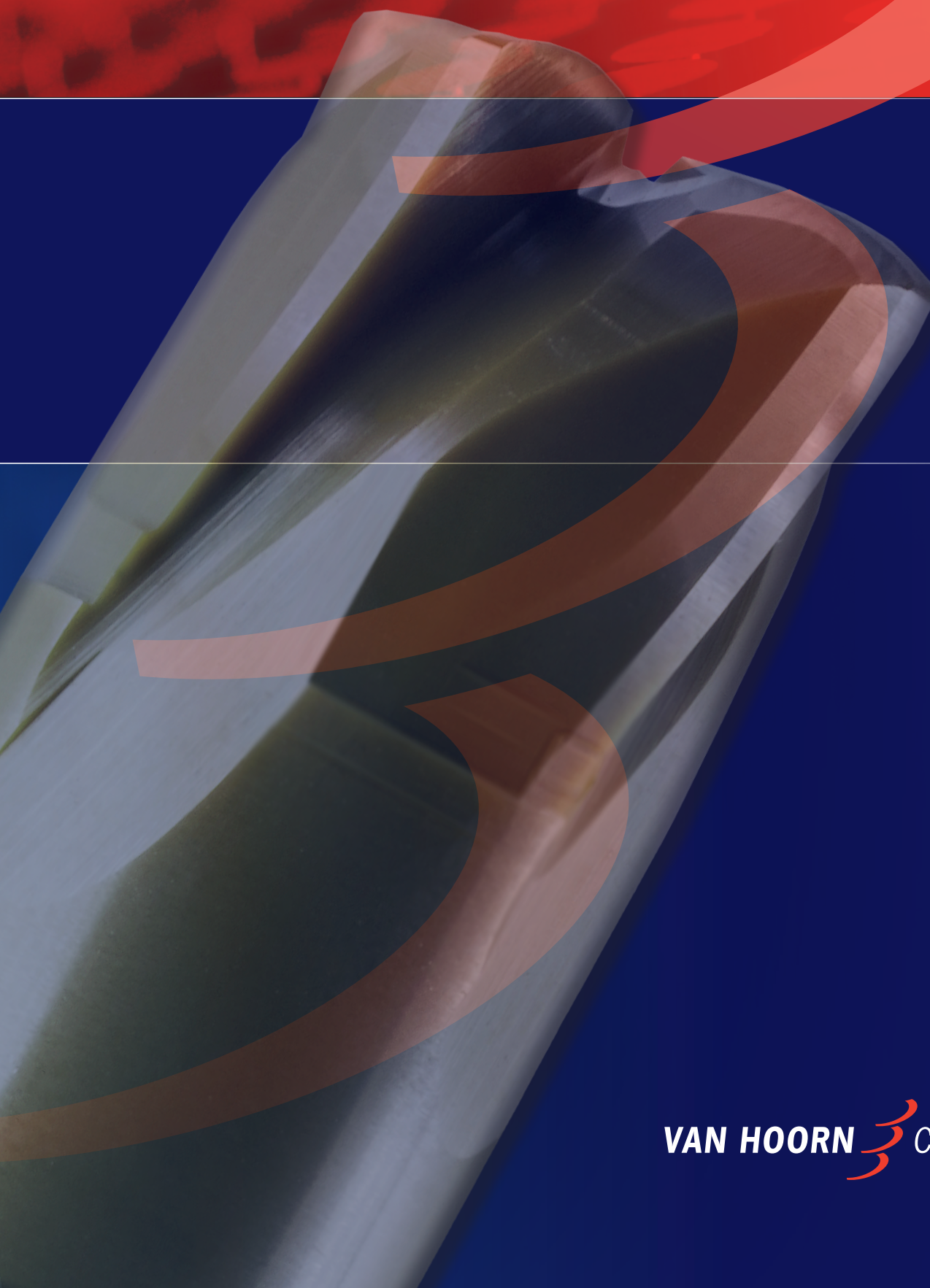


CERAMIC END MILLS FOR INCONEL/NICKEL ALLOYS



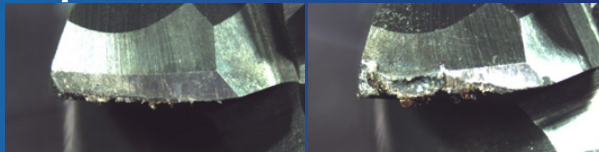
VAN HOORN  **CARBIDE**

Proven success in carbide end mills

Van Hoorn Carbide is committed to manufacture and provide the best solid carbide end mills, leading innovations and reliable technical support. In the 2017-2018 catalogue you can find our largely extended and innovated range of premium end mills as well as our PARA Tooling range for general machining applications. With our team of experts we are happy to help you improve and speed up your production processes.

