



GAS KILNS

Alpine® Gas Kilns

Alpine® has been the premium gas kiln manufacturer for 60 years and continues to set the standard for high quality kiln construction, firing performance and durability. Many Alpine® kilns have been in use for 35 years and are still dependable, firing after firing.

Constant changes in design through new technology, customer suggestions and years of data on the kilns assure Alpine® purchasers of receiving the most up-to-date features for firing ease, safety and reliability. Today, Alpine® kilns are noted for state-of-the-art electronic controls and sophisticated safety features. However, this new technology is not only available on current models. Many older Alpine® gas kilns may be refitted with modern controls and burner systems to improve operation and meet today's stringent safety requirements. Construction of every Alpine® kiln begins with precision cut heavy-duty structural steel (3 / 1 6) industrially welded for superior strength and stability. The shell of the kiln is then sanded and buffed for a smooth finish. A high temperature, rustproofing paint is applied to protect the kiln against moisture and heat damage prior to bricking.

Following the metal work, the kiln is bricked with 2800°F insulating firebrick. Due to health factors and the lack of durability, we do not use fiberfax lining. To provide even greater strength to the kiln, a high temperature mortar is used. The bricks are fitted and mortared by an expert mason. A layer **of heat resistant insulation material is then added for maximum** firing efficiency and minimum heat loss to lower energy costs and ensure high quality firings. The typical finished wall thickness of an Alpine® kiln is 7 to 8 inches.

Alpine® kilns feature sprung arch construction, which means the arch extends completely out to the door opening. This allows full utilization of the inside height while firing and during loading and unloading.

Every door is recessed and custom fitted to the jamb. This allows for a tight seal for safety and optimum firing without any manual adjustments. Heavy-duty steel hinges assure extremely smooth movement of the door. Star knobs allow the door to be effortlessly secured. Two peepholes in the door provide easy access viewing.

Technical Support

Technical support is provided at the initial light-up. An Alpine® representative will instruct on light-up, operation and maintenance instruction. This service is included with all Alpine® gas kilns due to the complexity of installing a gas kiln.

(Note: Kiln warranty is VOID if an Alpine® representative is NOT present at the initial light up). Replacement parts and upgrades are always available. Alpine® representatives are located throughout North America to provide technical assistance and service. For a list of distributors see our website www.alpinekilns.com.

Planning Your Kiln Purchase

- 1) Where will the kiln be located?
- 2) Will the kiln be using natural or propane gas?
- 3) After checking dimensions of the proposed kiln, is there complete access (through doorways, hallways, etc.) to where the kiln will be installed?
- 4) If the kiln is going to be outside in a shed type structure, will it be adequately protected from the weather?
- 5) Is there a loading dock for accepting delivery of a kiln from a common carrier truck?
- 6) If there is no dock, a heavy-duty forklift and/or personnel with experience in moving heavy-equipment are required.
- 7) If you do not have the above, a rigger or heavy-equipment mover will need to be contracted to unload the kiln and place it on site.
- 8) Have you planned for adequate room around the kiln for an instrument panel, access to the control panel and enough room at the rear of the kiln to go in back and change or adjust the thermocouples and any dampers?
- 9) Confirm lead-time for the kiln ordered. Specify delivery requirements in case there are any.
- 10) Alpine® prefers to choose the carrier for shipment of kilns, as they must be nose-loaded in a semi-trailer for safe transport. Please contact Alpine® if you must make other shipping arrangements.
- 11) Inspect immediately upon delivery.
- 12) If there is any damage in transportation take digital pictures, call Alpine® at (845) 987-9589 service and note on the bill of lading. Freight claims will be reviewed on an individual basis.

State-of-the-Art Programmable
Logic Controller with Touch Screen





GAS KILNS

DDHF Series Downdraft Kilns Cone 14-2500°F

Down Draft

Through better circulation, the down draft design provides more accurate control of the atmosphere and temperature during firing than updraft kilns. This not only improves firing results, but also reduces fuel costs. Testing shows that fuel consumption can be cut by as much as 50%.

