



DURAWATT®

ISO 9001

ASME Electric Storage Water Heaters

9 to 360kW
125 to 4500 Gallon Storage Tanks

FABRICATED FROM...



**NO TANK LINING REQUIRED
NO ANODE RODS REQUIRED**



**AquaPLEX®
DUPLEX
STAINLESS STEEL
TANK WITH A
25-YEAR
CORROSION
WARRANTY**

**INCOLOY OR
ELECTRO-POLISHED
INCOLOY
HEATING ELEMENTS
IN 20, 40 OR 80 WATT
DENSITY**

**MANWAY ACCESS
STANDARD ON ALL
TANK SIZES**

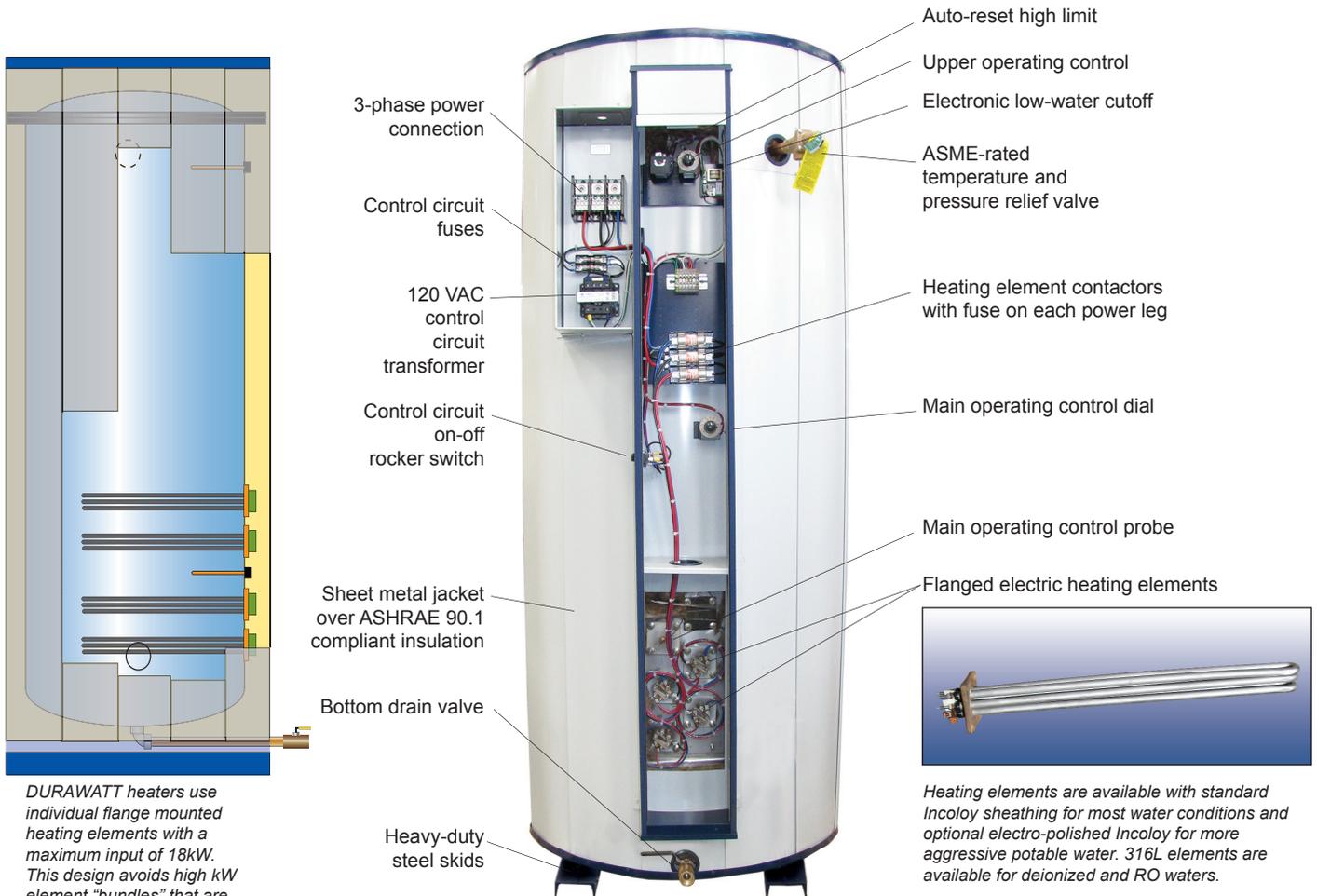
**CAN BE COMBINED
WITH SOLAR,
WASTE HEAT,
STEAM OR
BOILER WATER**

ASHRAE 90.1
compliant



DURAWATT®

ASME Electric Storage Water Heaters



TYPICAL CONSTRUCTION (SHOWN WITH STANDARD EQUIPMENT ONLY)

Standard Features (in addition to those shown above)

- ASME stamped and National Board Registered for 150 psi maximum allowable working pressure
- ETL listed to UL 1453 and CAN/CSA-C22.2
- Supply voltages of 208/3, 240/3, 380/3, 480/3 or 600/3
- Incoloy sheathed heating elements in 40 or 80 watt density
- Nonferrous fittings at all tank connections
- Manway sized access on all tank sizes
- Proportional sequencing of heating elements at inputs of 72 kW and higher

Optional Equipment

- Electronic operating control with Modbus RTU for connection to Building Automation System (gateways for Bacnet and Lonworks are available)
- Pressure gauge
- Bronze tank circulator (pre-piped)
- Audible alarm
- Manual-reset high limit
- Tank lifting lugs (standard on 400 gallons and larger)
- Safety Door Interlock
- CSA rating on temperature and pressure relief valve(s)
- Incoloy sheathed heating elements in 20 watt density

Contact your PVI representative for additional options.

