

DoubleMax™

**Instantaneous indirect double-wall
water heater**

Sizing Guide

APARTMENTS, CONDOMINIUMS, HOTELS, MOTELS



The *DoubleMax™* Sizing Guide shows requirements for multiple dwellings. The bathing or shower load depends on the building size. Take into account the number of units and unit occupancy, the type of shower heads utilized and the peak demand period over which the bathing load is spread. The requirements for hot water for other large loads such as clothes washers, have not been considered. Provide additional storage and recovery capacity to satisfy the needs of these additional loads. The requirements of recovery capacity and storage capacity may, in some areas, be fixed on a per apartment or per person basis by building codes or housing authorities. In these cases, the designer must meet the specified requirements.

To use the tables determine number of apartments from column (1). Secondly determine number of occupants from column (1). If average occupancy differs from the average per unit, disregard column (1) and use column (2) "the actual number of person" for estimating the gallons required (3), the DoubleMax model & No. of units (4), the boiler size (5). Two methods of installations are proposed: DoubleMax UNITS ONLY and DoubleMax UNITS & THERMAL STORAGE, adding extra flexibility.

Sizing guide : Apartments and Condominiums

3 HOUR PEAK PERIOD:

Use Dormitories sizing guide if apartment building houses students.

- Boiler water and DoubleMax at 180°F.
- Thermostatic mixing valve at 140°F (maximum setting).
- Domestic cold water inlet is no less than 40°F.

Minimum requirements for an average occupancy of 2-1/2 persons per apartment & 5 minutes showers and 3 GPM shower flow rate. Includes shower load and other minor uses such as lavatories and residential dishwasher. If shower flow up to 5 GPM then multiply gallon requirements in chart (column 3) by 1.6

NOTE: Other major appliances or hot water fixtures such as clothes washers, coin-operated washing machines, whirlpools, commercial dishwashers or multiples showers will increase the total demand. Add extra hot water generating capacity accordingly. Consult manufacturers specifications for hot water consumption.

			OPTION A : DoubleMax UNITS ONLY			OPTION B : DoubleMax UNITS & THERMAL MASS STORAGE			
Number of Apartments 2 & 1/2 Persons (1)	Actual No. Of Persons (2)	Gallons Required 3 Hour Period (3)	DoubleMax Model No. Number of units (4)	Boiler Size Net Output BTU /hour (5)	Pump Flow Rate US gpm 20°F (TD) (6)	DoubleMax Model No. Number of units (7)	Thermal Mass Storage Model No. (8)	Boiler Size Net Output BTU /hour (9)	Pump Flow Rate US gpm 20°F (TD) (10)
1 to 4	10	118	1 x DoubleMax 50-4	178 263	18	1 x DoubleMax 50-4	1 x BUFFMAX 50	17 237	2
5 to 6	15	180	1 x DoubleMax 50-4	256 046	26	1 x DoubleMax 50-4	1 x BUFFMAX 50	63 891	6
7 to 8	20	238	1 x DoubleMax 50-4	293 065	29	1 x DoubleMax 50-4	1 x BUFFMAX 50	137 931	14
9 to 10	25	293	1 x DoubleMax 80-5	216 225	22	1 x DoubleMax 80-5	1 x BUFFMAX 50	61 527	6
11 to 15	38	421	1 x DoubleMax 80-5	305 193	31	1 x DoubleMax 80-5	1 x BUFFMAX 80	93 735	9
16 to 20	50	541	1 x DoubleMax 120-9	188 773	19	1 x DoubleMax 120-9	1 x BUFFMAX 80	114 541	12
21 to 25	63	655	1 x DoubleMax 120-9	268 007	27	1 x DoubleMax 120-9	1 x BUFFMAX 80	147 267	15
26 to 30	75	764	1 x DoubleMax 120-9	366 311	37	1 x DoubleMax 120-9	1 x BUFFMAX 80	178 778	18
31 to 35	88	869	1 x DoubleMax 120-9	432 613	43	1 x DoubleMax 120-9	1 x BUFFMAX 120	202 326	20
36 to 40	100	971	1 x DoubleMax 120-9	506 746	51	1 x DoubleMax 120-9	1 x BUFFMAX 120	232 468	23
41 to 45	113	1 069	1 x DoubleMax 120-9	570 657	57	1 x DoubleMax 120-9	1 x BUFFMAX 120	260 618	26
46 to 50	125	1 166	1 x DoubleMax 120-9	679 015	68	1 x DoubleMax 120-9	2 x BUFFMAX 120	273 223	27
51 to 55	138	1 260	2 x DoubleMax 120-9	305 090	31	2 x DoubleMax 120-9	1 x BUFFMAX 120	283 335	28
56 to 60	150	1 352	2 x DoubleMax 120-9	330 816	33	2 x DoubleMax 120-9	1 x BUFFMAX 120	309 197	31
61 to 65	163	1 443	2 x DoubleMax 120-9	356 575	36	2 x DoubleMax 120-9	1 x BUFFMAX 120	335 248	34
66 to 70	175	1 531	2 x DoubleMax 120-9	381 232	38	2 x DoubleMax 120-9	1 x BUFFMAX 120	360 060	36
71 to 75	188	1 619	2 x DoubleMax 120-9	405 902	41	2 x DoubleMax 120-9	1 x BUFFMAX 120	384 892	39
76 to 80	200	1 704	2 x DoubleMax 120-9	429 754	43	2 x DoubleMax 120-9	1 x BUFFMAX 120	408 912	41
81 to 85	213	1 789	2 x DoubleMax 120-9	457 235	46	2 x DoubleMax 120-9	1 x BUFFMAX 120	432 951	43
86 to 90	225	1 872	2 x DoubleMax 120-9	510 318	51	2 x DoubleMax 120-9	1 x BUFFMAX 120	456 455	46
91 to 95	238	1 954	2 x DoubleMax 120-9	566 933	57	2 x DoubleMax 120-9	1 x BUFFMAX 120	479 702	48
96 to 100	250	2 035	2 x DoubleMax 120-9	621 124	62	2 x DoubleMax 120-9	1 x BUFFMAX 120	502 691	50
101 to 110	275	2 194	2 x DoubleMax 120-9	708 347	71	2 x DoubleMax 120-9	2 x BUFFMAX 120	528 193	53
111 to 120	300	2 349	2 x DoubleMax 120-9	818 589	82	2 x DoubleMax 120-9	2 x BUFFMAX 120	572 797	58
121 to 130	325	2 500	2 x DoubleMax 120-9	894 715	90	2 x DoubleMax 120-9	2 x BUFFMAX 120	615 471	62
131 to 140	350	2 649	2 x DoubleMax 120-9	978 906	98	2 x DoubleMax 120-9	2 x BUFFMAX 120	658 567	66
141 to 150	375	2 794	2 x DoubleMax 120-9	1 051 988	106	2 x DoubleMax 120-9	2 x BUFFMAX 120	699 657	70
151 to 160	400	2 937	2 x DoubleMax 120-9	1 122 123	113	2 x DoubleMax 120-9	3 x BUFFMAX 120	722 132	73
161 to 170	425	3 077	2 x DoubleMax 120-9	1 203 331	121	2 x DoubleMax 120-9	3 x BUFFMAX 120	763 457	77
171 to 180	450	3 214	2 x DoubleMax 120-9	1 273 422	128	2 x DoubleMax 120-9	3 x BUFFMAX 120	802 704	81
181 to 190	475	3 350	2 x DoubleMax 120-9	1 342 717	135	2 x DoubleMax 120-9	3 x BUFFMAX 120	841 705	85
191 to 200	500	3 483	2 x DoubleMax 120-9	1 410 034	142	2 x DoubleMax 120-9	3 x BUFFMAX 120	879 908	88
201 to 210	525	3 614	2 x DoubleMax 120-9	1 442 928	145	2 x DoubleMax 120-9	3 x BUFFMAX 120	917 589	92
211 to 220	550	3 744	3 x DoubleMax 120-9	1 218 800	122	3 x DoubleMax 120-9	3 x BUFFMAX 120	938 862	94
221 to 230	575	3 871	3 x DoubleMax 120-9	1 295 044	130	3 x DoubleMax 120-9	3 x BUFFMAX 120	975 800	98
231 to 240	600	3 997	3 x DoubleMax 120-9	1 352 899	136	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 010 660	101
241 to 250	625	4 121	3 x DoubleMax 120-9	1 158 176	116	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 019 102	102
251 to 260	650	4 243	3 x DoubleMax 120-9	1 224 642	123	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 053 640	106
261 to 270	675	4 364	3 x DoubleMax 120-9	1 290 510	130	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 087 918	109
271 to 280	700	4 484	3 x DoubleMax 120-9	1 326 994	133	3 x DoubleMax 120-9	4 x BUFFMAX 120	1 102 164	111
281 to 290	725	4 602	3 x DoubleMax 120-9	1 391 095	140	3 x DoubleMax 120-9	4 x BUFFMAX 120	1 135 785	114
291 to 300	750	4 718	3 x DoubleMax 120-9	1 456 188	146	3 x DoubleMax 120-9	4 x BUFFMAX 120	1 168 872	117
301 to 350	875	5 281	3 x DoubleMax 120-9	1 701 550	171	3 x DoubleMax 120-9	5 x BUFFMAX 120	1 309 753	132
351 to 400	1 000	5 816	3 x DoubleMax 120-9	1 979 380	199	3 x DoubleMax 120-9	6 x BUFFMAX 120	1 446 305	145

