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AUG 13 2010

Bureau of Air Monitoring & Mobile Sources

ANIMAL CREMATORY
AIR GENERAL PERMIT REGISTRATION FORM

Part II. Notification to Permitting Office

(Detach and submit to appropriate permitting office; keep copy onsite)

Instructions: To give notice to the Department of an eligible facility's intent to use this air general permit, the owner or operator of the facility must detach and complete this part of the Air General Permit Registration Form and submit it to the appropriate Department of Environmental Protection or local air pollution control program office which has permitting authority. Please type or print clearly all information, and enclose the appropriate air general permit registration processing fee pursuant to Rule 62-4.050, F.A.C. *($100 as of the effective date of this form)*

0170373-001

Registration Type

Check one:

INITIAL REGISTRATION - Notification of intent to:

- [X] Construct and operate a proposed new facility.
- [ ] Operate an existing facility not currently using an air general permit (e.g., a facility proposing to go from an air operation permit to an air general permit).

RE-REGISTRATION (for facilities currently using an air general permit) - Notification of intent to:

- [ ] Continue operating the facility after expiration of the current term of air general permit use.
- [ ] Continue operating the facility after a change of ownership.
- [ ] Make an equipment change requiring re-registration pursuant to Rule 62-210.310(2)(e), F.A.C., or any other change not considered an administrative correction under Rule 62-210.310(2)(d), F.A.C.

Surrender of Existing Air Operation Permit(s) - For Initial Registrations Only

If the facility currently holds one or more air operation permits, such permit(s) must be surrendered by the owner or operator upon the effective date of this air general permit. In such case, check the first box, and indicate the operation permits being surrendered. If no air operation permits are held by the facility, check the second box.

- [ ] All existing air operation permits for this facility are hereby surrendered upon the effective date of this air general permit; specifically permit number(s): _____
- [X] No air operation permits currently exist for this facility.

General Facility Information

Facility Owner/Company Name (Name of corporation, agency, or individual owner who or which owns, leases, operates, controls, or supervises the facility.)

William Dean / Nature Coast Pet Cremation

Site Name (Name, if any, of the facility site; e.g., Plant A, Metropolis Plant, etc. If more than one facility is owned, a registration form must be completed for each.)

Facility Location (Provide the physical location of the facility, not necessarily the mailing address.)

Street Address: 647-2 Overdrive Circle

City: Hernando County: Citrus Zip Code: 34442-9602

Facility Start-Up Date (Estimated start-up date of proposed **new** facility.) (N/A for existing facilities)

Sept. 20, 2010

Owner/Authorized Representative

Name and Position Title: (Person who, by signing this form below, certifies that the facility is eligible to use this air general permit.)
Print Name and Title: William Dean owner

Owner/Authorized Representative Mailing Address
Organization/Firm: Nature Coast Pet Cremation / William Dean
Street Address: 5291 W. Disney Lane
City: Dunnellon County: Citrus Zip Code: 34433

Owner/Authorized Representative Telephone Numbers
Telephone: 352-586-0225 Fax: 352-794-3368
Cell phone (optional): 352-586-8123

Facility Contact (If different from Owner/Authorized Representative)

Name and Position Title (Plant manager or person to be contacted regarding day-to-day operations at the facility.)
Print Name and Title:

Facility Contact Mailing Address
Organization/Firm:
Street Address:
City: County: Zip Code:

Facility Contact Telephone Numbers
Telephone: Fax:
Cell phone (optional):

Owner/Authorized Representative Statement

This statement must be signed and dated by the person named above as owner or authorized representative

I, the undersigned, am the owner or authorized representative of the owner or operator of the facility addressed in this Air General Permit Registration Form. I hereby certify, based on information and belief formed after reasonable inquiry, that the facility addressed in this registration form is eligible for use of this air general permit and that the statements made in this registration form are true, accurate and complete. Further, I agree to operate and maintain the facility described in this registration form so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof.

I will promptly notify the Department of any changes to the information contained in this registration form.

William Dean
Signature

8-9-10
Date

Design Calculations

If this is an initial registration for a proposed new animal crematory unit, provide design calculations to confirm a sufficient volume in the secondary chamber combustion zone to provide for at least a 1.0 second gas residence time at 1800 degrees F.

☒ Manufacturer's' design calculations attached.

☐ Registration is not for proposed new animal crematory unit(s).

Description of Facility

Below, or as an attachment to this form, provide a description of all crematory operations at the facility in sufficient detail to demonstrate the facility's eligibility for use of this air general permit and to provide a basis for tracking any future equipment or process changes at the facility. Describe all air pollutant-emitting processes and equipment at the facility, and identify any air pollution control measures or equipment used.

Nature Coast Pet Cremation has purchase a Bth cremation unit, BLP 500 Pet Cremation unit which has a burn rate of 150 lbs. per hour.

8/18/10 - 10:25 AM
CALLED W. DEAN & LEFT VM
MESSAGE RE: ?
1) PRIMARY / SECONDARY CHMBRS
2) OPACITY MONITOR
3) TEMP MONITOR / RECORDER
M.

ATTACH AS AN ADDENDUM TO #0170373-001 PAGE 9

Dibble, Dickson

From: Linda & Gale [ldean39@tampabay.rr.com]
Sent: Wednesday, August 18, 2010 8:09 PM
To: Dibble, Dickson
Subject: Air Quality Permit for Nature Coast Pet Cremation
Attachments: blp150 diagram.pdf; blprocessinfo.pdf; process flow diagram.pdf

Please see attached documentation as per your request.

William Dean

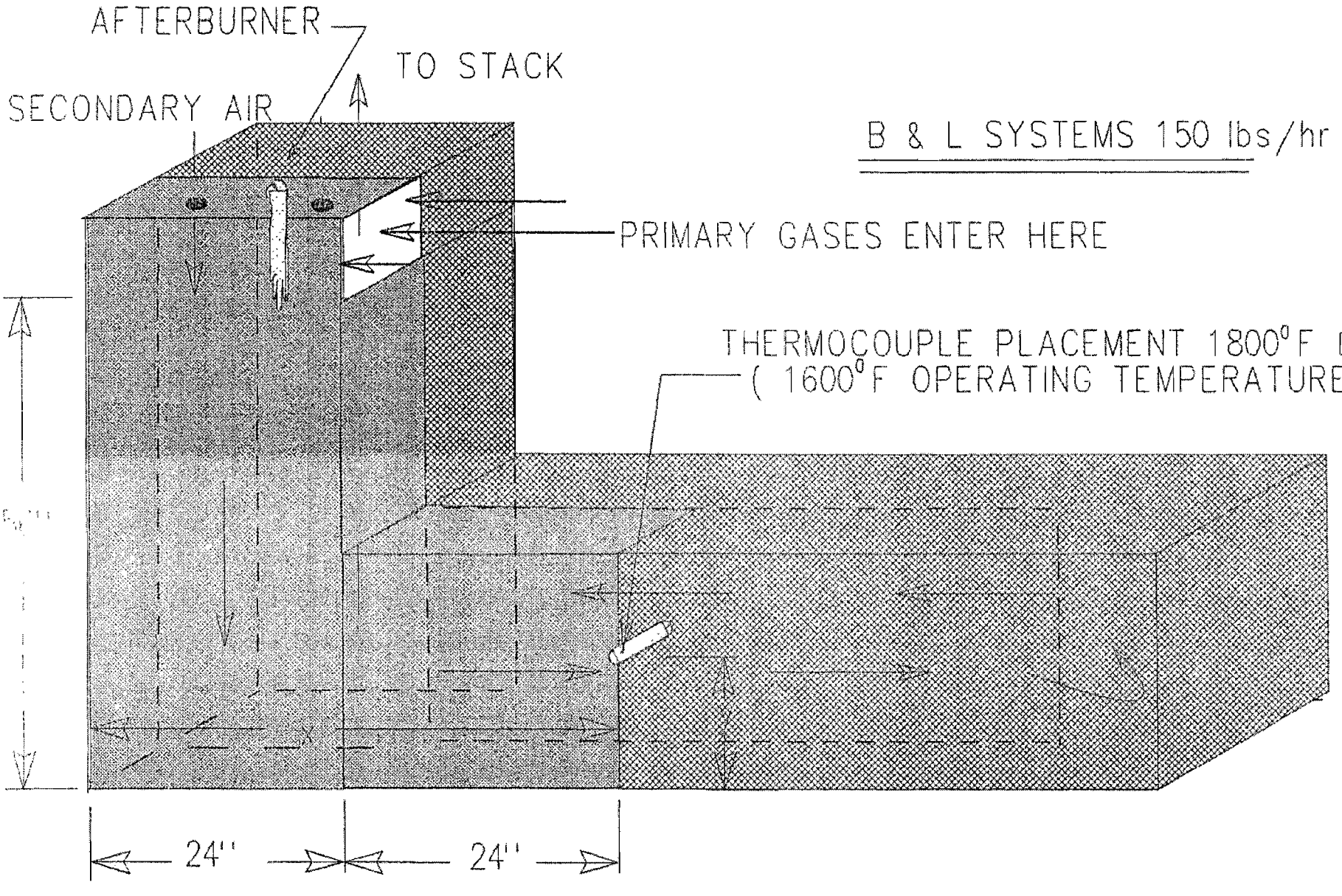
Cremation
Systems, Inc.
7205 - 114th Avenue North • Largo, Florida 33773
1-800-622-5411 • 727-541-4666 • Facsimile 727-547-0669
e-mail: blcremsys@aol.com • www.blcremationsystems.com

PROCESS DESCRIPTION

This project consists of the construction of one new cremation retort. This crematorium will consist of one B & L Systems Model BLP 500/150 Animal Cremator. The cremation unit will be fired on propane.

