ABSTRACT

To date, the most commonly method for measuring fresh concrete's workability on site in Indonesian is by means of the Abrams harder cone. Workability is measured as a numerical value called the slump number. This method is the oldest and most widely used test on site. On the contrary, two alternatives devices to measure workability of fresh concrete on the field exist. These are K – Slump Tester and the Kelly Ball.

The K-Slump Tester rapidly and directly indicates workability of fresh concrete. The device has a pointed end for easy insertion into fresh concrete and a disc that controls the depth of penetration. When inserted, wet concrete enters the shaft through side openings and raises a floating plunger to give an estimate of concrete slump.

Kelly Ball is also used to determining the consistency of fresh concrete on site. The deviation of fresh concrete as a response to the weight of the ball, indicate concrete's workability. This device has a cylindrical weight with a semi-spherical bottom 14 kg of weight, a rod with handle, a guide, and support stirrups.

The aim of this experimental study is to formulate a more accurate correlation value of workability obtained by the K-Slump and Kelly Ball, to the slump values obtained from the Abrams cone. It was concluded that, the Kelly ball and k- slump tester are potential to become the most common field test because of their flexibility, ease in use and precision

Key words : Fresh concrete , slump , workability, Abrams, K-Slump, Kelly Ball