Forced Draft Burners

Alpine® forced draft kilns and furnaces are manufactured with a proprietary forced draft burner system. Due to this streamlined design, Alpine® forced draft burners have a high reliability factor. Individual blowers, one for each side of the kiln, force air past the burner jets at high velocity to premix the air and fuel. Blower speed is controlled by an easily turned knob on the control panel, and the amount of air entering the blower can be adjusted by the flaps on the blower itself, allowing for excellent control of the amount of air (oxygen) for combustion. A gas pressure gauge and manual adjustment valve in the main gas line of the burner are used to adjust gas flow and fuel mixture during the firing cycle. The fuel mixture may be changed to produce a richly oxidizing or high reduction atmosphere.

Principal advantages of the forced draft burner system are:

- 1) Higher firing temperatures using less fuel and a shorter firing cycle.
- 2) A fine degree of control in temperature and atmosphere through separate regulation of air and fuel mixture.

Automatic Electronic Flame Ignition System

Alpine® gas kilns come with an Automatic Electronic Flame Ignition System which completely eliminates manual lighting with a match or torch under normal operating conditions. Under this system, if the pilot flame should blow out, the ignition system will automatically re-ignite the pilot burner. If there is a gas failure, the system will shut the burner off and will not operate again until the system is restarted. The system

operates by using a spark electrode mounted at the tip of each pilot burner. When the switch is turned on, a 90 second purge cycle is started and clears the kiln of any remaining gas. Right and left pilots are then cleared, and the pilot gas passes through the burner and is ignited by the spark. The spark electrode automatically shuts off when the flame is established.

Kiln Controls

The use of electronic controls is the hallmark of Alpine® kilns. Electronic controls offer the user repeatable firing modes and freedom from continual kiln sitting. All Alpine® kilns are equipped with a state-of-the-art Programmable Logic Controller (PLC) with a touch screen that permits operation of the kiln in either a high limit or ramp mode. In ramp mode, time spans and set points of each interval are individually adjustable for greater control. In the high limit mode there is a 100% flame shutdown and lockout upon reaching temperature. Pilot indicators show the sequence of start-up operation and warn of gas pressure problems or flame failure with an alarm bell. Programming is easily accomplished with the touch screen. The display provides a constant overview of the firing process and in program mode displays the rate of heat rise. The PLC uses standard K-type thermocouples for accurate temperature measurement.

Modeled to follow the stringent safety codes of Illinois and California, this control panel is the safest of its kind when properly installed and maintained. Consultation is required with local zoning authorities to review specific building code requirements before purchasing. Any modification in specifications after consultation with local zoning authorities must be sent in writing of exact specifications required. Include in writing contact name and phone number for all correspondence. Modifications will be reviewed and may be subject to additional charges.

Premium Control Package Includes

PLC with touch screen
Fireye Monitors
Automatic Spark Ignition
90 Second Blower Purge Cycle
High/Low Pressure Switches
Pilot and Main Regulators
Pilot and Main Solenoids
Alarm Bell
Key Switch
Multiple Indicating Lights
Stand Mounted Control Panel

DDHF Series Kiln Controller Options

Premium Programmable Logic Controller PLC
Digital Digital Controller
Please call for a customized quotation on Alpine® Kilns and controller options at (845) 987-9589.

