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Астана (7172)727-132  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89  
Иваново (4932)77-34-06

Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
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Киров (8332)68-02-04  
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Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижегород (831)429-08-12  
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Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16

Пермь (342)205-81-47  
Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
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Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
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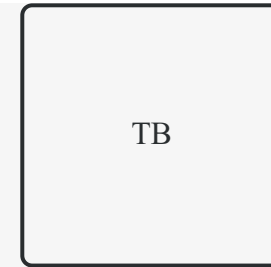
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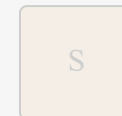
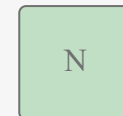
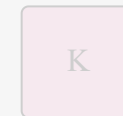
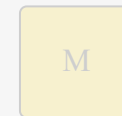
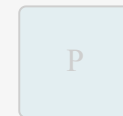
<https://fanar.nt-rt.ru/> || [frk@nt-rt.ru](mailto:frk@nt-rt.ru)

# AI

The range of VHM end mills is designed for high-performance machining of non-ferrous metals such as aluminium alloys or copper. They are characterised by optimised geometry, polished chip grooves, and a dedicated TB coating for aluminium machining.



## Application



# Variants

**Designation**

**Z - flute  
number**

**Variable  
geometry**

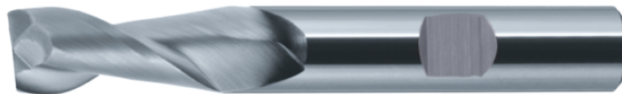
130



1

-

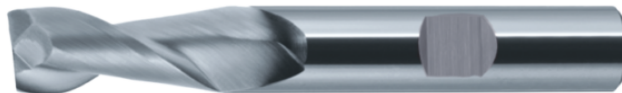
245/R245



2

-

245/R245 TB



2

-

B245 TB



2

-

345/R345



3

-

345/R345 TB



3

-

345NL TB



3

-

B345NL TB



3

-

445



4

v

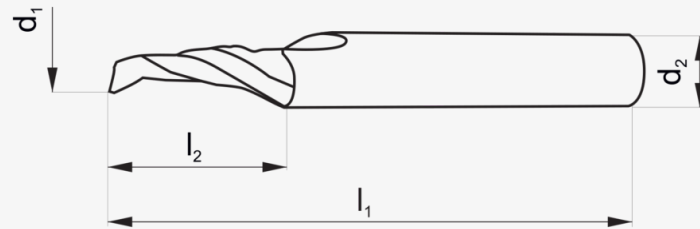


VHM

$\lambda$   
30

# 130

Intended for machining aluminium, its alloys, and other non-ferrous metals.



### Application

P

M

K

N

S

H

# Dimensions

Index	$\varnothing d_1$	$\varnothing d_2 h_6$	$l_1$	$l_2$	Z - flute number	End mill shank type
-------	-------------------	-----------------------	-------	-------	------------------	---------------------

<b>M9-131700-0030</b>	3	6	57	12	1	
-----------------------	---	---	----	----	---	---

<b>M9-131700-0040</b>	4	6	57	12	1	
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<b>M9-131700-0050</b>	5	6	57	14	1	
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<b>M9-131700-0060</b>	6	6	57	16	1	
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<b>M9-131700-0080</b>	8	8	63	20	1	
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<b>M9-131700-0100</b>	10	10	72	22	1	
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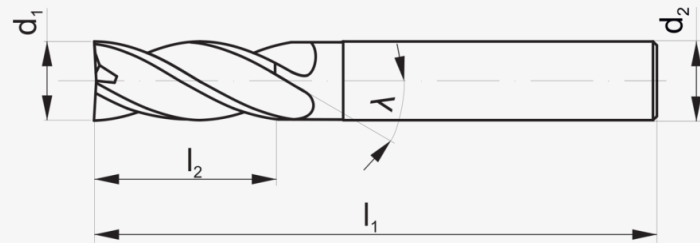


VHM

$\lambda$   
45

## 245/R245

Intended for machining aluminium, its alloys, and other non-ferrous metals.



