# Picking Up The Pieces

**Dietz & Watson, a processor of delicatessen meats, hot dogs, and other prepared products, found a simple yet efficient tool to collect casings and packaging trim.**

Since 1939 Dietz & Watson has manufactured high quality beef, pork, ham, turkey, and chicken products in its facility in Philadelphia, PA. The company prides itself on its exclusive Old World recipes for delicatessen and other prepared meats.

As part of a facility modernization program, the company decided to update the ready-to-eat hot dog processing, packaging and shipping operations in its plant. The primary focus for the update was to bolster food safety. Specifically, Dietz & Watson wanted a system to remove waste casings from its five Townsend 2600 frankfurter peelers as well as waste trim from four packaging lines and bag cut-off trim from two Cryovac bagging lines. The removal system needed to be as trouble-free as possible while achieving maximum production.

The existing casing removal system in the plant had several shortcomings. "The biggest problem was that our old system discharged into a trailer," Chris Eni, plant manager of the Philadelphia facility, tells Meat Processing. "That meant that once the trailer became full of waste casing, production had to stop until a new trailer was placed in position. We were looking for a solution that was faster, cleaner, and more reliable."

After Dietz & Watson made the decision to upgrade its casing removal system, the company established several requirements for the new system. A major requirement was that the components of the new equipment had to be clean-in-place to eliminate the possibility of contaminating the RTE hot dog products. The system also had to operate continuously without plugging under peak demand. Simplicity was another requirement. The new equipment had to be easy to operate, without valves, canisters, and timers. And the company wanted to use the same system to collect the waste casings as well as packaging trim from the packaging and bagging lines.

Dietz & Watson selected Quickdraft, Canton, Ohio, to design and manufacture a casing removal system (CRS) for its Philadelphia plant. Quickdraft's CRS met all of the meat processor's requirements.

This system is designed to operate continuously, 24/7. In the Dietz & Watson CRS, all conveying lines and other surfaces in contact with the product are stainless steel, allowing system blowers to circulate a caustic solution through the casing conveying tubes on a daily basis. In addition, the system's design allows for periodic steam purges, and the conveying path from peelers to discharge into the compactor is completely unobstructed. There are no valves, dampers, or canisters to malfunction or to be maintained. Once the system was installed, it took Quickdraft just four hours to train the hot dog line operators to operate and clean the CRS. Quickdraft designed the Dietz & Watson system so casings, packaging trim, and Cryovac waste all discharge into the same air/material separator. This separator drops the material into the compactor and allows the conveying air to dissipate into the atmosphere.

An additional benefit of the Quickdraft CRS for Dietz & Watson did not become apparent for several months – in fact, not until Dietz & Watson decided to expand its plant. The space initially planned for the Quickdraft separator became part of the plant's expansion. The new separator location required a 100-foot addition to each of the conveying tube runs. This could have become a costly modification, as the components of the CRS were already fabricated. Quickdraft was able to accommodate the change simply by upgrading the motors in the system.

Dietz & Watson also reconsidered the need for a back-up compactor when Quickdraft's engineers were able to incorporate an accumulation chamber within the discharge chute to accommodate waste while the compactor was taken to an off-site disposal point.

"The Quickdraft system gave us safety and flexibility," Eni says. Plant engineer John Schoenfellinger adds: "The CRS started up without a problem."

The blowers, separator, and compactor of Dietz & Watson's casing removal system are located outdoors.

The casing removal system on the hot dog processing lines at Dietz & Watson's Philadelphia plant captures waste casings and steam from five peelers.

