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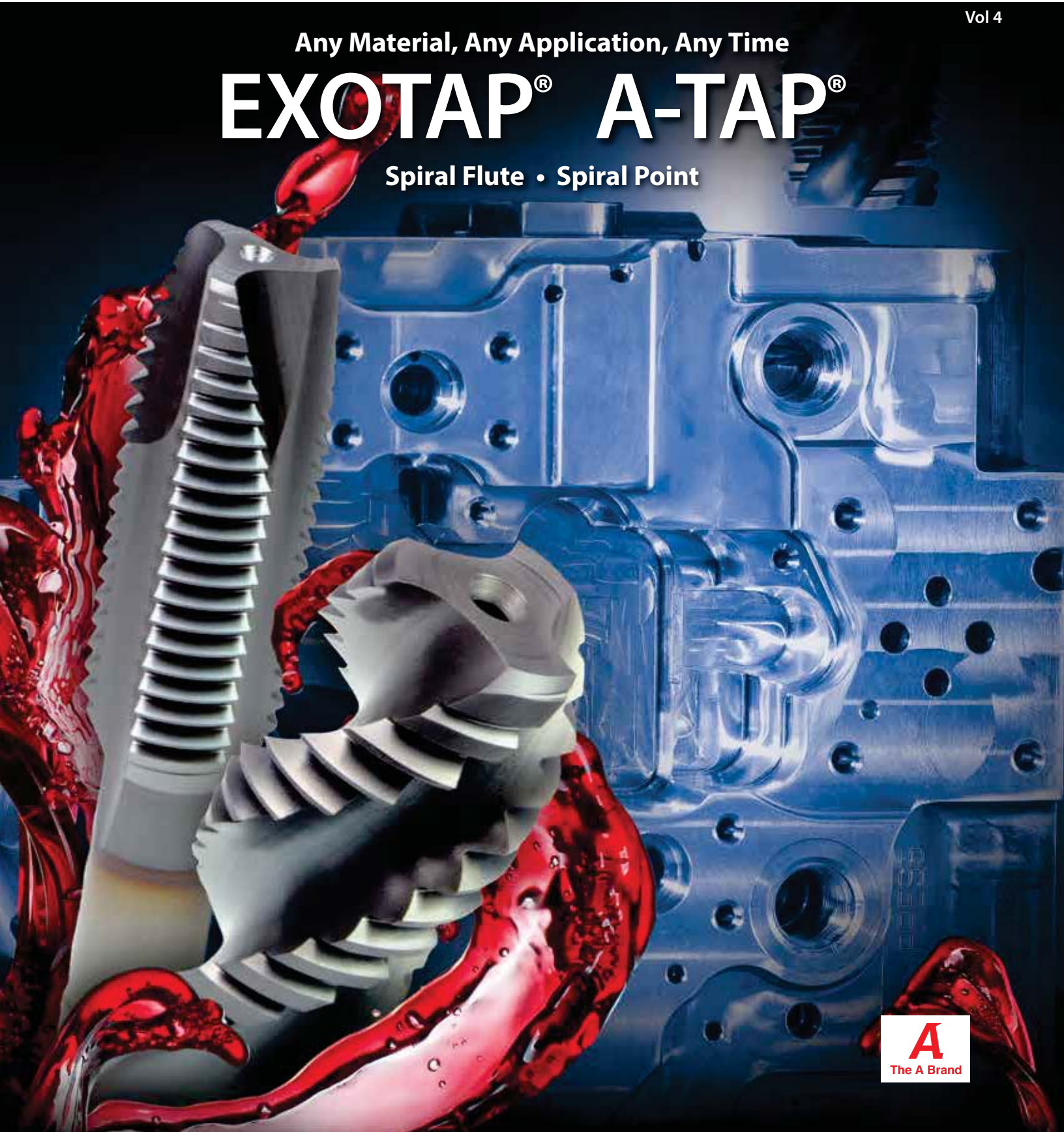


Vol 4

Any Material, Any Application, Any Time

EXOTAP[®] A-TAP[®]

Spiral Flute • Spiral Point



Product Overview

OSG research has determined that over 50% of tapping problems result from chipping and breakage, dimensional errors and galling. All three of these issues are caused by poor chip evacuation.

