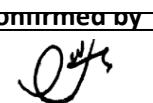
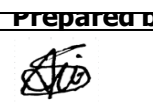
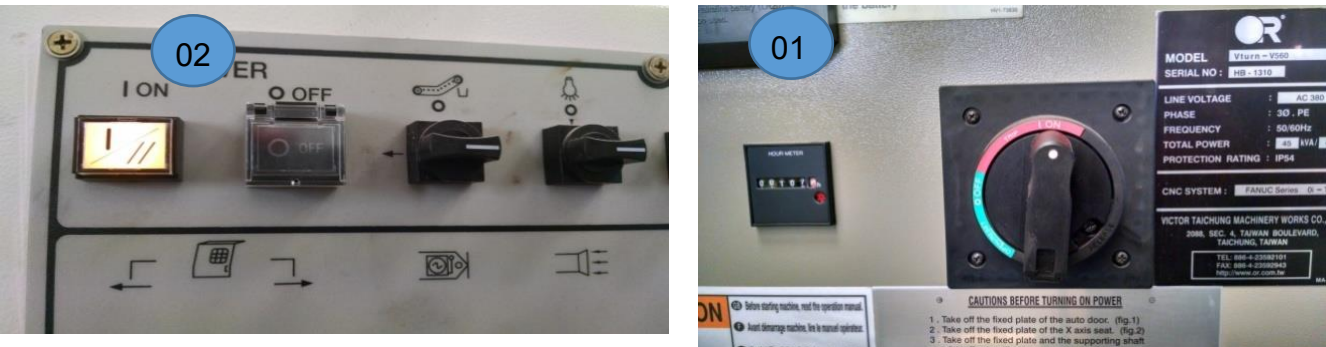
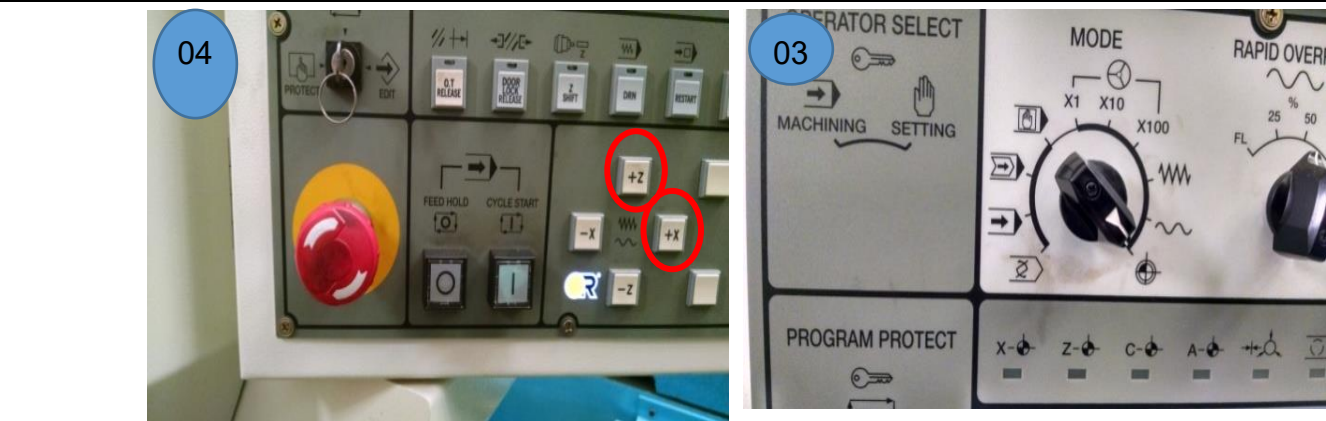
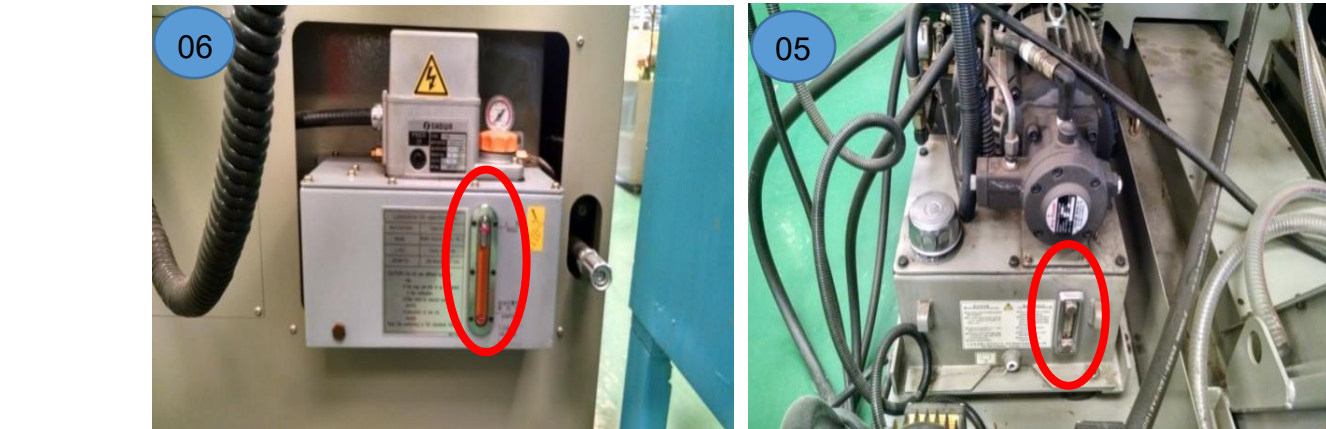
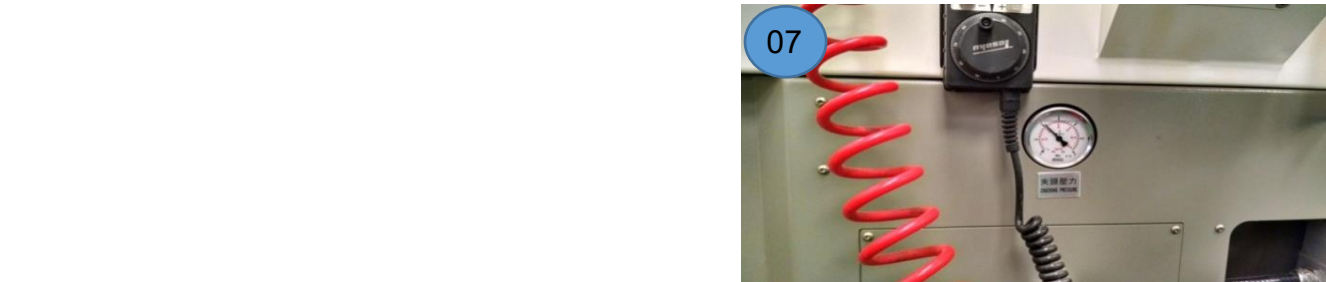
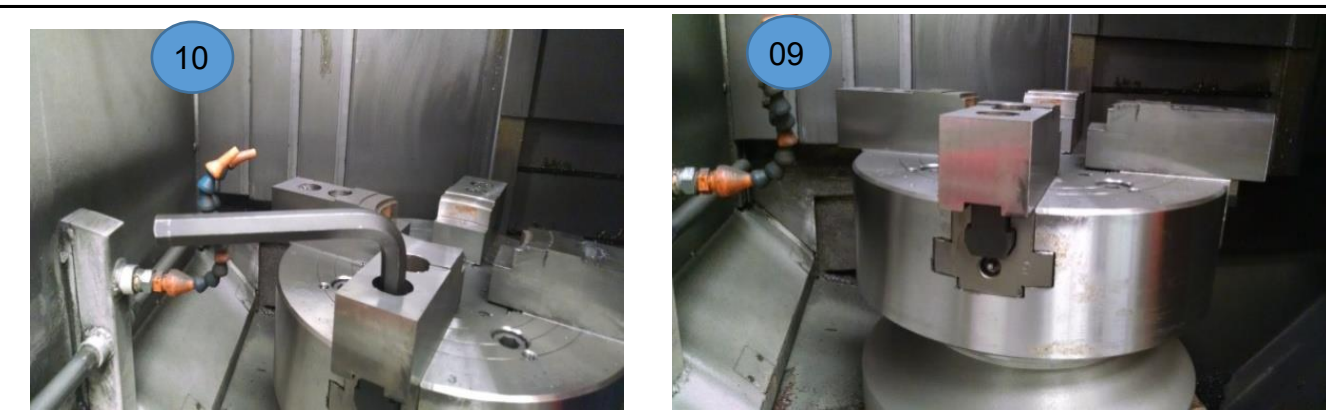
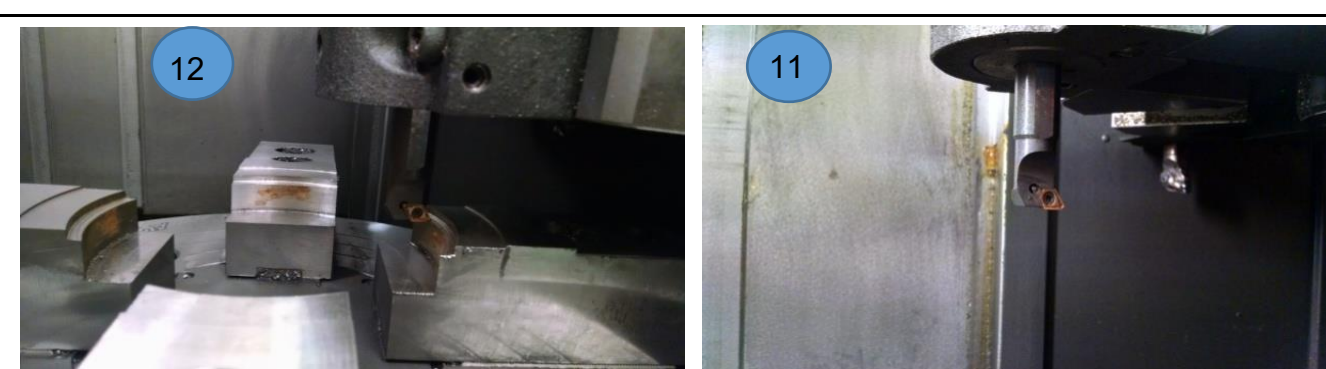
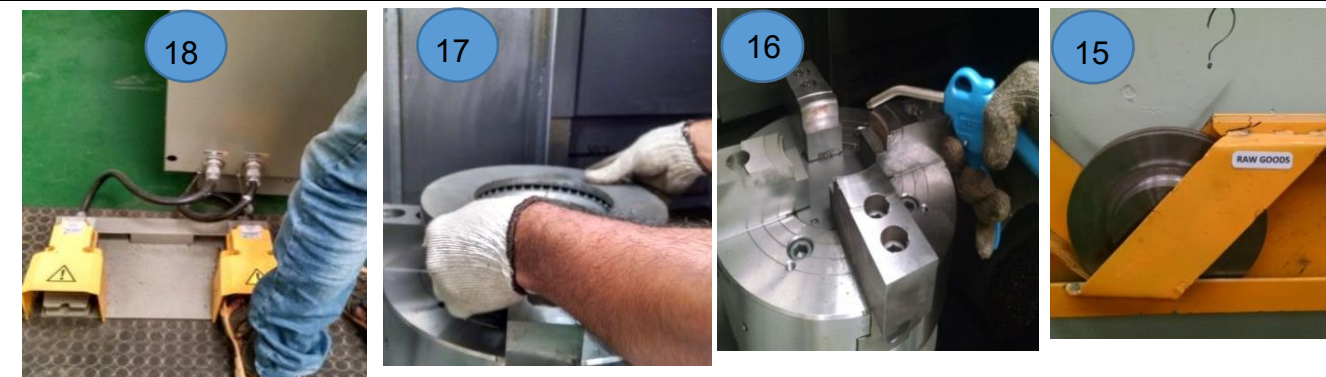
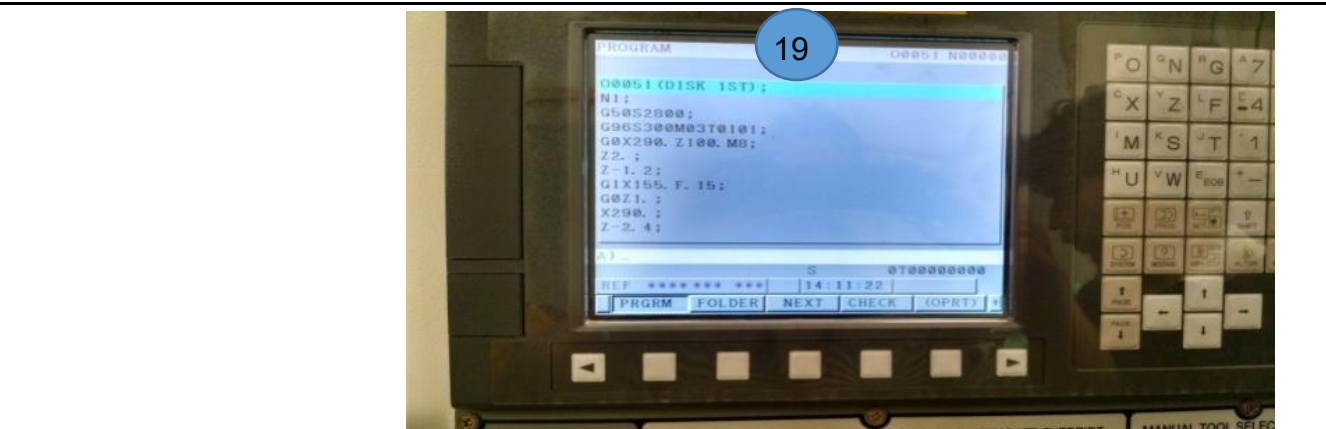
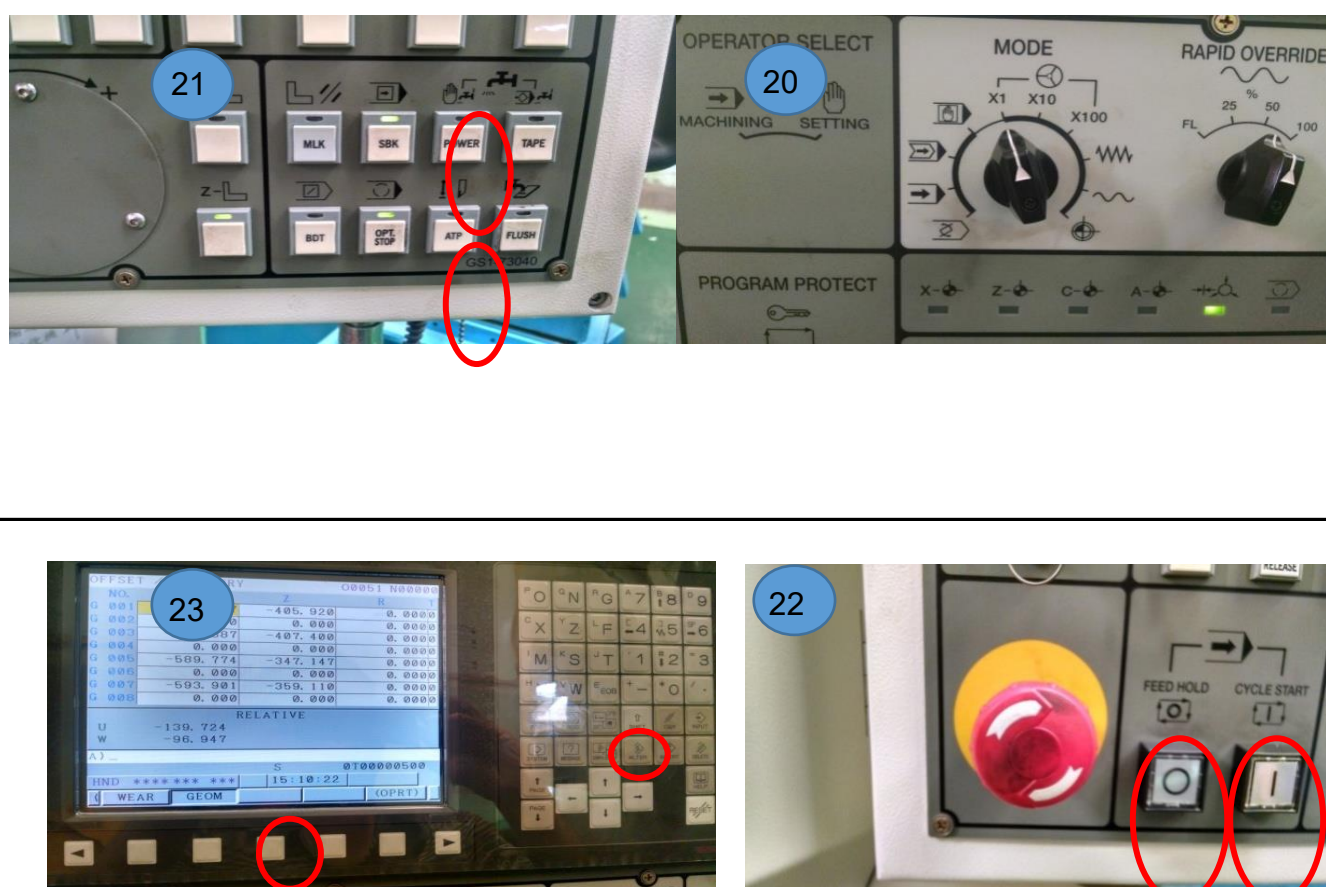
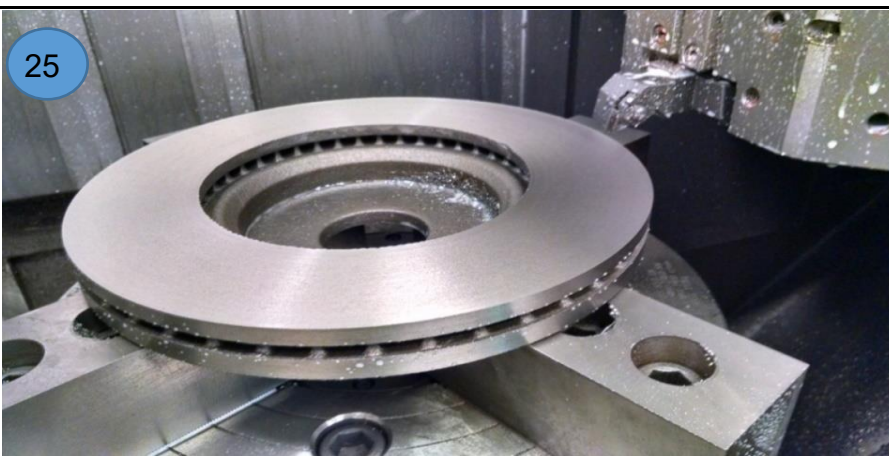
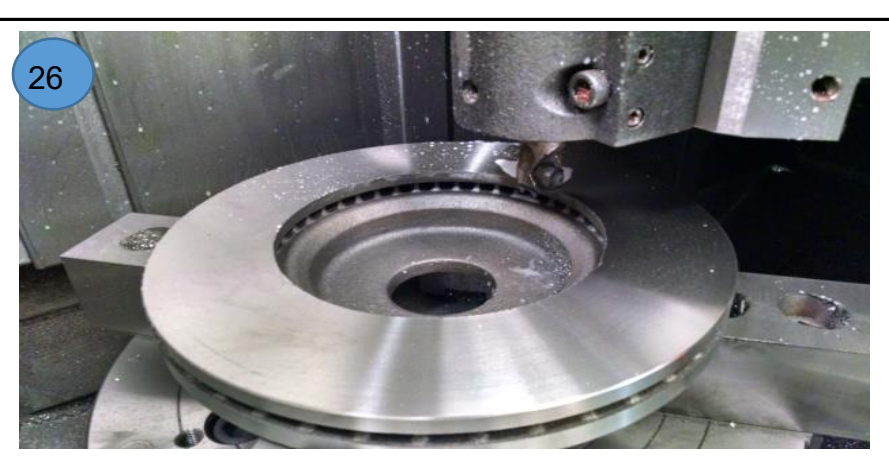
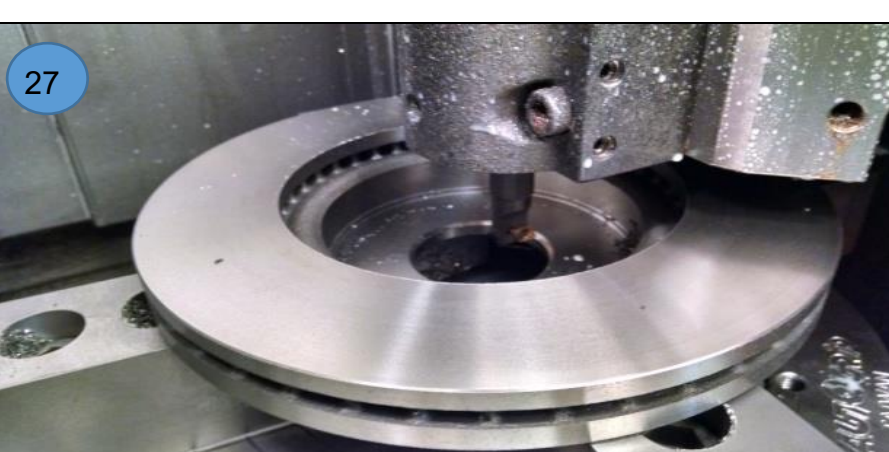
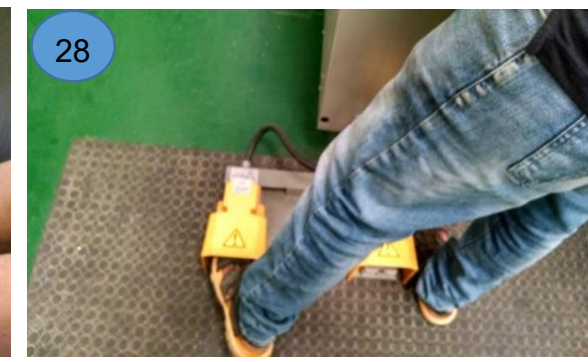
