



SG-TAP SERIES

FOR A VARIETY OF MATERIALS

CELEBRATE THE POLE POSITION



**TOP
QUALITY
LEADER**

Due to high grade powder
HSS and SG-Coating

SG-Tap Series

High-Performance Taps for a Variety of Materials

- ▶ Covers a wide range of applications – Aluminum, Cast Iron, Carbon Steel, Alloy Steel and Stainless Steel
- ▶ DIN shank and DIN overall length

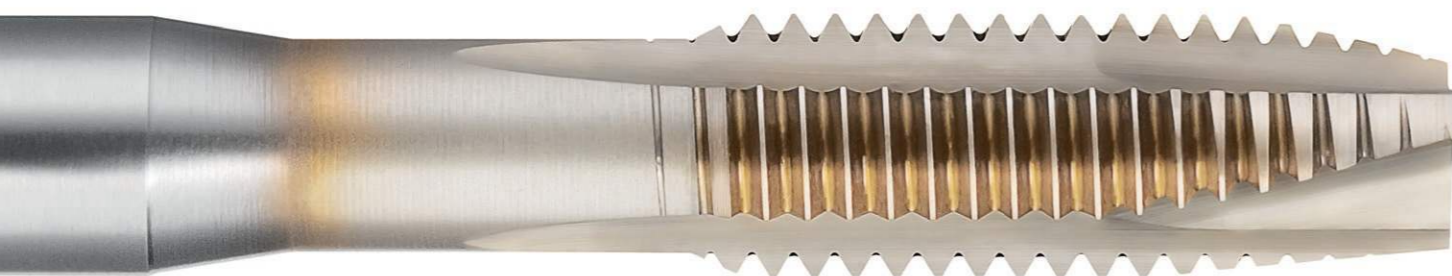
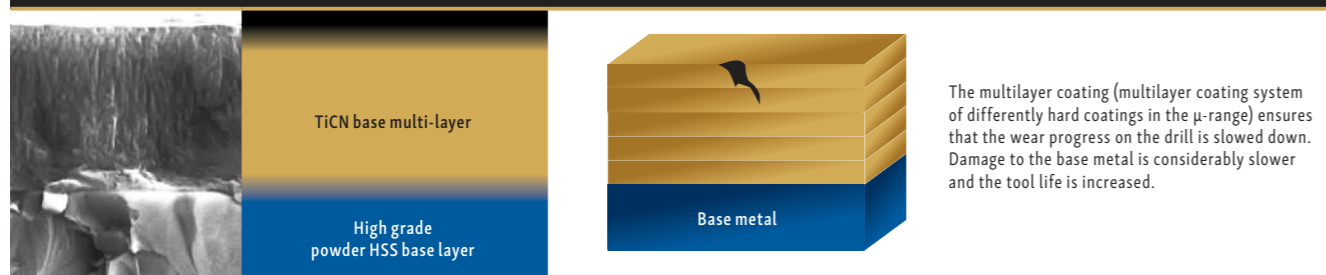
Features

- ▶ Made from high-grade powder HSS and enhanced with the SG-Coating for longer tool life. NACHI's own, high-grade-powder-metal. Not available from competitors!
- ▶ Optimised edge and flute shape allow for stable cutting of screw threads, high rigidity and even chip ejection
- ▶ High flexibility for superior performance with a variety of materials, machines and cutting conditions
- ▶ Stable cutting threads and long tool life regardless of the cutting speed
- ▶ Achieves easy flow of chips while cutting on Stainless Steels, Structural Steels and Aluminum Alloys

THE BREAKING TORSION TORQUE



SG COATING



Suitable for Tapping Structural Steels to Stainless Steels and Aluminium Alloys

APPLICABLE WORK MATERIALS											
Work Materials	ST52 Structural Steel	C15 Low Carbon Steel	C40 C<0.45%	C50 C>0.45%	20Cr.42CrMo Alloy Steel		Hardened Steel	SUS Stainless Steel	GG Grey Cast Iron	GGG Ductile Cast Iron	AC.ADC Aluminum Alloy
	~200HB	~200HB	~200HB	~200HB	~200HB	20~30HRC	30~40HRC				
SGSP	○	○	●	●	●	○	△	○	x	○	○
SGPO	●	●	●	●	●	●	△	●	x	○	○

● Excellent | ○ Good | △OK | x Not Applicable

Cutting Condition

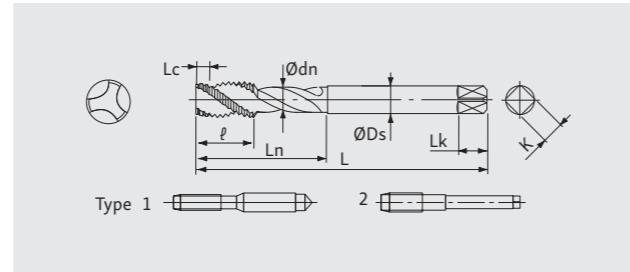
RECOMMENDED CUTTING SPEED & CUTTING FLUIDS												
		Recommended Cutting Speed m/min										
Work Materials	ST52 Structural Steel	C15 Low Carbon Steel	C40 C<0.45%	C50 C>0.45%	20Cr.42CrMo Alloy Steel		Hardened Steel	SUS Stainless Steel	GG Grey Cast Iron	GGG Ductile Cast Iron	AC.ADC Aluminum Alloy	
	~200HB	~200HB	~200HB	~200HB	~200HB	20~30HRC	30~40HRC					
SG-Taps	SGSP	15-30	15-30	10-50	10-50	15-30	8-15	-	5-10	-	10-30	15-50
	SGPO	15-50	15-30	15-50	10-50	15-50	10-30	-	5-15	-	15-30	15-50
Cutting Fluids		Water-based emulsion from 7%										

1. These are general cutting recommendations and may be altered by your conditions.
2. These conditions are for thread depth of $2 \times D_c$.
3. Recommended are non-water-soluble cutting oils for Stainless Steel.