A Tank Material So Good, that Linings are Not Required



AquaPLEX® - engineered duplex alloy

The storage tank on DURAWATT water heaters is fabricated entirely from AquaPLEX duplex stainless steel. This is a blended alloy of 300- and 400-series stainless that captures the benefits of both materials.

AquaPLEX is fully pickle-passivated after complete tank fabrication and is naturally immune to corrosion in potable water regardless of temperature. As a result, AquaPLEX requires no supplemental tank lining and no anode rods whether sacrificial or impressed current. Because corrosion is not possible, there is simply nothing for an anode rod to do.

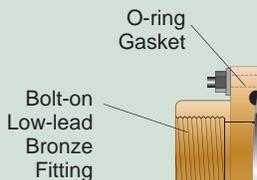
Compared to 316L or 304L stainless steel, AquaPLEX is better suited for use with potable water due to its resistance to chloride stress corrosion cracking which can affect 300-series stainless steels if dissolved salts are in the water supply. AquaPLEX is more resistant to chloride corrosion due to its duplex grain structure, a feature not found in 300-series stainless steels.

Comparison of AquaPLEX with Glass Tank Linings (porcelain enamel) and Thermosetting Epoxy Polymers

	Porosity	Anodes Required?	Suffers at High Temperature?	Complete Waterside Coverage and Protection	Standard Warranty
AquaPLEX	None	No	No	Yes	25 years
Glass Linings	Inherent	Yes	Yes, erodes	No. Exposure at the tank fittings and weld seams	3 or 5 years
Epoxy Polymers	Common	Yes	Yes, degrades	No. Exposure at the tank fittings	3 or 5 years



Corrosion-Proof Solid-Bronze Tank Fittings are Standard



The most obvious advantage of this design is an inherently corrosion-proof, non-ferrous fitting where other manufacturers use carbon steel fittings lined with glass or epoxy. Lined fittings provide only temporary corrosion protection as is evidenced by the requirement to use dielectric nipples when connecting their heaters to copper piping.

Tank Wall

More than one-quarter million of these removable bronze fittings are in service!

Optional Electronic Controls for BAS Communication

The TempTrac® electronic operating control allows the building's automation system to monitor and control the operation of the DURAWATT water heater through built-in Modbus RTU protocol. Network communicated points include operating set point (remotely adjustable), sensed temperature and alarm status.

All parameters are fully programmable including night time or weekend temperature adjustment. Custom communication gateways are available for BacNet and Lonworks building automation systems.



CUSTOMIZATION for DI WATER or DUAL ENERGY

DURAWATT heaters can be custom fabricated for deionized or high-purity RO water. These heaters use AquaPLEX tanks, stainless steel heating elements, stainless steel fittings and components.

DURAWATT water heaters can also be combined with additional energy sources in the same tank; including gas, oil, steam, solar or boiler water.

DURAWATT®

ASME Electric Storage Water Heaters

Available Recoveries and Electrical Characteristics

Model Number Prefix	kW Input	BTU Input	Recovery Rate Gallon per Hour		Amps		
			40° to 120°F	40° to 140°F	208V, 3ø	240V, 3ø	480V, 3ø
45	9	30,700	45	37	25	22	11
90	18	61,400	90	70	50	44	22
140	27	92,100	140	111	75	65	33
180	36	122,800	180	150	100	87	44
230	45	153,500	230	184	125	109	55
270	54	184,250	270	220	150	130	65
320	63	215,000	320	256	175	152	76
370	72	245,660	370	300	200	174	87
410	81	276,370	410	330	225	195	98
460	90	307,000	460	370	250	217	109
510	99	377,790	510	400	275	239	120
550	108	368,500	550	440	300	260	130
650	125	426,500	650	515	350	304	152
740	144	491,330	740	590	400	347	174

The above table represents our most common configurations. Inputs up to 360kW are available. For alternate kW input and alternate voltages, contact your PVI representative.

Rough-in Dimensions (inches)

Tank Size (gallons)	Height (H)	Width (W)	Depth (D)
125	76	31	38
150	63	34	44
200	75	34	44
250	85	34	44
300	75	46	53
400	87	46	53
500	78	56	63
600	90	56	63
750	83	67	74

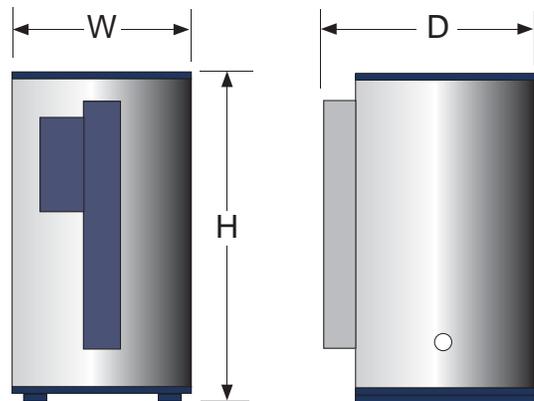


Table represents our most common tank configurations. For larger tanks (up to 4500 gallons) or horizontal tanks, contact your PVI representative.