# **VENTILATION SPECIFICATIONS**

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# Downdraft Installation Guidelines

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# Selecting a Kitchen Ventilation System

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# Selecting a Kitchen Ventilation System

The kitchen ventilation system is one of the most important appliances in the home. While the ventilator removes grease, heat, moisture, cooking odors and combustion gases from the kitchen and indoor environment, it also helps protect a family's health and improves the cooking environment. When choosing a ventilator, be sure to select one which fully meets your customers' cooking performance requirements and personal taste.

#### What is CFM?

Ventilation performance is measured in Cubic Feet of evacuated air per Minute, or CFM. The Thermador Professional® Series of ranges and cooktops, with their increased heat and grease output, require 1000 to 1400 CFM of ventilation power. Our other electric and gas products require 300 to 1000 CFM (see chart on adjacent page).

# **Updraft vs. Downdraft Ventilation**

Updraft ventilation (overhead hood), collects and removes cooking vapors several feet above the cooking surface. Because cooking vapors naturally rise, updraft systems tend to be the most effective method of ventilation.

Downdraft systems provide an alternate method of providing effective ventilation, for non-professional cooktops and ranges. Downdraft systems integrate beautifully in island or peninsula installations, because they don't intrude in the overall kitchen decor.

Counter-level downdraft ventilators can disrupt the cooking process by pulling flames away from the heat source. The Thermador® Cook'N'Vent® downdraft system telescopes up from behind the cooking surface a full 10", drawing heat and fumes from the cooking vapors, not at the heat source. When not in use, the Cook'N'Vent system can be retracted flush with the countertop.

#### Integral vs. Remote Ventilation

A ventilation system's blower may be located adjacent to the intake (integral) or on the outside roof or wall of the home (remote). Integral ventilators are installed with the least disruption to the exterior structure of your home. Thermador offers integral ventilators from 300 to 1000 CFM.

Remote ventilators are quieter, because the blower is removed from the inside of the house. They also take up less cabinet space and have a galvanized finish which can be painted to match the exterior of the home. Thermador offers remote ventilators from 600 to 1400 CFM.

#### **Professional Performance or Standard Ventilation**

The Thermador customer loves to cook. We have designed ventilation systems to meet the performance requirements from the higher output cooking appliances, to the more standard fare. The chart on the adjacent page is a quick selection guide of Thermador ventilation products best suited to your customers' cooking appliance.

#### QUICK REFERENCE CHART FOR RECOMMENDED VENTILATION BASED ON COOKING SYSTEM DOWNDRAFT UPDRAFT VENTILATION OPTIONS1 **VENTILATION** OPTIONS<sup>2</sup> COOK'N'VENT® 30" MINIMUM CFM WALL<sup>3</sup> ISLAND3 UNIVERSAL **BUILT-IN** RECOMMENDED FOR RANGE COOKTOPS **SYSTEMS** WALL ISLAND CVS MODEL SERIES **HCSW** HDW PH\_Z HGSI HDI PHI\_Z Intake HB Н PHE HTDI Standard HSW HΤ HNI HTSW HNW HTNI with Unit **HGSW** Gas or Electric Cooktops 300 400 without Griddle and Grill Gas or Electric Cooktops 390 550 with Griddle and Grill 30" Downdraft Ranges 400 600 30" Free-standing or 400 600 Slide-in Updraft Ranges Professional-style Ranges 1000 1400 or cooktops for home applications

# <sup>1</sup> Updraft Width Guidelines:

The minimum hood width recommended for wall installation equals the cooktop or range width. Where space is not restricted, a wider hood can be used to increase your capture area. Island installations require a greater capture area, therefore the hoods used should overlap your appliance by a minimum of 3"-6" on either side.

# <sup>2</sup> Cook'N' Vent® Width Guidelines:

The Cook 'N' Vent system selected should match the width of your cooktop. Thermador offers 30", 36" or 45" widths. Due to the high performance requirements of Professional-style appliances for the home, an overhead hood is highly recommended.

# <sup>3</sup> Available Ceiling Height:

Before selecting your updraft hood, check your available installation space. This is determined by adding your floor-to-countertop height, plus the recommended spacing between your appliance and the bottom of the hood, plus the height of the hood. See product dimensions on pages 5 to 13.

# NOTE:

# Indoor Gas Grills:

The local codes may require a fire-rated construction for installation of open gas grill appliances. Please check with your local codes prior to installation.

