truncation (inch)		Equivalent Width of Flat (inch)	
		H	Min	Max.	Min.	Max.
27	Crest	0.03208	0.0017	0.0035	0.0020	0.0040
	Root		0.0035	0.0052	0.0040	0.0060
18	Crest	0.04811	0.0026	0.0043	0.0030	0.0050
	Root		0.0043	0.0061	0.0050	0.0070
14	Crest	0.06186	0.0026	0.0043	0.0030	0.0050
	Root		0.0043	0.0061	0.0050	0.0070
11 1/2	Crest	0.07531	0.0035	0.0052	0.0040	0.0060
	Root		0.0052	0.0078	0.0060	0.0090
8	Crest	0.10825	0.0052	0.0069	0.0060	0.0080
	Root		0.0069	0.0095	0.0080	0.0110

The major diameter of standard taper pipe plug gages and the minor diameter of standard taper pipe ring gages used for gaging dryseal threads will be truncated .20p minimum to .25p maximum for all pitches.



Tap Drill Sizes - Fractional Cut Taps

To minimize tapping problems and lengthen tool life, use the largest drill possible to produce a minor diameter that will result in the lowest percentage of full thread consistent with adequate strength. A minor diameter that provides a 55% to 65% thread is sufficient for most requirements, but in some cases a higher percentage of thread may be necessary to conform with the minor diameter limits of the thread class specified.

* Generally, deeper than 1 1/2 times the hole diameter.

Suggested Percentage of Full Thread in Tapped Holes

Material		*Deep Hole Tapping	Average Commercial Work	Thin Sheet Stock or Stamping
Free Cutting	Aluminum, Brass, Bronze, Cast Iron, Copper, Mild Steel, Tool Steel	60% - 70%	65% - 70%	75% - 85%
	Cast Steel, Drop Forging, Monel Metal, Nickel Steel, Stainless Steel	55% - 65%	60% - 70%	

