T300-2

YG-1 SUPER CUTTING TAPS

YG-1 CO., LTD.

SUPER CUTTING TAPS

HAND TAPS ··· **MACHINE TAPS** ···
Gun Pointed Tap ···Spiral Fluted Tap ··· Cold Forming Tap ··· Straight Flute Tap

METRIC EDITION
T300-2

2008 · 09

YG-1 CO., LTD.
www.yg1.kr

SUPER CUTTING
TAPS

HAND TAPS / MACHINE TAPS

- Gun Pointed Tap
- Spiral Fluted Tap
- Cold Forming Tap
- Straight Flute Tap

YG-1 CO., LTD.

From the time of its establishment, December 1981, YG-1 has been devoting painstaking efforts to develop superior technology and improve quality in order to provide products of the highest quality and services to meet complete customer satisfaction.

As a result, the company has been representative of Korea becoming a leading global manufacturer of cutting tools, specializing in exports that are essential for precision manufacturing parts and aircraft fuselage, mold for automobiles and electronic appliances, such as end mills, taps and drills. Today, we exist in the world of fierce competition where every second counts and where top-notch quality is the ultimate goal.

EAGLE Registrations Inc.
402 Kettering Tower, Dayton, Ohio 45423

Accredited by Member of the IAF MLA for QMS

Certificate No. 3054(2 Copies)
10/24/2003 through 10/24/2006

Certificate of Registration

This is to certify that the Quality Management System of

㈜와이지-원(안산공장)
YG-1 Co., Ltd. (Ansan Factory)

경기도 안산시 성곡동 673-15
673-15 Seonggok-dong, Ansan-si, Gyeonggi-do, Korea

Has been assessed by EAGLE Registrations Inc. and conforms with the following standard:

ISO 9001:2000

Scope of Registration

절삭공구(탭, 드릴인서트)의 설계, 개발 및 생산
The Design, Development and Production of Cutting Tool (Tap, Drill Insert)

Registration Manager

In order to efficiently cope with these changes, we, at YG-1, are embracing the concept of a borderless, global management based on a global focus and actions.

YG-1 will take a epoch-making leap towards becoming the representative company in the 21st century that provides satisfaction to the customers, serving as the pillar of the national export industry and contributing to the national economy.

We thank you for your continuous patronage of YG-1 and we pledge to maintain our zealous devotion and undertakings into the future.

President / ***Hokeun Song***

EXPLANATION OF ABBREVIATIONS

Working Materials

AL — Aluminium & Aluminium Alloys

Cu — Copper

GG — Grey Cast Iron

GS — Steels with good machinability Rm< 750 N/mm²

GV — Any material with al least 8-10% elonga-tion

HR — High alloyed steels Rm > 1,000 N/mm²

Ms — Brass

Ni — Nickel alloys

NW — Carbon steels with low contents of alloy Rm < 600 N/mm²

Ti — Titanium alloys

VA — Stainless steels

VG — Heat treated and heat-resistant steels Rm > 750 N/mm²

Tap Materials

HM — Carbide

HSS — High Speed Steels (M2)

HSS-E — 5% Co. High Speed Steels (M35)

HSS-PM — Powder Metallurgy High Speed Steels

Surface Treatment and Coating

NI — Nitrided

TiN — TiN-Coating (Titanium Nitride)

vap — Steam Tempered

TiCN — TiCN-Coating (Titanium Carbon Nitride)

TiAlN — TiAlN-Coating (Titanium Aluminium Nitride)

Hardslick — TiAlN+WC/C-Coating

Chamfer Lead acc. to DIN 2197

A — Form A (Chamfer Lead 5-6 Threads)

B — Form B (with GUN-Nose and Chamfer Lead 4-5 Threads)

C — Form C (Chamfer Lead 2-3 Threads)

D — Form D (Chamfer Lead 4-5 Threads)

E — Form E (Chamfer Lead 1.5-2 Threads)

Others

Az — with Interrupted Threads

LH — Left Hand Thread

EG — Wire Thread Inserts

SURFACE TREATMENT AND COATING

The High Speed Steels we use grant a good wear resistance and toughness. Therefore we normally deliver our taps with bright, untreated surface. In machining certain materials, various surface treatments are of advantage.

STEAM TEMPERED - vap

The Steam Tempered is a Fe_3O_4-oxyd-coating which reduces the friction between tool and workpiece and prevents cold welding.

NITRIDING - NI

We recommend this surface treatment for machining materials which effect a hard wear / abrasion, such as grey cast iron, alu-alloys with high Si-percentage more than 10%.

These are surface finishes of good value and suitable for many application. We do these surface treatments within our own company.

Further surface finishes are the various coatings.

TiN-COATING - TiN

The TiN-coating has a hardness of approx. **2,300 HV** and is temperature-resistant up to approx. **600** ℃. This is an excellent all-round coating for normal applications.
Colour : **Golden** Coefficient of friction against steel : 0.4

TiCN-COATING - TiCN

TiCN takes place of TiN when the conditions require the coating to have a different hardness and toughness.
The TiCN brings advantage in machining very difficult steels or cutting interrupted bores.
The TiCN-coating has a hardness of approx. **3,000 HV**, but is temperature-resistant up to approx. **400** ℃ only. That means TiCN needs an excellent cooling for long service life.
Colour : **Blue-Grey** Coefficient of friction against steel : 0.4

TiAlN-COATING - TiAlN

This is a special coating for machining abrasive materials such as : grey cast iron, alu-alloys with silicon, fiber reinforced plastics, etc., or machining under high temperatures, which means with insufficient cooling, or high speeds ≥ 600m/min. The TiAlN has a hardness of approx. **3,000 HV** and is temperature resistant up to approx. **800** ℃.
Colour : **Violet-Grey** Coefficient of friction against steel : 0.4

Hardslick-COATING - Hardslick

Hardslick combines in a novel way the advantages of an extremely hard, thermally stable TiAlN-coating with the sliding and lubricating properties of an outer WC/C(Tungsten carbide/carbon)-coating. The Hardslick coating has a hardness of approx. **3,000 HV** and is temperature-resistant up to approx. **800** ℃.
Colour : **Violet-Grey** Coefficient of friction against steel : 0.2

FAX : +82(32)526-4373

HAND TAPS & MACHINE TAPS - HSS & HSS-E

Program summary (Recommendation table see page 13-16)

Material Groups	GS	GS	GS	GS	GS	GS	GS
Hole Type	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through
Description	HSS Set of 3 pieces Straight flutes	HSS Set of 3 pieces Straight flutes Left hand thread	HSS Set of 2 pieces Straight flutes	HSS Set of 3 pieces Straight flutes	HSS Set of 2 pieces Straight flutes	HSS Set of 3 pieces Straight flutes	HSS Set of 2 pieces Straight flutes
Figure of Tools							
Cat.-No.	T7109	T7343	T7309	T7363	T7509	T7609	T7709
Threads	M	M-LH	MF	UNC	UNF	W	G
Dimensions	DIN 352	DIN 352	DIN 2181	DIN 351	DIN 2181	DIN 351	DIN 5157
Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H	2B	2B	–	–
Chamfer	I / II / III	I / II / III	I / III	I / II / III	I / III	I / II / III	I / III
Surface							
Page	26	36	102/103	119	113	142	145

Material Groups	VG	VA	GS	GS	GS	GS	GS	GS	GS
Hole Type	Blind & Through	Blind & Through	Through	Blind	Through	Through	Through	Through	Blind & Through
Description	HSS-E Set of 3 pieces Straight flutes No.1 Pilot guide	HSS-E Set of 3 pieces Straight flutes No.1 Pilot guide	HSS-E Gun Pointed	HSS-E Spiral Fluted R20	HSS-E Gun Pointed	HSS-E Gun Pointed	HSS-E Gun Pointed	HSS-E Gun Pointed	HSS-E Straight Fluted
Figure of Tools									
Cat.-No.	TC353	TB373	TC122	TC612	TC127	TC227	TD127	TD227	TC463
Threads	M	M	M	M	M	M	M	M	M
Dimensions	DIN 352	DIN 352	DIN 352	DIN 352	DIN 371	DIN 376	DIN 371	DIN 376	DIN 371/376
Tolerance	ISO 2/6H	ISO 2X/6HX	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
Chamfer	I / II / III	I / II / III	B	C	B	B	B	B	C
Surface		vap					TiN	TiN	
Page	37	38	39	40	27	28	41	42	43

MACHINE TAPS - HSS-E & HSS-PM

Program summary (Recommendation table see page 13-16)

Material Groups	GS (NEW)	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS
Hole Type	Blind	Through	Blind	Blind	Blind	Through	Through	Through	Blind & Through	Blind	Blind
Description	HSS-PM Spiral Fluted R40	HSS-E Spiral Fluted L20	HSS-E Spiral Fluted R20	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40	HSS-E Straight Fluted Nut Taps	HSS-E Gun Pointed	HSS-E Gun Pointed	HSS-E Straight Fluted	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40
Figure of Tools											
Cat.-No.	TQ907	TC211	TC517	TC711	TD711	TC803	TC222	TD222	TC473	TC411	TD411
Threads	M	M	M	M	M	M	MF	MF	MF	MF	MF
Dimensions	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 357	DIN 374	DIN 374	DIN 374	DIN 374	DIN 374
Tolerance	ISO 2/6HX	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
Chamfer	C	C	C	C	C	LONG	B	B	C	C	C
Surface					TiN			TiN			TiN
Page	25	44	45	29	46	47	104	105	106	107	108

Material Groups	GS	GS	GS	GS	GS	GS	GS	GS	GS	VG	VG	VG
Hole Type	Through	Blind & Through	Blind	Through	Blind	Through	Blind	Through	Blind	Through	Through	Through
Description	HSS-E Gun Pointed	HSS-E Straight Fluted	HSS-E Spiral Fluted R40	HSS-E Gun Pointed	HSS-E Spiral Fluted R40	HSS-E Gun Pointed	HSS-E Spiral Fluted R40	HSS-E Gun Pointed	HSS-E Spiral Fluted R40	HSS-PM Gun Pointed	HSS-PM Gun Pointed	HSS-E Gun Pointed
Figure of Tools												
Cat.-No.	TC214	TC424	TC144	TC234	TC124	TC224	TC134	TC727	TC728	TQ863	TR863	TC422
Threads	UNC	UNC	UNC	UNF	UNF	W(BSW)	W(BSW)	G(BSP)	G(BSP)	M	M	M
Dimensions	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/374	DIN 371/374	DIN 2182/2183	DIN 2182/2183	DIN 5156	DIN 5156	DIN 371/376	DIN 371/376	DIN 371/376
Tolerance	2B	2B	2B	2B	2B	–	–	–	–	ISO 2/6H	ISO 2/6H	ISO 2/6H
Chamfer	B	C	C	B	C	B	C	B	C	B	B	B
Surface										vap		
Page	120	121	122	134	135	143	144	146	147	48	49	30

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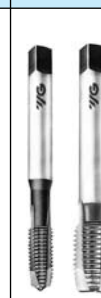
MACHINE TAPS - HSS-E & HSS-PM

Program summary (Recommendation table see page 13-16)

Material Groups	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG
Hole Type	Through	Through	Through	Blind	Blind	Blind	Blind	Blind	Blind	Blind	Through	Through
Description	HSS-E Gun Pointed	HSS-E Gun Pointed	HSS-E Gun Pointed	HSS-PM Spiral Fluted R40	HSS-PM Spiral Fluted R40	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40, Recessed Threads	HSS-E Gun Pointed	HSS-E Gun Pointed
Figure of Tools												
Cat.-No.	TE422	TD422	TY422	TQ823	TR823	TC312	TB312	TD312	TY312	TB913	TC263	TD263
Threads	M	M	M	M	M	M	M	M	M	M	MF	MF
Dimensions	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 374	DIN 374
Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
Chamfer	B	B	B	C	C	C	C	C	C	C	B	C
Surface	NI	TiN	TiAlN	vap			vap	TiN	TiAlN	vap		TiN
Page	50	51	52	53	54	31	55	56	57	58	109	110

Material Groups	VG	VG	VG	VG	VG	VG	VG	VG	VG	HR
Hole Type	Blind	Blind	Through	Through	Blind	Blind	Through	Blind	Blind	Through
Description	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40	HSS-E Gun Pointed	HSS-E Gun Pointed	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40	HSS-E Gun Pointed	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40	HSS-E Gun Pointed
Figure of Tools										
Cat.-No.	TC413	TD413	TC244	TD244	TC174	TD174	TC254	TC184	TC729	TC283
Threads	MF	MF	UNC	UNC	UNC	UNC	UNF	UNF	G(BSP)	M
Dimensions	DIN 374	DIN 374	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/374	DIN 371/374	DIN 5156	DIN 371/376
Tolerance	ISO 2/6H	ISO 2/6H	2B	2B	2B	2B	2B	2B	–	ISO 2/6H
Chamfer	C	C	B	B	C	C	B	C	C	B
Surface		TiN		TiN		TiN				
Page	111	112	123	124	125	126	136	137	148	59

MACHINE TAPS - HSS-E & HSS-PM

Program summary (Recommendation table see page 13-16)

Material Groups	HR	HR	HR	HR	VA	VA	VA NW	VA NW	VA	VA	VA NW	VA NW	VA NW	VA NW
Hole Type	Through	Blind	Blind	Blind	Through	Through	Through	Through	Blind	Blind	Blind	Blind	Through	Blind
Description	HSS-E Gun Pointed	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40	HSS-PM Gun Pointed	HSS-PM Gun Pointed	HSS-E Gun Pointed	HSS-E Gun Pointed	HSS-PM Spiral Fluted R40	HSS-PM Spiral Fluted R40	HSS-E Spiral Fluted R40, Recessed Threads	HSS-E Spiral Fluted R40, Recessed Threads	HSS-E Gun Pointed	HSS-E Spiral Fluted R40
Figure of Tools														
Cat.-No.	TY283	TC313	TB313	TY313	TQ853	TR853	TB623	TCH23	TQ813	TR813	TB914	TCH14	TB123	TB183
Threads	M	M	M	M	M	M	M	M	M	M	M	M	MF	MF
Dimensions	DIN371/376	DIN371/376	DIN371/376	DIN371/376	DIN371/376	DIN371/376	DIN371/376	DIN371/376	DIN371/376	DIN371/376	DIN371/376	DIN371/376	DIN 374	DIN 374
Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO2X/6HX	ISO2X/6HX	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO2X/6HX	ISO 2/6H
Chamfer	B	C	C	C	B	B	B	B	C	C	C	C	B	C
Surface	TiAlN		vap	TiAlN	vap		vap	Hardslick	vap		vap	Hardslick	vap	vap
Page	60	61	62	63	64	65	32	66	67	68	33	69	113	114

Material Groups	VA NW	VA NW	VA NW	VA NW	VA NW	NW	Ti	Ti	Ti	Ti
Hole Type	Through	Blind	Through	Blind	Blind	Blind	Through	Through	Blind	Blind
Description	HSS-E Gun Pointed	HSS-E Spiral Fluted R40	HSS-E Gun Pointed	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R40	HSS-PM Gun Pointed	HSS-PM Gun Pointed	HSS-PM Spiral Fluted R25	HSS-PM Spiral Fluted R25
Figure of Tools										
Cat.-No.	TB264	TB904	TB274	TB924	TB514	TB711	TM293	TZ293	TM903	TZ903
Threads	UNC	UNC	UNF	UNF	G(BSP)	M	M-Az	M-Az	M	M
Dimensions	DIN 371/376	DIN 371/376	DIN 371/374	DIN 371/374	DIN 5156	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
Tolerance	2B	2B	2B	2B	–	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
Chamfer	B	C	B	C	C	C	B	B	C	C
Surface	vap	vap	vap	vap	vap	vap		TiAlN		TiAlN
Page	127	128	138	139	149	70	71	72	73	74

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MACHINE TAPS - HSS-E & HSS-PM

Program summary (Recommendation table see page 13-16)

Material Groups	Ti Ni	Ti Ni	Ni	Ni	Ti Ni	Ti Ni	Ni	Ni	GV	GV	GV	GV	GV	GV	GV	GV
Hole Type	Through	Through	Through	Through	Blind	Blind	Blind	Blind	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through
Description	HSS-PM Gun Pointed	HSS-PM Gun Pointed	HSS-PM Gun Pointed	HSS-PM Gun Pointed	HSS-PM Spiral Fluted R40	HSS-PM Spiral Fluted R40	HSS-PM Spiral Fluted R40	HSS-PM Spiral Fluted R40	HSS-PM Cold Forming Taps with Oil Grooves	HSS-E Cold Forming Taps with Oil Grooves	HSS-E Cold Forming Taps with Oil Grooves	HSS-E Cold Forming Taps with Oil Grooves	HSS-E Cold Forming Taps with Oil Grooves	HSS-E Cold Forming Taps with Oil Grooves	HSS-PM Cold Forming Taps	HSS-E Cold Forming Taps
Figure of Tools																
Cat.-No.	TQ873	TR873	TM923	TZ923	TQ833	TR833	TM933	TZ933	TQ703	TE703	TE713	TD703	TD713	TY703	TQ723	TE723
Threads	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Dimensions	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2X/6HX	ISO 2X/6HX	ISO 3X/6GX	ISO 2X/6HX	ISO 3X/6GX	ISO 2X/6HX	ISO 2X/6HX	ISO 2X/6HX
Chamfer	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	C
Surface	vap			TiAlN	vap			TiAlN	vap	NI	NI	TiN	TiN	TiAlN	vap	NI
Page	75	76	77	78	79	80	81	82	83	84	85	34	86	87	88	89

Material Groups	GV	GV	GV	GV	GV	Al	Al	Al	Al	Al
Hole Type	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Through	Through	Blind	Blind	Blind
Description	HSS-E Cold Forming Taps	HSS-E Cold Forming Taps with Oil Grooves	HSS-E Cold Forming Taps with Oil Grooves	HSS-E Cold Forming Taps with Oil Grooves	HSS-E Cold Forming Taps with Oil Grooves	HSS-E Gun Pointed	HSS-E Gun Pointed	HSS-E Spiral Fluted R45	HSS-E Spiral Fluted R40	HSS-E Spiral Fluted R45
Figure of Tools										
Cat.-No.	TD723	TE733	TD733	TE704	TD704	TC622	TE943	TC163	TE953	TC963
Threads	M	MF	MF	UNC	UNC	M-Az	M	M	M	MF
Dimensions	DIN 371/376	DIN 374	DIN 374	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 374
Tolerance	ISO 2X/6HX	ISO 2X/6HX	ISO 2X/6HX	2BX	2BX	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
Chamfer	C	C	C	C	C	B	B	C	C	C
Surface	TiN	NI	TiN	NI	TiN		NI		NI	
Page	90	115	116	129	130	91	92	93	94	117

MACHINE TAPS - HSS-E & HM

Program summary (Recommendation table see page 13-16)

Material Groups	Al	Al	Al	Al	Al	Al	Al	GG	GG	GG
Hole Type	Blind	Blind	Through	Blind	Through	Blind	Through	Blind & Through	Blind & Through	Blind & Through
Description	HSS-E Spiral Fluted R45	HSS-E Spiral Fluted R45	HSS-E Gun Pointed	HSS-E Spiral Fluted R40	HSS-E Gun Pointed	HSS-E Spiral Fluted R40	HSS-E Gun Pointed	HSS-E Straight Fluted	HSS-E Straight Fluted	HSS-E Straight Fluted
Figure of Tools										
Cat.-No.	TC169	TC170	TC973	TC909	TC934	TC944	TC954	TE821	TD821	TI821
Threads	UNC	UNF	EG-M	EG-M	EG-UNC	EG-UNC	EG-UNF	M	M	M
Dimensions	DIN 371/376	DIN 371/374	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/374	DIN 371/376	DIN 371/376	DIN 371/376
Tolerance	2B	2B	6H Mod.	6H Mod.	2B	2B	2B	ISO 2X/6HX	ISO 2X/6HX	ISO 2X/6HX
Chamfer	C	C	B	C	B	C	B	C	C	C
Surface								NI	TiN	TiCN
Page	131	140	150	151	152	153	154	35	95	96

Material Groups	GG	GG	GG	GG	GG	GG	Ms	Ms	Ms	
Hole Type	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through	Blind & Through	
Description	HSS-E Straight Fluted	HM Straight Fluted	HSS-E Straight Fluted	HSS-EX Straight Fluted	HSS-E Straight Fluted	HSS-E Straight Fluted	HSS-E Straight Fluted	HSS-E Straight Fluted	HSS-E Straight Fluted	
Figure of Tools										
Cat.-No.	TY821	TO993	TE403	T2484	TE434	TE454	TC433	TE443	TY433	
Threads	M	M	MF	NPTF	UNC	UNF	M	M	M	
Dimensions	DIN 371/376	DIN 371/376	DIN 374	USCTI T.311	DIN 371/376	DIN 371/374	DIN 371/376	DIN 371/376	DIN 371/376	
Tolerance	ISO 2X/6HX	ISO 2X/6HX	ISO 2X/6HX	–	2BX	2BX	ISO 2/6H	ISO 2X/6HX	ISO 2/6H	
Chamfer	C	C	C	C	C	C	C	C	C	
Surface	TiAlN		NI		NI	NI		NI	TiAlN	
Page	97	98	118	155	132	141	99	100	101	

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NEW TOLERANCE NOTATIONS TO DIN EN 22857

For taps with metric ISO threads

The standard DIN 802 part 1 has been withdrawn and replaced by DIN EN 22857.

The following chart gives a comparison between the new standard DIN EN 22857 and the withdrawn standard DIN 802 part 1. An important change is the re-classification from tap tolerance classes to tap application classes.

Application classes for taps to DIN EN 22857		Tolerance classes to withdrawn standard DIN 802 part 1	Allotment of the tolerance zones of the nut thread to be cut				
Name	Code						
Class 1	ISO 1	4H	4H	5H	-	-	-
Class 2	ISO 2	6H	4G	5G	6H	-	-
Class 3	ISO 3	6G	-	-	6G	7H	8H
-	-	7G	-	-	-	7G	8G

A suitable transition period is to be expected.

Codes for tolerance classes 7G/8G and <X> tolerance zones have not yet been standardised within DIN EN 22857 and the values from DIN 802 part 1 will continue to be valid.

CUTTING SPEED TABLE

Cutting Speeds m/min. into revolutions per minute

	Cutting Speed m/min.															
Tool Dia.	1	2	3	4	5	6	8	10	12	15	20	25	30	40	50	60
	Tool r.p.m.															
1	318	637	955	1274	1592	1910	2548	3185	3822	4777	6396	7962	9554	12739	15924	19108
2	159	318	478	637	796	955	1274	1592	1911	2388	3185	3981	4777	6369	7962	9554
3	106	212	318	425	531	637	849	1062	1274	1592	2123	2654	3185	4246	5308	6369
4	80	159	239	318	398	478	637	796	955	1194	1592	1990	2389	3185	3981	4777
5	64	127	191	255	318	382	510	637	764	955	1274	1592	1911	2548	3185	3822
6	53	106	159	212	265	318	425	531	637	796	1062	1327	1592	2123	2653	3185
8	40	80	119	159	199	239	318	398	478	597	796	955	1194	1592	1990	2388
10	31	64	96	127	159	191	255	318	382	478	637	796	955	1274	1592	1911
12	26	53	80	106	133	159	212	265	318	398	531	663	796	1062	1327	1592
14	23	45	68	91	114	136	182	227	273	341	455	569	682	910	1137	1365
16	20	40	60	80	100	119	159	199	239	299	398	498	597	796	995	1194
18	18	35	53	71	88	106	142	177	212	265	354	442	531	708	885	1062
20	16	32	48	64	80	96	127	159	191	239	318	398	478	637	796	955
25	13	25	38	51	64	76	102	127	153	191	255	318	382	510	637	764
30	11	21	32	42	53	64	85	106	127	159	212	265	318	425	531	637
35	9	18	27	36	45	55	73	91	109	136	182	227	273	364	455	546
40	8	16	24	32	40	48	64	80	96	119	159	199	239	118	398	478

EXAMPLES FOR APPLICATION MATERIAL GROUPS

11 Magnetic Soft Steels < 400 N/mm²

1.1013	RFe 100
1.1014	RFe 80
1.1015	RFe 60
1.0718	9 S MnPb 28

12 Structure/Case Carburizing Steels < 700 N/mm²

1.0037	St 37-2
1.0050	St 50-2
1.0060	St 60-2
1.0070	St 70-2
1.0401	C 15
1.1141	Ck 15

13 Plain Carbon Steels < 850 N/mm²

1.0501	C 35
1.0503	C 45
1.0535	C 55
1.0601	C 60
1.1181	Ck 35
1.1191	Ck 45

14 Alloy Steels < 850 N/mm²

1.2080	X210Cr12
1.2363	X100CrMoV5-1
1.3243	S 6-5-2-5
1.3343	S 6-5-2
1.7218	25CrMo4
1.7220	34CrMo4

15 Alloy, Hardened & Tempered Steels < 1,200 N/mm²

1.2581	X30WCrV9 3
1.2622	X60WCrMoV9
1.2550	60WCrV7
1.6580	30CrNiMo8
1.7361	32CrMo12
1.8515	31CrMo12

16 Alloy, Hardened & Tempered Steels > 1,200 N/mm²

To this group belong most of the materials of group 15, but present a higher tensile strength.

21 Free machining stainless Steels < 850 N/mm²

1.4005	X12CrS13
1.4006	X10Cr13
1.4016	X6Cr17
1.4104	X12CrMoS17
1.4305	X10CrNiS18 9

22 Austenitic stainless Steels < 850 N/mm²

1.4301	X5CrNi18 10
1.4406	X2CrNiMoN17 12 2
1.4435	X2CrNiMo18 14 3
1.4541	X6CrNiTi18 10
1.4571	X6CrNiMoTi17 12 2
1.4828	X15CrNiSi20 12

23 Matensitic/Ferritic/Fer.-Aus. Stainless Steels < 1,000 N/mm²

1.4112	X90CrMoV18
1.4125	X105CrMo17
1.4002	X6CrAl13
1.4512	X6CrTi12
1.4582	X4CrNiMoNb25 7
1.4821	X20CrNiSi25 4

31 Grey graphite cast irons < 500 N/mm²

0.6015	GG-15
0.6020	GG-20
0.6025	GG-25
0.6030	GG-30
0.6035	GG-35
0.6040	GG-40

32 Grey graphite cast irons < 1,000 N/mm²

0.6020	GG-20
0.6025	GG-25
0.6030	GG-30
0.6035	GG-35
0.6040	GG-40

33 Nodular graphite, Malleable cast irons < 700 N/mm²

0.7040	GGG-40
0.7043	GGG-40.3
0.7050	GGG-50
0.7060	GGG-60
0.8040	GTW-40
0.8065	GTW-65

34 Nodular graphite, Malleable cast irons < 1,000 N/mm²

0.7040	GGG-40
0.7043	GGG-40.3
0.7050	GGG-50
0.7060	GGG-60
0.7070	GGG-70
0.7080	GGG-80

41 Titanium unalloys < 700 N/mm²

3.7024	Ti99.5
3.7034	Ti99.7
3.7035	Ti2
3.7055	Ti99.4
3.7064	Ti99.2
3.7065	Ti4

42 Titanium alloys < 900 N/mm²

	TiA14Mn4
3.7114	TiA15Sn2
3.7124	TiCu2
3.7164	TiA16V4
3.7174	TiA16V6Sn2

43 Titanium alloys < 1,300 N/mm²

3.7124	TiCu2
3.7144	TiA16Sn2Zr4Mo2
3.7154	TiAl6Zr5
3.7164	TiA16V4
3.7174	TiA16V6Sn2
3.7184	TiAl4Mo4Sn2

51 Nickel unalloys < 500 N/mm²

2.1504	NiAlBz
2.4042	Ni99CSi
2.4060	Ni99.6
2.4062	Ni99.4Fe

52 Heat resisting Nickel alloys < 900 N/mm²

2.4360	Monel 400
2.4374	Monel 500
2.4665	Hastelloy X
2.4812	Hastelloy C
2.4816	Inconel 600
1.4876	Incoloy 800

53 Heat resisting Nickel alloys < 1,400 N/mm²

2.4631	Nimonic80A
2.4632	Nimonic90
2.4634	Nimonic105
2.4662	Nimonic901
2.4668	Inconel 718
2.4669	Inconel X-750

61 Copper unalloys < 350 N/mm²

2.0060	E-Cu57
2.0070	SE-Cu
2.0090	SF-Cu
2.1356	CuMn3
2.1522	CuSi2Mn

62 Short chip Brass, Bronze copper alloys < 700N/mm²

2.0360	CuZn40 (Ms60)
2.0380	CuZn39Pb2 (Ms58)
2.0410	CuZn44Pb2
2.0580	CuZn40Mn1Pb
2.1086	G-CuSn10Zn
2.1096	G-CuSn5ZnPb

63 Long chip Brass, Bronze copper alloys < 700 N/mm²

2.0250	CuZn20
2.0321	CuZn37
2.1020	CuSn6
2.1080	CuSn6Zn6
2.1245	CuBel.7
2.1293	CuCrZr

64 Cu-Al-Fe alloys < 1,500 N/mm²

Ampco 18
Ampco 20
Ampco 25

71 Aluminium-Magnesium unalloys < 350 N/mm²

3.0250	Al99.5H
3.0280	Al99.8H
3.0305	Al99.9
3.3308	Al99.9Mg0.5

72 Aluminium alloys, Si < 0.5% < 600 N/mm²

3.0515	AlMn1
3.0525	AlMn1Mg0.5
3.1325	AlCuMg1
3.3315	AlMg1
3.3241	G-AlMg3Si
3.3292	GD-AlMg9

73 Aluminium alloys, 0.5-10% Si < 600 N/mm²

3.2134	G-AlSi5Cu1Mg
3.2152	GD-AlSi6Cu4
3.2162	GD-AlSi8Cu3
3.2373	G-AlSi9Mg

74 Aluminium alloys, Si > 10% < 600 N/mm²

3.2381	G-AlSi10Mg
3.2383	G-AlSi10Mg(Cu)
3.2581	G-AlSi12
3.2583	G-AlSi12(Cu)
3.5662	G-MgA16
3.5812	G-MgA18Zn1

81 Thermoplastics

Delrin(POM)
Teflon
Nylon

82 Thermosseting plastics

Bakelit
Novopan

83 Reinforced plastics materials

Glass fiber reinforced
Thermo and Duroplastics

Referance:DIN

PLEASE OPEN ☞

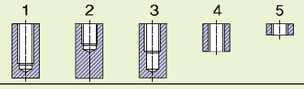
MACHINE TAPS

RECOMMENDATION TABLE

USE

● = RECOMMENDED

○ = SUITABLE



MATERIAL GROUPS			GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	HR	HR	HR	HR	HR
DIN 371/376	M	Cat.-No.	TQ907	TC127	TC227	TD127	TD227	TC463	TC211	TC517	TC711	TD711	TQ863	TR863	TC422	TE422	TD422	TY422	TQ823	TR823	TC312	TB312	TD312	TY312	TB913	TC283	TY283	TC313	TB313	TY313
DIN 371/376	EG-M	Cat.-No.																												
DIN 352	M	Cat.-No.		TC122						TC612																				
DIN 374	MF	Cat.-No.		TC222		TD222		TC473			TC411	TD411			TC263		TD263				TC413		TD413							
DIN 371/376	UNC	Cat.-No.		TC214				TC424			TC144				TC244		TD244				TC174		TD174							
DIN 371/376	EG-UNC	Cat.-No.																												
DIN 371/374	UNF	Cat.-No.		TC234							TC124				TC254						TC184									
DIN 371/376	EG-UNF	Cat.-No.																												
DIN 2182/2183	W(BSW)	Cat.-No.		TC224				TC134																						
DIN 357/5156	M/G(BSP)	Cat.-No.		TC727				TC803			TC728				TC729															
USCTI T.311	NPTF	Cat.-No.																												
SURFACE TREATMENT / COATING			vap			TiN	TiN					TiN	vap			NI	TiN	TiAlN	vap			vap	TiN	TiAlN	vap		TiAlN		vap	TiAlN
SPIRAL FLUTE ANGLE			R45						L20	R20	R40	R40							R40	R40	R40	R40	R40	R40	R40			R40	R40	R40
CHAMFER LEAD ACC. DIN 2197			C	B	B	B	B	C/Long	C	C	C	C	B	B	B	B	B	B	C	C	C	C	C	C	C	B	B	C	C	C
HOLE TYPE			1-2-3	4-5	4-5	4-5	4-5	1-2-3 4-5	4-5	2-3	1-2-3	1-2-3	4-5	4-5	4-5	4-5	4-5	4-5	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	4-5	4-5	1-2-3	1-2-3	1-2-3

COOLANT

A = Cutting Oil
T = Oil Emulsion
X = Cutting Oil/Oil Emulsion
S = Dry
Z = Dry/Oil Emulsion

MATERIAL GROUPS		LIST OF MATERIALS	HARDNESS HB	TENSILE STRENGTH Rm N/mm²	CHIP	CUTTING SPEED Vc m/min		Coolant	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	HR	HR	HR	HR	HR
10. STEELS	11	Magnetic soft steels	< 120	< 400	Extra long	25-20	T	○					○																					
	12	Structure steels, case carburizing steels	< 200	< 700	Medium/long	15-20	T	●	●	●	●	●	○	●	●	●	●																	
	13	Plain carbon steels	< 250	< 850	Long	12-18	T	●	●	●	●	●	○	●	●	●	●																	
	14	Alloy steels	< 250	< 850	Long	10-15	X	●	●	●	●	●	○	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○					
	15	Alloy steels/Hardened & Tempered steels	< 350	< 1,200	Long	6-10	X	●										●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○
	16	Alloy steels/Hardened & Tempered steels	> 350	> 1,200	Long	3-5	A																								●	●	●	●	●
20. STAINLESS STEELS	21	Free maching	< 250	< 850	Medium	7-10	A	○																										
	22	Austenitic	< 250	< 850	Long	5-8	A	○																										
	23	Ferritic, Ferritic+Austenitic,Martensitic	< 300	< 1,000	Long	4-6	A	○										○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
30. CAST IRON	31	Grey cast irons	< 150	< 500	Extra short	10-15	X	●																										
	32	Grey cast irons	< 300	< 1,000	Extra short	5-8	T	●																										
	33	Nodular graphite, Melleable cast irons	< 200	< 700	Short	10-15	X	●	●	●	●	●	○	●	●	●	●																	
	34	Nodular graphite, Malleable cast irons	< 300	< 1,000	Short	5-8	X	●	●	●	●	●	○	●	●	●	●																	
40. TITANIUM	41	Titanium, unalloyed	< 200	< 700	Extra long	10-15	T	●	○	○	○	○		○	○	○	○																	
	42	Titanium, alloyed	< 270	< 900	Medium/Short	8-12	A	○										○	○	○	○	○	○	○	○	○	○	○	○	○					
	43	Titanium, alloyed	< 350	< 1,250	Medium/Short	4-6	A																											
50. NICKEL	51	Nickel, unalloyed	< 150	< 500	Extra long	8-12	A	●	○	○	○	○		○	○	○	○																	
	52	Nickel, alloyed	< 270	< 900	Long	10-15	A	○										○	○	○	○	○	○	○	○	○	○	○	○	○					
	53	Nickel, alloyed	< 350	< 1,250	Long	2-4	A																											
60. COPPER, BRASS BRONZE	61	Copper, unalloyed	< 100	< 350	Extra long	8-12	T	●	○	○	○	○		○	○	○	○																	
	62	Short chipping Brass, Bronze, Copper	< 200	< 700	Medium/Short	25-35	T						○																		○	○	○	○	○
	63	Long chipping Brass, Bronze, Copper	< 200	< 700	Long	15-20	T	●	●	●	●	●	○	●	●	●	●																	
	64	AMPCO (Cu-Al-Fe alloys)	< 470	< 1,500	Short	3-5	A																								●	●	●	●	●
70. ALUMINIUM	71	Aluminium, Megnesium, unalloyed	< 100	< 350	Extra long	10-15	T	○	○	○	○	○		○	○	○	○																	
	72	Aluminium, alloyed Si < 0.5%	< 150	< 500	Medium	25-35	T	○	○	○	○	○		○	○	○	○																	
	73	Aluminium, alloyed, Si < 10%	< 120	< 400	Medium/Short	15-20	T	○	○	○	○	○		○	○	○	○																	
	74	Aluminium, alloyed, Si > 10%	< 120	< 400	Short	10-15	T	●	●	●	●	●	○	●	●	●	●																	
80. SINTETIC MATERIALS	81	Thermoplastics			Extra long	20-30	T		○	○	○	○		○	○	○	○																	
	82	Thermosseting Plastics			Short	8-12	Z																								○	○	○	○	○
	83	Reinforced plastic materials			Extra short	5-7	Z																								○	○	○	○	○

With TiN / TiCN / TiAlN / Hardslick coated taps the cutting Vc speed can be doubled

VA	VA	VA+NW	VA+NW	VA	VA	VA+NW	VA+NW	NW	Ti	Ti	Ti	Ti	Ti+Ni	Ti+Ni	Ni	Ni	Ti+Ni	Ti+Ni	Ni	Ni	GV	GV	GV	GV	GV	GV	GV	GV	GV	Al	Al	Al	Al	Al	GG	GG	GG	GG	GG	GG	Ms	Ms	Ms	
TQ853	TR853	TB623	TCH23	TQ813	TR813	TB914	TCH14	TB711	TM293	TZ293	TM903	TZ903	TQ873	TR873	TM923	TZ923	TQ833	TR833	TM933	TZ933	TQ703	TE703	TE713	TD703	TD713	TY703	TQ723	TE723	TD723	TC622		TE943	TC163	TE953	TE821	TD821	TI821	TY821	TO993		TC433	TE443	TY433	
																															TC973		TC909											
		TB123				TB183																TE733		TD733									TC963		TE403									
		TB264				TB904																TE704		TD704									TC169		TE434									
																															TC934		TC944											
		TB274				TB924																											TC170		TE454									
																															TC954													
						TB514																																					
																																							T2484				
vap		vap	Hardslick	vap		vap	Hardslick	vap		TiAlN		TiAlN	vap			TiAlN	vap			TiAlN	vap	NI	NI	TiN	TiN	TiAlN	vap	NI	TiN			NI		NI	NI	TiN	TiCN	TiAlN		Bright		NI	TiAlN
				R40	R40	R40	R40	R40			R25	R25					R40	R40	R25	R25													R45/40	R40										
B	B	B	B	C	C	C	C	C	B	B	C	C	B		B	B	C	C	C	C	C	C	C	C	C	C	C	C	C	B	B	B	C	C	C	C	C	C	C	C	C	C	C	
4-5	4-5	4-5	4-5	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	4-5	4-5	1-2-3	1-2-3	4-5	4-5	4-5	4-5	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	4-5	4-5	4-5	1-2-3	1-2-3	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	
																																											
● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●													● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	○ ○ ○	○ ○ ○	○	○ ○ ○	○						○				11 12 13 14
									○	○	○	○	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●																								15 16
● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	●													○ ○	○ ○	○ ○	● ●	● ●				○ ○															21 22 23
																																			● ●	● ●	● ●	● ●	● ●	● ●				31 32 33 34
○	○	○	○	○	○	○	○		○ ● ●	○ ● ●	○ ● ●	○ ● ●	○ ● ●	○ ● ●	○	○	○ ● ●	○ ● ●	○	○	○	○	○	●	●	●	○	○	●	○	○		○												41 42 43
○	○	○	○	○	○	○	○						● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	●	●	●	●	●	●	●	●	●																51 52 53
								○													○ ○	○ ○	○ ○	● ○	● ○	● ○	○ ○	○ ○	● ○	●	●		●		○	●	●	●	●		● ○	●	● ○	61 62 63 64
								○													● ● ○	● ● ○	● ● ○	● ● ○	● ● ○	● ● ○	● ● ○	● ● ○	● ● ○	● ● ●	● ● ●	●	● ● ●	●										71 72 73 74
																																												81 82 83

MATERIAL GROUP

STANDARDS

GERMANY W.Nr	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATIONS	U.S.A. AISI
10 - STEEL					
11 - Magnetic soft steels - Hardness < 120 HB 30 - Tensile strength < 400 N/mm²					
1.1013	RFe 100		OSOA12	EN2	
1.1014	RFe 80				
1.1015	RFe 60		230Mo7	EN1	
1.0718	9 S MnPb 28				
12 - Structural steels - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²					
12.1 - Structural steels					
1.0034	RSt 34-2	A34-2 EN	1449 34/20 HR		
1.0035	St 33	A33	Fe 310-0		
1.0036	St 37-2		060A35	EN3A,4,5,6,7,8	
1.0037	RSt 37-2				
1.0044	St 44-2				
1.0050	St 50-2		4360-50B	EN 207	
1.0060	St 60-2				
1.0070	St 70-2				
1.0116	St 37-3				
1.0144	St 44-3				
12.2 - Case carburizing steels					
1.0301	C 10	AF 34 C 10	040 A 10		M 1010
1.0401	C 15	AF 37 C 12	080 A 15		M 1015
1.1121	Ck 10	XC 10	040 A 10		1010
1.1141	Ck 15	XC 12	040 A 15		1015
1.5732	14 Ni Cr 10	14 NC 11			3415
1.7015	15 Cr 3	12 C 3	523 M 15		5015
1.7131	16 Mn Cr 5	16 MC 4	527 M 17	EN 32	5115
1.7147	20 Mn Cr 5	20 MC 5			5120
12.3 - Free machining steels					
1.0710	15 S 10				
1.0715	9 S Mn 28	S 250	230 M 07		1213
1.0718	9 S Mn Pb 28	S 250 Pb			12 L 13
1.0721	10 S 20	10 F1	210 M 15		1108 1109
1.0722	10 S Pb 20	10 Pb F 2			11 L 08
1.0723	15 S 20	.....	210 A 15		
1.0726	35 S 20	35 MF 6	212 M 36		1140
1.0727	45 S 20	45 MF 4			1146
1.0736	9 S Mn 36	S 300			1215
1.0737	9 S Mn Pb 36	S 300 Pb			12 L 14
12.4 - Cast structural steels					
1.0416	GS - 38				
1.0446	GS - 45				
1.0552	GS - 52				
1.0553	GS - 60	E 36 - 3			
1.0554	GS - 70				
13 - Plain carbon steels - tempered					
13.1 - Steels, tempered - Hardness < 250 HB 30 - Tensile strength < 850 N/mm²					
1.0402	C 22	1 C 22	070 M 20		M 1023
1.0501	C 35	1 C 35	080 A 32		1035
1.0503	C 45	1 C 45	060 A 47		1045
1.0535	C 55	1 C 55	070 M 55		1055
1.0601	C 60	1 C 60	060 A 62	EN 43	1060
1.1157	40 Mn 4	35 M 5	150 M 36		1035 1041
1.1151	Ck 22	2 C 22	055 M 15		1020 1023
1.1181	Ck 35	2 C 35	080 A 35		1035 1038
1.1191	Ck 45	2 C 45	080 M 46	EN 9, 10	1045
1.1203	Ck 55	2 C 55	060 A 57		1055
1.1221	Ck 60	2 C 60	060 A 62		1060 1064

MATERIAL GROUP

STANDARDS

GERMANY W.Nr	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATIONS	U.S.A. AISI
14 - Alloy steels - Hardness < 250 HB 30, < 25 HRC - Tensile strength < 850 N/mm²					
14.1 - Cold work tool steels					
1.2056	90 Cr 3				
1.2067	100 Cr 6	Y 100 C 6	BL 3		L 1 L 3
1.2080	X 210 Cr 12	Z 200 C 12	BD 3		D3
1.2083	X 42 Cr 13	Z 40 C 14			420
1.2363	X 100 CrMoV5 1	Z 100 CDV 5	BA 2		A 2
1.2379	X 155 CrVMo 12 1	Z 160 CDV 12	BD 2		D 2
1.2510	100 MnCrW 4	90 MWCV 5	BO 1		O1
1.2550	60 WCrV 7	55WC 20	BS 1		S1
1.2823	70 Si 7				
1.2826	60 Mn Si Cr 4				
1.2842	90 MnCrV 8	90 MV 8	BO 2		O 2
14.2 - High speed steels					
1.3202	S 12-4-4-5	Z 130 WKCV 12-05-04-04	BT 15		T 15
1.3207	S 10-4-3-10	Z130 WKCDV10-10-04-04-03	BT 42		T 42
1.3243	S 6-5-2-5	Z85 WDKCV 06-05-05-04-02	BM 35		M 35
1.3247	S 2-10-1-8	Z110 DKCWV 09-08-04-02-01	BM 42		M 42
1.3343	S 6-5-2	Z 85 WDCV 06-05-04-02	BM 2		M 2
1.3344	S 6-5-3	Z 120 WDCV 06-05-04-03			M 3 / 2
1.3348	S 2-9-2	Z 100 DCWV 09-04-02-02			M 7
ASP 23	(S 6-5-3)				
ASP 30					
ASP 60					
14.3 - Alloy cast irons					
1.5919	GS-15Cr Ni 6	16 NC 6			3115
1.7218	GS-25Cr Mo 4	25 C D 4	70 8A 25		4130
1.7220	GS-34Cr Mo 4	35 C D 4	70 8A 37		4135 4137
1.7379	GS-18 Cr Mo 9 10				
14.4 - Tempered steels					
1.0503	C 45	1 C 45	060 A 47		1045
1.7220	34 Cr Mo 4	34 Cr Mo 4	708 A 37		4135, 4137
1.7225	42 Cr Mo 4	42 CD 4	708 A 42	EN 16, 17, 19	4140, 4142
1.7228	50 Cr Mo 4	50 Cr Mo 4	708 A 47		4150
14.5 - Nitriding steels					
1.7779	20 Cr Mo V 13.5				
1.8504	34 Cr Al 6				
1.8506	34 Cr Al S 5				
1.8507	34 Cr Al Mo 5	30 CAD 6.12			A 355 Cl.D
1.8509	41 Cr Al Mo 7	40 CAD 6.12	905 M 39		A 355 Cl.A
1.8515	31 Cr Mo 12	30 CD 12	722 M 24		
15 - Alloy steels / Tempered steels - Hardness 250-350 HB 30, 25-38 HRC - Tensile strength 850-1,200 N/mm²					
15.1 - Alloy steels for tools					
1.2311	40 Cr Mn Mo 7				
1.2312	40 Cr Mn Mo S 86				
1.2436	X 210 Cr W 12	Z 200 CW 12			
1.2711	54 Ni Cr Mo V 6				
1.2713	55 Ni Cr Mo V 6	55 NCDV 7	826 M 40	S 95, S 97, S 98	L 6
1.2714	56 Ni Cr Mo V 7				
1.2743	60 Ni Cr Mo V 12 4				
1.2766	35 Ni Cr Mo 16				
15.2 - Alloy steels for hot work					
1.2343	X 38 Cr Mo V 5 1	Z 38 CDV 5	BH 11		H 11
1.2344	X 40 Cr Mo V 5 1	Z 40 CDV 5	BH 13		H 13
1.2365	X 32 Cr Mo V 3 3	32 DCV 28	BH 10		H 10
1.2367	X 40 Cr Mo V 5 3	Z 38 CDV 5.3			
1.2581	X 30 W Cr V 9 3	Z 30 WCV 9.3	BH 21		H 21
1.2622	X 60 W Cr Mo V 9				
1.2678	X 45 CoCrWV 5 5 5				
1.2550	60 WCr V 7	55 WC 20	BS 1		S 1
1.2567	X 30 W Cr V 5 3	Z 32 WCV 5			

MATERIAL GROUP

STANDARDS

GERMANY W.Nr	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATIONS	U.S.A. AISI
15.3 -Hardened tempered steels - Hardness may be different according to pressentation and dimensions of material					
1.5864	35 Ni Cr 18				
1.6580	30 Cr Ni Mo 8	30 Cr Ni Mo 8			
1.7361	32 Cr Mo 12	30 CD 12	722 M 24		
1.7707	30 Cr Mo V 9				
1.8161	58 Cr V 4				
15.4 - Nitriding steels					
1.8515	31 Cr Mo 12	30 CD 12	722 M 24		
1.8519	31 Cr Mo V 9		830 M 31		
1.8523	39 Cr Mo V 13 9		897 M 39		
1.8550	34 Cr Al Ni 7		826 M 40		
16 - Alloy steels / Hardened tempered steels - Hardness > 38 HRC - Tensile strength > 1,200 N/mm²					
To this group belong most of the materials of group 15, but pressent a higher tensile strength					
20 - STAINLESS STEELS					
21 - Free machining stainless steels - Hardness < 250 HB 30 - Tensile strength < 850 N/mm²					
1.4104	X 12 Cr Mo S 17	Z 13 CF 17	416 S 37	EN 56	430 F
1.4305	X 10 Cr Ni S 18 09	Z 8 CNF 18-09	303 S 21	EN 60	303
22 - Austenitic stainless steels - Hardness < 250 HB 30 - Tensile strength < 850 N/mm²					
1.4300	X 12 Cr Ni 18 8		320 S 12		
1.4301	X 5 Cr Ni 18 10	Z 6 CN 18-09	304 S 15	EN 80, EN 58 + C	304
1.4311	X 2 CrNiN 18 10	Z 3 CN 18-07 Az	304 S 61		304 LN
1.4406	X 2 CrNiMoN 17 12 2	Z 3 CND 17 11 02	316 S 61		316 LN
1.4433	X 2 CrNiMo 18 15		316 S		
1.4435	X 2 CrNiMo 18 14 3	Z3 CND 17-12-03	316 S 11		316 L
1.4539	X 1 CrNiMoCu 25 20 5	Z 1 NCDU 25-20	321 S 17		UNS N08904
1.4541	X 6 CrNiTi 18 10	Z 6 CNT 18 10	321 S 18	EN 58 J, 316	321
1.4571	X 6 CrNiMoTi 17 12 2	Z 6 CNDT 17 12	320 S 18		316 Ti
1.4573	X 10 CrNiMoTi 18 12		320 S 33		
1.4828	X 15 CrNiSi 20 12	Z 15 CNS 20-12	309 S 24		309
22.1 - Cast austenitic stainless steels					
1.4308	G-X 6 CrNi 18 9	Z 6 CN 18.10 M	304 C 15(LT196)		CF-8
1.4313	G-X 5 CrNi 13 4	Z 8 CD 17-01	425 C 12		CA 6 -NM
1.4408	G-X 6 CrNiMo 18 10		316 C 16(LT196)		CF-8M
1.4581	G-X 5 CrNiMoNb 18 10	Z 4 CNDNb 18.12M	318 C 17		
23 - Martensitic stainless steels - Hardness < 320 HB 30 - Tensile strength < 1,100 N/mm²					
1.4021	X 20 Cr 13	Z 20 C 13	420 S 37		420
1.4034	X 46 Cr 13	Z 44 C 14	(420 S 45)		
1.4057	X 20 CrNi 17 2	Z 15 CN 16-02	431 S 29		431
1.4112	X 90 CrMoV 18				
1.4116	X 45 CrMoV 15			EN 58, b.e.j.t	
1.4125	X 105 CrMo 17	Z 100 CD 17		Duplex alloys	440 C
1.4718	X 45 CrSi 9 3	Z 45 CS 9	401 S 45		HNV 3
1.4747	X 80 CrNiSi 20	Z 80 CSN 20-02	443 S 65		HNV 6
1.4086	G-X 120 Cr 29				
1.4106	G-X 10 CrMo 13				
1.4138	G-X 120 CrMo 29 2				
24 - Ferritic stainless steels - Hardness < 320 HB 30 - Tensile strength < 1,100 N/mm²					
1.4002	X 6 Cr Al 13	Z 8 CA 12	405 S 17		405
1.4006	X 10 Cr 13	Z 10 C 13	410 C 21		410
1.4016	X 6 Cr 17	Z 8 C 17	430 S 17		430
1.4510	X 6 Cr Ti 17	Z 8 CT 17			430 Ti
1.4512	X 6 Cr Ti 12	Z 6 CT 12	409 S 19		409
25 - Ferritic-Austenitic stainless steels - Hardness < 320 HB 30 - Tensile strength < 1,100 N/mm²					
1.4460	X 8 CrNiMo 27 5	Z 5 CND 27-05 Az			329
1.4582	X 4 CrNiMoNb 25 7				
1.4821	X 20 CrNiSi 25 4				
30 - CAST IRONS					
31 - Grey graphite cast irons - Hardness < 150 HB 30 - Tensile strength < 500 N/mm²					
0.6010	GG-10	Ft 10 D			A 48-20 B
0.6015	GG-15	Ft 20 D	Grade 150	Grey cast iron soft	A 48-25 B
0.6020	GG-20	Ft 25 D	Grade 220		A 48-30 B
0.6025	GG-25	Ft 30 D	Grade 260		A 48-40 B
0.6030	GG-30	Ft 30 D	Grade 300		A 48-45 B
0.6035	GG-35	Ft 35 D	Grade 350		A 48-50 B
0.6040	GG-40	Ft 40 D	Grade 400		A 48-60 B

MATERIAL GROUP

STANDARDS

GERMANY W.Nr	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATIONS	U.S.A. AISI
31.1 - Meehanite - Hardness < 150 HB 30 - Tensile strength < 500 N/mm²					
.....	GF - 150				
.....	GD - 260				
32 - Grey graphite cast irons - Hardness 150 - 300 HB 30 - Tensile strength 500 - 1,000 N/mm²					
0.6020	GG - 20	Ft 25 D	Grade 220	Grey cast iron hard	A 48-30 B
0.6025	GG - 25	Ft 30 D	Grade 260		A 48-40 B
0.6030	GG - 30	Ft 30 D	Grade 300		A 48-45 B
0.6035	GG - 35	Ft 35 D	Grade 350		A 48-50 B
0.6040	GG - 40	Ft 40 D	Grade 400		A 48-60 B
32.1 - Meehanite - Hardness 150-300 HB 30 - Tensile strength 500-1,000 N/mm²					
.....	GF - 150				
.....	GD - 260				
33 - Nodular graphite, malleable cast irons - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²					
0.7033	GGG-35.3				
0.7040	GGG-40	FGS 400-12	420 / 12		60-40-18
0.7043	GGG-40.3	FGS 370-17	370 / 17		
0.7050	GGG-50	FGS 500-7	500 / 7		65-45-12
0.7060	GGG-60	FGS 600-3	600 / 3	S.G.iron, Meehanite	80-55-06
0.8035	GTW-35		700/2,30g/72	Black & White Heart	
0.8040	GTW-40				
0.8045	GTW-45				
0.8065	GTW-65				
0.8135	GTS-35				
0.8145	GTS-45				
0.8155	GTS-55				
0.8165	GTS-65				
33.1 - Meehanite - Hardness < 200 HB 30 -Tensile strength < 700 N/mm²					
	SF 400				
	SPF 600				
34 - Nodular graphite, tempered malleable cast irons - Hardness 200-300 HB 30 - Tensile strength 700-1,000 N/mm²					
0.7070	GGG-70	FGS 700-2	700 / 2	S.G.iron,Meehanite	100-70-03
0.7080	GGG-80	FGS 800-2	800 / 2	Black & White Heart	120-90-02
And materials from group 33 tempered					
34.1 - Meehanite - Hardness 200-300 HB 30 - Tensile strength 700-1,000 N/mm²					
	SH 800		420/12, P 440/7		
	SH 1000				
40 - TITANIUM					
41 - Titanium, unalloys - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²					
3.7024.1LN	Ti 99.5				
3.7034.1LN	Ti 99.7				
3.7035	Ti 2				
3.7055	Ti 99.4		TA 1-9	Ti 99.0	
3.7064.1LN	Ti 99.2				
3.7065	Ti 4				
3.7255	Ti 3 Pd				
42 - Titanium, alloys - Hardness < 270 HB 30 - Tensile strength < 900 N/mm²					
	Ti Al 4 Mn 4				
3.7144 LN	Ti Al 5 Sn 2				
3.7124 LN	Ti Cu 2		TA 10-14, TA 17	Ti - 2AL	
3.7164 LN	Ti Al 6 V 4		TA 18		
3.7174 LN	Ti Al 6 V 6 Sn 2				
43 - Titanium, alloys - Hardness 270-300 HB 30 - Tensile strength 900-1,300 N/mm²					
3.7124 LN	Ti Cu 2				
3.7144 LN	Ti Al 6 Sn 2 Zr4 Mo2			Ti AL	
3.7154 LN	Ti Al 6 Zr 5		TA 10-13, TA 28	3.7174LN, 3.7148LN	
3.7164 LN	Ti Al 6 V 4				
3.7174 LN	Ti Al 6 V Sn 2				
3.7184 LN	Ti Al 4 Mo 4 Sn 2				
50 - NICKEL					
51 - Nickel, unalloys - Hardness < 150 HB 30 - Tensile strength < 500 N/mm²					
2.1504 LN	Ni Al Bz				
2.4042	Ni 99 CSi		NA 11, NA 12	Nickel 200	
2.4060	Ni 99.6			Nickel 270	
2.4062	Ni 99.4 Fe				

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MATERIAL GROUP

STANDARDS

GERMANY W.Nr	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATIONS	U.S.A. AISI

70 - ALUMINIUM - MAGNESIUM

71 - Aluminium - Magnesium, unalloys - Hardness < 100 HB 30 - Tensile strength < 350 N/mm²

3.0250	Al 99.5 H				
3.0280	Al 99.8 H				
3.0305	Al 99.9				
3.3308	Al 99.9 Mg 0.5				

72 - Aluminium alloys, Si < 0.5% - Hardness < 180 HB 30 - Tensile strength < 600 N/mm²

72.1 - Forging aluminium alloys

3.0515	Al Mn 1				
3.0516	S-Al Mn				
3.0525	Al Mn 1 Mg 0.5				
3.0615	Al Mg Si Pb				
3.1325	Al Cu Mg 1				
3.1355	Al Cu Mg 2				
3.3315	Al Mg 1				
3.3535	Al Mg 3				
3.4365	Al Zn Mg Cu 1.5				

72.2 - Cast aluminium alloys

3.1841	G - Al Cu 4 Ti				
3.3241	G - Al Mg 3 Si				
3.3292	GD - Al Mg 9				

73 - Aluminium alloys, 0.5-10% Si - Hardness < 180 HB 30 - Tensile strength < 600 N/mm²

73.1 - Cast aluminium alloys

3.2134	G - Al Si 5 Cu 1 Mg				
3.2152	GD - Al Si 6 Cu 4				
3.2162	GD - Al Si 8 Cu 3				
3.2373	G - Al Si 9 Mg				

74 - Aluminium alloys, Si > 10% - Hardnes < 180 HB 30 - Tensile strength < 600 N/mm²

74.1 - Cast aluminium alloys

3.2381	G - Al Si 10 Mg				
3.2383	G - Al Si 10 Mg (Cu)				
3.2581	G - Al Si 12				
3.2583	G - Al Si 12 (Cu)				
3.2982	GD - Al Si 12 (Cu)				

74.2 - Cast aluminium - magnesium alloys

3.5106	G - Mg Ag 3 SE 2 Zr 1				
3.5662	G - Mg Al 6				
3.5812	G - Mg Al 8 Zn 1				
3.5912	G - Mg Al 9 Zn 1				

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INDEX

Cat. -No.	THREAD									
	M	MF	UNC	UNF	W (BSW)	G (BSP)	EG-M	EG-UNC	EG-UNF	NPTF
	PAGE									
TC163	93									
TE953	94									
TD821	95									
TI821	96									
TY821	97									
TO993	98									
TC433	99									
TE443	100									
TY433	101									
T7309	102									
T7309	103									
TC222	104									
TD222	105									
TC473	106									
TC411	107									
TD411	108									
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Cat. -No.	THREAD									
	M	MF	UNC	UNF	W (BSW)	G (BSP)	EG-M	EG-UNC	EG-UNF	NPTF
	PAGE									
TB264			127							
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TE704			129							
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TC169			131							
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T7509				133						
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TB514						149				
TC973							150			
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TC934							152			
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T2484										155

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

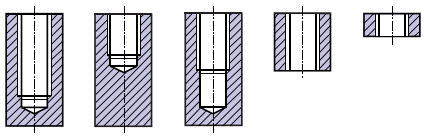
Material groups **GS**

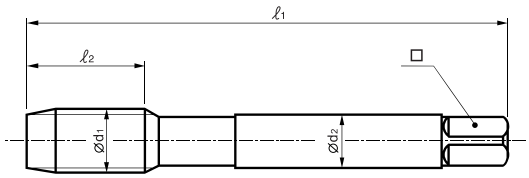
See page 17～22

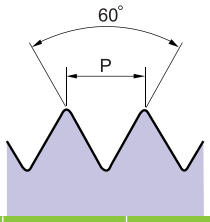
HSS | DIN 352 | 6H | 60° | I/II/III

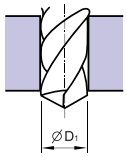
Sets of taps
Gewindebohrer - Satz
Jeu de tarauds
Serie di maschi

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	139	36	8	2.8	2.1	1.6	
	2.2	×	0.45	159	36	9	2.8	2.1	1.75	
*	2.3	×	0.4	199	36	9	2.8	2.1	1.9	
	2.5	×	0.45	179	40	9	2.8	2.1	2.05	
*	2.6	×	0.45	499	40	9	2.8	2.1	2.1	
	3	×	0.5	209	40	11	3.5	2.7	2.5	
	3.5	×	0.6	229	45	13	4	3	2.9	
	4	×	0.7	249	45	13	4.5	3.4	3.3	
	4.5	×	0.75	269	50	16	6	4.9	3.7	
	5	×	0.8	289	52	16	6	4.9	4.2	
*	5.5	×	0.9	N69	56	18	6	4.9	4.6	
	6	×	1	319	56	18	6	4.9	5	
	7	×	1	349	56	18	6	4.9	6	
	8	×	1.25	369	63	20	6	4.9	6.8	
	9	×	1.25	399	63	20	7	5.5	7.8	
	10	×	1.5	429	70	22	7	5.5	8.5	
	11	×	1.5	469	70	22	8	6.2	9.5	
	12	×	1.75	509	80	24	9	7	10.2	
	14	×	2	549	80	26	11	9	12	
	16	×	2	609	80	27	12	9	14	
	18	×	2.5	659	95	30	14	11	15.5	
	20	×	2.5	709	95	32	16	12	17.5	
	22	×	2.5	749	100	32	18	14.5	19.5	
	24	×	3	789	110	34	18	14.5	21	
	27	×	3	869	110	36	20	16	24	
	30	×	3.5	949	125	40	22	18	26.5	
	33	×	3.5	A49	125	40	25	20	29.5	
	36	×	4	B39	150	50	28	22	32	
	39	×	4	C09	150	50	32	24	35	
	42	×	4.5	C89	150	56	32	24	37.5	
	45	×	4.5	D59	160	58	36	29	40.5	
	48	×	5	E29	180	65	36	29	43	
	52	×	5	F39	180	65	40	32	47	

*DIN profile not ISO

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ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TC227

Material groups **GS**

HSS-E | DIN 376 | 6H | 60° | B

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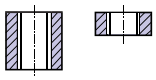
12-13-14-33-34-63-74

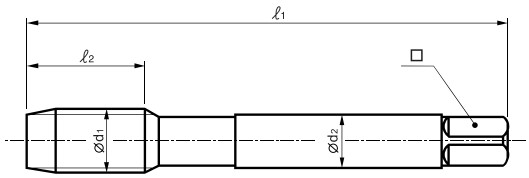
Other materials:
41-51-61-71-72-73-81

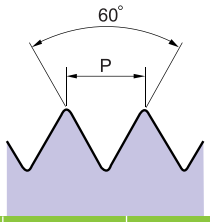
DIN 376

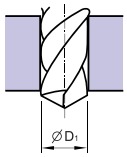
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	3	×	0.5	206	56	11	2.2	1.8	2.5	
	3.5	×	0.6	226	56	12	2.5	2.1	2.9	
	4	×	0.7	246	63	13	2.8	2.1	3.3	
	4.5	×	0.75	266	70	14	3.5	2.7	3.7	
	5	×	0.8	286	70	15	3.5	2.7	4.2	
	6	×	1	316	80	17	4.5	3.4	5	
	7	×	1	346	80	17	5.5	4.3	6	
	8	×	1.25	366	90	20	6	4.9	6.8	
	9	×	1.25	396	90	20	7	5.5	7.8	
	10	×	1.5	426	100	22	7	5.5	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TC422

Material groups **VG**

HSS-E | DIN 371/376 | 6H | 60° | B

See page 17～22

15

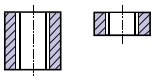
Other materials:
14-23-42-52

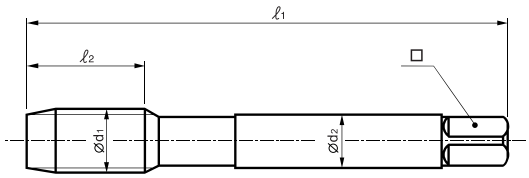
DIN 371

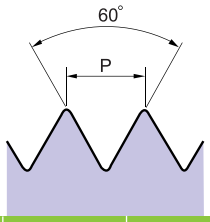
DIN 376

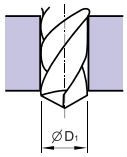
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	9	×	1.25	396	90	20	9	7	7.8	
	10	×	1.5	426	100	22	10	8	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Material groups **VA NW**

See page 17～22

11-12-21-22-23

Other materials:
42-52

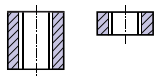
HSS-E | DIN 371/376 | 6HX | 60° | B | vap

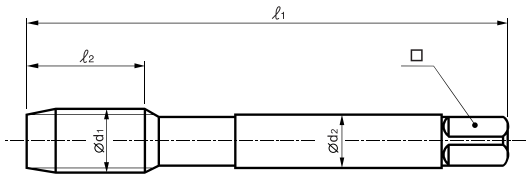
DIN 371

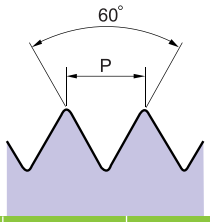
DIN 376

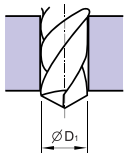
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	9	×	1.25	396	90	20	9	7	7.8	
	10	×	1.5	426	100	22	10	8	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TD703

Material groups **GV**

See page 17～22

11-12-13-14-21-22-41-51-61-71
Other materials:
63-73

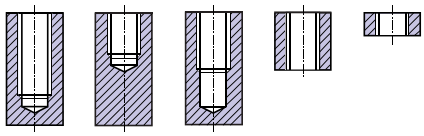
HSS-E | DIN 371/376 | 6HX | 60° | C | TiN

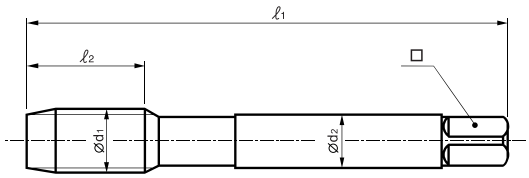
DIN 371

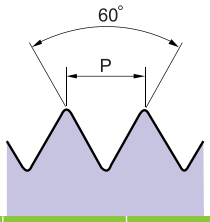
DIN 376

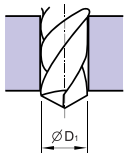
Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten
Tarauds a refouler avec goujures de lubr.
Maschi a rullare con canalini di lubr.

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.83	
	2.2	×	0.45	156	45	8	2.8	2.1	2	
⁎	2.3	×	0.4	196	45	8	2.8	2.1	2.1	
	2.5	×	0.45	176	50	9	2.8	2.1	2.3	
⁎	2.6	×	0.45	496	50	9	2.8	2.1	2.4	
	3	×	0.5	206	56	11	3.5	2.7	2.8	
	3.5	×	0.6	226	56	12	4	3	3.25	
	4	×	0.7	246	63	13	4.5	3.4	3.7	
	4.5	×	0.75	266	70	14	6	4.9	4.15	
	5	×	0.8	286	70	15	6	4.9	4.65	
	6	×	1	316	80	17	6	4.9	5.55	
	7	×	1	346	80	17	7	5.5	6.55	
	8	×	1.25	366	90	20	8	6.2	7.4	
	9	×	1.25	396	90	20	9	7	8.4	
	10	×	1.5	426	100	22	10	8	9.3	
	11	×	1.5	466	100	22	8	6.2	10.3	
	12	×	1.75	506	110	24	9	7	11.2	
	14	×	2	546	110	26	11	9	13	
	16	×	2	606	110	27	12	9	15	
	18	×	2.5	656	125	30	14	11	16.8	
	20	×	2.5	706	140	32	16	12	18.8	

DIN 371(M2-M10) and DIN 376(M11-M20)
⁎DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

M -LH ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. T7343

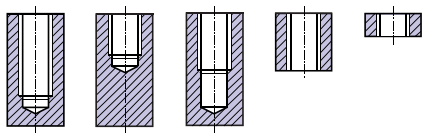
Material groups **GS**

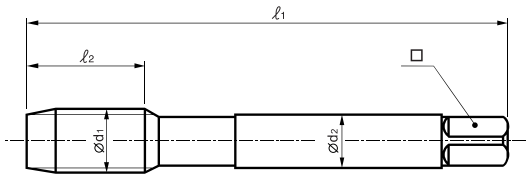
See page 17～22

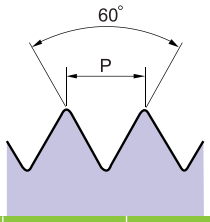
HSS | DIN 352 | 6H | 60° | I/II/III

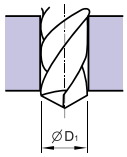
Sets of taps
Gewindebohrer - Satz
Jeu de tarauds
Serie di maschi

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	3	×	0.5	209	40	11	3.5	2.7	2.5	
	3.5	×	0.6	229	45	13	4	3	2.9	
	4	×	0.7	249	45	13	4.5	3.4	3.3	
	4.5	×	0.75	269	50	16	6	4.9	3.7	
	5	×	0.8	289	52	16	6	4.9	4.2	
	6	×	1	319	56	18	6	4.9	5	
	8	×	1.25	369	63	20	6	4.9	6.8	
	10	×	1.5	429	70	22	7	5.5	8.5	
	12	×	1.75	509	80	24	9	7	10.2	
	14	×	2	549	80	26	11	9	12	
	16	×	2	609	80	27	12	9	14	
	18	×	2.5	659	95	30	14	11	15.5	
	20	×	2.5	709	95	32	16	12	17.5	
	22	×	2.5	749	100	32	18	14.5	19.5	
	24	×	3	789	110	34	18	14.5	21	
	27	×	3	869	110	36	20	16	24	
	30	×	3.5	949	125	40	22	18	26.5	

◈ LH=Left hand thread

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TB373

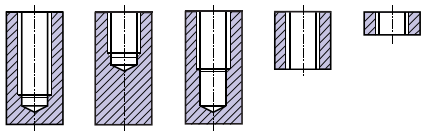
Material groups **VA**

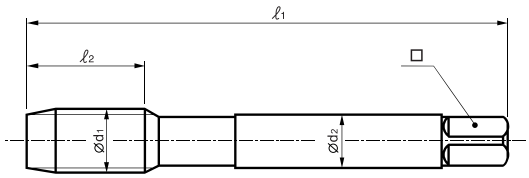
See page 17～22

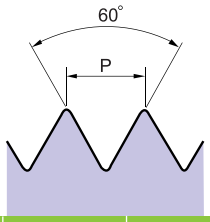
HSS-E | DIN 352 | 6HX | 60° | I/II/III | vap

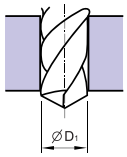
Sets of taps
Gewindebohrer - Satz
Jeu de tarauds
Serie di maschi

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	3	×	0.5	209	40	11	3.5	2.7	2.5	
	3.5	×	0.6	229	45	13	4	3	2.9	
	4	×	0.7	249	45	13	4.5	3.4	3.3	
	4.5	×	0.75	269	50	16	6	4.9	3.7	
	5	×	0.8	289	52	16	6	4.9	4.2	
	6	×	1	319	56	18	6	4.9	5	
	8	×	1.25	369	63	20	6	4.9	6.8	
	10	×	1.5	429	70	22	7	5.5	8.5	
	12	×	1.75	509	80	24	9	7	10.2	
	14	×	2	549	80	26	11	9	12	
	16	×	2	609	80	27	12	9	14	
	18	×	2.5	659	95	30	14	11	15.5	
	20	×	2.5	709	95	32	16	12	17.5	

◈ **First with pilot guide**

FAX : +82(32)526-4373 YG-1 CO., LTD.

M ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TC612

Material groups **GS**

HSS-E | DIN 352 | 6H | 60° | C

See page 17 ~22

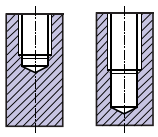
12-13-14-33-34-63-74

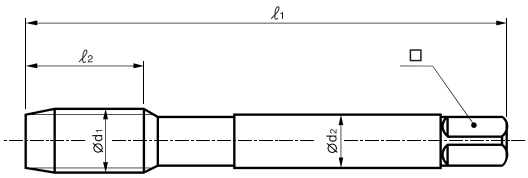
Other materials:
41-51-61-71-73

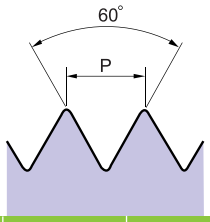
DIN 352

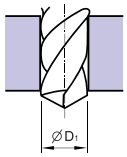
Short machine taps
Maschinengewindebohrer kurz
Tarauds machine courts
Maschi a macchina corto

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	3	×	0.5	206	40	11	3.5	2.7	2.5	
	4	×	0.7	246	45	13	4.5	3.4	3.3	
	5	×	0.8	286	52	16	6	4.9	4.2	
	6	×	1	316	56	18	6	4.9	5	
	8	×	1.25	366	63	20	6	4.9	6.8	
	10	×	1.5	426	70	22	7	5.5	8.5	
	12	×	1.75	506	80	24	9	7	10.2	
	14	×	2	546	80	26	11	9	12	
	16	×	2	606	80	27	12	9	14	
	18	×	2.5	656	95	30	14	11	15.5	
	20	×	2.5	706	95	32	16	12	17.5	

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TD227

Material groups **GS**

See page 17 ~22

12-13-14-33-34-63-74

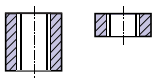
Other materials:
41-51-61-71-72-73-81

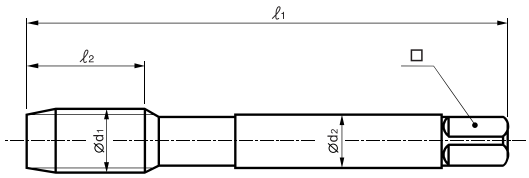
HSS-E | DIN 376 | 6H | 60° | B | TiN

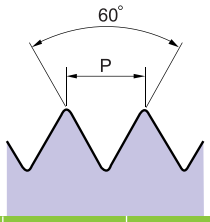
DIN 376

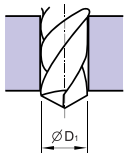
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	3	×	0.5	206	56	11	2.2	1.8	2.5	
	3.5	×	0.6	226	56	12	2.5	2.1	2.9	
	4	×	0.7	246	63	13	2.8	2.1	3.3	
	4.5	×	0.75	266	70	14	3.5	2.7	3.7	
	5	×	0.8	286	70	15	3.5	2.7	4.2	
	6	×	1	316	80	17	4.5	3.4	5	
	7	×	1	346	80	17	5.5	4.3	6	
	8	×	1.25	366	90	20	6	4.9	6.8	
	9	×	1.25	396	90	20	7	5.5	7.8	
	10	×	1.5	426	100	22	7	5.5	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TC211

Material groups **GS**

See page 17～22

12-13-14-33-34-63-74

Other materials:
41-51-61-71-72-73-81

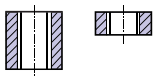
HSS-E | DIN 371/376 | 6H | 60° | C

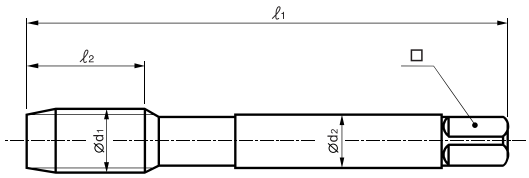
DIN 371

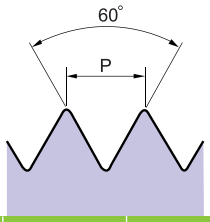
DIN 376

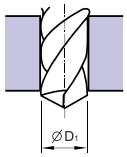
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
⁎	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
⁎	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	9	×	1.25	396	90	20	9	7	7.8	
	10	×	1.5	426	100	22	10	8	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
⁎DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TD711

Material groups **GS**

See page 17～22

12-13-14-33-34-63-74

Other materials:
41-51-61-71-72-73-81

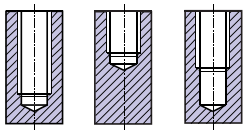
HSS-E | DIN 371/376 | 6H | 60° | C | TiN

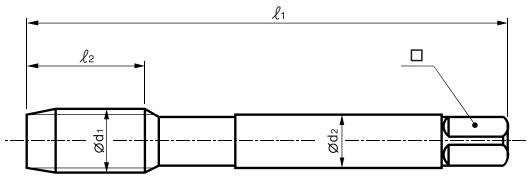
DIN 371

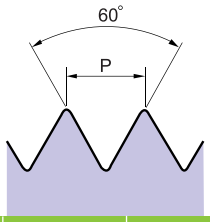
DIN 376

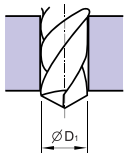
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	6	3.5	2.7	2.5	
	3.5	×	0.6	226	56	7	4	3	2.9	
	4	×	0.7	246	63	7	4.5	3.4	3.3	
	4.5	×	0.75	266	70	8	6	4.9	3.7	
	5	×	0.8	286	70	8	6	4.9	4.2	
*	6	×	1	316	80	10	6	4.9	5	
	7	×	1	346	80	10	7	5.5	6	
	8	×	1.25	366	90	13	8	6.2	6.8	
	9	×	1.25	396	90	13	9	7	7.8	
	10	×	1.5	426	100	15	10	8	8.5	
	11	×	1.5	466	100	17	8	6.2	9.5	
	12	×	1.75	506	110	18	9	7	10.2	
	14	×	2	546	110	20	11	9	12	
	16	×	2	606	110	20	12	9	14	
	18	×	2.5	656	125	25	14	11	15.5	
	20	×	2.5	706	140	25	16	12	17.5	
	22	×	2.5	746	140	25	18	14.5	19.5	
	24	×	3	786	160	30	18	14.5	21	
	27	×	3	866	160	30	20	16	24	
	30	×	3.5	946	180	35	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TQ863

Material groups **VG**

See page 17～22

15

Other materials:
14-23-42-52

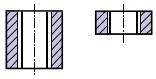
HSS-PM | DIN 371/376 | 6H | 60° | B | vap

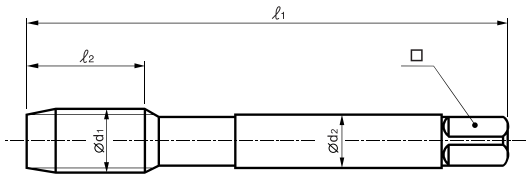
DIN 371

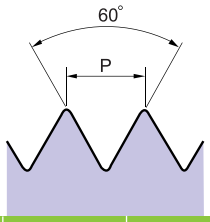
DIN 376

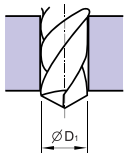
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	10	×	1.5	428	100	22	10	8	8.5	
	12	×	1.75	506	110	24	9	7	10.2	

⁎DIN 371(M2-M10) and DIN 376(M12)

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Material groups **VG**

See page 17～22

15

Other materials:
14-23-42-52

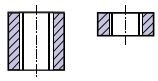
HSS-E | DIN 371/376 | 6H | 60° | B | NI

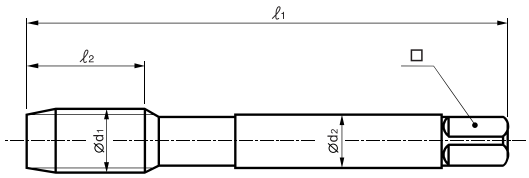
DIN 371

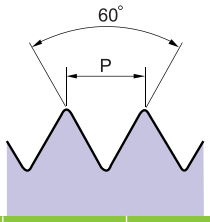
DIN 376

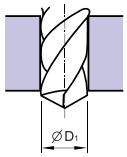
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	9	×	1.25	396	90	20	9	7	7.8	
	10	×	1.5	426	100	22	10	8	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TY422

Material groups **VG**

See page 17～22

15

Other materials:
14-23-42-52

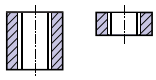
HSS-E | DIN 371/376 | 6H | 60° | B | TiAlN

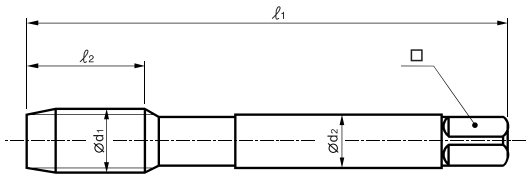
DIN 371

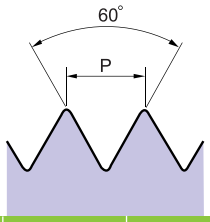
DIN 376

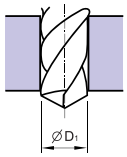
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
⁎	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
⁎	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	9	×	1.25	396	90	20	9	7	7.8	
	10	×	1.5	426	100	22	10	8	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
⁎DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Material groups **VG**

HSS-PM | DIN 371/376 | 6H | 60° | C

See page 17 ~22

15

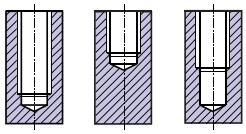
Other materials:
14-23-42-52

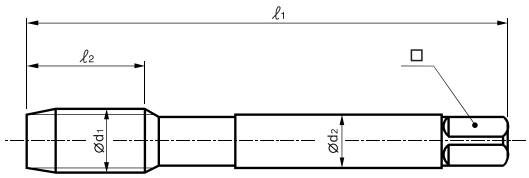
DIN 371

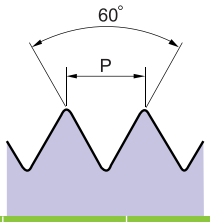
DIN 376

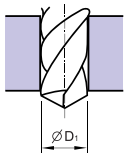
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
	3	×	0.5	206	56	6	3.5	2.7	2.5	
	3.5	×	0.6	226	56	7	4	3	2.9	
	4	×	0.7	246	63	7	4.5	3.4	3.3	
	4.5	×	0.75	266	70	8	6	4.9	3.7	
	5	×	0.8	286	70	8	6	4.9	4.2	
	6	×	1	316	80	10	6	4.9	5	
	7	×	1	346	80	10	7	5.5	6	
	8	×	1.25	366	90	13	8	6.2	6.8	
	10	×	1.5	426	100	15	10	8	8.5	
	12	×	1.75	506	110	18	9	7	10.2	

* DIN (M2-M10) and DIN 376(M12)

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TD312

Material groups **VG**

See page 17～22

15

Other materials:
14-23-42-52

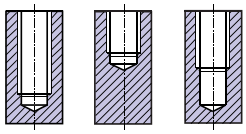
HSS-E | DIN 371/376 | 6H | 60° | C | TiN

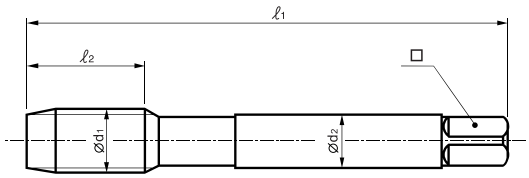
DIN 371

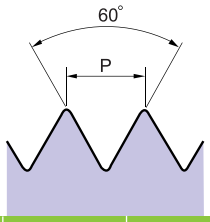
DIN 376

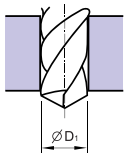
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	6	3.5	2.7	2.5	
	3.5	×	0.6	226	56	7	4	3	2.9	
	4	×	0.7	246	63	7	4.5	3.4	3.3	
	4.5	×	0.75	266	70	8	6	4.9	3.7	
	5	×	0.8	286	70	8	6	4.9	4.2	
	6	×	1	316	80	10	6	4.9	5	
	7	×	1	346	80	10	7	5.5	6	
	8	×	1.25	366	90	13	8	6.2	6.8	
	9	×	1.25	396	90	13	9	7	7.8	
	10	×	1.5	426	100	15	10	8	8.5	
	11	×	1.5	466	100	17	8	6.2	9.5	
	12	×	1.75	506	110	18	9	7	10.2	
	14	×	2	546	110	20	11	9	12	
	16	×	2	606	110	20	12	9	14	
	18	×	2.5	656	125	25	14	11	15.5	
	20	×	2.5	706	140	25	16	12	17.5	
	22	×	2.5	746	140	25	18	14.5	19.5	
	24	×	3	786	160	30	18	14.5	21	
	27	×	3	866	160	30	20	16	24	
	30	×	3.5	946	180	35	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TB913

Material groups **VG**

See page 17～22

15

Other materials:
14-23-33-42-52

HSS-E | DIN 371/376 | 6H | 60° | C | vap

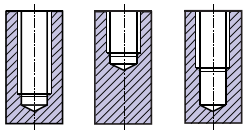
DIN 371

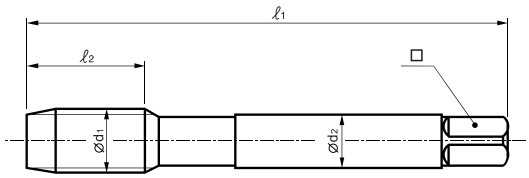
DIN 376

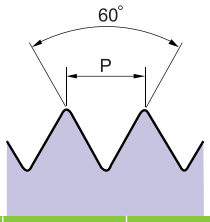
◈ With recessed threads for machine tapping of deep blind holes.

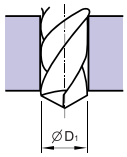
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
⁎	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
⁎	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	6	3.5	2.7	2.5	
	3.5	×	0.6	226	56	7	4	3	2.9	
	4	×	0.7	246	63	7	4.5	3.4	3.3	
	4.5	×	0.75	266	70	8	6	4.9	3.7	
	5	×	0.8	286	70	8	6	4.9	4.2	
	6	×	1	316	80	10	6	4.9	5	
	7	×	1	346	80	10	7	5.5	6	
	8	×	1.25	366	90	13	8	6.2	6.8	
	9	×	1.25	396	90	13	9	7	7.8	
	10	×	1.5	426	100	15	10	8	8.5	
	11	×	1.5	466	100	17	8	6.2	9.5	
	12	×	1.75	506	110	18	9	7	10.2	
	14	×	2	546	110	20	11	9	12	
	16	×	2	606	110	20	12	9	14	
	18	×	2.5	656	125	25	14	11	15.5	
	20	×	2.5	706	140	25	16	12	17.5	
	22	×	2.5	746	140	25	18	14.5	19.5	
	24	×	3	786	160	30	18	14.5	21	
	27	×	3	866	160	30	20	16	24	
	30	×	3.5	946	180	35	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
⁎DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

M ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TY283

Material groups **HR**

See page 17～22

16-64

Other materials:
15-23-62-82-83

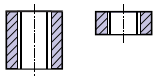
HSS-E | DIN 371/376 | 6H | 60° | B | TiAlN

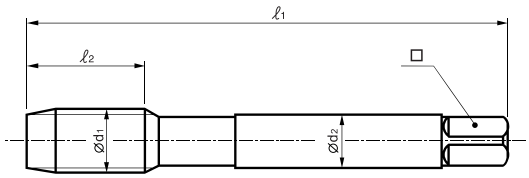
DIN 371

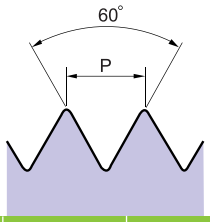
DIN 376

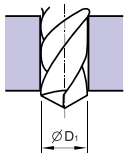
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	9	×	1.25	396	90	20	9	7	7.8	
	10	×	1.5	426	100	22	10	8	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Material groups **HR**

HSS-E | DIN 371/376 | 6H | 60° | C | vap

See page 17～22

16-64

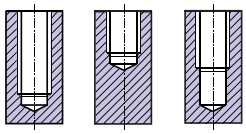
Other materials:
15-23-62-82-83

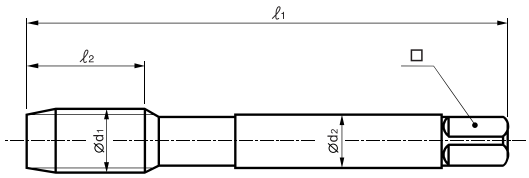
DIN 371

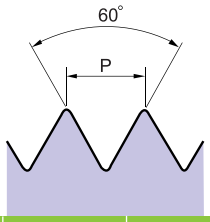
DIN 376

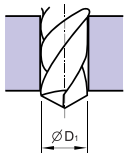
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	6	3.5	2.7	2.5	
	3.5	×	0.6	226	56	7	4	3	2.9	
	4	×	0.7	246	63	7	4.5	3.4	3.3	
	4.5	×	0.75	266	70	8	6	4.9	3.7	
	5	×	0.8	286	70	8	6	4.9	4.2	
	6	×	1	316	80	10	6	4.9	5	
	7	×	1	346	80	10	7	5.5	6	
	8	×	1.25	366	90	13	8	6.2	6.8	
	9	×	1.25	396	90	13	9	7	7.8	
	10	×	1.5	426	100	15	10	8	8.5	
	11	×	1.5	466	100	17	8	6.2	9.5	
	12	×	1.75	506	110	18	9	7	10.2	
	14	×	2	546	110	20	11	9	12	
	16	×	2	606	110	20	12	9	14	
	18	×	2.5	656	125	25	14	11	15.5	
	20	×	2.5	706	140	25	16	12	17.5	
	22	×	2.5	746	140	25	18	14.5	19.5	
	24	×	3	786	160	30	18	14.5	21	
	27	×	3	866	160	30	20	16	24	
	30	×	3.5	946	180	35	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TQ853

Material groups **VA**

See page 17～22

11-12-21-22-23

Other materials:
42-52

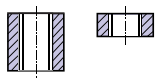
HSS-PM | DIN 371/376 | 6H | 60° | B | vap

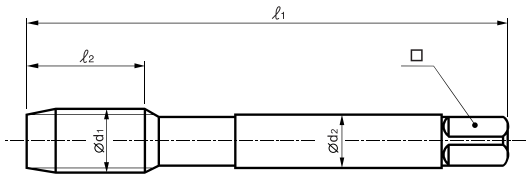
DIN 371

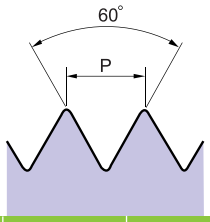
DIN 376

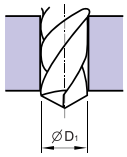
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	245	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	10	×	1.5	426	100	22	10	8	8.5	
	12	×	1.75	506	110	24	9	7	10.2	

⁎ DIN 371(M2-M10) and DIN 376(M12)

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TCH23

Material groups

VA NW

See page 17～22

11-12-21-22-23

Other materials:
42-52

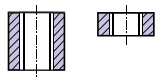
HSS-E | DIN 371/376 | 6HX | 60° | B | Hardslick

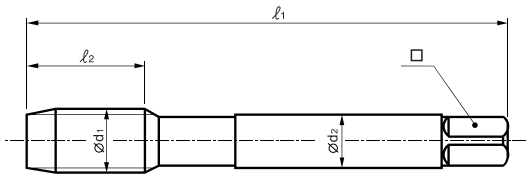
DIN 371

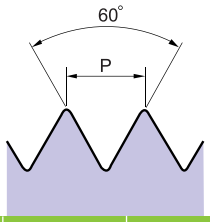
DIN 376

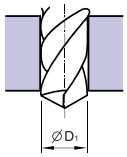
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
⁎	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
⁎	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	9	×	1.25	396	90	20	9	7	7.8	
	10	×	1.5	426	100	22	10	8	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
⁎DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TR813

Material groups **VA**

HSS-PM | DIN 371/376 | 6H | 60° | C

See page 17～22

11-12-21-22-23

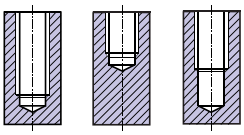
Other materials:
42-52

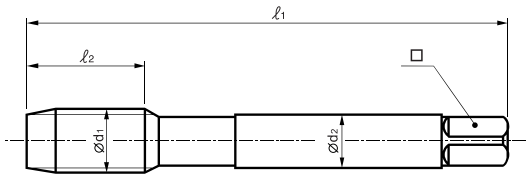
DIN 371

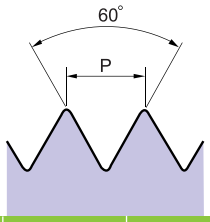
DIN 376

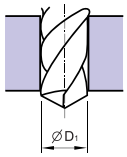
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
	3	×	0.5	206	56	6	3.5	2.7	2.5	
	3.5	×	0.6	226	56	7	4	3	2.9	
	4	×	0.7	245	63	7	4.5	3.4	3.3	
	4.5	×	0.75	266	70	8	6	4.9	3.7	
	5	×	0.8	286	70	8	6	4.9	4.2	
	6	×	1	316	80	10	6	4.9	5	
	7	×	1	346	80	10	7	5.5	6	
	8	×	1.25	366	90	13	8	6.2	6.8	
	10	×	1.5	426	100	15	10	8	8.5	
	12	×	1.75	506	110	18	9	7	10.2	

∗DIN 371(M2-M10) and DIN 376(M12)

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TB711

Material groups **NW**

See page 17～22

11-12-22

Other materials:
60-70

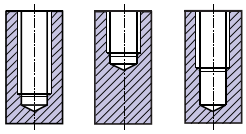
HSS-E | DIN 371/376 | 6H | 60° | C | vap

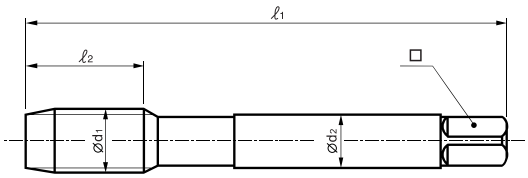
DIN 371

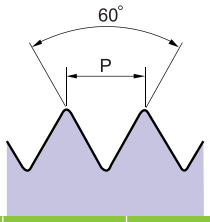
DIN 376

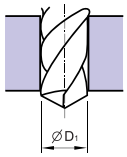
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	6	3.5	2.7	2.5	
	3.5	×	0.6	226	56	7	4	3	2.9	
	4	×	0.7	246	63	7	4.5	3.4	3.3	
	4.5	×	0.75	266	70	8	6	4.9	3.7	
	5	×	0.8	286	70	8	6	4.9	4.2	
	6	×	1	316	80	10	6	4.9	5	
	7	×	1	346	80	10	7	5.5	6	
	8	×	1.25	366	90	13	8	6.2	6.8	
	9	×	1.25	396	90	13	9	7	7.8	
	10	×	1.5	426	100	15	10	8	8.5	
	11	×	1.5	466	100	17	8	6.2	9.5	
	12	×	1.75	506	110	18	9	7	10.2	
	14	×	2	546	110	20	11	9	12	
	16	×	2	606	110	20	12	9	14	
	18	×	2.5	656	125	25	14	11	15.5	
	20	×	2.5	706	140	25	16	12	17.5	
	22	×	2.5	746	140	25	18	14.5	19.5	
	24	×	3	786	160	30	18	14.5	21	
	27	×	3	866	160	30	20	16	24	
	30	×	3.5	946	180	35	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TZ293

Material groups: Ti

See page 17～22

42-43

Other materials:
15-41

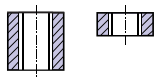
HSS-PM | DIN 371/376 | 6H | 60° | B | TiAlN

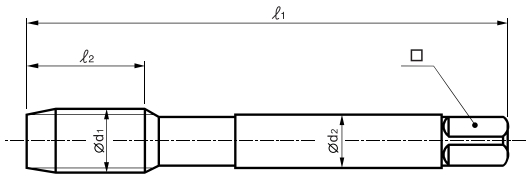
DIN 371

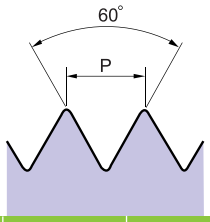
DIN 376

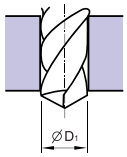
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	9	×	1.25	396	90	20	9	7	7.8	
	10	×	1.5	426	100	22	10	8	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TZ903

Material groups: Ti

See page 17～22

42-43

Other materials:
15-41

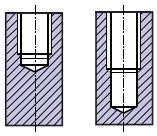
HSS-PM | DIN 371/376 | 6H | 60° | C | TiAlN

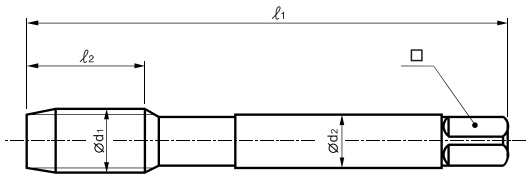
DIN 371

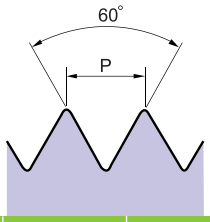
DIN 376

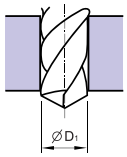
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	6	3.5	2.7	2.5	
	3.5	×	0.6	226	56	7	4	3	2.9	
	4	×	0.7	246	63	7	4.5	3.4	3.3	
	4.5	×	0.75	266	70	8	6	4.9	3.7	
	5	×	0.8	286	70	8	6	4.9	4.2	
	6	×	1	316	80	10	6	4.9	5	
	7	×	1	346	80	10	7	5.5	6	
	8	×	1.25	366	90	13	8	6.2	6.8	
	9	×	1.25	396	90	13	9	7	7.8	
	10	×	1.5	426	100	15	10	8	8.5	
	11	×	1.5	466	100	17	8	6.2	9.5	
	12	×	1.75	506	110	18	9	7	10.2	
	14	×	2	546	110	20	11	9	12	
	16	×	2	606	110	20	12	9	14	
	18	×	2.5	656	125	25	14	11	15.5	
	20	×	2.5	706	140	25	16	12	17.5	
	22	×	2.5	746	140	25	18	14.5	19.5	
	24	×	3	786	160	30	18	14.5	21	
	27	×	3	866	160	30	20	16	24	
	30	×	3.5	946	180	35	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TR873

Material groups: Ti Ni

See page 17～22

15-16-42-43-52-53

Other materials:
15-41-43-64

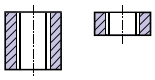
HSS-PM | DIN 371/376 | 6H | 60° | B

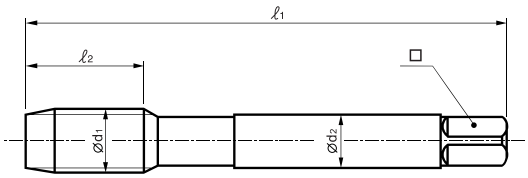

DIN 371

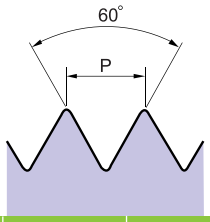

DIN 376

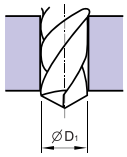
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	245	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	10	×	1.5	426	100	22	10	8	8.5	
	12	×	1.75	506	110	24	9	7	10.2	

∗ DIN 371(M2-M10) and DIN 376(M12)

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TZ923

Material groups **Ni**

See page 17～22

15-16-52-53

Other materials:
43-64

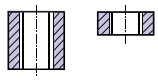
HSS-PM | DIN 371/376 | 6H | 60° | B | TiAlN

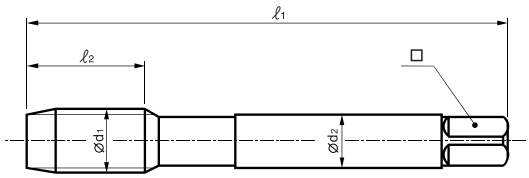
DIN 371

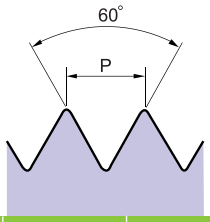
DIN 376

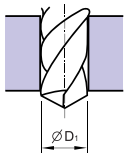
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	9	×	1.25	396	90	20	9	7	7.8	
	10	×	1.5	426	100	22	10	8	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TR833

Material groups: Ti Ni

See page 17～22

15-16-42-43-52-53

Other materials:
15-41-43-64

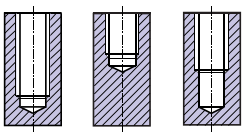
HSS-PM | DIN 371/376 | 6H | 60° | C

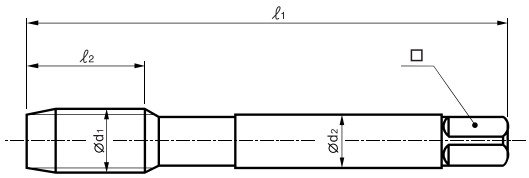

DIN 371

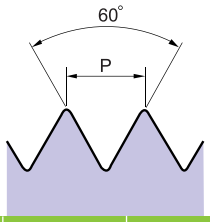

DIN 376

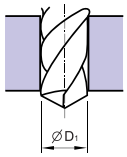
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
	3	×	0.5	206	56	6	3.5	2.7	2.5	
	3.5	×	0.6	226	56	7	4	3	2.9	
	4	×	0.7	245	63	7	4.5	3.4	3.3	
	4.5	×	0.75	266	70	8	6	4.9	3.7	
	5	×	0.8	286	70	8	6	4.9	4.2	
	6	×	1	316	80	10	6	4.9	5	
	7	×	1	346	80	10	7	5.5	6	
	8	×	1.25	366	90	13	8	6.2	6.8	
	10	×	1.5	426	100	15	10	8	8.5	
	12	×	1.75	506	110	18	9	7	10.2	

⁎ DIN 371(M2-M10) and DIN 376(M12)

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TZ933

Material groups **Ni**

See page 17～22

15-16-52-53

Other materials:
43-64

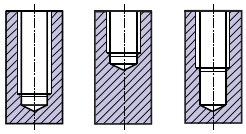
HSS-PM | DIN 371/376 | 6H | 60° | C | TiAlN

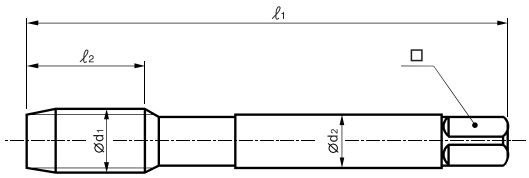
DIN 371

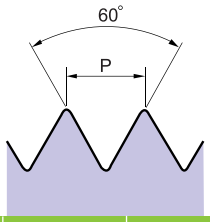
DIN 376

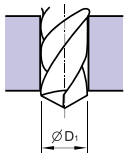
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	6	3.5	2.7	2.5	
	3.5	×	0.6	226	56	7	4	3	2.9	
	4	×	0.7	246	63	7	4.5	3.4	3.3	
	4.5	×	0.75	266	70	8	6	4.9	3.7	
	5	×	0.8	286	70	8	6	4.9	4.2	
	6	×	1	316	80	10	6	4.9	5	
	7	×	1	346	80	10	7	5.5	6	
	8	×	1.25	366	90	13	8	6.2	6.8	
	9	×	1.25	396	90	13	9	7	7.8	
	10	×	1.5	426	100	15	10	8	8.5	
	11	×	1.5	466	100	17	8	6.2	9.5	
	12	×	1.75	506	110	18	9	7	10.2	
	14	×	2	546	110	20	11	9	12	
	16	×	2	606	110	20	12	9	14	
	18	×	2.5	656	125	25	14	11	15.5	
	20	×	2.5	706	140	25	16	12	17.5	
	22	×	2.5	746	140	25	18	14.5	19.5	
	24	×	3	786	160	30	18	14.5	21	
	27	×	3	866	160	30	20	16	24	
	30	×	3.5	946	180	35	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Material groups **GV**

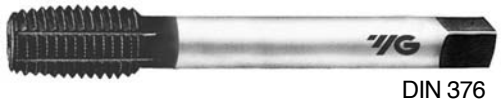
HSS-E | DIN 371/376 | 6HX | 60° | C | NI

See page 17～22

11-12-13-14-51-71

Other materials:
21-22-41-61-63-73

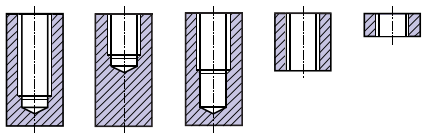
DIN 371

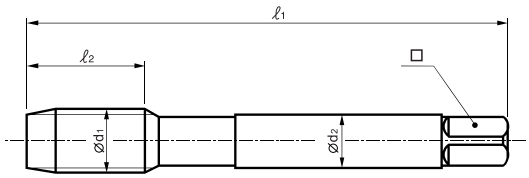


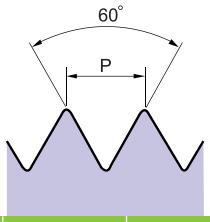
DIN 376

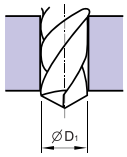
Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten
Tarauds a refouler avec goujures de lubr.
Maschi a rullare con canalini di lubr.

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.83	
	2.2	×	0.45	156	45	8	2.8	2.1	2	
⁎	2.3	×	0.4	196	45	8	2.8	2.1	2.1	
	2.5	×	0.45	176	50	9	2.8	2.1	2.3	
⁎	2.6	×	0.45	496	50	9	2.8	2.1	2.4	
	3	×	0.5	206	56	11	3.5	2.7	2.8	
	3.5	×	0.6	226	56	12	4	3	3.25	
	4	×	0.7	246	63	13	4.5	3.4	3.7	
	4.5	×	0.75	266	70	14	6	4.9	4.15	
	5	×	0.8	286	70	15	6	4.9	4.65	
	6	×	1	316	80	17	6	4.9	5.55	
	7	×	1	346	80	17	7	5.5	6.55	
	8	×	1.25	366	90	20	8	6.2	7.4	
	9	×	1.25	396	90	20	9	7	8.4	
	10	×	1.5	426	100	22	10	8	9.3	
	11	×	1.5	466	100	22	8	6.2	10.3	
	12	×	1.75	506	110	24	9	7	11.2	
	14	×	2	546	110	26	11	9	13	
	16	×	2	606	110	27	12	9	15	
	18	×	2.5	656	125	30	14	11	16.8	
	20	×	2.5	706	140	32	16	12	18.8	

DIN 371(M2-M10) and DIN 376(M11-M20)
⁎DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TD713

Material groups **GV**

See page 17～22

11-12-13-14-21-22-41-51-61-71
Other materials:
63-73

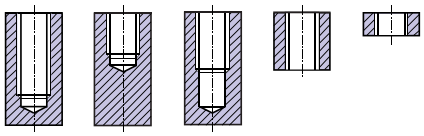
HSS-E | DIN 371/376 | 6GX | 60° | C | TiN

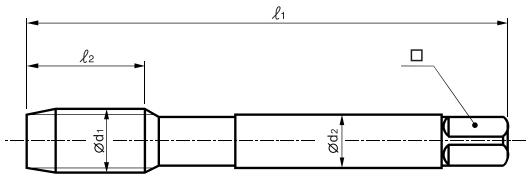
DIN 371

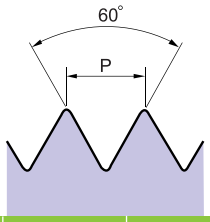
DIN 376

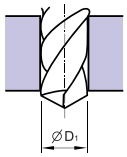
Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten
Tarauds a refouler avec goujures de lubr.
Maschi a rullare con canalini di lubr.

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.83	
	2.2	×	0.45	156	45	8	2.8	2.1	2	
⁎	2.3	×	0.4	196	45	8	2.8	2.1	2.1	
	2.5	×	0.45	176	50	9	2.8	2.1	2.3	
⁎	2.6	×	0.45	496	50	9	2.8	2.1	2.4	
	3	×	0.5	206	56	11	3.5	2.7	2.8	
	3.5	×	0.6	226	56	12	4	3	3.25	
	4	×	0.7	246	63	13	4.5	3.4	3.7	
	4.5	×	0.75	266	70	14	6	4.9	4.15	
	5	×	0.8	286	70	15	6	4.9	4.65	
	6	×	1	316	80	17	6	4.9	5.55	
	7	×	1	346	80	17	7	5.5	6.55	
	8	×	1.25	366	90	20	8	6.2	7.4	
	9	×	1.25	396	90	20	9	7	8.4	
	10	×	1.5	426	100	22	10	8	9.3	
	11	×	1.5	466	100	22	8	6.2	10.3	
	12	×	1.75	506	110	24	9	7	11.2	
	14	×	2	546	110	26	11	9	13	
	16	×	2	606	110	27	12	9	15	
	18	×	2.5	656	125	30	14	11	16.8	
	20	×	2.5	706	140	32	16	12	18.8	

DIN 371(M2-M10) and DIN 376(M11-M20)
⁎DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TQ723

Material groups **GV**

HSS-PM | DIN 371/376 | 6HX | 60° | C | vap

See page 17～22

11-12-13-14-51-71-72

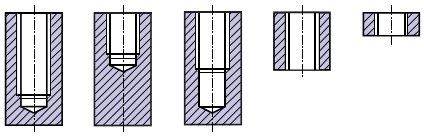
Other materials:
41-61-63-73

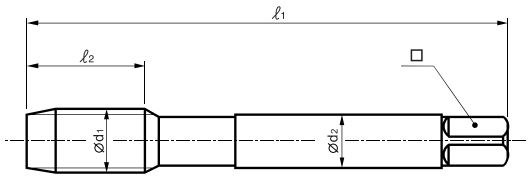
DIN 371

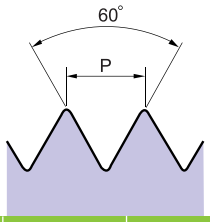
DIN 376

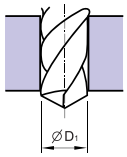
Cold forming taps
Gewindeformer
Tarauds à refouler
Maschi a rullare

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.83	
	2.2	×	0.45	156	45	8	2.8	2.1	2	
*	2.3	×	0.4	196	45	8	2.8	2.1	2.1	
	2.5	×	0.45	176	50	9	2.8	2.1	2.3	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.4	
	3	×	0.5	206	56	11	3.5	2.7	2.8	
	3.5	×	0.6	226	56	12	4	3	3.25	
	4	×	0.7	246	63	13	4.5	3.4	3.7	
	4.5	×	0.75	266	70	14	6	4.9	4.15	
	5	×	0.8	286	70	15	6	4.9	4.65	
	6	×	1	316	80	17	6	4.9	5.55	
	7	×	1	346	80	17	7	5.5	6.55	
	8	×	1.25	366	90	20	8	6.2	7.4	
	9	×	1.25	396	90	20	9	7	8.4	
	10	×	1.5	426	100	22	10	8	9.3	
	11	×	1.5	466	100	22	8	6.2	10.3	
	12	×	1.75	506	110	24	9	7	11.2	
	14	×	2	546	110	26	11	9	13	
	16	×	2	606	110	27	12	9	15	
	18	×	2.5	656	125	30	14	11	16.8	
	20	×	2.5	706	140	32	16	12	18.8	

DIN 371(M2-M10) and DIN 376(M11-M20)
***DIN profile not ISO**

FAX : +82(32)526-4373 • YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TD723

Material groups **GV**

HSS-E | DIN 371/376 | 6HX | 60° | C | TiN

See page 17～22

11-12-13-14-41-51-61-71-72

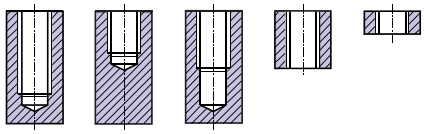
Other materials:
21-22-63-73

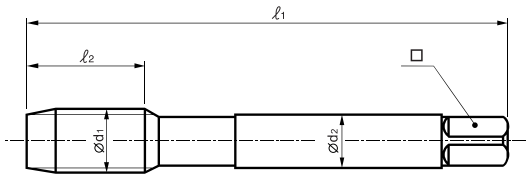
DIN 371

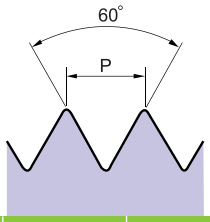
DIN 376

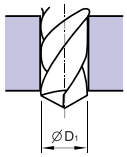
Cold forming taps
Gewindeformer
Tarauds a refouler
Maschi a rullare

Hole type









	Φd1 mm		P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.83	
	2.2	×	0.45	156	45	8	2.8	2.1	2	
⁎	2.3	×	0.4	196	45	8	2.8	2.1	2.1	
	2.5	×	0.45	176	50	9	2.8	2.1	2.3	
⁎	2.6	×	0.45	496	50	9	2.8	2.1	2.4	
	3	×	0.5	206	56	11	3.5	2.7	2.8	
	3.5	×	0.6	226	56	12	4	3	3.25	
	4	×	0.7	246	63	13	4.5	3.4	3.7	
	4.5	×	0.75	266	70	14	6	4.9	4.15	
	5	×	0.8	286	70	15	6	4.9	4.65	
	6	×	1	316	80	17	6	4.9	5.55	
	7	×	1	346	80	17	7	5.5	6.55	
	8	×	1.25	366	90	20	8	6.2	7.4	
	9	×	1.25	396	90	20	9	7	8.4	
	10	×	1.5	426	100	22	10	8	9.3	
	11	×	1.5	466	100	22	8	6.2	10.3	
	12	×	1.75	506	110	24	9	7	11.2	
	14	×	2	546	110	26	11	9	13	
	16	×	2	606	110	27	12	9	15	
	18	×	2.5	656	125	30	14	11	16.8	
	20	×	2.5	706	140	32	16	12	18.8	

DIN 371(M2-M10) and DIN 376(M11-M20)
⁎DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TE943

Material groups **AI**

See page 17～22

74

Other materials:
13

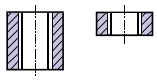
HSS-E | DIN 371/376 | 6H | 60° | B | NI

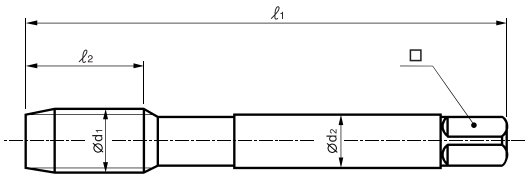
DIN 371

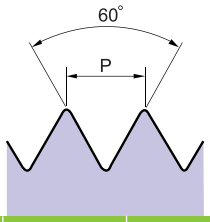
DIN 376

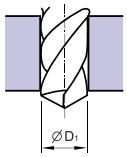
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	9	×	1.25	396	90	20	9	7	7.8	
	10	×	1.5	426	100	22	10	8	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
***DIN profile not ISO**

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TE953

Material groups **AI**

See page 17 ~22

74

Other materials:
13

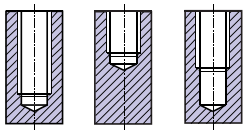
HSS-E | DIN 371/376 | 6H | 60° | C | NI

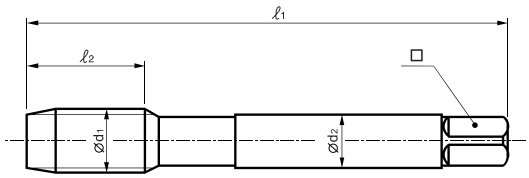
DIN 371

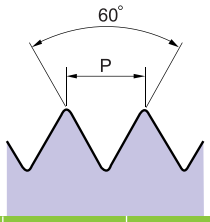
DIN 376

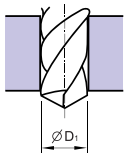
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	6	3.5	2.7	2.5	
	3.5	×	0.6	226	56	7	4	3	2.9	
	4	×	0.7	246	63	7	4.5	3.4	3.3	
	4.5	×	0.75	266	70	8	6	4.9	3.7	
	5	×	0.8	286	70	8	6	4.9	4.2	
	6	×	1	316	80	10	6	4.9	5	
	7	×	1	346	80	10	7	5.5	6	
	8	×	1.25	366	90	13	8	6.2	6.8	
	9	×	1.25	396	90	13	9	7	7.8	
	10	×	1.5	426	100	15	10	8	8.5	
	11	×	1.5	466	100	17	8	6.2	9.5	
	12	×	1.75	506	110	18	9	7	10.2	
	14	×	2	546	110	20	11	9	12	
	16	×	2	606	110	20	12	9	14	
	18	×	2.5	656	125	25	14	11	15.5	
	20	×	2.5	706	140	25	16	12	17.5	
	22	×	2.5	746	140	25	18	14.5	19.5	
	24	×	3	786	160	30	18	14.5	21	
	27	×	3	866	160	30	20	16	24	
	30	×	3.5	946	180	35	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
***DIN profile not ISO**

FAX : +82(32)526-4373 YG-1 CO., LTD.

M ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TI821

Material groups	GG

See page 17～22

31-32-62-83

Other materials:

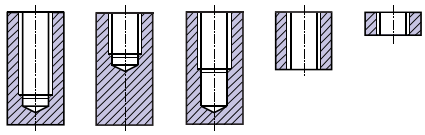
HSS-E | DIN 371/376 | 6HX | 60° | C | TiCN

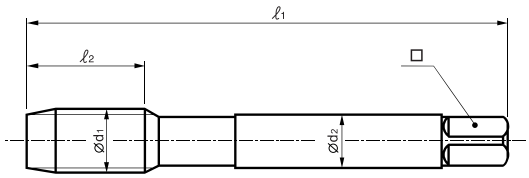
DIN 371

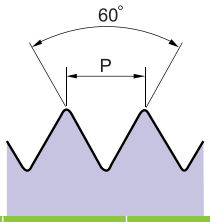
DIN 376

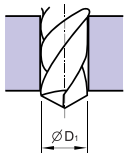
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
*	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
*	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	9	×	1.25	396	90	20	9	7	7.8	
	10	×	1.5	426	100	22	10	8	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
＊DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. T0993

Material groups	GG

See page 17～22

31-32-62-83

Other materials:

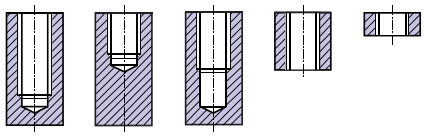
HM | DIN 371/376 | 6HX | 60° | C

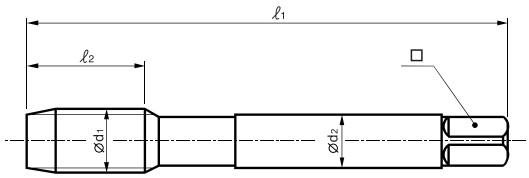
DIN 371

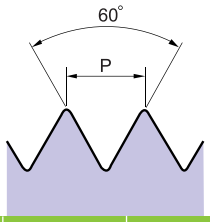
DIN 376

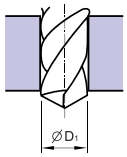
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	8	×	1.25	366	90	20	8	6.2	6.8	
	10	×	1.5	426	100	22	10	8	8.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	

DIN 371(M2-M10) and DIN 376(M11-M20)

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TE443

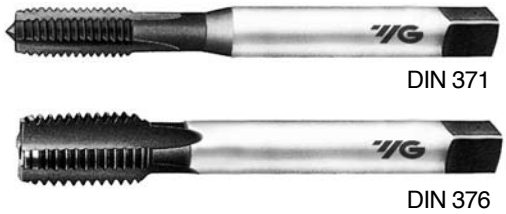
Material groups **Ms**

See page 17～22

62

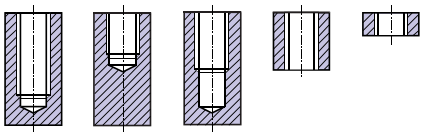
Other materials:

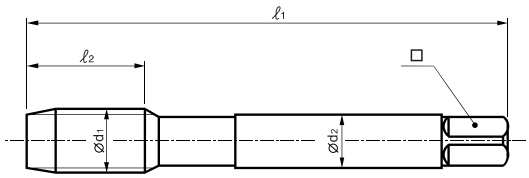
HSS-E | DIN 371/376 | 6HX | 60° | C | NI

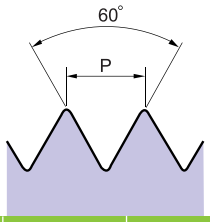


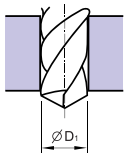
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	2	×	0.4	136	45	8	2.8	2.1	1.6	
	2.2	×	0.45	156	45	8	2.8	2.1	1.75	
⁎	2.3	×	0.4	196	45	8	2.8	2.1	1.9	
	2.5	×	0.45	176	50	9	2.8	2.1	2.05	
⁎	2.6	×	0.45	496	50	9	2.8	2.1	2.1	
	3	×	0.5	206	56	11	3.5	2.7	2.5	
	3.5	×	0.6	226	56	12	4	3	2.9	
	4	×	0.7	246	63	13	4.5	3.4	3.3	
	4.5	×	0.75	266	70	14	6	4.9	3.7	
	5	×	0.8	286	70	15	6	4.9	4.2	
	6	×	1	316	80	17	6	4.9	5	
	7	×	1	346	80	17	7	5.5	6	
	8	×	1.25	366	90	20	8	6.2	6.8	
	9	×	1.25	396	90	20	9	7	7.8	
	10	×	1.5	426	100	22	10	8	8.5	
	11	×	1.5	466	100	22	8	6.2	9.5	
	12	×	1.75	506	110	24	9	7	10.2	
	14	×	2	546	110	26	11	9	12	
	16	×	2	606	110	27	12	9	14	
	18	×	2.5	656	125	30	14	11	15.5	
	20	×	2.5	706	140	32	16	12	17.5	
	22	×	2.5	746	140	32	18	14.5	19.5	
	24	×	3	786	160	34	18	14.5	21	
	27	×	3	866	160	36	20	16	24	
	30	×	3.5	946	180	40	22	18	26.5	

DIN 371(M2-M10) and DIN 376(M11-M30)
⁎DIN profile not ISO

FAX : +82(32)526-4373 YG-1 CO., LTD.

M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. T7309

Material groups **GS**

See page 17～22

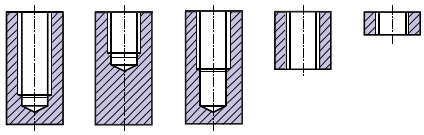
HSS | DIN 2181 | 6H | 60° | I/III

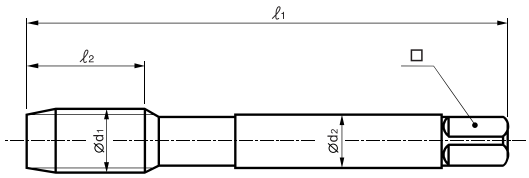

First

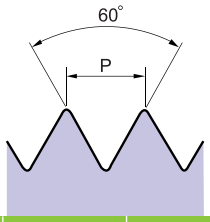

Bottoming

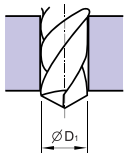
Sets of taps
Gewindebohrer-Satz
Jeu de tarauds
Serie di maschi

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	3	×	0.35	219	42	8	3.5	2.7	2.65	
	4	×	0.5	259	48	9	4.5	3.4	3.5	
	5	×	0.5	299	52	11	6	4.9	4.5	
	6	×	0.5	339	56	12	6	4.9	5.5	
	6	×	0.75	329	56	12	6	4.9	5.2	
	7	×	0.75	359	56	14	6	4.9	6.2	
	8	×	0.5	939	63	14	6	4.9	7.5	
	8	×	0.75	389	63	14	6	4.9	7.2	
	8	×	1	379	63	17	6	4.9	7	
	9	×	1	409	63	17	7	5.5	8	
	10	×	0.75	459	63	18	7	5.5	9.2	
	10	×	1	449	63	18	7	5.5	9	
	10	×	1.25	439	70	22	7	5.5	8.8	
	11	×	1	479	63	18	8	6.2	10	
	12	×	1	539	70	18	9	7	11	
	12	×	1.25	529	70	20	9	7	10.8	
	12	×	1.5	519	70	20	9	7	10.5	
	13	×	1	N29	70	18	11	9	12	
	13	×	1.5	N19	70	20	11	9	11.5	
	14	×	1	579	70	18	11	9	13	
	14	×	1.25	569	70	20	11	9	12.8	
	14	×	1.5	559	70	20	11	9	12.5	
	15	×	1	599	70	18	12	9	14	
	15	×	1.5	589	70	20	12	9	13.5	
	16	×	1	629	70	18	12	9	15	
	16	×	1.5	619	70	20	12	9	14.5	
	18	×	1	689	80	18	14	11	17	
	18	×	1.5	679	80	22	14	11	16.5	
	18	×	2	669	80	22	14	11	16	
	20	×	1	739	80	18	16	12	19	
	20	×	1.5	729	80	22	16	12	18.5	
	20	×	2	719	80	22	16	12	18	
	22	×	1	779	80	18	18	14.5	21	

FAX : +82(32)526-4373 YG-1 CO., LTD.

M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TC222

Material groups **GS**

HSS-E | DIN 374 | 6H | 60° | B

See page 17～22

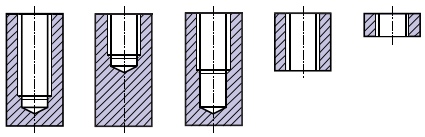
12-13-14-33-34-63-74

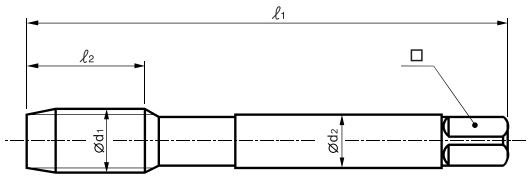
Other materials:
41-51-61-71-72-73-81

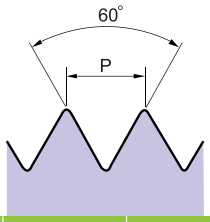
DIN 374

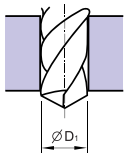
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	10	2.8	2.1	3.5	
	5	×	0.5	296	70	11	3.5	2.7	4.5	
	6	×	0.5	336	80	13	4.5	3.4	5.5	
	6	×	0.75	326	80	13	4.5	3.4	5.2	
	7	×	0.75	356	80	14	5.5	4.3	6.2	
	8	×	0.5	936	80	14	6	4.9	7.5	
	8	×	0.75	386	80	14	6	4.9	7.2	
	8	×	1	376	90	17	6	4.9	7	
	10	×	0.75	456	90	18	7	5.5	9.2	
	10	×	1	446	90	18	7	5.5	9	
	10	×	1.25	436	100	22	7	5.5	8.8	
	12	×	1	536	100	18	9	7	11	
	12	×	1.25	526	100	22	9	7	10.8	
	12	×	1.5	516	100	22	9	7	10.5	
	14	×	1	576	100	18	11	9	13	
	14	×	1.25	566	100	22	11	9	12.8	
	14	×	1.5	556	100	22	11	9	12.5	
	16	×	1	626	100	18	12	9	15	
	16	×	1.5	616	100	22	12	9	14.5	
	18	×	1	686	110	20	14	11	17	
	18	×	1.5	676	110	25	14	11	16.5	
	20	×	1	736	125	20	16	12	19	
	20	×	1.5	726	125	25	16	12	18.5	
	22	×	1	776	125	20	18	14.5	21	
	22	×	1.5	766	125	25	18	14.5	20.5	
	24	×	1.5	806	140	27	18	14.5	22.5	
	24	×	2	796	140	27	18	14.5	22	
	26	×	1.5	856	140	28	18	14.5	24.5	
	27	×	1.5	886	140	28	20	16	25.5	
	27	×	2	876	140	28	20	16	25	
	28	×	1.5	916	140	28	20	16	26.5	
	30	×	1.5	976	150	30	22	18	28.5	
	30	×	2	966	150	30	22	18	28	

FAX : +82(32)526-4373 YG-1 CO., LTD.

ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TC473

Material groups **GS**

HSS-E | DIN 374 | 6H | 60° | C

See page 17 ~22

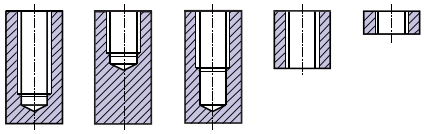
12-13-14-33-34-74

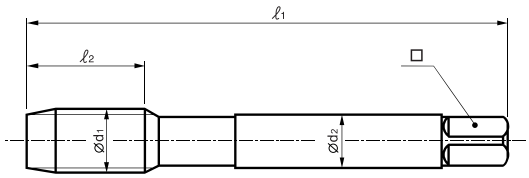
Other materials:
11-62-63

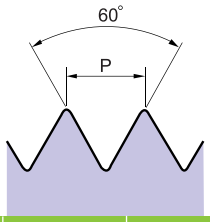
DIN 374

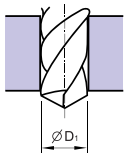
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	10	2.8	2.1	3.5	
	5	×	0.5	296	70	11	3.5	2.7	4.5	
	6	×	0.5	336	80	13	4.5	3.4	5.5	
	6	×	0.75	326	80	13	4.5	3.4	5.2	
	7	×	0.75	356	80	14	5.5	4.3	6.2	
	8	×	0.5	936	80	14	6	4.9	7.5	
	8	×	0.75	386	80	14	6	4.9	7.2	
	8	×	1	376	90	17	6	4.9	7	
	10	×	0.75	456	90	18	7	5.5	9.2	
	10	×	1	446	90	18	7	5.5	9	
	10	×	1.25	436	100	22	7	5.5	8.8	
	12	×	1	536	100	18	9	7	11	
	12	×	1.25	526	100	22	9	7	10.8	
	12	×	1.5	516	100	22	9	7	10.5	
	14	×	1	576	100	18	11	9	13	
	14	×	1.25	566	100	22	11	9	12.8	
	14	×	1.5	556	100	22	11	9	12.5	
	16	×	1.5	616	100	22	12	9	14.5	
	18	×	1.5	676	110	25	14	11	16.5	
	20	×	1.5	726	125	25	16	12	18.5	
	22	×	1.5	766	125	25	18	14.5	20.5	
	24	×	1.5	806	140	27	18	14.5	22.5	

FAX : +82(32)526-4373 YG-1 CO., LTD.

M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TC411

Material groups **GS**

See page 17～22

12-13-14-33-34-63-74

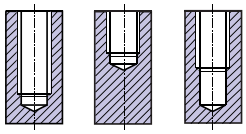
Other materials:
41-51-61-71-72-73-81

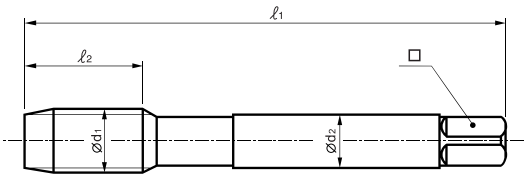
HSS-E | DIN 374 | 6H | 60° | C

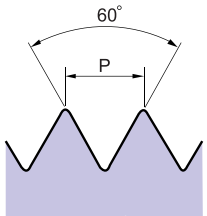
DIN 374

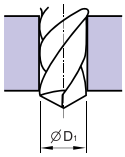
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	5	2.8	2.1	3.5	
	5	×	0.5	296	70	5	3.5	2.7	4.5	
	6	×	0.5	336	80	5	4.5	3.4	5.5	
	6	×	0.75	326	80	8	4.5	3.4	5.2	
	7	×	0.75	356	80	10	5.5	4.3	6.2	
	8	×	0.5	936	80	5	6	4.9	7.5	
	8	×	0.75	386	80	8	6	4.9	7.2	
	8	×	1	376	90	10	6	4.9	7	
	10	×	0.75	456	90	10	7	5.5	9.2	
	10	×	1	446	90	10	7	5.5	9	
	10	×	1.25	436	100	16	7	5.5	8.8	
	12	×	1	536	100	11	9	7	11	
	12	×	1.25	526	100	15	9	7	10.8	
	12	×	1.5	516	100	15	9	7	10.5	
	14	×	1	576	100	11	11	9	13	
	14	×	1.25	566	100	15	11	9	12.8	
	14	×	1.5	556	100	15	11	9	12.5	
	16	×	1	626	100	12	12	9	15	
	16	×	1.5	616	100	15	12	9	14.5	
	18	×	1	686	110	13	14	11	17	
	18	×	1.5	676	110	17	14	11	16.5	
	20	×	1	736	125	14	16	12	19	
	20	×	1.5	726	125	17	16	12	18.5	
	22	×	1	776	125	14	18	14.5	21	
	22	×	1.5	766	125	17	18	14.5	20.5	
	24	×	1.5	806	140	20	18	14.5	22.5	
	24	×	2	796	140	20	18	14.5	22	
	26	×	1.5	856	140	20	18	14.5	24.5	
	27	×	1.5	886	140	20	20	16	25.5	
	27	×	2	876	140	20	20	16	25	
	28	×	1.5	916	140	20	20	16	26.5	
	30	×	1.5	976	150	22	22	18	28.5	
	30	×	2	966	150	22	22	18	28	

M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TD411

Material groups **GS**

HSS-E | DIN 374 | 6H | 60° | C | TiN

See page 17 ~22

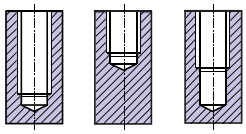
12-13-14-33-34-63-74

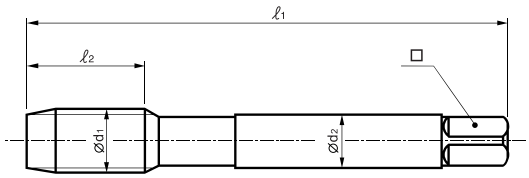
Other materials:
41-51-61-71-72-73-81

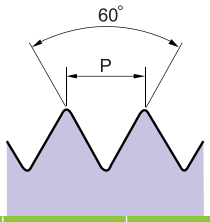
DIN 374

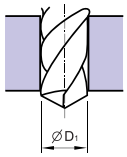
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	5	2.8	2.1	3.5	
	5	×	0.5	296	70	5	3.5	2.7	4.5	
	6	×	0.5	336	80	5	4.5	3.4	5.5	
	6	×	0.75	326	80	8	4.5	3.4	5.2	
	7	×	0.75	356	80	10	5.5	4.3	6.2	
	8	×	0.5	936	80	5	6	4.9	7.5	
	8	×	0.75	386	80	8	6	4.9	7.2	
	8	×	1	376	90	10	6	4.9	7	
	10	×	0.75	456	90	10	7	5.5	9.2	
	10	×	1	446	90	10	7	5.5	9	
	10	×	1.25	436	100	16	7	5.5	8.8	
	12	×	1	536	100	11	9	7	11	
	12	×	1.25	526	100	15	9	7	10.8	
	12	×	1.5	516	100	15	9	7	10.5	
	14	×	1	576	100	11	11	9	13	
	14	×	1.25	566	100	15	11	9	12.8	
	14	×	1.5	556	100	15	11	9	12.5	
	16	×	1	626	100	12	12	9	15	
	16	×	1.5	616	100	15	12	9	14.5	
	18	×	1	686	110	13	14	11	17	
	18	×	1.5	676	110	17	14	11	16.5	
	20	×	1	736	125	14	16	12	19	
	20	×	1.5	726	125	17	16	12	18.5	
	22	×	1	776	125	14	18	14.5	21	
	22	×	1.5	766	125	17	18	14.5	20.5	
	24	×	1.5	806	140	20	18	14.5	22.5	
	24	×	2	796	140	20	18	14.5	22	
	26	×	1.5	856	140	20	18	14.5	24.5	
	27	×	1.5	886	140	20	20	16	25.5	
	27	×	2	876	140	20	20	16	25	
	28	×	1.5	916	140	20	20	16	26.5	
	30	×	1.5	976	150	22	22	18	28.5	
	30	×	2	966	150	22	22	18	28	

FAX : +82(32)526-4373 YG-1 CO., LTD.

M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TC263

Material groups **VG**

See page 17～22

15

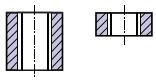
Other materials:
14-23-42-52

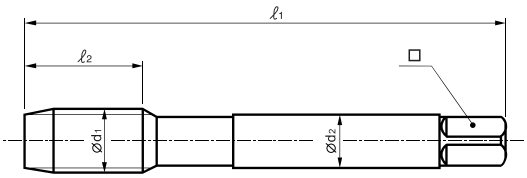
HSS-E | DIN 374 | 6H | 60° | B

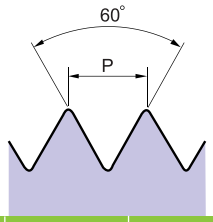
DIN 374

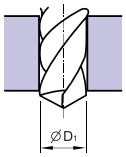
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	10	2.8	2.1	3.5	
	5	×	0.5	296	70	11	3.5	2.7	4.5	
	6	×	0.5	336	80	13	4.5	3.4	5.5	
	6	×	0.75	326	80	13	4.5	3.4	5.2	
	7	×	0.75	356	80	14	5.5	4.3	6.2	
	8	×	0.75	386	80	14	6	4.9	7.2	
	8	×	1	376	90	17	6	4.9	7	
	10	×	0.75	456	90	18	7	5.5	9.2	
	10	×	1	446	90	18	7	5.5	9	
	10	×	1.25	436	100	22	7	5.5	8.8	
	12	×	1	536	100	18	9	7	11	
	12	×	1.25	526	100	22	9	7	10.8	
	12	×	1.5	516	100	22	9	7	10.5	
	14	×	1.25	566	100	22	11	9	12.8	
	14	×	1.5	556	100	22	11	9	12.5	
	16	×	1.5	616	100	22	12	9	14.5	
	18	×	1.5	676	110	25	14	11	16.5	
	20	×	1.5	726	125	25	16	12	18.5	
	22	×	1.5	766	125	25	18	14.5	20.5	
	24	×	1.5	806	140	27	18	14.5	22.5	

M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TD263

Material groups **VG**

See page 17～22

15

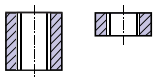
Other materials:
14-23-42-52

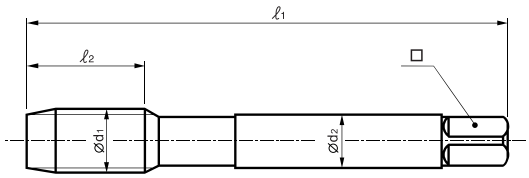
HSS-E | DIN 374 | 6H | 60° | B | TiN

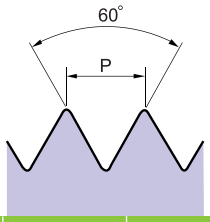
DIN 374

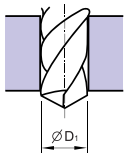
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	10	2.8	2.1	3.5	
	5	×	0.5	296	70	11	3.5	2.7	4.5	
	6	×	0.5	336	80	13	4.5	3.4	5.5	
	6	×	0.75	326	80	13	4.5	3.4	5.2	
	7	×	0.75	356	80	14	5.5	4.3	6.2	
	8	×	0.75	386	80	14	6	4.9	7.2	
	8	×	1	376	90	17	6	4.9	7	
	10	×	0.75	456	90	18	7	5.5	9.2	
	10	×	1	446	90	18	7	5.5	9	
	10	×	1.25	436	100	22	7	5.5	8.8	
	12	×	1	536	100	18	9	7	11	
	12	×	1.25	526	100	22	9	7	10.8	
	12	×	1.5	516	100	22	9	7	10.5	
	14	×	1.25	566	100	22	11	9	12.8	
	14	×	1.5	556	100	22	11	9	12.5	
	16	×	1.5	616	100	22	12	9	14.5	
	18	×	1.5	676	110	25	14	11	16.5	
	20	×	1.5	726	125	25	16	12	18.5	
	22	×	1.5	766	125	25	18	14.5	20.5	
	24	×	1.5	806	140	27	18	14.5	22.5	

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M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TC413

Material groups **VG**

See page 17～22

15

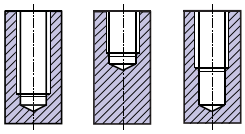
Other materials:
14-23-42-52

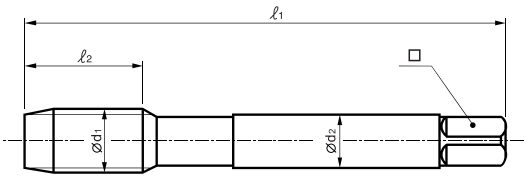
HSS-E | DIN 374 | 6H | 60° | C

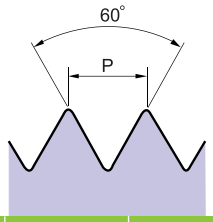
DIN 374

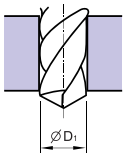
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	5	2.8	2.1	3.5	
	5	×	0.5	296	70	5	3.5	2.7	4.5	
	6	×	0.5	336	80	5	4.5	3.4	5.5	
	6	×	0.75	326	80	8	4.5	3.4	5.2	
	7	×	0.75	356	80	10	5.5	4.3	6.2	
	8	×	0.75	386	80	8	6	4.9	7.2	
	8	×	1	376	90	10	6	4.9	7	
	10	×	0.75	456	90	10	7	5.5	9.2	
	10	×	1	446	90	10	7	5.5	9	
	10	×	1.25	436	100	16	7	5.5	8.8	
	12	×	1	536	100	11	9	7	11	
	12	×	1.25	526	100	15	9	7	10.8	
	12	×	1.5	516	100	15	9	7	10.5	
	14	×	1.25	566	100	15	11	9	12.8	
	14	×	1.5	556	100	15	11	9	12.5	
	16	×	1.5	616	100	15	12	9	14.5	
	18	×	1.5	676	110	17	14	11	16.5	
	20	×	1.5	726	125	17	16	12	18.5	
	22	×	1.5	766	125	17	18	14.5	20.5	
	24	×	1.5	806	140	20	18	14.5	22.5	

ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Material groups **VG**

HSS-E | DIN 374 | 6H | 60° | C | TiN

See page 17 ~22

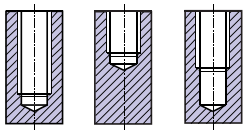
15

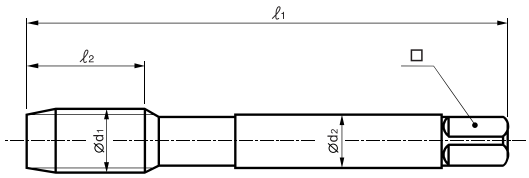
Other materials:
14-23-42-52

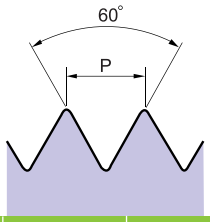
DIN 374

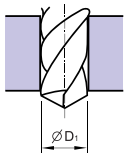
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	5	2.8	2.1	3.5	
	5	×	0.5	296	70	5	3.5	2.7	4.5	
	6	×	0.5	336	80	5	4.5	3.4	5.5	
	6	×	0.75	326	80	8	4.5	3.4	5.2	
	7	×	0.75	356	80	10	5.5	4.3	6.2	
	8	×	0.75	386	80	8	6	4.9	7.2	
	8	×	1	376	90	10	6	4.9	7	
	10	×	0.75	456	90	10	7	5.5	9.2	
	10	×	1	446	90	10	7	5.5	9	
	10	×	1.25	436	100	16	7	5.5	8.8	
	12	×	1	536	100	11	9	7	11	
	12	×	1.25	526	100	15	9	7	10.8	
	12	×	1.5	516	100	15	9	7	10.5	
	14	×	1.25	566	100	15	11	9	12.8	
	14	×	1.5	556	100	15	11	9	12.5	
	16	×	1.5	616	100	15	12	9	14.5	
	18	×	1.5	676	110	17	14	11	16.5	
	20	×	1.5	726	125	17	16	12	18.5	
	22	×	1.5	766	125	17	18	14.5	20.5	
	24	×	1.5	806	140	20	18	14.5	22.5	

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M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TB123

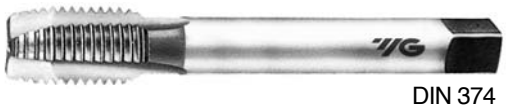
Material groups	VA NW

See page 17～22

11-12-21-22-23

Other materials:
42-52

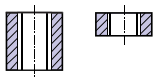
HSS-E | DIN 374 | 6HX | 60° | B | vap

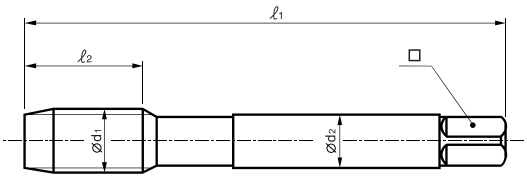


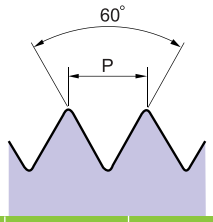
DIN 374

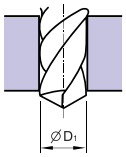
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	10	2.8	2.1	3.5	
	5	×	0.5	296	70	11	3.5	2.7	4.5	
	6	×	0.5	336	80	13	4.5	3.4	5.5	
	6	×	0.75	326	80	13	4.5	3.4	5.2	
	7	×	0.75	356	80	14	5.5	4.3	6.2	
	8	×	0.75	386	80	14	6	4.9	7.2	
	8	×	1	376	90	17	6	4.9	7	
	10	×	0.75	456	90	18	7	5.5	9.2	
	10	×	1	446	90	18	7	5.5	9	
	10	×	1.25	436	100	22	7	5.5	8.8	
	12	×	1	536	100	18	9	7	11	
	12	×	1.25	526	100	22	9	7	10.8	
	12	×	1.5	516	100	22	9	7	10.5	
	14	×	1.25	566	100	22	11	9	12.8	
	14	×	1.5	556	100	22	11	9	12.5	
	16	×	1.5	616	100	22	12	9	14.5	
	18	×	1.5	676	110	25	14	11	16.5	
	20	×	1.5	726	125	25	16	12	18.5	
	22	×	1.5	766	125	25	18	14.5	20.5	
	24	×	1.5	806	140	27	18	14.5	22.5	

M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TB183

Material groups **VA NW**

See page 17 ~22

11-12-21-22-23

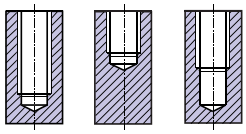
Other materials:
42-52

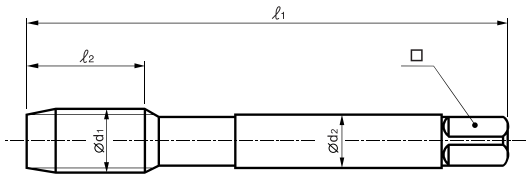
HSS-E | DIN 374 | 6H | 60° | C | vap

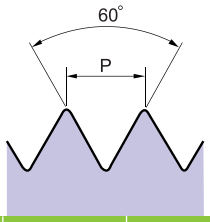
DIN 374

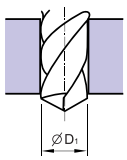
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	5	2.8	2.1	3.5	
	5	×	0.5	296	70	5	3.5	2.7	4.5	
	6	×	0.5	336	80	5	4.5	3.4	5.5	
	6	×	0.75	326	80	8	4.5	3.4	5.2	
	7	×	0.75	356	80	10	5.5	4.3	6.2	
	8	×	0.75	386	80	8	6	4.9	7.2	
	8	×	1	376	90	10	6	4.9	7	
	10	×	0.75	456	90	10	7	5.5	9.2	
	10	×	1	446	90	10	7	5.5	9	
	10	×	1.25	436	100	16	7	5.5	8.8	
	12	×	1	536	100	11	9	7	11	
	12	×	1.25	526	100	15	9	7	10.8	
	12	×	1.5	516	100	15	9	7	10.5	
	14	×	1.25	566	100	15	11	9	12.8	
	14	×	1.5	556	100	15	11	9	12.5	
	16	×	1.5	616	100	15	12	9	14.5	
	18	×	1.5	676	110	17	14	11	16.5	
	20	×	1.5	726	125	17	16	12	18.5	
	22	×	1.5	766	125	17	18	14.5	20.5	
	24	×	1.5	806	140	20	18	14.5	22.5	

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M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TE733

Material groups **GV**

See page 17～22

11-12-13-14-51-71

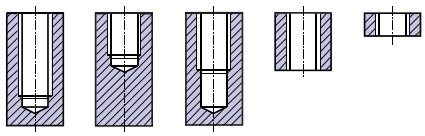
Other materials:
21-22-41-61-63-73

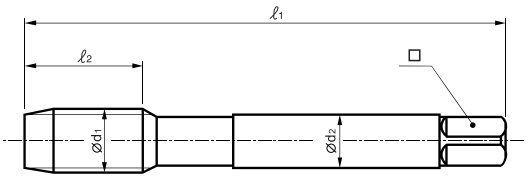
HSS-E | DIN 374 | 6HX | 60° | C | NI

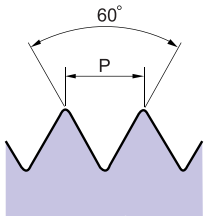
DIN 374

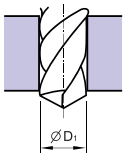
Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten
Tarauds a refouler avec goujures de lubr.
Maschi a rullare con canalini di lubr.

Hole type









	Ød1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	10	2.8	2.1	3.75	
	5	×	0.5	296	70	11	3.5	2.7	4.75	
	6	×	0.5	336	80	13	4.5	3.4	5.75	
	6	×	0.75	326	80	13	4.5	3.4	5.65	
	7	×	0.75	356	80	14	5.5	4.3	6.65	
	8	×	0.75	386	80	14	6	4.9	7.65	
	8	×	1	376	90	17	6	4.9	7.50	
	10	×	0.75	456	90	18	7	5.5	9.65	
	10	×	1	446	90	18	7	5.5	9.5	
	10	×	1.25	436	100	22	7	5.5	9.4	
	12	×	1	536	100	18	9	7	11.5	
	12	×	1.25	526	100	22	9	7	11.4	
	12	×	1.5	516	100	22	9	7	11.25	
	14	×	1.25	566	100	22	11	9	13.4	
	14	×	1.5	556	100	22	11	9	13.25	
	16	×	1.5	616	100	22	12	9	15.25	
	18	×	1.5	676	110	25	14	11	17.25	
	20	×	1.5	726	125	25	16	12	19.25	

M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TD733

Material groups **GV**

HSS-E | DIN 374 | 6HX | 60° | C | TiN

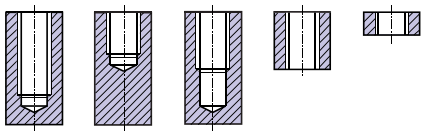
See page 17～22

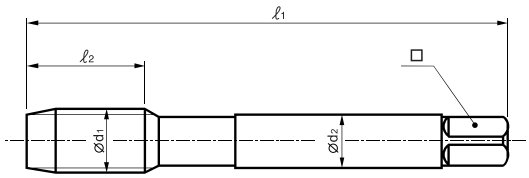
11-12-13-14-21-22-41-51-61-71
Other materials:
63-73

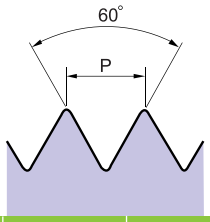
DIN 374

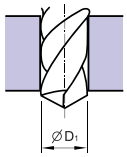
Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten
Tarauds a refouler avec goujures de lubr.
Maschi a rullare con canalini di lubr.

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	10	2.8	2.1	3.75	
	5	×	0.5	296	70	11	3.5	2.7	4.75	
	6	×	0.5	336	80	13	4.5	3.4	5.75	
	6	×	0.75	326	80	13	4.5	3.4	5.65	
	7	×	0.75	356	80	14	5.5	4.3	6.65	
	8	×	0.75	386	80	14	6	4.9	7.65	
	8	×	1	376	90	17	6	4.9	7.50	
	10	×	0.75	456	90	18	7	5.5	9.65	
	10	×	1	446	90	18	7	5.5	9.5	
	10	×	1.25	436	100	22	7	5.5	9.4	
	12	×	1	536	100	18	9	7	11.5	
	12	×	1.25	526	100	22	9	7	11.4	
	12	×	1.5	516	100	22	9	7	11.25	
	14	×	1.25	566	100	22	11	9	13.4	
	14	×	1.5	556	100	22	11	9	13.25	
	16	×	1.5	616	100	22	12	9	15.25	
	18	×	1.5	676	110	25	14	11	17.25	
	20	×	1.5	726	125	25	16	12	19.25	

FAX : +82(32)526-4373 YG-1 CO., LTD.

