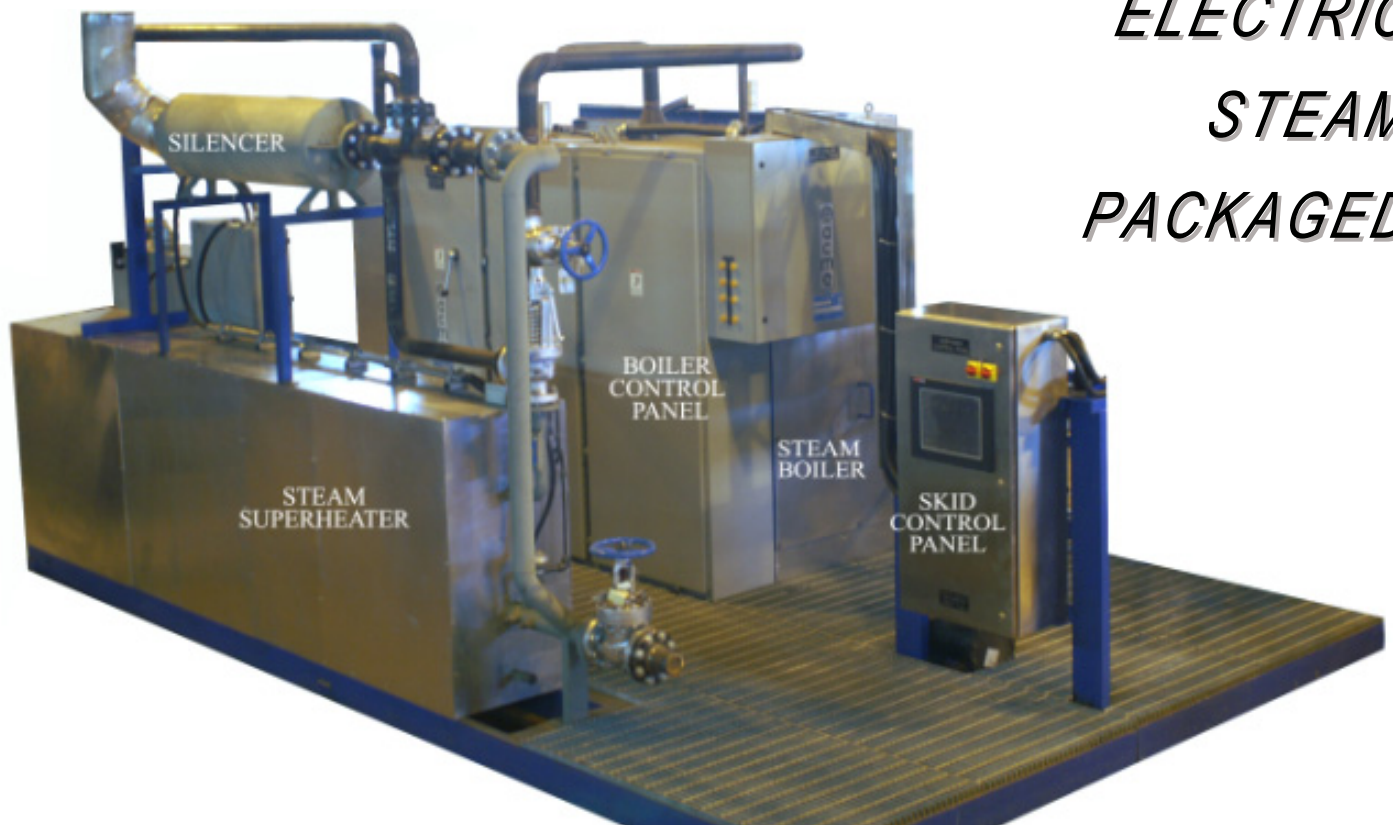


## AUXILIARY BOILER SYSTEMS



*ELECTRIC  
STEAM  
PACKAGED*

Power generation projects require an auxiliary boiler system to provide steam on start-up, during maintenance shut-downs, for steam turbine gland systems, etc.

For maximum flexibility of operation, quick response, precise of control and avoidance of environmental consequences, the electric solution is the best choice.