Sizing guide : Apartments and Condominiums

3 HOUR PEAK PERIOD:

Use Dormitories sizing guide if apartment building houses students.

- Boiler water and DoubleMax at **160°F and return at 130°F**
- Thermostatic mixing valve at 140°F (maximum setting).
- Domestic cold water inlet is no less than 40°F.

Minimum requirements for an average occupancy of 2-1/2 persons per apartment & 5 minutes showers and 3 GPM shower flow rate. Includes shower load and other minor uses such as lavatories and residential dishwasher. If shower flow up to 5 GPM then multiply gallon requirements in chart (column 3) by 1.6

NOTE: Other major appliances or hot water fixtures such as clothes washers, coin-operated washing machines, whirlpools, commercial dishwashers or multiples showers will increase the total demand. Add extra hot water generating capacity accordingly. Consult manufacturers specifications for hot water consumption.

			OPTION A : DoubleMax UNITS ONLY			OPTION B : DoubleMax UNITS & THERMAL MASS STORAGE			
Number of Apartments 2 & 1/2 Persons (1)	Actual No. Of Persons (2)	Gallons Required 3 Hour Period (3)	DoubleMax Model No. Number of units (4)	Boiler Size Net Output BTU /hour (5)	Pump Flow Rate US gpm 30°F (TD) (6)	DoubleMax Model No. Number of units (7)	Thermal Mass Storage Model No. (8)	Boiler Size Net Output BTU /hour (9)	Pump Flow Rate US gpm 30°F (TD) (10)
1 to 4	10	118	1 x DoubleMax 80-5	152 246	10	1 x DoubleMax 80-5	1 x BUFFMAX 50	25 000	2
5 to 6	15	180	1 x DoubleMax 80-5	232 721	16	1 x DoubleMax 80-5	1 x BUFFMAX 80	50 000	3
7 to 8	20	238	1 x DoubleMax 120-9	101 539	7	1 x DoubleMax 120-9	1 x BUFFMAX 80	50 000	3
9 to 10	25	293	1 x DoubleMax 120-9	155 694	10	1 x DoubleMax 120-9	1 x BUFFMAX 80	56 640	4
11 to 15	38	421	1 x DoubleMax 120-9	242 833	16	1 x DoubleMax 120-9	1 x BUFFMAX 80	92 574	6
16 to 20	50	541	1 x DoubleMax 120-9	350 520	23	1 x DoubleMax 120-9	1 x BUFFMAX 120	122 475	8
21 to 25	63	655	1 x DoubleMax 120-9	426 270	29	1 x DoubleMax 120-9	2 x BUFFMAX 120	142 770	10
26 to 30	75	764	1 x DoubleMax 120-9	533 146	36	1 x DoubleMax 120-9	2 x BUFFMAX 120	175 560	12
31 to 35	88	869	2 x DoubleMax 120-9	209 857	14	2 x DoubleMax 120-9	1 x BUFFMAX 120	194 574	13
36 to 40	100	971	2 x DoubleMax 120-9	248 865	17	2 x DoubleMax 120-9	1 x BUFFMAX 120	223 556	15
41 to 45	113	1 069	2 x DoubleMax 120-9	309 499	21	2 x DoubleMax 120-9	1 x BUFFMAX 120	251 076	17
46 to 50	125	1 166	2 x DoubleMax 120-9	394 773	26	2 x DoubleMax 120-9	1 x BUFFMAX 120	278 778	19
51 to 55	138	1 260	2 x DoubleMax 120-9	454 004	30	2 x DoubleMax 120-9	1 x BUFFMAX 120	305 244	20
56 to 60	150	1 352	2 x DoubleMax 120-9	510 479	34	2 x DoubleMax 120-9	2 x BUFFMAX 120	316 880	21
61 to 65	163	1 443	2 x DoubleMax 120-9	574 819	38	2 x DoubleMax 120-9	2 x BUFFMAX 120	343 396	23
66 to 70	175	1 531	2 x DoubleMax 120-9	634 554	42	2 x DoubleMax 120-9	2 x BUFFMAX 120	368 447	25
71 to 75	188	1 619	2 x DoubleMax 120-9	689 752	46	2 x DoubleMax 120-9	2 x BUFFMAX 120	393 521	26
76 to 80	200	1 704	2 x DoubleMax 120-9	747 647	50	2 x DoubleMax 120-9	2 x BUFFMAX 120	417 788	28
81 to 85	213	1 789	2 x DoubleMax 120-9	777 045	52	2 x DoubleMax 120-9	2 x BUFFMAX 120	442 078	30
86 to 90	225	1 872	2 x DoubleMax 120-9	832 561	56	2 x DoubleMax 120-9	2 x BUFFMAX 120	465 838	31
91 to 95	238	1 954	2 x DoubleMax 120-9	890 422	60	2 x DoubleMax 120-9	3 x BUFFMAX 120	476 530	32
96 to 100	250	2 035	2 x DoubleMax 120-9	946 853	63	2 x DoubleMax 120-9	3 x BUFFMAX 120	499 993	33
101 to 110	275	2 194	2 x DoubleMax 120-9	1 027 957	69	2 x DoubleMax 120-9	3 x BUFFMAX 120	546 178	37
111 to 120	300	2 349	3 x DoubleMax 120-9	719 030	48	3 x DoubleMax 120-9	2 x BUFFMAX 120	577 891	39
121 to 130	325	2 500	3 x DoubleMax 120-9	794 479	53	3 x DoubleMax 120-9	2 x BUFFMAX 120	620 200	42
131 to 140	350	2 649	3 x DoubleMax 120-9	874 936	59	3 x DoubleMax 120-9	3 x BUFFMAX 120	648 454	43
141 to 150	375	2 794	3 x DoubleMax 120-9	946 931	63	3 x DoubleMax 120-9	3 x BUFFMAX 120	689 255	46
151 to 160	400	2 937	3 x DoubleMax 120-9	1 015 567	68	3 x DoubleMax 120-9	3 x BUFFMAX 120	729 519	49
161 to 170	425	3 077	3 x DoubleMax 120-9	1 092 270	73	3 x DoubleMax 120-9	3 x BUFFMAX 120	769 699	52
171 to 180	450	3 214	3 x DoubleMax 120-9	1 160 788	78	3 x DoubleMax 120-9	4 x BUFFMAX 120	794 873	53
181 to 190	475	3 350	3 x DoubleMax 120-9	1 228 382	82	3 x DoubleMax 120-9	4 x BUFFMAX 120	833 389	56
191 to 200	500	3 483	3 x DoubleMax 120-9	1 293 636	87	3 x DoubleMax 120-9	4 x BUFFMAX 120	871 093	58
201 to 210	525	3 614	3 x DoubleMax 120-9	1 327 412	89	3 x DoubleMax 120-9	4 x BUFFMAX 120	908 261	61
211 to 220	550	3 744	3 x DoubleMax 120-9	1 392 154	93	3 x DoubleMax 120-9	5 x BUFFMAX 120	932 110	62
221 to 230	575	3 871	4 x DoubleMax 120-9	1 113 281	75	4 x DoubleMax 120-9	4 x BUFFMAX 120	955 360	64
231 to 240	600	3 997	4 x DoubleMax 120-9	1 172 866	79	4 x DoubleMax 120-9	4 x BUFFMAX 120	990 220	66
241 to 250	625	4 121	4 x DoubleMax 120-9	1 209 839	81	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 025 156	69
251 to 260	650	4 243	4 x DoubleMax 120-9	1 274 586	85	4 x DoubleMax 120-9	5 x BUFFMAX 120	1 045 136	70
261 to 270	675	4 364	4 x DoubleMax 120-9	1 338 744	90	4 x DoubleMax 120-9	5 x BUFFMAX 120	1 079 347	72
271 to 280	700	4 484	4 x DoubleMax 120-9	1 372 534	92	4 x DoubleMax 120-9	5 x BUFFMAX 120	1 113 295	75
281 to 290	725	4 602	4 x DoubleMax 120-9	1 434 990	96	4 x DoubleMax 120-9	5 x BUFFMAX 120	1 146 702	77
291 to 300	750	4 718	4 x DoubleMax 120-9	1 498 372	100	4 x DoubleMax 120-9	6 x BUFFMAX 120	1 165 728	78
301 to 350	875	5 281	4 x DoubleMax 120-9	1 735 329	116	4 x DoubleMax 120-9	7 x BUFFMAX 120	1 311 470	88
351 to 400	1 000	5 816	4 x DoubleMax 120-9	2 004 299	134	4 x DoubleMax 120-9	7 x BUFFMAX 120	1 464 765	98

