

# Direction for Use

Ev.no.: 320304



# Vhs

10- 125

40 - 180

Producer:



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## Vhs - Adjustable boring heads

### Direction for Use

#### Basic information:

These heads are suitable for precision boring in tolerance IT7 (max. IT6) of rough-drilled or premachined cylindrical holes on drilling, boring or millin machines or machining centres. The heads aren't balanced and their operating speed is limited regarding to the centrifugal forces. The manipulation of the head is very simple and consists of the clamping of boring tools and adjusting the boring diameters. The primary tooling is included in the primary accessories of the boring head.

#### Main technical Data:

	Vhs 10-125	Vhs 40-180
Max. bore diameter - with parallel tool	87 mm	112 mm
Max. bore diameter - with oblique tool	125 mm	180 mm
Max. slide motion	18 mm	22 mm
Max. speed rotation		
Accuracy of diameter adjusting	1 DIV = 0,01 mm/Ø	1 DIV = 0,02 mm/Ø

#### Dimensions:

Type	Shankl	ČSN	d1	a	a1	b	b1	d/A	L	L1	xmax	kg
Vhs 10-125	Mk4	220426		69	79	60	52	25H7	97,5	208	18	2
	ISO 40	220430	M16					20	110,6	2,45		
Vhs 40-180	Mk5	220426		84	94	76	58	32	137,5		22	5,4
	ISO 40	220430	M16					H7	150,6	5		
	ISO 50	220430	M24					25	156,2	268		6,9

#### Brief description of the head:

The head consists of the body with taper shank, further of the slide transversably mounted in the body and of the feed mechanism consisting of the feed screw and feed nut. The scale on the screw is tightened by the nut (pos.30) and may be reset in any position of the screw.

#### Tool clamping:

The tools are clamped in slide borings by means of clamping screws (pos.20). The oblique boring with inclination 75° to the head axis is designed for the clamping of square shanks. The boring bar with two square cross borings and the reduction sleeve for the clamping of tools with smaller shanks are included in the primary accessories. Special accessories may be demanded at the manufacturer if required.

#### Adjusting of the bore diameter:

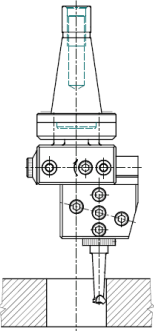
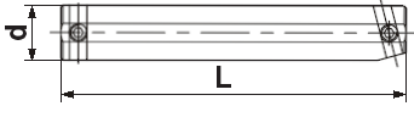
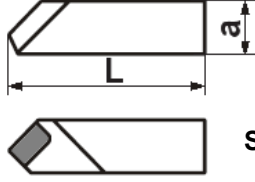
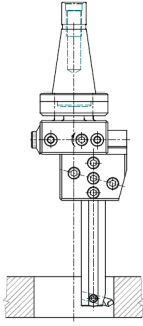
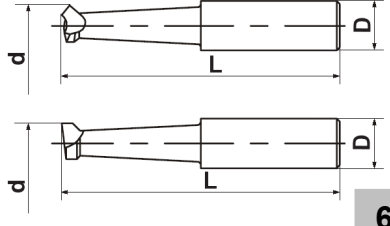
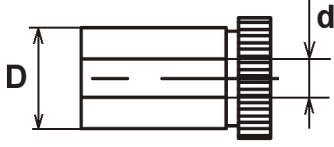
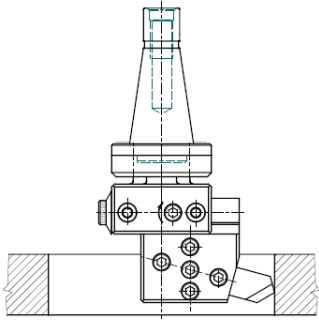
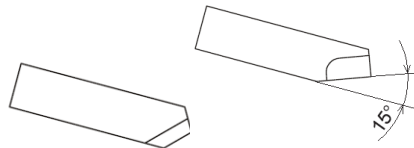
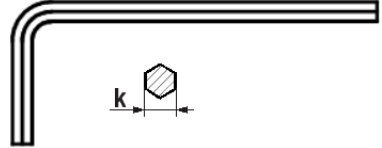
1. Loosen the locking screw (pos.26)
2. Turn the feed screw (pos.5) by means of the hex wrench (pos.8)
3. Reset the scale (if required) – hold the feed screw by means of the hex wrench, loosen the nut (pos.30), reset the scale and lightly tighten the nut again.
4. Tighten the locking screw (pos.26)

**Warning!**: Don't get over the maximum slide motion  $x_{max}$ .

#### Maintenance of the head:

The maintenance consists of the chip removal and of the lubrication of the sliding surfaces with the machine oil. The service of the heads is carried out by manufacturer.

Accessories of the heads Vhs

	<p>Boring bar <math>d \times L</math></p>  <p>1</p>	<p>Tool <math>a \times a - L</math></p>  <p>HSS</p> <p>S20</p> <p>2</p> <p>3</p>
	<p>Boring Tool <math>d \times D - L</math></p>  <p>5</p> <p>6</p>	<p>Reduction Sleeve <math>D/d</math></p>  <p>7</p>
	<p>Boring tool <math>a \times a - L</math></p>  <p>4</p> <p>10</p>	 <p>8</p> <p>9</p>

