



# Boring Head Shank C-Type

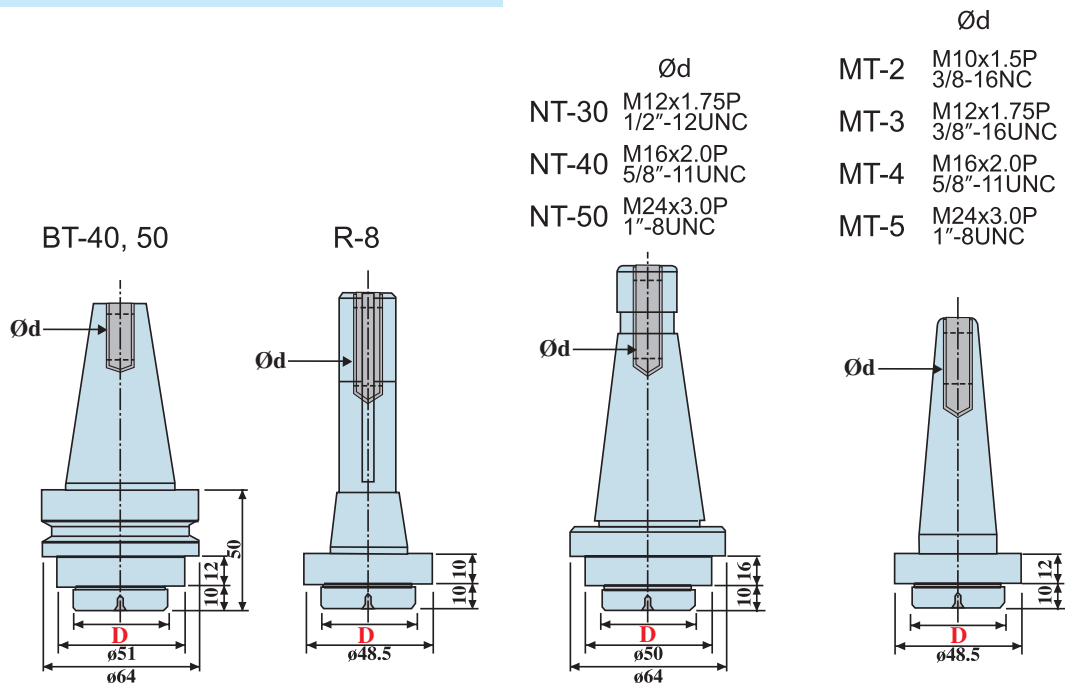


FOR VBHC-TYPE  
AND BC-2, BC-3, BC-4  
BORING HEAD



D: 1 1/2"-18UNC

The shanks are made tor for C-type boring head use.  
Also it can be replaced from time to time.



ORDER NO.	VBC-R8	VBC-NT30	VBC-NT40	VBC-MT2	VBC-MT3	VBC-MT4	VBC-MT5
WEIGHT (KG)	0.4	0.7	1.3	0.39	0.6	0.9	1.6
CODE NO.	3401-210	3401-211	340-212	3401-209	3401-213	3401-214	3401-215

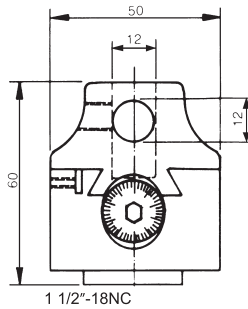
ORDER NO.	VBC-BT40	VBC-BT50	VBC-C20	VBC-SK40	VBC-BT30	VBC-SK50
WEIGHT (KG)	1.4	3.97	0.4	1.28	1.1	1.3
CODE NO.	3401-216	3401-217	3401-219	3401-222	3401-223	3401-224



# C-Type Boring Head



ORDER NO. VBC-2



**1 SCALE 0.01 mm  
0.02 mm per Ø**

Here is a small head that will be in constant demand in any shop.

Note the wide base bearing surface that assures maximum rigidity even when the bar holder is in an off-set position. This wide base design is a recent Criterion innovation that increases bearing surfaces by 50% over the older models.

A 1/2" double hole bar holder with a 1/2" cross hole is available.

The unit has a 1 1/2"-18NC threaded back and also features a direct reading dial screw.

## SPECIFICATION

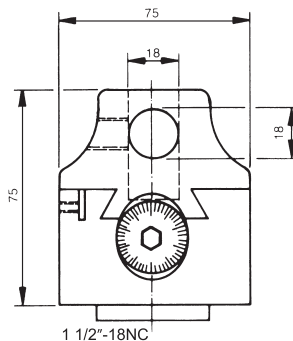
BORING CAPACITY Ø10-Ø100

ORDER NO.	ACTUAL SIZE	OVERALL LENGTH	BORING BAR HOLE SIZE	CENTER DIST BETWEEN HOLES.	CROSS HOLE DIA	OFFSET	WEIGHT (kg)	CODE NO.
VBC-2(l)	2" Dia.	2-7/16"	1/2"	5/8"	1/2"	5/8"	0.7	3401-301
VBC-2(m)	50	62	12	15	12	15	0.8	3401-302

• Boring Bar  
PAGE C85



ORDER NO. VBC-3



**1 SCALE 0.01 mm  
0.02 mm per Ø**

Here is a sturdy unit of extended boring range, capable of peeling off heavy roughing cuts as well tool of extreme sensitivity. The use of a wide-base bar-holder resting securely on the body, eliminates the need for a separate side plate. You will notice it has now become an integral part of the body.

