



# KALPAK INSTRUMENTS & CONTROLS

Shed no. 16,N.R.Industrial Estate,  
S.no.25/3,Hingane Khurd, Vithalwadi,  
P U N E-411 051, INDIA

Tel : +91-20-2434 63 63/2434 68 02, Fax : +91-20-2434 63 63

E mail: [kalpakpune@gmail.com](mailto:kalpakpune@gmail.com)

## Kalpak Computerized Servo Hydraulic Universal testing Machine Dynamic test System for Materials & Components Testing up to 100 KN



The Kalpak **Computerized Servo Hydraulic Universal testing Machine** offers ideal solution for dynamic testing of materials and components over a range upto 50 Hz

The system is free standing type hence does not require a special foundation. The system consists of a sturdy load frame, with integrally mounted actuator and servo valves, a hydraulic power unit. Test control subsystem Controller, PC and Kalpak windows based software UTM-TEST-SH for Machine control and data acquisition and analysis.

### **Customization:**

User can customize the System as per their performance requirements by choosing from a variety of options for load frame, force capacity, Servo valve flow ratings, and pump capacity.

### **Choice of Accessories:**

We do offer a wide selection of grips, fixtures, extensometers, load cells, and environmental chambers as per your specific applications.

### **Advantages**

- \_ Flexible configuration to meet your specific needs
- \_ Advanced state of the art analogue controller
- \_ Wide range of material-specific test application software
- \_ Dynamic testing capability—up to 50 Hz
- \_ Large selection of test accessories, including grips and environmental chambers
- \_ Fatigue rated
- \_ Height Adjustable Platen to suit test requirement

A variety of optional customized application software packages to suit test requirements

Wide range of load frame force capacities, servo valves, servo cylinders and pump selection are offered to provide feature rich economic solutions. Also offered selection of grips, fixtures, extensometry, load cells, and environmental chambers to fine-tune the system to meet your particular requirements.



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### Specifications

Load Frame	Free Standing complete with Hydraulic Power pack, Servo Valve, Servo Cylinder, Two pillar construction with bottom plate mounting of actuator, Load Cell mounted on the upper Platen, Moving platen coupled to the servo actuator piston
Load Capacity Options	5 KN/10 KN/25KN/50 KN/100 KN
Dynamic rating	210 Bar supply allowing Dp 70 Bar across the servo valve
Actuator Stroke options	50mm/100 mm/250mm
Load Cell	Suitable range Fatigue type
Load Resolution	At least 1 in 10000 parts
Load Accuracy	+/- 0.5% of Reading.
Length measurement	Linear sensor for actuator travel.
Length Resolution	0.01 mm
Length Accuracy	+/- 0.05 mm
Servo Valve	As per requirement
Actuator	Hydraulic with Servo valve and Servo Cylinder Double Acting Type
Actuator Speed	Programmable from 1 to 500 mm/sec .
Controller	Kalpak make proprietary
Hydraulic Power Pack	Capacity Options: 8,20,35 Liters per minute
	Fixed/ Variable delivery options
	Submerged pump for quiet and noiseless operation
	PLC controlled
	Visual Indication for Filter Block, Low oil Level, High Oil Level, High Oil temperature, Pump Start, Pump Stop and Emergency Stop Button, Off line cooling and filtration system .
Maximum Daylight	Standard 600 mm From top of bottom plate to bottom of platen. Any other size to suit application
Column Spacing	Max. upto 500 mm or to suit applicatiion
Standard column length	1000 mm (Different column lengths available on request.)
Operating/Test Modes.	Tensile/ Compression static as well as fatigue
Safety Features	Emergency Stop, Pump Start and Pump Stop Buttons, Over Travel Protection by full length adjustable Limit Switches, Electronic Over Load protection max. upto 100% of capacity, High Oil temperature & Low Oil Level indication for alarm annunciation, Filter Block Indication, Motor overload safety
Software for Analysis & Control	Kalpak UTM ServoTEST-C is a Windows based software for Control of Computerised Servo Hydraulic UTM, On line Data Acquisition to PC as well as Data Analysis. It offers User friendly features such as: 1.Real time display of Test data, Test Curves 2.Data analysis: 3. Software Pass word protection 4. Easy Test Data saving as EXCEL/ACCESS files to retrieve and view stored past data like Product, Test, Batch details and test data. User can feed / Program parameters like Date, User Name, Material Details and Specifications, Sample Size, Units of measurement ,Test Selection, Parameter, Batch No., etc. 5. Easily accessible file system to retrieve and view stored past data like Product, Test, Batch details and test data.