

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

BUILDING INSPECTION

PERMIT

Permit Number: 080823

Please Read Application And Notes, If Any, Attached

This is to certify that MURAL ASSOCIATES / Kitchen Tech, LLC
 has permission to replacing existing exhaust fan for wood and grill from mushroom fan to exhaust GSV 400
 AT 80 EXCHANGE ST 032 H008001
 provided that the person or persons firm or person accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

PERMIT ISSUED
 MAY 28 2008
 CITY OF PORTLAND

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and when permission procured before this building or part thereof is latched or closed-in. 24 HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS
 Fire Dept. Craig Casz
 Health Dept. _____
 Appeal Board _____
 Other _____
 Department Name _____

James Burke 7/28/08
 Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

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

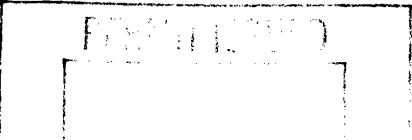
| | | |
|-----------------------|-------------|---------------------|
| Permit No: 08-0823 | Issue Date: | CBL: 032 H008001 |
|-----------------------|-------------|---------------------|

| | | | |
|---|---------------------------------------|--|---------------------|
| Location of Construction: 80 EXCHANGE ST | Owner Name: MURAL ASSOCIATES | Owner Address: PO BOX 10189 | Phone: |
| Business Name: The Grill Room | Contractor Name: Kitchen Tech, LLC | Contractor Address: 6 Roberts Street Buxton | Phone 2072812784 |
| Lessee/Buyer's Name Harding Smith | Phone: 207-319-4368 | Permit Type: Alterations - Commercial | Zone: B-3 |

| | | | | |
|--|---|--|--|--------------------|
| Past Use: Restaurant - "The Grill Room" | Proposed Use: Restaurant - "The Grill Room" replacing existing exhaust fan for wood fired grill from mushroom fan to exhausto GSV 400 | Permit Fee: \$60.00 | Cost of Work: \$4,000.00 | CEO District: 1 |
| | | FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied <i>See conditions</i> | INSPECTION: Use Group: <i>A2</i> Type: <i>Hood Exhaust</i> <i>DMC-2003</i> | |

| | | |
|--|-----------------------------|-------------------------------|
| Proposed Project Description: replacing existing exhaust fan for wood fired grill from mushroom fan to exhausto GSV 400 | Signature: <i>Greg Carr</i> | Signature: <i>JMB 7/28/08</i> |
| PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) | | |
| Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied | | |
| Signature: _____ Date: _____ | | |

| | | |
|-----------------------------|---------------------------------|------------------------|
| Permit Taken By: Idobson | Date Applied For: 07/07/2008 | Zoning Approval |
|-----------------------------|---------------------------------|------------------------|

| | | | |
|---|--|---|--|
| <p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>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..</p> | <p>Special Zone or Reviews</p> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: <i>OK 7/8/08</i> | <p>Zoning Appeal</p> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: _____ | <p>Historic Preservation</p> <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>7/11/08 SH</i> |
| |  | | |

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

City of Portland, Maine - Building or Use Permit

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

| | | |
|------------------------------|--|----------------------------|
| Permit No: 08-0823 | Date Applied For: 07/07/2008 | CBL: 032 H008001 |
|------------------------------|--|----------------------------|

| | | | |
|--|--|---|--------------------------------|
| Location of Construction: 80 EXCHANGE ST | Owner Name: MURAL ASSOCIATES | Owner Address: PO BOX 10189 | Phone: |
| Business Name: The Grill Room | Contractor Name: Kitchen Tech, LLC | Contractor Address: 6 Roberts Street Buxton | Phone (207) 281-2784 |
| Lessee/Buyer's Name Harding Smith | Phone: 207-319-4368 | Permit Type: Alterations - Commercial | |

| | |
|---|---|
| Proposed Use: Restaurant - "The Grill Room" replacing existing exhaust fan for wood fired grill from mushroom fan to exhausto GSV 400 | Proposed Project Description: replacing existing exhaust fan for wood fired grill from mushroom fan to exhausto GSV 400 |
|---|---|

| | | | | |
|---|---|----------------------------------|----------------------------------|---|
| Dept: Historic | Status: Approved | Reviewer: Scott Hanson | Approval Date: | Ok to Issue: <input checked="" type="checkbox"/> |
| Note: | | | | |
| Dept: Zoning | Status: Approved | Reviewer: Marge Schmuckal | Approval Date: 07/08/2008 | Ok to Issue: <input checked="" type="checkbox"/> |
| Note: | | | | |
| Dept: Building | Status: Approved with Conditions | Reviewer: Jeanine Bourke | Approval Date: 07/28/2008 | Ok to Issue: <input checked="" type="checkbox"/> |
| Note: | | | | |
| 1) Separate permits are required for any electrical installation | | | | |
| 2) The new exhaust power ventilator is designed to lift the fumes and vapors in excess of 30'. Compliance with municipal ordinance Sec. 14-221 for smoke density shall be required if this continues to be a nuisance | | | | |
| 3) Equipment must be installed in compliance with the manufacturer's specifications | | | | |
| Dept: Fire | Status: Approved with Conditions | Reviewer: Capt Greg Cass | Approval Date: 07/08/2008 | Ok to Issue: <input checked="" type="checkbox"/> |
| Note: | | | | |
| 1) The owner fully understands that this fan installation may not correct the complaints being received. Additional corrective action may still be required. | | | | |

MECHANICAL FLUE-GAS EXHAUSTERS

EXHAUSTO A/S - Langeskov, DENMARK

Greg

207.874.8716

Chimney Fan, Model Nos. RS followed by 009, 012, 014, 016; followed by 45-21. Model Nos. RSV, GSV followed by 9, 12, 14, 16, 160, 200, 250, 315, 400, 450; followed by 45-21. Restricted to Non-Solid Fuel and Vertical applications. Maximum of 400°F exit flue gas temperature. Model Nos. RSV, GSV followed by 009, 012, 014, 016, 160, 200, 250, 315, 400, 450; followed by 45-21 have also been evaluated as power ventilators and power roof ventilators for restaurant exhaust appliances. Suitable for Solid-Fuel applications. Maximum of 400°F exit flue gas temperature.

