

Contractor's Utility Requirements

TMB Baking Stoneheart™ Gas Deck Oven

NATURAL GAS FIRED or PROPANE

- INSTALLATION INSTRUCTIONS –

This Manual is prepared for the use of licensed utility contractors. All gas, electrical, plumbing and venting connections should be made according to local codes.

This manual is not intended to be all encompassing. You should read, in its entirety, the installation procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained and licensed technician.



THE HEART OF ARTISAN BAKERIES™

480 GRANDVIEW DR. – So. SAN FRANCISCO, CA 94080
TEL: 650.589.5724 – FAX: 589.5729

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Utility Requirements

- Electric Power:** 110 Volt / 1 phase / 60 Hz / 20 amp / supply 3 wire including neutral and Ground. See enclosed photo (Fig. 1) and spec sheet for details
- Natural Gas:** 350,000 BTU at 14" WC max, 7" WC min
Flexible gas line is not recommended.
- Gas lines should be 3/4" inside diameter from top of oven to gas valve.
- Gas lines must have a shut off valve and union located in burner compartment for ease of servicing the burner. See enclosed drawing (Fig. 2), picture (Fig. 3) and spec sheet.
Gas line should have drip leg in gas line.
- Propane Gas:** 250,000 BTU at 14" WC max, 5" WC min
- Water:** 60 PSI at 4 GPM. Oven usage 2.5 GPH per bake. See enclosed photo (Fig. 4) and spec sheet.
- Drain:** 3/4" IPS drain connection in front of oven.
- Venting Requirements:** See spec sheet.
- Wall Clearance:** 0" Clearance fire code rating back and sides.
- For installation, require 16" behind oven and 4" on each side of the oven



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Setting requirements Midco Burner: Natural Gas
Model RE 4400 DS Manifold Pressure: 3.5 WC
Propane Gas: Orifice size: 0.219
Manifold Pressure: 3.2 WC

Draft Requirements: 0.05 - 0.10 Negative pressure at site hole above burner.

Exhaust Fan: An exhaust fan can be installed above the roof line if required to increase draft. 750-800 CFM is required for this fan. If installed, an automatic burner shutoff wired to the control panel must be installed. **Providing the specification for and installing this shut-off to the fan, along with wiring to the TMB Baking control panel is the responsibility of the local HVAC or mechanical engineer contractor.**



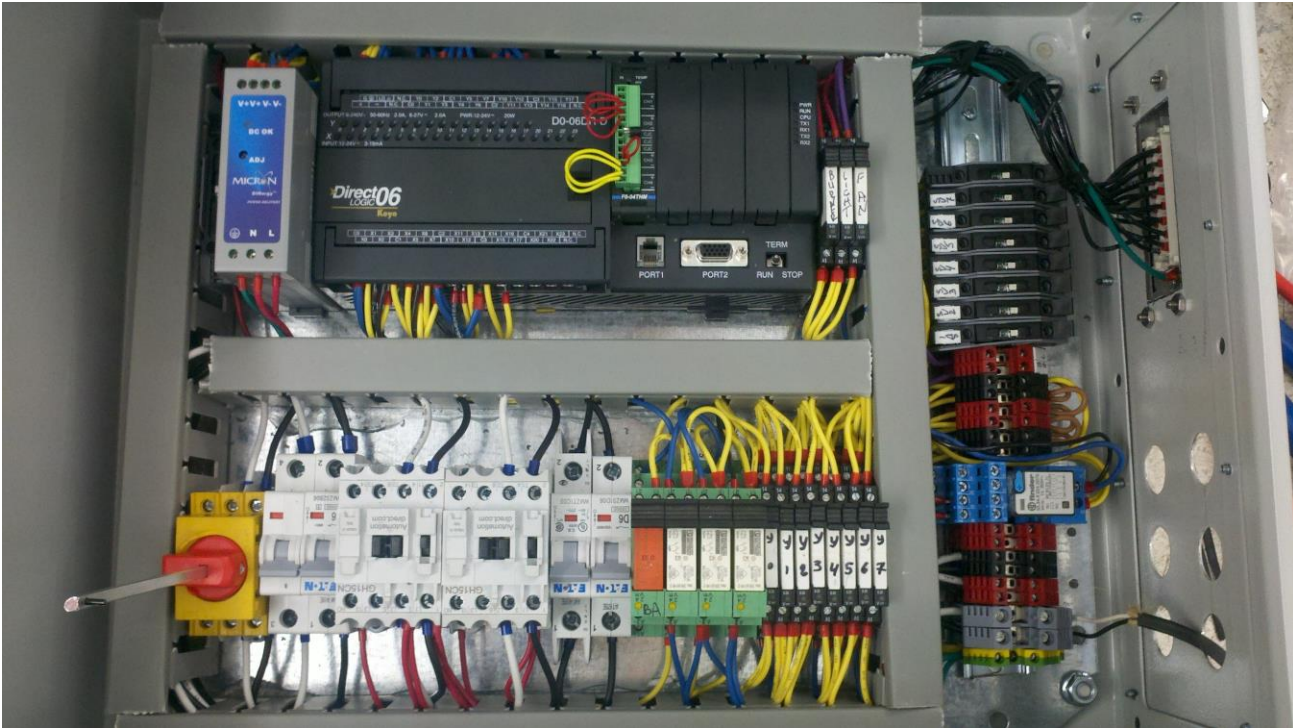
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ELECTRICAL CONNECTIONS

