



## Product Code

UTB-1430	Force Ductility Testing Machine
UTB-1402A	Ductility Briquette Mould, Chrome Plated Brass, ASTM D113 and AASHTO T51
UTB-1402NF	Ductility Briquette Mould, Chrome Plated Brass, ASTM D113 and AASHTO T51
UTB-1403A	Ductility Briquette Mould, Chrome Plated Brass, AASHTO T301
UTB-1405	Ductility Mould Base Plate, For One Mould, Chrome Plated Brass
UTB-1405-3	Ductility Mould Base Plate, For Three Moulds, Chrome Plated Brass
UTB-1406A	Ductility Mould, Chrome Plated Brass, ASTM D6084, AASHTO T300
UTB-1406E	Ductility Mould, Chrome Plated Brass, EN 13589
UTB-1408E	Ductility Mould, Chrome Plated Brass, EN 13398
UTGE-4110	Cooler / Circulator Unit

Models for 220-240V 50-60 Hz, 1 ph.	UTB-1430	UTGE-4110
Models for 110-120V 60 Hz, 1 ph.	UTB-1430-N	UTGE-4110-N

## Standards

EN 13589, 13398, 13703; ASTM D113, D6084; AASHTO T51, AASHTO T300

The UTB-1430 Force Ductility Testing Machine is used to determine the the deformation energy required to stretch a bitumen sample from 200 mm elongation to 400 mm elongation. Force ductility machine is capable of testing 3 specimens simultaneously. The speed of the machine can be adjusted from 5 mm/ min. to 100 mm/ min. Internal tank is made of stainless steel. The bath is fitted with an immersion heater in order to obtain the 25°C test temperature required for normal ductility testing. Water bath is covered by insulating material to reduce the heat loss during testing. The machine can be supplied with an external Cooler / Circulator Unit necessary to obtain the 5°C test temperature required for force ductility testing according to EN 13589.

UTB-1430 Force Ductility Testing Machine has 3 load cells. The accuracy of load cells are  $\pm 0,1N$  with a maximum capacity of 300 N. Test speed can be adjusted and load-displacement curves can be drawn through the software. Software for UTB-1430 is capable of calculating deformation energy according to EN 13589 and displaying force vs displacement graphs for each sample separately or on the same screen.

Cooler/Circulator Unit (UTGE-4110), moulds and mould base plates should be ordered separately.

### Main Features

- Elongation measurement through motor encoder.
- 3 simultaneous load measurements with 18 bit resolution.
- Ethernet for connection to PC (not included).
- Colour large TFT graphic display with touch screen
- PID controlled heating and cooling system.
- Fine adjustment of test starting position for easy insertion and removal of different types of test moulds.
- Closed-loop PID temperature control of  $25 \pm 0.5^\circ C$
- Temperature range from  $4^\circ C$  to ambient temperature ( $\pm 0.5^\circ C$ ) with the Cooler / Circulator Unit (UTGE-4110)

### Software

- Selection of test parameters can be made either by TFT graphic display or computer software.
- Automatic calculation of deformation energy.
- Display of load vs deformation graphs.
- Software assistance for elastic recovery test according to EN 13398 to minimise operator error.

	UTB-1430	UTB-4110
Dimensions	460x2250x610 mm	600x900x670 mm
Weight (approx.)	130 kg	89 kg
Power	350 W	350 W



UTGE-4110



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