Draft Inducer, Model Nos. RSIF followed by 146, 160, 180.

▼ **Evaluated to the following...**

A representative sample of the listed devices have been tested, investigated and found to comply with the requirements of the Standard(s) for Mechanical Flue-Gas Exhausters (CAN3-B255) and are identified with the cETL Listed Mark.



General Building Permit Application


If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

| | | |
|--|--|---|
| Location/Address of Construction: <u>84 Exchange St.</u> | | |
| Total Square Footage of Proposed Structure/Area | | Square Footage of Lot |
| Tax Assessor's Chart, Block & Lot Chart# Block# Lot# | Applicant * must be owner, Lessee or Buyer * Name <u>Harold Smith</u> Address <u>73 Congress St.</u> City, State & Zip <u>Portland, ME</u> | Telephone: <u>319-4368</u> |
| Lessee/DBA (If Applicable) <u>The Oak Room, LLC</u> <u>84 Exchange St.</u> <u>Portland, ME 04101</u> | Owner (if different from Applicant) Name <u>Mural Associate</u> Address <u>130 Middle St.</u> City, State & Zip <u>Portland, ME</u> | Cost Of Work: \$ <u>4,000.00</u> C of O Fee: \$ _____ Total Fee: \$ _____ |
| Current legal use (i.e. single family) <u>Restaurant</u> If vacant, what was the previous use? _____ Proposed Specific use: _____ Is property part of a subdivision? _____ If yes, please name _____ Project description: <u>Replacing existing exhaust fan for wood grill from mushroom fan to exhaust to GSU 400 plum fan.</u> | | |
| Contractor's name: <u>Kitchen Tech, LLC</u> Address: <u>84 Exchange St 6 Roberts St.</u> City, State & Zip <u>Portland, ME 04103</u> Telephone: <u>291-2784</u> Who should we contact when the permit is ready: <u>Harold Smith</u> Telephone: <u>319-4368</u> Mailing address: <u>73 Congress St. Portland, ME</u> | | |

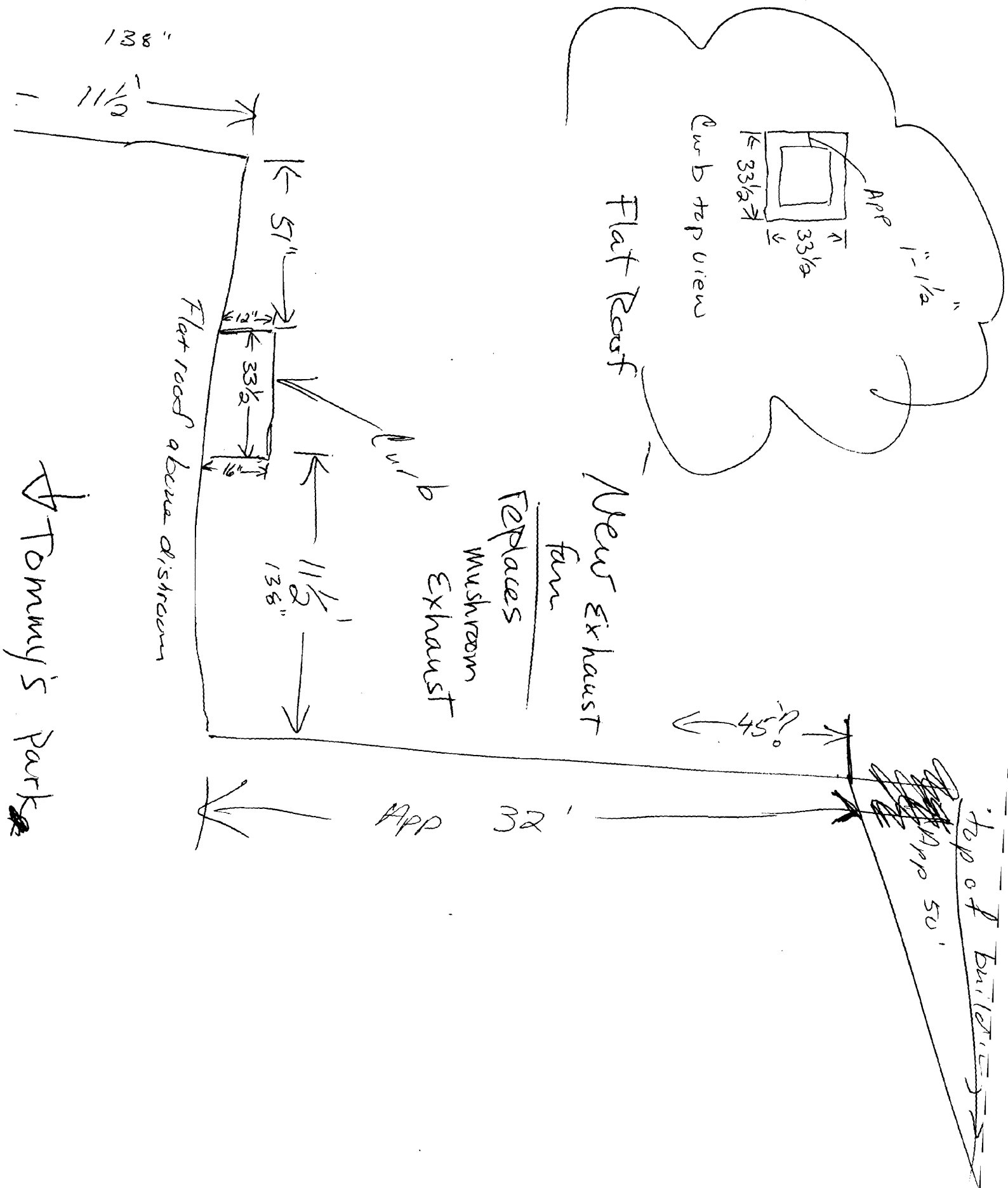
Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

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

| | |
|--|---------------------|
| Signature:  | Date: <u>7/7/08</u> |
|--|---------------------|

This is not a permit; you may not commence ANY work until the permit is issue



EXHAUSTO

Grease Fan **GSV 200-450**

Description

Exhaust fan for installation at the duct or vent termination point, vertical or side-wall mounted. Ensures a negative pressure in the entire duct or vent system. Discharges vertically (horizontally, if side-wall mounted) at a high velocity.

