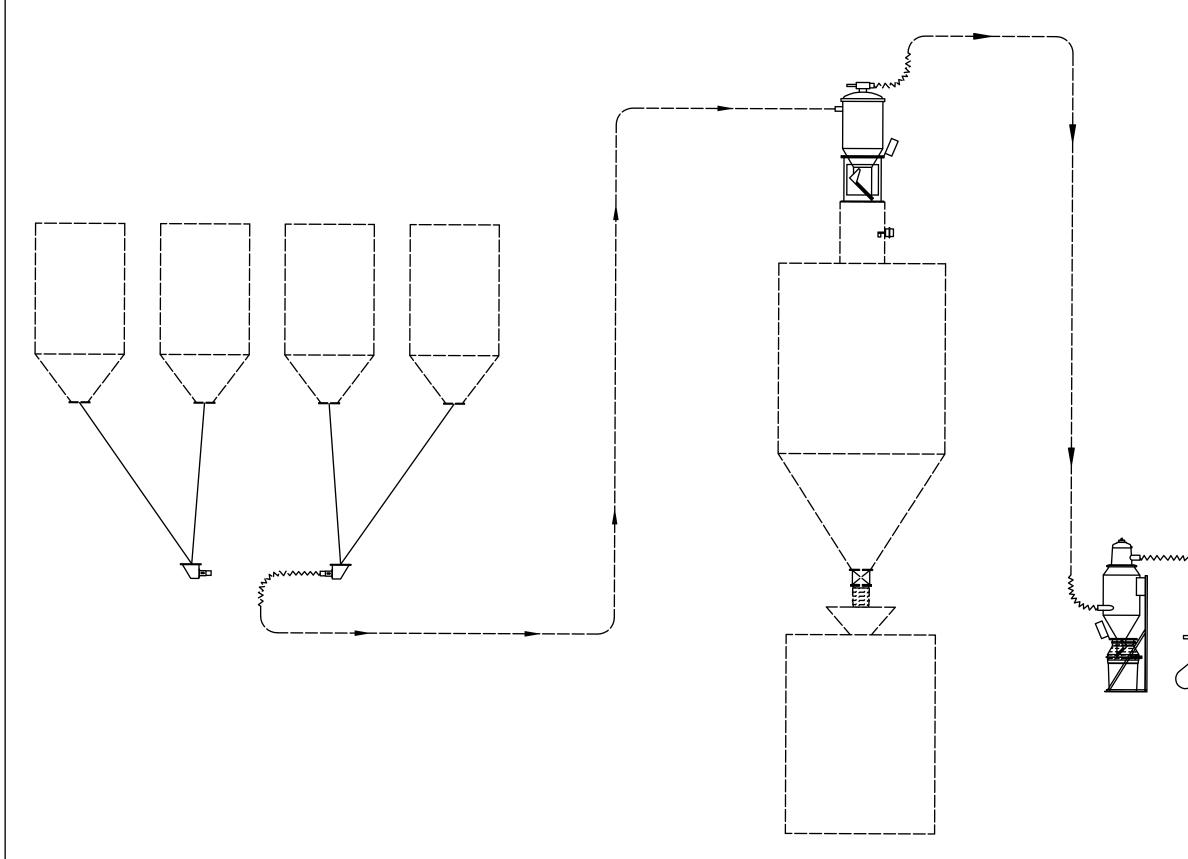


This project was for a food seasonings producer. This system involved a vacuum sequencing system to load fine sugar and corn syrup mixes in different flavors from the outlet of a screener to load small tray containers. Design includes unique dust collection apparatus on the outlet of receiver to cut down on dust during dump from the receiver discharge.

Ref. 139804

# 



This project was sold to a coffee supplier. Coffee beans are transferred by vacuum sequencing system from surge bins to a roaster.

#### SYSTEM 01 PROFILE

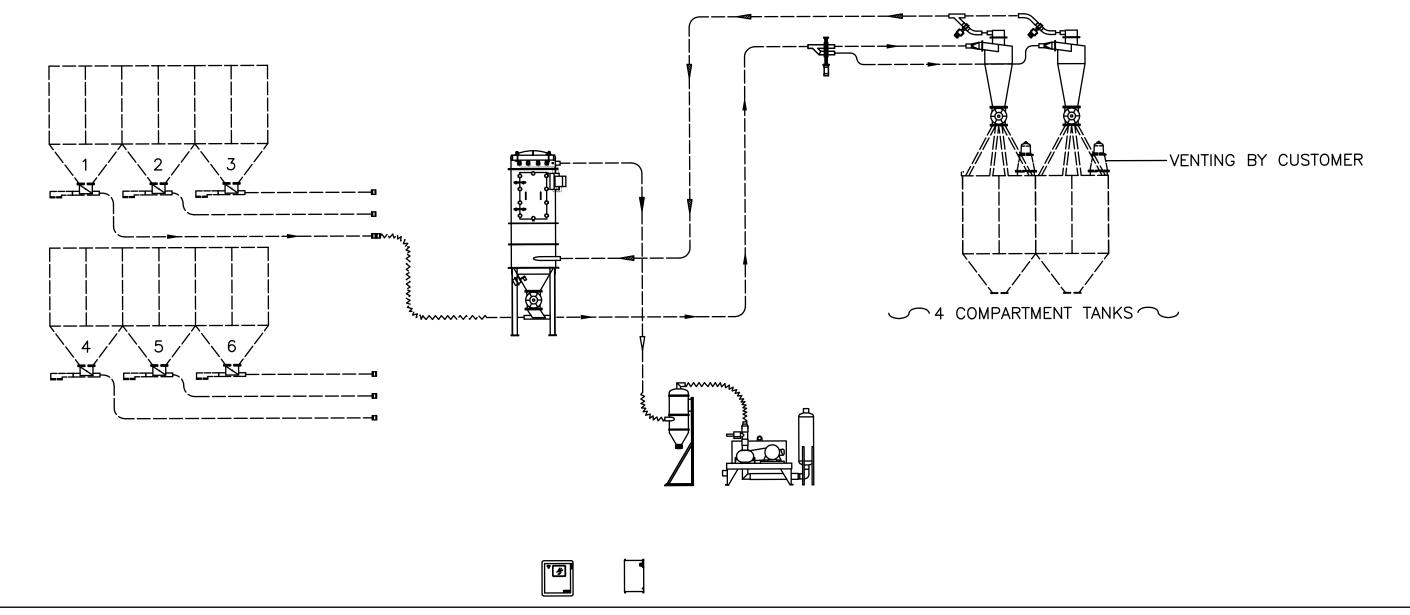
System Type:2400 VACUUM SEQUENCINGMaterial:COFFEE BEANSBulk Density:33 LBS./CU. FT.Conveying Rate:9,000 LBS./HR.No. of Sources:1 OF 4No. of Destinations:1Conveying Line Size:4" OD TUBEConveying DistancesHorizontal:Vertical:30 FT.No. of Elbows:(3) 90 DEG.Flexible Hose:15 FT.







System Type: Vacuum Transfer Material: Ground Roasted Coffee Bulk Density: 20 LBS./CU. FT. Conveying Rate: 5,000 LBS./ HR. Maximum No. of Sources: 6 No. of Destinations: 2 Conveying Line Size: 3" O.D. Conveying Distances Horizontal: 320 FT. Vertical: 45 FT. No. of Elbows: (5) 90° Flexible Hose: 5 FT.

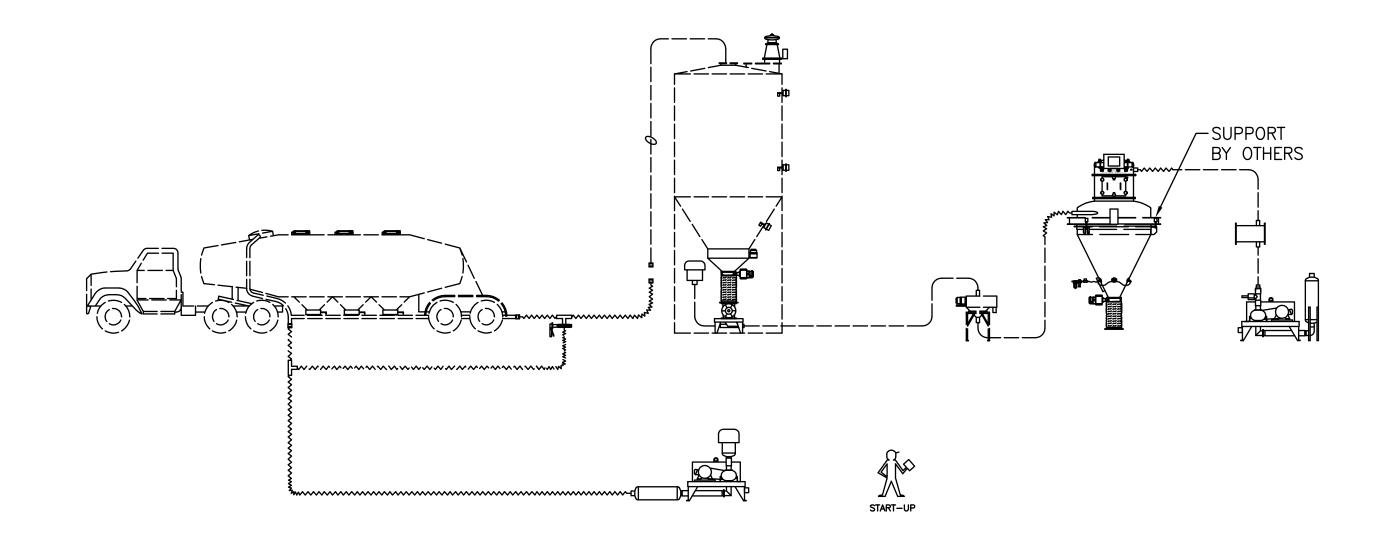


#### **Food Industry**

A large wholesale coffee supplier needed a system to convey coffee from their roasters to one of two multi compartment storage bins in the packaging area. We supplied a vacuum system to convey the ground coffee from one of the six roasters; a manual hose switch was used to select the roaster. The carryover of the cyclone was taken back to a filter and reintroduced into the system, which helped eliminate waste.



System Type: PD Truck Unload Material: Corn Starch Bulk Density: 37 LBS/CU. FT. Conveying Rate: 18,000 LBS./HR. No. of Sources: 1 No. of Destinations: 1 Conveying Line Size: 4 In. O.D. 16 Ga. Tube Conveying Distances Horizontal: 15 FT. Vertical: 40 FT. No. of Elbows: (3) 90 DEG. Flexible Hose: 15 FT.



#### **Food Industry**

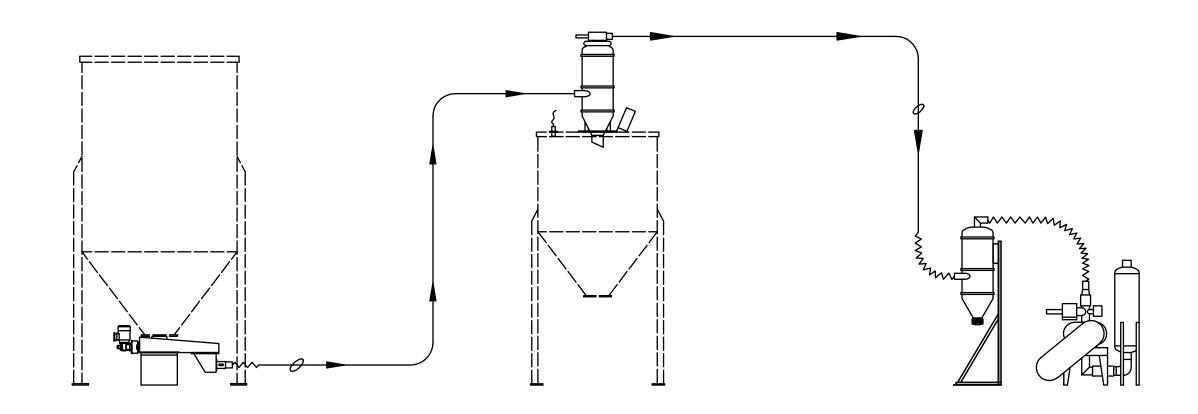
This project was supplied to food seasonings processor. Corn starch was unloaded from PD trucks to a storage tank. The second system provided was a vacuum scaling system to transfer product from storage tank to scale above a mixer.

#### SYSTEM 02 PROFILE

System Type: Vacuum Transfer Material: Corn Starch Bulk Density: 37 LBS/CU. FT. Conveying Rate: 18,000 LBS./HR. No. of Sources: 1 No. of Destinations: 1 Conveying Line Size: 6 In. Sch. 10 Pipe Conveying Distances Horizontal: 85 FT. Vertical: 55 FT. No. of Elbows: (5) 90 DEG. Flexible Hose: 10 FT.



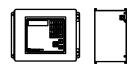
System Type: MODIFIED 2400 Material: DRY PET FOOD Bulk Density: 16-30 LBS./CU. FT. Conveying Rate: APPROX. 5000 LBS./HR. No. of Sources: 1 No. of Destinations: 1 Conveying Line Size: 3 IN. OD Conveying Distances Horizontal: 60 FT. Vertical: 40 FT. No. of Elbows: (4) 90 DEG. Flexible Hose: 0 FT.



#### **Food Industry**

This system is for a pet food manufacturer. This system was designed to reclaim dry pet food back into a packaging system. The system uses a 2415 vacuum receiver to transfer the material from a vibratory feeder.

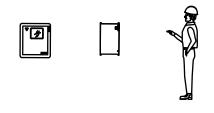
#### SYSTEM 01 PROFILE



# coperion **K**-TRON

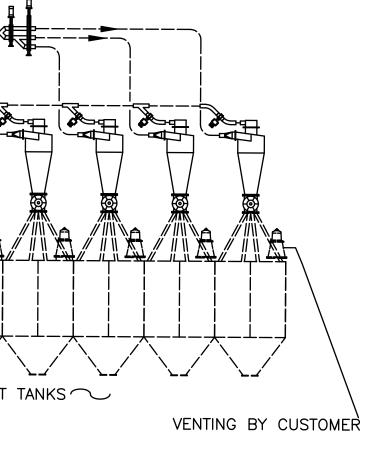
System Type: Vacuum Transfer Material: Flavored Whole Bean Roasted and Ground Coffee Bulk Density: 17.7 to 20 LBS./CU. FT. Conveying Rate: 4,000 LBS./ HR. Maximum No. of Sources: 1 No. of Destinations: 1 of 7 Conveying Line Size: 3" O.D. Conveying Distances Horizontal: 30 FT. Vertical: 45 FT. No. of Elbows: (7) 90° Flexible Hose: 0 FT.

BLENDER

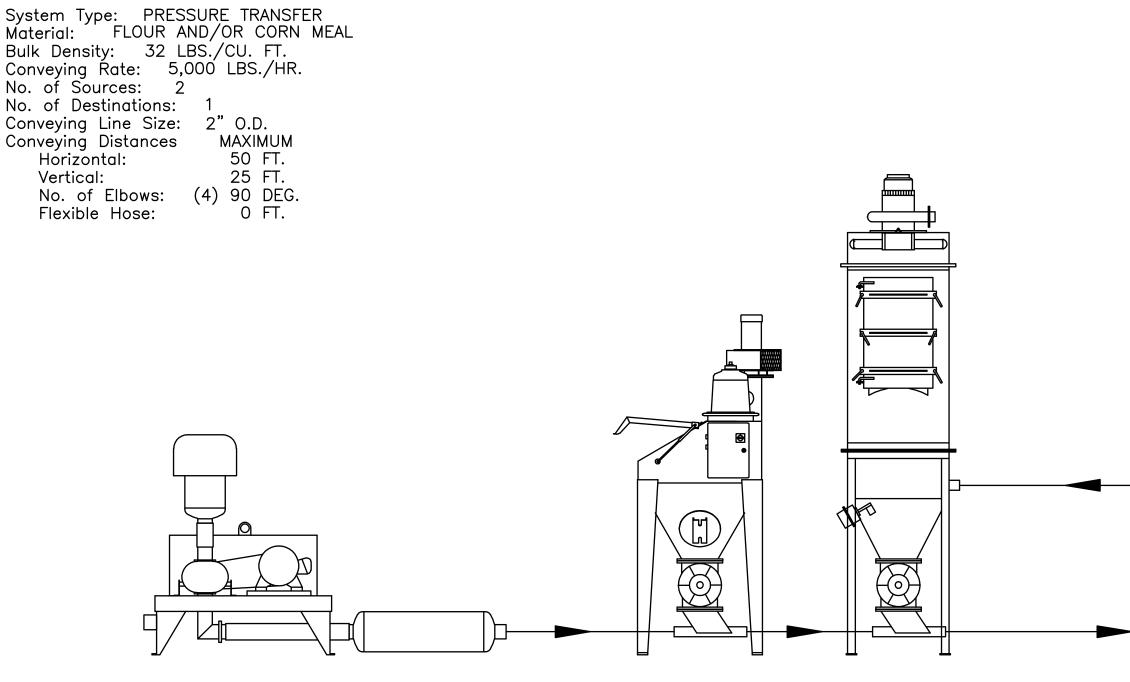


#### **Food Industry**

This system was supplied to a large wholesale coffee supplier. The project required that flavored whole bean or ground coffee be conveyed from the blender to one of nine multi compartment storage bins in the packaging area. With limited overhead space we utilized a vacuum conveying system with a shortened cyclone design. Multi-position diverter valves were used to direct the coffee to the correct storage bins.

