

4361V21..  
3 x D

Vollhartmetall-Spiralbohrer mit optimierter Schneidengeometrie - 3 x D ab Ø 2.5mm mit Innenkühlung

Norm, HM.Sorte:Werksnorm kurz, Feinstkorn, Beschichtung:Balinit Helica mit optimierten Gleiteigenschaften Schaft,Spitzen-<: DIN 6535 HAK h6 eingeschränkt für Schrumpf-Dehnspannfutter), 140 ° Spitzenschliff Sonderschliff, CNC-geschliffen Seitenspanwinkel: 30 °, Nutenform: Spezielle Spankammergeometrie

**Anwendung** : Hochleistungsbohrwerkzeuge für höchste Ansprüche an Wirtschaftlichkeit und Bohrqualität, Bohren von: Grauguss, Temperglass, Stahl, Stahlguss, Chrom- und Nickelwerkstoffen, hochwärmefeste Stähle und kurzspannenden Werkstoffen.

**Speziell geeignet für CNC-Bohren mit grossen Vorschüben. Auf Wunsch Schaftform DIN 6535 HBK oder HEK gegen Mehrpreis lieferbar. Bitte geben Sie bei Ihrer Bestellung die gewünschte Schaftform an.**

Forets hélicoïdaux en carbure monobloc avec arrêtes optimisées -3 x D dès Ø 2.5 mm arrosage intérieur

Norme, nuance MD:sel.normes usine, court, grain très fin revêtement: Ba-linitstandard short, micro grain, coating: Helica, caractéristiques de glisser optimisées, Tige, <de la pointe : DIN 6535 HAK-h6 limité p. des mandrin à contrac-

tion et extension,140°. Affûtage de la pointe: affûtage spéciale par CN< de coupe des côtes: 30° géométrie des hélices: Géométrie spécialement dessinée pour des copeaux plus épais

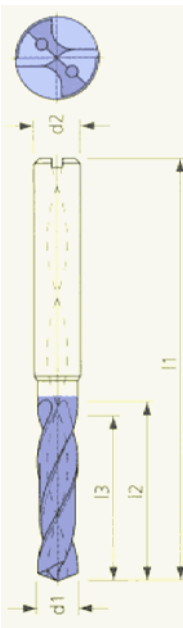
**Application**: Outils pour forer à haute puissance pour des exigences à une économie élevée et une qualité excellente. Forer de fonte grise, font chrom et nickel, aciers moulés, alliages de chrom et nickel, aciers réfractaires, et des matériaux à copeaux courts. **Est spécialement qualifié pour forer à CN à des avances très grandes. Sur demande tiege frais additionel livrables. Veuillez définir sur votre commande le tiege désiré.**

Carbide drill with optimized edge geometry 3 x D from Ø 2.5mm on with internal cooling

Standard, carbide grade: factory Balinit Helica with optimized gliding characteristics. Shank, head-<: DIN 6535 HAK h6 reduced for shrinking, 140 °front angle, CNC-ground side-cutting angle: 30 °, shape of slots: special chip flow optimized geometry.

**Application**: High performance boring tools for the highest requirements on cost and bore quality, drilling of: Cast iron, malleable casting, steel, cast steel, stainless and nickel alloed chip producing materials.

**Specially suitable for CNC-drilling with increased feeds. On request we supply shanks according DIN 6535 HBK or HEK with upprice. Please indicate the required typ of shank with your order.**



Best. Nr no.cde. order no.	Ø d1	l2	l3	Ø d2	l1	CHF	Best. Nr no.cde. order no.	Ø d1	l2	l3	Ø d2	l1	CHF
4361V21. 0100	1.00	3.00	5.00	3.00	38.00	24.00	4361V21. 0180	1.80	5.40	8.50	3.00	38.00	24.00
4361V21. 0110	1.10	3.30	5.50	3.00	38.00	24.00	4361V21. 0190	1.90	5.70	8.50	3.00	38.00	24.00
4361V21. 0120	1.20	3.60	5.50	3.00	38.00	24.00	4361V21. 0200	2.00	6.00	9.00	3.00	38.00	24.00
4361V21. 0130	1.30	3.90	6.00	3.00	38.00	24.00	4361V21. 0210	2.10	6.30	9.50	3.00	38.00	24.00
4361V21. 0140	1.40	4.20	6.00	3.00	38.00	24.00	4361V21. 0220	2.20	6.60	9.50	3.00	38.00	24.00
4361V21. 0150	1.50	4.50	6.50	3.00	38.00	24.00	4361V21. 0230	2.30	6.90	10.00	3.00	38.00	24.00
4361V21. 0160	1.60	4.80	7.00	3.00	38.00	24.00	4361V21. 0240	2.40	7.20	10.00	3.00	38.00	24.00
4361V21. 0170	1.70	5.10	8.00	3.00	38.00	24.00							
4361V21. 0250	2.50	7.50	10.50	3.00	50.00	35.00	4361V21. 0740	7.40	22.20	32.00	8.00	72.00	83.00
4361V21. 0260	2.60	7.80	11.00	3.00	50.00	35.00	4361V21. 0750	7.50	45.00	55.00	8.00	95.00	83.00
4361V21. 0270	2.70	8.10	11.50	3.00	50.00	35.00	4361V21. 0760	7.60	45.60	55.50	8.00	95.00	83.00
4361V21. 0280	2.80	8.40	11.50	3.00	50.00	35.00	4361V21. 0770	7.70	46.20	56.00	8.00	95.00	83.00
4361V21. 0290	2.90	8.70	12.00	3.00	50.00	35.00	4361V21. 0780	7.80	46.80	57.00	8.00	95.00	83.00
4361V21. 0300	3.00	9.00	12.00	3.00	50.00	35.00	4361V21. 0790	7.90	47.40	57.50	8.00	95.00	83.00
4361V21. 0310	3.10	9.30	13.50	6.00	55.00	49.00	4361V21. 0800	8.00	48.00	58.00	8.00	95.00	88.00
4361V21. 0320	3.20	9.60	13.00	6.00	55.00	49.00	4361V21. 0810	8.10	48.60	59.50	10.00	106.00	88.00
4361V21. 0330	3.30	9.90	13.50	6.00	55.00	49.00	4361V21. 0820	8.20	49.20	60.00	10.00	106.00	88.00
4361V21. 0340	3.40	10.20	14.00	6.00	55.00	49.00	4361V21. 0830	8.30	49.80	61.00	10.00	106.00	88.00
4361V21. 0350	3.50	10.50	14.50	6.00	55.00	49.00	4361V21. 0840	8.40	50.40	61.50	10.00	106.00	88.00
4361V21. 0360	3.60	10.80	15.00	6.00	55.00	49.00	4361V21. 0850	8.50	51.00	62.00	10.00	106.00	88.00
4361V21. 0370	3.70	11.10	15.00	6.00	55.00	49.00	4361V21. 0860	8.60	51.60	62.50	10.00	106.00	88.00
4361V21. 0380	3.80	11.40	15.50	6.00	55.00	49.00	4361V21. 0870	8.70	52.20	63.00	10.00	106.00	88.00
4361V21. 0390	3.90	11.70	15.50	6.00	55.00	49.00	4361V21. 0880	8.80	52.80	64.00	10.00	106.00	88.00
4361V21. 0400	4.00	12.00	16.00	6.00	55.00	49.00	4361V21. 0890	8.90	53.40	64.50	10.00	106.00	88.00
4361V21. 0410	4.10	12.30	18.50	6.00	60.00	52.00	4361V21. 0900	9.00	54.00	65.00	10.00	106.00	88.00
4361V21. 0420	4.20	12.60	18.50	6.00	60.00	52.00	4361V21. 0910	9.10	54.60	65.50	10.00	113.00	92.00
4361V21. 0430	4.30	12.90	19.00	6.00	60.00	52.00	4361V21. 0920	9.20	55.20	66.00	10.00	113.00	92.00
4361V21. 0440	4.40	13.20	19.00	6.00	60.00	52.00	4361V21. 0930	9.30	55.80	67.00	10.00	113.00	92.00
4361V21. 0450	4.50	13.50	20.50	6.00	60.00	52.00	4361V21. 0940	9.40	56.40	67.50	10.00	113.00	92.00
4361V21. 0460	4.60	13.80	22.00	6.00	60.00	52.00	4361V21. 0950	9.50	57.00	68.00	10.00	113.00	92.00
4361V21. 0470	4.70	14.10	22.00	6.00	60.00	52.00	4361V21. 0960	9.60	57.60	68.50	10.00	113.00	92.00
4361V21. 0480	4.80	14.40	22.50	6.00	60.00	52.00	4361V21. 0970	9.70	58.20	69.00	10.00	113.00	92.00
4361V21. 0490	4.90	14.70	22.50	6.00	60.00	52.00	4361V21. 0980	9.80	58.80	70.00	10.00	113.00	92.00
4361V21. 0500	5.00	15.00	23.00	6.00	60.00	52.00	4361V21. 0990	9.90	59.40	70.50	10.00	113.00	92.00
4361V21. 0510	5.10	15.30	23.50	6.00	64.00	56.00	4361V21. 1000	10.00	60.00	72.00	10.00	113.00	92.00
4361V21. 0520	5.20	15.60	23.50	6.00	64.00	56.00	4361V21. 1010	10.10	60.60	72.50	12.00	125.00	126.00
4361V21. 0530	5.30	15.90	24.00	6.00	64.00	56.00	4361V21. 1020	10.20	61.20	73.00	12.00	125.00	126.00
4361V21. 0540	5.40	16.20	24.00	6.00	64.00	56.00	4361V21. 1030	10.30	61.80	74.00	12.00	125.00	126.00
4361V21. 0550	5.50	16.50	24.50	6.00	64.00	56.00	4361V21. 1040	10.40	62.40	74.50	12.00	125.00	126.00
4361V21. 0560	5.60	16.80	24.50	6.00	64.00	56.00	4361V21. 1050	10.50	63.00	75.00	12.00	125.00	126.00
4361V21. 0570	5.70	17.10	25.50	6.00	64.00	56.00	4361V21. 1060	10.60	63.60	75.50	12.00	125.00	126.00
4361V21. 0580	5.80	17.40	25.50	6.00	64.00	56.00	4361V21. 1070	10.70	64.20	76.00	12.00	125.00	126.00
4361V21. 0590	5.90	17.70	23.00	6.00	64.00	56.00	4361V21. 1080	10.80	64.80	77.00	12.00	125.00	126.00
4361V21. 0600	6.00	18.00	27.00	6.00	64.00	56.00	4361V21. 1090	10.90	65.40	77.50	12.00	125.00	126.00
4361V21. 0610	6.10	18.30	27.50	8.00	68.00	79.00	4361V21. 1100	11.00	66.00	79.00	12.00	125.00	126.00
4361V21. 0620	6.20	18.60	27.50	8.00	68.00	79.00	4361V21. 1110	11.10	66.60	79.50	12.00	132.00	133.00
4361V21. 0630	6.30	18.90	28.00	8.00	68.00	79.00	4361V21. 1120	11.20	67.20	80.00	12.00	132.00	133.00
4361V21. 0640	6.40	19.20	28.00	8.00	68.00	79.00	4361V21. 1130	11.30	67.80	81.00	12.00	132.00	133.00
4361V21. 0650	6.50	19.50	28.50	8.00	68.00	79.00	4361V21. 1140	11.40	68.40	81.50	12.00	132.00	133.00
4361V21. 0660	6.60	19.80	29.00	8.00	68.00	79.00	4361V21. 1150	11.50	69.00	82.00	12.00	132.00	133.00
4361V21. 0670	6.70	20.10	29.50	8.00	68.00	79.00	4361V21. 1160	11.60	69.60	82.50	12.00	132.00	133.00
4361V21. 0680	6.80	20.40	29.50	8.00	68.00	79.00	4361V21. 1170	11.70	70.20	83.00	12.00	132.00	133.00

