Tool Index Gwintowniki

	User Guide Instrukcja użytkownika
	Recommendation table (Taps, Thread Forming Taps) Tabela doboru (Gwintowniki, wygniataki)
M	ISO metric coarse thread DIN 13 Gwint metryczny zwykły wg ISO DIN 13
MF	ISO metric fi ne thread DIN 13 Gwint metryczny drobnozwojny wg ISO DIN 13
UNC	Unifi ed coarse thread ANSI B1.1 Gwint calowy zwykły wg ANSI B1.1
UNF	Unifi ed fi ne thread ANSI B1.1 Gwint calowy drobnozwojny wg ANSI B1.1
G	Pipe threads DIN ISO228 (B.S.P.- British Standard Pipe) Gwint calowy rurowy wg DIN ISO228
NPT	NPT - National Taper Pipe Thread ANSI B1.20.1 Gwint calowy rurowy stożkowy wg ANSI B1.20.1
NPTF	
NPS	
W (B.S.W.)	Whitworth threads BS-84 (British Standard Whitworth) Gwint calowy Whitwortha wg BS-84
PF	
PS	
PT	
W	

TECHNICAL INFO INFORMACJA TECHNICZNA

Working Material Materiał roboczy

W Steels with good machinability.
Stale dobrej obrabialności
Rm<850 N/mm²

N Heat treated and heat-resistant steels
Stale żaroodporne
Rm<850N/mm2 ≤Rm≤1,200N/mm2

H High alloyed steels
Stale wysokostopwe
Rm>1,200N/mm2

WN Carbon steels with low contents of alloys
Stale węglowe o niskiej zawartosci stopow
Rm<700N/mm2

VA Stainless steels Carbon steels with low contents of alloys
Stale nierdzewne oraz węglowe o niskiej zawartosci stopow
Rm<700N/mm2

Ti Titanium alloys
Stopy tytanu

Ni Nickel alloys
Stopy niklu

Cu Brass
Mosiądz

GG Grey Cast Iron
Żeliwo szare

Al Aluminum & Aluminum alloys
Aluminium i stopy aluminium

UNI Multi-Purpose
Przeznaczenie rozne

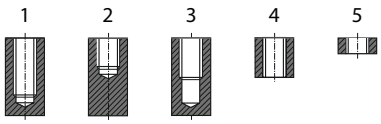
Class of Thread Klasa tolerancji gwintownika

6HX	2B	6GX	6H	2BX	6H Mod.	2/6H	H
2/6X	JIS 1b	JISII	JIS III	3X/6GX	2X/6HX	2X/6GX	G

Thread type Rodzaj gwintu

M	**MF**	**UNC**	**UNF**	**W**	**G**	**NPT**
DIN13	DIN13	ASME B1.1	ASME B1.1	BS-84		
NPTF	**NPS**	**BSW**	**PF**	**PS**	**PT**	**W**

Hole types Typy otworów



1 - Blind Hole up to 3 x D1 Otwór ślepy do 3xD1
2 - Blind Hole up to 1,5-2 x D1 Otwór ślepy do 1,5-2xD1
3 - Blind Hole up to 3 x D1 with oversized depth hole
Otwór ślepy do 3xD1 z powiększoną głębokością
4 - Trough Hole up to 3 x D1 Otwór przelotowy do 3xD1
5 - Trough Hole up to 1,5-2 x D1 Otwór przelotowy do 1,5-2xD1

Coatings Powłoki

Brt Bright
Bright

Ni Plasma Nitride
Azotowanie plazmowe

TiCN Titanium Carbon Nitride
Powłoka TiCN (cyjanek tytanu)

Hardslick TiAlN+WC/C-Coating
Kombinacja powłok TiAlN+WC/C

Ox Steam Oxide
Pasywacja

TiN Coating (Titanium Nitride)
TiN - Powłoka TiN (azotek tytanu)

TiAlN Coating (Titanium Aluminium Nitride)
Powłoka TiAlN/AlTiN (azotek glinowo – tytanowy)

BE Blue coating
Niebieska powłoka

VAP VAP
VAP

Tool Material Materiał narzędzia

HSS PM Powder Metallurgy HSS
Stal szybkotnqca proszkowa

HSS V3 High Vanadium HSS
Wysokostopowa HH-V3, supertwarda

HSS High Speed Steel
Stal szybkotnąca

HSS-E HSS-E
HSS-E

CRBD Carbide
Węglik

SKS21 SKS21
SKS21

Chamfer Nakrój

Set of Hand Taps Zestaw gwintowników ręcznych

From C (Chamfer Lead 2-3 Thread)

From B (With Gun-nose and Chamfer Lead 4-5 Thread

TECHNICAL INFO INFORMACJA TECHNICZNA

Group Nr Nr grupy		Workable material Materiał obrabiany	HB	Rm N/mm2	HRC	Chip Wiór	Coolant Chłodzenie
10. Steels Stale	1.1	Magnetic soft steels Stale miękkie magnetycznie	< 120	< 400		Extra long Bardzo długi	S
	1.2	Structural steels, case carburizing steels Stale konstrukcyjne, stal do nawęglania	< 200	< 700		Medium Long Średni długi	S
	1.3	Plain carbon steels Stale zwykłe węglowe	< 250	< 850	< 25	Long Długi	S
	1.4	Alloy steels Stale stopowe Hardened steels Stal hartowana	< 250	< 850	30-38	Long Długi	W
	1.5		< 350	< 1200	38-42	Long Długi	W
	1.6		> 350	> 1200	45-55	Long Długi	O
20. Stainless Steels Stale nierdzewne	2.1	Free machining Stale automatowe	< 250	< 850	< 22	Medium Średni	O
	2.2	Austenitic Austenityczne	< 250	< 850	< 25	Long Długi	O
	2.3	Ferritic, Ferritic-Austenitic, Martensitic Ferrytyczne, Ferrytyczno-austenityczne, martenzytyczne	< 300	< 1000	< 30	Long Długi	O
30. Cast Iron Żeliwo szare	3.1	Grey Cast Iron Żeliwo szare	< 150	< 500		Extra short Bardzo krótki	O / S
	3.2		< 300	< 1000	< 30	Extra short Bardzo krótki	S
	3.3	Nodular graphite, Melleable cast irons Żeliwo ciągliwe, sferoidalne	< 200	< 700		Shortt Krótki	S
	3.4		< 300	< 1000	< 30	Shortt Krótki	S
40. Titaniums Tytany	4.1	Titanium, unalloyed Tytan niestopowy	< 200	< 900	< 27	Extra short Bardzo krótki	O / S
	4.2	Titanium, alloyed Tytan stopowy	< 270	< 900	< 27	Medium Shortt Średni Krótki	O
	4.3		< 350	< 1250	< 40	Medium Shortt Średni Krótki	O
50. Nickels Nikle	5.1	Nickel, unalloyed Nikiel niestopowy	< 150	< 500		Extra long Bardzo długi	O
	5.2	Nickel, alloyed Nikiel stopowy	< 270	< 900	< 27	Long Długi	O
	5.3		< 350	< 1250	< 40	Long Długi	O
60. Copper, Brass, Bronze Miedź, Mosiądz, Brąz	6.1	Copper, unalloyed Miedź, niestopowa	< 100	< 350		Extra short Bardzo krótki	S
	6.2	Shortt chipping Brass, Bronze, Copper Miedź, Mosiądz krótki wiór, Brąz	< 200	< 700		Medium Shortt Średni Krótki	S
	6.3	Long chipping Brass, Bronze, Copper Miedź, Mosiądz, Brąz długi wiór	< 200	< 700		Long Długi	O / S
	6.4	AMPCO (Cu-Al-Fe alloys) (stopy Cu-Al.-Fe)	< 470	< 1500	< 47	Shortt Krótki	O
70. Aluminiums Aluminium	7.1	Aluminium, Megnesium, unalloyed Aluminium, Magnez, bezstopowe	< 100	< 350		Extra long Bardzo długi	S
	7.2	Aluminium, alloyed Stopy aluminium Si<0,5%	< 150	< 500		Medium Średni	S
	7.3	Aluminium, alloyed Stopy aluminium Si<10%	< 120	< 400		Medium Shortt Średni Krótki	S
	7.4	Aluminium, alloyed Stopy aluminium Si>10%	< 120	< 400		Shortt Krótki	S
80. Synthetic materials Tworzywa sztuczne	8.1	Thermoplastics Tworzywa termoplastyczne	< 340	< 50		Extra long Bardzo długi	S
	8.2	Thermosseting Plastics Plastiki termoutwardzalne		< 110		Shortt Krótki	D / S
	8.3	Reinforced plastic materials Wzmocnione materiały plastikowe		< 1500	< 47	Extra short Bardzo krótki	D / S

Coolant Chłodzenie

S - Oil Emulsion Emulsja olejowa

O - Cutting Oil Olej obróbczy

D - Dry Na sucho

W- Oil Emulsion / Cutting Oil Emulsja olejowa / Olej obróbczy

D - Dry Na sucho

Chip Wiór

XL- Long Długi

M - Medium Średni

Sh - Shortt Krótki

XS - Extra short Bardzo krótki

SELECTION GUIDE SPIS TREŚCI

													
EDP. Tool KOD Narzędzia	**SAA04**	**SAA07**	**SCA04**	**SAA14**	**SCA14**	**SAA33**	**SCA10**	**SCA22**	**SCI03**	**SDB27**	**SCB27**	**SDC27**	**SCC27**
M	s./p.15	s./p.15	s./p.15	s./p.16	s./p.15	s./p.16	s./p.17	s./p.17	s./p.17	s./p.18	s./p.18	s./p.19	s./p.19
MF													
UNC													
UNF													
UNC/F													
G													
NPT													
NPTF													
NPS													
BSW													
PF													
PS													
PT													
W													
Material group Grupa materialowa	UNI	UNI	UNI	UNI	UNI	UNI	W	W	W	W	W	W	W
Tool material Materiał narzędzia	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
Class of thread Klasa gwinotwnika	ISO 6H	ISO 6H	ISO 6H	ISO 6H	ISO 6H	ISO 6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
Coating Powłoka	Bright	Bright	Bright	Bright	Bright	Bright	Bright	Bright	Bright	TiN	Bright	TiN	Bright
Chamfer Nakroj	C	E	C	B	B	C	C	B	LONG	B	B	B	B
Norm Norma	DIN	DIN	DIN	DIN	DIN	LONG	DIN	DIN	DIN	DIN	DIN	DIN	DIN
Hole type Typ otworu	1-2-3	1-2-3	1-2-3	4-5	4-5	1-2-3	1-2	4-5	4-5	4-5	4-5	4-5	4-5
1.1	•	•	•	•	•	•			○				
1.2	•	•	•	•	•	•	•	•	○	•	•	•	•
1.3	•	•	•	•	•	•	•	•	○	•	•	•	•
1.4	•	•	•	•	•	•	•	•	○	•	•	•	•
1.5	•	•	•	•	•	•							
1.6													
2.1	•	•	•	•	•	•							
2.2	•	•	•	•	•	•							
2.3	•	•	•	•	•	•							
3.1	•	•	•	•	•	•							
3.2	•	•	•	•	•	•							
3.3	•	•	•	•	•	•	•	•	○	•	•	•	•
3.4	•	•	•	•	•	•	•	•	○	•	•	•	•
4.1	•	•	•	•	•	•	○	○		○	○	○	○
4.2	○	○	○	○	○	○							
4.3													
5.1	•	•	•	•	•	•	○	○		○	○	○	○
5.2	○	○	○	○	○	○							
5.3													
6.1	•	•	•	•	•	•	○	○		○	○	○	○
6.2	•	•	•	•	•	•			○				
6.3	•	•	•	•	•	•	•	•	○	•	•	•	•
6.4													
7.1							○	○		○	○	○	○
7.2	•	•	•	•	•	•	○	○		○	○	○	○
7.3	•	•	•	•	•	•	○	○		○	○	○	○
7.4	•	•	•	•	•	•	•	•	○	•	•	•	•
8.1							○	○		○	○	○	○
8.2													
8.2													

SELECTION GUIDE SPIS TREŚCI

													
EDP. Tool KOD Narzędzia	**SCF17**	**SDH11**	**SCH11**	**SCC11**	**SCE63**	**SCD05**	**SBD12**	**SBJ13**	**SYD12**	**SDD12**	**SCD12**	**SQB23**	**SRA23**
M	s./p.20	s./p.20	s./p.20	s./p.20	s./p.20	s./p.21	s./p.22	s./p.22	s./p.22	s./p.22	s./p.22	s./p.23	s./p.23
MF													
UNC													
UNF													
UNC/F													
G													
NPT													
NPTF													
NPS													
BSW													
PF													
PS													
PT													
W													
Material group Grupa materialowa	W	W	W	W	W	W	N	N	N	N	N	N	N
Tool material Materiał narzędzia	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-V3**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-PM**	**HSS-PM**
Class of thread Klasa gwinotwnika	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
Coating Powłoka	**Bright**	**TiN**	**Bright**	**Bright**	**Bright**	**OX**	**vap**	**vap**	**TiAlN**	**TiN**	**Bright**	**vap**	**Bright**
Chamfer Nakroj	C	C	C	C	C	2.5P	C	C	C	C	C	C	C
Norm Norma	DIN	DIN	DIN	DIN	DIN	JIS	DIN	DIN	DIN	DIN	DIN	DIN	DIN
Hole type Typ otworu	1-2	1-2-3	1-2-3	4-5	1-2-4-5	3-4-5	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3
1.1					○								
1.2	●	●	●	●	○	●							
1.3	●	●	●	●	○	●							
1.4	●	●	●	●	○	●	○	○	○	○	○	○	○
1.5							●	●	●	●	●	●	●
1.6													
2.1													
2.2													
2.3							○	○	○	○	○	○	○
3.1													
3.2													
3.3	●	●	●	●	○	●							
3.4	●	●	●	●	○	●							
4.1	○	○	○	○		○							
4.2							○	○	○	○	○	○	○
4.3													
5.1	○	○	○	○		○							
5.2							○	○	○	○	○	○	○
5.3													
6.1	○	○	○	○		○							
6.2					○								
6.3	●	●	●	●	○	●							
6.4													
7.1	○	○	○	○		○							
7.2	○	○	○	○		○							
7.3	○	○	○	○		○							
7.4	●	●	●	●	○	●							
8.1	○	○	○	○		○							
8.2													
8.2													

SELECTION GUIDE SPIS TREŚCI

													
EDP. Tool KOD Narzędzia	**SYE22**	**SDE22**	**SEE22**	**SCE22**	**SQB10**	**SRB10**	**SBD13**	**SYD13**	**SCD13**	**SYC83**	**SCC83**	**SBH11**	**SAA44**
M	s./p.23	s./p.23	s./p.23	s./p.24	s./p.24	s./p.24	s./p.25	s./p.25	s./p.25	s./p.25	s./p.25	s./p.26	s./p.27
MF													
UNC													
UNF													
UNC/F													
G													
NPT													
NPTF													
NPS													
BSW													
PF													
PS													
PT													
W													
Material group Grupa materialowa	N	N	N	N	N	N	H	H	H	H	H	WN	VA
Tool material Materiał narzędzia	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-PM**	**HSS-PM**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E/ HSS-PM**
Class of thread Klasa gwinotwnika	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 6H
Coating Powłoka	**TiAlN**	**TiN**	**NI**	**Bright**	**vap**	**Bright**	**vap**	**TiAlN**	**Bright**	**TiAlN**	**Bright**	**vap**	**Vap**
Chamfer Nakroj	B	B	B	B	B	B	C	C	C	B	B	C	C
Norm Norma	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN
Hole type Typ otworu	4-5	4-5	4-5	4-5	4-5	4-5	1-2-3	1-2-3	1-2-3	4-5	4-5	1-2-3	1-2-3
1.1												●	●
1.2												●	●
1.3													
1.4	○	○	○	○	○	○							
1.5	●	●	●	●	●	●	○	○	○	○	○		
1.6							●	●	●	●	●		
2.1												●	●
2.2												●	●
2.3	○	○	○	○	○	○	○	○	○	○	○	●	●
3.1													
3.2													
3.3													
3.4													
4.1													
4.2	○	○	○	○	○	○						○	○
4.3													
5.1													
5.2	○	○	○	○	○	○						○	○
5.3													
6.1													
6.2							○	○	○	○	○		
6.3													
6.4							●	●	●	●	●		
7.1													
7.2													
7.3													
7.4													
8.1													
8.2							○	○	○	○	○		
8.2							○	○	○	○	○		

SELECTION GUIDE SPIS TREŚCI

													
EDP. Tool KOD Narzędzia	**SAB44**	**SRA13**	**SRA10**	**SZJ03**	**SMJ03**	**SZC93**	**SMC93**	**SRA33**	**SRA73**	**SZJ33**	**SMJ33**	**SZJ23**	**SMJ23**
M	s./p.27	s./p.28	s./p.27	s./p.29	s./p.29	s./p.29	s./p.29	s./p.30	s./p.30	s./p.31	s./p.31	s./p.31	s./p.31
MF													
UNC													
UNF													
UNC/F													
G													
NPT													
NPTF													
NPS													
BSW													
PF													
PS													
PT													
W													
Material group Grupa materialowa	VA	VA	VA	Ti	Ti	Ti	Ti	Ti Ni	Ti Ni	Ni	Ni	Ni	Ni
Tool material Materiał narzędzia	**HSS-E/ HSS-PM**	**HSS-PM**	**HSS-PM**	**HSS-PM**	**HSS-PM**	**HSS-PM**	**HSS-PM**	**HSS-PM**	**HSS-PM**	**HSS-PM**	**HSS-PM**	**HSS-PM**	**HSS-PM**
Class of thread Klasa gwintownika	ISO 6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
Coating Powłoka	**Vap**	**Bright**	**Bright**	**TiAlN**	**Bright**	**TiAlN**	**Bright**	**Bright**	**Bright**	**TiAlN**	**Bright**	**TiAlN**	**Bright**
Chamfer Nakroj	C	C	B	C	C	B	B	C	B	C	C	B	B
Norm Norma	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN
Hole type Typ otworu	1-2-3	1-2-3	4-5	1-2	1-2	4-5	4-5	1-2-3	4-5	1-2-3	1-2-3	4-5	4-5
1.1	●	○	○										
1.2	●	●	●										
1.3													
1.4													
1.5				○	○	○	○	●	●	○	●	●	●
1.6								●	●		●	●	●
2.1	●	●	●										
2.2	●	●	●										
2.3	●	●	●										
3.1													
3.2													
3.3													
3.4													
4.1				○	○	○	○	○	○	○			
4.2	○	○	○	●	●	●	●	●	●	●			
4.3				●	●	●	●	●	●	●	○	○	○
5.1													
5.2	○	○	○					●	●		●	●	●
5.3								●	●		●	●	●
6.1													
6.2													
6.3													
6.4								○	○		○	○	○
7.1													
7.2													
7.3													
7.4													
8.1													
8.2													
8.2													

SELECTION GUIDE SPIS TREŚCI

													
EDP. Tool KOD Narzędzia	**SYE33**	**SEE43**	**SCE33**	**SYI21**	**SDI21**	**SEI21**	**SII21**	**SEJ53**	**SCB63**	**SEJ43**	**SCJ09**	**SCG22**	**SCJ73**
M	s./p.32	s./p.32	s./p.32	s./p.33	s./p.33	s./p.33	s./p.33	s./p.34	s./p.34	s./p.34	s./p.35	s./p.34	s./p.36
MF													
UNC													
UNF													
UNC/F													
G													
NPT													
NPTF													
NPS													
BSW													
PF													
PS													
PT													
W													
Material group Grupa materialowa	Cu	Cu	Cu	GG	GG	GG	GG	Al	Al	Al	Al	Al	Al
Tool material Materiał narzędzia	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
Class of thread Klasa gwinotwnika	ISO 2/6H	ISO 2X/6HX	ISO 2/6H	ISO 2X/6HX	ISO 2X/6HX	ISO 2X/6HX	ISO 2X/6HX	ISO 2/6H	ISO 2/6H	ISO 2/6H	6H Mod.	ISO 2/6H	6H Mod.
Coating Powłoka	TiAlN	NI	Bright	TiAlN	TiN	NI	TiCN	NI	Bright	NI	Bright	Bright	Bright
Chamfer Nakroj	C	C	C	C	C	C	C	C	C	B	C	B	B
Norm Norma	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN
Hole type Typ otworu	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5	1-2-3	1-2-3	4-5	4-5	4-5	4-5
1.1									○		○	○	○
1.2									○		○	○	○
1.3								○	○	○	○	○	○
1.4													
1.5													
1.6													
2.1													
2.2													
2.3													
3.1				•	•	•	•						
3.2				•	•	•	•						
3.3													
3.4													
4.1									○		○	○	○
4.2													
4.3													
5.1													
5.2													
5.3													
6.1									•		•	•	•
6.2	•	•	•	•	•	○	•						
6.3	○		○										
6.4													
7.1									•		•	•	•
7.2									•		•	•	•
7.3									•		•	•	•
7.4								•		•			
8.1													
8.2													
8.2				•	•	•	•						

SELECTION GUIDE SPIS TREŚCI

													
EDP. Tool KOD Narzędzia	**SAA54**	**SCA44**	**SCA54**	**SAB45**	**SDA11**	**SCE11**	**SDC22**	**SCC22**	**SCE73**	**SDE13**	**SCE13**	**SDC63**	**SCC63**
M													
MF	s./p.37	s./p.37	s./p.39	s./p.41	s./p.42	s./p.42	s./p.44	s./p.44	s./p.44	s./p.46	s./p.46	s./p.47	s./p.47
UNC													
UNF													
UNC/F													
G													
NPT													
NPTF													
NPS													
BSW													
PF													
PS													
PT													
W													
Material group Grupa materialowa	UNI	UNI	UNI	UNI	W	W	W	W	W	N	N	N	N
Tool material Materiał narzędzia	**HSS-E/ HSS-PM**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**
Class of thread Klasa gwinotwnika	ISO 6H	ISO 6H	ISO 6H	ISO 6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
Coating Powłoka	**Vap**	**Bright**	**Bright**	**Bright**	**TiN**	**Bright**	**TiN**	**Bright**	**Bright**	**TiN**	**Bright**	**TiN**	**Bright**
Chamfer Nakroj	C	C	B	B	C	C	B	B	C	C	C	B	B
Norm Norma	DIN	DIN	DIN	LONG	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN
Hole type Typ otworu	1-2-3	1-2-3	4-5	4-5	1-2-3	1-2-3	4-5	4-5	1-2-4-5	1-2-3	1-2-3	4-5	4-5
1.1	●	●	●	●					○				
1.2	●	●	●	●	●	●	●	●	○				
1.3		●	●	●	●	●	●	●	○				
1.4		●	●	●	●	●	●	●	○	○	○	○	○
1.5		●	●	●						●	●	●	●
1.6													
2.1	●	●	●	●									
2.2	●	●	●	●									
2.3	●	●	●	●						○	○	○	○
3.1		●	●	●									
3.2		●	●	●									
3.3		●	●	●	●	●	●	●	○				
3.4		●	●	●	●	●	●	●	○				
4.1		●	●	●	○	○	○	○					
4.2	○	○	○	○						○	○	○	○
4.3													
5.1		●	●	●	○	○	○	○					
5.2	○	○	○	○						○	○	○	○
5.3													
6.1		●	●	●	○	○	○	○					
6.2		●	●	●					○				
6.3		●	●	●	●	●	●	●	○				
6.4													
7.1					○	○	○	○					
7.2		●	●	●	○	○	○	○					
7.3		●	●	●	○	○	○	○					
7.4		●	●	●	●	●	●	●	○				
8.1					○	○	○	○					
8.2													
8.2													

SELECTION GUIDE SPIS TREŚCI

													
EDP. Tool KOD Narzędzia	**SAC54**	**SAA38**	**SAD38**	**SBB83**	**SBB23**	**SEE03**	**SCJ63**	**SCA24**	**SCA34**	**SAC28**	**SCB44**	**SCC14**	**SCE24**
M													
MF	s./p.48	s./p.49	s./p.50	s./p.51	s./p.52	s./p.53	s./p.54						
UNC								s./p.55	s./p.55	s./p.56	s./p.57	s./p.58	s./p.58
UNF													
UNC/F													
G													
NPT													
NPTF													
NPS													
BSW													
PF													
PS													
PT													
W													
Material group Grupa materialowa	VA	VA	VA	VA WN	VA WN	GG	Al	UNI	UNI	UNI	W	W	W
Tool material Materiał narzędzia	HSS-E/ HSS-PM	HSS-E/ HSS-PM	HSS-E/ HSS-PM	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E/ HSS-PM	HSS-E	HSS-E	HSS-E
Class of thread Klasa gwinotwnika	ISO 6H	ISO 6H	ISO 6H	ISO 2/6H	ISO 2X/6HX	ISO 2X/6HX	ISO 2/6H	2B	2B	ISO 6H	2B	2B	2B
Coating Powłoka	Vap	Vap	Vap	vap	vap	NI	Bright	Bright	Bright	Vap	Bright	Bright	Bright
Chamfer Nakroj	C	B	B	C	B	C	C	C	B	B	C	B	C
Norm Norma	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN
Hole type Typ otworu	1-2-3	4-5	4-5	1-2-3	4-5	1-2-3-4-5	1-2-3	1-2-3	4-5	4-5	1-2-3	4-5	1-2-4-5
1.1	●	●	●	●	●		○	●	●	●			○
1.2	●	●	●	●	●		○	●	●	●	●	●	○
1.3							○	●	●		●	●	○
1.4								●	●		●	●	○
1.5								●	●				
1.6													
2.1	●	●	●	●	●			●	●	●			
2.2	●	●	●	●	●			●	●	●			
2.3	●	●	●	●	●			●	●	●			
3.1						●		●	●				
3.2						●		●	●				
3.3								●	●		●	●	○
3.4								●	●		●	●	○
4.1							○	●	●		○	○	
4.2	○	○	○	○	○			○	○	○			
4.3													
5.1								●	●		○	○	
5.2	○	○	○	○	○			○	○	○			
5.3													
6.1							●	●	●		○	○	
6.2						○		●	●				○
6.3								●	●		●	●	○
6.4													
7.1							●				○	○	
7.2							●	●	●		○	○	
7.3							●	●	●		○	○	
7.4								●	●		●	●	○
8.1											○		
8.2													
8.2						●							

SELECTION GUIDE SPIS TREŚCI

													
EDP. Tool KOD Narzędzia	**SDB74**	**SCB74**	**SDC44**	**SCC44**	**SBJ04**	**SBC64**	**SEE34**	**SCB69**	**SCJ34**	**SCJ44**	**SCA64**	**SCA74**	**SCB24**
M													
MF													
UNC	s./p.60	s./p.60	s./p.61	s./p.61	s./p.62	s./p.63	s./p.64	s./p.65	s./p.66	s./p.66			
UNF											s./p.67	s./p.68	s./p.69
UNC/F													
G													
NPT													
NPTF													
NPS													
BSW													
PF													
PS													
PT													
W													
Material group Grupa materialowa	N	N	N	N	VA WN	VA WN	GG	Al	Al	Al	UNI	UNI	W
Tool material Materiał narzędzia	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
Class of thread Klasa gwinotwnika	2B	2B	2B	2B	2B	2B	2BX	2B	2B	2B	2B	2B	2B
Coating Powłoka	TiN	Bright	TiN	Bright	vap	vap	NI	Bright	Bright	Bright	Bright	Bright	Bright
Chamfer Nakroj	C	C	B	B	C	B	C	C	B	C	C	B	C
Norm Norma	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN
Hole type Typ otworu	1-2-3	1-2-3	4-5	4-5	1-2-3	4-5	1-2-3-4-5	1-2-3	4-5	4-5	1-2-3	4-5	1-2-3
1.1					●	●		○	○	○	●	●	
1.2					●	●		○	○	○	●	●	●
1.3								○	○	○	●	●	●
1.4	○	○	○	○							●	●	●
1.5	●	●	●	●							●	●	
1.6													
2.1					●	●					●	●	
2.2					●	●					●	●	
2.3	○	○	○	○	●	●					●	●	
3.1							●				●	●	
3.2							●				●	●	
3.3											●	●	●
3.4											●	●	●
4.1								○	○	○	●	●	○
4.2	○	○	○	○	○	○					○	○	
4.3													
5.1											●	●	○
5.2	○	○	○	○	○	○					○	○	
5.3													
6.1								●	●	●	●	●	○
6.2							○				●	●	
6.3											●	●	●
6.4													
7.1								●	●	●			○
7.2								●	●	●	●	●	○
7.3								●	●	●	●	●	○
7.4											●	●	●
8.1													○
8.2													
8.2							●						

SELECTION GUIDE SPIS TREŚCI

												
EDP. Tool KOD Narzędzia	**SCC34**	**SCB84**	**SCC54**	**SAA28**	**SBJ24**	**SBC74**	**SEE54**	**SCB70**	**SCH28**	**SCH27**	**SCB34**	**SCC24**
M												
MF												
UNC												
UNF	s./p.70	s./p.71	s./p.72	s./p.73	s./p.74	s./p.75	s./p.76	s./p.77				
UNC/F												
G									s./p.78	s./p.78		
NPT												
NPTF												
NPS											s./p.79	
BSW												s./p.80
PF												
PS												
PT												
W												
Material group Grupa materialowa	W	N	N	VA	VA WN	VA WN	GG	AI	W	W	W	W
Tool material Material narzedzia	HSS-E	HSS-E	HSS-E	HSS-E/ HSS-PM	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
Class of thread Klasa gwinotwnika	2B	2B	2B	ISO 6H	2B	2B	2BX	2B	-	-	-	-
Coating Powłoka	Bright	Bright	Bright	Vap	vap	vap	NI	Bright	Bright	Bright	Bright	Bright
Chamfer Nakroj	B	C	B	B	C	B	C	C	C	B	C	B
Norm Norma	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN
Hole type Typ otworu	4-5	1-2-3	4-5	4-5	1-2-3	4-5	1-2-3-4-5	1-2-3	1-2-3	4-5	1-2-3	4-5
1.1				●	●	●		○			○	
1.2	●			●	●	●		○	●	●	○	●
1.3	●							○	●	●	○	●
1.4	●	○	○						●	●	○	●
1.5		●	●									
1.6												
2.1				●	●	●						
2.2				●	●	●						
2.3		○	○	●	●	●						
3.1							●					
3.2							●					
3.3	●								●	●	○	●
3.4	●								●	●	○	●
4.1	○							○	○	○		○
4.2		○	○	○	○	○						
4.3												
5.1	○								○	○		○
5.2		○	○	○	○	○						
5.3												
6.1	○							●	○	○		○
6.2							○				○	
6.3	●								●	●	○	●
6.4												
7.1	○							●	○	○		○
7.2	○							●	○	○		○
7.3	○							●	○	○		○
7.4	●								●	●	○	●
8.1									○	○		
8.2												
8.2							●					

CUTTING SPEED TABLE TABELA PRĘDKOŚCI SKRAWANIA

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

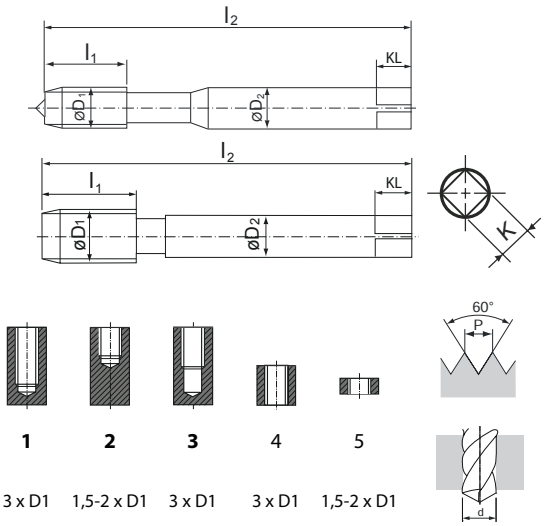
MACHINING TAPS GWINTOWNIKI MASZYNOWE

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

UNI



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E	HSS-E	HSS-E
Brt	Brt	Brt	Brt
6H	6H	6H	6H
C	E	C	B
DIN	DIN	DIN	DIN
1-2-3	1-2-3	1-2-3	1-2-3
I	O	O	O

D1		P	L1	L2	D2	K	KL	d1	EDP	SAA04	SAA07	SCA04	SCA14	
DIN 371														
M2	x	0,4	8	45	2,8	2.1		1.60	**136**		•	•	•	
M2.2	x	0,45	8	45	2,8	2.1		1.75	**156**		•	•	•	
M2.3	x	0,4	8	45	2,8	2.1		1.90	**196**		•	•	•	
M2.5	x	0,45	9	50	2,8	2.1		2.05	**176**		•	•	•	
M2.6	x	0,45	9	50	2,8	2.1		2.10	**496**		•	•	•	
M3	x	0,5	11	56	3,5	2.7		2.50	**206**		•	•	•	
M3.5	x	0,6	12	56	4	3		2.90	**226**		•	•	•	
M4	x	0,7	13	63	4,5	3.4		3.30	**246**		•	•	•	
M4.5	x	0,75	14	70	6	4.9		3.70	**266**		•	•	•	
M5	x	0,8	15	70	6	4.9		4.20	**286**		•	•	•	
M6	x	1	17	80	6	4.9		5.00	**316**	•	•	•	•	
M7	x	1	17	80	7	5.5		6.00	**346**		•	•	•	
M8	x	1,25	20	90	8	6.2		6.80	**366**	•	•	•	•	
M9	x	1,25	20	90	9	7		7.80	**396**		•	•	•	
M10	x	1,5	22	100	10	8		8.50	**426**	•	•	•	•	
DIN 376														
M11	x	1.5	17	100	8	6.2		9.50	**466**		•	•	•	
M12	x	1.75	18	110	9	7		10.20	**506**	•	•	•	•	
M14	x	2.0	20	110	11	9		12.00	**546**	•	•	•	•	
M16	x	2.0	20	110	12	9		14.00	**606**	•	•	•	•	
M18	x	2.5	25	125	14	11		15.50	**656**	•	•	•	•	
M20	x	2.5	25	140	16	12		17.50	**706**	•	•	•	•	
M22	x	2.5	25	140	18	14.5		19.50	**746**		•	•	•	
M24	x	3.0	30	160	18	14.5		21.00	**786**		•	•	•	
M27	x	3.0	30	160	20	16		24.00	**866**		•	•	•	
M30	x	3.5	35	180	22	18		26.50	**946**		•	•	•	

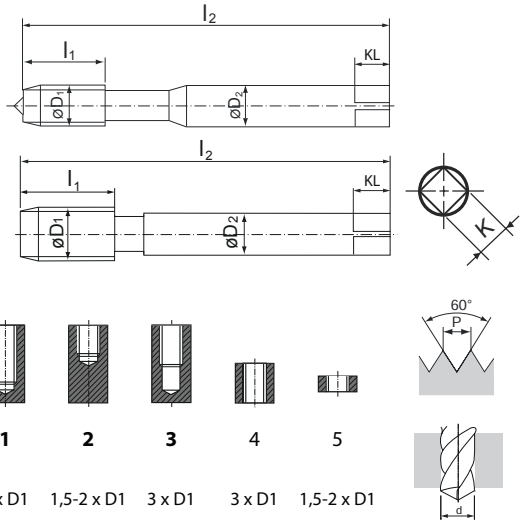
															UNI
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•	•		•	•	•	•	•	•	•	•	○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•	○		•	•	•			•	•	•			

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

UNI



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E
Brt	Brt
6H	6H
B	B
DIN	DIN
1-2-3	**4-5**
O	I

D1		P	L1	L2	D2	K	KL	d1	EDP	SAA33	SAA14			
LONG														
M3	x	0.5	11.0	100.0	3.5	2.7		2.50	**206**	•				
M4	x	0.7	13.0	125.0	4.5	3.4		3.30	**246**	•				
M5	x	0.8	15.0	140.0	6.0	4.9		4.20	**286**	•				
M6	x	1.0	17.0	160.0	6.0	4.9		5.00	**316**	•				
M8	x	1.25	20.0	180.0	6.0	4.9		6.80	**366**	•				
M10	x	1.5	22.0	200.0	7.0	5.5		8.50	**426**	•				
M12	x	1.75	24.0	220.0	9.0	7.0		10.20	**506**	•				
M14	x	2.0	26.0	220.0	11.0	9.0		12.00	**546**	•				
M16	x	2.0	27.0	220.0	12.0	9.0		14.00	**606**	•				
M20	x	2.5	32.0	280.0	16.0	12.0		17.50	**706**	•				
DIN 371														
M6	x	1.0	17.0	80.0	6.0	4.9		5.00	**249**		•			
M8	x	1.25	20.0	90.0	8.0	6.2		6.80	**251**		•			
M10	x	1.5	22.0	100.0	10.0	8.0		8.50	**253**		•			
DIN 376														
M12	x	1.75	24.0	110.0	9.0	7.0		10.20	**255**		•			
M14	x	2.0	26.0	110.0	11.0	9.0		12.00	**256**		•			
M16	x	2.0	27.0	110.0	12.0	9.0		14.00	**257**		•			
M18	x	2.5	30.0	125.0	14.0	11.0		15.50	**258**		•			
M20	x	2.5	32.0	140.0	16.0	12.0		17.50	**259**		•			

UNI

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•	•		•	•	•	•	•	•	•	•	○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•	○		•	•	•			•	•	•			

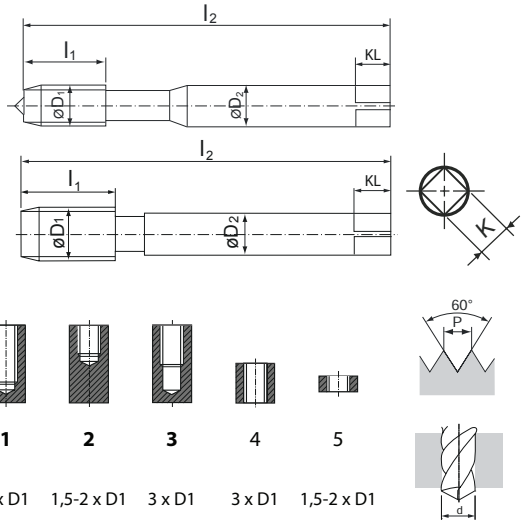
MACHINING TAPS GWINTOWNIKI MASZYNOWE

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

UNI



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E	HSS-E
Brt	Brt	Brt
2/6H	2/6H	2/6H
C	B	LONG
DIN	DIN	DIN
1-2	4-5	4-5
O	O	O

D1		P	L1	L2	D2	K	KL	d1	EDP	SCA10	SCA22	SCI03		
DIN 352														
M2	x	0.4	8	36	2.8	2.1		1.60	**136**		•			
M2.5	x	0.45	9	40	2.8	2.1		2.10	**176**		•			
M3	x	0.5	11	40	3.5	2.7		2.50	**206**	•	•			
M4	x	0.7	13	45	4.5	3.4		3.30	**246**	•	•			
M5	x	0.8	16	52	6	4.9		4.20	**286**	•	•			
M6	x	1	18	56	6	4.9		5.00	**316**	•	•			
M8	x	1.25	20	63	6	4.9		6.80	**366**	•	•			
M10	x	1.5	22	70	7	5.5		8.50	**426**	•	•			
M12	x	1.75	24	80	9	7		10.30	**506**	•	•			
M14	x	2	26	80	11	9		12.00	**546**	•	•			
M16	x	2	27	80	12	9		14.00	**606**	•	•			
M18	x	2.5	30	95	14	11		15.50	**656**	•				
M20	x	2.5	32	95	16	12		17.50	**706**	•				
DIN 357														
M4	x	0.7	25	90	2.8	2.1		3.30	**246**			•		
M5	x	0.8	28	100	3.5	2.7		4.20	**286**			•		
M6	x	1	32	110	4.5	3.4		5.00	**316**			•		
M7	x	1	36	110	5.5	4.3		6.00	**346**			•		
M8	x	1.25	40	125	6	4.9		6.80	**366**			•		
M10	x	1.5	45	140	7	5.5		8.50	**426**			•		
M12	x	1.75	50	180	9	7		10.30	**506**			•		
M14	x	2	56	200	11	9		12.00	**546**			•		
M16	x	2	63	200	12	9		14.00	**606**			•		
M18	x	2.5	63	220	14	11		15.50	**656**			•		
M20	x	2.5	70	250	16	12		17.50	**706**			•		

W

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	

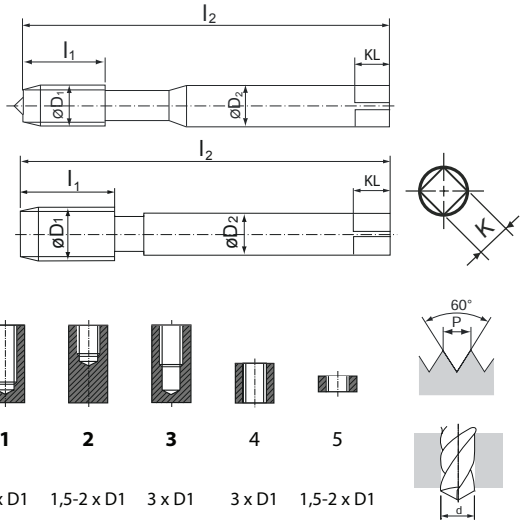
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

UNI



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E
Brt	TiN
2/6H	2/6H
B	B
DIN	DIN
4-5	4-5
O	O

D1		P	L1	L2	D2	K	KL	d1	EDP	SCB27	SDB27			
DIN 371														
M2	x	0,4	8	45	2,8	2.1		1.60	**136**	•	•			
M2.2	x	0,45	8	45	2,8	2.1		1.75	**156**	•	•			
M2.3	x	0,4	8	45	2,8	2.1		1.90	**196**	•	•			
M2.5	x	0,45	9	50	2,8	2.1		2.10	**176**	•	•			
M2.6	x	0,45	9	50	2,8	2.1		2.20	**496**	•	•			
M3	x	0,5	11	56	3,5	2.7		2.50	**206**	•	•			
M3.5	x	0,6	12	56	4	3		2.90	**226**	•	•			
M4	x	0,7	13	63	4,5	3.4		3.30	**246**	•	•			
M4.5	x	0,75	14	70	6	4.9		3.80	**266**	•	•			
M5	x	0,8	15	70	6	4.9		4.20	**286**	•	•			
M6	x	1	17	80	6	4.9		5.00	**316**	•	•			
M7	x	1	17	80	7	5.5		6.00	**346**	•	•			
M8	x	1,25	20	90	8	6.2		6.80	**366**	•	•			
M9	x	1,25	20	90	9	7		7.80	**396**	•	•			
M10	x	1,5	22	100	10	8		8.50	**426**	•	•			
M11	x	1.5	22	100	11	9		9.50	**466**	•	•			
M12	x	1.75	24	110	12	9		10.30	**506**	•	•			

W

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

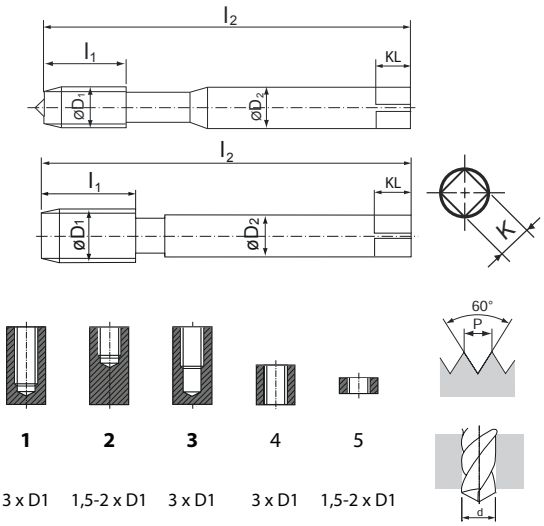
MACHINING TAPS GWINTOWNIKI MASZYNOWE

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

W



1 3 x D1 | **2** 1,5-2 x D1 | **3** 3 x D1 | 4 3 x D1 | 5 1,5-2 x D1

HSS-E	HSS-E
Brt	TiN
2/6H	2/6H
C	C
DIN	DIN
4-5	4-5
O	O

D1		P	L1	L2	D2	K	KL	d1	EDP	SCC27	SDC27			
DIN 376														
M3		0.5	11	56	2.2	1.8		2.50	**206**	•	•			
M3.5		0.6	12	56	2.5	2.1		2.90	**226**	•	•			
M4		0.7	13	63	2.8	2.1		3.30	**246**	•	•			
M4.5		0.75	14	70	3.5	2.7		3.80	**266**	•	•			
M5		0.8	15	70	3.5	2.7		4.20	**286**	•	•			
M6		1	17	80	4.5	3.4		5.00	**316**	•	•			
M7		1	17	80	5.5	4.3		6.00	**346**	•	•			
M8		1.25	20	90	6	4.9		6.80	**366**	•	•			
M9		1.25	20	90	7	5.5		7.80	**396**	•	•			
M10		1.5	22	100	7	5.5		8.50	**426**	•	•			
M11		1.5	22	100	8	6.2		9.50	**466**	•	•			
M12		1.75	24	110	9	7		10.30	**506**	•	•			
M14		2	26	110	11	9		12.00	**546**	•	•			
M16		2	27	110	12	9		14.00	**606**	•	•			
M18		2.5	30	125	14	11		15.50	**656**	•	•			
M20		2.5	32	140	16	12		17.50	**706**	•	•			
M22		2.5	32	140	18	14.5		19.50	**746**	•	•			
M24		3	34	160	18	14.5		21.00	**786**	•	•			
M27		3	36	160	20	16		24.00	**866**	•	•			
M30		3.5	40	180	22	18		26.50	**946**	•	•			

W

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

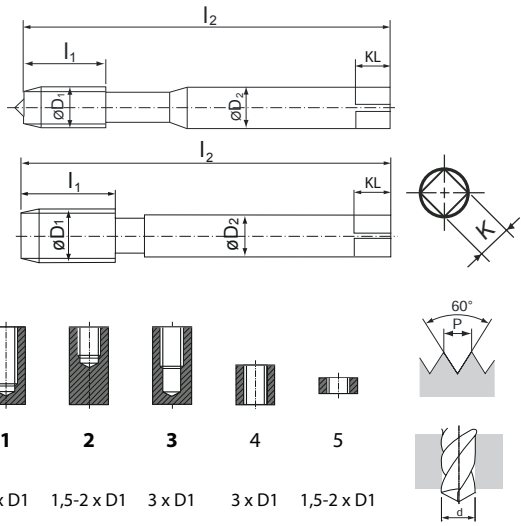
MACHINING TAPS GWINTOWNIKI MASZYNOWE

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

W



1 — 3 x D1

2 — 1,5-2 x D1

3 — 3 x D1

4 — 3 x D1

5 — 1,5-2 x D1

HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
Brt	Brt	Brt	Brt	TiN
2/6H	2/6H	2/6H	2/6H	2/6H
C	C	C	C	C
DIN	DIN	DIN	DIN	DIN
1-2	1-2-3	4-5	1-2-4-5	1-2-4-5
O	O	O	O	O

D1		P	L1	L2	D2	K	KL	d1	EDP	SCF17	SCH11	SCC11	SCE63	SDH11
DIN 371														
M2	x	0,4	8	45	2,8	2.1		1.60	**136**		•	•	•	•
M2.2	x	0,45	8	45	2,8	2.1		1.75	**156**	•	•	•	•	•
M2.3	x	0,4	8	45	2,8	2.1		1.90	**196**	•	•	•	•	•
M2.5	x	0,45	9	50	2,8	2.1		2.10	**176**	•	•	•	•	•
M2.6	x	0,45	9	50	2,8	2.1		2.20	**496**	•	•	•	•	•
M3	x	0,5	11	56	3,5	2.7		2.50	**206**	•	•	•	•	•
M3.5	x	0,6	12	56	4	3		2.90	**226**	•	•	•	•	•
M4	x	0,7	13	63	4,5	3.4		3.30	**246**	•	•	•	•	•
M4.5	x	0,75	14	70	6	4.9		3.80	**266**	•	•	•	•	•
M5	x	0,8	15	70	6	4.9		4.20	**286**	•	•	•	•	•
M6	x	1	17	80	6	4.9		5.00	**316**	•	•	•	•	•
M7	x	1	17	80	7	5.5		6.00	**346**	•	•	•	•	•
M8	x	1,25	20	90	8	6.2		6.80	**366**	•	•	•	•	•
M9	x	1,25	20	90	9	7		7.80	**396**	•	•	•	•	•
M10	x	1,5	22	100	10	8		8.50	**426**	•	•	•	•	•
DIN 376														
M11	x	1.5	17	100	8	6.2		9.50	**466**	•	•	•	•	•
M12	x	1.75	18	110	9	7		10.30	**506**	•	•	•	•	•
M14	x	2.0	20	110	11	9		12.00	**546**	•	•	•	•	•
M16	x	2.0	20	110	12	9		14.00	**606**	•	•	•	•	•
M18	x	2.5	25	125	14	11		15.50	**656**	•	•	•	•	•
M20	x	2.5	25	140	16	12		17.50	**706**	•	•	•	•	•
M22	x	2.5	25	140	18	14.5		19.50	**746**	•	•	•	•	•
M24	x	3.0	30	160	18	14.5		21.00	**786**	•	•	•	•	•
M27	x	3.0	30	160	20	16		24.00	**866**	•	•	•	•	•
M30	x	3.5	35	180	22	18		26.50	**946**	•	•	•	•	•