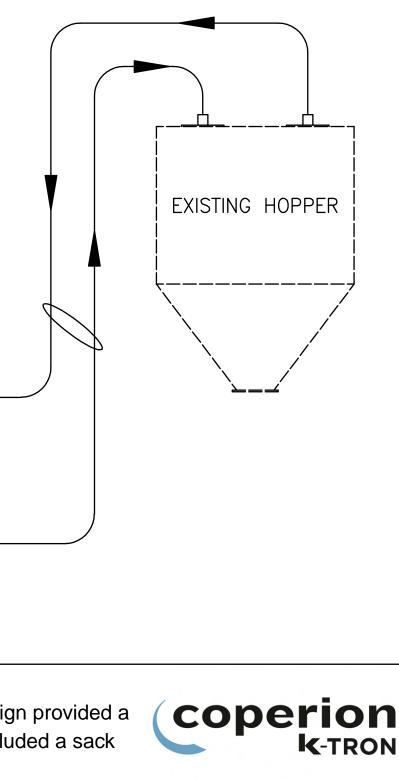


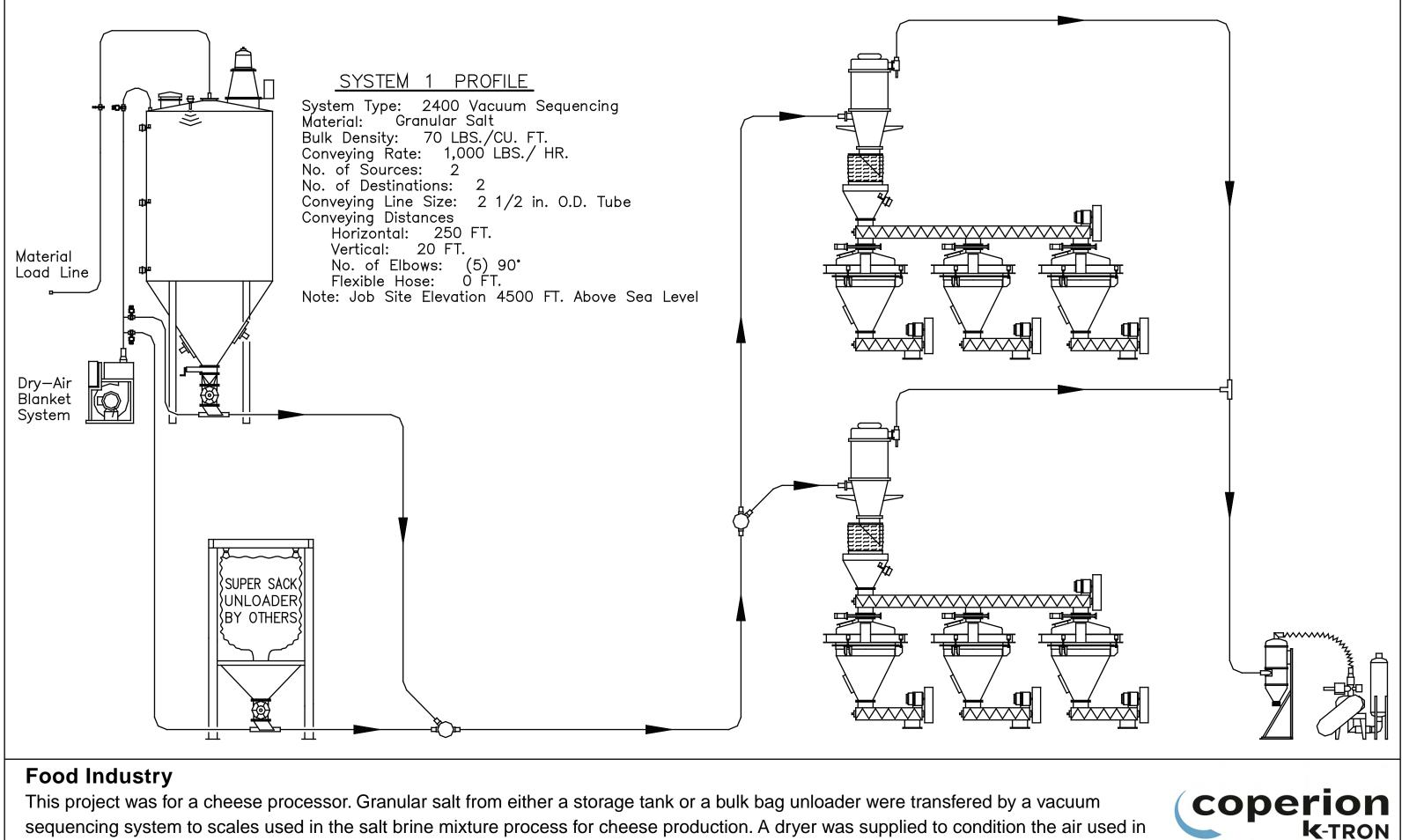




#### **Food Industry**

This project was provided to a gravy and mix plant, that had an existing system with filtering issues on top of the silo. Our design provided a new silo filter at ground level and a small system to re-circulate any carry over material back into the silo. The system also included a sack dump station to reintroduce broken 50 lb. bags into the system.

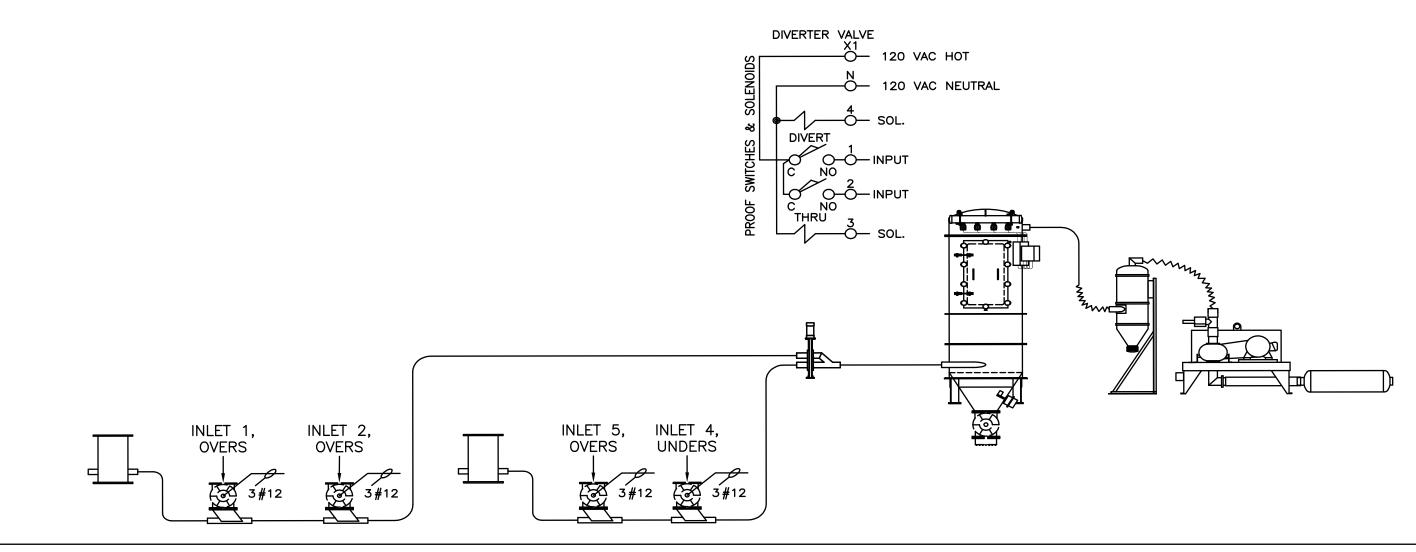




sequencing system to scales used in the salt brine mixture process for cheese production. A dryer was supplied to condition the air used in conveying and to keep a dry blanket of air on the outside storage tank.



System Type: Vacuum Transfer Granulated Sugar Material: 55 PCF Bulk Density: Conveying Rate: 6,000 PPH No. of Sources: 4 No. of Destinations: 1 Conveying Line Size: Conveying Distances Horizontal: 125 FT. Vertical: 28 FT. No. of Elbows: (3)90<sup>•</sup> (2)30<sup>•</sup> Flexible Hose: 0 FT. Blower Design(HG): Air Line Size: 5"OD 10"HG

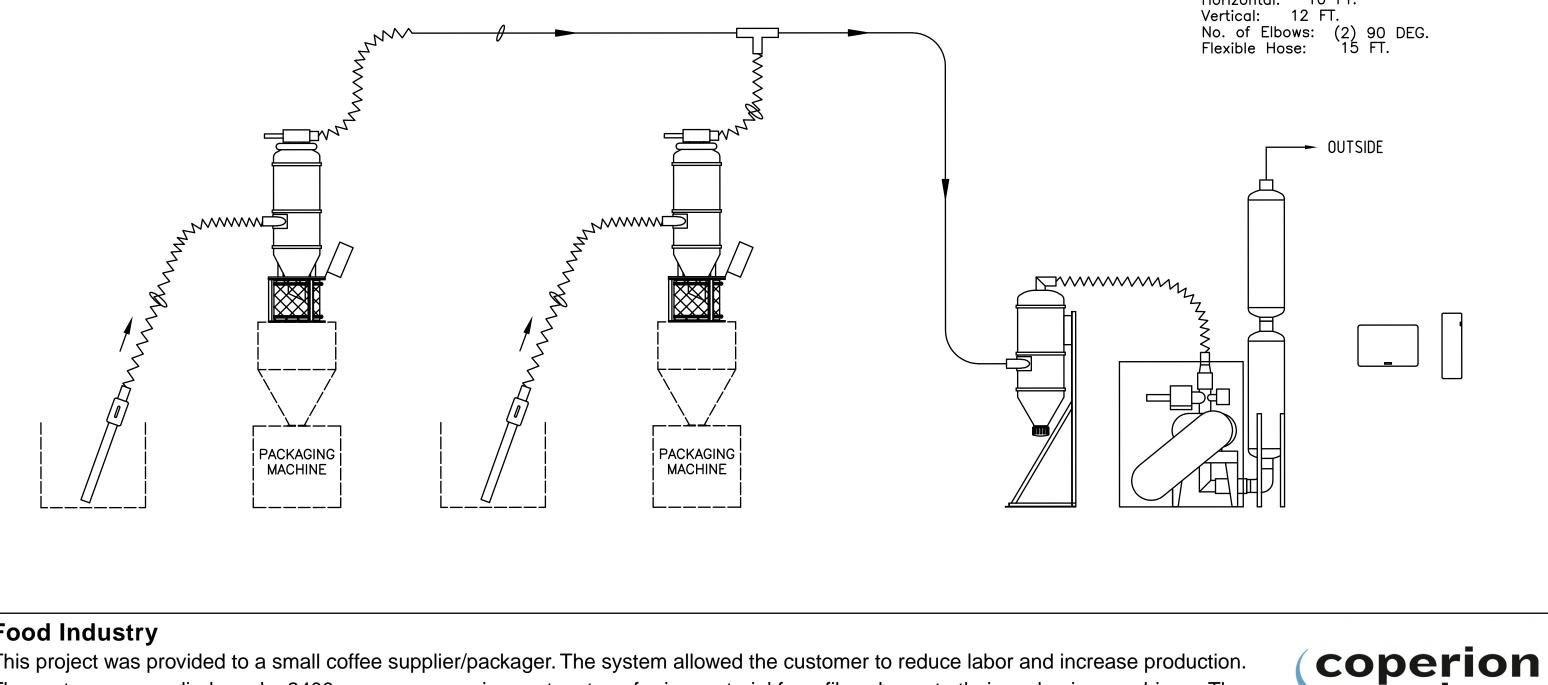


#### **Food Industry**

This project was for a sugar processor. This was a continuous vacuum system for granulated sugar from four screener sources to one destination.

Ref. 132997

Coperion K-TRON

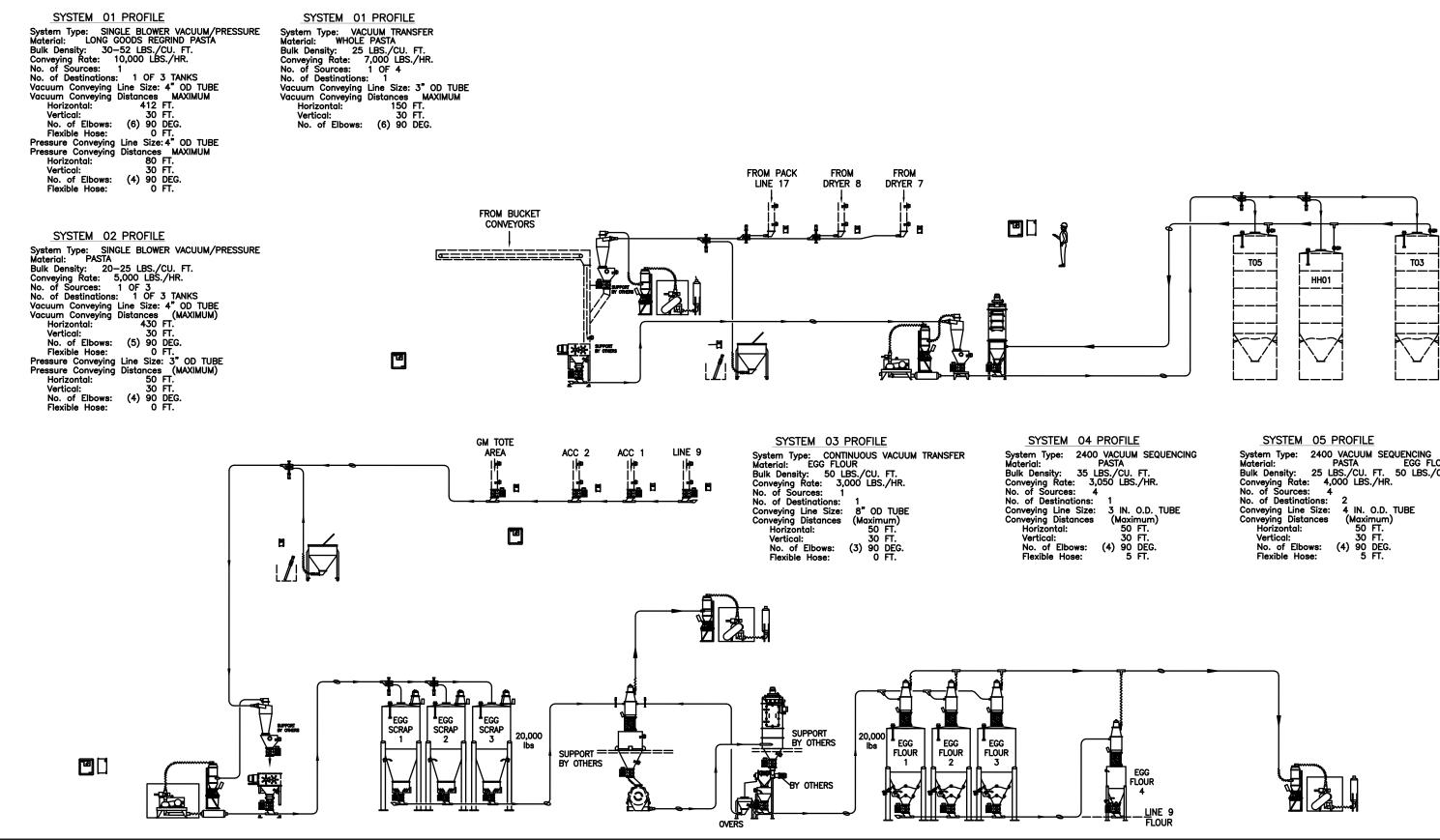


This project was provided to a small coffee supplier/packager. The system allowed the customer to reduce labor and increase production. The system we supplied used a 2400 vacuum conveying system transferring material from fiber drums to their packaging machines. The blower included a sound enclosure and double silencers to help reduce noise in the operator area.

