

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

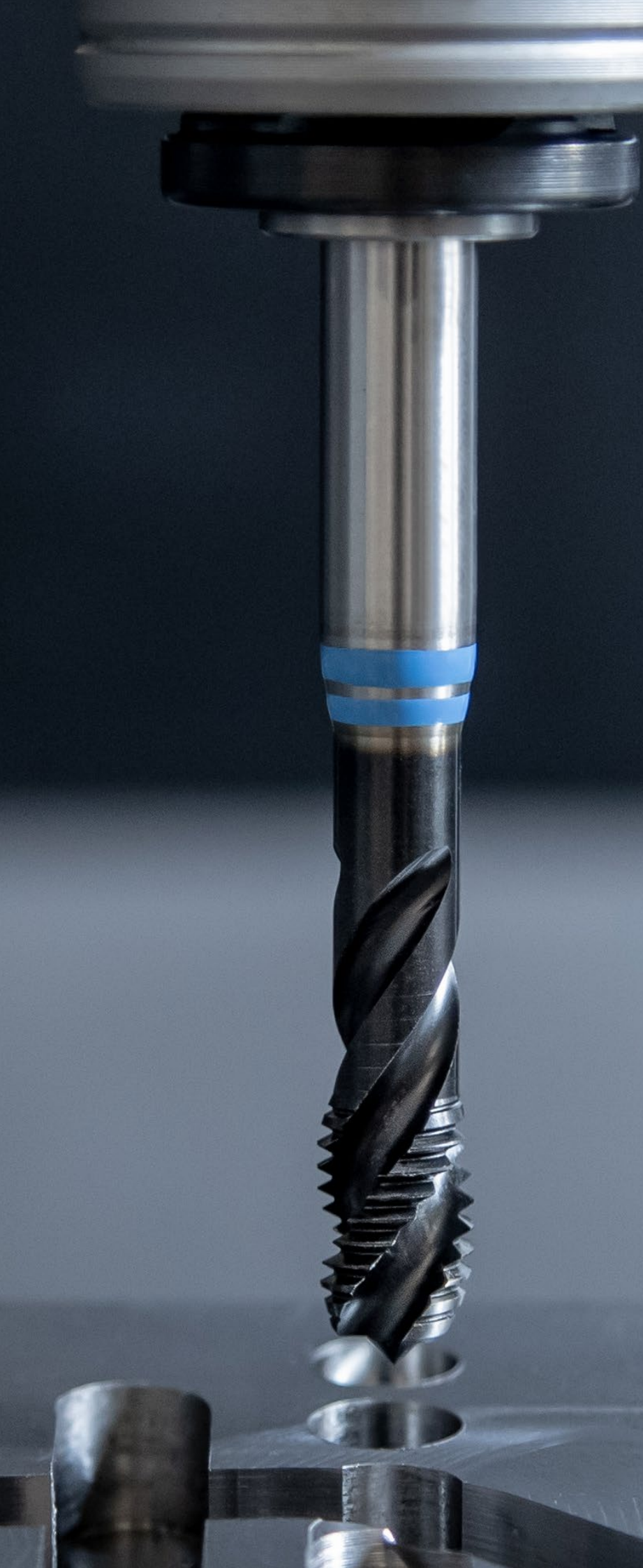
**1** HSS drilling**2** Solid carbide drilling**3** Indexable insert drilling**4** Reaming and Countersinking**5** Spindle Tooling**6** Taps and thread formers**7** Circular and Thread Milling**8** Thread turning**9** Turning Tools**10** Multifunctional Tools –
EcoCut and FreeTurn**11** Grooving Tools**12** Miniature turning tools**13** HSS Milling Cutters**14** Solid Carbide milling cutters**15** Milling tools with indexable
inserts**16** Adaptors and Accessories**17** Workpiece clamping**18** Material examples and
article no. Index

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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-Rex

for 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 3xD

A detailed explanation of the types of tools can be found on → **Page 112.**

Application range

WNT \ Performance

UNI

for universal application

ST

for good quality free machining steel

VGfor tempered and heat-resistant steels < 1100 N/mm²**HR**for high-tensile steels < 1400 N/mm²**GG**

for cast iron

VAfor stainless and acid-resistant steels up to 1100 N/mm²**NW**

for aluminium

Soft

for soft materials

Ms

for short chipping brass

Ti

for titanium and titanium alloys

Ni

special for Inconel 718

AMPCO

for Ampco alloys

HT

for hardened steel and chilled iron up to 55 HRc

EC

Spanlos – Thread former for universal application

NEO

Spanlos – Thread former for heat resistant alloys

ERGOHand Taps for stainless, heat-resistant and heat-treated steels up to 1100 N/mm²**ERGO F.T.**Hand tap for steel up to 1400 N/mm², wolfram, chilled iron**FE**

Dies for steel

WNT \ Standard

UNIfor universal application up to 1000 N/mm²**FE**for steel to 850 N/mm²**FE-HF**for high-tensile steel to 1100 N/mm²**VA**

for corrosion and acid-resistant steels

GG

for cast iron

AL

for aluminium and aluminium alloys

Special Features

CNC

for 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

EL

extra long, with double overall length

AUT

short version for automatic use

SN

Thread 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

NPTF

American 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

UNJC

Unified 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 B1.20.1



The 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	
						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
			Soft	ISO 2 6H	HSS-E	☒		
Heat resistant		Stabil	Ti	ISO 1X 4HX ISO 2X 6HX	HSS-PM	☒		27
			Ti	ISO 2X 6HX	HSS-E	☒		28
			Ni	ISO 2X 6HX	HSS-E	☒		28
Universal		Salo-Rex	UNI	ISO 2 6H 7G	HSS-E	☒		34+35
			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
			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
								☐ ☐			

M – Metric ISO Standard Thread

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
												

MF – Metric ISO Fine Thread

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

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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
								☒ ☐			

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	☐				

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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
								☒	☐			

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	☐					



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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
								☒	☐			

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

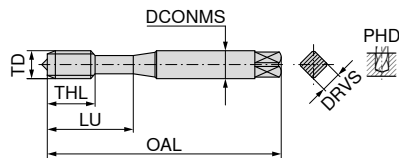
Steel			ST	7H			HSS-E	☐			108
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Accessories

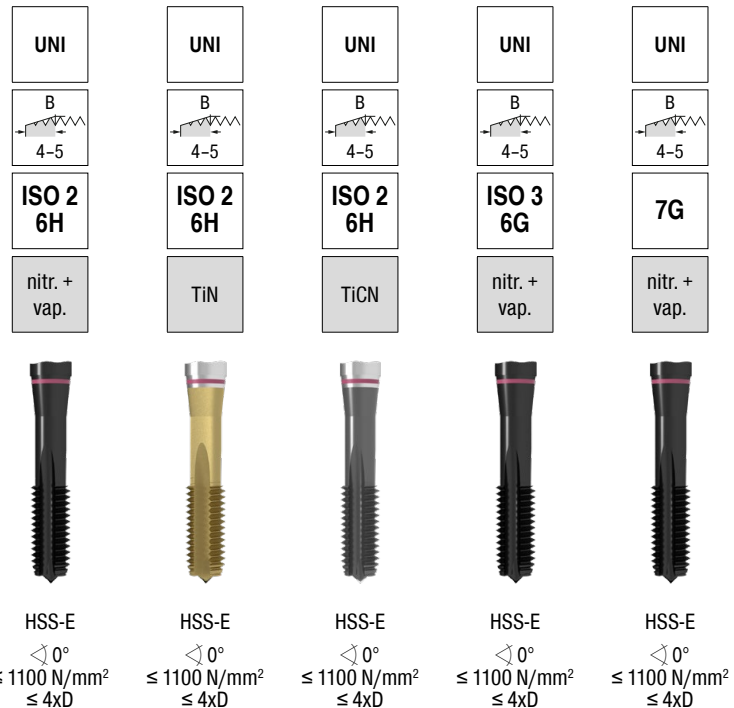
Shank extensions for taps											
Tapping Oil, Chlorine Free											

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

Through hole – Machine taps, right hand



DIN 371 with reinforced shank



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 ...
M1	0,25	40	2,5	2,1	0,75	5	13	2	010				
M1,2	0,25	40	2,5	2,1	0,95	5	13	2	012				
M1,4	0,30	40	2,5	2,1	1,10	7	13	3	014				
M1,6	0,35	40	2,5	2,1	1,25	8	11	3	016				
M1,7	0,35	40	2,5	2,1	1,35	6	11	2	017				
M1,8	0,35	40	2,5	2,1	1,45	6	11	2	018				
M2	0,40	45	2,8	2,1	1,60	7	12	2		020		020	020
M2	0,40	45	2,8	2,1	1,60	7	12	3	020				
M2,2	0,45	45	2,8	2,1	1,75	7	12	2	022				
M2,5	0,45	50	2,8	2,1	2,05	9	14	2	025			025	025
M3	0,50	56	3,5	2,7	2,50	11	18	3	030	030	030	030	030
M3,5	0,60	56	4,0	3,0	2,90	12	20	3	035			035	
M4	0,70	63	4,5	3,4	3,30	13	21	3	040	040	040	040	040
M5	0,80	70	6,0	4,9	4,20	15	25	3	050	050	050	050	050
M6	1,00	80	6,0	4,9	5,00	17	30	3	060	060	060	060	060
M7	1,00	80	7,0	5,5	6,00	17	30	3	070				
M8	1,25	90	8,0	6,2	6,80	20	35	3	080	080	080	080	080
M10	1,50	100	10,0	8,0	8,50	22	39	3	100	100	100	100	100
M12	1,75	110	12,0	9,0	10,20	24	44	3	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

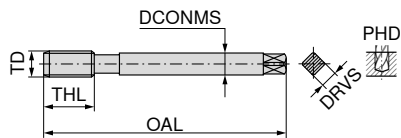


DIN 376 can be found on the next page

Through hole – Machine taps, right hand

M

Stabil



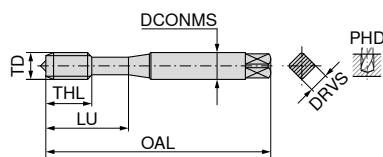
DIN 376 with reduced shank

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 ...
030			
040			
050			
060			
080			
100			
120	120	120	120
140	140		
160	160	160	160
180	180		
200	200	200	
220	220		
240	240		
270			
300			
330			
360			
420			
480			
P	12	15	12
M	7	9	7
K	12	18	12
N		12	
S			
H			
O			

Through hole – Machine taps, right hand

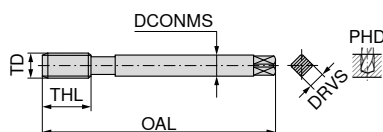
▲ CNC = for synchronised CNC machining with minimum length compensation chuck

▲ 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

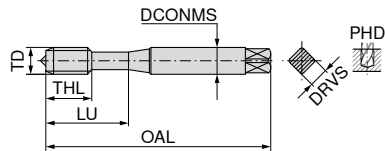
P	15	15	15	15
M	8	9	9	9
K	15	18	18	18
N	22	12	12	12
S				
H				
O				

UNI NCW	UNI CNC	UNI CNC	UNI CNC
B 4-5	B 4-5	B 4-5	B 4-5
ISO 2 6H	ISO 2X 6HX	ISO 3X 6GX	7GX
TiN	TiN GS	TiN GS	TiN GS
HSS-PM $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$	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 $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$
22 148 ...	22 542 ...	22 596 ...	22 592 ...
030	030		
040	040		
050	050	040	040
060	060	060	060
080	080	080	080
100	100	100	100
120			
160			

22 543 ...	22 597 ...	22 593 ...
120	120	120
140		
160		
200		

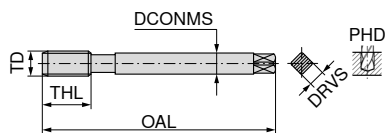
Through hole – Machine taps

▲ LH = for left hand threads



DIN 371 with reinforced shank

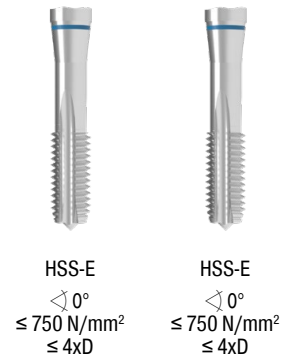
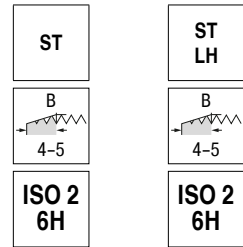
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M2	0,40	45	2,8	2,1	1,60	7	12	2
M2,3	0,40	45	2,8	2,1	1,90	7	12	2
M2,5	0,45	50	2,8	2,1	2,05	9	14	2
M2,6	0,45	50	2,8	2,1	2,15	9	14	2
M3	0,50	56	3,5	2,7	2,50	11	18	3
M3,5	0,60	56	4,0	3,0	2,90	12	20	3
M4	0,70	63	4,5	3,4	3,30	13	21	3
M5	0,80	70	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 ...

020	
023	
025	
026	
030	
035	030
040	040
050	050
060	060
080	080
100	100

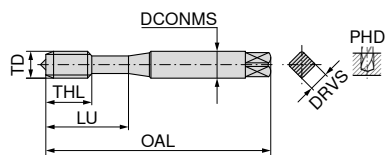
22 021 ...

22 147 ...

050	
060	
080	
100	
120	120
140	
160	160
180	
200	200
220	
240	
270	
300	

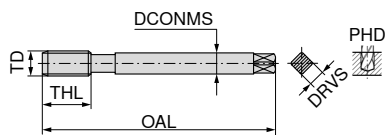
Through hole – Machine taps, right hand

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



DIN 371 with reinforced shank

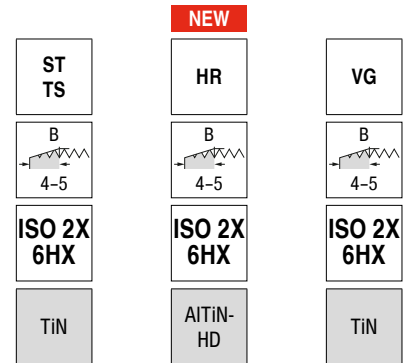
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M2	0,40	45	2,8	2,1	1,60	7	12	2
M2	0,40	45	2,8	2,1	1,60	4	12	2
M2,5	0,45	50	2,8	2,1	2,05	9	14	2
M2,5	0,45	50	2,8	2,1	2,05	5	15	2
M3	0,50	56	3,5	2,7	2,50	11	18	2
M3	0,50	56	3,5	2,7	2,50	6	18	3
M4	0,70	63	4,5	3,4	3,30	13	21	2
M4	0,70	63	4,5	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			

HSS-E
≤ 1100 N/mm²
≤ 4xD

22 092 ...

HSS-PM
≤ 1400 N/mm²
≤ 4xD

22 468 ...

HSS-E
≤ 1100 N/mm²
≤ 4xD

22 120 ...

020

02000

020

025

02500

025

030

03000

030

040

04000

040

050

05000

050

060

06000

060

080

08000

080

100

10000

100

22 093 ...

22 121 ...

120

120

160

160

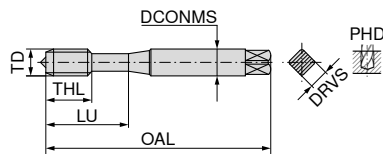
200

200

Through hole – Machine taps, right hand

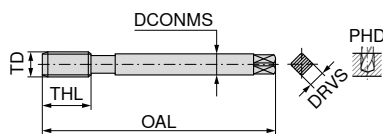
M

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	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 mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
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				

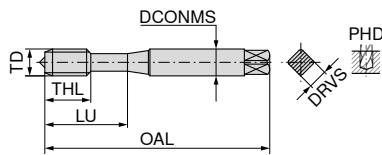
VA	VA	NEW NW	
B 4-5	B 4-5	B 4-5	B 4-5
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
nit.	TiN GS	vap.	DLC
HSS-E $\angle 0^\circ$ $\leq 900 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 900 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 500 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 880 \text{ N/mm}^2$ $\leq 4xD$
22 056 ...	22 038 ...	22 058 ...	22 464 ...
020	016	020	02000
025	025	023	02500
030	030	026	03000
035		030	
040	040	035	
050	050	040	04000
060	060	050	05000
		060	06000
			08000
080	080	080	10000
100	100	100	

22 057 ...	22 039 ...	22 059 ...	22 465 ...
120	120	120	12000
140	140		
160	160	160	16000
180			
200	200		20000
220			
240			
270			
300			

Through hole – Machine taps, right hand

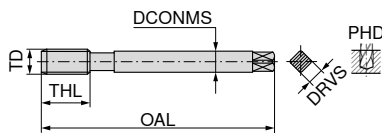
M

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			

Ti	Ti	Ti
B 4-5	B 4-5	B 4-5
ISO 1X 4HX	ISO 2X 6HX	ISO 2X 6HX
TiN	vap.	TiN



HSS-PM

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

22 081 ...

