PROCESS SHEET

Part Name: Bearing Housing	**Material:** Aluminium
Stock Size:	**Checked By:**
Prepared By:	**Date:**

S. No.	Machine	Operation Description	Machine/Tool required	Operation time (min)	Credit
1.	Vertical Milling Centre	Clamp the workpiece and set the machine	-	20	
2.		Face milling -Finish on the top surface.	Milling machine /face mill cutter	10	
3.		End milling-Finish the sides of block	End mill cutter	20	
3.		Face milling – finish on the bottom surface	Milling machine / face mill cutter	10	
4.		Drill a pilot hole for a large through hole 8 mm.	VMC / drill press (dia -8mm)	10	
5.		Drill through hole 15 mm	VMC / drill press (dia -15mm)	10	
6.		Drill through hole 18 mm	VMC / drill press (dia -18mm)	10	
7.		End milling large counter bore (dia - 28 mm).	VMC / milling machine, end mill (dia -28mm)	10	
8.		(For opposite face) Drill pilot hole for large through hole 8 mm.	VMC / drill press (dia -8mm)	10	
9.		Drill through hole 18 mm	VMC / drill press (dia -18mm)	10	
10.		End milling a large counterbore (diameter - 28 mm).	VMC / milling machine , end mill (dia -28 mm)	10	
11.		Drill tap hole for M5 internal thread (first drill 4.2 mm , 4 holes).	VMC / drill press (dia -4.2mm)	10	

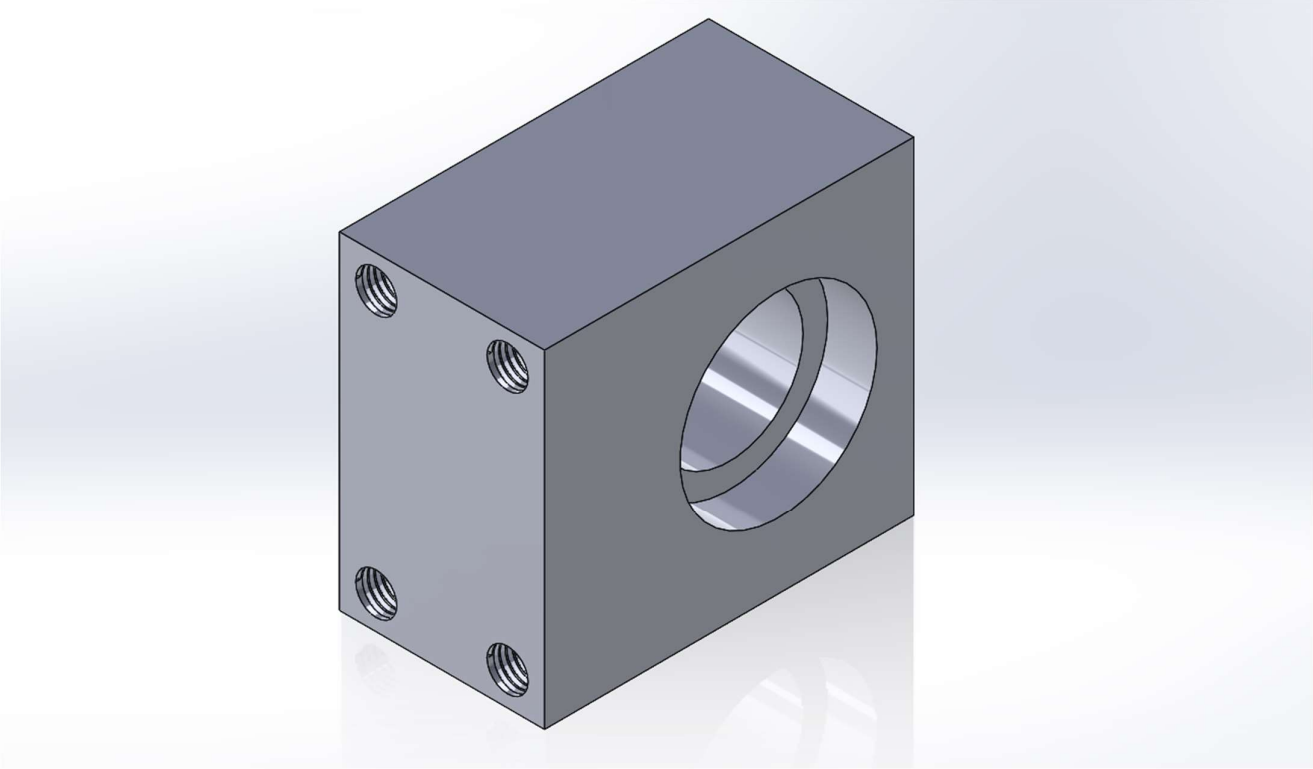
12.		Tap internal thread M5 (4 holes).	VMC/ tapping machine, M5 tap	10	