#### SYSTEM 5 & 6 PROFILE

System Type: Vacuum Sequencing Material: Ground Coffee Bulk Density: 30 LBS./CU. FT. Conveying Rate: 800 LBS./HR. No. of Sources: 1 No. of Destinations: 2 Conveying Line Size: 2 1/2" I.D. Hose Conveying Distances Horizontal: 10 FT.

**K**-TRON



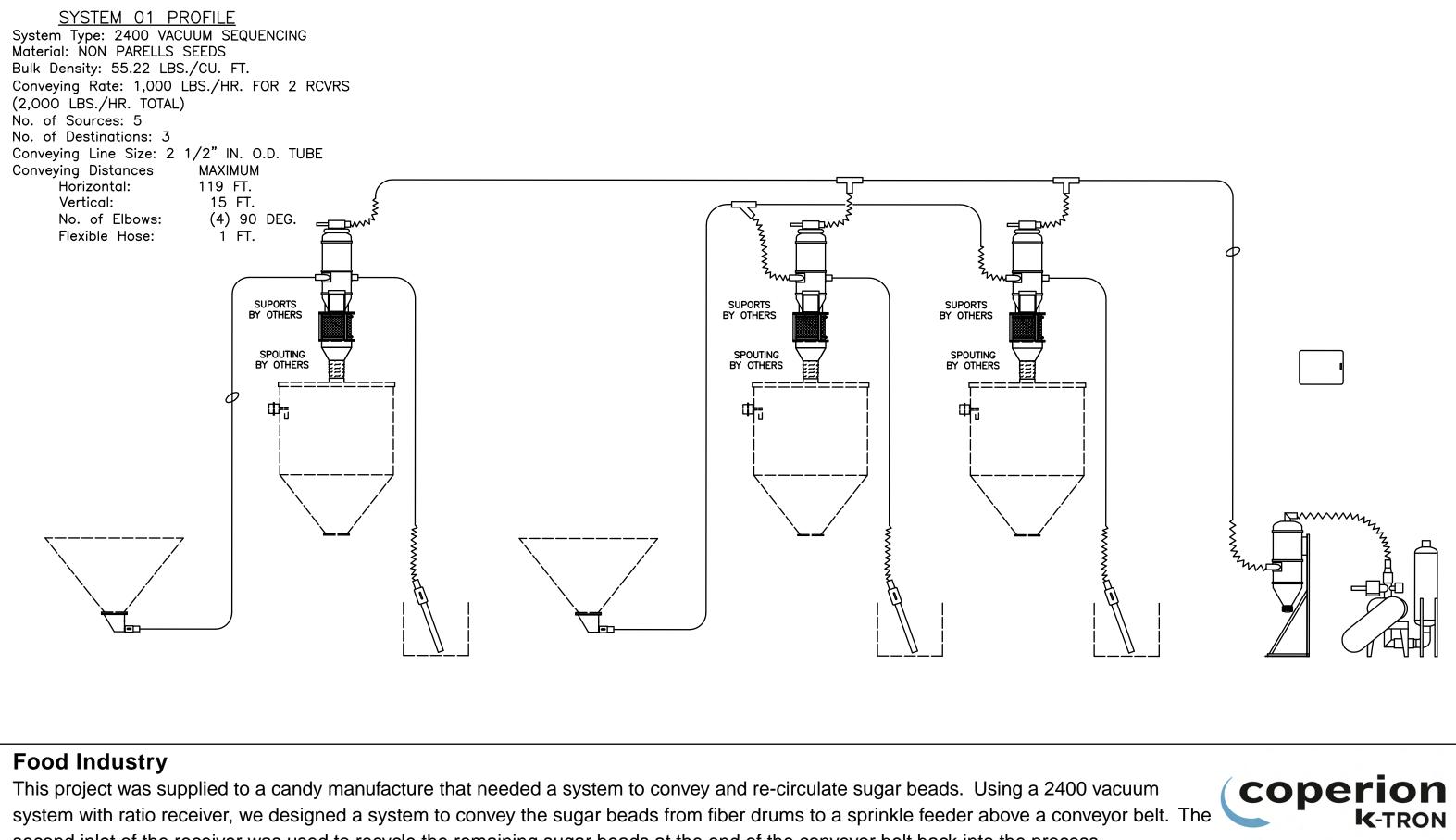
This project was supplied to a pasta manufacturer. Two vacuum pressure systems were provided to transfer long goods regrind pasta and pasta from one source to one of three tanks. An additional vacuum system was provided to move whole pasta from one of four bins to one destination. A third transfer system was provided for finished pasta from four sources to one destination. A fourth continuous vacuum system was provided for transferring egg flour from one hopper to a screener then the egg flour and pasta are conveyed, with an additional system from four sources to one destination hopper. Lastly, a separate vacuum system was supplied to convey re-work or broken pasta from totes to a grinder.

2400 VACUUM SEQUENCING PASTA EGG FLOUR Material: PASTA EGG FLOUR Bulk Density: 25 LBS./CU. FT. 50 LBS./CU. FT.

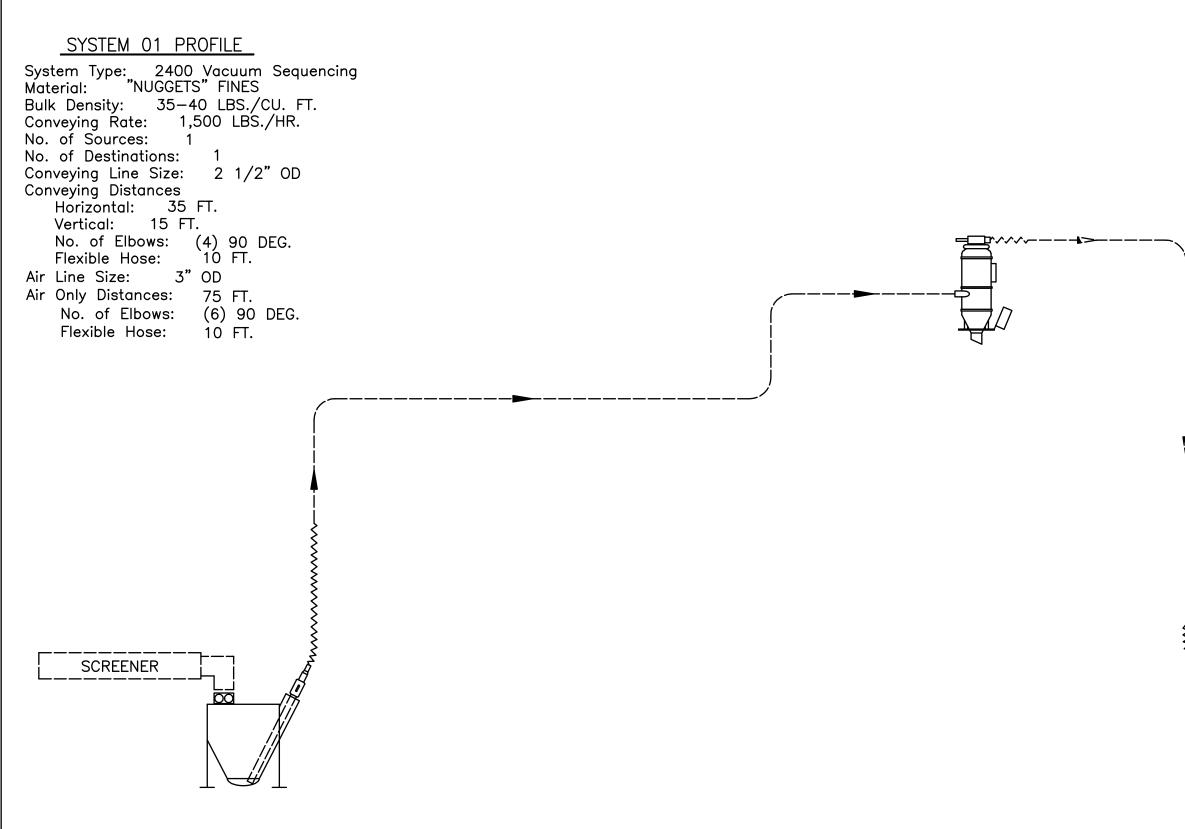
Ref. 136349

**K**-TRON

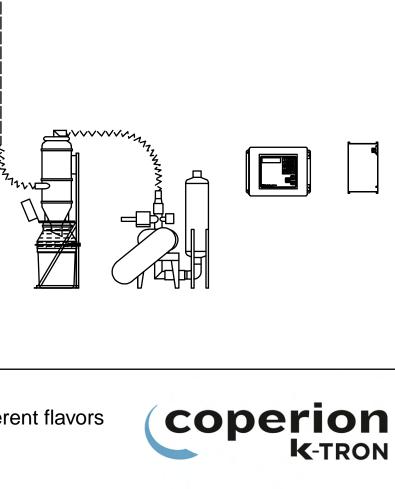
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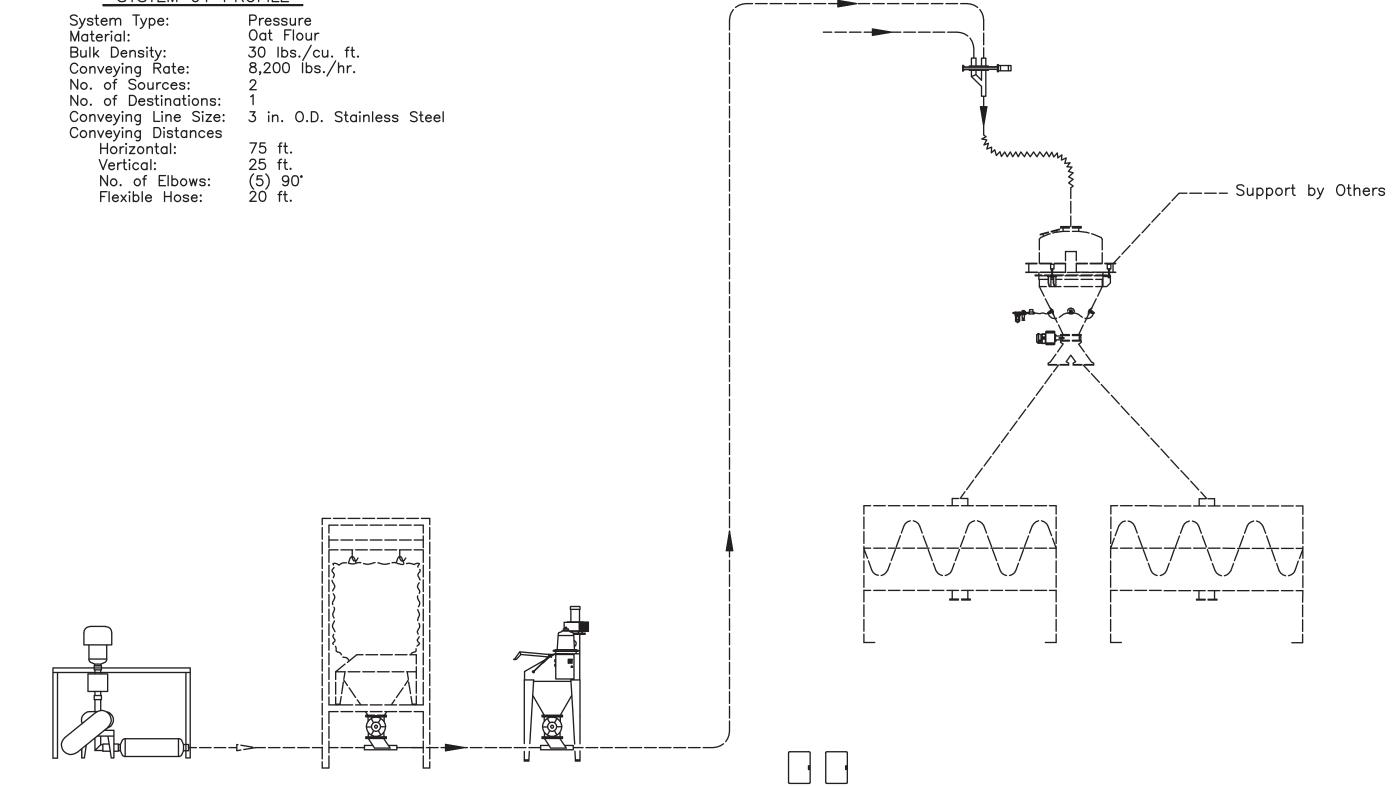


second inlet of the receiver was used to recycle the remaining sugar beads at the end of the conveyor belt back into the process.



This project was for a food seasoning producer. This system involved a vacuum sequencing system to load nugget fines in different flavors from the outlet of a screener to a packaging machine.

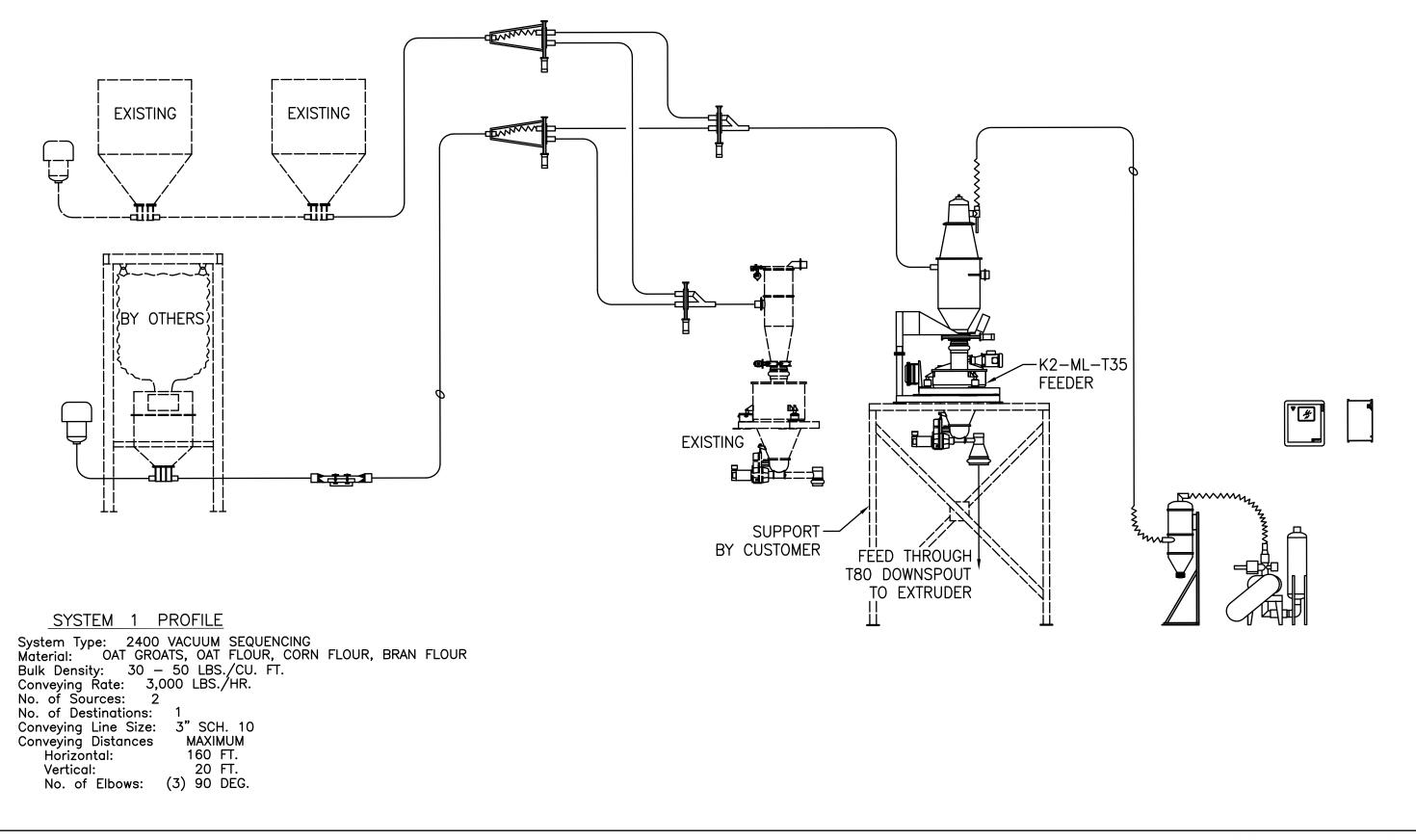




#### **Food Industry**

K-Tron Process Group provided this system to an infant food and formula producer. The system was designed to pressure convey oat flour from a bulk bag unloader or a sack dump station. The material was conveyed to a single scale hopper above two mixers. The design of the system included special finishes and filtration to insure no contaminants were introduced to the system.

