

Air Knife Separator



— ***Remove heavy metals
from aluminum UBC***

WE MAKE YOUR WORK FLOW

Carrier
Vibrating Equipment, Inc.

Air Knife Separator

Application

The system provides an effective, efficient means of separating heavy metal, stone, plastic, paper and other debris from aluminum beverage container scrap. The process is intended to reduce residual contaminant build-up in the recycled alloy, reduce furnace melt loss, and recover other recyclable materials from aluminum such as lead, copper, paper, plastic, etc.

Design

- The principal involves air separation or lutriation of lighter materials from heavier free-falling materials. A vibratory feeder is used to transport the material over a high-velocity air knife or curtain. The vibration action causes finer, heavier materials to migrate to the bottom of the conveyed bed, where they fall through the air curtain and are collected below. Aluminum and lighter materials are blown across into a separation hopper, where the aluminum falls out onto a collection belt. Dust, paper, plastic and other lighter materials are collected in an exhaust system consisting of cyclone and/or after-filter.
- The concept provides a 95 percent efficient means of cleaning the aluminum scrap and recovery of contaminants with very low energy consumption and low front-end capital expense.

Carrier is licensed by the *Aluminum Company of America* to market and build a complete air knife system. Our vast aluminum processing experience qualifies us to furnish a complete turn-key package including fans, hoppers, and dust collection equipment. The system may be a standard package system or customized to suit your individual layout requirements.

Carrier will work with you on customizing the design to accommodate your specific needs, or provide you a pre-engineered, cost-effecitve package.

