

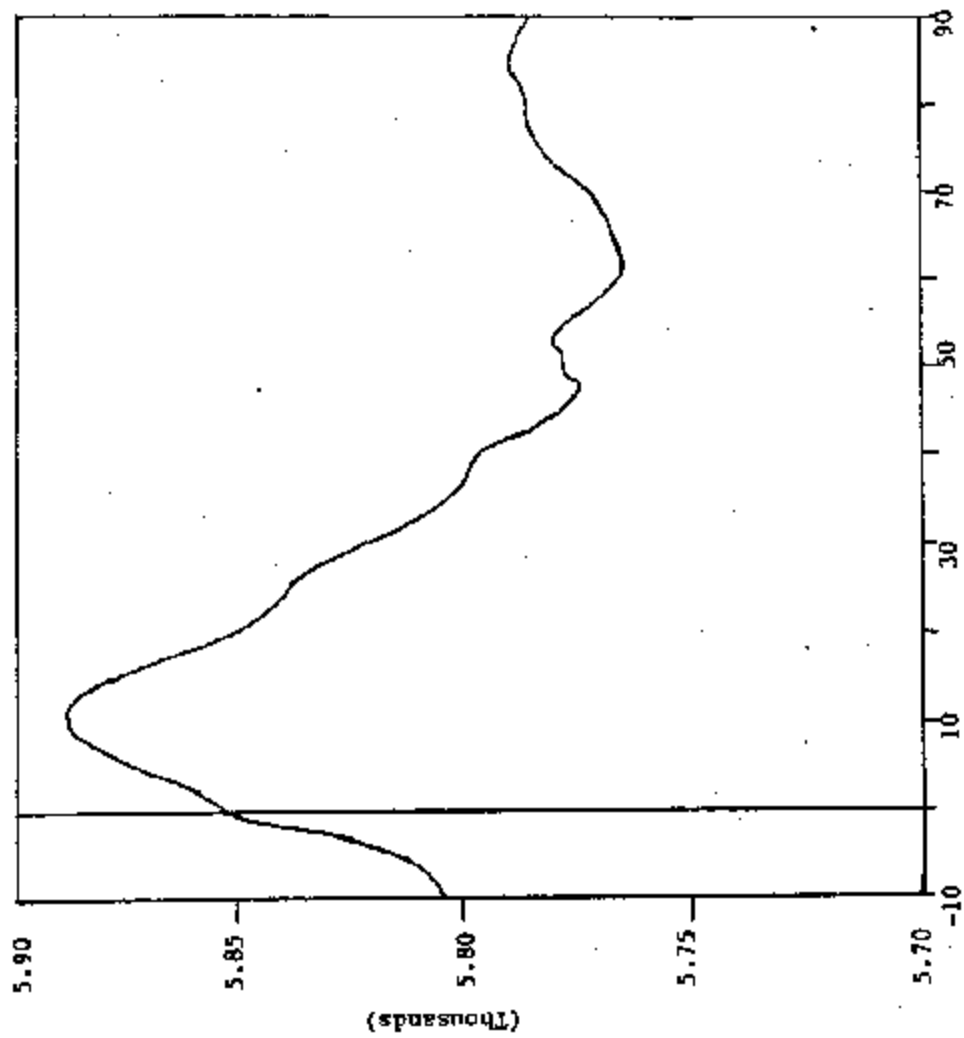


Figure 2.11 - Cross-Correlation of Experimental Traces

CROSS-CORRELATION

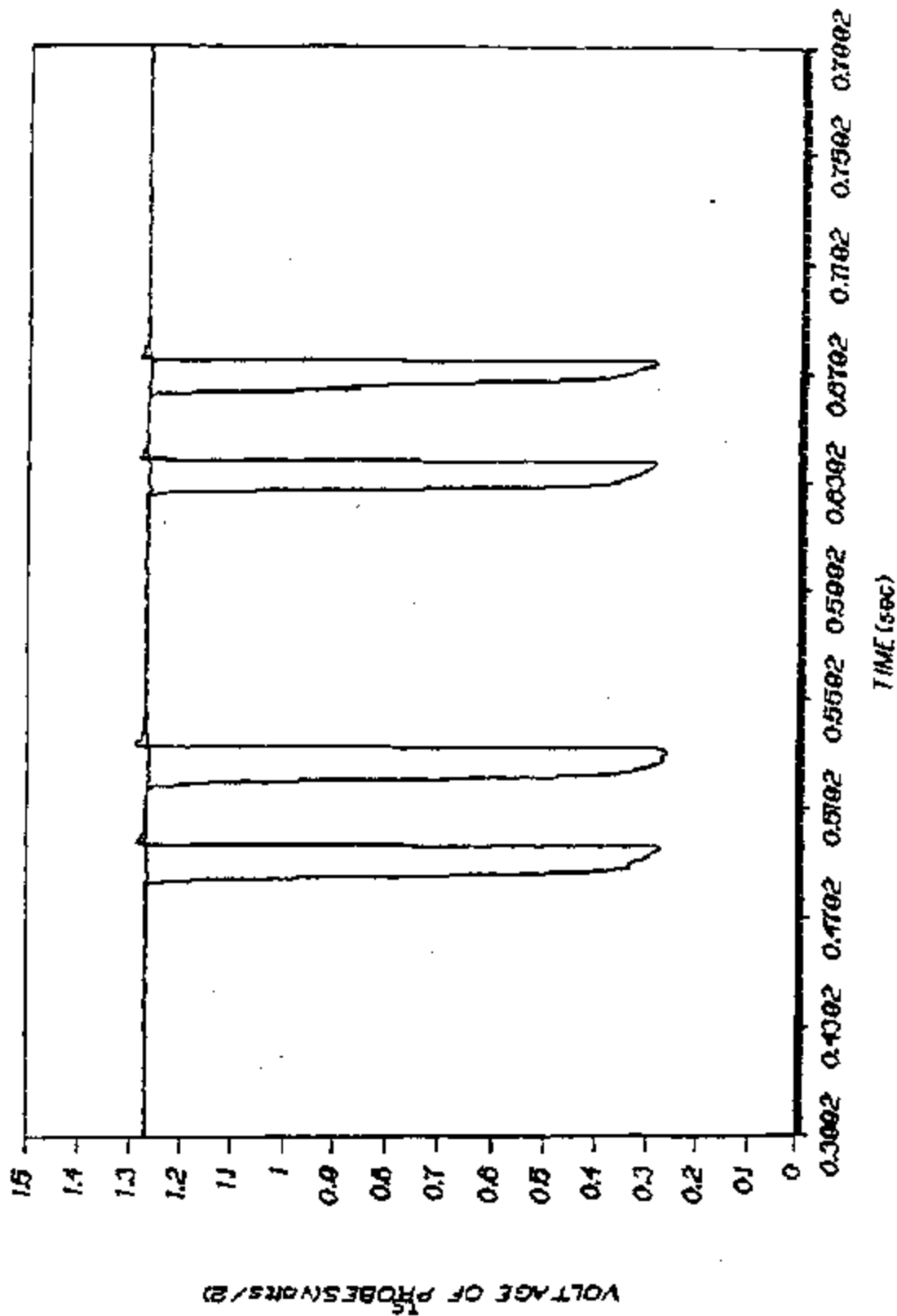
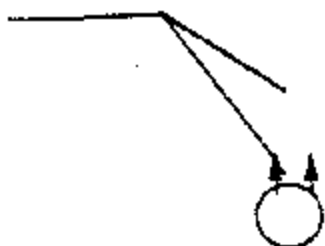
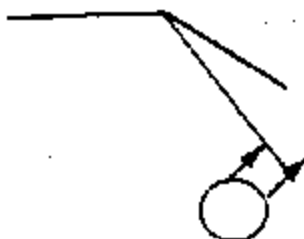


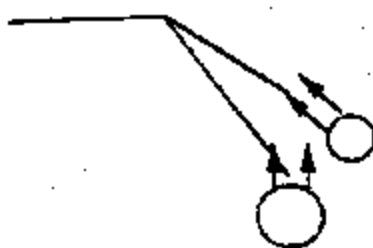
Figure 2.12 - Double Resistance Probe Detecting Individual Bubbles



a.)



b.)

