



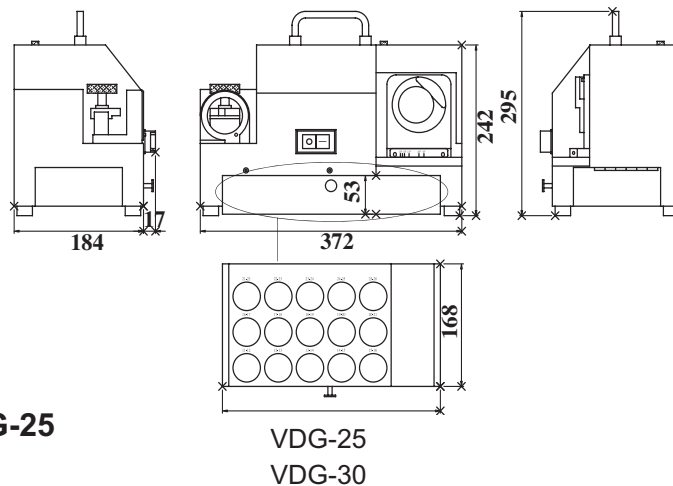
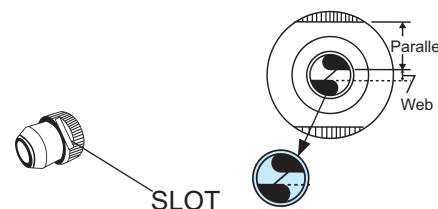
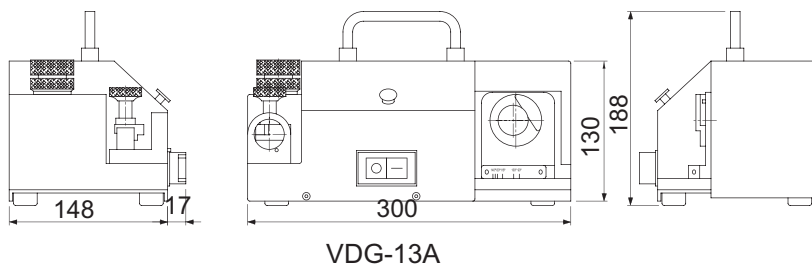
Precision Drill Grinder

PATENT



VERTEX

NEW



For Drill Re-sharpening
Precision, Efficient, , Fast & Easy Operation,
Short Processing Time, Wide Grinding Range,
Reasonable Price

1. High Efficiency, High Quality Grinding Lip, Good Grinding Results
2. Quality Assurance: $\pm 0.05\text{mm}$
3. Considerable Design, Invisible Tool Box, Delicate & Friendly Use
4. Peerless, Super Function, Durable, Strong Motor Can Work For 2 Hours.
5. Normal Drill, Center Drill, Carbide Nc Spot Drill Could Be Re-sharpen. Suit For The Drill Processs On Steel, Casting Iron, Brass And Aluminum.
6. Grind Wheel Can Be Used For 1500 Times.





VDG-13A

**90°~140°
WIDE RANGE**



VDG-25

✳Suit for factory & home application.