Sizing guide : Apartments and Condominiums

2 HOUR PEAK PERIOD:

Use 2 hour peak demand if majority of apartment residents need to be somewhere in the morning (working couples, families with school aged children) or public assistance.

- Boiler water and DoubleMax at 180°F.
- Thermostatic mixing valve at 140°F (maximum setting).
- Domestic cold water inlet is no less than 40°F.

Minimum requirements for an average occupancy of 2-1/2 persons per apartment & 5 minutes showers and 3 GPM shower flow rate. Includes shower load and other minor uses such as lavatories and residential dishwasher. If shower flow up to 5 GPM then multiply gallon requirements in chart (column 3) by 1.6

NOTE: Other major appliances or hot water fixtures such as clothes washers, coin-operated washing machines, whirlpools, commercial dishwashers or multiples showers will increase the total demand. Add extra hot water generating capacity accordingly. Consult manufacturers specifications for hot water consumption.

Number of Apartments 2 & 1/2 Persons (1)	Actual No. Of Persons (2)	Gallons Required 2 Hours Period (3)	OPTION A : DoubleMax UNITS ONLY			OPTION B : DoubleMax UNITS & THERMAL MASS STORAGE			
			DoubleMax Model No. Number of units (4)	Boiler Size Net Output BTU /hour (5)	Pump Flow Rate US gpm 20°F (TD) (6)	DoubleMax Model No. Number of units (7)	Thermal Mass Storage Model No. (8)	Boiler Size Net Output BTU /hour (9)	Pump Flow Rate US gpm 20°F (TD) (10)
1 to 4	10	118	1 x DoubleMax 50-4	259 963	26	1 x DoubleMax 50-4	1 x BUFFMAX 50	28 975	3
5 to 6	15	180	1 x DoubleMax 80-5	177 505	18	1 x DoubleMax 80-5	1 x BUFFMAX 50	46 984	5
7 to 8	20	238	1 x DoubleMax 120-9	67 254	7	1 x DoubleMax 120-9	1 x BUFFMAX 80	46 067	5
9 to 10	25	293	1 x DoubleMax 120-9	91 143	9	1 x DoubleMax 120-9	1 x BUFFMAX 80	70 671	7
11 to 15	38	421	1 x DoubleMax 120-9	218 482	22	1 x DoubleMax 120-9	1 x BUFFMAX 120	117 569	12
16 to 20	50	541	1 x DoubleMax 120-9	385 689	39	1 x DoubleMax 120-9	1 x BUFFMAX 120	171 807	17
21 to 25	63	655	1 x DoubleMax 120-9	542 769	54	1 x DoubleMax 120-9	1 x BUFFMAX 120	224 237	23
26 to 30	75	764	2 x DoubleMax 120-9	252 631	25	2 x DoubleMax 120-9	1 x BUFFMAX 120	220 417	22
31 to 35	88	869	2 x DoubleMax 120-9	297 119	30	2 x DoubleMax 120-9	1 x BUFFMAX 120	265 360	27
36 to 40	100	971	2 x DoubleMax 120-9	340 437	34	2 x DoubleMax 120-9	1 x BUFFMAX 120	309 172	31
41 to 45	113	1 069	2 x DoubleMax 120-9	381 629	38	2 x DoubleMax 120-9	1 x BUFFMAX 120	350 626	35
46 to 50	125	1 166	2 x DoubleMax 120-9	422 985	42	2 x DoubleMax 120-9	1 x BUFFMAX 120	392 533	39
51 to 55	138	1 260	2 x DoubleMax 120-9	463 173	47	2 x DoubleMax 120-9	1 x BUFFMAX 120	433 309	44
56 to 60	150	1 352	2 x DoubleMax 120-9	501 969	50	2 x DoubleMax 120-9	1 x BUFFMAX 120	472 414	47
61 to 65	163	1 443	2 x DoubleMax 120-9	541 025	54	2 x DoubleMax 120-9	1 x BUFFMAX 120	512 115	51
66 to 70	175	1 531	2 x DoubleMax 120-9	578 219	58	2 x DoubleMax 120-9	2 x BUFFMAX 120	521 072	52
71 to 75	188	1 619	2 x DoubleMax 120-9	616 068	62	2 x DoubleMax 120-9	2 x BUFFMAX 120	558 977	56
76 to 80	200	1 704	2 x DoubleMax 120-9	704 647	71	2 x DoubleMax 120-9	2 x BUFFMAX 120	597 136	60
81 to 85	213	1 789	2 x DoubleMax 120-9	778 433	78	2 x DoubleMax 120-9	2 x BUFFMAX 120	633 909	64
86 to 90	225	1 872	2 x DoubleMax 120-9	848 152	85	2 x DoubleMax 120-9	2 x BUFFMAX 120	669 890	67
91 to 95	238	1 954	2 x DoubleMax 120-9	921 206	92	2 x DoubleMax 120-9	2 x BUFFMAX 120	705 495	90
96 to 100	250	2 035	2 x DoubleMax 120-9	1 006 593	101	2 x DoubleMax 120-9	2 x BUFFMAX 120	742 371	75
101 to 110	275	2 194	2 x DoubleMax 120-9	1 118 918	112	2 x DoubleMax 120-9	2 x BUFFMAX 120	811 769	82
111 to 120	300	2 349	2 x DoubleMax 120-9	1 256 832	126	2 x DoubleMax 120-9	2 x BUFFMAX 120	879 658	88
121 to 130	325	2 500	3 x DoubleMax 120-9	947 308	95	3 x DoubleMax 120-9	2 x BUFFMAX 120	887 179	89
131 to 140	350	2 649	3 x DoubleMax 120-9	1 010 358	101	3 x DoubleMax 120-9	2 x BUFFMAX 120	951 039	95
141 to 150	375	2 794	3 x DoubleMax 120-9	1 071 798	108	3 x DoubleMax 120-9	3 x BUFFMAX 120	984 086	99
151 to 160	400	2 937	3 x DoubleMax 120-9	1 132 459	114	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 046 062	105
161 to 170	425	3 077	3 x DoubleMax 120-9	1 191 925	120	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 106 894	111
171 to 180	450	3 214	3 x DoubleMax 120-9	1 250 196	126	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 166 582	117
181 to 190	475	3 350	3 x DoubleMax 120-9	1 308 103	131	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 225 956	123
191 to 200	500	3 483	3 x DoubleMax 120-9	1 403 755	141	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 284 186	129
201 to 210	525	3 614	3 x DoubleMax 120-9	1 491 987	150	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 340 106	135
211 to 220	550	3 744	3 x DoubleMax 120-9	1 591 540	160	3 x DoubleMax 120-9	4 x BUFFMAX 120	1 371 156	138
221 to 230	575	3 871	3 x DoubleMax 120-9	1 720 466	173	3 x DoubleMax 120-9	4 x BUFFMAX 120	1 427 696	143
231 to 240	600	3 997	3 x DoubleMax 120-9	1 804 101	181	3 x DoubleMax 120-9	4 x BUFFMAX 120	1 481 947	149
241 to 250	625	4 121	3 x DoubleMax 120-9	1 930 803	194	3 x DoubleMax 120-9	4 x BUFFMAX 120	1 537 418	154
251 to 260	650	4 243	3 x DoubleMax 120-9	2 028 690	204	3 x DoubleMax 120-9	4 x BUFFMAX 120	1 592 177	160
261 to 270	675	4 364	3 x DoubleMax 120-9	2 110 819	212	3 x DoubleMax 120-9	4 x BUFFMAX 120	1 644 501	165
271 to 280	700	4 484	4 x DoubleMax 120-9	1 745 889	175	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 630 917	164
281 to 290	725	4 602	4 x DoubleMax 120-9	1 796 225	180	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 682 620	169
291 to 300	750	4 718	4 x DoubleMax 120-9	1 845 062	185	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 732 154	174
301 to 350	875	5 281	4 x DoubleMax 120-9	2 183 927	219	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 977 636	199
351 to 400	1 000	5 816	4 x DoubleMax 120-9	2 652 957	266	4 x DoubleMax 120-9	5 x BUFFMAX 120	2 187 380	220