**Vollhartmetall-Spiralbohrer m. optimierter Schneidengeometrie, 3 x D, Innenkühlung**

Norm, HM Sorte: DIN 6537 kurz, Feinstkorn, Beschichtung: Auf Basis TIALN mit optimierten Gleiteigenschaften, Schaft, Spitzen-<: DIN 6535 HAK, (-0.002-0.005) eingeschränkt für Schrumpf Dehnspannfutter), 140 ° Spitzenanschliff: Sonderschliff, CNC-geschliffen, Seitenspanwinkel: 30 ° Nutenform: Spezielle Spankammergeometrie.

**Anwendung :**

Hochleistungsbohrwerkzeuge für höchste Ansprüche an Wirtschaftlichkeit und Bohrqualität, Bohren von: Grauguss, Temperguss, Stahl, Stahlguss, Chrom- und Nickelwerkstoffen, hochwarmfeste Stähle und kurzspannenden Werkstoffen.

**Speziell geeignet für CNC-Bohren mit grossen Vorschüben. Auf Wunsch Schaftform DIN 6535 HBK oder HEK ohne Mehrpreis lieferbar. bitte geben Sie bei Ihrer Bestellung die gewünschte Schaftform an.**

**Forets hélicoidaux en carbure avec arrêtes optimisées 3 x D et arrosage intérieur**

Norme, nuance MD: sel. DIN 6537 court, grain très fin, revêtement: base TIALN, caractéristiques de glisser optimisées. Tige, <de la pointe: DIN 6535 HAK, tol. -0.002- 0.005 limité p. des mandrin à contraction et extension, 140°. Affûtage d. la pointe: affûtage spéciale, méthode affûteuse contrôlée par CN, < de coupe des côtes: 30°, géométrie des hélices: Géométrie spécialement dessinés p. des copeaux plus épais

**Application:** Outils pour forer à haute puissance pour des exigences à une économie élevée et une qualité excellente. Forer de fonte grise, font malléable, acier, aciers moulés, alliages de chrom et nickel, aciers réfractaires, et des matériaux à copeaux courts. **Est spécialement qualifié pour forer à CN à des avances très grandes. Sur demande tige selon DIN 6535 HBK ou HEK sans frais additionel livrables. Veuillez définir sur votre commande le tige désiré.**

**Carbide-twist drills with optimized cutting geometry, 3 x D, internal cooling canals**

Standard, carbide grade: DIN 6537 short, micro grain, coating: TIALN with optimized gliding characteristics, shank, front-<: DIN 6535 HAK, (-0.002-0.005) reduced for shrinking, 140 ° head angle: CNC-ground, side rake angle: 30 °, helix -geometry: optimized chip flow geometry.

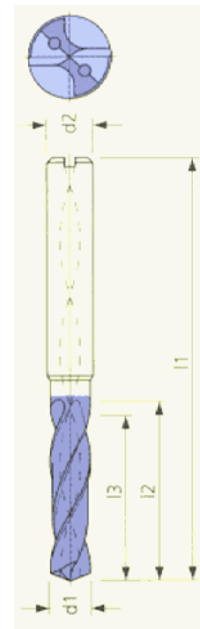
**Application:** High performance boring tools for the highest requirements on cost and bore quality, drilling of: Cast iron, malleable casting, steel, cast steel, stainless and nickel alloyed steels, temperature steels and short chip producing materials.

**Specially suitable for CNC-drilling with increased feeds. On request we supply shanks according DIN 6535 HBK or HEK without upprice. Please indicate the required typ of shank with your order.**

