



# Jongen Werkzeugtechnik Information

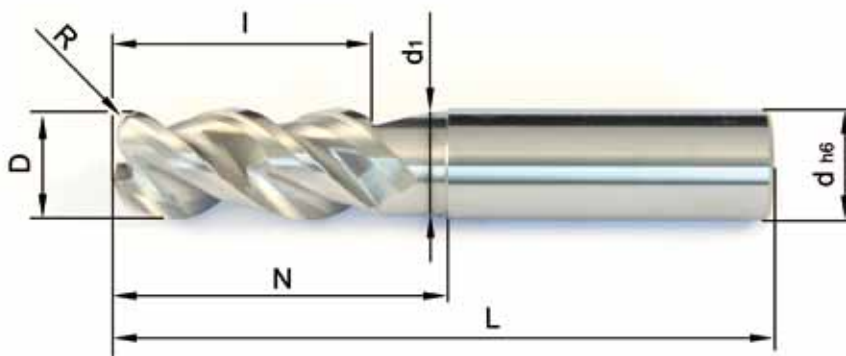
## Product Line Extension

### VHM 309-16 R10 AL05

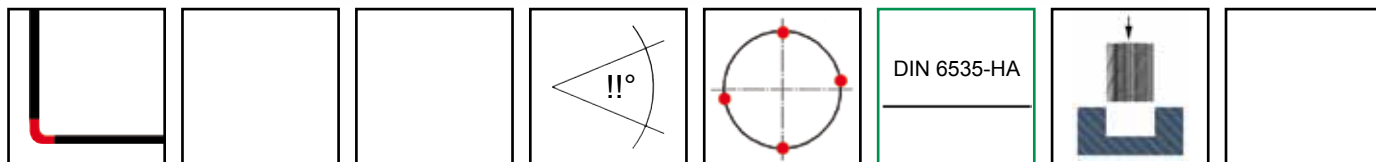
### VHM 309-20 R10 AL05

To complement the VHM 309 radius – product that has been already successfully placed into the market, two new products have been included in the programme.

#### Solid Carbide Cutter 309 R



**Tolerance  $\varnothing$ :**  
 $\varnothing 3,0 - 20,0 =$   
 -0,02  
 -0,05

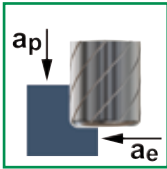


Order No.	D	R	I	N	d <sub>1</sub>	d <sub>h6</sub>	L	Z	Price
VHM 309-16 R10 AL05	16	1,0	36	47	15	16	93	3	178,60€*
VHM 309-20 R10 AL05	20	1,0	42	54	19	20	104	3	260,40€*

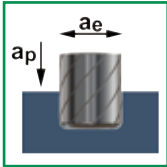
Availability: ex works, Willich/Germany

\* all prices plus V.A.T. - Errors and omissions excepted!

