EM Bakery Equipment

Installation guide for Bassanina Roller 89 Rack Ovens

October 2022

READ FIRST
Notice to Reader

This is a guide for the receiving and installing of Bassanina Roller 89 rack ovens. It is only a guide and this process is required to be performed by trained personnel only, approved by the manufacturer. EM Bakery Equipment is not held liable in anyway for any damage, or personal harm. For detailed installation instruction, always refer to the manufacture's Owner Manual (oven and burner). Installer is responsible to ensure compliance with local city/county codes and bylaws.

Transporting Oven

Pick up oven with electric jack. Always pick up from the side with heat exchanger closest to the jack. (the weight of the oven is on this side). You can transport the oven down a hallway or narrow corridor in this style. You will require minimum 74” width and 94” height (to factor in jack).

Transporting Oven

Control Panel Column

It is advisable to move oven in a balanced manner with one fork under control panel column. In this way the oven is balanced and will not lean left or right, adjust if leaning. Grabbing the oven from the front in this way allows you to place the oven into position perfectly next to another unit.

Notice to Reader

Oven is designed to be installed on a level, non combustible floor. See Manufacturers Manual for more details.

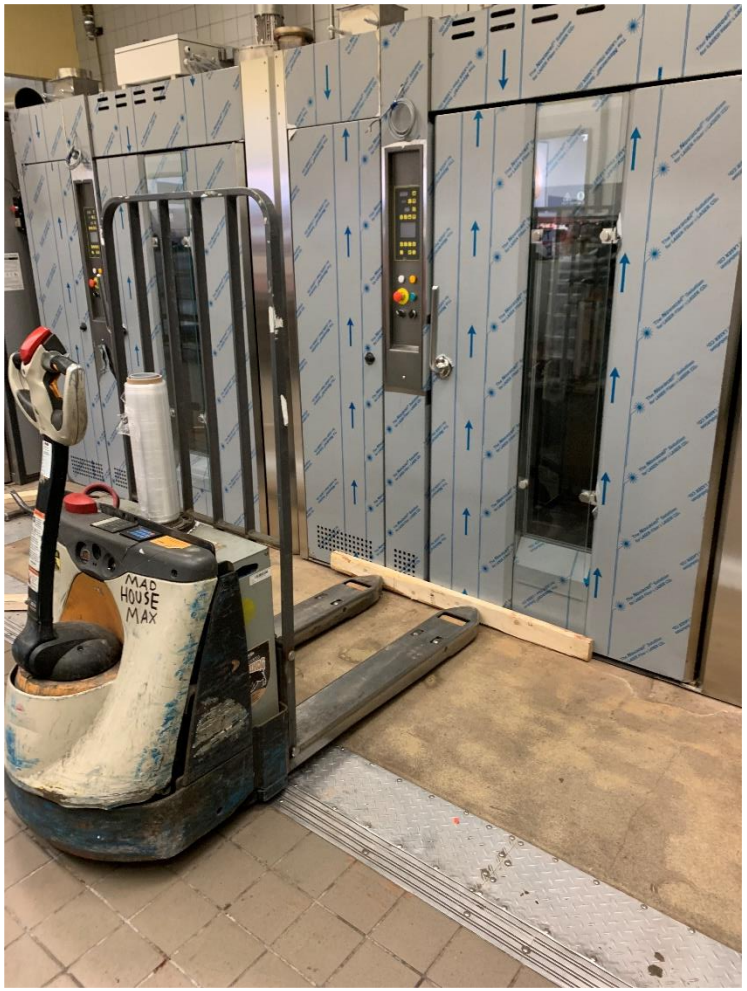
Placing Oven on Floor

It is recommended to block the oven on the rear corners, front right corner (when facing oven) and under control panel post. Do not put a block under the oven below the front burner door (left corner), this is the only area of the oven floor with less support. See pic for perfect blocking

Placing Oven on Floor

Using J-bar or other lifting device, slightly raise oven off dunnage and lower fully to floor. Perform on all four corners until oven is fully on floor.

Positioning Oven



It is recommended to use 2”x4” or 4”x4” block in front and on sides of oven for “bumping” oven into place and/or to push ovens together when beside another oven. Back up the power jack or forklift and then drive it forward against wood dunnage. You can slowly bump the oven into exact position in this way.

Leveling of Oven

Once oven is in proper position, open door to baking chamber fully. Inspect door for stable momentum and not closing on itself when fully opened. Shim oven accordingly if door closes on itself when fully opened.

**Oven door DOES have a sloped cam in its base and will close on itself if 50% closed, this is normal.

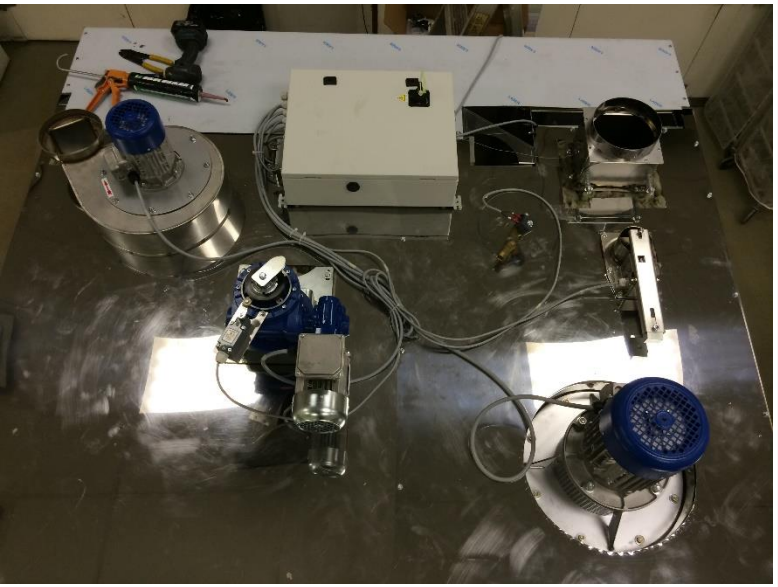
****IT IS NOT normal if door closes on itself in fully open position**. If this occurs, use stainless shim plates. Shims are not provided by factory.

Unpacking Oven

Once oven has been properly placed and positioned, it can be emptied of components and the components can now be positioned for installation on the unit.

Normal order of installation: oven roof mechanical components, then the hood, then the base components, and finally the electrical box is mounted. Electrical components are then mounted and fully wired. Use this process for maximum efficiency of installation.

Mounting Roof Mechanical Units



Prepare caulking tube and gun, prepare bolt/fastener kit bag, and place all roof mechanical components on roof to begin installation.

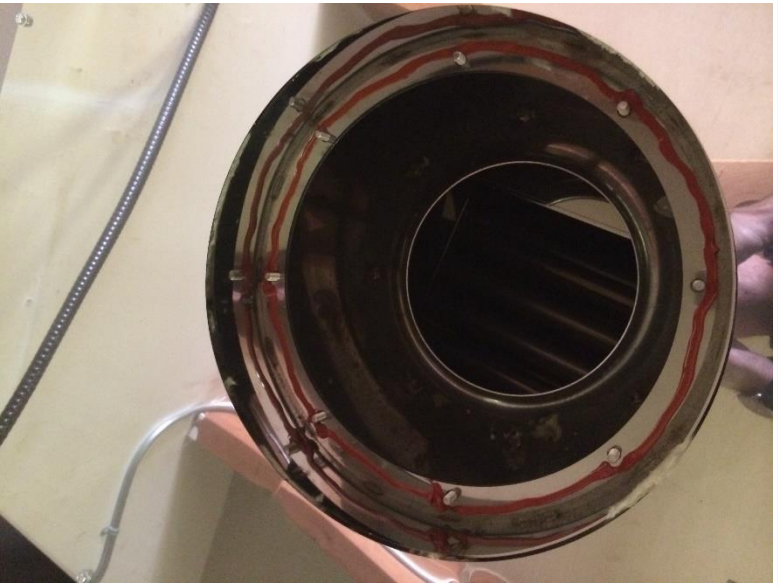
Roof mechanical components are: chimney box, auto damper, air circulation motor, rope gasket, circular flange, canopy fan / motor, turntable transmission, turntable motor/gear drive assembly, water solenoid valve assembly.