Quickdraft®
Conveying/Exhaust Systems

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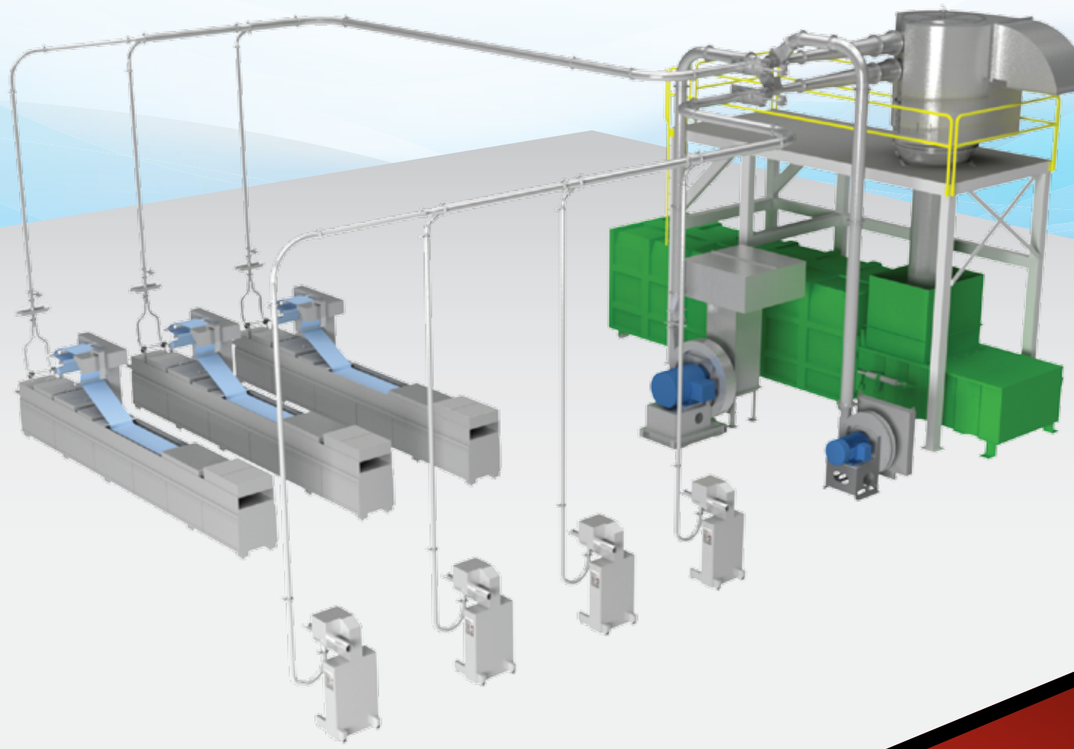
# Food Industry Pneumatic Material Conveying Systems

**VENTURI POWERED SOLUTIONS FOR:**

Poultry Processing, Pork/Beef Processing, Bakeries, Fruits and Vegetables, Seafood Processing, Prepared Foods and Snack Food Production



**Casing Removal System & Packaging Trim Removal System**

# The Quickdraft Venturi

Since 1953 Quickdraft has provided pneumatic conveying solutions specifically engineered to solve our customers' production problems and to enhance productivity and profitability. Quickdraft serves many industries including food processing, pulp and paper, metals processing, film, foil, non-wovens, fiberglass, plastics and rubber, among others. Many of these applications demand exacting system design requirements and dependable 24-hour/7-days a week operation of our equipment with minimal maintenance. Our experience in these varied applications provides us the ability to develop unique, dependable solutions for our customers.