W

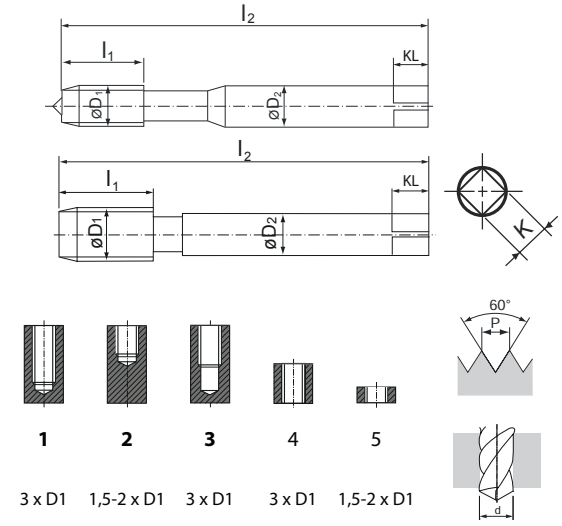
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

W



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS V3

Ox

H

2.5P

JIS

3-4-5

O

D1		P	L1	L2	D2	K	KL	Limit	Z	d1	EDP	SCD05		
JIS														
M3	x	0.5	11	150	4	3.2	6	H1	3	2.50	**201**	•		
M4	x	0.7	13	150	5	4	7	H2	3	3.30	**242**	•		
M5	x	0.8	16	150	5.5	4.5	7	H2	3	4.20	**282**	•		
M6	x	1	19	150	6	4.5	7	H2	3	5.00	**312**	•		
M8	x	1.25	22	150	6.2	5	8	H2	3	6.80	**362**	•		
M10	x	1.5	24	150	7	5.5	8	H2	3	8.50	**422**	•		
M10	x	1.25	24	150	7	5.5	8	H2	3	8.80	**432**	•		
M12	x	1.75	29	150	8.5	6.5	9	H2	3	10.30	**502**	•		
M12	x	1.5	29	150	8.5	6.5	9	H2	3	10.50	**512**	•		
M12	x	1.25	29	150	8.5	6.5	9	H2	3	10.80	**522**	•		
M14	x	2	30	150	10.5	8	11	H2	3	12.00	**542**	•		
M14	x	1.5	30	150	10.5	8	11	H2	3	12.50	**552**	•		
M16	x	2	32	150	12.5	10	13	H2	3	14.00	**602**	•		
M16	x	1.5	32	150	12.5	10	13	H2	3	14.50	**612**	•		
M18	x	2.5	37	150	14	11	14	H3	4	15.50	**653**	•		
M18	x	1.5	37	150	14	11	14	H2	4	16.50	**672**	•		
M20	x	2.5	37	150	15	12	15	H3	4	17.50	**703**	•		
M20	x	1.5	37	150	15	12	15	H3	4	18.50	**723**	•		
M22	x	2.5	38	150	17	13	16	H3	4	19.50	**743**	•		
M22	x	1.5	38	150	17	13	16	H3	4	20.50	**763**	•		
M24	x	3	45	150	19	15	18	H3	4	21.00	**783**	•		
M24	x	1.5	45	150	19	15	18	H3	4	22.50	**803**	•		

W

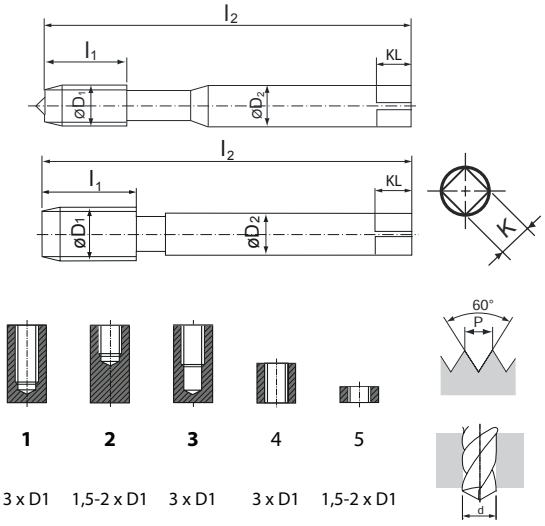
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

N



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
VAP	VAP	TiAlN	TiN	Brt
2/6H	2/6H	2/6H	2/6H	2/6H
C	C	C	C	C
DIN	DIN	DIN	DIN	DIN
1-2-3	1-2-3	1-2-3	1-2-3	1-2-3
O	O	O	O	O

D1		P	L1	L2	D2	K	d1	EDP	SBD12	SBJ13	SYD12	SDD12	SCD12
DIN 371													
M2	x	0.4	8	45	2.8	2.1	1.60	**136**	•	•	•	•	•
M2.2	x	0.45	8	45	2.8	2.1	1.75	**156**	•	•	•	•	•
M2.3	x	0.4	8	45	2.8	2.1	1.90	**196**	•	•	•	•	•
M2.5	x	0.45	9	50	2.8	2.1	2.10	**176**	•	•	•	•	•
M2.6	x	0.45	9	50	2.8	2.1	2.20	**496**	•	•	•	•	•
M3	x	0.5	6	56	3.5	2.7	2.50	**206**	•	•	•	•	•
M3.5	x	0.6	7	56	4	3	2.90	**226**	•	•	•	•	•
M4	x	0.7	7	63	4.5	3.4	3.30	**246**	•	•	•	•	•
M4.5	x	0.75	8	70	6	4.9	3.80	**266**	•	•	•	•	•
M5	x	0.8	8	70	6	4.9	4.20	**286**	•	•	•	•	•
M6	x	1	10	80	6	4.9	5.00	**316**	•	•	•	•	•
M7	x	1	10	80	7	5.5	6.00	**346**	•	•	•	•	•
M8	x	1.25	13	90	8	6.2	6.80	**366**	•	•	•	•	•
M9	x	1.25	13	90	9	7	7.80	**396**	•	•	•	•	•
M10	x	1.5	15	100	10	8	8.50	**426**	•	•	•	•	•
DIN 376													
M11	x	1.5	17	100	8	6.2	9.50	**466**	•	•	•	•	•
M12	x	1.75	18	110	9	7	10.30	**506**	•	•	•	•	•
M14	x	2	20	110	11	9	12.00	**546**	•	•	•	•	•
M16	x	2	20	110	12	9	14.00	**606**	•	•	•	•	•
M18	x	2.5	25	125	14	11	15.50	**656**	•	•	•	•	•
M20	x	2.5	25	140	16	12	17.50	**706**	•	•	•	•	•
M22	x	2.5	25	140	18	14.5	19.50	**746**	•	•	•	•	•
M24	x	3	30	160	18	14.5	21.00	**786**	•	•	•	•	•
M27	x	3	30	160	20	16	24.00	**866**	•	•	•	•	•
M30	x	3.5	35	180	22	18	26.50	**946**	•	•	•	•	•

N

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
				○	•				○						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○												

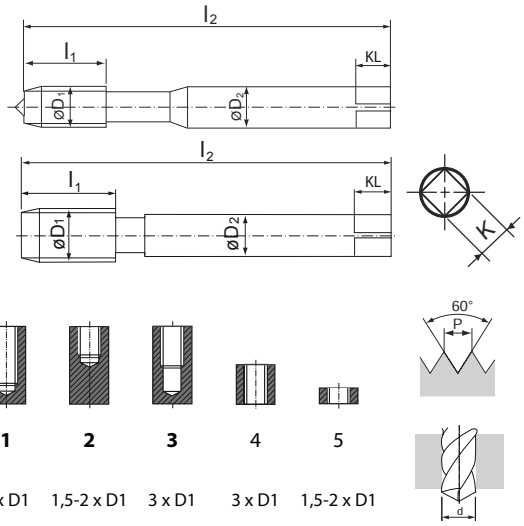
MACHINING TAPS GWINTOWNIKI MASZYNOWE

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

N



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS PM	HSS PM	HSS-E	HSS-E	HSS-E
VAP	Brt	TiAlN	TiN	Ni
2/6H	2/6H	2/6H	2/6H	2/6H
C	C	B	B	B
DIN	DIN	DIN	DIN	DIN
1-2-3	1-2-3	4-5	4-5	4-5
O	O	O	O	O

D1		P	L1	L2	D2	K	d1	EDP	SQB23	SRA23	SYE22	SDE22	SEE22
DIN 371													
M2	x	0.4	8	45	2.8	2.1	1.60	**136**	•	•	•	•	•
M2.2	x	0.45	8	45	2.8	2.1	1.75	**156**	•	•	•	•	•
M2.3	x	0.4	8	45	2.8	2.1	1.90	**196**	•	•	•	•	•
M2.5	x	0.45	9	50	2.8	2.1	2.10	**176**	•	•	•	•	•
M2.6	x	0.45	9	50	2.8	2.1	2.20	**496**	•	•	•	•	•
M3	x	0.5	6	56	3.5	2.7	2.50	**206**	•	•	•	•	•
M3.5	x	0.6	7	56	4	3	2.90	**226**	•	•	•	•	•
M4	x	0.7	7	63	4.5	3.4	3.30	**246**	•	•	•	•	•
M4.5	x	0.75	8	70	6	4.9	3.80	**266**	•	•	•	•	•
M5	x	0.8	8	70	6	4.9	4.20	**286**	•		•	•	•
M6	x	1	10	80	6	4.9	5.00	**316**	•		•	•	•
M7	x	1	10	80	7	5.5	6.00	**346**	•		•	•	•
M8	x	1.25	13	90	8	6.2	6.80	**366**	•		•	•	•
M9	x	1.25	13	90	9	7	7.80	**396**	•		•	•	•
M10	x	1.5	15	100	10	8	8.50	**426**	•		•	•	•
DIN 376													
M11	x	1.5	17	100	8	6.2	9.50	**466**	•		•	•	•
M12	x	1.75	18	110	9	7	10.30	**506**	•		•	•	•
M14	x	2	20	110	11	9	12.00	**546**	•		•	•	•
M16	x	2	20	110	12	9	14.00	**606**	•		•	•	•
M18	x	2.5	25	125	14	11	15.50	**656**	•		•	•	•
M20	x	2.5	25	140	16	12	17.50	**706**	•		•	•	•
M22	x	2.5	25	140	18	14.5	19.50	**746**	•		•	•	•
M24	x	3	30	160	18	14.5	21.00	**786**	•		•	•	•
M27	x	3	30	160	20	16	24.00	**866**	•		•	•	•
M30	x	3.5	35	180	22	18	26.50	**946**	•		•	•	•

N

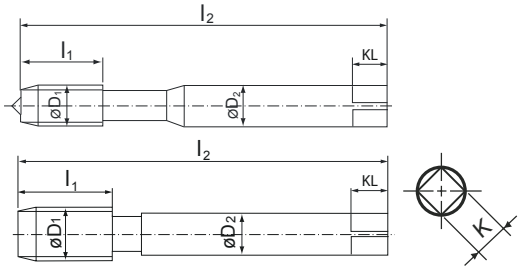
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
				○	•				○						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○												

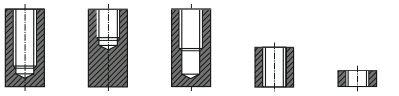
M

ISO Metric coarse threads DIN 13

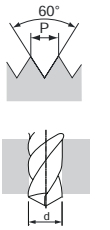
Gwint metryczny zwykły ISO DIN 13

N





3 x D1 | 1,5-2 x D1 | 3 x D1 | 3 x D1 | 1,5-2 x D1



HSS-E	HSS PM	HSS PM
Brt	VAP	Brt
2/6H	2/6H	2/6H
B	B	B
DIN	DIN	DIN
4-5	4-5	4-5
O	O	O

D1		P	L1	L2	D2	K	d1	EDP	SCE22	SQB10	SRB10		
DIN 371													
M2	x	0.4	8	45	2.8	2.1	1.60	**136**	•	•	•		
M2.2	x	0.45	8	45	2.8	2.1	1.75	**156**	•	•	•		
M2.3	x	0.4	8	45	2.8	2.1	1.90	**196**	•	•	•		
M2.5	x	0.45	9	50	2.8	2.1	2.10	**176**	•	•	•		
M2.6	x	0.45	9	50	2.8	2.1	2.20	**496**	•	•	•		
M3	x	0.5	6	56	3.5	2.7	2.50	**206**	•	•	•		
M3.5	x	0.6	7	56	4	3	2.90	**226**	•	•	•		
M4	x	0.7	7	63	4.5	3.4	3.30	**246**	•	•	•		
M4.5	x	0.75	8	70	6	4.9	3.80	**266**	•	•	•		
M5	x	0.8	8	70	6	4.9	4.20	**286**	•	•	•		
M6	x	1	10	80	6	4.9	5.00	**316**	•	•	•		
M7	x	1	10	80	7	5.5	6.00	**346**	•	•	•		
M8	x	1.25	13	90	8	6.2	6.80	**366**	•	•	•		
M9	x	1.25	13	90	9	7	7.80	**396**	•	•	•		
M10	x	1.5	15	100	10	8	8.50	**426**	•	•	•		
DIN 376													
M11	x	1.5	17	100	8	6.2	9.50	**466**	•				
M12	x	1.75	18	110	9	7	10.30	**506**	•	•	•		
M14	x	2	20	110	11	9	12.00	**546**	•				
M16	x	2	20	110	12	9	14.00	**606**	•				
M18	x	2.5	25	125	14	11	15.50	**656**	•				
M20	x	2.5	25	140	16	12	17.50	**706**	•				
M22	x	2.5	25	140	18	14.5	19.50	**746**	•				
M24	x	3	30	160	18	14.5	21.00	**786**	•				
M27	x	3	30	160	20	16	24.00	**866**	•				
M30	x	3.5	35	180	22	18	26.50	**946**	•				

N

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
					•				○						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○												

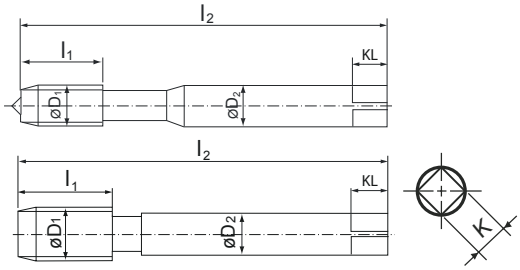
MACHINING TAPS GWINTOWNIKI MASZYNOWE

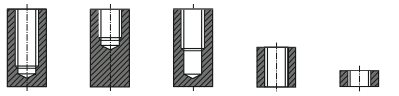
M

ISO Metric coarse threads DIN 13

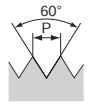
Gwint metryczny zwykły ISO DIN 13

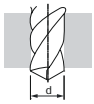
N





1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1





HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
VAP	TiAlN	Brt	TiAlN	Brt
2/6H	2/6H	2/6H	2/6H	2/6H
C	C	C	B	B
DIN	DIN	DIN	DIN	DIN
1-2-3	1-2-3	1-2-3	4-5	4-5
O	O	O	O	O

D1		P	L1	L2	D2	K	d1	EDP	SBD13	SYD13	SCD13	SYC83	SCC83
DIN 371													
M2	x	0.4	8	45	2.8	2.1	1.60	**136**	•	•	•	•	•
M2.2	x	0.45	8	45	2.8	2.1	1.75	**156**	•	•	•	•	•
M2.3	x	0.4	8	45	2.8	2.1	1.90	**196**	•	•	•	•	•
M2.5	x	0.45	9	50	2.8	2.1	2.10	**176**	•	•	•	•	•
M2.6	x	0.45	9	50	2.8	2.1	2.20	**496**	•	•	•	•	•
M3	x	0.5	6	56	3.5	2.7	2.50	**206**	•	•	•	•	•
M3.5	x	0.6	7	56	4	3	2.90	**226**	•	•	•	•	•
M4	x	0.7	7	63	4.5	3.4	3.30	**246**	•	•	•	•	•
M4.5	x	0.75	8	70	6	4.9	3.80	**266**	•	•	•	•	•
M5	x	0.8	8	70	6	4.9	4.20	**286**	•	•	•	•	•
M6	x	1	10	80	6	4.9	5.00	**316**	•	•	•	•	•
M7	x	1	10	80	7	5.5	6.00	**346**	•	•	•	•	•
M8	x	1.25	13	90	8	6.2	6.80	**366**	•	•	•	•	•
M9	x	1.25	13	90	9	7	7.80	**396**	•	•	•	•	•
M10	x	1.5	15	100	10	8	8.50	**426**	•	•	•	•	•
DIN 376													
M11	x	1.5	17	100	8	6.2	9.50	**466**	•	•	•	•	•
M12	x	1.75	18	110	9	7	10.30	**506**	•	•	•	•	•
M14	x	2	20	110	11	9	12.00	**546**	•	•	•	•	•
M16	x	2	20	110	12	9	14.00	**606**	•	•	•	•	•
M18	x	2.5	25	125	14	11	15.50	**656**	•	•	•	•	•
M20	x	2.5	25	140	16	12	17.50	**706**	•	•	•	•	•
M22	x	2.5	25	140	18	14.5	19.50	**746**	•	•	•	•	•
M24	x	3	30	160	18	14.5	21.00	**786**	•	•	•	•	•
M27	x	3	30	160	20	16	24.00	**866**	•	•	•	•	•
M30	x	3.5	35	180	22	18	26.50	**946**	•	•	•	•	•

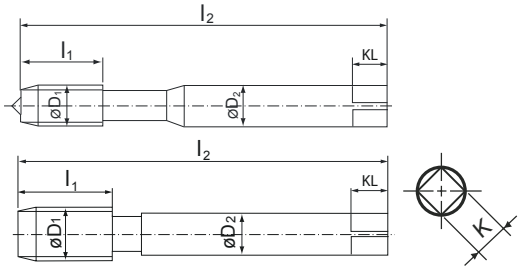
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
					○	•			○						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
						○		•						○	○

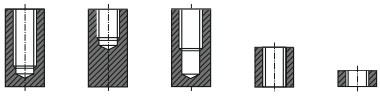
M

ISO Metric coarse threads DIN 13

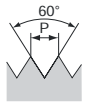
Gwint metryczny zwykły ISO DIN 13

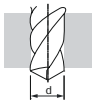
WN





1 3 x D1 | **2** 1,5-2 x D1 | **3** 3 x D1 | 4 3 x D1 | 5 1,5-2 x D1





HSS-E

VAP

2/6H

C

DIN

1-2-3

O

									SBH11				
DIN 371													
M2	x	0.4	8	45	2.8	2.1	1.60	**136**	•				
M2.2	x	0.45	8	45	2.8	2.1	1.75	**156**	•				
M2.3	x	0.4	8	45	2.8	2.1	1.90	**196**	•				
M2.5	x	0.45	9	50	2.8	2.1	2.10	**176**	•				
M2.6	x	0.45	9	50	2.8	2.1	2.20	**496**	•				
M3	x	0.5	6	56	3.5	2.7	2.50	**206**	•				
M3.5	x	0.6	7	56	4	3	2.90	**226**	•				
M4	x	0.7	7	63	4.5	3.4	3.30	**246**	•				
M4.5	x	0.75	8	70	6	4.9	3.80	**266**	•				
M5	x	0.8	8	70	6	4.9	4.20	**286**	•				
M6	x	1	10	80	6	4.9	5.00	**316**	•				
M7	x	1	10	80	7	5.5	6.00	**346**	•				
M8	x	1.25	13	90	8	6.2	6.80	**366**	•				
M9	x	1.25	13	90	9	7	7.80	**396**	•				
M10	x	1.5	15	100	10	8	8.50	**426**	•				
DIN 376													
M11	x	1.5	17	100	8	6.2	9.50	**466**	•				
M12	x	1.75	18	110	9	7	10.30	**506**	•				
M14	x	2	20	110	11	9	12.00	**546**	•				
M16	x	2	20	110	12	9	14.00	**606**	•				
M18	x	2.5	25	125	14	11	15.50	**656**	•				
M20	x	2.5	25	140	16	12	17.50	**706**	•				
M22	x	2.5	25	140	18	14.5	19.50	**746**	•				
M24	x	3	30	160	18	14.5	21.00	**786**	•				
M27	x	3	30	160	20	16	24.00	**866**	•				
M30	x	3.5	35	180	22	18	26.50	**946**	•				

WN

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12

N/mm²	• Ti Alloy ≤ 1300	• Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
					○				○						

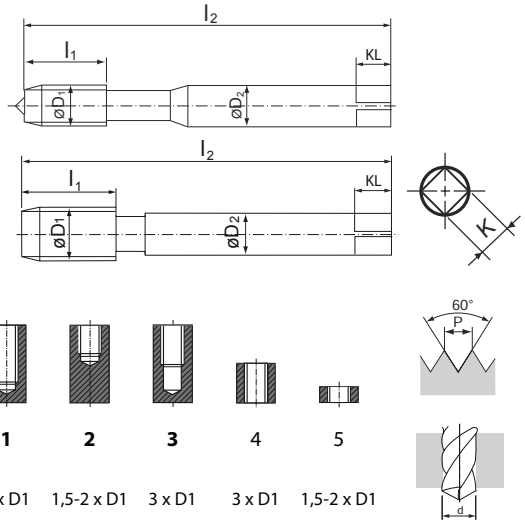
MACHINING TAPS GWINTOWNIKI MASZYNOWE

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

VA



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS PM	HSS PM
VAP	VAP	Brt
6H	6H	2/6H
C	C	B
DIN	DIN	DIN
1-2-3	1-2-3	4-5
O	O	O

D1		P	L1	L2	D2	K	d1	EDP	SAA44	SAB44	SRA10
DIN 371											
M2	x	0.4	8	45	2.8	2.1	1.60	**136**		•	•
M2.2	x	0.45	8	45	2.8	2.1	1.75	**156**		•	•
M2.3	x	0.4	8	45	2.8	2.1	1.90	**196**		•	
M2.5	x	0.45	9	50	2.8	2.1	2.10	**176**		•	•
M2.6	x	0.45	9	50	2.8	2.1	2.20	**496**		•	
M3	x	0.5	6	56	3.5	2.7	2.50	**206**		•	•
M3.5	x	0.6	7	56	4	3	2.90	**226**		•	•
M4	x	0.7	7	63	4.5	3.4	3.30	**246**		•	•
M4.5	x	0.75	8	70	6	4.9	3.80	**266**		•	•
M5	x	0.8	8	70	6	4.9	4.20	**286**		•	•
M6	x	1	10	80	6	4.9	5.00	**316**		•	•
M7	x	1	10	80	7	5.5	6.00	**346**		•	•
M8	x	1.25	13	90	8	6.2	6.80	**366**		•	•
M9	x	1.25	13	90	9	7	7.80	**396**		•	
M10	x	1.5	15	100	10	8	8.50	**426**		•	•
DIN 376											
M11	x	1.5	17	100	8	6.2	9.50	**466**		•	
M12	x	1.75	18	110	9	7	10.30	**506**		•	•
M14	x	2	20	110	11	9	12.00	**546**	•		
M16	x	2	20	110	12	9	14.00	**606**	•		
M18	x	2.5	25	125	14	11	15.50	**656**	•		
M20	x	2.5	25	140	16	12	17.50	**706**	•		
M22	x	2.5	25	140	18	14.5	19.50	**746**	•		
M24	x	3	30	160	18	14.5	21.00	**786**	•		
M27	x	3	30	160	20	16	24.00	**866**	•		
M30	x	3.5	35	180	22	18	26.50	**946**	•		

VA

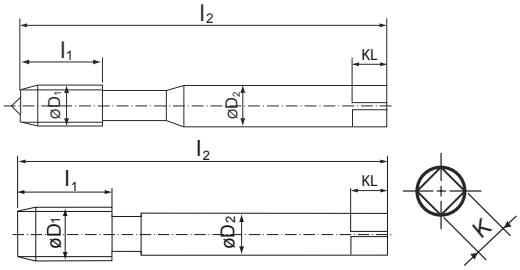
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	○	•					•	•	•						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○						○						

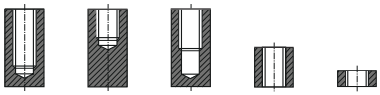
M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

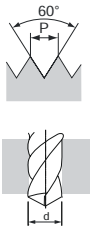
VA





1 2 3 4 5

3 x D1 1,5-2 x D1 3 x D1 3 x D1 1,5-2 x D1



HSS PM

Brt

6H

C

DIN

1-2-3

O

D1		P	L1	L2	D2	K	d1	EDP	SRA13				
DIN 371													
M2		0.4	8	45	2.8	2.1	1.60	**136**	•				
M2.2		0.45	8	45	2.8	2.1	1.75	**156**	•				
M2.5		0.45	9	50	2.8	2.1	2.10	**176**	•				
M3		0.5	6	56	3.5	2.7	2.50	**206**	•				
M3.5		0.6	7	56	4	3	2.90	**226**	•				
M4		0.7	7	63	4.5	3.4	3.30	**246**	•				
M4.5		0.75	8	70	6	4.9	3.80	**266**	•				
M5		0.8	8	70	6	4.9	4.20	**286**	•				
M6		1	10	80	6	4.9	5.00	**316**	•				
M7		1	10	80	7	5.5	6.00	**346**	•				
M8		1.25	13	90	8	6.2	6.80	**366**	•				
M10		1.5	15	100	10	8	8.50	**426**	•				
DIN 376													
M12	x	1.75	18	110	9	7	10.30	**506**	•				

VA

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	○	•					•	•	•						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○						○						

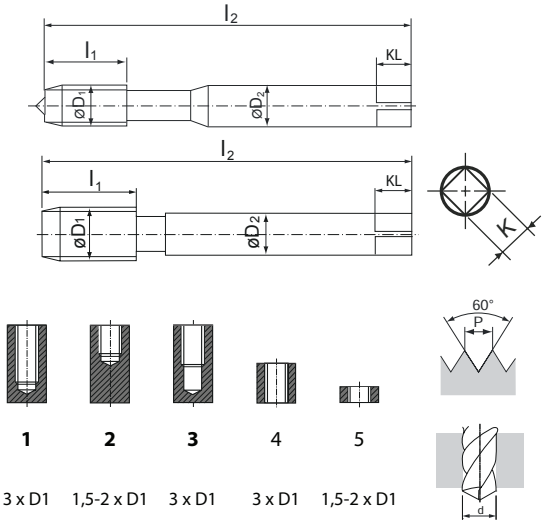
MACHINING TAPS GWINTOWNIKI MASZYNOWE

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

Ti



HSS PM	HSS PM	HSS PM	HSS PM
TiAlN	Brt	TiAlN	Brt
2/6H	2/6H	2/6H	2/6H
C	C	B	B
DIN	DIN	DIN	DIN
1-2	1-2	4-5	4-5
O	O	O	O

D1		P	L1	L2	D2	K	d1	EDP	SZJ03	SMJ03	SZC93	SMC93	
DIN 371													
M2	x	0.4	8	45	2.8	2.1	1.60	**136**	•	•	•	•	
M2.2	x	0.45	8	45	2.8	2.1	1.75	**156**	•	•	•	•	
M2.3	x	0.4	8	45	2.8	2.1	1.90	**196**	•	•	•	•	
M2.5	x	0.45	9	50	2.8	2.1	2.10	**176**	•	•	•	•	
M2.6	x	0.45	9	50	2.8	2.1	2.20	**496**	•	•	•	•	
M3	x	0.5	6	56	3.5	2.7	2.50	**206**	•	•	•	•	
M3.5	x	0.6	7	56	4	3	2.90	**226**	•	•	•	•	
M4	x	0.7	7	63	4.5	3.4	3.30	**246**	•	•	•	•	
M4.5	x	0.75	8	70	6	4.9	3.80	**266**	•	•	•	•	
M5	x	0.8	8	70	6	4.9	4.20	**286**	•	•	•	•	
M6	x	1	10	80	6	4.9	5.00	**316**	•	•	•	•	
M7	x	1	10	80	7	5.5	6.00	**346**	•	•	•	•	
M8	x	1.25	13	90	8	6.2	6.80	**366**	•	•	•	•	
M9	x	1.25	13	90	9	7	7.80	**396**	•	•	•	•	
M10	x	1.5	15	100	10	8	8.50	**426**	•	•	•	•	
DIN 376													
M11	x	1.5	17	100	8	6.2	9.50	**466**	•	•	•	•	
M12	x	1.75	18	110	9	7	10.30	**506**	•	•	•	•	
M14	x	2	20	110	11	9	12.00	**546**	•	•	•	•	
M16	x	2	20	110	12	9	14.00	**606**	•	•	•	•	
M18	x	2.5	25	125	14	11	15.50	**656**	•	•	•	•	
M20	x	2.5	25	140	16	12	17.50	**706**	•	•	•	•	
M22	x	2.5	25	140	18	14.5	19.50	**746**	•	•	•	•	
M24	x	3	30	160	18	14.5	21.00	**786**	•	•	•	•	
M27	x	3	30	160	20	16	24.00	**866**	•	•	•	•	
M30	x	3.5	35	180	22	18	26.50	**946**	•	•	•	•	

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
					○									○	•
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
	•														

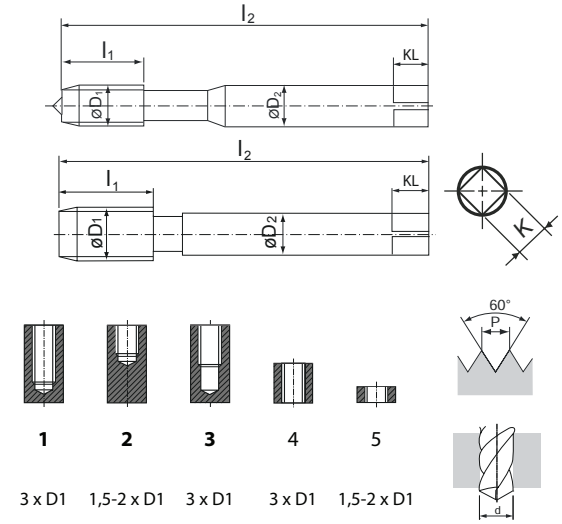
M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

Ti

Ni



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS PM	HSS PM
Brt	Brt
2/6H	2/6H
C	B
DIN	DIN
1-2-3	**4-5**
O	O

D1		P	L1	L2	D2	K	d1	EDP	SRA33	SRA73	
DIN 371											
M2	x	0.4	8	45	2.8	2.1	1.60	**136**	•	•	
M2.2	x	0.45	8	45	2.8	2.1	1.75	**156**	•	•	
M2.3	x	0.4	8	45	2.8	2.1	1.90	**196**			
M2.5	x	0.45	9	50	2.8	2.1	2.10	**176**	•	•	
M2.6	x	0.45	9	50	2.8	2.1	2.20	**496**			
M3	x	0.5	6	56	3.5	2.7	2.50	**206**	•	•	
M3.5	x	0.6	7	56	4	3	2.90	**226**	•	•	
M4	x	0.7	7	63	4.5	3.4	3.30	**246**	•	•	
M4.5	x	0.75	8	70	6	4.9	3.80	**266**	•	•	
M5	x	0.8	8	70	6	4.9	4.20	**286**	•	•	
M6	x	1	10	80	6	4.9	5.00	**316**	•	•	
M7	x	1	10	80	7	5.5	6.00	**346**	•	•	
M8	x	1.25	13	90	8	6.2	6.80	**366**	•	•	
M9	x	1.25	13	90	9	7	7.80	**396**			
M10	x	1.5	15	100	10	8	8.50	**426**	•	•	
DIN 376											
M11	x	1.5	17	100	8	6.2	9.50	**466**			
M12	x	1.75	18	110	9	7	10.30	**506**	•	•	
M14	x	2	20	110	11	9	12.00	**546**			
M16	x	2	20	110	12	9	14.00	**606**			
M18	x	2.5	25	125	14	11	15.50	**656**			
M20	x	2.5	25	140	16	12	17.50	**706**			
M22	x	2.5	25	140	18	14.5	19.50	**746**			
M24	x	3	30	160	18	14.5	21.00	**786**			
M27	x	3	30	160	20	16	24.00	**866**			
M30	x	3.5	35	180	22	18	26.50	**946**			

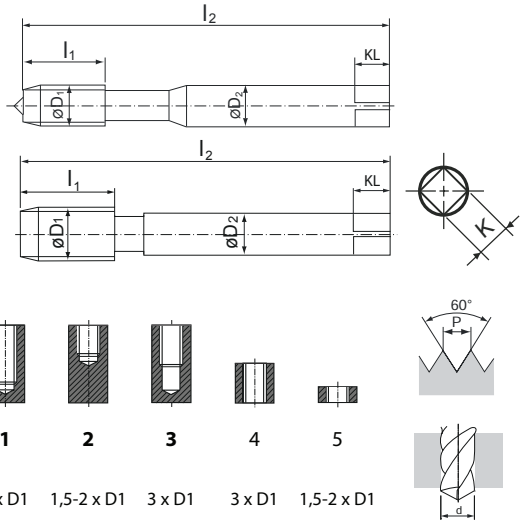
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Ni Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
					•	•								○	•
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
	•		•	•				○							

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

Ni



HSS PM	HSS PM	HSS PM	HSS PM
Brt	Brt	TiAlN	Brt
2/6H	2/6H	2/6H	2/6H
C	C	B	B
DIN	DIN	DIN	DIN
1-2-3	1-2-3	4-5	4-5
O	O	O	O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		P	L1	L2	D2	K	d1	EDP	SZJ33	SMJ33	SZJ23	SMJ23	
DIN 371													
M2	x	0.4	8	45	2.8	2.1	1.60	**136**	•	•	•	•	
M2.2	x	0.45	8	45	2.8	2.1	1.75	**156**	•	•	•	•	
M2.3	x	0.4	8	45	2.8	2.1	1.90	**196**	•	•	•	•	
M2.5	x	0.45	9	50	2.8	2.1	2.10	**176**	•	•	•	•	
M2.6	x	0.45	9	50	2.8	2.1	2.20	**496**	•	•	•	•	
M3	x	0.5	6	56	3.5	2.7	2.50	**206**	•	•	•	•	
M3.5	x	0.6	7	56	4	3	2.90	**226**	•	•	•	•	
M4	x	0.7	7	63	4.5	3.4	3.30	**246**	•	•	•	•	
M4.5	x	0.75	8	70	6	4.9	3.80	**266**	•	•	•	•	
M5	x	0.8	8	70	6	4.9	4.20	**286**	•	•	•	•	
M6	x	1	10	80	6	4.9	5.00	**316**	•	•	•	•	
M7	x	1	10	80	7	5.5	6.00	**346**	•	•	•	•	
M8	x	1.25	13	90	8	6.2	6.80	**366**	•	•	•	•	
M9	x	1.25	13	90	9	7	7.80	**396**	•	•	•	•	
M10	x	1.5	15	100	10	8	8.50	**426**	•	•	•	•	
DIN 376													
M11	x	1.5	17	100	8	6.2	9.50	**466**	•	•	•	•	
M12	x	1.75	18	110	9	7	10.30	**506**	•	•	•	•	
M14	x	2	20	110	11	9	12.00	**546**	•	•	•	•	
M16	x	2	20	110	12	9	14.00	**606**	•	•	•	•	
M18	x	2.5	25	125	14	11	15.50	**656**	•	•	•	•	
M20	x	2.5	25	140	16	12	17.50	**706**	•	•	•	•	
M22	x	2.5	25	140	18	14.5	19.50	**746**	•	•	•	•	
M24	x	3	30	160	18	14.5	21.00	**786**	•	•	•	•	
M27	x	3	30	160	20	16	24.00	**866**	•	•	•	•	
M30	x	3.5	35	180	22	18	26.50	**946**	•	•	•	•	

Ni

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
					•	•									

N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
	○		•	•				○							

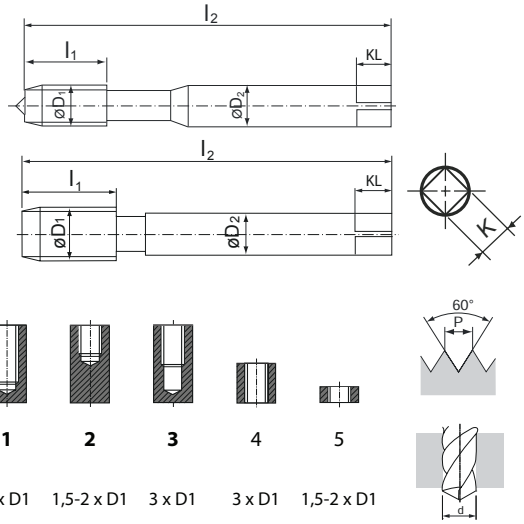
MACHINING TAPS GWINTOWNIKI MASZYNOWE

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

Cu



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E	HSS-E
TiAlN	Ni	Brt
2/6H	2/6H	2/6H
C	C	C
DIN	DIN	DIN
1-2-3-4-5	1-2-3-4-5	1-2-3-4-5
O	O	O

D1		P	L1	L2	D2	K	d1	EDP	SYE33	SEE43	SCE33		
DIN 371													
M2	x	0.4	8	45	2.8	2.1	1.60	**136**	•	•	•		
M2.2	x	0.45	8	45	2.8	2.1	1.75	**156**	•	•	•		
M2.3	x	0.4	8	45	2.8	2.1	1.90	**196**	•	•	•		
M2.5	x	0.45	9	50	2.8	2.1	2.10	**176**	•	•	•		
M2.6	x	0.45	9	50	2.8	2.1	2.20	**496**	•	•	•		
M3	x	0.5	6	56	3.5	2.7	2.50	**206**	•	•	•		
M3.5	x	0.6	7	56	4	3	2.90	**226**	•	•	•		
M4	x	0.7	7	63	4.5	3.4	3.30	**246**	•	•	•		
M4.5	x	0.75	8	70	6	4.9	3.80	**266**	•	•	•		
M5	x	0.8	8	70	6	4.9	4.20	**286**	•	•	•		
M6	x	1	10	80	6	4.9	5.00	**316**	•	•	•		
M7	x	1	10	80	7	5.5	6.00	**346**	•	•	•		
M8	x	1.25	13	90	8	6.2	6.80	**366**	•	•	•		
M9	x	1.25	13	90	9	7	7.80	**396**	•	•	•		
M10	x	1.5	15	100	10	8	8.50	**426**	•	•	•		
DIN 376													
M11	x	1.5	17	100	8	6.2	9.50	**466**	•	•	•		
M12	x	1.75	18	110	9	7	10.30	**506**	•	•	•		
M14	x	2	20	110	11	9	12.00	**546**	•	•	•		
M16	x	2	20	110	12	9	14.00	**606**	•	•	•		
M18	x	2.5	25	125	14	11	15.50	**656**	•	•	•		
M20	x	2.5	25	140	16	12	17.50	**706**	•	•	•		
M22	x	2.5	25	140	18	14.5	19.50	**746**	•	•	•		
M24	x	3	30	160	18	14.5	21.00	**786**	•	•	•		
M27	x	3	30	160	20	16	24.00	**866**	•	•	•		
M30	x	3.5	35	180	22	18	26.50	**946**	•	•	•		

Cu

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12

N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7

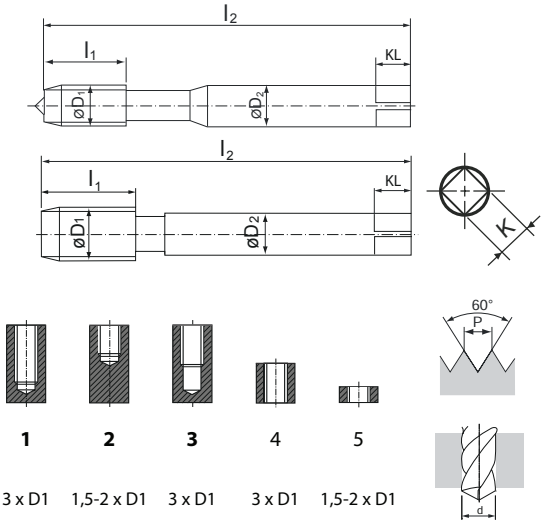
• ○

M

ISO Metric coarse threads DIN 13

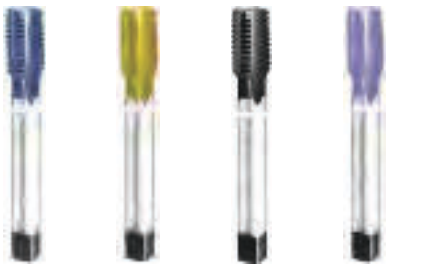
Gwint metryczny zwykły ISO DIN 13

GG



1 2 3 4 5

3 x D1 1,5-2 x D1 3 x D1 3 x D1 1,5-2 x D1



HSS-E	HSS-E	HSS-E	HSS-E
TiAlN	TiN	Ni	TiCN
2/6X	2/6X	2/6X	2/6X
C	C	C	C
DIN	DIN	DIN	DIN
1-2-3-4-5	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5
O	O	O	O

D1		P	L1	L2	D2	K	d1	EDP	SYI21	SDI21	SEI21	SII21
DIN 371												
M2	x	0.4	8	45	2.8	2.1	1.60	**136**	•	•	•	•
M2.2	x	0.45	8	45	2.8	2.1	1.75	**156**	•	•	•	•
M2.3	x	0.4	8	45	2.8	2.1	1.90	**196**	•	•	•	•
M2.5	x	0.45	9	50	2.8	2.1	2.10	**176**	•	•	•	•
M2.6	x	0.45	9	50	2.8	2.1	2.20	**496**	•	•	•	•
M3	x	0.5	6	56	3.5	2.7	2.50	**206**	•	•	•	•
M3.5	x	0.6	7	56	4	3	2.90	**226**	•	•	•	•
M4	x	0.7	7	63	4.5	3.4	3.30	**246**	•	•	•	•
M4.5	x	0.75	8	70	6	4.9	3.80	**266**	•	•	•	•
M5	x	0.8	8	70	6	4.9	4.20	**286**	•	•	•	•
M6	x	1	10	80	6	4.9	5.00	**316**	•	•	•	•
M7	x	1	10	80	7	5.5	6.00	**346**	•	•	•	•
M8	x	1.25	13	90	8	6.2	6.80	**366**	•	•	•	•
M9	x	1.25	13	90	9	7	7.80	**396**	•	•	•	•
M10	x	1.5	15	100	10	8	8.50	**426**	•	•	•	•
DIN 376												
M11	x	1.5	17	100	8	6.2	9.50	**466**	•	•	•	•
M12	x	1.75	18	110	9	7	10.30	**506**	•	•	•	•
M14	x	2	20	110	11	9	12.00	**546**	•	•	•	•
M16	x	2	20	110	12	9	14.00	**606**	•	•	•	•
M18	x	2.5	25	125	14	11	15.50	**656**	•	•	•	•
M20	x	2.5	25	140	16	12	17.50	**706**	•	•	•	•
M22	x	2.5	25	140	18	14.5	19.50	**746**	•	•	•	•
M24	x	3	30	160	18	14.5	21.00	**786**	•	•	•	•
M27	x	3	30	160	20	16	24.00	**866**	•	•	•	•
M30	x	3.5	35	180	22	18	26.50	**946**	•	•	•	•

GG

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
										•	•				

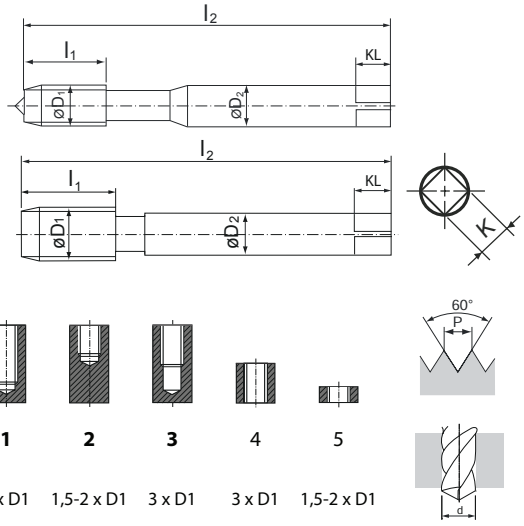
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
						•									•

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

Al



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E	HSS-E	HSS-E
Ni	Brt	Ni	Brt
2/6H	2/6H	2/6H	2/6H
C	C	B	B
DIN	DIN	DIN	DIN
1-2-3	1-2-3	4-5	4-5
O	O	O	O

D1		P	L1	L2	D2	K	d1	EDP	SEJ53	SCB63	SEJ43	SCG22	
DIN 371													
M2	x	0.4	8	45	2.8	2.1	1.60	**136**	•	•	•	•	
M2.2	x	0.45	8	45	2.8	2.1	1.75	**156**	•	•	•	•	
M2.3	x	0.4	8	45	2.8	2.1	1.90	**196**	•	•	•	•	
M2.5	x	0.45	9	50	2.8	2.1	2.05	**176**	•	•	•	•	
M2.6	x	0.45	9	50	2.8	2.1	2.10	**496**	•	•	•	•	
M3	x	0.5	6	56	3.5	2.7	2.50	**206**	•	•	•	•	
M3.5	x	0.6	7	56	4	3	2.90	**226**	•	•	•	•	
M4	x	0.7	7	63	4.5	3.4	3.30	**246**	•	•	•	•	
M4.5	x	0.75	8	70	6	4.9	3.70	**266**	•	•	•	•	
M5	x	0.8	8	70	6	4.9	4.20	**286**	•	•	•	•	
M6	x	1	10	80	6	4.9	5.00	**316**	•	•	•	•	
M7	x	1	10	80	7	5.5	6.00	**346**	•	•	•	•	
M8	x	1.25	13	90	8	6.2	6.80	**366**	•	•	•	•	
M9	x	1.25	13	90	9	7	7.80	**396**	•	•	•	•	
M10	x	1.5	15	100	10	8	8.50	**426**	•	•	•	•	
DIN 376													
M11	x	1.5	17	100	8	6.2	9.50	**466**	•	•	•	•	
M12	x	1.75	18	110	9	7	10.20	**506**	•	•	•	•	
M14	x	2	20	110	11	9	12.00	**546**	•	•	•	•	
M16	x	2	20	110	12	9	14.00	**606**	•	•	•	•	
M18	x	2.5	25	125	14	11	15.50	**656**	•	•	•	•	
M20	x	2.5	25	140	16	12	17.50	**706**	•	•	•	•	
M22	x	2.5	25	140	18	14.5	19.50	**746**	•	•	•	•	
M24	x	3	30	160	18	14.5	21.00	**786**	•	•	•	•	
M27	x	3	30	160	20	16	24.00	**866**	•	•	•	•	
M30	x	3.5	35	180	22	18	26.50	**946**	•	•	•	•	

Al

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	○	○	○											○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
					•				•	•	•				

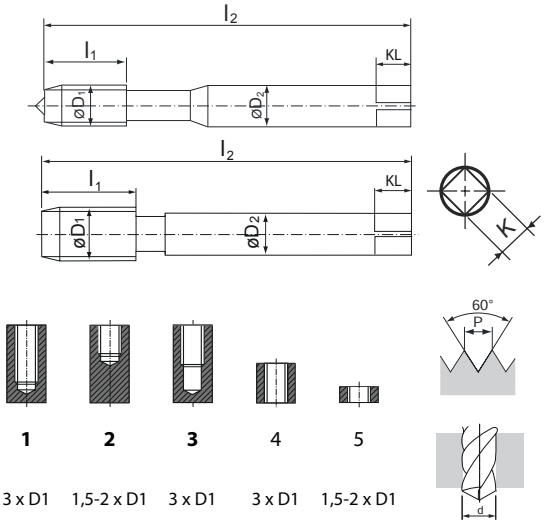
MACHINING TAPS GWINTOWNIKI MASZYNOWE

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

Al



HSS-E

Brt

6H Mod.