Deceased animal remains are manually placed into the primary chamber of the cremator. The door of the cremator is then closed. After a preheat of the afterburning chambers by the auxiliary burner, initial and supplementary combustion is provided by propane fired burner located in the primary chamber of the cremator. Once material combustion is initiated, the rate of the combustion is controlled by limiting both the combustion air and fuel supplied to the primary chamber through the primary burner. This process generates a highly combustible gas mixture that flows into a secondary chamber where more air is admitted to insure further oxidation of the gases. The auxiliary burner is installed in the secondary chamber of the cremator to facilitate complete combustion of all gaseous materials entering this chamber.

Once the cremation process is complete, the remains are removed from the primary chamber of the cremator. These remains are placed in urns and returned to the family for interment of disposal.



B & L SYSTEMS 150 lbs/hr SERIES

x=48" (outside dim)

y=11.5"(outside dim)

CHAMBER SIZE VERTICAL 18"x24"x56" = 14 FT^3

HORIZONTAL 18"x20"x24" = 05 FT^3

19 FT^3

Cremation Systems, Inc.
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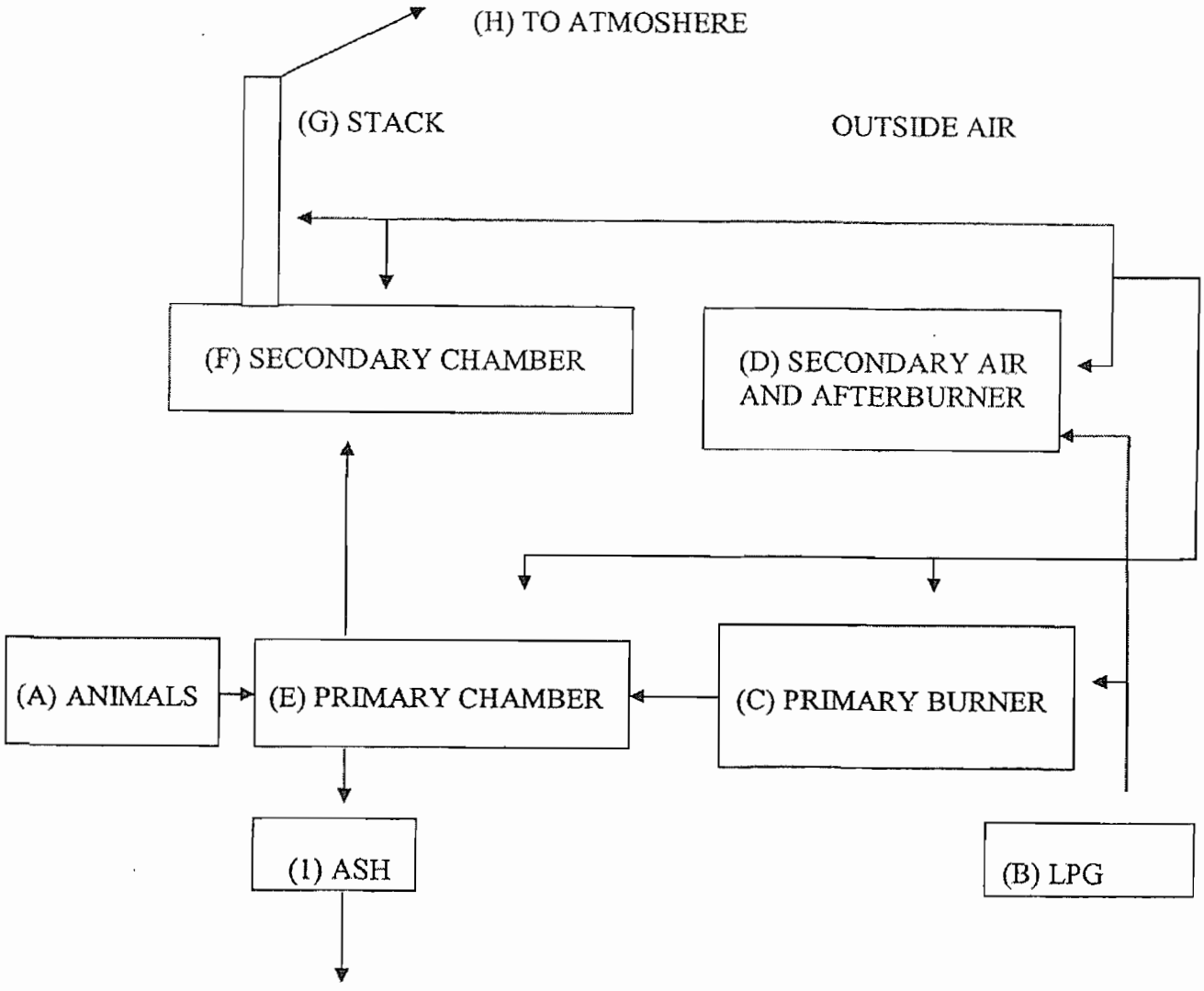
PROCESS FLOW DIAGRAM



CALCULATIONS FOR PRODUCTS OF COMBUSTION AND RESIDENCE TIME FOR 150 LB/hr TYPE IV WASTE. B&L N-20 SERIES CREMATORY

NATURAL GAS

A. BASIS: 1 LB WASTE

1. $\frac{\text{1 lb waste X 1000 Btu/lb waste X 15 lbs air}}{\text{10,000 Btu}}$ = 1.5 lbs air

2. $\frac{\text{1 lb waste X 0.10 lb combustible}}{\text{1 lb waste}}$ = 0.10 lbs of combustibles

3. $\frac{\text{1 lb waste X 0.85 lb H20 X 1.6*}}{\text{1 lb waste}}$ = 1.36 lbs of water

4. $\frac{\text{6,500 Btu aux fuel** X 10.0 cu ft air/cu ft fuel}}{\text{1,050 Btu/cu ft fuel X 13.35 cu ft air/lb air @ 70f}}$ = 4.64 lbs of air for aux fuel

5. $\frac{\text{6,500 Btu aux fuel X 0.044 lb fuel/cu ft fuel}}{\text{1,050 Btu/cu ft fuel}}$ = 0.27 lb of aux fuel

6. Sum = PRODUCTS OF COMBUSTION (POC) = 7.86 lbs POC per lb waste @ 70f

B. RESIDENCE TIME @ 1600 F

1. $\frac{\text{7.86 lbs POC/lbs waste X 51.89 cu ft / lb POC @ 1600f X 150 lbs waste / hr}}{\text{3600 sec/hr}}$

= 16.99 cu ft / sec @ 1600 f = 17.00 cu ft for 1 second residence time

RESIDENCE TIME @ 1800 F

2. $\frac{\text{7.86 lbs POC/lbs waste X 56.93 cu ft /lb POC @ 1800f X 150 lbs waste / hr}}{\text{3600 sec/hr}}$

= 18.64 cu ft / sec @ 1800f = 19.00 cu ft for 1 second residence time

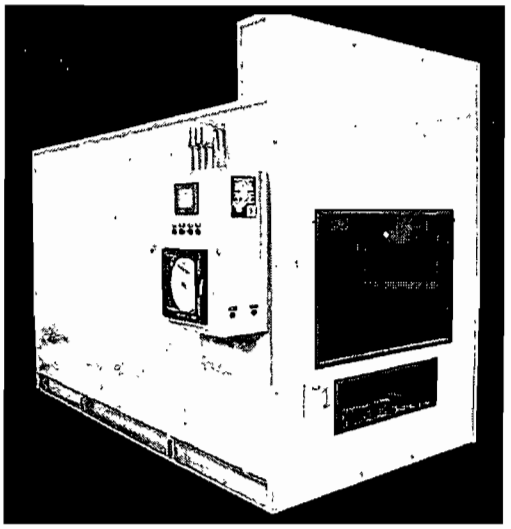
* Correction multiplier for dry air and water vapor
** Fuel is natural gas

Referances: Incinerator institute of America.
North American Combustion Handbook
Eclipse Combustion Engineering guide

C. THERMOCOUPLE PLACEMENT.

Secondary chamber operating temperature at > or = to 1600f = 17.00 cu ft from flame tip.
1800f = 19.00 cu ft from flame tip.

