CARBIDE DRILLS

Carbide Drills

When productivity matters

- Stub$_1$ to Long$_1$ hole depths
- With & without internal coolant
- Ultra fine grain type carbide
- Technically advanced multi-layer coatings

suttontools

ISO	VDI	Material Group	Sutton	
P	A	Steel	N	UNI
M	R	Stainless Steel	VA	
K	F	Cast Iron	GG	
N	N	Non-Ferrous Metals, Aluminiums & Coppers	Al / W	
S	S	Titaniums & Super Alloys	Ti	Ni
H	H	Hard Materials (≥ 45 HRC)	H	

^ VDI 3323 material groups can also be determined by referring to the material cross reference listing in the application guide at the back of this catalogue.

Page	22	23	25	27	29	29	31	31
								
Catalogue Code	122160	D323	D329	D356	D304	D310	D300	D306
Material	VHM							
Surface Finish	TiN	AlCrN		Helica	Brt	TiCN	Brt	TiCN
Sutton Designation		N		VA	NH		GG	
Standard	DIN 6539	DIN 6537			-			
Depth of Cut	3 x D							
Shank Tolerance	HA							

ISO	VDI^ 3323	Material		Condition	HB	N/mm²							
P	1	Steel - Non-alloy, cast & free cutting	~ 0.15 %C	A	125	440	●	●	●	●				
	2		~ 0.45 %C	A	190	640	●	●	●	●				
	3			QT	250	840	●	●	●	●	●	●		
	4		~ 0.75 %C	A	270	910	●	●	●	●	●	●		
	5			QT	300	1010	●	●	●	○	●	●		
	6	Steel - Low alloy & cast < 5% of alloying elements		A	180	610	●	●	●	●				
	7			QT	275	930	●	●	●	○	●	●		
	8			QT	300	1010	●	●	●	○	●	●		
	9			QT	350	1180	○	●	●		●	●	○	○
	10	Steel - High alloy, cast & tool		A	200	680	●	●	●	○	●	●		
	11			HT	325	1100	○	●	●		●	●	○	○
	12	Steel - Corrosion resistant & cast	Ferritic / Martensitic	A	200	680	○		○	●	●	●		
	13		Martensitic	QT	240	810	○	●	●	○	●	●	○	○
M	14.1	Stainless Steel	Austenitic	AH	180	610			○	●				
	14.2		Duplex		250	840			○	●	○	○		
	14.3		Precipitation Hardening		250	840	○	○	●	●	●	●		
K	15	Cast Iron - Grey (GG)	Ferritic / Pearlitic		180	610	●	●	●		●	●	●	●
	16		Pearlitic		260	880	●	●	●		●	●	●	●
	17	Cast Iron - Nodular (GGG)	Ferritic		160	570	●	●	●		●	●	●	●
	18		Pearlitic		250	840	●	●	●		●	●	●	●
	19	Cast Iron - Malleable	Ferritic		130	460	●	●	●		●	●	●	●
	20		Pearlitic		230	780	●	●	●		●	●	●	●
N	21	Aluminum & Magnesium - wrought alloy	Non Heat Treatable		60	210				●	○	○		
	22		Heat Treatable	AH	100	360				●	○	○		
	23	Aluminum & Magnesium - cast alloy ≤12% Si	Non Heat Treatable		75	270				●	○	○	○	○
	24		Heat Treatable	AH	90	320				●	○	○	○	○
	25	Al & Mg - cast alloy >12% Si	Non Heat Treatable		130	460			○	●	●	●	●	●
	26	Copper & Cu alloys (Brass/Bronze)	Free cutting, Pb > 1%		110	390			○		○	○	○	○
	27		Brass (CuZn, CuSnZn)		90	320			○		●	●	○	○
	28		Bronze (CuSn)		100	360			○		○	○		
	29	Non-metallic - Thermosetting & fiber-reinforced plastics									○	○		
	30	Non-metallic - Hard rubber, wood etc.												
S	31	High temp. alloys	Fe based	A	200	680			○	●				
	32			AH	280	950			○	○				
	33		Ni / Co based	A	250	840			○	●				
	34			AH	350	1180			○	○				
	35			C	320	1080			○	○				
	36	Titanium & Ti alloys	CP Titanium		400 MPa		○	○	○	●				
	37.1		Alpha alloys		860 MPa		○	○	○	●				
	37.2		Alpha / Beta alloys	A	960 MPa		○	○	○	●				
	37.3			AH	1170 MPa				○	●				
	37.4		Beta alloys	A	830 MPa		○	○	○	●				
	37.5			AH	1400 MPa				○	●				
H	38.1	Hardened steel		HT	45 HRC		○	○	●		○	●	○	○
	38.2			HT	55 HRC						○	○		
	39.1			HT	58 HRC									
	39.2			HT	62 HRC									
	40	Cast Iron	Chilled	C	400	1350	●	●	●		●	●	●	●
	41			HT	55 HRC									

Condition: **A** (Annealed), **AH** (Age Hardened), **C** (Cast), **HT** (Hardened & Tempered), **QT** (Quenched & Tempered)

● **Optimal** ○ **Effective**

33	35	37	39	41	42	42	43	43	43	43
										
D326	D332	D358	D335	123300	D318	D319	D355	D364	D365	D366
VHM										
AlCrN		Helica	AlCrN	TiAlN	Brt	TiCN	Brt	AlCrN	Brt	AlCrN
N		VA	N	UNI	N		NC			
DIN 6537			-		ANSI B94-11		DIN 1897			
5 x D			8 x D		-					
HA					-		HA			

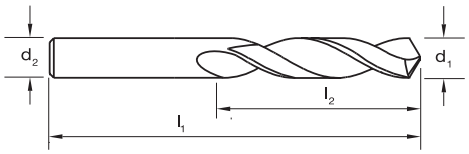
											VDI^ 3323	ISO
●	●	●	●	●		●		●		●	1	P
●	●	●	●	●		●		●		●	2	
●	●	●	●	●	○	●	○	●	○	●	3	
●	●	●	●	●	○	●	○	●	○	●	4	
●	●	○	●	●	○	●	○	●	○	●	5	
●	●	●	●	●		●		●		●	6	
●	●	○	●	●	○	●	○	●	○	●	7	
●	●	○	●	●	○	●	○	●	○	●	8	
●	●		●			●		●		●	9	
●	●	○	●	●	○	●	○	●	○	●	10	
●	●		●			●		●		●	11	
	○	●				○		●		●	12	
●	●	○	●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

Drills Carbide, 3 x D, R30 Micro

HOLEX®

- Suitable for materials up to 1400N/mm²
- Rigid twist drill
- Parallel shank
- TiN for longer tool life

DIN 6539 | 3xd$_1$ | HA



Catalogue Code	**122160***
Discount Group	A0202
Material	**VHM**
Surface Finish	***TiN***
Sutton Designation	**N**
Geometry	R30
Point Type	118° 4 Facet Form A
Shank Form (DIN 6535)	HA

Size Ref.	d$_1$ (m7)	l$_1$	l$_2$	d$_2$ (h6)	Item #
05	**0.5**	20	3	0.5	122160 05
06	**0.6**	21	3.5	0.6	122160 06
07	**0.7**	23	4.5	0.7	122160 07
08	**0.8**	24	5	0.8	122160 08
09	**0.9**	25	5.5	0.9	122160 09
1	**1.0**	26	6	1	122160 1
11	**1.1**	28	7	1.1	122160 11
12	**1.2**	30	8	1.2	122160 12
13	**1.3**	30	8	1.3	122160 13
14	**1.4**	32	9	1.4	122160 14
15	**1.5**	32	9	1.5	122160 15
16	**1.6**	34	10	1.6	122160 16
17	**1.7**	34	10	1.7	122160 17
18	**1.8**	36	11	1.8	122160 18
19	**1.9**	36	11	1.9	122160 19
2	**2.0**	38	12	2	122160 2
21	**2.1**	38	12	2.1	122160 21
22	**2.2**	40	13	2.2	122160 22
23	**2.3**	40	13	2.3	122160 23
24	**2.4**	43	14	2.4	122160 24
25	**2.5**	43	14	2.5	122160 25
26	**2.6**	43	14	2.6	122160 26
27	**2.7**	46	16	2.7	122160 27
28	**2.8**	46	16	2.8	122160 28
29	**2.9**	46	16	2.9	122160 29

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
122160	●	●	●	●	●	●	●	●	○	●	○	○	○			○	●	●	●	●	●	●																○	○	○		○		○					●	

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

● Optimal ○ Effective

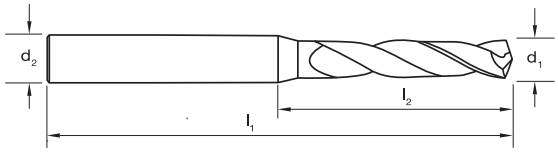
*Not available once current stock is depleted

NOTE: HE shanks available, subject to lead time.

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life

DIN 6537 | 3xd1 | HA



Catalogue Code	D323
Discount Group	A0210
Material	VHM
Surface Finish	AlCrN
Sutton Designation	N
Geometry	R30
Point Type	140° Form C
Shank Form (DIN 6535)	HA

Size Ref.	d_1 (m7)		l_1	l_2	d_2 (h6)	Item #
0300	3.0		62	20	6	D323 0300
0310	3.1		62	20	6	D323 0310
0318	3.18	1/8	62	20	6	D323 0318
0320	3.2		62	20	6	D323 0320
0330	3.3		62	20	6	D323 0330
0340	3.4		62	20	6	D323 0340
0350	3.5		62	20	6	D323 0350
0357	3.57	9/64	62	20	6	D323 0357
0360	3.6		62	20	6	D323 0360
0370	3.7		62	20	6	D323 0370
0380	3.8		66	24	6	D323 0380
0390	3.9		66	24	6	D323 0390
0397	3.97	5/32	66	24	6	D323 0397
0400	4.0		66	24	6	D323 0400
0410	4.1		66	24	6	D323 0410
0420	4.2		66	24	6	D323 0420
0430	4.3		66	24	6	D323 0430
0437	4.37	11/64	66	24	6	D323 0437
0440	4.4		66	24	6	D323 0440
0450	4.5		66	24	6	D323 0450
0460	4.6		66	24	6	D323 0460
0470	4.7		66	24	6	D323 0470
0476	4.76	3/16	66	24	6	D323 0476
0480	4.8		66	28	6	D323 0480
0490	4.9		66	28	6	D323 0490
0500	5.0		66	28	6	D323 0500
0510	5.1		66	28	6	D323 0510
0516	5.16	13/64	66	28	6	D323 0516
0520	5.2		66	28	6	D323 0520
0530	5.3		66	28	6	D323 0530
0540	5.4		66	28	6	D323 0540
0550	5.5		66	28	6	D323 0550
0556	5.56	7/32	66	28	6	D323 0556
0560	5.6		66	28	6	D323 0560
0570	5.7		66	28	6	D323 0570
0580	5.8		66	28	6	D323 0580
0590	5.9		66	28	6	D323 0590
0595	5.95	15/64	66	28	6	D323 0595
0600	6.0		66	28	6	D323 0600
0610	6.1		79	34	8	D323 0610

