City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

PERMIT ISSUED
OCT 11 2005
CITY OF PORTLAND

Permit No:	Issue Date:	CBL:
05-1324		326 B007001

Location of Construction:	Owner Name:	Owner Address:	Phone:
14 Industrial Way	Northeastern Graphic Supply	Po Box 1418	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone:**
	HVAC Services, Inc.	73 Bradley Drive Westbrook	2078544822
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	**Zone:**
		HVAC	I-M

Past Use:	Proposed Use:	Permit Fee:	Cost of Work:	CEO District:
Commercial	Commercial install a trane rtu's & furnace in attic/roof	$246.00	$25,000.00	5

FIRE DEPT: ☑ Approved ☐ Denied
to NFPA 90A
Signature:

INSPECTION:
Use Group: N/A Type:
HVAC
10/5/05
Signature:

Proposed Project Description:
Install a Trane rtu's & furnace in attic/roof.

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)
Action: ☐ Approved ☐ Approved w/Conditions ☐ Denied
Signature: Date:

Permit Taken By:	Date Applied For:
dmartin	09/13/2005

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building permits do not include plumbing, septic or electrical work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
☐ Shoreland	☐ Variance	☑ Not in District or Landmark
☐ Wetland	☐ Miscellaneous	☐ Does Not Require Review
☐ Flood Zone	☐ Conditional Use	☐ Requires Review
☐ Subdivision	☐ Interpretation	☐ Approved
☐ Site Plan	☐ Approved	☐ Approved w/Conditions
Maj ☐ Minor ☐ MM ☐	☐ Denied	☐ Denied
OK 9/13/05		
Date:	Date:	Date:

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT ADDRESS DATE PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE DATE PHONE

326 B 007

FILL IN AND SIGN WITH INK

PERMIT ISSUED
OCT 11 2005
CITY OF PORTLAND

APPLICATION FOR PERMIT
HEATING OR POWER EQUIPMENT

To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location / CBL 14 Industrial Way Pld ME Use of Building _____ Date 9/9/05

Name and address of owner of appliance Andy Graham
14 Industrial Way Pld ME

Installer's name and address HVAC SERVICES INC
73 Bradley Dr. WESTBROOK ME 04092 Telephone 854 8422

Location of appliance:

☐ Basement ☐ Floor
1 ☑ Attic 3 ☑ Roof

Type of Fuel:

☑ Gas ☐ Oil ☐ Solid

Appliance Name: Trane Rtu's a Furnace

U.L. Approved ☑ Yes ☐ No

Will appliance be installed in accordance with the manufacture's installation instructions? ☑ Yes ☐ No

IF NO Explain: _____

The Type of License of Installer:

☐ Master Plumber # _____
☐ Solid Fuel # _____
☐ Oil # _____
☑ Gas # PNT 896
☐ Other _____

Type of Chimney:

☐ Masonry Lined
Factory built _____

☐ Metal
Factory Built U.L. Listing # _____

☑ Direct Vent
Type _____ UL# _____

DEPT. OF BUILDING INSPECTION
CITY OF PORTLAND, ME
SEP - 9 2005
RECEIVED

Type of Fuel Tank

☐ Oil
☑ Gas

Size of Tank _____

Number of Tanks _____

Distance from Tank to Center of Flame _____ **feet.**

Cost of Work: $ 25,000

Permit Fee: $ 246.00

Approved

Fire: _____
Ele.: _____
Bldg.: _____

Approved with Conditions

☐ See attached letter or requirement

_____ Inspector's Signature

_____ Date Approved

Signature of Installer _____

White - Inspection Yellow - File Pink - Applicant's Gold - Assessor's Copy

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No:	Date Applied For:	CBL:
05-1324	09/12/2005	326 B007001

Location of Construction:	Owner Name:	Owner Address:	Phone:
14 Industrial Way	Northeastern Graphic Supply	Po Box 1418	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	HVAC Services, Inc.	73 Bradley Drive Westbrook	(207) 854-4822
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		HVAC	

Proposed Use:	Proposed Project Description:
Commercial install a trane rtu's & furnace in attic/roof	Install a Trane rtu's & furnace in attic/roof.