The fan housing is hinged and the top can be opened for easy service and access to stack.

The GSV model is approved for temperatures up to 575°F (300°C).

*GSV 450 cannot be side-wall mounted.

Material

Housing is made of cast aluminum with a thickness of 3/16" and is corrosion resistant. One coat of grey hammerpaint finish is applied.

Backwards curved impeller of cast aluminum. Dynamically and statically balanced with permanently attached balancing weights.

Motor

GSV 250-315: Single phase, split capacitor, totally enclosed, Class H insulated, IP54 Protection Class. Sealed ball bearings. Variable Speed. Thermal overload protection.

GSV 400-450: Three phase totally enclosed TEFC motor, Class F insulated. Sealed ball bearings. Variable Speed. Thermal overload protection.

Standard Equipment

2"x4" or 4"x4" junction box with cover and conduit
Bird Screen

Optional Equipment

5Amp or 8Amp Fan Speed Control
Gasket
Roof Curb
Variable Frequency Drive



Listings

ETL Listed to:

UL 705 - Standard for Power Ventilators
UL762-Standard for Power Roof Ventilators for restaurant exhaust appliances.
ULC-S645-93-Standard for Power Roof Ventilators for commercial and institutional kitchen exhaust systems.

Approvals

CE Compliant

Warranty

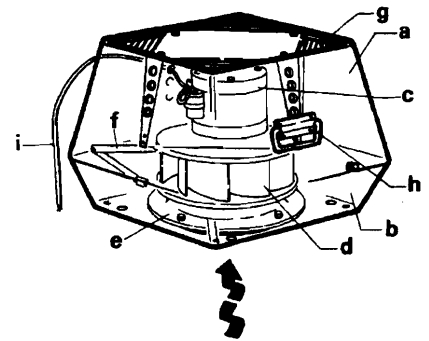
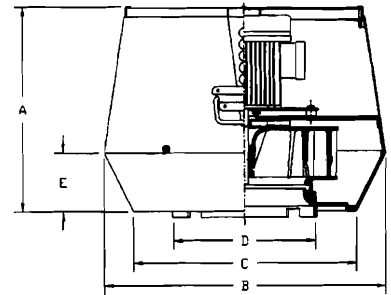
2-year factory warranty on the entire fan.
10-year warranty against corrosion perforation.
Manufactured at ISO9001 certified plant.

EXHAUSTO
VENTING DESIGN SOLUTIONS



Specifications

| Model | | GSV 200 | GSV 250 | GSV 315 | GSV 400 | GSV 450 | |
|---------------------------|----------------------|----------------------|---------|-----------|---------|-------------------|-------------------|
| Discharge | | Vertical | | | | | |
| Fan Type | | Centrifugal Impeller | | | | | |
| Max. Discharge Velocity | FPM | 1,729 | 2,222 | 2,771 | 2,752 | 4,134 | |
| Actual Discharge Velocity | FPM | 2.9 x | 1.9 x | 1.2 x | 1.03 x | 1.03 x | |
| | CFM | | | | | | |
| Voltage | V AC | 1x120 | | 3x208-240 | | | |
| RPM | | 1600 | | | 1720 | | |
| Amps | A | 1.4 | 2.9 | 5.8 | 3.5 | 6.5 | |
| Power Ratings | kW | 0.10 | 0.16 | 0.35 | 0.75 | 1.5 | |
| | HP | 0.15 | 0.2 | 0.5 | 1 | 2 | |
| Weight | lbs | 47 | 60 | 92 | 97 | 128 | |
| | kg | 18 | 26 | 42 | 44 | 58 | |
| Dimensions | A | in | 11.03 | 13.20 | 16.94 | 16.94 | 23.23 |
| | | mm | 280 | 335 | 430 | 430 | 590 |
| | B x B | in | 15.37 | 19.11 | 25.61 | 25.61 | 25.61 |
| | | mm | 390 | 485 | 650 | 650 | 650 |
| | C x C | in | 12.22 | 15.17 | 20.69 | 20.69 | 20.69 |
| | | mm | 310 | 385 | 525 | 525 | 525 |
| | D Ø | in | 7.88 | 9.85 | 15.76 | 15.76 | 15.76 |
| | | mm | 200 | 250 | 400 | 400 | 400 |
| | E | in | 3.15 | 3.94 | 5.12 | 5.12 | 8.54 |
| | | mm | 80 | 100 | 130 | 130 | 217 |
| | Soft Start Required | | No | No | No | Yes ¹⁾ | Yes ¹⁾ |
| | Variable Speed Motor | | Yes | Yes | Yes | Yes | Yes |
| FA Sones | | | 3.9 | 6.3 | 7.8 | 8.3 | |
| Temperature Rating | Interm. | 575°F/300°C | | | | | |
| | Cont. | 482°F/250°C | | | | | |



