

CO2 Pumped Liquid Overfeed Application Data for Low Temp

Notes:

- A. The flow rates are calculated based on the assumption that the CO2 entering the coil is saturated liquid and the CO2 exiting the coil has a 50% quality (i.e., it is 50 percent vapor by mass)
- B. Load data and flow rates are for the entire case.
- C. All parallel load data is for lighted shelves or mullions when that option is offered
- D. Application data is included for both Frozen Food (FF) and Ice Cream (IC) operating temperatures where applicable.

Line	Model	Discharge Air Temp °F	Discharge Air Temp °F	Defrost Pumpout (min.)	Defrost Freq (hours)	Defrost Duration (min.)	Application Data - Frozen Food Temp			Application Data - Ice Cream Temp		
							Sat. Evap Temp °F	Flow Rate (GPM)	Pressure Drop (psi)	Sat. Evap Temp °F	Flow Rate (GPM)	Pressure Drop (psi)
							FF	FF	FF	IC	IC	IC
LT Islands		FF	IC				FF	FF	FF	IC	IC	IC
1	F-12	-12	-22	5	24	60	-20	0.10	1.19	-30	0.13	1.99
2	F-12G	-12	-22	5	24	60	-20	0.15	2.06	-30	0.14	2.38
3	F-8	-12	-22	5	24	60	-20	0.09	3.52	-30	0.08	4.09
4	F-8G	-12	-22	5	24	60	-20	0.10	4.24	-30	0.09	4.89
5	FI-12	-12	NA	5	24	60	-20	0.17	3.20	NA	NA	NA
6	FI-12G	-12	NA	5	24	60	-20	0.18	3.81	NA	NA	NA
7	FI-8	-12	NA	5	24	60	-20	0.11	6.58	NA	NA	NA
8	FI-8G	-12	NA	5	24	60	-20	0.12	7.85	NA	NA	NA
9	FN-12	-12	-22	5	24	60	-20	0.13	1.83	-30	0.13	2.11
10	FN-12G	-12	-22	5	24	60	-20	0.16	2.39	-30	0.15	2.75
11	FN-8	-12	-22	5	24	60	-20	0.09	3.76	-30	0.09	4.35
12	FN-8G	-12	-22	5	24	60	-20	0.11	4.91	-30	0.10	5.65
13	FW-12	-12	-22	5	24	60	-20	0.18	0.98	-30	0.18	1.17
14	FW-12G	-12	-22	5	24	60	-20	0.22	1.27	-30	0.22	1.58
15	FW-4	-12	-22	5	24	60	-20	0.06	0.29	-30	0.06	0.34
16	FW-4G	-12	-22	5	24	60	-20	0.07	0.38	-30	0.07	0.47
17	FW-6	-12	-22	5	24	60	-20	0.09	0.94	-30	0.09	1.10
18	FW-6G	-12	-22	5	24	60	-20	0.11	1.23	-30	0.11	1.53
19	FW-8	-12	-22	5	24	60	-20	0.12	2.01	-30	0.12	2.35
