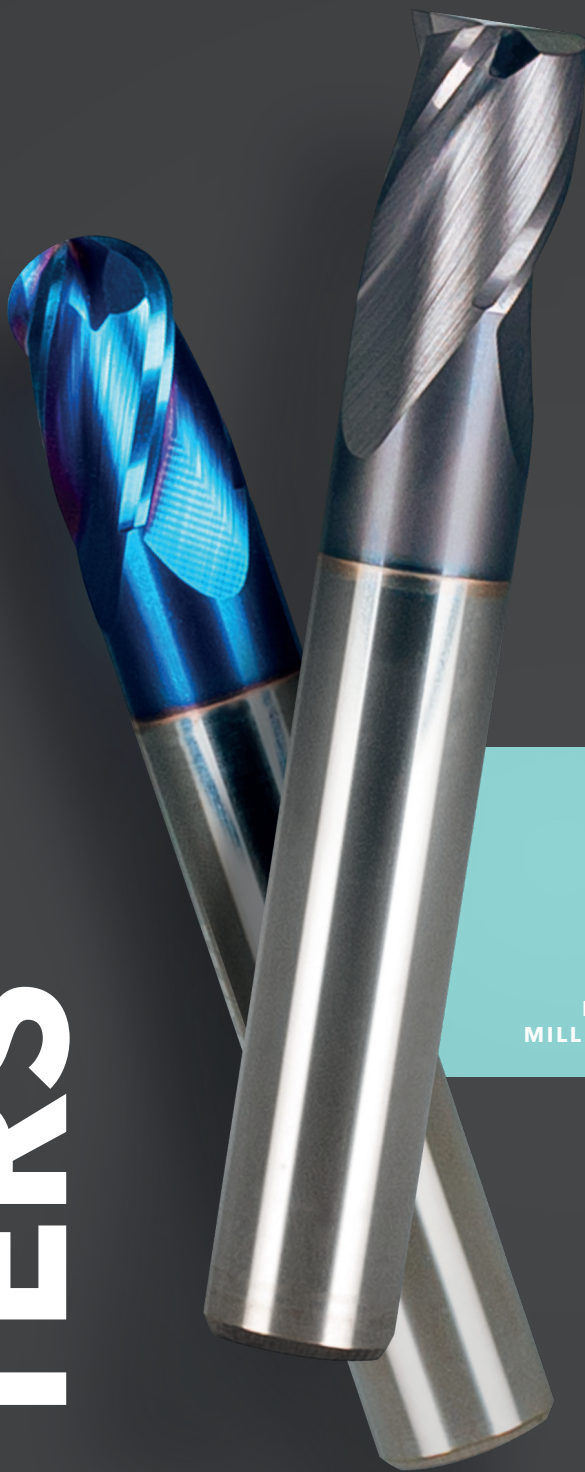
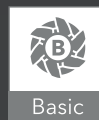


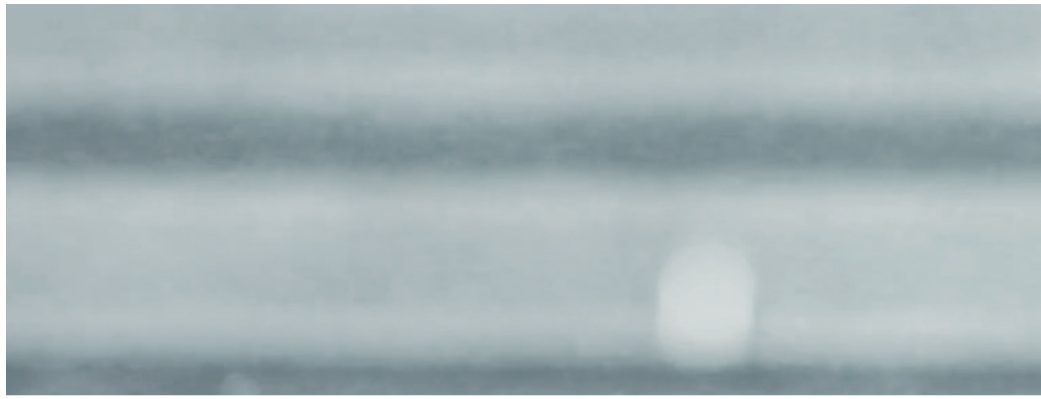
HOFMANN & VRATNY — SC MILLING CUTTERS EN

MINI END MILL CUTTERS



13
SC BASIC
MINI END
MILL CUTTERS





MINI END MILL CUTT

3

PRODUCTION
SITES

43

YEARS OF
EXPERIENCE

120

MOTIVATED
EMPLOYEES

SOLID QUALITY FOR PRICE-SENSITIVE APPLICATIONS.

