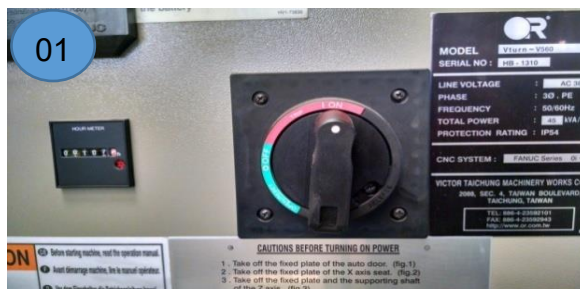
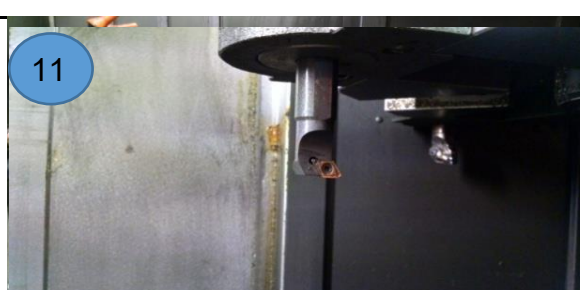
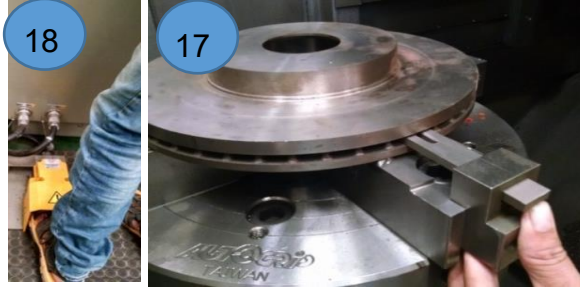
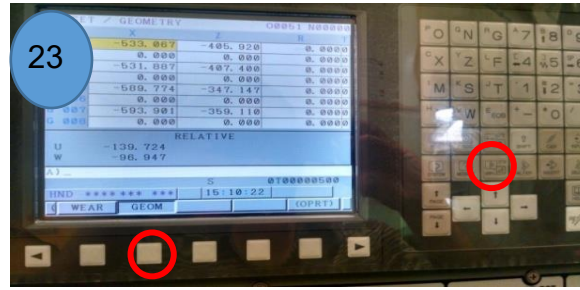


Manufacturing Operation Standard

|       |  |     |              |  |                                                                 |                                                                                               |  |                                                                                         |
|-------|--|-----|--------------|--|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------|
| Model |  | 3AM | PROCESS NAME |  | CNC 2nd Side Machining with 08 hole Drilling & 02 Holes Counter | <div>Preparing Department</div> <div>NES</div> <div>Confirmed by</div> <div>Prepared by</div> |  | <div>Control No.</div> <div>PP\FM\025</div> <div>ISSUE 00</div> <div>PAGE 5 of 17</div> |
|-------|--|-----|--------------|--|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------|

