

New products for machining technicians

NEW Through hole – machine taps right-hand, type Stabil NW



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- ▲ Highly efficient machining of non-ferrous metals
- ▲ 1 – 2 µm thick DLC monolayer coating ensures minimal friction values and therefore ideal chip clearance
- ▲ 4xD

NEW Blind hole – machine taps right-hand, type Salo-Rex NW



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- ▲ Highly efficient machining of non-ferrous metals
- ▲ 1 – 2 µm thick DLC monolayer coating ensures minimal friction values and therefore ideal chip clearance
- ▲ 3xD

NEW Through hole – machine taps right-hand, type Stabil HR



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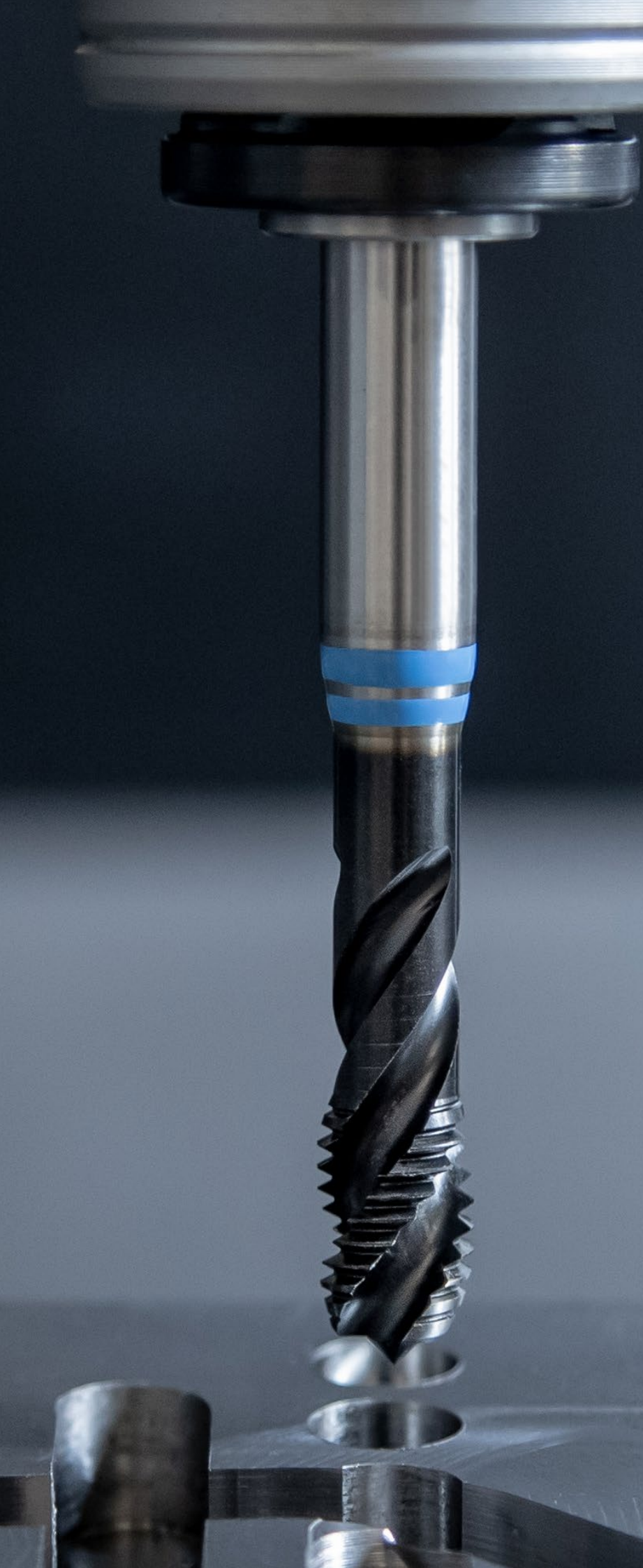
- ▲ Specialist for thread production in high-strength steels
- ▲ New optimised hard material/carbon coating delivers the very best results
- ▲ 4xD

NEW Blind hole – machine taps right-hand, type SL HR



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- ▲ Specialist for thread production in high-strength steels
- ▲ New optimised hard material/carbon coating delivers the very best results
- ▲ 2xD



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- 2 Solid carbide drilling
- 3 Indexable insert drilling
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- 5 Spindle Tooling

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WNT \ Performance

Premium quality tools for high performance.

The premium quality tools from the **WNT Performance** product line have been designed for specific applications and are distinguished by their outstanding performance. If you make high demands on the performance of your production and want to achieve the very best results, we recommend the Premium tools in this product line.

WNT \ Standard

Quality tools for standard applications.

The quality tools of the **WNT Standard** product line are high quality, powerful and reliable and enjoy the highest trust of our customers worldwide. Tools from this product line are the first choice for many standard applications and guarantee optimal results.

Symbol explanation

Chamfer form



Form B
(with spiral point, 4 – 5 cutting leads)



Form C
(without spiral point, 2 – 3 cutting leads)



Form D
(without spiral point, 4 – 5 cutting leads)



Form E
(without spiral point, 1.5 – 2 cutting leads)

Helix angle



Example: helix angle 42°

Tolerances



Explanation of the tolerances
can be found on → **Page 113.**

Tensile strength



Example up to 1100 N/mm²

Tool Material



High-speed steel



High-performance high speed steel



High-performance sintered high-speed steel



Solid carbide

Coloured rings

WNT \ Performance

An explanation of the coloured rings
can be found on → **Page 116.**

Thread types



Explanation of the thread types
can be found on → **Page 3.**

Coolant supply version



Int. coolant supply



The cutting data is highly dependent on external conditions, such as stability of the tool and workpiece clamping, material and machine type!
The values indicated represent possible cutting data which may need to be corrected depending on operating conditions !

Tap types

Tool type

WNT \ Performance

Stabil

for through holes to 4xD

DL

left hand helix for through holes up to 4xD

Salo-Rexfor blind holes up to 3xD,
high helix angle for secure
chip evacuation**SL**for blind holes up to 2xD, 15°,
25° or 30° helix angle**TWIN**straight flutes for through and
blind holes up to 2xD**Spanlos**Thread former for through and
blind holes up to 3xDA detailed explanation of the types of tools can be found on → **Page 112.**

Application range

WNT \ Performance

UNI

for universal application

HRfor high-tensile steels
< 1400 N/mm²**NW**

for aluminium

Ti

for titanium and titanium alloys

HTfor hardened steel and chilled
iron up to 55 HRC**ERGO**Hand Taps for stainless,
heat-resistant and heat-treated
steels up to 1100 N/mm²**ST**for good quality free
machining steel**GG**

for cast iron

Soft

for soft materials

Ni

special for Inconel 718

ECSpanlos – Thread former for
universal application**ERGO
F.T.**Hand tap for steel up to
1400 N/mm², wolfram,
chilled iron**VG**for tempered and heat-resistant
steels < 1100 N/mm²**VA**for stainless and acid-resistant
steels up to 1100 N/mm²**Ms**

for short chipping brass

AMPCO

for Ampco alloys

NEOSpanlos – Thread former for
heat resistant alloys**FE**

Dies for steel

WNT \ Standard

UNIfor universal application up to
1000 N/mm²**VA**for corrosion and acid-resistant
steels**FE**for steel to 850 N/mm²**GG**

for cast iron

FE-HFfor high-tensile steel to
1100 N/mm²**AL**for aluminium and
aluminium alloys

Special Features

CNCfor synchronised CNC
machining with minimum
length compensation chuck**NC**for synchronised CNC
machining with minimum
length compensation chuck**NCW**with Weldon flat for
synchronised CNC machining
without length compensation
chuck**AZ**with intermittent teeth,
reduces friction**S**with back taper,
for deep threads**DRY**for dry machining or minimum
quantity lubrication (MMS)**TS**for high-speed machining,
up to 100 m/min.**LH**

for left hand threads

ELextra long, with double
overall length**AUT**

short version for automatic use

SNThread formers with lubrication
grooves**ES**

extra short

MMB

Machine taps

R_z=1

Lapped Dies

Thread types

M

ISO metric coarse thread DIN 13

UNF

Unified fine thread ASME – B1.1

NPTFAmerican taper pipe
thread with sealing (1:16)
ANSI/ASME B1.20.3**EG M**ISO Metric coarse thread for
wire inserts DIN 8140-2**EG
UNF**EG Unified fine thread for wire
inserts ASME B18.29.1**Rp**Cyl. Whitworth coarse thread
DIN EN 10226-1 (ISO7-1)**MF**

ISO Metric fine thread DIN 13

UNJCUnified coarse thread
ASME – B1.15 and ISO 3161**Rc**Whitworth taper pipe thread
(1:16) DIN EN 10226-2 (ISO7-1)**G**Whitworth pipe thread DIN EN
ISO 228**UNJF**Unified fine thread
ASME – B1.15 and ISO 3161**Tr**ISO metric trapezoidal
thread DIN 103**UNC**Unified coarse thread
ASME – B1.1**BSW**

Whitworth thread BS84

**EG
UNC**EG Unified coarse thread for
wire inserts ASME B18.29.1**NPT**American taper pipe
thread with sealing (1:16)
ANSI/ASME B1.20.1The thread types BSW, NPTF,
Rp and Rc as well as hand taps
and dies are now available in
the online shop.

Toolfinder – WNT Performance

Thread formers

	for cold-formable materials
HSS taps	
	for universal application up to 1100 N/mm ²
	for steel up to 750 N/mm ²
	for steel up to 1400 N/mm ²
	for corrosion and acid-resistant steels
	For cast iron materials
	for heat-resistant materials
	for aluminium and non-ferrous metal
	Hard materials

 Through hole-Blind hole

 Through hole
 Blind hole

 Through hole
 Blind hole
 Through hole-Blind hole

 Through hole
 Blind hole
 Through hole-Blind hole

 Through hole
 Blind hole

 Through hole-Blind hole

 Through hole
 Blind hole

 Through hole
 Blind hole
 Through hole-Blind hole

 Through hole-Blind hole

		WNT \ Performance														
Tool type	Application range	M	EG M	MF	G	UNC	EG UNC	UNJC	UNF	EG UNF	UNJF	BSW	NPT	NPTF	Rp	Tr
Spanlos	EC	57+58		80	88	93			102							
Stabil	UNI	21-23	61	63+64	82	89	94		97	103						
Salo-Rex	UNI	34-37	62	67+68	84+85	91	95		99	104						
Stabil	ST	24+25		64	82											108
Salo-Rex	ST	39+40		69+70	85											
TWIN	ST	51+52		78-79	87								107			
Stabil	HR	25														
Salo-Rex	HR	40														
TWIN	HR	51+52		77+78	87											
Stabil	VA	26			82	89										
Salo-Rex	VA	41		72	85	91			99				105			
TWIN	GG	53		78												
Stabil	Ti	27				89			97							
SL	Ti	43						96	100							
Stabil	NW	26		64	82											
Salo-Rex	NW	42		73	85											
TWIN	AMPCO	51+52														
TWIN	HT	54		77												

This article can be found in our online shop at cuttingtools.ceratizit.com

Toolfinder – WNT Standard

Thread formers

 for cold-formable materials

 Through hole-Blind hole

HSS taps

 for universal application up to 1000 N/mm²

 Through hole
 Blind hole

 for steel to 850 N/mm²

 Through hole
 Blind hole

 for high-tensile steels up to 1100 N/mm²

 Through hole
 Blind hole

 for corrosion and acid-resistant steels

 Through hole
 Blind hole

 For cast iron materials

 Through hole-Blind hole

 for aluminium and non-ferrous metal

 Through hole
 Blind hole



For tools for other applications, refer to the taps overview on
→ **Pages 8–20.**



Shank extensions for taps and thread-cutting oils can be found in
our online shop at cuttingtools.ceratizit.com

WNT \ Standard					
Application range	M	MF	G	UNC	UNF
UNI	60	81			
UNI	31+32	65+66	83	90	98
UNI	48+49	74	86	92	101
FE	32	66			
FE	49	75			
FE-HF	32			90	
FE-HF	49			92	
VA	33	66		90	98
VA	49+50	76		92	101
GG	56				
AL	33				
AL	50				



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Taps Overview

Application range	Through hole	Blind hole	Through hole-Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated ■	uncoated □	Comments	WNT \ Performance	WNT \ Standard
Universal				Stabil	UNI	ISO 2 6H ISO 3 6G 7G	HSS-E	■			21+22	
					UNI	ISO 2 6H	HSS-E HSS-PM	■			31	
				Stabil	UNI NCW	ISO 2 6H	HSS-PM	■		with Weldon flat for synchronised CNC machining without length compensation chuck	23	
					UNI NCW	ISO 2 6H	HSS-PM	■		with Weldon flat for synchronised CNC machining without length compensation chuck	32	
				Stabil	UNI CNC	ISO 2X 6HX ISO 3X 6GX 7GX	HSS-E	■		for synchronised CNC machining with minimum length compensation chuck	23	
					UNI NC	ISO 2 6H	HSS-E	■		for synchronised CNC machining with minimum length compensation chuck	32	
				Stabil	UNI EL	ISO 2 6H	HSS-E	■		extra long, with double overall length	29	
Steel				Stabil	ST	ISO 2 6H	HSS-E		□		24	
				Stabil	ST	ISO 1 4H ISO 3 6G	HSS-E		□			
					FE	ISO 2 6H	HSS-E		□		32	
					FE ES	ISO 2 6H	HSS-E		□	extra short		
				Stabil	ST LH	ISO 2 6H	HSS-E		□	for left hand threads	24	
				Stabil	ST TS	ISO 2X 6HX	HSS-E	■		for high-speed machining, up to 100 m/min.	25	
				Stabil	HR	ISO 2X 6HX	HSS-PM	■			25	
				Stabil	VG	ISO 2X 6HX	HSS-E	■			25	
					FE-HF	ISO 2 6H	HSS-E	■			32	

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Taps Overview

Application range	Through hole	Blind hole	Through hole- Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated uncoated	Comments	WNT \ Performance	WNT \ Standard
								☐ ☐			

M – Metric ISO Standard Thread

Steel		Stabil	ST EL	ISO 2 6H	HSS-E	☐	extra long, with double overall length	29
			ST MMB	ISO 2 6H	HSS-E	☐	Machine taps	30
Stainless steel		Stabil	VA	ISO 2 6H	HSS-E	☒		26
			VA	ISO 2 6H	HSS-PM HSS-E	☒		33
Non ferrous metals		Stabil	NW	ISO 2 6H	HSS-E	☒		26
			AL	ISO 2 6H	HSS-E	☒	☐	33
		Stabil	Soft	ISO 2 6H	HSS-E	☒		
Heat resistant		Stabil	Ti	ISO 1X 4HX ISO 2X 6HX	HSS-PM	☒		27
		DL	Ti	ISO 2X 6HX	HSS-E	☒		28
		DL	Ni	ISO 2X 6HX	HSS-E	☒		28
Universal		Salo-Rex	UNI	ISO 2 6H 7G	HSS-E	☒		34+35
		Salo-Rex	UNI	ISO 1 4H ISO 3 6G	HSS-E	☒		
			UNI	ISO 2 6H	HSS-E HSS-PM	☒		48
		Salo-Rex	UNI NCW	ISO 2 6H	HSS-PM	☒	with Weldon flat for synchronised CNC machining without length compensation chuck	35
			UNI NCW	ISO 2 6H	HSS-PM	☒	with Weldon flat for synchronised CNC machining without length compensation chuck	49
		Salo-Rex	UNI CNC	ISO 2X 6HX ISO 2 6H, 7G	HSS-E	☒	for synchronised CNC machining with minimum length compensation chuck	36
		Salo-Rex	UNI CNC	ISO 3 6G	HSS-E	☒	for synchronised CNC machining with minimum length compensation chuck	
			UNI NC	ISO 2 6H	HSS-E	☒	for synchronised CNC machining with minimum length compensation chuck	48

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Taps Overview

Application range	Through hole	Blind hole	Through hole- Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated ■	uncoated □	Comments	WNT \ Performance	WNT \ Standard
Universal				Salo-Rex	UNI DRY	ISO 2 6H	HSS-E	■		for dry machining or minimum quantity lubrication (MMS), with thro' coolant	37	
				Salo-Rex	UNI S	ISO 2 6H	HSS-E	■		with back taper, for deep threads		
				Salo-Rex	UNI ES	ISO 2 6H	HSS-E	■		extra short	44	
				Salo-Rex	UNI EL	ISO 2 6H	HSS-E	■		extra long, with double overall length	46	
				SL	UNI	ISO 2 6H	HSS-E		□			
Steel				SL	ST	ISO 2 6H	HSS-E		□			
				SL	ST CNC	ISO 2X 6HX	HSS-E	■		for synchronised CNC machining with minimum length compensation chuck, with thro' coolant	38	
				SL	ST TS	ISO 2 6H	HSS-PM	■		for high-speed machining, up to 100 m/min.		
				SL	ST TS	ISO 2X 6HX	HSS-E	■		for high-speed machining, up to 100 m/min.	38	
				SL	ST ES	ISO 2 6H	HSS-E		□	extra short	45	
				SL	ST EL	ISO 2 6H	HSS-E		□	extra long, with double overall length	47	
				SL	HR	ISO 2 6H	HSS-PM		□		38	
				Salo-Rex	ST	ISO 2 6H	HSS-E	■	□		39	
				Salo-Rex	ST	ISO 1 4H ISO 3 6G	HSS-E	■	□			
					FE	ISO 2 6H	HSS-E		□		49	
					FE-HF	ISO 2 6H	HSS-E	■			49	
				Salo-Rex	ST LH	ISO 2 6H	HSS-E		□	for left hand threads	39	
				Salo-Rex	ST ES	ISO 2 6H	HSS-E		□	extra short		
				Salo-Rex	ST EL	ISO 2 6H	HSS-E		□	extra long, with double overall length	46	

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Taps Overview

Application range	Through hole	Blind hole	Through hole- Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated ■	uncoated □	Comments	WNT \ Performance	WNT \ Standard
												

M – Metric ISO Standard Thread

Steel		Salo-Rex	HR	ISO 2 6H	HSS-PM	■	□		40
		Salo-Rex	ST TS	ISO 2 6H	HSS-E	■			40
Stainless steel		Salo-Rex	VA	ISO 2 6H	HSS-E	■			41
			VA	ISO 2 6H	HSS-E HSS-PM	■	□		49+50
		Salo-Rex	VA S	ISO 2 6H	HSS-E	■		with back taper, for deep threads	
		Salo-Rex	Soft	ISO 2 6H	HSS-E	■	□		42
Non ferrous metals		Salo-Rex	NW	ISO 2 6H	HSS-E	■			42
			AL	ISO 2 6H	HSS-E	■	□		50
		SL	Ti	ISO 2X 6HX	HSS-PM	■			43
Heat resistant		SL	Ni	ISO 2X 6HX ISO 2 6H	HSS-PM	■			43
Steel		TWIN	ST	ISO 2X 6HX	HSS-E		□		51+52
		TWIN	ST AZ	ISO 2X 6HX	HSS-E		□	with intermittent teeth, reduces friction	
		TWIN	ST ES	ISO 2X 6HX	HSS-E		□	extra short	
		TWIN	ST LH/ES	ISO 2X 6HX	HSS-E		□	for left hand threads; extra short	
		TWIN	HR	ISO 2X 6HX	HSS-E	■			51+52
		TWIN	HR EL	ISO 2X 6HX	HSS-E	■		extra long, with double overall length	55
Cast iron		TWIN	GG	ISO 2X 6HX	HSS-E	■			53
			GG	ISO 2X 6HX	HSS-E	■			56
Non ferrous metals		TWIN	Ms	ISO 2X 6HX	HSS-E		□		

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Taps Overview

Application range	Through hole	Blind hole	Through hole- Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated uncoated	Comments	WNT \ Performance	WNT \ Standard
Non ferrous metals				TWIN	AMPCO	ISO 2X 6HX	HSS-PM	☐		51+52	
hardened materials				TWIN	HT	ISO 2X 6HX	VHM HSS-PM	☒		54	
Machine thread formers				Spanlos	EC	ISO 2X 6HX	HSS-E	☒		57	
				Spanlos	EC SN	ISO 2X 6HX ISO 3X 6GX	HSS-E	☒	Thread formers with lubrication grooves	58	
				Spanlos	NEO SN	ISO 2X 6HX	HSS-PM	☒	Thread formers with lubrication grooves	59	
					UNI	ISO 2X 6HX	HSS-E	☒		60	
					UNI SN	ISO 2X 6HX	HSS-E	☒	Thread formers with lubrication grooves	60	
Hand taps					ST	ISO 2X 6HX	HSS-E VHM	☐			
					ERGO	ISO 2X 6HX	HSS-E	☐			
					ERGO F.T.	ISO 2X 6HX	HSS-E	☒			
Dies					FE	ISO 6g ISO 6e	HSS	☐			
					FE	ISO 6g	HSS	☐			
					FE R _i =1	ISO 6g	HSS	☐	Lapped Dies		
					FE LH	ISO 6g	HSS	☐	for left hand threads		
					VA	ISO 6g	HSS-E	☐			
					VA R _i =1	ISO 6g	HSS-E	☐	Lapped Dies		
					Ms R _i =1	ISO 6g	HSS	☐	Lapped Dies		

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Taps Overview

Application range	Through hole	Blind hole	Through hole- Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated uncoated	Comments	WNT \ Performance	WNT \ Standard
								☒ ☐			

Metric ISO standard thread for wire thread inserts

Universal		Stabil	UNI	6H mod	HSS-E	☒		61
		Stabil	UNI	6H mod	HSS-E	☒		62
Non ferrous metals		Stabil	Soft	6H mod	HSS-E	☒		62

MF – Metric ISO Fine Thread

Universal		Stabil	UNI	ISO 2 6H	HSS-E	☒		63+64
		Stabil	UNI	ISO 3 6G	HSS-E	☒		
			UNI	ISO 2 6H	HSS-PM HSS-E	☒		65+66
Steel		Stabil	ST	ISO 2 6H	HSS-E	☐		
			FE	ISO 2 6H	HSS-E	☐		66
			FE-HF	ISO 2 6H	HSS-E	☒		
		Stabil	ST TS	ISO 2X 6HX	HSS-E	☒	for high-speed machining, up to 100 m/min.	64
		Stabil	ST LH	ISO 2 6H	HSS-E	☐	for left hand threads	64
Stainless steel		Stabil	VA	ISO 2 6H	HSS-E	☒		
			VA	ISO 2 6H	HSS-E	☒		66
Non ferrous metals		Stabil	NW	ISO 2 6H	HSS-E	☒		64
Universal		Salo-Rex	UNI	ISO 2 6H ISO 3 6G	HSS-E	☒		67+68
			UNI	ISO 2 6H	HSS-E HSS-PM	☒		74
		Salo-Rex	UNI CNC	ISO 3 6G	HSS-E	☒	for synchronised CNC machining with minimum length compensation chuck	

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Taps Overview

Application range	Through hole	Blind hole	Through hole- Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated ■	uncoated □	Comments	WNT \ Performance	WNT \ Standard
Universal				Salo-Rex	UNI CNC	7G ISO 2 6H	HSS-E	■		for synchronised CNC machining with minimum length compensation chuck	68	
					UNI NC	ISO 2 6H	HSS-E	■		for synchronised CNC machining with minimum length compensation chuck	75	
Steel				Salo-Rex	ST	ISO 2 6H	HSS-E		□		69	
				Salo-Rex	ST	ISO 1 4H	HSS-E		□			
					FE	ISO 2 6H	HSS-E		□		75	
					FE-HF	ISO 2 6H	HSS-E	■				
				Salo-Rex	ST TS	ISO 2 6H	HSS-E	■		for high-speed machining, up to 100 m/min.		
				Salo-Rex	ST LH	ISO 2 6H	HSS-E		□	for left hand threads	69	
				SL	ST	ISO 2 6H	HSS-E		□		70+71	
				SL	ST CNC	ISO 2X 6HX	HSS-E	■		for synchronised CNC machining with minimum length compensation chuck		
				Salo-Rex	VA	ISO 2 6H	HSS-E	■			72+73	
Stainless steel					VA	ISO 2 6H	HSS-E HSS-PM	■			76	
Non ferrous metals				Salo-Rex	NW	ISO 2 6H	HSS-E	■			73	
Steel				TWIN	ST	ISO 2X 6HX	HSS-E		□		77+78	
				TWIN	ST ES	ISO 2X 6HX	HSS-E		□	extra short	79	
				TWIN	ST LH/ES	ISO 2X 6HX	HSS-E		□	for left hand threads	79	
				TWIN	HR	ISO 2X 6HX	HSS-E	■			77+78	
Cast iron				TWIN	GG	ISO 2X 6HX	HSS-E	■			78	
hardened materials				TWIN	HT	ISO 2X 6HX	VHM	■			77	

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Taps Overview

Application range	Through hole	Blind hole	Through hole- Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated uncoated	Comments	WNT \ Performance	WNT \ Standard
								☒ ☐			

MF – Metric ISO Fine Thread

Machine thread formers		Spanlos	EC	ISO 2X 6HX	HSS-E	☒			80
		Spanlos	EC SN	ISO 2X 6HX	HSS-E	☒	Thread formers with lubrication grooves		80
			UNI	ISO 2X 6HX	HSS-E	☒			81
			UNI SN	ISO 2X 6HX	HSS-E	☒	Thread formers with lubrication grooves		81
Hand taps			ST	ISO 2X 6HX	HSS-E	☐			
Dies			FE	ISO 6g	HSS	☐			
			FE	ISO 6g	HSS	☐			
			FE LH	ISO 6g	HSS	☐	for left hand threads		
			VA	ISO 6g	HSS-E	☐			

G – Whitworth Pipe Thread

Universal		Stabil	UNI	ISO 228	HSS-E	☒			82
			UNI	ISO 228	HSS-E	☒			83
Steel		Stabil	ST	ISO 228	HSS-E	☐			82
			FE	ISO 228	HSS-E	☐			
Stainless steel		Stabil	VA	ISO 228	HSS-E	☒			82
Non ferrous metals		Stabil	NW	ISO 228	HSS-E	☒			82
Universal		Salo-Rex	UNI	ISO 228 ISO 228 +0,05	HSS-E	☒			84
			UNI	ISO 228	HSS-E	☒			86
		Salo-Rex	UNI CNC	ISO 228	HSS-E	☒	for synchronised CNC machining with minimum length compensation chuck		85



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Taps Overview

Application range	Through hole	Blind hole	Through hole- Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated	uncoated	Comments	WNT \ Performance	WNT \ Standard
								☒	☐			

G – Whitworth Pipe Thread

Steel		Salo-Rex	ST	ISO 228	HSS-E	☐		85
		SL	ST	ISO 228	HSS-E	☐		
Stainless steel		Salo-Rex	VA	ISO 228	HSS-E	☒		85
Non ferrous metals		Salo-Rex	NW	ISO 228	HSS-E	☒		85
Steel		TWIN	ST	ISO 228X	HSS-E	☐		87
		TWIN	HR	ISO 228X	HSS-E	☒		87
Cast iron		TWIN	GG	ISO 228X	HSS-E	☒		
Machine thread formers		Spanlos	EC	ISO 228	HSS-E	☒		88
		Spanlos	EC SN	ISO 228	HSS-E	☒	Thread formers with lubrication grooves	88
Hand taps			ERGO	ISO 228	HSS-E	☐		
Dies			FE	ISO 228A	HSS	☐		

UNC – Unified Coarse Thread

Universal		Stabil	UNI	3B	HSS-E	☒		
		Stabil	UNI	2B	HSS-E	☒		89
			UNI	2B	HSS-E	☒		90
Steel		Stabil	ST	2B	HSS-E	☐		
			FE-HF	2B	HSS-E	☒		90
Stainless steel		Stabil	VA	2B	HSS-E	☒		89
			VA	2B	HSS-E	☒		90

This article can be found in our online shop at cuttingtools.ceratizit.com

Taps Overview

Application range	Through hole	Blind hole	Through hole- Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated uncoated	Comments	WNT \ Performance	WNT \ Standard
								☒ ☐			

UNC – Unified Coarse Thread

Heat resistant			Stabil	Ti	2BX	HSS-PM	☒			89
Universal			Salo-Rex	UNI	2B	HSS-E	☒			91
			Salo-Rex	UNI	2B +0,05	HSS-E	☒			
				UNI	2B	HSS-E	☒			92
Steel			Salo-Rex	ST	2B	HSS-E	☐			
				FE-HF	2B	HSS-E	☒			92
Stainless steel			Salo-Rex	VA	2B	HSS-E	☒			91
				VA	2B	HSS-E	☐			92
Heat resistant			SL	Ti	2BX	HSS-PM	☒			
Cast iron			TWIN	GG	2BX	HSS-E	☒			
Machine thread formers			Spanlos	EC	2BX	HSS-E	☒			93
			Spanlos	EC SN	2BX	HSS-E	☒		Thread formers with lubrication grooves	93
Hand taps				ERGO	2BX	HSS-E	☐			
Dies				FE	2A	HSS-E	☐			

EG UNC – Unified coarse thread for wire inserts

Universal			Stabil	UNI	2B	HSS-E	☒			94
			Salo-Rex	UNI	2B	HSS-E	☒			95

This article can be found in our online shop at cuttingtools.ceratizit.com

Taps Overview

Application range	Through hole	Blind hole	Through hole- Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated uncoated	Comments	WNT \ Performance	WNT \ Standard
								☒ ☐			

UNJC – Unified Coarse Thread

Heat resistant		SL	Ti	3BX	HSS-E	☒				96
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UNF – Unified Fine Thread

Universal		Stabil	UNI	2B	HSS-E	☒				97
			UNI	2B	HSS-E	☒				98
Steel		Stabil	ST	2B	HSS-E	☐				
			FE	2B	HSS-E	☐				98
Stainless steel			VA	2B	HSS-E	☒				98
Heat resistant		Stabil	Ti	2BX	HSS-PM	☒				97
Universal		Salo-Rex	UNI	2B 2B +0,05	HSS-E	☒				99
			UNI	2B	HSS-E	☒				101
Steel			FE	2B	HSS-E	☐				
Stainless steel		Salo-Rex	VA	2B	HSS-E	☒				99
			VA	2B	HSS-E	☐				101
Heat resistant		SL	Ti	2BX 3BX	HSS-PM	☒				100
Cast iron		TWIN	GG	2BX	HSS-E	☒				
Thread formers		Spanlos	EC SN	2BX	HSS-E	☒			Thread formers with lubrication grooves	102
Dies			FE	2A	HSS	☐				

This article can be found in our online shop at cuttingtools.ceratizit.com

Taps Overview

Application range	Through hole	Blind hole	Through hole- Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated	uncoated	Comments	WNT \ Performance	WNT \ Standard
								☒	☐			

EG UNF – Unified fine thread for wire inserts

Universal			Stabil	UNI	2B	HSS-E	☒				103	
			Salo-Rex	UNI	2B	HSS-E	☒				104	

UNJF – Unified Extra Fine Thread

Heat resistant			DL	Ti	3BX	HSS-E	☒					
			SL	Ti	3BX	HSS-E	☒					

BSW – Whitworth Thread

Universal			Stabil	UNI	med.	HSS-E	☒					
			Salo-Rex	UNI	med.	HSS-E	☒					

NPT – American Tapered Pipe Thread

Stainless steel			Salo-Rex	VA		HSS-E	☒				105	
Steel			TWIN	VG		HSS-E	☐				106	
			TWIN	VG AZ		HSS-E	☐			with intermittent teeth, reduces friction		
			TWIN	ST ES		HSS-E	☐			extra short	107	
Dies				FE		HSS-E	☐					

This article can be found in our online shop at cuttingtools.ceratizit.com

Taps Overview

Application range	Through hole	Blind hole	Through hole- Blind hole	Tool type	Application Area / Special Features	Tolerance	Tool Material	coated	uncoated	Comments	WNT \ Performance	WNT \ Standard
								☒	☐			

NPTF – American Tapered Pipe Thread

Steel		TWIN	ST				HSS-E	☐			
		TWIN	VG				HSS-E	☐			
		TWIN	ST ES				HSS-E	☐	extra short		

Rp – Cylindrical Whitworth Pipe Thread

Steel		TWIN	ST	X			HSS-E	☐			
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Rc – Tapered Whitworth Pipe Thread

Steel		TWIN	VG				HSS-E	☐			
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Tr – Metric ISO Trapezoidal Thread

Steel			ST	7H			HSS-E	☐			108
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Accessories

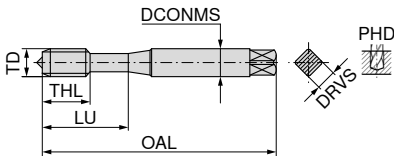
Shank extensions for taps											
Tapping Oil, Chlorine Free											

This article can be found in our online shop at cuttingtools.ceratizit.com

Through hole – Machine taps, right hand



UNI	UNI	UNI	UNI	UNI
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 3 6G	7G
nitr. + vap.	TiN	TiCN	nitr. + vap.	nitr. + vap.