BLP 500 Pet Crematory



The B&L Cremation Systems, Inc. BLP 500 pet & animal crematory is designed for medium Veterinary facilities, For individual cremation or a maximum load size of 500 lbs.

Download Installation Manual

Specification	U.S Standard	Metric System
Length:	132"	3.5m
Width:	66" (76" With Control Panel)	1.6m (1.9m With Control panel)
Height:	96" (101" With Doorcap)	2.4m (00" With Doorcap)
Weight:	19,000 lbs.	9,071 Kg
Door Opening:		
Gas Pressure:	Natural Gas 7" W.C. Propane Gas 11" W.C.	Natural Gas 1.7 kPa W .C. Propane 2.7 kPa W.C.
Power Requirements:	220V, Single Phase, 60 Cycle, 30 AMPS & 110V, Single Phase 60 Cycle, 10 AMP	
Cremation Rate:	150 lbs/hour	68 Kg/hour
Body Weight Capability:	500 lbs	226 Kg
Stack Height From Grade:	Minimum 18'	5.4m
Stack Sections:	24" O.D	0.6m O.D

Chamber Dimensions:	Length: 77"	1.95m
	Width: 40"	1.01m
	Height: 32"	0.81m
	57 Cubic Feet	1.595295 Cubic Meters
Burner output:	Maximum Input Rating 1,500,000 BTU's per hour	1,582,583 KJ per hour
	Afterburner Maximum 1,000,000 BTU's per hour	1, 055,055 KJ per hour
	Modulation Minimum 100,000 BTU's per hour	105,505 KJ per hour
	Cremation Burner 500,000 BTU's per hour	527,500 KJ per hour
Air Requirements:	Outside air inlet louvers in the room located at or below burner height, capable of passing 2,500 CFM of free air.	Outside air inlet louvers in the room located at or below burner height, capable of passing 1.173 Cubic meters per second

Features to the above unit

FULLY AUTOMATIC CONTROL SEQUENCE. Operation is made simple by the fully automatic control sequence. A microprocessor temperature controller, with a digital readout, ensures optimum control while providing the lowest fuel consumption. Visual verification of each stage is provided on the control panel. Operator override is achieved at a turn of a switch for semi-manual control.

HOT HEARTH DESIGN. First introduced by B&L, this design allows for wasted afterburning heat to be recycled through the floor, eliminating fluid problems, lowering fuel consumption and extending the hearth life.

MULTI-CHAMBER AIR CONTROLLED DESIGN. The entire combustion process is completed within the air controlled chambers eliminating burning in the stack, allowing for 24 hour operation and providing for greater fuel efficiency over excess air designs.

POLLUTION MONITORING & CONTROL SYSTEM. This system constantly monitors the stack gases to prevent visible emissions. Integrated with the automatic system, this feature enables the unit to make all necessary adjustments automatically.

REFRACTORY LINED STACK. A three inch insulating liner is provided as a safety feature. While gases seldom exceed 1000°F, the liner reduces heat penetration under every condition, preventing the possibility of fire. A ten year warranty is offered on the stack liner.

LOW NOISE. The secondary combustion blower has been manufactured and installed to allow for low noise operation.

7205 114th Avenue North, Largo, Florida 33773
Sitemap
1-800-622-5411

Cremation Systems, Inc.

Installation Manual

for

BLP-500/150

Animal Cremation Retort

Please Read Carefully Before Installing.
Any Questions, Please Call!
Failure to Install Properly may **VOID** Your Warranty.

NOTICE:

Specifications are subject to change without prior notice.
Please check with the factory on your specific order.

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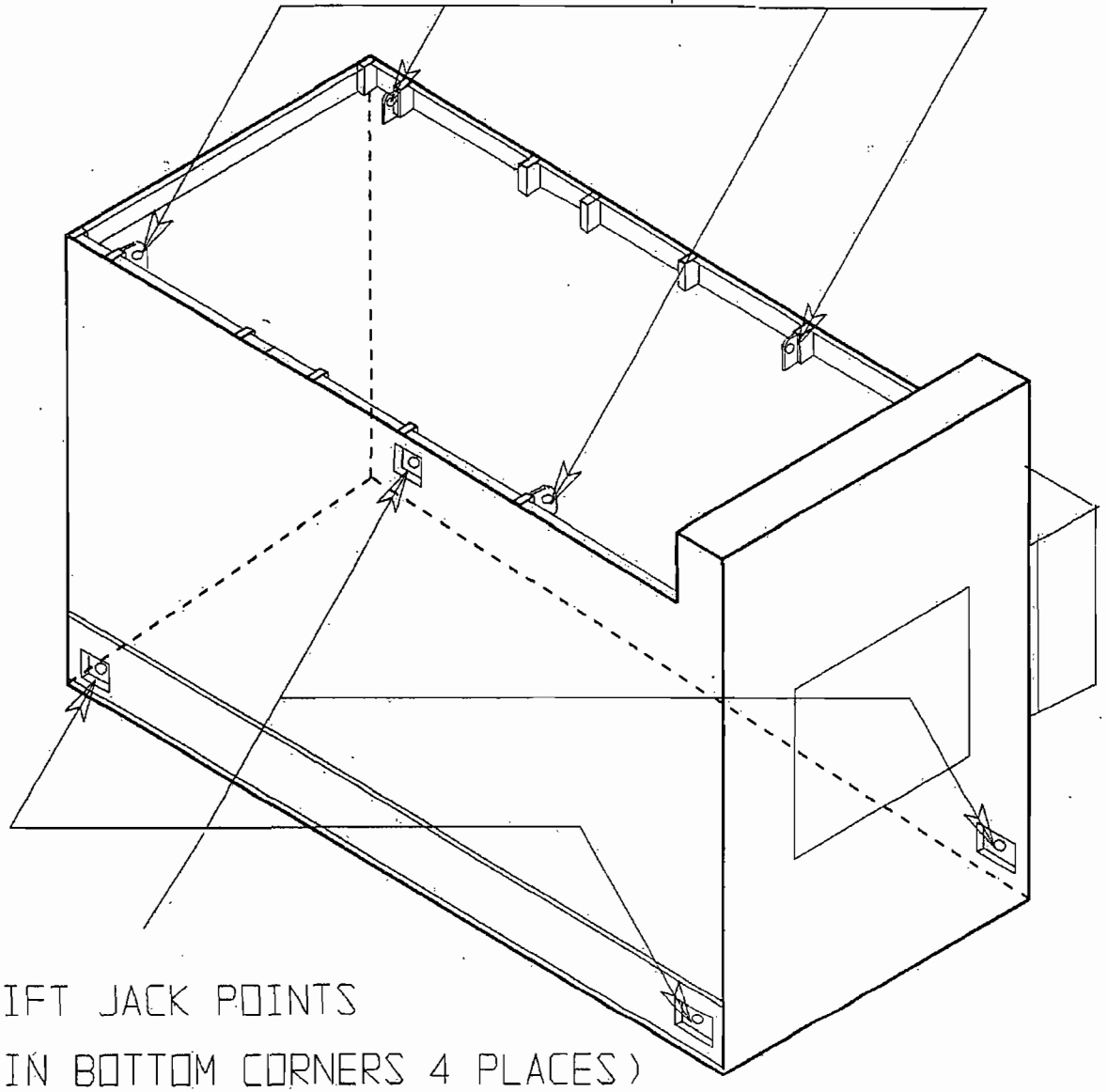
1-800-622-5411 • 727-541-4666 • Facsimile 727-547-0669
e-mail: sales@blcremationsystems.com • www.blcremationsystems.com

