



Gelita Gelatin Products are  
Sold Worldwide



New KWS Screw Conveyor is  
Installed Under Filter  
Receiver and Rotary Airlock

**End User or Owner**  
**Gelita USA Inc.**  
Calumet City, IL



**Design  
Engineering  
Manufacturing**

**KWS Manufacturing**  
3041 Conveyor Drive  
Burleson, Texas 76028

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[www.kwsmfg.com](http://www.kwsmfg.com)

## Screw Conveyor for Conveying Gelatin Powder for Gelita USA in Calumet City, IL

### General Description of the Application

Gelita AG is the world leader in the production of gelatin products and has manufacturing facilities on five continents. Gelita's gelatin products are used in a wide variety of industries, ranging from foodstuffs and human nutrition to pharmaceutical and photography. A principal subsidiary of Gelita AG, Gelita USA, Inc., operates a production facility in Illinois that specializes in the manufacturing of gelatin from US-quality pigskin for edible, pharmaceutical and other unique applications.

Gelita USA enlisted the help of KWS to provide a solution for conveying gelatin powder to a new bulk bag filler system. Upon completion of a proprietary gelatin blending process, the powder is discharged from portable storage containers (totes) into an inclined screw feeder which elevates the gelatin powder to a screening process. The screened product is then conveyed using a dilute phase pneumatic conveying system to a filter receiver mounted above the new KWS screw conveyor's inlet. A rotary airlock then meters the gelatin powder into the new KWS screw conveyor which transports the gelatin powder to a magnetic and metal detector before discharging into the bulk bag filler system.

### Design Parameters of Application

**Product Type:** Gelatin Powder

**Material Density:** 45 Lbs. per Cubic Foot

**Conveyor System Capacity:** 222 Cubic Feet per Hour

**Duty:** Intermittent

### Advantages Provided by KWS

KWS collaborated with engineers at Gelita to ensure the ideal solution was being offered to meet their needs. KWS and Gelita engineers worked very closely with engineers for the manufacturers of the pneumatic conveying system, rotary airlock, magnet, and metal detector to confirm the proper inlet and discharge connections would be supplied on the screw conveyor. The KWS system design allowed Gelita to eliminate the need for transition chutes and maintain minimal stack-up height for the various pieces of equipment.

### Special Features of KWS Design

Since the gelatin powder is used in many different applications, the new KWS screw conveyor was constructed from 304 stainless steel. All the internal welds on the screw conveyor were continuous to reduce the potential for contamination. Food grade gasketing was used to seal the conveyor covers and eliminate leakage. KWS chose a direct-drive shaft mounted gearmotor which offered a compact and cost-effective alternative when compared to a traditional belt-driven screw conveyor drive.

The direct shaft-mount drive design incorporates a special screw conveyor mount that is bolted directly to the standard CEMA trough end eliminates the need for a separate drive support pedestal. The utilization of the compact, direct-drive allowed KWS to minimize the screw conveyor's overall footprint which made the design of the support structure much easier for the design engineers.



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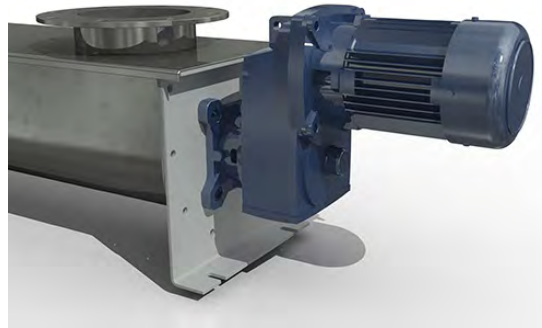
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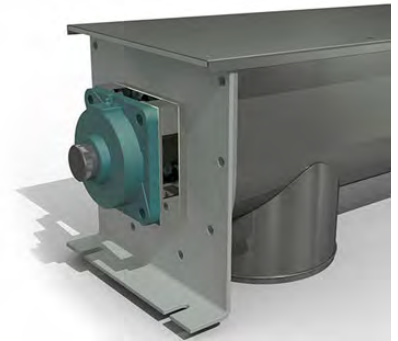
### Testimonial

*"The screw conveyor fit perfectly. We also appreciate KWS's effort to deliver the conveyor to meet our installation schedule."*

- Tanya Bell, Project Engineer – Gelita USA Inc.



Compact Drive Unit Minimizes  
Overall Footprint



Round Discharge Mates to Flexible Boot on  
Bulk Bag Filler System



New KWS Screw Conveyor is Compact in Design to Fit in Tight Space