

# Direction for Use

Ev.no.: 320304



# Vhs

5 - 50

10 - 100

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. The special accessories may be extra ordered according to the label on page 4.

#### Main technical Data:

	Vhs 5-50	Vhs 10-100
Max. bore diameter	50 mm	100 mm*
Max. slide motion	8,5 mm	24,0 mm
Max. speed of rotation		
Accuracy of diameter adjusting	1 DIV = 0,01 mm/Ø	

\* with tool holders

#### Dimensions:

Type	Shank	ČSN	d1	a	a1	b	b1	d H7	L	L1	xmax	kg
Vhs 5-50	Mk2	220420	M10 (M8)	45	50	45	30	10	55	114	8,5	0,65
	Mk3		M12 (M10)						55,5	129		0,75
	ISO 40	M16	70,6							1,3		
Vhs 10-100	Mk4	220422	M14 (M12)	69	79	60	42	16	83,5	178	24	2

#### 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 is engraved directly on the screw of the head Vhs 5-50, the scale of the head Vhs 10-100 is free rotating on the screw and tightened by the nut (pos.30). The shim (pos.3) is tightened by two screws (pos. 10 and 21).

#### Tool clamping:

The tools are clamped in slide borings by means of clamping screws (pos.11). The leading edge points away from the scale to the feed screw. The tools with indexable insert, included in the special accessories, are suitable for boring of holes of the diameter over 25 mm by means of the head Vhs 10-100. The tools are delivered in the wooden box or separately, the list of tools is enclosed. The tools of the smaller diameter are clamped by means of the reduction sleeve.

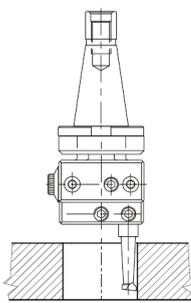
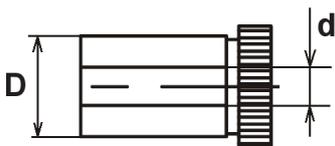
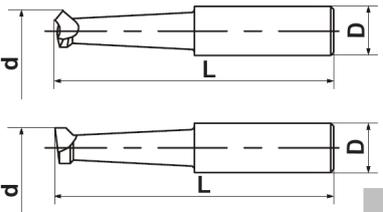
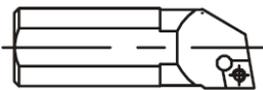
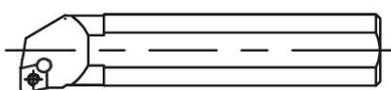
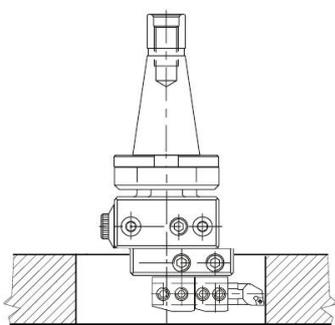
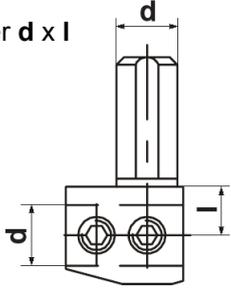
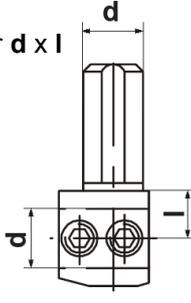
#### Adjusting of the bore diameter:

1. Loosen the locking screw (pos.9)
2. Turn the feed screw by means of the hex wrench adjust the diameter according to the scale.
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.

**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>Reduction sleeve D/d</p>  <p>5</p>	<p>Boring tool d x D x L</p>  <p>1</p> <p>2</p>
<p>SCACL                      SCBCL</p> 	 <p>8</p>	<p>SCFCR                      SCKCR</p> 
	<p>Holder d x l</p>  <p>6</p>	<p>Holder d x l</p>  <p>7</p>

