WALTER
Engineering Kompetenz

2023

Threading Solutions
Inch Shank

_THREADING

Solutions for tapping and thread forming

Technologies at Walter.

Accure·tec

The patented Walter Accure·tec technology ensures maximum vibration damping on boring bars for turning and adaptors for milling. Ideal for turning, milling and drilling operations involving extended tool applications.

Tiger·tec® Gold

Tiger·tec® Gold is the new Walter generation platform for unique indexable insert coatings. It makes maximum tool life and process reliability possible. The CVD grade is produced using the innovative ultra low pressure method (ULP-CVD). The special titanium aluminium nitride layer makes them highly resistant to abrasion, hairline cracks, oxidation and plastic deformation. The heat-resistant, tough PVD grade with aluminium oxide multi-layer is suitable for difficult machining conditions.

Tiger·tec® Silver

With Tiger·tec® Silver, Walter is offering a world first in coating technology for indexable inserts. The special aluminium oxide layer with optimised microstructure reduces wear during turning, milling and drilling operations, and increases toughness and temperature resistance for significantly higher cutting data.

Walter BLAXX

Walter BLAXX is the benchmark for a new generation of milling cutters: The milling bodies are extremely robust thanks to their special surface treatment. The milling systems, which are mainly positioned tangentially, are equipped with Tiger·tec® indexable inserts. Tools with the "Walter BLAXX" designation combine high wear resistance with unbeatable performance data.

Walter Green

Walter Green: Sustainability and responsible use of resources are central components of our company principles. We use our "Walter Green" seal to show how we implement these principles, such as by offsetting our CO_2 emissions with environmental conservation projects.

Walter Nexxt

Engineering Kompetenz and digital expertise go hand in hand at Walter. Together with our wholly owned software subsidiary Comara, we develop digital solutions that efficiently connect machines and tools, optimising their performance on the basis of real-time data. Digital solutions on a level playing field with Industry 4.0 – Walter Nexxt.

Walter Xpress

Walter Xpress is the rapid ordering and delivery service offered by Walter Multiply for high-quality special tools. It is available for around 10,000 tool varieties, with a maximum delivery time of two to four weeks from the order date. The ordering process is clearly structured and guarantees absolute planning security. Quotations for all enquiries are calculated and provided within 24 hours.

XD Technology

Walter Titex solid carbide drilling and reaming tools stand for precision, high performance and cost-efficiency when drilling in practically any material. Walter Titex XD Technology offers the greatest precision and cost-efficiency in deep-hole drilling operations up to $70 \times D_c$ without pecking.

Xill·tec™

With Xill·tec™, the solid carbide milling cutters from the MC230 Advance product range, Walter offers a uniquely wide range, with different dimensions, numbers of teeth and shank versions. This means that users are well-equipped for all conceivable milling operations and ISO materials. Universal use – with excellent quality.

Xtra·tec®

Xtra·tec® indexable insert milling cutters and drills guarantee extremely soft cutting action and optimal surface quality on almost all materials. Indexable inserts with highly positive geometries and the Tiger·tec® coating have a particularly beneficial hardness/toughness ratio. For maximum productivity and process reliability.

Xtra·tec®XT

Xtra·tec® XT is the latest generation of Walter milling tools. As the "Xtended" Xtra·tec® technology, it offers a completely new perspective on productivity and process reliability. It can cover nearly all milling operations in every common material group: More reliable, productive, cost-efficient than ever before – all while compensating for the CO_2 emissions through Walter Green.

X·treme Evo

The X·treme Evo solid carbide drills from the DC160 Advance product range and DC260 Advance step drills embody "the next generation of drilling": Can be used universally for all ISO material groups, machine concepts and applications. With outstanding tool life, productivity and process reliability.

Walter Capto™ is a modular tool adaptor system. It is suitable for all turning, milling, drilling and threading processes. Its ISO-standardised polygon taper absorbs torsional moments and bending moments extremely well and ensures optimal repeat accuracy.

Walter ConeFit is an extremely flexible solid carbide milling system with a wide range of high-performance exchangeable heads and shaft variants. Its conical thread can self-centre, thereby guaranteeing maximum stability and concentricity.

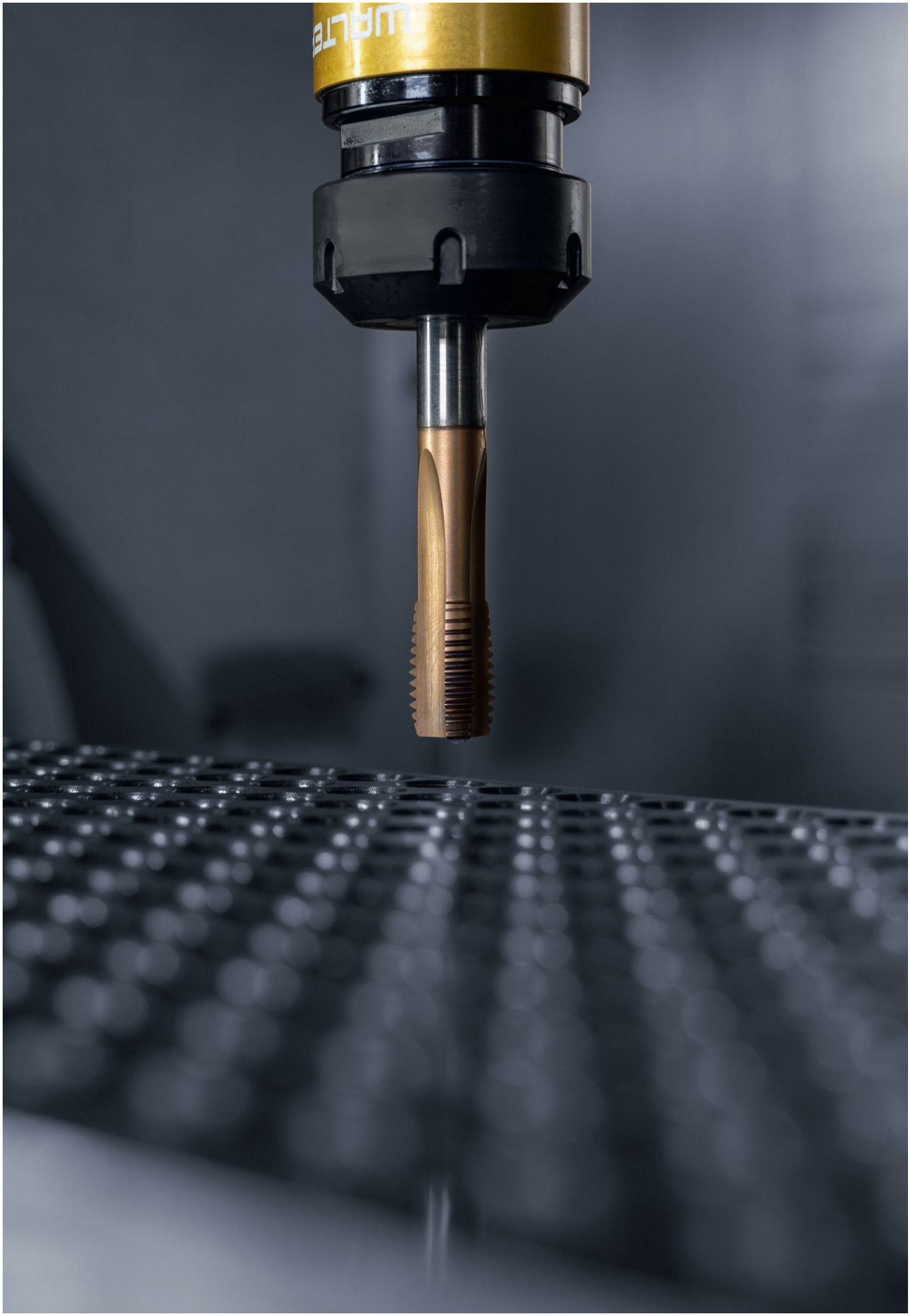
Walter ScrewFit users benefit from maximum flexibility. Its modular interface is suitable for a wide variety of boring bars and adaptors and a wide range of tool diameters and lengths for milling and drilling.

The precision-ground QuadFit interface with taper and support face characterises the precision of the vibration-damped boring bars for turning and thread turning with Walter Accure·tec technology. The exchangeable head system, which can be rotated by 180°, makes it possible to rapidly replace tools with high indexing accuracy.

In turning and grooving operations, the Walter precision cooling system provides cooling at the centre of the chip formation. Its dual coolant jets are directed precisely onto the flank and rake faces. In drilling operations, the coolant jets exit close to the cutting edge, cooling the flank and rake faces at the same time. This system provides significantly increased tool life, improved chip breaking and chip removal, greater efficiency and higher quality.

"Flash" refers to specialised solid carbide milling cutters for high-feed milling. Their end-face geometry reduces the chip thickness "h" and therefore enables an extremely high feed per tooth. Forces that occur are diverted axially towards the centre of the tool, which helps to stabilise the machining process.

On Walter turning toolholders with "SmartLock", the clamping screw can be operated from the side of the tool. This makes it possible to change the inserts in the machine quickly and easily. Tool change times are reduced as a result. Ideal for use on CNC lathe and multi-spindle machines.



NAFTA Threading

Highlights

Tapping

Thread forming

The high-tech threading tool for a wide range of applications.

UNIVERSAL

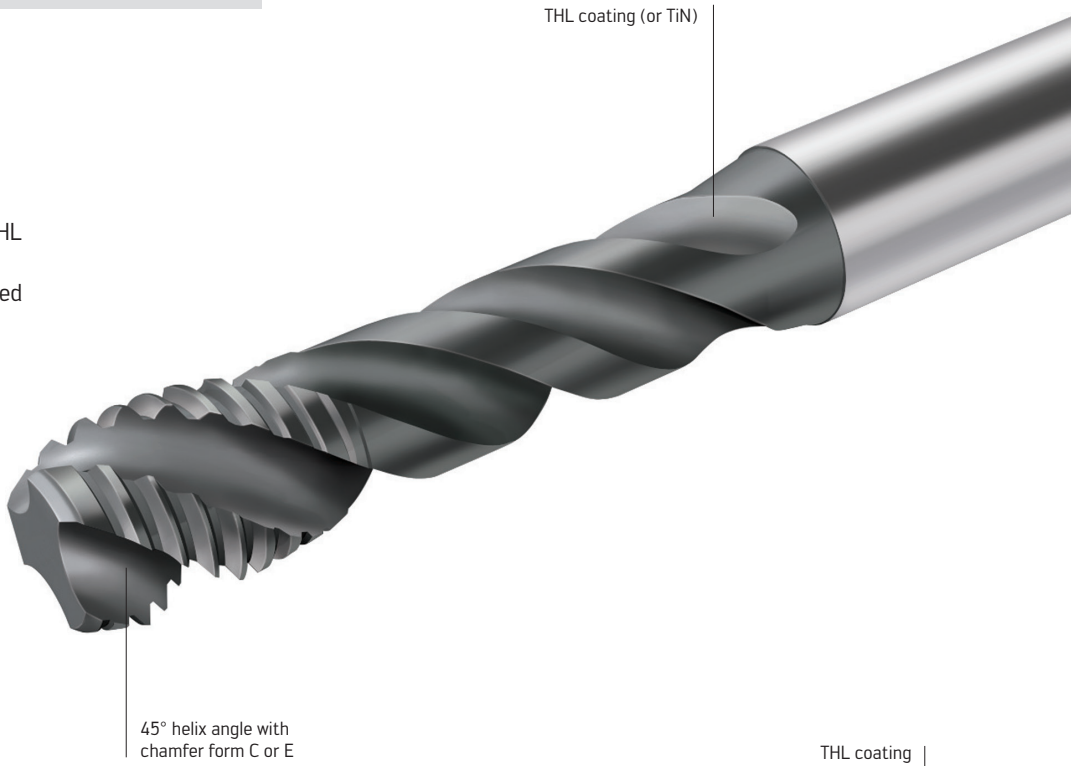
DIMENSION RANGE

DIN/ANSI
UNC 4-40 - UNC 3/4-10
UNF 10-32 - UNF 3/4 - 16

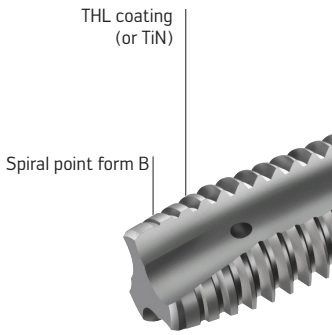
DIN
UNC 2-56 - UNC 3/4-10
UNF 4-48 - UNF 5/8 - 18
M2 - M64
MF 6x0.75 - MF 22x1.5
G 1/8-28 - G1-11

THE TOOLS

- Universal high-performance cut taps, made from HSS-E-PM
- Outstanding chip control due to optimized surface finish and specialized THL coating
- Low risk of fractures thanks to improved micro geometry
- Wear resistant but tough substrate
- Variants: with axial or radial coolant channel



Paradur® Eco Plus **Type:** EP2051302



POTENTIAL BENEFITS

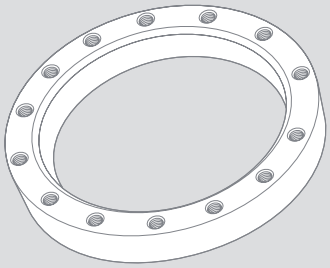
- Highest productivity in a wide range of materials and applications
- Excellent process reliability due to outstanding chip control and tough substrate
- Very good wear resistance because of HSS-E-PM substrate
- Reliable machining of deep threads

THE APPLICATION

- Paradur® Eco Plus: blind hole threads up to 3 x D_N
- Prototex® Eco Plus: through hole threads up to 3.5 x D_N
- ISO P, M, K and N materials from 150 up to 370 HB
  - · unalloyed and alloyed steels
  - · stainless steels (austenitic, duplex, ferritic/martensitic)
  - · GJS as main application, GJL/CGI as secondary application
  - · Al wrought alloys, AlSi alloys up to 12 % Si content
  - · Copper and copper alloys as secondary application

Prototex® Eco Plus **Type:** EP2021342

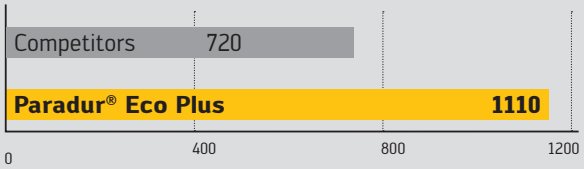
Lock ring
Paradur® Eco Plus
M6 blind hole



Workpiece material:	17-4 PH
Tool:	**Paradur® Eco Plus** EP2051302-M6
Coating:	THL
Hole type:	Blind hole
Thread depth:	16 mm (2.5 x D_N)
Cooling lubricant:	Emulsion 7%

Cutting data	Competitors	Paradur® Eco Plus
n	159 rpm	265 rpm
Cutting speed v_c	10 SFM	16 SFM

Comparison of tool life (number of threads)



Excellent reliability, advanced performance

UNIVERSAL

DIMENSION RANGE: TC117/TC217 Advance

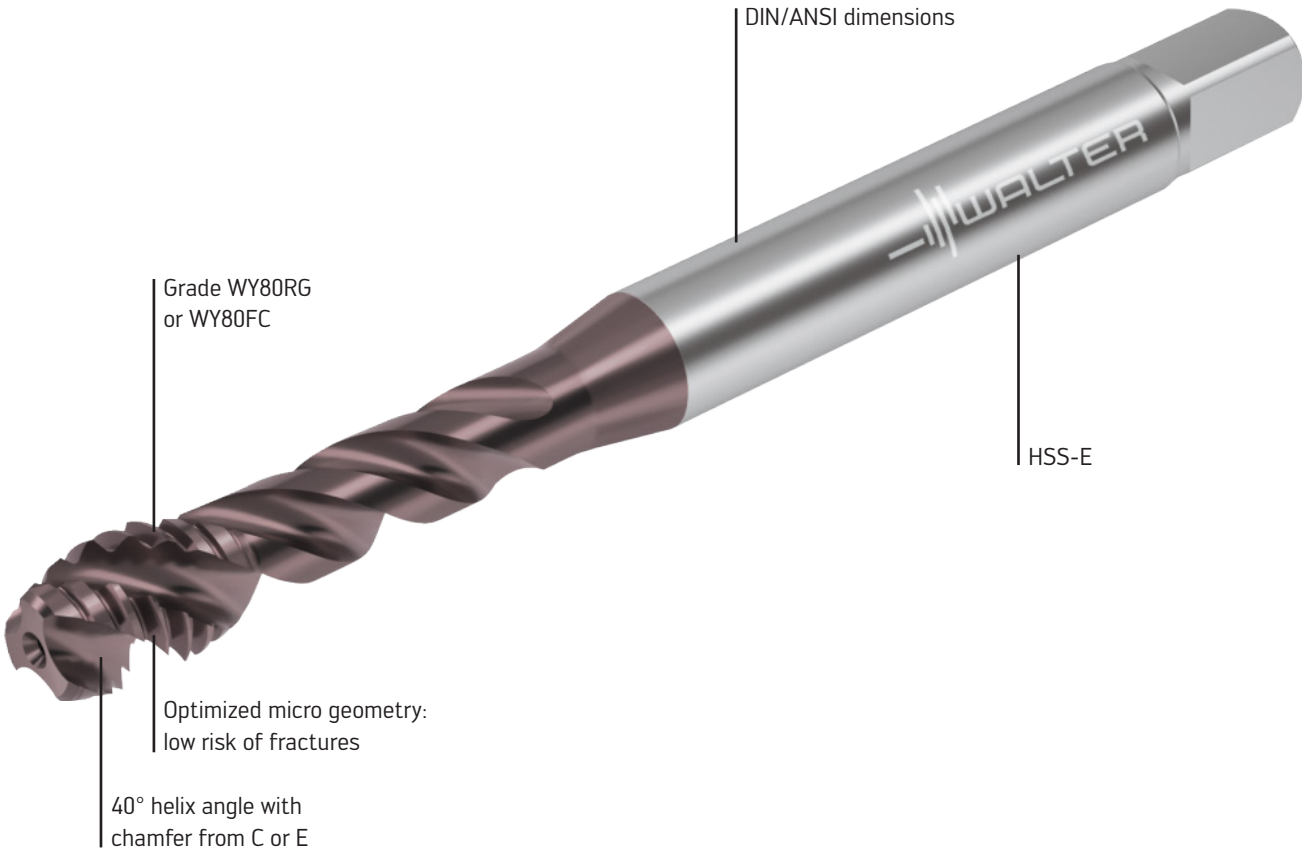
DIN/ANSI
UNC 1-64 - UNC 1 1/2-6
UNF 0-80 - UNF 1 1/4-12
UN 1 1/8-8 - UN 1 5/8-8
UNS 1-14
STIUNC 2-56 - STIUNC 3/8-16
STIUNF 10-32 - STIUNF 3/8-24
M3 - M20

THE TOOLS

- Universal HSS-E cut taps
- Outstanding chip control due to optimized surface finish and specialized coating / surface treatment
- TC117: Stable and wear resistant cutting edges thanks to 40° helix angle
- TC217: HSS-E with increased hardness for higher tool life
- One single tap for 2B and 3B tolerances
- DIN/ANSI dimensions (DIN length, ANSI shank)

THE APPLICATION

- TC117: blind hole threads up to 2,5 x D_N
- TC217: through hole threads up to 3,0 x D_N
- ISO P, M, K and N materials up to 370 HB
  - · unalloyed and alloyed steels
  - · stainless steels (austenitic, duplex, ferritic/martensitic)
  - · GJS as main application, GJL/CGI as secondary application
  - · Al wrought alloys, AlSi alloys up to 12 % Si content
  - · Copper and copper alloys as secondary application



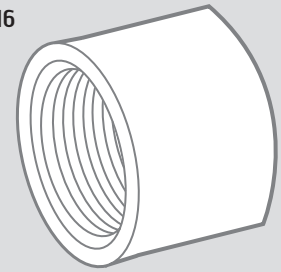
TC117 Advance cut tap **Fig.: TC117**

THE GRADES: TC117/TC217

- WY80RG (HSS-E + THL): good chip control, good wear resistance and higher cutting speed
- WY80FC (HSS-E + vap): best chip control, lesser wear resistance and lower cutting speed

APPLICATION EXAMPLE

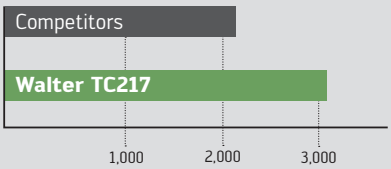
Tapping - Through hole M6



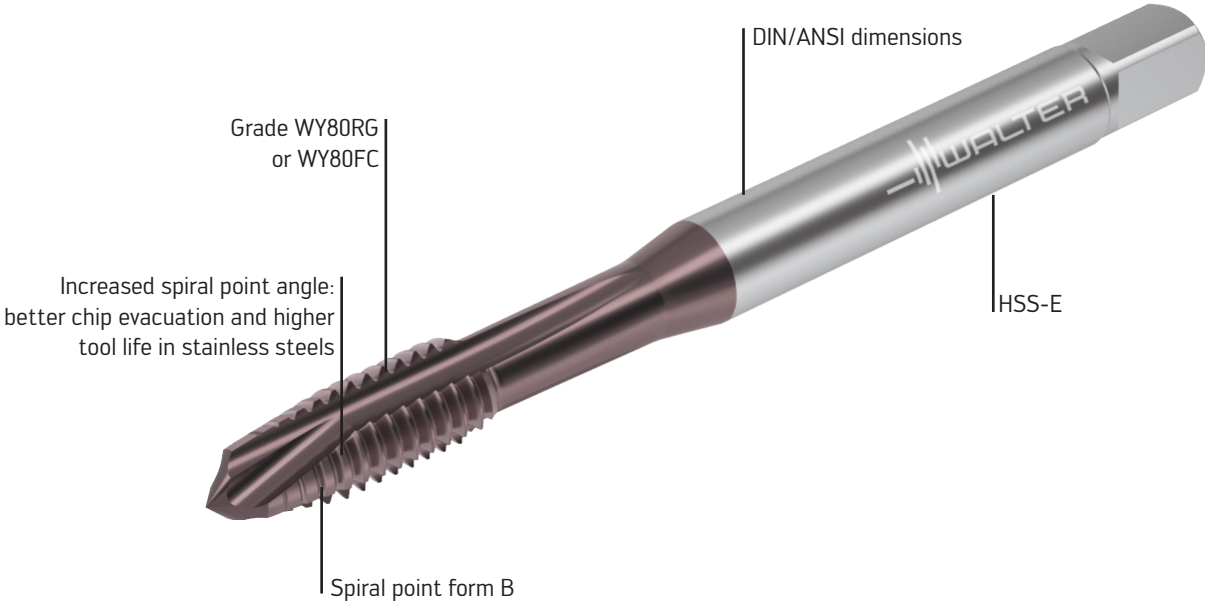
Workpiece Material:	316Ti
Coolant:	emulsion 6%
Thread dimension:	M6
Thread depth	15mm

	Competitors	**TC217.M6-C0-WY80FC**
v_c (sfm)	10	10
Tool life	2,100	3,050

Comparison Tool life



+45%



TC217 Advance cut tap **Fig.: TC217**

POTENTIAL BENEFITS

- High productivity in a wide range of different materials
- Excellent process reliability due to outstanding chip control
- Reduced inventory: machining of 2B and 3B tolerances with the same tap
- Large variety of thread types and dimensions available from stock

_TC115 / TC216 PERFORM CUT TAPS

The all-rounders for small and medium batch sizes.

UNIVERSAL

DIMENSION RANGE: TC115/TC216 Perform

DIN/ANSI	DIN
UNC 6-32 - UNC 3/4-10	UNC 6-32 - UNC 3/4-10
UNF 10-32 - UNF 3/4 - 16	M1.6 - M20
	MF 8X1 - MF 18X1.5

THE TOOLS: TC115/TC216

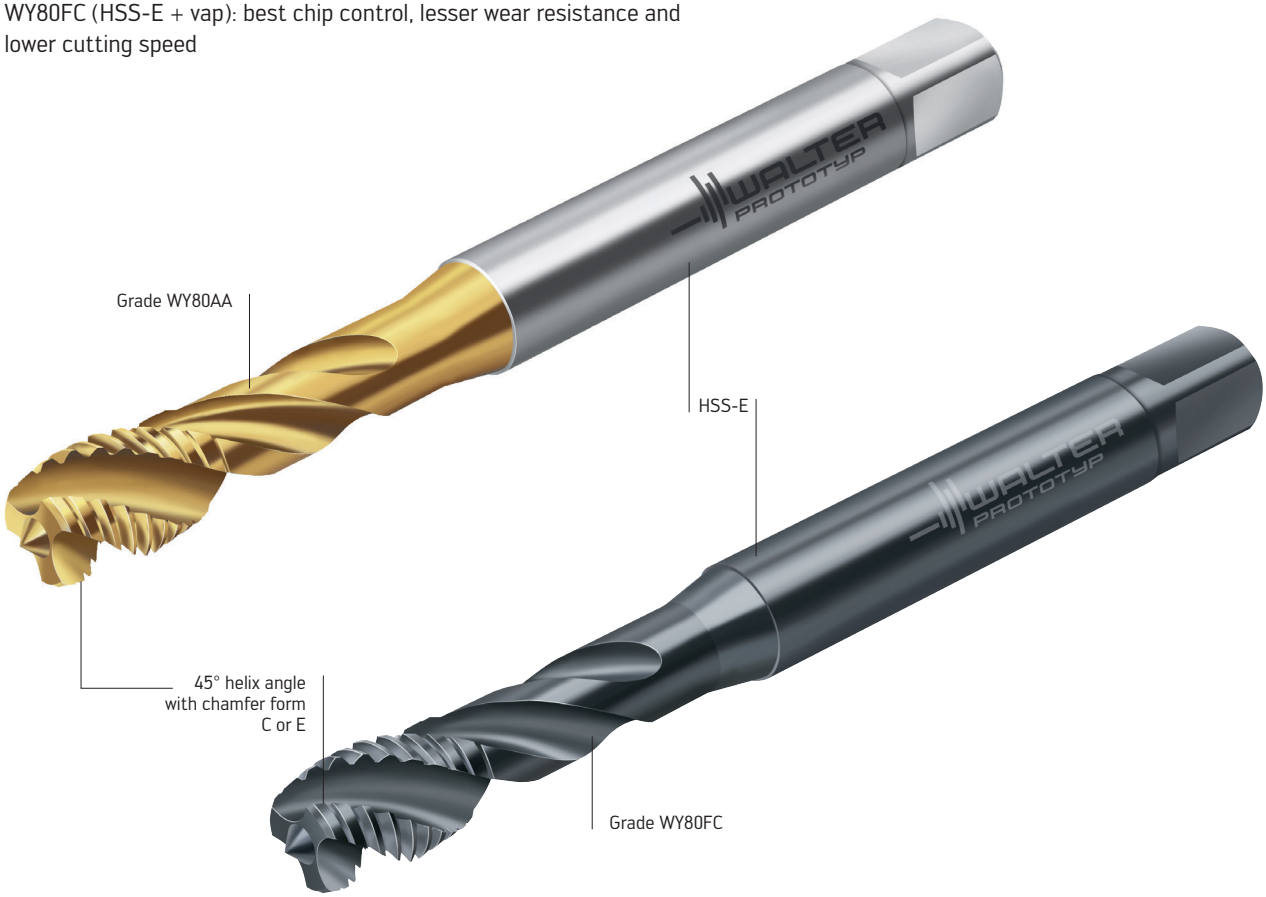
- Universal HSS-E cut taps
- Excellent self guidance due to low relief angles: no axial miscut in soft materials
- TC115: deep threads possible thanks to 45° helix angle

THE APPLICATION

- TC115: blind hole threads up to 3 x D_N
- TC216: through hole threads up to 3 x D_N
- ISO P, M, K and N materials up to 300 HB
  - · unalloyed and alloyed steels
  - · austenitic stainless steels
  - · nodular cast iron (GJS)
  - · Al wrought alloys, AlSi alloys up to 7% silicon content
- Floating chucks can be utilized even in very soft materials

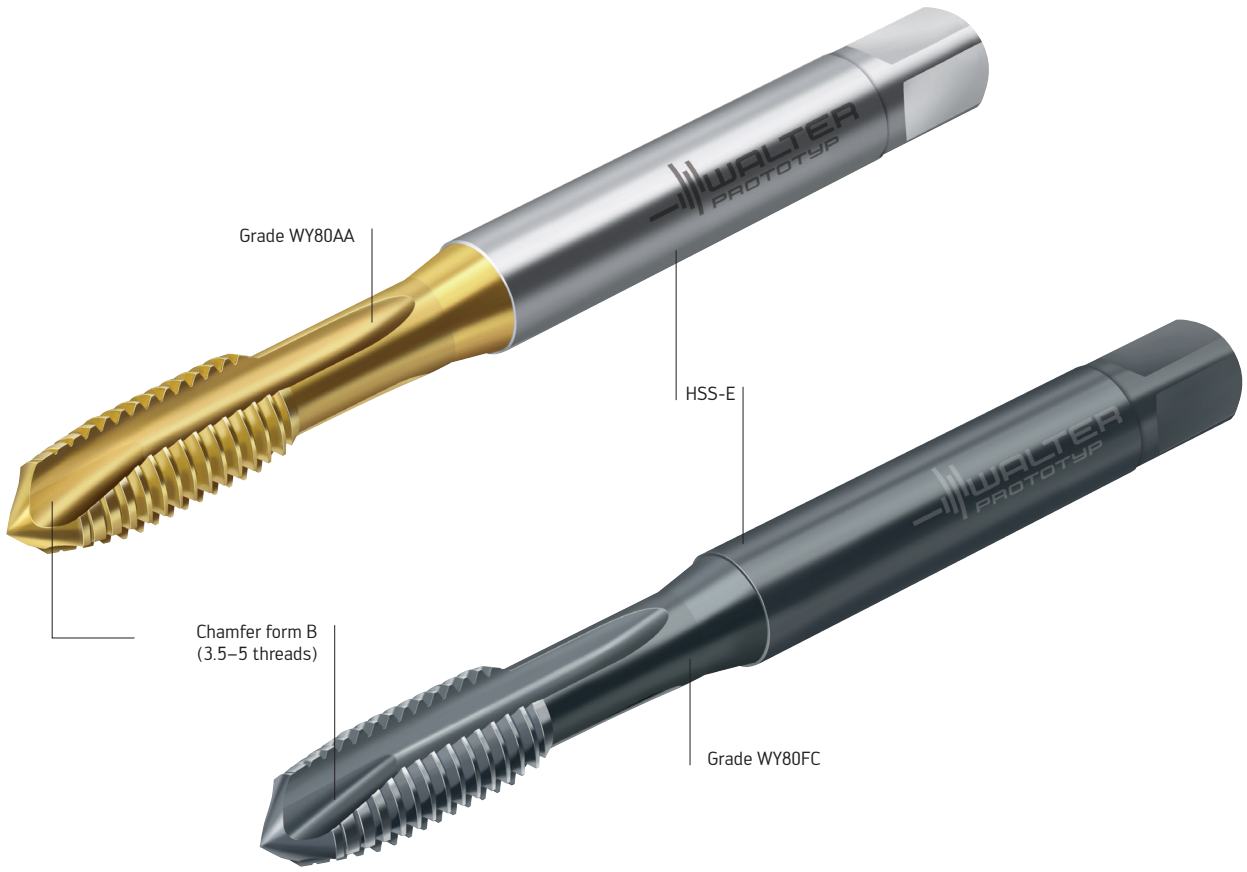
THE GRADES

- WY80AA (HSS-E + TIN): good wear resistance and higher cutting speed
- WY80FC (HSS-E + vap): best chip control, lesser wear resistance and lower cutting speed



The Walter Perform product line

The Perform line of tools from Walter will ensure that you enjoy a high level of profitability, as they also win your approval through their wide range of applications. They are ideal for use with a variety of materials, when the work at hand involves small and medium batch sizes.