OSG's EXOTAP® A-TAP® Series is a premium tap line made from powdered metal HSS with OSG's proprietary coating that was developed to facilitate excellent chip evacuation in a wide variety of work materials over a wide range of machining conditions.

If you have a challenging tapping application, try OSG's A-TAP® to:

- Reduce Processing Costs
- Reduce Tool Management Costs
- Provide Peace of Mind



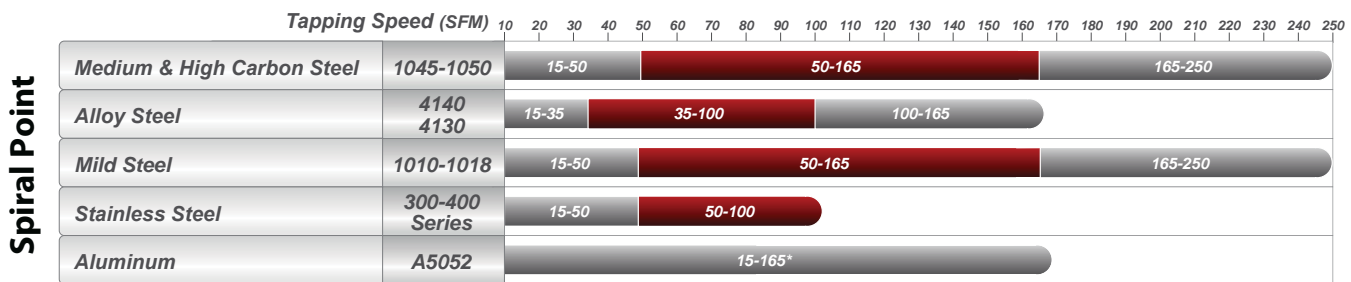
A-TAP® Recommended Tapping Conditions

A-TAP® Spiral Point & Spiral Flute Speed Recommendations

GOOD

BEST

1. The tapping speed should be adjusted accordingly based on actual machining conditions.
2. The indicated speeds and feeds are for tapping with water soluble oil.
3. Results may vary based on coolant condition.



*Please adjust cutting speed accordingly



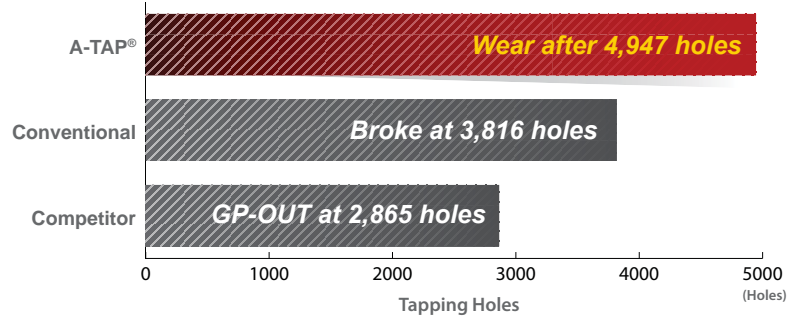
*Please adjust cutting speed accordingly

A-TAP® Cutting Data for Steel

A-TAP® is an Advantage in 1050 Steel

When running in a horizontal synchronized machining center, the A-TAP® was able to machine nearly 1,000 more holes than with a conventional tap.

Tool	Spiral Point M8x1.25
Work Material	1050 Steel
Hole Size	Ø6.8x16mm (Through)
Tapping Length	16mm (2D)
Tapping Speed	100 SFM (1,212 RPM)
Coolant	Water Soluble Chlorine-Free (10%)
Machine	Horizontal Synchronized Machining Center

