# Troubleshooting

## （Adjustable adapter）

| | Details of the trouble | Cause | Pulled out of holder.<br>Unable to attach fast to spindle or holder in case of MT shank. |
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| 1 | Unable to install or fasten tool. | ①<br>Seized or adhered chip and dust to adapter ID and tool shank part.<br>②<br>Adhered oil to adapter ID and tool shank part.<br>③<br>Wrong morse taper size.<br>④<br>Scratch or dent in adapter ID and tool shank<br>⑤<br>Poor taper contact in tool shank part. | ①<br>Cleaning of adapter ID and tool shank<br>②<br>Cleaning (degreasing) of adapter ID and tool shank part.<br>③<br>Check morse taper size.<br>④<br>・Replacement of adapter or tool<br>・Touching up of area in question（rubbing off with sand paper #1000 and above）<br>Correction (grinding) by NT TOOL is not possible.<br>⑤<br>Replacement of tools. |
| 2 | Poor holding accuracy | ①<br>Seized or adhered chip and dust to adapter ID and tool shank part.<br>②<br>Scratch or dent in adapter ID and tool shank<br>③<br>Poor accuracy of tool | ①<br>Cleaning of adapter ID and tool shank<br>②<br>・Replacement of adapter or tool<br>・Touching up of area in question（rubbing off with sand paper #1000 and above）<br>Correction (grinding) by NT TOOL is not possible.<br>③<br>Replacement of tools. |
| 3 | Unable to pull out cutting tool. | ①<br>Large thrust resistance causes taper to stick fast to cutting tool. | ①<br>・Use of cotter or hitting hard from tool tongue side.<br>・Revision of cutting conditions（Decrease cutting resistance.）<br>a. Higher rotation or lower feed rate<br>（Approx. 20%） |
| 4 | Unable to turn nut. | ①<br>Seizing of foreign matters in threadarea<br>②<br>Lock screw is not loosened.<br>③<br>Internal part (spring ring) breakage caused by over-tightened lock screw. | ①<br>Cleaning of thread part<br>②<br>Loosening of lock screw.<br>③<br>Ask NT for repair. |
| 5 | Key is pulled out. | ①<br>Abrasion and deformation of key. | ①<br>Replacement of key. |
| 6 | Unable to set adapter in spindle or side lock holder (SLB type). | ①<br>Inappropriate key dimension.<br>・Wrong holder selection.<br>・Defective spindle.<br>②<br>Chosen adapter is not fitting to spindle shape. | ①<br>・Check key dimension.<br>・Check spindle dimension. (Contact the manufacturer.)<br>②<br>Check spindle dimension. |
| 7 | Unable to set adapter in drilling chuck. | ①<br>Different SSMA nut size.<br>②<br>Tr nut is used. | ①<br>Check SSMA nut size.<br>②<br>Replacement with SSMA nut. |
| 8 | Tool is pulled out during machining. | ①<br>Seized or adhered chip and dust to adapter ID and tool shank part.<br>②<br>Adhered oil to adapter ID and tool shank part.<br>③<br>Poor taper contact in tool shank part. | ①<br>Cleaning of adapter ID and tool shank<br>②<br>Cleaning (degreasing) of adapter ID and tool shank part.<br>③<br>Replacement of tools. |

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| 9 | Adapter is pulled out of spindle or sunk during machining. | ①<br>Tr nut is not in contact with spindle end surface.<br><br>②<br>Loosened side lock screw caused by machining vibration.<br><br><br><br>③<br>Nut's lock screw is left untightened. | ①<br>Insert adapter until Tr nut touches spindle end surface.<br><br>②<br>Revision of cutting conditions（Decrease cutting resistance.）<br>a. Higher rotation or lower feed rate<br>（Approx. 20%）<br><br>③<br>Tightening of nut's lock screw. |
| 10 | Machining accuracy is not stable. | ①<br>Cutting resistance is too large. | ①<br>Revision of cutting conditions（Decrease cutting resistance.）<br>a. Higher rotation or lower feed rate<br>（Approx. 20%） |
| 11 | Body is cracked. | ①<br>Thrust load from cutting is too big. | ①<br>Revision of cutting conditions（Decrease cutting resistance.）<br>a. Higher rotation or lower feed rate<br>（Approx. 20%） |