



TABLE C
THOUSANDS OF BRITISH THERMAL UNITS LOST PER HOUR FROM STEEL SUCTION TANKS AND STAND PIPES

When the temperature of the coldest water is 42°F

To determine capacity of heater needed, find the minimum mean atmospheric temperature for one day from an Isothermal Map (B 406) and note the corresponding heat loss (See Note Below).

TANK CAPACITIES - THOUSANDS U.S. GALLONS

Atmospheric Temperature Degree F	Heat (Btu) Loss Per Sq. Ft. - Tank Radiating Surface	100	125	150	200	250	300	400	500	750	1000
		Square Feet of Tank Surfaces*									
		2610	3030	3505	4175	4795	5360	6375	7355	9650	11740
Btu Lost Per Hour, Thousands											
35	32.3	85	98	114	135	155	175	206	238	312	380
30	46.1	121	140	162	193	222	248	294	340	445	542
25	61.5	161	187	216	257	295	330	393	453	594	722
20	77.2	202	234	271	323	371	414	493	568	745	907
15	93.6	245	284	329	391	449	502	597	689	904	1099
10	110.9	290	337	389	463	532	595	707	816	1071	1302
5	128.9	337	391	452	539	619	691	822	949	1244	1514
0	148.5	388	450	521	620	713	796	947	1092	1434	1744
-5	168.7	441	512	592	705	809	905	1076	1241	1628	1981
-10	190.7	498	578	669	797	915	1023	1216	1403	1841	2239
-15	213.2	557	646	748	891	1023	1143	1360	1569	2058	2503
-20	236.8	619	718	830	989	1136	1270	1510	1742	2286	2781
-25	262.3	685	795	920	1096	1258	1406	1673	1930	2532	3080
-30	288.0	752	873	1010	1203	1382	1545	1837	2119	2781	3383
-35	316.0	825	958	1108	1320	1516	1694	2015	2325	3050	3710
-40	344.0	898	1043	1206	1437	1650	1844	2193	2531	3320	4039
-50	405.6	1059	1229	1422	1694	1945	2175	2586	2984	3915	4762
-60	470.8	1229	1427	1651	1966	2258	2524	3002	3463	4544	5528

TABLE D
THOUSANDS OF BRITISH THERMAL UNITS LOST PER HOUR FROM ELEVATED WOOD TANKS

Based on Minimum water temperature of 42°F and a wind velocity of 12 mph

To determine capacity of heater needed, find the minimum mean atmospheric temperature for one day from the Isothermal Map (Page 2 of AOSSG88180) and note the corresponding heat loss (See Note Below)

TANK CAPACITIES - THOUSANDS U.S. GALLONS

Atmospheric Temperature Degree F	10	15	20	25	30	40	50	75	100
	BTH Lost Per Hour, Thousands								
35	8	10	11	13	14	19	21	28	33
30	11	14	16	19	21	27	31	40	49
25	15	20	21	25	28	36	42	54	65
20	19	25	27	32	35	46	54	69	83
15	24	31	34	39	44	57	66	85	102
10	28	36	40	46	51	68	78	100	121
5	33	43	47	54	60	78	92	117	142
0	38	49	53	62	69	90	106	135	164
-5	43	56	61	71	79	103	120	154	187
-10	49	63	69	80	89	116	136	174	211
-15	54	71	77	89	100	130	153	195	236
-20	61	79	86	99	111	145	169	217	262
-25	68	87	95	110	123	160	188	240	291
-30	74	96	104	121	135	176	206	264	319
-35	81	105	115	133	148	193	226	289	350
-40	88	114	125	144	162	210	246	317	382
-50	104	135	147	170	190	246	290	372	450
-60	122	157	171	197	222	266	307	407	490

*These numbers are square feet of radiating surface used for each capacity to compute the tabulated heat loss values and are typical for cone roof reservoirs on grade.

NOTE: BTU values listed here as heat losses can be equated to heater OUTPUT capacities. Divide these quantities by the following factors to determine heater INPUT as related to desired energy source -- 0.80 Gas Fired (Copper) -- 0.80 Oil Fired -- 1.00 Electric

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Lowest One Day Mean Temperatures