Tap Size	Threads Per Inch			Minor Diameter		Tap Drill Diameter - Cut Taps				
	UNC	UNF	8-Pitch	Min. 2B	Max. 2B	80% Thread	75% Thread	70% Thread	65% Thread	60% Thread
						(in)	(in)	(in)	(in)	(in)
0	-	80	-	0.0465	0.0514	0.0470	0.0478	0.0486	0.0494	0.0503
1	64	-	-	0.0561	0.0623	0.0568	0.0578	0.0588	0.0598	0.0608
2	56	-	-	0.0580	0.0635	0.0586	0.0595	0.0604	0.0613	0.0622
3	48	-	-	0.0667	0.0737	0.0674	0.0686	0.0698	0.0709	0.0721
4	40	-	-	0.0691	0.0752	0.0698	0.0708	0.0718	0.0728	0.0738
5	40	-	-	0.0764	0.0845	0.0774	0.0787	0.0801	0.0814	0.0828
6	32	-	-	0.0797	0.0865	0.0804	0.0816	0.0828	0.0839	0.0851
8	32	-	-	0.0849	0.0939	0.0860	0.0876	0.0893	0.0909	0.0925
10	24	-	-	0.0894	0.0968	0.0904	0.0917	0.0931	0.0944	0.0958
12	24	-	-	0.0979	0.1062	0.0990	0.1006	0.1023	0.1039	0.1055
1 1/16	20	-	-	0.1004	0.1079	0.1014	0.1029	0.1043	0.1058	0.1073
1 1/8	18	-	-	0.1040	0.1140	0.1055	0.1076	0.1096	0.1116	0.1136
1 1/4	16	-	-	0.1110	0.1190	0.1120	0.1136	0.1153	0.1169	0.1185
1 1/2	14	-	-	0.1300	0.1390	0.1315	0.1336	0.1356	0.1376	0.1396
1 3/8	12	-	-	0.1340	0.1420	0.1351	0.1369	0.1387	0.1405	0.1424
1 3/4	10	-	-	0.1450	0.1560	0.1467	0.1494	0.1521	0.1548	0.1575
2	8	-	-	0.1560	0.1640	0.1575	0.1596	0.1616	0.1636	0.1656
2 1/8	7	-	-	0.1710	0.1810	0.1727	0.1754	0.1781	0.1808	0.1835
2 1/4	6	-	-	0.1770	0.1860	0.1789	0.1812	0.1835	0.1858	0.1882
2 3/8	5	-	-	0.1960	0.2070	0.1980	0.2013	0.2045	0.2078	0.2110
2 1/2	4	-	-	0.2110	0.2200	0.2129	0.2152	0.2175	0.2198	0.2222
2 3/4	3	-	-	0.2520	0.2650	0.2548	0.2584	0.2620	0.2656	0.2692
3	2	-	-	0.2670	0.2770	0.2692	0.2719	0.2746	0.2773	0.2800
3 1/8	1 1/2	-	-	0.3070	0.3210	0.3101	0.3141	0.3182	0.3222	0.3263
3 1/4	1 1/4	-	-	0.3300	0.3400	0.3317	0.3344	0.3371	0.3398	0.3425
3 1/2	1 1/2	-	-	0.3600	0.3760	0.3633	0.3679	0.3726	0.3772	0.3818
3 3/4	1 1/4	-	-	0.3830	0.3950	0.3855	0.3888	0.3920	0.3953	0.3985
4	1 1/2	-	-	0.4170	0.4340	0.4201	0.4251	0.4301	0.4351	0.4400
4 1/8	1 1/4	-	-	0.4460	0.4570	0.4480	0.4513	0.4545	0.4578	0.4610
4 1/4	1 1/4	-	-	0.4720	0.4900	0.4759	0.4813	0.4867	0.4921	0.4976
4 1/2	1 1/4	-	-	0.5020	0.5150	0.5048	0.5084	0.5120	0.5156	0.5192
4 3/4	1 1/4	-	-	0.5270	0.5460	0.5305	0.5364	0.5423	0.5482	0.5541
5	1 1/4	-	-	0.5650	0.5780	0.5673	0.5709	0.5745	0.5781	0.5817
5 1/8	1 1/4	-	-	0.6420	0.6630	0.6461	0.6526	0.6591	0.6656	0.6721
5 1/4	1 1/4	-	-	0.6820	0.6960	0.6851	0.6891	0.6932	0.6972	0.7013
5 1/2	1 1/4	-	-	0.7550	0.7780	0.7595	0.7668	0.7740	0.7812	0.7884
5 3/4	1 1/4	-	-	0.7980	0.8140	0.8008	0.8054	0.8101	0.8147	0.8193
6	1 1/4	-	-	0.8650	0.8900	0.8701	0.8782	0.8863	0.8945	0.9026
6 1/8	1 1/4	-	-	0.9100	0.9280	0.9134	0.9188	0.9242	0.9296	0.9351
6 1/4	1 1/4	-	-	0.9700	0.9980	0.9765	0.9858	0.9951	1.0044	1.0137
6 1/2	1 1/4	-	-	1.0350	1.0530	1.0384	1.0438	1.0492	1.0546	1.0601
6 3/4	1 1/4	-	-	0.9900	1.0150	0.9951	1.0032	1.0113	1.0195	1.0276
7	1 1/4	-	-	1.0950	1.1230	1.1015	1.1108	1.1201	1.1294	1.1387
7 1/8	1 1/4	-	-	1.1600	1.1780	1.1634	1.1688	1.1742	1.1796	1.1851
7 1/4	1 1/4	-	-	1.1150	1.1400	1.1201	1.1282	1.1363	1.1445	1.1526
7 1/2	1 1/4	-	-	1.1950	1.2250	1.2018	1.2126	1.2235	1.2343	1.2451
7 3/4	1 1/4	-	-	1.2850	1.3030	1.2884	1.2938	1.2992	1.3046	1.3101
8	1 1/4	-	-	1.2400	1.2650	1.2451	1.2532	1.2613	1.2695	1.2776
8 1/8	1 1/4	-	-	1.3200	1.3500	1.3268	1.3376	1.3485	1.3593	1.3701
8 1/4	1 1/4	-	-	1.4100	1.4280	1.4134	1.4188	1.4242	1.4296	1.4351
8 1/2	1 1/4	-	-	1.3650	1.3900	1.3701	1.3782	1.3863	1.3945	1.4026
8 3/4	1 1/4	-	-	1.4900	1.5150	1.4951	1.5032	1.5113	1.5195	1.5276
9	1 1/4	-	-	1.5330	1.5670	1.5422	1.5551	1.5681	1.5811	1.5941
9 1/8	1 1/4	-	-	1.6150	1.6400	1.6201	1.6282	1.6363	1.6445	1.6526
9 1/4	1 1/4	-	-	1.7400	1.7650	1.7451	1.7532	1.7613	1.7695	1.7776
9 1/2	1 1/4	-	-	1.7590	1.7950	1.7691	1.7835	1.7979	1.8124	1.8268
9 3/4	1 1/4	-	-	1.8650	1.8900	1.8701	1.8782	1.8863	1.8945	1.9026
10	1 1/4	-	-	2.0090	2.0450	2.0191	2.0335	2.0479	2.0624	2.0768
10 1/8	1 1/4	-	-	2.1150	2.1400	2.1201	2.1282	2.1363	2.1445	2.1526
10 1/4	1 1/4	-	-	2.2290	2.2670	2.2402	2.2564	2.2727	2.2889	2.3051
10 1/2	1 1/4	-	-	2.3650	2.3900	2.3701	2.3782	2.3863	2.3945	2.4026

FORMULA: TAP DRILL SIZE

Drill Size = Tap Major Dia - $\frac{0.01299 \times \% \text{ of Full Thread}}{\# \text{ of Threads Per Inch}}$
 Example: Determine Drill Size for 2" — 12N Tap, 70% Full Thread.
 Basic Major Diameter of Tap = 2.0000"
 $0.01299 \times 70 = 0.9093 \div 12 = 0.0758$ "
 Drill Size = 1.9242"

FORMULA: PERCENTAGE OF FULL THREAD

% of Full Thread = Threads Per Inch x $\frac{\text{Tap Major Dia} - \text{Drill Dia}}{0.01299}$
 Example: Determine the % of Full Thread for 2" — 12N Tap, using 1.9242" Drill.
 Threads Per Inch = 12
 $2.000 - 1.9242 = 0.0758 \div 0.01299 = 5.835$
 Percentage of Full Threads = 70%



Tap Drill Sizes - Fractional Form Taps

To minimize tapping problems and lengthen tool life, use the largest drill possible to produce a minor diameter that will result in the lowest percentage of full thread consistent with adequate strength. A minor diameter that provides a 55% to 65% thread is sufficient for most requirements, but in some cases a higher percentage of thread may be necessary to conform with the minor diameter limits of the thread class specified.

* Generally, deeper than 1 1/2 times the hole diameter.