Dept: Zoning **Status:** Approved **Reviewer:** Marge Schmuckal **Approval Date:** 09/13/2005

Note:

Ok to Issue: ☑

Dept: Building **Status:** Approved with Conditions **Reviewer:** Mike Nugent **Approval Date:** 10/05/2005

Note:

Ok to Issue: ☑

1) Equipment must be installed in compliance with the manufacturer's specifications

Dept: Fire **Status:** Approved with Conditions **Reviewer:** Cptn Greg Cass **Approval Date:** 09/13/2005

Note:

Ok to Issue: ☑

1) Entire system to be checked for compliance with NFPA 90A

CASCO BAY ENGINEERING

CIVIL & STRUCTURAL ENGINEERING
www.cascobayengineering.com
424 Fore St., Portland, ME 04101 Phone 207.842.2800 Fax 207.842.2828

September 7, 2005

Mr. Michael Nugent
Inspection Services Manager
City of Portland
389 Congress Street
Portland, ME 04101

Re: Color Works Renovation, Riverside Street

Project Number: 5059

Dear Mr. Nugent:

This letter is to confirm that we have analyzed the existing roof supports for the proposed HVAC units: 1 unit (ceiling hung) weight =140 lbs; 2 units (roof mounted, 5 ton units) weight =615 lbs; 1 unit (roof mounted, 15 ton unit) weight=2,005 lbs. The new units are in the same locations as the existing HVAC units were located. The existing units will be removed prior to the placement of the new units noted above.

Please contact us if you have any additional questions or concerns.

Sincerely,

Eric Dube
President
Casco Bay Engineering

STATE OF MAINE
CAROLYN C. BIRD
9956
REGISTERED PROFESSIONAL ENGINEER

Carolyn C. Bird, P.E.
Vice President
Casco Bay Engineering

ERIC DUBE TO SEND NEW LETTER

TRANE Submittal

Trane
A Division of American Standard Inc.

Prepared For:
All Bidders

Sold To:

Date: September 06, 2005

Customer P.O. Number:
Customer Project Number:

Job Number:
Job Name:
HVAC Services - Rob - Colorworks

Trane is pleased to provide the enclosed submittal for your review and approval.

Product Summary

Qty	Product
2	Unitary Gas/Electric Rooftop Units
1	Packaged Gas/Electric Rooftop Units

The attached information describes the equipment we propose to furnish for this project, and is submitted for your approval.

Dan Broderick
Trane
30 Thomas Drive
Westbrook, ME 04092-3824
Phone: (207)828-1777
Fax: (207)828-1511

Tag Data - Unitary Gas/Electric Rooftop Units (Qty: 2)

Item	Tag(s)	Qty	Description	Model Number
A1	No Tag	2	5 Ton Packaged Unitary Gas/Electric R	YHC063A4RLA--D00000000600----B

Product Data - Unitary Gas/Electric Rooftop Units

Item: A1 Qty: 2

DX cooling, gas heat
High efficiency
Convertible configuration
5 Ton 13 SEER
460/60/3
Micro-processor controls 3 ph
Low gas heat capacity
Economizer, dry bulb 0-100%, w/ barometric relief 3 ph
Frostat and Crankcase Htr 3 ph

The control algorithm maintains accurate temperature control. minimizes drift from set point, and provides better building comfort. A centralized microprocessor shall provide anti-short cycle timing and time delay between compressors to provide a higher level of machine protection. 24-volt electromechanical control circuit shall include control transformer, contactors pressure lugs or terminal block for power wiring. Unit shall have single point power entry as standard.

Indoor Fan
Units offer a choice of direct-drive, FC centrifugal fans or belt driven, FC centrifugal fans with adjustable motor sheaves. Units with belt drive motors shall have an adjustment idler-arm assembly for quick-adjustment to fan belts and motor sheaves. All motors shall be thermally protected. Direct drive oversized motors shall be available for high static operations. All indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT).

