



Advanced Heating
& Hot Water Systems

Elite
VWH

Hot Water Supply Boiler



VWH Statistics

Elite VWH First Hour Ratings With Storage Tank

Elite 80 VWH						
Inlet Temp.	Outlet Temp.	Recovery Gallons Per Hour	F.H.R. w/ 60 Gal. Tank	F.H.R. w/ 80 Gal. Tank	F.H.R. w/ 119 Gal. Tank	F.H.R. w/ 175 Gal. Tank
40°	80°	227	272	287	316	352
40°	90°	181	226	241	270	306
40°	100°	151	196	211	240	276
40°	110°	129	174	189	218	254
40°	120°	113	158	173	202	238
40°	130°	101	146	161	190	226
40°	140°	91	136	151	180	216
40°	150°	82	127	142	171	207
40°	160°	76	121	136	165	201
40°	170°	70	115	130	159	195
40°	180°	65	110	125	154	190

Elite 110 VWH						
Inlet Temp.	Outlet Temp.	Recovery Gallons Per Hour	F.H.R. w/ 60 Gal. Tank	F.H.R. w/ 80 Gal. Tank	F.H.R. w/ 119 Gal. Tank	F.H.R. w/ 175 Gal. Tank
40°	80°	310	355	370	399	435
40°	90°	248	293	308	337	373
40°	100°	207	252	267	296	332
40°	110°	177	222	237	266	302
40°	120°	155	200	215	244	280
40°	130°	138	183	198	227	263
40°	140°	124	169	184	213	249
40°	150°	113	158	173	202	238
40°	160°	103	148	163	192	228
40°	170°	95	140	155	184	220
40°	180°	89	134	149	178	214

Elite 150 VWH					
Inlet Temp.	Outlet Temp.	Recovery Gallons Per Hour	F.H.R. w/ 80 Gal. Tank	F.H.R. w/ 119 Gal. Tank	F.H.R. w/ 175 Gal. Tank
40 ⁰	80 ⁰	423	483	512	548
40 ⁰	90 ⁰	338	398	427	463
40 ⁰	100 ⁰	282	342	371	407
40 ⁰	110 ⁰	242	302	331	367
40 ⁰	120 ⁰	212	272	301	337
40 ⁰	130 ⁰	188	248	277	313
40 ⁰	140 ⁰	169	229	258	294
40 ⁰	150 ⁰	154	214	243	279
40 ⁰	160 ⁰	141	201	230	266
40 ⁰	170 ⁰	130	190	219	255
40 ⁰	180 ⁰	121	181	210	246

Elite 220 VWH					
Inlet Temp.	Outlet Temp.	Recovery Gallons Per Hour	F.H.R. w/ 80 Gal. Tank	F.H.R. w/ 119 Gal. Tank	F.H.R. w/ 175 Gal. Tank
40°	80°	647	707	736	772
40°	90°	517	577	606	642
40°	100°	431	491	520	556
40°	110°	370	430	459	495
40°	120°	323	383	412	448
40°	130°	287	347	376	412
40°	140°	259	319	348	384
40°	150°	235	295	324	360
40°	160°	216	276	305	341
40°	170°	199	259	288	324
40°	180°	185	245	274	310

Elite 299 VWH / Elite 301 VWH					
Inlet Temp.	Outlet Temp.	Recovery Gallons Per Hour	F.H.R. w/ 80 Gal. Tank	F.H.R. w/ 119 Gal. Tank	F.H.R. w/ 175 Gal. Tank
40°	80°	861	921	950	986
40°	90°	689	749	778	814
40°	100°	574	634	663	699
40°	110°	492	552	581	617
40°	120°	431	491	520	556
40°	130°	383	443	472	508
40°	140°	344	404	433	469
40°	150°	313	373	402	438
40°	160°	287	347	376	412
40°	170°	265	325	354	390
40°	180°	246	306	335	371