M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TC963

Material groups **Al**

HSS-E | DIN 374 | 6H | 60° | C

See page 17～22

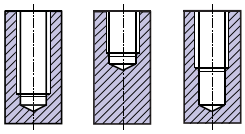
71-72-73

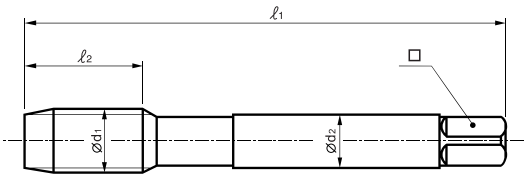
Other materials:

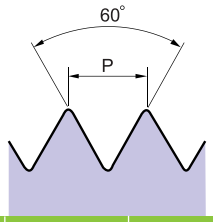
DIN 374

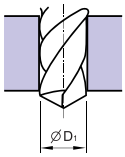
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	5	2.8	2.1	3.5	
	5	×	0.5	296	70	5	3.5	2.7	4.5	
	6	×	0.5	336	80	5	4.5	3.4	5.5	
	6	×	0.75	326	80	8	4.5	3.4	5.2	
	7	×	0.75	356	80	10	5.5	4.3	6.2	
	8	×	0.75	386	80	8	6	4.9	7.2	
	8	×	1	376	90	10	6	4.9	7	
	10	×	0.75	456	90	10	7	5.5	9.2	
	10	×	1	446	90	10	7	5.5	9	
	10	×	1.25	436	100	16	7	5.5	8.8	
	12	×	1	536	100	11	9	7	11	
	12	×	1.25	526	100	15	9	7	10.8	
	12	×	1.5	516	100	15	9	7	10.5	
	14	×	1.25	566	100	15	11	9	12.8	
	14	×	1.5	556	100	15	11	9	12.5	
	16	×	1.5	616	100	15	12	9	14.5	
	18	×	1.5	676	110	17	14	11	16.5	
	20	×	1.5	726	125	17	16	12	18.5	
	22	×	1.5	766	125	17	18	14.5	20.5	
	24	×	1.5	806	140	20	18	14.5	22.5	

M F ISO metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13

Cat.-No. TE403

Material groups	GG

See page 17～22

31-32-83

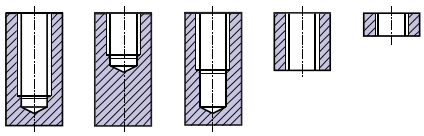
Other materials:
62

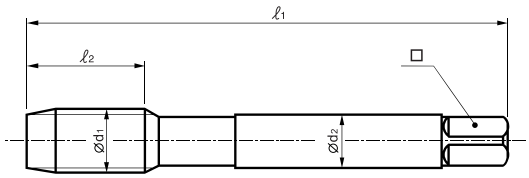
HSS-E | DIN 374 | 6HX | 60° | C | NI

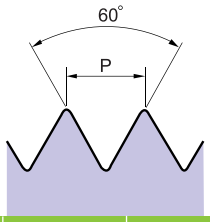
DIN 374

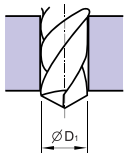
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	×	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
M	4	×	0.5	256	63	10	2.8	2.1	3.5	
	5	×	0.5	296	70	11	3.5	2.7	4.5	
	6	×	0.5	336	80	13	4.5	3.4	5.5	
	6	×	0.75	326	80	13	4.5	3.4	5.2	
	7	×	0.75	356	80	14	5.5	4.3	6.2	
	8	×	0.75	386	80	14	6	4.9	7.2	
	8	×	1	376	90	17	6	4.9	7	
	10	×	0.75	456	90	18	7	5.5	9.2	
	10	×	1	446	90	18	7	5.5	9	
	10	×	1.25	436	100	22	7	5.5	8.8	
	12	×	1	536	100	18	9	7	11	
	12	×	1.25	526	100	22	9	7	10.8	
	12	×	1.5	516	100	22	9	7	10.5	
	14	×	1.25	566	100	22	11	9	12.8	
	14	×	1.5	556	100	22	11	9	12.5	
	16	×	1.5	616	100	22	12	9	14.5	
	18	×	1.5	676	110	25	14	11	16.5	
	20	×	1.5	726	125	25	16	12	18.5	
	22	×	1.5	766	125	25	18	14.5	20.5	
	24	×	1.5	806	140	27	18	14.5	22.5	

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UNC Unified coarse threads
Unified Grobgewinde

Cat.-No. T7363

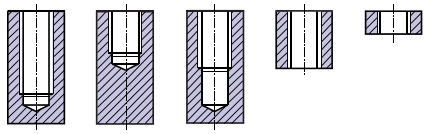
Material groups **GS**

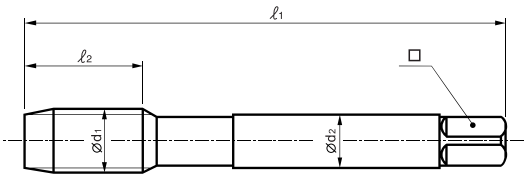
See page 17～22

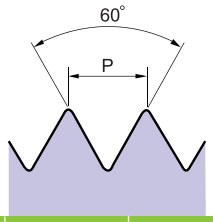
HSS | DIN 351 | 2B | 60° | I/II/III

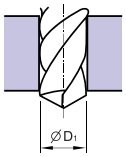
Sets of taps
Gewindebohrer-Satz
Jeu de tarauds
Serie di maschi

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
No.	2	–	56	089	36	9	2.8	2.1	1.8	
	3	–	48	129	40	10	2.8	2.1	2.1	
	4	–	40	169	42	10	3.5	2.7	2.3	
	5	–	40	209	42	10	3.5	2.7	2.6	
	6	–	32	249	45	11	4	3	2.85	
	8	–	32	289	48	12	4.5	3.4	3.5	
	10	–	24	329	52	14	6	4.9	3.9	
	12	–	24	369	56	16	6	4.9	4.5	
UNC	1/4	–	20	409	56	16	6	4.9	5.2	
	5/16	–	18	449	63	20	6	4.9	6.6	
	3/8	–	16	489	70	22	7	5.5	8	
	7/16	–	14	529	70	22	8	6.2	9.4	
	1/2	–	13	569	80	25	9	7	10.75	
	9/16	–	12	609	80	26	11	9	12.25	
	5/8	–	11	649	90	27	12	9	13.5	
	3/4	–	10	709	105	32	14	11	16.5	
	7/8	–	9	749	110	32	18	14.5	19.5	
	1	–	8	789	110	36	20	16	22.25	
	1 * 1/8	–	7	829	125	40	22	18	25	
	1 * 1/4	–	7	869	125	40	25	20	28.25	
	1 * 3/8	–	6	909	150	50	28	22	30.75	
	1 * 1/2	–	6	949	150	50	32	24	34	
	1 * 3/4	–	5	B89	160	58	36	29	39.5	
	2	–	4 1/2	D29	180	65	40	32	45.25	

UNC Unified coarse threads
Unified Grobgewinde

Cat.-No. TC214

Material groups **GS**

HSS-E | DIN 371/376 | 2B | 60° | B

See page 17 ~22

12-13-14-33-34-63-74

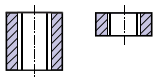
Other materials:
41-51-61-71-72-73-81

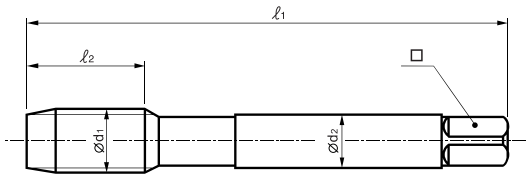
DIN 371

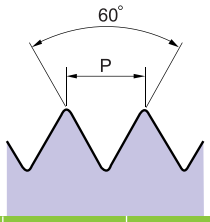
DIN 376

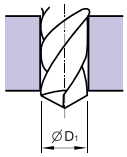
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
No.	4	–	40	162	56	11	3.5	2.7	2.3	
	5	–	40	202	56	11	3.5	2.7	2.6	
	6	–	32	242	56	12	4	3	2.85	
	8	–	32	282	63	13	4.5	3.4	3.5	
	10	–	24	322	70	15	6	4.9	3.9	
	12	–	24	362	80	16	6	4.9	4.5	
UNC	1/4	–	20	402	80	17	7	5.5	5.2	
	5/16	–	18	442	90	20	8	6.2	6.6	
	3/8	–	16	482	100	22	9	7	8	
	7/16	–	14	522	100	22	8	6.2	9.4	
	1/2	–	13	562	110	25	9	7	10.75	
	9/16	–	12	602	110	26	11	9	12.25	
	5/8	–	11	642	110	27	12	9	13.5	
	3/4	–	10	702	125	30	14	11	16.5	
	7/8	–	9	742	140	32	18	14.5	19.5	
	1	–	8	782	160	36	20	16	22.25	
	1 ∗ 1/8	–	7	822	180	40	22	18	25	

DIN 371(No.4-3/8) and DIN 376(7/16-1 ∗ 1/8)

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UNC Unified coarse threads
Unified Grobgewinde

Cat.-No. TC424

Material groups **GS**

See page 17～22

12-13-14-33-34-74

Other materials:
11-62-63

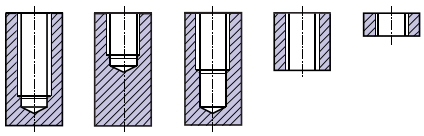
HSS-E | DIN 371/376 | 2B | 60° | C

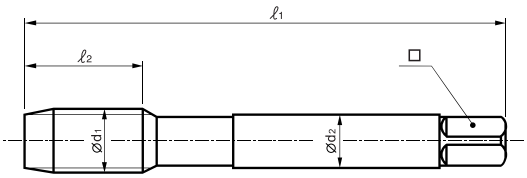
DIN 371

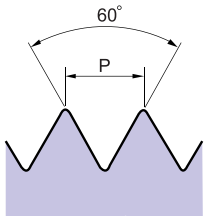
DIN 376

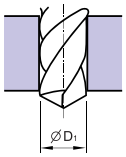
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
No.	4	–	40	162	56	11	3.5	2.7	2.3	
	5	–	40	202	56	11	3.5	2.7	2.6	
	6	–	32	242	56	12	4	3	2.85	
	8	–	32	282	63	13	4.5	3.4	3.5	
	10	–	24	322	70	15	6	4.9	3.9	
	12	–	24	362	80	16	6	4.9	4.5	
UNC	1/4	–	20	402	80	17	7	5.5	5.2	
	5/16	–	18	442	90	20	8	6.2	6.6	
	3/8	–	16	482	100	22	9	7	8	
	7/16	–	14	522	100	22	8	6.2	9.4	
	1/2	–	13	562	110	25	9	7	10.75	
	9/16	–	12	602	110	26	11	9	12.25	
	5/8	–	11	642	110	27	12	9	13.5	
	3/4	–	10	702	125	30	14	11	16.5	
	7/8	–	9	742	140	32	18	14.5	19.5	
	1	–	8	782	160	36	20	16	22.25	
	1 ∗1/8	–	7	822	180	40	22	18	25	

DIN 371(No.4-3/8) and DIN 376(7/16-1 ∗1/8)

UNC Unified coarse threads
Unified Grobgewinde

Cat.-No. TC144

Material groups **GS**

HSS-E | DIN 371/376 | 2B | 60° | C

See page 17～22

12-13-14-33-34-63-74

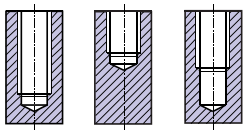
Other materials:
41-51-61-71-72-73-81

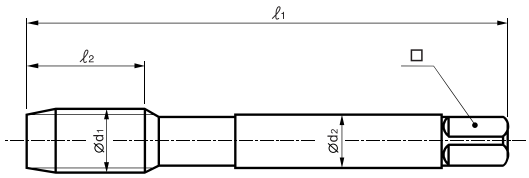
DIN 371

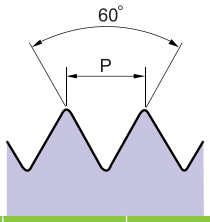
DIN 376

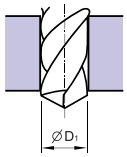
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
No.	4	–	40	162	56	6	3.5	2.7	2.3	
	5	–	40	202	56	7	3.5	2.7	2.6	
	6	–	32	242	56	7	4	3	2.85	
	8	–	32	282	63	8	4.5	3.4	3.5	
	10	–	24	322	70	10	6	4.9	3.9	
	12	–	24	362	80	10	6	4.9	4.5	
UNC	1/4	–	20	402	80	13	7	5.5	5.2	
	5/16	–	18	442	90	14	8	6.2	6.6	
	3/8	–	16	482	100	16	9	7	8	
	7/16	–	14	522	100	17	8	6.2	9.4	
	1/2	–	13	562	110	20	9	7	10.75	
	9/16	–	12	602	110	20	11	9	12.25	
	5/8	–	11	642	110	22	12	9	13.5	
	3/4	–	10	702	125	25	14	11	16.5	
	7/8	–	9	742	140	27	18	14.5	19.5	
	1	–	8	782	160	30	20	16	22.25	
	1 ∗ 1/8	–	7	822	180	35	22	18	25	

DIN 371(No.4-3/8) and DIN 376(7/16-1 ∗ 1/8)

FAX : +82(32)526-4373 YG-1 CO., LTD.

UNC Unified coarse threads
Unified Grobgewinde

Cat.-No. TC244

Material groups **VG**

See page 17～22

15

Other materials:
14-23-42-52

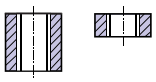
HSS-E | DIN 371/376 | 2B | 60° | B

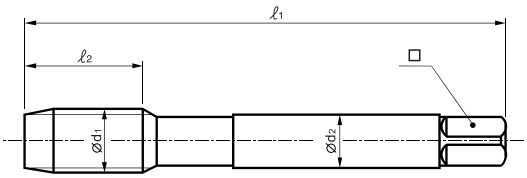
DIN 371

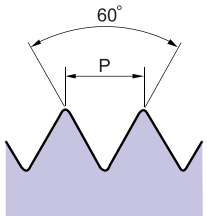
DIN 376

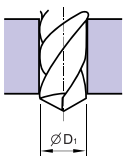
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
No.	4	–	40	162	56	11	3.5	2.7	2.3	
	5	–	40	202	56	11	3.5	2.7	2.6	
	6	–	32	242	56	12	4	3	2.85	
	8	–	32	282	63	13	4.5	3.4	3.5	
	10	–	24	322	70	15	6	4.9	3.9	
	12	–	24	362	80	16	6	4.9	4.5	
UNC	1/4	–	20	402	80	17	7	5.5	5.2	
	5/16	–	18	442	90	20	8	6.2	6.6	
	3/8	–	16	482	100	22	9	7	8	
	7/16	–	14	522	100	22	8	6.2	9.4	
	1/2	–	13	562	110	25	9	7	10.75	
	9/16	–	12	602	110	26	11	9	12.25	
	5/8	–	11	642	110	27	12	9	13.5	
	3/4	–	10	702	125	30	14	11	16.5	
	7/8	–	9	742	140	32	18	14.5	19.5	
	1	–	8	782	160	36	20	16	22.25	
	1 ∗1/8	–	7	822	180	40	22	18	25	

DIN 371(No.4-3/8) and DIN 376(7/16-1 ∗1/8)

UNC Unified coarse threads
Unified Grobgewinde

Cat.-No. TD244

Material groups **VG**

HSS-E | DIN 371/376 | 2B | 60° | B | TiN

See page 17～22

15

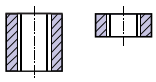
Other materials:
14-23-42-52

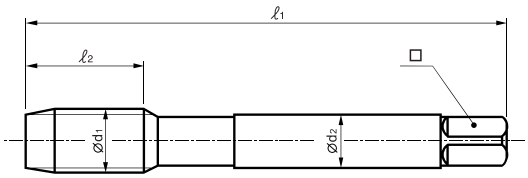
DIN 371

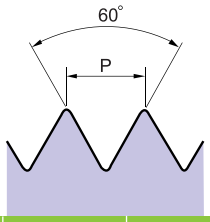
DIN 376

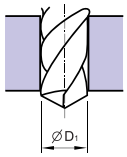
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
No.	4	–	40	162	56	11	3.5	2.7	2.3	
	5	–	40	202	56	11	3.5	2.7	2.6	
	6	–	32	242	56	12	4	3	2.85	
	8	–	32	282	63	13	4.5	3.4	3.5	
	10	–	24	322	70	15	6	4.9	3.9	
	12	–	24	362	80	16	6	4.9	4.5	
UNC	1/4	–	20	402	80	17	7	5.5	5.2	
	5/16	–	18	442	90	20	8	6.2	6.6	
	3/8	–	16	482	100	22	9	7	8	
	7/16	–	14	522	100	22	8	6.2	9.4	
	1/2	–	13	562	110	25	9	7	10.75	
	9/16	–	12	602	110	26	11	9	12.25	
	5/8	–	11	642	110	27	12	9	13.5	
	3/4	–	10	702	125	30	14	11	16.5	
	7/8	–	9	742	140	32	18	14.5	19.5	
	1	–	8	782	160	36	20	16	22.25	
	1 * 1/8	–	7	822	180	40	22	18	25	

DIN 371(No.4-3/8) and DIN 376(7/16-1 * 1/8)

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UNC Unified coarse threads
Unified Grobgewinde

Material groups **VG**

See page 17～22

15

Other materials:
14-23-42-52

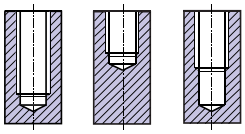
HSS-E | DIN 371/376 | 2B | 60° | C

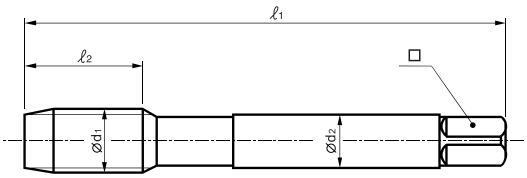
DIN 371

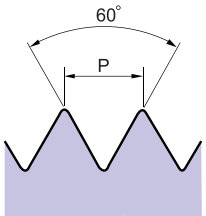
DIN 376

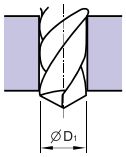
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
No.	4	–	40	162	56	6	3.5	2.7	2.3	
	5	–	40	202	56	7	3.5	2.7	2.6	
	6	–	32	242	56	7	4	3	2.85	
	8	–	32	282	63	8	4.5	3.4	3.5	
	10	–	24	322	70	10	6	4.9	3.9	
	12	–	24	362	80	10	6	4.9	4.5	
UNC	1/4	–	20	402	80	13	7	5.5	5.2	
	5/16	–	18	442	90	14	8	6.2	6.6	
	3/8	–	16	482	100	16	9	7	8	
	7/16	–	14	522	100	17	8	6.2	9.4	
	1/2	–	13	562	110	20	9	7	10.75	
	9/16	–	12	602	110	20	11	9	12.25	
	5/8	–	11	642	110	22	12	9	13.5	
	3/4	–	10	702	125	25	14	11	16.5	
	7/8	–	9	742	140	27	18	14.5	19.5	
	1	–	8	782	160	30	20	16	22.25	
	1 ∗1/8	–	7	822	180	35	22	18	25	

DIN 371(No.4-3/8) and DIN 376(7/16-1 ∗1/8)

UNC Unified coarse threads
Unified Grobgewinde

Cat.-No. TD174

Material groups **VG**

HSS-E | DIN 371/376 | 2B | 60° | C | TiN

See page 17～22

15

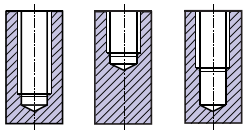
Other materials:
14-23-42-52

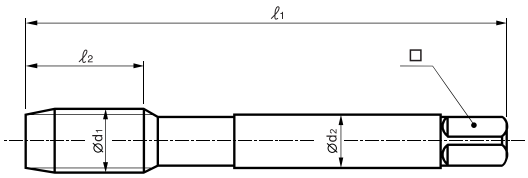
DIN 371

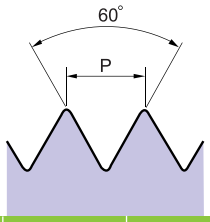
DIN 376

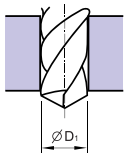
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
No.	4	–	40	162	56	6	3.5	2.7	2.3	
	5	–	40	202	56	7	3.5	2.7	2.6	
	6	–	32	242	56	7	4	3	2.85	
	8	–	32	282	63	8	4.5	3.4	3.5	
	10	–	24	322	70	10	6	4.9	3.9	
	12	–	24	362	80	10	6	4.9	4.5	
UNC	1/4	–	20	402	80	13	7	5.5	5.2	
	5/16	–	18	442	90	14	8	6.2	6.6	
	3/8	–	16	482	100	16	9	7	8	
	7/16	–	14	522	100	17	8	6.2	9.4	
	1/2	–	13	562	110	20	9	7	10.75	
	9/16	–	12	602	110	20	11	9	12.25	
	5/8	–	11	642	110	22	12	9	13.5	
	3/4	–	10	702	125	25	14	11	16.5	
	7/8	–	9	742	140	27	18	14.5	19.5	
	1	–	8	782	160	30	20	16	22.25	
	1 ∗ 1/8	–	7	822	180	35	22	18	25	
DIN 371(No.4-3/8) and DIN 376(7/16-1 ∗ 1/8)										

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UNC Unified coarse threads
Unified Grobgewinde

Cat.-No. TB264

Material groups	VA NW

See page 17～22

16-64

Other materials:
15-23-62-82-83

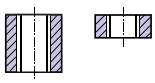
HSS-E | DIN 371/376 | 2B | 60° | B | vap

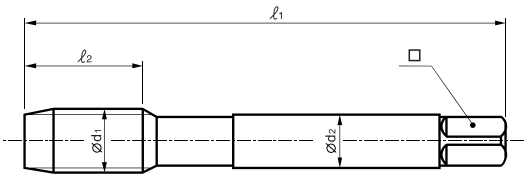
DIN 371

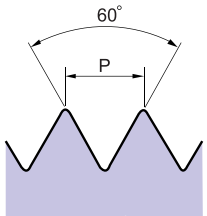
DIN 376

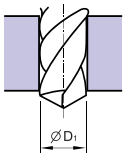
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
No.	4	–	40	162	56	11	3.5	2.7	2.3	
	5	–	40	202	56	11	3.5	2.7	2.6	
	6	–	32	242	56	12	4	3	2.85	
	8	–	32	282	63	13	4.5	3.4	3.5	
	10	–	24	322	70	15	6	4.9	3.9	
	12	–	24	362	80	16	6	4.9	4.5	
UNC	1/4	–	20	402	80	17	7	5.5	5.2	
	5/16	–	18	442	90	20	8	6.2	6.6	
	3/8	–	16	482	100	22	9	7	8	
	7/16	–	14	522	100	22	8	6.2	9.4	
	1/2	–	13	562	110	25	9	7	10.75	
	9/16	–	12	602	110	26	11	9	12.25	
	5/8	–	11	642	110	27	12	9	13.5	
	3/4	–	10	702	125	30	14	11	16.5	
	7/8	–	9	742	140	32	18	14.5	19.5	
	1	–	8	782	160	36	20	16	22.25	
	1 ∗1/8	–	7	822	180	40	22	18	25	

DIN 371(No.4-3/8) and DIN 376(7/16-1 ∗1/8)

UNC Unified coarse threads
Unified Grobgewinde

Cat.-No. TB904

Material groups	VA NW

See page 17 ~22

11-12-21-22-23

Other materials:
42-52

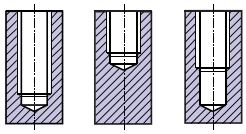
HSS-E | DIN 371/376 | 2B | 60° | C | vap

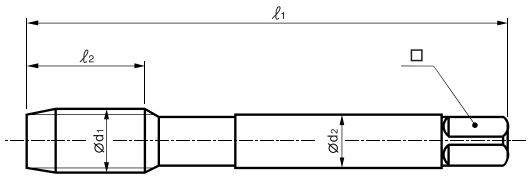
DIN 371

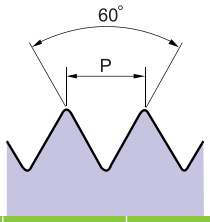
DIN 376

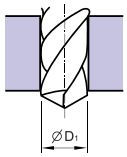
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
No.	4	–	40	162	56	6	3.5	2.7	2.3	
	5	–	40	202	56	7	3.5	2.7	2.6	
	6	–	32	242	56	7	4	3	2.85	
	8	–	32	282	63	8	4.5	3.4	3.5	
	10	–	24	322	70	10	6	4.9	3.9	
	12	–	24	362	80	10	6	4.9	4.5	
UNC	1/4	–	20	402	80	13	7	5.5	5.2	
	5/16	–	18	442	90	14	8	6.2	6.6	
	3/8	–	16	482	100	16	9	7	8	
	7/16	–	14	522	100	17	8	6.2	9.4	
	1/2	–	13	562	110	20	9	7	10.75	
	9/16	–	12	602	110	20	11	9	12.25	
	5/8	–	11	642	110	22	12	9	13.5	
	3/4	–	10	702	125	25	14	11	16.5	
	7/8	–	9	742	140	27	18	14.5	19.5	
	1	–	8	782	160	30	20	16	22.25	
	1 * 1/8	–	7	822	180	35	22	18	25	

DIN 371(No.4-3/8) and DIN 376(7/16-1 * 1/8)

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Material groups **GV**

See page 17～22

11-12-13-14-51-71

Other materials:
21-22-41-61-63-73

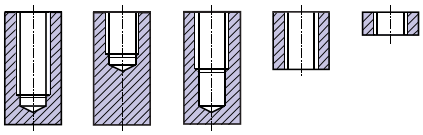
HSS-E | DIN 371/376 | 2BX | 60° | C | NI

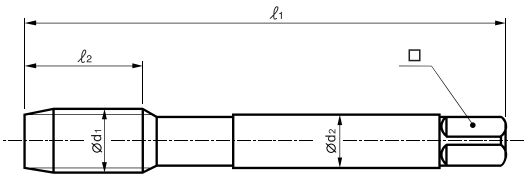
DIN 371

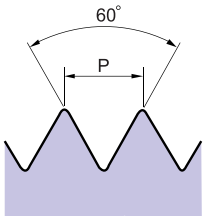
DIN 376

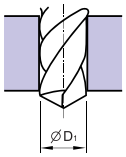
Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten
Tarauds a refouler avec goujures de lubr.
Maschi a rullare con canalini di lubr.

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
No.	5	–	40	202	56	11	3.5	2.7	2.87	
	6	–	32	242	56	12	4	3	3.1	
	8	–	32	282	63	13	4.5	3.4	3.8	
	10	–	24	322	70	15	6	4.9	4.3	
	12	–	24	362	80	16	6	4.9	4.95	
UNC	1/4	–	20	402	80	17	7	5.5	5.75	
	5/16	–	18	442	90	20	8	6.2	7.25	
	3/8	–	16	482	100	22	9	7	8.75	
	7/16	–	14	522	100	22	8	6.2	10.2	
	1/2	–	13	562	110	25	9	7	11.7	
	9/16	–	12	602	110	26	11	9	13.2	
	5/8	–	11	642	110	27	12	9	14.7	
	3/4	–	10	702	125	30	14	11	17.8	

DIN 371(No.4-3/8) and DIN 376(7/16-3/4)

Material groups **GV**

HSS-E | DIN 371/376 | 2BX | 60° | C | TiN

See page 17～22

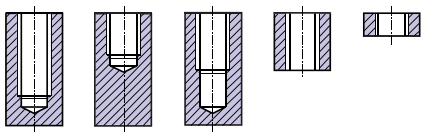
11-12-13-14-21-22-41-51-61-71
Other materials:
63-73

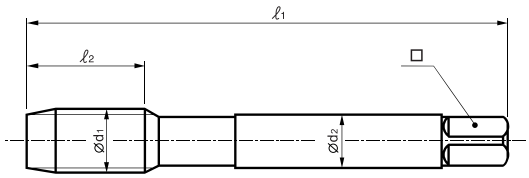

DIN 371

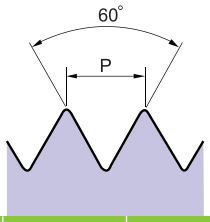

DIN 376

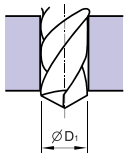
Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten
Tarauds a refouler avec goujures de lubr.
Maschi a rullare con canalini di lubr.

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
No.	5	–	40	202	56	11	3.5	2.7	2.87	
	6	–	32	242	56	12	4	3	3.1	
	8	–	32	282	63	13	4.5	3.4	3.8	
	10	–	24	322	70	15	6	4.9	4.3	
	12	–	24	362	80	16	6	4.9	4.95	
UNC	1/4	–	20	402	80	17	7	5.5	5.75	
	5/16	–	18	442	90	20	8	6.2	7.25	
	3/8	–	16	482	100	22	9	7	8.75	
	7/16	–	14	522	100	22	8	6.2	10.2	
	1/2	–	13	562	110	25	9	7	11.7	
	9/16	–	12	602	110	26	11	9	13.2	
	5/8	–	11	642	110	27	12	9	14.7	
	3/4	–	10	702	125	30	14	11	17.8	
DIN 371(No.4-3/8) and DIN 376(7/16-3/4)										

UNC Unified coarse threads
Unified Grobgewinde

Cat.-No. TC169

Material groups **AI**

HSS-E | DIN 371/376 | 2B | 60° | C

See page 17～22

71-72-73

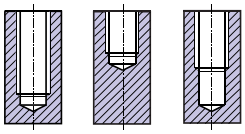
Other materials:

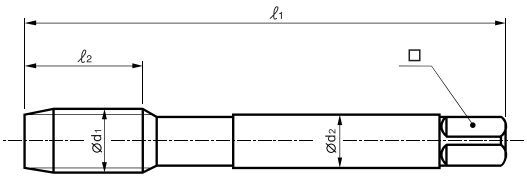
DIN 371

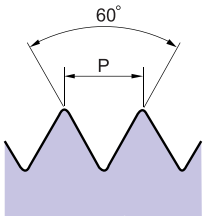
DIN 376

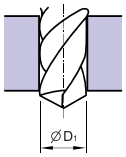
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
No.	4	–	40	162	56	6	3.5	2.7	2.3	
	5	–	40	202	56	7	3.5	2.7	2.6	
	6	–	32	242	56	7	4	3	2.85	
	8	–	32	282	63	8	4.5	3.4	3.5	
	10	–	24	322	70	10	6	4.9	3.9	
	12	–	24	362	80	10	6	4.9	4.5	
UNC	1/4	–	20	402	80	13	7	5.5	5.2	
	5/16	–	18	442	90	14	8	6.2	6.6	
	3/8	–	16	482	100	16	9	7	8	
	7/16	–	14	522	100	17	8	6.2	9.4	
	1/2	–	13	562	110	20	9	7	10.75	
	9/16	–	12	602	110	20	11	9	12.25	
	5/8	–	11	642	110	22	12	9	13.5	
	3/4	–	10	702	125	25	14	11	16.5	
	7/8	–	9	742	140	27	18	14.5	19.5	
	1	–	8	782	160	30	20	16	22.25	
	1 * 1/8	–	7	822	180	35	22	18	25	

DIN 371(No.4-3/8) and DIN 376(7/16-1 * 1/8)

UNC Unified coarse threads
Unified Grobgewinde

Cat.-No. TE434

Material groups	GG

See page 17 ~22

31-32-83

Other materials:
62

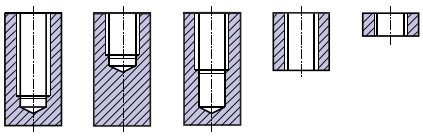
HSS-E | DIN 371/376 | 2BX | 60° | C | NI

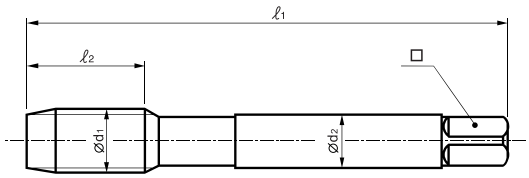
DIN 371

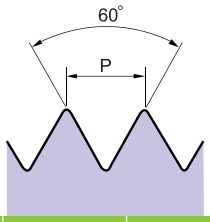
DIN 376

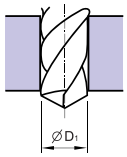
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
No.	4	–	40	162	56	11	3.5	2.7	2.3	
	5	–	40	202	56	11	3.5	2.7	2.6	
	6	–	32	242	56	12	4	3	2.85	
	8	–	32	282	63	13	4.5	3.4	3.5	
	10	–	24	322	70	15	6	4.9	3.9	
	12	–	24	362	80	16	6	4.9	4.5	
UNC	1/4	–	20	402	80	17	7	5.5	5.2	
	5/16	–	18	442	90	20	8	6.2	6.6	
	3/8	–	16	482	100	22	9	7	8	
	7/16	–	14	522	100	22	8	6.2	9.4	
	1/2	–	13	562	110	25	9	7	10.75	
	9/16	–	12	602	110	26	11	9	12.25	
	5/8	–	11	642	110	27	12	9	13.5	
	3/4	–	10	702	125	30	14	11	16.5	
	7/8	–	9	742	140	32	18	14.5	19.5	
	1	–	8	782	160	36	20	16	22.25	
	1 * 1/8	–	7	822	180	40	22	18	25	

DIN 371(No.4-3/8) and DIN 376(7/16-1 * 1/8)

FAX : +82(32)526-4373 YG-1 CO., LTD.

UNF

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. T7509

Material groups **GS**

See page 17～22

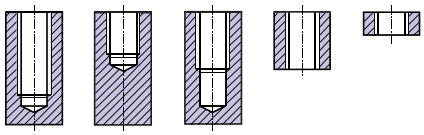
HSS | DIN 2181 | 2B | 60° | I / III

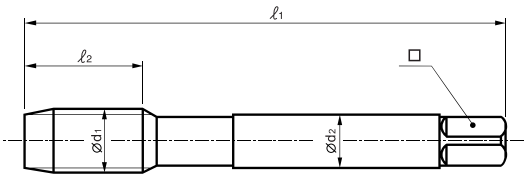

First

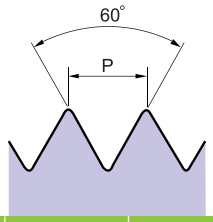

Bottoming

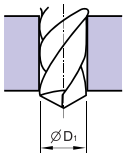
Sets of taps
Gewindebohrer-Satz
Jeu de tarauds
Serie di maschi

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
No.	4	–	48	189	42	10	3.5	2.7	2.4	
	5	–	44	229	42	10	3.5	2.7	2.7	
	6	–	40	269	45	11	4	3	3	
	8	–	36	309	48	12	4.5	3.4	3.5	
	10	–	32	349	52	14	6	4.9	4.1	
	12	–	28	389	56	16	6	4.9	4.7	
UNF	1/4	–	28	429	56	16	6	4.9	5.5	
	5/16	–	24	469	63	17	6	4.9	6.9	
	3/8	–	24	509	63	18	7	5.5	8.5	
	7/16	–	20	549	70	20	8	6.2	9.9	
	1/2	–	20	589	70	20	9	7	11.5	
	9/16	–	18	629	70	20	11	9	12.9	
	5/8	–	18	669	70	20	12	9	14.5	
	3/4	–	16	729	80	22	14	11	17.5	
	7/8	–	14	769	80	22	18	14.5	20.5	
	1	–	12	809	90	22	18	14.5	23.25	
	1 * 1/8	–	12	849	90	22	22	18	26.5	

UNF Unified fine threads
Unified Feingewinde

Cat.-No. TC234

Material groups	GS

See page 17～22

12-13-14-33-34-63-74

Other materials:
41-51-61-71-72-73-81

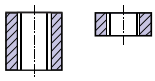
HSS-E | DIN 371/374 | 2B | 60° | B

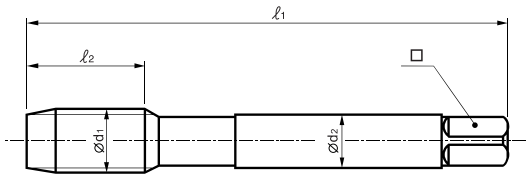
DIN 371

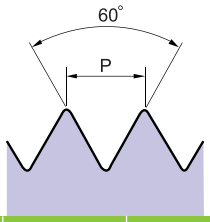
DIN 374

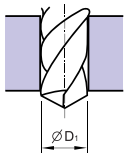
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
No.	4	–	48	182	56	11	3.5	2.7	2.4	
	5	–	44	222	56	11	3.5	2.7	2.7	
	6	–	40	262	56	12	4	3	3	
	8	–	36	302	63	13	4.5	3.4	3.5	
	10	–	32	342	70	13	6	4.9	4.1	
	12	–	28	382	80	16	6	4.9	4.7	
UNF	1/4	–	28	422	80	17	7	5.5	5.5	
	5/16	–	24	462	90	17	8	6.2	6.9	
	3/8	–	24	502	100	18	9	7	8.5	
	7/16	–	20	542	100	22	8	6.2	9.9	
	1/2	–	20	582	100	22	9	7	11.5	
	9/16	–	18	622	100	22	11	9	12.9	
	5/8	–	18	662	100	22	12	9	14.5	
	3/4	–	16	722	110	25	14	11	17.5	
	7/8	–	14	762	125	26	18	14.5	20.5	
	1	–	12	802	140	28	20	16	23.25	
	1 ∗ 1/8	–	12	842	150	30	22	18	26.5	

DIN 371(No.4-3/8) and DIN 374(7/16-1 ∗ 1/8)

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Material groups	GS

See page 17～22

12-13-14-33-34-63-74

Other materials:
41-51-61-71-72-73-81

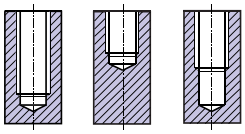
HSS-E | DIN 371/374 | 2B | 60° | C

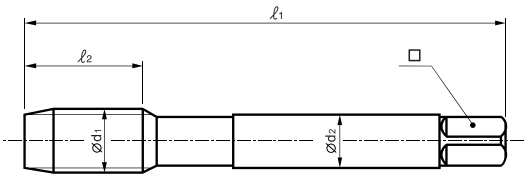

DIN 371

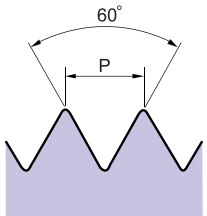

DIN 374

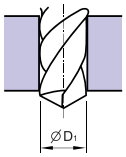
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
No.	4	–	48	182	56	6	3.5	2.7	2.4	
	5	–	44	222	56	7	3.5	2.7	2.7	
	6	–	40	262	56	7	4	3	3	
	8	–	36	302	63	8	4.5	3.4	3.5	
	10	–	32	342	70	10	6	4.9	4.1	
	12	–	28	382	80	10	6	4.9	4.7	
UNF	1/4	–	28	422	80	10	7	5.5	5.5	
	5/16	–	24	462	90	10	8	6.2	6.9	
	3/8	–	24	502	100	10	9	7	8.5	
	7/16	–	20	542	100	13	8	6.2	9.9	
	1/2	–	20	582	100	13	9	7	11.5	
	9/16	–	18	622	100	15	11	9	12.9	
	5/8	–	18	662	100	15	12	9	14.5	
	3/4	–	16	722	110	17	14	11	17.5	
	7/8	–	14	762	125	17	18	14.5	20.5	
	1	–	12	802	140	20	20	16	23.25	
	1 ∗1/8	–	12	842	150	22	22	18	26.5	

DIN 371(No.4-3/8) and DIN 374(7/16-1 ∗1/8)

Material groups **VG**

HSS-E | DIN 371/374 | 2B | 60° | B

See page 17 ~22

15

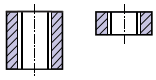
Other materials:
14-23-42-52

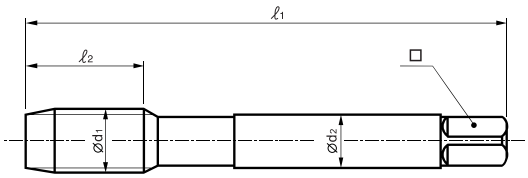
DIN 371

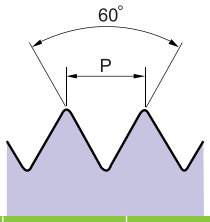
DIN 374

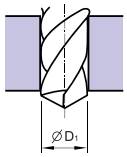
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
No.	4	–	48	182	56	11	3.5	2.7	2.4	
	5	–	44	222	56	11	3.5	2.7	2.7	
	6	–	40	262	56	12	4	3	3	
	8	–	36	302	63	13	4.5	3.4	3.5	
	10	–	32	342	70	13	6	4.9	4.1	
	12	–	28	382	80	16	6	4.9	4.7	
UNF	1/4	–	28	422	80	17	7	5.5	5.5	
	5/16	–	24	462	90	17	8	6.2	6.9	
	3/8	–	24	502	100	18	9	7	8.5	
	7/16	–	20	542	100	22	8	6.2	9.9	
	1/2	–	20	582	100	22	9	7	11.5	
	9/16	–	18	622	100	22	11	9	12.9	
	5/8	–	18	662	100	22	12	9	14.5	
	3/4	–	16	722	110	25	14	11	17.5	
	7/8	–	14	762	125	26	18	14.5	20.5	
	1	–	12	802	140	28	20	16	23.25	
	1 ∗ 1/8	–	12	842	150	30	22	18	26.5	

DIN 371(No.4-3/8) and DIN 374(7/16-1 ∗ 1/8)

Material groups **VG**

See page 17～22

15

Other materials:
14-23-42-52

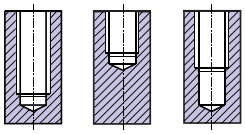
HSS-E | DIN 371/374 | 2B | 60° | C

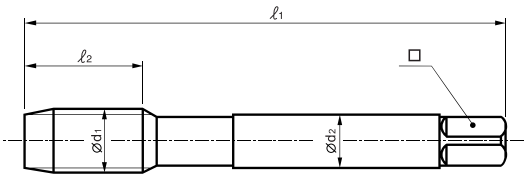

DIN 371

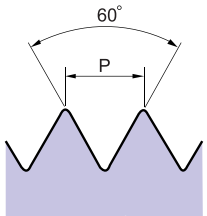

DIN 374

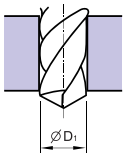
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
No.	4	–	48	182	56	6	3.5	2.7	2.4	
	5	–	44	222	56	7	3.5	2.7	2.7	
	6	–	40	262	56	7	4	3	3	
	8	–	36	302	63	8	4.5	3.4	3.5	
	10	–	32	342	70	10	6	4.9	4.1	
	12	–	28	382	80	10	6	4.9	4.7	
UNF	1/4	–	28	422	80	10	7	5.5	5.5	
	5/16	–	24	462	90	10	8	6.2	6.9	
	3/8	–	24	502	100	10	9	7	8.5	
	7/16	–	20	542	100	13	8	6.2	9.9	
	1/2	–	20	582	100	13	9	7	11.5	
	9/16	–	18	622	100	15	11	9	12.9	
	5/8	–	18	662	100	15	12	9	14.5	
	3/4	–	16	722	110	17	14	11	17.5	
	7/8	–	14	762	125	17	18	14.5	20.5	
	1	–	12	802	140	20	20	16	23.25	
	1 ∗1/8	–	12	842	150	22	22	18	26.5	

DIN 371(No.4-3/8) and DIN 374(7/16-1 ∗1/8)

UNF Unified fine threads
Unified Feingewinde

Cat.-No. TB274

Material groups	VA NW

See page 17～22

11-12-21-22-23

Other materials:
42-52

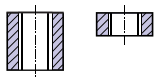
HSS-E | DIN 371/374 | 2B | 60° | B | vap

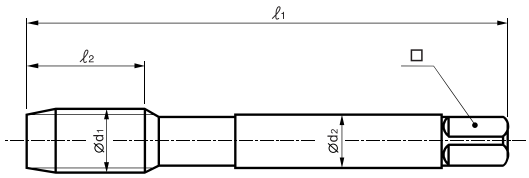
DIN 371

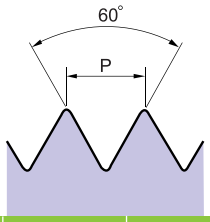
DIN 374

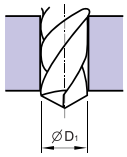
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
No.	4	–	48	182	56	11	3.5	2.7	2.4	
	5	–	44	222	56	11	3.5	2.7	2.7	
	6	–	40	262	56	12	4	3	3	
	8	–	36	302	63	13	4.5	3.4	3.5	
	10	–	32	342	70	13	6	4.9	4.1	
	12	–	28	382	80	16	6	4.9	4.7	
UNF	1/4	–	28	422	80	17	7	5.5	5.5	
	5/16	–	24	462	90	17	8	6.2	6.9	
	3/8	–	24	502	100	18	9	7	8.5	
	7/16	–	20	542	100	22	8	6.2	9.9	
	1/2	–	20	582	100	22	9	7	11.5	
	9/16	–	18	622	100	22	11	9	12.9	
	5/8	–	18	662	100	22	12	9	14.5	
	3/4	–	16	722	110	25	14	11	17.5	
	7/8	–	14	762	125	26	18	14.5	20.5	
	1	–	12	802	140	28	20	16	23.25	
	1 ∗ 1/8	–	12	842	150	30	22	18	26.5	

DIN 371(No.4-3/8) and DIN 374(7/16-1 ∗ 1/8)

FAX : +82(32)526-4373 YG-1 CO., LTD.

