

T102/T103 HSS Cutting Taps

T190 Solid Carbide Forming Taps



• T102/T103 HSS Cutting Taps

Tool

- HSS cutting taps
- HSS-E Material
- Spiral flute tap and Spiral Point Tap
- JIS and DIN standard
- External cooling for full series

Application Scope

Automotive components, General machinery, Construction machinery

Application

- The taps are manufactured from premium high-speed steel (HSS) substrate, offering an optimal balance of hardness and toughness, making them suitable for diverse machining conditions, including CNC machining centers, radial drilling machines, and horizontal lathes.
- Suitable for machining ISO material groups: P, M, K, N
ISO P: 95 HB – 300 HB (300 N/mm² – 1000 N/mm²)
ISO M: <238 HB (<800 N/mm²)
ISO K: GJS (GGG)
ISO N: Al-alloys, AlSi <4%



- ≤M6 Convex Center Tip Design
• >M6 Concave Center Tip Design
- T102 Spiral Point Tap, Chamfer Length Type A (5P), for through-hole threading applications.
T103 Spiral Flute Tap, 40° helix angle, Chamfer Length Type C (2.5P), for blind hole threading applications.
- AlCrN coating for exceptional wear resistance, the HSS-E material ensures versatility across multiple working conditions.
- In accordance with DIN 371/374/376 and JIS standard

• T190 Solid Carbide Forming Taps

Tool

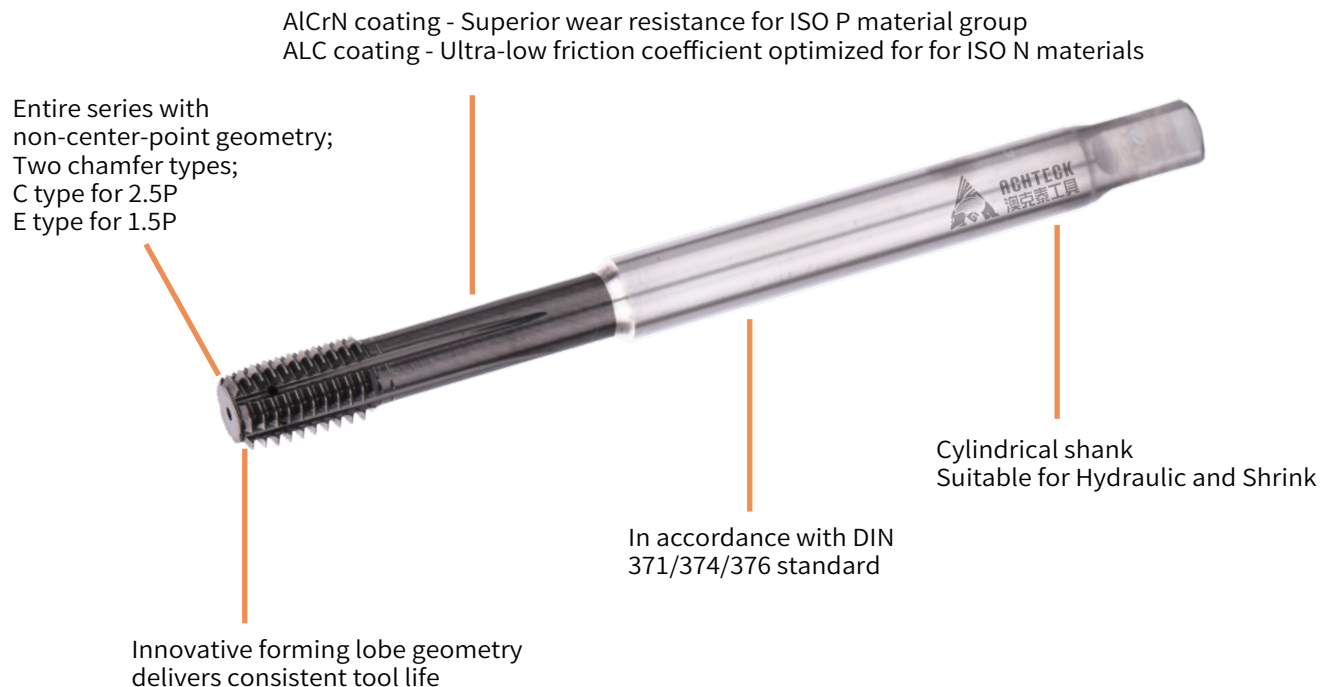
- Solid Carbide Forming Tap
- Universal for both through holes and blind holes
- DIN standard
- Type C and Type E Chamfers
- Four coolant application types
 - External coolant without oil grooves
 - External coolant with oil grooves
 - Axial internal coolant
 - Radial internal coolant