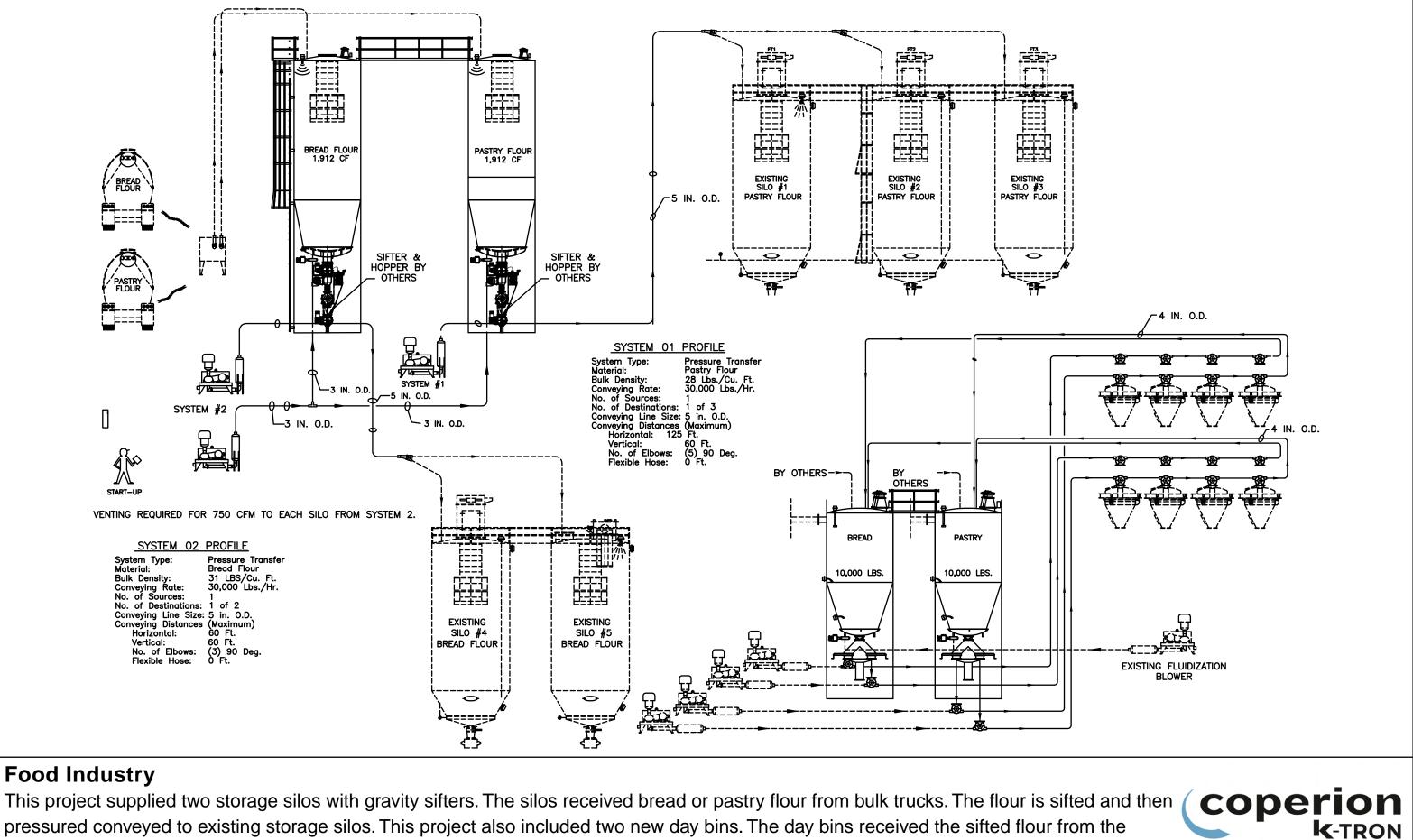
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This project was for a snack food manufacturer. The system involves transferring oat groats, oat flour, corn flour and bran flour used in production of granola cereal mixes. The products were unloaded from hoppers and a bulk bag unloader with a vacuum sequencing system refilling K-Tron Loss-in-Weight Feeders, feeding an extruder.

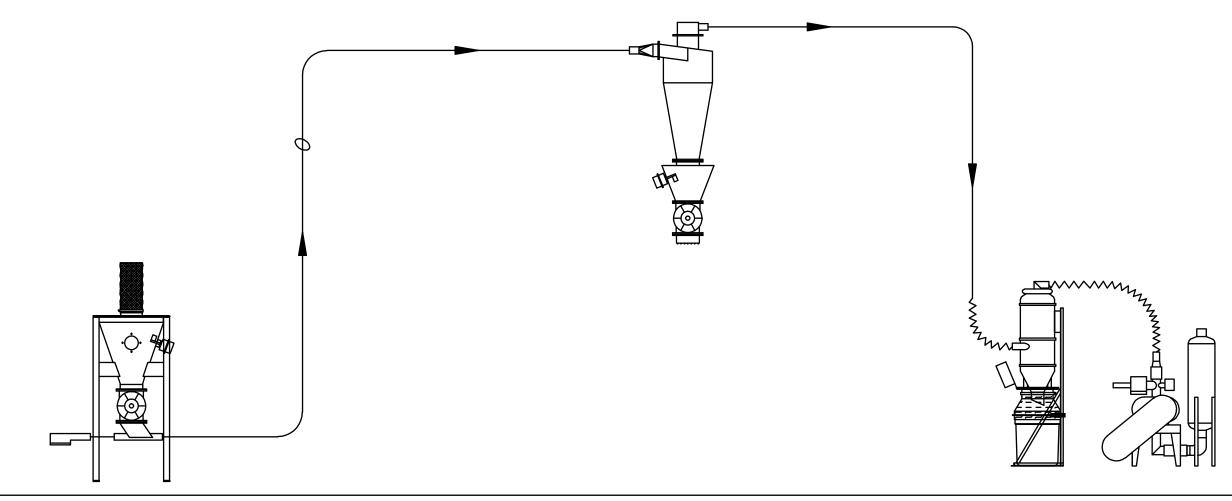
Ref. 138227

Coperion K-TRON



pressured conveyed to existing storage silos. This project also included two new day bins. The day bins received the sifted flour from the storage silos and are pressure conveyed to existing scale hopper systems in the plant.

System Type: Material: Bulk Density: Conveying Rate: No. of Sources:	CONTINUOUS VACUUM PREMIX INGREDIENTS 50 LBS./CU. FT. 8,000 LBS./HR. 1
No. of Destinations:	
Conveying Line Size:	3" SCH.10 PIPE
Conveying Distances	
Horizontal:	40 FT.
Vertical:	18 FT.
No. of Elbows:	(2) 90 DEG.
Flexible Hose:	0 FT.



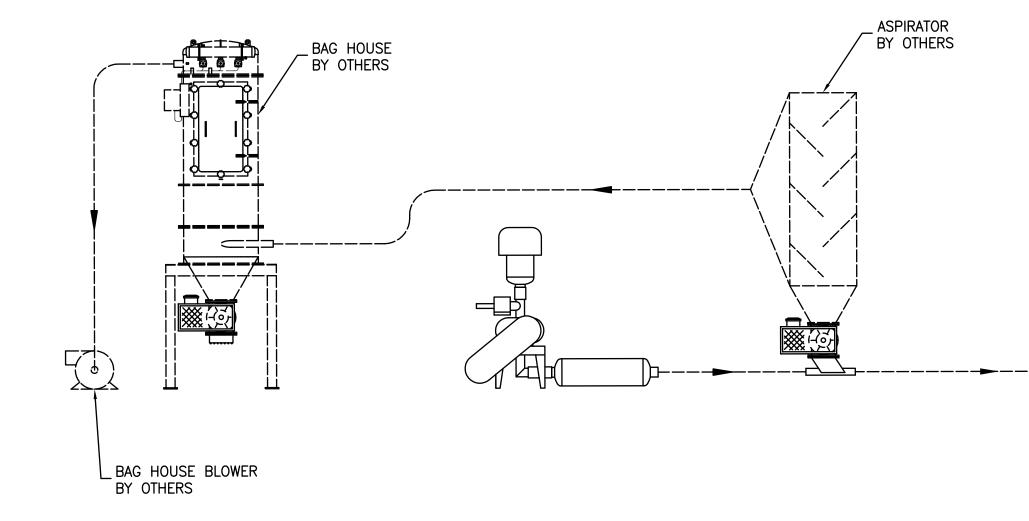
## **Food Industry**

An animal feed blender needed a system to convey mixed ingredients from their screw mixer to a packaging line. We supplied a small vacuum system to convey the material. The system was designed with a cyclone due to the limited space at the destination area.

# Coperion k-TRON

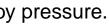


System Type: Material:	Pressure System Rice
Bulk Density:	
Conveying Rate:	45 lbs./cu. ft. 10,000 lbs./hr.
No. of Sources:	1
No. of Destinations:	1
Conveying Line Size:	3" Sch. 40
Conveying Distances	
Horizontal:	60 ft.
Vertical:	30 ft.
No. of Elbows:	(4) 90*
Flexible Hose:	Ó ft.



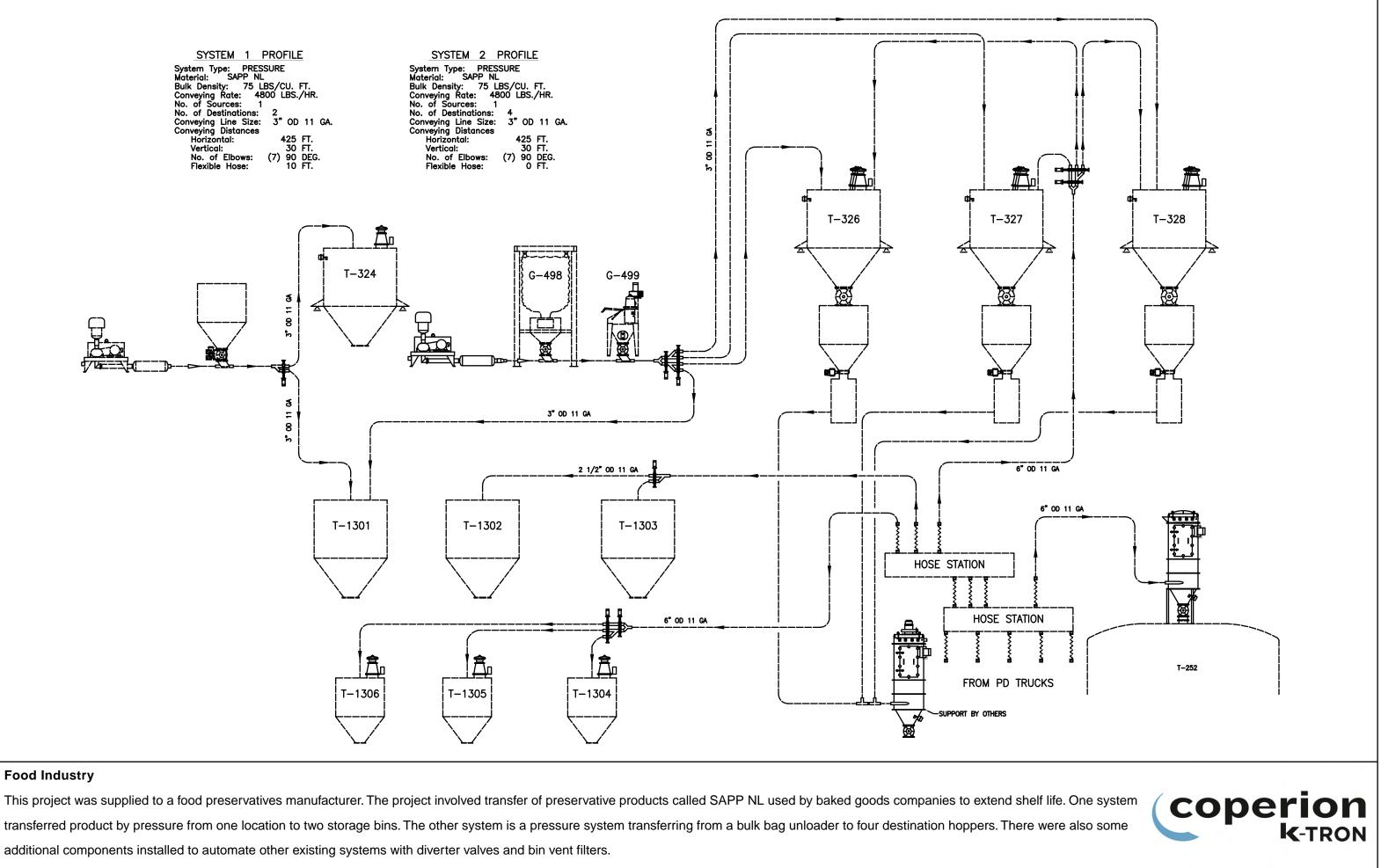
### **Food Industry**

This project was supplied to a food processor. Rough rice was transferred from an aspirator cleaning process to storage tank by pressure.



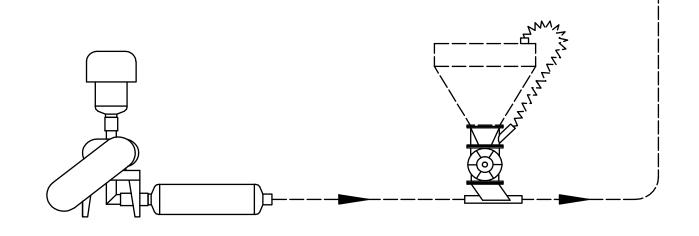


EXISTING STORAGE SILO



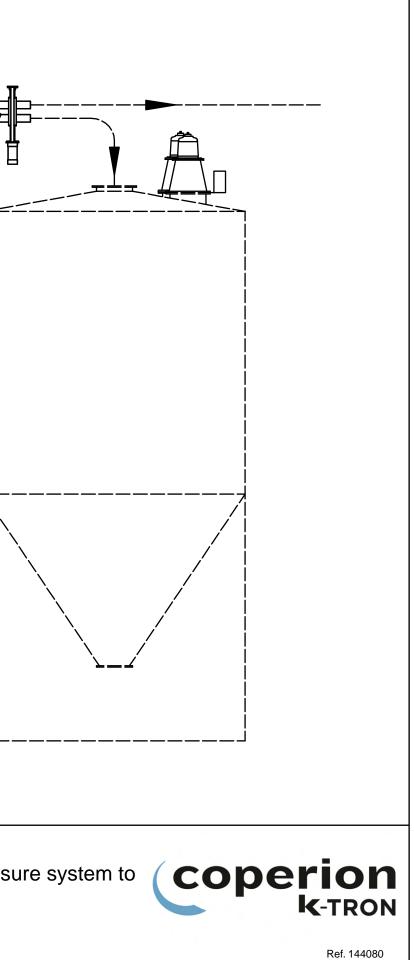
additional components installed to automate other existing systems with diverter valves and bin vent filters.