Size Ref.	d_1 (m7)		l_1	l_2	d_2 (h6)	Item #
0620	6.2		79	34	8	D323 0620
0630	6.3		79	34	8	D323 0630
0635	6.35	1/4	79	34	8	D323 0635
0640	6.4		79	34	8	D323 0640
0650	6.5		79	34	8	D323 0650
0660	6.6		79	34	8	D323 0660
0670	6.7		79	34	8	D323 0670
0676	6.76	17/64	79	34	8	D323 0676
0680	6.8		79	34	8	D323 0680
0690	6.9		79	34	8	D323 0690
0700	7.0		79	34	8	D323 0700
0710	7.1		79	41	8	D323 0710
0714	7.14	9/32	79	41	8	D323 0714
0720	7.2		79	41	8	D323 0720
0730	7.3		79	41	8	D323 0730
0740	7.4		79	41	8	D323 0740
0750	7.5		79	41	8	D323 0750
0754	7.54	19/64	79	41	8	D323 0754
0760	7.6		79	41	8	D323 0760
0770	7.7		79	41	8	D323 0770
0780	7.8		79	41	8	D323 0780
0790	7.9		79	41	8	D323 0790
0794	7.94	5/16	79	41	8	D323 0794
0800	8.0		79	41	8	D323 0800
0810	8.1		89	47	10	D323 0810
0820	8.2		89	47	10	D323 0820
0830	8.3		89	47	10	D323 0830
0833	8.33	21/64	89	47	10	D323 0833
0840	8.4		89	47	10	D323 0840
0850	8.5		89	47	10	D323 0850
0860	8.6		89	47	10	D323 0860
0870	8.7		89	47	10	D323 0870
0873	8.73	11/32	89	47	10	D323 0873
0880	8.8		89	47	10	D323 0880
0890	8.9		89	47	10	D323 0890
0900	9.0		89	47	10	D323 0900
0910	9.1		89	47	10	D323 0910
0913	9.13	23/64	89	47	10	D323 0913
0920	9.2		89	47	10	D323 0920
0930	9.3		89	47	10	D323 0930

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
D323	●	●	●	●	●	●	●	●	●	●	●		●			○	●	●	●	●	●	●															○	○	○		○			○					●	

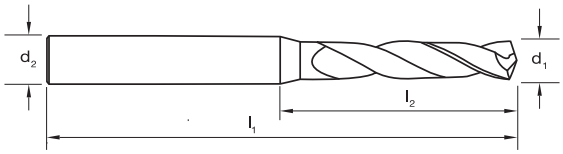
P Steel | M Stainless Steel | K Cast Iron | N Non-Ferrous Metals | S Titanium & Super Alloys | H Hard Materials

● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code	D323
Discount Group	A0210
Material	VHM
Surface Finish	AlCrN
Sutton Designation	N
Geometry	R30
Point Type	140° Form C
Shank Form (DIN 6535)	HA

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
0940	9.4	89	47	10	D323 0940
0950	9.5	89	47	10	D323 0950
0953	9.53 3/8	89	47	10	D323 0953
0960	9.6	89	47	10	D323 0960
0970	9.7	89	47	10	D323 0970
0980	9.8	89	47	10	D323 0980
0990	9.9	89	47	10	D323 0990
0992	9.92 25/64	89	47	10	D323 0992
1000	10.0	89	47	10	D323 1000
1010	10.1	102	55	12	D323 1010
1020	10.2	102	55	12	D323 1020
1030	10.3	102	55	12	D323 1030
1032	10.32 13/32	102	55	12	D323 1032
1040	10.4	102	55	12	D323 1040
1050	10.5	102	55	12	D323 1050
1060	10.6	102	55	12	D323 1060
1070	10.7	102	55	12	D323 1070
1080	10.8	102	55	12	D323 1080
1090	10.9	102	55	12	D323 1090
1100	11.0	102	55	12	D323 1100
1110	11.1	102	55	12	D323 1110
1111	11.11 7/16	102	55	12	D323 1111
1120	11.2	102	55	12	D323 1120
1130	11.3	102	55	12	D323 1130
1140	11.4	102	55	12	D323 1140
1150	11.5	102	55	12	D323 1150
1160	11.6	102	55	12	D323 1160
1170	11.7	102	55	12	D323 1170
1180	11.8	102	55	12	D323 1180
1190	11.9	102	55	12	D323 1190
1191	11.91 15/32	102	55	12	D323 1191
1200	12.0	102	55	12	D323 1200
1250	12.5	107	60	14	D323 1250
1269	12.7 1/2	107	60	14	D323 1269
1280	12.8	107	60	14	D323 1280
1300	13.0	107	60	14	D323 1300
1349	13.49 17/32	107	60	14	D323 1349
1350	13.5	107	60	14	D323 1350
1380	13.8	107	60	14	D323 1380
1400	14.0	107	60	14	D323 1400

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
1429	14.29 9/16	115	65	16	D323 1429
1450	14.5	115	65	16	D323 1450
1480	14.8	115	65	16	D323 1480
1500	15.0	115	65	16	D323 1500
1550	15.5	115	65	16	D323 1550
1580	15.8	115	65	16	D323 1580
1588	15.88 5/8	115	65	16	D323 1588
1600	16.0	115	65	16	D323 1600
1650	16.5	123	73	18	D323 1650
1680	16.8	123	73	18	D323 1680
1700	17.0	123	73	18	D323 1700
1746	17.46 11/16	123	73	18	D323 1746
1750	17.5	123	73	18	D323 1750
1780	17.8	123	73	18	D323 1780
1800	18.0	123	73	18	D323 1800
1850	18.5	131	79	20	D323 1850
1900	19.0	131	79	20	D323 1900
1905	19.05 3/4	131	79	20	D323 1905
1950	19.5	131	79	20	D323 1950
2000	20.0	131	79	20	D323 2000

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
D323	●	●	●	●	●	●	●	●	●	●	●		●			○	●	●	●	●	●	●																○	○	○		○		○				●	

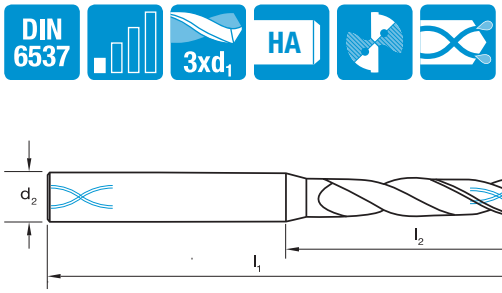
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code	D329
Discount Group	A0210
Material	VHM
Surface Finish	AlCrN
Sutton Designation	N
Geometry	R30 - IK
Point Type	140° Form C
Shank Form (DIN 6535)	HA

Size Ref.	d_1 (m7)		l_1	l_2	d_2 (h6)	Item #
0300	3.0		62	20	6	D329 0300
0310	3.1		62	20	6	D329 0310
0318	3.18	1/8	62	20	6	D329 0318
0320	3.2		62	20	6	D329 0320
0330	3.3		62	20	6	D329 0330
0340	3.4		62	20	6	D329 0340
0350	3.5		62	20	6	D329 0350
0357	3.57	9/64	62	20	6	D329 0357
0360	3.6		62	20	6	D329 0360
0370	3.7		62	20	6	D329 0370
0380	3.8		66	24	6	D329 0380
0390	3.9		66	24	6	D329 0390
0397	3.97	5/32	66	24	6	D329 0397
0400	4.0		66	24	6	D329 0400
0410	4.1		66	24	6	D329 0410
0420	4.2		66	24	6	D329 0420
0430	4.3		66	24	6	D329 0430
0437	4.37	11/64	66	24	6	D329 0437
0440	4.4		66	24	6	D329 0440
0450	4.5		66	24	6	D329 0450
0460	4.6		66	24	6	D329 0460
0470	4.7		66	24	6	D329 0470
0476	4.76	3/16	66	24	6	D329 0476
0480	4.8		66	28	6	D329 0480
0490	4.9		66	28	6	D329 0490
0500	5.0		66	28	6	D329 0500
0510	5.1		66	28	6	D329 0510
0516	5.16	13/64	66	28	6	D329 0516
0520	5.2		66	28	6	D329 0520
0530	5.3		66	28	6	D329 0530
0540	5.4		66	28	6	D329 0540
0550	5.5		66	28	6	D329 0550
0556	5.56	7/32	66	28	6	D329 0556
0560	5.6		66	28	6	D329 0560
0570	5.7		66	28	6	D329 0570
0580	5.8		66	28	6	D329 0580
0590	5.9		66	28	6	D329 0590
0595	5.95	15/64	66	28	6	D329 0595
0600	6.0		66	28	6	D329 0600
0610	6.1		79	34	8	D329 0610

Size Ref.	d_1 (m7)		l_1	l_2	d_2 (h6)	Item #
0620	6.2		79	34	8	D329 0620
0630	6.3		79	34	8	D329 0630
0635	6.35	1/4	79	34	8	D329 0635
0640	6.4		79	34	8	D329 0640
0650	6.5		79	34	8	D329 0650
0660	6.6		79	34	8	D329 0660
0670	6.7		79	34	8	D329 0670
0676	6.76	17/64	79	34	8	D329 0676
0680	6.8		79	34	8	D329 0680
0690	6.9		79	34	8	D329 0690
0700	7.0		79	34	8	D329 0700
0710	7.1		79	41	8	D329 0710
0714	7.14	9/32	79	41	8	D329 0714
0720	7.2		79	41	8	D329 0720
0730	7.3		79	41	8	D329 0730
0740	7.4		79	41	8	D329 0740
0750	7.5		79	41	8	D329 0750
0754	7.54	19/64	79	41	8	D329 0754
0760	7.6		79	41	8	D329 0760
0770	7.7		79	41	8	D329 0770
0780	7.8		79	41	8	D329 0780
0790	7.9		79	41	8	D329 0790
0794	7.94	5/16	79	41	8	D329 0794
0800	8.0		79	41	8	D329 0800
0810	8.1		89	47	10	D329 0810
0820	8.2		89	47	10	D329 0820
0830	8.3		89	47	10	D329 0830
0833	8.33	21/64	89	47	10	D329 0833
0840	8.4		89	47	10	D329 0840
0850	8.5		89	47	10	D329 0850
0860	8.6		89	47	10	D329 0860
0870	8.7		89	47	10	D329 0870
0873	8.73	11/32	89	47	10	D329 0873
0880	8.8		89	47	10	D329 0880
0890	8.9		89	47	10	D329 0890
0900	9.0		89	47	10	D329 0900
0910	9.1		89	47	10	D329 0910
0913	9.13	23/64	89	47	10	D329 0913
0920	9.2		89	47	10	D329 0920
0930	9.3		89	47	10	D329 0930

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
D329	●	●	●	●	●	●	●	●	●	●	●	○	●	○	○	●	●	●	●	●	●	●					○	○	○	○			○	○	○	○	○	○	○	○	○	○	○	●				●	

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

● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.

suttontools

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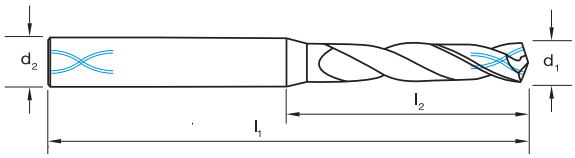


Catalogue Code	D329
Discount Group	A0210
Material	VHM
Surface Finish	AlCrN
Sutton Designation	N
Geometry	R30 - IK
Point Type	140° Form C
Shank Form (DIN 6535)	HA

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
0940	9.4	89	47	10	D329 0940
0950	9.5	89	47	10	D329 0950
0953	9.53 3/8	89	47	10	D329 0953
0960	9.6	89	47	10	D329 0960
0970	9.7	89	47	10	D329 0970
0980	9.8	89	47	10	D329 0980
0990	9.9	89	47	10	D329 0990
0992	9.92 25/64	89	47	10	D329 0992
1000	10.0	89	47	10	D329 1000
1010	10.1	102	55	12	D329 1010
1020	10.2	102	55	12	D329 1020
1030	10.3	102	55	12	D329 1030
1032	10.32 13/32	102	55	12	D329 1032
1040	10.4	102	55	12	D329 1040
1050	10.5	102	55	12	D329 1050
1060	10.6	102	55	12	D329 1060
1070	10.7	102	55	12	D329 1070
1080	10.8	102	55	12	D329 1080
1090	10.9	102	55	12	D329 1090
1100	11.0	102	55	12	D329 1100
1110	11.1	102	55	12	D329 1110
1111	11.11 7/16	102	55	12	D329 1111
1120	11.2	102	55	12	D329 1120
1130	11.3	102	55	12	D329 1130
1140	11.4	102	55	12	D329 1140
1150	11.5	102	55	12	D329 1150
1160	11.6	102	55	12	D329 1160
1170	11.7	102	55	12	D329 1170
1180	11.8	102	55	12	D329 1180
1190	11.9	102	55	12	D329 1190
1191	11.91 15/32	102	55	12	D329 1191
1200	12.0	102	55	12	D329 1200
1250	12.5	107	60	14	D329 1250
1269	12.7 1/2	107	60	14	D329 1269
1280	12.8	107	60	14	D329 1280
1300	13.0	107	60	14	D329 1300
1349	13.49 17/32	107	60	14	D329 1349
1350	13.5	107	60	14	D329 1350
1380	13.8	107	60	14	•
1400	14.0	107	60	14	D329 1400

