ABSTRACT

Capacity measurement with V-notch Weir or calculate loss of energy either on straight pipe or accessories be done by college student in fluid mechanic laboratory. This measurement or calculating activity always use coefficient of discharge (Cd), friction factor (f), loss coefficient (K) as corecting faktor, while those value are from book or other references. Interested weather the value in the references are equal with they corecting factor corecting actual, that’s the reason of this research.

In this research we use 90° V-notch Weir angle, galvanis iron pipe with ½”, ¾” and 1” straight diameter, sudden enlargement ¾” to 1”, sudden contraction 1” to ¾”, and 90° elbow.

The research has result Coefficient discharge (Cd) average value 90° V-notch Weir obtained 0,567. Coefficient friction (f) average value ½” straight pipe obtained 0,00427, ¾” straight pipe obtained 0,00109, 1” straight pipe obtained 0,00192. Coefficient loss (K) average value 90° elbow obtained 0,251, sudden enlargement obtained 0,1843 and sudden contraction obtained 0,2123. The result to compare with theory is match.