**4361V20.. 3 x D**



d1	d2	I1	I2	I3	Best.Nr.	1 - 4	5 - 9	ab/des10	d1	d2	I1	I2	I3	Best.Nr.	1 - 4	5 - 9	ab/des10
no.cde.					Stck./pce				no.cde.					Stck./pce			
m7	h6	order no.			Fr.	Fr.	Fr.		m7	h6	order no.			Fr.	Fr.	Fr.	
3.00	6	62	20	14	4361V20. 0300	64.80	63.20	60.90	8.00	8	79	41	29	4361V20. 0800	72.30	70.50	68.00
3.20	6	62	20	14	4361V20. 0320	64.80	63.20	60.90	8.50	10	89	47	35	4361V20. 0850	86.40	84.30	81.30
3.30	6	62	20	14	4361V20. 0330	64.80	63.20	60.90	8.60	10	89	47	35	4361V20. 0860	86.40	84.30	81.30
3.40	6	62	20	14	4361V20. 0340	64.80	63.20	60.90	8.80	10	89	47	35	4361V20. 0880	86.40	84.30	81.30
3.50	6	62	20	14	4361V20. 0350	64.80	63.20	60.90	9.00	10	89	47	35	4361V20. 0900	86.40	84.30	81.30
3.80	6	66	24	17	4361V20. 0380	64.80	63.20	60.90	9.30	10	89	47	35	4361V20. 0930	86.40	84.30	81.30
4.00	6	66	24	17	4361V20. 0400	64.80	63.20	60.90	9.50	10	89	47	35	4361V20. 0950	86.40	84.30	81.30
4.20	6	66	24	17	4361V20. 0420	64.80	63.20	60.90	9.80	10	89	47	35	4361V20. 0980	86.40	84.30	81.30
4.30	6	66	24	17	4361V20. 0430	64.80	63.20	60.90	10.00	10	89	47	35	4361V20. 1000	86.40	84.30	81.30
4.50	6	66	24	17	4361V20. 0450	64.80	63.20	60.90	10.20	10	102	55	40	4361V20. 1020	119.40	116.50	112.40
4.80	6	66	28	20	4361V20. 0480	64.80	63.20	60.90	10.30	12	102	55	40	4361V20. 1030	119.40	116.50	112.40
4.90	6	66	28	20	4361V20. 0490	64.80	63.20	60.90	10.40	12	102	55	40	4361V20. 1040	119.40	116.50	112.40
5.00	6	66	28	20	4361V20. 0500	64.80	63.20	60.90	10.50	12	102	55	40	4361V20. 1050	119.40	116.50	112.40
5.10	6	66	28	20	4361V20. 0510	64.80	63.20	60.90	11.00	12	102	55	40	4361V20. 1100	119.40	116.50	112.40
5.50	6	66	28	20	4361V20. 0550	64.80	63.20	60.90	11.20	12	102	55	40	4361V20. 1120	119.40	116.50	112.40
5.80	6	66	28	20	4361V20. 0580	64.80	63.20	60.90	11.50	12	102	55	40	4361V20. 1150	119.40	116.50	112.40
6.00	6	66	28	20	4361V20. 0600	64.80	63.20	60.90	11.80	12	102	55	40	4361V20. 1180	119.40	116.50	112.40
6.10	8	79	34	24	4361V20. 0610	72.30	70.50	68.00	12.00	12	102	55	40	4361V20. 1200	119.40	116.50	112.40
6.20	8	79	34	24	4361V20. 0620	72.30	70.50	68.00	12.50	14	107	60	43	4361V20. 1250	166.90	162.80	157.10
6.40	8	79	34	24	4361V20. 0640	72.30	70.50	68.00	12.80	14	107	60	43	4361V20. 1280	166.90	162.80	157.10
6.50	8	79	34	24	4361V20. 0650	72.30	70.50	68.00	13.00	14	107	60	43	4361V20. 1300	166.90	162.80	157.10
6.60	8	79	34	24	4361V20. 0660	72.30	70.50	68.00	13.50	14	107	60	43	4361V20. 1350	166.90	162.80	157.10
6.70	8	79	34	24	4361V20. 0670	72.30	70.50	68.00	13.80	14	107	60	43	4361V20. 1380	166.90	162.80	157.10
6.80	8	79	34	24	4361V20. 0680	72.30	70.50	68.00	14.00	14	107	60	43	4361V20. 1400	166.90	162.80	157.10
6.90	8	79	34	24	4361V20. 0690	72.30	70.50	68.00	14.50	16	115	65	45	4361V20. 1450	253.80	247.60	238.80
7.00	8	79	34	24	4361V20. 0700	72.30	70.50	68.00	14.80	16	115	65	45	4361V20. 1480	253.80	247.60	238.80
7.20	8	79	41	29	4361V20. 0720	72.30	70.50	68.00	15.00	16	115	65	45	4361V20. 1500	253.80	247.60	238.80
7.40	8	79	41	29	4361V20. 0740	72.30	70.50	68.00	15.50	16	115	65	45	4361V20. 1550	253.80	247.60	238.80
7.50	8	79	41	29	4361V20. 0750	72.30	70.50	68.00	15.80	16	115	65	45	4361V20. 1580	253.80	247.60	238.80
7.80	8	79	41	29	4361V20. 0780	72.30	70.50	68.00	16.00	16	115	65	45	4361V20. 1600	253.80	247.60	238.80
7.90	8	79	41	29	4361V20. 0790	72.30	70.50	68.00									







**Vollhartmetall-Spiralbohrer flexibel einsetzbar mit hoher Prozesssicherheit 3 / 5 x Dc mit Innenkühlung**

**Forets hélicoidaux en MD applicati-on flexible à haute sécurité du processus 3 / 5 x Dc arrosage interne**

**4361V17..  
3 x Dc**

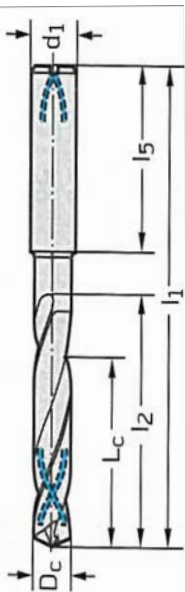
- Schaftform: DIN 6535 HA (Akt.), DIN 6535 HE auf Anfrage
- Hartmetall/Beschichtung: WJ30RE(TIALN)
- Spitzenwinkel: 140 °

- Géométrie de la tige DIN 6535 HA, selon DIN 6535HE sur demande
- Métal dur/Revêtement: WJ30RE(TIALN)
- angle de la pointe: 140 °



Dc	d1	I5	I1	lc	Best.Nr.4361V17..	CHF	Dc	d1	I5	I1	lc	Best.Nr.4361V17..	CHF	Dc	d1	I5	I1	lc	Best.Nr.4361V17..	CHF
h6					no.cde./ord.no.		h6					no.cde./ord.no.		h6					no.cde./ord.no.	
3.00	6	36	62	14	4361V17.0300	33.95	6.60	8	36	79	24	4361V17.0660	40.75	10.80	12	45	102	40	4361V17.1080	64.65
3.10	6	36	62	14	4361V17.0310	33.95	6.70	8	36	79	24	4361V17.0670	40.75	11.00	12	45	102	40	4361V17.1100	64.65
3.20	6	36	62	14	4361V17.0320	33.95	6.80	8	36	79	24	4361V17.0680	40.75	11.10	12	45	102	40	4361V17.1120	64.65
3.25	6	36	62	14	4361V17.0325	33.95	7.00	8	36	79	24	4361V17.0700	40.75	11.20	12	45	102	40	4361V17.1120	64.65
3.30	6	36	62	14	4361V17.0330	33.95	7.10	8	36	79	29	4361V17.0710	40.75	11.30	12	45	102	40	4361V17.1120	64.65
3.40	6	36	62	14	4361V17.0340	33.95	7.20	8	36	79	29	4361V17.0720	40.75	11.40	12	45	102	40	4361V17.1140	64.65
3.50	6	36	62	14	4361V17.0350	33.95	7.30	8	36	79	29	4361V17.0730	40.75	11.50	12	45	102	40	4361V17.1150	64.65
3.60	6	36	62	14	4361V17.0360	33.95	7.40	8	36	79	29	4361V17.0740	40.75	11.70	12	45	102	40	4361V17.1170	64.65
3.65	6	36	62	14	4361V17.0365	33.95	7.50	8	36	79	29	4361V17.0750	40.75	11.80	12	45	102	40	4361V17.1180	64.65
3.70	6	36	62	14	4361V17.0370	33.95	7.60	8	36	79	29	4361V17.0760	40.75	11.90	12	45	102	40	4361V17.1190	64.65
3.80	6	36	66	17	4361V17.0380	33.95	7.70	8	36	79	29	4361V17.0770	40.75	12.00	12	45	102	40	4361V17.1190	64.65
3.90	6	36	66	17	4361V17.0390	33.95	7.80	8	36	79	29	4361V17.0780	40.75	12.10	14	45	107	43	4361V17.1200	88.30
4.00	6	36	66	17	4361V17.0400	33.95	7.90	8	36	79	29	4361V17.0790	40.75	12.20	14	45	107	43	4361V17.1200	88.30
4.10	6	36	66	17	4361V17.0410	33.95	8.00	8	36	79	29	4361V17.0800	40.75	12.25	14	45	107	43	4361V17.1225	88.30
4.20	6	36	66	17	4361V17.0420	33.95	8.10	10	40	89	35	4361V17.0810	47.55	12.30	14	45	107	43	4361V17.1230	88.30
4.30	6	36	66	17	4361V17.0430	33.95	8.20	10	40	89	35	4361V17.0820	47.55	12.50	14	45	107	43	4361V17.1250	88.30
4.40	6	36	66	17	4361V17.0440	33.95	8.30	10	40	89	35	4361V17.0830	47.55	12.70	14	45	107	43	4361V17.1250	88.30
4.50	6	36	66	17	4361V17.0450	33.95	8.40	10	40	89	35	4361V17.0840	47.55	12.80	14	45	107	43	4361V17.1250	88.30
4.60	6	36	66	17	4361V17.0460	33.95	8.50	10	40	89	35	4361V17.0850	47.55	13.00	14	45	107	43	4361V17.1300	88.30
4.65	6	36	66	17	4361V17.0465	33.95	8.60	10	40	89	35	4361V17.0860	47.55	13.10	14	45	107	43	4361V17.1300	88.30
4.70	6	36	66	17	4361V17.0470	33.95	8.70	10	40	89	35	4361V17.0870	47.55	13.30	14	45	107	43	4361V17.1300	88.30
4.80	6	36	66	20	4361V17.0480	33.95	8.80	10	40	89	35	4361V17.0880	47.55	13.50	14	45	107	43	4361V17.1350	88.30
4.90	6	36	66	20	4361V17.0490	33.95	8.90	10	40	89	35	4361V17.0890	47.55	14.00	14	45	107	43	4361V17.1400	88.30
5.00	6	36	66	20	4361V17.0500	33.95	9.00	10	40	89	35	4361V17.0900	47.55	14.20	16	48	115	43	4361V17.1400	115.20
5.10	6	36	66	20	4361V17.0510	33.95	9.10	10	40	89	35	4361V17.0910	47.55	14.50	16	48	115	45	4361V17.1450	115.20
5.20	6	36	66	20	4361V17.0520	33.95	9.20	10	40	89	35	4361V17.0920	47.55	14.70	16	48	115	45	4361V17.1470	115.20
5.30	6	36	66	20	4361V17.0530	33.95	9.30	10	40	89	35	4361V17.0930	47.55	14.80	16	48	115	45	4361V17.1480	115.20
5.40	6	36	66	20	4361V17.0540	33.95	9.40	10	40	89	35	4361V17.0940	47.55	15.00	16	48	115	45	4361V17.1500	115.20
5.50	6	36	66	20	4361V17.0550	33.95	9.50	10	40	89	35	4361V17.0950	47.55	15.10	16	48	115	45	4361V17.1500	115.20
5.55	6	36	66	20	4361V17.0555	33.95	9.60	10	40	89	35	4361V17.0960	47.55	15.50	16	48	115	45	4361V17.1550	115.20
5.60	6	36	66	20	4361V17.0560	33.95	9.70	10	40	89	35	4361V17.0970	47.55	15.80	16	48	115	45	4361V17.1550	115.20
5.70	6	36	66	20	4361V17.0570	33.95	9.80	10	40	89	35	4361V17.0980	47.55	16.00	16	48	115	45	4361V17.1600	115.20
5.80	6	36	66	20	4361V17.0580	33.95	9.90	10	40	89	35	4361V17.0990	47.55	16.50	16	48	123	45	4361V17.1650	145.90
5.90	6	36	66	20	4361V17.0590	33.95	10.00	10	40	89	35	4361V17.1000	47.55	16.75	16	48	123	45	4361V17.1675	145.90
6.00	6	36	66	20	4361V17.0600	33.95	10.10	12	45	102	40	4361V17.1010	64.65	17.00	16	48	123	45	4361V17.1700	145.90
6.10	8	36	79	24	4361V17.0610	40.75	10.20	12	45	102	40	4361V17.1020	64.65	17.50	16	48	123	45	4361V17.1750	145.90
6.20	8	36	79	24	4361V17.0620	40.75	10.30	12	45	102	40	4361V17.1030	64.65	17.80	16	48	123	45	4361V17.1780	145.90
6.30	8	36	79	24	4361V17.0630	40.75	10.40	12	45	102	40	4361V17.1040	64.65	18.00	16	48	123	45	4361V17.1800	145.90
6.35	8	36	79	24	4361V17.0635	40.75	10.50	12	45	102	40	4361V17.1050	64.65	19.00	16	50	131	45	4361V17.1900	176.65
6.40	8	36	79	24	4361V17.0640	40.75	10.60	12	45	102	40	4361V17.1060	64.65	20.00	16	50	131	45	4361V17.1900	176.65
6.50	8	36	79	24	4361V17.0650	40.75														

