This Builder’s Manual is based on installation of front-facing Ortal fireplaces; modify instructions to install other Ortal fireplace styles. Maintain clearances as shown below.

Clearances are to non-combustible materials or 5/8” Type X fire rated drywall. Contact Ortal for additional information.
AIRFLOWS

An Ortal fireplace requires two airflow paths:

1. Direct vent exhaust system: This is the air inside the firebox and the direct vent pipe. A direct vent pipe has an inner and outer channel. Hot exhaust gases (mostly carbon dioxide and water vapor) escape through the inner channel. Fresh outdoor air (providing oxygen for the fire) is drawn in through the outer channel where it captures most of the heat escaping through the inner channel.

2. Heat release system and air intake: The cavity enclosing an Ortal fireplace must have a heat release outlet above the fireplace. This allows for heat building up within the fireplace cavity to be released back in the space which then helps keep your fireplace wall cool. Fireplaces with the double glass feature must have an air intake. Room air is drawn over the glass, between the interior wall and the frame of the fireplace, into the cavity and then is returned to the room through the heat release. These airflows, along with radiant heat from the front of the fireplace, maximize the heating performance of an Ortal Fireplace and contribute to its energy efficiency.

Air Intake:

- Ortal fireplaces with double-glass require an intake located below elevation of Ortal fireplace.
- Air intake can be either a grille or louver or an opening on underside of cavity.

Heat Release:

- Locate 6-inches maximum from top of fireplace cavity
- Can be a grille or louver or a gap between the top of cavity wall and ceiling
- Required for all built-in models

Size of Air Intake and of Heat Release:

Minimum free area (net area after grille work or screens are subtracted) shall be:

- Ortal Models 40 to 130: 12 sq.in. or more
- Ortal Models 150 to 200: 200 sq.in. or more
- Other Models: Check with Ortal

GAS VALVE ACCESS PANEL

Gas valve should be installed below elevation of firebox.

An access panel is recommended for easy servicing of gas valve. Panel should be 10 x 10 inches minimum; use larger size if required to conveniently reach valve. An appropriate sized air intake (see page 12) can be used as an access panel.
All built-in fireplaces come with legs and with seismic brackets at the top of the fireplace. These are an additional way to secure the fireplace in your cavity while still maintaining the minimum air clearances provided here in this manual. You have the option to use these brackets or you may use a heavy duty steel bracket to mount the fireplace to the back cavity wall while still maintaining the required 2” air clearance. If the seismic bracket does not extend all the way to your cavity wall, you may also extend metal studs to connect to your seismic bracket (as shown in several sections in this manual).

FREESTANDING AND WALL-MOUNTED ORTAL FIREPLACES

Secure fireplace to wall and subfloor.
If fireplace is located against a wall, the wall must be of noncombustible material or covered with 5/8" Type X gypsum board.

IT'S YOUR BUSINESS

[ ] Offer to assist your customer and their architect or designer while the project is still in planning so you can better understand their needs and suggest for the best approach to installing the fireplace.

[ ] Get to know your local Ortal dealers. They can be a good source of referrals for you.

ADDITIONAL WORDS OF CAUTION

[ ] Know the building code and consult with authorities having jurisdiction before proceeding. This guide contains minimum requirements; modify details to satisfy project requirements.

[ ] External surfaces of Ortal fireplace and areas exposed to radiant heat from fire will get hot. Observe clearances between fireplace and combustible materials.

[ ] Artwork and devices such as TVs, audio speakers and light fixtures to be mounted on cavity on or recessed into wall of cavity must have a double wall of 5/8” Type X fire rated gypsum board with air space in between to prevent direct heat impact. If working with metal framing see pages 22 and 23. If working with wood framing see pages 30 and 31.

[ ] Protect fireplace against damage throughout construction.

LEGEND

☐ 5/8" Type X fire rate gypsum board
☐ Section Cut
☐ Wood
☐ Combustible material
☐ Non-combustible material
☐ Wood Framing
☐ Metal Framing
Below is a table defining the maximum surface area if incorporating a shelf detail in the fireplace design.

The drawing is showing that a minimum 12 inch height must be provided from the top of the fireplace opening to the top of the shelf. Be sure to keep the top of the firebox clear from obstruction and maintain all clearances.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Max Shelf surface area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series 75</td>
<td>$A \times B \leq 220$ sq. in.</td>
</tr>
<tr>
<td>Series 110/130</td>
<td>$A \times B \leq 340$ sq. in.</td>
</tr>
<tr>
<td>Series 150/170</td>
<td>$A \times B \leq 410$ sq. in.</td>
</tr>
<tr>
<td>Series 200</td>
<td>$A \times B \leq 520$ sq. in.</td>
</tr>
</tbody>
</table>

This detail applies to all our built-in models (Front, Corner, Three-Sided, Tunnel and Space Creators).

A heat release on top of the shelf is only needed if the shelf surface area exceeds what is shown on the table above.