

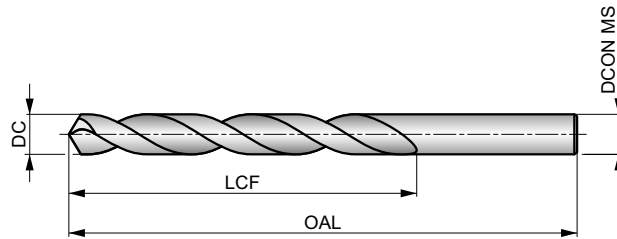


# A002



## Wiertło HSS, standardowej długości, powłoka TiN (na końcówce wiertła)

Wszechstronne wiertło do wiercenia ręcznego i maszynowego. Specjalnie zaprojektowany podzielony wierzchołek 118° pomaga w samocentrowaniu wiertła podczas wiercenia ręcznego i zapewnia dokładniejszy wymiar otworu. Przeznaczone do różnorodnych materiałów. Powłoka TiN na końcówce poprawia wydajność i wydłuża trwałość narzędzia.



HSS	DIN 338	4xD
118°	TiN-Tip	
λ 20-35°	R	DC h8

Zalecane grupy materiałowe, początkowe wartości dla prędkości skrawania (m/min) i posuwu (kod literowy). Tabele z posuwem na obrót można znaleźć na stronie 175.

<b>P1.1</b> ■ 46 J	<b>P1.2</b> ■ 52 J	<b>P1.3</b> ■ 54 J	<b>P2.1</b> ■ 40 J	<b>P2.2</b> ■ 35 F	<b>P2.3</b> ■ 31 F	<b>P3.1</b> ■ 27 F	<b>P3.2</b> ■ 21 F	<b>P3.3</b> ■ 18 F	<b>P4.1</b> ■ 16 F	<b>P4.2</b> ■ 13 F	<b>P4.3</b> ■ 11 E	<b>M1.1</b> ■ 27 F	<b>M1.2</b> ■ 23 F
<b>M2.1</b> ■ 24 F	<b>M2.2</b> ■ 20 F	<b>M3.1</b> ■ 14 G	<b>M3.2</b> ■ 12 G	<b>M3.3</b> ■ 11 G	<b>M4.1</b> ■ 16 C	<b>K1.1</b> ■ 40 J	<b>K1.2</b> ■ 30 E	<b>K1.3</b> ■ 22 E	<b>K2.1</b> ■ 34 E	<b>K2.2</b> ■ 28 E	<b>K2.3</b> ■ 22 E	<b>K3.1</b> ■ 30 E	<b>K3.2</b> ■ 23 E
<b>K3.3</b> ■ 19 E	<b>K4.1</b> ■ 28 E	<b>K4.2</b> ■ 21 E	<b>K4.3</b> ■ 16 E	<b>K4.4</b> ■ 13 E	<b>K4.5</b> ■ 11 E	<b>K5.1</b> ■ 32 E	<b>K5.2</b> ■ 24 E	<b>K5.3</b> ■ 19 E	<b>N1.1</b> ■ 41 K	<b>N1.2</b> ■ 31 K	<b>N1.3</b> ■ 21 J	<b>N2.1</b> ■ 51 I	<b>N2.2</b> ■ 46 I
<b>N2.3</b> ■ 33 I	<b>N3.1</b> ■ 56 H	<b>N3.2</b> ■ 33 I	<b>N3.3</b> ■ 17 G	<b>N4.1</b> ■ 30 I	<b>N4.2</b> ■ 50 H	<b>N4.3</b> ■ 35 F	<b>S1.1</b> ■ 23 F	<b>S1.2</b> ■ 13 D	<b>S1.3</b> ■ 7 B	<b>S2.1</b> ■ 9 E	<b>S2.2</b> ■ 4 A	<b>S3.1</b> ■ 7 E	<b>S3.2</b> ■ 3 A
<b>S4.1</b> ■ 5 E	<b>S4.2</b> ■ 2 A												

DC <2mm wykończenie jasne DC> = 2mm końcówka w powłoce TiN i szlifowanym podziałem ostrza.  
Produkty z tej serii dostępne są również w zestawie. Zobacz A087, A089 A094, A095 lub A099.

