

# FOOD PROCESSING

FOOD SAFETY AND OPERATIONAL EFFICIENCY



[TIGER-VAC.COM](http://TIGER-VAC.COM)

**Tiger-Vac**<sup>®</sup>  
...THE NAME TO VACUUM WITH

SPECIALIZING IN THE DESIGN AND MANUFACTURE  
OF LEGALLY CERTIFIED PORTABLE INDUSTRIAL VACUUM  
AND DUST COLLECTION SYSTEMS FOR CONTAMINATION  
CONTROLLED ENVIRONMENTS AND HAZARDOUS LOCATIONS  
*Since 1983*

## HOW CLEAN IS CLEAN ENOUGH ?

In food processing, a clean surface is often taken to mean “visibly clean.” What does “visibly clean” actually mean? It’s a subjective concept, and it is one that has been successful historically. For many applications, it may not be necessary to use complex analytical techniques to demonstrate clean. At the same time, it is appropriate to demonstrate, define, document, and illustrate visibly clean surfaces in the context of your food processing requirements. A picture is worth a thousand words. Demonstrations are better; hands-on exercises are better still. During employee training, it is reasonable not only to show cleaning techniques but also to illustrate what a clean surface ought to look like. Depending on the processing equipment, the process might call for required lighting to view the surface and areas of the equipment to be inspected. Cleaning process documents are easier to understand when they include photographs of a clean surface and one that is not clean.

Visual cleanliness of food contact equipment may not be sufficient, because some residue may have a clear or glass-like quality. UV light and/or ATP (adenosine triphosphate) may reveal previously hidden soils. Are all surfaces visible? Process equipment may require partial disassembly for cleaning. Documentation of the procedure for disassembly (and reassembly) and specific cleaning requirements, including process and frequency, must be specified. Cleaning protocols may have to be validated by appropriate cleanliness testing or surface testing methods that would not be practical to use on an ongoing basis. In such instances, a strategy such as periodic surface monitoring, using contact angle determination, may be appropriate.

Cleaning difficult soils in food processing is not restricted to cannabis processing; the botanical example points to the importance of cleaning as distinguished from disinfection. Effective cleaning means that residue from one batch of food does not interfere functionally or aesthetically with subsequent batches. If residue from one batch impacts the appearance, texture, taste, or odor of subsequent batches, there can be adverse economic implications aside from safety factors, even if sanitation is achieved. Therefore, it is important to be on the lookout for interfering residue from all sources, including cleaning/disinfecting agents themselves.



Soil residue combined with subtle damage to process equipment impacts more than food aesthetics. Buildup of residue makes disinfection more difficult and could also support development of biofilms. Biofilms are designed to survive, in part by creating their own protective armor. Although food processing facilities are designed to discourage development of biofilms, scrupulous attention to the cleaning process is essential.

# Div.2

## IMPROVE FOOD SAFETY AND OPERATIONAL EFFICIENCY

Every food processing professional understands that clean facilities are critical to food safety. They're also critical to the safety, health, and morale of everyone who works in your plant.

Food processing facilities have to be especially careful about spreading pathogens, both to workers and to food. The right vacuum filtration system will remove contaminants and keep them trapped, rather than releasing them back into the air.

**SINGLE PHASE**

**DT** DETACHABLE RECOVERY TANK

**430** STAINLESS STEEL 430 FILTER CHAMBER and RECOVERY TANK



**HEPA FILTER**  
99.99% EFFICIENCY AT 0.3 MICRON



**BYPASS AMETEK® LONG LIFE MOTOR**

**MFS** MANUAL FILTER SHAKER | WITH STATIC DISSIPATIVE TEFLON LAMINATED MAIN CLOTH FILTER ASSEMBLY

**H14** 4 HEPA FILTERS CLASS H14

**G-35L EX DT**  
DRY RECOVERY

**BLSD BRUSHLESS MOTOR**  
• MORE POWER  
• LONGER LIFE  
• NO MAINTENANCE



**HIGH FILTRATION EFFICIENCY UNIT**

VOLTAGE	120 V	120 V
HERTZ	60 Hz	60 Hz
WATTAGE	1200 W	1100 W
<b>POWER</b>	<b>1.6 HP</b>	<b>1.5 HP</b>
AMPERAGE	10.5 A	13 A
AIR FLOW	110 CFM	127 CFM
PRESSURE	107 in. H2O	89 in. H2O

