

sutton[®]



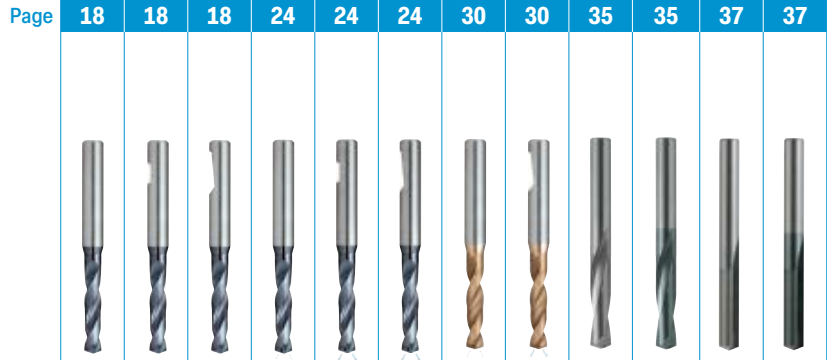
DRILLING CARBIDE

• 3xd₁ to 30xd₁ hole depths • Ultra fine grain type carbide

**BLACK
MAGIC**

ISO	VDI	Material Group	Sutton
P	A	Steel	N
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.



Catalogue Code	18	18	18	24	24	24	30	30	35	35	37	37
Material	VHM			VHM			VHM		VHM		VHM	
Surface Finish	AICrN			AICrN			Helica		BrT		TiCN	
Sutton Designation	UNI			UNI			VA		NH		GG/H	
Standard	DIN 6537			DIN 6537			DIN 6537		-		-	
Depth of Cut	3 x D			3 x D			3 x D		3 x D		3 x D	
Shank Form (DIN 6535)	HA	HB	HE	HA	HB	HE	HA	HE	-	-	-	-

ISO	VDI ³³²³	Material	Condition	HB	N/mm ²	18	18	18	24	24	24	30	30	35	35	37	37		
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		230	780				○	○	○	●	●	○	○			
	14.3		Precipitation Hardening		300	780	○	○	○	●	●	●	●	○	○				
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



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



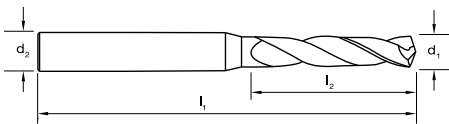
Forets carbure 3xD, hélice 30°, type UNI

- Convient aux matériaux jusqu'à 1400 N/mm²
- Noyau renforcé
- Micro géométrie et traitement surface optimisé pour un bon contrôle des copeaux
- Revêtement AlCrN pour une durée de vie maximum



Punte Metallo Duro, 3 x D, R30 UNI

- Ideale per materiali fino a 1400N/mm²
- Nocciolo rinforzato
- Micro geometria & rivestimento tagliente ideale per un ottimo controllo truciolo
- AlCrN per massimizzare la vita utensile



Vc Page #: 412 →

Size Ref.	mm	d ₁ (m7)	inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #	Item #	Item #
1429	14.29	9/16		115	65	16	43	D323 1429	D324 1429	D325 1429
1450	14.5			115	65	16	44	D323 1450	D324 1450	D325 1450
1480	14.8			115	65	16	44	D323 1480	D324 1480	D325 1480
1500	15.0			115	65	16	45	D323 1500	D324 1500	D325 1500
1550	15.5			115	65	16	47	D323 1550	D324 1550	D325 1550
1580	15.8			115	65	16	47	D323 1580	D324 1580	D325 1580
1588	15.88	5/8		115	65	16	48	D323 1588	D324 1588	D325 1588
1600	16.0			115	65	16	48	D323 1600	D324 1600	D325 1600
1650	16.5			123	73	18	50	D323 1650	D324 1650	D325 1650
1680	16.8			123	73	18	50	D323 1680	D324 1680	D325 1680
1700	17.0			123	73	18	51	D323 1700	D324 1700	D325 1700
1746	17.46	11/16		123	73	18	52	D323 1746	D324 1746	D325 1746
1750	17.5			123	73	18	53	D323 1750	D324 1750	D325 1750
1780	17.8			123	73	18	53	D323 1780	D324 1780	D325 1780
1800	18.0			123	73	18	54	D323 1800	D324 1800	D325 1800
1850	18.5			131	79	20	56	D323 1850	D324 1850	D325 1850
1900	19.0			131	79	20	57	D323 1900	D324 1900	D325 1900
1905	19.05	3/4		131	79	20	57	D323 1905	D324 1905	D325 1905
1950	19.5			131	79	20	59	D323 1950	D324 1950	D325 1950
2000	20.0			131	79	20	60	D323 2000	D324 2000	D325 2000



Brocas de Metal Duro, 3 x D, R30 UNI

- Adecuado para materiales hasta 1400N/mm²
- Núcleo Reforzado
- Micro geometría y acondicionamiento de la superficie para un control óptimo de la viruta
- AlCrN para una máxima vida útil de la herramienta



Catalogue Code	D323	D324	D325
Discount Group	A0210	A0210	A0210
Material	VHM	VHM	VHM
Surface Finish	AlCrN	AlCrN	AlCrN
Sutton Designation	UNI	UNI	UNI
Geometry	R30	R30	R30
Point Type	140° Form C	140° Form C	140° Form C
Shank Form (DIN 6535)	HA	HB	HE

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	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○																	○	○	○	○	○											
D324	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○																	○	○	○	○	○											
D325	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○																	○	○	○	○	○											

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

● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.



- 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



Forets carbure 3xD, hélice 30°, type UNI, arrosage central

- Convient aux matériaux jusqu'à 1400 N/mm²
- Noyau renforcé avec arrosage central
- Micro géométrie et traitement surface optimisé pour un bon contrôle des copeaux
- Revêtement AlCrN pour une durée de vie maximum



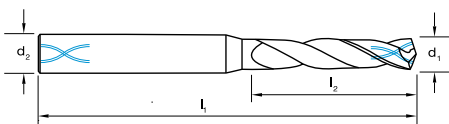
Punte Metallo Duro, 3 x D, R30 UNI, Refrigerazione Interna

- Ideale per materiali fino a 1400N/mm²
- Nocciolo rinforzato con fori di Lubrificazione interna
- Micro geometria & rivestimento tagliente ideale per un ottimo controllo truciolo
- AlCrN Per massimizzare la vita utensile



Brocas de Metal Duro, 3 x D, R30 UNI, IK

- Adecuado para materiales hasta 1400N/mm²
- Núcleo Reforzado con refrigeración interior
- Micro geometría y acondicionamiento de la superficie para un control óptimo de la viruta
- AlCrN para una mayor vida útil de la herramienta



Catalogue Code	D329	D330	D331
Discount Group	A0210	A0210	A0210
Material	VHM	VHM	VHM
Surface Finish	AlCrN	AlCrN	AlCrN
Sutton Designation	UNI	UNI	UNI
Geometry	R30 - IK	R30 - IK	R30 - IK
Point Type	140° Form C	140° Form C	140° Form C
Shank Form (DIN 6535)	HA	HB	HE