See pic for component reference.

Air Circulation Motor Install

Place metal flange inside cavity for air circulation motor.

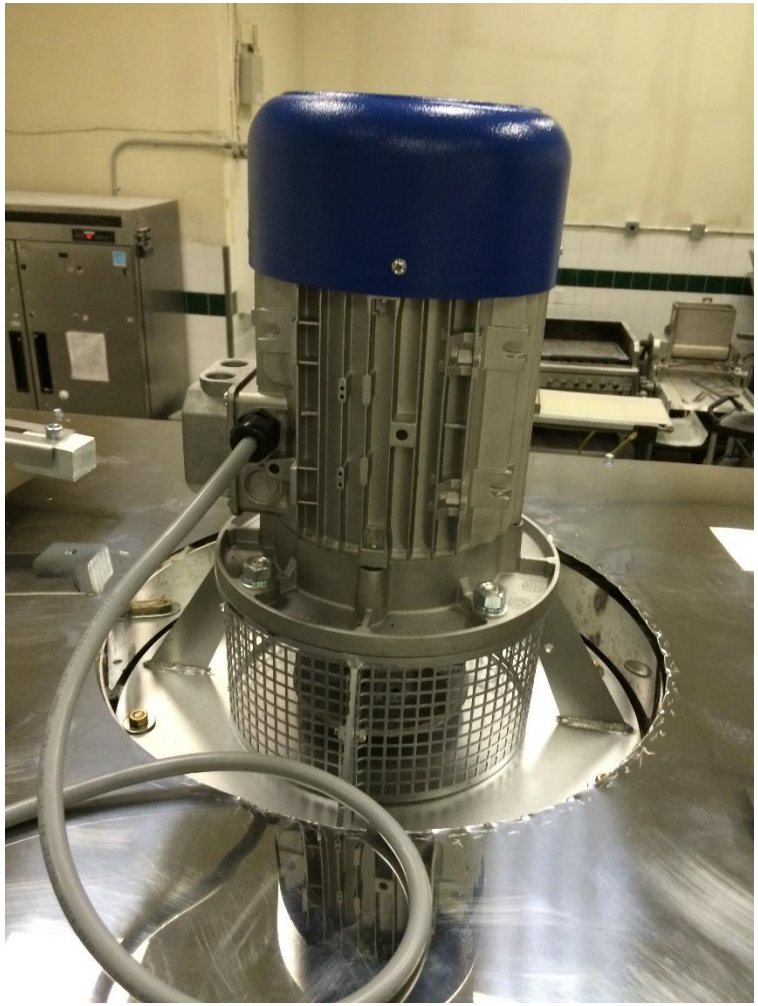
Air Circulation Motor Install



After flange has been placed in cavity, place a bead of ***high temperature silicone*** on to the flange all around and outside of the studs.

Place the rope gasket on top of the silicone bead.

***DO NOT cross the gasket onto itself*,** let the excess gasket sit on the outside of the flange.



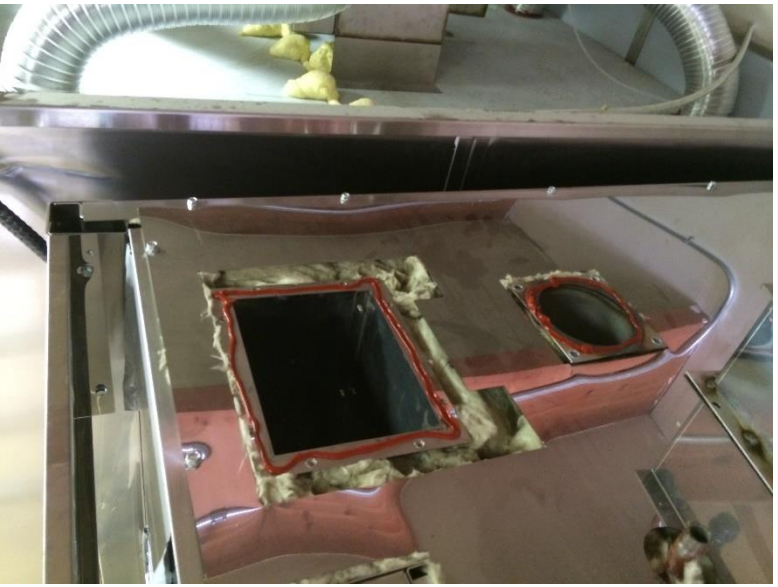
Air Circulation Motor Install

Drop the air circulation motor assembly into the cavity and fasten using M8 washers and **M8 BRASS nuts only**.

If flange on motor assembly is tight around sheet metal, trim sheet metal using metal sheers.

Once motor assembly is fastened down, spin the motor fan to ensure there is no binding and that the fan spins freely.

Mounting Chimney Box



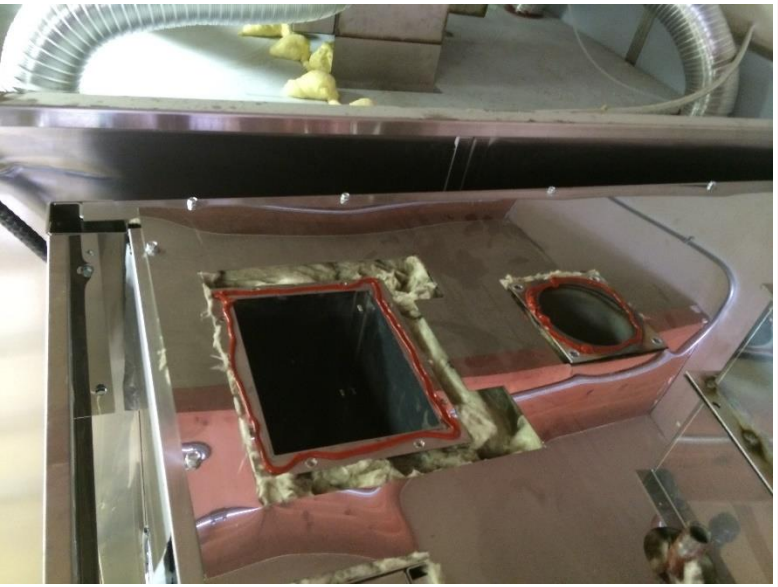
Place bead of silicone on flange of chimney box mount.

Place chimney box onto flange and fasten using M6 bolts

Mounting Chimney Box

For Chimney box mounting position: ensure the blast relief door (spring assembly) faces the rear of the oven.

