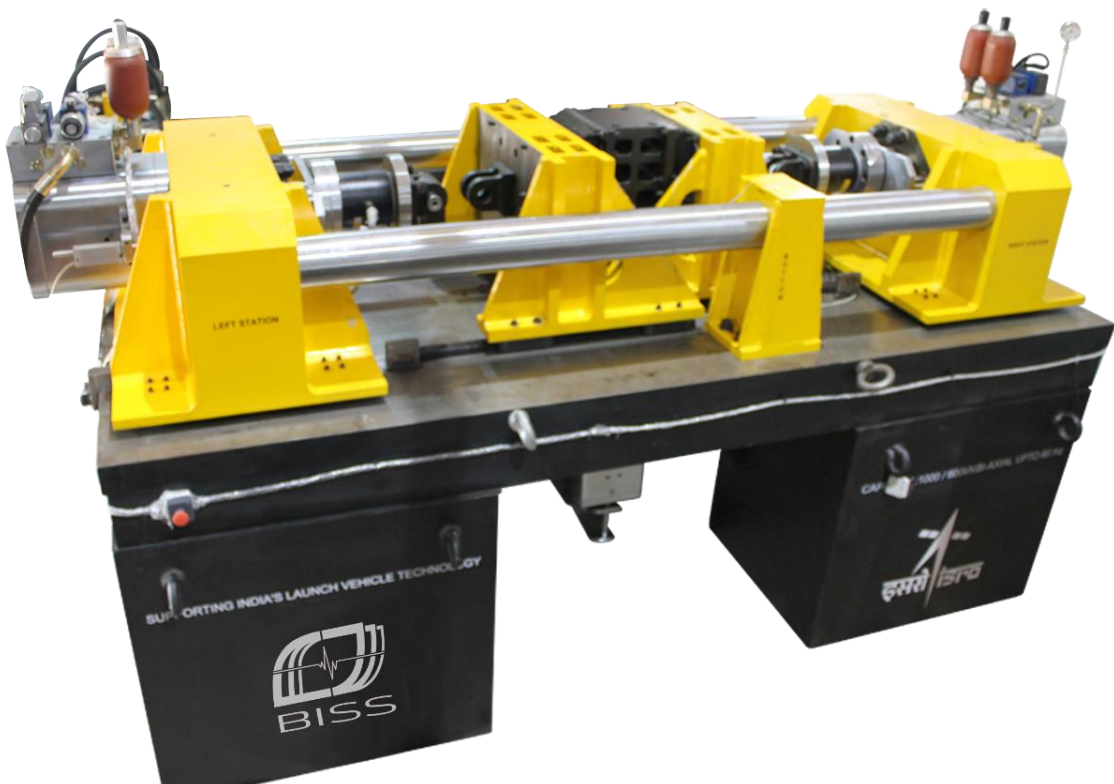


Biaxial test rig for MEMs (Multilayered Elastomeric Modules) used for developmental testing and quality assurance of elastomeric interfaces used in the launch vehicles. These elastomers in applications are sandwiched in such a way they transfer the thrust and also isolate the solid rocket motor thrust oscillations. The biaxial systems characterize vibration response at frequencies ranging from 0 to 70 Hz, displacements ranging from 0.05 to 15 mm, forces ranging from 0 to 600 kN in dynamic condition and 0-2000kN in static condition

### Standard features

- Unique dual capacity actuator mounting frame with two side actuators
- Fully Integrated single footprint
- Interchangeable tooling to accommodate wide variety of tests
- Malfunction operator controls to enable part selection
- Auto centering of specimen ensuring zero side load on actuator
- High flow HPS to cater to high dynamic response
- On demand flow regulations via PLC based hydraulic control
- Full digital controls



## Specifications

<b>Load frame, kN</b>	2000 kN, maximum capacity
<b>Frequency range, Hz</b>	0.01 to 70
<b>Actuator capacity, kN</b>	1x 2000kN, 1 x 600kN dynamic loading, 2x 1000kN side actuators
<b>Hydraulic powerpack</b>	1250 LPM flow ( 5 x 250LPM) pump at 210bar rated pressure
<b>Power &amp; environment</b>	440V 3-phase, 600 kW Rating: indefinite continuous usage.
<b>Controls</b>	Full digital control using Digital Signal Processor with 8 KHz servo-loop update and data acquisition. 48 channels of Data acquisition, Adaptive control for stroking precision. All controls housed in dust free air conditioned enclosure.

### Applications

- Biaxial static and dynamic testing
- of Launch Vehicle Thrust Damper
- Static shear test- constrained & unconstrained
- Shear overload test- constrained & unconstrained
- Compression test
- Tensile rupture test
- Creep test
- Dynamic shear test – constrained & unconstrained