Suggested Percentage of Full Thread in Tapped Holes

Material		*Deep Hole Tapping	Average Commercial Work	Thin Sheet Stock or Stamping
Free Cutting	Aluminum, Brass, Bronze, Cast Iron, Copper, Mild Steel, Tool Steel	60% - 70%	65% - 70%	75% - 85%
Hard or Tough Cutting	Cast Steel, Drop Forging, Monel Metal, Nickel Steel, Stainless Steel	55% - 65%	60% - 70%	

Tap Size	Threads Per Inch			Minor Diameter		Tap Drill Diameter - Form Taps				
	UNC	UNF	8-Pitch	Min. 2B	Max. 2B	75% Thread	70% Thread	65% Thread	60% Thread	55% Thread
						(in)	(in)	(in)	(in)	(in)
0	—	80	—	0.0465	0.0514	0.0536	0.0540	0.0545	0.0549	0.0554
1	64	—	—	0.0561	0.0623	0.0650	0.0655	0.0661	0.0666	0.0672
	—	72	—	0.0580	0.0635	0.0659	0.0663	0.0669	0.0673	0.0679
2	56	—	—	0.0667	0.0737	0.0769	0.0774	0.0781	0.0787	0.0794
	—	64	—	0.0691	0.0752	0.0780	0.0785	0.0791	0.0796	0.0802
3	48	—	—	0.0764	0.0845	0.0884	0.0890	0.0898	0.0905	0.0913
	—	56	—	0.0797	0.0865	0.0899	0.0904	0.0911	0.0917	0.0924
4	40	—	—	0.0849	0.0939	0.0993	0.1000	0.1010	0.1018	0.1028
	—	48	—	0.0894	0.0968	0.1014	0.1020	0.1028	0.1035	0.1043
5	40	—	—	0.0979	0.1062	0.1123	0.1130	0.1140	0.1148	0.1158
	—	44	—	0.1004	0.1079	0.1134	0.1141	0.1150	0.1157	0.1166
6	32	—	—	0.1040	0.1140	0.1221	0.1230	0.1243	0.1252	0.1264
	—	40	—	0.1110	0.1190	0.1253	0.1260	0.1270	0.1278	0.1288
8	32	—	—	0.1300	0.1390	0.1481	0.1490	0.1503	0.1512	0.1524
	—	36	—	0.1340	0.1420	0.1498	0.1507	0.1518	0.1526	0.1537
10	24	—	—	0.1450	0.1560	0.1688	0.1700	0.1716	0.1729	0.1746
	—	32	—	0.1560	0.1640	0.1741	0.1750	0.1762	0.1772	0.1784
12	24	—	—	0.1710	0.1810	0.1948	0.1960	0.1976	0.1989	0.2006
	—	28	—	0.1770	0.1860	0.1978	0.1990	0.2002	0.2014	0.2028
1/4	20	—	—	0.1960	0.2070	0.2245	0.2260	0.2279	0.2295	0.2315
	—	28	—	0.2110	0.2200	0.2318	0.2329	0.2342	0.2354	0.2389
5/16	18	—	—	0.2520	0.2650	0.2842	0.2861	0.2879	0.2898	0.2917
	—	24	—	0.2670	0.2770	0.2912	0.2927	0.2941	0.2955	0.2969
3/8	16	—	—	0.3070	0.3210	0.3431	0.3452	0.3474	0.3495	0.3516
	—	24	—	0.3300	0.3400	0.3537	0.3552	0.3566	0.3580	0.3594
7/16	14	—	—	0.3600	0.3760	0.4011	0.4035	0.4059	0.4084	0.4108
	—	20	—	0.3830	0.3950	0.4120	0.4137	0.4154	0.4171	0.4188
1/2	13	—	—	0.4170	0.4340	0.4608	0.4634	0.4660	0.4686	0.4712
	—	20	—	0.4460	0.4570	0.4745	0.4762	0.4779	0.4796	0.4813
9/16	12	—	—	0.4720	0.4900	0.5200	0.5229	0.5257	0.5285	0.5313
	—	18	—	0.5020	0.5150	0.5342	0.5361	0.5379	0.5398	0.5417
5/8	11	—	—	0.5270	0.5460	0.5787	0.5817	0.5848	0.5879	0.5910
	—	18	—	0.5650	0.5780	0.5967	0.5986	0.6004	0.6023	0.6042
3/4	10	—	—	0.6420	0.6630	0.6990	0.7024	0.7058	0.7092	0.7126
	—	16	—	0.6820	0.6960	0.7181	0.7202	0.7224	0.7245	0.7266
7/8	9	—	—	0.7550	0.7780	0.8183	0.8221	0.8259	0.8297	0.8334
	—	14	—	0.7980	0.8140	0.8386	0.8410	0.8434	0.8459	0.8483
	—	8	—	0.8650	0.8900	0.9363	0.9405	0.9448	0.9490	0.9533
1	—	12	—	0.9100	0.9280	0.9575	0.9603	0.9632	0.9660	0.9866

FORMULA: TAP DRILL SIZE

Drill Size = Tap Major Dia - $\frac{0.0068 \times \% \text{ of Full Thread}}{\# \text{ of Threads Per Inch}}$
 Example: Determine Drill Size for 2"—12N Tap, 70% Full Thread.
 Basic Major Diameter of Tap = 2.0000"
 $0.0068 \times 70 = 0.4760 \div 12 = 0.0397$ "
 Drill Size = 1.9603"

FORMULA: PERCENTAGE OF FULL THREAD

% of Full Thread = Threads Per Inch x $\frac{\text{Tap Major Dia} - \text{Drill Dia}}{0.0068}$
 Example: Determine the % of Full Thread for 2"—12N Tap, using 1.9603" Drill.
 Threads Per Inch = 12
 $2.0000 - 1.9603 = 0.0397 \div 0.0068 = 5.838$
 Percentage of Full Threads = 70%

Suggested Pipe Tap Drill Sizes

Tap Size		1/16	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
Drill Sizes	Taper Pipe Tap*	C	Q	7/16	9/16	45/64	29/32	1-9/64	1-31/64	1-23/32	2-3/16	2-5/8	3-1/4	3-3/4	4-1/4
	Straight Pipe Tap†	1/4	11/32	7/16	37/64	23/32	59/64	1-5/32	1-1/2	1-3/4	2-7/32	2-21/32			

*Sizes given permit direct tapping without reaming the hole, but only give a full thread for the first two or three threads.