Casing
Unit casing shall be constructed of zinc coated, heavy gauge, galvanized steel. Exterior surfaces shall be cleaned, phosphatized, and finished with a weather-resistant baked enamel finish. Unit's surface shall be tested 1000 hours in a salt spray test in compliance with ASTM B117. Cabinet construction shall allow for all maintenance on one side of the unit. Service panels shall have lifting handles and be removed and reinstalled by removing only a single fastener while providing a water and air tight seal. All exposed vertical panels and top covers in the indoor air section shall be insulated with a cleanable foil faced, fire-retardent permanent, odorless glass fiber material.

The base of the unit shall be insulated with 1/2 inch [12.7mm], 1 pound [.45 kg] density foil-faced, closed-cell material. All insulation edges shall be either captured or sealed. The unit's base pan shall have no penetrations within the perimeter of the curb other than the raised 1 1/8 inch [28.6mm] high downflow supply-return openings to provide an added water integrity precaution, if the condensate drain backs up. The base of the unit shall have provisions for forklift and crane lifting, with forklift capabilities on three side of the unit.

Unit Top
The top cover shall be one piece construction or, where seams exist, it shall be double-hemmed and gasket-sealed. The ribbed top adds extra strength and prevents water from pooling on unit top.

Economizer
This accessory shall be factory installed and is available with or without barometric relief. The assembly includes fully modulating 0-100% motor and dampers, minimum position setting, preset linkage, wiring harness with plug, and fixed dry bulb control. Optional solid state enthalpy control shall be either factory or field installed. The factory-installed economizer arrives in the shipping position and shall be moved to the operating position by the installing contractor.

High Pressure Cutout
All 13 SEER Precedent include high pressure cutout as standard.

Unit Dimensions - Unitary Gas/Electric Rooftop Units

Item: A1 Qty: 2

ELECTRICAL / GENERAL DATA

Tons	5	[3.73 kW]	
Unit Operating Voltage Range	414	— 506	
Unit Primary Voltage	460		
Unit Secondary Voltage			Field Installed Oversized Motor
Unit Hertz	60		
Unit Phase	3		
Minimum Circuit Ampacity	14.3		
Maximum Fuse Size	20		
Maximum (HACR) Circuit Breaker (1)	20		

HEATING PERFORMANCE (1)	Low	HEATING - GENERAL DATA	Natural Gas		LP (SEE NOTE 4)	
Heating Input (Mbh)	60	Gas Inlet Pressure	MIN 4.5" w.c.	MAX 14" w.c.	MIN 10" w.c.	MAX 14"
Heating Output (Mbh)	48	Gas Pipe Connection Size	1/2" NPT			

COMPRESSOR	Circuit #1	Circuit #2
Number	1	
Horsepower	4.5 — [3.36 kW]	— [kW]
Phase	3	
Compressor Rated Load Amps	7.8	
Locked Rotor Amps	59.6	

INDOOR MOTOR			Field Installed Oversized Motor
Number	1		
Horsepower	1.0	— [.75 kW]	— [kW]
Motor Speed (RPM)	1750		
Phase	3		
Indoor Motor Full Load Amps	2.5		
Locked Rotor Amps	16.1		

OUTDOOR MOTOR		
Number	1	
Horsepower	.33	— [.25 kW]
Motor speed (RPM)	1075	
Phase	1	
Outdoor Motor Full Load Amps	1.2	
Locked Rotor Amps	2.5	

FILTERS - Type	Throwaway
Furnished	Yes
Number	2
Recommended Size	

REFRIGERANT Type	R-22
Factory Charge (circuit #1) (2)	8.4
Factory Charge (circuit #2) (2)	

NOTES:

1. Maximum (HACR) Circuit Breaker sizing is for installations in the United States only.
2. Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