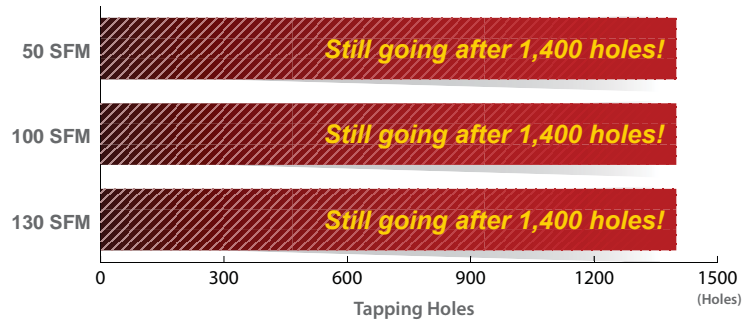


A-TAP® Cutting Data for Steel

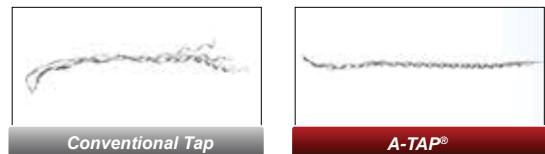
A-TAP® Excels in 1045 Steel

Tests showed the A-TAP® capable of exceeding 1,400 holes at 50, 100 and 130 SFM in 1045 Steel.

Tool	Spiral Flute M6x1
Work Material	1045 Steel
Hole Size	Ø5x16mm (Blind)
Tapping Length	12mm (2D)
Coolant	Water Soluble Chlorine-Free (10%)
Machine	Vertical Machining Center



Chip formation at 130 SFM

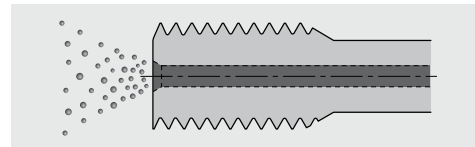


A-TAP® Cutting Data for Steel & Aluminum Alloy

A-TAP® OIL is Capable of Stable Machining with MQL

Testing showed the A-TAP® capable of machining 500 holes with no significant damage while using MQL.

Tool	Spiral Flute M8x1.25 (Coolant-Through)	
Work Material	1045 Steel	Aluminum Alloy
Hole Size	Ø6.8x24mm (Blind)	
Tapping Length	16mm (2D)	
Tapping Speed	98 SFM (1,194 RPM)	
Coolant	MQL (50cc/h (Internal))	
Machine	Horizontal Synchronized Machining Center	



Center Coolant-Through Hole

A-TAP® Cutting Data for Large Diameter Holes

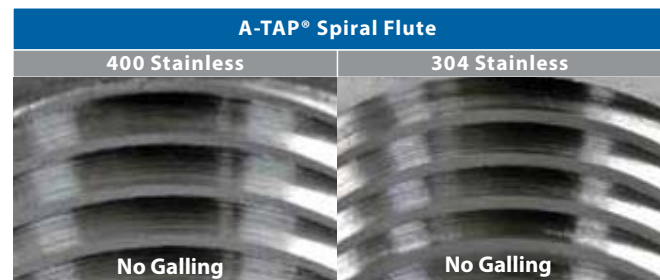
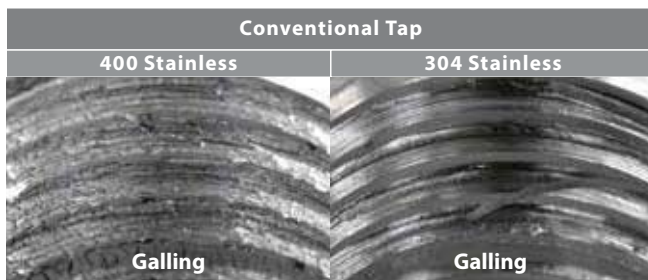
A-TAP® is Capable of Cutting a Large Diameter Hole with Water-Soluble Coolant

Tapping a large diameter hole with a water-soluble coolant is not typically possible with conventional products, however the A-TAP® displays great results even in difficult to machine materials such as 400 series stainless steel.

Tool	Spiral Flute M36x4	
Work Material	400 Stainless Steel	304 Stainless Steel
Hole Size	Ø32x70mm (Blind)	
Tapping Length	54mm (1.5D)	
Tapping Speed	23 SFM (62 RPM)	
Coolant	Water Soluble Chlorine-Free (20%)	
Machine	Horizontal Machining Center	



Visual reference of internal threads. Result may differ based on actual machining condition.