### Application

P

M







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






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







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






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







Index	$\varnothing d_1$	$\varnothing d_2 h6$	$l_1$	$l_2$	R	Z - flute number	End mill shank type
<b>M9-241700-0030</b>	3	3	39	12		2	
<b>M9-24170D-0030</b>	3	3	39	12	0,3	2	
<b>M9-241700-0040</b>	4	4	51	12		2	
<b>M9-24170D-0040</b>	4	4	51	12	0,3	2	
<b>M9-241700-0050</b>	5	5	51	14		2	
							





<b>M9-24170D-0050</b>	5	5	51	14	0,3	2	
<b>M9-241700-0060</b>	6	6	57	16		2	
<b>M9-241700-0060-B</b>	6	6	57	16		2	
<b>M9-241701-0060</b>	6	6	57	16	0,5	2	
<b>M9-241701-0060-B</b>	6	6	57	16	0,5	2	
<b>M9-241703-0060</b>	6	6	57	16	1,0	2	
<b>M9-241703-0060-B</b>	6	6	57	16	1,0	2	
<b>M9-241700-0080</b>	8	8	63	20		2	



<b>M9-241700-0080-B</b>	8	8	63	20		2	
<b>M9-241701-0080</b>	8	8	63	20	0,5	2	
<b>M9-241701-0080-B</b>	8	8	63	20	0,5	2	
<b>M9-241703-0080</b>	8	8	63	20	1,0	2	
<b>M9-241703-0080-B</b>	8	8	63	20	1,0	2	
<b>M9-241700-0100</b>	10	10	72	22		2	
<b>M9-241700-0100-B</b>	10	10	72	22		2	
<b>M9-241701-0100</b>	10	10	72	22	0,5	2	

<b>M9-241701-0100-B</b>	10	10	72	22	0,5	2	
<b>M9-241700-0120</b>	12	12	83	32		2	
<b>M9-241700-0120-B</b>	12	12	83	32		2	
<b>M9-241701-0120</b>	12	12	83	32	0,5	2	
<b>M9-241701-0120-B</b>	12	12	83	32	0,5	2	
<b>M9-241700-0140</b>	14	14	83	32		2	
<b>M9-241700-0140-B</b>	14	14	83	32		2	
<b>M9-241701-0140</b>	14	14	83	32	0,5	2	

<b>M9-241701-0140-B</b>	14	14	83	32	0,5	2	
<b>M9-241700-0160</b>	16	16	92	36		2	
<b>M9-241700-0160-B</b>	16	16	92	36		2	
<b>M9-241701-0160</b>	16	16	92	36	0,5	2	
<b>M9-241701-0160-B</b>	16	16	92	36	0,5	2	
<b>M9-241700-0180</b>	18	18	92	45		2	
<b>M9-241700-0180-B</b>	18	18	92	45		2	
<b>M9-241703-0180</b>	18	18	92	45	1,0	2	

<b>M9-241703-0180-B</b>	18	18	92	45	1,0	2	
<b>M9-241700-0200</b>	20	20	104	50		2	
<b>M9-241700-0200-B</b>	20	20	104	50		2	
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VHM

TB

$\lambda$   
45

## 245/R245 TB

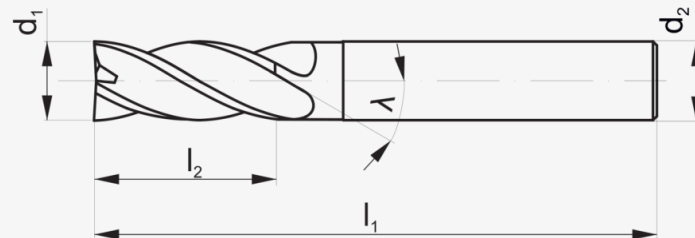
Intended for machining aluminium, its alloys, and other non-ferrous metals.

### Protection



Tools are protected against wear and tear by TB coat. Due to lack of chemical affinity for aluminium, it reduces build-up on cutting edges

during the machining of its alloys, which significantly extends the life-time of materials from N group.






### Application









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







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






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







Index	$\varnothing d_1$	$\varnothing d_2 h_6$	$l_1$	$l_2$	R	Z - flute number	End mill shank type
<b>M9-24B700-0030</b>	3	3	39	12		2	
<b>M9-24B70D-0030</b>	3	3	39	12	0,3	2	
<b>M9-24B700-0040</b>	4	4	51	12		2	