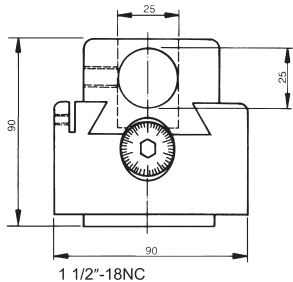
The direct reading adjusting screw is ground after hardening and a plainly marked dial face in non-reflecting satin chrome allows easy reading and adjustments of .0005 or less.

All Criterion Boring Heads have threaded backs for use with a variety of shanks. This model takes a 1-1/2"-18NC threaded shank.

## SPECIFICATION

BORING CAPACITY Ø10-Ø220

ORDER NO.	ACTUAL SIZE	OVERALL LENGTH	BORING BAR HOLE SIZE	CENTER DIST BETWEEN HOLES.	CROSS HOLE DIA	OFFSET	WEIGHT (kg)	CODE NO.
VBC-3(l)	3" Dia.	3.5/32"	3/4"	15/16"	3/4"	1"	2	3401-303
VBC-3(m)	75	80	18	23	18	25	2	3401-304



**1 SCALE 0.01 mm  
0.02 mm per Ø**

This is a bigger boring head which can be put on large machine to process more as you want. The radius of boring hole can reach on about Ø 400mm long by a boring bar of 160mm.

All Criterion Boring Heads have threaded backs for use with a variety of shanks. This model takes a 1-1/2"-18NC threaded shank.

## SPECIFICATION

BORING CAPACITY Ø10-Ø250

ORDER NO.	ACTUAL SIZE	OVERALL LENGTH	BORING BAR HOLE SIZE	CENTER DIST BETWEEN HOLES.	CROSS HOLE DIA	OFFSET	WEIGHT (kg)	CODE NO.
VBC-4(l)	4" Dia.	3-1/2"	1"	1-1/4"	1"	1"	4	3401-305
VBC-4(m)	100	90	25	32	25	25	4	3401-306

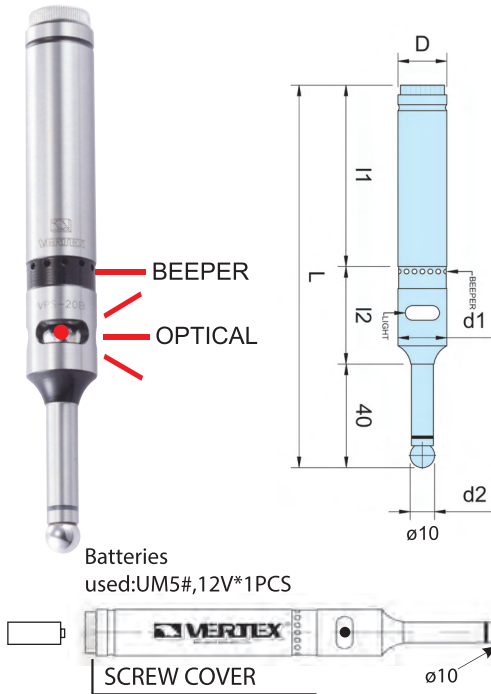
BORING HEAD



# Touch Point Sensor



## Edge Finder with Beeper & Optical



- No need to rotate while measuring.
- The red light was sealed with setting red-gel; it can concentrate the light and resist water.
- The sensor beeps while the red light is on.
- The sensor will beep when the user couldn't see the reverse side or get a clear sight.
- Example. If sensor's light is working, visually you couldn't see inside of the inner hole, while probing the user can be warned by the beeper.
- When probe the deep hole, you can't see the red light, but you can hear the sound from beeper.
- Accuracy: within  $\pm 0.005\text{mm}$ .
- ✘ No need to rotate.

## OPTICAL TYPE WITH BEEPER

Unit:mm

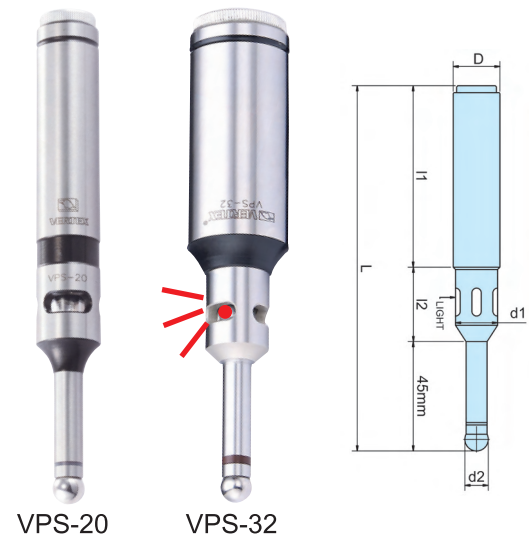
ORDER NO.	D	d1	d2	L	I1	I2	BATTERY TYPE	WEIGHT (kg)	CODE NO.
VPS-20B	$\varnothing 20$	18	10	157	77	41	UM-5#(SP) x1PCS/12V	0.4	3402-001
VPS-32B	$\varnothing 32$	18	10	157	74	41		0.7	3402-002
VPS-3/4B	$\varnothing 3/4$	18	10	157	74	41		0.7	3402-012



# Touch Point Sensor

## Optical Type

## Without Beeper



- High sensitivity position sensor.
- Red pilot can be seen clearly.
- Whole travel of red pilot is sparkling, detecting also can be done during turning while spindle stops.
- Location of end surface, outer circle dia., inner circle dia. of the work-piece for processing can be detected with full effect.
- Devised with safety line excess, ball supported by spring, so even line excess, it will be separated easily from the base shown as the fig.
- The precision will reach up to micrometer while the ball returns to center position.
- Edge Finder
- Accuracy: Within  $\pm 0.005\text{mm}$