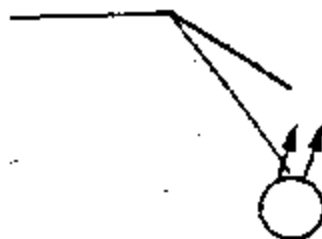


c.)

Figure 2.13 - Possible Errors in Dual Probe Performance



d.)



a.)

- a. Window closed before bubble hit upper probe
- b. Bubble Misses Upper Probe
- c. Another bubble hit upper probe
- d. Overestimation of Velocity
- e. Underestimation of Velocity

Figure 2.13 - Possible Errors in Dual Probe Performance (continued)

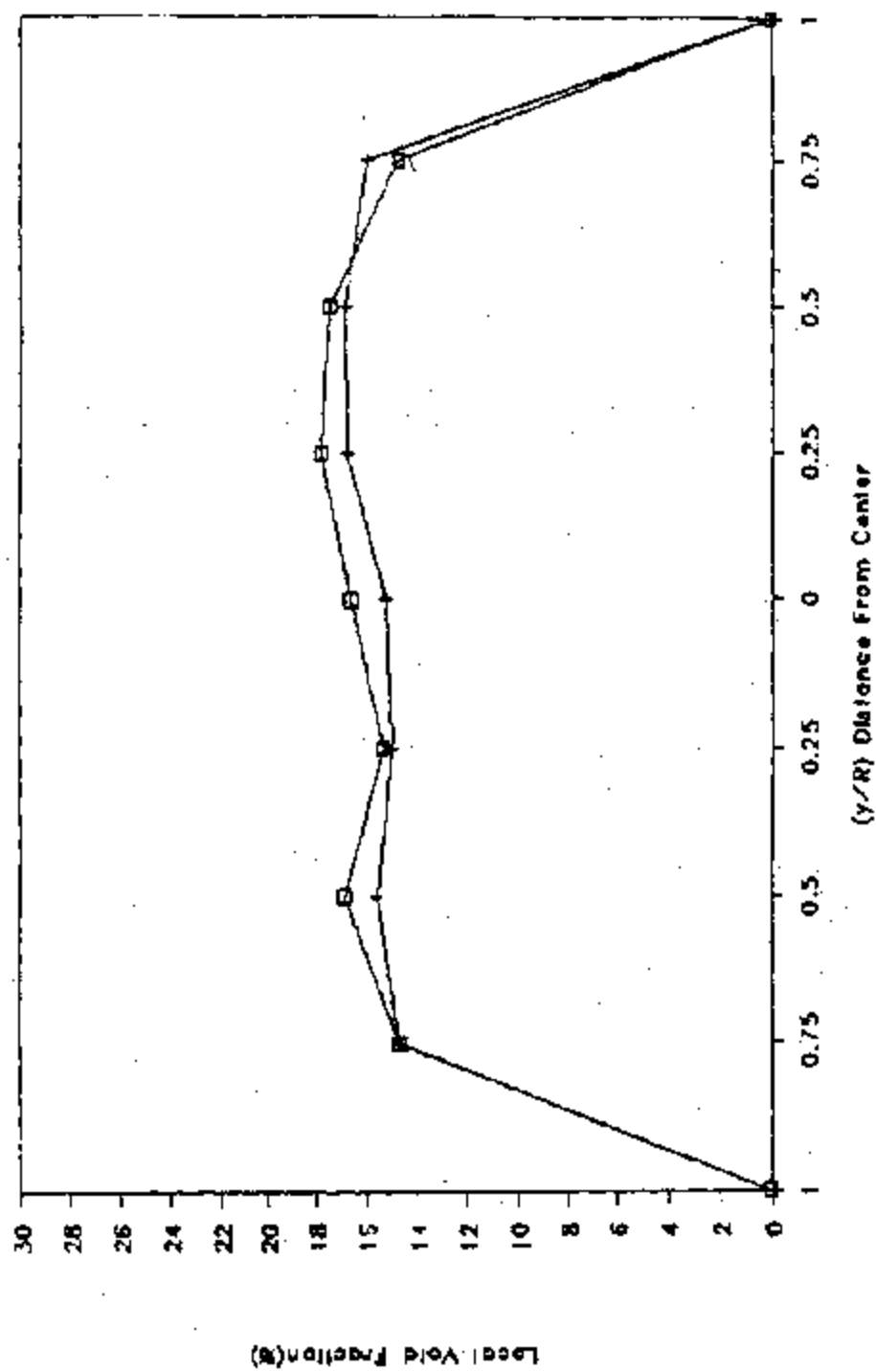


Figure 2.14 Voidage Profile with 1 ft. of Water, Probes - 6" Above Distributor Plate, and $Q_g = 4.6$ CFM.