†For Dryseal Straight Pipe Threads suggested drill sizes are as shown, except; 1/4" pipe, use .444 drill size.



Tap Drill Sizes - Metric Cut Taps

To minimize tapping problems and lengthen tool life, use the largest drill possible to produce a minor diameter that will result in the lowest percentage of full thread consistent with adequate strength. A minor diameter that provides a 55% to 65% thread is sufficient for most requirements, but in some cases a higher percentage of thread may be necessary to conform with the minor diameter limits of the thread class specified.

* Generally, deeper than 1 1/2 times the hole diameter.

Suggested Percentage of Full Thread in Tapped Holes

Material		*Deep Hole Tapping	Average Commercial Work	Thin Sheet Stock or Stamping
Free Cutting	Aluminum, Brass, Bronze, Cast Iron, Copper, Mild Steel, Tool Steel	60% - 70%	65% - 70%	75% - 85%
Hard or Tough Cutting	Cast Steel, Drop Forging, Monel Metal, Nickel Steel, Stainless Steel	55% - 65%	60% - 70%	

Tap Size	Pitch		Minor Diameter (mm)		Tap Drill Diameter - Cut Taps									
	M	MF	Min. 6H	Max. 6H	80% Thread		75% Thread		70% Thread		65% Thread		60% Thread	
					(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
M1.6	0.35	—	1.221	1.321	1.24	0.0488	1.26	0.0496	1.28	0.0504	1.30	0.0512	1.33	0.0524
M1.7	0.35	—	1.321	1.421	1.33	0.0524	1.36	0.0535	1.38	0.0543	1.40	0.0551	1.42	0.0559
M1.8	0.35	—	1.422	1.519	1.44	0.0567	1.46	0.0575	1.48	0.0583	1.50	0.0591	1.53	0.0602
M2	0.4	—	1.567	1.679	1.58	0.0622	1.61	0.0634	1.64	0.0646	1.66	0.0654	1.69	0.0665
M2.2	0.45	—	1.715	1.836	1.73	0.0681	1.76	0.0693	1.79	0.0705	1.82	0.0717	1.85	0.0728
M2.5	0.45	—	2.013	2.138	2.03	0.0799	2.06	0.0811	2.09	0.0823	2.12	0.0835	2.15	0.0846
M2.6	0.45	—	2.113	2.238	2.13	0.0839	2.16	0.0850	2.19	0.0862	2.22	0.0874	2.25	0.0886
M3	0.5	—	2.459	2.599	2.48	0.0976	2.51	0.0988	2.55	0.1004	2.58	0.1016	2.61	0.1028
M3	—	0.35	2.621	2.721	2.63	0.1035	2.66	0.1047	2.68	0.1055	2.70	0.1063	2.72	0.1071
M3.5	0.6	—	2.850	3.010	2.88	0.1134	2.92	0.1150	2.95	0.1161	2.99	0.1177	3.03	0.1193
M4	0.7	—	3.242	3.422	3.27	0.1287	3.32	0.1307	3.36	0.1323	3.41	0.1343	3.45	0.1358
M4	—	0.5	3.459	3.599	3.48	0.1370	3.51	0.1382	3.54	0.1394	3.58	0.1409	3.61	0.1421
M4.5	0.75	—	3.688	3.876	3.72	0.1465	3.77	0.1484	3.82	0.1504	3.87	0.1524	3.92	0.1543
M5	0.8	—	4.134	4.334	4.17	0.1642	4.22	0.1661	4.27	0.1681	4.32	0.1701	4.38	0.1724
M5	—	0.5	4.458	4.600	4.48	0.1764	4.51	0.1776	4.54	0.1787	4.58	0.1803	4.61	0.1815
M6	1	—	4.917	5.153	4.96	0.1953	5.03	0.1980	5.09	0.2004	5.16	0.2031	5.22	0.2055
M6	—	0.75	5.187	5.377	5.22	0.2055	5.27	0.2075	5.32	0.2094	5.37	0.2114	5.41	0.2130
M7	1	—	5.918	6.152	5.96	0.2346	6.03	0.2374	6.09	0.2398	6.16	0.2425	6.22	0.2449
M7	1.25	—	6.647	6.912	6.70	0.2638	6.78	0.2669	6.86	0.2701	6.94	0.2732	7.03	0.2768
M8	—	1	6.917	7.153	6.96	0.2740	7.03	0.2768	7.09	0.2791	7.16	0.2819	7.22	0.2843
M8	—	0.75	7.187	7.377	7.22	0.2843	7.27	0.2862	7.32	0.2882	7.37	0.2902	7.41	0.2917
M10	1.5	—	8.376	8.676	8.44	0.3323	8.54	0.3362	8.64	0.3402	8.73	0.3437	8.83	0.3476
M10	—	1.25	8.647	8.912	8.70	0.3425	8.78	0.3457	8.86	0.3488	8.94	0.3520	9.03	0.3555
M10	—	1	8.917	9.153	8.96	0.3528	9.03	0.3555	9.09	0.3579	9.16	0.3606	9.22	0.3630