Vc Page #: 412 →

Size Ref.	mm	d ₁ (m7)	inch	L ₁	L ₂	d ₂ (h6)	Max hole depth	Item #	Item #	Item #
0400	4.0			66	24	6	12	D329 0400	D330 0400	D331 0400
0410	4.1			66	24	6	12	D329 0410	D330 0410	D331 0410
0420	4.2			66	24	6	13	D329 0420	D330 0420	D331 0420
0430	4.3			66	24	6	13	D329 0430	D330 0430	D331 0430
0437	4.37	11/64		66	24	6	13	D329 0437	D330 0437	D331 0437
0440	4.4			66	24	6	13	D329 0440	D330 0440	D331 0440
0450	4.5			66	24	6	14	D329 0450	D330 0450	D331 0450
0460	4.6			66	24	6	14	D329 0460	D330 0460	D331 0460
0470	4.7			66	24	6	14	D329 0470	D330 0470	D331 0470
0476	4.76	3/16		66	28	6	14	D329 0476	D330 0476	D331 0476
0480	4.8			66	28	6	14	D329 0480	D330 0480	D331 0480
0490	4.9			66	28	6	15	D329 0490	D330 0490	D331 0490
0500	5.0			66	28	6	15	D329 0500	D330 0500	D331 0500
0510	5.1			66	28	6	15	D329 0510	D330 0510	D331 0510
0516	5.16	13/64		66	28	6	15	D329 0516	D330 0516	D331 0516
0520	5.2			66	28	6	16	D329 0520	D330 0520	D331 0520
0530	5.3			66	28	6	16	D329 0530	D330 0530	D331 0530
0540	5.4			66	28	6	16	D329 0540	D330 0540	D331 0540
0550	5.5			66	28	6	17	D329 0550	D330 0550	D331 0550
0556	5.56	7/32		66	28	6	17	D329 0556	D330 0556	D331 0556
0560	5.6			66	28	6	17	D329 0560	D330 0560	D331 0560
0570	5.7			66	28	6	17	D329 0570	D330 0570	D331 0570
0580	5.8			66	28	6	17	D329 0580	D330 0580	D331 0580
0590	5.9			66	28	6	18	D329 0590	D330 0590	D331 0590
0595	5.95	15/64		66	28	6	18	D329 0595	D330 0595	D331 0595
0600	6.0			66	28	6	18	D329 0600	D330 0600	D331 0600
0610	6.1			79	34	8	18	D329 0610	D330 0610	D331 0610
0620	6.2			79	34	8	19	D329 0620	D330 0620	D331 0620

ISO	P													M			K			N							S							H														
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
D329	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
D330	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
D331	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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

● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

Drills Carbide 3 x D, R30 VA Black Magic



watch the video



- 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



Forets carbure 3xD, hélice 30°, VA Black magic, arrosage central

- Convient aux alliages et super alliages, Inox, Titane, Inconel et Duplex
- Géométrie optimisée pour un bon contrôle des copeaux
- Revêtement Helica pour une meilleure résistance à l'oxydation et la haute température



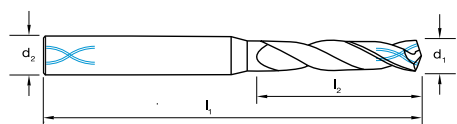
Punte Metallo Duro, 3 x D, R30 N, VA Black Magic

- Eccellente soluzione specifica per acciai inossidabili e super leghe
- Geometria ottimizzata per garantire facile lavorabilità ad alta produzione
- HELICA per un'eccezionale resistenza a ossidazione da alte temperature



Brocas de Metal Duro, 3 x D, R30 VA Black Magic

- Excelente solución para aceros inoxidable y super aleaciones de difícil mecanización
- La geometría optimizada asegura no endurecer el trabajo para una alta productividad
- HELICA para una excelente resistencia a la oxidación y dureza en caliente

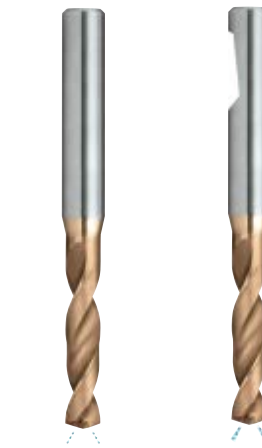


Vc Page #: 412 →

Size Ref.	mm	d ₁ (m7) inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #	Item #
0750	7.5		79	41	8	23	D356 0750	D357 0750
0754	7.54	19/64	79	41	8	23	D356 0754	D357 0754
0760	7.6		79	41	8	23	D356 0760	D357 0760
0770	7.7		79	41	8	23	D356 0770	D357 0770
0780	7.8		79	41	8	23	D356 0780	D357 0780
0790	7.9		79	41	8	24	D356 0790	D357 0790
0794	7.94	5/16	79	41	8	24	D356 0794	D357 0794
0800	8.0		79	41	8	24	D356 0800	D357 0800
0810	8.1		89	47	10	24	D356 0810	D357 0810
0820	8.2		89	47	10	25	D356 0820	D357 0820
0830	8.3		89	47	10	25	D356 0830	D357 0830
0833	8.33	21/64	89	47	10	25	D356 0833	D357 0833
0840	8.4		89	47	10	25	D356 0840	D357 0840
0850	8.5		89	47	10	26	D356 0850	D357 0850
0860	8.6		89	47	10	26	D356 0860	D357 0860
0870	8.7		89	47	10	26	D356 0870	D357 0870
0873	8.73	11/32	89	47	10	26	D356 0873	D357 0873
0880	8.8		89	47	10	26	D356 0880	D357 0880
0890	8.9		89	47	10	27	D356 0890	D357 0890
0900	9.0		89	47	10	27	D356 0900	D357 0900
0910	9.1		89	47	10	27	D356 0910	D357 0910
0913	9.13	23/64	89	47	10	27	D356 0913	D357 0913
0920	9.2		89	47	10	28	D356 0920	D357 0920
0930	9.3		89	47	10	28	D356 0930	D357 0930
0940	9.4		89	47	10	28	D356 0940	D357 0940
0950	9.5		89	47	10	29	D356 0950	D357 0950
0953	9.53	3/8	89	47	10	29	D356 0953	D357 0953
0960	9.6		89	47	10	29	D356 0960	D357 0960



Catalogue Code
Discount Group
Material
Surface Finish
Sutton Designation
Geometry
Point Type
Shank Form (DIN 6535)



	D356	D357
Discount Group	A0210	A0210
Material	VHM	VHM
Surface Finish	HELICA	HELICA
Sutton Designation	VA	VA
Geometry	R30 - IK	R30 - IK
Point Type	140° 4 Facet Form C	140° 4 Facet Form C
Shank Form (DIN 6535)	HA	HE

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	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●												
D357	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●												

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

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- Géométrie optimisée pour un bon contrôle des copeaux
- Revêtement Helica pour une meilleure résistance à l'oxydation et la haute température



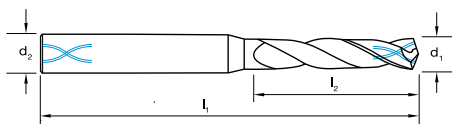
Punte Metallo Duro, 3 x D, R30 N, VA Black Magic

- Eccellente soluzione specifica per acciai inossidabili e super leghe
- Geometria ottimizzata per garantire facile lavorabilità ad alta produzione
- HELICA per un'eccezionale resistenza a ossidazione da alte temperature



Brocas de Metal Duro, 3 x D, R30 VA Black Magic

- Excelente solución para aceros inoxidable y super aleaciones de difícil mecanización
- La geometría optimizada asegura no endurecer el trabajo para una alta productividad
- HELICA para una excelente resistencia a la oxidación y dureza en caliente



