



**BASS**  
TECHNIK FÜR GEWINDE

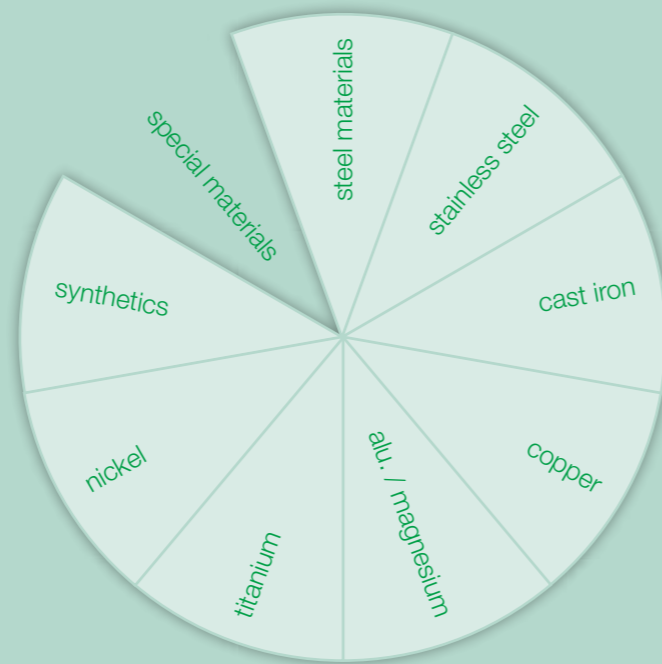
**ALLROUNDER**

CUTTING TAPS

# ALLROUNDER

Our multi-purpose cutting taps cover a comprehensive range of materials. They can be applied for the reliable machining of various materials ranging from steel materials to plastics.

**Your benefit:** one tool for many applications omitting the need for re-tooling and considerably reducing the tool variety in stock.



**coolant supply**  
axial internal coolant for improved coolant-lubrication and chip transportation in blind holes



**coating**  
TIN for high cutting speed and high tool life  
HL for high cutting speed & tool life, for thread depths up to 3xD



**HSSE-PM (powder metal)**  
increased tool life up to 30%, improved thread surface and process reliability compared to HSSE



**long shank (SL)**  
for deep-seated threads



**tolerances**  
VARIANT VA:  
ISO2/6H, ISO3/6G and 2B.  
DOMINANT VA45:  
ISO2/6H, ISO3/6G, 7G,  
6H+0,1, 6H mod, 2B and 3B.  
Other tolerances upon request.



**chamfer forms**  
according to DIN 2197  
B / 3,5-5,5 teeth  
for through hole threads  
with spiral point



C / 2-3 teeth  
for standard applications

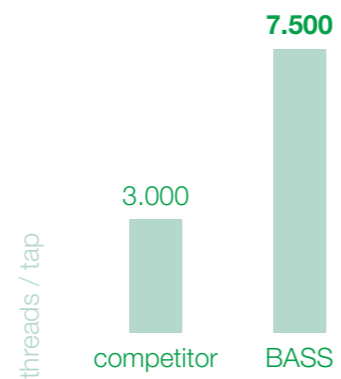


E / 1,5-2 teeth  
for blind hole threads  
with short run-out



## VARIANT VA

The cutting tap for through holes.



### application example

dimension	M10 ISO2/6H
coating	HL
material	1.4301
thread depth	24 mm
machine	machining center
cooling	emulsion 6%
v <sub>c</sub>	10 m/min

### customer benefit

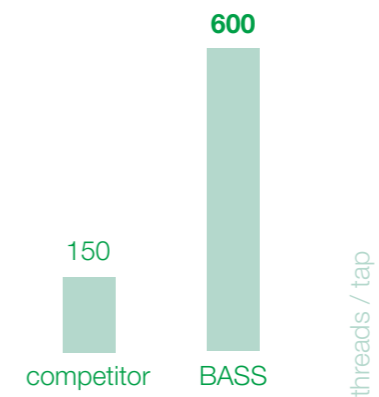
- one tool for various materials and applications
- reduced tool variety in stock
- less frequent tool changes
- high cutting speed
- high tool life

### types

- h9-shank tolerance
- HSSE-PM (powder metal)
- also available with extended shank
- also available with radial coolant (KR) upon request

## DOMINANT VA45

The cutting tap for blind holes.



### application example

dimension	M16 ISO2/6H
coating	HL
material	1.4408
thread depth	30 mm
machine	machining center
cooling	emulsion 5%
v <sub>c</sub>	10 m/min

### application

- conventional machines
- modern machining centers
- HL surface treatment guarantees optimized chip evacuation even with MQL

### materials

- steel materials up to 1,250 N/mm<sup>2</sup>
- VA stainless steels
- cast iron
- aluminum
- copper alloys



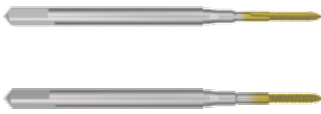
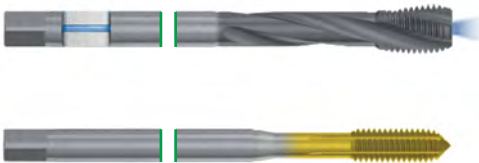