Our tools are the next step in productivity!

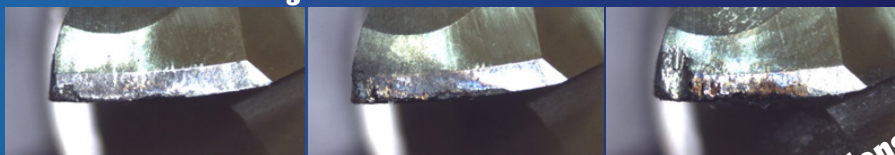
Competitor



3 meter

30 meter

Van Hoorn Ceramic Highfeed



3 meter

30 meter

90 meter

3 x longer tool life

Extreme tool life improvement!

USP's ceramic end mills:

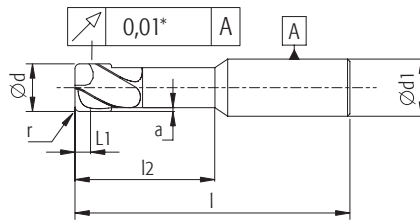
- 10 x more productive than carbide end mills
- High tool life compared to competitors
- Extreme high material removal rate
- Short machining time



	VHCH	Competitor	VHVTR
Ø (mm)	12	12	12
z	4	3	4
v_c (m/min)	500	600	30
n (rpm)	13.263	15.915	796
v_f (mm/min)	7.958	7.162	191
F_z (mm)	0,15	0,15	0,05
a_p (mm)	0,35	0,35	6,00
a_e (mm)	7,0	7,0	1,8
Coolant	Dry / Air	Dry / Air	Emulsion
Q (mm³/min)	19.496	17.547	2.063

10 x higher metal removal rate!!

VHCH - Van Hoorn Ceramic Highfeed



* For end mills / für Schaftfräser L < 100 mm.

Diameter range	Shank Ød1-h5	Cutting diameter Ød-e8
$3 < d \leq 6$	0 -0,005	-0,020 -0,038
$6 < d \leq 10$	0 -0,006	-0,025 -0,047
$10 < d \leq 18$	0 -0,008	-0,032 -0,059
$18 < d \leq 30$	0 -0,009	-0,040 -0,073



Application area:

Roughing of nickel based alloys such as Inconel



Article Number	Ød (mm)	r (mm)	Ød1 (mm)	L (mm)	L1 (mm)	L2 (mm)	a (mm)	Z
VHCH 4 060 051 06 10	6,0	0,40	6	51	3,0	12,0	0,150	4
VHCH 4 080 063 08 10	8,0	0,52	8	63	4,0	16,0	0,150	4
VHCH 4 100 072 10 10	10,0	0,65	10	72	5,0	20,0	0,200	4
VHCH 4 120 083 12 10	12,0	0,75	12	83	6,0	24,0	0,200	4
VHCH 4 160 092 16 10	16,0	1,00	16	92	8,0	32,0	0,250	4
VHCH 4 200 102 20 10	20,0	1,30	20	102	10,0	40,0	0,250	4

Cutting conditions

Ø	a _p	a _e	V _c	F _z
mm	mm	mm	m/min	mm/tooth
6,0	0,18	3,60	500-600	0,10
8,0	0,24	4,80	500-600	0,13
10,0	0,30	6,00	500-600	0,15
12,0	0,35	7,00	500-600	0,18
16,0	0,50	10,00	500-600	0,22
20,0	0,60	12,00	500-600	0,26

Tips & tricks:

- Always use air coolant
- Ensure continuous machining
- Do not remove chips from the cutting edge
- **Caution:** tool, chips and workpiece can get extra hot

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Facts and figures about Van Hoorn Carbide

- Premium products
- Fully automated process with 24/7 climate controlled production
- 100% visual inspection
- Global presence with subsidiaries in Hong Kong, China and Belgium
- $\pm 1\mu$ tolerances possible!
- Optimizing production processes
- Solving manufacturing challenges!
- Reduce your total production cost
- 100 Employees
- More than 25 years of excellence!



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