**CAMLOCK INTAKE**  
LEAK-PROOF SECURE FITTING

**BLSD BRUSHLESS MOTOR**  
AVAILABLE

**SINGLE PHASE**



# Div.2



**HIGH FILTRATION EFFICIENCY UNIT**

## FOOD SAFETY MANAGEMENT

Workplace cleanliness is not only crucial in avoiding costly fines when inspection day arrives, but it also plays an important role in creating a productive, healthy, and positive work environment. This is why you want to adhere to regular facility-wide cleaning, and introduce a company-wide cleanliness policy your employees will take to heart.

**TILTING CART**

HEAVY DUTY POWDER COATED TILTING CART AND STAINLESS STEEL DRAIN VALVE FOR EASY EMPTYING OF RECOVERED MATERIALS

**ESD SAFE WHEELS**

ANTISTATIC WHEELS

**304** STAINLESS STEEL 304 CONSTRUCTION



**W&D**  
WET AND DRY RECOVERY

**C-25 EX TC**



# Div.2

## PLANT EFFICIENCY

The entire process of Cleaning & Hygiene practices begins with recognizing the areas susceptible to contamination and taking necessary steps to maintain them. The areas with high human intervention and exposure to outer environments are considered as high contamination areas. In food production units, process lines have the highest traffic and are contamination prone. If we further divide this area into kitchen, processing and packaging sections, the packing again is labor-intensive; whereas kitchens are material intensive, so chances of contamination are more in this area.

**SINGLE PHASE**

**DT** DETACHABLE RECOVERY TANK

**430** STAINLESS STEEL 430 FILTER CHAMBER and RECOVERY TANK



**HEPA FILTER**  
99.99% EFFICIENCY AT 0.3 MICRON



**AMETEK®**  
BYPASS AMETEK® LONG LIFE MOTOR

**MFS** MANUAL FILTER SHAKER | WITH STATIC DISSIPATIVE TEFLON LAMINATED MAIN CLOTH FILTER ASSEMBLY

**H14** 5 HEPA FILTERS CLASS H14

### 4D-35L EX DT

DRY RECOVERY

VOLTAGE	120 V
HERTZ	60 Hz
WATTAGE	2040 W
<b>POWER</b>	<b>2.7 HP</b>
AMPERAGE	15.2 A
AIR FLOW	200 CFM
PRESSURE	90 in. H <sub>2</sub> O



**HEE** HIGH FILTRATION EFFICIENCY UNIT

**PTFE** STATIC DISSIPATIVE PTFE MAIN CLOTH FILTER



# Div.1

**EXPLOSION PROOF / DUST IGNITION PROOF**

**SINGLE VENTURI**

**DT** DETACHABLE RECOVERY TANK

**304** STAINLESS STEEL 304 FILTER CHAMBER and RECOVERY TANK

**MFS** MANUAL FILTER SHAKER



**HEPA FILTER**  
99.995% EFFICIENCY AT 0.3 MICRON

**10 ohms** LESS THAN 10 Ohms OF RESISTIVITY

**DUST** DESIGNED FOR APPLICATIONS WHERE FINELY PULVERIZED DUSTS ARE TO BE RECOVERED

**SAFE** IMPROVING FOOD SAFETY AND OPERATIONAL EFFICIENCY IN FOOD PROCESSING



**PNEUMATIC**  
POWERED BY COMPRESSED AIR

**SS-20 (DT) RE HEPA MFS**



TV-200  
RECOVERY  
CAPACITY  
**16 Gal.**

TV-200S  
RECOVERY  
CAPACITY  
**26 Gal.**

## POWER AND FLEXIBILITY

Food processing facilities need to have stringent cleaning processes in place to ensure exceptional hygiene is maintained. From the machinery to the floors and walls, all require regular sanitation with professional quality vacuum systems. During food preparation, there is always the risk that harmful bacteria could contaminate food.

