

1.0 SCOPE

- 1.1 Instructions for the removal of Chamber and Baffle assembly on an existing furnace.
- 1.2 See TEC-233a for Chamber Installation instructions.

2.0 EQUIPMENT AFFECTED

- 2.1 RTC IR belt furnaces manufactured from 2000-2005.
- 2.2 Inlet baffle, heating chambers, transition tunnel and cooling section.

3.0 REFERENCES

TEC-231a CHAMBER REMOVAL
TEC 243a INSTALLING A TRANSPORT BELT
TEC 250 IR LAMP EMITTER REPLACEMENT

4.0 PROCEDURE

4.1 Remove Access Panels

- 4.2 Remove upper and lower side panels on both the front and back of the furnace. Pictures show furnace after panels are removed.
- 4.3 Unplug computer monitor and remove from furnace.



LA-310 Front View

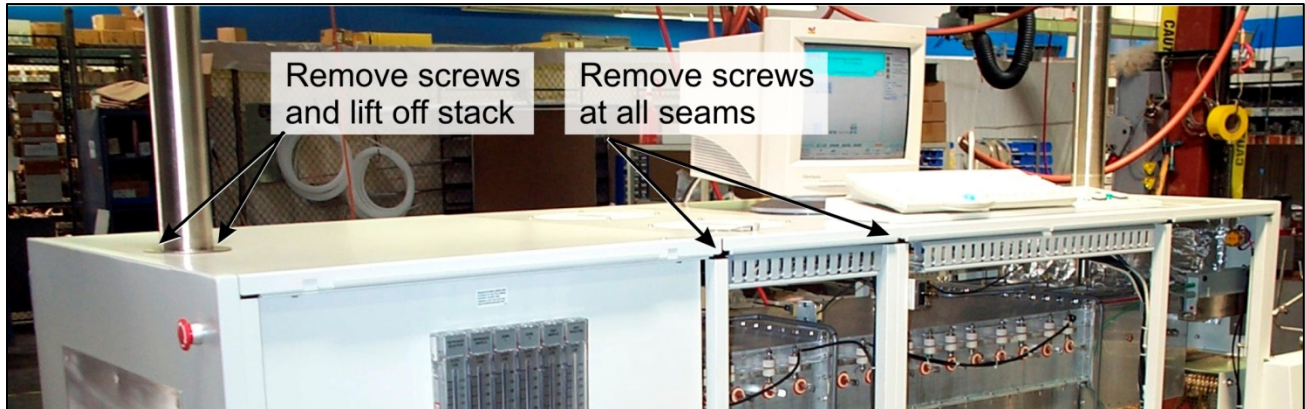


LA-310 Front View-panels removed



LA-310 Rear View-panels removed

- 4.4 Remove screws holding exhaust stack cover and lift stack off cover.



Remove Top Panel Screws

- 4.5 Remove all screws holding top panels on frame.

4.6 Disconnect Fans

- 4.7 Unplug wires from fans attached to covers.

4.8 Remove Top Covers

- 4.9 Cut all cable ties from wires attached under top covers.

- 4.10 Remove Panduit wire conduit, if any, and remove pull out all wires from ducts.

- 4.11 Slowly lift off each cover and set aside. The top cover with the keyboard on it will have wires attached. Lift this cover off and turn it so that it is resting on the floor against the furnace making sure that the wires that are attached are not pulled off.