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
1429	14.29 9/16	115	65	16	D329 1429
1450	14.5	115	65	16	D329 1450
1480	14.8	115	65	16	•
1500	15.0	115	65	16	D329 1500
1550	15.5	115	65	16	D329 1550
1580	15.8	115	65	16	•
1588	15.88 5/8	115	65	16	D329 1588
1600	16.0	115	65	16	D329 1600
1650	16.5	123	73	18	D329 1650
1700	17.0	123	73	18	D329 1700
1746	17.46 11/16	123	73	18	D329 1746
1750	17.5	123	73	18	D329 1750
1800	18.0	123	73	18	D329 1800
1850	18.5	131	79	20	D329 1850
1900	19.0	131	79	20	D329 1900
1905	19.05 3/4	131	79	20	D329 1905
1950	19.5	131	79	20	D329 1950
2000	20.0	131	79	20	D329 2000

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
D329	●	●	●	●	●	●	●	●	●	●	●	○	●	○	○	●	●	●	●	●	●	●					○	○	○	○			○	○	○	○	○	○	○	○	○	○	○	○	●				●	

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

● Optimal ○ Effective

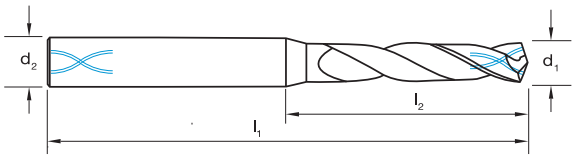
NOTE: HE shanks available, subject to lead time.

Drills Carbide, 3 x D, R30 VA *Black Magic*

suttontools BLACKMAGIC NEW

- Excellent solution for stainless steels and difficult super alloy type materials
- Optimised geometry ensures no work hardening and high productivity
- HELICA for outstanding oxidation resistance and hot hardness

DIN 6537 | 3xd$_1$ | HA | MICRO



Catalogue Code	D356
Discount Group	A0210
Material	VHM
Surface Finish	HELICA
Sutton Designation	VA
Geometry	R30 - IK
Point Type	140° 4 Facet Form C
Shank Form (DIN 6535)	HA

Size Ref.	d$_1$ (m7)		l$_1$	l$_2$	d$_2$ (h6)	Item #
0300	3.0		62	20	6	D356 0300
0310	3.1		62	20	6	D356 0310
0318	3.18	1/8	62	20	6	D356 0318
0320	3.2		62	20	6	D356 0320
0330	3.3		62	20	6	D356 0330
0340	3.4		62	20	6	D356 0340
0350	3.5		62	20	6	D356 0350
0357	3.57	9/64	62	20	6	D356 0357
0360	3.6		62	20	6	D356 0360
0370	3.7		62	20	6	D356 0370
0380	3.8		66	24	6	D356 0380
0390	3.9		66	24	6	D356 0390
0397	3.97	5/32	66	24	6	D356 0397
0400	4.0		66	24	6	D356 0400
0410	4.1		66	24	6	D356 0410
0420	4.2		66	24	6	D356 0420
0430	4.3		66	24	6	D356 0430
0437	4.37	11/64	66	24	6	D356 0437
0440	4.4		66	24	6	D356 0440
0450	4.5		66	24	6	D356 0450
0460	4.6		66	24	6	D356 0460
0470	4.7		66	24	6	D356 0470
0476	4.76	3/16	66	24	6	D356 0476
0480	4.8		66	28	6	D356 0480
0490	4.9		66	28	6	D356 0490
0500	5.0		66	28	6	D356 0500
0510	5.1		66	28	6	D356 0510
0516	5.16	13/64	66	28	6	D356 0516
0520	5.2		66	28	6	D356 0520
0530	5.3		66	28	6	D356 0530
0540	5.4		66	28	6	D356 0540
0550	5.5		66	28	6	D356 0550
0556	5.56	7/32	66	28	6	D356 0556
0560	5.6		66	28	6	D356 0560
0570	5.7		66	28	6	D356 0570
0580	5.8		66	28	6	D356 0580
0590	5.9		66	28	6	D356 0590
0595	5.95	15/64	66	28	6	D356 0595
0600	6.0		66	28	6	D356 0600
0610	6.1		79	34	8	D356 0610

Size Ref.	d$_1$ (m7)		l$_1$	l$_2$	d$_2$ (h6)	Item #
0620	6.2		79	34	8	D356 0620
0630	6.3		79	34	8	D356 0630
0635	6.35	1/4	79	34	8	D356 0635
0640	6.4		79	34	8	D356 0640
0650	6.5		79	34	8	D356 0650
0660	6.6		79	34	8	D356 0660
0670	6.7		79	34	8	D356 0670
0676	6.76	17/64	79	34	8	D356 0676
0680	6.8		79	34	8	D356 0680
0690	6.9		79	34	8	D356 0690
0700	7.0		79	34	8	D356 0700
0710	7.1		79	41	8	D356 0710
0714	7.14	9/32	79	41	8	D356 0714
0720	7.2		79	41	8	D356 0720
0730	7.3		79	41	8	D356 0730
0740	7.4		79	41	8	D356 0740
0750	7.5		79	41	8	D356 0750
0754	7.54	19/64	79	41	8	D356 0754
0760	7.6		79	41	8	D356 0760
0770	7.7		79	41	8	D356 0770
0780	7.8		79	41	8	D356 0780
0790	7.9		79	41	8	D356 0790
0794	7.94	5/16	79	41	8	D356 0794
0800	8.0		79	41	8	D356 0800
0810	8.1		89	47	10	D356 0810
0820	8.2		89	47	10	D356 0820
0830	8.3		89	47	10	D356 0830
0833	8.33	21/64	89	47	10	D356 0833
0840	8.4		89	47	10	D356 0840
0850	8.5		89	47	10	D356 0850
0860	8.6		89	47	10	D356 0860
0870	8.7		89	47	10	D356 0870
0873	8.73	11/32	89	47	10	D356 0873
0880	8.8		89	47	10	D356 0880
0890	8.9		89	47	10	D356 0890
0900	9.0		89	47	10	D356 0900
0910	9.1		89	47	10	D356 0910
0913	9.13	23/64	89	47	10	D356 0913
0920	9.2		89	47	10	D356 0920
0930	9.3		89	47	10	D356 0930

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
D356	●	●	●	●	○	●	○	○		○		●	○	●	●	●							●	●	●	●	●						●	○	●	○	○	●	●	●	●	●	●						

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

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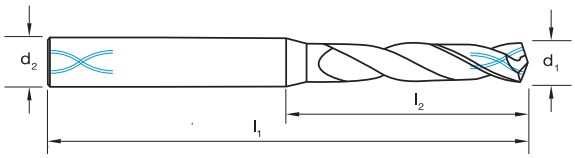
DIN 6537 | 3xd1 | HA | MICRO



Catalogue Code	D356
Discount Group	A0210
Material	VHM
Surface Finish	HELICA
Sutton Designation	VA
Geometry	R30 - IK
Point Type	140° 4 Facet Form C
Shank Form (DIN 6535)	HA

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
0940	9.4	89	47	10	D356 0940
0950	9.5	89	47	10	D356 0950
0953	9.53 3/8	89	47	10	D356 0953
0960	9.6	89	47	10	D356 0960
0970	9.7	89	47	10	D356 0970
0980	9.8	89	47	10	D356 0980
0990	9.9	89	47	10	D356 0990
0992	9.92 25/64	89	47	10	D356 0992
1000	10.0	89	47	10	D356 1000
1010	10.1	102	55	12	D356 1010
1020	10.2	102	55	12	D356 1020
1030	10.3	102	55	12	D356 1030
1032	10.32 13/32	102	55	12	D356 1032
1040	10.4	102	55	12	D356 1040
1050	10.5	102	55	12	D356 1050
1060	10.6	102	55	12	D356 1060
1070	10.7	102	55	12	D356 1070
1072	10.72 27/64	102	55	12	D356 1072
1080	10.8	102	55	12	D356 1080
1090	10.9	102	55	12	D356 1090
1100	11.0	102	55	12	D356 1100
1110	11.1	102	55	12	D356 1110
1111	11.11 7/16	102	55	12	D356 1111
1120	11.2	102	55	12	D356 1120
1130	11.3	102	55	12	D356 1130
1140	11.4	102	55	12	D356 1140
1150	11.5	102	55	12	D356 1150
1151	11.51 29/64	102	55	12	D356 1151
1160	11.6	102	55	12	D356 1160
1170	11.7	102	55	12	D356 1170
1180	11.8	102	55	12	D356 1180
1190	11.9	102	55	12	D356 1190
1191	11.91 15/32	102	55	12	D356 1191
1200	12.0	102	55	12	D356 1200
1231	12.30 31/64	107	60	14	D356 1231
1250	12.5	107	60	14	D356 1250
1269	12.7 1/2	107	60	14	D356 1269
1280	12.8	107	60	14	D356 1280
1300	13.0	107	60	14	D356 1300
1310	13.10 33/64	107	60	14	D356 1310

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
1349	13.49 17/32	107	60	14	D356 1349
1350	13.5	107	60	14	D356 1350
1389	13.89 35/64	107	60	14	D356 1389
1400	14.0	107	60	14	D356 1400
1429	14.29 9/16	115	65	16	D356 1429
1450	14.5	115	65	16	D356 1450
1468	14.68 37/64	115	65	16	D356 1468
1500	15.0	115	65	16	D356 1500
1508	15.08 19/32	115	65	16	D356 1508
1548	15.48 39/64	115	65	16	D356 1548
1550	15.5	115	65	16	D356 1550
1588	15.88 5/8	115	65	16	D356 1588
1600	16.0	115	65	16	D356 1600
1650	16.5	123	73	18	D356 1650
1667	16.67 21/32	123	73	18	D356 1667
1700	17.0	123	73	18	D356 1700
1746	17.46 11/16	123	73	18	D356 1746
1750	17.5	123	73	18	D356 1750
1800	18.0	123	73	18	D356 1800
1826	18.26 23/32	131	79	20	D356 1826
1850	18.5	131	79	20	D356 1850
1900	19.0	131	79	20	D356 1900
1905	19.05 3/4	131	79	20	D356 1905
1950	19.5	131	79	20	D356 1950
2000	20.0	131	79	20	D356 2000

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
D356	●	●	●	●	○	●	○	○		○		●	○	●	●	●							●	●	●	●	●						●	○	●	○	○	●	●	●	●	●	●						

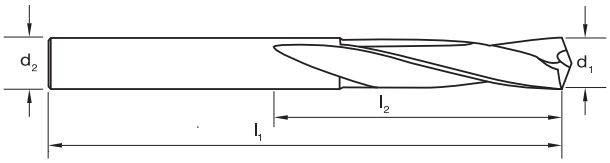
P Steel | M Stainless Steel | K Cast Iron | N Non-Ferrous Metals | S Titanium & Super Alloys | H Hard Materials

● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.

suttontools

- Rigid twist drill with slow spiral 15 degree flutes
- Suitable for harder steel, tool steel and cast iron