<b>M9-24B70D-0040</b>	4	4	51	12	0,3	2	
<b>M9-24B700-0050</b>	5	5	51	14		2	
<b>M9-24B70D-0050</b>	5	5	51	14	0,3	2	
<b>M9-24B700-0060</b>	6	6	57	16		2	
<b>M9-24B700-0060-B</b>	6	6	57	16		2	
<b>M9-24B701-0060</b>	6	6	57	16	0,5	2	
<b>M9-24B701-0060-B</b>	6	6	57	16	0,5	2	
<b>M9-24B703-0060</b>	6	6	57	16	1,0	2	

<b>M9-24B703-0060-B</b>	6	6	57	16	1,0	2	
<b>M9-24B700-0080</b>	8	8	63	20		2	
<b>M9-24B700-0080-B</b>	8	8	63	20		2	
<b>M9-24B701-0080</b>	8	8	63	20	0,5	2	
<b>M9-24B701-0080-B</b>	8	8	63	20	0,5	2	
<b>M9-24B703-0080</b>	8	8	63	20	1,0	2	
<b>M9-24B703-0080-B</b>	8	8	63	20	1,0	2	
<b>M9-24B700-0100</b>	10	10	72	22		2	



<b>M9-24B700-0100-B</b>	10	10	72	22		2	
<b>M9-24B701-0100</b>	10	10	72	22	0,5	2	
<b>M9-24B701-0100-B</b>	10	10	72	22	0,5	2	
<b>M9-24B700-0120</b>	12	12	83	32		2	
<b>M9-24B700-0120-B</b>	12	12	83	32		2	
<b>M9-24B701-0120</b>	12	12	83	32	0,5	2	
<b>M9-24B701-0120-B</b>	12	12	83	32	0,5	2	
<b>M9-24B700-0140</b>	14	14	83	32		2	

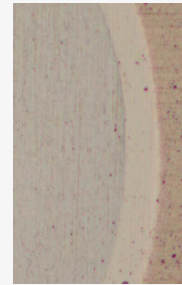
<b>M9-24B700-0140-B</b>	14	14	83	32		2	
<b>M9-24B701-0140</b>	14	14	83	32	0,5	2	
<b>M9-24B701-0140-B</b>	14	14	83	32	0,5	2	
<b>M9-24B700-0160</b>	16	16	92	36		2	
<b>M9-24B700-0160-B</b>	16	16	92	36		2	
<b>M9-24B701-0160</b>	16	16	92	36	0,5	2	
<b>M9-24B701-0160-B</b>	16	16	92	36	0,5	2	
<b>M9-24B700-0180</b>	18	18	92	45		2	

<b>M9-24B700-0180-B</b>	18	18	92	45		2	
<b>M9-24B703-0180</b>	18	18	92	45	1,0	2	
<b>M9-24B703-0180-B</b>	18	18	92	45	1,0	2	
<b>M9-24B700-0200</b>	20	20	104	50		2	
<b>M9-24B700-0200-B</b>	20	20	104	50		2	
<b>M9-24B703-0200</b>	20	20	104	50	1,0	2	
<b>M9-241703-0200-B</b>	20	20	104	50	1,0	2	
<b>M9-24B703-0200-B</b>	20	20	104	50	1,0	2	

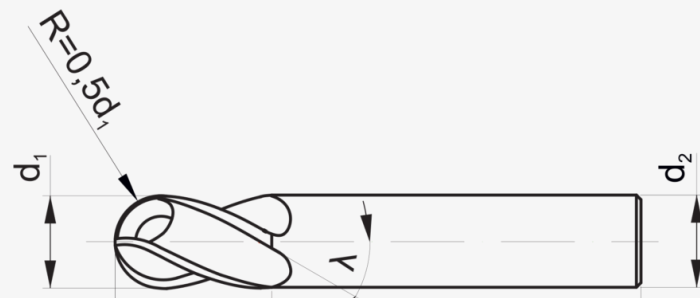
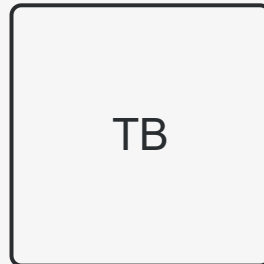
# B245 TB

Intended for machining aluminium, its alloys, and other non-ferrous metals.

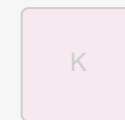
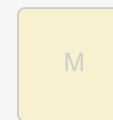
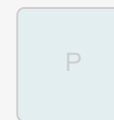
## Protection






Tools are protected against wear and tear by TB coat. Due to lack of chemical affinity for aluminium, it reduces build-up on cutting edges during the machining of its alloys, which significantly extends the life-time of materials from N group.