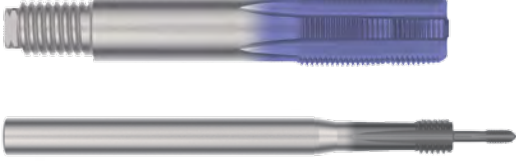




<b>model</b>	VAP HSSE-PM	TIN HSSE-PM	TIN SL HSSE-PM	HL HSSE-PM	VAP HSSE-PM	TIN HSSE-PM	HL HSSE-PM	HL HSSE-PM	HL SL HSSE-PM	KA HL HSSE-PM
<b>chamfer</b>	B / 3,5-5,5	B / 3,5-5,5	B / 3,5-5,5	B / 3,5-5,5	C / 2-3	C / 2-3	C / 2-3	E / 1,5-2	C / 2-3	C / 2-3
<b>thread types</b>	M	M / MF UNC / UNF G	M	M / MF UNC / UNF G	M	M / MF UNC / UNF G	M / MF UNC / UNF G	M / EG	M	M
<b>thread tolerances</b>	ISO2/6H	ISO2/6H ISO3/6G 2B	ISO2/6H	ISO2/6H 2B	ISO2/6H	ISO2/6H ISO3/6G 7G 6H+0,1 2B	ISO2/6H ISO3/6G 7G 6H+0,1 2B	ISO2/6H ISO3/6G 6H mod 3B	ISO2/6H	ISO2/6H

application	examples of materials	N/mm <sup>2</sup>	HB									
<b>1 steel materials</b>												
1.1 magnetic soft steel	FeP01	> 100 < 450	10 - 15	<b>20 - 30</b>	<b>20 - 30</b>	<b>20 - 30</b>	10 - 15	20 - 30	<b>20 - 30</b>	<b>20 - 30</b>	<b>20 - 30</b>	<b>20 - 30</b>
1.2 construction steel / case hardening steel	En40B	> 300 < 700	10 - 20	<b>20 - 30</b>	<b>20 - 30</b>	<b>20 - 30</b>	10 - 20	20 - 30	<b>20 - 30</b>	<b>20 - 30</b>	<b>20 - 30</b>	<b>20 - 30</b>
1.3 carbon steel	080M46	> 400 < 950	10 - 20	<b>20 - 30</b>	<b>20 - 30</b>	<b>20 - 30</b>	10 - 20	20 - 30	<b>20 - 30</b>	<b>20 - 30</b>	<b>20 - 30</b>	<b>20 - 30</b>
1.4 alloyed / heat-treatable steel	En19A	> 450 < 950	10 - 15	<b>15 - 35</b>	<b>15 - 35</b>	<b>15 - 35</b>	10 - 15	15 - 35	<b>15 - 35</b>	<b>15 - 35</b>	<b>15 - 35</b>	<b>15 - 35</b>
1.5 alloyed steel	BD2	> 800 < 1250	> 235 < 370	10 - 20	10 - 20	10 - 20	5 - 10	10 - 20	<b>10 - 20</b>	<b>10 - 20</b>	<b>10 - 20</b>	<b>10 - 20</b>
<b>2 stainless steel</b>												
2.1 ferritic / martensitic steel	420S37	> 450 < 1200		<b>4 - 6</b>	6 - 12	6 - 12	4 - 6	6 - 12	<b>6 - 12</b>	<b>6 - 12</b>	<b>6 - 12</b>	<b>6 - 12</b>
2.2 austenitic steel	320S18	> 400 < 950		3 - 8	6 - 12	6 - 12	4 - 8	6 - 12	<b>6 - 12</b>	<b>6 - 12</b>	<b>6 - 12</b>	<b>6 - 12</b>
2.3 high temperature steel	301S81	> 850 < 1550	> 250 < 455	1 - 4	3 - 8	3 - 8		3 - 6	<b>3 - 6</b>	<b>3 - 6</b>	<b>3 - 6</b>	<b>3 - 6</b>
<b>3 cast iron</b>												
3.2 cast iron with nodular graphite	Grade 420/12	> 350 < 1000	> 100 < 350		8 - 20	8 - 20	8 - 20					8 - 15
3.3 malleable cast iron	EN-GJMB-350-10	> 300 < 700	> 100 < 200		15 - 25	15 - 25	15 - 25		15 - 25	15 - 25	15 - 25	15 - 25
<b>4 copper</b>												
4.1 copper non-alloyed	Cu-ETP-2 C 101	> 200 < 400	> 60 < 120		<b>10 - 25</b>	<b>10 - 25</b>	10 - 25	10 - 25				10 - 25
4.3 brass (long chipping)	CZ 108	> 150 < 700	> 45 < 200		<b>15 - 35</b>	<b>15 - 35</b>	15 - 35	<b>15 - 35</b>				15 - 35
4.4 copper-alu-nickel alloyed (short chipping)	CN 102	> 150 < 700	> 45 < 200		10 - 20	10 - 20						
<b>5 aluminium / magnesium</b>												
5.1 alu wrought alloy Si ≤0,5%	1B	> 100 < 700	> 30 < 200					15 - 35	<b>15 - 35</b>	<b>15 - 35</b>	<b>15 - 35</b>	<b>15 - 35</b>
5.2 alu alloyed Si ≤6%	LM22	> 150 < 700	> 45 < 200		<b>15 - 40</b>	<b>15 - 40</b>	<b>15 - 40</b>	<b>15 - 40</b>	<b>15 - 40</b>	<b>15 - 40</b>	<b>15 - 40</b>	<b>15 - 40</b>
5.3 alu alloyed Si >6%	LM9	> 150 < 900	> 45 < 265		<b>15 - 40</b>	<b>15 - 40</b>	<b>15 - 40</b>	<b>15 - 40</b>	<b>15 - 40</b>	<b>15 - 40</b>	<b>15 - 40</b>	<b>15 - 40</b>

tool well suitable

tool suitable

our products	examples
small dimensions starting with Ø 1.0 mm	
tools with extended shank	
solid carbide	
MQL tools	
special tools for all product groups	
thread milling systems with solid carbide inserts	
HST SYNCHRO tap holders and accessories	

certified according to: ISO 9001, VDA 6.4, ISO 14001, ISO 50001



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