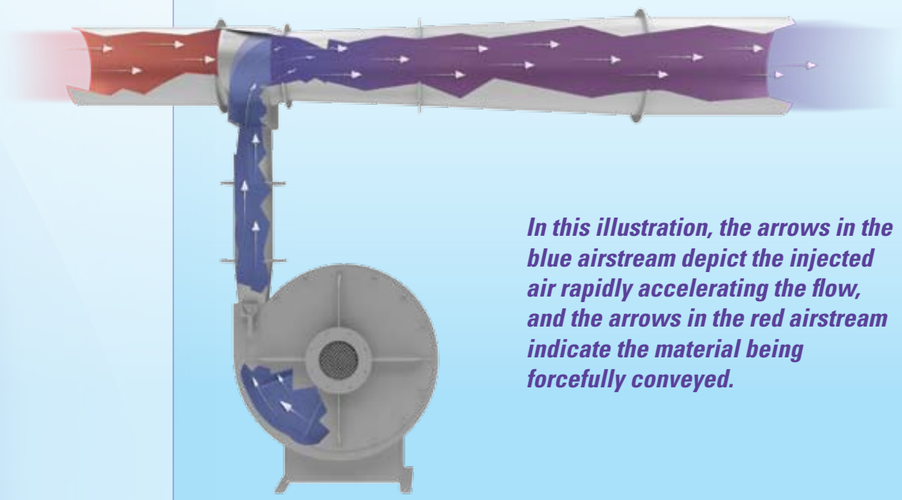


## Venturi Powered Solutions

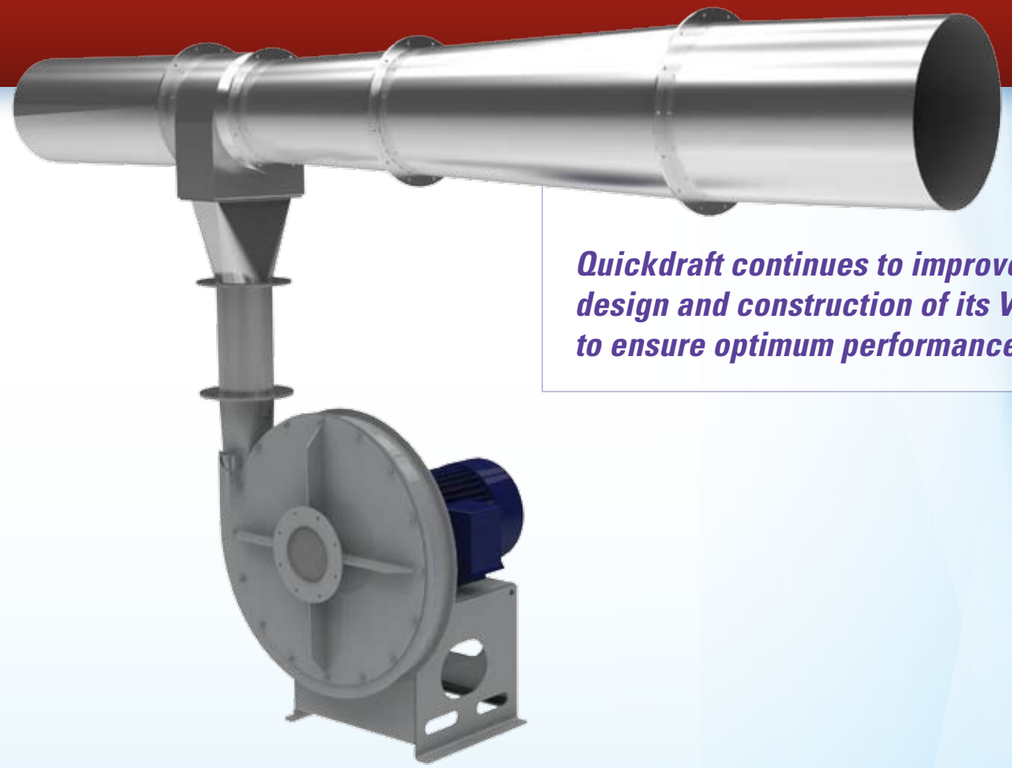
At the very core of Quickdraft's system offerings is its Venturi, designed and manufactured to provide the most efficient method of conveying material without any moving parts in the conveying system.

The Venturi is powered by a pressure blower. The blower injects air at high velocity and pressure through a plenum chamber controlled by a nozzle in the Venturi. This creates the Venturi effect and induces the flow of air upstream of the Venturi. Sufficient velocity is generated in the conveying ducts before and after the Venturi to capture and convey material in a consistent, trouble-free manner.

The blower sits outside of the conveying duct and handles ambient air. The material does not contact the blower or the rotating fan impeller. This arrangement results in a very dependable pneumatic conveying system that is nearly maintenance-free. It also allows the blower to be constructed of carbon steel, resulting in lower system costs.