DIN 371 with reinforced shank

HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
$\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$	$\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$	$\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$	$\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$	$\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes	22 501 ...		22 503 ...		22 505 ...		22 508 ...		22 510 ...	
									£ U0		£ U0		£ U0		£ U0		£ U0	
M1	0.25	40	2.5	2.1	0.75	5	13	2	111.00	010								
M1,2	0.25	40	2.5	2.1	0.95	5	13	2	106.89	012								
M1,4	0.30	40	2.5	2.1	1.10	7	13	3	95.11	014								
M1,6	0.35	40	2.5	2.1	1.25	8	11	3	67.45	016								
M1,7	0.35	40	2.5	2.1	1.35	6	11	2	103.31	017								
M1,8	0.35	40	2.5	2.1	1.45	6	11	2	143.23	018								
M2	0.40	45	2.8	2.1	1.60	7	12	2			48.49	020			47.95	020	59.67	020
M2	0.40	45	2.8	2.1	1.60	7	12	3	49.63	020								
M2,2	0.45	45	2.8	2.1	1.75	7	12	2	51.40	022								
M2,5	0.45	50	2.8	2.1	2.05	9	14	2	48.42	025								
M3	0.50	56	3.5	2.7	2.50	11	18	3	32.18	030	39.97	030	39.97	030	47.61	025	57.52	025
M3,5	0.60	56	4.0	3.0	2.90	12	20	3	39.67	035					39.24	035	44.31	030
M4	0.70	63	4.5	3.4	3.30	13	21	3	28.39	040	38.28	040	38.28	040	40.78	040	44.31	040
M5	0.80	70	6.0	4.9	4.20	15	25	3	29.76	050	38.76	050	38.76	050	39.24	050	45.58	050
M6	1.00	80	6.0	4.9	5.00	17	30	3	29.76	060	47.30	060	47.30	060	42.37	060	46.68	060
M7	1.00	80	7.0	5.5	6.00	17	30	3	47.95	070								
M8	1.25	90	8.0	6.2	6.80	20	35	3	35.24	080	51.63	080	51.63	080	45.02	080	51.95	080
M10	1.50	100	10.0	8.0	8.50	22	39	3	42.27	100	77.20	100	73.17	100	54.84	100	63.04	100
M12	1.75	110	12.0	9.0	10.20	24	44	3	58.61	120								
P										12		15		15		12		12
M										7		9		9		7		7
K										12		18		18		12		12
N												12		12				
S																		
H																		
O																		

1) Tol. ISO 1 4H ≤ M1.4

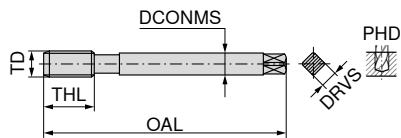


DIN 376 can be found on the next page

Through hole – Machine taps, right hand

M

Stabil



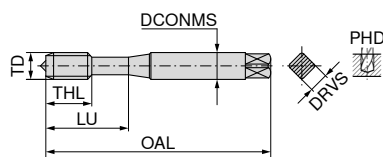
DIN 376 with reduced shank

UNI	UNI	UNI	UNI
B 4-5	B 4-5	B 4-5	B 4-5
ISO 2 6H	ISO 2 6H	ISO 3 6G	7G
nitr. + vap.	TiN	nitr. + vap.	nitr. + vap.
HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$
22 502 ...	22 504 ...	22 509 ...	22 511 ...
£ U0	£ U0	£ U0	£ U0
65.21 030			
43.40 040			
40.76 050			
40.94 060			
45.40 080			
53.28 100			
52.48 120	84.36 120	63.66 120	70.92 120
66.36 140	147.34 140		
73.63 160	109.82 160	92.90 160	124.78 160
138.06 180	233.54 180		
109.54 200	237.65 200	137.99 200	
185.66 220	361.04 220		
146.41 240	304.13 240		
209.88 270			
238.26 300			
593.93 330			
683.79 360			
1,298.67 420			
1,371.68 480			
P 12	15	12	12
M 7	9	7	7
K 12	18	12	12
N	12		
S			
H			
O			

Through hole – Machine taps, right hand

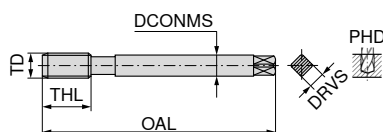
▲ CNC = for synchronised CNC machining with minimum length compensation chuck

▲ NCW = with Weldon flat for synchronised CNC machining without length compensation chuck



DIN 371 with reinforced shank

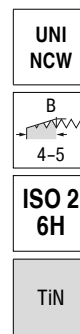
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0.50	70	6.0	4.9	2.5	6	18	3
M3	0.50	56	3.5	2.7	2.5	6	18	3
M4	0.70	70	6.0	4.9	3.3	7	21	3
M4	0.70	63	4.5	3.4	3.3	7	21	3
M5	0.80	70	6.0	4.9	4.2	8	25	3
M6	1.00	80	6.0	4.9	5.0	10	30	3
M8	1.25	90	8.0	6.2	6.8	14	35	3
M8	1.25	90	8.0	6.2	6.8	14	35	4
M10	1.50	100	10.0	8.0	8.5	16	39	3
M10	1.50	100	10.0	8.0	8.5	16	39	4
M12	1.75	110	10.0	8.0	10.2	18		3
M16	2.00	110	12.0	9.0	14.0	22		3



DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M12	1.75	110	9	7	10.2	18	4
M14	2.00	110	11	9	12.0	20	4
M16	2.00	110	12	9	14.0	22	4
M20	2.50	140	16	12	17.5	25	4

P	15	15	15	15
M	8	9	9	9
K	15	18	18	18
N	22	12	12	12
S				
H				
O				



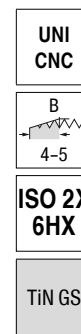
HSS-PM
 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$

22 148 ...

£ U0

66.81

030



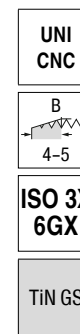
HSS-E
 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$

22 542 ...

£ U0

46.25

030



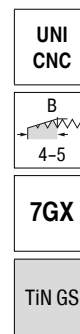
HSS-E
 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$

22 596 ...

£ U0

54.79

040



HSS-E
 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$

22 592 ...

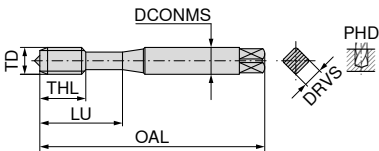
£ U0

59.27

040

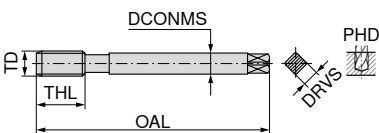
Through hole – Machine taps

▲ LH = for left hand threads



DIN 371 with reinforced shank

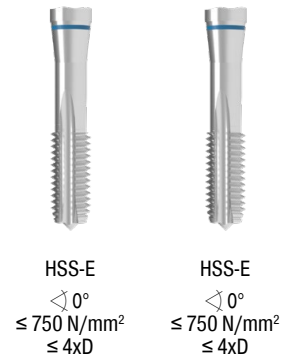
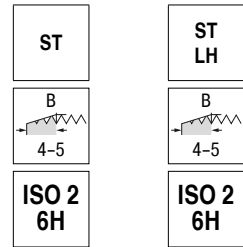
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M2	0.40	45	2.8	2.1	1.60	7	12	2
M2,3	0.40	45	2.8	2.1	1.90	7	12	2
M2,5	0.45	50	2.8	2.1	2.05	9	14	2
M2,6	0.45	50	2.8	2.1	2.15	9	14	2
M3	0.50	56	3.5	2.7	2.50	11	18	3
M3,5	0.60	56	4.0	3.0	2.90	12	20	3
M4	0.70	63	4.5	3.4	3.30	13	21	3
M5	0.80	70	6.0	4.9	4.20	15	25	3
M6	1.00	80	6.0	4.9	5.00	17	30	3
M8	1.25	90	8.0	6.2	6.80	20	35	3
M10	1.50	100	10.0	8.0	8.50	22	39	3



DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M5	0.80	70	3.5	2.7	4.2	15	3
M6	1.00	80	4.5	3.4	5.0	17	3
M8	1.25	90	6.0	4.9	6.8	20	3
M10	1.50	100	7.0	5.5	8.5	22	3
M12	1.75	110	9.0	7.0	10.2	24	3
M14	2.00	110	11.0	9.0	12.0	26	3
M16	2.00	110	12.0	9.0	14.0	27	3
M18	2.50	125	14.0	11.0	15.5	30	3
M20	2.50	140	16.0	12.0	17.5	32	3
M22	2.50	140	18.0	14.5	19.5	32	3
M24	3.00	160	18.0	14.5	21.0	34	3
M27	3.00	160	20.0	16.0	24.0	36	3
M30	3.50	180	22.0	18.0	26.5	40	4

P	12	12
M		
K	12	12
N	12	22
S		
H		
O		

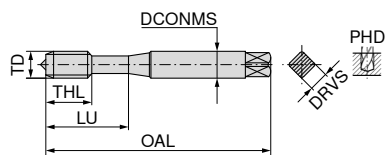


22 020 ...	22 127 ...
£ U0	£ U0
33.13 020	
37.22 023	
33.58 025	
37.22 026	
27.47 030	49.29 030
29.60 035	
28.08 040	50.74 040
29.60 050	52.68 050
29.60 060	52.68 060
35.07 080	59.67 080
41.17 100	76.28 100

22 021 ...	22 147 ...
£ U0	£ U0
35.07 050	
35.55 060	
37.83 080	
42.88 100	
52.31 120	90.54 120
66.08 140	
73.17 160	136.93 160
106.77 180	
110.90 200	202.43 200
167.96 220	
142.92 240	
195.86 270	
236.86 300	

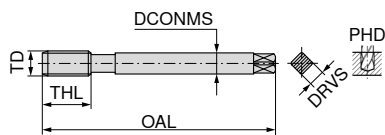
Through hole – Machine taps, right hand

▲ TS = for high-speed machining, up to 100 m/min.



DIN 371 with reinforced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M2	0.40	45	2.8	2.1	1.60	7	12	2
M2	0.40	45	2.8	2.1	1.60	4	12	2
M2,5	0.45	50	2.8	2.1	2.05	9	14	2
M2,5	0.45	50	2.8	2.1	2.05	5	15	2
M3	0.50	56	3.5	2.7	2.50	11	18	2
M3	0.50	56	3.5	2.7	2.50	6	18	3
M4	0.70	63	4.5	3.4	3.30	13	21	2
M4	0.70	63	4.5	3.4	3.30	7	21	3
M5	0.80	70	6.0	4.9	4.20	15	25	2
M5	0.80	70	6.0	4.9	4.20	8	25	3
M6	1.00	80	6.0	4.9	5.00	17	30	3
M6	1.00	80	6.0	4.9	5.00	10	30	3
M8	1.25	90	8.0	6.2	6.80	20	35	3
M8	1.25	90	8.0	6.2	6.80	14	35	4
M10	1.50	100	10.0	8.0	8.50	22	39	3
M10	1.50	100	10.0	8.0	8.50	16	39	4



DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M12	1.75	110	9	7	10.2	18	4
M16	2.00	110	12	9	14.0	22	4
M20	2.50	140	16	12	17.5	25	4

P	65	8	10
M		8	8
K	65		
N	75	10	22
S		4	
H			
O			

ST TS	NEW HR	VG
B 4-5	B 4-5	B 4-5
ISO 2X 6HX	ISO 2X 6HX	ISO 2X 6HX
TiN	AlTiN- HD	TiN

HSS-E
≤ 1100 N/mm²
≤ 0°
≤ 4xDHSS-PM
≤ 1400 N/mm²
≤ 0°
≤ 4xDHSS-E
≤ 1100 N/mm²
≤ 0°
≤ 4xD

22 092 ...

£
U0

64.66

020

64.66

025

50.74

030

59.12

040

62.10

050

80.39

060

85.12

080

115.31

100

22 468 ...

£
U0

72.92

02000

72.92

02500

47.42

03000

49.48

04000

51.06

05000

57.86

06000

63.57

08000

89.53

10000

22 120 ...

£
U0

57.52

020

57.52

025

42.88

030

46.38

040

48.37

050

59.19

060

62.52

080

89.39

100

22 093 ...

£
U0

125.38

120

185.66

160

267.08

200

22 121 ...

£
U0

106.33

120

145.50

160

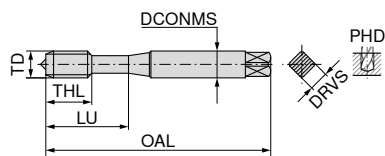
247.42

200

Through hole – Machine taps, right hand

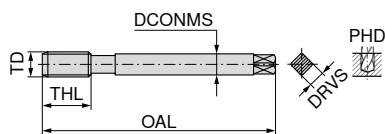
M

Stabil



DIN 371 with reinforced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M1,6	0.35	40	2.5	2.1	1.25	6	11	2
M2	0.40	45	2.8	2.1	1.60	7	12	2
M2,3	0.40	45	2.8	2.1	1.90	7	12	2
M2,5	0.45	50	2.8	2.1	2.05	9	14	2
M2,6	0.45	50	2.8	2.1	2.15	9	14	2
M3	0.50	56	3.5	2.7	2.50	11	18	3
M3,5	0.60	56	4.0	3.0	2.90	12	20	3
M4	0.70	63	4.5	3.4	3.30	13	21	3
M5	0.80	70	6.0	4.9	4.20	15	25	3
M6	1.00	80	6.0	4.9	5.00	17	30	3
M8	1.25	100	8.0	6.2	6.80	20	35	3
M8	1.25	90	8.0	6.2	6.80	20	35	3
M10	1.50	110	10.0	8.0	8.50	22	39	3
M10	1.50	100	10.0	8.0	8.50	22	39	3



DIN 376 with reduced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M12	1.75	110	9	7.0	10.2	24	3
M14	2.00	110	11	9.0	12.0	26	3
M16	2.00	110	12	9.0	14.0	27	3
M18	2.50	125	14	11.0	15.5	30	3
M20	2.50	140	16	12.0	17.5	32	3
M22	2.50	140	18	14.5	19.5	32	3
M24	3.00	160	18	14.5	21.0	34	3
M27	3.00	160	20	16.0	24.0	36	3
M30	3.50	180	22	18.0	26.5	40	4

P	8	10	15	
M	6	8	6	
K				
N				15
S				
H				
O				

VA	VA	NEW NW	
B 4-5	B 4-5	B 4-5	B 4-5
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
nit.	TiN GS	vap.	DLC
HSS-E $\angle 0^\circ$ $\leq 900 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 900 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 500 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 880 \text{ N/mm}^2$ $\leq 4xD$

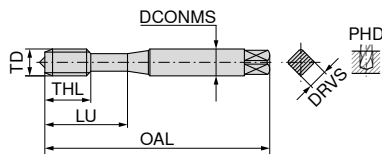
22 056 ...	22 038 ...	22 058 ...	22 464 ...
£ U0	£ U0	£ U0	£ U0
38.28 020	72.90 016 59.96 020	36.77 020 41.75 023 36.77 025 42.27 026	42.29 02000 42.29 02500 32.42 03000 32.91 04000 33.39 05000 33.39 06000 39.03 08000
30.25 030 42.43 035 31.73 040 33.58 050 35.07 060	47.15 030 50.96 040 52.02 050 65.59 060	28.39 030 29.80 035 28.75 040 29.80 050 29.80 060	
38.17 080 46.69 100	71.41 080 88.46 100	36.31 080 43.19 100	49.17 10000

22 057 ...	22 039 ...	22 059 ...	22 465 ...
£ U0	£ U0	£ U0	£ U0
59.12 120 81.74 140 83.64 160 204.82 180 121.95 200 321.32 220 167.63 240 351.54 270 270.74 300	104.65 120 151.46 140 148.43 160 253.83 200	54.92 120 77.50 160	64.20 12000 76.43 16000 121.96 20000

Through hole – Machine taps, right hand

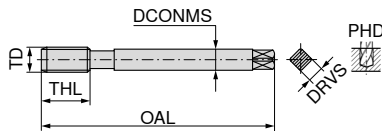
M

Stabil



DIN 371 with reinforced shank

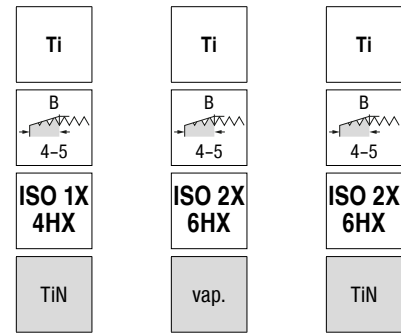
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M1,6	0.35	40	2.5	2.1	1.25	8	9.5	3
M2	0.40	45	2.8	2.1	1.60	8	9.5	3
M2,5	0.45	50	2.8	2.1	2.05	9	14.0	3
M3	0.50	56	3.5	2.7	2.50	11	18.0	3
M3,5	0.60	56	4.0	3.0	2.90	12	20.0	3
M4	0.70	63	4.5	3.4	3.30	13	21.0	3
M5	0.80	70	6.0	4.9	4.20	15	25.0	3
M6	1.00	80	6.0	4.9	5.00	17	30.0	3
M8	1.25	90	8.0	6.2	6.80	20	35.0	3
M10	1.50	100	10.0	8.0	8.50	22	39.0	3



DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M12	1.75	110	9	7	10.2	24	3

P	7	5	7
M	7	5	7
K			
N			
S	5	3	5
H			
O			



HSS-PM
 $\angle 0^\circ$
 $\leq 44 \text{ HRC}$
 $\leq 4xD$

22 081 ...

£

U0

147.74

020

030

040

050

060

080

HSS-PM

$\angle 0^\circ$
 $\leq 1400 \text{ N/mm}^2$
 $\leq 4xD$

22 075 ...

£

U0

99.24

126.78

120.73

84.26

62.48

90.92

89.49

89.49

104.01

125.37

016

020

025

030

035

040

050

060

080

100

HSS-PM

$\angle 0^\circ$
 $\leq 44 \text{ HRC}$
 $\leq 4xD$

22 077 ...

£

U0

99.24

126.78

120.73

84.26

62.48

90.92

89.49

89.49

104.01

126.39

016

020

025

030

035

040

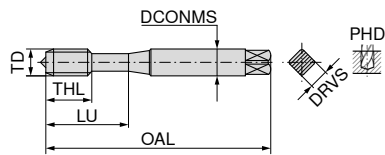
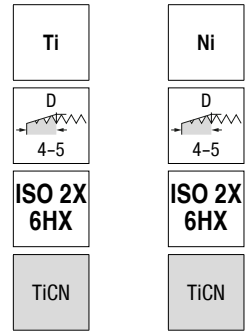
050

060

080

100

Through hole – Machine taps, right hand



DIN 371 with reinforced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M3	0.50	56	3.5	2.7	2.5	11	18	2
M4	0.70	63	4.5	3.4	3.3	13	21	3
M5	0.80	70	6.0	4.9	4.2	15	25	3
M6	1.00	80	6.0	4.9	5.0	17	30	3
M8	1.25	90	8.0	6.2	6.8	20	35	3
M10	1.50	100	10.0	8.0	8.5	22	39	3



DIN 376 with reduced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M12	1.75	110	9	7.0	10.2	24	3
M16	2.00	110	12	9.0	14.0	27	3
M20	2.50	140	16	12.0	17.5	32	3
M24	3.00	160	18	14.5	21.0	34	3

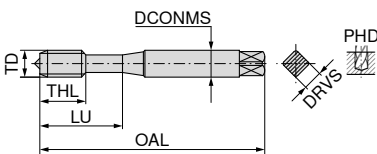
22 159 ...	22 297 ...
£	£
U0	U0
52.94	68.15
57.52	70.97
58.13	72.79
76.16	92.10
83.64	102.21
104.79	127.98

22 160 ...	22 298 ...
£	£
U0	U0
120.97	147.38
170.36	206.64
294.39	352.35
347.16	

P	7	
M	7	
K		
N	22	22
S	5	2
H		
O		

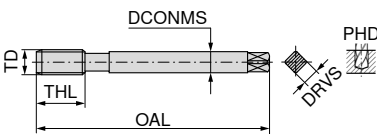
Through hole – Machine taps, right hand

▲ EL = extra long, with double overall length



DIN 371 with reinforced shank

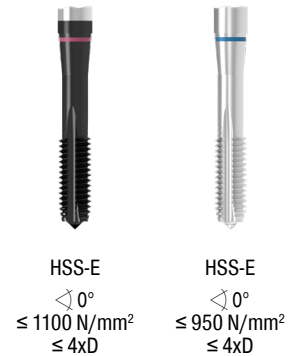
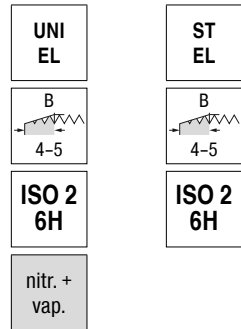
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0.50	100	3.5	2.7	2.5	11	18	3
M4	0.70	125	4.5	3.4	3.3	13	21	3
M5	0.80	140	6.0	4.9	4.2	15	25	3
M6	1.00	160	6.0	4.9	5.0	17	30	3
M8	1.25	180	8.0	6.2	6.8	20	35	3



DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M6	1.00	160	4.5	3.4	5.0	17	3
M8	1.25	180	6.0	4.9	6.8	20	3
M10	1.50	200	7.0	5.5	8.5	22	3
M12	1.75	224	9.0	7.0	10.2	24	3
M14	2.00	224	11.0	9.0	12.0	26	3
M16	2.00	224	12.0	9.0	14.0	27	3
M18	2.50	250	14.0	11.0	15.5	30	3
M20	2.50	280	16.0	12.0	17.5	32	3

P	12	12
M	7	
K	12	12
N		22
S		
H		
O		



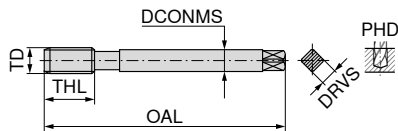
22 514 ...	22 233 ...
£ U0	£ U0
71.09 030	74.15 030
71.09 040	70.97 040
79.61 050	77.45 050
86.64 060	81.05 060
93.06 080	96.75 080

22 515 ...	22 234 ...
£ U0	£ U0
84.04 060	81.05 060
103.29 080	96.75 080
111.03 100	107.65 100
121.95 120	129.80 120
214.00 140	209.83 140
240.56 160	201.84 160
323.98 180	302.74 180
286.62 200	272.31 200

Through hole – Machine taps, right hand

▲ MMB = Nut taps

M

ST
MMBISO 2
6H

DIN 357 with reduced shank



HSS-E

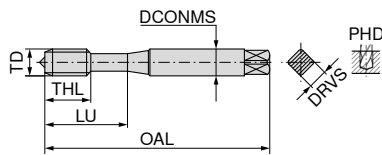
 $\angle 0^\circ$
 $\leq 850 \text{ N/mm}^2$
 $\leq 1xD$

22 098 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	£ U0	
M3	0.50	70	2.2		2.5	16	3	52.94	030
M4	0.70	90	2.8	2.1	3.3	22	3	52.94	040
M5	0.80	100	3.5	2.7	4.2	24	3	55.39	050
M6	1.00	110	4.5	3.4	5.0	30	3	55.39	060
M8	1.25	125	6.0	4.9	6.8	38	3	68.36	080
M10	1.50	140	7.0	5.5	8.5	45	3	77.65	100
M12	1.75	180	9.0	7.0	10.2	50	3	104.34	120
M16	2.00	200	12.0	9.0	14.0	63	3	149.65	160
P									15
M									
K									
N									
S									
H									
O									

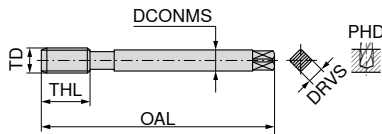
Through hole – Machine taps, right hand

M



DIN 371 with reinforced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M2	0.40	45	2.8	2.1	1.60	7	12.0	2
M2	0.40	45	2.8	2.1	1.60	4	13.5	2
M2.5	0.45	50	2.8	2.1	2.05	9	14.0	2
M3	0.50	56	3.5	2.7	2.50	11	18.0	3
M4	0.70	63	4.5	3.4	3.30	13	21.0	3
M5	0.80	70	6.0	4.9	4.20	15	25.0	3
M6	1.00	80	6.0	4.9	5.00	17	30.0	3
M8	1.25	90	8.0	6.2	6.80	20	35.0	3
M10	1.50	100	10.0	8.0	8.50	22	39.0	3



DIN 376 with reduced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M3	0.50	56	2.2		2.5	11	3
M4	0.70	63	2.8	2.1	3.3	13	3
M5	0.80	70	3.5	2.7	4.2	15	3
M6	1.00	80	4.5	3.4	5.0	17	3
M8	1.25	90	6.0	4.9	6.8	20	3
M10	1.50	100	7.0	5.5	8.5	22	3
M12	1.75	110	9.0	7.0	10.2	24	3
M14	2.00	110	11.0	9.0	12.0	26	3
M14	2.00	110	11.0	9.0	12.0	20	4
M16	2.00	110	12.0	9.0	14.0	27	3
M18	2.50	125	14.0	11.0	15.5	30	3
M18	2.50	125	14.0	11.0	15.5	25	4
M20	2.50	140	16.0	12.0	17.5	32	3
M22	2.50	140	18.0	14.5	19.5	32	3
M24	3.00	160	18.0	14.5	21.0	34	3
M27	3.00	160	20.0	16.0	24.0	36	3
M30	3.50	180	22.0	18.0	26.5	40	4
M33	3.50	180	25.0	20.0	29.5	40	4
M36	4.00	200	28.0	22.0	32.0	50	4

P	12	15	15
M	7	9	9
K	12	18	18
N		12	12
S			
H			
O			

UNI	UNI	UNI
B 4-5	B 4-5	B 4-5
ISO 2 6H	ISO 2 6H	ISO 2 6H
nitr. + vap.	TiN	TiN



HSS-E

 $\angle 0^\circ$
 $\leq 1000 \text{ N/mm}^2$
 $\leq 3xD$


HSS-E

 $\angle 0^\circ$
 $\leq 1000 \text{ N/mm}^2$
 $\leq 3xD$


HSS-PM

 $\angle 0^\circ$
 $\leq 1000 \text{ N/mm}^2$
 $\leq 3xD$

23 110 ...	
£	
T9	
28.68	020
27.69	025
21.85	030
22.31	040
22.75	050
22.90	060
26.20	080
31.73	100

23 112 ...	
£	
T9	
33.58	020
32.50	025
27.24	030
30.99	040
31.27	050
39.52	060
42.43	080
57.98	100

23 010 ...	
£	
T9	
9.64	020
12.11	030
11.05	040
12.35	050
14.81	060
16.44	080
21.74	100

23 111 ...	
£	
T9	
8.59	030
8.45	040
8.45	050
8.81	060
10.34	080
11.99	100
14.34	120
20.80	140
21.26	160
33.84	200

23 113 ...	
£	
T9	
64.07	120
41.59	14000
83.92	160
65.99	18000
149.04	200
97.73	22000
158.33	240
122.21	27000
137.08	30000
179.80	33000
220.23	36000

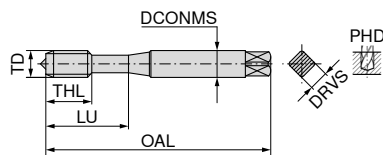
23 021 ...	
£	
T9	
25.97	120
39.36	140
36.55	160
64.04	180
66.16	200

Through hole – Machine taps, right hand

▲ NCW = with Weldon flat for synchronised CNC machining without length compensation chuck

▲ NC = for synchronised CNC machining with minimum length compensation chuck

M



DIN 371 with reinforced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M1,6	0.35	40	2.5	2.1	1.25	6	11	2
M2	0.40	45	2.8	2.1	1.60	7	12	2
M2,5	0.45	50	2.8	2.1	2.05	9	14	2
M3	0.50	70	6.0	4.9	2.50	6	18	3
M3	0.50	56	3.5	2.7	2.50	11	18	3
M3,5	0.60	56	4.0	3.0	2.90	12	20	3
M4	0.70	70	6.0	4.9	3.30	7	21	3
M4	0.70	63	4.5	3.4	3.30	13	21	3
M5	0.80	70	6.0	4.9	4.20	15	25	3
M5	0.80	70	6.0	4.9	4.20	8	25	3
M6	1.00	80	6.0	4.9	5.00	17	30	3
M6	1.00	80	6.0	4.9	5.00	10	30	3
M8	1.25	90	8.0	6.2	6.80	20	35	3
M8	1.25	90	8.0	6.2	6.80	14	35	3
M10	1.50	100	10.0	8.0	8.50	22	39	3
M10	1.50	100	10.0	8.0	8.50	16	39	3

UNI
NCISO 2
6H

TiN GS

HSS-E
 $\angle 0^\circ$
 $\leq 1000 \text{ N/mm}^2$
 $\leq 3xD$

23 114 ...

£
T9UNI
NCWISO 2
6H

TiCN

HSS-PM
 $\angle 0^\circ$
 $\leq 1000 \text{ N/mm}^2$
 $\leq 3xD$

23 116 ...

£
T9

FE

ISO 2
6H

TiCN

HSS-E
 $\angle 0^\circ$
 $\leq 850 \text{ N/mm}^2$
 $\leq 3xD$

23 212 ...

£
T9

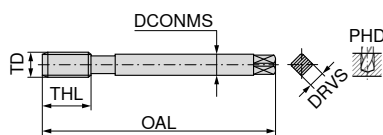
FE-HF

ISO 2
6H

TiCN

HSS-E
 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

23 310 ...

£
T9

DIN 376 with reduced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M12	1.75	110	10	8	10.2	18	3
M12	1.75	110	9	7	10.2	24	3
M14	2.00	110	11	9	12.0	26	3
M16	2.00	110	12	9	14.0	22	3
M16	2.00	110	12	9	14.0	27	3
M20	2.50	140	16	12	17.5	32	3

23 115 ...

£
T9

23 117 ...

£
T9

23 213 ...

£
T9

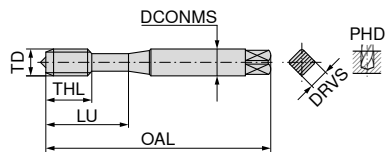
23 311 ...

£
T9

P	15	15	12	15
M	9	8		
K	18	15	12	15
N	12	22	12	15
S				
H				
O				

Through hole – Machine taps, right hand

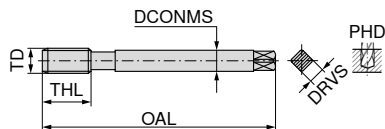
M



DIN 371 with reinforced shank

VA	VA	VA	AL	AL
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
nitr.	nitr.	TiN		CrN
HSS-PM	HSS-E	HSS-E	HSS-E	HSS-E
$\leq 1200 \text{ N/mm}^2$ $\leq 3xD$	$\leq 1200 \text{ N/mm}^2$ $\leq 3xD$	$\leq 1200 \text{ N/mm}^2$ $\leq 3xD$	$\leq 500 \text{ N/mm}^2$ $\leq 3xD$	$\leq 500 \text{ N/mm}^2$ $\leq 3xD$

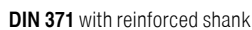
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes	23 450 ...		23 410 ...		23 412 ...		23 610 ...		23 612 ...	
									£ T9		£ T9		£ T9		£ T9		£ T9	
M2	0.40	45	2.8	2.1	1.60	7	12	2			21.67	020	34.37	020				
M2.5	0.45	50	2.8	2.1	2.05	9	14	2			27.69	025	29.09	025				
M3	0.50	56	3.5	2.7	2.50	11	18	3	11.29	030	14.52	030	27.24	030	13.30	030	25.03	030
M4	0.70	63	4.5	3.4	3.30	13	21	3	11.39	040	14.52	040	30.99	040	13.30	040	25.94	040
M5	0.80	70	6.0	4.9	4.20	15	25	3	12.35	050	15.11	050	31.27	050	13.34	050	26.53	050
M6	1.00	80	6.0	4.9	5.00	17	30	3	12.45	060	15.11	060	40.72	060	13.34	060	26.53	060
M8	1.25	90	8.0	6.2	6.80	20	35	3	13.99	080	19.23	080	43.69	080	17.37	080	29.80	080
M10	1.50	100	10.0	8.0	8.50	22	39	3	15.87	100	23.19	100	59.72	100	20.81	100	37.22	100



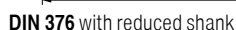
DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	23 451 ...		23 411 ...		23 413 ...		23 611 ...		23 613 ...	
								£ T9		£ T9		£ T9		£ T9		£ T9	
M12	1.75	110	9	7.0	10.2	24	3	28.32	120	30.99	120	67.28	120	28.08	120	45.80	120
M14	2.00	110	11	9.0	12.0	26	3	37.49	140								
M16	2.00	110	12	9.0	14.0	27	3	39.61	160	47.30	160	83.92	160				
M20	2.50	140	16	12.0	17.5	32	3	59.22	200	71.99	200	146.12	200				
M24	3.00	160	18	14.5	21.0	34	3			95.20	240						
P								8		8		10					
M								6		6		8					
K																	
N								22		22		24		15		15	
S																	
H																	
O																	

M	Salo-Rex
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TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M2	0.40	45	2.8	2.1	1.60	4.0	12	2
M2.2	0.45	45	2.8	2.1	1.75	4.5	12	2
M2.3	0.40	45	2.8	2.1	1.90	4.5	12	2
M2.5	0.45	50	2.8	2.1	2.05	5.0	15	2
M2.6	0.45	50	2.8	2.1	2.15	5.0	15	2
M3	0.50	56	3.5	2.7	2.50	6.0	18	3
M3.5	0.60	56	4.0	3.0	2.90	7.0	20	3
M4	0.70	63	4.5	3.4	3.30	7.0	21	3
M5	0.80	70	6.0	4.9	4.20	8.0	25	3
M6	1.00	80	6.0	4.9	5.00	10.0	30	3
M7	1.00	80	7.0	5.5	6.00	10.0	30	3
M8	1.25	90	8.0	6.2	6.80	14.0	35	3
M10	1.50	100	10.0	8.0	8.50	16.0	39	3
M12	1.75	110	12.0	9.0	10.20	18.0	44	3



TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M3	0.50	56	2.2		2.5	6	3
M4	0.70	63	2.8	2.1	3.3	7	3
M5	0.80	70	3.5	2.7	4.2	8	3
M6	1.00	80	4.5	3.4	5.0	10	3
M8	1.25	90	6.0	4.9	6.8	14	3
M10	1.50	100	7.0	5.5	8.5	16	3
M12	1.75	110	9.0	7.0	10.2	18	3
M14	2.00	110	11.0	9.0	12.0	20	3
M16	2.00	110	12.0	9.0	14.0	22	3
M18	2.50	125	14.0	11.0	15.5	25	3
M20	2.50	140	16.0	12.0	17.5	25	3
M22	2.50	140	18.0	14.5	19.5	27	4
M24	3.00	160	18.0	14.5	21.0	30	4
M27	3.00	160	20.0	16.0	24.0	30	4
M30	3.50	180	22.0	18.0	26.5	35	4
M33	3.50	180	25.0	20.0	29.5	35	4
M36	4.00	200	28.0	22.0	32.0	40	4