## OPTICAL TYPE

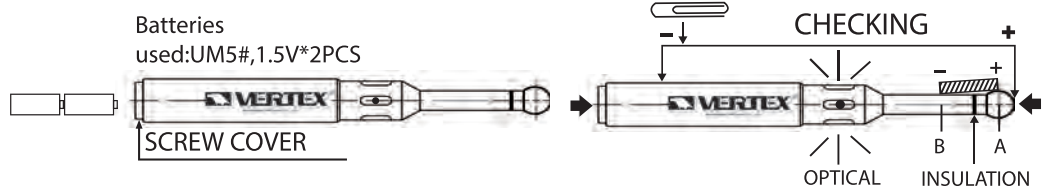
Unit:mm

ORDER NO.	D	d1	d2	L	I1	I2	BATTERY TYPE	WEIGHT (kg)	CODE NO.
VPS-20	20	18	10	157	76	33	UM-5#(SP) x2P/R1.1.1.5V	0.4	3402-003
VPS-32	32	18	10	157	74	41		0.7	3402-004

After Reading the Following instruction, please use touch point sensor correctly due to it's a highly sensitive position detector. Don't Rotate the touch point sensor while using it.

### 1. Install BATTERY

Take off the screw cover and insert batteries correctly. Do not insert batteries upside down.



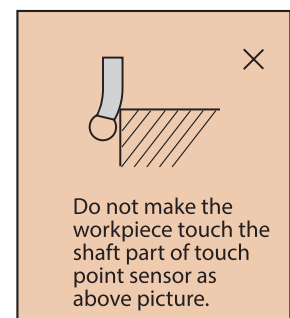
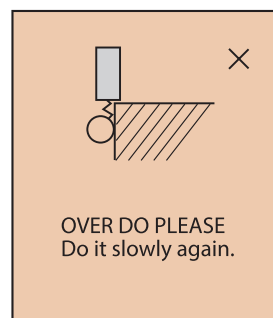
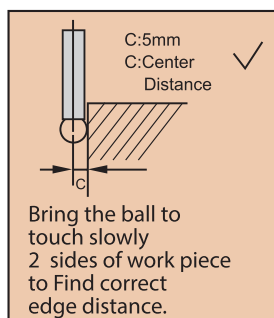
### 2. CONFIRMATION OF LIGHTING

CHECK the lighting of red lamp by touching A-B part with a metal (clip, L-PLATE etc.)

### 3. MEASURING METHOD

As soon as the ball (outside dia. 10mm $\varnothing$ ) touches the work piece with the main spindle stopped, The red lamp lights on.

✘ No need to rotate.



請注意 / 光電式尋邊器不適合迴轉使用  
Notice: optical edge finder is not suited FOR Rotation.



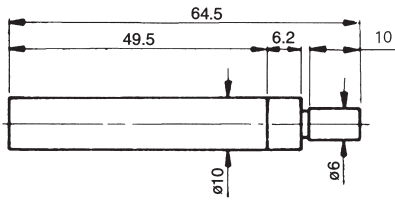
# Touch Point Sensor



Edge Finder



VPS-201



This series is a high precision setting device for positioning the accurate center between tool spindle of machine and reference surface of working at low-cost and saving time.

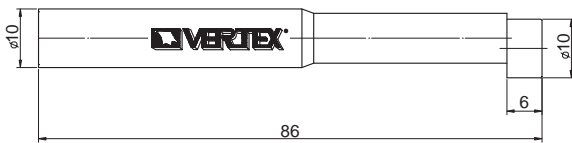
Accuracy : within  $\pm 0.005$  mm

Made of tool steel, hardened and ground.

Suitable rotation speed : VPS-201 500 to 700rpm.

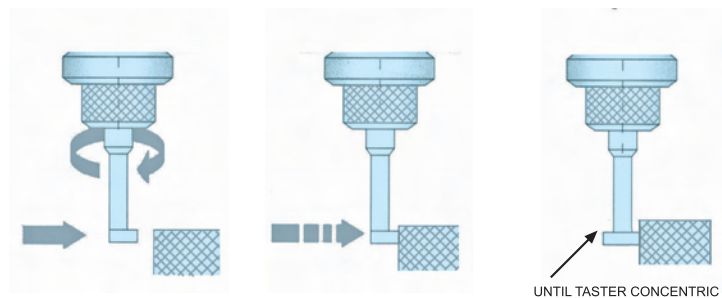


CREAMIC TYPE VPS-201C



## MECHANICAL TYPE

ORDER NO.	VPS-201	VPS-201C
WEIGHT (KG)	0.03	0.06
CODE NO.	3402-005	3402-007



TOUCH POINT SENSOR



# Touch Point Sensor

Deluxe Type



VPS-401



VPS-401C

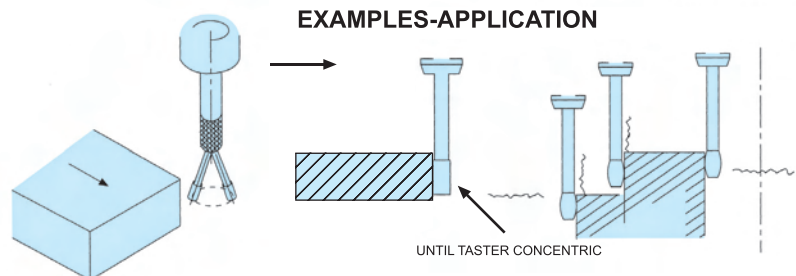
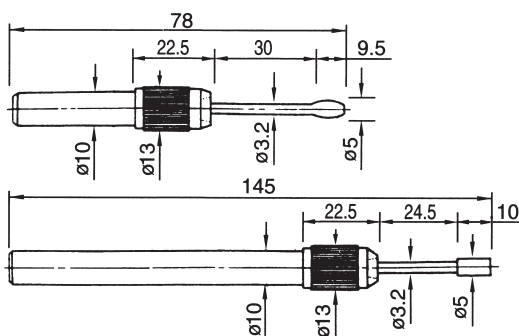
CERAMIC

