

### Boiler Horsepower, Heat Transfer Surface Area, Heat Exchanger Volume and Heat Exchanger Water Content

#### MVB

Type Efficiency	Model No.	Output		Heat Transfer Surface Area (sq. ft.)	Heat Transfer Surface Area to HP Ratio	Water Content (Gallons)
		MBTUH	HP			
<b>Heating Boilers (Type H) 86.2% Efficiency</b>	503A	431	12.88	47	3.65	2.4
	753A	646	19.30	70	3.63	2.7
	1003A	861	25.72	94	3.65	3.0
	1253A	1077	32.17	117	3.64	3.3
	1503A	1293	38.63	140	3.62	3.6
	1753A	1509	45.08	164	3.64	3.9
	2003A	1723	51.47	187	3.63	4.2
<b>Heating Boilers (Type H) 85% Efficiency</b>	2503	2126	63.51	305	4.80	10.9
	3003	2550	76.18	352	4.62	11.6
	3503	2975	88.87	399	4.49	12.2
	4003	3399	101.54	446	4.39	12.8
<b>Heating Boilers (Type H) 84% Efficiency</b>	504A	420	12.55	47	3.75	2.4
	754A	630	18.82	70	3.72	2.7
	1104A	924	27.60	94	3.41	3.0
	1504A	1260	37.64	117	3.11	3.3
	2004A	1679	50.16	164	3.27	3.9
<b>DHW Heaters (Type WH) 87% Efficiency</b>	503A	435	12.99	47	3.62	2.4
	753A	653	19.51	70	3.59	2.7
	1003A	869	25.96	94	3.62	3.0
	1253A	1088	32.50	117	3.60	3.3
	1503A	1305	38.98	140	3.59	3.6
	1753A	1523	45.50	164	3.60	3.9
	2003A	1739	51.95	187	3.60	4.2
<b>DHW Heaters (Type WH) 83% Efficiency</b>	504A	415	12.70	47	3.70	2.4
	754A	623	19.04	70	3.68	2.7
<b>DHW Heaters (Type WH) 83.3% Efficiency</b>	1104A	870	27.93	94	3.37	3.0
	1504A	1187	38.09	117	3.07	3.3
	2004A	1583	50.75	164	3.23	3.9
<b>DHW Heaters (Type WH) 85% Efficiency</b>	2503	2126	63.51	305	4.80	10.9
	3003	2550	76.18	352	4.62	11.6
	3503	2975	88.87	399	4.49	12.2
	4003	3399	101.54	446	4.39	12.8

# HI DELTA

Type <i>Efficiency</i>	Model No.	Output		Heat Transfer Surface Area (sq. ft.)	Heat Transfer Surface Area to HP Ratio	Water Content (Gallons)
		MBTUH	HP			
<b>Heating Boilers (Type H) 85% AFUE (HD101-HD301) 84% Efficiency (Standard)</b>	HD101	84	2.51	13	5.18	0.15
	HD151	126	3.76	17	4.52	0.19
	HD201	167	4.99	22	4.41	0.23
	HD251	210	6.27	26	4.15	0.27
	HD301	251	7.49	30	4.01	0.31
	HD401	335	10.00	39	3.90	0.39
	302B	252	7.53	40	5.31	1.10
	402B	335	10.01	51	5.10	1.30
	502B	420	12.55	62	4.94	1.40
	652B	546	16.31	79	4.84	1.60
	752B	630	18.82	90	4.78	1.80
	902B	756	22.58	106	4.69	2.00
	992B	832	24.85	109	4.39	2.30
	1262B	1058	31.61	135	4.27	2.60
	1532B	1285	38.39	162	4.22	3.00
	1802B	1512	45.17	188	4.16	3.40
	2002B	1679	50.16	215	4.29	3.70
2072B	1739	51.95	215	4.14	3.70	
2342B	1966	58.73	242	4.12	4.10	
<b>DHW Heaters (Type WH) 83% Efficiency</b>	HD101	83	2.54	13	5.12	0.15
	HD151	125	3.82	17	4.45	0.19
	HD201	165	5.08	22	4.33	0.23
	HD251	208	6.33	26	4.11	0.27
	HD301	248	7.61	30	3.94	0.31
	HD401	331	10.15	39	3.84	0.39
<b>DHW Heaters (Type WH) 83.1% Efficiency</b>	302B	249	7.62	40	5.25	1.10
	402B	332	10.13	51	5.04	1.30
	502B	416	12.70	62	4.88	1.40
	652B	540	16.52	79	4.78	1.60
	752B	623	19.06	90	4.72	1.80
	902B	748	22.85	106	4.64	2.00
	992B	823	25.15	109	4.33	2.30
	1262B	1047	31.99	135	4.22	2.60
	1532B	1271	38.86	162	4.17	3.00
	1802B	1496	45.71	188	4.11	3.40
	2002B	1661	50.75	215	4.24	3.70
	2072B	1720	52.58	215	4.09	3.70
2342B	1945	59.42	242	4.07	4.10	