Fig. 1



The control requires single-phase electrical connection.



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Burner Connections

See accompanying Midco Burner Manual

Note: High Pressure regulator used only when low pressure gas is not available in the building

Burner location – Under front panel of oven



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Water Supply

Cold water ½" copper pipe to water solenoid with shut off valve and union installed in burner compartment. Steam floor sink should be located in front or at back of oven.



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Water Supply

Fig. 4



½" connection to water supply



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Venting Instructions

All venting must comply with local codes.

The gas exhaust venting shall be 8" double wall with a Tee and 8" barometric damper. A 24" extension on the Tee is required to attach the barometric damper. See picture and spec sheet for detail.

A straight pipe is recommended through the ceiling, but not required. No more than two 45° fittings can be used within a distance of 3 feet. An exhaust fan can be added above the roof, if required to increase draw.

Note: if any of these recommended configurations are not applicable in the building, a draft inducer needs to be calculated by the mechanical engineer to obtain, when the burner is off, a 0.01 - 0.04 WC negative pressure inside the combustion chamber still hot at site hole above burner. Make up air ON and exhaust fan ON, all windows and doors closed.

8" Diameter single wall. Galvanized is acceptable, but stainless steel recommended only for durability

Steam exhaust and fan motor

Calculations and specs must be performed by mechanical engineer according to local codes requirements. CFM for roof-mounted fan, if required, should be between 750-800CFM.

When fan is required, it has to be interlocked with make-up air fan and should be started either by wall mount switch or opening of the oven door. To be determined and supplied only by HVAC company/mechanical engineer, not by TMB Baking.

Calculations and specs have to be performed by mechanical engineer according to local codes requirements. See spec sheet for details.

Fig 5



Tee and Barometric Damper.



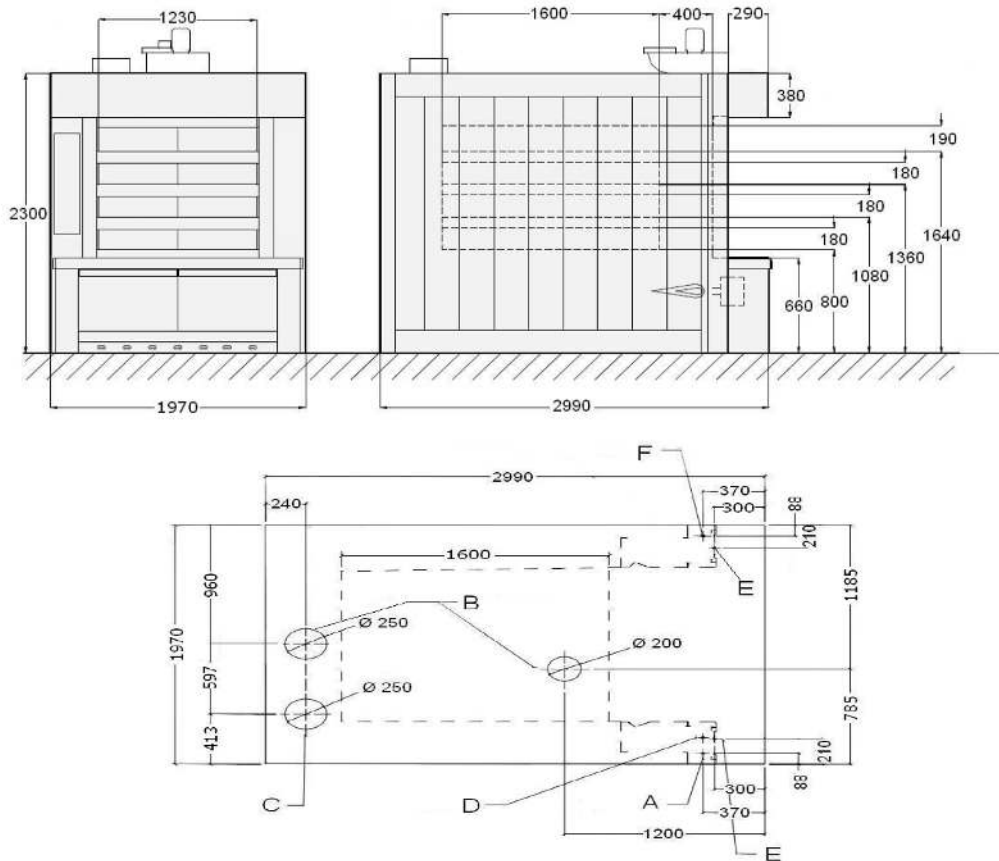
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Gas & Steam Venting, Water and Condensate Connection Locations

