

# BI-AXIAL TEST SYSTEM BI-7060

The Bi-axial cruciform specimen test systems feature high-stiffness; precision-aligned annular load frame with 4 four identical and independently controlled servo-actuators Using the advanced features of the controller to provide translation and deformation control of each axis, these systems are ideal for strength, fatigue and fracture testing of cruciform type test specimens with cracks or notches under a wide variety of synchronous biaxial load conditions with automatic specimen alignment to avoid shear loads.

# **FEATURES**

- Payload capacity 1 to 50000kg
- Displacement up to +/-150mm.
- Self-reacting high stiffness biaxial load frame with integrated service manifold and hard piping.
- Wide range of grips and accessories
- Fatigue rated actuators with hydrostatic bearings
- High frame natural frequency
- Encoder based displacement measurements.
- Energy efficient pumps
- Optional heating pad for elevated temperature test
- Large specimen mounting area
- Servo-electric options available
- Horizontal and vertical options
- Environment chamber and bio-bath options
- Suitable to test metals, alloys, composites including structural details
- State of art 3648 MIPS DSP, 2746M
- FLOPS DSP 24-bit analog data conversion, 32-bit data acquisition and 40-bit servo-loop calculations
- Data acquisition rates up to 40kHz
- User friendly application software with auto centering features
- Optional DCPD arrangement to measure crack size

# **APPLICATIONS**

- Aerospace materials testing.
- Aerospace design detail evaluation.
- Pressure vessel shell/skin response.
- Pressurized fuselage skin and launch vehicle shell





- response.
- Fatigue toughness and fracture mechanics.
- Bi-axial stress-strain response.
- Biological tissue growth studies.
- Bi-axial high strain rate test.

### **SPECIFICATIONS**

		BI-7021	BI-7022	BI-7023	BI-7024	BI-7025	BI-7026
Dynamic Load Capacity	kN	100	150	250	300	500	600
Total Actuator Stroke	mm	150					
No. of Columns		2					
Actuator Position		On Bottom Crosshead					
Frame Stiffness	MN/m	500			1000		
Loadcell Accuracy		$\pm 0.5\%$ of reading down to 1/500 of load cell capacity					
*Cycling Frequency	Hz	0-100 Hz					
Column Clearance	mm	600					
*Daylight Opening	mm	1200					
Electric Supply		380/400/415 VAC, 3 Ph, 50/60 Hz					
System Dimensions H x W x D	mm	3100 x 10	00 x 1065	3600 x 1000 x 1065			
Max. Frame Weight	kg	1085	1300	1690	1850	2120	2340

\*Maximum Between Load Cell and Actuator at zero position

# NOTE

Please refer to individual brochures for information on the selected power packs & accessories. Optional vertical & horizontal daylights are available up to 2500mm and 800mm respectively Custom configurations available CE certification on Demand Specifications are subject to change without prior notice

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Medium Force Test System\_V1