GAS KILNS



DDHF20 – Front View



DDHF20 – Side and Back View

MODEL NO.	DDHF-10	DDHF-16	DDHF-20	DDHF-24	DDHF-30	DDHF-40	DDHF-50	DDHF-60
Capacity	10 cu. Ft.	16 cu. Ft.	20 cu. Ft.	24 cu. Ft.	30 cu. Ft.	40 cu. Ft.	50 cu. Ft.	60 cu. Ft.
Temperature Range	All models fire to 2500° Farenheit (cone 14)							
Inside Kiln Dimensions	24" W x 23" D x 32" H	33" W x 23" D x 36" H	33" W x 23" D x 45" H	33" W x 27" D x 47" H	33" W x 27" D x 57" H	35" W x 34" D x 57" H	44" W x 34" D x 57" H	46" W x 34" D x 67" H
Outside Kiln Dimension*	54" W x 58" D x 65" H	63" W x 58" D x 69" H	63" W x 58" D x 74" H	63" W x 63" D x 76" H	63" W x 63" D x 83" H	69" W x 74" D x 82" H	78" W x 59" D x 82" H	80" W x 59" D x 92" H
Door Opening	22" W x 32" H	30" W x 36" H	30" W x 45" H	30" W x 47" H	30" W x 57" H	30" W x 57" H	36" W x 57" H	36" W x 67" H
Setter Slab Information	2 - 11" x 20" for shelf size 22" x 20"	2 - 11" x 28" for shelf size 22" x 28"	2 - 11" x 28" for shelf size 22" x 28"	2 - 14" x 28" for shelf size 28" x 28"	2 - 14" x 28" for shelf size 28" x 28"	3 - 11" x 28" for shelf size 33" x 28"	4 - 11" x 28" for shelf size 44" x 28"	4 - 11" x 28" for shelf size 44" x 28"
Muffle Slabs- Silicon Carbide	2 - 9 x 24x ⁵ / ₈	2 - 9 x 24x ⁵ / ₈	2 - 9 x 24x ⁵ / ₈	2 - 11 x 24x ⁵ / ₈	2 - 11 x 24x ⁵ / ₈	2 - 11 x 24x ⁵ / ₈	4 - 9 x 16x ⁵ / ₈	4 - 9 x 16x ⁵ / ₈
Maximum Gas Consumption	275 CFH	325 CFH	400 CFH	425 CFH	500 CFH	575 CFH	800 CFH	875 CFH
Required Gas Pressure	8" W.C.P. on burner gauges. 14 Inches Of Water Column Pressure at Hook Up.							
Approx. Shipping Weight	3300 lbs.	4300 lbs.	4500 lbs.	4700 lbs.	5500 lbs.	7500 lbs.	7500 lbs.	8500 lbs.
Recommended Glaze Firing Time to:								
Cone 06	5 hours	5 1/2 hours	6 hours	6 hours	6 hours	7 hours	7 hours	8 hours
Cone 10	7 1/2 hours	8 hours	8 hours	8 hours	8 hours	9 hours	9 hours	10 hours



GAS KILNS

HF Series Updraft Kilns

Cone 14-2500°F

Alpine® has been engineering, improving, and manufacturing the HF Series for 60 years. As with all Alpine® kilns, the HF models have extensive safety features, and are built to Alpine®'s exacting standards.

Forced Draft Burners

Alpine® forced draft kilns and furnaces are manufactured with our own forced draft burner system. Because of their simplified design, Alpine® forced draft burners have a high reliability factor. Individual blowers, one for each side of the kiln, force air past the burner jets at high velocity to premix the air and fuel.

Blower speed is controlled by an easily turned knob on the control panel, and the amount of air entering the blower can be adjusted by the flaps on the blower itself, allowing for excellent control of the amount of air (oxygen) for combustion. A gas pressure gauge and manual adjustment valve in the main gas line of the burner are used to adjust gas flow and fuel mixture during the firing cycle. The fuel mixture may be changed to produce a richly oxidizing or high reduction atmosphere. Principal advantages of the forced draft burner system are:

1. Higher firing temperatures using less fuel and a shorter firing cycle.
2. A fine degree of control in temperature and atmosphere through separate regulation of air and fuel mixture.