SGSP – DIN Spiral Tap Metric

- ▶ Modified bottoming style 2.5 thread chamfer
- ▶ SG-Coating
- ▶ DIN overall length
- ▶ Premium powdered high-speed steel



M HSS-PM SG 45° FORM C TOLERANCE 6HX DIN 371 DIN 376
TOOL MATERIAL HELIX ANGLE ISO CLASS 2

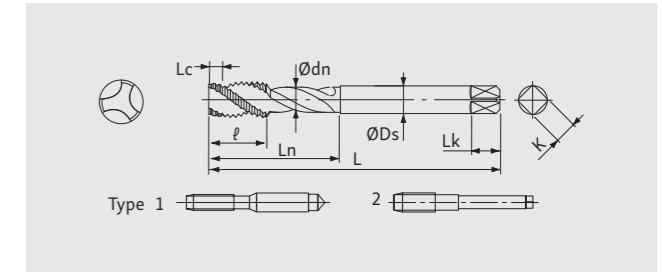
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M	Pitch	Pitch Chamfer	OAL	Thread Length		Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock	
		Lc	L	ℓ	Ln								dn
3	0.5	2.5P	56	5.6	18	2.35	3.5	2.7	6	3	1	371	●
4	0.7	2.5P	63	8.1	21	3.15	4.5	3.4	6	3	1	371	●
5	0.8	2.5P	70	9.4	25	4.05	6.0	4.9	8	3	1	371	●
5.5	0.9	2.5P	80	7.2	30	4.45	6	4.9	8	3	1	371	●
6	1	2.5P	80	12	30	4.75	6.0	4.9	8	3	1	371	●
8	1.25	2.5P	90	15.4	35	6.55	8.0	6.2	9	3	1*	371	●
10	1.5	2.5P	100	18.9	39	8.25	10.0	8.0	11	3	1*	371	●
7	1	2.5P	80	12	30	5.75	5.5	4.3	7	3	2	376	●
8	1.25	2.5P	90	15.4	35	6.55	6	4.9	8	3	2	376	●
12	1.75	2.5P	110	22.4	42	9.95	9.0	7.0	10	3	2	376	●
14	2	2.5P	110	25.9	49	11.65	11.0	9.0	12	3	2	376	●
16	2	2.5P	110	25.9	49	13.65	12.0	9.0	12	3	2	376	●
18	2.5	2.5P	125	32.6	55	15.15	14.0	11.0	14	4	2	376	●
20	2.5	2.5P	140	32.6	55	17.15	16.0	12.0	15	4	2	376	●
22	2.5	2.5P	140	32.6	55	19.15	18.0	14.5	17	4	2	376	●
24	3	2.5P	160	38.8	63	20.65	18.0	14.5	17	4	2	376	●

* Without male center

SGSP – DIN Spiral Tap Metric fine

- ▶ Modified bottoming style 2.5 thread chamfer
- ▶ SG-Coating
- ▶ DIN overall length
- ▶ Premium powdered high-speed steel



MF HSS-PM SG 45° FORM C TOLERANCE 6HX DIN 374
TOOL MATERIAL HELIX ANGLE ISO CLASS 2

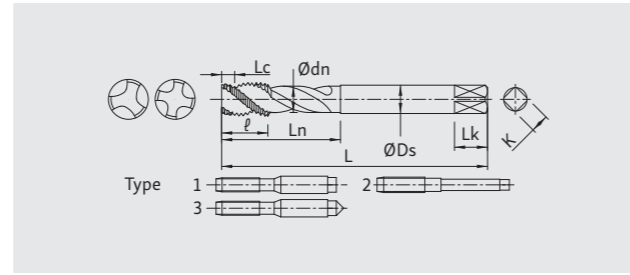
LIST: 6806

M	Pitch	Pitch Chamfer	OAL	Thread Length		Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock	
		Lc	L	ℓ	Ln								dn
6	0.75	2.5P	80	9.2	24.5	5.05	4.5	3.4	6	3	2*	374	●
8	0.75	2.5P	80	9.2	24.5	7.05	6.0	4.9	8	3	2	374	●
8	1	2.5P	90	12.4	27	6.75	6.0	4.9	8	3	2	374	●
10	0.75	2.5P	90	9.2	24.5	9.05	7	5.5	8	3	2	374	●
10	1	2.5P	90	12.4	27	8.75	7.0	5.5	8	3	2	374	●
10	1.25	2.5P	100	15.7	33	8.55	7.0	5.5	8	3	2	374	●
12	1	2.5P	100	13.5	33	10.75	9.0	7.0	10	3	2	374	●
12	1.25	2.5P	100	17.2	35	10.55	9.0	7.0	10	3	2	374	●
12	1.5	2.5P	100	20.9	40	10.25	9.0	7.0	10	3	2	374	●
14	1	2.5P	100	13.5	32.5	12.75	11	9	12	3	2	374	●
14	1.25	2.5P	100	17.2	34.5	12.55	11	9	12	3	2	374	●
14	1.5	2.5P	100	20.9	40	12.25	11.0	9.0	12	3	2	374	●
16	1	2.5P	100	13.5	32.5	14.75	12	9	12	3	2	374	●
16	1.5	2.5P	100	20.9	40	14.25	12.0	9.0	12	3	2	374	●
18	1	2.5P	110	13.5	32.5	16.75	14	11	14	4	2	374	●
18	1.5	2.5P	110	20.9	40	16.25	14.0	11.0	14	4	2	374	●
20	1	2.5P	125	13.5	32.5	18.75	16	12	15	4	2	374	●
20	1.5	2.5P	125	20.9	40	18.25	16.0	12.0	15	4	2	374	●
20	2	2.5P	140	29	48.5	17.65	16	12	15	4	2	374	●
22	1	2.5P	125	13.5	32.5	20.75	18	14.5	17	4	2	374	●
22	1.5	2.5P	125	20.9	40	20.25	18	14.5	17	4	2	374	●
22	2	2.5P	140	29	48.5	19.65	18	14.5	17	4	2	374	●
24	1	2.5P	140	14.7	36.5	22.75	18	14.5	17	4	2	374	●
24	1.5	2.5P	140	22.4	49.5	22.25	18	14.5	17	4	2	374	●
24	2	2.5P	140	30.8	53	21.65	18	14.5	17	4	2	374	●