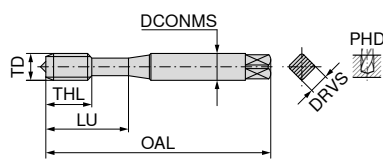
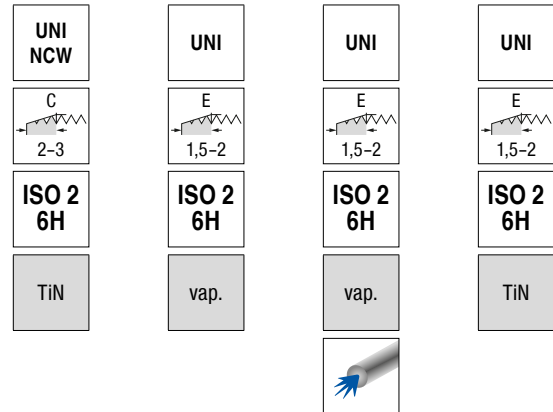
P	12	12	15	15
M	7	7	9	9
K	12	12	18	18
N			12	12
S				
H				
O				

UNI	UNI	UNI	UNI
			
ISO 2 6H	7G	ISO 2 6H	ISO 2 6H
vap.	vap.	TiN	TiCN
			
HSS-E $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3 \times D$	HSS-E $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3 \times D$	HSS-E $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3 \times D$	HSS-E $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3 \times D$
2 518 ...	22 532 ...	22 520 ...	22 522 ...
£ UO	£ UO	£ UO	£ UO
38.72 020		56.62 020	
43.63 022			
47.30 023			
36.31 025			
44.87 026			
33.13 030	37.70 030	40.43 030	40.13 030
35.55 035			
33.72 040	39.67 040	43.19 040	43.19 040
33.68 050	41.31 050	44.24 050	43.92 050
35.07 060	56.62 060	52.02 060	52.02 060
53.54 070			
39.83 080	64.66 080	57.52 080	57.16 080
48.81 100	97.62 100	68.82 100	68.82 100
55.84 120		85.62 120	85.62 120

22 519 ...		22 533 ...		22 521 ...		22 523 ...	
£ U0		£ U0		£ U0		£ U0	
54.98	030						
52.48	040						
39.67	050						
41.19	060						
45.65	080						
58.13	100						
61.18	120	72.59	120	80.07	120	80.07	120
78.41	140			156.21	140	176.80	140
86.32	160	131.65	160	118.51	160	118.51	160
124.78	180			245.45	180	268.93	180
129.35	200	202.43	200	201.35	200	257.18	200
185.66	220			361.04	220		
163.64	240			314.22	240		
214.91	270						
275.93	300						
542.24	330						
448.74	360						

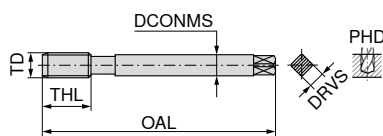
Blind hole – Machine taps, right hand

▲ NCW = with Weldon flat for synchronised CNC machining without length compensation chuck



DIN 371 with reinforced shank

HSS-PM	HSS-E	HSS-E	HSS-E
$\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	$\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	$\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	$\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$
22 149 ...	22 524 ...	22 534 ...	22 526 ...
£ U0	£ U0	£ U0	£ U0
68.82	33.88		39.67
030	030		030
	34.63		43.19
	040		040
74.76			
040			
76.16	35.55	54.92	44.24
050	050	050	050
94.44	36.02	52.65	52.02
060	060	060	060
107.23	41.17	61.92	57.52
080	080	080	080
130.73	50.19	72.59	68.82
100	100	100	100

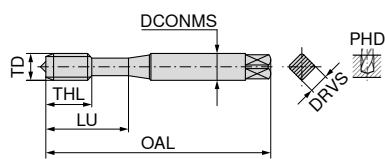


DIN 376 with reduced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes		
mm	mm	mm	mm	mm	mm	mm			
M12	1.75	110	10	8.0	10.2	18	3	155.13	120
M12	1.75	110	9	7.0	10.2	18	4	62.71	120
M14	2.00	110	11	9.0	12.0	20	4	118.51	140
M16	2.00	110	12	9.0	14.0	22	3	120.46	140
M16	2.00	110	12	9.0	14.0	22	4	81.01	120
M18	2.50	125	14	11.0	15.5	25	4	81.62	120
M20	2.50	140	16	12.0	17.5	25	4	118.51	160
M22	2.50	140	18	14.5	19.5	27	5	89.08	160
M24	3.00	160	18	14.5	21.0	30	5	121.12	160
								188.53	180
								132.99	200
								179.07	200
								258.97	220
								225.92	240
P								15	12
M								8	7
K								15	12
N								22	12
S									
H									
O									

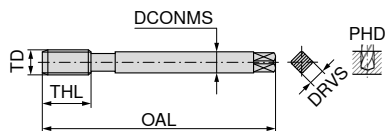
Blind hole – Machine taps, right hand

▲ CNC = for synchronised CNC machining with minimum length compensation chuck



DIN 371 with reinforced shank

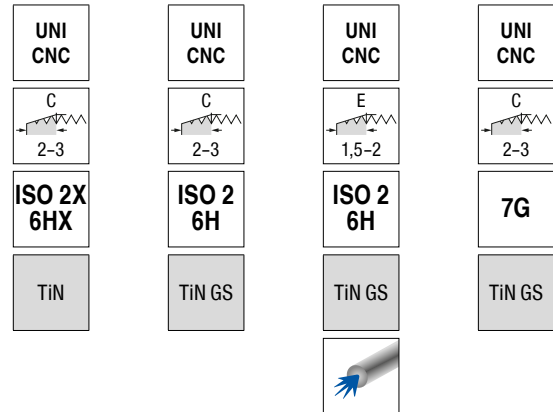
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0.50	56	3.5	2.7	2.5	6	18	3
M4	0.70	63	4.5	3.4	3.3	7	21	3
M5	0.80	70	6.0	4.9	4.2	8	25	3
M6	1.00	80	6.0	4.9	5.0	10	30	3
M8	1.25	90	8.0	6.2	6.8	14	35	3
M10	1.50	100	10.0	8.0	8.5	16	39	3



DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M12	1.75	110	9	7	10.2	18	3
M12	1.75	110	9	7	10.2	18	4
M14	2.00	110	11	9	12.0	20	3
M14	2.00	110	11	9	12.0	20	4
M16	2.00	110	12	9	14.0	22	3
M16	2.00	110	12	9	14.0	22	4
M20	2.50	140	16	12	17.5	25	3
M20	2.50	140	16	12	17.5	25	4

P	15	15	15	15
M	9	9	9	9
K	18	18	18	18
N	22	12	12	12
S				
H				
O				



HSS-E $\angle 50^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 45^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 45^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 45^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$
22 416 ...	22 544 ...	22 546 ...	22 594 ...
£ U0	£ U0	£ U0	£ U0
61.24 030	53.83 030		64.54 030
64.07 040	54.92 040		65.59 040
65.89 050	56.28 050	80.07 050	68.03 050
79.61 060	59.03 060	81.10 060	73.21 060
88.46 080	74.43 080	104.65 080	89.39 080
109.60 100	84.96 100	120.97 100	100.36 100

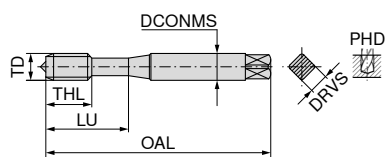
22 417 ...	22 545 ...	22 595 ...
£ U0	£ U0	£ U0
129.01 120	114.11 120	135.62 120
184.20 140	137.42 140	160.03 140
358.82 160	152.23 160	176.80 160
307.53 200	218.72 200	253.37 200

Blind hole – Machine taps, right hand

▲ DRY = for dry machining or minimum quantity lubrication (MMS)

UNI
DRYISO 2
6H

TiN



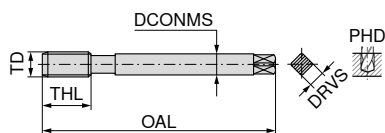
DIN 371 with reinforced shank

HSS-E
 $\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

22 449 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M5	0.80	70	6	4.9	4.2	8	25	3
M6	1.00	80	6	4.9	5.0	10	30	3
M8	1.25	90	8	6.2	6.8	14	35	3
M10	1.50	100	10	8.0	8.5	16	39	3

£	
U0	
83.84	050
97.57	060
107.65	080
130.74	100



DIN 376 with reduced shank

22 450 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M12	1.75	110	9	7	10.2	18	4
M16	2.00	110	12	9	14.0	22	4
M20	2.50	140	16	12	17.5	25	4

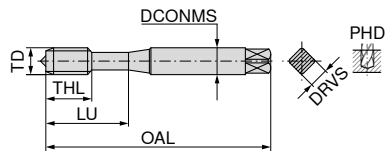
£	
U0	
141.78	120
201.84	160
329.98	200

P	12
M	
K	12
N	22
S	
H	
O	

Blind hole – Machine taps, right hand

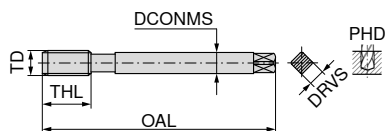
▲ CNC = for synchronised CNC machining with minimum length compensation chuck

▲ TS = for high-speed machining, up to 100 m/min.



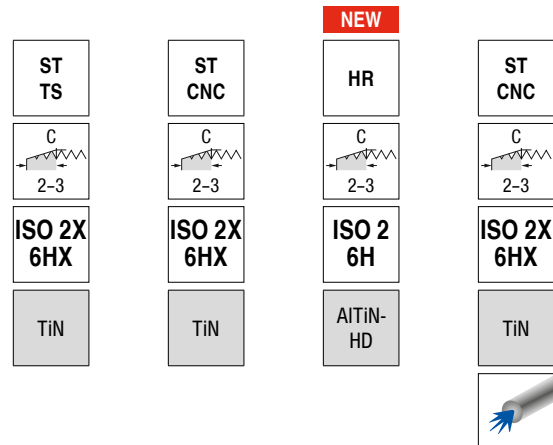
DIN 371 with reinforced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0.50	56	3.5	2.7	2.5	6	18	2
M3	0.50	56	3.5	2.7	2.5	11	18	3
M4	0.70	63	4.5	3.4	3.3	13	21	3
M4	0.70	63	4.5	3.4	3.3	7	21	3
M5	0.80	70	6.0	4.9	4.2	15	25	3
M5	0.80	70	6.0	4.9	4.2	8	25	3
M6	1.00	80	6.0	4.9	5.0	17	30	3
M6	1.00	80	6.0	4.9	5.0	10	30	3
M8	1.25	90	8.0	6.2	6.8	20	35	3
M8	1.25	90	8.0	6.2	6.8	14	35	3
M10	1.50	100	10.0	8.0	8.5	22	39	3
M10	1.50	100	10.0	8.0	8.5	16	39	3
M12	1.75	110	12.0	9.0	10.2	24	44	3



DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M12	1.75	110	9	7	10.2	18	3
M16	2.00	110	12	9	14.0	22	3
M20	2.50	140	16	12	17.5	25	3



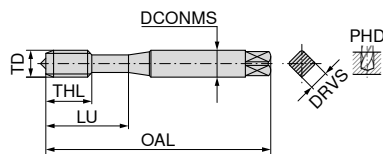
HSS-E $\angle 15^\circ$ $\leq 1050 \text{ N/mm}^2$ $\leq 2xD$	HSS-E $\angle 15^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 2xD$	HSS-PM $\angle 25^\circ$ $\leq 1400 \text{ N/mm}^2$ $\leq 2xD$	HSS-E $\angle 15^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 2xD$
22 406 ...	22 328 ...	22 469 ...	22 443 ...
£ U0	£ U0	£ U0	£ U0
57.53	52.59	37.66 44.59	
030	030	03000 04000	
61.24	54.84	45.59	83.84
040	040	05000	050
63.13	57.04	47.20	97.57
050	050	06000	060
76.93	70.54	51.51	106.84
060	060	08000	080
85.70	79.61	63.13	129.80
080	080	10000	100
104.96	97.57	75.36	
100	100	12000	

22 407 ...	22 329 ...	22 444 ...
£ U0	£ U0	£ U0
125.29 176.21 288.29	114.25 165.04 272.31	144.48 205.05
120 160 200	120 160 200	120

P	65	12	8	12
M		8	8	8
K	65	20		20
N	22	22	10	22
S			4	
H				
O				

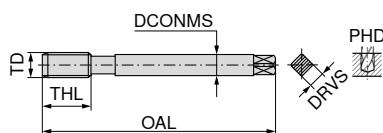
Blind hole – Machine taps

▲ LH = for left hand threads



DIN 371 with reinforced shank

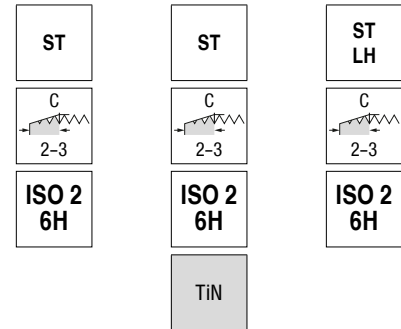
TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M2	0.40	45	2.8	2.1	1.60	4.0	12	2
M2,3	0.40	45	2.8	2.1	1.90	4.5	12	2
M2,5	0.45	50	2.8	2.1	2.05	5.0	15	2
M3	0.50	56	3.5	2.7	2.50	6.0	18	3
M3,5	0.60	56	4.0	3.0	2.90	7.0	20	3
M4	0.70	63	4.5	3.4	3.30	7.0	21	3
M5	0.80	70	6.0	4.9	4.20	8.0	25	3
M6	1.00	80	6.0	4.9	5.00	10.0	30	3
M8	1.25	90	8.0	6.2	6.80	14.0	35	3
M10	1.50	100	10.0	8.0	8.50	16.0	39	3



DIN 376 with reduced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M3	0.50	56	2.2		2.5	6	3
M4	0.70	63	2.8	2.1	3.3	7	3
M5	0.80	70	3.5	2.7	4.2	8	3
M6	1.00	80	4.5	3.4	5.0	10	3
M8	1.25	90	6.0	4.9	6.8	14	3
M10	1.50	100	7.0	5.5	8.5	16	3
M12	1.75	110	9.0	7.0	10.2	18	3
M14	2.00	110	11.0	9.0	12.0	20	3
M16	2.00	110	12.0	9.0	14.0	22	3
M18	2.50	125	14.0	11.0	15.5	25	3
M20	2.50	140	16.0	12.0	17.5	25	3
M22	2.50	140	18.0	14.5	19.5	27	4
M24	3.00	160	18.0	14.5	21.0	30	4
M30	3.50	180	22.0	18.0	26.5	35	4
M33	3.50	180	25.0	20.0	29.5	35	4
M36	4.00	200	28.0	22.0	32.0	40	4

P	12	15	12
M			
K	12	15	12
N	12	15	22
S			
H			
O			



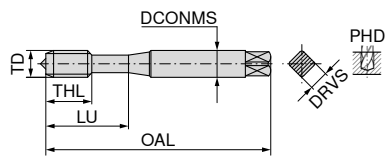
HSS-E
 $\angle 42^\circ$
 $\leq 750 \text{ N/mm}^2$
 $\leq 3xD$

22 082 ...	22 084 ...	22 138 ...
£	£	£
U0	U0	U0
020	020	
023		
025		
030	37.83	61.62
035		
040	40.28	54.62
050	40.74	59.67
060	50.04	57.52
080	54.62	69.87
100	75.13	80.39

22 083 ...	22 085 ...	22 139 ...
£	£	£
U0	U0	U0
030		
040		
050		
060		
080		
100	94.57	
120	89.69	111.03
140		
160	115.31	162.00
180		
200	194.63	237.65
220		
240		
300		
330		
360		

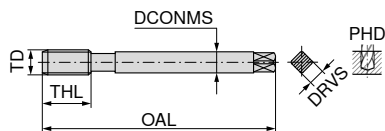
Blind hole – Machine taps, right hand

▲ TS = for high-speed machining, up to 100 m/min.



DIN 371 with reinforced shank

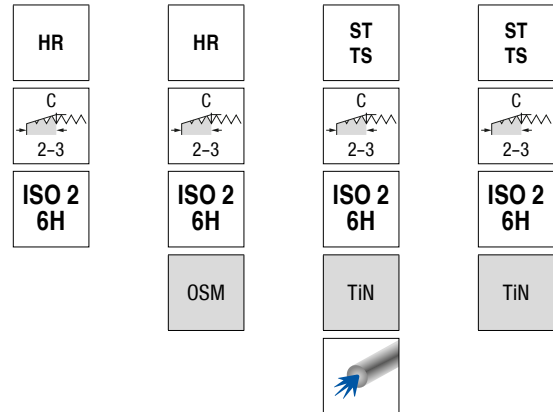
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0.50	56	3.5	2.7	2.5	6	18	3
M4	0.70	63	4.5	3.4	3.3	7	21	3
M5	0.80	70	6.0	4.9	4.2	8	25	3
M6	1.00	80	6.0	4.9	5.0	10	30	3
M8	1.25	90	8.0	6.2	6.8	14	35	3
M10	1.50	100	10.0	8.0	8.5	16	39	3



DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M5	0.80	70	6	4.9	4.2	8	3
M6	1.00	80	6	4.9	5.0	10	3
M8	1.25	90	8	6.2	6.8	14	3
M10	1.50	100	10	8.0	8.5	16	3
M12	1.75	110	9	7.0	10.2	18	4
M16	2.00	110	12	9.0	14.0	22	4

P	6	8	65	65
M	6	8		
K			65	65
N	8	12	75	75
S				
H				
O				

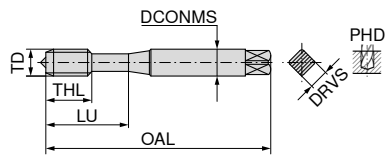


HSS-PM	HSS-PM	HSS-E	HSS-E
$\angle 42^\circ$ $\leq 1400 \text{ N/mm}^2$ $\leq 3xD$	$\angle 42^\circ$ $\leq 1400 \text{ N/mm}^2$ $\leq 3xD$	$\angle 40^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 2xD$	$\angle 40^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 2xD$
22 498 ...	22 499 ...	22 046 ...	22 044 ...
£ U0	£ U0	£ U0	£ U0
36.31 030	45.65 030		
34.03 040	45.65 040		59.19 040
35.07 050	48.65 050	101.62 050	64.68 050
35.19 060	50.96 060	132.71 060	67.73 060
42.21 080	63.15 080	134.84 080	77.33 080
50.49 100	72.14 100	183.52 100	94.73 100

22 045 ...

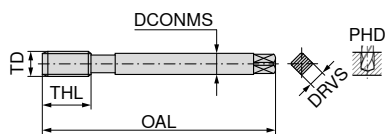
	£ U0	
	114.11 120	
	165.05 160	

Blind hole – Machine taps, right hand



DIN 371 with reinforced shank

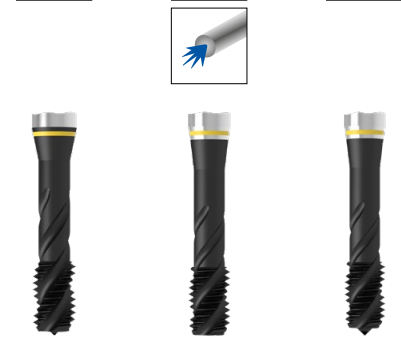
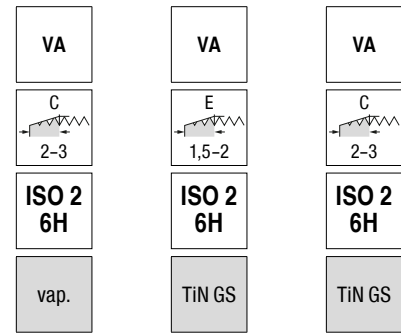
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M1,6	0.35	40	2.5	2.1	1.25	4	11	2
M2	0.40	45	2.8	2.1	1.60	4	12	2
M2,5	0.45	50	2.8	2.1	2.05	5	15	2
M2,5	0.45	50	2.8	2.1	2.05	5	15	3
M3	0.50	56	3.5	2.7	2.50	6	18	3
M4	0.70	63	4.5	3.4	3.30	7	21	3
M5	0.80	70	6.0	4.9	4.20	8	25	3
M6	1.00	80	6.0	4.9	5.00	10	30	3
M8	1.25	90	8.0	6.2	6.80	14	35	3
M10	1.50	100	10.0	8.0	8.50	16	39	3



DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M12	1.75	110	9	7.0	10.2	18	4
M14	2.00	110	11	9.0	12.0	20	4
M16	2.00	110	12	9.0	14.0	22	4
M20	2.50	140	16	12.0	17.5	25	4
M22	2.50	140	18	14.5	19.5	27	5
M24	3.00	160	18	14.5	21.0	30	5
M30	3.50	180	22	18.0	26.5	35	5

P	8	10	10
M	6	8	8
K			
N			
S			
H			
O			



HSS-E
 $\angle 42^\circ$
 $\leq 900 \text{ N/mm}^2$
 $\leq 3xD$

22 090 ...

£

U0

020

025

030

040

050

060

080

100

HSS-E
 $\angle 45^\circ$
 $\leq 900 \text{ N/mm}^2$
 $\leq 3xD$

22 042 ...

£

U0

050

060

080

100

HSS-E
 $\angle 45^\circ$
 $\leq 900 \text{ N/mm}^2$
 $\leq 3xD$

22 040 ...

£

U0

94.44

52.48

50.28

54.92

54.62

57.16

59.67

75.33

86.04

016

020

025

030

040

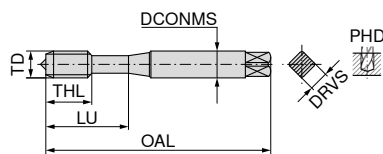
050

060

080

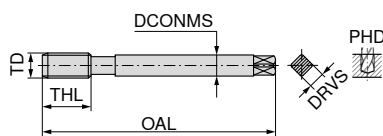
100

Blind hole – Machine taps, right hand



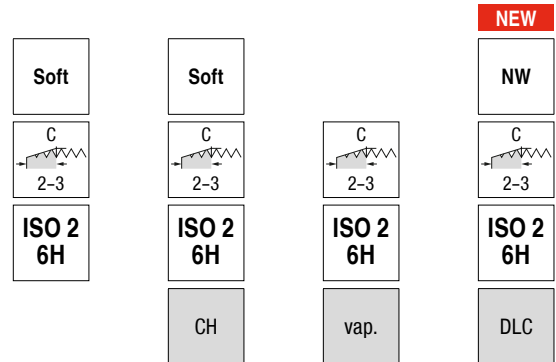
DIN 371 with reinforced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M2	0.40	45	2.8	2.1	1.60	4	12	2
M2,5	0.45	50	2.8	2.1	2.05	5	15	2
M2,5	0.45	50	2.8	2.1	2.05	5	14	2
M3	0.50	56	3.5	2.7	2.50	6	18	2
M3	0.50	56	3.5	2.7	2.50	6	18	3
M4	0.70	63	4.5	3.4	3.30	7	21	2
M4	0.70	63	4.5	3.4	3.30	7	21	3
M5	0.80	70	6.0	4.9	4.20	8	25	2
M5	0.80	70	6.0	4.9	4.20	8	25	3
M6	1.00	80	6.0	4.9	5.00	10	30	2
M6	1.00	80	6.0	4.9	5.00	10	30	3
M8	1.25	90	8.0	6.2	6.80	14	35	2
M8	1.25	90	8.0	6.2	6.80	14	35	3
M10	1.50	100	10.0	8.0	8.50	16	39	2
M10	1.50	100	10.0	8.0	8.50	16	39	3



DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M12	1.75	110	9	7	10.2	18	3
M14	2.00	110	11	9	12.0	20	3
M16	2.00	110	12	9	14.0	22	3
M20	2.50	140	16	12	17.5	25	3



HSS-E
 $\angle 42^\circ$
 $\leq 500 \text{ N/mm}^2$
 $\leq 3xD$

HSS-E
 $\angle 42^\circ$
 $\leq 500 \text{ N/mm}^2$
 $\leq 3xD$

HSS-E
 $\angle 38^\circ$
 $\leq 500 \text{ N/mm}^2$
 $\leq 3xD$

HSS-E
 $\angle 38^\circ$
 $\leq 880 \text{ N/mm}^2$
 $\leq 3xD$

22 326 ...

£
U051.14 020
47.95 025

22 324 ...

£
U069.09 020
66.82 025

22 086 ...

£
U041.19 020
38.17 025

22 460 ...

£
U045.94 02000
45.94 02500

37.31 03000

38.39 04000

38.39 05000

39.48 06000

44.57 08000

50.82 10000

22 087 ...

£
U0

59.67 120

81.91 160

22 461 ...

£
U0

64.24 12000

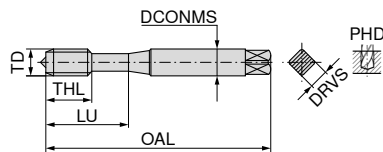
92.26 14000

89.61 16000

128.48 20000

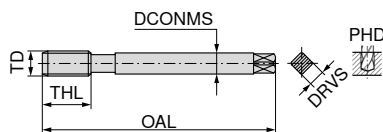
P	15	15
M		6
K		
N	22	22
S		
H		
O		

Blind hole – Machine taps, right hand



DIN 371 with reinforced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M3	0.50	56	3.5	2.7	2.5	11	18	2
M3	0.50	56	3.5	2.7	2.5	11	18	3
M3	0.50	56	3.5	2.7	2.5	6	18	3
M3,5	0.60	56	4.0	3.0	2.9	12	20	3
M4	0.70	63	4.5	3.4	3.3	7	21	3
M4	0.70	63	4.5	3.4	3.3	13	21	3
M5	0.80	70	6.0	4.9	4.2	8	25	3
M5	0.80	70	6.0	4.9	4.2	15	25	3
M6	1.00	80	6.0	4.9	5.0	10	30	3
M6	1.00	80	6.0	4.9	5.0	17	30	3
M8	1.25	90	8.0	6.2	6.8	14	35	3
M8	1.25	90	8.0	6.2	6.8	20	35	3
M10	1.50	100	10.0	8.0	8.5	16	39	3
M10	1.50	100	10.0	8.0	8.5	22	39	3
M12	1.75	110	12.0	9.0	10.2	18	44	3



DIN 376 with reduced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M12	1.75	110	9	7.0	10.2	24	3
M12	1.75	110	9	7.0	10.2	24	4
M14	2.00	110	11	9.0	12.0	26	3
M14	2.00	110	11	9.0	12.0	26	4
M16	2.00	110	12	9.0	14.0	27	3
M16	2.00	110	12	9.0	14.0	27	5
M20	2.50	140	16	12.0	17.5	32	3
M24	3.00	160	18	14.5	21.0	34	3

P	7	7		
M	7	7		
K				
N		22	22	22
S	5	5	2	2
H				
O				

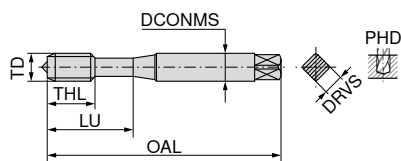
Ti	Ti	Ni	Ni
C 2-3	C 2-3	C 2-3	C 2-3
ISO 2X 6HX	ISO 2X 6HX	ISO 2 6H	ISO 2X 6HX
TiN	TiCN	TiCN	TiCN
HSS-PM $\angle 30^\circ$ $\leq 1400 \text{ N/mm}^2$ $\leq 1,5xD$	HSS-PM $\angle 15^\circ$ $\leq 1200 \text{ N/mm}^2$ $\leq 2xD$	HSS-PM $\angle 15^\circ$ $\leq 1600 \text{ N/mm}^2$ $\leq 1,5xD$	HSS-PM $\angle 15^\circ$ $\leq 1600 \text{ N/mm}^2$ $\leq 2xD$
22 076 ...	22 163 ...	22 073 ...	22 424 ...
£ U0	£ U0	£ U0	£ U0
	50.74 030	113.05 030	70.97 030
50.74 030	55.51 035		
52.94 040	56.62 040	113.05 040	74.15 040
53.38 050	57.06 050	101.15 050	76.93 050
57.65 060	76.28 060	118.51 060	96.75 060
63.03 080	82.98 080	174.36 080	105.90 080
87.85 100	102.21 100	152.52 100	132.64 100
99.14 120			

Blind hole – Machine taps, right hand

▲ ES = extra short

UNI
ESISO 2
6H

vap.



DIN 352 with reinforced shank



HSS-E

 $\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

22 500 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0.50	40	3.5	2.7	2.5	6	18	3
M4	0.70	45	4.5	3.4	3.3	7	22	3
M5	0.80	50	6.0	4.9	4.2	9	25	3
M6	1.00	56	6.0	4.9	5.0	10	28	3
M8	1.25	63	6.0	4.9	6.8	14		3
M10	1.50	70	7.0	5.5	8.5	16		3
M12	1.75	75	9.0	7.0	10.2	18		4
M16	2.00	80	12.0	9.0	14.0	22		4

£

U0

030

29.60

040

30.04

050

29.60

060

32.50

080

37.22

100

42.72

120

55.21

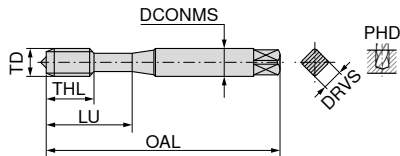
160

87.55

P	12
M	7
K	12
N	
S	
H	
O	

Blind hole – Machine taps, right hand

▲ ES = extra short



DIN 352 with reinforced shank



HSS-E

 $\angle 15^\circ$
 $\leq 750 \text{ N/mm}^2$
 $\leq 2xD$

22 016 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0.50	40	3.5	2.7	2.5	10	18	2
M4	0.70	45	4.5	3.4	3.3	12	22	3
M5	0.80	50	6.0	4.9	4.2	14	25	3
M6	1.00	56	6.0	4.9	5.0	16	28	3
M8	1.25	63	6.0	4.9	6.8	20		3
M10	1.50	70	7.0	5.5	8.5	22		3
M12	1.75	75	9.0	7.0	10.2	24		3

£

U0

030

040

050

060

080

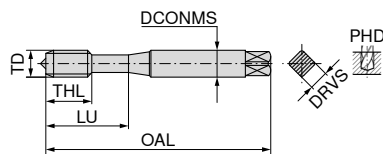
100

120

P	12
M	
K	12
N	12
S	
H	
O	

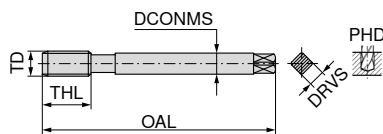
Blind hole – Machine taps, right hand

▲ EL = extra long, with double overall length



DIN 371 with reinforced shank

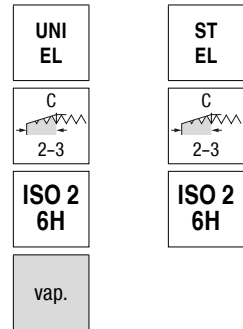
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0.50	100	3.5	2.7	2.5	6	18	3
M4	0.70	125	4.5	3.4	3.3	7	21	3
M5	0.80	140	6.0	4.9	4.2	8	25	3
M6	1.00	160	6.0	4.9	5.0	10	30	3
M8	1.25	180	8.0	6.2	6.8	14	35	3



DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M6	1.00	160	4.5	3.4	5.0	10	3
M8	1.25	180	6.0	4.9	6.8	14	3
M10	1.50	200	7.0	5.5	8.5	16	3
M12	1.75	224	9.0	7.0	10.2	18	3
M14	2.00	224	11.0	9.0	12.0	20	3
M16	2.00	224	12.0	9.0	14.0	22	3
M18	2.50	250	14.0	11.0	15.5	25	3
M20	2.50	280	16.0	12.0	17.5	25	3

P	12	12
M	7	
K	12	12
N		22
S		
H		
O		

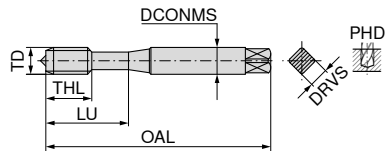


22 538 ...	22 422 ...
£ U0	£ U0
60.25 030	75.47 030
60.15 040	73.73 040
67.64 050	82.38 050
71.09 060	85.70 060
81.01 080	103.19 080

22 539 ...	22 423 ...
£ U0	£ U0
90.45 060	85.70 060
109.22 080	103.19 080
94.44 100	113.24 100
117.31 120	147.38 120
204.26 140	214.64 140
172.23 160	208.24 160
319.86 180	315.54 180
273.02 200	281.90 200

Blind hole – Machine taps, right hand

▲ EL = extra long, with double overall length



DIN 371 with reinforced shank



HSS-E

 $\angle 15^\circ$
 $\leq 750 \text{ N/mm}^2$
 $\leq 2xD$

22 078 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0.50	100	3.5	2.7	2.5	11	18	2
M4	0.70	125	4.5	3.4	3.3	13	21	3
M5	0.80	140	6.0	4.9	4.2	15	25	3
M6	1.00	160	6.0	4.9	5.0	17	30	3
M8	1.25	180	8.0	6.2	6.8	20	35	3

£

U0

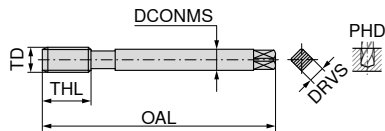
030

040

050

060

080



DIN 376 with reduced shank

22 080 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M6	1.00	160	4.5	3.4	5.0	17	3
M8	1.25	180	6.0	4.9	6.8	20	3
M10	1.50	200	7.0	5.5	8.5	22	3
M12	1.75	224	9.0	7.0	10.2	24	3
M14	2.00	224	11.0	9.0	12.0	26	3
M16	2.00	224	12.0	9.0	14.0	27	3
M20	2.50	280	16.0	12.0	17.5	32	3

£

U0

060

080

100

120

140

160

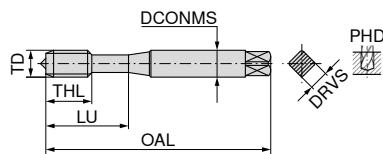
200

P	12
M	
K	12
N	12
S	
H	
O	

Blind hole – Machine taps, right hand

▲ NC = for synchronised CNC machining with minimum length compensation chuck

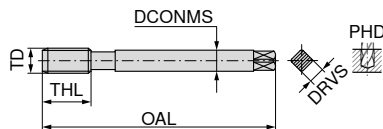
M



DIN 371 with reinforced shank

UNI	UNI	UNI	UNI	UNI NC
C 2-3	C 2-3	C 2-3	C 2-3	C 2-3
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
vap.	TiN	TiN	TiCN	TiN GS
HSS-E $\angle 35^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 2,5xD$	HSS-E $\angle 35^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 2,5xD$	HSS-PM $\angle 50^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 2,5xD$	HSS-E $\angle 45^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 45^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 3xD$