Automatic Electronic Flame Ignition System

Alpine® gas kilns come with an Automatic Electronic Flame Ignition System which completely eliminates manual lighting with a match or torch under normal operating conditions. Under this system, if the pilot flame should blow out, the ignition system will automatically re-ignite the pilot burner. If there is a gas failure, the system will shut the burner off and will not operate again until the system is restarted. The system operates by using a spark electrode mounted at the tip of each pilot burner. When the switch is turned on, a 90-second purge cycle is started and clears the kiln of any remaining gas. Right and left pilots are then cleared, and the pilot gas passes through the burner and is ignited by the spark. The spark electrode automatically shuts off when the flame is established.

Kiln Controls

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mode displays the rate of heat rise. The PLC uses standard K-type thermocouples for accurate temperature measurement. Modeled to follow the stringent safety codes of Illinois and California, this control panel is the safest of its kind when properly installed and maintained. Consultation is required with local zoning authorities to review specific building code requirements before purchasing. Any modification in specifications after consultation with local zoning authorities must be sent in writing of exact specifications required. Include in writing contact name and phone number for all correspondence. Modifications will be reviewed and may be subject to additional charges.

Control Package Includes

PLC with touch screen
Fireye Monitors
Automatic Spark Ignition
90 Second Blower Purge Cycle
High/Low Pressure Switches
Pilot and Main Regulators
Pilot and Main Solenoids
Alarm Bell
Key Switch
Multiple Indicating Lights
Stand Mounted Control Panel

HF Series Kiln Controller Options

Premium Programmable Logic Controller PLC
Digital Digital Controller
Please call for a customized quotation on Alpine® Kilns and controller options

GAS KILNS



MODEL NO.	HF-10	HF-16	HF-20	HF-24	HF-30	HF-40	HF-50	HF-60
Capacity	10 cu. Ft.	16 cu. Ft.	20 cu. Ft.	24 cu. Ft.	30 cu. Ft.	40 cu. Ft.	50 cu. Ft.	60 cu. Ft.
Temperature Range	All models fire to 2500° Fahrenheit (cone 14)							
Inside Kiln Dimensions	24" W x 23" D x 32" H	33" W x 23" D x 36" H	33" W x 23" D x 45" H	33" W x 27" D x 47" H	33" W x 27" D x 57" H	35" W x 34" D x 57" H	44" W x 34" D x 57" H	46" W x 34" D x 67" H
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Door Opening	22" W x 32" H	30" W x 36" H	30" W x 45" H	30" W x 47" H	30" W x 57" H	30" W x 57" H	36" W x 57" H	36" W x 67" H
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Muffle Slabs-Silicon Carbide (for older kilns)	2 - 9 x 24x ⁵ / ₈	2 - 9 x 24x ⁵ / ₈	2 - 9 x 24x ⁵ / ₈	2 - 11 x 24x ⁵ / ₈	2 - 11 x 24x ⁵ / ₈	2 - 11 x 24x ⁵ / ₈	4 - 9 x 16x ⁵ / ₈	4 - 9 x 16x ⁵ / ₈
Maximum Gas Consumption	400 CFH	425 CFH	475 CFH	525 CFH	625 CFH	725 CFH	800 CFH	875 CFH
Required Gas Pressure	8" W.C.P. on burner gauges. 14 Inches Of Water Column Pressure at Hook Up.							
Approx. Shipping Weight	2700 lbs.	3600 lbs.	3800 lbs.	4000 lbs.	5000 lbs.	7000 lbs.	7500 lbs.	8500 lbs.
Recommended Glaze Firing Time to:								
Cone 06	5 hours	5 1/2 hours	6 hours	6 hours	6 hours	7 hours	7 hours	8 hours
Cone 10	7 1/2 hours	8 hours	8 hours	8 hours	8 hours	9 hours	9 hours	10 hours

Add 5" to outside "depth" dimension for thermocouple head assemblies which can be removed.

*Allow an additional 24" on width dimension for control panel, and 14" on depth for burners.