POTENTIAL BENEFITS

- Cost-efficient and reliable machining of small and medium batch sizes
- Reduced number of tools thanks to universal use in a wide range of materials

_ PARADUR® SHORT CHIP HT CUT TAP

Short chips - safe process.

PROBLEM SOLVER

DIMENSION RANGE

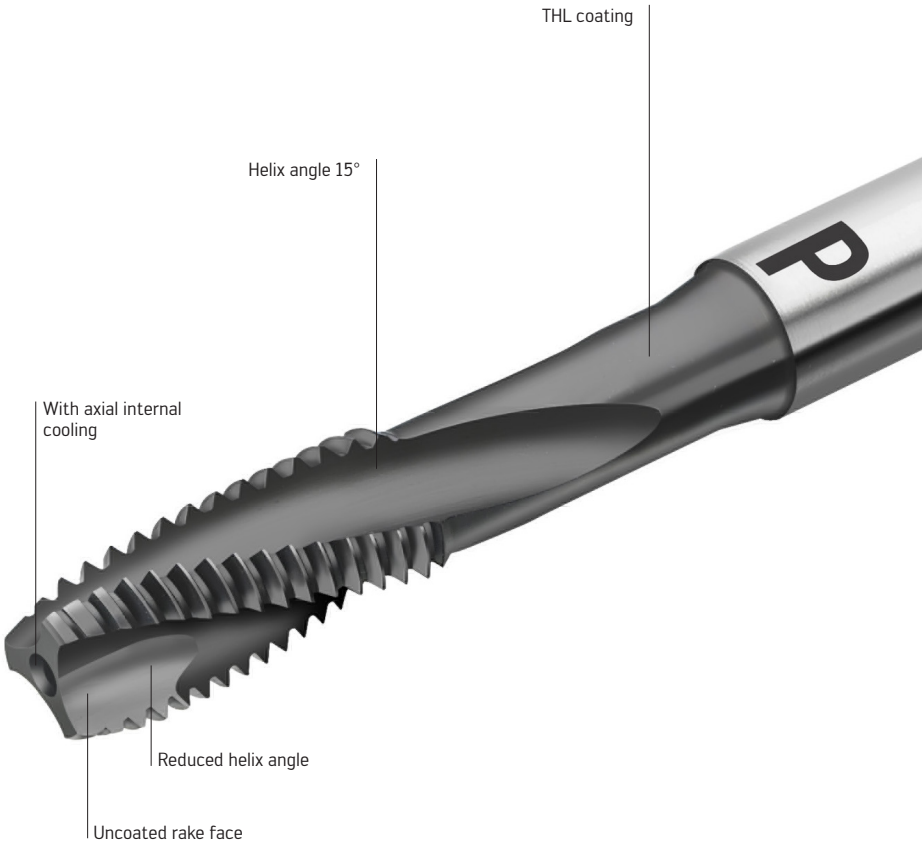
DIN/ANSI	DIN
UNC 1/4-20 - UNC 5/8-11	M5 - M12
	MF 12x1.5 - MF 16x1.5

THE TOOL

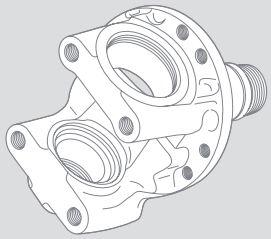
- High-performance blind hole cut tap
- Problem solver for steel machining in case of poor chip control / birds nesting
- Short chips thanks to reduced helix angle and uncoated rake face
- Axial internal coolant supply ensures chip evacuation

THE APPLICATION

- Blind hole threads up to 3.5 x D_N
- Steels from 230 to 370 HB as main application
- Ductile cast iron (GJS) and Al wrought alloys as secondary application



Truck steering knuckle
Paradur® Short Chip HT
Blind hole

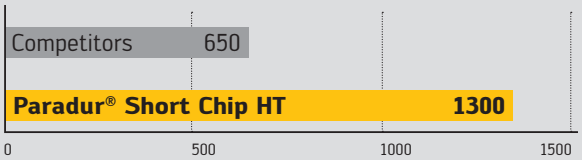


Workpiece material:	4140
Tensile strength:	320 HB
Tool:	**Paradur® Short Chip HT** 20410TR-M16x1.5
Coating:	THL
Hole type:	Blind hole
Thread depth:	38 mm
Cooling lubricant:	Emulsion
Adaptor:	Floating holder

Cutting data

n	298 rpm
Cutting speed v_c	50 SFM

Comparison of tool life (number of threads)



The tool

- No bird nesting
- 100% longer tool life
- Good thread surface

Paradur® Short Chip HT **Type:** 20410TR

POTENTIAL BENEFITS

- High degree of process reliability even with deeper blind hole threads
- No birds nesting thanks to short chips
- Interference contours no problem thanks to short chips

_ TC142 SUPREME CUT TAP

The specialist for stainless steels.

SPECIALIST

DIMENSION RANGE

DIN/ANSI	DIN
UNC 2-56 - UNC 3/4-10	M1.6 - M36
UNF 10-32 - UNF 9/16-18	MF 8x1 - MF 20-1.5
	G 1/8-28 - G 1/4-19

THE TOOL

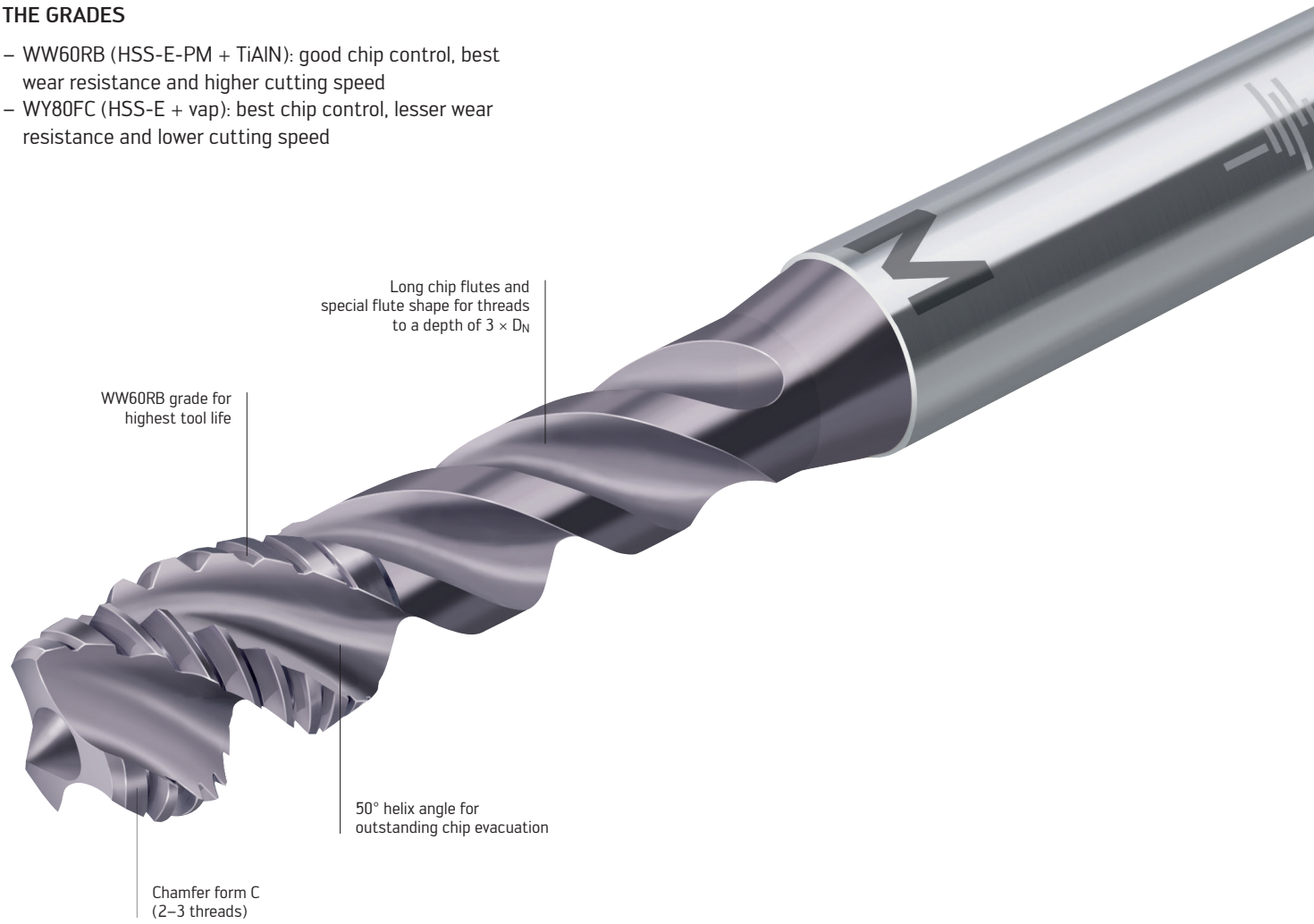
- High-performance blind-hole cut tap
- Designed for stainless steel machining: sharp cutting edges, fast helix and large rake angle
- Excellent chip evacuation due to 50° helix angle

THE APPLICATION

- Blind hole threads up to 3 x D_N
- ISO M: stainless steels up to 300 HB (austenitic and duplex)
- ISO P: steels from 200 to 350 HB as secondary application

THE GRADES

- WW60RB (HSS-E-PM + TiAlN): good chip control, best wear resistance and higher cutting speed
- WY80FC (HSS-E + vap): best chip control, lesser wear resistance and lower cutting speed

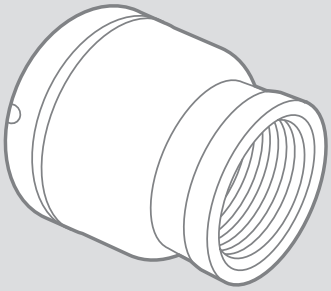


The Walter Supreme product line

Within the Supreme line, you will find tools with optimized machining qualities. These tools are always the first choice if high cutting speeds and long tool life are required when machining medium to large batch sizes.

Supreme tools are designed for machining very specific material groups, and often exceed the performance of comparable tools.

G1/4 TC142
coupling piece

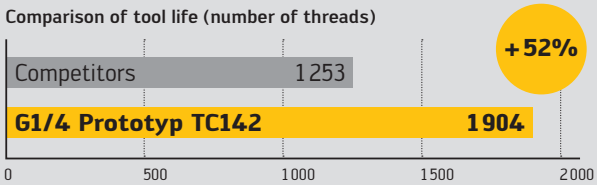


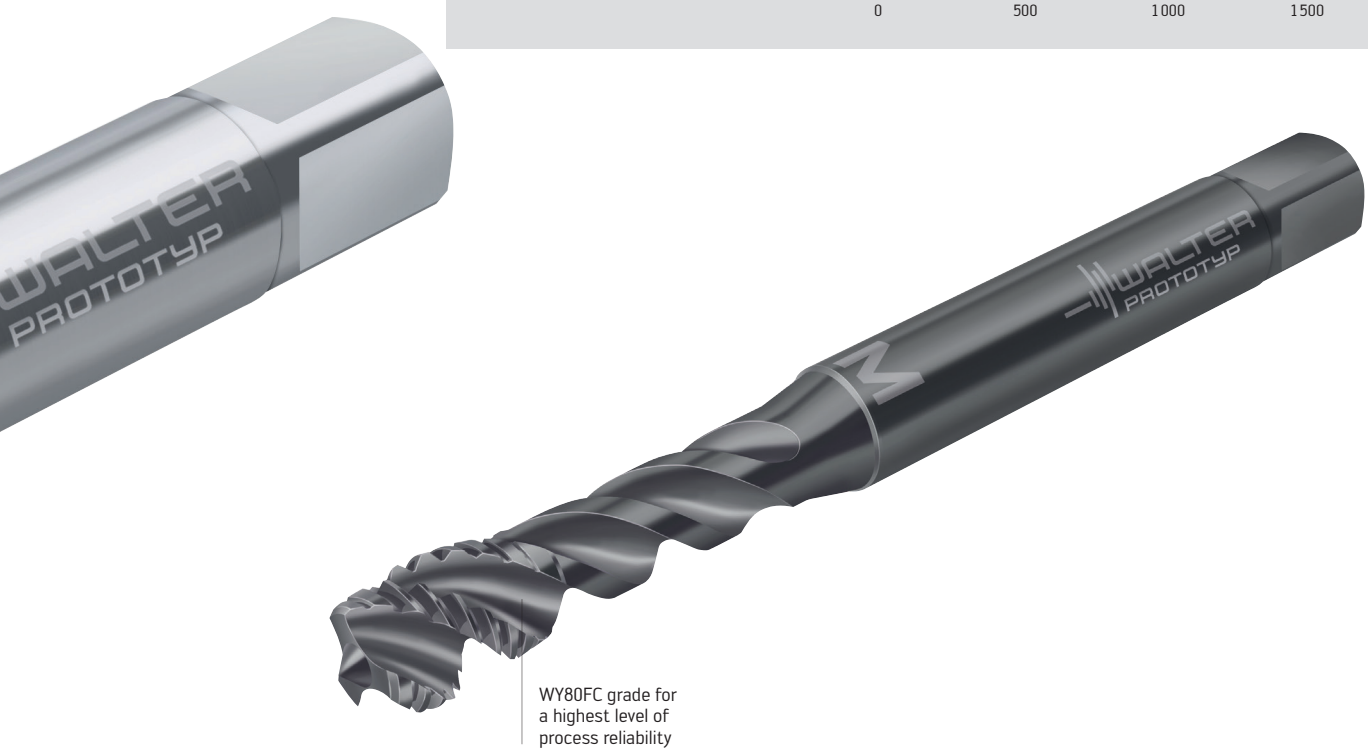
Material:	316 Ti
Tensile strength:	Approx. 175 HB
Tool:	**TC142-G1/4-LO-WY80FC**
Coating:	TiAlN
Hole type:	Blind hole
Thread depth:	$2 \times D_N$
Cooling lubricant:	Emulsion 7%

Cutting data:

	Competitors	**TC142**
n	318 rpm	318 rpm
Cutting speed v_c	20 SFM	20 SFM

Comparison of tool life (number of threads)





WY80FC grade for a highest level of process reliability

POTENTIAL BENEFITS

- Maximum tool life and high reliability for stainless steel machining
- Secure machining of deep threads in tough materials
- Two grades with unique strengths

– PARADUR® ECO CI CUT TAP

Maximum productivity for cast iron machining.

SPECIALIST

DIMENSION RANGE

DIN/ANSI
UNC 8-32 - UNC 1-8
UNF 12-28 - UNF 7/8-14

DIN
UNC 6-32 - UNC 7/8-9
UNF 10-32 - UNF 7/8-14
M 3 - M 30
MF 6x0.75 - MF 30x1.5
G 1/8-28 - G 1 1/2-11

THE TOOL

- High-performance cut tap for grey cast iron machining
- Maximum wear resistance thanks to HSS-E-PM with high surface hardness
- Large number of flutes
- Internal coolant supply secures chip evacuation

THE APPLICATION

- Blind and through hole threads up to 3 x D_N
- ISO K:
  - Primary application: GJL (grey cast iron) and CGI (compacted graphite iron)
  - Secondary application: GJS (nodular cast iron) up to 2 x D_N
- ISO N: AlSi alloys with an Si content > 7%

Paradur® Eco CI

Type: E2031406

POTENTIAL BENEFITS

- Highest productivity for grey cast iron machining
- Extremely high tool life thanks to extraordinary wear resistance
- Short machining time due to high cutting speeds

– PARADUR® X·PERT K CUT TAP

Maximum reliability for cast iron machining.

SPECIALIST

DIMENSION RANGE

DIN/ANSI	DIN
UNC 2-56 - UNC 3/4-10	M 3 - M 20

THE TOOL

- Sturdy cut tap for cast iron machining
- Good wear resistance thanks to HSS-E-PM
- Large number of flutes

THE APPLICATION

- Blind and through hole threads up to 3 x D_N
- ISO K: GJL (grey cast iron), CGI (compacted graphite iron) and GJS (nodular cast iron)
- ISO N: AlSi alloys with an Si content > 7%

Paradur® X·pert K **Type:** K2031407

POTENTIAL BENEFITS

- Good performance in all ISO K materials
- Reliable even in case of unfavorable conditions

– PARADUR® X·PERT N CUT TAP

The solution for soft and sticky aluminum alloys.

SPECIALIST

DIMENSION RANGE

DIN/ANSI
UNC 2-56 - UNC 3/8-16
STIUNC 2-56 - STIUNC 1/4-20
STIUNF 10-32 - STIUNF 1/4-28
M 2 - M 8

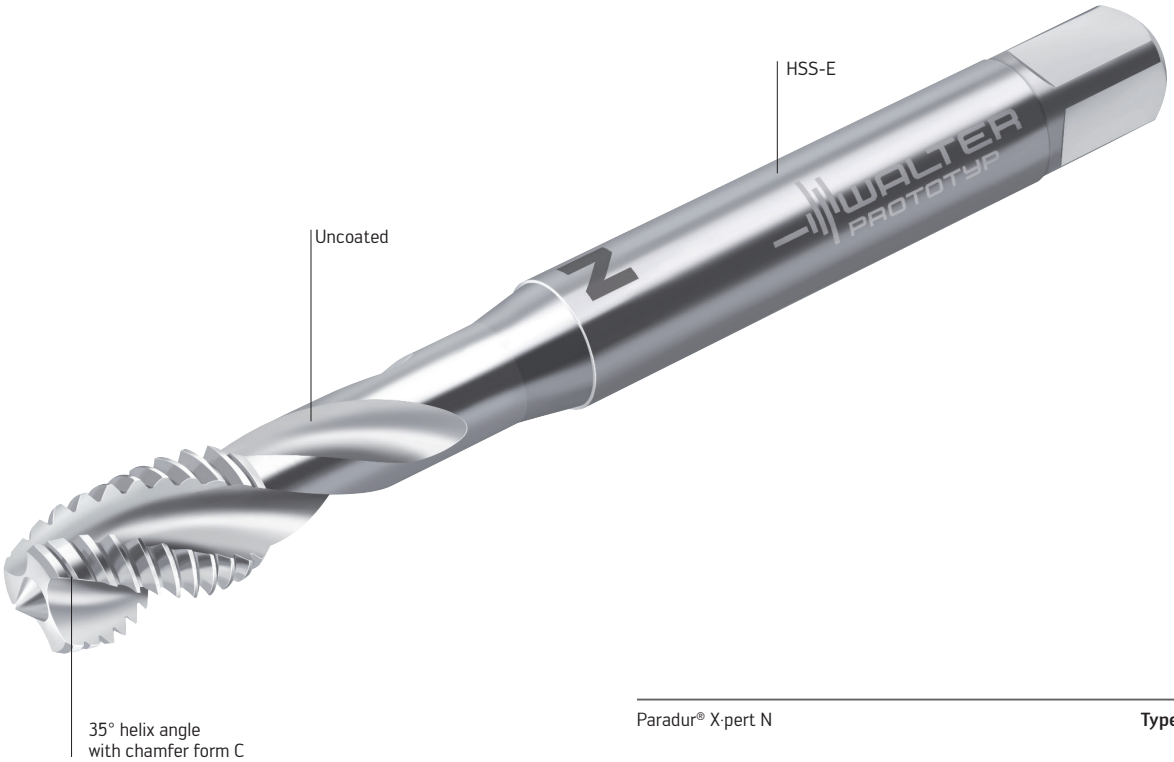
DIN
UNC 2-56 - UNC 3/8-16
STIUNC 6-32 - STIUNC 1/4-20
STIUNF 10-32 - STIUNF 1/4-28
M 1.6 - M 20
MF 8x1 - MF 20x1.5
M 3 LH - M 16 LH
G 1/8-28 - G 1-11

THE TOOL

- HSS-E cut tap
- Designed for soft and sticky aluminum alloys: sharp cutting edges and broad chip flutes
- Excellent self guidance due to low relief angles

THE APPLICATION

- Blind hole threads up to 3 x D_N
- Long-chipping materials with up to 200 HB
- ISO N:
  - AlSi alloys with an Si content of up to 7%
  - Pure copper
- ISO S:
  - Pure Titanium and Nickel
- ISO O: Thermoplastics



Paradur® X·pert N **Type:** N205166

POTENTIAL BENEFITS

- High process reliability because of excellent chip formation
- Little tendency to form built up edges thanks to bright finish
- No miscutting in soft materials

_ PARADUR® TI & PROTOTEX® TINI

Taps for high tensile strength Titanium allys.

SPECIALIST

DIMENSION RANGE

DIN/ANSI
UNC #2 - UNC 1"
UNF 0 - UNF 1"
STIUNC 2 - STIUNC 1/4
STIUNF 8 - STIUNF 3/8
M 3 - M 20

Industries such as aerospace are ever-increasingly reliant upon high strength Titanium alloys. This next generation of Titanium alloys are placing even greater demands on the cutting tools used to process them, especially threading.

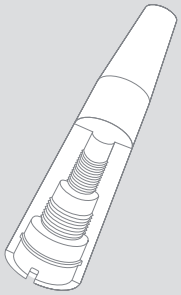
THE TOOL

- HSS-E(PM) substrate
- Prototex TiNi for through holes
- Paradur Ti for semi-bottoming blind holes
- Increased radial relief for reduced friction
- Short flute length and increased web for added durability
- Innovative TiCN & NiT coating

THE APPLICATION

- Designed particularly for high tensile strength Titanium alloys
- Aerospace and medical industry components

Bone nail:
Internal M8 thread on a lathe

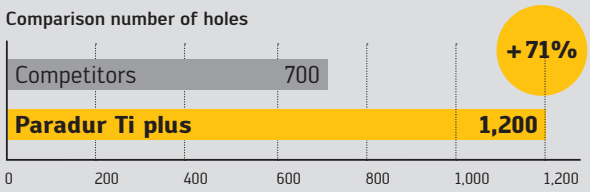


Material:	TiAl6V4 (3.7164)
Tool:	**Paradur Ti**
Coating:	TiCN
Hole type:	Blind hole
Thread depth:	34 mm (~4 x d)
Coolant:	Oil

Cutting data:

	Competitors	**Paradur Ti plus**
v_c	23 SFM	26 SFM

Comparison number of holes



POTENTIAL BENEFITS

- High process reliability
- Outstanding tool life
- Excellent thread quality

_TC420 SUPREME THREAD FORMER

Superior performance, for universal use.