Mounting Automatic Damper



Place bead of silicone around flange for automatic damper

Mounting Automatic Damper

Mount automatic damper using M8 bolts

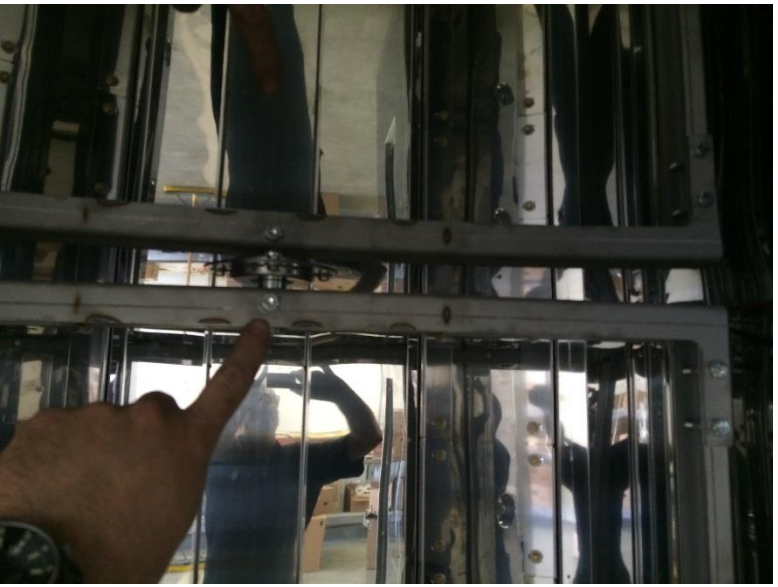
Note: bolt holes in damper itself are laser cut and precise. If there is no clearance, drill out holes slightly to allow easy fit

Ensure hinge bolt on damper is loose and allows damper to open and close freely

Move counter weight fully to rear of arm

Damper arm faces rear of oven when mounting damper

Mounting Turntable Transmission



Open door to baking chamber

Temporarily remove bolt on turntable crossbar (this is holding the intermediate shaft in place).

Climb back on oven roof

Reach into the cavity in center of oven. Dig into the insulation and pull out intermediate shaft

Bolt intermediate shaft to base of shaft on transmission

Mounting Turntable Transmission

(After bolting intermediate shaft to transmission shaft using long M10 bolt and nut)..

Invert transmission and place inside cavity

The grease point in transmission faces front of oven for correct orientation

** Someone will need to assist in guiding intermediate shaft back into crossbar of turntable in baking chamber

Mounting Turntable Transmission

Once intermediate shaft is back in crossbar of turntable, center the transmission and fasten down using M8 bolts and M8 washers

In baking chamber, raise turntable platform, align crossbar hole with hole on intermediate shaft and reinsert long M10 bolt, washers and nut. Tighten assembly

Turntable height to loading ramp can be adjusted via 6 side bolts on the left and right of the base of the turntable. Ensure turntable lip height is same as ramp and turntable is level front to back and side to side.

Mounting Turntable Gearbox

Place turntable gearbox onto transmission

Ensure male tab on gearbox shaft sits inside female receiving sleeve in transmission shaft. Gearbox flange should sit flush on transmission. If not, check alan head bolt on base of male tab gearbox shaft. It may require filing down sides to fit.

If mounting threads on transmission are not clean, run M10 / 1.5mm pitch standard tap through holes to clean threads.

Fasten gearbox using M10 bolts

Gearbox motor faces rear of oven when mounted

Mounting Canopy Fan

Place unbroken ring of silicone completely around and outside of the holes to mount canopy fan

Mounting Canopy Fan

Mount canopy fan housing onto ring of silicone, let studs fall through holes on roof of oven, position housing to exit front outside corner of oven

Using vise grips, pinch together base of canopy fan housing against roof of oven

Fasten canopy fan housing using M8 washer and brass M8 nuts

Tighten nuts by reaching inside cavity

Mounting Canopy Fan

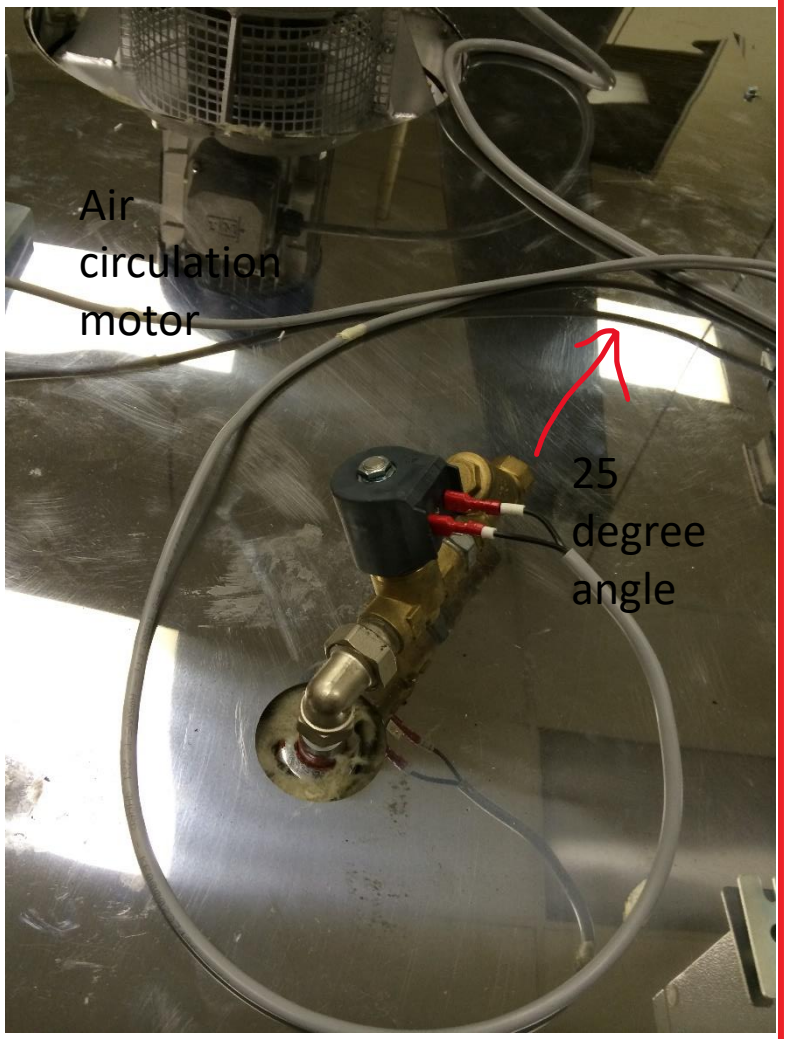
Place ring of silicone onto canopy fan housing

Mount canopy fan motor assembly on top of housing and fasten using M8 regular nuts