* With male center

SGSP – DIN Spiral Tap UNC / UNF

- ▶ Modified bottoming style
- ▶ 2.5 thread chamfer
- ▶ SG-Coating
- ▶ DIN overall length
- ▶ Premium powdered high-speed steel



UNC HSS-PM SG 45° FORM C TOLERANCE 2BX DIN 2184-1
TOOL MATERIAL HELIX ANGLE ANSI

LIST: 6807

UNC	Pitch	Pitch Chamfer	OAL	Thread Length				Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock
		Lc	L	ℓ	Ln	dn	Ds							
No. 6	32	2.5P	56	9.5	20.0	2.55	4	3	6	3	3	2184-1	●	
No. 8	32	2.5P	63	9.5	21.0	3.15	4.5	3.4	6	3	3	2184-1	●	
No. 10	24	2.5P	70	12.6	25.0	3.55	6	4.9	8	3	3	2184-1	●	
No. 12	24	2.5P	80	12.6	30.0	4.25	6	4.9	8	3	3	2184-1	●	
1/4	20	2.5P	80	15.4	30.0	4.85	7	5.5	8	3	3	2184-1	●	
5/16	18	2.5P	90	17.7	35.0	6.25	8	6.2	9	3	1	2184-1	●	
3/8	16	2.5P	100	19.9	39.0	7.65	10	8	11	3	1	2184-1	●	
7/16	14	2.5P	100	22.7	-	9.05	8	6.2	9	3	2	2184-1	●	
1/2	13	2.5P	110	26.0	-	10.45	9	7	10	3	2	2184-1	●	
5/8	11	2.5P	110	30.1	-	13.25	11	9	12	3	2	2184-1	●	
3/4	10	2.5P	125	33.1	-	16.15	12	9	12	4	2	2184-1	●	
1	8	2.5P	160	38.0	-	21.85	18	14.5	17	4	2	2184-1	●	

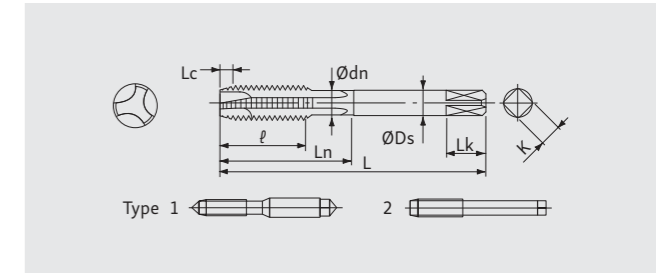
UNF HSS-PM SG 45° FORM C TOLERANCE 2BX DIN 2184-1
TOOL MATERIAL HELIX ANGLE ANSI

LIST: 6807

UNF	Pitch	Pitch Chamfer	OAL	Thread Length				Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock
		Lc	L	ℓ	Ln	dn	Ds							
No. 10	32	2.5P	70	9.5	25.0	3.85	6	4.9	8	3	3	2184-1	●	
1/4	28	2.5P	80	10.5	30.0	5.25	7	5.5	8	3	3	2184-1	●	
5/16	24	2.5P	90	12.2	35.0	6.65	8	6.2	9	3	1	2184-1	●	
3/8	24	2.5P	90	12.2	35.0	8.25	10	8	11	3	1	2184-1	●	
7/16	20	2.5P	100	15.9	-	9.65	8	6.2	9	3	2	2184-1	●	
1/2	20	2.5P	100	16.4	-	11.15	9	7	10	3	2	2184-1	●	
5/8	18	2.5P	100	18.6	-	14.25	12	9	12	3	2	2184-1	●	
3/4	16	2.5P	110	21.0	-	17.15	14	11	14	4	2	2184-1	●	

SGPO – DIN Point Tap Metric

- ▶ Plug style 5 thread chamfer
- ▶ SG-Coating
- ▶ DIN overall length
- ▶ Premium powdered high-speed steel



