



NEW

HSS TIALN TIP JOBBER DRILLS

***You Now Have
A More Productive
and Cost Efficient
Drilling Option***

Distributed by:



Distinct advantages over TiN Tip Drills

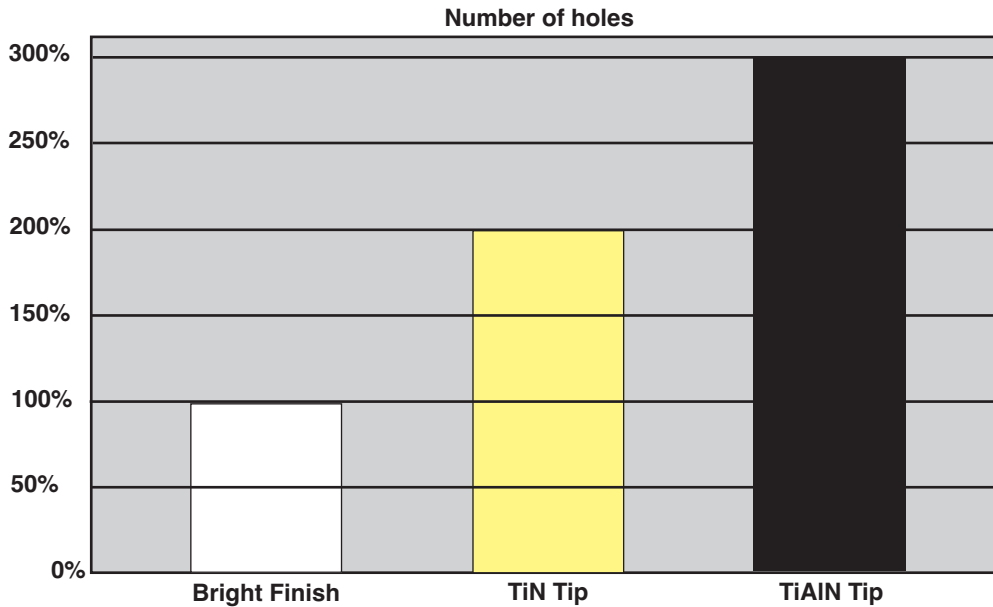
A stronger self repairing coating leading to longer tool life compared to TiN Coating.

TiAlN Tip also allows increased speeds and feeds.

Over 50% more holes drilled than TiN Tip

Covers a wider range of materials

Maximum performance and cost savings over TiN Tip



- Free Cutting Carbon Steels (0.3 to 0.4% Carbon) up to 8hrc
- Carbon Steels (0.3 to 0.7% Carbon) up to 24hrc
- Carbon Steels (0.4 to 0.7% Carbon) up to 30hrc
- Low alloy tool steels up to 24hrc

- High alloy tool steels up to 36hrc
- Heat treatable steels up to 41hrc
- Martensitic stainless steels (400 series) up to 24hrc
- Austenitic stainless steels (300 series) up to 32hrc
- Heat resisting alloys up to 38hrc

- Commercially pure titanium up to 28hrc
- Commercially alloyed titanium up to 38hrc
- Grey cast iron up to 32hrc
- Nodular cast iron up to 32hrc
- Manganese steel up to 38hrc

About TiAlN Coating

TiAlN (Titanium Aluminum Nitride)

In addition to a higher hardness than both TiN and TiCN the Aluminum in the coating imparts a much greater oxidation stability. This is a result of a very thin film of (Aluminum Oxide) being formed on the surface of the TiAlN. The film is self repairing, leading to additional increased service life. These improvements allow the coating to withstand much higher temperatures which in turn allows increased cutting conditions, especially useful when machining Cast Iron and tough steels.



HSS TiAlN TIP JOBBER DRILLS

HSS TiAlN Tip Jobber Length Drills



A stronger self repairing coating leading to longer tool life compared to TiN Coating. TiAlN Tip also allows increased speeds and feeds.