CRANE LIFTING LUGS

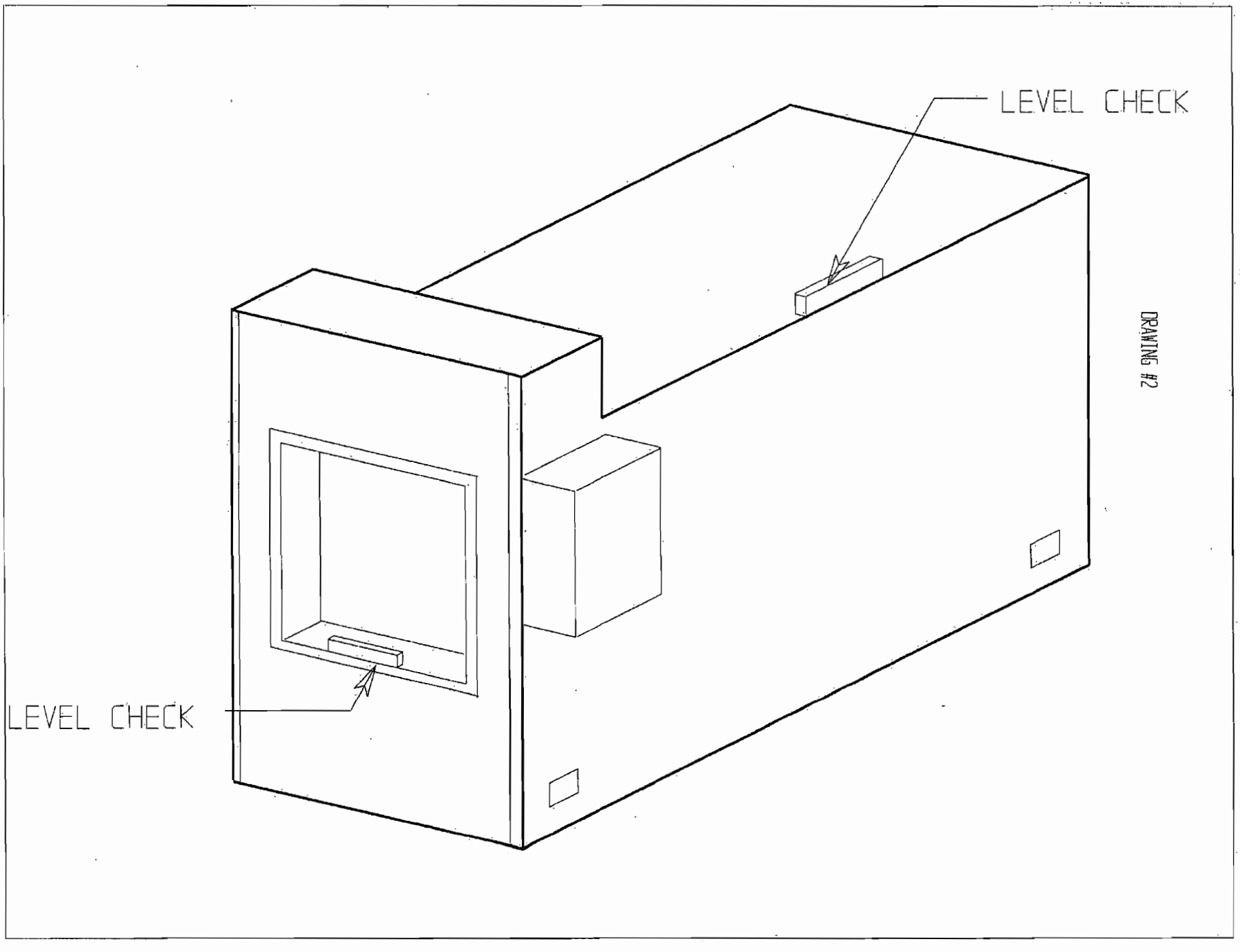
(LOCATED ON TOP OF MACHINE 4 PLACES)



FORKLIFT JACK POINTS

(LOCATED IN BOTTOM CORNERS 4 PLACES)

DRAWING #1



DRAWING #2

2. UNLOADING OF YOUR EQUIPMENT BY FORK TRUCK

Lift retort to clear trailer bed after determining the balance point (**Note:** forks should be fully extended sideways to ensure stable lift). Once raised, the truck can drive forward from under the load. Lower unit onto rollers and push into building to its final position.
SEE CRANE INSTRUCTIONS FOR FINAL SETTING. (pg.1)

A qualified electrician may now bring the required power to the control panel (see specifications for voltage requirements page 5). Check with the factory if this is a remote installation. Your local utility company or plumber can hook the gas line to the unit and test for leaks (for pipe size information see drawings #4 and #5).

Upon completion of all of the above, contact the factory for a start-up date. Please allow for a minimum of two weeks notice.

NOTE: The above mentioned procedures are to be used only as a guide. Your own installers may wish to differ from these guidelines as they see fit.

SITE SPECIFICATIONS

The concrete pad should be at least 4" thick (6" if possible) and the building and clearances should meet all local and federal codes.

The roof hole size should be approximately 36" diameter with no combustibles closer than 18" from the stack or 6" from stack with a stack thimble (see stack and roof detail #6 and roof thimble detail drawing #7). Please see NFPA 82 or applicable local codes.

The roof flashing is supplied by the customer, unless otherwise arranged.

The retort will be shipped on a flat bed trailer complete with two 5' sections of lined stack. Additional stack may be included if required for your installation. The retort has been packaged prior to shipment. **DO NOT REMOVE PACKING UNTIL THE UNIT IS IN PLACE.**

SHIPPING INFORMATION
BLP-500/150

RETORT

Height	8' - 0" (8' - 5" with door cap)
Width	5' - 6" (6' - 4" with control panel)
Length	11' - 0"
Weight	19,000 lbs.

STACK SECTIONS

Height	5' 0" (each section)
Width	24" O.D.
Weight	575 lbs. (each section)

CLEARANCES

	Minimum Clearance To A Combustible	Recommended Working Clearance
Top of machine to ceiling:	Minimum 6"	Minimum 24"
Side of machine to wall:	Minimum 6"	Minimum 6"
Back of machine to wall:	Minimum 6"	Minimum 24"
Front of machine to wall:	Minimum 6"	Minimum 72"
Stack to roof:	Minimum 6" with thimble	Minimum 18" without thimble
Thermocouple location:	Minimum 6"	Minimum 24"

Floor must be noncombustible

THIS UNIT IS UL (UNDERWRITERS LABORATORIES INC.) LISTED
46YF SPECIAL TYPE INCINERATOR

LISTED
SPECIAL TYPE INCINERATOR
46YF

ELECTRICAL SPECIFICATION SHEET

The BLP-500/150 retort requires the following electrical service:

220 Volts Single Phase 60 Cycle, 30 AMP Service	&	110 Volts Single Phase 60 Cycle, 10 AMP Service

Remove packing from retort and open door to disconnect box on side of control cabinet and proceed as follows:

(1) Connect 220V single phase to lugs at top of fuse block in disconnect (30 AMP service)

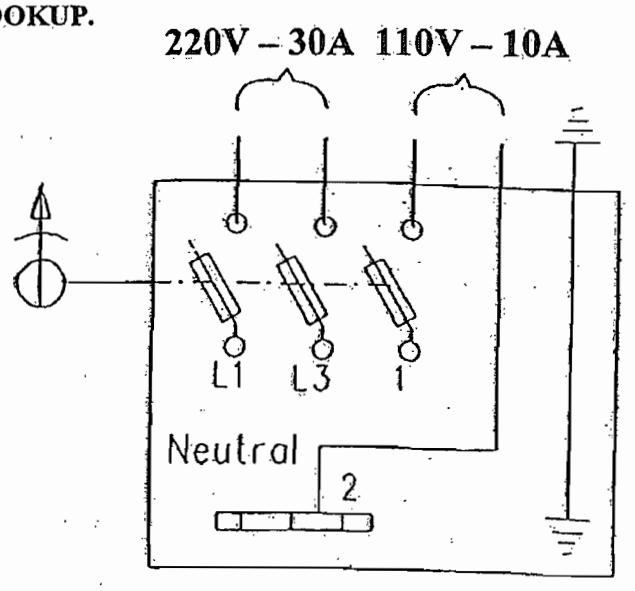
(2) Connect 110V Hot to lug of fuseblock in disconnect (10 AMP)

(3) Connect neutral to neutral busbar in disconnect (White)

(4) Connect ground to ground lug in disconnect (Green)

(5) All wiring must be suitable for 30 AMP service as specified by N.E.C. Standards and/or local codes, whichever is applicable.

