Disk-shaped Compact Tension Machine

- **Portable** — weighs 420 lbs
- **Runs from a 115V outlet**
- **The environmental chamber cools to -39 C**
- **Results of test printed and plotted immediately! No Post Processing!**

**Mechanical Configuration**
The DCT will be completely contained on a rolling portable test frame that is approximately 42” L x 20” D x 38” H. It is designed to carry the load through the conventional pins used by the DCT to load the specimen. The system will be designed to meet the most current ASTM D7313 standard for the DCT.

**Servo Hydraulic Actuator**
The system includes a 4500 lb force actuator with low friction seals and a magneto restrictive position sensor that is controlled by a proportional valve for closing the loop to control load, position or strain.

**Hydraulic Pump**
A 1 GPM pump runs on 115VAC. It requires a 20A outlet.

**Environmental Chamber**
A built in insulated chamber in a chest style configuration with a flip up top eliminates immediate air exchange when opening the chamber to change a specimen.

**Cooling System**
The cooling system is capable of cooling down to -39 C. It runs from the same 115VAC 20A receptacle. So quiet we put an LED on the machine so you know when the fans are running.

**Crack Opening Measurement**
A CMOD gauge measures the crack opening or displacement on the faces of the specimen at the crack.

**Controls and Software**
It also includes a custom program for the DCT test operation. In addition a Multi Test Language (MTL) is provided to allow the user to create custom programs or modify custom programs and store as a callable application. Every test will have a text data file created for easy to use post processing as well as printouts from the test during operation.

SCB test fixtures are available in horizontal or vertical configurations.
System Performance

Test Results
The energy is calculated from the area under this curve and reported in J/m^2 units. It is the energy to tear the ligament down to 0.1KN.

User's DCT Test Results

- Created: 9/3/2013 3:43 PM
- User name: User
- Specimen ID: BM13-37 TH10-ER_ F
- Comments:
- Diameter: 150.00 mm
- Thickness: 50.470 mm
- Ligament: 82.270 mm
- Cumulative Area: 2311.8424 Nmm
- Max Load: 3.95 kN at 11.24 seconds
- Slope: 0.0171 mm/second
- Energy: 556.78 J/m^2

Contact Tom Brovold at Testquip for more information or references.

Tom Brovold
Testquip LLC
715-795-2932
612-308-8376 Mobile