20	FW-8G	-12	-22	5	24	60	-20	0.14	2.62	-30	0.15	3.26
21	FW-12	-12	-22	5	24	60	-20	0.06	1.56	-30	0.06	1.93
22	FW-12G	-12	-22	5	24	60	-20	0.07	2.03	-30	0.07	2.51
Low-Temp Meat												
23	M1XLD-8GE	-10	NA	5	8	40	-20	0.09	0.63	NA	NA	NA
24	M1XLD-12GE	-10	NA	5	8	40	-20	0.13	0.73	NA	NA	NA
25	M1GLE-93	-10	NA	5	6	40	-20	0.16	1.04	NA	NA	NA
Reach-Ins		FF	IC				FF	FF	FF	IC	IC	IC
26	RL-2 Innov I	-5	-12	5	24	45	-11	0.08	1.84	-19	0.08	2.16
27	RL-3 Innov I	-5	-12	5	24	45	-11	0.12	5.51	-19	0.12	6.48
28	RL-4 Innov I	-5	-12	5	24	45	-11	0.16	1.93	-19	0.16	2.27
29	RL-5 Innov I	-5	-12	5	24	45	-11	0.20	3.49	-19	0.20	4.11
30	RL-2 Innov II	-5	-12	5	24	45	-9	0.07	1.58	-17	0.07	1.84
31	RL-3 Innov II	-5	-12	5	24	45	-9	0.11	4.72	-17	0.11	5.53
32	RL-4 Innov II	-5	-12	5	24	45	-9	0.15	1.65	-17	0.15	1.94
33	RL-5 Innov II	-5	-12	5	24	45	-9	0.18	2.99	-17	0.18	3.51
34	RLN-2 Innov I	-5	-12	5	24	45	-11	0.08	1.84	-19	0.08	2.16
35	RLN-3 Innov I	-5	-12	5	24	45	-11	0.12	5.51	-19	0.12	6.48
36	RLN-4 Innov I	-5	-12	5	24	45	-11	0.16	1.93	-19	0.16	2.27
37	RLN-5 Innov I	-5	-12	5	24	45	-11	0.20	3.49	-19	0.20	4.11
34	RLN-2 Innov II	-5	-12	5	24	45	-9	0.07	1.58	-17	0.07	1.84
35	RLN-3 Innov II	-5	-12	5	24	45	-9	0.11	4.72	-17	0.11	5.53
36	RLN-4 Innov II	-5	-12	5	24	45	-9	0.15	1.65	-17	0.15	1.94
37	RLN-5 Innov II	-5	-12	5	24	45	-9	0.18	2.99	-17	0.18	3.51
38	RLNIE	0	-11	5	24	45	-11	0.30	2.98	-19	0.30	3.25
39	RLT-2 Innov I	-5	-12	5	24	48	-11	0.08	2.19	-19	0.08	2.57
40	RLT-3 Innov I	-5	-12	5	24	48	-11	0.12	6.55	-19	0.12	7.72
41	RLT-4 Innov I	-5	-12	5	24	48	-11	0.16	2.29	-19	0.17	2.70
42	RLT-5 Innov I	-5	-12	5	24	48	-11	0.21	4.15	-19	0.21	4.89
LT Multi-decks		FF	IC				FF	FF	FF	IC	IC	IC
43	F6-8L	-8	NA	5	12	30	-16	0.41	1.10	NA	NA	NA
44	F6-12L	-8	NA	5	12	30	-16	0.62	1.20	NA	NA	NA
45	F6-8	-8	NA	5	12	30	-16	0.35	0.89	NA	NA	NA
46	F6-12	-8	NA	5	12	30	-16	0.53	0.99	NA	NA	NA