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5 to 6	15	180	1 x DoubleMax 120-9	82 325	6	1 x DoubleMax 120-9	1 x BUFFMAX 80	38 846	3
7 to 8	20	238	1 x DoubleMax 120-9	190 137	13	1 x DoubleMax 120-9	1 x BUFFMAX 80	64 654	4
9 to 10	25	293	1 x DoubleMax 120-9	276 694	19	1 x DoubleMax 120-9	1 x BUFFMAX 120	83 149	6
11 to 15	38	421	1 x DoubleMax 120-9	468 582	31	1 x DoubleMax 120-9	1 x BUFFMAX 120	140 323	9
16 to 20	50	541	2 x DoubleMax 120-9	179 834	12	2 x DoubleMax 120-9	1 x BUFFMAX 120	157 494	11
21 to 25	63	655	2 x DoubleMax 120-9	228 469	15	2 x DoubleMax 120-9	1 x BUFFMAX 120	206 791	14
26 to 30	75	764	2 x DoubleMax 120-9	274 673	18	2 x DoubleMax 120-9	1 x BUFFMAX 120	253 480	17
31 to 35	88	869	2 x DoubleMax 120-9	364 016	24	2 x DoubleMax 120-9	1 x BUFFMAX 120	298 614	20
36 to 40	100	971	2 x DoubleMax 120-9	460 054	31	2 x DoubleMax 120-9	1 x BUFFMAX 120	342 606	23
41 to 45	113	1 069	2 x DoubleMax 120-9	561 566	38	2 x DoubleMax 120-9	1 x BUFFMAX 120	384 147	26
46 to 50	125	1 166	2 x DoubleMax 120-9	655 327	44	2 x DoubleMax 120-9	1 x BUFFMAX 120	426 221	29
51 to 55	138	1 260	2 x DoubleMax 120-9	744 048	50	2 x DoubleMax 120-9	1 x BUFFMAX 120	467 154	31
56 to 60	150	1 352	2 x DoubleMax 120-9	815 420	55	2 x DoubleMax 120-9	2 x BUFFMAX 120	488 085	33
61 to 65	163	1 443	2 x DoubleMax 120-9	928 170	62	2 x DoubleMax 120-9	2 x BUFFMAX 120	528 622	35
66 to 70	175	1 531	2 x DoubleMax 120-9	1 002 647	67	2 x DoubleMax 120-9	2 x BUFFMAX 120	566 580	38
71 to 75	188	1 619	2 x DoubleMax 120-9	1 071 162	72	2 x DoubleMax 120-9	2 x BUFFMAX 120	604 573	40
76 to 80	200	1 704	3 x DoubleMax 120-9	644 346	43	3 x DoubleMax 120-9	1 x BUFFMAX 120	623 409	42
81 to 85	213	1 789	3 x DoubleMax 120-9	680 147	46	3 x DoubleMax 120-9	1 x BUFFMAX 120	659 384	44
86 to 90	225	1 872	3 x DoubleMax 120-9	715 129	48	3 x DoubleMax 120-9	1 x BUFFMAX 120	694 545	46
91 to 95	238	1 954	3 x DoubleMax 120-9	756 647	51	3 x DoubleMax 120-9	2 x BUFFMAX 120	708 905	90
96 to 100	250	2 035	3 x DoubleMax 120-9	833 068	56	3 x DoubleMax 120-9	2 x BUFFMAX 120	744 406	50
101 to 110	275	2 194	3 x DoubleMax 120-9	940 904	63	3 x DoubleMax 120-9	2 x BUFFMAX 120	812 354	54
111 to 120	300	2 349	3 x DoubleMax 120-9	1 069 448	72	3 x DoubleMax 120-9	2 x BUFFMAX 120	878 719	59
121 to 130	325	2 500	3 x DoubleMax 120-9	1 198 006	80	3 x DoubleMax 120-9	2 x BUFFMAX 120	943 502	63
131 to 140	350	2 649	3 x DoubleMax 120-9	1 326 682	89	3 x DoubleMax 120-9	3 x BUFFMAX 120	989 170	66
141 to 150	375	2 794	3 x DoubleMax 120-9	1 425 861	95	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 052 071	70
151 to 160	400	2 937	3 x DoubleMax 120-9	1 551 418	104	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 114 234	75
161 to 170	425	3 077	3 x DoubleMax 120-9	1 647 506	110	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 175 245	79
171 to 180	450	3 214	4 x DoubleMax 120-9	1 253 332	84	4 x DoubleMax 120-9	3 x BUFFMAX 120	1 192 973	80
181 to 190	475	3 350	4 x DoubleMax 120-9	1 328 030	89	4 x DoubleMax 120-9	3 x BUFFMAX 120	1 251 444	84
191 to 200	500	3 483	4 x DoubleMax 120-9	1 446 821	97	4 x DoubleMax 120-9	3 x BUFFMAX 120	1 308 731	88
201 to 210	525	3 614	4 x DoubleMax 120-9	1 531 450	103	4 x DoubleMax 120-9	3 x BUFFMAX 120	1 364 164	91
211 to 220	550	3 744	4 x DoubleMax 120-9	1 624 589	109	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 401 231	94
221 to 230	575	3 871	4 x DoubleMax 120-9	1 747 480	117	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 456 500	97
231 to 240	600	3 997	4 x DoubleMax 120-9	1 827 646	122	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 510 098	101
241 to 250	625	4 121	4 x DoubleMax 120-9	1 948 091	130	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 564 226	105
251 to 260	650	4 243	4 x DoubleMax 120-9	2 039 272	136	4 x DoubleMax 120-9	5 x BUFFMAX 120	1 599 536	107
261 to 270	675	4 364	4 x DoubleMax 120-9	2 117 981	142	4 x DoubleMax 120-9	5 x BUFFMAX 120	1 651 322	111
271 to 280	700	4 484	4 x DoubleMax 120-9	2 206 536	148	4 x DoubleMax 120-9	5 x BUFFMAX 120	1 704 321	114
281 to 290	725	4 602	5 x DoubleMax 120-9	2 063 733	138	5 x DoubleMax 120-9	4 x BUFFMAX 120	1 756 712	118
291 to 300	750	4 718	5 x DoubleMax 120-9	2 147 966	144	5 x DoubleMax 120-9	5 x BUFFMAX 120	1 789 549	120
301 to 350	875	5 281	5 x DoubleMax 120-9	2 628 232	176	5 x DoubleMax 120-9	6 x BUFFMAX 120	2 023 662	135
351 to 400	1 000	5 816	6 x DoubleMax 120-9	2 914 715	195	6 x DoubleMax 120-9	6 x BUFFMAX 120	2 250 797	151

Sizing guide : Hotels and Motels

2 HOUR PEAK PERIOD:

Use 1 hour peak period sizing guide if hotels and motels with convention facilities and/or if based a longside busy interstate highways.

- Boiler water and DoubleMax at 180°F.
- Thermostatic mixing valve at 140°F (maximum setting).
- Domestic cold water inlet is no less than 40°F.

