Planning Information / AWA AQUAFIRE SERIES

AQUAFIRE® water vapor fireplace modules are extremely easy to install, simple to operate, and easy to maintain. When designing your fireplace, feel free to send us your plans for review and comments.

Important Considerations:

- Determine best configuration for your installation:
  1. Recessed
  2. Proud (in front of wall)

  Note: If light cast upwards to ceiling is undesirable, create recessed hearth in wall for a traditional hearth appearance, or suspend a hood over the fireplace. (also see information how to create a ‘light trap’ in this document)

- Provide electrical power (120 V outlet) and 1/4” water line in cutout cavity if it is to be direct plumbed

- Fireplace inserts must be accessible for periodic maintenance which in some cases may require insert to be removed from hearth. Therefore if the lid & air intake vents on the top of the unit are to be covered with rock, granite, or other heavy material it must be designed in such a way that it can be easily and quickly removed for service and maintenance.

- Determine materials and finishes you expect to use; There are no issues created by heat, so choice of materials is limitless.

- Avoid placement where there are air currents from doors, windows, and from the HVAC system.

- Water Hardness: Only use moderately hard tap water between 3.5 to 8.5 Grains Per Gallon (7 is ideal). It’s best to have water tested before prolonged use; excessively hard water will coat internal parts with calcium & mineral deposits and shorten life of equipment and possibly void the factory warranty.

Note: Do not use RO water (reverse osmosis). A moderate amount of minerals are needed to optimize flame effect. If water is too hard, use an inexpensive in-line water softener. Inexpensive hardness test kits are available on Amazon.

- Installing the water vapor insert:
  Cutout dimensions are critical because modules suspend from the flanges that span the opening.
  Too small and fireplace will not fit; too large and fireplace module may fall thru the opening.

  See "How To Videos Tab" on the product page.

- Do not install fireplace until construction is complete. Equipment must be protected from dust and debris getting inside.

- Consult Owners Manual shipped with unit for more information.

That’s it! Enjoy an extraordinary fireplace experience every day of the year!

NOTE! Failure to follow these guidelines may diminish resulting flame effect, cause light to be cast onto ceiling, may cause excess light to ‘bleed’ into room. Installation must allow easy access and removal of units for maintenance.
RECESSED HEARTH INSTALLATION GUIDELINES

FOR AQUAFIRE series 20" / 40" / 60" units

Note: Dimension in Plan View
These values have been calculated so that the light projected upward is contained by the recessed light trap and does not shine up onto the ceiling of the room.

To increase height of hearth opening requires the depth of the hearth to be increased.

See 68º and 58º light paths in Side Section below.

*need 12" setback from sides of hearth to minimize glare.

Cutout opening to suspend 60" Module is 12.25" x 60.2"

PLAN VIEW
SECTION THRU RECESSED HEARTH (A-A)

SIDE SECTION SCHEMATIC
RECESSED HEARTH

FRONT ELEVATION
TYPES OF FIREPLACES
INSTALLATION GUIDELINES
for AQUAFIRE series 20'' / 40'' / 60'' units

Type 1: Recessed Hearth
Type 2: Open Hearth (against wall)
Type 3: Coffee Table (Fire Pit)

Type 4: Room Divider Floating Wall
Type 5: Glass Enclosure
Type 6: Dining Table

Type 7: Retrofit (traditional)
Type 8: Wall Hung
Type 9: 3-Sided Island

AQUAFIRE®...advanced water vapor fireplace technology!
Important Notes for glass enclosed hearth:

- Only necessary when drafts or weather are an issue.
- Glass must not restrict airflow. Allow space for circulation into room.
- Air must be able to flow in and out of enclosure.
- Glass is optional and not required.
Note: Overall dimensions of this example of a room divider fireplace is 78” wide x 20” deep. Hood extends 4” past fireplace base on both sides. In this case it is shown 9 feet tall. Configuration designed to minimize light that would otherwise be cast up to the ceiling in the room. The upper wall section is a large hollow hood painted inside with flat black paint. Optionally the top of the AQUAFIRE® unit can be covered with granite or other decorative material. If so, then this AWA 60-150-60” fireplace insert will require 150 sq in of unobstructed air intake thru the toe kick as shown in the schematic at the right. If a grill or grate covers the air intake you must compensate for the solid mass of the grill in your calculations. Do not cover the control buttons with stone. Stone should be easy to removal and allow the unit to be removed for service if necessary.

**ROOM DIVIDER EXAMPLE**

**OPEN ALL SIDES**

**FRONT ELEVATION SCHEMATIC**
shown with 60” AWA insert set back 9” from each end and 4.15” from front and back (20” deep cabinet) in order to minimize light cast onto ceiling.