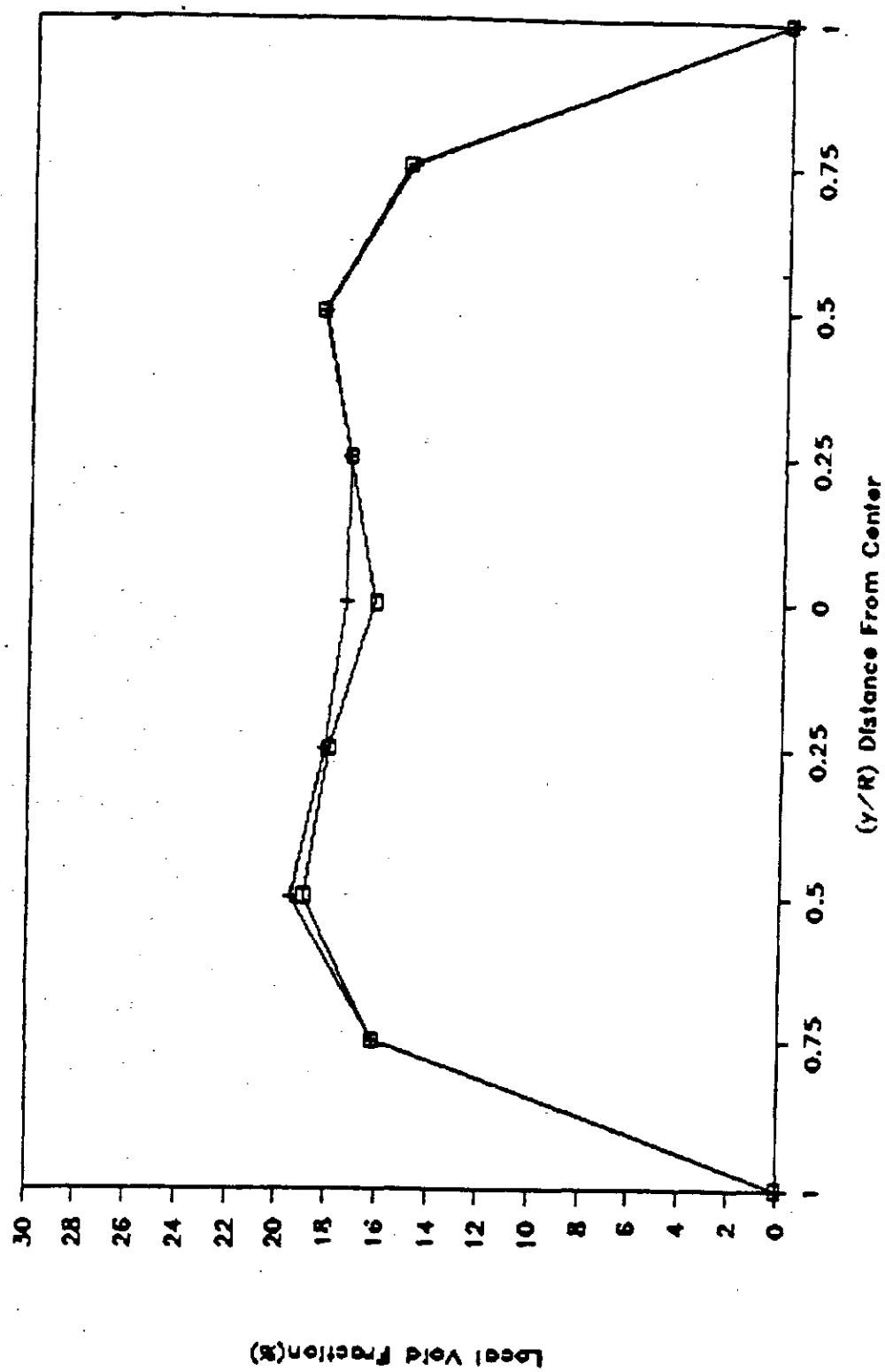


Figure 2.15 - Voidage Profile with 1 ft. of Water, Probes 12" Above Distributor Plate, and $Q = 4.6$ CFM.