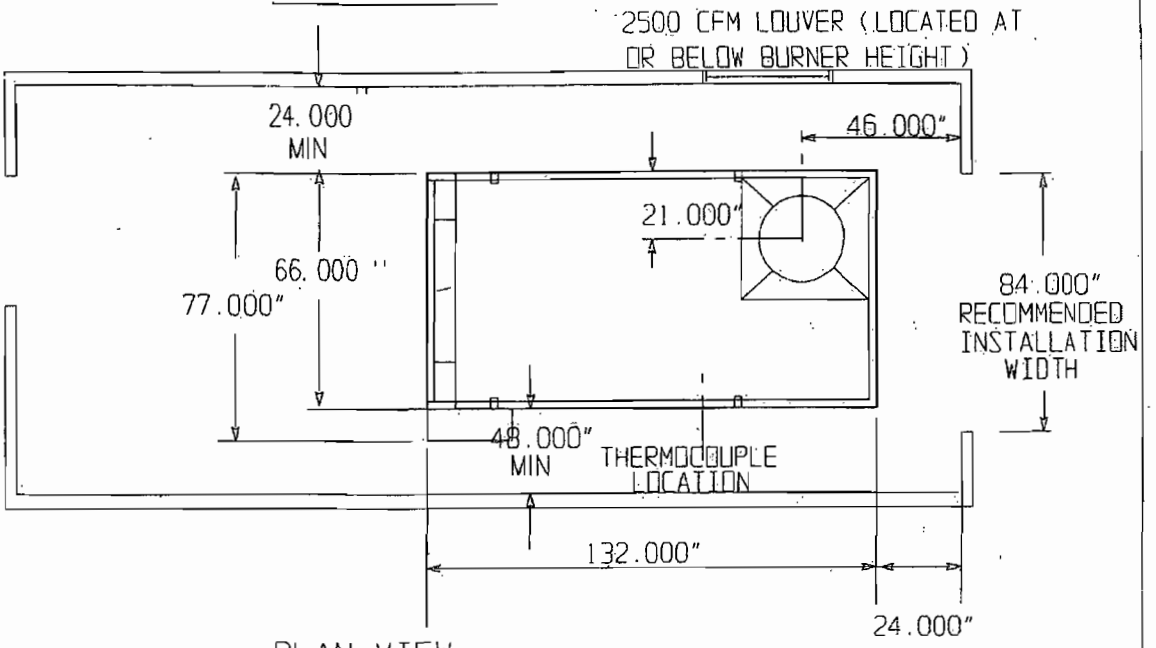
DO NOT ATTEMPT TO OPERATE THE RETORT AFTER COMPLETING THE ELECTRICAL HOOKUP.



NOTE: A PRIME GROUND MUST BE RUN TO UNIT.