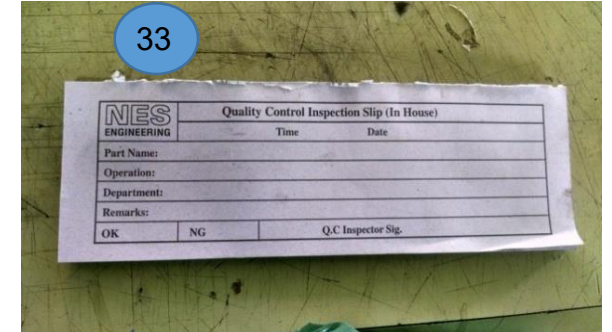
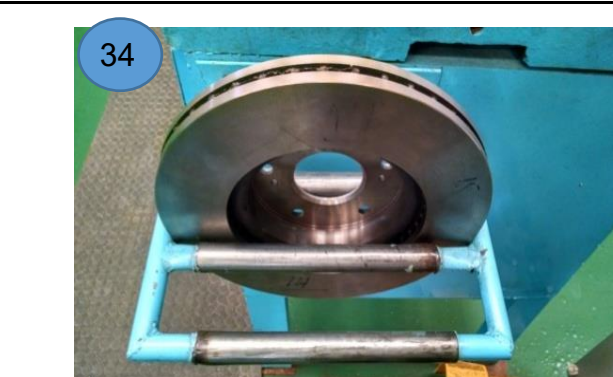


Manufacturing Operation Standard

Manufacturing Operation Standard				Preparing Department NES Confirmed by  Prepared by 		Control No. PP\FM\025 ISSUE 00 PAGE 4 of 17	
Model3AM				PROCESS NAME1st SIDE CNC MACHINING			
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. 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 level gauge.	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 Runout 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	Clamp the disk & Check appearance of Disk	Make sure jaws should be free from Bur & also Disk should be free from Bur, Dust or blow hole & Pre-Turning operation should be done .	