

Dunkirk® | D248 Water

Innovative. Efficient. Dependable. Dunkirk.

D248 Water

Commercial Gas Fired Hot Water Boiler

Electronic Ignition Base Standard Equipment:

- Base
- Fire Door
- Burner Orifice
- Manifold
- Main and Pilot Burner
- Electronic Pilot Gas Valve
- Intermittent Pilot Module
- High Gas Pressure Switch

D248 Series Boiler Bases are pre-assembled at the factory with burner manifold, burner orifices, gas valves and electronic ignition installed, ready for field installation of the pre-tested sections and appropriate packages.

Plug 'N Play Harness and Junction Box

Individual base and junction box controls are designed for easy installation with Plug 'n Play harnesses. The entire boiler links together in a "snap". A color-coded factory supplied harness eliminates wiring errors.

Modular Efficiency

Most commercial boilers are either "all-on" or "all-off". The D248 boiler when used in conjunction with the optional Argo AMB Control Kit will stage fire the individual bases. Depending on model, capacities as low as 11% of full load can be obtained for optimal performance. The optional AMB Control Kit adjusts the water temperature for increased fuel economy. The control balances section run time for increased reliability. The modular base design allows for built in back-up to reduce "no heat" situations.

CSD1 Option

D248 boilers are available with a CSD1 option to comply with CSD1 standards where required by building code. The CSD1 option provides the increased number of controls and safety devices required to meet CSD1 standards.

Water Trim Package:

- Limit Control
(two required on units 2,500,000 BTU and larger)
- Pressure Temperature Gauge
- Relief Valve
- Drain Valve
- Complete Jacket Assembly



Dunkirk D248 Commercial Gas-Fired Hot Water Boiler

Model	Input (Mbh) ⁽¹⁾	Gross Output (Mbh)	Net AHRI Ratings Water (Mbh) ⁽²⁾	Base Size & Flue Outlet			Chimney Size ⁽⁴⁾ I.D. x Ht.	Vent Connector Size to Chimney ⁽⁴⁾	Therm. Eff.	Comb Eff	Pressure Drop Thru Water Boiler	
				300 (8")	400 (10")	500 (12")					GPM	In. Water
D248-300	300	241	210	1	0	0	8" x 20'	8	77.5	80.4	18.9	0.10
D248-400	400	322	280	0	1	0	10" x 20'	10	77.5	80.5	37.8	0.50
D248-500	500	403	350	0	0	1	12" x 20'	12	77.5	80.5	25.2	0.27
D248-600	600	482	419	2	0	0	12" x 20'	12	77.5	80.4	50.4	0.86
D248-700	700	563	490	1	1	0	12" x 20'	12	77.5	80.5	31.5	0.40
D248-800	800	644	560	0	2	0	14" x 20'	14	77.5	80.5	63.0	1.20
D248-900	900	725	630	0	1	1	14" x 20'	14	77.5	80.5	37.8	0.50
D248-1000	1000	805	700	0	0	2	14" x 20'	14	77.5	80.5	75.6	1.70
D248-1100	1100	884	769	1	2	0	16" x 20'	16	77.5	80.5	44.1	0.70
D248-1200	1200	966	840	0	3	0	16" x 20'	16	77.5	80.5	88.2	2.50
D248-1300	1300	1045	909	1	0	2	16" x 20'	16	77.5	80.5	50.4	0.88
D248-1400	1400	1127	980	0	1	2	18" x 20'	18	77.5	80.5	100.8	2.90
D248-1500	1500	1208	1050	0	0	3	18" x 20'	18	77.5	80.5	56.7	1.10
D248-1600	1600	1288	1120	0	4	0	18" x 20'	18	77.5	80.5	113.4	3.80
D248-1700	1700	1367	1189	1	1	2	18" x 20'	18	77.5	80.5	63.0	1.30
D248-1800	1800	1449	1260	0	2	2	20" x 20'	20	77.5	80.5	126.0	4.00
D248-1900	1900	1530	1330	0	1	3	20" x 20'	20	77.5	80.5	69.3	1.50
D248-2000	2000	1610	1400	0	0	4	20" x 20'	20	77.5	80.5	138.6	5.00
D248-2100	2100	1688	1468	2	0	3	20" x 20'	20	77.5	80.5	75.6	1.80
D248-2200	2200	1771	1540	0	3	2	22" x 20'	22	77.5	80.5	151.2	6.00
D248-2300	2300	1852	1610	0	2	3	22" x 20'	22	77.5	80.5	81.9	2.00
D248-2400	2400	1932	1680	0	1	4	22" x 20'	22	77.5	80.5	163.8	5.60
D248-2500	2500	2013	1750	0	0	5	22" x 20'	22	77.5	80.5	88.2	2.40
D248-2600	2600	2090	1817	2	0	4	22" x 20'	22	77.5	80.5	176.4	7.00
D248-2700	2700	2171	1888	1	1	4	24" x 20'	24	77.5	80.5	94.5	2.60
D248-2800	2800	2254	1960	0	2	4	24" x 20'	24	77.5	80.5	189.0	8.30
D248-2900	2900	2335	2030	0	1	5	24" x 20'	24	77.5	80.5	100.8	2.80
D248-3000	3000	2415	2100	0	0	6	24" x 20'	24	77.5	80.5	201.0	9.60
											107.1	3.15
											214.2	10.30
											113.4	3.50
											226.8	11.00
											119.7	4.00
											239.4	12.50
											126.0	4.50
											252.0	14.00
											132.3	4.95
											264.6	16.00
											138.6	5.40
											277.2	18.00
											144.9	5.70
											289.8	17.00
											151.2	8.00
											302.4	19.00
											157.5	8.00
											315.0	20.50
											163.8	7.00
											327.6	24.00
											170.1	7.50
											340.2	24.00
											176.4	8.00
											352.8	26.00
											182.8	8.50
											365.5	27.50
											189.1	9.00
											378.2	29.00

Right & Left End Tappings Data

Opening	Size	Water
A	4"	Supply and Return
B	1/2"	Plugged
C	3/4"	Drain, Left End
B	3/4"	Drain, Right End
D	1/2"	Limit Control
E	1"	Accessories
*F	1"	Relief Valve
G	3/4"	Plugged

1. Ratings are at sea level to 2,000 feet. For altitudes above 2,000 feet, reduce all ratings 4% for each 1,000 feet above sea level.
2. Net AHRI water ratings based on a piping and pickup allowance of 1.15. Contact Technical Support before selecting boiler for installations having unusual piping and pick-up factors, such as intermittent system operations, extensive piping systems, etc.
3. Pressure drop based on given flow from single outlet and returning to single inlet at the opposite end of the boiler.
4. Chimney sizes shown are one option based on a typical venting system as shown in Figure 6 of the Installation Manual, and sized according to the National Fuel Gas Code, assuming Type B double wall vent and vent connectors, other venting system designs are acceptable as shown on Flue Connection And Venting section of the installation manual. For further chimney design and sizing information, consult the National Fuel Gas Code, ANSI Z223.1/NFPA 54-latest revision, or ASHRAE HVAC Systems and Equipment Handbook, Chimney, Gas Vent, and Fireplace Systems, or the Standard for Chimneys, Fireplaces, Vents, and Solid Fuel Burning Appliances. NFPA 211. Follow standard engineering practice.

Certifications



*If opening F is to be used for something other than the Safety Valve or Pressure Relief Valve, or the Safety/Relief Valve is larger than 1", the Safety/Relief Valve must be installed in the Header Piping as near to the boiler as possible.

All ratings and specifications subject to change.

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