UNF Unified fine threads
Unified Feingewinde

Cat.-No. TB924

Material groups	VA NW

See page 17～22

11-12-21-22-23

Other materials:
42-52

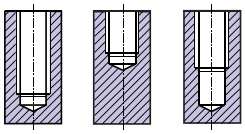
HSS-E | DIN 371/374 | 2B | 60° | C | vap

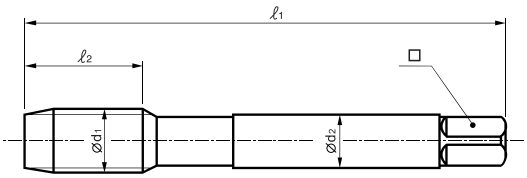

DIN 371

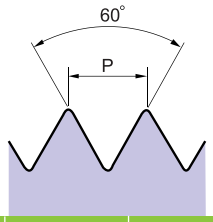

DIN 374

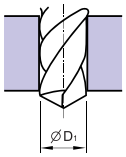
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
No.	4	–	48	182	56	6	3.5	2.7	2.4	
	5	–	44	222	56	7	3.5	2.7	2.7	
	6	–	40	262	56	7	4	3	3	
	8	–	36	302	63	8	4.5	3.4	3.5	
	10	–	32	342	70	10	6	4.9	4.1	
	12	–	28	382	80	10	6	4.9	4.7	
UNF	1/4	–	28	422	80	10	7	5.5	5.5	
	5/16	–	24	462	90	10	8	6.2	6.9	
	3/8	–	24	502	100	10	9	7	8.5	
	7/16	–	20	542	100	13	8	6.2	9.9	
	1/2	–	20	582	100	13	9	7	11.5	
	9/16	–	18	622	100	15	11	9	12.9	
	5/8	–	18	662	100	15	12	9	14.5	
	3/4	–	16	722	110	17	14	11	17.5	
	7/8	–	14	762	125	17	18	14.5	20.5	
	1	–	12	802	140	20	20	16	23.25	
	1 ∗1/8	–	12	842	150	22	22	18	26.5	

DIN 371(No.4-3/8) and DIN 374(7/16-1 ∗1/8)

UNF Unified fine threads
Unified Feingewinde

Cat.-No. TC170

Material groups	AI	HSS-E	DIN 371/374
		2B	60°
		C	

See page 17 ~22

71-72-73

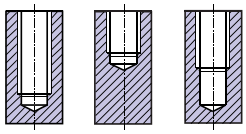
Other materials:

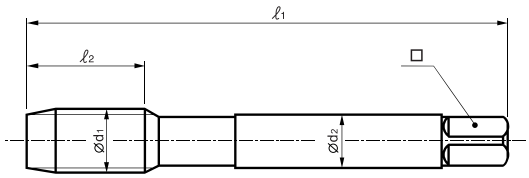
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

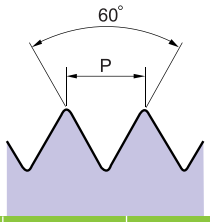
DIN 371

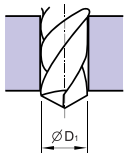
DIN 374

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
No.	4	–	48	182	56	6	3.5	2.7	2.4	
	5	–	44	222	56	7	3.5	2.7	2.7	
	6	–	40	262	56	7	4	3	3	
	8	–	36	302	63	8	4.5	3.4	3.5	
	10	–	32	342	70	10	6	4.9	4.1	
	12	–	28	382	80	10	6	4.9	4.7	
UNF	1/4	–	28	422	80	10	7	5.5	5.5	
	5/16	–	24	462	90	10	8	6.2	6.9	
	3/8	–	24	502	100	10	9	7	8.5	
	7/16	–	20	542	100	13	8	6.2	9.9	
	1/2	–	20	582	100	13	9	7	11.5	
	9/16	–	18	622	100	15	11	9	12.9	
	5/8	–	18	662	100	15	12	9	14.5	
	3/4	–	16	722	110	17	14	11	17.5	
	7/8	–	14	762	125	17	18	14.5	20.5	
	1	–	12	802	140	20	20	16	23.25	
	1 * 1/8	–	12	842	150	22	22	18	26.5	

DIN 371(No.4-3/8) and DIN 374(7/16-1 * 1/8)

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UNF Unified fine threads
Unified Feingewinde

Cat.-No. TE454

Material groups	GG

See page 17～22

31-32-83

Other materials:
62

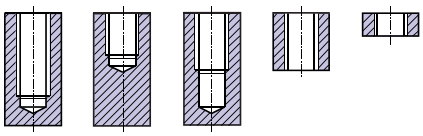
HSS-E | DIN 371/374 | 2B | 60° | C | NI

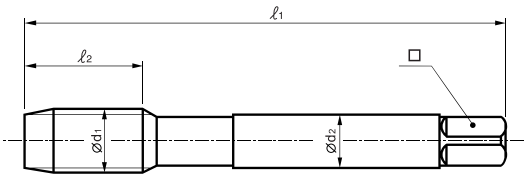
DIN 371

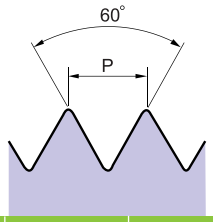
DIN 374

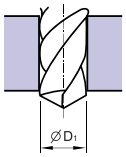
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
No.	4	–	48	182	56	11	3.5	2.7	2.4	
	5	–	44	222	56	11	3.5	2.7	2.7	
	6	–	40	262	56	12	4	3	3	
	8	–	36	302	63	13	4.5	3.4	3.5	
	10	–	32	342	70	13	6	4.9	4.1	
	12	–	28	382	80	16	6	4.9	4.7	
UNF	1/4	–	28	422	80	17	7	5.5	5.5	
	5/16	–	24	462	90	17	8	6.2	6.9	
	3/8	–	24	502	100	18	9	7	8.5	
	7/16	–	20	542	100	22	8	6.2	9.9	
	1/2	–	20	582	100	22	9	7	11.5	
	9/16	–	18	622	100	22	11	9	12.9	
	5/8	–	18	662	100	22	12	9	14.5	
	3/4	–	16	722	110	25	14	11	17.5	
	7/8	–	14	762	125	26	18	14.5	20.5	
	1	–	12	802	140	28	20	16	23.25	
	1 ∗1/8	–	12	842	150	30	22	18	26.5	

DIN 371(No.4-3/8) and DIN 374(7/16-1 ∗1/8)

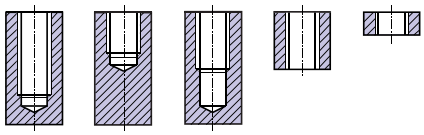
Material groups **GS**

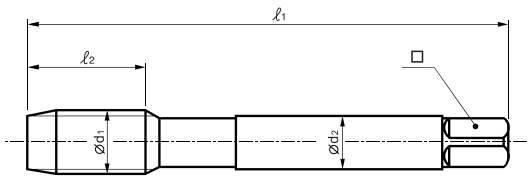
See page 17～22

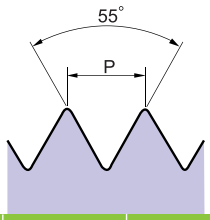
HSS | DIN 351 | - | 55° | I/II/III

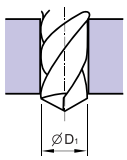
Sets of taps
Gewindebohrer-Satz
Jeu de tarauds
Serie di maschi

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
W	3/32	–	48	129	40	10	2.8	2.1	1.8	
	1/8	–	40	209	42	10	3.5	2.7	2.5	
	5/32	–	32	289	48	12	4.5	3.4	3.1	
	3/16	–	24	329	52	14	6	4.9	3.6	
	7/32	–	24	369	56	16	6	4.9	4.4	
	1/4	–	20	409	56	16	6	4.9	5.1	
	5/16	–	18	449	63	20	6	4.9	6.5	
	3/8	–	16	489	70	22	7	5.5	7.9	
	7/16	–	14	529	70	22	8	6.2	9.3	
	1/2	–	12	569	80	25	9	7	10.5	
	9/16	–	12	609	80	26	11	9	12	
	5/8	–	11	649	90	27	12	9	13.5	
	3/4	–	10	709	105	32	14	11	16.5	
	7/8	–	9	749	110	32	18	14.5	19.25	
	1	–	8	789	110	36	20	16	22	
	1 ∗ 1/8	–	7	829	125	40	22	18	24.75	
	1 ∗ 1/4	–	7	869	125	40	25	20	27.75	
	1 ∗ 3/8	–	6	909	150	50	28	22	30.5	
	1 ∗ 1/2	–	6	949	150	50	32	24	33.5	
	1 ∗ 5/8	–	5	B29	150	56	32	24	35.5	
	1 ∗ 3/4	–	5	B89	160	58	36	29	39	
	1 ∗ 7/8	–	4 1/2	C69	180	65	36	29	41.5	
	2	–	4 1/2	D29	180	65	40	32	44.5	

Material groups **GS**

See page 17～22

12-13-14-33-34-63-74

Other materials:
41-51-61-71-72-73-81

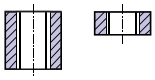
HSS-E | DIN 2182/2183 | - | 55° | B

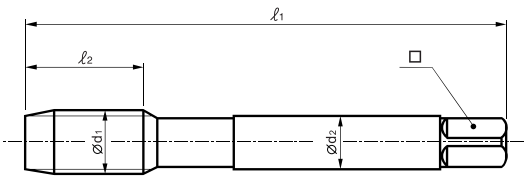

DIN 2182

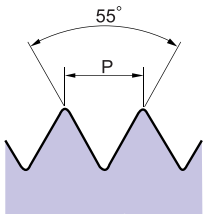

DIN 2183

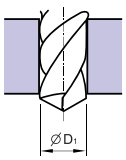
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
W	1/8	–	40	200	56	11	3.5	2.7	2.5	
	5/32	–	32	280	63	13	4.5	3.4	3.1	
	3/16	–	24	320	70	15	6	4.9	3.6	
	7/32	–	24	360	80	16	6	4.9	4.4	
	1/4	–	20	400	80	17	7	5.5	5.1	
	5/16	–	18	440	90	20	8	6.2	6.5	
	3/8	–	16	480	100	22	9	7	7.9	
	7/16	–	14	520	100	22	8	6.2	9.3	
	1/2	–	12	560	110	25	9	7	10.5	
	9/16	–	12	600	110	26	11	9	12	
	5/8	–	11	640	110	27	12	9	13.5	
	3/4	–	10	700	125	30	14	11	16.5	
	7/8	–	9	740	140	32	18	14.5	19.25	
	1	–	8	780	160	36	20	16	22	
	1 ∗1/8	–	7	820	180	40	22	18	24.75	

DIN 2182(W1/8-W3/8) and DIN 2183(W7/16-W1 ∗1/8)

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Material groups **GS**

See page 17～22

12-13-14-33-34-63-74

Other materials:
41-51-61-71-72-73-81

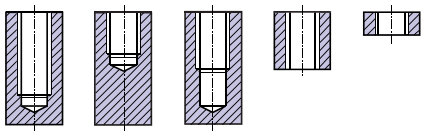
HSS-E | DIN 2182/2183 | - | 55° | C

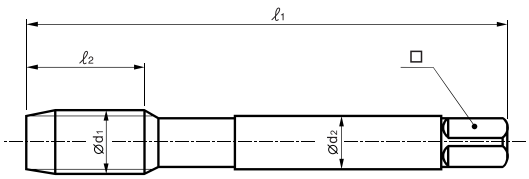
DIN 2182

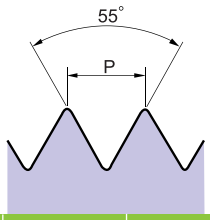
DIN 2183

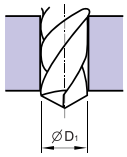
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
W	1/8	–	40	200	56	7	3.5	2.7	2.5	
	5/32	–	32	280	63	7	4.5	3.4	3.1	
	3/16	–	24	320	70	10	6	4.9	3.6	
	7/32	–	24	360	80	10	6	4.9	4.4	
	1/4	–	20	400	80	13	7	5.5	5.1	
	5/16	–	18	440	90	14	8	6.2	6.5	
	3/8	–	16	480	100	16	9	7	7.9	
	7/16	–	14	520	100	17	8	6.2	9.3	
	1/2	–	12	560	110	20	9	7	10.5	
	9/16	–	12	600	110	20	11	9	12	
	5/8	–	11	640	110	22	12	9	13.5	
	3/4	–	10	700	125	25	14	11	16.5	
	7/8	–	9	740	140	27	18	14.5	19.25	
	1	–	8	780	160	30	20	16	22	
	1 ∗ 1/8	–	7	820	180	35	22	18	24.75	

DIN 2182(W1/8-W3/8) and DIN 2183(W7/16-W1 ∗1/8)

G Whitworth Pipe threads DIN ISO 228/1
Whitworth Rohrgewinde DIN ISO 228/1

Cat.-No. T7709

Material groups	GS

See page 17～22

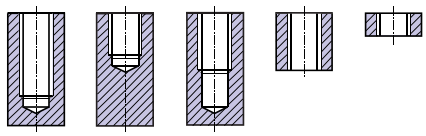
HSS-E | DIN 5157 | - | 55° | I / III

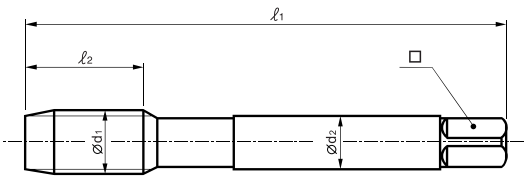

First

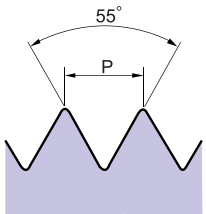

Bottoming

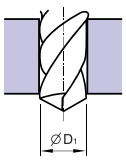
Sets of taps
Gewindebohrer-Satz
Jeu de tarauds
Serie di maschi

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
G	1/16	–	28	029	63	17	6	4.9	6.8	
	1/8	–	28	209	63	18	7	5.5	8.8	
	1/4	–	19	409	70	20	11	9	11.8	
	3/8	–	19	489	70	20	12	9	15.25	
	1/2	–	14	569	80	22	16	12	19	
	3/4	–	14	709	90	22	20	16	24.5	
	1	–	11	789	100	25	25	20	30.75	
	1 ∗ 1/4	–	11	869	125	30	32	24	39.5	
	1 ∗ 1/2	–	11	949	140	30	36	29	45.20	

ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13

Cat.-No. TC727

Material groups **GS**

HSS-E | DIN 5156 | - | 55° | B

See page 17 ~22

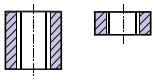
12-13-14-33-34-63-74

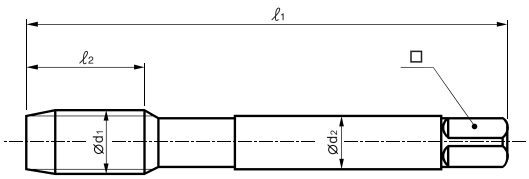
Other materials:
41-51-61-71-72-73-81

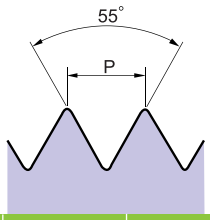
DIN 5156

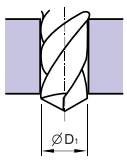
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
G	1/8	–	28	200	90	18	7	5.5	8.8	
	1/4	–	19	400	100	22	11	9	11.8	
	3/8	–	19	480	100	22	12	9	15.25	
	1/2	–	14	560	125	25	16	12	19	
	3/4	–	14	700	140	28	20	16	24.5	
	1	–	11	780	160	32	25	20	30.75	

FAX : +82(32)526-4373 YG-1 CO., LTD.

G Whitworth pipe threads DIN ISO 228/1
Whitworth Rohrgewinde DIN ISO 228/1

Cat.-No. TC728

Material groups	GS

See page 17～22

12-13-14-33-34-63-74

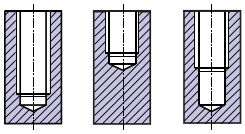
Other materials:
41-51-61-71-72-73-81

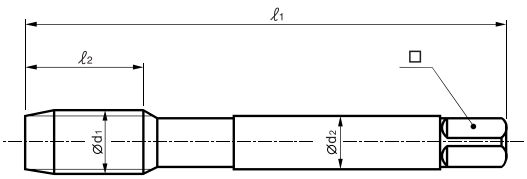
HSS-E | DIN 5156 | - | 55° | C

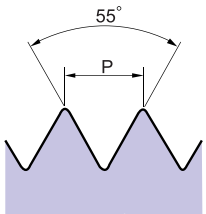
DIN 5156

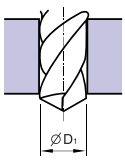
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
G	1/8	–	28	200	90	10	7	5.5	8.8	
	1/4	–	19	400	100	14	11	9	11.8	
	3/8	–	19	480	100	15	12	9	15.25	
	1/2	–	14	560	125	17	16	12	19	
	3/4	–	14	700	140	20	20	16	24.5	
	1	–	11	780	160	24	25	20	30.75	

Whitworth pipe threads DIN ISO 228/1
Whitworth Rohrgewinde DIN ISO 228/1

Cat.-No. TC729

Material groups **VG**

See page 17 ~22

15

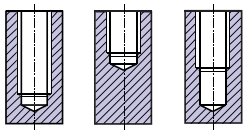
Other materials:
14-23-42-52

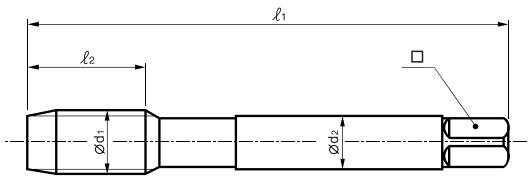
HSS-E | DIN 5156 | - | 55° | C

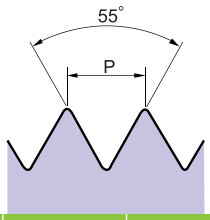
DIN 5156

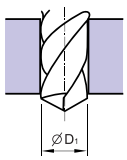
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
G	1/8	–	28	200	90	10	7	5.5	8.8	
	1/4	–	19	400	100	14	11	9	11.8	
	3/8	–	19	480	100	15	12	9	15.25	
	1/2	–	14	560	125	17	16	12	19	
	3/4	–	14	700	140	20	20	16	24.5	
	1	–	11	780	160	24	25	20	30.75	

FAX : +82(32)526-4373 YG-1 CO., LTD.

Whitworth pipe threads DIN ISO 228/1
Whitworth Rohrgewinde DIN ISO 228/1

Cat.-No. TB514

Material groups	VA NW

See page 17～22

11-12-21-22-23

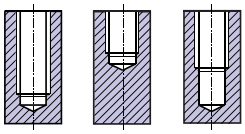
Other materials:
42-52

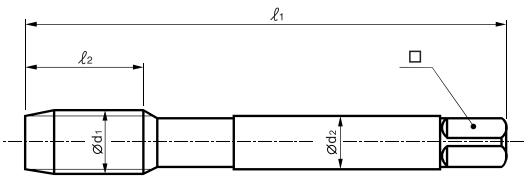
HSS-E | DIN 5156 | - | 55° | C | vap

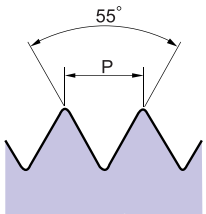
DIN 5156

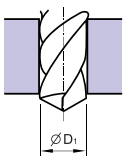
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
G	1/8	–	28	200	90	10	7	5.5	8.8	
	1/4	–	19	400	100	14	11	9	11.8	
	3/8	–	19	480	100	15	12	9	15.25	
	1/2	–	14	560	125	17	16	12	19	
	3/4	–	14	700	140	20	20	16	24.5	
	1	–	11	780	160	24	25	20	30.75	

EG – M

ISO metric coarse threads for wire inserts
Metrisches ISO Regelgew.f.Gew. Drahteins

Cat.-No. TC973

Material groups **AI**

See page 17 ~22

61-71-72-73

Other materials:
11-12-13-41

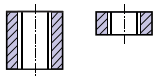
HSS-E | DIN =371/376 | 6H Mod. | 60° | B

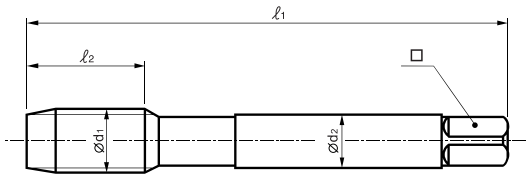
DIN 371

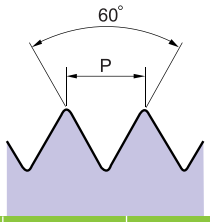
DIN 376

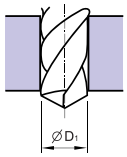
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 mm	–	P mm	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
EG-M	2.5	x	0.45	176	56	11	3.5	2.7	2.65	
	3	x	0.5	206	63	10	4.5	3.4	3.15	
	3.5	x	0.6	226	70	14	6	4.9	3.7	
	4	x	0.7	246	70	13	6	4.9	4.2	
	5	x	0.8	286	80	13	6	4.9	5.25	
	6	x	1	316	90	17	8	6.2	6.3	
	8	x	1.25	366	100	18	10	8	8.4	
	10	x	1.5	426	110	22	9	7	10.4	
	12	x	1.75	506	110	26	11	9	12.5	
	14	x	2	546	110	27	12	9	14.5	
	16	x	2	606	125	27	14	11	16.5	
	18	x	2.5	656	140	32	18	14.5	18.75	
	20	x	2.5	706	160	34	18	14.5	20.75	

DIN 371(M2.5-M8) and DIN 376(M10-M20)

FAX : +82(32)526-4373 YG-1 CO., LTD.

EG – M

ISO metric coarse threads for wire inserts
Metrisches ISO Regelgew.f.Gew. Drahteins

Cat.-No. TC909

Material groups	AI

See page 17～22

61-71-72-73

Other materials:
11-12-13-41

HSS-E

DIN =371/376

6H Mod.

60°

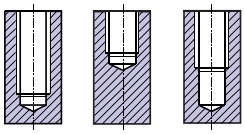
C

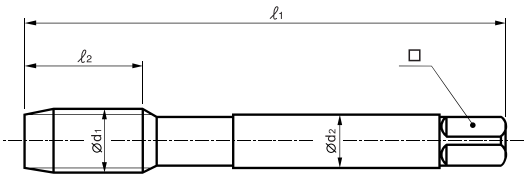
DIN 371

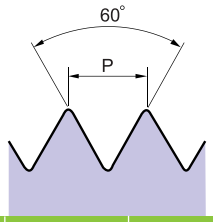
DIN 376

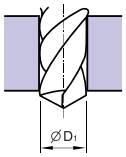
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 mm	–	P mm	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
EG-M	2.5	x	0.45	176	56	6	3.5	2.7	2.65	
	3	x	0.5	206	63	5	4.5	3.4	3.15	
	3.5	x	0.6	226	70	8	6	4.9	3.7	
	4	x	0.7	246	70	8	6	4.9	4.2	
	5	x	0.8	286	80	8	6	4.9	5.25	
	6	x	1	316	90	10	8	6.2	6.3	
	8	x	1.25	366	100	16	10	8	8.4	
	10	x	1.5	426	110	15	9	7	10.4	
	12	x	1.75	506	110	20	11	9	12.5	
	14	x	2	546	110	22	12	9	14.5	
	16	x	2	606	125	20	14	11	16.5	
	18	x	2.5	656	140	27	18	14.5	18.75	
	20	x	2.5	706	160	30	18	14.5	20.75	

DIN 371(M2.5-M8) and DIN 376(M10-M20)

EG – UNC

Unified coarse threads for wire inserts
Unified Regelgew.f.Gew.Drahteins

Cat.-No. TC934

Material groups	AI

See page 17 ~22

61-71-72-73

Other materials:
11-12-13-41

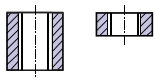
HSS-E | DIN 371/376 | 2B | 60° | B

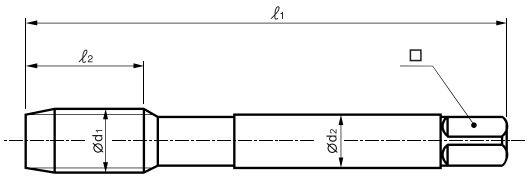
DIN 371

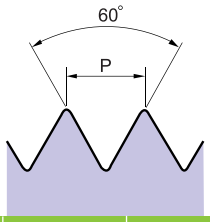
DIN 376

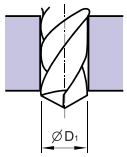
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
EG-No.	4	–	40	162	63	13	4.5	3.4	3.1	
	5	–	40	202	63	13	4.5	3.4	3.4	
	6	–	32	242	70	14	6	4.9	3.8	
	8	–	32	282	80	13	6	4.9	4.4	
	10	–	24	322	80	17	7	5.5	5.2	
	12	–	24	362	80	17	7	5.5	5.8	
EG-UNC	1/4	–	20	402	90	20	8	6.2	6.7	
	5/16	–	18	442	100	22	10	8	8.4	
	3/8	–	16	482	110	21	12	9	10.0	
	7/16	–	14	522	110	26	11	9	11.6	
	1/2	–	13	562	110	27	12	9	13.3	
	9/16	–	12	602	125	26	14	11	15	
	5/8	–	11	642	125	30	14	11	16.5	
	3/4	–	10	702	140	32	18	14.5	19.75	

DIN 371(No.4-3/8) and DIN 376(7/16-3/4)

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EG – UNC

Unified coarse threads for wire inserts
Unified Regelgew.f.Gew.Drahteins

Cat.-No. TC944

Material groups	AI

See page 17～22

61-71-72-73

Other materials:
11-12-13-41

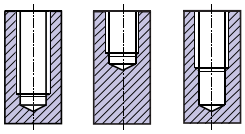
HSS-E | DIN 371/376 | 2B | 60° | C

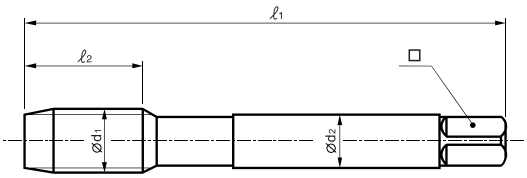
DIN 371

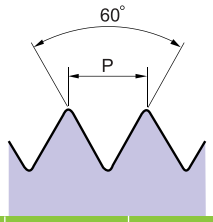
DIN 376

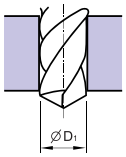
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Ød1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
EG-No.	4	–	40	162	63	7	4.5	3.4	3.1	
	5	–	40	202	63	7	4.5	3.4	3.4	
	6	–	32	242	70	8	6	4.9	3.8	
	8	–	32	282	80	8	6	4.9	4.4	
	10	–	24	322	80	10	7	5.5	5.2	
	12	–	24	362	80	10	7	5.5	5.8	
EG-UNC	1/4	–	20	402	90	14	8	6.2	6.7	
	5/16	–	18	442	100	16	10	8	8.4	
	3/8	–	16	482	110	16	12	9	10.0	
	7/16	–	14	522	110	20	11	9	11.6	
	1/2	–	13	562	110	22	12	9	13.3	
	9/16	–	12	602	125	22	14	11	15	
	5/8	–	11	642	125	25	14	11	16.5	
	3/4	–	10	702	140	27	18	14.5	19.75	

DIN 371(No.4-3/8) and DIN 376(7/16-3/4)

EG – UNF

Unified fine threads for wire inserts
Unified Feingew.f.Gew.Drahteins

Cat.-No. TC954

Material groups	AI

See page 17 ~22

61-71-72-73

Other materials:
11-12-13

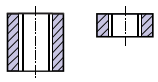
HSS-E | DIN 371/374 | 2B | 60° | B

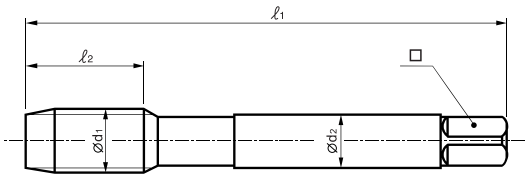
DIN 371

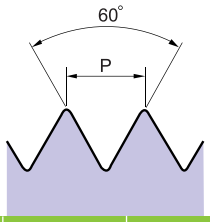
DIN 374

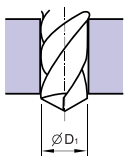
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









	Φd1 inch	–	TPI inch	EDP No.	ℓ1	ℓ2	Φd2	□	Tapping drill diameter	Remark
EG-No.	4	–	48	182	56	12	4	3	3.1	
	6	–	40	262	70	14	6	4.9	3.7	
	8	–	36	302	70	13	6	4.9	4.4	
	10	–	32	342	80	13	6	4.9	5.1	
EG-UNF	1/4	–	28	422	90	17	8	6.2	6.6	
	5/16	–	24	462	100	18	10	8	8.25	
	3/8	–	24	502	110	18	12	9	9.8	
	7/16	–	20	542	100	22	9	7	11.5	
	1/2	–	20	582	100	22	11	9	13.1	
	9/16	–	18	622	100	22	12	9	14.75	
	5/8	–	18	662	110	25	14	11	16.25	
	3/4	–	16	722	125	25	16	12	19.5	

DIN 371(No.4-3/8) and DIN 374(7/16-3/4)

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NPTF

Dryseal ANSI TAPER PIPE THREAD(Fuel)

Cat.-No. T2484

Material groups	GG

See page 17～22

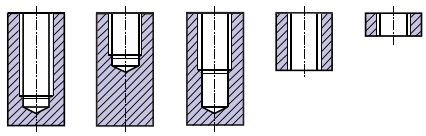
31-32-83

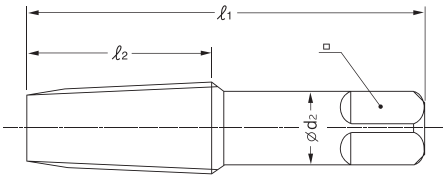
Other materials:
62

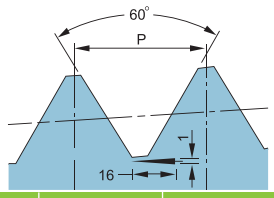
HSS-EX | USCTI T.311 | - | 60° | C | 1/16 Taper

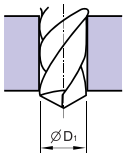
Machine taps
Maschinengewindebohrer
Tarauds machine
Maschi a macchina

Hole type









Ød1 inch	×	TPI inch	EDP No.	ℓ1	ℓ2	Ød2	□	Tapping drill diameter	Remark
1/8(Lg)	x	27	200	2 1/8	3/4	.4375	.328	.332	
1/8(Sm)	x	27	210	2 1/8	3/4	.3125	.234	.332	
1/4	x	18	400	2 7/16	1 1/16	.5625	.421	.438	
3/8	x	18	480	2 9/16	1 1/16	.7000	.531	.562	
1/2	x	14	560	3 1/8	1 3/8	.6875	.515	.703	
3/4	x	14	700	3 1/4	1 3/8	.9063	.679	.906	
1”	x	11 ∗ 1/2	780	3 3/4	1 3/4	1.1250	.843	1.141	
1 ∗ 1/4	x	11 ∗ 1/2	860	4	1 3/4	1.3125	.984	1.484	
1 ∗ 1/2	x	11 ∗ 1/2	960	4 1/4	1 3/4	1.5000	1.125	1.719	

USCTI Table 311 Dimesions(inch)