## HI DELTA (CONT'D)

Type Efficiency	Model No.	Output		Heat Transfer Surface Area (sq. ft.)	Heat Transfer Surface Area to HP Ratio	Water Content (Gallons)
		MBTUH	HP			
Pool Heaters (Type P) 85% Efficiency	302B	255	7.62	40	5.25	1.10
	402B	339	10.13	51	5.04	1.30
	502B	425	12.70	62	4.88	1.40
	652B	553	16.52	79	4.78	1.60
	752B	638	19.06	90	4.72	1.80
	902B	765	22.85	106	4.64	2.00
	992B	842	25.15	109	4.33	2.30
	1262B	1071	31.99	135	4.22	2.60
	1532B	1301	38.86	162	4.17	3.00
	1802B	1530	45.71	188	4.11	3.40
	2002B	1699	50.75	215	4.24	3.70
	2072B	1760	52.58	215	4.09	3.70
2342B	1989	59.42	242	4.07	4.10	

## RAYTHERM

Type Efficiency	Model No.	Output		Heat Transfer Surface Area (sq. ft.)	Heat Transfer Surface Area to HP Ratio	Water Content (Gallons)
		MBTUH	HP			
Heating Boilers (Type H) and DHW Heaters (Type WH) 82% Efficiency	181/182	148	4.42	16	3.62	0.5
	260/261	216	6.45	22	3.41	0.5
	330/331	274	8.18	26	3.18	0.6
	400/401	327	9.77	31	3.17	0.7
Heating Boilers (Type H), DHW Heaters (Type WH) and Pool Heaters (Type P) 82% Efficiency	514	419	12.53	43	3.43	1.4
	624	514	15.35	51	3.32	1.4
	724	595	17.77	58	3.26	1.6
	824	677	20.21	66	3.27	1.8
	926	759	22.67	78	3.44	2.0
	962	789	23.56	78	3.31	2.0
	1083	888	26.53	90	3.39	2.3
	1125	922	27.54	90	3.27	2.3
	1178	966	28.86	98	3.40	2.4
	1223	1003	29.95	98	3.27	2.4
	1287	1055	31.52	107	3.40	2.5
	1336	1096	32.74	107	3.27	2.5
	1414	1159	34.61	118	3.41	2.6
	1468	1203	35.94	118	3.28	2.6
	1571	1287	38.45	129	3.36	2.7
	1631	1337	39.93	129	3.23	2.7
	1758	1442	43.06	143	3.32	2.8
1826	1497	44.72	143	3.20	2.8	
2100	1722	51.44	176	3.42	3.8	
2500	2049	61.21	208	3.40	4.2	
H, WH and P 82% Combustion Efficiency	3001	2460	73.49	247	3.36	4.7
	3500	2870	85.74	287	3.35	5.3
	4001	3280	97.98	326	3.33	5.8

## XTHERM

Type Efficiency	Model No.	Output		Heat Transfer Surface Area (sq. ft.)	Heat Transfer Surface Area to HP Ratio	Water Content (Gallons)
		MBTUH	HP			
Heating Boilers (Type H) 96% Efficiency	1005A	959	28.65	94	3.28	11.8
	1505A	1440	43.02	140	3.25	12.4
	2005A	1919	57.33	187	3.26	15.6
Heating Boilers (Type H) 95.1% Efficiency	2505	2378	71.04	305	4.29	25
	3005	2853	85.23	352	4.13	26
	3505	3329	99.45	399	4.01	26.9
	4005	3804	113.64	446	3.92	33.8
DHW and Pool (Type WH & P) 97% Efficiency	1005A	969	28.95	94	3.25	11.8
	1505A	1455	43.47	140	3.22	12.4
	2005A	1939	57.92	187	3.23	15.6
DHW and Pool (Type H) 95.1% Efficiency	2505	2378	71.04	305	4.29	25
	3005	2853	85.23	352	4.13	26
	3505	3329	99.45	399	4.01	26.9
	4005	3804	113.64	446	3.92	33.8

## XFYRE

Type Efficiency	Model No.	Output		Heat Transfer Surface Area (sq. ft.)	Heat Transfer Surface Area to HP Ratio	Water Content (Gallons)
		MBTUH	HP			
Heating Boilers (Type H) 94% Efficiency	300A	282	8.42	32.7	3.88	2.9
	400A	375	11.20	41.8	3.73	3.6
	500A	470	14.04	50.8	3.62	4.2
	700A	658	19.66	58.1	2.96	5
	850A	799	23.87	65.3	2.74	5.8
DHW Heaters (Type WH) 95% Efficiency	300A	285	8.52	32.7	3.83	2.9
	400A	379	11.33	41.8	3.69	3.6
	500A	475	14.20	50.8	3.58	4.2
	700A	665	19.88	58.1	2.92	5
	850A	808	24.16	65.3	2.70	5.8

## XPAK

Type Efficiency	Model No.	Output		Heat Transfer Surface Area (sq. ft.)	Heat Transfer Surface Area to HP Ratio	Water Content (Gallons)
		MBTUH	HP			
Heating Boilers (Type H) Up to 92.6% Efficiency	85	80	2.39	10.1	4.23	0.45
	120	111	3.31	13.2	3.99	0.61

## XPAK

Type Efficiency	Model No.	Output		Heat Transfer Surface Area (sq. ft.)	Heat Transfer Surface Area to HP Ratio	Water Content (Gallons)
		MBTUH	HP			
Heating Boilers (Type H) Up to 92.6% Efficiency	88AR	85	2.54	7.53	2.96	0.45
	108AR	110	3.28	9.46	2.88	0.61
	198AR	199	5.94	16.34	2.75	1.61
	278AR	275	8.21	22.71	2.77	2.61
	398A	399	11.91	36.56	3.07	3.61