

Menetfúró program

Crown taps
-katalóguskivonat



Az Ön DC partnere
Magyarországon:

PROTOOL
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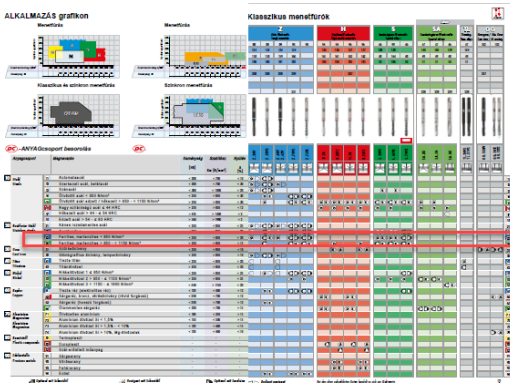
SZERSZÁMVÁLASZTÁS

HASZNÁLJA ÁTTEKINTŐ TÁBLÁNKAT, HOGY A KATALÓGUSBAN ELIGAZODJON.
Válasszon szerszámot az anyagcsoport, vagy az anyag tulajdonságainak alapján a választógrafikon segítségével.



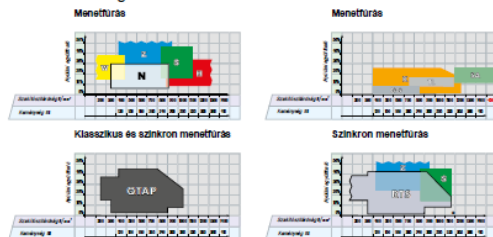
ANYAGCSOPORT ALAPJÁN

A munkadarab anyagminősége vagy werkstoff száma alapján válassza ki a megfelelő anyagcsoportot



Az így meghatározott anyagcsoportszám szerint már beazonosíthatja, hogy az adott anyaghoz mely szerszámok megfelelőek, és milyen alkalmazási feltételekkel, hűtési környezetben érdemes használnia azt. Válassza a menet típusát (M, MF, UNC...), és lapozzon a kívánt katalógusoldalra

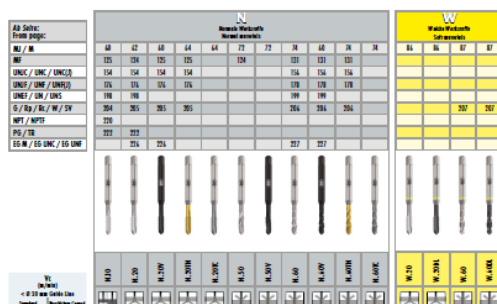
ALKALMAZÁS grafikon



VÁLASZTÓGRAFIKON

Az anyag tulajdonságainak ismeretében (szakítószilárdság, keménység, ISO besorolás) a választógrafikon is iránymutatást jelenthet a megfelelő típusjelzésű szerszám meghatározásában (Z / W / S / Qtap stb)

Klasszikus menettűrés



A kiválasztott szerszámtípus és menet alapján (M, MF, UNC...) lapozzon a kívánt katalógusoldalra. Az ideális hűtési feltételeket mindig feltüntetjük.

Válassza ki az anyagcsoportot a munkadarab anyaga szerint

Példák:

Reference:
AISI/ASTM/UNS

11	Free-cutting steels
1.0711	1212
1.0715	1213
1.0718	12L13
1.0726	1140
1.0737	12L14

12	Structural, cementation steels
1.0037	1015
1.0050	A570 Gr.50
1.0060	A572 Gr.55
1.5919	4617
1.7131	5115

13	Carbon steels
1.0503	1045
1.0535	1055
1.0601	1060
1.1545	W110
1.2067	L 3

14	Alloy steels < 850 N/mm2
1.2363	A2
1.3551	M50
1.7218	4130
1.7220	4135
1.7225	4140

15	Alloy steels hard./temp. > 850 - < 1150 N/mm2
1.3553	-
1.6580	4340
1.7220	4135
1.7225	4140
1.8507	A355CLD (K23510)

16	High tensile alloy steels ≤ 44 HRC
	EN-GJS-1200-2
1.6582	4340
1.7225	4140
1.7228	4150
1.8515	-

17	Alloy steels tempered > 44 - ≤ 54 HRC
	> 44 - ≤ 54 HRC

18	Alloy steels hardened > 54 - ≤ 63 HRC
	> 54 - ≤ 63 HRC

21	Free machining stainless steels
1.4005	416
1.4104	430F
1.4305	303

22	Austenitic stainless steels
1.4301	304
1.4406	316LN
1.4435	316L
1.4541	321
1.4571	316Ti

23	Ferritic and martensitic < 850 N/mm2
1.4112	440B
1.4540	XM12
1.4582	-
1.4762	446
1.4821	4922

24	Ferritic and martensitic > 850 - < 1150 N/mm2
1.4057	431
1.4125	440C
1.4542	630 (17-4PH)
1.4748	-

31	Cast iron
0.6015	A48-25B
0.6020	A48-30B
0.6025	A48-35B
0.6030	A48-45B

32	Spheroidal graphite + malleable cast iron
0.7040	65-45-12
0.7043	60-40-18
0.7050	80-55-06
0.7060	70-60-03
0.7080	120-90-02

41	Pure titanium
3.7024	Gr.1
3.7034	Gr.2
3.7055	Gr.3
3.7065	Gr.4

42	Titanium alloys
3.7124	Alloy 230
	F-1295
3.7164	Gr.5
3.7174	-

51	Nickel alloys 1 ≤ 850 N/mm2
1.3912	K93600
2.4360	N04400
2.4816	N06600
1.4876	N08800

52	Nickel alloys 2 > 850 - ≤ 1150 N/mm2
2.4375	N05500 (B865)
2.4631	N07080 (B637)
2.4668	N07718 (B637)

53	Nickel alloys 3 > 1150 - ≤ 1600 N/mm2
2.4631	N07080 (B637)
2.4668	N07718 (B637)

61	Pure copper (electrolytic copper)
2.0060	C11000

62	Short chip brass, phosphor-bronze, gun metal
2.0401	C38500
2.0402	C37800
2.1030	C52100
2.1096	-

63	Long chip brass
2.0240	C23000
2.0265	C26000
2.0321	C27200

64	Lead free brass
	CuZn21Si3P (ECOBASS®)
	CuZn35
	CuZn42

71	Al unalloyed
3.0205	1200
3.0255	1050A

72	Al alloyed Si < 1.5 %
3.1255	2014
3.1355	2024
3.2315	6082
3.3206	6060
3.4345	7022

73	Al alloyed Si > 1.5 % - < 10 %
3.2161	327
3.2162	-
3.2341	-
3.2371	356

74	Al alloyed Si > 10 %, Mg-alloys
3.2381	A360
3.2382	-
3.2581	A413
3.2583	413.1

81	Thermoplastics
	Delrin (POM)
	Teflon
	Nylon

82	Duroplastics
	Bakelit
	Novopan

83	Glass fibre reinforced plastics
	Glass fibre reinforced, Thermo and Duroplastics

91	Yellow gold
2N18	
Au585AgCu205	
3N18	
Au917AgCu44	

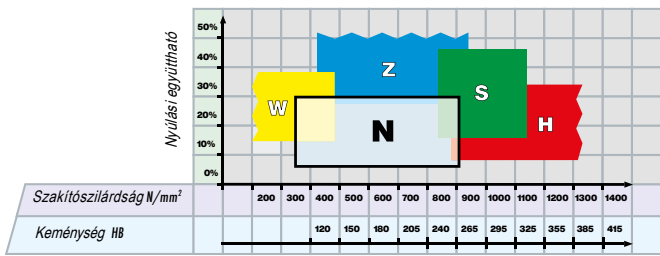
92	Red gold
4N18	
5N18	
Au585CuAg325	
Au750AgCu	
Au917Cu83	