C

DIN

4-5

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		P	L1	L2	D2	K	d1	EDP	SCJ09				
DIN 371													
M2.5	x	0.45	6	56	3.5	2.7	2.65	**176**	•				
M3	x	0.5	5	63	4.5	3.4	3.15	**206**	•				
M3.5	x	0.6	8	70	6	4.9	3.70	**226**	•				
M4	x	0.7	8	70	6	4.9	4.20	**246**	•				
M5	x	0.8	8	80	6	4.9	5.25	**286**	•				
M6	x	1	10	90	8	6.2	6.30	**316**	•				
M8	x	1.25	16	100	10	8	8.40	**366**	•				
DIN 376													
M10	x	1.5	15	110	9	7	10.40	**426**	•				
M12	x	1.75	20	110	11	9	12.50	**506**	•				
M14	x	2	22	110	12	9	14.50	**546**	•				
M16	x	2	20	125	14	11	16.50	**606**	•				
M18	x	2.5	27	140	18	14.5	18.75	**656**	•				
M20	x	2.5	29	160	18	14.5	20.75	**706**	•				

Al

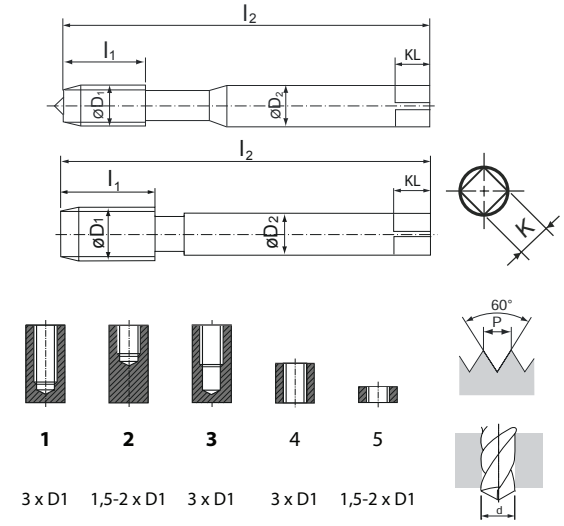
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	○	○	○											○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
					•				•	•	•				

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

Al



HSS-E

Brt

6H Mod.

B

DIN

4-5

O

D1		P	L1	L2	D2	K	d1	EDP	SCJ73				
DIN 371													
M2.5	x	0.45	11	56	3.5	2.7	2.65	**176**	•				
M3	x	0.5	10	63	4.5	3.4	3.15	**206**	•				
M3.5	x	0.6	14	70	6	4.9	3.70	**226**	•				
M4	x	0.7	13	70	6	4.9	4.20	**246**	•				
M5	x	0.8	13	80	6	4.9	5.25	**286**	•				
M6	x	1	17	90	8	6.2	6.30	**316**	•				
M8	x	1.25	18	100	10	8	8.40	**366**	•				
DIN 376													
M10	x	1.5	22	110	9	7	10.40	**426**	•				
M12	x	1.75	26	110	11	9	12.50	**506**	•				
M14	x	2	27	110	12	9	14.50	**546**	•				
M16	x	2	27	125	14	11	16.50	**606**	•				
M18	x	2.5	32	140	18	14.5	18.75	**656**	•				
M20	x	2.5	34	160	18	14.5	20.75	**706**	•				

Al

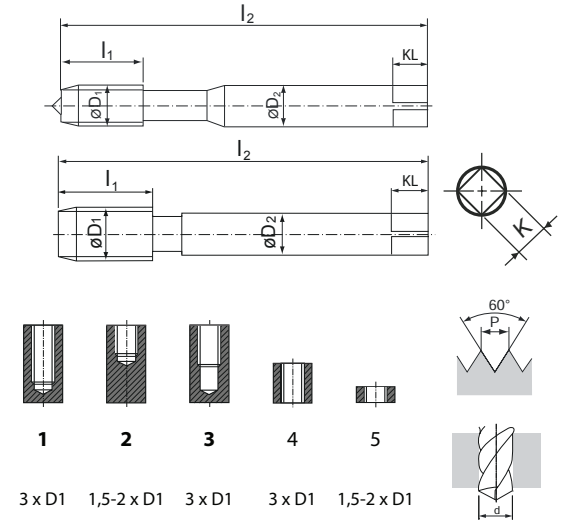
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	○	○	○											○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
					•				•	•	•				

MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

UNI



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E
VAP	Brt
6H	6H
C	C
DIN	DIN
1-2-3	1-2-3
O	O

D1		P	L1	L2	D2	K	d1	EDP	SAA54	SCA44			
DIN 374													
M4	x	0.5	5	63	2.8	2.1	3.50	**256**		•			
M5	x	0.5	5	70	3.5	2.7	4.50	**296**		•			
M6	x	0.75	8	80	4.5	3.4	5.20	**326**		•			
M6	x	0.5	5	80	4.5	3.4	5.50	**336**		•			
M7	x	0.75	10	80	5.5	4.3	6.20	**356**		•			
M8	x	1.0	10	90	6	4.9	7.00	**376**		•			
M8	x	0.75	8	80	6	4.9	7.20	**386**		•			
M10	x	1.25	16	100	7	5.5	8.80	**436**		•			
M10	x	1.0	10	90	7	5.5	9.00	**446**		•			
M10	x	0.75	10	90	7	5.5	9.20	**456**		•			
M12	x	1.5	15	100	9	7	10.50	**516**		•			
M12	x	1.25	15	100	9	7	10.80	**526**		•			
M12	x	1.0	11	100	9	7	11.0	**536**		•			
M14	x	1.5	15	100	11	9	12.50	**556**	•	•			
M14	x	1.25	15	100	11	9	12.80	**566**	•	•			
M14	x	1.0	11	100	11	9	13.00	**576**	•	•			
M16	x	1.5	15	100	12	9	14.50	**616**	•	•			
M16	x	1.0	12	100	12	9	15.00	**626**	•	•			
M18	x	1.5	17	110	14	11	16.50	**676**	•	•			
M18	x	1.0	13	110	14	11	17.00	**686**	•	•			
M20	x	1.5	17	125	16	12	18.50	**726**	•	•			
M20	x	1.0	14	125	16	12	19.00	**736**	•	•			
M22	x	1.5	17	125	18	14.5	20.50	**766**	•	•			
M22	x	1.0	14	125	18	14.5	21.00	**776**	•	•			
M24	x	2.0	20	140	18	14.5	22.00	**796**	•	•			
M24	x	1.5	20	140	18	14.5	22.50	**806**	•	•			

UNI

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•	•		•	•	•	•	•	•	•	•	○

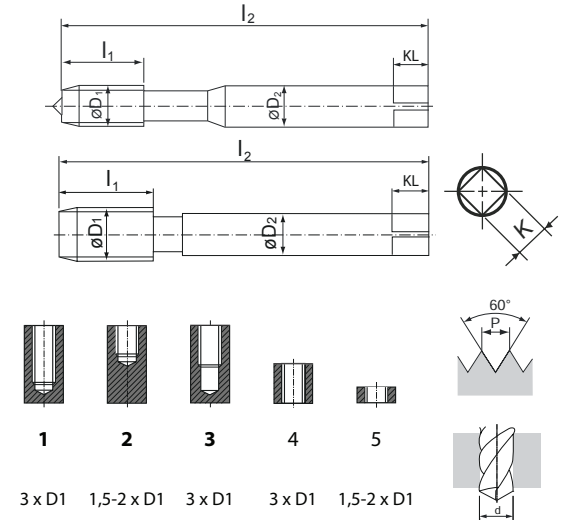
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•	○		•	•	•			•	•	•			

MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

UNI



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E
VAP	Brt
6H	6H
C	C
DIN	DIN
1-2-3	1-2-3
O	O

D1		P	L1	L2	D2	K	d1	EDP	SAA54	SCA44			
DIN 374													
M26	x	1.5	20	140	18	14.5	24.50	**856**	•	•			
M27	x	2.0	20	140	20	16	25.00	**876**	•	•			
M27	x	1.5	20	140	20	16	25.50	**886**	•	•			
M28	x	1.5	20	140	20	16	26.50	**916**	•	•			
M30	x	2.0	22	150	22	18	28.00	**966**	•	•			
M30	x	1.5	22	150	22	18	28.50	**976**	•	•			

UNI

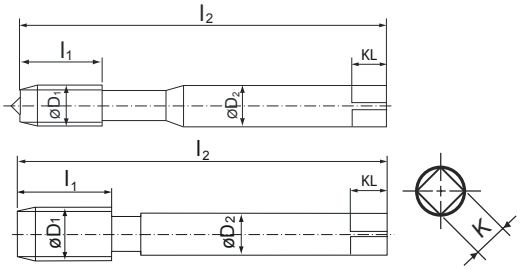
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•	•		•	•	•	•	•	•	•	•	○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•	○		•	•	•			•	•	•			

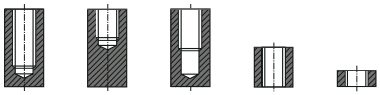
MF

ISO Metric coarse threads DIN 13

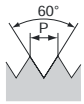
Gwint metryczny zwykły ISO DIN 13

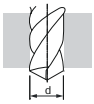
UNI





1 3 x D1 | **2** 1,5-2 x D1 | **3** 3 x D1 | 4 3 x D1 | 5 1,5-2 x D1





HSS-E

Brt

6H

B

DIN

4-5

O

D1		P	L1	L2	D2	K	d1	EDP	SCA54				
DIN 374													
M4	x	0.5	10	63	2.8	2.1	3.50	**256**	•				
M5	x	0.5	11	70	3.5	2.7	4.50	**296**	•				
M6	x	0.75	13	80	4.5	3.4	5.20	**326**	•				
M6	x	0.5	13	80	4.5	3.4	5.50	**336**	•				
M7	x	0.75	14	80	5.5	4.3	6.20	**356**	•				
M8	x	1.0	17	90	6	4.9	7.00	**376**	•				
M8	x	0.75	14	80	6	4.9	7.20	**386**	•				
M10	x	1.25	22	100	7	5.5	8.80	**436**	•				
M10	x	1.0	18	90	7	5.5	9.00	**446**	•				
M10	x	0.75	18	90	7	5.5	9.20	**456**	•				
M12	x	1.5	22	100	9	7	10.50	**516**	•				
M12	x	1.25	22	100	9	7	10.80	**526**	•				
M12	x	1.0	18	100	9	7	11.00	**536**	•				
M14	x	1.5	22	100	11	9	12.50	**556**	•				
M14	x	1.25	22	100	11	9	12.80	**566**	•				
M14	x	1.0	18	100	11	9	13.00	**576**	•				
M16	x	1.5	22	100	12	9	14.50	**616**	•				
M16	x	1.0	18	100	12	9	15.00	**626**	•				
M18	x	1.5	25	110	14	11	16.50	**676**	•				
M18	x	1.0	20	110	14	11	17.00	**686**	•				
M20	x	1.5	25	125	16	12	18.50	**726**	•				
M20	x	1.0	20	125	16	12	19.00	**736**	•				
M22	x	1.5	25	125	18	14.5	20.50	**766**	•				
M22	x	1.0	20	125	18	14.5	21.00	**776**	•				
M24	x	2.0	27	140	18	14.5	22.00	**796**	•				
M24	x	1.5	27	140	18	14.5	22.50	**806**					

UNI

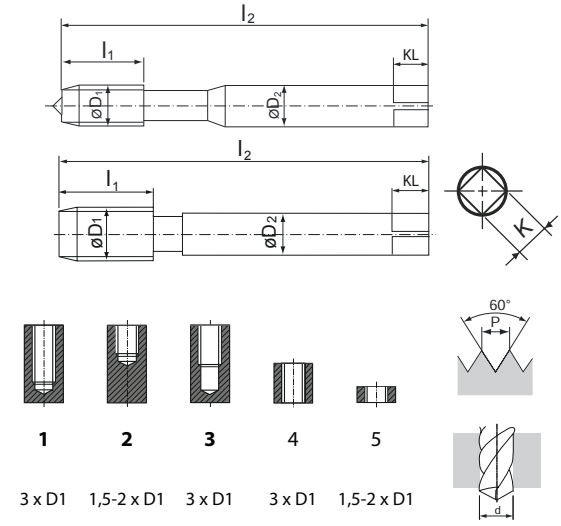
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•	•		•	•	•	•	•	•	•	•	○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•	○		•	•	•			•	•	•			

MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

UNI



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E

Brt

6H

B

DIN

4-5

O

D1		P	L1	L2	D2	K	d1	EDP	SCA54				
DIN 374													
M26	x	1.5	28	140	18	14.5	24.50	**856**	•				
M27	x	2.0	28	140	20	16	25.00	**876**	•				
M27	x	1.5	28	140	20	16	25.50	**886**	•				
M28	x	1.5	28	140	20	16	26.50	**916**	•				
M30	x	2.0	30	150	22	18	28.00	**966**	•				
M30	x	1.5	30	150	22	18	28.50	**976**	•				

UNI

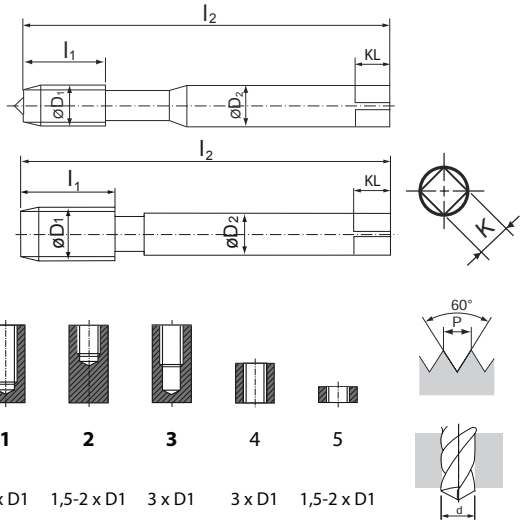
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•	•		•	•	•	•	•	•	•	•	○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•	○		•	•	•			•	•	•			

MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

UNI



HSS-E

Brt

6H

B

DIN

4-5

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		P	L1	L2	D2	K	KL	d1	EDP	SAB45			
LONG													
M3	x	0.5	11.0	100.0	3.5	2.7		2.50	**206**	•			
M4	x	0.7	13.0	125.0	4.5	3.4		3.30	**246**	•			
M5	x	0.8	15.0	140.0	6.0	4.9		4.20	**286**	•			
M6	x	1.0	17.0	160.0	6.0	4.9		5.00	**316**	•			
M8	x	1.25	20.0	180.0	6.0	4.9		6.80	**366**	•			
M10	x	1.5	22.0	200.0	7.0	5.5		8.50	**426**	•			
M12	x	1.75	24.0	220.0	9.0	7.0		10.30	**506**	•			
M14	x	2.0	26.0	220.0	11.0	9.0		12.00	**546**	•			
M16	x	2.0	27.0	220.0	12.0	9.0		14.00	**606**	•			
M20	x	2.5	32.0	280.0	16.0	12.0		17.50	**706**	•			

UNI

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•	•		•	•	•	•	•	•	•	•	○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•	○		•	•	•			•	•	•			

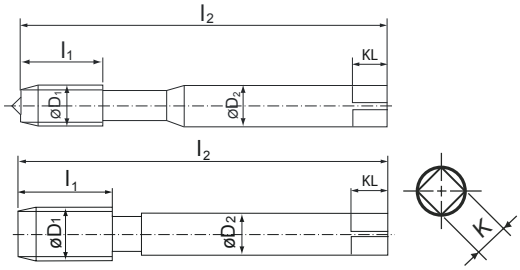
MACHINING TAPS GWINTOWNIKI MASZYNOWE

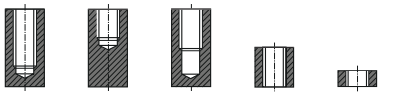
MF

ISO Metric coarse threads DIN 13

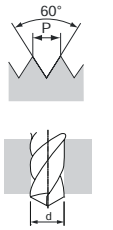
Gwint metryczny zwykły ISO DIN 13

W





1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1



HSS-E	HSS-E
TiN	Brt
2/6H	2/6H
C	C
DIN	DIN
1-2-3	1-2-3
O	O

D1		P	L1	L2	D2	K	d1	EDP	SDA11	SCE11			
DIN 374													
M4	x	0.5	5	63	2.8	2.1	3.50	**256**	•	•			
M5	x	0.5	5	70	3.5	2.7	4.50	**296**	•	•			
M6	x	0.75	8	80	4.5	3.4	5.20	**326**	•	•			
M6	x	0.5	5	80	4.5	3.4	5.50	**336**	•	•			
M7	x	0.75	10	80	5.5	4.3	6.20	**356**	•	•			
M8	x	1	10	90	6	4.9	7.00	**376**	•	•			
M8	x	0.75	8	80	6	4.9	7.20	**386**	•	•			
M8	x	0.5	5	80	6	4.9	7.50	**936**	•	•			
M10	x	1.25	16	100	7	5.5	8.80	**436**	•	•			
M10	x	1	10	90	7	5.5	9.00	**446**	•	•			
M10	x	0.75	10	90	7	5.5	9.20	**456**	•	•			
M12	x	1.5	15	100	9	7	10.50	**516**	•	•			
M12	x	1.25	15	100	9	7	10.80	**526**	•	•			
M12	x	1	11	100	9	7	11.00	**536**	•	•			
M14	x	1.5	15	100	11	9	12.50	**556**	•	•			
M14	x	1.25	15	100	11	9	12.80	**566**	•	•			
M14	x	1	11	100	11	9	13.00	**576**	•	•			
M16	x	1.5	15	100	12	9	14.50	**616**	•	•			
M16	x	1	12	100	12	9	15.00	**626**	•	•			
M18	x	1.5	17	110	14	11	16.50	**676**	•	•			
M18	x	1	13	110	14	11	17.00	**686**	•	•			
M20	x	1.5	17	125	16	12	18.50	**726**	•	•			
M20	x	1	14	125	16	12	19.00	**736**	•	•			
M22	x	1.5	17	125	18	14.5	20.50	**766**	•	•			

W

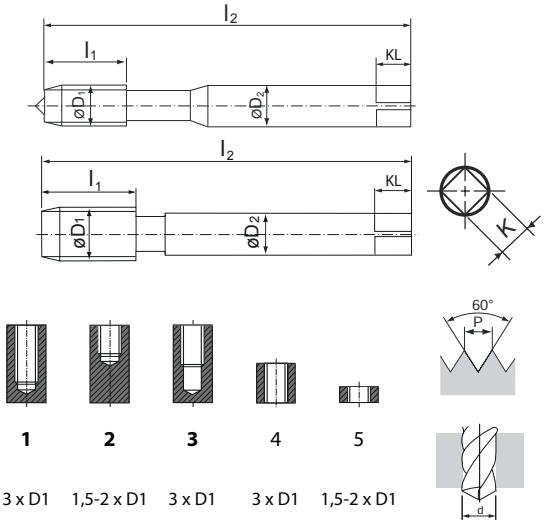
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

W



1 2 3 4 5

3 x D1 1,5-2 x D1 3 x D1 3 x D1 1,5-2 x D1

HSS-E	HSS-E
TiN	Brt
2/6H	2/6H
C	C
DIN	DIN
1-2-3	1-2-3
O	O

D1		P	L1	L2	D2	K	d1	EDP	SDA11	SCE11			
DIN 374													
M22	x	1	14	125	18	14.5	21.00	**776**	•	•			
M24	x	2	20	140	18	14.5	22.00	**796**	•	•			
M24	x	1.5	20	140	18	14.5	22.50	**806**	•	•			
M26	x	1.5	20	140	18	14.5	24.50	**856**	•	•			
M27	x	2	20	140	20	16	25.00	**876**	•	•			
M27	x	1.5	20	140	20	16	25.50	**886**	•	•			
M28	x	1.5	20	140	20	16	26.50	**916**	•	•			
M30	x	2	22	150	22	18	28.00	**966**	•	•			
M30	x	1.5	22	150	22	18	28.50	**976**	•	•			

W

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

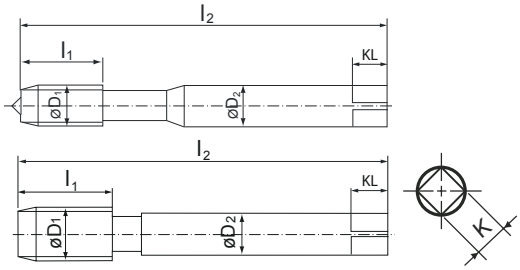
MACHINING TAPS GWINTOWNIKI MASZYNOWE

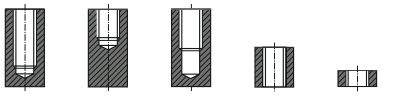
MF

ISO Metric coarse threads DIN 13

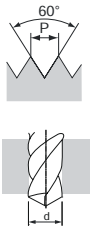
Gwint metryczny zwykły ISO DIN 13

W





3 x D1 | 1,5-2 x D1 | 3 x D1 | 3 x D1 | 1,5-2 x D1



HSS-E	HSS-E	HSS-E
TiN	Brt	Brt
2/6H	2/6H	2/6H
B	B	C
DIN	DIN	DIN
4-5	**4-5**	**1-2-4-5**
O	O	O

D1		P	L1	L2	D2	K	d1	EDP	SDC22	SCC22	SCE73		
DIN 374													
M4	x	0.5	10	63	2.8	2.1	3.50	**256**	•		•		
M5	x	0.5	11	70	3.5	2.7	4.50	**296**	•		•		
M6	x	0.75	13	80	4.5	3.4	5.20	**326**	•		•		
M6	x	0.5	13	80	4.5	3.4	5.50	**336**	•		•		
M7	x	0.75	14	80	5.5	4.3	6.20	**356**	•		•		
M8	x	1	17	90	6	4.9	7.00	**376**	•		•		
M8	x	0.75	14	80	6	4.9	7.20	**386**	•		•		
M8	x	0.5	14	80	6	4.9	7.50	**936**	•		•		
M10	x	1.25	22	100	7	5.5	8.80	**436**	•		•		
M10	x	1	18	90	7	5.5	9.00	**446**	•		•		
M10	x	0.75	18	90	7	5.5	9.20	**456**	•		•		
M12	x	1.5	22	100	9	7	10.50	**516**	•		•		
M12	x	1.25	22	100	9	7	10.80	**526**	•		•		
M12	x	1	18	100	9	7	11.00	**536**	•		•		
M14	x	1.5	22	100	11	9	12.50	**556**	•		•		
M14	x	1.25	22	100	11	9	12.80	**566**	•		•		
M14	x	1	18	100	11	9	13.00	**576**	•		•		
M16	x	1.5	22	100	12	9	14.50	**616**	•	•	•		
M16	x	1	18	100	12	9	15.00	**626**	•	•			
M18	x	1.5	25	110	14	11	16.50	**676**	•	•	•		
M18	x	1	20	110	14	11	17.00	**686**	•	•			
M20	x	1.5	25	125	16	12	18.50	**726**	•	•	•		
M20	x	1	20	125	16	12	19.00	**736**	•	•			
M22	x	1.5	25	125	18	14.5	20.50	**766**	•	•	•		

W

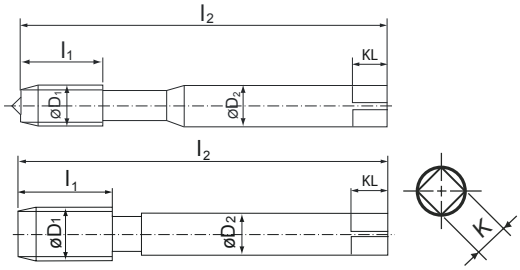
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

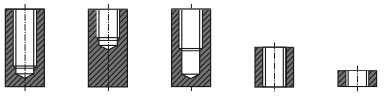
MF

ISO Metric coarse threads DIN 13

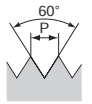
Gwint metryczny zwykły ISO DIN 13

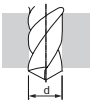
W





3 x D1 | 1,5-2 x D1 | 3 x D1 | 3 x D1 | 1,5-2 x D1





HSS-E	HSS-E	HSS-E
TiN	Brt	Brt
2/6H	2/6H	2/6H
B	B	C
DIN	DIN	DIN
4-5	4-5	1-2-4-5
O	O	O

D1		P	L1	L2	D2	K	d1	EDP	SDC22	SCC22	SCE73		
DIN 374													
M22	x	1	20	125	18	14.5	21.00	**776**	•	•			
M24	x	2	27	140	18	14.5	22.00	**796**	•	•			
M24	x	1.5	27	140	18	14.5	22.50	**806**	•	•	•		
M26	x	1.5	28	140	18	14.5	24.50	**856**	•	•			
M27	x	2	28	140	20	16	25.00	**876**	•	•			
M27	x	1.5	28	140	20	16	25.50	**886**	•	•			
M28	x	1.5	28	140	20	16	26.50	**916**	•	•			
M30	x	2	30	150	22	18	28.00	**966**	•	•			
M30	x	1.5	30	150	22	18	28.50	**976**	•	•			

W

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

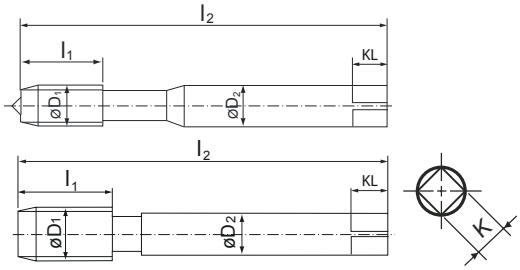
MACHINING TAPS GWINTOWNIKI MASZYNOWE

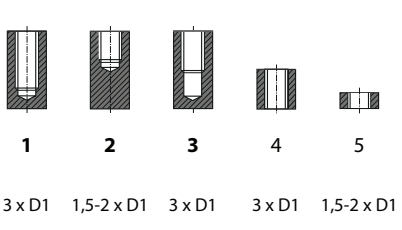
MF

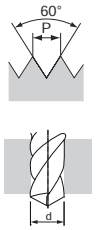
ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

N







HSS-E	HSS-E
TiN	Brt
2/6H	2/6H
C	C
DIN	DIN
1-2-3	1-2-3
O	O

D1		P	L1	L2	D2	K	d1	EDP	SDE13	SCE13			
DIN 374													
M4	x	0.5	5	63	2.8	2.1	3.50	**256**	•	•			
M5	x	0.5	5	70	3.5	2.7	4.50	**296**	•	•			
M6	x	0.75	8	80	4.5	3.4	5.20	**326**	•	•			
M6	x	0.5	5	80	4.5	3.4	5.50	**336**	•	•			
M7	x	0.75	10	80	5.5	4.3	6.20	**356**	•	•			
M8	x	1	10	90	6	4.9	7.00	**376**	•	•			
M8	x	0.75	8	80	6	4.9	7.20	**386**	•	•			
M10	x	1.25	16	100	7	5.5	8.80	**436**	•	•			
M10	x	1	10	90	7	5.5	9.00	**446**	•	•			
M10	x	0.75	10	90	7	5.5	9.20	**456**	•	•			
M12	x	1.5	15	100	9	7	10.50	**516**	•	•			
M12	x	1.25	15	100	9	7	10.80	**526**	•	•			
M12	x	1	11	100	9	7	11.00	**536**	•	•			
M14	x	1.5	15	100	11	9	12.50	**556**	•	•			
M14	x	1.25	15	100	11	9	12.80	**566**	•	•			
M16	x	1.5	15	100	12	9	14.50	**616**	•	•			
M18	x	1.5	17	110	14	11	16.50	**676**	•	•			
M20	x	1.5	17	125	16	12	18.50	**726**	•	•			
M22	x	1.5	17	125	18	14.5	20.50	**766**	•	•			
M24	x	1.5	20	140	18	14.5	22.50	**806**	•	•			

N

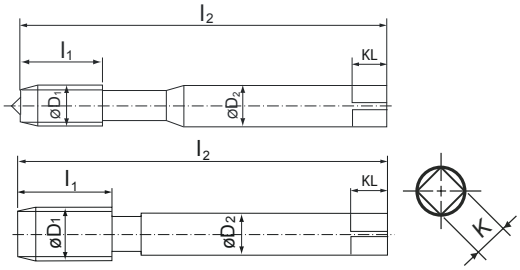
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
				○	•				○						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○												

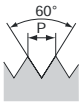
MF

ISO Metric coarse threads DIN 13

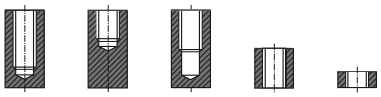
Gwint metryczny zwykły ISO DIN 13

N





HSS-E	HSS-E
TiN	Brt
2/6H	2/6H
B	B
DIN	DIN
4-5	4-5
O	O



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		P	L1	L2	D2	K	d1	EDP	SDC63	SCC63			
DIN 374													
M4	x	0.5	10	63	2.8	2.1	3.50	**256**	•	•			
M5	x	0.5	11	70	3.5	2.7	4.50	**296**	•	•			
M6	x	0.75	13	80	4.5	3.4	5.20	**326**	•	•			
M6	x	0.5	13	80	4.5	3.4	5.50	**336**	•	•			
M7	x	0.75	14	80	5.5	4.3	6.20	**356**	•	•			
M8	x	1	17	90	6	4.9	7.00	**376**	•	•			
M8	x	0.75	14	80	6	4.9	7.20	**386**	•	•			
M10	x	1.25	22	100	7	5.5	8.80	**436**	•	•			
M10	x	1	18	90	7	5.5	9.00	**446**	•	•			
M10	x	0.75	18	90	7	5.5	9.20	**456**	•	•			
M12	x	1.5	22	100	9	7	10.50	**516**	•	•			
M12	x	1.25	22	100	9	7	10.80	**526**	•	•			
M12	x	1	18	100	9	7	11.00	**536**	•	•			
M14	x	1.5	22	100	11	9	12.50	**556**	•	•			
M14	x	1.25	22	100	11	9	12.80	**566**	•	•			
M16	x	1.5	22	100	12	9	14.50	**616**	•	•			
M18	x	1.5	25	110	14	11	16.50	**676**	•	•			
M20	x	1.5	25	125	16	12	18.50	**726**	•	•			
M22	x	1.5	25	125	18	14.5	20.50	**766**	•	•			
M24	x	1.5	27	140	18	14.5	22.50	**806**	•	•			

N

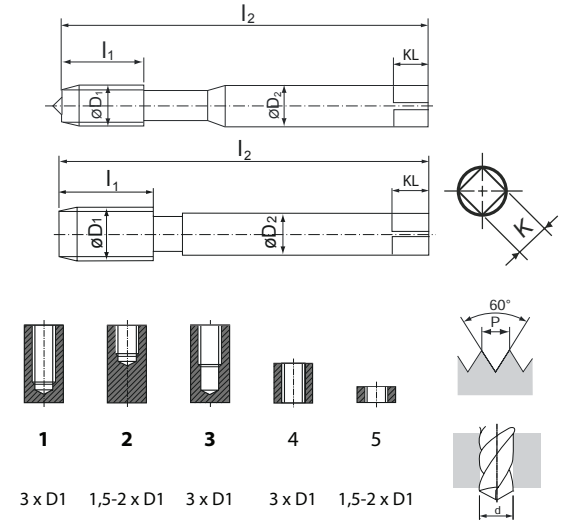
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
				○	•				○						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○												

MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

VA



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E

VAP

6H

C

DIN

1-2-3

O

D1		P	L1	L2	D2	K	d1	EDP	SAC54				
DIN 374													
M4	x	0.5	5	63	2.8	2.1	3.50	**256**	•				
M5	x	0.5	5	70	3.5	2.7	4.50	**296**	•				
M6	x	0.75	8	80	4.5	3.4	5.20	**326**	•				
M6	x	0.5	5	80	4.5	3.4	5.50	**336**	•				
M7	x	0.75	10	80	5.5	4.3	6.20	**356**	•				
M8	x	1	10	90	6	4.9	7.00	**376**	•				
M8	x	0.75	8	80	6	4.9	7.20	**386**	•				
M10	x	1.25	16	100	7	5.5	8.80	**436**	•				
M10	x	1	10	90	7	5.5	9.00	**446**	•				
M10	x	0.75	10	90	7	5.5	9.20	**456**	•				
M12	x	1.5	15	100	9	7	10.50	**516**	•				
M12	x	1.25	15	100	9	7	10.80	**526**	•				

VA

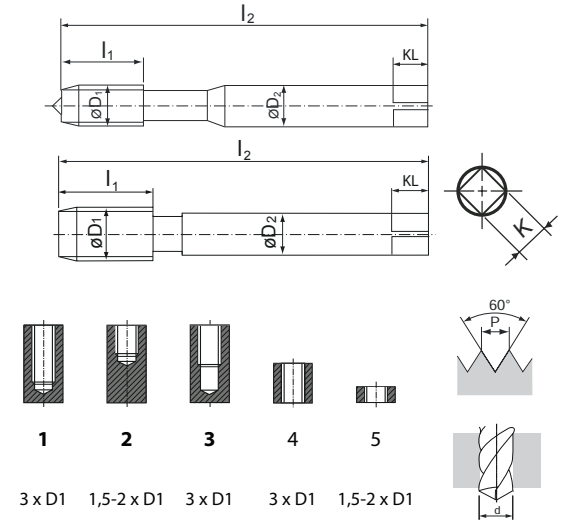
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	○	•					•	•	•						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○						○						

MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

VA



1 2 3 4 5

3 x D1 1,5-2 x D1 3 x D1 3 x D1 1,5-2 x D1

HSS-E

VAP

6H

B

DIN

4-5

O

D1		P	L1	L2	D2	K	d1	EDP	SAA38				
DIN 374													
M14	x	1.5	22.0	100.0	11.0	9.0	12.50	**556**	•				
M14	x	1.25	22.0	100.0	11.0	9.0	12.75	**566**	•				
M14	x	1.0	18.0	100.0	11.0	9.0	13.00	**576**	•				
M16	x	1.5	22.0	100.0	12.0	9.0	14.50	**616**	•				
M16	x	1.0	18.0	100.0	12.0	9.0	15.00	**626**	•				
M18	x	1.5	25.0	110.0	14.0	11.0	16.50	**676**	•				
M18	x	1.0	20.0	110.0	14.0	11.0	17.00	**686**	•				
M20	x	1.5	25.0	125.0	16.0	12.0	18.50	**726**	•				
M20	x	1.0	20.0	125.0	16.0	12.0	19.00	**736**	•				
M22	x	1.5	25.0	125.0	18.0	14.5	20.50	**7B6**	•				
M22	x	1.0	20.0	125.0	18.0	14.5	21.00	**776**	•				
M24	x	2.0	27.0	140.0	18.0	14.5	22.00	**796**	•				
M24	x	1.5	27.0	140.0	18.0	14.5	22.50	**806**	•				
M26	x	1.5	28.0	140.0	18.0	14.5	24.50	**856**	•				
M27	x	2.0	28.0	140.0	20.0	16.0	25.00	**876**	•				
M27	x	1.5	28.0	140.0	20.0	16.0	25.50	**886**	•				
M28	x	1.5	28.0	140.0	20.0	16.0	26.50	**916**	•				
M30	x	2.0	30.0	150.0	22.0	18.0	28.00	**966**	•				
M30	x	1.5	30.0	150.0	22.0	18.0	28.50	**976**	•				

VA

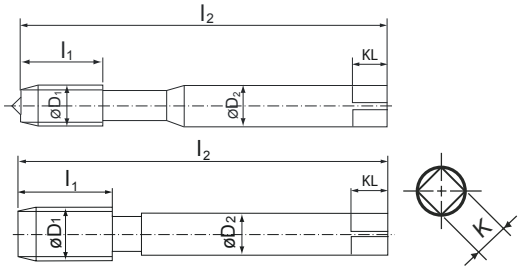
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	○	•					•	•	•						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○						○						

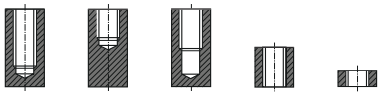
MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

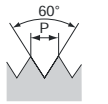
VA

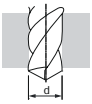




1 2 3 4 5

3 x D1 1,5-2 x D1 3 x D1 3 x D1 1,5-2 x D1





HSS PM

VAP

6H

B

DIN

4-5

O

D1		P	L1	L2	D2	K	d1	EDP	SAD38				
DIN 374													
M4	x	0.5	10.0	63.0	2.8	2.1	3.50	**256**	•				
M5	x	0.5	11.0	70.0	3.5	2.7	4.50	**296**	•				
M6	x	0.75	13.0	80.0	4.5	3.4	5.30	**326**	•				
M6	x	0.5	13.0	80.0	4.5	3.4	5.50	**336**	•				
M7	x	0.75	14.0	80.0	5.5	4.3	6.30	**356**	•				
M8	x	1.0	17.0	a0.0	6.0	4.9	7.00	**376**	•				
M8	x	0.75	14.0	80.0	6.0	4.9	7.30	**386**	•				
M10	x	1.25	22.0	100.0	7.0	5.5	8.80	**436**	•				
M10	x	1.0	18.0	90.0	7.0	5.5	9.00	**446**	•				
M10	x	0.75	18.0	90.0	7.0	5.5	9.30	**456**	•				
M12	x	1.5	22.0	100.0	9.0	7.0	10.50	**516**	•				
M12	x	1.25	22.0	100.0	9.0	7.0	10.80	**526**	•				
M12	x	1.0	18.0	100.0	9.0	7.0	11.00	**536**	•				

VA

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	○	•					•	•	•						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○						○						

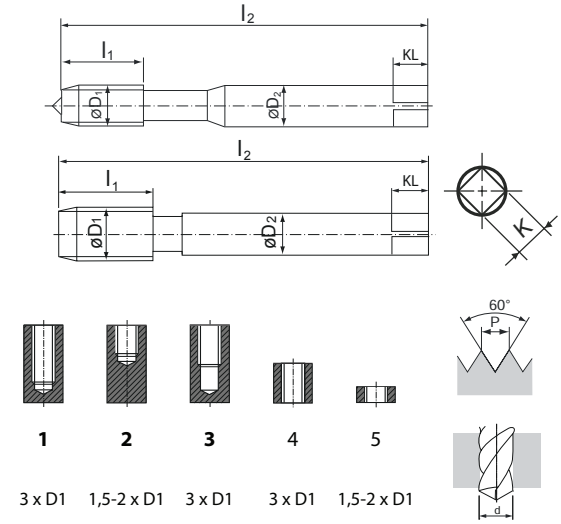
MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

WN

VA



HSS-E

VAP

2/6H

C

DIN

1-2-3

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		P	L1	L2	D2	K	d1	EDP	SBB83				
DIN 374													
M4	x	0.5	5	63	2.8	2.1	3.50	**256**	•				
M5	x	0.5	5	70	3.5	2.7	4.50	**296**	•				
M6	x	0.75	8	80	4.5	3.4	5.30	**326**	•				
M6	x	0.5	5	80	4.5	3.4	5.50	**336**	•				
M7	x	0.75	10	80	5.5	4.3	6.30	**356**	•				
M8	x	1	10	90	6	4.9	7.00	**376**	•				
M8	x	0.75	8	80	6	4.9	7.30	**386**	•				
M10	x	1.25	16	100	7	5.5	8.80	**436**	•				
M10	x	1	10	90	7	5.5	9.00	**446**	•				
M10	x	0.75	10	90	7	5.5	9.30	**456**	•				
M12	x	1.5	15	100	9	7	10.50	**516**	•				
M12	x	1.25	15	100	9	7	10.80	**526**	•				
M12	x	1	11	100	9	7	11.00	**536**	•				
M14	x	1.5	15	100	11	9	12.50	**556**	•				
M14	x	1.25	15	100	11	9	13.75	**566**	•				
M16	x	1.5	15	100	12	9	14.50	**616**	•				
M18	x	1.5	17	110	14	11	16.50	**676**	•				
M20	x	1.5	17	125	16	12	18.50	**726**	•				
M22	x	1.5	17	125	18	14.5	20.50	**766**	•				
M24	x	1.5	20	140	18	14.5	22.50	**806**	•				

VA WN

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•					•	•	•						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○						○						

MACHINING TAPS GWINTOWNIKI MASZYNOWE

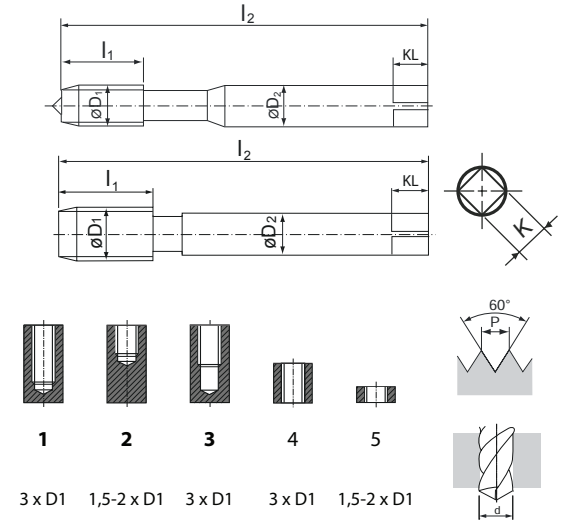
MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

WN

VA



1 2 3 4 5

3 x D1 | 1,5-2 x D1 | 3 x D1 | 3 x D1 | 1,5-2 x D1

HSS-E

VAP

2/6H

B

DIN

4-5

O

D1		P	L1	L2	D2	K	d1	EDP	SBB23				
DIN 374													
M4	x	0.5	10	63	2.8	2.1	3.50	**256**	•				
M5	x	0.5	11	70	3.5	2.7	4.50	**296**	•				
M6	x	0.75	13	80	4.5	3.4	5.30	**326**	•				
M6	x	0.5	13	80	4.5	3.4	5.50	**336**	•				
M7	x	0.75	14	80	5.5	4.3	6.30	**356**	•				
M8	x	1	17	90	6	4.9	7.00	**376**	•				
M8	x	0.75	14	80	6	4.9	7.30	**386**	•				
M10	x	1.25	22	100	7	5.5	8.80	**436**	•				
M10	x	1	18	90	7	5.5	9.00	**446**	•				
M10	x	0.75	18	90	7	5.5	9.30	**456**	•				
M12	x	1.5	22	100	9	7	10.50	**516**	•				
M12	x	1.25	22	100	9	7	10.80	**526**	•				
M12	x	1	18	100	9	7	11.00	**536**	•				
M14	x	1.5	22	100	11	9	12.50	**556**	•				
M14	x	1.25	22	100	11	9	13.75	**566**	•				
M16	x	1.5	22	100	12	9	14.50	**616**	•				
M18	x	1.5	25	110	14	11	16.50	**676**	•				
M20	x	1.5	25	125	16	12	18.50	**726**	•				
M22	x	1.5	25	125	18	14.5	20.50	**766**	•				
M24	x	1.5	27	140	18	14.5	22.50	**806**	•				

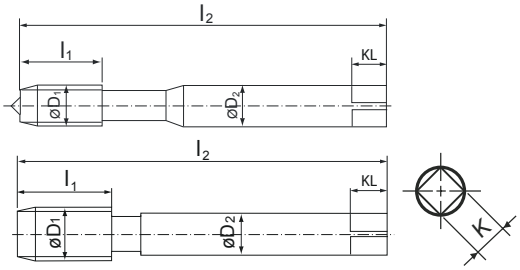
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	VA WN Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•					•	•	•						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○						○						

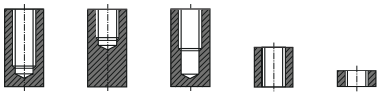
MF

ISO Metric coarse threads DIN 13

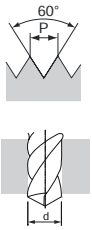
Gwint metryczny zwykły ISO DIN 13

GG





1 3 x D1 | **2** 1,5-2 x D1 | **3** 3 x D1 | 4 3 x D1 | 5 1,5-2 x D1



HSS-E

Ni

2/6X

C

DIN

1-2-3-4-5

O

D1		P	L1	L2	D2	K	d1	EDP	SEE03				
DIN 374													
M4	x	0.5	10	63	2.8	2.1	3.50	**256**	•				
M5	x	0.5	11	70	3.5	2.7	4.50	**296**	•				
M6	x	0.75	13	80	4.5	3.4	5.30	**326**	•				
M6	x	0.5	13	80	4.5	3.4	5.50	**336**	•				
M7	x	0.75	14	80	5.5	4.3	6.30	**356**	•				
M8	x	1	17	90	6	4.9	7.00	**376**	•				
M8	x	0.75	14	80	6	4.9	7.30	**386**	•				
M10	x	1.25	22	100	7	5.5	8.80	**436**	•				
M10	x	1	18	90	7	5.5	9.00	**446**	•				
M10	x	0.75	18	90	7	5.5	9.30	**456**	•				
M12	x	1.5	22	100	9	7	10.50	**516**	•				
M12	x	1.25	22	100	9	7	10.80	**526**	•				
M12	x	1	18	100	9	7	11.00	**536**	•				
M14	x	1.5	22	100	11	9	12.50	**556**	•				
M14	x	1.25	22	100	11	9	13.75	**566**	•				
M16	x	1.5	22	100	12	9	14.50	**616**	•				
M18	x	1.5	25	110	14	11	16.50	**676**	•				
M20	x	1.5	25	125	16	12	18.50	**726**	•				
M22	x	1.5	25	125	18	14.5	20.50	**766**	•				
M24	x	1.5	27	140	18	14.5	22.50	**806**	•				

GG

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
										•	•				

N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
						•									•

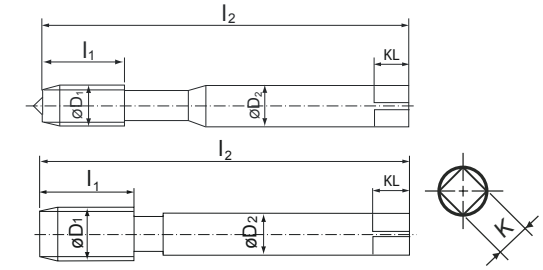
MACHINING TAPS GWINTOWNIKI MASZYNOWE

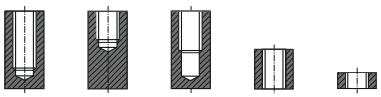
MF

ISO Metric coarse threads DIN 13

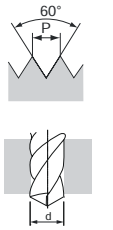
Gwint metryczny zwykły ISO DIN 13

Al





1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1



HSS-E

Brt

2/6H

C

DIN

4-5

O

D1		P	L1	L2	D2	K	d1	EDP	SCJ63				
DIN 371													
M4	x	0.5	5	63	2.8	2.1	3.50	**256**	•				
M5	x	0.5	5	70	3.5	2.7	4.50	**296**	•				
M6	x	0.75	8	80	4.5	3.4	5.30	**326**	•				
M6	x	0.5	5	80	4.5	3.4	5.50	**336**	•				
M7	x	0.75	10	80	5.5	4.3	6.30	**356**	•				
M8	x	1	10	90	6	4.9	7.00	**376**	•				
M8	x	0.75	8	80	6	4.9	7.30	**386**	•				
M10	x	1.25	16	100	7	5.5	8.80	**436**	•				
M10	x	1	10	90	7	5.5	9.00	**446**	•				
M10	x	0.75	10	90	7	5.5	9.30	**456**	•				
M12	x	1.5	15	100	9	7	10.50	**516**	•				
M12	x	1.25	15	100	9	7	10.80	**526**	•				
M12	x	1	11	100	9	7	11.00	**536**	•				
M14	x	1.5	15	100	11	9	12.50	**556**	•				
M14	x	1.25	15	100	11	9	14,75	**566**	•				
M16	x	1.5	15	100	12	9	14.50	**616**	•				
M18	x	1.5	17	110	14	11	16.50	**676**	•				
M20	x	1.5	17	125	16	12	18.50	**726**	•				
M22	x	1.5	17	125	18	14.5	20.50	**766**	•				
M24	x	1.5	20	140	18	14.5	22.50	**806**	•				

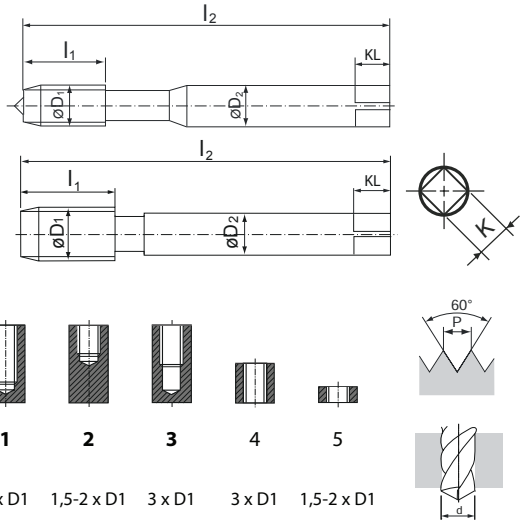
															Al
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	○	○	○											○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
					•				•	•	•				

UNC

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

UNI



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E
Brt	Brt
2B	2B
C	B
DIN	DIN
1-2-3	**4-5**
O	O

D1		TPI	L1	L2	D2	K	d1	EDP	SCA24	SCA34			
DIN 371													
#4	x	40UNC	6	56	3.5	2.7	2.30	**162**	•	•			
#5	x	40UNC	7	56	3.5	2.7	2.60	**202**	•	•			
#6	x	32UNC	7	56	4	3	2.85	**242**	•	•			
#8	x	32UNC	8	63	4.5	3.4	3.50	**282**	•	•			
#10	x	24UNC	10	70	6	4.9	3.90	**322**	•	•			
#12	x	24UNC	10	80	6	4.9	4.50	**362**	•	•			
1/4"	x	20UNC	13	80	7	5.5	5.20	**402**	•	•			
5/16"	x	18UNC	14	90	8	6.2	6.60	**442**	•	•			
3/8"	x	16UNC	16	100	9	7	8.00	**482**	•	•			
DIN 376													
7/16"	x	14UNC	17	100	8	6.2	9.40	**522**	•	•			
1/2"	x	13UNC	20	110	9	7	10.75	**562**	•	•			
9/16"	x	12UNC	20	110	11	9	12.25	**602**	•	•			
5/8"	x	11UNC	22	110	12	9	13.50	**642**	•	•			
3/4"	x	10UNC	25	125	14	11	16.50	**702**	•	•			
7/8"	x	9UNC	27	140	18	14.5	19.50	**742**	•	•			
1"	x	8UNC	30	160	20	16	22.25	**782**	•	•			

