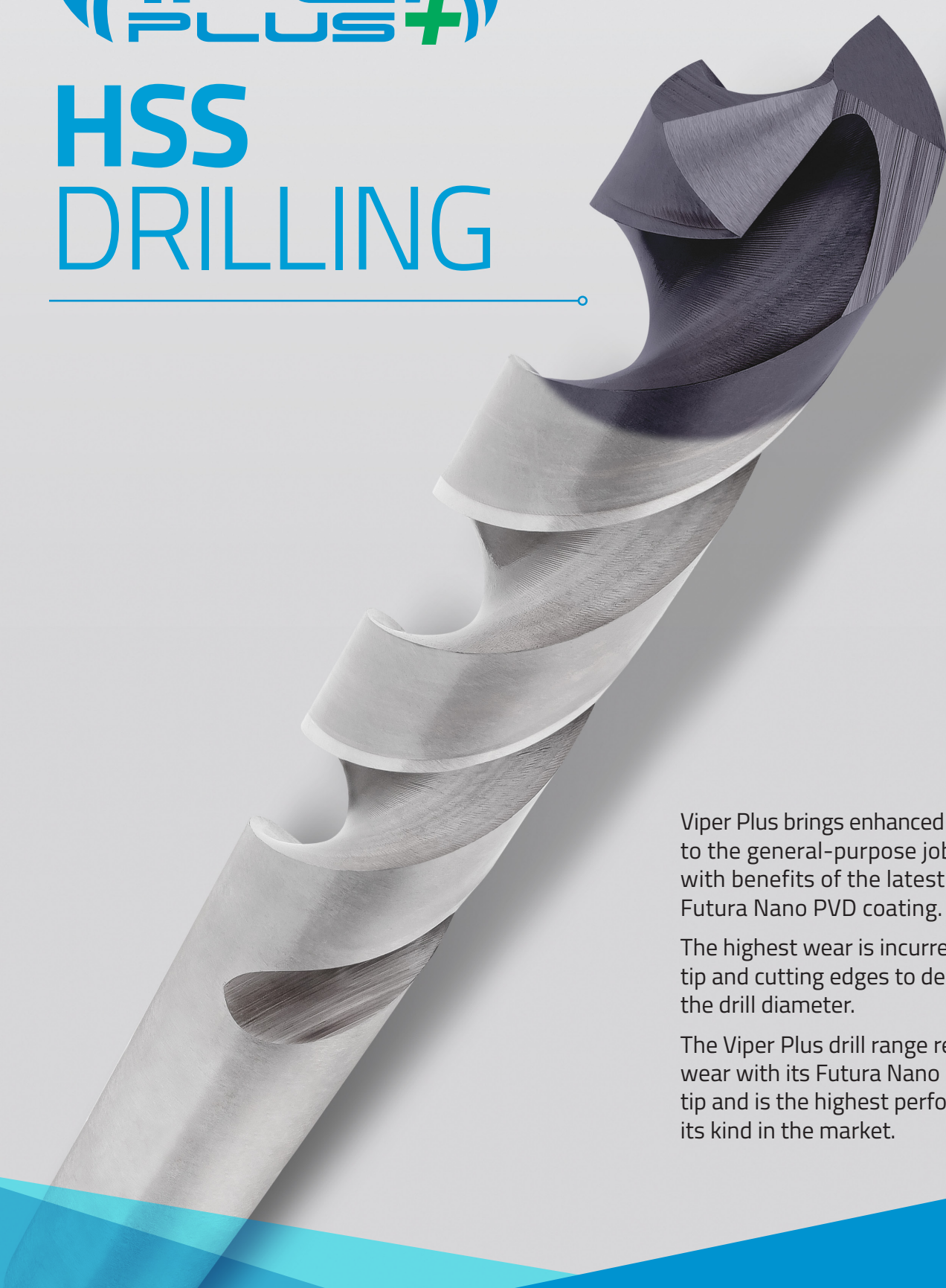




# HSS DRILLING

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Viper Plus brings enhanced performance to the general-purpose jobber drill with benefits of the latest generation Futura Nano PVD coating.