Mounting Canopy Fan

Completed canopy fan mounting

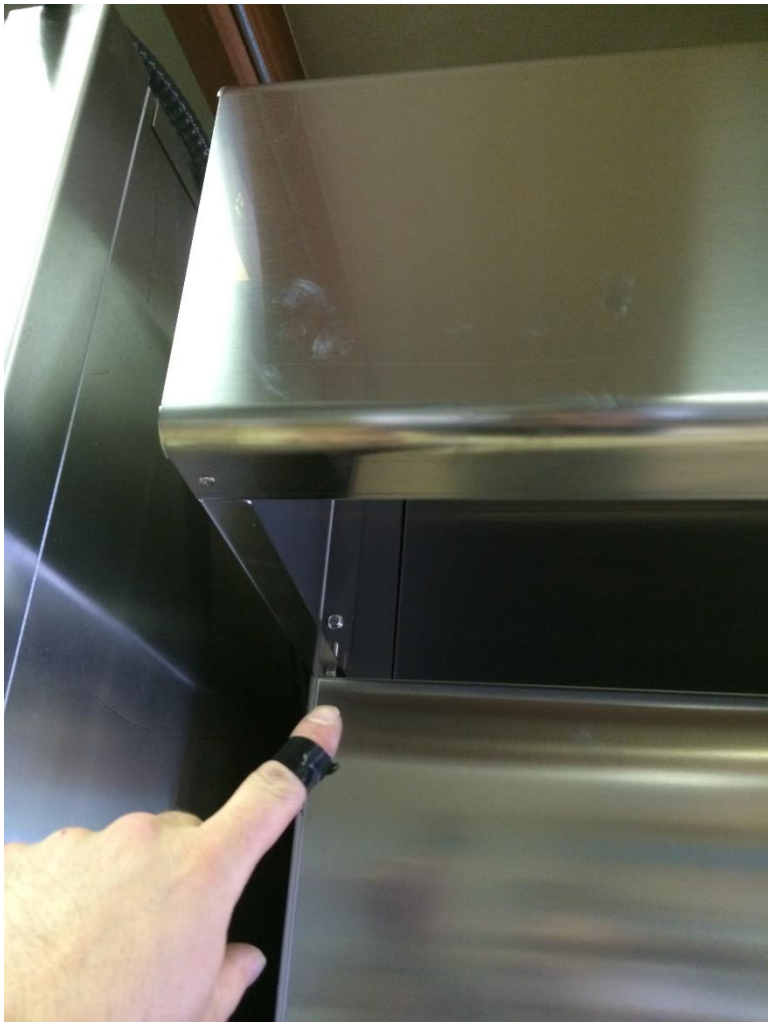
Mounting Water Solenoid



Using Teflon tape, attach elbow to pipe protruding through roof. Completely turn solenoid valve assembly until tight

Position solenoid valve to rear of oven, and slightly away from air circulation motor. 25 degree angle thereabouts away from motor is appropriate.

Mounting Hood



Remove two mounting screws on top front edge of oven roof

With assistance, raise hood and place against front of oven

Using M6 bolts, fasten hood via right and left side mounting holes and then re fasten using the two previously removed screws on top of oven

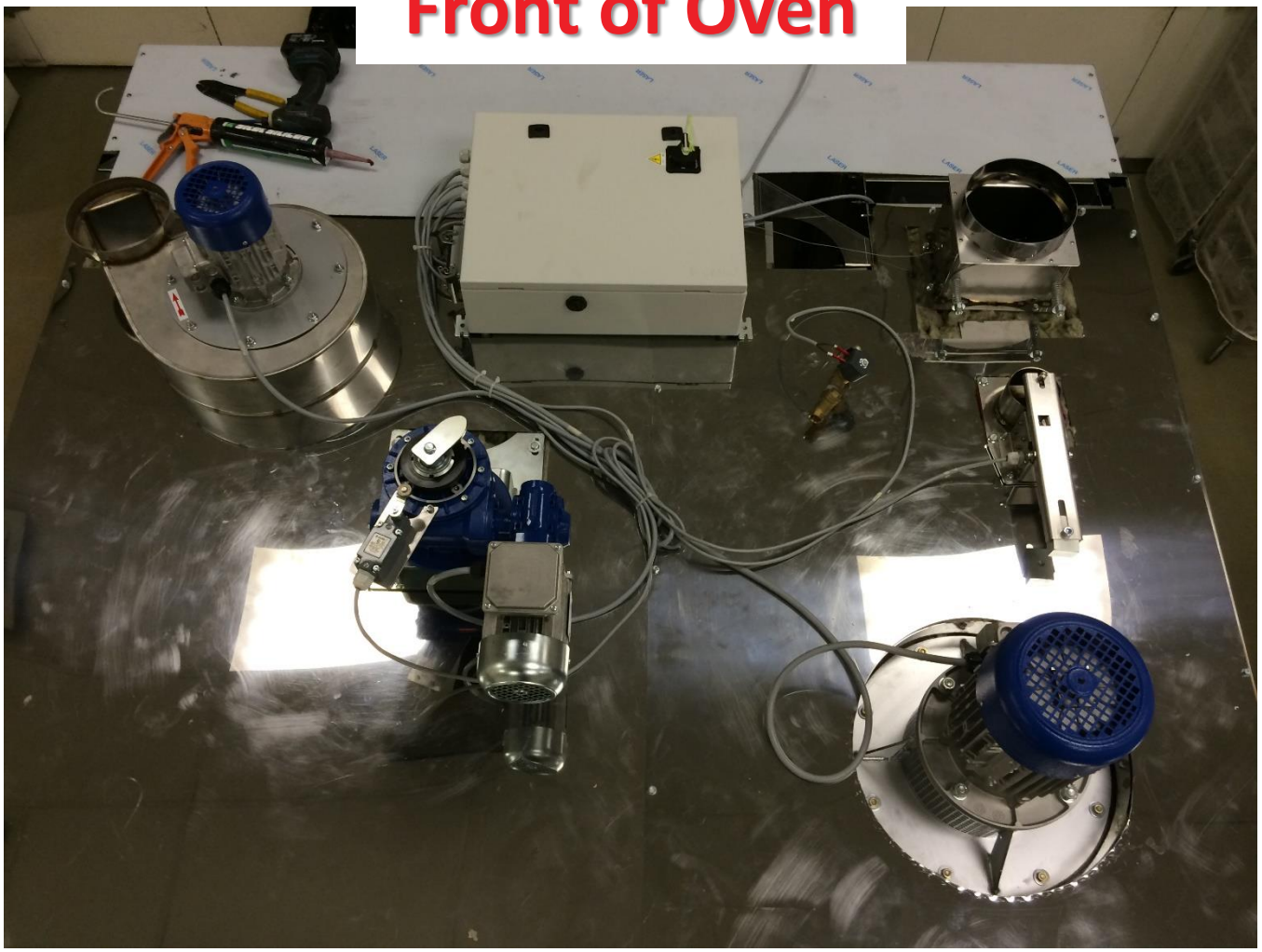
Ensure top door pin sits inside hood mount

Mounting Hood

Pic reference two mounting screws on other side of hood

A picture depicting complete roof top mounting of components including electrical box and hood

Front of Oven



Mounting Turntable Rack Guard

Foot Lock

Using M8 nuts and bolts, fasten rack guard onto vertical posts inside the baking chamber

Place baking rack inside baking chamber onto turntable, allow 1” of free space in front of rack for foot lock (raise lock tab to ensure 1” clearance from rack)

Mark holes, drill and mount foot lock for rack

Mounting Door Sweep

Mount door sweep to base of door with M6 bolts and washers

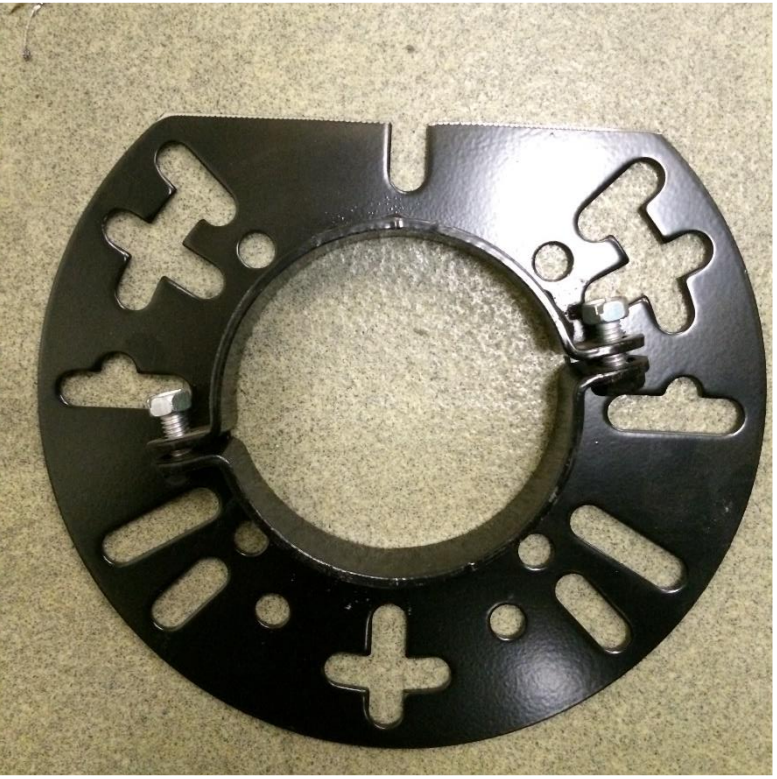
You may need to raise or lower door sweeps slightly as per floor for tight fit / seal