## Application



## Dimensions

Index	$\varnothing d_1$	$\varnothing d_2 h6$	$l_1$	$l_2$	R	Z - flute number	End mill shank type
<b>M9-24B70X-0030</b>	3	3	39	12	1,5	2	
<b>M9-24B70X-0040</b>	4	4	51	12	2,0	2	
<b>M9-24B70X-0050</b>	5	5	51	14	2,5	2	

<b>M9-24B70X-0060</b>	6	6	57	16	3,0	2	
<b>M9-24B70X-0080</b>	8	8	63	20	4,0	2	
<b>M9-24B70X-0100</b>	10	10	72	22	5,0	2	
<b>M9-24B70X-0120</b>	12	12	83	32	6,0	2	
<b>M9-24B70X-0160</b>	16	16	92	36	8,0	2	

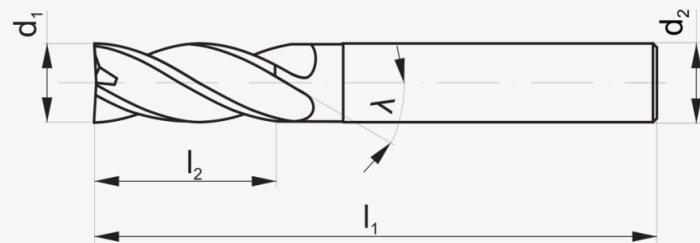


VHM

$\lambda$   
45

# 345/R345

Intended for machining aluminium, its alloys, and other non-ferrous metals.



## Application

P

M







K

N








S









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







# Dimensions









Index	$\varnothing d_1$	$\varnothing d_2 h6$	$l_1$	$l_2$	R	Z - flute number	End mill shank type
<b>M9-341700-0030</b>	3	3	39	12		3	
<b>M9-34170D-0030</b>	3	3	39	12	0,3	3	
<b>M9-341700-0040</b>	4	4	51	12		3	
<b>M9-34170D-0040</b>	4	4	51	12	0,3	3	
<b>M9-341700-0050</b>	5	5	51	14		3	
							



















<b>M9-34170D-0050</b>	5	5	51	14	0,3	3	
<b>M9-341700-0060</b>	6	6	57	16		3	
<b>M9-341700-0060-B</b>	6	6	57	16		3	
<b>M9-341701-0060</b>	6	6	57	16	0,5	3	
<b>M9-341701-0060-B</b>	6	6	57	16	0,5	3	
<b>M9-341703-0060</b>	6	6	57	16	1,0	3	
<b>M9-341703-0060-B</b>	6	6	57	16	1,0	3	
<b>M9-341700-0080</b>	8	8	63	20		3	









<b>M9-341700-0080-B</b>	8	8	63	20		3	
<b>M9-341701-0080</b>	8	8	63	20	0,5	3	
<b>M9-341701-0080-B</b>	8	8	63	20	0,5	3	
<b>M9-341703-0080</b>	8	8	63	20	1,0	3	
<b>M9-341703-0080-B</b>	8	8	63	20	1,0	3	
<b>M9-341705-0080</b>	8	8	63	20	2,0	3	
<b>M9-341705-0080-B</b>	8	8	63	20	2,0	3	
<b>M9-341700-0100</b>	10	10	72	22		3	









<b>M9-341700-0100-B</b>	10	10	72	22		3	
<b>M9-341701-0100</b>	10	10	72	22	0,5	3	
<b>M9-341701-0100-B</b>	10	10	72	22	0,5	3	
<b>M9-341703-0100</b>	10	10	72	22	1,0	3	
<b>M9-341703-0100-B</b>	10	10	72	22	1,0	3	
<b>M9-341704-0100</b>	10	10	72	22	1,5	3	
<b>M9-341704-0100-B</b>	10	10	72	22	1,5	3	
<b>M9-341705-0100</b>	10	10	72	22	2,0	3	

<b>M9-341705-0100-B</b>	10	10	72	22	2,0	3	
<b>M9-341706-0100</b>	10	10	72	22	2,5	3	
<b>M9-341706-0100-B</b>	10	10	72	22	2,5	3	
<b>M9-341700-0120</b>	12	12	83	32		3	
<b>M9-341700-0120-B</b>	12	12	83	32		3	
<b>M9-341701-0120</b>	12	12	83	32	0,5	3	
<b>M9-341701-0120-B</b>	12	12	83	32	0,5	3	
<b>M9-341703-0120</b>	12	12	83	32	1,0	3	










