

AMA3020 Pairs Project Calibration Tables

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1 Table for Cylindrical Tank with Flat Ends

Volume (L)	Height (m)	R=0.5m
50	0.195R	0.097
100	0.313R	0.156
150	0.415R	0.207
200	0.508R	0.254
250	0.596R	0.298
300	0.680R	0.340
350	0.762R	0.381
400	0.842R	0.421
450	0.921R	0.461
500	1.000R	0.500
550	1.079R	0.539
600	1.158R	0.579
650	1.238R	0.619
700	1.320R	0.660
750	1.404R	0.702
800	1.492R	0.746
850	1.585R	0.793
900	1.687R	0.844
950	1.805R	0.903
1000	2.000R	1.000

Table 1: The calibration table of a dipstick for a right circular cylinder with horizontal axis, for increments of 50L.

2 Table for Cylindrical Tank with Elliptical Ends

Volume (L)	Height (m)	R=0.5m, a=0.2m
50	1.041aR	0.104
100	1.644aR	0.164
150	2.153aR	0.215
200	2.614aR	0.261
250	3.044aR	0.304
300	3.455aR	0.345
350	3.852aR	0.385
400	4.239aR	0.424
450	4.621aR	0.462
500	5.000aR	0.500
550	5.379aR	0.538
600	5.761aR	0.576
650	6.148aR	0.615
700	6.545aR	0.655
750	6.956aR	0.696
800	7.386aR	0.739
850	7.847aR	0.785
900	8.356aR	0.836
950	8.959aR	0.896
1000	10.000aR	1.000

Table 2: The calibration table of a dipstick for a right circular cylinder with horizontal axis and elliptical ends, for increments of 50L, where R is the radius of the tank and a is the semi-major axis of the ellipsoid.

3 Table for Elliptic Cylindrical Tank

Volume (L)	Height (m)	a=0.3m, b=0.8m
50	0.649ab	0.156
100	1.043ab	0.250
150	1.383ab	0.332
200	1.694ab	0.407
250	1.987ab	0.477
300	2.268ab	0.544
350	2.540ab	0.610
400	2.808ab	0.674
450	3.071ab	0.737
500	3.333ab	0.800
550	3.595ab	0.863
600	3.859ab	0.926
650	4.126ab	0.990
700	4.399ab	1.056
750	4.680ab	1.123
800	4.973ab	1.193
850	5.284ab	1.268
900	5.623ab	1.350
950	6.018ab	1.444
1000	6.667ab	1.600

Table 3: The calibration table of a dipstick for a general elliptical cylinder with horizontal axis, with increments of 50L, where a, b are the semi-minor and semi-major axis of the ellipsoid.