For the past 45 years ACME-AEP has manufactured the key components of auxiliary boiler systems, namely boilers, superheaters, secondary pressure vessels and associated control systems.

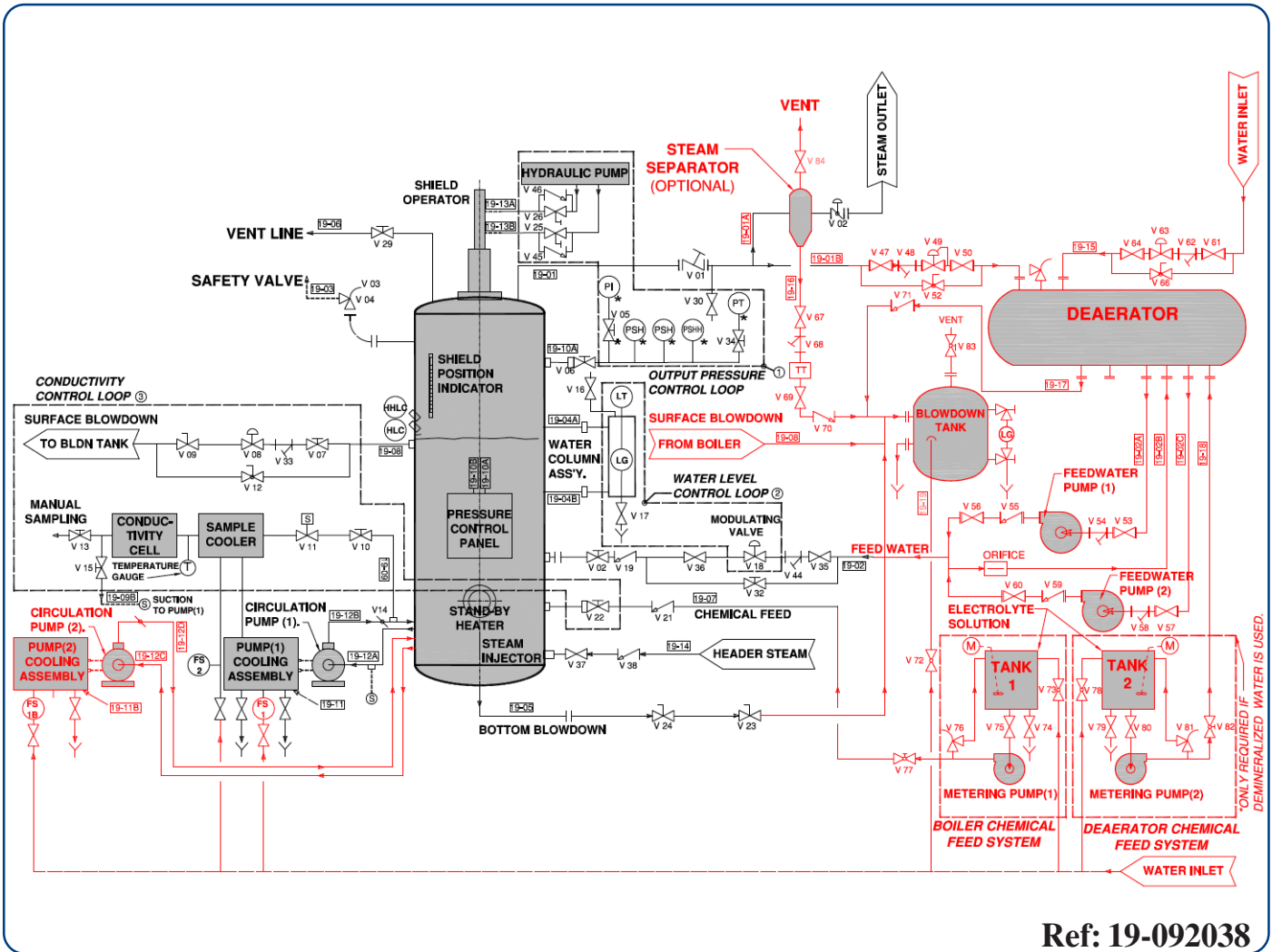
The Acme ABS Packages are up to date solutions to current problems.

Pressure Vessels are built to ASME Code or EU Pressure Vessels Directive.