Application

- Suitable for machining ISO material groups: P, M, K, N
 - ISO P: 200 ~1200 N/mm² (Main application)
 - ISO N: < 9% Si content (Primary recommendation)
 - ISO K: >8% elongation (GJS-400)

Application Scope

Automotive components, General machinery,
Construction machinery, Energy industry
Typical components: Crankshafts, Connecting rods,
Motor shafts, Flanges, Wheel hub bearings



ACHTECK Threading Tool Denomination System

T	1	0	0	—	M10	X	1.25	—	6H	C1	J	—	AC
1	2	3	4				5		6	7	8		9

1-Tool Group	
T	Thread Tools

2-Generation	
	1

3-Tool Series	
0	General Machining-HSS
1	Medium-Strength Steel Machining-HSS
2	High-Strength Steel Machining-HSS
3	Cast Iron Machining-HSS
4	Aluminum Alloy Machining-HSS
5	Stainless Steel Machining-HSS
6	High-Temperature Alloy Machining-HSS
7	Hard Material Machining-HSS
8	others
9	Solid carbide-SC

4-Tool Type	
0	Forming
1	Straight Flute
2	Spiral Point
3	Spiral Flute-right
4	Spiral Flute-left

5-Thread Size	
X	Metric
—	Unified
Metric coarse (pitch omitted)	

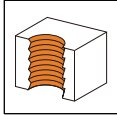
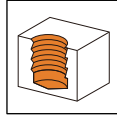
6-Tolerance	
	4H/5H
	6H
	6HX
	2B
	3B
	

7-Chamfer+Coolant	
Chamfer Type	A,B,C,E
0	External coolant without oil grooves
1	External coolant with oil grooves
2	Axial internal coolant without oil grooves
3	Axial internal coolant with oil grooves
4	Radial internal coolant with oil grooves

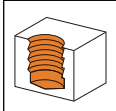
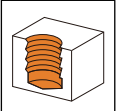
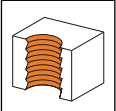
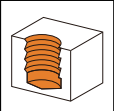
8-Parameter	
J	JIS
L	Long
X	Super long
Default to DIN standard	

9-Coating	
AC	AlCrN
AL	ALC
AR	AlCrTiN
TC	TiCN
TI	TiN
UC	Uncoated

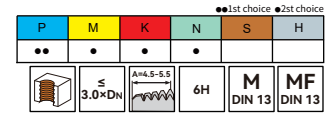
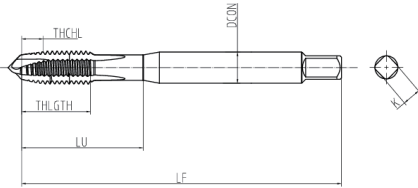
• HSS Cutting Taps Product Overview

	Spiral Point Tap		Spiral Flute Tap	
Machining Application	 Through-hole thread		 Blind-hole thread	
Thread Depth	$\leq 3.0 \times D_N$	$\leq 3.0 \times D_N$	$\leq 2.5 \times D_N$	$\leq 2.5 \times D_N$
Product Line	ECO	ECO	ECO	ECO
Product Series	T102	T102	T103	T103
Pictures				
Standard	JIS	DIN	JIS	DIN
Dia.(mm)	M2-M16	M3-M16	M2-M16	M3-M16
Thread Type	M/MF	M/MF	M/MF	M/MF
Tolerance	6H	6H	6H	6H
Coolant	External Coolant	External Coolant	External Coolant	External Coolant
Chamfer Type	A	A	C	C
Coating	AlCrN	AlCrN	AlCrN	AlCrN
Tool Materials	HSS-E	HSS-E	HSS-E	HSS-E
P Steel	●●	●●	●●	●●
M Stainless steel	●	●	●	●
K Cast iron	●	●	●	●
N Non-ferrous metals	●	●	●	●
S Hard-to-cut materials				
H Hardened materials				

