



# Alpine

## Commercial

### "C" Model

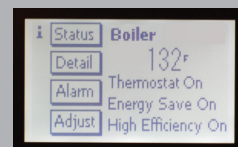
#### High Efficiency Gas Fired, Stainless Steel, Condensing Commercial Water Boiler

- Up to 97% thermal efficiency
- 399, 500, 600, 700, & 800 MBH
- Equipped with Sage2.2™ Control System, includes built-in sequencer for internal staging of up to eight Alpine boilers
- Stainless steel heat exchanger
- For use with natural or LP gas
- Unique, patented polypropylene condensate trap with internal cutoff switch prevents damage to heat exchanger from condensate backup
- Low waterside pressure drop
- Less than 20ppm NOx
- Stackable
- Pre-installed temperature sensors: dual high limit/ supply, return, dual high limit flue gas
- Altitude-ready with de-rate
- Fast wiring to side access high voltage and low voltage connection panels



**Sage2.2™**  
boiler control system

- Backlit LCD touchscreen display provides diagnostic and troubleshooting information via intuitive text and menus, without cryptic codes or scrolling
- 5-to-1 turndown modulation and adaptable firing rate output
- Outdoor reset included, plus warm weather shutdown, and off season pump exercising
- DHW priority, control data logging, multiple & adjustable pump outputs
- 4-20mA and modbus inputs



**U.S. Boiler Company**

# Alpine Commercial: "C" Model Technical Information



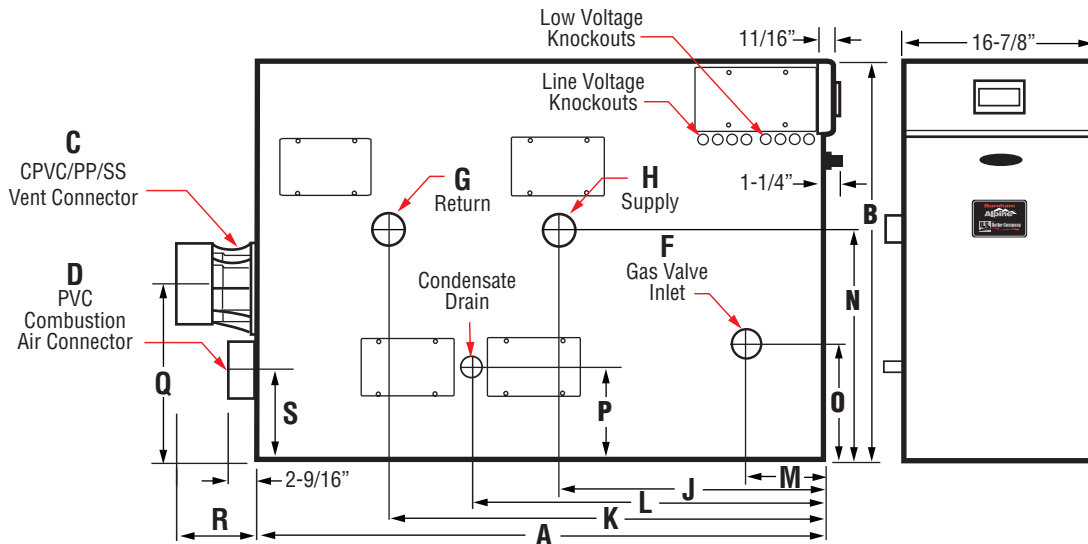
## Alpine Commercial Ratings & Specifications (sea level to 2000 feet)

Model	RATINGS			Net AHRI Water Rating (MBH)	Thermal Efficiency	Water Content (Gal.)	Heat Transfer Area (SQ. FT.)	(F) Gas Connection	Supply (H) & Return (G) Connection	Intake (D)/ Vent (C) Diameter	Approximate Shipping Weight (lbs.)
	Minimum Input (MBH)	Maximum Input (MBH)	Gross Output (MBH)								
ALP399C	80	399	375	326	94.1%	3.4	41.8	3/4" FPT	1-1/2" FPT	4"/4"	316
ALP500C	100	500	485	422	97.0%	4.3	58.1	3/4" FPT	2" MPT	4"/4"	368
ALP600C	125	625	594	517	95.0%	5.4	76.2	1" FPT	2" MPT	4"/6"	458
ALP700C	145	725	689	599	95.0%	5.4	76.2	1" FPT	2" MPT	4"/6"	458
ALP800C	160	800	760	661	95.0%	6.2	87.0	1" FPT	2" MPT	4"/6"	500

