

## LASER DIFFRACTION KIT

With this unique kit, you can do 20 experiments related to diffraction. The list of experiments and items is given below :

### List of Experiments :

1. To measure the width of a single slit using diffraction.
2. To measure the diameter of a circular aperture (pin hole) using Fresnel diffraction.
3. To measure the diameter of a thin wire using diffraction.
4. To study diffraction due to a circular aperture.
5. To measure the separation of two pin holes using diffraction.
6. To study diffraction due to multiple pin holes.
7. To study diffraction due to multiple slits.
8. To measure the number of lines in a transmission grating.
9. To measure the wavelength of He-Ne Laser light using a grating.
10. To demonstrate diffraction due to a cross grating.
11. To measure the wavelength of He-Ne Laser light using a engraved vernier callipers.
12. To produce diffraction due to a razor blade.
13. To produce diffraction due to a engraved S.S. Scale.
14. To detect the inhomogeneity in a glass rod using the phenomenon of diffraction.
15. To demonstrate diffraction due to a circular obstacle.
16. To study diffraction due to a wire mesh.
17. To study diffraction due to a rectangular aperture.
18. To measure the thickness of a sleeve on a fine wire using diffraction.
19. To study diffraction due to overlapping rings.
20. To study diffraction due to a knife edge.

### List of Items :

- |     |                       |        |     |                      |        |
|-----|-----------------------|--------|-----|----------------------|--------|
| 1.  | Precision Mounts      | 6 Nos. | 1.  | Vernier callipers    | 1 No.  |
| 2.  | Base for above mounts | 6 Nos. | 16. | Razor Blade          | 1 No.  |
| 3.  | Circular Table        | 1 No.  | 17. | S.S. Scale           | 1 No.  |
| 4.  | Screen                | 1 No.  | 18. | Glass rods           | 2 Nos. |
| 5.  | Convex lens           | 1 No.  | 19. | Circular obstacle    | 1 No.  |
| 6.  | Single Slit           | 1 No.  | 20. | Wire mesh            | 1 No.  |
| 7.  | Pin hole              | 1 No.  | 21. | Rectangular Aperture | 1 No.  |
| 8.  | Mounted thin wire     | 1 No.  | 22. | Sleeved wire         | 1 No.  |
| 9.  | Circular Aperture     | 1 No.  | 23. | Overlapping rings    | 1 No.  |
| 10. | Two pin holes         | 1 No.  | 24. | Straight edge        | 1 No.  |
| 11. | Multiple pin holes    | 1 No.  | 25. | Graph paper          | 1 No.  |
| 12. | Multiple slits        | 1 No.  | 26. | Measuring tape       | 1 No.  |
| 13. | Gratings              | 1 No.  | 27. | Instruction Manual   | 1 No.  |
| 14. | Cross grating         | 1 No.  |     |                      |        |