UNIVERSAL

DIMENSION RANGE

DIN/ANSI	DIN
UNC 10-24 - UNC 3/4-10	M 2 - M 20
UNF 10-32 - UNF 3/4-16	MF 8x1 - MF 16x1.5

THE TOOL

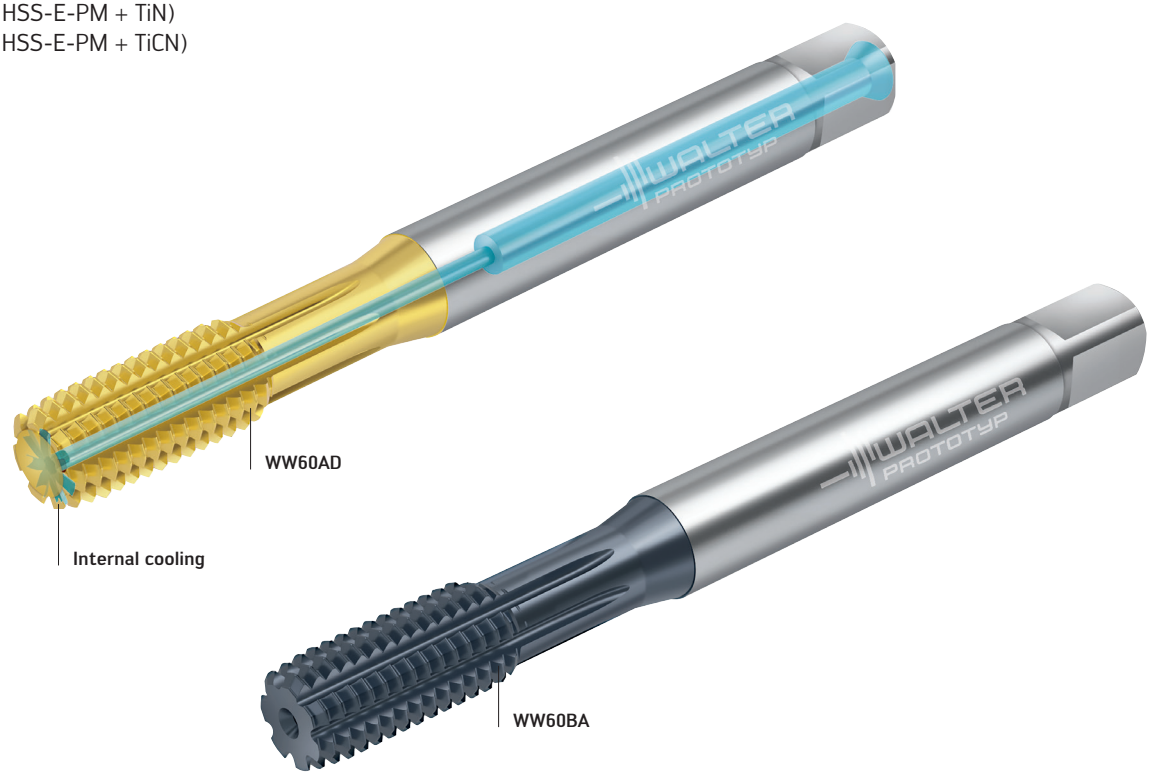
- HSS-E-PM thread former
- With and without lubrication grooves
- With and without internal coolant (axial/radial)
- Tolerances: 6HX and 6GX

THE GRADE

- WW60AD (HSS-E-PM + TiN)
- WW60BA (HSS-E-PM + TiCN)

THE APPLICATION

- Blind-hole and through-hole threads
- Thread depth up to $3.5 \times D_N$
- ISO material groups P, M, K und N
- All formable materials
- Areas of use: General mechanical engineering, automotive and energy industries, amongst others



TC420 Supreme thread former **Fig.:** TC420

POTENTIAL BENEFITS

- Can be used universally
- Up to 30% lower torque
- High cutting speeds possible
- Better surface finish than that achieved using thread cutting

Watch the product video:
www.youtube.com/waltertools

_TC410 ADVANCE THREAD FORMER

Even more powerful thanks to new geometry.

UNIVERSAL

DIMENSION RANGE

DIN/ANSI	DIN
UNC 2-56 - UNC 7/8-9	M 1 - M 24
UNF 0-80 - UNF 7/8-14	MF 4X0.5 - MF 30x2
M 3 - M 20	G G 1/8-G1

THE TOOL

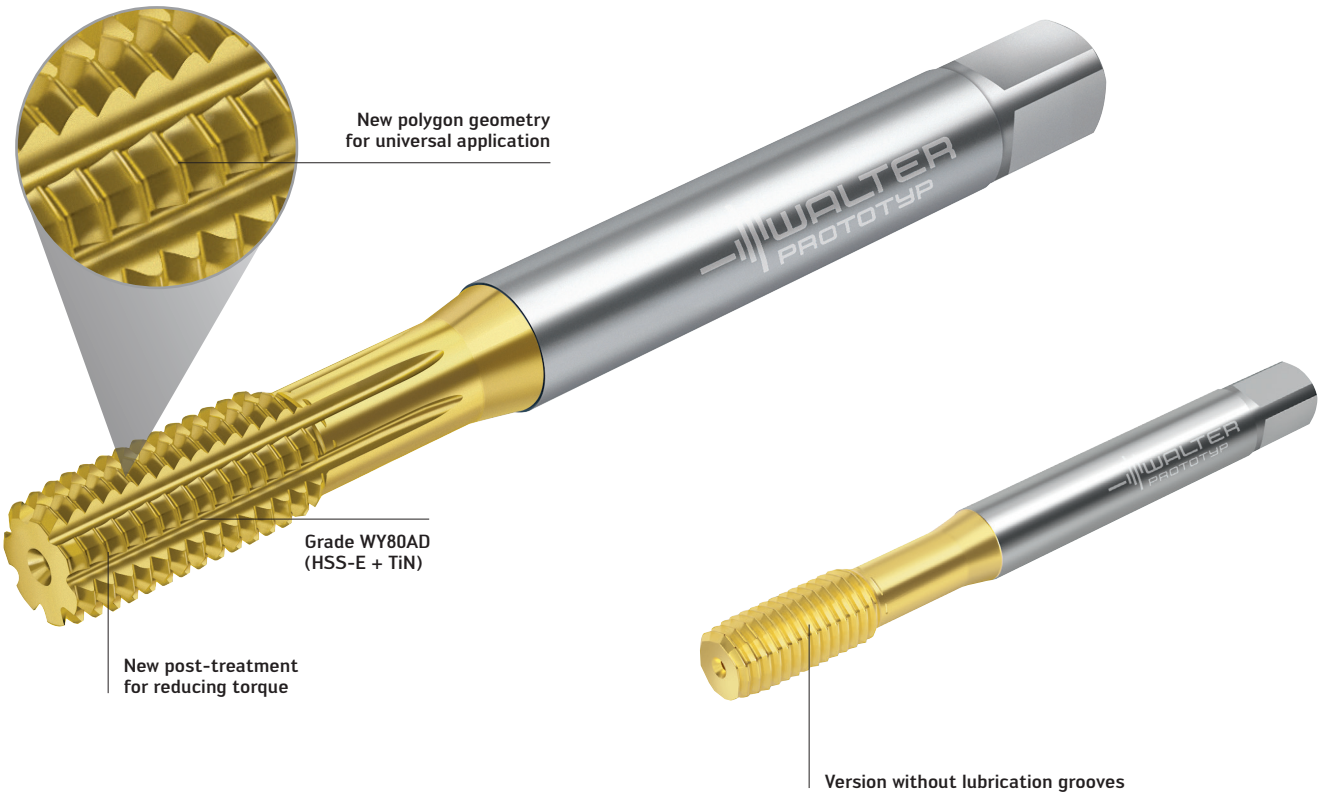
- Universal HSS-E thread former
- New geometry and very high surface quality
- Reduced torque and longer tool life
- For small to medium batch sizes

THE GRADES

- WY80AD (HSS-E + TiN)

THE APPLICATION

- Blind-hole and through-hole threads
- Thread depth up to $3.5 \times D_N$
- ISO material groups P, M, K, N and S
- All formable materials
- Areas of use: General mechanical engineering, automotive and energy industries, etc.



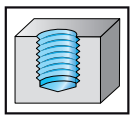
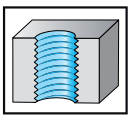
TC410 Advance thread former

Fig.: TC410-M10-C6-WY80AD and TC410-M10-C0-WY80AD

POTENTIAL BENEFITS

- Cost-effective even for small and medium batch sizes
- Can be used in all formable materials
- Reduced torque and longer tool life thanks to new geometry and post-treatment

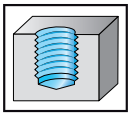
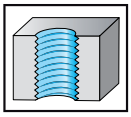
DIN/ANSI Cut tap/thread former overview

Tailored to different requirements:
Universal cut taps and cut taps for particular applications.

	Dimension range	Tool characteristics	Advantages	Material groups						
				P	M	K	N	S	H	O
Paradur®/ Prototex® Eco Plus 	M, MF, UNC, UNF, G	– Universal high-performance cut taps, made from HSS-E-PM – Outstanding chip control	– Highest productivity in a wide range of materials and applications – Excellent process reliability	●●	●●	●●	●●			
TC117 Advance 	UNC, UNF, UN, UNS, STIUNC, STIUNF, M	– Universal HSS-E cut taps – Outstanding chip control – Large variety of standard tools	– High productivity in a wide range of materials and applications – Excellent process reliability – Machining of 2B and 3B tolerances with the same tap	●●	●●	●●	●●			
TC217 Advance 										
TC115 Perform 	M, MF, UNC, UNF	– Universal HSS-E cut taps – Excellent self guidance	– Cost-efficient and reliable machining of small and medium batch sizes – Floating chucks can be utilized even in very soft materials	●●	●●	●●	●			
TC216 Perform 										
Paradur® Short Chip HT 	M, MF, UNC	– Reduced helix angle and uncoated rake face – Problem solver	– Safe process thanks to short chips – No birds nesting	●●		●	●			
TC142 Supreme 	M, MF, G, UNC, UNF	– Sharp cutting edges, fast helix and large rake angle – For stainless steels	– Max tool life & reliability for stainless steels – Secure machining of deep threads in tough materials	●	●●					
Paradur® Eco CI 	M, MF, UNC, UNF	– HSS-E-PM with high surface hardness – For grey cast iron (GJL)	– Highest productivity for grey cast iron machining – Extremely high tool life			●●	●●			●●
Paradur® Advance X·pert K 	M, UNC	– Sturdy cut tap for cast iron machining – For GJL, CGI, and GJS	– Good performance in all ISO K materials – Reliable even in case of unfavorable conditions			●●	●			
Paradur® Advance X·pert N 	M, MF, UNC, G	– Sharp cutting edges and broad chip flutes – For sticky Al alloys	– High process reliability because of excellent chip formation – Little tendency to form built up edges				●●	●		●

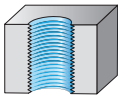
	Dimension range	Tool characteristics	Advantages	Material groups P	M	K	N	S	H	O
Synchrospeed 	M, MF, UNC, UNF, G	– Precise thread depth without manual correction – Use in wide array of materials	– Greater face clearance on cutting edge – Long tool life	●●	●●	●	●●	●		
Paradur® Ti 	M, MF, UNC, UNF, STIUNC, STIUNF	– High degree of process reliability – Ideal for aircraft and aerospace applications	– Outstanding tool life – Excellent thread quality	●●	●	●●	●	●		
Paradur® Ni 	M, UNC, UNF, STIUNC, STIUNF	– TiCN Coating – Ideal for general mechanical engineering	– Reliable machining of nickel alloys – Reduced torque thanks to sharp cutting edges	●		●	●	●		
Paradur® Ni 10 	M, MF, UNC, UNF	– Reduced helix in the chamfer – Optimized chip formation	– Chips are rolled more tightly, shorter chips – Use in a wide range of applications	●	●		●	●		
Prototex® TiNi 	M, MF, UNC, UNF, STIUNC, STIUNF	– TiCN Coating – Thread depth up to 2xD – Ideal for general mechanical engineering	– Cost-efficient and reliable machining of Ti and Ni alloys – Wide range of applications	●	●	●●	●●	●		●

Tailored to different requirements:
Three thread formers with individual geometries and coatings for machining all formable materials and specifically for ISO P.

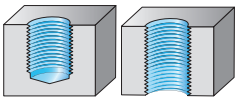
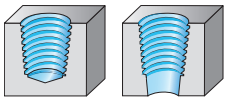
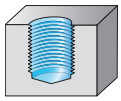
	Area of use	Tool characteristics	Advantages	Material groups P	M	K	N	S	H	O
TC420 Supreme 	Universal	– TiN and TiCN coating – HSS-E-PM – Short threaded part	– Long tool life – For all formable materials	●●	●●	●	●●	●		
TC410 Advance 	Universal	– TiN coating – HSS-E – Long threaded part	– For small and medium batch sizes – For all formable materials	●●	●●	●	●●	●		

HSS-E (-PM) taps

Machining					
Thread depth	2 x D_N	3 x D_N	3 x D_N	3.5 x D_N	3.5 x D_N
					
Designation	Prototex® TiNi	Prototex® Synchrospeed	TC217 Advance	Prototex® Eco Plus	TC216 Perform
Thread type					
M	✔		✔		
MF					
UNC / UNF / UN-8	✔	✔	✔	✔	✔
G / Rc / Rp					
MJ / UNJC / UNJF					
NPT / NPTF					
Pg / BSW / Tr					
STI-UNC / STI-UNF	✔		✔		
Tolerance	3B / 6HX	2B	2B/3B / 3B / 6HX / H11 / H7	2B	2B
Coolant supply	External	External	External	External	External
Chamfer form	B	B	B	B	B
Coating / grade	TICN / uncoated	TIN	WY80FC / WY80RG	THL	WY80AA
Cutting tool material	HSS-E-PM	HSS-E	HSS-E	HSS-E-PM	HSS-E
P Steel	●●	●●	●●	●●	●●
M Stainless steel	●●	●●	●●	●●	●●
K Cast iron		●●	●●	●●	●●
N NF metals	●	●●	●●	●●	●●
S Materials with difficult cutting properties	●●	●●			
H Hard materials					
O Other		●●			
Page in catalog	**29, 37, 62, 83, 89**	**36, 61**	**28, 34, 54, 59, 76, 82, 88**	**39, 58**	**35, 60**
QR code					
www.walter-tools.com/woc/	prototex-tini	prototex-synchrospeed	TC217	prototex-eco-plus	TC216

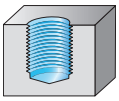
C 4

HSS-E (-PM) taps

Machining					
Thread depth	3 x D_N				1.5 x D_N
					
Designation	Paradur® X·pert K	Paradur Inox®	Paradur® H	Paradur® Ni	Paradur® Ni
Thread type					
M					
MF					
UNC / UNF / UN-8	✔				✔
G / Rc / Rp					
MJ / UNJC / UNJF					
NPT / NPTF		✔	✔	✔	
Pg / BSW / Tr					
STI-UNC / STI-UNF					✔
Tolerance	2B	NORMAL	NORMAL	NORMAL	3B
Coolant supply	External	External	External	External	External
Chamfer form	C	C	C	C	C / E
Coating / grade	TAFT	VAP	uncoated	VAP	TICN / VAP
Cutting tool material	HSS-E-PM	HSS-E	HSS-E	HSS-E	HSS-E-PM / HSS-E
P Steel		●●		●●	●●
M Stainless steel		●●			
K Cast iron	●●	●	●	●●	●●
N NF metals	●		●●	●●	●
S Materials with difficult cutting properties					●●
H Hard materials					
O Other			●		
Page in catalog	**47**	**94, 97**	**95, 98**	**96, 99**	**51, 73, 87, 93**
QR code					
www.walter-tools.com/woc/	paradur-xpert-k	paradur-inox	paradur-h	paradur-ni	paradur-ni

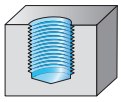
C 4

HSS-E (-PM) taps

Machining					
Thread depth	1.5 x D_N	2 x D_N	2.5 x D_N	3 x D_N	3 x D_N
					
Designation	Paradur® Ni 10	Paradur® Ti	Paradur® Synchrospeed	Paradur® Eco CI	Paradur® Eco Plus
Thread type					
M		✔			
MF					
UNC / UNF / UN-8	✔	✔	✔	✔	✔
G / Rc / Rp					
MJ / UNJC / UNJF					
NPT / NPTF					
Pg / BSW / Tr					
STI-UNC / STI-UNF		✔			
Tolerance	3B	3B / 6HX	2B	2B	2B
Coolant supply	External	External	External	axial	External / axial
Chamfer form	C	C / E	C	C	C
Coating / grade	TICN	TICN / VAP	TIN/VAP	TICN	THL
Cutting tool material	HSS-E-PM	HSS-E-PM	HSS-E	HSS-E-PM / HSS	HSS-E-PM
P Steel	●●	●●	●●		●●
M Stainless steel			●●		●●
K Cast iron			●●	●●	●●
N NF metals	●	●	●	●●	●●
S Materials with difficult cutting properties	●●	●●	●		
H Hard materials					
O Other			●	●●	
Page in catalog	**53, 75**	**32, 49, 71, 86, 92**	**43, 68**	**46, 70**	**33, 63**
QR code					
www.walter-tools.com/woc/	paradur-ni-10	paradur-ti	paradur-synchrospeed	paradur-eco-ci	paradur-eco-plus

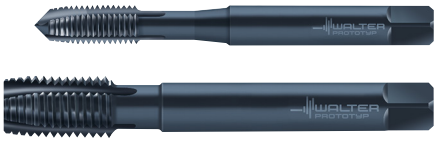
C 4

HSS-E (-PM) taps

Machining					
Thread depth	3 x D_N	3 x D_N	3 x D_N	3 x D_N	3.5 x D_N
					
Designation	Paradur® X·pert N	TC115 Perform	TC117 Advance	TC142 Supreme	Paradur® Short Chip HT
Thread type					
M	✔		✔		
MF					
UNC / UNF / UN-8	✔	✔	✔	✔	✔
G / Rc / Rp					
MJ / UNJC / UNJF					
NPT / NPTF					
Pg / BSW / Tr					
STI-UNC / STI-UNF	✔		✔		
Tolerance	2B / 3B / 6H	2B	2B/3B / 3B / 6HX / H11 / H7	2BX	2BX
Coolant supply	External	External	External	External	axial
Chamfer form	C	C	C / E	C	C
Coating / grade	uncoated	WY80AA	WY80FC / WY80RG	WW60RB / WY80FC	uncoated
Cutting tool material	HSS-E	HSS-E	HSS-E	HSS-E-PM / HSS-E	HSS-E
P Steel		●●	●●	●	●●
M Stainless steel		●●	●●	●●	
K Cast iron		●●	●●		●
N NF metals	●●	●	●●		●
S Materials with difficult cutting properties	●				
H Hard materials					
O Other	●				
Page in catalog	**31, 48, 85, 91**	**42, 67**	**30, 40, 56, 65, 78, 84, 90**	**45, 69**	**44**
QR code					
www.walter-tools.com/woc/	paradur-xpert-n	TC115	TC117	TC142	paradur-short-chip-ht

C 4

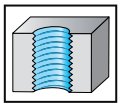
HSS-E machine taps
TC217 Advance inch shank



– Universal cut tap
– WY80FC: best chip control

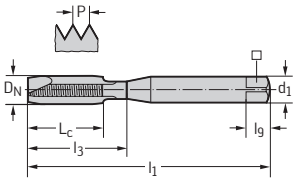
≤ 3×D_N | B=3.5-5 | 370HB / 100HB

M DIN 13 | 6HX



	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			

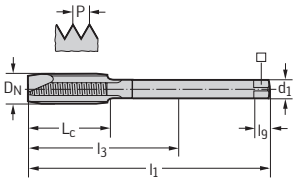
DIN/ANSI



Designation	D_N	P mm	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80FC
TC217.M3-C0-	M 3	0.5	2.205	0.354	0.709	0.141	0.110	0.190	2	
TC217.M4-C0-	M 4	0.7	2.480	0.472	0.827	0.168	0.131	0.250	3	
TC217.M5-C0-	M 5	0.8	2.756	0.512	0.984	0.194	0.152	0.250	3	
TC217.M6-C0-	M 6	1.0	3.150	0.591	1.181	0.255	0.191	0.313	3	
TC217.M8-C0-	M 8	1.25	3.543	0.709	1.378	0.318	0.238	0.380	3	
TC217.M10-C0-	M 10	1.5	3.937	0.787	1.535	0.381	0.286	0.437	3	

Order example for grade WY80FC: TC217.M3-C0-WY80FC

DIN/ANSI



Designation	D_N	P mm	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80FC
TC217.M12-L0-	M 12	1.75	4.331	0.906	3.224	0.367	0.275	0.437	3	
TC217.M16-L0-	M 12	2.0	4.331	0.984	2.587	0.480	0.360	0.563	4	
TC217.M20-L0-	M 16	2.5	5.512	1.181	3.642	0.652	0.489	0.689	4	

Order example for grade WY80FC: TC217.M12-L0-WY80FC

C 4

WALTER SELECT

●● Primary application ● Other application

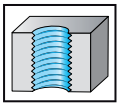
Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E-PM machine taps

Prototex® TiNi inch shank

– Recommended with oil
– For long-chipping materials

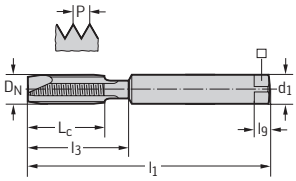
M DIN 13 | 6HX



≤ 2×D_N | B=3,5-5 | 44HRC 1400 –700 N/mm²

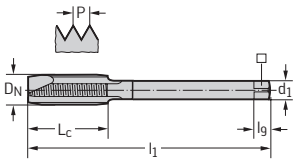
	P	M	K	N	S	H	O
uncoated	●●	●●		●	●●		

ANSI B94.9



Designation uncoated	D_N	P mm	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2021760-M3	M3	0.5	1.937	0.433	0.433	0.141	0.110	0.190	2
A2021760-M4	M4	0.7	2.126	0.591	0.591	0.168	0.131	0.250	3
A2021760-M6	M6	1.0	2.500	0.630	0.906	0.255	0.191	0.313	3
A2021760-M10	M10	1.5	2.937	0.748	1.299	0.381	0.286	0.437	3

ANSI B94.9



Designation uncoated	D_N	P mm	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2026760-M12	M12	1.75	3.378	0.945	2.272	0.367	0.275	0.437	4
A2026760-M16	M16	2.0	3.811	1.102	2.067	0.480	0.360	0.563	4
A2026760-M20	M20	2.5	4.469	1.181	2.598	0.652	0.489	0.689	4

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps
TC117 Advance inch shank

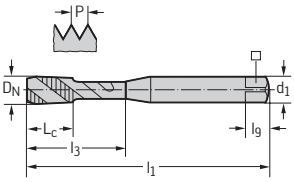
- Universal cut tap
- WY80FC: best chip control
- WY80RG: good chip control and good wear resistance

≤ 2.5×D_N | C=2-3 | 40° | 370HB / 150HB

M DIN 13 | 6HX

	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			
WY80RG (TiAlN)	●●	●●	●●	●●			

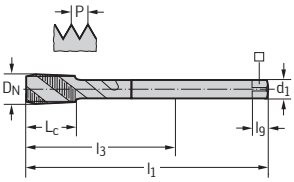
DIN/ANSI



Designation	D_N-P	P mm	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC	WY80RG
TC117.M3-C0-	M 3	0.5	2.205	0.236	0.709	0.141	0.110	0.190	3	☹	☹
TC117.M4-C0-	M 4	0.7	2.480	0.276	0.827	0.168	0.131	0.250	3	☹	☹
TC117.M5-C0-	M 5	0.8	2.756	0.315	0.984	0.194	0.152	0.250	3	☹	☹
TC117.M6-C0-	M 6	1.0	3.150	0.394	1.181	0.255	0.191	0.313	3	☹	☹
TC117.M8-C0-	M 8	1.25	3.543	0.472	1.378	0.318	0.238	0.380	3	☹	☹
TC117.M10-C0-	M 10	1.5	3.937	0.591	1.535	0.381	0.286	0.437	3	☹	☹

Order example for grade WY80RG: TC117.M3-C0-WY80RG

DIN/ANSI



Designation	D_N-P	P mm	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC	WY80RG
TC117.M12-L0-	M 12	1.75	4.331	0.630	3.224	0.367	0.275	0.437	4	☹	☹
TC117.M16-L0-	M 16	2.0	4.331	0.787	2.587	0.480	0.360	0.563	4	☹	☹
TC117.M20-L0-	M 20	2.5	5.512	0.984	3.642	0.652	0.489	0.689	4	☹	☹

Order example for grade WY80RG: TC117.M12-L0-WY80RG

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

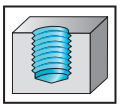
HSS-E machine taps

Paradur® X·pert N inch shank

– For long-chipping aluminum alloys (Si content < 7 %>

M
DIN 13

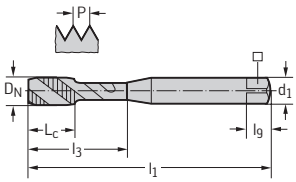
ISO2/6H



≤ 3×D_N | C=2-3 | 35° | 200HB 60HB

	P	M	K	N	S	H	O
uncoated				●●	●		●

DIN/ANSI



Designation uncoated	D_N-P	P mm	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
★ AN20516-M2	M 2	0.4	1.772	0.157	0.354	0.141	0.110	0.190	2
★ AN20516-M2.5	M 2.5	0.45	1.969	0.157	0.492	0.141	0.110	0.190	2
★ AN20516-M3	M 3	0.5	2.205	0.236	0.709	0.141	0.110	0.190	2
★ AN20516-M4	M 4	0.7	2.480	0.276	0.827	0.168	0.131	0.250	2
★ AN20516-M5	M 5	0.8	2.756	0.315	0.984	0.194	0.152	0.250	2
★ AN20516-M6	M 6	1.0	3.150	0.394	1.181	0.255	0.191	0.313	2
★ AN20516-M8	M 8	1.25	3.543	0.472	1.378	0.318	0.238	0.380	2

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E Machine taps

Paradur® Ti inch shank

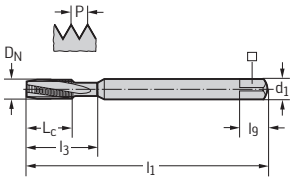
– Recommended with oil
– For long-chipping materials

M DIN 13	6HX	

≤ 2×D_N	C=2-3	15°	44HRC 1400 –700 N/mm²

	P	M	K	N	S	H	O
VAP	●●			●	●●		

ANSI B94.9



Designation VAP	D_N	P mm	l_1 inch	L_c inch	l_3 inch	d_1 h9 inch	□	l_9 inch	N
A20416S-M8	M 8	1.25	2.717	0.748	1.299	0.318	0.238	0.380	3

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

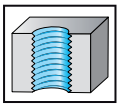
HSS-E PM machine taps

Prototex® Eco Plus inch shank

– Universal high-performance cut tap
– THL: good chip control and good wear resistance

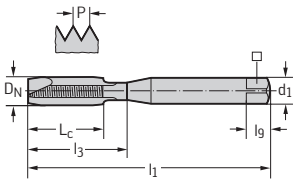
≤ 3.5×D_N | B=3.5-5 | 400HB / 150HB

UNC ASME B1.1 | 2B



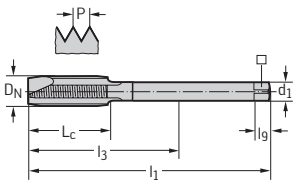
	P	M	K	N	S	H	O
THL	●●	●●	●●	●●			

DIN/ANSI



Designation THL	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
AEP2221002-UNC4	UNC 4-40	0.112	2.205	0.354	0.709	0.141	0.110	0.187	3
AEP2221002-UNC5	UNC 5-40	0.125	2.205	0.394	0.709	0.141	0.110	0.190	3
AEP2221002-UNC6	UNC 6-32	0.138	2.205	0.433	0.787	0.141	0.110	0.187	3
AEP2221002-UNC8	UNC 8-32	0.164	2.480	0.472	0.827	0.168	0.131	0.250	3
AEP2221002-UNC10	UNC 10-24	0.190	2.756	0.512	0.984	0.194	0.152	0.250	3
AEP2221002-UNC12	UNC 12-24	0.216	3.150	0.591	1.181	0.220	0.165	0.281	3
AEP2221002-UNC1/4	UNC 1/4-20	0.250	3.150	0.591	1.181	0.255	0.191	0.313	3
AEP2221002-UNC5/16	UNC 5/16-18	0.313	3.543	0.709	1.378	0.318	0.238	0.380	3
AEP2221002-UNC3/8	UNC 3/8-16	0.375	3.937	0.787	1.535	0.381	0.286	0.437	3

DIN/ANSI



Designation THL	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
AEP2226002-UNC7/16	UNC 7/16-14	0.438	3.937	0.787	2.862	0.323	0.242	0.406	3
AEP2226002-UNC1/2	UNC 1/2-13	0.500	4.331	0.906	3.224	0.367	0.275	0.437	4
AEP2226002-UNC9/16	UNC 9/16-12	0.563	4.331	0.984	3.161	0.429	0.322	0.500	4
AEP2226002-UNC5/8	UNC 5/8-11	0.625	4.331	0.984	2.587	0.480	0.360	0.563	4
AEP2226002-UNC3/4	UNC 3/4-10	0.750	4.921	1.181	3.051	0.590	0.442	0.689	4

