

Submittal Sheet Outdoor OptiTherm® Water Heater

Job Name	
Location	
Arch./Engr	
Wholesaler	
Mech. Contractor	
Model No.	
Gas Type	
BTU/hr Input	
Recovery Rate in GPH	°F Rise
Notes	
Construction ASME Standard	
 Outdoor Modulating Condensing Commercial Water Heater Maximize your space in climate acceptable areas Maximum inputs from 125,000 to 500,000 BTU/hr Fully modulating from as low as 60,000 BTU/hr Up to 6:1 turndown ratio 99/100/125 gallon capacities Up to 99% thermal efficiency Automatic cathodic corrosion protection system No sacrificial anode rods 	
 Pre-vented - only gas/water connections required LCD user interface with optional BMS interface 	
 Ecomate[®] insulation 	
 Glass-fused-to-steel water tank and heat exchanger 	6
 SCAQMD certified Ultra-Low NOx 	C.
 Natural gas or propane fuel 	
 Stealth Quiet[™] operation 	
 Ideal for dry, warm climates 	
 UL Listed to ANSI Z21.10.3-CSA 4.3 for outdoor use - resists entry of water in accordance with industry standard 	s s s

Turboflue® High Performance Heat Exchanger:

- Patented helical-fin multi-stage design
- Superior heat conduction and fuel efficiency

Made in the USA



Submittal Sheet

Outdoor OptiTherm® Water

Storage, Inputs, Recovery &

Model	Storage GAL (L)	Max. Rated Input BTU/HR (KW)	Min. Rated Input BTU/HR (KW)	Recovery @ 100°F Rise GAL/HR	1st Hr. Del. @ 100°F Rise GAL (L)	Thermal Efficiency @ Max Input	Thermal Efficiency @ Min Input	
ODOT125N	99 (375)	125,000 (36.6)	60,000 (17.6)	144 (545)	213 (806)	96	99	
ODOT150N	99 (375)	150,000 (44.0)	60,000 (17.6)	173 (655)	242 (916)	96	99	
ODOT199N	99 (375)	199,000 (58.3)	60,000 (17.6)	229 (867)	299 (1,132)	96	99	
ODOT200N-(A)	100 (378)	199,999 (58.6)	76,000 (22.3)	228 (863)	298 (1,128)	95	98	
ODOT250N-(A)	100 (378)	250,000 (73.3)	76,000 (22.3)	282 (1,067)	352 (1,332)	94	98	
ODOT299N-(A)	100 (378)	299,999 (87.9)	76,000 (22.3)	334 (1,264)	404 (1,529)	93	98	
ODOT300N2-(A)	125 (473)	300,000 (87.9)	80,000 (23.4)	357 (1,351)	480 (1,817)	99	99	
ODOT400N2-(A)	125 (473)	399,999 (117.2)	80,000 (23.4)	466 (1,764)	587 (2,222)	97	99	
ODOT500N2-(A)	125 (473)	500,000 (146.5)	80,000 (23.4)	576 (2,180)	696 (2,635)	96	99	

NOTE: ODOT 300/400/500 available with 119 gallon Non-ASME version. NOTE: All OptiTherms available as high altitude models.



ODOT125/ODOT150/ODOT19



ODOT200/ODOT250/ODOT299/ODOT300/ODOT400/ODOT5

Note: ODOT200/250/299 are Rear Venting

GAS-FIRED

LISTED

NSF/ANSI

Dimensions and Connections

	Dimensions in Inches (cm)											Recirc	a	Shipping
Model	A	B	C	D	Е	F	G	Н	I	NPT	Hot NP	Retur	Gas NP	LBS (kg)
ODOT125N	78.50 (199)	28.00 (71)	63.50 (161)	11.25 (29)	9.19 (23)	62.43 (159)	74.25 (189)	36.43 (93)	80.75 (205)	1.5"	1.5"	1"	3/4"	755 (343)
ODOT150N	78.50 (199)	28.00 (71)	63.50 (161)	11.25 (29)	9.19 (23)	62.43 (159)	74.25 (189)	36.43 (93)	80.75 (205)	1.5"	1.5"	1"	3/4"	755 (343)
ODOT199N	78.50 (199)	28.00 (71)	63.50 (161)	11.25 (29)	9.19 (23)	62.43 (159)	74.25 (189)	36.43 (93)	80.75 (205)	1.5"	1.5"	1"	3/4"	755 (343)
ODOT200N-(A)	67.25 (171)	32.00 (81)	51.53 (131)	11.43 (29)	9.43 (24)	50.18 (127)	62.75 (159)	NA	69.50 (177)	2"	2"	NA	1"	1,195 (542)
ODOT250N-(A)	67.25 (171)	32.00 (81)	51.53 (131)	11.43 (29)	9.43 (24)	50.18 (127)	62.75 (159)	NA	69.50 (177)	2"	2"	NA	1"	1,195 (542)
ODOT299N-(A)	67.25 (171)	32.00 (81)	51.53 (131)	11.43 (29)	9.43 (24)	50.18 (127)	62.75 (159)	NA	69.50 (177)	2"	2"	NA	1"	1,195 (542)
ODOT300N2-(A)	78.80 (200)	32.50 (82)	62.75 (159)	11.40 (29)	9.40 (24)	61.70 (156)	74.00 (188)	36.30 (92)	79.66 (202)	2"	2"	1"	1.5"	1,185 (539)
ODOT400N2-(A)	78.80 (200)	3250 (82)	62.75 (159)	11.40 (29)	9.40 (24)	61.70 (156)	74.00 (188)	36.30 (92)	79.66 (202)	2"	2"	1"	1.5"	1,185 (539)
ODOT500N2-(A)	78.80	32.50 (82)	62.75 (159)	11.40 (29)	9.40 (24)	61.70 (156)	74.00	36.30	39.66 (202)	2"	2"	1"	1.5"	1,185 (539)

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NOTE: Change the suffix from "N" to "LP" to designate liquid propane. NOTE: High altitude available up to 5,400 ft, i.e. "-H25"

NOTE: "A" denotes ASME construction.