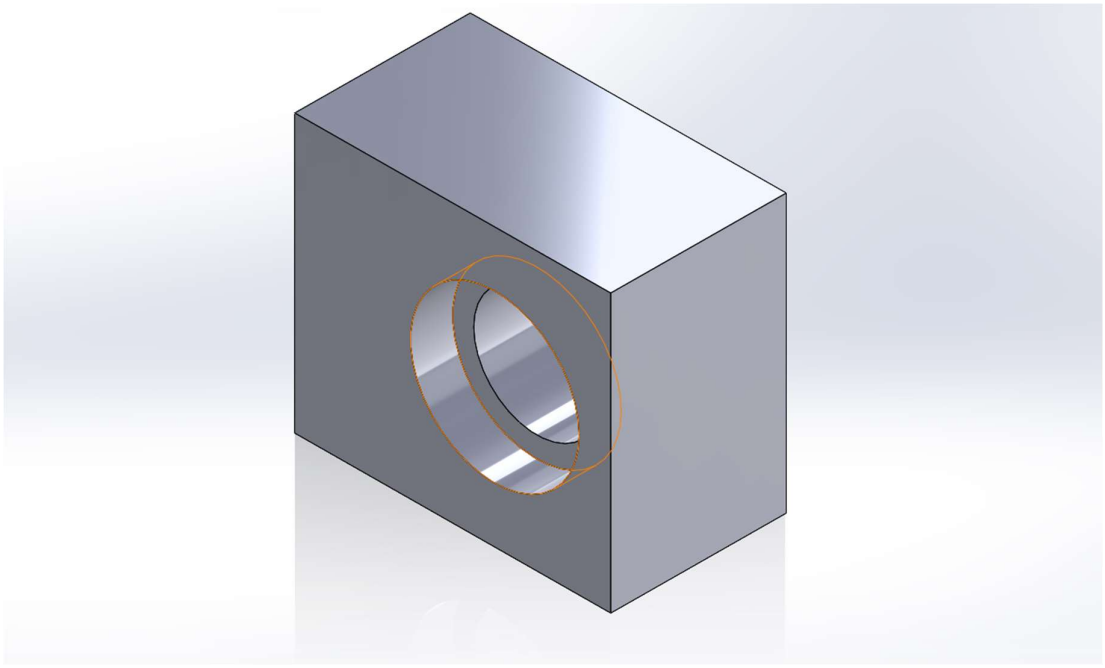
***For measurement, Vernier Calipers are used.**

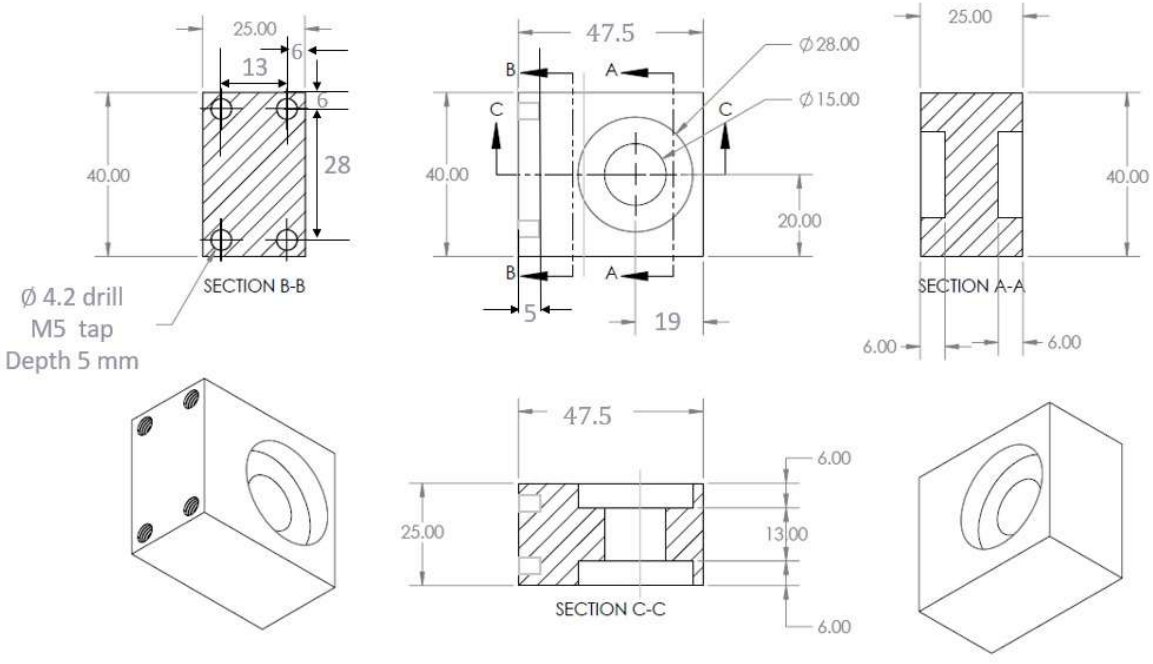
Learning outcome:

- Proper use of marking and hand tools
- Workpiece alignment
- How to use VMC?
- Face milling
- End milling
- Drilling and tapping

Student Signature: _____






25.00
6
13
6
28
40.00
SECTION B-B
Ø 4.2 drill
M5 tap
Depth 5 mm
47.5
Ø28.00
Ø15.00
B
A
C
C
40.00
20.00
B
A
5
19
25.00
40.00
SECTION A-A
6.00
6.00
47.5
6.00
25.00
13.00
6.00
SECTION C-C