The purpose of regular housekeeping is to prevent cross-contamination, which could include dust. Cleaning food production environments occupied by dust presents a set of issues such as the risk of an explosion occurring from the ignition of combustible dust.

**304** STAINLESS STEEL 304  
FILTER CHAMBER and  
RECOVERY TANK

**MFS** MANUAL  
FILTER  
SHAKER

**DT** DETACHABLE  
RECOVERY  
TANK

**TV-200**  
DRY RECOVERY

**SINGLE  
PHASE**

**21 ft<sup>2</sup>** FILTER  
SURFACE  
AREA

**21 ft<sup>2</sup> + 10.8 ft<sup>2</sup>**  
PLEATED FILTER + HEPA FILTER

VOLTAGE	120 V
HERTZ	60 Hz
WATTAGE	2400 W
<b>POWER</b>	<b>3.2 HP</b>
AMPERAGE	15.8 A
AIR FLOW	270 CFM
PRESSURE	71.5 in. H <sub>2</sub> O

**NFPA** COMPLIES WITH :  
NFPA 652 PARAGRAPH 8.4.2.2.1.7  
NFPA 654 PARAGRAPH 8.4.3.7 (1) TO (7)

**3M**  
**3 MOTORS**  
USED INDIVIDUALLY  
OR SIMULTANEOUSLY

**HEPA FILTER**  
99.97% EFFICIENCY  
AT 0.3 MICRON



# OVEN CLEANING

Commercial ovens are the workhorses of any kitchen. But the fact that they're so vigorously used also means that they're prone to accumulating food particles, grease and other debris. This can lead to everything from issues with flavor to performance to the risk of smoke and fire. Not only that, but failure to clean your commercial oven can lead to costly heating inefficiencies. One way to prevent these issues before they start, is to conduct proper cleaning and maintenance. Contact Tiger-Vac for tips aimed at safeguarding the ongoing performance of your commercial oven through proper cleaning [sales@tiger-vac.com](mailto:sales@tiger-vac.com) | 1 800 668-4437



**HEPA FILTER**  
99.995% EFFICIENCY  
AT 0.3 MICRON

**MFS** MANUAL  
FILTER  
SHAKER

**DT** DETACHABLE  
RECOVERY  
TANK

**SINGLE  
PHASE**

**430** STAINLESS STEEL 430  
FILTER CHAMBER and  
RECOVERY TANK



**HIGH FILTRATION  
EFFICIENCY UNIT**

## 2D-25L (DT)

DRY RECOVERY

VOLTAGE	120 V
HERTZ	60 Hz
WATTAGE	1200 W
<b>POWER</b>	<b>1.6 HP</b>
AMPERAGE	10.5 A
AIR FLOW	110 CFM
PRESSURE	107 in. H <sub>2</sub> O



**HIGH TEMPERATURE FILTER**  
FILTER ASSEMBLY



**HEAT PROTECTOR SLEEVE**  
ALUMINUM WAND



## ADVANTAGES

- SMALL FOOTPRINT, INTENDED TO BE WALL-MOUNTED
- CAN ALSO BE REMOVED FROM THE WALL AND USED AS A PORTABLE VAC
- IDEAL FOR LOCKER ROOMS, CHANGING ROOMS AND GOWNING ROOMS
- DESIGNED TO RECOVER COMBUSTIBLE DUST IN NON-DESIGNATED AREAS
- EMPLOYEES CAN REMOVE DUST AND POWDER FROM THEIR CLOTHING BEFORE AND AFTER EVERY SHIFT

**430** STAINLESS STEEL 430  
CONSTRUCTION  
FITS ANY APPLICATION

INCLUDES A STATIC DISSIPATIVE SUCTION HOSE AND ROUND BRUSH (OTHER STATIC DISSIPATIVE ACCESSORIES ARE AVAILABLE)

**PCS** PERSONAL  
CLEANING  
STATION

INTENDED TO BE WALL MOUNTED  
OR BE USED AS A PORTABLE HEPA VAC.

