SERVICE MANUAL



OV500-EE SERIES GAS RACK OVENS AND OV500 SERIES ELECTRIC RACK OVENS INSTALLATION INSTRUCTIONS

OV500G1-EE	**ML-132518**	**(Before Jan 2022)**
OV500G2-EE	**ML-132525**	**(Before Mar 2015)**
OV500E1	**ML-132522**	**(Before Jan 2022)**
OV500E2	**ML-132524**	**(Before Apr 2015)**
OV500G2-EE	**ML-132529**	**(Feb 2015 thru Dec 2021)**
OV500E2	**ML-132531**	**(Mar 2015 thru Dec 2021)**

- NOTICE -

This Manual is prepared for the use of trained Hobart Service Technicians and should not be used by those not properly qualified.

This manual is not intended to be all encompassing. If you have not attended a Hobart Service School for this product, you should read, in its entirety, the repair 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 Hobart Service Technician.

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A Product of Baxter MFG. Co., Inc 19220 State Route 162 East Orting, WA 98360

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SERVICE UPDATES

SERVICE UPDATES - OV500-EE SERIES

September 2026

- Updated HARDWARE REFERENCE GUIDES.

February 2022

- Updated ML date range information on front cover.
- Added HARDWARE REFERENCE GUIDES.

July 2020

- Updated SPECIAL TOOLS.
- Added LOADING DOOR UNCRATING.
- Updated Altitude Correction Chart in INITIAL STARTUP INFORMATION MATERIAL.

February 2017

- Updated ML information on front cover.
- Updated Anchor Point in IMPORTANT FOR YOUR SAFETY.
- Updated OVEN SECTIONS.
- Updated FLOOR / THRESHOLD.
- Updated STEAM SYSTEM.
- Updated DOOR HANDLE.
- Updated DOOR ASSEMBLY.
- Updated HOOD ASSEMBLY.
- Updated AIR BAFFLE & GREASE FILTERS.

IMPORTANT FOR YOUR SAFETY

IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL GAS EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER

IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

KEEP AREA AROUND OVEN CLEAR OF COMBUSTIBLES.

DO NOT OBSTRUCT COMBUSTION AND VENTILATION OPENING ON THE OVEN.

IMPORTANT
IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

FOR YOUR SAFETY
DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE

WARNING
IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

FOR YOUR SAFETY
AN ATTACHMENT POINT FOR FALL PREVENTION IS LOCATED ON TOP, IN THE CENTER OF THE OVEN. WHEN WORKING ON TOP OF OVEN, BE SURE TO SECURELY ATTACH SAFETY HARNESS TO FALL PREVENTION ATTACHMENT POINT.

FOR YOUR SAFETY

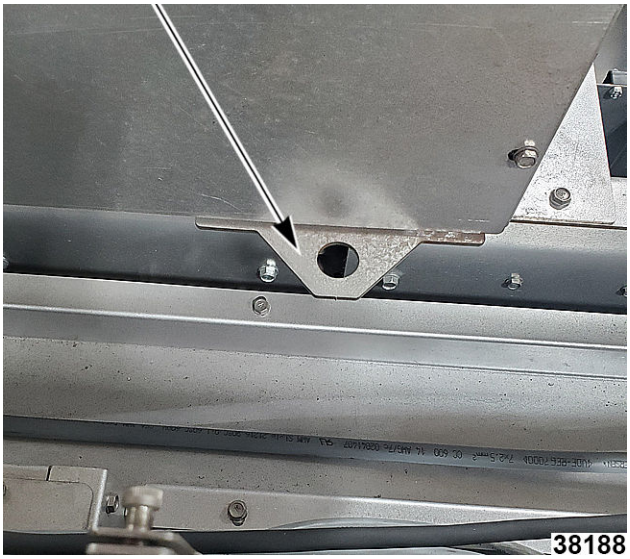


Fig. 1

GENERAL

INTRODUCTION

General

OV500G1-EE and OV500E1 rack ovens hold one single rack, and OV500G2-EE and OV500E2 rack ovens hold two single racks or one double rack.

Oven features:

- Powered rack lift with high temperature bearings and a clutch rotating system designed to stop the rack in the event of a jam without damage to the rotation motor or losing rack alignment.
- Digital programmable controller with optional backup control, flush flooring, and field-reversible bake chamber door.

All of the information, illustrations and specifications contained in this manual are based on the latest product information available at the time of printing.

Heating

The rack oven reaches baking temperatures of 350° in approximately 20 minutes; however, a 30 minute preheat is recommended to fully heat the steam generator.

Steaming System

Standard on all rack ovens, is a self-contained spherical cast steam system providing excellent steaming conditions.

UNPACKING

Remove the crating from the oven exterior, check for possible shipping damage. If the oven is found to be damaged after unpacking, save the packaging material and contact the carrier within 15 days of delivery.

NOTE: If the location has multiple ovens, keep the serial numbered crates together.

LOCATION

NOTICE

To reduce the risk of fire, the appliance is to be installed on non-combustible surface only, with no combustible material within 18 inches above the appliance. The appliance is to be mounted on floors of non-combustible construction with noncombustible flooring and surface finish and with no combustible material against the underside, or on non-combustible slabs or arches having no combustible material against the underside. Such construction shall in all cases extend not less than 12 inches beyond the equipment on all sides.

Oven not provided with a canopy hood, must be installed under a ventilation hood.

The floor must be level with surrounding area with a maximum slope of 1/8" per foot up to 3/4" maximum in all directions. Floor anchors require a minimum 1" thick solid floor substrate.

A level floor area must be prepared before assembling oven. The floor area should be at least 104"D x 74"W for double rack oven and 94"D x 57"W for single rack oven, to accommodate the oven footprint and door swing. Check the facilities floor area at the threshold and door swing opening location to determine if facilities floor will need to be reworked.

Do not obstruct the flow of combustion and ventilation air. Keep the appliance area free and clear from combustibles.

Make sure there is an adequate supply of make up air in the room to allow for combustion.

The electrical diagram is located on the inside of the heat exchanger compartment door.

CLEARANCE DIMENSIONS

Oven is UL/CSA Listed for zero clearance for back and side walls. A 1" to 4" back clearance is recommended for plumbing rear drain connection.

Top of oven requires a minimum of 24" clearance for servicing accessibility.

TESTING THE GAS SUPPLY PIPING SYSTEM

When test pressures exceed 1/2 psig (14" W.C.) (35.6 cm W.C.) (3.5 kPa), the oven and its individual shutoff valve must be disconnected from the gas supply piping system.

When test pressures are 1/2 psig (14" W.C.) (35.6 cm W.C.) (3.5 kPa) or less, the oven must be isolated from the gas supply piping system by closing its individual shutoff valve.

INSTALLATION CODES AND STANDARDS

OV500 ovens must be installed in accordance with:

United States

1. State and local codes.
2. National Fuel Gas Codes, ANSI Z223.1 (latest edition), available from American Gas Association, 1515 Wilson Boulevard, Arlington, VA 22209.
3. ANSI/NFPA 96, Standard for Ventilation Control & Fire Protection of Commercial Cooking Operations (latest edition), available from National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.
4. National Electrical Code, ANSI/NFPA-70 (latest edition).
5. NSF/ANSI 4 - 2007e Standard for Commercial Cooking, Rethermalization and Powered Hot Food Holding & Transport Equipment.

Canada

1. Local codes.
2. CAN/CGA-B149-1, Installation for Natural Gas Burning Appliances and Equipment (latest edition).
3. CAN/CGA-B149-2, Installation for Propane Burning Appliances and Equipment (latest edition).
4. Canadian Electrical Code, Part 2, CSA Standard C22.1 (latest edition).

Plumbing Connections

1. Water and waste piping and connections shall comply with the International Plumbing Code 2003, International Code Council (ICC), or to the Uniform Plumbing Code 2003, International Association of Plumbing and Mechanical Officials (IAPMO).

NOTE:

Plumbing connections must comply with applicable sanitary, safety and plumbing codes and provide adequate backflow protection to comply with applicable federal, state, and local codes.

SPECIAL TOOLS

- Inclined manometer - Dwyer Cat. #1227 or equivalent.
- Combustion analyzer meter Bacharach Fyrite Pro 125 Bacharach model# 24-8105 or Fyrite "Insight" model # 24-8251(Order from Bakery Support).
- Rotary hammer / hammer drill to drill holes in floor for anchor bolts.
- 3/8" masonry drill bit to drill holes in floor for anchor bolts.
- Temperature tester (thermocouple type) with 10' lead.
- Gauges for checking air shutters Part No. 01-1M5689-00001 (shipped with oven).
- Draft meter BACHARACH Model 13-3000 DCL 24490 or equivalent.
- Dolly wheel Part No. 01-1M2335-00001.
- Mini laser level self-leveling with tripod Harbor Freight No. 92703-OVGA.
- 2-ton foldable shop hoist Harbor Freight No. 35915-4VGA for lifting oven section.
- 3/8" chain 20 ft. long with a 4700 lbs. load rating Harbor Freight No. 40461-7VGA used with hoist.
- Two 7/16" X 5-1/2" bolts used with hoist.
- Two 7/16" nuts used with hoist.
- Four 7/16" fender washers used with hoist.
- Loctite® 242™ Part No. 00-520228
- 1/4" Drop-In Anchor Set Tool (3/16" Tip) Part No. 01-100V4-0073A **(no longer supplied with oven hardware)**.

OV500G1-EE GAS OVEN SPECIFICATIONS

1. **WATER:**

1/2" NPT, 30-75 PSI cold water required, customer to install in-line filter, shut off valve and line strainer.

2. **DRAIN:**

   6-1/4" (front) or 7" (rear) connection A.F.F. SEE NOTES. Route to air-gap drain. Do not slope drain upwards. Plug the drain connection that is not in use.

   Rear Drain: 1/2" NPTF

   Front Drain: 1/2" NPTF

3. **POWER:**

   Two supplies required. 120/60/1 20 AMP dedicated circuit required and one of the following voltage options.

Voltage	Full Load AMPS
208 - 240/60/1	8.8 - 7.6 AMPS
208 - 240/60/3	5.0 - 4.4 AMPS
440 - 480/60/3	2.4 - 2.2 AMPS

4. **GAS:**

   Natural Gas (N.G.)

   1" NPT, W.C.N.G. (N.G. rated 1025 BTU/CU. FT. SP. GR. 1.00)

   Liquified Propane Gas (L.P.G.)

   1" NPT, W.C.L.P.G. (L.P.G. rated 2440 BTU/CU.FT., SP. GR. 1.52)

	Natural Gas	Liquified Propane Gas
BTU/HR	180,000	180,000
INLET PRESSURE	5.0" - 10.0" W.C.	12.0" - 14.0" W.C.
MANIFOLD PRESSURE	3.5" W.C.	10.0" W.C.

5. **HOOD VENT:**

   8" DIA connection collar. Customer to supply duct and ventilator fan per state and local codes. Air proving switch factory installed & integrated with burner system operation. Oven provided relay with max. 10 amp 1/2 H.P. @ 120V output for fan operation. If larger, use oven relay to control additional separately powered contactor / relay for hood fan. Chamber vents are factory ducted to this integral hood. 690 CFM required, 0.6" W.C. static pressure drop through hood. Hood is UL710 Listed when grease filters are installed. Type B gas vent can be used except when bake products are grease laden.

NOTES:

1. A.F.F.: Above finished floor.
2. Customer responsible to finish and install all utilities to and from oven.
3. All services must comply with all Federal, State and Local codes.

NOTICE

To reduce the risk of fire, the appliance is to be installed on non-combustible surface only, with no combustible material within 18 inches above the appliance. The appliance is to be mounted on floors of non-combustible construction with non-combustible flooring and surface finish and with no combustible material against the underside, or on non-combustible slabs or arches having no combustible material against the underside. Such construction shall in all cases extend not less than 12 inches beyond the equipment on all sides.

4. The floor must be of non-combustible material, and must be level with surrounding area with a maximum slope of 1/8" per foot up to 3/4" maximum in all directions. Floor anchors require a minimum 1" thick solid floor substrate.
5. Oven is UL/C-UL classified and CSA (AGA/CGA) approved for 0" clearance on the side and rear walls. Unit requires 1" to 4" clearance for rear drain connection.
6. Top of oven requires a minimum of 24" for service accessibility.
7. Customer responsible to install flue piping. Flue must be vented outside of building.
8. Manufacturer reserves the right to make changes in sizes and specifications.

Export Ratings

1. **WATER:**

   1/2" NPT, 2.1-5.2 Bar cold water required, customer to install in-line filter, shut off valve and line strainer. Flow rate of 8 l/min.

2. **DRAIN:**

   6-1/4" (front) or 7" (rear) connection A.F.F. SEE NOTES. Route to air-gap drain. Do not slope drain upwards. Plug the drain connection that is not in use.

Rear Drain: 1/2" NPTF

Front Drain: 1/2" NPTF

3. **POWER:**

   Two supplies required. Control Circuit: 100/50/60/1 or 208-240/50/1

   1 kVA transformer supplied for control circuit operation voltage of 110V. This is a multifunction transformer, so output voltage should be verified before operation. Some wiring may be required to obtain proper output voltage.

   Oven fan (1.1 kW) 200V/50-60Hz/3ph/5.3A or 380- 415V/50Hz/3ph/ 2.8 - 2.5A.

4. **GAS:**

   Natural Gas (N.G.)

   1" NPT (N.G. Rated 38.2 Mj/m3 or 9120 Kcal/m3 SP Gr 1.00)

   Liquefied Propane Gas (LPG)

   1" NPT (LPG Rated 90.9 Mj/m3 or 21710 Kcal/m3 SP Gr 1.52)

	Natural Gas	Liquified Propane Gas
RATING	45,400 Kcal/hr	45,400 Kcal/hr
INLET PRESSURE	12.7 - 25.4 cm W.C.	30.5 - 35.6 cm W.C.
MANIFOLD PRESSURE	8.9 cm W.C.	25.4 cm W.C.

	Natural Gas	Liquified Propane Gas
RATING	190 Mj/hr	190 Mj/hr
INLET PRESSURE	1.25 - 2.50 kPa	3.00 - 3.50 kPa
MANIFOLD PRESSURE	.87 kPa	2.50 kPa

NOTE: Pressure not to exceed 35.6 cm W.C. or 3.5 kPa.

5. **HOOD VENT:**

   20.3 cm DIA. Connection collar. Customer is to supply duct and ventilator fan per federal and/or local codes. Chamber vent (steam) and combustion exhaust are discharged into the hood. An air proving switch is factory installed and integrated with burner system operation. If proper ventilation is not provided, burner will not operate. Oven provides a relay to activate a customer supplied and powered contactor/relay, so that when oven is powered up external fan will operate. The hood requires a minimum of 19.5 m3/min for safe operation. For fan calculation purposes you should assume 0.15 kPa resistance through the hood. Grease filters (optional) may be installed in the hood instead of standard baffle.

OV500G1-EE GAS OVEN

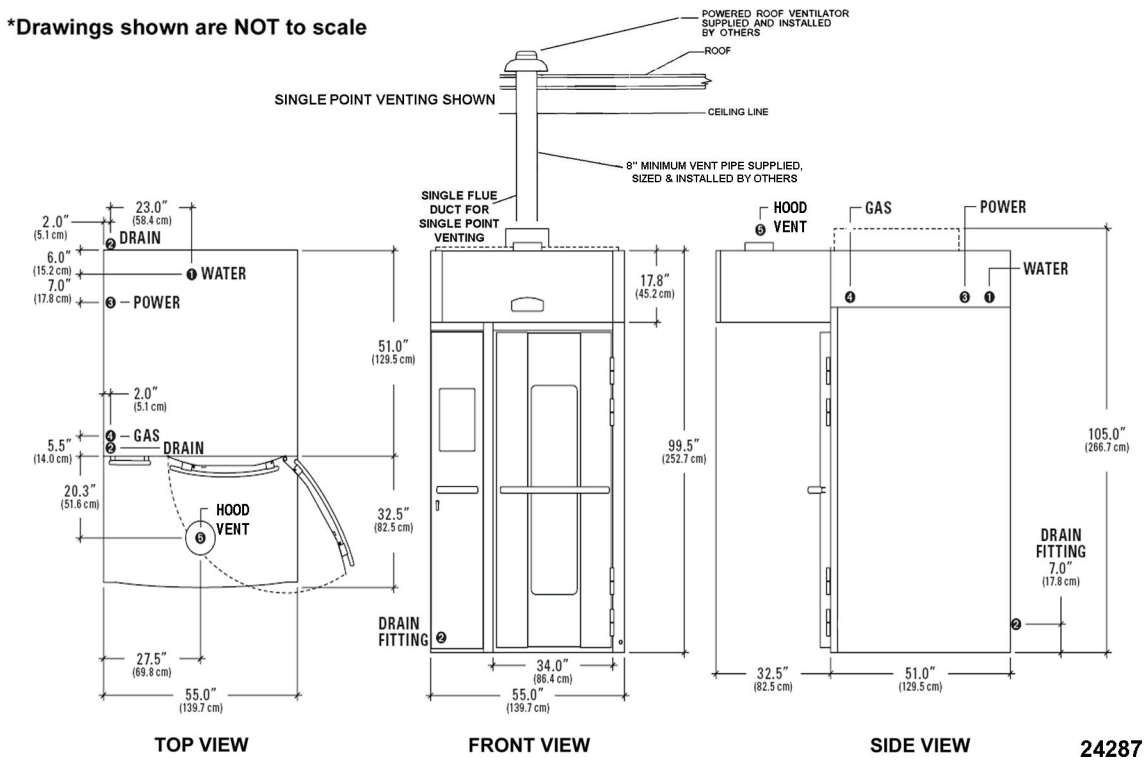


Fig. 2

OV500G2-EE GAS OVEN SPECIFICATIONS

1. **WATER:**

   1/2" NPT, 30-75 PSI cold water required, customer to install in-line filter, shut off valve and line strainer.

2. **DRAIN:**

   2-3/4" (front) or 5-1/2" (rear) connection A.F.F. SEE NOTES. Route to air-gap drain. Do not slope drain upwards. Plug the drain connection that is not in use. Kit provided to extend drain to either side of oven.

   Rear Drain: 3/4" NPTF

   Front Drain: 3/8" NPTF

3. **POWER:**

   Two supplies required.

   120/60/1 20 AMP dedicated circuit required and one of the following voltage options.

Voltage	Full Load AMPS
208 - 240/60/1	8.8 - 7.6 AMPS
208-240/60/3	5.0 - 4.4 AMPS

Voltage	Full Load AMPS
440 - 480/60/3	2.4 - 2.2 AMPS

4. **GAS:**

   Natural Gas (N.G.)

   1-1/4" NPT, W.C.N.G. (N.G. rated 1025 BTU/CU. FT. SP. GR. 1.00)

   Liquified Propane Gas (L.P.G.)

   1-1/4" NPT, W.C.L.P.G. (L.P.G. rated 2440 BTU/ CU.FT., SP. GR. 1.52)

	Natural Gas	Liquified Propane Gas
BTU/HR	275,000	275,000
INLET PRESSURE	5.0 -10.0" W.C.	10.0" - 14.0" W.C.
MANIFOLD PRESSURE	3.5" W.C.	8.75" W.C.

5. **HOOD VENT:**

   10" DIA connection collar. Air proving switch factory installed & integrated with burner system operation. Oven provided rely with max. 10 amp 1/2 H.P. @ 120V output for fan operation. If larger, use oven relay to control additional separately powered contactor / relay for hood fan. Customer to supply duct and ventilator fan per state and local codes. Chamber vents are factory ducted to this integral hood. 900 CFM required, 0.6" W.C. static pressure drop through hood. Hood is UL710 Listed when grease filters are installed. Type B gas vent can be used except when bake products are grease laden.

NOTES:

1. A.F.F.: Above finished floor.
2. Customer responsible to finish and install all utilities to and from oven.
3. All services must comply with all Federal, State and Local codes.

NOTICE

To reduce the risk of fire, the appliance is to be installed on non-combustible surface only, with no combustible material within 18 inches above the appliance. The appliance is to be mounted on floors of non-combustible construction with non-combustible flooring and surface finish and with no combustible material against the underside, or on non-combustible slabs or arches having no combustible material against the underside. Such construction shall in all cases extend not less than 12 inches beyond the equipment on all sides.

4. The floor must be of non-combustible material, and must be level with surrounding area with a maximum slope of 1/8" per foot up to 3/4" maximum in all directions. Floor anchors require a minimum 1" thick solid floor substrate.
5. Oven is UL/C-UL classified and CSA (AGA/CGA) approved for 0" clearance on the side and rear walls. Unit requires 1" to 4" clearance for rear drain connection.
6. Top of oven requires a minimum of 24" for service accessibility.
7. Customer responsible to install flue piping. Flue must be vented outside of building.
8. Manufacturer reserves the right to make changes in sizes and specifications.

Export Ratings

1. **WATER:**

   1/2” NPT, 2.1-5.2 Bar cold water required, customer to install in-line filter, shut off valve and line strainer. Flow rate of 8 l/min.

2. **DRAIN:**

   2-3/4" (front) or 5-1/2" (rear) connection A.F.F. Route to air-gap drain. Do not slope drain upwards. Plug the drain connection that is not in use. Kit provided to extend drain to either side of oven.

   Rear Drain: 3/4" NPTF

   Front Drain: 3/8" NPTF

3. **POWER:**

   Two supplies required. Control circuit: 100/50/60/1 or 208-240/50/1

   1 kVA transformer supplied for control circuit operation voltage of 110V. This is a multifunction transformer, so output voltage should be verified before operation. Some wiring may be required to obtain proper output voltage.

   Oven fan (1.1 kW) operates @ 200/50/60/3 amps or 380-415/50/3, 2.8-2.5 amps

4. **GAS:**

   Natural Gas (N.G.)

   1 1/4” NPT (N.G. Rated 38.2 Mj/m3 or 9120 Kcal/m3 SP Gr 1.00)

   Liquefied Propane Gas (LPG)

   3/4” NPT (LPG Rated 90.9 Mj/m3 or 21710 Kcal/m3 SP Gr 1.52)

	Natural Gas	**Liquified Propane Gas**
RATING	69,300 Kcal/hr	69,300 Kcal/hr
INLET PRESSURE	12.7 - 25.4 cm W.C.	30.5 - 35.6 cm W.C.
MANIFOLD PRESSURE	8.9 cm W.C.	22.22 cm W.C.
RATING	290 Mj/hr	290 Mj/hr
INLET PRESSURE	1.25 - 3.50 kPa	3.00 - 3.50 kPa
MANIFOLD PRESSURE	.87 kPa	2.18 kPa

NOTE: Pressure not to exceed 35.6 cm W.C. or 3.5 kPa.

5. **HOOD VENT:**

   25.4 cm DIA. Connection collar. Customer is to supply duct and ventilator fan per federal and/or local codes. Chamber vent (steam) and combustion exhaust are discharged into the hood. An air proving switch is factory installed and integrated with burner system operation. If proper ventilation is not provided, burner will not operate. Oven provides a relay to activate a customer supplied and powered contactor/relay, so that when oven is powered up external fan will operate. The hood requires a minimum of 25.5 m3/min for safe operation. For fan calculation purposes you should assume 0.15 kPa resistance through the hood. Grease filters (optional) may be installed in the hood instead of standard baffle.

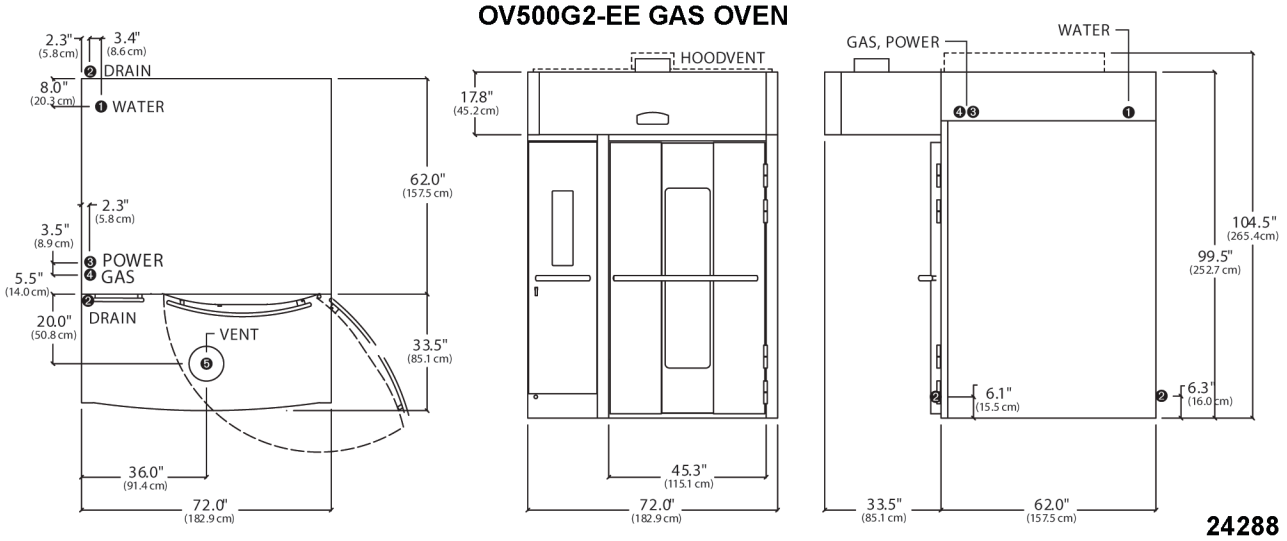


Fig. 3

OV500E1 ELECTRIC OVEN SPECIFICATIONS

1. **WATER:**

   1/2" NPT, 30-75 PSI cold water required, customer to install in-line filter, shut off valve and line strainer.

2. **DRAIN:**

   6-1/4" (front) or 7" (rear) connection A.F.F. SEE NOTES. Route to air-gap drain. Do not slope drain upwards. Plug the drain connection that is not in use.

   Rear Drain: 1/2" NPTF

   Front Drain: 1/2" NPTF

3. **POWER:**

   Two supplies required.

   120/60/1 20 AMP dedicated circuit required and one of the following voltage options.

   Heating Circuit: KW rating in following chart per supply voltage.

   Blower Motor: 1-1/2 H.P.

Voltage	Full Load AMPS	Heaters Rating
208/60/3	100 AMPS	34 KW
208 - 240/60/3	76 - 87 AMPS	26 - 34 KW
440 - 480/60/3	40 - 43 AMPS	29 - 34 KW

4. **HOOD VENT:**

   8" DIA connection collar. Customer to supply duct and ventilator fan per state and local codes. Oven provided relay with max. 10 amp 1/2 H.P. @ 120V output for fan operation. If larger, use oven relay to control additional separately powered contactor / relay for hood fan. Chamber vents are factory ducted to this integral hood. 690 CFM required, 0.6" W.C. static pressure drop through hood. Hood is UL710 Listed when grease filters are installed. Type B gas vent can be used except when bake products are grease laden.

NOTES:

1. A.F.F.: Above finished floor.
2. Customer responsible to finish and install all utilities to and from oven.
3. All services must comply with all Federal, State and Local codes.

NOTICE

To reduce the risk of fire, the appliance is to be installed on non-combustible surface only, with no combustible material within 18 inches above the appliance. The appliance is to be mounted on floors of non-combustible construction with noncombustible flooring and surface finish and with no combustible material against the underside, or on non-combustible slabs or arches having no combustible material against the underside. Such construction shall in all cases extend not less than 12 inches beyond the equipment on all sides.

4. The floor must be of non-combustible material, and must be level with surrounding area with a maximum slope of 1/8" per foot up to 3/4" maximum in all directions. Floor anchors require a minimum 1" thick solid floor substrate.
5. Oven is UL/C-UL classified and CSA (AGA/CGA) approved for 0" clearance on the side and rear walls. Unit requires 1" to 4" clearance for rear drain connection.
6. Top of oven requires a minimum of 24" for service accessibility.
7. Customer responsible to install flue piping. Flue must be vented outside of building.
8. Manufacturer reserves the right to make changes in sizes and specifications.

Export Ratings

1. **WATER:**

   1/2” NPT, 2.1 - 5.2 Bar cold water required, customer to install in-line filter, shut off valve and line strainer. Flow rate of 8 l/min.