Mounting Burner

Using zip disc, cut burner mounting flange in straight line across top of flange

Allow 1” from top of flange

Mounting Burner



Sample pic of properly cut mounting flange

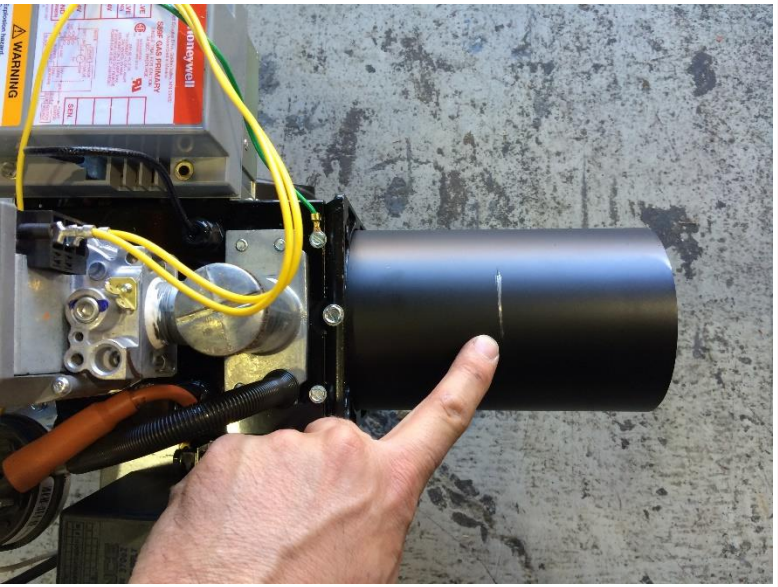
Mounting Burner

Inside burner envelope is mounting gasket

Match mounting gasket to correct orientation of burner flange (holes of gasket, holes in flange, and all bolt holes align)

Mount burner flange / gasket using M8 brass bolts. **DO NOT USE stainless bolts**

Mounting Burner



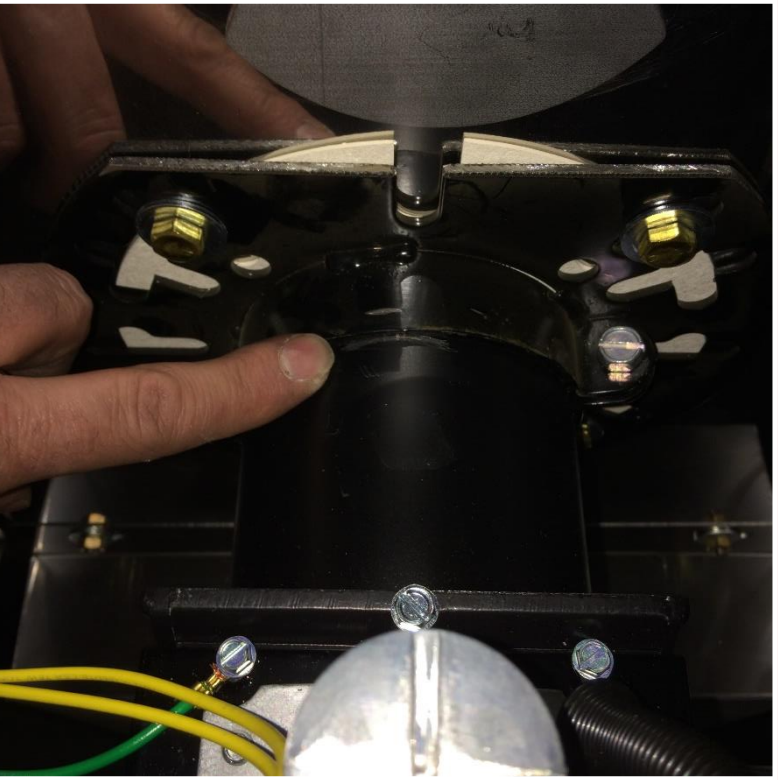
Measure 3 ¾” inches from end of tube to burner, scribe line

Slide burner tube into flange and match line to edge of flange

Tighten flange to secure burner

Ensure burner position is level and straight

Mounting Burner



Picture depicting scribed line to edge of flange

Mounting Electrical Box

Unpack electrical box and components

Turn box upside down and mount stainless feet.

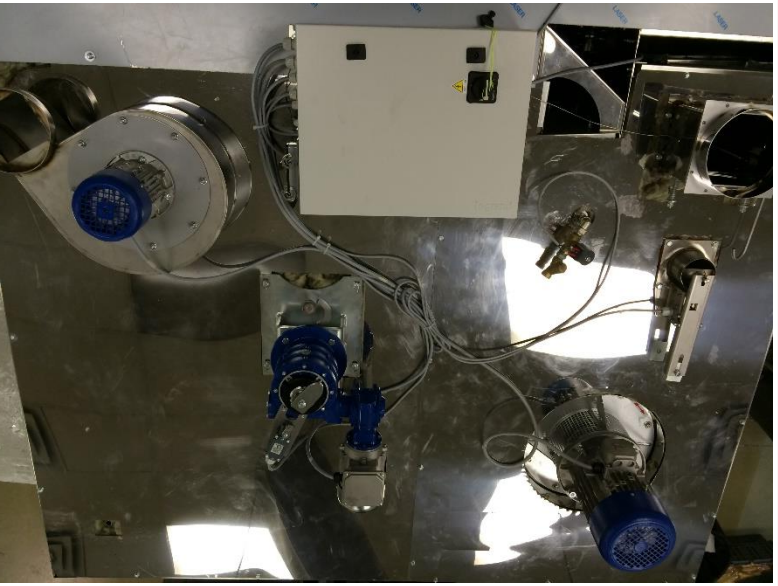
** There is no pre drilled holes for stainless feet and holes in base of box are not for this. They are redundant.

Position feet as in picture and use self drilling screws to mount feet

Carry box onto hood and position as per next picture

Mounting Electrical Box

Front of Oven

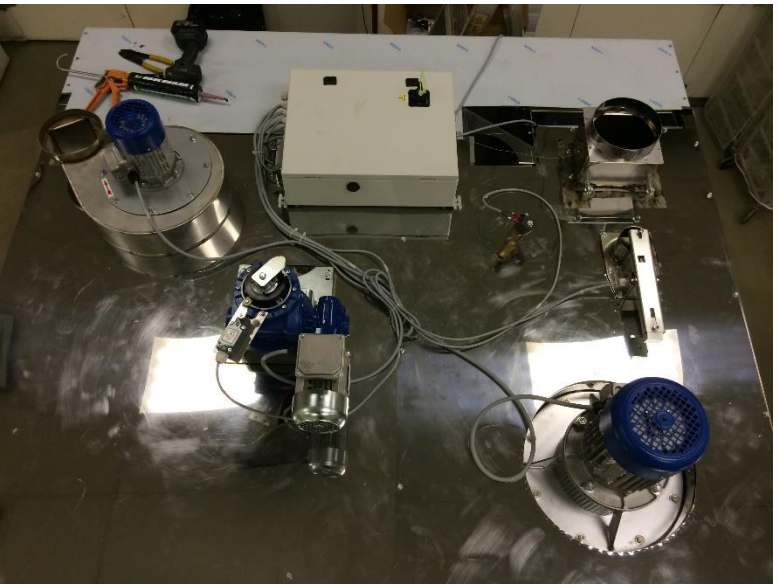


Electrical box shall be mounted 4” onto hood and 3” from cavity to control panel. This seems to be the best access from front of oven to service box. Lid hinge is on rear of oven, exposing access to electrical components from front of oven.