UNI

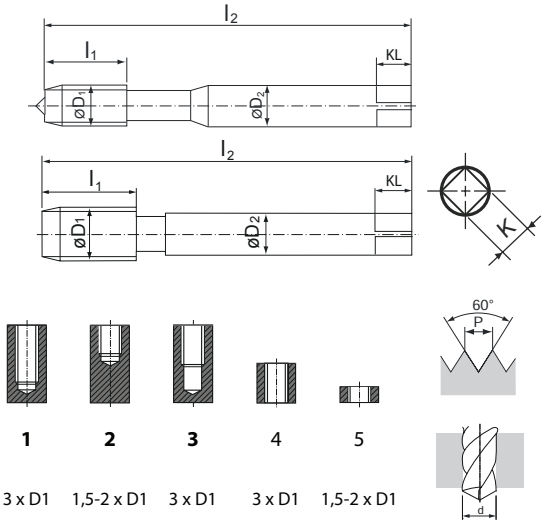
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•	•		•	•	•	•	•	•	•	•	○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•	○		•	•	•			•	•	•			

UNC

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

UNI



HSS PM

VAP

6H

B

DIN

4-5

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		TPI	L1	L2	D2	K	d1	EDP	SAC28				
DIN 371													
M2	x	0.4	8.0	45.0	2.8	2.1	1.60	**136**	•				
M2.2	x	0.45	8.0	45.0	2.8	2.1	1.75	**156**	•				
M2.3	x	0.4	8.0	45.0	2.8	2.1	1.90	**196**	•				
M2.5	x	0.45	9.0	50.0	2.8	2.1	2.10	**176**	•				
M2.6	x	0.45	9.0	50.0	2.8	2.1	2.20	**496**	•				
M3	x	0.5	11.0	56.0	3.5	2.7	2.50	**206**	•				
M3.5	x	0.6	12.0	56.0	4.0	3.0	2.90	**226**	•				
M4	x	0.7	13.0	63.0	4.5	3.4	3.30	**246**	•				
M4.5	x	0.75	14.0	70.0	6.0	4.9	3.80	**266**	•				
M5	x	0.8	15.0	70.0	6.0	4.9	4.20	**286**	•				
M6	x	1.0	17.0	80.0	6.0	4.9	5.00	**316**	•				
M7	x	1.0	17.0	80.0	7.0	5.5	6.00	**346**	•				
M8	x	1.25	20.0	90.0	8.0	6.2	6.80	**366**	•				
M9	x	1.25	20.0	90.0	9.0	7.0	7.80	**396**	•				
MI0	x	1.5	22.0	100.0	10.0	8.0	8.50	**426**	•				
DIN 376													
M11	x	1.5	22.0	100.0	8.0	6.2	9.50	**466**	•				
M12	x	1.75	24.0	110.0	9.0	7.0	10.30	**506**	•				

UNI

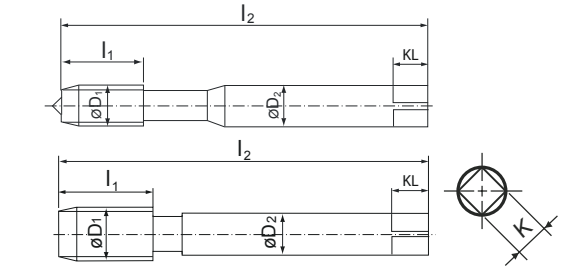
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•	•		•	•	•	•	•	•	•	•	○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•	○		•	•	•			•	•	•			

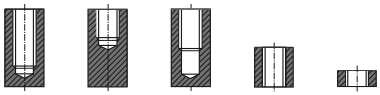
UNC

Unifed coarse thread ANSI B1.1

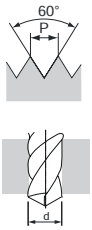
Gwint calowy zwykły ANSI B1.1

W





1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1



HSS-E

Brt

2B

C

DIN

1-2-3

O

D1		TPI	L1	L2	D2	K	d1	EDP	SCB44				
DIN 371													
#4	x	40UNC	6	56	3.5	2.7	2.30	**162**	•				
#5	x	40UNC	7	56	3.5	2.7	2.60	**202**	•				
#6	x	32UNC	7	56	4	3	2.85	**242**	•				
#8	x	32UNC	8	63	4.5	3.4	3.50	**282**	•				
#10	x	24UNC	10	70	6	4.9	3.90	**322**	•				
#12	x	24UNC	10	80	6	4.9	4.50	**362**	•				
1/4"	x	20UNC	13	80	7	5.5	5.20	**402**	•				
5/16"	x	18UNC	14	90	8	6.2	6.60	**442**	•				
3/8"	x	16UNC	16	100	9	7	8.00	**482**	•				
DIN 376													
7/16"	x	14UNC	17	100	8	6.2	9.40	**522**	•				
1/2"	x	13UNC	20	110	9	7	10.75	**562**	•				
9/16"	x	12UNC	20	110	11	9	12.25	**602**	•				
5/8"	x	11UNC	22	110	12	9	13.50	**642**	•				
3/4"	x	10UNC	25	125	14	11	16.50	**702**	•				
7/8"	x	9UNC	27	140	18	14.5	19.50	**742**	•				
1"	x	8UNC	30	160	20	16	22.25	**782**	•				
1*1/8"	x	7UNC	35	180	22	18	25.00	**822**	•				

W

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

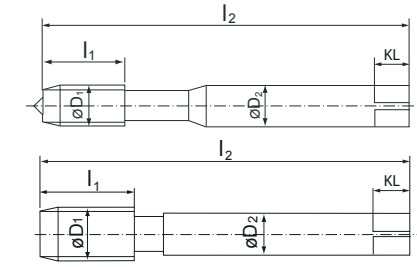
MACHINING TAPS GWINTOWNIKI MASZYNOWE

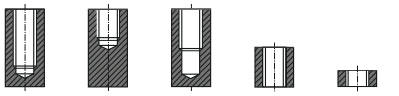
UNC

Unifed coarse thread ANSI B1.1

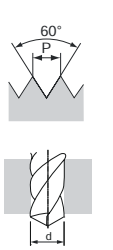
Gwint calowy zwykły ANSI B1.1

W





1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1



HSS-E	HSS-E
Brt	Brt
2B	2B
B	C
DIN	DIN
4-5	4-5
O	O

D1		TPI	L1	L2	D2	K	d1	EDP	SCC14	SCE24			
DIN 371													
#4	x	40UNC	11	56	3.5	2.7	2.30	**162**	•	•			
#5	x	40UNC	11	56	3.5	2.7	2.60	**202**	•	•			
#6	x	32UNC	12	56	4	3	2.85	**242**	•	•			
#8	x	32UNC	13	63	4.5	3.4	3.50	**282**	•	•			
#10	x	24UNC	15	70	6	4.9	3.90	**322**	•	•			
#12	x	24UNC	16	80	6	4.9	4.50	**362**	•	•			
1/4"	x	20UNC	17	80	7	5.5	5.20	**402**	•	•			
5/16"	x	18UNC	20	90	8	6.2	6.60	**442**	•	•			
3/8"	x	16UNC	22	100	9	7	8.00	**482**	•	•			
DIN 376													
7/16"	x	14UNC	22	100	8	6.2	9.40	**522**	•	•			
1/2"	x	13UNC	25	110	9	7	10.75	**562**	•	•			
9/16"	x	12UNC	26	110	11	9	12.25	**602**	•	•			
5/8"	x	11UNC	27	110	12	9	13.50	**642**	•	•			
3/4"	x	10UNC	30	125	14	11	16.50	**702**	•	•			
7/8"	x	9UNC	32	140	18	14.5	19.50	**742**	•	•			
1"	x	8UNC	36	160	20	16	22.25	**782**	•	•			
1*1/8"	x	7UNC	40	180	22	18	25.00	**822**	•	•			

W

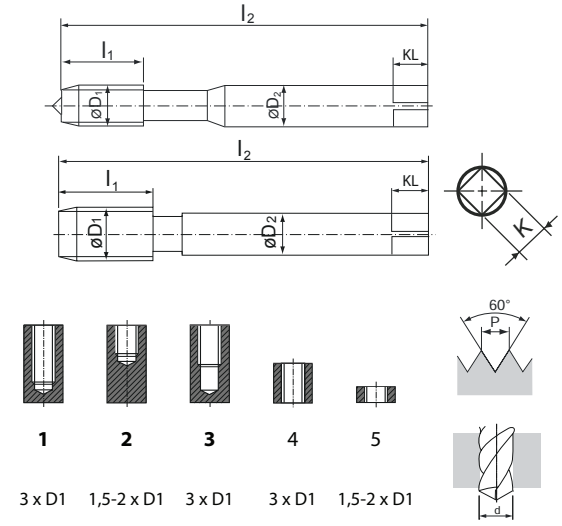
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

UNC

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

W



HSS-E

Brt

2B

C

DIN

1-2-3

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		TPI	L1	L2	D2	K	d1	EDP	SCB44				
DIN 371													
#4	x	40UNC	6	56	3.5	2.7	2.30	**162**	•				
#5	x	40UNC	7	56	3.5	2.7	2.60	**202**	•				
#6	x	32UNC	7	56	4	3	2.85	**242**	•				
#8	x	32UNC	8	63	4.5	3.4	3.50	**282**	•				
#10	x	24UNC	10	70	6	4.9	3.90	**322**	•				
#12	x	24UNC	10	80	6	4.9	4.50	**362**	•				
1/4"	x	20UNC	13	80	7	5.5	5.20	**402**	•				
5/16"	x	18UNC	14	90	8	6.2	6.60	**442**	•				
3/8"	x	16UNC	16	100	9	7	8.00	**482**	•				
DIN 376													
7/16"	x	14UNC	17	100	8	6.2	9.40	**522**	•				
1/2"	x	13UNC	20	110	9	7	10.75	**562**	•				
9/16"	x	12UNC	20	110	11	9	12.25	**602**	•				
5/8"	x	11UNC	22	110	12	9	13.50	**642**	•				
3/4"	x	10UNC	25	125	14	11	16.50	**702**	•				
7/8"	x	9UNC	27	140	18	14.5	19.50	**742**	•				
1"	x	8UNC	30	160	20	16	22.25	**782**	•				
1*1/8"	x	7UNC	35	180	22	18	25.00	**822**	•				

W

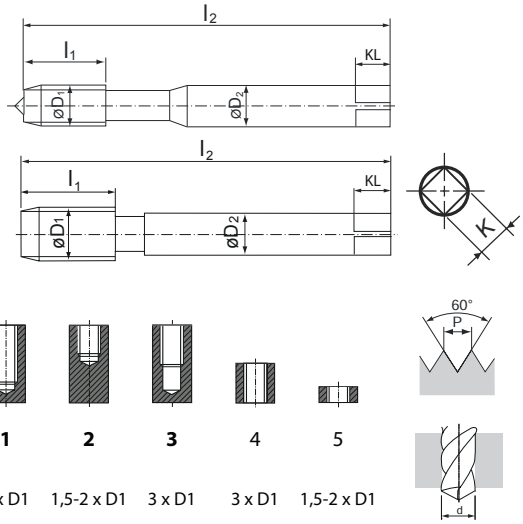
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

UNC

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

N



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E
TiN	Brt
2B	2B
C	C
DIN	DIN
1-2-3	1-2-3
O	O

D1		TPI	L1	L2	D2	K	d1	EDP	SDB74	SCB74			
DIN 371													
#4	x	40UNC	6	56	3.5	2.7	2.30	**162**	•	•			
#5	x	40UNC	7	56	3.5	2.7	2.60	**202**	•	•			
#6	x	32UNC	7	56	4	3	2.85	**242**	•	•			
#8	x	32UNC	8	63	4.5	3.4	3.50	**282**	•	•			
#10	x	24UNC	10	70	6	4.9	3.90	**322**	•	•			
#12	x	24UNC	10	80	6	4.9	4.50	**362**	•	•			
1/4"	x	20UNC	13	80	7	5.5	5.20	**402**	•	•			
5/16"	x	18UNC	14	90	8	6.2	6.60	**442**	•	•			
3/8"	x	16UNC	16	100	9	7	8.00	**482**	•	•			
DIN 376													
7/16"	x	14UNC	17	100	8	6.2	9.40	**522**	•	•			
1/2"	x	13UNC	20	110	9	7	10.75	**562**	•	•			
9/16"	x	12UNC	20	110	11	9	12.25	**602**	•	•			
5/8"	x	11UNC	22	110	12	9	13.50	**642**	•	•			
3/4"	x	10UNC	25	125	14	11	16.50	**702**	•	•			
7/8"	x	9UNC	27	140	18	14.5	19.50	**742**	•	•			
1"	x	8UNC	30	160	20	16	22.25	**782**	•	•			
1*1/8"	x	7UNC	35	180	22	18	25.00	**822**	•	•			

N

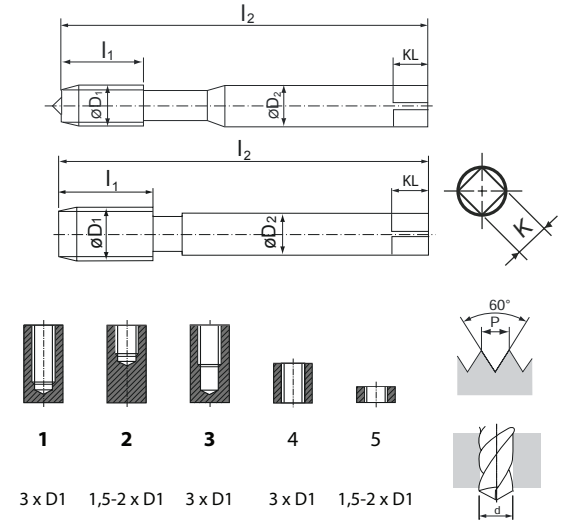
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
				○	•				○						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○												

UNC

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

N



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E
TiN	Brt
2B	2B
B	B
DIN	DIN
4-5	4-5
O	O

D1		TPI	L1	L2	D2	K	d1	EDP	SDC44	SCC44			
DIN 371													
#4	x	40UNC	11	56	3.5	2.7	2.30	**162**	•	•			
#5	x	40UNC	11	56	3.5	2.7	2.60	**202**	•	•			
#6	x	32UNC	12	56	4	3	2.85	**242**	•	•			
#8	x	32UNC	13	63	4.5	3.4	3.50	**282**	•	•			
#10	x	24UNC	15	70	6	4.9	3.90	**322**	•	•			
#12	x	24UNC	16	80	6	4.9	4.50	**362**	•	•			
1/4"	x	20UNC	17	80	7	5.5	5.20	**402**	•	•			
5/16"	x	18UNC	20	90	8	6.2	6.60	**442**	•	•			
3/8"	x	16UNC	22	100	9	7	8.00	**482**	•	•			
DIN 376													
7/16"	x	14UNC	22	100	8	6.2	9.40	**522**	•	•			
1/2"	x	13UNC	25	110	9	7	10.75	**562**	•	•			
9/16"	x	12UNC	26	110	11	9	12.25	**602**	•	•			
5/8"	x	11UNC	27	110	12	9	13.50	**642**	•	•			
3/4"	x	10UNC	30	125	14	11	16.50	**702**	•	•			
7/8"	x	9UNC	32	140	18	14.5	19.50	**742**	•	•			
1"	x	8UNC	36	160	20	16	22.25	**782**	•	•			
1*1/8"	x	7UNC	40	180	22	18	25.00	**822**	•	•			

N

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
				○	•				○						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○												

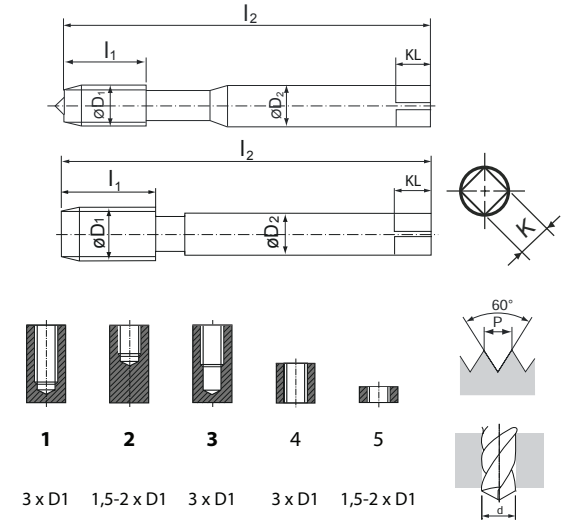
UNC

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

WN

VA



HSS-E

VAP

2B

C

DIN

1-2-3

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		TPI	L1	L2	D2	K	d1	EDP	SBJ04				
DIN 371													
#4	x	40UNC	6	56	3.5	2.7	2.30	**162**	•	•			
#5	x	40UNC	7	56	3.5	2.7	2.60	**202**	•	•			
#6	x	32UNC	7	56	4	3	2.85	**242**	•	•			
#8	x	32UNC	8	63	4.5	3.4	3.50	**282**	•	•			
#10	x	24UNC	10	70	6	4.9	3.90	**322**	•	•			
#12	x	24UNC	10	80	6	4.9	4.50	**362**	•	•			
1/4"	x	20UNC	13	80	7	5.5	5.20	**402**	•	•			
5/16"	x	18UNC	14	90	8	6.2	6.60	**442**	•	•			
3/8"	x	16UNC	16	100	9	7	8.00	**482**	•	•			
DIN 376													
7/16"	x	14UNC	17	100	8	6.2	9.40	**522**	•	•			
1/2"	x	13UNC	20	110	9	7	10.75	**562**	•	•			
9/16"	x	12UNC	20	110	11	9	12.25	**602**	•	•			
5/8"	x	11UNC	22	110	12	9	13.50	**642**	•	•			
3/4"	x	10UNC	25	125	14	11	16.50	**702**	•	•			
7/8"	x	9UNC	27	140	18	14.5	19.50	**742**	•	•			
1"	x	8UNC	30	160	20	16	22.25	**782**	•	•			
1*1/8"	x	7UNC	35	180	22	18	25.0	**822**	•	•			

															VA WN
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•					•	•	•						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○						○						

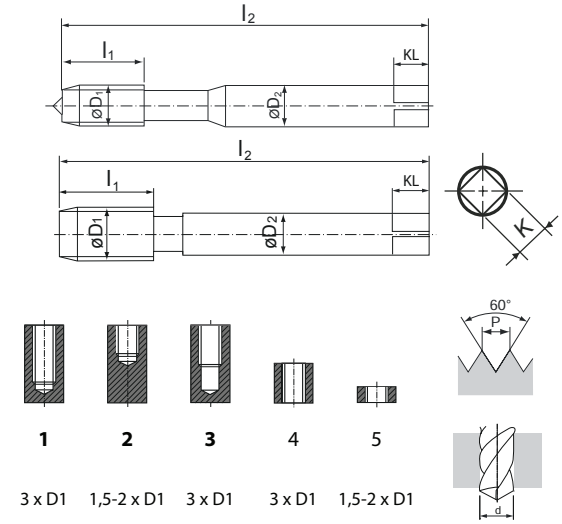
UNC

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

WN

VA



HSS-E

VAP

2B

B

DIN

4-5

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		TPI	L1	L2	D2	K	d1	EDP	SBC64				
DIN 371													
#4	x	40UNC	11	56	3.5	2.7	2.30	**162**	•				
#5	x	40UNC	11	56	3.5	2.7	2.60	**202**	•				
#6	x	32UNC	12	56	4	3	2.85	**242**	•				
#8	x	32UNC	13	63	4.5	3.4	3.50	**282**	•				
#10	x	24UNC	15	70	6	4.9	3.90	**322**	•				
#12	x	24UNC	16	80	6	4.9	4.50	**362**	•				
1/4"	x	20UNC	17	80	7	5.5	5.20	**402**	•				
5/16"	x	18UNC	20	90	8	6.2	6.60	**442**	•				
3/8"	x	16UNC	22	100	9	7	8.00	**482**	•				
DIN 376													
7/16"	x	14UNC	22	100	8	6.2	9.40	**522**	•				
1/2"	x	13UNC	25	110	9	7	10.75	**562**	•				
9/16"	x	12UNC	26	110	11	9	12.25	**602**	•				
5/8"	x	11UNC	27	110	12	9	13.50	**642**	•				
3/4"	x	10UNC	30	125	14	11	16.50	**702**	•				
7/8"	x	9UNC	32	140	18	14.5	19.50	**742**	•				
1"	x	8UNC	36	160	20	16	22.25	**782**	•				
1*1/8"	x	7UNC	40	180	22	18	25.0	**822**	•				

VA WN

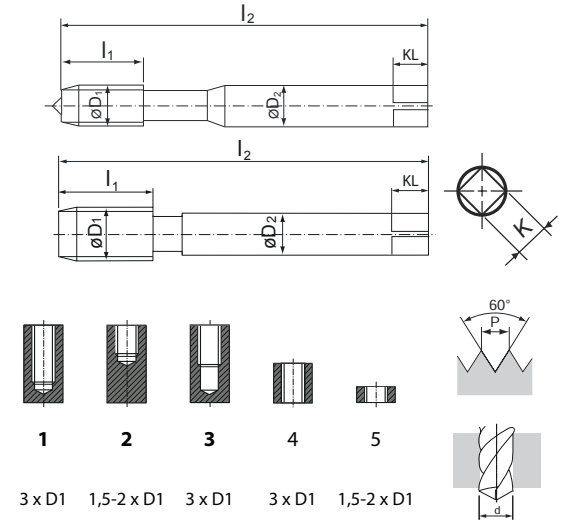
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•					•	•	•						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○						○						

UNC

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

GG



HSS-E

Ni

2BX

C

DIN

1-2-3-4-5

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		TPI	L1	L2	D2	K	d1	EDP	SEE34				
DIN 371													
#4	x	40UNC	11	56	3.5	2.7	2.30	**162**	•				
#5	x	40UNC	11	56	3.5	2.7	2.60	**202**	•				
#6	x	32UNC	12	56	4	3	2.85	**242**	•				
#8	x	32UNC	13	63	4.5	3.4	3.50	**282**	•				
#10	x	24UNC	15	70	6	4.9	3.90	**322**	•				
#12	x	24UNC	16	80	6	4.9	4.50	**362**	•				
1/4"	x	20UNC	17	80	7	5.5	5.20	**402**	•				
5/16"	x	18UNC	20	90	8	6.2	6.60	**442**	•				
3/8"	x	16UNC	22	100	9	7	8.00	**482**	•				
DIN 376													
7/16"	x	14UNC	22	100	8	6.2	9.40	**522**	•				
1/2"	x	13UNC	25	110	9	7	10.75	**562**	•				
9/16"	x	12UNC	26	110	11	9	12.25	**602**	•				
5/8"	x	11UNC	27	110	12	9	13.50	**642**	•				
3/4"	x	10UNC	30	125	14	11	16.50	**702**	•				
7/8"	x	9UNC	32	140	18	14.5	19.50	**742**	•				
1"	x	8UNC	36	160	20	16	22.25	**782**	•				
1*1/8"	x	7UNC	40	180	22	18	25.0	**822**	•				

GG

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
										•	•				

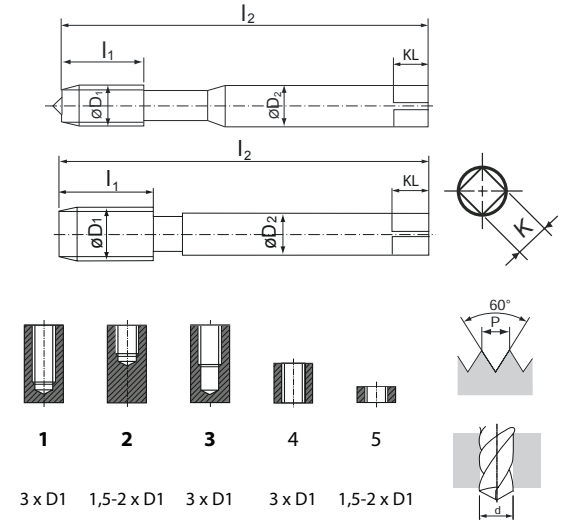
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
						•									•

UNC

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

Al



HSS-E

Brt

2B

C

DIN

1-2-3

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		TPI	L1	L2	D2	K	d1	EDP	SCB69				
DIN 371													
#4	x	40UNC	6	56	3.5	2.7	2.30	**162**	•				
#5	x	40UNC	7	56	3.5	2.7	2.60	**202**	•				
#6	x	32UNC	7	56	4	3	2.85	**242**	•				
#8	x	32UNC	8	63	4.5	3.4	3.50	**282**	•				
#10	x	24UNC	10	70	6	4.9	3.90	**322**	•				
#12	x	24UNC	10	80	6	4.9	4.50	**362**	•				
1/4"	x	20UNC	13	80	7	5.5	5.20	**402**	•				
5/16"	x	18UNC	14	90	8	6.2	6.60	**442**	•				
3/8"	x	16UNC	16	100	9	7	8.00	**482**	•				
DIN 376													
7/16"	x	14UNC	17	100	8	6.2	9.40	**522**	•				
1/2"	x	13UNC	20	110	9	7	10.75	**562**	•				
9/16"	x	12UNC	20	110	11	9	12.25	**602**	•				
5/8"	x	11UNC	22	110	12	9	13.50	**642**	•				
3/4"	x	10UNC	25	125	14	11	16.50	**702**	•				
7/8"	x	9UNC	27	140	18	14.5	19.50	**742**	•				
1"	x	8UNC	30	160	20	16	22.25	**782**	•				
1*1/8"	x	7UNC	35	180	22	18	25.0	**822**	•				

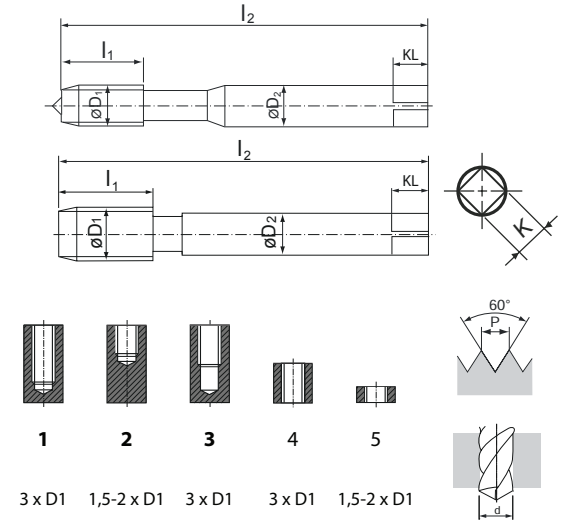
															Al
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	○	○	○											○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
					•				•	•	•				

UNC

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

Al



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E
Brt	Brt
2B	2B
B	C
DIN	DIN
4-5	4-5
O	O

D1		TPI	L1	L2	D2	K	d1	EDP	SCJ34	SCJ44			
DIN 371													
#4	x	40UNC	13	63	4.5	3.4	3.1	**162**	•				
#5	x	40UNC	13	63	4.5	3.4	3.4	**202**	•				
#6	x	32UNC	14	70	6	4.9	3.8	**242**	•				
#8	x	32UNC	13	80	6	4.9	4.4	**282**	•				
#10	x	24UNC	17	80	7	5.5	5.2	**322**	•				
#12	x	24UNC	17	80	7	5.5	5.8	**362**	•				
1/4"	x	20UNC	20	90	8	6.2	6.7	**402**	•				
3/8"	x	16UNC	21	110	12	9	10.0	**482**	•				
DIN 376													
5/16"	x	18UNC	22	100	10	8	8.4	**442**	•				
7/16"	x	14UNC	26	110	11	9	11.6	**522**	•				
1/2"	x	13UNC	27	110	12	9	13.3	**562**	•				
9/16"	x	12UNC	26	125	14	11	15	**602**	•				
5/8"	x	11UNC	30	125	14	11	16.5	**642**	•				
3/4"	x	10UNC	32	140	18	14.5	19.75	**702**	•				

Al

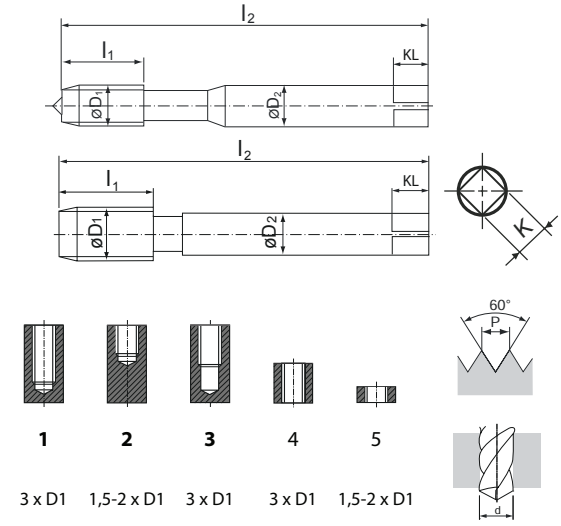
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	○	○	○											○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
					•				•	•	•				

UNF

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

UNI



HSS-E

Brt

2B

C

DIN

1-2-3

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		TPI	L1	L2	D2	K	d1	EDP	SCA64				
DIN 371													
#4	x	48UNF	6	56	3.5	2.7	2.40	**182**	•				
#5	x	44UNF	7	56	3.5	2.7	2.70	**222**	•				
#6	x	40UNF	7	56	4	3	2.90	**262**	•				
#8	x	36UNF	8	63	4.5	3.4	3.50	**302**	•				
#10	x	32UNF	10	70	6	4.9	4.10	**342**	•				
#12	x	28UNF	10	80	6	4.9	4.60	**382**	•				
1/4"	x	28UNF	10	80	7	5.5	5.50	**422**	•				
5/16"	x	24UNF	10	90	8	6.2	6.90	**462**	•				
3/8"	x	24UNF	10	100	9	7	8.50	**502**	•				
DIN 376													
7/16"	x	20UNF	13	100	8	6.2	9.90	**542**	•				
1/2"	x	20UNF	13	100	9	7	11.50	**582**	•				
9/16"	x	18UNF	15	100	11	9	12.90	**622**	•				
5/8"	x	18UNF	15	100	12	9	14.50	**662**	•				
3/4"	x	16UNF	17	110	14	11	17.50	**722**	•				
7/8"	x	14UNF	17	125	18	14.5	20.50	**762**	•				
1"	x	12UNF	20	140	20	16	23.25	**802**	•				

UNI

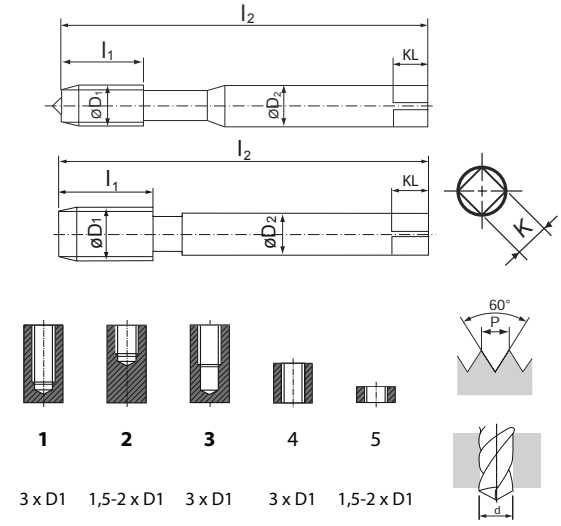
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•	•		•	•	•	•	•	•	•	•	○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•	○		•	•	•			•	•	•			

UNF

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

UNI



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E

Brt

2B

B

DIN

4-5

O

D1		TPI	L1	L2	D2	K	d1	EDP	SCA74				
DIN 371													
#4	x	48UNF	11	56	3.5	2.7	2.40	**182**	•				
#5	x	44UNF	11	56	3.5	2.7	2.70	**222**	•				
#6	x	40UNF	12	56	4	3	2.90	**262**	•				
#8	x	36UNF	13	63	4.5	3.4	3.50	**302**	•				
#10	x	32UNF	15	70	6	4.9	4.10	**342**	•				
#12	x	28UNF	16	80	6	4.9	4.60	**382**	•				
1/4"	x	28UNF	17	80	7	5.5	5.50	**422**	•				
5/16"	x	24UNF	17	90	8	6.2	6.90	**462**	•				
3/8"	x	24UNF	18	100	9	7	8.50	**502**	•				
DIN 376													
7/16"	x	20UNF	22	100	8	6.2	9.90	**542**	•				
1/2"	x	20UNF	22	100	9	7	11.50	**582**	•				
9/16"	x	18UNF	22	100	11	9	12.90	**622**	•				
5/8"	x	18UNF	22	100	12	9	14.50	**662**	•				
3/4"	x	16UNF	25	110	14	11	17.50	**722**	•				
7/8"	x	14UNF	26	125	18	14.5	20.50	**762**	•				
1"	x	12UNF	28	140	20	16	23.25	**802**	•				

UNI

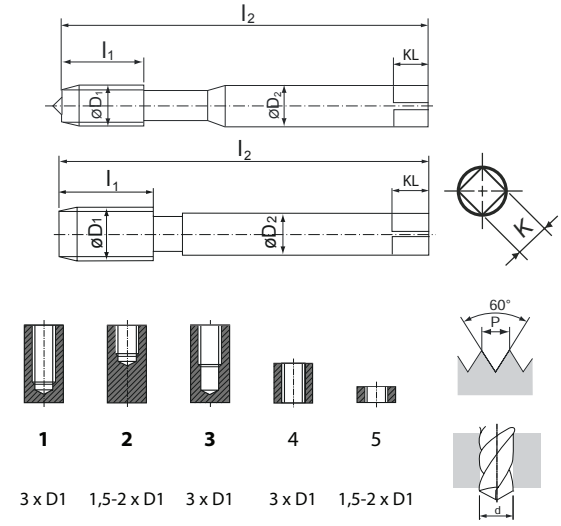
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•	•		•	•	•	•	•	•	•	•	○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•	○		•	•	•			•	•	•			

UNF

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

W



HSS-E

Brt

2B

C

DIN

1-2-3

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		TPI	L1	L2	D2	K	d1	EDP	SCB24				
DIN 371													
#4	x	48UNF	6	56	3.5	2.7	2.40	**182**	•				
#5	x	44UNF	7	56	3.5	2.7	2.70	**222**	•				
#6	x	40UNF	7	56	4	3	2.90	**262**	•				
#8	x	36UNF	8	63	4.5	3.4	3.50	**302**	•				
#10	x	32UNF	10	70	6	4.9	4.10	**342**	•				
#12	x	28UNF	10	80	6	4.9	4.60	**382**	•				
1/4"	x	28UNF	10	80	7	5.5	5.50	**422**	•				
5/16"	x	24UNF	10	90	8	6.2	6.90	**462**	•				
3/8"	x	24UNF	10	100	9	7	8.50	**502**	•				
DIN 376													
7/16"	x	20UNF	13	100	8	6.2	9.90	**542**	•				
1/2"	x	20UNF	13	100	9	7	11.50	**582**	•				
9/16"	x	18UNF	15	100	11	9	12.90	**622**	•				
5/8"	x	18UNF	15	100	12	9	14.50	**662**	•				
3/4"	x	16UNF	17	110	14	11	17.50	**722**	•				
7/8"	x	14UNF	17	125	18	14.5	20.50	**762**	•				
1"	x	12UNF	20	140	20	16	23.25	**802**	•				
1*1/8"	x	12UNF	22	150	22	18	26.50	**842**	•				

W

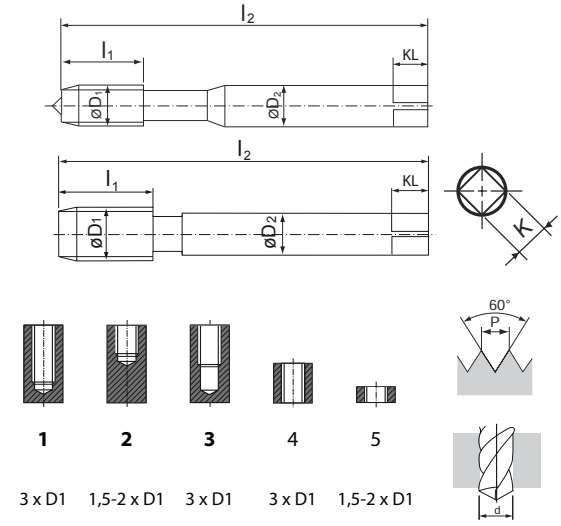
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

UNF

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

W



HSS-E

Brt

2B

B

DIN

4-5

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		TPI	L1	L2	D2	K	d1	EDP	SCC34				
DIN 371													
#4	x	48UNF	11	56	3.5	2.7	2.30	**182**	•				
#5	x	44UNF	11	56	3.5	2.7	2.60	**222**	•				
#6	x	40UNF	12	56	4	3	2.85	**262**	•				
#8	x	36UNF	13	63	4.5	3.4	3.50	**302**	•				
#10	x	32UNF	15	70	6	4.9	3.90	**342**	•				
#12	x	28UNF	16	80	6	4.9	4.50	**382**	•				
1/4"	x	28UNF	17	80	7	5.5	5.20	**422**	•				
5/16"	x	24UNF	20	90	8	6.2	6.60	**462**	•				
3/8"	x	24UNF	22	100	9	7	8.00	**502**	•				
DIN 376													
7/16"	x	20UNF	22	100	8	6.2	9.40	**542**	•				
1/2"	x	20UNF	25	110	9	7	10.75	**582**	•				
9/16"	x	18UNF	26	110	11	9	12.25	**622**	•				
5/8"	x	18UNF	27	110	12	9	13.50	**662**	•				
3/4"	x	16UNF	30	125	14	11	16.50	**722**	•				
7/8"	x	14UNF	32	140	18	14.5	19.50	**762**	•				
1"	x	12UNF	36	160	20	16	22.25	**802**	•				
1*1/8"	x	12UNF	40	180	22	18	25.00	**842**					

W

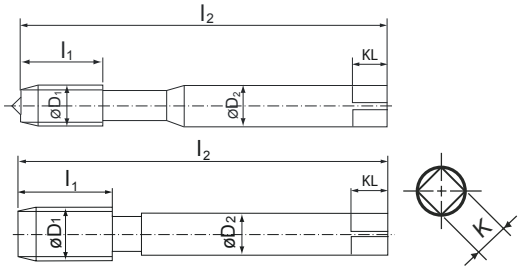
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

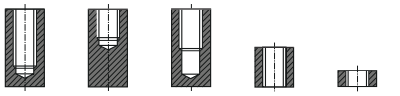
UNF

Unifed coarse thread ANSI B1.1

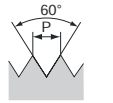
Gwint calowy zwykły ANSI B1.1

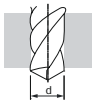
N





1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1





HSS-E

Brt

2B

C

DIN

1-2-3

O

D1		TPI	L1	L2	D2	K	d1	EDP	SCB84				
DIN 371													
#4	x	48UNF	6	56	3.5	2.7	2.40	**182**	•				
#5	x	44UNF	7	56	3.5	2.7	2.70	**222**	•				
#6	x	40UNF	7	56	4	3	3.00	**262**	•				
#8	x	36UNF	8	63	4.5	3.4	3.50	**302**	•				
#10	x	32UNF	10	70	6	4.9	4.10	**342**	•				
#12	x	28UNF	10	80	6	4.9	4.70	**382**	•				
1/4"	x	28UNF	10	80	7	5.5	5.50	**422**	•				
5/16"	x	24UNF	10	90	8	6.2	6.90	**462**	•				
3/8"	x	24UNF	10	100	9	7	8.50	**502**	•				
DIN 376													
7/16"	x	20UNF	13	100	8	6.2	9.90	**542**	•				
1/2"	x	20UNF	13	100	9	7	11.50	**582**	•				
9/16"	x	18UNF	15	100	11	9	12.90	**622**	•				
5/8"	x	18UNF	15	100	12	9	14.50	**662**	•				
3/4"	x	16UNF	17	110	14	11	17.50	**722**	•				
7/8"	x	14UNF	17	125	18	14.5	20.50	**762**	•				
1"	x	12UNF	20	140	20	16	23.25	**802**	•				
1*1/8"	x	12UNF	22	150	22	18	26.50	**842**	•				

N

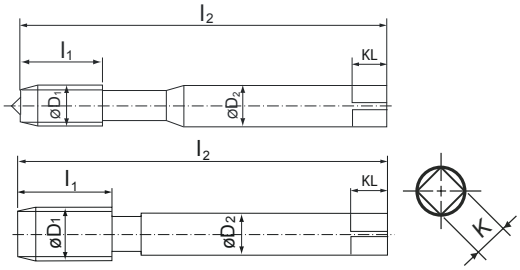
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
				○	•				○						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○												

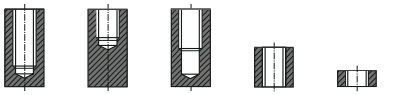
UNF

Unifed coarse thread ANSI B1.1

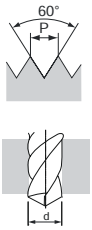
Gwint calowy zwykły ANSI B1.1

N





1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1



HSS-E

Brt

2B

B

DIN

4-5

O

D1		TPI	L1	L2	D2	K	d1	EDP	SCC54				
DIN 371													
#4	x	48UNF	11	56	3.5	2.7	2.30	**182**	•				
#5	x	44UNF	11	56	3.5	2.7	2.60	**222**	•				
#6	x	40UNF	12	56	4	3	2.85	**262**	•				
#8	x	36UNF	13	63	4.5	3.4	3.50	**302**	•				
#10	x	32UNF	15	70	6	4.9	3.90	**342**	•				
#12	x	28UNF	16	80	6	4.9	4.50	**382**	•				
1/4"	x	28UNF	17	80	7	5.5	5.20	**422**	•				
5/16"	x	24UNF	20	90	8	6.2	6.60	**462**	•				
3/8"	x	24UNF	22	100	9	7	8.00	**502**	•				
DIN 376													
7/16"	x	20UNF	22	100	8	6.2	9.40	**542**	•				
1/2"	x	20UNF	25	110	9	7	10.75	**582**	•				
9/16"	x	18UNF	26	110	11	9	12.25	**622**	•				
5/8"	x	18UNF	27	110	12	9	13.50	**662**	•				
3/4"	x	16UNF	30	125	14	11	16.50	**722**	•				
7/8"	x	14UNF	32	140	18	14.5	19.50	**762**	•				
1"	x	12UNF	36	160	20	16	22.25	**802**	•				
1*1/8"	x	12UNF	40	180	22	18	25.00	**842**	•				

N

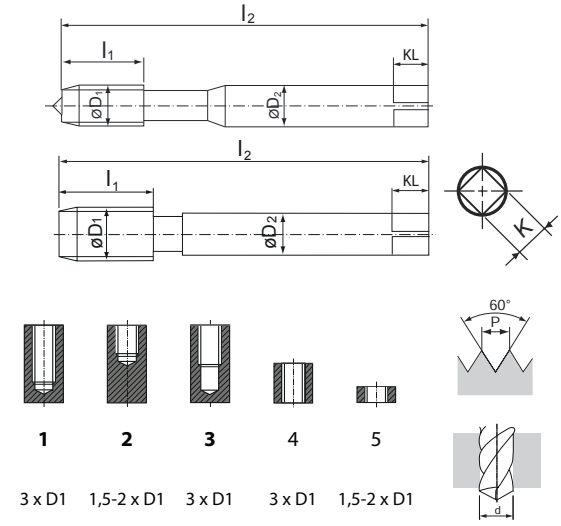
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
				○	•				○						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○												

UNF

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

VA



HSS-E

Brt

6H

B

DIN

1-2-3

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		TPI	L1	L2	D2	K	d1	EDP	SAA28				
DIN 376													
M14	x	2.0	26.0	110.0	11.0	9.0	12.00	**546**	•				
M16	x	2.0	27.0	110.0	12.0	9.0	14.00	**606**	•				
M18	x	2.5	30.0	125.0	14.0	11.0	15.50	**656**	•				
M20	x	2.5	32.0	140.0	16.0	12.0	17.50	**706**	•				
M22	x	2.5	32.0	140.0	18.0	14.5	19.50	**746**	•				
M24	x	3.0	34.0	160.0	18.0	14.5	21.00	**786**	•				
M27	x	3.0	36.0	160.0	20.0	16.0	24.00	**866**	•				
M30	x	3.5	40.0	180.0	22.0	18.0	26.50	**946**	•				

															N
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
				○	•				○						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○												

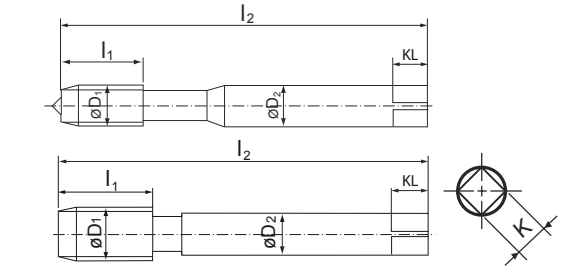
UNF

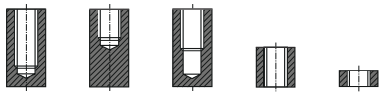
Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

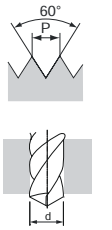
WN

VA





1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1



HSS-E

VAP

2B

C

DIN

1-2-3

O

D1		TPI	L1	L2	D2	K	d1	EDP	SBJ24				
DIN 371													
#4	x	48UNF	6	56	3.5	2.7	2.40	**182**	•				
#5	x	44UNF	7	56	3.5	2.7	2.70	**222**	•				
#6	x	40UNF	7	56	4	3	3.00	**262**	•				
#8	x	36UNF	8	63	4.5	3.4	3.50	**302**	•				
#10	x	32UNF	10	70	6	4.9	4.10	**342**	•				
#12	x	28UNF	10	80	6	4.9	4.70	**382**	•				
1/4"	x	28UNF	10	80	7	5.5	5.50	**422**	•				
5/16"	x	24UNF	10	90	8	6.2	6.90	**462**	•				
3/8"	x	24UNF	10	100	9	7	8.50	**502**	•				
DIN 376													
7/16"	x	20UNF	13	100	8	6.2	9.90	**542**	•				
1/2"	x	20UNF	13	100	9	7	11.50	**582**	•				
9/16"	x	18UNF	15	100	11	9	12.90	**622**	•				
5/8"	x	18UNF	15	100	12	9	14.50	**662**	•				
3/4"	x	16UNF	17	110	14	11	17.50	**722**	•				
7/8"	x	14UNF	17	125	18	14.5	20.50	**762**	•				
1"	x	12UNF	20	140	20	16	23.25	**802**	•				
1*1/8"	x	12UNF	22	150	22	18	26.50	**842**	•				

															VA WN
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•					•	•	•						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○						○						

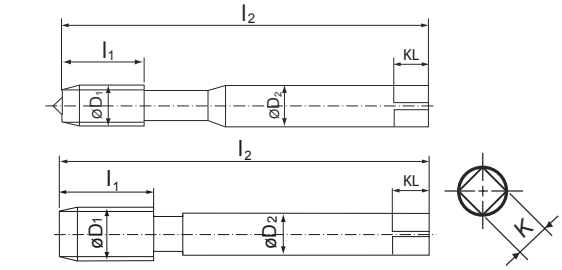
UNF

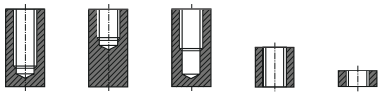
Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

WN

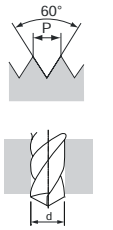
VA





1 2 3 4 5

3 x D1 1,5-2 x D1 3 x D1 3 x D1 1,5-2 x D1



HSS-E

VAP

2B

B

DIN

4-5

O

D1		TPI	L1	L2	D2	K	d1	EDP	SBC74				
DIN 371													
#4	x	48UNF	11	56	3.5	2.7	2.30	**162**	•				
#5	x	44UNF	11	56	3.5	2.7	2.60	**202**	•				
#6	x	40UNF	12	56	4	3	2.85	**242**	•				
#8	x	36UNF	13	63	4.5	3.4	3.50	**282**	•				
#10	x	32UNF	15	70	6	4.9	3.90	**322**	•				
#12	x	28UNF	16	80	6	4.9	4.50	**362**	•				
1/4"	x	28UNF	17	80	7	5.5	5.20	**402**	•				
5/16"	x	24UNF	20	90	8	6.2	6.60	**442**	•				
3/8"	x	24UNF	22	100	9	7	8.00	**482**	•				
DIN 376													
7/16"	x	20UNF	22	100	8	6.2	9.40	**522**	•				
1/2"	x	20UNF	25	110	9	7	10.75	**562**	•				
9/16"	x	18UNF	26	110	11	9	12.25	**602**	•				
5/8"	x	18UNF	27	110	12	9	13.50	**642**	•				
3/4"	x	16UNF	30	125	14	11	16.50	**702**	•				
7/8"	x	14UNF	32	140	18	14.5	19.50	**742**	•				
1"	x	12UNF	36	160	20	16	22.25	**782**	•				
1*1/8"	x	12UNF	40	180	22	18	25.00	**822**	•				

