

Venting Clearances and Allowable Runs

Vent Pipe Clearances

The following clearances apply to all pipe used with an ORTAL appliance, regardless of which pipe manufacturer is used.

Vertical Clearances:

Maintain 1" clearance to combustibles on entire circumference.

Horizontal Clearances:

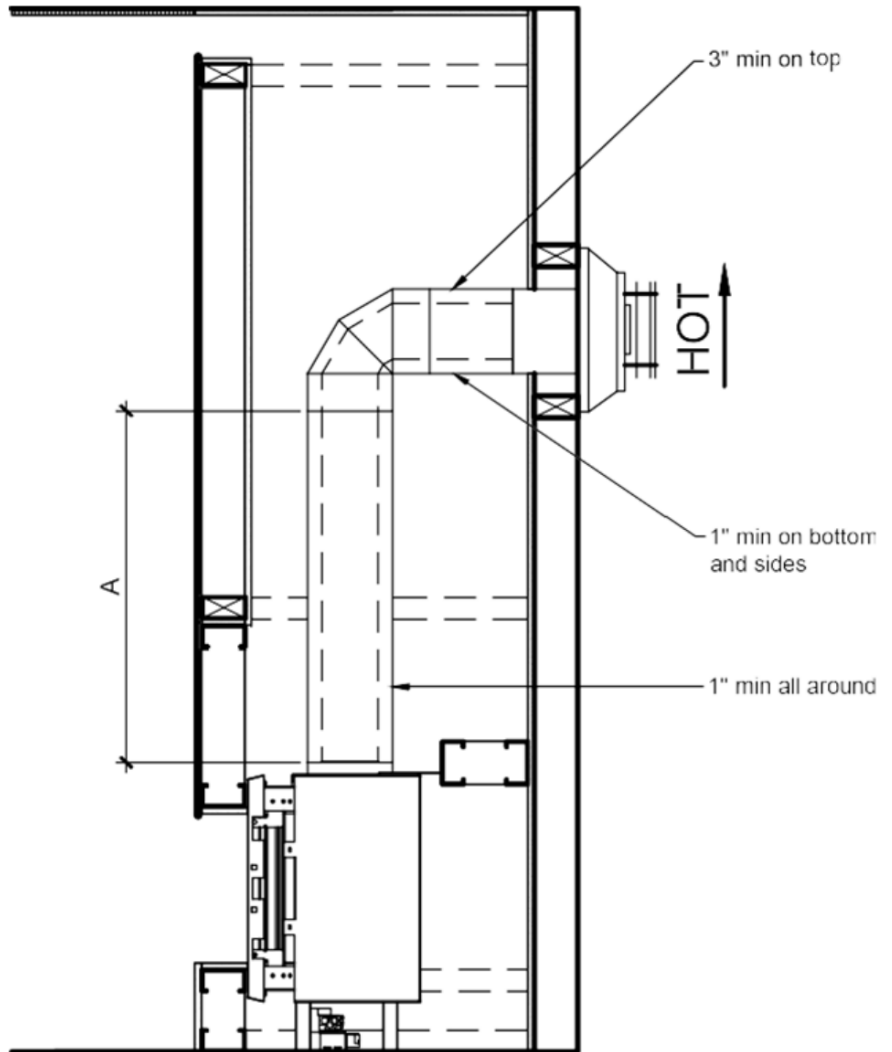
Maintain 1" clearance to combustibles on bottom.

Maintain 3" clearance to combustibles on top.

| Series | V Minimum (A) |
|---------|---------------|
| 40-170 | 3 ft |
| 200-250 | 6 ft |



NOTE: It is no longer required to maintain 1/4" of rise per foot of pipe.



Venting Diagrams

The following sections provide information for calculating venting run distances. Use the diagram and tables below to calculate distances for venting runs.

Offset (bends/elbows) Maximums

Up to 180° of offset may be used in your venting run. This means either two 90° elbows, four 45° elbows, or any other combination thereof. If your venting run exceeds this maximum, consider an ORTAL Power Vent System, which can allow for up to 540° of offset. See the ORTAL Power Vent Manual for details.

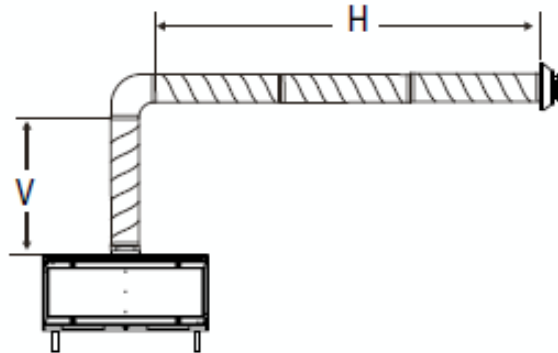
Offset Maximum Exception:

If needed for clearance to TV recess, two 45° offsets may be used directly on the unit with up to a 12" section between them. The V minimum starts above them. They do not count in elbow totals.



NOTE: If your initial vertical rise off the top of the unit does not meet the V minimum, consider an ORTAL Power Vent System, which can allow for any initial vertical rise amount. See the ORTAL Power Vent Manual for details.

Horizontal Termination Venting Run Diagram



V= minimum 3 feet for series 40-170, minimum 6 feet for series 200-250.