Front, side & overhead view of Stoneheart Model 1216-D (Two Steam Generators on Each Deck)



SPIEGAZIONE SIGLE - EXPLANATION OF INITIALS

- | | |
|---|--|
| <p>A Entrata acqua 1/2" altezza 2300 mm
<i>Water entrance 1/2" height 2300 mm</i></p> <p>B Scarico vapori
<i>Vapour discharge</i></p> <p>C Scarico fumi
<i>Fumes discharge</i></p> <p>D Energia elettrica 3 fasi + terra altezza 2300 mm
<i>Electric energy 3 phases + earth height 2300 mm</i></p> <p>E Scarico acqua 1/2" altezza 200 mm
<i>Water discharge 1/2" altezza 200 mm</i></p> | <p>F Allacciamento gas/gasolio altezza 2300 mm
<i>Gas/Gas-oil connections height 2300 mm</i></p> |
|---|--|

100 mm = 3.937"



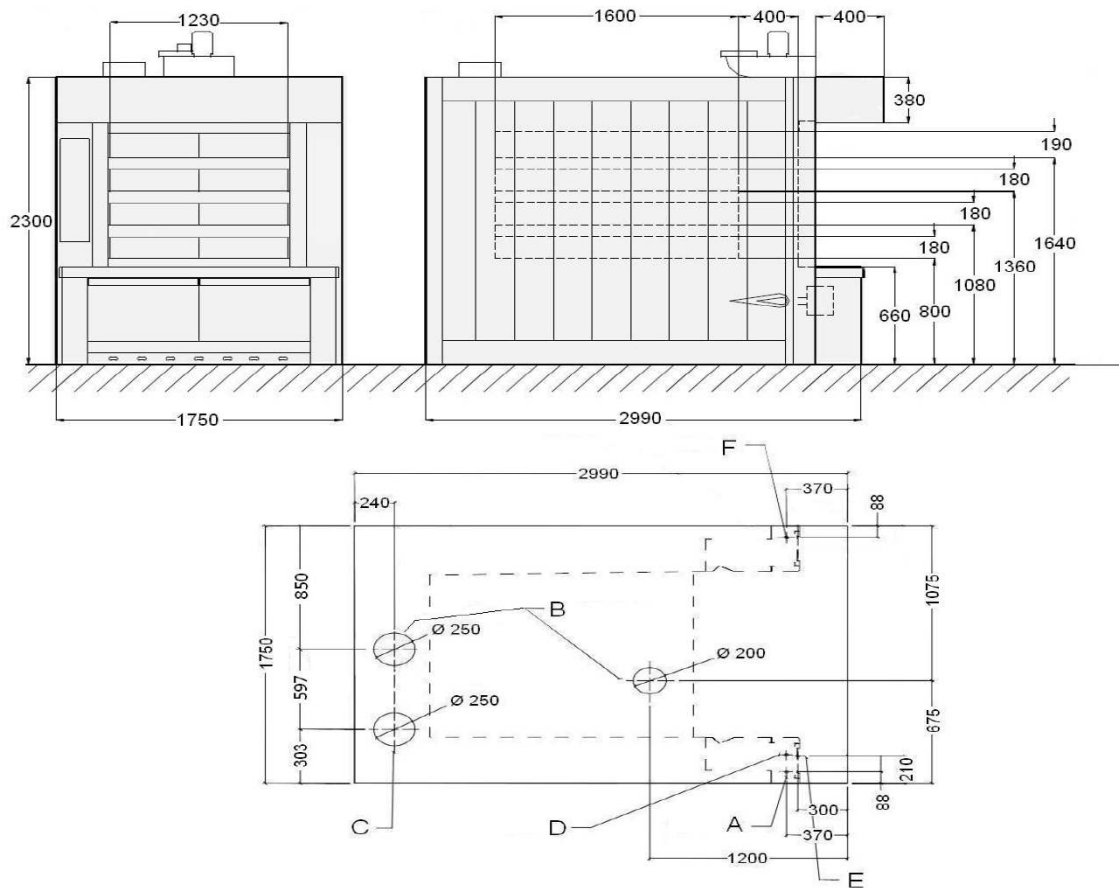
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Gas & Steam Venting, Water and Condensate Connection Locations