# **Ducting Considerations**

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# **Ducting Considerations**

#### **Check the Local Codes:**

Work with a qualified service technician, installer or ventilation engineer to ensure that all local installation, electrical and grounding codes are satisfied. Always refer to the specific installation instructions for your ventilation product.

# Minimize duct runs and limit the number of transitions:

The inclusion of elbows and transitions, as well as long duct runs, can have a significant effect on the ventilation performance and maximum duct run.

#### Do not use metal flex duct:

Metal flex duct is not recommended for use by The National Uniform Mechanical Code standards.

#### Extreme weather conditions:

Cold weather installations require an additional backdraft damper installed to minimize backward cold air flow. In addition, a non-metallic thermal break is needed to minimize conduction of cold air flow through the ductwork. The damper should be on the cold air side of the thermal break. The break should be as close as possible to where the ducting enters the heated portion of the house.

# Don't place elbows and transitions back-to-back:

A gradually tapered transition is required between different sizes of ducting. Placing two elbows or transitions next to each other can cause a significant reduction in performance. Include a 15-inch straight section between transitions whenever possible.

# High altitudes affect performance:

Ventilation systems are less effective at higher altitudes labove 5,000 feet). When configuring your system, estimate a 20% reduction in CFM performance. If this is not possible, you can increase your duct size, or CFM to enhance your performance.

#### Make-up Air may be required:

Newly built homes have tightly sealed doors and windows, which can make your ventilation system less effective. Some heating and air conditioning systems make allowances for additional make-up air. At the very least, some replacement air can be introduced by simply opening a window or door. Please coordinate with your local heating and ventilation expert.

# Do not use ducting smaller than 6":

Ducting smaller than 6", 4" dryer vent pipe or wall caps are not recommended because they severely impair ventilation performance.

# **Recirculating vs. Ducted Hoods:**

Recirculating hoods recycle the air through a filter and return it to the kitchen. These hoods will not remove heat, moisture or combustion gases from the air. They will also be less effective in reducing odors and smoke. All of Thermador's hoods are ducted.

# Don't use butt joints:

Try to use male/female connections with the male end pointing in the direction of the flow. Tightly tape joints to prevent vapors from escaping the duct.

# Ducting must be vented to the outside:

For safety reasons, never terminate ducting into an attic, into the garage, underneath the house or into any enclosed space.

# For best air flow, use recommended duct size:

Thermador recommends the following in order of size:

1st 10" round duct
2nd 8" round duct
3rd 7" round duct
4th 3<sup>1</sup>/4" x 10" duct

5th 6" round duct is the minimum acceptable (See Thermador ventilator performance charts on

pages 7, 8 and 38)

#### Base performance calculations on smallest duct size:

For maximum performance, do not use a smaller duct size than the recommended transition size from the hood. If you do transition down in size, your performance calculations are based on this smaller opening for the entire duct run.

# Calculating Cubic Feet Per Minute (CFM):

Determine the equivalent duct length for your installation using the equivalent duct lengths for commonly used transitions (shown on the next page). The equivalent duct length is computed as follows:

1. Compute equivalent duct length of all transitions:

Transition	Equivalent Feet
6" Wall Cap	2'
3 <sup>1</sup> /4" x 10" to 6" dia. 90° elbow	10'
Sub-	-total: 12'

2. Compute the equivalent length of all straight ducts:

Duct Segment	Eq	uivalent Feet	
4' of 3 <sup>1</sup> /4" x 10"		4'	
2' of 6" diameter duct		2'	
	Sub-total:	6'	

3. Sum Equivalent Lengths for transitions and straight duct sections:

Transitions Straight Duct Lengths	12'	
Straight Duct Lengths	0	

Total Equivalent Length: 18'

4. Compute CFM using the performance charts shown on pages 7 and 8 and the equivalent length computed in step 3. Base the equivalent length on the smallest diameter ducting used in the system. For this example, you would determine the CFM for 18' of 6" diameter duct.