M10	—	0.75	9.188	9.378	9.22	0.3630	9.27	0.3650	9.32	0.3669	9.37	0.3689	9.41	0.3705
M12	1.75	—	10.106	10.441	10.18	0.4008	10.30	0.4055	10.41	0.4098	10.52	0.4142	10.64	0.4189
M12	—	1.5	10.376	10.676	10.44	0.4110	10.54	0.4150	10.64	0.4189	10.73	0.4224	10.83	0.4264
M12	—	1.25	10.647	10.912	10.70	0.4213	10.78	0.4244	10.86	0.4276	10.94	0.4307	11.03	0.4343
M12	—	1	10.917	11.153	10.96	0.4315	11.03	0.4343	11.09	0.4366	11.16	0.4394	11.22	0.4417
M14	2	—	11.835	12.210	11.92	0.4693	12.05	0.4744	12.18	0.4795	12.31	0.4846	12.44	0.4898
M14	—	1.5	12.376	12.676	12.44	0.4898	12.54	0.4937	12.64	0.4976	12.73	0.5012	12.83	0.5051
M16	2	—	13.835	14.210	13.92	0.5480	14.05	0.5531	14.18	0.5583	14.31	0.5634	14.44	0.5685
M16	—	1.5	14.376	14.676	14.44	0.5685	14.54	0.5724	14.64	0.5764	14.73	0.5799	14.83	0.5839
M18	2.5	—	15.296	15.743	15.40	0.6063	15.56	0.6126	15.73	0.6193	15.89	0.6256	16.05	0.6319
M18	—	1.5	16.376	16.676	16.44	0.6472	16.54	0.6512	16.64	0.6551	16.73	0.6587	16.83	0.6626
M20	2.5	—	17.294	17.744	17.40	0.6850	17.56	0.6913	17.73	0.6980	17.89	0.7043	18.05	0.7106
M20	—	1.5	18.376	18.676	18.44	0.7260	18.54	0.7299	18.64	0.7339	18.73	0.7374	18.83	0.7413
M20	—	1	18.917	19.153	18.96	0.7465	19.03	0.7492	19.09	0.7516	19.16	0.7543	19.22	0.7567
M22	2.5	—	19.294	19.744	19.40	0.7638	19.56	0.7701	19.73	0.7768	19.89	0.7831	20.05	0.7894
M22	—	2	19.835	20.210	19.92	0.7843	20.05	0.7894	20.18	0.7945	20.31	0.7996	20.44	0.8047
M22	—	1.5	20.376	20.676	20.44	0.8047	20.54	0.8087	20.64	0.8126	20.73	0.8161	20.83	0.8201
M24	3	—	20.752	21.252	20.88	0.8220	21.08	0.8299	21.27	0.8374	21.47	0.8453	21.66	0.8528
M24	—	2	21.835	22.210	21.92	0.8630	22.05	0.8681	22.18	0.8732	22.31	0.8783	22.44	0.8835
M24	—	1.5	22.376	22.676	22.44	0.8835	22.54	0.8874	22.64	0.8913	22.73	0.8949	22.83	0.8988
M27	3	—	23.752	24.252	23.88	0.9402	24.08	0.9480	24.27	0.9555	24.47	0.9634	24.66	0.9709
M27	—	2	24.835	25.210	24.92	0.9811	25.05	0.9862	25.18	0.9913	25.31	0.9965	25.44	1.0016
M27	—	1.5	25.376	25.676	25.44	1.0016	25.54	1.0055	25.64	1.0094	25.73	1.0130	25.83	1.0169
M30	3.5	—	26.211	26.771	26.36	1.0378	26.59	1.0469	26.82	1.0559	27.04	1.0646	27.27	1.0736
M30	—	2	27.835	28.210	27.92	1.0992	28.05	1.1043	28.18	1.1094	28.31	1.1146	28.44	1.1197
M30	—	1.5	28.376	28.676	28.44	1.1197	28.54	1.1236	28.64	1.1276	28.73	1.1311	28.83	1.1350
M33	3.5	—	29.211	29.771	29.36	1.1559	29.59	1.1650	29.82	1.1740	30.04	1.1827	30.27	1.1917
M33	—	2	30.835	31.210	30.92	1.2173	31.05	1.2224	31.18	1.2276	31.31	1.2327	31.44	1.2378
M33	—	1.5	31.670	32.270	31.84	1.2535	32.10	1.2638	32.36	1.2740	32.62	1.2843	32.88	1.2945
M36	4	—	32.752	33.252	32.88	1.2945	33.08	1.3024	33.27	1.3098	33.47	1.3177	33.66	1.3252
M36	—	2	33.835	34.210	33.92	1.3354	34.05	1.3406	34.18	1.3457	34.31	1.3508	34.44	1.3559
M39	4	—	34.670	35.270	34.84	1.3717	35.10	1.3819	35.36	1.3921	35.62	1.4024	35.88	1.4126
M39	—	2	36.835	37.210	36.92	1.4535	37.05	1.4587	37.18	1.4638	37.31	1.4689	37.44	1.4740
M42	4.5	—	37.129	37.799	37.32	1.4693	37.62	1.4811	37.91	1.4925	38.20	1.5039	38.49	1.5154
M42	—	3	38.752	39.252	38.88	1.5307	39.08	1.5386	39.27	1.5461	39.47	1.5539	39.66	1.5614
M42	—	2	39.835	40.210	39.92	1.5717	40.05	1.5768	40.18	1.5819	40.31	1.5870	40.44	1.5921