2. **DRAIN:**

   N/A

3. **POWER:**

   Two supplies required. 100V/50-60Hz/1Ph or 208-240V/50Hz/1Ph.

   1/8 kVA transformer supplied for control circuit operation voltage of 110V. This is a multifunction transformer, so output voltage should be verified before operation. Some wiring may be required to obtain proper output voltage.

   Oven fan (1.1 kW) operates @ 200V/50-60Hz/3Ph, 5.3 amps or 380-415V/3Ph/50Hz/2.4-2.2A.

Voltage	Full Load AMPS	Heaters Rating
200/50 - 60/3	74 AMPS	24 KW
380 - 415/50/3	46 - 50 AMPS	29 - 34 KW

4. **HOOD VENT:**

   20.3 cm DIA. Connection collar. Customer is to supply duct and ventilator fan per federal and/or local codes. Chamber vent (steam) and combustion exhaust are discharged into the hood. Oven provides a relay to activate a customer supplied and powered contactor/relay, so that when oven is powered up external fan will operate. The hood requires a minimum of 19.5 m^3/min for safe operation. For fan calculation purposes you should assume 0.15 kPa resistance through the hood. Grease filters (optional) may be installed in the hood instead of standard baffle.

OV500E1 ELECTRIC OVEN

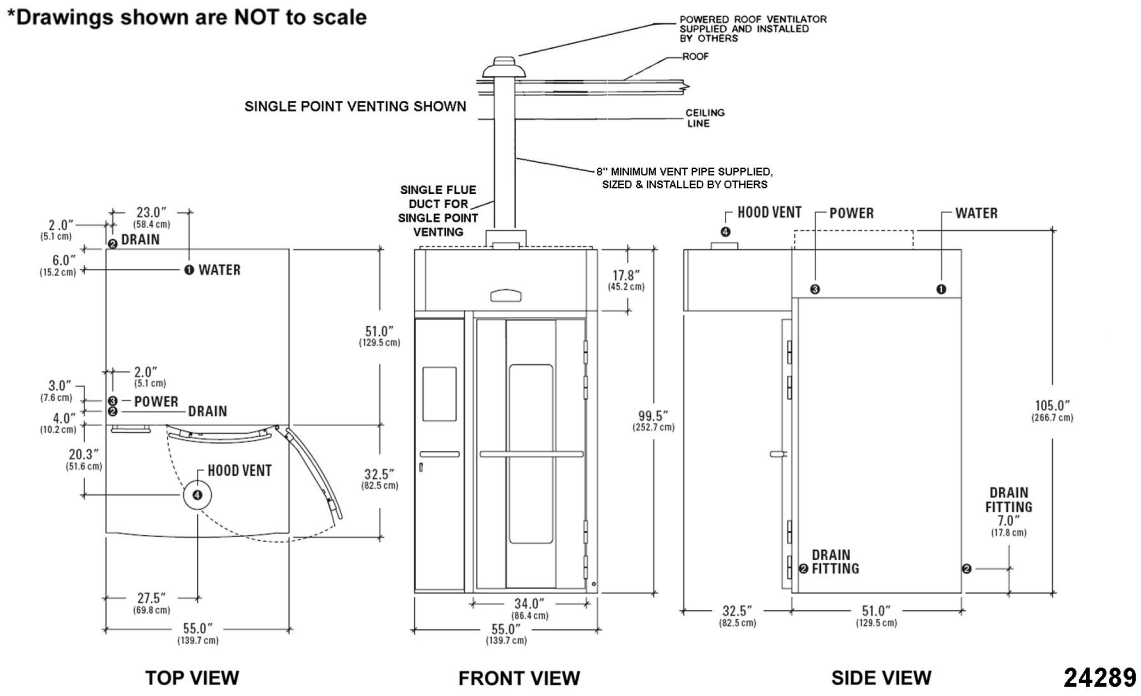


Fig. 4

OV500E2 ELECTRIC OVEN SPECIFICATIONS

1. **WATER:**

   1/2" NPT, 30-75 PSI cold water required, customer to install in-line filter, shut off valve and line strainer.

2. **DRAIN:**

   2-3/4" (front) or 5-1/2" (rear) connection A.F.F. SEE NOTES. Route to air-gap drain. Do not slope drain upwards. Plug the drain connection that is not in use. Kit provided to extend drain to either side of oven.

   Rear Drain: 3/4" NPTF

   Front Drain: 3/8" NPTF

3. **POWER:**

   Two supplies required.

   120/60/1 20 AMP dedicated circuit required and one of the following voltage options.

   Heating Circuit: KW rating in following chart per supply voltage.

   Blower Motor: 1-1/2 H.P.

Voltage	Full Load AMPS	Heaters Rating
208/60/3	146.4 AMPS	51.3 KW

Voltage	Full Load AMPS	Heaters Rating
208 - 240/60/3	111.2 - 127.2 AMPS	38.5 - 51.3 KW
440 - 480/60/3	59.1 - 64.1 AMPS	43 - 51.3 KW

4. **HOOD VENT:**

   10"DIA connection collar. Customer to supply duct and ventilator fan per state and local codes. Oven provided relay with max. 10 amp 1/2 H.P. @ 120V output for fan operation. If larger, use oven relay to control additional separately powered contactor / relay for hood fan. Customer to supply duct and ventilator fan per state and local codes. Chamber vents are factory ducted to this integral hood. 900 CFM required, 0.6" W.C. static pressure drop through hood. Hood is UL710 Listed when grease filters are installed. Type B gas vent can be used except when bake products are grease laden.

NOTES:

1. A.F.F.: Above finished floor.

2. Customer responsible to finish and install all utilities to and from oven.
3. All services must comply with all Federal, State and Local codes.

NOTICE

To reduce the risk of fire, the appliance is to be installed on non-combustible surface only, with no combustible material within 18 inches above the appliance. The appliance is to be mounted on floors of non-combustible construction with noncombustible flooring and surface finish and with no combustible material against the underside, or on non-combustible slabs or arches having no combustible material against the underside. Such construction shall in all cases extend not less than 12 inches beyond the equipment on all sides.

4. The floor must be of non-combustible material, and must be level with surrounding area with a maximum slope of 1/8" per foot up to 3/4" maximum in all directions. Floor anchors require a minimum 1" thick solid floor substrate.
5. Oven is UL/C-UL classified and CSA (AGA/CGA) approved for 0" clearance on the side and rear walls. Unit requires 1" to 4" clearance for rear drain connection.
6. Top of oven requires a minimum of 24" for service accessibility.
7. Customer responsible to install flue piping. Flue must be vented outside of building.
8. Manufacturer reserves the right to make changes in sizes and specifications.

Export Ratings

1. **WATER:**

   1/2” NPT, 2.1 - 5.2 Bar cold water required, customer to install in-line filter, shut off valve and line strainer. Flow rate of 8 l/min.

2. **DRAIN:**

   N/A

3. **POWER:**

   Two supplies required. 100V/50-60Hz/1Ph or 208-240V/50Hz/1Ph

   1/8 kVA transformer supplied for control circuit operation voltage of 110V. This is a multifunction transformer, so output voltage should be verified before operation. Some wiring may be required to obtain proper output voltage.

   Oven fan (1.1 kW) operates @ 200V/50-60Hz/3Ph/5.3A or 380-415V 3ph 50 Hz 2.4-2.2A.

Voltage	Full Load AMPS	Heaters Rating
200/50 - 60/3	108 AMPS	36 KW
380 - 415/50/3	68 - 73 AMPS	43 - 51 KW

4. **HOOD VENT:**

   25.4 cm DIA. Connection collar. Customer is to supply duct and ventilator fan per federal and/or local codes. Chamber vent (steam) and combustion exhaust are discharged into the hood. Oven provides a relay to activate a customer supplied and powered contactor/relay, so that when oven is powered up external fan will operate. The hood requires a minimum of 25.5 m3/min for safe operation. For fan calculation purposes you should assume 0.15 kPa resistance through the hood. Grease filters (optional) may be installed in the hood instead of standard baffle.

OV500E2 ELECTRIC OVEN

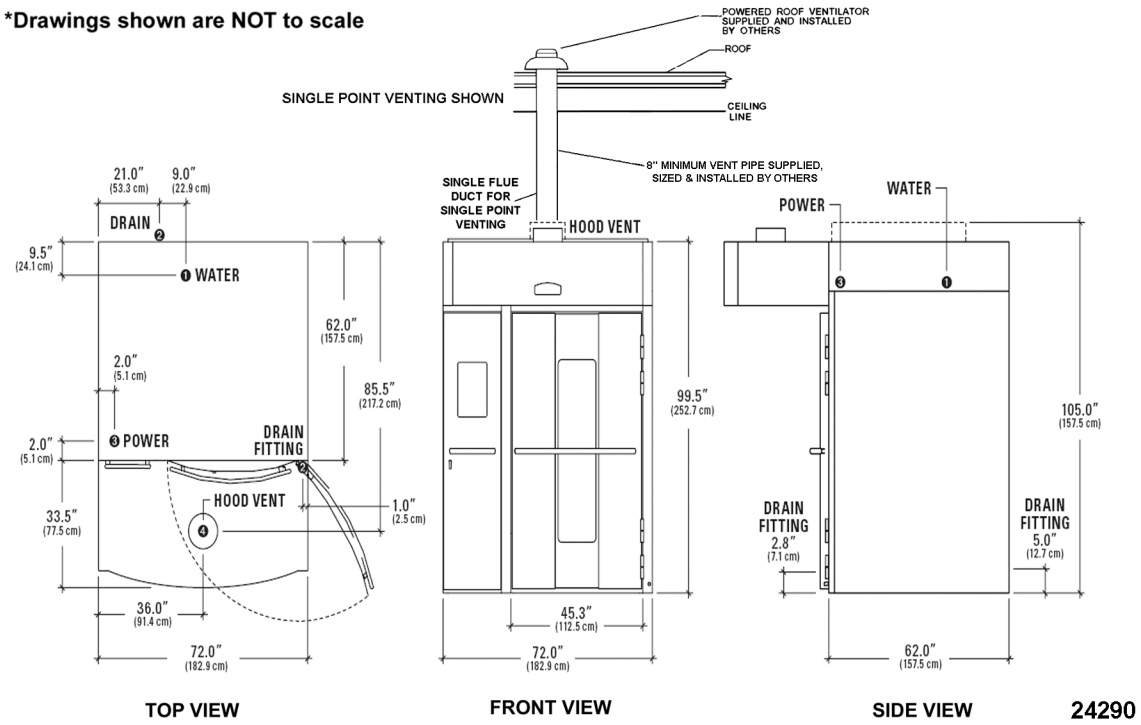


Fig. 5

INSTALLING OVEN

LOADING DOOR UNCRATING

This manual is written for a new installation where you can position the oven sections while the oven is on the shipping skids. Some installations may require that oven sections on the skids be lifted on their sides and manipulated through doorways prior to positioning sections for installation.

Prior to installing the oven, check facilities floor for being level within a maximum of 1/8" per foot, up to 3/4" in all directions using the laser level technique to determine if oven will need to be shimmed. Also check facilities floor area at the threshold and door swing opening location to determine if facilities floor will need to be reworked.

⚠ WARNING

Use appropriate safe lifting precautions when handling loading door. Using four or more people is recommended; weight is in excess of 200 lbs.

The loading door must be removed prior to lifting the oven sections. See the following details on oven door removal.



Fig. 6

1. Remove hardware securing upper mounting brackets (6 bolts each bracket). Remove and discard brackets.

NOTE: Save hardware for use on front dolly wheel.

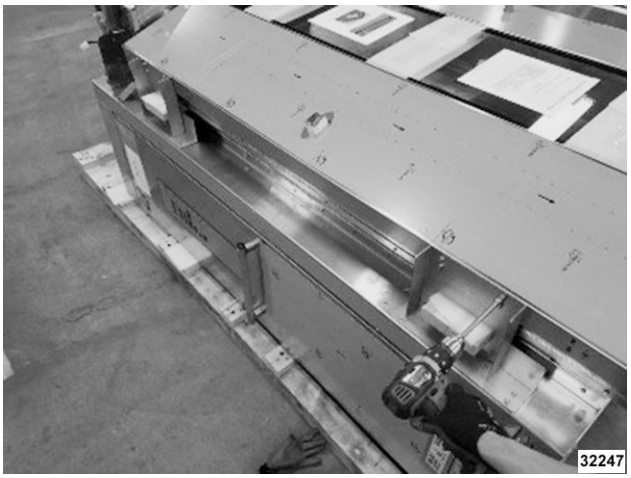


Fig. 7

2. Using four or more people and safe lifting practices, remove door from oven.

NOTE: Be mindful of sharp sheet metal edges and corners on the oven.

NOTE: Use proper PPE when removing door from oven section.

   A. Slide door until every person has a good grip on door.

   B. Lift and transport door to safe storage area.

NOTE: Place door on a furniture dolly if possible.

NOTE: Make sure door does not sit on inner door handle (Fig. 8).

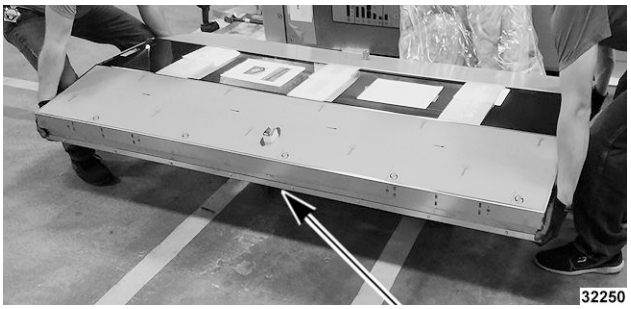


Fig. 8

3. Set door aside until needed, ensuring door is protected from damage while storing.



Fig. 9

4. Remove remaining mounting brackets, backing plates, screws, and 2 x 6 planks, and then discard.

NOTE: Hold backing plate (Fig. 10, Fig. 11) while removing bracket to prevent plate from dropping into the oven.



Fig. 10

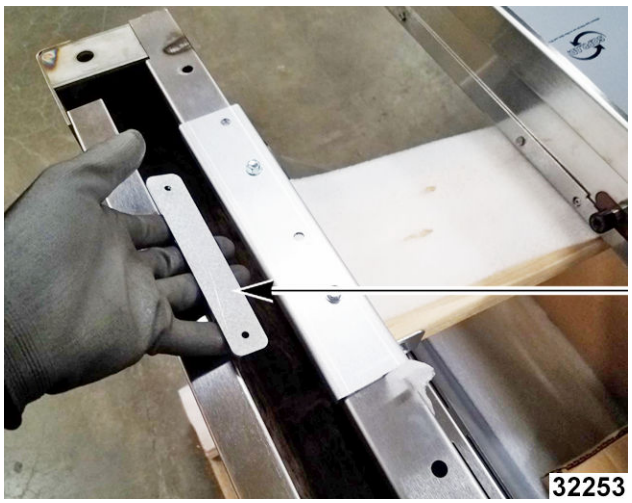


Fig. 11



Fig. 12

NOTE: Hinge and ramp hardware are located in the parts box.

NOTE: Be sure to verify all parts in parts box are accounted for before beginning installation.

OVEN SECTIONS

NOTICE

It is essential that correct hardware is used in the designated locations. See hardware packaging, and refer to the HARDWARE REFERENCE GUIDES for hardware locations and descriptions.

Remove all assemblies except oven sections from skids prior to lifting oven sections. In some cases, OV500G1-EE and OV500E1 ovens will be shipped with sections assembled together.

NOTE: On split OV500 single rack ovens, remove the rack lift/rotate assembly and center insulation cover from the top of the oven prior to standing up.

1. Place the oven sections as close to the final position as possible, allowing enough room to work, with the sections positioned for lifting.
   A. Check for ceiling clearance. The oven is tallest when it is approximately 60 degrees to the floor during the raising process. If oven section has been turned on its narrow side in order to navigate through a doorway, turn the oven section back to the shipping position prior to raising.
   B. Remove the bottom hold down brackets from both pallets, but do not remove oven sections from pallets.

⚠ WARNING

DO NOT remove the two top brackets prior to lifting units.

2. Lift the oven sections upright, using the hoist technique (covered in HOST). Both oven sections should be as close as possible, but not touching.

NOTE: Single rack ovens have a one-piece floor. The floor will need to be put into location with a bead of red high temp silicone around the outer edge of floor flange before oven sections are slid together. The right front corner of oven will need to be lifted, to clear flange on the floor (door jamb retainer) when installing a one-piece floor.

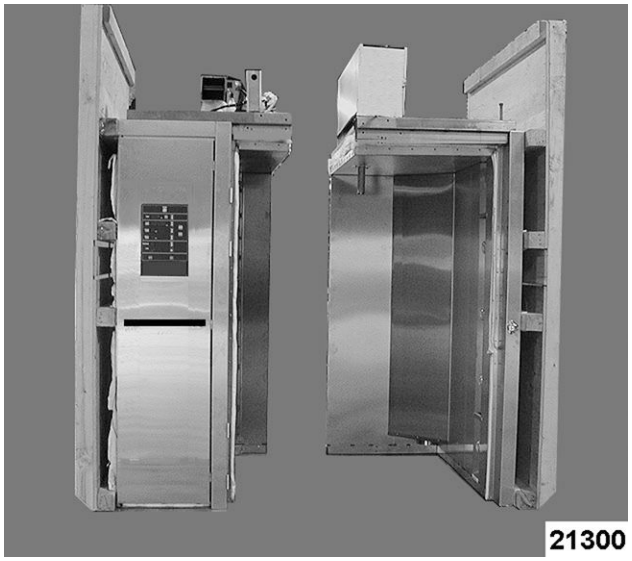


Fig. 13

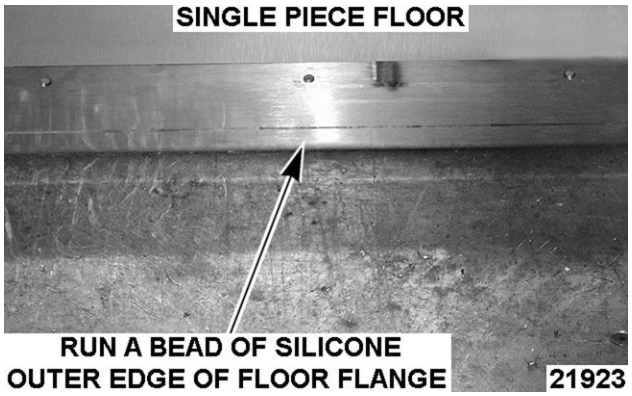


Fig. 14

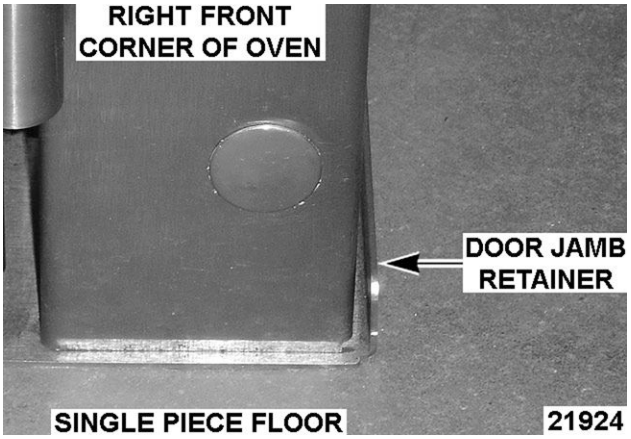


Fig. 15

3. Once the oven is in the upright position, remove the top two brackets securing the oven to the skid.



Fig. 16

⚠ WARNING

The Z bracket location on the bottom of the skid must be disengaged before lowering the skid. If engaged when lowering the skid, the oven section could fall.

A. Pull the bottom of the skid away from the oven to clear the Z channel.

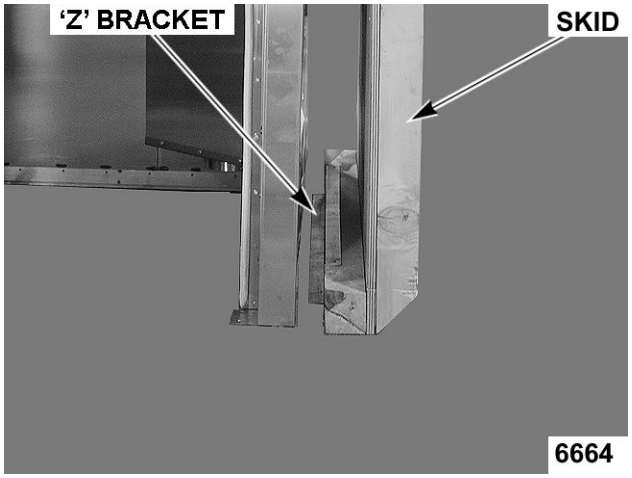


Fig. 17

B. Lower the skid to the floor making sure that the Z channel does not scratch the oven side.

C. Perform the same procedure for other oven section.

4. Remove the header support bracket.

A. Remove the two screws from hinge side of bracket.

B. Move bracket and reinstall screws.

C. Remove the single screw from the header side of bracket and discard screw and bracket.

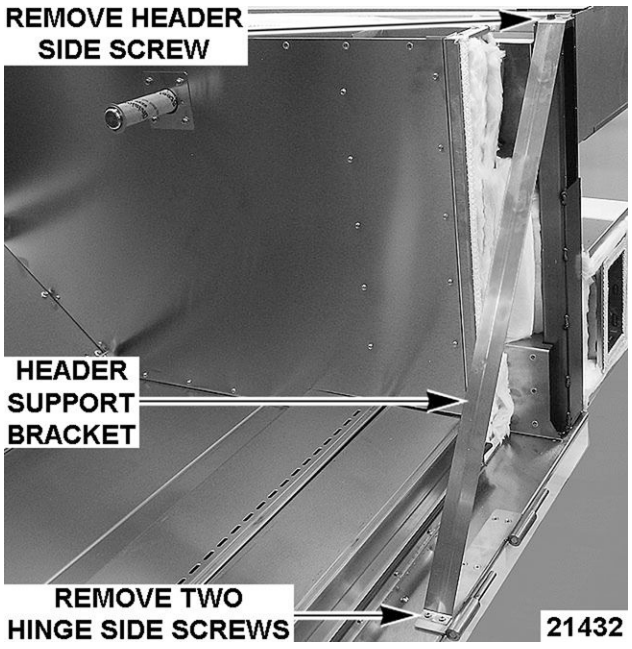


Fig. 18

5. Slide the oven sections together.

NOTE: Caulk inner seam before placing halves together.



Fig. 19

NOTE: Ensure ceiling offset flange slides under opposite oven section ceiling.

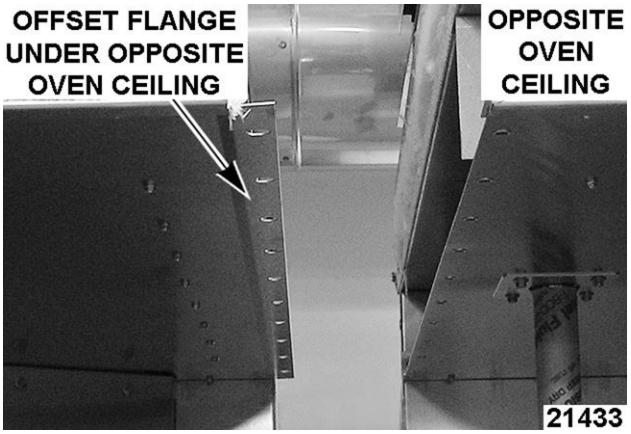


Fig. 20

NOTE: Hand tighten all nuts, bolts, and screws until all screws have been installed. Ensure all oven sections are aligned before tightening nuts, bolts, and screws.

6. Install 1/2-13 x 1-1/2" bolt with lock washer and nut in rear frame connection points of oven, both top and bottom.

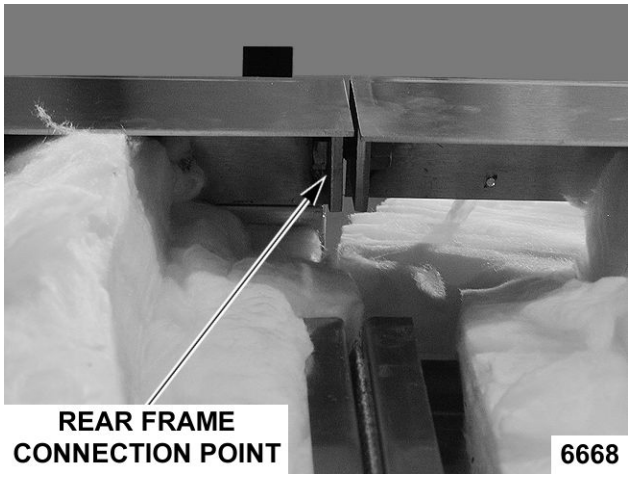


Fig. 21

7. Install 5/16-18 x 1" gimlet screws in upper and lower header connections.

NOTE: Ensure oven sections' upper header front surfaces are flush.

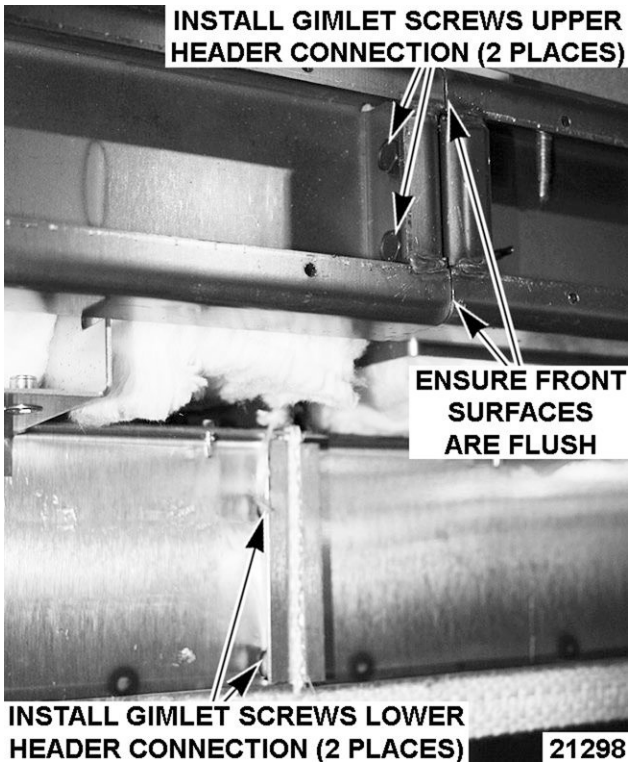


Fig. 22

NOTE: If you have trouble aligning the holes in the rear frame, you may have to manipulate the oven sections using the levelers, using shims, or by prying. Use care not to damage the oven or the building floor.

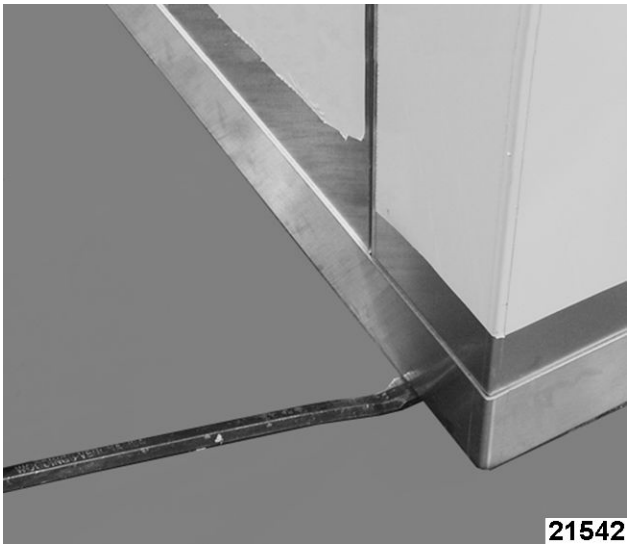


Fig. 23

NOTE: You may have to move oven front corners to make the holes in the outer header align with the holes in the oven.