A-TAP® Cutting Data for Steel

A-TAP® Machining Small Diameter Holes in 304 Stainless Steel & 1045 Steel

The A-TAP® demonstrated stable machining in 304 stainless steel and 1045 steel with minimal wear after 100 holes.

Tool	Spiral Flute M2x0.4		
Work Material	304 Stainless Steel	1045 Steel	
Hole Size	Ø1.6x4.5mm (Blind)		
Tapping Length	3mm (1.5D)		
Tapping Speed	16 SFM (800 RPM)	32 SFM (1,600 RPM)	98 SFM (4,800 RPM)
Coolant	Water Soluble Chlorine-Free (10%)		
Machine	Vertical Synchronized Machining Center		



304 Stainless Steel - 16 SFM
(After 100 Holes)



1045 Steel - 32 SFM
(After 100 Holes)



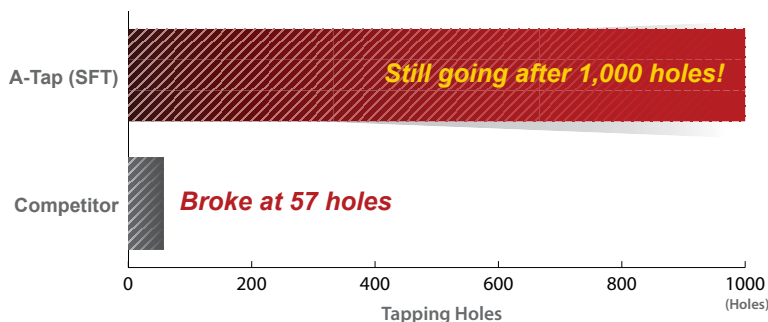
1045 Steel - 98 SFM
(After 100 Holes)

A-TAP® Cutting Data for Deep Hole Tapping (2D)

A-TAP® Achieves High Performance in Stainless Steel with Water Soluble Oil

The A-TAP® tapped 1,000 holes in stainless steel using water soluble oil and achieved exceptional results showing minimal wear on the cutting edge. The competitor tap broke after machining only 57 holes.

Tool	Spiral Flute M8x1.25
Work Material	304 Stainless Steel
Hole Size	Ø6.8x22mm (Blind)
Tapping Length	16mm (2D)
Tapping Speed	32 SFM (398 RPM)
Coolant	Water Soluble Chlorine-Free (10%)
Machine	Vertical Synchronized Machining Center

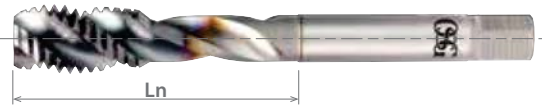


304 Stainless Steel
(After 1,000 Holes)



List 16505 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
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	
				1650511608	1650502508	
3/8 - 16 UNC	H3	100	39	1650511708	1650502408	
	H5			1650511808	1650502708	
3/8 - 24 UNF	H3	90	35	1650511908	1650502608	
	H4			1650512008	-	
3/8 - 32 UNEF	H4	3	90	35	-	1650505908
	H3				1650512108	1650502908
7/16 - 14 UNC	H3		100	43	1650512208	1650502808
	H5				1650512308	1650503108
7/16 - 20 UNF	H3	100	43	1650512408	1650503008	
	H5			1650512508	1650506008	
7/16 - 28 UNEF	H4	90	43	1650512608	1650503308	
				1650512708	1650503208	
1/2 - 13 UNC	H3	110	49	1650512808	1650503508	
	H5			1650512908	1650503408	
1/2 - 20 UNF	H3	100	49	1650512808	1650503508	
	H5			1650512908	1650503408	
1/2 - 28 UNEF	H4	100	49	1650513008	1650506108	

Packed: 1 pc.
Available V coating only.