Duct F	Pieces	Size	Equivalent Length	Quantity Used	Total Equivalent Length	Duct F	Pieces	Size	Equivalent Length	Quantity Used	Total Equivalen Length
	90°	6"	12 ft.			3 <sup>1</sup> /4" x 10"					
	Elbow Round	7"	8 ft.				Center Reverse	N/A	15 ft.		
	Rouna	8"	6 ft.				Elbow				
	45°	6"	5 ft.				3 <sup>1</sup> /4" x 10"				
	Elbow Round	7"	4 ft.				Center Reverse	N/A	25 ft.		
	Rouna	8"	3 ft.				Elbow				
	3 <sup>1</sup> /4" x 10" 90° Elbow Model 12557	N/A	15 ft.				3 <sup>1</sup> /4" x 10" Reverse Elbow	N/A	25 ft.		
	3 <sup>1</sup> /4" x 10" 45° Elbow	N/A	5 ft.				3 <sup>1</sup> /4" x 10" Reverse Elbow	N/A	15 ft.		
	3 <sup>1</sup> /4" x 10"						Round Wall Cap	6"			
	Flat	N/A	20 ft.				Model's WC8	7" 8"	2 ft.		
	Elbow						WC10	10"			
	Round to	6"	1 ft.		Round 6"	Round 6					
	3 <sup>1</sup> /4" x 10"						Roof Cap	7"	2 ft.		
		7"					Сар	8"			
	3 <sup>1</sup> /4" x 10" to Round	6"	5 ft.			10"	3 <sup>1</sup> /4" x 10" to Round	10"	5 ft.		
		7"	3 ft.		Model 310TR10						
	Round to 3 1/4" x 10"	6"	10 ft.				3 <sup>1</sup> /4" x 10" Wall Cap	N/A	2 ft.		
X	90° Elbow	7"	8 ft.				Model WC310				
	3 <sup>1</sup> /4" x 10" to Round		10 ft.				Model VCKTR8	8"	5 ft.		
	90° Elbow	7"	5 ft.				13" x 8" to Round	0 31			
	In-Line Backdraft Damper	7"	5 ft.				Model VCKTR10 13" x 8" to Round	10"	2 ft.		
Mo	3 <sup>1</sup> /4" x 10" Roof Jack & Shutter del RJ310	N/A	5 ft.				Model VCHTR8 12" x 10" to Round	8"	2 ft.		
28 <sup>5</sup> /16	Mode Pler	ium isition iired	5 ft.				Model VCHTR10 12" x 10" to Round	10"	2 ft.		
stated are a dealer. All o		ıgh yo e read			I		TOTAL E	quivale	ent Length		

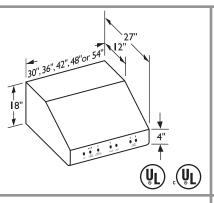
# Updraft Ventilation

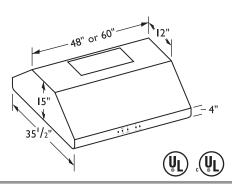
Thermador Professional® Series Hoods

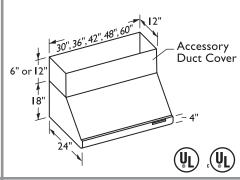
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# THERMADOR PROFESSIONAL® SERIES HOODS







#### PH\_Z HOODS

# **Installation Type** Wall

#### **Ventilator Options**

CFM 1000, Integral, Model VTN1000Q CFM 1000, Remote, Model VTR1000Q CFM 1400, Remote, Model VTR1400Q

#### **Finishes**

Stainless Steel

# **Transition Model Required** Included

#### **Duct Size at Discharge**

All Ventilator Options: 10" round

#### **Discharge Direction**

Vertical/Horizontal

# **Electrical Motor Rating**

VTN1000Q: 5.0 Amps @ 120 V AC, 60 Hz VTR1000Q: 7.8 Amps @ 120 V AC, 60 Hz VTR1400Q: 12.8 Amps @ 120 V AC, 60 Hz

# **Hood Lighting Rating**

430 watts and 3.6 Amps @ 120 V AC, 60 Hz

#### **Power Supply**

20 Amps (min) @ 120 V AC, 60 Hz

# **General Features**

Double wall construction Dual Intensity Halogen Lighting (2) size G4, 12V, 20W Halogen Bulbs; 3 bulbs on 48" and 54" widths Two Infra-Red "Keep-Hot" Light Sockets Size PAR-38, 175W, 120V (included), PAR-40, 250W, 120V (optional) Dishwasher Safe Commercial-style Baffle Filters Three-Speed Electronic Controls U.L. Approved for Damp Environments

# **Accessory Options**

"Keep-Hot" Warming Shelf, supports max. weight of 30 lbs., Model KHS, in 30," 36," 42," 48," 54" widths; wall cap (WC10) for VTN1000Q 12" High Duct Covers, model DCT in 30, 36, 42, 48 & 60" versions 6" High Duct Covers, model DC in 30, 36, 42, 48 & 60" versions

# **Carton Weight**

30" - 69 lbs. 48" - 98 lbs. 36" - 78 lbs. 54" - 108 lbs.