ORDER NO.	VDG-13A	VDG-25	VDG-30
DRILL DIAMETER	Ø2.0~Ø13.0	Ø12~Ø25 (Ø8~Ø30)	Ø8~Ø30
CENTER POINT ANGLE	90°~140°	90°~140°	90°~140°
POWER SUPPLY	AC-110 or 220 1PH	AC-110 or 220 1PH	AC-110 or 220 1PH
R.P.M. OF MOTOR	4500 R.P.M.	4500 R.P.M.	4500 P.R.M.
GRIND WHEEL	CBN #200	CBN #200	CBN #200
NET WEIGHT	AC-110: 9.8kgs AC-220: 9.8kgs	AC-110: 23.8kgs AC-220: 23.8kgs	AC-110 : 26.5 kgs AC-220 : 26.5 kgs
OVERALL DIMENSIONS	W282xD185xH110 m/m	W380xD240xH200 m/m	W380xD240xH200 m/m
STANDARD ACCESSORIES	ALLOY STEEL COLLET ER-20 COLLETx11PCS Ø3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, EACH ONE COLLET HOLDER X 1 UNIT 4mm HEXAGON WRENCH X 1 PCS FOR CHANGE WHEEL Ø3mm EXTENSION X 1 PCS	ALLOY STEEL COLLET ER-40 COLLETx14PCS Ø12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, EACH ONE COLLET HOLDER X 1 UNIT 5mm HEXAGON WRENCH X 1 PCS FOR CHANGE WHEEL	ALLOY STEEL COLLET ER-40 COLLETx23PCS Ø8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, EACH ONE COLLET HOLDER X 1 UNIT 5mm HEXAGON WRENCH X 1 PCS FOR CHANGE WHEEL
OPTIONAL COLLET SPECIAL SIZE	Ø3.5, 4.5, 5.5, 6.5, 7.5, 8.5, 9.5, 10.5, 11.5, 12.5	Ø8, 9, 10, 11, 26, 27, 28, 29, 30	
CODE NO.	8001-012	8001-014	8001-015

GRIND WHEEL

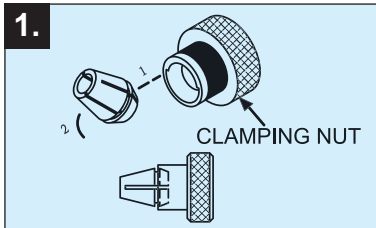
ORDER NO.	FOR DRILL MATERIAL	WHEEL	CODE NO.
VDG-13B	HSS	CBN200	8001-500
VDG-13D	CARBIDE	SDC200	8001-501
VDG-25B	HSS	CBN200	8001-504
VDG-25D	CARBIDE	SDC200	8001-505
VDG-30B	HSS	CBN200	8001-506
VDG-30D	CARBIDE	SDC200	8001-507

- VDG-25 allows up to size Ø8~Ø30mm, please choose optional collet Ø8, 9, 10, 11, 26, 27, 28, 29, 30mm.

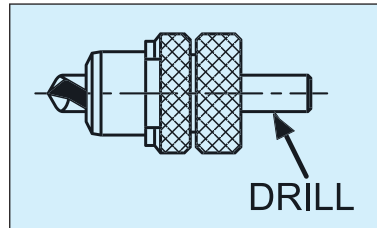




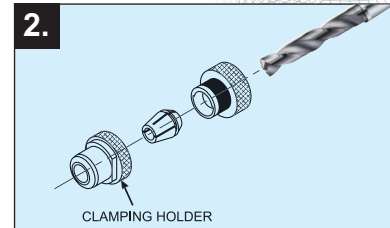
A. HOW TO USE HOLDER UNIT FOR COLLET & DRILL



Please confirm the drill size and pick up proper collet. Assemble collet into clamping nut by 45 degree. (Before insert the drill into the clamping holder.)

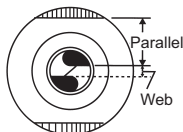
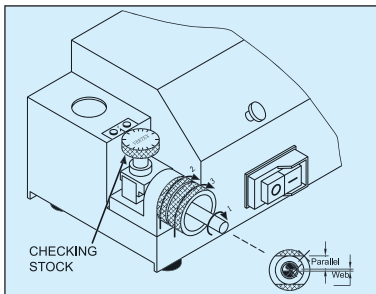


HOLDER UNIT
When drill length is less than 10mm, you need to add 1 scale on indicator.
Ex. when D=9mm, turn indicator to 10mm



Insert the drill, lock the clamping holder but not tightened, allow the drill can still move.