List 16505 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)
					V	V
9/16 - 12 UNC	H3	3	110	50	-	1650503708
	H5				-	1650503608
9/16 - 18 UNF	H3		100	50	-	1650503908
	H5				-	1650503808
9/16 - 24 UNEF	H4		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	
5/16 - 20 UNEF	H5	140	68	-	1650506808	
1 - 8 UNC	H4	160	76	-	1650505208	
	H6			-	1650505308	
	H8			-	1650505408	
1 - 12 UNF	H4	140	76	-	1650505508	
	H6			-	1650506908	
1 - 20 UNEF	H5	140	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	
1,3/8 - 8 UNS	H9	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 UNC	H10	200	110	-	1650508308	
1,3/4 - 5 UNC	H11	220	120	-	1650508408	
1,3/4 - 10 UNF	H8	200	101	-	1650508508	
1,7/8 - 8 UNC	H10	225	125	-	1650508608	
2 - 4,1/2 UNC	H12	250	140	-	1650508708	
2 - 8 UNF	H10	225	122	-	1650508808	
4						

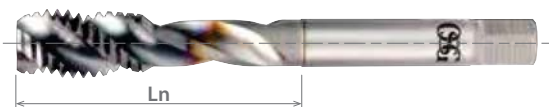
 Packed: 1 pc.
 Available V coating only.


List No.	Work Material															
	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
16505	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>			
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		
				Ln	Bottom (1.5P)	Mod Bottom (2.5P)	
					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	1650012108	1650001208		
M10 x 1.25	D5	100	39	1650012008	1650001108		
M10 x 1.0	D5	90	35	1650011908	1650005308		
M10 X 0.75	D4	90	35	1650012608	1650005608		
M11 x 1.5	D6	100	43	1650012508	-		
M11 x 1.25	D5	100	43	1650012408	1650005508		
M11 X 1.0	D5	90	43	1650012308	1650005408		
M11 x 0.75	D4	90	43	1650013008	1650001708		
M12 x 1.75	D6	110	49	1650012908	1650001608		
M12 x 1.5	D6	100	49	1650012808	1650001508		
M12 x 1.25	D6	100	49	1650012708	1650001408		
M12 x 1.0	D5	100	49	-	1650001908		
M14 x 2.0	D7	110	50	-	1650001808		
M14 x 1.5	D6	100	50	-	1650005808		
M14 x 1.25	D6	100	50	-	1650005708		
M14 x 1.0	D5	100	50	-	1650006008		
M15 X 1.5	D6	100	54	-	1650005908		
M15 x 1.0	D5	100	54	-	1650002108		
M16 x 2.0	D7	110	54	-	1650002008		
M16 x 1.5	D6	100	54	-	1650006108		
M16 x 1.0	D5	100	54	-	1650006208		
M17 x 1.5	D6	100	55	-	1650006308		
M17 x 1.0	D5	100	55	-	-		

Packed: 1 pc.
Available V coating only.



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)
					V	V
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
M36 x 2.0	D9		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
M45 x 5.5	D14	250	130	-	1650009608	

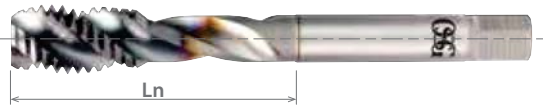
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List No.	Work Material																	
	P					M			K	N		S		H				
	Carbon Steels			Alloy Steels		Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels				
	Low	Med.	High	4140	4340	Die Steels	300	400		17-4 PH	6061	7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
16500	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>				
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		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	4	160	76	1654501908
	H8		160	76	1654502008
1 - 12 UNC	H6		140	76	1654502108
1,1/8 - 7 UNC	H9		180	97	1654502208
1,1/8 - 8 UNC	H9		180	97	1654502308
1,1/8 - 12 UNF	H8		150	78	1654502408
1,1/4 - 7 UNC	H10		180	100	1654502508
1,1/4 - 8 UNC	H9		180	100	1654502608
1,1/4 - 12 UNF	H8		150	78	1654502708
1,3/8 - 6 UNC	H10		200	115	1654502808
1,3/8 - 8 UNC	H9		200	115	1654502908
1,3/8 - 12 UNF	H8		170	91	1654503008
1,1/2 - 6 UNC	H10		200	115	1654503108
1,1/2 - 8 UNC	H9		200	115	1654503208
1,1/2 - 12 UNF	H8		170	91	1654503308
1,5/8 - 8 UNC	H10		200	110	1654503408
1,3/4 - 5 UNC	H11		220	120	1654503508
1,3/4 - 8 UNF	H10		200	101	1654503608
1,7/8 - 8 UNC	H10	225	125	1654503708	
2 - 4,1/2 UNC	H12	250	140	1654503808	
2 - 8 UNC	H10	225	122	1654503908	