Electrical Standards meet CSA or UL or CE.

Quality control is according to ISO 9001 (2000).





**P & I DIAGRAM FOR CEJS HIGH VOLTAGE ELECTRODE BOILER WITH 2 CIRCULATION PUMPS**

The two diagrams shown are built around the key boiler component availability:

**CEJS High Voltage Electrode Steam Boiler**

**Power:** 5 MW to 52 MW

**Voltages:** 6.9 kV to 25 kV, 3 phase, 4 wires

**Design Pressure:** 150 PSI to 500 PSI

**Operating Pressure:** 105 PSI to 450 PSI

**VERTICAL BOILER**

**Metal:** Carbon steel

**24 SC Immersion Element type Boiler**

**Power:** 600 kW to 3.5 MW

**Voltages:** 380 V, 400 V, 415 V, 480 V, 600 V, 3 phase, 50/60Hz

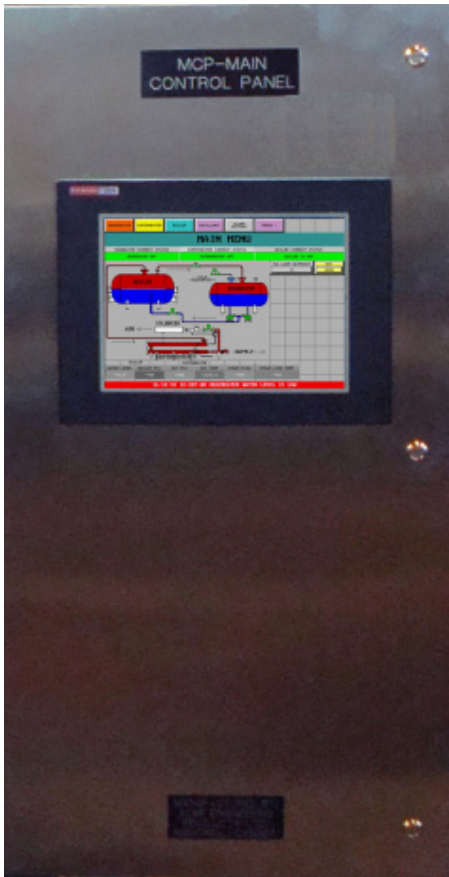
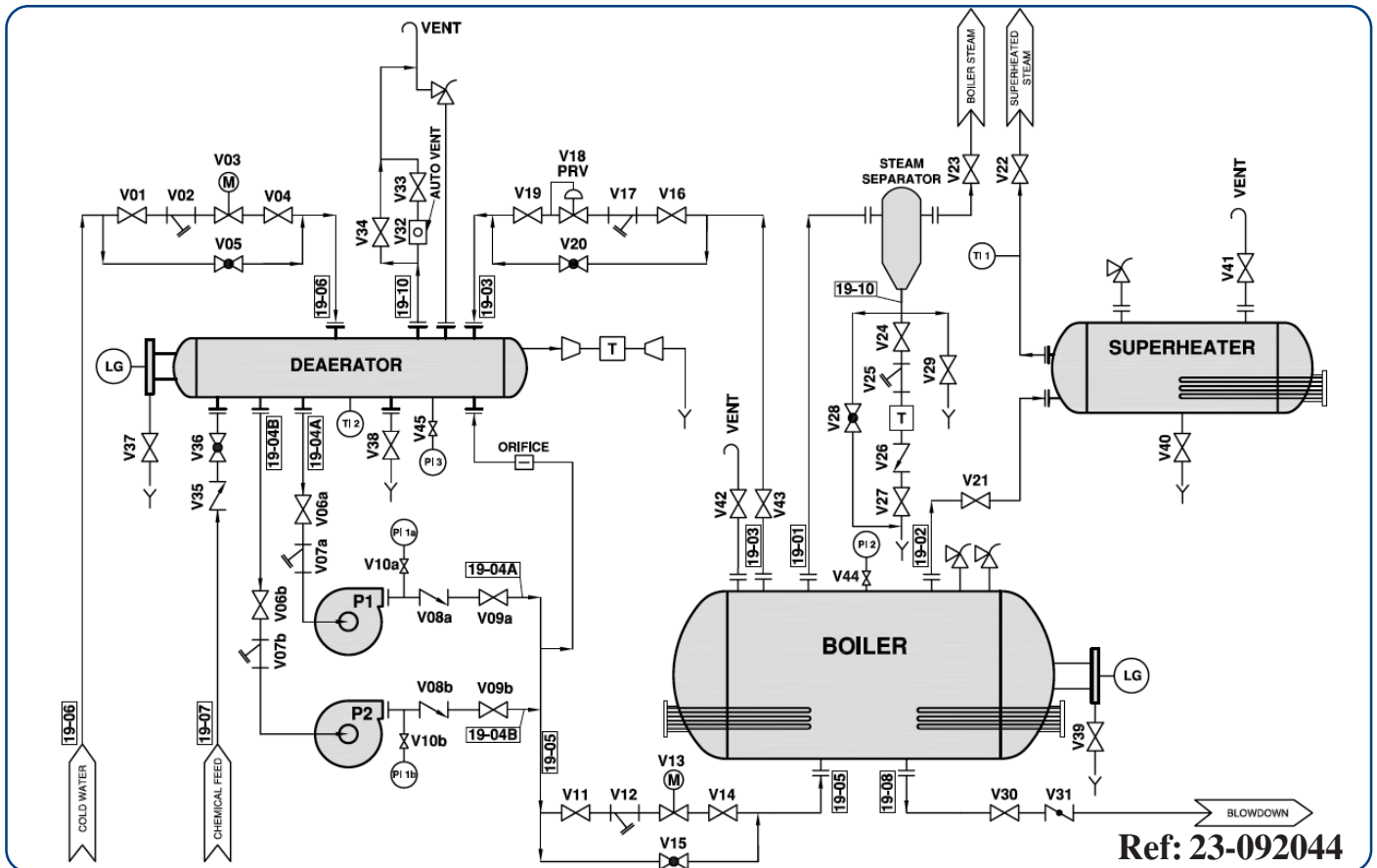
**Design Pressure:** 100 PSI to 600 PSI