4. The use of Liquid Propane (LP) requires unit modification. Contact a Trane Salesman for information.

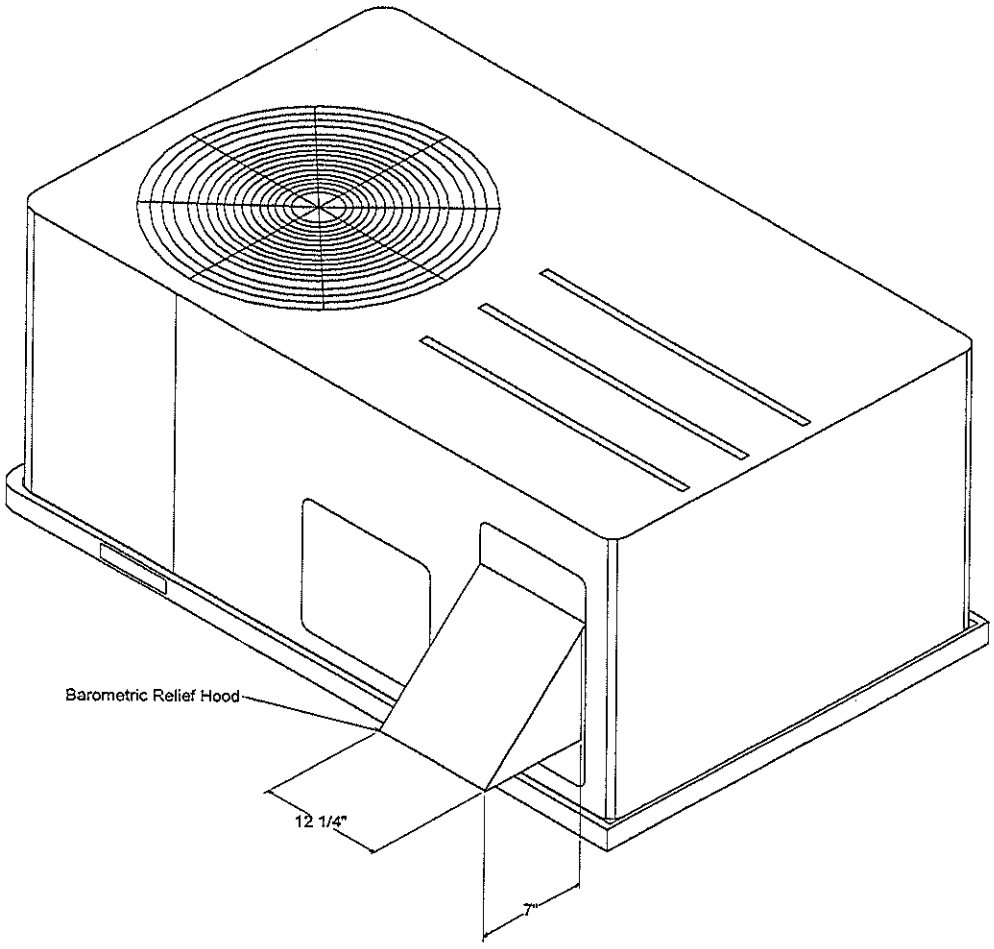
Factory-Installed Options Net Weights
(Weights appear only when option is selected)

OPTIONS		
ECONOMIZER	26	lb
BAROMETRIC RELIEF	7	lb
MOTORIZED OUTSIDE AIR DAMPER		lb
MANUAL OUTSIDE AIR DAMPER		lb
OVERSIZE MOTOR		lb
BELT DRIVE MOTOR		lb
SMOKE DETECTOR, RETURN		lb
SMOKE DETECTOR, SUPPLY		lb
COIL GUARD		lb
HINGED DOORS		lb
POWERED CONVENIENCE OUTLET		lb
THROUGH THE BASE ELECTRICAL		lb
THROUGH THE BASE GAS		lb
UNIT MOUNTED CIRCUIT BREAKER		lb
UNIT MOUNTED DISCONNECT SWITCH		lb
NOVAR CONTROLS		lb
POWER EXHAUST		lb
STAINLESS STEEL HEAT EXCHANGER		lb

NOTES:

1. Weights for options not listed are >5 lbs.
2. Net weight should be added to unit weight when ordering factory-installed accessories.

