



Consolidation Apparatus

1. Available Variants

1. Consolidation Apparatus – Single Gang – Without Dial Gauge
2. Digital Consolidation Apparatus – Single Gang – USB & Battery Backup
3. Consolidation Test Apparatus – Single Gang – With Dial Gauge
4. Consolidation Apparatus – Three Gang – Without Dial Gauge
5. Consolidation Test Apparatus – Three Gang – With Dial Gauge
6. Digital Consolidation Apparatus – Three Gang – USB & Battery Backup

2. Variant Details

1. Consolidation Apparatus – Single Gang – Without Dial Gauge

Construction Details

Consists of Loading Unit, maximum capacity 20 kg/cm² consisting of a loading yoke connected to a lever arm with a counter balancing adjustment and having a lever ratio of 1:10, the whole assembly being mounted on a steel frame stand.

Consolidation Cell Assembly

Fixed ring type for testing 60 mm dia x 20 mm thick specimens comprising:

- Fixed ring for specimens 60 mm dia x 20 mm thick with a guide ring.
- Top porous stone for 60 mm dia specimen.
- Bottom porous stone for 60 mm dia specimen.
- Pressure pad, perforated.
- Channelled base with water inlet.
- Gasket.
- Flanged water jacket.

Weights

Set of weights to give a pressure of 10 kg/cm² on 60 mm specimen, comprising:

1. 7 off 0.05 kg/cm²
2. 5 off 0.1 kg/cm²
3. 6 off 0.2 kg/cm²
4. 6 off 0.5 kg/cm²
5. 5 off 1.0 kg/cm²

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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



Other Components

- Water reservoir with plastic tube.
- T-connection and pinch cock.
- Dial gauge, 0.01 mm x 25 mm travel, Single Gang.

Relevant Standard

IS : 2720 (PART-XV)

Note

Three Gauge or Six Gang Apparatus also available. Price on request.

2. Digital Consolidation Apparatus – Single Gang – USB & Battery Backup

Compliance Standards

- IS : 2720 (PART-XV)
- ASTM D2435

Summary

Electronic one dimensional consolidation apparatus consist of a loading frame with weights, consolidation cell and complete with porous stones, Pressure Pad, Cutting Ring, Water reservoir etc. as per the conventional unit, but with a sensitive Displacement Transducer of range 0-10 mm and a Micro-processor based digital LCD indicator.

Brief Construction Details

The equipment consists of following parts and accessories:

Loading Unit – 01 No.

- Maximum capacity 20 kg/cm².
- Consisting of a loading yoke connected to a lever arm with a counter balancing adjustment and having a lever ratio of 1:10.
- The whole assembly being mounted on a steel frame stand.

Consolidation Cell Assembly – 01 No.

- Fixed ring type for testing 60 mm dia x 20 mm thick specimens.
- Fixed ring for specimens 60 mm dia x 20 mm thick with a guide ring.

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- Top porous stone for 60 mm dia specimen.
- Bottom porous stone for 60 mm dia specimen.
- Pressure pad - Perforated.
- Channeled base with water inlet.
- Gasket.
- Flanged water jacket.

Weights – 01 Set

Weights to give a pressure of 10 kg/cm² on 60 mm specimen:

- 7 off 0.05 kg/cm².
- 5 off 0.1 kg/cm².
- 6 off 0.2 kg/cm².
- 6 off 0.5 kg/cm².
- 5 off 1.0 kg/cm².

Water Reservoir – 01 No.

Water reservoir with plastic tube, T-connection and pinch cock.

Electronic System

- Sensitive L.V.D.T. (LINEAR VARIABLE DIFFERENTIAL TRANSDUCER): 01 No. with range 0-15 mm, Least Count: 0.001 mm.
- Electronic Microprocessor based digital indicator - 01 Channel for displacement indication.
- Indicator with LCD Display.
- Indicator also offers battery back up facility continuous for 36 hours, in case of power failure to retain the results of ongoing test.
- Facility to connect Pen Drive USB-PORT to extract the data.
- RS-232 PC Interface facility to connect to BASIC PC Software to extract and log the data in excel/PDF File will be provided.
- Operation on 220 volt 50 Hz AC supply.

Note

- Dedicated PC Software for Report Generation, Graph Plotting, Tangent Creation etc. will be provided at extra cost.
- End user will have to arrange PC (Personal Computer) to run the PC Software.

3. Consolidation Test Apparatus – Single Gang – With Dial Gauge

Compliance Standard

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IS : 2720 (PART-XV)

Consolidation Cell Assembly

Fixed ring type for testing 60 mm dia x 20 mm thick specimens comprising:

1. Fixed ring for specimens 60 mm dia x 20 mm thick with a guide ring.
2. Top porous stone for 60 mm dia specimen.
3. Bottom porous stone for 60 mm dia specimen.
4. Pressure pad, perforated.
5. Channelled base with water inlet.
6. Gasket.
7. Flanged water jacket.

Weights

Set of weights to give a pressure of 10 kg/cm² on 60 mm specimen, comprising:

1. 7 off 0.05 kg/cm².
2. 5 off 0.1 kg/cm².
3. 6 off 0.2 kg/cm².
4. 6 off 0.5 kg/cm².
5. 5 off 1.0 kg/cm².

Standard Accessories

1. Water reservoir with plastic tube.
2. T-connection and pinch cock.
3. Dial gauge - 0.002 mm x 12 mm travel (01 No.).

Note

Three Gauge / Six Gang Apparatus also available. Price on request.