The highest wear is incurred at the drill tip and cutting edges to depths twice the drill diameter.

The Viper Plus drill range reduces point wear with its Futura Nano (TiAlN) coated tip and is the highest performing drill of its kind in the market.

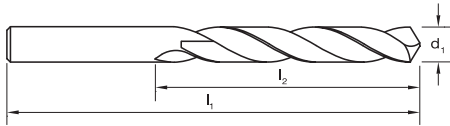


***sutton***tools

# Drills Jobber, Viper Plus



- General purpose drill
- Made from European premium grade high speed steel
- Split point for easier penetration
- Futura Nano (TiAlN) PVD coated tip for high wear resistance
- Designed for machine and hand held drilling



Catalogue Code	<b>D179</b>
Discount Group	A0402
Material	<b>HSS</b>
Surface Finish	<b>TiAlN Tip</b>
Sutton Designation	<b>N</b>
Geometry	R30
Point Type	118° Form C
Order Quantity	Bulk 5 (1 > 13mm)

Size Ref.	d <sub>1</sub> (h8) mm	gauge	l <sub>1</sub>	l <sub>2</sub>	Item #
0100	1.00		34	12	D179 0100
0110	1.10		36	14	D179 0110
0119	1.19	3/64	44	19	D179 0119
0120	1.20		38	16	D179 0120
0130	1.30		38	16	D179 0130
0140	1.40		40	18	D179 0140
0150	1.50		40	18	D179 0150
0159	1.59	1/16	48	22	D179 0159
0160	1.60		43	20	D179 0160
0170	1.70		43	20	D179 0170
0180	1.80		46	22	D179 0180
0190	1.90		46	22	D179 0190
0198	1.98	5/64	51	25	D179 0198
0200	2.00		49	24	D179 0200
0210	2.10		49	24	D179 0210
0220	2.20		53	27	D179 0220
0230	2.30		53	27	D179 0230
0238	2.38	3/32	57	32	D179 0238
0240	2.40		57	30	D179 0240
0250	2.50		57	30	D179 0250
0260	2.60		57	30	D179 0260
0270	2.70		61	33	D179 0270
0278	2.78	7/64	67	38	D179 0278
0280	2.80		61	33	D179 0280
0290	2.90		61	33	D179 0290
0300	3.00		61	33	D179 0300
0310	3.10		65	36	D179 0310
0318	3.18	1/8	70	41	D179 0318
0320	3.20		65	36	D179 0320
0330	3.30		65	36	D179 0330
0340	3.40		70	39	D179 0340
0350	3.50		70	39	D179 0350
0357	3.57	9/64	73	44	D179 0357
0360	3.60		70	39	D179 0360
0370	3.70		70	39	D179 0370
0380	3.80		75	43	D179 0380
0390	3.90		75	43	D179 0390
0397	3.97	5/32	79	51	D179 0397
0400	4.00		75	43	D179 0400
0410	4.10		75	43	D179 0410
0420	4.20		75	43	D179 0420
0430	4.30		80	47	D179 0430

Size Ref.	d <sub>1</sub> (h8) mm	gauge	l <sub>1</sub>	l <sub>2</sub>	Item #
0437	4.37	11/64	83	54	D179 0437
0440	4.40		80	47	D179 0440
0450	4.50		80	47	D179 0450
0460	4.60		80	47	D179 0460
0470	4.70		80	47	D179 0470
0476	4.76	3/16	89	59	D179 0476
0480	4.80		86	52	D179 0480
0490	4.90		86	52	D179 0490
0500	5.00		86	52	D179 0500
0510	5.10		86	52	D179 0510
0516	5.16	13/64	92	62	D179 0516
0520	5.20		86	52	D179 0520
0530	5.30		86	52	D179 0530
0540	5.40		93	57	D179 0540
0550	5.50		93	57	D179 0550
0556	5.56	7/32	95	64	D179 0556
0560	5.60		93	57	D179 0560
0570	5.70		93	57	D179 0570
0580	5.80		93	57	D179 0580
0590	5.90		93	57	D179 0590
0595	5.95	15/64	98	67	D179 0595
0600	6.00		93	57	D179 0600
0610	6.10		101	63	D179 0610
0620	6.20		101	63	D179 0620
0630	6.30		101	63	D179 0630
0635	6.35	1/4	102	70	D179 0635
0640	6.40		101	63	D179 0640
0650	6.50		101	63	D179 0650
0660	6.60		101	63	D179 0660
0670	6.70		101	63	D179 0670
0676	6.75	17/64	105	73	D179 0676
0680	6.80		109	69	D179 0680
0690	6.90		109	69	D179 0690
0700	7.00		109	69	D179 0700
0710	7.10		109	69	D179 0710
0714	7.14	9/32	108	75	D179 0714
0720	7.20		109	69	D179 0720
0730	7.30		109	69	D179 0730
0740	7.40		109	69	D179 0740
0750	7.50		109	69	D179 0750
0754	7.54	19/64	111	78	D179 0754
0760	7.60		117	75	D179 0760