## FEATURES:

- Material: high-carbon steel.
- Accuracy: within  $\pm 0.003$ mm
- Hardness: HRC  $58^{\circ} \pm 1^{\circ}$
- R.P.M. Within 600-900
- Suitable for milling machine. Drill machine and boring machine.
- Edge Finder

VPS-401 (2 PCS/SET)  
VPS-402A(LONG) SINGLE  
VPS-402B(SHORT) SINGLE

ORDER NO.	VPS-401	VPS-401C
PCS/SET	2PCS/SET	2PCS/SET
MATERIAL	STEEL	CERAMIC
WEIGHT (KG)	0.26	0.26
CODE NO.	3402-006	3402-008





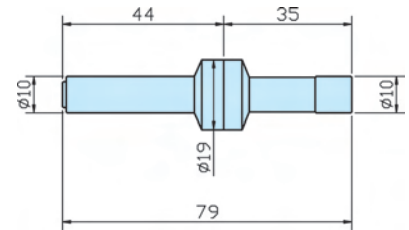
# Touch Point Sensor



## MECHANICAL TYPE



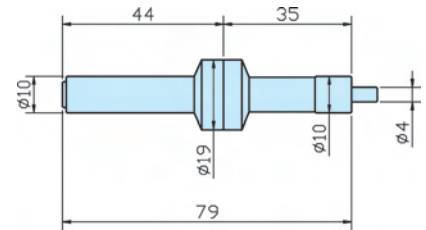
VPS-301 STEEL



VPS-301S STAINLESS



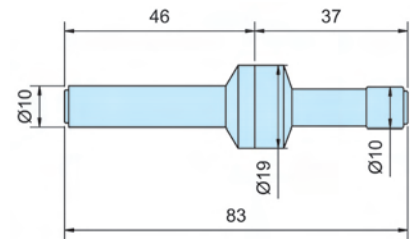
VPS-302 STEEL



VPS-302S STAINLESS



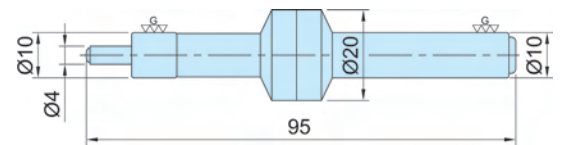
VPS-301C CERAMIC TYPE



**NEW**



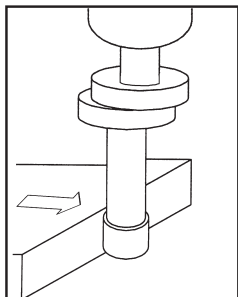
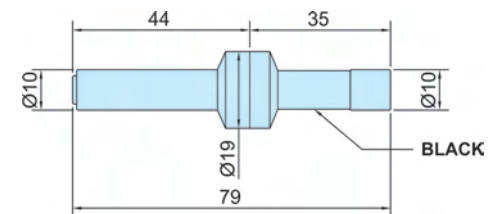
VPS-302C CERAMIC TYPE



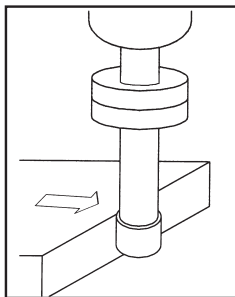
**NEW**



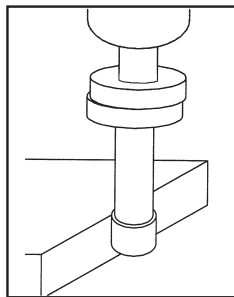
VPS-303  
NON-MAGNETIC COATING



Spindle runs about 500rpm. move spindle closed to measuring surface.



When measuring probe touches workpiece, it looks in one part.



When the probe and shank are in alignment, probe will slide out of rotating center. Now, the center spindle is located 5mm away from measuring surface

- Accuracy of zero point to point is within  $\pm 0.003\text{mm}$
- R.P.M. within 500-700.
- Max. flange can be clear your sight sense.
- MIN.(4mm) can be test mini hole for your workpiece.

ORDER NO.	MATERIAL	HARDNESS	WEIGHT (kg)	CODE NO.
VPS-301	ALLOY STEEL	HRC 56°	0.06	3402-100
VPS-302			0.05	3402-101
VPS-301S	STAINLESS	HRC 60°	0.06	3402-102
VPS-302S			0.06	3402-103
VPS-301C	CERAMIC	HRC 60°	0.06	3402-104
VPS-302C	CERAMIC	HRC 60°	0.06	3402-105
VPS-303	NON-Magnetic Coating	HRC 56°	0.06	3402-106

