Use and scope of application

This instrument is made after Kima type penetrator, and the inner diameter is changed to 100 0+0.22 mm. The permeability test of sandy soil and non-cohesive soil containing a small amount of gravel under constant water head can be determined.

Main specifications

1. Barrel body diameter 100 0+ 0.22mm. Water infiltration cylinder height 400mm.
2. The distance between the pressure measuring tubes is 100±0.44mm.

The main structure

The instrument is mainly composed of water permeating parts and compaction parts.

1. The water permeation part is composed of a barrel body, a water permeation plate, a scale plate, a pressure measuring tube, etc. Three pressure measuring tubes are installed on the scale plate, and the spacing is 100±0.44mm. The water level can be read by the scale plate installed on the barrel. There is a row of water holes in the lower part of the seepage cylinder, and the sewage can be released by loosening the bolt.
2. the compaction part is equipped with a wood hammer to compact the sample.

Use and maintenance methods

(1) For detailed operating steps, please refer to the geotechnical sample regulations. (SD128-012-84).

1. Connect the water seepage hole with the rubber tube so that the water is injected into the bottom of the instrument until the top surface of the copper mesh.
2. Take a representative air-dried soil sample of 3-4kg, weigh it accurately to 1g, and determine its air-dried water content.
3. Layer the air-dried sample (each layer is 2-3cm thick) into the cylinder, and gently press it with a wooden hammer to the required density.
4. After each layer of sample is installed, slightly open the pipe clamp, so that the water slowly penetrates upward from the water infiltration cylinder, and the sample is gradually saturated (the water surface shall not be higher than the top surface of the sample), pay attention to the water flow should not be too rapid, close the pipe clamp after saturation, and pay attention to the bending part of the pipe when saturated.
5. So continue to layer into the sample saturated, until the sample is 3-4cm higher than the upper pressure hole, measure the height of the sample surface to the gap and the height of the copper wire mesh to the barrel, to obtain the sample height, put 1-2cm thick gravel layer on the top of the sample, water is 2-3cm higher than the gravel layer, close the pipe clamp.
6. Remove the water source of the seepage hole, so that the water is injected into the instrument from the top until the water surface is flush with the overflow hole.
7. Check whether the pressure pipe water level is flush, if not flush, indicating that the instrument has water leakage or gas collection phenomenon, should be corrected.
8. Reduce the nozzle of the regulating tube to the upper third of the height of the sample, so that the instrument produces a water level difference, the water penetrates the sample, flows out of the regulating tube mouth, and the water surface in the cylinder should remain unchanged.
9. When the water level of the pressure measuring tube is stable, the water level of the

pressure measuring tube is measured, and the water level difference between the pressure measuring tube 1 and 2 and the pressure measuring tube 2 and 3 is calculated.

10. Start the stopwatch and use the measuring cylinder to self-regulate the water seepage for a certain time.

11. In the six water permeability coefficient is closer to the number, find its average value, as the average water permeability coefficient of soil.

(2) Maintenance

1. After the test, unscrew the bolts in the seat when not in use. Drain the waste water from the cylinder.

2. Wipe the inside and outside of the instrument with cloth and put it into the instrument box to protect the pressure measuring tube.

Full set of instruments and accessories, spare parts

1. Seepage parts
2. Wooden hammer
3. Copper wire mesh 0.5×0.6 and 1×1 (20#, 40#) 2 pieces each
4. Clamp one tube
5. One rubber tube (1.5m long).
6. The pressure tube is paid

Remarks

1. Implementation standard: GB9357-88
2. product weight: 20kg, use and scope of application

This instrument is made after Kima type penetrator, and the inner diameter is changed to 100 0+0.22 mm. The permeability test of sandy soil and non-cohesive soil containing a small amount of gravel under constant water head can be determined.

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4. Use and maintenance methods

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3. Layer the air-dried sample (each layer is 2-3cm thick) into the cylinder, and gently press it with a wooden hammer to the required density.

4. After each layer of sample is installed, slightly open the pipe clamp, so that the water slowly penetrates upward from the water infiltration cylinder, and the sample is gradually saturated (the water surface shall not be higher than the top surface of the sample), pay attention to the water flow should not be too rapid, close the pipe clamp after saturation, and pay attention to the bending part of the pipe when saturated.

5. So continue to layer into the sample saturated, until the sample is 3-4cm higher than the upper pressure hole, measure the height of the sample surface to the gap and the height of the copper wire mesh to the barrel, to obtain the sample height, put 1-2cm thick gravel layer on the top of the sample, water is 2-3cm higher than the gravel layer, close the pipe clamp.

6. Remove the water source of the seepage hole, so that the water is injected into the instrument from the top until the water surface is flush with the overflow hole.

7. Check whether the pressure pipe water level is flush, if not flush, indicating that the instrument has water leakage or gas collection phenomenon, should be corrected.

