



35-Inch Diameter Digester
Feed Screw

End User or Owner
WestRock Containerboard
Hopewell, VA

Quick Delivery Digester Feed Screw for WestRock Containerboard Plant in Hopewell, VA

General Description of the Application

WestRock produces containerboard in Hopewell, VA, in addition to other locations across the United States. Containerboard is the base material that will eventually make corrugated paper containers, which are used in many industries. The process begins with tree logs that are transported to a paper mill, such as the one in Hopewell. Once the logs have been stripped of bark, they are fed into a chipper, which reduces the logs to much smaller sized wood chips. The wood chips are then conveyed to a digester using a screw conveyor. A digester cooks the wood chips, softening them in preparation for bleaching.

The digester screw conveyor at the Hopewell plant was showing signs of fatigue and WestRock needed an immediate replacement. Downtime at a pulp and paper facility can be very costly. KWS provided a replacement digester feed screw in less than 5 working days.

Design Parameters of Application

Product Type: Wood Chips

Material Density: 12 to 20 Lbs. per Cubic Foot

Duty: 24 Hours per Day, 7 Days per Week

Advantages Provided by KWS

KWS provides components and equipment with the shortest lead times in the screw conveyor industry. Every manufacturing process at KWS has been refined using Lean Concepts to achieve improvements in productivity by eliminating waste through continuous improvements. Combined with unmatched quality, KWS is the manufacturer of choice when a Customer needs an immediate solution.

The digester feed screw for the WestRock Hopewell plant was very unique in design and construction. The screw is 35-inches in diameter and mounted on 8-inch schedule 80 pipe. The drive and tail shafts are 4.9375-inches in diameter and are welded into the 8-inch schedule 80 pipe to avoid the use of coupling bolts. The shafts are fitted to the pipe using a fail-safe design developed by KWS that has been proven in thousands of similar applications. During the final step in production, the shaft connection is seal-welded to the pipe to ensure a strong and permanent assembly. The cost effective KWS design also reduces the material and labor required to build the screw.

Typical lead time for a special screw of this type would be four to five weeks from another manufacturer, but KWS was able to quote, design, fabricate and deliver the screw in less than one week. With downtime valued in thousands of dollars per hour, lead time is critical and KWS delivers!



**Design
Engineering
Manufacturing**

KWS Manufacturing

3041 Conveyor Drive
Burleson, Texas 76028

Toll Free: (800) 543-6558

Phone: (817) 295-2247

Fax: (817) 447-8528

www.kwsmfg.com



Made-To-Order Solutions



35-Inch Diameter Digester
Feed Screw

End User or Owner
WestRock Containerboard
Hopewell, VA

Quick Delivery Digester Feed Screw for WestRock Containerboard Plant in Hopewell, VA

Testimonial

"The next closest quote we received was three weeks minimum, great turnaround time. KWS is a true partner to WestRock."

- Joseph Judge, Maintenance Planner – WestRock Containerboard



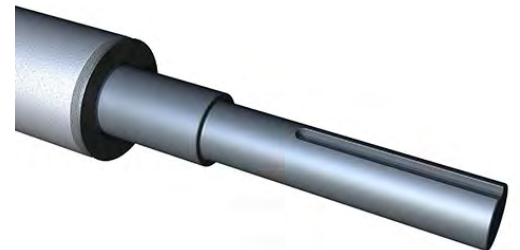
Digester Feed Screw with Special
Drive and Tail Shafts



Cut Away View Shows Special
Shaft Weldments



Tail Shaft is Fitted to 8-Inch
Pipe and Seal Welded



Drive Shaft Has Turn Down and
Key Way for Drive Unit



**Design
Engineering
Manufacturing**

KWS Manufacturing

3041 Conveyor Drive
Burleson, Texas 76028

Toll Free: (800) 543-6558

Phone: (817) 295-2247

Fax: (817) 447-8528

www.kwsmfg.com