T&P valve and brass drain valve factory installed. Standard

Voltage (all): 120V, 60 Hz, 1P

Maximum Working Pressure: 150 psi (1034 kPa)

These models meet or exceed current ASHRAE standards.

Warning: Installation should be in accordance with all national and/or local codes. In the absence of local codes, refer to NFPA 54 or CSA B149.1.

AHR CERTIFIED

(on selected models)

Caution: The recommended maximum hot water temperature setting for normal residential use is 120°F. Bock recommends a tempering valve or anti-scald valve be installed and used according to the manufacturer's directions to prevent scalding.





Submittal Sheet Outdoor OptiTherm® Water Heater

Venting

For Outdoor OptiTherm® models, the venting is factory supplied as part of the equipment.

Gas Pressures (OT125-299)

For natural gas:

MINIMUM GAS SUPPLY PRESSURE (at gas control) = 3.5" W.C. (dynamic) MAXIMUM GAS SUPPLY PRESSURE (at gas control) = 10.5" W.C. (dynamic) or 14" W.C. (static)

For LP gas:

MINIMUM GAS SUPPLY PRESSURE (at gas control) = 8" W.C. (dynamic) MAXIMUM GAS SUPPLY PRESSURE (at gas control) = 13" W.C. (dynamic) or 14" W.C. (static)

Note: Dynamia prossure is massured while ass is flowing and

Gas Pressures (OT300-500)

For natural gas:

MINIMUM GAS SUPPLY PRESSURE (at gas control) = 6" W.C. (dynamic) MAXIMUM GAS SUPPLY PRESSURE (at gas control) = 10.5" W.C. (dynamic) or 14" W.C. (static)

For LP gas:

MINIMUM GAS SUPPLY PRESSURE (at gas control) = 8" W.C. (dynamic) MAXIMUM GAS SUPPLY PRESSURE (at gas control) = 13" W.C. (dynamic) or 14" W.C. (static)

Note Dynamic pressure is measured while gas is flowing and



Examples of Outdoor OptiTherm Installations





Location Requirements (ODOT 125-500)

Do not install this water heater under a deck or in a well, stairwell, alcove or other recessed area.

This water heater is only approved for installation in areas that experience sustained temperatures above 32°F and below 120°F. An overnight low or daytime high temperature can only temporarily (<2 hours) be outside of this range. Personal injury or product damage could result under other conditions.

Avoid locating the unit where it is subjected to rain from building runoff drains or water spraying out of hoses or sprinklers. Water may enter vents and damage electrical components.

Locate the heater so it is not subject to physical damage from moving vehicles or flooding.

This water heater cannot be installed directly on the ground. A level platform, made from concrete, brick, or treated wood shall be used underneath this water heater.

Do not install this water heater in an enclosed area that prohibits wind movement around the unit. Wind around the water heater allows combustion exhaust to be carried away and provides fresh combustion air. Avoid installations in corners where an eddy may develop. Eddies can lead to cross-contamination of combustion air and lead to nuisance lockouts and increase maintenance on parts.

To avoid cross-contamination of combustion air, do not locate the water heater in close proximity to other fuel burning equipment exhaust vent terminals. Maintain at least 2 feet of separation between any exhaust vent terminal within in 10 feet of the water heater, it shall be raised to an equal or greater height than the combustion air intake on the water heater.

If possible, in climates of consistent extreme heat (ambient temperature > 100° F), select a location that minimizes extensive exposure to the sun.

Clearances (ODOT125-199)

Minimum clearances from combustible construction: 6.5" Left Side, 0" Right Side, 0" Back, 0" Top, 24" Front. 0" from vent connector. Do not install this water heater under an overhang less than 3 feet from its top. The area under the overhang must be open on 3 sides. Approved for alcove installation and combustible flooring.

Minimum access clearances for servicing: 12" Left Side, 24" Right Side, 0" Back, 24" Top, 24" Front.

Clearances (ODOT200-500)

Minimum clearances from combustible construction: 0" Sides, 0" Back, 0" Top, 24" Front. 0" from vent connector. Do not install this water heater under an overhang less than 3 feet from its top. The area under the overhang must be open on 3 sides. Approved for alcove installation and combustible flooring.

Minimum access clearances for servicing: 12" Left Side, 24" Right Side, 24" Back, 24" Top, 24" Front.

UL Classified

UL classified in accordance with NSF/ANSI 372 - Drinking Water System Components (Lead content)

to comply with $\leq 0.25\%$ lead as required by the Reduction of Lead in Drinking Water Act.

UL classified in accordance with NSF/ANSI 5 – Water Heaters, Hot Water Supply Boilers,