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

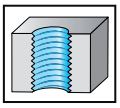
HSS-E machine taps

TC217 Advance inch shank

- Universal cut tap
- For 2B and 3B tolerances
- WY80FC: best chip control
- WY80RG: good chip control, good wear resistance

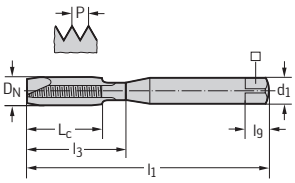
≤ 3×D_N | B=3.5-5 | 370HB / 100HB

UNC ASME B1.1 | 2B / 3B



	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			
WY80RG (TiAlN)	●●	●●	●●	●●			

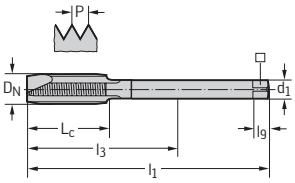
DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80FC	WY80RG
TC217.UNC1-G0-	UNC 1-64	0.073	1.772	0.236	0.354	0.141	0.110	0.190	2		☺
TC217.UNC2-G0-	UNC 2-56	0.086	1.772	0.276	0.472	0.141	0.110	0.190	2	☺	☺
TC217.UNC3-G0-	UNC 3-48	0.099	1.969	0.315	0.492	0.141	0.110	0.190	2		☺
TC217.UNC4-G0-	UNC 4-40	0.112	2.205	0.354	0.709	0.141	0.110	0.190	2	☺	☺
TC217.UNC5-G0-	UNC 5-40	0.125	2.205	0.394	0.709	0.141	0.110	0.190	2		☺
TC217.UNC6-G0-	UNC 6-32	0.138	2.205	0.433	0.787	0.141	0.110	0.190	2	☺	☺
TC217.UNC8-G0-	UNC 8-32	0.164	2.480	0.472	0.827	0.168	0.131	0.250	3	☺	☺
TC217.UNC10-G0-	UNC 10-24	0.190	2.756	0.512	0.984	0.194	0.152	0.250	3	☺	☺
TC217.UNC12-G0-	UNC 12-24	0.216	3.150	0.591	1.181	0.220	0.165	0.281	3		☺
TC217.UNC1/4-G0-	UNC 1/4-20	0.250	3.150	0.591	1.181	0.255	0.191	0.313	3	☺	☺
TC217.UNC5/16-G0-	UNC 5/16-18	0.313	3.543	0.709	1.378	0.318	0.238	0.380	3	☺	☺
TC217.UNC3/8-G0-	UNC 3/8-16	0.375	3.937	0.787	1.535	0.381	0.286	0.437	3	☺	☺

Order example for grade WY80RG: TC217.UNC1-G0-WY80RG

DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80FC	WY80RG
TC217.UNC7/16-R0-	UNC 7/16-14	0.438	3.937	0.787	2.862	0.323	0.242	0.406	3	☺	☺
TC217.UNC1/2-R0-	UNC 1/2-13	0.500	4.331	0.906	3.224	0.367	0.275	0.437	3	☺	☺
TC217.UNC9/16-R0-	UNC 9/16-12	0.563	4.331	0.984	3.161	0.429	0.322	0.500	4		☺
TC217.UNC5/8-R0-	UNC 5/8-11	0.625	4.331	0.984	2.587	0.480	0.360	0.563	4	☺	☺
TC217.UNC3/4-R0-	UNC 3/4-10	0.750	4.921	1.181	3.051	0.590	0.442	0.689	4	☺	☺
TC217.UNC7/8-R0-	UNC 7/8-9	0.875	5.512	1.181	3.583	0.697	0.523	0.750	4	☺	☺
TC217.UNC1.0-R0-	UNC 1"-8	1.000	6.299	1.417	3.756	0.800	0.600	0.811	4	☺	☺

Order example for grade WY80RG: TC217.UNC7/16-R0-WY80RG

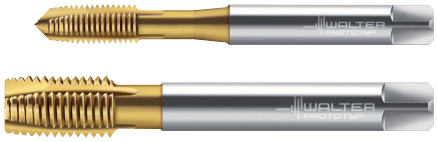
C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

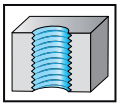
HSS-E machine taps
TC216 Perform inch shank



– Universal cut tap

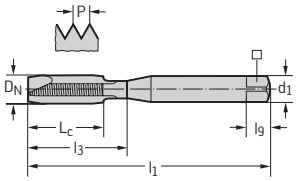
≤ 3×D_N | B=3.5-5 | 300HB / 100HB

UNC ASME B1.1 | 2B



	P	M	K	N	S	H	O
WY80AA (TiN)	●●	●●	●●	●●			

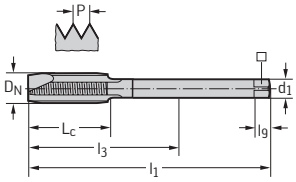
DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80AA
TC216.UNC6-C0-	UNC 6-32	0.138	2.205	0.433	0.787	0.141	0.110	0.188	3	☹
TC216.UNC8-C0-	UNC 8-32	0.164	2.480	0.472	0.827	0.168	0.131	0.250	3	☹
TC216.UNC10-C0-	UNC 10-24	0.190	2.756	0.512	0.984	0.194	0.152	0.250	3	☹
TC216.UNC1/4-C0-	UNC 1/4-20	0.250	3.150	0.591	1.181	0.255	0.191	0.313	3	☹
TC216.UNC5/16-C0-	UNC 5/16-18	0.313	3.543	0.709	1.378	0.318	0.238	0.375	3	☹
TC216.UNC3/8-C0-	UNC 3/8-16	0.375	3.937	0.787	1.535	0.381	0.286	0.438	3	☹

Order example for grade WY80AA: TC216.UNC6-C0-WY80AA

DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80AA
TC216.UNC1/2-L0-	UNC 1/2-13	0.500	4.331	0.906	3.224	0.367	0.275	0.438	4	☹
TC216.UNC5/8-L0-	UNC 5/8-11	0.625	4.331	0.984	2.587	0.480	0.360	0.563	4	☹
TC216.UNC3/4-L0-	UNC 3/4-10	0.750	4.921	1.181	3.051	0.590	0.442	0.688	4	☹

Order example for grade WY80AA: TC216.UNC1/2-L0-WY80AA

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Prototex® Synchrospeed

inch shank

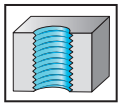
– For long-chipping materials

≤ 3×D_N

B=3.5-5

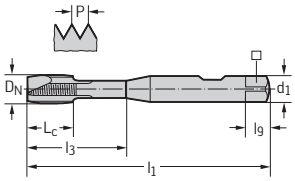
UNC
ASME B1.1

2B



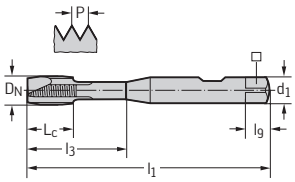
	P	M	K	N	S	H	O
TIN	●●	●●	●●	●●	●●		●●

DIN/ANSI



Designation TIN	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
AS2221005-UNC1/4	UNC 1/4-20	0.250	3.150	0.500	1.181	0.255	0.191	0.313	3
AS2221005-UNC3/8	UNC 3/8-16	0.375	3.937	0.626	1.535	0.381	0.286	0.437	3

DIN/ANSI



Designation TIN	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
AS2226005-UNC1/2	UNC 1/2-13	0.500	4.331	0.768	3.224	0.367	0.275	0.437	3
AS2226005-UNC5/8	UNC 5/8-11	0.625	4.331	0.909	2.587	0.480	0.360	0.563	4
AS2226005-UNC3/4	UNC 3/4-10	0.750	4.921	1.000	3.051	0.590	0.442	0.689	4

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

Prototex® TiNi

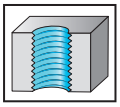
inch shank

– Recommended with oil
– For long-chipping materials

≤ 2×D_N | B=3.5-5 | 410HB / 200HB

UNC
ASME B1.1

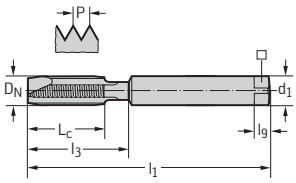
3B



	P	M	K	N	S	H	O
TICN	●●	●●		●	●●		
uncoated	●●	●●		●	●●		

ANSI B94.9

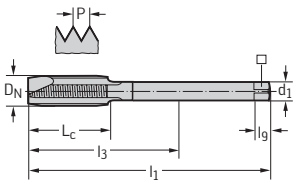
Cylindrical shank



Designation TICN	Designation uncoated	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
A2220766-UNC2	A2220760-UNC2	UNC 2-56	0.086	1.752	0.315	0.315	0.141	0.110	0.190	2
A2220766-UNC4	A2220760-UNC4	UNC 4-40	0.112	1.878	0.394	0.394	0.141	0.110	0.190	2
A2220766-UNC5		UNC 5-40	0.125	1.937	0.433	0.433	0.141	0.110	0.190	2
A2220766-UNC6	A2220760-UNC6	UNC 6-32	0.138	2.000	0.512	0.512	0.141	0.110	0.190	3
A2220766-UNC8	A2220760-UNC8	UNC 8-32	0.164	2.126	0.591	0.591	0.168	0.131	0.250	3
A2220766-UNC10	A2220760-UNC10	UNC 10-24	0.190	2.378	0.709	0.709	0.194	0.152	0.250	3
A2220766-UNC1/4	A2220760-UNC1/4	UNC 1/4-20	0.250	2.500	0.630	1.102	0.255	0.191	0.313	3
A2220766-UNC5/16	A2220760-UNC5/16	UNC 5/16-18	0.313	2.717	0.748	1.299	0.318	0.238	0.380	3
A2220766-UNC3/8	A2220760-UNC3/8	UNC 3/8-16	0.375	2.937	0.748	1.398	0.381	0.286	0.437	3

ANSI B94.9

Cylindrical shank



Designation TICN	Designation uncoated	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
A2225766-UNC7/16		UNC 7/16-14	0.438	3.157	0.866	2.083	0.323	0.242	0.406	4
A2225766-UNC1/2	A2225760-UNC1/2	UNC 1/2-13	0.500	3.378	0.945	2.272	0.367	0.275	0.437	4
A2225766-UNC9/16		UNC 9/16-12	0.563	3.594	1.024	2.425	0.429	0.322	0.500	4
A2225766-UNC5/8		UNC 5/8-11	0.625	3.811	1.102	2.067	0.480	0.360	0.563	4
A2225766-UNC3/4	A2225760-UNC3/4	UNC 3/4-10	0.750	4.252	1.181	2.382	0.590	0.442	0.689	4
A2225766-UNC7/8		UNC 7/8-9	0.875	4.685	1.260	2.756	0.697	0.523	0.750	4
A2225766-UNC1		UNC 1"-8	1.000	5.126	1.457	2.583	0.800	0.600	0.811	4

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

C 4

HSS-E PM machine taps

Paradur® Eco Plus inch shank

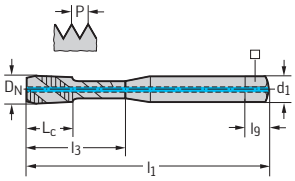
– Universal high-performance cut tap
– THL: good chip control and good wear resistance

≤ 3×D_N | C=2-3 | 45° | 370HB 150HB

UNC ASME B1.1 | 2B

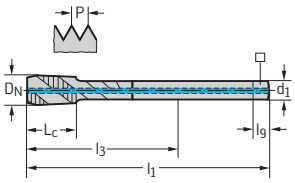
	P	M	K	N	S	H	O
THL	●●	●●	●●	●●			

DIN/ANSI



Designation THL	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AEP2251312-UNC1/4	UNC 1/4-20	0.250	3.150	0.394	1.075	0.255	0.191	0.313	3
AEP2251312-UNC5/16	UNC 5/16-18	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3
AEP2251312-UNC3/8	UNC 3/8-16	0.375	3.937	0.591	1.535	0.381	0.286	0.437	3

DIN/ANSI



Designation THL	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AEP2256312-UNC1/2	UNC 1/2-13	0.500	4.331	0.709	3.224	0.367	0.275	0.437	4
AEP2256312-UNC5/8	UNC 5/8-11	0.625	4.331	0.787	2.587	0.480	0.360	0.563	4
AEP2256312-UNC3/4	UNC 3/4-10	0.750	4.921	0.984	3.051	0.590	0.442	0.689	4

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

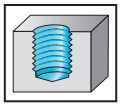
HSS-E machine taps

TC117 Advance inch shank

- Universal cut tap
- For 2B and 3B tolerances
- WY80FC: best chip control
- WY80RG: good chip control, good wear resistance

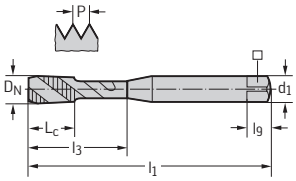
≤ 2.5×D_N | C=2-3 | 40° | 370HB / 150HB

UNC ASME B1.1 | 2B / 3B



	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			
WY80RG (TiAlN)	●●	●●	●●	●●			

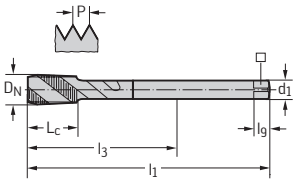
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC	WY80RG
TC117.UNC1-G0-	UNC 1-64	0.073	1.772	0.157	0.354	0.141	0.110	0.190	3		☺
TC117.UNC2-G0-	UNC 2-56	0.086	1.772	0.157	0.472	0.141	0.110	0.190	3	☹	☺
TC117.UNC3-G0-	UNC 3-48	0.099	1.969	0.157	0.492	0.141	0.110	0.190	3		☺
TC117.UNC4-G0-	UNC 4-40	0.112	2.205	0.236	0.709	0.141	0.110	0.190	3	☹	☺
TC117.UNC5-G0-	UNC 5-40	0.125	2.205	0.236	0.709	0.141	0.110	0.190	3	☹	☺
TC117.UNC6-G0-	UNC 6-32	0.138	2.205	0.256	0.787	0.141	0.110	0.190	3	☹	☺
TC117.UNC8-G0-	UNC 8-32	0.164	2.480	0.276	0.827	0.168	0.131	0.250	3	☹	☺
TC117.UNC10-G0-	UNC 10-24	0.190	2.756	0.315	0.984	0.194	0.152	0.250	3	☹	☺
TC117.UNC12-G0-	UNC 12-24	0.216	3.150	0.394	1.181	0.220	0.165	0.281	3		☺
TC117.UNC1/4-G0-	UNC 1/4-20	0.250	3.150	0.394	1.181	0.255	0.191	0.313	3	☹	☺
TC117.UNC5/16-G0-	UNC 5/16-18	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3	☹	☺
TC117.UNC3/8-G0-	UNC 3/8-16	0.375	3.937	0.591	1.614	0.381	0.286	0.437	3	☹	☺

Order example for grade WY80RG: TC117.UNC1-G0-WY80RG

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC	WY80RG
TC117.UNC7/16-R0-	UNC 7/16-14	0.438	3.937	0.591	2.862	0.323	0.242	0.406	3	☹	☺
TC117.UNC1/2-R0-	UNC 1/2-13	0.500	4.331	0.709	3.224	0.367	0.275	0.437	4	☹	☺
TC117.UNC9/16-R0-	UNC 9/16-12	0.563	4.331	0.787	3.161	0.429	0.322	0.500	4		☺
TC117.UNC5/8-R0-	UNC 5/8-11	0.625	4.331	0.787	2.587	0.480	0.360	0.563	4	☹	☺
TC117.UNC3/4-R0-	UNC 3/4-10	0.750	4.921	0.984	3.051	0.590	0.442	0.689	4	☹	☺
TC117.UNC7/8-R0-	UNC 7/8-9	0.875	5.512	0.984	3.583	0.697	0.523	0.750	4	☹	☺
TC117.UNC1.0-R0-	UNC 1"-8	1.000	6.299	1.181	3.756	0.800	0.600	0.811	4	☹	☺
TC117.UNC1.1/8-R0-	UNC 1.1/8-7	1.125	7.087	1.378	4.472	0.896	0.672	0.880	5		☺
TC117.UNC1.1/4-R0-	UNC 1.1/4-7	1.250	7.087	1.378	4.354	1.021	0.766	1.000	5		☺
TC117.UNC1.1/2-R0-	UNC 1.1/2-6	1.500	7.874	1.575	3.953	1.233	0.925	1.126	5		☺

Order example for grade WY80RG: TC117.UNC7/16-R0-WY80RG

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

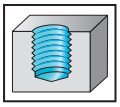
HSS-E machine taps

TC117 Advance inch shank

- Universal cut tap
- For 2B and 3B tolerances
- WY80FC: best chip control
- WY80RG: good chip control, good wear resistance

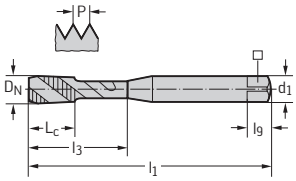
≤ 2.5×D_N | E=1.5-2 | 40° | 370HB / 150HB

UNC ASME B1.1 | 2B / 3B



	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			
WY80RG (TiAlN)	●●	●●	●●	●●			

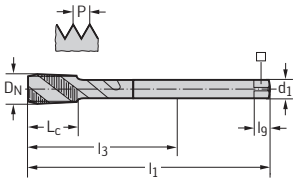
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC	WY80RG
TC117.UNC2-GE-	UNC 2-56	0.086	1.772	0.157	0.472	0.141	0.110	0.190	3	☹	
TC117.UNC4-GE-	UNC 4-40	0.112	2.205	0.236	0.709	0.141	0.110	0.190	3	☹	
TC117.UNC6-GE-	UNC 6-32	0.138	2.205	0.256	0.787	0.141	0.110	0.190	3	☹	☹
TC117.UNC8-GE-	UNC 8-32	0.164	2.480	0.276	0.827	0.168	0.131	0.250	3	☹	☹
TC117.UNC10-GE-	UNC 10-24	0.190	2.756	0.315	0.984	0.194	0.152	0.250	3	☹	☹
TC117.UNC1/4-GE-	UNC 1/4-20	0.250	3.150	0.394	1.181	0.255	0.191	0.313	3	☹	☹
TC117.UNC5/16-GE-	UNC 5/16-18	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3	☹	☹
TC117.UNC3/8-GE-	UNC 3/8-16	0.375	3.937	0.591	1.535	0.381	0.286	0.437	3	☹	☹

Order example for grade WY80RG: TC117.UNC6-GE-WY80RG

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC	WY80RG
TC117.UNC7/16-RE-	UNC 7/16-14	0.438	3.937	0.591	2.862	0.323	0.242	0.406	3	☹	
TC117.UNC1/2-RE-	UNC 1/2-13	0.500	4.331	0.709	3.224	0.367	0.275	0.437	4	☹	☹
TC117.UNC9/16-RE-	UNC 9/16-12	0.563	4.331	0.787	3.161	0.429	0.322	0.500	4	☹	
TC117.UNC5/8-RE-	UNC 5/8-11	0.625	4.331	0.787	2.587	0.480	0.360	0.563	4	☹	☹
TC117.UNC3/4-RE-	UNC 3/4-10	0.750	4.921	0.984	3.051	0.590	0.442	0.689	4	☹	☹
TC117.UNC7/8-RE-	UNC 7/8-9	0.875	5.512	0.984	3.583	0.697	0.523	0.750	4	☹	
TC117.UNC1.0-RE-	UNC 1"-8	1.000	6.299	1.181	3.756	0.800	0.600	0.811	4	☹	

Order example for grade WY80RG: TC117.UNC1/2-RE-WY80RG

C4

WALTER SELECT

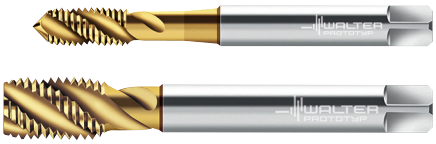
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

TC115 Perform

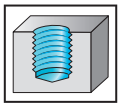
inch shank



– Universal cut tap

UNC
ASME B1.1

2B



≤ 3×D_N

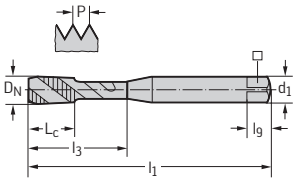
C=2-3

45°

300HB
100HB

	P	M	K	N	S	H	O
WY80AA (TiN)	●●	●●	●●	●			

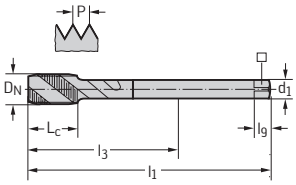
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80AA
TC115.UNC6-C0-	UNC 6-32	0.138	2.205	0.256	0.787	0.141	0.110	0.188	3	☹
TC115.UNC8-C0-	UNC 8-32	0.164	2.480	0.276	0.827	0.168	0.131	0.250	3	☹
TC115.UNC10-C0-	UNC 10-24	0.190	2.756	0.315	0.984	0.194	0.152	0.250	3	☹
TC115.UNC1/4-C0-	UNC 1/4-20	0.250	3.150	0.394	1.181	0.255	0.191	0.313	3	☹
TC115.UNC5/16-C0-	UNC 5/16-18	0.313	3.543	0.472	1.378	0.318	0.238	0.375	3	☹
TC115.UNC3/8-C0-	UNC 3/8-16	0.375	3.937	0.591	1.535	0.381	0.286	0.438	3	☹

Order example for grade WY80AA: TC115.UNC6-C0-WY80AA

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80AA
TC115.UNC1/2-L0-	UNC 1/2-13	0.500	4.331	0.709	3.224	0.367	0.275	0.438	3	☹
TC115.UNC5/8-L0-	UNC 5/8-11	0.625	4.331	0.787	2.587	0.480	0.360	0.563	3	☹
TC115.UNC3/4-L0-	UNC 3/4-10	0.750	4.921	0.984	3.051	0.590	0.442	0.688	4	☹

Order example for grade WY80AA: TC115.UNC1/2-L0-WY80AA

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

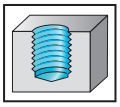
HSS-E machine taps

Paradur® Synchrospeed

inch shank

– For long-chipping materials

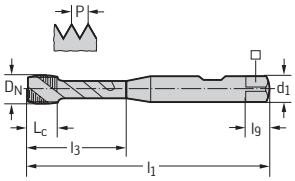
UNC ASME B1.1	2B



≤ 2.5×D_N | C=2-3 | 40° | 380HB

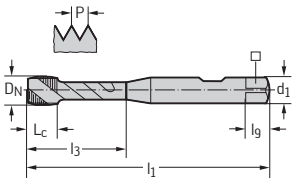
	P	M	K	N	S	H	O
TIN/VAP	●●	●●	●●	●	●		●

DIN/ANSI



Designation TIN/VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AS2251005-UNC4	UNC 4-40	0.112	2.205	0.256	0.709	0.141	0.110	0.187	3
AS2251005-UNC6	UNC 6-32	0.138	2.205	0.315	0.787	0.141	0.110	0.187	3
AS2251005-UNC8	UNC 8-32	0.164	2.480	0.315	0.827	0.168	0.131	0.250	3
AS2251005-UNC10	UNC 10-24	0.190	2.756	0.433	0.984	0.194	0.152	0.250	3
AS2251005-UNC1/4	UNC 1/4-20	0.250	3.150	0.531	1.181	0.255	0.191	0.313	3
AS2251005-UNC5/16	UNC 5/16-18	0.313	3.543	0.591	1.378	0.318	0.238	0.380	3
AS2251005-UNC3/8	UNC 3/8-16	0.375	3.937	0.669	1.535	0.381	0.286	0.437	3

DIN/ANSI



Designation TIN/VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AS2256005-UNC1/2	UNC 1/2-13	0.500	4.331	0.807	3.224	0.367	0.275	0.437	4
AS2256005-UNC5/8	UNC 5/8-11	0.625	4.331	0.965	2.587	0.480	0.360	0.563	4
AS2256005-UNC3/4	UNC 3/4-10	0.750	4.921	1.063	3.051	0.590	0.442	0.689	4

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Paradur® Short Chip HT

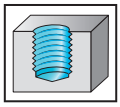
inch shank

– Problem solver for steels: no bird-nesting
– Reduced helix and bright rake face in chamfer area

≤ 3.5×D_N | C=2-3 | 15° | 370HB / 230HB

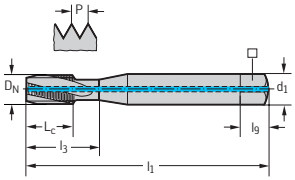
UNC
ASME B1.1

2B



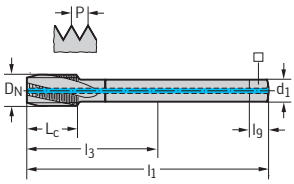
	P	M	K	N	S	H	O
uncoated	●●		●	●			

DIN/ANSI



Designation uncoated	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AC22410TR-UNC1/4	UNC 1/4-20	0.250	3.150	0.394	1.181	0.255	0.191	0.313	3
AC22410TR-UNC3/8	UNC 3/8-16	0.375	3.937	0.591	1.535	0.381	0.286	0.437	3

DIN/ANSI



Designation uncoated	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AC22460TR-UNC1/2	UNC 1/2-13	0.500	4.331	0.709	3.224	0.367	0.275	0.437	4
AC22460TR-UNC5/8	UNC 5/8-11	0.625	4.331	0.787	2.587	0.480	0.360	0.563	4

C 4

WALTER SELECT

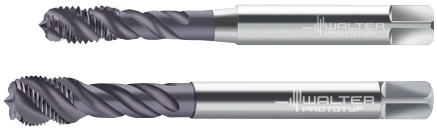
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E (-PM) machine taps

TC142 Supreme

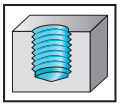
inch shank



- For stainless steels
- WY80FC: very good chip control
- WW60RB: very good wear resistance

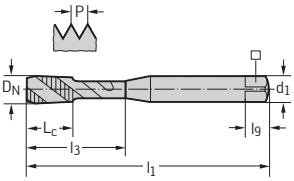
≤ 3×D_N | C=2-3 | 50° | 350HB / 100HB

UNC ASME B1.1 | 2BX



	P	M	K	N	S	H	O
WW60RB (TiAlN)	●	●●					
WY80FC (VAP)	●	●●					

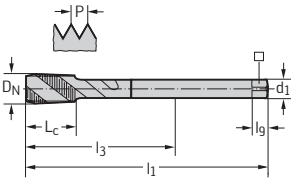
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WW60RB	WY80FC
TC142.UNC2-C0-	UNC 2-56	0.086	1.772	0.157	0.472	0.141	0.110	0.190	3		☹
TC142.UNC4-C0-	UNC 4-40	0.112	2.205	0.236	0.709	0.141	0.110	0.190	3		☹
TC142.UNC6-C0-	UNC 6-32	0.138	2.205	0.256	0.787	0.141	0.110	0.190	3		☹
TC142.UNC8-C0-	UNC 8-32	0.164	2.480	0.276	0.827	0.168	0.131	0.250	3	☹	☹
TC142.UNC10-C0-	UNC 10-24	0.190	2.756	0.315	0.984	0.194	0.152	0.250	3	☹	☹
TC142.UNC1/4-C0-	UNC 1/4-20	0.250	3.150	0.394	1.181	0.255	0.191	0.313	3	☹	☹
TC142.UNC5/16-C0-	UNC 5/16-18	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3	☹	☹
TC142.UNC3/8-C0-	UNC 3/8-16	0.375	3.937	0.591	1.535	0.381	0.286	0.437	3	☹	☹

Order example for grade WY80FC: TC142.UNC2-C0-WY80FC

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WW60RB	WY80FC
TC142.UNC1/2-L0-	UNC 1/2-13	0.500	4.331	0.709	3.224	0.367	0.275	0.437	3	☹	☹
TC142.UNC5/8-L0-	UNC 5/8-11	0.625	4.331	0.787	2.587	0.480	0.360	0.563	4	☹	☹
TC142.UNC3/4-L0-	UNC 3/4-10	0.750	4.921	0.984	3.051	0.590	0.442	0.689	4	☹	☹

Order example for grade WY80FC: TC142.UNC1/2-L0-WY80FC

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

Paradur® Eco CI

inch shank

– For short-chipping ISO K materials (GJL / CGI)
– For short-chipping aluminum alloys (Si content > 7 %)