CO2 Pumped Liquid Overfeed Application Data for Medium Temp

Notes:

A. The flow rates are calculated based on the assumption that the CO2 entering the coil is saturated liquid and the CO2 exiting the coil has a 50% quality (i.e., it is 50 percent vapor by mass)

B. Load data and flow rates are for the entire case.

C. All parallel load data is for T8 lighted shelves or mullions when that option is offered

					Application Data - Medium Temp		
Line	Model	Discharge Air Temp °F	Defrost	Defrost	Sat. Evap Temp °F	Flow Rate (GPM)	Pressure Drop (psi)
			Freq (hours)	Duration (min.)			
1	B3XC-12LEP	32	8	30	20	0.58	4.28
2	B3XC-12LGEP	32	8	30	20	0.49	3.37
3	B3XC-6LEP	32	8	30	20	0.29	1.99
4	B3XC-8LEP	32	8	30	20	0.39	4.18
5	B3XC-8LGEP	32	8	30	20	0.33	3.27
6	B4X-12E	30	6	40	20	0.54	3.83
7	B4X-8E	30	6	40	20	0.36	3.73
8	C2X-12EP	31	6	30	20	0.29	1.36
9	C2X-8EP	31	6	30	20	0.19	1.26
10	C2X-12LEP	31	6	30	20	0.33	1.58
11	C2X-4LEP	31	6	30	20	0.11	1.38
12	C2X-6LEP	31	6	30	20	0.16	0.77
13	C2X-8LEP	31	6	30	20	0.22	1.48
14	C2X-4LGEP	31	6	30	20	0.09	1.04
15	C2X-6LGEP	31	6	30	20	0.14	0.79
16	C2X-8LGEP	31	6	30	20	0.18	1.14
17	C2X-12LGEP	31	6	30	20	0.27	1.24
18	C2X-4XLEP	31	6	30	20	0.15	2.21
19	C2X-6XLEP	31	6	30	20	0.22	1.52
20	C2X-8XLEP	31	6	30	20	0.30	2.31
21	C2X-12XLEP	31	6	30	20	0.44	2.41
22	C2X-4XLGEP	31	6	30	20	0.13	1.78
23	C2X-6XLGEP	31	6	30	20	0.19	1.25
24	C2X-8XLGEP	31	6	30	20	0.26	1.88
25	C2X-12XGLEP	31	6	30	20	0.39	1.98
26	C3X-12LGEP	30	6	30	20	0.56	4.03
27	C3X-4LGEP	30	6	30	20	0.19	3.83
28	C3X-6LGEP	30	6	30	20	0.28	1.88
29	C3X-8LGEP	30	6	30	20	0.37	3.93
30	C5X-4LEP	31	6	30	20	0.23	6.40
31	C5X-6LEP	31	6	30	20	0.35	3.03
32	C5X-8LEP	31	6	30	20	0.46	6.50
33	C5X-12LEP	31	6	30	20	0.69	6.60
34	C6X-12EP	31	6	30	20	0.70	6.63
35	C6X-12LEP	31	6	30	20	0.73	7.08
36	C6X-4EP	31	6	30	20	0.23	6.43
37	C6X-4LEP	31	6	30	20	0.24	6.88
38	C6X-6EP	31	6	30	20	0.35	3.04
39	C6X-6LEP	31	6	30	20	0.36	3.25
40	C6X-8EP	31	6	30	20	0.46	6.53
41	C6X-8LEP	31	6	30	20	0.48	6.98
42	D5NX-12EP	30	6	30	20	0.65	5.14
43	D5NX-8EP	30	6	30	20	0.44	5.04
44	D5NX-4LEP	30	6	30	20	0.23	5.25
45	D5NX-6LEP	30	6	30	20	0.34	2.52
46	D5X-4EP	30	8	30	20	0.20	4.40
47	D5X-6EP	30	8	30	20	0.30	2.13
48	D5X-8EP	30	8	30	20	0.40	4.50
49	D5X-10EP	30	8	30	20	0.51	3.50
50	D5X-12EP	30	8	30	20	0.61	4.60
51	D5X-4LEP	30	8	30	20	0.21	4.70
52	D5X-6LEP	30	8	30	20	0.32	2.27
53	D5X-8LEP	30	8	30	20	0.42	4.80
54	D5X-10LEP	30	8	30	20	0.53	3.72