020

030

040

050

060

080



HSS-PM

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

22 075 ...

016

020

025

030

035

040

050

060

080

100



HSS-PM

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

22 077 ...

030

040

050

060

080

100

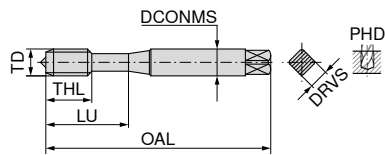
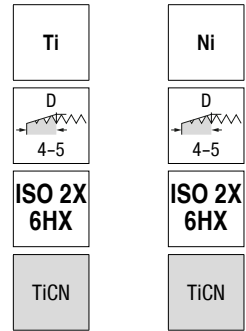
22 140 ...

120

22 142 ...

120

Through hole – Machine taps, right hand

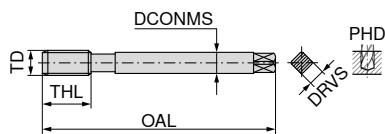


DIN 371 with reinforced shank

HSS-E
≤ 1200 N/mm²
≤ 4xD
HSS-E
≤ 1600 N/mm²
≤ 4xD

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

22 159 ...	22 297 ...
030	030
040	040
050	050
060	060
080	080
100	100



DIN 376 with reduced shank

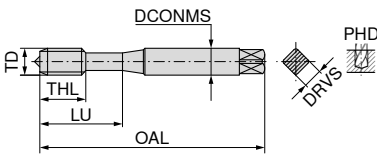
TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M12	1,75	110	9	7,0	10,2	24	3
M16	2,00	110	12	9,0	14,0	27	3
M20	2,50	140	16	12,0	17,5	32	3
M24	3,00	160	18	14,5	21,0	34	3

22 160 ...	22 298 ...
120	120
160	160
200	200
240	

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

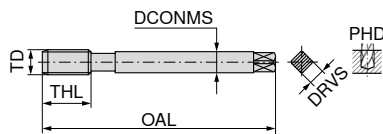
Through hole – Machine taps, right hand

▲ EL = extra long, with double overall length



DIN 371 with reinforced shank

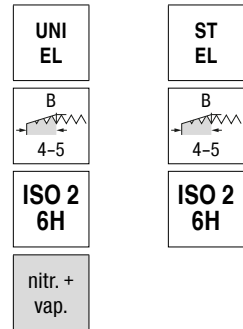
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0,50	100	3,5	2,7	2,5	11	18	3
M4	0,70	125	4,5	3,4	3,3	13	21	3
M5	0,80	140	6,0	4,9	4,2	15	25	3
M6	1,00	160	6,0	4,9	5,0	17	30	3
M8	1,25	180	8,0	6,2	6,8	20	35	3



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		



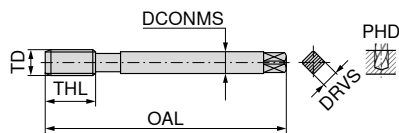
22 514 ...	22 233 ...
030	030
040	040
050	050
060	060
080	080

22 515 ...	22 234 ...
060	060
080	080
100	100
120	120
140	140
160	160
180	180
200	200

Through hole – Machine taps, right hand

▲ MMB = Nut taps

M

ST
MMBISO 2
6H

DIN 357 with reduced shank



HSS-E

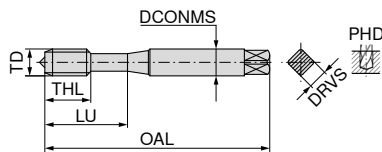
 $\angle 0^\circ$
 $\leq 850 \text{ N/mm}^2$
 $\leq 1xD$

22 098 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	
M3	0,50	70	2,2		2,5	16	3	030
M4	0,70	90	2,8	2,1	3,3	22	3	040
M5	0,80	100	3,5	2,7	4,2	24	3	050
M6	1,00	110	4,5	3,4	5,0	30	3	060
M8	1,25	125	6,0	4,9	6,8	38	3	080
M10	1,50	140	7,0	5,5	8,5	45	3	100
M12	1,75	180	9,0	7,0	10,2	50	3	120
M16	2,00	200	12,0	9,0	14,0	63	3	160
P								15
M								
K								
N								
S								
H								
O								

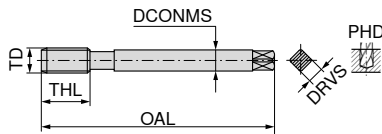
Through hole – Machine taps, right hand

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

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

23 110 ...

020

025

030

040

050

060

080

100



HSS-E

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

23 112 ...

020

025

030

040

050

060

080

100



HSS-PM

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

23 010 ...

020

030

040

050

060

080

100

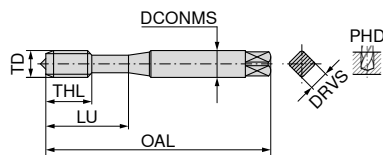
23 111 ...	23 113 ...	23 021 ...
030		
040		
050		
060		
080		
100		
120	120	120
140	14000	
160	160	160
200	200	200
	22000	
	240	
	27000	
	30000	
	33000	
	36000	

Through hole – Machine taps, right hand

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

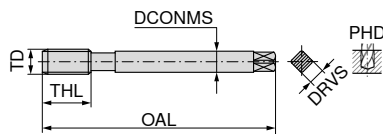
▲ NC = for synchronised CNC machining with minimum length compensation chuck

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



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

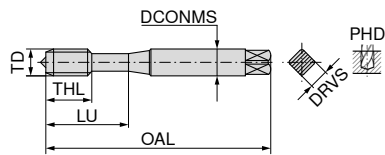
P	15	15	12	15
M	9	8		
K	18	15	12	15
N	12	22	12	15
S				
H				
O				

UNI NC	UNI NCW	FE	FE-HF
B 4-5	B 4-5	B 4-5	B 4-5
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
TiN GS	TiCN		TiCN
HSS-E $\angle 0^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 3xD$	HSS-PM $\angle 0^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 0^\circ$ $\leq 850 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$
23 114 ...	23 116 ...	23 212 ...	23 310 ...
		016	
		020	
		025	
030	030	030	030
	040	035	
040		040	040
050		050	050
060	060	060	060
080	080	080	080
100	100	100	100

23 115 ...	23 117 ...	23 213 ...	23 311 ...
	120		
120		120	120
	160	140	
160		160	160
200		200	200
15	15	12	15
9	8		
18	15	12	15
12	22	12	15

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

 $\angle 0^\circ$
 $\leq 1200 \text{ N/mm}^2$
 $\leq 3xD$


HSS-E

 $\angle 0^\circ$
 $\leq 1200 \text{ N/mm}^2$
 $\leq 3xD$


HSS-E

 $\angle 0^\circ$
 $\leq 1200 \text{ N/mm}^2$
 $\leq 3xD$

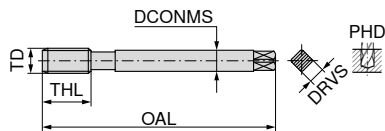

HSS-E

 $\angle 0^\circ$
 $\leq 500 \text{ N/mm}^2$
 $\leq 3xD$


HSS-E

 $\angle 0^\circ$
 $\leq 500 \text{ N/mm}^2$
 $\leq 3xD$

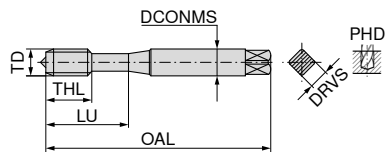
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes	23 450 ...	23 410 ...	23 412 ...	23 610 ...	23 612 ...
M2	0,40	45	2,8	2,1	1,60	7	12	2			020		
M2,5	0,45	50	2,8	2,1	2,05	9	14	2			025		
M3	0,50	56	3,5	2,7	2,50	11	18	3	030	030	030	030	030
M4	0,70	63	4,5	3,4	3,30	13	21	3	040	040	040	040	040
M5	0,80	70	6,0	4,9	4,20	15	25	3	050	050	050	050	050
M6	1,00	80	6,0	4,9	5,00	17	30	3	060	060	060	060	060
M8	1,25	90	8,0	6,2	6,80	20	35	3	080	080	080	080	080
M10	1,50	100	10,0	8,0	8,50	22	39	3	100	100	100	100	100



DIN 376 with reduced shank

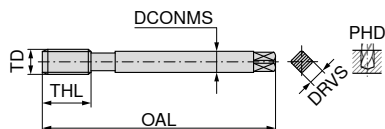
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	23 451 ...	23 411 ...	23 413 ...	23 611 ...	23 613 ...
M12	1,75	110	9	7,0	10,2	24	3	120	120	120	120	120
M14	2,00	110	11	9,0	12,0	26	3	140	160	160		
M16	2,00	110	12	9,0	14,0	27	3	160	200	200		
M20	2,50	140	16	12,0	17,5	32	3	200	240			
M24	3,00	160	18	14,5	21,0	34	3					
P								8	8	10		
M								6	6	8		
K												
N								22	22	24	15	15
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	
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



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
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

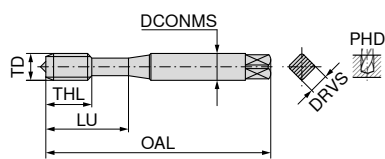
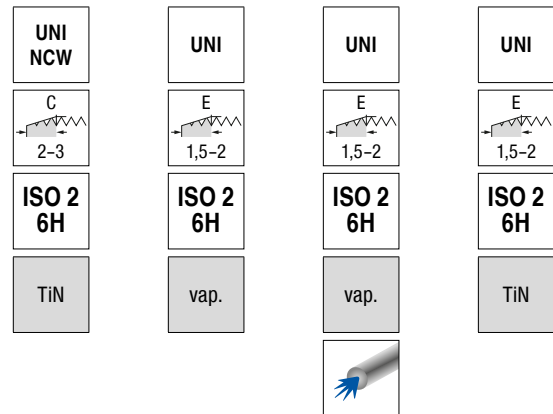
P	12	12	15	15
M	7	7	9	9
K	12	12	18	18
N			12	12
S				
H				
O				

UNI	UNI	UNI	UNI
C 2-3	C 2-3	C 2-3	C 2-3
ISO 2 6H	7G	ISO 2 6H	ISO 2 6H
vap.	vap.	TiN	TiCN
HSS-E $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	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 $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$
22 518 ...	22 532 ...	22 520 ...	22 522 ...
020		020	
022			
023			
025			
026			
030			
035			
040			
050			
060			
070			
080			
100			
120			
	030	030	030
	040	040	040
	050	050	050
	060	060	060
	080	080	080
	100	100	100
	120	120	120

22 519 ...	22 533 ...	22 521 ...	22 523 ...
030			
040			
050			
060			
080			
100			
120			
140			
160			
180			
200			
220			
240			
270			
300			
330			
360			
	120	120	120
	160	160	160
	200	200	200
		220	
		240	

Blind hole – Machine taps, right hand

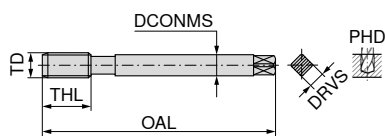
▲ NCW = with Weldon flat for synchronised CNC machining without length compensation chuck



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 ...
030	030		030
040	040		040
050	050	050	050
060	060	060	060
080	080	080	080
100	100	100	100

TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
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	63	4,5	3,4	3,3	7	21	3
M4	0,70	70	6,0	4,9	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

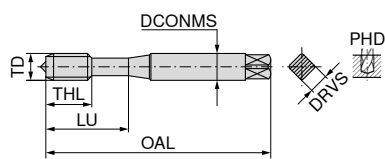
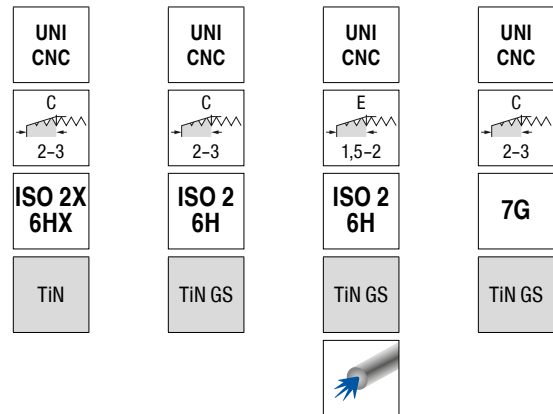
22 149 ...	22 525 ...	22 535 ...	22 527 ...
120	120	120	120
160	140	140	160
	160	160	160
	180		
	200	200	200
	220		
	240		

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	4
M14	2,00	110	11	9,0	12,0	20	4
M16	2,00	110	12	9,0	14,0	22	3
M16	2,00	110	12	9,0	14,0	22	4
M18	2,50	125	14	11,0	15,5	25	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

P	15	12	12	15
M	8	7	7	9
K	15	12	12	18
N	22			12
S				
H				
O				

Blind hole – Machine taps, right hand

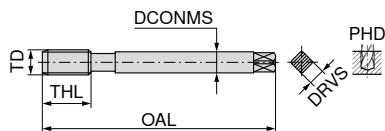
▲ CNC = for synchronised CNC machining with minimum length compensation chuck



DIN 371 with reinforced shank

	HSS-E	HSS-E	HSS-E	HSS-E
	$\angle 50^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	$\angle 45^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	$\angle 45^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	$\angle 45^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$
22 416 ...		22 544 ...	22 546 ...	22 594 ...
	030	030		030
	040	040		040
	050	050	050	050
	060	060	060	060
	080	080	080	080
	100	100	100	100

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



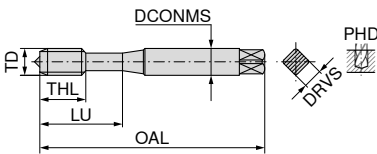
DIN 376 with reduced shank

	22 417 ...	22 545 ...	22 595 ...
	120	120	120
	140	140	140
	160	160	160
	200	200	200
P	15	15	15
M	9	9	9
K	18	18	18
N	22	12	12
S			
H			
O			

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

Blind hole – Machine taps, right hand

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



DIN 371 with reinforced shank

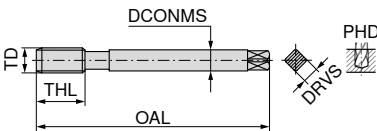


HSS-E
≤ 42°
≤ 1100 N/mm²
≤ 3xD

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

050
060
080
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

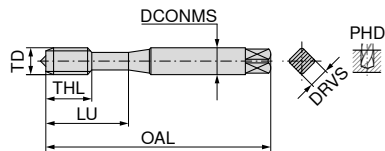
120
160
200

P	12
M	
K	12
N	22
S	
H	
O	

Blind hole – Machine taps, right hand

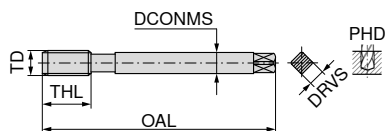
▲ CNC = for synchronised CNC machining with minimum length compensation chuck

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



DIN 371 with reinforced shank

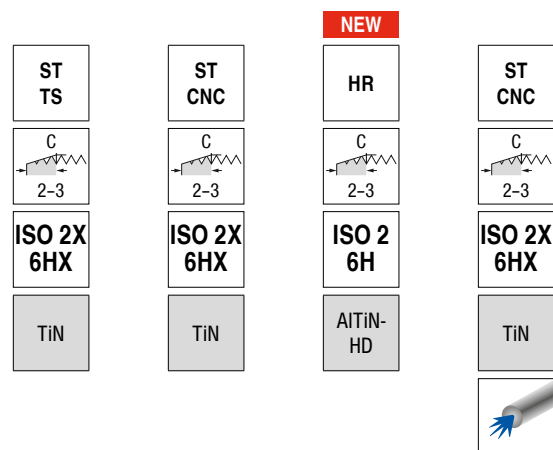
TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M3	0,50	56	3,5	2,7	2,5	6	18	2
M3	0,50	56	3,5	2,7	2,5	11	18	3
M4	0,70	63	4,5	3,4	3,3	13	21	3
M4	0,70	63	4,5	3,4	3,3	7	21	3
M5	0,80	70	6,0	4,9	4,2	15	25	3
M5	0,80	70	6,0	4,9	4,2	8	25	3
M6	1,00	80	6,0	4,9	5,0	17	30	3
M6	1,00	80	6,0	4,9	5,0	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	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
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

