



# Ankarin Material Testing Equipment

## MICRO-DEVAL TEST APPARATUS

This test covers the procedure for measuring the resistance of aggregates to wear. The specimen is tested in a wet condition. Upon completion of the rotation, the test determines the Micro-Deval coefficient, which represents the percentage of the original specimen reduced to a particle size smaller than 1.6 mm. The test consists of measuring the wear caused by friction between aggregates and an abrasive charge within a rotating drum under specified conditions. Once rotation is complete, the percentage of aggregate retained on a 1.6 mm sieve is determined, and this value is used to calculate the Micro-Deval coefficient.

The device features a digital revolution counter display, allowing the user to automatically set the number of revolutions. It is designed to operate with 1 to 4 drums, each having one closed end, an internal diameter of  $(200 \pm 1)$  mm, and an internal length (between the base and the inner surface of the lid) of  $(154 \pm 1)$  mm. The drums rotate on two shafts positioned along a horizontal axis.

The abrasive material used in the device consists of steel spheres with a diameter of  $(10 \pm 0.5)$  mm, conforming to ISO 3290.

Each test specimen can be placed into a separate drum. A sufficient quantity of steel spheres can be added to each drum to create a charge mass of  $(5000 \pm 5)$  g. The drums are designed to allow for wet testing. They operate at a speed of  $(100 \pm 5)$  rpm, and the user-defined number of revolutions can be set digitally; the system stops automatically once the set number of revolutions is completed.

The device operates on 220 V, 50 Hz power.