• Solid Carbide Forming Taps Product Overview

	Forming Tap					
Machining Application	 Blind-hole thread	 Blind-hole thread	 Through-hole thread		 Blind-hole thread	
Thread Depth	$\leq 3.5 \times D_N$	$\leq 3.0 \times D_N$	$\leq 3.5 \times D_N$	$\leq 3.5 \times D_N$	$\leq 3.5 \times D_N$	$\leq 3.5 \times D_N$
Product Line	XP	XP	XP	XP	XP	XP
Product Series	T190-C0	T190-C1	T190-C4	T190-C3	T190-E3	T190-E3
Pictures						
Standard	DIN	DIN	DIN	DIN	DIN	DIN
Dia.(mm)	M5-M16	M5-M20	M6-M16	M5-M20	M5-M16	M5-M16
Thread Type	M/MF	M/MF	M/MF	M/MF	M/MF	M/MF
Tolerance	6HX	6HX	6HX	6HX	6HX	6HX
Coolant	External Coolant	External Coolant	Radial Internal Coolant	Axial Internal Coolant	Axial Internal Coolant	Axial Internal Coolant
Chamfer Type	C	C	C	C	E	E
Coating	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	ALC
Tool Materials	Solid Carbide	Solid Carbide	Solid Carbide	Solid Carbide	Solid Carbide	Solid Carbide
P Steel	●●	●●	●●	●●	●●	
M Stainless steel	●	●	●	●	●	
K Cast iron	●	●	●	●	●	
N Non-ferrous metals						●●
S Hard-to-cut materials						
H Hardened materials						

• T102/T103 HSS Cutting Taps Spiral Point Tap-JIS

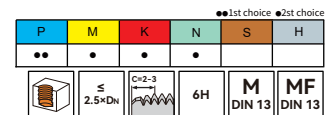
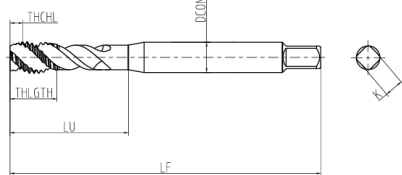


Product code	TD	P	THCHL	LF mm	THLGTH mm	LU mm	DCON mm	K mm	Z	Pilot hole mm	Stock
T102-M2-6HA1J-AC	M2	0.4	5P	40	12	16	3	2.5	2	1.60	○
T102-M2.5-6HA1J-AC	M2.5	0.45		44	14	21	3	2.5	2	2.05	○
T102-M3-6HA1J-AC	M3	0.5		46	11	19	4	3.2	3	2.50	●
T102-M3.5-6HA1J-AC	M3.5	0.6		48	13	20	4	3.2	3	2.90	○
T102-M4-6HA1J-AC	M4	0.7		52	13	21	5	4	3	3.30	●
T102-M5-6HA1J-AC	M5	0.8		60	16	24	5.5	4.5	3	4.20	●
T102-M6-6HA1J-AC	M6	1		62	19	29	6	4.5	3	5.00	●
T102-M8X1.0-6HA1J-AC	M8	1		70	22	37	6.2	5	3	7.00	●
T102-M8-6HA1J-AC	M8	1.25		70	22	37	6.2	5	3	6.75	●
T102-M10X1.0-6HA1J-AC	M10	1		75	24	41	7	5.5	3	9.00	○
T102-M10X1.25-6HA1J-AC	M10	1.25		75	24	41	7	5.5	3	8.75	●
T102-M10-6HA1J-AC	M10	1.5		75	24	41	7	5.5	3	8.50	●
T102-M12X1.0-6HA1J-AC	M12	1		82	29	48	8.5	6.5	3	11.00	○
T102-M12X1.25-6HA1J-AC	M12	1.25		82	29	48	8.5	6.5	3	10.75	○
T102-M12X1.5-6HA1J-AC	M12	1.5		82	29	48	8.5	6.5	3	10.50	●
T102-M12-6HA1J-AC	M12	1.75		82	29	48	8.5	6.5	3	10.25	●
T102-M14X1.0-6HA1J-AC	M14	1		88	30	48	10.5	8	3	13.00	○
T102-M14X1.5-6HA1J-AC	M14	1.5		88	30	48	10.5	8	3	12.50	●
T102-M14-6HA1J-AC	M14	2		88	30	48	10.5	8	3	12.00	●
T102-M16X1.5-6HA1J-AC	M16	1.5		95	32	52	12.5	10	3	14.50	●
T102-M16-6HA1J-AC	M16	2		95	32	52	12.5	10	3	14.00	●

