Troubleshooting
（Coolant holders）

	Details of the trouble	Cause	Pulled out of holder. Unable to attach fast to spindle or holder in case of MT shank.
1	Unusual noise is generated.	① Abrasion and seizing of the bearing. ② "A" dimension (plunger's height) is not correct. ③ Dust or chip on the contact face of positioning block.	① Ask NT for repair. ② Check "A" dimension (plunger's height). ③ Remove chips on the plunger contact face of the positioning block.
2	Unusual heat generation	① High coolant pressure generates frictional heat. ② High rotation speed generates friction heat. ③ Coolant is not supplied. ・Coolant is not supplied during rotation. ・Tool oil hole is clogged. ・Coolant supply is little due to small hole diameter of the tool. ④ "A" dimension (plunger's height) is not correct. ⑤ Dust or chip on the contact face of positioning block. ⑥ Cutting resistance is too large.	① Use below allowable pressure. ② Use under allowable rotation speed. ③ ・Supply coolant during rotation. ・Remove the clog in the tool or replace the tool. ・Use a coolant collet (type C) together. ④ Check "A" dimension (plunger's height). ⑤ Remove chips on the plunger contact face of the positioning block. ⑥ Cuting resistance should be lowered. a : Shorter tool protruding length b : Higher rotation or lower feed rate （Approx. 20%） c : Lower cutting depth
3	Coolant leakage	① Case seal abrasion. ② Deteriorated O-ring for plunger and coolant pipe. ③ Suitable collets are not used.	① Purchase seal units or seal sets for replacement or ask NT for repair ② Ask NT for repair. ③ Use (OH,C) type coolant collets.
4	Coolant is not supplied. Discharge pressure is low.	① Coolant specified tool is not used. ② Coolant leakage. ・Deteriorated seal part of the case, plunger and coolant pipe. ・Degraded O-ring of the positioning block. ③ Chips in the tank get in the holder.	① ・Select coolant specified tool. ・Use a coolant collet (type C) together. ② ・Ask NT for repair. ・Inquire at the machine manufacturer. ③ ・Install a coolant filter. If a coolant has been already installed, set the mesh fine. ・Ask NT for repair.
5	Chattering	① "A" dimension (plunger's height) is not correct. ② The plunger portion rattles. ③ Defective retraction due to mistakenly chosen pull bolt. ④ Expansion of BT shank because of overtightening retention stud.	① Check "A" dimension (plunger's height). ② Match the groove dimension of the positioning block with the plunger outside diameter dimension. ③ Use designated retention stud for the machine. ④ Tighten with the recommended tightening torque.

		⑤ Lowered main shaft retraction force. ⑥ Poor contact of tool interface ・Poor contact because of expanded spindle nose ・Dust, scratch or dent on taper or end face (in the case of two-face contact) ⑦ Cutting resistance is too high for holder's rigidity. ⑧ Bending moment is too large. ⑨ Chattering by holder's resonance	⑤ Ask the machine manufacturer for replacing the conical spring. ⑥ ・Ask the machine manufacturer for regrinding correction of the main shaft. ・Cleaning of taper and end face (two-face contact), touching up of scratch or dent ⑦ Revision of cutting conditions（Decrease cutting resistance.） a. Higher rotation and lower feed rate （Approx. 20%） b. Lower depth of cut c. Review of tool selection ⑧ Shorter tool projection ⑨ Shift rotation speed (more than 10%).
6	Fall at time of ATC	① The plunger is not in alignment with the positioning block groove. ② "A" dimension (plunger's height) is not correct. ③ The holder weighs over ATC limit. ④ Plunger angle has been shifted.	① Readjust the angle according to the instruction manual. ② Check "A" dimension (plunger's height). ③ Check allowable weight at the time of ATC. In case of overweight, consult the manufacturer. ④ Tighten the orientation ring stopper screw.
7	Runout is large.	① "A" dimension (plunger's height) is not correct.	① Check "A" dimension (plunger's height).
8	The plunger does not get in the positioning block groove.	① The shape of the plunger does not match with that of the positioning block. ② The orientation ring stopper screw is not tighten enough. ③ Lack of plunger actuation caused the orientation ring to idle. ④ The plunger interfered with the nearby holder in the magazine pot which can be located, due to its specification, at a large-diameter holder. This caused the plunger to shift.	① ・Check the machine specification (main shift end view, etc) to be used. ・Consult the M/C manufacturer. ② Tighten the stopper screw. ③ Check "A" dimension (plunger's height). ④ Check the swivel specification or empty the pots at the right and the left of the magazine.