Front, side & overhead views of Stoneheart Model 1216-S (Single Steam Generator in Base of Oven)



SPIEGAZIONE SIGLE - EXPLANATION OF INITIALS

- | | |
|---|--|
| <p>A Entrata acqua 1/2" altezza 2300 mm
<i>Water entrance 1/2" height 2300 mm</i></p> <p>B Scarico vapori
<i>Vapour discharge</i></p> <p>C Scarico fumi
<i>Fumes discharge</i></p> <p>D Energia elettrica 3 fasi + terra altezza 2300 mm
<i>Electric energy 3 phases + earth height 2300 mm</i></p> <p>E Scarico acqua 1/2" altezza 200 mm
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<i>Gas/Gas-oil connections height 2300 mm</i></p> |
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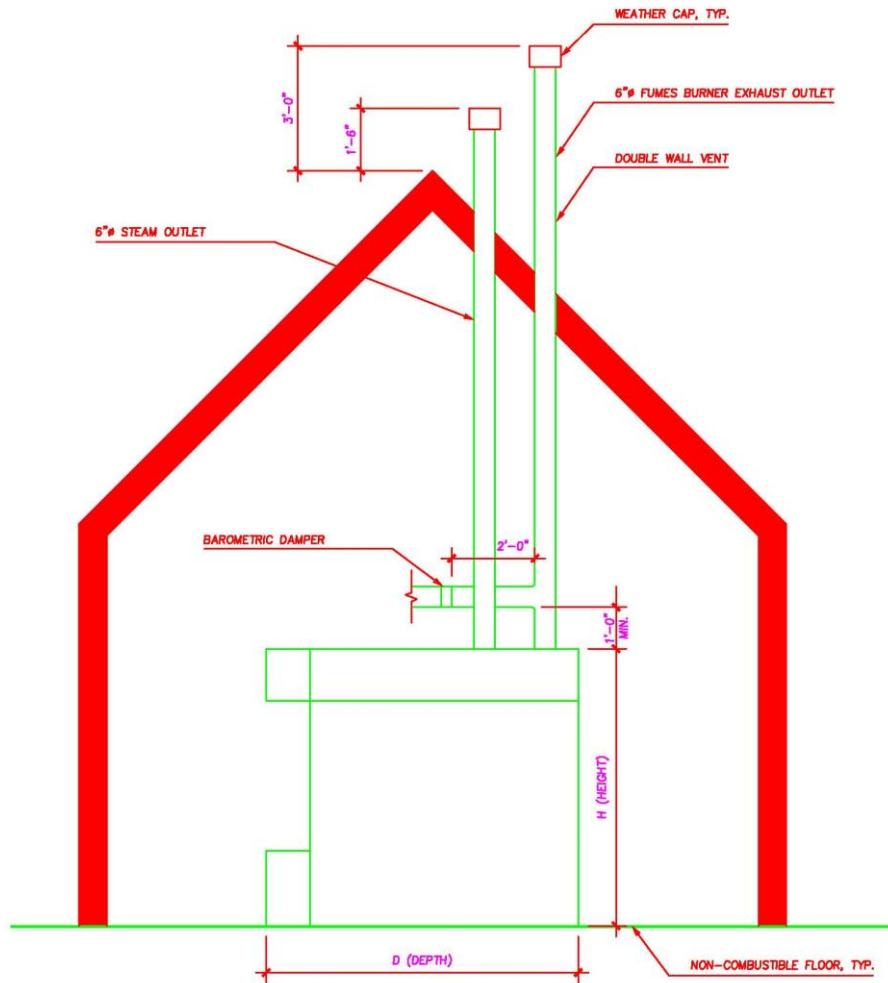
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Elevation view of exhaust lines for TAG, Stoneheart™, and Steelheart™ ovens

(Note that all ducting in image below should be 8", double wall for exhaust and single wall for steam.)



TMB BAKING - ZOOM OVEN (ELEVATION)
N.T.S.
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Photo of Stoneheart 1216-D with Control Panel. Steam exhaust fan above hood. Sub-control panel located on top of oven, left side. Dimensions vary by model.



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