42" - 88 lbs.

# PHI\_Z HOODS

Island

#### **Ventilator Options**

**Installation Type** 

CFM 1400, Remote, Model VTR1400Q

#### **Finishes**

Stainless Steel

# **Transition Model Required**

Included

# **Duct Size at Discharge**

10" round

#### **Discharge Direction**

Vertical

#### **Electrical Motor Rating**

VTR1400Q: 12.8 Amps @ 120 V AC, 60 Hz

#### **Hood Lighting Rating**

80 watts and .8 Amps @ 120 V AC, 60 Hz

# **Power Supply**

20 Amps (min) @ 120 V AC, 60 Hz

# **General Features**

Double wall construction **Dual Intensity Halogen Lighting** (4) size G4, 12V, 20W Halogen Bulbs (included) Dishwasher Safe Commercial-style Baffle Filters Three-Speed Electronic Controls U.L. Approved for Damp Environments

# **Accessory Options**

None

# **Carton Weight**

48" - 111 lbs. 60" - 148 lbs.

# PHE HOODS Installation Type

Wall Hood

# **Ventilator Options**

CFM 1000, Integral, Model VTN1000Q CFM 1000, Remote, Model VTR1000Q CFM 1400, Remote, Model VTR1400Q

Stainless Steel

# **Transition Model Required**

Included

# **Duct Size at Discharge**

10" round

# **Discharge Direction**

Vertical/Horizontal

# **Electrical Motor Rating**

VTN1000Q: 5.0 Amps @ 120 V AC, 60 Hz VTR1000Q: 7.8 Amps @ 120 V AC, 60 Hz VTR1400Q: 12.8 Amps @ 120 V AC, 60 Hz

# **Hood Lighting Rating**

80 watts and .8 Amps @ 120 V AC, 60 Hz

# **Power Supply**

20 Amps @ 120 V AC, 60 Hz

# **General Features**

Double wall construction Dual Intensity Halogen Lighting (4) size G4, 12V, 20W Halogen Bulbs (included) Dishwasher Safe Aluminum Mesh Filters Three-Speed Electronic Controls U.L. Approved for Damp Environments

# Accessory Options

12" High Duct Covers, model DCT in 30, 36, 42, 48 & 60" versions 6" High Duct Covers, model DC in 30, 36, 42, 48 & 60" versions

# **Carton Weight**

43" - 83 lbs.

# **Updraft Ventilation**

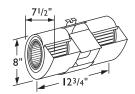
Integral Ventilator Options

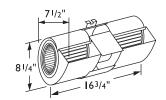
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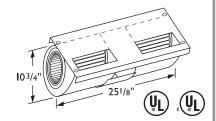
Thermador®