**4361V25..  
5 x Dc**



Dc	lc	I5	I1	d1	Best.Nr.4361V25..	CHF	Dc	lc	I5	I1	d1	Best.Nr.4361V25..	CHF	Dc	lc	I5	I1	d1	Best.Nr.4361V25..	CHF
h6					no.cde./ord.no.		h6					no.cde./ord.no.		h6					no.cde./ord.no.	
3.00	23	36	66	6	4361V25.0300	42.45	7.70	43	43	91	8	4361V25.0770	50.95	12.80	60	45	124	14	4361V25.1280	110.10
3.10	23	36	66	6	4361V25.0310	42.45	7.80	43	43	91	8	4361V25.0780	50.95	12.90	60	45	124	14	4361V25.1290	110.10
3.20	23	36	66	6	4361V25.0320	42.45	7.90	43	43	91	8	4361V25.0790	50.95	13.00	60	45	124	14	4361V25.1300	110.10
3.25	23	36	66	6	4361V25.0325	42.45	8.00	43	43	91	8	4361V25.0800	50.95	13.20	60	45	124	14	4361V25.1320	110.10
3.30	23	36	66	6	4361V25.0330	42.45	8.10	49	49	103	10	4361V25.0810	59.40	13.30	60	45	124	14	4361V25.1330	110.10
3.40	23	36	66	6	4361V25.0340	42.45	8.20	49	49	103	10	4361V25.0820	59.40	13.40	60	45	124	14	4361V25.1340	110.10
3.50	23	36	66	6	4361V25.0350	42.45	8.30	49	49	103	10	4361V25.0830	59.40	13.50	60	45	124	14	4361V25.1350	110.10
3.60	23	36	66	6	4361V25.0360	42.45	8.40	49	49	103	10	4361V25.0840	59.40	13.60	60	45	124	14	4361V25.1360	110.10
3.65	23	36	66	6	4361V25.0365	42.45	8.50	49	49	103	10	4361V25.0850	59.40	13.70	60	45	124	14	4361V25.1370	110.10
3.70	23	36	66	6	4361V25.0370	42.45	8.60	49	49	103	10	4361V25.0860	59.40	13.80	60	45	124	14	4361V25.1380	110.10
3.80	29	36	74	6	4361V25.0380	42.45	8.70	49	49	103	10	4361V25.0870	59.40	13.90	60	45	124	14	4361V25.1390	110.10
3.90	29	36	74	6	4361V25.0390	42.45	8.80	49	49	103	10	4361V25.0880	59.40	14.00	60	45	124	14	4361V25.1400	110.10
4.00	29	36	74	6	4361V25.0400	42.45	8.90	49	49	103	10	4361V25.0890	59.40	14.10	63	48	133	16	4361V25.1410	144.00
4.10	29	36	74	6	4361V25.0410	42.45	9.00	49	49	103	10	4361V25.0900	59.40	14.20	63	48	133	16	4361V25.1420	144.00
4.20	29	36	74	6	4361V25.0420	42.45	9.10	49	49	103	10	4361V25.0910	59.40	14.30	63					

**Vollhartmetall-Spiralbohrer** *Forets hélicoidaux en carbure*  
 mit optimierter Schneiden- *monobloc avec arrêtes optimi-*  
 geometrie 6 x d1 ab Ø 2.5 mm *sées 6 x d1 dès Ø 2.5mm arro-*  
 mit Innenkühlung *sage intérieur*

Norm, HM.Sorte:DIN 6537 lang, Norme, nuance MD:sel.norme usine, Feinstkorn, Beschichtung: Futura Nano, longue, grain très fin, revêtement : Futuro Nano Top mit optimierten Gleiteigenschaften, Schaft, Spitzen-<: DIN 6535 HAK, h6 eingeschränkt für Schrupf-Dehnspannfutter, 140 °, Spitzenschliff: Sonderschliff, CNC-geschliffen Seitenspanwinkel 30 °, Nutenform: Spezielle Spankammergeometrie. **Anwendung:** Hochleistungsbohrwerkzeuge für höchste Ansprüche an Wirtschaftlichkeit und Bohrqualität, Bohren von: Grauguss, Temperguss, Stahl, Stahlguss, Chrom- und Nickelwerkstoffen, hochwärmfesten Stählen und kurzspannenden Werkstoffen.

**Speziell geeignet für CNC-Bohren mit grossen Vorschüben pro Umdrehung. Auf Wunsch Schaftform DIN 6535 HBK oder HEK gegen Mehrpreis lieferbar**

longue, grain très fin, revêtement : Futuro Nano Top, caractéristiques de glisser optimisées, Tige, <de la pointe: DIN 6535HAK h6 limitée pour des mandrin à contraction et extension,140° Affûtage d. la pointe: affûtage spéciale par CN, < de coupe des côtes : 30° Géométrie des hélices: Géométrie dessinés p. des copeaux plus épais

**Application:** Outils pour forer à haute puissance pour des exigences à une économie élevée et une qualité excellente. Forer de fonte grise, font malléable, acier, aciers moulés, alliages de chrom et nickel, aciers réfractaires, et des matériaux à copeaux courts.