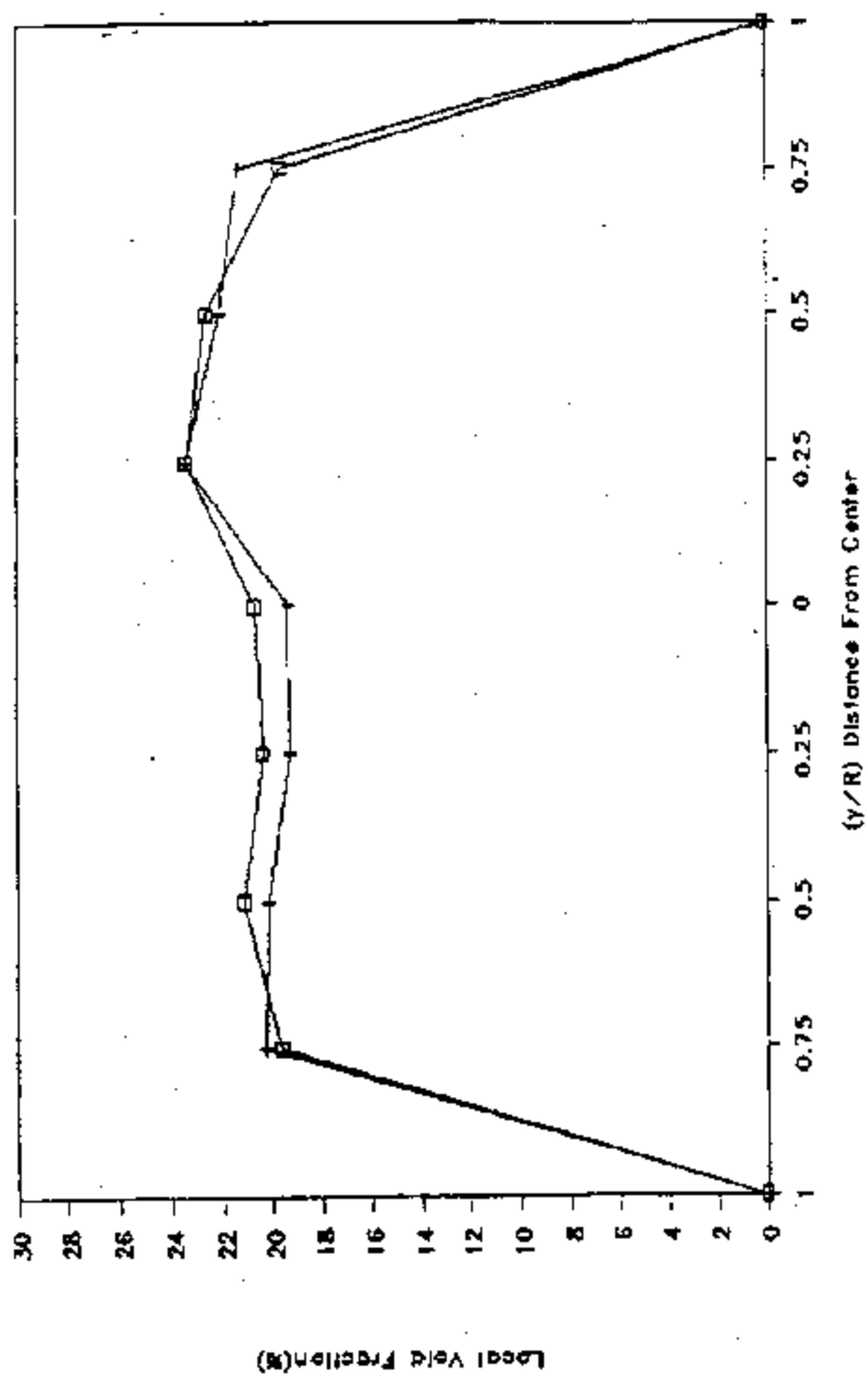


Figure 2.16 -
 Voidage Profile with 1 ft. of Water, Probes - 6" Above
 Distributor Plate, and $Q_w = 1.3$ CFM.