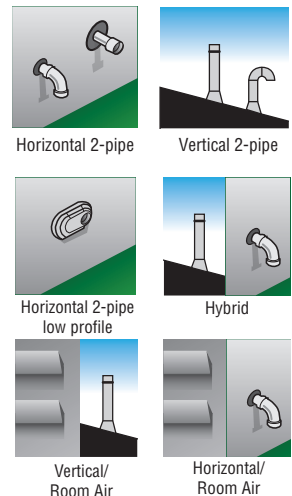
Net AHRI water ratings shown are based on an allowance of 1.15. The manufacturer should be consulted before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc. For forced hot water heating systems where the boiler and all piping are within the area to be heated, the boiler may be selected on the basis of its Gross Output.

## Alpine Commercial Dimensions

MODEL	A	B	C	D	F	G/H	J	K	L	M	N	O	P	Q	R	S
ALP399C	31-3/16"	43-1/2"	4"	4"	3/4" FPT	1-1/2" FPT	12-3/8"	23"	15-1/8"	7-13/16"	17-5/16"	32-1/2"	5-5/16"	12-1/2"	5-1/2"	5-1/8"
ALP500C	46-1/2"	35-1/16"	4"	4"	3/4" FPT	2" MPT	21-5/16"	34-13/16"	28-5/16"	5-3/8"	20-5/16"	12-3/8"	8-5/16"	15-1/2"	5-1/2"	8-1/8"
ALP600C	49-1/2"	35-1/16"	6"	4"	1" FPT	2" MPT	23-1/4"	38-1/16"	30-7/8"	6-7/8"	20-5/16"	10-5/16"	8-5/16"	15-9/16"	7-1/16"	8-1/8"
ALP700C	49-1/2"	35-1/16"	6"	4"	1" FPT	2" MPT	23-1/4"	38-1/16"	30-7/8"	6-7/8"	20-5/16"	10-5/16"	8-5/16"	15-9/16"	7-1/16"	8-1/8"
ALP800C	53-5/16"	35-1/16"	6"	4"	1" FPT	2" MPT	23-7/16"	41-3/16"	32-9/16"	6-7/8"	20-5/16"	10-5/16"	8-5/16"	15-9/16"	7-1/16"	8-1/8"



### Typical Venting Configurations



### Standard Equipment

ASME stainless steel heat exchanger	3-in-1 Vent Connector – connects to CPVC, PolyPro, or stainless steel
Stainless steel mesh burner	Rear flue outlet
5:1 turndown modulation	Stacking boiler brackets
Variable speed combustion blower	Flow switch
Zero governor gas valve	VENT KIT:
Supply & return temperature sensors	30" CPVC, 90° elbow
Flue gas temperature sensor	SAGE2.2 BOILER CONTROL SYSTEM:
Sealed control compartment	Touchscreen display
Negative pressure lower cabinet	Built in diagnostics
Outdoor air temperature sensor	Lead/lag and domestic hot water priority
Low voltage PCB	Warm weather shutdown
Line voltage PCB	4-20 mA inputs for external modulation
Condensate trap	
Pressure relief valve, 50 psi for 500	
Pressure relief valve, 60 psi for 600-800	

### Optional Equipment

Part Number	Description
104590-01	Sage Zone Control Circulator Panel
80160718	120V LWCO/Manual reset kit
108182-01	24V LWCO Manual Reset
106605-01	CSD-1 kit (models, ALP 500C, ALP600C, ALP700C, ALP800C only), includes high and low gas pressure switches, gas valve harness, and instructions
104200-01	Pressure relief valve kit, 80PSI
104201-01	Pressure relief valve kit, 100PSI
108703-01	Header sensor kit
101867-01	Condensate neutralizer kit