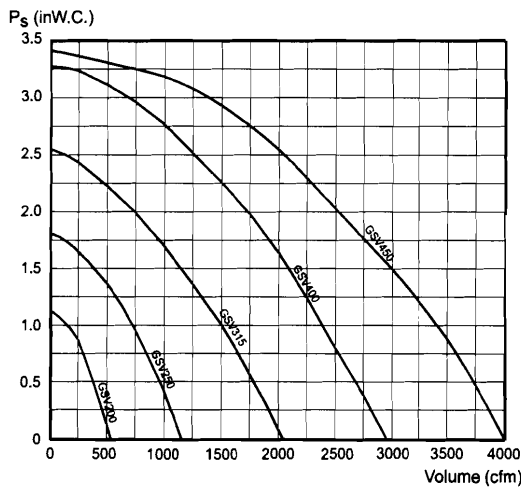
- a Top Section
- b Bottom Section
- c Motor
- d Centrifugal Impeller
- e Inlet for Impeller
- f Locking Hinge
- g Bird Screen
- h Carrying Handle
- i Wiring Conduit

1) Not required if using a VFD

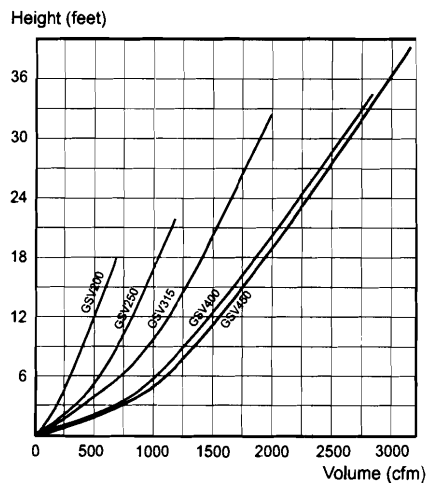
Sound Diagram

| Model | Lw dB (measured in accordance with ISO 3744) | | | | | | | Lp dB(A) |
|---------|--|-------|-------|--------|--------|--------|--------|----------|
| | 125Hz | 250Hz | 500Hz | 1000Hz | 2000Hz | 4000Hz | 8000Hz | |
| GSV 200 | 58 | 60 | 62 | 61 | 56 | 44 | 37 | 36 |
| GSV 250 | 64 | 68 | 66 | 65 | 61 | 49 | 45 | 41 |
| GSV 315 | 71 | 75 | 70 | 73 | 68 | 57 | 52 | 48 |
| GSV 400 | 76 | 80 | 75 | 79 | 74 | 62 | 57 | 53 |
| GSV 450 | 79 | 83 | 75 | 78 | 77 | 65 | 60 | 56 |

Capacity



Plume Height



EXHAUSTO Inc.
1200 Northmeadow Pkwy.
Suite 180
Roswell, GA 30076

P: 770.587.3238
F: 770.587.4731
T: 800.255.2923
info@exhausto.com
us.exhausto.com

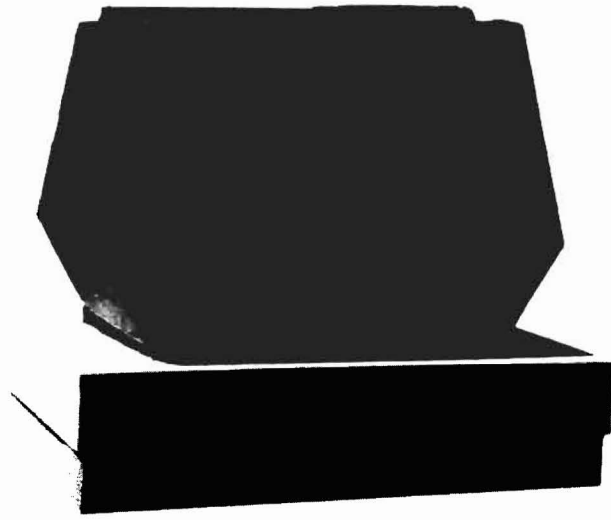
EXHAUSTO
VENTING DESIGN SOLUTIONS








GSV 250-450 Grease Fan

USA

CAN



-  **Product Information** Chapter 1 + 2
-  **Mechanical Installation** Chapter 3
-  **Electrical Installation** Chapter 4
-  **Start Up and Configuration** Chapter 5
-  **Maintenance and Troubleshooting** Chapter 6

Job Name: _____

Installer: _____

Installation Date: _____



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EXHAUSTO
 VENTING DESIGN SOLUTIONS



| | |
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Symbol Legend:

The following terms are used throughout this manual to bring attention to the presence of potential hazards or to important information concerning the product.



Danger: Indicates an imminent hazardous situation which, if not avoided, will result in death, serious injury or substantial property damage.



Caution: Indicates an imminent hazardous situation which, if not avoided, may result in personal injury or property damage.



TO REDUCE THE RISK OF FIRE, ELECTRICAL SHOCK OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

1. Use this unit in the manner intended by the manufacturer. If you have questions, contact the manufacturer at the address or telephone number listed on the front of the manual.
2. Before servicing or cleaning the unit, switch off at service panel and lock service panel to prevent power from being switched on accidentally.
3. Installation work and electrical wiring must be done by a qualified person(s) in accordance with applicable codes and standards.
4. Follow the appliance manufacturer's guidelines and safety standards such as those published by the National Fire Protection Associations (NFPA), and the American Society for Heating, Refrigeration and Air

Conditioning Engineers (ASHRAE), and the local code authorities.

5. This unit must be grounded.

How to use this manual

This installation manual does not contain any system design documentation. System design documentation is available from any authorized EXHAUSTO representative.

Accessories, like roof curbs and variable frequency drives, are not covered by this manual. Please refer to these component's individual manuals.



1. Product Information

1.1 Function

Use EXHAUSTO Model GSV Grease Fan is designed to provide a large exhaust volume at a high discharge velocity. It is intended for use as a part of a restaurant kitchen exhaust system and grease applications according to NFPA 96. The use of the EXHAUSTO Grease Fan is not restricted to any type of chimney or grease duct. However, always follow the exhaust-hood manufacturer's instructions regarding the venting.

