

TABLE 1
WATER FLOW RATE TO PRODUCE 3% FOAM SOLUTION
TO FIGHT FIRES IN TANKS

TANK DIAMETER		WATER FLOW RATE		MINIMUM QUANTITIES		TOTAL WATER REQUIRED TO SUSTAIN 65 MINUTES OF OPERATION			
Feet	Meter	Application Rate 0.16 gpm./ft ² . 6.5 L/min./m ²	Application Rate 0.25 gpm./ft ² . 10.4 L/min./m ²	Application Rate 0.16 gpm./ft ² . 6.5 L/min./m ²	Application Rate 0.25 gpm./ft ² . 10.4 L/min./m ²	Application Rate 0.16 gpm./ft ² . 6.5 L/min./m ²	Application Rate 0.25 gpm./ft ² . 10.4 L/min./m ²		
		Gallon	Meter ³	Gallon	Meter ³	Gallon	Meter ³		
100	30.5	1218	4598	1904	7357	79170	299	123760	478
110	33.5	1474	5563	2304	8902	95796	362	149750	579
120	36.6	1754	6621	2742	10594	114005	430	178214	689
130	39.6	2058	7770	3218	12433	133797	505	209154	808
140	42.7	2387	9012	3732	14420	155173	586	242570	937
150	45.7	2741	10345	4284	16553	176133	672	278460	1076
160	48.8	3118	11770	4874	18834	202675	765	316826	1224
170	51.8	3520	13288	5503	21262	226801	864	357666	1382
180	54.9	3946	14897	6169	23837	256511	968	400982	1549
190	57.9	4397	16598	6873	26558	285804	1079	446774	1726
200	61.0	4872	18391	7616	29425	316680	1195	495040	1913
210	64.0	5371	20276	8397	32444	349140	1318	545782	2109
220	67.1	5895	22253	9216	35606	383183	1446	598998	2315
230	70.1	6443	24322	10072	38916	418809	1581	654690	2530
240	73.2	7016	26483	10967	42376	456019	1721	712858	2754
250	76.2	7613	28736	11900	45981	494813	1868	773500	2989
260	79.2	8234	31081	12871	49733	535189	2020	836618	3233
270	82.3	8879	33518	13880	53632	577149	2179	902210	3486
280	85.3	9549	36047	14927	57679	620693	2343	970278	3749
290	88.4	10243	38667	16013	61872	665820	2513	1040822	4022
300	91.4	10962	41380	17136	66213	712530	2690	1113840	4304



TABLE 2
FOAM CONCENTRATE (3%) TO PRODUCE 3% FOAM SOLUTION
TO FIGHT FIRES IN TANKS

TANK DIAMETER		MINIMUM QUANTITIES						TOTAL 3% FOAM CONCENTRATE REQUIRE	
		3% FOAM CONCENTRATE FLOW RATE			TO SUSTAIN 65 MINUTES OF OPERATION			TO SUSTAIN 65 MINUTES OF OPERATION	
Feet	Meter	Application Rate 0.16 gpm./ft ² . 6.5 L/min./m ²	Application Rate 0.25 gpm./ft ² . 10.4 L/min./m ²	Application Rate 10.4 L/min./m ²	Application Rate 6.5 L/min./m ²	Application Rate 0.25 gpm./ft ² . 10.4 L/min./m ²	Application Rate 0.25 gpm./ft ² . 10.4 L/min./m ²	Application Rate 0.25 gpm./ft ² . 10.4 L/min./m ²	Application Rate 0.25 gpm./ft ² . 10.4 L/min./m ²
		Gallon	Gallon	Meter ³	Gallon	Meter ³	Gallon	Meter ³	Gallon
100	30.5	38	59	228	2470	9.25	3835	14.79	3835
110	33.5	46	71	275	2989	11.19	4640	17.89	4640
120	36.6	55	85	328	3557	13.31	5522	21.30	5522
130	39.6	64	100	385	4174	15.62	6481	24.99	6481
140	42.7	74	116	446	4841	18.12	7617	28.99	7617
150	45.7	86	133	512	5558	20.80	8629	33.27	8629
160	48.8	97	151	582	6323	23.67	9818	37.86	9818
170	51.8	110	171	658	7138	26.72	11063	42.74	11063
180	54.9	123	191	737	8003	29.95	12425	47.92	12425
190	57.9	137	213	821	8917	33.38	13844	53.39	13844
200	61.0	152	236	910	9880	36.98	15340	59.16	15340
210	64.0	168	260	1003	10893	40.77	16912	65.22	16912
220	67.1	184	286	1101	11955	44.75	18561	71.58	18561
230	70.1	201	312	1204	13066	48.91	20287	78.23	20287
240	73.2	219	340	1311	14227	53.25	22090	85.18	22090
250	76.2	238	369	1422	15438	57.78	23969	92.43	23969
260	79.2	257	399	1538	15697	62.50	25925	99.97	25925
270	82.3	277	430	1659	18006	67.40	27957	107.81	27957
280	85.3	298	463	1784	19365	72.48	30068	115.94	30068
290	88.4	320	496	1913	20773	77.75	32252	124.37	32252
300	91.4	342	531	2048	22230	83.21	34515	133.10	34515



TABLE 3
FRICTION LOSS PER 100 FEET/30.5 METERS
FRICTION LOSS IN WATER SUPPLY LINE EXPRESSED AS PSIG & kPa a LOSS PER 100 FEET/30.5 METERS OF HOSE

FLOW USGPM LITER/MIN.	4 INCH SUPPLY LINE		4-1/2 INCH SUPPLY LINE		5 INCH SUPPLY LINE		6 INCH SUPPLY LINE	
	PSIG	kPa	PSIG	kPa	PSIG	kPa	PSIG	kPa
100	0.20	1	0.10	1	0.06	1	0.05	0.3
200	0.80	6	0.40	3	0.32	2	0.20	1
300	1.80	12	0.90	6	0.72	3	0.45	3
400	3.20	22	1.00	10	1.28	9	0.80	6
500	5.00	34	2.50	17	2.00	14	1.25	9
600	7.20	50	3.60	25	2.88	20	1.80	12
700	9.80	68	4.90	34	3.92	27	2.45	17
800	12.80	88	6.40	44	5.12	35	3.20	22
900	16.20	112	8.10	56	6.48	45	4.05	28
1000	20.00	138	10.00	69	8.00	55	5.00	34
1100	24.20	167	12.10	83	9.68	67	6.05	42
1200	28.80	199	14.40	99	11.52	79	7.20	50
1300	33.80	233	16.90	117	13.52	90	8.45	58
1400	39.20	270	19.60	135	15.68	108	9.80	68
1500	45.00	310	22.50	155	18.00	124	11.25	78
1600	51.20	353	25.60	177	20.48	141	12.80	88
1700	57.80	399	28.90	199	23.12	156	14.45	100
1800	64.80	447	32.40	223	25.92	179	16.20	112
1900	72.20	496	36.10	249	28.88	199	18.05	124
2000	80.00	552	40.00	276	32.00	221	20.00	138
2100	88.20	608	44.10	304	35.28	243	22.05	152
2200	96.80	667	48.40	334	38.72	267	24.20	167
2300	105.80	729	52.90	366	42.32	292	26.45	182
2400	115.20	794	57.60	397	46.08	308	28.80	199
2500	125.00	862	62.50	431	50.00	345	31.25	215

