

"ANNIVERSARY TYPE" VC HOLDER INSTRUCTION MANUAL PAT.P NIKKEN VER.2

Thank you for your purchase of NIKKEN products. We can recommend our products with our confidence, however, please read this manual for long terms. And, please keep it where the operator can refer to it whenever necessary.

■Chucking of the end mill

- ① Always ensure that there is no damage on the internal bore of the chuck, the internal & external of the collet, and the cutting tool shank.
- ② Wipe all dust and oil from internal bore of chuck, inside and outside of collet, inside of nut and shank of cutter. Clean minute dust inside slot grooves of collet by air blow. Please paste the small amount of the pure oil the external of the collet. Do not paste the oil into the internal of the collet (gripping portion). We will recommend to use J type nut to prevent swarf and dust contamination. Set VMK Collet onto VC Nut.
- ③ Screw VC Nut into VC Holder spindle.

⚠ **—Do not insert a VCK Collet alone into VC Holder spindle.**

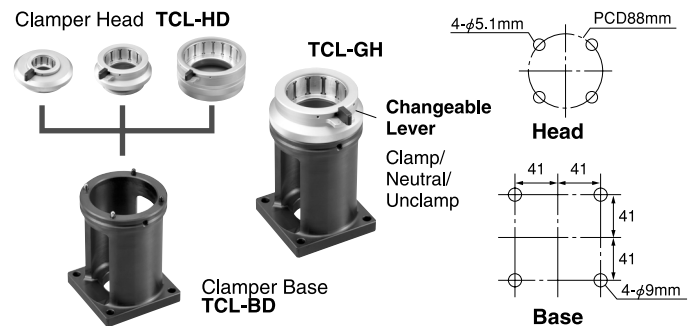
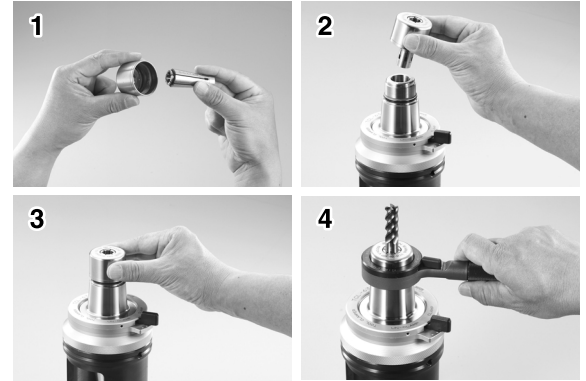
- ④ Insert end mill shank into VCK Collet.

- Protection must be used to grip cutter teeth.
- Use a proper VCK Collet to grip an end mill shank. The acceptable shank tolerance of VCK Collet is h_8 .
- Clamp as much of the shank of the end mill as possible. If the clamping length of shank is too short it might cause breakage of the end mill or Collet, even damage to the VC Holder itself. (Suitable gripping length = end mill diameter \times over 4~5 times)
- Do not clamp without an end mill.
- When it may be a little tight to insert the end mill into the VCK Collet at the beginning, this is due to the severe tolerance and no problem for the practical use.

- ⑤ After tightening VC Nut by hand, tighten further by NIKKEN GH Handle. GH Handle is available as an option. Always ensure that the VC Holder is set up on the proper fixture, e.g. NIKKEN tool clamber TCL-GH, when VC nut is tightened.

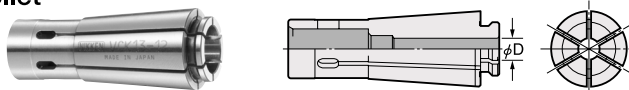
- In case of length adjustment of the end mill, an adjustment screw is available as an option.
- ⚠ If the bottom of the end mill shank touches the screw, gripping torque will be reduced. Therefore, please leave a small space between the screw and the end mill shank when adjusting length, then tighten VC Nut.