Produkt	DC (inch)	DC (mm)	DC (inch)	LCF (mm)	OAL (mm)	DCON MS (mm)
A0021.0	-	1.00	0.0394	12.0	34.0	1.00
A0021.1	-	1.10	0.0433	14.0	36.0	1.10
A0023/64	3/64	1.19	0.0469	16.0	38.0	1.19
A0021.2	-	1.20	0.0472	16.0	38.0	1.20
A0021.3	-	1.30	0.0512	16.0	38.0	1.30
A0021.4	-	1.40	0.0551	18.0	40.0	1.40
A0021.5	-	1.50	0.0591	18.0	40.0	1.50
A0021/16	1/16	1.59	0.0625	20.0	43.0	1.59
A0021.6	-	1.60	0.0630	20.0	43.0	1.60
A0021.7	-	1.70	0.0669	20.0	43.0	1.70
A0021.8	-	1.80	0.0709	22.0	46.0	1.80
A0021.9	-	1.90	0.0748	22.0	46.0	1.90
A0025/64	5/64	1.98	0.0781	24.0	49.0	1.98
A0022.0	-	2.00	0.0787	24.0	49.0	2.00
A0022.1	-	2.10	0.0827	24.0	49.0	2.10
A0022.2	-	2.20	0.0866	27.0	53.0	2.20
A0022.3	-	2.30	0.0906	27.0	53.0	2.30
A0023/32	3/32	2.38	0.0938	30.0	57.0	2.38
A0022.4	-	2.40	0.0945	30.0	57.0	2.40
A0022.5	-	2.50	0.0984	30.0	57.0	2.50
A0022.6	-	2.60	0.1024	30.0	57.0	2.60
A0022.7	-	2.70	0.1063	33.0	61.0	2.70
A0027/64	7/64	2.78	0.1094	33.0	61.0	2.78
A0022.8	-	2.80	0.1102	33.0	61.0	2.80

Produkt	DC (inch)	DC (mm)	DC (inch)	LCF (mm)	OAL (mm)	DCON MS (mm)
A0022.9	-	2.90	0.1142	33.0	61.0	2.90
A0023.0	-	3.00	0.1181	33.0	61.0	3.00
A0023.1	-	3.10	0.1220	36.0	65.0	3.10
A0021/8	1/8	3.18	0.1250	36.0	65.0	3.18
A0023.2	-	3.20	0.1260	36.0	65.0	3.20
A0023.25	-	3.25	0.1280	36.0	65.0	3.25
A0023.3	-	3.30	0.1299	36.0	65.0	3.30
A0023.4	-	3.40	0.1339	39.0	70.0	3.40
A0023.5	-	3.50	0.1378	39.0	70.0	3.50
A0029/64	9/64	3.57	0.1406	39.0	70.0	3.57
A0023.6	-	3.60	0.1417	39.0	70.0	3.60
A0023.7	-	3.70	0.1457	39.0	70.0	3.70
A0023.8	-	3.80	0.1496	43.0	75.0	3.80
A0023.9	-	3.90	0.1535	43.0	75.0	3.90
A0025/32	5/32	3.97	0.1563	43.0	75.0	3.97
A0024.0	-	4.00	0.1575	43.0	75.0	4.00
A0024.1	-	4.10	0.1614	43.0	75.0	4.10
A0024.2	-	4.20	0.1654	43.0	75.0	4.20
A0024.3	-	4.30	0.1693	47.0	80.0	4.30
A00211/64	11/64	4.37	0.1719	47.0	80.0	4.37
A0024.4	-	4.40	0.1732	47.0	80.0	4.40
A0024.5	-	4.50	0.1772	47.0	80.0	4.50
A0024.6	-	4.60	0.1811	47.0	80.0	4.60
A0024.7	-	4.70	0.1850	47.0	80.0	4.70