# INTEGRAL (MOUNTED IN HOOD) VENTILATOR OPTIONS





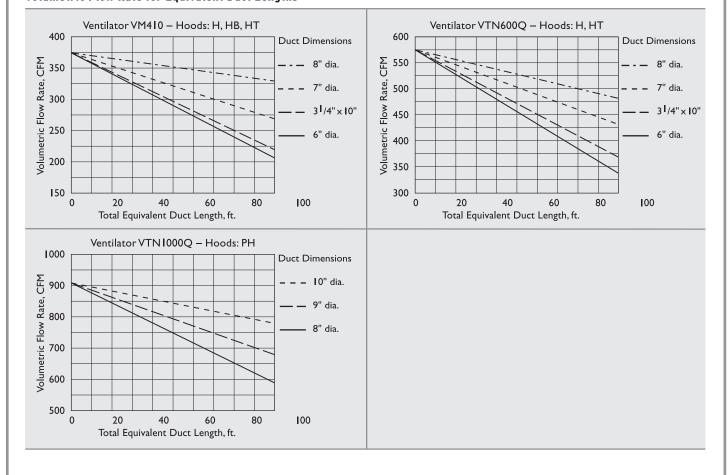




VCK300	VM410	VTN600Q	VTN1000Q
Maximum CFM: 300	Maximum CFM: 390	Maximum CFM: 600	Maximum CFM: 1000
Electrical Motor Rating 2.4 Amps @ 120 V AC, 60 Hz	Electrical Motor Rating 1.5 Amps @ 120 V AC, 60 Hz	Electrical Motor Rating 3.4 Amps @ 120 V AC, 60 Hz	Electrical Motor Rating 5 Amps @ 120 V AC, 60 Hz
Duct Size at Discharge 3 <sup>1</sup> /4" x 10"	Duct Size at Discharge 3 <sup>1</sup> /4" x 10"	<b>Duct Size at Discharge</b> 8" Round (use HTR8) 10" Round (use HTR10)	<b>Duct Size at Discharge</b> 10" Round
Use in Control Housing VCK1	<b>Use in Control Housing</b> VCH8	Use in Control Housing N/A	Use in Control Housing N/A
<b>Use in Hood Series</b> N/A	<b>Use in Hood Series</b> Standard in HB Series Option for H or HT Series	<b>Use in Hood Series</b> Option for H or HT Series	<b>Use in Hood Series</b> Option for PH Series, wall models only
<b>Notes:</b> May require roof jack (RJ310) or wall cap (WC310). Use for custom hood applications.	Note: May require roof jack (RJ310) or wall cap (WC310).	<b>Note:</b> May require wall cap (WC8).	Note: May require wall cap (WC10).
All ventilators are III and CIII	approved		

All ventilators are UL and CUL approved.

# Volumetric Flow Rate for Equivalent Duct Lengths



# **Updraft Installation Guidelines**

Professional Wall Hoods Installation Guidelines

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# **APPLIANCE INSTALLATION:**

The PHE/PH\_Z unit can be mounted on a wall or suspended from a cabinet. Both vertical and horizontal discharge are possible with either mounting method.

# **Discharge Directions:**

The PHE/PH\_Z hood is shipped ready for vertical discharge. To change to horizontal discharge simply move the two plates marked A in Figure 1 to the top of the hood. Each plate is held in place by two sheetmetal screws.

# **Assembly of the Transition:**

The transition supplied with the PHE/PH\_Z hood mounts to the top or rear of the hood depending on the discharge direction.

- 1. Align mounting holes at base of transition with mounting holes on 1/2" flange located at the top or rear of the hood depending on direction of discharge.
- 2. Fasten transition to hood using screws provided.
- 3. Duct tape connection between transition and hood.
- 4. Remove tape holding damper closed.

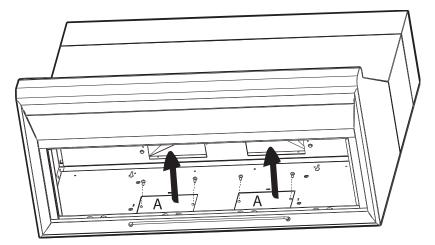


Figure 1

# **WALL MOUNT INSTALLATION**

The desired installation height of the PHE/PH\_Z is the user's preference. Figure 2 shows a typical installation of the hood with two duct covers. Thermador offers 6" and/or 12" duct covers to fill the space between the hood and ceiling.

The installation height shown in Figure 2 is 24". One 6" duct cover has been used in this installation. Add or subtract duct covers as appropriate to accommodate ceiling height and desired hood height. The duct cover structure is supported by the hood.

# **Hood Installation Height**

- After the hood installation height has been determined, draw a
  horizontal line at a distance above the cooktop equal to the desired
  hood installation height plus 15.5". This line is the mounting
  location of the wooden bracket shipped with the hood.
- 2. Find the centerline of the cooktop. Draw a vertical line along this centerline up to the horizontal line drawn in step 1.
- The PHE/PH\_Z is mounted to the wall using a wooden bracket shipped with the hood. Remove the bracket from the hood by removing two shipping screws. Mark the centerline of the bracket.
- 4. Find studs behind the drywall by tapping the wall or using a stud finder. Locate one stud on either side of the cooktop centerline to use for mounting the wooden bracket as shown in Figure 3.
- Align the top of the wood bracket along the horizontal line drawn in step 1. Align the centerlines of the bracket and cooktop.
- Drill a 3" deep 1/8" tap hole through the wooden bracket, drywall, and into the stud.
- Use 2 4 screws to attach the bracket to the wall as shown in Figure 3. For support of longer hoods, use three or four studs as available. Countersink the heads to prevent interference with the hood.
- 8. On the wood bracket, mark the locations used to hang the hood according to Figure 4.
- Drill a 1/8" tap hole through the wooden bracket and drywall.
   These screws do not need to go into the studs.
- 10. Screw 2 screws into the wood bracket leaving 1/4" of the screw exposed for hanging the hood.