<b>M9-341703-0120-B</b>	12	12	83	32	1,0	3	
<b>M9-341704-0120</b>	12	12	83	32	1,5	3	
<b>M9-341704-0120-B</b>	12	12	83	32	1,5	3	
<b>M9-341705-0120</b>	12	12	83	32	2,0	3	
<b>M9-341705-0120-B</b>	12	12	83	32	2,0	3	
<b>M9-341706-0120</b>	12	12	83	32	2,5	3	
<b>M9-341706-0120-B</b>	12	12	83	32	2,5	3	
<b>M9-341707-0120</b>	12	12	83	32	3,0	3	

<b>M9-341707-0120-B</b>	12	12	83	32	3,0	3	
<b>M9-341700-0140</b>	14	14	83	32		3	
<b>M9-341700-0140-B</b>	14	14	83	32		3	
<b>M9-341701-0140</b>	14	14	83	32	0,5	3	
<b>M9-341701-0140-B</b>	14	14	83	32	0,5	3	
<b>M9-341703-0140</b>	14	14	83	32	1,0	3	
<b>M9-341703-0140-B</b>	14	14	83	32	1,0	3	
<b>M9-341700-0160</b>	16	16	92	36		3	

<b>M9-341700-0160-B</b>	16	16	92	36		3	
<b>M9-341701-0160</b>	16	16	92	36	0,5	3	
<b>M9-341701-0160-B</b>	16	16	92	36	0,5	3	
<b>M9-341703-0160</b>	16	16	92	36	1,0	3	
<b>M9-341703-0160-B</b>	16	16	92	36	1,0	3	
<b>M9-341705-0160</b>	16	16	92	36	2,0	3	
<b>M9-341705-0160-B</b>	16	16	92	36	2,0	3	
<b>M9-341706-0160</b>	16	16	92	36	2,5	3	

<b>M9-341706-0160-B</b>	16	16	92	36	2,5	3	
<b>M9-341707-0160</b>	16	16	92	36	3,0	3	
<b>M9-341707-0160-B</b>	16	16	92	36	3,0	3	
<b>M9-341700-0180</b>	18	18	92	45		3	
<b>M9-341700-0180-B</b>	18	18	92	45		3	
<b>M9-341703-0180</b>	18	18	92	45	1,0	3	
<b>M9-341703-0180-B</b>	18	18	92	45	1,0	3	
<b>M9-341700-0200</b>	20	20	104	50		3	



<b>M9-341700-0200-B</b>	20	20	104	50		3	
<b>M9-341703-0200</b>	20	20	104	50	1,0	3	
<b>M9-341703-0200-B</b>	20	20	104	50	1,0	3	
<b>M9-341705-0200</b>	20	20	104	50	2,0	3	
<b>M9-341705-0200-B</b>	20	20	104	50	2,0	3	
<b>M9-341707-0200</b>	20	20	104	50	3,0	3	
<b>M9-341707-0200-B</b>	20	20	104	50	3,0	3	
<b>M9-341708-0200</b>	20	20	104	50	4,0	3	
<b>M9-341708-0200-B</b>	20	20	104	50	4,0	3	



VHM

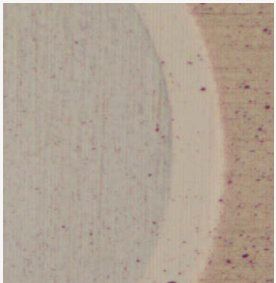
TB

$\lambda$   
45

# 345/R345 TB

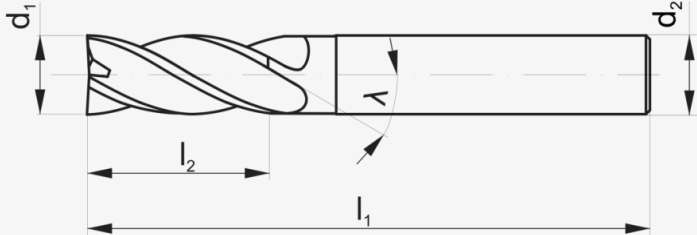
Intended for machining aluminium, its alloys, and other non-ferrous metals.

