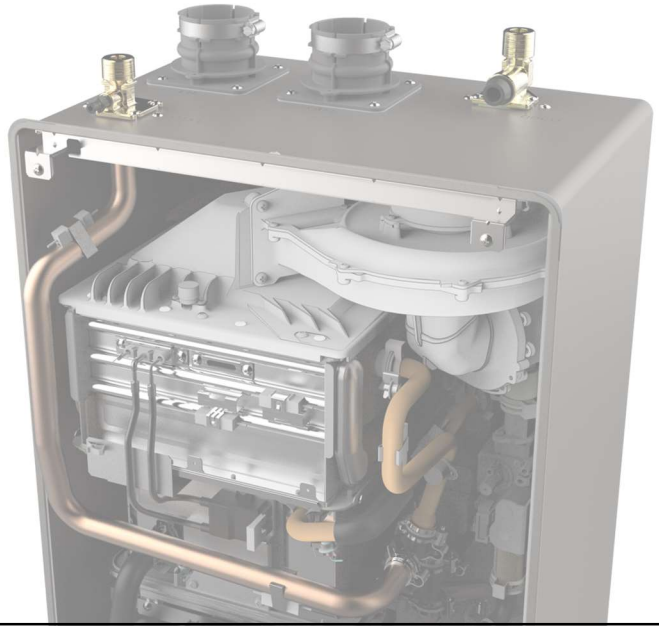
NORITZ®
TANKLESS WATER HEATERS

HOW TO SIZE A TANKLESS

It's easier than you think!



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HOW TO SIZE A TANKLESS

Proper sizing is a key aspect of the customers experience and satisfaction with their tankless.

An undersized tankless *will* provide the proper temperature but the customer will not be able to run as many hot water fixtures at the same time as they want.

This problem will be more apparent in the winter time as the cold water temperatures are even colder.

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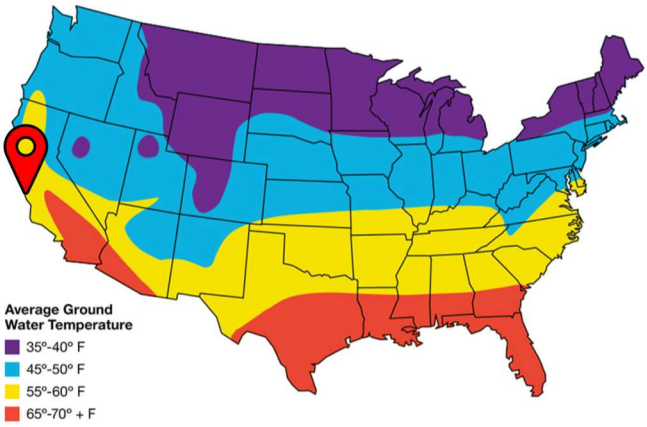
HOW TO SIZE A TANKLESS: STEP 1

Step 1: Determine your maximum temperature rise. This is the difference between the tankless set temp. and the winter time ground water temp.



For the purpose of this example let's say the home is on the central coast of California.

Based on the map, we'll say the winter ground water temp is 55 F.

Now you can determine the winter time temperature rise:

120 Set Temp – **55** Ground Water Temp = **65**

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HOW TO SIZE A TANKLESS: STEP 2

Step 2: Determine the peak hot water demand of the home. If possible, ask the homeowner.

Fixtures and appliances all have different flow rates depending on manufacturer however you can use an average amount to get a ballpark figure:

Shower: 2 gpm
Lav Sink: 1 gpm
Kitchen Sink: 1.5 gpm
Dishwasher: 2 gpm
Washing Machine: 2 gpm

Example 1:
Peak usage: 2 Showers & Washing Machine = 6 gpm

Example 2:
Peak usage: 4 Showers & Dish Washer = 10 gpm

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HOW TO SIZE A TANKLESS: STEP 3

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Step 3: Select the proper unit or pair of units using the sizing chart found online or in the product catalog.

Simply find the Temperature Rise on the left then match up a unit or pair of units that provides the approximate flow rate needed.

Temp Rise: 65

Example 1:
Peak usage: 2 Showers & Washing Machine = 6 gpm
Ideal Models:
EZ111, NRCR111, NRC111

Example 2:
Peak usage: 4 Showers & Dish Washer = 10 gpm
Ideal Models:
Pair of EZ98, NRC98, NRCR92, NR98

	Residential											
	Condensing								Non-Condensing			
Temp Rise (F°)	EZ111	NRCR111	NRC111	EZ98	NRC98	NRCR92	NRC71	NRC66 NRC63-FSV	NR98	NR83	NR66	NR50
30	11.1	11.1	11.1	9.8	9.8	9.2	7.1	6.6	9.8	8.3	6.6	5.0
35	11.1	11.1	10.9	9.8	9.6	9.2	7.1	6.4	9.6	8.3	6.6	5.0
40	9.8	9.7	9.3	8.6	8.4	8	7.1	5.5	8.4	7.6	5.8	5.0
45	8.7	8.6	8.4	7.6	7.4	7.1	6.5	4.9	7.5	6.7	5.3	4.2
50	7.8	7.8	7.4	6.9	6.7	6.4	5.8	4.4	6.7	6.1	4.6	3.9
55	7.1	7.1	6.9	6.3	6.1	5.8	5.3	4.1	6.1	5.5	4.3	3.7
60	6.5	6.5	6.2	5.7	5.6	5.3	4.9	3.7	5.6	5.0	3.8	3.3
65	6.0	6	5.8	5.3	5.2	4.9	4.5	3.4	5.2	4.7	3.6	3.1
70	5.6	5.5	5.3	4.9	4.8	4.6	4.2	3.2	4.8	4.3	3.3	2.8
75	5.2	5.2	5.1	4.6	4.5	4.3	3.9	3.0	4.5	4.0	3.1	2.7
80	4.9	4.8	4.6	4.4	4.2	4	3.7	2.8	4.2	3.8	2.9	2.5
85	4.6	4.6	4.5	4.1	3.9	3.8	3.4	2.6	4.0	3.6	2.8	2.4
90	4.4	4.3	4.1	3.8	3.7	3.6	3.2	2.5	3.7	3.4	2.6	2.2
95	4.1	4.1	4.0	3.6	3.5	3.4	3.1	2.3	3.5	3.2	2.5	2.1
100	3.9	3.9	3.7	3.4	3.4	3.2	2.9	2.2	3.4	3.0	2.3	2.0

Example 1

Example 2

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HOW TO SIZE A TANKLESS: STEP 3

Final Sizing Tip:

SCAN HERE FOR SIZING VIDEO

It's always better to slightly oversize a tankless system than to undersize it.

There's virtually no downside to an oversized system for the home however and undersized system will not provide enough hot water for the home during all times of the year.

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