With our Basic-line mini end mill cutters, we have developed a particularly attractively priced alternative to our Expert and Premium line mini cutters. The polished section, material and coating are all premium quality. This makes our mini end mill cutters perfect for particularly price-sensitive applications.

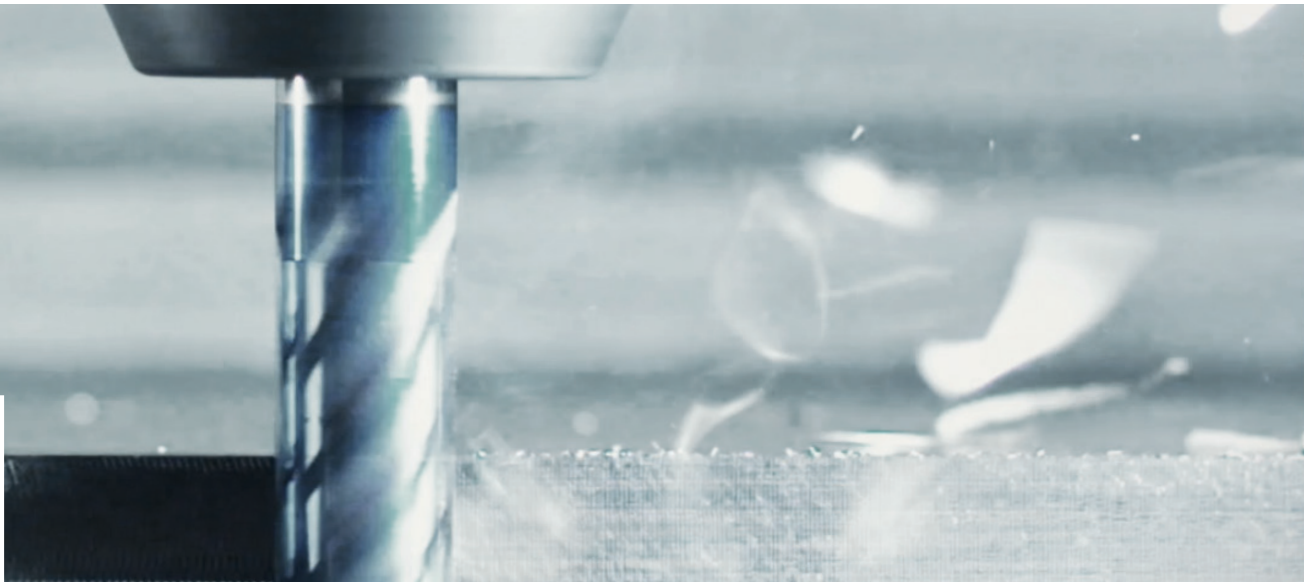
100% QUALITY

100% SERVICE LIFE

100% PRICE SAVING

A solid tool for universal machining, the mini end mill cutters are suited to many applications. The milling cutters are available as full radius cutters with a diameter of 0.5 - 12 mm and as end mill cutters with a diameter of 1 - 16 mm, with a helical pitch of 30° and 45°.

ERS



**OPTIMISED
POLISHED SECTION**

**PREMIUM
CARBIDE**



**RENOWNED H&V
QUALITY AT AN
ATTRACTIVE PRICE**

**NARROW TOLERANCES
AND HIGH CONCENTRIC
ACCURACY**

PREMIUM COATING



MADE BAVARIA

Our milling cutters are used by companies all over the world. Still they all have the same origin: Our production sites in Bavaria, Germany.