Accessory - Unitary Gas/Electric Rooftop Units
Barometric Relief Hood
Item: A1 Qty: 2



Mechanical Specifications - Packaged Gas/Electric Rooftop Units
Item: B1 Qty: 1

General-Downflow Airflow
Units will be dedicated downflow airflow. Operating range will be between 115 deg F [46.1 deg C] and 0 deg F [-17.8 deg C] cooling as standard from the factory. Cooling performance will be rated in accordance with ARI testing procedures. The unit will be factory assembled, internally wired, fully charged with R-22 and 100 percent run-tested before leaving the factory. Wiring internal to the unit will be colored and numbered for simplified identification. Units will be UL listed and label, classified in accordance to ANSIZ21.47 for gas fired central furnaces and UL 1995/ CAN/CSA No. 236-M90 for central cooling air conditioners. Canadian units are CSA certified.

Casing-Downflow Unit
Unit casing is constructed of zinc coated, heavy gauge, galvanized steel. All components are mounted in a weather resistant steel cabinet with a painted exterior. Unit's surface will be tested 500 hours in a salt spray test in compliance with ASTM B117. Cabinet construction allows for all maintenance on one side of the unit. Service panels have lifting handles and are removed and reinstalled by removing one to three screws while providing a water and air tight seal. The indoor air section is complete with fire resistant, permanent, odorless glass fiber material. The base pan has no penetrations within the perimeter of the curb other than the raised 1 1/8" [28.6 mm] high supply/return openings to provide an added water integrity precaution should the condensate drain back up. The base of the unit has provisions for forklift and crane lifting.

Controls for 12 1/2-25 Ton Unit with Dual Compressors
Unit is completely factory wired with necessary controls and contactor pressure lugs for power wiring. Units will provide an external location for mounting fused disconnect device. Micro-processor controls are provided for all 24 volt control functions. The resident control algorithms will make all heating, cooling and/or ventilating decisions in response to electronic signals from sensors measuring indoor and outdoor temperature. The control algorithm maintains accurate temperature control, minimizes drift from set point and provides better building comfort. A centralized micro-processor will provide anti-short cycle timing for a higher level of machine protection.

12 1/2-25 Ton Unit with Dual Refrigerant Circuits
The two independent refrigerant circuits will have short orifice expansion devices, service pressure ports and refrigerant line filter driers as standard. An area will be provided for replacement suction line driers.

Evaporator and Condenser Coils for 12 1/2-25 Ton Units w/Dual Compressors
Internally finned 3/8" [9.53 mm] copper tubes mechanically bonded to configured aluminum plate fin are standard. Coils are leak tested at the factory to ensure the pressure integrity. The evaporator coil and condenser coil are leak tested to 200 psig [1379 kPa] and pressure tested to 450 psig [3192.8 kPa]. The evaporator coil is intermingled.

Indoor Fan and Motor for 12 1/2-25 Ton Unit
Unit will have an FC, centrifugal fan with a belt driven, adjustable sheave, thermally protected motor. The unit will have an adjustable idler arm assembly for quick adjustment of fan belts and motor sheaves.

Outdoor Fan for 12 1/2, 15-25 Ton Hi Efficiency Units
The outdoor fans will be direct-drive, statically and dynamically balanced, draw through in the vertical discharge position. The fan motors will be permanently lubricated and will have built in thermal overload protection.

