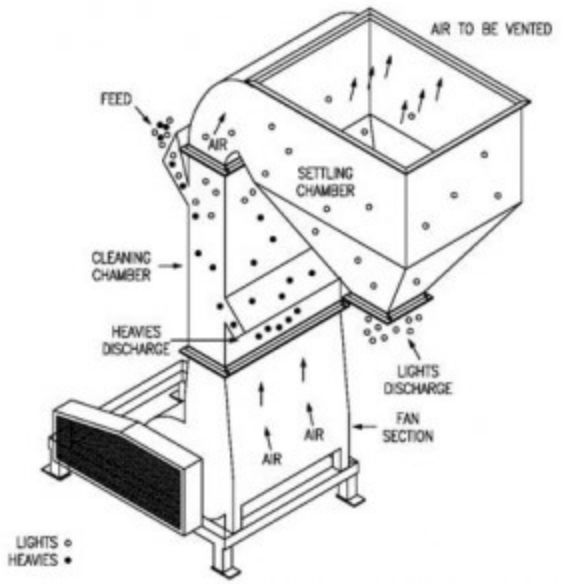
Pneumatic Separator

The AIM Pneumatic Separator or Airleg cleans and classifies products in a wide range of sizes and weights, separating them into two groups with a uniform column of air. Our airleg is simple, inexpensive to install, straightforward to operate and easy to maintain. Its superior design guarantees optimum efficiency and productivity. It is used for precise finish sorting, high volume scalping or pre-cleaning operations.

DOWNLOAD DIMENSION SHEETS:

Standard | **With Optional Feeder** | **With Optional Elevator**

PHOTOS: (click images to open)



SPECIFICATIONS:

- 3 Phase 230/460V TEFC Motors
- Cleaning Velocities to 4,500 fpm
- HP Requirements: 3 to 40 HP, depending on model and air requirements
- Models 16-10, 32-10, 48-10, 64-10, and 75-16
- Mini lab models 7-4 and 14-4

OPTIONS:

- Stainless Sanitary Construction
- Feed System
- Ducting System

ADVANTAGES:

- Easy to install and adjust
- Uniform air distribution to prevent chamber ”slow spots”
- Few moving parts for longevity and easy maintenance
- Energy efficient
- No airlocks that can cause damage to product or personnel
- Constructed in sizes to meet production needs
- Economical

IDEAL FOR: Almonds, Walnuts, Pecans, Pistachios. Rice, Peas, Beans, Coffee, Grains, Plastic, Industrial Products.

Our airleg is used to remove light weight debris such as hulls, husks, broken pieces, chaff, dust and other waste material in agricultural and food products. In this scenario, the “good” product

exits the cleaning chamber and continues through processing. Conversely, our airleg can be used to remove heavier material from the process. Examples include large clusters of sugar coated cereal and cracklings from pork rinds. In this application, the "good" product blows over and continues through processing.

Our airleg also works exceptionally well sorting industrial products such as wood, minerals, and plastics.

The airleg consists of three sections:

- The lower fan section, in which the air flow is created and controlled
- The middle cleaning chamber, where the feeding, separation and "heavy" discharge occur
- The settling chamber, in which the lifted or lightweight particles are collected.

The separation is accomplished by generating a uniform, precisely controlled air flow up through the cleaning chamber. The material is fed into the cleaning chamber, where the lightweight particles are lifted by air into the settling chamber. The heavier product is dropped down to the cleaning chamber screen and discharged from the chamber.

Our airleg can be manufactured for various capacities, ranging from laboratory models to high-volume scalping units. The model numbers are derived from the size of the cleaning chamber. For example, model number 1610 measures 16" wide x 10" deep and model number 3210 measures 32" wide x 10" deep. Different separations are accomplished simply by changing the horsepower and cleaning chamber screen.

Some of the features that make our airleg a powerful yet economical machine include:

- Large-capacity sorter
- Easy access for quick and easy cleaning
- Heavy duty construction
- Minimal maintenance
- Reasonable price

Feeding and venting are important features to consider when purchasing a pneumatic separator. For best results, product feeding is continuous, without added velocity as the product enters. This is especially important for products that are difficult to sort or mixtures with little differential in the lifting velocity. When product feeding is intermittent, variations in the feed rates require only small airflow adjustments.

Mixtures that include dust-size particles can be problematic unless diverted outside or collected in a cyclone or baghouse. This requires an additional fan to remove the airleg exhaust air. Delicate products, such as cereals, may be lifted into the settling chamber as lightweight debris and can be damaged in the process. Modifications can easily be made to our airleg to prevent such damage.

For added versatility, cleaning chamber extensions can be added and leg heights can be adjusted to best suit the requirements. When low vertical clearance is a consideration, special configurations are available to produce a lower profile, and still provide adequate space to vent the discharge.

For nearly 40 years, AIM has been designing and building our airleg. Let us develop a solution to meet your needs.