NOTE: All fuel data based on natural gas on 1000 BTU per cubic foot. If kiln is to be operated on butane, propane or other fuel, please specify when ordering. No extra charge is made for kilns designed to operate on LP fuel. Specifications are subject to change without notice.



GAS KILNS

Sculpture Burnout Furnace/ Car Kiln Cone 14—2500°F

The SBF line of sculpture burnout furnaces offer a full ceramic firing range to accommodate your clay sculpture classes along with bronze casting by the lost wax method.

Burners are of the forced draft type, providing sufficient excess air introduction with products of combustion to insure complete burnout of hydrocarbons contained in the wax, and even temperatures in the furnace.

All burners have Alpine®'s extensive safety controls. Each pilot is automatically ignited by a spark ignition and each pilot burner is monitored by ultra-violet detectors providing fail-safe operations.

The car lends itself especially well to loading heavy molds, large sculpted pieces or large hand built ceramic works of art. If the power package is ordered for the car, the car will withdraw from furnace and re-enter furnace at the flick of a switch automatically stopping at the proper position.

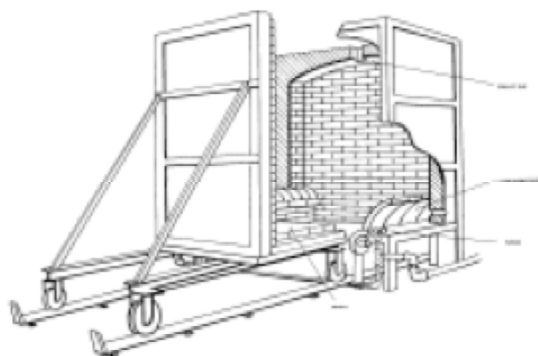
Construction

Alpine® SBF Series kilns are manufactured with heavy duty, structural steel frames welded at all joints to insure maximum strength and stability. Kilns are lined with 2800°F insulating firebrick backed by high-temperature, heat-resistant insulation material for maximum firing efficiency and minimum loss of heat. The firebricks are bonded with a high-temperature mortar, which has even greater strength than the brick itself.

Premium Controls

A sophisticated control panel, standard equipment on the SBF series gas kilns, includes:

- Main and Pilot Regulators
- Pilot and Main Solenoids
- Key Switch • Alarm Bell
- High and Low Pressure Switches
- Fireye Scanners and Monitors
- Multiple Indicating Lights
- Programmable Logic Controller (PLC) with touch screen



Sculpture Burnout Furnaces Controller Options

Premium Programmable Logic Controller PLC
Digital Digital Controller

Please call for a customized quotation on Alpine® Kilns and controller options at (845) 987-9589.

MODEL NO.	SBF-40	SBF-60	SBF-90	SBF-120
Capacity	40 cu. ft.	60 cu. ft.	90 cu. ft.	120 cu. ft.
Temperature Range	All models have full ceramic range to 2500°F.			
Furnace Loading Dimensions	37"W x 33"D x 57" H	46"W x 34"D x 67" H	46"W x 51"D x 67"H	48"W x 60"D x 72"H
*Outside Furnace Dimensions	76"W x 58"D x 95" H	88"W x 71"D x 102"H	88"W x 78"D x 103"H	90"W x 97"D x 107"H
Maximum gas consumption	725 C.F.H.	975 C.F.H.	1200 C.F.H.	1800 C.F.H.
Required gas pressure	14 Inches Of Water Column Pressure at Hook Up. 8" W.C.P. on burner gauges. Gas line should be sized to deliver above C.F.H. with kiln under full load.			
Shipping Weight (Approx.)	8,000 lbs.	9,000 lbs.	14,000 lbs.	20,000 lbs.
NOTE: Door can be mounted on car as illustrated or hinged on front of furnace. Option: Power Car. *Outside depth dimension would be doubled plus approximately two (2) feet for overall space requirement. Allow additional 24" on width dimension for burner and control panel.				

Crating costs: Add \$400 to freight.