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes	23 118 ...		23 120 ...		23 026 ...		23 122 ...		23 124 ...	
									£ T9		£ T9		£ T9		£ T9		£ T9	
M2	0.40	45	2.8	2.1	1.60	4	12	2	30.04	020	34.29	020						
M2.5	0.45	50	2.8	2.1	2.05	5	14	2	28.88	025	33.72	025						
M3	0.50	56	3.5	2.7	2.50	6	18	3	22.90	030	28.75	030	13.74	030	30.25	030	32.50	030
M4	0.70	63	4.5	3.4	3.30	7	21	3	23.81	040	32.18	040	13.74	040	32.50	040	33.68	040
M5	0.80	70	6.0	4.9	4.20	8	25	3	24.57	050	33.25	050	14.81	050	33.72	050	36.15	050
M6	1.00	80	6.0	4.9	5.00	10	30	3	25.94	060	41.41	060	17.15	060	42.81	060	48.81	060
M8	1.25	90	8.0	6.2	6.80	14	35	3	29.35	080	45.20	080	20.34	080	46.85	080	52.48	080
M10	1.50	100	10.0	8.0	8.50	16	39	3	33.58	100	60.59	100	25.62	100	59.19	100	66.68	100



DIN 376 with reduced shank

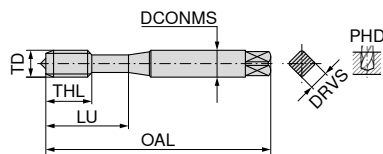
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	23 119 ...		23 121 ...		23 027 ...		23 123 ...		23 125 ...	
								£ T9		£ T9		£ T9		£ T9		£ T9	
M3	0.50	56	2.2		2.5	6	3	9.99	030								
M4	0.70	63	2.8	2.1	3.3	7	3	9.05	040								
M5	0.80	70	3.5	2.7	4.2	8	3	8.81	050								
M6	1.00	80	4.5	3.4	5.0	10	3	8.69	060								
M8	1.25	90	6.0	4.9	6.8	14	3	9.16	080								
M10	1.50	100	7.0	5.5	8.5	16	3	12.35	100								
M12	1.75	110	9.0	7.0	10.2	18	3	13.99	120								
M12	1.75	110	9.0	7.0	10.2	18	4			65.82	120						
M14	2.00	110	11.0	9.0	12.0	20	3			45.11	14000						
M14	2.00	110	11.0	9.0	12.0	20	4					43.60	140				
M16	2.00	110	12.0	9.0	14.0	22	3	20.56	160	84.08	160						
M16	2.00	110	12.0	9.0	14.0	22	4					43.60	160				
M18	2.50	125	14.0	11.0	15.5	25	3			71.34	18000			93.64	160	103.11	160
M20	2.50	140	16.0	12.0	17.5	25	3	31.02	200	163.43	200	49.95	200				
M20	2.50	140	16.0	12.0	17.5	25	4										
M22	2.50	140	18.0	14.5	19.5	27	4			104.57	22000			169.77	200	188.99	200
M24	3.00	160	18.0	14.5	21.0	34	4			158.33	240						
M27	3.00	160	20.0	16.0	24.0	30	4			130.80	27000						
M30	3.50	180	22.0	18.0	26.5	35	4			145.25	30000						
M33	3.50	180	25.0	20.0	29.5	35	4			209.43	33000						
M36	4.00	200	28.0	22.0	32.0	40	4			227.56	36000						

P	12	15	15	15	15
M	7	9	9	9	9
K	12	18	18	18	18
N		12	12	12	12
S					
H					
O					

Blind hole – Machine taps, right hand

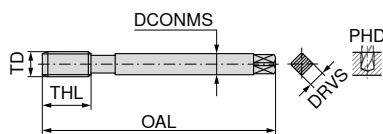
▲ NCW = with Weldon flat for synchronised CNC machining without length compensation chuck

M



DIN 371 with reinforced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M2	0.40	45	2.8	2.1	1.60	4	12	2
M2.5	0.45	50	2.8	2.1	2.05	5	14	2
M3	0.50	56	3.5	2.7	2.50	6	18	3
M3	0.50	70	6.0	4.9	2.50	6	18	3
M4	0.70	63	4.5	3.4	3.30	7	21	3
M4	0.70	70	6.0	4.9	3.30	7	21	3
M5	0.80	70	6.0	4.9	4.20	8	25	3
M6	1.00	80	6.0	4.9	5.00	10	30	3
M8	1.25	90	8.0	6.2	6.80	14	35	3
M10	1.50	100	10.0	8.0	8.50	16	39	3



DIN 376 with reduced shank

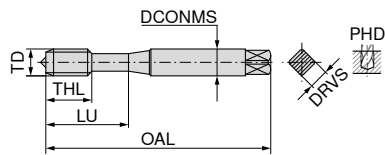
TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M12	1.75	110	10	8.0	10.2	18	3
M12	1.75	110	9	7.0	10.2	18	3
M14	2.00	110	11	9.0	12.0	20	3
M16	2.00	110	12	9.0	14.0	22	3
M20	2.50	140	16	12.0	17.5	25	3
M24	3.00	160	18	14.5	21.0	30	4

P	15	12	15	8
M	8			6
K	15	12	15	
N	22	22	24	22
S				
H				
O				

UNI NCW	FE	FE-HF	VA
			
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
TiCN		TiCN	
			
HSS-PM ◁ 35° ≤ 1000 N/mm² ≤ 2,5xD	HSS-E ◁ 35° ≤ 850 N/mm² ≤ 2,5xD	HSS-E ◁ 35° ≤ 1100 N/mm² ≤ 2,5xD	HSS-E ◁ 35° ≤ 1200 N/mm² ≤ 2,5xD
23 126 ...	23 216 ...	23 312 ...	23 414 ...
£ T9	£ T9	£ T9	£ T9
	13.15 020 26.53 025 13.30 030		21.83 020 28.88 025 14.52 030
34.79 030	13.30 040	27.69 030	
39.84 040 39.67 050 39.67 060 50.13 080 60.62 100	13.34 050 13.34 060 17.37 080 20.81 100	30.25 040 31.13 050 42.88 060 46.85 080 58.42 100	14.52 040 15.11 050 15.11 060 19.23 080 23.19 100

Blind hole – Machine taps, right hand

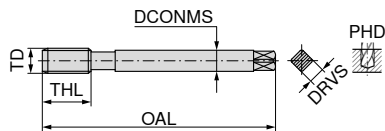
M



DIN 371 with reinforced shank

VA	VA	VA	AL	AL
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
TiN		TiN		CrN
HSS-E $\angle 45^\circ$ $\leq 1200 \text{ N/mm}^2$ $\leq 3xD$	HSS-PM $\angle 40^\circ$ $\leq 1200 \text{ N/mm}^2$ $\leq 2,5xD$	HSS-PM $\angle 40^\circ$ $\leq 1200 \text{ N/mm}^2$ $\leq 2,5xD$	HSS-E $\angle 35^\circ$ $\leq 500 \text{ N/mm}^2$ $\leq 2,5xD$	HSS-E $\angle 35^\circ$ $\leq 500 \text{ N/mm}^2$ $\leq 2,5xD$

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes	23 416 ...		23 426 ...		23 456 ...		23 616 ...		23 614 ...	
									£ T9		£ T9		£ T9		£ T9		£ T9	
M2	0.40	45	2.8	2.1	1.60	4	12	2	35.24	020								
M2.5	0.45	50	2.8	2.1	2.05	5	14	2	33.72	025								
M3	0.50	56	3.5	2.7	2.50	6	18	3	28.75	030	12.35	030	13.74	030	13.30	030	28.28	030
M4	0.70	63	4.5	3.4	3.30	7	21	3	32.18	040	12.45	040	15.05	040	13.30	040	28.28	040
M5	0.80	70	6.0	4.9	4.20	8	25	3	33.25	050	12.81	050	15.28	050	13.34	050	29.35	050
M6	1.00	80	6.0	4.9	5.00	10	30	3	42.66	060	13.04	060	19.62	060	13.34	060	29.35	060
M8	1.25	90	8.0	6.2	6.80	14	35	3	45.20	080	15.28	080	21.04	080	17.37	080	34.63	080
M10	1.50	100	10.0	8.0	8.50	16	39	3	63.60	100	18.33	100	29.02	100	20.81	100	42.41	100

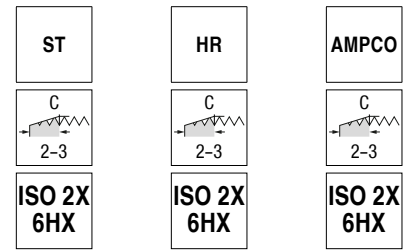
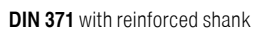


DIN 376 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	23 417 ...		23 427 ...		23 457 ...		23 617 ...		23 615 ...	
								£ T9		£ T9		£ T9		£ T9		£ T9	
M12	1.75	110	9	7.0	10.2	18	3			30.31	120	41.60	120	28.08	120	52.48	120
M12	1.75	110	9	7.0	10.2	18	4	69.11	120								
M14	2.00	110	11	9.0	12.0	20	4			39.96	140						
M16	2.00	110	12	9.0	14.0	22	3			43.48	160	52.29	160				
M16	2.00	110	12	9.0	14.0	22	4	84.08	160								
M20	2.50	140	16	12.0	17.5	25	3			64.75	200	103.87	200				
M20	2.50	140	16	12.0	17.5	25	4	132.41	200								
M24	3.00	160	18	14.5	21.0	30	4			81.90	240						

P	10	8	10		
M	8	6	8		
K					
N	24	22	24	15	20
S					
H					
O					

M TWIN



HSS-E
 $\angle 0^\circ$
 $\leq 750 \text{ N/mm}^2$
 $\leq 2 \times D$

HSS-E
 $\angle 0^\circ$
 $\leq 1400 \text{ N/mm}^2$
 $\leq 2xD$

HSS-PM
 $\angle 0^\circ$
 $\leq 800 \text{ N/mm}^2$
 $\leq 2xD$

P	12	6	
M			
K	12	16	
N		12	8
S			
H			
O			

1) Tol. $4H/5H \leq M1.4$

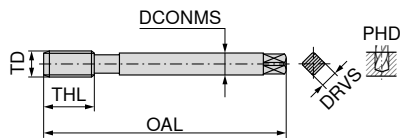


) DIN 376 can be found on the next page

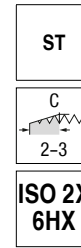
Through hole / Blind hole – Machine taps, right hand

M

TWIN



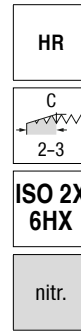
DIN 376 with reduced shank



HSS-E
 $\angle 0^\circ$
 $\leq 750 \text{ N/mm}^2$
 $\leq 2xD$

22 029 ...

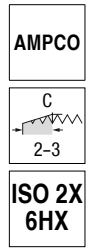
£
U0
 33.72 040
 34.03 050
 34.03 060
 42.88 080
 48.49 100
 49.29 120
 68.20 140
 72.77 160
 107.38 180
 109.37 200
 149.65 220
 148.10 240
 292.86 330



HSS-E
 $\angle 0^\circ$
 $\leq 1400 \text{ N/mm}^2$
 $\leq 2xD$

22 007 ...

£
U0
 69.13 120
 100.70 160



HSS-PM
 $\angle 0^\circ$
 $\leq 800 \text{ N/mm}^2$
 $\leq 2xD$

22 031 ...

£
U0
 94.34 120
 136.95 160
 182.43 200
 222.69 240

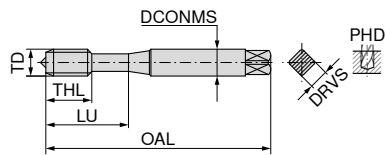
TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M4	0.70	63	2.8	2.1	3.3	13	3
M5	0.80	70	3.5	2.7	4.2	15	3
M6	1.00	80	4.5	3.4	5.0	17	3
M8	1.25	90	6.0	4.9	6.8	20	3
M10	1.50	100	7.0	5.5	8.5	22	3
M12	1.75	110	9.0	7.0	10.2	24	3
M12	1.75	110	9.0	7.0	10.2	24	4
M14	2.00	110	11.0	9.0	12.0	26	3
M16	2.00	110	12.0	9.0	14.0	27	3
M16	2.00	110	12.0	9.0	14.0	27	4
M18	2.50	125	14.0	11.0	15.5	30	4
M20	2.50	140	16.0	12.0	17.5	32	4
M22	2.50	140	18.0	14.5	19.5	32	4
M24	3.00	160	18.0	14.5	21.0	34	4
M33	3.50	180	25.0	20.0	29.5	40	4

P	12	6
M		
K	12	16
N		12
S		8
H		
O		

Through hole / Blind hole – Machine taps, right hand

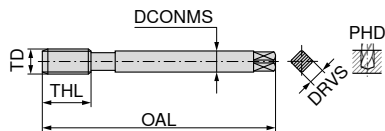
M

TWIN



DIN 371 with reinforced shank

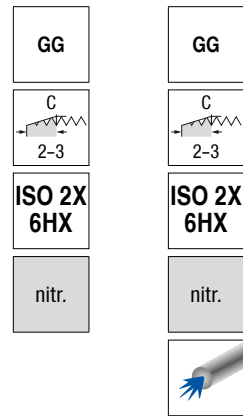
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M2	0.40	45	2.8	2.1	1.60	7	12	3
M2.5	0.45	50	2.8	2.1	2.05	9	14	3
M3	0.50	56	3.5	2.7	2.50	11	18	3
M3.5	0.60	56	4.0	3.0	2.90	12	20	3
M4	0.70	63	4.5	3.4	3.30	13	21	3
M5	0.80	70	6.0	4.9	4.20	15	25	3
M6	1.00	80	6.0	4.9	5.00	17	30	3
M8	1.25	90	8.0	6.2	6.80	20	35	3
M10	1.50	100	10.0	8.0	8.50	22	39	3



DIN 376 with reduced shank

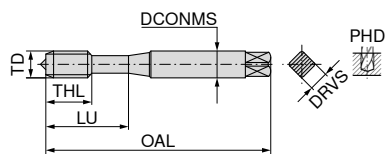
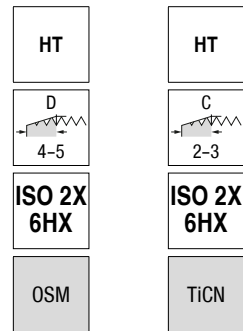
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M6	1.00	80	4.5	3.4	5.0	17	3
M8	1.25	90	6.0	4.9	6.8	20	3
M10	1.50	100	7.0	5.5	8.5	22	3
M12	1.75	110	9.0	7.0	10.2	24	3
M14	2.00	110	11.0	9.0	12.0	26	3
M16	2.00	110	12.0	9.0	14.0	27	3
M18	2.50	125	14.0	11.0	15.5	30	4
M20	2.50	140	16.0	12.0	17.5	32	4
M22	2.50	140	18.0	14.5	19.5	32	4
M24	3.00	160	18.0	14.5	21.0	34	4

P		
M		
K	16	16
N	12	12
S		
H		
O		



22 032 ...	22 036 ...
£ U0	£ U0
33.13	020
34.03	025
28.54	030
31.13	035
29.18	040
31.13	050
31.13	060
35.79	080
42.81	100
	050
	060
	080
	100

Through hole / Blind hole – Machine taps, right hand



DIN 371 with reinforced shank



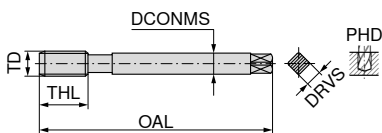
Solid carbide

HSS-PM

0°
≤ 63 HRC
≤ 1,5xD

0°
44 - 52 HRC
≤ 1,5xD

TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M3	0.50	63	4.5	3.4	2.55	6	18	4
M4	0.70	63	4.5	3.4	3.40	8	20	4
M5	0.80	70	6.0	4.9	4.30	10	26	4
M6	1.00	80	6.0	4.9	5.00	10	30	4
M6	1.00	80	6.0	4.9	5.10	12	28	4
M8	1.25	90	8.0	6.2	6.80	14	35	5
M8	1.25	90	8.0	6.2	6.90	15	35	5
M10	1.50	100	10.0	8.0	8.50	18	38	5
M10	1.50	100	10.0	8.0	8.50	16	39	5
M12	1.75	110	12.0	9.0	10.40	21	41	5
M16	2.00	110	16.0	12.0	14.20	24	44	6



DIN 376 with reduced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M12	1.75	110	9	7	10.4	18	5
M16	2.00	110	12	9	14.2	22	6

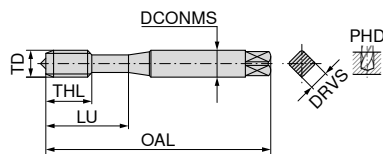
22 228 ...

£
U0267.52 120
368.38 160

P		
M		
K		
N		22
S		
H	2	2
O		

Through hole / Blind hole – Machine taps, right hand

▲ EL = extra long, with double overall length



DIN 371 with reinforced shank



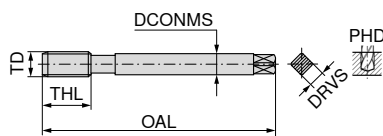
HSS-E

 $\angle 0^\circ$
 $\leq 1400 \text{ N/mm}^2$
 $\leq 2xD$

22 122 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0.50	100	3.5	2.7	2.5	11	18	3
M4	0.70	125	4.5	3.4	3.3	13	21	3
M5	0.80	140	6.0	4.9	4.2	15	25	3
M6	1.00	160	6.0	4.9	5.0	17	30	3
M8	1.25	180	8.0	6.2	6.8	20	35	3

£ U0	
72.59	030
72.59	040
78.26	050
82.06	060
94.57	080



DIN 376 with reduced shank

22 123 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M10	1.50	200	7	5.5	8.5	22	3
M12	1.75	224	9	7.0	10.2	24	3
M16	2.00	224	12	9.0	14.0	27	3
M20	2.50	280	16	12.0	17.5	32	4

£ U0	
109.22	100
129.65	120
202.43	160
278.68	200

P	6
M	
K	16
N	22
S	
H	
O	

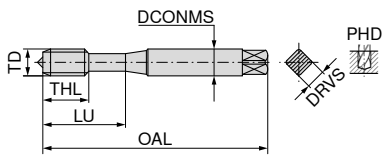
Through hole / Blind hole – Machine taps, right hand

M

GG

ISO 2X
6HX

TiCN



DIN 371 with reinforced shank



HSS-E

 $\angle 0^\circ$
 $\leq 900 \text{ N/mm}^2$
 $\leq 2xD$

23 512 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0.50	56	3.5	2.7	2.5	11	18	3
M4	0.70	63	4.5	3.4	3.3	13	21	3
M5	0.80	70	6.0	4.9	4.2	15	25	3
M6	1.00	80	6.0	4.9	5.0	17	30	3
M8	1.25	90	8.0	6.2	6.8	20	35	3
M10	1.50	100	10.0	8.0	8.5	22	39	3

£

T9

030

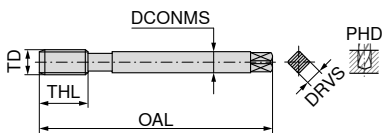
040

050

060

080

100



DIN 376 with reduced shank

23 513 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M12	1.75	110	9	7	10.2	24	3

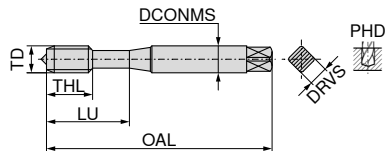
£

T9

120

P	
M	
K	20
N	24
S	
H	
O	

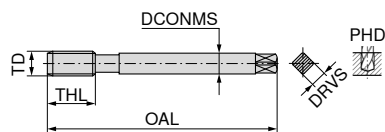
Through hole / Blind hole – Machine thread formers, right hand



DIN 2174 with reinforced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm
M1	0.25	40	2.5	2.1	0.90	5	6.5
M1,2	0.25	40	2.5	2.1	1.10	5	6.5
M1,4	0.30	40	2.5	2.1	1.28	6	9.0
M1,6	0.35	40	2.5	2.1	1.47	6	9.0
M1,7	0.35	40	2.5	2.1	1.57	6	9.0
M2	0.40	45	2.8	2.1	1.85	7	10.0
M2,5	0.45	50	2.8	2.1	2.33	9	14.0
M2,6	0.45	50	2.8	2.1	2.43	9	14.0
M3	0.50	56	3.5	2.7	2.80	11	18.0
M3,5	0.60	56	4.0	3.0	3.25	12	20.0
M4	0.70	63	4.5	3.4	3.70	13	21.0
M5	0.80	70	6.0	4.9	4.65	15	25.0
M6	1.00	80	6.0	4.9	5.60	17	30.0
M8	1.25	90	8.0	6.2	7.40	20	35.0
M8	1.25	90	8.0	6.2	7.45	20	35.0
M10	1.50	100	10.0	8.0	9.35	22	39.0

1) Tol. ISO 1X 4HX ≤ M1.4



DIN 2174 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm
M12	1.75	110	9	7	11.25	24
M16	2.00	110	12	9	15.10	27

P	18	18
M	10	10
K	10	10
N	18	22
S		
H		
O		

HSS-E
≤ 1100 N/mm²
≤ 1,5xD

22 128 ...

£
U0HSS-E
≤ 1100 N/mm²
≤ 1,5xD

22 100 ...

£
U0

84.04	010	1)
77.07	012	1)
72.59	014	1)
70.62	016	
72.59	017	
47.15	020	
47.74	025	
50.19	026	
43.48	030	
41.75	035	
44.55	040	
46.68	050	
53.54	060	
58.88	080	
64.66	080	
86.32	100	

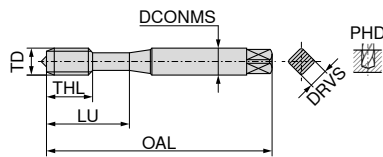
22 101 ...

£
U0

91.22	120
136.93	160

Through hole / Blind hole – Machine thread formers, right hand

▲ SN = Thread formers with lubrication grooves



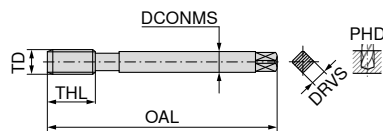
DIN 2174 with reinforced shank

EC SN	EC SN	EC SN	EC SN	EC SN
C 2-3	C 2-3	C 2-3	C 2-3	C 2-3
ISO 2X 6HX	ISO 2X 6HX	ISO 3X 6GX	ISO 2X 6HX	ISO 2X 6HX
nitr.	HCr	TiN	TiN GS	TiN



HSS-E ≤ 1100 N/mm ² ≤ 3xD	HSS-E ≤ 1100 N/mm ² ≤ 3xD	HSS-E ≤ 1100 N/mm ² ≤ 3xD	HSS-E ≤ 1100 N/mm ² ≤ 3xD	HSS-E ≤ 1100 N/mm ² ≤ 3xD
--	--	--	--	--

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes	22 104 ...		22 107 ...		22 108 ...		22 154 ...		22 105 ...	
									£ U0		£ U0		£ U0		£ U0		£ U0	
M2	0.40	45	2.8	2.1	1.85	7	10	3									55.39	020
M2,5	0.45	50	2.8	2.1	2.33	9	14	3									51.63	025
M3	0.50	56	3.5	2.7	2.80	11	18	3	33.88	030	46.68	030	45.32	030	68.09	030	47.75	030
M3,5	0.60	56	4.0	3.0	3.25	12	20	3									51.63	035
M4	0.70	63	4.5	3.4	3.70	13	21	4	40.13	040	47.44	040	48.65	040	71.41	040	49.59	040
M5	0.80	70	6.0	4.9	4.65	15	25	4	41.31	050	50.19	050	51.63	050	74.13	050		
M5	0.80	70	6.0	4.9	4.65	15	25	5									51.25	050
M6	1.00	80	6.0	4.9	5.60	17	30	4	42.21	060	50.74	060	57.98	060	81.74	060	58.58	060
M8	1.25	90	8.0	6.2	7.45	20	35	5	50.74	080	59.27	080	66.21	080	88.63	080	64.68	080
M10	1.50	100	10.0	8.0	9.35	22	39	6	65.74	100	75.22	100	80.39	100	107.85	100	80.70	100



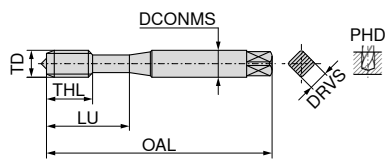
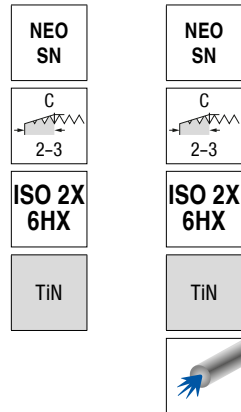
DIN 2174 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	22 106 ...	
								£ U0	
M12	1.75	110	9	7	11.25	24	6	111.21	120
M14	2.00	110	11	9	13.10	26	5	194.04	140
M16	2.00	110	12	9	15.10	27	7	162.91	160

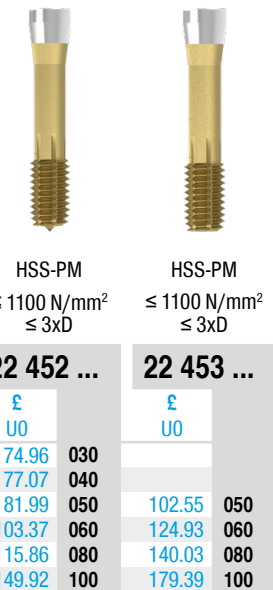
P	12	18	18	18	18
M		10	10	10	10
K	8	10	10	10	10
N	12	18	22	22	22
S					
H					
O					

Through hole / Blind hole – Machine thread formers, right hand

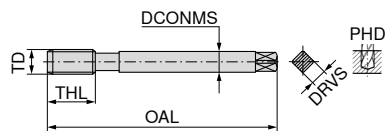
▲ SN = Thread formers with lubrication grooves



DIN 2174 with reinforced shank



TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0.50	56	3.5	2.7	2.80	11	18	4
M4	0.70	63	4.5	3.4	3.70	13	21	4
M5	0.80	70	6.0	4.9	4.65	15	25	4
M6	1.00	80	6.0	4.9	5.60	17	30	5
M8	1.25	90	8.0	6.2	7.45	20	35	5
M10	1.50	100	10.0	8.0	9.35	22	39	5



DIN 2174 with reduced shank

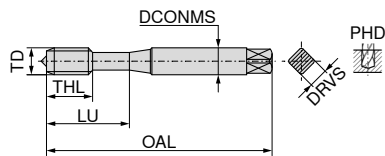
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M12	1.75	110	9	7	11.25	24	6
M16	2.00	110	12	9	15.10	27	6

P	18	18
M	10	10
K	10	10
N	22	22
S		
H		
O		

Through hole / Blind hole – Machine thread formers, right hand

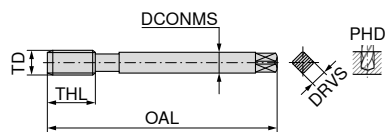
▲ SN = Thread formers with lubrication grooves

M



DIN 2174 with reinforced shank

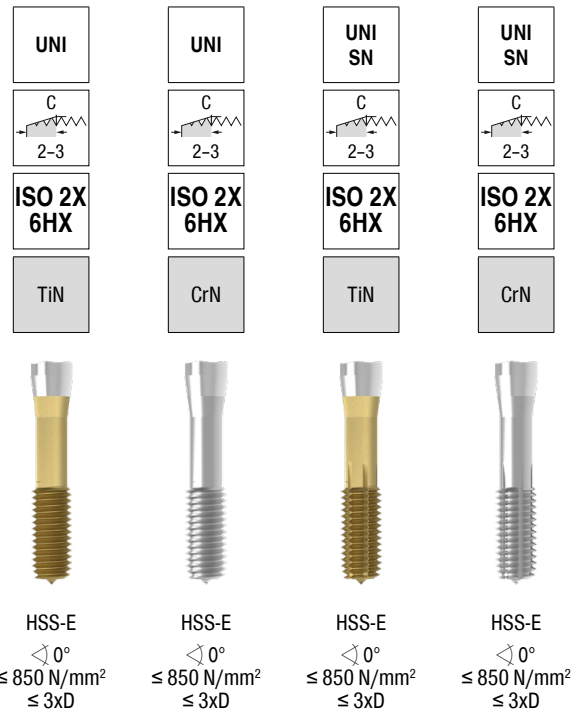
TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M2	0.40	45	2.8	2.1	1.85	7	12	
M2	0.40	45	2.8	2.1	1.85	7	12	3
M2,5	0.45	50	2.8	2.1	2.33	9	14	3
M2,5	0.45	50	2.8	2.1	2.33	9	14	
M3	0.50	56	3.5	2.7	2.80	11	18	3
M3	0.50	56	3.5	2.7	2.80	11	18	
M4	0.70	63	4.5	3.4	3.70	13	21	4
M4	0.70	63	4.5	3.4	3.70	13	21	
M5	0.80	70	6.0	4.9	4.65	15	25	4
M5	0.80	70	6.0	4.9	4.65	15	25	
M6	1.00	80	6.0	4.9	5.60	17	30	4
M6	1.00	80	6.0	4.9	5.60	17	30	
M8	1.25	90	8.0	6.2	7.45	20	35	5
M8	1.25	90	8.0	6.2	7.45	20	35	
M10	1.50	100	10.0	8.0	9.35	22	39	5
M10	1.50	100	10.0	8.0	9.35	22	39	



DIN 2174 with reduced shank

TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M12	1.75	110	9	7.0	11.25	24	
M12	1.75	110	9	7.0	11.25	24	5
M16	2.00	110	12	9.0	15.10	27	6
M16	2.00	110	12	9.0	15.10	27	
M18	2.50	125	14	11.0	16.80	30	6
M20	2.50	140	16	12.0	18.80	32	6
M24	3.00	160	18	14.5	22.60	34	6

P	18	18	18	18
M	10	10	10	10
K	10		10	
N	22	18	22	18
S				
H				
O				



23 810 ...	23 812 ...	23 814 ...	23 816 ...
£	£	£	£
T9	T9	T9	T9
41.64	46.69	47.30	53.29
020	020	020	020
		42.88	46.69
		025	025
37.09	41.19	28.75	33.81
025	025	030	030
27.00	30.04	61.59	33.81
030	030	040	040
27.38	30.68	64.95	36.61
040	040	050	050
29.35	31.73	74.54	36.61
050	050	060	060
35.24	31.73	77.87	43.32
060	060	080	080
		50.25	54.17
		100	100
52.48	46.69		
100	100		

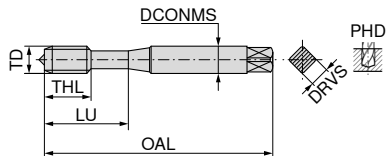
23 811 ...	23 813 ...	23 815 ...	23 817 ...
£	£	£	£
T9	T9	T9	T9
59.96	58.42	65.70	65.70
120	120	120	120
		125.38	133.93
		160	160
112.73	114.46	145.46	
160	160	18000	
		135.29	
		20000	
		180.75	
		24000	

Through hole – machine taps for wire thread inserts, right hand

EG M

Stabil

UNI

6H
modnitr. +
vap.

DIN 40435 with reinforced shank



HSS-E

 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$

22 662 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
EG-M2,5	0.45	56	3.5	2.7	2.65	11	18	3
EG-M3	0.50	63	4.5	3.4	3.15	10	21	3
EG-M4	0.70	70	6.0	4.9	4.20	12	25	3
EG-M5	0.80	80	6.0	4.9	5.25	13	30	3
EG-M6	1.00	90	8.0	6.2	6.30	17	35	3
EG-M8	1.25	100	10.0	8.0	8.40	18	39	3

£

U0

025

53.12

030

44.77

040

46.90

050

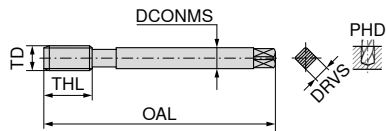
45.14

060

46.02

080

53.98



DIN 40435 with reduced shank

22 663 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
EG-M10	1.50	100	9	7.0	10.50	22	3
EG-M12	1.75	110	11	9.0	12.50	26	3
EG-M16	2.00	125	14	11.0	16.50	27	3
EG-M20	2.50	160	18	14.5	20.75	34	3

£

U0

100

73.05

120

85.62

160

120.80

200

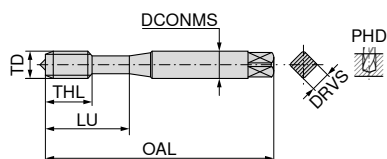
170.65

P	12
M	7
K	12
N	
S	
H	
O	

Blind hole – machine taps for wire thread inserts, right hand

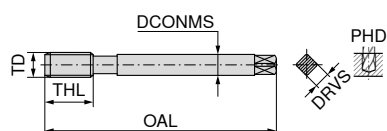
EG M

Salo-Rex



DIN 40435 with reinforced shank

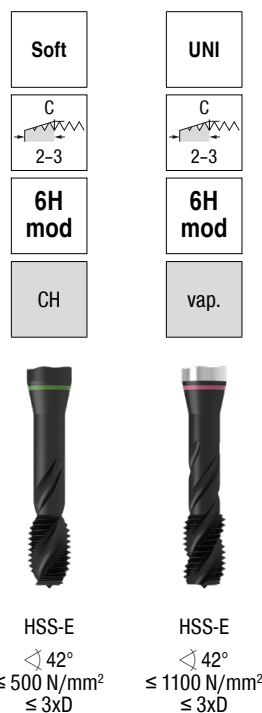
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
EG-M2,5	0.45	56	3.5	2.7	2.65	5	18	2
EG-M2,5	0.45	56	3.5	2.7	2.65	5	18	3
EG-M3	0.50	63	4.5	3.4	3.15	5	21	2
EG-M3	0.50	63	4.5	3.4	3.15	5	21	3
EG-M4	0.70	70	6.0	4.9	4.20	8	25	2
EG-M4	0.70	70	6.0	4.9	4.20	8	25	3
EG-M5	0.80	80	6.0	4.9	5.25	8	30	2
EG-M5	0.80	80	6.0	4.9	5.25	8	30	3
EG-M6	1.00	90	8.0	6.2	6.30	10	35	2
EG-M6	1.00	90	8.0	6.2	6.30	10	35	3
EG-M8	1.25	100	10.0	8.0	8.40	16	39	2
EG-M8	1.25	100	10.0	8.0	8.40	16	39	3



DIN 40435 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
EG-M10	1.50	100	9	7.0	10.50	15	5
EG-M12	1.75	110	11	9.0	12.50	20	4
EG-M16	2.00	125	14	11.0	16.50	20	5
EG-M20	2.50	160	18	14.5	20.75	30	4

P	12
M	7
K	12
N	22
S	
H	
O	



22 280 ...	22 664 ...
£ U0	£ U0
72.79	50.96
025	025
70.54	45.62
030	030
70.54	46.54
040	040
95.81	43.92
050	050
97.57	48.49
060	060
122.39	53.37
080	080

22 665 ...

