

Troubleshooting

(Endmill chuck)

	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	Tool is pulled out during operation	① Large cutting resistance to chucking force. ② Insufficient tightening of cap nut ③ Insufficient tightening of cup nut from rotor ring's malfunction ④ Insufficient tightening of cup nut because of increased friction. (Collapse of collet is not big enough.)	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 •Shorter chuck length ② •Keep recommended torque value for tightening cap nut. •Use torque wrench. ③ Replacement of cap nut ④ Apply oil (grease) on the thread part.
3	Chattering	① Cutting resistance is too high in comparison with chuck's rigidity. ② Cutting resistance is too small in comparison with chuck's rigidity. ③ Bending moment is too large.	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 •Shorter chuck length ② Revision of cutting conditions (Increase cutting resistance.) a : Higher feed rate or lower rotation (Approx. 20%) b : Higher cutting depth ③ •Shorter tool projection length •Shorter chuck length
4	Poor runout accuracy during cutting	① Poor chucking accuracy of collet ② Dust seizing in collet insertion area ③ Scratch or dent in chuck ID ④ Scratch or dent on collet ID and OD ⑤ Insufficient chucking length ⑥ Insufficient chucking length ⑦ Dust seizing in cap nut thread ⑧ Malfunction of rotor ring of cap nut (Rotor ring will not rotate smoothly.)	① Replacement of collets ② Cleaning of collet insertion area ③ •Replacement of chuck or tool •Touching up of area in question (rubbing off with sand paper #1000 and above) Correction (grinding) by NT TOOL is not possible. •Ask NT for repair. ④ Replacement of collets ⑤ Keep minimum insertion length. (collet ID length must be filled.) ⑥ Replacement of tools ⑦ Cleaning of thread part, applying grease ⑧ •Cleaning of cap nut (so that rotor ring will rotate smoothly) •Replacement of cap nuts

5	Holder screw part is broken.	<p>① Cutting resistance is too high in comparison with chuck's rigidity.</p> <p>② Cap is over-tightened.</p>	<p>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 •Shorter chuck length</p> <p>② •Keep recommended torque value for tightening cap nut. •Use torque wrench.</p>
6	Unable to set into or mount to holder.	<p>① Seized or adhered chip and dust to chucking shank part and holder I.D. part.</p> <p>② Wrong shank size.</p> <p>③ Scratch and dent in chucking shank part or holder I.D.</p>	<p>① Cleaning of chucking shank part or holder I.D.</p> <p>② Check shank size.</p> <p>③ •Replacement of chuck or holder. •Touching up of area in question (rubbing off with sand paper #1000 and above) Correction (grinding) by NT TOOL is not possible.</p>
7	Pulled out of holder. Unable to attach fast to spindle or holder in case of MT shank.	<p>① ST shank is used at side lock.</p> <p>② Adhered oil to chucking shank part and spindle or holder I.D. in case of MT shank.</p> <p>③ Scratch and dent in chucking shank part or spindle and holder I.D.</p>	<p>① Use at milling chuck.</p> <p>② Cleaning (degreasing) of chucking shank part and spindle or holder I.D. part.</p> <p>③ •Replacement of chuck or holder. Adjustment of spindle. •Touching up of area in question (rubbing off with sand paper #1000 and above) Correction (grinding) by NT TOOL is not possible.</p>
8	Unable to fit cap.	<p>① Different screw pitch. •New type (Kanigen plating): screw pitch 1 •Old type (black oxide finish): screw pitch 1.5</p>	<p>① Replacement with new type holder and cap.</p>