Construction

The fan housing is made of heavy cast aluminum and can be opened for easy cleaning. The impeller is of the backward inclined type. It is made of cast aluminum and has permanently attached balancing weights.

The motor is a direct-drive, variable speed, class H insulated, high temperature motor. It has permanently lubricated and sealed ball bearings and is maintenance free.

Listings

Installations must conform to the requirements of the authority having jurisdiction. Where required by the authority having jurisdiction, the installation must also conform to the NFPA 96. All electrical wiring must be in accordance with the requirements of authority having jurisdiction or, in absence of such requirements, with the National Electrical Code, NFPA 70.

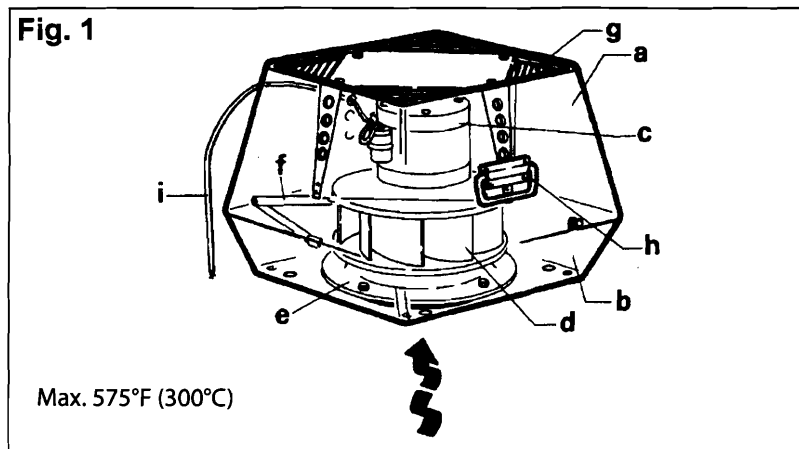
EXHAUSTO Model GSV is tested and listed to UL Standard 705 for Power Ventilators and UL Standard 762 for Power Ventilators for Restaurant Exhaust Ventilators.

The model is also tested and listed to ULC-S645-93, Standard for Power Roof Ventilators for Commercial and Institutional Kitchen Exhaust Systems.

1.2 Components

The GSV Grease Fan consists of the following components:

- | | |
|-------------------------|--------------------|
| a. Top section | f. Locking hinge |
| b. Bottom section | g. Bird screen |
| c. Motor | h. Carrying handle |
| d. Centrifugal impeller | i. Wiring conduit |
| e. Inlet for impeller | |



1.3 Shipping

Protection The fan is shipped in a corrugated cardboard box. If a transport securing device is attached to the bottom of the fan to hold the motor and impeller in place, do not remove it when unpacking the fan.



Do not remove the transport securing device until the fan is being installed on the duct or the roof curb. The motor shaft could be damaged.

1.4 Warranty

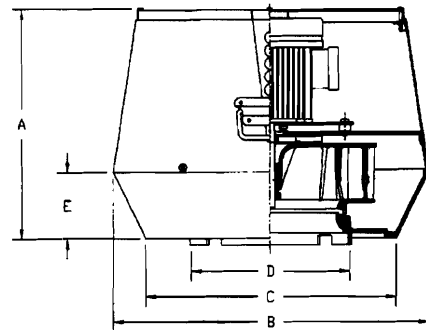
Complete warranty conditions are available from EXHAUSTO.

2. Specifications

2.1 Dimensions & Capacities

| Model | | GSV 250 | GSV 315 | GSV 400 | GSV 450 | |
|---------------------------|-------|----------------------|-----------|-------------------|-------------------|-------|
| Discharge | | Vertical | | | | |
| Fan Type | | Centrifugal Impeller | | | | |
| Max. Discharge Velocity | FPM | 2,222 | 2,771 | 2,752 | 4,134 | |
| Actual Discharge Velocity | FPM | 1.9 x CFM | 1.2 x CFM | 1.03 x CFM | 1.03 x CFM | |
| Voltage | VAC | 1 x 129 | | 3 x 208-240 | | |
| RPM | | 1600 | | 1720 | | |
| Amps | A | 2.9 | 5.8 | 3.5 | 6.5 | |
| Power Ratings | kW | 0.16 | 0.35 | 0.75 | 1.5 | |
| Weight | lbs | 60 | 92 | 97 | 128 | |
| | kg | 26 | 42 | 44 | 58 | |
| Dimensions | A | in | 13.20 | 16.94 | 16.94 | 23.23 |
| | | mm | 335 | 430 | 430 | 590 |
| | B x B | in | 19.11 | 25.61 | 25.61 | 25.61 |
| | | mm | 485 | 650 | 650 | 650 |
| | C x C | in | 15.17 | 20.69 | 20.69 | 20.69 |
| | | mm | 385 | 525 | 525 | 525 |
| | D Ø | in | 9.85 | 15.76 | 15.76 | 15.76 |
| | | mm | 250 | 400 | 400 | 400 |
| | E | in | 3.94 | 5.12 | 5.12 | 8.54 |
| | | mm | 100 | 130 | 130 | 217 |
| Soft Start Required | | No | No | Yes ¹⁾ | Yes ¹⁾ | |
| Variable Speed Motor | | Yes | Yes | Yes | Yes | |
| FA Sones | | 3.9 | 6.3 | 7.8 | 8.3 | |

1) Not required if using a VFD



3. Mechanical Installation

3.1 Positioning

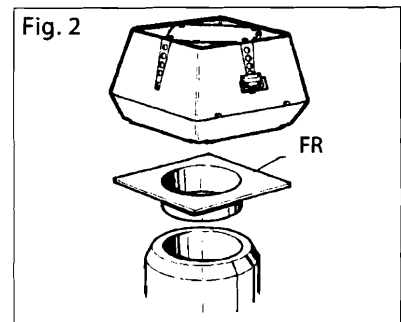
In accordance with NFPA 96, roof mounted fans shall have their discharge outlet at least 40 inches above the roof surface.