VA WN

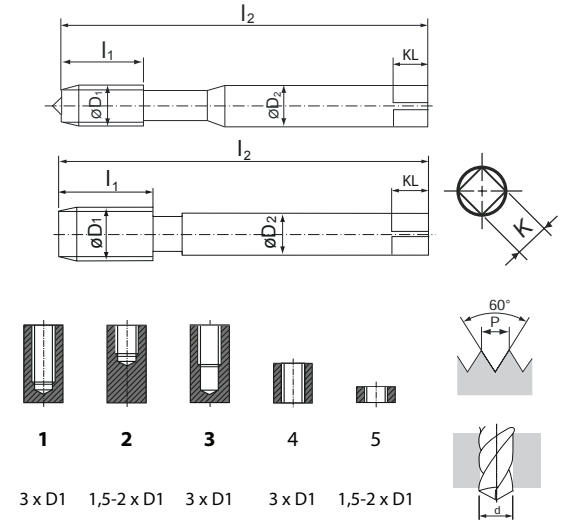
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•					•	•	•						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○						○						

UNF

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

GG



HSS-E

Ni

2BX

C

DIN

1-2-3-4-5

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		TPI	L1	L2	D2	K	d1	EDP	SEE54				
DIN 371													
#4	x	40UNC	11	56	3.5	2.7	2.30	**182**	•				
#5	x	40UNC	11	56	3.5	2.7	2.60	**222**	•				
#6	x	32UNC	12	56	4	3	2.85	**262**	•				
#8	x	32UNC	13	63	4.5	3.4	3.50	**302**	•				
#10	x	24UNC	15	70	6	4.9	3.90	**342**	•				
#12	x	24UNC	16	80	6	4.9	4.50	**382**	•				
1/4"	x	20UNC	17	80	7	5.5	5.20	**422**	•				
5/16"	x	18UNC	20	90	8	6.2	6.60	**462**	•				
3/8"	x	16UNC	22	100	9	7	8.00	**502**	•				
DIN 376													
7/16"	x	14UNC	22	100	8	6.2	9.40	**542**	•				
1/2"	x	13UNC	25	110	9	7	10.75	**582**	•				
9/16"	x	12UNC	26	110	11	9	12.25	**622**	•				
5/8"	x	11UNC	27	110	12	9	13.50	**662**	•				
3/4"	x	10UNC	30	125	14	11	16.50	**722**	•				
7/8"	x	9UNC	32	140	18	14.5	19.50	**762**	•				
1"	x	8UNC	36	160	20	16	22.25	**802**	•				
1*1/8"	x	7UNC	40	180	22	18	25.00	**842**	•				

GG

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
										•	•				

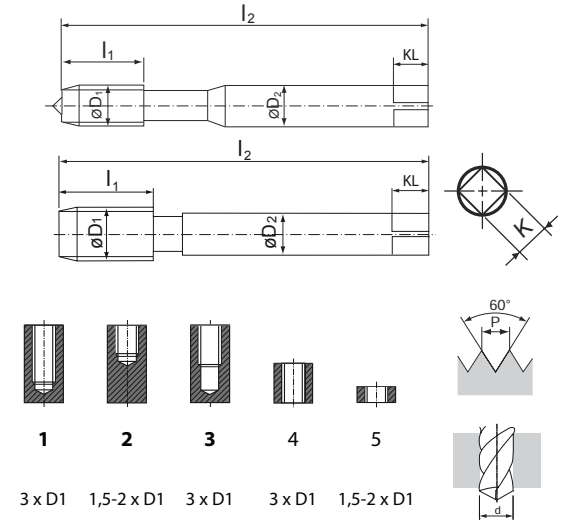
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
						•									•

UNF

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

Al



HSS-E

Brt

2B

C

DIN

1-2-3

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		TPI	L1	L2	D2	K	d1	EDP	SCB70				
DIN 371													
#4	x	48UNF	6	56	3.5	2.7	2.40	**182**	•				
#5	x	44UNF	7	56	3.5	2.7	2.70	**222**	•				
#6	x	40UNF	7	56	4	3	3.00	**262**	•				
#8	x	36UNF	8	63	4.5	3.4	3.50	**302**	•				
#10	x	32UNF	10	70	6	4.9	4.10	**342**	•				
#12	x	28UNF	10	80	6	4.9	4.70	**382**	•				
1/4"	x	28UNF	10	80	7	5.5	5.50	**422**	•				
5/16"	x	24UNF	10	90	8	6.2	6.90	**462**	•				
3/8"	x	24UNF	10	100	9	7	8.50	**502**	•				
DIN 376													
7/16"	x	20UNF	13	100	8	6.2	9.90	**542**	•				
1/2"	x	20UNF	13	100	9	7	11.50	**582**	•				
9/16"	x	18UNF	15	100	11	9	12.90	**622**	•				
5/8"	x	18UNF	15	100	12	9	14.50	**662**	•				
3/4"	x	16UNF	17	110	14	11	17.50	**722**	•				
7/8"	x	14UNF	17	125	18	14.5	20.50	**762**	•				
1"	x	12UNF	20	140	20	16	23.25	**802**	•				
1*1/8"	x	12UNF	22	150	22	18	26.50	**842**	•				

Al

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	○	○	○											○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
					•				•	•	•				

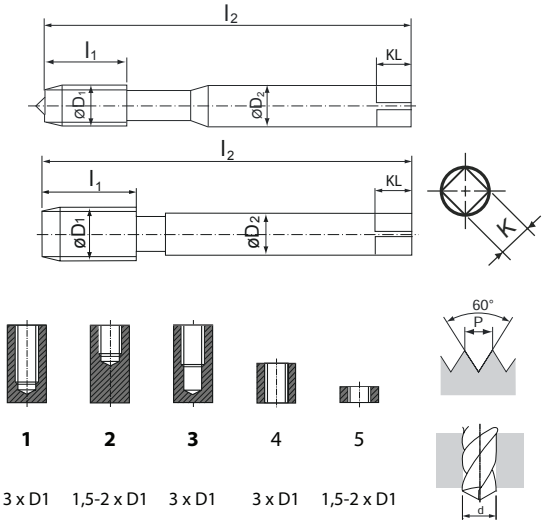
MACHINING TAPS GWINTOWNIKI MASZYNOWE

G

Pipe thread DIN ISO 228

Gwint calowy rurowy WG DIN ISO 228

W



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E
Brt	Brt
-	-
C	B
DIN	DIN
1-2-3	4-5
O	O

D1		TPI	L1	L2	D2	K	d1	EDP	SCH28	SCH27			
DIN 5156													
G1/8"	x	28	10	90	7	5.5	8.80	**200**	•				
G1/4"	x	19	14	100	11	9	11.80	**400**	•				
G3/8"	x	19	15	100	12	9	15.25	**480**	•				
G1/2"	x	14	17	125	16	12	19.00	**560**	•				
G3/4"	x	14	20	140	20	16	24.50	**700**	•				
G1"	x	11	24	160	25	20	30.75	**780**	•				
G1/8"	x	28	18	90	7	5.5	8.80	**200**		•			
G1/4"	x	19	22	100	11	9	11.80	**400**		•			
G3/8"	x	19	22	100	12	9	15.25	**480**		•			
G1/2"	x	14	25	125	16	12	19.00	**560**		•			
G3/4"	x	14	28	140	20	16	24.50	**700**		•			
G1"	x	11	32	160	25	20	30.75	**780**		•			

W

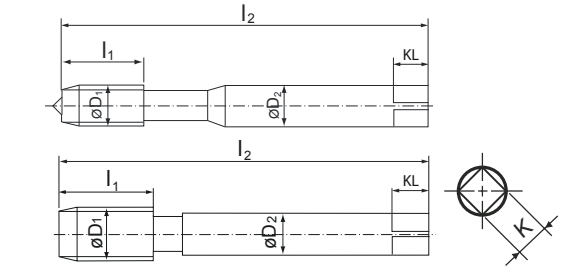
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

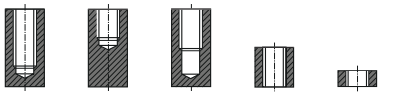
BSW

Whitworth threads BS-84

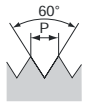
Gwint calowy Whitwortha WG BS-84

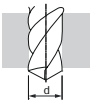
W





1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1





HSS-E

Brt

-

C

DIN

1-2-3

O

D1		TPI	L1	L2	D2	K	d1	EDP	SCB34				
DIN 2182													
W1/8"	x	40	7	56	3.5	2.7	2.50	**200**	•				
W5/32"	x	32	7	63	4.5	3.4	3.10	**280**	•				
W3/16"	x	24	10	70	6	4.9	3.60	**320**	•				
W7/32"	x	24	10	80	6	4.9	4.40	**360**	•				
W1/4"	x	20	13	80	7	5.5	5.10	**400**	•				
W5/16"	x	18	14	90	8	6.2	6.50	**440**	•				
W3/8"	x	16	16	100	9	7	7.90	**480**	•				
DIN 376													
W7/16"	x	14	17	100	8	6.2	9.30	**520**	•				
W1/2"	x	12	20	110	9	7	10.50	**560**	•				
W9/16"	x	12	20	110	11	9	12.00	**600**	•				
W5/8"	x	11	22	110	12	9	13.50	**640**	•				
W3/4"	x	10	25	125	14	11	16.50	**700**	•				
W7/8"	x	9	27	140	18	14.5	19.25	**740**	•				
W1"	x	8	30	160	20	16	22.00	**780**	•				
W1*1/8"	x	7	35	180	22	18	24.75	**820**	•				

W

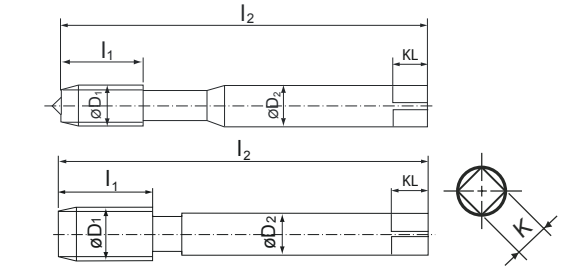
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

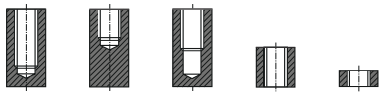
BSW

Whitworth threads BS-84

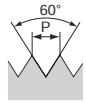
Gwint calowy Whitwortha WG BS-84

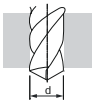
W





3 x D1 | 1,5-2 x D1 | 3 x D1 | 3 x D1 | 1,5-2 x D1





HSS-E

Brt

-

B

DIN

4-5

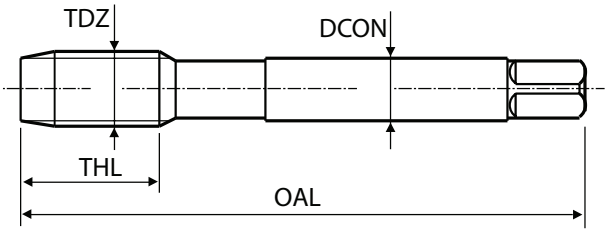
O

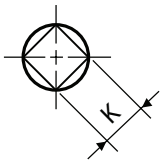
D1		TPI	L1	L2	D2	K	d1	EDP	SCC24				
DIN 2182													
W1/8"	x	40	11	56	3.5	2.7	2.50	**200**	•				
W5/32"	x	32	13	63	4.5	3.4	3.10	**280**	•				
W3/16"	x	24	15	70	6	4.9	3.60	**320**	•				
W7/32"	x	24	16	80	6	4.9	4.40	**360**	•				
W1/4"	x	20	17	80	7	5.5	5.10	**400**	•				
W5/16"	x	18	20	90	8	6.2	6.50	**440**	•				
W3/8"	x	16	22	100	9	7	7.90	**480**	•				
DIN 376													
W7/16"	x	14	22	100	8	6.2	9.30	**520**	•				
W1/2"	x	12	25	110	9	7	10.50	**560**	•				
W9/16"	x	12	26	110	11	9	12.00	**600**	•				
W5/8"	x	11	27	110	12	9	13.50	**640**	•				
W3/4"	x	10	30	125	14	11	16.50	**700**	•				
W7/8"	x	9	32	140	18	14.5	19.25	**740**	•				
W1"	x	8	36	160	20	16	22.00	**780**	•				
W1*1/8"	x	7	40	180	22	18	24.75	**820**	•				

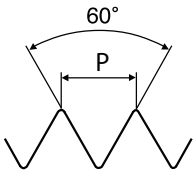
W

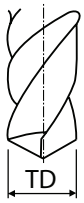
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

M ISO metric coarse thread DIN 13
Gwint metryczny zwykły wg ISO DIN 13







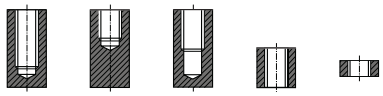


DIN371

DIN376

Thread tolerance class - 6HX
Klasa tolerancji gwintu - 6HX
Material classification level 1 - GG - Grey Cast Iron
Poziom 1 klasyfikacji materiałowej - GG-Żeliwo szare
Threading chamfer type - c
Typ nakroju gwintownika - c

CARBIDE TAPS
GWINTOWNIKI WĘGLIKOWE



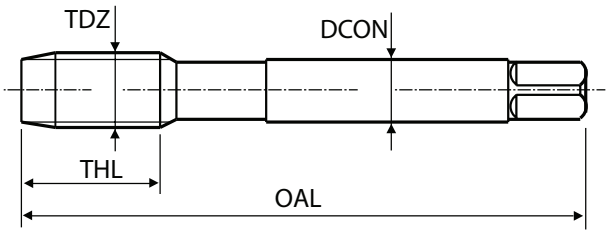
1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

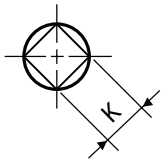
TDZ		P	EDP Nr	THL	OAL	DCON	K	TD
M3	ø	0.5	SCT011206	11	56	3.5	2.7	2.5
M3.5	ø	0.6	SCT011226	12	56	4	3	2.9
M4	ø	0.7	SCT011246	13	63	4.5	3.4	3.3
M5	ø	0.8	SCT011286	15	70	6	4.9	4.2
M6	ø	1	SCT011316	17	80	6	4.9	5
M8	ø	1.25	SCT011366	20	90	8	6.2	6.8
M10	ø	1.5	SCT011426	22	100	10	8	8.5
M12	ø	1.75	SCT011506	24	110	9	7	10.2
M14	ø	2	SCT011546	26	110	11	9	12
M16	ø	2	SCT011606	27	110	12	9	14
M18	ø	2.5	SCT011656	30	125	14	11	15.5
M20	ø	2.5	SCT011706	32	140	16	12	17.5

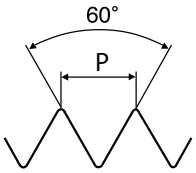
DIN 371 (M2-M10)
DIN 376 (M11-M20)

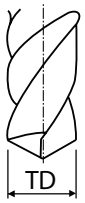
GG Cast <500 N/mm²	GG Cast <1000 N/mm²	Cu Alloy Short	Al Si > 10%	Plastic FRP

M ISO metric coarse thread DIN 13
Gwint metryczny zwykły wg ISO DIN 13





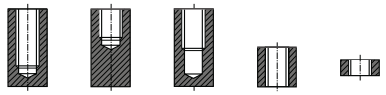




DIN371

DIN376

CARBIDE TAPS
GWINTOWNIKI WĘGLIKOWE



Thread tolerance class - 6HX
Klasa tolerancji gwintu - 6HX
Material classification level 1 - High alloyed steels Rm >1,200 N/mm2
Poziom 1 klasyfikacji materiałowej - Stale wysokostopowe Rm >1,200 N/mm²
Threading chamfer type - c/d
Typ nakroju gwintownika - c/d

TiCN

TDZ		P	EDP Nr C	EDP Nr D	THL	OAL	DCON	K	TD
M3	ø	0.5	SCT021206	SCT031206	11	56	3.5	2.7	2.5
M4	ø	0.7	SCT021246	SCT031246	13	63	4.5	3.4	3.3
M5	ø	0.8	SCT021286	SCT031286	15	70	6	4.9	4.2
M6	ø	1	SCT021316	SCT031316	17	80	6	4.9	5
M8	ø	1.25	SCT021366	SCT031366	20	90	8	6.2	6.8
M10	ø	1.5	SCT021426	SCT031426	21	100	10	8	8.5
M12	ø	1.75	SCT021506	SCT031506	24	110	9	7	10.2
M14	ø	2	SCT021546	SCT031546	26	110	11	9	12
M16	ø	2	SCT021606	SCT031606	27	110	12	9	14
M18	ø	2.5	SCT021656	SCT031656	30	125	14	11	15.5
M20	ø	2.5	SCT021706	SCT031706	32	140	16	12	17.5

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

St. Alloy <1200 N/mm²	St. Alloy >1200 N/mm²	INOX <1000 N/mm²	Cu Alloy Short	Cu-Al-Fe <1500 N/mm²	Plastic Thermoset	Plastic FRP

Hand Taps Gwintowniki ręczne

M	ISO metric coarse thread DIN 13 Gwint metryczny wg DIN 13
MF	ISO metric fi ne thread DIN 13 Gwint metryczny drobnozwojny wg DIN 13
UNF	Unifi ed fi ne thread ANSI B1.1 Gwint calowy drobnozwojny wg ANSI B1.1
UNC	Unifi ed coarse thread ANSI B1.1 Gwint calowy zwykły wg ANSI B1.1
UNC/F	Unifi ed coarse thread ANSI B1.1 Gwint calowy zwykły wg ANSI B1.1
G	Pipe threads DIN ISO228 (B.S.P.- British Standard Pipe) Gwint calowy rurowy wg DIN ISO228
W (B.S.W.)	Whitworth threads BS-84 (British Standard Whitworth) Gwint calowy Whitwortha wg BS-84
W	

TECHNICAL INFO INFORMACJA TECHNICZNA

Working Material Materiał roboczy

W Steels with good machinability.
Stale dobrej obrabialności
Rm<850 N/mm²

N Heat treated and heat-resistant steels
Stale żaroodporne
Rm<850N/mm2 ≤Rm≤1,200N/mm2

H High alloyed steels
Stale wysokostopwe
Rm>1,200N/mm2

WN Carbon steels with low contents of alloys
Stale węglowe o niskiej zawartosci stopow
Rm<700N/mm2

VA Stainless steels Carbon steels with low contents of alloys
Stale nierdzewne oraz węglowe o niskiej zawartosci stopow
Rm<700N/mm2

Ti Titanium alloys
Stopy tytanu

Ni Nickel alloys
Stopy niklu

Cu Brass
Mosiądz

GG Grey Cast Iron
Żeliwo szare

Al Aluminum & Aluminum alloys
Aluminium i stopy aluminium

UNI Multi-Purpose
Przeznaczenie rozne

Coatings Powłoki

Brt Bright
Bright

Ni Plasma Nitride
Azotowanie plazmowe

TiCN Titanium Carbon Nitride
Powłoka TiCN (cyjanek tytanu)

Hardslick TiAlN+WC/C-Coating
Kombinacja powłok TiAlN+WC/C

Ox Steam Oxide
Pasywacja

TiN Coating (Titanium Nitride)
TiN - Powłoka TiN (azotek tytanu)

TiAlN Coating (Titanium Aluminium Nitride)
Powłoka TiAlN/AlTiN (azotek glinowo – tytanowy)

BE Blue coating
Niebieska powłoka

VAP VAP
VAP

Class of Thread Klasa tolerancji gwintownika

6HX	2B	6GX	6H	2BX	6H Mod.	2/6H	H
2/6X	JIS 1b	JISII	JIS III	3X/6GX	2X/6HX	2X/6GX	G

Thread type Rodzaj gwintu

M	**MF**	**UNC**	**UNF**	**W**	**G**	**NPT**
DIN13	DIN13	ASME B1.1	ASME B1.1	BS-84		
NPTF	**NPS**	**BSW**	**PF**	**PS**	**PT**	**W**

Tool Material Materiał narzędzia

HSS PM Powder Metallurgy HSS
Stal szybkotnqca proszkowa

HSS V3 High Vanadium HSS
Wysokostopowa HH-V3, supertwarda

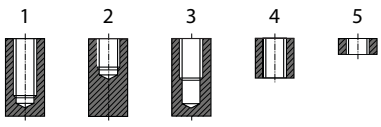
HSS High Speed Steel
Stal szybkotnąca

HSS-E HSS-E
HSS-E

CRBD Carbide
Węglik

SKS21 SKS21
SKS21

Hole types Typy otworów



1 - Blind Hole up to 3 x D1 Otwór ślepy do 3xD1
2 - Blind Hole up to 1,5-2 x D1 Otwór ślepy do 1,5-2xD1
3 - Blind Hole up to 3 x D1 with oversized depth hole
Otwór ślepy do 3xD1 z powiększoną głębokością
4 - Trough Hole up to 3 x D1 Otwór przelotowy do 3xD1
5 - Trough Hole up to 1,5-2 x D1 Otwór przelotowy do 1,5-2xD1

Chamfer Nakrój

Set of Hand Taps Zestaw gwintowników ręcznych

From C (Chamfer Lead 2-3 Thread)

From B (With Gun-nose and Chamfer Lead 4-5 Thread

TECHNICAL INFO INFORMACJA TECHNICZNA

Group Nr Nr grupy		Workable material Materiał obrabiany	HB	Rm N/mm2	HRC	Chip Wiór	Coolant Chłodzenie
10. Steels Stale	1.1	Magnetic soft steels Stale miękkie magnetycznie	< 120	< 400		Extra long Bardzo długi	S
	1.2	Structural steels, case carburizing steels Stale konstrukcyjne, stal do nawęglania	< 200	< 700		Medium Long Średni długi	S
	1.3	Plain carbon steels Stale zwykłe węglowe	< 250	< 850	< 25	Long Długi	S
	1.4	Alloy steels Stale stopowe Hardened steels Stal hartowana	< 250	< 850	30-38	Long Długi	W
	1.5		< 350	< 1200	38-42	Long Długi	W
	1.6		> 350	> 1200	45-55	Long Długi	O
20. Stainless Steels Stale nierdzewne	2.1	Free machining Stale automatowe	< 250	< 850	< 22	Medium Średni	O
	2.2	Austenitic Austenityczne	< 250	< 850	< 25	Long Długi	O
	2.3	Ferritic, Ferritic-Austenitic, Martensitic Ferrytyczne, Ferrytyczno-austenityczne, martenzytyczne	< 300	< 1000	< 30	Long Długi	O
30. Cast Iron Żeliwo szare	3.1	Grey Cast Iron Żeliwo szare	< 150	< 500		Extra short Bardzo krótki	O / S
	3.2		< 300	< 1000	< 30	Extra short Bardzo krótki	S
	3.3	Nodular graphite, Melleable cast irons Żeliwo ciągliwe, sferoidalne	< 200	< 700		Short Krótki	S
	3.4		< 300	< 1000	< 30	Short Krótki	S
40. Titaniums Tytany	4.1	Titanium, unalloyed Tytan niestopowy	< 200	< 900	< 27	Extra short Bardzo krótki	O / S
	4.2	Titanium, alloyed Tytan stopowy	< 270	< 900	< 27	Medium Shortt Średni Krótki	O
	4.3		< 350	< 1250	< 40	Medium Shortt Średni Krótki	O
50. Nickels Nikle	5.1	Nickel, unalloyed Nikiel niestopowy	< 150	< 500		Extra long Bardzo długi	O
	5.2	Nickel, alloyed Nikiel stopowy	< 270	< 900	< 27	Long Długi	O
	5.3		< 350	< 1250	< 40	Long Długi	O
60. Copper, Brass, Bronze Miedź, Mosiądz, Brąz	6.1	Copper, unalloyed Miedź, niestopowa	< 100	< 350		Extra short Bardzo krótki	S
	6.2	Shortt chipping Brass, Bronze, Copper Miedź, Mosiądz krótki wiór, Brąz	< 200	< 700		Medium Shortt Średni Krótki	S
	6.3	Long chipping Brass, Bronze, Copper Miedź, Mosiądz, Brąz długi wiór	< 200	< 700		Long Długi	O / S
	6.4	AMPCO (Cu-Al-Fe alloys) (stopy Cu-Al.-Fe)	< 470	< 1500	< 47	Short Krótki	O
70. Aluminiums Aluminium	7.1	Aluminium, Megnesium, unalloyed Aluminium, Magnez, bezstopowe	< 100	< 350		Extra long Bardzo długi	S
	7.2	Aluminium, alloyed Stopy aluminium Si<0,5%	< 150	< 500		Medium Średni	S
	7.3	Aluminium, alloyed Stopy aluminium Si<10%	< 120	< 400		Medium Shortt Średni Krótki	S
	7.4	Aluminium, alloyed Stopy aluminium Si>10%	< 120	< 400		Short Krótki	S
80. Synthetic materials Tworzywa sztuczne	8.1	Thermoplastics Tworzywa termoplastyczne	< 340	< 50		Extra long Bardzo długi	S
	8.2	Thermosseting Plastics Plastiki termoutwardzalne		< 110		Short Krótki	D / S
	8.3	Reinforced plastic materials Wzmocnione materiały plastikowe		< 1500	< 47	Extra short Bardzo krótki	D / S

Coolant Chłodzenie

S - Oil Emulsion Emulsja olejowa

O - Cutting Oil Olej obróbczy

D - Dry Na sucho

W- Oil Emulsion / Cutting Oil Emulsja olejowa / Olej obróbczy

D - Dry Na sucho

Chip Wiór

XL- Long Długi

M - Medium Średni

Sh - Shortt Krótki

XS - Extra short Bardzo krótki

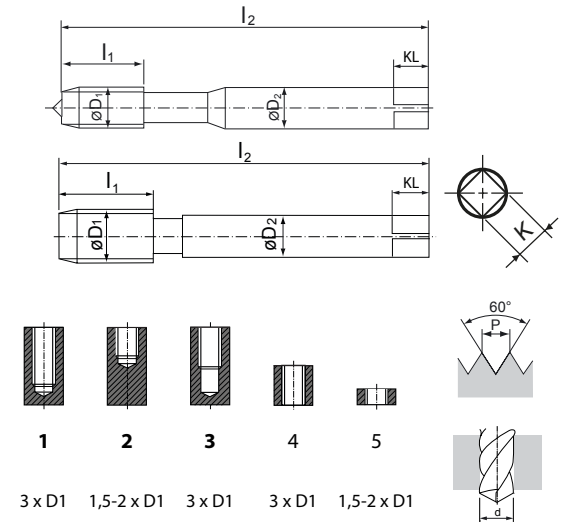
HAND TAPS GWINTOWNIKI RĘCZNE

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

W



1 3 x D1 | **2** 1,5-2 x D1 | **3** 3 x D1 | 4 3 x D1 | 5 1,5-2 x D1

HSS

Brt

2/6H

I/II/III

DIN

1-2-3-4-5

O

D1		P	L1	L2	D2	K	KL	Limit	d1	EDP	SHA43			
DIN 352														
M3	x	0.5	11	40	3.5	2.7			2.50	**139**	•			
M3.5	x	0.6	13	45	4	3			2.90	**159**	•			
M4	x	0.7	13	45	4.5	3.4			3.30	**199**	•			
M4.5	x	0.75	16	50	6	4.9			3.80	**179**	•			
M5	x	0.8	16	52	6	4.9			4.20	**499**	•			
M6	x	1	18	56	6	4.9			5.00	**209**	•			
M8	x	1.25	20	63	6	4.9			6.80	**229**	•			
M10	x	1.5	22	70	7	5.5			8.50	**249**	•			
M12	x	1.75	24	80	9	7			10.30	**269**	•			
M14	x	2	26	80	11	9			12.00	**289**	•			
M16	x	2	27	80	12	9			14.00	**N69**	•			
M18	x	2.5	30	95	14	11			15.50	**319**	•			
M20	x	2.5	32	95	16	12			17.50	**349**	•			
M22	x	2.5	32	100	18	14.5			19.50	**369**	•			
M24	x	3	34	110	18	14.5			21.00	**399**	•			
M27	x	3	36	110	20	16			24.00	**429**	•			
M30	x	3.5	40	125	22	18			26.50	**469**	•			

W

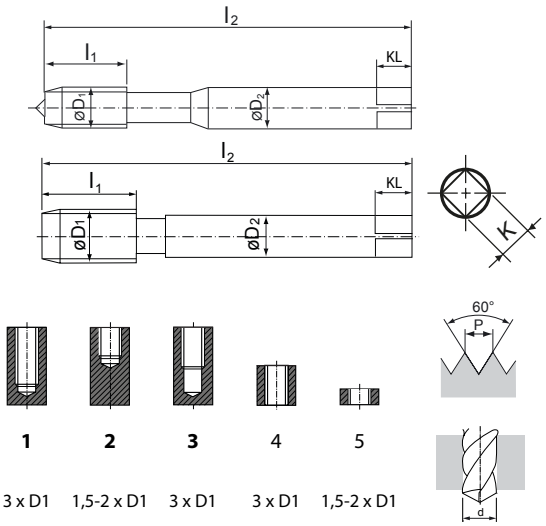
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

W



1 2 3 4 5

3 x D1 1,5-2 x D1 3 x D1 3 x D1 1,5-2 x D1

HSS

Brt

2/6H

I/II/III

DIN

1-2-3-4-5

O

D1		P	L1	L2	D2	K	KL	Limit	d1	EDP	SHA09			
DIN 352														
M2	x	0.4	8	36	2.8	2.1			1.60	**139**	•			
M2.2	x	0.45	9	36	2.8	2.1			1.75	**159**	•			
M2.3	x	0.4	9	36	2.8	2.1			1.90	**199**	•			
M2.5	x	0.45	9	40	2.8	2.1			2.10	**179**	•			
M2.6	x	0.45	9	40	2.8	2.1			2.20	**499**	•			
M3	x	0.5	11	40	3.5	2.7			2.50	**209**	•			
M3.5	x	0.6	13	45	4	3			2.90	**229**	•			
M4	x	0.7	13	45	4.5	3.4			3.30	**249**	•			
M4.5	x	0.75	16	50	6	4.9			3.80	**269**	•			
M5	x	0.8	16	52	6	4.9			4.20	**289**	•			
M5.5	x	0.9	18	56	6	4.9			4.10	**N69**	•			
M6	x	1.0	18	56	6	4.9			5.00	**319**	•			
M7	x	1.0	18	56	6	4.9			6.00	**349**	•			
M8	x	1.25	20	63	6	4.9			6.80	**369**	•			
M9	x	1.25	20	63	7	5.5			7.80	**399**	•			
M10	x	1.5	22	70	7	5.5			8.50	**429**	•			
M11	x	1.5	22	70	8	6.2			9.50	**469**	•			
M12	x	1.75	24	80	9	7			10.30	**509**	•			
M14	x	2.0	26	80	11	9			12.00	**549**	•			
M16	x	2.0	27	80	12	9			14.00	**609**	•			
M18	x	2.5	30	95	14	11			15.50	**659**	•			

W

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

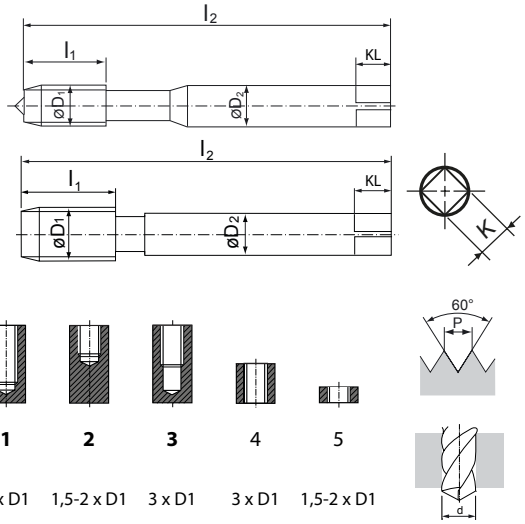
HAND TAPS GWINTOWNIKI RĘCZNE

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

W



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS

Brt

2/6H

I/II/III

DIN

1-2-3-4-5

O

D1		P	L1	L2	D2	K	KL	Limit	d1	EDP	SHA09			
DIN 352														
M20	x	2.5	32	95	16	12			17.50	**709**	•			
M22	x	2.5	32	100	18	14.5			19.50	**749**	•			
M24	x	3.0	34	110	18	14.5			21.00	**789**	•			
M27	x	3.0	36	110	20	16			24.00	**869**	•			
M30	x	3.5	40	125	22	18			26.50	**949**	•			
M33	x	3.5	40	125	25	20			29.50	**A49**	•			
M36	x	4.0	50	150	28	22			32.00	**B39**	•			
M39	x	4.0	50	150	32	24			35.00	**C09**	•			
M42	x	4.5	56	150	32	24			37.50	**C89**	•			
M45	x	4.5	58	160	36	29			40.50	**D59**	•			
M48	x	5.0	65	180	36	29			43.00	**E29**	•			
M52	x	5.0	65	180	40	32			47.00	**F39**	•			

W

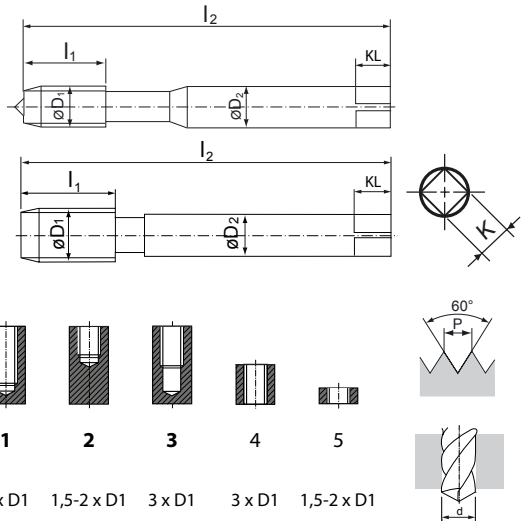
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

W



1 2 3 4 5

3 x D1 1,5-2 x D1 3 x D1 3 x D1 1,5-2 x D1

HSS-E

Brt

2/6H

I/II/III

DIN

1-2-3-4-5

O

D1		P	L1	L2	D2	K	KL	Z	LIMIT	d1	EDP	SCA53		
DIN 352														
M3	x	0.5	11	40	3.5	2.7				2.50	**209**	•		
M3.5	x	0.6	13	45	4	3				2.90	**229**	•		
M4	x	0.7	13	45	4.5	3.4				3.30	**249**	•		
M4.5	x	0.75	16	50	6	4.9				3.80	**269**	•		
M5	x	0.8	16	52	6	4.9				4.20	**289**	•		
M6	x	1	18	56	6	4.9				5.00	**319**	•		
M8	x	1.25	20	63	6	4.9				6.80	**369**	•		
M10	x	1.5	22	70	7	5.5				8.50	**429**	•		
M12	x	1.75	24	80	9	7				10.30	**509**	•		
M14	x	2	26	80	11	9				12.00	**549**	•		
M16	x	2	27	80	12	9				14.00	**609**	•		
M18	x	2.5	30	95	14	11				15.50	**659**	•		
M20	x	2.5	32	95	16	12				17.50	**709**	•		

N

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
				○	•				○						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○												

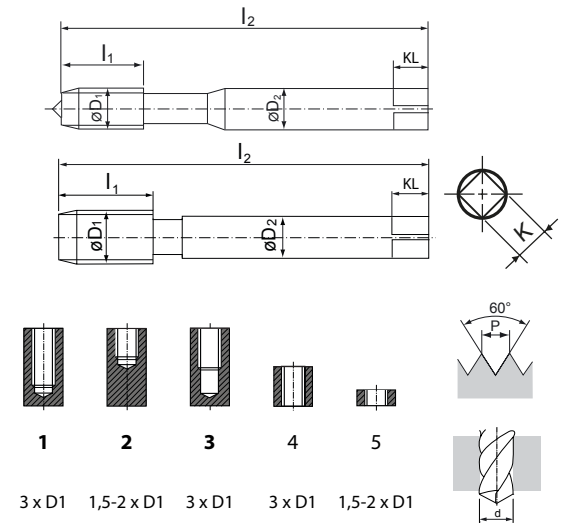
HAND TAPS GWINTOWNIKI RĘCZNE

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

VA



1 2 3 4 5

3 x D1 1,5-2 x D1 3 x D1 3 x D1 1,5-2 x D1

HSS-E

VAP

2/6H

I/II/III

DIN

1-2-3-4-5

O

D1		P	L1	L2	D2	K	KL	Z	LIMIT	d1	EDP	SBA73		
DIN 352														
M3	x	0.5	11	40	3.5	2.7				2.50	**209**	•		
M3.5	x	0.6	13	45	4	3				2.90	**229**	•		
M4	x	0.7	13	45	4.5	3.4				3.30	**249**	•		
M4.5	x	0.75	16	50	6	4.9				3.80	**269**	•		
M5	x	0.8	16	52	6	4.9				4.20	**289**	•		
M6	x	1	18	56	6	4.9				5.00	**319**	•		
M8	x	1.25	20	63	6	4.9				6.80	**369**	•		
M10	x	1.5	22	70	7	5.5				8.50	**429**	•		
M12	x	1.75	24	80	9	7				10.30	**509**	•		
M14	x	2	26	80	11	9				12.00	**549**	•		
M16	x	2	27	80	12	9				14.00	**609**	•		
M18	x	2.5	30	95	14	11				15.50	**659**	•		
M20	x	2.5	32	95	16	12				17.50	**709**	•		

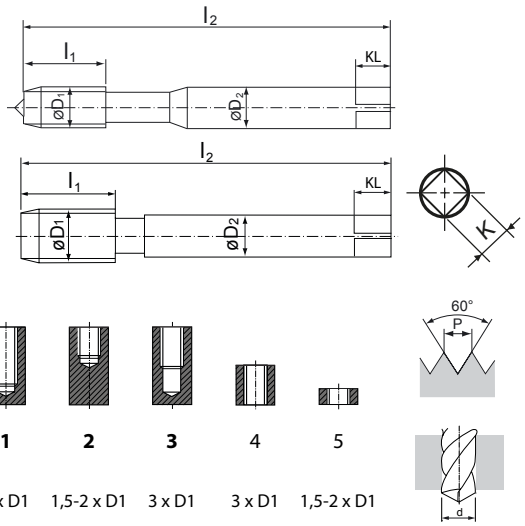
															VA WN
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•					•	•	•						○
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
			○						○						

MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

W



HSS

Brt

2/6H

I/III

DIN

1-2-3-4-5

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		P	L1	L2	D2	K	KL	Z	LIMIT	d1	EDP	SHB09		
DIN 2181														
M3	x	0.35	8	42	3.5	2.7				2.70	**219**	•		
M4	x	0.5	9	48	4.5	3.4				3.50	**259**	•		
M5	x	0.5	11	52	6	4.9				4.50	**299**	•		
M6	x	0.75	12	56	6	4.9				5.30	**329**	•		
M6	x	0.5	12	56	6	4.9				5.50	**339**	•		
M7	x	0.75	14	56	6	4.9				6.30	**359**	•		
M8	x	1	17	63	6	4.9				7.00	**379**	•		
M8	x	0.75	14	63	6	4.9				7.30	**389**	•		
M8	x	0.5	14	63	6	4.9				7.50	**939**	•		
M9	x	1	17	63	7	5.5				8.00	**409**	•		
M10	x	1.25	22	70	7	5.5				8.80	**439**	•		
M10	x	1	18	63	7	5.5				9.00	**449**	•		
M10	x	0.75	18	63	7	5.5				9.30	**459**	•		
M11	x	1	18	63	8	6.2				10.00	**479**	•		
M12	x	1.5	20	70	9	7				10.50	**519**	•		
M12	x	1.25	20	70	9	7				10.80	**529**	•		
M12	x	1	18	70	9	7				11.00	**539**	•		
M13	x	1.5	20	70	11	9				11,50	**N19**	•		
M13	x	1	18	70	11	9				12.00	**N29**	•		
M14	x	1.5	20	70	11	9				12.50	**559**	•		
M14	x	1.25	20	70	11	9				12.75	**569**	•		
M14	x	1	18	70	11	9				13.00	**579**	•		
M15	x	1.5	20	70	12	9				13.50	**589**	•		
M15	x	1	18	70	12	9				14.00	**599**	•		
M16	x	1.5	20	70	12	9				14.50	**619**	•		

W

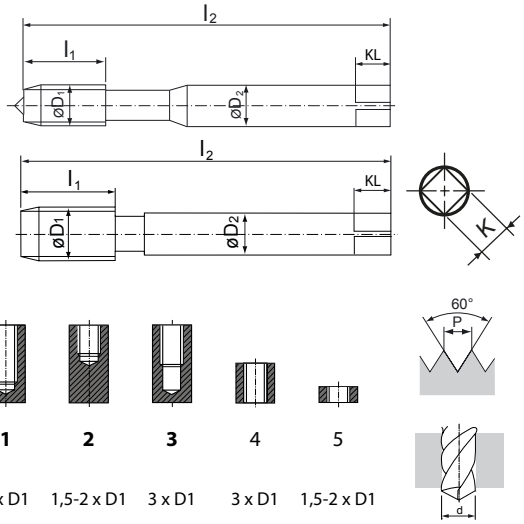
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

W



HSS

Brt

2/6H

I/III

DIN

1-2-3-4-5

O

1	**2**	**3**	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		P	L1	L2	D2	K	KL	Z	LIMIT	d1	EDP	SHB09		
DIN 2181														
M16	x	1	18	70	12	9				15.00	**629**	•		
M18	x	2	22	80	14	11				16.00	**669**	•		
M18	x	1.5	22	80	14	11				16.50	**679**	•		
M18	x	1	18	80	14	11				17.00	**689**	•		
M20	x	2	22	80	16	12				18.00	**719**	•		
M20	x	1.5	22	80	16	12				18.50	**729**	•		
M20	x	1	18	80	16	12				19.00	**739**	•		
M22	x	2	22	80	18	14.5				20.00	**759**	•		
M22	x	1.5	22	80	18	14.5				20.50	**769**	•		
M22	x	1	18	80	18	14.5				21.00	**779**	•		
M24	x	2	22	90	18	14.5				22.00	**799**	•		
M24	x	1.5	22	90	18	14.5				22.50	**809**	•		
M24	x	1	18	90	18	14.5				23.00	**819**	•		
M25	x	1.5	22	90	18	14.5				23.50	**839**	•		
M25	x	1	18	90	18	14.5				24.00	**849**	•		
M26	x	1.5	22	90	18	14.5				24.50	**859**	•		
M26	x	1	18	90	18	14.5				25.00	**N59**	•		
M27	x	2	22	90	20	16				25.00	**879**	•		
M27	x	1.5	22	90	20	16				25.50	**889**	•		
M27	x	1	18	90	20	16				26.00	**899**	•		
M28	x	2	22	90	20	16				26.00	**909**	•		
M28	x	1.5	22	90	20	16				26.50	**919**	•		
M30	x	2	22	90	22	18				28.00	**969**	•		
M30	x	1.5	22	90	22	18				28.50	**979**	•		
M30	x	1	18	90	22	18				29.00	**989**	•		

W

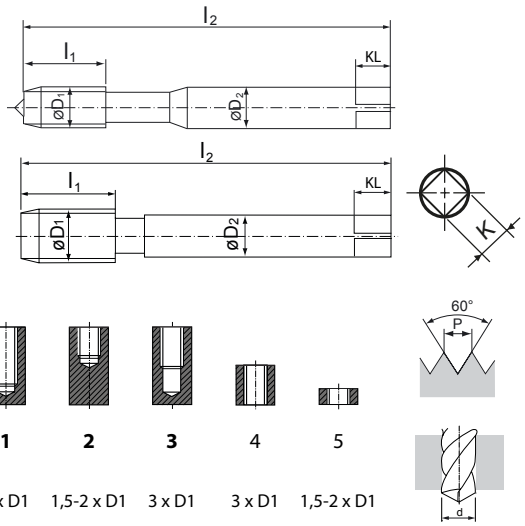
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13

W



HSS

Brt

2B

I/II/III

DIN

1-2-3-4-5

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		P	L1	L2	D2	K	KL	Z	LIMIT	d1	EDP	SHV63		
DIN 351														
#2	x	56UNC	9	36	2.8	2.1				1.80	**219**	•		
#3	x	48UNC	10	40	2.8	2.1				2.10	**259**	•		
#4	x	40UNC	10	42	3.5	2.7				2.30	**299**	•		
#5	x	40UNC	10	42	3.5	2.7				2.60	**329**	•		
#6	x	32UNC	11	45	4	3				2.80	**339**	•		
#8	x	32UNC	12	48	4.5	3.4				3.40	**359**	•		
#10	x	24UNC	14	52	6	4.9				3.90	**379**	•		
#12	x	24UNC	16	56	6	4.9				4.50	**389**	•		
1/4"	x	20UNC	16	56	6	4.9				5.20	**939**	•		
5/16"	x	18UNC	20	63	6	4.9				6.60	**409**	•		
3/8"	x	16UNC	22	70	7	5.5				8.00	**439**	•		
7/16"	x	14UNC	22	70	8	6.2				9.40	**449**	•		
1/2"	x	13UNC	25	80	9	7				10.75	**459**	•		
9/16"	x	12UNC	26	80	11	9				12.25	**479**	•		
5/8"	x	11UNC	27	90	12	9				13.50	**519**	•		
3/4"	x	10UNC	32	105	14	11				16.50	**529**	•		
7/8"	x	9UNC	32	110	18	14.5				19.50	**539**	•		
1"	x	8UNC	36	110	20	16				22.25	**N19**	•		
1*1/8"	x	7UNC	40	125	22	18				25.00	**N29**	•		
1*1/4"	x	7UNC	40	125	25	20				28.25	**559**	•		
1*3/8"	x	6UNC	50	150	28	22				30.75	**569**	•		
1*1/2"	x	6UNC	50	150	32	24				34.00	**579**	•		
1*3/4"	x	5UNC	58	160	36	29				39.50	**589**	•		
2"	x	41/2UNC	65	180	40	32				45.25	**599**	•		

W

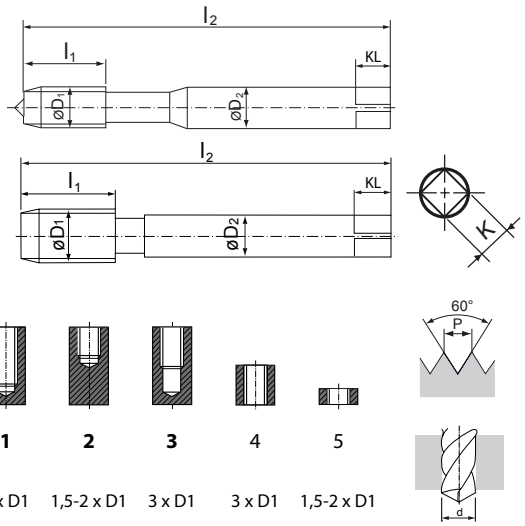
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

UNF

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1

W



HSS

Brt

2B

I/III

DIN

1-2-3-4-5

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		P	L1	L2	D2	K	KL	Z	LIMIT	d1	EDP	SHF09		
DIN 2181														
#4	x	48UNF	10	42	3.5	2.7				2.40	**189**	•		
#5	x	44UNF	10	42	3.5	2.7				2.70	**229**	•		
#6	x	40UNF	11	45	4	3				2.90	**269**	•		
#8	x	36UNF	12	48	4.5	3.4				3.50	**309**	•		
#10	x	32UNF	14	52	6	4.9				4.10	**349**	•		
#12	x	28UNF	16	56	6	4.9				4.60	**389**	•		
1/4"	x	28UNF	16	56	6	4.9				5.50	**429**	•		
5/16"	x	24UNF	17	63	6	4.9				6.90	**469**	•		
3/8"	x	24UNF	18	63	7	5.5				8.50	**509**	•		
7/16"	x	20UNF	20	70	8	6.2				9.90	**549**	•		
1/2"	x	20UNF	20	70	9	7				11.50	**589**	•		
9/16"	x	18UNF	20	70	11	9				12.90	**629**	•		
5/8"	x	18UNF	20	70	12	9				14.50	**669**	•		
3/4"	x	16UNF	22	80	14	11				17.50	**729**	•		
7/8"	x	14UNF	22	80	18	14.5				20.50	**769**	•		
1"	x	12UNF	22	90	18	14.5				23.25	**809**	•		
1*1/8"	x	12UNF	22	90	22	18				26.50	**849**	•		

