

## **SPECTROMETER – high quality**

**Cat: HL1246-01**

This Spectrometer is a high quality design that is suitable for both education and industry. Rotary table graduated in  $0.5^\circ$  increments and with 2 verniers that read to 1 minute of arc. Complete with a precision adjustable slit for the collimator and an 'Abbe' eyepiece with graticule. A 'Gaussian' attachment for the eyepiece simplifies the setting up of the instrument.

### **SPECTROMETER HL1246-01 with accessories**



Physical size: 251x518x250mm WxDxH

Weight: 11.8kg

#### **Accessories:**

- Adjustable eyepiece with graticule for viewing
- Illuminator for 'Gaussian' operation of eyepiece (green LED)
- Plug Pak for illuminator for 'Gaussian' eyepiece
- Diffraction grating - free standing
- Precision adjustable slit for light source
- Magnifier for reading vernier
- Accurate  $60^\circ$  glass prism
- Optically flat plate

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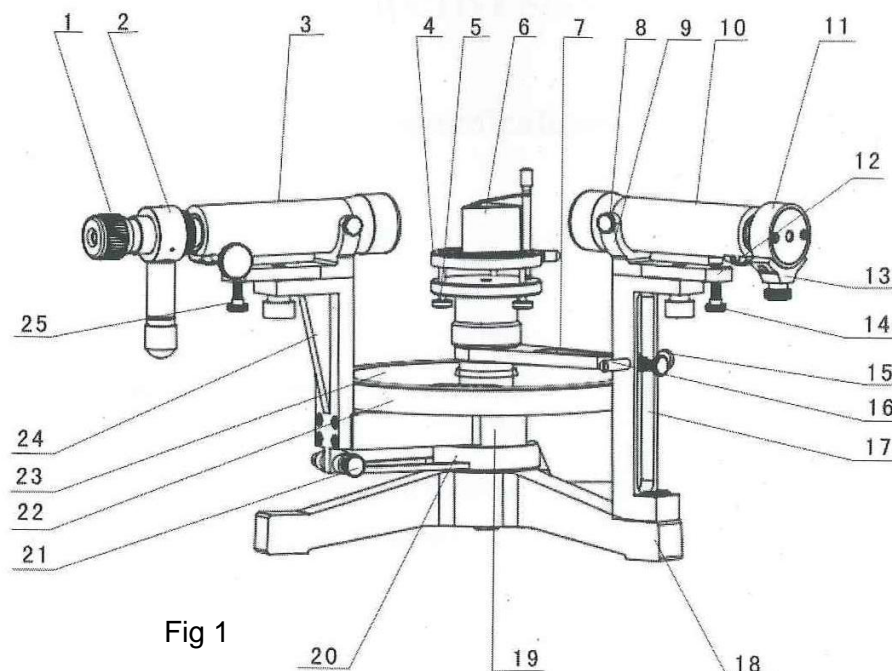


Fig 1

#### IDENTIFICATION of FEATURES:

|   |   |
|---|---|
| 1. Eyepiece adjustment                                      | 14. Collimator vertical adjusting screw |
| 2. 'Abbe' self-collimating eyepiece with "Gaussian" feature | 15. Vernier lock screw                  |
| 3. Telescope unit   | 16. Vernier adjustment knob             |
| 4. Stage for prisms etc.                                    | 17. Pillar for collimator               |
| 5. Stage levelling screws (3x)                              | 18. Main Body                           |
| 6. Prism (60° angle)  | 19. Main rotating table lock screw      |
| 7. Stage fine adjust  | 20. Telescope fine adjust               |
| 8. Collimator level screw                                   | 21. Telescope lock screw                |
| 9. U-bracket  | 22. Graduated ring                      |
| 10. Collimator unit   | 23. Main rotating table                 |
| 11. Slit unit   | 24. Pillar for viewing tube             |
| 12. Magnetic pad  | 25. Telescope vertical adjusting screw  |
| 13. Slit width adjust                                       |   |

#### WHAT IS A SPECTROMETER ?

A Spectrometer is a simple instrument that can accurately measure the exact angle that light bends as it passes from one medium to another or as it passes through a diffraction grating. Since different wavelengths of light bend different amounts, A Spectrometer can determine the Refractive Index of a medium, or it can be used to determine the colour content of a source of light or the material that was burned to create the source of light, or the content of a gas that absorbed particular wavelengths of light.

It is used in Chemistry to study the content of compounds or the wavelengths of light and also in Astronomy to study light wavelengths from very distant stars.