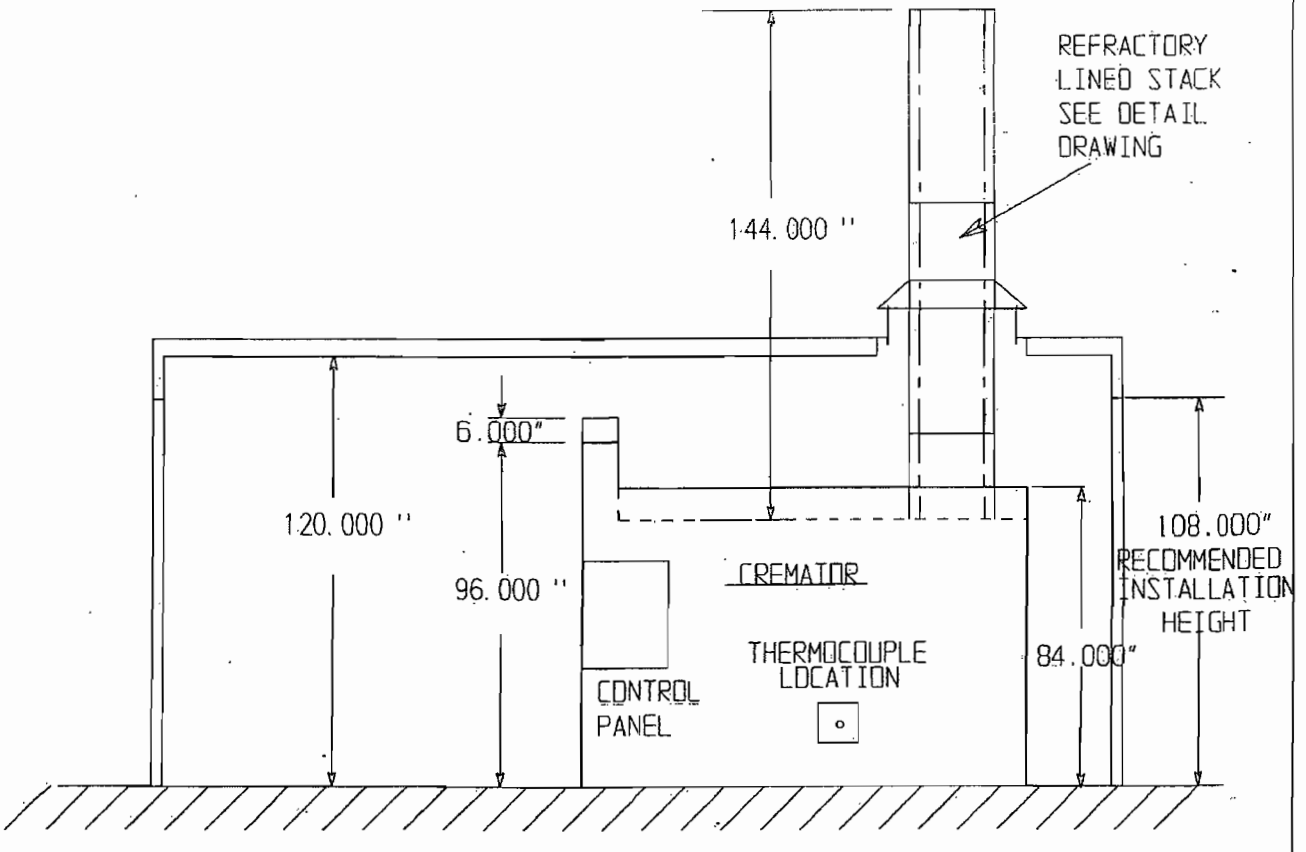
DRAWING #3

BLP500\150

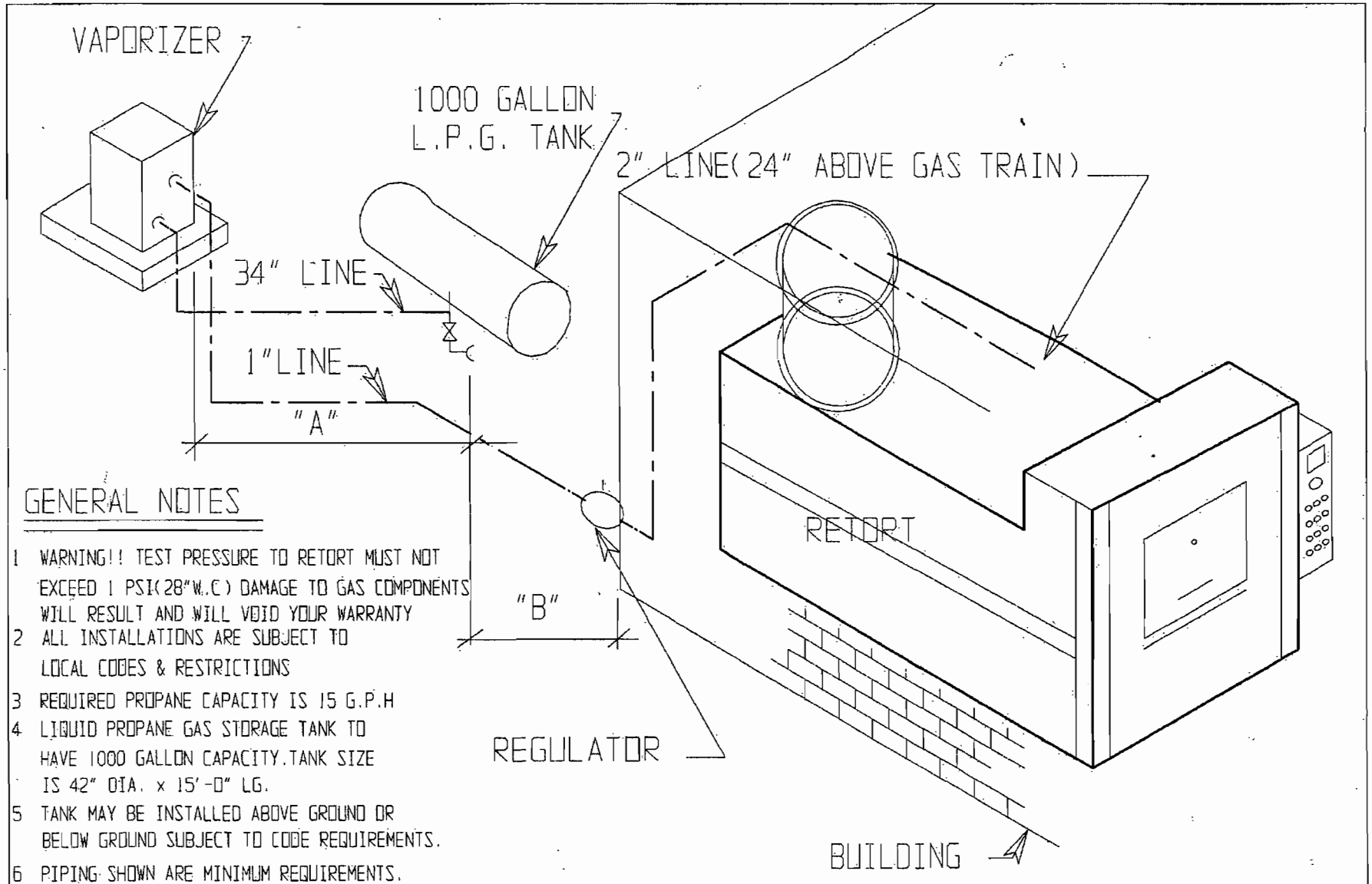


PLAN VIEW

FOR SIZES ONLY
ORIENTATION MAY CHANGE



SECTION

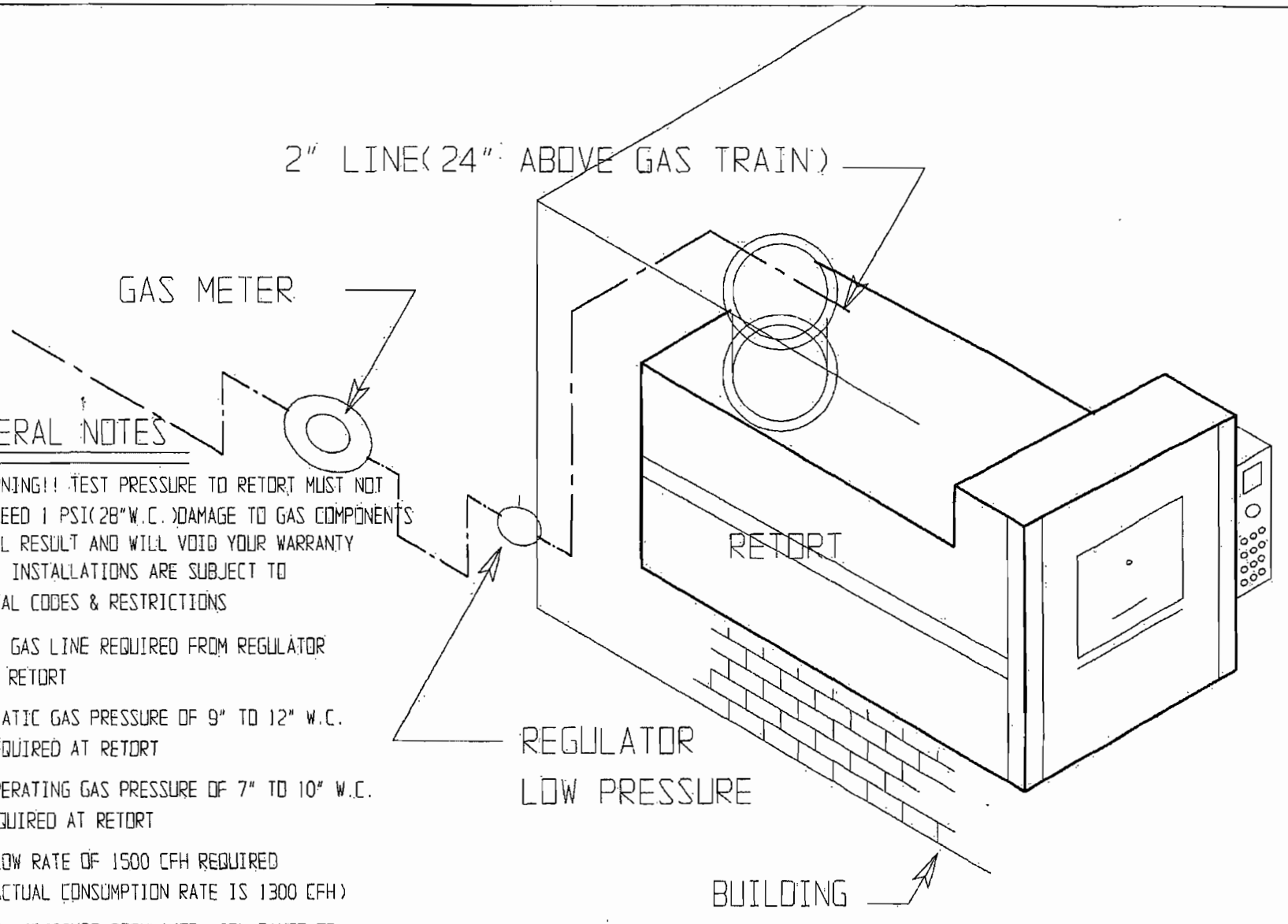


GENERAL NOTES

1. WARNING!! TEST PRESSURE TO RETORT MUST NOT EXCEED 1 PSI(28"W.C) DAMAGE TO GAS COMPONENTS WILL RESULT AND WILL VOID YOUR WARRANTY
2. ALL INSTALLATIONS ARE SUBJECT TO LOCAL CODES & RESTRICTIONS
3. REQUIRED PROPANE CAPACITY IS 15 G.P.H
4. LIQUID PROPANE GAS STORAGE TANK TO HAVE 1000 GALLON CAPACITY. TANK SIZE IS 42" DIA. x 15'-0" LG.
5. TANK MAY BE INSTALLED ABOVE GROUND OR BELOW GROUND SUBJECT TO CODE REQUIREMENTS.
6. PIPING SHOWN ARE MINIMUM REQUIREMENTS.
7. VAPORIZER IS REQUIRED WHEN AMBIENT TEMPERATURE REMAINS BELOW 40 DEG F FOR MORE THAN 24 HOURS.
8. "A" AND "B" DIMENSIONS ARE SUBJECT TO LOCAL CODES.

PROPANE GAS INSTALLATION

DRAWING# 4



GENERAL NOTES

1 WARNING!! TEST PRESSURE TO RETORT MUST NOT EXCEED 1 PSI(28"W.C.)DAMAGE TO GAS COMPONENTS WILL RESULT AND WILL VOID YOUR WARRANTY