**Est spécialement qualifié pour forer à CN à des avances très grandes. Sur demande: Tiege selon DIN 6535HBK ou HEK à frais additionnel livrables.**

**Carbide-twist drills with optimized cutting geometry, 6 x D, internal cooling canals**

Standard, carbide grade: factory standard long, micro grain, coating: Futuro Nano, with optimizd gliding characteristics, shank, front-<: DIN 6535 HAK, h6 reduced for shrinking, 140 ° head angle: CNC-ground, side rake angle: 30 °, helix-geometry: optimized chip flow geo-metry.

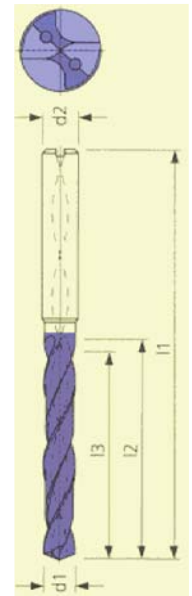
**Application:** High performance boring tools for the highest requirements on cost and bore quality, drilling of: Cast iron, malleable casting, steel, cast steel, stainless and nickel alloyed steels', temperature steels and short chip producing materials. **Specially suitable for CNC-drilling with increased feeds.** We supply also shanks according DIN 6535 HBK or HEK without upprice.

**4361V22..**  
6 x d1



Best. Nr no.cde.	Ø d1	I2	I3	Ø d2	I1	Fr.	Best. Nr no.cde.	Ø d1	I2	I3	Ø d2	I1	Fr.
4361V22. 0100	1.00	6.00	8.00	3.00	38.00	25.00	4361V22. 0180	1.80	10.80	13.80	3.00	38.00	25.00
4361V22. 0110	1.10	6.60	8.60	3.00	38.00	25.00	4361V22. 0190	1.90	11.40	14.40	3.00	38.00	25.00
4361V22. 0120	1.20	7.20	9.20	3.00	38.00	25.00	4361V22. 0200	2.00	12.00	15.00	3.00	50.00	25.00
4361V22. 0130	1.30	7.80	9.80	3.00	38.00	25.00	4361V22. 0210	2.10	12.60	15.60	3.00	50.00	25.00
4361V22. 0140	1.40	8.40	10.40	3.00	38.00	25.00	4361V22. 0220	2.20	13.20	16.20	3.00	50.00	25.00
4361V22. 0150	1.50	9.00	11.00	3.00	38.00	25.00	4361V22. 0230	2.30	13.80	16.80	3.00	50.00	25.00
4361V22. 0160	1.60	9.60	12.60	3.00	38.00	25.00	4361V22. 0240	2.40	14.40	17.40	3.00	50.00	25.00
4361V22. 0170	1.70	10.20	13.20	3.00	38.00	25.00							

Best. Nr no.cde.	Ø d1	I2	I3	Ø d2	I1	Fr.	Best. Nr no.cde.	Ø d1	I2	I3	Ø d2	I1	Fr.
4361V22. 0250	2.50	15.00	18.00	3.00	50.00	37.00	4361V22. 0730	7.30	43.80	54.00	8.00	95.00	86.00
4361V22. 0260	2.60	15.60	18.60	3.00	50.00	37.00	4361V22. 0740	7.40	44.40	54.50	8.00	95.00	86.00
4361V22. 0270	2.70	16.20	19.20	3.00	50.00	37.00	4361V22. 0750	7.50	45.00	55.00	8.00	95.00	86.00
4361V22. 0280	2.80	16.80	19.80	3.00	50.00	37.00	4361V22. 0760	7.60	45.60	55.50	8.00	95.00	86.00
4361V22. 0290	2.90	17.40	20.40	3.00	50.00	37.00	4361V22. 0770	7.70	46.20	56.00	8.00	95.00	86.00
4361V22. 0300	3.00	18.00	22.00	3.00	50.00	37.00	4361V22. 0780	7.80	46.80	57.00	8.00	95.00	86.00
4361V22. 0310	3.10	18.60	22.60	6.00	66.00	52.00	4361V22. 0790	7.90	47.40	57.50	8.00	95.00	86.00
4361V22. 0320	3.20	19.20	23.20	6.00	66.00	52.00	4361V22. 0800	8.00	48.00	58.00	8.00	95.00	86.00
4361V22. 0330	3.30	19.80	23.80	6.00	66.00	52.00	4361V22. 0810	8.10	48.60	59.50	10.00	106.00	95.00
4361V22. 0340	3.40	20.40	24.40	6.00	66.00	52.00	4361V22. 0820	8.20	49.20	60.00	10.00	106.00	95.00
4361V22. 0350	3.50	21.00	25.00	6.00	66.00	52.00	4361V22. 0830	8.30	49.80	61.00	10.00	106.00	95.00
4361V22. 0360	3.60	21.60	25.60	6.00	66.00	52.00	4361V22. 0840	8.40	50.40	61.50	10.00	106.00	95.00
4361V22. 0370	3.70	22.20	26.20	6.00	66.00	52.00	4361V22. 0850	8.50	51.00	62.00	10.00	106.00	95.00
4361V22. 0380	3.80	22.80	26.80	6.00	66.00	52.00	4361V22. 0860	8.60	51.60	62.50	10.00	106.00	95.00
4361V22. 0390	3.90	23.40	27.40	6.00	66.00	52.00	4361V22. 0870	8.70	52.20	63.00	10.00	106.00	95.00
4361V22. 0400	4.00	24.00	28.00	6.00	66.00	52.00	4361V22. 0880	8.80	52.80	64.00	10.00	106.00	95.00
4361V22. 0410	4.10	24.60	30.50	6.00	79.00	62.00	4361V22. 0890	8.90	53.40	64.50	10.00	106.00	95.00
4361V22. 0420	4.20	25.20	31.00	6.00	79.00	62.00	4361V22. 0900	9.00	54.00	65.00	10.00	106.00	95.00
4361V22. 0430	4.30	25.80	32.00	6.00	79.00	62.00	4361V22. 0910	9.10	54.60	65.50	10.00	113.00	99.00
4361V22. 0440	4.40	26.40	32.50	6.00	79.00	62.00	4361V22. 0920	9.20	55.20	66.00	10.00	113.00	99.00
4361V22. 0450	4.50	27.00	33.00	6.00	79.00	62.00	4361V22. 0930	9.30	55.80	67.00	10.00	113.00	99.00
4361V22. 0460	4.60	27.60	35.50	6.00	79.00	62.00	4361V22. 0940	9.40	56.40	67.50	10.00	113.00	99.00
4361V22. 0470	4.70	28.20	36.00	6.00	79.00	62.00	4361V22. 0950	9.50	57.00	68.00	10.00	113.00	99.00
4361V22. 0480	4.80	28.80	37.00	6.00	79.00	62.00	4361V22. 0960	9.60	57.60	68.50	10.00	113.00	99.00
4361V22. 0490	4.90	29.40	37.50	6.00	79.00	62.00	4361V22. 0970	9.70	58.20	69.00	10.00	113.00	99.00
4361V22. 0500	5.00	30.00	38.00	6.00	79.00	62.00	4361V22. 0980	9.80	58.80	70.00	10.00	113.00	99.00
4361V22. 0510	5.10	30.60	38.50	6.00	79.00	69.00	4361V22. 0990	9.90	59.40	70.50	10.00	113.00	99.00
4361V22. 0520	5.20	31.20	39.00	6.00	79.00	69.00	4361V22. 1000	10.00	60.00	72.00	10.00	113.00	99.00
4361V22. 0530	5.30	31.80	40.00	6.00	79.00	69.00	4361V22. 1010	10.10	60.60	72.50	12.00	125.00	99.00
4361V22. 0540	5.40	32.40	40.50	6.00	79.00	69.00	4361V22. 1020	10.20	61.20	73.00	12.00	125.00	138.00
4361V22. 0550	5.50	33.00	41.00	6.00	79.00	69.00	4361V22. 1030	10.30	61.80	74.00	12.00	125.00	138.00
4361V22. 0560	5.60	33.60	41.50	6.00	81.00	69.00	4361V22. 1040	10.40	62.40	74.50	12.00	125.00	138.00
4361V22. 0570	5.70	34.20	42.00	6.00	81.00	69.00	4361V22. 1050	10.50	63.00	75.00	12.00	125.00	138.00
4361V22. 0580	5.80	34.80	43.00	6.00	81.00	69.00	4361V22. 1060	10.60	63.60	75.50	12.00	125.00	138.00
4361V22. 0590	5.90	35.40	43.50	6.00	81.00	69.00	4361V22. 1070	10.70	64.20	76.00	12.00	125.00	138.00
4361V22. 0600	6.00	36.00	44.00	6.00	81.00	69.00	4361V22. 1080	10.80	64.80	77.00	12.00	125.00	138.00
4361V22. 0610	6.10	36.60	45.50	8.00	89.00	82.00	4361V22. 1090	10.90	65.40	77.50	12.00	125.00	138.00
4361V22. 0620	6.20	37.20	46.00	8.00	89.00	82.00	4361V22. 1100	11.00	66.00	79.00	12.00	125.00	138.00
4361V22. 0630	6.30	37.80	47.00	8.00	89.00	82.00	4361V22. 1110	11.10	66.60	79.50	12.00	132.00	145.00
4361V22. 0640	6.40	38.40	47.50	8.00	89.00	82.00	4361V22. 1120	11.20	67.20	80.00	12.00	132.00	145.00
4361V22. 0650	6.50	39.00	48.00	8.00	89.00	82.00	4361V22. 1130	11.30	67.80	81.00	12.00	132.00	145.00
4361V22. 0660	6.60	39.60	48.50	8.00	89.00	82.00	4361V22. 1140	11.40	68.40	81.50	12.00	132.00	145.00
4361V22. 0670	6.70	40.20	49.00	8.00	89.00	82.00	4361V22. 1150	11.50	69.00	82.00	12.00	132.00	145.00
4361V22. 0680	6.80	40.80	50.00	8.00	89.00	82.00	4361V22. 1160	11.60	69.60	82.50	12.00	132.00	145.00
4361V22. 0690	6.90	41.40	50.50	8.00	89.00	82.00	4361V22. 1170	11.70	70.20	83.00	12.00	132.00	145.00
4361V22. 0700	7.00	42.00	52.00	8.00	89.00	82.00	4361V22. 1180	11.80	70.80	84.00	12.00	132.00	145.00
4361V22. 0710	7.10	42.60	52.50	8.00	95.00	86.00	4361V22. 1190	11.90	71.40	84.50	12.00	132.00	145.00
4361V22. 0720	7.20	43.20	53.50	8.00	95.00	86.00	4361V22. 1200	12.00	72.00	86.00	12.00	132.00	145.00
4361V22. 0730	7.30	43.80	54.00	8.00	95.00	86.00	4361V22. 1250	12.50	75.00	90.00	14.00	140.00	185.00
4361V22. 0740	7.40	44.40	54.50	8.00	95.00	86.00	4361V22. 1270	12.70	76.20	91.00	14.00	140.00	185.00