	D304	D310
Catalogue Code	D304	D310
Discount Group	A0202	A0206
Material	VHM	VHM
Surface Finish	Brt	TiCN
Sutton Designation	NH	NH
Geometry	R15	R15
Point Type	135° 4 Facet Form C	135° 4 Facet Form C
Shank Form (DIN 6535)	HA	HA

Size Ref.	d_1 (m7)		l_1	l_2	d_2 (h6)	Item #	Item #
0100	1.0		38	13	1.0	D304 0100	D310 0100
0119*	1.19	3/64	1-5/8	5/8	3/64		D310 0119
0150	1.5		38	13	1.5	D304 0150	D310 0150
0159	1.59	1/16	1-5/8	5/8	1/16		D310 0159
0160	1.6		43	18	1.6	D304 0160	D310 0160
0198*	1.98	5/64	1-11/16	11/64	5/64	D304 0198	D310 0198
0200	2.0		44	19	2.0	D304 0200	D310 0200
0238	2.38	3/32	1-3/4	3/4	3/32		D310 0238
0250	2.5		46	21	2.5	D304 0250	D310 0250
0278*	2.78	7/64	1-13/16	13/16	7/64		D310 0278
0300	3.0		48	22	3.0	D304 0300	D310 0300
0318	3.18	1/8	1-7/8	7/8	1/8		D310 0318
0330	3.3		52	24	3.3	D304 0330	D310 0330
0350	3.5		52	24	3.5	D304 0350	D310 0350
0357*	3.57	9/64	1-15/16	15/16	9/64	D304 0357	D310 0357
0397	3.97	5/32	2-1/16	1 -1/16	5/32		D310 0397
0400	4.0		53	27	4.0	D304 0400	D310 0400
0420	4.2		53	27	4.2	D304 0420	D310 0420
0437*	4.37	11/64	2-1/8	1 -1/16	11/64		D310 0437
0450	4.5		56	29	4.5	D304 0450	D310 0450
0476	4.76	3/16	2-3/16	1 -1/8	3/16		D310 0476
0500	5.0		57	30	5.0	D304 0500	D310 0500
0516*	5.16	13/64	2-1/4	1 -3/16	13/64		D310 0516
0550	5.5		60	32	5.5	D304 0550	D310 0550
0556	5.56	7/32	2-3/8	1 -1/4	7/32		D310 0556
0595*	5.95	15/64	2-7/16	1 -5/16	15/64	D304 0595	
0600	6.0		62	33	6.0	D304 0600	D310 0600
0635*	6.35	1/4	2-1/2	1 -3/8	1/4	D304 0635	D310 0635
0650	6.5		64	35	6.5	D304 0650	D310 0650
0680	6.8		68	38	6.8	D304 0680	D310 0680
0700	7.0		68	38	7.0	D304 0700	D310 0700
0714	7.14	9/32	2-11/16	1 -1/2	9/32		D310 0714
0750	7.5		70	40	7.5	D304 0750	D310 0750
0754*	7.54	19/64	2-3/4	1 -9/16	19/64	D304 0754	D310 0754
0794	7.94	5/16	2-13/16	1 -5/8	5/16		D310 0794
0800	8.0		71	41	8.0	D304 0800	D310 0800
0833*	8.33	21/64	2-15/16	1 -11/16	21/64	D304 0833	
0850	8.5		76	43	8.5	D304 0850	D310 0850
0873	8.73	11/32	3	1 -11/16	11/32		D310 0873
0900	9.0		78	44	9.0	D304 0900	D310 0900

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
D304			●	●	●		●	●	●	●	●	●	●		○	●	●	●	●	●	●	●	○	○	○	○	●	○	●	○	○													○	○			●	
D310			●	●	●		●	●	●	●	●	●	●		○	●	●	●	●	●	●	●	○	○	○	○	●	○	●	○	○													●	○			●	

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

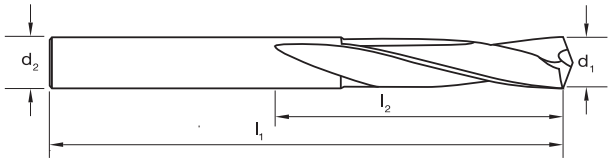
● Optimal ○ Effective

*Not available once current stock is depleted

NOTE: HE shanks available, subject to lead time.

suttontools

- Rigid twist drill with slow spiral 15 degree flutes
- Suitable for stainless steel, tool steel and high temperature titanium nickel alloys



	D304	D310
Catalogue Code	D304	D310
Discount Group	A0202	A0206
Material	VHM	VHM
Surface Finish	Brt	TiCN
Sutton Designation	NH	NH
Geometry	R15	R15
Point Type	135° 4 Facet Form C	135° 4 Facet Form C
Shank Form (DIN 6535)	HA	HA

Size Ref.	d_1 (m7)		l_1	l_2	d_2 (h6)	Item #	Item #
0913*	9.13	23/64	3-1/16	1 -3/4	23/64	D304 0913	D310 0913
0950	9.5		79	46	9.5	D304 0950	D310 0950
0953	9.53	3/8	3-1/8	1 -13/16	3/8		D310 0953
0992*	9.92	25/64	3-1/4	1 -7/8	25/64		D310 0992
1000	10.0		83	48	10.0	D304 1000	D310 1000
1032	10.32	13/32	3-5/16	1 -15/16	13/32		D310 1032
1050	10.5		86	51	10.5	D304 1050	D310 1050
1072*	10.72	27/64	3-3/8	2	27/64	D304 1072	D310 1072
1100	11.0		87	52	11.0	D304 1100	D310 1100
1111	11.11	7/16	3-7/16	2 -1/16	7/16		D310 1111
1150	11.5		90	54	11.5	D304 1150	D310 1150
1151*	11.51	29/64	3-9/16	2 -1/8	29/64	D304 1151	D310 1151
1191	11.91	15/32	3-5/8	2 -1/8	15/32		D310 1191
1200	12.0		92	54	12.0	D304 1200	D310 1200
1231*	12.31	31/64	3-11/16	2 -3/16	31/64	D304 1231	
1269	12.7	1/2	3-3/4	2 -1/4	1/2		D310 1269

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
D304			●	●	●		●	●	●	●	●	●	●		○	●	●	●	●	●	●	●	○	○	○	○	●	○	●	○	○												○	○			●	
D310			●	●	●		●	●	●	●	●	●	●		○	●	●	●	●	●	●	●	○	○	○	○	●	○	●	○	○												●	○			●	

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

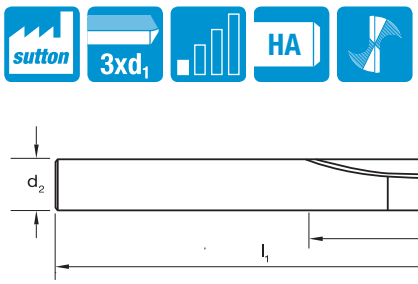
● Optimal ○ Effective

*Not available once current stock is depleted

NOTE: HE shanks available, subject to lead time.

suttontools

- Rigid twist drill with straight flutes
- Straight flutes for increased strength and chip control
- Suitable for cast irons
- TiCN coated for longer tool life



	D300	D306
Catalogue Code	D300	D306
Discount Group	A0202	A0206
Material	VHM	VHM
Surface Finish	Brt	TiCN
Sutton Designation	GG	GG
Geometry	Straight Flute	Straight Flute
Point Type	140° Form C (Facet)	140° Form C (Facet)
Shank Form (DIN 6535)	HA	HA

Size Ref.	d_1 (m7)		l_1	l_2	d_2 (h6)	Item #	Item #
0150	1.5		38	12.7	1.5	D300 0150	D306 0150
0159	1.59	1/16	1-5/8	5/8	1/16	D300 0159	D306 0159
0198*	1.98	5/64	1-11/16	11/16	5/64		D306 0198
0200	2.0		44	19	2.0	D300 0200	D306 0200
0238*	2.38	3/32	1-3/4	3/4	3/32	D300 0238	
0250	2.5		46	21	2.5	D300 0250	D306 0250
0300	3.0		48	22	3.0	D300 0300	D306 0300
0318	3.18	1/8	1-7/8	7/8	1/8	D300 0318	D306 0318
0350	3.5		49	24	3.5	D300 0350	D306 0350
0357*	3.57	9/64	1-15/16	15/16	9/64		D306 0357
0397*	3.97	5/32	2-1/16	1-1/16	5/32		D306 0397
0400	4.0		54	27	4.0	D300 0400	D306 0400
0437*	4.37	11/64	2-1/8	1-1/16	11/64	D300 0437	
0450	4.5		56	29	4.5	D300 0450	D306 0450
0476	4.76	3/16	2-3/16	1-1/8	3/16	D300 0476	D306 0476
0500	5.0		57	30	5.0	D300 0500	D306 0500
0516*	5.16	13/64	2-1/4	1-3/16	13/64	D300 0516	D306 0516
0550	5.5		60	32	5.5	D300 0550	D306 0550
0556*	5.56	7/32	2-3/8	1-1/4	7/32	D300 0556	D306 0556
0595*	5.95	15/64	2-7/16	1-5/16	15/64	D300 0595	D306 0595
0600	6.0		62	33	6.0	D300 0600	D306 0600
0635	6.35	1/4	2-1/2	1-3/8	1/4	D300 0635	D306 0635
0650	6.5		64	35	6.5	D300 0650	D306 0650
0676*	6.76	17/64	2-5/8	1-7/16	17/64	D300 0676	D306 0676
0700	7.0		68	38	7.0	D300 0700	D306 0700
0714*	7.14	9/32	2-11/16	1-1/2	9/32	D300 0714	D306 0714
0750	7.5		70	40	7.5	D300 0750	D306 0750
0754*	7.54	19/64	2-3/4	1-9/16	19/64	D300 0754	D306 0754
0794	7.94	5/16	2-13/16	1-5/8	5/16	D300 0794	D306 0794
0800	8.0		71	41	8.0	D300 0800	D306 0800
0833*	8.33	21/64	2-15/16	1-11/16	21/64	D300 0833	
0850	8.5		76	43	8.5	D300 0850	D306 0850
0873*	8.73	11/32	3	1-11/16	11/32	D300 0873	D306 0873
0900	9.0		78	44	9.0	D300 0900	D306 0900
0913*	9.13	23/64	3-1/16	1-3/4	23/64	D300 0913	
0950*	9.5		79	46	9.5	D300 0950	D306 0950
0953	9.53	3/8	3-1/8	1-13/16	3/8	D300 0953	D306 0953
0992*	9.92	25/64	3-1/4	1-7/8	25/64	D300 0992	D306 0992
1000	10.0		83	48	10.0	D300 1000	D306 1000
1032*	10.32	13/32	3-5/16	1-15/16	13/32	D300 1032	D306 1032

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
D300									○		○		○				●	●	●	●	●	●			○	○	●	○	○															○				●	
D306									○		○		○				●	●	●	●	●	●			○	○	●	○	○															○				●	

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

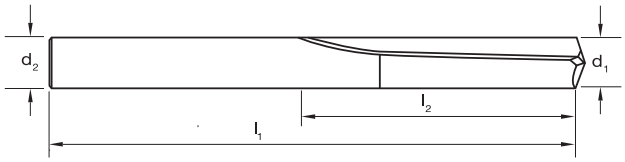
● Optimal ○ Effective

*Not available once current stock is depleted

Drills Carbide, 3 x D, Straight Flute, GG

*sutton*tools

- Suitable for materials up to 1600 N/mm²
- Rigid twist drill with straight flutes
- For drilling hardened or abrasive materials
- Straight flutes for increased strength and chip control
- TiCN coated for longer tool life



	D300	D306
Catalogue Code	D300	D306
Discount Group	A0202	A0206
Material	VHM	VHM
Surface Finish	Brt	TiCN
Sutton Designation	GG	GG
Geometry	Straight Flute	Straight Flute
Point Type	140° Type C (Facet)	140° Type C (Facet)
Shank Form (DIN 6535)	HA	HA