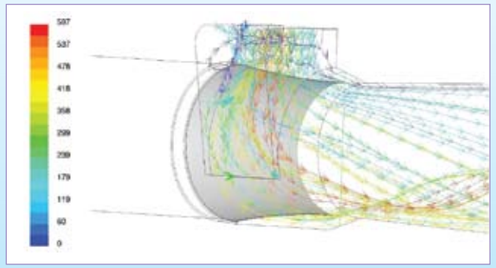


*In this illustration, the arrows in the blue airstream depict the injected air rapidly accelerating the flow, and the arrows in the red airstream indicate the material being forcefully conveyed.*



*Quickdraft continues to improve the design and construction of its Venturi to ensure optimum performance.*

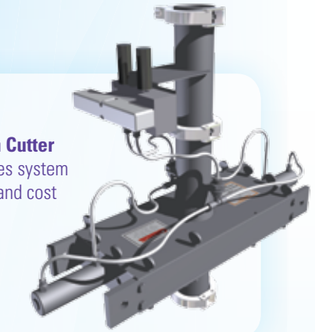
### Designed for Optimum Performance



*Superior design and precision manufacturing give the Quickdraft Venturi its uniqueness in creating effective suction and efficient acceleration.*

### Advantages

- There are no obstructions to the material flow and all moving parts are external to the conveying ducts
- Little or no maintenance
- Consistent, dependable conveying performance
- Conveying duct can be thoroughly cleaned without harming the blower
- Designed for 24/7 operation
- Long service life
- The blower can be located remotely from the Venturi
- Sound reduction equipment available for all applications



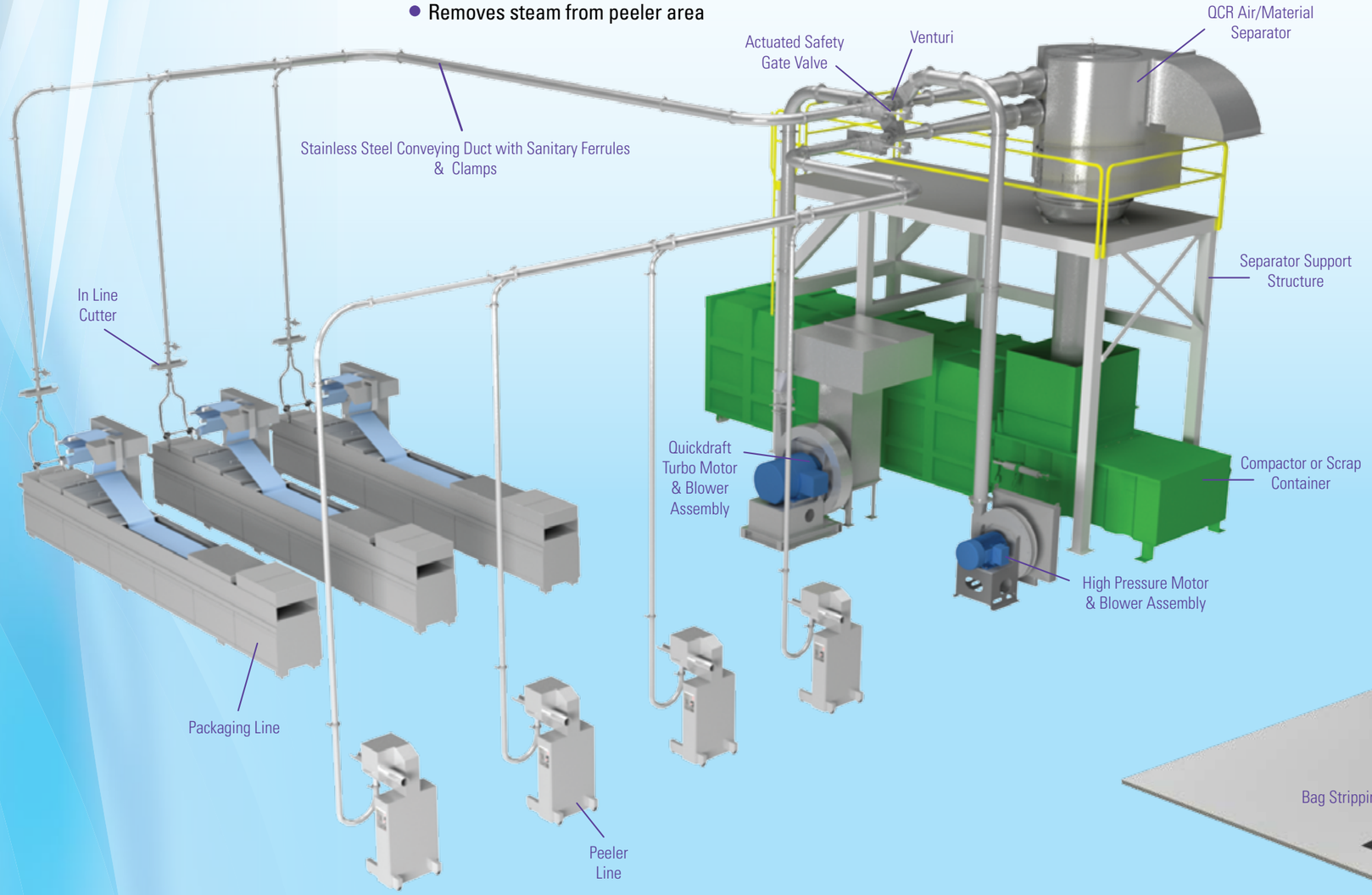
**Trim Cutter**
Reduces system size and cost

