**General**

**TYPICAL SPECIFICATIONS FOR ACME**

**GS SERIES GAS FIRED STEAM SUPERHEATER**

Supply and install where shown on drawings, GS series package type Gas Fired Steam Superheaters as manufactured by Acme Engineering Products. Units shall be skid mounted factory assembled, pre-wired, including automatic controls and factory tests.

The ACME Superheater shall heat lbs. steam/hr entering at PSIG saturated with % steam quality at º F to a leaving temperature of º F and have adequate heating capacity including a 10% allowance for losses and safety considerations. Capacity shall be modulated from minimum of burner to maximum.

In and Out connections shall be in. flanged class (300 or higher). Provide pressure and temperature gauges on outlet and a safety relief valve.

**Pressure Vessel**

Pressure Vessel design shall be minimum 50 PSI and 100º F above operating conditions in order to allow for suitable settings of protection devices. Design to ASME Boiler and Pressure Vessel Code Section VIII Div. 1 and provide “U” stamp, National Board or CRN Registration.

Inlet & Outlet connections shall be class 300# flanges or higher if applicable. Casing shall be in stainless steel or high temperature carbon steel to suit operating

conditions. End covers shall be bolted to the casing and removable if necessary. End cover opposite to the burner shall have a view port of the flame. End covers finish shall be high temperature paint.

A minimum of 6 in. of high temperature insulation shall enclose the casing covered by aluminum sheets. The covers shall be insulated with high temperature ceramic fiber.

**Gas Burner**

The gas burner suitable for selected gas and main pressure of 10 PSI max., shall have a minimum BTU/hr output for the required performance taking into account losses & efficiency. Gas burner shall be complete with associated firing and protection controls and have its own control panel. Gas train as supplied with the burner shall meet the requirements of (UL, FM, IR, CSA) for the BTU/hr capacity and shall be pre-piped and pre-wired as part of the packaged unit.

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**Power and Control Panel**

NEMA 12 Enclosure shall include the following:

• Disconnect Switch; door interlocked for V Ph Hz.

• Fused output to burner panel.

• Control Transformer fused primary,

• On-Off breaker for 120V control circuit.

• Dual Digital Display Electronic Controller, 1/4” DIN size for ease of operation.

• Controller to modulate burner capacity according to demand from minimum burner output to maximum.

• A Thermocouple in outlet to detect leaving steam temperature. A minimum flow is required.

• Two levels of high steam temperature protection, one with automatic reset and the second one with manual reset in separate protection circuits for maximum security.

• High Stack temperature controller with manual reset.

• Audible and visual alarm circuit with associated display lights, silencing button and horn.

• SPDT dry contacts for remote alarm supervision.

• **OPTIONAL:** Differential Pressure Controller preventing energizing of the superheater if a minimum of steam flow is not detected. It is also possible to select other external interlock systems to ensure a minimum of steam flow presence.