

| Commodore Submittal Sheet | |
|---------------------------|---------|
| Model | |
| | WH 299W |
| | WH 399W |
| | WH 470W |
| | WH 499W |

Commodore Water Tube Commercial Water Heaters

Job Name:

Date:

Location:

Model No.:

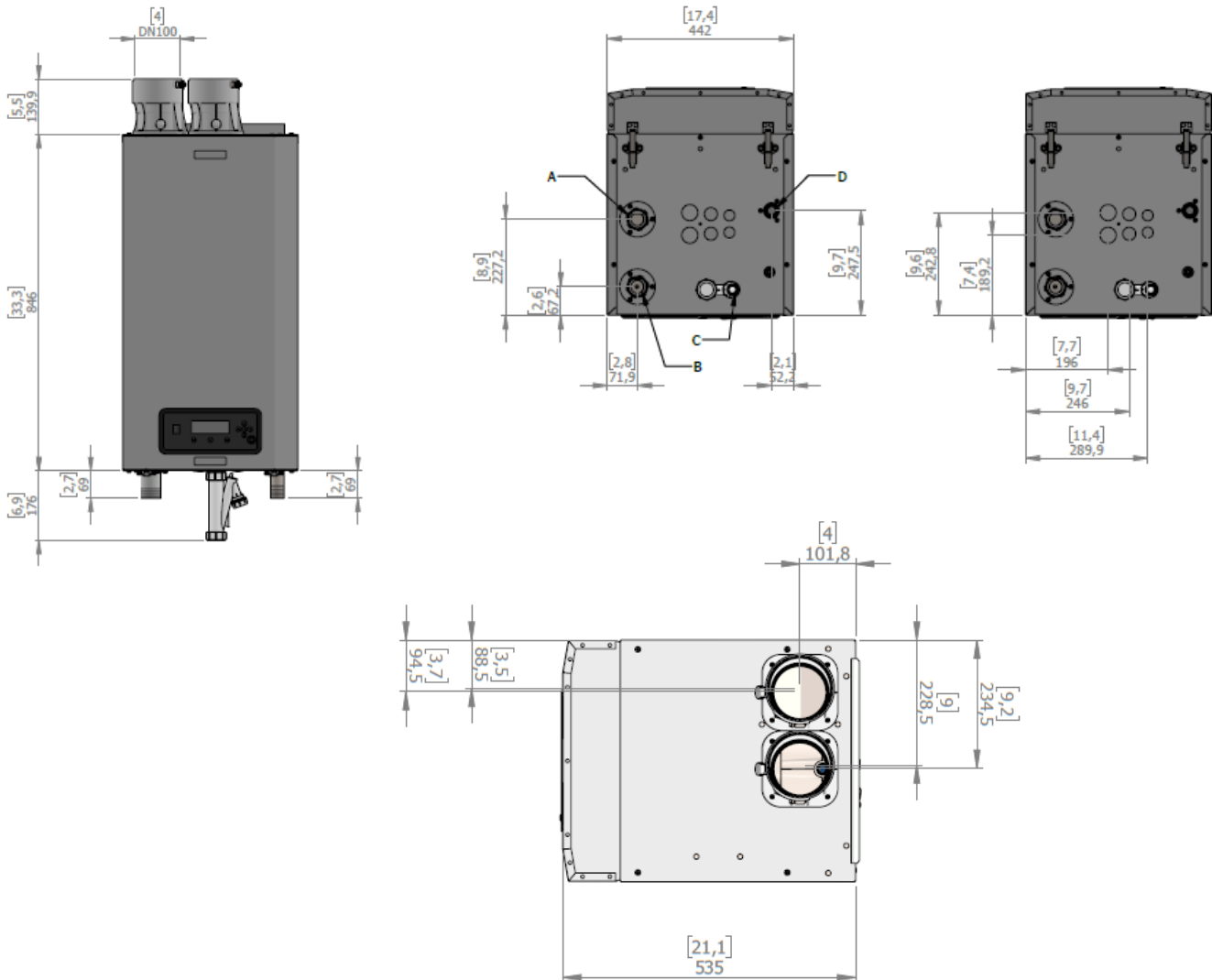
Engineer:

Gas Type:

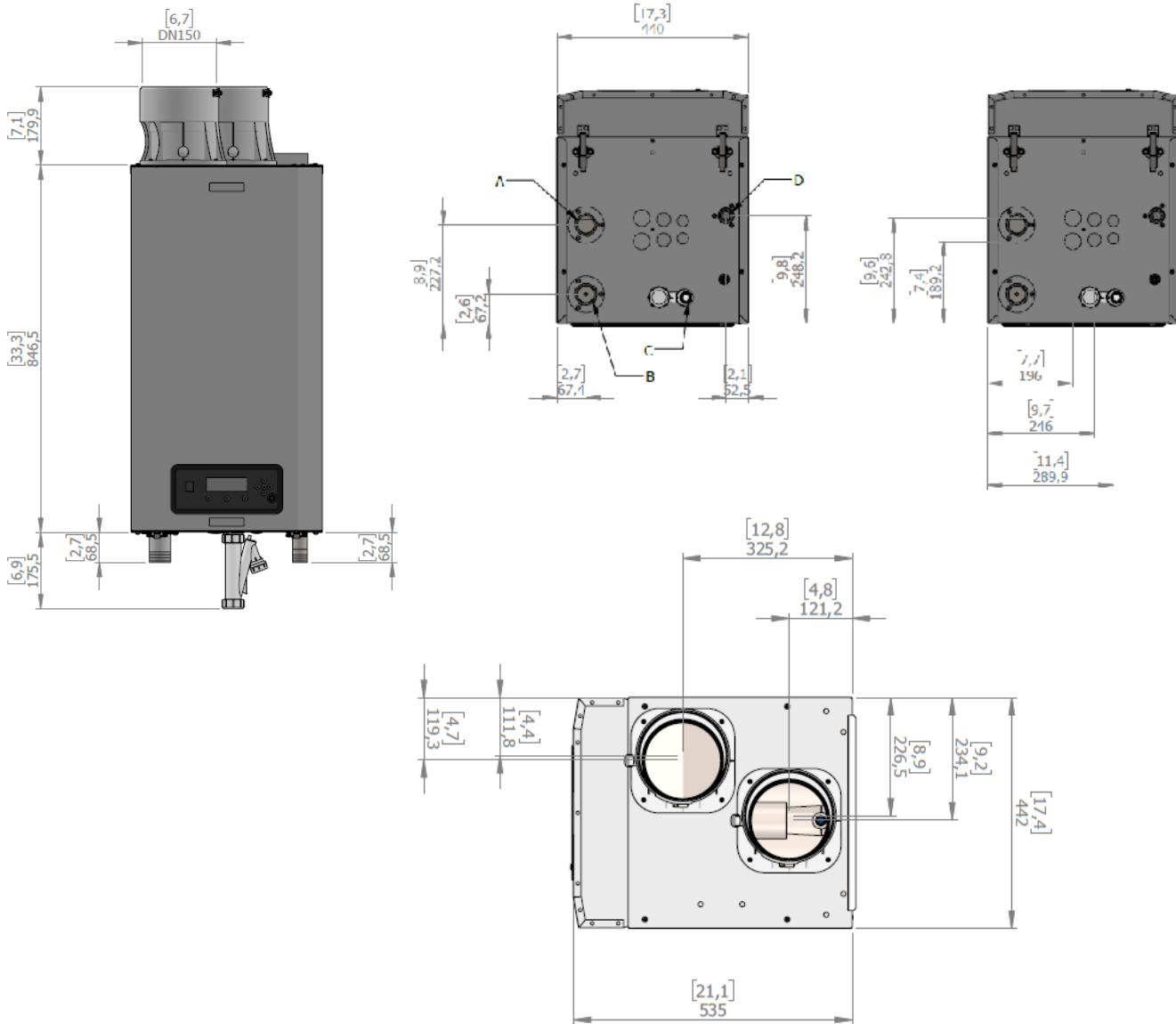
Wholesaler:

Contractor:

WH 299/399 Dimensions



WH 470/499 Dimensions



Dimensions and Specifications

| Product Selection | Model Number | S/R Water Vic. Conn. | Gas Conn. NPT | Vent Conn. | Vent Length | Height | Width | Depth | Weight lbs |
|-------------------|--------------|----------------------|---------------|------------|-------------|---------|---------|---------|------------|
| | WH 299W | 1-1/2" | 1" | 4" | 200' | 33-1/3" | 17-1/3" | 21-1/5" | 174 |
| | WH 399W | 1-1/2" | 1" | 4" | 121' | 33-1/3" | 17-1/3" | 21-1/5" | 183 |
| | WH 470W | 1-1/2" | 1" | 6" | 200' | 33-1/3" | 17-1/3" | 21-1/5" | 187 |
| | WH 499W | 1-1/2" | 1" | 6" | 200' | 33-1/3" | 17-1/3" | 21-1/5" | 187 |