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

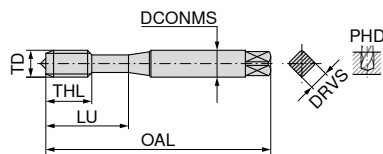


HSS-E ≤ 1050 N/mm² ≤ 2xD 22 406 ...	HSS-E ≤ 1100 N/mm² ≤ 2xD 22 328 ...	HSS-PM ≤ 1400 N/mm² ≤ 2xD 22 469 ...	HSS-E ≤ 1100 N/mm² ≤ 2xD 22 443 ...
030	030	03000 04000	
040	040	05000	050
050	050	06000	060
060	060	08000	080
080	080	10000	100
100	100	12000	

22 407 ...	22 329 ...	22 444 ...
120	120	120
160	160	160
200	200	

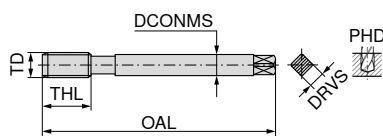
Blind hole – Machine taps

▲ LH = for left hand threads



DIN 371 with reinforced shank

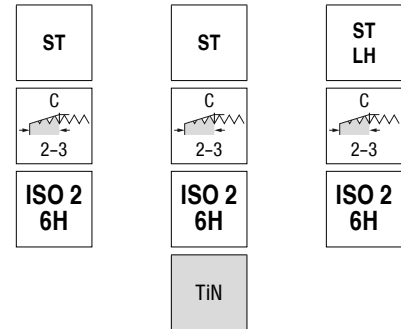
TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M2	0,40	45	2,8	2,1	1,60	4,0	12	2
M2,3	0,40	45	2,8	2,1	1,90	4,5	12	2
M2,5	0,45	50	2,8	2,1	2,05	5,0	15	2
M3	0,50	56	3,5	2,7	2,50	6,0	18	3
M3,5	0,60	56	4,0	3,0	2,90	7,0	20	3
M4	0,70	63	4,5	3,4	3,30	7,0	21	3
M5	0,80	70	6,0	4,9	4,20	8,0	25	3
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			

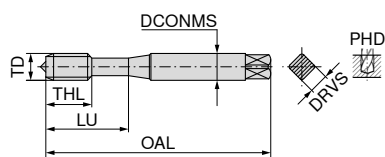


HSS-E ≤ 42° ≤ 750 N/mm² ≤ 3xD	HSS-E ≤ 42° ≤ 750 N/mm² ≤ 3xD	HSS-E ≤ 42° ≤ 750 N/mm² ≤ 3xD
22 082 ...	22 084 ...	22 138 ...
020	020	
023		
025		
030	030	030
035		
040	040	040
050	050	050
060	060	060
080	080	080
100	100	100

22 083 ...	22 085 ...	22 139 ...
030		
040		
050		
060		
080		
120	100	120
140	120	
160	160	160
180		
200	200	200
220		
240		
300		
330		
360		

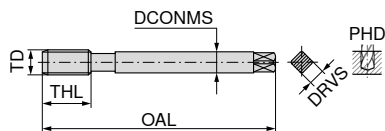
Blind hole – Machine taps, right hand

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



DIN 371 with reinforced shank

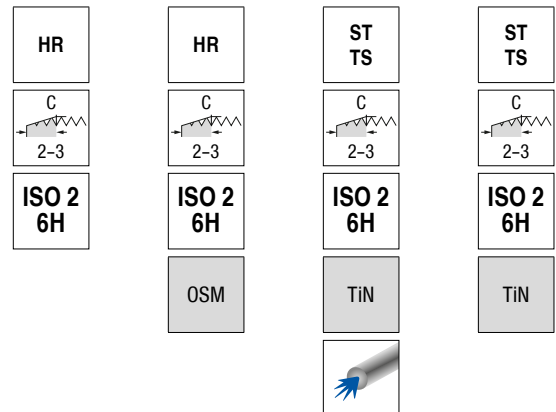
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0,50	56	3,5	2,7	2,5	6	18	3
M4	0,70	63	4,5	3,4	3,3	7	21	3
M5	0,80	70	6,0	4,9	4,2	8	25	3
M6	1,00	80	6,0	4,9	5,0	10	30	3
M8	1,25	90	8,0	6,2	6,8	14	35	3
M10	1,50	100	10,0	8,0	8,5	16	39	3



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
 $\angle 42^\circ$
 $\leq 1400 \text{ N/mm}^2$
 $\leq 3xD$

22 498 ...

HSS-PM
 $\angle 42^\circ$
 $\leq 1400 \text{ N/mm}^2$
 $\leq 3xD$

22 499 ...

HSS-E
 $\angle 40^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 2xD$

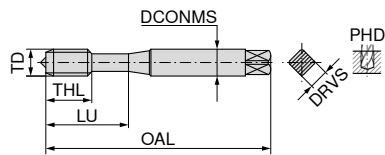
22 046 ...

HSS-E
 $\angle 40^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 2xD$

22 044 ...

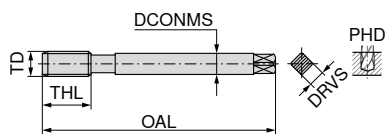
22 045 ...

Blind hole – Machine taps, right hand



DIN 371 with reinforced shank

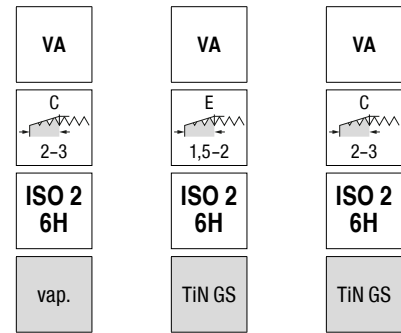
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M1,6	0,35	40	2,5	2,1	1,25	4	11	2
M2	0,40	45	2,8	2,1	1,60	4	12	2
M2,5	0,45	50	2,8	2,1	2,05	5	15	2
M2,5	0,45	50	2,8	2,1	2,05	5	15	3
M3	0,50	56	3,5	2,7	2,50	6	18	3
M4	0,70	63	4,5	3,4	3,30	7	21	3
M5	0,80	70	6,0	4,9	4,20	8	25	3
M6	1,00	80	6,0	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 ...

020
025
030
040
050
060
080
100

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

22 042 ...

050
060
080
100

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

22 040 ...

016
020
025
030
040
050
060
080
100

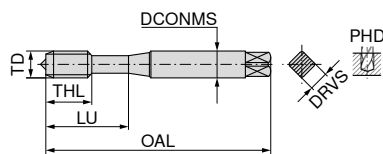
22 091 ...

120
140
160
200
220
240
300

22 041 ...

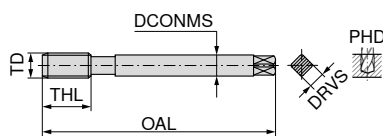
120
140
160
200

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



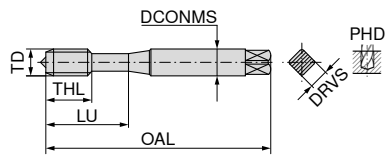
DIN 376 with reduced shank

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

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

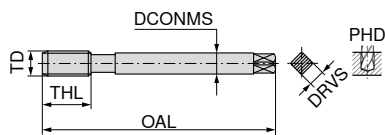
Soft	Soft	NEW	
C 2-3	C 2-3	C 2-3	C 2-3
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
	CH	vap.	DLC
HSS-E $\angle 42^\circ$ $\leq 500 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 42^\circ$ $\leq 500 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 38^\circ$ $\leq 500 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 38^\circ$ $\leq 880 \text{ N/mm}^2$ $\leq 3xD$
22 326 ...	22 324 ...	22 086 ...	22 460 ...
020	020	020	02000
025	025	025	02500
030	030		03000
040	040	040	04000
050	050	050	05000
060	060	060	06000
080	080	080	08000
100	100	100	10000

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

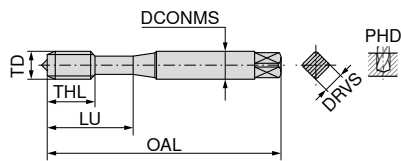
TD	TP	OAL	DCONMS	DRVS	PHD	THL	Flutes
mm	mm	mm	mm	mm	mm	mm	
M12	1,75	110	9	7,0	10,2	24	3
M12	1,75	110	9	7,0	10,2	24	4
M14	2,00	110	11	9,0	12,0	26	3
M14	2,00	110	11	9,0	12,0	26	4
M16	2,00	110	12	9,0	14,0	27	3
M16	2,00	110	12	9,0	14,0	27	5
M20	2,50	140	16	12,0	17,5	32	3
M24	3,00	160	18	14,5	21,0	34	3

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 ≤ 30° ≤ 1400 N/mm² ≤ 1,5xD	HSS-PM ≤ 15° ≤ 1200 N/mm² ≤ 2xD	HSS-PM ≤ 15° ≤ 1600 N/mm² ≤ 1,5xD	HSS-PM ≤ 15° ≤ 1600 N/mm² ≤ 2xD
22 076 ...	22 163 ...	22 073 ...	22 424 ...
	030	030	030
030	035		
040	040	040	040
050	050	050	050
060	060	060	060
080	080	080	080
100	100	100	100
120			

Blind hole – Machine taps, right hand

▲ ES = extra short



DIN 352 with reinforced shank



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

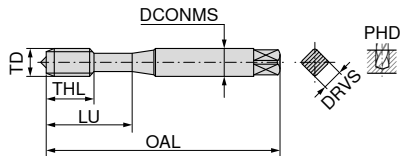
22 500 ...

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

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

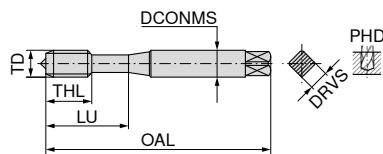
 $\angle 15^\circ$
 $\leq 750 \text{ N/mm}^2$
 $\leq 2xD$

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	030
M4	0,70	45	4,5	3,4	3,3	12	22	3	040
M5	0,80	50	6,0	4,9	4,2	14	25	3	050
M6	1,00	56	6,0	4,9	5,0	16	28	3	060
M8	1,25	63	6,0	4,9	6,8	20		3	080
M10	1,50	70	7,0	5,5	8,5	22		3	100
M12	1,75	75	9,0	7,0	10,2	24		3	120
P									12
M									
K									12
N									12
S									
H									
O									

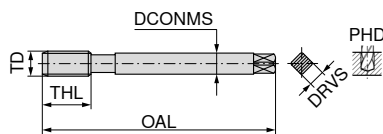
Blind hole – Machine taps, right hand

▲ EL = extra long, with double overall length



DIN 371 with reinforced shank

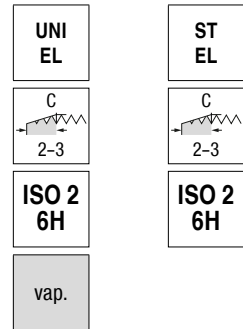
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0,50	100	3,5	2,7	2,5	6	18	3
M4	0,70	125	4,5	3,4	3,3	7	21	3
M5	0,80	140	6,0	4,9	4,2	8	25	3
M6	1,00	160	6,0	4,9	5,0	10	30	3
M8	1,25	180	8,0	6,2	6,8	14	35	3



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		

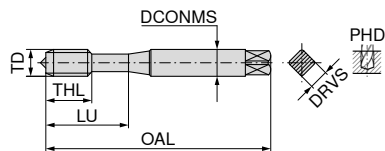


22 538 ...	22 422 ...
030	030
040	040
050	050
060	060
080	080

22 539 ...	22 423 ...
060	060
080	080
100	100
120	120
140	140
160	160
180	180
200	200

Blind hole – Machine taps, right hand

▲ EL = extra long, with double overall length

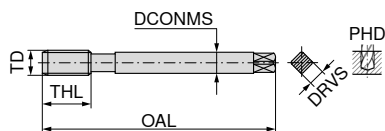


DIN 371 with reinforced shank

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

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

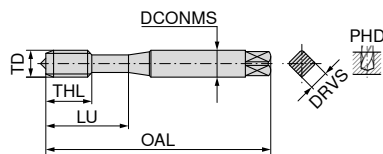
060
080
100
120
140
160
200

P	12
M	
K	12
N	12
S	
H	
O	

Blind hole – Machine taps, right hand

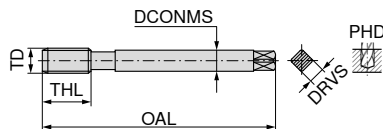
▲ NC = for synchronised CNC machining with minimum length compensation chuck

M



DIN 371 with reinforced shank

UNI	UNI	UNI	UNI	UNI NC
				
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
vap.	TiN	TiN	TiCN	TiN GS
				
HSS-E ◁ 35° ≤ 1000 N/mm² ≤ 2,5xD	HSS-E ◁ 35° ≤ 1000 N/mm² ≤ 2,5xD	HSS-PM ◁ 50° ≤ 1000 N/mm² ≤ 2,5xD	HSS-E ◁ 45° ≤ 1000 N/mm² ≤ 3xD	HSS-E ◁ 45° ≤ 1000 N/mm² ≤ 3xD
23 118 ...	23 120 ...	23 026 ...	23 122 ...	23 124 ...
020 025 030 040 050 060 080 100	020 025 030 040 050 060 080 100	030 040 050 060 080 100	030 040 050 060 080 100	030 040 050 060 080 100



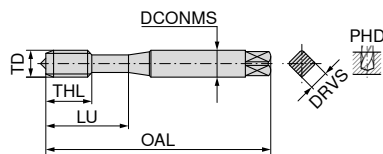
DIN 376 with reduced shank

								23 119 ...	23 121 ...	23 027 ...	23 123 ...	23 125 ...
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	030				
M4	0,70	63	2,8	2,1	3,3	7	3	040				
M5	0,80	70	3,5	2,7	4,2	8	3	050				
M6	1,00	80	4,5	3,4	5,0	10	3	060				
M8	1,25	90	6,0	4,9	6,8	14	3	080				
M10	1,50	100	7,0	5,5	8,5	16	3	100				
M12	1,75	110	9,0	7,0	10,2	18	3	120	120			
M12	1,75	110	9,0	7,0	10,2	18	4			120	120	120
M14	2,00	110	11,0	9,0	12,0	20	3		14000			
M14	2,00	110	11,0	9,0	12,0	20	4			140		
M16	2,00	110	12,0	9,0	14,0	22	3	160	160			
M16	2,00	110	12,0	9,0	14,0	22	4			160	160	160
M18	2,50	125	14,0	11,0	15,5	25	3		18000			
M20	2,50	140	16,0	12,0	17,5	25	3	200	200	200		
M20	2,50	140	16,0	12,0	17,5	25	4				200	200
M22	2,50	140	18,0	14,5	19,5	27	4		22000			
M24	3,00	160	18,0	14,5	21,0	34	4		240			
M27	3,00	160	20,0	16,0	24,0	30	4		27000			
M30	3,50	180	22,0	18,0	26,5	35	4		30000			
M33	3,50	180	25,0	20,0	29,5	35	4		33000			
M36	4,00	200	28,0	22,0	32,0	40	4		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

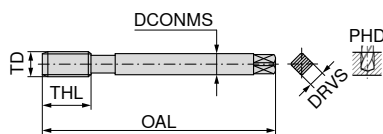
▲ NCW = with Weldon flat for synchronised CNC machining without length compensation chuck

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

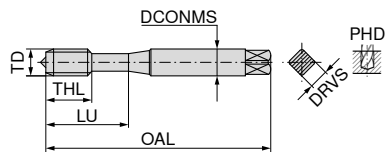
P	15	12	15	8
M	8			6
K	15	12	15	
N	22	22	24	22
S				
H				
O				

UNI NCW	FE	FE-HF	VA
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
TiCN		TiCN	
HSS-PM $\angle 35^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 2,5xD$	HSS-E $\angle 35^\circ$ $\leq 850 \text{ N/mm}^2$ $\leq 2,5xD$	HSS-E $\angle 35^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 2,5xD$	HSS-E $\angle 35^\circ$ $\leq 1200 \text{ N/mm}^2$ $\leq 2,5xD$
23 126 ...	23 216 ...	23 312 ...	23 414 ...
	020		020
	025		025
	030	030	030
030			
	040	040	040
040			
050	050	050	050
060	060	060	060
080	080	080	080
100	100	100	100

23 127 ...	23 217 ...	23 313 ...	23 415 ...
120			120
	120	120	
	140		
160	160	160	160
	200	200	200
			240

Blind hole – Machine taps, right hand

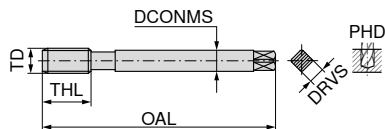
M



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 ...
M2	0,40	45	2,8	2,1	1,60	4	12	2	020				
M2,5	0,45	50	2,8	2,1	2,05	5	14	2	025				
M3	0,50	56	3,5	2,7	2,50	6	18	3	030	030	030	030	030
M4	0,70	63	4,5	3,4	3,30	7	21	3	040	040	040	040	040
M5	0,80	70	6,0	4,9	4,20	8	25	3	050	050	050	050	050
M6	1,00	80	6,0	4,9	5,00	10	30	3	060	060	060	060	060
M8	1,25	90	8,0	6,2	6,80	14	35	3	080	080	080	080	080
M10	1,50	100	10,0	8,0	8,50	16	39	3	100	100	100	100	100



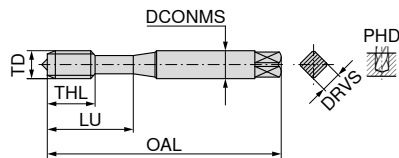
DIN 376 with reduced shank

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 ...
M12	1,75	110	9	7,0	10,2	18	3		120	120	120	120
M12	1,75	110	9	7,0	10,2	18	4	120				
M14	2,00	110	11	9,0	12,0	20	4		140			
M16	2,00	110	12	9,0	14,0	22	3		160	160		
M16	2,00	110	12	9,0	14,0	22	4	160				
M20	2,50	140	16	12,0	17,5	25	3		200	200		
M20	2,50	140	16	12,0	17,5	25	4	200				
M24	3,00	160	18	14,5	21,0	30	4		240			
P								10	8	10		
M								8	6	8		
K												
N								24	22	24	15	20
S												
H												
O												

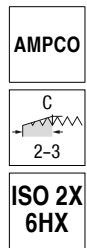
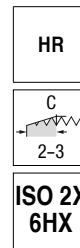
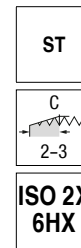
Through hole / Blind hole – Machine taps, right hand

M

TWIN



DIN 371 with reinforced shank



nitr.

