

# INDIAN INSTITUTE OF TECHNOLOGY INDORE

## Central Workshop



**Contact Person:**

**In-Charge Central Workshop**

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**IIT Indore, PACL Campus,**  
Survey No. 113/2-B ,  
Opposite to Veterinary College  
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### **EQUIPMENT**

### **SPECIFICATIONS**

Heavy Duty Lathe	Swing over bed:500 mm, Distance between centre: 1500 mm
Radial Drilling	Max. Drilling capacity Solid Steel : 50 mm, Cast Iron : 60 mm
Drilling Machines	Max. Drill Capacity: 50 mm
Horizontal Milling Machine	Table Length x width: 1250 mm x 250 mm Max. job weight on the table: 200 kg
Vertical Milling Machine	Working surface: 1067 mm x 229 mm, Max. job weight on the table: 300 kg
Gear Hobbing Machine	Gear dia. range: 75 - 250 mm, Max. width of the gear: 150-200 mm Pitch capacity: 2 M for steel, 2.5 M for CI, No. of teeth cut: 4-400
Slotter Machine	Max. stroke of ram: 250 mm, Rotary table area: 375 mm Cross travel of the table: 280 mm, longitudinal travel of the table: 280 mm
Injection molding Machine	Max. Mould Weight Moving Plate: 277 Kg, Stationary Plate:143 kg. Min. Mould area: 22 cm x 21 cm
Arc Welding	Operating arc voltage 20-40 V, Welding current range 50-400 A
Oxy-Acetylene Gas welding	Complete set of gas welding.
Spot Welding Equipment	Work Capacity :3.25 mm
MIG Welding	Welding current and voltage range 10-450 A Max. welding voltage 53 V, Filler wire range 0.8, 1.2, 1.6
Deep Drawing Machine	200 ton hydraulic press
Sheet Metal Forming Machine	Min. Forming radius 1" - 2", Max forming length 48-1/2"
Sheet Shearing Machine	Sheet metal press break 4" long 12 gauge capacity
Surface Grinding Machine	Max. job that can be ground: 600 x 300 mm, Max. weight carrying capacity of the table: 300 kg
Tool and Cutter grinder	Max. dia. of cutter: 250 mm; Max. distance between centres: 300 mm
Induction Furnace	Output :30 KW, Frequency :3 KHz, Max. Temperature:1000 °C

### **ADVANCED MANUFACTURING PROCESS LAB**

CNC Turning Center	Swing over bed $\varnothing$ 250 mm, Swing over cross slide $\varnothing$ 85 mm Max. distance between centers 405 mm, Max. turning diameter $\varnothing$ 85 mm Max. turning length TC / TCM 270 / 256 mm, Max. bar-stock diameter $\varnothing$ 25.5
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CNC Milling Center	Travel in X longitudinal 350 mm ,Travel in Y latitudinal 250 mm ,Travel in Z vertical 300 mm Min. clearance spindle nose – table 120 mm , Max. clearance spindle nose – table 420 mm
CNC EDM	Maximum job weight: 300 Kg, Maximum electrode weight: 70 Kg
CNC Wire-EDM	Main Table Traverse (X,Y): 250, 350 mm, Max. Work piece weight: 300 Kg
Micro-Plasma and Micro-TIG Welding	Process Capability: Micro-Plasma/Plasma & MicroTIG/TIG Welding Amperage Capability: 0.1 – 80 amps
CNC Micro-machining Center	Max travel (X,Y,Z):130,75,80 mm, Work table size (X,Y,Z):260,110,100 mm Position accuracy: $\pm 1$ micron
* For the equipment and facilities of <b>Central Workshop and Advanced Manufacturing Processes Lab</b> , the cost of raw material and consumables will be in addition to the operating charges.	