Disconnect Fans



Lift off covers

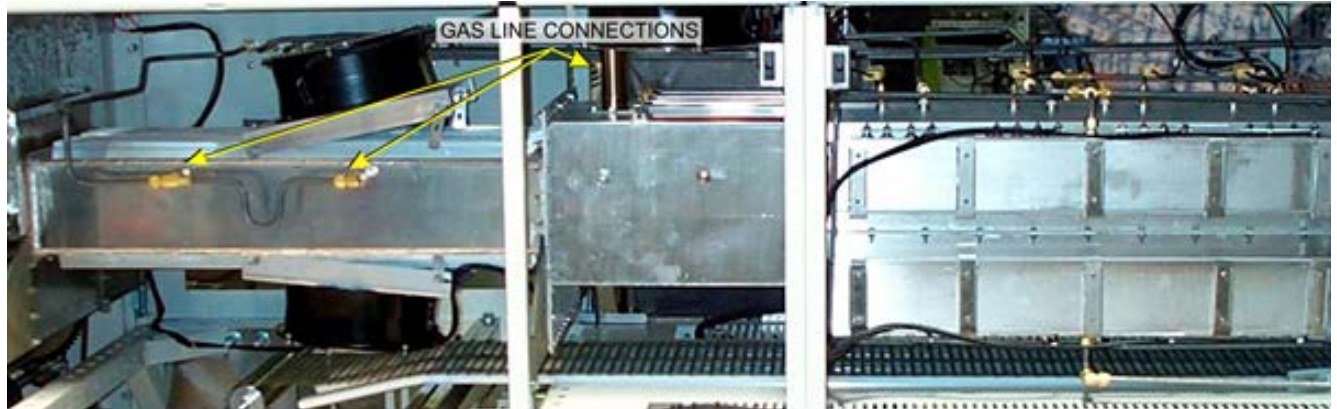
4.12 Disconnect Thermocouples and Gas Lines

4.12.1 Unplug all Thermocouples.

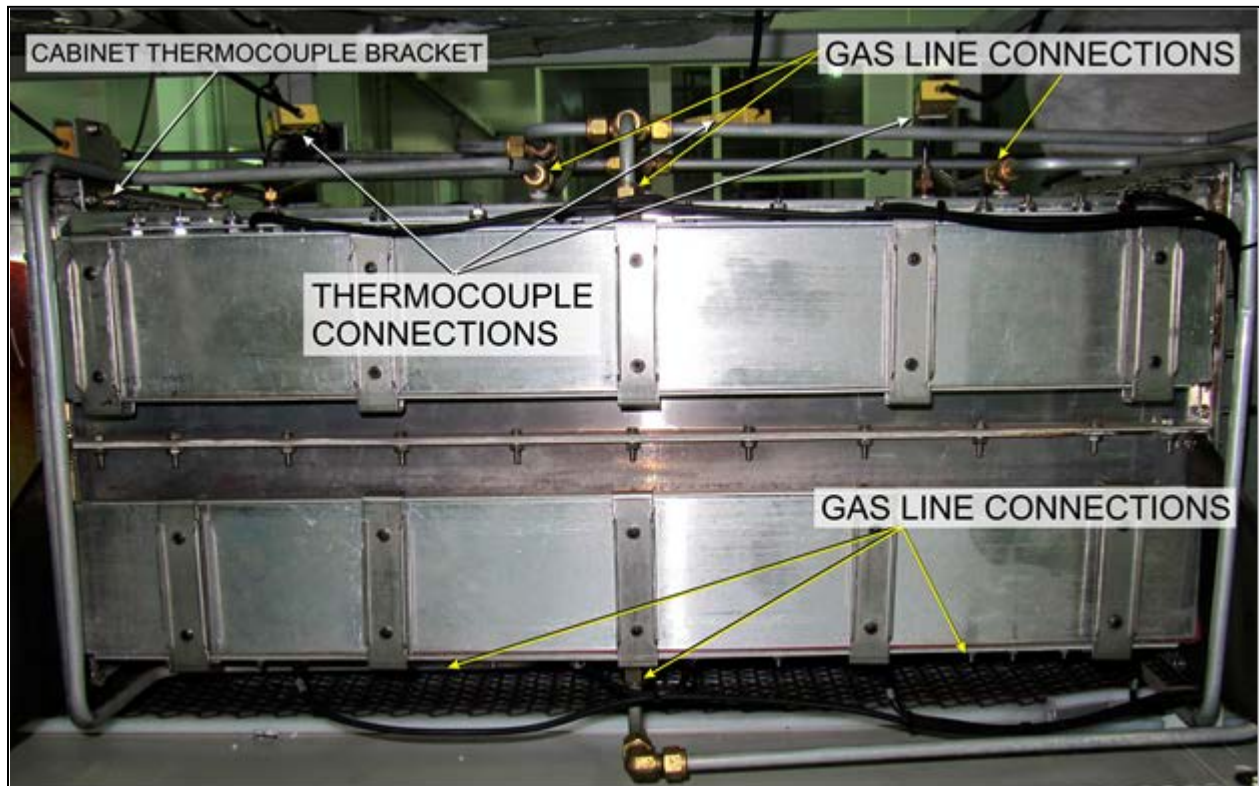
4.12.2 Unscrew cabinet thermocouple bracket.