## Casing Removal System

- Simultaneously removes casings from multiple high-speed peelers
- Conveys casings directly to a scrap compactor outside of the building with ***no operator interaction***
- Conveying path has no moving parts and the system is ***maintenance friendly***
- There are no canisters to empty, ***increasing uptime***
- Eliminates carts, ***increasing food safety***
- Removes steam from peeler area

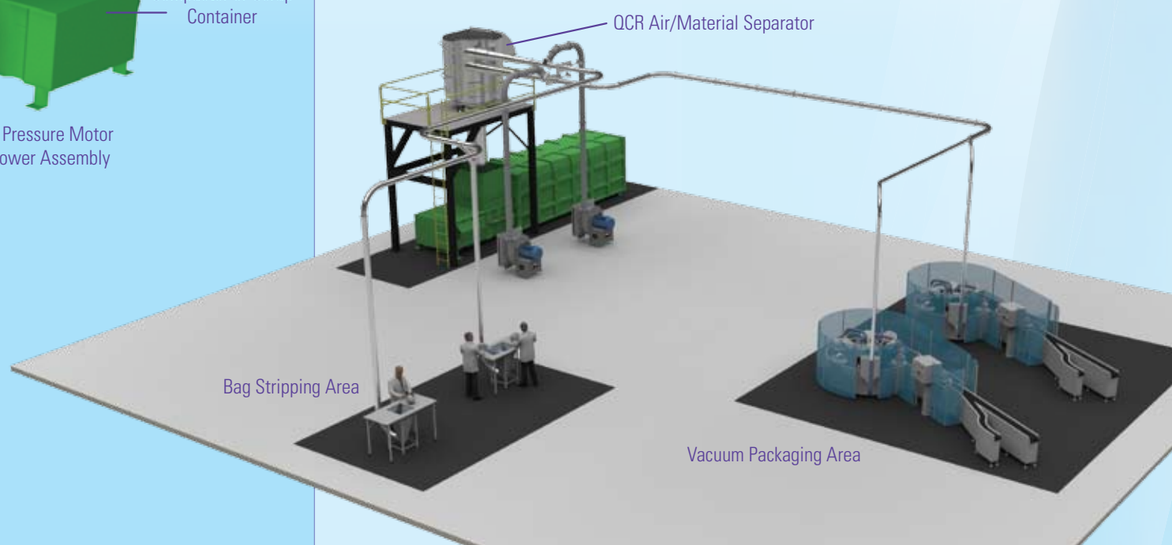
## Packaging Trim Collection

- No canisters and associated downtime
- No trim wind-up problems
- Self-feeding trim removal
- No operator interaction with edge trim