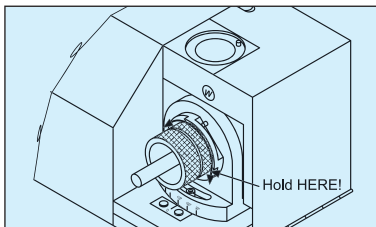
B. HOW TO SET THE HOLDER UNIT AT THE CHECKING STOCK



1. Find the drill diameter. (If the drill D. is 8.2mm) Set the indicator of scale No. as same as drill's diameter. (Please turn the indicator plate and set it between 8mm-8.5mm).
2. Insert the holder unit into the checking stock, The slot of clamping unit will match into the PIN of checking stock. (Make sure the drill is touching the checking stock.)
3. Turn the holder unit and drill to clockwise (Make sure the drill is touching the checking stock). And tighten the holder unit by turning the clamping nut

CAUTION (1.) Make sure the web blade of drill is parallel to the slot of clamping holder.
(2.) If a drill's length is less than 1/2, please add 1-2 scale onto the indicator plate.
(3.) If a drill's web blade is vary from normal drill, please check the parallel to slot of the clamping holder first, and then set the indicator.

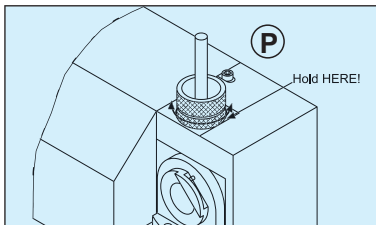
C. HOW TO GRIND THE WEB OF DRILL



1. Turn on the power.
2. Insert the holder unit into the (W) grind stock. The slot will match with the PIN. Let the drill reach diamond wheel smoothly. (Hold the clamping holder when turning.)
3. Grinding the drill by moving right and left. Until the grinding noise is gone.
4. Take out the holder unit. And turn 180°, Insert again like step 3. complete the web sharpening process.

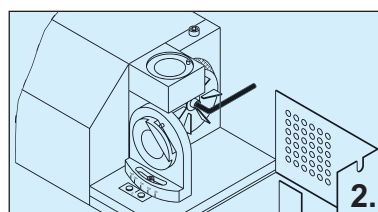
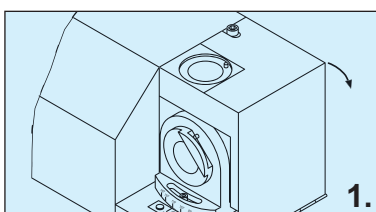
CAUTION (1.) Hold and turn the clamping holder to avoid mis-grinding. Hold drill or clamping nut when turning may result in un-even surface.
(2.) To grind different angle shall adjust angle indicator before insert.

D. HOW TO GRIND CENTER POINT OF DRILL



1. Insert the holder unit into (P) grind stock slot and match with the PIN.
2. Turn the holder unit right and left slowly until the grind noise is off.
3. Take out the holder unit and turn oppsite 180° and repeat step 2.

E. HOW TO CHANGE THE DIAMOND WHEEL



1. Loosen the screw on the wheel cover.
2. Open the cover and loosen the screw which use to lock the grind wheel.
3. Change the wheel, make sure two screws are in place and fixed.

CAUTION Do not plug in the power before the wheel cover is closed.





Left Hand Drill Grinder

ORDER NO.VDG-13L CODE NO.8001-050



VERTEX®



For Drill Re-sharpening

Precision, Efficient, Easy operation, Reasonable price, Short processing time, Grinding Angle

90-140 Degree, Grinding Diameter from 2-13 mm.

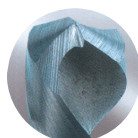
Reasonable Price, Fast & easy operation

1. High Efficiency, High Quality Grinding Lip, Good Grinding Results
2. Quality Assurance: $\pm 0.05\text{mm}$
3. Considerable Design, Invisible Tool Box, Delicate & Friendly Use
4. Peerless, Super Function, Durable, strong Motor can work for 2 hours.
5. Normal drill, center drill, carbide NC spot drill could be resharpene. Suit for the drill processs on steel, casting iron, brass and aluminum.