Size Ref.	d_1 (m7)		l_1	l_2	d_2 (h6)	Item #	Item #
1050*	10.5		86	51	10.5	D300 1050	D306 1050
1072*	10.72	27/64	3-3/8	2	27/64	D300 1072	D306 1072
1100	11.0		87	52	11.0	D300 1100	D306 1100
1111	11.11	7/16	3-7/16	2-1/16	7/16	D300 1111	D306 1111
1150*	11.5		90	54	11.5	D300 1150	D306 1150
1151*	11.51	29/64	3-9/16	2-1/8	29/64	D300 1151	D306 1151
1191*	11.91	15/32	3-5/8	2-1/8	15/32	D300 1191	D306 1191
1200	12.0		92	54	12.0	D300 1200	D306 1200
1231*	12.3	31/64	3-11/16	2-3/16	31/64	D300 1231	D306 1231
1269	12.7	1/2	3-3/4	2-1/4	1/2	D300 1269	D306 1269

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
D300									○		○		○				●	●	●	●	●	●			○	○	●	○	○															○				●	
D306									○		○		○				●	●	●	●	●	●			○	○	●	○	○															○				●	

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

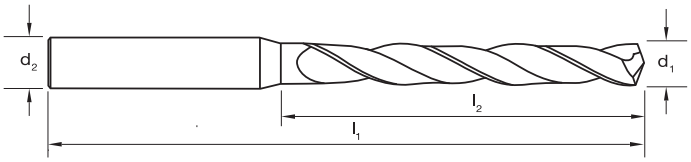
● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life

DIN 6537 | 5xd$_1$ | HA



Catalogue Code	D326
Discount Group	A0210
Material	VHM
Surface Finish	AlCrN
Sutton Designation	N
Geometry	R30
Point Type	140° Form C
Shank Form (DIN 6535)	HA

Size Ref.	d$_1$ (m7)	l$_1$	l$_2$	d$_2$ (h6)	Item #
0300	3.0	66	28	6	D326 0300
0310	3.1	66	28	6	D326 0310
0318	3.18 1/8	66	28	6	D326 0318
0320	3.2	66	28	6	D326 0320
0330	3.3	66	28	6	D326 0330
0340	3.4	66	28	6	D326 0340
0350	3.5	66	28	6	D326 0350
0357	3.57 9/64	66	28	6	D326 0357
0360	3.6	66	28	6	D326 0360
0370	3.7	66	28	6	D326 0370
0380	3.8	74	36	6	D326 0380
0390	3.9	74	36	6	D326 0390
0397	3.97 5/32	74	36	6	D326 0397
0400	4.0	74	36	6	D326 0400
0410	4.1	74	36	6	D326 0410
0420	4.2	74	36	6	D326 0420
0430	4.3	74	36	6	D326 0430
0437	4.37 11/64	74	36	6	D326 0437
0440	4.4	74	36	6	D326 0440
0450	4.5	74	36	6	D326 0450
0460	4.6	74	36	6	D326 0460
0470	4.7	74	36	6	D326 0470
0476	4.76 3/16	74	36	6	D326 0476
0480	4.8	82	44	6	D326 0480
0490	4.9	82	44	6	D326 0490
0500	5.0	82	44	6	D326 0500
0510	5.1	82	44	6	D326 0510
0516	5.16 13/64	82	44	6	D326 0516
0520	5.2	82	44	6	D326 0520
0530	5.3	82	44	6	D326 0530
0540	5.4	82	44	6	D326 0540
0550	5.5	82	44	6	D326 0550
0556	5.56 7/32	82	44	6	D326 0556
0560	5.6	82	44	6	D326 0560
0570	5.7	82	44	6	D326 0570
0580	5.8	82	44	6	D326 0580
0590	5.9	82	44	6	D326 0590
0595	5.95 15/64	82	44	6	D326 0595
0600	6.0	82	44	6	D326 0600
0610	6.1	91	53	8	D326 0610
0620	6.2	91	53	8	D326 0620
0630	6.3	91	53	8	D326 0630

Size Ref.	d$_1$ (m7)	l$_1$	l$_2$	d$_2$ (h6)	Item #
0635	6.35 1/4	91	53	8	D326 0635
0640	6.4	91	53	8	D326 0640
0650	6.5	91	53	8	D326 0650
0660	6.6	91	53	8	D326 0660
0670	6.7	91	53	8	D326 0670
0676	6.76 17/64	91	53	8	D326 0676
0680	6.8	91	53	8	D326 0680
0690	6.9	91	53	8	D326 0690
0700	7.0	91	53	8	D326 0700
0710	7.1	91	53	8	D326 0710
0714	7.14 9/32	91	53	8	D326 0714
0720	7.2	91	53	8	D326 0720
0730	7.3	91	53	8	D326 0730
0740	7.4	91	53	8	D326 0740
0750	7.5	91	53	8	D326 0750
0754	7.54 19/64	91	53	8	D326 0754
0760	7.6	91	53	8	D326 0760
0770	7.7	91	53	8	D326 0770
0780	7.8	91	53	8	D326 0780
0790	7.9	91	53	8	D326 0790
0794	7.94 5/16	91	53	8	D326 0794
0800	8.0	91	53	8	D326 0800
0810	8.1	103	61	10	D326 0810
0820	8.2	103	61	10	D326 0820
0830	8.3	103	61	10	D326 0830
0833	8.33 21/64	103	61	10	D326 0833
0840	8.4	103	61	10	D326 0840
0850	8.5	103	61	10	D326 0850
0860	8.6	103	61	10	D326 0860
0870	8.7	103	61	10	D326 0870
0873	8.73 11/32	103	61	10	D326 0873
0880	8.8	103	61	10	D326 0880
0890	8.9	103	61	10	D326 0890
0900	9.0	103	61	10	D326 0900
0910	9.1	103	61	10	D326 0910
0913	9.13 23/64	103	61	10	D326 0913
0920	9.2	103	61	10	D326 0920
0930	9.3	103	61	10	D326 0930
0940	9.4	103	61	10	D326 0940
0950	9.5	103	61	10	D326 0950
0953	9.53 3/8	103	61	10	D326 0953
0960	9.6	103	61	10	D326 0960

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
D326	●	●	●	●	●	●	●	●	●	●	●		●			○	●	●	●	●	●	●															○	○	○		○		○				●		

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

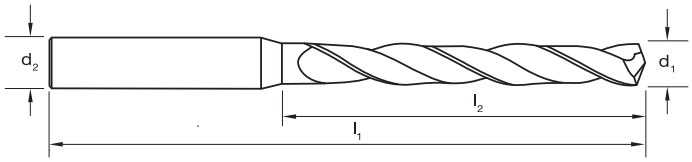
● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life

DIN 6537 | 5xd1 | HA



Catalogue Code	**D326**
Discount Group	A0210
Material	**VHM**
Surface Finish	***AlCrN***
Sutton Designation	**N**
Geometry	R30
Point Type	140° Form C
Shank Form (DIN 6535)	HA

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
0970	**9.7**	103	61	10	D326 0970
0980	**9.8**	103	61	10	D326 0980
0990	**9.9**	103	61	10	D326 0990
0992	9.92 **25/64**	103	61	10	D326 0992
1000	**10.0**	103	61	10	D326 1000
1010	**10.1**	118	71	12	D326 1010
1020	**10.2**	118	71	12	D326 1020
1030	**10.3**	118	71	12	D326 1030
1032	10.32 **13/32**	118	71	12	D326 1032
1040	**10.4**	118	71	12	D326 1040
1050	**10.5**	118	71	12	D326 1050
1060	**10.6**	118	71	12	D326 1060
1070	**10.7**	118	71	12	D326 1070
1080	**10.8**	118	71	12	D326 1080
1090	**10.9**	118	71	12	D326 1090
1100	**11.0**	118	71	12	D326 1100
1110	**11.1**	118	71	12	D326 1110
1111	11.11 **7/16**	118	71	12	D326 1111
1120	**11.2**	118	71	12	D326 1120
1130	**11.3**	118	71	12	D326 1130
1140	**11.4**	118	71	12	D326 1140
1150	**11.5**	118	71	12	D326 1150
1160	**11.6**	118	71	12	D326 1160
1170	**11.7**	118	71	12	D326 1170
1180	**11.8**	118	71	12	D326 1180
1190	**11.9**	118	71	12	D326 1190
1191	11.91 **15/32**	118	71	12	D326 1191
1200	**12.0**	118	71	12	D326 1200
1250	**12.5**	124	77	14	D326 1250
1269	**12.7** **1/2**	124	77	14	D326 1269
1280	**12.8**	124	77	14	D326 1280
1300	**13.0**	124	77	14	D326 1300
1349	13.49 **17/32**	124	77	14	D326 1349
1350	**13.5**	124	77	14	D326 1350
1380	**13.8**	124	77	14	D326 1380
1400	**14.0**	124	77	14	D326 1400
1429	14.29 **9/16**	133	83	16	D326 1429
1450	**14.5**	133	83	16	D326 1450
1480	**14.8**	133	83	16	D326 1480
1500	**15.0**	133	83	16	D326 1500
1550	**15.5**	133	83	16	D326 1550
1580	**15.8**	133	83	16	D326 1580

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
1588	15.88 **5/8**	133	83	16	D326 1588
1600	**16.0**	133	83	16	D326 1600
1650	**16.5**	143	93	18	D326 1650
1680	**16.8**	143	93	18	D326 1680
1700	**17.0**	143	93	18	D326 1700
1746	17.46 **11/16**	143	93	18	D326 1746
1750	**17.5**	143	93	18	D326 1750
1780	**17.8**	143	93	18	D326 1780
1800	**18.0**	143	93	18	D326 1800
1850	**18.5**	153	101	20	D326 1850
1900	**19.0**	153	101	20	D326 1900
1905	19.05 **3/4**	153	101	20	D326 1905
1950	**19.5**	153	101	20	D326 1950
1980	**19.8**	153	101	20	•
2000	**20.0**	153	101	20	D326 2000

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
D326	●	●	●	●	●	●	●	●	●	●	●		●			○	●	●	●	●	●	●																○	○	○		○		○				●	

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

● Optimal ○ Effective

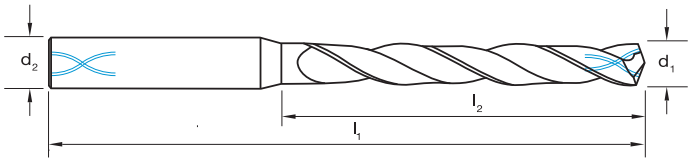
*Available on request as special manufacture, subject to lead time.

NOTE: HE shanks available, subject to lead time.