**Operating Pressure:** 30 PSI to 540 PSI

**HORIZONTAL or VERTICAL BOILER**

**Metal:** Carbon steel or Stainless Steel

**Heating Elements:** Flanged, Incoloy 800



## ELECTRIC ELEMENT BOILER - SUPERHEATER PACKAGE PIPING DIAGRAM

The two diagrams shown are slightly different but complement each other. Some auxiliary equipment shown on the H.V. diagram may be required in the element boiler diagram and vice versa.

It is up to the designer to select and specify the features and performance required according to specific project requirements.

### Central Control System

#### Power

Dedicated Power Panels are provided for Boiler, Superheater and Feedwater Pumps

#### Control

- a.** Sensors for Pressure, Temperature and Level are connected at their respective locations on the equipment selected.
- b.** Control Valves are located in the interconnecting piping.
- c.** A PLC based Central Control Panel collects all information and operates the system according to programmed logic.
- d.** Information on all conditions is displayed by the HMI with manual override of the program.
- e.** Retransmission to or control from the BAS is available.



**CEJS HIGH VOLTAGE ELECTRODE BOILER  
INSTALLATION WITH CONTROL PANEL IN  
THE BACKGROUND**

**CHECK LIST OF AVAILABLE KEY  
SYSTEM COMPONENTS**

- BOILER
- SUPERHEATER
- STEAM SEPARATOR
- DEAERATOR
- FEED WATER PUMPS
- BLOWDOWN TANK
- BLOWDOWN HEAT RECOVERY
- SILENCER
- FEEDWATER TREATMENT
- BOILER WATER TREATMENT

**PACKAGE & SHIPPING  
CONSIDERATIONS**

Whenever possible, the auxiliary boiler system is prepped and prewired, assembled on a skid. Larger skids can be split to accommodate container limitations or truck shipment limitations.

The objective is to minimize required field work resulting in a secure and economical installation at the site.

*This Bulletin illustrates some of the possibilities of packaged single - supplier solutions available.*

*ACME has its own electrical, mechanical and electronic capabilities to produce multidisciplinary solutions.*

*Our technical department is ready to cooperate and assist in making your specific project a success.*

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