Elite 399 VWH					
Inlet Temp.	Outlet Temp.	Recovery Gallons Per Hour	F.H.R. w/ 80 Gal. Tank	F.H.R. w/ 119 Gal. Tank	F.H.R. w/ 175 Gal. Tank
40°	80°	1142	1202	1,231	1,267
40°	90°	914	974	1,003	1,039
40°	100°	761	821	850	886
40°	110°	653	713	742	778
40°	120°	571	631	660	696
40°	130°	508	568	597	633
40°	140°	457	517	546	582
40°	150°	415	475	504	540
40°	160°	381	441	470	506
40°	170°	351	411	440	476
40°	180°	326	386	415	451

Elite VWH Water Flow At Various Temperature Rise

		20°Δt	30°Δt	40°Δt	50°Δt	60°Δt	70°Δt	80°Δt	90°Δt	100°Δt	110°Δt	120°Δt	130°Δt	140°Δt
Model	AFUE	RECOVERY RATE IN GAL. PER HOUR BASED ON TEMP. RISE BETWEEN INLET TEMP. AND OUTLET TEMP.												
Elite 80VWH	95.9%	453	302	227	181	151	129	113	101	91	82	76	70	65
Elite 110VWH	95.7%	620	414	310	248	207	177	155	138	124	113	103	95	89
Elite 150VWH	95.5%	846	564	423	338	282	242	212	188	169	154	141	130	121
Elite 220VWH	95.2%	1294	862	647	517	431	370	323	287	259	235	216	199	185
Elite 299VWH	93.0%	1722	1148	861	689	574	492	431	383	344	313	287	265	246
Elite 399VWH	95.0%*	2284	1523	1142	914	761	653	571	508	457	415	381	351	326

* Thermal Efficiency (Not AFUE)

Best In Class Features

Elite VWH **Hot Water Supply Boiler**

Best Turndown Ratio

The Elite VWH has a 5 to 1 turndown. Greater turndown allows this appliance to modulate at lower firing rates which reduces short cycling, conserves energy and improves component reliability.

Best Range 7 inputs, floor & wall mount

The Elite VWH offers six input options ranging from 80,000 to 399,000 BTU's. This range will offer you the flexibility that you need to properly size your installation.

Best Venting 200 Feet

Maximize your venting options. The Elite VWH offers an impressive combined 200 feet vent length allowing incredible installation flexibility. All Elite Heating Boilers are vented in easy to install PVC venting and utilize a built in ULC S636 compliant CPVC adaptor.