TAPS TERMINOLOGY

DRILL SIZES BEFORE TAPPING

TAP TOLERANCE

INTERESTING HINTS FOR TAPPING

APPLICATION AND USE OF THREADING TAPS

RESHARPENING

IMPORTANT RECOMMENDATIONS

ORDERS/INQUIRIES OF SPECIAL TAPS

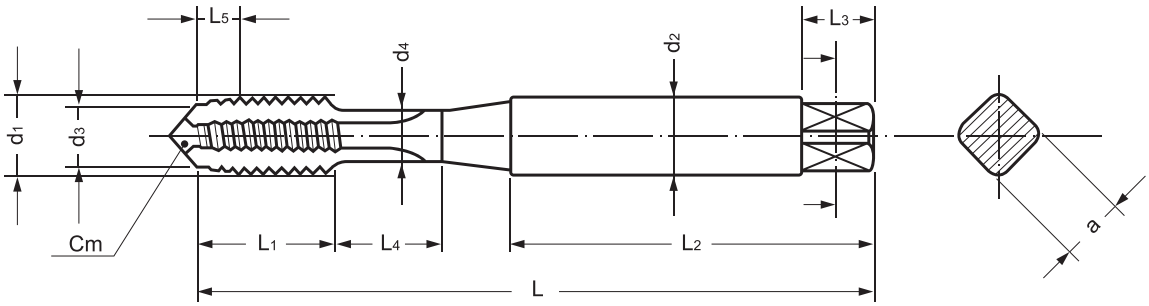
SEND US YOUR TAPPING PROBLEM

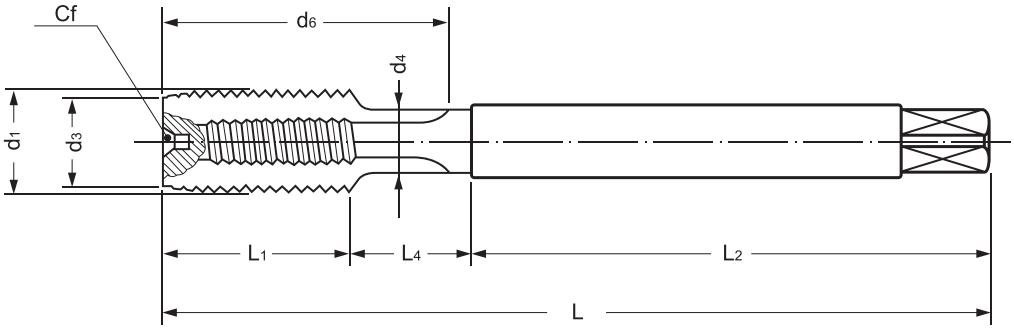
MAIN THREAD SYMBOLS

TAPS TERMINOLOGY

TERMINOLOGIE DES TARAUDS

TECHNISCHE BEGRIFFE BEI GEWINDEBOHRERN





d_1	Major diameter	d_1	Diamètre externe nominal	d_1	Nenn Aussendurchmesser
d_2	Shank diameter	d_2	Diamètre de la queue	d_2	Schaftdurchmesser
d_3	Chamfer diameter	d_3	Diamètre de l'entrée	d_3	Anschnittdurchmesser
d_4	Neck diameter	d_4	Diamètre de la collerette de dégagement	d_4	Bunddurchmesser
L	Total length	L	Longueur totale	L	Gesamtlänge
L_1	Thread length	L_1	Longueur de la patie filetée	L_1	Gewindelänge
L_2	Shank length	L_2	Longueur de la queue	L_2	Schaftlänge
L_3	Square length	L_3	Longueur du carré	L_3	Vierkantlänge
L_4	Neck length	L_4	Longueur de la collerette de dégagement	L_4	Bundlänge
L_5	Chamfer length	L_5	Longueur de l'entrée	L_5	Anschnittlänge
L_6	Flutes length	L_6	Longueur des goujures	L_6	Nutenlänge
a	Square	a	Carré	a	Vierkantmaß
Cm	Center male	Cm	Centre male	Cm	Mittelpunkt des Aussengewindes
Cf	Center female	Cf	Centre femelle	Cf	Mittelpunkt des Innengewindes

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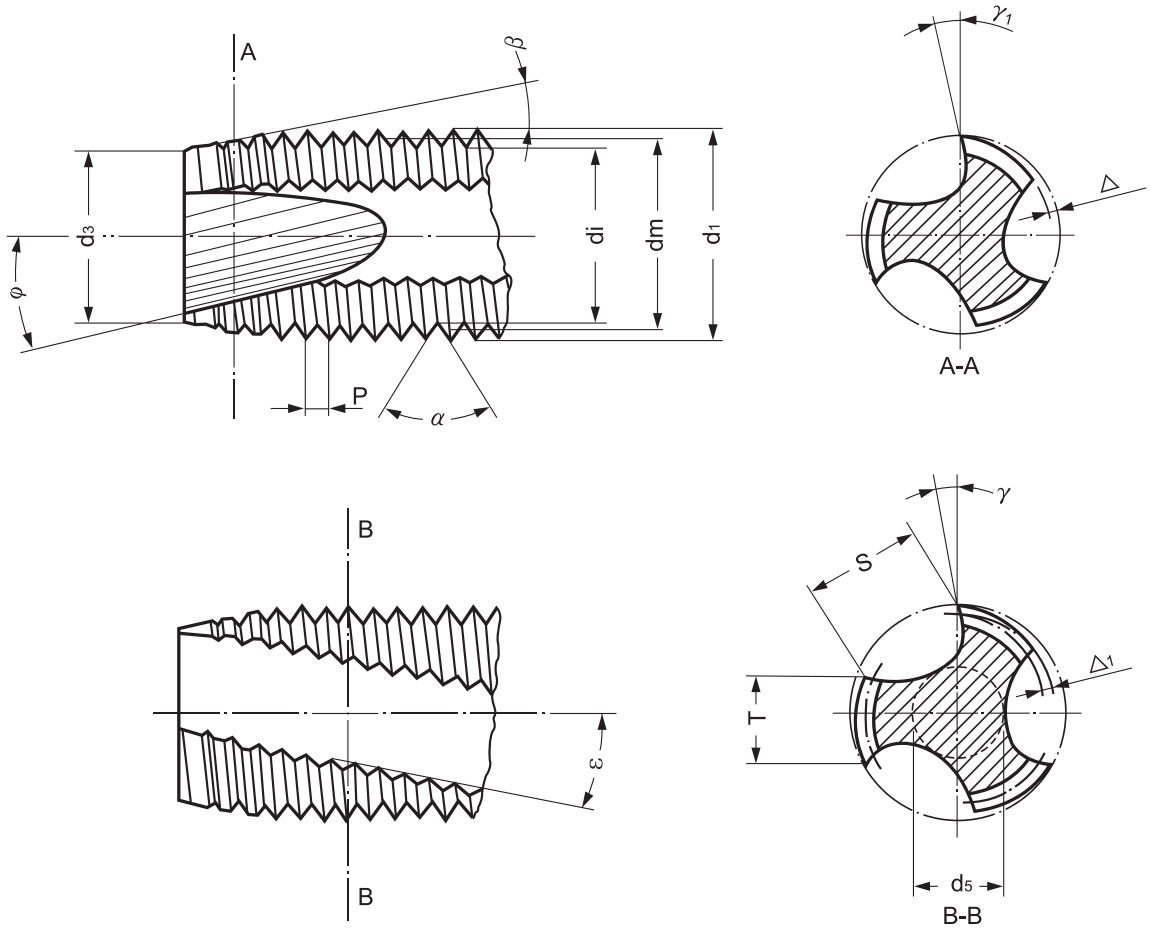

d_1	Major diameter	d_1	Diamètre externe nominal	d_1	Nenn Aussendurchmesser
dm	Flank diameter	dm	Diamètre moyen	dm	Flankendurchmesser
di	Minor diameter	di	Diamètre interne	di	Kerndurchmesser
d_3	Chamfer diameter	d_3	Diamètre de l'entrée	d_3	Anschnittdurchmesser
P	Pitch	P	Pas	P	Steigung
a	Flank angle	α	Angle du filet	a	Flankenwinkel
β	Chamfer angle	β	Demi-angle du cone d'entrée	β	Anschnittwinkel
φ	Gun nose angle	φ	Angle de l'entrée GUN	φ	Schälschnittwinkel
γ	Gun nose rake angle in front	γ_1	Angle de coupe sur l'entrée GUN	γ_1	Schälschnitt-Spanwinkel
Δ	Chamfer relief	Δ	Détalonnage sur l'entrée	Δ	Hinterschliff am Anschnitt
Δ_1	Pitch diameter relief on the land	Δ_1	Détalonnage sur le filet	Δ_1	Flankenhinterschliff auf Zahnbreite
γ	Rake angle	γ	Angle de coupe frontale	γ	Spanwinkel
T	Width of land	T	Largeur des dents	T	Zahnstollenbreite
S	Flute width	S	Largeur des goujoures	S	Nutenbreite
d_5	Web tickness	d_5	Diamètre de l'ame	d_5	Seelendicke
ε	Angle of spiral flute	ε	Angle d'hélice des goujures	ε	Spiralwinkel

DRILL SIZES BEFORE TAPPING

Metric-ISO threads coarse pitch			
M	Pitch mm.	Maximun core dia. mm.	Drill size mm.
1	0,25	0,785	0,75
1,1	0,25	0,885	0,85
1,2	0,25	0,985	0,95
1,4	0,30	1,160	1,10
1,6	0,35	1,321	1,25
1,7	0,35	1,346	1,30
1,8	0,35	1,521	1,45
2	0,40	1,679	1,60
2,2	0,45	1,838	1,75
2,3	0,40	1,920	1,90
2,5	0,45	2,138	2,05
2,6	0,45	2,176	2,10
3	0,50	2,599	2,50
3,5	0,60	3,010	2,90
4	0,70	3,422	3,30
4,5	0,75	3,878	3,70
5	0,80	4,334	4,20
6	1,00	5,153	5,00
7	1,00	6,153	6,00
8	1,25	6,912	6,80
9	1,25	7,912	7,80
10	1,50	8,676	8,50
11	1,50	9,676	9,50
12	1,75	10,441	10,20
14	2,00	12,210	12,00
16	2,00	14,210	14,00
18	2,50	15,744	15,50
20	2,50	17,744	17,50
22	2,50	19,744	19,50
24	3,00	21,252	21,00
27	3,00	24,252	24,00
30	3,50	26,771	26,50
33	3,50	29,771	29,50
36	4,00	32,270	32,00
39	4,00	35,270	35,00
42	4,50	37,799	37,50
45	4,50	40,799	40,50
48	5,00	43,297	43,00
52	5,00	47,297	47,00
56	5,50	50,796	50,50
60	5,50	54,796	54,50
64	6,00	58,305	58,00
68	6,00	62,305	62,00

Metric-ISO threads fine pitch			
MF	Pitch mm.	Maximun core dia. mm.	Drill size mm.
2,5	0,35	2,221	2,15
3	0,35	2,271	2,65
3,5	0,35	3,221	3,15
4	0,50	3,599	3,50
4,5	0,50	4,099	4,00
5	0,50	4,599	4,50
5,5	0,50	5,099	5,00
6	0,75	5,378	5,20
7	0,75	6,378	6,20
8	0,75	7,378	7,20
8	1,00	7,153	7,00
9	0,75	8,378	8,20
9	1,00	8,153	8,00
10	0,75	9,378	9,20
10	1,00	9,153	9,00
10	1,25	8,912	8,80
11	0,75	10,378	10,20
11	1,00	10,153	10,00
12	1,00	11,153	11,00
12	1,25	10,912	10,80
12	1,50	10,676	10,50
14	1,00	13,153	13,00
14	1,25	12,912	12,80
14	1,50	12,676	12,50
15	1,00	14,153	14,00
15	1,50	13,676	13,50
16	1,00	15,153	15,00
16	1,50	14,676	14,50
17	1,00	16,153	16,00
17	1,50	15,676	15,50
18	1,00	17,153	17,00
18	1,50	16,676	16,50
18	2,00	16,210	16,00
20	1,00	19,153	19,00
20	1,50	18,676	18,50
20	2,00	18,210	18,00
22	1,00	21,153	21,00
22	1,50	20,676	20,50
22	2,00	20,210	20,00
24	1,00	23,153	23,00
24	1,50	22,676	22,50
24	2,00	22,210	22,00
25	1,00	24,153	24,00
25	1,50	23,676	23,50

Metric-ISO threads fine pitch			
MF	Pitch mm.	Maximun core dia. mm.	Drill size mm.
25	2,00	23,210	23,00
26	1,50	24,676	24,50
27	1,00	26,153	26,00
27	1,50	25,676	25,50
27	2,00	25,210	25,00
28	1,00	27,153	27,00
28	1,50	26,676	26,50
28	2,00	26,210	26,00
30	1,00	29,153	29,00
30	1,50	28,676	28,50
30	2,00	28,210	28,00
30	3,00	27,252	27,00
32	1,50	30,675	30,50
32	2,00	30,210	30,00
33	1,50	31,676	31,50
33	2,00	31,210	31,00
33	3,00	30,252	30,00
35	1,50	33,676	33,50
36	1,50	34,676	34,50
36	2,00	34,210	34,00
36	3,00	33,252	33,00
38	1,50	36,676	36,50
39	1,50	37,676	37,50
39	2,00	37,210	37,00
39	3,00	36,252	36,00
40	1,50	38,676	38,50
40	2,00	38,210	38,00
40	3,00	37,252	37,00
42	1,50	40,676	40,50
42	2,00	40,210	40,00
42	3,00	39,252	39,00
45	1,50	43,676	43,50
45	2,00	43,210	43,00
45	3,00	42,252	42,00
48	1,50	46,676	46,50
48	2,00	46,210	46,00
48	3,00	45,252	45,00
50	1,50	48,676	48,50
50	2,00	48,210	48,00
50	3,00	47,252	47,00
52	1,50	50,676	50,50
52	2,00	50,210	50,00
52	3,00	49,252	49,00

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American Unified coarse threads

UNC	T.P.I	Maximun core dia. mm.	Drill size mm.
1	64	1,585	1,50
2	56	1,872	1,80
3	48	2,146	2,10
4	40	2,385	2,30
5	40	2,697	2,60
6	32	2,896	2,85
8	32	3,528	3,50
10	24	3,950	3,90
12	24	4,590	4,50
1/4"	20	5,250	5,20
5/16"	18	6,680	6,60
3/8"	16	8,082	8,00
7/16"	14	9,441	9,40
1/2"	13	10,881	10,75
9/16"	12	12,301	12,25
5/8"	11	13,693	13,50
3/4"	10	16,624	16,50
7/8"	9	19,520	19,50
1"	8	22,344	22,25
1 1/8"	7	25,082	25,00
1 1/4"	7	28,258	28,25
1 3/8"	6	30,851	30,75
1 1/2"	6	34,026	34,00
1 3/4"	5	39,560	39,50
2"	4,5	45,367	45,25

American Unified fine threads

UNF	T.P.I	Maximun core dia. mm.	Drill size mm.
0	80	1,306	1,30
1	72	1,613	1,60
2	64	1,913	1,90
3	56	2,197	2,10
4	48	2,459	2,40
5	44	2,741	2,70
6	40	3,012	3,00
8	36	3,597	3,50
10	32	4,168	4,10
12	28	4,717	4,70
1/4"	28	5,563	5,50
5/16"	24	6,995	6,90
3/8"	24	8,565	8,50
7/16"	20	9,947	9,90
1/2"	20	11,524	11,50
9/16"	18	12,969	12,90
5/8"	18	14,554	14,50
3/4"	16	17,546	17,50
7/8"	14	20,493	20,50
1"	12	23,363	23,25
1 1/8"	12	26,538	26,50
1 1/4"	12	29,713	29,50
1 3/8"	12	32,888	32,70
1 1/2"	12	36,063	36,00

Whitworth threads B.S.W.

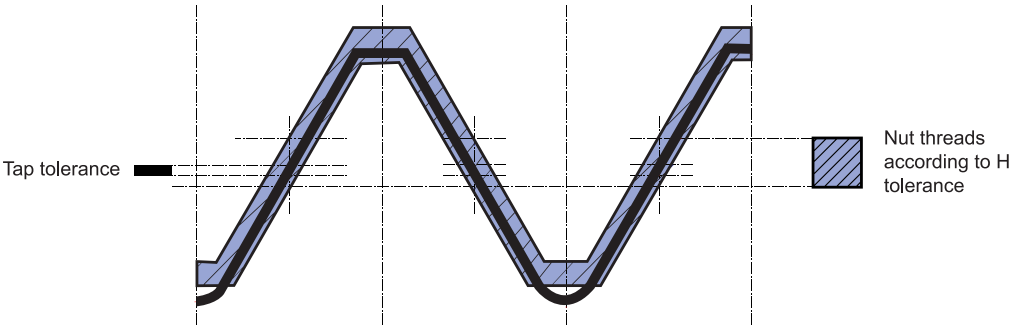
W	T.P.I	Maximun core dia. mm.	Drill size mm.
3/32"	48	1,910	1,80
1/8"	40	2,590	2,50
5/32"	32	3,211	3,10
3/16"	24	3,743	3,60
7/32"	24	4,538	4,40
1/4"	20	5,224	5,10
5/16"	18	6,661	6,50
3/8"	16	8,052	7,90
7/16"	14	9,379	9,30
1/2"	12	10,610	10,50
9/16"	12	12,176	12,00
5/8"	11	13,598	13,50
3/4"	10	16,538	16,50
7/8"	9	19,411	19,25
1"	8	22,185	22,00
1 1/8"	7	24,879	24,75
1 1/4"	7	28,054	27,75
1 3/8"	6	30,555	30,50
1 1/2"	6	33,730	33,50
1 5/8"	5	35,921	35,50
1 3/4"	5	39,096	39,00
1 7/8"	4,5	41,648	41,50
2"	4,5	44,823	44,50
2 1/4"	4	50,420	50,00
2 1/2"	4	56,770	56,50
2 3/4"	3,5	62,108	62,00
3"	3,5	68,459	68,50

Whitworth pipe thread BSP.PI

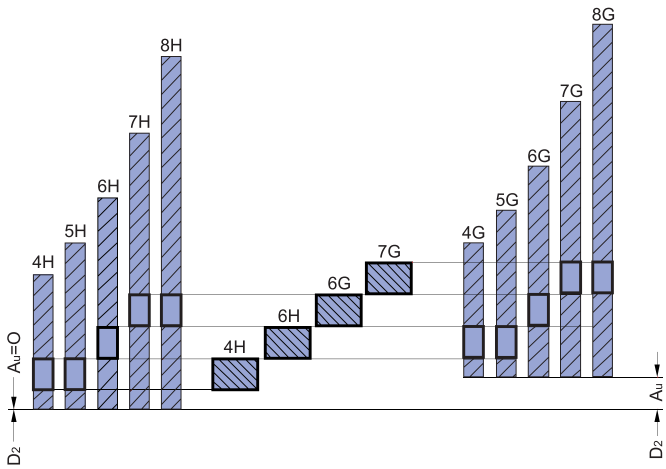
G	T.P.I	Maximun core dia. mm.	Drill size mm.
1/8"	28	8,848	8,80
1/4"	19	11,890	11,80
3/8"	19	15,395	15,25
1/2"	14	19,172	19,00
5/8"	14	21,128	21,00
3/4"	14	24,658	24,50
7/8"	14	28,418	28,25
1"	11	30,931	30,75
1 1/8"	11	35,579	35,50
1 1/4"	11	39,592	39,50
1 3/8"	11	42,005	42,00
1 1/2"	11	45,485	45,20
1 5/8"	11	49,670	49,60
1 3/4"	11	51,428	51,40
2"	11	57,296	57,20
2 1/4"	11	63,392	63,30
2 3/8"	11	67,080	67,00
2 1/2"	11	72,866	72,80
2 3/4"	11	79,216	79,10
3"	11	85,566	85,50
3 1/4"	11	91,662	91,50
3 1/2"	11	98,012	98,00
3 3/4"	11	104,362	104,00
4"	11	110,712	110,50

TAP TOLERANCES

Tolerance classes of taps and tolerance positions for screw threads as per Metric ISO Standard.



Nut thread Positioning of H tolerance	Tolerance classes for Taps	Nut thread Positioning of G tolerance



Taps tolerances and recomanded classes

Tap tolerance ISO	Tap tolerance DIN	Correct class to obtain Nut thread with tolerance				
ISO 1	4H	4H	5H			
ISO 2	6H	4G	5G	6H		
ISO 3	6G			6G	7H	8H
	7G				7G	8G

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METRIC ISO THREADS

Nominal dimensions UNI 4535-64
Production tolerances on tap flank diameter for ISO 6H Nut threads
Limit dimensions-Nut threads ISO 6H

Coarse pitch threads

Dimensions in mm

$H = 0{,}86603P$

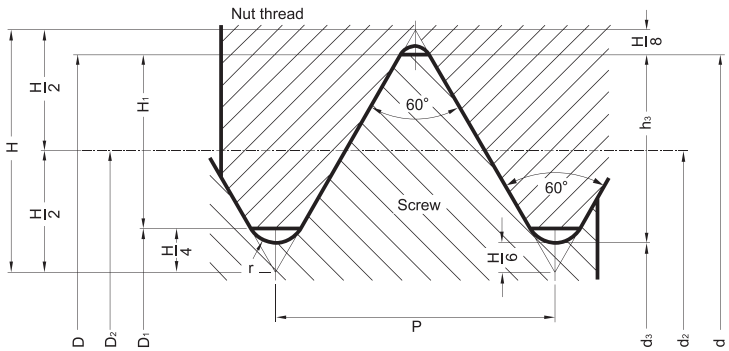
$H_1 = \frac{5}{8}H = 0{,}54127P$

$h_3 = \frac{17}{24}H = 0{,}61343P$

$d_2 = D_2 = d - \quad H = \frac{3}{4}d - 0{,}64952P$

$d_3 = d - 2h_3 = d - 1{,}22687P$

$r = \frac{H}{6} = 0{,}14434P$



Nominal diameter	Pitch	Flank diameter	Minor diameter		Thread depth		Radius	Flank diameter Tap tolerance 6H d_2		Flank diameter Nut tolerance 6H	
			Screw	Nut	Screw	Nut					
d = D	P	$d_2 = D_2$	d_3	D_1	h_3	H_1	r	min.	max.	min.	max.
M 1,6	0,35	1,373	1,171	1,221	0,215	0,189	0,051	1,393	1,407	1,373	1,458
M 1,8	0,35	1,573	1,371	1,421	0,215	0,189	0,051	1,593	1,607	1,573	1,658
M 2	0,4	1,740	1,509	1,567	0,245	0,217	0,058	1,761	1,776	1,740	1,830
M 2,2	0,45	1,908	1,648	1,713	0,276	0,244	0,065	1,931	1,946	1,908	2,003
M 2,5	0,45	2,208	1,948	2,013	0,276	0,244	0,065	2,231	2,246	2,208	2,303
M 3	0,5	2,675	2,387	2,459	0,307	0,271	0,072	2,699	2,715	2,675	2,775
M 3,5	0,6	3,110	2,764	2,850	0,368	0,325	0,087	3,137	3,155	3,110	3,222
M 4	0,7	3,545	3,141	3,242	0,429	0,379	0,101	3,574	3,593	3,545	3,663
M 4,5	0,75	4,013	3,580	3,688	0,460	0,406	0,108	4,042	4,061	4,013	4,131
M 5	0,8	4,480	4,019	4,134	0,491	0,433	0,115	4,510	4,530	4,480	4,605
M 6	1	5,350	4,773	4,917	0,613	0,541	0,144	5,385	5,409	5,350	5,500
M 7	1	6,350	5,773	5,917	0,613	0,541	0,144	6,385	6,409	6,350	6,500
M 8	1,25	7,188	6,466	6,647	0,767	0,677	0,180	7,226	7,251	7,188	7,348
M 9	1,25	8,188	7,466	7,647	0,767	0,677	0,180	8,226	8,251	8,188	8,348
M 10	1,5	9,026	8,160	8,376	0,920	0,812	0,217	9,068	9,096	9,026	9,206
M 11	1,5	10,026	9,160	9,376	0,920	0,812	0,217	10,068	10,096	10,026	10,206
M 12	1,75	10,863	9,853	10,106	1,074	0,947	0,253	10,911	10,943	10,863	11,063
M 14	2	12,701	11,546	11,835	1,227	1,083	0,289	12,752	12,786	12,701	12,913
M 16	2	14,701	13,546	13,835	1,227	1,083	0,289	14,752	14,786	14,701	14,913
M 18	2,5	16,376	14,933	15,294	1,534	1,353	0,361	16,430	16,466	16,376	16,600
M 20	2,5	18,376	16,933	17,294	1,534	1,353	0,361	18,430	18,466	18,376	18,600
M 22	2,5	20,376	18,933	19,294	1,534	1,353	0,361	20,430	20,466	20,376	20,600
M 24	3	22,051	20,319	20,752	1,840	1,624	0,433	22,115	22,157	22,051	22,316
M 27	3	25,051	23,319	23,752	1,840	1,624	0,433	25,115	25,157	25,051	25,316
M 30	3,5	27,727	25,706	26,211	2,147	1,894	0,505	27,794	27,839	27,727	28,007
M 33	3,5	30,727	28,706	29,211	2,147	1,894	0,505	30,794	30,839	30,727	31,007
M 36	4	33,402	31,093	31,670	2,454	2,165	0,577	33,473	33,520	33,402	33,702
M 39	4	36,402	34,093	34,670	2,454	2,165	0,577	36,473	36,520	36,402	36,702
M 42	4,5	39,077	36,479	37,129	2,760	2,436	0,650	39,152	39,202	39,077	39,392
M 45	4,5	42,077	39,479	40,129	2,760	2,436	0,650	42,152	42,202	42,077	42,392
M 48	5	44,752	41,866	42,587	3,067	2,706	0,722	44,832	44,885	44,752	45,087
M 52	5	48,752	45,866	46,587	3,067	2,706	0,722	48,832	48,885	48,752	49,087
M 56	5,5	52,428	49,252	50,046	3,374	2,977	0,794	52,512	52,568	52,428	52,783
M 60	5,5	56,428	53,252	54,046	3,374	2,977	0,794	56,512	56,568	56,428	56,783
M 64	6	60,103	56,639	57,505	3,681	3,248	0,866	60,193	60,253	60,103	60,478
M 68	6	64,103	60,639	61,505	3,681	3,248	0,866	64,193	64,253	64,103	64,478
Metric thread MA(old UNI 159 Profile)										**Nut tolerance SH8**	
M 1,7	0,35	1,473	1,246	1,246	0,227	0,227	0,040	1,493	1,507	1,473	1,529
M 2,3	0,4	2,040	1,780	1,780	0,260	0,260	0,040	2,061	2,076	2,040	2,120
M 2,6	0,45	2,308	2,016	2,016	0,292	0,292	0,050	2,331	2,346	2,308	2,388

METRIC ISO FINE THREADS

Nominal dimensions UNI 4535-64
Production tolerances on tap flank diameter for ISO 6H Nut threads
Limit dimensions-Nut threads ISO 6H

Fine pitch threads

Dimensions in mm

$H = 0{,}86603P$

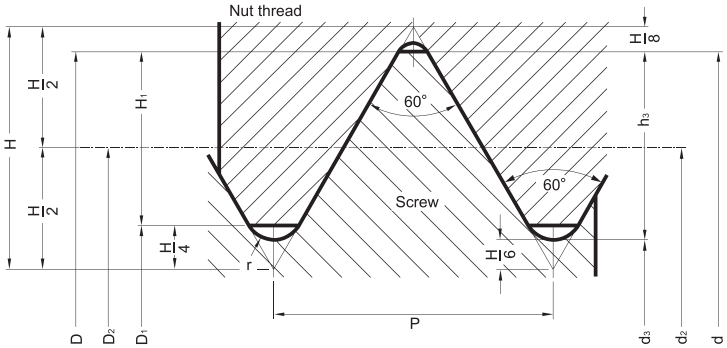
$H_1 = \frac{5}{8} H = 0{,}54127P$

$h_3 = \frac{17}{24} H = 0{,}61343P$

$d_2 = D_2 = d - \frac{3}{4} H = d - 0{,}64952P$

$d_3 = d - 2h_3 = d - 1{,}22687P$

$r = \frac{H}{6} = 0{,}14434P$



Nominal diameter	Pitch	Flank diameter	Minor diameter		Thread depth		Radius	Flank diameter Tap tolerance 6H d_2		Flank diameter Nut tolerance 6H	
			Screw	Nut	Screw	Nut					
d = D	P	$d_2 = D_2$	d_3	D_1	h_3	H_1	r	min.	max.	min.	max.
M 2	0,25	1,838	1,693	1,729	0,153	0,135	0,036	1,844	1,856	1,838	1,886
M 2,5	0,35	2,273	2,701	2,121	0,215	0,189	0,051	2,293	2,307	2,273	2,358
M 3	0,35	2,773	2,571	2,621	0,215	0,189	0,051	2,794	2,809	2,773	2,863
M 3,5	0,35	3,273	3,071	3,121	0,215	0,189	0,051	3,294	3,309	3,273	3,363
M 4	0,5	3,675	3,387	3,459	0,307	0,271	0,072	3,699	3,715	3,675	3,775
M 4,5	0,5	4,175	3,887	3,959	0,307	0,271	0,072	4,199	4,215	4,175	4,275
M 5	0,5	4,675	4,387	4,459	0,307	0,271	0,072	4,699	4,715	4,675	4,775
M 5,5	0,5	5,175	4,887	4,959	0,307	0,271	0,072	5,199	5,215	5,175	5,275
M 6	0,5	5,675	5,387	5,459	0,307	0,271	0,072	5,702	5,720	5,675	5,787
M 6	0,75	5,513	5,080	5,188	0,460	0,406	0,108	5,545	5,566	5,513	5,645
M 7	0,75	6,513	6,080	6,188	0,460	0,406	0,108	6,545	6,566	6,513	6,645
M 8	0,5	7,675	7,387	7,459	0,307	0,271	0,072	7,702	7,720	7,675	7,787
M 8	0,75	7,513	7,080	7,188	0,460	0,406	0,108	7,545	7,566	7,513	7,645
M 8	1	7,350	6,773	6,917	0,613	0,541	0,144	7,835	7,409	7,350	7,500
M 9	0,75	8,513	8,080	8,188	0,460	0,406	0,108	8,545	8,566	8,513	8,645
M 9	1	8,350	7,773	7,917	0,613	0,541	0,144	8,385	8,409	8,350	8,500
M 10	0,5	9,675	9,387	9,459	0,307	0,271	0,072	9,702	9,720	9,675	9,787
M 10	0,75	9,513	9,080	9,188	0,460	0,406	0,108	9,545	9,566	9,513	9,645
M 10	1	9,350	8,773	8,917	0,613	0,541	0,144	9,385	9,409	9,350	9,500
M 10	1,25	9,188	8,466	8,647	0,767	0,677	0,180	9,226	9,251	9,188	9,348
M 11	0,75	10,513	10,080	10,188	0,460	0,406	0,108	10,545	10,566	10,513	10,645
M 11	1	10,350	9,773	9,917	0,613	0,541	0,144	10,385	10,409	10,350	10,500
M 12	0,75	11,513	11,080	11,188	0,460	0,406	0,108	11,547	11,569	11,513	11,653
M 12	1	11,350	10,773	10,917	0,613	0,541	0,144	11,388	11,413	11,350	11,510
M 12	1,25	11,188	10,466	10,647	0,767	0,677	0,180	11,230	11,258	11,188	11,368
M 12	1,5	11,026	10,160	10,376	0,920	0,812	0,217	11,071	11,101	11,026	11,216
M 13	1	12,350	11,773	11,917	0,613	0,541	0,144	12,388	12,413	12,350	12,510
M 14	1	13,350	12,773	12,917	0,613	0,541	0,144	13,388	13,413	13,350	13,510
M 14	1,25	13,188	12,466	12,647	0,767	0,677	0,180	13,230	13,258	13,188	13,368
M 14	1,5	13,026	12,160	12,376	0,920	0,812	0,217	13,071	13,101	13,026	13,216
M 15	1	14,350	13,773	13,917	0,613	0,541	0,144	14,388	14,413	14,350	14,510
M 15	1,5	14,026	13,160	13,376	0,920	0,812	0,217	14,071	14,101	14,026	14,216
M 16	1	15,350	14,773	14,917	0,613	0,541	0,144	15,388	15,413	15,350	15,510
M 16	1,25	15,188	14,466	14,647	0,767	0,677	0,180	15,230	15,258	15,188	15,368
M 16	1,5	15,026	14,160	14,376	0,920	0,812	0,217	15,071	15,101	15,026	15,216
M 17	1	16,350	15,773	15,917	0,613	0,541	0,144	16,388	16,413	16,350	16,510
M 17	1,5	16,026	15,160	15,376	0,920	0,812	0,217	16,071	16,101	16,026	16,216
M 18	1	17,350	16,773	16,917	0,613	0,541	0,144	17,388	17,413	17,350	17,510
M 18	1,5	17,026	16,160	16,376	0,920	0,812	0,217	17,071	17,101	17,026	17,216
M 18	2	16,701	15,546	15,835	1,227	1,083	0,289	16,752	16,786	16,701	16,913
M 20	1	19,350	18,773	18,917	0,613	0,541	0,144	19,388	19,413	19,350	19,510
M 20	1,5	19,026	18,160	18,376	0,920	0,812	0,217	19,071	19,101	19,026	19,216
M 20	2	18,701	17,546	17,835	1,227	1,083	0,289	18,752	18,786	18,701	18,913

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METRIC ISO FINE THREADS

Nominal diameter	Pitch	Flank diameter	Minor diameter		Thread depth		Radius	Flank diameter Tap tolerance 6H d_2		Flank diameter Nut tolerance 6H	
			Screw	Nut	Screw	Nut					
d = D	P	$d_2 = D_2$	d_3	D_1	h_3	H_1	r	min.	max.	min.	max.
M 22	1	21,350	20,773	20,917	0,613	0,541	0,144	21,388	21,413	21,350	21,510
M 22	1,5	21,026	20,160	20,376	0,920	0,812	0,217	21,071	21,101	21,026	21,216
M 22	2	20,701	19,546	19,835	1,227	1,083	0,289	20,752	20,786	20,701	20,913
M 24	1	23,350	22,773	22,917	0,613	0,541	0,144	23,390	23,416	23,350	23,520
M 24	1,5	23,026	22,160	22,376	0,920	0,812	0,217	23,074	23,106	23,026	23,226
M 24	2	22,701	21,546	21,835	1,227	1,083	0,289	22,754	22,791	22,701	22,925
M 25	1	24,350	23,773	23,917	0,613	0,541	0,144	24,390	24,416	24,350	24,520
M 25	1,5	24,026	23,160	23,376	0,920	0,812	0,217	24,074	24,106	24,026	24,226
M 25	2	23,701	22,546	22,835	1,227	1,083	0,289	23,754	23,791	23,701	23,925
M 26	1	25,350	24,773	24,917	0,613	0,541	0,144	25,390	25,416	25,350	25,520
M 26	1,5	25,026	24,160	24,376	0,920	0,812	0,217	25,074	25,106	25,026	25,226
M 26	2	24,701	23,546	23,835	1,227	1,083	0,289	24,754	24,791	24,701	24,925
M 27	1	26,350	25,773	25,917	0,613	0,541	0,144	26,390	26,416	26,350	26,520
M 27	1,5	26,026	25,160	25,376	0,920	0,812	0,217	26,074	26,106	26,026	26,226
M 27	2	25,701	24,546	24,835	1,227	1,083	0,289	25,754	25,791	25,701	25,925
M 28	1	27,350	26,773	26,917	0,613	0,541	0,144	27,390	27,416	27,350	27,520
M 28	1,5	27,026	26,160	26,376	0,920	0,812	0,217	27,074	27,106	27,026	27,226
M 28	2	26,701	25,546	25,835	1,227	1,083	0,289	26,754	26,791	26,701	26,925
M 30	1	29,350	28,773	28,917	0,613	0,541	0,144	29,390	29,416	29,350	29,520
M 30	1,5	29,026	28,160	28,376	0,920	0,812	0,217	29,074	29,106	29,026	29,226
M 30	2	28,701	27,546	27,835	1,227	1,083	0,289	28,754	28,791	28,701	28,925
M 30	3	28,051	26,319	26,752	1,840	1,624	0,433	28,115	28,157	28,051	28,316
M 32	1,5	31,026	30,160	30,376	0,920	0,812	0,217	31,074	31,106	31,026	31,226
M 32	2	30,701	29,546	29,835	1,227	1,083	0,289	30,754	30,791	30,701	30,925
M 33	1,5	32,026	31,160	31,376	0,920	0,812	0,217	32,074	32,106	32,026	32,226
M 33	2	31,701	30,546	30,835	1,227	1,083	0,289	31,754	31,791	31,701	31,925
M 33	3	31,051	29,319	29,752	1,840	1,624	0,433	31,115	31,157	31,051	31,316
M 35	1,5	34,026	33,160	33,376	0,920	0,812	0,217	34,074	34,106	34,026	34,226
M 35	2	33,701	32,546	32,835	1,227	1,083	0,289	33,754	33,791	33,701	33,925
M 36	1,5	35,026	34,160	34,376	0,920	0,812	0,217	35,074	35,106	35,026	35,226
M 36	2	34,701	33,546	33,835	1,227	1,083	0,289	34,754	34,791	34,701	34,925
M 36	3	34,051	32,319	32,752	1,840	1,624	0,433	34,115	34,157	34,051	34,316
M 38	1,5	37,026	36,160	36,376	0,920	0,812	0,217	37,074	37,106	37,026	37,226
M 39	1,5	38,026	37,160	37,376	0,920	0,812	0,217	38,074	38,106	38,026	38,226
M 39	2	37,701	36,546	36,835	1,227	1,083	0,289	37,754	37,791	37,701	37,925
M 39	3	37,051	35,319	35,752	1,840	1,624	0,433	37,115	37,157	37,051	37,316
M 40	1,5	39,026	38,160	38,376	0,920	0,812	0,217	39,074	39,106	39,026	39,226
M 40	2	38,701	37,546	37,835	1,227	1,083	0,289	38,754	38,791	38,701	38,925
M 40	3	38,051	36,319	36,752	1,840	1,624	0,433	38,115	38,157	38,051	38,316
M 42	1,5	41,026	40,160	40,376	0,920	0,812	0,217	41,074	41,106	41,026	41,226
M 42	2	40,701	39,546	39,835	1,227	1,083	0,289	40,754	40,791	40,701	40,925
M 42	3	40,051	38,319	38,752	1,840	1,624	0,433	40,115	40,157	40,051	40,316
M 45	1,5	44,026	43,160	43,376	0,920	0,812	0,217	44,074	44,106	44,026	44,226
M 45	2	43,701	42,546	42,835	1,227	1,083	0,289	43,754	43,791	43,701	43,925
M 45	3	43,051	41,319	41,752	1,840	1,624	0,433	43,115	43,157	43,051	43,316
M 48	1,5	47,026	46,160	46,376	0,920	0,812	0,217	47,077	47,111	47,026	47,238
M 48	2	46,701	45,546	45,835	1,227	1,083	0,289	46,758	46,796	46,701	46,937
M 48	3	46,051	44,319	44,752	1,840	1,624	0,433	46,118	46,163	46,051	46,331
M 50	1,5	49,026	48,160	48,376	0,920	0,812	0,217	49,077	49,111	49,026	49,238
M 50	2	48,701	47,546	47,835	1,227	1,083	0,289	48,758	48,796	48,701	48,937
M 50	3	48,051	46,319	46,752	1,840	1,624	0,433	48,118	48,163	48,051	48,331
M 52	1,5	51,026	50,160	50,376	0,920	0,812	0,217	51,077	51,111	51,026	51,238
M 52	2	50,701	49,546	49,835	1,227	1,083	0,289	50,758	50,796	50,701	50,937
M 52	3	50,051	48,319	48,752	1,840	1,624	0,433	50,118	50,163	50,051	50,331
M 55	1,5	54,026	53,160	53,376	0,920	0,812	0,217	54,077	54,111	54,026	54,238
M 55	2	53,701	52,546	52,835	1,227	1,083	0,289	53,758	53,796	53,701	53,937
M 55	3	53,051	51,319	51,752	1,840	1,624	0,433	53,118	53,163	53,051	53,331
M 56	1,5	55,026	54,160	54,376	0,920	0,812	0,217	55,077	55,111	55,026	55,238
M 56	2	54,701	53,546	53,835	1,227	1,083	0,289	54,758	54,796	54,701	54,937
M 56	3	54,051	52,319	52,752	1,840	1,624	0,433	54,118	54,163	54,051	54,331
M 58	1,5	57,026	56,160	56,376	0,920	0,812	0,217	57,077	57,111	57,026	57,238
M 58	2	56,701	55,546	55,835	1,227	1,083	0,289	56,758	56,796	56,701	56,937
M 58	3	56,051	54,319	54,752	1,840	1,624	0,433	56,118	56,163	56,051	56,331
M 60	1,5	59,026	58,160	58,376	0,920	0,812	0,217	59,077	59,111	59,026	59,238
M 60	2	58,701	57,546	57,835	1,227	1,083	0,289	58,758	58,796	58,701	58,937
M 60	3	58,051	56,319	56,752	1,840	1,624	0,433	58,118	58,163	58,051	58,331
Metric thread MB(old UNI 160 Profile)										**Nut tolerance SH8**	
M 2,3	0,25	2,138	1,976	1,976	0,162	0,162	0,030	2,144	2,156	2,138	2,194
M 2,6	0,35	2,373	2,146	2,146	0,227	0,227	0,040	2,393	2,407	2,373	2,429

