

TABLE 4

FINNED MULTI-TUBE HAIRPIN MECHANICAL DESIGN DATA

SHELLSIDE SCH. 40							TUBE SIDE									
Type	No. Fins	Fin Hgt	25 NFA	De In.	Af/Ao	Ao/Ai	Surface									Wall Thk
							O.D. In.	No. Tube	25 NFA	I.D. In.	10	20	30	Ft2/Ft	Ends	
3B	16	5/16	138.6	0.475	0.855	6.74	3/4	3	20.09	0.58	59.80	121.57	183.35	5.98	2.03	0.083
4B	16	1/4	216.4	0.407	0.827	5.65	3/4	7	46.88	0.58	116.94	237.75	358.56	11.69	5.66	0.083
4C	16	0.21	192.4	0.390	0.769	4.25	7/8	7	69.09	0.71	106.92	217.37	327.83	10.69	4.32	0.083
5D	16	5/16	332.1	0.493	0.804	5.02	1	7	95.60	0.83	148.39	301.69	454.99	14.84	8.21	0.083
5D	24	5/16	316.8	0.355	0.873	6.93	1	7	95.60	0.83	204.86	416.49	628.13	20.49	14.50	0.083
6B	16	1/4	518.6	0.506	0.827	5.65	3/4	14	93.75	0.58	233.88	475.50	717.12	23.39	11.93	0.083
6D	16	1/4	490.9	0.602	0.768	4.25	1	10	136.57	0.83	179.73	365.39	551.06	17.97	6.31	0.083
6D	24	1/4	473.4	0.444	0.848	5.78	1	10	136.57	0.83	244.26	496.59	748.93	24.43	11.38	0.083
8B	16	1/4	799.8	0.370	0.827	5.65	3/4	31	207.60	0.58	517.89	1052.90	1587.90	51.79	28.05	0.083
8B	16	3/8	941.1	0.506	0.875	7.83	3/4	19	127.24	0.58	440.03	894.60	1349.18	44.00	23.84	0.083
8C	16	5/16	881.9	0.528	0.828	5.73	7/8	19	187.53	0.71	390.75	794.42	1198.10	39.08	20.38	0.083
8D	16	1/4	811.1	0.548	0.768	4.25	1	19	259.49	0.83	341.48	694.24	1047.01	34.15	14.36	0.083
8D	24	1/4	777.9	0.398	0.848	5.78	1	19	259.49	0.83	464.09	943.52	1422.96	46.41	25.97	0.083
10B	16	1/4	1360.5	0.467	0.827	5.65	3/4	42	281.26	0.58	701.65	1426.50	2151.35	70.17	16.00	0.083
10D	16	1/4	1254.2	0.533	0.768	4.25	1	31	423.37	0.83	557.15	1132.72	1708.28	55.71	16.00	0.083
12B	16	1/4	1896.6	0.433	0.827	5.65	3/4	64	428.58	0.58	1069.19	2173.72	3278.25	106.92	27.00	0.083
12D	24	1/4	1732.5	0.394	0.848	5.78	1	44	600.92	0.83	1074.74	2185.00	3295.27	107.47	24.00	0.083
16B	16	1/4	2981.0	0.405	0.827	5.65	3/4	109	729.93	0.58	1820.96	3702.12	5583.28	182.10	40.00	0.083
16D	24	1/4	2650.2	0.349	0.848	5.78	1	77	1051.61	0.83	1880.79	3823.76	5766.73	188.08	40.00	0.083
*18B	16	1/4	4082.7	0.500	0.827	5.65	3/4	121	810.29	0.58	2021.43	4109.69	6197.95	202.14	52.19	0.083
*18D	24	1/4	3727.4	0.445	0.848	5.78	1	85	1160.87	0.83	2076.20	4221.03	6365.87	207.62	48.89	0.083
*20B	16	1/4	5079.7	0.500	0.827	5.65	3/4	151	1011.19	0.58	2522.62	5128.62	7734.63	252.26	69.79	0.083
*20D	24	1/4	4563.5	0.427	0.848	5.78	1	109	1488.64	0.83	2662.42	5412.85	8163.29	266.24	67.17	0.083
*24B	16	1/4	7268.7	0.474	0.827	5.65	3/4	230	1540.23	0.58	3842.40	7811.81	11781.23	384.24	120.47	0.083
*24D	24	1/4	6557.7	0.413	0.848	5.78	1	163	2226.13	0.83	3981.42	8094.45	12207.48	398.14	113.84	0.083