Up To 95.9% Thermal Efficiency



Competitive Edge



The Innovative Elite VWH Hot Water Supply Boiler

Total System Control
- Monitors System Performance
- Allows Cascading

ASME Stainless Steel Heat Exchanger

Flow Switch is Standard

Models Available for Natural or LP Gas

Quality Construction

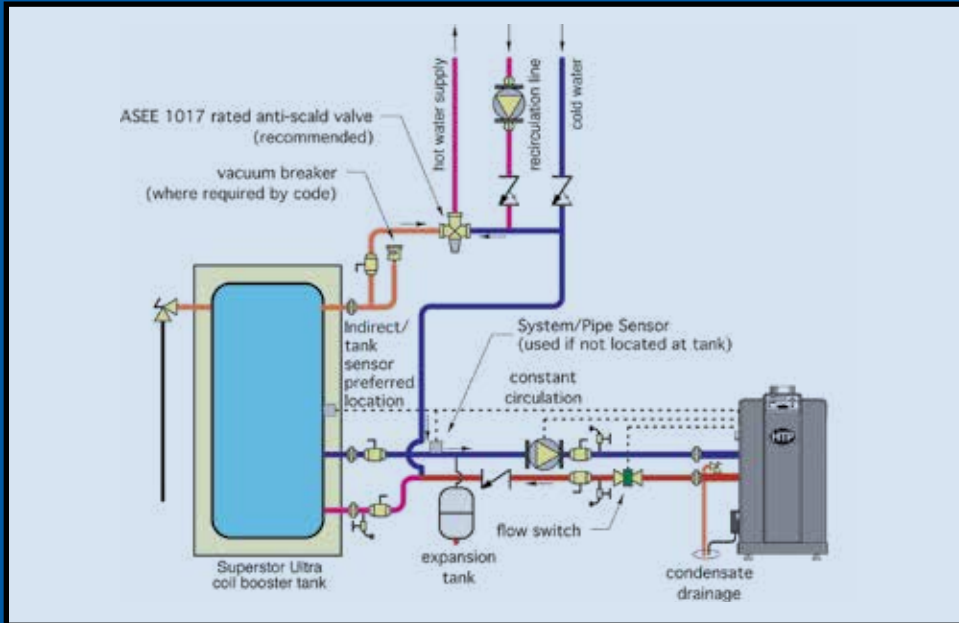
Ease of Serviceability

5 Year Limited Warranty

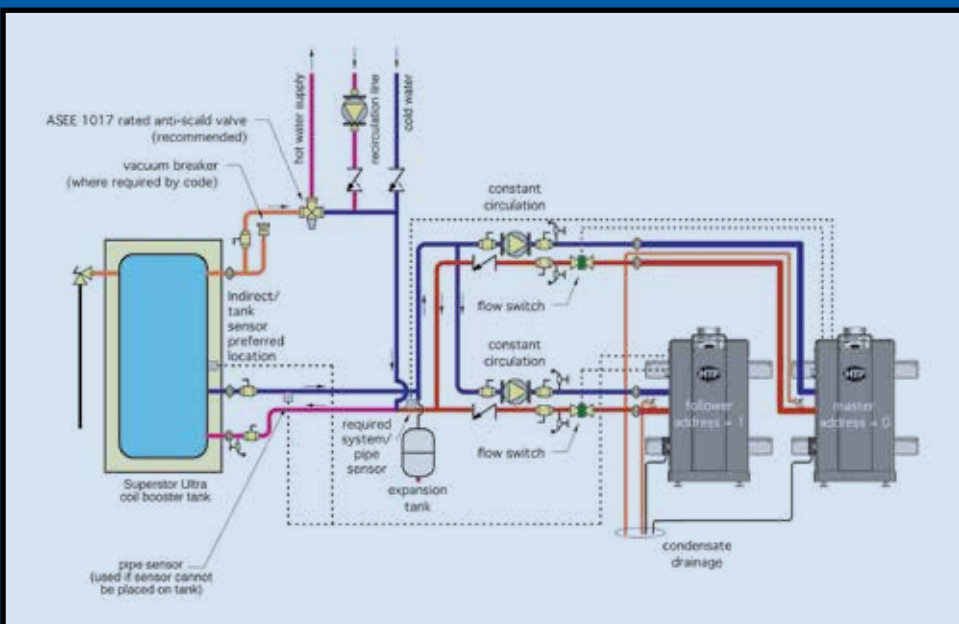
Eligible for Federal Tax Credit

Installation

Piping Concepts



Domestic Hot Water Using Elite VWH (1 boiler supplying 1 storage tank)



Domestic Hot Water Using Elite VWH (2 boilers supplying 1 storage tank)

Floor or Wall Mounted

- *Wall Mount Kit Optional*

0 Clearance from Combustibles

- *At Back and Right Side of Unit*

Combined vent length of 200 feet

PVC- CPVC- Stainless Steel Venting

This unit gives you the ability to cascade up to 8 boilers. The benefits of installing multiple units provides greater turndown, an abundant supply of hot water and additional cost savings.

Total System Control

- 2 line, 40 Character Display
- Dual Level Password Security
- Built in Cascading Sequencer for up to 8 Water Heaters
- Building Management System Integration w/ 0-10 VDC Input
- Low Water Flow Safety Control & Indication
- Inlet & Outlet Temperature Sensors & Readout
- Flue Temperature Sensor
- Water Heater Pump Control
- Pump Delay w/ Freeze Protection
- Time Clock
- Service Reminder
- **High Voltage Terminal Strip**
 - 120 VAC/ 60 Hertz/ 1 Phase Power Supply
 - Pump Control Contacts
- **Low Voltage Terminal Strip**
 - Flow Switch
 - Alarm on Any Failure
 - Tank Sensor
 - Cascade Communication Via Cat5 Cable

