

## **Andela CRT Recycling System Description**

### **Andela Infeed Conveyor**

Computer monitors are disassembled to remove the plastic cases, chassis, boards, copper coils, straps and guns.

The glass portion of the CRT monitor is transported up into the infeed opening on the top end of the CRT Recycling container.

The conveyor design and length is determined by the customer installation requirements.

### **Andela CRT Breaker**

The CRT Breaker is installed inside of an 8 ft. wide by 9 ft. high by 20 ft. long container with the infeed opening on the top of the container. The infeed opening is covered with a protective hood and connected to the dust collection system to contain all material.

The Breaker has rotating flexible impactors driven with a 20 HP motor. A variable speed controller allows the system operator to modify the impactor speed to produce a larger or smaller glass size distribution depending on the glass market specifications.

The Andela flexible impact system breaks the glass but passes the metal frames and components through the breaker in their larger form.

The Breaker is accessible for maintenance by opening the large access doors at the end of the container. The breaker has a “clam shell” construction for ease of access for maintenance and inspection. All internal surfaces inside the Breaker are lined with hard, abrasion resistant steel. The shaft is accessible for easy removal and replacement of the hammer/link assemblies.

### **Glass Conveyor and Cross-Belt Magnet**

Crushed CRT glass and the metal frames or screens exit the bottom of the CRT breaker on to the conveyor. The mixed glass and metal material travels under the cross-belt magnet.

The cross-belt magnet pulls the larger metal frames or screens up out of the crushed glass and moves the ferrous metal off the side of the conveyor. The crushed glass stays on the conveyor.

The metal and the crushed glass discharge separately out the bottom and end of the container into a collection containers or conveyors.

### **Container and Dust Collector**

The breaker, cross-belt magnet and conveyor are all installed and integrated inside of the 20 ft. long by 8 ft. wide by 9 ft. high container. Large access doors on one end of the container provide access to all the equipment.

The dust collection system includes a high efficiency cartridge dust collector installed as a stand-alone unit near the CRT recycling container. A secondary HEPA filter is included with the system. The dust collector is connected to multiple connection points along the top of the 20 ft. container.

Dust collection points are provided at the breaker infeed and outfeed transitions along with the metal and glass discharge openings. The entire 20 ft. container has a negative air pressure to keep the leaded glass fines or coating flakes that become airborne during the breaking or material movement inside of the container and dust collection system.

The containerized CRT Recycling System protects the operators and environment.