Commodore Water Tube Commerical Water Heater Performance Data

| Product Selection | Model Number | Input, MBH | | Output, MBH | Maximum Supply Temp., F | GPH 100F Rise | Thermal Efficiency, % |
|-------------------|--------------|------------|-----|-------------|-------------------------|---------------|-----------------------|
| | | Min | Max | | | | |
| | WH 299W | 46 | 299 | 289 | 185 | 346 | 96.0% |
| | WH 399W | 72 | 399 | 381 | 185 | 457 | 96.0% |
| | WH 470W | 83 | 470 | 453 | 185 | 549 | 96.0% |
| | WH 499W | 83 | 500 | 475 | 185 | 583 | 96.0% |

Standard Features and Equipment

- ✓ Fold out panel with boiler control and display
- ✓ Graphic LCD display with easy to use controls
- ✓ On/Off Power Switch
- ✓ Laptop computer connection
- ✓ Supply and Return water temperature sensors
- ✓ Integrated pressure sensor
- ✓ Flue gas temperature sensor
- ✓ Burner door temperature sensor
- ✓ Rear wall thermal fuse
- ✓ Integrated flue gas check valve (non-return valve)
- ✓ Full stainless steel heat exchanger
- ✓ Premix burner
- ✓ Internal automatic air vent with drain connection
- ✓ Integrated low water cutoff
- ✓ Condensate trap
- ✓ External ignition transformer connection



Boiler and External Controls

- ✓ Large backlit LCD with full text information programming and errors
- ✓ Modbus connection standard
- ✓ 0-10 VDC remote flow temperature set point control
- ✓ 0-10 VDC remote boiler power output
- ✓ Bacnet module for remote access available

Cabinet

- ✓ Removable stainless steel side panels for easy access
- ✓ Compact design with small footprint
- ✓ Light weight design for wall hung applications (187lbs)
- ✓ Narrow width of 17.4 inches

Data Logging

- ✓ Real time and date clock
- ✓ Days of operation
- ✓ Successful ignition attempts
- ✓ Ignition failures
- ✓ Flame failures
- ✓ Up to 48 readable lockout errors
- ✓ Hours since last service
- ✓ Hours until next service
- ✓ Total days of boiler operation

Low Voltage Connections

- ✓ Outdoor temperature sensor
- ✓ System temperature sensor
- ✓ DHW temperature sensor
- ✓ Modbus
- ✓ Cascade connection
- ✓ On/Off thermostat or OpenTherm
- ✓ 0-10V VDC input
- ✓ Flow switch DHW
- ✓ PWM pump control
- ✓ External low water cut off
- ✓ Gas pressure switch
- ✓ Universal safety contact set 1 & 2

High Voltage Connections

- ✓ Boiler pump
- ✓ System pump
- ✓ DHW pump
- ✓ DHW twv (3-way valve)
- ✓ Alarm

Additional Features

- ✓ Two level frost protection
- ✓ Short cycle protection
- ✓ Adjustable minimum & maximum power
- ✓ Temperature boost function
- ✓ Multiple levels of security
- ✓ PWM control for variable speed pumps
- ✓ Domestic hot water priority time control
- ✓ Selectable priority for domestic hot water or heating

Cascade

- ✓ Integrated cascade control
- ✓ Cascade control of up to 16 boilers
- ✓ Remote operation and heat demand indication from each boiler
- ✓ Four cascade power program modes
- ✓ Boiler sequencing and rotation control
- ✓ Following boilers fully operational on failure of lead boiler

Accessories

| | |
|--|--|
| | External flow temperature sensor |
| | Indirect tank temperature sensor |
| | PC software+interface cable for programming boiler |
| | BACNET module |
| | Propane conversion kit |
| | Air filter kit |
| | Gas pressure kit |
| | 0-10V Modulating circulator signal converter |
| | 2 Circulators relay kit |
| | 3 Circulators relay kit |
| | ASME CSD-1 kit option 1 (Flow switch + manual reset high limit) |
| | Low water cutoff |
| | Fixed speed high efficiency circulator |
| | Fixed speed standard efficiency circulator |
| | Variable speed high efficiency circulator |
| | 75 psi relief valve 3/4" |
| | 85 psi relief valve 3/4" |
| | Neutralizer 400MBH - 7000MBH |



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