UNIFIED COARSE THREADS

Nominal dimensions as per ANSI B1.1
Production tolerances on tap flank diameter for 2B class nut threads
Limit dimensions-Nut threads as per ANSI B1.1, 2B-3B tolerance classes

Dimensions in mm

$H = 0{,}86603P$

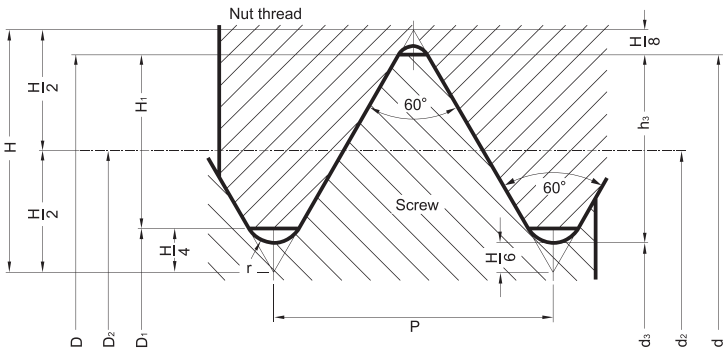
$H_1 = \frac{5}{8}H = 0{,}54127P$

$h_3 = \frac{17}{24}H = 0{,}61343P$

$d_2 = D_2 = d - \frac{3}{4}H = d - 0{,}64952P$

$d_3 = d - 2h_3 = d - 1{,}22687P$

$r = \frac{H}{6} = 0{,}14434P$



Nominal diameter and T.P.I	Pitch	External diameter	Flank diameter	Minor diameter		Flank diameter Tap tolerance 2B		Flank diameter Nut tolerance		
				Nut	Screw			min. 2B/3B	max. 2B	max. 3B
	P	d = D	$d_2 = D_2$	D_1	d_3	min.	max.			
No. 1-64	0,397	1,854	1,598	1,425	1,367	1,610	1,623	1,598	1,664	1,646
No. 2-64	0,454	2,184	1,890	1,694	1,628	1,902	1,915	1,890	1,961	1,943
No. 3-48	0,529	2,515	2,172	1,941	1,864	2,184	2,197	2,172	2,248	2,228
No. 4-40	0,635	2,845	2,433	2,156	2,065	2,446	2,459	2,433	2,517	2,494
No. 5-40	0,635	3,175	2,764	2,487	2,395	2,776	2,789	2,764	2,847	2,827
No. 6-32	0,794	3,505	2,990	2,647	2,532	3,105	3,028	2,990	3,084	3,058
No. 8-32	0,794	4,166	3,650	3,307	3,193	3,675	3,688	3,650	3,746	3,721
No. 10-24	1,058	4,826	4,138	3,680	3,528	4,163	4,176	4,138	4,247	4,219
No. 12-24	1,058	5,486	4,798	4,341	4,188	4,823	4,836	4,798	4,910	4,882
UNC 1/4"-20	1,270	6,350	5,524	4,976	4,793	5,575	5,588	5,524	5,646	5,616
UNC 5/16"-18	1,411	7,938	7,021	6,411	6,205	7,071	7,084	7,021	7,155	7,120
UNC 3/8"-16	1,588	9,525	8,494	7,805	7,577	8,545	8,557	8,494	8,639	8,603
UNC 7/16"-14	1,814	11,112	9,934	9,149	8,887	9,985	9,997	9,934	10,089	10,051
UNC 1/2"-13	1,954	12,700	11,430	10,584	10,302	11,481	11,494	11,430	11,595	11,552
UNC 9/16"-12	2,117	14,288	12,913	11,996	11,692	12,964	12,977	12,913	13,086	13,043
UNC 5/8"-11	2,309	15,875	14,376	13,376	13,043	14,427	14,440	14,376	14,559	14,514
UNC 3/4"-10	2,540	19,050	17,399	16,229	15,933	17,450	17,463	17,399	17,595	17,544
UNC 7/8"-9	2,822	22,225	20,391	19,169	18,763	20,455	20,467	20,391	20,599	20,546
UNC 1"-8	3,175	25,400	23,338	21,963	21,504	23,401	23,414	23,338	23,561	23,505
UNC 1 1/8"-7	3,629	28,575	26,218	24,648	24,122	26,294	26,319	26,218	26,457	26,398
UNC 1 1/4"-7	3,629	31,750	29,393	27,823	27,297	29,469	29,494	29,393	29,637	29,576
UNC 1 3/8"-6	4,233	34,925	32,174	30,343	29,731	32,250	32,276	32,174	32,438	32,372
UNC 1 1/2"-6	4,233	38,100	35,349	33,518	32,906	35,425	35,451	35,349	35,616	35,550
UNC 1 3/4"-5	5,080	44,450	41,151	38,951	38,217	41,241	41,266	41,151	41,445	41,372
UNC 2"-4 1/2	5,644	50,800	47,135	44,689	43,876	47,235	47,260	47,135	47,450	47,371
UNC 2 1/4"-4 1/2	5,644	57,150	53,485	51,039	50,226			53,485	53,805	53,726
UNC 2 1/2"-4	6,350	63,500	59,375	56,627	55,710			59,375	59,718	59,632
UNC 2 3/4"-4	6,350	69,850	65,725	62,977	62,060			65,725	66,073	65,987
UNC 3"-4	6,350	76,200	72,075	69,327	68,410			72,075	72,428	72,339
UNC 3 1/4"-4	6,350	82,550	78,425	75,677	74,760			78,425	78,783	78,694
UNC 3 1/2"-4	6,350	88,900	84,775	82,027	81,110			84,775	85,183	85,049
UNC 3 3/4"-4	6,350	95,250	91,125	88,377	87,460			91,125	91,493	91,402
UNC 4"-4	6,350	101,600	97,475	94,727	93,810			97,475	97,848	97,757

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UNIFIED FINE THREADS

Nominal dimensions as per ANSI B1.1
Production tolerances on tap flank diameter for 2B class nut threads
Limit dimensions-Nut threads as per ANSI B1.1, 2B-3B tolerance classes

Dimensions in mm

$H = 0{,}86603P$

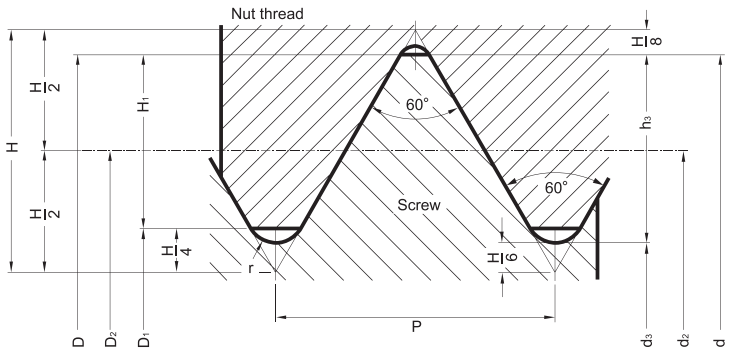
$H_1 = \frac{5}{8}H = 0{,}54127P$

$h_3 = \frac{17}{24}H = 0{,}61343P$

$d_2 = D_2 = d - \frac{3}{4}H = d - 0{,}64952P$

$d_3 = d - 2h_3 = d - 1{,}22687P$

$r = \frac{H}{6} = 0{,}14434P$



Nominal diameter and T.P.I	Pitch	External diameter	Flank diameter	Minor diameter		Flank diameter Tap tolerance 2B		Flank diameter Nut tolerance		
				Nut	Screw					
	P	d = D	$d_2 = D_2$	D_1	d_3	min.	max.	min. 2B/3B	max. 2B	max. 3B
No. 0-80	0,318	1,524	1,318	1,181	1,135	1,331	1,344	1,318	1,377	1,361
No. 1-72	0,353	1,854	1,626	1,473	1,422	1,638	1,651	1,626	1,689	1,674
No. 2-64	0,397	2,184	1,928	1,755	1,697	1,941	1,953	1,928	1,996	1,979
No. 3-56	0,454	2,515	2,220	2,024	1,958	2,233	2,245	2,220	2,291	2,273
No. 4-48	0,529	2,845	2,502	2,271	2,195	2,515	2,527	2,502	2,581	2,560
No. 5-44	0,577	3,175	2,799	2,550	2,466	2,812	2,824	2,799	2,880	2,860
No. 6-40	0,635	3,505	3,094	2,817	2,725	3,108	3,119	3,094	3,180	3,157
No. 8-36	0,706	4,166	3,708	3,401	3,299	3,721	3,734	3,708	3,800	3,777
No.10-32	0,794	4,826	4,310	3,967	3,853	4,336	4,348	4,310	4,409	4,384
No.12-28	0,907	5,486	4,897	4,503	4,374	4,923	4,935	4,897	5,004	4,976
UNF 1/4”-28	0,907	6,350	5,761	5,367	5,237	5,799	5,812	5,761	5,870	5,842
UNF 5/16”-24	1,058	7,938	7,249	6,792	6,640	7,287	7,300	7,249	7,371	7,341
UNF 3/8”-24	1,058	9,525	8,837	8,379	8,227	8,875	8,887	8,837	8,961	8,931
UNF 7/16”-20	1,270	11,112	10,287	9,738	9,555	10,338	10,351	10,287	10,424	10,391
UNF 1/2”-20	1,270	12,700	11,874	11,326	11,143	11,925	11,938	11,874	12,017	11,981
UNF 9/16”-18	1,411	14,288	13,371	12,761	12,555	13,421	13,434	13,371	13,520	13,482
UNF 5/8”-18	1,411	15,875	14,958	14,348	14,143	15,009	15,022	14,958	15,110	15,072
UNF 3/4”-16	1,588	19,050	18,019	17,330	17,102	18,070	18,082	18,019	18,184	18,143
UNF 7/8”-14	1,814	22,225	21,046	20,262	20,000	21,110	21,123	21,046	21,224	21,181
UNF 1”-12	2,117	25,400	24,026	23,109	22,804	24,089	24,102	24,026	24,219	24,171
UNF 1 1/8”-12	2,117	28,575	27,201	26,284	25,979	27,252	27,277	27,201	27,339	27,351
UNF 1 1/4”-12	2,117	31,750	30,376	29,459	29,154	30,427	30,452	30,376	30,579	30,528
UNF 1 3/8”-12	2,117	34,925	33,551	32,634	32,329	33,602	33,627	33,551	33,759	33,706
UNF 1 1/2”-12	2,117	38,100	36,726	35,809	35,504	36,777	36,802	36,726	36,937	36,886

WHITWORTH PIPE THREADS

Nominal dimensions ISO 228/1-UNI 338-66
Production tolerances on tap flank diameter
Limit dimensions for internal threads

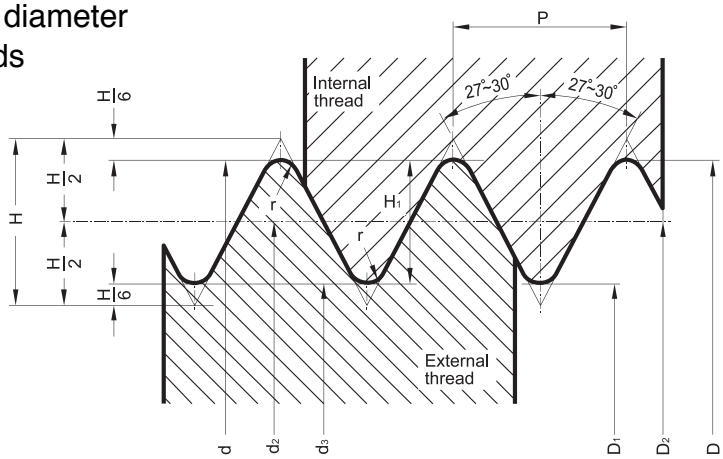
Dimensions in mm

$P = \frac{25,4}{z} H$

$H = 0,960491\ P$

$H_1 = 0,640327\ P$

$r = 0,137329\ P$



Type (1)	Thread diameter d = D	Pitch P	T.P.I z	Flank diameter $d_2 = D_2$	Minor diameter $d_3 = d_1$	H_1	r ≈	Tap Flank diameter d_2 min.	Tap Flank diameter d_2 max.	Internal Thread Flank diameter min.	Internal Thread Flank diameter max.
G 1/8	9,728	0,907	28	9,147	8,566	0,581	0,125	9,177	9,194	9,147	9,254
G 1/4	13,147	1,337	19	12,301	11,445	0,856	0,184	12,336	12,356	12,301	12,426
G 3/8	16,662	1,337	19	15,806	14,950	0,856	0,184	15,841	15,861	15,806	15,933
G 1/2	20,955	1,814	14	19,793	18,631	1,162	0,249	19,828	19,848	19,793	19,935
G 5/8	22,911	1,814	14	21,749	20,587	1,162	0,249	21,784	21,804	21,749	21,891
G 3/4	26,441	1,814	14	25,279	24,117	1,162	0,249	25,314	25,334	25,279	25,421
G 7/8	32,201	1,814	14	29,039	27,877	1,162	0,249	29,074	29,094	29,039	29,181
G 1	33,249	2,309	11	31,770	30,291	1,479	0,317	31,815	31,839	31,770	31,950
G 1 1/8	37,897	2,309	11	36,418	34,939	1,479	0,317	36,463	36,487	36,418	36,598
G 1 1/4	41,910	2,309	11	40,431	38,952	1,479	0,317	40,476	40,500	40,431	40,611
G 1 3/8	44,323	2,309	11	42,844	41,365	1,479	0,317	42,889	42,913	42,844	43,024
G 1 1/2	47,803	2,309	11	46,324	44,845	1,479	0,317	46,374	46,398	46,324	46,504
G 1 3/4	53,746	2,309	11	52,267	50,788	1,479	0,317	52,327	52,354	52,267	52,447
G 2	59,614	2,309	11	58,135	56,656	1,479	0,317	58,195	58,222	58,135	58,315
G 2 1/4	65,710	2,309	11	64,231	62,752	1,479	0,317	64,291	64,318	64,231	64,448
G 2 3/8	69,398	2,309	11	67,919	66,440	1,479	0,317	67,979	68,006	67,919	68,136
G 2 1/2	75,184	2,309	11	73,705	72,226	1,479	0,317	73,765	73,792	73,705	73,922
G 2 3/4	81,534	2,309	11	80,055	78,576	1,479	0,317	80,127	80,157	80,055	80,272
G 3	87,884	2,309	11	86,405	84,926	1,479	0,317	86,477	86,507	86,405	86,622
G 3 1/4	93,980	2,309	11	92,501	91,022	1,479	0,317	92,573	92,603	92,501	92,718
G 3 1/2	100,330	2,309	11	98,851	97,372	1,479	0,317	98,923	98,953	98,851	99,068
G 3 3/4	106,680	2,309	11	105,201	103,722	1,479	0,317	105,273	105,303	105,201	105,418
G 4	113,030	2,309	11	111,551	110,072	1,479	0,317	111,623	111,653	111,551	111,768
G 4 1/2	125,730	2,309	11	124,251	122,772	1,479	0,317				
G 5	138,430	2,309	11	136,951	135,472	1,479	0,317				
G 5 1/2	151,130	2,309	11	149,651	148,172	1,479	0,317				
G 6	163,830	2,309	11	162,351	160,872	1,479	0,317				

(1) - This type is conventional:originally the value in inches was the internal pipe diameter.

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INTERESTING HINTS FOR TAPPING

Optimum tapping conditions reduce effective machining times and increase tap life.

Selection of the most suitable tap

Which types of tap or whether or not a thread former can be used, depends on the type of material to be machined.

As a general guide, materials with an extension of at least 10% can be cold-formed.

To determine the most suitable tap, refer to the tap recommendation table on pages 11 to 14.

Core holes

- Core holes should be clean and swarf-free.
- Core holes should be of the prescribed size, see chart extract on page 142-143 of this catalogue, and dependent on the actual application, selected towards the upper diameter limit.

Lubricant in relation to machining centers

Frequently the coolants used on machining centers are unsatisfactory for tapping because their percentage lubricant content is too low. If it is not possible to increase the percentage of lubricant in the emulsion, the lubrification problem can be solved in other ways, i.e.:

Lubricating with concentrated emulsion

A. A lubricating unit, connected to the machine control, delivers at the required instant a specific quantity of concentrated emulsion into the core hole or onto the tap.

B. A pump in a separate tank, controlled by the machine, delivers a specific amount of concentrate into the core hole.

Tapping in separate operations

This procedure allows the use of the ideal tapping lubricant.

Cutting speeds for taps

The cutting speed has a great influence on chip flow and the life of the tap.
It is worthwhile to establish the ideal cutting speed by tapping trials.
Guide values see on the recommendation table page 15. The cutting speed should be in relation to the characteristics of the material, the machine and its equipment.

Effects of unsuitable cutting speed

- forced tapping
- tap lead chipping caused by overloaded cutting tooth
- torn threads
- unsatisfactory tap-life
- rejected threads

INTERESTING HINTS FOR TAPPING

Cold welding

What are the causes of cold welding?
- unsuitable tap selection
- tap with incorrect cutting geometry
- coolant unsuitable for material
- insufficient coolant
- axial pressure (pull or push) on the tap
- core hole too small
- breaks in walls of core hole
- speed too high or too low
- swarf trapped in the hole
- incorrect alignment of tap and core hole
- tap eccentricity

Effects of cole welding:
- torn threads
- short tap life
- rejected threads
- tap breakage
- scrap workpieces

Tap mounting

- The tap must be mounted on the axis of the core hole.
- On non-synchronized machines (feed / speed) we recommend the use of a tapping spindle.

Tapping heads

With non-synchronized machine spindles (feed / speed) the feed rate should as a rule be programmed approx. 5-10% lower than the thread pitch. In these cases a tapping chuck must be used which will compensate the difference between the feed rate and the thread pitch.
It is important that the tension spring in the axial compensation is set to a light rate to avoid axially loading the tap.
The compression spring should be tensioned so that the tap starts to cut by compressing the spring at the most up to one half pitch.

Important hints:
Ensure that the correct speed is selected.
Ensure that ample lubricating coolant is used when tapping.
Good machine and equipment stability is essential for optimum quality and performance.

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APPLICATION AND USE OF THREADING TAPS

Problem	Causes	Solutions
Tapped hole oversize	Incorrect tap in use (cutting geometry unsuitable for application)	Use tap selected from the relevant material group
	Faulty alignment	Ensure that the tap is correctly aligned with the core hole axis
	Cold welding	Improve lubrication and direction of coolant Adjust cutting speed
	Re-ground tap (lead-in is not concentric)	Regrind tap lead correctly on a suitable tap grinding machine

Problem	Causes	Solutions
Stripped threads	Incorrect tap in use (cutting geometry incorrect for application	Use a tap from the relevant material group.
	Spindle speed and feed rate not synchronized	Check feed rate programming and / or pitch of leading spindle Use a tapping spindle with axial float
	Insufficient start pressure exerted on tap with peel-cut	Increase start pressure

Problem	Causes	Solutions
Bell mouthed tapped hole	Incorrect start pressure applied to tap	Use a tapping spindle with axial float

Problem	Causes	Solutions
Unsatisfactory thread surface finish	Incorrect tap in use (Cutting geometry unsuitable for application)	Select tap from the relevant material group
	The tap is blunt	Replace or re-grind tap
	Tap badly re-ground	Re-grind tap again. Check that cutting geometry is suitable for material
	Coolant lacking in lubricating qualities and / or quantity	Ensure the use of asuitable coolant and an ample supply

APPLICATION AND USE OF THREADING TAPS

Problem	Causes	Solutions
Partial chipping of tap	Swarf jamming	Check cutting speed Use alternative tap type
	Tap has jammed against bottom of core hole	Check hole and thread depths Drill core hole deeper
	Tap incorrectly re-ground (lead-in diameter too small therefore too few cutting teeth)	Ensure that original values ore maintained when regrinding
	Irregular workpiece material structure	Adjust cutting speed Improve lubricating quality of coolant

Problem	Causes	Solutions
Excessive tap wear	Incorrect cutting speed	Adjust cutting speed to suit workpiece material
	Coolant lacking in lubricating qualities and / or quantity	Ensure the use of a suitable coolant and an ample supply Check that coolant is reaching the cutting zone
	Surface of the core hole is compacted	Check core hole drilling conditions (drill carefully to reduce risk of surface compacting) Check drill cutting edges

Problem	Causes	Solutions
Tap breckage	Incorrect tap in use (cutting geometry unsuitable for application)	Use tap from the relevant material group
	Centering error	Ensure that axes of tap and core hole are aligned
	Blunt tap	Re-grind tap Ensure that taps are stored carefully
	Tap has reached bottom of core hole	Use tapping spindle with axial float and slipping clutch
	Core hole too small	Select core hole as per chart, pages 142～143 of this catalogue

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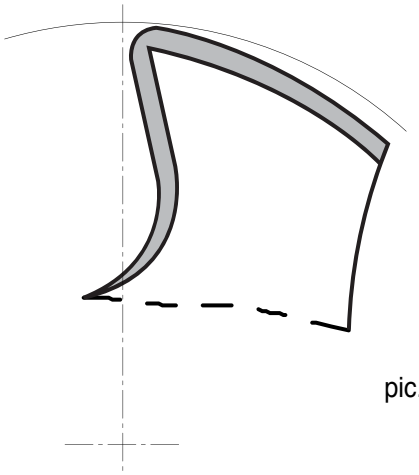
RESHARPENING

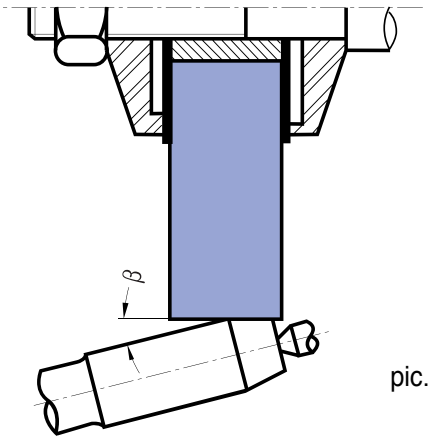
The resharpening on taps is done for regenerating the active hedges weared by the destructive action of cutting and of friction, it has high importance for an economical exploitation of the tool and so far has to be made rationally, keeping away from wrong operations which can heavily compromise the accuracy and the life.
In order to execute the tap resharpening quickly and accurately we recommend the use of proper resharpening machines having all necessary equipments for this operation.
The tap resharpening take place in two steps:
a) resharpening of (relieved) chamfer;
b) resharpening of flutes. (See picture 1)



pic. 1

RESHARPENING OF (RELIEVED) CHAMFER

The chamfer resharpening must be executed both on specific for taps machines or on conventional resharpening machines equipped with an auxiliary system proper to generate the circular relief on back.
The picture 2 shows the resharpening made with the cylindrical surface of a grinding wheel.
Before resharpening, verify that the tap, fixed between points or on pincer, runs concentrical; verify also the angle β which has to be correct in order to keep the same number of threads on chamfer.



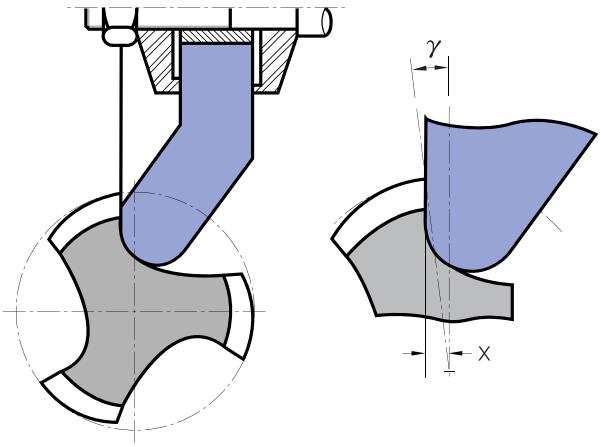
pic. 2

RESHARPENING OF FLUTES

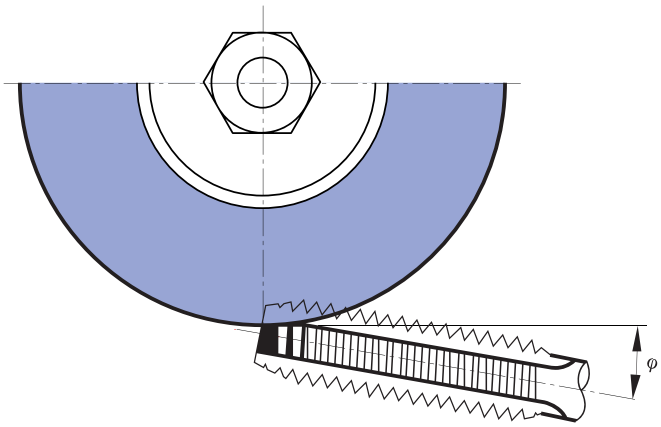
This operation must be done on a specific resharpening machine for taps, equipped with: deviding head, lead screw of "barrasinus" for executing the helix and cooling equipment.
The rake angle γ is obtained moving the tap axis, in relation to the resharpening surface, of an amount X to be calculated with the formula: $X = \frac{1}{2} d_1 \sin \gamma$ (see picture 3).
(d_1=tap major diameter)

Example:
Tap 10 $\times$ 1,5 to cut on steel strength = 600 N/mm^2
d_1 = 10mm ; γ = 15° ; sin γ = 0,25882;

$$X = \frac{0{,}25882 \times 10}{2} \; ; X = 1{,}29\text{mm}$$

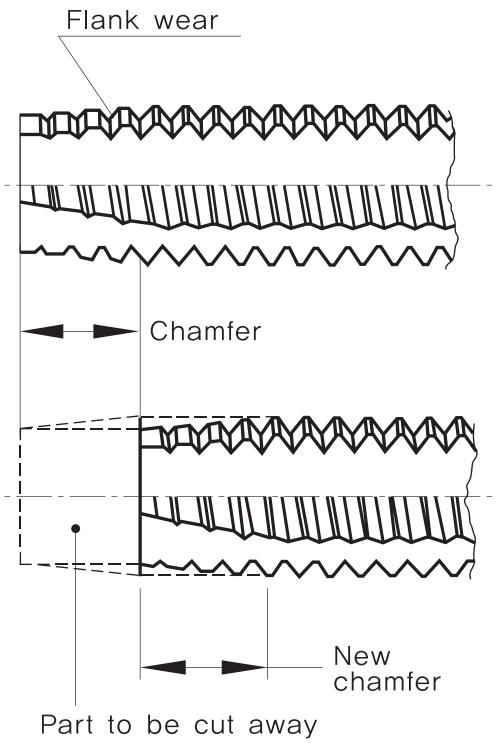


pic. 3



pic. 4

On all taps having spiral-flutes, in addition to the trade mark and identification of the dimension and type, it is possible to find also the pitch of the spiral refered to the lead screw necessary for the resharpening.
In case of employment of taps equipped with deburring tool **Burr-Bit** it is necessary to extend the flutes following what suggested by the supplier.
Because the wear on a tap is mainly on the chamfer area, on taps having "gun nose" the resharpening of the flutes can be made on the front area only (see picture 4).



pic. 5

It is very important to pay attention that, when also the thread flanks are worn(in addition to the active heges) the resharpening as above described is practically useless.
In this case the "regeneration" is made, by means of cutting completely the chamfer away(this means a shorter tap) and reproducing then the chamfer with same angle and relief. (see picture 5)
The regeneration is also advisable on taps with spiral flutes, because that way the flutes grinding is not necessary, in absence of special resharpening machines with lead screw with proper angle.

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RESHARPEN TIMELY

It is important to resharpen timely the weared tap. In these conditions in fact defective threads can be produced, risking to brake the tool;in addition the wear is increasing quickly, damaging a wide area of the cutter and rapidly.

PROPER GRINDING WHEELS

The structure and grain of grinding wheels must be the right one for the tap to be resharpened. Our technicians are at complete disposal to give the proper recommendations.

TAPS FOR CAST IRONS

On these taps the resharpening is rarely possible because, due to cast iron is abrasive, the tap is wearing on flank of the thread and so far out of tolerance.

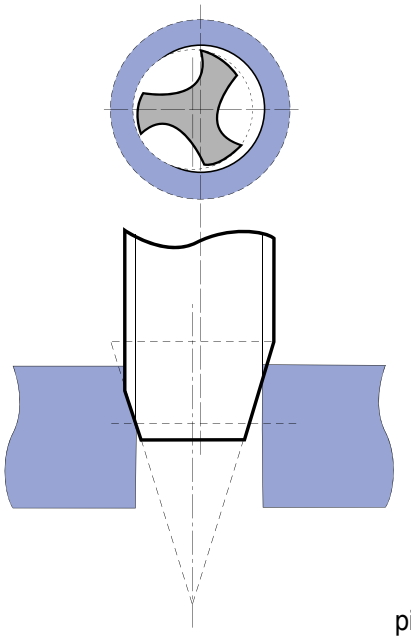
TAPS FOR ALUMINIUM

It is advisable, after resharpening as above described, to remove steel burrs from the grinding wheel action. This operation, easy with iron brushes, avoid the danger of boring or over tolerance tapping instead of accurate tapping.

CONTROLS(TESTS)

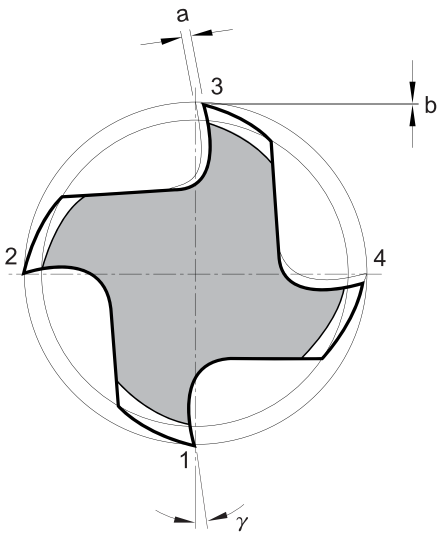
Once resharpened the tap, it is always better to make some tests to obtain correct threads same as when the tap was new.

- The chamfer must be perfectly on axis to avoid the effects of picture 6.
- The cutters must have correct divisions. The results of a resharpening with a wrong division is shown on picture 7.
- The length and number of threads on chamfer must be rigorously identical to those of the new tap.



pic. 6

chamfer out of center



pic. 7

incorrect division
cutters not concentric

SPECIAL TAPS

For photocopying

Orders / Inquiries

This form may be returned to your local Y.G-1 distributor or to Y.G-1.

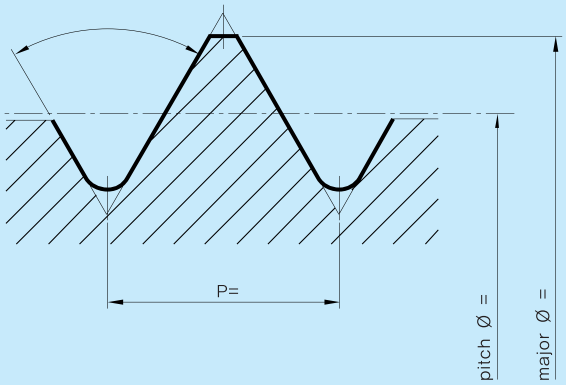
Company _____
Address _____
_____
Department _____
Phone _____

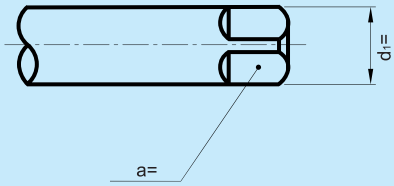
Tool

Thread Ø and pitch _____

_____ Degrees

○ R.H. ○ L.H.

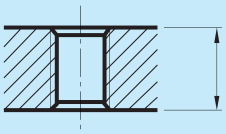


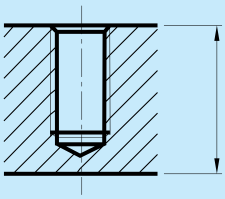


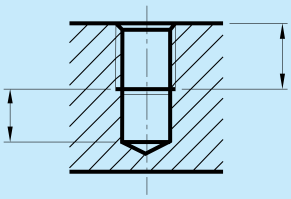
Tolerance class

Overall length _____ mm

Hole







Unusual characteristics of the threaded product or of the tapping method, e.g. counterbore, tapping on an angle, etc. _____

Material to be tapped

Material No. or designation _____
Tensile strength _____ N/mm² _____ HB _____ HRc
Chip form ○ short ○ long
○ Annealed steel ○ Hardened steel ○ Heat treated steel

Special requirements : _____

Person to be contacted within the company _____
Date _____ Signature _____

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SEND US YOUR TAPPING PROBLEMS

For photocopying

This form may be returned to your local Y.G-1 distributor or to Y.G-1.	Company _____ Address _____ _____ Department _____ Phone _____
Tool	Description of the tap being used at present Make Type _____ _____ Thread Ø and pitch _____ Class of tolerance _____ ○ right-hand cutting ○ left-hand cutting ○ fluteless ○ right hand spiral flutes _____ degrees ○ straight flutes ○ left hand spiral flutes _____ degrees ○ spiral point ○ length of chamfer _____ thread chamfer Additional information for special pitches or thread forms pitch Ø _____ major Ø _____ minor Ø _____ flank angle _____ degrees
Hole	Tap drill Ø _____ length of hole _____ depth of full thread _____ ○ through hole ○ bottoming hole Special requirements or unusual characteristics of the threaded product _____ _____
Tapping speed	_____ meters per minute _____ revolutions per minute
Lubricant	○ without ○ emulsion % ___ ○ cutting oil ○ other _____ Application ○ under pressure ○ vaporization ○ other _____
Machine	Type _____ ○ horizontal tapping ○ vertical tapping
Driving	○ tap revolves ○ work revolves Number of spindles _____
Feed	○ without ○ power ○ CNC % _____
Tool holder	○ rigid ○ floating ○ with safety clutch Make _____ Type _____
Material to be tapped	Material No. or designation _____ Composition, if possible _____ Tensile strength or hardness _____ N/mm² _____ HB _____ HRc Chip form ○ short ○ long

Short description of problem : _____

_____

_____

_____

_____

Person to be contacted within the company _____

Date _____ Signature _____

TAP TOLERANCES

AMERICAN STANDARD

Cylindrical threads

UNC	Unified Coarse-Thread Series
UNF	Unified Fine-Thread Series
UNEF	Unified Extra-Fine-Thread Series
UN	Constant Pitch Series-Threads with constant pitch of T.P.I. 4,6,8,12,16, 20,28,32
UNS	Selected combinations-Threads with special dia-pitch combinations
UNJ	Unified threads with constant pitch with radius on minor diameter from 0,15011 Pitch to 0,18042 Pitch
UNJC	Unified coarse thread with radius on minor diameter from 0,15011 Pitch to 0,18042 Pitch
UNJEF	Unified extra fine thread with radius on minor diameter from 0,15011 Pitch to 0,18042 Pitch
UNJF	Unified fine threads with radius on minor diameter from 0,15011 Pitch to 0,18042 Pitch

Pipe cylindrical threads

NPS	Cylindrical threads for pipe
NPSC	American Standard for pipe coupling
NPSF	American Standard for internal thread on pipe, dryseal
NPSH	American Standard for cylindrical threads for pipe, joints and nipples
NPSI	American Standard for internal cylindrical threads on pipe(dryseal)
NPSL	American Standard for cylindrical threads on pipe for nuts
NPSM	American Standard for cylindrical threads on pipe for mechanical joints
NGO	American National pipe threads for gas exhaust
NGS	American National pipe threads for gas

Taper pipe threads

ANPT	Taper pipe threads for Army, Navy and Airforce
F-PTE	Taper pipe fine threads(dryseal)
NPT	Taper pipe thread
NPTF	Taper pipe thread (dryseal)
NPTR	Taper pipe thread for railways equipments
PTF-SAE SHORT	Taper pipe short thread(dryseal)-SAE
PTF-SPL SHORT	Taper pipe special thread(dryseal)-SAE
PTF-SPL EXTRA SHORT	Extra short special thread(dryseal)-SAE
SPL-PTF	Special taper pipe dryseal thread
NGT	National American taper pipe thread
SGT	Special taper pipe thread
API	American petroleum Institute taper pipe thread

Trapezoidal and saw tooth threads

ACME-C	ACME selfcentering thread
ACME-G	ACME generical application
STUB-ACME	ACME flat thread with reduced thread depth
60° STUB-ACME	ACME flat thread with 60° flank angle
N BUTT	American National Saw tooth thread

BRITISH STANDARD

BSW	Whitworth British Standard coarse pitch
BSF	Whitworth British Standard fine pitch
WHIT	Whitworth Standard special pitch
R	British Standard external threading for taper pipe(dryseal)(already BSP-Tr)
Rc	British Standard internal threading taper thread for pipe(BSP-Tr)
Rp	British Standard cylindrical thread for pipe(already BSP.PI)
BA	British Standard Association thread
BSC	British Standard thread for bicycle
CEI	British Standard for bicycle

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