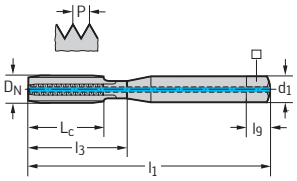
≤ 3×D_N | C=2-3 | 300HB 40HB

UNC
ASME B1.1

2B

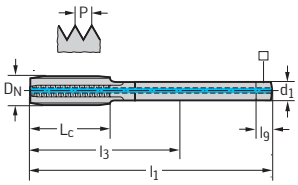
	P	M	K	N	S	H	O
TICN			●●	●●			●●

DIN/ANSI



Designation TICN	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AE2231416-UNC8	UNC 8-32	0.164	2.480	0.472	0.827	0.168	0.131	0.250	3
AE2231416-UNC10	UNC 10-24	0.190	2.756	0.512	0.984	0.194	0.152	0.250	4
AE2231416-UNC1/4	UNC 1/4-20	0.250	3.150	0.591	1.181	0.255	0.191	0.313	4
AE2231416-UNC5/16	UNC 5/16-18	0.313	3.543	0.709	1.378	0.318	0.238	0.380	4
AE2231416-UNC3/8	UNC 3/8-16	0.375	3.937	0.787	1.535	0.381	0.286	0.437	4

DIN/ANSI



Designation TICN	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AE2236416-UNC7/16	UNC 7/16-14	0.438	3.937	0.787	2.862	0.323	0.242	0.406	4
AE2236416-UNC1/2	UNC 1/2-13	0.500	4.331	0.906	3.224	0.367	0.275	0.437	4
AE2236416-UNC9/16	UNC 9/16-12	0.563	4.331	0.984	3.161	0.429	0.322	0.500	4
AE2236416-UNC5/8	UNC 5/8-11	0.625	4.331	0.984	2.587	0.480	0.360	0.563	4
AE2236416-UNC3/4	UNC 3/4-10	0.750	4.921	1.181	3.051	0.590	0.442	0.689	4
AE2236416-UNC7/8	UNC 7/8-9	0.875	5.512	1.181	3.583	0.697	0.523	0.750	4
AE2236416-UNC1.0	UNC 1"-8	1.000	6.299	1.417	3.756	0.800	0.600	0.811	5

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

Paradur® X·pert K

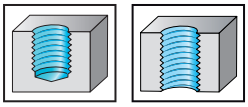
inch shank

– For short- and long-chipping ISO K materials (GJL / CGI / GJS)
– For short-chipping aluminum alloys (Si content > 7 %)

≤ 3×D_N | C=2-3 | 300HB 40HB

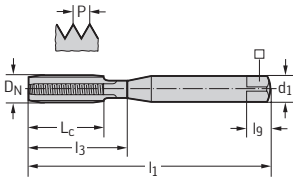
UNC
ASME B1.1

2B



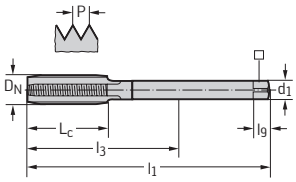
	P	M	K	N	S	H	O
TAFT			●●	●			

DIN/ANSI



Designation TAFT	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AK2231407-UNC2	UNC 2-56	0.086	1.772	0.276	0.472	0.141	0.110	0.190	3
AK2231407-UNC4	UNC 4-40	0.112	2.205	0.354	0.709	0.141	0.110	0.190	3
AK2231407-UNC6	UNC 6-32	0.138	2.205	0.433	0.787	0.141	0.110	0.190	3
AK2231407-UNC10	UNC 10-24	0.190	2.756	0.512	0.984	0.194	0.152	0.250	4
AK2231407-UNC1/4	UNC 1/4-20	0.250	3.150	0.591	0.984	0.255	0.191	0.313	4
AK2231407-UNC5/16	UNC 5/16-18	0.313	3.543	0.709	1.378	0.318	0.238	0.380	4
AK2231407-UNC3/8	UNC 3/8-16	0.375	3.937	0.787	1.535	0.381	0.286	0.437	4

DIN/ANSI



Designation TAFT	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AK2236407-UNC1/2	UNC 1/2-13	0.500	4.331	0.906	3.224	0.367	0.275	0.437	4
AK2236407-UNC5/8	UNC 5/8-11	0.625	4.331	0.984	2.587	0.480	0.360	0.563	4
AK2236407-UNC3/4	UNC 3/4-10	0.750	4.921	1.181	3.051	0.590	0.442	0.689	4

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Paradur® X·pert N

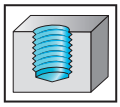
inch shank

– For long-chipping aluminum alloys (Si content < 7 %>

≤ 3×D_N | C=2-3 | 35° | 200HB 60HB

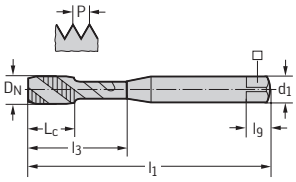
UNC
ASME B1.1

2B



	P	M	K	N	S	H	O
uncoated				●●	●		●

DIN/ANSI



Designation uncoated	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AN22516-UNC2	UNC 2-56	0.086	1.772	0.157	0.472	0.141	0.110	0.190	2
AN22516-UNC4	UNC 4-40	0.112	2.205	0.236	0.709	0.141	0.110	0.190	2
AN22516-UNC6	UNC 6-32	0.138	2.205	0.256	0.787	0.141	0.110	0.190	2
AN22516-UNC8	UNC 8-32	0.164	2.480	0.276	0.827	0.168	0.131	0.250	2
AN22516-UNC10	UNC 10-24	0.190	2.756	0.315	0.984	0.194	0.152	0.250	2
AN22516-UNC1/4	UNC 1/4-20	0.250	3.150	0.394	1.181	0.255	0.191	0.313	2
AN22516-UNC5/16	UNC 5/16-18	0.313	3.543	0.472	1.378	0.318	0.238	0.380	2
AN22516-UNC3/8	UNC 3/8-16	0.375	3.937	0.591	1.535	0.381	0.286	0.437	2

C 4

WALTER SELECT

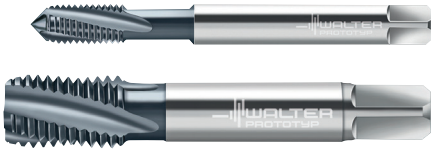
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Paradur® Ti

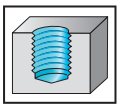
inch shank



– Recommended with oil
– For long-chipping materials

≤ 2×D_N | C=2-3 | 15° | 410HB 200HB

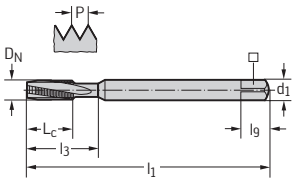
UNC ASME B1.1 | 3B



	P	M	K	N	S	H	O
TICN	●●			●	●●		
VAP	●●			●	●●		

ANSI B94.9

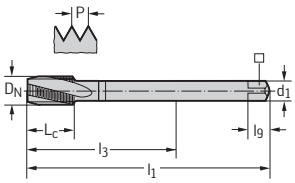
Cylindrical shank



Designation TICN	Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2240606-UNC2	A22406S-UNC2	UNC 2-56	0.086	1.752	0.315	0.315	0.141	0.110	0.190	2
A2240606-UNC4	A22406S-UNC4	UNC 4-40	0.112	1.878	0.394	0.394	0.141	0.110	0.190	2
A2240606-UNC5	A22406S-UNC5	UNC 5-40	0.125	1.937	0.433	1.157	0.141	0.110	0.190	3
A2240606-UNC6	A22406S-UNC6	UNC 6-32	0.138	2.000	0.512	1.220	0.141	0.110	0.190	3
A2240606-UNC8	A22406S-UNC8	UNC 8-32	0.164	2.126	0.591	1.283	0.168	0.131	0.250	3
A2240606-UNC10	A22406S-UNC10	UNC 10-24	0.190	2.378	0.709	0.709	0.194	0.152	0.250	3
A2240606-UNC1/4	A22406S-UNC1/4	UNC 1/4-20	0.250	2.500	0.630	1.102	0.255	0.191	0.313	3
A2240606-UNC5/16	A22406S-UNC5/16	UNC 5/16-18	0.313	2.717	0.748	1.299	0.318	0.238	0.380	3
A2240606-UNC3/8	A22406S-UNC3/8	UNC 3/8-16	0.375	2.937	0.748	1.398	0.381	0.286	0.437	3

ANSI B94.9

Cylindrical shank



Designation TICN	Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2245606-UNC7/16	A22456S-UNC7/16	UNC 7/16-14	0.438	3.157	0.866	2.083	0.323	0.242	0.406	4
A2245606-UNC1/2	A22456S-UNC1/2	UNC 1/2-13	0.500	3.378	0.945	2.272	0.367	0.275	0.437	4
	A22456S-UNC9/16	UNC 9/16-12	0.563	3.594	1.024	2.425	0.429	0.322	0.500	4
A2245606-UNC5/8	A22456S-UNC5/8	UNC 5/8-11	0.625	3.811	1.102	2.067	0.480	0.360	0.563	4
A2245606-UNC3/4	A22456S-UNC3/4	UNC 3/4-10	0.750	4.252	1.181	2.382	0.590	0.442	0.689	4
	A22456S-UNC1	UNC 1"-8	1.000	5.126	1.457	2.583	0.800	0.600	0.811	4

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Paradur® Ti inch shank

– Recommended with oil
– For long-chipping materials

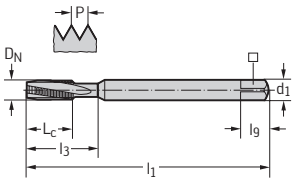
≤ 2×D_N | E=1.5-2 | 15° | 410HB – 200HB

UNC ASME B1.1 | 3B

	P	M	K	N	S	H	O
VAP	●●			●	●●		

ANSI B94.9

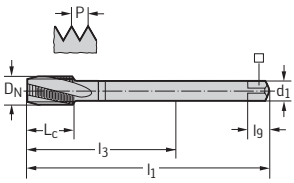
Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2240661S-UNC2	UNC 2-56	0.086	1.752	0.315	0.315	0.141	0.110	0.190	2
A2240661S-UNC4	UNC 4-40	0.112	1.878	0.394	0.394	0.141	0.110	0.190	2
A2240661S-UNC6	UNC 6-32	0.138	2.000	0.512	0.512	0.141	0.110	0.190	3
A2240661S-UNC8	UNC 8-32	0.164	2.126	0.591	0.591	0.168	0.131	0.250	3
A2240661S-UNC10	UNC 10-24	0.190	2.378	0.709	0.709	0.194	0.152	0.250	3
A2240661S-UNC1/4	UNC 1/4-20	0.250	2.500	0.630	1.102	0.255	0.191	0.313	3
A2240661S-UNC5/16	UNC 5/16-18	0.313	2.717	0.748	1.299	0.318	0.238	0.380	3

ANSI B94.9

Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2245661S-UNC1/2	UNC 1/2-13	0.500	3.378	0.945	2.272	0.367	0.275	0.437	4
A2245661S-UNC5/8	UNC 5/8-11	0.625	3.811	1.102	2.067	0.480	0.360	0.563	4
A2245661S-UNC3/4	UNC 3/4-10	0.750	4.252	1.181	2.382	0.590	0.442	0.689	4

C 4

WALTER SELECT

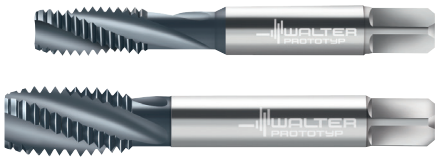
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

Paradur® Ni

inch shank



– For long-chipping materials

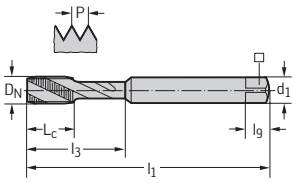
UNC ASME B1.1	3B	

≤ 1.5×D_N | E=1.5-2 | 25° | 410HB 200HB

	P	M	K	N	S	H	O
TiCN	●				●●		

ANSI B94.9

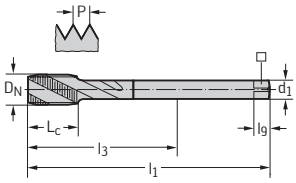
Cylindrical shank



Designation TiCN	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A224003-UNC2	UNC 2-56	0.086	1.752	0.315	0.315	0.141	0.110	0.190	3
A224003-UNC4	UNC 4-40	0.112	1.878	0.394	0.394	0.141	0.110	0.190	3
A224003-UNC5	UNC 5-40	0.125	1.937	0.433	1.157	0.141	0.110	0.190	3
A224003-UNC6	UNC 6-32	0.138	2.000	0.512	0.512	0.141	0.110	0.190	3
A224003-UNC8	UNC 8-32	0.164	2.126	0.591	1.283	0.168	0.131	0.250	3
A224003-UNC1/4	UNC 1/4-20	0.250	2.500	0.630	1.102	0.255	0.191	0.313	3
A224003-UNC5/16	UNC 5/16-18	0.313	2.717	0.748	1.299	0.318	0.238	0.380	3
A224003-UNC3/8	UNC 3/8-16	0.375	2.937	0.748	1.398	0.381	0.286	0.437	3

ANSI B94.9

Cylindrical shank



Designation TiCN	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A224503-UNC1/2	UNC 1/2-13	0.500	3.378	0.945	2.272	0.367	0.275	0.437	4
A224503-UNC5/8	UNC 5/8-11	0.625	3.811	1.102	2.067	0.480	0.360	0.563	4
A224503-UNC7/8	UNC 7/8-9	0.875	4.685	1.260	2.756	0.697	0.523	0.750	5
A224503-UNC1	UNC 1"-8	1.000	5.126	1.457	2.583	0.800	0.600	0.811	5

C4

WALTER SELECT

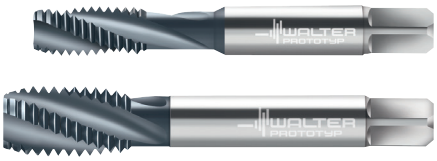
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

Paradur® Ni

inch shank

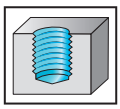


– For long-chipping materials

≤ 1.5×D_N | E=1.5-2 | 25° | 410HB – 200HB

UNC
ASME B1.1

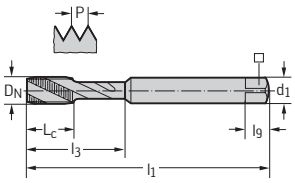
3B



	P	M	K	N	S	H	O
VAP	●				●●		

ANSI B94.9

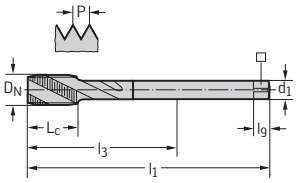
Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A224003S-UNC6	UNC 6-32	0.138	2.000	0.512	0.512	0.141	0.110	0.190	3
A224003S-UNC8	UNC 8-32	0.164	2.126	0.591	1.283	0.168	0.131	0.250	3
A224003S-UNC10	UNC 10-24	0.190	2.378	0.709	0.709	0.194	0.152	0.250	3
A224003S-UNC1/4	UNC 1/4-20	0.250	2.500	0.630	1.102	0.255	0.191	0.313	3
A224003S-UNC5/16	UNC 5/16-18	0.313	2.717	0.748	1.299	0.318	0.238	0.380	3
A224003S-UNC3/8	UNC 3/8-16	0.375	2.937	0.748	1.398	0.381	0.286	0.437	3

ANSI B94.9

Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A224503S-UNC7/16	UNC 7/16-14	0.438	3.157	0.866	2.083	0.323	0.242	0.406	4
A224503S-UNC1/2	UNC 1/2-13	0.500	3.378	0.945	2.272	0.367	0.275	0.437	4
A224503S-UNC5/8	UNC 5/8-11	0.625	3.811	1.102	2.067	0.480	0.360	0.563	4

C 4

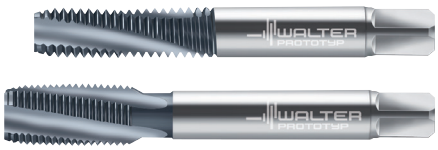
WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

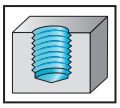
Paradur® Ni 10 inch shank



≤ 1.5×D_N | C=2-3 | 10° | 470HB / 300HB

– For long- and short-chipping materials

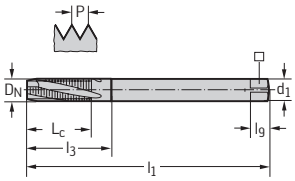
UNC ASME B1.1 | 3B



	P	M	K	N	S	H	O
TICN	●●			●	●●		

ANSI B94.9

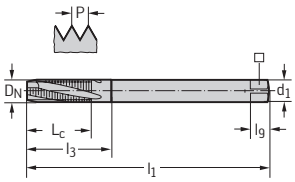
Cylindrical shank



Designation TICN	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2240876-UNC4	UNC 4-40	0.112	1.878	0.394	1.100	0.141	0.110	0.190	3
A2240876-UNC6	UNC 6-32	0.138	2.000	0.472	1.222	0.141	0.110	0.190	3
A2240876-UNC8	UNC 8-32	0.164	2.126	0.512	1.285	0.168	0.131	0.250	3
A2240876-UNC10	UNC 10-24	0.190	2.378	0.630	1.537	0.194	0.152	0.250	3
A2240876-UNC1/4	UNC 1/4-20	0.250	2.500	0.787	1.596	0.255	0.191	0.313	3
A2240876-UNC5/16	UNC 5/16-18	0.313	2.717	0.984	1.746	0.318	0.238	0.380	3
A2240876-UNC3/8	UNC 3/8-16	0.375	2.937	1.181	1.831	0.381	0.286	0.437	3

ANSI B94.9

Cylindrical shank



Designation TICN	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2245876-UNC1/2	UNC 1/2-13	0.500	3.378	0.945	2.272	0.367	0.275	0.437	4
A2245876-UNC5/8	UNC 5/8-11	0.625	3.811	1.102	2.067	0.480	0.360	0.563	4
A2245876-UNC3/4	UNC 3/4-10	0.750	4.252	1.181	2.382	0.590	0.442	0.689	5
A2245876-UNC7/8	UNC 7/8-9	0.875	4.685	1.260	2.754	0.697	0.523	0.750	5

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

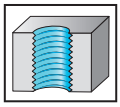
HSS-E machine taps

TC217 Advance inch shank

– Universal cut tap

UNC
ASME B1.1

+.003"
(H7)



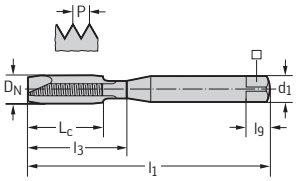
≤ 3×D_N

B=3.5-5

370HB
100HB

	P	M	K	N	S	H	O
WY80RG (TiAlN)	●●	●●	●●	●●			

DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80RG
TC217.UNC6-E0-	UNC 6-32	0.138	2.205	0.433	0.787	0.141	0.110	0.190	2	☹
TC217.UNC8-E0-	UNC 8-32	0.164	2.480	0.472	0.827	0.168	0.131	0.250	3	☹
TC217.UNC10-E0-	UNC 10-24	0.190	2.756	0.512	0.984	0.194	0.152	0.250	3	☹
TC217.UNC1/4-E0-	UNC 1/4-20	0.250	3.150	0.591	1.181	0.255	0.191	0.313	3	☹
TC217.UNC5/16-E0-	UNC 5/16-18	0.313	3.543	0.709	1.378	0.318	0.238	0.380	3	☹

Order example for grade WY80RG: TC217.UNC6-E0-WY80RG

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

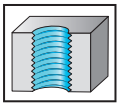
HSS-E machine taps

TC217 Advance inch shank

– Universal cut tap

UNC
ASME B1.1

+.005"
(H11)



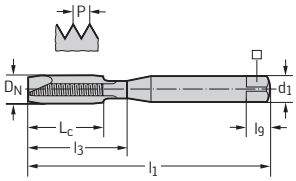
≤ 3×D_N

B=3.5-5

370HB
100HB

	P	M	K	N	S	H	O
WY80RG (TiAlN)	●●	●●	●●	●●			

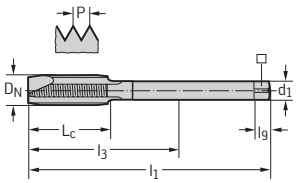
DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80RG
TC217.UNC1/4-F0-	UNC 1/4-20	0.250	3.150	0.591	1.181	0.255	0.191	0.313	3	☹
TC217.UNC5/16-F0-	UNC 5/16-18	0.313	3.543	0.709	1.378	0.318	0.238	0.380	3	☹
TC217.UNC3/8-F0-	UNC 3/8-16	0.375	3.937	0.787	1.614	0.381	0.286	0.437	3	☹

Order example for grade WY80RG: TC217.UNC1/4-F0-WY80RG

DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80RG
TC217.UNC7/16-P0-	UNC 7/16-14	0.438	3.937	0.787	2.862	0.323	0.242	0.406	3	☹
TC217.UNC1/2-P0-	UNC 1/2-13	0.500	4.331	0.906	3.224	0.367	0.275	0.437	3	☹
TC217.UNC3/4-P0-	UNC 3/4-10	0.750	4.921	1.181	3.051	0.590	0.442	0.689	4	☹

Order example for grade WY80RG: TC217.UNC7/16-P0-WY80RG

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

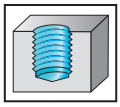
HSS-E machine taps

TC117 Advance inch shank

– Universal cut tap

UNC
ASME B1.1

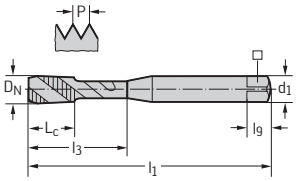
+.003"
(H7)



≤ 2.5×D_N | C=2-3 | 40° | 370HB 150HB

	P	M	K	N	S	H	O
WY80RG (TiAlN)	●●	●●	●●	●●			

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80RG
TC117.UNC6-E0-	UNC 6-32	0.138	2.205	0.256	0.827	0.141	0.110	0.190	3	☹
TC117.UNC8-E0-	UNC 8-32	0.164	2.480	0.276	0.984	0.168	0.131	0.250	3	☹
TC117.UNC1/4-E0-	UNC 1/4-20	0.250	3.150	0.394	1.181	0.255	0.191	0.313	3	☹
TC117.UNC5/16-E0-	UNC 5/16-18	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3	☹

Order example for grade WY80RG: TC117.UNC6-E0-WY80RG

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

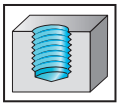
HSS-E machine taps

TC117 Advance inch shank

– Universal cut tap

UNC
ASME B1.1

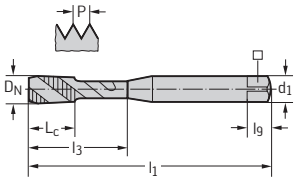
+.005"
(H11)



≤ 2.5×D_N | C=2-3 | 40° | 370HB 150HB

	P	M	K	N	S	H	O
WY80RG (TiAlN)	●●	●●	●●	●●			

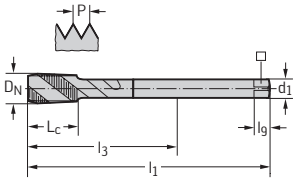
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80RG
TC117.UNC1/4-F0-	UNC 1/4-20	0.250	3.150	0.394	1.181	0.255	0.191	0.313	3	☹
TC117.UNC3/8-F0-	UNC 3/8-16	0.375	3.937	0.591	1.535	0.381	0.286	0.437	3	☹

Order example for grade WY80RG: TC117.UNC1/4-F0-WY80RG

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80RG
TC117.UNC1/2-P0-	UNC 1/2-13	0.500	4.331	0.709	3.224	0.367	0.275	0.437	4	☹
TC117.UNC9/16-P0-	UNC 9/16-12	0.563	4.331	0.787	3.161	0.429	0.322	0.500	4	☹
TC117.UNC5/8-P0-	UNC 5/8-11	0.625	4.331	0.787	2.587	0.480	0.360	0.563	4	☹

Order example for grade WY80RG: TC117.UNC1/2-P0-WY80RG

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

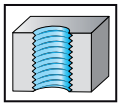
HSS-E PM machine taps

Prototex® Eco Plus inch shank

– Universal high-performance cut tap
– THL: good chip control and good wear resistance

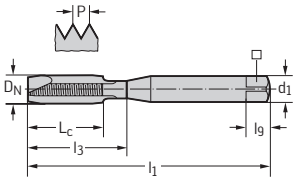
≤ 3.5×D_N | B=3.5-5 | 400HB / 150HB

UNF ASME B1.1 | 2B



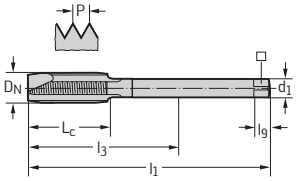
	P	M	K	N	S	H	O
THL	●●	●●	●●	●●			

DIN/ANSI



Designation THL	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
AEP2321002-UNF10	UNF 10-32	0.190	2.756	0.512	0.984	0.194	0.152	0.250	3
AEP2321002-UNF1/4	UNF 1/4-28	0.250	3.150	0.591	1.181	0.255	0.191	0.313	3
AEP2321002-UNF5/16	UNF 5/16-24	0.313	3.543	0.709	1.378	0.318	0.238	0.380	3
AEP2321002-UNF3/8	UNF 3/8-24	0.375	3.937	0.787	1.535	0.381	0.286	0.437	3

DIN/ANSI



Designation THL	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
AEP2326002-UNF7/16	UNF 7/16-20	0.438	3.937	0.787	2.862	0.323	0.242	0.406	3
AEP2326002-UNF1/2	UNF 1/2-20	0.500	3.937	0.827	2.831	0.367	0.275	0.437	4
AEP2326002-UNF9/16	UNF 9/16-12	0.563	3.937	0.827	2.768	0.429	0.322	0.500	4
AEP2326002-UNF5/8	UNF 5/8-18	0.625	3.937	0.827	2.193	0.480	0.360	0.563	4
AEP2326002-UNF3/4	UNF 3/4-16	0.750	4.331	0.945	2.461	0.590	0.442	0.689	4

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

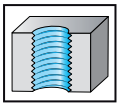
TC217 Advance

inch shank

- Universal cut tap
- For 2B and 3B tolerances
- WY80FC: best chip control
- WY80RG: good chip control, good wear resistance

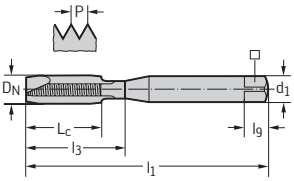
≤ 3×D_N | B=3.5-5 | 370HB / 100HB

UNF ASME B1.1 | 2B / 3B



	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			
WY80RG (TiAlN)	●●	●●	●●	●●			

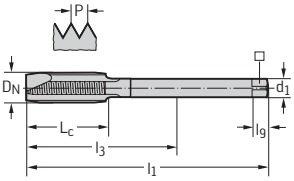
DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80FC	WY80RG
TC217.UNF0-G0-	UNF 0-80	0.060	1.575	0.256	0.256	0.141	0.110	0.190	2	☹	☺
TC217.UNF1-G0-	UNF 1-72	0.073	1.772	0.236	0.354	0.141	0.110	0.190	2		☺
TC217.UNF3-G0-	UNF 3-56	0.099	1.969	0.315	0.492	0.141	0.110	0.190	2		☺
TC217.UNF4-G0-	UNF 4-48	0.112	2.205	0.354	0.709	0.141	0.110	0.190	2		☺
TC217.UNF5-G0-	UNF 5-44	0.125	2.205	0.394	0.709	0.141	0.110	0.190	2		☺
TC217.UNF6-G0-	UNF 6-40	0.138	2.205	0.433	0.787	0.141	0.110	0.190	2		☺
TC217.UNF8-G0-	UNF 8-36	0.164	2.480	0.472	0.827	0.168	0.131	0.250	3		☺
TC217.UNF10-G0-	UNF 10-32	0.190	2.756	0.512	0.984	0.194	0.152	0.250	3	☹	☺
TC217.UNF12-G0-	UNF 12-28	0.216	3.150	0.591	1.181	0.220	0.165	0.281	3		☺
TC217.UNF1/4-G0-	UNF 1/4-28	0.250	3.150	0.591	1.181	0.255	0.191	0.313	3	☹	☺
TC217.UNF5/16-G0-	UNF 5/16-24	0.313	3.543	0.709	1.378	0.318	0.238	0.380	3	☹	☺
TC217.UNF3/8-G0-	UNF 3/8-24	0.375	3.543	0.787	1.535	0.381	0.286	0.437	3	☹	☺