55	D5X-12LEP	30	8	30	20	0.63	4.90
56	D5X-4RE	32	8	30	20	0.24	5.90
57	D5X-6RE	32	8	30	20	0.36	2.80
58	D5X-8RE	32	8	30	20	0.49	6.00
59	D5X-12RE	32	8	30	20	0.73	6.10
60	D5X-8ULEP	30	6	20	20	0.49	7.12
61	D5X-12ULEP	30	6	20	20	0.73	7.22
62	D5NX-8LEP	30	6	30	20	0.45	5.35
63	D5NX-12LEP	30	6	30	20	0.68	5.45
64	D5X-6ULEP	30	6	20	20	0.37	3.31
65	D5XRRRI-8	32	6	50	20	0.32	3.11
66	D5XRRRI-12	32	6	50	20	0.48	3.21
67	DD5X-12ULP	37	24	25	20	0.17	0.86
68	DD5X-4ULP	37	24	25	20	0.06	0.66
69	DD5X-6ULP	37	24	25	20	0.09	0.45
70	DD5X-8ULP	37	24	25	20	0.12	0.76
71	D6NX-12LEP	31	6	35	20	0.76	6.49
72	D6NX-4LEP	31	6	35	20	0.25	6.29
73	D6NX-6LEP	31	6	35	20	0.38	2.98
74	D6NX-8LEP	31	6	35	20	0.51	6.39
75	D6X-12ULEP	30	6	25	20	0.81	8.47
76	D6X-12URLE	27	6	45	20	0.61	4.63
77	D6X-4ULEP	30	6	25	20	0.27	8.27
78	D6X-6ULEP	30	6	25	20	0.41	3.87
79	D6X-6ULRE	27	6	45	20	0.30	2.14
80	D6X-8ULEP	30	6	25	20	0.54	8.37
81	D6X-8URLE	27	6	45	20	0.41	4.53
82	DD6X-12ULP	36	24	25	20	0.26	1.57
83	DD6X-4ULP	36	24	25	20	0.09	1.37
84	DD6X-6ULP	36	24	25	20	0.13	0.77
85	DD6X-8ULP	36	24	25	20	0.17	1.47
86	M1X-4GEP	30	6	35	20	0.05	0.35
87	M1X-6GEP	30	6	35	20	0.08	0.31
88	M1X-8GEP	30	6	35	20	0.10	0.45
89	M1X-12GEP	30	6	35	20	0.15	0.55
90	M1X-12EP	28	6	35	20	0.21	0.72
91	M1X-6EP	28	6	35	20	0.11	0.39
92	M1X-8EP	28	6	35	20	0.14	0.62
93	M1XD-12GEP	30	6	35	20	0.14	0.52
94	M1XD-8GEP	30	6	35	20	0.09	0.42
95	M1X-12XGE	26	6	35	20	0.23	0.79
96	M1X-8XGE	26	6	35	20	0.15	0.69
97	M3NX-12GEP	29	6	30	20	0.45	2.94
98	M3NX-8GEP	29	6	30	20	0.30	2.84
99	M3X-12EP	29	6	30	20	0.45	2.92
100	M3X-12GEP	29	6	30	20	0.39	2.41
101	M3X-6EP	29	6	30	20	0.22	1.38
102	M3X-8EP	29	6	30	20	0.30	2.82
103	M3X-8GEP	29	6	30	20	0.26	2.31
104	M4NX-12GEP	29	6	30	20	0.51	3.54
105	M4NX-8GEP	29	6	30	20	0.34	3.44
106	M4X-12EP	29	6	30	20	0.53	3.78
107	M4X-12GEP	29	6	30	20	0.49	3.33
108	M4X-6GEP	29	6	30	20	0.24	1.56
109	M4X-8EP	29	6	30	20	0.36	3.68
110	M4X-8GEP	29	6	30	20	0.33	3.23
111	M5NX-12EP	30	6	30	20	0.74	7.29
112	M5NX-8EP	30	6	30	20	0.49	7.19
113	M5NX-12GEP	30	6	30	20	0.62	5.54
114	M5NX-8GEP	30	6	30	20	0.41	5.44
115	M5X-4EP	30	6	30	20	0.22	6.06
116	M5X-6EP	30	6	30	20	0.33	2.88
117	M5X-8EP	30	6	30	20	0.45	6.16
118	M5X-12EP	30	6	30	20	0.67	6.26
119	M5X-4GEP	30	6	30	20	0.20	5.02
120	M5X-6GEP	30	6	30	20	0.30	2.41
121	M5X-8GEP	30	6	30	20	0.40	5.12

