**MODERN PROCESS EQUIPMENT CORPORATION** 



# THE ADVANTAGES TO CHAIN-VEY

IN THE PET FOOD & ANIMAL FEED INDUSTRIES



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# **CHAIN-VEY APPLICATIONS**

WHAT PART OF THE PET FOOD PROCESS MAKES SENSE FOR CHAIN-VEY?



**DRY INGREDIENT UNLOADING\*** 

\*FULL LIST OF PRODUCTS TO BE EVALUATED



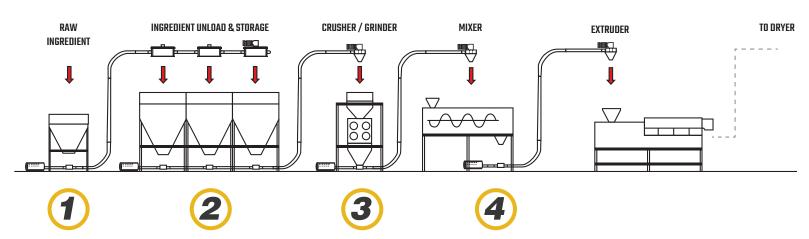
STORAGE TO CRUSHER / GRINDER

3

**CRUSHER / GRINDER TO MIX / BLENDER** 



MIXER / BLENDER TO EXTRUDER





#### FINES TO REWORK OPERATION

**ELIMINATE COMPLEX SERIES OF SCREWS CONVEYORS / AUGERS / DRAG** 



#### FINISHED KIBBLE TO COATER OR SCREENER

ELONGATED INLET TO MATCH WIDTH OF DRYER DISCHARGE BED MINIMUM PRODUCT DEGRADATION

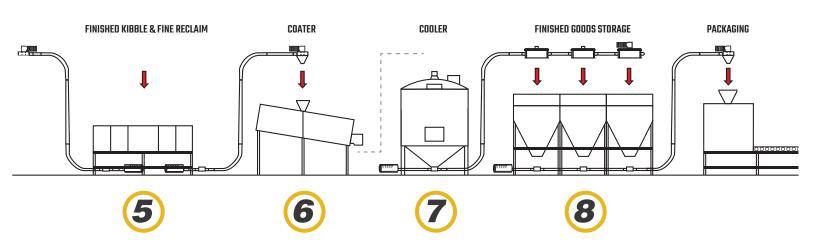


#### **COOLER TO FINISHED GOODS STORAGE\***

**EVALUATE FAT & MOISTURE CONTENT** 



## FINISHED GOODS TO PACKAGING

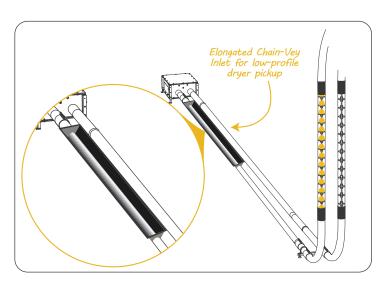




# **CHAIN-VEY ADVANTAGES**

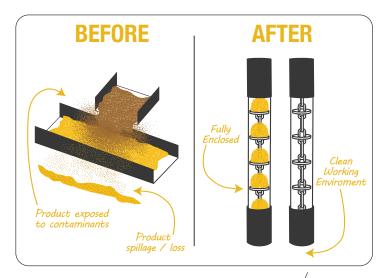
#### **EXAMPLE #1: INCREASED YIELD**

- Minimize Product Breakage, Degradation, and Declassification
- Flexible Design Options
  - Combines Horizontal & Vertical Transport in one System
- Fully Enclosed Air & Dust Tight
- Energy Efficient
  - 5x more efficient than pneumatic dense phase
- Robust & Reliable
- 100% positive cleanout
- Clean-In-Place (CIP) Capabilities (Non-water)



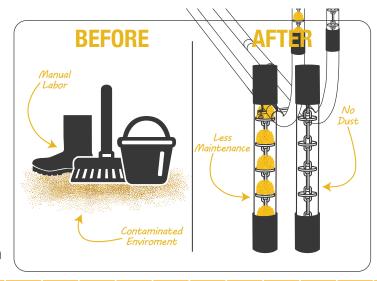
#### **EXAMPLE #3: LESS DRYER FINES**

- Simplify Conveyance Equipment
  - One Chain-Vey replaces a complete array of screw augers, bucket elevators and drag conveyors
- Clean-Up Dryer Area
  - Fully enclosed system with no transfers for material spillage and dust-tight
- Reduce labor for emptying dryer fine spill points and sweeping floors
- Decrease maintenance costs with fewer conveyors to maintain



#### **EXAMPLE #2: LESS BREAKAGE**

- Eliminate Kibble Breakage
- Fully Enclosed Air & Dust Tight
- Low Profile Pickup from Dryer 1.5 ft. height required.
  Chain-Vey inlet spans the entire length of the dryer belt
- 100% positive cleanout
- Capacity up to 28 ton/hr.