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 Right Pedal	If bur found on Jaws then piece will not properly clamp & Runout found in disk. If Pre-Turning operation didn't done on disk then return it to back pre-Turning process.	Shoes, Gloves
	10	Call program	Before start machining make sure Programed # (O015) Disk 1st 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

	No.	OPERATION	QUALITY STANDARD	WORKING POINT	TOOL & MATERIAL	COMMENTS	SAFETY POINTS
	12	N1 Rough Facing & Outer Dia Turning	After completing N1 process Inspect the part with reference to OPS document. make sure this dimension should be 0.3~0.5 mm up. PP\FM\024 ISSUE 00 PAGE 4of16	Cycle start baton Press & Inspect the part with the help of Vernier Caliper.	Tool (WTXNR) Insert (TNMG 0.8) Instrument (Vernier Caliper)	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. make sure dimension should be according to document. PP\FM\024 ISSUE 00 PAGE 4of16	Cycle start baton Press & Inspect the part with the help of Vernier Caliper.	Tool (WTXNR) Insert (TNMG 0.8) Instrument (Vernier Caliper)	If sizes don't according to tolerance then repeat N2 process & give offset value & check again .	Shoes, Gloves
	14	N3, N4 & N5 Rough Facing & Inner Dia Turning	After completing N3, N4 & N5 process Inspect the part with reference to OPS document. make sure this dimension should be 0.3~0.5 mm down. PP\FM\024 ISSUE 00 PAGE 4of16	Cycle start baton Press & Inspect the part with the help of Vernier Caliper & Depth Vernier Caliper.	Tool (DCLNR) Insert (CNMG 0.8) Instrument (Vernier Caliper & Depth Vernier Caliper)	If sizes don't according to tolerance then repeat N3, N4 & N5 process & give offset value & check again .	Shoes, Gloves
	15	N6 Finish Facing & Inner Dia Turning	After completing N6 process Inspect the part with reference to OPS