

## The "Squeeze-Through" High Capacity Hot Water Generator For Electric Conversion Without Tears

### Also Available for:

- Domestic Hot Water
- Thermal Oils
- Glycol/Water
- Oils
- Acid Liquids

The ACME-SLIM packages represent 40 years of experience in electric heating, temperature control and manufacture of large integrated package units.

They are designed to suit the various conditions required by new construction, conversion jobs, stand-by Hot water Generators, etc.

ACME-SLIM's are built narrow or control high in order to pass through existing 26" doors or corridors and require a minimum of floor space.

Piping and panel arrangements are designed to match physical layouts of existing equipment rooms therefore reducing installation costs.

### Application:

The ACME-SLIM is ideal when converting to electric heating energy. It can be added to existing systems with a minimum of fieldwork includes state of art controls for extracting the maximum of energy available from the exiting electric power entrance.



The integral Bi-Energy control option will allow the operation of both the new electric boiler(s) and the existing oil or gas-fired boiler(s) according to outdoor temperature or special requirements.

The "MODULELECTRIC" Power Demand Control (optional) will allow the user to extract from the existing electric power entrance whenever this energy is available below the demand meter maximum value.

The ACME-SLIM can also be combined with thermal storage using existing upgraded or new tanks.

## Description

Hot Water Boilers shall be complete with the following standard trim and controls:

- Pressure vessels should be built according to ASME latest codes and carry the local CRN registration.
- Main lugs for supply circuit on the splitter.
- Control transformer with fused primary.
- 120V control circuit breaker and pilot light.
- Contactors rated for 500,000 mechanical operations.
- Integral circuit protection fuses, rated for 200,000 amps interrupting capacity.
- Proportioning temperature control to balance power input to match system demand (above 90 KW).
- Display temperature controller of setpoint and process temperature, and associated sensors.
- Independent high-temperature limit control with manual reset or separate circuit.
- Low water cutoff.
- External interlock terminals as required.
- Pressure safety valve.
- Temperature and pressure gauge.

## Standard Boiler Features

Hot water boilers include the following items:

- Main lugs for cable supply circuits.
- Individual circuit fusing.
- Magnetic contactors.
- Heating elements.
- 120V control circuits.
- Customer's external interlock connection.

- High-temperature cut-off, manual reset.
- Low water cut-off, electronic.
- Temperature control, electronic.
- Solid-state progressive sequencing step control.
- Temperature sensor.
- Main control on/off switch.
- Pilot light, control power.
- Pressure-temperature gauge (loose).
- Pressure relief valve.
- Heating elements with Incoloy sheathing at  $75 \text{ w/in}^2 = 11.63 \text{ w/cm}^2$  for water, individually field replaceable with standard tools.
- Lifting lugs and anchor provision as applicable.

## Optional Boiler Features

These are some of the most frequent optional items. Our engineering staff can provide for many other special requirements:

- Boilers disconnect switch, door interlocked.
- Terminals for external demand limiting control.
- Manual reset low water cut-off.
- Auxiliary low water cut-off.
- High- or low-pressure cut-off.
- Pilot lights for individual steps.
- Individual stage toggle switches.
- Outdoor reset controls.
- Demand limiting controls.
- Electric door interlocks.
- Audible and visual alarm circuit.
- Ground fault detection with shunt trip on disconnect switch or circuit breaker.
- Voltmeter with phase selector switch.
- Ammeters, one per phase.
- kW indicator.
- Connection to BAS.

# SELECTION TABLE FOR HIGH-CAPACITY UNITS

1. The first section shows the dimensions of different capacities of boilers with one pressure vessel tube starting with 45 Kw to 180 Kw. (See the table bellow)

Model No.	Kw	Voltage PH	No. of Shells	Max No. of Stages	Inlet/Outlet	Hot Water			Panel Size			Flow (GPM) @ $\Delta T$ 20°F (11°C)
						Width (W)	length (L)	Heigh (H)	Width (W)	Length (L)	Heigh (H)	
						IN	IN	IN	IN	IN	IN	
<b>ONE TUBE PRESSURE VESSEL DESIGN</b>												
WGH-45	45	600V 3 PH	1	1	2" NPT	24	30	60	24	8	60	16
WGH-90	90	↓	↓	2	2" NPT	↓	↓	↓	↓	↓	↓	31
WGH-135	135	↓	↓	3	2" NPT	↓	↓	↓	↓	↓	↓	46
WGH-180	180	↓	↓	4	2" NPT	↓	↓	↓	↓	↓	↓	62

2. The second section shows the dimensions of different capacities of boilers with two pressure vessels tubes starting with 225 Kw to 360 Kw. (See the table bellow)

Model No.	Kw	Voltage PH	No. of Shells	Max No. of Stages	Inlet/Outlet	Hot Water			Panel Size			Flow (GPM) @ $\Delta T$ 20°F (11°C)
						Width (W)	length (L)	Heigh (H)	Width (W)	Length (L)	Heigh (H)	
						IN	IN	IN	IN	IN	IN	
<b>TWO TUBES PRESSURE VESSEL DESIGN</b>												
WGH-225	225	600V 3 PH	2	5	3" 150 #FL	24	46	60	24	8	60	77
WGH-270	270	↓	↓	6	3" 150 #FL	↓	↓	↓	↓	↓	↓	93
WGH-315	315	↓	↓	7	3" 150 #FL	↓	↓	↓	↓	↓	↓	108
WGH-360	360	↓	↓	8	3" 150 #FL	↓	↓	↓	↓	↓	↓	123

- **Flows to suit the application.**
- **Similar units are available for other voltages.**
- **Similar units are available for higher KW capacity.**
- **Vertical similar units are available with vertical vessels.**
- **Control panels can be NEMA 1, NEMA 12, NEMA 4, or NEMA 4X.**
- **Vessels could be also SS304 or SS316 if required.**

# ELECTRIC ACME PRODUCT LINE

## ELECTRIC STEAM BOILERS AND HOT WATER BOILERS

Available in sizes from 45 KW to  
4 MW at all common voltages  
up to 600 V, 3 PH



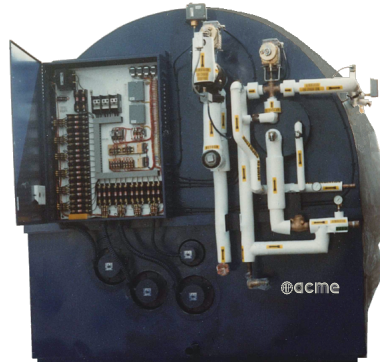
## STEAM SUPERHEATERS

Available for  
operating  
pressures of up  
to 800 PSIG and  
temperatures  
up to 1200°F



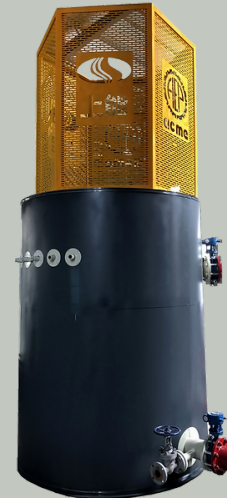
## COMBINED HEATING AND DHW WITH STORAGE

Independent control  
of water heating,  
DHW, and glycol  
mixture



## HIGH VOLTAGE JET TYPE OR IMMERSED ELECTRODE STEAM AND HOT WATER BOILERS

Capacity range: 2500 to 68,000 KW.  
Electric Power Supply Voltage: 4160 V to  
25000 V



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