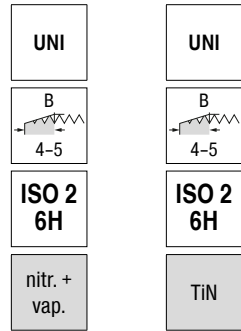
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
EG-M10	1.50	100	9	7.0	10.50	15	5
EG-M12	1.75	110	11	9.0	12.50	20	4
EG-M16	2.00	125	14	11.0	16.50	20	5
EG-M20	2.50	160	18	14.5	20.75	30	4

P	12
M	7
K	12
N	22
S	
H	
O	

Through hole – Machine taps, right hand

MF

Stabil



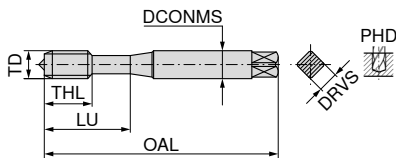
HSS-E

HSS-E

 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$
 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$

22 590 ...

22 550 ...



DIN 371 with reinforced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes		
M4x0,5	0.50	63	4.5	3.4	3.5	10	21	3		
M5x0,5	0.50	70	6.0	4.9	4.5	11	25	3		
M6x0,5	0.50	80	6.0	4.9	5.5	13	30	3		
M6x0,75	0.75	80	6.0	4.9	5.2	13	30	3		
M8x1	1.00	90	8.0	6.2	7.0	17	35	3		
M10x1	1.00	90	10.0	8.0	9.0	18	35	4		
P									12	15
M									7	9
K									12	18
N										12
S										
H										
O										



DIN 374 can be found on the next page

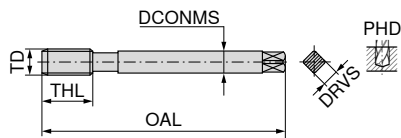
Through hole – Machine taps, right hand

▲ TS = for high-speed machining, up to 100 m/min.

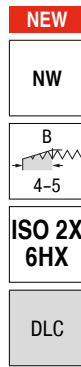
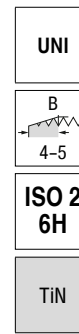
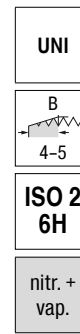
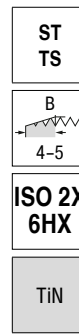
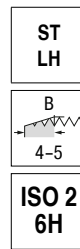
▲ LH = for left hand threads

MF

Stabil



DIN 374 with reduced shank



HSS-E
 $\angle 0^\circ$
 $\leq 750 \text{ N/mm}^2$
 $\leq 4xD$



HSS-E
 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$



HSS-E
 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$



HSS-E
 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$



HSS-E
 $\angle 0^\circ$
 $\leq 880 \text{ N/mm}^2$
 $\leq 4xD$

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	22 210 ...		22 193 ...		22 551 ...		22 552 ...		22 466 ...	
								£ U0		£ U0		£ U0		£ U0		£ U0	
M6x0,5	0.50	80	4.5	3.4	5.5	13	3					105.71	060				
M6x0,75	0.75	80	4.5	3.4	5.2	13	3					48.49	062				
M8x0,75	0.75	80	6.0	4.9	7.2	14	3					52.77	082				
M8x1	1.00	90	6.0	4.9	7.0	10	4			103.29	080						
M8x1	1.00	90	6.0	4.9	7.0	17	3	86.32	084			49.73	084	80.39	080	54.15	08000
M10x0,75	0.75	90	7.0	5.5	9.2	18	4					73.09	100				
M10x1,25	1.25	100	7.0	5.5	8.8	22	3			111.04	100	110.00	104			70.88	10200
M10x1	1.00	90	7.0	5.5	9.0	10	4					50.34	102	86.32	100	56.25	10000
M10x1	1.00	90	7.0	5.5	9.0	18	4	90.45	102			56.00	124	87.24	120	62.75	12400
M12x1,5	1.50	100	9.0	7.0	10.5	22	3	120.46	124			79.91	122			72.88	12200
M12x1,25	1.25	100	9.0	7.0	10.8	22	3			128.13	120						
M12x1,5	1.50	100	9.0	7.0	10.5	15	4					59.67	120	116.84	121	64.87	12000
M12x1	1.00	100	9.0	7.0	11.0	18	4	115.04	120			78.26	144	118.38	140	83.04	14400
M14x1,5	1.50	100	11.0	9.0	12.5	22	3	156.21	144							83.04	14200
M14x1,25	1.25	100	11.0	9.0	12.8	22	3			178.68	140						
M14x1,5	1.50	100	11.0	9.0	12.5	15	4					152.97	140			87.53	14000
M14x1	1.00	100	11.0	9.0	13.0	18	4					88.79	162			92.68	16200
M16x1,5	1.50	100	12.0	9.0	14.5	22	3	156.21	162	180.76	160			121.95	160		
M16x1,5	1.50	100	12.0	9.0	14.5	15	4									95.19	16000
M16x1	1.00	100	12.0	9.0	15.0	18	4										
M18x1	1.00	110	14.0	11.0	17.0	20	5					242.07	180				
M18x2	2.00	125	14.0	11.0	16.0	26	3					201.66	184				
M18x1,5	1.50	110	14.0	11.0	16.5	17	4			221.94	180						
M18x1,5	1.50	110	14.0	11.0	16.5	25	4	180.76	182			108.16	182				
M20x1	1.00	125	16.0	12.0	19.0	20	5					269.66	200				
M20x1,5	1.50	125	16.0	12.0	18.5	17	4			278.68	200						
M20x1,5	1.50	125	16.0	12.0	18.5	25	4	206.22	202			118.38	202	182.43	200		
M25x1,5	1.50	140	18.0	14.5	23.5	28	4					435.33	250				
M26x1,5	1.50	140	18.0	14.5	24.5	28	4					185.15	260				
M24x1,5	1.50	140	18.0	14.5	22.5	27	4					142.46	242				
M24x2	2.00	140	18.0	14.5	22.0	27	4					258.10	244				
M22x1,5	1.50	125	18.0	14.5	20.5	25	4					123.54	222	267.08	220		
M27x2	2.00	140	20.0	16.0	25.0	28	4					456.53	272				
M28x1,5	1.50	140	20.0	16.0	26.5	28	5					208.22	280				
M30x1,5	1.50	150	22.0	18.0	28.5	28	5					225.00	302				
P								12		65		12		15			
M												7		9			
K								12		65		12		18			
N								22		22				12		15	
S																	
H																	
O																	

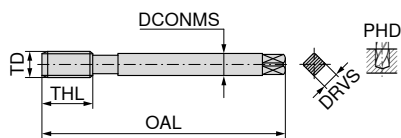
Through hole – Machine taps, right hand

MF

UNI

ISO 2
6H

TiN



DIN 374 with reduced shank



HSS-PM

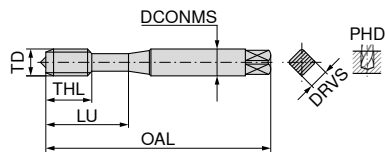
 $\angle 0^\circ$
 $\leq 1000 \text{ N/mm}^2$
 $\leq 3 \times D$

23 041 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	£ T9	
M8x1	1.00	90	6	4.9	7.0	17	3	21.50	081
M10x1	1.00	90	7	5.5	9.0	18	4	24.56	102
M10x1,25	1.25	100	7	5.5	8.8	22	3	26.32	104
M12x1	1.00	100	9	7.0	11.0	18	4	30.31	120
M12x1,25	1.25	100	9	7.0	10.8	22	3	31.62	122
M12x1,5	1.50	100	9	7.0	10.5	22	3	28.20	121
M14x1,5	1.50	100	11	9.0	12.5	22	3	34.79	144
M14x1,25	1.25	100	11	9.0	12.8	22	3	36.55	142
M16x1,5	1.50	100	12	9.0	14.5	22	3	39.36	162
M18x1,5	1.50	110	14	11.0	16.5	17	4	52.06	182
M20x1,5	1.50	125	16	12.0	18.5	17	4	70.27	202
M24x1,5	1.50	140	18	14.5	22.5	27	4	75.92	242
M24x2	2.00	140	18	14.5	22.0	27	4	86.50	244
M22x1,5	1.50	125	18	14.5	20.5	25	4	66.16	222
P									15
M									9
K									18
N									12
S									
H									
O									

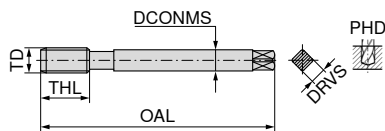
Through hole – Machine taps, right hand

MF



DIN 371 with reinforced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M4x0,5	0.50	63	4.5	3.4	3.5	10	21	3
M5x0,5	0.50	70	6.0	4.9	4.5	11	25	3
M6x0,5	0.50	80	6.0	4.9	5.5	13	30	3
M6x0,75	0.75	80	6.0	4.9	5.2	13	30	3

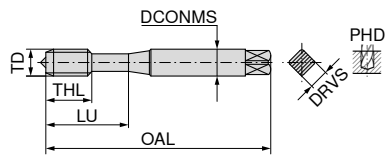


DIN 374 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	23 141 ... £ T9	23 143 ... £ T9	23 241 ... £ T9	23 441 ... £ T9
M8x0,5	0.50	80	6	8.0	7.5	14	3			29.14	080
M8x1	1.00	90	6	4.9	7.0	17	3	37.72		23.36	084
M8x1	1.00	90	6	4.9	7.0	17	4		52.02		55.39
M8x0,75	0.75	80	6	4.9	7.2	14	3	41.31	54.17	24.72	082
M10x0,75	0.75	90	7	5.5	9.2	18	4	59.19	73.69	34.63	100
M10x1,25	1.25	100	7	5.5	8.8	22	3	50.13	68.09	28.54	104
M10x1	1.00	90	7	5.5	9.0	18	4	39.23	55.68	27.63	102
M12x1,5	1.50	100	9	7.0	10.5	22	3	42.88	59.12	30.52	124
M12x1,25	1.25	100	9	7.0	10.8	22	3	50.74	69.13	33.25	122
M12x1	1.00	100	9	7.0	11.0	18	4	45.20	65.13	31.27	120
M14x1	1.00	100	11	9.0	13.0	18	4	61.48	78.26	39.23	140
M14x1,5	1.50	100	11	9.0	12.5	22	3	57.06	78.56	37.70	144
M16x1	1.00	100	12	9.0	15.0	18	4	69.11	91.22	52.02	160
M16x1,5	1.50	100	12	9.0	14.5	22	3	69.11	91.22	47.75	162
M18x1	1.00	110	14	11.0	17.0	20	5			68.20	180
M18x1,5	1.50	110	14	11.0	16.5	25	4	78.26	112.73	62.10	182
M20x1,5	1.50	125	16	12.0	18.5	25	4	91.22	142.77	68.82	202
M20x1	1.00	125	16	12.0	19.0	20	5			73.52	200
M22x1,5	1.50	125	18	14.5	20.5	25	4	96.52	148.27	79.01	222
M24x1,5	1.50	140	18	14.5	22.5	27	4	113.49	155.44	92.12	242
M26x1,5	1.50	140	18	14.5	24.5	28	4			118.22	260
M28x1,5	1.50	140	20	16.0	26.5	28	5			134.22	280
M30x1,5	1.50	150	22	18.0	28.5	28	5			151.17	300
P								12	15	12	10
M								7	9		8
K								12	18	12	
N									12	12	24
S											
H											
O											

UNI	UNI	FE	VA
B 4-5	B 4-5	B 4-5	B 4-5
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
nitr. + vap.	TiN		TiN
HSS-E $\angle 0^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 0^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 0^\circ$ $\leq 850 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 0^\circ$ $\leq 1200 \text{ N/mm}^2$ $\leq 4xD$
23 140 ... £ T9	23 142 ... £ T9	23 240 ... £ T9	23 440 ... £ T9
36.77 040 37.09 050 39.23 060 39.23 062	41.75 040 42.88 050 51.79 060 51.79 062	21.25 040 21.97 050 21.97 060 21.25 062	42.88 050 52.31 062

Blind hole – Machine taps, right hand



DIN 371 with reinforced shank

UNI	UNI	UNI	UNI
E 1,5-2	E 1,5-2	E 1,5-2	E 1,5-2
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 3 6G
vap.	TiN	vap.	vap.



HSS-E
 $\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

HSS-E
 $\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

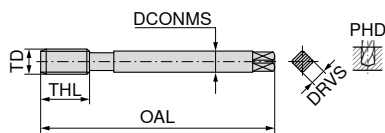
HSS-E
 $\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

HSS-E
 $\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

22 441 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M4x0,5	0.50	63	4.5	3.4	3.50	5	21	3
M5x0,5	0.50	70	6.0	4.9	4.50	5	25	3
M6x0,75	0.75	80	6.0	4.9	5.25	8	30	3

£	
U0	
71.85	040
65.01	050
71.85	062

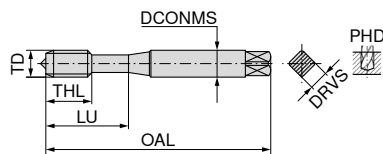


DIN 374 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	22 555 ... £ U0	22 556 ... £ U0	22 491 ... £ U0	22 490 ... £ U0
M8x1	1.0	90	6	4.9	7.0	10	3	53.71	73.21		71.85
M10x1	1.0	90	7	5.5	9.0	10	4	61.48	94.26		78.26
M12x1,5	1.5	100	9	7.0	10.5	15	5	69.13	106.77	115.04	86.32
M14x1,5	1.5	100	11	9.0	12.5	15	5	85.89	134.55	152.23	111.03
M16x1,5	1.5	100	12	9.0	14.5	15	5	104.95	143.54	156.21	135.62
M18x1,5	1.5	110	14	11.0	16.5	17	5				154.35
M20x1,5	1.5	125	16	12.0	18.5	17	5			237.65	180.76
P								12	15	12	12
M								7	9	7	7
K								12	18	12	12
N									12		
S											
H											
O											

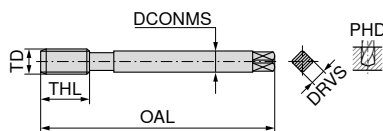
Blind hole – Machine taps, right hand

▲ CNC = for synchronised CNC machining with minimum length compensation chuck



DIN 371 with reinforced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M4x0,5	0.50	63	4.5	3.4	3.5	5	21	3
M5x0,5	0.50	70	6.0	4.9	4.5	5	25	3
M6x0,75	0.75	80	6.0	4.9	5.2	8	30	3
M6x0,5	0.50	80	6.0	4.9	5.5	5	30	3



DIN 374 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M6x0,75	0.75	80	4.5	3.4	5.2	8	3
M8x0,75	0.75	80	6.0	4.9	7.2	8	3
M8x1	1.00	90	6.0	4.9	7.0	10	3
M10x0,75	0.75	90	7.0	5.5	9.2	10	4
M10x1	1.00	90	7.0	5.5	9.0	10	3
M10x1	1.00	90	7.0	5.5	9.0	10	4
M10x1,25	1.25	100	7.0	5.5	8.8	16	3
M12x1	1.00	100	9.0	7.0	11.0	11	4
M12x1,25	1.25	100	9.0	7.0	10.8	15	4
M12x1,5	1.50	100	9.0	7.0	10.5	15	4
M12x1,5	1.50	100	9.0	7.0	10.5	15	5
M14x1,5	1.50	100	11.0	9.0	12.5	15	5
M14x1,5	1.50	100	11.0	9.0	12.5	15	4
M16x1,5	1.50	100	12.0	9.0	14.5	15	4
M16x1,5	1.50	100	12.0	9.0	14.5	15	5
M18x1,5	1.50	110	14.0	11.0	16.5	17	5
M18x1,5	1.50	110	14.0	11.0	16.5	17	4
M20x1,5	1.50	125	16.0	12.0	18.5	17	5
M20x1,5	1.50	125	16.0	12.0	18.5	17	4
M22x1,5	1.50	125	18.0	14.5	20.5	17	4
M26x1,5	1.50	140	18.0	14.5	24.5	20	5
M24x1,5	1.50	140	18.0	14.5	22.5	20	5
M28x1,5	1.50	140	20.0	16.0	26.5	20	5
M30x1,5	1.50	150	22.0	18.0	28.5	22	6

UNI	UNI	UNI CNC	UNI CNC
C 2-3	C 2-3	E 1,5-2	E 1,5-2
ISO 2 6H	ISO 2 6H	7G	ISO 2 6H
vap.	TiN	TiN GS	TiN GS
HSS-E ∠ 42° ≤ 1100 N/mm² ≤ 3xD	HSS-E ∠ 42° ≤ 1100 N/mm² ≤ 3xD	HSS-E ∠ 45° ≤ 1100 N/mm² ≤ 3xD	HSS-E ∠ 45° ≤ 1100 N/mm² ≤ 3xD

22 202 ...

£	U0
71.85	040
65.01	050
71.85	062
71.85	060

22 548 ...

£	U0
76.44	050
76.44	062
76.44	060

22 553 ...

£	U0
62.22	062
58.13	080
52.68	082
120.46	101
56.28	100
137.33	102
73.21	120
111.00	122
69.13	124
85.89	140
104.95	160
128.45	180
174.36	200
170.08	220
241.92	260
187.62	240
281.73	280
283.71	300

22 554 ...

£	U0
73.21	080
94.26	100
124.78	121
106.77	120
124.93	140
143.54	160
210.18	182
267.08	202

22 563 ...

£	U0
111.03	084
123.45	102
144.47	124
179.83	144
206.22	162
308.27	202

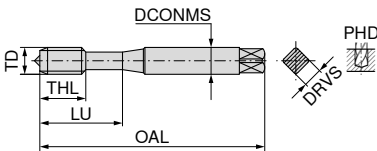
22 549 ...

£	U0
80.39	082
94.57	084
109.37	102
127.98	120
122.34	124
156.21	144
180.76	162
218.72	182
269.37	202

P	12	15	15	15
M	7	9	9	9
K	12	18	18	18
N		12	12	12
S				
H				
O				

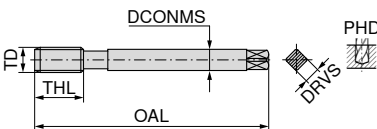
Blind hole – Machine taps

▲ LH = for left hand threads



DIN 371 with reinforced shank

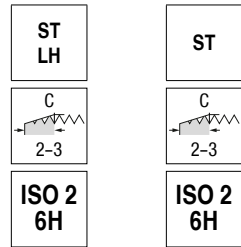
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M2,5x0,35	0.35	50	2.8	2.1	2.15	5.0	15	2
M3x0,35	0.35	56	3.5	2.7	2.65	4.5	18	3
M3,5x0,35	0.35	56	4.0	3.0	3.15	5.0	20	3
M4x0,5	0.50	63	4.5	3.4	3.50	5.0	21	3
M5x0,5	0.50	70	6.0	4.9	4.50	5.0	25	3
M6x0,75	0.75	80	6.0	4.9	5.20	8.0	30	3
M8x0,75	0.75	80	8.0	6.2	7.20	8.0	30	3
M8x1	1.00	90	8.0	6.2	7.00	10.0	35	3



DIN 374 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M6x0,75	0.75	80	4.5	3.4	5.2	8	3
M8x0,75	0.75	80	6.0	4.9	7.2	8	3
M8x1	1.00	90	6.0	4.9	7.0	10	3
M10x1	1.00	90	7.0	5.5	9.0	10	3
M12x1,5	1.50	100	9.0	7.0	10.5	15	4
M12x1	1.00	100	9.0	7.0	11.0	11	4
M14x1,5	1.50	100	11.0	9.0	12.5	15	4
M16x1,5	1.50	100	12.0	9.0	14.5	15	4
M18x1,5	1.50	110	14.0	11.0	16.5	17	4
M20x1,5	1.50	125	16.0	12.0	18.5	17	4
M22x1,5	1.50	125	18.0	14.5	20.5	17	4
M26x1,5	1.50	140	18.0	14.5	24.5	20	5
M24x1,5	1.50	140	18.0	14.5	22.5	20	5

P	12	12
M		
K	12	12
N	12	22
S		
H		
O		

HSS-E
≤ 42°
≤ 750 N/mm²
≤ 3xDHSS-E
≤ 42°
≤ 750 N/mm²
≤ 3xD

22 238 ...

£ U0	
111.03	025
69.87	030
94.44	035
62.71	040
62.71	050
62.71	060
71.85	080
62.71	082

22 601 ...

£ U0	
103.29	082
107.23	100
129.65	120
141.57	140
167.96	160
192.51	180
225.92	200

22 186 ...

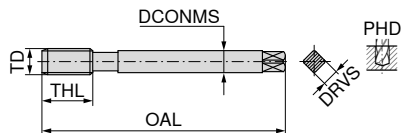
£ U0	
55.39	060
56.62	080
50.74	082
53.83	100
63.60	122
66.21	120
83.64	140
100.53	160
129.81	180
129.05	200
147.64	220
227.42	260
159.55	240

Blind hole – Machine taps, right hand

MF

SL

ST

ISO 2
6H

DIN 374 with reduced shank



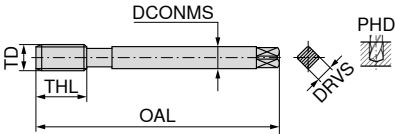
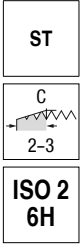
HSS-E

 $\leq 15^\circ$
 $\leq 750 \text{ N/mm}^2$
 $\leq 2xD$

22 182 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	£ U0	
M6x0,75	0.75	80	4.5	3.4	5.2	13	3	57.06	062
M8x0,75	0.75	80	6.0	4.9	7.2	14	3	57.52	082
M8x1	1.00	90	6.0	4.9	7.0	17	3	51.79	084
M10x1	1.00	90	7.0	5.5	9.0	18	3	55.39	102
M10x0,75	0.75	90	7.0	5.5	9.2	18	3	91.68	100
M10x1,25	1.25	100	7.0	5.5	8.8	22	3	79.80	104
M9x1	1.00	90	7.0	5.5	8.0	17	3	78.71	090
M11x1	1.00	90	8.0	6.2	10.0	18	3	86.05	110
M12x1,25	1.25	100	9.0	7.0	10.8	22	3	87.85	122
M12x1,5	1.50	100	9.0	7.0	10.5	22	3	64.68	124
M12x1	1.00	100	9.0	7.0	11.0	18	3	68.03	120
M14x1	1.00	100	11.0	9.0	13.0	18	4	89.55	140
M14x1,5	1.50	100	11.0	9.0	12.5	22	3	86.95	144
M16x1	1.00	100	12.0	9.0	15.0	18	4	104.95	160
M16x1,5	1.50	100	12.0	9.0	14.5	22	3	102.83	162
M15x1	1.00	100	12.0	9.0	14.0	18	4	115.93	150
M18x1,5	1.50	110	14.0	11.0	16.5	25	4	129.45	182
M18x2	2.00	125	14.0	11.0	16.0	26	3	209.27	184
M18x1	1.00	110	14.0	11.0	17.0	20	4	144.47	180
M20x1	1.00	125	16.0	12.0	19.0	20	4	142.92	200
M20x2	2.00	140	16.0	12.0	18.0	27	3	179.83	204
M20x1,5	1.50	125	16.0	12.0	18.5	25	4	130.86	202
M22x2	2.00	140	18.0	14.5	20.0	27	4	185.15	224
M24x1,5	1.50	140	18.0	14.5	22.5	27	4	163.64	242
M24x1	1.00	140	18.0	14.5	23.0	20	5	197.39	240
M24x2	2.00	140	18.0	14.5	22.0	27	4	193.26	244
M22x1,5	1.50	125	18.0	14.5	20.5	25	4	150.55	222
M25x1,5	1.50	140	18.0	14.5	23.5	28	4	274.54	252
M22x1	1.00	125	18.0	14.5	21.0	20	4	185.15	220
M27x1,5	1.50	140	20.0	16.0	25.5	28	4	238.55	270
M28x2	2.00	140	20.0	16.0	26.0	28	4	311.92	282
M27x2	2.00	140	20.0	16.0	25.0	28	4	266.78	272
M30x1,5	1.50	150	22.0	18.0	28.5	28	5	272.56	302
M32x1,5	1.50	150	22.0	18.0	30.5	28	6	311.92	320
M30x2	2.00	150	22.0	18.0	28.0	28	4	287.52	304
M33x2	2.00	160	25.0	20.0	31.0	30	4	381.16	332
M36x2	2.00	170	28.0	22.0	34.0	30	5	485.37	362
M36x3	3.00	200	28.0	22.0	33.0	42	4	448.44	364
M34x1,5	1.50	170	28.0	22.0	32.5	30	6	423.41	340
M40x1,5	1.50	170	32.0	24.0	38.5	30	6	474.08	400
M42x3	3.00	200	32.0	24.0	39.0	45	4	606.30	424
M42x2	2.00	170	32.0	24.0	40.0	30	6	573.22	422
M45x1,5	1.50	180	36.0	29.0	43.5	32	6	563.14	450
M48x2	2.00	190	36.0	29.0	46.0	32	6	791.47	482
M48x3	3.00	225	36.0	29.0	45.0	50	5	811.62	484
P									12
M									
K									12
N									22
S									
H									
O									

Blind hole – Machine taps, right hand



DIN 374 with reduced shank



HSS-E
 $\angle 15^\circ$
 $\leq 750 \text{ N/mm}^2$
 $\leq 2xD$

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M45x3	3.00	200	36.0	29.0	42.0	45	5
M48x1,5	1.50	190	36.0	29.0	46.5	32	6
M52x2	2.00	190	40.0	32.0	50.0	32	6

22 182 ...	
£	
U0	
774.07	454
659.69	480
952.22	522

P	12
M	
K	12
N	22
S	
H	
O	

Blind hole – Machine taps, right hand

MF

Salo-Rex

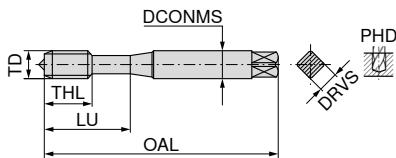
VA

E

1,5-2

ISO 2
6H

TiN GS



DIN 371 with reinforced shank



HSS-E

 $\angle 45^\circ$
 $\leq 900 \text{ N/mm}^2$
 $\leq 3xD$

22 176 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M4x0,5	0.50	63	4.5	3.4	3.5	5	21	3
M5x0,5	0.50	70	6.0	4.9	4.5	5	25	3
M6x0,5	0.50	80	6.0	4.9	5.5	5	30	3
M6x0,75	0.75	80	6.0	4.9	5.2	8	30	3

£

U0

93.64

77.33

77.33

77.33

040

050

060

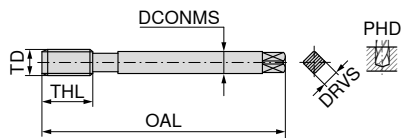
062

P	10
M	8
K	
N	22
S	
H	
O	



DIN 374 can be found on the next page

Blind hole – Machine taps, right hand



DIN 374 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M8x1	1.00	90	6	4.9	7.0	10	3
M8x0,75	0.75	80	6	4.9	7.2	8	3
M10x1	1.00	90	7	5.5	9.0	10	3
M10x1,25	1.25	100	7	5.5	8.8	16	3
M10x1	1.00	90	7	5.5	9.0	10	4
M12x1,25	1.25	100	9	7.0	10.8	15	4
M12x1,5	1.50	100	9	7.0	10.5	15	4
M12x1,5	1.50	100	9	7.0	10.5	15	5
M12x1	1.00	100	9	7.0	11.0	11	4
M14x1	1.00	100	11	9.0	13.0	11	4
M14x1,25	1.25	100	11	9.0	12.8	15	4
M14x1,5	1.50	100	11	9.0	12.5	15	4
M14x1,5	1.50	100	11	9.0	12.5	15	5
M16x1	1.00	100	12	9.0	15.0	12	4
M16x1,5	1.50	100	12	9.0	14.5	15	4
M16x1,5	1.50	100	12	9.0	14.5	15	5
M18x1,5	1.50	110	14	11.0	16.5	17	5
M18x1,5	1.50	110	14	11.0	16.5	17	4
M20x1,5	1.50	125	16	12.0	18.5	17	5
M20x1,5	1.50	125	16	12.0	18.5	17	4
M26x1,5	1.50	140	18	14.5	24.5	20	6
M28x1,5	1.50	140	20	16.0	26.5	20	6
M30x1,5	1.50	150	22	18.0	28.5	22	6

P	15	8	10
M		6	8
K			
N	22	15	22
S			
H			
O			

NW	NEW NW	VA	VA
C 2-3	C 2-3	E 1,5-2	E 1,5-2
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
vap.	DLC	vap.	TiN GS
HSS-E ≤ 500 N/mm ² ≤ 3xD	HSS-E ≤ 880 N/mm ² ≤ 3xD	HSS-E ≤ 750 N/mm ² ≤ 3xD	HSS-E ≤ 900 N/mm ² ≤ 3xD

22 188 ...	22 462 ...	22 189 ...	22 177 ...
£ U0	£ U0	£ U0	£ U0
56.89	57.58	56.00	97.34
081	08000	082	084
			082
59.49	62.18		81.31
100	10000		
	82.87		
	10200		
		65.74	108.49
		100	102
	92.26		
	12200		
63.60	73.64		
122	12400		
		73.21	124.01
		120	124
72.77	74.62	86.04	129.81
120	12000	121	120
	95.39		
	14000		
	96.37		
	14200		
93.64	94.31		
140	14400		
		90.01	158.18
		140	144
	109.87		
	16000		
100.53	108.81		
160	16200		
		109.37	183.52
		160	162
			222.39
			182
142.46			
180			
		152.52	275.03
		200	202
129.05			
200			
		363.02	
		260	
		427.80	
		280	
		420.70	
		300	

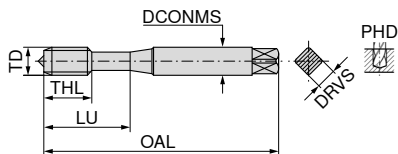
Blind hole – Machine taps, right hand

MF

UNI

ISO 2
6H

TiN



DIN 374 with reinforced shank



HSS-PM

 $\angle 40^\circ$
 $\leq 1000 \text{ N/mm}^2$
 $\leq 2,5xD$

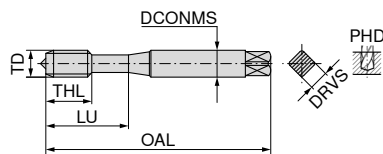
23 047 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes	£ T9	
M8x1	1.00	90	6	4.9	7.0	10	35	3	21.04	081
M10x1	1.00	90	7	5.5	9.0	10	35	4	27.50	102
M10x1,25	1.25	100	7	5.5	8.8	16	39	4	26.80	104
M12x1	1.00	100	9	7.0	11.0	11	40	4	31.26	120
M12x1,25	1.25	100	9	7.0	10.8	15	40	5	34.08	122
M12x1,5	1.50	100	9	7.0	10.5	15	40	5	30.31	121
M14x1	1.00	100	11	9.0	12.8	11	40	4	36.55	140
M14x1,5	1.50	100	11	9.0	12.5	15	40	5	35.85	144
M16x1,5	1.50	100	12	9.0	14.5	15	44	5	46.42	162
M18x1,5	1.50	110	14	11.0	16.5	17	44	5	60.41	182
M20x1,5	1.50	125	16	12.0	18.5	17	44	5	68.97	202
M22x1,5	1.50	125	18	14.5	20.5	17	44	5	75.92	222
M24x1,5	1.50	140	18	14.5	22.5	20	48	5	77.31	242
M24x2	2.00	140	18	14.5	22.0	20	48	5	90.02	244
P										15
M										9
K										18
N										12
S										
H										
O										

Blind hole – Machine taps, right hand

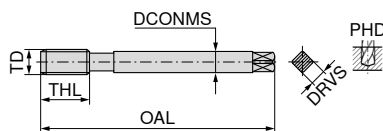
▲ NC = for synchronised CNC machining with minimum length compensation chuck

MF



DIN 371 with reinforced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M4x0,5	0.50	63	4.5	3.4	3.5	5	21	3
M5x0,5	0.50	70	6.0	4.9	4.5	5	25	3
M6x0,5	0.50	80	6.0	4.9	5.5	5	30	3
M6x0,75	0.75	80	6.0	4.9	5.2	8	30	3



DIN 374 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M4x0,5	0.50	63	2.8	2.1	3.5	5	3
M5x0,5	0.50	70	3.5	2.7	4.5	5	3
M6x0,75	0.75	80	4.5	3.4	5.2	8	3
M8x1	1.00	90	6.0	4.9	7.0	10	3
M8x0,75	0.75	80	6.0	4.9	7.2	8	3
M8x0,5	0.50	80	6.0	8.0	7.5	6	3
M10x1,25	1.25	100	7.0	5.5	8.8	16	3
M10x1	1.00	90	7.0	5.5	9.0	10	3
M10x1	1.00	90	7.0	5.5	9.0	10	4
M10x0,75	0.75	90	7.0	5.5	9.2	10	4
M12x1,25	1.25	100	9.0	7.0	10.8	15	4
M12x1,5	1.50	100	9.0	7.0	10.5	15	4
M12x1,5	1.50	100	9.0	7.0	10.5	15	5
M12x1	1.00	100	9.0	7.0	11.0	11	4
M14x1,5	1.50	100	11.0	9.0	12.5	15	4
M14x1,5	1.50	100	11.0	9.0	12.5	15	5
M14x1	1.00	100	11.0	9.0	13.0	11	4
M16x1,5	1.50	100	12.0	9.0	14.5	15	4
M16x1,5	1.50	100	12.0	9.0	14.5	15	5
M16x1	1.00	100	12.0	9.0	15.0	12	4
M18x1,5	1.50	110	14.0	11.0	16.5	17	4
M18x1,5	1.50	110	14.0	11.0	16.5	17	5
M20x1,5	1.50	125	16.0	12.0	18.5	17	5
M20x1,5	1.50	125	16.0	12.0	18.5	17	4
M22x1,5	1.50	125	18.0	14.5	20.5	17	4
M24x1,5	1.50	140	18.0	14.5	22.5	20	5

P	12	15	15	12
M	7	9	9	
K	12	18	18	12
N		12	12	22
S				
H				
O				

UNI	UNI	UNI NC	FE
C 2-3	C 2-3	E 1,5-2	C 2-3
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
vap.	TiN	TiN GS	

HSS-E
≤ 35°
≤ 1000 N/mm²
≤ 2,5xD

23 144 ...