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life

DIN 6537 | 5xd$_1$ | HA



Catalogue Code	D332
Discount Group	A0210
Material	VHM
Surface Finish	AlCrN
Sutton Designation	N
Geometry	R30 - IK
Point Type	140° Form C
Shank Form (DIN 6535)	HA

Size Ref.	d$_1$ (m7)		l$_1$	l$_2$	d$_2$ (h6)	Item #
0300	3.0		66	28	6	D332 0300
0310	3.1		66	28	6	D332 0310
0318	3.18	1/8	66	28	6	D332 0318
0320	3.2		66	28	6	D332 0320
0330	3.3		66	28	6	D332 0330
0340	3.4		66	28	6	D332 0340
0350	3.5		66	28	6	D332 0350
0357	3.57	9/64	66	28	6	D332 0357
0360	3.6		66	28	6	D332 0360
0370	3.7		66	28	6	D332 0370
0380	3.8		74	36	6	D332 0380
0390	3.9		74	36	6	D332 0390
0397	3.97	5/32	74	36	6	D332 0397
0400	4.0		74	36	6	D332 0400
0410	4.1		74	36	6	D332 0410
0420	4.2		74	36	6	D332 0420
0430	4.3		74	36	6	D332 0430
0437	4.37	11/64	74	36	6	D332 0437
0440	4.4		74	36	6	D332 0440
0450	4.5		74	36	6	D332 0450
0460	4.6		74	36	6	D332 0460
0470	4.7		74	36	6	D332 0470
0476	4.76	3/16	74	36	6	D332 0476
0480	4.8		82	44	6	D332 0480
0490	4.9		82	44	6	D332 0490
0500	5.0		82	44	6	D332 0500
0510	5.1		82	44	6	D332 0510
0516	5.16	13/64	82	44	6	D332 0516
0520	5.2		82	44	6	D332 0520
0530	5.3		82	44	6	D332 0530
0540	5.4		82	44	6	D332 0540
0550	5.5		82	44	6	D332 0550
0556	5.56	7/32	82	44	6	D332 0556
0560	5.6		82	44	6	D332 0560
0570	5.7		82	44	6	D332 0570
0580	5.8		82	44	6	D332 0580
0590	5.9		82	44	6	D332 0590
0595	5.95	15/64	82	44	6	D332 0595
0600	6.0		82	44	6	D332 0600
0610	6.1		91	53	8	D332 0610

Size Ref.	d$_1$ (m7)		l$_1$	l$_2$	d$_2$ (h6)	Item #
0620	6.2		91	53	8	D332 0620
0630	6.3		91	53	8	D332 0630
0635	6.35	1/4	91	53	8	D332 0635
0640	6.4		91	53	8	D332 0640
0650	6.5		91	53	8	D332 0650
0660	6.6		91	53	8	D332 0660
0670	6.7		91	53	8	D332 0670
0676	6.76	17/64	91	53	8	D332 0676
0680	6.8		91	53	8	D332 0680
0690	6.9		91	53	8	D332 0690
0700	7.0		91	53	8	D332 0700
0710	7.1		91	53	8	D332 0710
0714	7.14	9/32	91	53	8	D332 0714
0720	7.2		91	53	8	D332 0720
0730	7.3		91	53	8	D332 0730
0740	7.4		91	53	8	D332 0740
0750	7.5		91	53	8	D332 0750
0754	7.54	19/64	91	53	8	D332 0754
0760	7.6		91	53	8	D332 0760
0770	7.7		91	53	8	D332 0770
0780	7.8		91	53	8	D332 0780
0790	7.9		91	53	8	D332 0790
0794	7.94	5/16	91	53	8	D332 0794
0800	8.0		91	53	8	D332 0800
0810	8.1		103	61	10	D332 0810
0820	8.2		103	61	10	D332 0820
0830	8.3		103	61	10	D332 0830
0833	8.33	21/64	103	61	10	D332 0833
0840	8.4		103	61	10	D332 0840
0850	8.5		103	61	10	D332 0850
0860	8.6		103	61	10	D332 0860
0870	8.7		103	61	10	D332 0870
0873	8.73	11/32	103	61	10	D332 0873
0880	8.8		103	61	10	D332 0880
0890	8.9		103	61	10	D332 0890
0900	9.0		103	61	10	D332 0900
0910	9.1		103	61	10	D332 0910
0913	9.13	23/64	103	61	10	D332 0913
0920	9.2		103	61	10	D332 0920
0930	9.3		103	61	10	D332 0930

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
D332	●	●	●	●	●	●	●	●	●	●	●	○	●	○	○	●	●	●	●	●	●	●					○	○	○	○			○	○	○	○	○	○	○	○	○	○	○	●				●	

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

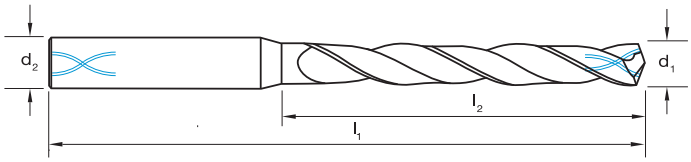
● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.

Drills Carbide, 5 x D, R30 N, IK

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code	D332
Discount Group	A0210
Material	VHM
Surface Finish	AlCrN
Sutton Designation	N
Geometry	R30 - IK
Point Type	140° Form C
Shank Form (DIN 6535)	HA

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
0940	9.4	103	61	10	D332 0940
0950	9.5	103	61	10	D332 0950
0953	9.53 3/8	103	61	10	D332 0953
0960	9.6	103	61	10	D332 0960
0970	9.7	103	61	10	D332 0970
0980	9.8	103	61	10	D332 0980
0990	9.9	103	61	10	D332 0990
0992	9.92 25/64	103	61	10	D332 0992
1000	10.0	103	61	10	D332 1000
1010	10.1	118	71	12	D332 1010
1020	10.2	118	71	12	D332 1020
1030	10.3	118	71	12	D332 1030
1032	10.32 13/32	118	71	12	D332 1032
1040	10.4	118	71	12	D332 1040
1050	10.5	118	71	12	D332 1050
1060	10.6	118	71	12	D332 1060
1070	10.7	118	71	12	D332 1070
1080	10.8	118	71	12	D332 1080
1090	10.9	118	71	12	D332 1090
1100	11.0	118	71	12	D332 1100
1110	11.1	118	71	12	D332 1110
1111	11.11 7/16	118	71	12	D332 1111
1120	11.2	118	71	12	D332 1120
1130	11.3	118	71	12	D332 1130
1140	11.4	118	71	12	D332 1140
1150	11.5	118	71	12	D332 1150
1160	11.6	118	71	12	D332 1160
1170	11.7	118	71	12	D332 1170
1180	11.8	118	71	12	D332 1180
1190	11.9	118	71	12	D332 1190
1191	11.91 15/32	118	71	12	D332 1191
1200	12.0	118	71	12	D332 1200
1250	12.5	124	77	14	D332 1250
1269	12.7 1/2	124	77	14	D332 1269
1280	12.8	124	77	14	D332 1280
1300	13.0	124	77	14	D332 1300
1349	13.49 17/32	124	77	14	D332 1349
1350	13.5	124	77	14	D332 1350
1380	13.8	124	77	14	•
1400	14.0	124	77	14	D332 1400

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
1429	14.29 9/16	133	83	16	D332 1429
1450	14.5	133	83	16	D332 1450
1480	14.8	133	83	16	•
1500	15.0	133	83	16	D332 1500
1550	15.5	133	83	16	D332 1550
1580	15.8	133	83	16	•
1588	15.88 5/8	133	83	16	D332 1588
1600	16.0	133	83	16	D332 1600
1650	16.5	143	93	18	D332 1650
1680	16.8	143	93	18	•
1700	17.0	143	93	18	D332 1700
1746	17.46 11/16	143	93	18	D332 1746
1750	17.5	143	93	18	D332 1750
1780	17.8	143	93	18	•
1800	18.0	143	93	18	D332 1800
1850	18.5	153	101	20	D332 1850
1900	19.0	153	101	20	D332 1900
1905	19.05 3/4	153	101	20	D332 1905
1950	19.5	153	101	20	D332 1950
1980	19.8	153	101	20	•
2000	20.0	153	101	20	D332 2000

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
D332	●	●	●	●	●	●	●	●	●	●	○	●		○	○	●	●	●	●	●	●	●					○	○	○	○			○	○	○	○	○	○	○	○	○	○	○	○	●				●	

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

● Optimal ○ Effective

*Available on request as special manufacture, subject to lead time.

NOTE: HE shanks available, subject to lead time.

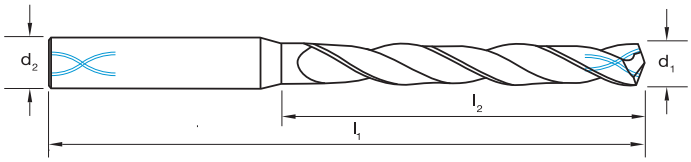
Drills Carbide, 5 x D, R30 VA *Black Magic*

suttontools BLACKMAGIC

NEW

- Excellent solution for stainless steels and difficult super alloy type materials
- Optimised geometry ensures no work hardening and high productivity
- HELICA for outstanding oxidation resistance and hot hardness

DIN 6537 | 5xd$_1$ | HA | MICRO



Catalogue Code	D358
Discount Group	A0210
Material	VHM
Surface Finish	HELICA
Sutton Designation	VA
Geometry	R30 - IK
Point Type	140° 4 Facet Form C
Shank Form (DIN 6535)	HA

Size Ref.	d$_1$ (m7)		l$_1$	l$_2$	d$_2$ (h6)	Item #
0300	3.0		66	28	6	D358 0300
0310	3.1		66	28	6	D358 0310
0318	3.18	1/8	66	28	6	D358 0318
0320	3.2		66	28	6	D358 0320
0330	3.3		66	28	6	D358 0330
0340	3.4		66	28	6	D358 0340
0350	3.5		66	28	6	D358 0350
0357	3.57	9/64	66	28	6	D358 0357
0360	3.6		66	28	6	D358 0360
0370	3.7		66	28	6	D358 0370
0380	3.8		74	36	6	D358 0380
0390	3.9		74	36	6	D358 0390
0397	3.97	5/32	74	36	6	D358 0397
0400	4.0		74	36	6	D358 0400
0410	4.1		74	36	6	D358 0410
0420	4.2		74	36	6	D358 0420
0430	4.3		74	36	6	D358 0430
0437	4.37	11/64	74	36	6	D358 0437
0440	4.4		74	36	6	D358 0440
0450	4.5		74	36	6	D358 0450
0460	4.6		74	36	6	D358 0460
0470	4.7		74	36	6	D358 0470
0476	4.76	3/16	74	36	6	D358 0476
0480	4.8		82	44	6	D358 0480
0490	4.9		82	44	6	D358 0490
0500	5.0		82	44	6	D358 0500
0510	5.1		82	44	6	D358 0510
0516	5.16	13/64	82	44	6	D358 0516
0520	5.2		82	44	6	D358 0520
0530	5.3		82	44	6	D358 0530
0540	5.4		82	44	6	D358 0540
0550	5.5		82	44	6	D358 0550
0556	5.56	7/32	82	44	6	D358 0556
0560	5.6		82	44	6	D358 0560
0570	5.7		82	44	6	D358 0570
0580	5.8		82	44	6	D358 0580
0590	5.9		82	44	6	D358 0590
0595	5.95	15/64	82	44	6	D358 0595
0600	6.0		82	44	6	D358 0600
0610	6.1		91	53	8	D358 0610

Size Ref.	d$_1$ (m7)		l$_1$	l$_2$	d$_2$ (h6)	Item #
0620	6.2		91	53	8	D358 0620
0630	6.3		91	53	8	D358 0630
0635	6.35	1/4	91	53	8	D358 0635
0640	6.4		91	53	8	D358 0640
0650	6.5		91	53	8	D358 0650
0660	6.6		91	53	8	D358 0660
0670	6.7		91	53	8	D358 0670
0676	6.76	17/64	91	53	8	D358 0676
0680	6.8		91	53	8	D358 0680
0690	6.9		91	53	8	D358 0690
0700	7.0		91	53	8	D358 0700
0710	7.1		91	53	8	D358 0710
0714	7.14	9/32	91	53	8	D358 0714
0720	7.2		91	53	8	D358 0720
0730	7.3		91	53	8	D358 0730
0740	7.4		91	53	8	D358 0740
0750	7.5		91	53	8	D358 0750
0754	7.54	19/64	91	53	8	D358 0754
0760	7.6		91	53	8	D358 0760
0770	7.7		91	53	8	D358 0770
0780	7.8		91	53	8	D358 0780
0790	7.9		91	53	8	D358 0790
0794	7.94	5/16	91	53	8	D358 0794
0800	8.0		91	53	8	D358 0800
0810	8.1		103	61	10	D358 0810
0820	8.2		103	61	10	D358 0820
0830	8.3		103	61	10	D358 0830
0833	8.33	21/64	103	61	10	D358 0833
0840	8.4		103	61	10	D358 0840
0850	8.5		103	61	10	D358 0850
0860	8.6		103	61	10	D358 0860
0870	8.7		103	61	10	D358 0870
0873	8.73	11/32	103	61	10	D358 0873
0880	8.8		103	61	10	D358 0880
0890	8.9		103	61	10	D358 0890
0900	9.0		103	61	10	D358 0900
0910	9.1		103	61	10	D358 0910
0913	9.13	23/64	103	61	10	D358 0913
0920	9.2		103	61	10	D358 0920
0930	9.3		103	61	10	D358 0930

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
D358	●	●	●	●	○	●	○	○		○		●	○	●	●	●							●	●	●	●	●						●	○	●	○	○	●	●	●	●	●	●						

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

● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.