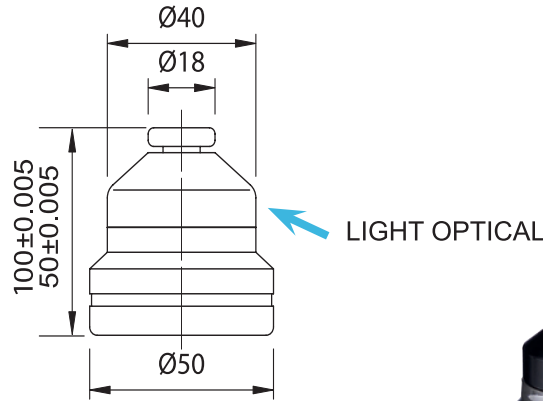


# Height Presetter



OPTICAL TYPE

HP-50Z



HP-50Z BATTERY  
LR4476AG13  
1SET/2PCS  
HP-50ZM  
LR44  
1SET/2PCS

MODEL For NEXT

- Height 50 mm and 100 mm.
- With Magnetic base.
- The red lamp will be lighted up when touched.
- Accuracy 0.005 mm.
- Combined vertical and horizontal in a unit.
- Weight:0.7 kgs



HP-100ZM

HP-100Z

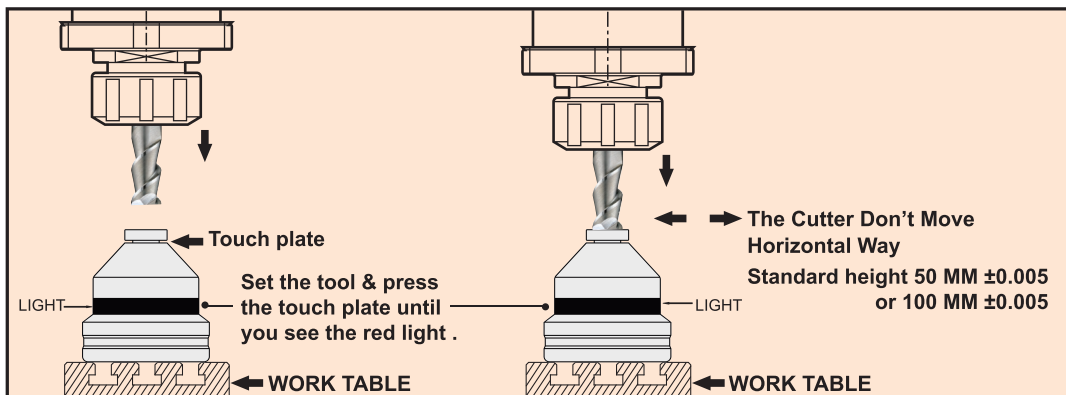
HEIGHT PRESETTER

- A. HP-50 / 100 / ZM / EM SERIES BUILT-IN MEGNETS FOR EASIER SETUP. VERTICAL & HORIZONTAL !
- B. STANDARD HEIGHT : 50 OR 100 MM
- C. WEIGHT ABOUT 0.7-1.2 KGS
- D. WHEN TOUCHED, THE RED LAMP LIGHTS ON.
- E. ACCURACY : WITHIN 0.005 MM
- F. BATTERY TYPE : LR44 / A76 / G13 X 2 PCS

MANUAL:

1. THERE IS A MECHNISM BELOW THE TOUCH PLATE CAN BE ADJUSTED BY GAUGE BLOCK.
  2. WHEN MACHINE SPEED IS HIGH, PLEASE REDUCE THE SPEED & GO UP /DOWNWARD UNTIL THE RED LIGHT IS OFF.
  3. PROCEED AGAIN IN LOWER SPEED.
  4. HORIZONTAL POSITION (HPXXX-XXEM/ZM SERIES-MAGNETIC FUNC.ONLY)  
PLEASE USE THE TOP TIP OF THE CUTTER TO TOUCH THE TOUCH PLATE.
- ※ CAN NOT USE VERNIER TO CHECK / RE-SET

**EXAMPLE**



ORDER NO.	H	STYLE	WEIGHT (kg)		CODE NO.
			N.W.	G.W.	
HP-50Z	50mm	STANDARD TYPE	0.32	0.7	3403-001
HP-50ZM	50mm	WITH MAGNETIC BASE	0.32	0.6	3403-002
HP-100Z	100mm	STANDARD TYPE	1.0	1.25	3403-003
HP-100ZM	100mm	WITH MAGNETIC BASE	1.0	1.23	3403-004

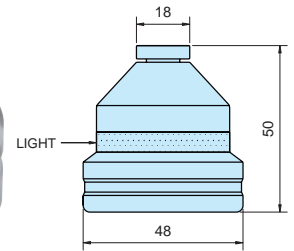
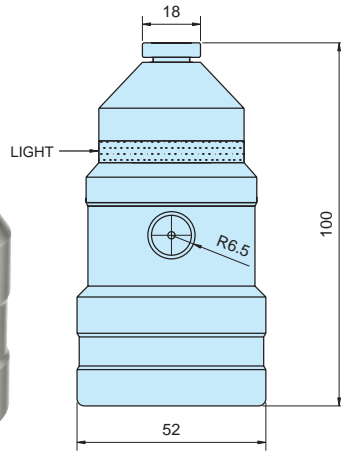
**NEW**