Included In The Box

- Pressure and Temperature Gauge
- Indirect Sensor
- Outdoor Sensor
- Pressure Relief Valve
- Outlet Combination Fitting
- Flow Switch and Paddles
- Installation Manual
- Warranty
- Indirect Tank Sensor

Standard Features

- Up to 95.9% AFUE
- Modulating Burner
 - 5 to 1 Turndown Ratio
- **Venting Options**
 - Direct Vent
 - Vertical w/ Sidewall Air
 - 200 Feet
 - Concentric
- Intake PVC Tee w/ Screens
- Exhaust PVC Coupling w/ Screens

Optional Equipment

- Wall Mount Bracket
- System Sensor
- 3", 4", 6" Stainless Steel Outside Termination Vent Kit
- 3" PVC Concentric Vent Kit
- U.L. 353 Compliant LWCO Interface Kit w/ Manual Reset
- Alarm System
- PC Connection Kit
- Condensate Neutralizer
- SS Circulators with SS flange Set



Elite VWH Boiler Dimensions & Specifications



MODELS	AFUE
EL-80 VWH	95.9
EL-110 VWH	95.7
EL-150 VWH	95.5
EL-220 VWH	95.2
EL-299 VWH	93.0
EL-301 VWH	95.0*
EL-399 VWH	95.0*

* Thermal Efficiency (Not AFUE)



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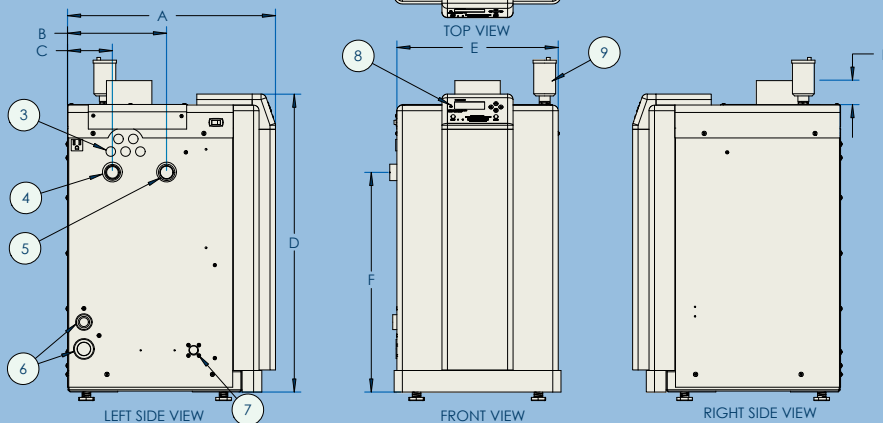
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* Optional Pump (flange) 7450P-242 - All Elite VWH pumps are sold separately

* "I" denotes natural gas "LP" denotes propane
All dimensions are approximate and are subject to change

- 1 EXHAUST VENT CONNECTION
- 2 COMBUSTION AIR INLET CONNECTION
- 3 ELECTRICAL CONNECTIONS
- 4 SYSTEM RETURN

- 5 SYSTEM SUPPLY WITH INTEGRATED RELIEF VALVE
- 6 CONDENSATE CONNECTION
- 7 GAS LINE CONNECTION
- 8 DISPLAY/CONTROL PANEL
- 9 AIR RELEASE VENT