TCL-GH clamber is designed for symmetrical holders without drive key slots or U-groove. The TCL-GH clamber is also suitable for the other shank tooling with same flange diameter, e.g. TCL-63GH is suitable for HSK63A, 63E, 63F, BT40, MBT40 and NC5-63. By changing the TCL-HD clamber heads to the suitable sizes, the same TCL-BD base can be used for the other sizes of the shank.



| Clamber Code No. | Base Code No. | Head Code No. | Applicable Shank |
|------------------|---------------|---------------|--|
| TCL- 32GH | TCL-BD | TCL- 32HD | HSK 32E |
| TCL- 40GH | | TCL- 40HD | HSK 40A, 40E |
| TCL- 46GH | | TCL- 46HD | BT30, NC5-46 |
| TCL- 50GH | | TCL- 50HD | HSK 50A, 50E |
| TCL- 63GH | | TCL- 63HD | HSK 63A, 63E, 63F, BT40, MBT40, NC5-63 |
| TCL- 100GH | | TCL-100HD | HSK100A, BT50, MBT50, NC5-100 |

■VCK Collet



The digit after the style No. "VCK□" means the internal diameter φD.

VCK Collet Code No.

VCK 6-2, 3, 3.175, 4, 5, 6

VCK13-3, 3.175, 4, 5, 6, 7, 8, 9, 10, 11, 12

★ The acceptable shank tolerance of VCK Collet is h_8 .

★ Inch series is also available. VCK 6-1/8, 3/16, 1/4 VCK13-1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2

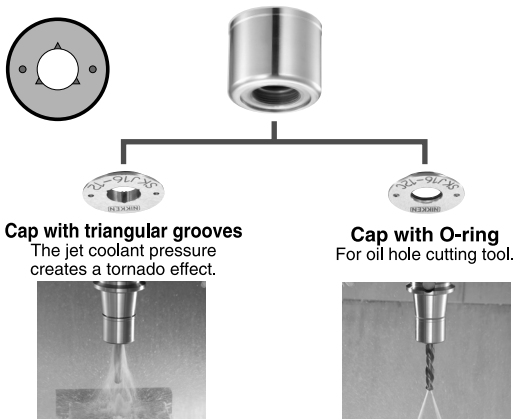
■GH Handle



| Style | GH Handle | Torque Adjustable GH Handle | Setting Torque (Nm) |
|-------|-----------|-----------------------------|---------------------|
| VCK 6 | GH10 | GH10-TLS | 10~30~50 |
| VCK13 | GH16 | GH16-TLS | 40~60~75 |

★ The guideline of the setting torque for VC6 is; $\sim\phi 3$: 10~30Nm
 $\phi 3\sim\phi 6$: 30~50Nm

■J type Nut & Adjust Screw



Cap with triangular grooves
The jet coolant pressure creates a tornado effect.

Cap with O-ring
For oil hole cutting tool.

| Style | Standard Nut Code No. | Adjust Screw Code No. (Option) | Coolant Through | | |
|-------|-----------------------|--------------------------------|---------------------|--------------|-----------------|
| | | | J type Nut Code No. | Cap Code No. | Wrench Code No. |
| VCK 6 | VCN- 6 | VCG 6- 8A (M 8 P=1×16L) | VCN- 6J | SKJ10-□ | SKJL-10 |
| VCK13 | VCN-13 | VCG13-15A (M15 P=1×20L) | VCN-13J | SKJ16-□ | SKJL-16 |

★ The cap and the wrench for the VC6 and VC13 are same as these of the SK10 and SK16 respectively.

★ The sizes of the cap is; SKJ10-2, 3, 3.175, 4, 5, 6

SKJ16-3, 3.175, 4, 5, 6, 7, 8, 9, 10, 11, 12

★ When J type nut is used, the total holder length will be extended by 6mm.

★ The cap with O-ring is also available. Please add "c" at the end of Code No. e.g. SKJ10-4C.

★ Standard J type nut can prevent dust and chips entering inside VC Holder.

★ The adjust screw has a centre hole.

⚠ **—Quotation fee of the repair is always necessary whether repair or not.**

This manual is for basic instruction and information for safety use of our product. Please contact with us for the further details.

Please note that we could not take a responsibility of the accidental damage on our product which is modified the specifications by the customer without our approval.

NIKKEN

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