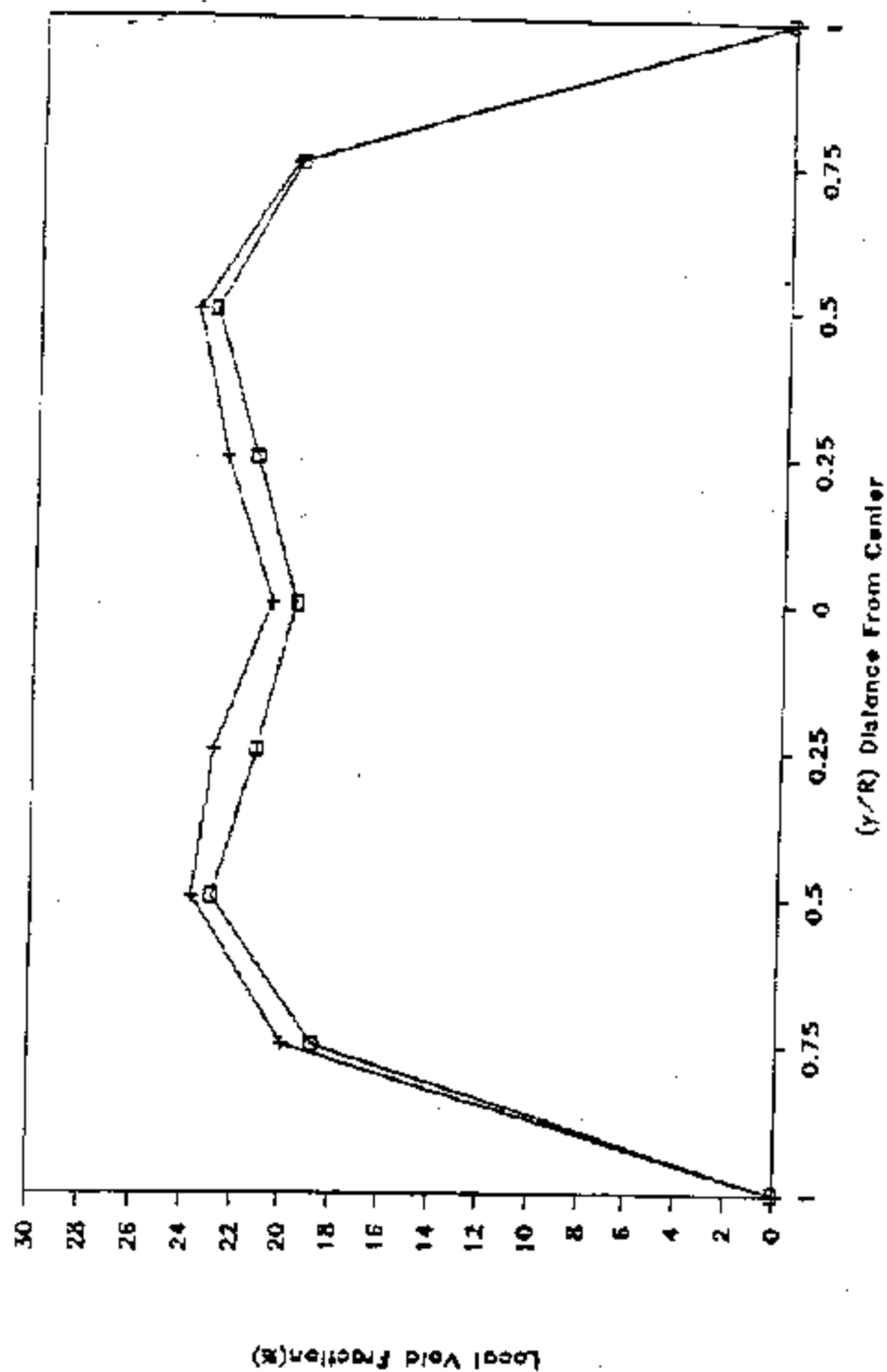


Figure 2.17 Voidage Profile with 1 ft. of Water, Probes 12" Above Distributor Plate, and $Q_0 = 3.3$ CFM.