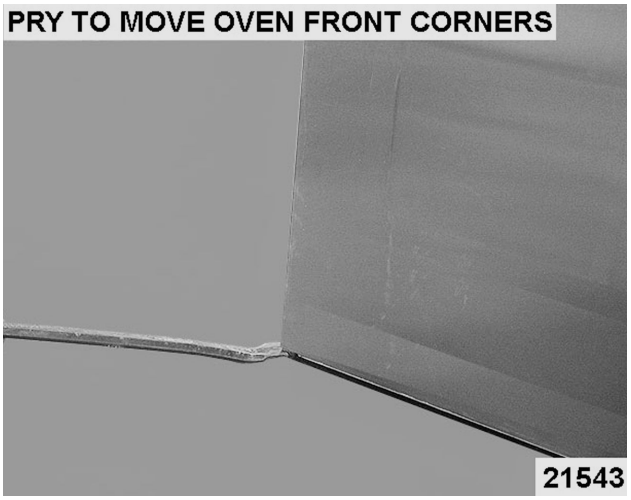


Fig. 24

8. Install 5/16-18 X1" gimlet screws in the flanges of the mating sections around the oven perimeter, both top and back.

NOTE: Start a few screws at several locations around the flange to help align the flange holes.

9. Install all flange mating section screws and ensure mating surfaces are flush in the interior and exterior of the oven before tightening the screws.

NOTE: If you have trouble aligning the mating holes in the flange, you may have to manipulate the oven sections using the levelers or by prying.



Fig. 25

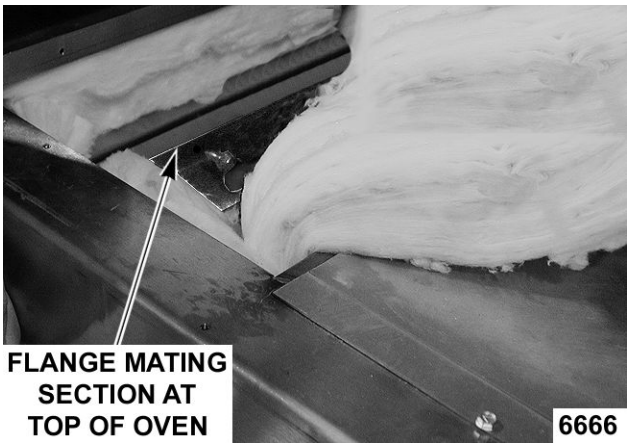


Fig. 26

10. For OV500G1-EE and OV500E1 ovens only:
    A. Install insulation cover onto top of oven.
    B. Install rotator assembly onto lifter assembly.

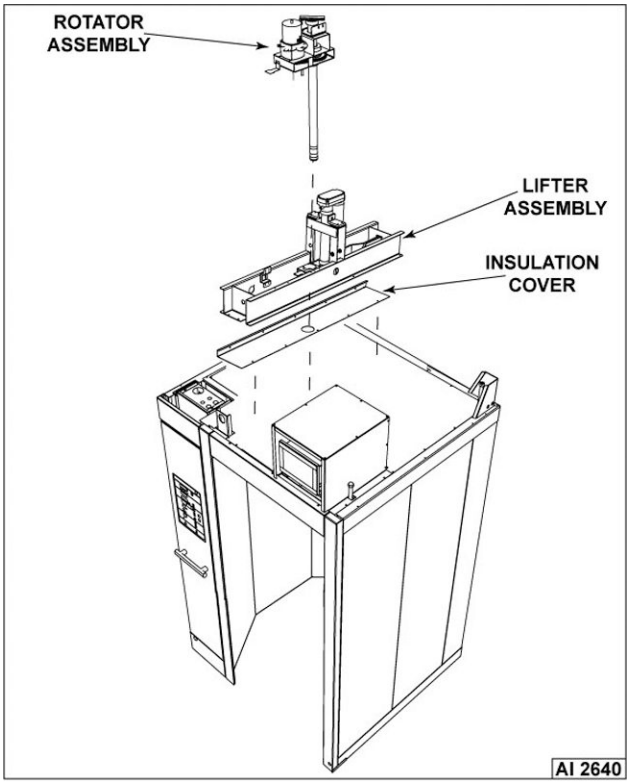


Fig. 27

11. Install upper header support plate with #10 Tek screws.



Fig. 28

12. Install lower header cover with two 10-32 screws loose to hold cover in place.



Fig. 29

13. Install upper header cover with #10 x 3/4" screws on top, and 1/4-20 screws on the bottom, with front edge of cover flush with door jambs.



Fig. 30

14. Install upper door gasket to upper gasket retainer.

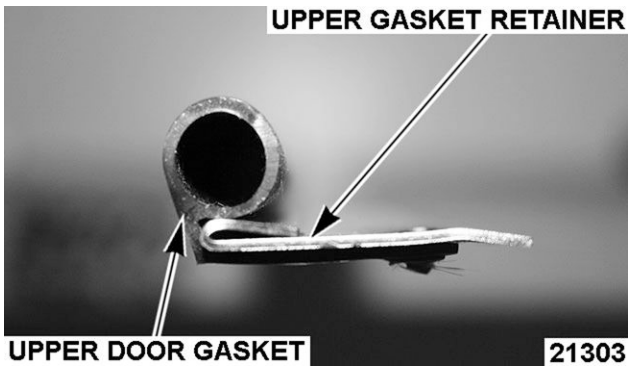


Fig. 31

A. Cut off gasket material to length of retainer.

B. Install upper door gasket and upper gasket retainer by removing header cover screws, then securing retainer to header cover with 10-32 gimlet screws.



Fig. 32

15. Install 1/4-20 X 3/4" hex head serrated flange screws onto ceiling offset inside baking compartment.

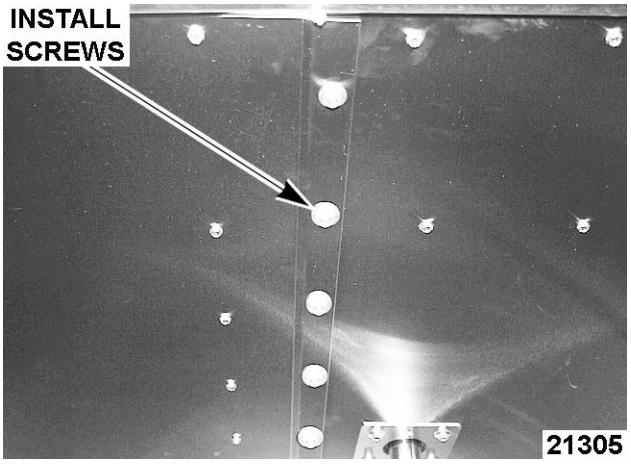


Fig. 33

16. Install insulation pieces.

NOTE: Before installing rear panel on double rack ovens, tighten the drain line union fitting.

A. On the rear seam, bend the copper studs so they are 90 degrees to the oven wall. When installing the insulation, make sure the insulation is held by these studs.

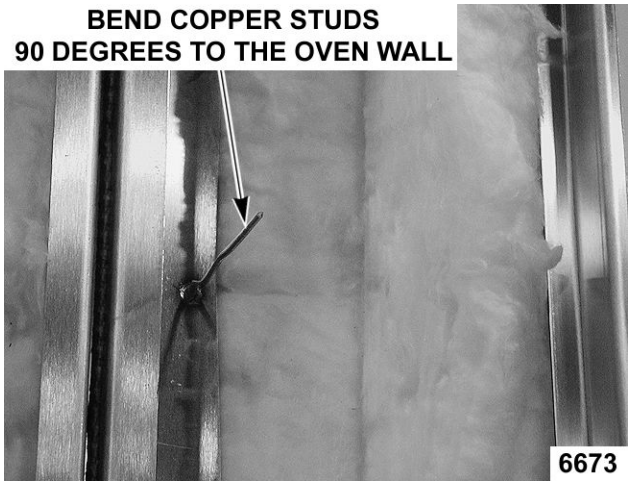


Fig. 34

B. At the rear wall, place the push nuts over the copper studs to secure the insulation.

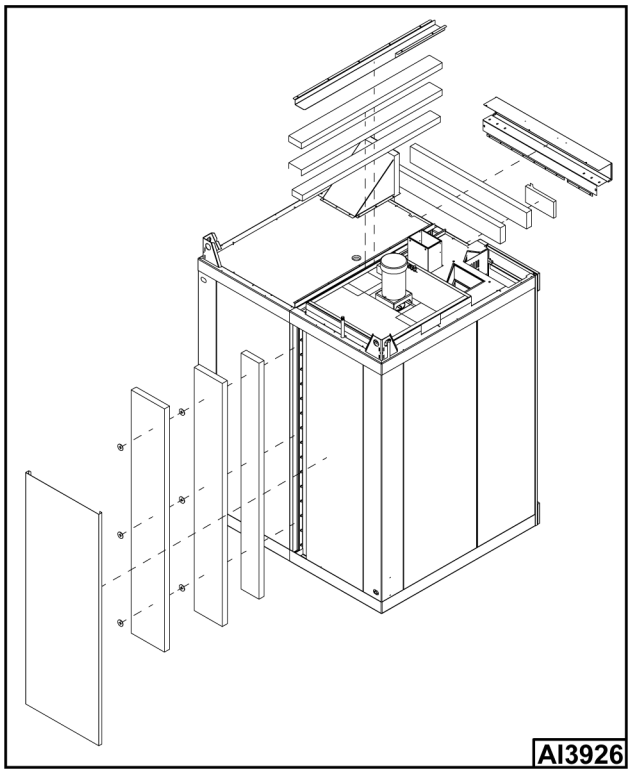


Fig. 35

17. Install rear cover panel.

A. Start the top of the panel behind the top rail of the upper frame.



Fig. 36

B. Push the panel up until the bottom of the panel clears the bottom rail of the oven section frame.

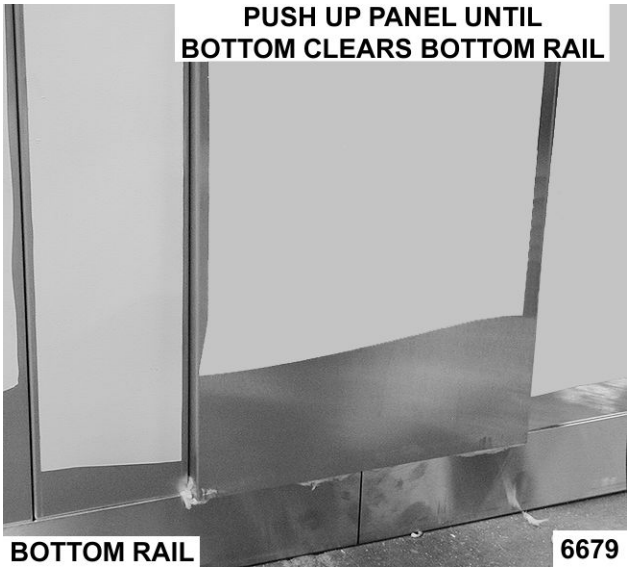


Fig. 37

C. Make sure that the panel is behind the rail of the lower frame, and will rest against the stop when lowered into position.

D. Push the panel down against the stop.



Fig. 38

18. Connect rear drain if required.
    A. Using materials from provided drain kit (double rack ovens only), route the drain to either side of oven.
    B. Ensure drain slopes downward 1/4" per ft.
19. For OV500G2-EE and OV500E2 ovens only:
    A. Install insulation into ceiling channel.

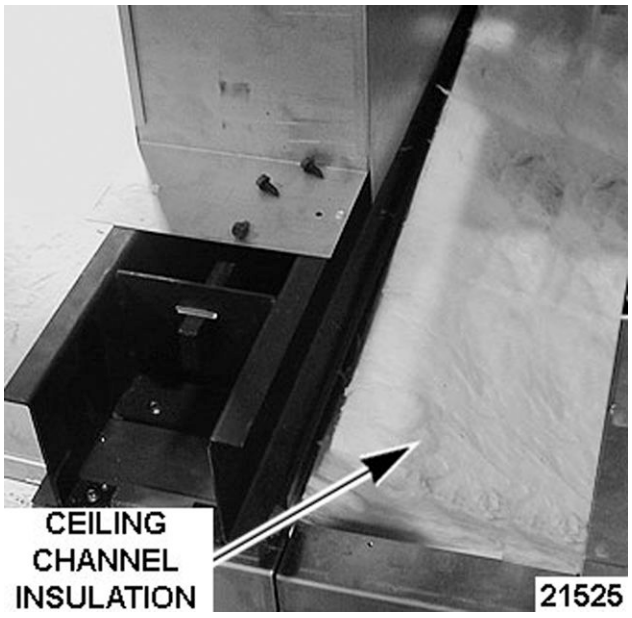


Fig. 39

    B. Install ceiling channel cover with #10 Tek screws over the ceiling channel.



Fig. 40

20. Remove junction box cover to access connection plugs for rack rotation and rack lift. Connect plugs together, and install raceway to top of oven.

NOTE: Gas ovens will not have a junction box, but conduit directly to the component. Electric double rack ovens have an additional cover (1, Fig. 43) to be installed over exposed wiring (2, Fig. 43).

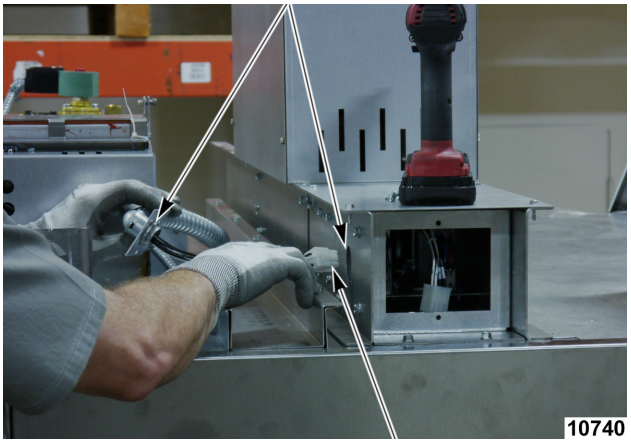


Fig. 41

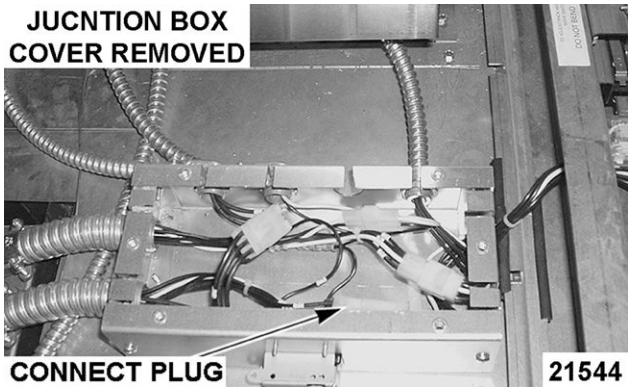


Fig. 42

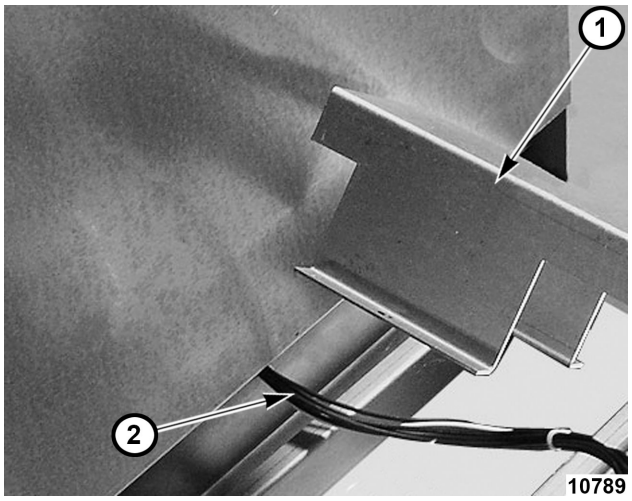


Fig. 43

21. If rear drain of oven is used, install before oven is placed in final location.
22. Remove protective plastic from rear and sides of the oven that won't be accessible once the oven is in place.

NOTE: Do not damage building floor while installing dolly wheel or using front levelers. Use shims under floor levelers to prevent damage to building floor.

23. Install the dolly wheel.

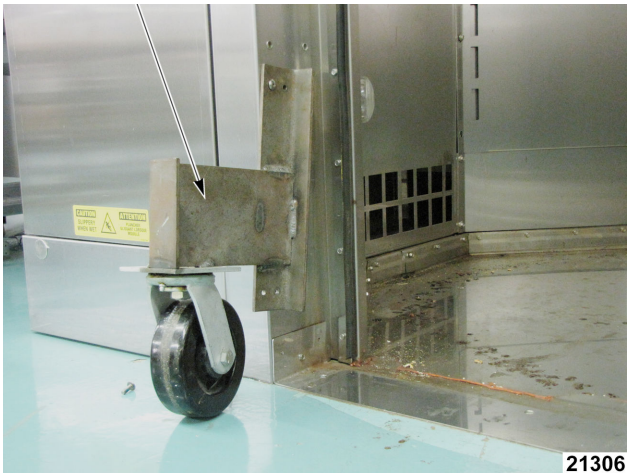


Fig. 44

NOTE: You may have to use the front levelers to raise the front of the oven to install the dolly wheel. Use care not to damage building floor.

A. Raise the front oven levelers so the weight of the oven is on the dolly wheel.

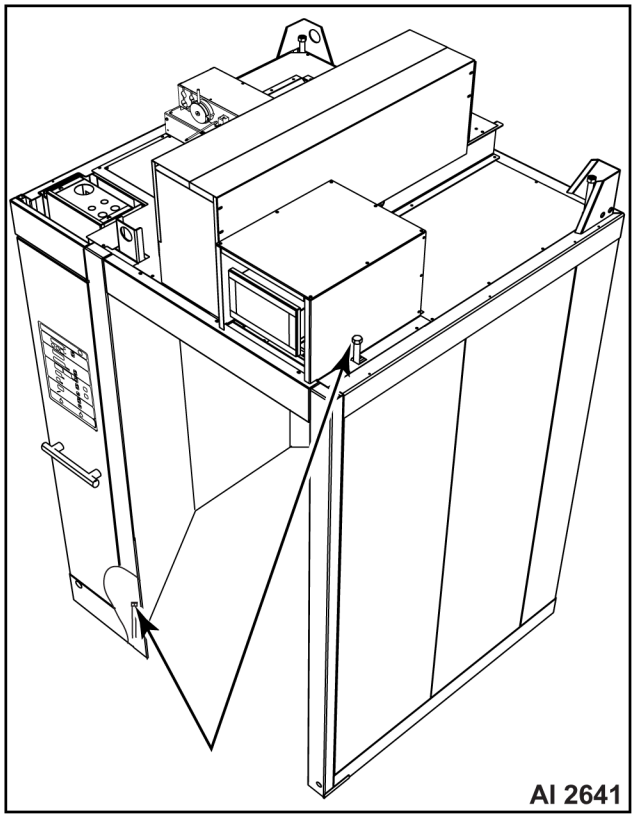


Fig. 45

B. Lower the rear wheels to raise the back of the oven off the floor.



Fig. 46

NOTE: Raising the rear of the oven too much can cause the front of the oven to contact the floor.

24. Move the oven into the final position before lowering.
25. Place shim(s) per the height determined by the laser level technique to level oven.

NOTE: Review HOST course for laser level technique.

NOTE: After oven is leveled and shimmed, raise the levelers to take the oven weight off all the levelers.

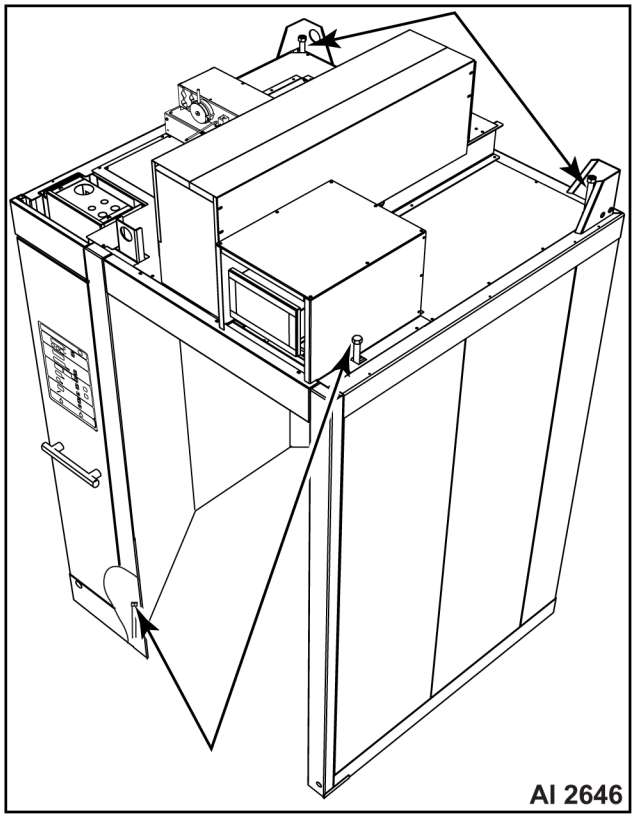


Fig. 47

26. Raise the back wheels to lower the oven. Weight of oven should be completely off back wheels.
27. Remove the dolly wheel and replace lower latch ramp.

NOTE: Retain the dolly wheel for future oven installations.

28. Place threshold into door jamb.

NOTE: Do not anchor threshold at this time.

29. Verify door opening is square.
    A. Measure diagonal 'X' from top right innermost hinge screw to the bottom innermost hinge screw on the left door jamb.

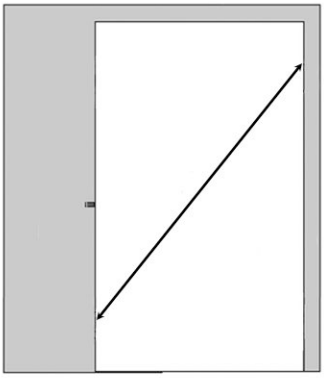


Fig. 48

    B. Measure diagonal 'Y' from the top left innermost hinge screw to the bottom innermost hinge screw on the right door jamb.

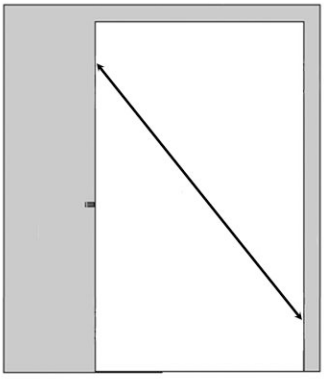


Fig. 49

    C. If diagonal measurements are not within 1/8" of each other, add additional shims as needed.

1) If diagonal 'Y' measurement is greater than diagonal 'X' measurement, add shims under the right front door jamb. Place shims on top of threshold underneath the door jamb.

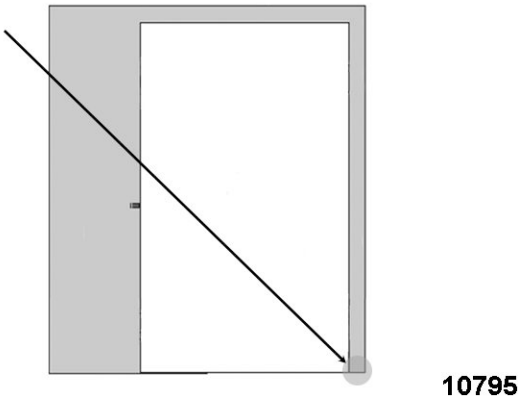


Fig. 50

2) If diagonal 'X' measurement is greater than diagonal 'Y' measurement, add shims under the left front door jamb.

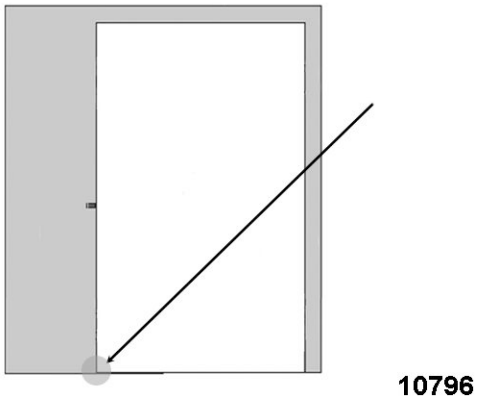


Fig. 51

D. Repeat procedure until diagonal measurements are within 1/8" of each other.

NOTE: If shims are required to level the oven at the front right corner, shims(s) will need to be placed on top of threshold underneath the door jamb.

NOTE: If shims are required to level the oven at the rear corners, place shim(s) in front of the back wheels. If the rear of the oven is not accessible, place shims under heat exchanger floor and inner wall base angle.

30. Install the door.

A. Use tab to open glass compartment door to remove door handle, and set aside.



Fig. 52

B. Close glass compartment door.

NOTE: Do not allow glass compartment door to slam shut.

C. Position the door at a 90-degree angle to the oven near the door opening.

D. Use a J bar to lift the door close to the hinge side of the door.

NOTICE

Use care not to place J bar under black glass door hinge pin or the door glass.

E. Position the door over the hinges, then lower onto the hinge pins.

31. With the door open, visually check if door swings toward the oven (closed position) on its own.

A. If door swings toward oven, add shims to back corners of oven until door stops swinging on its own.

32. Remove bolts securing steam panel to oven.

A. Lift panel up while tilting top of panel toward center of oven to remove from oven.



Fig. 53

33. Remove screws securing drain pan cover to oven.

NOTE: DO NOT DISCARD HARDWARE.

A. Pull cover out from suction panel while lifting up right side of cover, then pushing cover toward the right rear corner of baking compartment, and out from oven.

NOTE: Use care when removing cover so as to not scratch baking compartment walls.

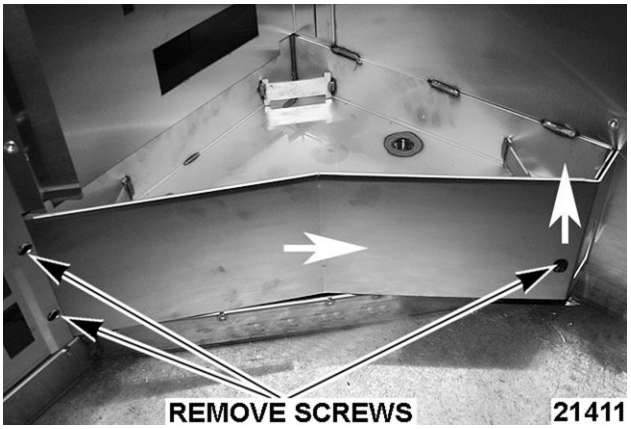


Fig. 54

34. Lower drain pan support bolt until bolt comes in contact with the floor.

NOTE: Bolt used to support the weight of the steam system.

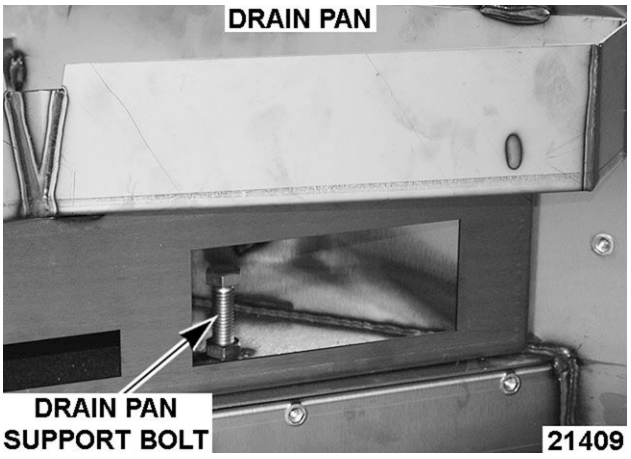


Fig. 55

35. Install drain pan cover.

FLOOR / THRESHOLD

1. Move threshold halfway out from oven.
2. Caulk around baking compartment to facility floor seam with high temp red silicone.

NOTE: The sealant used inside the oven cavity must be NSF Listed; suitable for food zone and minimum 275ºC/525ºF. The sealant used on the exterior of the unit must be NSF Listed.



Fig. 56

3. Run a bead of high temp red silicone on the entire outer edge of both floor panels.
4. Install floor panel without offset. Flange goes up.
5. Run two beads of high temp red silicone on the flange of floor panel without offset.

NOTE: Double rack only.

6. Install floor panel without offset. Flange goes up.
7. Run two beads of high temp red silicone on the flange of floor panel without offset.
8. After the oven has been leveled and shimmed, attach the floor trim to the inner wall.