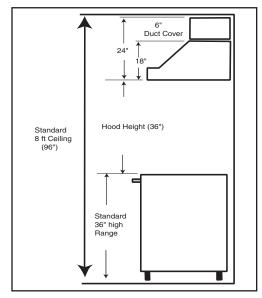


Figure 2 PHE & PH\_Z

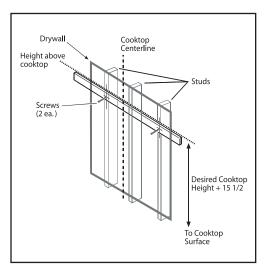


Figure 3 PHE & PH\_Z

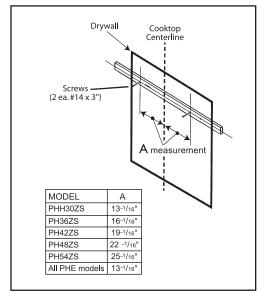


Figure 4 PHE & PH\_Z

11. Discharge Direction: Horizontal discharge requires a wall cutout, as shown in Figure 5, to provide clearance for the transition. The location of the cutout is determined by the hood installation height.

The transition supplied with the PHE/PH\_Z connects to standard 10" round duct. Figure 6 shows the transition connected for horizontal discharge.

Figure 7 below shows the PHE/PH\_Z configured for vertical discharge. Installations using this type of method require a cutout in the ceiling to accommodate 10" duct and the 1/2" conduit carrying power to the unit.

Duct covers, sold separately, are available to cover the space between the top of the hood and ceiling.

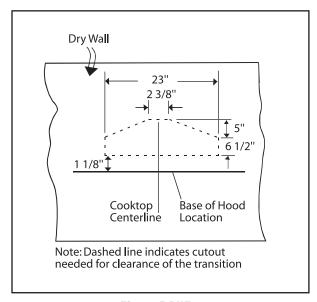


Figure 5 PHE

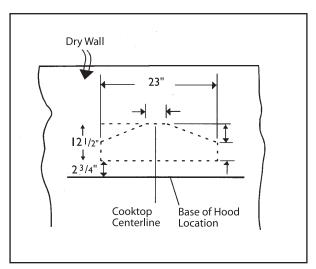


Figure 5 PH\_Z

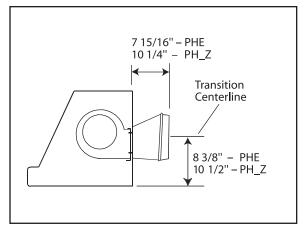


Figure 6 PHE & PH\_Z

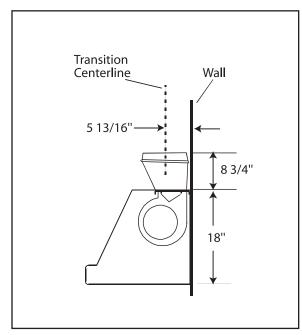


Figure 7 PHE & PH\_Z

- 12. Hang the hood using slots I in Figure 8. Make sure the wood bracket fits into the recess on the back of the hood.
- 13. Tighten the screws in slot I. Use slots I to level the hood.
- From inside the hood, drive screws through holes J into wooden bracket.
- 15. Drill a 3/8" tap hole through the center of the oval holes K into the wall. Insert two wall anchors into drilled holes. Tighten hood to wall anchors by installing 2 screws with washers.

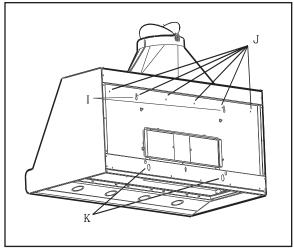


Figure 8 PHE & PH\_Z

# ASSEMBLY AND INSTALLATION OF THE DUCT COVERS:

Optional duct covers shown in Figure 9 may be used to fill the space between the hood and ceiling in wall mount installations. 6" and 12" high duct covers are available and may be ordered separately.