M HSS-PM SG FORM B TOLERANCE 6HX DIN 371 DIN 376
TOOL MATERIAL ISO CLASS 2

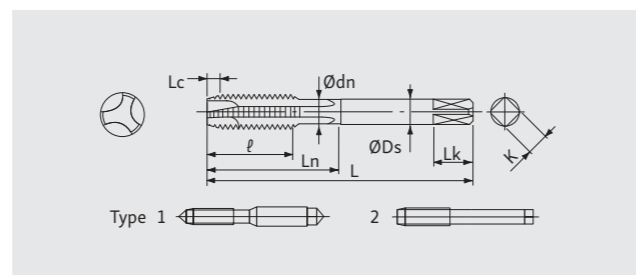
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M	Pitch	Pitch Chamfer	OAL	Thread Length				Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock
		Lc	L	ℓ	Ln	dn	Ds							
3	0.5	5P	56	10	18	2.4	3.5	2.7	6	3	1	371	●	
4	0.7	5P	63	12.5	21	3.1	4.5	3.4	6	3	1	371	●	
5	0.8	5P	70	14.5	25	4.0	6.0	4.9	8	3	1	371	●	
5.5	0.9	5P	80	17	30	4.4	6	4.9	8	3	1	371	●	
6	1	5P	80	17	30	4.8	6.0	4.9	8	3	1	371	●	
8	1.25	5P	90	22	35	6.55	8.0	6.2	9	3	1*	371	●	
10	1.5	5P	100	27	39	8.25	10.0	8.0	11	3	1*	371	●	
7	1	5P	80	17	-	-	5.5	4.3	7	3	2	376	●	
8	1.25	5P	90	22	-	-	6	4.9	8	3	2	376	●	
12	1.75	5P	110	32	-	-	9.0	7.0	10	3	2	376	●	
14	2	5P	110	32	-	-	11.0	9.0	12	3	2	376	●	
16	2	5P	110	32	-	-	12.0	9.0	12	3	2	376	●	
18	2.5	5P	125	37.5	-	-	14.0	11.0	14	3	2	376	●	
20	2.5	5P	140	37.5	-	-	16.0	12.0	15	3	2	376	●	
22	2.5	5P	140	37.5	-	-	18.0	14.5	17	3	2	376	●	
24	3	5P	160	45	-	-	18.0	14.5	17	3	2	376	●	

* Without male center

SGPO – DIN Point Tap Metric fine

- ▶ Plug style 5 thread chamfer
- ▶ SG-Coating
- ▶ DIN overall length
- ▶ Premium powdered high-speed steel



MF HSS-PM SG FORM B TOLERANCE 6HX DIN 374
TOOL MATERIAL ISO CLASS 2

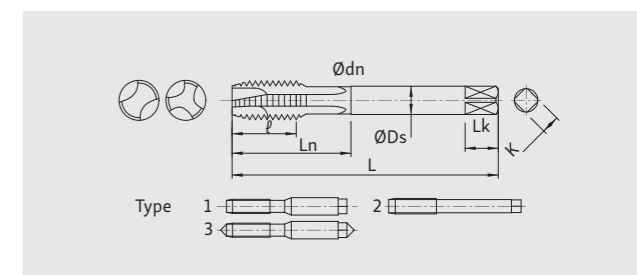
LIST: 6808

M	Pitch	Pitch Chamfer	OAL	Thread Length				Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock
		Lc	L	ℓ	Ln	dn	Ds	K	LK					
6	0.75	5P	80	14	-	-	4.5	3.4	6	3	2*	374	●	
8	0.75	5P	80	14	-	-	6.0	4.9	8	3	2	374	●	
8	1	5P	90	17	-	-	6.0	4.9	8	3	2	374	●	
9	1	5P	90	17	-	-	7	5.5	8	3	2	374	●	
10	0.75	5P	90	14	-	-	7	5.5	8	3	2	374	●	
10	1	5P	90	17	-	-	7.0	5.5	8	3	2	374	●	
10	1.25	5P	100	22	-	-	7.0	5.5	8	3	2	374	●	
11	1	5P	90	17	-	-	8	6.2	9	3	2	374	●	
12	1	5P	100	19	-	-	9.0	7.0	10	3	2	374	●	
12	1.25	5P	100	22	-	-	9.0	7.0	10	3	2	374	●	
12	1.5	5P	100	22	-	-	9.0	7.0	10	3	2	374	●	
14	1	5P	100	19	-	-	11	9	12	3	2	374	●	
14	1.25	5P	100	23	-	-	11	9	12	3	2	374	●	
14	1.5	5P	100	22	-	-	11.0	9.0	12	3	2	374	●	
16	1	5P	100	19	-	-	12	9	12	3	2	374	●	
16	1.5	5P	100	22	-	-	12.0	9.0	12	3	2	374	●	
18	1	5P	110	19	-	-	14	11	14	3	2	374	●	
18	1.5	5P	110	25	-	-	14.0	11.0	14	3	2	374	●	
20	1	5P	125	19	-	-	16	12	15	3	2	374	●	
20	1.5	5P	125	25	-	-	16.0	12.0	15	3	2	374	●	
20	2	5P	140	32	-	-	16	12	15	3	2	374	●	
22	1	5P	125	19	-	-	18	14.5	17	3	2	374	●	
22	1.5	5P	125	28	-	-	18	14.5	17	3	2	374	●	
22	2	5P	140	32	-	-	18	14.5	17	3	2	374	●	
24	1	5P	140	20	-	-	18	14.5	17	3	2	374	●	
24	1.5	5P	140	31	-	-	18	14.5	17	3	2	374	●	
24	2	5P	140	33	-	-	18	14.5	17	3	2	374	●	

* With male center

SGPO – DIN Point Tap UNC / UNF

- ▶ Plug style 5 thread chamfer
- ▶ SG-Coating
- ▶ DIN overall length
- ▶ Premium powdered high-speed steel



UNC HSS-PM SG 45° FORM B TOLERANCE 2BX DIN 2184-1
TOOL MATERIAL HELIX ANGLE ANSI

LIST: 6809

UNC	Pitch	Pitch Chamfer	OAL	Thread Length				Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock
		Lc	L	ℓ	Ln	dn	Ds	K	LK					
No. 6	32	5.0 P	56	12.0	20.0	2.55	4	3	6	3	3	2184-1	●	
No. 8	32	5.0 P	63	13.0	21.0	3.15	4.5	3.4	6	3	3	2184-1	●	
No. 10	24	5.0 P	70	16.0	25.0	3.55	6	4.9	8	3	3	2184-1	●	
No. 12	24	5.0 P	80	17.0	30.0	4.25	6	4.9	8	3	3	2184-1	●	
1/4	20	5.0 P	80	19.0	30.0	4.85	7	5.5	8	3	3	2184-1	●	
5/16	18	5.0 P	90	22.0	35.0	6.25	8	6.2	9	3	1	2184-1	●	
3/8	16	5.0 P	100	24.0	39.0	7.65	10	8	11	3	1	2184-1	●	
7/16	14	5.0 P	100	24.0	-	-	8	6.2	9	3	2	2184-1	●	
1/2	13	5.0 P	110	28.0	-	-	9	7	10	3	2	2184-1	●	
5/8	11	5.0 P	110	30.0	-	-	11	9	12	3	2	2184-1	●	
3/4	10	5.0 P	125	33.0	-	-	12	9	12	3	2	2184-1	●	
1	8	5.0 P	160	38.0	-	-	18	14.5	17	3	2	2184-1	●	