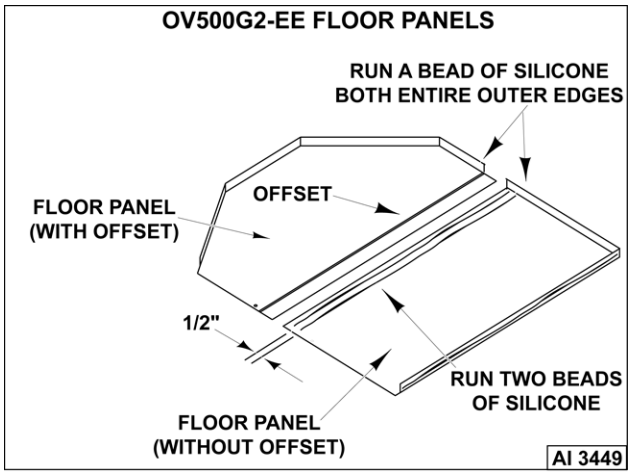


Fig. 57

9. After oven is leveled and shimmed, remove screws and washers holding the floor in place.

NOTE: Single whole ovens only.

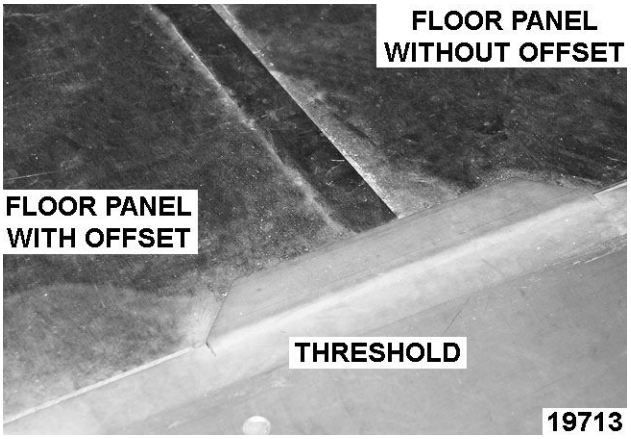


Fig. 58



Fig. 59

10. Slide threshold under door jamb. Ensuring the three threshold tabs are installed over the oven floor.

NOTE: Use a hammer and 2X4 to tap threshold against oven floor. A 1/8" gap between oven floor and threshold is acceptable.

NOTE: If shims were required to level oven and square the door jamb at the front right corner, place shims(s) on top of threshold underneath the door jamb. Threshold is approximately one shim thick.

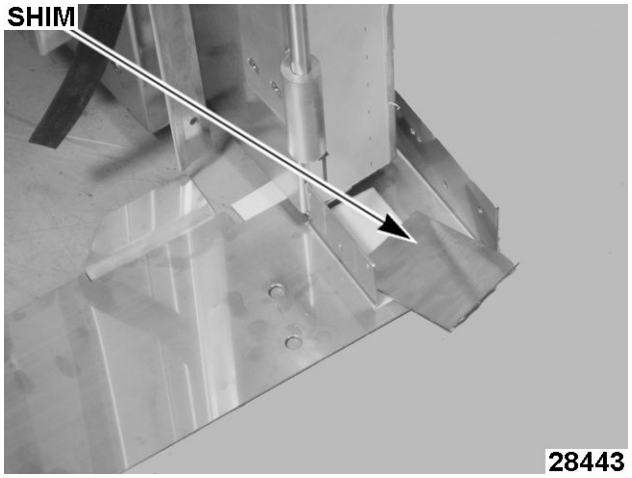


Fig. 60

11. Use red NSF listed silicone to seal the top edge of the floors flange, prior to installing floor trim.

NOTE: Left side, rear wall, and right side flanges need silicone application.

12. Install floor trim. Wait until later in the procedure to tighten screws.
13. Drill and tap into door jamb at threshold clearance holes.
    A. Secure threshold to door jamb with 10-32 X 1/2" screws, secure left side first.

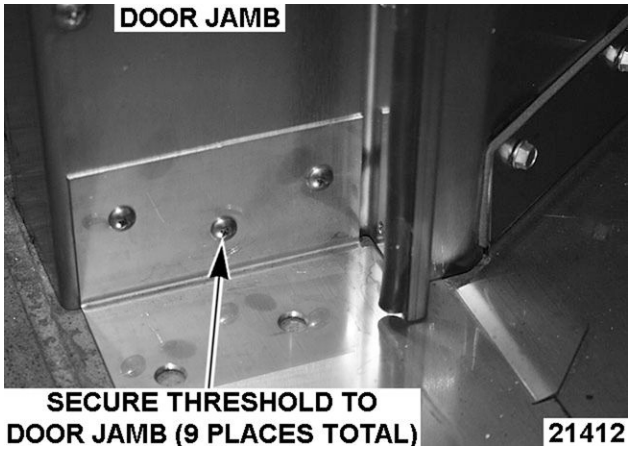


Fig. 61

14. Anchor threshold to facility floor.

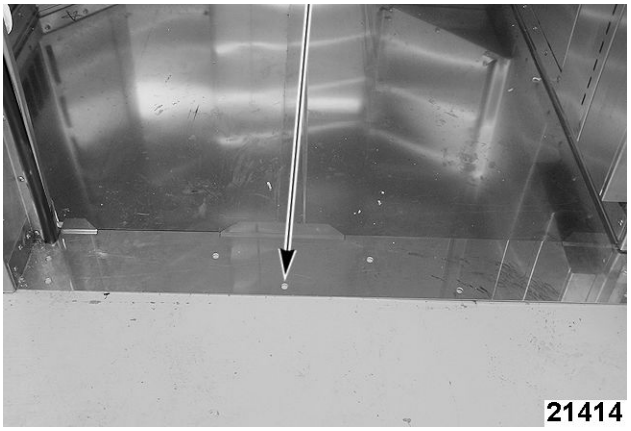


Fig. 62

15. Tighten floor trim screws.
16. Caulk gap between oven floor and threshold with gray NSF listed silicone.



Fig. 63

17. Caulk door jamb gaps with gray NSF listed silicone.



Fig. 64

STEAM SYSTEM

1. Remove top and left air guides from oven wall.
2. Run a bead of red NSF listed silicone between drain pan and rear oven wall.

NOTE: Fig. 65 shows double rack oven.

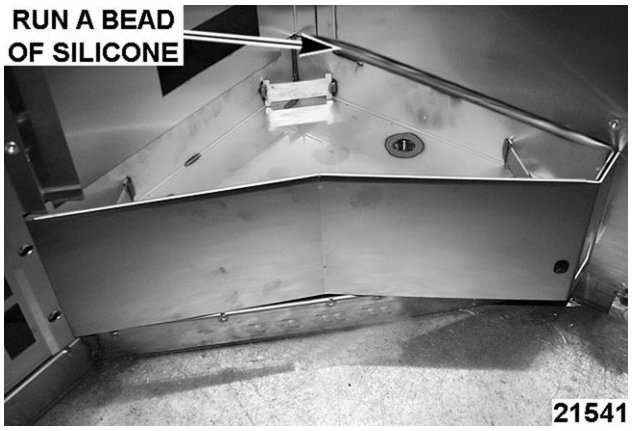


Fig. 65

3. Start by setting the first steam ball assembly flat on the oven baking compartment floor (left rear corner).

NOTE: Fig. 66 shows single rack oven.

NOTE: For OV500G1-EE and OV500E1 ovens, place first steam ball assembly on spacers to obtain correct height.

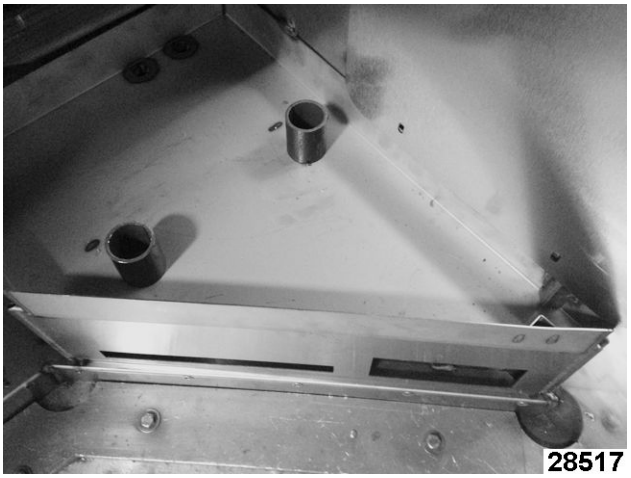


Fig. 66

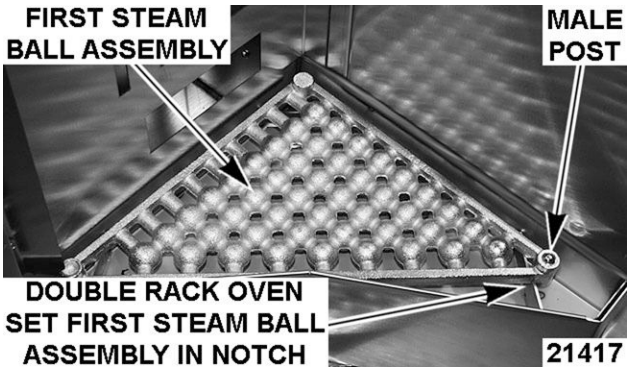


Fig. 67

4. For ovens with 38 castings only: Install splash panel with angled ledge on top of first steam ball assembly and the baffle supported by the back wall.



Fig. 68

5. The next steam ball assembly must be put in place matching the female post with male post of previous assembly (total of 30 or 38 sections for OV500G2-EE and OV500E2 ovens, total of 15 sections for OV500E1, and total of 20 sections for OV500G1-EE ovens to install).

NOTE: The assemblies will not set level if the sections are not oriented correctly.

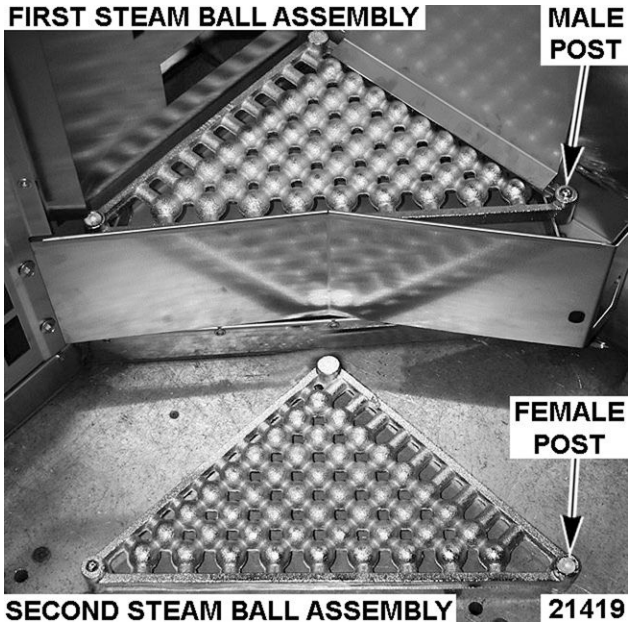


Fig. 69

6. Before last couple sets of assemblies are installed, slide spray guard onto manifold. Align manifold with steam ball assemblies. Allow spray guard to hang on manifold.

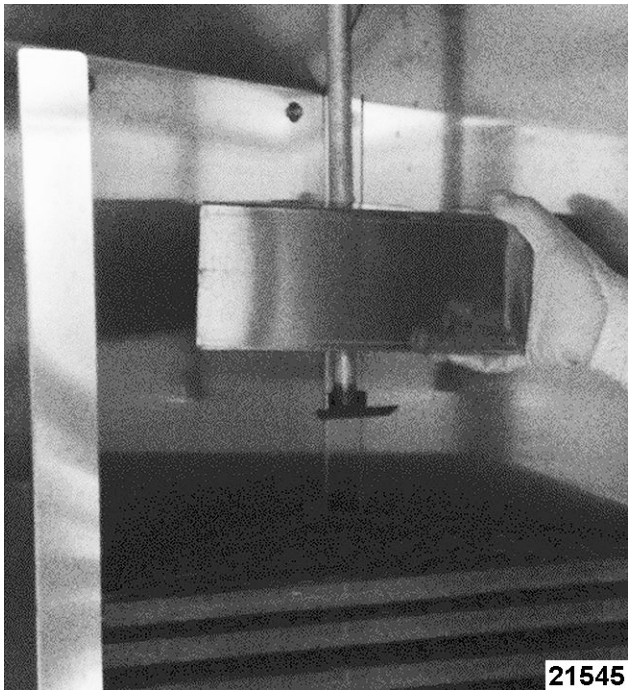


Fig. 70

7. After all assemblies are installed, place spray guard on last set of steam balls and install water guides to edge of assemblies.

8. Begin with the top assembly and install water guides over front rim of the top, then every other assembly (total of 7 water guides for all ovens).

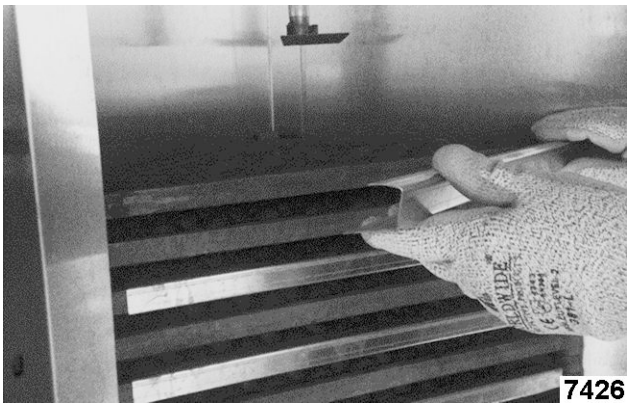


Fig. 71

9. Install both corner air guides.

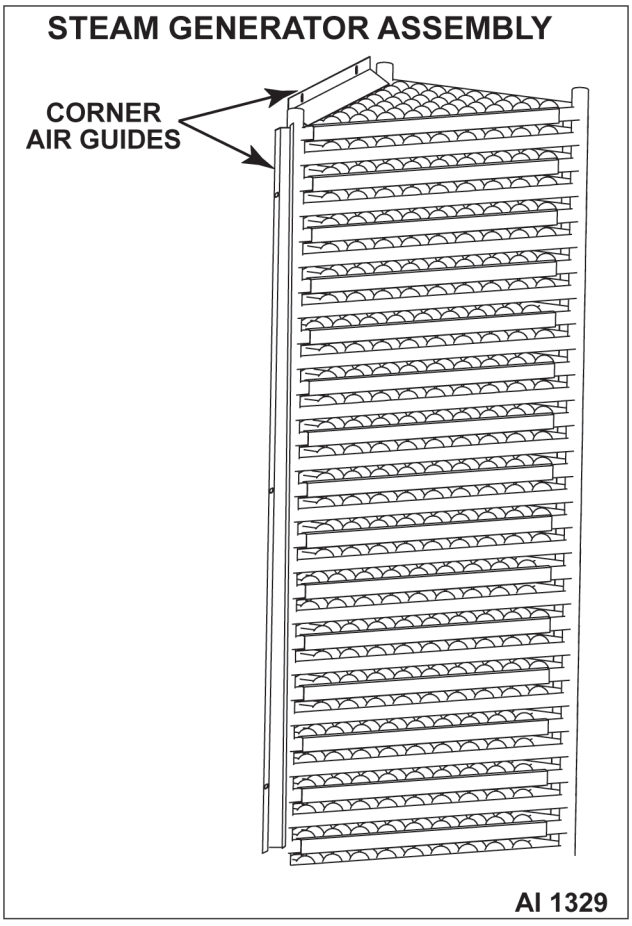


Fig. 72

10. Position spray guard to rest on top of steam ball assemblies.

OVEN	NUMBER OF PIECES
OV500G2EE	30 PSC
OV500G1EE	20 PCS
OV500E2	30 PSC
OV500E1	15 PCS
NOTE: For SEF ovens, pieces may vary.	



Fig. 73

11. Install left baking compartment panel.
12. Align steam panel with screw inserts in baking compartment ceiling (left rear corner) and loosely secure panel to ceiling with 1/4-20 X 3/4" hex head serrated flange screws.

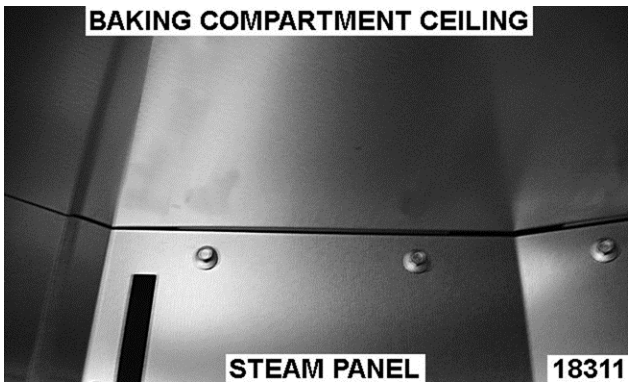


Fig. 74

13. Secure steam panel to rear baking compartment panel with 1/4-20 X 3/4" hex head serrated flange screws.



Fig. 75

14. Secure steam panel to left baking compartment panel with 1/4-20 X 3/4" hex head serrated flange screws.



Fig. 76

15. Tighten screws at top of steam panel.

DOOR HANDLE

1. Remove pivot screw from door handle pivot bracket on door assembly.

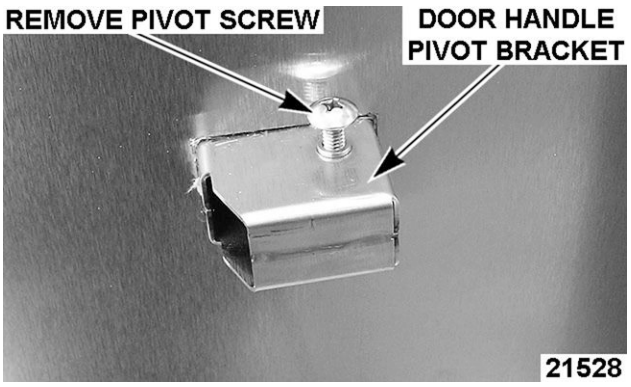


Fig. 77

2. Install door handle onto pivot bracket and insert screw removed earlier.



Fig. 78

A. Push door handle locking end onto door handle locking mount until handle locks onto mount.

NOTE: Ensure lock mechanism is in the unlocked position.

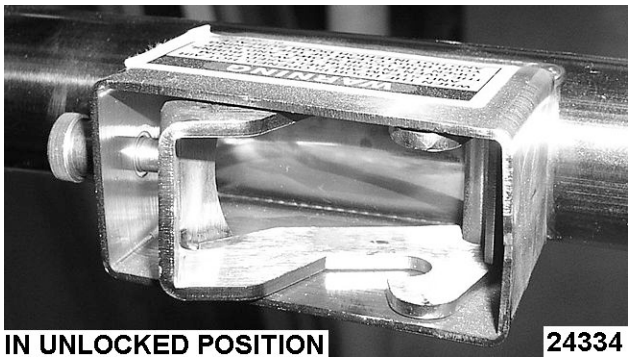


Fig. 79

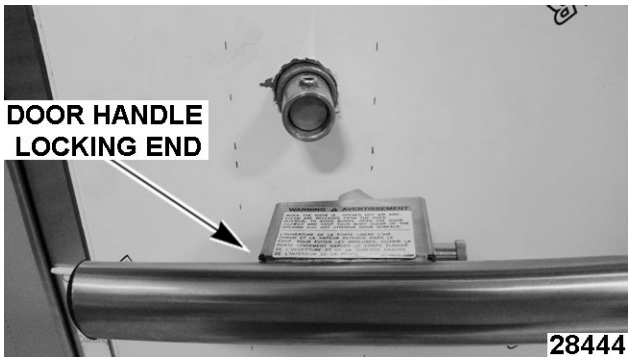


Fig. 80

DOOR ASSEMBLY

1. Observe the following:

A. With the door closed, visually check gap around door jamb and edge of door, gap should be equal on both sides.



Fig. 81

NOTE: If the door rubs against the jamb or drags the facility floor when opening, verify oven for levelness. If leveling does not correct the problem, call Bakery Product Support.

B. Adjust door hinge inward or outward until door has an airtight seal against door gasket.



Fig. 82

2. Verify door latches properly.

A. Insert a piece of paper between door jamb and door gasket on both sides and top of door.

B. If paper is loose, door latches will need adjusted.

NOTE: Latch alignment instructions are to help align door rollers with latch ramps during installation. This should be done after loading door is installed and oven is level.

3. To align door latches:

   A. With both door latch ramps having gauge installed.

NOTE: Vertical lines for adjusting the ramps so the wheels hit at the same time.

NOTE: If necessary, use horizontal lines to help select which latch arms to use for correct positioning of the wheels.

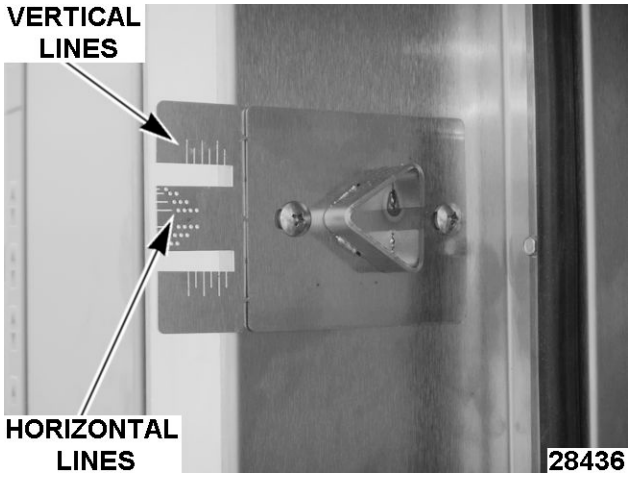


Fig. 83

B. Close the loading door to check roller shaft alignment with latch ramp gauge. The roller shaft should fit inside cutout on gauge as shown.

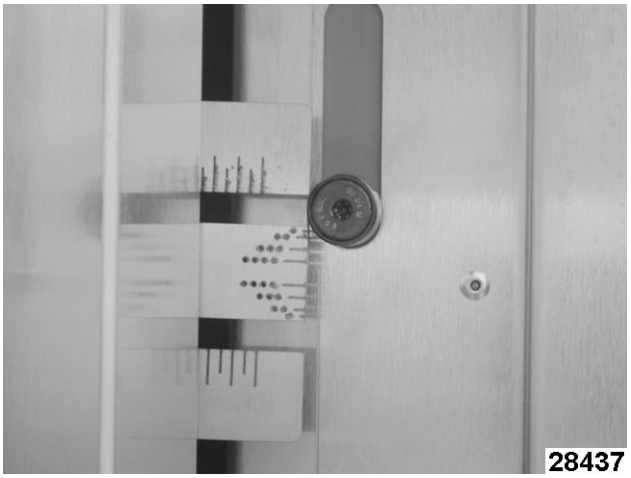


Fig. 84

C. If roller shaft does not align with gauge, then the latch arms will have to be replaced.

NOTE: The horizontal line closest to bottom of roller shaft will determine which latch arm to use. The horizontal lines and latch arms are identified with a different number of holes. The diagram below shows you would need to replace latch arms using latch arms with two oo's.



Fig. 85

4. To install latch arms:

   A. Remove inner door handle cover.

   B. Remove 3/8" bolt. DO NOT discard the tube, bolt or washer.

   C. Remove E-clip and pin. DO NOT discard the E-clip or Pin.

   D. Replace two latch arms with parts supplied. Reassemble inner mechanism,

making sure linkage arms are located in the up position. Re-attach inner door handle.

NOTE: For left hand hinge, bolt and arms must be flipped and mounted to hole. place unused arms to latch box and secure with 1/4-20 bolt.

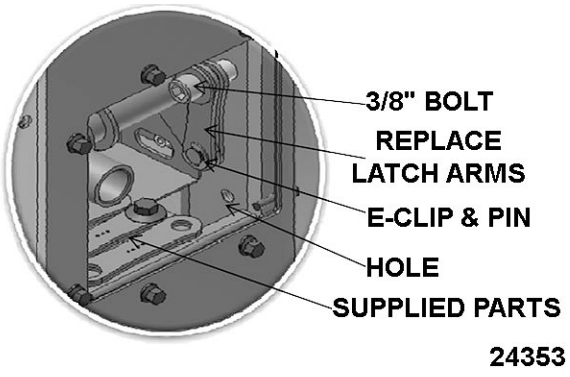


Fig. 86

5. To adjust door gasket seal:
   A. Place a piece of paper at bottom hinge side between door and door gasket.
   B. Close oven door and slowly pull on paper. There should be just enough drag to hold paper from falling. Repeat this procedure around door every couple of feet. If door is too tight on hinge side, loosen the hinges on the door and adjust door outward, reverse if too loose. For latch side adjustment, loosen screws on ramp(s) and move ramp(s) in or out.
   C. After adjusting the ramps for proper gasket seal, make sure rollers contact ramps at the same time. To check this, push the door closed until one roller lightly touches a ramp, check to see where door edge aligns with vertical lines on the ramp gauge. The door edge should align with the same vertical line on each ramp gauge.

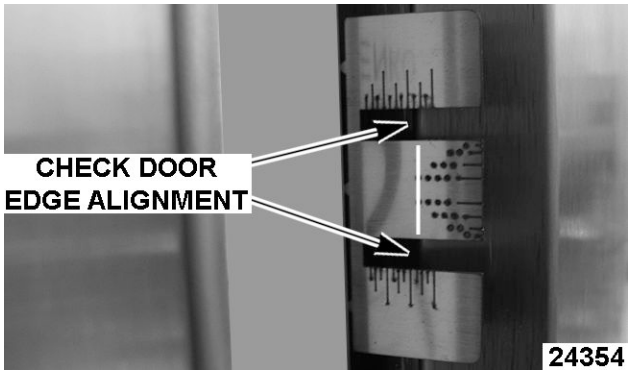


Fig. 87

   D. If adjustment is required, move a ramp so that both rollers contact the ramps at the same time.

NOTE: Keep in mind the door gasket seal. Both ramps need to be in correct location to equalize pressure on rollers.

6. Repeat the process until desired results are obtained or call Bakery Product Support.
7. After desired results obtained, bend alignment gauges back and forth to break off and discard.

DOOR SWITCH ACTUATOR

1. Check door switch actuator for proper operation and adjust switch as needed.

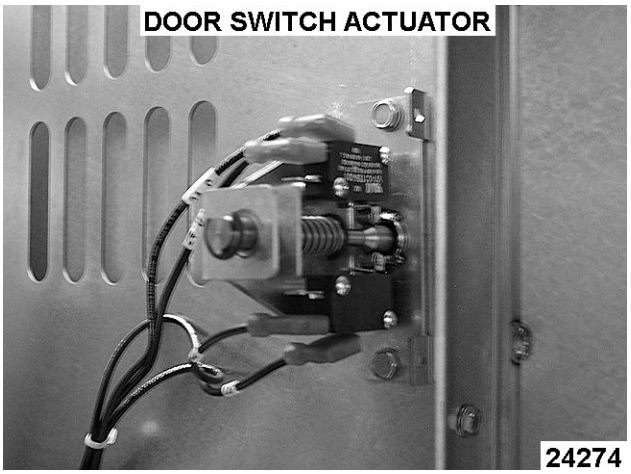


Fig. 88

DOOR SWEEP

1. Install door sweep.

NOTE: Door sweep shipped with door assembly.

   A. Adjust the door sweep so the metal door seal plate is 5/16" from the highest point on the floor.

NOTE: Door sweep has slots for adjustment.