FORMULA: TAP DRILL SIZE

$$\text{Drill Size} = \text{Tap Major Dia.} - \frac{\text{Pitch} \times \% \text{ of Full Thread}}{76.980}$$

Example: Determine Drill Size for M12 x 1.75 Tap, 70% Full Thread.
Basic Major Diameter of Tap = 12mm
 $1.75 \times 70 = 119 \div 76.980 = 1.59\text{mm}$
Drill Size = 10.41mm

FORMULA: PERCENTAGE OF FULL THREAD

$$\% \text{ of Full Thread} = (\text{Tap Major Dia.} - \text{Drill Dia.}) \times \frac{76.980}{\text{Pitch}}$$

Example: Determine the % of Full Thread for M12 x 1.75 Tap, using 10.41mm Drill.
Pitch = 1.75
 $12 - 10.41 = 1.59\text{mm} \times 76.980 \div 1.75 = 70$
Percentage of Full Thread = 70%



Tap Drill Sizes - Metric Form Taps

To minimize tapping problems and lengthen tool life, use the largest drill possible to produce a minor diameter that will result in the lowest percentage of full thread consistent with adequate strength. A minor diameter that provides a 55% to 65% thread is sufficient for most requirements, but in some cases a higher percentage of thread may be necessary to conform with the minor diameter limits of the thread class specified.

* Generally, deeper than 1 1/2 times the hole diameter.

Suggested Percentage of Full Thread in Tapped Holes

Material		*Deep Hole Tapping	Average Commercial Work	Thin Sheet Stock or Stamping
Free Cutting	Aluminum, Brass, Bronze, Cast Iron, Copper, Mild Steel, Tool Steel	60% - 70%	65% - 70%	75% - 85%
Hard or Tough Cutting	Cast Steel, Drop Forging, Monel Metal, Nickel Steel, Stainless Steel	55% - 65%	60% - 70%	

Tap Size	Pitch		Minor Diameter (mm)		Tap Drill Diameter - Form Taps									
	M	MF	Min. 6H	Max. 6H	75% Thread		70% Thread		65% Thread		60% Thread		55% Thread	
					(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
M1.6	0.35	—	1.221	1.321	1.42	0.0559	1.43	0.0563	1.45	0.0571	1.46	0.0575	1.47	0.0579
M1.7	0.35	—	1.321	1.421	1.56	0.0617	1.57	0.0620	1.58	0.0623	1.59	0.0627	1.60	0.0630
M1.8	0.35	—	1.422	1.519	1.62	0.0638	1.63	0.0642	1.65	0.0650	1.66	0.0654	1.67	0.0657
M2	0.4	—	1.567	1.679	1.80	0.0709	1.81	0.0713	1.82	0.0717	1.84	0.0724	1.85	0.0728
M2.2	0.45	—	1.715	1.836	1.97	0.0776	1.99	0.0783	2.00	0.0787	2.02	0.0795	2.03	0.0799
M2.5	0.45	—	2.013	2.138	2.27	0.0894	2.29	0.0902	2.30	0.0906	2.32	0.0913	2.33	0.0917
M2.6	0.45	—	2.113	2.238	2.41	0.0949	2.42	0.0953	2.43	0.0957	2.44	0.0962	2.45	0.0966
M3	0.5	—	2.459	2.599	2.75	0.1083	2.76	0.1087	2.78	0.1094	2.80	0.1102	2.81	0.1106
M3.5	0.6	0.35	2.621	2.721	2.86	0.1126	2.87	0.1130	2.88	0.1134	2.89	0.1138	2.90	0.1142
M4	0.7	—	2.850	3.010	3.19	0.1256	3.21	0.1264	3.23	0.1272	3.26	0.1283	3.28	0.1291
M4.5	0.75	—	3.242	3.422	3.64	0.1433	3.67	0.1445	3.69	0.1453	3.71	0.1461	3.74	0.1472
M5	0.8	0.5	3.459	3.599	3.75	0.1476	3.76	0.1480	3.78	0.1488	3.80	0.1496	3.81	0.1500
M6	1	—	3.688	3.876	4.12	0.1622	4.14	0.1630	4.17	0.1642	4.19	0.1650	4.22	0.1661
M7	1.25	0.5	4.134	4.334	4.59	0.1807	4.62	0.1819	4.65	0.1831	4.67	0.1839	4.70	0.1850
M8	1.5	0.75	4.458	4.600	4.75	0.1870	4.76	0.1874	4.78	0.1882	4.80	0.1890	4.81	0.1894
M10	1.75	—	4.917	5.153	5.49	0.2161	5.52	0.2173	5.56	0.2189	5.59	0.2201	5.63	0.2217
M12	2	—	5.187	5.377	5.62	0.2213	5.64	0.2220	5.67	0.2232	5.69	0.2240	5.72	0.2252
M14	2.5	—	5.918	6.152	6.49	0.2555	6.52	0.2567	6.56	0.2583	6.59	0.2594	6.63	0.2610
M16	3	—	6.647	6.912	7.36	0.2898	7.41	0.2917	7.45	0.2933	7.49	0.2949	7.53	0.2965
M18	3.5	—	6.917	7.153	7.49	0.2949	7.52	0.2961	7.56	0.2976	7.59	0.2988	7.63	0.3004
M20	4	—	7.187	7.377	7.62	0.3000	7.64	0.3008	7.67	0.3020	7.69	0.3028	7.72	0.3039
M22	4.5	—	8.376	8.676	9.24	0.3638	9.29	0.3657	9.34	0.3677	9.39	0.3697	9.44	0.3717
M24	5	—	8.647	8.912	9.36	0.3685	9.41	0.3705	9.45	0.3720	9.49	0.3736	9.53	0.3752
M26	5.5	—	8.917	9.153	9.49	0.3736	9.52	0.3748	9.56	0.3764	9.59	0.3776	9.63	0.3791
M28	6	—	9.188	9.378	9.62	0.3787	9.64	0.3795	9.67	0.3807	9.69	0.3815	9.72	0.3827
M30	6.5	—	10.106	10.441	11.11	0.4374	11.17	0.4398	11.23	0.4421	11.29	0.4445	11.35	0.4469
M32	7	—	10.376	10.676	11.24	0.4425	11.29	0.4484	11.34	0.4465	11.39	0.4484	11.44	0.4504
M34	7.5	—	10.647	10.912	11.36	0.4472	11.41	0.4492	11.45	0.4508	11.49	0.4524	11.53	0.4539
M36	8	—	10.917	11.153	11.49	0.4524	11.52	0.4535	11.56	0.4551	11.59	0.4563	11.63	0.4579
M38	8.5	—	11.835	12.210	12.98	0.5110	13.05	0.5138	13.12	0.5165	13.18	0.5189	13.25	0.5217
M40	9	—	12.376	12.676	13.24	0.5213	13.29	0.5232	13.34	0.5252	13.39	0.5272	13.44	0.5291
M42	9.5	—	13.835	14.210	14.98	0.5898	15.05	0.5925	15.12	0.5953	15.18	0.5976	15.25	0.6004
M44	10	—	14.376	14.676	15.24	0.6000	15.29	0.6020	15.34	0.6039	15.39	0.6059	15.44	0.6079
M46	10.5	—	15.296	15.743	16.73	0.6587	16.81	0.6618	16.90	0.6654	16.98	0.6685	17.07	0.6720
M48	11	—	16.376	16.676	17.24	0.6787	17.29	0.6807	17.34	0.6827	17.39	0.6846	17.44	0.6866
M50	11.5	—	17.294	17.744	18.73	0.7374	18.81	0.7406	18.90	0.7441	18.98	0.7472	19.07	0.7508
M52	12	—	18.376	18.676	19.24	0.7575	19.29	0.7594	19.34	0.7614	19.39	0.7634	19.44	0.7654
M54	12.5	—	18.917	19.153	19.49	0.7673	19.52	0.7685	19.56	0.7701	19.59	0.7713	19.63	0.7728
M56	13	—	19.294	19.744	20.73	0.8161	20.81	0.8193	20.90	0.8228	20.98	0.8260	21.07	0.8295
M58	13.5	—	19.835	20.210	20.98	0.8260	21.05	0.8287	21.12	0.8315	21.18	0.8339	21.25	0.8366
M60	14	—	20.376	20.676	21.24	0.8362	21.29	0.8382	21.34	0.8402	21.39	0.8421	21.44	0.8441
M62	14.5	—	20.752	21.252	22.47	0.8846	22.57	0.8886	22.67	0.8925	22.78	0.8969	22.88	0.9008
M64	15	—	21.835	22.210	22.98	0.9047	23.05	0.9075	23.12	0.9102	23.18	0.9126	23.25	0.9154
M66	15.5	—	22.376	22.676	23.24	0.9150	23.29	0.9169	23.34	0.9189	23.39	0.9209	23.44	0.9228