4361V28..  
8 x d1

**Vollhartmetall-Spiralbohrer mit opt. Schneidengeometrie 8 x d1 mit Innenkühlung**

**Forets hélicoïdaux en carb. monobloc av. arrêtes optimis. 8 x d1 et arrosage intérieur**

**Carbide-twist drills with optimized cutting geometry, 8 x d1, internal cooling canals**



Norm, HM.Sorte:DIN 6537 lang, Feinstkorn, Beschichtung: Auf Basis TiAlN mit optimierten Gleiteigenschaften  
Schaft, Spitzen-<: DIN 6535 HA/HE (-0.002-0.005) eingeschränkt für Schrumpf u. Dehnspannfutter), 140 ° Spitzenanschliff: Sonderschliff, CNC-geschliffen, Seitenspanwinkel: 30 ° Nutenform: Spezielle Spankammergeometrie. **Anwendung:** Hochleistungsbohrwerkzeuge für höchste Ansprüche an Wirtschaftlichkeit und Bohrqualität, Bohren von: Grauguss, Temperguss, Stahl, Stahlguss, Chrom- und Nickelwerkstoffen, hochwarmfesten Stählen und kurzspannenden Werkstoffen.

Norme, nuance MD: sel.DIN 6537 longue, Standard, carbide grade: DIN 6537 grain très fin, revêtement: Base TiAlN, short, micro grain, coating: TiAlN with caractéristiques de glisser optimisées, optimizd gliding characteristics, shank, Tige, <de la pointe: DIN 6535HA/HE, tol. front-<: DIN 6535 HA/HE, (-0.002-0.005) limitée pour des mandrin reduced for shrinking, 140 ° h e a d à contraction et extension, 140 °, angle: CNC-ground, side rake angle: 30 Affûtage de la pointe: affûtage spéciale °, helix -geometry: optimized chip flow contrôlée par CN, < de coupe des côtes: geometry. 30°, géométrie des hélices: Géométrie dessinés p. des copeaux plus épais. **Application:** Outils pour forer à haute puissance pour des exigences à une économie élevée et une qualité excellente. Forer de fonte grise, font malléable, acier, aciers moulés, alliages de chrom et nickel, aciers réfractaires, et des matériaux à copeaux courts. **Est spécialement qualifié pour forer à CN à des avances très grandes.**

Application: High performance boring tools for the highest requirements on cost and bore quality, drilling of: Cast iron, malleable casting, steel, cast steel, stainless and nickel alloyed steels, temperature steels and short chip producing materials. **Specially suitable for CNC-drilling with increased feeds.**

**Speziell geeignet für CNC-Bohren mit grossen Vorschüben pro Umdrehung.**

**Est spécialement qualifié pour forer à CN à des avances très grandes.**

**Application:** High performance boring tools for the highest requirements on cost and bore quality, drilling of: Cast iron, malleable casting, steel, cast steel, stainless and nickel alloyed steels, temperature steels and short chip producing materials.