Vc Page #: 412 →

Size Ref.	mm	d ₁ (m7) inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #	Item #
1191	11.91	15/32	102	55	12	36	D356 1191	D357 1191
1200	12.0		102	55	12	36	D356 1200	D357 1200
1231	12.30	31/64	107	60	14	37	D356 1231	D357 1231
1250	12.5		107	60	14	38	D356 1250	D357 1250
1269	12.70	1/2	107	60	14	38	D356 1269	D357 1269
1280	12.8		107	60	14	38	D356 1280	D357 1280
1300	13.0		107	60	14	39	D356 1300	D357 1300
1310	13.10	33/64	107	60	14	39	D356 1310	D357 1310
1349	13.49	17/32	107	60	14	40	D356 1349	D357 1349
1350	13.5		107	60	14	41	D356 1350	D357 1350
1389	13.89	35/64	107	60	14	42	D356 1389	D357 1389
1400	14.0		107	60	14	42	D356 1400	D357 1400
1429	14.29	9/16	115	65	16	43	D356 1429	D357 1429
1450	14.5		115	65	16	44	D356 1450	D357 1450
1468	14.68	37/64	115	65	16	44	D356 1468	D357 1468
1500	15.0		115	65	16	45	D356 1500	D357 1500
1508	15.08	19/32	115	65	16	45	D356 1508	D357 1508
1548	15.48	39/64	115	65	16	46	D356 1548	D357 1548
1550	15.5		115	65	16	47	D356 1550	D357 1550
1588	15.88	5/8	115	65	16	48	D356 1588	D357 1588
1600	16.0		115	65	16	48	D356 1600	D357 1600
1650	16.5		123	73	18	50	D356 1650	D357 1650
1667	16.67	21/32	123	73	18	50	D356 1667	D357 1667
1700	17.0		123	73	18	51	D356 1700	D357 1700
1746	17.46	11/16	123	73	18	52	D356 1746	D357 1746
1750	17.5		123	73	18	53	D356 1750	D357 1750
1800	18.0		123	73	18	54	D356 1800	D357 1800
1826	18.26	23/32	131	79	20	55	D356 1826	D357 1826
1850	18.5		131	79	20	56	D356 1850	D357 1850
1900	19.0		131	79	20	57	D356 1900	D357 1900
1905	19.05	3/4	131	79	20	57	D356 1905	D357 1905
1950	19.5		131	79	20	59	D356 1950	D357 1950
2000	20.0		131	79	20	60	D356 2000	D357 2000



Catalogue Code

Discount Group

Material

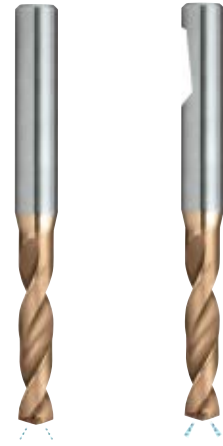
Surface Finish

Sutton Designation

Geometry

Point Type

Shank Form (DIN 6535)



D356

D357

A0210

A0210

VHM

VHM

HELICA

HELICA

VA

VA

R30 - IK

R30 - IK

140° 4 Facet Form C

140° 4 Facet Form C

HA

HE

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	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
D357	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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

● Optimal ○ Effective

Drills Carbide, 3 x D, R15 NH



- Rigid twist drill with slow spiral 15° flutes
- Suitable for martensitic & precipitation hardening, stainless steels & tool steels
- For drilling short chipping or abrasive materials



Forets carbure 3xD, hélice 15° NH

- Convient aux inox, aciers à outils et fontes
- Noyau rigide renforcé, hélice 15°
- Pour le perçage des matériaux à copeaux courts ou abrasifs Revêtement TiCN pour une durée de vie maximum



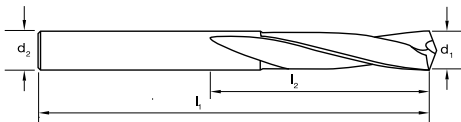
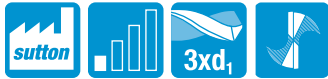
Punte Metallo Duro, 3 x D, R15 NH

- Elica rigida con talenti a 15°
- Ideale per acciai martensitici & tempra a precipitazione, acciai inossidabili & acciai per utensili
- Per trucioli piccoli o materiali abrasivi



Brocas de Metal Duro, 3 x D, R15 NH

- Broca helicoidal rígida con ranuras de 15°
- Adecuada para aceros inoxidable martensíticos, de precipitación y aceros para herramientas
- Para taladrado de materiales de viruta corta o materiales abrasivos



Vc Page #: 412 → Refer D300

Size Ref.	mm	d ₁ (m7)	inch	l ₁	l ₂	d ₂	Item #	Item #
0100	1.0			38	13	1.0	D304 0100	D310 0100
0150	1.5			38	13	1.5	D304 0150	D310 0150
0159	1.59	1/16		41	16	1.59		D310 0159
0160	1.6			43	18	1.6	D304 0160	D310 0160
0200	2.0			44	19	2.0	D304 0200	D310 0200
0238	2.38	3/32		44	19	2.38		D310 0238
0250	2.5			46	21	2.5	D304 0250	D310 0250
0300	3.0			48	22	3.0	D304 0300	D310 0300
0318	3.18	1/8		48	22	3.18		D310 0318
0330	3.3			52	24	3.3	D304 0330	D310 0330
0350	3.5			52	24	3.5	D304 0350	D310 0350
0397	3.97	5/32		53	27	3.97		D310 0397
0400	4.0			53	27	4.0	D304 0400	D310 0400
0420	4.2			53	27	4.2	D304 0420	D310 0420
0450	4.5			56	29	4.5	D304 0450	D310 0450
0476	4.76	3/16		56	29	4.76		D310 0476
0500	5.0			57	30	5.0	D304 0500	D310 0500
0550	5.5			60	32	5.5	D304 0550	D310 0550
0556	5.56	7/32		60	32	5.56		D310 0556
0600	6.0			62	33	6.0	D304 0600	D310 0600
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		68	38	7.14		D310 0714
0750	7.5			70	40	7.5	D304 0750	D310 0750
0794	7.94	5/16		71	41	7.94		D310 0794
0800	8.0			71	41	8.0	D304 0800	D310 0800
0850	8.5			76	43	8.5	D304 0850	D310 0850



Catalogue Code	D304	D310
Discount Group	A0202	A0206
Material	VHM	VHM
Surface Finish	Brf	TiCN
Sutton Designation	NH	NH
Geometry	R15	R15
Point Type	135° 4 Facet Form C	135° 4 Facet Form C
Shank Tolerance	-0.025	-0.025

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



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



Forets carbure 5xD, hélice 30°, type UNI

- Convient aux matériaux jusqu'à 1400 N/mm²
- Noyau renforcé
- Micro géométrie et traitement surface optimisé pour un bon contrôle des copeaux
- Revêtement AlCrN pour une durée de vie maximum



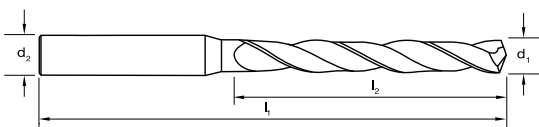
Punte Metallo Duro, 5 x D, R30 UNI

- Ideale per materiali fino a 1400N/mm²
- Nocciolo rinforzato
- Micro geometria & rivestimento tagliente ideale per un ottimo controllo truciolo
- AlCrN per massimizzare la vita utensile



Brocas de Metal Duro, 5 x D, R30 UNI

- Adecuado para materiales hasta 1400N/mm²
- Núcleo Reforzado
- Micro geometría y acondicionamiento de la superficie para un control óptimo de la viruta
- AlCrN para una mayor vida útil de la herramienta



Vc Page #: 413 →

Size Ref.	mm	d ₁ (m7)	inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #	Item #	Item #
0970	9.7			103	61	10	49	D326 0970	D327 0970	D328 0970
0980	9.8			103	61	10	49	D326 0980	D327 0980	D328 0980
0990	9.9			103	61	10	50	D326 0990	D327 0990	D328 0990
0992	9.92	25/64		103	61	10	50	D326 0992	D327 0992	D328 0992
1000	10.0			103	61	10	50	D326 1000	D327 1000	D328 1000
1010	10.1			118	71	12	51	D326 1010	D327 1010	D328 1010
1020	10.2			118	71	12	51	D326 1020	D327 1020	D328 1020
1030	10.3			118	71	12	52	D326 1030	D327 1030	D328 1030
1032	10.32	13/32		118	71	12	52	D326 1032	D327 1032	D328 1032
1040	10.4			118	71	12	52	D326 1040	D327 1040	D328 1040
1050	10.5			118	71	12	53	D326 1050	D327 1050	D328 1050
1060	10.6			118	71	12	53	D326 1060	D327 1060	D328 1060
1070	10.7			118	71	12	54	D326 1070	D327 1070	D328 1070
1080	10.8			118	71	12	54	D326 1080	D327 1080	D328 1080
1090	10.9			118	71	12	55	D326 1090	D327 1090	D328 1090
1100	11.0			118	71	12	55	D326 1100	D327 1100	D328 1100
1110	11.1			118	71	12	56	D326 1110	D327 1110	D328 1110
1111	11.11	7/16		118	71	12	56	D326 1111	D327 1111	D328 1111
1120	11.2			118	71	12	56	D326 1120	D327 1120	D328 1120
1130	11.3			118	71	12	57	D326 1130	D327 1130	D328 1130
1140	11.4			118	71	12	57	D326 1140	D327 1140	D328 1140
1150	11.5			118	71	12	58	D326 1150	D327 1150	D328 1150
1160	11.6			118	71	12	58	D326 1160	D327 1160	D328 1160
1170	11.7			118	71	12	59	D326 1170	D327 1170	D328 1170
1180	11.8			118	71	12	59	D326 1180	D327 1180	D328 1180
1190	11.9			118	71	12	60	D326 1190	D327 1190	D328 1190
1191	11.91	15/32		118	71	12	60	D326 1191	D327 1191	D328 1191
1200	12.0			118	71	12	60	D326 1200	D327 1200	D328 1200