93	White gold
Au750PdCu125	
Au750PdCu150	
Au585PdCu150	
Au925Pd75	

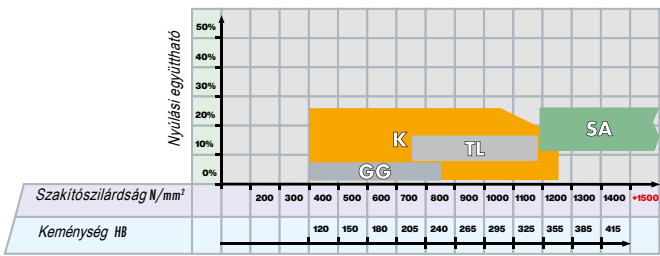
94	Silver
Ag999	
Ag800Cu	
Ag925Cu	

ALKALMAZÁS grafikon

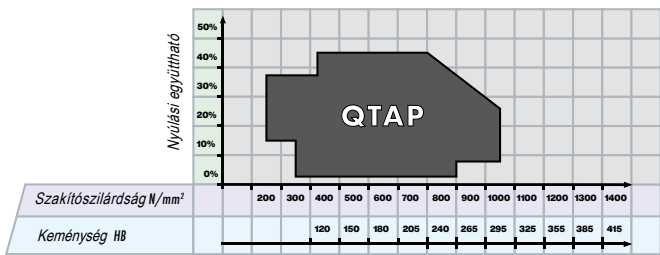
Menetfúrás



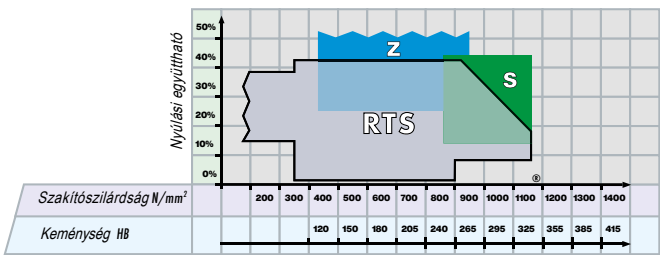
Menetfúrás



Klasszikus és szinkron menetfúrás



Szinkron menetfúrás



DC-ANYAGcsoport besorolás



Anyagcsoport		Megnevezés	Keménység (HB)	Szakítósz. Rm (N/mm ²)	Nyúlás A (%)
10 Stahl Steels	11	Automataacél	< 200	< 700	< 10
	12	Szerkezeti acél, betétacél	< 200	< 700	< 30
	13	Szénacél	< 300	< 1000	< 20
	14	Ötvözött acél < 850 N/mm ²	< 250	< 850	< 30
	15	Ötvözött acél edzett / hőkezelt > 850 - < 1150 N/mm ²	> 250	> 850	< 30
	16	Nagy szilárdságú acél ≤ 44 HRC	> 250	> 850	< 12
	17	Hőkezelt acél > 44 - ≤ 54 HRC	> 410	> 1400	< 2
	18	Edzett acél > 54 - ≤ 63 HRC	> 560	> 1980	< 2
20 Rostfreier Stahl Stainless steels	21	Kénés rozsdamentes acél	< 250	< 850	< 25
	22	Ausztenites	< 250	< 850	> 20
	23	Ferrites, martenzites < 850 N/mm ²	< 250	< 850	> 20
	24	Ferrites, martenzites > 850 - < 1150 N/mm ²	> 250	> 850	> 15
30 Guss Cast iron	31	Szürkeöntvény	< 250	< 850	< 10
	32	Gömbgrafitos öntvény, temperöntvény	< 250	< 850	> 10
40 Titan Titanium	41	Tiszta titán	< 250	< 850	> 20
	42	Titánötvözet	> 250	> 850	< 20
50 Nickel Nickel	51	Nikkelötvözet 1 ≤ 850 N/mm ²	< 250	< 850	> 25
	52	Nikkelötvözet 2 > 850 - ≤ 1150 N/mm ²	> 250	> 850	< 25
	53	Nikkelötvözet 3 > 1150 - ≤ 1600 N/mm ²	> 340	> 1150	< 20
60 Kupfer Copper	61	Tiszta réz (elektrolitos réz)	< 120	< 400	> 12
	62	Sárgaréz, bronz, vörösoöntvény (rövid forgácsú)	< 200	< 700	< 12
	63	Sárgaréz (hosszú forgácsú)	< 200	< 700	> 12
	64	Ólommentes sárgaréz	< 220	< 700	> 15
70 Aluminium Magnesium Aluminium Magnesium	71	Ötvözetlen alumínium	< 100	< 350	> 15
	72	Alumínium ötvözet Si < 1,5%	< 150	< 500	> 15
	73	Alumínium ötvözet Si > 1,5% - < 10%	< 120	< 400	< 15
	74	Alumínium ötvözet Si > 10%, Mg-ötvözetek	< 120	< 400	< 10
80 Kunststoff Plastic compounds	81	Termoplaszt	-	-	-
	82	Duroplaszt	-	-	-
	83	Szál-erősített műanyag	-	-	-
90 Edelmetalle Precious metals	91	Sárgaarany	-	-	-
	92	Vörösarany	-	-	-
	93	Fehéaarany	-	-	-
	94	Ezüst	-	-	-