Minimum requirements for an average occupancy of 1-1/2 persons per apartment, 5 minutes showers and 3 GPM shower flow rate. If shower flow up to 5 GPM then multiply gallon requirements in chart (column 3) by 1.6

NOTE: Hot water for laundry operations, restaurants and other major appliances or hot water fixtures such coin-operated washing machines, whirlpools, commercial dishwashers will increase the total demand. Add extra hot water generating capacity accordingly. Consult manufacturers specifications for hot water consumption.

Number of Units 1 & 1/2 Persons (1)	Actual No. Of Persons (2)	Gallons Required 2 Hour Period (3)	OPTION A : DoubleMax UNITS ONLY			OPTION B : DoubleMax UNITS & THERMAL MASS STORAGE			
			DoubleMax Model No. Number of units (4)	Boiler Size Net Output BTU /hour (5)	Pump Flow Rate US gpm 20°F (TD) (6)	DoubleMax Model No. Number of units (7)	Thermal Mass Storage Model No. (8)	Boiler Size Net Output BTU /hour (9)	Pump Flow Rate US gpm 20°F (TD) (10)
1 to 4	6	63	1 x DoubleMax 50-4	146 310	15	1 x DoubleMax 50-4	1 x BUFFMAX 50	25 000	3
5 to 6	9	98	1 x DoubleMax 50-4	286 588	29	1 x DoubleMax 50-4	1 x BUFFMAX 50	75 176	8
7 to 8	12	131	1 x DoubleMax 80-5	244 769	25	1 x DoubleMax 80-5	1 x BUFFMAX 50	25 060	3
9 to 10	15	164	1 x DoubleMax 80-5	339 024	34	1 x DoubleMax 80-5	1 x BUFFMAX 50	115 163	12
11 to 15	23	241	1 x DoubleMax 80-5	441 990	44	1 x DoubleMax 80-5	1 x BUFFMAX 80	136 980	14
16 to 20	30	313	1 x DoubleMax 120-9	311 038	31	1 x DoubleMax 120-9	1 x BUFFMAX 80	79 955	8
21 to 25	38	381	1 x DoubleMax 120-9	399 319	40	1 x DoubleMax 120-9	1 x BUFFMAX 80	109 222	11
26 to 30	45	443	1 x DoubleMax 120-9	598 509	60	1 x DoubleMax 120-9	1 x BUFFMAX 80	197 372	20
31 to 35	53	502	1 x DoubleMax 120-9	681 652	68	1 x DoubleMax 120-9	1 x BUFFMAX 80	302 930	30
36 to 40	60	557	2 x DoubleMax 120-9	165 890	17	2 x DoubleMax 120-9	1 x BUFFMAX 120	133 257	13
41 to 45	68	609	2 x DoubleMax 120-9	187 878	19	2 x DoubleMax 120-9	1 x BUFFMAX 120	155 450	16
46 to 50	75	658	2 x DoubleMax 120-9	209 088	21	2 x DoubleMax 120-9	1 x BUFFMAX 120	177 097	18
51 to 55	83	704	2 x DoubleMax 120-9	228 644	23	2 x DoubleMax 120-9	1 x BUFFMAX 120	196 885	20
56 to 60	90	748	2 x DoubleMax 120-9	247 892	25	2 x DoubleMax 120-9	1 x BUFFMAX 120	216 627	22
61 to 65	98	790	2 x DoubleMax 120-9	306 224	31	2 x DoubleMax 120-9	1 x BUFFMAX 120	234 841	24
66 to 70	105	830	2 x DoubleMax 120-9	375 670	38	2 x DoubleMax 120-9	1 x BUFFMAX 120	252 253	25
71 to 75	113	869	2 x DoubleMax 120-9	450 414	45	2 x DoubleMax 120-9	1 x BUFFMAX 120	269 278	27
76 to 80	120	906	2 x DoubleMax 120-9	519 255	52	2 x DoubleMax 120-9	1 x BUFFMAX 120	285 502	29
81 to 85	128	943	2 x DoubleMax 120-9	588 007	59	2 x DoubleMax 120-9	1 x BUFFMAX 120	301 754	30
86 to 90	135	978	2 x DoubleMax 120-9	656 710	66	2 x DoubleMax 120-9	1 x BUFFMAX 120	317 204	32
91 to 95	143	1 013	2 x DoubleMax 120-9	725 398	73	2 x DoubleMax 120-9	1 x BUFFMAX 120	332 683	33
96 to 100	150	1 048	2 x DoubleMax 120-9	794 104	80	2 x DoubleMax 120-9	1 x BUFFMAX 120	348 190	35
101 to 110	165	1 116	2 x DoubleMax 120-9	891 524	90	2 x DoubleMax 120-9	1 x BUFFMAX 120	377 420	38
111 to 120	180	1 184	2 x DoubleMax 120-9	1 026 958	103	2 x DoubleMax 120-9	2 x BUFFMAX 120	379 875	38
121 to 130	195	1 252	2 x DoubleMax 120-9	1 119 151	112	2 x DoubleMax 120-9	2 x BUFFMAX 120	409 556	41
131 to 140	210	1 322	2 x DoubleMax 120-9	1 208 678	121	2 x DoubleMax 120-9	2 x BUFFMAX 120	440 104	44
141 to 150	225	1 394	2 x DoubleMax 120-9	1 339 165	134	2 x DoubleMax 120-9	2 x BUFFMAX 120	473 095	47
151 to 160	240	1 469	2 x DoubleMax 120-9	1 425 631	143	2 x DoubleMax 120-9	2 x BUFFMAX 120	505 831	51
161 to 170	255	1 546	3 x DoubleMax 120-9	695 860	70	3 x DoubleMax 120-9	1 x BUFFMAX 120	516 877	52
171 to 180	270	1 625	3 x DoubleMax 120-9	813 066	82	3 x DoubleMax 120-9	1 x BUFFMAX 120	551 081	55
181 to 190	285	1 707	3 x DoubleMax 120-9	903 616	91	3 x DoubleMax 120-9	2 x BUFFMAX 120	555 205	56
191 to 200	300	1 792	3 x DoubleMax 120-9	1 025 173	103	3 x DoubleMax 120-9	2 x BUFFMAX 120	592 379	59
201 to 210	315	1 879	3 x DoubleMax 120-9	1 112 659	112	3 x DoubleMax 120-9	2 x BUFFMAX 120	629 464	63
211 to 220	330	1 967	3 x DoubleMax 120-9	1 201 837	121	3 x DoubleMax 120-9	2 x BUFFMAX 120	666 986	67
221 to 230	345	2 058	3 x DoubleMax 120-9	1 319 344	132	3 x DoubleMax 120-9	2 x BUFFMAX 120	706 818	71
231 to 240	360	2 149	3 x DoubleMax 120-9	1 406 017	141	3 x DoubleMax 120-9	2 x BUFFMAX 120	745 648	75
241 to 250	375	2 242	3 x DoubleMax 120-9	1 490 995	150	3 x DoubleMax 120-9	2 x BUFFMAX 120	785 329	79
251 to 260	390	2 335	3 x DoubleMax 120-9	1 611 880	162	3 x DoubleMax 120-9	3 x BUFFMAX 120	797 586	80
261 to 270	405	2 428	3 x DoubleMax 120-9	1 697 618	170	3 x DoubleMax 120-9	3 x BUFFMAX 120	837 559	84
271 to 280	420	2 521	3 x DoubleMax 120-9	1 819 112	183	3 x DoubleMax 120-9	3 x BUFFMAX 120	878 987	88
281 to 290	435	2 614	3 x DoubleMax 120-9	1 944 236	195	3 x DoubleMax 120-9	3 x BUFFMAX 120	920 516	92
291 to 300	450	2 706	3 x DoubleMax 120-9	2 070 266	208	3 x DoubleMax 120-9	3 x BUFFMAX 120	961 731	97
301 to 350	525	3 149	4 x DoubleMax 120-9	1 768 990	178	4 x DoubleMax 120-9	3 x BUFFMAX 120	1 096 734	110
351 to 400	600	3 594	4 x DoubleMax 120-9	2 380 743	239	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 264 300	127

Sizing guide : Hotels and Motels

2 HOUR PEAK PERIOD:

Use 1 hour peak period sizing guide if hotels and motels with convention facilities and/or if based a longside busy interstate highways.

- Boiler water and DoubleMax at **160°F and return at 130°F**
- Thermostatic mixing valve at 140°F (maximum setting).
- Domestic cold water inlet is no less than 40°F.