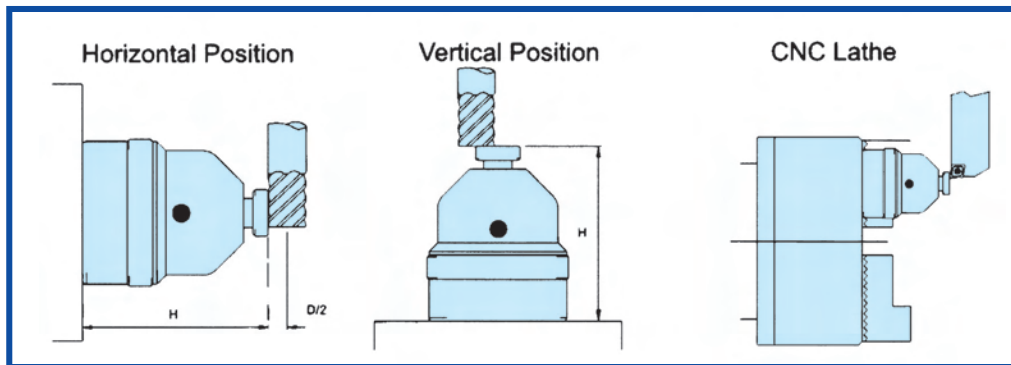
# Electronic Tool Length Setter



STAINLESS STEEL BASE WITH MAGNET



## EXAMPLE



- **HIGH ACCURACY**

- **EASY OPERATION**

- Be sure to remove all chips and all from the sensor plate and the base of the HP-50E as well as from the workpiece and tool.
- To move the tool approaching the sensor plate slowly.
- When touching, the "LED" turns on immediately and "H" is just 50.00 mm.(or2")
- LED will not function if batteries are not set in correctly.
- Designed to be used on ferrous.

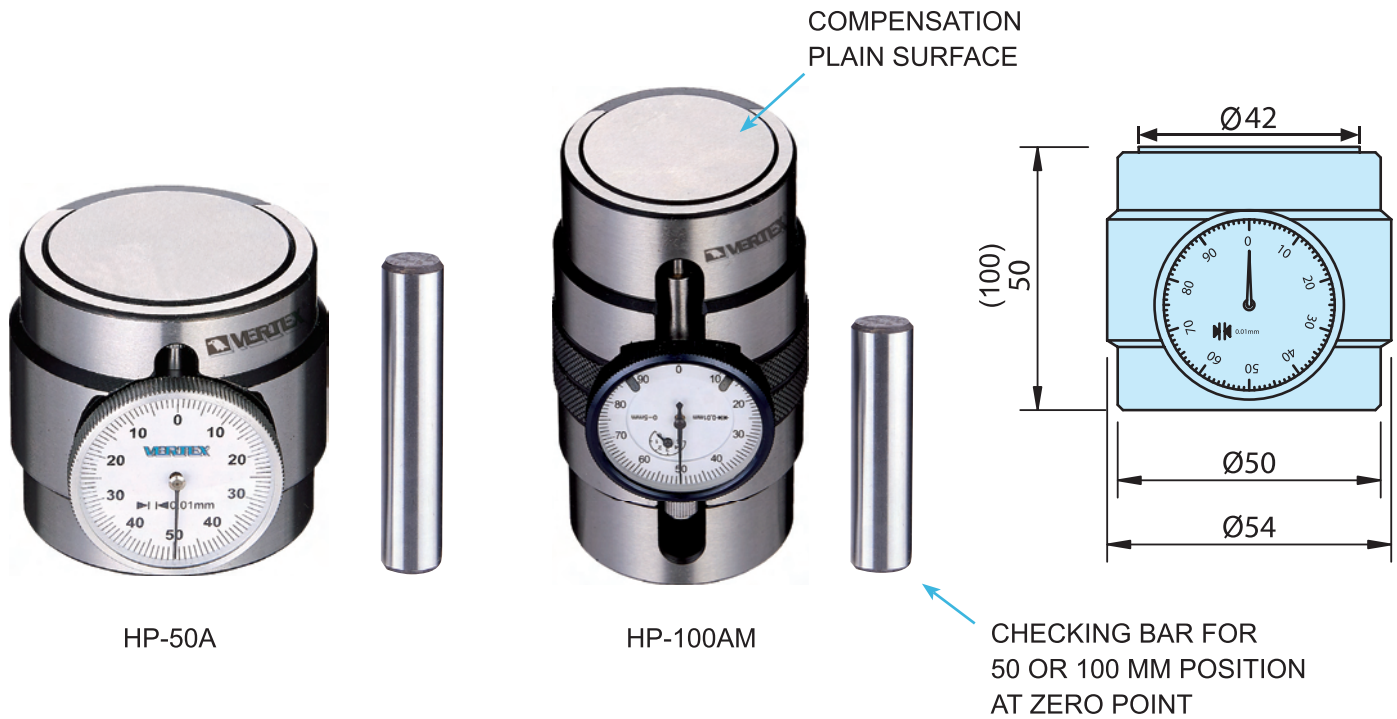
ORDER NO.	H	STYLE	WEIGHT(kg) N.W.	CODE NO.
HP-50EM	50mm	WITH MAGNETIC BASE	0.6	3403-032
HP-100EM	100mm		1.25	3403-033

