Equipment

Photo	Specification
 **2 Universal Testing Machine**	The TUN 600 is designed for tensile and compression testing of materials, offering precise measurements across a wide range of forces. Its robust capabilities make it suitable for quality control and research in various engineering applications **Specifications:** **Make:** Fine Spavy Associate & Engg. Pvt. Ltd. **Model No.:** TUN 600 **Measuring Range:** • 0 - 60 kN • 0 - 120 kN • 0 - 300 kN • 0 - 600 kN **Maximum Capacity:** 600 kN **Drive:** Electric Power **Clearance for Tensile Test:** 50 mm to 800 mm **Clearance for Compression Test:** 0 mm to 800 mm **Power Capacity of Motor:** 2 HP


3.Torsion testing machine
	The FTT 20 is designed for performing torsion tests on mild steel and cast iron bars, enabling precise evaluation of material strength and ductility.
	Specifications:
	Make: Fine Spavy Associate & Engg. Pvt. Ltd.
	Model No.: FTT 20
	Measuring Range: Torsion test on mild steel bar / cast iron bar
	• 0 – 5 Kg-m
	• 0 – 10 Kg-m
	• 0 – 20 Kg-m
	Drive: Electric Motor
	Drive Motor Power: 0.5 HP
	Testing Speed: 1.5 RPM
	Maximum Torque Capacity: 20 Kg-m
	Cross-Section of Specimen:
	• **Round:**
	  ○ 7 mm Ø to 10 mm Ø
	  ○ 10 mm Ø to 15 mm Ø
	  ○ 15 mm Ø to 20 mm Ø
	• **Flat:**

	○ 3 mm x 30 mm to 10 mm x 30 mm
 **4. Impact testing machine**	The FIT 300 N is designed for conducting impact tests using Charpy and Izod methods, providing crucial data on material toughness and resistance to fracture. This machine is vital for quality control and material evaluation in various industries. **Specifications:** **Make:** Fine Testing Machines **Model No.:** FIT 300 N **Maximum Impact Energy:** ● Charpy: 300 Joule ● Izod: 170 Joule **Angle of Drop:** ● Charpy: 140 degrees ● Izod: 90 degrees **Effective Weight of Pendulum:** 21.3 kg
 **5. Rockwell hardness machine**	The TRS model is designed for precise hardness testing, utilizing diamond and ball indenters to assess material properties across a range of load capacities. **Specifications:** **Make:** Fine Testing Machines **Model:** TRS **Load Range:** ● 60 Kgf ● 100 Kgf ● 150 Kgf **Indentor Used:** ● Diamond, 120 cone ● Ball, 1/16” Diameter **Maximum Test Height:** 216 mm

6. Brinell Hardness Machine

The TKB - 3000 is engineered for high-capacity hardness testing, offering flexibility in load increments and indentor sizes. It is ideal for rigorous material evaluation in various industrial applications.

Specifications:
Make: Fine Testing Machines
Model No.: TKB - 3000
Load Range: In stages of 250 Kgf up to 3000 Kgf
Indentor Used:

- Ball with 10 mm diameter
- Ball with 5 mm diameter

Maximum Test Height: 410 mm
Drive: Electric Motor
Power Capacity of Motor: 0.5 HP
Main Supply: 400/440 V; 3 phase

List of experiments

- Tension test on mild steel bar (stress-strain behavior, determination of yield strength and modulus of elasticity)
- Torsion test on mild steel bar / cast iron bar
- Impact test on metal specimen (Izod/Charpy Impact test)
- Hardness test on metals – (Brinell Hardness Number)
- Hardness test on metals – (Rockwell Hardness Number)
- Flexural test on beam (central loading)