

GAS FIRED WATER HEATER SIZING GUIDELINES

HOTELS/MOTELS

Selections include guest rooms, small kitchen (i.e. 1 dishwasher, 3-5 assorted sinks) and small laundry (max. capacities noted):			Selections for guest rooms only:	
	Max. Total Machine Capacity in Lbs. Dry Clothes	#KC1000		
# Guest Rooms			# Guest Rooms	#KC1000
0 - 100	100	1	0 - 120	1
101 - 200	150	2	121 - 300	2
201 - 350	250	3	301 - 450	3
Notes: 1) Shower head capacities not to exceed 3 GPM. 2) Selections for altitudes less than 2000'. For higher altitudes, find ACF (altitude correction factor on p. D301.0 and divide actual number of rooms and actual laundry capacity of ACF, then select based on calculated values. 3) Based on 40°F inlet and building recirculation. For alternate inlet temperatures, find TCF (temperature correction factor) on p. D302.0 and multiply actual number of rooms and actual laundry capacity by TCF, then select based on calculated values. 4) Where dishwashers are included, assumes 140°F to dishwasher. 5) Selections are for travel type/business hotels. Hotels that hold conventions or are near convention centers may require some storage. Consult factory.				

APARTMENT COMPLEXES/CONDOMINIUMS

Usage (As Defined Below)		# Units	#KC1000
Light		0 -150	1
		150-400	2
	Medium		0 -125
		126 - 350	2
		351 - 500	3
Heavy		0 -85	1
		86 - 200	2
		201 - 400	3
Definitions:	Light:	Single bath units in retirement type housing with public residential type clothes washing areas.	
	Medium:	Single bath units with dishwashers, public residential type clothes washing areas. Families/9 to 5 working type occupants.	
	Heavy:	2 bath units with dishwasher and clothes washer in every unit.	
Notes:	1)	Shower head capacities not to exceed 3 GPM.	
	2)	Selections for altitudes less than 2000'. For higher altitudes, find ACF (altitude correction factor) on p. D301.0 and divide actual number of units by ACF, then select based on calculated values.	
	3)	Based on 40°F inlet and building recirculation. For alternate inlet temperatures, find TCF (temperature correction factor) on p. D302.0 and multiply actual number of units by TCF, then select based on calculated values.	

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NURSING HOMES

Selections include service of entire nursing home including a small kitchen (i.e. 1 dishwasher and 3-5 assorted sinks and small laundrying (max. capacities noted):			Selections for patient rooms only:	
# Patient Beds	Max. Total Machine Capacity in Lbs. Dry Clothes	#KC1000	# Patient Beds	#KC1000
0 - 50	75	1	0 - 100	1
51 - 125	175	2	101 - 250	2
126 - 225	250	3	251 - 400	3
Notes: <ol style="list-style-type: none"> 1) Selections do not include therapeutic baths. If maximum GPM demand of bath (or summation of baths) approaches maximum flow rate of heater, a peak storage tank may be required. 2) Shower head capacities not to exceed 3 GPM. 3) Selections for altitudes less than 2000'. For higher altitudes, find ACF (altitude correction factor) on p. D301.0 and divide actual number of beds and actual laundry capacity by ACF, then select based on calculated values. 4) Based on 40°F inlet and building recirculation. For alternate inlet temperatures, find TCF (temperature correction factor) on p. D302.0 and multiply actual number of beds by TCF, then select based on calculated values. 5) Where dishwashers are included, assumes 140°F to dishwasher. 				

