# MANUAL ROCK SHEAR BOX APPARATUS

Code : K222

- The Manual Rock Shear Box Apparatus is designed for determining the shear strength and stability characteristics of rock specimens under controlled normal and shear loads. It provides essential parameters such as cohesion, friction angle, and residual shear strength for rock slope stability analysis and foundation design.
- The system accommodates both irregular rock fragments and cylindrical core specimens, enabling versatile testing for geotechnical, mining, and civil engineering investigations.
- The test applies a normal load perpendicular to the failure plane, while shear load is applied horizontally through twin hydraulic rams to mobilize shear resistance along the defined shear plane.
- Manual control of normal and shear pressures allows precise simulation of in-situ stress conditions, making the apparatus suitable for laboratory and on-site evaluations.
- The apparatus ensures accurate displacement and load measurement through dial gauges or optional electronic transducers, allowing reliable data acquisition and repeatability.

- Constructed with a rigid steel frame and corrosion-resistant components, it ensures stable operation and long service life even under demanding testing conditions.

## STANDARDS

ASTM D5607

## TECHNICAL SPECIFICATIONS

- **Maximum Sample Size:** 115 × 125 mm (surface) / Ø102 mm (core)
- **Shear Force Application:** 2 Horizontal Hydraulic Rams (Bidirectional)
- **Normal Load Application:** 1 Vertical Hydraulic Ram
- **Load Measurement:** Analog Manometer (optional pressure transducer)
- **Displacement Measurement:** Dial Gauge 25 × 0.01 mm (optional LVDT 25 mm)
- **Hydraulic System:** 2 Manual Hydraulic Pumps (for normal and shear)

## SUPPLIED WITH

- Mould Former for Rock Shear Box Apparatus
- Pressure Maintainer for Rock Shear Box Apparatus with Manual pneumatic pump