

Model : UD-4000

# Low Temperature Retraction Tester (TR Tester)



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## Specifications

- A. The standard model UD-4000 consists of one main testing unit and one subunit of touch-screen monitor.
- B. Manufacturing Standards: ASTM D 1329, ISO 2921, JIS K 6261
- C. Temperature:  $-70^{\circ}\text{C} \sim 0^{\circ}\text{C}$  (depending on heat transfer liquid used)
- D. Temperature resolution:  $0.1^{\circ}\text{C}$ .
- E. Temperature check: By means of heat regulator with PID microprocessor with  $0.1^{\circ}\text{C}$  accuracy.
- F. Cooling system: Liquid nitrogen with internal heat exchanges.
- G. Test Chamber: Test chamber capacity of 5 liters.
- H. Chamber material: Stainless steel.
- I. Sample holder: 6 samples
- J. Instrument dimensions: 607 \* 700 \* 1906 mm (W \* D \* H)
- K. Weight: 350kg.
- L. Electric Supply: AC 220V $\pm$ 10%, 50Hz  $\pm$  3Hz, 4A, Single Phase.  
or discretionary at user needs.



## Standard Functions

- A. Data produced by the instrument:
  - a. TR test: TR10. TR30. TR50. TR70. TRx1, TRx2 (x1, x2 customer defined)
  - b. Time from test start at calculated TR points
- B. Graphic representation:
  - a. Retraction percentage versus Temperature Curves for the 6 samples tested.
  - b. Temperature versus Time curve during test.
- C. Automatic performance of the test with adjustment of the thermal cycle and automatic release of the samples on termination of the conditioning time depending on the test procedures used.
- D. Graphic representation of Retraction curves for each of the 6 samples and of Test Bath temperature during test.
- E. Possibility of testing groups of different samples with different percentage elongation during the same test.
- F. Calculation of the significant test results for each sample.
- G. Calculation of average and standard deviation for each group of samples tested.
- H. Setting of tolerance limits for conditioning temperature to verify correct pre-start conditioning.