Fig. 89

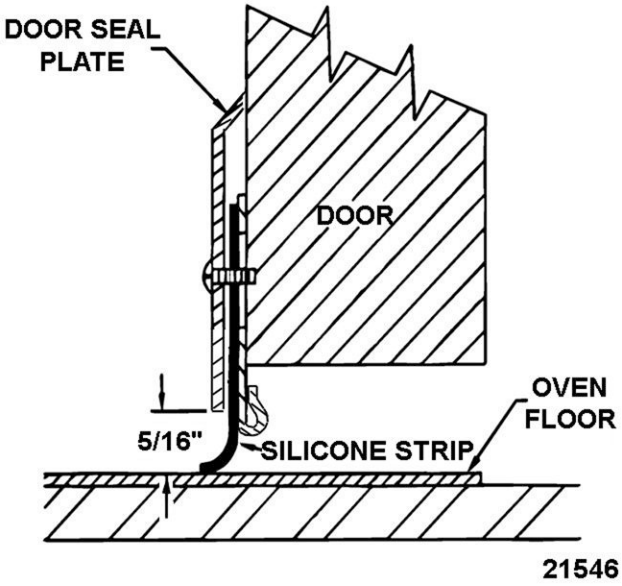


Fig. 90

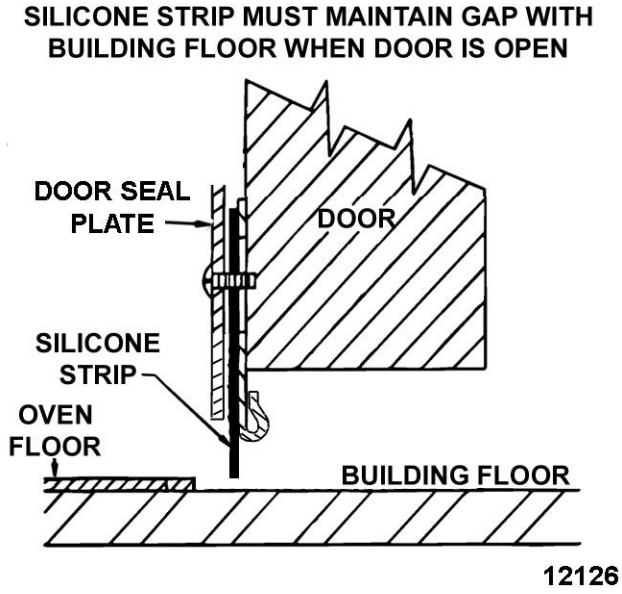


Fig. 91

RACK CARRIER - A & C STYLE RACK LIFT

NOTE: After oven has been leveled.

1. Remove snap ring (C lift) or pin and washer (A lift) from rotation shaft and save for carrier installation. Cardboard tube can be discarded.

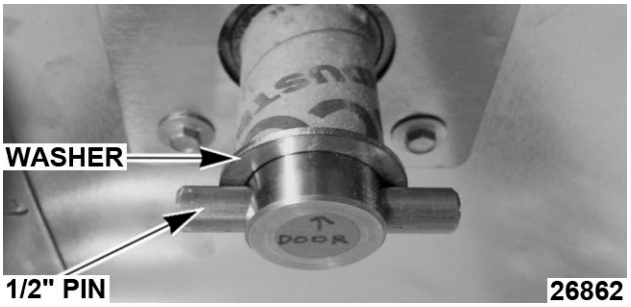


Fig. 92

Installing "A" Lift (1.25" shaft)

A. Position carrier on shaft with arrows on the shaft and carrier aligned.

B. Insert 1/2” pin through holes in carrier hub and shaft.

NOTE: Pin should be centered and fit snug in shaft.

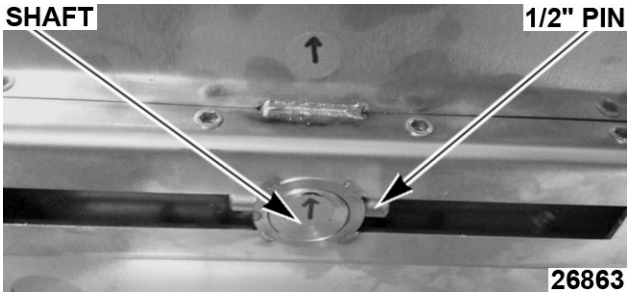


Fig. 93

C. Install cover plate to the bottom of the carrier with screws provided.

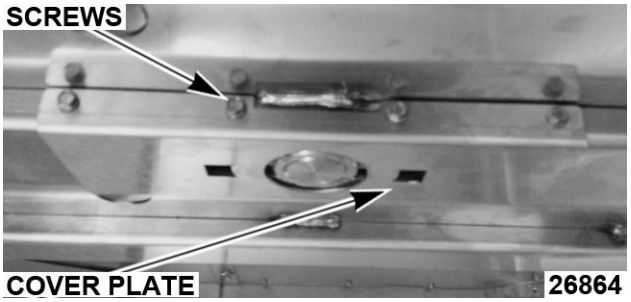


Fig. 94

Installing "C" Lift (1.25" shaft)

A. Install rack carrier.

B. Apply food grade Never Seize to set screw threads on (C lift) and start the set screws into the carrier.

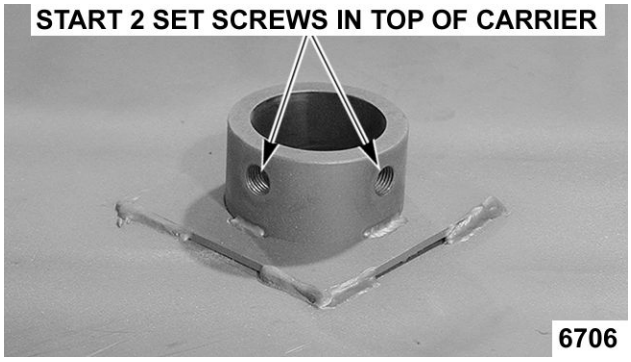


Fig. 95

C. Slide the carrier onto the lift mechanism shaft and install the snap ring.

NOTE: Do Not allow the lift mechanism shaft to move upward. Hold shaft down from top of oven.

2. Roll baking rack onto carrier and check for proper carrier height.

NOTE: Carrier should be approximately 0.125" to 0.25" from rack lifting channels. Check multiple baking racks.

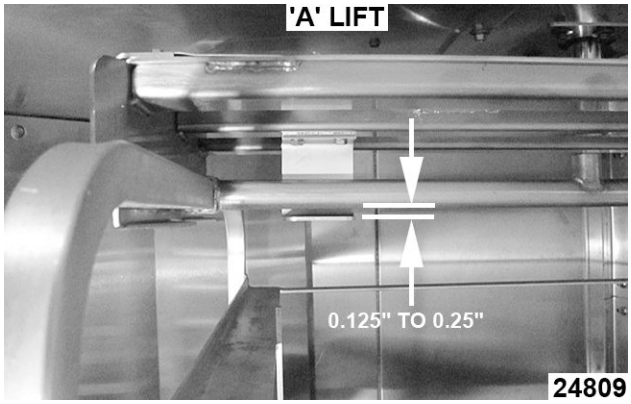


Fig. 96

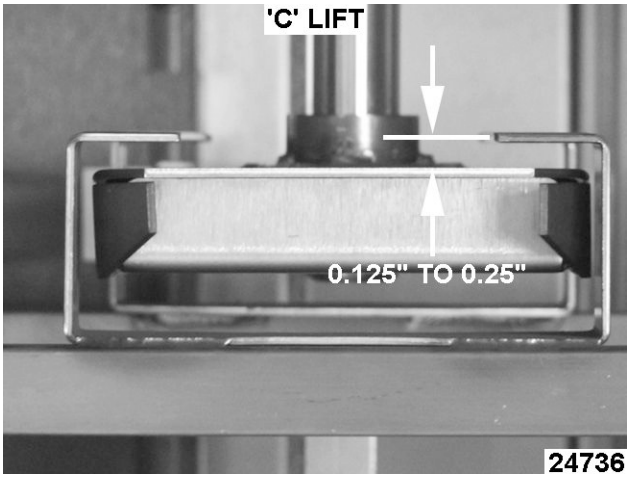


Fig. 97

A. If carrier height needs adjusted, remove baking rack and support carrier with step ladder or oven rack and blocks of wood to correct height.

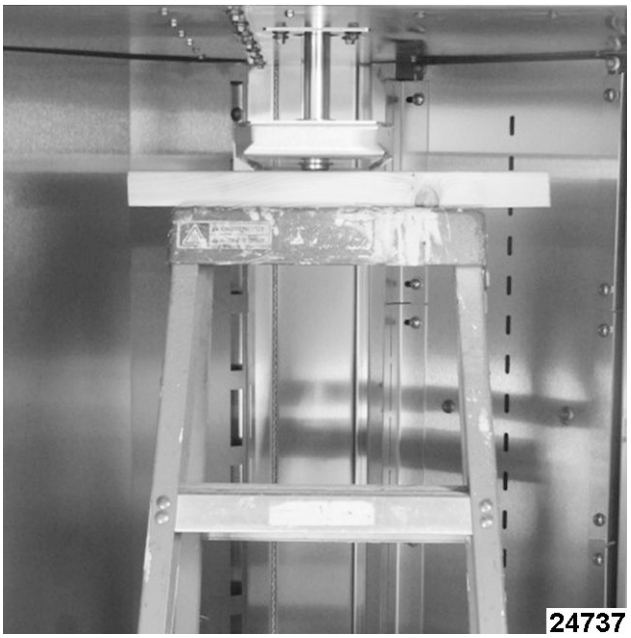


Fig. 98

B. Access rotate/lift assembly at top of oven.

C. Loosen rotate/lift shaft collar set screw 1/4 turn.

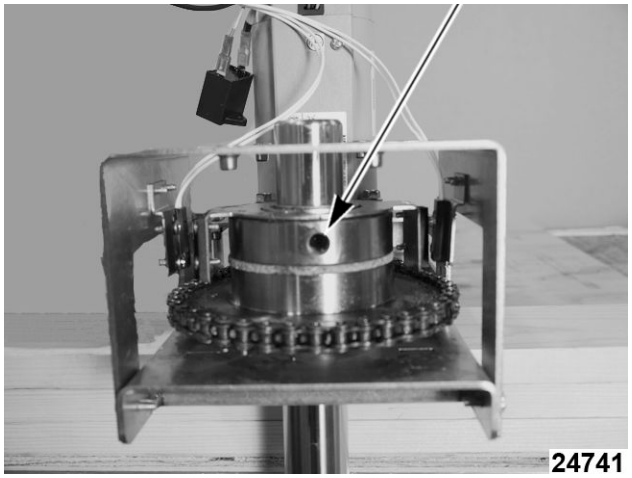


Fig. 99

D. Remove screws securing Teflon bearing bracket to rotate/lift assembly and lift from assembly.

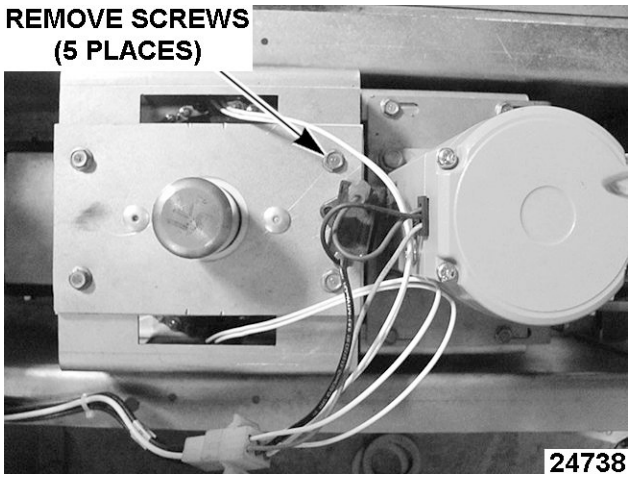


Fig. 100

E. Factory Installed shim washers 5 above and 5 below retaining ring. Position shim washers above or below the retaining ring for correct carrier height.

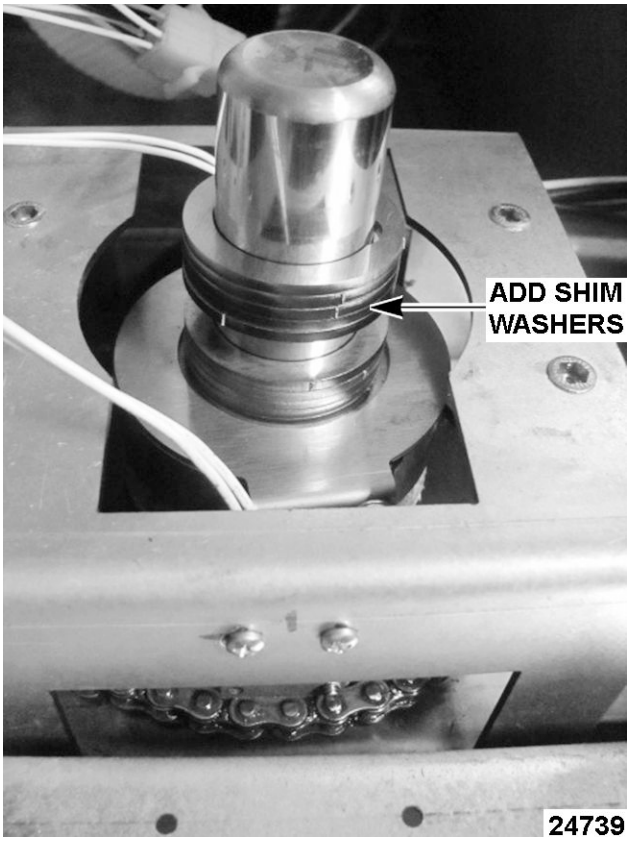


Fig. 101

F. If carrier needs to be lower than snap ring will allow, access clevis pins on rear of lift and lower both equally.

NOTE: Always lower left and right clevis pins the same distance. One hole location equals 1/4" adjustment.

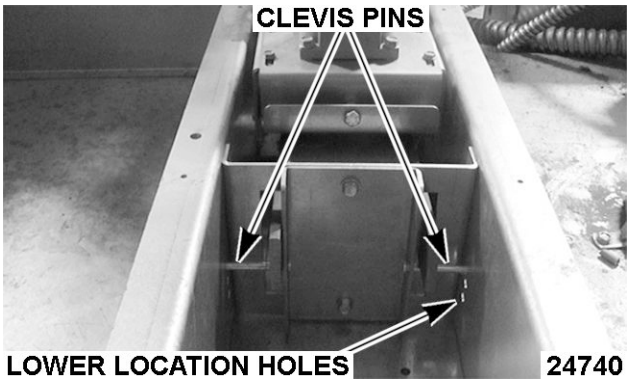


Fig. 102

3. Install snap ring, Teflon plate and tighten set screw.

NOTE: You made need to lift up on rotator body while tightening set screw to get shims flush with the snap ring.

NOTE: Check multiple racks.

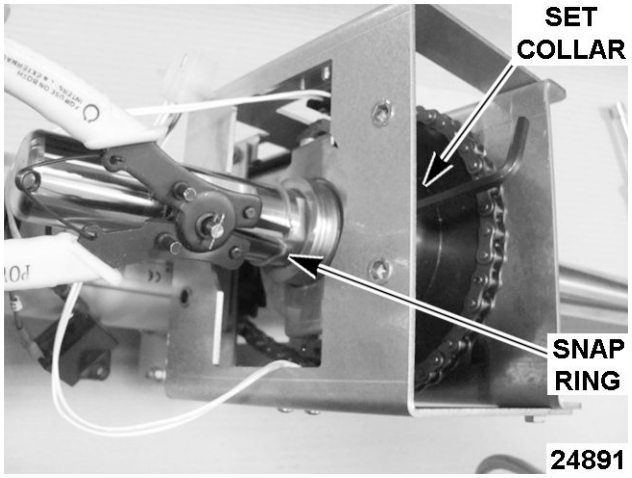


Fig. 103

4. Remove shipping ties from vent lid.

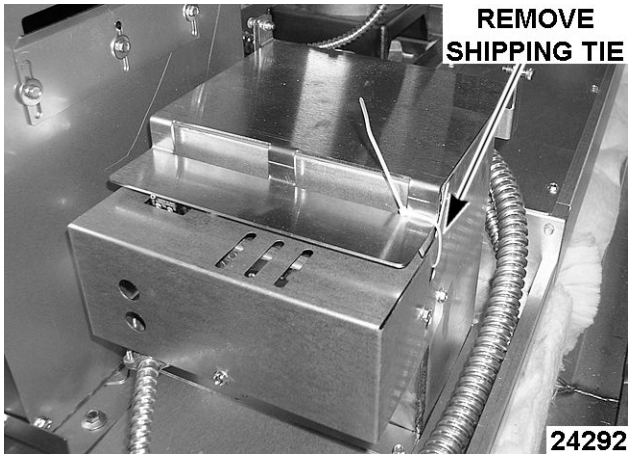


Fig. 104

RACK CARRIER - B STYLE RACK LIFT

NOTE: After oven is leveled.

1. Remove snap ring, shim washers, and cardboard shipping tube from lift shaft.

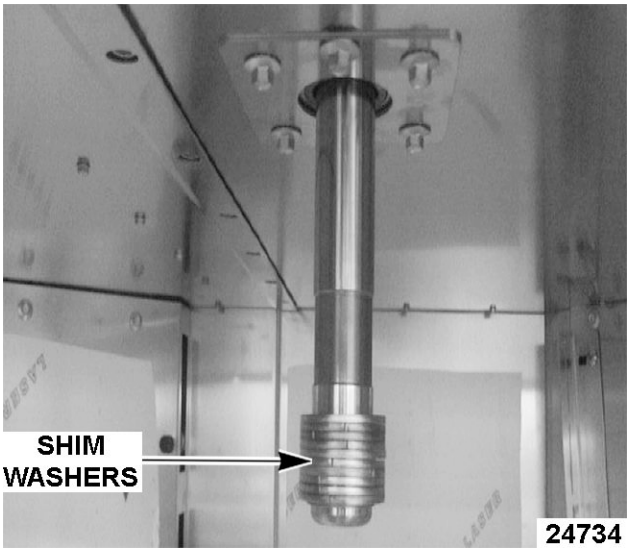


Fig. 105

2. Install rack carrier.
3. Apply food grade Never Seize to set screw threads and start the set screws into the carrier.

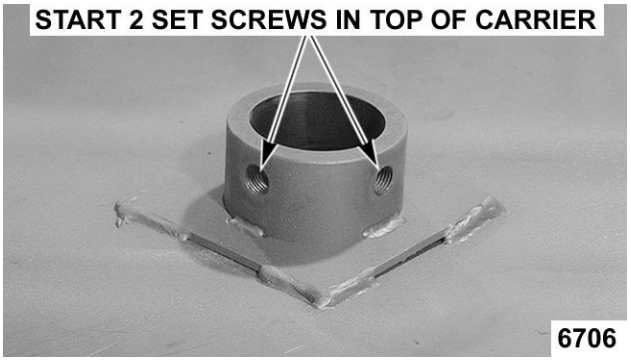


Fig. 106

4. Slide the carrier onto the lift mechanism shaft and install snap ring.
5. Roll baking rack onto carrier and check for proper carrier height.

NOTE: Carrier should be approximately 0.125" to 0.25" from rack lifting channels. Check multiple baking racks.

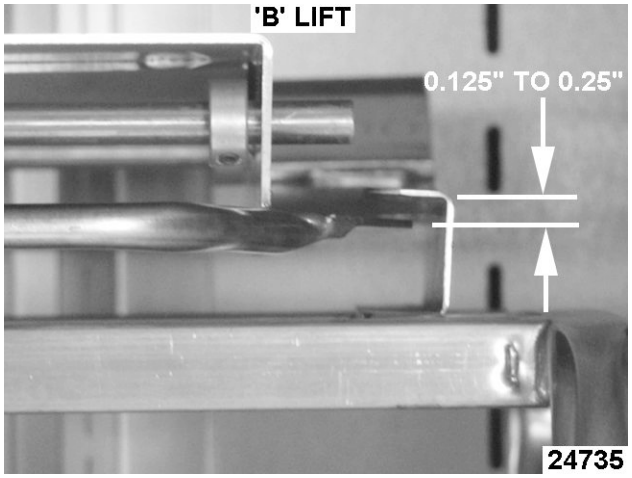


Fig. 107

A. Access rotate/lift assembly at top of oven.

B. If carrier needs to be lower than snap ring will allow, access clevis pins and lower location to correct carrier height.

NOTE: Always lower left and right clevis pins the same distance. One hole location equals 1/4" adjustment.

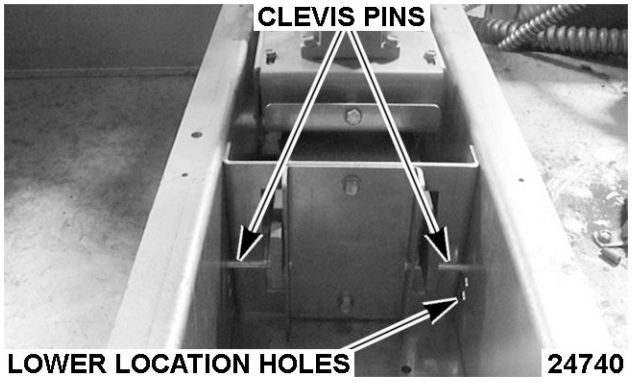


Fig. 108

6. If the carrier needs to be adjusted to get proper spacing, remove rack and add shims between snap ring and carrier as shown. Ten shims are provided with each oven.

NOTE: Check multiple racks

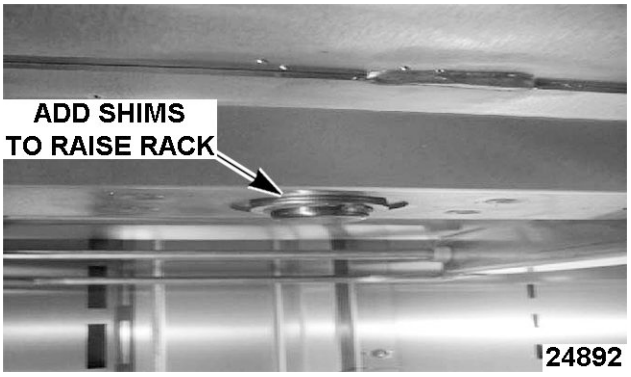


Fig. 109

7. Snug the set screws to hold the carrier in place.

8. Remove shipping ties from vent lid.

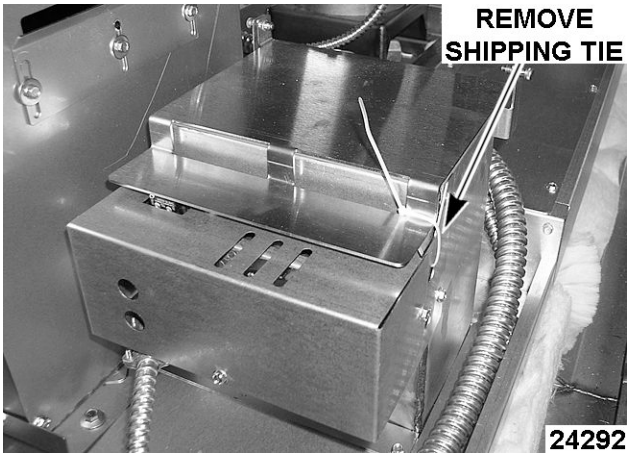


Fig. 110

HOOD ASSEMBLY

NOTE: After the hood is installed the door assembly cannot be lifted off the hinge pins. The door assembly would have to be removed and installed from the door hinges.

1. Set hood on the floor in front of oven (if hood supplied). Remove only the necessary protective plastic from the hood.

   A. Attach side panels with 10-32 screws 10 screw holes to the back of the hood, and ensure that the 3 screw holes are to the rear on each side panel. Align top of hood up with the top edge of side trim panels before tightening the screws.

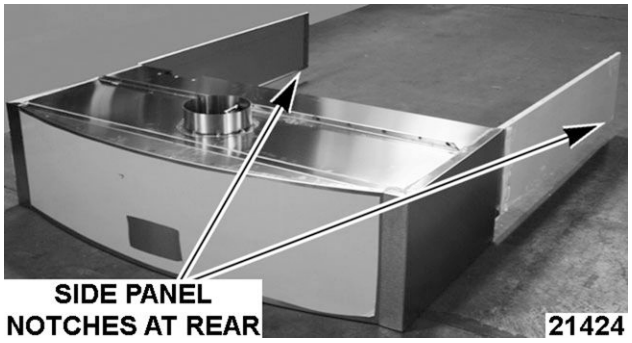


Fig. 111

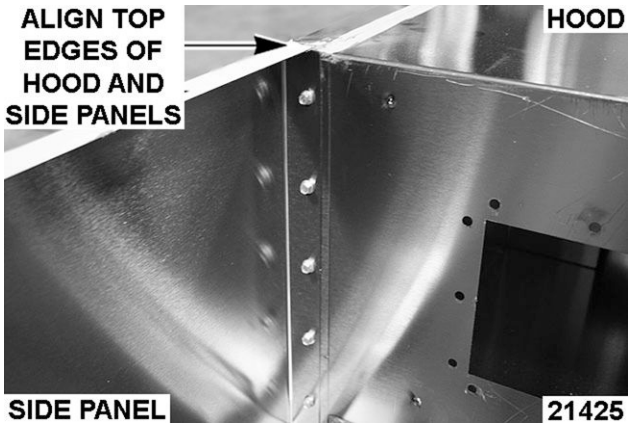


Fig. 112

B. Attach rear panel to each side panel with 10-32 X 3/4" screws.

NOTE: If clearance is a problem, don't install the rear panel, set hood with side panels in place first.

C. Apply gray NSF listed silicone around face of overpressure duct.



Fig. 113

D. Set hood in place on top of oven.

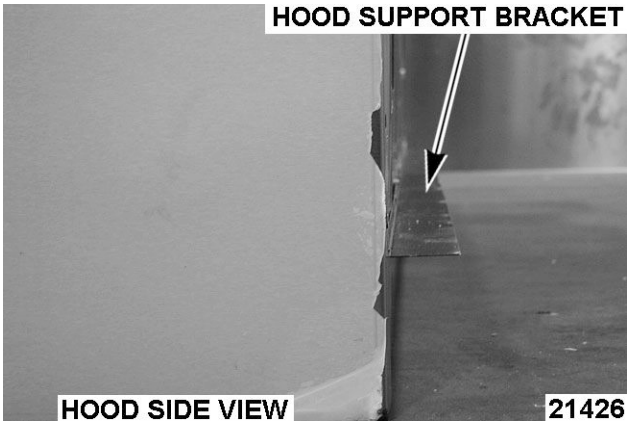


Fig. 114

E. Ensure hood support bracket sets on front top edge of oven.

F. Ensure bottom edge of hood is aligned with bottom edge of oven support.



Fig. 115

G. Secure side panels with #10 Tek screws into top of oven.

H. If not attached in previous steps, attach rear panel of hood.

I. Secure hood support bracket to top of oven with #10 Tek screws.



Fig. 116

2. Remove perforated air baffle from hood.

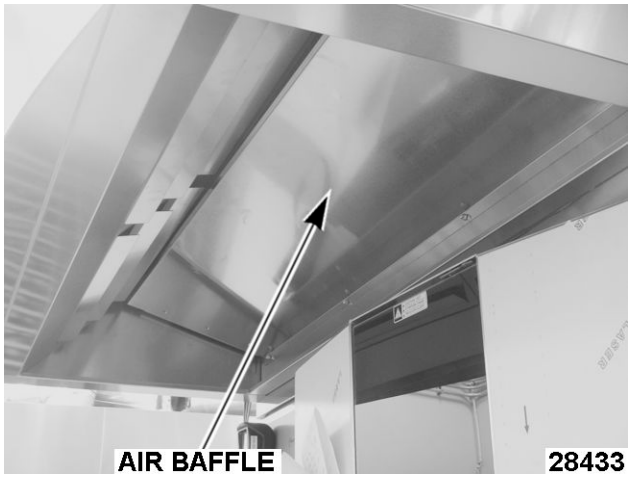


Fig. 117

3. Connect the over pressure vent (Right side of hood) using #10 Tek screws 8 places total.

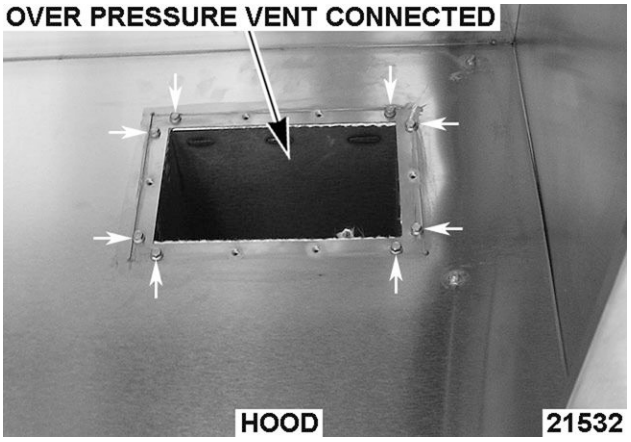


Fig. 118

4. Install over pressure damper to over pressure vent (right side of hood) using #10 Tek screws.



Fig. 119

5. Caulk header and seams at hood and side panels also bottom edge seam of hood along oven front with gray silicone.



Fig. 120

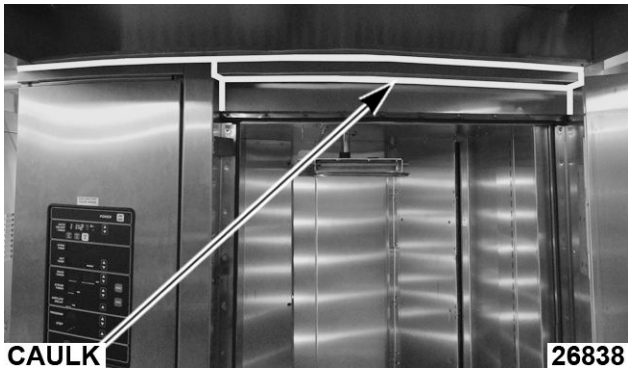


Fig. 121

6. Customer is responsible for having a flue pipe connected to the center hood connection. See appropriate oven specification.