£ T9	
40.13	040
40.13	050
40.13	060
40.13	062

HSS-E
≤ 35°
≤ 1000 N/mm²
≤ 2,5xD

23 146 ...

£ T9	
45.78	040
45.78	050
52.24	060
52.24	062

HSS-E
≤ 45°
≤ 1000 N/mm²
≤ 3xD

23 148 ...

£ T9	
48.78	050
63.76	060
63.76	062

HSS-E
≤ 35°
≤ 850 N/mm²
≤ 2,5xD

23 242 ...

£ T9	
22.75	040
23.22	050
23.22	060
22.75	062

23 145 ...

£ T9	
14.81	040
14.81	050
15.75	062
13.04	084
17.86	082

23 147 ...

£ T9	
52.24	084
55.68	082
75.33	104
59.49	102

23 149 ...

£ T9	
63.76	084
68.03	082
73.63	102
81.01	124
83.64	120
103.89	144

23 243 ...

£ T9	
24.84	084
26.34	082
56.00	080
53.09	104
28.88	102
61.62	100
59.49	122
32.18	124
34.03	120
40.13	144
59.49	140
50.79	162
68.69	160
65.90	182
146.74	182
192.18	202
73.52	202
85.12	222
99.14	242

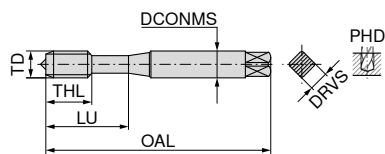
Blind hole – Machine taps, right hand

MF

VA

ISO 2
6H

TiN



DIN 371 with reinforced shank

HSS-E

 $\angle 45^\circ$
 $\leq 1200 \text{ N/mm}^2$
 $\leq 3xD$

23 442 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M5x0,5	0.50	70	6	4.9	4.5	5	25	3
M6x0,75	0.75	80	6	4.9	5.2	8	30	3

£

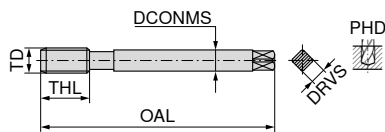
T9

45.32

52.24

050

062



DIN 374 with reduced shank

23 443 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M8x1	1.00	90	6	4.9	7.0	10	3
M8x0,75	0.75	80	6	4.9	7.2	8	3
M10x1	1.00	90	7	5.5	9.0	10	4
M12x1	1.00	100	9	7.0	11.0	11	4
M12x1,5	1.50	100	9	7.0	10.5	15	5
M14x1,5	1.50	100	11	9.0	12.5	15	5
M16x1,5	1.50	100	12	9.0	14.5	15	5

£

T9

52.24

55.68

59.96

70.17

67.59

85.61

96.52

084

082

102

120

124

144

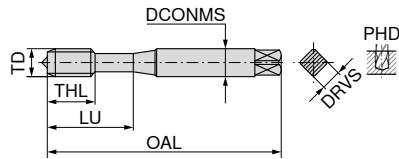
162

P	10
M	8
K	
N	24
S	
H	
O	

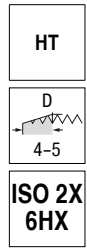
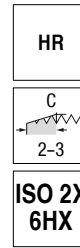
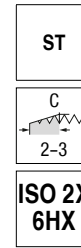
Through hole / Blind hole – Machine taps, right hand

MF

TWIN



DIN 371 with reinforced shank



nit.

OSM

HSS-E
 $\angle 0^\circ$
 $\leq 750 \text{ N/mm}^2$
 $\leq 2xD$ HSS-E
 $\angle 0^\circ$
 $\leq 1400 \text{ N/mm}^2$
 $\leq 2xD$ Solid carbide
 $\angle 0^\circ$
 $\leq 63 \text{ HRC}$
 $\leq 1,5xD$

22 144 ...

22 146 ...

22 817 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M4x0,5	0.50	63	4.5	3.4	3.5	10	21	3
M5x0,5	0.50	70	6.0	4.9	4.5	11	25	3
M6x0,5	0.50	80	6.0	4.9	5.5	13	30	3
M6x0,75	0.75	80	6.0	4.9	5.2	13	30	3
M8x1	1.00	90	8.0	6.2	7.0	17	35	3
M8x1	1.00	90	8.0	6.2	7.1	15	35	5
M10x1	1.00	100	10.0	8.0	9.1	18	38	5
M10x1	1.00	90	10.0	8.0	9.0	18	35	4
M12x1,5	1.50	110	12.0	9.0	10.6	21	41	5
M14x1,5	1.50	110	14.0	11.0	12.6	24	44	6
M16x1,5	1.50	110	16.0	12.0	14.6	24	44	6

£
U0

040

54.62

050

54.62

060

54.62

062

54.62

084

54.62

£
U0

040

61.62

050

61.62

060

61.62

062

61.62

£
U0

080

423.89

100

537.67

120

627.80

140

733.96

160

835.72

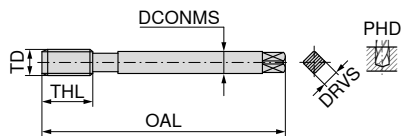
P	12	6
M		
K	12	16
N	22	22
S		
H		
O		2

1 DIN 374 can be found on the next page

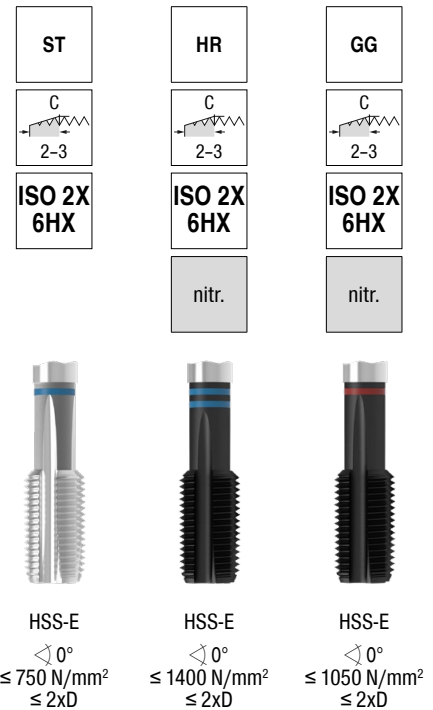
Through hole / Blind hole – Machine taps, right hand

MF

TWIN



DIN 374 with reduced shank



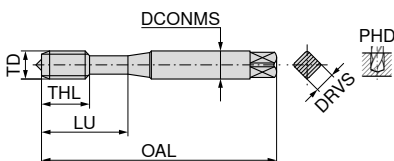
TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes	22 171 ...	22 209 ...	22 173 ...
mm	mm	mm	mm	mm	mm	mm		£	£	£
M4x0,5	0.50	63	2.8	2.1	3.5	10	3	42.81	042	
M5x0,5	0.50	70	3.5	2.7	4.5	11	3	52.94	050	49.29
M6x0,75	0.75	80	4.5	3.4	5.2	13	3	48.49	062	53.83
M6x0,5	0.50	80	4.5	3.4	5.5	13	3	48.65	060	61.92
M8x0,75	0.75	80	6.0	4.9	7.2	14	3	54.46	082	94.44
M8x1	1.00	90	6.0	4.9	7.0	17	3	43.25	084	94.44
M10x1	1.00	90	7.0	5.5	9.0	18	4	45.32	104	53.09
M10x1,25	1.25	100	7.0	5.5	8.8	22	3	53.83	106	
M10x0,75	0.75	90	7.0	5.5	9.2	18	4	70.32	102	
M11x1	1.00	90	8.0	6.2	10.0	18	4	79.15	110	
M12x1	1.00	100	9.0	7.0	11.0	18	4	51.63	122	62.10
M12x1,25	1.25	100	9.0	7.0	10.8	22	4	64.54	124	
M12x1,5	1.50	100	9.0	7.0	10.5	22	4	51.63	126	72.59
M14x1	1.00	100	11.0	9.0	13.0	18	4	79.15	140	
M14x1,25	1.25	100	11.0	9.0	12.8	22	4	73.21	142	90.13
M14x1,5	1.50	100	11.0	9.0	12.5	22	4	75.96	144	
M16x1	1.00	100	12.0	9.0	15.0	18	5	81.91	160	81.91
M16x1,5	1.50	100	12.0	9.0	14.5	22	4	73.63	162	103.29
M18x1	1.00	110	14.0	11.0	17.0	20	5	106.77	180	
M18x2	2.00	125	14.0	11.0	16.0	26	4	119.46	184	
M18x1,5	1.50	110	14.0	11.0	16.5	25	4	98.71	182	120.46
M20x1	1.00	125	16.0	12.0	19.0	20	5	115.93	200	113.80
M20x2	2.00	140	16.0	12.0	18.0	27	4	149.65	204	
M20x1,5	1.50	125	16.0	12.0	18.5	25	4	108.16	202	154.35
M24x2	2.00	140	18.0	14.5	22.0	27	4	147.64	244	120.35
M22x2	2.00	140	18.0	14.5	20.0	27	4	164.72	224	
M22x1	1.00	125	18.0	14.5	21.0	20	5	159.55	220	
M24x1	1.00	140	18.0	14.5	23.0	20	6	183.33	240	
M26x1,5	1.50	140	18.0	14.5	24.5	28	4	184.57	260	179.83
M24x1,5	1.50	140	18.0	14.5	22.5	27	4	129.05	242	146.41
M25x1,5	1.50	140	18.0	14.5	23.5	28	4	238.55	250	
M22x1,5	1.50	125	18.0	14.5	20.5	25	4	115.93	222	127.98
M28x1,5	1.50	140	20.0	16.0	26.5	28	5			213.21
M27x2	2.00	140	20.0	16.0	25.0	28	4	200.28	274	
M27x1,5	1.50	140	20.0	16.0	25.5	28	5	213.85	272	
M30x2	2.00	150	22.0	18.0	28.0	28	4	250.15	302	
M32x2	2.00	150	22.0	18.0	30.0	28	5	345.35	322	
M32x1,5	1.50	150	22.0	18.0	30.5	28	6	249.53	320	
M30x1,5	1.50	150	22.0	18.0	28.5	28	5	206.83	300	
M33x2	2.00	160	25.0	20.0	31.0	30	5	281.73	332	234.15
M36x2	2.00	170	28.0	22.0	34.0	30	5	346.70	362	
M36x1,5	1.50	170	28.0	22.0	34.5	30	6	309.94	360	
M35x1,5	1.50	170	28.0	22.0	33.5	30	6	385.90	350	
M42x1,5	1.50	170	32.0	24.0	40.5	30	6	455.15	420	
M42x3	3.00	200	32.0	24.0	39.0	45	5	552.30	424	
M40x2	2.00	170	32.0	24.0	38.0	30	6	400.40	402	
M50x1,5	1.50	190	36.0	29.0	48.5	32	8	585.24	500	
M52x1,5	1.50	190	40.0	32.0	50.5	32	8	671.74	520	

P	12	6	
M			
K	12	16	15
N	22	22	22
S			
H			
O			

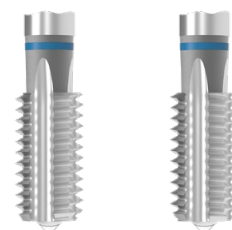
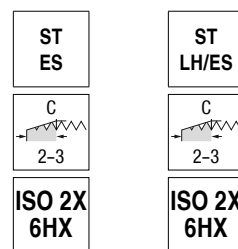
Through Hole / Blind Hole – Machine taps

▲ ES = extra short

▲ LH = for left hand threads; ES = extra short



DIN 2181 with reinforced shank

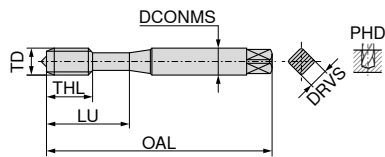
HSS-E
 $\leq 750 \text{ N/mm}^2$
 $\leq 2xD$ HSS-E
 $\leq 750 \text{ N/mm}^2$
 $\leq 2xD$

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M2,5x0,35	0.35	40	2.8	2.1	2.15	9		3
M3x0,35	0.35	40	3.5	2.7	2.65	8	18	3
M4x0,35	0.35	45	4.5	3.4	3.65	9	22	3
M4x0,5	0.50	45	4.5	3.4	3.50	9	22	3
M4,5x0,5	0.50	50	6.0	4.9	4.00	10	24	3
M5x0,5	0.50	50	6.0	4.9	4.50	11	25	3
M6x0,5	0.50	56	6.0	4.9	5.50	12	27	3
M6x0,75	0.75	56	6.0	4.9	5.20	12	27	3
M7x0,75	0.75	56	6.0	4.9	6.20	14		3
M8x0,5	0.50	56	6.0	4.9	7.50	14		4
M8x0,75	0.75	56	6.0	4.9	7.20	14		3
M8x1	1.00	63	6.0	4.9	7.00	17		3
M9x1	1.00	63	7.0	5.5	8.00	17		4
M10x0,75	0.75	63	7.0	5.5	9.20	18		4
M10x1	1.00	63	7.0	5.5	9.00	18		4
M10x1,25	1.25	70	7.0	5.5	8.80	22		3
M11x1	1.00	63	8.0	6.2	10.00	18		4
M12x1	1.00	70	9.0	7.0	11.00	18		4
M12x1,25	1.25	70	9.0	7.0	10.80	20		4
M12x1,5	1.50	70	9.0	7.0	10.50	20		4
M13x1	1.00	70	11.0	9.0	12.00	18		4
M14x1	1.00	70	11.0	9.0	13.00	18		4
M14x1,25	1.25	70	11.0	9.0	12.80	20		4
M14x1,5	1.50	70	11.0	9.0	12.50	20		4
M15x1	1.00	70	12.0	9.0	14.00	18		5
M16x1	1.00	70	12.0	9.0	15.00	18		5
M16x1,5	1.50	70	12.0	9.0	14.50	20		4
M18x1	1.00	80	14.0	11.0	17.00	18		5
M18x1,5	1.50	80	14.0	11.0	16.50	22		4
M18x2	2.00	80	14.0	11.0	16.00	22		4
M20x1,5	1.50	80	16.0	12.0	18.50	22		4
M20x2	2.00	80	16.0	12.0	18.00	22		4

P	12	12
M		
K	12	12
N	22	22
S		
H		
O		

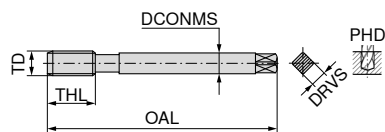
Through hole / Blind hole – Machine thread formers, right hand

▲ SN = Thread formers with lubrication grooves



DIN 2174 with reinforced shank

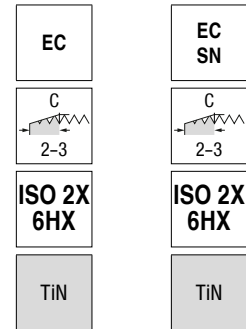
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M4x0,5	0.50	63	4.5	3.4	3.8	10	21	
M4x0,5	0.50	63	4.5	3.4	3.8	10	21	4
M5x0,5	0.50	70	6.0	4.9	4.8	11	25	
M5x0,5	0.50	70	6.0	4.9	4.8	11	25	4
M6x0,5	0.50	80	6.0	4.9	5.8	13	30	
M6x0,5	0.50	80	6.0	4.9	5.8	13	30	5
M6x0,75	0.75	80	6.0	4.9	5.7	13	30	
M6x0,75	0.75	80	6.0	4.9	5.7	13	30	4
M8x0,75	0.75	80	8.0	6.2	7.7	14	30	
M8x0,75	0.75	80	8.0	6.2	7.7	14	30	5
M8x1	1.00	90	8.0	6.2	7.6	17	35	
M8x1	1.00	90	8.0	6.2	7.6	17	35	5
M10x1	1.00	90	10.0	8.0	9.6	18	35	
M10x1	1.00	90	10.0	8.0	9.6	18	35	5



DIN 2174 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M12x1	1.0	100	9	7	11.60	18	
M12x1	1.0	100	9	7	11.60	18	6
M12x1,5	1.5	100	9	7	11.35	22	
M12x1,5	1.5	100	9	7	11.35	22	6
M14x1,5	1.5	100	11	9	13.35	22	
M14x1,5	1.5	100	11	9	13.35	22	6
M16x1,5	1.5	100	12	9	15.35	22	
M16x1,5	1.5	100	12	9	15.35	22	6
M20x1,5	1.5	125	16	12	19.35	25	
M20x1,5	1.5	125	16	12	19.35	25	6

P	18	18
M	10	10
K	10	10
N	22	22
S		
H		
O		



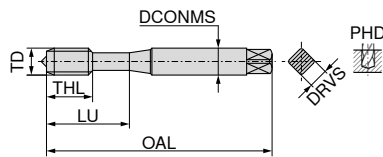
22 204 ...	22 205 ...
£ U0	£ U0
116.84 040	131.65 040
100.36 050	116.84 050
116.84 060	131.65 060
92.74 062	105.12 062
120.46 080	116.84 080
111.03 082	124.78 082
105.12 100	115.04 100

22 196 ...	22 197 ...
£ U0	£ U0
99.31 120	103.22 120
93.48 124	108.92 124
146.41 140	152.23 140
149.94 160	163.08 160
211.26 200	223.78 200

Through hole / Blind hole – Machine thread formers, right hand

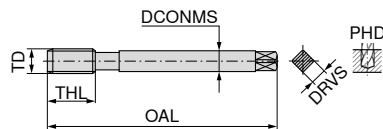
▲ SN = Thread formers with lubrication grooves

MF



DIN 2174 with reinforced shank

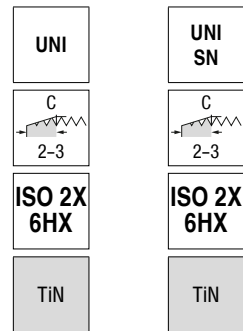
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M4x0,5	0.50	63	4.5	3.4	3.80	10	21	
M4x0,5	0.50	63	4.5	3.4	3.80	10	21	4
M5x0,5	0.50	70	6.0	4.9	4.80	11	25	
M5x0,5	0.50	70	6.0	4.9	4.80	11	25	4
M6x0,5	0.50	80	6.0	4.9	5.80	13	30	
M6x0,5	0.50	80	6.0	4.9	5.80	13	30	5
M8x1	1.00	90	8.0	6.2	7.60	17	35	
M8x1	1.00	90	8.0	6.2	7.60	17	35	5
M10x1	1.00	90	10.0	8.0	9.60	18	35	
M10x1	1.00	90	10.0	8.0	9.60	18	35	5
M10x1,25	1.25	100	10.0	8.0	9.45	18	39	
M10x1,25	1.25	100	10.0	8.0	9.45	18	39	5



DIN 2174 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M12x1,25	1.25	100	9	7	11.45	22	
M12x1,25	1.25	100	9	7	11.45	22	6
M12x1,5	1.50	100	9	7	11.35	22	
M12x1,5	1.50	100	9	7	11.35	22	6
M14x1,5	1.50	100	11	9	13.35	22	
M14x1,5	1.50	100	11	9	13.35	22	6
M16x1,5	1.50	100	12	9	15.35	22	
M16x1,5	1.50	100	12	9	15.35	22	6

P	18	18
M	10	10
K	10	10
N	22	22
S		
H		
O		

HSS-E
≤ 850 N/mm²
≤ 3xD

23 840 ...

£
T9

040

65.13

050

55.21

060

65.13

084

62.71

102

71.41

104

84.96

HSS-E
≤ 850 N/mm²
≤ 3xD

23 842 ...

£
T9

040

72.90

050

64.66

060

73.40

084

69.87

102

77.50

104

94.44

23 841 ...

£
T9

122

91.22

124

82.53

144

102.21

162

114.46

23 843 ...

£
T9

122

103.11

124

92.00

144

114.25

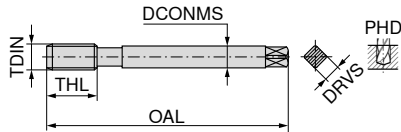
162

133.18

Through hole – Machine taps, right hand

G

Stabil



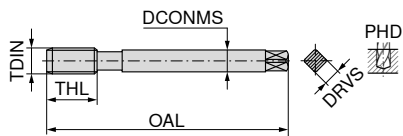
DIN 5156 with reduced shank

UNI	UNI	ST	NEW NW	VA
ISO 228	ISO 228	ISO 228	ISO 228	ISO 228
nitr. + vap.	TiN		DLC	nitr.
HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 750 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 880 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 900 \text{ N/mm}^2$ $\leq 4xD$

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	22 632 ...		22 630 ...		22 346 ...		22 467 ...		22 352 ...	
								£ U0		£ U0		£ U0		£ U0		£ U0	
1/8-28	0.907	90	7	5.5	8.80	18	3	65.49	012	107.23	012	52.31	012	58.71	01200	65.09	012
1/4-19	1.337	100	11	9.0	11.80	22	3	86.87	025	141.57	025	69.59	025	78.49	02500	85.62	025
3/8-19	1.337	100	12	9.0	15.25	22	3	107.85	037	163.97	037	83.60	037	100.73	03700	108.16	037
1/2-14	1.814	125	16	12.0	19.00	25	4	138.22	050	253.37	050	116.40	050	134.01	05000	142.46	050
3/4-14	1.814	140	20	16.0	24.50	28	4	230.06	075			186.86	075	212.40	07500	211.26	075
1-11	2.309	160	25	20.0	30.75	30	4	342.80	100			265.57	100	312.57	10000	326.42	100
P								12		15		12				8	
M								7		9						6	
K								12		18		12					
N										12		22		15		22	
S																	
H																	
O																	

Through hole – Machine taps, right hand

G

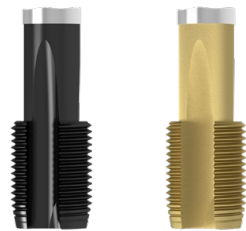


DIN 5156 with reduced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
	mm	mm	mm	mm	mm	mm	
1/8-28	0.907	90	7	5.5	8.80	18	3
1/4-19	1.337	100	11	9.0	11.80	22	3
3/8-19	1.337	100	12	9.0	15.25	22	3
1/2-14	1.814	125	16	12.0	19.00	25	4
3/4-14	1.814	140	20	16.0	24.50	28	4
1-11	2.309	160	25	20.0	30.75	30	4

P	12	15
M	7	9
K	12	18
N		12
S		
H		
O		

UNI	UNI
B 4-5	B 4-5
ISO 228	ISO 228
nitr. + vap.	TiN

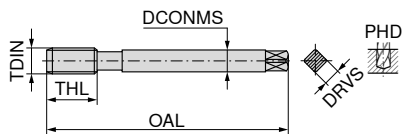


HSS-E	HSS-E
$\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	$\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$

23 161 ...	23 160 ...
£ T9	£ T9
40.27 012	59.19 012
54.17 025	78.26 025
69.11 037	92.00 037
90.54 050	141.24 050
147.98 075	184.25 075
201.81 100	341.22 100

6

Blind hole – Machine taps, right hand



DIN 5156 with reduced shank

UNI	UNI	UNI	UNI	UNI
ISO 228	ISO 228	ISO 228	ISO 228	ISO 228 +0,05
vap.	TiN	vap.	TiN	vap.
HSS-E $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$

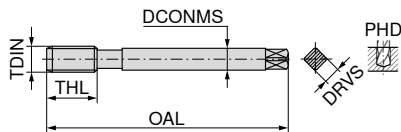
TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	22 633 ...		22 634 ...		22 635 ...		22 636 ...		22 639 ...	
								£ U0		£ U0		£ U0		£ U0		£ U0	
1/8-28	0.907	90	7	5.5	8.80	10	3	64.87	012	96.09	012	66.66	012	96.09	012	105.12	012
1/8-28	0.907	90	7	5.5	8.80	10	4			122.02	025						
1/4-19	1.337	100	11	9.0	11.80	15	4	93.00	025			89.48	025	122.02	025	136.93	025
1/4-19	1.337	100	11	9.0	11.80	15	5										
3/8-19	1.337	100	12	9.0	15.25	15	4	112.93	037	170.68	037	109.94	037	170.68	037	169.77	037
3/8-19	1.337	100	12	9.0	15.25	15	5										
1/2-14	1.814	125	16	12.0	19.00	17	4	149.26	050	241.92	050	142.46	050	241.92	050	221.94	050
1/2-14	1.814	125	16	12.0	19.00	17	5										
5/8-14	1.814	125	18	14.5	21.00	17	4	185.04	062								
3/4-14	1.814	140	20	16.0	24.50	20	4	231.55	075								
3/4-14	1.814	140	20	16.0	24.50	20	5									331.76	075
7/8-14	1.814	150	22	18.0	28.25	22	5	316.23	087								
1-11	2.309	160	25	20.0	30.75	24	5	356.82	100								
1-11	2.309	160	25	20.0	30.75	24	6									506.39	100
1 1/4-11	2.309	170	32	24.0	39.50	25	6	561.52	125								
1 1/2-11	2.309	190	36	29.0	45.25	27	6	803.02	150								
P								12		15		12		15		12	
M								7		9		7		9		7	
K								12		18		12		18		12	
N										12				12			
S																	
H																	
O																	

Blind hole – Machine taps, right hand

▲ CNC = for synchronised CNC machining with minimum length compensation chuck



UNI CNC	ST	NEW NW	VA	VA
E 1,5-2	C 2-3	C 2-3	E 1,5-2	E 1,5-2
ISO 228	ISO 228	ISO 228	ISO 228	ISO 228
TiN GS		DLC	vap.	TiN GS



DIN 5156 with reduced shank

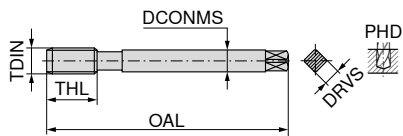


HSS-E $\angle 45^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 42^\circ$ $\leq 750 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 36^\circ$ $\leq 880 \text{ N/mm}^2$ $\leq 2,5xD$	HSS-E $\angle 42^\circ$ $\leq 900 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 45^\circ$ $\leq 900 \text{ N/mm}^2$ $\leq 3xD$
--	---	---	---	---

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	22 624 ...	22 354 ...	22 463 ...	22 355 ...	22 358 ...
								£ U0	£ U0	£ U0	£ U0	£ U0
1/8-28	0.907	90	7	5.5	8.80	10	3		59.67	65.32		118.06
1/8-28	0.907	90	7	5.5	8.80	10	4	116.40			67.12	
1/4-19	1.337	100	11	9.0	11.80	15	4		81.91	94.31		
1/4-19	1.337	100	11	9.0	11.80	15	5	153.14			91.08	155.13
3/8-19	1.337	100	12	9.0	15.25	15	4		100.53	112.42		
3/8-19	1.337	100	12	9.0	15.25	15	5	180.76			109.37	183.52
1/2-14	1.814	125	16	12.0	19.00	17	4		129.05	143.57		
1/2-14	1.814	125	16	12.0	19.00	17	5	271.19			148.55	275.03
5/8-14	1.814	125	18	14.5	21.00	17	5				204.26	
3/4-14	1.814	140	20	16.0	24.50	20	4		205.92	228.95		
3/4-14	1.814	140	20	16.0	24.50	20	5				229.26	
1-11	2.309	160	25	20.0	30.75	24	5		318.50	366.78		
1-11	2.309	160	25	20.0	30.75	24	6				353.72	
P								15	12		8	10
M								9			6	8
K								18	12			
N								12	22	15	22	22
S												
H												
O												

Blind hole – Machine taps, right hand

G



DIN 5156 with reduced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
	mm	mm	mm	mm	mm	mm	
1/8-28	0.907	90	7	5.5	8.80	10	3
1/4-19	1.337	100	11	9.0	11.80	15	4
3/8-19	1.337	100	12	9.0	15.25	15	4
1/2-14	1.814	125	16	12.0	19.00	17	4
3/4-14	1.814	140	20	16.0	24.50	20	4
1-11	2.309	160	25	20.0	30.75	24	5

P	12	15
M	7	9
K	12	18
N		12
S		
H		
O		

UNI	UNI
ISO 228	ISO 228
vap.	TiN



HSS-E	HSS-E
$\angle 35^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 2,5xD$	$\angle 35^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 2,5xD$

23 163 ...	23 162 ...
£ T9	£ T9
45.44 012	61.62 012
59.72 025	84.96 025
76.28 037	100.05 037
95.01 050	150.55 050
157.88 075	193.86 075
238.73 100	374.76 100

Through hole / Blind hole – Machine taps, right hand

G

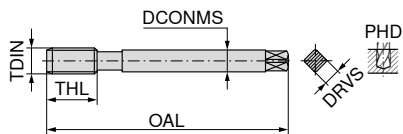
TWIN

ST

HR

ISO 228
XISO 228
X

nitr.



DIN 5156 with reduced shank



HSS-E

HSS-E

 $\angle 0^\circ$
 $\leq 750 \text{ N/mm}^2$
 $\leq 2xD$
 $\angle 0^\circ$
 $\leq 1400 \text{ N/mm}^2$
 $\leq 2xD$

22 347 ...

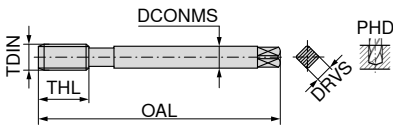
22 339 ...

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
1/16-28	0.907	90	6	4.9	6.80	17	3
1/8-28	0.907	90	7	5.5	8.80	18	4
1/4-19	1.337	100	11	9.0	11.80	22	4
3/8-19	1.337	100	12	9.0	15.25	22	4
1/2-14	1.814	125	16	12.0	19.00	25	4
3/4-14	1.814	140	20	16.0	24.50	28	4
1-11	2.309	160	25	20.0	30.75	30	5
1 1/8-11	2.309	170	28	22.0	35.50	30	5
1 1/4-11	2.309	170	32	24.0	39.50	30	6
1 3/8-11	2.309	180	36	29.0	41.75	32	6
1 1/2-11	2.309	190	36	29.0	45.25	32	6
1 3/4-11	2.309	190	40	32.0	51.00	32	6

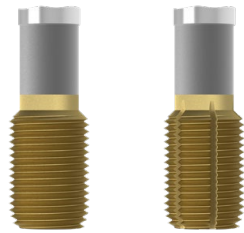
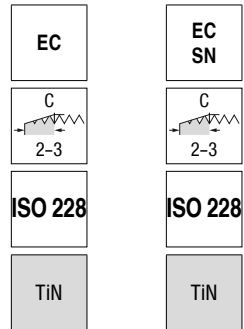
P	12	6
M		
K	12	16
N	22	22
S		
H		
O		

Through hole / Blind hole – Machine thread formers, right hand

▲ SN = Thread formers with lubrication grooves



DIN 2189 with reduced shank

HSS-E
≤ 1100 N/mm²
≤ 1,5xDHSS-E
≤ 1100 N/mm²
≤ 3xD

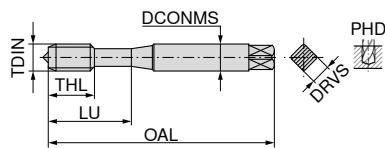
TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes		
1/8-28	0.907	90	7	5.5	9.25	18			
1/8-28	0.907	90	7	5.5	9.25	18	5		
1/4-19	1.337	100	11	9.0	12.55	22			
1/4-19	1.337	100	11	9.0	12.55	22	6		
3/8-19	1.337	100	12	9.0	16.05	22			
3/8-19	1.337	100	12	9.0	16.05	22	6		
1/2-14	1.814	125	16	12.0	20.10	25			
1/2-14	1.814	125	16	12.0	20.10	25	6		
P								18	18
M								10	10
K								10	10
N								22	22
S									
H									
O									

22 360 ...
£
U022 359 ...
£
U095.49 012
122.80 025
165.51 037
222.54 050108.45 012
138.51 025
185.46 037
249.53 050

Through hole – Machine taps, right hand

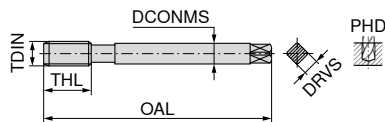
UNC

Stabil



DIN 371 with reinforced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
Nr. 2-56	0.454	45	2.8	2.1	1.85	7	12	2
Nr. 4-40	0.635	56	3.5	2.7	2.35	11	18	2
Nr. 4-40	0.635	56	3.5	2.7	2.35	11	18	3
Nr. 6-32	0.794	56	4.0	3.0	2.85	12	20	3
Nr. 8-32	0.794	63	4.5	3.4	3.50	13	21	3
Nr. 10-24	1.058	70	6.0	4.9	3.90	15	25	3
Nr. 12-24	1.058	80	6.0	4.9	4.50	16	30	3
1/4-20	1.270	80	7.0	5.5	5.10	17	30	3
5/16-18	1.411	90	8.0	6.2	6.60	20	35	3
3/8-16	1.588	100	10.0	8.0	8.00	22	39	3



DIN 376 with reduced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
1/2-13	1.954	110	9	7.0	10.80	25	3
5/8-11	2.309	110	12	9.0	13.50	27	3
3/4-10	2.540	125	14	11.0	16.50	30	3
7/8-9	2.822	140	18	14.5	19.50	32	3
1-8	3.175	160	18	14.5	22.25	36	3

P	8	7	12
M	6	7	7
K			12
N	22		
S		5	
H			
O			

VA	Ti	UNI
B 4-5	B 4-5	B 4-5
2B	2BX	2B
nitr.	TiN	nitr. + vap.