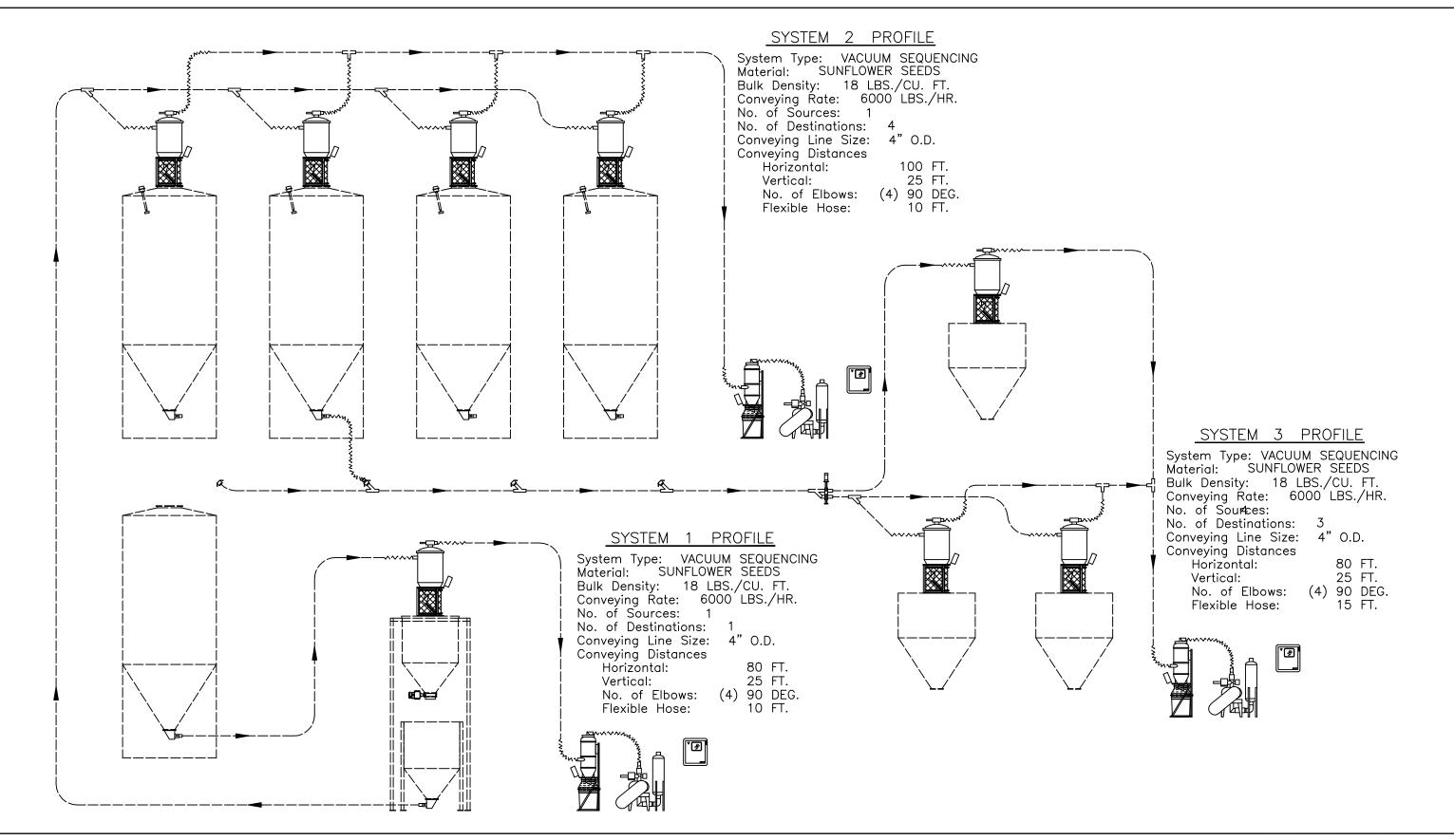
System Type: PRESSURE TRANSFER
Material: STABILIZED RICE BRAN
Bulk Density: 22 LBS./CU. FT.
Conveying Rate: 5,000 LBS./HR.
No. of Sources: 1
No. of Destinations: 1
Conveying Line Size: 3" SCH. 40 PIPE
Conveying Distances MAXIMUM
Horizontal: 50 FT.
Vertical: 75 FT.
No. of Elbows: (3) 90 DEG.
Flexible Hose: 0 FT.



#### **Food Industry**

This project was supplied to a rice processor. Stabilized rice bran, a by-product of the rice process was transferred with a pressure system to an outside storage tank.



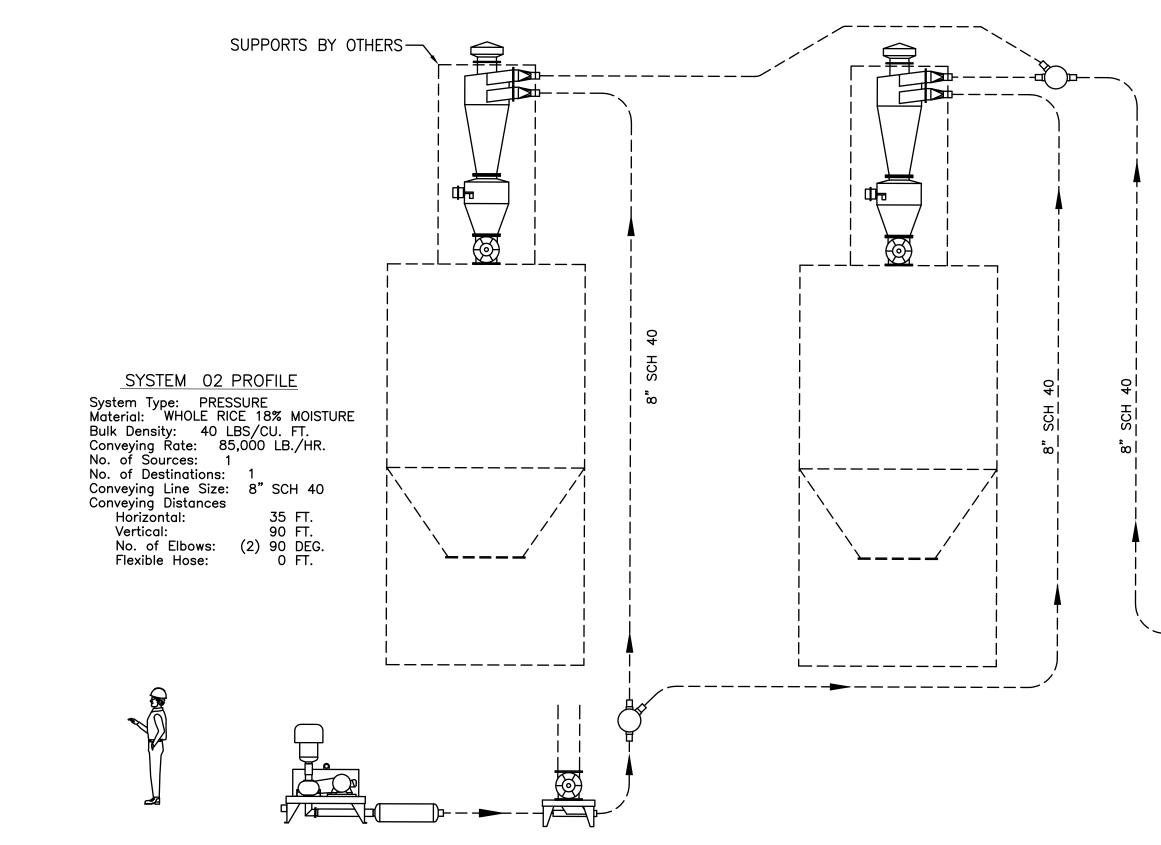


This project was supplied to a snack food processor. Sunflower seeds are conveyed by 4" vacuum sequencing systems through various stages of the sunflower seed process. One system is from the dryer process. A second is from the salt application process. The final system is for loading the packaging machines.

Ref. 144511

**K**-TRON

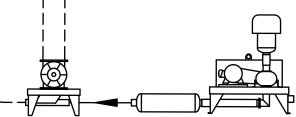
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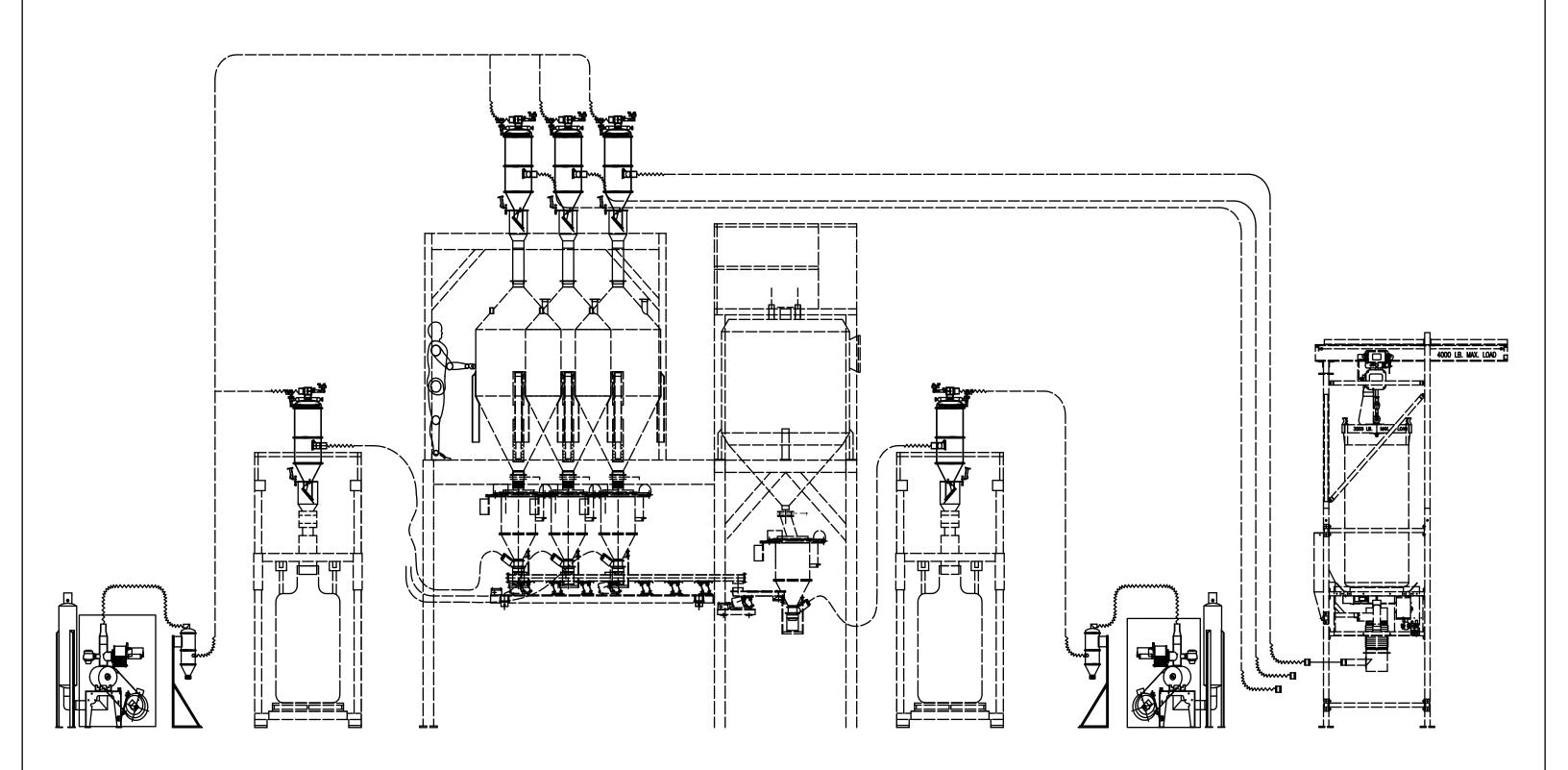
This project was supplied to a rice processor. Whole rice at 18% moisture was conveyed by pressure to one of two outside storage tanks at a rate of 85,000 lbs/hr. A second pressure system was supplied to handle whole rice at 24% moisture to one of two outside storage tanks.

#### SYSTEM 01 PROFILE

System Type: PRESSURE Material: WHOLE RICE 24% MOISTURE Bulk Density: 45 LBS/CU. FT. Conveying Rate: 90,000 LB./HR. No. of Sources: 1 No. of Destinations: 2 Conveying Line Size: 8" SCH 40 Conveying Distances Horizontal: 75 FT. Vertical: 90 FT. No. of Elbows: (3) 90 DEG. Flexible Hose: 0 FT.



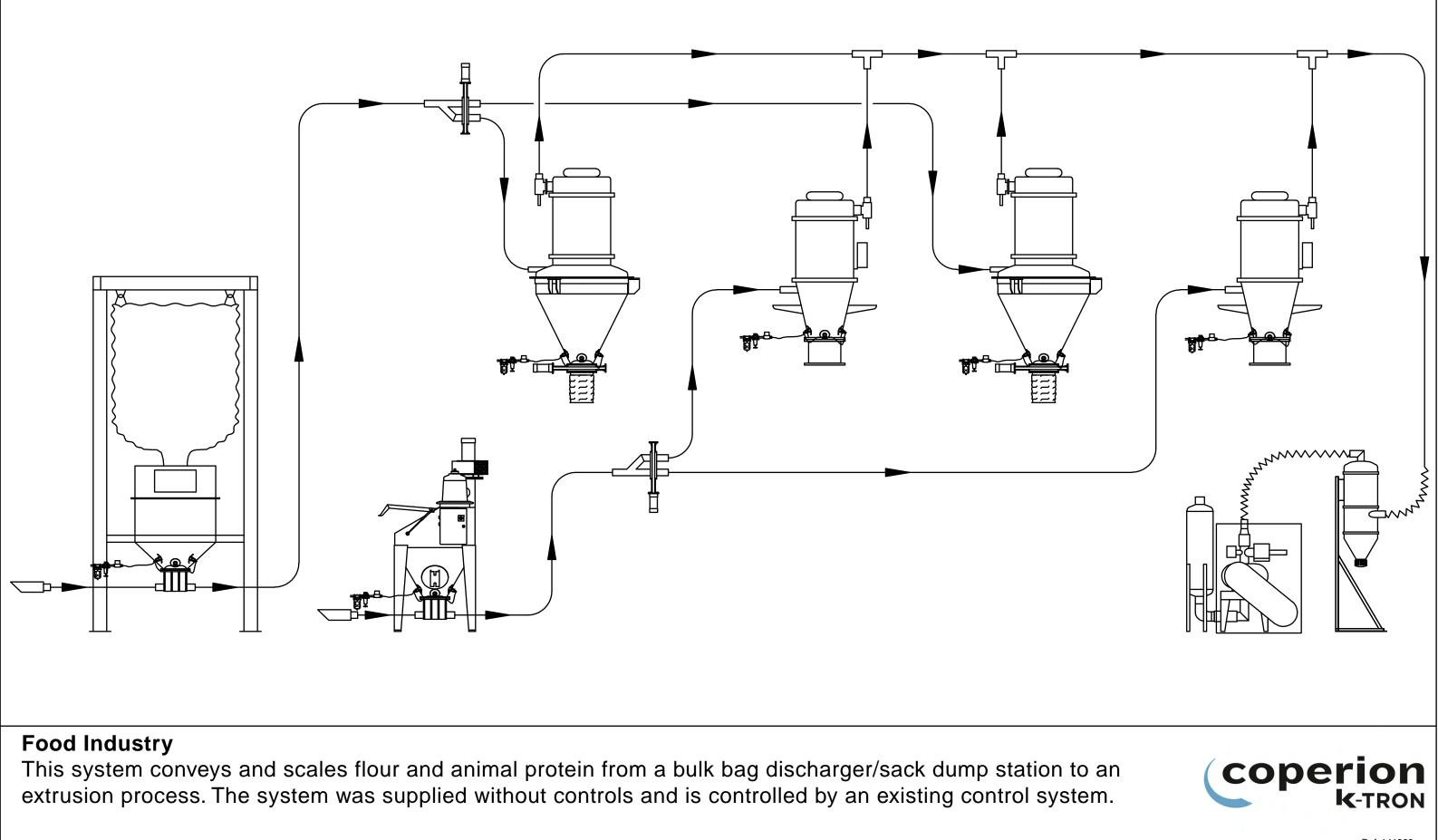
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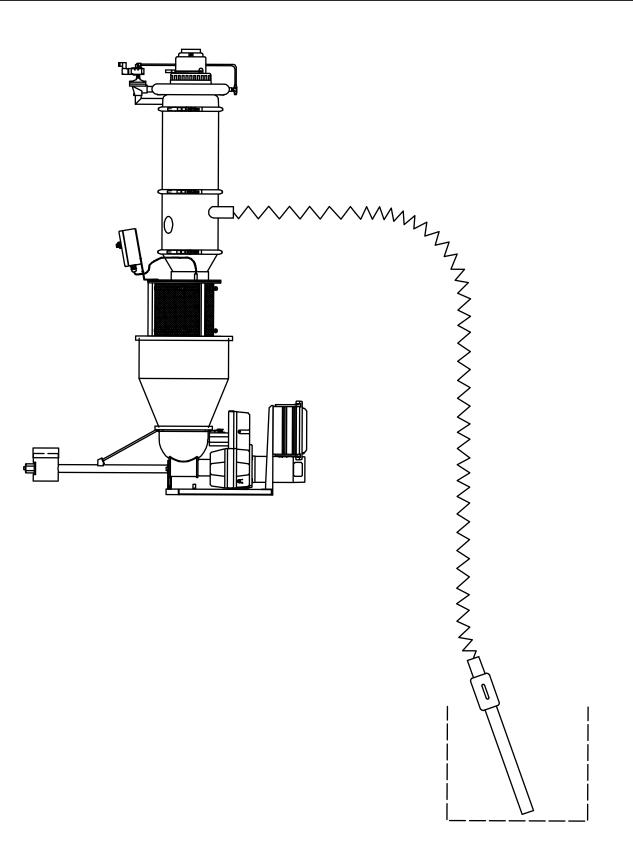


This project was supplied to food processor. Rice, orzo pasta and lentils are conveyed from bulk bag unloaders via a vacuum sequencing system to process dispensing feeders. A second system transfers the dispensed product to a bulk bag loader for refilling.

