



## JEL<sup>®</sup> VABOS EASY

Modular tool system – especially for machining aluminium

# JEL® VABOS EASY

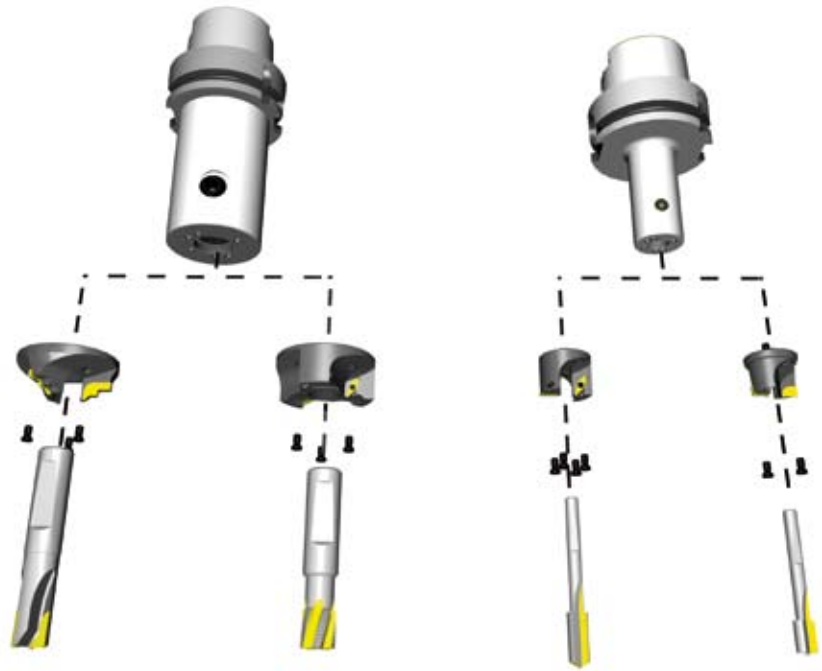
Boring, counterboring and thread milling with the shortest possible delivery times.

JEL® VABOS, the variable boring and countersinking system, is a modular tool system which is particularly notable for its extremely high flexibility.

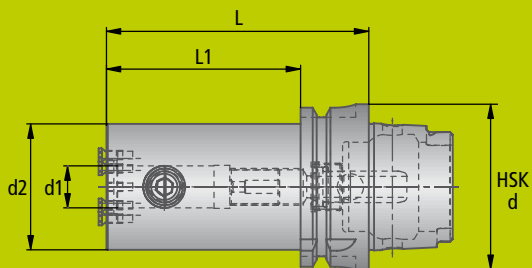
A broad based range of machining tasks can be carried out with just a few components – a central tool combined with inserts for universal shaping.

When manufacturing bores and threads on CNC machines significant time savings and improvements in quality can be achieved.

## Possible combinations

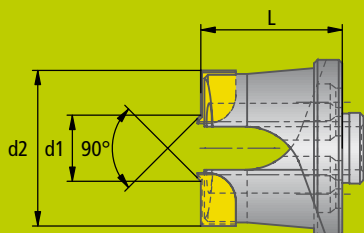




### JEL® VABOS EASY – Basic holder



Basic holder							
HSK	d	d1	d2	short version		long version	
				Order No.	L	Order No.	L
63	6	25	5077502 6000600	80	5077602 6000600	160	
	8	28	5077502 6000800	80	5077602 6000800	160	
	10	35	5077502 6001000	80	5077602 6001000	160	
	12	42	5077502 6001200	90	5077602 6001200	160	
	14	44	5077502 6001400	90	5077602 6001400	160	
	16	48	5077502 6001600	100	5077602 6001600	160	