8. Reduce the nozzle of the regulating tube to the upper third of the height of the sample, so that the instrument produces a water level difference, the water penetrates the sample, flows out of the regulating tube mouth, and the water surface in the cylinder should remain unchanged.

9. When the water level of the pressure measuring tube is stable, the water level of the pressure measuring tube is measured, and the water level difference between the pressure measuring tube 1 and 2 and the pressure measuring tube 2 and 3 is calculated.

10. Start the stopwatch and use the measuring cylinder to self-regulate the water seepage for a certain time.

11. In the six water permeability coefficient is closer to the number, find its average value, as the average water permeability coefficient of soil.

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Remarks

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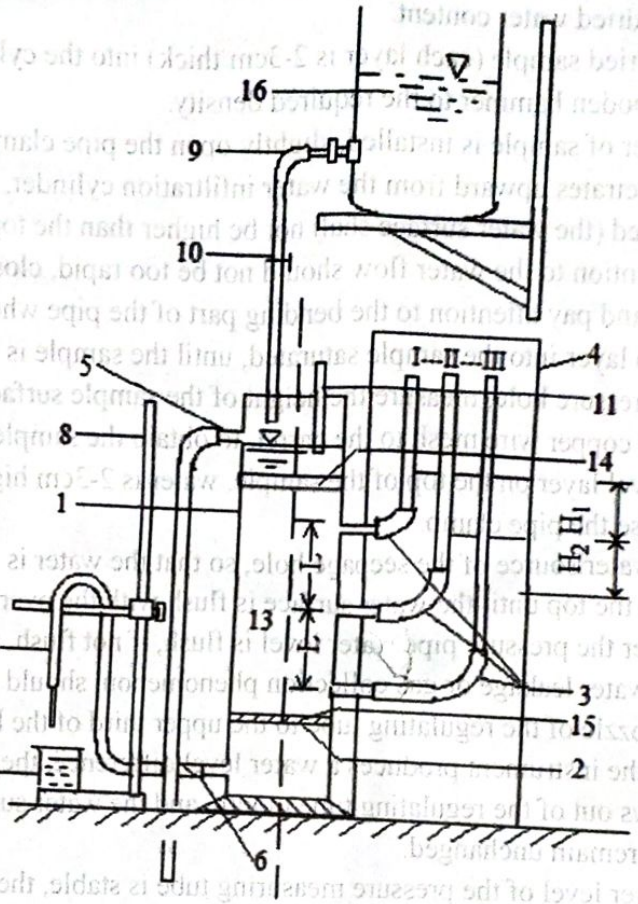
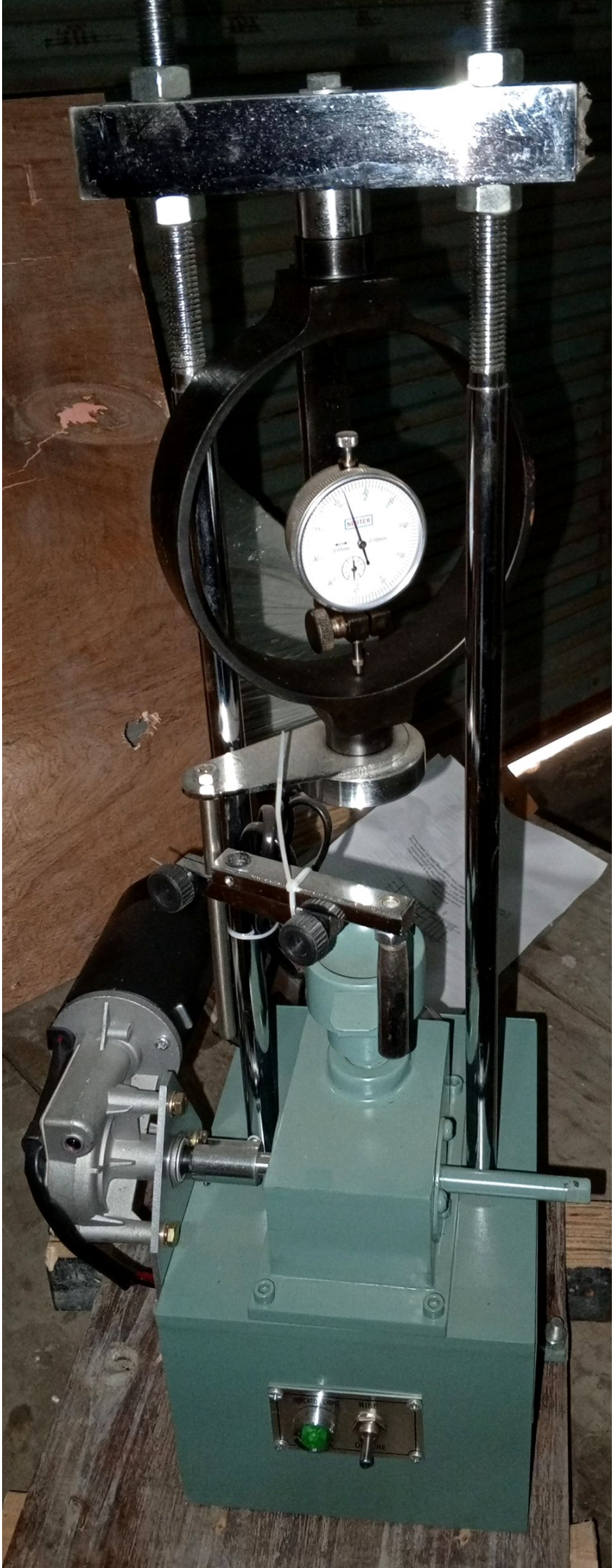
2. Product weight: 20kg