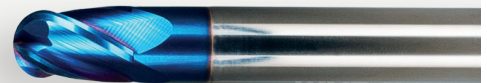
As a traditional company, we are proud of our strong connection to the region. Ever since we were founded, we have been firmly tied to our homeland, and our team works on producing the best milling cutters in the world in a familial environment. Genuine quality work, the highest-quality craftsmanship and a strong promotion and retention of our talent: This is what Made in Bavaria means to us.

IN RIA



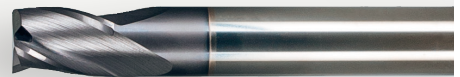
H&V EXPERTS FOR PRICE-SENSITIVE APPLICATIONS

**SC
FULL RADIUS
CUTTERS**



K203373

SC END MILL CUTTERS



K201253 | K201273
K201254 | K201274



K201673 | K201677
K201674 | K201678




K201251 | K201271
K201252 | K201272

NUMBERING SYSTEM

ARTICLEGROUP

SC milling cutter - - - - -

Catalog item - - - - -



K 2 03 388

Product group - - - - -

Product name - - - - -

MILLING CUTTERS

Articlegroup - - - - -




K201673 - 16

Cutting diameter - - - - -

MILLING CUTTERS DISTINGUISHED BY LENGTH

Articlegroup - - - - -




K201123 - 2 X 8

Cutting diameter - - - - -

Distinction by length of cut or length of undercut - - - - -

MILLING CUTTERS WITH ADDITIONAL DISTINGUISHING FEATURE

Articlegroup - - - - -



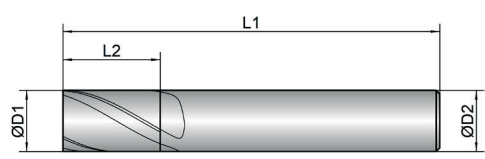
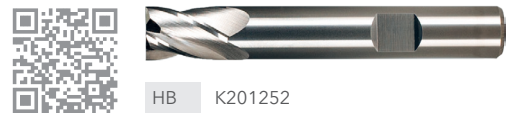
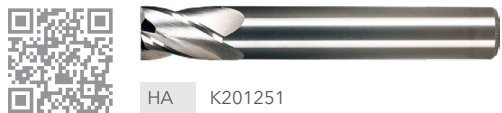
K202223 - 8 / 3

Cutting diameter - - - - -

Distinction by corner radius or shank diameter - - - - -

Cooling	
Tolerance	e8
Coating	-

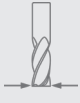


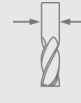


HA HB UNI **NEW** Basic



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
80	55	40					60	70	210							

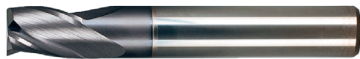
K201251	K201252	D1 mm ø	L2 mm	L1 mm	D2 mm ø	z #	 °
1	1	1.0	2.0	45.0	6.0	3	30
1,2	1,2	1.2	2.0	45.0	6.0	3	30
1,5	1,5	1.5	3.0	45.0	6.0	3	30
1,8	1,8	1.8	3.0	45.0	6.0	3	30
2	2	2.0	4.0	45.0	6.0	3	30
2,5	2,5	2.5	4.0	45.0	6.0	3	30
2,8	2,8	2.8	6.0	45.0	6.0	3	30
3	3	3.0	6.0	45.0	6.0	3	30
3,5	3,5	3.5	6.0	45.0	6.0	3	30
3,8	3,8	3.8	7.0	45.0	6.0	3	30
4	4	4.0	7.0	45.0	6.0	3	30
4,5	4,5	4.5	7.0	45.0	6.0	3	30