- 1. If multiple duct covers are used, connect the pieces together using sheetmetal screws provided with chimneys.
- 2. Attach the duct cover(s) to the hood using sheetmetal screws as shown in Figure 9.

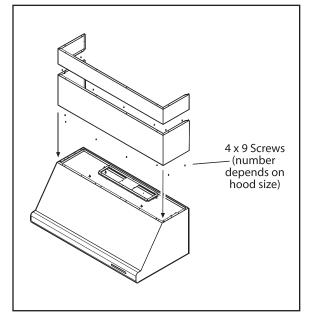


Figure 9 PHE & PH\_Z

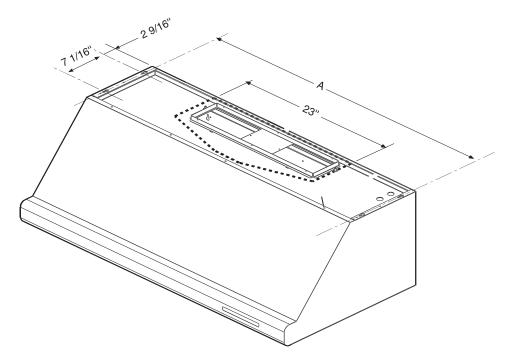


Figure 10 PHE

# **CABINET INSTALLATION:**

The PHE hood can be installed under a cabinet by supporting the hood from the top.

**Note:** The cabinet must be structurally joined to the wall studs to support the weight of the hood.

Figure 10 shows the four holes used for mounting the hood to the bottom of the cabinet.

- 1. In the base of the cabinet, drill 1/16" tap holes at the locations shown in Figure 10. Screw in four (4.2 mm x 18 mm) screws provided with hood leaving 1/4" exposed.
- If the hood is installed for vertical discharge use Figure 11
  to create clearance holes for passage of the transition and
  conduit. Dimension A in Figure 11 depends on the hood model
  being installed and can be located in the table above.
- 3. For horizontal discharge, use Figure 5 for the geometry of the cutout required for clearance of the transition.
- 4. Hang hood from screws and tighten securely.
- 5. Install wall anchors as appropriate.

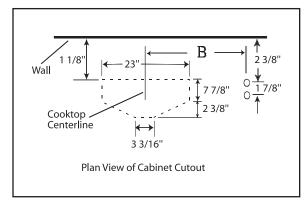


Figure 11 PHE

# Measurements for Figures 10 and 11

Version	Α	В
PHE30"	29-1/16	3 <sup>-7</sup> /16"
PHE36"	35-1/16	6 <sup>7</sup> /16"
PHE42"	41-1/16	9-7/16"
PHE48"	47-1/16	2-7/16"
PHE60"	59-1/16	8 <sup>-7</sup> /16"

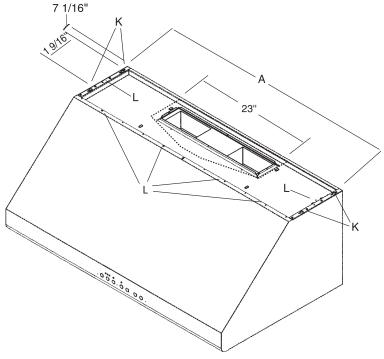


Figure 10 PH\_Z

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   (4.2 mm x 18 mm) screws provided with hood leaving
   1/4" exposed.
- 2. If the hood is installed for vertical discharge, use Figure 11 to create clearance holes for passage of the transition and conduit. Dimension A in Figure 11 depends on the hood model being installed and can be located in the table above.
- 3. For horizontal discharge, use Figure 5 for the geometry of the cutout required for clearance of the transition.
- 4. Hang hood from screws and tighten securely.
- 5. Install wall anchors as appropriate.

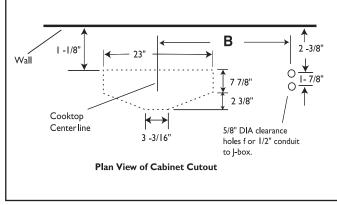


Figure 11 PH\_Z

# Measurements for Figures 10 and 11

Version	Α	В
PH30ZS	29-1/16"	13 <sup>-7</sup> /16"
PH36ZS	35-1/16"	<b>16</b> <sup>7</sup> /16"
PH42ZS	41-1/16"	<b>19</b> -7/16"
PH48ZS	47-1/16"	22-7/16"
PH54ZS	53-1/16"	25 <sup>-7</sup> /16"

# **INSTALLING AN INTEGRAL BLOWER VTN1000Q:**

The PHE hood can be installed with Thermador's VTN1000Q blower.