2 ALL INSTALLATIONS ARE SUBJECT TO LOCAL CODES & RESTRICTIONS

3 2" GAS LINE REQUIRED FROM REGULATOR TO RETORT

4 STATIC GAS PRESSURE OF 9" TO 12" W.C. REQUIRED AT RETORT

5 OPERATING GAS PRESSURE OF 7" TO 10" W.C. REQUIRED AT RETORT

6 FLOW RATE OF 1500 CFH REQUIRED (ACTUAL CONSUMPTION RATE IS 1300 CFH)

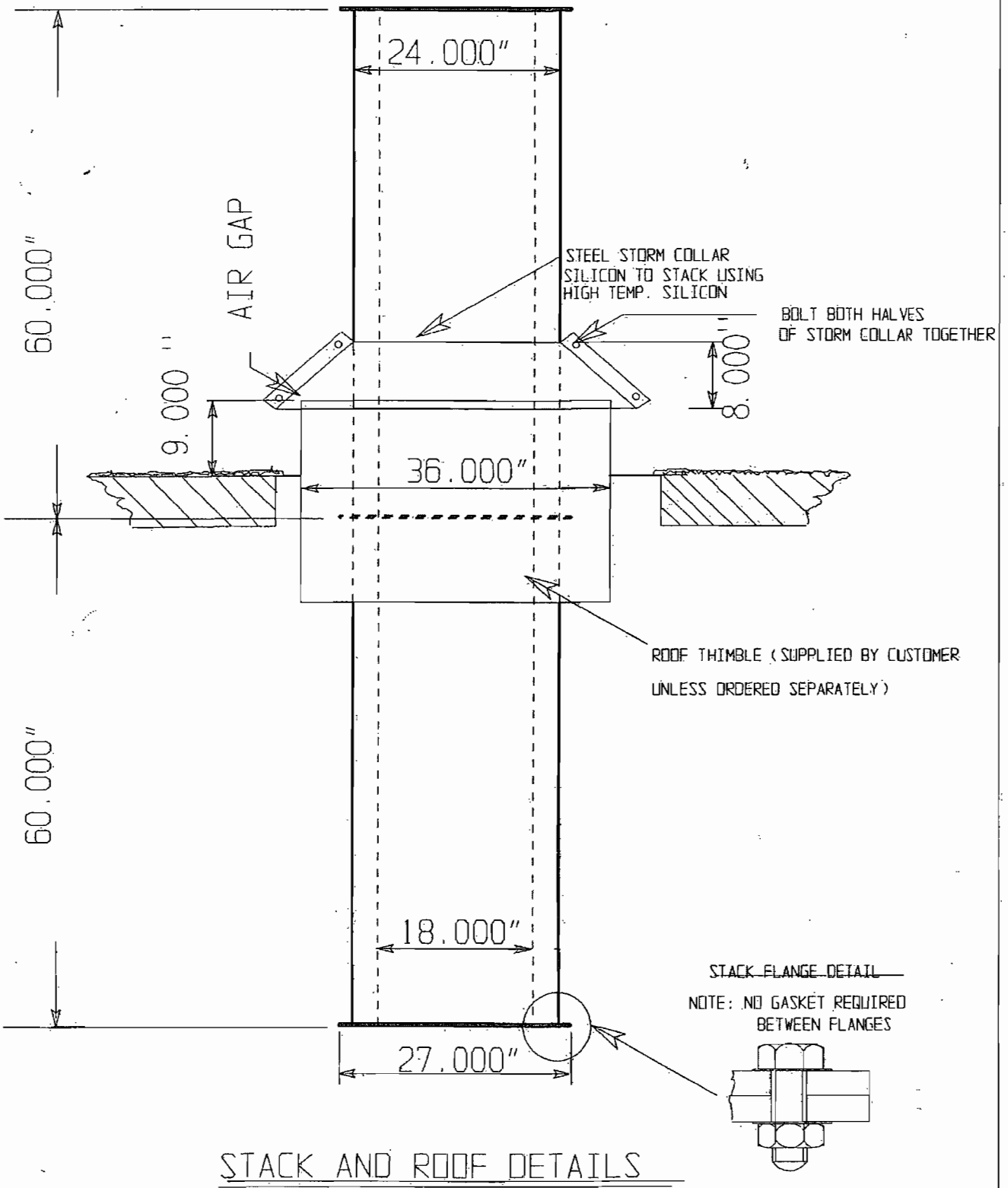
7 LOW PRESSURE REGULATOR WITH RANGE OF 5" TO 12" W.C. RECOMMENDED

NOTE: REGULATOR SHOULD BE PLACED AS CLOSE TO RETORT AS PRACTICAL

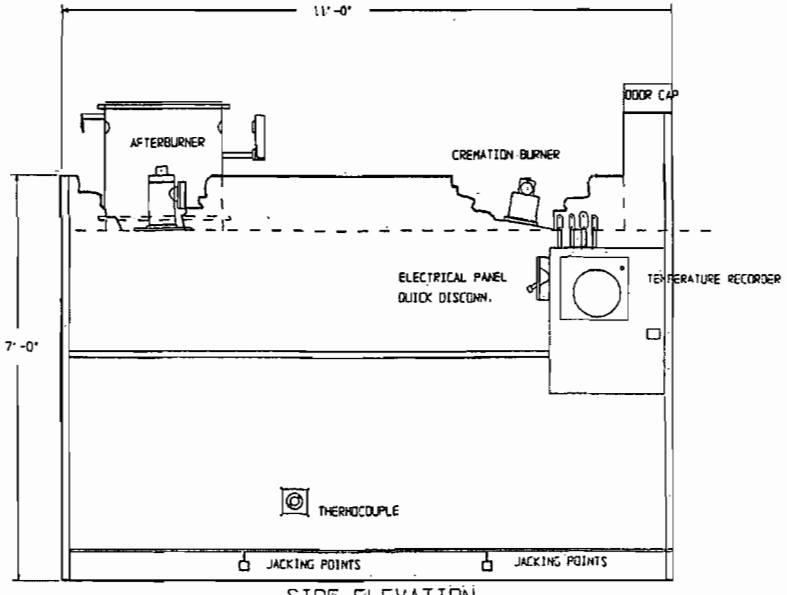
NATURAL GAS INSTALLATION

DRAWING #5

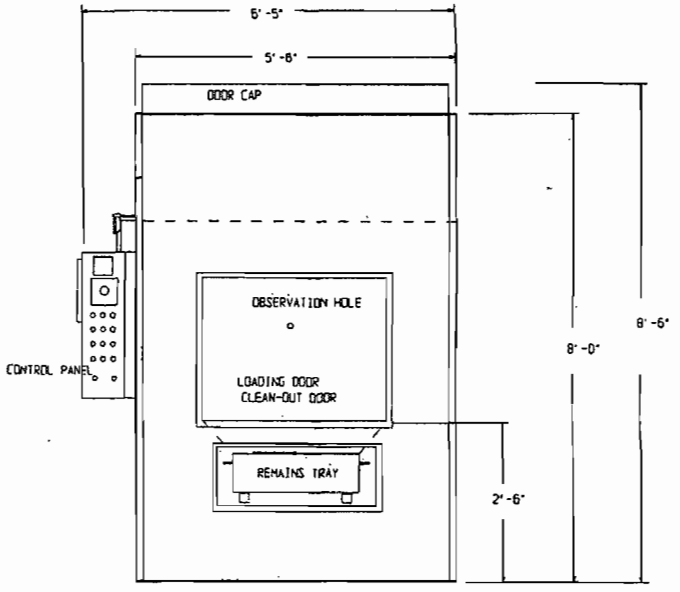
DRAWING #6



STACK AND ROOF DETAILS



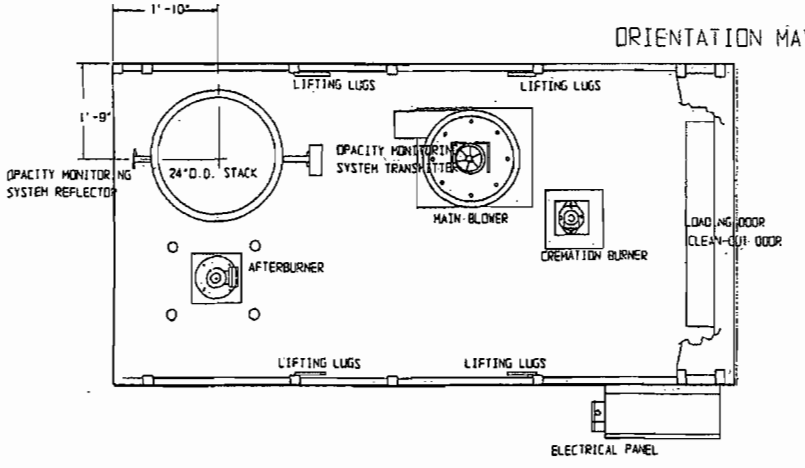
SIDE ELEVATION



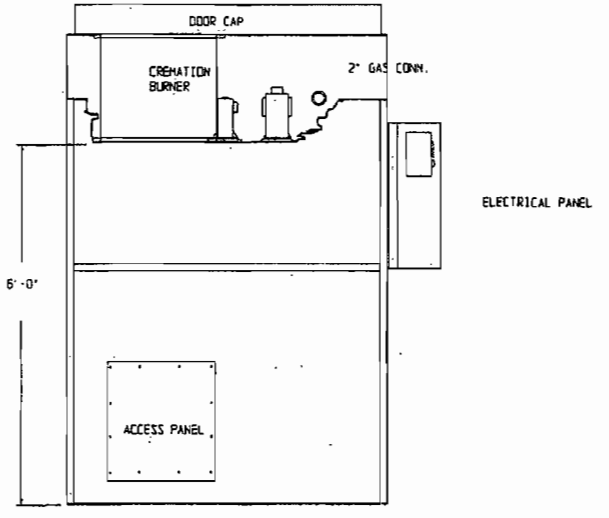
FRONT ELEVATION

FOR SIZES ONLY

ORIENTATION MAY CHANGE



PLAN VIEW

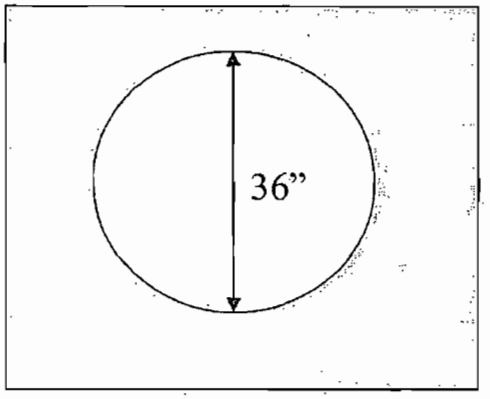


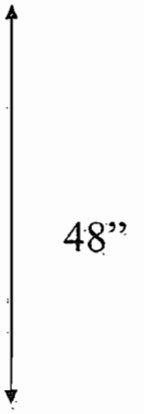
BLP500/150 REAR ELEVATION

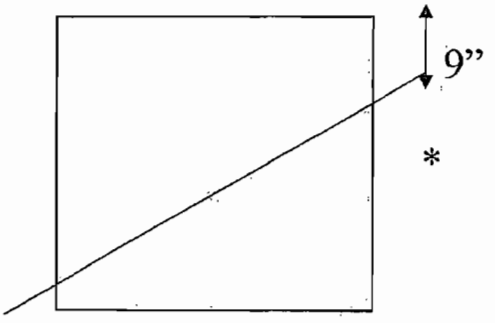
DRAWING #8

Drawing #7

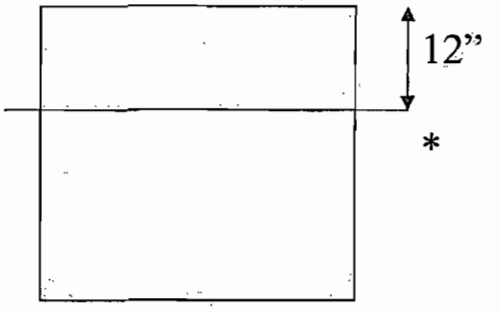
ROOF THIMBLE DETAIL FOR STANDARD *24"* STACK



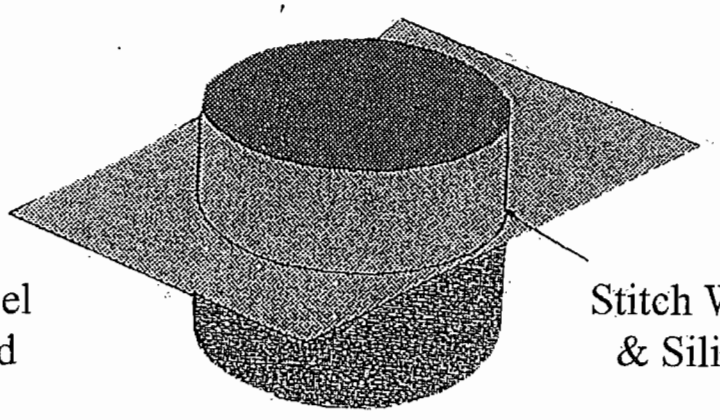




Pitched



Flat



16 Ga. Steel
Galvanized

Stitch Welded
& Siliconed

24" * = To Be Determined By Roof Thickness

MAKE-UP AIR LOUVER