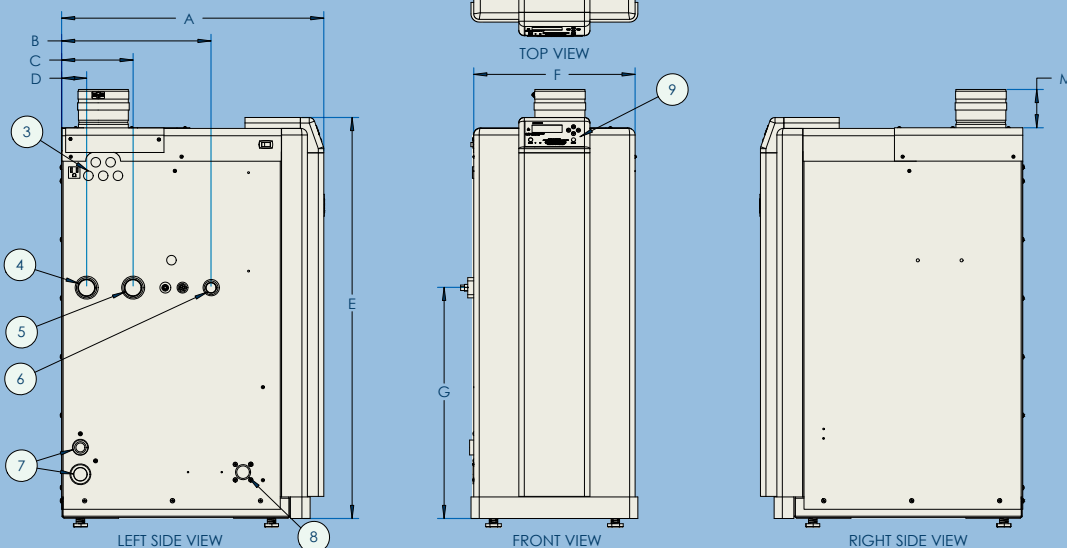


MODEL*	A	B	C	D	E	F	G	H	J	K	L	SHIPPING WEIGHT
EL-80 VWH	18.50	9.00	2.50	27.25	14.50	20.00	11.75	7.38	5.75	10.00	2.18	108
EL-110 VWH	18.50	9.00	2.50	27.25	14.50	20.00	11.75	7.38	5.75	10.00	2.18	113
EL-150 VWH	19.50	10.50	2.50	27.25	14.50	20.00	11.75	7.38	4.25	8.50	2.18	126
EL-220 VWH	26.50	17.50	6.00	27.25	14.50	20.00	11.75	7.38	4.25	8.50	2.18	164

MODEL	BTU/INPUT LOW FIRE	DOE HEATING	IBR	SUPPLY/RETURN	EXHAUST/AIR INLET	GAS CONNECTION
EL-80 VWH	16,000-80,000	14,600-73,000	63,000	1"	3"	3/4"
EL-110 VWH	22,000-110,000	20,200-101,000	88,000	1"	3"	3/4"
EL-150 VWH	30,000-150,000	27,400-137,000	119,000	1"	3"	3/4"
EL-220 VWH	44,000-220,000	40,600-203,000	177,000	1"	3"	1"

- 1 EXHAUST VENT CONNECTION
- 2 COMBUSTION AIR INLET CONNECTION
- 3 ELECTRICAL CONNECTIONS
- 4 SYSTEM RETURN

- 5 SYSTEM SUPPLY
- 6 RELIEF VALVE
- 7 CONDENSATE CONNECTION
- 8 GAS LINE CONNECTION
- 9 DISPLAY/CONTROL PANEL



MODEL*	A	B	C	D	E	F	G	H	J	K	L	M	SHIPPING WEIGHT
EL-299 VWH	23.75	13.50	6.38	2.25	36.50	14.50	21.00	11.00	7.88	3.63	8.50	3.00	211
EL-301 VWH	23.75	13.50	6.38	2.25	36.50	14.50	21.00	11.00	7.88	3.63	8.50	3.00	211
EL-399 VWH	30.75	20.50	9.75	2.75	36.50	14.50	21.00	11.00	7.88	3.63	8.50	3.00	256

MODEL *	BTU/INPUT LOW FIRE	DOE HEATING	IBR	SUPPLY/RETURN	EXHAUST/AIR INLET	GAS CONNECTION
EL-299 VWH	60,000 - 299,000	55,000 - 275,000	239,000	1-1/4"	4"	1"
EL-301 VWH	60,000 - 301,000	55,000 - 275,000	239,000	1-1/4"	4"	1"
EL-399 VWH	80,000 - 399,000	76,200 - 381,000	331,000	1-1/2"	4"	1"