# **CHAIN-VEY SIZES & CAPACITIES**

#### CHOOSE YOUR CONVEYING CAPACITY THAT BEST FITS YOUR APPLICATION

#### RELIABLE

# SUPERI

CONNECTOR LINK SYSTEM



#### DISC MATERIALS PERFORMANCE

- FDA APPROVED UHMW DISCS
- DISC DESIGN OPTIONS INCLUDE DIRECT OVER-MOLDED ONTO STEEL CHAIN OR SPLIT DESIGN WITH SANITARY STEEL **COMPRESSION RIVET FASTENER**
- **CHAIN AVAILABLE IN STAINLESS STEEL OR ULTRA HIGH** STRENGTH HARDENED CARBON STEEL
- ALL CHAIN HAS ULTIMATE TENSILE STRENGTH OF OVER 16,000 LBS.

2,000 ft<sup>3</sup>/hr (56 m<sup>3</sup>/hr)

1,000 ft3/hr (28 m3/hr)

**CONVEYS UP TO 28 TONS/HR ON KIBBLE** 

# **CHAIN-VEY CLEAN-IN-PLACE (CIP)**

#### **CLEANING SOLUTIONS TAILORED TO SPECIFIC SANITATION REQUIREMENTS**

#### TIER 1 - DRY CLEANOUT / STANDARD DESIGN

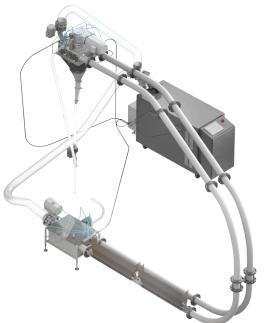
• Eliminates Carryover / Residual Material Cross Contamination

### TIER 2 - HYBRID CIP (NON-WATER CIP CAPABLE)

 Integration with Existing Plant CIP Process / Skid or MPE Supplied Standalone Cleaning Units

#### TIER 3 - FULL CIP WITH MOBILE CLEANING CART

- Fully Automated CIP System & Mobile Cart
- Flanged Pipe Connections
- Passes All Swab Tests: ATP, Aerobic Plate Count, Coliform, Bio-Lumious



# CHAIN-VEY® VS. OTHER CONVEYING METHODS

CONVEYOR **DESIGN FEATURES** 



MAINTAINS
PARTICLE
DISTRIBUTION
(INTEGRITY)



AIR / DUST TIGHT



CLEAN-IN-PLACE



**ENERGY EFFICIENT** 



**EXTENDED** LENGTH



LOW / NO **MAINTENANCE** 



MULTIPLE INLETS /

METHODS	(INTEGRITY)		(CIP)		CAPABILITY		DISCHARGES
CHAIN-VEY®	✓	✓	✓	✓	✓	✓	✓
AUGER/ELEVATOR						✓	
BUCKET ELEVATOR	✓			✓			✓
DENSE PNEUMATIC		✓			✓		✓
DILUTE PNEUMATIC		<b>✓</b>			<b>✓</b>		<b>✓</b>

## TYPICAL CHAIN-VEY® APPLICATIONS

**FOOD** 

Barley Bread Crumbs **Brown Sugar** Cereal

**Cheese Powders** 

Cocoa Coffee: Green Coffee: Ground

Coffee: Roasted Coffee: Whole Bean Cookie Crumbs Crackers Flour: Corn

Fruit: Dried Fruit: Frozen **Hard Candy** Hops Ingredients Flour: Wheat

Jelly Beans Krill Oil Malt / Meal Oats: Rolled Oats: Instant Oats: Steel Cut Pepper Rice: Dried Rice: Puffed **Snack Foods** 

Soluble Corn Fiber Soup Mix Spices Tea Vegetables: Frozen

Vitamins: Powdered Wheat

**BEANS / NUTS / SEEDS** 

Almonds **Black Beans** Cocoa Beans Grains / Seeds **Great Northern Beans Kidney Beans** 

Lentils Lima Beans Navy Beans Oil Seeds Pecans Peanuts: Blanched

Peanuts: Roasted Pinto Beans Soy Beans

Walnuts

PET FOOD

Chicken Meal Dry Food Fines / Add backs Fish Food Fish Meal Horse Feed

**Raw Ingredients Treats** Whole Kibble

**CHEMICAL** 

Biomass (Torrefied) Calcium Carbonate Calcium Hydrate

Coke Detergent Feed Phosphate Fertilizer Flake Resin Pesticide

Soldium Bicarbonate

**Wood Chips** 

MINERAL

**Activated Carbon Activated Coal Ash** Alumina Hydrate

Ash Bentonite Clay Carbonate

Clay Coal Coal: Brown Coal: Dry Graphite Limestone **Sintered Dust** Talcum Powder **DON'T SEE YOUR SPECIFIC** APPLICATION?

Contact a MPE Sales Engineer in order to set up product feasibility testing at our Full Scale Chain-Vey Lab located in Chicago, IL, U.S.A.

**OTHER** 

Latex **Pigments** Litter Plastics **Pellets** Sawdust

**Shredded Waste** Tobacco

Wax Flakes

**CHAIN-VEY®** 

A DIVISION OF MODERN PROCESS EQUIPMENT CORPORATION