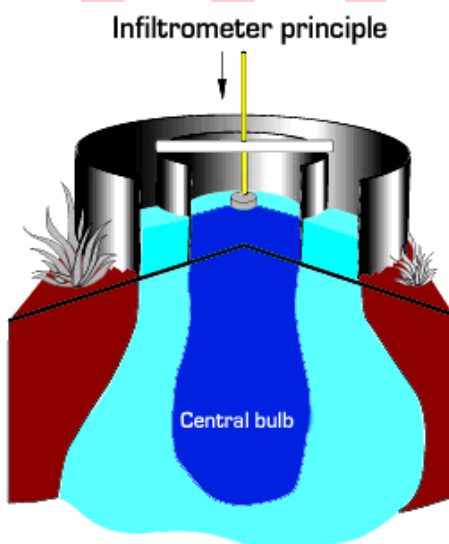


The double ring Infiltrometer is a simple instrument which is used to determine the infiltration rate of water into the soil. The infiltration rate is determined as the amount of water per surface area and time unit, which penetrates the soils. This rate can be calculated on the basis of the measurements and the Darcy's law. Several measurements can be executed simultaneously, yielding a very reliable and accurate mean result. As vertically infiltrated water runs away to the side. The outer ring of the Infiltrometer serves as a separation. The measurement exclusively takes place in the inner ring through which the water runs virtually vertically. The instrument consists of two rings, driving plate, for inner and outer rings. The two rings are driven into the ground and partially filled with water. The double ring design helps prevent divergent flow in layered soils. The outer ring acts as a barrier to encourage only vertical flow from the inner ring. The standard set of the double ring Infiltrometer consist of 2 steel rings with different diameters, a hammer, floats, a stainless steel hammering cross and a stopwatch.



The instrument consists of two concentric rings, driving plate, for inner and outer rings. The outer ring (ID = 45 cm); the inner ring (ID = 30 cm). The two rings are driven into the ground and partially filled with water. The double ring design helps prevent divergent flow in layered soils. The outer ring acts as a barrier to encourage only vertical flow from the inner ring. The water level is maintained for a specific period of time depending on the type of soil and permeability level. The volume of water needed to maintain a specified level and the time factors are recorded. This information is converted into a specific infiltration rate. This rate can be calculated on the basis of the measurements and the Darcy's