PSYCHIATRIC CENTERS, MEDICAL FACILITIES, HOSPITALS

Selections include patient rooms, adjacent hot water service areas such as public bathrooms, nurses stations, janitor sinks, and small kitchen (i.e. dishwasher and 3-5 assorted sinks):		Selections for patient rooms and adjacent general hot water service areas (no kitchens):	
# Patient Beds	#KC1000	# Patient Beds	#KC1000
0 - 80	1	0 - 100	1
81 - 160	2	101 - 200	2
161 - 240	3	201 - 350	3
Notes: <ol style="list-style-type: none"> 1) Laundry service is not included. 2) Shower head capacities not to exceed 3 GPM. 3) Selections do not include therapeutic baths. If maximum GPM demand of bath (or summation of baths) approaches maximum flow rate of heater, a peak storage tank may be required. 4) Selections for altitudes less than 2000'. For higher altitudes, find ACF (altitude correction factor) on p. D301.0 and divide actual number of beds by ACF, then select based on calculated values. 5) Based on 40°F inlet and building recirculation. For alternate inlet temperatures, find TCF (temperature correction factor) on p. D302.0 and multiply actual number of beds by TCF, then select based on calculated values. 6) Where dishwashers are included, assumes 140°F to dishwasher. 			

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ELEMENTARY & MIDDLE SCHOOLS

<u># Of Students</u>	<u>#KC1000</u>
0 - 1000	1
1001 - 2000	2
Notes: See 1, 2, 3, 4 and 5 below	

HIGH SCHOOLS

<u># Of Students</u>	<u>Max. # Of Showers</u>	<u>#KC1000</u>
0 - 800	20	1
801 - 1800	40	2
1801 - 2800	60	3
Notes: See 1, 2, 3, 4 and 5 below		

COLLEGE DORMITORIES

<u># Of Students</u>	<u>Max. # Of Showers</u>	<u>#KC1000</u>
0 - 140	18	1
141 - 285	36	2
286 - 430	54	3
Notes: See 1, 2, 3 and 6 below		

Notes

- 1) Shower head capacities not to exceed 3 GPM.
- 2) Selections for altitudes less than 2000'. For higher altitudes, find ACF (altitude correction factor) in p. D301.0 and divide actual number of students and showers by ACF, then select based on calculated values.
- 3) Based on 40°F inlet and building recirculation. For alternate inlet temperatures, find TCF (temperature correction factor) in p. D302.0 and multiply actual number of students and showers by TCF, then select based on calculated values.
- 4) Where dishwashers are included, assume 140°F to dishwasher.
- 5) Selections are for all hot water service in school, including a kitchen.
- 6) Selection for dormitory areas only. Kitchens not included.

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HEALTH CLUBS/SPAS & COUNTRY CLUBS

<u># Showers</u>	<u>#KC1000</u>
30	1
60	2
90	3
Notes: See 1, 2, 3, 4 and 5 below	

PRISONS & CORRECTIONAL FACILITIES

<u># Of Showers</u>	<u>#KC1000</u>
30	1
60	2
90	3
Notes: See 1,2,3,4,6 and 7	

GYMNASIUMS

<u># Of Showers</u>	<u># KC1000</u>	<u>Gallons Stratified Storage</u>
10	1	-----
20	1	220
30	1	420
40	2	440
50	2	640
60	3	660
Notes: See 1,2,3, 8 and 9		

Notes

- 1) Shower head capacities not to exceed 3 GPM.
- 2) Selections for altitudes less than 2000'. For higher altitudes, find ACF (altitude correction factor) in p. D301.0 and divide actual number of students and showers by ACF, then select based on calculated values.
- 3) Based on 40°F inlet and building recirculation. For alternate inlet temperatures, find TCF (temperature correction factor) in p. D302.0 and multiply actual number of students and showers by TCF, then select based on calculated values.
- 4) Where dishwashers are included, assume 140°F to dishwasher.
- 5) Selections are for all hot water service in school, including a kitchen.
- 6) Selections include showers & bathrooms, janitor sinks and small kitchen (i.e. 1 dishwasher, 3-5 assorted sinks).
- 7) This table applies to facilities where the inmates are free to shower whenever they want. If they are all escorted to the shower room during a specific time period (and all are showering at once) size using the Gymnasium Method.
- 8) This sizing assumes all showers full on for a 10 minute period, with a 50 minute recovery.
- 9) See AERCO piping diagrams SD-B-432 and SD-B-434 for tank information.