Kronengewindebohrer
Crown taps

M, MF, UN, G (BSP)

N 237-239

Allgemeines

Der DC-Kronengewindebohrer mit "V"-Oberflächenbehandlung ist ein Hochleistungswerkzeug, das eine sichere Toleranzhaltigkeit und eine sehr saubere Oberflächenqualität garantiert.

Anwendungsbereich

Dank der stirnseitigen Aussparung, die die Spanaufnahme erlaubt, kann der Kronengewindebohrer sowohl für das Schneiden von Durchgangs- als auch von Sacklöchern verwendet werden. Er ist bestimmt für die Bearbeitung von Werkstoffen mit einer Zugfestigkeit von bis zu 850 N/mm² und einer Bruchdehnung von maximal 30 %.

Einsatz

Für einwandfreie Sacklochgewinde muss die Tiefe der Kernlochbohrung jeweils entsprechend angepasst und die nachstehenden Hinweise müssen befolgt werden:

- Gewinde schneiden, bis Rutschkupplung anspricht
- Gewindebohrer zurückdrehen und Späne entfernen
- Gewinde fertig schneiden.

Spezielle Anforderungen

Das einwandfreie Funktionieren der DC-Kronengewindebohrer und der damit erzielten Gewindequalität ist abhängig von folgenden Voraussetzungen:

- Zentrierfehler darf 0.1 mm nicht überschreiten
- Einsatz eines entsprechenden Gewindeschneidfutters, das einen einwandfreien Rundlauf ermöglicht
- korrekte Schnittgeschwindigkeit wählen
- Schneidöl dem Werkstoff anpassen
- einspannen in einem Gewindeschneidfutter mit Längenausgleich und Überlastungskupplung
- Überlastungskupplung so einstellen, dass das Ansprechdrehmoment nur leicht höher liegt als das Schneiddrehmoment.

Es ist empfehlenswert, beim ersten Gewinde die Rutschkupplung bis zum Gleiten zu entlasten und dann schrittweise anzuziehen, bis der Gewindebohrer mitgenommen wird.

Spanaufnahme

Die Spanaufnahme Kapazität der stirnseitigen Krone ist ausreichend für:

Gewindedurchmesser	Ø 20 - 29 mm	≥ Ø 30 mm
M	-	1.4 x D
MF	1.2 x D	1.4 x D
UN-8	-	1.4 x D
G	1.2 x D	1.4 x D

General information

The DC crown tap with "V" surface treatment to prevent cold welding is a tool of high performance, which offers a very high quality surface finish of the tapped threads.