SC mini end mill cutter 30° | K201251 / K201252

K201251	K201252	D1  mm ø	L2  mm	L1  mm	D2  mm ø	z  #	 °
4,75	4,75	4.75	8.0	45.0	6.0	3	30
5	5	5.0	8.0	45.0	6.0	3	30
5,5	5,5	5.5	8.0	45.0	6.0	3	30
5,75	5,75	5.75	10.0	45.0	6.0	3	30
6	6	6.0	10.0	45.0	6.0	3	30
6,75	6,75	6.75	10.0	55.0	8.0	3	30
7	7	7.0	12.0	55.0	8.0	3	30
7,75	7,75	7.75	12.0	55.0	8.0	3	30
8	8	8.0	13.0	55.0	8.0	3	30
8,7	8,7	8.7	14.0	55.0	10.0	3	30
9	9	9.0	14.0	55.0	10.0	3	30
9,7	9,7	9.7	16.0	55.0	10.0	3	30
10	10	10.0	16.0	55.0	10.0	3	30

Cooling	
Tolerance	e8
Coating	TiAlN- α

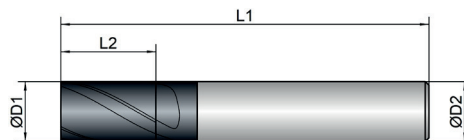
HA	HB	UNI	
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HA K201253









HB K201254



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
110	75	65					85	95	290							

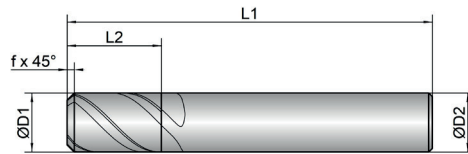
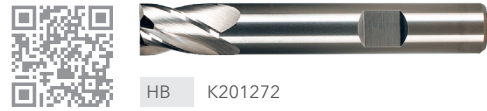
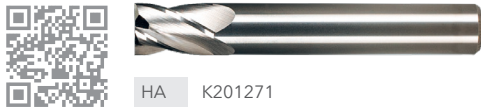
K201253	K201254	D1 mm ø	L2 mm	L1 mm	D2 mm ø	z #	 °
1	1	1.0	2.0	45.0	6.0	3	30
1,2	1,2	1.2	2.0	45.0	6.0	3	30
1,5	1,5	1.5	3.0	45.0	6.0	3	30
1,8	1,8	1.8	3.0	45.0	6.0	3	30
2	2	2.0	4.0	45.0	6.0	3	30
2,5	2,5	2.5	4.0	45.0	6.0	3	30
2,8	2,8	2.8	6.0	45.0	6.0	3	30
3	3	3.0	6.0	45.0	6.0	3	30
3,5	3,5	3.5	6.0	45.0	6.0	3	30
3,8	3,8	3.8	7.0	45.0	6.0	3	30
4	4	4.0	7.0	45.0	6.0	3	30
4,5	4,5	4.5	7.0	45.0	6.0	3	30
4,75	4,75	4.75	8.0	45.0	6.0	3	30

SC mini end mill cutter 30° TiAlN | K201253 / K201254

K201253	K201254	D1  mm ∅	L2  mm	L1  mm	D2  mm ∅	z  #	 °
5	5	5.0	8.0	45.0	6.0	3	30
5,5	5,5	5.5	8.0	45.0	6.0	3	30
5,75	5,75	5.75	10.0	45.0	6.0	3	30
6	6	6.0	10.0	45.0	6.0	3	30
6,75	6,75	6.75	10.0	55.0	8.0	3	30
7	7	7.0	12.0	55.0	8.0	3	30
7,75	7,75	7.75	12.0	55.0	8.0	3	30
8	8	8.0	13.0	55.0	8.0	3	30
8,7	8,7	8.7	14.0	55.0	10.0	3	30
9	9	9.0	14.0	55.0	10.0	3	30
9,7	9,7	9.7	16.0	55.0	10.0	3	30
10	10	10.0	16.0	55.0	10.0	3	30