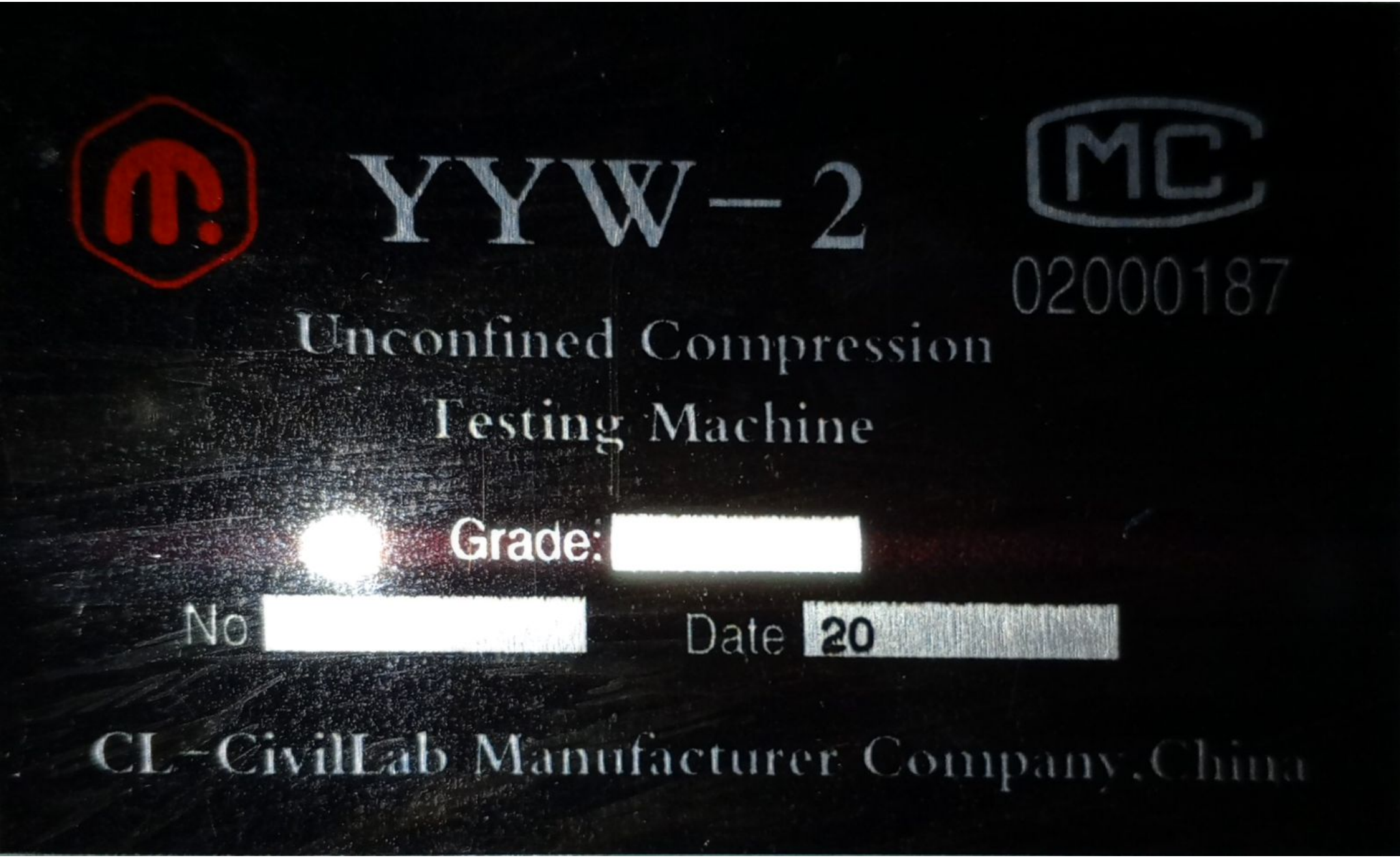


Attached map

Constant head osmometer test

1. metal cylinder 2.metal hole plate 3. pressure hole 4. pressure tube 5.overflow hole 6. seepage hole 7. regulating pipe 8. sliding bracket 9.water supply pipe 10. water stop clamp 11. thermometer 12. measuring cup 13. sample 14. gravel layer 15. copper wire screen cloth filter 16. water bottle

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