Special product can be ordered

● Standard stock ○ Made-to-Order

Spiral Flute Tap-JIS



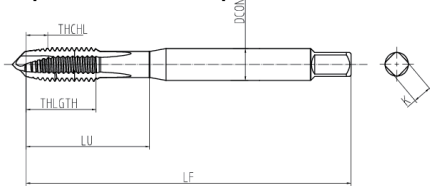
Product code	TD	P	THCHL	LF mm	THLGTH mm	LU mm	DCON mm	K mm	Z	Pilot hole mm	Stock
T103-M2-6HC1J-AC	M2	0.4	2.5P	40	12	16	3	2.5	2	1.60	○
T103-M2.5-6HC1J-AC	M2.5	0.45		44	14	21	3	2.5	2	2.05	○
T103-M3-6HC1J-AC	M3	0.5		46	5	19	4	3.2	3	2.50	●
T103-M3.5-6HC1J-AC	M3.5	0.6		48	6	20	4	3.2	3	2.90	○
T103-M4-6HC1J-AC	M4	0.7		52	7	21	5	4	3	3.30	●
T103-M5-6HC1J-AC	M5	0.8		60	8	24	5.5	4.5	3	4.20	●
T103-M6-6HC1J-AC	M6	1		62	10	29	6	4.5	3	5.00	●
T103-M8X1.0-6HC1J-AC	M8	1		70	13	37	6.2	5.0	3	7.00	●
T103-M8-6HC1J-AC	M8	1.25		70	13	37	6.2	5.0	3	6.75	●
T103-M10X1.0-6HC1J-AC	M10	1		75	15	41	7	5.5	3	9.00	○
T103-M10X1.25-6HC1J-AC	M10	1.25		75	15	41	7	5.5	3	8.75	●
T103-M10-6HC1J-AC	M10	1.5		75	15	41	7	5.5	3	8.50	●
T103-M12X1.0-6HC1J-AC	M12	1		82	18	48	8.5	6.5	3	11.00	○
T103-M12X1.25-6HC1J-AC	M12	1.25		82	18	48	8.5	6.5	3	10.75	○
T103-M12X1.5-6HC1J-AC	M12	1.5		82	18	48	8.5	6.5	3	10.50	●
T103-M12-6HC1J-AC	M12	1.75		82	18	48	8.5	6.5	3	10.25	●
T103-M14X1.0-6HC1J-AC	M14	1		88	20	48	10.5	8	3	13.00	○
T103-M14X1.5-6HC1J-AC	M14	1.5		88	20	48	10.5	8	3	12.50	●
T103-M14-6HC1J-AC	M14	2		88	20	48	10.5	8	3	12.00	●
T103-M16X1.5-6HC1J-AC	M16	1.5		95	20	52	12.5	10	3	14.50	●
T103-M16-6HC1J-AC	M16	2		95	20	52	12.5	10	3	14.00	●

Special product can be ordered

● Standard stock ○ Made-to-Order

• T102/T103 HSS-E Cutting Taps

Spiral Point Tap-DIN



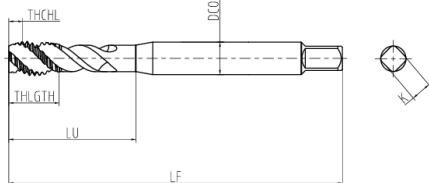
P		M		K		N		S		H	
••	•	•	•	•	•	•	•	•	•	•	•
3.0xDN		A4-5-S-S		6H		M DIN 13		MF DIN 13			