FORMULA: TAP DRILL SIZE

$$\text{Drill Size} = \text{Tap Major Dia.} - \frac{\text{Pitch} \times \% \text{ of Full Thread}}{147.059}$$

Example: Determine Drill Size for M12 x 1.75 Tap, 70% Full Thread.
Basic Major Diameter of Tap = 12mm
 $1.75 \times 70 = 119 \div 147.059 = 0.833\text{mm}$
Drill Size = 11.17mm

FORMULA: PERCENTAGE OF FULL THREAD

$$\% \text{ of Full Thread} = (\text{Tap Major Dia.} - \text{Drill Dia.}) \times \frac{147.059}{\text{Pitch}}$$

Example: Determine the % of Full Thread for M12 x 1.75 Tap, using 11.17mm Drill.
Pitch = 1.75
 $12 - 11.17 = 0.83\text{mm} \times 147.059 \div 1.75 = 70$
Percentage of Full Thread = 70%



Tap Drill Sizes - STI Taps - Inch

Tap Size	Threads Per Inch		Minor Diameter (in) (After Tapping)		Tap Drill Diameter (in)	
	UNC	UNF	Min	Max	Aluminum	Steel, Magnesium, Plastic
2	56	—	0.0899	0.0961	0.0938	0.0960
3	48	—	0.1036	0.1104	0.1065	0.1094
	—	56	0.1029	0.1086	0.1040	0.1065
4	40	—	0.1175	0.1252	0.1200	0.1200
	—	48	0.1166	0.1229	0.1181	0.1200
5	40	—	0.1305	0.1373	0.1339	0.1360
6	32	—	0.1448	0.1527	0.1470	0.1495
	—	40	0.1435	0.1503	0.1470	0.1495
8	32	—	0.1708	0.1781	0.1730	0.1770
	—	36	0.1701	0.1771	0.1730	0.1770
10	24	—	0.1990	0.2000	0.2031	0.2055
	—	32	0.1968	0.2041	0.2010	0.2031
12	24	—	0.2250	0.2340	0.2280	0.2280
1/4	20	—	0.2608	0.2704	0.2660	0.2660
	—	28	0.2577	0.2646	0.2610	0.2638
5/16	18	—	0.3245	0.3342	0.3320	0.3320
	—	24	0.3215	0.3288	0.3281	0.3281
3/8	16	—	0.3885	0.3987	0.3970	0.3970
	—	24	0.3840	0.3910	0.3906	0.3906
7/16	14	—	0.4530	0.4639	0.4531	0.4531
	—	20	0.4483	0.4561	0.4531	0.4531
1/2	13	—	0.5166	0.5273	0.5156	0.5156
	—	20	0.5108	0.5186	0.5156	0.5156
9/16	12	—	0.5806	0.5918	0.5781	0.5938
	—	18	0.5745	0.5826	0.5781	0.5781
5/8	11	—	0.6447	0.6564	0.6562	0.6562
	—	18	0.6370	0.6451	0.6406	0.6406
3/4	10	—	0.7716	0.7838	0.7812	0.7812
	—	16	0.7635	0.7720	0.7656	0.7656
7/8	9	—	0.8990	0.9119	0.9062	0.9062
	—	14	0.8905	0.8994	0.8906	0.8906
1"	8	—	1.0271	1.0421	1.0312	1.0312
	—	12	1.0181	1.0281	1.0156	1.0312