122	M5X-10GEP	30	6	30	20	0.50	3.96
123	M5X-12GEP	30	6	30	20	0.60	5.22
124	ME5X-12GP	27	6	25	20	0.55	4.62
125	ME5X-4GP	27	6	25	20	0.18	4.42
126	ME5X-6GP	27	6	25	20	0.27	2.14
127	ME5X-8GP	27	6	25	20	0.37	4.52
128	P1X50-12EP	31	6	30	20	0.26	0.88
129	P1X50-8EP	31	6	30	20	0.17	0.78
130	P4NX-12EP	31	6	30	20	0.67	6.19
131	P4NX-8EP	31	6	30	20	0.44	6.09
132	P4X-12EP	31	6	30	20	0.62	5.51
133	P4X-8EP	31	6	30	20	0.41	5.41

Application Data - Medium Temp

Line	Model	Discharge Air Temp °F	Defrost	Defrost	Sat. Evap Temp °F	Flow Rate (GPM)	Pressure Drop (psi)
			Freq (hours)	Duration (min.)			
134	E1-12	27	6	30	20	0.23	0.77
135	E1-8	27	6	30	20	0.15	0.67
136	E1S-12	27	6	30	20	0.23	0.77
137	E1S-8	27	6	30	20	0.15	0.67
138	E2-4	27	6	30	20	0.14	2.07
139	E2-6	27	6	30	20	0.21	1.08
140	E2-8	27	6	30	20	0.28	2.17
141	E2-12	27	6	30	20	0.42	2.27
142	E2V-4	27	6	30	20	0.14	2.07
143	E2V-6	27	6	30	20	0.21	1.08
144	E2V-8	27	6	30	20	0.28	2.17
145	E2V-12	27	6	30	20	0.42	2.27
146	E2S-12	28	6	40	20	0.37	1.87
147	E2S-8	28	6	40	20	0.25	1.77
148	E2SP-4	28	6	40	20	0.14	1.96
149	E2SP-6	28	6	40	20	0.21	1.04
150	E2SP-8	28	6	40	20	0.27	2.06
151	E2SP-12	28	6	40	20	0.41	2.16
152	E2S-8	28	6	40	20	0.25	1.77
153	E2S-12	28	6	40	20	0.37	1.87
154	E3-8	29	6	40	20	0.38	3.31
155	E3-12	29	6	40	20	0.56	3.41
156	E3-6	29	6	40	20	0.28	1.60
157	E3S-8	29	6	40	20	0.38	3.31
158	E3S-12	29	6	40	20	0.56	3.41
159	E3XC-8	29	6	40	20	0.38	3.31
160	E3XC-12	29	6	40	20	0.56	3.41
161	E4-12	29	6	40	20	0.59	4.41
162	E4-8	29	6	40	20	0.39	4.31
163	E5-12	29	6	35	20	0.67	5.37
164	E5-8	29	6	35	20	0.45	5.27
165	ESBD-8	25	12	90	20	0.13	0.59
166	ESBD-12	25	12	90	20	0.20	0.69
167	ESBDHV-4	27	12	90	20	0.07	0.57
168	ESBDHV-6	27	12	90	20	0.11	0.41
169	ESBDHV-8	27	12	90	20	0.15	0.67
170	ESBDHV-12	27	12	90	20	0.22	0.77
171	ESBDS-4	25	12	90	20	0.07	0.49
172	ESBDS-6	25	12	90	20	0.10	0.37
173	ESBDS-8	25	12	90	20	0.13	0.59
174	ESBDS-12	25	12	90	20	0.20	0.69
175	ES1-4	28	12	90	20	0.04	0.26
176	ES1-6	28	12	90	20	0.06	0.27
177	ES1-8	28	12	90	20	0.08	0.36
178	ES1-12	28	12	90	20	0.12	0.46
179	ES1S-8	28	12	90	20	0.08	0.36