Product code	TD	P	THCHL	LF mm	THLGTH mm	LU mm	DCON mm	K mm	Z	Pilot hole mm	Stock
T102-M3-6HA1-AC	M3	0.5	5P	56	10	19	3.5	2.7	3	2.50	●
T102-M3.5-6HA1-AC	M3.5	0.6		56	12	20	4	3	3	2.90	○
T102-M4-6HA1-AC	M4	0.7		63	12	21	4.5	3.4	3	3.30	●
T102-M5-6HA1-AC	M5	0.8		70	13	25	6	4.9	3	4.20	●
T102-M6-6HA1-AC	M6	1		80	15	30	6	4.9	3	5.00	●
T102-M8X1.0-6HA1-AC	M8	1		90	17	36	6	4.9	3	7.00	●
T102-M8-6HA1-AC	M8	1.25		90	18	35	8	6.2	3	6.75	●
T102-M10X1.0-6HA1-AC	M10	1		90	18	39	7	5.5	3	9.00	○
T102-M10X1.25-6HA1-AC	M10	1.25		100	22	39	7	5.5	3	8.75	●
T102-M10-6HA1-AC	M10	1.5		100	20	39	10	8	3	8.50	●
T102-M12X1.0-6HA1-AC	M12	1		100	22	39	9	7	3	11.00	○
T102-M12X1.25-6HA1-AC	M12	1.25		100	22	40	9	7	3	10.75	○
T102-M12X1.5-6HA1-AC	M12	1.5		100	22	40	9	7	3	10.50	●
T102-M12-6HA1-AC	M12	1.75		110	24	53	9	7	3	10.25	●
T102-M14X1.0-6HA1-AC	M14	1		100	18	40	11	9	3	13.00	○
T102-M14X1.5-6HA1-AC	M14	1.5		100	18	40	11	9	3	12.50	●
T102-M14-6HA1-AC	M14	2		110	26	53	11	9	3	12.00	●
T102-M16X1.5-6HA1-AC	M16	1.5		100	22	48	12	9	3	14.50	●
T102-M16-6HA1-AC	M16	2		110	27	53	12	9	3	14.00	●

Special product can be ordered

● Standard stock ○ Made-to-Order

Spiral Flute Tap-DIN



P		M		K		N		S		H	
••	•	•	•	•	•	•	•	•	•	•	•
2.5xDN		C=2-3		6H		M DIN 13		MF DIN 13			

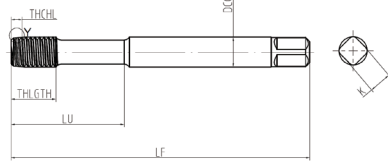
Product code	TD	P	THCHL	LF mm	THLGTH mm	LU mm	DCON mm	K mm	Z	Pilot hole mm	Stock
T103-M3-6HC1-AC	M3	0.5	2.5P	56	5	18	3.5	2.7	3	2.50	●
T103-M3.5-6HC1-AC	M3.5	0.6		56	6	20	4	3	3	2.90	○
T103-M4-6HC1-AC	M4	0.7		63	7	21	4.5	3.4	3	3.30	●
T103-M5-6HC1-AC	M5	0.8		70	8	25	6	4.9	3	4.20	●
T103-M6-6HC1-AC	M6	1		80	10	30	6	4.9	3	5.00	●
T103-M8X1.0-6HC1-AC	M8	1		90	10	36	6	4.9	3	7.00	●
T103-M8-6HC1-AC	M8	1.25		90	13	35	8	6.2	3	6.75	●
T103-M10X1.0-6HC1-AC	M10	1		90	10	39	7	5.5	3	9.00	○
T103-M10X1.25-6HC1-AC	M10	1.25		100	13	39	7	5.5	3	8.75	●
T103-M10-6HC1-AC	M10	1.5		100	15	39	10	8	3	8.50	●
T103-M12X1.0-6HC1-AC	M12	1		100	15	40	9	7	3	11.00	○
T103-M12X1.25-6HC1-AC	M12	1.25		100	15	40	9	7	3	10.75	○
T103-M12X1.5-6HC1-AC	M12	1.5		100	15	40	9	7	3	10.50	●
T103-M12-6HC1-AC	M12	1.75		110	18	53	9	7	3	10.25	●
T103-M14X1.0-6HC1-AC	M14	1		100	15	40	11	9	3	13.00	○
T103-M14X1.5-6HC1-AC	M14	1.5		100	15	40	11	9	3	12.50	●
T103-M14-6HC1-AC	M14	2		110	20	53	11	9	3	12.00	●
T103-M16X1.5-6HC1-AC	M16	1.5		100	15	48	12	9	3	14.50	●
T103-M16-6HC1-AC	M16	2		110	20	53	12	9	3	14.00	●