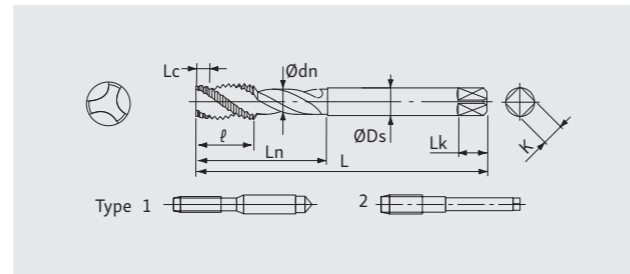
UNF HSS-PM SG 45° FORM B TOLERANCE 2BX DIN 2184-1
TOOL MATERIAL HELIX ANGLE ANSI

LIST: 6809

UNF	Pitch	Pitch Chamfer	OAL	Thread Length				Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock
		Lc	L	ℓ	Ln	dn	Ds	K	LK					
No. 10	32	5.0 P	70	12.0	25.0	3.55	6	4.9	8	3	3	2184-1	●	
1/4	28	5.0 P	80	14.0	30.0	4.85	7	5.5	8	3	3	2184-1	●	
5/16	24	5.0 P	90	18.0	35.0	6.25	8	6.2	9	3	1	2184-1	●	
3/8	24	5.0 P	90	18.0	35.0	7.65	10	8	11	3	1	2184-1	●	
7/16	20	5.0 P	100	22.9	-	-	8	6.2	9	3	2	2184-1	●	
1/2	20	5.0 P	100	22.0	-	-	9	7	10	3	2	2184-1	●	
5/8	18	5.0 P	100	21.2	-	-	12	9	12	3	2	2184-1	●	
3/4	16	5.0 P	110	23.8	-	-	14	11	14	3	2	2184-1	●	

SGSP – DIN Spiral Tap Form E

- ▶ Modified bottoming style
- ▶ 1.5 thread chamfer
- ▶ SG-Coating
- ▶ DIN overall length
- ▶ Premium powdered high-speed steel



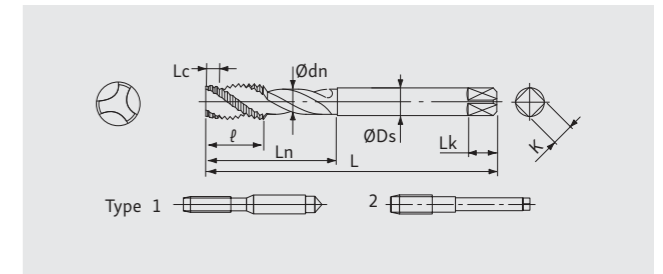
M HSS-PM SG 45° FORM E TOLERANCE 6HX DIN 371 DIN 376
TOOL MATERIAL HELIX ANGLE ISO CLASS 2

LIST: 6810

M	Pitch	Pitch Chamfer	OAL	Thread Length		Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock	
		Lc	L	ℓ	Ln								dn
3	0.5	1.5P	56	5.6	18	2.35	3.5	2.7	6	3	1	371	●
4	0.7	1.5P	63	8.1	21	3.15	4.5	3.4	6	3	1	371	●
5	0.8	1.5P	70	9.4	25	4.05	6	4.9	8	3	1	371	●
6	1	1.5P	80	12	30	4.75	6	4.9	8	3	1	371	●
8	1.25	1.5P	90	15.4	35	6.55	8	6.2	9	3	1	371	●
10	1.5	1.5P	100	18.9	39	8.25	10	8	11	3	1	371	●
12	1.75	1.5P	110	22.4	41.5	9.95	9	7	10	3	2	376	●
14	2	1.5P	110	25.9	48.5	11.65	11	9	12	3	2	376	●
16	2	1.5P	110	25.9	48.5	13.65	12	9	12	3	2	376	●

SGSP – DIN Spiral Tap Oversize

- ▶ Modified bottoming style
- ▶ 2.5 thread chamfer
- ▶ SG-Coating
- ▶ DIN overall length
- ▶ Premium powdered high-speed steel



M HSS-PM SG 45° FORM C TOLERANCE 6GX DIN 371 DIN 376
TOOL MATERIAL HELIX ANGLE ISO CLASS 2

LIST: 6812 6GX

M	Pitch	Pitch Chamfer	OAL	Thread Length		Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock	
		Lc	L	ℓ	Ln								dn
4	0.7	2.5P	63	8.1	21	3.15	4.5	3.4	6	3	1	371	●
5	0.8	2.5P	70	9.4	25	4.05	6.0	4.9	8	3	1	371	●
6	1	2.5P	80	12.0	30	4.75	6.0	4.9	8	3	1	371	●
8	1.25	2.5P	90	15.4	35	6.55	8.0	6.2	9	3	1*	371	●
10	1.5	2.5P	100	18.9	39	8.25	10.0	8.0	11	3	1*	371	●
12	1.75	2.5P	110	22.4	42	9.95	9.0	7.0	10	3	2	376	●