Ref. 135306

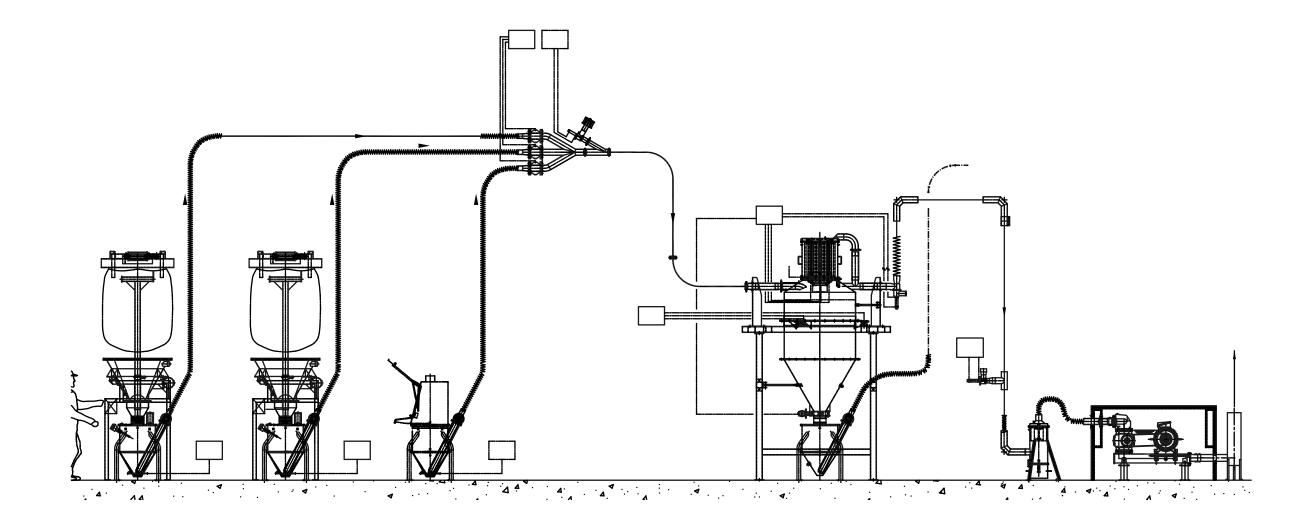
# Coperion K-TRON





A snack food manufacture needed a simple system to convey and feed an emulsifier product. We provided a simple 2410 self contained machine loader to convey material from a Gaylord box or fiber drum to a K-Tron Volumetric S60 Feeder above their process.

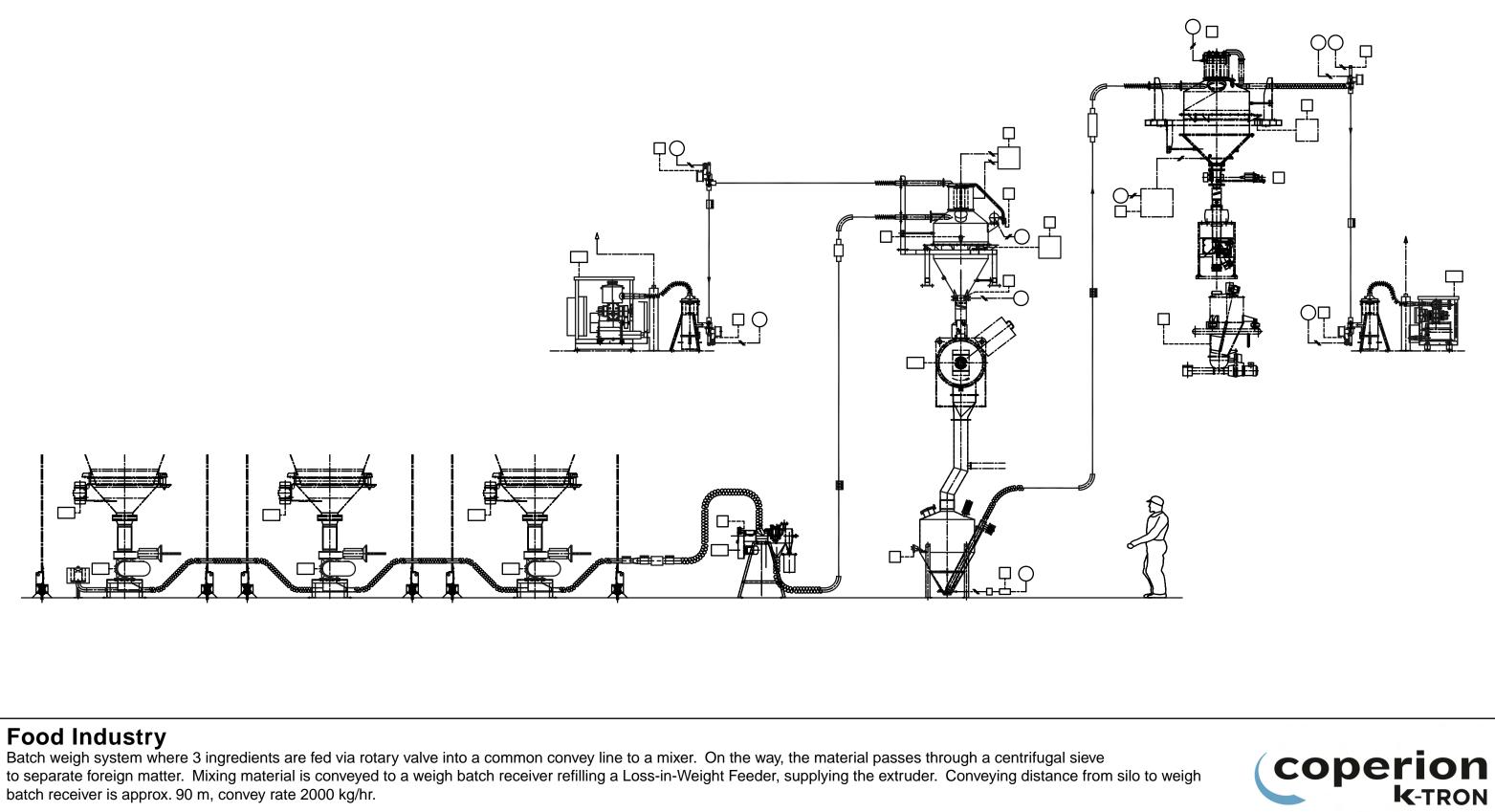




Batch weigh system with three select valves. 1300 Liter (700 kg) capacity with convey rate of 4000 kg/hr over 20 meters. Weighed batch dropped into a feed bin for onward transport. Materials handled: Corn grits.

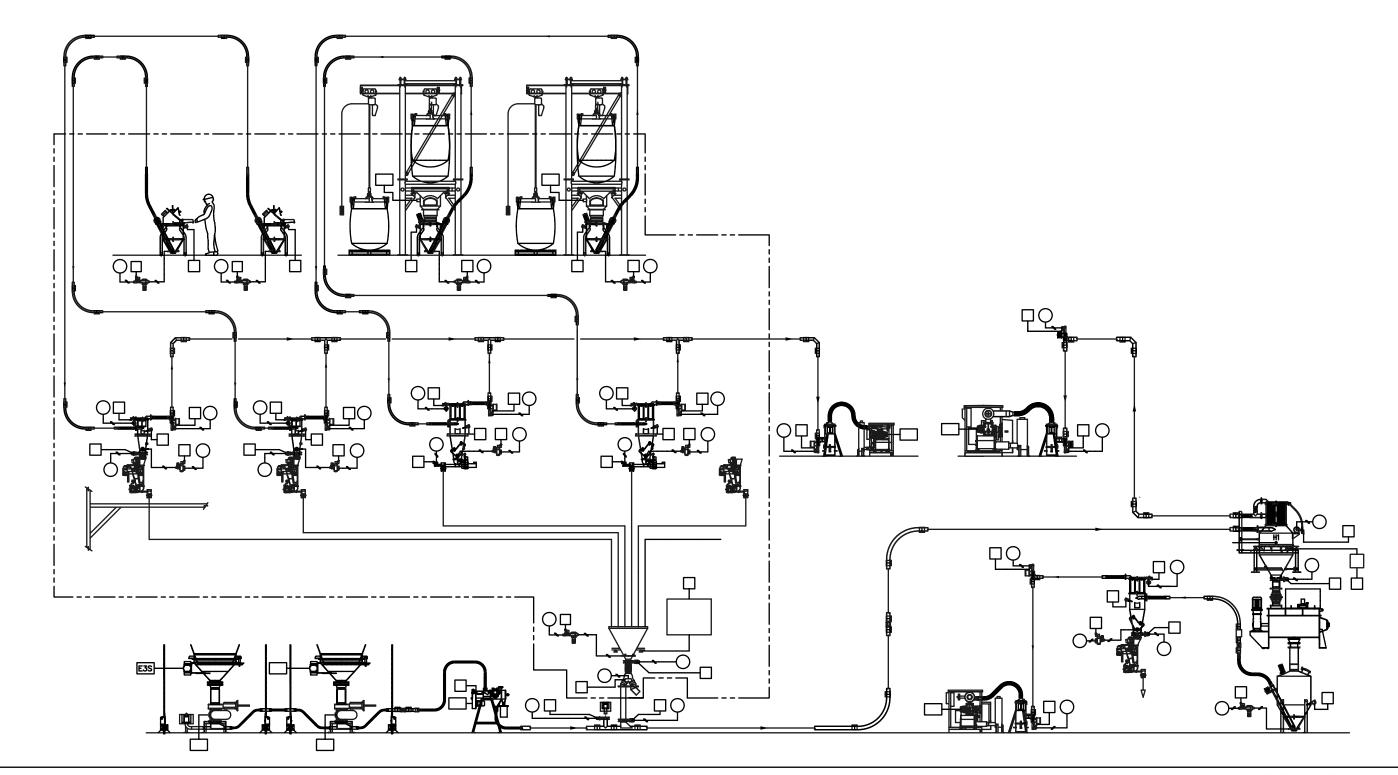
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Ref. A1-8008



Batch weigh system where 3 ingredients are fed via rotary valve into a common convey line to a mixer. On the way, the material passes through a centrifugal sieve to separate foreign matter. Mixing material is conveyed to a weigh batch receiver refilling a Loss-in-Weight Feeder, supplying the extruder. Conveying distance from silo to weigh batch receiver is approx. 90 m, convey rate 2000 kg/hr.

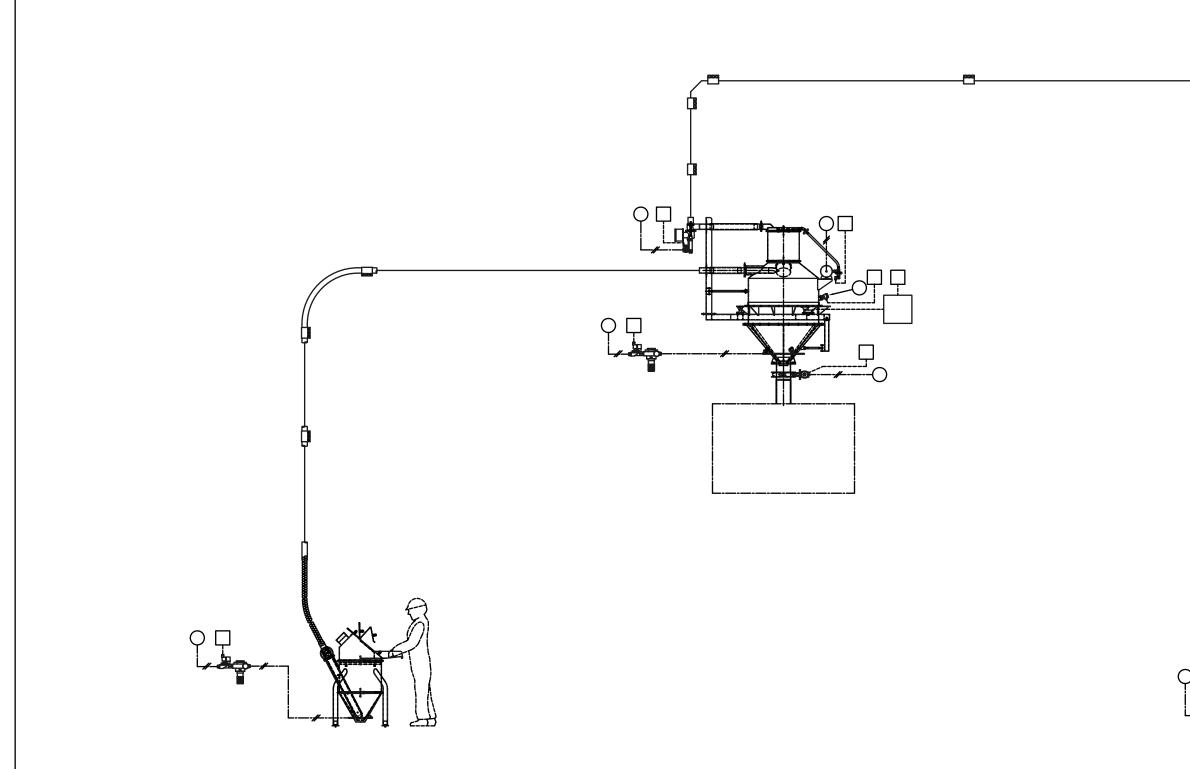
Ref. A1-10111



Major ingredient (2 kinds of maize grits) from silos to mixer over 90m, 400 kg batches at 2500 kg/hr. 4 minor ingredients are conveyed from bulk bag unloading stations to loss-in-weight batch system, feeding batches into common convey line to weighing receiver. Mixing material is conveyed to loss-in-weight feeder supplying the extruder over 18m at 2000 kg/hr (ATEX cat. 3D).