document. make sure dimension should be according to document. PP\FM\024 ISSUE 00 PAGE 4of16	Cycle start baton Press & Inspect the part with the help of Vernier Caliper & Depth Vernier Caliper.	Tool (DCLNR) Insert (CNMG 0.8) Instrument (Vernier Caliper & Depth Vernier Caliper)	If sizes don't according to tolerance then repeat N6 process & give offset value & check again .	Shoes, Gloves
 	16	Unclamp the disk	Before unclamping the disk make sure all work done on disk.	Press left pedal with the help of left leg & hold disk with the help of both hands.	Left pedal	-	Shoes, Gloves
 	17	Inspection	Inspect the part with using all instruments. PP\FM\024 ISSUE 00 PAGE 4of16	Check Dimension with the help of Instruments.	Instruments	Check with Sequence 1) Knife Vernier 2) Vernier Caliper 3) Depth Vernier	Shoes, Gloves
 	18	QC inspection	Before starting production go to QC window and check 1st part & receive OK slip .	Go to QC Window	QC Slip	If part is NG then go and come until QC didn't give you OK slip.	Shoes, Gloves
 	19	Storage & Handling Of Finish Part	Finish Disk set in Storage Location	Place the disk properly in the Disk Racks, so it doesn't hit or collide with Other Disk.	Finish Disk , Storage Rack	Disk needs to repair then place into Repairing rack and rejected Disk then place into Rejection rack.	Shoes, Gloves

