



Alpine

Gas-fired, Condensing Stainless Steel Boiler

95%

HIGH EFFICIENCY



- **95% AFUE – High Efficiency**
- **Seven Sizes: 80 – 500 MBH for Residential & Commercial Applications**
- **Stainless Steel Heat Exchanger for use with Natural or Propane Gas (up to 10,200 ft.)**
- **Multiple Sealed Combustion Venting Options**
 - CPVC/PVC venting (standard)
 - Polypropylene concentric (optional)
 - Stainless steel 2-pipe (optional)
- **Fully Modulating Boiler Operating Controls (5-to-1 turndown and includes outdoor reset)**
- **Modern, appliance-like design with gas, water, & electric connections on left side**
- **Polypropylene Condensate Trap with Integral Float Switch (patent pending)**
- **Stackable for Modular Applications**



FREE* 5-Year Winter Warmth Assurance Parts & Labor Plan

* For residential boilers under 300 MBH. Registration is required.

Burnham
by **U.S. Boiler Company**





Peak Performance for Hydronic and Radiant Heating

Introducing the Alpine from Burnham, a condensing boiler with efficiency ratings of 95%. The Alpine utilizes a stainless steel heat exchanger, designed to extract maximum heat from the combustion process, along with a control system that is designed to enhance boiler efficiency as well as system efficiency. With 7 different models ranging in size from 80,000 BTUs – 500,000 BTUs, there's a model for nearly every job from small residential to light commercial installations. Intelligent features are wrapped in a sleek, modern appliance-like jacket, making the Alpine both attractive and smart.

Stainless steel heat exchanger

The heart of the Alpine boiler is the ASME-certified stainless steel heat exchanger. Each heat exchanger is factory hydrotested to insure quality and reliability.

Alpine Controls

The Sage2 Control System has many features which maximize the efficiency and comfort of a heating system, while providing unmatched ease of use.

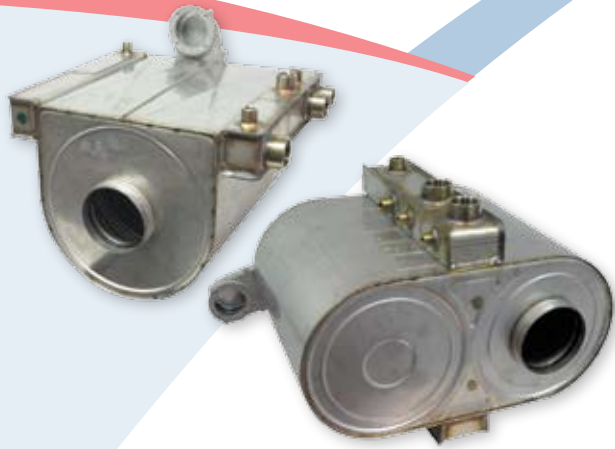
- Full color backlit touchscreen display
- Intuitive menus which provide data in readable text, not in cryptic codes. This eliminates the frustrating cross-referencing and scrolling associated with many other control systems.
- Full modulation with 5-to-1 turndown and adaptable firing rate output
- Outdoor reset and warm weather shutdown.
- Built in provision for off-season pump exercising.
- Plug & Play Connections
- Domestic Hot Water Priority
- Control Data Logging
- Multiple & Adjustable Pump Outputs
- Night Setback & Unoccupied Modes
- Anti-cycling Feature
- 4-20mA and Modbus Inputs.

Natural or LP Gas

The Alpine is designed for easy field conversion from natural gas to LP gas with no kits or special tools required. The turn of a screw is all it takes!

FREE 5-Year Parts & Labor Warranty

The unmatched protection of a FREE 5-year parts & labor warranty is available with every Alpine boiler under 300 MBH and used in a residential application. This plan covers all Burnham-provided parts and the associated labor costs on eligible Alpine boilers for five years from the date of installation at no additional cost! Alpine boiler registration is required within 90 days from the installation date. Registration is fast and simple, either by completing and mailing the registration card provided with the Alpine boiler or via the web at www.burnham.com.



Looking for floor space? Alpine is now available as a wall mounted boiler! Models are available in four sizes (80-210).

Stackable cabinets allow two Alpine boilers to fit the footprint of one. This feature is standard on every Alpine. When stacked, 1000 MBH requires approximately six square feet!