Application rang

Thanks to the front recess providing space for the chip collection, the DC crown tap is suitable for both, through and blind hole tapping. The crown tap can be used for materials with a tensile strength up to 850 N/mm² and an elongation of maximum 30 %.

Utilization

For an optimal blind hole threading, the core hole depth must be adapted accordingly and the following application instructions must be followed:

- tap until tapping head clutch slips
- retract tap and clear chips
- tap to the full depth.

General hints

The efficient operation of DC crown taps, as well as the quality of the cut threads, depend on observation of the following rules:

- do not exceed the maximum permissible centering error of 0.1 mm
- the tap must run concentrically, use a suitable tapping head
- tap at the correct cutting speed
- select a coolant to suit the material being tapped
- use a tapping head with axial compensation and safety clutch
- set the safety clutch so that it will slip at just above the tapping torque.

When tapping the first hole, slacken the clutch until it slips, then gradually tighten it until the tap is driven.

Chip accumulation

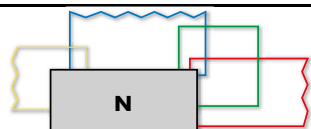
The chip accumulation capacity of the recess is the following:

Thread diameter	Ø 20 - 29 mm	≥ Ø 30 mm
M	-	1.4 x D
MF	1.2 x D	1.4 x D
UN-8	-	1.4 x D
G	1.2 x D	1.4 x D

Schnittgeschwindigkeiten und Drehzahlen (Richtwerte) - Cutting and spindle speeds (guide values)

M	P	V _c (m/min)	n (U/min)	MF	P	V _c (m/min)	n (U/min)	MF	P	V _c (m/min)	n (U/min)	UN-8	P	V _c (m/min)	n (U/min)
30	3.5	7.9	84	22	1.5	8.0	116	45	1.5	6.9	49	1 1/4"	8	7.8	77
33	3.5	7.7	74	24	1.5	8.0	106	45	2.0	6.9	49	1 3/8"	8	7.6	69
36	4.0	7.5	66	26	1.5	7.9	97	48	1.5	6.6	44	1 1/2"	8	7.3	62
39	4.0	7.3	60	28	1.5	7.9	90	48	2.0	6.6	44	1 5/8"	8	7.1	55
42	4.5	7.1	54	30	1.5	7.9	84	48	3.0	6.6	44	1 3/4"	8	6.9	49
45	4.5	6.9	49	30	2.0	7.9	84	48	4.0	6.6	44	1 7/8"	8	6.7	45
48	5.0	6.6	44	32	1.5	7.8	77	50	1.5	6.5	41	2"	8	6.4	40
52	5.0	6.4	39	32	2.0	7.8	77	52	1.5	6.4	39	2 1/8"	8	6.4	38
56	5.5	6.1	35	33	1.5	7.7	74	52	3.0	6.4	39	2 1/4"	8	6.1	34
60	5.5	5.8	31	33	2.0	7.7	74	55	1.5	6.2	36	2 1/2"	8	5.6	28
64	6.0	5.5	28	34	1.5	7.6	71	56	4.0	6.1	35				
68	6.0	5.2	25	35	1.5	7.6	69	60	2.0	5.8	31				
				36	1.5	7.5	66	64	4.0	5.5	28				
				36	2.0	7.5	66	68	4.0	5.2	25				
				36	3.0	7.5	66	72	6.0	5.0	22				
				38	1.5	7.3	62	76	6.0	4.7	20				
				40	1.5	7.2	57	80	2.0	4.4	18				
				40	2.0	7.2	57	80	4.0	4.4	18				
				42	1.5	7.1	54	80	6.0	4.4	18				
				42	2.0	7.1	54	90	6.0	3.7	13				
				42	3.0	7.1	54	100	6.0	3.0	10				
				42	4.0	7.1	54	110	6.0	2.5	7				