**Specially suitable for CNC-drilling with increased feeds.**

d1	d2	l	l1	l2	Best.Nr.	1-4 Stck.	ab/dès 5	d1	d2	l	l1	l2	Best.Nr...	1-4 Stck.	ab/dès 5
m7	h6				no.cde.	CHF	CHF	m7	h6				no.cde.	CHF	CHF
3.00	6	36	70	28	4361V28. 0300	75.95	72.15	8.20	8	40	122	68	4361V28. 0800	121.70	115.60
3.10	6	36	70	28	4361V28. 0310	75.95	72.15	8.30	8	40	122	68	4361V28. 0800	121.70	115.60
3.20	6	36	70	28	4361V28. 0320	75.95	72.15	8.40	8	40	122	68	4361V28. 0800	121.70	115.60
3.30	6	36	70	28	4361V28. 0330	75.95	72.15	8.50	10	40	122	68	4361V28. 0850	121.70	115.60
3.40	6	36	70	28	4361V28. 0340	75.95	72.15	8.60	10	40	122	68	4361V28. 0850	121.70	115.60
3.50	6	36	70	28	4361V28. 0350	75.95	72.15	8.70	10	40	122	68	4361V28. 0850	121.70	115.60
3.60	6	36	70	28	4361V28. 0360	75.95	72.15	8.80	10	40	122	68	4361V28. 0850	121.70	115.60
3.70	6	36	70	28	4361V28. 0370	75.95	72.15	8.90	10	40	122	68	4361V28. 0850	121.70	115.60
3.80	6	36	80	36	4361V28. 0380	75.95	72.15	9.00	10	40	122	68	4361V28. 0900	121.70	115.60
3.90	6	36	80	36	4361V28. 0390	75.95	72.15	9.10	10	40	130	76	4361V28. 0950	121.70	115.60
4.00	6	36	80	36	4361V28. 0400	75.95	72.15	9.20	10	40	130	76	4361V28. 0950	121.70	115.60
4.10	6	36	80	36	4361V28. 0410	75.95	72.15	9.30	10	40	130	76	4361V28. 0950	121.70	115.60
4.20	6	36	80	36	4361V28. 0420	75.95	72.15	9.40	10	40	130	76	4361V28. 0950	121.70	115.60
4.30	6	36	80	36	4361V28. 0430	75.95	72.15	9.50	10	40	130	76	4361V28. 0950	121.70	115.60
4.40	6	36	80	36	4361V28. 0440	75.95	72.15	9.60	10	40	130	76	4361V28. 0950	121.70	115.60
4.50	6	36	80	36	4361V28. 0450	75.95	72.15	9.70	10	40	130	76	4361V28. 0950	121.70	115.60
4.60	6	36	80	36	4361V28. 0460	75.95	72.15	9.80	10	40	130	76	4361V28. 0950	121.70	115.60
4.70	6	36	80	36	4361V28. 0470	75.95	72.15	9.90	10	40	130	76	4361V28. 0950	121.70	115.60
4.80	6	36	92	45	4361V28. 0480	75.95	72.15	10.00	10	40	130	76	4361V28. 1000	121.70	115.60
4.90	6	36	92	45	4361V28. 0590	75.95	72.15	10.10	12	45	152	90	4361V28. 1010	153.45	145.70
5.00	6	36	92	45	4361V28. 0500	75.95	72.15	10.20	12	45	152	90	4361V28. 1020	153.45	145.70
5.10	6	36	92	45	4361V28. 0510	75.95	72.15	10.30	12	45	152	90	4361V28. 1020	153.45	145.70
5.20	6	36	92	45	4361V28. 0520	75.95	72.15	10.40	12	45	152	90	4361V28. 1050	153.45	145.70
5.30	6	36	92	45	4361V28. 0530	75.95	72.15	10.50	12	45	152	90	4361V28. 1050	153.45	145.70
5.40	6	36	92	45	4361V28. 0540	75.95	72.15	10.60	12	45	152	90	4361V28. 1050	153.45	145.70
5.50	6	36	92	45	4361V28. 0550	75.95	72.15	10.70	12	45	152	90	4361V28. 1050	153.45	145.70
5.60	6	36	92	45	4361V28. 0560	75.95	72.15	10.80	12	45	152	90	4361V28. 1050	153.45	145.70
5.70	6	36	92	45	4361V28. 0570	75.95	72.15	10.90	12	45	152	90	4361V28. 1050	153.45	145.70
5.80	6	36	92	45	4361V28. 0580	75.95	72.15	11.00	12	45	152	90	4361V28. 1100	153.45	145.70
5.90	6	36	92	45	4361V28. 0590	75.95	72.15	11.10	12	45	152	90	4361V28. 1100	153.45	145.70
6.00	6	36	92	45	4361V28. 0600	75.95	72.15	11.20	12	45	152	90	4361V28. 1100	153.45	145.70
6.10	8	36	100	52	4361V28. 0650	88.35	83.95	11.30	12	45	152	90	4361V28. 1100	153.45	145.70
6.20	8	36	100	52	4361V28. 0650	88.35	83.95	11.40	12	45	152	90	4361V28. 1100	153.45	145.70
6.30	8	36	100	52	4361V28. 0650	88.35	83.95	11.50	12	45	152	90	4361V28. 1150	153.45	145.70
6.40	8	36	100	52	4361V28. 0650	88.35	83.95	11.60	12	45	152	90	4361V28. 1150	153.45	145.70
6.50	8	36	100	52	4361V28. 0650	88.35	83.95	11.70	12	45	152	90	4361V28. 1150	153.45	145.70
6.60	8	36	100	52	4361V28. 0650	88.35	83.95	11.80	12	45	152	90	4361V28. 1150	153.45	145.70
6.70	8	36	100	52	4361V28. 0650	88.35	83.95	11.90	12	45	152	90	4361V28. 1150	153.45	145.70
6.80	8	36	100	52	4361V28. 0680	88.35	83.95	12.00	12	45	152	90	4361V28. 1200	153.45	145.70
6.90	8	36	108	60	4361V28. 0680	88.35	83.95	12.50	14	45	170	106	4361V28. 1250	238.70	226.75
7.00	8	36	108	60	4361V28. 0700	88.35	83.95	12.80	14	45	170	106	4361V28. 1250	238.70	226.75
7.10	8	36	108	60	4361V28. 0750	88.35	83.95	13.00	14	45	170	106	4361V28. 1300	238.70	226.75
7.20	8	36	108	60	4361V28. 0750	88.35	83.95	13.30	14	45	170	106	4361V28. 1300	238.70	226.75
7.30	8	36	108	60	4361V28. 0750	88.35	83.95	13.50	14	45	170	106	4361V28. 1350	238.70	226.75
7.40	8	36	108	60	4361V28. 0750	88.35	83.95	13.80	14	45	170	106	4361V28. 1350	238.70	226.75
7.50	8	36	108	60	4361V28. 0750	88.35	83.95	14.00	14	45	170	106	4361V28. 1400	238.70	226.75
7.60	8	36	108	60	4361V28. 0750	88.35	83.95	14.50	16	48	192	122	4361V28. 1450	302.25	287.15
7.70	8	36	108	60	4361V28. 0750	88.35	83.95	14.80	16	48	192	122	4361V28. 1450	302.25	287.15
7.80	8	36	108	60	4361V28. 0750	88.35	83.95	15.00	16	48	192	122	4361V28. 1500	302.25	287.15
7.90	8	36	108	60	4361V28. 0750	88.35	83.95	15.50	16	48	192	122	4361V28. 1550	302.25	287.15
8.00	8	36	108	60	4361V28. 0750	88.35	83.95	15.80	16	48	192	122	4361V28. 1550	302.25	287.15
8.10	10	40	122	95	4361V28. 0810	121.70	115.60	16.00	16	48	192	122	4361V28. 1600	302.25	287.15

4.361V28113

**Hartmetall-Spiralbohrer mit opt. Schneidengeometrie 12 x d1 ab Ø 2.5 Innenkühl.**

**Forets hélicoidaux en carbure avec arrêtes optim. 12 x d1 dès Ø 2.5 arrosage intérieur**

**Carbide-twist drills with optimized cutting geometry, 12 x d1, int. cooling canals**

**4361V30..  
12 x d1**

Norm, HM.Sorte:DIN 6537 lang, Feinstkorn, Beschichtung: Futura Nano Top mit optimierten Gleiteigenschaften, Schaft, Spitzen-<: DIN 6535 HAK, h6 eingeschränkt für Schrumpf-Dehnspannfutter,140°, Spitzenanschliff: Sonderschliff, CNC-geschliffen Seitenspanwinkel 30°, Nutenform: Spezielle Spankammergeometrie.

**Anwendung:** Hochleistungsbohrwerkzeuge für höchste Ansprüche an Wirtschaftlichkeit und Bohrqualität, Bohren von: Grauguss, Temperguss, Stahl, Stahlguss, Chrom- u. Nickelwerkstoffen, hochwarmfesten Stählen und kurzspanenden Werkstoffen.

**Speziell geeignet für CNC-Bohren mit grossen Vorschüben pro Umdrehung. Auf Wunsch Schaftform DIN 6535 HBK oder HEK gegen Mehrpreis lieferbar**

Norme, nuance MD:sel.norme usine, longue, grain très fin, revêtement : Futuro Nano Top, caractéristiques de glisser optimisées, Tige, <de la pointe: DIN 6535HAK h6 limitée pour des mandrin à contraction et extension, 140° Affûtage d. la pointe: affûtage spéciale par CN, < de coupe des côtes : 30° Géométrie des hélices: Géométrie desinés p. des copeaux plus épais

**Application:** Outils pour forer à haute puissance pour des exigences à une économie élevée et une qualité excellente. Forer de fonte grise, font malléable, acier, aciers moulés, alliages de chrom et nickel, aciers réfractaires, et des matériaux à copeaux courts.

**Est spécialement qualifié pour forer à CN à des avances très grandes. Sur demande: Tiegé selon DIN 6535HBK ou HEK à frais additionel livrables.**

Standard, carbide grade: factory standard long, micro grain, coating: Futuro Nano, with optimizd gliding characte-ristics, shank, front-<: DIN 6535 HAK, h6 reduced for shrinking, 140 ° head angle: CNC-ground, side rake angle: 30 °, helix-geometry: optimized chip flow geometry.

**Application:** High performance boring tools for the highest requirements on cost and bore quality, drilling of: Cast iron, malleable casting, steel, cast steel, stainless and nickel alloyed steels, temperature steels and short chip producing materials. **Specially suitable for CNC-drilling with increased feeds. We supply also shanks according DIN 6535 HBK or HEK with upprice.**



Best. Nr no.cde.	Ø d1	l2	l3	Ø d2	l1	Fr.
4361V30. 0100	1.00	12.00	14.00	3.00	50.00	32.00
4361V30. 0110	1.10	13.20	15.50	3.00	50.00	32.00
4361V30. 0120	1.20	14.40	16.50	3.00	50.00	32.00
4361V30. 0130	1.30	15.60	17.50	3.00	50.00	32.00
4361V30. 0140	1.40	16.80	19.00	3.00	50.00	32.00
4361V30. 0150	1.50	18.00	21.00	3.00	50.00	32.00
4361V30. 0160	1.60	19.20	22.50	3.00	50.00	32.00
4361V30. 0170	1.70	20.40	23.50	3.00	50.00	32.00

