Equipment Checklist
ASTM C-231 Air Content of Freshly Mixed Concrete by Pressure Method

		P	F	NA
Measuring Bowl and Cover Assembly (Type B)				
1.	The measuring bowl shall be essentially cylindrical in shape, made of steel, hard metal, or other hard material not readily attacked by the cement paste, having a minimum diameter equal to 0.75 to 1.25 times the height, and a capacity of at least 0.20 ft^3 [6.0 L]. It shall be flanged or otherwise constructed to provide for a pressure tight fit between measuring bowl and cover assembly. The interior surfaces of the measuring bowl and surfaces of rims, flanges, and other component fitted parts shall be machined smooth.			
2.	Verify the cover assembly is made of steel or hard metal or other hard material not readily attacked by the cement paste, It shall be flanged or otherwise constructed to provide for a pressure-tight fit between bowl and cover assembly and shall have machined smooth interior surfaces contoured to provide an air space above the level of the top of the measuring bowl			
3.	The cover assembly shall be made of steel, hard metal, or other hard material not readily attacked by the cement paste. It shall be flanged or otherwise constructed to provide for a pressure-tight fit between measuring bowl and cover assembly and shall have machined smooth interior surfaces contoured to provide an air space above the level of the top of the measuring bowl. The cover assembly shall be fitted with a means of direct reading of the air content.			
4.	The dial of the pressure gauge shall be calibrated to indicate the percent of air. Graduations shall be provided for a range in air content of at least 8 % readable to 0.1 % as determined by the proper air pressure calibration test. The cover assembly shall be fitted with air valves, air bleeder valves, and petcocks for bleeding off or through which water may be introduced as necessary for the particular meter design. Suitable means for clamping the cover to the measuring bowl shall be provided to make a pressure-tight seal without entrapping air at the joint between the flanges of the cover and measuring bowl. A suitable hand pump shall be provided with the cover either as an attachment or as an accessory.			
Calibration Vessel				
5.	A measure having an internal volume equal to a percent of the volume of the measuring bowl corresponding to the approximate percent of air in the concrete to be tested; or, if smaller, it shall be possible to check calibration of the meter indicator at the approximate percent of air in the concrete to be tested by repeated filling of the measure. When the design of the meter requires placing the calibration vessel within the measuring bowl to check calibration, the measure shall be cylindrical in shape.			
Scoop				
6.	Of a size large enough so each amount of concrete obtained from the sampling receptacle is representative and small enough so it is not spilled during placement in the measuring bowl.			
Tamping Rod				
7.	A round, smooth, straight steel, high density polyethylene, or other plastic rod of equal or greater abrasion resistance with a $^5/_8$ inch ± $^1/_{16}$ inch[16 ± 2 mm] diameter. The length of the tamping rod shall be at least 4 inch [100 mm] greater than the depth of the measuring bowl in which rodding is being performed, but not greater than 24 inch [600 m] in overall length.			
8.	The rod shall have the tamping end or both ends rounded to a hemispherical tip of the same diameter as the rod.			
Mallet				
9.	A mallet with a rubber or rawhide head weighing approximately 1.25 ± 0.50 lb [0.60 ± 0.25 kg] for use with measures of 0.5 ft^3 [14 L] or smaller and a mallet weighting approximately 2.25 ± 0.50 lb [1.0 ± 0.25 kg] for use with measures larger than 0.5 ft^3 [14 L].			
Strike-Off Bar				
10.	A flat straight bar of steel or other suitable metal at least $^1/_8$ inch [3 mm] thick and ¾ inch [20 mm] wide by 12 inch [300 mm] long.			

Remarks:

Date: _____ Technician: _____ IA Observer: _____

Technician's E-mail Address: _____

Employer's/Supervisor's E-mail Address: _____