ORDER NO.	VDG-13L
Drill Diameter	$\varnothing 2\sim\varnothing 13$
Point Angle	118°~135°
Power Supply	AC110V 50/60Hz, AC220V(Opt.)
R.P.M. of motor	5300 R.P.M.
Grinding Wheel	CBN #200
Weight	N.W.:8kg G.W.:9kg
Machine Size	L:286mm W:133mm H:155mm
Packing Size	L:330mm W:205mm H:225mm
Standard Accessories	ER-20 Collet x 12 pcs Collet Holder x 1 set Metal Shim 0.1mm x 2 pcs / 0.3mm x 1 pcs Hexagon Wrench 3mm x 1 pcs / 4mm x 1 pcs
CODE NO.	8001-050

Optional SD Grinding Wheel for Carbide Drills

For 2mm-13mm Left Hand Twist Drill
Re-sharpening, Angle 118°~135°



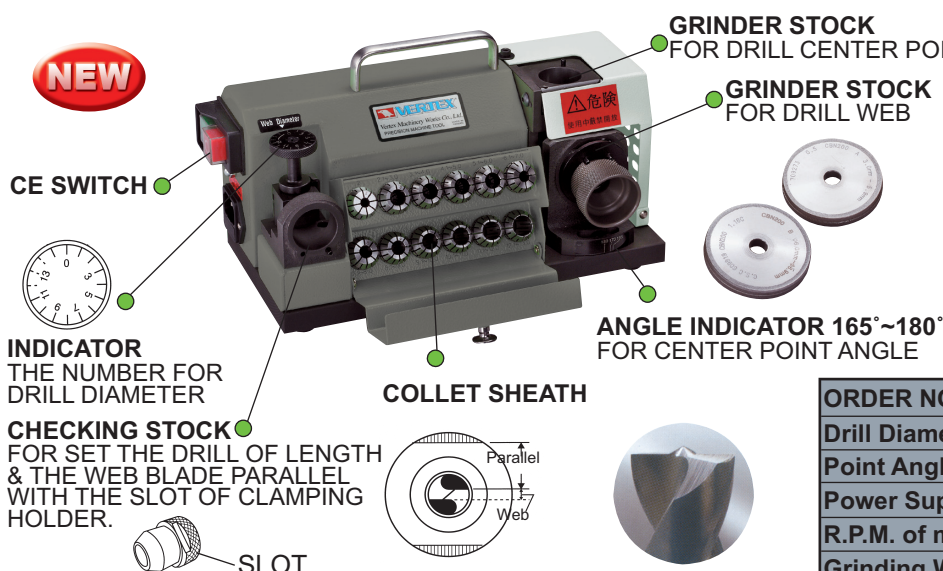
Left hand twist drill bits



Sheet Metal Drill Grinder

ORDER NO.VDG-13S CODE NO.8001-051

For 3mm-13mm Sheet Metal Drill
Re-sharpening, Angle 165°~180°



GRIND WHEEL

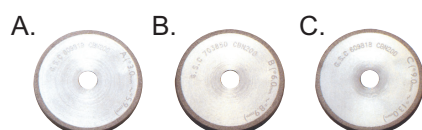
ORDER NO.	Grind Wheel	CODE NO.
VDG-13S-A	CBN OR SDC $\varnothing 3.0\sim\varnothing 5.9\text{mm}$	8001-056
VDG-13S-B	CBN OR SDC $\varnothing 6.0\sim\varnothing 8.9\text{mm}$	8001-057
VDG-13S-C	CBN OR SDC $\varnothing 9.0\sim\varnothing 13\text{mm}$	8001-058

High Quality Grinding Wheel

Please choose the suitable grinding wheel for different drill diameter

1. $\varnothing 3.0\text{mm}\sim\varnothing 5.9\text{mm}$ Please Use A Grinding Wheel (CBN)
2. $\varnothing 6.0\text{mm}\sim\varnothing 8.9\text{mm}$ Please Use B Grinding Wheel (CBN)
3. $\varnothing 9.0\text{mm}\sim\varnothing 13.0\text{mm}$ Please Use C Grinding Wheel (CBN)

Optional: SDC grinding wheel is available for carbide drills.