Job Setting

|                                                                                                                                                                                                                                                                                                                                                |  | No. | OPERATION                            | QUALITY STANDARD                                                                                                                                                                                  | WORKING POINT                                                                                                                                                                                                                                                                                                                                                                                                                        | TOOL & MATERIAL                                                                       | COMMENTS                                                                                                                                                                       | SAFETY POINTS |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|                                                                                                                                                                               |  | 1   | Main breaker ON & machine power on.  | -                                                                                                                                                                                                 | 1- Rotate selector Red mark to Green mark.<br>2- Press Switch ON Button.                                                                                                                                                                                                                                                                                                                                                             | Selector & Button                                                                     | If operator doesn't press button or move selector to its position then machine will no start.                                                                                  | Shoes, Gloves |
|                                                                                                                                                                               |  | 2   | Machine Reference                    | Before starting machine make sure your axis in reference point.                                                                                                                                   | Press Both X & Z axis button                                                                                                                                                                                                                                                                                                                                                                                                         | X & Z Axis button & Selector                                                          | If operator starts machine without sending reference point then it can cause accidents of machine.                                                                             | Shoes, Gloves |
|                                                                                                                                                                               |  | 3   | Checking of Oil levels.              | Check level gauge every day before starting machine.                                                                                                                                              | Check oil level on gauge.                                                                                                                                                                                                                                                                                                                                                                                                            | level<br>Level Gauge.                                                                 | If level gauge is below than its standard level then machine will be alarming & it can effect on your production.                                                              | Shoes, Gloves |
|                                                                                                                                                                                                                                                              |  | 4   | Set clamping Pressure.               | Clamping pressure should be 15~20 Kg/cm2                                                                                                                                                          | Clamping Jaws.                                                                                                                                                                                                                                                                                                                                                                                                                       | Pressure gauge                                                                        | Always set pressure gauge reading in between 15~20 kg/cm2, Lose clamping can cause rejection & accident on machine.                                                            | Shoes, Gloves |
|                                                                                                                                                                                                                                                             |  | 5   | Greasing                             | -                                                                                                                                                                                                 | Grease with the help of greasing Gun                                                                                                                                                                                                                                                                                                                                                                                                 | Greasing Gun                                                                          | -                                                                                                                                                                              | Shoes, Gloves |
|                                                                                                                                                                           |  | 6   | Setting of Jaws                      | T slot seating area should be clean and free from Bur.                                                                                                                                            | Tight all 4 jaws with the help of LN-key                                                                                                                                                                                                                                                                                                                                                                                             | LN-key                                                                                | If bur found on T-slot area then jaws will not properly tight.                                                                                                                 | Shoes, Gloves |
|                                                                                                                                                                           |  | 7   | Jaws cutting                         | When ever setup change make cut on jaws touching profile .                                                                                                                                        | Cut jaws with the help of boring bar.                                                                                                                                                                                                                                                                                                                                                                                                | Boring Bar                                                                            | If operator didn't make cut on jaws teeth's then Run out found on part.                                                                                                        | Shoes, Gloves |
|                                                                                                                                                                           |  | 8   | Checking of Tools & Inserts          | Make sure all tools mount on Turret & don't damaged.                                                                                                                                              | Mount all tools in turret with respect to 1st side machining.                                                                                                                                                                                                                                                                                                                                                                        | Tools & Inserts.                                                                      | -                                                                                                                                                                              | Shoes, Gloves |
|     |  | 9   | Disk clamping & its appearance.      | Make sure Rib should be insert before start machining.<br>Make sure jaws should be free from Bur & also Disk should be free from Bur, Dust or blow hole & CNC 1st Side operation should be done . | Before starting operation insert slot key with the help of slot Jig.<br>Before clamping disk on jaws clean jaws with the help of Air gun then place disk and press right pedal. Visually check the appearance of disk.                                                                                                                                                                                                               | Air Gun<br>Right Pedal                                                                | If bur found on Jaws then piece will not properly clamp & Run out found in disk.<br>If CNC 1st side operation didn't done on disk then return it to back CNC 1st Side Operator | Shoes, Gloves |
|                                                                                                                                                                                                                                                             |  | 10  | Call program                         | Before start machining make sure Programed # (O016)<br>Disk 2nd Side call on screen                                                                                                               | Type program # & press Program search Button on screen.                                                                                                                                                                                                                                                                                                                                                                              | Button                                                                                | If operator call wrong program # then it can cause accidents in machine                                                                                                        | Shoes, Gloves |
|                                                                                                                                                                           |  | 11  | Mode Setting                         | Make sure mode set on X1 & Single block and optional block ON                                                                                                                                     | set selector position on X1 & optional block & Single block ON then On cycle start button when tool is near to part then press free hold button to hold process & then press reset button & after pressing reset button manually touch tool with part with the help of Handle then go to offset & select geometry option, in geometry option select whose tool which is working in process then give '0' offset value in X & Z axis. | Selector & Button                                                                     | If this process will not proper follow then it can cause accident in machine.                                                                                                  | Shoes, Gloves |
|                                                                                                                                                                           |  |     |                                      |                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |                                                                                                                                                                                |               |
|                                                                                                                                                                                                                                                             |  | 12  | N1 Rough Facing & Outer Dia Turning  | After completing N1 process Inspect the part. make sure dimension should be 0.2~0.3mm up for final dimension.                                                                                     | Cycle start Button Press & Inspect the part with the help of Vernier Caliper & micrometer                                                                                                                                                                                                                                                                                                                                            | Tool ( WTXNR )<br>Insert ( TNMG 0.8 )<br>Instrument ( Vernier Caliper & Micro Meter ) | If sizes don't according to tolerance then repeat N1 process & give offset value & check again .                                                                               | Shoes, Gloves |
|                                                                                                                                                                                                                                                             |  | 13  | N2 Finish Facing & Outer Dia Turning | After completing N2 process Inspect the part with reference to OPS document. Process & make sure dimension should be according to document.<br><br>PP\FM\024<br>ISSUE 01<br>PAGE 5of17            | Cycle start Button Press & Inspect the part with the help of Vernier Caliper Micro Meter.                                                                                                                                                                                                                                                                                                                                            | Tool ( SVVBM )<br>Insert ( VBMT 0.8 )<br>Instrument ( Vernier Caliper & Micro Meter ) | If sizes don't according to tolerance then repeat N2 process & give offset value & check again .                                                                               | Shoes, Gloves |