W

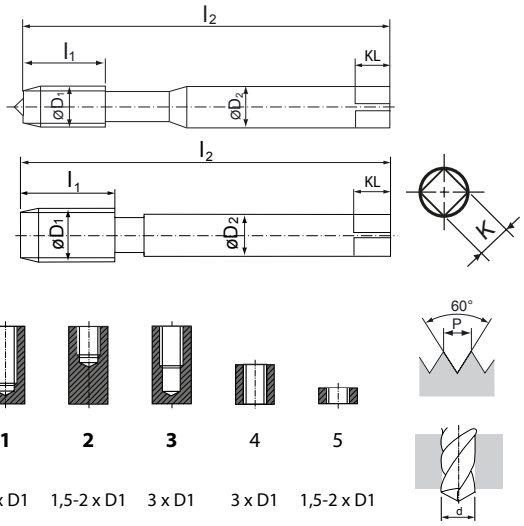
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

G

Pipe thread DIN ISO 228

Gwint calowy rurowy WG DIN ISO 228

W



1 3 x D1 | **2** 1,5-2 x D1 | **3** 3 x D1 | 4 3 x D1 | 5 1,5-2 x D1

HSS

Brt

-

I/III

DIN

1-2-3-4-5

O

D1		P	L1	L2	D2	K	KL	Z	LIMIT	d1	EDP	SHW09		
DIN 5157														
G1/16"	x	28	17	63	6	4.9				6.20	**029**	•		
G1/8"	x	28	18	63	7	5.5				8.80	**209**	•		
G1/4"	x	19	20	70	11	9				11.80	**409**	•		
G3/8"	x	19	20	70	12	9				15.25	**489**	•		
G1/2"	x	14	22	80	16	12				19.00	**569**	•		
G3/4"	x	14	22	90	20	16				24.50	**709**	•		
G1"	x	11	25	100	25	20				30.75	**789**	•		
G1*1/4"	x	11	30	125	32	24				39.50	**869**	•		
G1*1/2"	x	11	30	140	36	29				45.20	**949**	•		

W

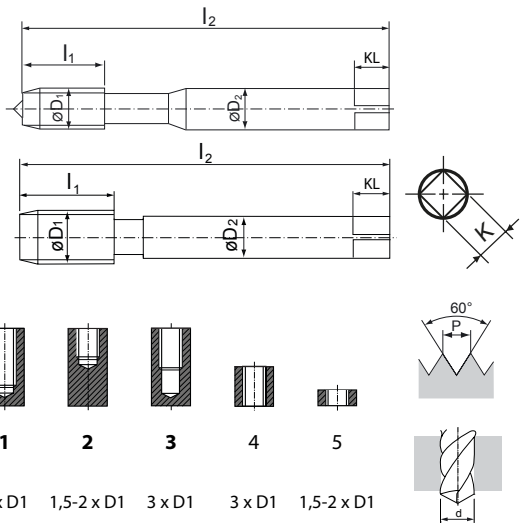
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

BSW

Whitworth Thread BS-84

Gwint calowy Whitwortha BS-84

W



HSS

Brt

2B

I/II/III

DIN

1-2-3-4-5

O

1 3 x D1 | **2** 1,5-2 x D1 | **3** 3 x D1 | 4 3 x D1 | 5 1,5-2 x D1

D1		P	L1	L2	D2	K	KL	Z	LIMIT	d1	EDP	SHD09		
DIN 351														
W3/32"	x	48	10	40	2.8	2.1				1.90	**129**	•		
W1/8"	x	40	10	42	3.5	2.7				2.55	**209**	•		
W5/32"	x	32	12	48	4.5	3.4				3.20	**289**	•		
W3/16"	x	24	14	52	6	4.9				3.70	**329**	•		
W7/32"	x	24	16	56	6	4.9				4.40	**369**	•		
W1/4"	x	20	16	56	6	4.9				5.10	**409**	•		
W5/16"	x	18	20	63	6	4.9				6.50	**449**	•		
W3/8"	x	16	22	70	7	5.5				7.90	**489**	•		
W7/16"	x	14	22	70	8	6.2				9.25	**529**	•		
W1/2"	x	12	25	80	9	7				10.50	**569**	•		
W9/16"	x	12	26	80	11	9				12.10	**609**	•		
W5/8"	x	11	27	90	12	9				13.50	**649**	•		
W3/4"	x	10	32	105	14	11				16.30	**709**	•		
W7/8"	x	9	32	110	18	14.5				19.25	**749**	•		
W1"	x	8	36	110	20	16				22.00	**789**	•		
W1*1/8"	x	7	40	125	22	18				24.75	**829**	•		
W1*1/4"	x	7	40	125	25	20				27.80	**869**	•		
W1*3/8"	x	6	50	150	28	22				30.30	**909**	•		
W1*1/2"	x	6	50	150	32	24				33.50	**949**	•		
W1*5/8"	x	5	56	150	32	24				35.50	**B29**	•		
W1*3/4"	x	5	58	160	36	29				39.00	**B89**	•		
W1*7/8"	x	41/2	65	180	36	29				41.50	**C69**	•		
W2"	x	41/2	65	180	40	32				44.50	**D29**	•		

W

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

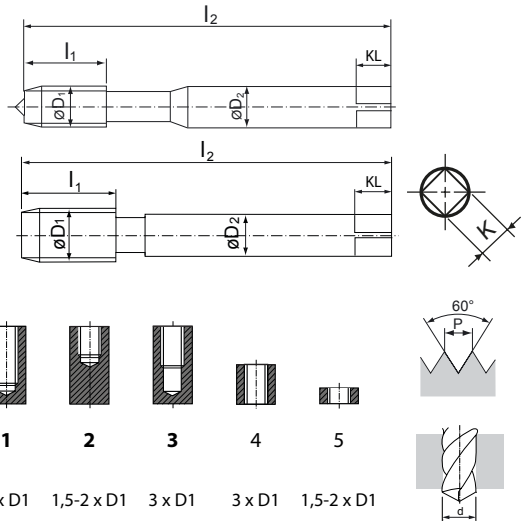
HAND TAPS GWINTOWNIKI RĘCZNE

W

Whitworth Thread BS-84

Gwint calowy Whitwortha BS-84

W



HSS

Brt

JIS III

1.5/5.0/9.0P

DIN

1-2-3-4-5

O

1	**2**	**3**	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		P	L1	L2	D2	K	KL	Z	LIMIT	d1	EDP	SCD99		
DIN 351														
W1/8	x	40	18	46	4	3.2	6	3	JISII	2.60	**209**	•		
W3/16	x	24	22	60	5.5	4.5	7	3	JISII	3.70	**329**	•		
W1/4	x	20	24	62	6	4.5	7	3	JISII	5.00	**409**	•		
W5/16	x	18	30	70	6.1	5	8	4	JISII	6.50	**449**	•		
W3/8	x	16	35	75	7	5.5	8	4	JISII	7.90	**489**	•		
W7/16	x	14	38	80	8	6	9	4	JISII	9.30	**529**	•		
W1/2	x	12	42	85	9	7	10	4	JISII	10.50	**569**	•		
W9/16	x	12	42	90	10.5	8	11	4	JISII	12.00	**609**	•		
W5/8	x	11	45	95	12	9	12	4	JISII	13.50	**649**	•		
W3/4	x	10	50	105	14	11	14	4	JISII	16.50	**709**	•		
W7/8	x	9	55	115	17	13	16	4	JISII	19.30	**749**	•		
W1	x	8	60	125	20	15	18	4	JISII	22.00	**789**	•		

W

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
		•	•	•								•	•	○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		○			○		•		○	○	○	•	○		

TECHNICAL INFORMATION INFORMACJA TECHNICZNA

HARDNESS CONVERSION TABLE TABELA PRZELICZNIA TWARDOŚCI

Rm [N/mm2]	HV 10	HB	HRC
240	75	71	
255	80	76	
270	85	81	
285	90	86	
305	95	90	
320	100	95	
335	105	100	
350	110	105	
370	115	109	
385	120	114	
400	125	119	
415	130	124	
430	135	128	
450	140	133	
465	145	138	
480	150	143	
495	155	147	
510	160	152	
530	165	157	
545	170	162	
560	175	166	
575	180	171	
595	185	176	
610	190	181	
625	195	185	
640	200	190	
660	205	195	
675	210	199	
690	215	204	
705	220	209	
720	225	214	
740	230	219	
755	235	223	
770	240	228	
785	245	233	
800	250	238	22
820	255	242	23
835	260	247	24
860	268	255	25
870	272	258	26
900	280	266	27
920	287	273	28
940	293	278	29
970	302	287	30
995	310	295	31
1020	317	301	32
1050	327	311	33
1080	336	319	34
1110	345	328	35

Rm [N/mm2]	HV 10	HB	HRC
1140	355	337	36
1170	364	346	37
1200	373	354	38
1230	382	363	39
1260	392	372	40
1300	403	383	41
1330	413	393	42
1360	423	402	43
1400	434	413	44
1440	446	424	45
1480	458	435	46
1530	473	449	47
1570	484	460	48
1620	497	472	49
1680	514	488	50
1730	527	501	51
1790	544	517	52
1845	560	532	53
1910	578	549	54
1980	596	567	55
2050	615	584	56
2140	639	607	57
	655	622	58
	675		59
	698		60
	720		61
	745		62
	773		63
	800		64
	829		65
	864		66
	900		67
	940		68

RECOMMENDED TAP DRILL SIZE TABELA DOBORU ŚREDNICY GWINTOWNIKA

Metric-ISO threads coarse pitch
Gwint metryczny zwykły ISO

M	**Pitch** Skok	**Max. core dia** Maks. śred	**Dill size** Srednica wiertła
1	0.25	0.785	0.75
1.1	0.25	0.885	0.85
1.2	0.25	0.985	0.95
1.4	0.30	1.160	1.10
1.6	0.35	1.321	1.25
1.7	0.35	1.346	1.30
1.8	0.35	1.521	1.45
2	0.40	1.679	1.60
2.2	0.45	1.838	1.75
2.3	0.40	1.920	1.90
2.5	0.45	2.138	2.05
2.6	0.45	2.176	2.10
3	0.50	2.599	2.50
3.5	0.60	3.010	2.90
4	0.70	3.422	3.30
4.5	0.75	3.878	3.70
5	0.80	4.334	4.20
6	1.00	5.153	5.00
7	1.00	6.153	6.00
8	1.25	6.912	6.80
9	1.25	7.912	7.80
10	1.50	8.676	8.50
11	1.50	9.676	9.50
12	1.75	10.441	10.20
14	2.00	12.210	12.00
16	2.00	14.210	14.00
18	2.50	15.744	15.50
20	2.50	17.744	17.50
22	2.50	19.744	19.50
24	3.00	21.252	21.00
27	3.00	24.252	24.00
30	3.50	26.771	26.50
33	3.50	29.771	29.50
36	4.00	32.270	32.00
39	4.00	35.270	35.00
42	4.50	37.799	37.50
45	4.50	40.799	40.50
48	5.00	43.297	43.00
52	5.00	47.297	47.00
56	5.50	50.796	50.50
60	5.50	54.796	54.50
64	6.00	58.305	58.00
68	6.00	62.305	62.00

Metric-ISO threads coarse pitch
Gwint metryczny zwykły ISO

MF	**Pitch** Skok	**Max. core dia** Maks. śred	**Dill size** Srednica wiertła
2.5	0.35	2.221	2.15
3	0.35	2.271	2.65
3.5	0.35	3.221	3.15
4	0.50	3.599	3.50
4.5	0.50	4.099	4.00
5	0.50	4.599	4.50
5.5	0.50	5.099	5.00
6	0.75	5.378	5.20
7	0.75	6.378	6.20
8	0.75	7.378	7.20
8	1.00	7.153	7.00
9	0.75	8.378	8.20
9	1.00	8.153	8.00
10	0.75	9.378	9.20
10	1.00	9.153	9.00
10	1.25	8.912	8.80
11	0.75	10.378	10.20
11	1.00	10.153	10.00
12	1.00	11.153	11.00
12	1.25	10.912	10.80
12	1.50	10.676	10.50
14	1.00	13.153	13.00
14	1.25	12.912	12.80
14	1.50	12.676	12.50
15	1.00	14.153	14.00
15	1.50	13.676	13.50
16	1.00	15.153	15.00
16	1.50	14.676	14.50
17	1.00	16.153	16.00
17	1.50	15.676	15.50
18	1.00	17.153	17.00
18	1.50	16.676	16.50
18	2.00	16.210	16.00
20	1.00	19.153	19.00
20	1.50	18.676	18.50
20	2.00	18.210	18.00
22	1.00	21.153	21.00
22	1.50	20.676	20.50
22	2.00	20.210	20.00
24	1.00	23.153	23.00
24	1.50	22.676	22.50
24	2.00	22.210	22.00
25	1.00	24.153	24.00
25	1.50	23.676	23.50

Metric-ISO threads coarse pitch
Gwint metryczny zwykły ISO

MF	**Pitch** Skok	**Max. core dia** Maks. śred	**Dill size** Srednica wiertła

TECHNICAL INFORMATION INFORMACJA TECHNICZNA

RECOMMENDED TAP DRILL SIZE TABELA DOBORU ŚREDNICY GWINTOWNIKA

Metric-ISO threads coarse pitch Gwint metryczny zwykły ISO			
UNC	**T.P.I**	**Max. core dia** Maks. śred	**Dill size** Srednica wiertła
#1	64	1.585	1.50
#2	56	1.872	1.80
#3	48	2.146	2.10
#4	40	2.385	2.30
#5	40	2.697	2.60
#6	32	2.896	2.85
#8	32	3.528	3.50
#10	24	3.950	3.90
#12	24	4.590	4.50
1/4″	20	5.250	5.20
5/16″	18	6.680	6.60
3/8″	16	8.082	8.00
7/16″	14	9.441	9.40
1/2″	13	10.881	10.75
9/16″	12	12.301	12.25
5/8″	11	13.693	13.50
3/4″	10	16.624	16.50
7/8″	9	19.520	19.50
1″	8	22.344	22.25
1*1/8″	7	25.082	25.00
1*1/4″	7	28.258	28.25
1*3/8″	6	30.851	30.75
1*1/2″	6	34.026	34.00
1*3/4″	5	39.560	39.50
2″	4.5	45.367	45.25

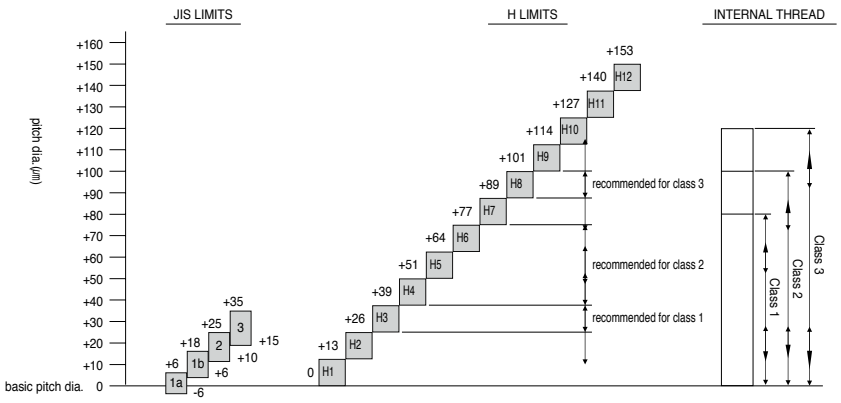
Metric-ISO threads coarse pitch Gwint metryczny zwykły ISO			
UNF	**T.P.I**	**Max. core dia** Maks. śred	**Dill size** Srednica wiertła
#0	80	1.306	1.30
#1	72	1.613	1.60
#2	64	1.913	1.90
#3	56	2.197	2.10
#4	48	2.459	2.40
#5	44	2.741	2.70
#6	40	3.012	3.00
#8	36	3.597	3.50
#10	32	4.168	4.10
#12	28	4.717	4.70
1/4″	28	5.563	5.50
5/16″	24	6.995	6.90
3/8″	24	8.565	8.50
7/16″	20	9.947	9.90
1/2″	20	11.524	11.50
9/16″	18	12.969	12.90
5/8″	18	14.554	14.50
3/4″	16	17.546	17.50
7/8″	14	20.493	20.50
1″	12	23.363	23.25
1*1/8″	12	26.538	26.50
1*1/4″	12	29.713	29.50
1*3/8″	12	32.888	32.70
1*1/2″	12	36.063	36.00

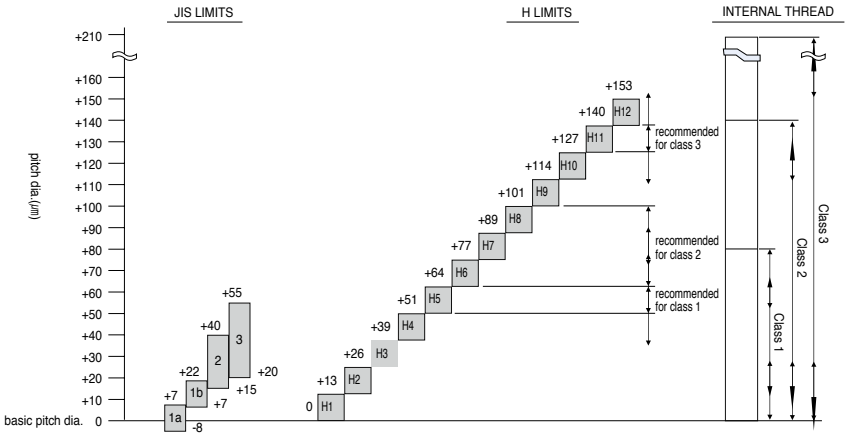
RECOMMENDED TAP DRILL SIZE TABELA DOBORU ŚREDNICY GWINTOWNIKA

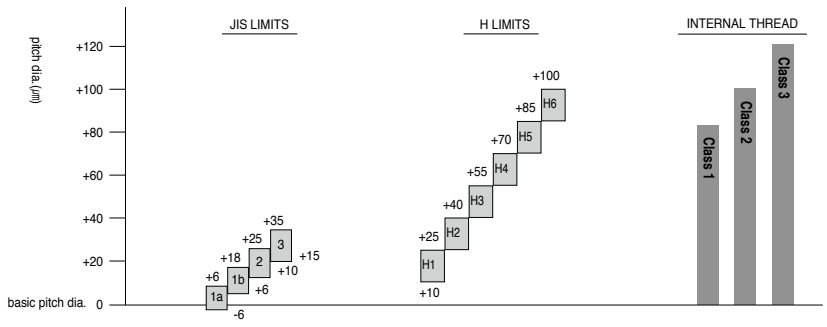
Metric-ISO threads coarse pitch Gwint metryczny zwykły ISO			
G(BSP)	**T.P.I**	**Max. core dia** Maks. śred	**Dill size** Srednica wiertła
#0	80	1.306	1.30
#1	72	1.613	1.60
#2	64	1.913	1.90
#3	56	2.197	2.10
#4	48	2.459	2.40
#5	44	2.741	2.70
#6	40	3.012	3.00
#8	36	3.597	3.50
#10	32	4.168	4.10
#12	28	4.717	4.70
1/4″	28	5.563	5.50
5/16″	24	6.995	6.90
3/8″	24	8.565	8.50
7/16″	20	9.947	9.90
1/2″	20	11.524	11.50
9/16″	18	12.969	12.90
5/8″	18	14.554	14.50
3/4″	16	17.546	17.50
7/8″	14	20.493	20.50
1″	12	23.363	23.25
1*1/8″	12	26.538	26.50
1*1/4″	12	29.713	29.50
1*3/8″	12	32.888	32.70
1*1/2″	12	36.063	36.00

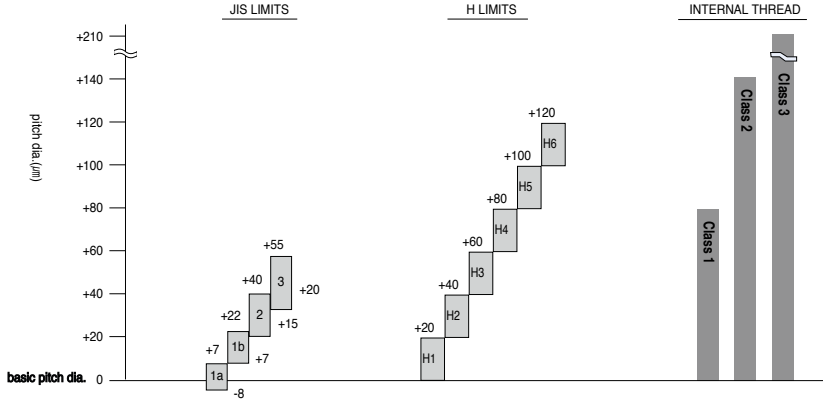
Metric-ISO threads coarse pitch Gwint metryczny zwykły ISO			
BSW	**T.P.I**	**Max. core dia** Maks. śred	**Dill size** Srednica wiertła
3/32"	48	1.910	1.80
1/8"	40	2.590	2.50
5/32"	32	3.211	3.10
3/16"	24	3.743	3.60
7/32"	24	4.538	4.40
1/4"	20	5.224	5.10
5/16"	18	6.661	6.50
3/8"	16	8.052	7.90
7/16"	14	9.379	9.30
1/2 "	12	10.610	10.50
9/16"	12	12.176	12.00
5/8"	11	13.598	13.50
3/4"	10	16.538	16.50
7/8"	9	19.411	19.25
1"	8	22.185	22.00
1*1/8"	7	24.879	24.75
1*1/4"	7	28.054	27.75
1*3/8"	6	30.555	30.50
1*1/2"	6	33.730	33.50
1*5/8"	5	35.921	35.50
1*3/4"	5	39.096	39.00
1*7/8"	4.5	41.648	41.50
2"	4.5	44.823	44.50
2*1/4"	4	50.420	50.00
2*1/2"	4	56.770	56.50
2*3/4"	3.5	62.108	62.00
3"	3.5	68.459	68.50

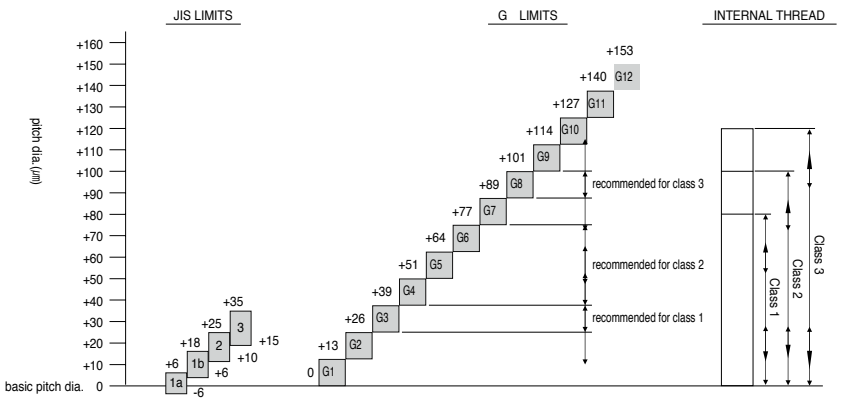
TECHNICAL INFORMATION INFORMACJA TECHNICZNA

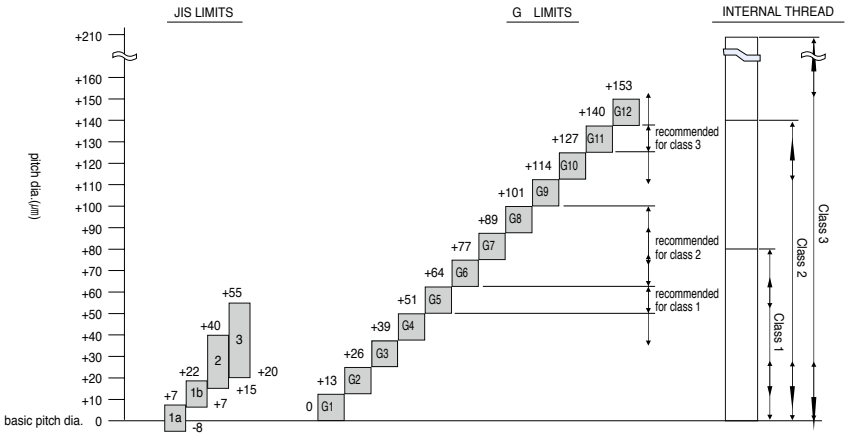


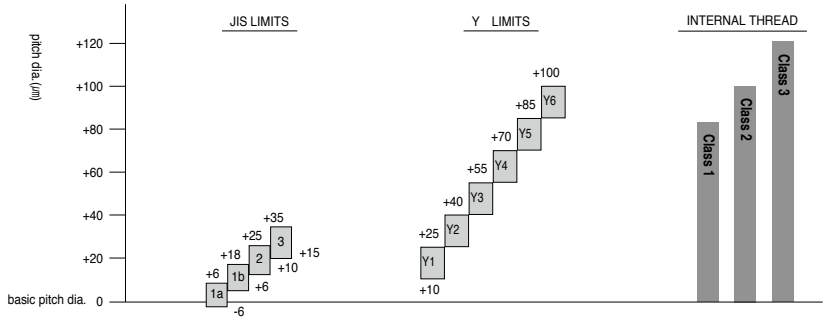


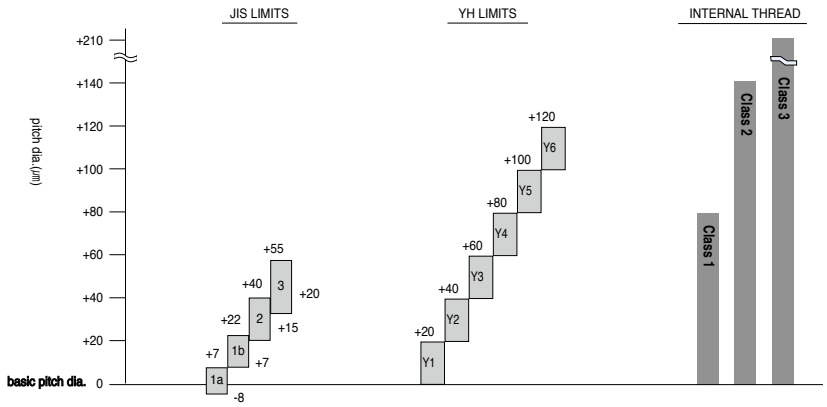





JIS LIMITS
G LIMITS
INTERNAL THREAD
pitch dia.(µm)
basic pitch dia.
recommended for class 3
recommended for class 2
recommended for class 1
Class 1
Class 2
Class 3


JIS LIMITS
G LIMITS
INTERNAL THREAD
pitch dia.(µm)
basic pitch dia.
recommended for class 3
recommended for class 2
recommended for class 1
Class 1
Class 2
Class 3

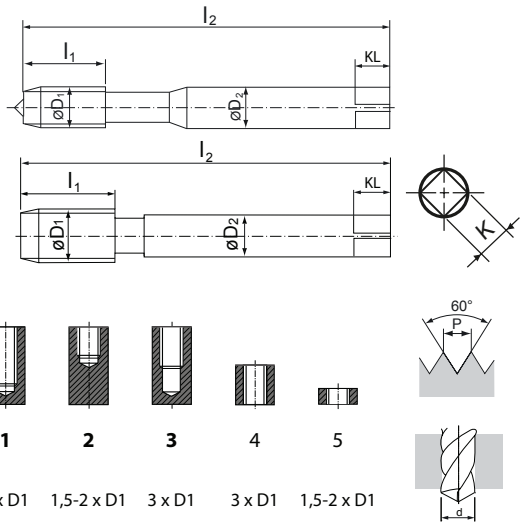

JIS LIMITS
Y LIMITS
INTERNAL THREAD
pitch dia.(µm)
basic pitch dia.
Class 1
Class 2
Class 3


JIS LIMITS
YH LIMITS
INTERNAL THREAD
pitch dia.(µm)
basic pitch dia.
Class 1
Class 2
Class 3

UNF

Unifed coarse thread ANSI B1.1

Gwint calowy zwykły ANSI B1.1



HSS-E

Brt

2B

B

DIN

4-5

O

1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

D1		P	L1	L2	D2	K	KL	d1	EDP	SCJ54				
DIN 371														
#4	x	48	12	56	4	3		2.40	**182**	•				
#6	x	40	14	70	6	4.9		2.90	**262**	•				
#8	x	36	13	70	6	4.9		3.50	**302**	•				
#10	x	32	13	80	6	4.9		4.10	**342**	•				
1/4"	x	28	17	90	8	6.2		5.50	**422**	•				
5/16"	x	24	18	100	10	8		6.90	**462**	•				
3/8"	x	24	18	110	12	9		8.50	**502**	•				
DIN 374														
7/16"	x	20	22	100	9	7		9.90	**542**	•				
1/2"	x	20	22	100	11	9		11.50	**582**	•				
9/16"	x	18	22	100	12	9		12.90	**622**	•				
5/8"	x	18	25	110	14	11		14.50	**662**	•				
3/4"	x	16	25	125	16	12		17.50	**722**	•				

GV

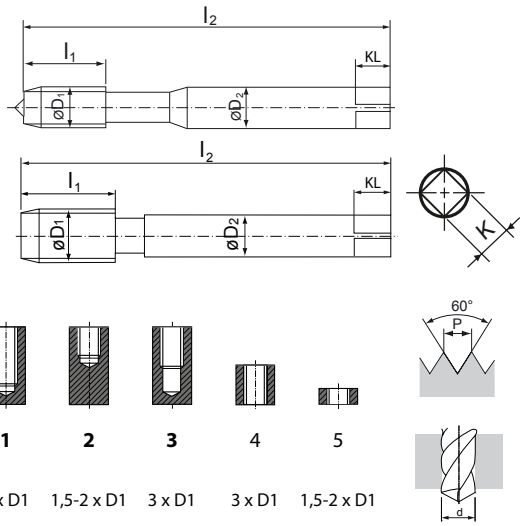
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•										○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•			○		○		•	•	○				

FORMING TAPS WYGNIATAKI

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13



1 | 2 | 3 | 4 | 5

3 x D1 | 1,5-2 x D1 | 3 x D1 | 3 x D1 | 1,5-2 x D1

HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
TiAlN	TiN	TiN	TiN	Ni
2X/6HX	2X/6HX	3X/6GX	2X/6HX	2X/6HX
C	C	C	B	B
DIN	DIN	DIN	DIN	DIN
1-2-3-4-5	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5
O	O	O	O	O

D1		P	L1	L2	D2	K	KL	d1	EDP	SYH03	SDH03	SDH13	SDH23	SEH03
DIN 371														
M2	x	0.4	8	45	2.8	2.1		1.60	**136**	•	•	•	•	•
M2.2	x	0.45	8	45	2.8	2.1		1.75	**156**	•	•	•	•	•
M2.3	x	0.4	8	45	2.8	2.1		1.90	**196**	•	•	•	•	•
M2.5	x	0.45	9	50	2.8	2.1		2.10	**176**	•	•	•	•	•
M2.6	x	0.45	9	50	2.8	2.1		2.20	**496**	•	•	•	•	•
M3	x	0.5	11	56	3.5	2.7		2.50	**206**	•	•	•	•	•
M3.5	x	0.6	12	56	4	3		2.90	**226**	•	•	•	•	•
M4	x	0.7	13	63	4.5	3.4		3.30	**246**	•	•	•	•	•
M4.5	x	0.75	14	70	6	4.9		3.80	**266**	•	•	•	•	•
M5	x	0.8	15	70	6	4.9		4.20	**286**	•	•	•	•	•
M6	x	1	17	80	6	4.9		5.00	**316**	•	•	•	•	•
M7	x	1	17	80	7	5.5		6.00	**346**	•	•	•	•	•
M8	x	1.25	20	90	8	6.2		6.80	**366**	•	•	•	•	•
M9	x	1.25	20	90	9	7		7.80	**396**	•	•	•	•	•
DIN 376														
M10	x	1.5	22	100	10	8		8.50	**426**	•	•	•	•	•
M11	x	1.5	22	100	8	6.2		9.50	**466**	•	•	•	•	•
M12	x	1.75	24	110	9	7		10.30	**506**	•	•	•	•	•
M14	x	2	26	110	11	9		12.00	**546**	•	•	•	•	•
M16	x	2	27	110	12	9		14.00	**606**	•	•	•	•	•
M18	x	2.5	30	125	14	11		15.50	**656**	•	•	•	•	•
M20	x	2.5	32	140	16	12		17.50	**706**	•	•	•	•	•

W

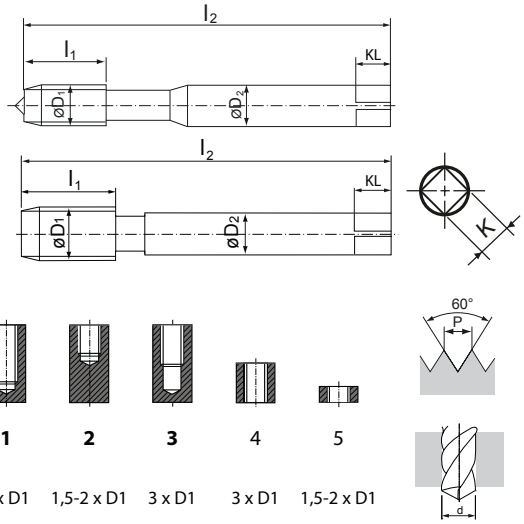
N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•										○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•			○		○		•	•	○				

FORMING TAPS WYGNIATAKI

M

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E	HSS PM	HSS PM
Ni	Ni	VAP	VAP
3X/6GX	2X/6HX	2X/6HX	2X/6HX
C	C	C	B
DIN	DIN	DIN	DIN
1-2-3-4-5	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5
O	O	O	O

D1		P	L1	L2	D2	K	KL	d1	EDP	SEH13	SEH23	SQA23	SQH03
DIN 371													
M2	x	0.4	8	45	2.8	2.1		1.60	**136**	•	•	•	•
M2.2	x	0.45	8	45	2.8	2.1		1.75	**156**	•	•	•	•
M2.3	x	0.4	8	45	2.8	2.1		1.90	**196**	•	•	•	•
M2.5	x	0.45	9	50	2.8	2.1		2.10	**176**	•	•	•	•
M2.6	x	0.45	9	50	2.8	2.1		2.20	**496**	•	•	•	•
M3	x	0.5	11	56	3.5	2.7		2.50	**206**	•	•	•	•
M3.5	x	0.6	12	56	4	3		2.90	**226**	•	•	•	•
M4	x	0.7	13	63	4.5	3.4		3.30	**246**	•	•	•	•
M4.5	x	0.75	14	70	6	4.9		3.80	**266**	•	•	•	•
M5	x	0.8	15	70	6	4.9		4.20	**286**	•	•	•	•
M6	x	1	17	80	6	4.9		5.00	**316**	•	•	•	•
M7	x	1	17	80	7	5.5		6.00	**346**	•	•	•	•
M8	x	1.25	20	90	8	6.2		6.80	**366**	•	•	•	•
M9	x	1.25	20	90	9	7		7.80	**396**	•	•	•	•
DIN 376													
M10	x	1.5	22	100	10	8		8.50	**426**	•	•	•	•
M11	x	1.5	22	100	8	6.2		9.50	**466**	•	•	•	•
M12	x	1.75	24	110	9	7		10.30	**506**	•	•	•	•
M14	x	2	26	110	11	9		12.00	**546**	•	•	•	•
M16	x	2	27	110	12	9		14.00	**606**	•	•	•	•
M18	x	2.5	30	125	14	11		15.50	**656**	•	•	•	•
M20	x	2.5	32	140	16	12		17.50	**706**	•	•	•	•

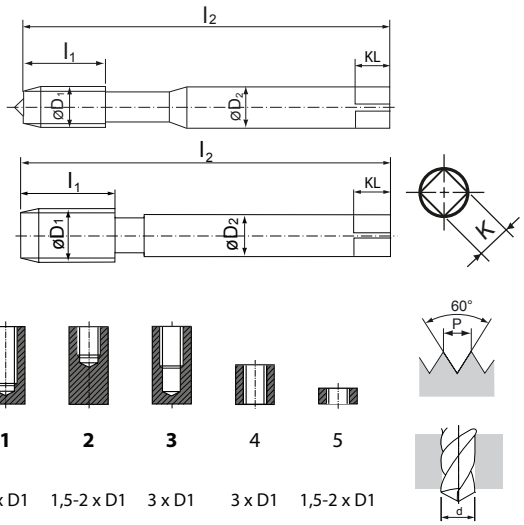
GV

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•										○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•			○		○		•	•	○				

MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13



1 2 3 4 5

3 x D1 1,5-2 x D1 3 x D1 3 x D1 1,5-2 x D1

HSS-E	HSS-E
TiN	Ni
2X/6HX	2X/6HX
C	C
DIN	DIN
1-2-3-4-5	1-2-3-4-5
o	o

D1		P	L1	L2	D2	K	KL	d1	EDP	SDH33	SEH33		
DIN 374													
M4	x	0.5	10	63	2.8	2.1		3.50	**256**	•	•		
M5	x	0.5	11	70	3.5	2.7		4.50	**296**	•	•		
M6	x	0.75	13	80	4.5	3.4		5.30	**326**	•	•		
M6	x	0.5	13	80	4.5	3.4		5.50	**336**	•	•		
M7	x	0.75	14	80	5.5	4.3		6.30	**356**	•	•		
M8	x	1	17	90	6	4.9		7.00	**376**	•	•		
M8	x	0.75	14	80	6	4.9		7.30	**386**	•	•		
M10	x	1.25	22	100	7	5.5		8.80	**436**	•	•		
M10		1	18	90	7	5.5		9.00	**446**	•	•		
M10		0.75	18	90	7	5.5		9.30	**456**	•	•		
M12		1.5	22	100	9	7		10.50	**516**	•	•		
M12		1.25	22	100	9	7		10.80	**526**	•	•		
M12		1	18	100	9	7		11.00	**536**	•	•		
M14		1.5	22	100	11	9		12.50	**556**	•	•		
M14		1.25	22	100	11	9		12.90	**566**				
M16		1.5	22	100	12	9		14.50	**616**				
M18		1.5	25	110	14	11		16.50	**676**				
M20		1.5	25	125	16	12		18.50	**726**				

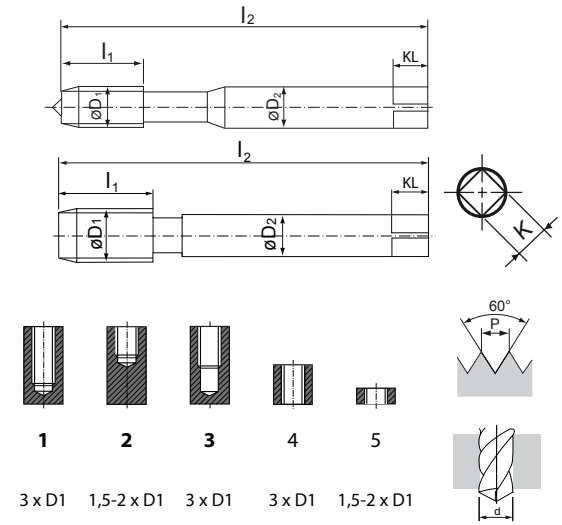
W

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•										○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•			○		○		•	•	○				

MF

ISO Metric coarse threads DIN 13

Gwint metryczny zwykły ISO DIN 13



1	2	3	4	5
3 x D1	1,5-2 x D1	3 x D1	3 x D1	1,5-2 x D1

HSS-E	HSS-E
TiN	Ni
2BX	2BX
C	C
1-2-3-4-5	1-2-3-4-5
DIN	DIN
O	O

D1		P	L1	L2	D2	K	KL	d1	EDP	SDH04	SEH04		
DIN 371													
#5	x	40UNC	11	56	3.5	2.7		2.60	**202**	•	•		
#6	x	32UNC	12	56	4	3		2.80	**242**	•	•		
#8	x	32UNC	13	63	4.5	3.4		3.40	**282**	•	•		
#10	x	24UNC	15	70	6	4.9		3.90	**322**	•	•		
#12	x	24UNC	16	80	6	4.9		4.50	**362**	•	•		
1/4"	x	20UNC	17	80	7	5.5		5.20	**402**	•	•		
3/8"	x	16UNC	22	100	9	7		8.00	**482**	•	•		
DIN 376													
5/16"	x	18UNC	20	90	8	6.2		6.60	**442**	•	•		
7/16"	x	14UNC	22	100	8	6.2		9.40	**522**	•	•		
1/2"	x	13UNC	25	110	9	7		10.75	**562**	•	•		
9/16"	x	12UNC	26	110	11	9		12.25	**602**	•	•		
5/8"	x	11UNC	27	110	12	9		13.50	**642**	•	•		
3/4"	x	10UNC	30	125	14	11		16.50	**702**	•	•		

N/mm²	Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
Vc m/min	25-20	15-20	12-18	10-15	6-10	3-5	7-10	5-8	4-6	10-15	5-8	10-15	5-8	10-15	8-12
	•	•	•	•										○	
N/mm²	Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
Vc m/min	4-6	8-12	10-15	2-4	8-12	25-35	15-20	3-5	10-15	25-35	15-20	10-15	20-30	8-12	5-7
		•			○		○		•	•	○				

W

SELECTION GUIDE SPIS TREŚCI

Solid carbide thread mill UFT Frezy gwintujące UFT

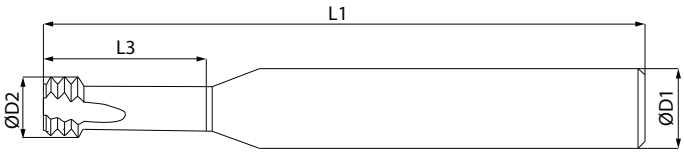
ISO Metric coarse threads DIN 13 Gwint metryczny zwykły ISO DIN 13

SELECTION GUIDE SPIS TREŚCI

SELECTION GUIDE SPIS TREŚCI

UFT08

Miniature thread mills Frezy gwintujące miniaturowe



D code new Nowy kod	M corase	M fine	Pitch Skok mm	D2	D1	l3	l1	Z
UFT080120303035ISO01	35	M1.6x0.35	35	1,2	3	3,3	39	3
UFT080150304040ISO01	40	M2.0x0.4	40	1,54	3	4,4	39	3
UFT080160305045ISO01	45	M2.2x0.45	45	1,63	3	4,8	39	3
UFT080200405045ISO01	45	M2.5x0.45	45	1,96	4	5,3	51	3
UFT080240406050ISO01	50	M3.0x0.5	50	2,4	4	6,4	51	3
UFT080280407060ISO01	60	M3.5x0.6	60	2,75	4	7,4	51	3
UFT080320609070ISO01	70	M4.0x0.7	70	3,15	6	8,6	57	3
UFT080400612080ISO01	80	M5.0x0.8	80	4	6	12	57	3
UFT080480613100ISO01	100	M6.0x1.0	100	4,75	6	13	57	3
UFT080600617125ISO01	125	M8.0x1.25	125	5,95	6	17,3	57	3
UFT080790822150ISO01	150	M10.0x1.5	150	7,9	8	22	63	3
UFT080941026175ISO01	175	M12.0x1.75	175	9,4	10	25,5	73	3
UFT081001029200ISO01	200	M14x2.0	200	9,95	10	29	73	3
UFT081201233200ISO01	200	M16x2.0	200	11,95	12	33	84	4
UFT081591642250ISO01	250	M20X2.5	250	15,9	16	42	105	5
UFT080110304030ISO01	30	M1.4x0.3	30	1,06	3	3,9	39	3
UFT080120305035ISO01	35	M1.6x0.35	35	1,2	3	5,1	39	3
UFT080150306040ISO01	40	M2.0x0.4	40	1,54	3	6,1	39	3
UFT080200408045ISO01	45	M2.5x0.45	45	1,96	4	7,6	39	3
UFT080240409050ISO01	50	M3.0x0.5	50	2,4	4	9,3	51	3
UFT080320612070ISO01	70	M4.0x0.7	70	3,15	6	12,4	51	3
UFT080400616080ISO01	80	M5.0x0.8	80	4	6	15,6	57	3
UFT080480619100ISO01	100	M6.0x1.0	100	4,75	6	19	57	3
UFT080600624125ISO01	125	M8.0x1.25	125	5,95	6	24,3	57	3
UFT080790831150ISO01	150	M10x1.5	150	7,9	8	31	63	3

M

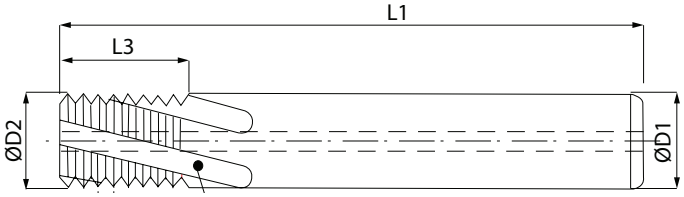
ISO Metric coarse threads DIN 13
Gwint metryczny zwykły ISO DIN 13

UFT12

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

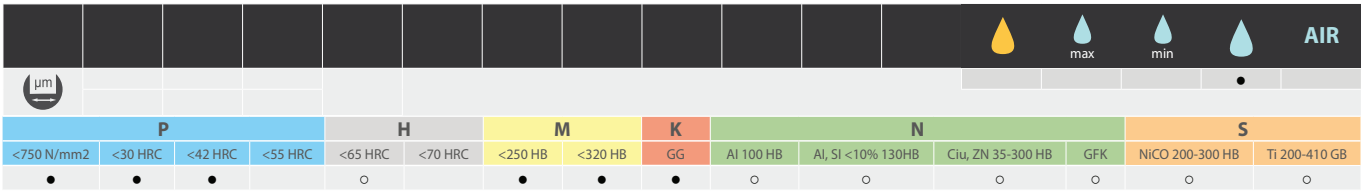
P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○

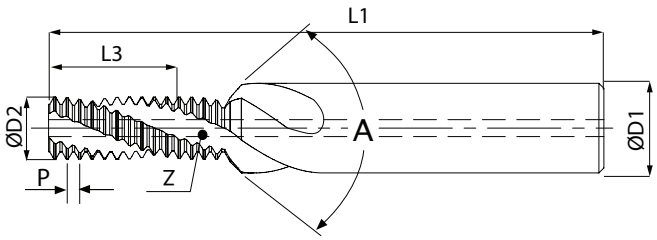


D code new Nowy kod	**M corase**	**M fine**	**Pitch** Skok mm	**D2**	**D1**	**l3**	**l1**	**Z**
UFT120450613100ISO05	M6		1	4,5	6	13	57	3
UFT120600618125ISO05	M8		1,25	6	6	17,5	65	3
UFT120750821150ISO05	M10		1,5	7,5	8	21	72	4
UFT120951026175ISO05	M12		1,75	9,5	10	26,25	80	4
UFT121001030200ISO05	M14		2	10	10	30	83	4
UFT121201234200ISO05	M16		2	12	12	34	92	4
UFT121601643250ISO05	M20		2,5	16	16	42,5	105	5

UFT15

Helical flutes thread mills Frezy gwintujące spiralne



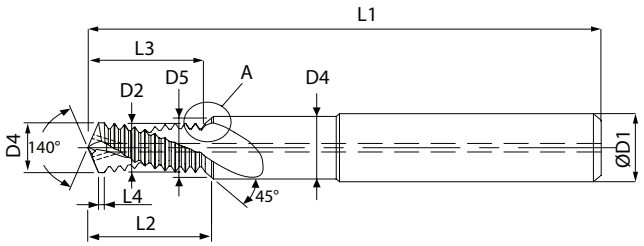


D code new Nowy kod	**M corase**	**M fine**	**Pitch** Skok mm	**D2**	**D1**	**l3**	**l1**	**Z**
UFT150480812100ISO05	M6		100	4,8	8	12,4	62	3
UFT150651017125ISO05	M8		125	6,5	10	16,8	74	3
UFT150821220150ISO05	M10		150	8,2	12	20,15	80	4
UFT150991425175ISO05	M12		175	9,9	14	25,25	90	4
UFT151161629200ISO05	M14		200	11,6	16	28,85	100	4
UFT151361833200ISO05	M16		200	13,6	18	32,85	102	4

UFT16

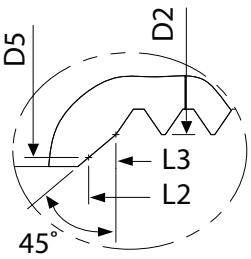
Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
•	•	•		○		•	•	•	○	○	○	○	○	○	



