

7.5 Mechanical System Maintenance

7.5.1 Drip Tray Cleaning

The maintenance period for drip trays depends very much on the processes being run. While some processes require drip trays to be cleaned every month, others processes may barely soil the drip trays.

1. Unscrew and remove the furnace side covers. If necessary, remove the cooling fan assembly.
2. Disconnect the T-pieces that connect the gas supply to the air-rake tubes. The T-pieces must be disconnected at the top and bottom but the connection to the air-rake tube may remain connected.
3. Undo the air-rake retaining nut.
4. Completely remove the air-rake tubes.
5. Undo the butterfly nuts holding the drip-tray inspection cover in place and remove the inspection cover.
6. Remove the drip tray being careful not to damage the attached baffle plates.
7. Clean the drip tray.

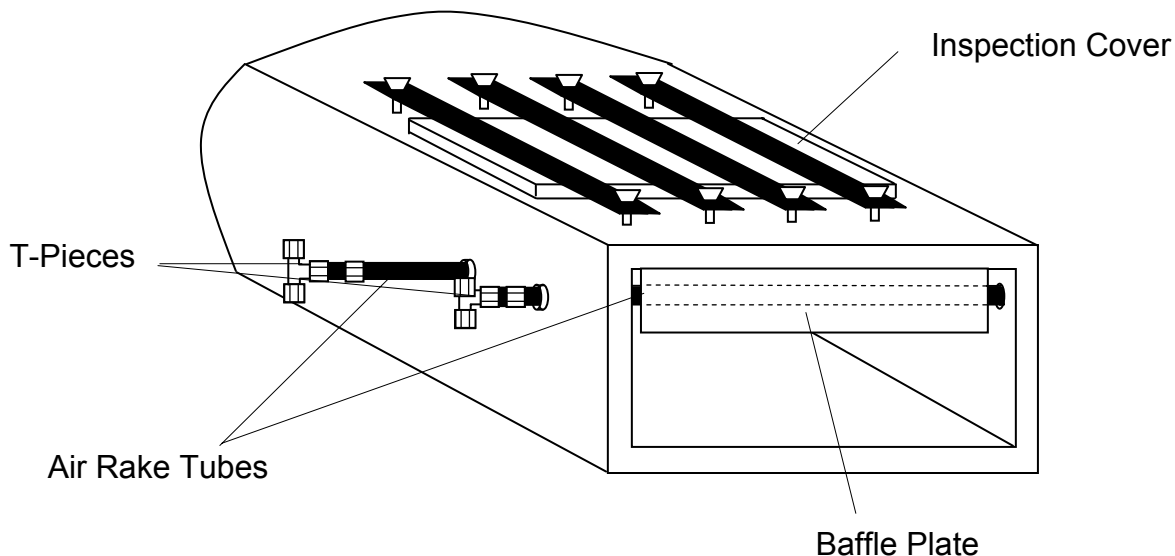
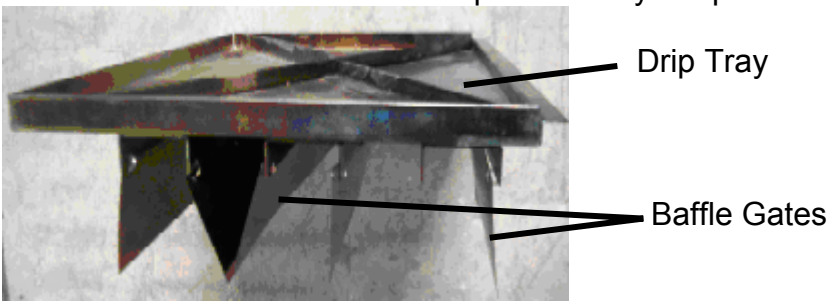


Figure 7-19: Drip Tray Cleaning Diagram

Re-installing the drip tray is easier if the baffle plates are tied flat against the drip tray. This is easily achieved by loosely wrapping a piece of wire around the drip tray and baffle plates.

1. Insert the drip tray and baffle assembly. Remove the wire.
2. Replace the inspection cover and reattach clamps. After several hours of operation, check the butterfly nuts on the inspection cover, and tighten if necessary.

Glossary

Clearance	The distance at furnace entrance between the conveyor belt and the bezel. See diagram under bezel.
Contaminants	Anything present in the process section that could negatively impact product quality including but not limited to O ₂ , moisture or particulate matter.
Convection	The process of heating a product via indirect transmission of heat from adjacent high-temperature air.
Controller	Internal computer that stabilizes temperature, monitors belt speed, alarm conditions and other functions. See also PLC.
Controlled Atmosphere	The atmosphere generated from the process gas, and gas flow patterns within the process section.
Cooling Section	The portion of the furnace that includes the transition tunnel, if any, exit baffle and any additional modules provided for the purpose of cooling the product.
Derivative	The calculated temperature rate of change; used in the PID equation.
Dilution Purge	The continuous process of adding clean gas while exhausting contaminated gas.
Dominant Wavelength	The wavelength of highest occurrence emitted by a radiating element at a specific temperature as described by Wein's Displacement Law.
Drip Trays	Trays positioned beneath stacks with attached baffle gates; used to catch condensation or residue produced by the process.
	
Edge Heater	Heaters along edge of chamber used to maintain uniform temperature across-the-belt in a designated part of the heating chamber.