* With male center

M HSS-PM SG 45° FORM C TOLERANCE 7GX DIN 371 DIN 376
TOOL MATERIAL HELIX ANGLE

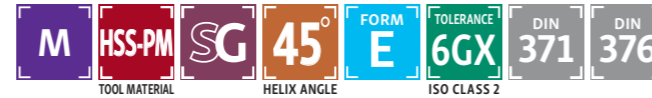
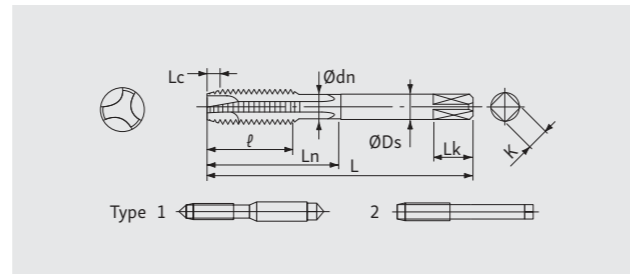
LIST: 6812 7GX

M	Pitch	Pitch Chamfer	OAL	Thread Length		Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock	
		Lc	L	ℓ	Ln								dn
4	0.7	2.5P	63	8.1	21	3.15	4.5	3.4	6	3	1	371	●
5	0.8	2.5P	70	9.4	25	4.05	6.0	4.9	8	3	1	371	●
6	1	2.5P	80	12.0	30	4.75	6.0	4.9	8	3	1	371	●
8	1.25	2.5P	90	15.4	35	6.55	8.0	6.2	9	3	1*	371	●
10	1.5	2.5P	100	18.9	39	8.25	10.0	8.0	11	3	1*	371	●
12	1.75	2.5P	110	22.4	42	9.95	9.0	7.0	10	3	2	376	●

* With male center

SGPO – DIN Point Tap Oversize

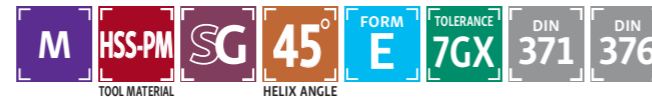
- ▶ Plug style 5 thread chamfer
- ▶ SG-Coating
- ▶ DIN overall length
- ▶ Premium powdered high-speed steel



LIST: 6814 6GX

M	Pitch	Pitch Chamfer	OAL	Thread Length				Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock
		Lc	L	ℓ	Ln	dn	Ds	K	LK					
4	0.7	5P	63	12.5	21	3.1	4.5	3.4	6	3	1	371	●	
5	0.8	5P	70	14.5	25	4.0	6.0	4.9	8	3	1	371	●	
6	1	5P	80	17.0	30	4.8	6.0	4.9	8	3	1	371	●	
8	1.25	5P	90	22.0	35	6.55	8.0	6.2	9	3	1*	371	●	
10	1.5	5P	100	27.0	39	8.25	10.0	8.0	11	3	1*	371	●	
12	1.75	5P	110	32.0	-	-	9.0	7.0	10	3	2	376	●	

* With male center



LIST: 6814 7GX

M	Pitch	Pitch Chamfer	OAL	Thread Length				Shank Ø	Square Width	Square Length	Z	Type	DIN	Stock
		Lc	L	ℓ	Ln	dn	Ds	K	LK					
4	0.7	5P	63	12.5	21	3.1	4.5	3.4	6	3	1	371	●	
5	0.8	5P	70	14.5	25	4.0	6.0	4.9	8	3	1	371	●	
6	1	5P	80	17.0	30	4.8	6.0	4.9	8	3	1	371	●	
8	1.25	5P	90	22.0	35	6.55	8.0	6.2	9	3	1*	371	●	
10	1.5	5P	100	27.0	39	8.25	10.0	8.0	11	3	1*	371	●	
12	1.75	5P	110	32.0	-	-	9.0	7.0	10	3	2	376	●	

* With male center

Thread tolerance classes

tolerance class, tap			Tolerance, internal thread (nut)					Application
ISO	DIN	ANSI BS	4H	5H	6H	7H	8H	
ISO 1	4H	3B	4H	5H				Fit without oversize
ISO 2	6H	2B	4G	5G	6H			Normal fit
ISO 3	6G	1B			6G	7H	8H	Fit with large allowance
-	7G	-				7G	8G	clearance fit for subsequent treatment or coating

Tolerance of the tap against the tolerance on the internal thread (nut)

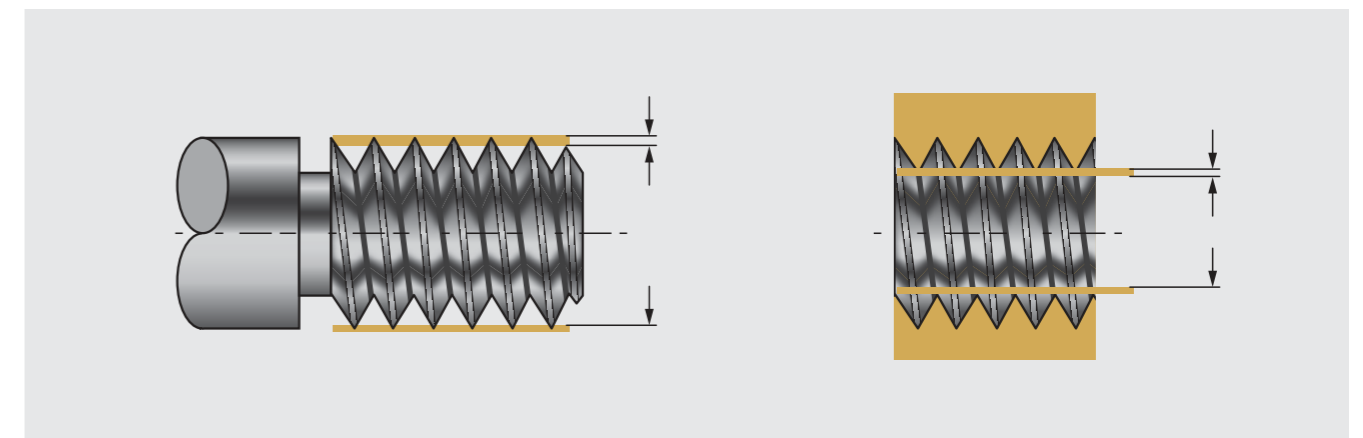
The most common average tap tolerance is ISO 2 (6H), which produces an average fit between screw and nut. With a higher tolerance (ISO 3) a coarse fit with a larger clearance is generated. This type is selected if the component is to be surface treated after machining, a coated nut is used or a loose fit is to be achieved.