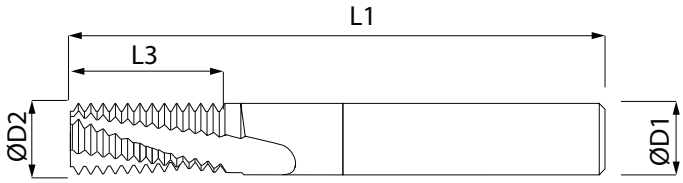
D code new Nowy kod	M corase	Pitch Skok mm	D5	D4	D3	D2	D1	l4	l3	l2	l1	Z
UFT160480813100ISO05	M6	1,00	6,3	6,6	5	4,75	8	1	13	14,68	62	2
UFT160641016125ISO05	M8	1,25	8,3	9	6,75	6,35	10	1,25	16,27	18,48	74	2
UFT160801221150ISO05	M10	1,50	10,3	11	8,5	7,95	12	1,5	21,05	23,77	79	2
UFT161001424175ISO05	M12	1,75	12,3	13,5	10,25	9,95	14	1,5	24,21	27,25	89	2
UFT161121630200ISO05	M14	2,00	14,3	15,5	12	11,2	16	1,5	29,58	33,32	102	2

"A"



UFT19

Helical flutes thread mills Frezy gwintujące spiralne



D code new Nowy kod	**M corase**	**M fine**	**Pitch** Skok mm	**D2**	**D1**	**l3**	**l1**	**Z**	
UFT190150403040ISO02	M2		0,4	1,5	4	3,4	50	3	1,5D
UFT190150405040ISO02	M2		0,4	1,5	4	4,6	50	3	2D
UFT190160404045ISO02	M2,2		0,45	1,6	4	3,82	50	3	1,5D
UFT190160405045ISO02	M2,2		0,45	1,6	4	5,17	50	3	2D
UFT190190404045ISO02	M2,5		0,45	1,9	4	4,27	50	3	1,5D
UFT190190406045ISO02	M2,5		0,45	1,9	4	5,62	50	3	2D
UFT190230405050ISO02	M3	≥M4	0,5	2,3	4	5,25	50	3	1,5D
UFT190230407050ISO02	M3	≥M4	0,5	2,3	4	6,75	50	3	2D
UFT190230408050ISO02	M3	≥M4	0,5	2,3	4	8,25	50	3	2,5D
UFT190230605050ISO02	M3	≥M4	0,5	2,3	6	5,25	63	3	1,5D
UFT190230607050ISO02	M3	≥M4	0,5	2,3	6	6,75	63	3	2D
UFT190230608050ISO02	M3	≥M4	0,5	2,3	6	8,25	63	3	2,5D
UFT190380411050ISO02		≥M5	0,5	3,8	4	10,75	50	3	1,5D
UFT190380611050ISO02		≥M5	0,5	3,8	6	10,75	63	3	1,5D
UFT190260406060ISO02	M3,5		0,6	2,6	4	6,3	50	3	1,5D
UFT190260408060ISO02	M3,5		0,6	2,6	4	8,1	50	3	2D
UFT190300407070ISO02	M4		0,7	3	4	7,35	50	3	1,5D
UFT190300409070ISO02	M4		0,7	3	4	8,75	50	3	2D
UFT190300411070ISO02	M4		0,7	3	4	10,85	50	3	2,5D
UFT190300607070ISO02	M4		0,7	3	6	7,35	63	3	1,5D
UFT190300609070ISO02	M4		0,7	3	6	8,75	63	3	2D
UFT190300611070ISO02	M4		0,7	3	6	10,85	63	3	2,5D
UFT190340408075ISO02	M4,5		0,75	3,4	4	7,87	50	3	1,5D
UFT190340410075ISO02	M4,5		0,75	3,4	4	10,12	50	3	2D
UFT190450611075ISO02		≥M6	0,75	4,5	6	10,87	63	3	1,5D
UFT190450617075ISO02		≥M6	0,75	4,5	6	16,87	63	3	2D
UFT190380408080ISO02	M5		0,8	3,8	4	8,4	50	3	1,5D
UFT190380411080ISO02	M5		0,8	3,8	4	10,8	50	3	2D
UFT190380413080ISO02	M5		0,8	3,8	4	13,2	50	3	2,5D
UFT190380608080ISO02	M5		0,8	3,8	6	8,4	63	3	1,5D
UFT190380611080ISO02	M5		0,8	3,8	6	10,8	63	3	2D
UFT190380613080ISO02	M5		0,8	3,8	6	13,2	63	3	2,5D
UFT190450611100ISO02	M6	≥M8	1	4,5	6	10,5	63	3	1,5D
UFT190450614100ISO02	M6	≥M8	1	4,5	6	13,5	63	3	2D
UFT190450617100ISO02	M6	≥M8	1	4,5	6	16,5	63	3	2,5D

M

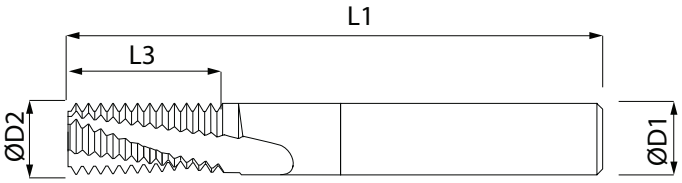
ISO Metric coarse threads DIN 13
Gwint metryczny zwykły ISO DIN 13

UFT19

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○

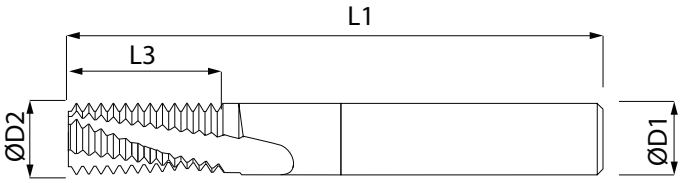


D code new Nowy kod	M corase	M fine	Pitch Skok mm	D2	D1	l3	l1	Z	
UFT190450620100ISO02	M6	≥M8	1	4,5	6	19,5	63	3	3D
UFT190600614100ISO02		≥M8	1	6	6	13,5	63	3	1,5D
UFT190800818100ISO02		≥M10	1	8	8	17,5	63	4	1,5D
UFT191201222100ISO02		≥M14	1	12	12	21,5	83	6	1,5D
UFT190600614125ISO02	M8	≥M10	1,25	6	6	14,37	63	3	1,5D
UFT190600618125ISO02	M8	≥M10	1,25	6	6	18,12	63	3	2D
UFT190600622125ISO02	M8	≥M10	1,25	6	6	21,87	63	3	2,5D
UFT190600626125ISO02	M8	≥M10	1,25	6	6	25,62	76	3	3D
UFT190750817150ISO02	M10	≥M12	1,5	7,5	8	17,25	63	3	1,5D
UFT190750822150ISO02	M10	≥M12	1,5	7,5	8	21,75	76	3	2D
UFT190750828150ISO02	M10	≥M12	1,5	7,5	8	27,75	76	3	2,5D
UFT190750832150ISO02	M10	≥M12	1,5	7,5	8	32,25	76	3	3D
UFT191001023150ISO02		≥M14	1,5	10	10	23,25	76	4	1,5D
UFT191201229150ISO02		≥M16	1,5	12	12	29,25	83	4	1,5D
UFT191601635150ISO02		≥M20	1,5	16	16	35,25	100	6	1,5D
UFT190800820175ISO02	M12		1,75	8	8	20,12	76	3	1,5D
UFT190800827175ISO02	M12		1,75	8	8	27,12	76	3	2D
UFT190901020175ISO02	M12		1,75	9	10	20,12	76	3	1,5D
UFT190901027175ISO02	M12		1,75	9	10	27,12	76	3	2D
UFT190901032175ISO02	M12		1,75	9	10	32,37	100	3	2,5D
UFT190901038175ISO02	M12		1,75	9	10	37,62	100	3	3D
UFT191001023200ISO02	M14	≥M18	2	10	10	23	76	3	1,5D
UFT191001031200ISO02	M14	≥M18	2	10	10	31	100	3	2D
UFT191001037200ISO02	M14	≥M18	2	10	10	37	100	3	2,5D
UFT191201227200ISO02	M16	≥M18	2	12	12	27	83	4	1,5D
UFT191201235200ISO02	M16	≥M18	2	12	12	35	100	4	2D
UFT191201243200ISO02	M16	≥M18	2	12	12	43	100	4	2,5D
UFT191201251200ISO02	M16	≥M18	2	12	12	51	100	3	3D
UFT191601639200ISO02		≥M20	2	16	16	39	100	5	1,5D
UFT192002043200ISO02		≥M24	2	20	20	43	100	6	1,5D
UFT192502557200ISO02		≥M30	2	25	25	57	130	6	1,5D
UFT191201231250ISO02	M18		2,5	12	12	31,25	100	3	1,5D
UFT191201239250ISO02	M18		2,5	12	12	38,75	100	3	2D
UFT191201249250ISO02	M18		2,5	12	12	48,75	100	3	2,5D

UFT19

Helical flutes thread mills Frezy gwintujące spiralne

												max	min	AIR
µm														●
P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
●	●	●		○		●	●	●	○	○	○	○	○	○

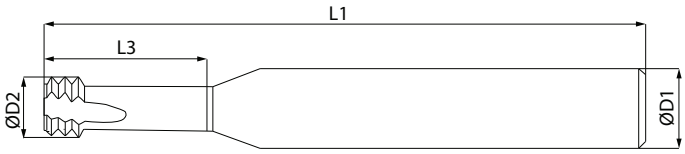


D code new Nowy kod	M corase	M fine	Pitch Skok mm	D2	D1	l3	l1	Z	
UFT191401434250ISO02	M20		2,5	14	14	33,75	89	4	1,5D
UFT191401444250ISO02	M20		2,5	14	14	43,75	100	4	2D
UFT191501654250ISO02	M20		2,5	15	16	53,75	120	4	2,5D
UFT191501664250ISO02	M20		2,5	15	16	63,75	120	3	3D
UFT191601641300ISO02	M24	≥M30	3	16	16	40,5	100	3	1,5D
UFT191601653300ISO02	M24	≥M30	3	16	16	52,5	120	3	2D
UFT191801865300ISO02	M24	≥M30	3	18	18	64,5	130	3	2,5D
UFT192002047300ISO02		≥M30	3	20	20	46,5	120	4	1,5D
UFT192502562300ISO02		≥M33	3	25	25	61,5	130	4	1,5D
UFT192002051350ISO02	M30		3,5	20	20	50,75	120	3	1,5D
UFT192002065350ISO02	M30		3,5	20	20	64,75	150	3	2D
UFT192002079350ISO02	M30		3,5	20	20	78,75	150	3	2,5D
UFT192502558400ISO02	M36	≥M42	4	25	25	58	130	3	1,5D
UFT192502578400ISO02	M36	≥M42	4	25	25	78	150	3	2D

UFT20

Helical flutes thread mills Frezy gwintujące spiralne

												max	min	AIR
µm													•	
P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○

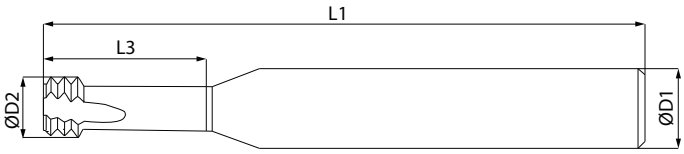


D code new Nowy kod	M corase	M fine	Pitch Skok mm	D2	D1	l3	l1	Z	
UFT200120603035ISO01	M1.6x0.35		0,35	1,2	6	3,3	57	3	2D
UFT200150604040ISO01	M2.0x0.4		0,4	1,54	6	4,4	57	3	2D
UFT200160605045ISO01	M2.2x0.45		0,45	1,63	6	4,8	57	3	2D
UFT200200605045ISO01	M2.5x0.45		0,45	1,96	6	5,3	57	3	2D
UFT200240606050ISO01	M3.0x0.5		0,5	2,4	6	6,4	57	3	2D
UFT200280607060ISO01	M3.5x0.6		0,6	2,75	6	7,4	57	3	2D
UFT200320609070ISO01	M4.0x0.7		0,7	3,15	6	8,6	57	3	2D
UFT200400612080ISO01	M5.0x0.8		0,8	4	6	12	57	3	2D
UFT200480613100ISO01	M6.0x1.0		1	4,75	6	13	57	3	2D
UFT200600617125ISO01	M8.0x1.25		1,25	5,95	6	17,3	57	3	2D
UFT200790822150ISO01	M10.0x1.5		1,5	7,9	8	22	63	3	2D
UFT200120605035ISO01	M1.6x0.35		0,35	1,2	6	5,1	57	3	3D
UFT200150606040ISO01	M2.0x0.4		0,4	1,54	6	6,1	57	3	3D
UFT200200608045ISO01	M2.5x0.45		0,45	1,96	6	7,6	57	3	3D
UFT200240609050ISO01	M3.0x0.5		0,5	2,4	6	9,3	57	3	3D
UFT200320612070ISO01	M4.0x0.7		0,7	3,15	6	12,4	57	3	3D
UFT200400616080ISO01	M5.0x0.8		0,8	4	6	15,6	57	3	3D
UFT200480619100ISO01	M6.0x1.0		1	4,75	6	19	57	3	3D
UFT200600624125ISO01	M8.0x1.25		1,25	5,95	6	24,3	57	3	3D
UFT200380408080ISO02	M5		0,8	3,8	4	8,4	50	3	1,5D
UFT200380411080ISO02	M5		0,8	3,8	4	10,8	50	3	2D
UFT200380413080ISO02	M5		0,8	3,8	4	13,2	50	3	2,5D
UFT200450611100ISO02	M6		1	4,5	6	10,5	63	3	1,5D
UFT200450614100ISO02	M6		1	4,5	6	13,5	63	3	2D
UFT200450617100ISO02	M6		1	4,5	6	16,5	63	3	2,5D
UFT200600614125ISO02	M8	≥M10	1,25	6	6	14,37	63	3	1,5D
UFT200600618125ISO02	M8	≥M10	1,25	6	6	18,12	63	3	2D
UFT200600622125ISO02	M8	≥M10	1,25	6	6	21,87	63	3	2,5D
UFT200750817150ISO02	M10	≥ M12	1,5	7,5	8	17,25	76	3	1,5D
UFT200750822150ISO02	M10	≥ M12	1,5	7,5	8	21,75	76	3	2D
UFT200750828150ISO02	M10	≥ M12	1,5	7,5	8	27,75	76	3	2,5D
UFT200750832150ISO02	M10	≥ M12	1,5	7,5	8	32,25	76	3	3D
UFT201201229150ISO02		≥M16	1,5	12	12	29,25	100	4	1,5D
UFT201601635150ISO02		≥ M20	1,5	16	16	35,25	120	6	1,5D
UFT200800820175ISO02	M12		1,75	8	8	20,12	76	3	1,5D
UFT200800827175ISO02	M12		1,75	8	8	27,12	76	3	2D
UFT200901020175ISO02	M12		1,75	9	10	20,12	100	3	1,5D
UFT200901027175ISO02	M12		1,75	9	10	27,12	100	3	2D

UFT20

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														●	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, SI <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
●	●	●		○		●	●	●	○	○	○	○	○	○	



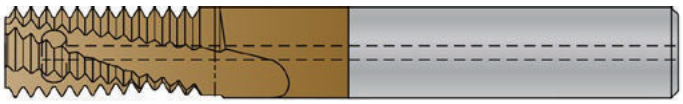
D code new Nowy kod	**M corase**	**M fine**	**Pitch** Skok mm	**D2**	**D1**	**l3**	**l1**	**Z**	
UFT200901032175ISO02	M12		1,75	9	10	32,37	100	3	2,5D
UFT200901038175ISO02	M12		1,75	9	10	37,62	100	3	3D
UFT201001023200ISO02	M14	≥M18	2	10	10	23	100	3	1,5D
UFT201001031200ISO02	M14	≥M18	2	10	10	31	100	3	2D
UFT201201227200ISO02	M16	≥M18	2	12	12	27	100	4	1,5D
UFT201201235200ISO02	M16	≥M18	2	12	12	35	100	4	2D
UFT201201243200ISO02	M16	≥M18	2	12	12	43	100	4	2,5D
UFT201201251200ISO02	M16	≥M18	2	12	12	51	100	3	3D
UFT201601639200ISO02		≥ M20	2	16	16	39	120	5	2D
UFT201401434250ISO02	M20		2,5	14	14	33,75	100	4	1,5D
UFT201401444250ISO02	M20		2,5	14	14	43,75	100	4	2D
UFT201501654250ISO02	M20		2,5	15	16	53,75	120	4	2,5D
UFT201601641300ISO02	M24	≥ M30	3	16	16	40,5	120	3	1,5D
UFT201601653300ISO02	M24	≥ M30	3	16	16	52,5	120	3	2D
UFT202002051350ISO02	M30		3,5	20	20	50,75	150	3	1,5D
UFT202002065350ISO02	M30		3,5	20	20	64,75	150	3	2D

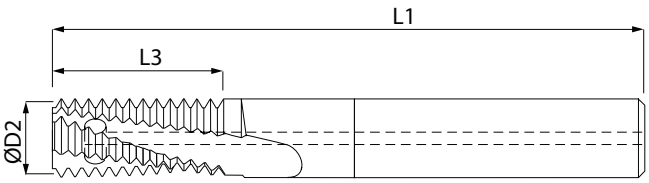
UFT22

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



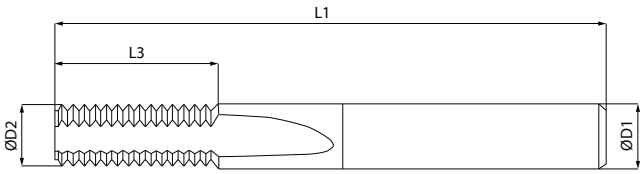


D code new Nowy kod	**M corase**	**M fine**	**Pitch** Skok mm	**D2**	**D1**	**l3**	**l1**	**Z**	
UFT220800818100ISO02		≥M10	1	8	8	17,5	76	4	2D
UFT220600618125ISO02	M8	≥M10	1,25	6	6	18,12	76	3	2D
UFT220750822150ISO02	M10	≥ M1	1,5	7,5	8	21,75	76	3	2D
UFT221201229150ISO02		≥M16	1,5	12	12	29,25	100	4	2D
UFT220800827175ISO02	M12		1,75	8	8	27,12	76	3	2D
UFT220901027175ISO02	M12		1,75	9	10	27,12	100	3	2D
UFT221001031200ISO02	M14	≥M18	2	10	10	31	100	3	2D
UFT221201235200ISO02	M16	≥M18	2	12	12	35	100	4	2D
UFT221601639200ISO02		≥M20	2	16	16	39	100	5	2D

UFT25

Helical flutes thread mills Frezy gwintujące spiralne

												max	min	AIR
µm														●
P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
●	●	●		○		●	●	●	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok mm	D2	D1	l3	l1	Z	
UFT250590611075ISO01		M8.0X0.75	0,75	5,9	6	10,8	57	3	2D
UFT250390610080ISO01	M5.0x0.8		0,8	3,9	6	10	57	3	2D
UFT250480612100ISO01	M6.0x1.0	M7.0x1.0	1	4,8	6	11,5	57	3	2D
UFT250790818100ISO01		M10.0x1.0	1	7,9	8	17,5	63	4	2D
UFT250991021100ISO01		M12x1.0	1	9,9	10	20,5	73	4	2D
UFT250590614125ISO01	M8.0x1.25	M9.0x1.25	1,25	5,9	6	14,4	57	3	2D
UFT250790819150ISO01	M10x1.5	M11.0x1.5	1,5	7,9	8	18,5	63	3	2D
UFT250991022150ISO01		M13.0x1.5	1,5	9,9	10	21,8	73	4	2D
UFT251191226150ISO01		M15.0x1.5	1,5	11,9	12	26,3	84	4	2D
UFT250790818175ISO01	M12.0x1.75		1,75	7,9	8	18	64	3	2D
UFT250991025200ISO01	M14.0x2.0		2	9,9	10	25	73	3	2D
UFT251191227200ISO01	M16.0x2.0		2	11,9	12	27	84	4	2D
UFT251191230250ISO01	M20.0x2.5		2,5	11,9	12	30	84	4	2D
UFT251591641300ISO01	M24.0x3.0	M27.0x3.0	3	15,9	16	40,5	105	4	2D

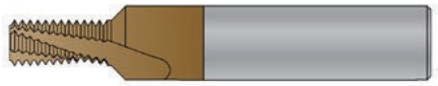
M

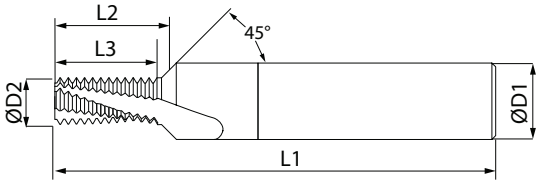
ISO Metric coarse threads DIN 13
Gwint metryczny zwykły ISO DIN 13

UFT30

Helical flutes thread mills Frezy gwintujące spiralne

												max	min	AIR
µm														•
P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



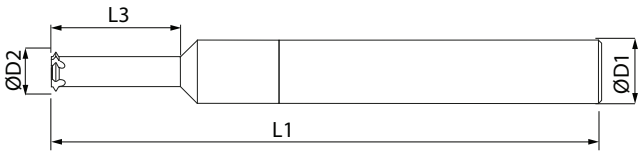


D code new Nowy kod	M corase	Pitch Skok mm	D2	D1	l3	l2	l1	Z	
UFT300230605050ISO02	M3	0,5	2,3	6	5,25	5,85	63	3	1,5D
UFT300230607050ISO02	M3	0,5	2,3	6	6,75	7,35	63	3	2D
UFT300230608050ISO02	M3	0,5	2,3	6	8,25	8,85	63	3	2,5D
UFT300230610050ISO02	M3	0,5	2,3	6	9,75	10,35	63	3	3D
UFT300300607070ISO02	M4	0,7	3	6	7,35	8,2	63	3	1,5D
UFT300300609070ISO02	M4	0,7	3	6	8,75	9,6	63	3	2D
UFT300300611070ISO02	M4	0,7	3	6	10,85	11,7	63	3	2,5D
UFT300300613070ISO02	M4	0,7	3	6	12,95	13,8	63	3	3D
UFT300380608080ISO02	M5	0,8	3,8	6	8,4	9,4	63	3	1,5D
UFT300380611080ISO02	M5	0,8	3,8	6	10,8	11,8	63	3	2D
UFT300380613080ISO02	M5	0,8	3,8	6	13,2	14,2	63	3	2,5D
UFT300380616080ISO02	M5	0,8	3,8	6	16,4	17,4	63	3	3D
UFT300450811100ISO02	M6	1	4,5	8	10,5	11,75	63	3	1,5D
UFT300450814100ISO02	M6	1	4,5	8	13,5	14,75	63	3	2D
UFT300450817100ISO02	M6	1	4,5	8	16,5	17,75	63	3	2,5D
UFT300601014125ISO02	M8	1,25	6	10	14,37	16	76	3	1,5D
UFT300601018125ISO02	M8	1,25	6	10	18,12	19,75	76	3	2D
UFT300601022125ISO02	M8	1,25	6	10	21,87	23,5	76	3	2,5D
UFT300751217150ISO02	M10	1,5	7,5	12	17,25	19,25	83	3	1,5D
UFT300751222150ISO02	M10	1,5	7,5	12	21,75	23,75	83	3	2D
UFT300751228150ISO02	M10	1,5	7,5	12	27,75	29,75	83	3	2,5D
UFT300901420175ISO02	M12	1,75	9	14	20,12	22,5	89	3	1,5D
UFT300901427175ISO02	M12	1,75	9	14	27,12	29,5	89	3	2D
UFT300901432175ISO02	M12	1,75	9	14	32,37	34,75	89	3	2,5D

UFT31

Micro, one tooth thread mills Frezy gwintujące mikro jedno ostrzowe

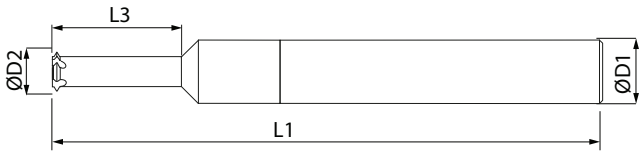
												max	min		AIR
µm														●	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
●	●	●		○		●	●	●	○	○	○	○	○	○	



D code new Nowy kod	M corase	M fine	Pitch Skok mm	D2	D1	l3	l1	Z	
UFT310150304000ISO02	M2-M2,2	MF1,8-MF2		1,5	3	3,8	39	3	1,5D
UFT310150305000ISO02	M2-M2,2	MF1,8-MF2		1,5	3	5,4	39	3	2,25D
UFT310190304000ISO02	M2,5	MF2,2		1,9	3	4,3	39	3	1,5D
UFT310190306000ISO02	M2,5	MF2,2		1,9	3	6,2	39	3	2,25D
UFT310210305000ISO02		M2,5		2,1	3	4,9	39	3	1,5D
UFT310210307000ISO02		M2,5		2,1	3	7,1	39	3	2,25D
UFT310230305000ISO02	M3			2,3	3	5,4	39	3	1,5D
UFT310230308000ISO02	M3			2,3	3	7,8	39	3	2,25D
UFT310260306000ISO02	M3,5	MF3		2,6	3	6,1	39	3	1,5D
UFT310260309000ISO02	M3,5	MF3		2,6	3	8,7	39	3	2,25D
UFT310300307000ISO02	M4	MF3,5-MF4		3	3	7,1	39	3	1,5D
UFT310300310000ISO02	M4	MF3,5-MF4		3	3	10,2	39	3	2,25D
UFT310360408000ISO02	M4,5	MF4,5		3,6	4	8,3	50	3	1,5D
UFT310360412000ISO02	M4,5	MF4,5		3,6	4	12	50	3	2,25D
UFT310400410000ISO02	M5-M6	MF5-MF6		4	4	10	50	3	1,5D
UFT310400415000ISO02	M5-M6	MF5-MF6		4	4	14,5	50	3	2,25D
UFT310070302000ISO02	M1	M1		0,7	3	1,7	39	3	
UFT310070303000ISO02	M1	M1		0,7	3	2,5	39	3	
UFT310070303000ISO02	M1	M1		0,7	3	3,2	39	3	
UFT310090302000ISO02	M1,2	M1,2		0,9	3	2	39	3	
UFT310090303000ISO02	M1,2	M1,2		0,9	3	2,9	39	3	
UFT310090304000ISO02	M1,2	M1,2		0,9	3	3,9	39	3	
UFT310100302000ISO02	M1,4	M1,4		1,03	3	2,3	39	3	
UFT310100303000ISO02	M1,4	M1,4		1,03	3	3,3	39	3	
UFT310100304000ISO02	M1,4	M1,4		1,03	3	4,4	39	3	
UFT310120303000ISO02	M1,6	M1,4		1,16	3	2,5	39	3	
UFT310120304000ISO02	M1,6	M1,4		1,16	3	3,6	39	3	
UFT310120305000ISO02	M1,6	M1,4		1,16	3	5,1	39	3	
UFT310140303000ISO02	M1,8	M1,6		1,35	3	2,8	39	3	
UFT310140304000ISO02	M1,8	M1,6		1,35	3	4,2	39	3	
UFT310140306000ISO02	M1,8	M1,6		1,35	3	5,6	39	3	

UFT32

Micro, two tooth thread mills Frezy gwintujące mikro dwu ostrzowe

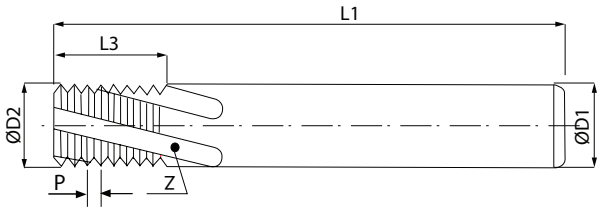


D code new Nowy kod	**M corase**	**M fine**	**Pitch** Skok mm	**D2**	**D1**	**l3**	**l1**	**Z**	
UFT320150303040ISO02	M2		0,4	1,5	3	3,4	39	3	1,5D
UFT320150305040ISO02	M2		0,4	1,5	3	5	39	3	2,25D
UFT320160304045ISO02	M2,2		0,45	1,6	3	3,8	39	3	1,5D
UFT320160305045ISO02	M2,2		0,45	1,6	3	5,4	39	3	2,25D
UFT320190304045ISO02	M2,5		0,45	1,9	3	4,2	39	3	1,5D
UFT320190306045ISO02	M2,5		0,45	1,9	3	6,1	39	3	2,25D
UFT320230305050ISO02	M3		0,5	2,3	3	5	39	3	1,5D
UFT320230307050ISO02	M3		0,5	2,3	3	7,3	39	3	2,25D
UFT320260306060ISO02	M3,5		0,6	2,6	3	6	39	3	1,5D
UFT320260309060ISO02	M3,5		0,6	2,6	3	8,5	39	3	2,25D
UFT320300307070ISO02	M4		0,7	3	3	7	39	3	1,5D
UFT320300310070ISO02	M4		0,7	3	3	10	39	3	2,25D
UFT320380409080ISO02	M5		0,8	3,8	4	9	50	3	1,5D
UFT320380412080ISO02	M5		0,8	3,8	4	12,1	50	3	2,25D
UFT320450610100ISO02	M6		1	4,5	6	10	63	3	1,5D
UFT320450615100ISO02	M6		1	4,5	6	14,5	63	3	2,25D
UFT320600614125ISO02	M8		1,25	6	6	14	63	3	1,5D
UFT320600619125ISO02	M8		1,25	6	6	19,3	63	3	2,25D

UFT10

Helical flutes thread mills Frezy gwintujące spiralne

												max	min	AIR
µm														•
P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



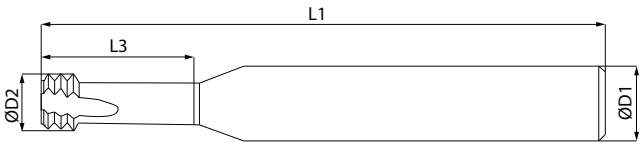
D code new Nowy kod	M corase	M fine	Pitch Skok mm	D2	D1	l3	l1	Z	
UFT100220605050ISO05	M3		0,5	2,2	6	5	57	3	2D
UFT100290607070ISO05	M4		0,7	2,9	6	7	57	3	2D
UFT100380608080ISO05	M5		0,8	3,8	6	8	57	3	2D
UFT100450613100ISO05	M6		1	4,5	6	13	57	3	2D
UFT100600618125ISO05	M8		1,25	6	6	17,5	65	3	2D
UFT100750821150ISO05	M10		1,5	7,5	8	21	72	4	2D
UFT100951026175ISO05	M12		1,75	9,5	10	26,25	80	4	2D
UFT101001030200ISO05	M14		2	10	10	30	83	4	2D
UFT101201234200ISO05	M16		2	12	12	34	92	4	2D
UFT101401438250ISO05	M18		2,5	14	14	37,5	92	5	2D
UFT101601643250ISO05	M20		2,5	16	16	42,5	105	5	2D

UFT65

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○

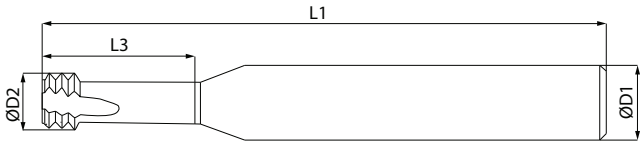


D code new Nowy kod	M corase	M fine	Pitch Skok mm	D2	D1	l3	l1	Z	
UFT651001022100ISO02			1	10	10	21,5	76	4	1,5D
UFT651201226150ISO02			1,5	12	12	26,25	83	4	1,5D
UFT651601635200ISO02			2	16	16	35	100	4	1,5D

UFT60

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
•	•	•		○		•	•	•	○	○	○	○	○	○	



D code new Nowy kod	M corase	M fine	Pitch Skok mm	D2	D1	l3	l1	Z	
UFT600120301035ISO05	M1.6		0,35	1,18	3	1,05	30	3	3D
UFT600150601040ISO05	M2		0,4	1,52	6	1,2	57	3	3D
UFT600170601045ISO05	M2.2		0,45	1,66	6	1,35	57	3	3D
UFT600200601045ISO05	M2.5		0,45	1,96	6	1,35	57	3	3D
UFT600240602050ISO05	M3		0,5	2,4	6	1,5	57	3	3D
UFT600320602070ISO05	M4		0,7	3,16	6	2,1	57	3	3D
UFT600400602080ISO05	M5		0,8	4,04	6	2,4	57	3	3D
UFT600480603100ISO05	M6		1	4,8	6	3	57	3	3D
UFT600650804125ISO05	M8		1,25	6,5	8	3,75	63	3	3D
UFT600821005150ISO05	M10		1,5	8,2	10	4,5	73	3	3D
UFT600991005175ISO05	M12		1,75	9,9	10	5,25	73	3	3D

M

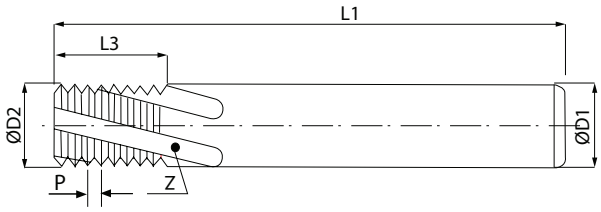
ISO Metric coarse threads DIN 13
Gwint metryczny zwykły ISO DIN 13

UFT18

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○

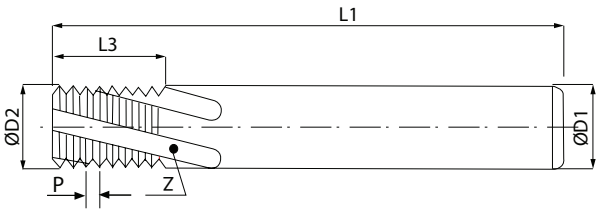


D code new Nowy kod	**M corase**	**M fine**	**Pitch** Skok mm	**D2**	**D1**	**l3**	**l1**	**Z**	
UFT180600613100ISO05		MF8	1	6	6	13	57	3	1,5D
UFT180600613075ISO05		MF8	0,75	6	6	12,75	57	3	1,5D
UFT180800816100ISO05		MF10	1	8	8	16	63	4	1,5D
UFT180951020150ISO05		MF12	1,5	9,5	10	19,5	72	4	1,5D
UFT180951019125ISO05		MF12	1,25	9,5	10	18,75	72	4	1,5D
UFT180951019100ISO05		MF12	1	9,5	10	19	72	4	1,5D
UFT181001023150ISO05		MF14	1,5	10	10	22,5	83	4	1,5D
UFT181001022100ISO05		MF14	1	10	10	22	83	4	1,5D
UFT181201226150ISO05		MF16	1,5	12	12	25,5	83	4	1,5D
UFT181201225100ISO05		MF16	1	12	12	25	83	4	1,5D
UFT181401429150ISO05		MF18	1,5	14	14	28,5	92	5	1,5D
UFT181401428100ISO05		MF18	1	14	14	28	92	5	1,5D
UFT181601632150ISO05		MF20	1,5	16	16	31,5	92	5	1,5D
UFT181601631100ISO05		MF20	1	16	16	31	92	5	1,5D

UFT37

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm												•	•		
P				**H**		**M**		**K**	**N**				**S**		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, SI <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
•	•	•		○		•	•	•	○	○	○	○	○	○	



D code new Nowy kod	**M corase**	**M fine**	**Pitch** Skok mm	**D2**	**D1**	**l3**	**l1**	**Z**	
UFT370600613100ISO05		MF8	1	6	6	13	57	3	1,5D
UFT370600613075ISO05		MF8	0,75	6	6	12,75	57	3	1,5D
UFT370800816100ISO05		MF10	1	8	8	16	63	4	1,5D
UFT370951020150ISO05		MF12	1,5	9,5	10	19,5	72	4	1,5D
UFT370951019125ISO05		MF12	1,25	9,5	10	18,75	72	4	1,5D
UFT370951019100ISO05		MF12	1	9,5	10	19	72	4	1,5D
UFT371001023150ISO05		MF14	1,5	10	10	22,5	83	4	1,5D
UFT371001022100ISO05		MF14	1	10	10	22	83	4	1,5D
UFT371201226150ISO05		MF16	1,5	12	12	25,5	83	4	1,5D
UFT371201225100ISO05		MF16	1	12	12	25	83	4	1,5D
UFT371401429150ISO05		MF18	1,5	14	14	28,5	92	5	1,5D
UFT371401428100ISO05		MF18	1	14	14	28	92	5	1,5D
UFT371601632150ISO05		MF20	1,5	16	16	31,5	92	5	1,5D
UFT371601631100ISO05		MF20	1	16	16	31	92	5	1,5D

M

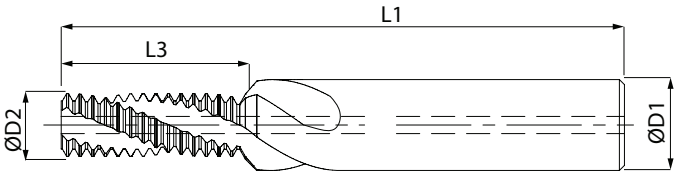
ISO Metric coarse threads DIN 13
Gwint metryczny zwykły ISO DIN 13

UFT41

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm												●	●		

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
●	●	●		○		●	●	●	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok mm	D2	D1	l3	l1	Z	
UFT410671012100ISO05		MF8	1	6,7	10	12,4	74	3	1,5D
UFT410831216125ISO05		MF10	1,25	8,3	12	15,9	80	4	1,5D
UFT410871215100ISO05		MF10	1	8,7	12	15,4	80	4	1,5D
UFT411001419150ISO05		MF12	1,5	10	14	18,65	90	4	1,5D
UFT411031418125ISO05		MF12	1,25	10,3	14	18,3	80	4	1,5D
UFT411071418100ISO05		MF12	1	10,7	14	18,4	90	4	1,5D
UFT411201622150ISO05		MF14	1,5	12	16	21,65	100	4	1,5D
UFT411401825150ISO05		MF16	1,5	14	18	24,65	102	5	1,5D

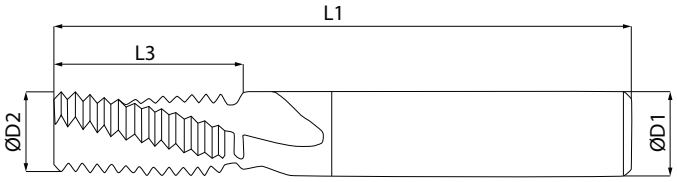
UN

Unifed coarse thread ANSI B1.1
Gwint calowy zwykły ANSI B1.1

UFT02

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, SI <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
•	•	•		○		•	•	•	○	○	○	○	○	○	



D code new Nowy kod	M corase	M fine	M extra fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT020590614032UN01			UNEF5/16	32	5,9	6	14	57	3	2D
UFT020790818032UN01			UNEF3/8	32	7,9	8	18	63	4	2D
UFT020510612028UN01		UNF1/4		28	5,1	6	12,2	57	3	2D
UFT020790816028UN01			UNEF7/16-1/2	28	7,9	8	15,8	63	4	2D
UFT020590611024UN01		UNF5/16		24	5,9	6	10,8	57	3	2D
UFT020790815024UN01		UNF3/8		24	7,9	8	15,3	63	4	2D
UFT021191223024UN01		UNF9/16-5/8		24	11,9	12	22,7	84	4	2D
UFT020480612020UN01	UNC1/4			20	4,8	6	12	57	3	2D
UFT020790820020UN01		UNF7/16		20	7,9	8	19,7	63	3	2D
UFT020991023020UN01		UNF1/2		20	9,9	10	22,5	73	4	2D
UFT021191226020UN01			UNEF3/4-1	20	11,9	12	26	84	4	2D
UFT020570616018UN01	UNC5/16			18	5,7	6	16	57	3	2D
UFT020991024018UN01		UNF9/16-5/8		18	9,9	10	23,5	73	4	2D
UFT020680818016UN01	UNC3/8			16	6,8	8	18,2	63	3	2D
UFT021191226016UN01		UNF3/4		16	11,9	12	26,2	84	4	2D
UFT020780821014UN01	UNC7/16			14	7,8	8	20,8	63	3	2D
UFT021191225014UN01		UNF7/8		14	11,9	12	24,5	84	4	2D
UFT020931024013UN01	UNC1/2			13	9,3	10	24,4	73	3	2D
UFT021061226012UN01	UNC9/16			12	10,6	12	26,4	84	4	2D
UFT021591639012UN01		UNF1		12	15,9	16	39,1	105	5	2D
UFT021151231011UN01	UNC5/8			11	11,5	12	31,1	84	3	2D
UFT021431637010UN01	UNC3/4			10	14,3	16	36,8	105	4	2D
UFT021591641009UN01	UNC7/8			9	15,9	16	40,9	105	4	2D
UFT021972043008UN01	UNC1			8	19,7	20	42,8	105	4	2D

UN

Unifed coarse thread ANSI B1.1
Gwint calowy zwykły ANSI B1.1

UFT09

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm												●	●		
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
●	●	●		○		●	●	●	○	○	○	○	○	○	

D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT090140304072UN01		1-72UNF	72	1,44	3	3,8	39	3	2D
UFT090140304064UN01	1-64UNC	2-64UNF	64	1,4	3	3,9	39	3	2D
UFT090170305056UN01	2-56UNC	3-56UNF	56	1,66	3	4,6	39	3	2D
UFT090190405048UN01	3-48UNC	4-48UNF	48	1,88	4	5,4	51	3	2D
UFT090210406040UN01	4-40UNC		40	2,12	4	6,2	51	3	2D
UFT090250407040UN01	5-40UNC	6-40UNF	40	2,46	4	7,1	51	3	2D
UFT090330409036UN01		8-36UNF	36	3,31	4	8,8	51	3	2D
UFT090260407032UN01	6-32UNC		32	2,57	4	7,3	51	3	2D
UFT090320610032UN01	8-32UNC	10-32UNF	32	3,22	6	10,1	57	3	2D
UFT090520614028UN01		1/4-28UNF	28	5,2	6	14	57	3	2D
UFT090360610024UN01	10-24UNC		24	3,55	6	10,4	57	3	2D
UFT090670817024UN01		5/16-24UNF	24	6,65	8	16,7	63	3	2D
UFT090490614020UN01	1/4-20UNC	7/16-20UNF	20	4,85	6	13,7	57	3	2D
UFT090800824020UN01		7/16-20UNF	20	7,95	8	24	63	3	2D
UFT090600617018UN01	5/16-18UNC		18	5,95	6	16,5	57	3	2D
UFT090690821016UN01	3/8-16UNC		16	6,9	8	21	63	3	2D
UFT090800824014UN01	7/16-14UNC		14	7,95	8	23,5	63	3	2D
UFT090931027013UN01	1/2-13UNC		13	9,3	10	27	73	3	2D
UFT091001029012UN01	9/16-12UNC		12	9,95	10	29	63	3	2D
UFT091151233011UN01	5/8-11UNC		11	11,5	12	33	84	3	2D
UFT090120304080UN01		0-80UNF	80	1,18	3	3,9	39	3	3D
UFT090140306072UN01		1-72UNF	72	1,44	3	5,8	39	3	3D
UFT090170307056UN01	2-56UNC	3-56UNF	56	1,66	3	6,8	39	3	3D
UFT090210408040UN01	4-40UNC		40	2,12	4	8,1	51	3	3D
UFT090250410040UN01	5-40UNC	6-40UNC	40	2,46	4	9,8	51	3	3D
UFT090260411032UN01	6-32UNC		32	2,57	4	10,7	51	3	3D
UFT090320613032UN01	8-32UNC	10-32UNF	32	3,22	6	12,7	57	3	3D
UFT090520619028UN01		1/4-28UNF	28	5,2	6	19,3	57	3	3D
UFT090670824024UN01		5/16-24UNF	24	6,65	8	24,2	63	3	3D
UFT090490619020UN01	1/4-20UNC	7/16-20UNF	20	4,85	6	19,4	57	3	3D

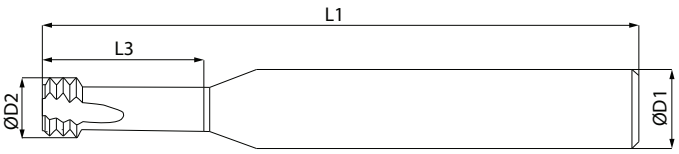
UN

Unifed coarse thread ANSI B1.1
Gwint calowy zwykły ANSI B1.1

UFT68

Miniature Tools for hard materials Frezy miniaturowe do twardych materiałów

												max	min	AIR
µm														●
P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, SI <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
●	●	●		○		●	●	●	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT680670817024UN01		5/16-24UNF	24	6,65	8	16,7	64	3	2D
UFT680800824020UN01		7/16-20UNF	20	7,95	8	24	64	3	2D
UFT680690820016UN01	3/8-UNC		16	6,9	8	20	63	3	2D
UFT680800824014UN01	7/16-14UNC		14	7,95	8	23,5	63	3	2D
UFT680670824024UN01		5/16-24UNF	24	6,65	8	24,2	63	3	3D

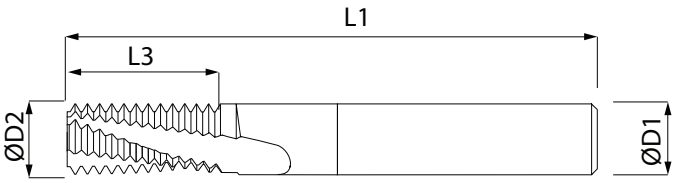
UN

Unifed coarse thread ANSI B1.1
Gwint calowy zwykły ANSI B1.1

UFT23

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm												●	●		
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
●	●	●		○		●	●	●	○	○	○	○	○	○	



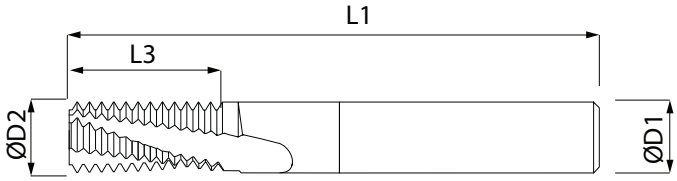
D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT230240405044UN02		UNF No.5	44	2,4	4	5,48	50	3	1,5D
UFT230230405040UN02	UNC No.5		40	2,3	4	5,4	50	3	1,5D
UFT230230407040UN02	UNC No.5		40	2,3	4	7,3	50	3	2D
UFT230230409040UN02	UNC No.5		40	2,3	4	8,57	50	3	2,5D
UFT230260406040UN02		UNF No.6	40	2,6	4	6,03	50	3	1,5D
UFT230310407036UN02		UNF No.8	36	3,1	4	7,41	50	3	1,5D
UFT230310410036UN02		UNF No.8	36	3,1	4	9,53	50	3	2D
UFT230250407032UN02	UNC No.6		32	2,5	4	6,75	50	3	1,5D
UFT230250408032UN02	UNC No.6		32	2,5	4	8,33	50	3	2D
UFT230250410032UN02	UNC No.6		32	2,5	4	9,92	50	3	2,5D
UFT230300408032UN02	UNC No.8		32	3	4	7,54	50	3	1,5D
UFT230300409032UN02	UNC No.8		32	3	4	9,13	50	3	2D
UFT230300412032UN02	UNC No.8		32	3	4	11,51	50	3	2,5D
UFT230360408032UN02		UNF No.10	32	3,6	4	8,33	50	3	1,5D
UFT230360411032UN02		UNF No.10	32	3,6	4	10,72	50	3	2D
UFT230600613032UN02			32	6	6	13,1	63	4	1,5D
UFT230400410028UN02		UNF No.12	28	4	4	9,52	50	3	1,5D
UFT230400412028UN02		UNF No.12	28	4	4	12,25	50	3	2D
UFT230500610028UN02		UNF 1/4	28	5	6	10,43	63	3	1,5D
UFT230500614028UN02		UNF 1/4	28	5	6	14,06	63	3	2D
UFT230800818028UN02			28	8	8	17,69	63	4	1,5D
UFT230380409024UN02	UNC No.10		24	3,8	4	9	50	3	1,5D
UFT230380411024UN02	UNC No.10		24	3,8	4	11,11	50	3	2D
UFT230380413024UN02	UNC No.10		24	3,8	4	13,23	50	3	2,5D
UFT230400410024UN02	UNC No.12		24	4	4	10,05	50	3	1,5D
UFT230400412024UN02	UNC No.12		24	4	4	12,17	50	3	2D
UFT230400415024UN02	UNC No.12		24	4	4	15,35	50	3	2,5D
UFT230600613024UN02		UNF 5/16	24	6	6	13,23	63	3	1,5D
UFT230600617024UN02		UNF 5/16	24	6	6	17,46	63	3	2D
UFT230760815024UN02		UNF 3/8	24	7,6	8	15,35	63	3	1,5D
UFT230760821024UN02		UNF 3/8	24	7,6	8	20,64	76	3	2D
UFT230450611020UN02	UNC 1/4		20	4,5	6	10,8	63	3	1,5D
UFT230450615020UN02	UNC 1/4		20	4,5	6	14,6	63	3	2D
UFT230450617020UN02	UNC 1/4		20	4,5	6	17,15	63	3	2,5D
UFT230800818020UN02		UNF 7/16	20	8	8	18,41	63	3	1,5D
UFT230800824020UN02		UNF 7/16	20	8	8	23,5	76	3	2D
UFT231001021020UN02		UNF 1/2	20	10	10	20,96	76	4	1,5D
UFT231001027020UN02		UNF 1/2	20	10	10	27,31	76	4	2D
UFT231201229020UN02			20	12	12	28,57	83	5	1,5D