HSS-E
 $\angle 0^\circ$
 $\leq 750 \text{ N/mm}^2$
 $\leq 2xD$ HSS-E
 $\angle 0^\circ$
 $\leq 1400 \text{ N/mm}^2$
 $\leq 2xD$ HSS-PM
 $\angle 0^\circ$
 $\leq 800 \text{ N/mm}^2$
 $\leq 2xD$

22 028 ...

22 006 ...

22 030 ...

TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M1,2	0,25	40	2,5	2,1	0,95	5	13	2
M1,4	0,30	40	2,5	2,1	1,10	6	13	2
M1,6	0,35	40	2,5	2,1	1,25	6	11	2
M1,7	0,35	40	2,5	2,1	1,35	6	11	2
M1,8	0,35	40	2,5	2,1	1,45	6	11	2
M2	0,40	45	2,8	2,1	1,60	7	12	3
M2,2	0,45	45	2,8	2,1	1,75	7	12	3
M2,3	0,40	45	2,8	2,1	1,90	7	12	3
M2,5	0,45	50	2,8	2,1	2,05	9	14	3
M2,6	0,45	50	2,8	2,1	2,15	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
M7	1,00	80	7,0	5,5	6,00	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

012 ¹⁾
014 ¹⁾
016
017
018
020
022
023
025
026
030
035
040
050
060
070
080
100

030
040
050
060
080
100

030
040
050
060
080
100

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

1) Tol. 4H/5H ≤ M1.4

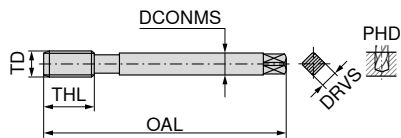


DIN 376 can be found on the next page

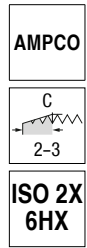
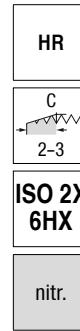
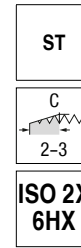
Through hole / Blind hole – Machine taps, right hand

M

TWIN



DIN 376 with reduced shank



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

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

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

22 029 ...

22 007 ...

22 031 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
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

040
050
060
080
100
120
140
160
180
200
220
240
330

120
160

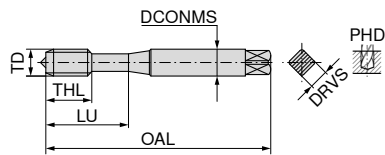
120
160
200
240

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

Through hole / Blind hole – Machine taps, right hand

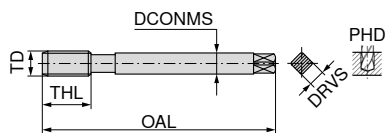
M

TWIN



DIN 371 with reinforced shank

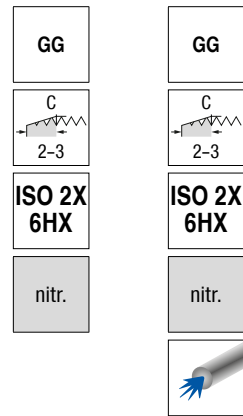
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M2	0,40	45	2,8	2,1	1,60	7	12	3
M2,5	0,45	50	2,8	2,1	2,05	9	14	3
M3	0,50	56	3,5	2,7	2,50	11	18	3
M3,5	0,60	56	4,0	3,0	2,90	12	20	3
M4	0,70	63	4,5	3,4	3,30	13	21	3
M5	0,80	70	6,0	4,9	4,20	15	25	3
M6	1,00	80	6,0	4,9	5,00	17	30	3
M8	1,25	90	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		



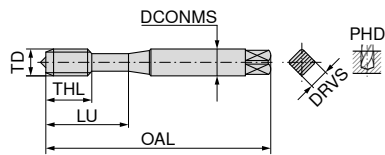
22 032 ...	22 036 ...
020	
025	
030	
035	
040	
050	050
060	060
080	080
100	100

22 033 ...	22 037 ...
060	
080	
100	
120	120
140	140
160	160
180	
200	200
220	
240	

Through hole / Blind hole – Machine taps, right hand

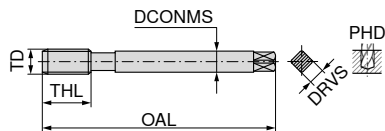
M

TWIN



DIN 371 with reinforced shank

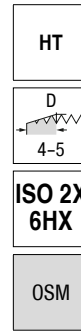
TD	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
M3	0,50	63	4,5	3,4	2,55	6	18	4
M4	0,70	63	4,5	3,4	3,40	8	20	4
M5	0,80	70	6,0	4,9	4,30	10	26	4
M6	1,00	80	6,0	4,9	5,00	10	30	4
M6	1,00	80	6,0	4,9	5,10	12	28	4
M8	1,25	90	8,0	6,2	6,80	14	35	5
M8	1,25	90	8,0	6,2	6,90	15	35	5
M10	1,50	100	10,0	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

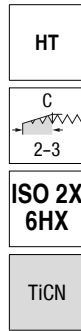
P		
M		
K		
N		22
S		
H	2	2
O		



Solid carbide

 $\angle 0^\circ$
 $\leq 63 \text{ HRC}$
 $\leq 1,5xD$

22 806 ...

030
040
050
060
060
080
100
120
160


HSS-PM

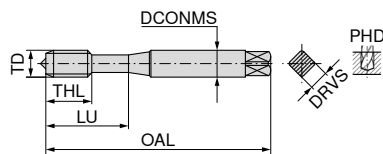
 $\angle 0^\circ$
44 - 52 HRC
 $\leq 1,5xD$

22 227 ...

060
080
100

Through hole / Blind hole – Machine taps, right hand

▲ EL = extra long, with double overall length



DIN 371 with reinforced shank

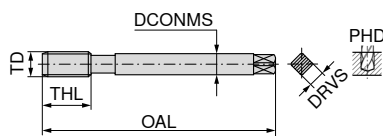


HSS-E

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

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

030
040
050
060
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

100
120
160
200

P	6
M	
K	16
N	22
S	
H	
O	

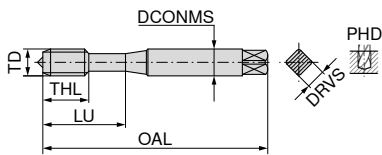
Through hole / Blind hole – Machine taps, right hand

M

GG

ISO 2X
6HX

TiCN



DIN 371 with reinforced shank

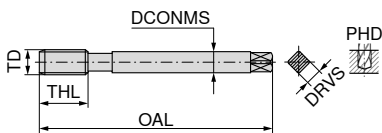


HSS-E

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

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

030
040
050
060
080
100

DIN 376 with reduced shank

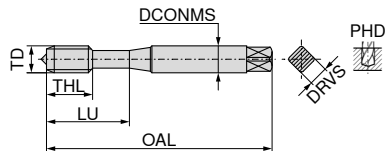
23 513 ...

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

120

P	
M	
K	20
N	24
S	
H	
O	

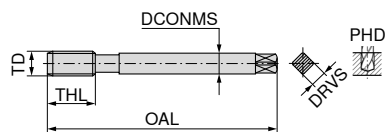
Through hole / Blind hole – Machine thread formers, right hand



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 ...

HSS-E
≤ 1100 N/mm²
≤ 1,5xD

22 100 ...

010 ¹⁾012 ¹⁾014 ¹⁾

016

017

020

025

026

030

035

040

050

060

080

100

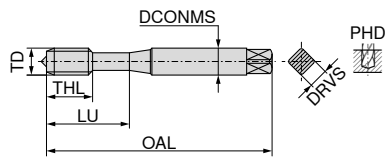
22 101 ...

120

160

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

▲ SN = Thread formers with lubrication grooves



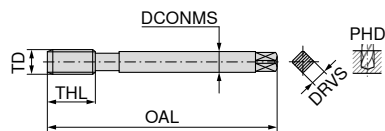
DIN 2174 with reinforced shank

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 ...
M2	0,40	45	2,8	2,1	1,85	7	10	3					020
M2,5	0,45	50	2,8	2,1	2,33	9	14	3					025
M3	0,50	56	3,5	2,7	2,80	11	18	3	030	030	030	030	030
M3,5	0,60	56	4,0	3,0	3,25	12	20	3					035
M4	0,70	63	4,5	3,4	3,70	13	21	4	040	040	040	040	040
M5	0,80	70	6,0	4,9	4,65	15	25	4	050	050	050	050	
M5	0,80	70	6,0	4,9	4,65	15	25	5					050
M6	1,00	80	6,0	4,9	5,60	17	30	4	060	060	060	060	060
M8	1,25	90	8,0	6,2	7,45	20	35	5	080	080	080	080	080
M10	1,50	100	10,0	8,0	9,35	22	39	6	100	100	100	100	100



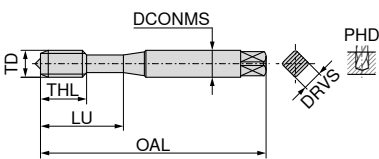
DIN 2174 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	22 106 ...
M12	1,75	110	9	7	11,25	24	6	120
M14	2,00	110	11	9	13,10	26	5	140
M16	2,00	110	12	9	15,10	27	7	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					

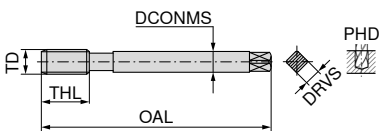
Through hole / Blind hole – Machine thread formers, right hand

▲ SN = Thread formers with lubrication grooves



DIN 2174 with reinforced shank

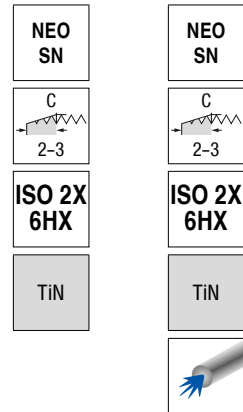
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M3	0,50	56	3,5	2,7	2,80	11	18	4
M4	0,70	63	4,5	3,4	3,70	13	21	4
M5	0,80	70	6,0	4,9	4,65	15	25	4
M6	1,00	80	6,0	4,9	5,60	17	30	5
M8	1,25	90	8,0	6,2	7,45	20	35	5
M10	1,50	100	10,0	8,0	9,35	22	39	5



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		

HSS-PM
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$ HSS-PM
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

22 452 ...

22 453 ...

030

040

050

060

080

100

050

060

080

100

22 452 ...

22 454 ...

120

160

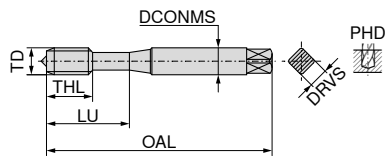
120

160

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

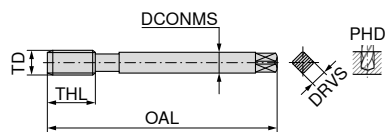
▲ SN = Thread formers with lubrication grooves

M



DIN 2174 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	1,85	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 mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
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				

UNI	UNI	UNI SN	UNI SN
ISO 2X 6HX	ISO 2X 6HX	ISO 2X 6HX	ISO 2X 6HX
TiN	CrN	TiN	CrN
HSS-E $\angle 0^\circ$ $\leq 850 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 0^\circ$ $\leq 850 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 0^\circ$ $\leq 850 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 0^\circ$ $\leq 850 \text{ N/mm}^2$ $\leq 3xD$

23 810 ...	23 812 ...	23 814 ...	23 816 ...
020	020	020	020
		025	025
025	025		
030	030	030	030
040	040	040	040
050	050	050	050
060	060	060	060
080	080	080	080
100	100	100	100

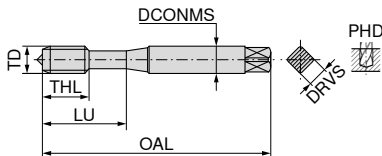
23 811 ...	23 813 ...	23 815 ...	23 817 ...
120	120		
		120	120
160	160	160	160
		18000	
		20000	
		24000	

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

EG M

Stabil

UNI

6H
modnitr. +
vap.

DIN 40435 with reinforced shank

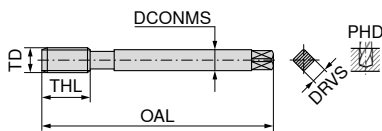


HSS-E

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

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

025
030
040
050
060
080

DIN 40435 with reduced shank

22 663 ...

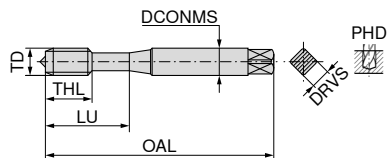
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
EG-M10	1,50	100	9	7,0	10,50	22	3
EG-M12	1,75	110	11	9,0	12,50	26	3
EG-M16	2,00	125	14	11,0	16,50	27	3
EG-M20	2,50	160	18	14,5	20,75	34	3

100
120
160
200

P	12
M	7
K	12
N	
S	
H	
O	

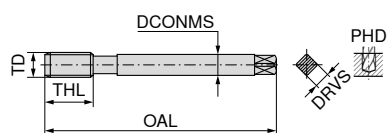
Blind hole – machine taps for wire thread inserts, right hand

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	

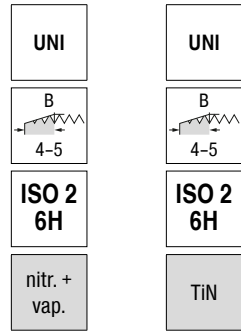
Soft	UNI
C 2-3	C 2-3
6H mod	6H mod
CH	vap.
HSS-E $\angle 42^\circ$ $\leq 500 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$
22 280 ...	22 664 ...
025	025
030	030
040	040
050	050
060	060
080	080

22 665 ...