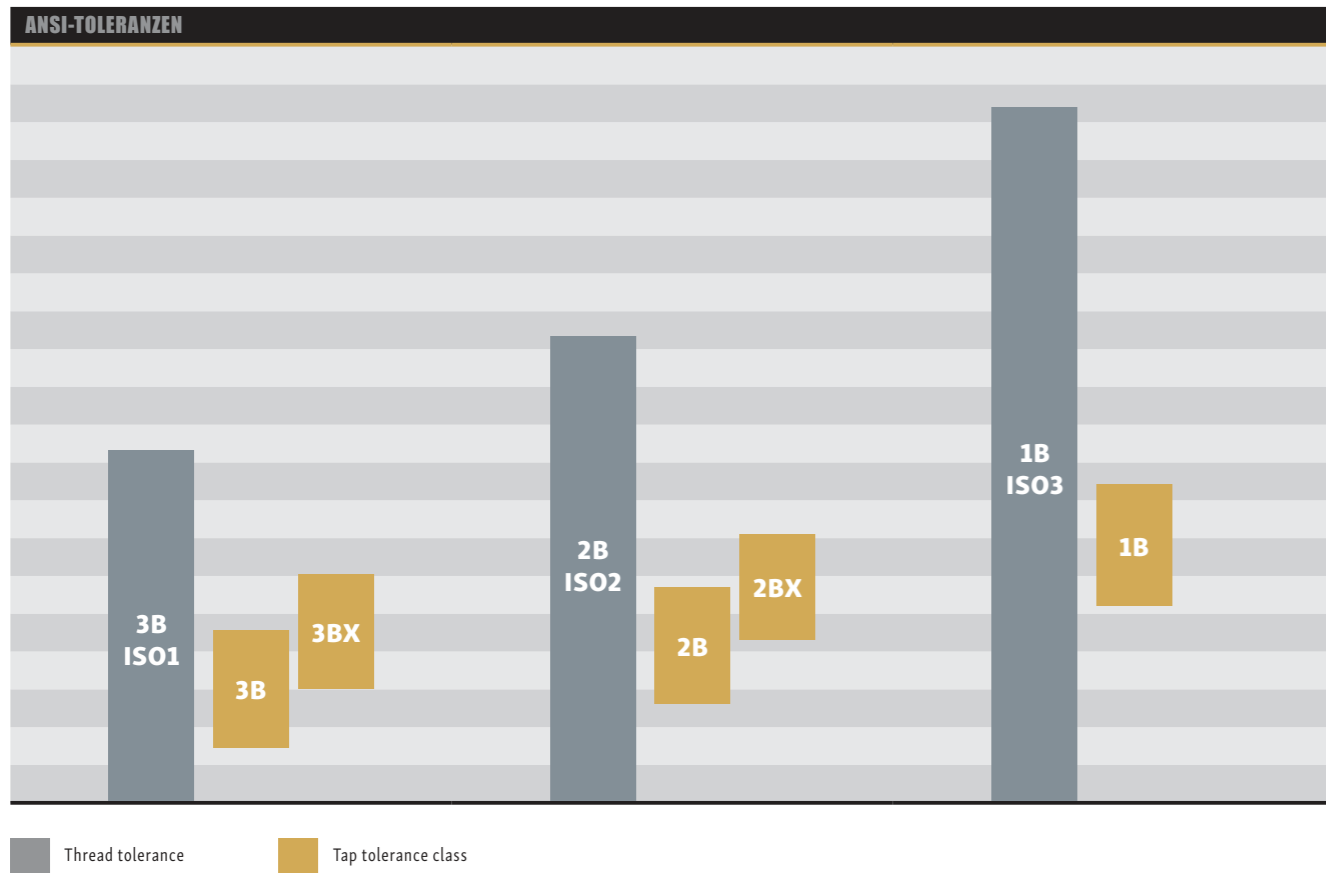
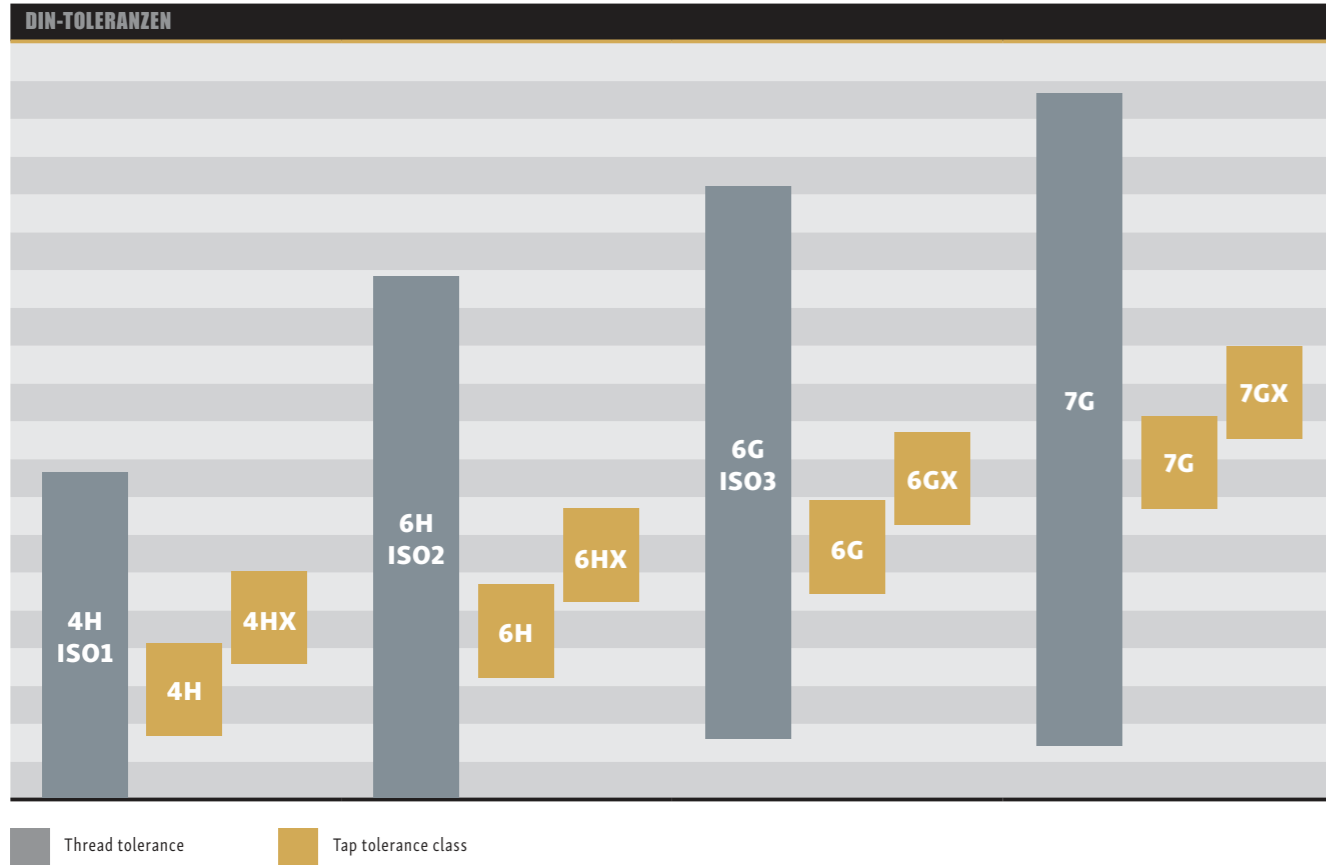
Between the tolerances 6H (ISO 2) and 6G (ISO 3) and between 6G and 7G there are taps with the tolerances 6HX, 6GX and 7GX which are manufactured by NACHI. The "X" stands for the factory tolerance of NACHI. A higher tolerance results in a longer tool life.