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
16545	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>			
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	V	Mod Bottom (2.5P)
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																	
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
16525	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>			
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	V	Mod Bottom (2.5P)
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	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		
M20 x 1.5	D6	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

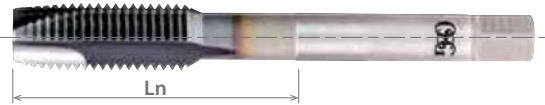
List No.	Work Material																
	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels		Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low 1010 1018	Med. 1035 1045	High 1065	4140	4340	Die Steels	300	400		17-4 PH	6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
16520	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>			
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 16515 NEW SIZES

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
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	3	56	19	1651500308
5 - 44 UNF	H2		56	19	1651500408
6 - 32 UNC	H2		56	21	1651500608
6 - 40 UNF	H3		56	21	1651500508
6 - 40 UNF	H2		56	21	1651500708
8 - 32 UNC	H2		63	22	1651500908
8 - 32 UNC	H3		63	22	1651500808
8 - 36 UNF	H2		63	22	1651501008
10 - 24 UNC	H3		70	26	1651501108
10 - 32 UNF	H2		70	26	1651501308
10 - 32 UNF	H3		70	26	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
1/4 - 20 UNC	H5		80	32	1651501608
1/4 - 28 UNF	H3		80	32	1651501908
1/4 - 28 UNF	H4		80	32	1651501808
1/4 - 32 UNEF	H3		80	32	1651506108
5/16 - 18 UNC	H3		90	38	1651502108
5/16 - 18 UNC	H5		90	38	1651502008
5/16 - 24 UNF	H3		90	38	1651502308
5/16 - 24 UNF	H4		90	38	1651502208
5/16 - 32 UNEF	H3		80	38	1651506208
3/8 - 16 UNC	H3		100	43	1651502508
3/8 - 16 UNC	H5		100	43	1651502408
3/8 - 24 UNF	H3	90	39	1651502708	
3/8 - 24 UNF	H5	90	39	1651502608	
3/8 - 32 UNEF	H3	90	39	1651506308	
7/16 - 14 UNC	H3	100	32	1651502908	
7/16 - 14 UNC	H5	100	32	1651502808	

Packed: 1 pc.
Available V coating only.



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	3	100	32	1651503108
	H5				1651503008
7/16 - 28 UNEF	H4		90	32	1651506408
1/2 - 13 UNC	H3		110	34	1651503308
	H5				1651503208
1/2 - 20 UNF	H3		100	34	1651503508
	H5				1651503408
1/2 - 28 UNEF	H4		100	34	1651506508
9/16 - 12 UNC	H3		110	37	1651503708
	H5				1651503608
9/16 - 18 UNF	H3		100	37	1651503908
	H5				1651503808
9/16 - 24 UNEF	H4	100	37	1651506608	
5/8 - 11 UNC	H3	110	39	1651504108	
	H5			1651504008	
5/8 - 18 UNF	H3	100	39	1651504308	
	H5			1651504208	
5/8 - 24 UNEF	H4	100	39	1651506708	
11/16 - 24 UNEF	H4	110	43	1651506808	
	H3			1651504508	
3/4 - 10 UNC	H3	125	43	1651504508	
	H5			1651504408	
3/4 - 16 UNF	H3	110	43	1651504708	
	H5			1651504608	
3/4 - 20 UNEF	H5	110	43	1651506908	
13/16 - 20 UNEF	H5	125	43	1651507008	
7/8 - 9 UNC	H4	140	47	1651504908	
	H6			1651504808	
7/8 - 14 UNF	H4	125	47	1651505108	
	H6			1651505008	
7/8 - 20 UNEF	H5	125	47	1651507108	
15/16 - 20 UNEF	H5	140	53	1651507208	
	H4			1651505308	
1 - 8 UNC	H4	160	53	1651505208	
1 - 12 UNF	H6	140	53	1651505208	
	H4			1651505508	
1 - 20 UNEF	H5	140	53	1651505408	
1 - 20 UNEF	H6	140	53	1651507308	

