



Ankarin Material Testing Equipment

ROCK SHEAR APPARATUS

Rock shear analysis in rock mechanics examines the failure behavior of rocks or rock masses subjected to shear forces. This mechanism plays a critical role in geotechnical applications such as slope instability and tunneling. Specialized testing setups are employed in both laboratory and field settings to estimate rock strength.

This device is designed to induce and monitor the failure of laboratory-prepared specimens under lateral loading pressure. It features the capability to track displacement occurring under shear loads using 0.01 mm mechanical deformation gauges. Vertical loading simulates the rock's natural in-situ conditions, while measurements are taken by applying lateral shear force to the specimen under load.

Shear forces can be applied to specially designed core samples; additionally, the system allows for prismatic tests by enabling the preparation of artificial specimens within dedicated molds. Vertical and lateral pressure loads are applied using a hydraulic hand jack.