Order example for grade WY80RG: TC217.UNF0-G0-WY80RG

DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80FC	WY80RG
TC217.UNF7/16-R0-	UNF 7/16-20	0.438	3.937	0.787	2.862	0.323	0.242	0.406	3	☹	☺
TC217.UNF1/2-R0-	UNF 1/2-20	0.500	3.937	0.827	2.831	0.367	0.275	0.437	4	☹	☺
TC217.UNF9/16-R0-	UNF 9/16-18	0.563	3.937	0.827	2.768	0.429	0.322	0.500	4	☹	☺
TC217.UNF5/8-R0-	UNF 5/8-18	0.625	3.937	0.827	2.193	0.480	0.360	0.563	4	☹	☺
TC217.UNF3/4-R0-	UNF 3/4-16	0.750	4.331	0.945	2.461	0.590	0.442	0.689	4	☹	☺
TC217.UNF7/8-R0-	UNF 7/8-14	0.875	4.921	0.945	2.992	0.697	0.523	0.750	4	☹	☺
TC217.UNF1.0-R0-	UNF 1"-12	1.000	5.512	1.024	2.969	0.800	0.600	0.811	4		☺

Order example for grade WY80RG: TC217.UNF7/16-R0-WY80RG

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

TC216 Perform

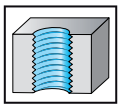
inch shank

– Universal cut tap

≤ 3×D_N | B=3.5-5 | 300HB / 100HB

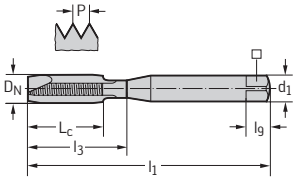
UNF
ASME B1.1

2B



	P	M	K	N	S	H	O
WY80AA (TiN)	●●	●●	●●	●●			

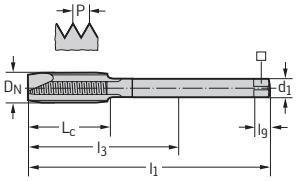
DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80AA
TC216.UNF10-C0-	UNF 10-32	0.190	2.756	0.512	0.984	0.194	0.152	0.250	3	☹
TC216.UNF1/4-C0-	UNF 1/4-28	0.250	3.150	0.591	1.181	0.255	0.191	0.313	3	☹
TC216.UNF5/16-C0-	UNF 5/16-24	0.313	3.543	0.709	1.378	0.318	0.238	0.380	3	☹
TC216.UNF3/8-C0-	UNF 3/8-24	0.375	3.937	0.787	1.535	0.381	0.286	0.437	3	☹

Order example for grade WY80AA: TC216.UNF10-C0-WY80AA

DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80AA
TC216.UNF7/16-L0-	UNF 7/16-20	0.438	3.937	0.787	2.862	0.323	0.242	0.406	3	☹
TC216.UNF1/2-L0-	UNF 1/2-20	0.500	3.937	0.827	2.831	0.367	0.275	0.437	4	☹
TC216.UNF9/16-L0-	UNF 9/16-18	0.563	3.937	0.827	2.768	0.429	0.322	0.500	4	☹
TC216.UNF5/8-L0-	UNF 5/8-18	0.625	3.937	0.827	2.193	0.480	0.360	0.563	4	☹
TC216.UNF3/4-L0-	UNF 3/4-16	0.750	4.331	0.945	2.461	0.590	0.442	0.689	4	☹

Order example for grade WY80AA: TC216.UNF9/16-L0-WY80AA

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Prototex® Synchrospeed

inch shank

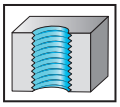
– For long-chipping materials

≤ 3×D_N

B=3.5-5

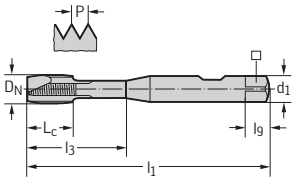
UNF
ASME B1.1

2B



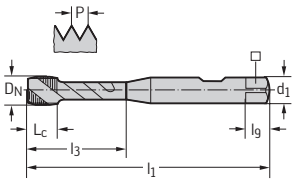
	P	M	K	N	S	H	O
TIN	●●	●●	●●	●●	●●		●●

DIN/ANSI



Designation TIN	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
AS2321005-UNF10	UNF 10-32	0.190	2.756	0.311	0.984	0.194	0.152	0.250	3
AS2321005-UNF1/4	UNF 1/4-28	0.250	3.150	0.358	1.181	0.255	0.191	0.313	3

DIN/ANSI



Designation TIN	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
AS2326005-UNF1/2	UNF 1/2-20	0.500	3.937	0.500	2.831	0.367	0.275	0.437	3
AS2326005-UNF5/8	UNF 5/8-18	0.625	3.937	0.555	2.193	0.480	0.360	0.563	4

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

Prototex® TiNi

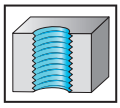
inch shank

– Recommended with oil
– For long-chipping materials

≤ 2×D_N | B=3.5-5 | 410HB / 200HB

UNF
ASME B1.1

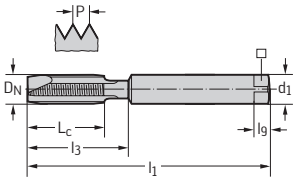
3B



	P	M	K	N	S	H	O
TICN	●●	●●		●	●●		
uncoated	●●	●●		●	●●		

ANSI B94.9

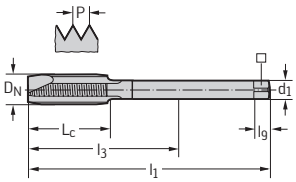
Cylindrical shank



Designation TICN	Designation uncoated	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
A2320766-UNF0	A2320760-UNF0	UNF 0-80	0.060	1.626	0.217	0.217	0.141	0.110	0.190	2
A2320766-UNF1		UNF 1-72	0.073	1.689	0.276	0.276	0.141	0.110	0.190	2
	A2320760-UNF8	UNF 8-36	0.164	2.126	0.591	0.591	0.168	0.131	0.250	3
A2320766-UNF10	A2320760-UNF10	UNF 10-32	0.190	2.378	0.709	0.709	0.194	0.152	0.250	3
A2320766-UNF12		UNF 12-28	0.216	2.378	0.787	0.787	0.220	0.165	0.281	3
A2320766-UNF1/4	A2320760-UNF1/4	UNF 1/4-28	0.250	2.500	0.630	1.102	0.255	0.191	0.313	3
A2320766-UNF5/16	A2320760-UNF5/16	UNF 5/16-24	0.313	2.717	0.748	1.299	0.318	0.238	0.380	3
A2320766-UNF3/8	A2320760-UNF3/8	UNF 3/8-24	0.375	2.937	0.748	1.398	0.381	0.286	0.437	3

ANSI B94.9

Cylindrical shank



Designation TICN	Designation uncoated	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
A2325766-UNF7/16	A2325760-UNF7/16	UNF 7/16-20	0.438	3.157	0.866	2.083	0.323	0.242	0.406	4
A2325766-UNF1/2	A2325760-UNF1/2	UNF 1/2-20	0.500	3.378	0.945	2.272	0.367	0.275	0.437	4
A2325766-UNF9/16	A2325760-UNF9/16	UNF 9/16-18	0.563	3.594	1.024	2.425	0.429	0.322	0.500	4
A2325766-UNF5/8	A2325760-UNF5/8	UNF 5/8-18	0.625	3.811	1.102	2.067	0.480	0.360	0.563	4
A2325766-UNF3/4	A2325760-UNF3/4	UNF 3/4-16	0.750	4.252	1.181	2.382	0.590	0.442	0.689	4
	A2325760-UNF7/8	UNF 7/8-14	0.875	4.685	1.260	2.756	0.697	0.523	0.750	4

C 4

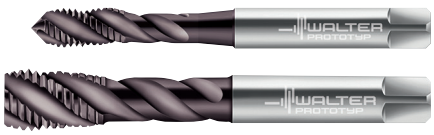
WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

Paradur® Eco Plus inch shank



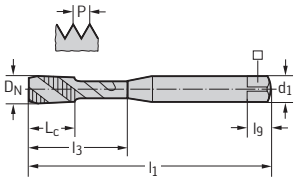
– Universal high-performance cut tap
– THL: good chip control and good wear resistance

≤ 3×D_N | C=2-3 | 45° | 370HB / 150HB

UNF ASME B1.1 | 2B

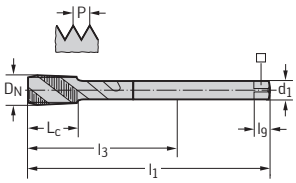
	P	M	K	N	S	H	O
THL	●●	●●	●●	●●			

DIN/ANSI



Designation THL	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AEP2351302-UNF10	UNF 10-32	0.190	2.756	0.315	0.791	0.194	0.152	0.250	3
AEP2351302-UNF1/4	UNF 1/4-28	0.250	3.150	0.394	1.020	0.255	0.191	0.313	3
AEP2351302-UNF5/16	UNF 5/16-24	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3
AEP2351302-UNF3/8	UNF 3/8-24	0.375	3.937	0.472	1.535	0.381	0.286	0.437	3

DIN/ANSI



Designation THL	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AEP2356302-UNF7/16	UNF 7/16-20	0.438	3.937	0.591	2.862	0.323	0.242	0.406	3
AEP2356302-UNF1/2	UNF 1/2-20	0.500	3.937	0.512	2.831	0.367	0.275	0.437	4
AEP2356302-UNF9/16	UNF 9/16-18	0.563	3.937	0.591	2.768	0.429	0.322	0.500	4
AEP2356302-UNF5/8	UNF 5/8-18	0.625	3.937	0.591	2.193	0.480	0.360	0.563	4
AEP2356302-UNF3/4	UNF 3/4-16	0.750	4.331	0.669	2.461	0.590	0.442	0.689	4

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

Paradur® Eco Plus inch shank

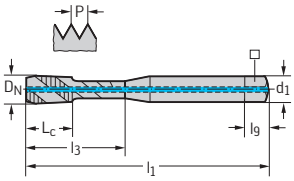
– Universal high-performance cut tap
– THL: good chip control and good wear resistance

≤ 3×D_N | C=2-3 | 45° | 370HB / 150HB

UNF ASME B1.1 | 2B

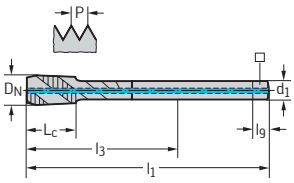
	P	M	K	N	S	H	O
THL	●●	●●	●●	●●			

DIN/ANSI



Designation THL	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AEP2351312-UNF1/4	UNF 1/4-28	0.250	3.150	0.394	1.020	0.255	0.191	0.313	3
AEP2351312-UNF5/16	UNF 5/16-24	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3
AEP2351312-UNF3/8	UNF 3/8-24	0.375	3.937	0.472	1.535	0.381	0.286	0.437	3

DIN/ANSI



Designation THL	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AEP2356312-UNF7/16	UNF 7/16-20	0.438	3.937	0.591	2.862	0.323	0.242	0.406	3
AEP2356312-UNF1/2	UNF 1/2-20	0.500	3.937	0.512	2.831	0.367	0.275	0.437	4
AEP2356312-UNF5/8	UNF 5/8-18	0.625	3.937	0.591	2.193	0.480	0.360	0.563	4
AEP2356312-UNF3/4	UNF 3/4-16	0.750	4.331	0.669	2.461	0.590	0.442	0.689	4

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

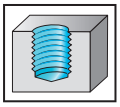
TC117 Advance

inch shank

- Universal cut tap
- For 2B and 3B tolerances
- WY80FC: best chip control
- WY80RG: good chip control, good wear resistance

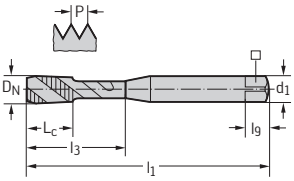
≤ 2.5×D_N | C=2-3 | 40° | 370HB / 150HB

UNF ASME B1.1 | 2B / 3B



	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			
WY80RG (TiAlN)	●●	●●	●●	●●			

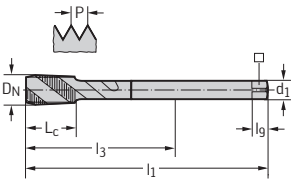
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC	WY80RG
TC117.UNF0-G0-	UNF 0-80	0.060	1.575	0.197	0.197	0.141	0.110	0.190	3	☹	☺
TC117.UNF1-G0-	UNF 1-72	0.073	1.772	0.157	0.354	0.141	0.110	0.190	3	☹	☺
TC117.UNF2-G0-	UNF 2-64	0.086	1.772	0.157	0.472	0.141	0.110	0.190	3		☺
TC117.UNF3-G0-	UNF 3-56	0.099	1.969	0.157	0.492	0.141	0.110	0.190	3		☺
TC117.UNF4-G0-	UNF 4-48	0.112	2.205	0.236	0.709	0.141	0.110	0.190	3		☺
TC117.UNF5-G0-	UNF 5-44	0.125	2.205	0.236	0.709	0.141	0.110	0.190	3		☺
TC117.UNF6-G0-	UNF 6-40	0.138	2.205	0.256	0.787	0.141	0.110	0.190	3		☺
TC117.UNF8-G0-	UNF 8-36	0.164	2.480	0.276	0.827	0.168	0.131	0.250	3		☺
TC117.UNF10-G0-	UNF 10-32	0.190	2.756	0.315	0.984	0.194	0.152	0.250	3	☹	☺
TC117.UNF12-G0-	UNF 12-28	0.216	3.150	0.394	1.181	0.220	0.165	0.281	3		☺
TC117.UNF1/4-G0-	UNF 1/4-28	0.250	3.150	0.394	1.181	0.255	0.191	0.313	3	☹	☺
TC117.UNF5/16-G0-	UNF 5/16-24	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3	☹	☺
TC117.UNF3/8-G0-	UNF 3/8-24	0.375	3.543	0.472	1.535	0.381	0.286	0.437	3	☹	☺

Order example for grade WY80RG: TC117.UNF0-G0-WY80RG

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC	WY80RG
TC117.UNF7/16-R0-	UNF 7/16-20	0.438	3.937	0.591	2.862	0.323	0.242	0.406	3	☹	☹
TC117.UNF1/2-R0-	UNF 1/2-20	0.500	3.937	0.591	2.831	0.367	0.275	0.437	4	☹	☹
TC117.UNF9/16-R0-	UNF 9/16-18	0.563	3.937	0.591	2.768	0.429	0.322	0.500	4	☹	☹
TC117.UNF5/8-R0-	UNF 5/8-18	0.625	3.937	0.591	2.193	0.480	0.360	0.563	4	☹	☹
TC117.UNF3/4-R0-	UNF 3/4-16	0.750	4.331	0.669	2.461	0.590	0.442	0.689	4	☹	☹
TC117.UNF7/8-R0-	UNF 7/8-14	0.875	4.921	0.709	2.992	0.697	0.523	0.750	4	☹	☹
TC117.UNF1.0-R0-	UNF 1"-12	1.000	5.512	0.787	2.969	0.800	0.600	0.811	5		☹
TC117.UNF1.1/8-R0-	UNF 1.1/8-12	1.125	5.906	0.787	3.291	0.896	0.672	0.880	5		☹
TC117.UNF1.1/4-R0-	UNF 1.1/4-12	1.250	5.906	0.787	3.173	1.021	0.766	1.000	5		☹

Order example for grade WY80RG: TC117.UNF7/16-R0-WY80RG

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

TC117 Advance inch shank

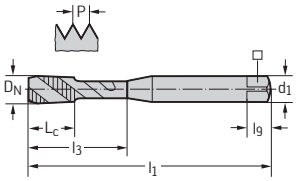
- Universal cut tap
- For 2B and 3B tolerances
- WY80FC: best chip control

≤ 2.5×D_N | E=1.5-2 | 40° | 370HB / 150HB

UNF ASME B1.1 | 2B / 3B

	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			

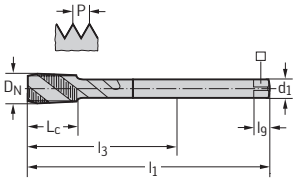
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC
TC117.UNF0-GE-	UNF 0-80	0.060	1.575	0.197	0.197	0.141	0.110	0.190	3	☹
TC117.UNF10-GE-	UNF 10-32	0.190	2.756	0.315	0.984	0.194	0.152	0.250	3	☹
TC117.UNF1/4-GE-	UNF 1/4-28	0.250	3.150	0.394	1.181	0.255	0.191	0.313	3	☹
TC117.UNF5/16-GE-	UNF 5/16-24	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3	☹
TC117.UNF3/8-GE-	UNF 3/8-24	0.375	3.543	0.472	1.535	0.381	0.286	0.437	3	☹

Order example for grade WY80FC: TC117.UNF0-GE-WY80FC

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC
TC117.UNF7/16-RE-	UNF 7/16-20	0.438	3.937	0.591	2.862	0.323	0.242	0.406	3	☹
TC117.UNF1/2-RE-	UNF 1/2-20	0.500	3.937	0.591	2.831	0.367	0.275	0.437	4	☹
TC117.UNF9/16-RE-	UNF 9/16-18	0.563	3.937	0.591	2.768	0.429	0.322	0.500	4	☹
TC117.UNF5/8-RE-	UNF 5/8-18	0.625	3.937	0.591	2.193	0.480	0.360	0.563	4	☹
TC117.UNF3/4-RE-	UNF 3/4-16	0.750	4.331	0.669	2.461	0.590	0.442	0.689	4	☹

Order example for grade WY80FC: TC117.UNF7/16-RE-WY80FC

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

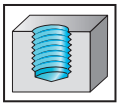
TC115 Perform

inch shank

– Universal cut tap

UNF
ASME B1.1

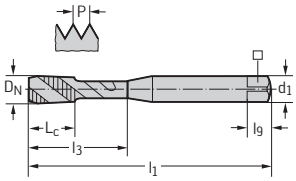
2B



≤ 3×D_N | C=2-3 | 45° | 300HB / 100HB

	P	M	K	N	S	H	O
WY80AA (TiN)	●●	●●	●●	●			

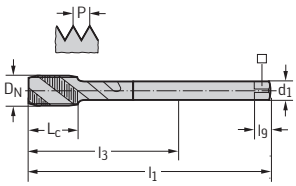
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80AA
TC115.UNF10-C0-	UNF 10-32	0.190	2.756	0.315	0.984	0.194	0.152	0.250	3	☹
TC115.UNF1/4-C0-	UNF 1/4-28	0.250	3.150	0.394	1.181	0.255	0.191	0.313	3	☹
TC115.UNF5/16-C0-	UNF 5/16-24	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3	☹
TC115.UNF3/8-C0-	UNF 3/8-24	0.375	3.937	0.472	1.535	0.381	0.286	0.437	3	☹

Order example for grade WY80AA: TC115.UNF10-C0-WY80AA

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80AA
TC115.UNF7/16-L0-	UNF 7/16-20	0.438	3.937	0.591	2.862	0.323	0.242	0.406	3	☹
TC115.UNF1/2-L0-	UNF 1/2-20	0.500	3.937	0.512	2.831	0.367	0.275	0.437	4	☹
TC115.UNF9/16-L0-	UNF 9/16-18	0.563	3.937	0.591	2.768	0.429	0.322	0.500	4	☹
TC115.UNF5/8-L0-	UNF 5/8-18	0.625	3.937	0.591	2.193	0.480	0.360	0.563	4	☹
TC115.UNF3/4-L0-	UNF 3/4-16	0.750	4.331	0.669	2.461	0.590	0.442	0.689	4	☹

Order example for grade WY80AA: TC115.UNF9/16-L0-WY80AA

C4

WALTER SELECT

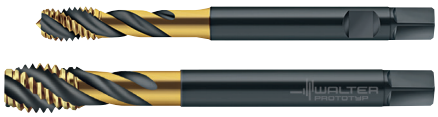
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Paradur® Synchrospeed

inch shank



– For long-chipping materials

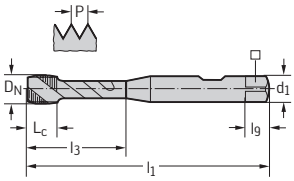
≤ 2.5×D_N | C=2-3 | 40° | 380HB

UNF
ASME B1.1

2B

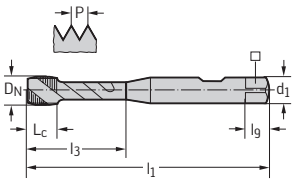
	P	M	K	N	S	H	O
TIN/VAP	●●	●●	●●	●	●		●

DIN/ANSI



Designation TIN/VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AS2351005-UNF10	UNF 10-32	0.190	2.756	0.335	0.984	0.194	0.152	0.250	3
AS2351005-UNF1/4	UNF 1/4-28	0.250	3.150	0.374	1.181	0.255	0.191	0.313	3
AS2351005-UNF5/16	UNF 5/16-24	0.313	3.543	0.433	1.378	0.318	0.238	0.380	3
AS2351005-UNF3/8	UNF 3/8-24	0.375	3.937	0.433	1.535	0.381	0.286	0.437	3

DIN/ANSI



Designation TIN/VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AS2356005-UNF7/16	UNF 7/16-20	0.438	3.937	0.531	2.862	0.323	0.242	0.406	3
AS2356005-UNF1/2	UNF 1/2-20	0.500	3.937	0.531	2.831	0.367	0.275	0.437	4

C 4

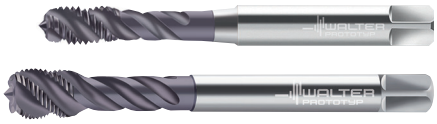
WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E (-PM) machine taps

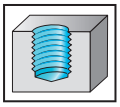
TC142 Supreme inch shank



– For stainless steels
– WY80FC: best chip control

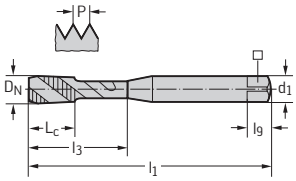
≤ 3×D_N | C=2-3 | 50° | 350HB / 100HB

UNF ASME B1.1 | 2BX



	P	M	K	N	S	H	O
WY80FC (VAP)	●	●●					

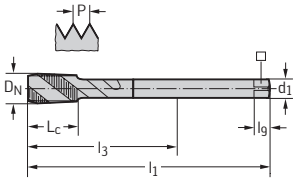
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC
TC142.UNF10-C0-	UNF 10-32	0.190	2.756	0.315	0.984	0.194	0.152	0.250	3	☹
TC142.UNF1/4-C0-	UNF 1/4-28	0.250	3.150	0.394	1.181	0.255	0.191	0.313	3	☹
TC142.UNF5/16-C0-	UNF 5/16-24	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3	☹
TC142.UNF3/8-C0-	UNF 3/8-24	0.375	3.937	0.472	1.535	0.381	0.286	0.437	3	☹

Order example for grade WY80FC: TC142.UNF10-C0-WY80FC

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC
TC142.UNF7/16-L0-	UNF 7/16-20	0.438	3.937	0.591	2.862	0.323	0.242	0.406	3	☹
TC142.UNF1/2-L0-	UNF 1/2-20	0.500	3.937	0.591	2.831	0.367	0.275	0.437	4	☹

Order example for grade WY80FC: TC142.UNF7/16-L0-WY80FC

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

Paradur® Eco CI

inch shank

– For short-chipping ISO K materials (GJL / CGI)
– For short-chipping aluminum alloys (Si content > 7 %)

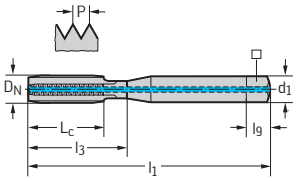
≤ 3×D_N | C=2-3 | 300HB 40HB

UNF
ASME B1.1

2B

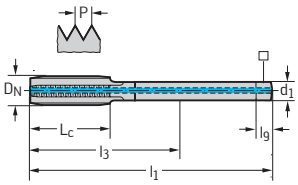
	P	M	K	N	S	H	O
TICN			●●	●●			●●

DIN/ANSI



Designation TICN	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AE2331416-UNF12	UNF 12-28	0.216	3.150	0.591	1.181	0.220	0.165	0.281	4
AE2331416-UNF1/4	UNF 1/4-28	0.250	3.150	0.591	1.181	0.255	0.191	0.313	4
AE2331416-UNF5/16	UNF 5/16-24	0.313	3.543	0.709	1.378	0.318	0.238	0.380	4
AE2331416-UNF3/8	UNF 3/8-24	0.375	3.937	0.787	1.535	0.381	0.286	0.437	4

DIN/ANSI



Designation TICN	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AE2336416-UNF7/16	UNF 7/16-20	0.438	3.937	0.787	2.862	0.323	0.242	0.406	4
AE2336416-UNF1/2	UNF 1/2-20	0.500	3.937	0.827	2.831	0.367	0.275	0.437	4
AE2336416-UNF9/16	UNF 9/16-18	0.563	3.937	0.827	2.768	0.429	0.322	0.500	4
AE2336416-UNF5/8	UNF 5/8-18	0.625	3.937	0.827	2.193	0.480	0.360	0.563	4
AE2336416-UNF3/4	UNF 3/4-16	0.750	4.331	0.945	2.461	0.590	0.442	0.689	4
AE2336416-UNF7/8	UNF 7/8-14	0.875	4.921	0.945	2.992	0.697	0.523	0.750	5

C 4

WALTER SELECT

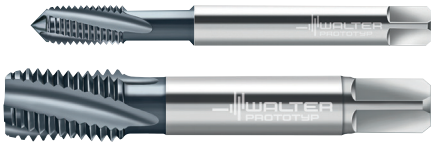
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

Paradur® Ti

inch shank

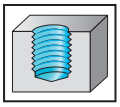


– Recommended with oil
– For long-chipping materials

≤ 2×D_N | C=2-3 | 15° | 410HB 200HB

UNF
ASME B1.1

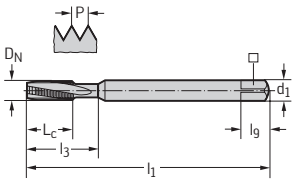
3B



	P	M	K	N	S	H	O
TICN	●●			●	●●		
VAP	●●			●	●●		

ANSI B94.9

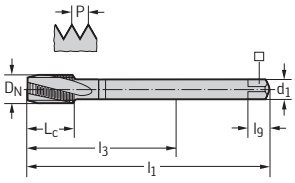
Cylindrical shank



Designation TICN	Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2340606-UNF0	A23406S-UNF0	UNF 0-80	0.060	1.626	0.217	0.217	0.141	0.110	0.190	2
	A23406S-UNF1	UNF 1-72	0.073	1.689	0.276	0.276	0.141	0.110	0.190	2
	A23406S-UNF6	UNF 6-40	0.138	2.000	0.512	1.220	0.141	0.110	0.190	3
A2340606-UNF8		UNF 8-36	0.164	2.126	0.591	1.283	0.168	0.131	0.250	3
A2340606-UNF10	A23406S-UNF10	UNF 10-32	0.190	2.378	0.709	0.709	0.194	0.152	0.250	3
A2340606-UNF1/4	A23406S-UNF1/4	UNF 1/4-28	0.250	2.500	0.630	1.102	0.255	0.191	0.313	3
A2340606-UNF5/16	A23406S-UNF5/16	UNF 5/16-24	0.313	2.717	0.748	1.299	0.318	0.238	0.380	3
	A23406S-UNF3/8	UNF 3/8-24	0.375	2.937	0.748	1.398	0.381	0.286	0.437	3