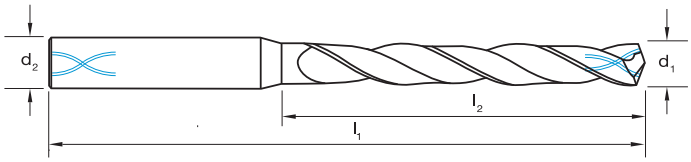
Drills Carbide 5 x D, R30 VA *Black Magic*

suttontools BLACKMAGIC

NEW

- Excellent solution for stainless steels and difficult super alloy type materials
- Optimised geometry ensures no work hardening and high productivity
- HELICA for outstanding oxidation resistance and hot hardness

DIN 6537 | 5xd$_1$ | HA | MICRO



Catalogue Code	D358
Discount Group	A0210
Material	VHM
Surface Finish	HELICA
Sutton Designation	VA
Geometry	R30 - IK
Point Type	140° 4 Facet Form C
Shank Form (DIN 6535)	HA

Size Ref.	d$_1$ (m7)	l$_1$	l$_2$	d$_2$ (h6)	Item #
0940	9.4	103	61	10	D358 0940
0950	9.5	103	61	10	D358 0950
0953	9.53 3/8	103	61	10	D358 0953
0960	9.6	103	61	10	D358 0960
0970	9.7	103	61	10	D358 0970
0980	9.8	103	61	10	D358 0980
0990	9.9	103	61	10	D358 0990
0992	9.92 25/64	103	61	10	D358 0992
1000	10.0	103	61	10	D358 1000
1010	10.1	118	71	12	D358 1010
1020	10.2	118	71	12	D358 1020
1030	10.3	118	71	12	D358 1030
1032	10.32 13/32	118	71	12	D358 1032
1040	10.4	118	71	12	D358 1040
1050	10.5	118	71	12	D358 1050
1060	10.6	118	71	12	D358 1060
1070	10.7	118	71	12	D358 1070
1072	10.72 27/64	118	71	12	D358 1072
1080	10.8	118	71	12	D358 1080
1090	10.9	118	71	12	D358 1090
1100	11.0	118	71	12	D358 1100
1110	11.1	118	71	12	D358 1110
1111	11.11 7/16	118	71	12	D358 1111
1120	11.2	118	71	12	D358 1120
1130	11.3	118	71	12	D358 1130
1140	11.4	118	71	12	D358 1140
1150	11.5	118	71	12	D358 1150
1151	11.51 29/64	118	71	12	D358 1151
1160	11.6	118	71	12	D358 1160
1170	11.7	118	71	12	D358 1170
1180	11.8	118	71	12	D358 1180
1190	11.9	118	71	12	D358 1190
1191	11.91 15/32	118	71	12	D358 1191
1200	12.0	118	71	12	D358 1200
1231	12.31 31/64	124	77	14	D358 1231
1250	12.5	124	77	14	D358 1250
1269	12.7 1/2	124	77	14	D358 1269
1280	12.8	124	77	14	D358 1280
1300	13.0	124	77	14	D358 1300
1310	13.10 33/64	124	77	14	D358 1310

Size Ref.	d$_1$ (m7)	l$_1$	l$_2$	d$_2$ (h6)	Item #
1349	13.49 17/32	124	77	14	D358 1349
1350	13.5	124	77	14	D358 1350
1389	13.89 35/64	124	77	14	D358 1389
1400	14.0	124	77	14	D358 1400
1429	14.29 9/16	133	83	16	D358 1429
1450	14.5	133	83	16	D358 1450
1468	14.68 37/64	133	83	16	D358 1468
1500	15.0	133	83	16	D358 1500
1508	15.08 19/32	133	83	16	D358 1508
1548	15.48 39/64	133	83	16	D358 1548
1550	15.5	133	83	16	D358 1550
1588	15.88 5/8	133	83	16	D358 1588
1600	16.0	133	83	16	D358 1600
1650	16.5	143	93	18	D358 1650
1667	16.67 21/32	143	93	18	D358 1667
1700	17.0	143	93	18	D358 1700
1746	17.46 11/16	143	93	18	D358 1746
1750	17.5	143	93	18	D358 1750
1800	18.0	143	93	18	D358 1800
1826	18.26 23/32	153	101	20	D358 1826
1850	18.5	153	101	20	D358 1850
1900	19.0	153	101	20	D358 1900
1905	19.05 3/4	153	101	20	D358 1905
1950	19.5	153	101	20	D358 1950
2000	20.0	153	101	20	D358 2000

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
D358	●	●	●	●	○	●	○	○		○		●	○	●	●	●							●	●	●	●	●						●	○	●	○	○	●	●	●	●	●	●						

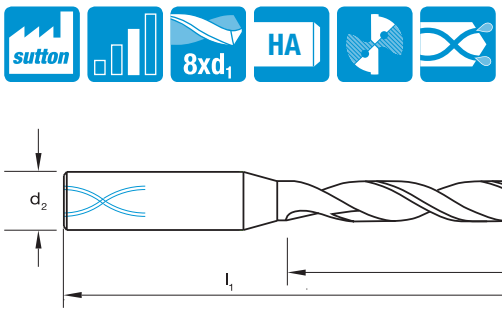
P Steel | M Stainless Steel | K Cast Iron | N Non-Ferrous Metals | S Titanium & Super Alloys | H Hard Materials

● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code	D335
Discount Group	A0210
Material	VHM
Surface Finish	AlCrN
Sutton Designation	N
Geometry	R30 - IK
Point Type	140° Form C
Shank Form (DIN 6535)	HA

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
0500	5.0	95	57	6	D335 0500
0510	5.1	95	57	6	D335 0510
0516	5.16 13/64	95	57	6	D335 0516
0520	5.2	95	57	6	D335 0520
0530	5.3	95	57	6	D335 0530
0540	5.4	95	57	6	D335 0540
0550	5.5	95	57	6	D335 0550
0556	5.56 7/32	95	57	6	D335 0556
0560	5.6	95	57	6	D335 0560
0570	5.7	95	57	6	D335 0570
0580	5.8	95	57	6	D335 0580
0590	5.9	95	57	6	D335 0590
0595	5.95 15/64	95	57	6	D335 0595
0600	6.0	95	57	6	D335 0600
0610	6.1	114	76	8	D335 0610
0620	6.2	114	76	8	D335 0620
0630	6.3	114	76	8	D335 0630
0635	6.35 1/4	114	76	8	D335 0635
0640	6.4	114	76	8	D335 0640
0650	6.5	114	76	8	D335 0650
0660	6.6	114	76	8	D335 0660
0670	6.7	114	76	8	D335 0670
0676	6.76 17/64	114	76	8	D335 0676
0680	6.8	114	76	8	D335 0680
0690	6.9	114	76	8	D335 0690
0700	7.0	114	76	8	D335 0700
0710	7.1	114	76	8	D335 0710
0714	7.14 9/32	114	76	8	D335 0714
0720	7.2	114	76	8	D335 0720
0730	7.3	114	76	8	D335 0730
0740	7.4	114	76	8	D335 0740
0750	7.5	114	76	8	D335 0750
0754	7.54 19/64	114	76	8	D335 0754
0760	7.6	114	76	8	D335 0760
0770	7.7	114	76	8	D335 0770
0780	7.8	114	76	8	D335 0780
0790	7.9	114	76	8	D335 0790
0794	7.94 5/16	114	76	8	D335 0794
0800	8.0	114	76	8	D335 0800
0810	8.1	142	95	10	D335 0810

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
0820	8.2	142	95	10	D335 0820
0830	8.3	142	95	10	D335 0830
0833	8.33 21/64	142	95	10	D335 0833
0840	8.4	142	95	10	D335 0840
0850	8.5	142	95	10	D335 0850
0860	8.6	142	95	10	D335 0860
0870	8.7	142	95	10	D335 0870
0873	8.73 11/32	142	95	10	D335 0873
0880	8.8	142	95	10	D335 0880
0890	8.9	142	95	10	D335 0890
0900	9.0	142	95	10	D335 0900
0910	9.1	142	95	10	D335 0910
0913	9.13 23/64	142	95	10	D335 0913
0920	9.2	142	95	10	D335 0920
0930	9.3	142	95	10	D335 0930
0940	9.4	142	95	10	D335 0940
0950	9.5	142	95	10	D335 0950
0953	9.53 3/8	142	95	10	D335 0953
0960	9.6	142	95	10	D335 0960
0970	9.7	142	95	10	D335 0970
0980	9.8	142	95	10	D335 0980
0990	9.9	142	95	10	D335 0990
0992	9.92 25/64	142	95	10	D335 0992
1000	10.0	142	95	10	D335 1000
1010	10.1	162	114	12	D335 1010
1020	10.2	162	114	12	D335 1020
1030	10.3	162	114	12	D335 1030
1032	10.32 13/32	162	114	12	D335 1032
1040	10.4	162	114	12	D335 1040
1050	10.5	162	114	12	D335 1050
1060	10.6	162	114	12	D335 1060
1070	10.7	162	114	12	D335 1070
1080	10.8	162	114	12	D335 1080
1090	10.9	162	114	12	D335 1090
1100	11.0	162	114	12	D335 1100
1110	11.1	162	114	12	D335 1110
1111	11.11 7/16	162	114	12	D335 1111
1120	11.2	162	114	12	D335 1120
1130	11.3	162	114	12	D335 1130
1140	11.4	162	114	12	D335 1140

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
D335	●	●	●	●	●	●	●	●	●	●	●		●	○			●	●	●	●	●	●																													

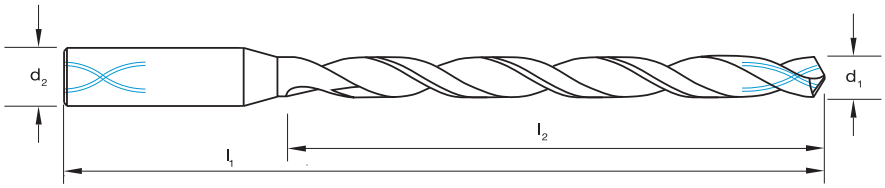
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code	D335
Discount Group	A0210
Material	VHM
Surface Finish	AlCrN
Sutton Designation	N
Geometry	R30 - IK
Point Type	140° Form C
Shank Form (DIN 6535)	HA

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
1150	11.5	162	114	12	D335 1150
1160	11.6	162	114	12	D335 1160
1170	11.7	162	114	12	D335 1170
1180	11.8	162	114	12	D335 1180
1190	11.9	162	114	12	D335 1190
1191	11.91 15/32	162	114	12	D335 1191
1200	12.0	162	114	12	D335 1200

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #

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
D335	●	●	●	●	●	●	●	●	●	●	●		●	○			●	●	●	●	●	●																											

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

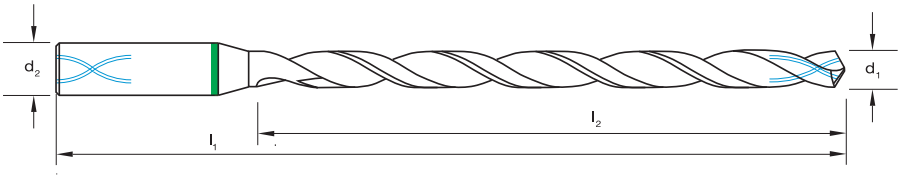
● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.