Produkt	DC	DC	DC	LCF	OAL	D CON MS
	(inch)	(mm)	(inch)	(mm)	(mm)	(mm)
A0023/16	3/16	4.76	0.1875	52.0	86.0	4.76
A0024.8	–	4.80	0.1890	52.0	86.0	4.80
A0024.9	–	4.90	0.1929	52.0	86.0	4.90
A0025.0	–	5.00	0.1969	52.0	86.0	5.00
A0025.1	–	5.10	0.2008	52.0	86.0	5.10
A00213/64	13/64	5.16	0.2031	52.0	86.0	5.16
A0025.2	–	5.20	0.2047	52.0	86.0	5.20
A0025.3	–	5.30	0.2087	52.0	86.0	5.30
A0025.4	–	5.40	0.2126	57.0	93.0	5.40
A0025.5	–	5.50	0.2165	57.0	93.0	5.50
A0027/32	7/32	5.56	0.2188	57.0	93.0	5.56
A0025.6	–	5.60	0.2205	57.0	93.0	5.60
A0025.7	–	5.70	0.2244	57.0	93.0	5.70
A0025.8	–	5.80	0.2283	57.0	93.0	5.80
A0025.9	–	5.90	0.2323	57.0	93.0	5.90
A00215/64	15/64	5.95	0.2344	57.0	93.0	5.95
A0026.0	–	6.00	0.2362	57.0	93.0	6.00
A0026.1	–	6.10	0.2402	63.0	101.0	6.10
A0026.2	–	6.20	0.2441	63.0	101.0	6.20
A0026.3	–	6.30	0.2480	63.0	101.0	6.30
A0021/4	1/4	6.35	0.2500	63.0	101.0	6.35
A0026.4	–	6.40	0.2520	63.0	101.0	6.40
A0026.5	–	6.50	0.2559	63.0	101.0	6.50
A0026.6	–	6.60	0.2598	63.0	101.0	6.60
A0026.7	–	6.70	0.2638	63.0	101.0	6.70
A00217/64	17/64	6.75	0.2656	69.0	109.0	6.75
A0026.8	–	6.80	0.2677	69.0	109.0	6.80
A0026.9	–	6.90	0.2717	69.0	109.0	6.90
A0027.0	–	7.00	0.2756	69.0	109.0	7.00
A0027.1	–	7.10	0.2795	69.0	109.0	7.10
A0029/32	9/32	7.14	0.2813	69.0	109.0	7.14
A0027.2	–	7.20	0.2835	69.0	109.0	7.20
A0027.3	–	7.30	0.2874	69.0	109.0	7.30
A0027.4	–	7.40	0.2913	69.0	109.0	7.40
A0027.5	–	7.50	0.2953	69.0	109.0	7.50
A00219/64	19/64	7.54	0.2969	75.0	117.0	7.54
A0027.6	–	7.60	0.2992	75.0	117.0	7.60
A0027.7	–	7.70	0.3031	75.0	117.0	7.70
A0027.8	–	7.80	0.3071	75.0	117.0	7.80
A0027.9	–	7.90	0.3110	75.0	117.0	7.90
A0025/16	5/16	7.94	0.3125	75.0	117.0	7.94
A0028.0	–	8.00	0.3150	75.0	117.0	8.00
A0028.1	–	8.10	0.3189	75.0	117.0	8.10
A0028.2	–	8.20	0.3228	75.0	117.0	8.20
A0028.3	–	8.30	0.3268	75.0	117.0	8.30
A00221/64	21/64	8.33	0.3281	75.0	117.0	8.33
A0028.4	–	8.40	0.3307	75.0	117.0	8.40
A0028.5	–	8.50	0.3346	75.0	117.0	8.50
A0028.6	–	8.60	0.3386	81.0	125.0	8.60
A0028.7	–	8.70	0.3425	81.0	125.0	8.70
A00211/32	11/32	8.73	0.3438	81.0	125.0	8.73
A0028.8	–	8.80	0.3465	81.0	125.0	8.80
A0028.9	–	8.90	0.3504	81.0	125.0	8.90
A0029.0	–	9.00	0.3543	81.0	125.0	9.00
A0029.1	–	9.10	0.3583	81.0	125.0	9.10
A00223/64	23/64	9.13	0.3594	81.0	125.0	9.13
A0029.2	–	9.20	0.3622	81.0	125.0	9.20
A0029.3	–	9.30	0.3661	81.0	125.0	9.30
A0029.4	–	9.40	0.3701	81.0	125.0	9.40
A0029.5	–	9.50	0.3740	81.0	125.0	9.50
A0023/8	3/8	9.52	0.3750	87.0	133.0	9.52
A0029.6	–	9.60	0.3780	87.0	133.0	9.60
A0029.7	–	9.70	0.3819	87.0	133.0	9.70
A0029.8	–	9.80	0.3858	87.0	133.0	9.80
A0029.9	–	9.90	0.3898	87.0	133.0	9.90
A00225/64	25/64	9.92	0.3906	87.0	133.0	9.92
A00210.0	–	10.00	0.3937	87.0	133.0	10.00

