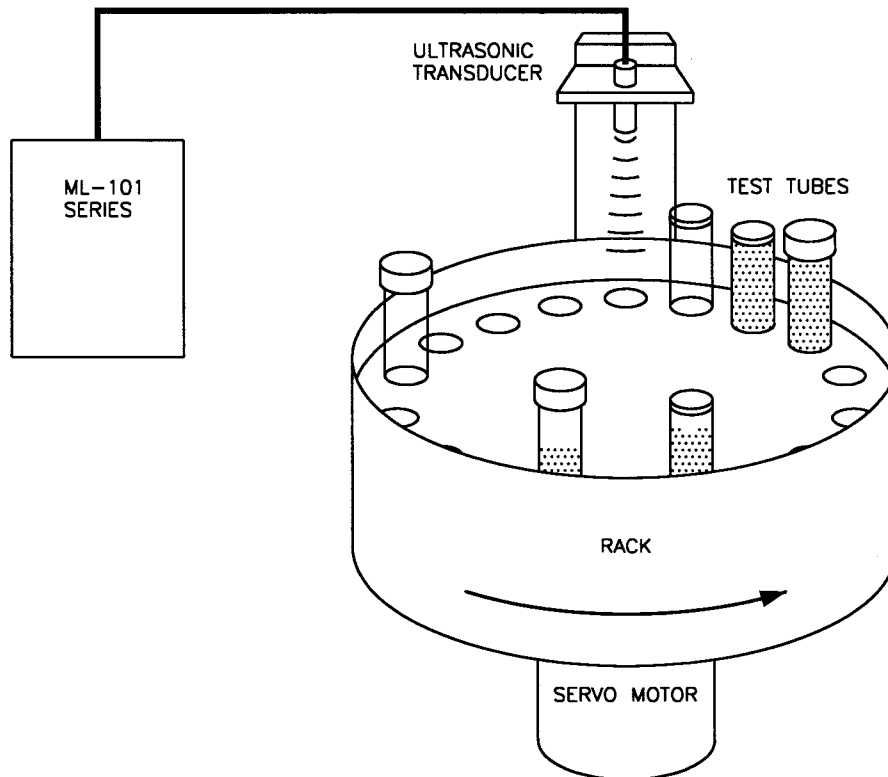




**SINGLE CHANNEL ML MAPPING  
OF A CIRCULAR TEST TUBE RACK**



**PROBLEM:** THE CUSTOMER HAS A CIRCULAR RACK OF TEST TUBES CONTAINING UP TO 20 TEST TUBES WHICH IS ROTATED AROUND THE CENTER BY A SERVO MOTOR. THE TUBES CAN BE CAPPED OR UNCAPPED, OF VARYING DIAMETERS, AND WITH VARYING FLUID LEVELS. THE CUSTOMER DESIRES A MEASUREMENT SYSTEM TO CAPTURE A TWO DIMENSIONAL PICTURE OF HIS RACK SUCH THAT HE CAN DETERMINE THE CAPPED/UNCAPPED STATUS OF A PARTICULAR TEST TUBE, THE HEIGHT AND DIAMETER OF THE TEST TUBE AND THE LIQUID LEVEL IN THE TEST TUBE.

**SOLUTION:** COSENSE'S SINGLE CHANNEL ML MEASUREMENT SYSTEM (ML-101 SERIES) WITH A SINGLE COSENSE 1/4" DIAMETER ML SENSOR SOLVED THE CUSTOMER'S PROBLEM. THE CIRCULAR RACK WAS IN CONSTANT MOTION AT A KNOWN VELOCITY (DURING ALL MEASUREMENTS) AND THE ML SYSTEM WAS RUN IN A CONTINUOUS DATA ACQUISITION MODE. THE RESULTING DATA WAS COLLECTED AND ANALYZED BY THE CUSTOMER'S CONTROLLER UNIT. USING THE FACT THAT THE RACK ITSELF ALWAYS REPORTS A CERTAIN DISTANCE, THE CUSTOMER WAS ABLE TO DETERMINE ALL OF THE DESIRED INFORMATION MENTIONED ABOVE REGARDING THE TEST TUBES PLUS THE RECOGNITION OF AN EMPTY SLOT IN THE RACK.