## Parameters recommendation



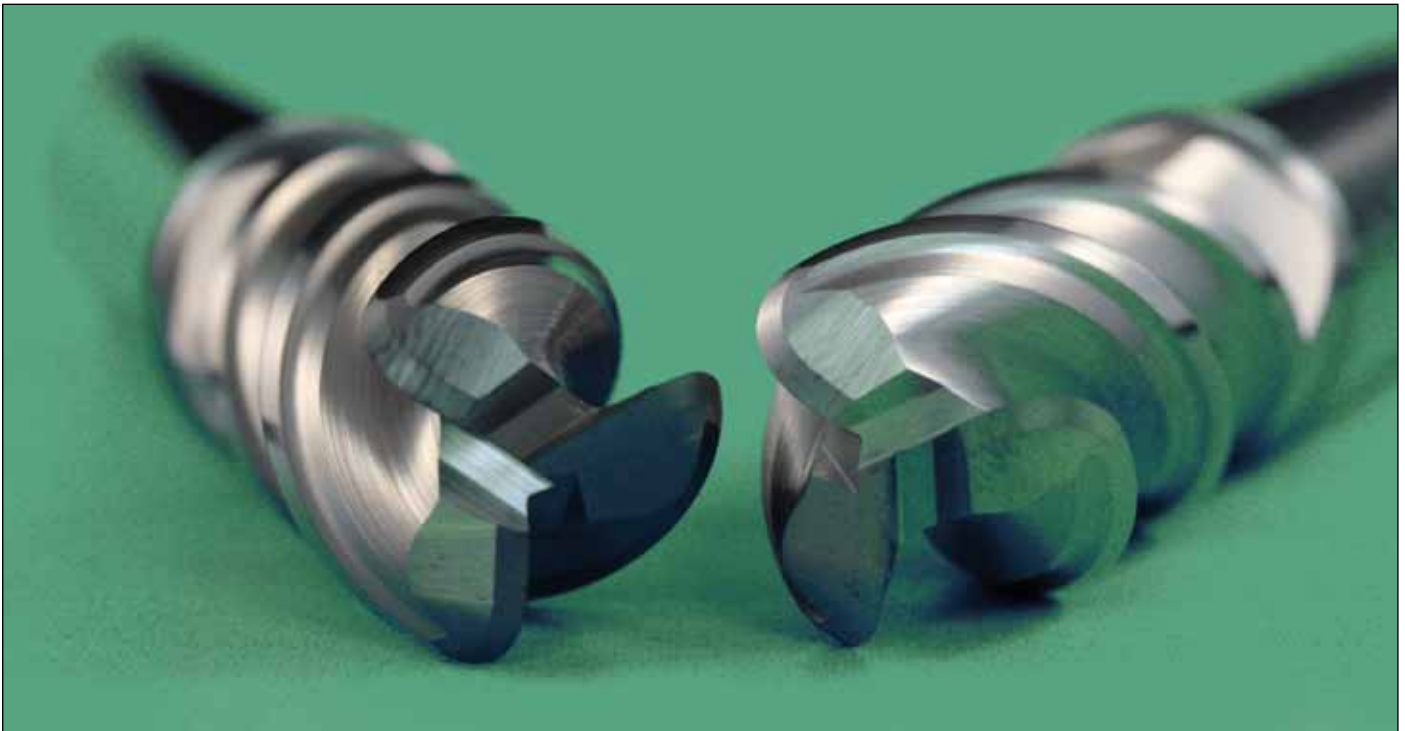
Material	D [mm]	Vc [m/min]	fz [mm]	ap [mm]	ae [mm]	n [min <sup>-1</sup> ]	Vf [mm/min]	Q [cm <sup>3</sup> /min]
Alu long chipping	16	500 (460-560)	0,13 (0,11-0,15)	29,0	6,4	9.950	3.880	715,2
	20	500 (460-560)	0,16 (0,14-0,18)	36,0	8,0	7.960	3.820	1.100,2
Alu short chipping >6% Si	16	480 (460-560)	0,13 (0,11-0,15)	29,0	6,4	9.550	3.720	685,7
	20	480 (460-560)	0,22 (0,20-0,24)	36,0	8,0	7.640	5.040	1.451,5
Cast Aluminium >10% Si	16	250 (200-300)	0,15 (0,13-0,17)	29,0	6,4	4.970	2.240	412,9
	20	250 (200-300)	0,20 (0,18-0,22)	36,0	8,0	3.980	2.390	688,3
CuZn Alloys	16	270 (230-300)	0,12 (0,11-0,15)	29,0	6,4	5.370	1.930	355,7
	20	270 (230-300)	0,16 (0,14-0,18)	36,0	8,0	4.300	2.060	593,3



Material	D [mm]	Vc [m/min]	fz [mm]	ap [mm]	ae [mm]	n [min <sup>-1</sup> ]	Vf [mm/min]	Q [cm <sup>3</sup> /min]
Alu long chipping	16	500 (460-560)	0,11 (0,075-0,11)	16,0	16,0	9.950	3.280	839,7
	20	500 (460-560)	0,14 (0,10-0,14)	20,0	20,0	7.960	3.340	1.336,0
Alu short chipping >6% Si	16	500 (460-560)	0,11 (0,09-0,13)	16,0	16,0	9.950	3.280	839,7
	20	500 (460-560)	0,18 (0,16-0,20)	20,0	20,0	7.960	4.300	1.720,0
Cast Aluminium >10% Si	16	250 (200-300)	0,14 (0,12-0,16)	16,0	16,0	4.970	2.090	535,0
	20	250 (200-300)	0,18 (0,16-0,20)	20,0	20,0	3.980	2.150	860,0
CuZn Alloys	16	270 (230-300)	0,10 (0,08-0,12)	16,0	16,0	5.370	1.610	412,2
	20	270 (230-300)	0,14 (0,12-0,16)	20,0	20,0	4.300	1.810	724,0

\* The average chip thickness has to be taken in consideration for contour milling operations!

\* The above-mentioned data are standard values that may vary depending on processing, type of machine and material grade.



These tools can be reground.

Order-No.	Price per piece for the regrinding service while sending at the same time:			
	1 - 4	5 - 9	10 - 19	20 +
NG-VHM 309-16 R10 AL05	57,37 €	49,72 €	43,99 €	41,10 €
NG-VHM 309-20 R10 AL05	68,76 €	61,10 €	55,37 €	52,49 €

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