4.12.3 Turn off main gas line and disconnect from top cover.

4.12.4 Disconnect all gas lines connected to the entrance and exit stack tubes, entrance baffle sides, chamber top and bottom, top and bottom plenums, transition tunnel baffle sides, and cooling section sides.



Disconnect Gas Line and Thermocouples

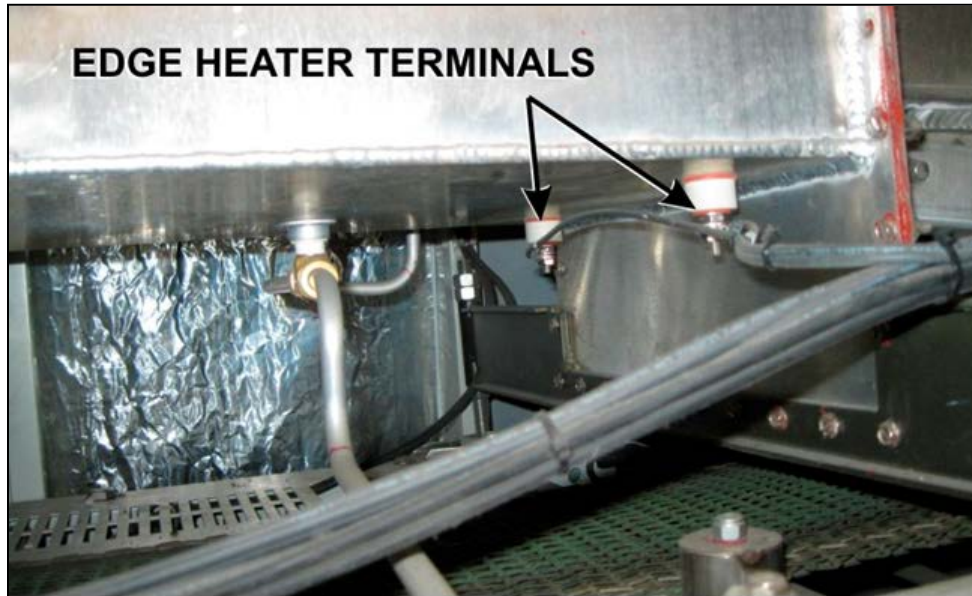


Disconnect Gas Line and Thermocouples - detail

4.12.5 Remove screws from exit and entrance exhaust tubes. The tube has sealant under the flange, gently rock back and forth until the tube is loose then pull it off top of the baffle.

4.13 Disconnect Edge Heater Wires.

4.13.1 Remove all edge heater wires by unscrewing nut on each terminal. Pull wires away from the chamber. Wires are in pairs (4 wires total per edge heater system, front and rear sides of furnace) located under heating chamber entrance baffle and transition tunnel baffle.