Screw both front feet onto hood, leave rear feet un fastened

Wiring Oven

Front of Oven

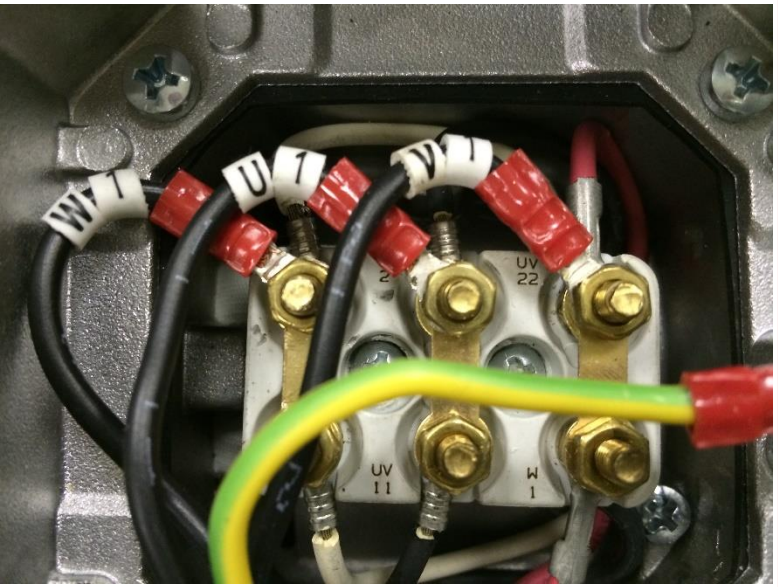


Pictured depicts correct wiring for oven

Reference electrical schematic for guidance to wiring

Ensure motors are wired to North American delta connection with tabs across to posts, see further pictures for reference.

Wiring Oven

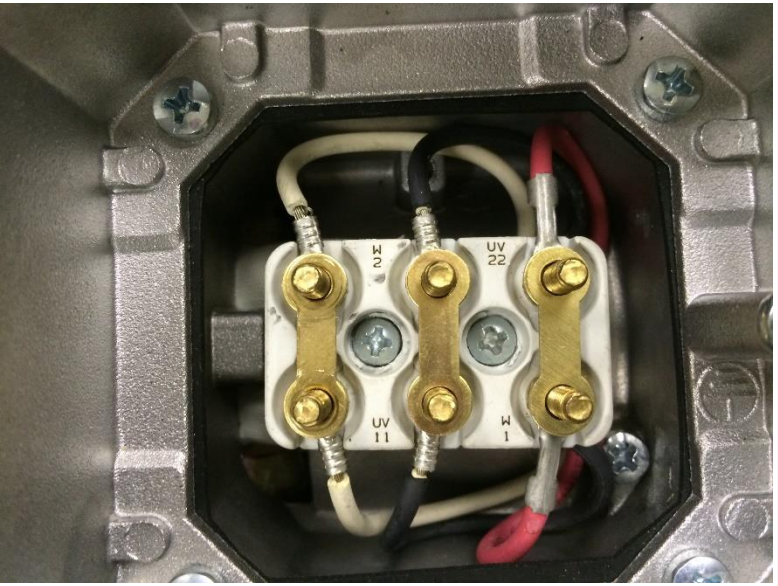


Picture shows example of correct wiring of motors in delta connection

Tabs across to opposite side posts

Wiring label respective to W, U, V inscription on terminal base

Wiring Oven



Picture depicts correct position of tabs to opposite post.

All motors wired this way

Wiring Oven Solenoid Valve

Remove black mounting clip on solenoid valve and discard

Mount wire terminals to leads, by pushing into prongs of coil

Non polarity sensitive, you can wire to either prong or visa versa

Wiring Automatic Damper

Automatic damper has wiring block

Wire to block and lay on roof of oven

If damper has connector, un hinge pendulum arm and expose internal wires.

