



**ZEAL INTERNATIONAL** (An ISO 9001 Certified Company)

**Head Office:** 1, Netaji Subhash Marg Daryaganj, New Delhi - 110002 INDIA

Phone: +91-11-23276114, 23244474, 23250281, 23278846 Fax: +91-11-43580558

**Branch Office:** 4/20 Kirti Nagar Industrial Area New Delhi - 110015 Phone: +91 11 45380800

**Warehouse:** 4/26 Kirti Nagar Industrial Area New Delhi - 110015

[info@zealinternational.com](mailto:info@zealinternational.com)

[sales@zealinternational.com](mailto:sales@zealinternational.com)

[support@zealinternational.com](mailto:support@zealinternational.com)

[quotation@zealinternational.com](mailto:quotation@zealinternational.com)

Visit us at: [www.zealinternational.com](http://www.zealinternational.com)

## Automatic Ring and Ball Apparatus ZI 4040

Standards: EN 1427; ASTM D36; AASHTO T53

Specification:

The Automatic Ring and Ball Apparatus is an innovative microprocessor controlled automatic tester which is used to determine the softening point of bituminous materials using water or glycerol as the heating fluid.

The softening point determines a disk of the sample held within a horizontal ring is forced downward a distance of 25.4 mm under the mass of a steel ball as the sample is heated at a prescribed rate in a water or glycerine bath.

The softening point is taken by two suitably positioned light barriers and the temperature is measured by a PT100 sensor. A uniform temperature distribution in the vessel is maintained by a magnetic stirrer, equipped with an adjustable speed control system and the temperature gradient is strictly maintained during the test by the electronic system conforming to the relevant standards.

A software permits to select the test method and the test parameters, run the test automatically, store, retrieve and print data, diagnose and calibrate the instrument. Additional cooling system, permits to quickly cool down the sample allowing to handle the glassware and to perform number of tests during a day by reducing the dead times between consequent analysis.

The apparatus consists of a heater, cooling system, electric lifting system, and magnetic stirrer



with speed control, temperature probe, glass beaker, ring and ball support, brass ring with steel ball and ball centering guides (2 pcs. each), light barrier system, microprocessor system and large graphic display with touch screen, RS 232 C port for PC or printer.

Dimensions: 530x300x280 mm

Weight (approx.): 16 kg

Power: 750 W