**SINGLE  
PHASE**



**HEPA FILTER**  
99.995% EFFICIENCY  
AT 0.3 MICRON



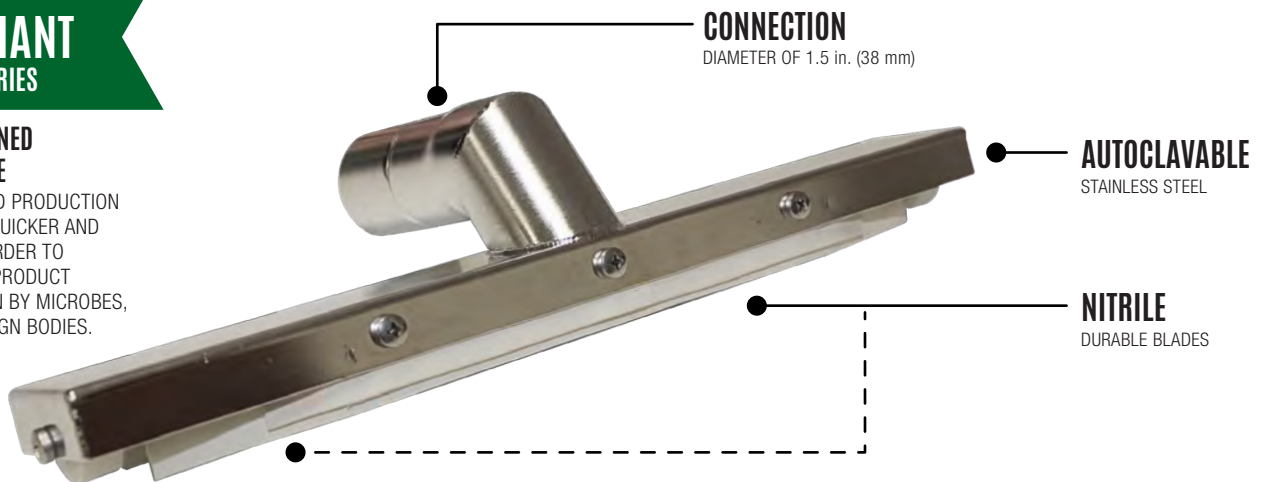
**2D-1 (PCS-WM) HEPA**



**RECOMMENDED  
FDA COMPLIANT  
TOOLS AND ACCESSORIES**

**HYGIENICALLY DESIGNED  
AND FIT FOR PURPOSE**

HYGIENICALLY DESIGNED PRODUCTION EQUIPMENT THAT ARE QUICKER AND EASIER TO CLEAN, IN ORDER TO MINIMIZE THE RISK OF PRODUCT CROSS-CONTAMINATION BY MICROBES, ALLERGENS, AND FOREIGN BODIES.



OPTIONAL  
**DUST EXTRACTION ARM**

- 2 ARMS WITH 6 in. Diam.
- 1 ARM WITH 8 in. Diam.