G	P	V _c (m/min)	n (U/min)
	TPI		
3/4"	14	7.9	95
1"	11	7.7	74
1 1/4"	11	7.1	54
1 1/2"	11	6.6	44
1 3/4"	11	6.3	37
2"	11	5.8	31

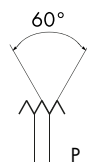
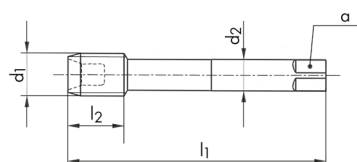


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11 12 13 14 21 32

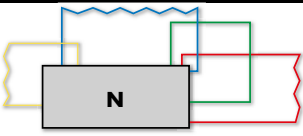
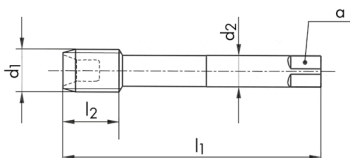
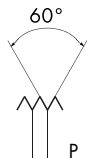
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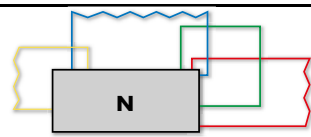
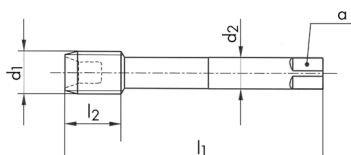
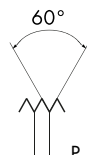
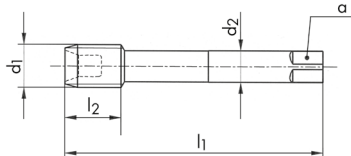
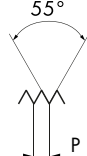


ID

$\emptyset d_1$ M	P mm	l_1 mm	l_2 mm	d_2 mm	a mm		
30	3.5	180	39	22	18	5	26.5
33	3.5	180	39	22	18	5	29.5
36	4	200	43	25	20	5	32
39	4	200	43	25	20	5	35
42	4.5	220	47	28	22	5	37.5
45	4.5	220	47	28	22	5	40.5
48	5	240	52	32	24	5	43
52	5	240	52	32	24	5	47
56	5.5	260	58	36	29	6	50.5
60	5.5	260	58	36	29	6	54.5
64	6	290	64	40	32	6	58
68	6	290	64	40	32	6	62

- 102575
- ★ 102576
- 102577
- 102578
- 102579
- 102580
- 102581
- 102582
- 102583
- 102584
- 102585
- ★ 102586

								N470V-3			
N470V-3   11 12 13 14 21 32											
								 			
 								 			
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	d ₂ mm	a mm			ID			
△ 22	1.5	125	28	18	14.5	4	20.5	★ 102526			
△ 26	1.5	140	30	18	14.5	4	24.5	★ 102529			
△ 28	1.5	140	30	20	16	4	26.5	★ 102530			
30	1.5	160	32	22	18	5	28.5	★ 102531			
34	1.5	160	26	22	18	5	32.5	★ 102537			
35	1.5	175	28	25	20	5	33.5	★ 102538			
36	2	175	35	25	20	5	34	● 102540			
36	3	200	43	25	20	5	33	● 102541			
38	1.5	175	28	25	20	5	36.5	★ 102542			
40	2	190	38	28	22	5	38	★ 102544			
42	2	190	38	28	22	5	40	● 102546			
42	3	220	47	28	22	5	39	● 102547			
48	1.5	205	34	32	24	5	46.5	★ 102551			
48	3	205	41	32	24	5	45	● 102553			
52	3	205	41	32	24	5	49	● 102557			
56	4	260	58	36	29	6	52	● 102559			
64	4	290	64	40	32	6	60	● 102561			
80	4	270	56	45	35	7	76	★ 102564			
 Other sizes from Ø 30 to 160 mm on request!											

									N470V-3																																																																																																																						
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