## Protection



Tools are protected against wear and tear by TB coat. Due to lack of chemical affinity for aluminium, it reduces build-up

on cutting edges during the machining of its alloys, which significantly extends the life-time of materials from N group.






## Application









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







M









K









## Dimensions









Index	$\varnothing d_1$	$\varnothing d_2 h_6$	$l_1$	$l_2$	R	Z - flute number	End mill shank type
<b>M9-34B700-0030</b>	3	3	39	12		3	
<b>M9-34B70D-0030</b>	3	3	39	12	0,3	3	
<b>M9-34B700-0040</b>	4	4	51	12		3	

<b>M9-34B70D-0040</b>	4	4	51	12	0,3	3	
<b>M9-34B700-0050</b>	5	5	51	14		3	
<b>M9-34B70D-0050</b>	5	5	51	14	0,3	3	
<b>M9-34B700-0060-B</b>	6	6	57	16		3	
<b>M9-34B701-0060</b>	6	6	57	16	0,5	3	
<b>M9-34B701-0060-B</b>	6	6	57	16	0,5	3	
<b>M9-34B703-0060</b>	6	6	57	16	1,0	3	
<b>M9-34B703-0060-B</b>	6	6	57	16	1,0	3	






<b>M9-34B700-0080</b>	8	8	63	20		3	
<b>M9-34B700-0080-B</b>	8	8	63	20		3	
<b>M9-34B701-0080</b>	8	8	63	20	0,5	3	
<b>M9-34B701-0080-B</b>	8	8	63	20	0,5	3	
<b>M9-34B703-0080</b>	8	8	63	20	1,0	3	
<b>M9-34B703-0080-B</b>	8	8	63	20	1,0	3	
<b>M9-34B705-0080</b>	8	8	63	20	2,0	3	
<b>M9-34B705-0080-B</b>	8	8	63	20	2,0	3	









<b>M9-34B700-0100</b>	10	10	72	22		3	
<b>M9-34B700-0100-B</b>	10	10	72	22		3	
<b>M9-34B701-0100</b>	10	10	72	22	0,5	3	
<b>M9-34B701-0100-B</b>	10	10	72	22	0,5	3	
<b>M9-34B703-0100</b>	10	10	72	22	1,0	3	
<b>M9-34B703-0100-B</b>	10	10	72	22	1,0	3	
<b>M9-34B704-0100</b>	10	10	72	22	1,5	3	
<b>M9-34B704-0100-B</b>	10	10	72	22	1,5	3	








<b>M9-34B705-0100</b>	10	10	72	22	2,0	3	
<b>M9-34B705-0100-B</b>	10	10	72	22	2,0	3	
<b>M9-34B706-0100</b>	10	10	72	22	2,5	3	
<b>M9-34B706-0100-B</b>	10	10	72	22	2,5	3	
<b>M9-34B700-0120</b>	12	12	83	32		3	
<b>M9-34B700-0120-B</b>	12	12	83	32		3	
<b>M9-34B701-0120</b>	12	12	83	32	0,5	3	
<b>M9-34B701-0120-B</b>	12	12	83	32	0,5	3	











<b>M9-34B703-0120</b>	12	12	83	32	1,0	3	
<b>M9-34B703-0120-B</b>	12	12	83	32	1,0	3	
<b>M9-34B704-0120</b>	12	12	83	32	1,5	3	
<b>M9-34B704-0120-B</b>	12	12	83	32	1,5	3	
<b>M9-34B705-0120</b>	12	12	83	32	2,0	3	
<b>M9-34B705-0120-B</b>	12	12	83	32	2,0	3	
<b>M9-34B706-0120</b>	12	12	83	32	2,5	3	
<b>M9-34B706-0120-B</b>	12	12	83	32	2,5	3	



<b>M9-34B707-0120</b>	12	12	83	32	3,0	3	
<b>M9-34B707-0120-B</b>	12	12	83	32	3,0	3	
<b>M9-34B700-0140</b>	14	14	83	32		3	
<b>M9-34B700-0140-B</b>	14	14	83	32		3	
<b>M9-34B701-0140</b>	14	14	83	32	0,5	3	
<b>M9-34B701-0140-B</b>	14	14	83	32	0,5	3	
<b>M9-34B703-0140</b>	14	14	83	32	1	3	
<b>M9-34B703-0140-B</b>	14	14	83	32	1	3	