Special product can be ordered

● Standard stock ○ Made-to-Order

• T190 Solid Carbide Forming Taps

C-Type-External coolant without oil grooves



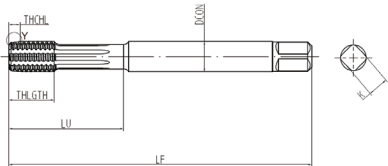
● 1st choice ● 2nd choice							
P	M	K	N	S	H		
••	•	•					
	≤ 3.5×DN	C=2-3	6HX	M DIN 13	MF DIN 13		

Product code	TD	P	THCHL	LF mm	THLGTH mm	LU mm	DCON mm	K mm	Z	Pilot hole mm	Stock
T190-M5-6HXC0-AC	M5	0.8	2.5P	70	16	16	6	4.9	/	4.65	●
T190-M6-6HXC0-AC	M6	1		80	10	30	6	4.9	/	5.55	●
T190-M8X1-6HXC0-AC	M8	1		90	12	65	6	4.9	/	7.55	○
T190-M8-6HXC0-AC	M8	1.25		90	12	35	8	6.2	/	7.40	●
T190-M10X1-6HXC0-AC	M10	1		90	15	65	7	5.5	/	9.55	●
T190-M10-6HXC0-AC	M10	1.5		100	15	39	10	8	/	9.30	●
T190-M12X1.5-6HXC0-AC	M12	1.5		100	15	71	9	7	/	11.30	●
T190-M14X1.5-6HXC0-AC	M14	1.5		100	15	71	11	9	/	13.30	○
T190-M16X1.5-6HXC0-AC	M16	1.5		100	15	57	12	9	/	15.30	●

Special product can be ordered

● Standard stock ○ Made-to-Order

C-Type-External coolant with oil grooves



● 1st choice ● 2nd choice							
P	M	K	N	S	H		
••	•	•					
		≤ 3.0×DN	C=2-3	6HX	M DIN 13	MF DIN 13	

Product code	TD	P	THCHL	LF mm	THLGTH mm	LU mm	DCON mm	K mm	Z	Pilot hole mm	Stock
T190-M5-6HXC1-AC	M5	0.8	2.5P	70	16	16	6	4.9	5	4.65	●
T190-M6-6HXC1-AC	M6	1		80	10	30	6	4.9	5	5.55	●
T190-M8X1-6HXC1-AC	M8	1		90	12	65	6	4.9	6	7.55	○
T190-M8-6HXC1-AC	M8	1.25		90	12	35	8	6.2	6	7.40	●
T190-M10X1-6HXC1-AC	M10	1		90	15	65	7	5.5	7	9.55	●
T190-M10-6HXC1-AC	M10	1.5		100	15	39	10	8	7	9.30	●
T190-M12X1.5-6HXC1-AC	M12	1.5		100	15	71	9	7	8	11.30	●
T190-M14X1.5-6HXC1-AC	M14	1.5		100	15	70	11	9	8	13.30	○
T190-M14X1.5-6HXC1L-AC	M14	1.5		110	15	80	11	9	8	13.30	○
T190-M16X1.5-6HXC1-AC	M16	1.5		100	15	57	12	9	8	15.30	●
T190-M16X1.5-6HXC1L-AC	M16	1.5		110	15	66	12	9	8	15.30	●
T190-M16-6HXC1-AC	M16	2		110	20	66	12	9	8	15.10	○
T190-M18X1.5-6HXC1-AC	M18	1.5		110	15	66	14	11	8	17.30	○
T190-M20X2-6HXC1-AC	M20	2		140	20	95	16	12	8	19.10	○
T190-M20-6HXC1-AC	M20	2.5		140	25	95	16	12	8	18.90	○

Special product can be ordered

● Standard stock ○ Made-to-Order

Technical drawing of a screw with the following dimensions and labels:

- THCHL**: Thread length
- THL.GTH**: Total length
- LU**: Length of the unthreaded section
- LF**: Total length of the screw
- DCON**: Diameter of the conical section
- Φ**: Diameter of the head
- α**: Angle of the conical section

		●1st choice ●2st choice				
P	M	K	N	S	H	
●●	●	●				
		$\frac{M}{3.5 \times D_N}$	$C=2-3$ 	6HX	M DIN 13	MF DIN 13

Special product can be ordered

● Standard stock ○ Made-to-Order

●●1st choice ●2st choice

P	M	K	N	S	H
●●	●	●			

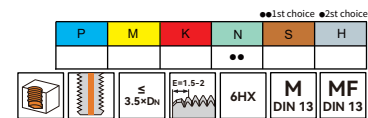
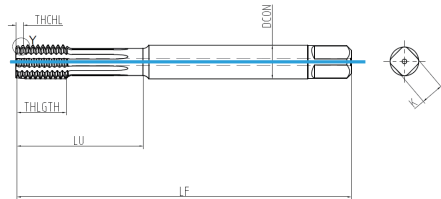
  $\leq 3.5 \times D_{th}$ $E=1.5-2$  6HX M DIN 13 MF DIN 13

Special product can be ordered

● Standard stock ○ Made-to-Order

• T190 Solid Carbide Forming Taps

E-Type-Axial internal coolant with oil grooves

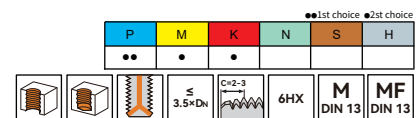
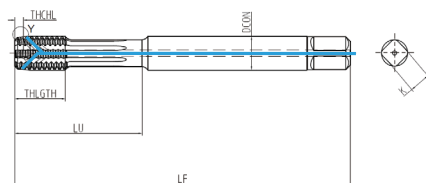


Product code	TD	P	THCHL	LF mm	THLGTH mm	LU mm	DCON mm	K mm	Z	Pilot hole mm	Stock
T190-M5-6HXC3-AL	M5	0.8	1.5P	70	16	16	6	4.9	5	4.65	●
T190-M6-6HXC3-AL	M6	1		80	10	30	6	4.9	5	5.55	●
T190-M8X1-6HXC3-AL	M8	1		90	12	65	6	4.9	6	7.55	●
T190-M8-6HXC3-AL	M8	1.25		90	12	35	8	6.2	6	7.40	●
T190-M10X1-6HXC3-AL	M10	1		90	15	65	7	5.5	7	9.55	●
T190-M10-6HXC3-AL	M10	1.5		100	15	39	10	8	7	9.30	●
T190-M12X1.5-6HXC3-AL	M12	1.5		100	15	71	9	7	8	11.30	○
T190-M14X1.5-6HXC3-AL	M14	1.5		100	15	70	11	9	8	13.30	○
T190-M16X1.5-6HXC3-AL	M16	1.5		100	15	57	12	9	8	15.30	○

Special product can be ordered

● Standard stock ○ Made-to-Order

C-Type-Radial internal coolant with oil grooves



Product code	TD	P	THCHL	LF mm	THLGTH mm	LU mm	DCON mm	K mm	Z	Pilot hole mm	Stock
T190-M6-6HXC4-AC	M6	1	2.5P	80	10	30	6	4.9	5	5.55	●
T190-M8X1-6HXC4-AC	M8	1		90	12	65	6	4.9	6	7.55	●
T190-M8-6HXC4-AC	M8	1.25		90	12	35	8	6.2	6	7.40	●
T190-M10X1-6HXC4-AC	M10	1		90	15	65	7	5.5	7	9.55	●
T190-M10-6HXC4-AC	M10	1.5		100	15	39	10	8	7	9.30	●
T190-M12X1.5-6HXC4-AC	M12	1.5		100	15	71	9	7	8	11.30	●
T190-M14X1.5-6HXC4-AC	M14	1.5		100	15	70	11	9	8	13.30	○
T190-M16X1.5-6HXC4-AC	M16	1.5		100	15	57	12	9	8	15.30	●

Special product can be ordered

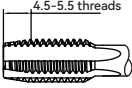
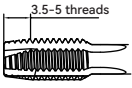
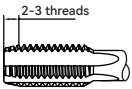
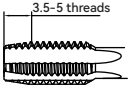
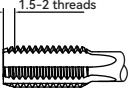
● Standard stock ○ Made-to-Order