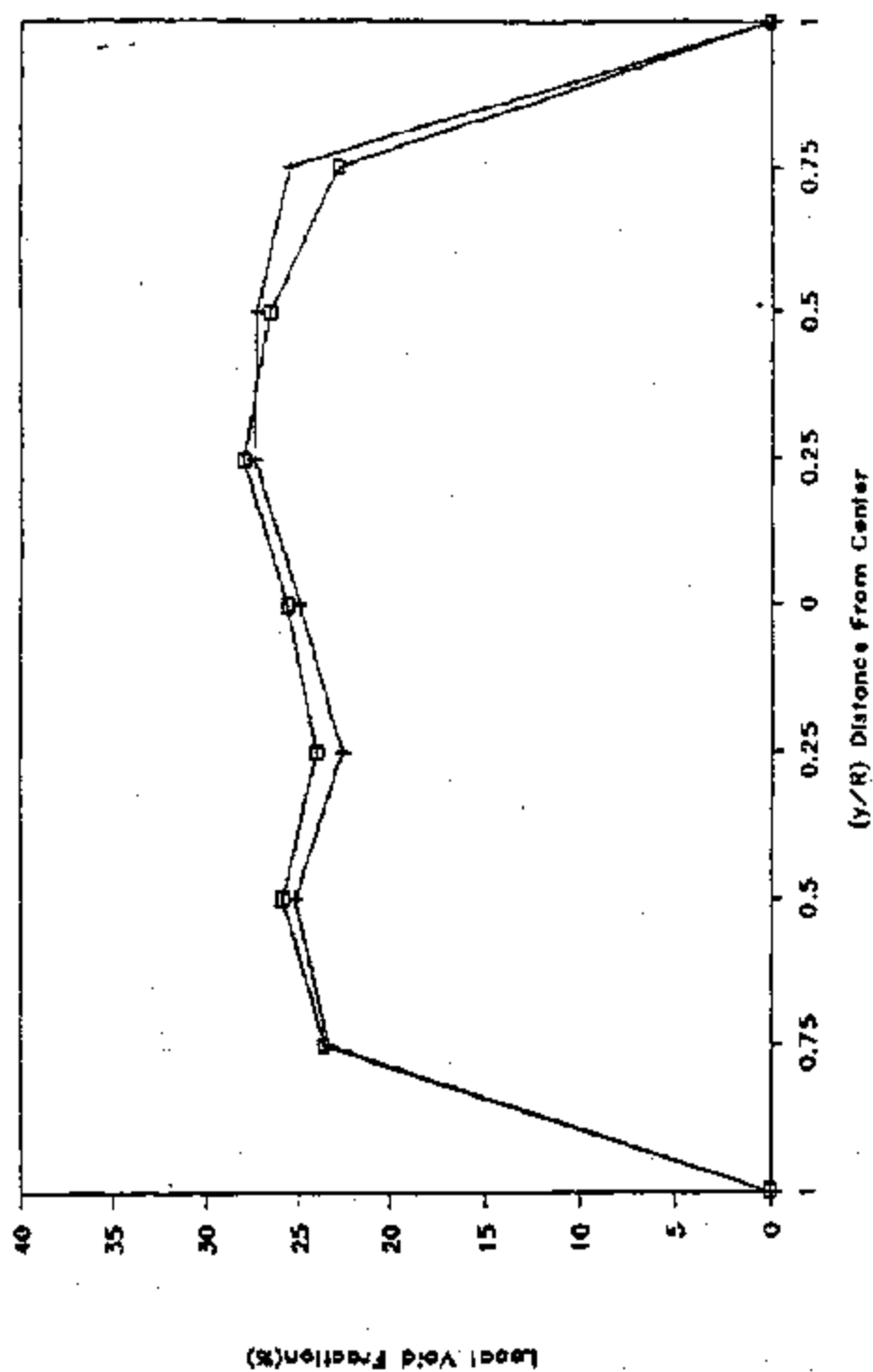


Figure 2.18 Voidage Profile with 1 ft. of Water, Probes - 6" Above Distributor Plate, and $Q_u = 10.4$ CFM.