Connect wires and mount connector to side wall of damper

Re connect pendulum and ensure hinge bolt is loose and pendulum moves freely

Wiring Control Panel

Mount door switch

Feed temperature sensor up through chase

Feed connection plug up through chase

Feed bulb wires through light ports

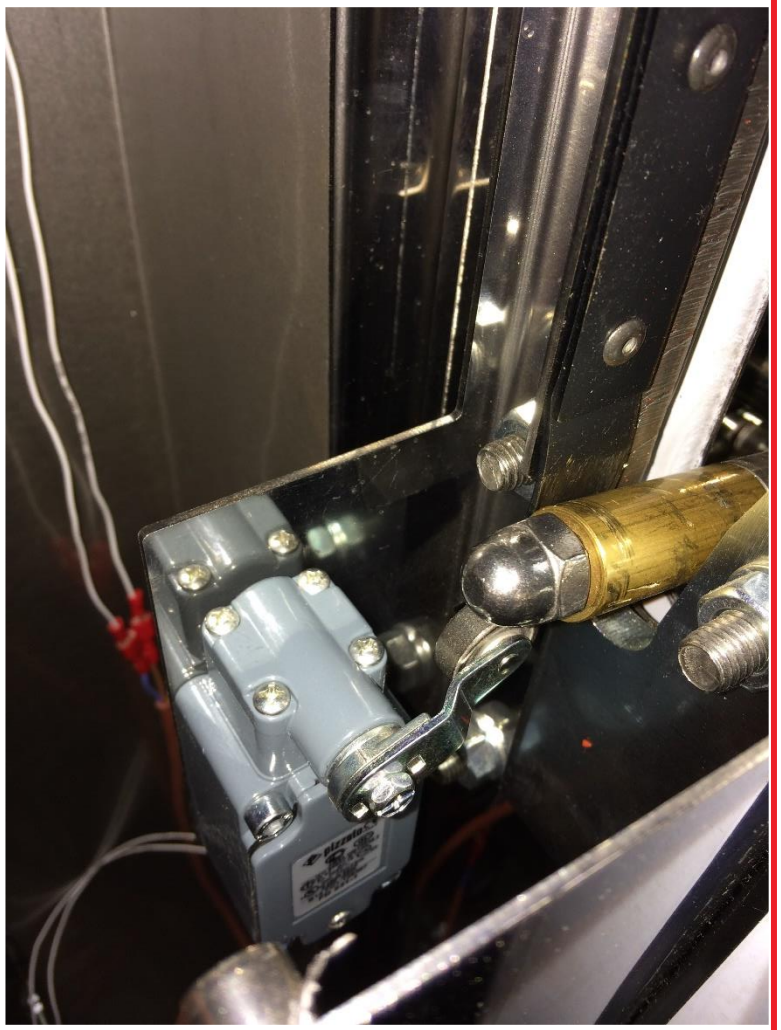
Wiring Door Switch

Obtain door switch and reverse lever arm to face rear of switch

Position lever at 2pm position of clock

Mount using M5 alan bolts and nuts

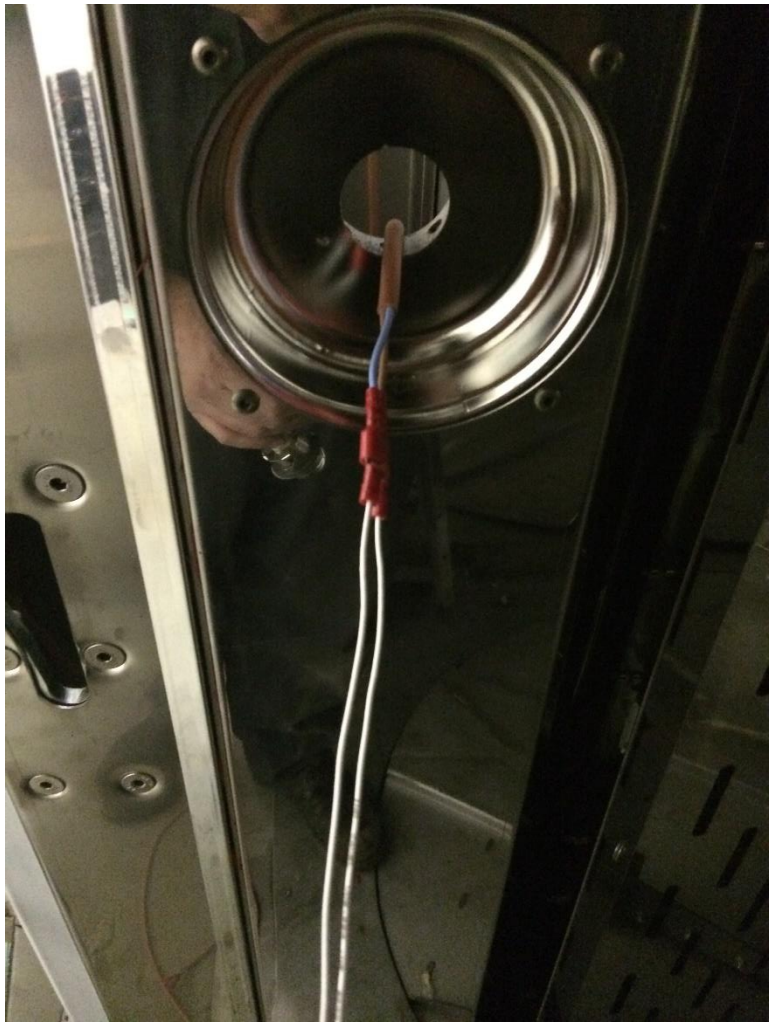
Wiring Door Switch



Once switch is mounted, operate door handle and ensure correct operation with switch.

Switch should ‘click’ and actuate once handle lever is lowered upon it

Wiring Baking Chamber Lights



Pass wiring for lights through port holes of light socket

Connect with leads on lights

Feed wires back through port hole and press in light housing / bulb cover

Wiring Burner

Unscrew burner controller and expose wiring

Input supply wire and connect to housing

Supply wires have N=neutral, U=Power, R=relay. Omit R wire it is redundant. Connect ground wire.

Re attach burner controller

Wiring Burner

Add jumper wire to both T terminals on burner

Jumping both T terminals allows burner to operate under control of oven control panel

Not jumping T terminals will void operation of burner

Wiring Hood Lamp

Drill 3/16” hole above oven control panel, 1.5” from below hood.

Feed hood lamp wire through hole and through hole in hood

Wire lamp and fasten to front of hood

Mounting Temperature Sensor

Mounting High Limit Security Sensor

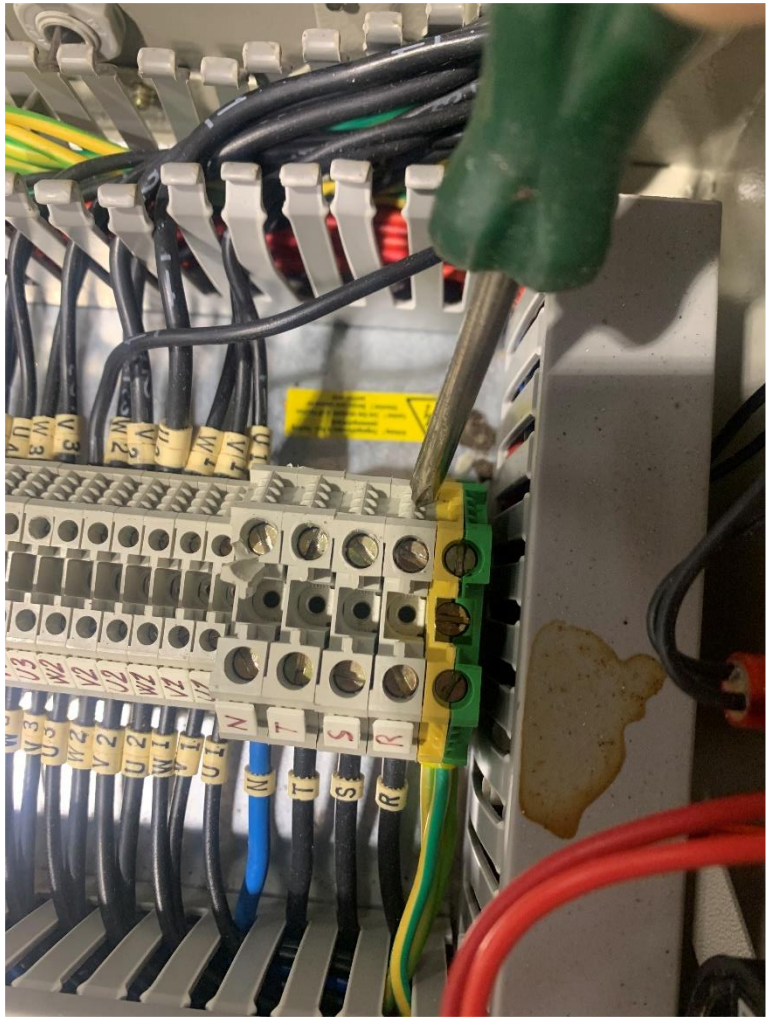
Mounting Turntable Switch

Commissioning Oven Components

Upon completion of component installation and wiring ****and after utilities to oven have been installed**** …

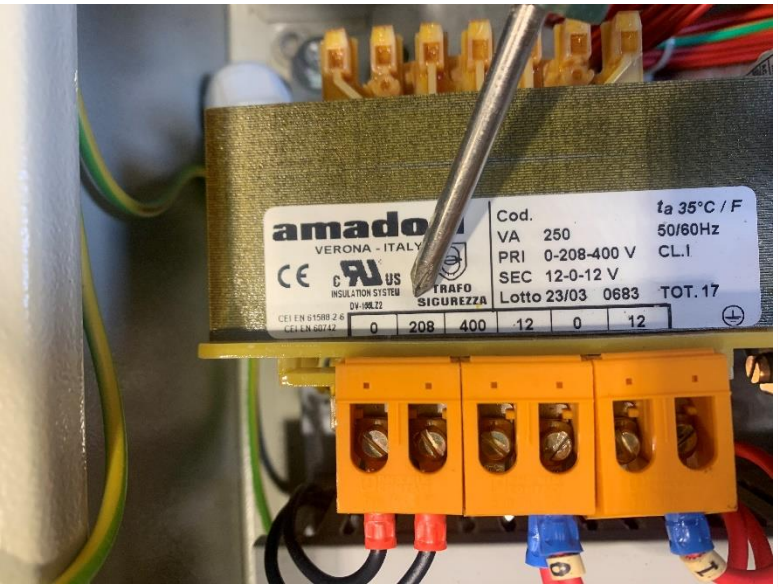
Begin with oven commissioning, start up, burn out and testing

