

## Venting Update

We are happy to announce that the vent configuration requirements for all Ortal, Lyric, and Wilderness fireplaces have been updated with the intent to allow for greater ease of design and installation. The following information is approved for use for all Ortal-manufactured fireplaces effective immediately.

All other venting information and installation requirements remain unchanged.

We will be working over the next several weeks to update all our manuals and technical documents with this information. In the meantime, this document serves as official approval letter to permit installations that follow these new installation instructions. This document supersedes all current and previous manuals, and may be applied retroactively.

Warmly,



### Venting

The following sections provide information for calculating vent configuration distances and elbows. For vent configurations that cannot conform to these guidelines, consider Ortal's Power Vent System, or contact Ortal for assistance. Power Vent information can be found in the Power Vent Installation Manual.

**Please consider the following guidelines when determining vent configuration:**

#### Elbows

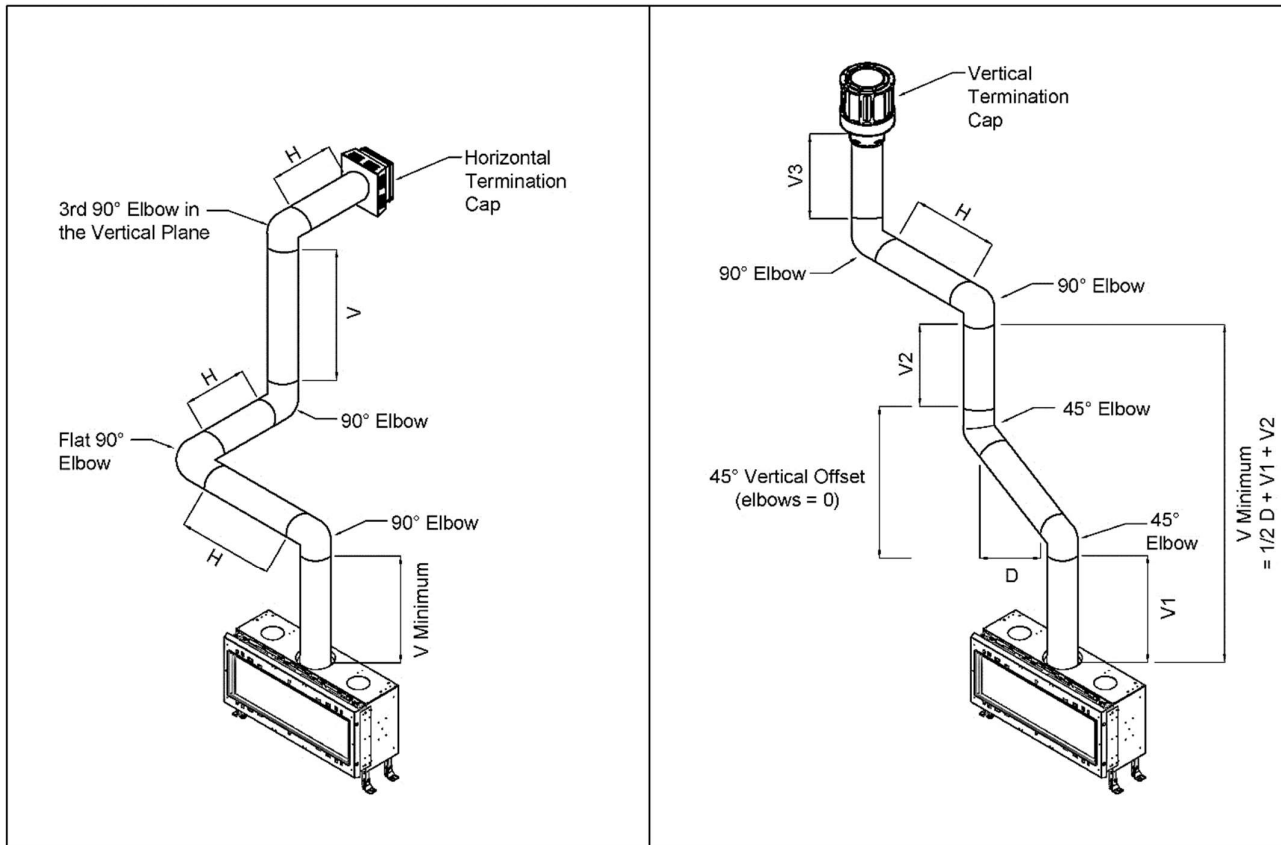
- **Maximum Elbows:** Up to **four** 90° elbows can be used in the vent configuration. Two 45° elbows = one 90° elbow.
  - **45° Vertical Offset Exception:** Two 45° elbows in the vertical plane with a diagonal run in between is equal to **0 elbows**. They are not counted with other elbows in the vent configuration. This offset exception is applicable immediately on the top of the fireplace and anywhere else within the vent configuration.  