Packed: 1 pc.
Available V coating only.



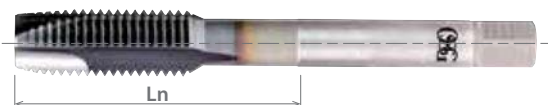
List No.	Work Material																
	P					M			K	N		S		H			
	Carbon Steels			Alloy Steels		Stainless Steels			Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steels			
	Low	Med.	High	4140	4340	300	400	17-4 PH			6061	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
1010	1018	1035	1045	1065						7075							
16515	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>			
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)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number	
				Ln	Plug (3.5P - 4.5P)	
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		

Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P)
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		100	36	1651005708
M15 x 1.5	D6	4	100	36	1651006008
M15 x 1.0	D5		100	36	1651005908
M16 x 2.0	D7		110	36	1651002108
M16 x 1.5	D6	4	100	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	3	125	43	1651002308
M18 x 2.0	D7	4	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	4	140	44	1651006708
M20 x 1.5	D6		125	44	1651002408
M20 x 1.0	D5		125	44	1651006608
M22 x 2.5	D7	3	140	44	1651002708
M22 x 2.0	D7	4	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	4	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.

 Packed: 1 pc.
 Available V coating only.


List No.	Work Material																	
	P					M			K	N		S		H				
	Carbon Steels			Alloy 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
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)
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.



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P)
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.



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
16555	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>			
SFM	100-200	100-200	100-200	50-120	45-110	40-120	40-120	40-100	80160	90-220	90-220			60-120		

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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)
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.



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P)
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.



List No.	Work Material																
	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
16550	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>				
SFM	100-200	100-200	100-200	50-120	45-110	40-120	40-120	40-100	80160	90-220	90-220			60-120			

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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)
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.



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number
				Ln	Plug (3.5P - 4.5P)
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.



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
16535	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>			
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			

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List 16530 NEW!

Long Shank, Plug (3.5P-4.5P)



Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number	
					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		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	

Tap Size	Thread Limit	No. of Flutes	Overall Length	Neck Length	EDP Number	
					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	4	160	64	1653007408	
M18 x 2.5	D7		180	72	1653008308	
M18 x 2.0	D7	3	180	72	1653008208	
M18 x 1.5	D6		180	72	1653008108	
M18 x 1.0	D5	4	180	72	1653008008	
M20 x 2.5	D7		200	80	1653008708	
M20 x 2.0	D7	3	200	80	1653008608	
M20 x 1.5	D6		200	80	1653008508	
M20 x 1.0	D5	4	200	80	1653008408	
M22 x 2.5	D7		200	80	1653009108	
M22 x 2.0	D7	3	200	80	1653009008	
M22 x 1.5	D6		200	80	1653008908	
M22 x 1.0	D5	4	200	80	1653008808	
M24 x 3.0	D8		200	80	1653009508	
M24 x 2.0	D7	3	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

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

EXT

List No.	Work Material																
	P					M			K	N		S		H			
	Carbon Steels			Alloy 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
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			

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 **Safe use of cutting tools**

- Use safety cover, safety glasses and safety shoes during operation.
- Do not touch cutting edges with bare hands.
- Do not touch cutting chips with bare hands. Chips will be hot after cutting.
- Stop cutting when the tool becomes dull.
- Stop cutting operation immediately if you hear any abnormal cutting sounds.
- Do not modify tools.
- Please use appropriate tools for the operation. Check dimensions to ensure proper selection.



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