ISO	P													M				K				N							S							H													
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	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	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
D326	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○																○	○	○	○	○	○	○	○	○	○	○	○
D327	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○																○	○	○	○	○	○	○	○	○	○	○	○
D328	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○																○	○	○	○	○	○	○	○	○	○	○	○

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

● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.



- 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



Forets carbure 5xD, hélice 30°, type UNI, arrosage central

- Convient aux matériaux jusqu'à 1400 N/mm²
- Noyau renforcé avec arrosage central
- Micro géométrie et traitement surface optimisé pour un bon contrôle des copeaux
- Revêtement AlCrN pour une durée de vie maximum



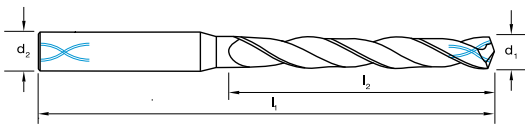
Punte Metallo Duro, 5 x D, R30 UNI, Refrigerazione Interna

- Ideale per materiali fino a 1400N/mm²
- Nocciolo rinforzato con fori di Lubrificazione interna
- Micro geometria & rivestimento tagliente ideale per un ottimo controllo truciolo
- AlCrN Per massimizzare la vita utensile



Brocas de Metal Duro, 5 x D, R30 UNI, IK

- Adecuado para materiales hasta 1400N/mm²
- Núcleo Reforzado con refrigeración interior
- Micro geometría y acondicionamiento de la superficie para un control óptimo de la viruta
- AlCrN para una mayor vida útil de la herramienta



Catalogue Code	D332	D333	D334
Discount Group	A0210	A0210	A0210
Material	VHM	VHM	VHM
Surface Finish	AlCrN	AlCrN	AlCrN
Sutton Designation	UNI	UNI	UNI
Geometry	R30 - IK	R30 - IK	R30 - IK
Point Type	140° Form C	140° Form C	140° Form C
Shank Form (DIN 6535)	HA	HB	HE

Vc Page #: 413 →

Size Ref.	mm	d ₁ (m7)	inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #	Item #	Item #
0300	3.0			66	28	6	15	D332 0300	D333 0300	D334 0300
0310	3.1			66	28	6	16	D332 0310	D333 0310	D334 0310
0318	3.18	1/8		66	28	6	16	D332 0318	D333 0318	D334 0318
0320	3.2			66	28	6	16	D332 0320	D333 0320	D334 0320
0330	3.3			66	28	6	17	D332 0330	D333 0330	D334 0330
0340	3.4			66	28	6	17	D332 0340	D333 0340	D334 0340
0350	3.5			66	28	6	18	D332 0350	D333 0350	D334 0350
0357	3.57	9/64		66	28	6	18	D332 0357	D333 0357	D334 0357
0360	3.6			66	28	6	18	D332 0360	D333 0360	D334 0360
0370	3.7			66	28	6	19	D332 0370	D333 0370	D334 0370
0380	3.8			74	36	6	19	D332 0380	D333 0380	D334 0380
0390	3.9			74	36	6	20	D332 0390	D333 0390	D334 0390
0397	3.97	5/32		74	36	6	20	D332 0397	D333 0397	D334 0397
0400	4.0			74	36	6	20	D332 0400	D333 0400	D334 0400
0410	4.1			74	36	6	21	D332 0410	D333 0410	D334 0410
0420	4.2			74	36	6	21	D332 0420	D333 0420	D334 0420
0430	4.3			74	36	6	22	D332 0430	D333 0430	D334 0430
0437	4.37	11/64		74	36	6	22	D332 0437	D333 0437	D334 0437
0440	4.4			74	36	6	22	D332 0440	D333 0440	D334 0440
0450	4.5			74	36	6	23	D332 0450	D333 0450	D334 0450
0460	4.6			74	36	6	23	D332 0460	D333 0460	D334 0460
0470	4.7			74	36	6	24	D332 0470	D333 0470	D334 0470
0476	4.76	3/16		82	44	6	24	D332 0476	D333 0476	D334 0476
0480	4.8			82	44	6	24	D332 0480	D333 0480	D334 0480
0490	4.9			82	44	6	25	D332 0490	D333 0490	D334 0490
0500	5.0			82	44	6	25	D332 0500	D333 0500	D334 0500
0510	5.1			82	44	6	26	D332 0510	D333 0510	D334 0510
0516	5.16	13/64		82	44	6	26	D332 0516	D333 0516	D334 0516

ISO	P													M			K			N						S						H																			
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	37.1	37.2	37.3	37.4	37.5	38	38.1	38.2	39	39.1	39.2	40	41	
D332	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
D333	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
D334	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

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

● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.



- 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



Forets carbure 5xD, hélice 30°, type UNI, arrosage central

- Convient aux matériaux jusqu'à 1400 N/mm²
- Noyau renforcé avec arrosage central
- Micro géométrie et traitement surface optimisé pour un bon contrôle des copeaux
- Revêtement AlCrN pour une durée de vie maximum



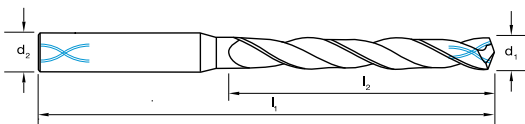
Punte Metallo Duro, 5 x D, R30 UNI, Refrigerazione Interna

- Ideale per materiali fino a 1400N/mm²
- Nocciolo rinforzato con fori di Lubrificazione interna
- Micro geometria & rivestimento tagliente ideale per un ottimo controllo truciolo
- AlCrN Per massimizzare la vita utensile



Brocas de Metal Duro, 5 x D, R30 UNI, IK

- Adecuado para materiales hasta 1400N/mm²
- Núcleo Reforzado con refrigeración interior
- Micro geometría y acondicionamiento de la superficie para un control óptimo de la viruta
- AlCrN para una mayor vida útil de la herramienta



Catalogue Code	D332	D333	D334
Discount Group	A0210	A0210	A0210
Material	VHM	VHM	VHM
Surface Finish	AlCrN	AlCrN	AlCrN
Sutton Designation	UNI	UNI	UNI
Geometry	R30 - IK	R30 - IK	R30 - IK
Point Type	140° Form C	140° Form C	140° Form C
Shank Form (DIN 6535)	HA	HB	HE