The suggested drill sizes for aluminum listed in the table are within the minor diameter limits for STI tapped holes specified in MS 33537. Alternate drill sizes are suggested in many instances for magnesium, steel and plastics to provide for maximum tap wear life. In the case of magnesium, the larger size is recommended to allow for material close-in. There are suggested drill sizes and any special requirements or specifications will supersede these recommendations.



Tap Drill Sizes - STI Taps - Metric

Tap Size	Pitch	Minor Diameter (in) (After Tapping)		Tap Drill Diameter (Metric)	
		Min	Max	Aluminum	Steel, Magnesium, Plastic
M2	0.4	2.087	2.199	2.1	2.1
M2.5	0.45	2.297	2.422	2.3	2.35
M3	0.5	3.108	3.248	3.15	3.2
M4	0.7	4.152	4.332	4.2	4.25
M5	0.8	5.174	5.374	5.2	5.3
M6	1.0	6.217	6.407	6.25	6.3
M8	1.25	8.271	8.483	8.3	8.4
M10	1.5	10.324	10.560	10.5	10.5
M12	1.75	12.379	12.644	12.5	12.5
M14	2	14.433	14.733	14.5	14.5
M16	2	16.433	16.733	16.5	16.5
M18	2.5	18.541	18.896	18.75	18.75
M20	2.5	20.541	20.896	20.75	20.75
M22	2.5	22.541	22.896	22.75	22.75
M24	3	22.649	25.049	24.75	24.75

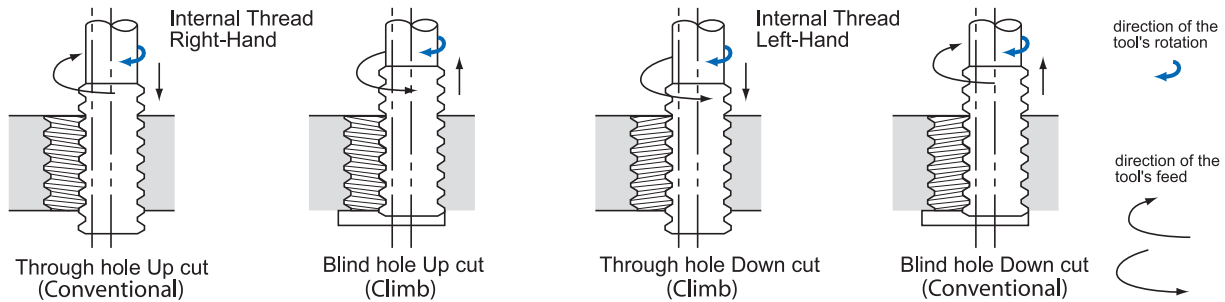
The suggested drill sizes for aluminum listed in the table are within the minor diameter limits for STI tapped holes specified in MS 33537. Alternate drill sizes are suggested in many instances for magnesium, steel and plastics to provide for maximum tap wear life. In the case of magnesium, the larger size is recommended to allow for material close-in. There are suggested drill sizes and any special requirements or specifications will supersede these recommendations.





Machining Technique

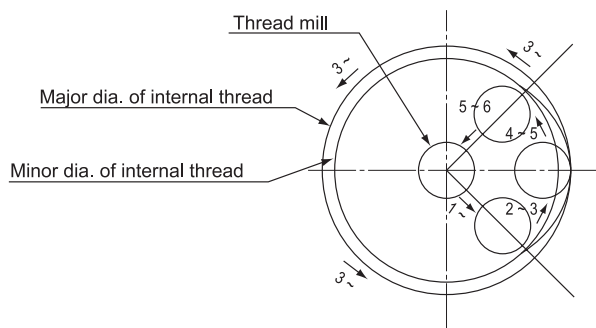
OSG's EXOCARB® Thread Mills have been developed for thread milling on a 3-Axis CNC controlled machine tool. Threads are produced by advancing one pitch feed per revolution in the axial direction, utilizing the planet-like rotation and revolution movements of the tool. Internal/external and right/left hand threads can all be produced with this one tool by simply changing the direction of rotation and/or feed.



Threading Process

- 1-2 Move to edge (maintain clearance)
- 2-3 Cut with helical milling
- 3-4 Mill the circumference of the circle
- 4-5 Pull away from the edge
- 5-6 Remove tool

The transition between the start and finish of the milling operation must be smooth, and the appropriate amount of feed is essential for minimizing milling resistance. There are many different methods for using this tool, but our research has shown that this technique provides the most precise and efficient operation.



Thread Milling Process (view from above)