HSS-E $\angle 0^\circ$ $\leq 900 \text{ N/mm}^2$ $\leq 4xD$	HSS-PM $\angle 0^\circ$ $\leq 44 \text{ HRC}$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$

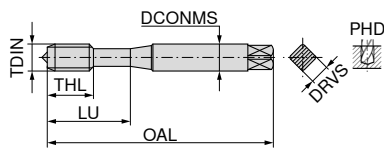
22 250 ...	22 269 ...	22 572 ...
£	£	£
U0	U0	U0
		87.24 002
		48.05 004
	108.52 004	
41.75 006	97.35 006	40.76 006
41.34 008	97.35 008	41.17 008
41.17 010	104.01 010	44.52 010
		53.82 012
52.24 025	108.52 025	46.96 025
53.54 031	116.94 031	55.97 031
54.46 037	137.59 037	61.76 037

22 573 ...

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes	£	
mm	mm	mm	mm	mm	mm	mm		U0	
1/2-13	1.954	110	9	7.0	10.80	25	3	75.75	050
5/8-11	2.309	110	12	9.0	13.50	27	3	103.22	062
3/4-10	2.540	125	14	11.0	16.50	30	3	126.88	075
7/8-9	2.822	140	18	14.5	19.50	32	3	163.16	087
1-8	3.175	160	18	14.5	22.25	36	3	209.65	100

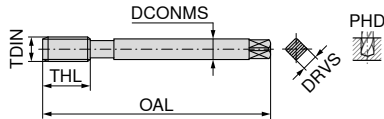
Through hole – Machine taps, right hand

UNC



DIN 371 with reinforced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
Nr. 4-40	0.635	56	3.5	2.7	2.30	11	18	2
Nr. 6-32	0.794	56	4.0	3.0	2.85	12	20	3
Nr. 8-32	0.794	63	4.5	3.4	3.50	13	21	3
Nr. 10-24	1.058	70	6.0	4.9	3.90	15	25	3
1/4-20	1.270	80	7.0	5.5	5.20	17	30	3
5/16-18	1.411	90	8.0	6.2	6.60	20	35	3
3/8-16	1.588	100	10.0	8.0	8.00	22	39	3



DIN 376 with reduced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
7/16-14	1.814	100	8	6.2	9.40	22	3
1/2-13	1.954	110	9	7.0	10.75	25	3
5/8-11	2.309	110	12	9.0	13.50	27	3
3/4-10	2.540	125	14	11.0	16.50	30	3

P	15	15	8
M	9		6
K	18	15	
N	12	15	22
S			
H			
O			

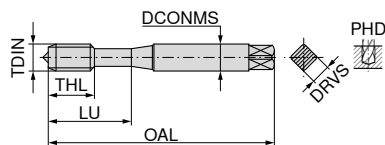
UNI	FE-HF	VA
B 4-5	B 4-5	B 4-5
2B	2B	2B
TiN	TiCN	nitr.
HSS-E $\leq 1000 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\leq 1000 \text{ N/mm}^2$ $\leq 3xD$
23 170 ...	23 370 ...	23 470 ...
£ T9	£ T9	£ T9
31.73 004	34.03 004	30.68 004
30.68 006	32.32 006	27.84 006
30.68 008	32.32 008	27.24 008
31.73 010	34.17 010	30.68 010
41.64 025	47.30 025	32.18 025
45.78 031	50.74 031	36.68 031
53.29 037	61.18 037	42.41 037

23 171 ...	23 371 ...	23 471 ...
£ T9	£ T9	£ T9
63.15 043	69.13 043	53.09 043
69.13 050	78.56 050	58.13 050
88.02 062	95.01 062	74.90 062
133.18 075	151.46 075	96.11 075

Blind hole – Machine taps, right hand

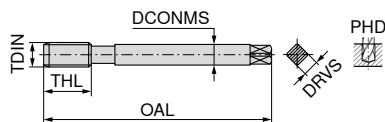
UNC

Salo-Rex



DIN 371 with reinforced shank

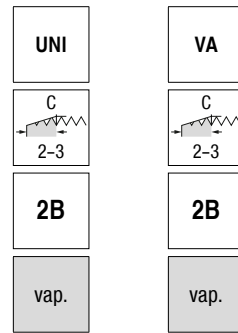
TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
Nr. 2-56	0.454	45	2.8	2.1	1.85	4.5	12	2
Nr. 4-40	0.635	56	3.5	2.7	2.35	6.0	18	2
Nr. 6-32	0.794	56	4.0	3.0	2.85	7.0	20	3
Nr. 8-32	0.794	63	4.5	3.4	3.50	8.0	21	3
Nr. 10-24	1.058	70	6.0	4.9	3.90	10.0	25	3
1/4-20	1.270	80	7.0	5.5	5.10	13.0	30	3
5/16-18	1.411	90	8.0	6.2	6.60	14.0	35	3
3/8-16	1.588	100	10.0	8.0	8.00	16.0	39	3



DIN 376 with reduced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
7/16-14	1.814	100	8	6.2	9.40	18	3
7/16-14	1.814	100	8	6.2	9.40	18	4
1/2-13	1.954	110	9	7.0	10.80	20	3
1/2-13	1.954	110	9	7.0	10.80	20	4
9/16-12	2.117	110	11	9.0	12.25	20	3
5/8-11	2.309	110	12	9.0	13.50	22	3
5/8-11	2.309	110	12	9.0	13.50	22	4
3/4-10	2.540	125	14	11.0	16.50	25	3
3/4-10	2.540	125	14	11.0	16.50	25	4
7/8-9	2.822	140	18	14.5	19.50	27	4
1-8	3.175	160	18	14.5	22.25	30	4
1-8	3.175	160	18	14.5	22.25	30	5

P	12	8
M	7	6
K	12	
N		22
S		
H		
O		



HSS-E

 $\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$


HSS-E

 $\angle 42^\circ$
 $\leq 900 \text{ N/mm}^2$
 $\leq 3xD$

22 582 ...

£

U0

002

004

006

008

010

025

031

037

22 266 ...

£

U0

006

008

010

025

031

037

22 583 ...

£

U0

043

050

056

062

075

087

100

22 267 ...

£

U0

043

050

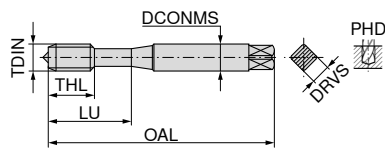
062

075

100

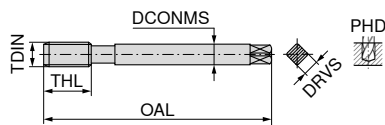
Blind hole – Machine taps, right hand

UNC



DIN 371 with reinforced shank

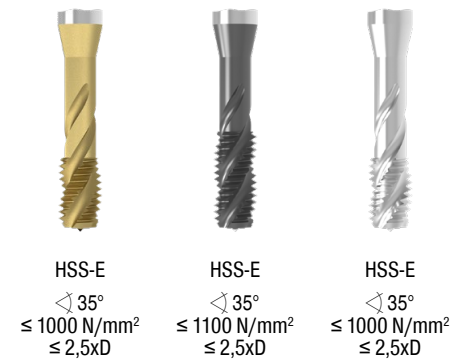
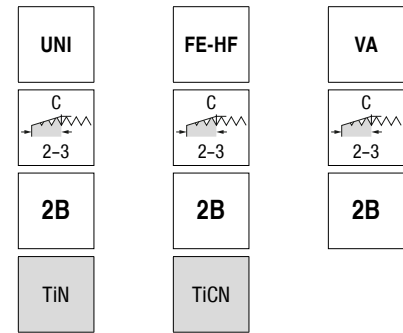
TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
Nr. 4-40	0.635	56	3.5	2.7	2.30	11	18	2
Nr. 4-40	0.635	56	3.5	2.7	2.30	6	18	2
Nr. 6-32	0.794	56	4.0	3.0	2.85	7	20	3
Nr. 6-32	0.794	56	4.0	3.0	2.85	12	20	3
Nr. 8-32	0.794	63	4.5	3.4	3.50	8	21	3
Nr. 8-32	0.794	63	4.5	3.4	3.50	13	21	3
Nr. 10-24	1.058	70	6.0	4.9	3.90	10	25	3
Nr. 10-24	1.058	70	6.0	4.9	3.90	15	25	3
1/4-20	1.270	80	7.0	5.5	5.20	13	30	3
1/4-20	1.270	80	7.0	5.5	5.20	17	30	3
5/16-18	1.411	90	8.0	6.2	6.60	14	35	3
5/16-18	1.411	90	8.0	6.2	6.60	20	35	3
3/8-16	1.588	100	10.0	8.0	8.00	16	39	3
3/8-16	1.588	100	10.0	8.0	8.00	22	39	3



DIN 376 with reduced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
7/16-14	1.814	100	8	6.2	9.40	22	3
7/16-14	1.814	100	8	6.2	9.40	18	3
1/2-13	1.954	110	9	7.0	10.75	20	3
1/2-13	1.954	110	9	7.0	10.75	25	3
5/8-11	2.309	110	12	9.0	13.50	22	3
5/8-11	2.309	110	12	9.0	13.50	27	3
3/4-10	2.540	125	14	11.0	16.50	25	3
3/4-10	2.540	125	14	11.0	16.50	30	3

P	15	15	8
M	9		6
K	18	15	
N	12	24	22
S			
H			
O			

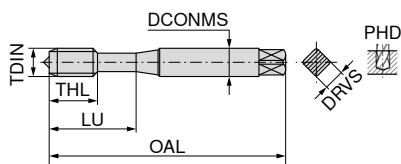


23 172 ...	23 372 ...	23 472 ...
£ T9	£ T9	£ T9
33.68 004	35.32 004	32.18 004
31.58 006		30.25 006
34.03 008	34.17 006	31.27 008
	36.15 008	
35.07 010		33.25 010
	36.68 010	
45.32 025	50.34 025	37.22 025
45.32 031	52.48 031	39.35 031
55.51 037	61.22 037	43.92 037

23 173 ...	23 373 ...	23 473 ...
£ T9	£ T9	£ T9
70.17 043	77.82 043	60.70 043
74.31 050		59.96 050
	82.60 050	
91.22 062		84.04 062
	100.83 062	
135.43 075		103.11 075
	157.88 075	

Through hole / Blind hole – Machine thread formers, right hand

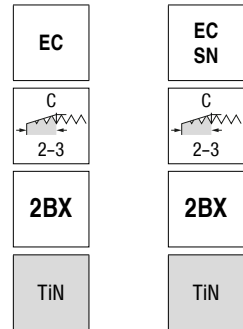
▲ SN = Thread formers with lubrication grooves



DIN 2174 with reduced shank

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
Nr. 4-40	0.635	56	3.5	2.7	2.55	11	18	
Nr. 4-40	0.635	56	3.5	2.7	2.55	11	18	3
Nr. 6-32	0.794	56	4.0	3.0	3.15	12	20	
Nr. 6-32	0.794	56	4.0	3.0	3.15	12	20	3
Nr. 8-32	0.794	63	4.5	3.4	3.80	13	21	
Nr. 8-32	0.794	63	4.5	3.4	3.80	13	21	4
Nr. 10-24	1.058	70	6.0	4.9	4.35	15	25	
Nr. 10-24	1.058	70	6.0	4.9	4.35	15	25	4
1/4-20	1.270	80	7.0	5.5	5.75	17	30	
1/4-20	1.270	80	7.0	5.5	5.75	17	30	4
5/16-18	1.411	90	8.0	6.2	7.30	20	35	
5/16-18	1.411	90	8.0	6.2	7.30	20	35	5
3/8-16	1.588	100	10.0	8.0	8.80	22	39	
3/8-16	1.588	100	10.0	8.0	8.80	22	39	5

P	18	18
M	10	10
K	10	10
N	22	22
S		
H		
O		

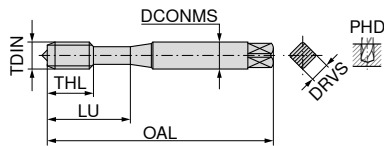
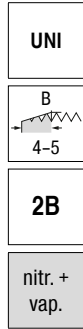
HSS-E
≤ 1100 N/mm²
≤ 1,5xDHSS-E
≤ 1100 N/mm²
≤ 3xD

22 270 ...

22 271 ...

£ U0		£ U0	
56.00	004	65.01	004
52.48	006	60.25	006
52.77	008	60.25	008
58.88	010	66.68	010
68.20	025	77.20	025
71.41	031	82.93	031
87.85	037	97.01	037

Through hole – machine taps for wire thread inserts, right hand



DIN 371 with reinforced shank



HSS-E

$\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
EG Nr. 4-40	0.635	63	4.5	3.4	3.1	13	21	3
EG Nr. 6-32	0.794	70	6.0	4.9	3.8	14	25	3
EG Nr. 8-32	0.794	80	6.0	4.9	4.4	16	30	3
EG Nr. 10-24	1.058	80	7.0	5.5	5.2	17	30	3
EG 1/4-20	1.270	90	8.0	6.2	6.7	20	35	3
EG 5/16-18	1.411	100	10.0	8.0	8.4	22	39	3

22 668 ...

£

U0

004

62.22

006

65.21

008

64.20

010

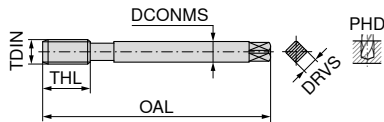
69.11

025

71.69

031

78.71



DIN 376 with reduced shank

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
EG 3/8-16	1.588	100	9	7.0	10.00	22	3
EG 7/16-14	1.814	110	11	9.0	11.60	26	3
EG 1/2-13	1.954	110	12	9.0	13.30	27	3
EG 5/8-11	2.309	125	14	11.0	16.50	30	3
EG 3/4-10	2.540	140	18	14.5	19.75	32	3

22 670 ...

£

U0

037

91.22

043

111.51

050

116.22

062

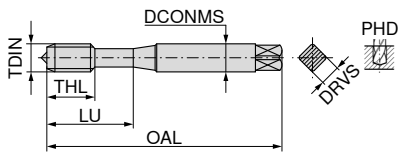
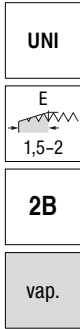
146.91

075

190.52

P	12
M	7
K	12
N	
S	
H	
O	

Blind hole – machine taps for wire thread inserts, right hand



DIN 371 with reinforced shank



HSS-E

$\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3 \times D$

22 672 ...

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
EG Nr. 4-40	0.635	63	4.5	3.4	3.1	7	21	3
EG Nr. 6-32	0.794	70	6.0	4.9	3.8	8	25	3
EG Nr. 8-32	0.794	80	6.0	4.9	4.4	8	30	3
EG Nr. 10-24	1.058	80	7.0	5.5	5.2	10	30	3
EG 1/4-20	1.270	90	8.0	6.2	6.7	14	35	3
EG 5/16-18	1.411	100	10.0	8.0	8.4	16	39	3

£

U0

62.71

004

62.22

006

64.20

008

69.11

010

76.28

025

80.07

031

P	12
M	7
K	12
N	
S	
H	
O	

Blind hole – Machine taps, right hand

UNJC

SL

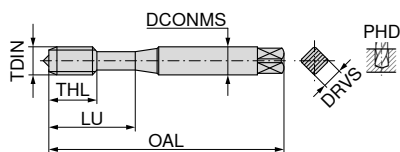
Ti

C

2-3

3BX

TiCN



DIN 371 with reinforced shank



HSS-E

 $\angle 15^\circ$
 $\leq 1200 \text{ N/mm}^2$
 $\leq 2 \times D$

22 166 ...

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes		
Nr. 4-40	0.635	56	3.5	2.7	2.30	11	18	2		
Nr. 6-32	0.794	56	4.0	3.0	2.85	12	20	3		
Nr. 8-32	0.794	63	4.5	3.4	3.50	13	21	3		
Nr. 10-24	1.058	70	6.0	4.9	3.90	15	25	3		
1/4-20	1.270	80	7.0	5.5	5.25	17	30	3		
3/8-16	1.588	100	10.0	8.0	8.10	22	39	3		
P										7
M										7
K										
N										22
S										5
H										
O										

£

U0

84.96

004

86.52

006

84.08

008

90.13

010

115.31

025

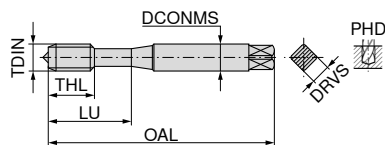
139.27

037

Through hole – Machine taps, right hand

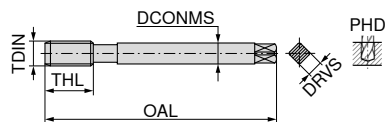
UNF

Stabil



DIN 371 with reinforced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
Nr. 4-48	0.529	56	3.5	2.7	2.40	11	18	2
Nr. 4-48	0.529	56	3.5	2.7	2.40	11	18	3
Nr. 5-44	0.577	56	3.5	2.7	2.70	11	18	3
Nr. 6-40	0.635	56	4.0	3.0	2.95	12	20	3
Nr. 8-36	0.706	63	4.5	3.4	3.50	13	21	3
Nr. 10-32	0.794	70	6.0	4.9	4.10	15	25	3
1/4-28	0.907	80	7.0	5.5	5.50	17	30	3
5/16-24	1.058	90	8.0	6.2	6.90	17	35	3
3/8-24	1.058	90	10.0	8.0	8.50	18	35	3



DIN 374 with reduced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
7/16-20	1.270	100	8	6.2	9.90	22	3
1/2-20	1.270	100	9	7.0	11.50	22	3
9/16-18	1.411	100	11	9.0	12.90	22	3
5/8-18	1.411	100	12	9.0	14.50	22	3
3/4-16	1.588	110	14	11.0	17.50	25	4
7/8-14	1.814	125	18	14.5	20.50	25	4
1-12	2.117	140	18	14.5	23.25	28	4
1 1/8-12	2.117	150	22	18.0	26.50	28	4
1 1/4-12	2.117	150	22	18.0	29.75	28	4
1 3/8-12	2.117	170	28	22.0	33.00	30	5

P	12	7
M	7	7
K	12	
N		22
S		5
H		
O		

UNI



2B

nitr. +
vap.

HSS-E

 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$

22 602 ...

£

U0

004

Ti



2BX

TiN



HSS-PM

 $\angle 0^\circ$
 $\leq 44 \text{ HRC}$
 $\leq 4xD$

22 317 ...

£

U0

004

112.29

115.77

100.09

107.08

107.79

112.29

127.82

142.07

005

006

008

010

025

031

037

22 603 ...

£

U0

043

78.31

75.75

113.80

104.98

130.82

170.65

222.99

576.56

643.32

710.02

050

056

062

075

087

100

112

125

137

22 421 ...

£

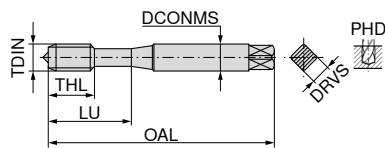
U0

050

183.32

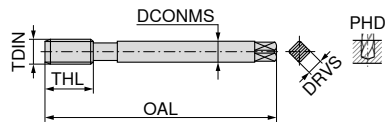
Through hole – Machine taps, right hand

UNF



DIN 371 with reinforced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
Nr. 10-32	0.794	70	6	4.9	4.1	15	25	3
1/4-28	0.907	80	7	5.5	5.5	17	30	3
5/16-24	1.058	90	8	6.2	6.9	17	35	3
3/8-24	1.058	90	10	8.0	8.5	18	35	4



DIN 374 with reduced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
7/16-20	1.270	100	8	6.2	9.9	22	3
1/2-20	1.270	100	9	7.0	11.5	22	3
9/16-18	1.411	100	11	9.0	12.9	22	3
5/8-18	1.411	100	12	9.0	14.5	22	3
3/4-16	1.588	110	14	11.0	17.5	25	4

P	15	12	8
M	9		6
K	18	12	
N	12	22	22
S			
H			
O			

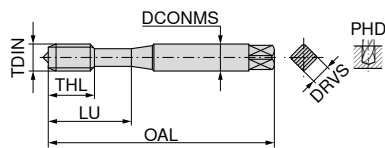
UNI	FE	VA
B 4-5	B 4-5	B 4-5
2B	2B	2B
TiN		nitr.
HSS-E $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\leq 850 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$
23 180 ...	23 280 ...	23 480 ...
£ T9	£ T9	£ T9
36.77 010	30.99 010	35.24 010
46.85 025	33.13 025	39.84 025
52.02 031	36.77 031	43.92 031
55.68 037	38.28 037	45.92 037

23 181 ...	23 281 ...	23 481 ...
£ T9	£ T9	£ T9
68.36 043	48.98 043	57.76 043
69.13 050	48.98 050	57.76 050
95.96 056	66.21 056	72.90 056
87.09 062	59.96 062	64.66 062
134.84 075	78.26 075	102.06 075

Blind hole – Machine taps, right hand

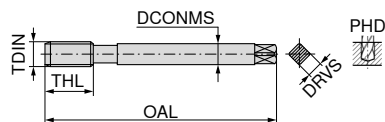
UNF

Salo-Rex



DIN 371 with reinforced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
Nr. 2-64	0.397	45	2.8	2.1	1.85	4.5	12	2
Nr. 4-48	0.529	56	3.5	2.7	2.40	6.0	18	2
Nr. 6-40	0.635	56	4.0	3.0	2.95	7.0	20	3
Nr. 6-40	0.635	56	4.0	3.0	3.00	7.0	20	3
Nr. 8-36	0.706	63	4.5	3.4	3.50	8.0	21	3
Nr. 10-32	0.794	70	6.0	4.9	4.10	10.0	25	3
Nr. 10-32	0.794	70	6.0	4.9	4.15	10.0	25	3
1/4-28	0.907	80	7.0	5.5	5.50	10.0	30	3
1/4-28	0.907	80	7.0	5.5	5.55	10.0	30	3
5/16-24	1.058	90	8.0	6.2	6.90	10.0	35	3
5/16-24	1.058	90	8.0	6.2	6.95	10.0	35	3
3/8-24	1.058	90	10.0	8.0	8.50	10.0	35	3
3/8-24	1.058	90	10.0	8.0	8.55	10.0	35	3



DIN 374 with reduced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
7/16-20	1.270	100	8	6.2	9.90	13	3
7/16-20	1.270	100	8	6.2	9.95	13	4
1/2-20	1.270	100	9	7.0	11.50	13	4
1/2-20	1.270	100	9	7.0	11.55	13	5
9/16-18	1.411	100	11	9.0	12.90	15	4
9/16-18	1.411	100	11	9.0	12.95	15	5
5/8-18	1.411	100	12	9.0	14.50	15	4
5/8-18	1.411	100	12	9.0	14.55	15	5
3/4-16	1.588	110	14	11.0	17.50	17	4
3/4-16	1.588	110	14	11.0	17.55	17	5
7/8-14	1.814	125	18	14.5	20.50	17	4
1-12	2.117	140	18	14.5	23.25	20	4
1-12	2.117	140	18	14.5	23.30	20	5
1 1/8-12	2.117	150	22	18.0	26.50	22	4
1 1/4-12	2.117	150	22	18.0	29.75	22	5
1 3/8-12	2.117	170	28	22.0	33.00	24	5

P	8	12	12
M	6	7	7
K		12	12
N	22		22
S			
H			
O			

VA	UNI	UNI
E 1,5-2	C 2-3	E 1,5-2
2B	2B	2B +0,05
vap.	vap.	vap.



HSS-E
 $\angle 42^\circ$
 $\leq 900 \text{ N/mm}^2$
 $\leq 3xD$

22 308 ...	
£	
U0	
92.10	002
62.71	004
61.62	006
76.57	008
64.66	010
68.03	025
75.22	031
77.65	037



HSS-E
 $\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

22 606 ...	
£	
U0	
61.62	004
46.69	006
46.68	008
49.23	010
52.31	025
71.85	031



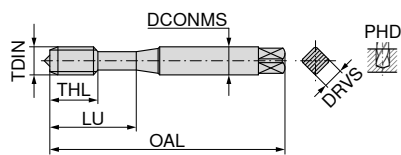
HSS-E
 $\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

22 307 ...	
£	
U0	
86.32	006
90.54	010
94.44	025
109.22	031
109.22	037

Blind hole – Machine taps, right hand

UNF

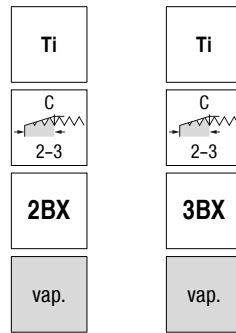
SL



DIN 371 with reinforced shank

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
Nr. 10-32	0.794	70	6	4.9	4.1	10	25	3
1/4-28	0.907	80	7	5.5	5.5	10	30	3
5/16-24	1.058	90	8	6.2	6.9	10	35	3
3/8-24	1.058	90	10	8.0	8.5	10	35	3

P	5	5
M	5	5
K		
N	22	22
S	3	3
H		
O		



HSS-PM

 $\angle 30^\circ$
 $\leq 1400 \text{ N/mm}^2$
 $\leq 1,5xD$

22 302 ...

£
U0

103.41

010

113.05

025

128.64

031

132.41

037



HSS-PM

 $\angle 30^\circ$
 $\leq 1400 \text{ N/mm}^2$
 $\leq 1,5xD$

22 303 ...

£
U0

103.41

010

113.05

025

120.46

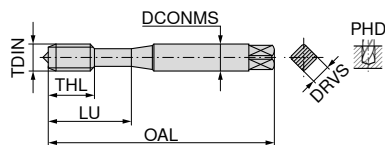
031

132.41

037

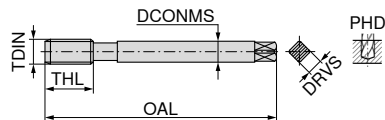
Blind hole – Machine taps, right hand

UNF



DIN 371 with reinforced shank

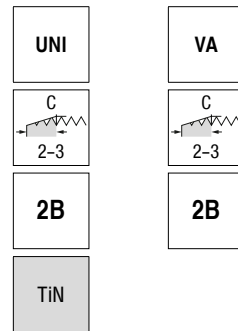
TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
Nr. 10-32	0.794	70	6	4.9	4.1	10	25	3
1/4-28	0.907	80	7	5.5	5.5	10	30	3
5/16-24	1.058	90	8	6.2	6.9	10	35	3
3/8-24	1.058	90	10	8.0	8.5	10	35	3



DIN 374 with reduced shank

TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
7/16-20	1.270	100	8	6.2	9.9	13	3
1/2-20	1.270	100	9	7.0	11.5	13	4
9/16-18	1.411	100	11	9.0	12.9	15	4
5/8-18	1.411	100	12	9.0	14.5	15	4
3/4-16	1.588	110	14	11.0	17.5	17	4

P	15	8
M	9	6
K	18	
N	12	22
S		
H		
O		

HSS-E
 $\angle 35^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 2,5xD$ HSS-E
 $\angle 35^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 2,5xD$

23 182 ...

£

T9

38.72

48.65

52.48

58.42

010

025

031

037

23 482 ...

£

T9

38.29

42.41

44.29

48.98

010

025

031

037

23 183 ...

£

T9

70.17

74.31

100.05

90.45

143.54

043

050

056

062

075

23 483 ...

£

T9

60.70

61.48

85.89

74.09

102.06

043

050

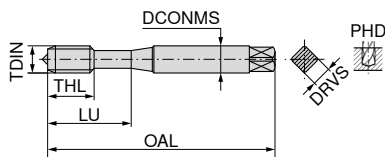
056

062

075

Through hole / Blind hole – Machine thread formers, right hand

▲ SN = Thread formers with lubrication grooves



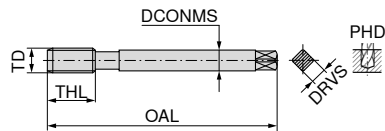
DIN 2174 with reduced shank

HSS-E
≤ 1100 N/mm²
≤ 3xD

22 312 ...

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
Nr. 4-48	0.529	56	3.5	2.7	2.62	11	18	3
Nr. 6-40	0.635	56	4.0	3.0	3.22	12	20	3
Nr. 8-36	0.706	63	4.5	3.4	3.85	13	21	4
Nr. 10-32	0.794	70	6.0	4.9	4.45	15	25	4
1/4-28	0.907	80	7.0	5.5	5.95	17	30	4

£	
U0	
72.17	004
67.28	006
69.55	008
74.31	010
87.11	025



DIN 2174 with reduced shank

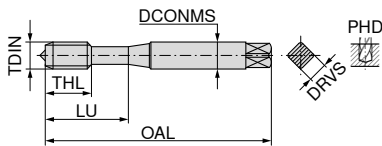
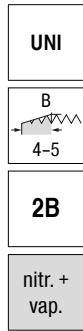
22 313 ...

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
7/16-20	1.27	100	8	6.2	10.55	22	6
1/2-20	1.27	100	9	7.0	12.15	22	6

£	
U0	
129.81	043
133.48	050

P	18
M	10
K	10
N	22
S	
H	
O	

Through hole – machine taps for wire thread inserts, right hand



DIN 371 with reinforced shank



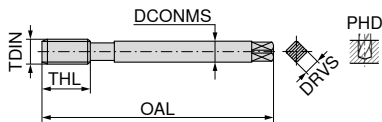
HSS-E

 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4 \times D$

22 676 ...

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
EG Nr. 4-48	0.529	56	4	3.0	3.0	9	20	3
EG Nr. 6-40	0.635	70	6	4.9	3.7	11	25	3
EG Nr. 8-36	0.706	80	6	4.9	4.4	13	30	3
EG Nr. 10-32	0.794	80	6	4.9	5.1	13	30	3
EG 1/4-28	0.907	90	8	6.2	6.6	17	35	3

£	
U0	
79.42	004
78.31	006
76.55	008
81.62	010
87.09	025



DIN 374 with reduced shank

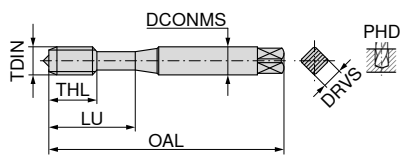
22 677 ...

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
EG 3/8-24	1.058	90	8	6.2	9.80	18	4
EG 7/16-20	1.270	100	9	7.0	11.50	22	3
EG 1/2-20	1.270	100	11	9.0	13.10	22	3
EG 5/8-18	1.411	110	14	11.0	16.25	25	4
EG 3/4-16	1.588	125	16	12.0	19.50	25	4

£	
U0	
106.60	037
134.84	043
126.88	050
203.34	062
251.98	075

P	12
M	7
K	12
N	
S	
H	
O	

Blind hole – machine taps for wire thread inserts, right hand



DIN 371 with reinforced shank



HSS-E

$\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

22 680 ...

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
EG Nr. 4-48	0.529	56	4	3.0	3.0	7	20	3
EG Nr. 6-40	0.635	70	6	4.9	3.7	8	25	3
EG Nr. 8-36	0.706	80	6	4.9	4.4	8	30	3
EG Nr. 10-32	0.794	80	6	4.9	5.1	8	30	3
EG 1/4-28	0.907	90	8	6.2	6.6	10	35	3

£

U0

80.39

004

78.11

006

80.07

008

86.32

010

95.20

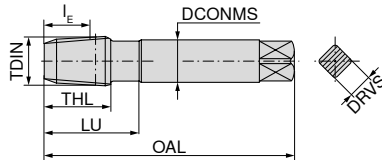
025

P	12
M	7
K	12
N	
S	
H	
O	

Blind hole – Machine taps, right hand

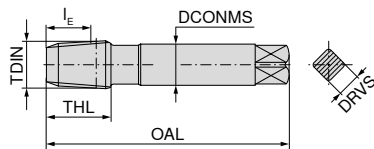
NPT

Salo-Rex



DIN 371 with reinforced shank

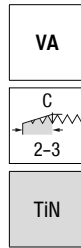
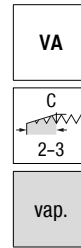
TDIN	TP	OAL	DCONMS	DRVS	I _E	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
1/16-27	0.941	90	8	6.2	9.24	13.0	26.0	3
1/8-27	0.941	90	10	8.0	9.28	13.0	26.0	3
1/8-27	0.941	90	10	8.0	9.28	12.0	26.0	4
1/4-18	1.411	100	14	11.0	13.55	19.5	34.5	3
1/4-18	1.411	100	14	11.0	13.55	18.0	34.5	4



DIN 374 with reduced shank

TDIN	TP	OAL	DCONMS	DRVS	I _E	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
3/8-18	1.411	110	14	11	13.86	19.5	3
3/8-18	1.411	110	14	11	13.86	18.0	5
1/2-14	1.814	140	16	12	18.11	25.0	5
1/2-14	1.814	140	16	12	18.11	23.0	5
3/4-14	1.814	150	20	16	18.59	26.0	5
1-11,5	2.209	170	25	20	22.31	32.0	5

P	4	5
M	3	4
K		
N	22	22
S		
H		
O		

HSS-E
≤ 35°
≤ 900 N/mm²HSS-E
≤ 42°
≤ 1100 N/mm²

22 364 ...

22 365 ...

£	U0
103.39	006
119.57	012
139.67	025

£	U0
161.53	012
166.25	025

22 371 ...

22 372 ...

£	U0
190.37	037
276.68	050
400.40	075
584.80	100

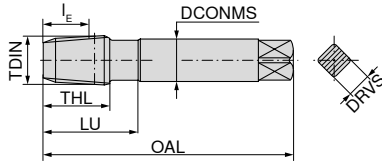
£	U0
318.17	037
368.11	050

Through hole / Blind hole – Machine taps, right hand

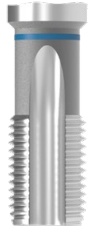
NPT

TWIN

VG



DIN 371 with reinforced shank



HSS-E

 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$

22 374 ...

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	I _E mm	THL mm	LU mm	Flutes
1/16-27	0.941	90	8	6.2	9.24	13.0	26.0	3
1/8-27	0.941	90	10	8.0	9.28	13.0	26.0	3
1/4-18	1.411	100	14	11.0	13.55	19.5	34.5	3

£

U0

90.45

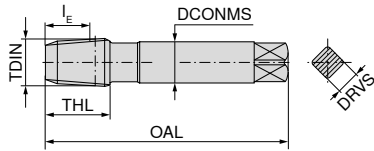
006

116.09

012

120.46

025



DIN 374 with reduced shank

22 375 ...