Vc Page #: 413 →

Size Ref.	mm	d ₁ (m7)	inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #	Item #	Item #
0750	7.5			91	53	8	38	D332 0750	D333 0750	D334 0750
0754	7.54	19/64		91	53	8	38	D332 0754	D333 0754	D334 0754
0760	7.6			91	53	8	38	D332 0760	D333 0760	D334 0760
0770	7.7			91	53	8	39	D332 0770	D333 0770	D334 0770
0780	7.8			91	53	8	39	D332 0780	D333 0780	D334 0780
0790	7.9			91	53	8	40	D332 0790	D333 0790	D334 0790
0794	7.94	5/16		91	53	8	40	D332 0794	D333 0794	D334 0794
0800	8.0			91	53	8	40	D332 0800	D333 0800	D334 0800
0810	8.1			103	61	10	41	D332 0810	D333 0810	D334 0810
0820	8.2			103	61	10	41	D332 0820	D333 0820	D334 0820
0830	8.3			103	61	10	42	D332 0830	D333 0830	D334 0830
0833	8.33	21/64		103	61	10	42	D332 0833	D333 0833	D334 0833
0840	8.4			103	61	10	42	D332 0840	D333 0840	D334 0840
0850	8.5			103	61	10	43	D332 0850	D333 0850	D334 0850
0860	8.6			103	61	10	43	D332 0860	D333 0860	D334 0860
0870	8.7			103	61	10	44	D332 0870	D333 0870	D334 0870
0873	8.73	11/32		103	61	10	44	D332 0873	D333 0873	D334 0873
0880	8.8			103	61	10	44	D332 0880	D333 0880	D334 0880
0890	8.9			103	61	10	45	D332 0890	D333 0890	D334 0890
0900	9.0			103	61	10	45	D332 0900	D333 0900	D334 0900
0910	9.1			103	61	10	46	D332 0910	D333 0910	D334 0910
0913	9.13	23/64		103	61	10	46	D332 0913	D333 0913	D334 0913
0920	9.2			103	61	10	46	D332 0920	D333 0920	D334 0920
0930	9.3			103	61	10	47	D332 0930	D333 0930	D334 0930
0940	9.4			103	61	10	47	D332 0940	D333 0940	D334 0940
0950	9.5			103	61	10	48	D332 0950	D333 0950	D334 0950
0953	9.53	3/8		103	61	10	48	D332 0953	D333 0953	D334 0953
0960	9.6			103	61	10	48	D332 0960	D333 0960	D334 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	
D332	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
D333	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
D334	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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

● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.



- 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



Forets carbure 5xD, hélice 30°, type UNI, arrosage central

- Convient aux matériaux jusqu'à 1400 N/mm²
- Noyau renforcé avec arrosage central
- Micro géométrie et traitement surface optimisé pour un bon contrôle des copeaux
- Revêtement AlCrN pour une durée de vie maximum



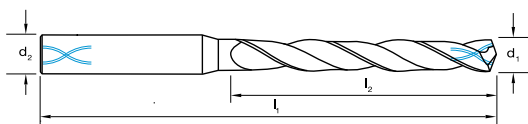
Punte Metallo Duro, 5 x D, R30 UNI, Refrigerazione Interna

- Ideale per materiali fino a 1400N/mm²
- Nocciolo rinforzato con fori di Lubrificazione interna
- Micro geometria & rivestimento tagliente ideale per un ottimo controllo truciolo
- AlCrN Per massimizzare la vita utensile



Brocas de Metal Duro, 5 x D, R30 UNI, IK

- Adecuado para materiales hasta 1400N/mm²
- Núcleo Reforzado con refrigeración interior
- Micro geometría y acondicionamiento de la superficie para un control óptimo de la viruta
- AlCrN para una mayor vida útil de la herramienta



Catalogue Code	D332	D333	D334
Discount Group	A0210	A0210	A0210
Material	VHM	VHM	VHM
Surface Finish	AlCrN	AlCrN	AlCrN
Sutton Designation	UNI	UNI	UNI
Geometry	R30 - IK	R30 - IK	R30 - IK
Point Type	140° Form C	140° Form C	140° Form C
Shank Form (DIN 6535)	HA	HB	HE

Vc Page #: 413 →

Size Ref.	mm	d ₁ (m7)	inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #	Item #	Item #
1280	12.8			124	77	14	64	D332 1280	D333 1280	D334 1280
1300	13.0			124	77	14	65	D332 1300	D333 1300	D334 1300
1349	13.49	17/32		124	77	14	67	D332 1349	D333 1349	D334 1349
1350	13.5			124	77	14	68	D332 1350	D333 1350	D334 1350
1400	14.0			124	77	14	70	D332 1400	D333 1400	D334 1400
1429	14.29	9/16		133	83	16	71	D332 1429	D333 1429	D334 1429
1450	14.5			133	83	16	73	D332 1450	D333 1450	D334 1450
1500	15.0			133	83	16	75	D332 1500	D333 1500	D334 1500
1510	15.1			133	83	16	76	D332 1510	•	•
1550	15.5			133	83	16	78	D332 1550	D333 1550	D334 1550
1588	15.88	5/8		133	83	16	79	D332 1588	D333 1588	D334 1588
1600	16.0			133	83	16	80	D332 1600	D333 1600	D334 1600
1650	16.5			143	93	18	83	D332 1650	D333 1650	D334 1650
1700	17.0			143	93	18	85	D332 1700	D333 1700	D334 1700
1746	17.46	11/16		143	93	18	87	D332 1746	D333 1746	D334 1746
1750	17.5			143	93	18	88	D332 1750	D333 1750	D334 1750
1800	18.0			143	93	18	90	D332 1800	D333 1800	D334 1800
1850	18.5			153	101	20	93	D332 1850	D333 1850	D334 1850
1900	19.0			153	101	20	95	D332 1900	D333 1900	D334 1900
1905	19.05	3/4		153	101	20	95	D332 1905	D333 1905	D334 1905
1950	19.5			153	101	20	98	D332 1950	D333 1950	D334 1950
2000	20.0			153	101	20	100	D332 2000	D333 2000	D334 2000

ISO	P													M				K				N							S							H																					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	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	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41						
D332	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●											●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D333	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●											●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D334	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●											●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

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: HB & HE shanks available, subject to lead time.

Drills Carbide 5 x D, R30 VA, Black Magic



watch the video



- 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



Forets carbure 5xD hélice 30°, VA Blagic Magic, arrosage central

- Convient aux alliages et super alliages, Inox, Titane, Inconel et Duplex
- Géométrie optimisée pour un bon contrôle des copeaux
- Revêtement Helica pour une meilleure résistance à l'oxydation et la haute température



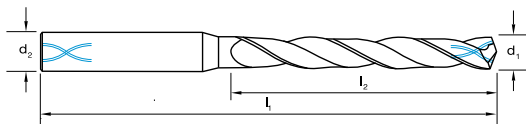
Punte Metallo Duro, 5 x D, R30 N, VA Black Magic

- Eccellente soluzione specifica per acciai inossidabili e super leghe
- Geometria ottimizzata per garantire facile lavorabilità ad alta produzione
- HELICA per un'eccezionale resistenza a ossidazione da alte temperature



Brocas de Metal Duro, 5 x D, R30 VA Black Magic

- Excelente solución para aceros inoxidable y super aleaciones de difícil mecanización
- La geometría optimizada asegura no endurecer el trabajo para una alta productividad
- HELICA para una excelente resistencia a la oxidación y dureza en caliente



Vc Page #: 413 →

Size Ref.	mm	d ₁ (m7)	inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #	Item #
0300	3.0			66	28	6	15	D358 0300	D359 0300
0310	3.1			66	28	6	16	D358 0310	D359 0310
0318	3.18	1/8		66	28	6	16	D358 0318	D359 0318
0320	3.2			66	28	6	16	D358 0320	D359 0320
0330	3.3			66	28	6	17	D358 0330	D359 0330
0340	3.4			66	28	6	17	D358 0340	D359 0340
0350	3.5			66	28	6	18	D358 0350	D359 0350
0357	3.57	9/64		66	28	6	18	D358 0357	D359 0357
0360	3.6			66	28	6	18	D358 0360	D359 0360
0370	3.7			66	28	6	19	D358 0370	D359 0370
0380	3.8			74	36	6	19	D358 0380	D359 0380
0390	3.9			74	36	6	20	D358 0390	D359 0390
0397	3.97	5/32		74	36	6	20	D358 0397	D359 0397
0400	4.0			74	36	6	20	D358 0400	D359 0400
0410	4.1			74	36	6	21	D358 0410	D359 0410
0420	4.2			74	36	6	21	D358 0420	D359 0420
0430	4.3			74	36	6	22	D358 0430	D359 0430
0437	4.37	11/64		74	36	6	22	D358 0437	D359 0437
0440	4.4			74	36	6	22	D358 0440	D359 0440
0450	4.5			74	36	6	23	D358 0450	D359 0450
0460	4.6			74	36	6	23	D358 0460	D359 0460
0470	4.7			74	36	6	24	D358 0470	D359 0470
0476	4.76	3/16		82	44	6	24	D358 0476	D359 0476
0480	4.8			82	44	6	24	D358 0480	D359 0480
0490	4.9			82	44	6	25	D358 0490	D359 0490
0500	5.0			82	44	6	25	D358 0500	D359 0500
0510	5.1			82	44	6	26	D358 0510	D359 0510
0516	5.16	13/64		82	44	6	26	D358 0516	D359 0516
0520	5.2			82	44	6	26	D358 0520	D359 0520
0530	5.3			82	44	6	27	D358 0530	D359 0530