3.2 Installation on Steel Duct

- Insert the adapter (FR) into the grease duct, where the long collar engagement ensures safe anchoring (See Fig. 2). If necessary, the adapter can be secured by means of long self-tapping stainless steel screws into the side of the collar through the chimney wall. Do not obstruct the grease flow.
- Place the neoprene gasket (not shown) on top of the adapter.
- Remove the transport securing device (if present) holding the motor shaft and impeller in place.
- Place the fan on the neoprene gasket centered over the cutout.
- Open the fan and secure the fan onto the adapter, through the pre-drilled holes in the bottom, with lag bolts or self-tapping sheet metal screws, one at each corner.
- Check the gasket to insure that it forms a complete seal.



Caution: Never place hands or fingers on top of fan base when closing

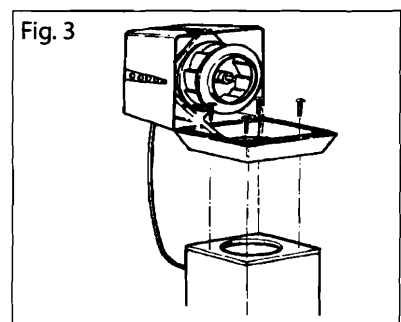


3.3 Installation on Roof Curb

- If the fan is supplied with a curb cap, secure the cap to the roof curb with self-tapping sheet metal screws (see Fig. 3).
- Place the neoprene gasket on the top of the curb cap with the hole centered over the curb cap opening (not shown).
- Remove the transport securing device (if present) holding the motor shaft and impeller in place.
- Place the fan on the neoprene gasket centered over the cutout.
- Open the fan and secure the fan onto the roof curb, through the pre-drilled holes in the bottom, with lag bolts or self-tapping sheet metal screws, one at each corner.
- Check the gasket to insure that it forms a complete seal.



Caution: Never place hands or fingers on top of fan base when closing



⚡ 4. Electrical Installation

4.1 Electrical Requirements

Power requirements depend on the fan size. They can be found on page 4.



Danger: Turn off electrical power before servicing. Contact with live electric components can cause shock or death.



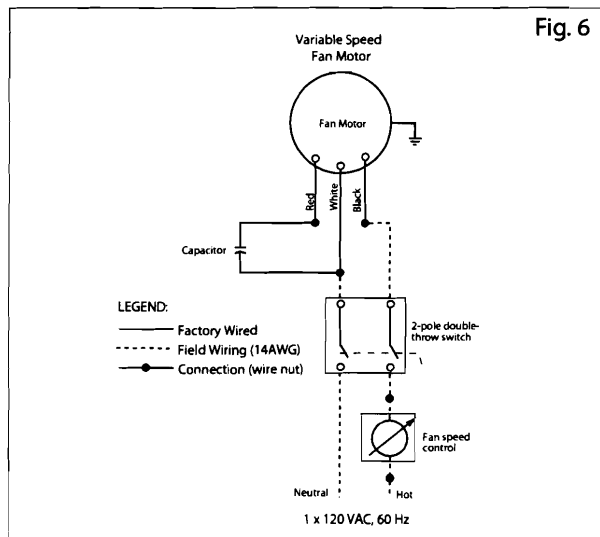
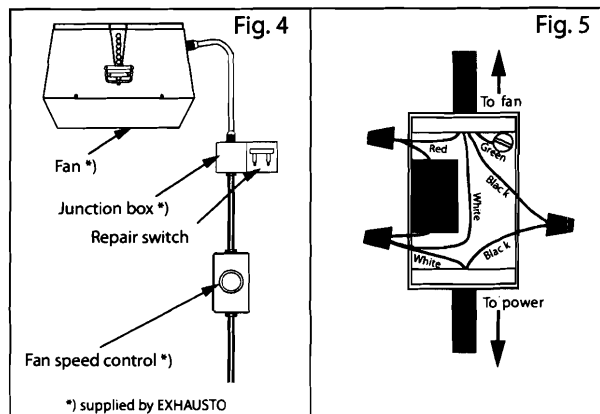
Notice: If any of the original wire supplied with the system must be replaced, use similar wire of the same temperature rating. Otherwise, insulation may melt or degrade, exposing bare wire.

4.2 Wiring Diagram for GSV 250-315

The connection diagram below shows how the fan is connected to the fan speed control and the power source (see Fig. 6).

Use a 2-conductor wire of min. 14 AWG with ground. Wiring must be run outside the duct, but can be run between the duct and the roof curb.

Fig. 5 shows the wiring of the capacitor in the junction box.