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	I _E mm	THL mm	Flutes
3/8-18	1.411	110	14	11	13.86	19.5	3
1/2-14	1.814	140	16	12	18.11	25.0	5
3/4-14	1.814	150	20	16	18.59	26.0	5
1-11,5	2.209	170	25	20	22.31	30.0	5

£

U0

151.32

037

204.26

050

264.95

075

368.98

100

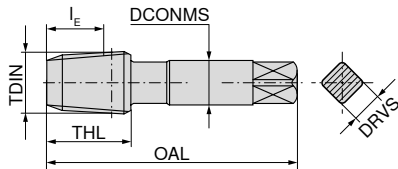
P	4
M	
K	6
N	22
S	
H	
O	

Through hole / Blind hole – Machine taps, right hand

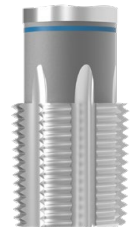
▲ ES = extra short

NPT

TWIN

ST
ES

DIN 2181 with reduced shank



HSS-E

 $\angle 0^\circ$
 $\leq 750 \text{ N/mm}^2$

22 361 ...

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	I _E mm	THL mm	Flutes
1/16-27	0.941	63	6	4.9	9.24	13.0	4
1/8-27	0.941	63	7	5.5	9.28	13.0	5
1/4-18	1.411	63	11	9.0	13.55	19.5	5
3/8-18	1.411	70	12	9.0	13.86	19.5	5
1/2-14	1.814	80	16	12.0	18.11	23.0	5
3/4-14	1.814	100	20	16.0	18.59	26.0	6
1-11,5	2.209	110	25	20.0	22.31	32.0	6

£

U0

65.09

006

69.13

012

82.98

025

103.74

037

138.97

050

175.56

075

259.47

100

P	6
M	
K	6
N	22
S	
H	
O	

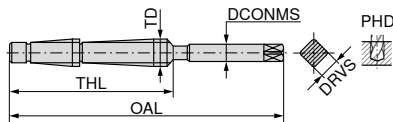
Through hole – Machine taps, right hand

- ▲ Single finishing trapezoidal taps (2 steps)
- ▲ do not reverse

Tr

ST

7H



Factory standard



HSS-E

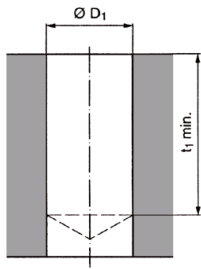
 $\angle 5^\circ$
 $\leq 900 \text{ N/mm}^2$
 $\leq 2xD$

22 402 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	£ U0	
Tr 8	1.5	105	6	4.9	6.60	55	3	580.99	080
Tr 9	2.0	130	7	5.5	7.20	70	3	559.03	090
Tr 10	2.0	130	7	5.5	8.20	70	3	580.99	102
Tr 10	3.0	155	7	5.5	7.25	95	3	532.61	103
Tr 12	3.0	160	9	7.0	9.25	95	3	639.09	123
Tr 14	3.0	170	10	8.0	11.25	100	3	742.35	143
Tr 14	4.0	195	10	8.0	10.25	125	3	626.13	144
Tr 16	4.0	225	12	9.0	12.25	130	3	626.13	164
Tr 18	4.0	225	14	11.0	14.25	116	3	648.70	184
Tr 20	4.0	225	16	12.0	16.25	130	3	751.96	204
Tr 22	5.0	260	16	12.0	17.25	160	3	871.53	225
Tr 24	5.0	285	18	14.5	19.25	165	3	1,016.60	245
P									•
M									
K									•
N									•
S									
H									
O									

Core hole diameters for taper threads (taper 1:16)

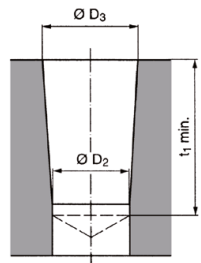
Pre-drilling of cylindrical holes without reamer



		NPT		NPTF				Rc	
Ø d ₁ inch	Pitch Gg/1"	Ø D ₁ mm	t ₁ min. mm	Ø D ₁ mm	t ₁ min. mm	Ø d ₁ inch	Pitch Gg/1"	Ø D ₁ mm	t ₁ min. mm
1/16	27	6,15	12	6,1	12	1/16	28	6,2	11,9
1/8	27	8,5	12	8,45	12	1/8	28	8,2	11,9
1/4	18	11	17,5	10,9	17,5	1/4	19	10,85	16,3
3/8	18	14,5	17,6	14,3	17,6	3/8	19	14,5	18,1
1/2	14	17,85	22,9	17,6	22,9	1/2	14	18	24
3/4	14	23,2	23	23	23	3/4	14	23,5	25,3
1	11½	29,5	27,4	28,75	27,4	1	11	29,5	30,6
1¼	11½	37,8	28,1	37,5	28,1				
1½	11½	44	28,4	43,75	28,4				
2	11½	56	28,4	55,75	28,4				

Pre-drilling of cylindrical holes and conical boring with reamer

6

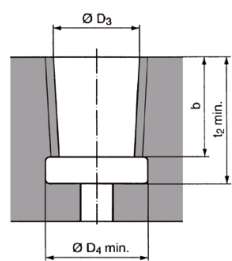


Taper 1:16

		NPT			NPTF		
Ø d ₁ inch	Pitch Gg/1"	Ø d ₂ mm	Ø d ₃ mm	t ₁ min. mm	Ø D ₂ mm	Ø D ₃ mm	t ₁ min. mm
1/16	27	5,95	6,39	12	5,95	6,41	12
1/8	27	8,25	8,74	12	8,25	8,76	12
1/4	18	10,75	11,36	17,5	10,75	11,4	17,5
3/8	18	14,1	14,8	17,6	14,1	14,84	17,6
1/2	14	17,5	18,32	22,9	17,5	18,33	22,9
3/4	14	22,7	23,67	23	22,7	23,68	23
1	11½	28,6	29,69	27,4	28,6	29,72	27,4
1¼	11½	37,3	38,45	28,1	37,3	38,48	28,1
1½	11½	43,4	44,52	28,4	43,4	44,5	28,4
2	11½	55,5	56,56	28,4	55,5	56,59	28,4

		Rc		
Ø d ₁ inch	Pitch Gg/1"	Ø D ₂ mm	Ø D ₃ mm	t ₁ min. mm
1/16	28	6,1	6,56	11,9
1/8	28	8,1	8,57	11,9
1/4	19	10,75	11,45	17,7
3/8	19	14,25	14,95	18,1
1/2	14	17,75	18,63	24
3/4	14	23	24,12	25,3
1	11	29	30,29	30,6

Recommendation for the pre-drilling of blind hole threads



Taper 1:16

		NPT				NPTF			
Ø d ₁ inch	Pitch Gg/1"	Ø D ₃ mm	b mm	t ₂ min. mm	Ø D ₄ mm	Ø D ₃ mm	b mm	t ₂ min. mm	Ø D ₄ min. mm
1/16	27	6,39	7	10	7,6	6,41	8	11	7,4
1/8	27	8,74	7	10	10	8,76	8	11	9,8
1/4	18	11,36	10,2	14,5	13,1	11,4	11,6	15,5	12,9
3/8	18	14,8	10,6	15	16,5	14,84	12	16	16,3
1/2	14	18,32	13,8	19	20,5	18,33	15,6	20,5	20,3
3/4	14	23,67	14,2	20	25,8	23,68	16	21,5	25,6
1	11½	29,69	17	24	32,2	29,72	19,2	26	32
1¼	11½	38,45	17,5	24,5	41	38,48	19,7	26,5	40,8
1½	11½	44,52	17,5	24,5	47,2	44,5	19,7	26,5	47
2	11½	56,56	18	25	59,2	56,59	20,2	27	59

		Rc			
Ø d ₁ inch	Pitch Gg/1"	Ø D ₃ mm	b mm	t ₂ min. mm	Ø D ₄ min. mm
1/16	28	6,56	5,6	9,5	7,6
1/8	28	8,57	5,6	9,5	9,6
1/4	19	11,45	8,4	14	13
3/8	19	14,95	8,8	14,4	16,5
1/2	14	18,63	11,4	19	20,6
3/4	14	24,12	12,7	20,3	26
1	11	30,29	14,5	24,3	32,8

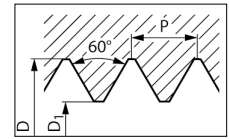
Tapped hole pilot diameter

M

ISO metric coarse threads 6H to DIN 13 and DIN ISO 965-1 (M1-M1,4 = 5H)

Thread nominal Ø		Ø D ₁		Core hole
D	P	min.	max.	
M1	0,25	0,729	0,785	0,75
M1,1	0,25	0,829	0,885	0,85
M1,2	0,25	0,929	0,985	0,95
M1,4	0,3	1,075	1,142	1,1
M1,6	0,35	1,221	1,321	1,25
M1,8	0,35	1,421	1,521	1,45
M2	0,4	1,567	1,679	1,6
M2,2	0,45	1,713	1,838	1,75
M2,5	0,45	2,013	2,138	2,05
M3	0,5	2,459	2,599	2,5
M3,5	0,6	2,850	3,010	2,9
M4	0,7	3,242	3,422	3,3
M4,5	0,75	3,688	3,878	3,7
M5	0,8	4,134	4,334	4,2
M6	1,0	4,917	5,153	5
M7	1,0	5,917	6,153	6
M8	1,25	6,647	6,912	6,8
M9	1,25	7,647	7,912	7,8
M10	1,5	8,376	8,676	8,5
M11	1,5	9,376	9,676	9,5

Thread nominal Ø		Ø D ₁		Core hole
D	P	min.	max.	
M12	1,75	10,106	10,441	10,2
M14	2,0	11,835	12,210	12
M16	2,0	13,835	14,210	14
M18	2,5	15,294	15,744	15,5
M20	2,5	17,294	17,744	17,5
M22	2,5	19,294	19,744	19,5
M24	3,0	20,752	21,252	21
M27	3,0	23,752	24,252	24
M30	3,5	26,211	26,771	26,5
M33	3,5	29,211	29,771	29,5
M36	4,0	31,670	32,270	32
M39	4,0	34,670	35,270	35
M42	4,5	37,129	37,799	37,5
M45	4,5	40,129	40,799	40,5
M48	5,0	42,587	43,297	43
M52	5,0	46,587	47,297	47
M56	5,5	50,046	50,796	50,5
M60	5,5	54,046	54,796	54,5
M64	6,0	57,505	58,305	58
M68	6,0	61,505	62,305	62

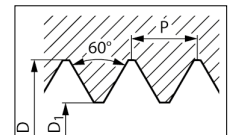


MF

ISO metric fine threads 6H to DIN 13 and DIN ISO 965-1

Thread nominal Ø			Ø D ₁		Core hole
D	x	P	min.	max.	
M2	x	0,25	1,729	1,774	1,75
M2,2	x	0,25	1,929	1,974	1,95
M2,5	x	0,35	2,121	2,221	2,15
M3	x	0,35	2,621	2,721	2,65
M3,5	x	0,35	3,121	3,221	3,15
M4	x	0,35	3,621	3,721	3,65
M4	x	0,5	3,459	3,599	3,5
M4,5	x	0,5	3,959	4,099	4
M5	x	0,5	4,459	4,599	4,5
M6	x	0,5	5,459	5,599	5,5
M6	x	0,75	5,188	5,378	5,2
M8	x	0,75	7,188	7,378	7,2
M8	x	1,0	6,917	7,153	7
M10	x	0,75	9,188	9,378	9,2
M10	x	1,0	8,917	9,153	9
M10	x	1,25	8,647	8,912	8,8
M12	x	1,0	10,917	11,153	11
M12	x	1,5	10,376	10,676	10,5
M14	x	1,25	12,647	12,912	12,8
M16	x	1,0	14,917	15,153	15
M16	x	1,5	14,376	14,676	14,5

Thread nominal Ø			Ø D ₁		Core hole
D	x	P	min.	max.	
M20	x	1,0	18,917	19,153	19
M20	x	1,5	18,376	18,676	18,5
M20	x	2,0	17,835	18,210	18
M24	x	1,5	22,376	22,676	22,5
M30	x	2,0	27,835	28,210	28
M36	x	1,5	34,376	34,676	34,5
M36	x	3,0	32,752	33,252	33
M42	x	2,0	39,835	40,210	40
M48	x	1,5	46,376	46,676	46,5
M48	x	3,0	44,752	45,252	45
M48	x	4,0	43,670	44,270	44
M56	x	1,5	54,376	54,676	54,5
M56	x	2,0	53,835	54,210	54
M56	x	3,0	52,752	53,252	53
M56	x	4,0	51,670	52,270	52
M64	x	3,0	60,752	61,252	61
M64	x	4,0	59,670	60,270	60
M72	x	4,0	67,670	68,270	68
M80	x	6,0	73,505	74,305	74
M95	x	6,0	88,505	89,305	89
M110	x	6,0	103,505	104,305	104



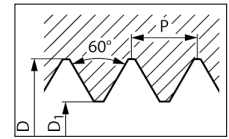
Dimensions in mm; P = Pitch

Thread former pilot hole diameter

M ISO metric coarse threads 6H to DIN 13 and DIN ISO 965-1 (M1-M1,4 = 5H)

Thread nominal Ø		Ø D ₁		Core hole
D	P	min.	max.	
M1	0,25	0,89		0,9
M1,2	0,25	1,09		1,1
M1,4	0,3	1,26		1,26
M1,6	0,35	1,45		1,45
M1,8	0,35	1,65		1,65
M2	0,4	1,83	1,86	1,85
M2,2	0,45	2,00	2,04	2,0
M2,5	0,45	2,30	2,34	2,3
M3	0,5	2,77	2,82	2,8
M3,5	0,6	3,23	3,28	3,25
M4	0,7	3,68	3,73	3,7
M4,5	0,75	4,15	4,21	4,15
M5	0,8	4,63	4,68	4,65

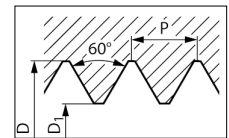
Thread nominal Ø		Ø D ₁		Core hole
D	P	min.	max.	
M6	1	5,51	5,59	5,55
M7	1	6,51	6,59	6,55
M8	1,25	7,39	7,48	7,4
M9	1,25	8,39	8,48	8,4
M10	1,5	9,25	9,35	9,3
M11	1,5	10,25	10,35	10,3
M12	1,75	11,12	11,25	11,2
M14	2	13,00	13,15	13,0
M16	2	15,00	15,15	15,0
M18	2,5	16,72	16,90	16,8
M20	2,5	18,72	18,90	18,8
M22	2,5	20,72	20,9	20,8
M24	3	22,46	22,7	22,5



MF ISO metric fine threads 6H to DIN 13 and DIN ISO 965-1

Thread nominal Ø			Ø D ₁		Core hole
D	x	P	min.	max.	
M2	x	0,25	1,89		1,9
M2,2	x	0,25	2,09		2,1
M2,5	x	0,25	2,39		2,4
M2,5	x	0,35	2,35		2,35
M3	x	0,25	2,89		2,9
M3	x	0,35	2,85		2,85
M3,5	x	0,35	3,35		3,35
M3,5	x	0,5	3,27	3,32	3,3
M4	x	0,35	3,85		3,85
M4	x	0,5	3,77	3,82	3,8
M4,5	x	0,5	4,27	4,32	4,3
M5	x	0,5	4,77	4,82	4,8
M5	x	0,75	4,65	4,71	4,65
M5,5	x	0,5	5,27	5,32	5,3
M6	x	0,5	5,78	5,83	5,8
M6	x	0,75	5,65	5,71	5,65
M7	x	0,5	6,78	6,83	6,8
M7	x	0,75	6,65	6,71	6,65
M8	x	0,5	7,78	7,83	7,8
M8	x	0,75	7,65	7,71	7,65
M8	x	1,0	7,51	7,59	7,55
M9	x	0,5	8,78	8,83	8,8
M9	x	0,75	8,65	8,71	8,65
M9	x	1,0	8,51	8,59	8,55
M10	x	0,5	9,78	9,83	9,8
M10	x	0,75	9,65	9,71	9,65
M10	x	1,0	9,51	9,59	9,55
M10	x	1,25	9,39	9,48	9,4
M11	x	0,75	10,65	10,71	10,7
M11	x	1,0	10,51	10,59	10,5
M12	x	0,75	11,66	11,72	11,7

Thread nominal Ø			Ø D ₁		Core hole
D	x	P	min.	max.	
M12	x	1,0	11,52	11,6	11,5
M12	x	1,25	11,4	11,49	11,4
M12	x	1,5	11,26	11,36	11,3
M13	x	0,75	12,66	12,72	12,7
M13	x	1,0	12,52	12,6	12,5
M13	x	1,5	12,26	12,36	12,3
M14	x	0,75	13,66	13,72	13,7
M14	x	1,0	13,52	13,6	13,5
M14	x	1,25	13,4	13,49	13,4
M14	x	1,5	13,26	13,36	13,3
M15	x	0,75	14,66	14,72	14,7
M15	x	1,0	14,52	14,6	14,5
M15	x	1,5	14,26	14,36	14,3
M16	x	0,75	15,66	15,72	15,7
M16	x	1,0	15,52	15,6	15,5
M16	x	1,5	15,26	15,36	15,3
M18	x	1,0	17,52	17,6	17,5
M18	x	1,5	17,26	17,36	17,3
M18	x	2,0	17	17,15	17
M20	x	1,0	19,52	19,6	19,5
M20	x	1,5	19,26	19,36	19,3
M20	x	2,0	19	19,15	19
M22	x	1,5	21,26	21,36	21,3
M22	x	2,0	21	21,15	21
M24	x	1,5	23,26	23,38	23,3
M24	x	2,0	23,01	23,16	23
M25	x	1,5	24,26	24,38	24,3
M26	x	1,5	25,26	25,38	25,3
M27	x	2,0	26,01	26,16	26
M28	x	1,5	27,26	27,38	27,25
M30	x	1,5	29,26	29,38	29,25
M30	x	2,0	29,01	29,16	29

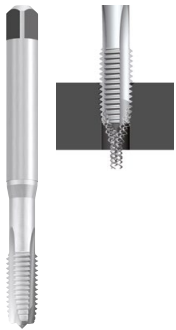


Dimensions in mm; P = Pitch

Tap Type Explanation

Stabil

Through hole tap type Stabil



- ▲ For through holes up to 4xD
- ▲ Lead Form B: 3.5–5 cutting leads, with spiral point
- ▲ Straight Flutes
- ▲ Also suitable for synchronised machining, with Wedon flat and with extra long version
- ▲ Due to the special geometry of the flutes, the chips are removed in the direction of cut

Salo-Rex

Blind hole tap type Salo-Rex



- ▲ For blind holes up to 3xD
- ▲ Lead Form C: 2–3 cutting leads, without spiral point
- ▲ Lead Form E: 1.5–2 cutting leads, without spiral point
- ▲ (35°, 42°, 45°, 50°) right hand helix
- ▲ Also suitable for synchronised machining, with Wedon flat, with extra long version and through coolant
- ▲ The high helix angle ensures chips are discharged effectively against the direction of cut

TWIN

Through and blind hole tap Type TWIN



- ▲ For blind and through holes up to 2xD
- ▲ Lead Form C: 2–3 cutting leads, without spiral point
- ▲ Lead Form D: 3.5–5 cutting leads, without spiral point
- ▲ Lead Form E: 1.5–2 cutting leads, without spiral point
- ▲ Straight Flutes
- ▲ For steel, short chipping and hardened materials to 55 (62) HRc
- ▲ Also with extra long version and through coolant

SL

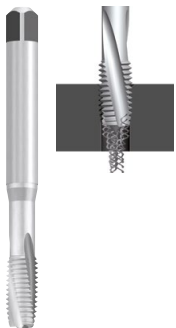
Blind hole tap type SL



- ▲ For blind holes up to 2xD
- ▲ Lead Form C: 2–3 cutting leads, without spiral point
- ▲ Lead Form E: 1.5–2 cutting leads, without spiral point
- ▲ (15°, 25°, 30°) slow right hand helix
- ▲ For steel, titanium alloys and Inconel 718
- ▲ Also suitable for synchronised machining, with extra long version and through coolant
- ▲ Also suitable for difficult operating conditions such as cross holes

DL

Through hole tap type DL



- ▲ For through holes up to 4xD
- ▲ Lead Form C: 3.5–5 cutting leads, without spiral point
- ▲ 15° left hand helix
- ▲ Suitable for steel, titanium alloys and Inconel 718
- ▲ The chips are discharged in the direction of cut

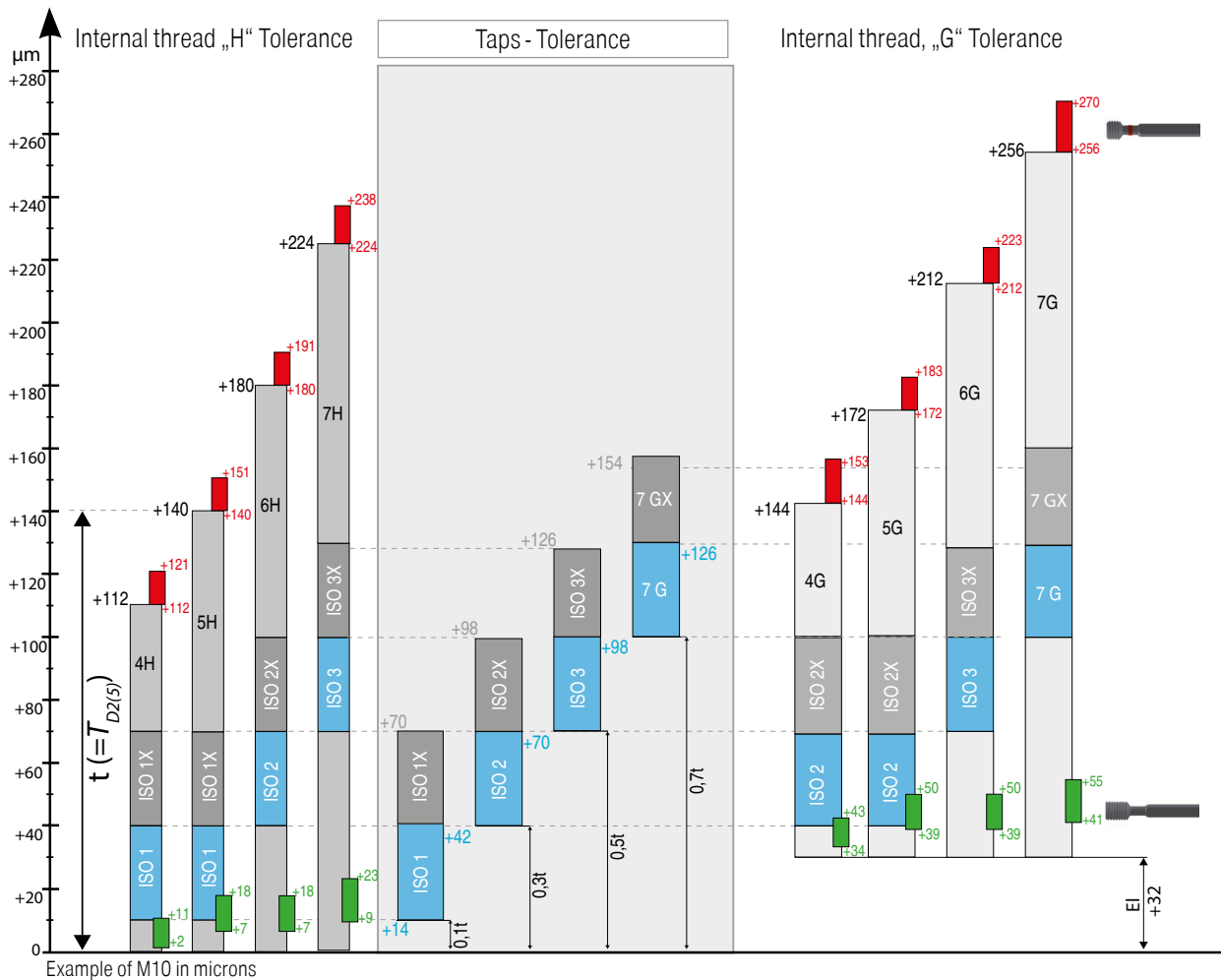
Spanlos

Thread former type Spanlos



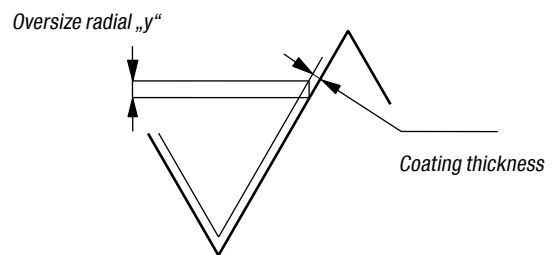
- ▲ For blind and through holes up to 3xD
- ▲ Lead Form C: 2–3 cutting leads, without spiral point
- ▲ For cold formable materials up to 1400 N/mm²
- ▲ Suitable for synchronised machining, with lubrication grooves and internal cooling

Thread tolerances and recommended manufacturing tolerances



Workpieces to be plated require oversize taps.
The interference depends on the coating thickness and the flank angle.

at	60° Flank angle	Oversize $\triangleq 4 \times$ coating thickness
	55° Flank angle	Oversize $\triangleq 4.331 \times$ coating thickness
	30° Flank angle	Oversize $\triangleq 7.727 \times$ coating thickness

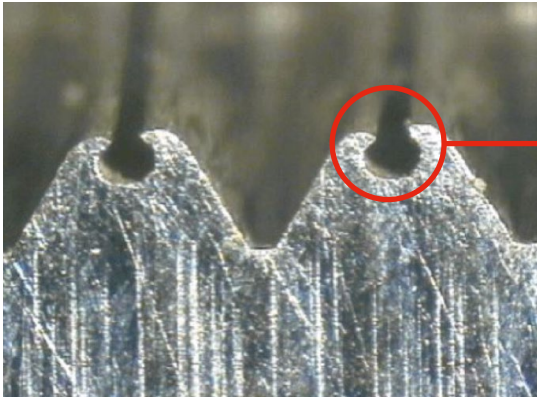


Application class of the tap Designation according to		Tolerance class of the internal thread to be cut					
DIN	ISO						
4H	ISO1	4H	5H	-	-	-	-
6H	ISO2	4G	5G	6H	-	-	-
6G	ISO3	-	(4E)	6G	7H	8H	-
7G	-	-	-	(6E)	7G	8G	-

i For special applications, e.g. abrasive cast iron materials or plastics other dimensions have to be chosen which are determined on previous experience. In such cases an „X“ is added to the short designation of the tolerance, e.g. ISO 2X, however the tolerance zone assignment may be limited (6HX for tolerance zone 6H and 5G). In addition it should be taken into account that the dimensions of the internal thread do not only depend on the dimensions of the tap but on the material to be machined and all production conditions. For first taps and intermediate taps no thread dimensions are determined.

Thread formers

Spanlos thread forming taps for cold-formable materials up to 1400 N/mm² or at least 5 % elongation. The thread is produced by plastic deformation. The molded thread has very high strength.



Prior to forming a thread, you should ensure that a molded thread is acceptable. In certain sectors, the forming of a thread is **not** permitted. Dirt or bacteria can settle in the formed crown.

» Important

Incremental pressure forming



Workpiece

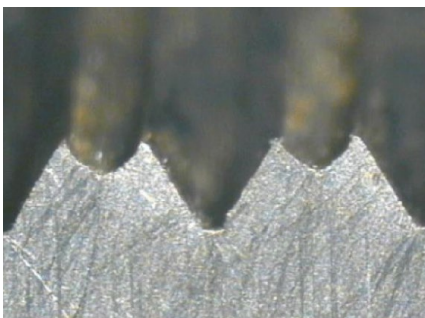
Thread formers



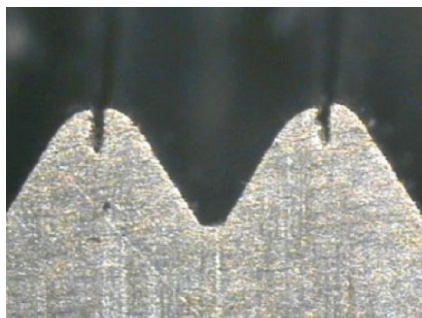
The thread profile is pressed gradually into the material via the start (leading edge) of the tap.

Properties

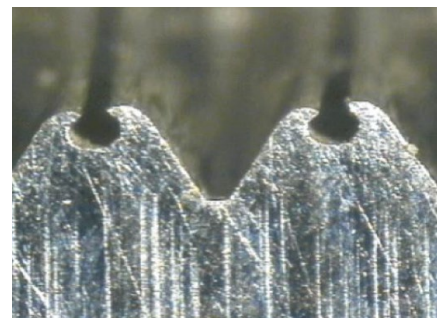
- ▲ One type can be used in different materials
- ▲ For through and blind holes
- ▲ Very good thread surface quality
- ▲ High static and dynamic strength thread
- ▲ Secure machining of deep and counterbored threads
- ▲ Short machining times
- ▲ No chip problems
- ▲ No swarf
- ▲ High process security
- ▲ HSS-E and HSS-PM taps for materials up to 33 HRC with a minimum elongation of 5 %



Underformed – core hole too large



Overformed – core hole too small



Perfect form – Core hole correct

Troubleshooting

Poor tool life

Cause

- ▲ Overload fractures of the cutting edge on the lead
- ▲ Hardness or tool material not suitable for the application
- ▲ Core hole too small, or work hardened
- ▲ Insufficient lubrication or incorrect application parameters

Remedy

- ▲ A longer lead or more flutes for the same lead length, giving a greater number of cutting teeth
- ▲ In reground tools the hardness can be reduced, apply correct parameters for regrinding
- ▲ Increase frequency of changes or regrinding of the drill
- ▲ Use the correct operating parameters for drilling
- ▲ Select the correct lubricant and ensure adequate supply

Axial thread error

Cause

- ▲ Selected geometry is not suitable
- ▲ Spindle speed is wrong compared with feed (synchronisation error)
- ▲ Blind hole taps are used with high feed pressure
- ▲ Through hole taps are used with low feed pressure

Remedy

- ▲ Check programming and pitch control or machine synchronisation
- ▲ Use tapping chuck with length compensation
- ▲ Increase retraction feed pressure
- ▲ Increase feed pressure

Oversize thread

Cause

- ▲ Thread tolerances of tool and thread gauge do not match
- ▲ Burred tool edges after regrinding
- ▲ Cold pressure welding

Remedy

- ▲ Check the correct tolerances for tool and thread gauge
- ▲ Carefully deburr
- ▲ Use appropriate (positive) geometry
- ▲ Reduce cutting speed
- ▲ Use different surface treatment or coating
- ▲ Use tapping chuck with length compensation
- ▲ Use appropriate lubricant

Broken tool

Cause

- ▲ Tool is worn
- ▲ Tool has hit the bottom of the hole
- ▲ Weld deposits
- ▲ Core hole too small
- ▲ Chip trapping
- ▲ Incorrect cutting speed
- ▲ Chip trapping in the flute
- ▲ Insufficient cooling / lubrication

Remedy

- ▲ Employ set taps
- ▲ Use a tool with lower helix
- ▲ Use tools with a shorter / longer lead
- ▲ Check the pre-drilling depth and the thread depth
- ▲ Drill core hole deeper
- ▲ Correct cutting speed
- ▲ Use a different coating or surface treatment
- ▲ Use tool holder with length compensation
- ▲ Use suitable lubricant
- ▲ Use correct core hole
- ▲ Change geometry and / or flute type
- ▲ Note chip shape and chip formation

Coatings

vap.

- ▲ Vaporised
- ▲ Vaporisation (vapour-deposition) prevents cold welds from forming on the tool and increases the surface hardness and thus the wear resistance

nitr.

- ▲ Nitrided
- ▲ Nitriding increases wear resistance and offers low friction properties

vap.
+
nitr.

- ▲ Vaporized + Nitrated
- ▲ Combination of increased surface hardness and lubricant carrier

TiN

- ▲ TiN coating
- ▲ Maximum application temperature: 450 °C

TiN
GS

- ▲ Titanium nitride low friction layer
- ▲ High wear resistance with low friction properties
- ▲ Maximum application temperature: 450 °C

TiCN

- ▲ TiCN multilayer coating
- ▲ Maximum application temperature: 450 °C

DLC

- ▲ Diamond-like carbon coating
- ▲ Specifically for machining non-ferrous metals
- ▲ Maximum application temperature: 400 °C

Ti200

- ▲ TiN coating
- ▲ Well suited for high cutting speeds during thread forming
- ▲ Maximum application temperature: 450 °C

OSM

- ▲ Hard material layer and anti-friction layer
- ▲ For use in high-strength steels

CH

- ▲ Amorphous carbon layer
- ▲ For use in non-ferrous metals or aluminum
- ▲ Reduces the material adhesion

HCr

- ▲ Hard chromed
- ▲ For use in non-ferrous metals or aluminum
- ▲ Very low surface roughness

CrN

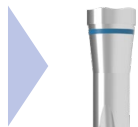
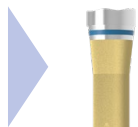
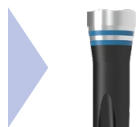
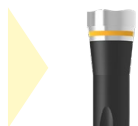
- ▲ Chromium-nitrogen coating
- ▲ Very wear-resistant coating
- ▲ Especially suitable for use in aluminum, but also for P, M and S materials

AlTiNHD

- ▲ AlTiN-based nanolayer hard material coating
- ▲ Maximum application temperature 500 °C

Coloured rings - overview

WNT \ Performance

for steel up to 750 N/mm²Type ST uncoated tap for steel
up to 750 N/mm² tensile strengthfor steel to 1100 N/mm²Type ST and VG coated tap for steel
up to 1100 N/mm² tensile strengthfor steel up to 1400 N/mm²Type HR for steel up to 1400 N/mm² tensile strength

for corrosion and acid-resistant steels

Type VA for stainless steel



For cast iron materials

Type GG for cast iron



for aluminium and non-ferrous metal

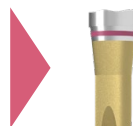
Type NW, Soft and Ms for aluminium,
short-chipping brass and soft materials

for heat resistant alloys

Type Ti, Ni and AMPCO for heat-resistant steel,
titanium and Inconel

for hardened steels

Type HT for hard machining

for universal application up to 1100 N/mm²

Type UNI for the all-purpose use