<b>M9-34B700-0160</b>	16	16	92	36		3	
<b>M9-34B700-0160-B</b>	16	16	92	36		3	
<b>M9-34B701-0160</b>	16	16	92	36	0,5	3	
<b>M9-34B701-0160-B</b>	16	16	92	36	0,5	3	
<b>M9-34B703-0160</b>	16	16	92	36	1	3	
<b>M9-34B703-0160-B</b>	16	16	92	36	1	3	
<b>M9-34B705-0160</b>	16	16	92	36	2	3	
<b>M9-34B705-0160-B</b>	16	16	92	36	2	3	

<b>M9-34B706-0160</b>	16	16	92	36	2,5	3	
<b>M9-34B706-0160-B</b>	16	16	92	36	2,5	3	
<b>M9-34B707-0160</b>	16	16	92	36	3	3	
<b>M9-34B707-0160-B</b>	16	16	92	36	3	3	
<b>M9-34B700-0180</b>	18	18	92	45		3	
<b>M9-34B700-0180-B</b>	18	18	92	45		3	
<b>M9-34B703-0180</b>	18	18	92	45	1	3	
<b>M9-34B703-0180-B</b>	18	18	92	45	1	3	

<b>M9-34B700-0200</b>	20	20	104	50		3	
<b>M9-34B700-0200-B</b>	20	20	104	50		3	
<b>M9-34B703-0200</b>	20	20	104	50	1	3	
<b>M9-34B703-0200-B</b>	20	20	104	50	1	3	
<b>M9-34B705-0200</b>	20	20	104	50	2	3	
<b>M9-34B705-0200-B</b>	20	20	104	50	2	3	
<b>M9-34B707-0200</b>	20	20	104	50	3	3	
<b>M9-34B707-0200-B</b>	20	20	104	50	3	3	
<b>M9-34B708-0200</b>	20	20	104	50	4	3	
<b>M9-34B708-0200-B</b>	20	20	104	50	4	3	



VHM

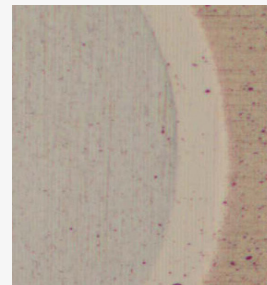
TB

$\lambda$   
45

# 345NL TB

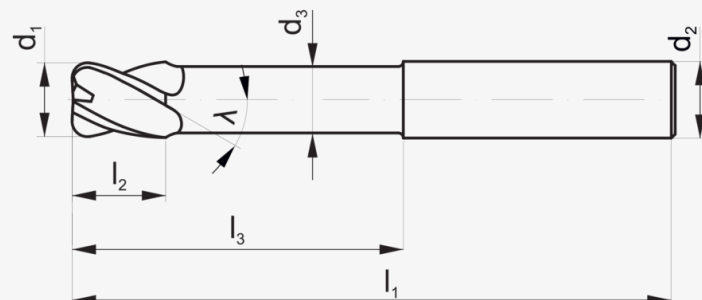
Intended for machining aluminium, its alloys, and other non-ferrous metals.

## Protection



Tools are protected against wear and tear by TB coat. Due to lack of chemical affinity for aluminium, it reduces build-up

on cutting edges during the machining of its alloys, which significantly extends the life-time of materials from N group.






## Application






P

M

K

## Dimensions

Index	$\varnothing d_1$	$\varnothing d_2 h6$	$d_3$	$l_1$	$l_2$	$l_3$	Z - flute number	End mill shank type
<b>M9-34B7A0-0030</b>	3	6	2,7	57	7	17	3	
<b>M9-34B7A0-0040</b>	4	6	3,7	63	8	22	3	
<b>M9-34B7A0-0050</b>	5	6	4,7	67	10	27	3	

<b>M9-34B7A0-0060</b>	6	6	5,5	74	10	32	3	
<b>M9-34B7A0-0080</b>	8	8	7,5	90	12	46	3	
<b>M9-34B7A0-0100</b>	10	10	9,2	102	14	55	3	
<b>M9-34B7A0-0120</b>	12	12	11	117	16	64	3	
<b>M9-34B7A0-0160</b>	16	16	15	141	22	87	3	