Catalogue Code

Discount Group

Material

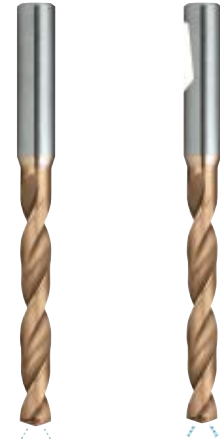
Surface Finish

Sutton Designation

Geometry

Point Type

Shank Form (DIN 6535)



D358

D359

A0210

A0210

VHM

VHM

HELICA

HELICA

VA

VA

R30 - IK

R30 - IK

140° 4 Facet Form C

140° 4 Facet Form C

HA

HE

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	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
D359	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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

● Optimal ○ Effective

Drills Carbide 5 x D, R30 VA, Black Magic



watch the video



- 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



Forets carbure 5xD hélice 30°, VA Blagic Magic, arrosage central

- Convient aux alliages et super alliages, Inox, Titane, Inconel et Duplex
- Géométrie optimisée pour un bon contrôle des copeaux
- Revêtement Helica pour une meilleure résistance à l'oxydation et la haute température



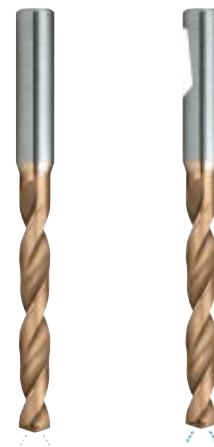
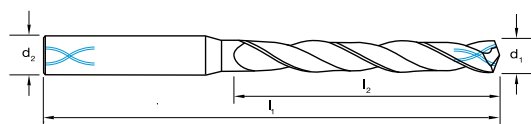
Punte Metallo Duro, 5 x D, R30 N, VA Black Magic

- Eccellente soluzione specifica per acciai inossidabili e super leghe
- Geometria ottimizzata per garantire facile lavorabilità ad alta produzione
- HELICA per un'eccezionale resistenza a ossidazione da alte temperature



Brocas de Metal Duro, 5 x D, R30 VA Black Magic

- Excelente solución para aceros inoxidable y super aleaciones de difícil mecanización
- La geometría optimizada asegura no endurecer el trabajo para una alta productividad
- HELICA para una excelente resistencia a la oxidación y dureza en caliente



Catalogue Code	D358	D359
Discount Group	A0210	A0210
Material	VHM	VHM
Surface Finish	HELICA	HELICA
Sutton Designation	VA	VA
Geometry	R30 - IK	R30 - IK
Point Type	140° 4 Facet Form C	140° 4 Facet Form C
Shank Form (DIN 6535)	HA	HE

Vc Page #: 413 →

Size Ref.	mm	d ₁ (m7) inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #	Item #
0780	7.8		91	53	8	39	D358 0780	D359 0780
0790	7.9		91	53	8	40	D358 0790	D359 0790
0794	7.94	5/16	91	53	8	40	D358 0794	D359 0794
0800	8.0		91	53	8	40	D358 0800	D359 0800
0810	8.1		103	61	10	41	D358 0810	D359 0810
0820	8.2		103	61	10	41	D358 0820	D359 0820
0830	8.3		103	61	10	42	D358 0830	D359 0830
0833	8.33	21/64	103	61	10	42	D358 0833	D359 0833
0840	8.4		103	61	10	42	D358 0840	D359 0840
0850	8.5		103	61	10	43	D358 0850	D359 0850
0860	8.6		103	61	10	43	D358 0860	D359 0860
0870	8.7		103	61	10	44	D358 0870	D359 0870
0873	8.73	11/32	103	61	10	44	D358 0873	D359 0873
0880	8.8		103	61	10	44	D358 0880	D359 0880
0890	8.9		103	61	10	45	D358 0890	D359 0890
0900	9.0		103	61	10	45	D358 0900	D359 0900
0910	9.1		103	61	10	46	D358 0910	D359 0910
0913	9.13	23/64	103	61	10	46	D358 0913	D359 0913
0920	9.2		103	61	10	46	D358 0920	D359 0920
0930	9.3		103	61	10	47	D358 0930	D359 0930
0940	9.4		103	61	10	47	D358 0940	D359 0940
0950	9.5		103	61	10	48	D358 0950	D359 0950
0953	9.53	3/8	103	61	10	48	D358 0953	D359 0953
0960	9.6		103	61	10	48	D358 0960	D359 0960
0970	9.7		103	61	10	49	D358 0970	D359 0970
0980	9.8		103	61	10	49	D358 0980	D359 0980
0990	9.9		103	61	10	50	D358 0990	D359 0990
0992	9.92	25/64	103	61	10	50	D358 0992	D359 0992
1000	10.0		103	61	10	50	D358 1000	D359 1000
1010	10.1		118	71	12	51	D358 1010	D359 1010

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	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●											
D359	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●											

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

● Optimal ○ Effective

Drills Carbide 5 x D, R30 VA, Black Magic



watch the video



- 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



Forets carbure 5xD hélice 30°, VA Blagic Magic, arrosage central

- Convient aux alliages et super alliages, Inox, Titane, Inconel et Duplex
- Géométrie optimisée pour un bon contrôle des copeaux
- Revêtement Helica pour une meilleure résistance à l'oxydation et la haute température



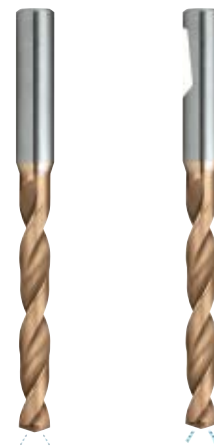
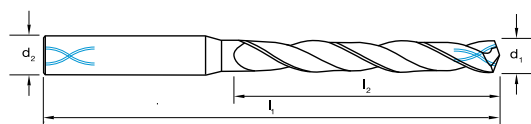
Punte Metallo Duro, 5 x D, R30 N, VA Black Magic

- Eccellente soluzione specifica per acciai inossidabili e super leghe
- Geometria ottimizzata per garantire facile lavorabilità ad alta produzione
- HELICA per un'eccezionale resistenza a ossidazione da alte temperature



Brocas de Metal Duro, 5 x D, R30 VA Black Magic

- Excelente solución para aceros inoxidable y super aleaciones de difícil mecanización
- La geometría optimizada asegura no endurecer el trabajo para una alta productividad
- HELICA para una excelente resistencia a la oxidación y dureza en caliente



Catalogue Code	D358	D359
Discount Group	A0210	A0210
Material	VHM	VHM
Surface Finish	HELICA	HELICA
Sutton Designation	VA	VA
Geometry	R30 - IK	R30 - IK
Point Type	140° 4 Facet Form C	140° 4 Facet Form C
Shank Form (DIN 6535)	HA	HE