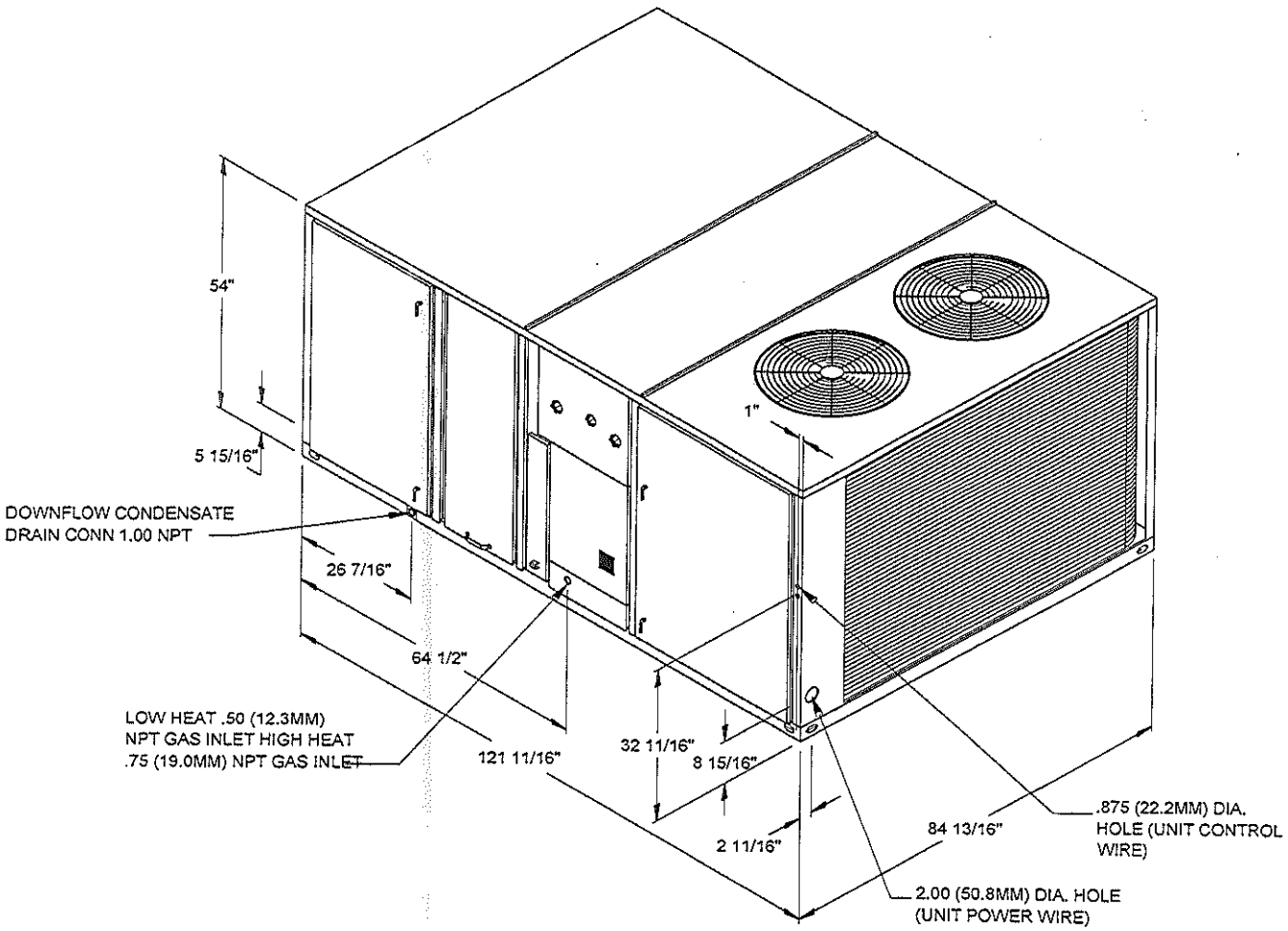
Filters for 12 1/2-25 Ton Units
2" [50.80 mm], throwaway filters will be standard.

Downflow Economizer-Factory Installed
This accessory will be factory installed. The assembly includes--fully modulating 0-100 percent motor and dampers, barometric relief, minimum position setting, preset linkage, wiring harness with plug and fixed dry bulb control. The economizer arrives in the shipping position and will be moved to the operating position by the installing contractor.