Ref. A1-10203

# Coperion K-TRON

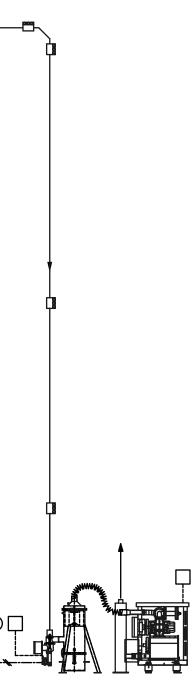


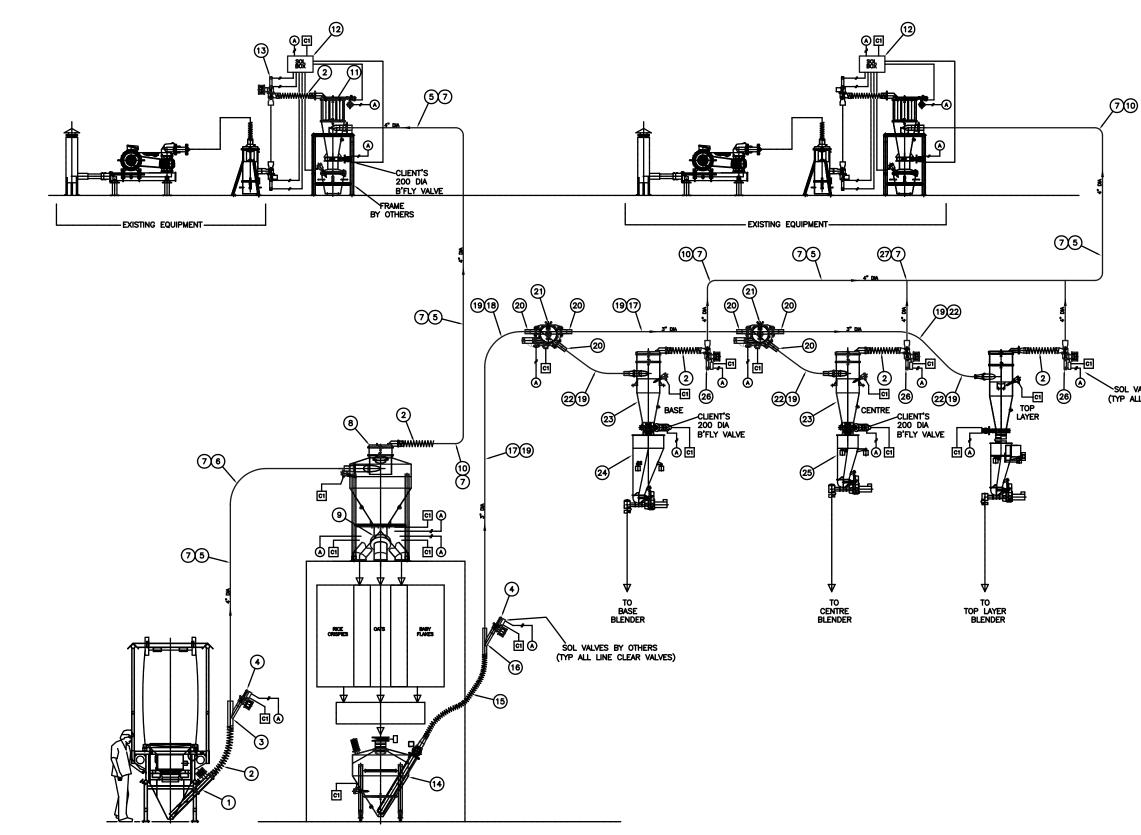
Totalizer application: Corn grits, brown flour, rye flour, wheat bran and salt - hand addition from sack emptying station to weigh batch receiver over 30 m, 400 dm<sup>3</sup> batch at 3000 kg/hr.

Ref. A1-10211

0 11







Fragile ingredients such as corn flakes, puffed rice and oats conveying and removing dust with minimum product degradation. Three station feeder loading with central vacuum pump.

		PARTS LIST		
REF	PART No	DESCRIPTION		QTY
1	A2-10292	SUCTION LANCE	ss	1
2	CF-4	4" DIA CONVEY FLEXIBLE	NT/PVC	10M
3	A4-250-9	4"/3" DIA 'Y' BRANCH	SS	1
4	A2-335-4	3" DIA LINE CLEARANCE VALVE	SS	2
5	T-SS-4	4" DIA CONVEY/VACUUM TUBE	SS	78M
6	CB-SS-4	4" DIA CONVEY BEND	SS	3
7	BC-SS-4	4" DIA BOLTED COUPLING	SS	32
8	A1-10229	600 L VACUUM RECEIVER	SS	1
9	A1-10229	TRIPLE CHUTE ASS'Y	SS	1
10	APV-B-4	4" DIA VACUUM ELBOW	SS	13
11	A1-7768	450 DIA REMOTE SEC FILTER UNIT	SS	1
12		SOLENOID BOX	SS	2
13	A2-8965	4" DIA VACUUM SELECT VALVE	AL	1
14	A1-10230	600 L FEED BIN	SS	1
15	CF-3	3" DIA CONVEY FLEXIBLE	NT/PVC	6M
16	A4-250-4	3" DIA 'Y' BRANCH	SS	1
17	T-SS-3	3" DIA CONVEY TUBE	SS	42N
18	CB-SS-3	3" DIA CONVEY BEND	SS	6
19	BC-SS-3	3" DIA BOLTED COUPLINGS	SS	24
20	A4-10304	VALVE ADAPTOR	SS	6
21	PTD80	80 DIA PLUG DIVERTER VALVE	SS	2
22		3" DIA CONVEY BEND 36.6"	SS	4
23	A1-10251	100L VACUUM RECEIVER	SS	2
24	K2.ML.S60	'K-TRON' LIW FEEDER 180L HOPPER	SS	1
25	K2.ML.S60	'K-TRON' LIW FEEDER BOL HOPPER	SS	1
26	A2-8965	4" DIA VACUUM SELECT VALVE	SS	3
27	APV-T-4	4" DIA VACUUM TEE	SS	2

SOL VALVES BY OTHERS (TYP ALL VAC SELECT VALVES)

#### SERVICE REQUIREMENTS

#### ELECTRICAL SUPPLY:

ET TO CLIENT'S MOTOR STARTERS & LOCAL ISOLATORS

C1 24V DC SIGNALS TO CLIENT'S PROCESS CONTROL SYSTEM

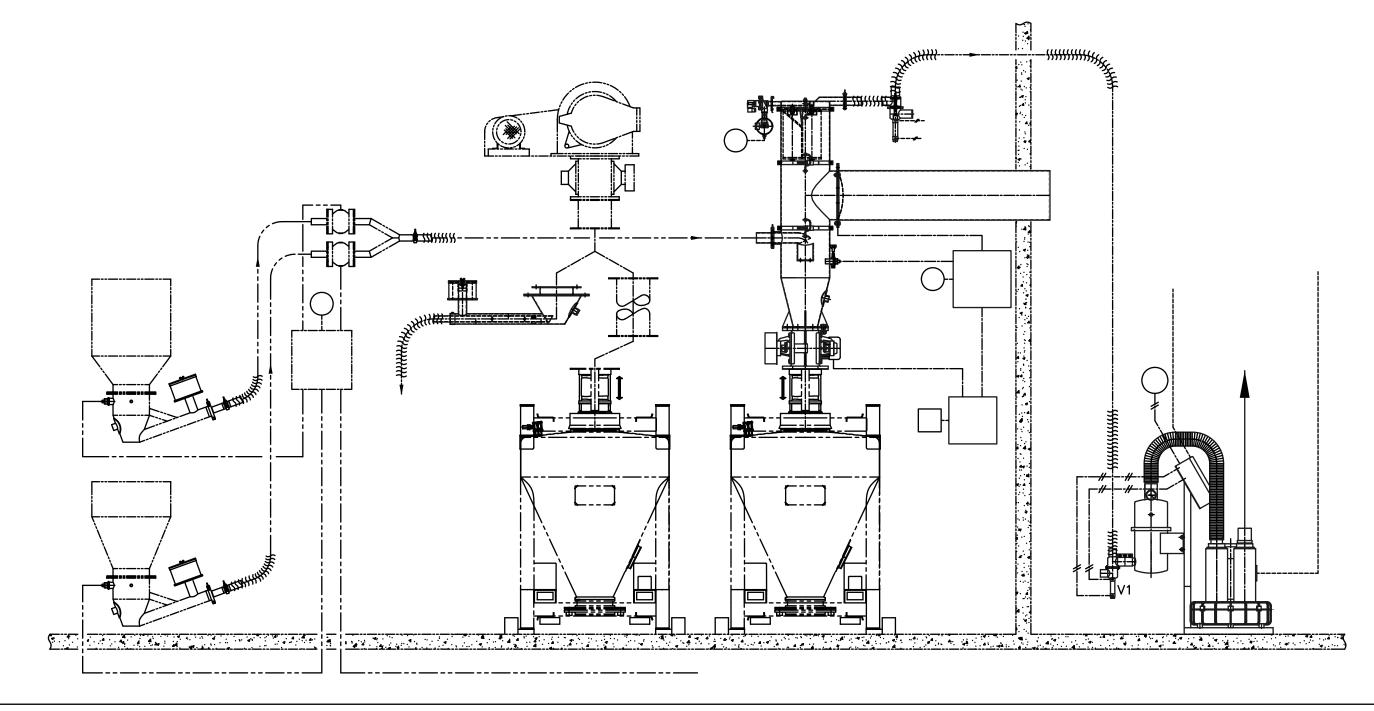
CONTROL REQUIREMENTS: FOR SOLENOID BOX DETAILS REFER TO SOLENOID BOX DRGS EA4-51373-20

COMPRESSED AIR:

 A 12mm 0/DIA. COMPRESSED AIR SUPPLY 4.5 BAR.G MINIMUM AIR PRESSURE TERMINATING WITH A 1/2 in BSP BALL VALVE.AIR MUST BE CLEAN & DRY CONSUMPTION 1M-3/MIN.(35 SCFM) (CLIENTS SUPPLY)

# 

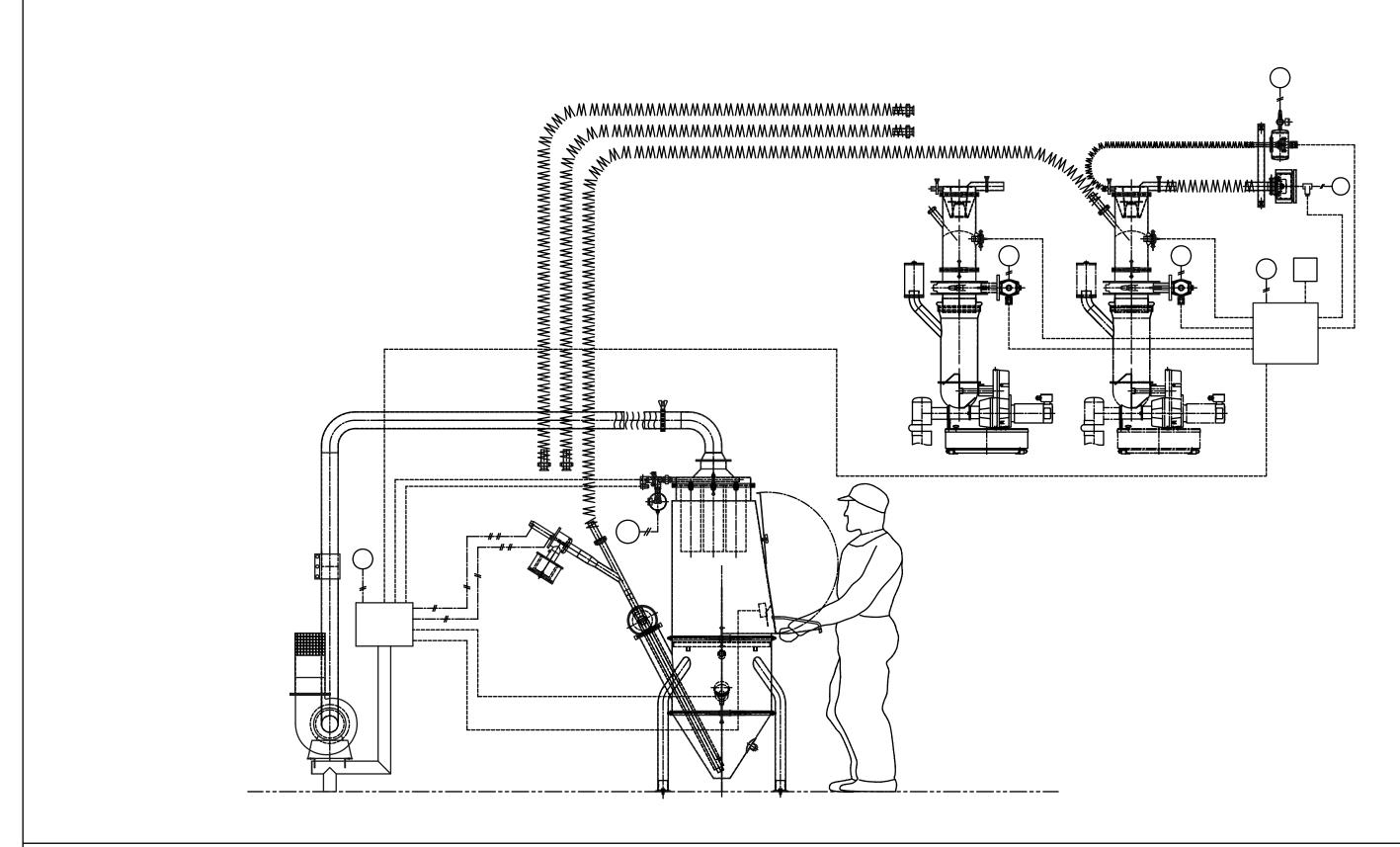
Ref. A1-10294



Vacuum convey system with explosion relief panel and 10 bar resistant rotary valve. Material conveyed: food colorants. Important: Explosion panel must not be obstructed by the filter cartridges!

Ref. A2-8290

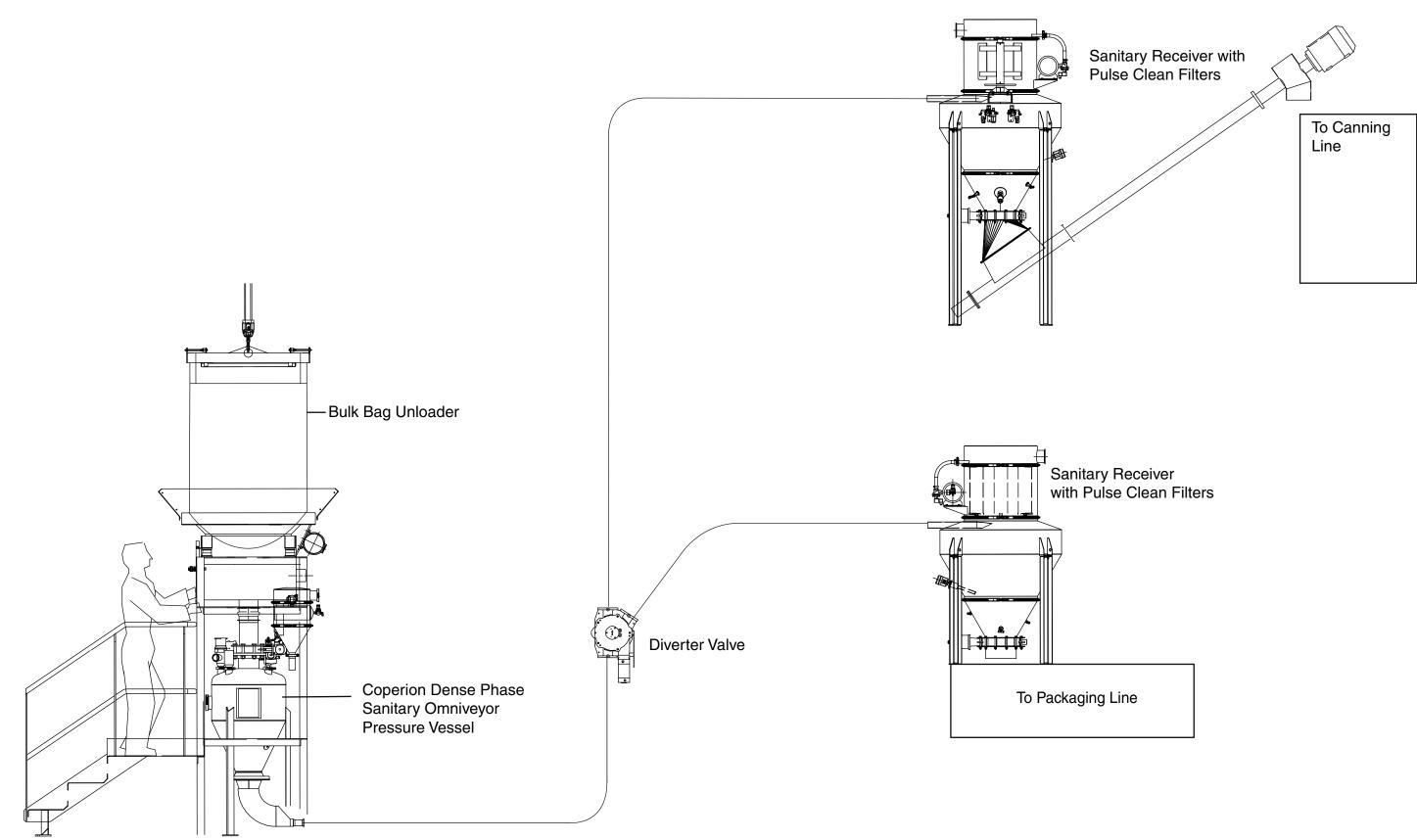
# Coperion K-TRON



Loss-in-wight feeder loading with different flavored ingredients. Self contained ventilated bag dump station. Air powered venturi as vacuum source. 400 kg/hr over 15 meters.