Through hole – Machine taps, right hand

MF

Stabil



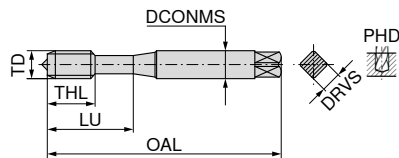
HSS-E

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

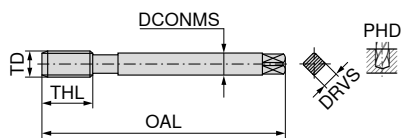
Through hole – Machine taps, right hand

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

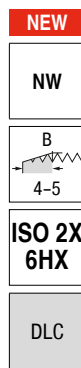
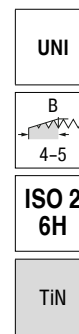
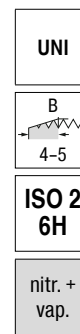
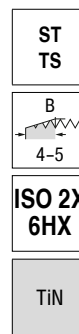
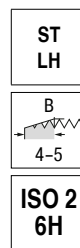
▲ LH = for left hand threads

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
M6x0,5	0,50	80	4,5	3,4	5,5	13	3
M6x0,75	0,75	80	4,5	3,4	5,2	13	3
M8x0,75	0,75	80	6,0	4,9	7,2	14	3
M8x1	1,00	90	6,0	4,9	7,0	10	4
M8x1	1,00	90	6,0	4,9	7,0	17	3
M10x0,75	0,75	90	7,0	5,5	9,2	18	4
M10x1,25	1,25	100	7,0	5,5	8,8	22	3
M10x1	1,00	90	7,0	5,5	9,0	10	4
M10x1	1,00	90	7,0	5,5	9,0	18	4
M12x1,5	1,50	100	9,0	7,0	10,5	22	3
M12x1,25	1,25	100	9,0	7,0	10,8	22	3
M12x1,5	1,50	100	9,0	7,0	10,5	15	4
M12x1	1,00	100	9,0	7,0	11,0	18	4
M14x1,5	1,50	100	11,0	9,0	12,5	22	3
M14x1,25	1,25	100	11,0	9,0	12,8	22	3
M14x1,5	1,50	100	11,0	9,0	12,5	15	4
M14x1	1,00	100	11,0	9,0	13,0	18	4
M16x1,5	1,50	100	12,0	9,0	14,5	22	3
M16x1,5	1,50	100	12,0	9,0	14,5	15	4
M16x1	1,00	100	12,0	9,0	15,0	18	4
M18x1	1,00	110	14,0	11,0	17,0	20	5
M18x2	2,00	125	14,0	11,0	16,0	26	3
M18x1,5	1,50	110	14,0	11,0	16,5	17	4
M18x1,5	1,50	110	14,0	11,0	16,5	25	4
M20x1	1,00	125	16,0	12,0	19,0	20	5
M20x1,5	1,50	125	16,0	12,0	18,5	17	4
M20x1,5	1,50	125	16,0	12,0	18,5	25	4
M25x1,5	1,50	140	18,0	14,5	23,5	28	4
M26x1,5	1,50	140	18,0	14,5	24,5	28	4
M24x1,5	1,50	140	18,0	14,5	22,5	27	4
M24x2	2,00	140	18,0	14,5	22,0	27	4
M22x1,5	1,50	125	18,0	14,5	20,5	25	4
M27x2	2,00	140	20,0	16,0	25,0	28	4
M28x1,5	1,50	140	20,0	16,0	26,5	28	5
M30x1,5	1,50	150	22,0	18,0	28,5	28	5

22 210 ...

22 193 ...

22 551 ...

22 552 ...

22 466 ...

P	12	65	12	15	
M			7	9	
K	12	65	12	18	
N	22	22		12	15
S					
H					
O					

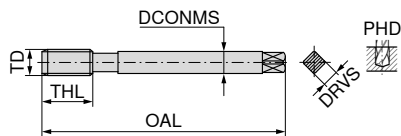
Through hole – Machine taps, right hand

MF

UNI

ISO 2
6H

TiN



DIN 374 with reduced shank



HSS-PM

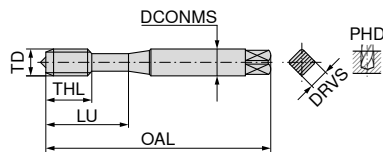
 $\angle 0^\circ$
 $\leq 1000 \text{ N/mm}^2$
 $\leq 3xD$

23 041 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	
M8x1	1,00	90	6	4,9	7,0	17	3	081
M10x1	1,00	90	7	5,5	9,0	18	4	102
M10x1,25	1,25	100	7	5,5	8,8	22	3	104
M12x1	1,00	100	9	7,0	11,0	18	4	120
M12x1,25	1,25	100	9	7,0	10,8	22	3	122
M12x1,5	1,50	100	9	7,0	10,5	22	3	121
M14x1,5	1,50	100	11	9,0	12,5	22	3	144
M14x1,25	1,25	100	11	9,0	12,8	22	3	142
M16x1,5	1,50	100	12	9,0	14,5	22	3	162
M18x1,5	1,50	110	14	11,0	16,5	17	4	182
M20x1,5	1,50	125	16	12,0	18,5	17	4	202
M24x1,5	1,50	140	18	14,5	22,5	27	4	242
M24x2	2,00	140	18	14,5	22,0	27	4	244
M22x1,5	1,50	125	18	14,5	20,5	25	4	222
P								15
M								9
K								18
N								12
S								
H								
O								

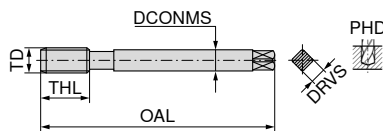
Through hole – Machine taps, right hand

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

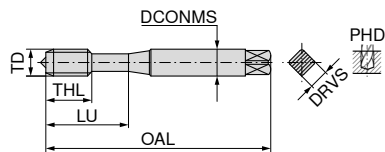
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M8x0,5	0,50	80	6	8,0	7,5	14	3
M8x1	1,00	90	6	4,9	7,0	17	3
M8x1	1,00	90	6	4,9	7,0	17	4
M8x0,75	0,75	80	6	4,9	7,2	14	3
M10x0,75	0,75	90	7	5,5	9,2	18	4
M10x1,25	1,25	100	7	5,5	8,8	22	3
M10x1	1,00	90	7	5,5	9,0	18	4
M12x1,5	1,50	100	9	7,0	10,5	22	3
M12x1,25	1,25	100	9	7,0	10,8	22	3
M12x1	1,00	100	9	7,0	11,0	18	4
M14x1	1,00	100	11	9,0	13,0	18	4
M14x1,5	1,50	100	11	9,0	12,5	22	3
M16x1	1,00	100	12	9,0	15,0	18	4
M16x1,5	1,50	100	12	9,0	14,5	22	3
M18x1	1,00	110	14	11,0	17,0	20	5
M18x1,5	1,50	110	14	11,0	16,5	25	4
M20x1,5	1,50	125	16	12,0	18,5	25	4
M20x1	1,00	125	16	12,0	19,0	20	5
M22x1,5	1,50	125	18	14,5	20,5	25	4
M24x1,5	1,50	140	18	14,5	22,5	27	4
M26x1,5	1,50	140	18	14,5	24,5	28	4
M28x1,5	1,50	140	20	16,0	26,5	28	5
M30x1,5	1,50	150	22	18,0	28,5	28	5

P	12	15	12	10
M	7	9		8
K	12	18	12	
N		12	12	24
S				
H				
O				

UNI	UNI	FE	VA
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 ...	23 142 ...	23 240 ...	23 440 ...
040 050 060 062	040 050 060 062	040 050 060 062	050 062

23 141 ...	23 143 ...	23 241 ...	23 441 ...
084 082 100 104 102 124 122 120 140 144 160 162	084 082 100 104 102 124 122 120 140 144 160 162	080 084 082 100 104 102 124 122 120 140 144 160 162 180 182 202 200 222 242	084 082 102 124 120 144 162 180 182 202 260 280 300

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

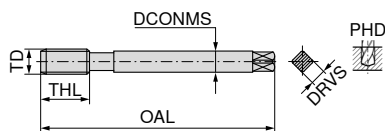
HSS-E
 $\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

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

040
050
062

DIN 374 with reduced shank

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
M8x1	1,0	90	6	4,9	7,0	10	3
M10x1	1,0	90	7	5,5	9,0	10	4
M12x1,5	1,5	100	9	7,0	10,5	15	5
M14x1,5	1,5	100	11	9,0	12,5	15	5
M16x1,5	1,5	100	12	9,0	14,5	15	5
M18x1,5	1,5	110	14	11,0	16,5	17	5
M20x1,5	1,5	125	16	12,0	18,5	17	5

22 555 ...

22 556 ...

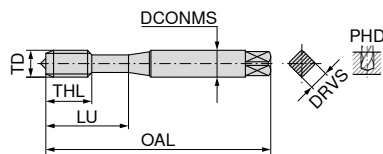
22 491 ...

22 490 ...

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

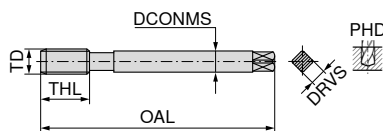
Blind hole – Machine taps, right hand

▲ 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

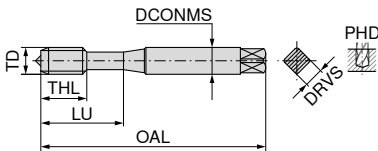
P	12	15	15	15
M	7	9	9	9
K	12	18	18	18
N		12	12	12
S				
H				
O				

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 ...			22 548 ...

22 553 ...	22 554 ...	22 563 ...	22 549 ...
062			
080			
082			082
101	080	084	084
100	100		
		102	102
102			120
120	121		
122			
124	120		
		124	124
		144	144
140	140		
160	160		
		162	162
180	182		182
		202	202
200	202		
220			
260			
240			
280			
300			

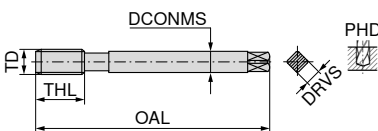
Blind hole – Machine taps

▲ LH = for left hand threads



DIN 371 with reinforced shank

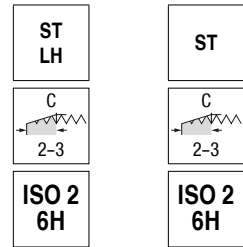
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M2,5x0,35	0,35	50	2,8	2,1	2,15	5,0	15	2
M3x0,35	0,35	56	3,5	2,7	2,65	4,5	18	3
M3,5x0,35	0,35	56	4,0	3,0	3,15	5,0	20	3
M4x0,5	0,50	63	4,5	3,4	3,50	5,0	21	3
M5x0,5	0,50	70	6,0	4,9	4,50	5,0	25	3
M6x0,75	0,75	80	6,0	4,9	5,20	8,0	30	3
M8x0,75	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 ...

22 601 ...

22 186 ...

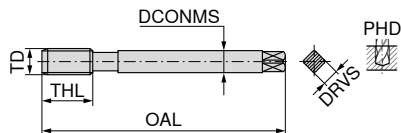
M6x0,75	0,75	80	4,5	3,4	5,2	8	3		060
M8x0,75	0,75	80	6,0	4,9	7,2	8	3		080
M8x1	1,00	90	6,0	4,9	7,0	10	3	082	082
M10x1	1,00	90	7,0	5,5	9,0	10	3	100	100
M12x1,5	1,50	100	9,0	7,0	10,5	15	4		122
M12x1	1,00	100	9,0	7,0	11,0	11	4		120
M14x1,5	1,50	100	11,0	9,0	12,5	15	4	120	120
M16x1,5	1,50	100	12,0	9,0	14,5	15	4	140	140
M18x1,5	1,50	110	14,0	11,0	16,5	17	4	160	160
M20x1,5	1,50	125	16,0	12,0	18,5	17	4	180	180
M22x1,5	1,50	125	18,0	14,5	20,5	17	4	200	200
M26x1,5	1,50	140	18,0	14,5	24,5	20	5		220
M24x1,5	1,50	140	18,0	14,5	22,5	20	5		260
									240

Blind hole – Machine taps, right hand

MF

SL

ST

ISO 2
6H

DIN 374 with reduced shank



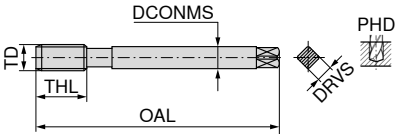
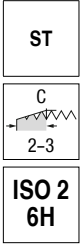
HSS-E

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

22 182 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	
M6x0,75	0,75	80	4,5	3,4	5,2	13	3	062
M8x0,75	0,75	80	6,0	4,9	7,2	14	3	082
M8x1	1,00	90	6,0	4,9	7,0	17	3	084
M10x1	1,00	90	7,0	5,5	9,0	18	3	102
M10x0,75	0,75	90	7,0	5,5	9,2	18	3	100
M10x1,25	1,25	100	7,0	5,5	8,8	22	3	104
M9x1	1,00	90	7,0	5,5	8,0	17	3	090
M11x1	1,00	90	8,0	6,2	10,0	18	3	110
M12x1,25	1,25	100	9,0	7,0	10,8	22	3	122
M12x1,5	1,50	100	9,0	7,0	10,5	22	3	124
M12x1	1,00	100	9,0	7,0	11,0	18	3	120
M14x1	1,00	100	11,0	9,0	13,0	18	4	140
M14x1,5	1,50	100	11,0	9,0	12,5	22	3	144
M16x1	1,00	100	12,0	9,0	15,0	18	4	160
M16x1,5	1,50	100	12,0	9,0	14,5	22	3	162
M15x1	1,00	100	12,0	9,0	14,0	18	4	150
M18x1,5	1,50	110	14,0	11,0	16,5	25	4	182
M18x2	2,00	125	14,0	11,0	16,0	26	3	184
M18x1	1,00	110	14,0	11,0	17,0	20	4	180
M20x1	1,00	125	16,0	12,0	19,0	20	4	200
M20x2	2,00	140	16,0	12,0	18,0	27	3	204
M20x1,5	1,50	125	16,0	12,0	18,5	25	4	202
M22x2	2,00	140	18,0	14,5	20,0	27	4	224
M24x1,5	1,50	140	18,0	14,5	22,5	27	4	242
M24x1	1,00	140	18,0	14,5	23,0	20	5	240
M24x2	2,00	140	18,0	14,5	22,0	27	4	244
M22x1,5	1,50	125	18,0	14,5	20,5	25	4	222
M25x1,5	1,50	140	18,0	14,5	23,5	28	4	252
M22x1	1,00	125	18,0	14,5	21,0	20	4	220
M27x1,5	1,50	140	20,0	16,0	25,5	28	4	270
M28x2	2,00	140	20,0	16,0	26,0	28	4	282
M27x2	2,00	140	20,0	16,0	25,0	28	4	272
M30x1,5	1,50	150	22,0	18,0	28,5	28	5	302
M32x1,5	1,50	150	22,0	18,0	30,5	28	6	320
M30x2	2,00	150	22,0	18,0	28,0	28	4	304
M33x2	2,00	160	25,0	20,0	31,0	30	4	332
M36x2	2,00	170	28,0	22,0	34,0	30	5	362
M36x3	3,00	200	28,0	22,0	33,0	42	4	364
M34x1,5	1,50	170	28,0	22,0	32,5	30	6	340
M40x1,5	1,50	170	32,0	24,0	38,5	30	6	400
M42x3	3,00	200	32,0	24,0	39,0	45	4	424
M42x2	2,00	170	32,0	24,0	40,0	30	6	422
M45x1,5	1,50	180	36,0	29,0	43,5	32	6	450
M48x2	2,00	190	36,0	29,0	46,0	32	6	482
M48x3	3,00	225	36,0	29,0	45,0	50	5	484
P								12
M								
K								12
N								22
S								
H								
O								

Blind hole – Machine taps, right hand



DIN 374 with reduced shank



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

22 182 ...

