



RING AND BALL APPARATUS

1. Available Variants

1. **Ring And Ball Apparatus – Electrically Operated DC Motor**
2. **Ring And Ball Apparatus – Electrically Operated**
3. **Ring And Ball Apparatus – Hand Operated With Beaker**
4. **Ring And Ball Apparatus – Programmable Digital ASTM D36**

2. Common Details

Also called Softening Point Apparatus.

This apparatus is meant for determination of softening point of bituminous materials according to IP 58 and IS 1205.

Softening point is that temp. at which the specimen under test becomes soft enough to allow a steel ball of specific dimension to fall a required distance under test condition.

The apparatus consist of Glass beaker of heat resistant glass of internal dia 8.5 cm X 12 cm depth (approx.), Two steel balls each of 9.5mm dia, Two tapered brass rings, Two ball guides, ring stand and a stirrer.

3. Variant Details

3.1 Ring And Ball Apparatus – Electrically Operated DC Motor

Electrical motorized with heater and temp. regulator - with DC motor and DC Drive.

Glass Thermometers available at extra cost.

Brass base plate is an essential accessory for preparing the specimen before actual test and quoted separately.

Rate of rise @ 5°C per minute is Possible only in Digital Model.

Working video: <https://www.youtube.com/watch?v=wshdQfiBLHk>

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A-1301, BVR Ek, Opp. Hotel Inder Residency,
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Calibration Laboratory:

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GST TIN No. : 24AABCE4018L1ZU
I.T. PAN No. : AABCE 4018L
IEC No. : 0813026598 Dt. 04/03/2014
CIN No. : U29199GJ2004PTC045078
TAN No. : AHME00572F



3.2 Ring And Ball Apparatus – Electrically Operated

AS PER IP 58 and IS 1205

This apparatus is meant for determination of softening point of bituminous and petrochemical materials according to IP 58 and IS 1205.

Electrical motorized with heater and temp. regulator - with AC Motor.

Rate of rise @ 5°C per minute is Possible only in Digital Model.

AT EXTRA COST:

1. Thermometer IP-60C
2. Thermometer IP-61C
3. Spare Ring & Ball Centering Guide & Steel Ball (Pack of 2)
4. Brass base plate is an essential accessory for preparing the specimen before actual test and quoted separately.

3.3 Ring And Ball Apparatus – Hand Operated With Beaker

The apparatus consist of Glass beaker of heat resistant glass of internal diameter 8.5 cm X 12 cm depth (approximately), Two steel balls each of 9.5mm diameter, Two tapered brass rings, Two ball guides, ring stand and a hand stirrer.

3.4 Ring And Ball Apparatus – Programmable Digital ASTM D36

Compliance Standards

EN 1427 | ASTM D36 | AASHTO T53 | IP 58 | IS 1205

Construction Details:

The heater is controlled by a programmable Digital Auto-tune PID Temperature Controller Cum Indicator to ensure rise of temperature at 5° C as per the guidelines of ASTM/ISO/AASTHO/IS Standards.

Max. working temp. 120° C. (with the use of Glycerol)

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Electrical Motorized with DC Magnetic drive concealed heating and programmable DIGITAL PID temperature indicator cum controller to ensure rise of temperature @ 5 °C as per IS, IP and ASTM Requirements.

Following Accessories will be included in the standard supply:

1. Complete Heating & Stirring assembly
2. Glass Beaker with Cover
3. Ring & Ball Stand
4. Cork for Thermometer
5. Two steel balls - each of 9.5 mm diameter
6. Two tapered brass rings
7. Two ball guides
8. Test Certificate for Stirring & Heating Unit
9. Glass Thermometer (IP - 61C) with Calibration Certificate (at extra cost)
10. Brass base plate is an essential accessory for preparing the specimen before actual test and quoted separately.

4. Common Specifications

Specification	Details
Glass Beaker	Heat resistant glass, internal dia 8.5 cm X 12 cm depth (approx.)
Steel Balls	Two steel balls each of 9.5mm dia
Tapered Brass Rings	Two
Ball Guides	Two

5. Variant Specifications

5.1 Ring And Ball Apparatus – Electrically Operated DC Motor

Specification	Details
Motor	DC motor
Drive	DC Drive

5.2 Ring And Ball Apparatus – Electrically Operated

Specification	Details
Overall Dimensions in Inches (L x W x H)	7 x 10 x 25

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Specification	Details
Weight (kg)	8.3
Motor	AC Motor

5.3 Ring And Ball Apparatus – Hand Operated With Beaker

Specification	Details
Overall Dimensions in Inches (L x W x H)	5 x 4 x 7

5.4 Ring And Ball Apparatus – Programmable Digital ASTM D36

Specification	Details
Overall Dimensions in Inches (L x W x H)	8 x 10 x 6.5
Weight (kg)	3.5
Maximum Working Temperature	120° C. (with the use of Glycerol)
Temperature Rise	5 °C as per IS, IP and ASTM Requirements

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