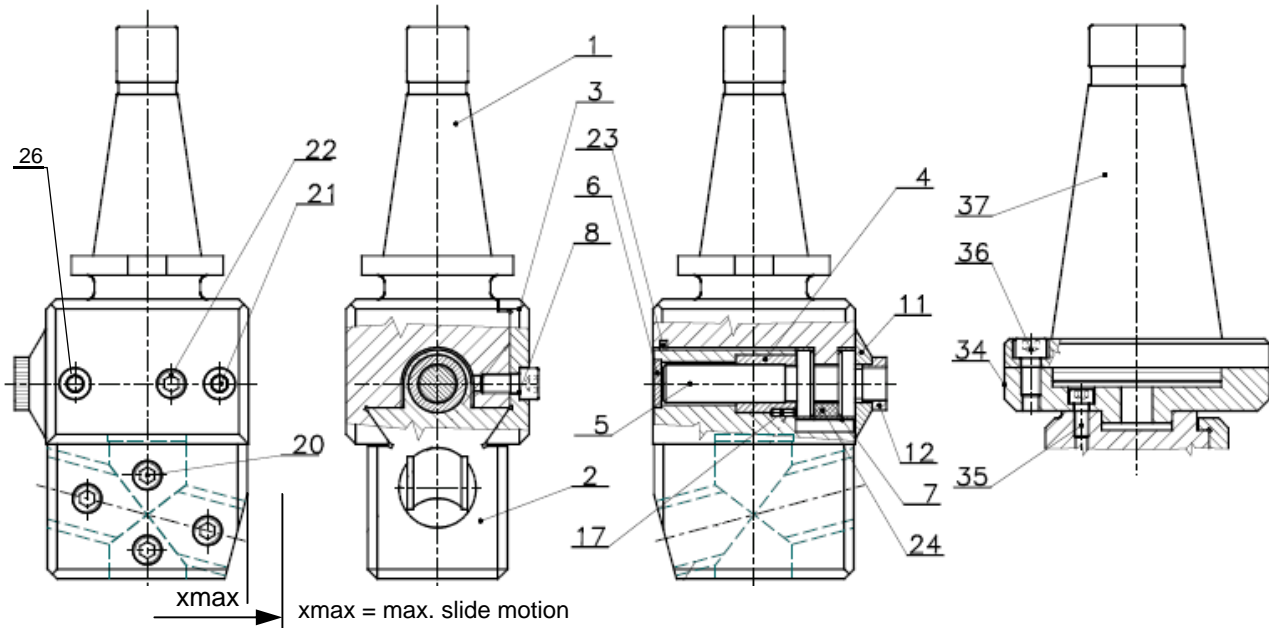
Vhs 10 - 125 Basic accessories

Pos	Name- Size - Standard	ks	kód
1	Boring bar 10 x1 60	1	302.263
2	Boring tool 8 x 8 - 40 HSS	1	302.188
3	Boring tool 8 x 8 - 30 S20	1	302.195
4	Boring tool 20 x 20 - 80 HSS 223515	1	302.140
5	Boring tool 13 x 16 - 90 HSS 221710	1	302.058
6	Boring tool 13 x 16 - 90 HSS 221711	1	302.065
7	Reduction sleeve $\varnothing 25/ \varnothing 16$	1	301.044
8	Hex wrench 4 230710	1	303.086
9	Hex wrench 6 230710	1	303.109

Vhs 40 - 180 Basic accessories

Pos	Name- Size - Standard	ks	kód
1	Boring bar 32 x 250	1	302.270
2	Boring tool 10 x 10 - 36 HSS	1	302.201
3	Boring tool 10 x 10 - 36 S20	1	302.218
10	Boring tool 25 x 25 - 100 S30	1	302.157
8	Hex wrench 4 230710	1	303.086
9	Hex wrench 6 230710	1	303.109

Order of the accessories: Necessary to give name, code and number of pcs



### List of the Spare Parts

Pos	Name - Size	Vhs 10-125		Vhs 40-180	
		pc	code	pc	code
1	Body with shank	1	-	1	-
2	Slide	1	2000 000 047 001 00	1	2000 000 049 001 00
3	Shim	1	2000 000 045 501 00	1	2000 000 049 201 00
4	Nut	1	2000 000 043 601 00	1	2000 000 049 301 00
5	Feed screw	1	2000 000 054 801 00	1	2000 000 054 901 00
6	Cap	1	2000 000 044 001 00	1	2000 000 049 701 00
7	Cap	1	2000 000 045 801 00	1	2000 000 049 801 00
11	Scale	1	2000 000 055 001 00	1	2000 000 055 101 00
12	Locking nut	1	2000 000 046 001 00	1	2000 000 050 101 00
17	Screw M4-10	1	9309 281 004 010 00	1	9309 281 004 010 00
19	Screw M8x1-10	2	9309 787 508 010 00	2	9309 787 508 010 00
20	Screw M12x1-15	5	9309 787 512 015 00	4	9309 787 512 015 00
21	Screw	1	9309 543 008 012 00	2	9309 543 008 016 00
22	Screw M12x1-25	1	9309 787 512 025 00	1	9309 787 512 025 00
23	Felt seal	1	2000 000 044 301 00	1	2000 000 050 501 00
24	Felt seal	1	2000 000 046 101 00	1	2000 000 050 601 00
26	Screw M8-16	1	9309 543 008 016 00	-	-
34	Coupling flange	1	2000 000 008 101 00	1	2000 000 023 601 00
35	Screw	6	9309 743 005 010 00	6	9309 543 008 012 00
36	Screw	4	9309 743 005 012 00	4	9309 543 008 016 00
37	Exchangeable taper shank	1	VK360 up to the type <sup>1)</sup>	1	VK801 up to the type <sup>1)</sup>

<sup>1)</sup> List of taper shanks type VK360 and VK801 you can find in catalogue NAREX MTE s.r.o. or on [www.narexmte.cz](http://www.narexmte.cz)