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	454
M48x1,5	1,50	190	36,0	29,0	46,5	32	6	480
M52x2	2,00	190	40,0	32,0	50,0	32	6	522
P								12
M								
K								12
N								22
S								
H								
O								

Blind hole – Machine taps, right hand

MF

Salo-Rex

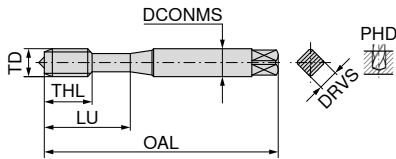
VA

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

040

050

060

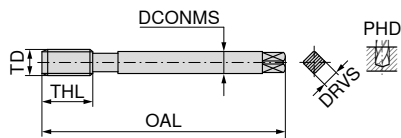
062

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 $\angle 42^\circ$ $\leq 500 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 38^\circ$ $\leq 880 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 42^\circ$ $\leq 750 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 45^\circ$ $\leq 900 \text{ N/mm}^2$ $\leq 3xD$

22 188 ...	22 462 ...	22 189 ...	22 177 ...
081	08000	082	084
100	10000		082
	10200		
	12200	100	102
122	12400		
		120	124
120	12000	121	120
	14000		
140	14200		
	14400		
		140	144
160	16000		
	16200		
		160	162
180			182
		200	202
200			
		260	
		280	
		300	

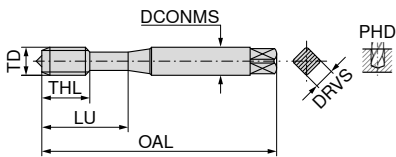
Blind hole – Machine taps, right hand

MF

UNI

ISO 2
6H

TiN



DIN 374 with reinforced shank



HSS-PM

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

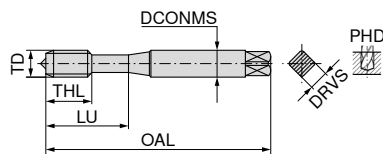
23 047 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes	
M8x1	1,00	90	6	4,9	7,0	10	35	3	081
M10x1	1,00	90	7	5,5	9,0	10	35	4	102
M10x1,25	1,25	100	7	5,5	8,8	16	39	4	104
M12x1	1,00	100	9	7,0	11,0	11	40	4	120
M12x1,25	1,25	100	9	7,0	10,8	15	40	5	122
M12x1,5	1,50	100	9	7,0	10,5	15	40	5	121
M14x1	1,00	100	11	9,0	12,8	11	40	4	140
M14x1,5	1,50	100	11	9,0	12,5	15	40	5	144
M16x1,5	1,50	100	12	9,0	14,5	15	44	5	162
M18x1,5	1,50	110	14	11,0	16,5	17	44	5	182
M20x1,5	1,50	125	16	12,0	18,5	17	44	5	202
M22x1,5	1,50	125	18	14,5	20,5	17	44	5	222
M24x1,5	1,50	140	18	14,5	22,5	20	48	5	242
M24x2	2,00	140	18	14,5	22,0	20	48	5	244
P									15
M									9
K									18
N									12
S									
H									
O									

Blind hole – Machine taps, right hand

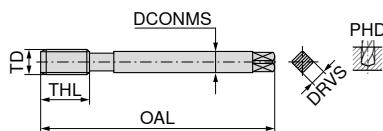
▲ NC = for synchronised CNC machining with minimum length compensation chuck

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
 $\angle 35^\circ$
 $\leq 1000 \text{ N/mm}^2$
 $\leq 2,5xD$

23 144 ...

040
050
060
062

HSS-E
 $\angle 35^\circ$
 $\leq 1000 \text{ N/mm}^2$
 $\leq 2,5xD$

23 146 ...

040
050
060
062

HSS-E
 $\angle 45^\circ$
 $\leq 1000 \text{ N/mm}^2$
 $\leq 3xD$

23 148 ...

050
060
062

HSS-E
 $\angle 35^\circ$
 $\leq 850 \text{ N/mm}^2$
 $\leq 2,5xD$

23 242 ...

040
050
060
062

23 145 ...

040
050
062
084
082

23 147 ...

084
082

23 149 ...

084
082

23 243 ...

084
082
080
104
102104
102104
102

102

100
122
124100
122
124100
122
124124
120
144120
144120
144120
144

144

140
162140
162140
162

162

160
182160
182160
182182
202202
222
242202
222
242202
222
242

Blind hole – Machine taps, right hand

MF

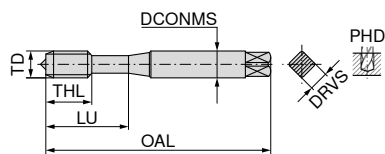
VA

E

1,5-2

ISO 2
6H

TiN



DIN 371 with reinforced shank

HSS-E

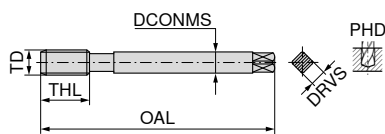
 $\angle 45^\circ$
 $\leq 1200 \text{ N/mm}^2$
 $\leq 3xD$

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

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

084

082

102

120

124

144

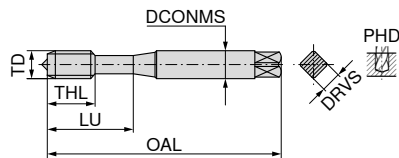
162

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

ST	HR	HT
ISO 2X 6HX	ISO 2X 6HX	ISO 2X 6HX
	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

040
050
060
062
084040
050
060
062080
100
120
140
160

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

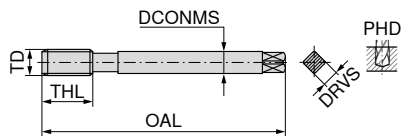


DIN 374 can be found on the next page

Through hole / Blind hole – Machine taps, right hand

MF

TWIN



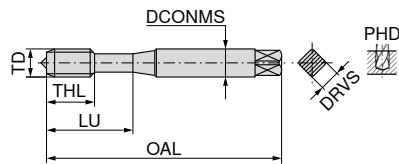
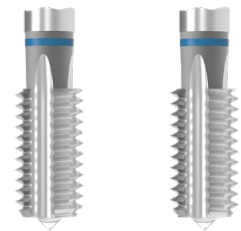
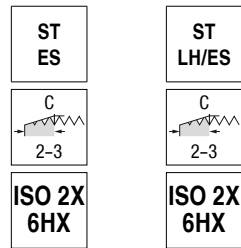
DIN 374 with reduced shank

ST	HR	GG
		
ISO 2X 6HX	ISO 2X 6HX	ISO 2X 6HX
	nitr.	nitr.
		
HSS-E $\angle 0^\circ$ $\leq 750 \text{ N/mm}^2$ $\leq 2xD$	HSS-E $\angle 0^\circ$ $\leq 1400 \text{ N/mm}^2$ $\leq 2xD$	HSS-E $\angle 0^\circ$ $\leq 1050 \text{ N/mm}^2$ $\leq 2xD$
22 171 ...	22 209 ...	22 173 ...
042		
050		050
062		062
060		060
082		080
084	082	082
104	100	100
106		
102		
110		
122		120
124		
126	120	124
140		140
142		
144	140	142
160		
162	160	160
180		
184		
182	180	180
200		
204	200	200
202		
244		
224		
220		
240		
260		260
242		240
250		
222		220
		280
274		
272		
302		
322		
320		
300		300
332		
362		
360		
350		
420		
424		
402		
500		
520		
12	6	
12	16	15
22	22	22

Through Hole / Blind Hole – Machine taps

▲ ES = extra short

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



DIN 2181 with reinforced shank

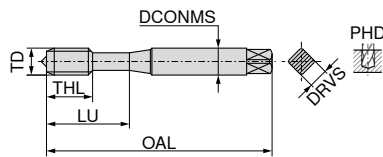
HSS-E
 $\leq 750 \text{ N/mm}^2$
 $\leq 2xD$

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	22 179 ...	22 200 ...
M2,5x0,35	0,35	40	2,8	2,1	2,15	9		3	025	
M3x0,35	0,35	40	3,5	2,7	2,65	8	18	3	030	
M4x0,35	0,35	45	4,5	3,4	3,65	9	22	3	040	
M4x0,5	0,50	45	4,5	3,4	3,50	9	22	3	042	
M4,5x0,5	0,50	50	6,0	4,9	4,00	10	24	3	045	
M5x0,5	0,50	50	6,0	4,9	4,50	11	25	3	050	
M6x0,5	0,50	56	6,0	4,9	5,50	12	27	3	060	
M6x0,75	0,75	56	6,0	4,9	5,20	12	27	3	062	062
M7x0,75	0,75	56	6,0	4,9	6,20	14		3	070	
M8x0,5	0,50	56	6,0	4,9	7,50	14		4	080	
M8x0,75	0,75	56	6,0	4,9	7,20	14		3	082	
M8x1	1,00	63	6,0	4,9	7,00	17		3	084	084
M9x1	1,00	63	7,0	5,5	8,00	17		4	090	
M10x0,75	0,75	63	7,0	5,5	9,20	18		4	100	
M10x1	1,00	63	7,0	5,5	9,00	18		4	102	102
M10x1,25	1,25	70	7,0	5,5	8,80	22		3	104	
M11x1	1,00	63	8,0	6,2	10,00	18		4	110	
M12x1	1,00	70	9,0	7,0	11,00	18		4	120	120
M12x1,25	1,25	70	9,0	7,0	10,80	20		4	122	
M12x1,5	1,50	70	9,0	7,0	10,50	20		4	124	124
M13x1	1,00	70	11,0	9,0	12,00	18		4	130	
M14x1	1,00	70	11,0	9,0	13,00	18		4	140	
M14x1,25	1,25	70	11,0	9,0	12,80	20		4	142	
M14x1,5	1,50	70	11,0	9,0	12,50	20		4	144	144
M15x1	1,00	70	12,0	9,0	14,00	18		5	150	
M16x1	1,00	70	12,0	9,0	15,00	18		5	160	
M16x1,5	1,50	70	12,0	9,0	14,50	20		4	162	162
M18x1	1,00	80	14,0	11,0	17,00	18		5	180	
M18x1,5	1,50	80	14,0	11,0	16,50	22		4	182	182
M18x2	2,00	80	14,0	11,0	16,00	22		4	184	
M20x1,5	1,50	80	16,0	12,0	18,50	22		4	202	202
M20x2	2,00	80	16,0	12,0	18,00	22		4	204	
P									12	12
M										
K									12	12
N									22	22
S										
H										
O										

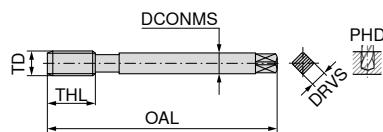
Through hole / Blind hole – Machine thread formers, right hand

▲ SN = Thread formers with lubrication grooves



DIN 2174 with reinforced shank

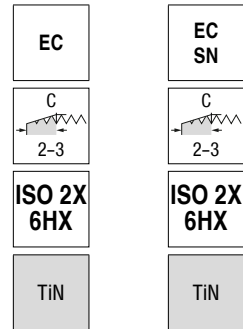
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M4x0,5	0,50	63	4,5	3,4	3,8	10	21	
M4x0,5	0,50	63	4,5	3,4	3,8	10	21	4
M5x0,5	0,50	70	6,0	4,9	4,8	11	25	
M5x0,5	0,50	70	6,0	4,9	4,8	11	25	4
M6x0,5	0,50	80	6,0	4,9	5,8	13	30	
M6x0,5	0,50	80	6,0	4,9	5,8	13	30	5
M6x0,75	0,75	80	6,0	4,9	5,7	13	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		



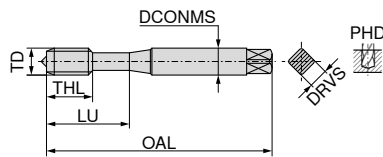
22 204 ...	22 205 ...
040	040
050	050
060	060
062	062
080	080
082	082
100	100

22 196 ...	22 197 ...
120	120
124	124
140	140
160	160
200	200

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

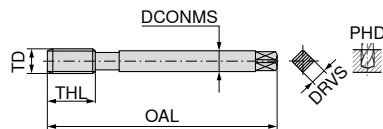
▲ SN = Thread formers with lubrication grooves

MF



DIN 2174 with reinforced shank

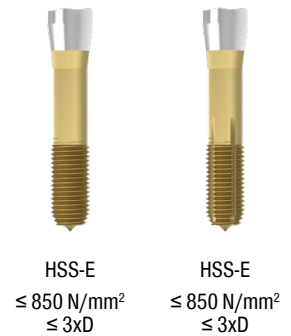
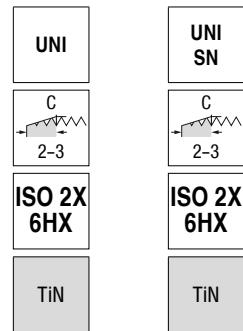
TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
M4x0,5	0,50	63	4,5	3,4	3,80	10	21	
M4x0,5	0,50	63	4,5	3,4	3,80	10	21	4
M5x0,5	0,50	70	6,0	4,9	4,80	11	25	
M5x0,5	0,50	70	6,0	4,9	4,80	11	25	4
M6x0,5	0,50	80	6,0	4,9	5,80	13	30	
M6x0,5	0,50	80	6,0	4,9	5,80	13	30	5
M8x1	1,00	90	8,0	6,2	7,60	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		



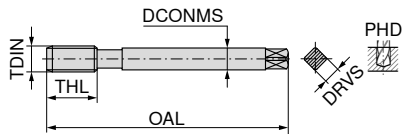
23 840 ...	23 842 ...
040	040
050	050
060	060
084	084
102	102
104	104

23 841 ...	23 843 ...
122	122
124	124
144	144
162	162

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.



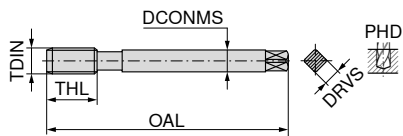
HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 750 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 880 \text{ N/mm}^2$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 900 \text{ N/mm}^2$ $\leq 4xD$
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22 632 ... 22 630 ... 22 346 ... 22 467 ... 22 352 ...

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes					
1/8-28	0,907	90	7	5,5	8,80	18	3		012		012	
1/4-19	1,337	100	11	9,0	11,80	22	3		025		025	
3/8-19	1,337	100	12	9,0	15,25	22	3		037		037	
1/2-14	1,814	125	16	12,0	19,00	25	4		050		050	
3/4-14	1,814	140	20	16,0	24,50	28	4		075		075	
1-11	2,309	160	25	20,0	30,75	30	4		100		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 mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
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

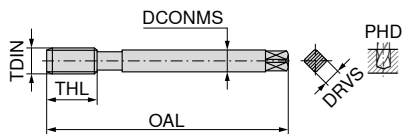


HSS-E	HSS-E
$\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	$\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$

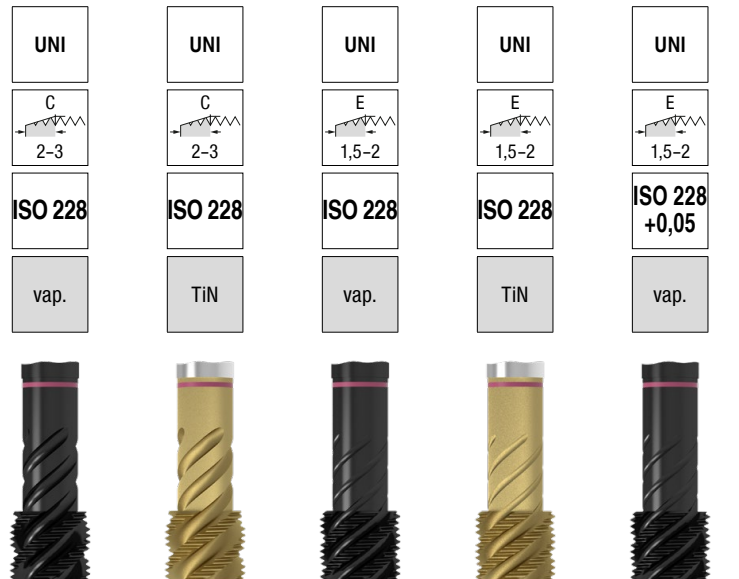
23 161 ...	23 160 ...
012	012
025	025
037	037
050	050
075	075
100	100

6

Blind hole – Machine taps, right hand



DIN 5156 with reduced shank



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

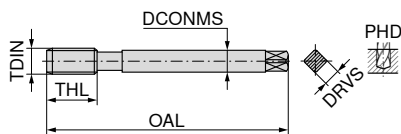
HSS-E $\angle 42^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$

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

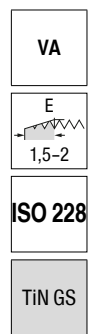
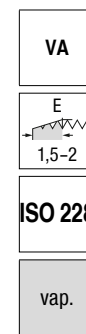
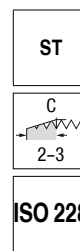
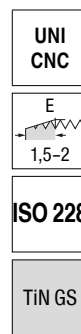
TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	22 633 ...	22 634 ...	22 635 ...	22 636 ...	22 639 ...
1/8-28	0,907	90	7	5,5	8,80	10	3	012	012			
1/8-28	0,907	90	7	5,5	8,80	10	4					012
1/4-19	1,337	100	11	9,0	11,80	15	4	025	025			
1/4-19	1,337	100	11	9,0	11,80	15	5			012	012	
3/8-19	1,337	100	12	9,0	15,25	15	4	037	037			
3/8-19	1,337	100	12	9,0	15,25	15	5			025	025	025
1/2-14	1,814	125	16	12,0	19,00	17	4	050	050			
1/2-14	1,814	125	16	12,0	19,00	17	5			037	037	037
5/8-14	1,814	125	18	14,5	21,00	17	4	062		050	050	
3/4-14	1,814	140	20	16,0	24,50	20	4	075				
3/4-14	1,814	140	20	16,0	24,50	20	5					075
7/8-14	1,814	150	22	18,0	28,25	22	5	087				
1-11	2,309	160	25	20,0	30,75	24	5	100				
1-11	2,309	160	25	20,0	30,75	24	6					100
1 1/4-11	2,309	170	32	24,0	39,50	25	6	125				
1 1/2-11	2,309	190	36	29,0	45,25	27	6	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