Best. Nr no.cde.	Ø d1	l2	l3	Ø d2	l1	Fr.
4361V30. 0180	1.80	21.60	24.50	3.00	50.00	32.00
4361V30. 0190	1.90	22.80	26.00	3.00	55.00	37.00
4361V30. 0200	2.00	24.00	27.00	3.00	55.00	37.00
4361V30. 0210	2.10	25.20	28.50	3.00	55.00	37.00
4361V30. 0220	2.20	26.40	29.50	3.00	55.00	37.00
4361V30. 0230	2.30	27.60	30.50	3.00	55.00	37.00
4361V30. 0240	2.40	28.80	32.00	3.00	55.00	37.00

Best. Nr no.cde.	Ø d1 h6	l2	l3	Ø d2 h6	l1	Fr.
4361V30. 0250	2.50	30.00	33.00	3.00	60.00	53.00
4361V30. 0260	2.60	31.20	34.40	3.00	60.00	53.00
4361V30. 0270	2.70	32.40	35.50	3.00	60.00	53.00
4361V30. 0280	2.80	33.60	36.50	3.00	60.00	53.00
4361V30. 0290	2.90	34.80	38.00	3.00	60.00	53.00
4361V30. 0300	3.00	36.00	40.00	3.00	60.00	53.00
4361V30. 0310	3.10	37.20	41.50	6.00	80.00	92.00
4361V30. 0320	3.20	38.40	42.50	6.00	80.00	92.00
4361V30. 0330	3.30	39.60	43.50	6.00	80.00	92.00
4361V30. 0340	3.40	40.80	45.00	6.00	85.00	92.00
4361V30. 0350	3.50	42.00	47.00	6.00	85.00	92.00
4361V30. 0360	3.60	43.20	48.50	6.00	85.00	92.00
4361V30. 0370	3.70	44.40	49.50	6.00	90.00	92.00
4361V30. 0380	3.80	45.60	50.50	6.00	90.00	92.00
4361V30. 0390	3.90	46.80	52.00	6.00	90.00	92.00
4361V30. 0400	4.00	48.00	53.00	6.00	90.00	92.00
4361V30. 0410	4.10	49.20	55.50	6.00	105.00	110.00
4361V30. 0420	4.20	50.40	56.50	6.00	105.00	110.00
4361V30. 0430	4.30	51.60	57.50	6.00	105.00	110.00
4361V30. 0440	4.40	52.80	59.00	6.00	105.00	110.00
4361V30. 0450	4.50	54.00	60.00	6.00	105.00	110.00
4361V30. 0460	4.60	55.20	63.50	6.00	105.00	110.00
4361V30. 0470	4.70	56.40	64.50	6.00	105.00	110.00
4361V30. 0480	4.80	57.60	65.50	6.00	105.00	110.00
4361V30. 0490	4.90	58.80	67.00	6.00	105.00	110.00
4361V30. 0500	5.00	60.00	68.00	6.00	105.00	110.00
4361V30. 0510	5.10	61.20	69.50	6.00	118.00	115.00
4361V30. 0520	5.20	62.40	70.50	6.00	118.00	115.00
4361V30. 0530	5.30	63.60	71.50	6.00	118.00	115.00
4361V30. 0540	5.40	64.80	73.00	6.00	118.00	115.00
4361V30. 0550	5.50	66.00	74.00	6.00	118.00	115.00
4361V30. 0560	5.60	67.20	75.50	6.00	118.00	115.00
4361V30. 0570	5.70	68.40	76.50	6.00	118.00	115.00
4361V30. 0580	5.80	69.60	77.50	6.00	118.00	115.00
4361V30. 0590	5.90	70.80	79.00	6.00	118.00	115.00
4361V30. 0600	6.00	72.00	80.00	6.00	118.00	115.00
4361V30. 0610	6.10	73.20	82.50	8.00	136.00	153.00
4361V30. 0620	6.20	74.40	83.50	8.00	136.00	153.00
4361V30. 0630	6.30	75.60	84.50	8.00	136.00	153.00
4361V30. 0640	6.40	76.80	86.00	8.00	136.00	153.00
4361V30. 0650	6.50	78.00	87.50	8.00	136.00	153.00
4361V30. 0660	6.60	79.20	88.50	8.00	136.00	153.00
4361V30. 0670	6.70	80.40	89.50	8.00	136.00	153.00
4361V30. 0680	6.80	81.60	90.50	8.00	136.00	153.00
4361V30. 0690	6.90	82.80	92.00	8.00	136.00	153.00
4361V30. 0700	7.00	84.00	94.00	8.00	136.00	153.00
4361V30. 0710	7.10	85.20	95.50	8.00	148.00	161.00
4361V30. 0720	7.20	86.40	96.50	8.00	148.00	161.00
4361V30. 0730	7.30	87.60	97.50	8.00	148.00	161.00

Best. Nr no.cde.	Ø d1 h6	l2	l3	Ø d2 h6	l1	Fr.
4361V30. 0740	7.40	88.80	99.00	8.00	148.00	161.00
4361V30. 0750	7.50	90.00	100.00	8.00	148.00	161.00
4361V30. 0760	7.60	91.20	101.50	8.00	148.00	161.00
4361V30. 0770	7.70	92.40	102.50	8.00	148.00	161.00
4361V30. 0780	7.80	93.60	103.50	8.00	148.00	161.00
4361V30. 0790	7.90	94.80	105.00	8.00	148.00	161.00
4361V30. 0800	8.00	96.00	106.00	8.00	148.00	161.00
4361V30. 0810	8.10	97.20	108.50	10.00	162.00	213.00
4361V30. 0820	8.20	98.40	109.50	10.00	162.00	213.00
4361V30. 0830	8.30	99.60	110.50	10.00	162.00	213.00
4361V30. 0840	8.40	100.80	112.00	10.00	162.00	213.00
4361V30. 0850	8.50	102.00	113.00	10.00	162.00	213.00
4361V30. 0860	8.60	103.20	114.50	10.00	162.00	213.00
4361V30. 0870	8.70	104.40	115.50	10.00	162.00	213.00
4361V30. 0880	8.80	105.60	116.50	10.00	162.00	213.00
4361V30. 0890	8.90	106.80	118.00	10.00	162.00	213.00
4361V30. 0900	9.00	108.00	119.00	10.00	162.00	213.00
4361V30. 0910	9.10	109.20	120.50	10.00	175.00	241.00
4361V30. 0920	9.20	110.40	121.50	10.00	175.00	241.00
4361V30. 0930	9.30	111.60	122.50	10.00	175.00	241.00
4361V30. 0940	9.40	112.80	124.00	10.00	175.00	241.00
4361V30. 0950	9.50	114.00	125.00	10.00	175.00	241.00
4361V30. 0960	9.60	115.20	126.50	10.00	175.00	241.00
4361V30. 0970	9.70	116.40	127.50	10.00	175.00	241.00
4361V30. 0980	9.80	117.60	128.50	10.00	175.00	241.00
4361V30. 0990	9.90	118.80	130.00	10.00	175.00	241.00
4361V30. 1000	10.00	120.00	132.00	10.00	175.00	241.00
4361V30. 1010	10.10	121.20	133.50	12.00	193.00	303.00
4361V30. 1020	10.20	122.40	134.50	12.00	193.00	303.00
4361V30. 1030	10.30	123.60	135.50	12.00	193.00	303.00
4361V30. 1040	10.40	124.80	137.00	12.00	193.00	303.00
4361V30. 1050	10.50	126.00	138.00	12.00	193.00	303.00
4361V30. 1060	10.60	127.20	139.50	12.00	193.00	303.00
4361V30. 1070	10.70	128.40	140.50	12.00	193.00	303.00
4361V30. 1080	10.80	129.60	141.50	12.00	193.00	303.00
4361V30. 1090	10.90	130.80	143.00	12.00	193.00	303.00
4361V30. 1100	11.00	132.00	145.00	12.00	193.00	303.00
4361V30. 1110	11.10	133.20	146.50	12.00	205.00	317.00
4361V30. 1120	11.20	134.40	147.50	12.00	205.00	317.00
4361V30. 1130	11.30	135.60	148.50	12.00	205.00	317.00
4361V30. 1140	11.40	136.80	150.00	12.00	205.00	317.00
4361V30. 1150	11.50	138.00	151.00	12.00	205.00	317.00
4361V30. 1160	11.60	139.20	152.50	12.00	205.00	317.00
4361V30. 1170	11.70	140.40	153.50	12.00	205.00	317.00
4361V30. 1180	11.80	141.60	154.50	12.00	205.00	317.00
4361V30. 1190	11.90	142.80	156.00	12.00	205.00	317.00
4361V30. 1200	12.00	144.00	158.00	12.00	205.00	317.00
4361V30. 1250	12.50	150.00	164.00	14.00	218.00	446.00
4361V30. 1270	12.70	142.40	166.50	14.00	218.00	446.00