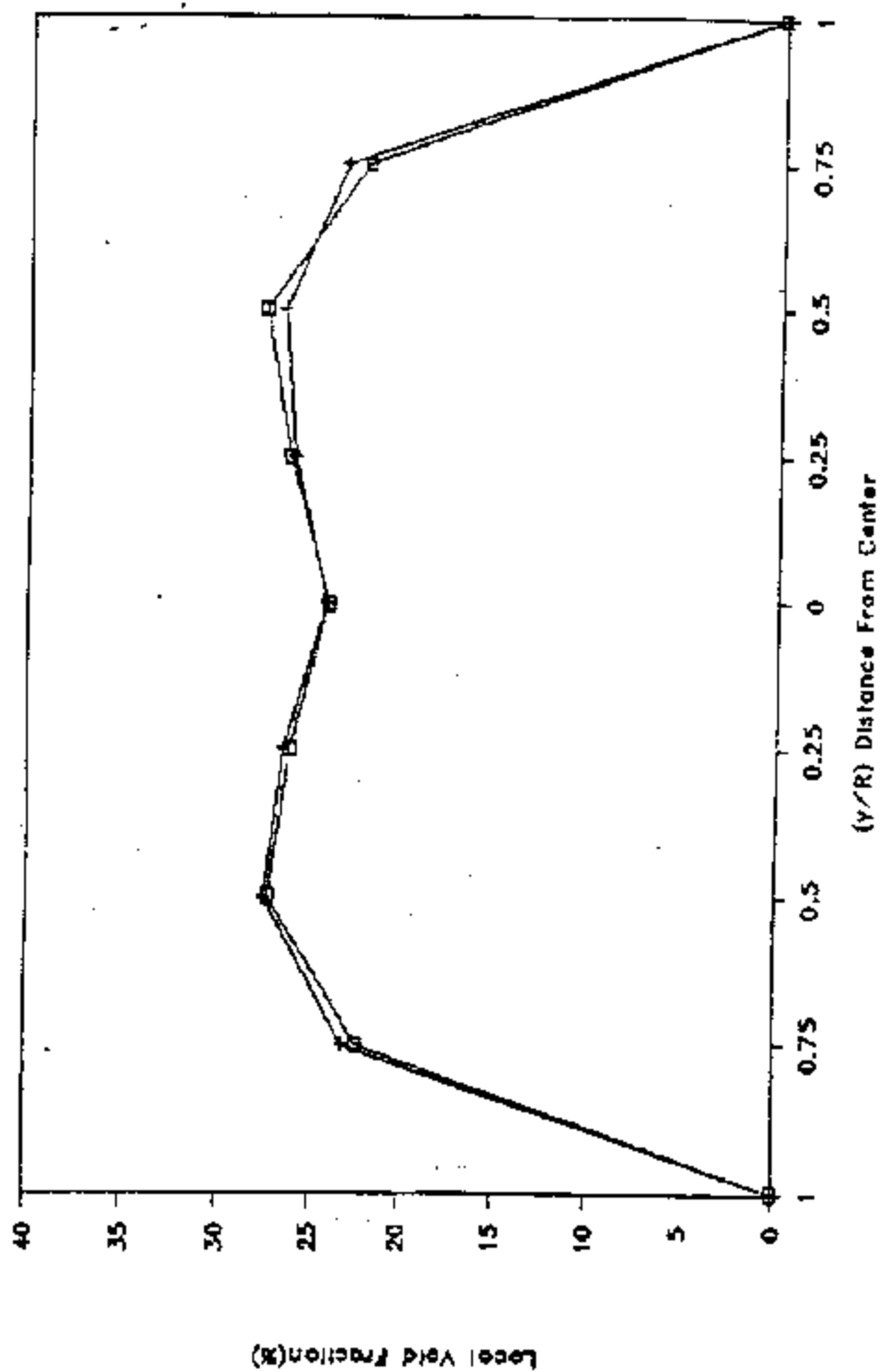


Figure 2.19 Voidage Profile with 1 ft. of Water, Probes - 12" Above Distributor Plate, and $q_g = 10.4$ CFM.