Single Point Power
Boiler pump and DHW pump are powered directly from the Alpine

Sealed Combustion with Negative Cabinet Pressure
Lower portion of the boiler cabinet operates under a negative pressure, creating an additional layer of safety

Easy To Move and Install
Jacket sides are equipped with flush mounted carry handles. Jacket bottom features nylon glides

Simple Connections
All gas, water, and electrical connections are made from the left side of the boiler

Condensate Protection
Unique polypropylene condensate trap (patent pending) stands up to acidic condensate, and features an integral float switch which protects the heat exchanger from back-up

Sealed Top Panel
The sealed top panel protects boiler controls from spills or leaks; the components are also isolated from the lower jacket to protect them from cold or moist combustion air

Smart Controls
Burnham's Sage2 touchscreen control panel displays system status and intuitive text-based menus

Efficient Combustion
Air and fuel are pre-mixed in the blower assembly for clean, balanced combustion

Design Simplicity
Separate spark rod and flame sensor are used for longevity and reliability

Long Lasting Comfort
Durable, efficient stainless steel heat exchanger maximizes heat transfer

American-Made Quality

Alpine boilers are designed and assembled in Lancaster, PA. Each Alpine is hydro-tested and fire-tested in order to deliver safety, efficiency, durability and low emissions.

Venting



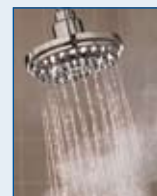
Alpine comes standard with a CPVC/PVC vent kit. This ETL-approved material consists of a 30" CPVC starter pipe and one 90° CPVC elbow.

ALSO AVAILABLE



An optional European-standard **Polypropylene Concentric Vent System** is also available. The Alpine can also be vented with an optional two pipe system using stainless steel (AL29-4C) vent material.

Burnham Alliance SL™ Indirect-fired Water Heaters



The Alliance SL water heaters are designed with an effective hydrastone lining that offers superior corrosion resistance and outstanding performance in a wide variety of water conditions.

Water heaters are available in five sizes and come with a unique 10/2/1 warranty – 10 years on the tank and coil, 2 years labor and 1 year on parts.

Alpine Specifications

| Model No. ¹ | Input (MBH) | | | Output (MBH) | Net I=B=R (MBH) | AFUE (%) | Boiler Water Volume (gallons) | Heat Trans. Area (sq. ft.) | Shipping Weight ² (pounds) |
|------------------------|-------------|----------|----------|--------------|-----------------|-------------|-------------------------------|----------------------------|---------------------------------------|
| | Minimum | | Maximum | | | | | | |
| | to 2k ft. | 2-7k ft. | 0-7k ft. | | | | | | |
| ALP080 ¹ | 16 | 27 | 80 | 73 | 63 | 95 | 0.6 | 0.6 | 137 ² |
| ALP105 ¹ | 21 | 35 | 105 | 96 | 83 | 95 | 0.7 | 0.7 | 155 ² |
| ALP150 ¹ | 30 | 50 | 150 | 137 | 119 | 95 | 1.3 | 1.3 | 182 ² |
| ALP210 ¹ | 42 | 70 | 210 | 193 | 168 | 95 | 1.7 | 1.7 | 206 ² |
| ALP285 | 57 | 57 | 285 | 263 | 229 | 95 | 2.4 | 2.4 | 256 |
| ALP399 | 80 | 80 | 399 | 377* | 328 | 94.1/94.5** | 3.4 | 3.4 | 304 |
| ALP500 | 100 | 100 | 500 | 475* | 413 | 95** | 4.2 | 5.8 | 375 |

NOTES: DOE Heating Capacity (ALP080 through ALP285); Gross Output (ALP399) *Gross output
 Maximum Working Pressure - Water: ALP080-285=30PSI; ALP399=50PSI; 80PSI optional on all models
 Maximum Allowable Temperature = 210° F

** Thermal/combustion efficiency

- Boilers shipped set for natural gas; field adjustment for LP (see instruction manual)
 For elevations above 2000 feet, reduce ratings four percent (4%) per 1000 feet above sea level
 1. Add suffix "F" for floor mounted models, or suffix "W" for wall mounted models
 2. Add 15 lbs. to shipping weight for wall mounted models