### Stainless Steel Base With Magnet

TOOL PRE-SETTER FOR MACHINING CENTERS.  
CNC & STANDARD MILLING MACHINES AND  
CNC & STANDARD LATHES



# Z-Zero-Setter



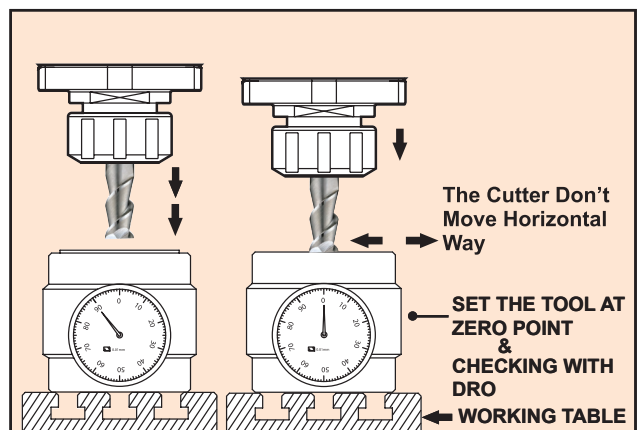
Z-ZERO-SETTER



CHECKING BAR FOR 50 OR 100 MM POSITION AT ZERO POINT

- Have the central measuring part of the zero setter presetter against a plain surface and aligned if with the outer reference surface. Turn the dial gauge for zero setting. Have the cutter touched against the z zero setter.
- Once the indicator position at zero, the distance between the tool tip to workpiece is 50mm,  $\pm 0.005$ , 100 mm,  $\pm 0.005$ .

### EXAMPLE



ORDER NO.	H	STYLE	WEIGHT (kg)	CODE NO.
HP-50A	50mm	STANDARD TYPE	1.1	3403-020
HP-50B			1.7	3403-021
HP-50AM		WITH MAGNETIC BASE	1.2	3403-022
HP-50BM		1.7	3403-023	
HP-100A	100mm	STANDARD TYPE	1.78	3403-024
HP-100AM		WITH MAGNETIC BASE	1.77	3403-025

**NEW**





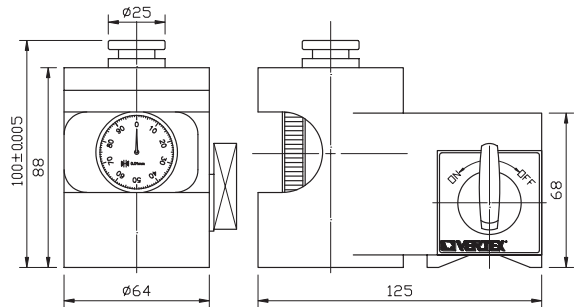
# Height Presetter (For Machining Center)



**VERTEX®**

ORDER NO.HP-100 CODE NO.3403-010

Height from reference surface	WEIGHT(kgs)
100mm	2.6



WITH CHECKING GAUGE



- Locate the height presetter on a place suitable for a reference surface of work piece.
- Apply the cutter on the measuring surface and slowly lower the Z-axis. Then, cutter gets near to the measuring position.
- A distance from the reference surface to the tool tip can be measured easily and precisely so that this presetter is most suitable not only for machineing centers but for NC lathes and NC milling machines.

\* Magnetic base function can be used in vertical position & horizontal position.

\* HEIGHT:100mm±0.005 , 1 scale 0.01mm



# Centering Indicator

ORDER NO.VCI-170 CODE NO.3402-130



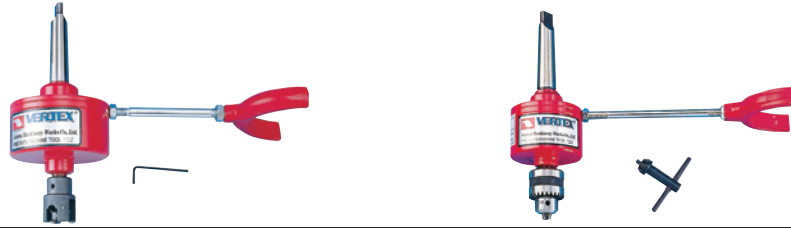
(WITH STOP BAR FOR FIXING THE HEAD)

- RPM Within 800.
- Use for Internal or External.
- Use for Vertical or Horizontal.
- While Spindle Rotates, With Stop bar for Fixing The Head The Centering Indicator Always faces the operator.
- Centering finder by indicator

SHANK	ø10	mm
LENGTH	170	mm
INTERNAL	ø4~ø108	mm
EXTERNAL	ø0~ø108	mm
MIN. INDICATOR	0.01	mm
INDICATOR RANGE	0~6	mm
WEIGHT	0.8	kgs