Fig. 122

7. Install bracket between top of hood and hood side trim (2 places).

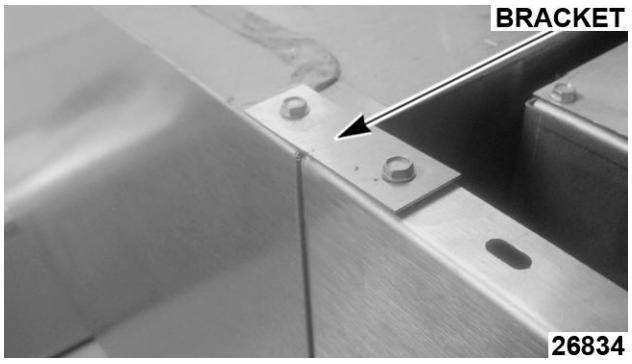


Fig. 123

HOOD VENTING

1. Install exhaust connection plate to hood assembly.

NOTE: Electric oven install a hood exhaust enclosure plate to close off exhaust opening in hood.

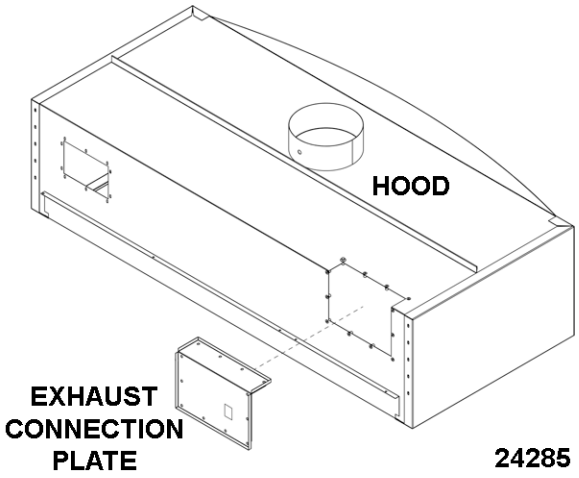


Fig. 124



Fig. 125

2. Insert exhaust duct thru hood and connect to draft inducer.

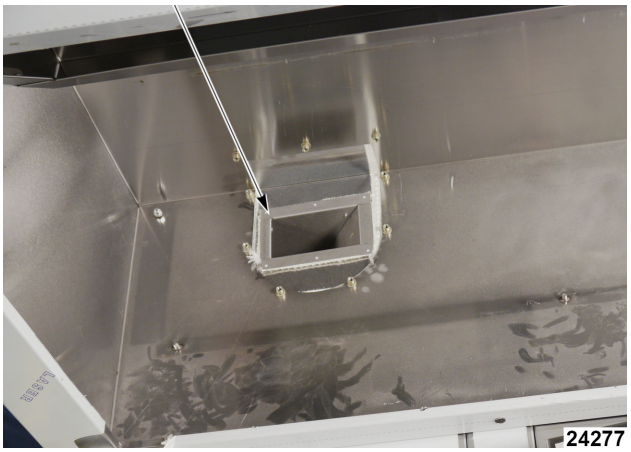


Fig. 126

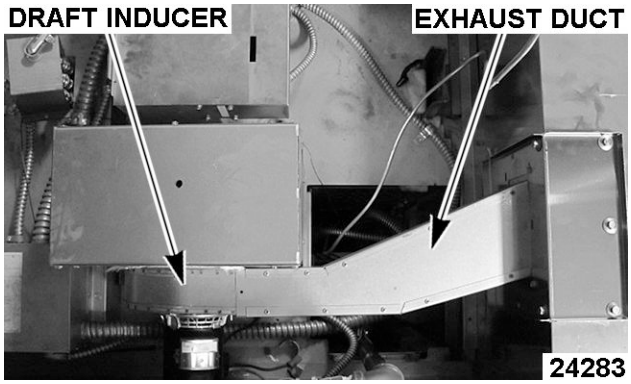


Fig. 127

3. Secure exhaust duct to exhaust connection plate.
4. Secure exhaust duct with #10 Tek screws to draft inducer.

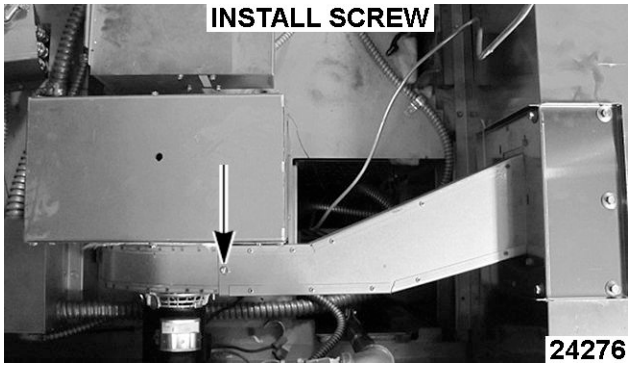


Fig. 128

5. Connect the hood exhaust tube at hood exhaust pressure switch. Switch location on side of control panel inside control compartment. Leave tubing coiled in control compartment.

NOTE: Defer connecting hood vent tube to the hood exhaust connection until start up.

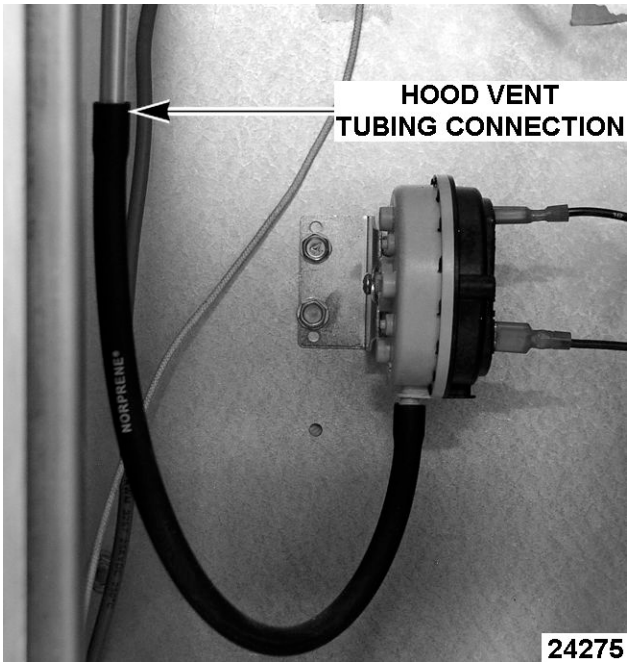


Fig. 129

AIR BAFFLE & GREASE FILTERS

1. Install perforated air baffle with 1/4-20 acorn nuts.
2. Install grease filters for type 1 hood or install perforated plenum panel for type 2 hood.

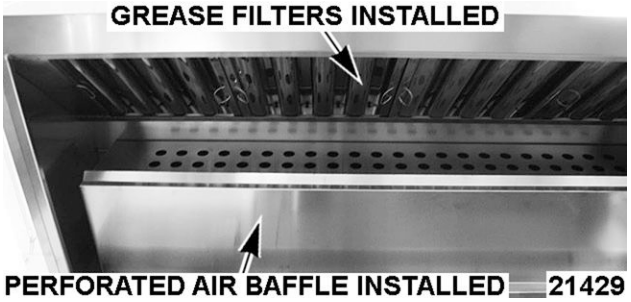


Fig. 130



Fig. 131

CAULK OVEN

1. Caulk around oven with gray NSF listed silicone.

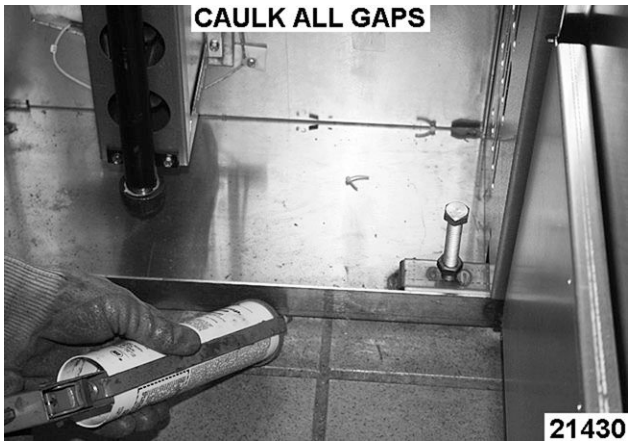


Fig. 132

INITIAL START-UP



⚠ WARNING

Disconnect the electrical power to the machine and follow lockout / tagout procedures. There may be multiple circuits. Be sure all circuits are disconnected.

NOTE: Remove all protective plastic sheeting from oven surfaces and wipe down to remove all fingerprints, prior to heating oven.

NOTE: All utility connections by others.

Power and Plumbing Connections

- Verify the following:
  - Gas supply line shut-off valve is in the OFF position.
  - Gas supplied matches data plate and gas valve on oven.
  - Gas valve is in the OFF position.
  - Electrical connections have been made by electrician. 120V control, high voltage, and powered roof ventilator (external device).

NOTE: Refer to the service entrance label on the oven for electrical connections.

- Turn the 120V supply power ON.
- Turn the circuit breakers ON.
- Drain connected (with air gap) by plumber and opposite end of drain plugged.
- Water line is connected by plumber to flow restrictor located on top left rear corner of oven.
- Water shut off is installed in supply line.

NOTE: If a water filtration unit is installed in supply line, verify that a filter cartridge is installed in unit (performed by customer).

NOTE: Refer to oven installation checklist and complete during initial start-up.

Start Up

1. Connect hood exhaust pressure switch tubing to hood exhaust connection.

NOTE: Make sure that there is a point in the tubing that is higher than flue pipe connection before tubing is routed to the hood exhaust pressure switch. This will help prevent the tube from clogging.

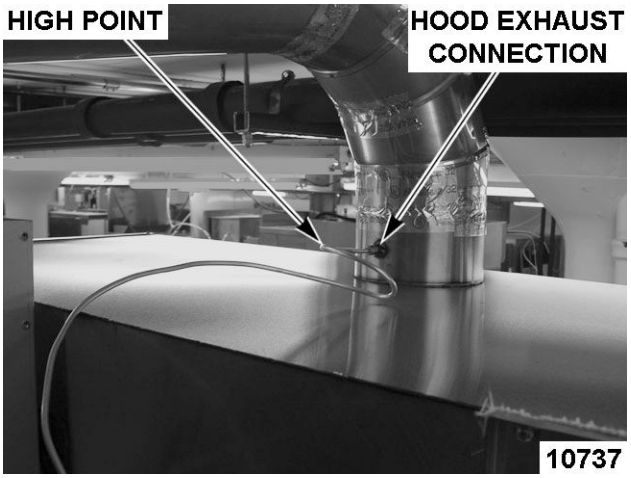


Fig. 133

2. Close oven door.

3. Turn oven power ON. Use DOWN ARROW keys select lowest bake temperature so oven will not initiate a call for heat.
4. Verify operation of roof mounted ventilator.

NOTE: Verify plenum panel or grease filters installed.

   A. Remove vacuum line near hood exhaust pressure switch and connect incline manometer or equivalent.
      1) Venting Minimum reading should be: -0.60" W.C., -15.2 mm W.C., or -0.15 kPa.
   B. Disconnect manometer and reconnect vacuum line onto hood exhaust pressure switch.

5. Verify air louvers are set at factory settings.

NOTE: Factory louver settings located inside of control compartment door.

6. Verify that rack carrier height will accept racks when loading and no drag when rack is in the raised position.

NOTE: Racks expand when hot. There should be approximately 1/2" clearance from bottom of carrier to top of rack. Check at least two racks to verify rack acceptance into carrier.

7. Verify that rack is level and rotating properly when door is closed; and rack stops in the correct loading position when door is opened.
8. Verify that baking compartment circulation blower is turning in direction indicated on motor. If not, disconnect power and switch any two of the three phase lead wires.
9. Verify steam system operation.
   A. Set oven control to have 1 plus minutes on bake timer display.
   B. Set steam time for 20 seconds.
   C. Press START key to begin timer countdown.
      1) Water solenoid should energize.
   D. Press STOP key to silence beeper.
10. <u>IGNITION SEQUENCE TIMING DIAGRAM</u>

NOTE: Ignition module will make three attempts to light burner before locking out.

   A. Ensure gas valve is in the off position to test ignition sequence check.
   B. Set oven to call for heat by pressing bake temperature display UP ARROW key, until HEAT ON LED illuminates.

   1st ATTEMPT

   C. Draft inducer energized for 15 seconds pre-purge cycle.
   D. Spark igniter arcs indicating that it is energized.
   E. 2 seconds after igniter was energized, gas valve solenoid is energized.
   F. After igniter has been energized for 4 seconds, flame sensor will not have recognized a flame.
      1) Power is removed from igniter and gas valve.

   2nd ATTEMPT

   G. 15 second inter-purge cycle.
   H. Spark igniter arcs indicating that it is energized.
   I. 2 seconds after igniter was energized, gas valve solenoid is energized.
   J. After igniter has been energized for 4 seconds, flame sensor will not have recognized a flame.
      1) Power is removed from igniter and gas valve.

   3rd ATTEMPT

   K. 15 second inter-purge cycle.
   L. Spark igniter arcs indicating that it is energized.
   M. 2 seconds after igniter was energized, gas valve solenoid is energized.
   N. After igniter has been energized for 4 seconds, flame sensor will not have recognized a flame.
      1) Power is removed from igniter and gas valve.
   O. After three tries for ignition and the burner has not lit, the draft inducer will shut off.
   P. LED on ignition control will flash in a 3-flash sequence indicating a flame recognition failure and that the control is in lock-out mode.
   Q. Opening the door for 5 seconds will reset ignition module.
   R. This indicates the safety lock-out circuit is functioning properly.

11. Gas Pressure Adjustment.
   A. Connect a manometer or equivalent to inlet and outlet pressure taps on gas valve.

B. Turn gas supply ON to oven and check for leaks between gas valve and supply line shut-off valve.

C. Verify that the static line pressure to the oven does not exceed 14" W.C. (1/2 psig, 35.6 cm W.C., 3.5 kPa).

NOTE: If static line pressure exceeds 14" W.C. (1/2 psig, 35.6 cm W.C., 3.5 kPa) the customer must supply and install a line pressure regulator to drop the pressure below 14" W.C., 35.6 cm W.C., 3.5 kPa.

D. Turn gas valve ON.

E. Set the oven to call for heat.

NOTE: It may take several ignition attempts to light burner initial time.

F. With oven burner flame established and with the burners lit for all other equipment that are common to supply line, check SUPPLY FLOW PRESSURE CHARTS.

G. With a burner flame established, adjust manifold pressure as indicated on the oven **data plate**.

NOTE: The ALTITUDE CORRECTION CHARTS are for reference only. If the manifold pressure must be adjusted to accommodate the installation altitude you must contact Bakery Product Support for a corrected data plate.

12. Initial heating of oven.

A. Press the VENT key to open baking chamber vent.

B. Leave loading door ajar approximately 2" to evacuate smoke and prevent tarnishing of oven interior, but not open far enough to prevent operation of oven.

C. Set the oven control baking temperature to 300°F (150°C). and bake timer for 30 minutes.

D. After time elapses, press STOP key to silence beeper.

E. Fully open loading door to verify that baking compartment circulation blower de-energizes.

F. Set the oven control baking temperature to 400°F (200°C). and bake timer for 30 minutes. Leave loading door ajar approximately 2".

G. After time elapses, silence the beeper and allow oven to heat for an additional 30 minutes with loading door closed.

13. Combustion analysis.

A. Allow oven to cool to 300°F (150°C).

B. Set oven temperature to 450°F (230°C) and with burner flame established, insert combustion analyzer meter into air sampling hole and take combustion measurements O2 and CO air free readings.

NOTE: Location of the air sampling hole will be either on top of, or on the side of the draft inducer assembly. Refer to pictures below for location of air sampling hole.

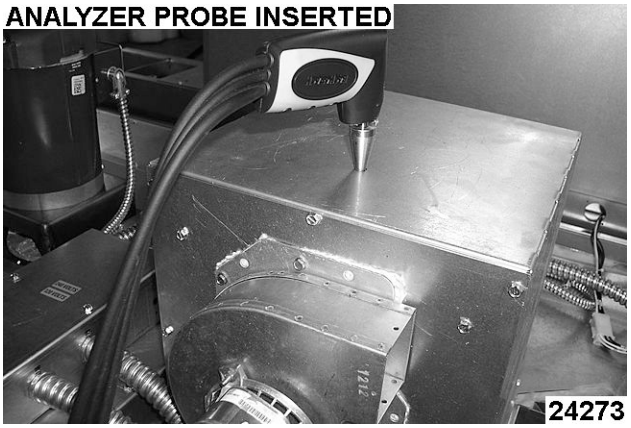


Fig. 134

NOTE: If air sampling hole is on the side, insert the probe at a 45° angle.

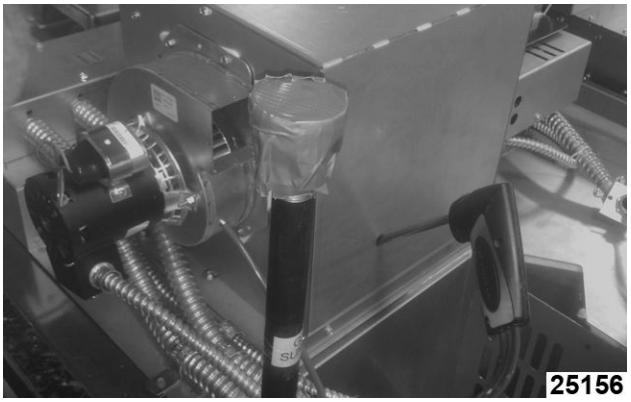


Fig. 135

O2: (Range 6% to 8%)
CO Air Free: Not to exceed 0.04% (400 PPM)

1) If reading cannot be obtained, adjust the draft inducer baffle and retest for combustion.

NOTE: Depending on the unit, baffle locations may vary. If combustion readings still cannot be obtained, contact Bakery Product Support.

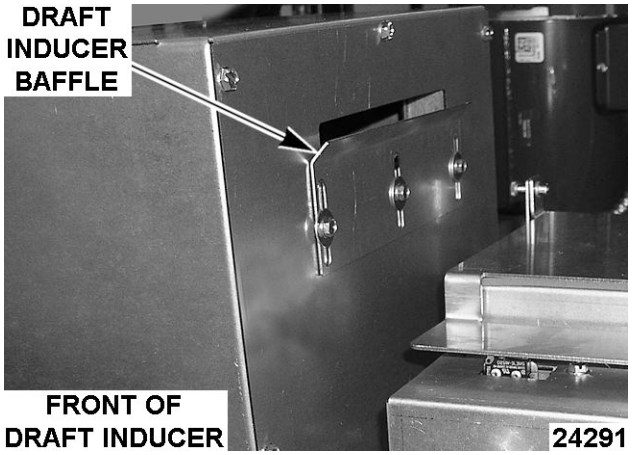


Fig. 136 Close Baffle to Increase O2

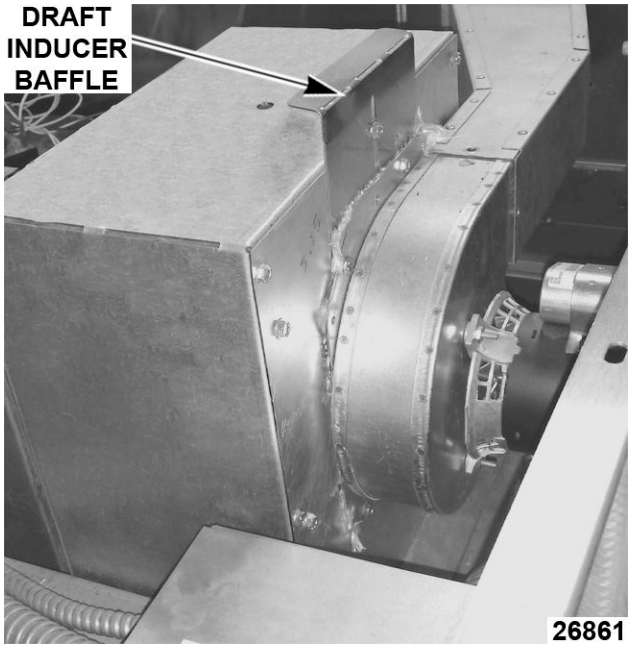


Fig. 137 Open Baffle to Increase O2

14. Press VENT keypad on oven control to close baking chamber vent.
15. Steam test.
    A. With oven temperature at 450°F (230°C) set 20 seconds on steam timer, 1 minute on bake timer, and press START key to initiate steam test.
    B. Check for steam leakage around and under loading door. If leakage is present, adjust door catch and/or door sweep as required. On wide view window doors adjust the door hinges.
    C. After time has expired press STOP key to silence beeper.
    D. With loading door closed. Allow oven to heat for 20 minutes at 450°F (230°C).
    E. Set 20 seconds on steam timer, 1 minute on bake timer, and press START key to initiate steam test.
    F. After time has expired press STOP key to silence beeper.
16. Press VENT key to open baking chamber vent. Allow oven to vent for two minutes, then close vent.
17. Set oven control baking temperature below room ambient temperature and open loading door 6" to 10" to release vapors.
18. Cool-Down.
    A. Press COOL DOWN key.
    B. With loading door open, press VENT key to initiate oven cool-down.
    C. After oven has reached a safe cool-down temperature, stop automatic cool-down by closing loading door and/or turning the oven power OFF.

INITIAL STARTUP INFORMATION MATERIAL

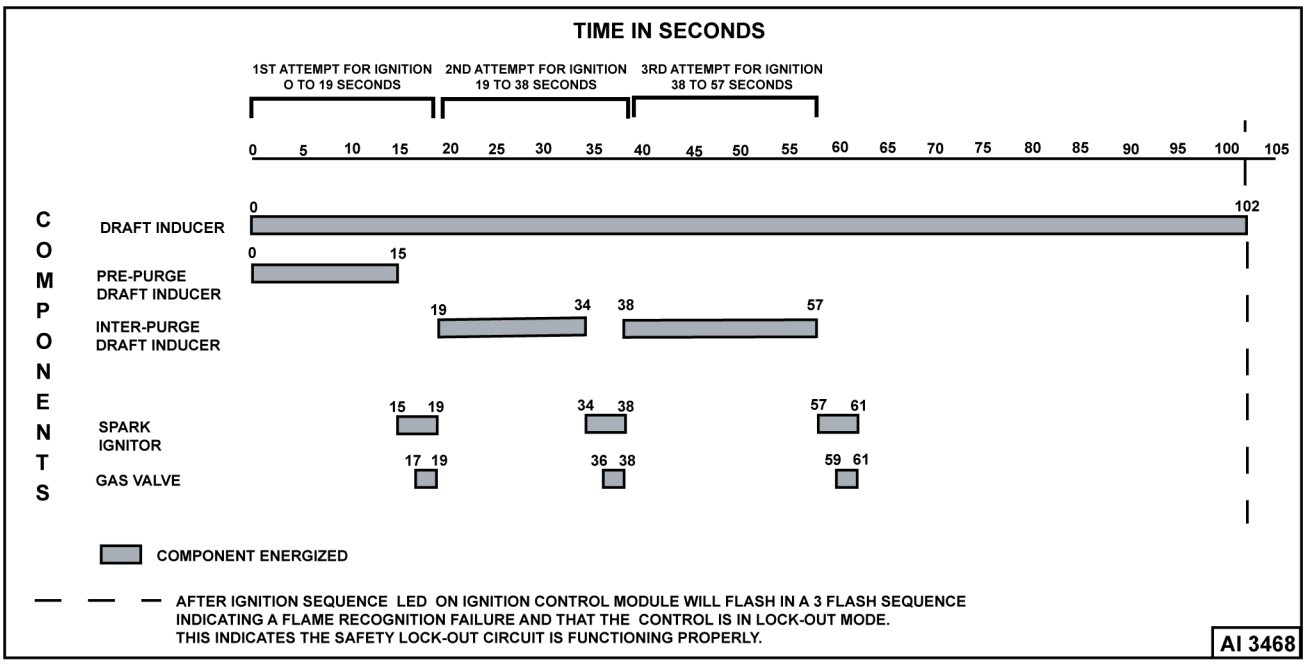


Fig. 138 IGNITION SEQUENCE TIMING DIAGRAM

SUPPLY FLOW PRESSURES OV500G1-EE

	Natural Gas	Propane Gas
BTU/HR	180,000	180,000
W.C.	5.0 -10.0"	12.0 - 14.0"
kCAL/HR	45,400	45,400
cm W.C.	12.7 - 25.4	30.5 - 35.6
Mj/HR	190	190
kPa	1.25 - 2.50	3.00 - 3.50

SUPPLY FLOW PRESSURES OV500G2-EE

	Natural Gas	Propane Gas
BTU/HR	275,000	275,000
W.C.	5.0-14.0"	10.0"- 14.0"
kCAL/HR	69,300	69,300
cm W.C.	12.7 - 35.6	30.5 - 35.6
Mj/HR	290	290

SUPPLY FLOW PRESSURES OV500G2-EE (Continued)

	Natural Gas	Propane Gas
kPa	1.25 - 3.50	2.50 - 3.50

ALTITUDE CORRECTION CHART

ELEVATION IN FT.	OV500G1-EE		OV500G1-EE		OV500G2-EE		OV500G2-EE	
	Natural Gas		Propane Gas		Natural Gas		Propane Gas	
	Orifice #53 Orifice Dia. 0.0595		Orifice #63 Orifice Dia. 0.037		Orifice #49 Orifice Dia. 0.073		Orifice #56 Orifice Dia. 0.046	
	Oven Rating BTU/Hr	Manifold Pressure “W.C.	Oven Rating BTU/Hr	Manifold Pressure “W.C.	Oven Rating BTU/Hr	Manifold Pressure “W.C.	Oven Rating BTU/Hr	Manifold Pressure “W.C.
0 (sea level)-2999	180,000	3.5	180,000	10.0	275,000	3.5	275,000	8.75
3000-3499	158,400	2.7	158,400	7.7	264,000	3.3	264,000	8.9
3500-3999	154,800	2.6	154,800	7.3	258,000	3.1	258,000	8.5
4000-4499	151,200	2.4	151,200	7.0	252,000	3.0	252,000	8.2
4500-4999	147,600	2.3	147,600	6.7	246,000	2.9	246,000	7.8
5000-5499	144,000	2.2	144,000	6.4	240,000	2.7	240,000	7.4
5500-5550	140,400	2.1	140,400	6.0	234,000	2.6	234,000	7.0

ORIFICE DIA. MUST CHANGE 5551 FT. ABOVE SEA LEVEL

ELEVATION IN FT.	OV500G1-EE		OV500G1-EE		OV500G2-EE		OV500G2-EE	
	Natural Gas		Propane Gas		Natural Gas		Propane Gas	
	Orifice #55 Orifice Dia. 0.052		Orifice #66 Orifice Dia. 0.033		Orifice #52 Orifice Dia. 0.0635		Orifice #60 Orifice Dia. 0.04	
	Oven Rating BTU/Hr	Manifold Pressure “W.C.	Oven Rating BTU/Hr	Manifold Pressure “W.C.	Oven Rating BTU/Hr	Manifold Pressure “W.C.	Oven Rating BTU/Hr	Manifold Pressure “W.C.
5551-6000	136,800	3.4	136,800	9.1	228,000	4.3	228,000	11.7

ORIFICE DIA. MUST CHANGE 5551 FT. ABOVE SEA LEVEL (Continued)

ELEVATION IN FT.	OV500G1-EE		OV500G1-EE		OV500G2-EE		OV500G2-EE	
	Natural Gas		Propane Gas		Natural Gas		Propane Gas	
	Orifice #55 Orifice Dia. 0.052		Orifice #66 Orifice Dia. 0.033		Orifice #52 Orifice Dia. 0.0635		Orifice #60 Orifice Dia. 0.04	
6001-6500	133,200	3.2	133,200	8.6	222,000	4.1	222,000	11.1
6501-7000	129,600	3.1	129,600	8.1	216,000	3.8	216,000	10.5
7001-7500	126,000	2.9	126,000	7.7	210,000	3.6	210,000	9.9
7501-8000	122,400	2.7	122,400	7.3	204,000	3.4	204,000	9.3
8001-8500	118,800	2.6	118,800	6.8	198,000	3.2	198,000	8.8
8501-9000	115,200	2.4	115,200	6.4	192,000	3.0	192,000	8.3
9001-9500	111,600	2.3	111,600	6.0	186,000	2.8	186,000	7.8
9501-10,000	108,000	2.1	108,000	5.7	180,000	2.7	180,000	7.3

FINAL CHECKS

1. Complete Installation Checklist and distribute copies per instructions on checklist.
2. Record start-up information on the label provided inside the control compartment door.