• Tap Cutting Parameter Table

						T102	T103	T190	
ISO	Workpiece material			Brinell hardness (HB/HRC)	Tensile strength (N/mm ²)	Vc(m/min)			
P	Unalloyed steel	C ≤0.25%	Annealed	125	428	15-25	8-13	35-60	
		0.25 < C ≤0.55%	Annealed	190	639	10-15	7-12	30-65	
		0.25 < C ≤0.55%	Heat-treated	210	708	10-15	7-12	30-65	
		C > 0.55%	Annealed	190	639	10-15	7-12	30-65	
		C > 0.55%	Heat-treated	300	1013	8-13	6-9	30-65	
		Free cutting steel(shot-chip)	Annealed	220	745	10-15	7-12	30-65	
	Low-alloyed steel	Annealed		175	591	10-15	7-12	35-65	
		Heat-treated		300	1013	3-5	3-5	25-65	
		Heat-treated		380	1282				
		Heat-treated		430	1477				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	675	10-15	7-12	30-60	
		Hardened and tempered		300	1013	3-5	3-5	25-55	
		Hardened and tempered		400	1361				
	Stainless steel	Ferritic/martensitic,annealed		200	675	10-15	7-12	25-55	
		Martensitic,heat-treated		330	1114	4-6	3-5	25-55	
M	Stainless steel	Austenitic,quench hardened		200	675	8-13	5-8	25-35	
		Austenitic,precipitation hardened (PH)		300	1013	4-6	3-5	25-35	
		Austenitic/ferritic,duplex		230	778	4-6	3-5	25-35	
K	Malleable cast iron	Ferritic		200	400				
		Pearlitic		260	700				
	Grey cast iron	Low tensile strength		180	200				
		High tensile strength/austenitic		245	350				
	Cast iron with spheroidal graphite	Ferritic		155	400	10-20	7-12	35-55	
		Pearlitic		265	700	10-20	7-12	30-50	
	GGV(CGI)			230	400				
N	Wrought aluminium alloys	non-aging		30	-	15-25	10-20	60-85	
		aged		100	340	15-20	10-15	55-70	
	Cast aluminium alloys	≤12%Si, non-aging		75	260	10-20	10-15	50-75	
		≤12%Si, aged		90	310	10-20	10-15	50-65	
		>12%Si, non-aging		130	450	10-20	10-15		
	Magnesium alloys			70	250	10-15	10-15		
		Copper and copper alloys (bronze/brass)	Unalloyed,electrolytic copper		100	340			25-35
			Brass,bronze,red brass		90	310	10-25	6-15	
			Cu alloys,short-chip		110	380	15-25	10-20	
High tensile,Ampco alloy			300	1010					
S	Heat-resistant alloys	Fe-based	Annealed	200	680				
			Hardened	280	940				
		Ni or Co based	Annealed	250	840				
			Hardened	350	1180				
			Cast	320	1080				
	Titanium alloys	Pure titanium		200	680				
		α and β alloys,hardened		375	1260				
		β alloys		410	1400				
	Tungsten alloys			300	1010				
Molybdenum alloys			300	1010					
H	Hardened steel	Hardened and tempered		50HRC					
		Hardened and tempered		55HRC					
		Hardened and tempered		60HRC					
	Chilled cast iron	Hardened and tempered		50HRC					

The cutting data are average recommended values. For special applications, adjustment is needed.

ACHTECK Tap Chamfer Type

	Number of threads in the chamfer	Design of the flutes	Blind-hole/ through-hole machining	Main Application
A		Straight-fluted		Short-chipping materials
				Short through-hole threads in medium-chipping and long-chipping materials
B		Straight-fluted with spiral point		Medium-chipping and long-chipping materials
C		Right-hand helical		Medium-chipping and long-chipping materials
		Straight-fluted		Short-chipping materials
D		Left-hand helical		Long-chipping materials
		Straight-fluted		Short-chipping materials
E		Right-hand helical		Short thread run-out in medium-chipping and long-chipping materials
		Straight-fluted		Short thread run-out in short-chipping materials