## Vacuum Packaging and Cook-In Bag Lines

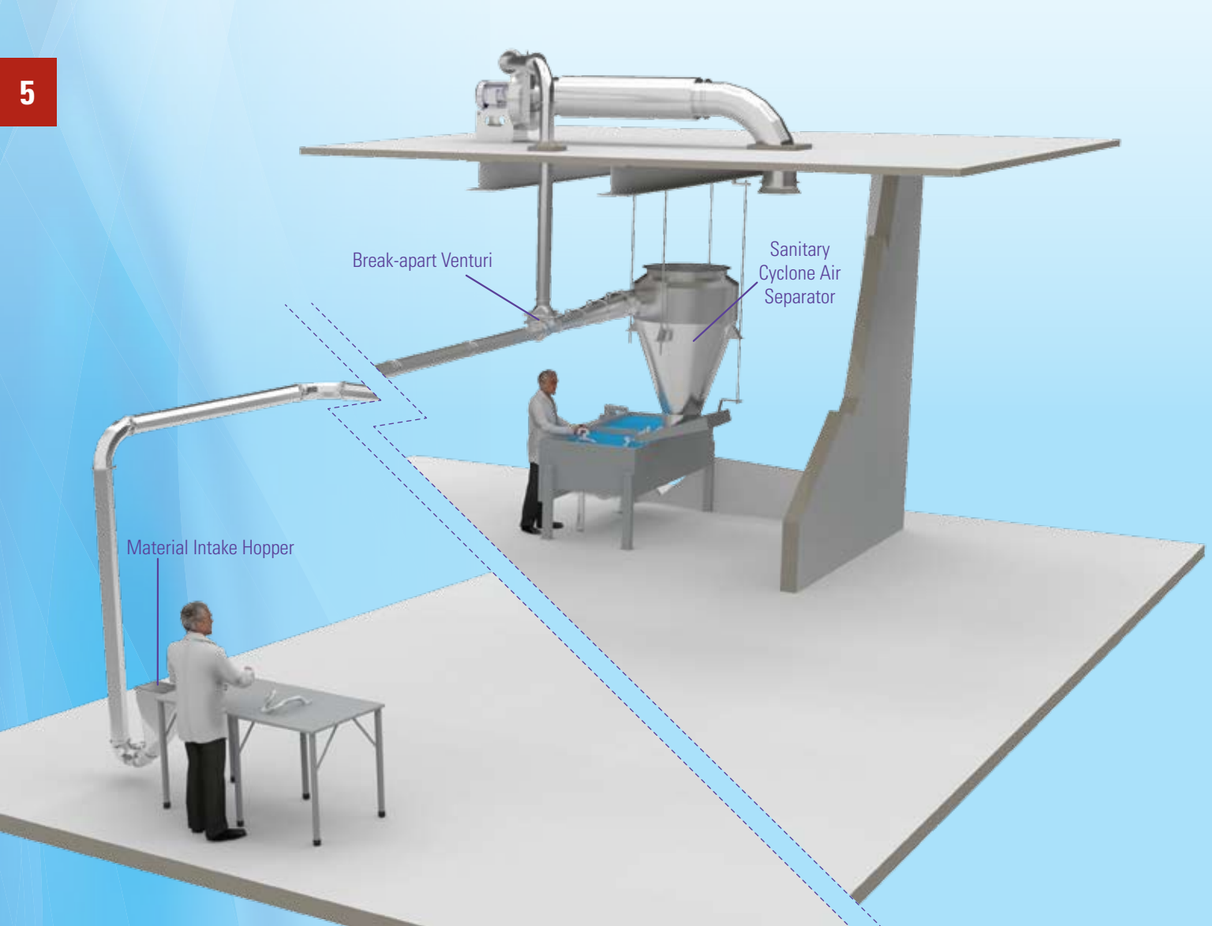
- Conveys scrap bag trimmings from vacuum packaging lines
- Conveys scrap “cook-in” bags from stripping area
- Quickdraft system is maintenance friendly
- No moving parts in contact with scrap
- No operator interaction
- Conveys scrap directly to compactor
- Safety gate valve ensures outside air will not re-enter building
- Eliminates cart traffic and/or trash bag removal from RTE area



# Edible/Inedible Conveying Systems

Effective for processing poultry, pork, beef, seafood, fruits, vegetables and baked goods.

- Sanitary design
- Several food safety features
- No operator contact with material
- Automated cleaning systems
- Reduces cart traffic
- Maintenance friendly
- Eliminates mechanical conveyors and pumps




# MDM Residue Conveying System

- Material conveying directly to offal with no operator interaction
- 100% compatible with all MDM separators
- Minimal refrigerated air removed from production area
- Eliminates carts and increases worker productivity
- Easily disassembled for clean-up
- Minimal water usage