HARDWARE REFERENCE GUIDES

- ***Rack Oven Hardware Reference Guide***
- ***OV500 Hardware Location and Identification***

01-10I976-00002 RACK OVEN-HARDWARE IDENTIFIER

Photo	Part Number	Description	Photo	Part Number	Description
	01-1000V0-00080	BEARING, BRASS - DOOR HINGE		01-1000V4-00480	1/4-20 X 1.00 INCH LONG FLAT HEAD SCREW
	01-1000V0-00091	E-CLIP LOCK BAR (OV500/OV520 ONLY - NOT INCLUDED IN HARDWARE KIT)		01-1000V4-00481	1/4-20 X .75 INCH LONG FLAT HEAD SCREW
	01-1000V4-00058	5/16-18 X 1 INCH LONG, GIMLET SCREW		01-1000V4-00482	1/4-20 X .50 INCH LONG FLAT HEAD SCREW
	01-1000V4-00069	1/2-13 NUT		01-1000V4-00498	1/4-20 X .75 INCH LONG, PAN HEAD SCREW
	01-1000V4-00073	1/4-20 ANCHOR (MILD STEEL)		01-1000V4-00499	1/4-20 X .75 INCH LONG, FLAT HEAD SCREW
	01-1000V4-00161	3/8-16 SET SCREW (CARRIER)		01-1000V4-00503	PIVOT SCREW (1/4-20) (NOT INCLUDED IN HARDWARE KIT)
	01-1000V4-00199	3/8-24 SET SCREW (ROTATON)		01-1000V4-00531	3/8-16 LOCK BAR SCREW, (OV500/OV520 ONLY - NOT INCLUDED IN HARDWARE KIT)
	01-1000V4-00264	1/2" LOCK WASHER		01-1000V4-00542	#8 PHIPS (ROTATION CAPACITOR)
	01-1000V4-00283	1/4-20 X .75 INCH LONG, HEX HEAD WIDE SERRATED FLANGE SCREW		01-100V18-00078	#7 DRILL BIT (1/4-20 TAP)
	01-1000V4-00284	10-32 X .75 INCH LONG SCREWS		01-100V18-0128E	#20 DRILL BIT (10-32 TAP)
	01-1000V4-00364	3/8-16 LOCK BAR WASHER (OV500/OV520 ONLY - NOT INCLUDED IN HARDWARE KIT)		01-100V18-0129A	10-32 TAP
	01-1000V4-00385	# 10 TEK SCREW		01-100V18-0129D	1/4-20 TAP
	01-1000V4-00387	1/4-20 X 0.50 INCH SCREW (OV500/OV520 HOOD ONLY)		01-1M2372-00001	CENTER FLOOR WASHER (SINGLE RACK ONLY)
	01-1000V4-00400	10-32 X .75 INCH LONG, GIMLET POINT SCREW		01-1M6101-00114	TUBE LOCK BAR, (OV500/OV520 ONLY - NOT INCLUDED IN HARDWARE KIT)
	01-1000V4-00465	1/2-13 X 1-1/2 INCH LONG BOLT		01-1M6101-00115	DOOR HANDLE PIVOT PIN, (OV500/OV520 ONLY - NOT INCLUDED IN HARDWARE KIT)
	01-1000V4-00479	1/4-20 X .75 INCH LONG, HEX HEAD THREAD CUTTING SCREW		01-1M6108-00110	ARM LOCK BAR PIVOT, (OV500/OV520 ONLY - NOT INCLUDED IN HARDWARE KIT)
	01-1000V4-00386	#10-32 X .50 INCH LONG, HEX HEAD W/ STARLOCK WASHER SCREW (CS500 HOOD ONLY)			

OV500 HARDWARE LOCATION AND IDENTIFICATION

Note: Part numbers in this document for the Hardware are abbreviated.

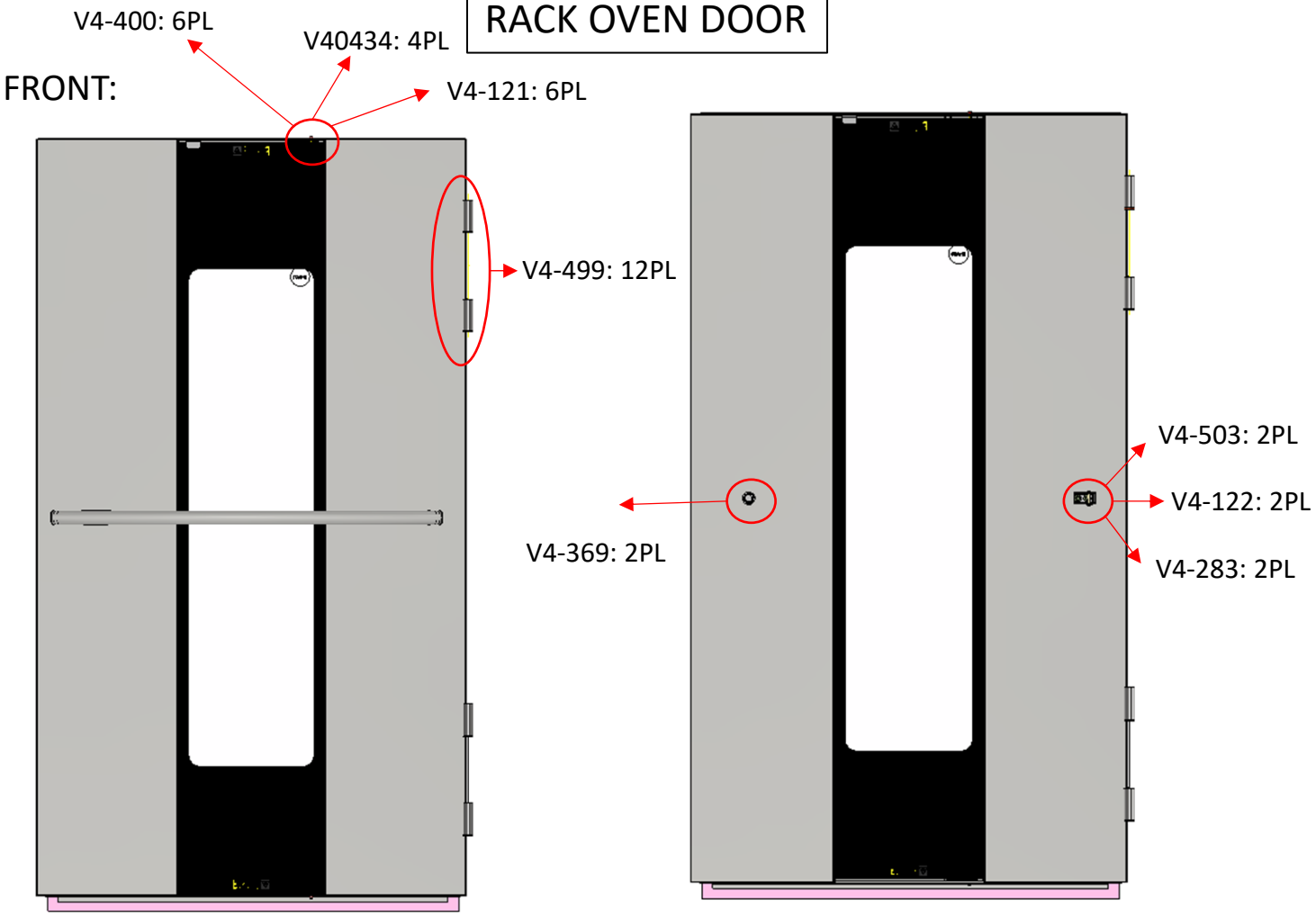
Example (V4-400 would be 01-1000V4-00400 in Enterprise Parts Locator)



OV500 HARDWARE LOCATION AND IDENTIFICATION

RACK OVEN DOOR

FRONT:





V4-121: INSERT, THREADED - HEX (#10-32, 0.281 HEX PUNCH, YELLOW ZINC PLATED MILD STEEL)



V4-122: INSERT, THREADED - HEX (1/4-20, 0.375 HEX PUNCH, YELLOW ZINC PLATED MILD STEEL)



V4-283: SCREW, MACHINE SCREW - HEX HEAD W/ WASHER W/ SERRATED FLANGES (1/4-20 X 3/4, SST 430)



V4-369: SCREW, CAP - ALLEN SOCKET HEAD (1/4-20 X 1/4" FULLY THREADED, ZINC PLATED)



V4-400: SCREW, MACHINE - HEX HEAD W/ INTERLAN LOCK WASHER (#10-32 X .75", GIMLET/CA/CA POINT, 18-8 SST)



V4-503: SCREW, MACHINE - TRUSS HEAD (1/4-20 x .50, 18-8 SST)



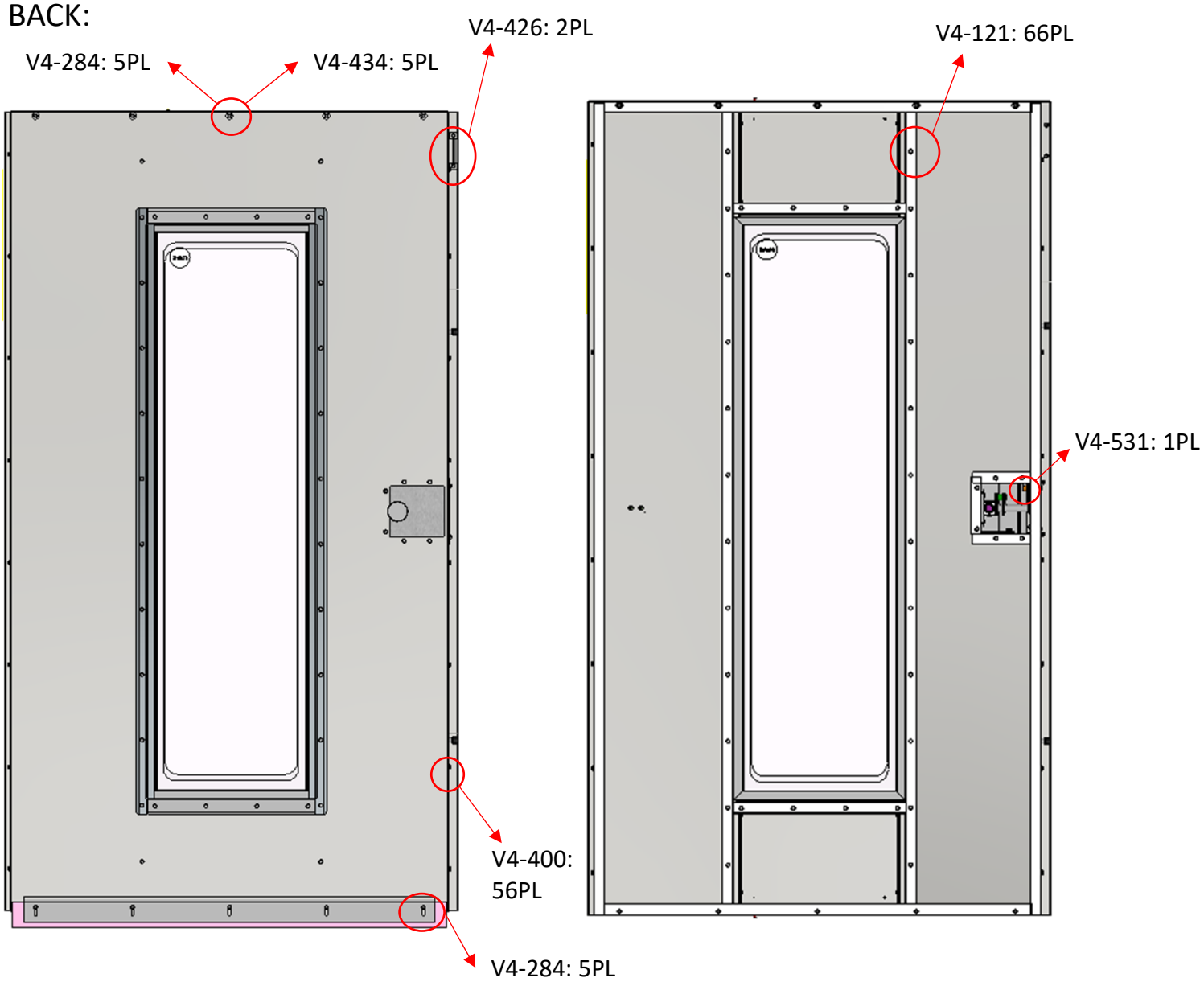
V4-434: WASHER, FLAT- #10 (.203" ID X 11/16 (.688") OD X .038" THICK, SST)



V4-499: SCREW, MACHINE - FLAT HEAD (1/4-20 X 1.00 L, UNC/TYPE 2A, WITH NYLOCK PATCH, CRES) {LIKE V4-480 WITH NYLOCK}

RACK OVEN DOOR

BACK:





V4-121: INSERT, THREADED - HEX (#10-32, 0.281 HEX PUNCH, YELLOW ZINC PLATED MILD STEEL)



V4-426: SCREW, SHEET METAL - HEX HEAD (#10-16 X 0.75, #3 DRILL TIP, 410 SST)



V4-284: SCREW, SHEET METAL - HEX W/ WASHER W/ SERRATED FLANGES (10-32 X 3/4, SST 430)W/WASHER)



V4-434: WASHER, FLAT- #10 (.203" ID X 11/16 (.688") OD X .038" THICK, SST)



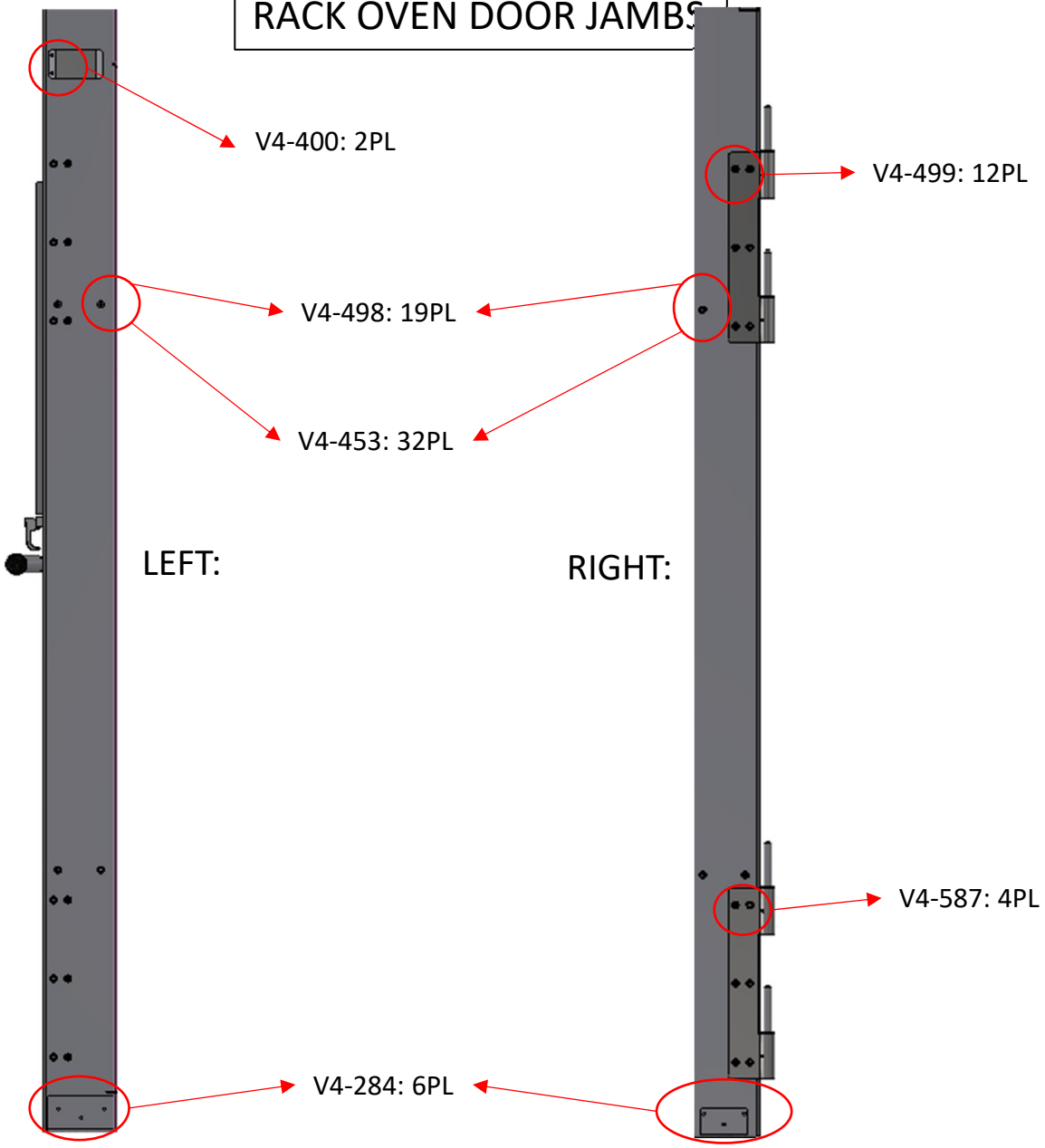
V4-400: SCREW, MACHINE - HEX HEAD W/ INTERLAN LOCK WASHER (#10-32 X .75", GIMLET/CA/CA POINT, 18-8 SST)



V4-531: SCREW, SOCKET CAP - ROUND HEX DRIVE (3/8-16 X 1-1/4, 18-8 SST)

OV500 HARDWARE LOCATION AND IDENTIFICATION

RACK OVEN DOOR JAMBS





V4-121: INSERT, THREADED - HEX (#10-32, 0.281 HEX PUNCH, YELLOW ZINC PLATED MILD STEEL)



V4-400: SCREW, MACHINE - HEX HEAD W/ INTERLAN LOCK WASHER (#10-32 X .75", GIMLET/CA/CA POINT, 18-8 SST)



V4-284: SCREW, SHEET METAL - HEX W/ WASHER W/ SERRATED FLANGES (10-32 X 3/4, SST 430)W/WASHER)



V4-453:INSERT, NUT - 1/4-20 HEX (.165-.260 GRIP)



V4-498: SCREW, MACHINE - PAN HEAD (1/4-20 X .75 L UNC/TYPE 2A, W/ NYLOCK PATCH, CRES)



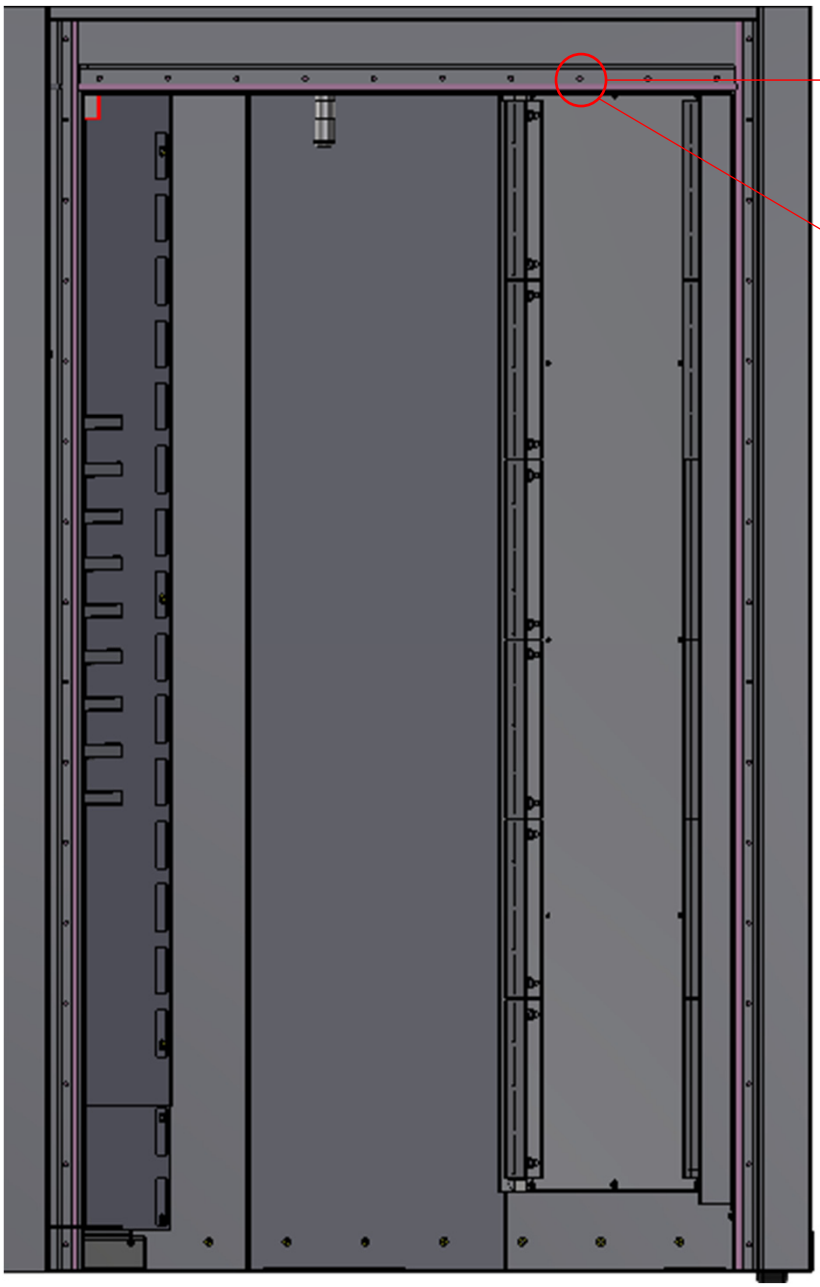
V4-499: SCREW, MACHINE - FLAT HEAD (1/4-20 X 1.00 L, UNC/TYPE 2A, WITH NYLOCK PATCH, CRES) {LIKE V4-480 WITH NYLOCK}



V4-587: SCREW, SET-ALLEN (#10-32 X 1/4" L, 18-8) CUPPED POINT

RACK OVEN DOOR JAMBS

FRONT DOOR GASKETS:



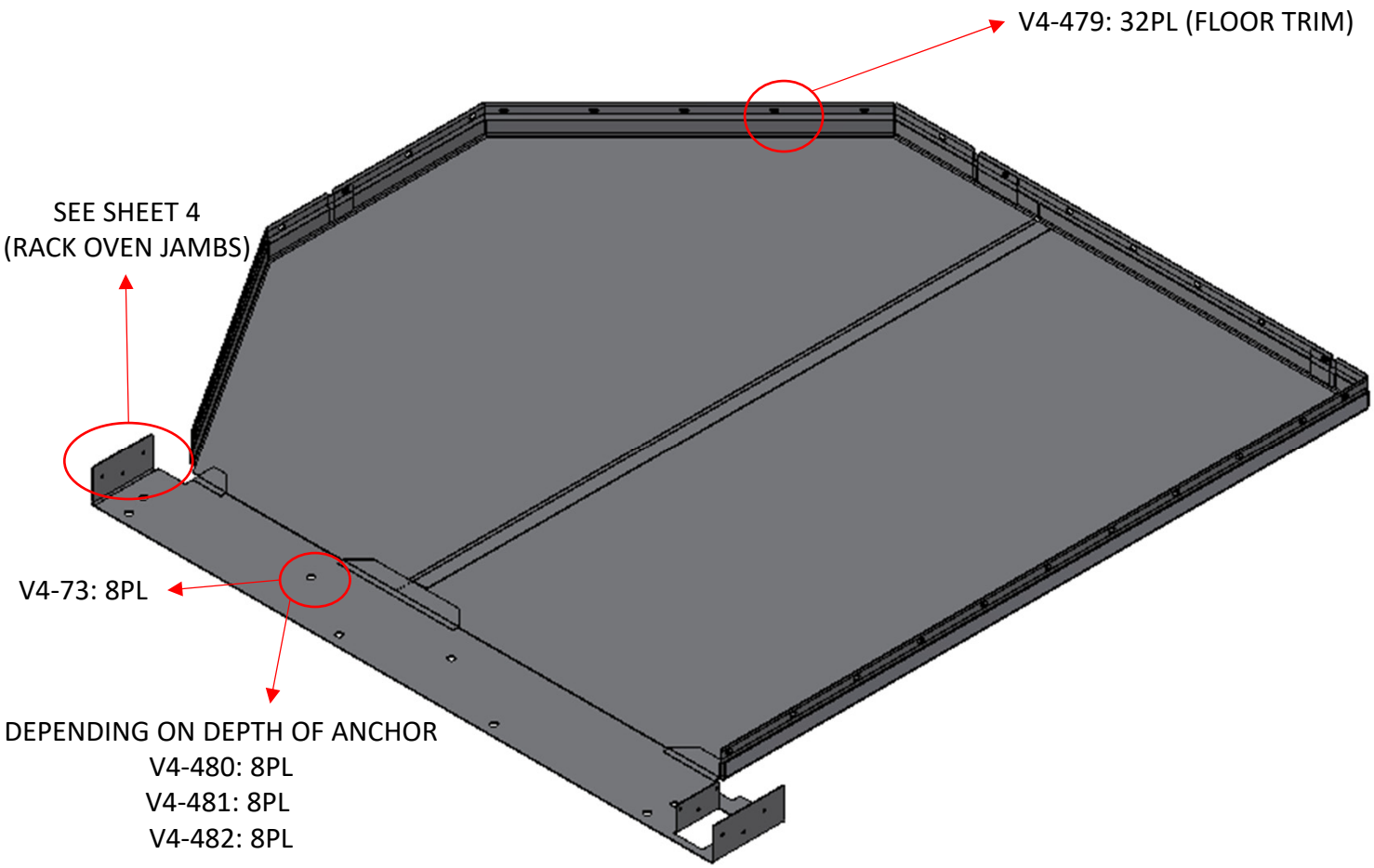


V4-121: INSERT, THREADED - HEX (#10-32, 0.281 HEX PUNCH, YELLOW ZINC PLATED MILD STEEL)



V4-400: SCREW, MACHINE - HEX HEAD W/ INTERLAN LOCK WASHER (#10-32 X .75", GIMLET/CA/CA POINT, 18-8 SST)

DOUBLE RACK OVEN FLOOR





V4-73: ANCHOR, DROP-IN (1/4-20, MILD STEEL)



