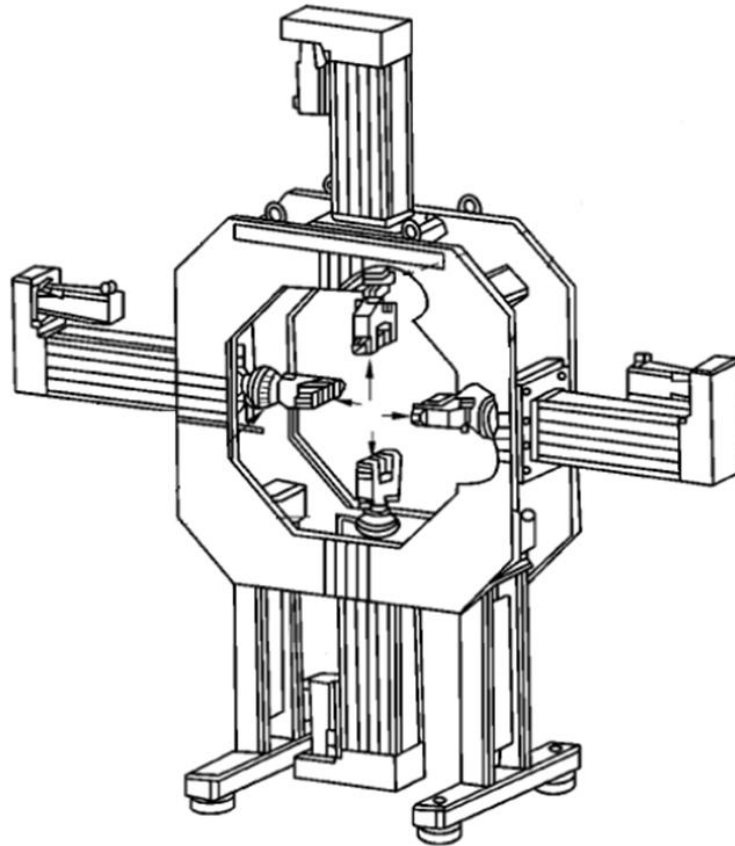


Biaxial tensile tester machine



Picture is for reference only

Application

This biaxial tensile tester machine is a tensile testing in which the sample is stretched in two distinct directions. This technique is used to obtain the mechanical characteristics of anisotropic materials, such as composite materials, textiles, and soft biological tissues. There are three main types of biaxial tensile testing: Bursting test, based on a circular specimen clamped along the edge and inflated by air or water under pressure until the specimen bursts; Cylinder test, based on a hollow cylinder subjected to internal pressure and axial pressure or tension; Plane biaxial test, which offers the best result because of the independent force introduction in the two main directions.

Specifications:

- Maximum unidirectional test force: 5KN
- Offered in capacities up to 5 kN (1,125 lbf)
- Actuator strokes and speeds tailored to specimen size and testing requirements
- Capable of performing static and cyclic fatigue tests up to 10Hz
- A variety of specimen grip types are available including clamps, rakes and sutures
- Recirculating baths or heating elements are available for testing at elevated temperatures in air or fluids
- Offered with a 2D or 3D Digital Image Correlation (DIC) system for advanced strain field measurements

- Operates with HST PC-based controller capable of force, displacement, strain control (using DIC system) in addition to sine, square, triangular cyclic waveforms, and independent or synchronized control of X & Y actuators
- Each axis can be programmed for independent or coordinated motion