ANSI B94.9

Cylindrical shank



Designation TICN	Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2345606-UNF7/16	A23456S-UNF7/16	UNF 7/16-20	0.438	3.157	0.866	2.083	0.323	0.242	0.406	4
A2345606-UNF1/2	A23456S-UNF1/2	UNF 1/2-20	0.500	3.378	0.945	2.272	0.367	0.275	0.437	4
A2345606-UNF9/16		UNF 9/16-18	0.563	3.594	1.024	2.425	0.429	0.322	0.500	4
	A23456S-UNF3/4	UNF 3/4-16	0.750	4.252	1.181	2.382	0.590	0.442	0.689	4
	A23456S-UNF7/8	UNF 7/8-14	0.875	4.685	1.260	2.756	0.697	0.523	0.750	4
A2345606-UNF1		UNF 1"-12	1.000	5.126	1.457	2.583	0.800	0.600	0.811	4

C4

WALTER SELECT

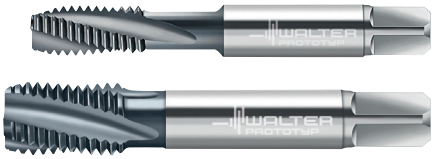
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Paradur® Ti

inch shank

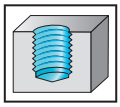


– Recommended with oil
– For long-chipping materials

≤ 2×D_N | E=1.5-2 | 15° | 410HB 200HB

UNF
ASME B1.1

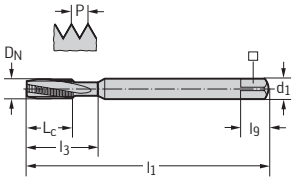
3B



	P	M	K	N	S	H	O
VAP	●●			●	●●		

ANSI B94.9

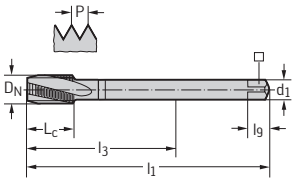
Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2340661S-UNF0	UNF 0-80	0.060	1.626	0.217	0.217	0.141	0.110	0.190	2
A2340661S-UNF1	UNF 1-72	0.073	1.689	0.276	0.276	0.141	0.110	0.190	2
A2340661S-UNF10	UNF 10-32	0.190	2.378	0.709	0.709	0.194	0.152	0.250	3
A2340661S-UNF1/4	UNF 1/4-28	0.250	2.500	0.630	1.102	0.255	0.191	0.313	3
A2340661S-UNF5/16	UNF 5/16-24	0.313	2.717	0.748	1.299	0.318	0.238	0.380	3

ANSI B94.9

Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2345661S-UNF7/16	UNF 7/16-20	0.438	3.157	0.866	2.083	0.323	0.242	0.406	4
A2345661S-UNF1/2	UNF 1/2-20	0.500	3.378	0.945	2.272	0.367	0.275	0.437	4

C 4

WALTER SELECT

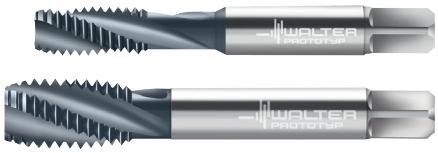
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Paradur® Ni

inch shank

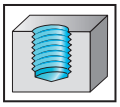


≤ 1.5×D_N | C=2-3 | 25° | 410HB 200HB

– For long-chipping materials

UNF
ASME B1.1

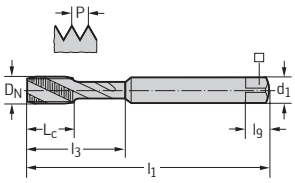
3B



	P	M	K	N	S	H	O
TICN	●				●●		
VAP	●				●●		

ANSI B94.9

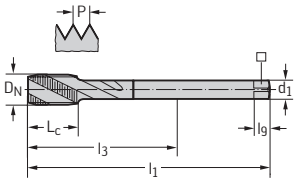
Cylindrical shank



Designation TICN	Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2340806-UNF0		UNF 0-80	0.060	1.626	0.217	0.217	0.141	0.110	0.190	2
A2340806-UNF1		UNF 1-72	0.073	1.689	0.276	0.276	0.141	0.110	0.190	2
	A234002S-UNF6	UNF 6-40	0.138	2.000	0.512	1.220	0.141	0.110	0.190	3
	A234002S-UNF8	UNF 8-36	0.164	2.126	0.591	1.283	0.168	0.131	0.250	3
A2340806-UNF10	A234002S-UNF10	UNF 10-32	0.190	2.378	0.709	0.709	0.194	0.152	0.250	3
	A234002S-UNF12	UNF 12-28	0.216	2.378	0.787	1.504	0.220	0.165	0.281	3
A2340806-UNF1/4	A234002S-UNF1/4	UNF 1/4-28	0.250	2.500	0.630	1.102	0.255	0.191	0.313	3
A2340806-UNF5/16	A234002S-UNF5/16	UNF 5/16-24	0.313	2.717	0.748	1.299	0.318	0.238	0.380	3
A2340806-UNF3/8	A234002S-UNF3/8	UNF 3/8-24	0.375	2.937	0.748	1.398	0.381	0.286	0.437	3

ANSI B94.9

Cylindrical shank



Designation TICN	Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2345806-UNF7/16	A234502S-UNF7/16	UNF 7/16-20	0.438	3.157	0.866	2.083	0.323	0.242	0.406	4
A2345806-UNF1/2	A234502S-UNF1/2	UNF 1/2-20	0.500	3.378	0.945	2.272	0.367	0.275	0.437	4
A2345806-UNF9/16	A234502S-UNF9/16	UNF 9/16-18	0.563	3.594	1.024	2.425	0.429	0.322	0.500	4
A2345806-UNF5/8		UNF 5/8-18	0.625	3.811	1.102	2.067	0.480	0.360	0.563	4
A2345806-UNF3/4	A234502S-UNF3/4	UNF 3/4-16	0.750	4.252	1.181	2.382	0.590	0.442	0.689	5

C4

WALTER SELECT

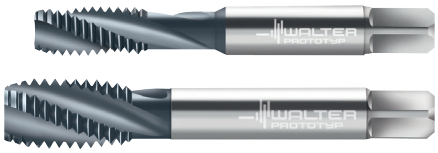
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Paradur® Ni

inch shank

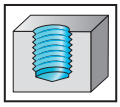


– For long-chipping materials

≤ 1.5×D_N | E=1.5-2 | 25° | 410HB – 200HB

UNF
ASME B1.1

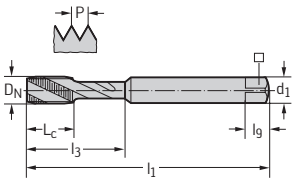
3B



	P	M	K	N	S	H	O
VAP	●				●●		

ANSI B94.9

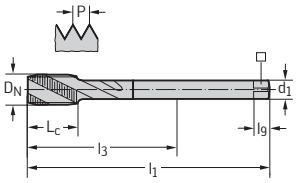
Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A234003S-UNF0	UNF 0-80	0.060	1.626	0.217	0.217	0.141	0.110	0.190	2
A234003S-UNF10	UNF 10-32	0.190	2.378	0.709	0.709	0.194	0.152	0.250	3
A234003S-UNF1/4	UNF 1/4-28	0.250	2.500	0.630	1.102	0.255	0.191	0.313	3
A234003S-UNF5/16	UNF 5/16-24	0.313	2.717	0.748	1.299	0.318	0.238	0.380	3
A234003S-UNF3/8	UNF 3/8-24	0.375	2.937	0.748	1.398	0.381	0.286	0.437	3

ANSI B94.9

Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A234503S-UNF7/16	UNF 7/16-20	0.438	3.157	0.866	2.083	0.323	0.242	0.406	4
A234503S-UNF1/2	UNF 1/2-20	0.500	3.378	0.945	2.272	0.367	0.275	0.437	4
A234503S-UNF9/16	UNF 9/16-18	0.563	3.594	1.024	2.425	0.429	0.322	0.500	4
A234503S-UNF3/4	UNF 3/4-16	0.750	4.252	1.181	2.382	0.590	0.442	0.689	5

C 4

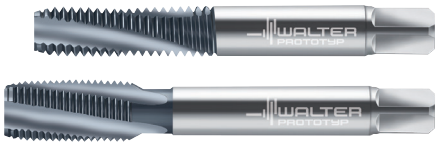
WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

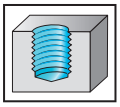
Paradur® Ni 10 inch shank



≤ 1.5×D_N | C=2-3 | 10° | 470HB / 300HB

– For long- and short-chipping materials

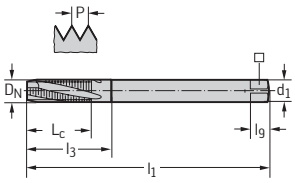
UNF ASME B1.1 | 3B



	P	M	K	N	S	H	O
TICN	●●			●	●●		

ANSI B94.9

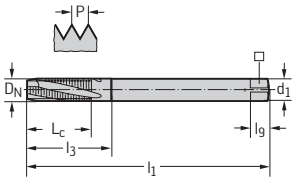
Cylindrical shank



Designation TICN	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2340876-UNF0	UNF 0-80	0.060	1.626	0.217	0.848	0.141	0.110	0.190	3
A2340876-UNF1	UNF 1-72	0.073	1.689	0.276	0.911	0.141	0.110	0.190	3
A2340876-UNF8	UNF 8-36	0.164	2.126	0.512	1.285	0.168	0.131	0.250	3
A2340876-UNF10	UNF 10-32	0.190	2.378	0.630	1.537	0.194	0.152	0.250	3
A2340876-UNF1/4	UNF 1/4-28	0.250	2.500	0.787	1.596	0.255	0.191	0.313	3
A2340876-UNF5/16	UNF 5/16-24	0.313	2.717	0.984	1.746	0.318	0.238	0.380	3
A2340876-UNF3/8	UNF 3/8-24	0.375	2.937	1.181	1.831	0.381	0.286	0.437	3

ANSI B94.9

Cylindrical shank



Designation TICN	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A2345876-UNF7/16	UNF 7/16-20	0.438	3.157	0.866	2.083	0.323	0.242	0.406	4
A2345876-UNF1/2	UNF 1/2-20	0.500	3.378	0.945	2.272	0.367	0.275	0.437	4

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

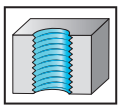
HSS-E machine taps

TC217 Advance inch shank

– Universal cut tap

UNF
ASME B1.1

+.003"
(H7)



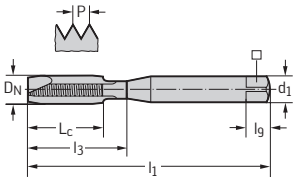
≤ 3×D_N

B=3.5-5

370HB
100HB

	P	M	K	N	S	H	O
WY80RG (TiAlN)	●●	●●	●●	●●			

DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80RG
TC217.UNF6-E0-	UNF 6-40	0.138	2.205	0.433	0.787	0.141	0.110	0.190	2	☹
TC217.UNF10-E0-	UNF 10-32	0.190	2.756	0.512	0.984	0.194	0.152	0.250	3	☹
TC217.UNF1/4-E0-	UNF 1/4-28	0.250	3.150	0.591	1.181	0.255	0.191	0.313	3	☹
TC217.UNF5/16-E0-	UNF 5/16-24	0.313	3.543	0.709	1.378	0.318	0.238	0.380	3	☹

Order example for grade WY80RG: TC217.UNF6-E0-WY80RG

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

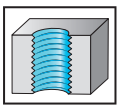
HSS-E machine taps

TC217 Advance inch shank

– Universal cut tap

UNF
ASME B1.1

+.005"
(H11)



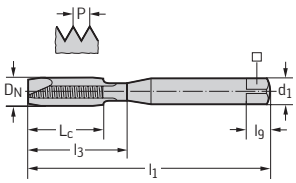
≤ 3×D_N

B=3.5-5

370HB
100HB

	P	M	K	N	S	H	O
WY80RG (TiAlN)	●●	●●	●●	●●			

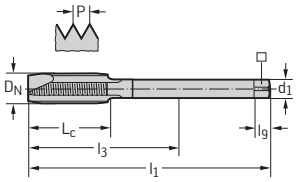
DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80RG
TC217.UNF3/8-F0-	UNF 3/8-24	0.375	3.543	0.787	1.535	0.381	0.286	0.437	3	☹

Order example for grade WY80RG: TC217.UNF3/8-F0-WY80RG

DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80RG
TC217.UNF7/16-P0-	UNF 7/16-20	0.438	3.937	0.787	2.862	0.323	0.242	0.406	3	☹
TC217.UNF1/2-P0-	UNF 1/2-20	0.500	3.937	0.827	2.831	0.367	0.275	0.437	4	☹

Order example for grade WY80RG: TC217.UNF7/16-P0-WY80RG

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

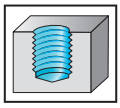
HSS-E machine taps

TC117 Advance inch shank

– Universal cut tap

UNF
ASME B1.1

+.003"
(H7)



≤ 2.5×D_N

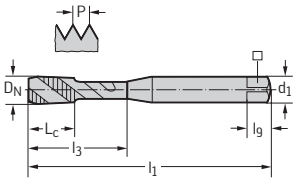
C=2-3

40°

370HB
150HB

	P	M	K	N	S	H	O
WY80RG (TiAlN)	●●	●●	●●	●●			

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80RG
TC117.UNF10-E0-	UNF 10-32	0.190	2.756	0.315	0.984	0.194	0.152	0.250	3	☹
TC117.UNF1/4-E0-	UNF 1/4-28	0.250	3.150	0.394	1.181	0.255	0.191	0.313	3	☹
TC117.UNF5/16-E0-	UNF 5/16-24	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3	☹

Order example for grade WY80RG: TC117.UNF10-E0-WY80RG

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

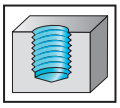
HSS-E machine taps

TC117 Advance inch shank

– Universal cut tap

UNF
ASME B1.1

+.005"
(H11)



≤ 2.5×D_N

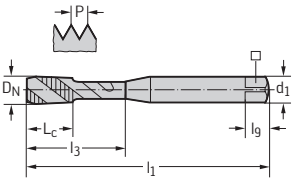
C=2-3

40°

370HB
150HB

	P	M	K	N	S	H	O
WY80RG (TiAlN)	●●	●●	●●	●●			

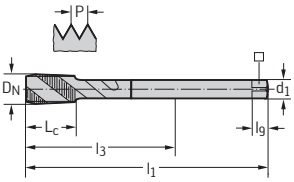
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80RG
TC117.UNF5/16-F0-	UNF 5/16-24	0.313	3.543	0.472	1.378	0.318	0.238	0.380	3	☹
TC117.UNF3/8-F0-	UNF 3/8-24	0.375	3.543	0.472	1.535	0.381	0.286	0.437	3	☹

Order example for grade WY80RG: TC117.UNF5/16-F0-WY80RG

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80RG
TC117.UNF7/16-P0-	UNF 7/16-20	0.438	3.937	0.591	2.862	0.323	0.242	0.406	3	☹
TC117.UNF9/16-P0-	UNF 9/16-18	0.563	3.937	0.591	2.768	0.429	0.322	0.500	4	☹
TC117.UNF5/8-P0-	UNF 5/8-18	0.625	3.937	0.591	2.193	0.480	0.360	0.563	4	☹
TC117.UNF3/4-P0-	UNF 3/4-16	0.750	4.331	0.669	2.461	0.590	0.442	0.689	4	☹

Order example for grade WY80RG: TC117.UNF7/16-P0-WY80RG

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

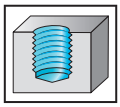
TC117 Advance inch shank

- Universal cut tap
- For 2B and 3B tolerances
- WY80RG: good chip control, good wear resistance

≤ 2.5×D_N | C=2-3 | ∠40° | 370HB / 150HB

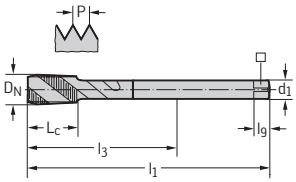
UN-8
ASME B1.1

2B / 3B



	P	M	K	N	S	H	O
WY80RG (TiAlN)	●●	●●	●●	●●			

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80RG
TC117.UN1.1/8-R0-	UN 1.1/8-8	1.125	7.087	1.181	4.472	0.896	0.672	0.880	5	☹
TC117.UN1.1/4-R0-	UN 1.1/4-8	1.250	7.087	1.181	4.354	1.021	0.766	1.000	5	☹
TC117.UN1.3/8-R0-	UN 1.3/8-8	1.375	7.874	1.181	4.016	1.108	0.831	1.063	5	☹
TC117.UN1.1/2-R0-	UN 1.1/2-8	1.500	7.874	1.181	3.953	1.233	0.925	1.126	5	☹
TC117.UN1.5/8-R0-	UN 1.5/8-8	1.625	7.874	1.299	3.953	1.305	0.979	1.126	6	☹

Order example for grade WY80RG: TC117.UN1.1/8-R0-WY80RG

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

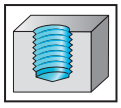
HSS-E machine taps

TC117 Advance inch shank

- Universal cut tap
- For 2B and 3B tolerances
- WY80FC: best chip control
- WY80RG: good chip control, good wear resistance

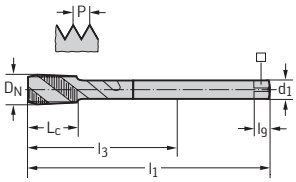
≤ 2.5×D_N | C=2-3 | 40° | 370HB / 150HB

UNS ASME B1.1 | 2B / 3B



	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			
WY80RG (TiAlN)	●●	●●	●●	●●			

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC	WY80RG
TC117.UNS1.0-R0-	UNS 1"-14	1.000	5.512	0.787	2.969	0.800	0.600	0.811	5	☹	☹

Order example for grade WY80RG: TC117.UNS1.0-R0-WY80RG

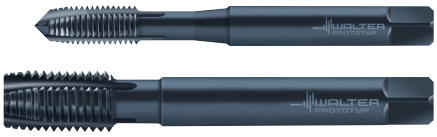
C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps
TC217 Advance

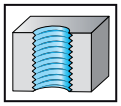


– Universal cut tap
– WY80FC: best chip control

≤ 3×D_N | B=3.5-5 | 370HB / 100HB

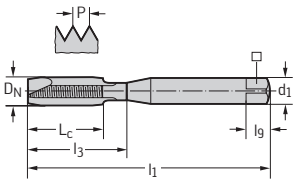
STI-UNC
NASM 33537

3B



	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			

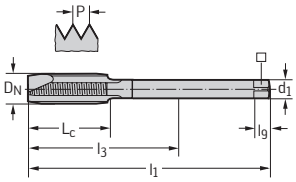
DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80FC
TC217.STIUNC2-B0-	STI-UNC 2-56	0.109	2.205	0.354	0.709	0.141	0.110	0.190	2	☹
TC217.STIUNC4-B0-	STI-UNC 4-40	0.144	2.205	0.472	0.827	0.141	0.110	0.190	2	☹
TC217.STIUNC6-B0-	STI-UNC 6-32	0.179	2.756	0.512	0.984	0.194	0.152	0.250	3	☹
TC217.STIUNC8-B0-	STI-UNC 8-32	0.205	2.756	0.591	0.984	0.194	0.152	0.250	3	☹
TC217.STIUNC10-B0-	STI-UNC 10-24	0.244	3.150	0.591	1.181	0.255	0.191	0.313	3	☹
TC217.STIUNC1/4B0-	STI-UNC 1/4-20	0.315	3.543	0.709	1.378	0.318	0.238	0.380	3	☹

Order example for grade WY80FC: TC217.STIUNC2-B0-WY80FC

DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80FC
TC217.STIUNC3/8K0-	STI-UNC 3/8-16	0.456	3.937	0.827	2.831	0.367	0.275	0.437	4	☹

Order example for grade WY80FC: TC217.STIUNC3/8K0-WY80FC

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

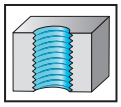
Prototex® TiNi inch shank

– Recommended with oil
– For long-chipping materials

≤ 2×D_N | B=3.5-5 | 410HB 200HB

STI-UNC
NASM 33537

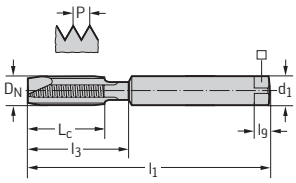
3B



	P	M	K	N	S	H	O
uncoated	●●	●●		●	●●		

ANSI B94.9

Cylindrical shank



Designation uncoated	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
A222079-STIUNC2	STI-UNC 2-56	0.109	1.878	0.394	0.394	0.141	0.110	0.190	2
A222079-STIUNC4	STI-UNC 4-40	0.144	2.000	0.591	0.591	0.141	0.110	0.190	3
A222079-STIUNC6	STI-UNC 6-32	0.179	2.378	0.709	0.709	0.194	0.152	0.250	3
A222079-STIUNC8	STI-UNC 8-32	0.205	2.378	0.787	0.787	0.220	0.165	0.281	3
A222079-STIUNC1/4	STI-UNC 1/4-20	0.315	2.717	0.748	1.299	0.318	0.238	0.380	3

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

TC117 Advance inch shank

– Universal cut tap
– WY80FC: best chip control

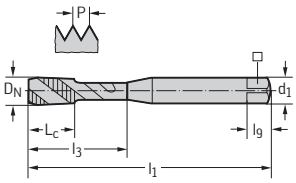
≤ 2.5×D_N | C=2-3 | 40° | 370HB / 150HB

STI-UNC
NASM 33537

3B

	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			

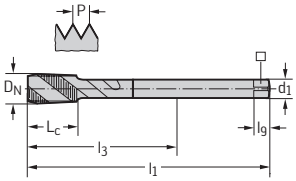
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC
TC117.STIUNC2-B0-	STI-UNC 2-56	0.109	2.205	0.236	0.709	0.141	0.110	0.190	3	☹
TC117.STIUNC4-B0-	STI-UNC 4-40	0.144	2.205	0.276	0.827	0.141	0.110	0.190	3	☹
TC117.STIUNC6-B0-	STI-UNC 6-32	0.179	2.756	0.315	0.984	0.194	0.152	0.250	3	☹
TC117.STIUNC8-B0-	STI-UNC 8-32	0.205	2.756	0.394	0.984	0.194	0.152	0.250	3	☹
TC117.STIUNC10-B0-	STI-UNC 10-24	0.244	3.150	0.394	1.181	0.255	0.191	0.313	3	☹
TC117.STIUNC1/4B0-	STI-UNC 1/4-20	0.315	3.543	0.472	1.378	0.318	0.238	0.380	3	☹

Order example for grade WY80FC: TC117.STIUNC2-B0-WY80FC

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC
TC117.STIUNC3/8K0-	STI-UNC 3/8-16	0.456	3.937	0.591	2.831	0.367	0.275	0.437	3	☹

Order example for grade WY80FC: TC117.STIUNC3/8K0-WY80FC

C 4

WALTER SELECT

●● Primary application ● Other application

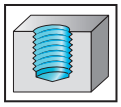
Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps
Paradur® X·pert N inch shank

– For long-chipping aluminum alloys (Si content < 7 %)

STI-UNC
NASM 33537

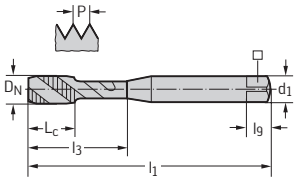
3B



≤ 3×D_N | C=2-3 | 35° | 200HB 60HB

	P	M	K	N	S	H	O
uncoated				●●	●		●

DIN/ANSI



Designation uncoated	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AN225069-STIUNC2	STI-UNC 2-56	0.109	2.205	0.236	0.709	0.141	0.110	0.190	2
AN225069-STIUNC4	STI-UNC 4-40	0.144	2.205	0.276	0.827	0.141	0.110	0.190	2
AN225069-STIUNC6	STI-UNC 6-32	0.179	2.756	0.315	0.984	0.194	0.152	0.250	2
AN225069-STIUNC8	STI-UNC 8-32	0.205	2.756	0.394	0.984	0.194	0.152	0.250	2
AN225069-STIUNC1/4	STI-UNC 1/4-20	0.315	3.543	0.472	1.378	0.318	0.238	0.380	2

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

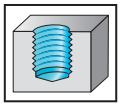
Paradur® Ti inch shank

– Recommended with oil
– For long-chipping materials

≤ 2×D_N | C=2-3 | 15° | 410HB 200HB

STI-UNC
NASM 33537

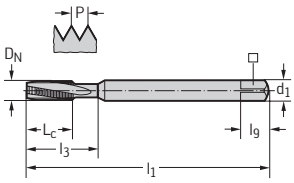
3B



	P	M	K	N	S	H	O
VAP	●●			●	●●		

ANSI B94.9

Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A224060S-STIUNC2	EGUNC 2-56	0.109	1.878	0.394	0.394	0.141	0.110	0.190	2
A224060S-STIUNC4	EGUNC 4-40	0.144	2.000	0.512	1.220	0.141	0.110	0.190	3
A224060S-STIUNC6	EGUNC 6-32	0.179	2.378	0.709	0.709	0.194	0.152	0.250	3
A224060S-STIUNC8	EGUNC 8-32	0.205	2.378	0.787	1.504	0.220	0.165	0.281	3
A224060S-STIUNC10	EGUNC 10-24	0.244	2.500	0.630	1.102	0.255	0.191	0.313	3

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

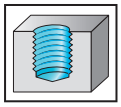
Paradur® Ni

inch shank

– For long-chipping materials

STI-UNC
NASM 33537

3B

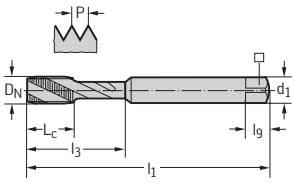


≤ 1.5×D_N | C=2-3 | 25° | 410HB 200HB

	P	M	K	N	S	H	O
VAP	●●		●●	●	●		

ANSI B94.9

Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A224089S-STIUNC2	EGUNC 2-56	0.109	1.878	0.394	0.394	0.141	0.110	0.190	3
A224089S-STIUNC4	EGUNC 4-40	0.144	2.000	0.512	1.220	0.141	0.110	0.190	3
A224089S-STIUNC6	EGUNC 6-32	0.179	2.378	0.709	0.709	0.194	0.152	0.250	3
A224089S-STIUNC8	EGUNC 8-32	0.205	2.378	0.787	0.787	0.220	0.165	0.281	3
A224089S-STIUNC1/4	EGUNC 1/4-20	0.315	2.717	0.748	1.299	0.318	0.238	0.380	3

C4

WALTER SELECT

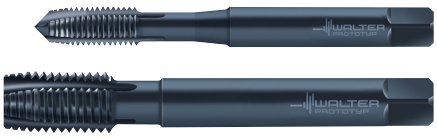
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

TC217 Advance

inch shank

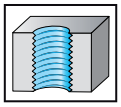


– Universal cut tap
– WY80FC: best chip control

≤ 3×D_N | B=3.5-5 | 370HB / 100HB

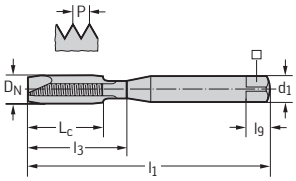
STI-UNF
NASM 33537

3B



	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			

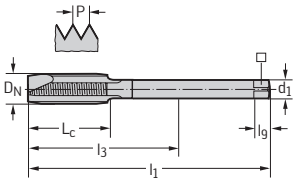
DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80FC
TC217.STIUNF10-B0-	STI-UNC 10-32	0.231	3.150	0.591	1.181	0.255	0.191	0.313	3	☹
TC217.STIUNF1/4B0-	STI-UNC 1/4-28	0.296	3.543	0.709	1.378	0.318	0.238	0.380	3	☹

Order example for grade WY80FC: TC217.STIUNF10-B0-WY80FC

DIN/ANSI



Designation	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WY80FC
TC217.STIUNF3/8K0-	STI-UNC 3/8-24	0.456	3.937	0.787	2.862	0.323	0.242	0.406	3	☹