**HEPA FILTER MODULE MUST BE FACTORY INSTALLED**

OPTIONAL  
**HEPA FILTER**  
99.97% EFFICIENCY  
AT 0.3 MICRON

OPTIONAL  
**HEMI PLEAT®**  
FILTER CARTRIDGE  
EXTREME FLAME RETARDANT  
WITH A FILTRATION EFFICIENCY  
OF 99.99% ON 0.5 MICRON

**CD-1200 EX**

STAINLESS STEEL

**THREE  
PHASE**

VOLTAGE	230 V to 575 V
HERTZ	60 Hz
PHASE	Three
WATTAGE	3700 W
<b>POWER</b>	<b>5 HP</b>
AMPERAGE	5 A to 12 A
AIR FLOW	1200 CFM
SOUND LEVEL	74 dB(A)
CORD LENGTH	50 ft.
WEIGHT	473 lb

Continuous  
**Duty 24-7**

**HEMI** HEMIPLEAT®  
CARTRIDGE  
AVAILABLE

**TEFC** EXPLOSION PROOF /  
DUST IGNITION PROOF  
ELECTRIC MOTOR

**304** HEAVY DUTY  
STAINLESS STEEL 304  
CONSTRUCTION

**GFM** LOW PRESSURE  
HIGH FLOW RATE  
1200 CFM

**DESIGNED TO CAPTURE  
AIRBORNE / FUGITIVE  
DUST**

- Conductive Aluminized Spun Bond Cartridge with a Filtration Efficiency of 97% at 0.3 micron
- Thermal Overload for motor
- Filter Cartridge Pulse Cleaning (manual or automatic)

**Div.1**

**EXPLOSION PROOF /  
DUST IGNITION PROOF**

**THERMOPLASTIC RUBBER**

- GENERAL ALL-PURPOSE HOSE
- EXTERNAL POLYPROPYLENE WEARSTRIP OFFERS ADDITIONAL EXTERNAL ABRASION AND DRAG RESISTANCE
- DESIGNED FOR APPLICATIONS WITH WIDE TEMPERATURE RANGES
- GREAT MOISTURE AND UV RESISTANCE
- EXCELLENT CHEMICAL RESISTANCE
- MINIMAL FRICTION LOSS AND EFFICIENT AIR FLOW

**CRUSHPROOF  
HOSES**

**HEC-100L / 200L (4W)**

**HIGH EFFICIENCY  
CYCLONE**

THE HEC CAN BE POWERED BY EITHER  
A LOW PRESSURE OR HIGH PRESSURE  
VACUUM SYSTEM OR DUST COLLECTOR



4 in. / 6in. / 8in.  
INLET / OUTLET

CAN BE  
FITTED WITH  
**SANITARY  
FITTINGS**



## AIRBORNE CROSS-CONTAMINATION

Food contamination and foodborne illness cause recalls that cost food manufacturers hundreds of millions of dollars. Food dust traveling from one process area to another in a plant can cause a pathogen outbreak from the spread of microorganisms or allergen exposure from materials such as nuts or gluten.

Preventing cross-contamination requires effectively collecting and removing all contaminants before they become widely dispersed. Controlling, collecting, containing and properly disposing of food dust minimizes the spread of contaminants and keeps them from returning to the processing environment.

## CAPTURE HAZARDOUS FOOD DUSTS

High-Efficiency Cyclones and Dust Collectors help food manufacturers meet safety compliance and quality controls regarding worker exposure and combustible dust management. Properly designed collectors capture dust by continually cycling the dust-laden airstream through filter cartridges. The dust remains on the cartridges, and the clean air is returned to the work environment.

THE HEC CAN BE POWERED BY EITHER  
A LOW PRESSURE OR HIGH PRESSURE  
VACUUM SYSTEM OR DUST COLLECTOR

## PRE-SEPARATION SYSTEM FOR FINE DUST

- Pre-Separation System using the cyclone for inertial separation
- Designed specifically for the recovery of Combustible Dust and non-Combustible Dust



**304** HEAVY DUTY  
STAINLESS STEEL 304  
CONSTRUCTION

RECOVERY OF COMBUSTIBLE DUST  
AND NON-COMBUSTIBLE DUST

**HEC-85L (4W)**

HIGH PRESSURE

SUCTION INLET	2 in.
AIR OUTLET	2 in.
REC. CAPACITY	22 gal. (85 L)