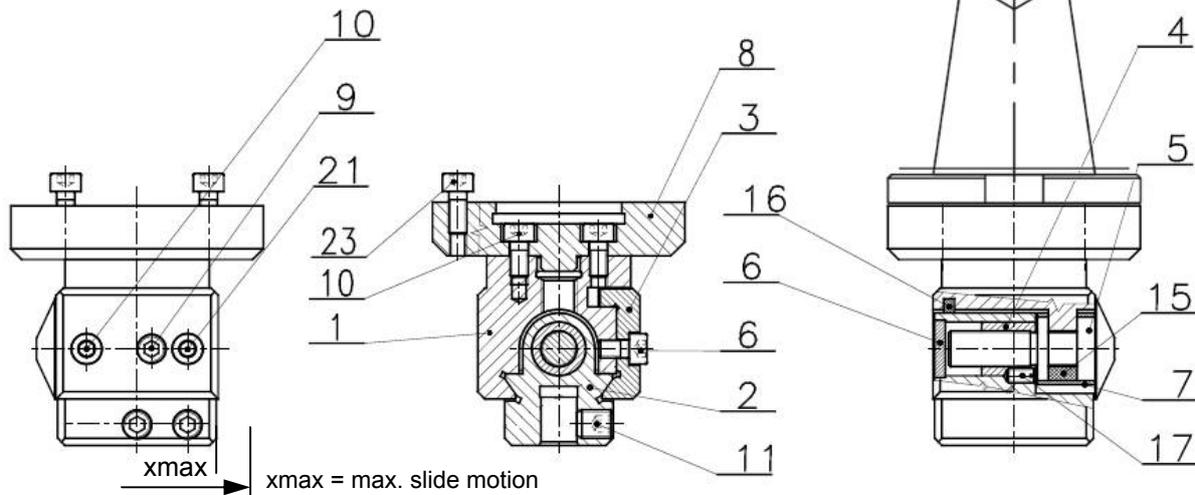
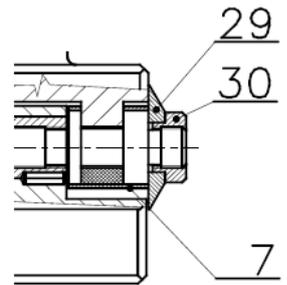
<b>Vhs 5-50 Basic accessories</b>			
Pos	Name – size - Standard	pc	code
1	Boring tool 5 x 10 x 60 HSS 221710	1	302.010
2	Boring tool 5 x 10 x 60 HSS 221711	1	302.027
3	Hex wrench 4	1	303.086

<b>Vhs 10-100 Basic accessories</b>			
Pos	Název - Rozměr - Norma	pc	code
1	Boring tool 13 x 16 x 90 HSS 221710	1	302.058
2	Boring tool 13 x 16 x 90 HSS 221711	1	302.065
3	Hex wrench 6 237110	1	303.109
4	Hex wrench 4 237110	1	303.086

**Vhs 10-100 Special accessories – ordered separately**

Pos	Name – size - Standard	pc	code
5	Reduction sleeve Ø16/ Ø10	1	301.037
6	Holder 16 x 56 /1	1	203.713
7	Holder 16 x 56 /2	1	203.720
8	Set of boring tools VDSK 16 (Ø 16mm)	1	203.010

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



List of spare parts					
Pos	Name - dimension	Vhs 5-50		Vhs 10-100	
		ks	kód	ks	kód
1	Body	1	-	1	-
2	Slide	1	2000 000 043 301 00	1	2000 000 045 301 00
3	Shim	1	2000 000 043 501 00	1	2000 000 045 501 00
4	Nut	1	2000 000 043 601 00	1	2000 000 043 601 00
5	Feed screw	1	2000 000 043 801 00	1	2000 000 054 801 00
6	Cap	1	2000 000 044 001 00	1	2000 000 044 001 00
7	Cap	1	2000 000 044 101 00	1	2000 000 045 801 00
8	Coupling flange	1	2000 000 008 101 00	1	-
9	Screw	1	9309 787 508 015 00	1	9309 787 512 025 00
10	Screw	7	9309 543 005 010 00	1	9309 543 008 016 00
11	Screw	2	9309 787 508 010 00	2	9309 787 512 015 00
15	Felt seal	1	2000 000 044 201 00	1	2000 000 046 101 00
16	Felt seal	1	2000 000 044 301 00	1	2000 000 044 301 00
17	Screw M4-8	1	9309 281 004 008 00	1	9309 281 004 008 00
21	Screw	1	9309 543 005 008 00	1	9309 543 008 012 00
23	Screw M5-12	4	9309 543 005 008 00	-	-
29	Scale	-	-	1	2000 000 055 001 00
30	Locking nut	-	-	1	2000 000 046 001 00
38	Exchangeable taper shank VK360	1	Up to the type <sup>1)</sup>	-	-

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