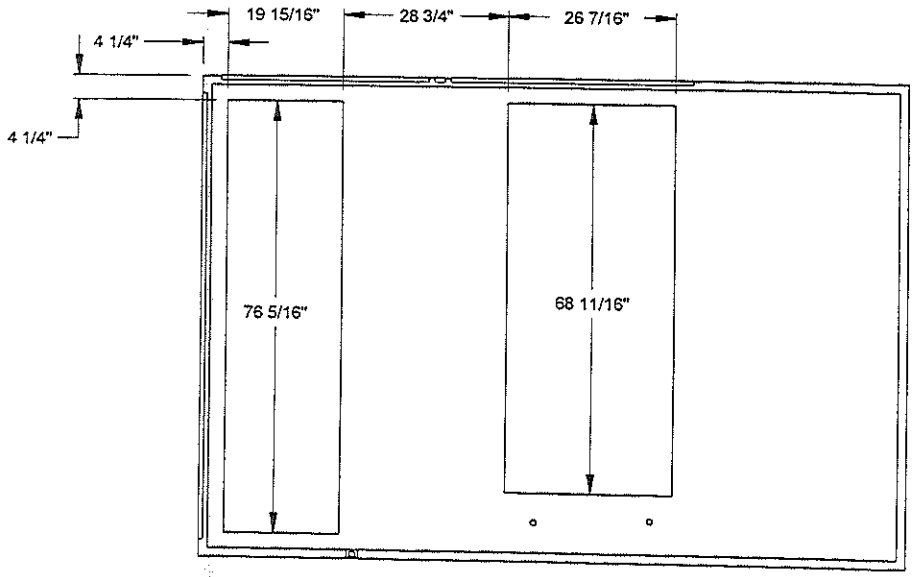
Low Gas Heat Capacity for 12 1/2- 25 Ton Standard Efficiency Units
The unit will have a two stage, low heat option. The heating section will have a drum and tube heat exchanger design using corrosion resistant steel components. A forced combustion blower will supply premixed fuel to a single burner ignited by a pilotless hot surface ignition system. In order to provide reliable operation, a negative pressure gas valve will be used that requires blower operation to initiate gas flow. On an initial call for heat, the combustion blower will purge the heat exchanger 45 seconds before ignition. After three unsuccessful ignition attempts, the entire heating system will be locked out until manually reset at the thermostat. Unit will be suitable for use with natural gas as standard or converted to use with propane (field installed kit) and also complies with California requirements for low NOx emissions.

Unit Dimensions - Packaged Gas/Electric Rooftop Units

Item: B1 Qty: 1



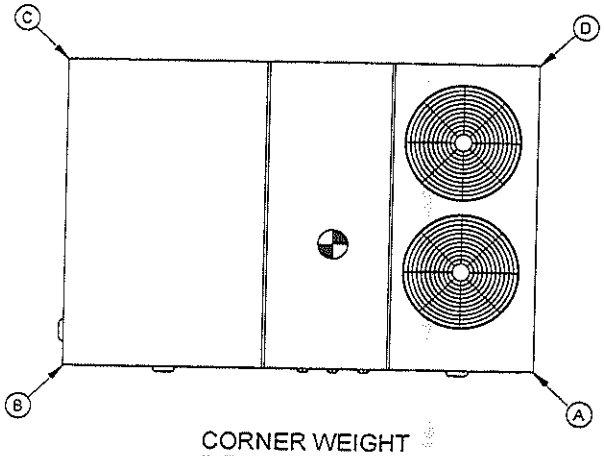
DOWNFLOW ISOMETRIC-PACKAGED GAS / ELECTRIC