ISO	P													M			K			N										S										H										
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
D179	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective



## TEST 1

### Controlled CNC Testing Speed Trial – 100 holes

**Drill size:** 6mm

**Lubricant:** Minimum quantity (MQL)

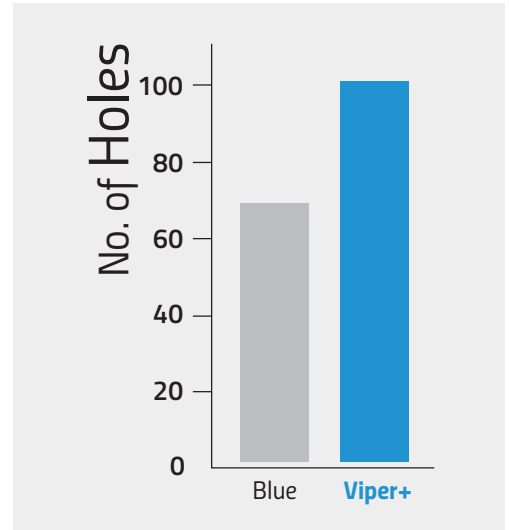
**Material:** A151 D2 approximately 18HRC  
(cold work steel)



<b>Vc:</b>	12 m/min	18 m/min
<b>N:</b>	637 RPM	955 RPM
<b>fn:</b>	0.1 mm/rev	0.1 mm/rev
<b>Vf:</b>	64 mm/min	95.5 mm/min
<b>Depth:</b>	2.5xD blind	2.5xD blind

(Recommended cutting conditions)

# 45% GAIN IN PRODUCTIVITY



## TEST 2

### Controlled CNC Testing Accelerated to Failure

**Drill size:** 6mm

**Lubricant:** Minimum quantity (MQL)

**Material:** A151 D2 approximately 18HRC  
(cold work steel)

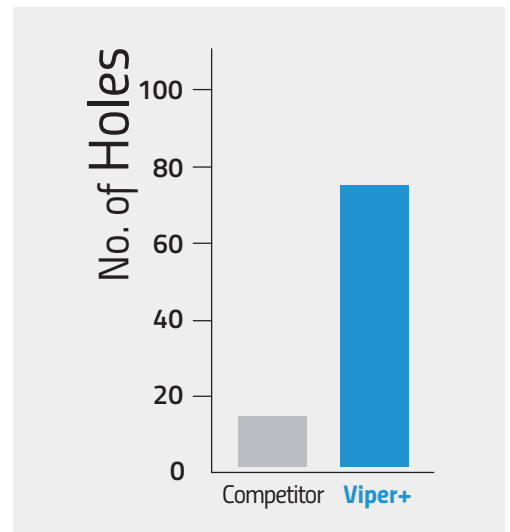
**Competitor**



<b>Vc:</b>	30 m/min	30 m/min
<b>N:</b>	1592 RPM	1592 RPM
<b>fn:</b>	0.125 mm/rev	0.125 mm/rev
<b>Vf:</b>	199 mm/min	199 mm/min
<b>Depth:</b>	2.5xD blind	2.5xD blind

(Recommended cutting conditions)

# HIGHEST PERFORMANCE IN ITS CLASS



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