**SIDE SECTION SCHEMATIC**
OPEN ALL SIDES
INSTALLATION GUIDELINES
TYPICAL LONG MULTIPLE MODULE FIREPLACES

CUTOUT DIMENSIONS REFERENCE Chart: *

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Module Code</th>
<th>Width x Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>20”</td>
<td>AWA-20-50</td>
<td>12.25” x 20.2”</td>
</tr>
<tr>
<td>40”</td>
<td>AWA-40-100</td>
<td>12.25” x 40.2”</td>
</tr>
<tr>
<td>60”</td>
<td>AWA-60-150</td>
<td>12.25” x 60.2”</td>
</tr>
<tr>
<td>80”</td>
<td>AWA-80-200</td>
<td>12.25” x 80.3”</td>
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<tr>
<td>100”</td>
<td>AWA-100-250</td>
<td>12.25” x 100.3”</td>
</tr>
<tr>
<td>120”</td>
<td>AWA-120-300</td>
<td>12.25” x 120.3”</td>
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<tr>
<td>140”</td>
<td>AWA-140-350</td>
<td>12.25” x 140.3”</td>
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<tr>
<td>160”</td>
<td>AWA-160-400</td>
<td>12.25” x 160.3”</td>
</tr>
<tr>
<td>180”</td>
<td>AWA-180-450</td>
<td>12.25” x 180.3”</td>
</tr>
</tbody>
</table>

Minimum Depth of Cutout for all sizes: 11.75”
(when power converter is placed ‘beside’ insert: front, back, right, or left)

Normal Depth of Cutout for all sizes: 13.62”
(when power converter is placed ‘below’ insert)

* Note: CUTOUT dimensions are critical!
modules are suspended in opening

AQUAFIRE SERIES
80” Fireplace Insert
AWA 80-200
two (2) AWA-40-100 40” modules

AQUAFIRE SERIES
120” Fireplace Insert
AWA 120-300
two (2) AWA-60-150 60” modules

Satin black insert (RAL 9005)

Design Review:
When you have your design schematic or working drawings, it’s a good idea to get a review by a water vapor professional. We are here to help!
AWA AQUAFIRE MODULES DESIGNED TO BE FLUSH MOUNTED

Finishes: Satin Black
RAL 9005
Sherwin Williams

AIR intakes thru lid
Air intake thru side panels (optional)
Suspension flanges
Fins control light spread

Optional air intake(s)

Lid seats flat creating flush installation.

Panels on all 6 sides + lid are easily removed for service or component replacement.

Front Elevation (AWA 40-100 Shown)

2.13"
8.7"
40.0"
Water Hardness Areas in the United States

Water Hardness Table of Classifications

<table>
<thead>
<tr>
<th>Classification</th>
<th>Water Hardness Table of Classifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Hardness Classification</td>
<td>Water Quality Association Classification</td>
</tr>
<tr>
<td>&lt; 1.0 (soft)</td>
<td>&lt; 17.1 (soft)</td>
</tr>
<tr>
<td>1 to 3.5 (moderately hard)</td>
<td>17.1 to 60 (slightly hard)</td>
</tr>
<tr>
<td>3.5 to 7.0 (ideal) (hard)</td>
<td>60 - 120 (moderately hard)</td>
</tr>
<tr>
<td>7.0 to 10.5 (very hard)</td>
<td>120 - 180 (hard)</td>
</tr>
<tr>
<td>10.5 + (very hard)</td>
<td>180 and over (very hard)</td>
</tr>
</tbody>
</table>

Suggested Range for Water Vapor Fireplaces

3.5 to 8.5 Grains Per Gallon, Ideal is 7.0 (moderately hard)

- Water that is too hard will produce scaling, shorten transducer life, and require more frequent cleaning.
- Water that is too soft will have reduced flame effect.
- If water hardness needs to be adjusted, consult local water conditioning professional.

REVERSE OSMOSIS is NOT RECOMMENDED, it removes ALL minerals and vapor will be greatly diminished.

CHECKLIST FOR BEST RESULTS: REMEMBER

- protect fireplace insert during construction / dust & debris that gets inside the equipment is a major problem.
- have water tested for water hardness or use a water hardness kit purchased on line.
  - water that is too hard will shorten life of equipment and could void warranty in extreme cases.
  - water without enough minerals (too soft) will greatly limit size and quality of flames.
- flames look best against a dark background.
- drafts from HVAC vents and entrance doors will diminish quality of flames.
- if light cast onto the ceiling of the room is an issue, design a hearth, hood, or light trap to contain the light.
- mist-makers have a life of 2,000 to 3,000 hours and should be cleaned with vinegar 2 to 3 times a year.
- water tanks should be flushed with vinegar and rinsed out with water at least once a year.
- regular cleaning will prolong the life of the fireplace, see recommended Preventive Maintenance Plan.

Design Review

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...We are here to help!
COMPARISON
AFIREWATER® PRESTIGE SERIES vs AQUAFIRE® SERIES

Pro Series requires a deeper hearth to capture light that would otherwise cast up onto ceiling.

AFIREWATER® PRESTIGE SERIES

- Recessed 6" Light Trap
- Black 2.0 Paint
- Light path: 14.5" max
- 3" min
- 6" min
- AFIREFIRE 12" x 11.3" tall
- [24 Volt Adaptor]

AQUIFIRE® SERIES (orange only)

- Recessed 6" Light Trap
- Black 2.0 Paint
- Light path: 14.5" max
- 3" min
- 4" min
- AQUAFIRE 12" x 8.7" tall
- Direct Plumb Kit
- 2.6" min
- [24 Volt Adaptor]