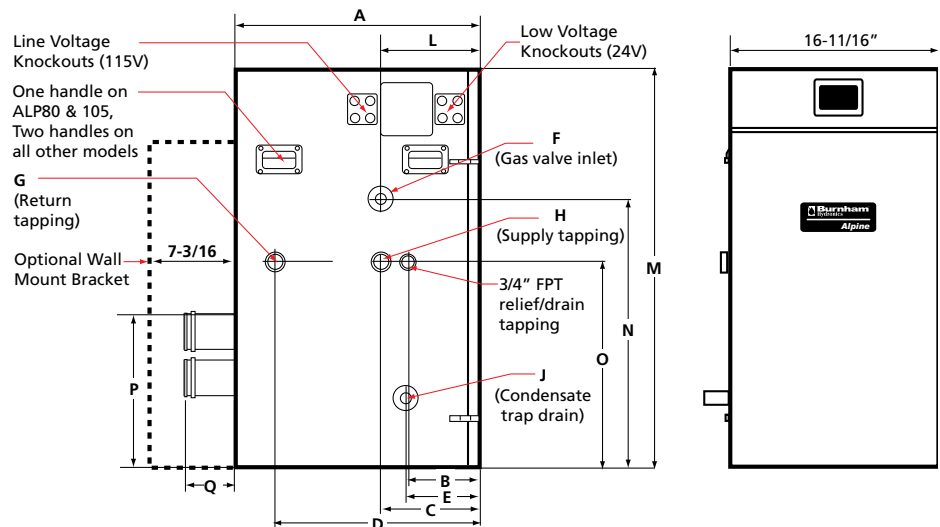
Alpine Dimensions

| Model No. | A (in.) | B (in.) | C (in.) | D (in.) | E (in.) | F (in.) | G (in.) | H (in.) | J (in.) | L (in.) | M (in.) | N (in.) | O (in.) | P (in.) | Q (in.) |
|-----------|----------|---------|---------|----------|----------|---------|---------|---------|---------|---------|---------|----------|----------|---------|---------|
| ALP080 | 12-9/16 | 5-5/8 | 7-5/16 | 9-5/16 | 5-15/16 | 1/2 | 1 | 1 | * | 8 | 32-3/16 | 21-3/4 | 16-11/16 | 12-1/2 | 4-3/4 |
| ALP105 | 14 | 5-13/16 | 7-5/16 | 10-3/4 | 5-15/16 | 1/2 | 1 | 1 | * | 8 | 32-3/16 | 21-3/4 | 16-11/16 | 12-1/2 | 4-3/4 |
| ALP150 | 19-11/16 | 5-13/16 | 7-5/16 | 16-7/16 | 5-15/16 | 1/2 | 1 | 1 | * | 8 | 32-3/16 | 21-3/4 | 16-11/16 | 12-1/2 | 4-3/4 |
| ALP210 | 23-15/16 | 5-13/16 | 7-5/16 | 17-1/8 | 5-15/16 | 1/2 | 1 | 1 | * | 8 | 32-3/16 | 21-3/4 | 16-11/16 | 12-1/2 | 4-3/4 |
| ALP285 | 21-13/16 | 7-5/16 | 14-1/8 | 18 | 12-1/4 | 3/4 | 1-1/4 | 1-1/4 | * | 8-5/16 | 43-7/16 | 32-7/16 | 17-5/16 | 12-3/16 | 4-3/4 |
| ALP399 | 28-7/8 | 6-3/16 | 13-1/16 | 23-3/4 | 15-13/16 | 1 | 1-1/2 | 1-1/2 | * | 8-5/16 | 43-7/16 | 32-7/16 | 17-5/16 | 12-3/16 | 4-3/4 |
| ALP500 | 44-7/8 | 22-1/8 | 29 | 39-11/16 | 29-5/8 | 3/4 | 1-1/2 | 1-1/2 | * | 7-7/16 | 35 | 14-29-32 | 17-5/16 | 12-1/4 | 4-3/4 |

*Factory provided socket end compression pipe joining clamp for 3/4" schedule 40 PVC pipe

Alpine Intake / Vent Sizes

| Model No. | Intake Size | Vent Size | Max Length |
|-----------|-------------|-----------|------------|
| ALP080 | 3" | 3" | 100' |
| ALP105 | 3" | 3" | 100' |
| ALP150 | 4" | 3" | 100' |
| ALP210 | 4" | 3" | 100' |
| ALP285 | 4" | 4" | 60' |
| ALP399 | 4" | 4" | 60' |
| ALP500 | 4" | 4" | 60' |



Maximum Vent Lengths

| # of 90° Elbows | 2 | 4 | 6 | 8 | 10 | 12 |
|-------------------------------------|------|------|-----|-----|-----|-----|
| Combined Intake/Vent - Feet of Pipe | 110' | 100' | 90' | 80' | 70' | 60' |

NOTE: Snorkels are approved for use with PVC venting. Intake & vent lengths combined. 90° = 5 equivalent feet. Terminals do not count towards vent feet length

FIELD ADAPTABLE KIT
 AVAILABLE FOR WALL HUNG
 CONFIGURATION:
 (for ALP080 through ALP210 only)
 Part # 102991-01



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