Vc Page #: 413 →

Size Ref.	mm	d ₁ (m7) inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #	Item #
1349	13.49	17/32	124	77	14	67	D358 1349	D359 1349
1350	13.5		124	77	14	68	D358 1350	D359 1350
1389	13.89	35/64	124	77	14	69	D358 1389	D359 1389
1400	14.0		124	77	14	70	D358 1400	D359 1400
1429	14.29	9/16	133	83	16	71	D358 1429	D359 1429
1450	14.5		133	83	16	73	D358 1450	D359 1450
1468	14.68	37/64	133	83	16	73	D358 1468	D359 1468
1500	15.0		133	83	16	75	D358 1500	D359 1500
1508	15.08	19/32	133	83	16	75	D358 1508	D359 1508
1548	15.48	39/64	133	83	16	77	D358 1548	D359 1548
1550	15.5		133	83	16	78	D358 1550	D359 1550
1588	15.88	5/8	133	83	16	79	D358 1588	D359 1588
1600	16.0		133	83	16	80	D358 1600	D359 1600
1650	16.5		143	93	18	83	D358 1650	D359 1650
1667	16.67	21/32	143	93	18	83	D358 1667	D359 1667
1700	17.0		143	93	18	85	D358 1700	D359 1700
1746	17.46	11/16	143	93	18	87	D358 1746	D359 1746
1750	17.5		143	93	18	88	D358 1750	D359 1750
1800	18.0		143	93	18	90	D358 1800	D359 1800
1826	18.26	23/32	153	101	20	91	D358 1826	D359 1826
1850	18.5		153	101	20	93	D358 1850	D359 1850
1900	19.0		153	101	20	95	D358 1900	D359 1900
1905	19.05	3/4	153	101	20	95	D358 1905	D359 1905
1950	19.5		153	101	20	98	D358 1950	D359 1950
2000	20.0		153	101	20	100	D358 2000	D359 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	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●											
D359	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●											

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

● Optimal ○ Effective



- 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



Forets carbure 8xD, hélice 30°, type UNI, arrosage central

- Convient aux matériaux jusqu'à 1400 N/mm²
- Noyau renforcé et arrosage central
- Micro géométrie et traitement surface optimisé pour un bon contrôle des copeaux
- Revêtement AlCrN pour une durée de vie maximum



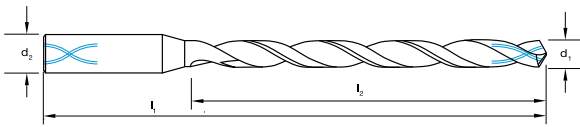
Punte Metallo Duro, 8 x D, R30 UNI, Refrigerazione Interna

- Ideale per materiali fino a 1400N/mm²
- Nocciolo rinforzato con fori di Lubrificazione interna
- Micro geometria & rivestimento tagliente ideale per un ottimo controllo truciolo
- AlCrN Per massimizzare la vita utensile



Brocas de Metal Duro, 8 x D, R30 UNI, IK

- Adecuado para materiales hasta 1400N/mm²
- Núcleo Reforzado con refrigeración interior
- Micro geometría y acondicionamiento de la superficie para un control óptimo de la viruta
- AlCrN para una mayor vida útil de la herramienta



Vc Page #: 413 →

Catalogue Code	D335	D336	D337
Discount Group	A0210	A0210	A0210
Material	VHM	VHM	VHM
Surface Finish	AlCrN	AlCrN	AlCrN
Sutton Designation	UNI	UNI	UNI
Geometry	R30 - IK	R30 - IK	R30 - IK
Point Type	140° Form C	140° Form C	140° Form C
Shank Form (DIN 6535)	HA	HB	HE

Size Ref.	mm	d ₁ (m7)	inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #	Item #	Item #
0780	7.8			114	76	8	62	D335 0780	D336 0780	D337 0780
0790	7.9			114	76	8	63	D335 0790	D336 0790	D337 0790
0794	7.94	5/16		114	76	8	64	D335 0794	D336 0794	D337 0794
0800	8.0			114	76	8	64	D335 0800	D336 0800	D337 0800
0810	8.1			142	95	10	65	D335 0810	D336 0810	D337 0810
0820	8.2			142	95	10	66	D335 0820	D336 0820	D337 0820
0830	8.3			142	95	10	66	D335 0830	D336 0830	D337 0830
0833	8.33	21/64		142	95	10	67	D335 0833	D336 0833	D337 0833
0840	8.4			142	95	10	67	D335 0840	D336 0840	D337 0840
0850	8.5			142	95	10	68	D335 0850	D336 0850	D337 0850
0860	8.6			142	95	10	69	D335 0860	D336 0860	D337 0860
0870	8.7			142	95	10	70	D335 0870	D336 0870	D337 0870
0873	8.73	11/32		142	95	10	70	D335 0873	D336 0873	D337 0873
0880	8.8			142	95	10	70	D335 0880	D336 0880	D337 0880
0890	8.9			142	95	10	71	D335 0890	D336 0890	D337 0890
0900	9.0			142	95	10	72	D335 0900	D336 0900	D337 0900
0910	9.1			142	95	10	73	D335 0910	D336 0910	D337 0910
0913	9.13	23/64		142	95	10	73	D335 0913	D336 0913	D337 0913
0920	9.2			142	95	10	74	D335 0920	D336 0920	D337 0920
0930	9.3			142	95	10	74	D335 0930	D336 0930	D337 0930
0940	9.4			142	95	10	75	D335 0940	D336 0940	D337 0940
0950	9.5			142	95	10	76	D335 0950	D336 0950	D337 0950
0953	9.53	3/8		142	95	10	76	D335 0953	D336 0953	D337 0953
0960	9.6			142	95	10	77	D335 0960	D336 0960	D337 0960
0970	9.7			142	95	10	78	D335 0970	D336 0970	D337 0970
0980	9.8			142	95	10	78	D335 0980	D336 0980	D337 0980
0990	9.9			142	95	10	79	D335 0990	D336 0990	D337 0990
0992	9.92	25/64		142	95	10	79	D335 0992	D336 0992	D337 0992
1000	10.0			142	95	10	80	D335 1000	D336 1000	D337 1000
1010	10.1			162	114	12	81	D335 1010	D336 1010	D337 1010

ISO	P													M				K				N							S							H																						
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	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	●	●	●	●	●	●	●	●	●	●	●	●	●	○			●	●	●	●	●	●																																				
D336	●	●	●	●	●	●	●	●	●	●	●	●	●	○			●	●	●	●	●	●																																				
D337	●	●	●	●	●	●	●	●	●	●	●	●	●	○			●	●	●	●	●	●																																				

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

● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

Drills Carbide, 12 x D, R30 UNI, IK, Black Magic XL



- Suitable for materials up to 1200N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- Pertura for maximum tool life



Forets carbure 12xD, hélice 30°, type UNI, arrosage central

- Convient aux matériaux jusqu'à 1200 N/mm², les Inox et les fontes
- Noyau renforcé et arrosage central
- Micro géométrie et traitement surface optimisé pour un bon contrôle des copeaux
- Revêtement Pertura pour une durée de vie maximum



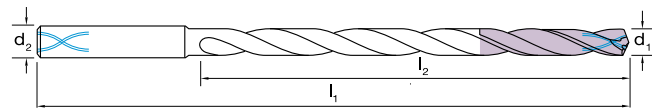
Punte Metallo Duro, 12 x D, R30 UNI, Refrigerazione Interna

- Ideale per materiali fino a 1200N/mm²
- Nocciolo rinforzato con fori di Lubrificazione interna
- Micro geometria & rivestimento tagliente ideale per un ottimo controllo truciolo
- Pertura Per massimizzare la vita utensile



Brocas de Metal Duro, 12 x D, R30 UNI, IK

- Adecuado para materiales hasta 1200N/mm²
- Núcleo Reforzado con refrigeración interior
- Micro geometría y acondicionamiento de la superficie para un control óptimo de la viruta
- Pertura para una mayor vida útil de la herramienta