DOWNFLOW-PENATRATION

Weight, Clearance & Rigging Diagram - Packaged Gas/Electric Rooftop Units

Item: B1 Qty: 1



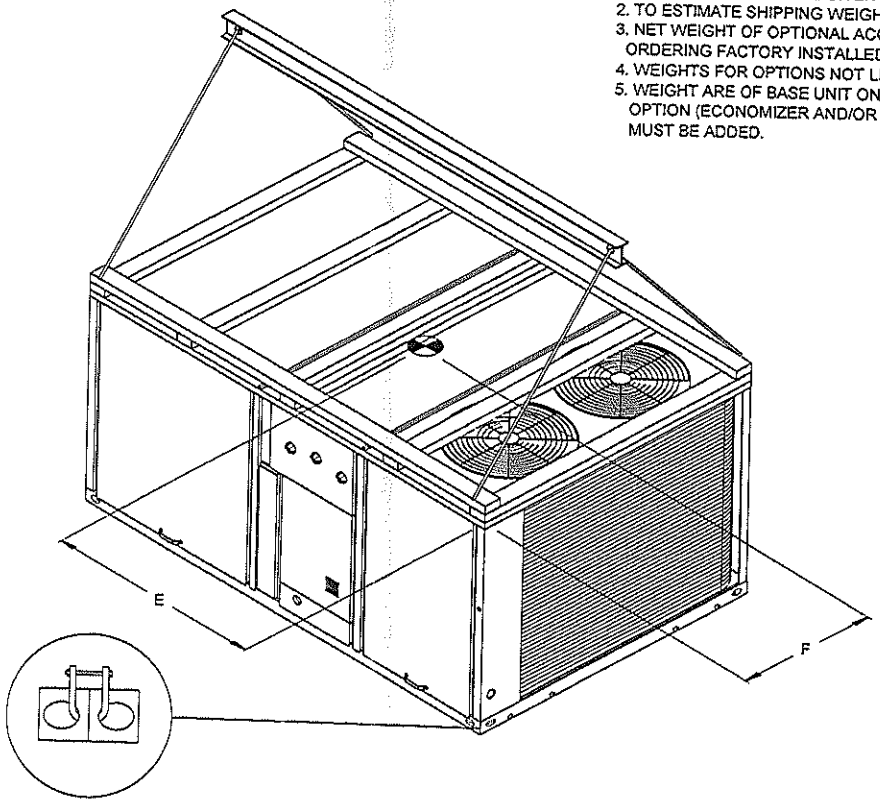
CORNER WEIGHT

INSTALLED OPTIONS NET WEIGHT DATA

Accessory	Accessory
Economizer	80.0 lb
Motorized Outside Air Damper	
Manual Outside air Damper	
Oversized Motor	
High Efficiency Motor	
High Static Drive	
Thru the Base Electrical	
Unit Mounted Circuit Breaker	
Unit Mounted Disconnect	
Power Exhaust	
Hinged Doors	
Zone Sensor	
LPG Conversion Kit	
Powered Convenience Outlet	
Roof Curb	

BASE UNIT WEIGHTS		CORNER WEIGHTS				CENTER OF GRAVITY	
SHIPPING	NET	A	B	C	D	E	F
2464.0 lb	2005.0 lb	686.0 lb	504.0 lb	345.0 lb	470.0 lb	52"	35"

NOTE:
1. CORNER WEIGHTS ARE GIVEN FOR INFORMATION ONLY.
2. TO ESTIMATE SHIPPING WEIGHT OF OPTION/ACCESSORIES ADD 5 LBS TO NET WEIGHT.
3. NET WEIGHT OF OPTIONAL ACCESSORIES SHOULD BE ADD TO UNIT WEIGHT WHEN ORDERING FACTORY INSTALLED ACCESSORIES.
4. WEIGHTS FOR OPTIONS NOT LISTED ARE < 5 LBS.
5. WEIGHT ARE OF BASE UNIT ONLY. FOR TOTAL WEIGHT, 10 DIGIT FACTORY INSTALLED OPTION (ECONOMIZER AND/OR OVERSIZED MOTOR OR FIOP/ACCESSORY WEIGHT MUST BE ADDED.



RIGGING AND CENTER OF GRAVITY

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.

N/A	_____ **Footing/Building Location Inspection:**	Prior to pouring concrete
N/A	_____ **Re-Bar Schedule Inspection:**	Prior to pouring concrete
N/A	_____ **Foundation Inspection:**	Prior to placing ANY backfill
	_X_ **Framing/Rough Plumbing/Electrical:**	Prior to any insulating or drywalling
	_X_ **Final/~~Certificate of Occupancy~~:**	Prior to any occupancy of the structure or use. NOTE: There is a $75.00 fee per inspection at this point.

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection

X (SAC) _____ **If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.**

N/A **CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED**

X Brad Findlay _____ 10-7-05
Signature of Applicant/Designee Date

Donna Martin, Admin _____ 10-7-05
Signature of Inspections Official Date

CBL: 326 B007 Building Permit #: 051064