Cooling	
Tolerance	e8
Coating	-

HA HB UNI **NEW**



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
70	45	30					60	65	200	160						

K201271	K201272	D1 mm ø	L2 mm	L1 mm	D2 mm ø	z #	45° mm	 °
1/6	1/6	1.0	2.0	45.0	6.0	3	0.02	45
1,5/6	1,5/6	1.5	3.0	45.0	6.0	3	0.03	45
2/6	2/6	2.0	4.0	45.0	6.0	3	0.03	45
2,5/6	2,5/6	2.5	5.0	45.0	6.0	3	0.03	45
3/6	3/6	3.0	6.0	45.0	6.0	3	0.03	45
3,5/6	3,5/6	3.5	6.0	45.0	6.0	3	0.03	45
4/6	4/6	4.0	7.0	45.0	6.0	3	0.04	45
4,5/6	4,5/6	4.5	8.0	45.0	6.0	3	0.04	45
5/6	5/6	5.0	8.0	45.0	6.0	3	0.04	45
5,5/6	5,5/6	5.5	8.0	45.0	6.0	3	0.04	45
6/6	6/6	6.0	10.0	45.0	6.0	3	0.04	45
8/8	8/8	8.0	13.0	55.0	8.0	3	0.05	45
10/10	10/10	10.0	16.0	55.0	10.0	3	0.05	45

SC mini end mill cutter 45° TiAlN | K201273 / K201274

Cooling	
Tolerance	e8
Coating	TiAlN- α

HA	HB	UNI	
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NEW

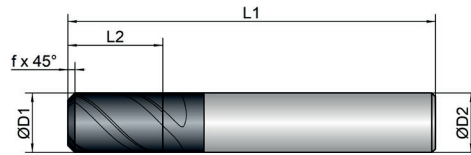
B
Basic



HA K201273



HB K201274



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC		Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite		
100	70	50					90	85	290	200						

K201273	K201274	D1	L2	L1	D2	z	45°	
		 mm ∅	 mm	 mm	 mm ∅	#		
1/6	1/6	1.0	2.0	45.0	6.0	3	0.02	45
1,5/6	1,5/6	1.5	3.0	45.0	6.0	3	0.03	45
2/6	2/6	2.0	4.0	45.0	6.0	3	0.03	45
2,5/6	2,5/6	2.5	5.0	45.0	6.0	3	0.03	45
3/6	3/6	3.0	6.0	45.0	6.0	3	0.03	45
3,5/6	3,5/6	3.5	6.0	45.0	6.0	3	0.03	45
4/6	4/6	4.0	7.0	45.0	6.0	3	0.04	45
4,5/6	4,5/6	4.5	8.0	45.0	6.0	3	0.04	45
5/6	5/6	5.0	8.0	45.0	6.0	3	0.04	45
5,5/6	5,5/6	5.5	8.0	45.0	6.0	3	0.04	45
6/6	6/6	6.0	10.0	45.0	6.0	3	0.04	45
8/8	8/8	8.0	13.0	55.0	8.0	3	0.05	45
10/10	10/10	10.0	16.0	55.0	10.0	3	0.05	45

SC mini end mill cutter 30° TiAlN | K201677 / K201678

Cooling	
Tolerance	e8
Coating	TiAlN- α

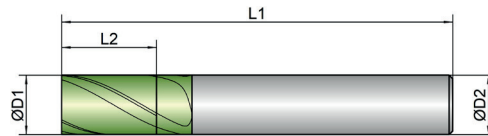
HA HB UNI Basic



HA K201677



HB K201678

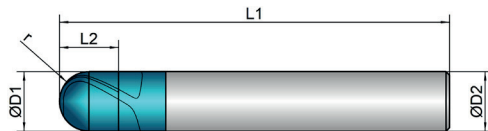
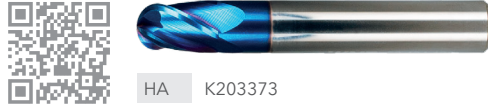


Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
110	75	65					85	95	290							

K201677	K201678	D1	L2	L1	D2	z	°
		mm	mm	mm	mm	#	
1	-	1.0	2.0	38.0	3.0	3	30
1,2	-	1.2	2.0	38.0	3.0	3	30
1,5	-	1.5	3.0	38.0	3.0	3	30
2	2	2.0	4.0	50.0	6.0	3	30
2,5	2,5	2.5	5.0	50.0	6.0	3	30
3	3	3.0	6.0	50.0	6.0	3	30
4	4	4.0	7.0	50.0	6.0	3	30
4,5	4,5	4.5	8.0	50.0	6.0	3	30
5	5	5.0	8.0	50.0	6.0	3	30
5,5	5,5	5.5	8.0	50.0	6.0	3	30
5,75	5,75	5.75	10.0	50.0	6.0	3	30
6	6	6.0	10.0	50.0	6.0	3	30
7	7	7.0	12.0	55.0	8.0	3	30
7,75	7,75	7.75	12.0	55.0	8.0	3	30
8	8	8.0	13.0	55.0	8.0	3	30
9	9	9.0	14.0	66.0	10.0	3	30
9,7	9,7	9.7	16.0	66.0	10.0	3	30
10	10	10.0	16.0	66.0	10.0	3	30
12	12	12.0	16.0	73.0	12.0	3	30
14	14	14.0	16.0	83.0	14.0	3	30
16	16	16.0	18.0	80.0	16.0	3	30

Cooling	
Tolerance	f8
Coating	TiSiN- α

HA HSC UNI Basic

















Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		200	175	155	115	95										
























K203373	D1 mm Ø	L2 mm	L1 mm	D2 mm Ø	z #	r mm	 °
0,5	0.5	0.5	50.0	4.0	2	0.25	30
1	1.0	1.0	50.0	4.0	2	0.50	30
1,5	1.5	1.5	50.0	4.0	2	0.75	30
2	2.0	2.0	50.0	4.0	2	1.00	30
2,5	2.5	2.5	50.0	4.0	2	1.25	30
3	3.0	3.0	50.0	6.0	2	1.50	30
4	4.0	4.0	50.0	6.0	2	2.00	30
5	5.0	5.0	50.0	6.0	2	2.50	30
6	6.0	6.0	50.0	6.0	2	3.00	30
8	8.0	8.0	59.0	8.0	2	4.00	30
10	10.0	10.0	66.0	10.0	2	5.00	30
12	12.0	12.0	73.0	12.0	2	6.00	30

LEGEND






PROPERTIES

 Cutting diameter	 Small cutting diameter	 Large cutting diameter
 Undercut diameter	 Length of cut	 Tool bezel length
 Length of undercut	 Total length	 Shank diameter
 Number of cutting edges	 Corner radius	 Corner bezel
 Programming radius	 Maximum cutting depth	 Helical pitch

SPECIAL FEATURES

 No Weldon	 Weldon HB	 Extended Trochoidal Cutting
 High Speed Cutting	 High Performance Cutting	 Multi-Task Cutting
 Universal machining	 Engraving	 Unequal tooth pitch
 Coolant duct system	 Multipass milling	 Trimming
 Chip breaking	 Full slot	 Forward and backward deburring
 Serrated edge	 Deburring	 Corner rounding
 2xD	 3xD	 4xD
 5xD	 Dynamic helical pitch	

COOLING

 Air-cooled	 Dry	 Oil
 Water ^{max}	 Water ^{min}	

COATINGS

Our coatings are optimised in unison with the cutters' geometry by testing in both an extensive internal procedure and under the customer's real application conditions. The selection is perfectly matched to the respective field of application.

TiN- α	TiN Alpha	TiSiN- α	TiSiN Alpha	TiAlN- α	TiAlN Alpha
Diamond- α	Diamond Alpha	TAC- α	TAC Alpha	ZrCn- α	ZrCrN Alpha
TiCn- α	TiCN Alpha				

PRODUCT GROUPS

01	End mill cutter	02	Torus cutter	03	Full radius cutter
04	Form cutter	05	Chamfer cutter	06	Roughing cutter
07	Face torus cutter				

APPLICATION TABLE

The values given in the application table are only guidelines. These values depend largely on the individual application parameters.

ILLUSTRATIONS

All illustrated technical drawings and photographs are exemplary. Deviations from the original product in color and dimensions are possible.



HOFMANN & VRATNY MINI END MILL CUTTER-BROCHURE **EN**

Hofmann & Vratny OHG
Steinkirchen 4½
85617 Aßling, Germany

Telephone: +49 80 92 / 85 333-0

Fax: +49 80 92 / 85 333-105

E-Mail: info@vhmhv.de

Web: www.vhmv.de

OFFICIAL PARTNER OF H&V