**304** HEAVY DUTY  
STAINLESS STEEL 304  
CONSTRUCTION

RECOVERY OF COMBUSTIBLE DUST  
AND NON-COMBUSTIBLE DUST

**HEC-25L (4W)**

HIGH PRESSURE

SUCTION INLET	1.5 in.
AIR OUTLET	1.5 in.
REC. CAPACITY	6.6 gal. (25 L)



**AVAILABLE FILTER CLEANING SYSTEMS**

- MRP MANUAL REVERSE PURGE
- APS AUTOMATIC PURGE SYSTEM

**MFS SYSTEM**

MANUAL FILTER SHAKER

**VACUUM RELIEF VALVE**

PREVENT MOTOR BURNOUT

**MANOMETER**

DIFFERENTIAL PRESSURE GAUGE

**50 ft.**

CORD LENGTH

**FILTER**

HEPA /ULPA FILTER

**DETACHABLE**

DETACHABLE RECOVERY TANK

**CONSTRUCTION**

- ALL STAINLESS STEEL
- ALL WHITE POWDER COATED
- BLEND OF STAINLESS STEEL AND WHITE POWDER COATED

**WHEELS**

CONDUCTIVE WHEELS



**Div.1**

EXPLOSION PROOF / DUST IGNITION PROOF

**SINGLE PHASE**

**THREE PHASE**



**HEPA FILTER**  
99.995% EFFICIENCY AT 0.3 MICRON



**ULPA FILTER**  
99.999% EFFICIENCY AT 0.12 MICRON  
99.9995% EFFICIENCY AT 0.18 MICRON

**304**

HEAVY DUTY STAINLESS STEEL 304 CONSTRUCTION

**MFS**

MANUAL FILTER SHAKER



**CD-2600 CR (MFS)**

DRY RECOVERY

VOLTAGE	230 to 575 V
HERTZ	60 Hz
WATTAGE	1900 or 2600 W
<b>POWER</b>	<b>2.5 or 3.5 HP</b>
AMPERAGE	2.6 to 9.4 A
AIR FLOW	140 to 219 CFM
PRESSURE	111+ to 145 in. H <sub>2</sub> O
VRV SETTING	110 in. H <sub>2</sub> O

**DESIGNED TO BE CONNECTED TO PROCESS MACHINES**

AND FOR GENERAL CLEANUP IN THE FOOD INDUSTRY

AVAILABLE **TEFC MOTOR**

EXPLOSION PROOF / DUST IGNITION PROOF, AND NON-EXPLOSION PROOF



**CONTROL MICROBIOLOGICAL RISKS**

Hygienic zoning is a key critical preventive control that often does not get the attention that it deserves. The basic concept of hygienic zoning is to divide a food or feed manufacturing facility into defined areas based on food safety risks.