Every installation must have a make-up air louver to supply the unit with fresh air. The recommended size is 24" x 24". In warm climates the air louver can be fixed open with a bug screen. In cold climates a motorized damper should be used, have local electrician run a power, neutral, and ground wire from louver motor to control panel on retort and leave about three feet of wire in panel, technician will hook up at start up. A limit proving switch may be required to ensure the system opens.

Some local codes require a proving circuit for motorized dampers; please consult B&L Systems. Do not modify this control system or install such circuits without consulting B&L as incorrect operation may occur as well as possible voiding of your warranty.

All louvers must be installed at or below burner height - (under 6' from the floor).

Some local codes may require 2 louvers, please contact your local building department.

B & L Cremation Systems, Inc. can supply these louvers for your facility, please contact the factory for prices and additional information.

DIMENSIONS - FIG. 1

	A	B	C	OPENING REQ'D SQUARE
	27"	24½"	24"	25"

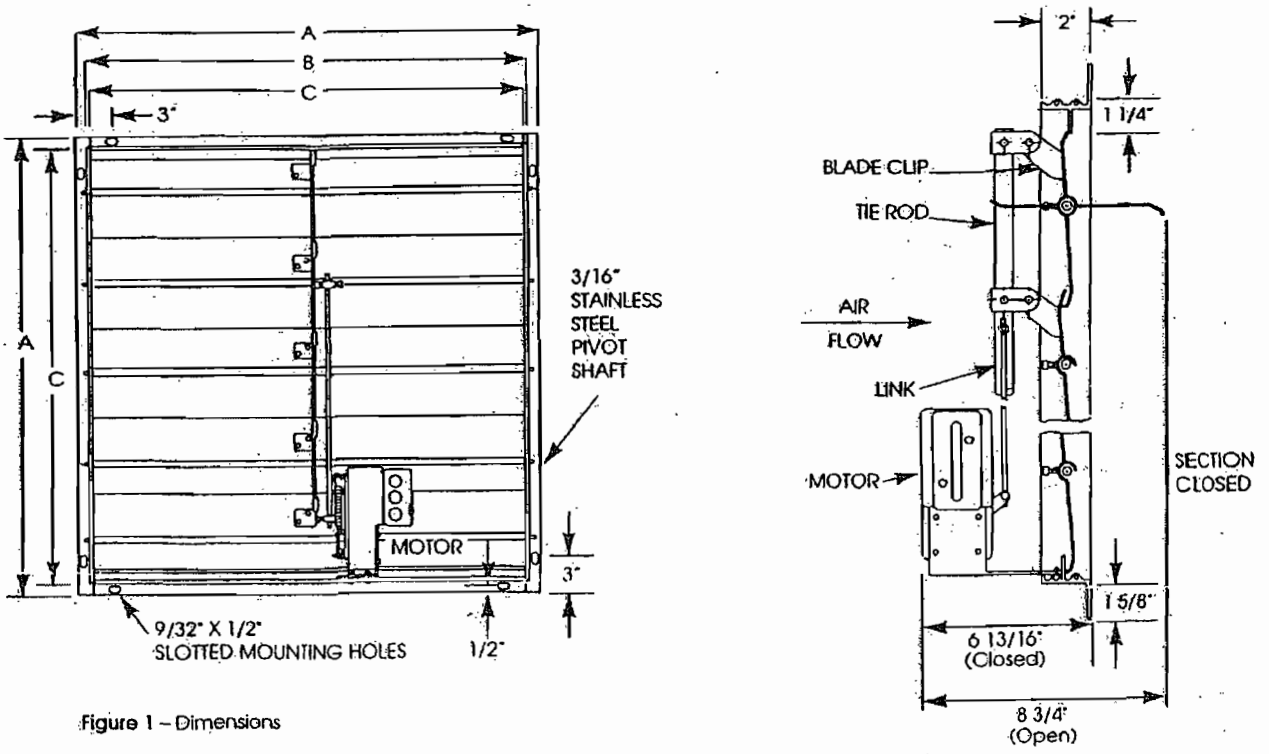


Figure 1 – Dimensions

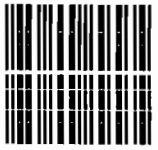
OF THE RETURN ADDRESS, FOLD AT DOTTED LINE

CERTIFIED MAIL™

7010 0290 0001 1837 1617

UNITED STATES POSTAL SERVICE

1000



32315

U.S. POSTAGE
PAID
DUNNELLON, FL
34432
AUG 11, 10
AMOUNT

$6.32
00036251-13

From: William Dean
5291 W. Pisney Lane
Dunnellon, FL 34433

FIRST CLASS MAIL

RETURN RECEIPT
REQUESTED SHOWING ADDRESS
WHERE DELIVERED

To:

FDEP Receipts
P.O. Box 3070
Tallahassee, FL 32315-3070