Special Design For Grinding Sheet Metal Drills



ORDER NO.	VDG-13S
Drill Diameter	$\varnothing 3\sim\varnothing 13$
Point Angle	165°~180°
Power Supply	AC110V 50/60Hz, AC220V(Opt.)
R.P.M. of motor	5300 R.P.M.
Grinding Wheel	CBN #200
Weight	N.W.:8.5kg G.W.:9.5kg
Machine Size	L:286mm W:133mm H:155mm
Packing Size	L:330mm W:205mm H:225mm
Type of Thinning	Thinning
Standard Accessories	ER-20 Collet x 11 pcs Collet Holder x 1 set Metal Shim 0.1mm x 2 pcs / 0.3mm x 1 pcs Hexagon Wrench 3mm x 1 pcs / 4mm x 1 pcs
CODE NO.	8001-051

Optional SD Grinding Wheel for Carbide Drills

SPECIAL USAGE MACHINE G24

NEW

FAST EASY

NO.2 FOR SECOND RADIAL ANGLE 20°

ADJUST SCREW FOR DULL OR SHARP

CHECKING STOCK FOR CHECK END MILL PARALLEL WITH HOLDER UNIT

NO.3 FOR CUTTING ANGLE 6° GRIND ALL SURFACE OF END MILL 6° TAIL

GRINDING STOCK MADE OF CAST IRON

NO.1 FOR END MILL FLAT SLOT ANGLE 30°

ORIGINAL POINT

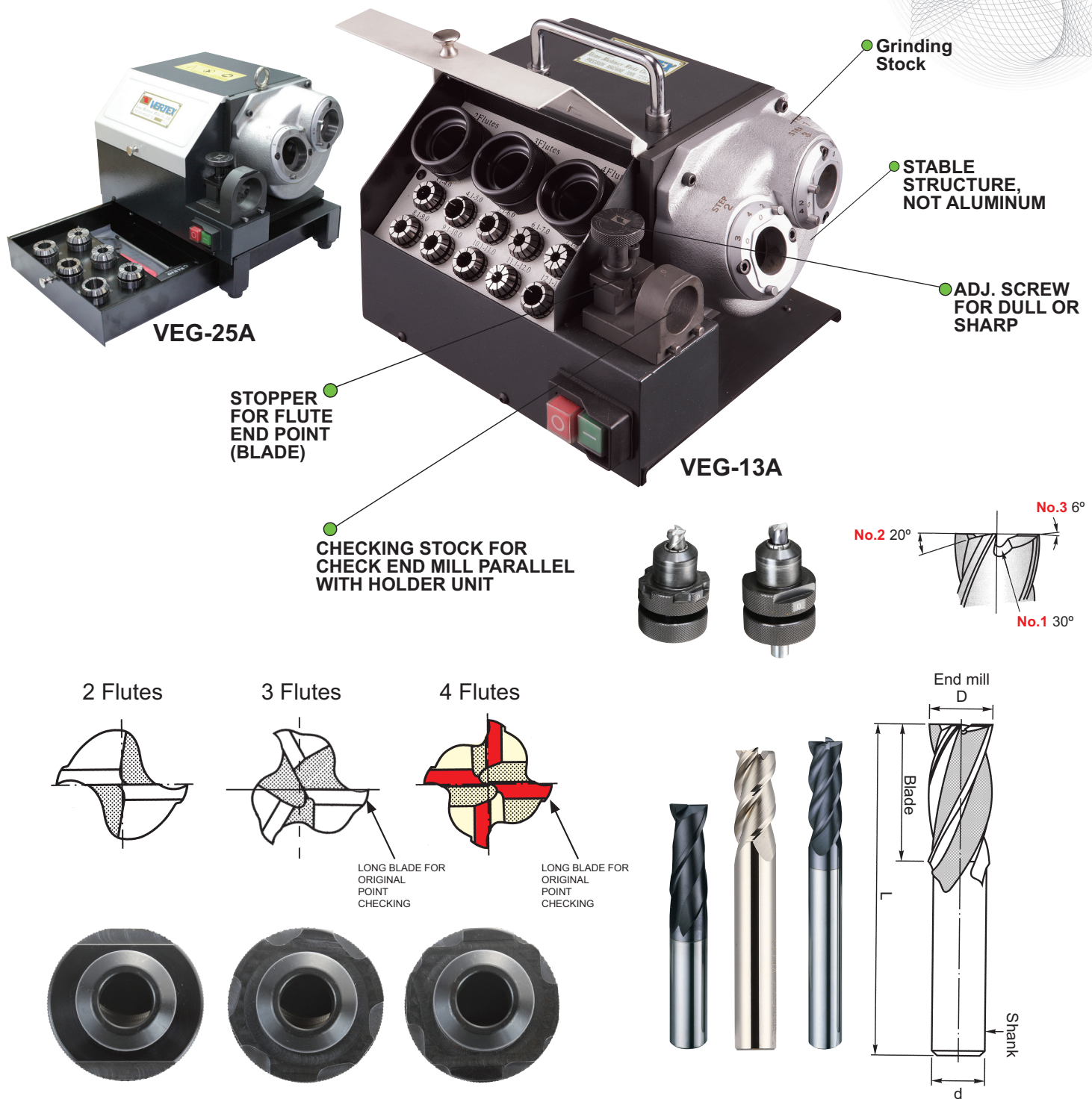
VEG-13A

VEG-25A

**For End Mill Re-sharpening, 2, 3, 4 Number Flute
Precision Efficient, Easy operation,
Short processing time, Grinding Diameter from 4-13 mm.
Reasonable Price, Fast, Rigid, Simplified Step**

1. High Efficiency, High Quality Grinding Slip, Good Grinding Results
2. Quality Assurance: $\pm 0.02\text{mm}$, Strong, Reliable, Grinding Stock Won't Bend.
3. Easy Operation, For Urgent Need, Low cost, Save Money