# **Blower Preparation:**

- Remove left and right shipping brackets and discard.
   See Figure 12a.
- Cut wire tie shown in Figure 12a. Take wire harness with Molex 6-pin connector and route out rear of blower, as shown in Figure 12b at right.
- 3. Reattach wire harnesses to capacitor with new wire tie (supplied) in same location in front.
- 4. Attach wire harness with Molex 6-pin connector to housing as shown in Figure 12b with wire tie (supplied).

# Install blower in hood:

- The blower is attached to the hood using weld studs provided on the mounting plate.
- Figure 12c shows the weld studs in location B for horizontal (rear) discharge. Attach four #10-24 nuts to the weld studs. For vertical discharge, attach nuts to studs at the top of the mounting plate.
- 3. Guide the motor mounting plate over the nuts and tighten to secure the blower to the hood.

**Warning:** These two additional screws must be installed on the ventilator plate.

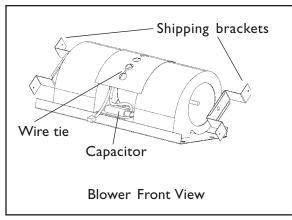


Figure 12a PHE & PH\_Z

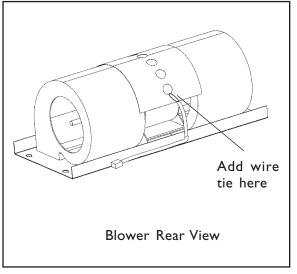


Figure 12b PHE & PH\_Z

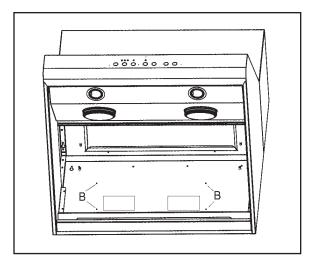


Figure 12c PHE & PH\_Z

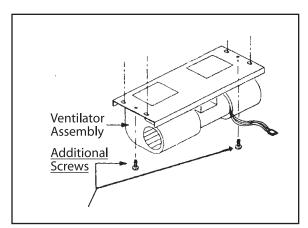


Figure 12d PHE & PH\_Z

# **REMOTE BLOWER INSTALLATION:**

The PHE/PH\_Z hood is designed to work with Thermador's VTR600R, VTR1000Q, and VTR1400Q remote blowers. For installation instructions, see the instructions supplied with the blower unit.

# Wiring the PHE with a Remote Blower:

Warning: Turn off electricity at the service panel before wiring the unit.

- 1. Remove the J-box cover as shown in Figure 13.
- 2. Remove cover T from the J-box.
- 3. Remove the 2 knockouts and install 1/2" conduit connectors.
- 4. Run black, white and green wires (#16AWG) in 1/2" conduit from power supply to J-box.
- Connect black, white and green/yellow wires in J-box respectively.
- Connect wire clamp to "pigtail" as shown in Figure 13.
   Insert "pigtail" wires into J-box and fix wire clamp to J-box using nut supplied with wire clamp V.
- 7. Run 5 wires (#16AWG) in 1/2" conduit from the remote blower to the second conduit connector.
- 8. Connect the black, white, red and blue wires from the remote ventilator to the black, white, red and blue wires of the "pigtail" respectively. Connect the remote blower green/yellow (ground) wire to the ground wire from the service panel.
- Close junction box cover. Check that all light bulbs are secure in their sockets. Install filters. Turn power on at service panel, and check lights and blower operation per Care & Use section of this manual.

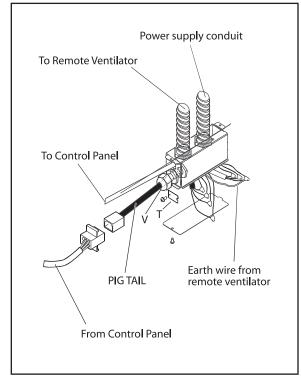


Figure 13 PHE & PH\_Z