**The diagonal run between the two 45° elbows must be included when calculating vertical and horizontal distances.**
  - **45° Horizontal Offset:** Two 45° elbows that begin and end in the horizontal plane, with a diagonal run in between, is equal to **one 90° elbow**. Additionally, **3 feet** must be reduced from the total allowable horizontal run.  
**The diagonal run between the two 45° elbows must be included when calculating vertical and horizontal distances**
- **Exceeding two 90° Elbows:** For more than two 90° elbows, the minimum total vertical rise is **6 feet** for 90-250 models. This does not apply to 40-75 models.
- **Flat 90° Elbows:** For every flat 90° elbow (a 90° elbow that stays in the horizontal plane), **6 feet** must be reduced from the total allowable horizontal run. Up to two flat elbows are allowed.
  - Example: If max allowable horizontal run is 24 feet and 1 flat elbow is added, max run is reduced to 18 feet.
- **3rd 90° Elbow in the Vertical Plane:** The 3<sup>rd</sup> elbow in the vertical plane reduces **3 feet** from total allowable horizontal run. Do not include flat elbows when determining which 90° elbow in your configuration is 3<sup>rd</sup> in the vertical plane.
  - **Exception:** If the 3<sup>rd</sup> 90° elbow in the vertical plane turns the vent direction from horizontal to vertical, the total allowable horizontal run does not require a 3-foot reduction.

