

Troubleshooting

(Stub holder)

	Details of the trouble	Cause	Pulled out of holder. Unable to attach fast to spindle or holder in case of MT shank.
1	Unable to mount collet.	① Wrong choice of collet.	① Check collet's type and size.
2	Unable to mount to spindle.	① Spindle dimension is different from standard dimension. ② Seized or adhered chip and dust to holder shank, spindle I.D.. ③ Scratch or dent exists in spindle I.D. or holder shank. ④ In the case of KD series, end face to end face dimension between spindle and finger bolt is longer than specified dimension. ⑤ In the case of KH series, spindle collar thickness is larger than specified dimension.	① Check spindle dimension. ② Cleaning of holder shank, spindle I.D.. ③ •Replace holder or repair spindle. •Touching up of area in question (rubbing off with sand paper #1000 and above) Correction (grinding) by NT TOOL is not possible. ④ •Check spindle dimension. •Make spacer thicker to specified dimension. ⑤ Repair spindle.
3	Excessive play when mounting into spindle.	① Spindle dimension is different from standard dimension. ② In the case of KD series, end face to end face dimension between spindle and finger bolt is shorter than specified dimension. ③ In the case of KH series, spindle collar thickness is smaller than specified dimension. ④ In the case of KH series, spindle mounting is not proper due to functional failure of operating sleeve. ⑤ In the cases of KH-A, KH series, rubber damper is deteriorated. ⑥ In the case of KH-E series, steel ball is worn. ⑦ In the case of KD series, finger collet taper is worn. ⑧ In the case of KD series, finger collets are broken.	① Check spindle dimension. ② •Check spindle dimension. •Make thickness of aspacer adjust to specified dimension. ③ Repair spindle. ④ •When installing, push operating sleeve down to bring it into position for secure mounting. •Cleaning of operating sleeve I.D.. ⑤ Ask NT for repair. ⑥ Ask NT for repair. ⑦ Replacement of finger collet assembly. ⑧ Replacement of finger collet assembly.
4	Cutting tool comes off or slips.	① Large cutting resistance to chucking force. ② Insufficient tightening of cap nut ③ Tightening not sufficient due to cap rotary ring failure.	① •Revision of cutting conditions (Decrease cutting resistance.) a : Higher rotation speed or lower feed rate (Approx. 20%) b : Lower cutting depth •Shorter tool projection length ② •Keep recommended torque value for tightening cap nut. •Use torque wrench. ③ Replacement of cap nut.

		<p>④ Insufficient tightening of cap nut because of increased friction in the thread part (Tightening of collets not enough.)</p> <p>⑤ Tool tang does not fit into preset driver groove due to dimensional differences.</p>	<p>④ Apply oil (grease) on the thread part after cleaning it.</p> <p>⑤</p> <ul style="list-style-type: none"> • Check tool tang dimension and preset driver groove dimension. • Replacement of preset driver.
5	Holder comes off from spindle.	<p>① In the case of KH/EC series, coolant pressure is higher than specified pressure.</p> <p>② In the case of KH series, spindle mounting is not proper due to functional failure of operating sleeve.</p>	<p>①</p> <ul style="list-style-type: none"> • Reduce coolant pressure. • Check specified coolant pressure. <p>②</p> <ul style="list-style-type: none"> • When installing, push operating sleeve down to bring it into position for secure mounting. • Cleaning of operating sleeve I.D..
6	Poor accuracy.	<p>① Spindle and holder have rattling.</p> <p>② Adhered chip and dust to spindle end surface or holder end surface.</p> <p>③ Poor chucking accuracy of collet.</p> <p>④ Dust seizing in collet insertion area.</p> <p>⑤ Scratch or dent in holder I.D..</p> <p>⑥ Scratch or dent on collet I.D. and O.D..</p> <p>⑦ Insufficient chucking length.</p> <p>⑧ Poor accuracy of cutting tool.</p> <p>⑨ Dust seizing in cap nut thread.</p> <p>⑩ Malfunction of rotor ring of cap nut. (Rotor ring will not rotate smoothly.)</p>	<p>① See Problem: "Excessive play when mounting into spindle" in the trouble column and reduce play (clearance) to appropriate level.</p> <p>② Cleaning of spindle end surface or holder end surface.</p> <p>③ Replacement of collets.</p> <p>④ Cleaning of collet insertion area.</p> <p>⑤ Replacement of holder.</p> <p>⑥ Replacement of collets.</p> <p>⑦ Keep minimum insertion length. (collet ID length must be filled.)</p> <p>⑧ Tool replacemen.</p> <p>⑨ Cleaning of thread part, applying grease.</p> <p>⑩</p> <ul style="list-style-type: none"> • Cleaning of cap nut. (so that rotor ring will rotate smoothly.) • Replacement of cap nuts.
7	Chattering	<p>① Cutting resistance is too high in comparison with chuck's rigidity.</p> <p>② When end-milling with series KH-E, KD-T, cutting pressure is too low against the rigidity of holder.</p> <p>③ Bending moment is too large.</p> <p>④ Spindle and holder have rattling.</p>	<p>①</p> <ul style="list-style-type: none"> • Revision of cutting conditions (Decrease cutting resistance.) a : Higher rotation speed or lower feed rate (Approx. 20%) b : Lower cutting depth • Shorter tool projection length <p>②</p> <ul style="list-style-type: none"> • Revision of cutting conditions (Increase cutting resistance.) a : Higher feed rate or lower rotation (Approx. 20%) b : Higher cutting depth <p>③ Shorter tool projection length</p> <p>④ See Problem: "Excessive play when mounting into spindle" in</p>

			the trouble column and reduce play (clearance) to appropriate level.
8	Coolant is leaking or there is no coolant output.	<p>① KH/EC is not being used. (Stub holders other than KH/EC are not compatible with center-thru coolant.)</p> <p>② Coolant pressure is higher than specified pressure.</p> <p>③ Collets compatible with center-thru coolant (OH or C type collets) are not being used.</p> <p>④ Coolant cap "O" ring is deteriorated or worn.</p>	<p>① Use KH/EC. •For high coolant pressure KH/EC1type •For low coolant pressure KH/EC2 type</p> <p>② Use coolant at a pressure equal to or lower than maximum pressure allowed.</p> <p>③ Use OH or C type collets. •OH type ... Center through •C type ... Collet through</p> <p>④ Replacement of O-ring.</p>
9	Holder does not come off from spindle.	<p>① Deposition of fretting, rust and/or adhered coolant residual.</p> <p>② In the case of KH series, operating sleeve failure.</p>	<p>① Cleaning of spindle and holder shank.</p> <p>② Cleaning of operating sleeve I.D..</p>