UN

Unifed coarse thread ANSI B1.1
Gwint calowy zwykły ANSI B1.1

UFT23

Helical flutes thread mills Frezy gwintujące spiralne



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT230580613018UN02	UNC 5/16		18	5,8	6	13,41	63	3	1,5D
UFT230580618018UN02	UNC 5/16		18	5,8	6	17,64	63	3	2D
UFT230580622018UN02	UNC 5/16		18	5,8	6	21,87	63	3	2,5D
UFT231001023018UN02		UNF 9/16	18	10	10	23,28	76	4	1,5D
UFT231001030018UN02		UNF 9/16	18	10	10	30,34	100	4	2D
UFT231201226018UN02		UNF 5/8	18	12	12	26,11	83	4	1,5D
UFT231201233018UN02		UNF 5/8	18	12	12	33,16	100	4	2D
UFT230600617016UN02	UNC 3/8		16	6	6	16,67	63	3	1,5D
UFT230600621016UN02	UNC 3/8		16	6	6	21,43	63	3	2D
UFT230700826016UN02	UNC 3/8		16	7	8	26,19	76	3	2,5D
UFT231201231016UN02		UNF 3/4	16	12	12	30,96	100	4	1,5D
UFT231201240016UN02		UNF 3/4	16	12	12	40,48	100	4	2D
UFT231601636016UN02			16	16	16	35,72	100	5	1,5D
UFT230800819014UN02	UNC 7/16		14	8	8	19,05	63	3	1,5D
UFT230800824014UN02	UNC 7/16		14	8	8	24,49	76	3	2D
UFT230800830014UN02	UNC 7/16		14	8	8	29,94	76	3	2,5D
UFT231601635014UN02		UNF 7/8	14	16	16	35,38	100	5	1,5D
UFT231601646014UN02		UNF 7/8	14	16	16	46,26	120	5	2D
UFT230800822013UN02	UNC 1/2		13	8	8	22,47	76	3	1,5D
UFT230800828013UN02	UNC 1/2		13	8	8	28,33	76	3	2D
UFT230931034013UN02	UNC 1/2		13	9,3	10	34,19	100	3	2,5D
UFT231001024012UN02	UNC 9/16		12	10	10	24,34	76	3	1,5D
UFT231001031012UN02	UNC 9/16		12	10	10	30,69	100	3	2D
UFT231601643012UN02			12	16	16	43,39	100	5	1,5D
UFT231001027011UN02	UNC 5/8		11	10	10	26,55	76	3	1,5D
UFT231001036011UN02	UNC 5/8		11	10	10	35,79	100	3	2D
UFT231171243011UN02	UNC 5/8		11	11,7	12	42,72	100	3	2,5D
UFT231201232010UN02	UNC 3/4		10	12	12	31,75	100	3	1,5D
UFT231201242010UN02	UNC 3/4		10	12	12	41,91	100	3	2D
UFT231601638009UN02	UNC 7/8		9	16	16	38,1	100	3	1,5D
UFT231601649009UN02	UNC 7/8		9	16	16	49,39	120	3	2D
UFT231601643008UN02	UNC 1		8	16	16	42,86	100	3	1,5D
UFT231601656008UN02	UNC 1		8	16	16	55,56	120	3	2D
UFT232002049008UN02			8	20	20	49,21	120	4	1,5D
UFT232002053007UN02	UNC 11/8 - 11/4		7	20	20	52,61	120	3	1,5D
UFT232502561006UN02	UNC 13/8 - 11/2		6	25	25	61,38	130	3	1,5D

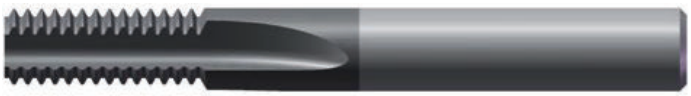
UN

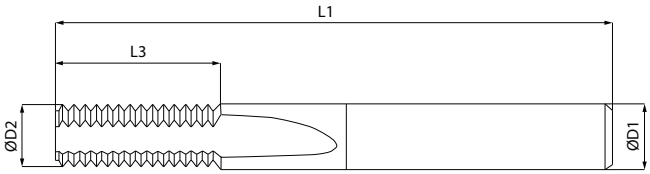
Unifed coarse thread ANSI B1.1
Gwint calowy zwykły ANSI B1.1

UFT26

Helical flutes thread mills Frezy gwintujące spiralne

													max	min	AIR
µm														●	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
●	●	●		○		●	●	●	○	○	○	○	○	○	





D code new Nowy kod	M corase	M fine	M extra fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT260590614032UN01			UNEF5/16	32	5,9	6	14	57	3	2D
UFT260510612028UN01		UNF1/4		28	5,1	6	12,2	57	3	2D
UFT260790816028UN01			UNEF7/16-1/2	28	7,9	8	15,8	63	4	2D
UFT260590611024UN01		UNF5/16		24	5,9	6	10,8	57	3	2D
UFT260480612020UN01	UNC1/4			20	4,8	6	12	57	3	2D
UFT260790820020UN01		UNF7/16		20	7,9	8	19,7	63	3	2D
UFT260991018020UN01		UNF1/2		20	9,9	10	17,5	73	4	2D
UFT260570616018UN01	UNC5/16			18	5,7	6	16	57	3	2D
UFT260790819018UN01		UNF9/16-5/8		18	7,9	8	18,5	63	3	2D
UFT260680818016UN01	UNC3/8			16	6,8	8	18,2	63	3	2D
UFT261191226016UN01		UNF3/4		16	11,9	12	26,2	84	4	2D
UFT260780821014UN01	UNC7/16			14	7,8	8	20,8	63	3	2D
UFT261191225014UN01		UNF7/8		14	11,9	12	24,5	84	4	2D
UFT260931024013UN01	UNC1/2			13	9,3	10	24,4	73	3	2D
UFT261061226012UN01	UNC9/16			12	10,6	12	26,4	84	4	2D
UFT261591639012UN01		UNF1		12	15,9	16	39,1	105	5	2D
UFT261151231011UN01	UNC5/8			11	11,5	12	31,1	84	4	2D
UFT261431637010UN01	UNC3/4			10	14,3	16	36,8	105	4	2D
UFT261591641009UN01	UNC7/8			9	15,9	16	40,9	105	4	2D
UFT261972040008UN01	UNC1			8	19,7	20	39,7	105	4	2D

UN

Unifed coarse thread ANSI B1.1
Gwint calowy zwykły ANSI B1.1

UFT36

Miniature Tools for hard materials Frezy miniaturowe do twardych materiałów

												max	min		AIR
µm														●	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
●	●	●		○		●	●	●	○	○	○	○	○	○	

D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT360140604072UN01		1-72UNF	72	1,44	6	3,8	57	3	2D
UFT360140604064UN01	1-64UNC	2-64UNF	64	1,4	6	3,9	57	3	2D
UFT360170605056UN01	2-56UNC	3-56UNF	56	1,66	6	4,6	57	3	2D
UFT360190605048UN01	3-48UNC	4-48UNC	48	1,88	6	5,4	57	3	2D
UFT360210606040UN01	4-40UNC		40	2,12	6	6,2	57	3	2D
UFT360250607040UN01	5-40UNC	6-40UNC	40	2,46	6	7,1	57	3	2D
UFT360330609036UN01		8-36UNF	36	3,31	6	8,8	57	3	2D
UFT360260608032UN01	6-32UNC		32	2,57	6	7,8	57	3	2D
UFT360320610032UN01	8-32UNC	10-32UNF	32	3,22	6	10,3	57	3	2D
UFT360520614028UN01		1/4-28UNF	28	5,2	6	14	57	3	2D
UFT360360610024UN01	10-24UNC		24	3,55	6	10,4	57	3	2D
UFT360490614020UN01	1/4-20UNC	7/16-20UNF	20	4,85	6	13,7	57	3	2D
UFT360600617018UN01	5/16-UNC		18	5,95	6	16,5	57	3	2D
UFT360140606072UN01		1-72UNF	72	1,44	6	5,8	57	3	3D
UFT360250610040UN01	5-40UNC	6-40UNC	40	2,46	6	9,8	57	3	3D
UFT360320613032UN01	8-32UNC	10-32UNF	32	3,22	6	12,7	57	3	3D
UFT360520619028UN01		1/4-28UNF	28	5,2	6	19,3	57	3	3D
UFT360490619020UN01	1/4-20UNC	7/16-20UNF	20	4,85	6	19,4	57	3	3D

UN

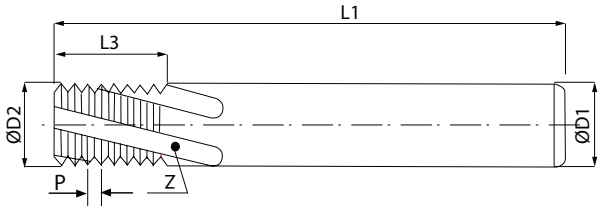
Unifed coarse thread ANSI B1.1
Gwint calowy zwykły ANSI B1.1

UFT43

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT430450614020UN05	UNC1/4"		20	4,5	6	14	57	3	2D
UFT430580617018UN05	UNC5/16"		18	5,8	6	16,9	65	3	2D
UFT430700821016UN05	UNC3/8"		16	7	8	20,6	72	4	2D
UFT430800824014UN05	UNC7/16"		14	8	8	23,6	72	4	2D
UFT430951027013UN05	UNC1/2"		13	9,5	10	27,4	80	4	2D
UFT431001032012UN05	UNC9/16"		12	10	10	31,8	83	4	2D
UFT431201235011UN05	UNC5/8"		11	12	12	34,6	92	4	2D
UFT431401441010UN05	UNC3/4"		10	14	14	40,6	104	5	2D

UN

Unifed coarse thread ANSI B1.1

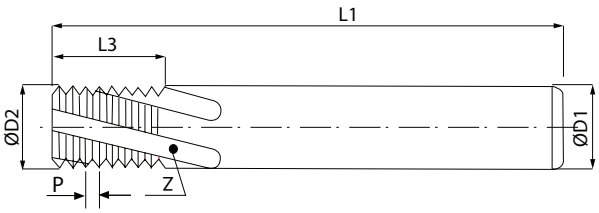
Gwint calowy zwykły ANSI B1.1

UFT45

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT450500614028UN05		UNF1/4"	28	5	6	13,6	57	3	2D
UFT450600617024UN05		UNF5/16"	24	6	6	16,9	65	3	2D
UFT450800820024UN05		UNF3/8"	24	8	8	20,1	72	4	2D
UFT450800824020UN05		UNF7/16"	20	8	8	24,1	72	4	2D
UFT451001027020UN05		UNF1/2"	20	10	10	26,7	80	4	2D
UFT451201230018UN05		UNF9/16"	18	12	12	29,6	83	4	2D
UFT451201234018UN05		UNF5/8"	18	12	12	33,9	92	4	2D
UFT451401440016UN05		UNF3/4"	16	14	14	39,7	104	5	2D

UN

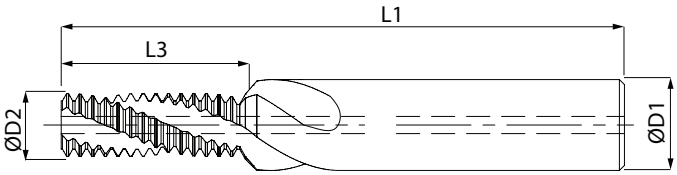
Unifed coarse thread ANSI B1.1
Gwint calowy zwykły ANSI B1.1

UFT55

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT550480813020UN05	UNC1/4"		20	4,8	8	13,3	62	3	2D
UFT550621016018UN05	UNC5/16"		18	6,2	10	16,18	74	3	2D
UFT550761220016UN05	UNC3/8"		16	7,6	12	19,8	80	4	2D
UFT550891223014UN05	UNC7/16"		14	8,9	12	22,62	80	4	2D
UFT551031426013UN05	UNC1/2"		13	10,3	14	26,32	90	4	2D
UFT551171631012UN05	UNC9/16"		12	11,7	16	30,63	100	4	2D
UFT551311833011UN05	UNC5/8"		11	13,1	18	33,41	102	4	2D
UFT551602039010UN05	UNC3/4"		10	16	20	39,29	110	5	2D

UN

Unifed coarse thread ANSI B1.1

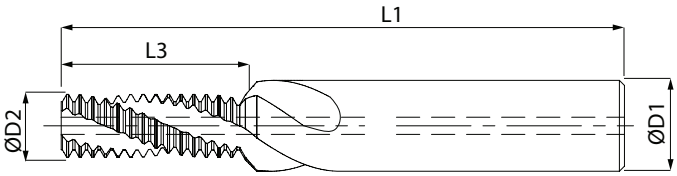
Gwint calowy zwykły ANSI B1.1

UFT57

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



D code new Nowy kod	**M corase**	**M fine**	**Pitch** Skok TPI	**D2**	**D1**	**l3**	**l1**	**Z**	
UFT570510813028UN05	UNF1/4"		28	5,1	8	13,21	62	3	2D
UFT570651016024UN05	UNF5/16"		24	6,5	10	16,37	74	3	2D
UFT570811220024UN05	UNF3/8"		24	8,1	12	19,54	80	4	2D
UFT570941222020UN05	UNF7/16"		20	9,4	12	22,19	80	4	2D
UFT571101426020UN05	UNF1/2"		20	11	14	26	90	4	2D
UFT571241629018UN05	UNF9/16"		18	12,4	16	28,88	100	4	2D
UFT571401833018UN05	UNF5/8"		18	14	18	33,12	102	5	2D
UFT571702039016UN05	UNF3/4"		16	17	20	38,86	110	5	2D

UN

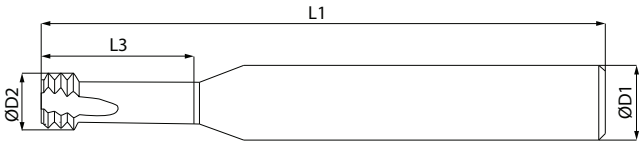
Unifed coarse thread ANSI B1.1
Gwint calowy zwykły ANSI B1.1

UFT59

Miniature Tools for hard materials Frezy miniaturowe do twardych materiałów

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3		l1	Z	
UFT590140601064UN05	UNC#1		64	1,38	6	1,19	3,9	57	3	3D
UFT590160601056UN05	UNC#2		56	1,64	6	1,36	4,6	57	3	3D
UFT590210602040UN05	UNC#4		40	2,08	6	1,91	6	57	3	3D
UFT590260602032UN05	UNC#6		32	2,55	6	2,38	7,4	57	3	3D
UFT590320602032UN05	UNC#8		32	3,21	6	2,38	8,7	57	3	3D
UFT590360603024UN05	UNC#10		24	3,56	6	3,18	10,1	57	3	3D
UFT590420603024UN05	UNC#12		24	4,22	6	3,18	11,5	57	3	3D
UFT590480604020UN05	UNC1/4		20	4,83	6	3,81	13,3	57	3	3D
UFT590620804018UN05	UNC5/16		18	6,24	8	4,23	16,7	63	3	3D
UFT590760805016UN05	UNC3/8		16	7,62	8	4,76	20	63	3	3D
UFT590891005014UN05	UNC7/16		14	8,94	10	5,44	23,3	73	3	3D

NPT

National taper pipe thread ANSI B1.20.1

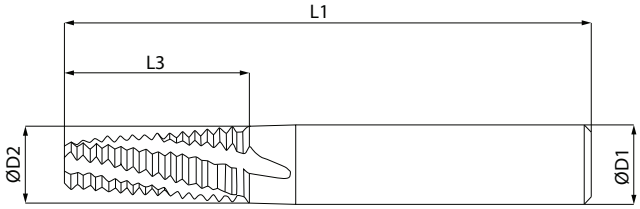
Gwint calowy rurowy stożkowy WG ANSI B1.20.1

UFT03

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



D code new Nowy kod	**M corase**	**M fine**	**Pitch** Skok TPI	**D2**	**D1**	**l3**	**l1**	**Z**	
UFT030590610027NPT01	NPT1/16		27	5,9	6	9,8	57	3	1,5D
UFT030770811027NPT01	NPT1/8		27	7,7	8	10,9	63	3	1,5D
UFT030991016018NPT01	NPT1/4-3/8		18	9,9	10	16,4	73	4	1,5D
UFT031191221014NPT01	NPT1/2		14	11,9	12	20,8	84	4	1,5D
UFT031992030012NPT01	NPT1-2		11,5	19,9	20	29,7	105	4	1,5D

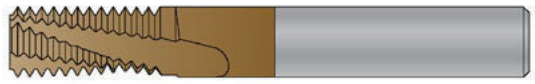
NPT

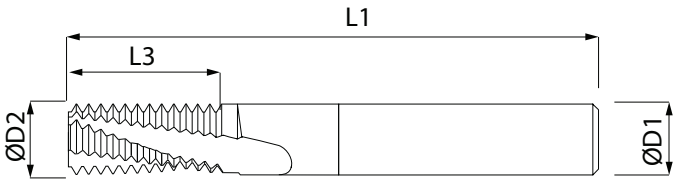
National taper pipe thread ANSI B1.20.1
Gwint calowy rurowy stożkowy WG ANSI B1.20.1

UFT27

Helical flutes thread mills Frezy gwintujące spiralne

												max	min	AIR
µm													•	
P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○





D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT270600611027NPT02	NPT 1/16 - 1/8		27	6	6	10,82	63	3	1,5D
UFT270800816018NPT02	NPT 1/4 - 3/8		18	8	8	16,23	63	3	1,5D
UFT271201223014NPT02	NPT 1/2 - 3/4		14	12	12	22,68	83	4	1,5D
UFT271601623014NPT02	NPT 3/4		14	16	16	22,68	100	4	1,5D
UFT271601630115NPT02	NPT 1 - 2		11,5	16	16	29,82	100	4	1,5D
UFT272002043008NPT02	NPT ≥2 1/2		8	20	20	42,86	100	4	1,5D

NPT

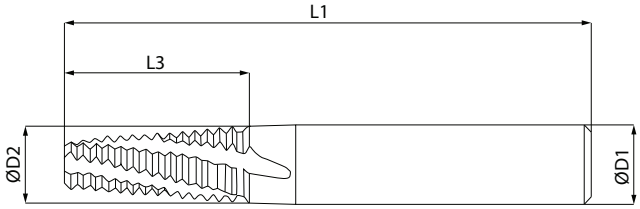
National taper pipe thread ANSI B1.20.1
Gwint calowy rurowy stożkowy WG ANSI B1.20.1

UFT29

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT290590610027NPT01	NPT1/16-1/8		27	5,9	6	9,8	57	3	1,5D
UFT290991016018NPT01	NPT1/4-3/8		18	9,9	10	16,2	73	4	1,5D
UFT291191221014NPT01	NPT1/2		14	11,9	12	20,8	83	4	1,5D
UFT291992030012NPT01	NPT1-2		11,5	19,9	20	29,7	105	4	1,5D
UFT291992038008NPT01	NPT2 1/2-6		8	19,9	20	38,1	105	4	1,5D

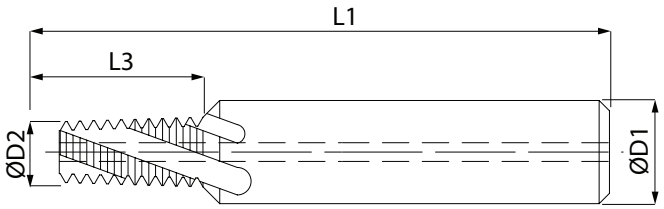
NPT

National taper pipe thread ANSI B1.20.1
Gwint calowy rurowy stożkowy WG ANSI B1.20.1

UFT61

Helical flutes thread mills Frezy gwintujące spiralne

													max	min	AIR
µm														•	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
•	•	•		○		•	•	•	○	○	○	○	○	○	



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT610591009027NPT05				5,9	10	8,9	64	3	1,5D
UFT610781209027NPT05				7,8	12	8,9	70	4	1,5D
UFT611011613018NPT05				10,05	16	13,4	81	4	1,5D
UFT611351813018NPT05				13,45	18	13,4	81	4	1,5D

NPTF

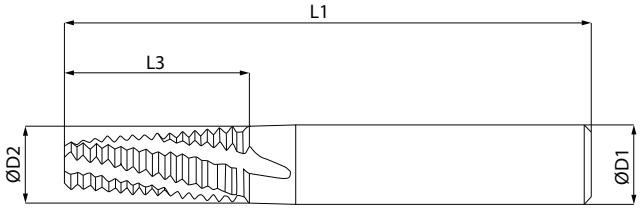
National taper pipe thread ANSI B1.20.1
Gwint calowy rurowy stożkowy WG ANSI B1.20.1

UFT04

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														●	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
●	●	●		○		●	●	●	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT040590610027NTF01	NPTF2 1/2-6		8	19,9	20	38,1	105	4	1,5D
UFT040770811027NTF01		NPTF1/16	27	5,9	6	9,9	57	3	1,5D
UFT040991016018NTF01		NPTF1/8	27	7,7	8	10,8	63	3	1,5D
UFT041191221014NTF01		NPTF1/4-3/8	18	9,9	10	16,2	73	4	1,5D
UFT041992030012NTF01		NPTF1/2	14	11,9	12	20,8	84	4	1,5D
UFT041992038008NTF01		NPTF1-2	11,5	19,9	20	29,7	105	4	1,5D

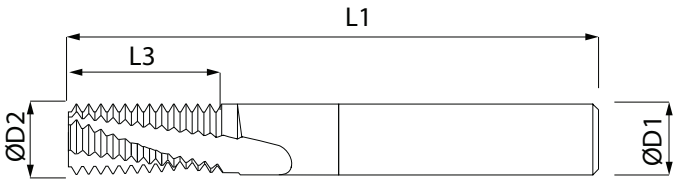
NPTF

National taper pipe thread ANSI B1.20.1
Gwint calowy rurowy stożkowy WG ANSI B1.20.1

UFT28

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
•	•	•		○		•	•	•	○	○	○	○	○	○	



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT280600611027NTF02	NPTF 1/16 - 1/8		27	6	6	10,82	63	3	1,5D
UFT280800816018NTF02	NPTF 1/4 - 3/8		18	8	8	16,23	63	3	1,5D
UFT281201223014NTF02	NPTF 1/2 - 3/4		14	12	12	22,68	83	4	1,5D
UFT281601630115NTF02	NPTF 1 - 2		11,5	16	16	29,82	100	4	1,5D
UFT282002043008NTF02	NPTF ≥2 1/2		8	20	20	42,86	100	4	1,5D

NPTF

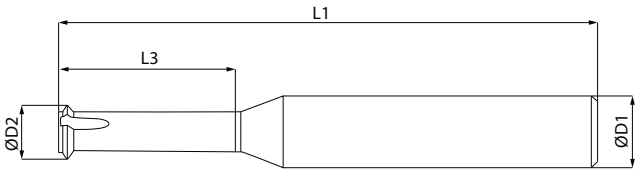
National taper pipe thread ANSI B1.20.1
Gwint calowy rurowy stożkowy WG ANSI B1.20.1

UFT66

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT660590610027NTF01		NPTF1/16-1/8	27	5,9	6	9,9	57	3	1,5D
UFT660991016018NTF01		NPTF1/4-3/8	18	9,9	10	16,2	73	4	1,5D
UFT661191221014NTF01		NPTF1/2	14	11,9	12	20,8	83	4	1,5D
UFT661992030012NTF01		NPTF1-2	11,5	19,9	20	29,7	105	4	1,5D
UFT661992038008NTF01		NPTF2 1/2-6	8	19,9	20	38,1	105	4	1,5D

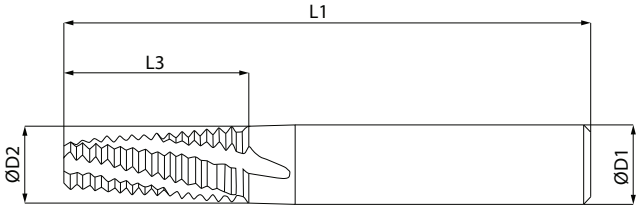
NPSF

National taper pipe thread ANSI B1.20.1
Gwint calowy rurowy stożkowy WG ANSI B1.20.1

UFT39

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
•	•	•		○		•	•	•	○	○	○	○	○	○	

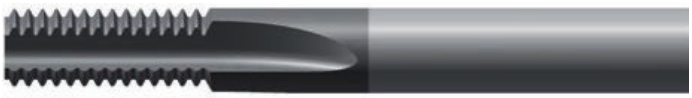


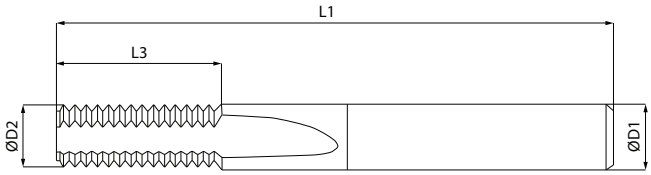
D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT390600613027NSF02	NPSF 1/16 - 1/8		27	6	6	12,70	63	3	1,5D
UFT390800816018NSF02	NPSF 1/4 - 3/8		18	8	8	16,23	63	3	1,5D
UFT391201223014NSF02	NPSF 1/2 - 3/4		14	12	12	22,68	83	4	1,5D
UFT391601630115NSF02	NPSF 1		11,5	16	16	29,82	100	4	1,5D

UFT26

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														●	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
●	●	●		○		●	●	●	○	○	○	○	○	○	





D code new Nowy kod	**M corase**	**M fine**	**Pitch** Skok TPI	**D2**	**D1**	**l3**	**l1**	**Z**	
UFT260800821020PG02	Pg 7		20	8	8	20,96	63	3	1,5D
UFT261001028018PG02	Pg 9 - 16		18	10	10	27,52	76	3	1,5D
UFT261201231016PG02	Pg 21- 48		16	12	12	30,96	83	4	1,5D

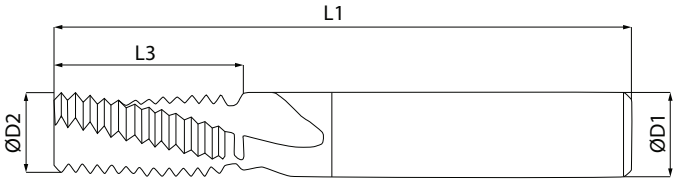
G

Pipe threads DIN ISO228 (B.S.P.- British Standard Pipe)
Gwint calowy rurowy wg DIN ISO228

UFT05

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
•	•	•		○		•	•	•	○	○	○	○	○	○	



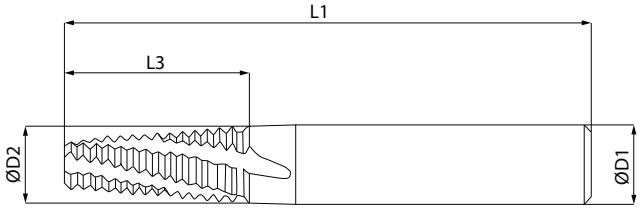
D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT050590611028G01	BSP(G)1/16		28	5,9	6	11,3	57	3	1,5D
UFT050790814028G01	BSP(G)1/8		28	7,9	8	14	63	3	1,5D
UFT050991017019G01	BSP(G)1/4-3/8		19	9,9	10	16,6	73	4	1,5D
UFT051191223014G01	BSP(G)1/2-7/8		14	11,9	12	22,7	84	4	1,5D
UFT051591632011G01	BSP(G)1-2		11	15,9	16	32,1	105	4	1,5D
UFT051992040011G01	BSP(G)1-6		11	19,9	20	40,4	105	5	1,5D

UFT06

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														●	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
●	●	●		○		●	●	●	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT060590611028RC01	BSPT(RC)1/16		28	5,9	6	11,3	57	3	1,5D
UFT060790814028RC01	BSPT(RC)1/8		28	7,9	8	14	63	3	1,5D
UFT060991017019RC01	BSPT(RC)1/4-3/8		19	9,9	10	16,6	73	4	1,5D
UFT061191223014RC01	BSPT(RC)1/2-7/8		14	11,9	12	22,7	84	4	1,5D
UFT061591632011RC01	BSPT(RC)1-2		11	15,9	16	32,1	105	4	1,5D
UFT061992040011RC01	BSPT(RC)1-6		11	19,9	20	40,4	105	5	1,5D

G

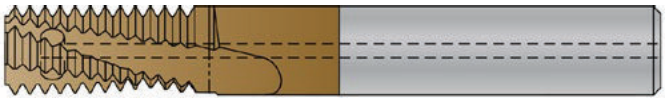
Pipe threads DIN ISO228 (B.S.P.- British Standard Pipe)
Gwint calowy rurowy wg DIN ISO228

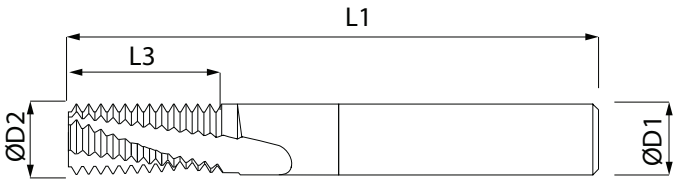
UFT21

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○





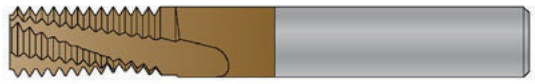
D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT210600610028G02	BSP(G) 1/8		28	6	6	10,43	76	3	2D
UFT211001022019G02	BSP(G) 1/4 - 3/8		19	10	10	22,06	100	4	2D
UFT211201228014G02	BSP(G) 1/2 - 7/8		14	12	12	28,12	100	4	2D
UFT211601640011G02	BSP(G) 1 - 3		11	16	16	40,41	100	4	2D

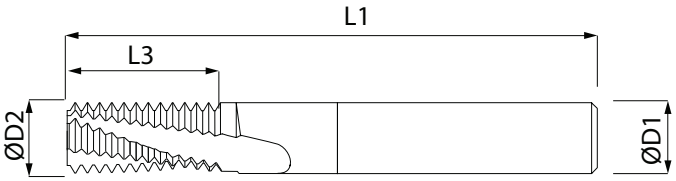
UFT24

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														●	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
●	●	●		○		●	●	●	○	○	○	○	○	○





D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT240600610028G02	BSP(G) 1/8		28	6	6	10,43	63	3	1,5D
UFT240800815019G02	BSP(G) 1/4 - 3/8		19	8	8	15,37	63	3	1,5D
UFT241001022019G02	BSP(G) 1/4 - 3/8		19	10	10	22,06	76	4	1,5D
UFT241201221014G02	BSP(G) 1/2 - 7/8		14	12	12	20,86	83	4	1,5D
UFT241201228014G02	BSP(G) 1/2 - 7/8		14	12	12	28,12	83	4	1,5D
UFT241601628014G02	BSP(G) 1/2 - 7/8		14	16	16	28,12	100	5	1,5D
UFT241201227011G02	BSP(G) 1 - 1 1/2		11	12	12	26,55	83	3	1,5D
UFT241601640011G02	BSP(G) 1 - 3		11	16	16	40,41	100	4	1,5D
UFT242002050011G02	BSP(G) ≥ 1		11	20	20	49,65	120	5	1,5D

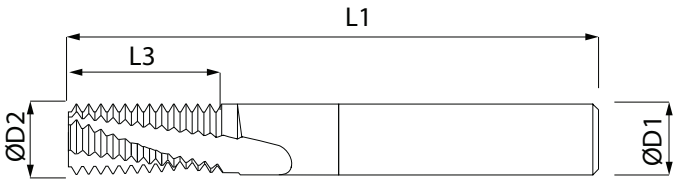
RC

Pipe threads DIN ISO228 (B.S.P.- British Standard Pipe)
Gwint calowy rurowy wg DIN ISO228

UFT67

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														●	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
●	●	●		○		●	●	●	○	○	○	○	○	○	



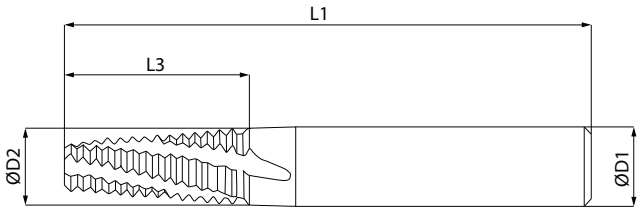
D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT670600610028RC02	BSPT(RC) 1/8		28	6	6	10,43	63	3	1,5D
UFT670800815019RC02	BSPT(RC) 1/4 - 3/		19	8	8	15,37	63	3	1,5D
UFT671201221014RC02	BSPT(RC) 1/2 - 7/		14	12	12	20,86	83	4	1,5D
UFT671601631011RC02	BSPT(RC) 1 - 2		11	16	16	31,17	100	4	1,5D

UFT34

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT340590611028RC01	BSPT1/16-1/8		28	5,9	6	11,3	57	3	1,5D
UFT340991017019RC01	BSPT1/4-3/8		19	9,9	10	16,6	73	4	1,5D
UFT341191223014RC01	BSPT1/2-7/8		14	11,9	12	22,7	83	4	1,5D
UFT341591632011RC01	BSPT1-2		11	15,9	16	32,1	105	4	1,5D

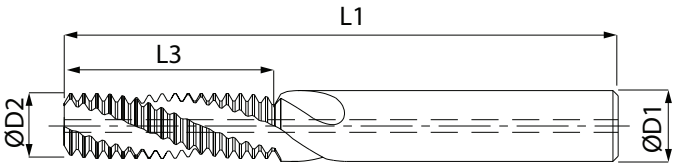
G

Pipe threads DIN ISO228 (B.S.P.- British Standard Pipe)
Gwint calowy rurowy wg DIN ISO228

UFT53

Helical flutes thread mills Frezy gwintujące spiralne

													max	min	AIR
µm														•	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
•	•	•		○		•	•	•	○	○	○	○	○	○	



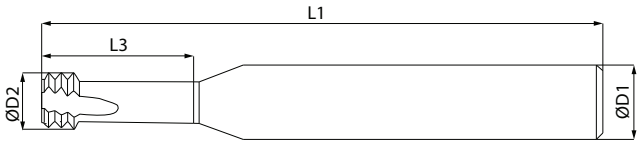
D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT530590606028G05	BSP(G)1/16"		28	5,9	6	6,3	65	3	
UFT530790820028G05	BSP(G)1/8"		28	7,9	8	20	70	4	
UFT530991027019G05	BSP(G)1/4"		19	9,9	10	26,7	80	4	
UFT531391433019G05	BSP(G)3/8"		19	13,9	14	33,4	92	4	
UFT531591644014G05	BSP(G)1/2"		14	15,9	16	43,5	104	5	
UFT531791835014G05	BSP(G)3/4"		14	17,9	18	34,5	100	5	
UFT531992035011G05	BSP(G)1"		11	19,9	20	34,6	100	5	

UFT64

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT640590611028G01	BSP1/16-1/8		28	5,9	6	11,3	57	3	1,5D
UFT640991017019G01	BSP1/4-3/8		19	9,9	10	16,6	73	4	1,5D
UFT641191223014G01	BSP1/2-7/8		14	11,9	12	22,7	83	4	1,5D
UFT641591632011G01	BSP1-2		11	15,9	16	32,1	105	4	1,5D

G

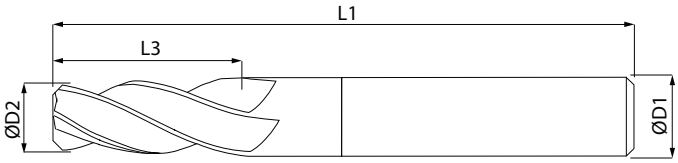
Pipe threads DIN ISO228 (B.S.P.- British Standard Pipe)
Gwint calowy rurowy wg DIN ISO228

UFT33

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														•	

P				H		M		K	N				S	
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB
•	•	•		○		•	•	•	○	○	○	○	○	○



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT33050061600004				5	6	16	63	4	2D
UFT33085102400004				8,5	10	24	76	4	2D
UFT33140163200004				14	16	32	100	4	2D
UFT33170204800004				17	20	48	120	4	2D

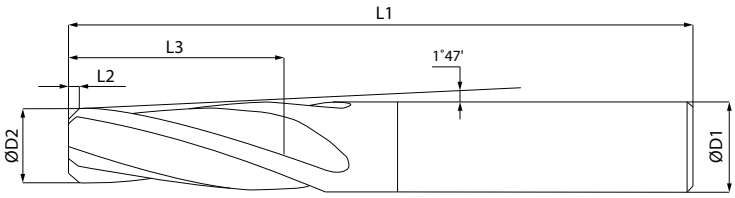
BSPT, NPT, NPTF

Pipe threads DIN ISO228 (B.S.P.- British Standard Pipe)
Gwint calowy rurowy wg DIN ISO228

UFT40

Helical flutes thread mills Frezy gwintujące spiralne

												max	min		AIR
µm														●	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
●	●	●		○		●	●	●	○	○	○	○	○	○	



D code new Nowy kod	D2	D1	l3	l1	Z	
UFT40050061500001	5	6	15	58	4	2D
UFT40084102500001	8,4	10	25	73	4	2D
UFT40099123300001	9,9	12	33	84	4	2D

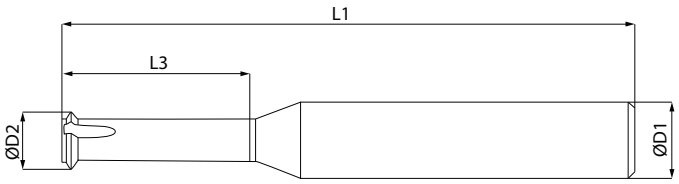
60°

Pipe threads DIN ISO228 (B.S.P.- British Standard Pipe)
Gwint calowy rurowy wg DIN ISO228

UFT07

Helical flutes thread mills Frezy gwintujące spiralne

													max	min	AIR
µm														•	
P				H		M		K	N				S		
<750 N/mm2	<30 HRC	<42 HRC	<55 HRC	<65 HRC	<70 HRC	<250 HB	<320 HB	GG	Al 100 HB	Al, Si <10% 130HB	Ciu, ZN 35-300 HB	GFK	NiCO 200-300 HB	Ti 200-410 GB	
•	•	•		○		•	•	•	○	○	○	○	○	○	



D code new Nowy kod	M corase	M fine	Pitch Skok TPI	D2	D1	l3	l1	Z	
UFT070200306000P6001		0.35-0.6	72-40	1,95	3	6	39	3	2D
UFT070250308000P6001		0.5-0.8	48-32	2,45	3	7,7	39	3	2D
UFT070320410000P6001		0.5-0.8	48-32	3,15	4	10	51	3	2D
UFT070400412000P6001		0.5-1.0	48-24	4	4	12	51	3	2D
UFT070470615000P6001		0.5-1.25	48-20	4,7	6	15	57	3	2D
UFT070600618000P6001		0.5-1.25	48-20	6	6	18	57	3	2D
UFT070800824000P6001		0.75-1.5	32-16	8	8	24	63	3	2D
UFT071001030000P6001		1.0-2.5	24-10	10	10	30	73	4	2D
UFT071201236000P6001		1.0-2.5	24-10	12	12	36	84	4	2D

RECOMMENDED TAP DRILL SIZE TABELA DOBORU ŚREDNICY GWINTOWNIKA

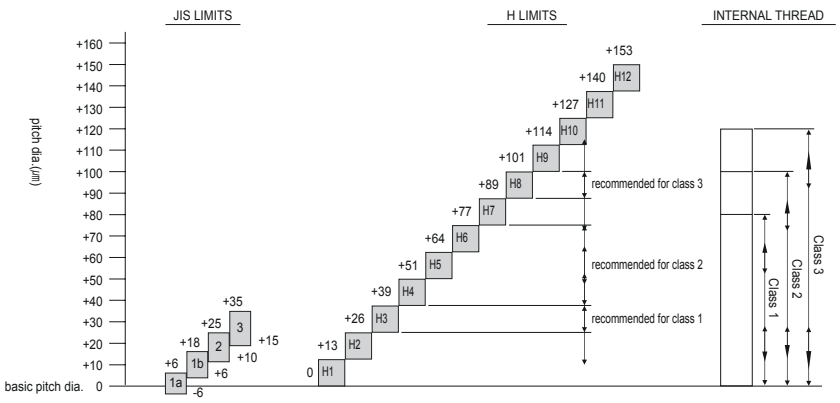
Metric-ISO threads coarse pitch Gwint metryczny zwykły ISO			
UNC	**T.P.I**	**Max. core dia** Maks. śred	**Dill size** Srednica wiertła
#1	64	1.585	1.50
#2	56	1.872	1.80
#3	48	2.146	2.10
#4	40	2.385	2.30
#5	40	2.697	2.60
#6	32	2.896	2.85
#8	32	3.528	3.50
#10	24	3.950	3.90
#12	24	4.590	4.50
1/4″	20	5.250	5.20
5/16″	18	6.680	6.60
3/8″	16	8.082	8.00
7/16″	14	9.441	9.40
1/2″	13	10.881	10.75
9/16″	12	12.301	12.25
5/8″	11	13.693	13.50
3/4″	10	16.624	16.50
7/8″	9	19.520	19.50
1″	8	22.344	22.25
1*1/8″	7	25.082	25.00
1*1/4″	7	28.258	28.25
1*3/8″	6	30.851	30.75
1*1/2″	6	34.026	34.00
1*3/4″	5	39.560	39.50
2″	4.5	45.367	45.25

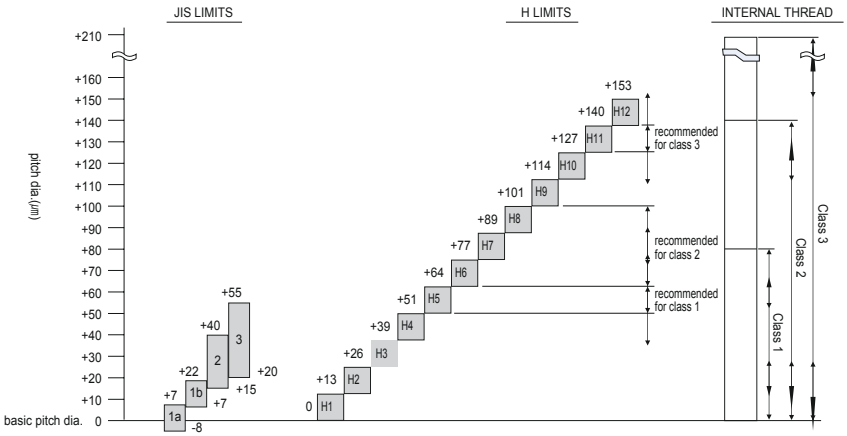
Metric-ISO threads coarse pitch Gwint metryczny zwykły ISO			
UNF	**T.P.I**	**Max. core dia** Maks. śred	**Dill size** Srednica wiertła
#0	80	1.306	1.30
#1	72	1.613	1.60
#2	64	1.913	1.90
#3	56	2.197	2.10
#4	48	2.459	2.40
#5	44	2.741	2.70
#6	40	3.012	3.00
#8	36	3.597	3.50
#10	32	4.168	4.10
#12	28	4.717	4.70
1/4″	28	5.563	5.50
5/16″	24	6.995	6.90
3/8″	24	8.565	8.50
7/16″	20	9.947	9.90
1/2″	20	11.524	11.50
9/16″	18	12.969	12.90
5/8″	18	14.554	14.50
3/4″	16	17.546	17.50
7/8″	14	20.493	20.50
1″	12	23.363	23.25
1*1/8″	12	26.538	26.50
1*1/4″	12	29.713	29.50
1*3/8″	12	32.888	32.70
1*1/2″	12	36.063	36.00

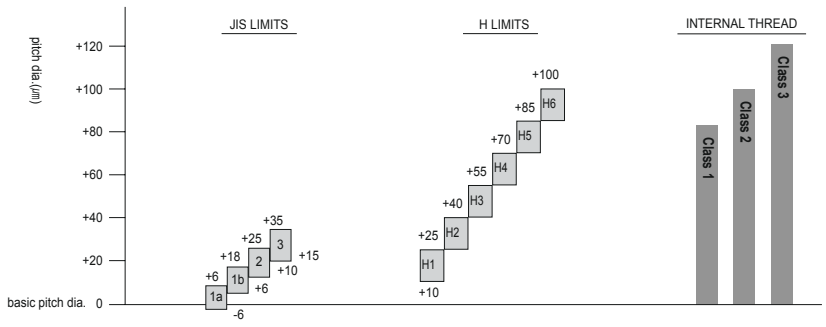
RECOMMENDED TAP DRILL SIZE TABELA DOBORU ŚREDNICY GWINTOWNIKA

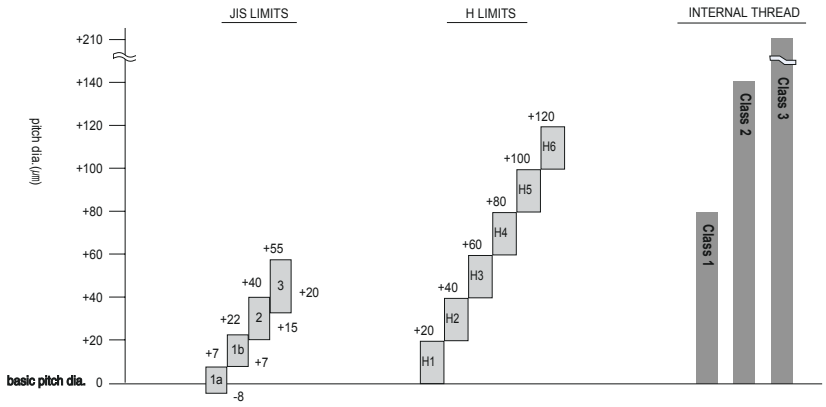
Metric-ISO threads coarse pitch Gwint metryczny zwykły ISO			
G(BSP)	**T.P.I**	**Max. core dia** Maks. śred	**Dill size** Srednica wiertła
#0	80	1.306	1.30
#1	72	1.613	1.60
#2	64	1.913	1.90
#3	56	2.197	2.10
#4	48	2.459	2.40
#5	44	2.741	2.70
#6	40	3.012	3.00
#8	36	3.597	3.50
#10	32	4.168	4.10
#12	28	4.717	4.70
1/4″	28	5.563	5.50
5/16″	24	6.995	6.90
3/8″	24	8.565	8.50
7/16″	20	9.947	9.90
1/2″	20	11.524	11.50
9/16″	18	12.969	12.90
5/8″	18	14.554	14.50
3/4″	16	17.546	17.50
7/8″	14	20.493	20.50
1″	12	23.363	23.25
1*1/8″	12	26.538	26.50
1*1/4″	12	29.713	29.50
1*3/8″	12	32.888	32.70
1*1/2″	12	36.063	36.00

Metric-ISO threads coarse pitch Gwint metryczny zwykły ISO			
BSW	**T.P.I**	**Max. core dia** Maks. śred	**Dill size** Srednica wiertła
3/32"	48	1.910	1.80
1/8"	40	2.590	2.50
5/32"	32	3.211	3.10
3/16"	24	3.743	3.60
7/32"	24	4.538	4.40
1/4"	20	5.224	5.10
5/16"	18	6.661	6.50
3/8"	16	8.052	7.90
7/16"	14	9.379	9.30
1/2 "	12	10.610	10.50
9/16"	12	12.176	12.00
5/8"	11	13.598	13.50
3/4"	10	16.538	16.50
7/8"	9	19.411	19.25
1"	8	22.185	22.00
1*1/8"	7	24.879	24.75
1*1/4"	7	28.054	27.75
1*3/8"	6	30.555	30.50
1*1/2"	6	33.730	33.50
1*5/8"	5	35.921	35.50
1*3/4"	5	39.096	39.00
1*7/8"	4.5	41.648	41.50
2"	4.5	44.823	44.50
2*1/4"	4	50.420	50.00
2*1/2"	4	56.770	56.50
2*3/4"	3.5	62.108	62.00
3"	3.5	68.459	68.50


JIS LIMITS
H LIMITS
INTERNAL THREAD
pitch dia (µm)
basic pitch dia.
recommended for class 3
recommended for class 2
recommended for class 1
Class 1
Class 2
Class 3


JIS LIMITS
H LIMITS
INTERNAL THREAD
pitch dia (µm)
basic pitch dia.
recommended for class 3
recommended for class 2
recommended for class 1
Class 1
Class 2
Class 3


JIS LIMITS
H LIMITS
INTERNAL THREAD
pitch dia (µm)
basic pitch dia.
Class 1
Class 2
Class 3


JIS LIMITS
H LIMITS
INTERNAL THREAD
pitch dia (µm)
basic pitch dia.
Class 1
Class 2
Class 3

TECHNICAL INFORMATION INFORMACJA TECHNICZNA