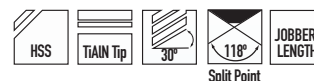
Size (in.)	Decimal Equivalent	Flute Length (in.)	Overall Length (in.)	Code No.	Price \$
60	.0400	1/2	1-3/8	127-189	0.99
59	.0410	1/2	1-3/8	127-188	0.99
58	.0420	9/16	1-7/16	127-187	0.99
57	.0430	9/16	1-7/16	127-186	0.99
56	.0465	11/16	1-1/2	127-185	0.99
55	.0520	3/4	1-5/8	127-184	0.99
54	.0540	3/4	1-5/8	127-183	0.99
53	.0595	13/16	1-3/4	127-182	1.08
1/16	.0625	13/16	1-3/4	127-001	0.99
52	.0635	13/16	1-3/4	127-181	1.08
51	.0670	7/8	1-13/16	127-180	1.08
50	.0700	7/8	1-13/16	127-179	1.08
49	.0730	7/8	1-13/16	127-178	1.08
48	.0760	1"	1-15/16	127-177	1.08
5/64	.0781	1"	1-15/16	127-002	0.99
47	.0785	1"	1-15/16	127-176	1.17
46	.0810	1"	1-15/16	127-175	1.17
45	.0820	1"	1-15/16	127-174	1.17
44	.0860	1-1/8	2-1/8	127-173	1.17
43	.0890	1-1/8	2-1/8	127-172	1.17
42	.0935	1-3/16	2-1/4	127-171	1.62
3/32	.0938	1-3/16	2-1/4	127-003	1.08
41	.0960	1-3/16	2-1/4	127-170	1.62
40	.0980	1-3/16	2-1/4	127-169	1.62
39	.0995	1-3/16	2-1/4	127-168	1.62
38	.1015	1-3/16	2-1/4	127-167	1.62
37	.1040	1-3/16	2-1/4	127-166	1.62
36	.1065	1-5/16	2-7/16	127-165	1.62
7/64	.1094	1-5/16	2-7/16	127-004	1.53
35	.1100	1-5/16	2-7/16	127-164	1.80
34	.1110	1-5/16	2-7/16	127-163	1.80
33	.1130	1-5/16	2-7/16	127-162	1.80
32	.1160	1-5/16	2-7/16	127-161	1.80
31	.1200	1-7/16	2-9/16	127-160	1.80
1/8	.1250	1-7/16	2-9/16	127-005	1.62
30	.1285	1-7/16	2-9/16	127-159	1.80
29	.1360	1-9/16	2-13/16	127-158	1.80
28	.1405	1-9/16	2-13/16	127-157	1.80
9/64	.1406	1-9/16	2-13/16	127-006	1.80
27	.1440	1-9/16	2-13/16	127-156	1.80
26	.1470	1-9/16	2-13/16	127-155	1.80
25	.1495	1-3/4	3"	127-154	1.89
24	.1520	1-3/4	3"	127-153	1.89
23	.1540	1-3/4	3"	127-152	1.89
5/32	.1562	1-3/4	3"	127-007	1.89
22	.1570	1-3/4	3"	127-151	1.89
21	.1590	1-3/4	3"	127-150	1.70
20	.1610	1-3/4	3"	127-149	1.98
19	.1660	1-3/4	3"	127-148	1.98
18	.1695	1-7/8	3-3/16	127-147	1.98
11/64	.1719	1-7/8	3-3/16	127-008	1.98
17	.1730	1-7/8	3-3/16	127-146	2.07
16	.1770	1-7/8	3-3/16	127-145	2.07
15	.1800	1-7/8	3-3/16	127-144	2.07
14	.1820	1-7/8	3-3/16	127-143	2.07
13	.1850	1-7/8	3-3/16	127-142	2.16
3/16	.1875	2-1/16	3-7/16	127-009	2.07
12	.1890	2-1/16	3-7/16	127-141	2.16
11	.1910	2-1/16	3-7/16	127-140	2.16
10	.1935	2-1/16	3-7/16	127-139	2.25
9	.1960	2-1/16	3-7/16	127-138	2.25
8	.1991	2-1/16	3-7/16	127-137	2.43
7	.2010	2-1/16	3-7/16	127-136	2.52
13/64	.2031	2-1/16	3-7/16	127-010	2.43

