



Ground Meat Mixture is Captured
by Hopper and Fed to Pump

Stainless Steel Feeder Bin for Pet Food

General Description

The US pet food market will reach over \$60 billion by 2028 with a growth rate of over 5-percent per year. According to the American Pet Product Association, 90 million American households own a pet, equivalent to almost 70-percent of homeowners.

Screw conveyors are used throughout the pet food manufacturing process from raw material infeed to finish product packaging. Because of their versatile design, screw conveyors are desirable for their compact construction, completely enclosed design, and easy maintenance. KWS has provided equipment to the pet food industry for over 50 years.

All American Pet Proteins is a processor of beef, lamb, bison, and buffalo for premium pet foods. Screw conveyors are used to break up and convey meat products to packaging lines. Due to sanitary requirements, these conveyors must be designed to prevent food and bacteria buildup. In this application, wet and sluggish meats passed through a series of grinders to produce packed meat. KWS provided a custom feeder bin that exceeded all sanitary requirements and will last for many years.

Design Parameters

Product Type: Meat & Water Mixt

Material Density: 50 Lbs. per Cubic Foot

Capacity: 400 Cubic Feet per Hour

Duty: 24 Hours per Day, 7 Days per Week

KWS Advantages

All American Pet Protein had an existing bin in place and wanted to upgrade the design for new bins. KWS analyzed the existing design and made recommendations to improve throughput and make cleaning much easier. KWS designed the new screw for the bin with heavier flights to improve efficiency and increase screw life. The screw discharged directly to a custom pump. KWS assembled and tested the complete unit to ensure the system worked according to expectations.

KWS Special Features

Since wet meat is a concern for bacteria buildup, KWS manufactured the screw bin using 304 stainless steel with polished finish. All welds were continuous and blended to a 150-grit finish. All areas where material could gather were eliminated and therefore, bacteria buildup was eliminated.

Drive and end shafts on the screw were shrink fit and seal welded so bolts were not needed. KWS designed the screw with a flanged hub and gusset to mate to the special pump. Mating the screw to the pump was an integral part of making the operation run smoothly. The bin was portable so extra high-strength casters were used to support the loads and be able to move by two workers. The project was a success, and more bin orders were placed.

perfectly. To withstand the rigors of 24-hour operation, the robust KWS bucket elevator featured heavy-gauge intermediate sections and included multiple inspection access points for ease of maintenance.



KWS Manufacturing

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Testimonial

Richard Maynard, Plant Manager - All American Pet Protein

"The new KWS screw bin is working great. We are very pleased with everything."



Ground Meat is Metered and
Pumped for Further Processing



Extra Heavy-Duty Casters Support
the Bin and Make It Portable



Screw Mates to Special Pump for Smooth Operation



Sanitary Design and Finish
Eliminates Material and Bacteria Buildup



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