Vc Page #: 413 →

Size Ref.	mm	d ₁ (h7)	inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #
0300	3.0			90	50	6	36	D371 0300
0310	3.1			90	50	6	37	D371 0310
0320	3.2			90	50	6	38	D371 0320
0330	3.3			90	50	6	40	D371 0330
0340	3.4			90	50	6	41	D371 0340
0350	3.5			90	50	6	42	D371 0350
0360	3.6			90	50	6	43	D371 0360
0370	3.7			90	50	6	44	D371 0370
0380	3.8			102	64	6	46	D371 0380
0390	3.9			102	64	6	47	D371 0390
0400	4.0			102	64	6	48	D371 0400
0410	4.1			102	64	6	49	D371 0410
0420	4.2			102	64	6	50	D371 0420
0430	4.3			102	64	6	52	D371 0430
0440	4.4			102	64	6	53	D371 0440
0450	4.5			102	64	6	54	D371 0450
0460	4.6			102	64	6	55	D371 0460
0470	4.7			102	64	6	56	D371 0470
0480	4.8			116	78	6	58	D371 0480
0490	4.9			116	78	6	59	D371 0490
0500	5.0			116	78	6	60	D371 0500
0510	5.1			116	78	6	61	D371 0510
0520	5.2			116	78	6	62	D371 0520
0530	5.3			116	78	6	64	D371 0530
0540	5.4			116	78	6	65	D371 0540
0550	5.5			116	78	6	66	D371 0550
0560	5.6			116	78	6	67	D371 0560
0570	5.7			116	78	6	68	D371 0570

ISO	P										M					K					N					S					H																			
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41		
D371	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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

● Optimal ○ Effective



Catalogue Code	D371
Discount Group	A0210
Material	VHM
Surface Finish	Pertura Tip
Sutton Designation	UNI
Geometry	R30 - IK
Point Type	135° Form C
Shank Form (DIN 6535)	HA

NOTE: HB & HE shanks available, subject to lead time.

Drills Carbide, 12 x D, R30 UNI, IK, Black Magic XL



- Suitable for materials up to 1200N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- Pertura for maximum tool life



Forets carbure 12xD, hélice 30°, type UNI, arrosage central

- Convient aux matériaux jusqu'à 1200 N/mm², les Inox et les fontes
- Noyau renforcé et arrosage central
- Micro géométrie et traitement surface optimisé pour un bon contrôle des copeaux
- Revêtement Pertura pour une durée de vie maximum



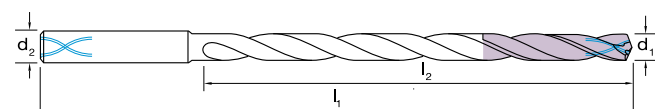
Punte Metallo Duro, 12 x D, R30 UNI, Refrigerazione Interna

- Ideale per materiali fino a 1200N/mm²
- Nocciolo rinforzato con fori di Lubrificazione interna
- Micro geometria & rivestimento tagliente ideale per un ottimo controllo truciolo
- Pertura Per massimizzare la vita utensile



Brocas de Metal Duro, 12 x D, R30 UNI, IK

- Adecuado para materiales hasta 1200N/mm²
- Núcleo Reforzado con refrigeración interior
- Micro geometría y acondicionamiento de la superficie para un control óptimo de la viruta
- Pertura para una mayor vida útil de la herramienta



Catalogue Code	D371
Discount Group	A0210
Material	VHM
Surface Finish	Pertura Tip
Sutton Designation	UNI
Geometry	R30 - IK
Point Type	135° Form C
Shank Form (DIN 6535)	HA

Vc Page #: 413 →

Size Ref.	mm	d ₁ (h7)	inch	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #
0580	5.8			116	78	6	70	D371 0580
0590	5.9			116	78	6	71	D371 0590
0600	6.0			116	78	6	72	D371 0600
0610	6.1			146	108	8	73	D371 0610
0620	6.2			146	108	8	74	D371 0620
0630	6.3			146	108	8	76	D371 0630
0640	6.4			146	108	8	77	D371 0640
0650	6.5			146	108	8	78	D371 0650
0660	6.6			146	108	8	79	D371 0660
0670	6.7			146	108	8	80	D371 0670
0680	6.8			146	108	8	82	D371 0680
0690	6.9			146	108	8	83	D371 0690
0700	7.0			146	108	8	84	D371 0700
0710	7.1			146	108	8	85	D371 0710
0720	7.2			146	108	8	86	D371 0720
0730	7.3			146	108	8	88	D371 0730
0740	7.4			146	108	8	89	D371 0740
0750	7.5			146	108	8	90	D371 0750
0760	7.6			146	108	8	91	D371 0760
0770	7.7			146	108	8	92	D371 0770
0780	7.8			146	108	8	94	D371 0780
0790	7.9			146	108	8	95	D371 0790
0800	8.0			146	108	8	96	D371 0800
0810	8.1			162	120	10	97	D371 0810
0820	8.2			162	120	10	98	D371 0820
0830	8.3			162	120	10	100	D371 0830
0840	8.4			162	120	10	101	D371 0840
0850	8.5			162	120	10	102	D371 0850

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					
D371	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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

● Optimal ○ Effective

Drills Carbide, 15 x D, R30 UNI, IK, Black Magic XL



- Suitable for materials up to 1200N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- Pertura coated tip for maximum tool life



Forets carbure Extra Long arrosage central

- Convient aux matériaux jusqu'à 1200 N/mm², les Inox et les fontes
- Noyau renforcé et arrosage central
- Micro géométrie et traitement surface optimisé pour un bon contrôle des copeaux
- Revêtement Pertura pour une durée de vie maximum



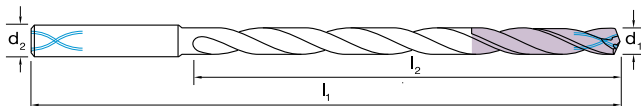
Punte Metallo Duro, Foratura Profonda

- Ideale per materiali fino a 1200N/mm²
- Nocciolo rinforzato con fori di Lubrificazione interna
- Micro geometria & rivestimento tagliente ideale per un ottimo controllo truciolo
- AlCrN Per massimizzare la vita utensile



Brocas de Metal Duro, Extra Larga

- Adecuado para materiales hasta 1200N/mm²
- Núcleo Reforzado con refrigeración interior
- Micro geometría y acondicionamiento de la superficie para un control óptimo de la viruta
- Recubrimiento de punta TIP para una mayor vida útil de la herramienta



Vc Page #: 413 → Refer D371

Catalogue Code	D372
Product Group	A0210
Material	VHM
Surface Finish	Pertura Tip
Application	UNI
Geometry	R30 - IK
Point Type	135° Form C
Shank Form (DIN 6535)	HA

Size Ref.	d ₁ (h7)	l ₁	l ₂	d ₂ (h6)	Max hole depth	Item #
15×D						
0300	3.0	100	55	6	45	D372 0300
0320	3.2	105	60	6	48	D372 0320
0330	3.3	105	60	6	50	D372 0330
0350	3.5	110	64	6	53	D372 0350
0400	4.0	118	73	6	60	D372 0400
0430	4.3	126	82	6	65	D372 0430
0450	4.5	126	82	6	68	D372 0450
0500	5.0	136	92	6	75	D372 0500
0510	5.1	140	95	6	77	D372 0510
0520	5.2	140	95	6	78	D372 0520
0530	5.3	140	95	6	80	D372 0530
0540	5.4	145	100	6	81	D372 0540
0550	5.5	145	100	6	83	D372 0550
0560	5.6	145	100	6	84	D372 0560
0600	6.0	155	110	6	90	D372 0600
0630	6.3	163	118	8	95	D372 0630
0650	6.5	165	120	8	98	D372 0650
0700	7.0	173	128	8	105	D372 0700
0750	7.5	184	138	8	113	D372 0750
0780	7.8	191	145	8	117	D372 0780
0800	8.0	191	145	8	120	D372 0800
0850	8.5	205	155	10	128	D372 0850
0900	9.0	215	164	10	135	D372 0900
1000	10.0	234	182	10	150	D372 1000
1100	11.0	255	200	12	165	D372 1100
1200	12.0	275	218	12	180	D372 1200

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	
D372	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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

● Optimal ○ Effective