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
 $\angle 36^\circ$
 $\leq 880 \text{ N/mm}^2$
 $\leq 2,5xD$

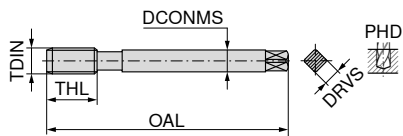
HSS-E
 $\angle 42^\circ$
 $\leq 900 \text{ N/mm}^2$
 $\leq 3xD$

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 ...
1/8-28	0,907	90	7	5,5	8,80	10	3					
1/8-28	0,907	90	7	5,5	8,80	10	4	012	012		012	012
1/4-19	1,337	100	11	9,0	11,80	15	4		025	02500		
1/4-19	1,337	100	11	9,0	11,80	15	5	025			025	025
3/8-19	1,337	100	12	9,0	15,25	15	4		037	03700		
3/8-19	1,337	100	12	9,0	15,25	15	5	037			037	037
1/2-14	1,814	125	16	12,0	19,00	17	4		050	05000		
1/2-14	1,814	125	16	12,0	19,00	17	5	050			050	050
5/8-14	1,814	125	18	14,5	21,00	17	5				062	
3/4-14	1,814	140	20	16,0	24,50	20	4		075	07500		
3/4-14	1,814	140	20	16,0	24,50	20	5				075	
1-11	2,309	160	25	20,0	30,75	24	5		100	10000		
1-11	2,309	160	25	20,0	30,75	24	6				100	
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	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
C 2-3	C 2-3
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 ...
012	012
025	025
037	037
050	050
075	075
100	100

Through hole / Blind hole – Machine taps, right hand

G

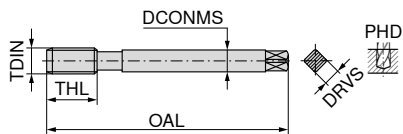
TWIN

ST

HR

ISO 228
XISO 228
X

nitr.



DIN 5156 with reduced shank



HSS-E

HSS-E

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

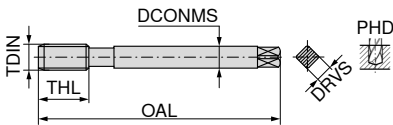
22 347 ...

22 339 ...

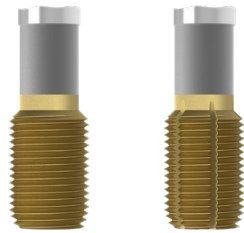
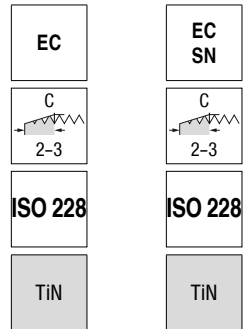
TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes		
1/16-28	0,907	90	6	4,9	6,80	17	3		006
1/8-28	0,907	90	7	5,5	8,80	18	4		012
1/4-19	1,337	100	11	9,0	11,80	22	4		025
3/8-19	1,337	100	12	9,0	15,25	22	4		037
1/2-14	1,814	125	16	12,0	19,00	25	4		050
3/4-14	1,814	140	20	16,0	24,50	28	4		075
1-11	2,309	160	25	20,0	30,75	30	5		100
1 1/8-11	2,309	170	28	22,0	35,50	30	5		112
1 1/4-11	2,309	170	32	24,0	39,50	30	6		125
1 3/8-11	2,309	180	36	29,0	41,75	32	6		137
1 1/2-11	2,309	190	36	29,0	45,25	32	6		150
1 3/4-11	2,309	190	40	32,0	51,00	32	6		175
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
 $\leq 1100 \text{ N/mm}^2$
 $\leq 1,5xD$ HSS-E
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

22 360 ...

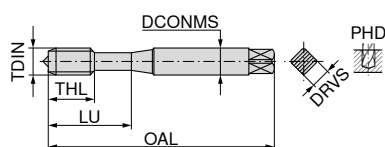
22 359 ...

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									

Through hole – Machine taps, right hand

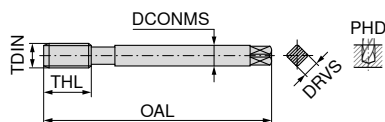
UNC

Stabil



DIN 371 with reinforced shank

TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	LU mm	Flutes
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 mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
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			

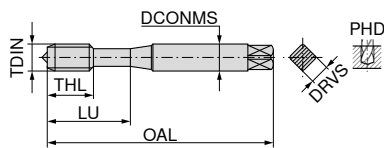
VA	Ti	UNI
B 4-5	B 4-5	B 4-5
2B	2BX	2B
nitr.	TiN	nitr. + vap.
HSS-E $\angle 0^\circ$ $\leq 900 \text{ N/mm}^2$ $\leq 4xD$	HSS-PM $\angle 0^\circ$ $\leq 44 \text{ HRC}$ $\leq 4xD$	HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 4xD$
22 250 ...	22 269 ...	22 572 ...
		002
		004
	004	
006	006	006
008	008	008
010	010	010
		012
025	025	025
031	031	031
037	037	037

22 573 ...

			050
			062
			075
			087
			100

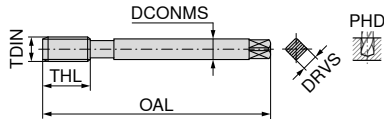
Through hole – Machine taps, right hand

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			

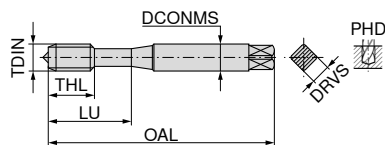
UNI	FE-HF	VA
2B	2B	2B
TiN	TiCN	nitr.
HSS-E $\angle 0^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 0^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 3xD$
23 170 ...	23 370 ...	23 470 ...
004	004	004
006	006	006
008	008	008
010	010	010
025	025	025
031	031	031
037	037	037

23 171 ...	23 371 ...	23 471 ...
043	043	043
050	050	050
062	062	062
075	075	075

Blind hole – Machine taps, right hand

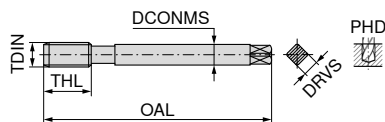
UNC

Salo-Rex



DIN 371 with reinforced shank

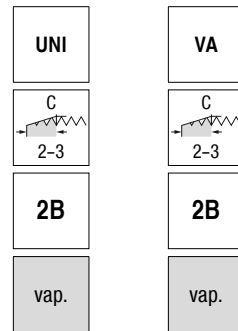
TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
Nr. 2-56	0,454	45	2,8	2,1	1,85	4,5	12	2
Nr. 4-40	0,635	56	3,5	2,7	2,35	6,0	18	2
Nr. 6-32	0,794	56	4,0	3,0	2,85	7,0	20	3
Nr. 8-32	0,794	63	4,5	3,4	3,50	8,0	21	3
Nr. 10-24	1,058	70	6,0	4,9	3,90	10,0	25	3
1/4-20	1,270	80	7,0	5,5	5,10	13,0	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
 $\angle 42^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 3xD$

22 582 ...



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

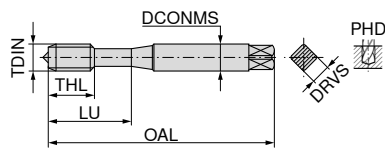
22 266 ...

22 583 ...

22 267 ...

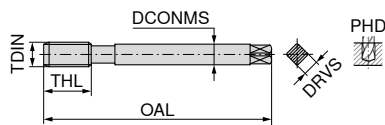
Blind hole – Machine taps, right hand

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

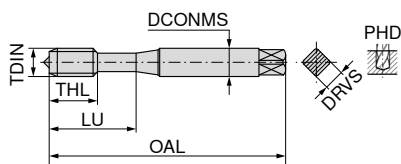
P	15	15	8
M	9		6
K	18	15	
N	12	24	22
S			
H			
O			

UNI	FE-HF	VA
2B	2B	2B
TiN	TiCN	
HSS-E $\angle 35^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 2,5xD$	HSS-E $\angle 35^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 2,5xD$	HSS-E $\angle 35^\circ$ $\leq 1000 \text{ N/mm}^2$ $\leq 2,5xD$
23 172 ...	23 372 ...	23 472 ...
004	004	004
006		006
008	006	008
	008	
010	010	010
025	025	025
031	031	031
037	037	037

23 173 ...	23 373 ...	23 473 ...
043	043	043
050		050
062	050	062
	062	
075	075	075

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

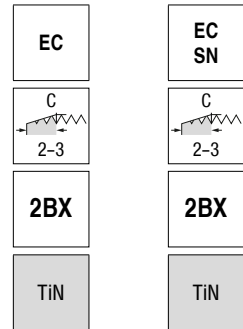
▲ SN = Thread formers with lubrication grooves



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 ...

004

004

006

006

008

008

010

010

025

025

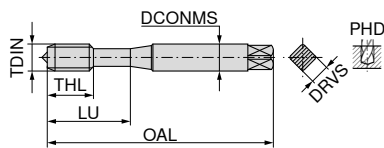
031

031

037

037

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



DIN 371 with reinforced shank

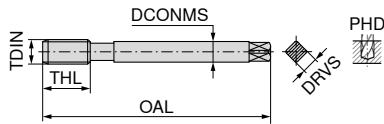


HSS-E
 $\angle 0^\circ$
 $\leq 1100 \text{ N/mm}^2$
 $\leq 4xD$

22 668 ...

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

004
006
008
010
025
031



DIN 376 with reduced shank

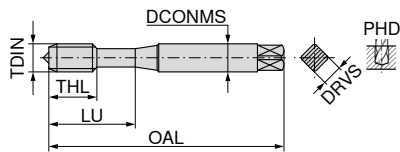
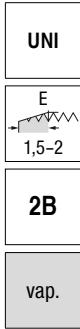
22 670 ...

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

037
043
050
062
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

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

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	004
EG Nr. 6-32	0,794	70	6,0	4,9	3,8	8	25	3	006
EG Nr. 8-32	0,794	80	6,0	4,9	4,4	8	30	3	008
EG Nr. 10-24	1,058	80	7,0	5,5	5,2	10	30	3	010
EG 1/4-20	1,270	90	8,0	6,2	6,7	14	35	3	025
EG 5/16-18	1,411	100	10,0	8,0	8,4	16	39	3	031
P									12
M									7
K									12
N									
S									
H									
O									

Blind hole – Machine taps, right hand

UNJC

SL

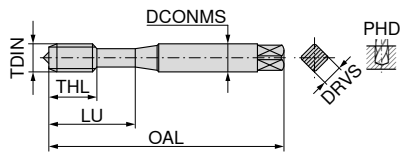
Ti

C

2-3

3BX

TiCN



DIN 371 with reinforced shank



HSS-E

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

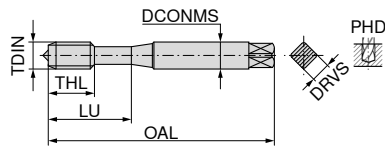
22 166 ...

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	004
Nr. 6-32	0,794	56	4,0	3,0	2,85	12	20	3	006
Nr. 8-32	0,794	63	4,5	3,4	3,50	13	21	3	008
Nr. 10-24	1,058	70	6,0	4,9	3,90	15	25	3	010
1/4-20	1,270	80	7,0	5,5	5,25	17	30	3	025
3/8-16	1,588	100	10,0	8,0	8,10	22	39	3	037
P									7
M									7
K									
N									22
S									5
H									
O									

Through hole – Machine taps, right hand

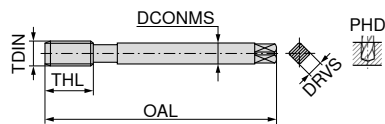
UNF

Stabil



DIN 371 with reinforced shank

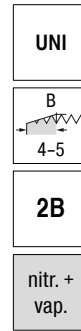
TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
Nr. 4-48	0,529	56	3,5	2,7	2,40	11	18	2
Nr. 4-48	0,529	56	3,5	2,7	2,40	11	18	3
Nr. 5-44	0,577	56	3,5	2,7	2,70	11	18	3
Nr. 6-40	0,635	56	4,0	3,0	2,95	12	20	3
Nr. 8-36	0,706	63	4,5	3,4	3,50	13	21	3
Nr. 10-32	0,794	70	6,0	4,9	4,10	15	25	3
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

B
4-5

2B

nitr. +
vap.

HSS-E

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

22 602 ...

004

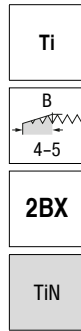
006

008

010

025

031



Ti

B
4-5

2BX

TiN



HSS-PM

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

22 317 ...

004

005

006

008

010

025

031

037

22 603 ...

043

050

056

062

075

087

100

112

125

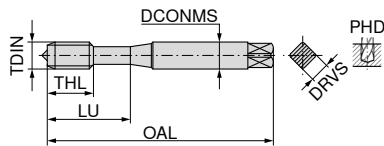
137

22 421 ...

050

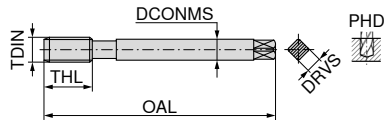
Through hole – Machine taps, right hand

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			

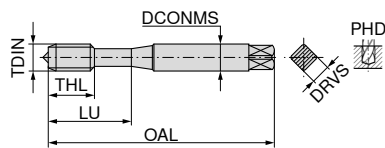
UNI	FE	VA
2B	2B	2B
TiN		nitr.
HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 0^\circ$ $\leq 850 \text{ N/mm}^2$ $\leq 3xD$	HSS-E $\angle 0^\circ$ $\leq 1100 \text{ N/mm}^2$ $\leq 3xD$
23 180 ...	23 280 ...	23 480 ...
010	010	010
025	025	025
031	031	031
037	037	037

23 181 ...	23 281 ...	23 481 ...
043	043	043
050	050	050
056	056	056
062	062	062
075	075	075

Blind hole – Machine taps, right hand

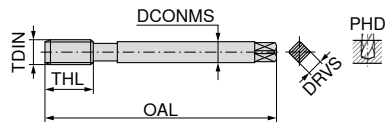
UNF

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 ...

002
004
006

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

22 606 ...

004
006

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

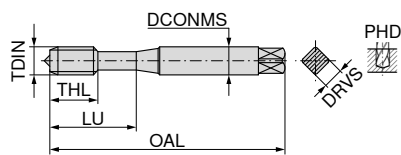
22 307 ...

006
010
025
031
037

Blind hole – Machine taps, right hand

UNF

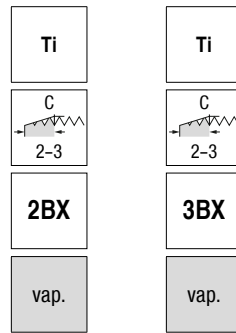
SL



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 ...



HSS-PM

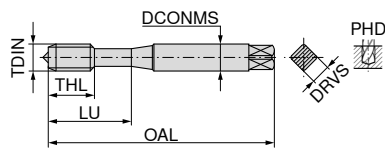
 $\angle 30^\circ$
 $\leq 1400 \text{ N/mm}^2$
 $\leq 1,5xD$

22 303 ...

010
025
031
037010
025
031
037

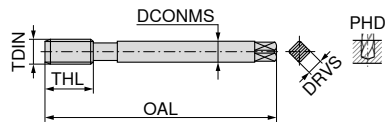
Blind hole – Machine taps, right hand

UNF



DIN 371 with reinforced shank

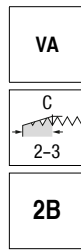
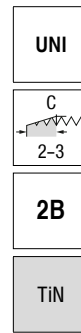
TDIN	TP	OAL	DCONMS	DRVS	PHD	THL	LU	Flutes
mm	mm	mm	mm	mm	mm	mm	mm	
Nr. 10-32	0,794	70	6	4,9	4,1	10	25	3
1/4-28	0,907	80	7	5,5	5,5	10	30	3
5/16-24	1,058	90	8	6,2	6,9	10	35	3
3/8-24	1,058	90	10	8,0	8,5	10	35	3



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 ...

