



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
- SCAQMD certified Ultra-Low NOx
- 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

Turboflue® High Performance Heat Exchanger:

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

Made in the USA



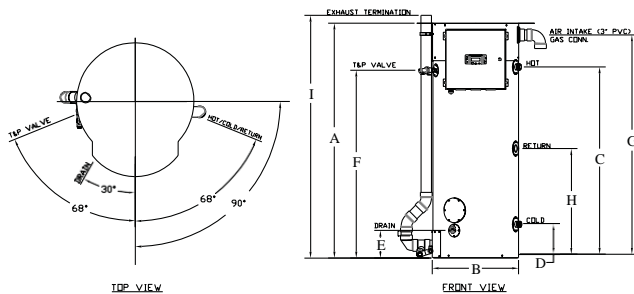
BUILT LIKE A BOCK

Storage, Inputs, Recovery &

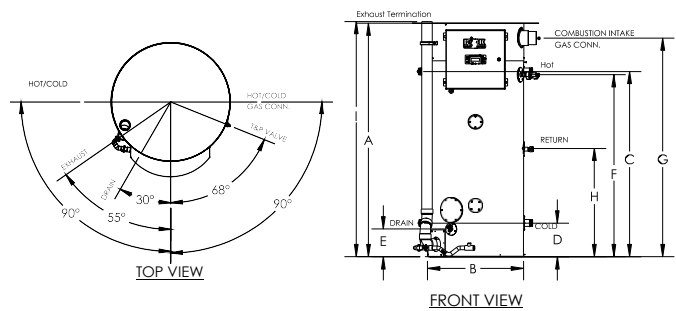
Model	Storage GAL (L)	Max. Rated Input BTU/HR (KW)	Min. Rated Input BTU/HR (KW)	Recovery @ 100°F Rise GAL/HR	1st Hr. Del. @ 100°F Rise GAL (L)	Thermal Efficiency @ Max Input	Thermal Efficiency @ Min Input
ODOT125N	99 (375)	125,000 (36.6)	60,000 (17.6)	144 (545)	213 (806)	96	99
ODOT150N	99 (375)	150,000 (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 OptiTherm®s available as high altitude models.



ODOT125/ODOT150/ODOT199



ODOT200/ODOT250/ODOT299/ODOT300/ODOT400/ODOT500

Note: ODOT200/250/299 are Rear Venting

Dimensions and Connections

Model	Dimensions in Inches (cm)									Cold NPT	Hot NP	Recirc Return	Gas NP	Shipping Weight LBS (kg)
	A	B	C	D	E	F	G	H	I					
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)	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)
ODOT500N2-(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)

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.

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: Dynamic pressure is measured while gas 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

BUILT LIKE A



Submittal Sheet

Outdoor OptiTherm® Water Heater

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 combustibile 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 combustibile flooring.

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

Clearances (ODOT200-500)

Minimum clearances from combustibile 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 combustibile 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,*