# Reversible Tapping Attachment for Drilling & Milling Machine



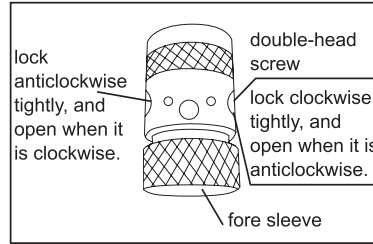
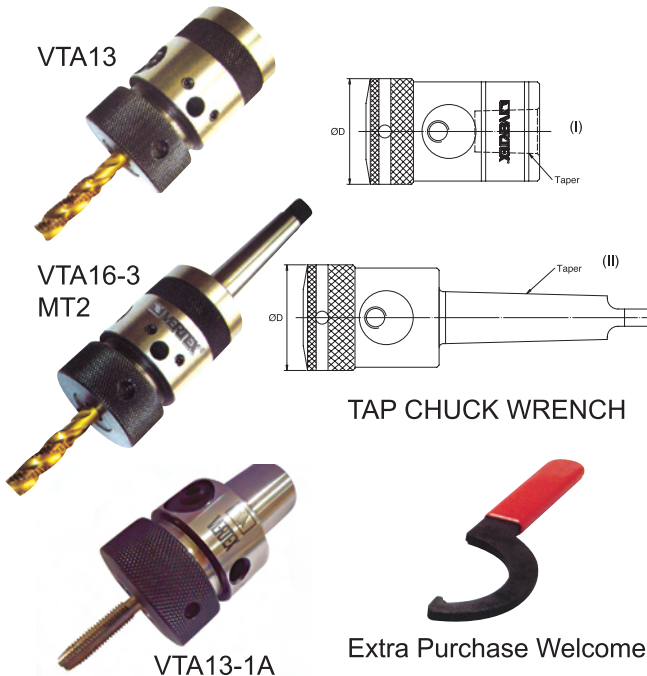
ORDER NO.	TAPPING CAPACITY	SHANK	TO WORK WITH DRILLING MACHINE	WEIGHT (KG)	PACKING mm	SPEED	CODE NO.
K1-1/2	Ø3-8mm	1/2"	DRILLING MACHINE MUST EQUIPPED WITH DRILL CHUCK CAPACITY 13M/M	0.8	90X90X190	1 : 1	3404-001
K1-MT-2	Ø3-8mm	MT-2	DRILLING MACHINE MUST EQUIPPED WITH MT-2 HOLE	1	90X90X240	1 : 1	3404-002
K2-1/2	Ø5-10mm	1/2"	DRILLING MACHINE MUST EQUIPPED WITH DRILL CHUCK CAPACITY 13M/M	1.5	100X100X210	1 : 1	3404-003
K2-MT-2	Ø5-10mm	MT-2	DRILLING MACHINE MUST EQUIPPED WITH MT2 HOLE	1.6	100X100X260	1 : 1	3404-004
K3-MT-3	Ø6-14mm	MT-3	OTHERS LIKE MT-3 SHANK BORING HOLE DRILLING MACHINE N.T. AVAILABLE	3.1	125X125X300	1 : 1	3404-005
K4-MT-3	Ø12-25mm	MT-3	OTHERS LIKE MT-3 SHANK BORING HOLE DRILLING MACHINE N.T. AVAILABLE	5.4	160X160X360	1 : 1	3404-006

K1 TYPE USED CHUCK TO FIX THE TAP

K2, K3, K4 TYPE USED THE SLIDING PLATE OF THE SQUARE SHARP HOLE TO FIX THE TAP.



## Tap Chuck Series



- THE DESIGN CAN PREVENT THE TAPS CHUCK FROM LOOSENING AFTER TAPPING.
- SUIT FOR VARIOUS TAPS. LARGE TAPPING CAPACITY. HIGH POWER TORSION.

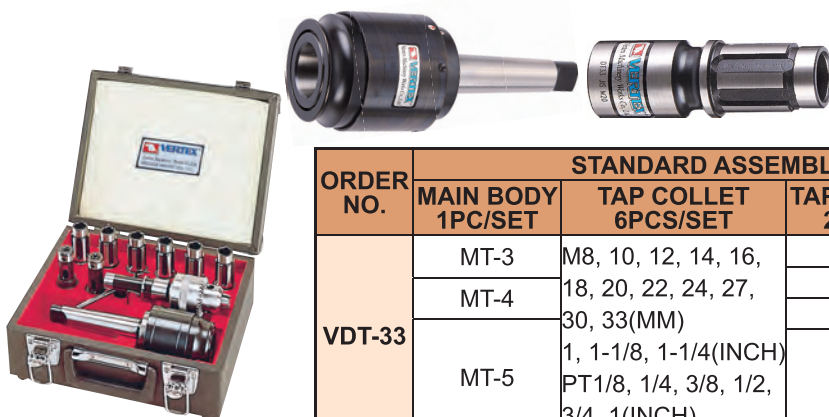
ORDER NO.	TAPPING CAPABILITY		D	Taper	N.W (kg)	CODE NO.	
	mm	inch					
VTA13-1	I		43	J6	0.65	3404-000	
VTA13-2	I	M3-M12	W1/8"~W1/2"	43	B16	0.65	3404-007
VTA13-3	II		43	MT2	0.6	3404-008	
VTA16-2	I		48.5	B18	0.9	3404-017	
VTA16-3	II	M3-M16	W1/8"~W5/8"	48.5	MT2	0.75	3404-018
VTA16-4	II		48.5	MT3	0.9	3404-019	
VTA18-2	II	M9-M18	W3/8"~W3/4"	51	MT2	0.9	3404-019A
VTA18-3	III		51	MT3	1.06	3404-019B	
VTA13-1A		M3-M12	W1/8"~W1/2"	47	JT6	0.58	3404-801
VTA13-2A			47	B16	0.78	3404-802	
VTA16-2A		M3-M16	W1/8"~W5/8"	54	B18	0.98	3404-803

TAP CHUCK WRENCH

Extra Purchase Welcome.



## Drill Tapper



Including shank, full set of collets, wrench and case. (Used for radial drilling, lathe and tapping machines. 1 Main body, 6 JIS STD Tap Collet, 1 Drill Chuck Holder Optional in Collets & Tapper Sleeves.)0.6CUFT.

Unit:mm

ORDER NO.	STANDARD ASSEMBLY SPECIFICATION				G.W. kg	MEAS. CFT	CODE NO.
	MAIN BODY 1PC/SET	TAP COLLET 6PCS/SET	TAPER SLEEVE 2PCS/SET	DRILL CHUCK HOLDER 1PC/SET			
VDT-33	MT-3	M8, 10, 12, 14, 16,	33-MT1	33-JT6 With 1/2" Drill Chuck	11.9	0.6	3404-010
	MT-4	18, 20, 22, 24, 27, 30, 33(MM)	33-MT2 33-MT3		12		3404-011
	MT-5	1, 1-1/8, 1-1/4(INCH) PT1/8, 1/4, 3/8, 1/2, 3/4, 1(INCH)	33-MT4		12.8		3404-012