Order example for grade WY80FC: TC217.STIUNF3/8K0-WY80FC

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E PM machine taps

Prototex® TiNi

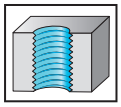
inch shank

– Recommended with oil
– For long-chipping materials

≤ 2×D_N | B=3.5-5 | 410HB / 200HB

STI-UNF
NASM 33537

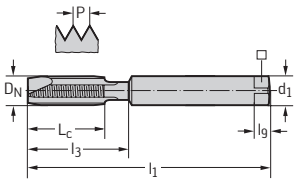
3B



	P	M	K	N	S	H	O
uncoated	●●	●●		●	●●		

ANSI B94.9

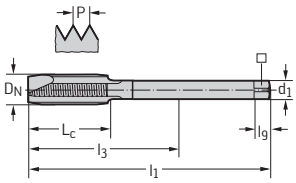
Cylindrical shank



Designation uncoated	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
A232079-STIUNF10	EGUNF 10-32	0.231	2.500	0.630	1.181	0.255	0.191	0.313	3
A232079-STIUNF1/4	EGUNF 1/4-28	0.296	2.717	0.748	1.299	0.318	0.238	0.380	3

ANSI B94.9

Cylindrical shank



Designation uncoated	D_N-P	D_N in	l_1 h9 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N
A232579-STIUNF3/8	EGUNF 3/8-24	0.429	3.157	0.866	2.083	0.323	0.242	0.406	3

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

TC117 Advance inch shank

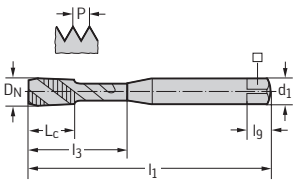
- Universal cut tap
- WY80FC: best chip control

≤ 2.5×D_N | C=2-3 | 40° | 370HB / 150HB

STI-UNF NASM 33537 | 3B

	P	M	K	N	S	H	O
WY80FC (VAP)	●●	●●	●●	●●			

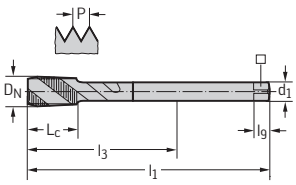
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC
TC117.STIUNF10-B0-	STI-UNC 10-32	0.231	3.150	0.394	1.181	0.255	0.191	0.313	3	☹
TC117.STIUNF1/4B0-	STI-UNC 1/4-28	0.296	3.543	0.472	1.378	0.318	0.238	0.380	3	☹

Order example for grade WY80FC: TC117.STIUNF10-B0-WY80FC

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80FC
TC117.STIUNF3/8K0-	STI-UNC 3/8-24	0.456	3.937	0.591	2.862	0.323	0.242	0.406	3	☹

Order example for grade WY80FC: TC117.STIUNF3/8K0-WY80FC

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Paradur® X·pert N

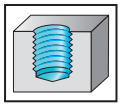
inch shank

– For long-chipping aluminum alloys (Si content < 7 %>

≤ 3×D_N | C=2-3 | 35° | 200HB 60HB

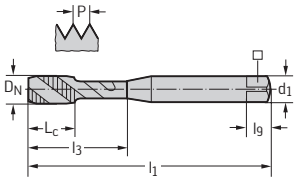
STI-UNF
NASM 33537

3B



	P	M	K	N	S	H	O
uncoated				●●	●		●

DIN/ANSI



Designation uncoated	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AN235069-STIUNF10	STI-UNC 10-32	0.231	3.150	0.394	1.181	0.255	0.191	0.313	2
AN235069-STIUNF1/4	STI-UNC 1/4-28	0.296	3.543	0.472	1.378	0.318	0.238	0.380	3

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Paradur® Ti

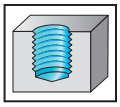
inch shank

– Recommended with oil
– For long-chipping materials

≤ 2×D_N | C=2-3 | 15° | 410HB 200HB

STI-UNF
NASM 33537

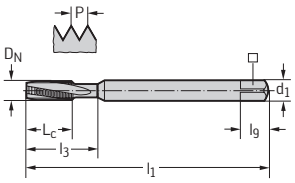
3B



	P	M	K	N	S	H	O
VAP	●●			●	●●		

ANSI B94.9

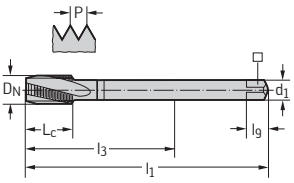
Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A234060S-STIUNF8	EGUNF 8-36	0.200	2.378	0.787	0.787	0.220	0.165	0.281	3
A234060S-STIUNF10	EGUNF 10-32	0.231	2.500	0.630	1.102	0.255	0.191	0.313	3
A234060S-STIUNF1/4	EGUNF 1/4-28	0.296	2.717	0.748	1.299	0.318	0.238	0.380	3
A234060S-STIUNF5/16	EGUNF 5/16-24	0.367	2.937	0.748	1.398	0.381	0.286	0.437	3

ANSI B94.9

Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A234560S-STIUNF3/8	EGUNF 3/8-24	0.429	3.157	0.866	2.083	0.323	0.242	0.406	4

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Paradur® Ni

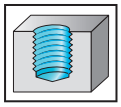
inch shank

– For long-chipping materials

≤ 1.5×D_N | C=2-3 | 25° | 410HB 200HB

STI-UNF
NASM 33537

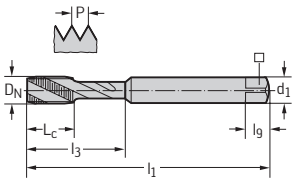
3B



	P	M	K	N	S	H	O
VAP	●●		●●	●	●		

ANSI B94.9

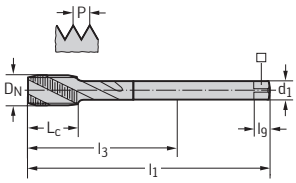
Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A234000S-STIUNF10	EGUNF 10-32	0.231	2.500	0.630	1.102	0.255	0.191	0.313	3
A234000S-STIUNF1/4	EGUNF 1/4-28	0.296	2.717	0.748	1.299	0.318	0.238	0.380	3
A234000S-STIUNF5/16	EGUNF 5/16-24	0.367	2.937	0.748	1.398	0.381	0.286	0.437	3

ANSI B94.9

Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A234589S-STIUNF3/8	EGUNF 3/8-24	0.429	3.157	0.866	2.083	0.323	0.242	0.406	4

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

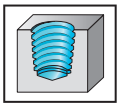
HSS-E machine taps

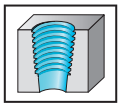
Paradur Inox® inch shank

– For long-chipping materials

C=2-3 | 350HB | 100HB

NPT
ASME B1.20.1

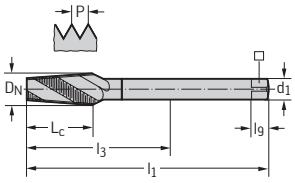




	P	M	K	N	S	H	O
VAP	●●	●●	●				

DIN/ANSI

Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A25563-NPT1/16	NPT 1/16-27	0.304	3.150	0.551	2.184	0.313	0.234	0.234	3
A25563-NPT1/8	NPT 1/8-27	0.396	3.543	0.551	2.499	0.437	0.328	0.328	4
A25563-NPT1/4	NPT 1/4-18	0.526	3.937	0.787	2.319	0.562	0.421	0.421	4
A25563-NPT3/8	NPT 3/8-18	0.662	4.331	0.787	2.650	0.700	0.531	0.531	5
A25563-NPT1/2	NPT 1/2-14	0.825	4.921	1.024	3.115	0.687	0.515	0.515	5
A25563-NPT3/4	NPT 3/4-14	1.035	5.512	1.024	3.092	0.906	0.679	0.679	5

C 4

WALTER SELECT

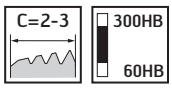
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

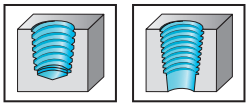
HSS-E machine taps

Paradur® H inch shank

– For long- and short-chipping materials

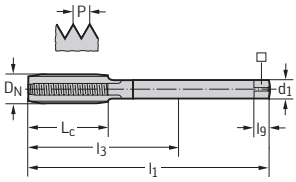


NPTF
ASME B1.20.3



	P	M	K	N	S	H	O
uncoated			●	●●			●

DIN/ANSI



Designation uncoated	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AC26361-NPTF1/8	NPTF 1/8-27	0.393	3.543	0.551	2.499	0.437	0.328	0.328	4
AC26361-NPTF1/4	NPTF 1/4-18	0.524	3.937	0.787	2.319	0.562	0.421	0.421	4
AC26361-NPTF3/8	NPTF 3/8-18	0.660	4.331	0.787	2.650	0.700	0.531	0.531	5
AC26361-NPTF1/2	NPTF 1/2-14	0.824	4.921	1.024	3.115	0.687	0.515	0.515	5

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

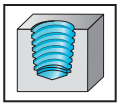
HSS-E machine taps

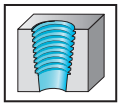
Paradur® Ni

inch shank

– For long-chipping materials

NPTF
ASME B1.20.3

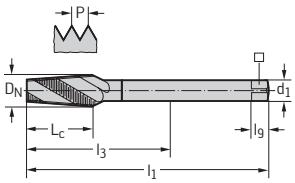




	P	M	K	N	S	H	O
VAP	●●		●●	●●			

DIN/ANSI

Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A264602-NPTF1/16	NPTF 1/16-27	0.301	3.150	0.551	2.184	0.313	0.234	0.234	3
A264602-NPTF1/8	NPTF 1/8-27	0.393	3.543	0.551	2.499	0.437	0.328	0.328	4
A264602-NPTF1/4	NPTF 1/4-18	0.524	3.937	0.787	2.319	0.562	0.421	0.421	4
A264602-NPTF3/8	NPTF 3/8-18	0.660	4.331	0.787	2.650	0.700	0.531	0.531	5
A264602-NPTF1/2	NPTF 1/2-14	0.824	4.921	1.024	3.115	0.687	0.515	0.515	5

C 4

WALTER SELECT

●● Primary application ● Other application

Best tool for ➔ Good = ☺ ➔ Average = 😐 ➔ Poor = ☹ machining conditions

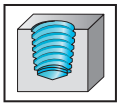
HSS-E machine taps

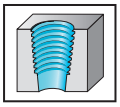
Paradur Inox® inch shank

– For long-chipping materials

C=2-3 | 350HB 100HB

NPTF
ASME B1.20.3

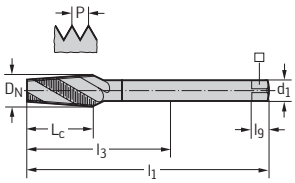




	P	M	K	N	S	H	O
VAP	●●	●●	●				

DIN/ANSI

Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A26563-NPTF1/16	NPTF 1/16-27	0.301	3.150	0.551	2.184	0.313	0.234	0.234	3
A26563-NPTF1/8	NPTF 1/8-27	0.393	3.543	0.551	2.499	0.437	0.328	0.328	4
A26563-NPTF1/4	NPTF 1/4-18	0.524	3.937	0.787	2.319	0.562	0.421	0.421	4
A26563-NPTF3/8	NPTF 3/8-18	0.660	4.331	0.787	2.650	0.700	0.531	0.531	5
A26563-NPTF1/2	NPTF 1/2-14	0.824	4.921	1.024	3.115	0.687	0.515	0.515	5
A26563-NPTF3/4	NPTF 3/4-14	1.034	5.512	1.024	3.092	0.906	0.679	0.679	5

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

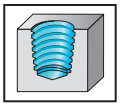
HSS-E machine taps

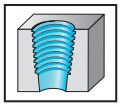
Paradur® H inch shank

– For long- and short-chipping materials

C=2-3 | 300HB 60HB

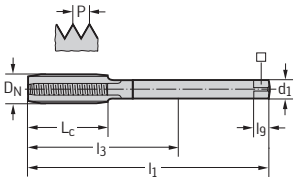
NPTF
ASME B1.20.3





	P	M	K	N	S	H	O
uncoated			●	●●			●

DIN/ANSI



Designation uncoated	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
AC26361-NPTF1/8	NPTF 1/8-27	0.393	3.543	0.551	2.499	0.437	0.328	0.328	4
AC26361-NPTF1/4	NPTF 1/4-18	0.524	3.937	0.787	2.319	0.562	0.421	0.421	4
AC26361-NPTF1/2	NPTF 1/2-14	0.824	4.921	1.024	3.115	0.687	0.515	0.515	5

C 4

WALTER SELECT

●● Primary application ● Other application

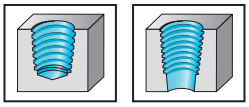
Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine taps

Paradur® Ni inch shank

– For long-chipping materials

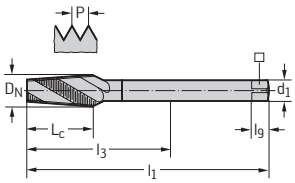
NPTF
ASME B1.20.3



	P	M	K	N	S	H	O
VAP	●●		●●	●●			

DIN/ANSI

Cylindrical shank



Designation VAP	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N
A264602-NPTF1/8	NPTF 1/8-27	0.393	3.543	0.551	2.499	0.437	0.328	0.328	4
A264602-NPTF1/4	NPTF 1/4-18	0.524	3.937	0.787	2.319	0.562	0.421	0.421	4
A264602-NPTF3/8	NPTF 3/8-18	0.660	4.331	0.787	2.650	0.700	0.531	0.531	5
A264602-NPTF1/2	NPTF 1/2-14	0.824	4.921	1.024	3.115	0.687	0.515	0.515	5

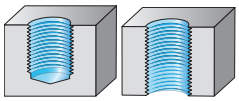
C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E thread formers

Machining		
Thread depth	3.5 x D_N	3.5 x D_N
		
Designation	TC410 Advance	TC420 Supreme
Thread type		
M	✔	
MF		
UNC / UNF / UN-8	✔	✔
G / Rc / Rp		
MJ / UNJC / UNJF		
NPT / NPTF		
Pg / BSW / Tr		
STI-UNC / STI-UNF		
Tolerance	2BX / 6HX	2BX
Coolant supply	External	radial
Chamfer form	C	C
Coating / grade	WY80AD	WW60AD
Cutting tool material	HSS-E	HSS-E-PM
P Steel	●●	●●
M Stainless steel	●●	●
K Cast iron	●	●
N NF metals	●●	●●
S Materials with difficult cutting properties	●	●
H Hard materials		
O Other		
Page in catalog	**101**	**102**
QR code		
www.walter-tools.com/woc/	TC410	TC420

C 4

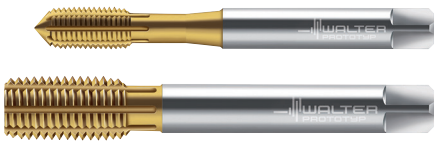
WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine thread formers

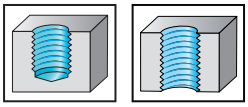
TC410 Advance inch shank



– Universal form tap
– With lubrication grooves

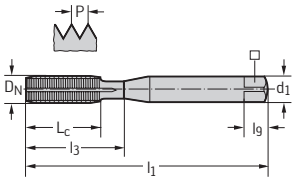
≤ 3.5×D_N | C=2-3 | 350HB / 60HB

M DIN 13 | 6HX



	P	M	K	N	S	H	O
WY80AD (TiN)	●●	●●	●	●●	●		

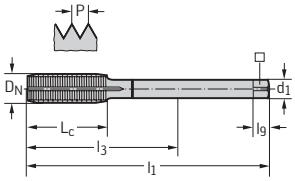
DIN/ANSI



Designation	D_N	P mm	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80AD
TC410.M3-C6-	M 3	0.5	2.205	0.354	0.709	0.118	0.110	0.190	4	☹
TC410.M4-C6-	M 4	0.7	2.480	0.472	0.827	0.157	0.131	0.250	5	☹
TC410.M5-C6-	M 5	0.8	2.756	0.512	0.984	0.197	0.152	0.250	5	☹
TC410.M6-C6-	M 6	1.0	3.150	0.591	1.181	0.236	0.191	0.313	5	☹
TC410.M8-C6-	M 8	1.25	3.543	0.709	1.378	0.315	0.238	0.380	5	☹
TC410.M10-C6-	M 10	1.5	3.937	0.787	1.535	0.394	0.286	0.437	6	☹

Order example for grade WY80AD: TC410.M3-C6-WY80AD

DIN/ANSI



Designation	D_N	P mm	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80AD
TC410.M12-L6-	M 12	1.75	4.331	0.906	3.224	0.472	0.275	0.437	6	☹
TC410.M16-L6-	M 16	2.0	4.331	0.984	2.587	0.630	0.360	0.563	6	☹
TC410.M20-L6-	M 20	2.5	5.512	1.181	3.642	0.787	0.489	0.689	7	☹

Order example for grade WY80AD: TC410.M12-L6-WY80AD

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

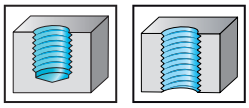
HSS-E-PM machine thread formers

TC420 Supreme inch shank

– Universal high-performance form tap
– With lubrication grooves

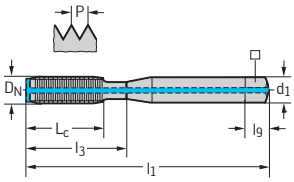
≤ 3.5×D_N | C=2-3 | 350HB 60HB

UNC ASME B1.1 | 2BX



	P	M	K	N	S	H	O
WW60AD (TiN)	●●	●	●	●●	●		

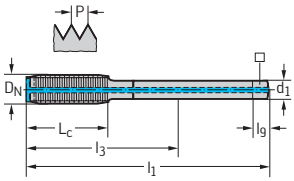
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WW60AD
TC420.UNC10-C2-	UNC #10-24	0.190	2.756	0.315	0.984	0.194	0.152	0.250	5	☹
TC420.UNC1/4-C2-	UNC 1/4-20	0.250	3.150	0.394	1.181	0.250	0.191	0.313	5	☹
TC420.UNC5/16-C2-	UNC 5/16-18	0.313	3.543	0.472	1.378	0.313	0.238	0.380	5	☹
TC420.UNC3/8-C2-	UNC 3/8-16	0.375	3.937	0.591	1.535	0.375	0.286	0.437	5	☹

Order example for grade WW60AD: TC420.UNC1/4-C2-WW60AD

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WW60AD
TC420.UNC1/2-L2-	UNC 1/2-13	0.500	4.331	0.709	3.224	0.500	0.275	0.437	6	☹
TC420.UNC5/8-L2-	UNC 5/8-11	0.625	4.331	0.787	2.587	0.625	0.360	0.563	6	☹
TC420.UNC3/4-L2-	UNC 3/4-10	0.750	4.921	0.984	3.051	0.590	0.442	0.689	7	☹

Order example for grade WW60AD: TC420.UNC1/2-L2-WW60AD

C 4

WALTER SELECT

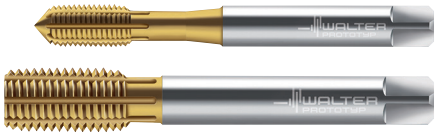
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine thread formers

TC410 Advance

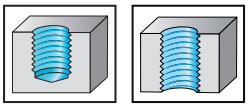
inch shank



– Universal form tap
– With lubrication grooves

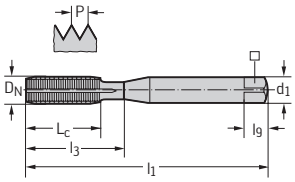
≤ 3.5×D_N | C=2-3 | 350HB / 60HB

UNC ASME B1.1 | 2BX



	P	M	K	N	S	H	O
WY80AD (TiN)	●●	●●	●	●●	●		

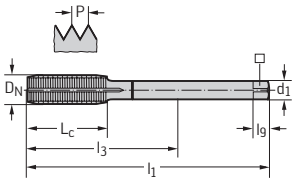
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80AD
TC410.UNC2-C6-	UNC 2-56	0.086	1.772	0.276	0.472	0.086	0.110	0.190	3	☹
TC410.UNC4-C6-	UNC 4-40	0.112	2.205	0.354	0.709	0.112	0.110	0.190	3	☹
TC410.UNC5-C6-	UNC 5-40	0.125	2.205	0.394	0.709	0.125	0.110	0.190	4	☹
TC410.UNC6-C6-	UNC 6-32	0.138	2.205	0.512	0.787	0.138	0.110	0.190	4	☹
TC410.UNC8-C6-	UNC 8-32	0.164	2.480	0.591	0.984	0.164	0.131	0.250	5	☹
TC410.UNC10-C6-	UNC 10-24	0.190	2.756	0.709	0.984	0.190	0.152	0.250	5	☹
TC410.UNC1/4-C6-	UNC 1/4-20	0.250	3.150	0.630	1.181	0.250	0.191	0.313	5	☹
TC410.UNC5/16-C6-	UNC 5/16-18	0.313	3.543	0.748	1.378	0.313	0.238	0.380	5	☹
TC410.UNC3/8-C6-	UNC 3/8-16	0.375	3.937	0.748	1.535	0.375	0.286	0.437	5	☹

Order example for grade WY80AD: TC410.UNC2-C6-WY80AD

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80AD
TC410.UNC7/16-L6-	UNC 7/16-14	0.438	3.937	0.866	2.862	0.438	0.242	0.406	6	☹
TC410.UNC1/2-L6-	UNC 1/2-13	0.500	4.331	0.945	3.224	0.500	0.275	0.437	6	☹
TC410.UNC9/16-L6-	UNC 9/16-12	0.563	4.331	1.024	3.161	0.563	0.322	0.500	6	☹
TC410.UNC5/8-L6-	UNC 5/8-11	0.625	4.331	1.102	2.587	0.625	0.360	0.563	6	☹
TC410.UNC3/4-L6-	UNC 3/4-10	0.750	4.921	1.181	3.051	0.750	0.442	0.689	7	☹
TC410.UNC7/8-L6-	UNC 7/8-9	0.875	5.512	1.181	3.583	0.875	0.523	0.750	7	☹

Order example for grade WY80AD: TC410.UNC7/16-L6-WY80AD

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

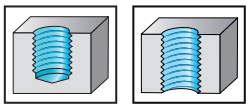
HSS-E-PM machine thread formers

TC420 Supreme inch shank

– Universal high-performance form tap
– With lubrication grooves

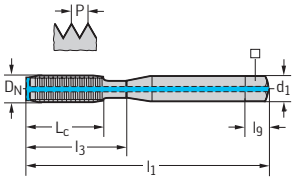
≤ 3.5×DN | C=2-3 | 350HB 60HB

UNF ASME B1.1 | 2BX



	P	M	K	N	S	H	O
WW60AD (TiN)	●●	●	●	●●	●		

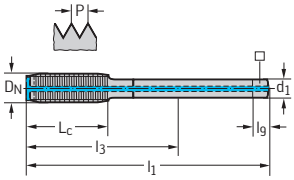
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WW60AD
TC420.UNF10-C2-	UNF #10-32	0.190	2.756	0.315	0.984	0.194	0.152	0.250	5	☹
TC420.UNF1/4-C2-	UNF 1/4-28	0.250	3.150	0.394	1.181	0.250	0.191	0.313	5	☹
TC420.UNF5/16-C2-	UNF 5/16-24	0.313	3.543	0.472	1.378	0.313	0.238	0.380	5	☹
TC420.UNF3/8-C2-	UNF 3/8-24	0.375	3.937	0.472	1.535	0.375	0.286	0.437	5	☹

Order example for grade WW60AD: TC420.UNF1/4-C2-WW60AD

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 in	□ in	l_9 in	N	WW60AD
TC420.UNF7/16-L2-	UNF 7/16-20	0.437	3.937	0.591	2.862	0.323	0.242	0.406	6	☹
TC420.UNF1/2-L2-	UNF 1/2-20	0.500	3.937	0.591	2.831	0.367	0.275	0.437	6	☹
TC420.UNF9/16-L2-	UNF 9/16-18	0.562	3.937	0.591	2.768	0.429	0.322	0.500	6	☹
TC420.UNF5/8-L2-	UNF 5/8-18	0.625	3.937	0.591	2.193	0.480	0.360	0.563	6	☹
TC420.UNF3/4-L2-	UNF 3/4-16	0.750	4.331	0.669	2.461	0.590	0.442	0.689	7	☹

Order example for grade WW60AD: TC420.UNF7/16-L2-WW60AD

C4

WALTER SELECT

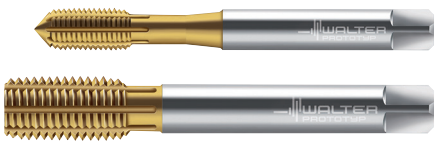
●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

HSS-E machine thread formers

TC410 Advance

inch shank

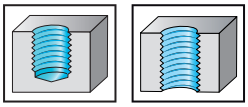


– Universal form tap
– With lubrication grooves

≤ 3.5×D_N | C=2-3 | 350HB / 60HB

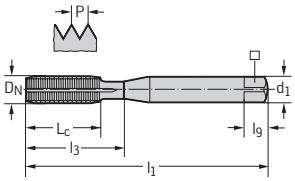
UNF
ASME B1.1

2BX



	P	M	K	N	S	H	O
WY80AD (TiN)	●●	●●	●	●●	●		

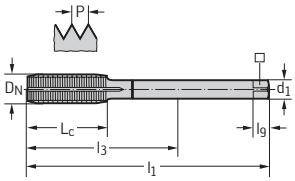
DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80AD
TC410.UNF0-C6-	UNF 0-80	0.060	1.575	0.217	0.256	0.060	0.110	0.190	3	☹
TC410.UNF1-C6-	UNF 1-72	0.073	1.772	0.276	0.354	0.073	0.110	0.190	3	☹
TC410.UNF6-C6-	UNF 6-40	0.138	2.205	0.512	0.787	0.138	0.110	0.190	4	☹
TC410.UNF8-C6-	UNF 8-36	0.164	2.480	0.591	0.984	0.164	0.131	0.250	5	☹
TC410.UNF10-C6-	UNF 10-32	0.190	2.756	0.709	0.984	0.190	0.152	0.250	5	☹
TC410.UNF1/4-C6-	UNF 1/4-28	0.250	3.150	0.630	1.181	0.250	0.191	0.313	5	☹
TC410.UNF5/16-C6-	UNF 5/16-24	0.313	3.543	0.748	1.378	0.313	0.238	0.380	5	☹
TC410.UNF3/8-C6-	UNF 3/8-24	0.375	3.937	0.748	1.535	0.375	0.286	0.437	5	☹

Order example for grade WY80AD: TC410.UNF0-C6-WY80AD

DIN/ANSI



Designation	D_N-P	D_N in	l_1 in	L_c in	l_3 in	d_1 h9 in	□ in	l_9 in	N	WY80AD
TC410.UNF7/16-L6-	UNF 7/16-20	0.438	3.937	0.866	2.862	0.438	0.242	0.406	6	☹
TC410.UNF1/2-L6-	UNF 1/2-20	0.500	3.937	0.945	2.831	0.500	0.275	0.437	6	☹
TC410.UNF9/16-L6-	UNF 9/16-18	0.563	3.937	1.024	2.768	0.563	0.322	0.500	6	☹
TC410.UNF5/8-L6-	UNF 5/8-18	0.625	3.937	1.102	2.193	0.625	0.360	0.563	6	☹
TC410.UNF3/4-L6-	UNF 3/4-16	0.750	4.331	1.181	2.461	0.750	0.442	0.689	7	☹
TC410.UNF7/8-L6-	UNF 7/8-14	0.875	4.921	1.260	2.992	0.875	0.523	0.750	7	☹

Order example for grade WY80AD: TC410.UNF7/16-L6-WY80AD

C4

WALTER SELECT

●● Primary application ● Other application

Best tool for → Good = ☺ → Average = 😐 → Poor = ☹ machining conditions

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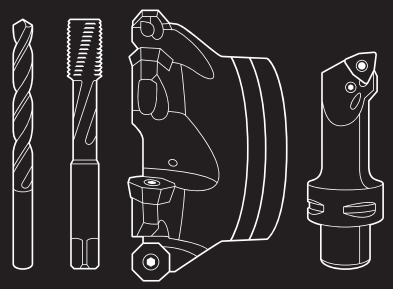

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