4. Consolidation Apparatus – Three Gang – Without Dial Gauge

Construction Details

Consists of Loading Unit, maximum capacity 20 kg/cm² consisting of a loading yoke connected to a lever arm with a counter balancing adjustment and having a lever ratio of 1:10, the whole assembly being mounted on a steel frame stand.

Consolidation Cell Assembly – 03 Nos.

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Fixed ring type for testing 60 mm dia x 20 mm thick specimens comprising:

1. Fixed ring for specimens 60 mm dia x 20 mm thick with a guide ring.
2. Top porous stone for 60 mm dia specimen.
3. Bottom porous stone for 60 mm dia specimen.
4. Pressure pad - Perforated.
5. Channeled base with water inlet.
6. Gasket.
7. Flanged water jacket.

Weights – 03 Sets

Weights to give a pressure of 10 kg/cm² on 60 mm specimen:

1. 7 off 0.05 kg/cm².
2. 5 off 0.1 kg/cm².
3. 6 off 0.2 kg/cm².
4. 6 off 0.5 kg/cm².
5. 5 off 1.0 kg/cm².

Water Reservoir – 03 Nos.

Water reservoir with plastic tube, T-connection and pinch cock.

5. Consolidation Test Apparatus – Three Gang – With Dial Gauge

Compliance Standards

- IS : 2720 (PART-XV) 1986
- IS 12287 - 1988

Details of Complete Apparatus

Consists of Loading Unit - Maximum capacity 20 kg/cm² consisting of a loading yoke connected to a lever arm with a counter balancing adjustment and having a lever ratio of 1:10, the whole assembly being mounted on a steel frame stand.

Consolidation Cell Assembly

Fixed ring type for testing 60 mm dia x 20 mm thick specimens comprising:

1. Fixed ring for specimens 60 mm dia x 20 mm thick with a guide ring.
2. Top porous stone for 60 mm dia specimen.

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3. Bottom porous stone for 60 mm dia specimen.
4. Perforated Pressure pad.
5. Channeled base with water inlet.
6. Gasket.
7. Flanged water jacket.

Weights

Set of weights to give a pressure of 10 kg/cm² on 60 mm specimen comprising:

1. 7 off 0.05 kg/cm².
2. 5 off 0.1 kg/cm².
3. 6 off 0.2 kg/cm².
4. 6 off 0.5 kg/cm².
5. 5 off 1.0 kg/cm².

Supplied Accessories

1. Water reservoir with plastic tube.
2. T-connection and pinch cock.
3. Dial gauge - 0.002 mm sensitivity (03 Nos.).

6. Digital Consolidation Apparatus – Three Gang – USB & Battery Backup

Compliance Standards

- ASTM D2435
- IS : 2720 (PART-XV)

Summary

Electronic one dimensional consolidation apparatus consist of a loading frame with weights, consolidation cell and complete with porous stones, Pressure Pad, Cutting Ring, Water reservoir etc. as per the conventional unit, but with a sensitive Displacement Transducer of range 0-10 mm and a Micro-processor based digital LCD indicator.

Brief Construction Details

The equipment consists of following parts and accessories:

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- Consisting of a loading yoke connected to a lever arm with a counter balancing adjustment and having a lever ratio of 1:10.
- The whole assembly being mounted on a steel frame stand.

Consolidation Cell Assembly – 03 Nos.

- Fixed ring type for testing 60 mm dia x 20 mm thick specimens.
- Fixed ring for specimens 60 mm dia x 20 mm thick with a guide ring.
- Top porous stone for 60 mm dia specimen.
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- Pressure pad - Perforated.
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- Gasket.
- Flanged water jacket.

Weights – 03 Sets

Weights to give a pressure of 10 kg/cm² on 60 mm specimen:

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- 5 off 0.1 kg/cm².
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Water Reservoir – 03 Nos.

Water reservoir with plastic tube, T-connection and pinch cock.

Electronic System

- Sensitive L.V.D.T. (LINEAR VARIABLE DIFFERENTIAL TRANSDUCER): 03 Nos. with range 0-15 mm, Least Count: 0.001 mm.
- Electronic Microprocessor based digital indicator - 03 Channels for displacement indication.
- Indicator with LCD Display.
- Indicator also offers battery back up facility continuous for 36 hours, in case of power failure to retain the results of ongoing test.
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- Dedicated PC Software for Report Generation, Graph Plotting, Tangent Creation etc. will be provided at extra cost.
- End user will have to arrange PC (Personal Computer) to run the PC Software.

3. Specifications

Variant Specifications

1. Consolidation Apparatus – Single Gang – Without Dial Gauge

Specification	Details
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Overall Dimensions 350 X 560 X 1450 (L X W X H) mm

Weight (Approx.) 85 kg

2. Digital Consolidation Apparatus – Single Gang – USB & Battery Backup

Specification	Details
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Overall Dimensions Not provided

Weight Not provided

3. Consolidation Test Apparatus – Single Gang – With Dial Gauge

Specification	Details
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Overall Dimensions 350 X 560 X 1450 (L X W X D) mm

Net Weight 85 kg

4. Consolidation Apparatus – Three Gang – Without Dial Gauge

Specification	Details
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Overall Dimensions 960 X 610 X 1280 (L X W X D) mm

Weight (Approx.) 196 kg

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5. Consolidation Test Apparatus – Three Gang – With Dial Gauge

Specification

Details

Overall Dimensions 38 X 24.5 X 51 (L X W X H) inches

Weight 196 kg

6. Digital Consolidation Apparatus – Three Gang – USB & Battery Backup

Specification

Details

Overall Dimensions 38 X 24 X 51 (L X W X H) inches

Weight 210 kg

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