Drills Carbide, 12 x D, R30 UNI, IK

Garant®

- Ideal for high volume drilling depths to 12 x d_1 without pecking
- High self-centring accuracy
- Special point geometry with radius cutting tips
- Particularly high alignment accuracy due to 4 guidance lands that stabilise the drill at extreme depths
- Pilot drilled hole recommended



Catalogue Code	**123300**
Discount Group	A0202
Material	VHM
Surface Finish	TiAlN
Sutton Designation	UNI
Geometry	Internal Coolant
Point Type	140° Form A
Shank Form (DIN 6535)	HA

Size Ref.	d_1 (m7)	l_1	l_2	d_2 (h6)	Item #
4	4.0	102	64	6	123300 4
42	4.2	102	64	6	123300 42
45	4.5	102	64	6	123300 45
48	4.8	116	78	6	123300 48
5	5.0	116	78	6	123300 5
55	5.5	116	78	6	123300 55
58	5.8	116	78	6	123300 58
6	6.0	116	78	6	123300 6
63	6.3	146	108	8	123300 63
65	6.5	146	108	8	123300 65
66	6.6	146	108	8	123300 66
68	6.8	146	108	8	123300 68
7	7.0	146	108	8	123300 7
75	7.5	146	108	8	123300 75
78	7.8	146	108	8	123300 78
8	8.0	146	108	8	123300 8
82	8.2	162	120	10	123300 82
85	8.5	162	120	10	123300 85
9	9.0	162	120	10	123300 9
95	9.5	162	120	10	123300 95
98	9.8	162	120	10	123300 98
10	10.0	162	120	10	123300 10
105	10.5	204	156	12	123300 105
11	11.0	204	156	12	123300 11
118	11.8	204	156	12	123300 118
12	12.0	204	156	12	123300 12
125	12.5	230	182	14	123300 125
13	13.0	230	182	14	123300 13
135	13.5	230	182	14	123300 135
14	14.0	230	182	14	123300 14
148	14.8	260	208	16	123300 148
158	15.8	260	208	16	123300 158
16	16.0	260	208	16	123300 16
175	17.5	285	234	18	123300 175

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
123300	●	●	●	●	●	●	●	●		●				○			●	○	○	○	○	○																											○	

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

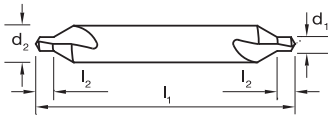
● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.

suttontools

- Used to drill female 60° centre holes in the end of shafts and components, which will later revolve between centres
- Designed to maintain accurate centre holes on long production runs
- Also used to ensure accurate starting and centring when precision drilling is required
- Suitable for materials up to 1600N/mm²

ANSI B94-11



Catalogue Code	D318	D319
Discount Group	A0202	A0206
Material	VHM	VHM
Surface Finish	Brt	TiCN
Sutton Designation	N	N
Geometry	Plain Type	Plain Type
Point Type	60° Stepped	60° Stepped
Shank Form (DIN 6535)	HA	HA

Size Ref.	Size	d_1	l_1	l_2	d_2 (h6)	Item #	Item #
0001	1	3/64	1-1/4	1/16	1/8	D318 0001	D319 0001
0002	2	5/64	1-7/8	3/32	3/16	D318 0002	D319 0002
0003	3	7/64	2	9/64	1/4	D318 0003	D319 0003
0004	4	1/8	2-1/8	5/32	5/16	D318 0004	D319 0004
0005	5	3/16	2-3/4	1/4	7/16	D318 0005	D319 0005
0006	6	7/32	3	9/32	1/2	D318 0006	D319 0006

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
D318			○	○	○		○	○		○				○	○	○	○	○	○	○	○	○	●	●	●	●	●	●	●	●									○	○	○	○	○	●	○	○	○	○	○
D319	●	●	●	●	●	●	●	●	●	●	●	○	●	●	●	●	●	○	●	○	●	○											○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○

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

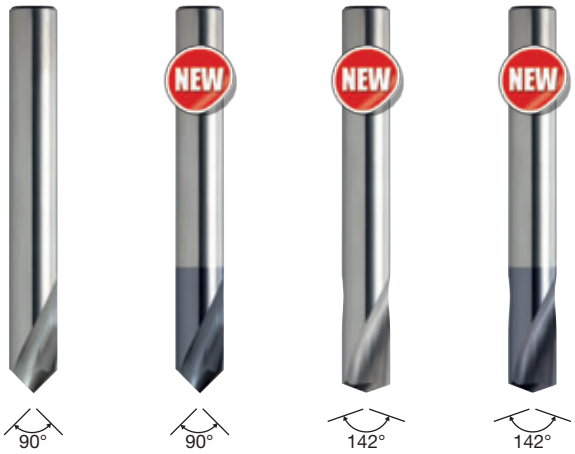
● Optimal ○ Effective

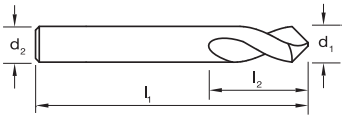
NOTE: HE shanks available, subject to lead time.

suttontools

- Precision drill for machine use
- Rigid design for "seat" position accuracy
- 90° offers hole chamfering & spotting with the one tool
- 142° for spotting, matching a typical carbide drill point
- Only drill to the depth of the point
- Refer to HSS Drill section for HSS Spotting Drills.

DIN 1897





	D355	D364	D365	D366
Catalogue Code	D355	D364	D365	D366
Discount Group	A0208	A0210	A0208	A0210
Material	VHM	VHM	VHM	VHM
Surface Finish	Brt	AlCrN	Brt	AlCrN
Sutton Designation	NC	NC	NC	NC
Geometry	-	-	-	-
Point Type	90°	90° Form A	142° Form A	142° Form A
Shank Tolerance	h9	h9	h9	h9

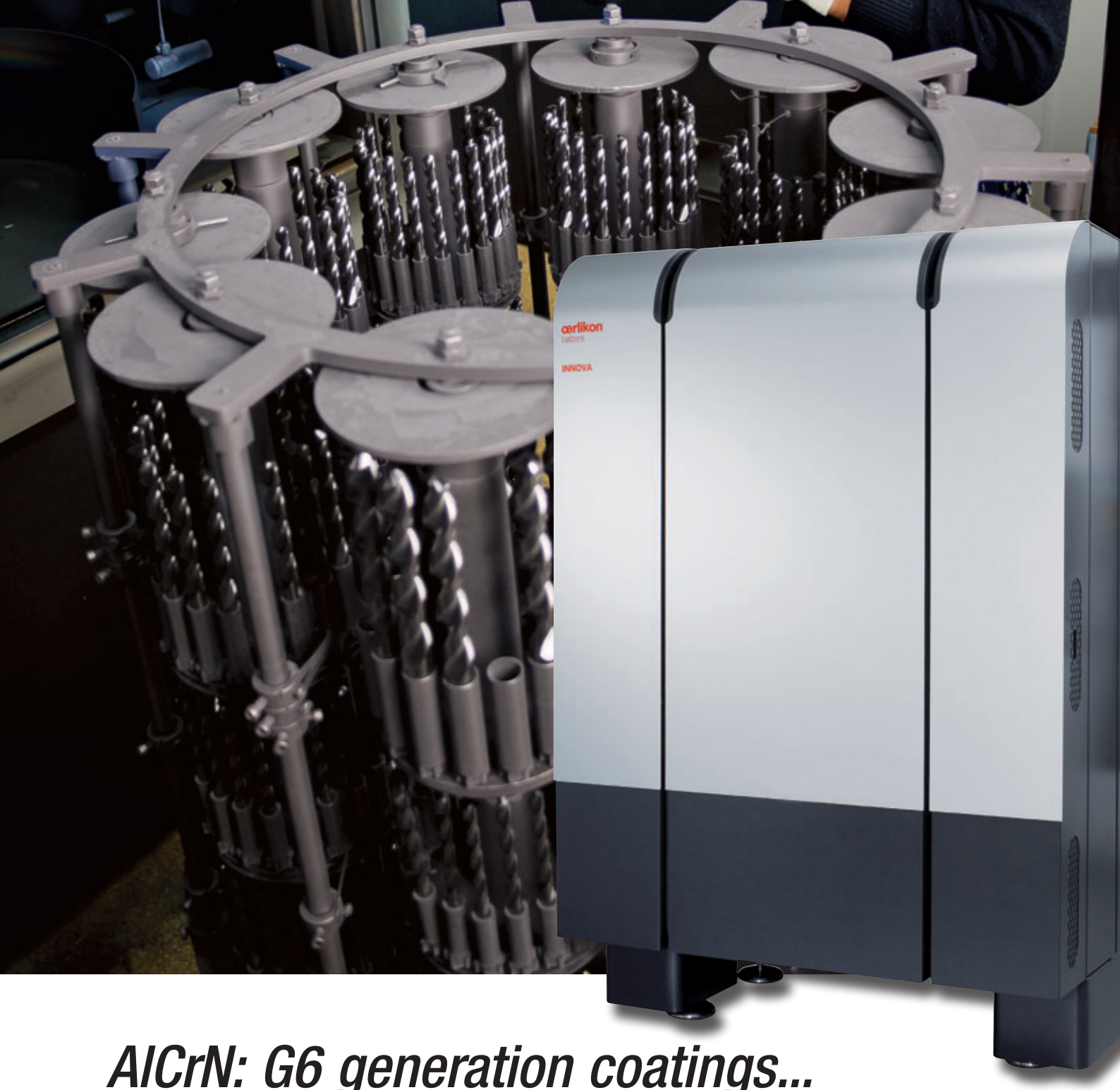
Size Ref.	d_1 (h6)	l_1	l_2	d_2	Item #	Item #	Item #	Item #
0300	3.0	46	9	3.0	D355 0300	D364 0300	D365 0300	D366 0300
0400	4.0	55	12	4.0	D355 0400	D364 0400	D365 0400	D366 0400
0500	5.0	62	15	5.0	D355 0500	D364 0500	D365 0500	D366 0500
0600	6.0	66	18	6.0	D355 0600	D364 0600	D365 0600	D366 0600
0800	8.0	79	23	8.0	D355 0800	D364 0800	D365 0800	D366 0800
1000	10.0	89	24	10.0	D355 1000	D364 1000	D365 1000	D366 1000
1200	12.0	102	24	12.0	D355 1200	D364 1200	D365 1200	D366 1200
1600	16.0	115	26	16.0	D355 1600	D364 1600	D365 1600	D366 1600
2000	20.0	131	35	20.0	D355 2000	D364 2000	D365 2000	D366 2000

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
D355			○	○	○		○	○		○				○	○	○	○	○	○	○	○	○	●	●	●	●	●	●	●	●	●							○	○	○	○	○		○	○	○	○	○
D364	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	●	○	●	○										○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○

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

● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.



AlCrN: G6 generation coatings... a quantum leap in tool wear resistance

Aluminium Chromium Nitride
The latest tool coating formula is Aluminium Chromium Nitride (AlCrN). Coatings of this G6 generation developed, markedly expand the performance envelope versus conventional titanium based coatings (such as TiAlN, AlTiN or TiCN).

Unique coating properties
The AlCrN coating exhibits until now, an unmatched degree of oxidation resistance and hot hardness. These properties have triggered a quantum leap in tool wear resistance.

The bottom line: greater productivity!
Tools coated with AlCrN let you choose noticeably higher cutting speeds and allow you to more effectively exploit the potential of modern machine tools. You can produce more parts per time / unit to decisively boost the productivity of your manufacturing resources and hone your competitive edge.

Extraordinary performance gains have been demonstrated in dry and wet machining processes involving:
- Unalloyed steels
- High strength steels
- High hardness steels (up to 54 HRC)

Coating properties:
- Very high abrasion resistance
- High and constant temperature resistance
- Unrivalled oxidation resistance
- Titanium free coating