HSS TiAlN Tip Jobber Length Drills Continued

Size (in.)	Decimal Equivalent	Flute Length (in.)	Overall Length (in.)	Code No.	Price \$
6	.2040	2-1/16	3-7/16	127-135	2.52
5	.2055	2-1/16	3-7/16	127-134	2.70
4	.2090	2-1/4	3-11/16	127-133	2.70
3	.2130	2-1/4	3-11/16	127-132	2.79
7/32	.2188	2-1/4	3-11/16	127-011	2.52
2	.2210	2-1/4	3-11/16	127-131	2.79
1	.2280	2-1/4	3-11/16	127-130	2.88
A	.2340	2-1/4	3-11/16	127-250	2.97
15/64	.2344	2-1/4	3-11/16	127-012	2.97
B	.2380	2-1/2	4"	127-251	3.06
C	.2420	2-1/2	4"	127-252	3.06
D	.2460	2-1/2	4"	127-253	3.15
1/4	.2500	2-1/2	4"	127-013	3.06
E	.2500	2-1/2	4"	127-254	3.24
F	.2570	2-1/2	4"	127-255	3.33
G	.2610	2-1/2	4"	127-256	3.51
17/64	.2656	2-3/4	4-5/16	127-014	3.42
H	.2660	2-3/4	4-5/16	127-257	3.60
I	.2720	2-3/4	4-5/16	127-258	3.69
J	.2770	2-3/4	4-5/16	127-259	3.96
K	.2810	2-3/4	4-5/16	127-260	3.96
9/32	.2812	2-3/4	4-5/16	127-015	3.69
L	.2900	2-3/4	4-5/16	127-261	4.05
M	.2950	2-3/4	4-5/16	127-262	4.50
19/64	.2969	3"	4-5/8	127-016	4.23
N	.3020	3"	4-5/8	127-263	4.68
5/16	.3125	3"	4-5/8	127-017	4.41
O	.3160	3"	4-5/8	127-264	4.77
P	.3230	3"	4-5/8	127-265	5.22
21/64	.3281	3"	4-5/8	127-018	4.95
Q	.3320	3"	4-5/8	127-266	5.31
R	.3390	3-1/4	4-15/16	127-267	5.85
11/32	.3438	3-1/4	4-15/16	127-019	5.58
S	.3480	3-1/4	4-15/16	127-268	5.94
T	.3580	3-1/4	4-15/16	127-269	6.48
23/64	.3594	3-1/4	4-15/16	127-020	6.03
U	.3680	3-1/4	4-15/16	127-270	6.57
3/8	.3750	3-7/16	5-1/4	127-021	6.12
V	.3770	3-7/16	5-1/4	127-271	6.75
W	.3860	3-7/16	5-1/4	127-272	7.11
25/64	.3906	3-7/16	5-1/4	127-022	6.93
X	.3970	3-7/16	5-1/4	127-273	7.56
Y	.4040	3-7/16	5-1/4	127-274	7.65
13/32	.4062	3-7/16	5-1/4	127-023	7.29
Z	.4130	3-7/16	5-1/4	127-275	8.28
27/64	.4219	3-3/4	5-5/8	127-024	7.92
7/16	.4375	3-3/4	5-5/8	127-025	8.55
29/64	.4531	3-3/4	5-5/8	127-026	9.36
15/32	.4688	4"	6"	127-027	9.81
31/64	.4844	4"	6"	127-028	10.53
1/2	.5000	4"	6"	127-029	10.89

HSS TiAlN Tip Jobber Length Drill Set

A stronger self repairing coating leading to longer tool life compared to TiN Coating. TiAlN Tip also allows increased speeds and feeds.



Description	Pieces Per Set	Code No.	Price \$
1/16 - 1/2 x 64ths Fractional Set	29	127-050	163.08



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Carbon Steels
(0.4 to 0.7% Carbon) 30 hrc