### JEL® VABOS EASY – Head



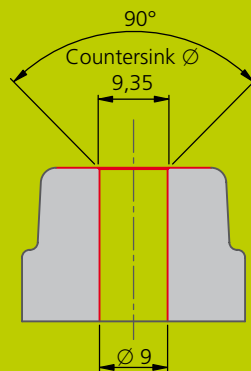
Head						
Type	d1	d2 max.	L max.	No. of flutes	No. of flutes	
				2	3	
				Order No.	Order No.	
with inserts 	6	25,6	20	507150 ..	507160 ..	
	8	28,6	25			
	10	35,6	25			
	12	42,6	25			
	14	44,6	30			
	16	48,6	30			
PCD brazed 	6	25,6	20	507350 ..	507360..	
	8	28,6	25			
	10	35,6	25			
	12	42,6	25			
	14	44,6	30			
	16	48,6	30			

Benefits for you:

- Large number of possible combinations
- One tool holder sufficient
- Lower tool costs
- Exchangeable head
- Easy exchangeability at re-tipping
- Easy assembly of the central tool
- HSK-A63 basic holder kept in stock as standard in two lengths
- Can be supplied as insert tools or in PCD brazed version
- Shortest possible delivery times

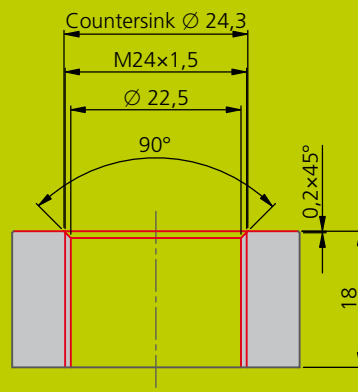
Application 1:

- Boring
- 90° countersinking
- Spotfacing



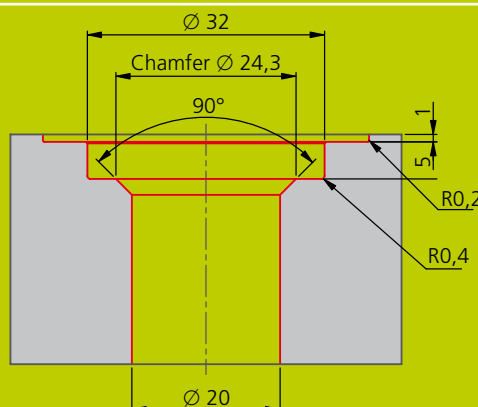
Application 2:

- Existing bore  
Shaped counterbore:
- Spotfacing and
  - 90° chamfering
  - External deburring
  - Thread milling M24x1,5



Application 3:

- Circular boring  $\varnothing 20$  mm
- Machining of complete counterbore



## Key to VABOS EASY calculations

Calculating the achievable spotface diameter in conjunction with boring and 90° countersinking using inserts.

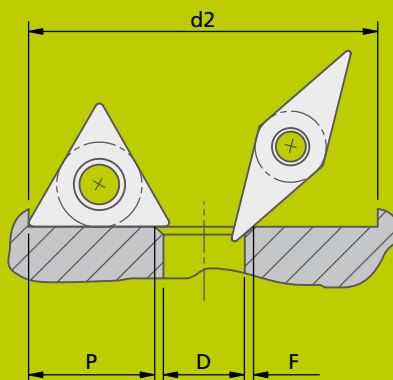
Key:

d2 = Spotface diameter

D = Bore diameter

F = Chamfer width

P = Cutting length




Spotface diameter  $d2 = \text{bore diameter } D + 2 \times \text{chamfer width } F + 2 \times \text{cutting length } P$  of inserts


Example: Bore diameter D: 5,0 mm  
Chamfer width F: 0,5 mm  
Cutting length P: 7,5 mm

$$d2 = 5,0 + 2 \times 0,5 + 2 \times 7,5$$

$$d2 = 21,0 \text{ mm}$$

Bore diameter D		
shank $\varnothing$	bore $\varnothing$	bore $\varnothing$
	D min	D max
6	4,0	6,0
8	6,0	8,0
10	8,0	10,0
12	10,0	12,0
14	12,0	14,0
16	14,0	16,0

Chamfer width F		
	F	F
	min	max
W89 03...002..	0,1	1,5

Cutting length P		
	P	P
	min	max
W30 04...02..	5,3	6,3
W30 04...03..	5,2	6,1
W30 04...04..	5,2	5,8
W30 14...02..	7,5	9,1
W30 14...04..	7,4	8,6

All inserts can be supplied both in carbide and in PC D



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