Minimum requirements for an average occupancy of 1-1/2 persons per apartment, 5 minutes showers and 3 GPM shower flow rate. If shower flow up to 5 GPM then multiply gallon requirements in chart (column 3) by 1.6

NOTE: Hot water for laundry operations, restaurants and other major appliances or hot water fixtures such coin-operated washing machines, whirlpools, commercial dishwashers will increase the total demand. Add extra hot water generating capacity accordingly. Consult manufacturers specifications for hot water consumption.

			OPTION A : DoubleMax UNITS ONLY			OPTION B : DoubleMax UNITS & THERMAL MASS STORAGE			
Number of Units 1 & 1/2 Persons (1)	Actual No. Of Persons (2)	Gallons Required 2 Hour Period (3)	DoubleMax Model No. Number of units (4)	Boiler Size Net Output BTU /hour (5)	Pump Flow Rate US gpm 30°F (TD) (6)	DoubleMax Model No. Number of units (7)	Thermal Mass Storage Model No. (8)	Boiler Size Net Output BTU /hour (9)	Pump Flow Rate US gpm 30°F (TD) (10)
1 to 4	6	63	1 x DoubleMax 50-4	217 280	15	1 x DoubleMax 50-4	1 x BUFFMAX 50	85 960	6
5 to 6	9	98	1 x DoubleMax 80-5	261 602	18	1 x DoubleMax 80-5	1 x BUFFMAX 50	113 853	8
7 to 8	12	131	1 x DoubleMax 80-5	395 703	26	1 x DoubleMax 80-5	1 x BUFFMAX 80	193 807	13
9 to 10	15	164	1 x DoubleMax 120-9	246 959	17	1 x DoubleMax 120-9	1 x BUFFMAX 80	32 206	2
11 to 15	23	241	1 x DoubleMax 120-9	347 761	23	1 x DoubleMax 120-9	1 x BUFFMAX 80	79 365	5
16 to 20	30	313	1 x DoubleMax 120-9	550 983	37	1 x DoubleMax 120-9	1 x BUFFMAX 120	155 766	10
21 to 25	38	381	2 x DoubleMax 120-9	111 911	7	2 x DoubleMax 120-9	1 x BUFFMAX 120	88 809	6
26 to 30	45	443	2 x DoubleMax 120-9	183 559	12	2 x DoubleMax 120-9	1 x BUFFMAX 120	116 824	8
31 to 35	53	502	2 x DoubleMax 120-9	268 750	18	2 x DoubleMax 120-9	1 x BUFFMAX 120	141 945	10
36 to 40	60	557	2 x DoubleMax 120-9	374 472	25	2 x DoubleMax 120-9	1 x BUFFMAX 120	166 121	11
41 to 45	68	609	2 x DoubleMax 120-9	451 486	30	2 x DoubleMax 120-9	1 x BUFFMAX 120	188 415	13
46 to 50	75	658	2 x DoubleMax 120-9	556 484	37	2 x DoubleMax 120-9	1 x BUFFMAX 120	210 256	14
51 to 55	83	704	2 x DoubleMax 120-9	628 248	42	2 x DoubleMax 120-9	1 x BUFFMAX 120	230 139	15
56 to 60	90	748	2 x DoubleMax 120-9	733 888	49	2 x DoubleMax 120-9	1 x BUFFMAX 120	279 131	19
61 to 65	98	790	2 x DoubleMax 120-9	806 096	54	2 x DoubleMax 120-9	2 x BUFFMAX 120	248 532	17
66 to 70	105	830	2 x DoubleMax 120-9	874 054	59	2 x DoubleMax 120-9	2 x BUFFMAX 120	266 328	18
71 to 75	113	869	2 x DoubleMax 120-9	945 414	63	2 x DoubleMax 120-9	2 x BUFFMAX 120	283 743	19
76 to 80	120	906	2 x DoubleMax 120-9	1 013 085	68	2 x DoubleMax 120-9	2 x BUFFMAX 120	300 362	20
81 to 85	128	943	2 x DoubleMax 120-9	1 080 766	72	2 x DoubleMax 120-9	2 x BUFFMAX 120	317 016	21
86 to 90	135	978	3 x DoubleMax 120-9	512 913	34	3 x DoubleMax 120-9	1 x BUFFMAX 120	318 240	21
91 to 95	143	1 013	3 x DoubleMax 120-9	578 279	39	3 x DoubleMax 120-9	1 x BUFFMAX 120	333 373	22
96 to 100	150	1 048	3 x DoubleMax 120-9	643 500	43	3 x DoubleMax 120-9	1 x BUFFMAX 120	348 521	23
101 to 110	165	1 116	3 x DoubleMax 120-9	740 876	50	3 x DoubleMax 120-9	2 x BUFFMAX 120	355 940	24
111 to 120	180	1 184	3 x DoubleMax 120-9	868 540	58	3 x DoubleMax 120-9	2 x BUFFMAX 120	385 814	26
121 to 130	195	1 252	3 x DoubleMax 120-9	960 058	64	3 x DoubleMax 120-9	2 x BUFFMAX 120	414 891	28
131 to 140	210	1 322	3 x DoubleMax 120-9	1 048 635	70	3 x DoubleMax 120-9	2 x BUFFMAX 120	444 816	30
141 to 150	225	1 394	3 x DoubleMax 120-9	1 169 732	78	3 x DoubleMax 120-9	2 x BUFFMAX 120	476 505	32
151 to 160	240	1 469	3 x DoubleMax 120-9	1 254 760	84	3 x DoubleMax 120-9	3 x BUFFMAX 120	488 349	33
161 to 170	255	1 546	3 x DoubleMax 120-9	1 337 737	90	3 x DoubleMax 120-9	3 x BUFFMAX 120	521 447	35
171 to 180	270	1 625	3 x DoubleMax 120-9	1 458 149	98	3 x DoubleMax 120-9	3 x BUFFMAX 120	556 588	37
181 to 190	285	1 707	3 x DoubleMax 120-9	1 538 728	103	3 x DoubleMax 120-9	3 x BUFFMAX 120	591 831	40
191 to 200	300	1 792	4 x DoubleMax 120-9	1 110 884	74	4 x DoubleMax 120-9	2 x BUFFMAX 120	614 319	41
201 to 210	315	1 879	4 x DoubleMax 120-9	1 195 025	80	4 x DoubleMax 120-9	3 x BUFFMAX 120	629 705	42
211 to 220	330	1 967	4 x DoubleMax 120-9	1 280 763	86	4 x DoubleMax 120-9	3 x BUFFMAX 120	667 081	45
221 to 230	345	2 058	4 x DoubleMax 120-9	1 394 183	93	4 x DoubleMax 120-9	3 x BUFFMAX 120	706 603	47
231 to 240	360	2 149	4 x DoubleMax 120-9	1 477 452	99	4 x DoubleMax 120-9	3 x BUFFMAX 120	745 270	50
241 to 250	375	2 242	4 x DoubleMax 120-9	1 559 096	104	4 x DoubleMax 120-9	3 x BUFFMAX 120	784 782	53
251 to 260	390	2 335	4 x DoubleMax 120-9	1 675 341	112	4 x DoubleMax 120-9	4 x BUFFMAX 120	804 717	54
261 to 270	405	2 428	4 x DoubleMax 120-9	1 757 643	118	4 x DoubleMax 120-9	4 x BUFFMAX 120	844 412	57
271 to 280	420	2 521	4 x DoubleMax 120-9	1 874 153	125	4 x DoubleMax 120-9	4 x BUFFMAX 120	885 259	59
281 to 290	435	2 614	4 x DoubleMax 120-9	1 993 906	133	4 x DoubleMax 120-9	4 x BUFFMAX 120	926 175	62
291 to 300	450	2 706	4 x DoubleMax 120-9	2 114 287	142	4 x DoubleMax 120-9	5 x BUFFMAX 120	947 051	63
301 to 350	525	3 149	5 x DoubleMax 120-9	2 200 150	147	5 x DoubleMax 120-9	5 x BUFFMAX 120	1 119 221	75
351 to 400	600	3 594	6 x DoubleMax 120-9	2 568 673	172	6 x DoubleMax 120-9	5 x BUFFMAX 120	1 304 223	87

Sizing guide : Hotels and Motels

1 HOUR PEAK PERIOD:

Use 1 hour peak demand if hotels and motels with convention facilities and/or if based a longside busy interstate highways.

