



## **Diedrich Roasters, LLC**

### **DESTONER**

for

CR Series Roasters

## **INSTALLATION AND OPERATION MANUAL**

2016  
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## 1.0 SAFEGUARDS

Read this manual for important operation, maintenance, and safety information. All persons operating Diedrich equipment must be properly trained in the safe use of the system. **The safe use of this equipment also requires an understanding of the basic chemistries that occur during the roasting process so that subtle warnings can be identified before problems arise.** The operator must have a clear understanding of proper and intended use of the equipment, roasting methods, cleaning requirements, fire suppression procedures and must be aware of all safety precautions. If there are any questions regarding any part of the instructions, please call Diedrich Roasters Technical Support before creating a hazardous situation.

Listed below are some additional safety precautions that must be followed.

- Turn off and lockout/tagout the main power disconnect switch before cleaning, maintaining, or servicing the destoner.
- Do not attempt to service any part of the unit while it is operating.
- Do not operate the unit with any of its safety guards, shields, or screens removed.
- Reckless behavior of any kind involving compressed air is dangerous and can cause very serious injury to the participants.

### CAUTION

**Some roasted products emit a significant amount of CO (carbon monoxide) gas. Inhalation of this gas is dangerous and can prove fatal. When entering any roasted silo or container, the silo or container must be well ventilated and an observer must be present during this time.**

Hearing protection is suggested when operating the equipment.

The proper installation, cleaning, and safe operation of the coffee roasting system are the owner and operator's responsibility.

## 2.0 INSTALLATION

The destoner is built in several sections to accommodate a range of installation options; the loader, the loading trunk, the holding silo with blower, and the destoner frame. If it is shipped disassembled, all seams and tube connections must be sealed with a silicone caulking to prevent vacuum leaks. If this is not done, the system may be unable to create the vacuum needed to lift the coffee. A fork lift is recommended for mounting the silo to the frame.

The exhaust of the destoner should be ducted outside the building.

### WARNING

**Keep Fingers, Hair, And Loose Clothing Clear Of Moving Parts.**

### 3.0 OPERATION

There are two operation configurations available for the destoner. Models attached to an automated coffee roaster will have a button on the roaster touch screen to operate the destoner. Stand-alone models or ones attached to a manual roaster will have on/off buttons located inside the electrical box on the side of the destoner. Coffee will be vacuumed into the upper destoner bin and heavy debris will stay in the trap at the bottom of the loader bin.

To extract the coffee from the upper destoner bin: Position a bucket or a container under the destoner chute and pull the slide gate door completely open or push the pneumatic button on the frame. The cleaned coffee will now flow freely into your container.

Empty your destoner of any foreign material by opening the door at the bottom of the loader bin.

### 4.0 ADJUSTMENTS

The following instructions are provided for adjusting your destoner. The type of bean and different degrees of roasts will affect how the destoner operates. The destoner may require adjusting between batches and coffee types, etc.

If the vacuum at the screen is excessive, debris will also be drawn up along with the coffee; and, consequently, if the vacuum is insufficient, the coffee will not be drawn up into the vacuum tube.

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## ATTENTION

Prior to making any adjustments mark the location of the factory settings in case you need to return the destoner back to them.

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### 4.1 FLOW ADJUSTMENT

Adjust the flow adjustment gate (located in the loader bin) until a single layer of coffee flows over the screen below the gate. The destoner bin could become clogged if too much coffee passes through the gate.

### 4.2 VARIABLE FREQUENCY DRIVE (VFD) ADJUSTMENT

The VFD and/or the “Draft” adjustment may need adjustment with each Change of Roast or coffee. To make this adjustment:

- Before setting the VFD adjustment, set the draft gate to a closed position.
- Locate the VFD or its control pad display.
  - Display on the electrical box mounted to the destoner frame.
  - For destoners made prior to 2016, the VFD is located in the main electrical panel.
- Adjust the speed using the control pad or speed dial so that your coffee is vacuumed into the destoner silo. (*NOTE: Adjusting this setting to an excessive speed can cause bean breakage.*)

### 4.3 DRAFT ADJUSTMENT

This adjustment may not be necessary with the VFD adjustment. Adjust the gate (located on the vertical draft chute) to limit the amount of vacuum at the bottom screen.

To adjust the gate:

- Open the gate to the point where the coffee stops moving up the tube, then close the gate until coffee starts to flow again. *(NOTE: For elevated destoner and automated destoner made prior to 2016 this adjustment is more important.)*
- For an elevated destoner, once you have set the VFD you may have excessive Vacuum at the loader screen.

To use draft adjustment as primary flow adjustment:

- Choose a roast that has the highest density (highest weight/volume) to set the VFD speed.
  - This will allow you a small range of adjustment between different roasts and coffee.
  - If Additional adjustment is necessary having multiple VFD settings will be required.