High alloy tool steels up to 36hrc

Martensitic stainless steels
(400 series) up to 24 hrc

Size	Speed Ft/min			RPM			Drill Feed in/rev	Size	Speed Ft/min			RPM			Drill Feed in/rev	Size	Speed Ft/min			RPM			Drill Feed in/rev
1/16"	33	to	49	2004	to	3006	0.0013	33	to	49	2004	to	3006	0.0013	39	to	52	2405	to	3207	0.0013		
5/64"	33	to	49	1603	to	2405	0.0016	33	to	49	1603	to	2405	0.0016	39	to	52	1924	to	2565	0.0016		
3/32"	33	to	49	1336	to	2004	0.0019	33	to	49	1336	to	2004	0.0019	39	to	52	1603	to	2138	0.0019		
7/64"	33	to	49	1145	to	1718	0.0022	33	to	49	1145	to	1718	0.0022	39	to	52	1374	to	1832	0.0022		
1/8"	33	to	49	1002	to	1503	0.0025	33	to	49	1002	to	1503	0.0025	39	to	52	1203	to	1603	0.0025		
9/64"	33	to	49	891	to	1336	0.0028	33	to	49	891	to	1336	0.0028	39	to	52	1069	to	1425	0.0028		
5/32"	33	to	49	802	to	1203	0.0031	33	to	49	802	to	1203	0.0031	39	to	52	962	to	1283	0.0031		
11/64"	33	to	49	729	to	1093	0.0034	33	to	49	729	to	1093	0.0034	39	to	52	875	to	1166	0.0034		
3/16"	33	to	49	668	to	1002	0.0038	33	to	49	668	to	1002	0.0038	39	to	52	802	to	1069	0.0038		
13/64"	33	to	49	617	to	925	0.0041	33	to	49	617	to	925	0.0041	39	to	52	740	to	987	0.0041		
7/32"	33	to	49	573	to	859	0.0044	33	to	49	573	to	859	0.0044	39	to	52	687	to	916	0.0044		
15/64"	33	to	49	534	to	802	0.0047	33	to	49	534	to	802	0.0047	39	to	52	641	to	855	0.0047		
1/4"	33	to	49	501	to	752	0.0050	33	to	49	501	to	752	0.0050	39	to	52	601	to	802	0.0050		
17/64"	33	to	49	472	to	707	0.0053	33	to	49	472	to	707	0.0053	39	to	52	566	to	755	0.0053		
9/32"	33	to	49	445	to	668	0.0056	33	to	49	445	to	668	0.0056	39	to	52	534	to	713	0.0056		
19/64"	33	to	49	422	to	633	0.0059	33	to	49	422	to	633	0.0059	39	to	52	506	to	675	0.0059		
5/16"	33	to	49	401	to	601	0.0063	33	to	49	401	to	601	0.0063	39	to	52	481	to	641	0.0063		
21/64"	33	to	49	382	to	573	0.0066	33	to	49	382	to	573	0.0066	39	to	52	458	to	611	0.0066		
11/32"	33	to	49	364	to	547	0.0069	33	to	49	364	to	547	0.0069	39	to	52	437	to	583	0.0069		
23/64"	33	to	49	349	to	523	0.0072	33	to	49	349	to	523	0.0072	39	to	52	418	to	558	0.0072		
3/8"	33	to	49	334	to	501	0.0075	33	to	49	334	to	501	0.0075	39	to	52	401	to	534	0.0075		
25/64"	33	to	49	321	to	481	0.0078	33	to	49	321	to	481	0.0078	39	to	52	385	to	513	0.0078		
13/32"	33	to	49	308	to	463	0.0081	33	to	49	308	to	463	0.0081	39	to	52	370	to	493	0.0081		
27/64"	33	to	49	297	to	445	0.0084	33	to	49	297	to	445	0.0084	39	to	52	356	to	475	0.0084		
7/16"	33	to	49	286	to	429	0.0088	33	to	49	286	to	429	0.0088	39	to	52	344	to	458	0.0088		
29/64"	33	to	49	276	to	415	0.0091	33	to	49	276	to	415	0.0091	39	to	52	332	to	442	0.0091		
15/32"	33	to	49	267	to	401	0.0094	33	to	49	267	to	401	0.0094	39	to	52	321	to	428	0.0094		
31/64"	33	to	49	259	to	388	0.0097	33	to	49	259	to	388	0.0097	39	to	52	310	to	414	0.0097		
1/2"	33	to	49	251	to	376	0.0100	33	to	49	251	to	376	0.0100	39	to	52	301	to	401	0.0100		

Austenitic stainless steels
(300 series) up to 32hrc

Size	Speed Ft/min			RPM			Drill Feed in/rev
1/16"	13	to	20	802	to	1203	0.0005
5/64"	13	to	20	641	to	962	0.0006
3/32"	13	to	20	534	to	802	0.0007
7/64"	13	to	20	458	to	687	0.0008
1/8"	13	to	20	401	to	601	0.0009
9/64"	13	to	20	356	to	534	0.0011
5/32"	13	to	20	321	to	481	0.0012
11/64"	13	to	20	292	to	437	0.0013
3/16"	13	to	20	267	to	401	0.0014
13/64"	13	to	20	247	to	370	0.0015
7/32"	13	to	20	229	to	344	0.0016
15/64"	13	to	20	214	to	321	0.0018
1/4"	13	to	20	200	to	301	0.0019
17/64"	13	to	20	189	to	283	0.0020
9/32"	13	to	20	178	to	267	0.0021
19/64"	13	to	20	169	to	253	0.0022
5/16"	13	to	20	160	to	241	0.0023
21/64"	13	to	20	153	to	229	0.0025
11/32"	13	to	20	146	to	219	0.0026
23/64"	13	to	20	139	to	209	0.0027
3/8"	13	to	20	134	to	200	0.0028
25/64"	13	to	20	128	to	192	0.0029
13/32"	13	to	20	123	to	185	0.0030
27/64"	13	to	20	119	to	178	0.0032
7/16"	13	to	20	115	to	172	0.0033
29/64"	13	to	20	111	to	166	0.0034
15/32"	13	to	20	107	to	160	0.0035
31/64"	13	to	20	103	to	155	0.0036
1/2"	13	to	20	100	to	150	0.0038

Complete speeds and feeds available for all sizes and wider range of Material groups including: Titanium, Cast Iron and Manganese.

Speeds for Deep Holes	
Depth of Hole	% Speed Reduction
3 X Drill Diameter	10%
4 X Drill Diameter	20%
5 X Drill Diameter	30%
5-8 X Drill Diameter	40%

Feeds for Deep Holes	
Depth of Hole	% Feed Reduction
3 X Drill Diameter	10%
4 X Drill Diameter	20%

Pricing subject to change without notice.



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