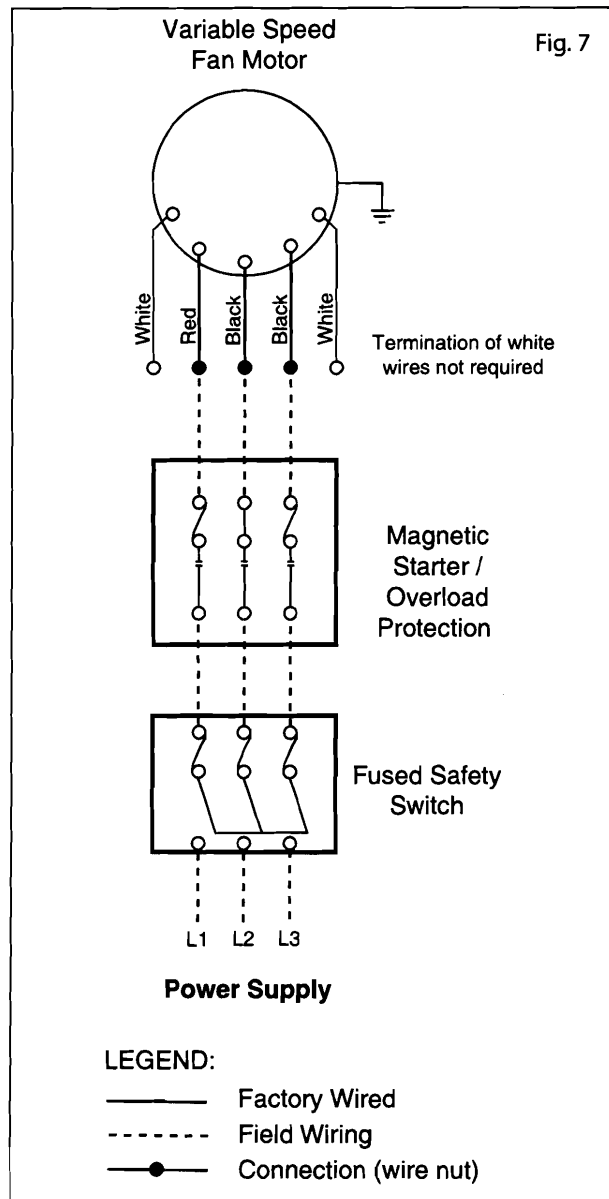


4.3 Wiring Diagram for GSV 400-450

The connection diagram below shows how the fan is connected to the power source (see Fig. 7).

Use a 3-conductor wire of min. 14 AWG with ground. Wiring must be run outside the duct, but can run between the duct and the roof curb.

If variable speed is required, a variable frequency drive (VFD) can be used. This will eliminate the need for a magnetic starter as shown. For installation and wiring, please refer to the instructions shipped with the VFD.



5. Start-up and Configuration

5.1 Start-up

System Testing:

- Check the voltage with the motor nameplate rating.
- Check that the transport securing device holding the motor shaft and impeller in place has been removed.
- Determine if the impeller is free and has not been subject to misalignment in shipping or installation.
- Apply power and check that the impeller is rotating in the direction of the arrow on the side of the top motor cover. All EXHAUSTO fans run in a counterclockwise direction when viewed from the top. Double check if three phase motor is tested on temporary wiring. Switching any two leads will reverse the rotation.

6. Maintenance and Troubleshooting

6.1 Maintenance Intervals

The EXHAUSTO Grease Fan is designed for prolonged use. For dirty or grease-laden exhaust, inspect the impeller after (3) months and set up a periodic inspection based on these findings. Clean as required.

The fan motors are equipped with permanently lubricated sealed ball bearings. They require no lubrication.

6.2 Cleaning

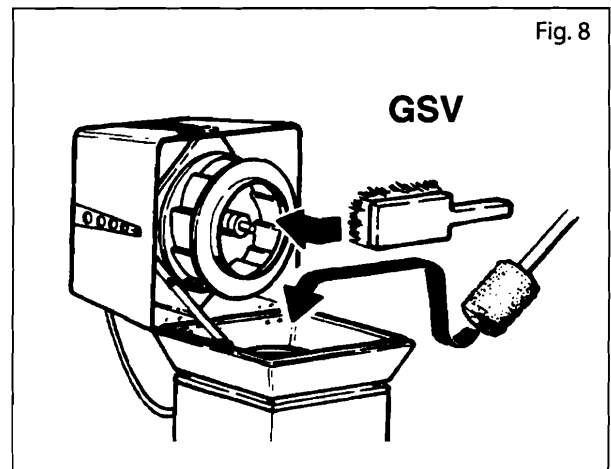


Warning: Do not open the motor housing unless power to the grease fan has been disconnected

- Loosen the two Phillips screws in the front of the unit.
- Tilt the top of the fan by lifting on the handle. Make sure the locking arm holds the top of the fan before letting go.
- If necessary, use grease remover and a high-pressure cleaner to clean the impeller and the inside fan base.
- A scraper may also be used.