V4-479: SCREW, MACHINE - 3/8" HEX HEAD CRES (1/4-20 X .75 L) .52 HEAD FLANG WIDTH, TYPE-F TCS

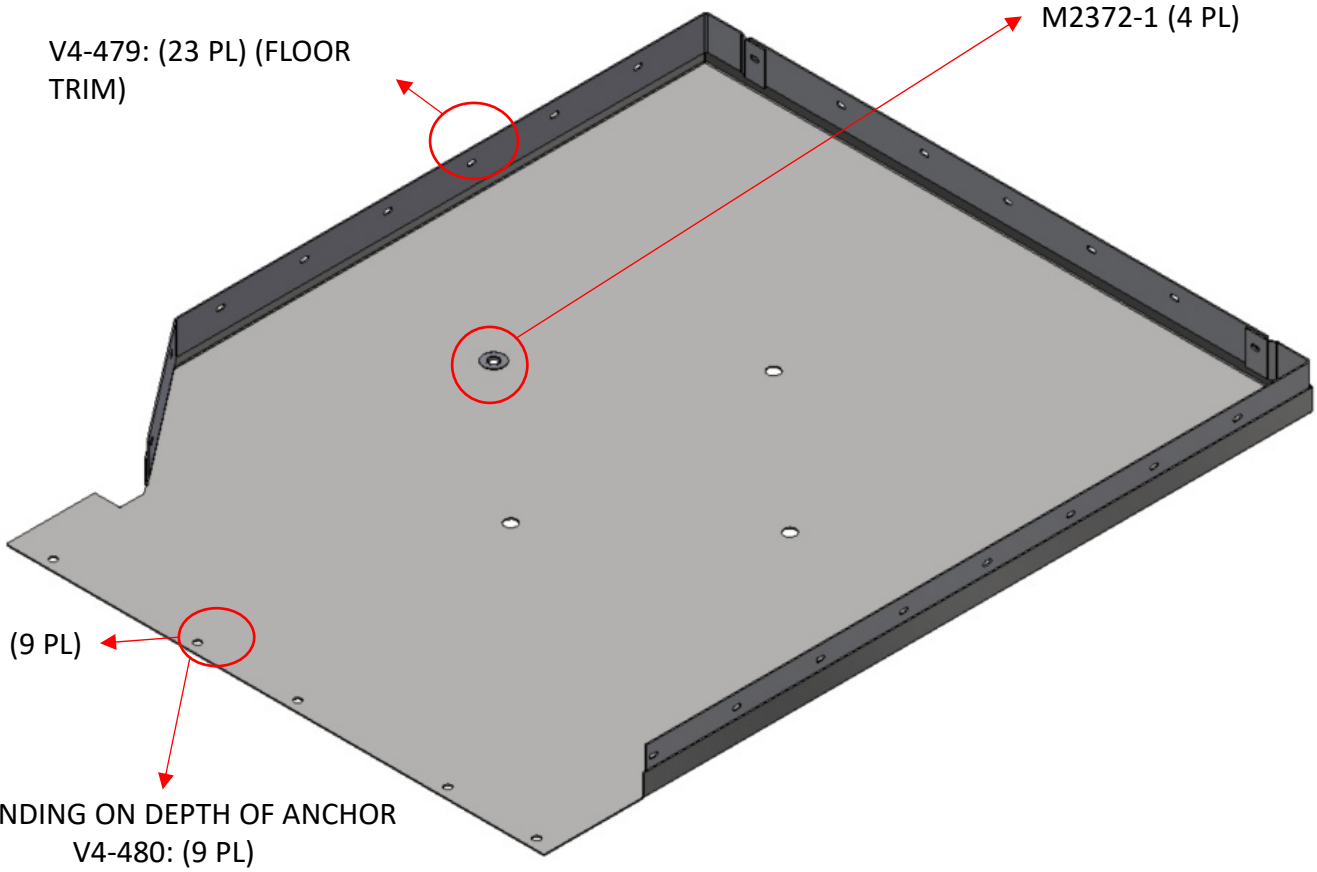


V4-480: SCREW, MACHINE - FLAT HEAD CRES 1/4-20 X 1.00 L UNC/TYPE 2A

V4-481: SCREW, MACHINE - FLAT HEAD CRES 1/4-20 X .75 L UNC/TYPE 2A

V4-482: SCREW, MACHINE - FLAT HEAD CRES 1/4-20 X .50 L UNC/TYPE 2A

SINGLE RACK OVEN FLOOR





V4-73: ANCHOR, DROP-IN (1/4-20, MILD STEEL)



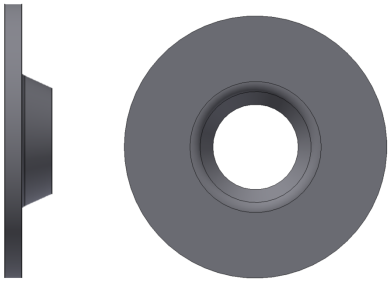
V4-479: SCREW, MACHINE - 3/8" HEX HEAD CRES (1/4-20 X .75 L) .52 HEAD FLANG WIDTH, TYPE-F TCS



V4-480: SCREW, MACHINE - FLAT HEAD CRES 1/4-20 X 1.00 L UNC/TYPE 2A

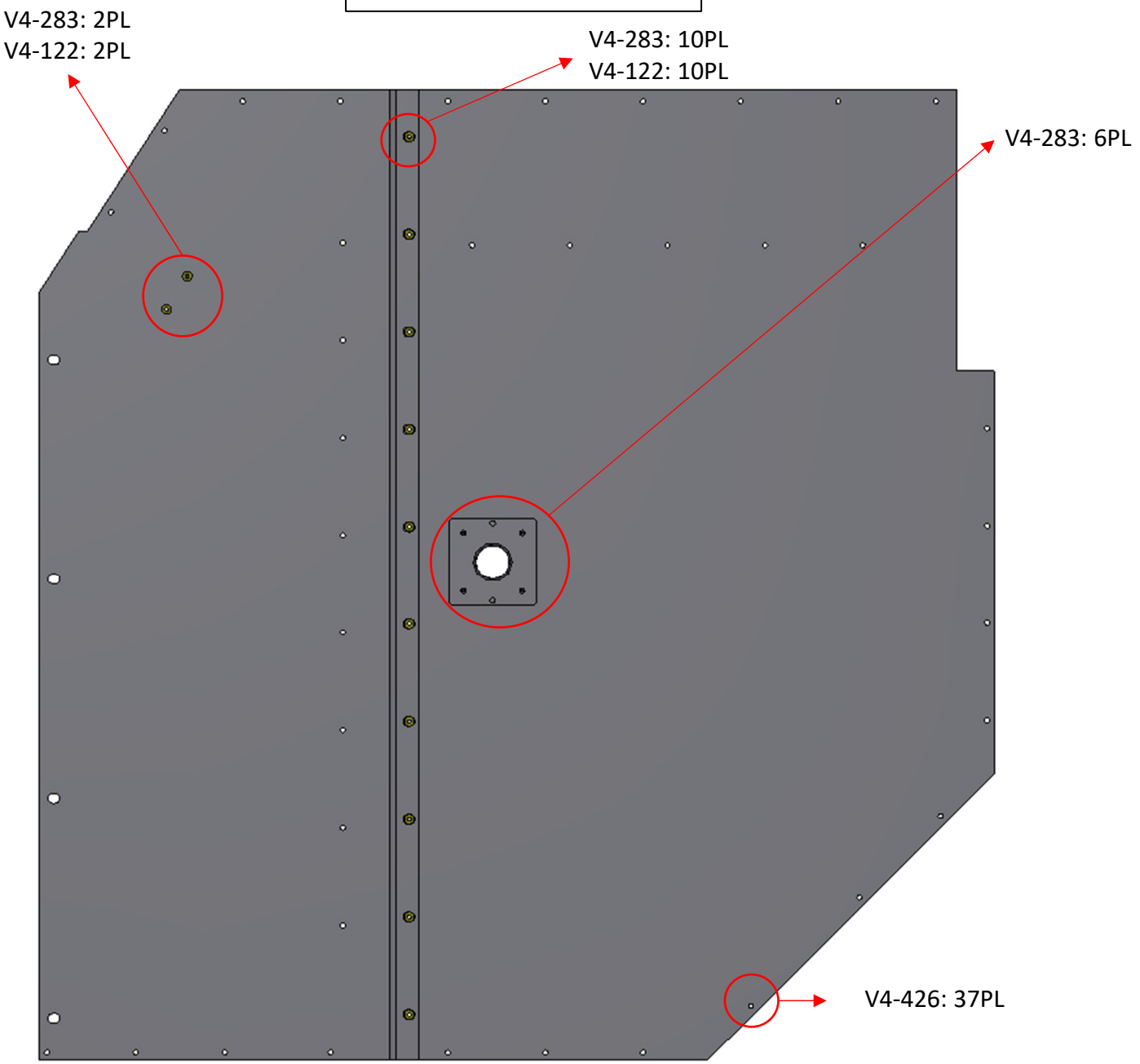
V4-481: SCREW, MACHINE - FLAT HEAD CRES 1/4-20 X .75 L UNC/TYPE 2A

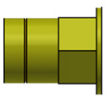
V4-482: SCREW, MACHINE - FLAT HEAD CRES 1/4-20 X .50 L UNC/TYPE 2A



FLOOR, HOLD DOWN - WASHER (SINGLE RACK OVEN)

RACK OVEN CEILING





V4-122: INSERT, THREADED - HEX (1/4-20, 0.375 HEX PUNCH, YELLOW ZINC PLATED MILD STEEL)

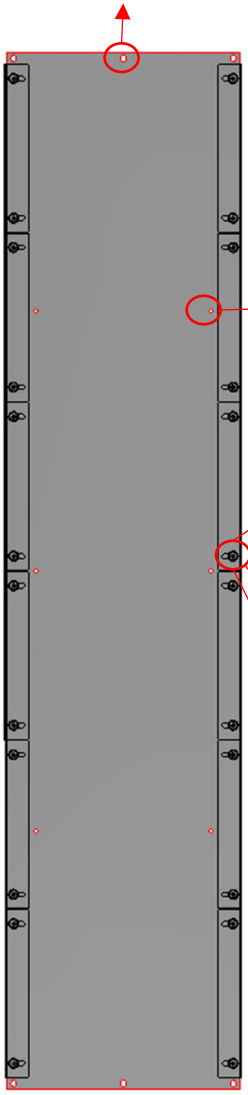


V4-283: SCREW, SHEET METAL - HEX HEAD W/ WASHER W/ SERRATED FLANGES (1/4-20 X 3/4, SST 430)



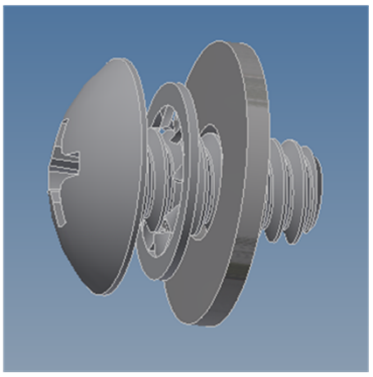
V4-426: SCREW, SHEET METAL - HEX HEAD (#10-16 X 0.75, #3 DRILL TIP, 410 SST)

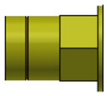
RACK OVEN PRESSURE PANEL



SEE FIGURE 1 FOR HARDWARE INSTALLATION

Figure 1:





V4-122: INSERT, THREADED - HEX (1/4-20, 0.375 HEX PUNCH, YELLOW ZINC PLATED MILD STEEL)



V4-470: WASHER, LOCK - INTERNAL STAR (1/4, SST)



V4-283: SCREW, SHEET METAL - HEX HEAD W/ WASHER W/ SERRATED FLANGES (1/4-20 X 3/4, SST 430)



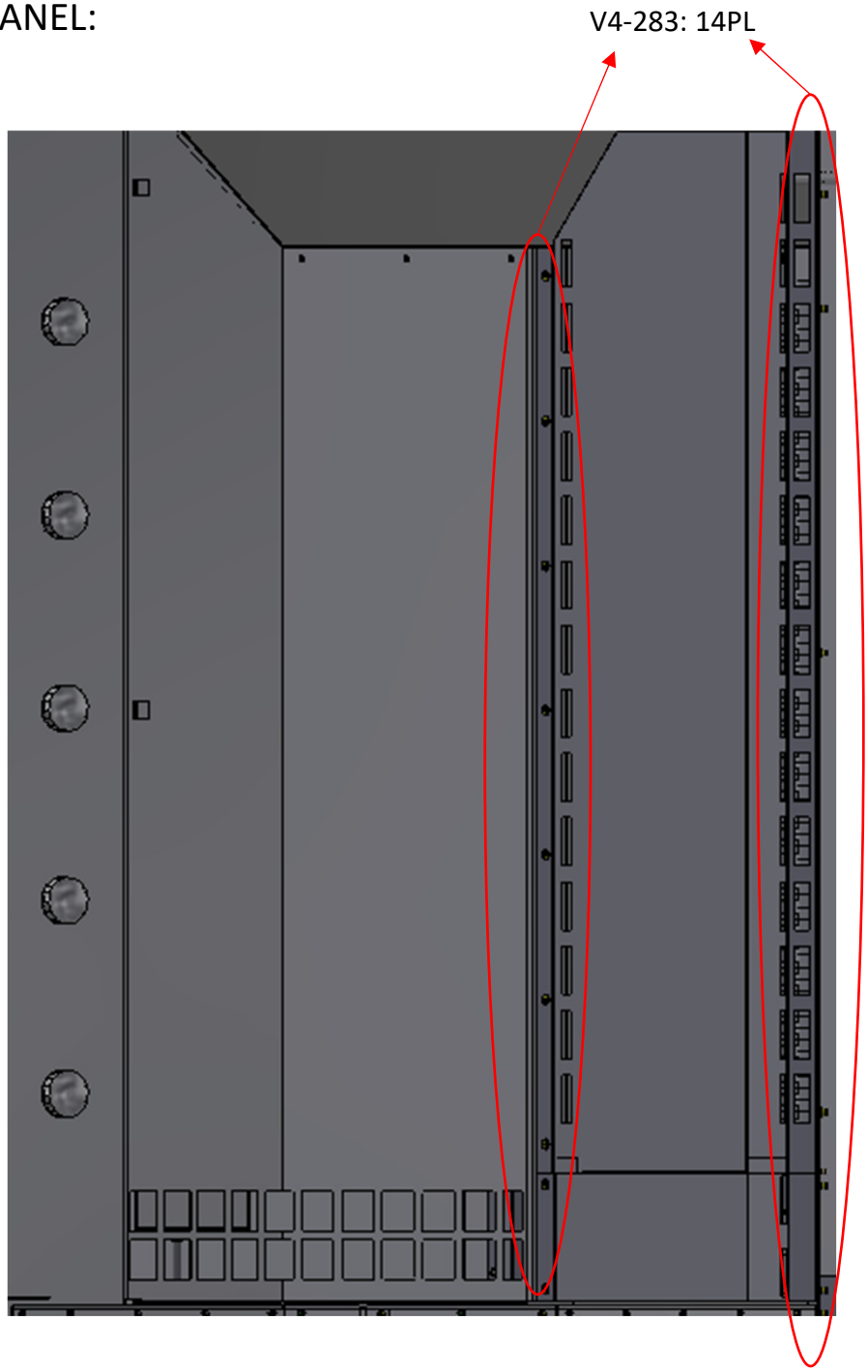
V4-503: SCREW, MACHINE - TRUSS HEAD (1/4-20 X .50" L, PHILP, 18-8 CRES)

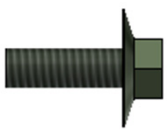


V4-433: WASHER, FLAT - 1/4 (.281" ID X .688" OD X .057 THICK, SST)

RACK OVEN STEAMER AND SUCTION PANELS

FRONT STEAMER PANEL:

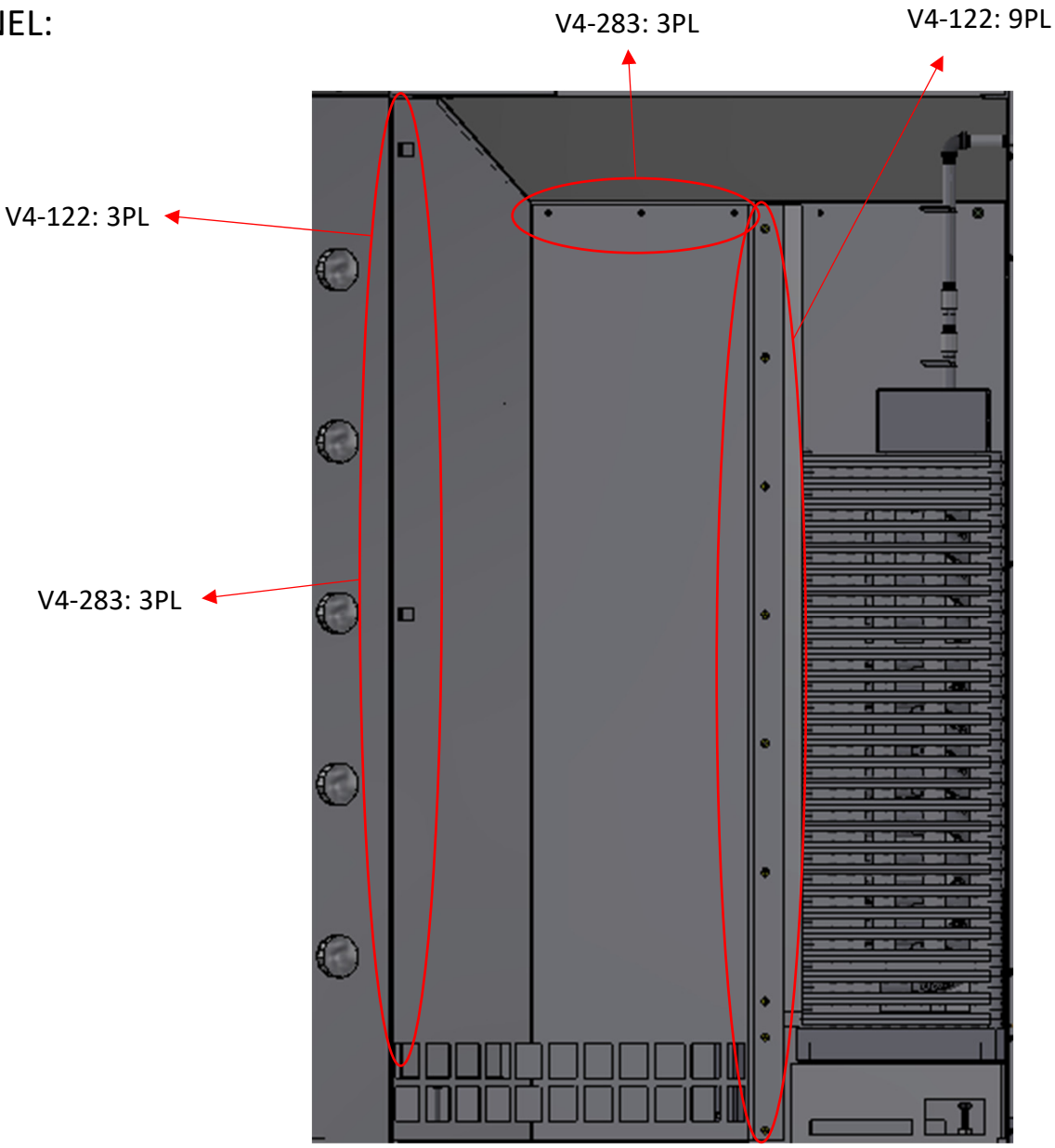


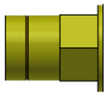


V4-283: SCREW, SHEET METAL - HEX HEAD W/ WASHER W/ SERRATED FLANGES (1/4-20 X 3/4, SST 430)

RACK OVEN STEAMER AND SUCTION PANELS

SUCTION PANEL:





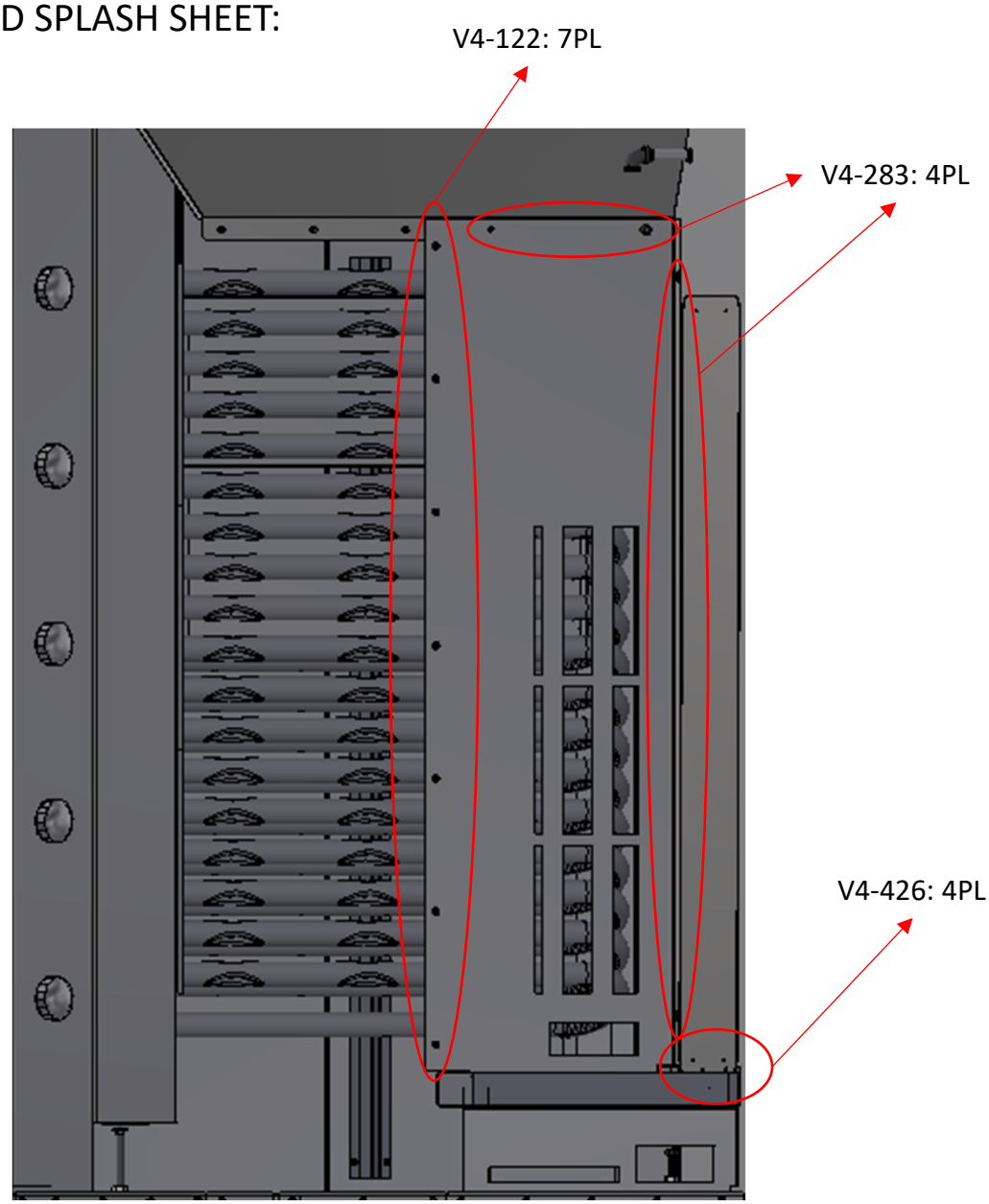
V4-122: INSERT, THREADED - HEX (1/4-20, 0.375 HEX PUNCH, YELLOW ZINC PLATED MILD STEEL)

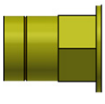


V4-283: SCREW, SHEET METAL - HEX HEAD W/ WASHER W/ SERRATED FLANGES (1/4-20 X 3/4, SST 430)

RACK OVEN STEAMER AND SUCTION PANELS

REAR STEAMER PANEL AND SPLASH SHEET:





V4-122: INSERT, THREADED - HEX (1/4-20, 0.375 HEX PUNCH, YELLOW ZINC PLATED MILD STEEL)



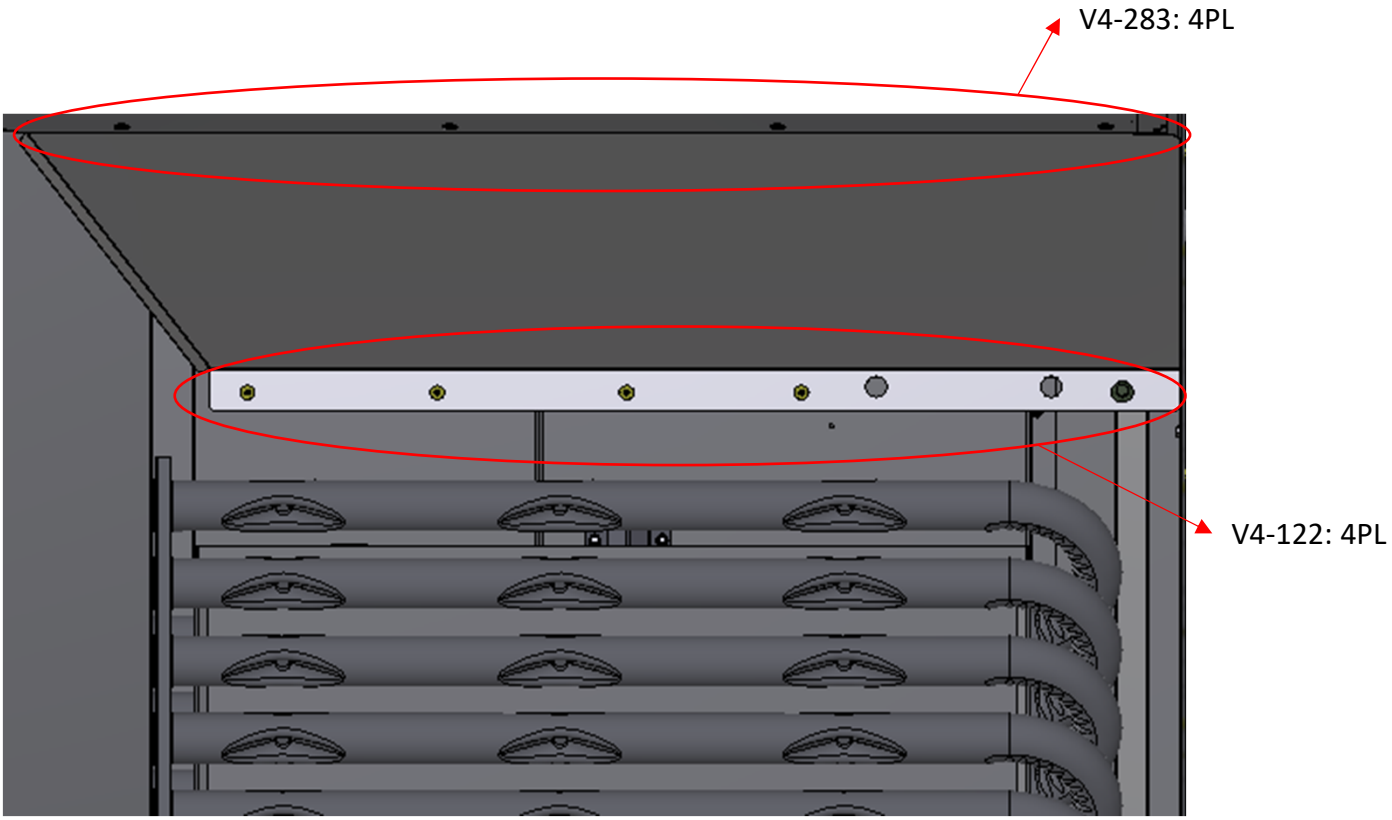
V4-426: SCREW, SHEET METAL - HEX HEAD (#10-16 X 0.75, #3 DRILL TIP, 410 SST)

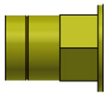


V4-283: SCREW, SHEET METAL - HEX HEAD W/ WASHER W/ SERRATED FLANGES (1/4-20 X 3/4, SST 430)

RACK OVEN STEAMER AND SUCTION PANELS

TOP SUCTION PANEL:





V4-122: INSERT, THREADED - HEX (1/4-20, 0.375 HEX PUNCH, YELLOW ZINC PLATED MILD STEEL)



V4-283: SCREW, SHEET METAL - HEX HEAD W/ WASHER W/ SERRATED FLANGES (1/4-20 X 3/4, SST 430)

RACK OVEN HEAT EXCHANGER AND COLLECTOR



V4-283: 9PL
V4-383: 9PL



V4-383: INSERT, THREADED-HEX (1/4-20 SST)



V4-283: SCREW, SHEET METAL - HEX HEAD W/ WASHER W/ SERRATED FLANGES (1/4-20 X 3/4, SST 430)

REV	DATE	APPR	DESCRIPTION	ECN
B	3/22/21	DK	ADD PAGE 7 SINGLE RACK FLOOR INFORMATION	