Commissioning Oven Electrical



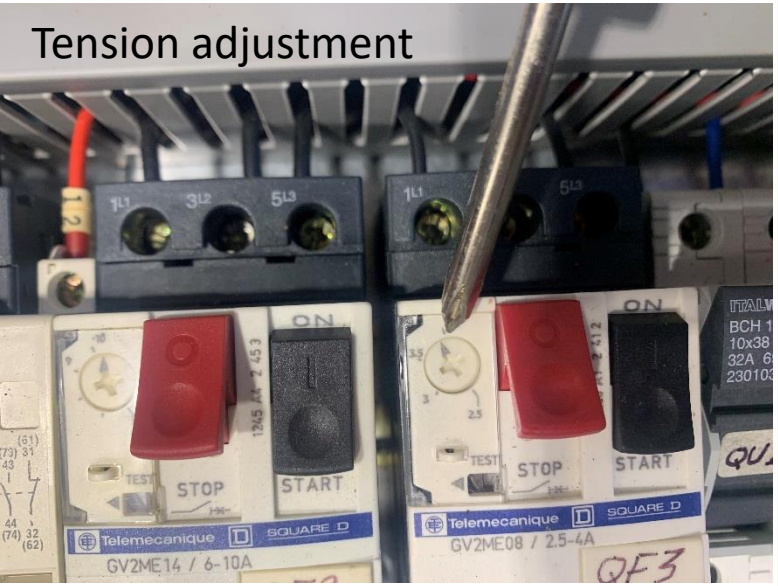
Power on oven, ensure supply wires are correctly positioned in the correct terminals and supply voltage is correct.

Commissioning Oven Electrical



Ensure the tabs on transformer are set to local power supply.. 0/208v or 0/240v for example

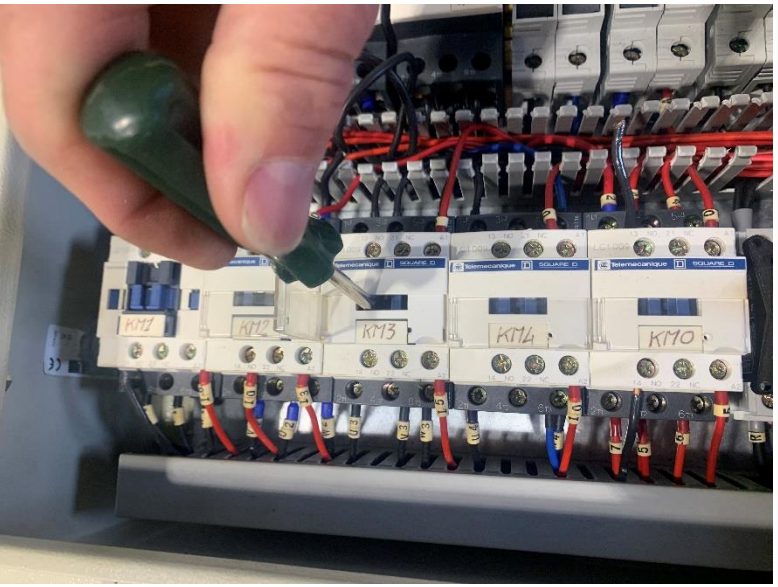
Commissioning Oven Electrical



Ensure overload tabs set (black tabs down)

Ensure tension settings for motors are set as per the motor data plate

Commissioning Oven Electrical



Temporarily press coil button on individual contactors for respective motors and observe motor rotation.
* All motors rotate clockwise*

Power OFF oven and reverse two leads on motor to correct rotation if rotation is incorrect. Power ON oven test again and ensure correct rotation

Reference electrical schematic for contactor / motor relationship

Commissioning Oven Electrical

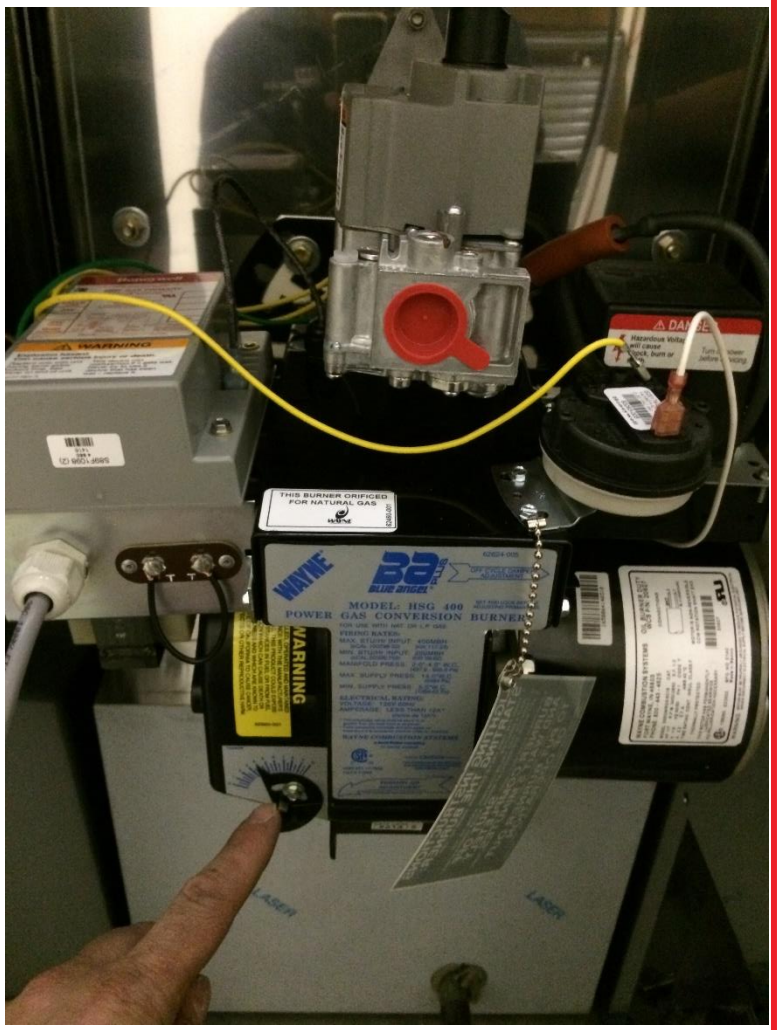
Via control panel, energize auto damper and inspect for correct operation. Ensure damper is fully closed when OFF.

Via control panel, energize water solenoid valve and inspect for correct operation

Inspect turntable limit switch on gear reducer and adjust tab to reference correct stop position of turntable

Install high limit bulb in chimney box and silicone in place

Commissioning Oven Burner



Reference Wayne Combustion manual for correct burner startup and calibration. Orifice size and air gate settings.

Reference oven data plate for correct infeed and output gas settings.

Note** gas supply pressure should be low pressure and below 9”wc and above 5”wc. Notify gas installer if this is not the case.

Commission door

Using M6 Alan socket, check door hinges and ensure tight bolts

Ensure door opens and closes properly and door handle / bushing engages limit switch correctly.

Commissioning baking chamber vents

Vents are factory set to be open 4mm or 5/32 on all vents.

Test bake using full racks of product

Top section of rack maybe a bit light

Adjust top two vent sections to 6mm or ¼” open. Test bake again and adjust accordingly

Commissioning Turntable Clutch

Final Commissioning of Oven

Reference oven manual for final oven commissioning steps and calibration

Upon completion of electrical, gas, venting, chimney damper and water - testing components and adjustments….

Begin oven burn in sequence as per oven manual.

Set temp to 80C/176F and have oven sit for one hour, increase incrementally to 130C/266F, 180C/356F, 210C/410, 250C/482F. ** **Each stage hold temp for one hour.**