ORDER NO.	VEG-13A	VEG-25A
CAPACITY END MILL DIA.	$\varnothing 4 \sim \varnothing 13\text{mm}$	$\varnothing 12 \sim \varnothing 25\text{mm}$
MOTOR	450W	1000W
SPEED	4800rpm	4300rpm
POWER	AC-110 or 220 1PH 50/60HZ	AC-110 or 220 1PH 50/60HZ
AXIAL-ANGLE	NO.1 END MILL FLAT SLOT ANGLE 30° NO.2 SECOND RADIAL ANGLE 20° NO.3 CUTTING ANGLE 6°	NO.1 END MILL FLAT SLOT ANGLE 30° NO.2 SECOND RADIAL ANGLE 20° NO.3 CUTTING ANGLE 6°
STANDARD ACCESSORIES	ALLOY STEEL COLLET ER-20 COLLET: $\varnothing 4, 5, 6, 7, 8, 9, 10, 11, 12, 13\text{mm}$ 10 pcs/set WRENCH:1PC SDC 300 x1 For $\varnothing 4 \sim \varnothing 6\text{mm}$ SDC 270 x1 For $\varnothing 7 \sim \varnothing 13\text{mm}$ Square Type For 4 Flutes End Mill x 1 Set Hex. Type For 3 Flutes End Mill x 1 Set Parallel Type For 2 Flutes End Mill x 1 Set $\varnothing 4 \sim \varnothing 5, \varnothing 6 \sim \varnothing 8, \varnothing 10 \sim \varnothing 12\text{mm}$ EXTENSION FOR EACH ONE.	ALLOY STEEL COLLET ER-40 COLLET: $\varnothing 12, 16, 18, 20, 22, 25\text{mm}$ 6 pcs/set WRENCH:1PC SDC 150 x1 For $\varnothing 12 \sim \varnothing 25\text{mm}$ Square Type For 4 Flutes End Mill x 1 Set Hex. Type For 3 Flutes End Mill x 1 Set Parallel Type For 2 Flutes End Mill x 1 Set
PACKING SIZE	320x260x300mm	365x293x345mm
WEIGHT (kg)	17	31
CODE NO.	8001-510A	8001-520A