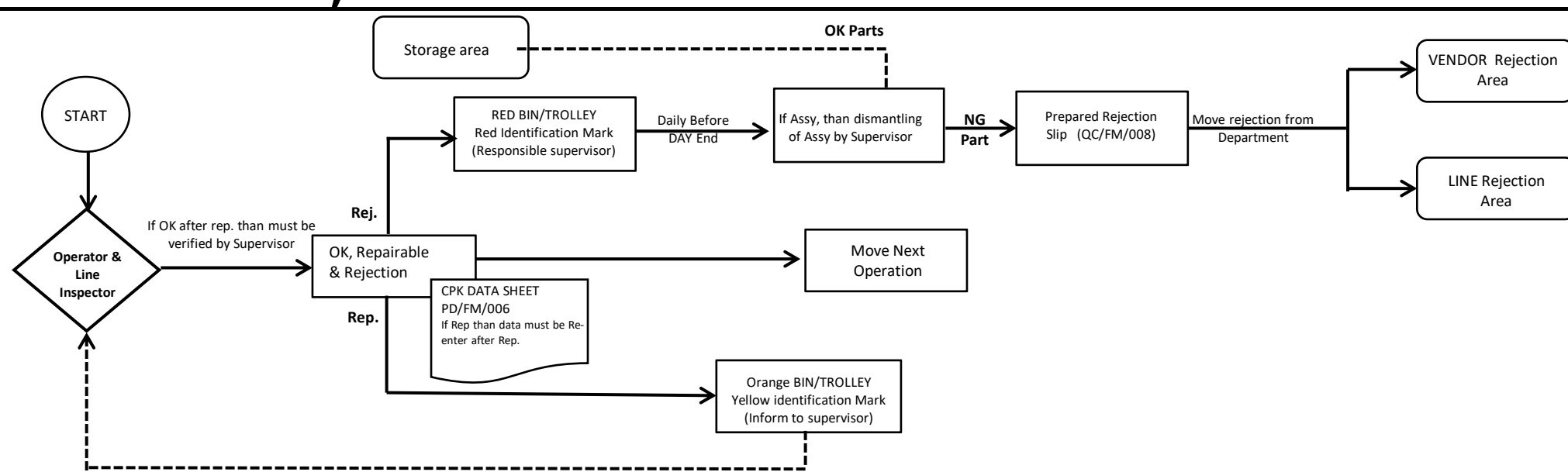
Day First Part Manufacturing

* For first part manufacturing Operator must follow these process: 1,2,3,4,5,8,9,10,12,13,14,15,16,17,18,19 & in Process # 11 operator should follow these Quality standards: Give offset 0.2+ in Outer Diameter & 0.2- in Inner Diameter in offset in wear option not try to insert in Geometry option.

Routine Part Manufacturing

* For Routine part manufacturing Operator must follow these process: 8,9, then Start Cycle then 16,17 & 19

OK, REJ. & REPAIRING PART RULES & ROUTE

[illegible]