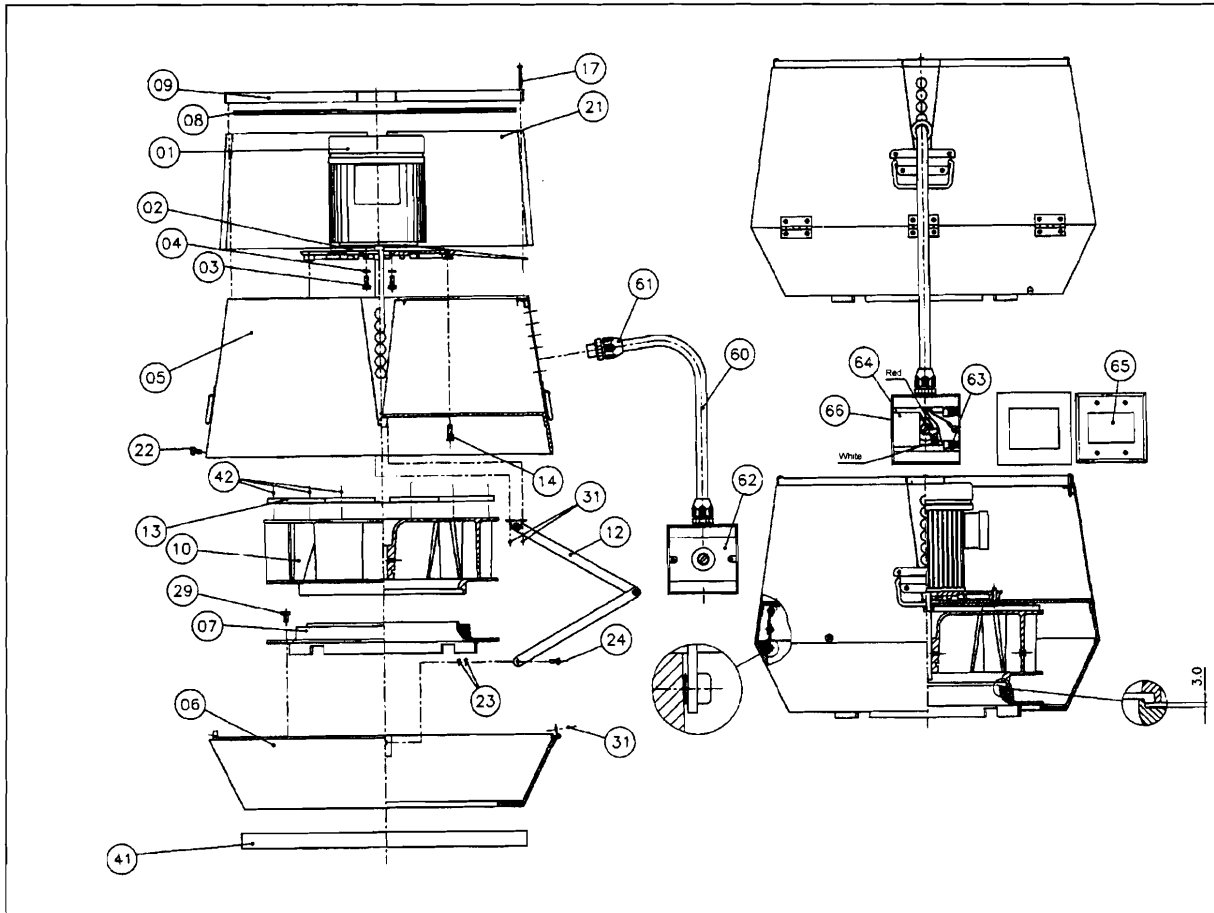


Caution: Never place hands or fingers on top of fan base when closing.




6.3 Spare Parts Ordering

When ordering spare parts, please have the model number and part position number available



- | | | | |
|----|----------------------|----|--|
| 01 | Motor | 21 | Motor housing insulation |
| 02 | Motor mounting plate | 22 | Screw - SS (2) |
| 03 | Screw - SS (2) | 23 | Washer - SS (2) |
| 04 | Washer - SS (2) | 24 | Screw - SS |
| 05 | Housing (top) | 29 | Screw - SS (4) |
| 06 | Housing (base) | 31 | Rivet (2) |
| 07 | Impeller seat | 41 | Neoprene Gasket |
| 08 | Bird screen | 42 | Rivet (12) |
| 09 | Top plate | 60 | 3/8" Conduit |
| 10 | Aluminum Impeller | 61 | 3/8" Connector |
| 12 | Locking hinge | 62 | Junction box with blank cover |
| 13 | Cooling vane | 63 | Wire nuts (4) |
| 14 | Screw - SS (4) | 64 | Capacitor (1x120V fans only) |
| 17 | Screw - SS (4) | 65 | Wiring diagram (mounted on inside cover) |

| | |
|---|--|
| DK: EU-Overensstemmelseserklæring GB: Declaration of Conformity D: EU-Konformitätserklärung F: Déclaration de conformité de l'Union Européenne | N: EU-Overensstemmelseserklæring NL: EU-Konformiteits verklaring S: EU-Överensstämmelsedeklaration SF: EU-Vaatumusten mukaisuusvakuutus IS: ESS-Samræmisstaðfesting |
| EXHAUSTO A/S Odensevej 76 DK-5550 Langeskov DANMARK | |
| erklærer på eget ansvar, at følgende produkter: declare on own responsibility that the following products: Verantwortet, daß folgende Produkte: déclare sous sa propre responsabilité que le produit suivant: | erklærer på eget ansvar, at følgende produkter: veðklaard dat onderstaande produkten: deklarerar på eget ansvar, att följande produkter: vastaa siitä, että seuraava tuote: Staðfesti á eigin ábyrgð, að eftirfarandi vörur: |
| GSV009, GSV012, GSV014, GSV016, GSV200, GSV250, GSV315, GSV400, GSV450 | |
| som er omfattet af denne erklæring, er i overensstem- melse med følgende standarder: covered by this declaration, are in conformity with the following standards: mit den folgenden Standardbezeichnungen: auquel s'applique cette déclaration est en conformité des normes mentionnées ci-dessous: | som er omfattet av denne erklæring, er i overensstem- melse med følgende standarder: met de onderstaande standard koderingen: som omfattas av denna deklaration, överensstämmer med följande standarder: joka koostuu tästä selvityksestä, on seuraavien standar- dien mukainen: sem eru meðtalín í staðfestingu Pessari, eru í fullu sam- ræmi við eftirtalda staðla: |
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| i.h.t bestemmelser i direktiv: according to conformity in directive: gemäß folgenden EU-Richtlinien übereinstimmen: suivant les dispositions prévues aux directives: | i.h.t bestemmelser i direktiv: voldoen aan de heironder gestelde eisen: enligt bestämmelserna i följande direktiv: seuraavien direktiivin määräysten mukaan: með tilvísun til ákvarðana eftirlits: |
| Maskindirektivet: Machinery Directive: für Maschinen: La directive des machines: | Maskindirektivet: voor machines: Maskindirektivet Konedirektiivi: Velaeftirlitið: |
| 98/37 | |
| Lavspændingsdirektiv: Low voltage Directive: für Niederspannung: La directive de la basse tension: | Lavspændingsdirektivet: laagspanning: Lågspänningsdirektivet: Matalajännitedirektiivi: Smáspennueftirlitið: |
| 73/23 | |
| EMC-direktivet: EMC Directive: für EMC: La directive de la compatibilité électromagnétique: | EMC-direktivet: voor EMC: EMC-direktivet: EMC-direktiivi: EMC-efirlitið: |
| 89/336, 92/31 | |
| Langeskov, 9.13.01 Adm. direktør Managing Director Geschäftsführer, Inhaber Président-directeur général Peter Hermansen  | |