Produkt	DC	DC	DC	LCF	OAL	D CON MS
	(inch)	(mm)	(inch)	(mm)	(mm)	(mm)
A00210.1	–	10.10	0.3976	87.0	133.0	10.10
A00210.2	–	10.20	0.4016	87.0	133.0	10.20
A00210.3	–	10.30	0.4055	87.0	133.0	10.30
A00213/32	13/32	10.32	0.4063	87.0	133.0	10.32
A00210.4	–	10.40	0.4094	87.0	133.0	10.40
A00210.5	–	10.50	0.4134	87.0	133.0	10.50
A00210.6	–	10.60	0.4173	87.0	133.0	10.60
A00210.7	–	10.70	0.4213	94.0	142.0	10.70
A00227/64	27/64	10.72	0.4219	94.0	142.0	10.72
A00210.8	–	10.80	0.4252	94.0	142.0	10.80
A00210.9	–	10.90	0.4291	94.0	142.0	10.90
A00211.0	–	11.00	0.4331	94.0	142.0	11.00
A00211.1	–	11.10	0.4370	94.0	142.0	11.10
A0027/16	7/16	11.11	0.4375	94.0	142.0	11.11
A00211.2	–	11.20	0.4409	94.0	142.0	11.20
A00211.3	–	11.30	0.4449	94.0	142.0	11.30
A00211.4	–	11.40	0.4488	94.0	142.0	11.40
A00211.5	–	11.50	0.4528	94.0	142.0	11.50
A00229/64	29/64	11.51	0.4531	94.0	142.0	11.51
A00211.6	–	11.60	0.4567	94.0	142.0	11.60
A00211.7	–	11.70	0.4606	94.0	142.0	11.70
A00211.8	–	11.80	0.4646	94.0	142.0	11.80
A00211.9	–	11.90	0.4685	101.0	151.0	11.90
A00215/32	15/32	11.91	0.4688	101.0	151.0	11.91
A00212.0	–	12.00	0.4724	101.0	151.0	12.00
A00212.1	–	12.10	0.4764	101.0	151.0	12.10
A00212.2	–	12.20	0.4803	101.0	151.0	12.20
A00212.3	–	12.30	0.4843	101.0	151.0	12.30
A00231/64	31/64	12.30	0.4844	101.0	151.0	12.30
A00212.4	–	12.40	0.4882	101.0	151.0	12.40
A00212.5	–	12.50	0.4921	101.0	151.0	12.50
A00212.6	–	12.60	0.4961	101.0	151.0	12.60
A00212.7	–	12.70	0.5000	101.0	151.0	12.70
A0021/2	1/2	12.70	0.5000	101.0	151.0	12.70
A00212.8	–	12.80	0.5039	101.0	151.0	12.80
A00212.9	–	12.90	0.5079	101.0	151.0	12.90
A00213.0	–	13.00	0.5118	101.0	151.0	13.00
A00233/64	33/64	13.10	0.5156	101.0	151.0	13.10
A00213.1	–	13.10	0.5157	101.0	151.0	13.10
A00213.2	–	13.20	0.5197	101.0	151.0	13.20
A00213.25	–	13.25	0.5217	108.0	160.0	13.25
A00213.3	–	13.30	0.5236	108.0	160.0	13.30
A00213.4	–	13.40	0.5276	108.0	160.0	13.40
A00217/32	17/32	13.49	0.5313	108.0	160.0	13.49
A00213.5	–	13.50	0.5315	108.0	160.0	13.50
A00213.6	–	13.60	0.5354	108.0	160.0	13.60
A00213.7	–	13.70	0.5394	108.0	160.0	13.70
A00213.75	–	13.75	0.5413	108.0	160.0	13.75
A00213.8	–	13.80	0.5433	108.0	160.0	13.80
A00235/64	35/64	13.89	0.5469	108.0	160.0	13.89
A00213.9	–	13.90	0.5472	108.0	160.0	13.90
A00214.0	–	14.00	0.5512	108.0	160.0	14.00
A00214.25	–	14.25	0.5610	114.0	169.0	14.25
A0029/16	9/16	14.29	0.5625	114.0	169.0	14.29
A00214.5	–	14.50	0.5709	114.0	169.0	14.50
A00237/64	37/64	14.68	0.5781	114.0	169.0	14.68
A00214.75	–	14.75	0.5807	114.0	169.0	14.75
A00215.0	–	15.00	0.5906	114.0	169.0	15.00
A00219/32	19/32	15.08	0.5938	120.0	178.0	15.08
A00215.25	–	15.25	0.6004	120.0	178.0	15.25
A00239/64	39/64	15.48	0.6094	120.0	178.0	15.48
A00215.5	–	15.50	0.6102	120.0	178.0	15.50
A00215.75	–	15.75	0.6201	120.0	178.0	15.75
A0025/8	5/8	15.88	0.6250	120.0	178.0	15.88
A00216.0	–	16.00	0.6299	120.0	178.0	16.00