- Boiler water and DoubleMax at 180°F.
- Thermostatic mixing valve at 140°F (maximum setting).
- Domestic cold water inlet is no less than 40°F.

Minimum requirements for a 3 GPM shower flow rate. If shower flow up to 5 GPM then multiply gallon requirements in chart (column 3) by 1.6

NOTE: Hot water for laundry operations, restaurants and other major appliances or hot water fixtures such coin-operated washing machines, whirlpools, commercial dishwashers will increase the total demand. Add extra hot water generating capacity accordingly. Consult manufacturers specifications for hot water consumption.

			OPTION A : DoubleMax UNITS ONLY			OPTION B : DoubleMax UNITS & THERMAL MASS STORAGE			
Number of Units 1 & 1/2 Persons (1)	Actual No. Of Persons (2)	Gallons Required 1 Hour Period (3)	DoubleMax Model No. Number of units (4)	Boiler Size Net Output BTU /hour (5)	Pump Flow Rate US gpm 20°F (TD) (6)	DoubleMax Model No. Number of units (7)	Thermal Mass Storage Model No. (8)	Boiler Size Net Output BTU /hour (9)	Pump Flow Rate US gpm 20°F (TD) (10)
1 to 4	6	63	1 x DoubleMax 80-5	111 264	11	1 x DoubleMax 80-5	None	111 264	11
5 to 6	9	98	1 x DoubleMax 120-9	25 000	3	1 x DoubleMax 120-9	None	25 000	3
7 to 8	12	131	1 x DoubleMax 120-9	50 000	5	1 x DoubleMax 120-9	None	50 000	5
9 to 10	15	164	1 x DoubleMax 120-9	145 743	15	1 x DoubleMax 120-9	1 x BUFFMAX 80	40 556	4
11 to 15	23	241	1 x DoubleMax 120-9	333 779	34	1 x DoubleMax 120-9	1 x BUFFMAX 120	90 006	9
16 to 20	30	313	2 x DoubleMax 120-9	130 500	13	2 x DoubleMax 120-9	1 x BUFFMAX 120	65 855	7
21 to 25	38	381	2 x DoubleMax 120-9	188 266	19	2 x DoubleMax 120-9	1 x BUFFMAX 120	124 284	12
26 to 30	45	443	2 x DoubleMax 120-9	245 881	25	2 x DoubleMax 120-9	1 x BUFFMAX 120	184 976	19
31 to 35	53	502	2 x DoubleMax 120-9	296 602	30	2 x DoubleMax 120-9	1 x BUFFMAX 120	236 574	24
36 to 40	60	557	2 x DoubleMax 120-9	346 010	35	2 x DoubleMax 120-9	1 x BUFFMAX 120	287 861	29
41 to 45	68	609	2 x DoubleMax 120-9	391 177	39	2 x DoubleMax 120-9	1 x BUFFMAX 120	334 031	34
46 to 50	75	658	2 x DoubleMax 120-9	436 116	44	2 x DoubleMax 120-9	1 x BUFFMAX 120	381 103	38
51 to 55	83	704	2 x DoubleMax 120-9	526 074	53	2 x DoubleMax 120-9	1 x BUFFMAX 120	422 676	42
56 to 60	90	748	2 x DoubleMax 120-9	719 320	72	2 x DoubleMax 120-9	1 x BUFFMAX 120	466 365	47
61 to 65	98	790	2 x DoubleMax 120-9	854 346	86	2 x DoubleMax 120-9	1 x BUFFMAX 120	505 001	51
66 to 70	105	830	2 x DoubleMax 120-9	981 705	99	2 x DoubleMax 120-9	1 x BUFFMAX 120	542 104	54
71 to 75	113	869	2 x DoubleMax 120-9	1 115 870	112	2 x DoubleMax 120-9	1 x BUFFMAX 120	578 505	58
76 to 80	120	906	3 x DoubleMax 120-9	571 004	57	3 x DoubleMax 120-9	2 x BUFFMAX 120	450 353	45
81 to 85	128	943	3 x DoubleMax 120-9	603 508	61	3 x DoubleMax 120-9	2 x BUFFMAX 120	484 053	49
86 to 90	135	978	3 x DoubleMax 120-9	634 408	64	3 x DoubleMax 120-9	2 x BUFFMAX 120	516 187	52
91 to 95	143	1 013	3 x DoubleMax 120-9	665 366	67	3 x DoubleMax 120-9	2 x BUFFMAX 120	548 416	55
96 to 100	150	1 048	3 x DoubleMax 120-9	696 380	70	3 x DoubleMax 120-9	2 x BUFFMAX 120	580 740	58
101 to 110	165	1 116	3 x DoubleMax 120-9	754 841	76	3 x DoubleMax 120-9	2 x BUFFMAX 120	640 548	64
111 to 120	180	1 184	3 x DoubleMax 120-9	815 492	82	3 x DoubleMax 120-9	2 x BUFFMAX 120	704 007	71
121 to 130	195	1 252	3 x DoubleMax 120-9	874 123	88	3 x DoubleMax 120-9	2 x BUFFMAX 120	764 099	77
131 to 140	210	1 322	3 x DoubleMax 120-9	1 001 425	101	3 x DoubleMax 120-9	2 x BUFFMAX 120	825 945	83
141 to 150	225	1 394	3 x DoubleMax 120-9	1 220 322	123	3 x DoubleMax 120-9	2 x BUFFMAX 120	893 481	90
151 to 160	240	1 469	3 x DoubleMax 120-9	1 377 519	138	3 x DoubleMax 120-9	2 x BUFFMAX 120	959 761	96
161 to 170	255	1 546	3 x DoubleMax 120-9	1 530 594	154	3 x DoubleMax 120-9	2 x BUFFMAX 120	1 027 795	103
171 to 180	270	1 625	3 x DoubleMax 120-9	1 750 283	176	3 x DoubleMax 120-9	2 x BUFFMAX 120	1 101 898	111
181 to 190	285	1 707	3 x DoubleMax 120-9	1 898 899	191	3 x DoubleMax 120-9	3 x BUFFMAX 120	1 125 877	113
191 to 200	300	1 792	4 x DoubleMax 120-9	1 256 746	126	4 x DoubleMax 120-9	3 x BUFFMAX 120	1 083 786	109
201 to 210	315	1 879	4 x DoubleMax 120-9	1 330 984	134	4 x DoubleMax 120-9	3 x BUFFMAX 120	1 159 545	116
211 to 220	330	1 967	4 x DoubleMax 120-9	1 406 095	141	4 x DoubleMax 120-9	3 x BUFFMAX 120	1 236 208	124
221 to 230	345	2 058	4 x DoubleMax 120-9	1 485 893	149	4 x DoubleMax 120-9	3 x BUFFMAX 120	1 319 208	132
231 to 240	360	2 149	4 x DoubleMax 120-9	1 563 621	157	4 x DoubleMax 120-9	3 x BUFFMAX 120	1 398 585	140
241 to 250	375	2 242	4 x DoubleMax 120-9	1 654 355	166	4 x DoubleMax 120-9	3 x BUFFMAX 120	1 479 696	149
251 to 260	390	2 335	4 x DoubleMax 120-9	1 860 433	187	4 x DoubleMax 120-9	3 x BUFFMAX 120	1 564 951	157
261 to 270	405	2 428	4 x DoubleMax 120-9	2 010 759	202	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 593 578	160
271 to 280	420	2 521	4 x DoubleMax 120-9	2 218 669	223	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 680 496	169
281 to 290	435	2 614	4 x DoubleMax 120-9	2 433 931	244	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 767 755	177
291 to 300	450	2 706	4 x DoubleMax 120-9	2 651 477	266	4 x DoubleMax 120-9	4 x BUFFMAX 120	1 854 524	186
301 to 350	525	3 149	5 x DoubleMax 120-9	2 338 609	235	5 x DoubleMax 120-9	4 x BUFFMAX 120	2 118 560	213
351 to 400	600	3 594	5 x DoubleMax 120-9	3 278 181	329	5 x DoubleMax 120-9	4 x BUFFMAX 120	2 530 922	254

Sizing guide : Hotels and Motels

1 HOUR PEAK PERIOD:

Use 1 hour peak demand if hotels and motels with convention facilities and/or if based a longside busy interstate highways.

