



Product Overview

The Measurement of Wavelength of He-Ne Laser System is designed for accurate determination of the wavelength of a Helium–Neon laser using the diffraction grating method. This experimental setup is widely used in physics laboratories for demonstrating the principles of laser optics, diffraction, and interference with high precision and reliability.

System Components

1. He–Ne Laser Source
2. Diffraction Grating
3. Projection Screen
4. Optical Bench
5. Meter Scale

Technical Specifications

1. He–Ne Laser

- Laser Type: Helium–Neon (He–Ne) Gas Laser
- Operating Wavelength: 632.8 nm (Red)
- Output Power: 1 – 5 mW (typical)
- Beam Diameter: ~0.8 – 1.0 mm
- Beam Divergence: < 1 mrad
- Mode of Operation: Continuous Wave (CW)
- Power Supply: 220–240 V AC, 50 Hz
- Safety Class: Class II / Class IIIa (as applicable)

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.



Export Sales: +91-9829132777
India Sales: +91-9588842361



IT-2013, Ramchandrapura Industrial Area,
Sitapura Extension, Jaipur-302022, India.



info@tesca.in
www.tescaglobal.com

2. Diffraction Grating

- Type: Transmission diffraction grating
- Grating Lines: 300 – 600 lines/mm (typical)
- Material: Optical-grade plastic or glass
- Grating Size: Standard laboratory size
- Application: Generation of diffraction maxima for wavelength measurement

3. Screen

- Material: Matte white surface
- Size: Standard laboratory projection screen
- Mounting: Adjustable holder compatible with optical bench
- Application: Observation and measurement of diffraction patterns

4. Optical Bench

- Length: 1 – 1.5 meters
- Material: Anodized aluminum / stainless steel
- Scale Resolution: 1 mm
- Mounting: Adjustable carriers for laser, grating, and screen
- Application: Precise alignment and positioning of optical components

5. Meter Scale

- Length: 1 meter
- Least Count: 1 mm
- Material: Stainless steel / rigid plastic
- Application: Measurement of diffraction distances and fringe separation

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.



Export Sales: +91-9829132777
India Sales: +91-9588842361



IT-2013, Ramchandrapura Industrial Area,
Sitapura Extension, Jaipur-302022, India.



info@tesca.in
www.tescaglobal.com