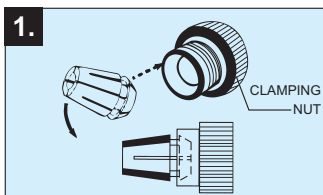
Optional Accessories

※ Each holder unit has mark 2, 3 and 4 on it.

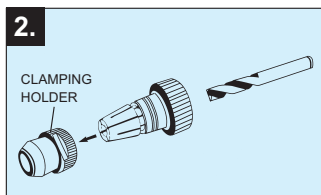
ORDER NO.	Grind Wheel	FOR END MILL MATERIAL	Weight (kg)	CODE NO.
VEG-13BS	CBN 300 x1 For $\phi 4 \sim \phi 6$ mm	H.S.S.	0.35	8001-511A
VEG-13BL	CBN 270 x1 For $\phi 7 \sim \phi 13$ mm	H.S.S.	0.35	8001-512A
VEG-13DS	SDC 300 x1 For $\phi 4 \sim \phi 6$ mm	CARBIDE	0.35	8001-514
VEG-13DL	SDC 270 x1 For $\phi 7 \sim \phi 13$ mm	CARBIDE	0.35	8001-515
VEG-25BSV	CBN 150 x1 For $\phi 12 \sim \phi 25$ mm	H.S.S.		8001-516V
VEG-25DSV	SDC 150 x1 For $\phi 12 \sim \phi 25$ mm	CARBIDE		8001-517V


NEW
FAST EASY


A. HOW TO INSTALL HOLDER UNIT FOR END MILL

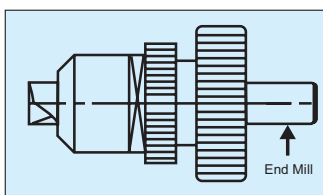


Please confirm the end mill size and pick up proper collet. Assemble collet into clamping nut by 45 degree. (Before insert the end mill into the clamping holder.)



Insert the end mill, lock the clamping holder but not tightened, allow the end mill can still move. Insert the end mill, let the end mill blade length 35mm out, (don't tightened the clamping Holder)

Extension: To attach on the end mill allow you to rotate it when it's length is too short for setting.

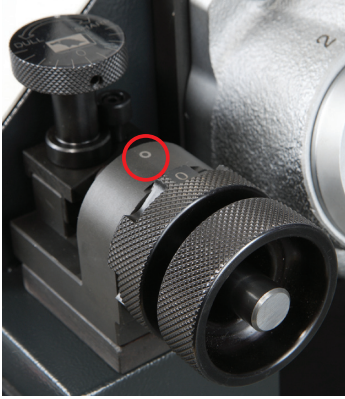


PLEASE CHOOSE CORRECT WHEEL FOR GRINDING.
SDC300 MARK 4-6 mm
SDC270 MARK 7-13mm



B. HOW TO SET THE HOLDER UNIT AT THE CHECKING STOCK

(For length and angle setting)