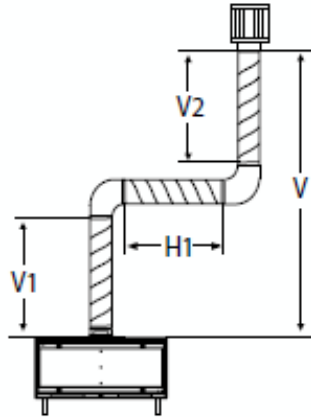
Use this diagram and tables below to calculate distances for venting runs that terminate horizontally.

| SERIES 40-75 | | SERIES 110-130 | | SERIES 150-170 & TRADITIONAL | | SERIES 200-250 | |
|--------------|--------------------|----------------|--------------------|------------------------------|--------------------|----------------|--------------------|
| Vertical (V) | Max Horizontal (H) | Vertical (V) | Max Horizontal (H) | Vertical (V) | Max Horizontal (H) | Vertical (V) | Max Horizontal (H) |
| 3 ft | 21 ft | 3 ft | 12 ft | 3 ft | 9 ft | - | - |
| 6 ft | 24 ft | 6 ft | 18 ft | 6 ft | 12 ft | 6 ft | 9 ft |
| 9 ft | 24 ft | 9 ft | 24 ft | 9 ft | 18 ft | 9 ft | 12 ft |
| 12 ft | 24 ft | 12 ft | 21 ft | 12 ft | 21 ft | 12 ft | 12 ft |
| 15 ft | 24 ft | 15 ft | 21 ft | 15 ft | 18 ft | 15 ft | 15 ft |
| 18 ft | 21 ft | 18 ft | 18 ft | 18 ft | 18 ft | 18 ft | 15 ft |
| 21 ft | 18 ft | 21 ft | 15 ft | 21 ft | 15 ft | 21 ft | 12 ft |
| 24 ft | 15 ft | 24 ft | 12 ft | 24 ft | 12 ft | 24 ft | 12 ft |
| 27 ft | 12 ft | 27 ft | 12 ft | 27 ft | 9 ft | 27 ft | 9 ft |
| 30 ft | 12 ft | 30 ft | 12 ft | 30 ft | 9 ft | 30 ft | 9 ft |
| 33 ft | 12 ft | 33 ft | 12 ft | 33 ft | 9 ft | 33 ft | 6 ft |



NOTE: For venting runs that exceed these maximums, consider ORTAL's Power Vent System. See the ORTAL Power Vent Manual for details.

Vertical Termination Venting Run Diagram



V1= minimum 3 feet for series 40-170, minimum 6 feet for series 200-250. V =V1 + V2

Use this diagram and tables below to calculate distances for venting runs that jog and terminate vertically.

| SERIES 40-75 | |
|--------------|---------------------|
| Vertical (V) | Max Horizontal (H1) |
| 3 ft | 15 ft |
| 7 ft | 18 ft |
| 10 ft | 18 ft |
| 13 ft | 18 ft |
| 16 ft | 18 ft |
| 19 ft | 15 ft |
| 22 ft | 12 ft |
| 25 ft | 9 ft |
| 28 ft | 6 ft |
| 31 ft | 6 ft |
| 34 ft | 6 ft |

| SERIES 110-130 | |
|----------------|---------------------|
| Vertical (V) | Max Horizontal (H1) |
| 3 ft | 6 ft |
| 7 ft | 15 ft |
| 10 ft | 18 ft |
| 13 ft | 15 ft |
| 16 ft | 15 ft |
| 19 ft | 12 ft |
| 22 ft | 9 ft |
| 25 ft | 6 ft |
| 28 ft | 6 ft |
| 31 ft | 6 ft |
| 34 ft | 6 ft |

| SERIES 150-170 & TRADITIONAL | |
|------------------------------|---------------------|
| Vertical (V) | Max Horizontal (H1) |
| 3 ft | 6 ft |
| 7 ft | 12 ft |
| 10 ft | 15 ft |
| 13 ft | 12 ft |
| 16 ft | 12 ft |
| 19 ft | 12 ft |
| 22 ft | 12 ft |
| 25 ft | 9 ft |
| 28 ft | 9 ft |
| 31 ft | 6 ft |
| 34 ft | 6 ft |

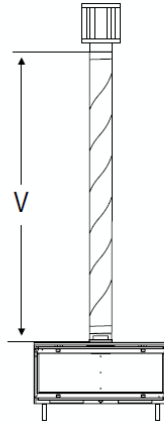
| SERIES 200-250 | |
|----------------|---------------------|
| Vertical (V) | Max Horizontal (H1) |
| - | - |
| 6 ft | 3 ft |
| 10 ft | 12 ft |
| 13 ft | 12 ft |
| 16 ft | 12 ft |
| 19 ft | 12 ft |
| 22 ft | 12 ft |
| 25 ft | 12 ft |
| 28 ft | 12 ft |
| 31 ft | 9 ft |
| 34 ft | 9 ft |



NOTE: For venting runs that exceed these maximums, consider ORTAL’s Power Vent System. See the ORTAL Power Vent Manual for details.

Vertical Termination Venting Run Diagram – Straight Vertical

For Series 40-250, the maximum vertical distance is 42 feet.



NOTE: For venting runs that exceed this maximum, consider ORTAL's Power Vent System. See the ORTAL Power Vent Manual for details.