Edge heater wires

4.14 Remove IR Lamps

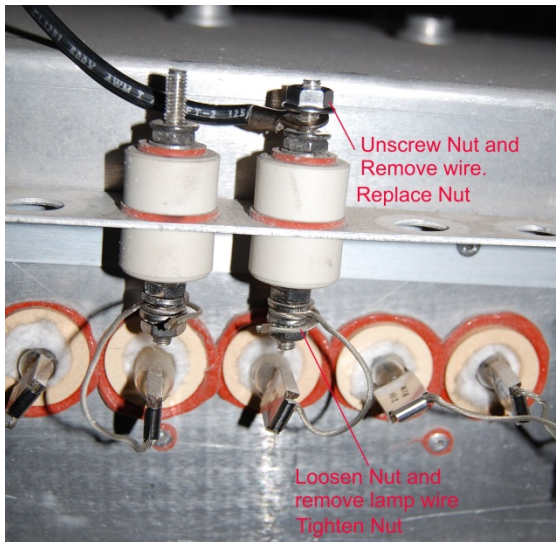
4.14.1 Photograph the lamp bus bar pattern and wiring connections. Label as necessary so that they can be reinstalled in the same pattern as before removal.

4.14.2 Remove lamp wires from Insulators as shown in pictures.

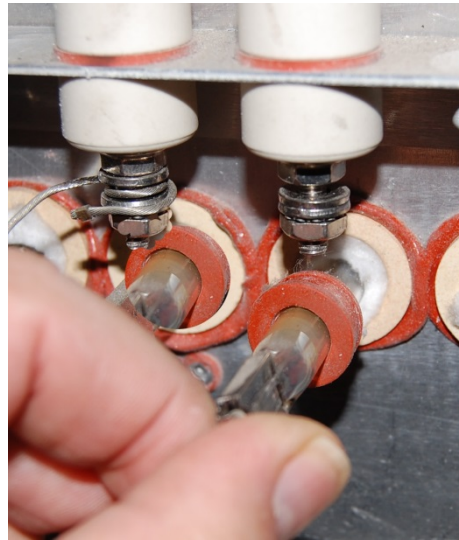
4.14.3 Remove plenum covers if present.

4.14.4 Disconnect lamp wires

4.14.5 After Lamps are disconnected, pull them out removing red seal or fiber insert with the lamps.



Remove lamp wires



Remove lamps

4.15 Remove Transport Belt

4.15.1 Severing the Belt

4.15.2 Remove the weight bar from the lower exit section of the furnace. Lift the weight bar out of the belt drop guide (or UCD tank if so equipped) to relieve the belt.

4.15.3 At the exit, cut one of the cross-section wires travelling the width of the belt. Snip both ends of the wire.

4.15.4 Remove the wire by pulling straight through the belt.

4.15.5 Separate the belt.

4.15.6 Belt Removal

4.15.7 At the entrance of the furnace, remove the belt by grasping the belt on either side of its width and pulling evenly and firmly until the top part of the belt is removed from the chamber. Roll the top portion of the belt.

4.15.8 Grasping the belt on either side of its width and pulling evenly and firmly to remove the bottom portion of the belt. Continue to roll the belt until it is free of the furnace.