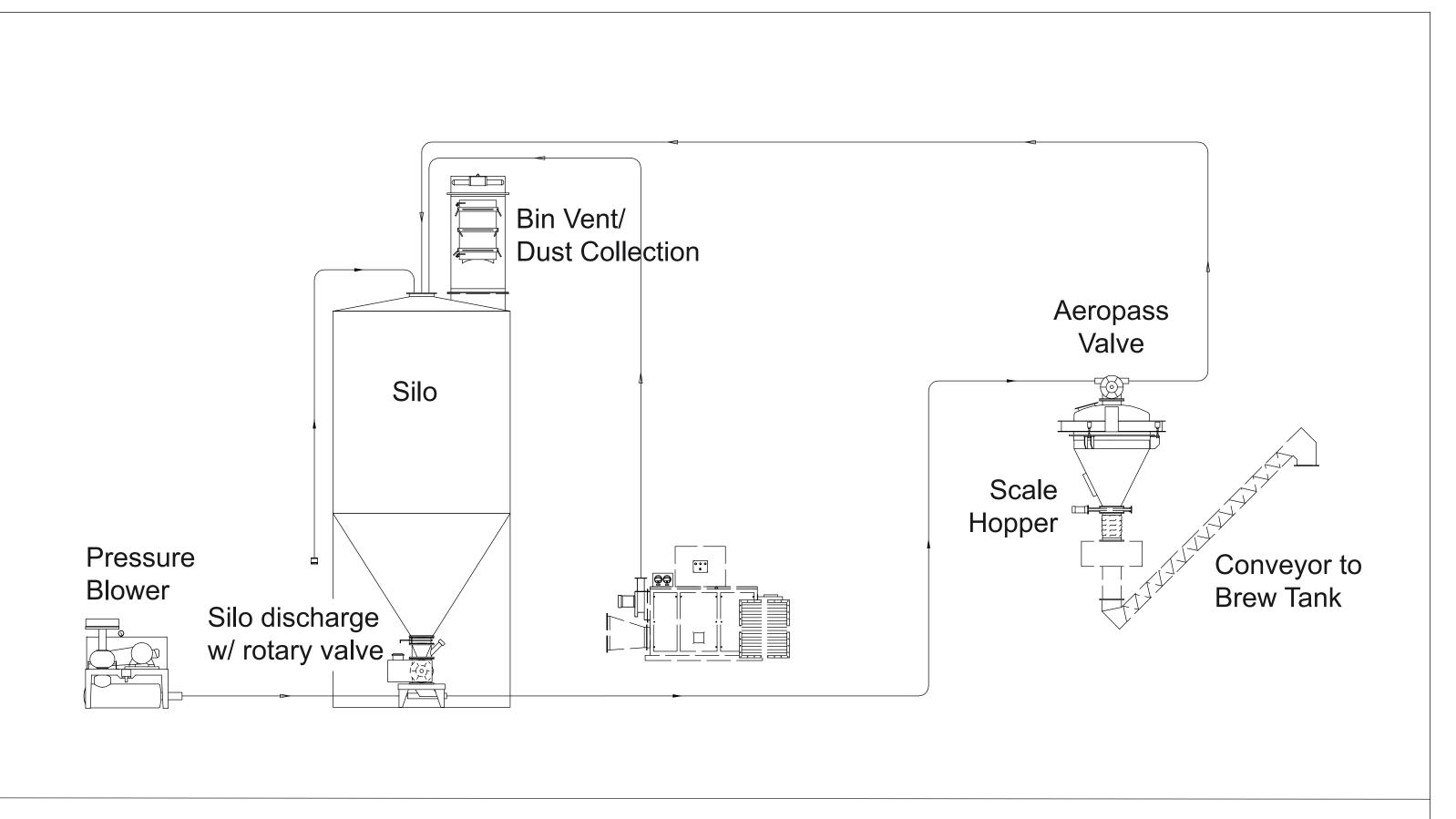
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Ref. A2-8767



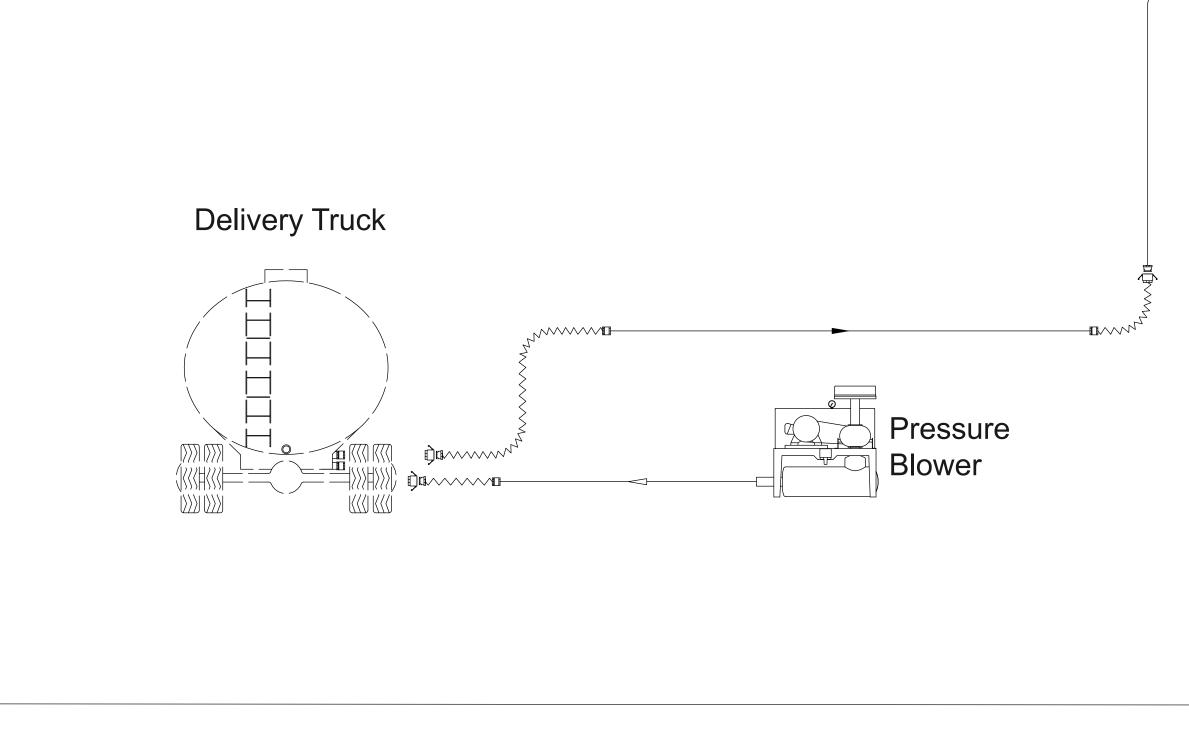
Dense phase system for transfer of milk powders to packaging line system was designed with purged line capabilities to minimize product degredation and maximize cleanability. Design includes unique sanitary pulse-clean receiver for receipt of conveyed powders.



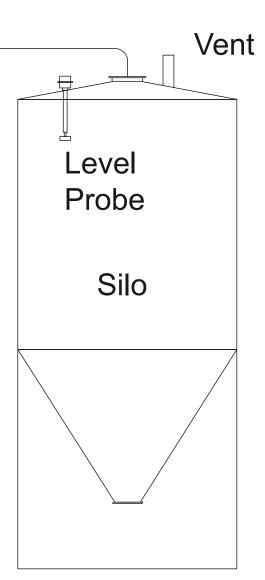


Conveying system for malted barley direct from silos to brew tanks. Scale weigh hoppers also meter barley to tank.



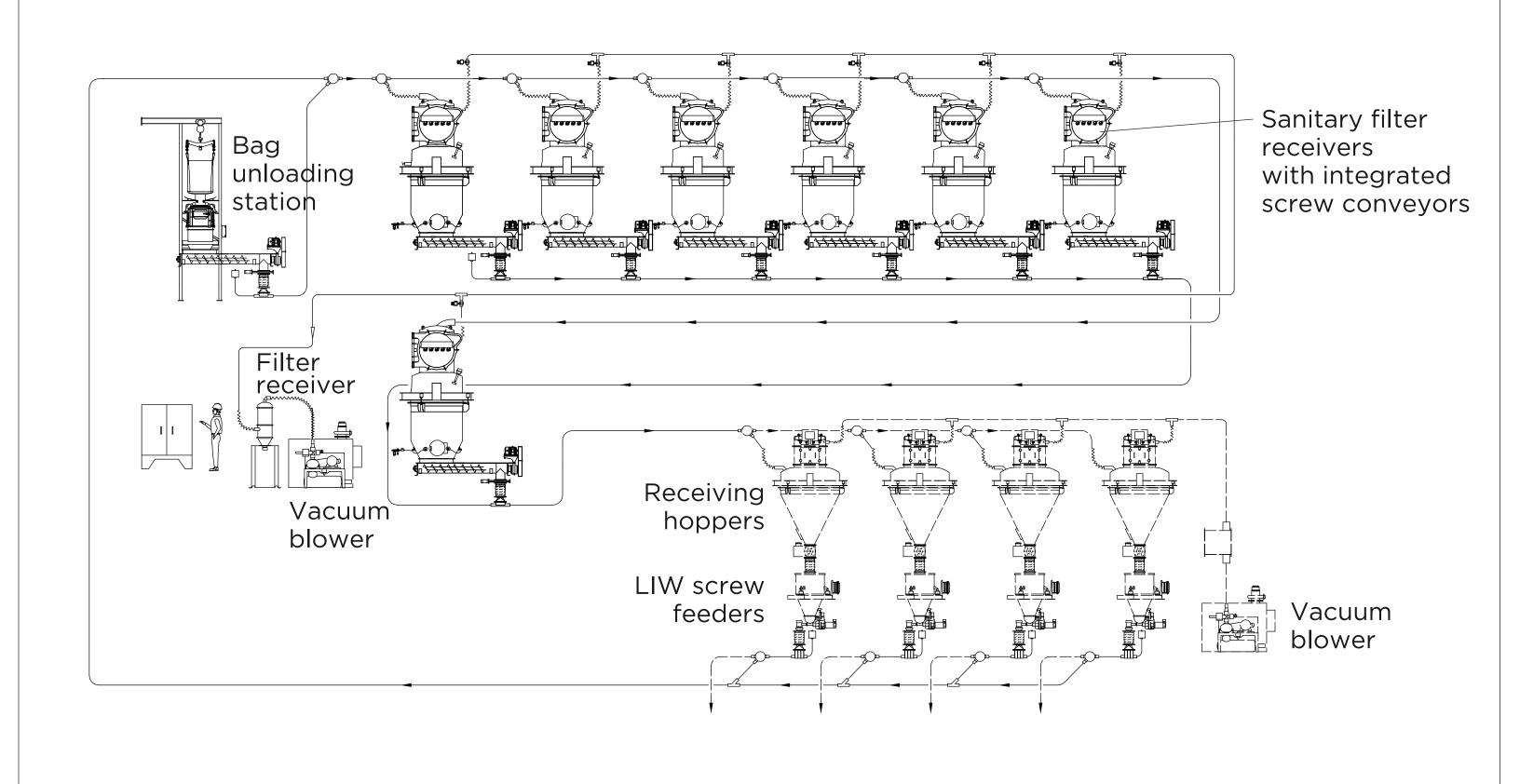


Continuous pressure truck unload system for conveying malted barley and other grains from truck to silo.



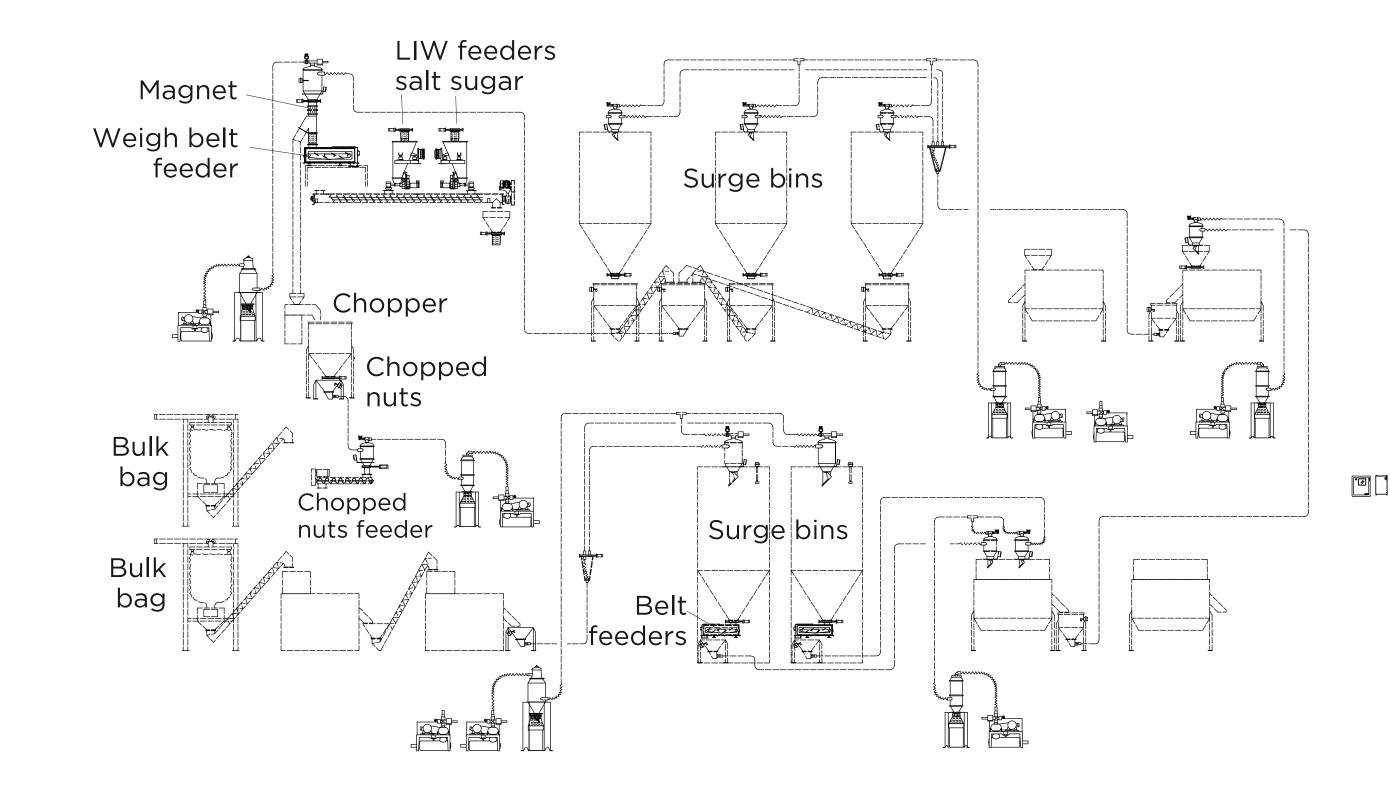






Conveying & Batch Weighing Line - line includes sanitary filter receivers for conveying raw ingredients to various Loss-in-Weight feeders for extrusion lines.





Nut Ingredient Supplier: Nut metering and vacuum sequencing line for conveying of nuts in various bins to choppers, blanchers and/or roasters. Line also includes Loss-in-Weight feeders for adding flavors to nuts.

# Coperion K-TRON Ref. 15-13050-8