**SINGLE PHASE**



**HEPA FILTER**  
99.995% EFFICIENCY AT 0.3 MICRON

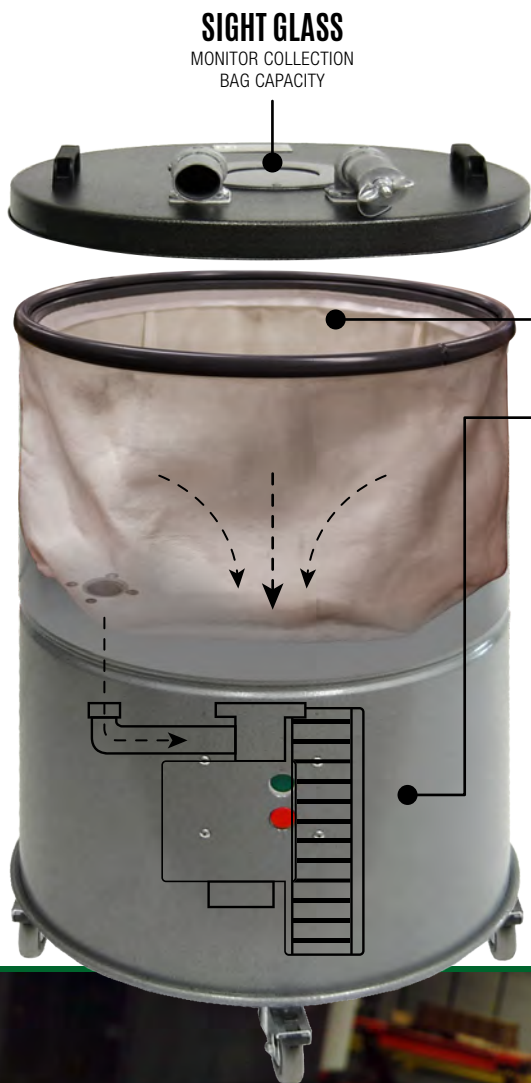
**TEFC**

EXPLOSION PROOF / DUST IGNITION PROOF ELECTRIC MOTOR



**CD-120V EX CFB SS**





## ELIMINATE INTERRUPTIONS

Recovering trim or waste in an operation typically gets less attention than is merited by its potential effect on profits. Indeed, it is not unusual for multi-million-dollar pieces of equipment to be shut down or to operate at rates below their design intention because of poorly designed and malfunctioning trim or waste recovering systems; through experience, food processing plants have learned the lesson of how important it is to purchase a reliable trim recovering system.

### SMART RECOVERY

RECOVER EXCESS LATERAL TRIM AND SCRAPS THROUGH A FILTER BASKET

### TEFC MOTOR

REGENERATIVE BLOWER  
KEEPS THE RECOVERED MATERIAL AT THE BOTTOM OF THE FILTER BASKET FOR MAXIMUM RECOVERY CAPACITY

## SRV-55 gal.

DRY RECOVERY

VOLTAGE	230 to 575 V
HERTZ	60 Hz
WATTAGE	2600 or 3700 W
<b>POWER</b>	<b>3.5 to 5 HP</b>
AMPERAGE	4 to 13.5 A
AIR FLOW	220 CFM
PRESSURE	145 or 155 in. H <sub>2</sub> O
VRV SETTING	110 or 120 in. H <sub>2</sub> O

## BENEFITS OF THE SRV-55

The volume of waste can be reduced at a discharge point and cut trim can be conveyed over longer distances when an effective trim handling system is in place. Vacuum trim removal systems produce low levels of noise, compared to traditional options, and they eliminate dust problems along the trim duct route, hence making them preferable for work environments.

DESIGNED TO BE CONNECTED TO **PROCESS MACHINES**

DESIGNED FOR THE RECOVERY OF **BULK AND LIGHTWEIGHT SCRAP MATERIALS**

THREE PHASE

Continuous Duty **24-7**



## PACKAGING WASTE MANAGEMENT SOLUTIONS

As a food processor, you make a great product that you take great pride in. Your customers expect the best from you, and only the right waste management vacuum systems can keep your product safe and free of any processing contamination. Whether it's primary or secondary packaging, your packaging needs to preserve a proper seal, control temperatures, and maintain structural integrity, while also having shelf appeal. Without it, your food could be at risk of damage or worse — become inedible.

Tiger-Vac® doesn't just sell packaging waste management vacuum systems, we sell comprehensive waste management solutions that are guaranteed to improve performance, reduce costs, eliminate processing interruptions and deliver your food products more efficiently.

SALES@TIGER-VAC.COM | 1 800 668-4437



Tiger-Vac inc.  
11 SW 12th Ave.#112  
Dania FL 33004 USA

T. (954) 925-3625  
F. (954) 925-3626  
E. sales@tiger-vac.com

Tiger-Vac International Inc.  
2020 Dagenais Blvd. West  
Laval QC H7L 5W2 Canada

T. (450) 625-0099  
F. (450) 625-3388  
E. sales@tiger-vac.com

Tiger-Vac Europa S.r.l.  
Via Marie Curie, 17  
Ozzano Emilia, Italy

T. (39) 051 79.53.52  
F. (39) 051 4695077  
E. info@tiger-vac.it