180	ES1S-12	28	12	90	20	0.12	0.46
181	ESGMS-8	27	24	90	20		
182	ESGMS-12	27	24	90	20		
183	ESGMS-6	27	24	90	20		
184	RI1-8	27	4	20	20	0.39	0.27
185	RI1-12	27	4	20	20	0.58	0.48
186	RI1-14	27	4	20	20	0.68	0.66
187	RI1-16	27	4	20	20	0.78	0.89
188	RI2-8	27	4	20	20	0.44	0.29
189	RI2-10	27	4	20	20	0.56	0.40
190	RI2-12	27	4	20	20	0.67	0.55
191	RI2-14	27	4	20	20	0.78	0.77
192	RI2-16	27	4	20	20	0.89	1.06
193	RI3-8	27	4	20	20	0.56	0.33
194	RI3-10	27	4	20	20	0.70	0.48
195	RI3-12	27	4	20	20	0.84	0.72
196	RI3-14	27	4	20	20	0.98	1.03
197	RI3-16	27	4	20	20	1.12	1.45
198	RI4-10	27	4	20	20	0.88	0.61
199	RI4-12	27	4	20	20	1.06	0.95
200	RI4-14	27	4	20	20	1.24	1.41
201	RI4-16	27	4	20	20	1.41	2.01
202	BEXD-8	31	12	70	20	0.14	0.84
203	RM-2	32	24	60	20	0.07	0.83
204	RM-3	32	24	60	20	0.10	2.30
205	RM-4	32	24	60	20	0.13	0.87
206	RM-5	32	24	60	20	0.16	1.49
207	SMBT-4	24	12	90	20	0.06	0.47
208	SMBT-6	24	12	90	20	0.10	0.37
209	SMBT-8	24	12	90	20	0.13	0.57
210	SMBT-12	24	12	90	20	0.19	0.67
211	SMGV-8	25	24	70	20	0.06	0.35
212	SMGV-12	25	24	70	20	0.10	0.45
213	SMGT-8	24	24	70	20	0.13	0.66
214	SMGT-12	24	24	70	20	0.19	0.76

215	F-12	24	24	60	20	0.12	0.83
216	F-12G	24	24	60	20	0.14	0.97
217	F-8	24	24	60	20	0.08	1.61
218	F-8G	24	24	60	20	0.09	1.89
219	FI-12	24	24	60	20	0.18	1.76
220	FI-12G	24	24	60	20	0.20	2.09
221	FI-8	24	24	60	20	0.12	3.52
222	FI-8G	24	24	60	20	0.13	4.19
223	FN-12	24	24	60	20	0.13	0.88
224	FN-12G	24	24	60	20	0.14	0.95
225	FN-8	24	24	60	20	0.09	1.70
226	FN-8G	24	24	60	20	0.09	1.84
227	FW-12	24	24	60	20	0.19	0.68
228	FW-12G	24	24	60	20	0.20	0.73
229	FW-4	24	24	60	20	0.06	0.34
230	FW-4G	24	24	60	20	0.07	0.36
231	FW-6	24	24	60	20	0.10	0.66
232	FW-6G	24	24	60	20	0.10	0.71
233	FW-8	24	24	60	20	0.13	1.18
234	FW-8G	24	24	60	20	0.14	1.28
235	FW-E	24	24	60	20	0.05	0.64
236	FW-E-G	24	24	60	20	0.06	0.80

CO2 Saturation Points (From Refprop)

