



**GOVERNMENT ENGINEERING COLLEGE, DAMAN**  
**DEPARTMENT OF MECHANICAL ENGINEERING**  
**MATERIAL SCIENCE AND METALLURGY LABORATORY**

**METALLURGICAL MICROSCOPE**



**Basic Details: -**

|                       |                              |
|-----------------------|------------------------------|
| Resolution/Frame rate | : 2592 x 1944/ 7FPS          |
|                       | 1280 x 960/ 27FPS            |
|                       | 640 x 480/ 90FPS             |
| Exposure Time         | : 0.2ms ~2000ms              |
| Spectral Range        | : 380-650nm (with IR-filter) |
| Power Supply          | : DC 5V over PC USB Port     |



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**BRINELL HARDNESS TESTER**



**Basic Details: -**

|                 |   |                        |
|-----------------|---|------------------------|
| Load ranges     | : | 250 kgf up to 3000kgf. |
| Depth of throat | : | 200 mm                 |
| Height          | : | 1277 mm                |
| Net weight      | : | 450 kg                 |
| Main supply     | : | 400/ 440 V, 3 phase    |



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**MUFFLE FURNACE**



**Basic Details: -**

|               |   |                             |
|---------------|---|-----------------------------|
| Inner Chamber | : | Ceramic Muffle              |
| Heating Coil  | : | Kanthal A-1 Heating element |
| Insulation    | : | Ceramic Fibre Wool          |



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**IMPACT TESTING MACHINE**



**Basic Details: -**

- Base : Made of M. S. Angle [ $2\frac{1}{2}$ " x 2" x  $\frac{3}{16}$ "]  
Spring : Made of [IS 226]  $\frac{1}{2}$ " dia spring steel wire, so Treated and constructed that a force of 2000 lbs. Will compress the spring 0.25 inches in overall length  
Scale : Brass made scale will be provided  
Tubes :  $\frac{1}{2}$ " dia. half hard 20 gauge seamless tubes



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**DISC POLISHING MACHINE**



**Basic Details: -**

- Two 200 MM Aluminum discs over which polishing paper or cloth can be stretched
- Separate Motors for individual disc of ½ HP
- Variable speed from 50-1440 RPM
- Single Phase High torque AC Motor
- Water inlet/outlet for wet polishing .
- Flexible water jet with control valve
- Paper & Polishing Cloth holding Ring
- The operation of the machine with 220 V AC
- Machine Dimension ( L X W X H ) : 870X 460 X 570 MM )