VHM

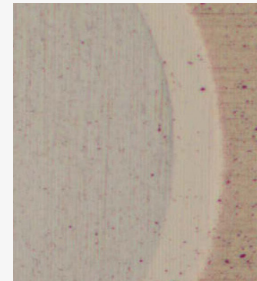
TB

$\lambda$   
45

## B345NL TB

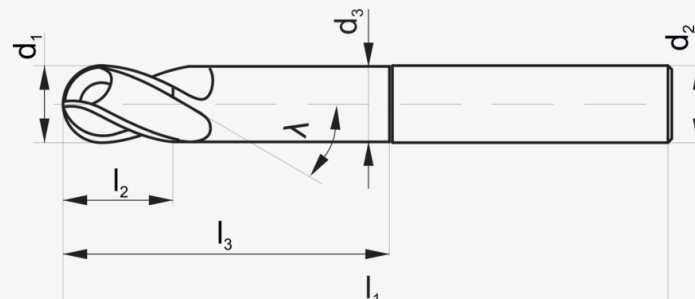
Intended for machining aluminium, its alloys, and other non-ferrous metals.

### Protection



Tools are protected against wear and tear by TB coat. Due to lack of chemical affinity for aluminium, it reduces build-up on cutting edges

during the machining of its alloys, which significantly extends the life-time of materials from N group.



### Application




P


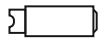
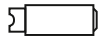
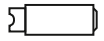
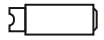
M

K



## Dimensions

Index	$\varnothing d_1$	$\varnothing d_2 h_6$	$d_3$	$l_1$	$l_2$	$l_3$	R	Z - flute number	End mill shank type
<b>M9-34B7AX-0030</b>	3	6	2,7	57	7	17	1,5	3	
<b>M9-34B7AX-0040</b>	4	6	3,7	63	8	22	2	3	
<b>M9-34B7AX-0050</b>	5	6	4,7	67	10	27	2,5	3	

<b>M9-34B7AX-0060</b>	6	6	5,5	74	10	32	3	3	
<b>M9-34B7AX-0080</b>	8	8	7,5	90	12	46	4	3	
<b>M9-34B7AX-0100</b>	10	10	9,2	102	14	55	5	3	
<b>M9-34B7AX-0120</b>	12	12	11	117	16	64	6	3	
<b>M9-34B7AX-0160</b>	16	16	15	141	22	87	8	3	

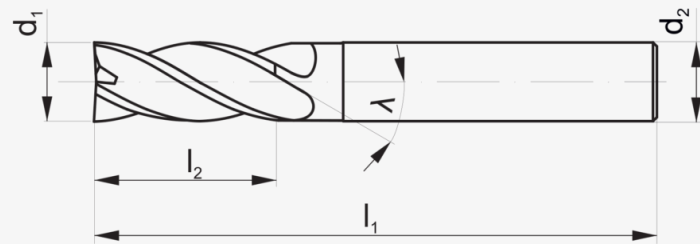


VHM

$\lambda$   
42-45

# 445

Intended for machining aluminium, its alloys, and other non-ferrous metals.



### Application

P

M

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N

S

H

# Dimensions

Index	$\varnothing d_1$	$\varnothing d_2 h_6$	$l_1$	$l_2$	Z - flute number	End mill shank type
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<b>M9-441700-0030</b>	3	3	39	12	4	
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<b>M9-441700-0040</b>	4	4	51	12	4	
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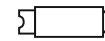
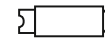
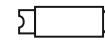
<b>M9-441700-0050</b>	5	5	51	15	4	
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


<b>M9-441700-0060</b>	6	6	57	18	4	
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<b>M9-441700-0060-B</b>	6	6	57	18	4	
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<b>M9-441700-0080</b>	8	8	63	24	4
<b>M9-441700-0080-B</b>	8	8	63	24	4
<b>M9-441700-0100</b>	10	10	72	30	4
<b>M9-441700-0100-B</b>	10	10	72	30	4
<b>M9-441700-0120</b>	12	12	83	36	4
<b>M9-441700-0120-B</b>	12	12	83	36	4
<b>M9-441700-0140</b>	14	14	83	42	4
<b>M9-441700-0140-B</b>	14	14	83	42	4



<b>M9-441700-0160</b>	16	16	92	48	4	
<b>M9-441700-0160-B</b>	16	16	92	48	4	
<b>M9-441700-0180</b>	18	18	92	54	4	
<b>M9-441700-0180-B</b>	18	18	92	54	4	
<b>M9-441700-0200</b>	20	20	104	60	4	
<b>M9-441700-0200-B</b>	20	20	104	60	4	

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