Tolerance situation

The tolerance range of a work tolerance, the tap, is designed to be much smaller than the thread to be produced. The factory tolerance of the tap is designed in such a way that a correct and tolerance containing thread is produced right from the start. Due to its continuous wear, the tap becomes smaller and therefore from a certain point (depending on machine, material, workpiece clamping, tool clamping etc.) it is no longer possible to produce a correct thread: it becomes smaller than the lowest tolerance of the gauge.

If the tap tolerance is set too close to the uppermost point of the internal thread, there is a risk that you will end up in the scrap area too quickly and thus produce an unusable thread. Taps with "X" tolerances or even work tolerances are positioned higher which has the advantage of extending the tool life due to the higher wear tolerance.





Pictogram Overview

- M** Metric thread
- MF** Metric fine thread
- UNC** Unified National Course Thread
- UNF** Unified National Fine Thread
- HSS-PM** NACHI High Grade Powder Metal
- SG** SG (TiCN multilayer) Coating
- FORM B** Chamfer length Form B (3.5 - 5.5 pitch)
- FORM C** Chamfer length Form C (2 - 3 pitch)
- FORM E** Chamfer length Form E (1.5 - 2 pitch)
- TOLERANCE 2BX ANSI** Thread tolerance
- TOLERANCE 6HX ISO CLASS 2** Thread tolerance
- TOLERANCE 6GX ISO CLASS 3** Thread tolerance
- TOLERANCE 7GX** Thread tolerance
- DIN 371** Tap with reinforced shaft
- DIN 374** Metric fine tap with overflow shaft
- DIN 376** Metric tap with overflow shaft
- DIN 2184-1** Taps and forming taps - Part 1: Long Type

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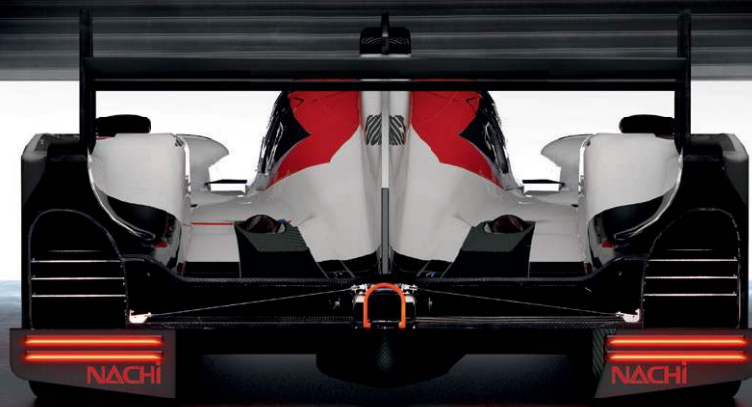
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