4.15.9 Refer to TEC-243 for more detail on belt removal.



Figure 2.1 Cut Wire at Ball Joint

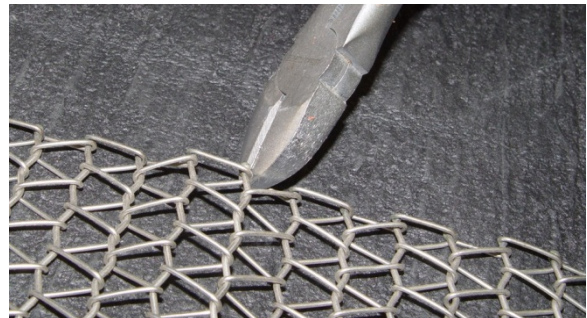


Figure 2.2 Second Cut at Opposite Side

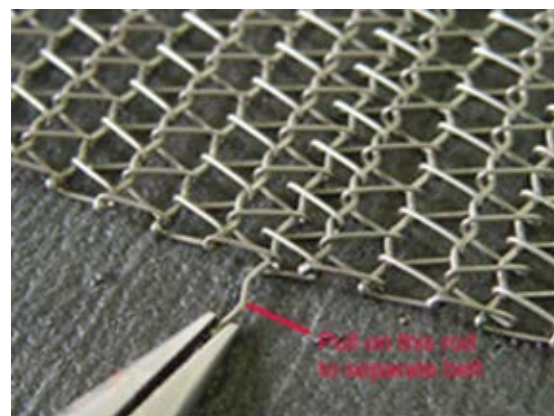
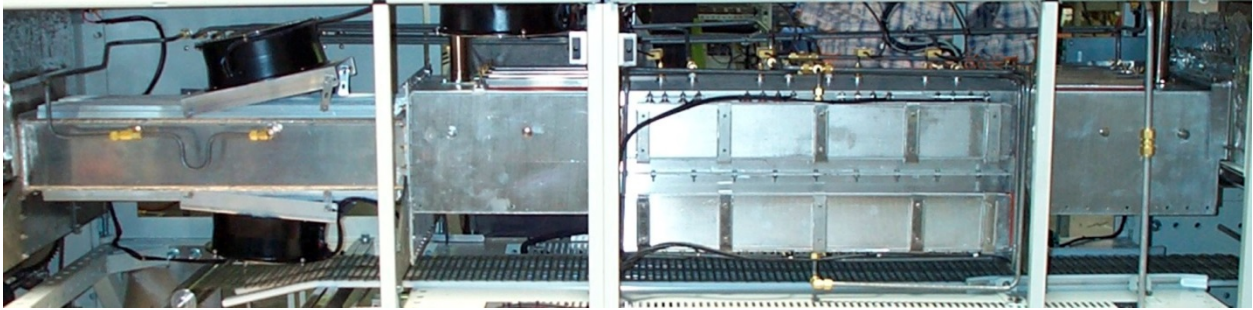


Figure 2.2 Remove belt wire

4.16 Chamber Removal

4.16.1 All devices should be disconnected from Chamber Assembly. Have two people on both sides of furnace lift assembly over uprights. Set down on a pallet or trolley for moving out of the area.

4.16.2 On units with a cooling section, lift out the entire assembly with the cooling section and cooling section fans still attached.

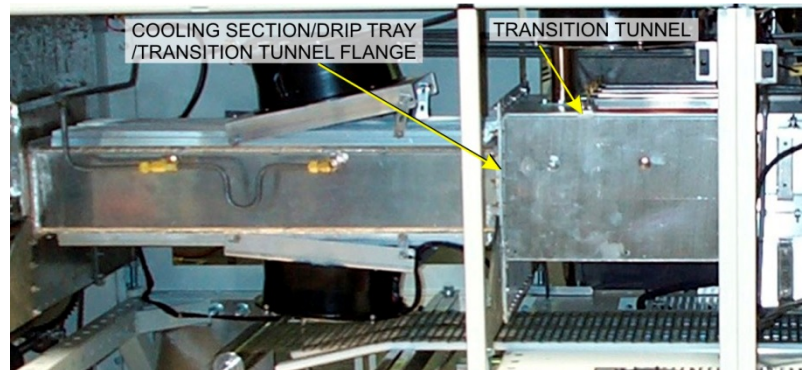


Chamber Assembly showing Cooling Section and Transition Tunnel

4.17 Air Rake removal

4.17.1 There is (1) air rake in each baffle section. Loosen the tube end cap and tube nut on either end of each air rake.

4.17.2 Pull out each air rake and set aside for later installation in the new baffle sections.



COOLING SECTION, DRIP TRAY AND TRANSITION TUNNEL FLANGE

4.18 Separate Heating Section from Cooling Section

4.18.1 Remove fasteners on flange between the transition tunnel and the cooling section.

4.18.2 Pull apart cooling section from heating section.

4.19 Drip Tray, Transition Tunnel

4.19.1 Pull out the flanged drip tray support and drip tray assembly.

4.19.2 Remove seal tape residue and set aside for reinstallation.



Drip Tray Support

4.20 Drip Tray, Entrance Baffle

4.20.1 Remove fasteners from the front of the baffle holding the drip tray.

4.20.2 Pull out the flanged drip tray support and drip tray assembly.

4.20.3 Set aside for reinstallation.



Drip Tray Assembly