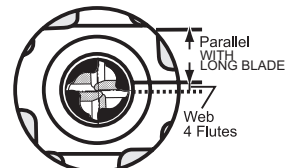
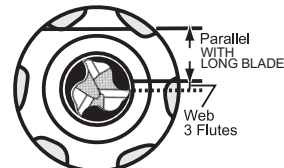
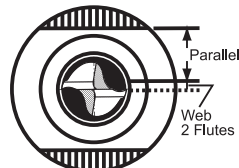
Original Point

- 1) Please make sure the blade of the end mill set in the position like we show below. Hold the end mill but not tight up. Always use 0 to check!
 ※ You can adjust the sharpness on the round plate, move toward dull and sharp mark.
- 2) Aim at 0 mark and insert holder unit into checking stock. Turn clockwise a little bit, make sure the blade is touching the stock, lock the holder now.
 ※ When take out the holder unit, please turn the round plate counter clockwise so you can take out smoothly.

CAUTION: 1 Make sure the web blade of drill is parallel to the slot of clamping holder.

2 When the end mill blade is broken, the first grind job please turn to the dull side. And grind 2 times in order to get perfect result.

3. While setting, please align the end mill long blade to be parallelized with holder unit slot.



C. HOW TO GRIND NO1. END MILL FLUTE SLOT ANGLE 30°



- 1) Aim the original point at hole on No1. to grind end mill Flute Slot Angle 30°
- 2) Insert the holder and touch against the No1. surface, until the grind noise is off.

※ Always begin with 0.

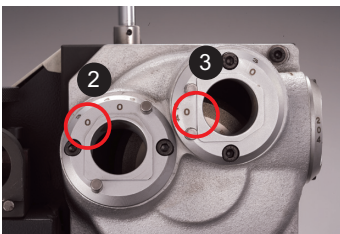
※ While grinding, please turn holder unit right and left a little, against pins.

- 3) (2 Flutes) Please insert and take out turn 180° and repeat step 1~2;
- (3 Flutes) Please insert and take out turn 120° and repeat step 1~2, two times;
- (4 Flutes) Please insert and take out turn 90° and repeat step 1~2, three times.

※ While grinding, holder unit shall touch / match most of the grinding stock and move smoothly.

※ Each holder will match each hole's pin, smart design.

D. HOW TO GRIND END MILL'S NO2. SECOND RIDIAL ANGLE 20° BACK ANGLE



- 1) Insert the Holder unit and aim the original point, touch the No2's surface until the grinding noise is off.

※ Always begin with 0.

※ While grinding, please turn holder unit right and left a little, against pins.

- 2) (2 Flutes) Please insert and take out turn 180° and repeat step 1~2;
- (3 Flutes) Please insert and take out turn 120° and repeat step 1~2, two times;
- (4 Flutes) Please insert and take out turn 90° and repeat step 1~2, three times.

E. HOW TO GRIND END MILL NO3. CUTTING ANGLE 6°



- 1) Place holder unit and aim at hole NO.3, touch the NO.3's surface until the grinding noise is off.

※ Always begin with 0.

※ While grinding, please turn holder unit right and left a little, against pins.

- 2) (2 Flutes) Please insert and take out turn 180° and repeat step 1~2;
- (3 Flutes) Please insert and take out turn 120° and repeat step 1~2, two times;

(4 Flutes) Please insert and take out turn 90° and repeat step 1~2, three times.

F. HOW TO CHANGE GRIND WHEEL



- 1 Use 4mm Hex. Wrench, take out 4 screws of grinding stock, remove the grinding stock.

- 2 Take out the locking screw of the grind wheel and remove the grind wheel.

- 3 Replace the old one with a new grind wheel.

- 4 Lock back the screw, install the grinding stock and lock 3 screws.

※ When grind $\varnothing 4\sim 6\text{mm}$ please use correct diamond wheel.
 $\varnothing 7\sim 13\text{mm}$

CAUTION: When open, please **un-plug** the power core.