#### Diagonal Runs

- **Calculating Diagonal Runs (D):** Diagonal (45°) vent runs have an equal combination of vertical and horizontal aspects. To include diagonal portions of your desired vent configuration when determining overall vent limitations, divide the diagonal distance in half. Add this value to the total vertical rise and total horizontal run distances in your vent configuration. Include these values when utilizing the Vent Configuration Tables below.
  - Example: 6 feet diagonal run = 3 feet vertical rise & 3 feet horizontal run

#### Other

- **V Minimum:** This is the minimum amount of vertical rise required before the first *completely* horizontal (not diagonal) run.
- Any vent configuration that does not meet these parameters requires Ortal's review and approval.



**! TERMINATION CAP NOTE:** Low Profile Vertical Termination Cap and Sconce Horizontal Termination Cap can negatively impact flame appearance and are not recommended for use with the fireplace.

**Allowable Maximum Horizontal Runs: Ortal, Lyric, & Wilderness**

Series 40-75 Wild 31 Curve		Series 110-130 Wild TR 36-42 Wild 44/H-60/H		Series 150-170 TR 90-110		Series 200		Series 250	
V minimum = 0 ft		V minimum = 3 ft		V minimum = 3 ft		V minimum = 6 ft		V minimum = 6 ft	
Vertical (V)	Max Horizontal (H)	Vertical (V)	Max Horizontal (H)	Vertical (V)	Max Horizontal (H)	Vertical (V)	Max Horizontal (H)	Vertical (V)	Max Horizontal (H)
0 ft	6 ft	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1 ft	12 ft	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3 ft	21 ft	3 ft	12 ft	3 ft	9 ft	N/A	N/A	N/A	N/A
6 ft	24 ft	6 ft	24 ft	6 ft	18 ft	6 ft	18 ft	6 ft	3 ft
9 ft	24 ft	9 ft	24 ft	9 ft	21 ft	9 ft	21 ft	9 ft	8 ft
12 ft	24 ft	12 ft	21 ft	12 ft	21 ft	12 ft	21 ft	12 ft	11 ft
15 ft	24 ft	15 ft	21 ft	15 ft	21 ft	15 ft	21 ft	15 ft	12 ft
18 ft	21 ft	18 ft	18 ft	18 ft	21 ft	18 ft	21 ft	18 ft	12 ft
21 ft	18 ft	21 ft	15 ft	21 ft	18 ft	21 ft	18 ft	21 ft	10 ft
24 ft	15 ft	24 ft	12 ft	24 ft	12 ft	24 ft	12 ft	24 ft	8 ft
27 ft	12 ft	27 ft	12 ft	27 ft	9 ft	27 ft	9 ft	27 ft	7 ft
30 ft	12 ft	30 ft	12 ft	30 ft	9 ft	30 ft	9 ft	30 ft	5 ft
33 ft	12 ft	33 ft	12 ft	33 ft	9 ft	33 ft	6 ft	33 ft	4 ft
44 ft	0 ft	44 ft	0 ft	44 ft	0 ft	44 ft	0 ft	36 ft	0 ft

**! CHART NOTE:** Do not include the space elbows take up when calculating your vertical and horizontal distances.

Examples using a 110 Front

<p>3rd 90° Elbow in the Vertical Plane</p> <p>2nd 90° Elbow</p> <p>1st 90° Elbow</p> <p><math>V_3 = 2\text{ft}</math></p> <p><math>H_2 = 4\text{ft}</math></p> <p><math>V_2 = 4\text{ft}</math></p> <p><math>H_1 = 5\text{ft}</math></p> <p><math>V_1 = 3\text{ft}</math></p> <p><math>V = V_1 + V_2 + V_3</math>  <math>H = H_1 + H_2 + 3\text{rd } 90^\circ \text{ elbow}</math></p>	<p>Flat 90° Elbow</p> <p>2nd 90° Elbow in the Vertical Plane</p> <p>1st 90° Elbow</p> <p><math>V_2 = 3\text{ft}</math></p> <p><math>H_2 = 2\text{ft}</math></p> <p><math>H_1 = 5\text{ft}</math></p> <p><math>V_1 = 3\text{ft}</math></p> <p><math>V = V_1 + V_2</math>  <math>H = H_1 + H_2 + 6\text{ft (for flat elbow)}</math></p>
<p><math>V = 3\text{ft} + 4\text{ft} + 2\text{ft} = 9\text{ft}</math>  <math>H = 5\text{ft} + 4\text{ft} + 3\text{ft} = 12\text{ft}</math></p>	<p><math>V = 3\text{ft} + 3\text{ft} = 6\text{ft}</math>  <math>H = 5\text{ft} + 2\text{ft} + 6\text{ft} = 13\text{ft}</math></p>
<p>1st 90° Elbow</p> <p>Horizontal Offset (2nd 90° Elbow)</p> <p>Vertical Offset</p> <p><math>H_4 = 5\text{ft}</math></p> <p><math>D_2 = 6\text{ft}</math></p> <p><math>H_2 = 2\text{ft}</math></p> <p><math>V_2 = 2\text{ft}</math></p> <p><math>D_1 = 4\text{ft}</math></p> <p><math>V = (1/2 D_1) + V_2 + (1/2 D_2)</math>  <math>H = (1/2 D_1) + H_2 + (1/2 D_2) + 3\text{ft (for horiz. offset)} + H_4</math></p>	<p><math>H_1 = 3\text{ft}</math></p> <p><math>V_1 = 6\text{ft}</math></p> <p><math>V = V_1</math>  <math>H = H_1</math></p>
<p><math>V = 2\text{ft} + 2\text{ft} + 3\text{ft} = 7\text{ft}</math>  <math>H = 2\text{ft} + 2\text{ft} + 3\text{ft} + 3\text{ft} + 5\text{ft} = 15\text{ft}</math></p>	<p><math>V = 6\text{ft}</math>  <math>H = 3\text{ft}</math></p>