- Boiler water and DoubleMax at **160°F and return at 130°F**
- Thermostatic mixing valve at 140°F (maximum setting).
- Domestic cold water inlet is no less than 40°F.

Minimum requirements for a 3 GPM shower flow rate. If shower flow up to 5 GPM then multiply gallon requirements in chart (column 3) by 1.6

NOTE: Hot water for laundry operations, restaurants and other major appliances or hot water fixtures such coin-operated washing machines, whirlpools, commercial dishwashers will increase the total demand. Add extra hot water generating capacity accordingly. Consult manufacturers specifications for hot water consumption.

			OPTION A : DoubleMax UNITS ONLY			OPTION B : DoubleMax UNITS & THERMAL MASS STORAGE			
Number of Units 1 & 1/2 Persons (1)	Actual No. Of Persons (2)	Gallons Required 1 Hour Period (3)	DoubleMax Model No. Number of units (4)	Boiler Size Net Output BTU /hour (5)	Pump Flow Rate US gpm 30°F (TD) (6)	DoubleMax Model No. Number of units (7)	Thermal Mass Storage Model No. (8)	Boiler Size Net Output BTU /hour (9)	Pump Flow Rate US gpm 30°F (TD) (10)
1 to 4	6	63	1 x DoubleMax 80-5	287 354	19	1 x DoubleMax 80-5	1 x BUFFMAX 50	140 138	9
5 to 6	9	98	1 x DoubleMax 120-9	229 954	15	1 x DoubleMax 120-9	1 x BUFFMAX 80	25 000	2
7 to 8	12	131	1 x DoubleMax 120-9	332 243	22	1 x DoubleMax 120-9	1 x BUFFMAX 80	50 000	3
9 to 10	15	164	1 x DoubleMax 120-9	504 122	34	1 x DoubleMax 120-9	1 x BUFFMAX 120	67 335	5
11 to 15	23	241	2 x DoubleMax 120-9	109 461	7	2 x DoubleMax 120-9	1 x BUFFMAX 120	64 176	4
16 to 20	30	313	2 x DoubleMax 120-9	174 519	12	2 x DoubleMax 120-9	1 x BUFFMAX 120	131 883	9
21 to 25	38	381	2 x DoubleMax 120-9	232 479	16	2 x DoubleMax 120-9	1 x BUFFMAX 120	190 603	13
26 to 30	45	443	2 x DoubleMax 120-9	487 079	33	2 x DoubleMax 120-9	1 x BUFFMAX 120	252 351	17
31 to 35	53	502	2 x DoubleMax 120-9	626 980	42	2 x DoubleMax 120-9	1 x BUFFMAX 120	304 186	20
36 to 40	60	557	2 x DoubleMax 120-9	826 593	55	2 x DoubleMax 120-9	1 x BUFFMAX 120	355 917	24
41 to 45	68	609	2 x DoubleMax 120-9	957 196	64	2 x DoubleMax 120-9	1 x BUFFMAX 120	402 293	27
46 to 50	75	658	3 x DoubleMax 120-9	420 513	28	3 x DoubleMax 120-9	1 x BUFFMAX 120	378 637	25
51 to 55	83	704	3 x DoubleMax 120-9	460 277	31	3 x DoubleMax 120-9	1 x BUFFMAX 120	418 930	28
56 to 60	90	748	3 x DoubleMax 120-9	500 123	33	3 x DoubleMax 120-9	1 x BUFFMAX 120	459 884	31
61 to 65	98	790	3 x DoubleMax 120-9	543 816	36	3 x DoubleMax 120-9	1 x BUFFMAX 120	497 065	33
66 to 70	105	830	3 x DoubleMax 120-9	659 372	44	3 x DoubleMax 120-9	1 x BUFFMAX 120	532 655	36
71 to 75	113	869	3 x DoubleMax 120-9	782 581	52	3 x DoubleMax 120-9	1 x BUFFMAX 120	567 485	38
76 to 80	120	906	3 x DoubleMax 120-9	897 491	60	3 x DoubleMax 120-9	1 x BUFFMAX 120	600 724	40
81 to 85	128	943	3 x DoubleMax 120-9	1 012 424	68	3 x DoubleMax 120-9	1 x BUFFMAX 120	634 033	42
86 to 90	135	978	3 x DoubleMax 120-9	1 127 442	75	3 x DoubleMax 120-9	1 x BUFFMAX 120	665 751	45
91 to 95	143	1 013	3 x DoubleMax 120-9	1 242 603	83	3 x DoubleMax 120-9	1 x BUFFMAX 120	697 538	47
96 to 100	150	1 048	3 x DoubleMax 120-9	1 357 955	91	3 x DoubleMax 120-9	1 x BUFFMAX 120	789 706	53
101 to 110	165	1 116	3 x DoubleMax 120-9	1 512 366	101	3 x DoubleMax 120-9	2 x BUFFMAX 120	754 319	50
111 to 120	180	1 184	4 x DoubleMax 120-9	821 764	55	4 x DoubleMax 120-9	2 x BUFFMAX 120	741 286	50
121 to 130	195	1 252	4 x DoubleMax 120-9	926 271	62	4 x DoubleMax 120-9	2 x BUFFMAX 120	800 327	54
131 to 140	210	1 322	4 x DoubleMax 120-9	1 081 297	72	4 x DoubleMax 120-9	2 x BUFFMAX 120	861 087	58
141 to 150	225	1 394	4 x DoubleMax 120-9	1 285 217	86	4 x DoubleMax 120-9	2 x BUFFMAX 120	926 343	62
151 to 160	240	1 469	4 x DoubleMax 120-9	1 433 389	96	4 x DoubleMax 120-9	2 x BUFFMAX 120	991 428	66
161 to 170	255	1 546	4 x DoubleMax 120-9	1 577 574	106	4 x DoubleMax 120-9	2 x BUFFMAX 120	1 058 232	71
171 to 180	270	1 625	4 x DoubleMax 120-9	1 780 861	119	4 x DoubleMax 120-9	2 x BUFFMAX 120	1 129 766	76
181 to 190	285	1 707	4 x DoubleMax 120-9	1 920 482	129	4 x DoubleMax 120-9	2 x BUFFMAX 120	1 200 896	80
191 to 200	300	1 792	4 x DoubleMax 120-9	2 130 020	143	4 x DoubleMax 120-9	2 x BUFFMAX 120	1 277 761	86
201 to 210	315	1 879	5 x DoubleMax 120-9	1 403 049	94	5 x DoubleMax 120-9	2 x BUFFMAX 120	1 280 319	86
211 to 220	330	1 967	5 x DoubleMax 120-9	1 548 986	104	5 x DoubleMax 120-9	2 x BUFFMAX 120	1 355 825	91
221 to 230	345	2 058	5 x DoubleMax 120-9	1 740 119	116	5 x DoubleMax 120-9	2 x BUFFMAX 120	1 436 419	96
231 to 240	360	2 149	5 x DoubleMax 120-9	1 881 679	126	5 x DoubleMax 120-9	2 x BUFFMAX 120	1 514 546	101
241 to 250	375	2 242	5 x DoubleMax 120-9	2 020 312	135	5 x DoubleMax 120-9	2 x BUFFMAX 120	1 594 378	107
251 to 260	390	2 335	5 x DoubleMax 120-9	2 217 093	148	5 x DoubleMax 120-9	3 x BUFFMAX 120	1 639 685	110
261 to 270	405	2 428	5 x DoubleMax 120-9	2 356 741	158	5 x DoubleMax 120-9	3 x BUFFMAX 120	1 720 043	115
271 to 280	420	2 521	5 x DoubleMax 120-9	2 554 675	171	5 x DoubleMax 120-9	3 x BUFFMAX 120	1 803 720	121
281 to 290	435	2 614	5 x DoubleMax 120-9	2 758 726	185	5 x DoubleMax 120-9	3 x BUFFMAX 120	1 887 596	126
291 to 300	450	2 706	6 x DoubleMax 120-9	2 511 551	168	6 x DoubleMax 120-9	3 x BUFFMAX 120	1 936 450	130
301 to 350	525	3 149	6 x DoubleMax 120-9	3 234 759	217	6 x DoubleMax 120-9	4 x BUFFMAX 120	2 292 359	153
351 to 400	600	3 594	8 x DoubleMax 120-9	3 694 452	247	8 x DoubleMax 120-9	4 x BUFFMAX 120	2 657 334	178