23 482 ...

010
025
031
037

010
025
031
037

23 183 ...

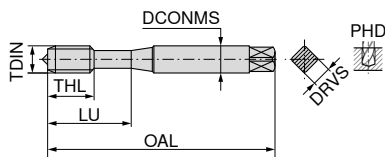
23 483 ...

043
050
056
062
075

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

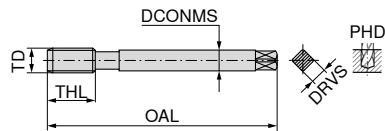
004

006

008

010

025



DIN 2174 with reduced shank

22 313 ...

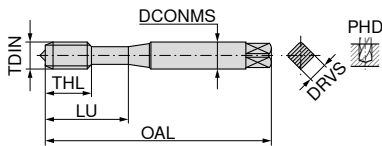
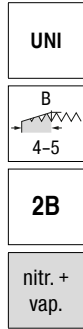
TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes
7/16-20	1,27	100	8	6,2	10,55	22	6
1/2-20	1,27	100	9	7,0	12,15	22	6

043

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

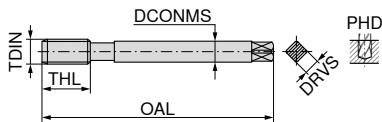


HSS-E

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

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

004
006
008
010
025


DIN 374 with reduced shank

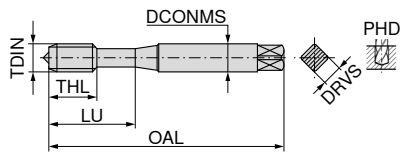
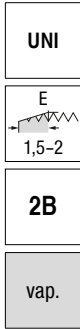
22 677 ...

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

037
043
050
062
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

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

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

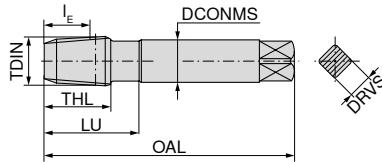
004
 006
 008
 010
 025

P	12
M	7
K	12
N	
S	
H	
O	

Blind hole – Machine taps, right hand

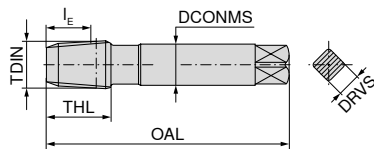
NPT

Salo-Rex



DIN 371 with reinforced shank

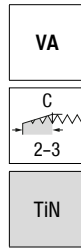
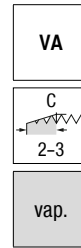
TDIN	TP mm	OAL mm	DCONMS mm	DRVS mm	I _E mm	THL mm	LU mm	Flutes
1/16-27	0,941	90	8	6,2	9,24	13,0	26,0	3
1/8-27	0,941	90	10	8,0	9,28	13,0	26,0	3
1/8-27	0,941	90	10	8,0	9,28	12,0	26,0	4
1/4-18	1,411	100	14	11,0	13,55	19,5	34,5	3
1/4-18	1,411	100	14	11,0	13,55	18,0	34,5	4



DIN 374 with reduced shank

TDIN	TP 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
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 ...

006

012

025

012

025

22 371 ...

22 372 ...

037

050

075

100

037

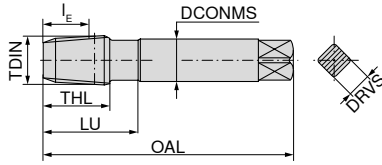
050

Through hole / Blind hole – Machine taps, right hand

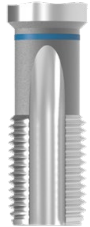
NPT

TWIN

VG



DIN 371 with reinforced shank



HSS-E

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

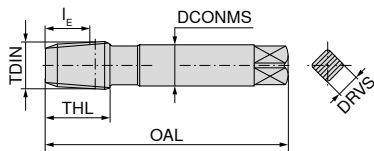
22 374 ...

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

006

012

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

037

050

075

100

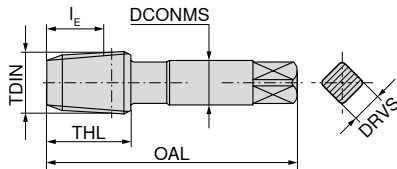
P	4
M	
K	6
N	22
S	
H	
O	

Through hole / Blind hole – Machine taps, right hand

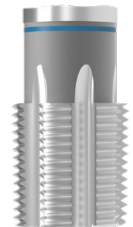
▲ ES = extra short

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

P	6
M	
K	6
N	22
S	
H	
O	

6

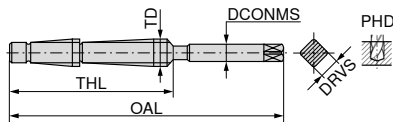
Through hole – Machine taps, right hand

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

Tr

ST

7H



Factory standard



HSS-E

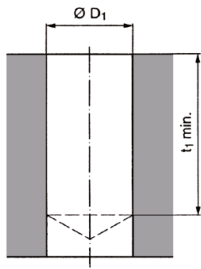
 $\angle 5^\circ$
 $\leq 900 \text{ N/mm}^2$
 $\leq 2xD$

22 402 ...

TD mm	TP mm	OAL mm	DCONMS mm	DRVS mm	PHD mm	THL mm	Flutes	
Tr 8	1,5	105	6	4,9	6,60	55	3	080
Tr 9	2,0	130	7	5,5	7,20	70	3	090
Tr 10	2,0	130	7	5,5	8,20	70	3	102
Tr 10	3,0	155	7	5,5	7,25	95	3	103
Tr 12	3,0	160	9	7,0	9,25	95	3	123
Tr 14	3,0	170	10	8,0	11,25	100	3	143
Tr 14	4,0	195	10	8,0	10,25	125	3	144
Tr 16	4,0	225	12	9,0	12,25	130	3	164
Tr 18	4,0	225	14	11,0	14,25	116	3	184
Tr 20	4,0	225	16	12,0	16,25	130	3	204
Tr 22	5,0	260	16	12,0	17,25	160	3	225
Tr 24	5,0	285	18	14,5	19,25	165	3	245
P								•
M								
K								•
N								•
S								
H								
O								

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

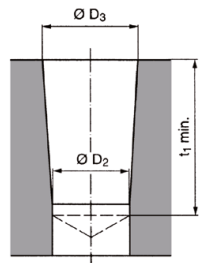
Pre-drilling of cylindrical holes without reamer



		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

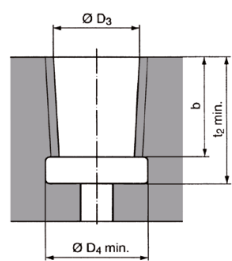


Taper 1:16

		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

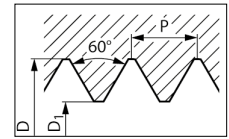
Tapped hole pilot diameter

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

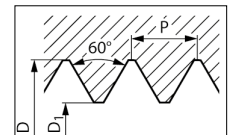


MF

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



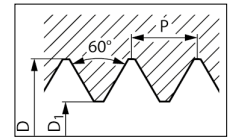
Dimensions in mm; P = Pitch

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

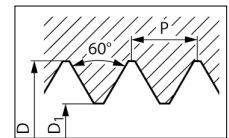
Thread nominal Ø		Ø D ₁		Core hole
D	P	min.	max.	
M6	1	5,51	5,59	5,55
M7	1	6,51	6,59	6,55
M8	1,25	7,39	7,48	7,4
M9	1,25	8,39	8,48	8,4
M10	1,5	9,25	9,35	9,3
M11	1,5	10,25	10,35	10,3
M12	1,75	11,12	11,25	11,2
M14	2	13,00	13,15	13,0
M16	2	15,00	15,15	15,0
M18	2,5	16,72	16,90	16,8
M20	2,5	18,72	18,90	18,8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

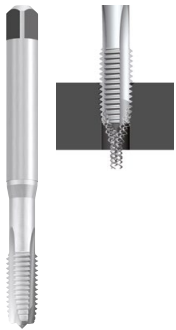


Dimensions in mm; P = Pitch

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

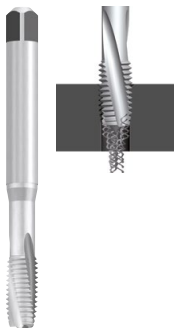
Blind hole tap type SL



- ▲ 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

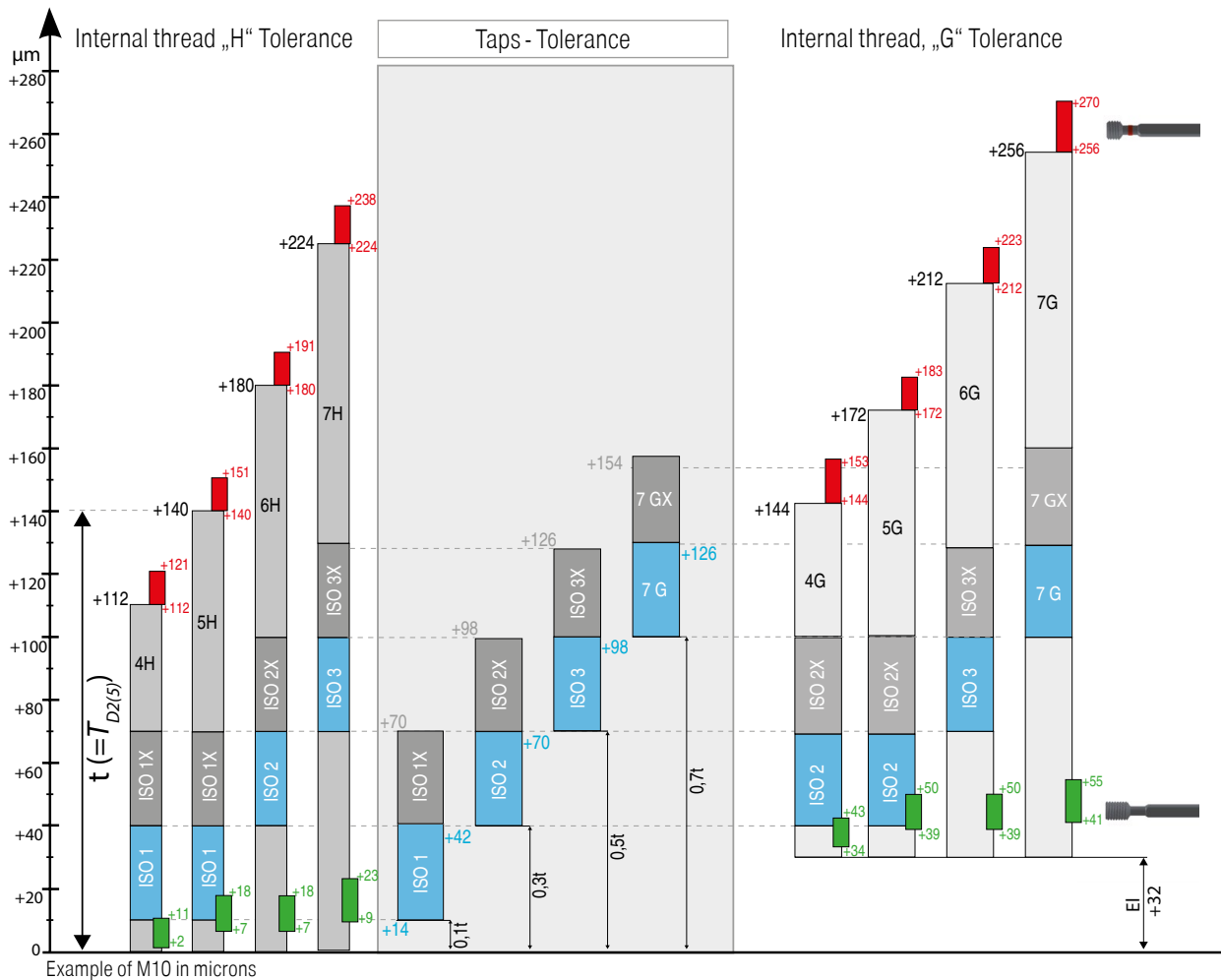
Spanlos

Thread former type Spanlos



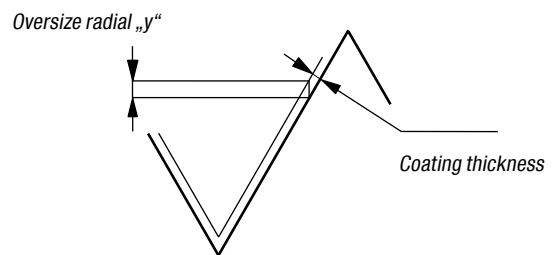
- ▲ For blind and through holes up to 3xD
- ▲ Lead Form C: 2–3 cutting leads, without spiral point
- ▲ For cold formable materials up to 1400 N/mm²
- ▲ Suitable for synchronised machining, with lubrication grooves and internal cooling

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

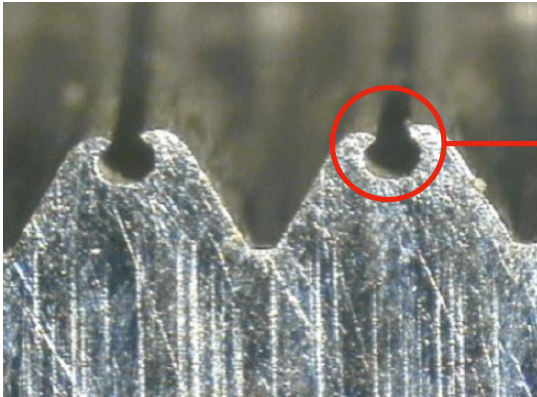


Application class of the tap Designation according to		Tolerance class of the internal thread to be cut				
DIN	ISO					
4H	ISO1	4H	5H	-	-	-
6H	ISO2	4G	5G	6H	-	-
6G	ISO3	-	(4E)	6G	7H	8H
7G	-	-	-	(6E)	7G	8G

 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

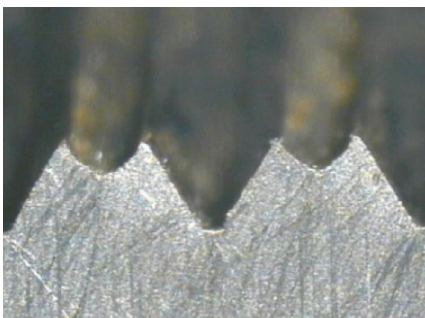
Thread formers



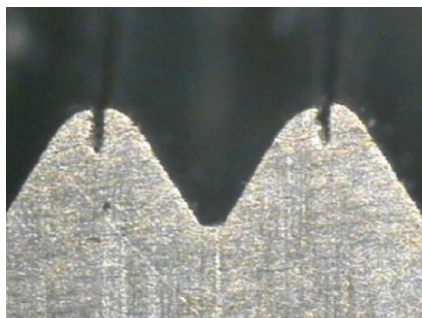
The thread profile is pressed gradually into the material via the start (leading edge) of the tap.

Properties

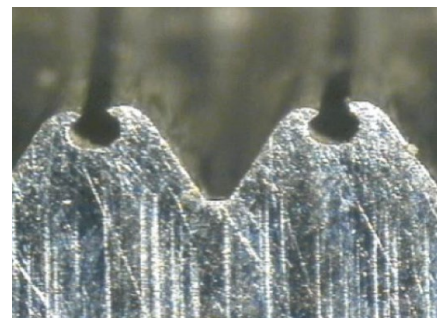
- ▲ One type can be used in different materials
- ▲ For through and blind holes
- ▲ Very good thread surface quality
- ▲ High static and dynamic strength thread
- ▲ Secure machining of deep and counterbored threads
- ▲ Short machining times
- ▲ No chip problems
- ▲ No swarf
- ▲ High process security
- ▲ 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

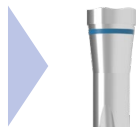
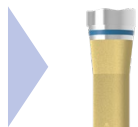
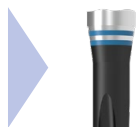
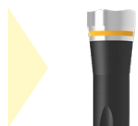
- ▲ Chromium-nitrogen coating
- ▲ Very wear-resistant coating
- ▲ Especially suitable for use in aluminum, but also for P, M and S materials

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

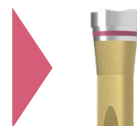
Type NW, Soft and Ms for aluminium,
short-chipping brass and soft materials

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