Temp °F	Pressure psia	Liquid Density lbm/ft³	Vapor Density lbm/ft³	Liquid Enthalpy Btu/lbm	Vapor Enthalpy Btu/lbm	Liquid Entropy Btu/lbm-°R	Vapor Entropy Btu/lbm-°R
-1	300.630	63.920	3.406	67.995	187.890	0.202	0.464
-2	295.580	64.083	3.346	67.477	187.910	0.201	0.464
-3	290.590	64.244	3.286	66.961	187.940	0.200	0.465
-4	285.670	64.404	3.228	66.445	187.960	0.199	0.466
-5	280.810	64.564	3.170	65.931	187.970	0.198	0.466
-6	276.010	64.723	3.113	65.418	187.990	0.197	0.467
-7	271.270	64.881	3.057	64.907	188.000	0.196	0.468
-8	266.580	65.038	3.002	64.396	188.010	0.195	0.468
-9	261.960	65.194	2.948	63.887	188.020	0.194	0.469
-10	257.400	65.349	2.894	63.379	188.020	0.192	0.470
-11	252.900	65.504	2.842	62.872	188.030	0.191	0.470
-12	248.450	65.658	2.790	62.366	188.030	0.190	0.471
-13	244.060	65.811	2.739	61.861	188.030	0.189	0.472
-14	239.730	65.963	2.689	61.357	188.020	0.188	0.472
-15	235.450	66.114	2.640	60.855	188.020	0.187	0.473
-16	231.240	66.265	2.592	60.353	188.010	0.186	0.474
-17	227.070	66.415	2.544	59.852	188.000	0.185	0.474
-18	222.970	66.565	2.497	59.353	187.990	0.184	0.475
-19	218.910	66.714	2.451	58.854	187.980	0.183	0.476
-20	214.910	66.862	2.405	58.356	187.960	0.181	0.476
-21	210.970	67.009	2.360	57.859	187.940	0.180	0.477
-22	207.080	67.156	2.316	57.363	187.920	0.179	0.478
-23	203.240	67.302	2.273	56.868	187.900	0.178	0.478
-24	199.460	67.447	2.230	56.374	187.880	0.177	0.479
-25	195.720	67.592	2.188	55.880	187.860	0.176	0.480
-26	192.040	67.736	2.146	55.388	187.830	0.175	0.480
-27	188.410	67.880	2.106	54.896	187.800	0.174	0.481
-28	184.830	68.023	2.065	54.405	187.770	0.173	0.482
-29	181.300	68.165	2.026	53.915	187.740	0.171	0.482
-30	177.830	68.307	1.987	53.426	187.710	0.170	0.483

15	390.270	61.182	4.523	76.484	187.130	0.220	0.453
16	396.450	61.001	4.603	77.029	187.060	0.221	0.452
17	402.710	60.819	4.684	77.576	186.980	0.222	0.452
18	409.030	60.635	4.767	78.124	186.900	0.223	0.451
19	415.430	60.450	4.852	78.675	186.820	0.224	0.450
20	421.910	60.263	4.937	79.228	186.730	0.226	0.450
21	428.450	60.075	5.025	79.783	186.640	0.227	0.449
22	435.070	59.885	5.114	80.340	186.540	0.228	0.448
23	441.770	59.694	5.204	80.899	186.450	0.229	0.448
24	448.540	59.501	5.296	81.461	186.340	0.230	0.447
25	455.380	59.307	5.390	82.025	186.240	0.231	0.446

Example $Btu/hr = \dot{m} \cdot (h_{out} - h_{in})$
 $\dot{m} = Btu/hr / (h_{out} - h_{in})$
FW-12 550.000 -20.000 12.000

\dot{m} (lbm/hr)	Btu/hr (Btu/hr)	h_{out} (Btu/lbm)	h_{in} (Btu/lbm)
101.8487	6600	123.158	58.356

Volume Flow Rate
(ft³/hr) (gpm)
1.523267 0.189913

Mass Flow Rate
lbm/min = **1.697**

1.840 110.4 189.090 188.92 18.768

Example $Btu/hr = \dot{m} \cdot (h_{out} - h_{in})$
 $\dot{m} = Btu/hr / (h_{out} - h_{in})$
FW-12 430.000 19.000 12.000

\dot{m} (lbm/hr)	Btu/hr (Btu/hr)	h_{out} (Btu/lbm)	h_{in} (Btu/lbm)
95.42744	5160	132.748	78.675

Volume Flow Rate
(ft³/hr) (gpm)
1.578618 0.196814

Mass Flow Rate
lbm/min = **1.590**