

B. W. SINCLAIR, INC.

Bulk Material Handling

P. O. Box 1111
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Phone 940-766-2556
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FLEXIBLE SIDEWALL CONVEYORS

Bulletin 600.001

B. W. SINCLAIR is an industry leader in the design and manufacture of L-flow and Z-flow **High Incline Flexible Sidewall Belt Conveyors**. Our **Series 600-FSW** offers the most efficient configuration to satisfy both conveying and elevating requirements.

Our wide experience in these systems offers you:

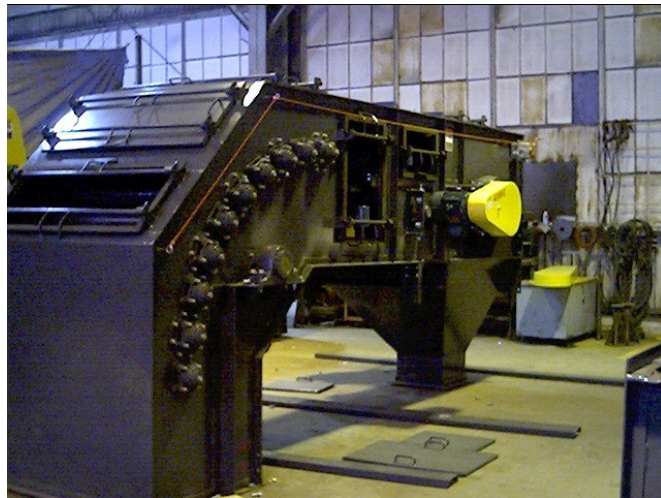
- ❖ Steep incline capability *up to 90 degrees*
- ❖ Decreased maintenance costs due to fewer power components
- ❖ Better use of investment capital because less is spent on drives, structures and transitions
- ❖ Maximum employment of site floor space

Follow the leaders in American industry. Consider a **Series 600-FSW** for your next application. *We think we have an "angle" that will work for you.* The **SINCLAIR Series 600-FSW** normally includes:

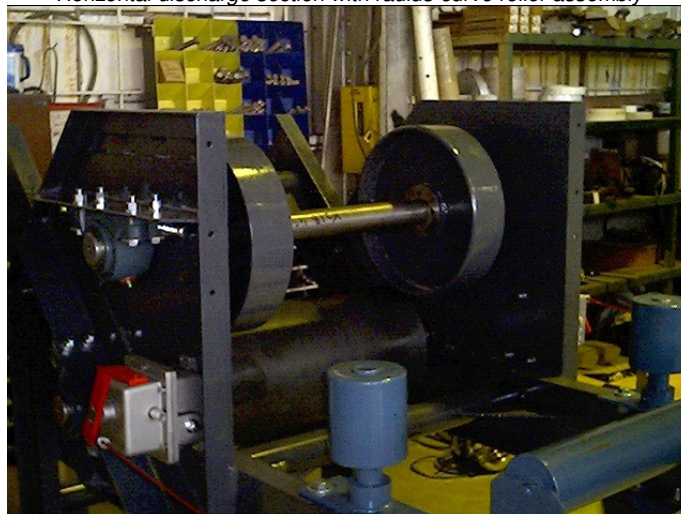
- ❖ Quality belting with flexible sidewalls and conveying cleats
- ❖ Heavy jig-built conveyor frames
- ❖ Dust or weather enclosures
- ❖ Machined and balanced Holddown wheel modules
- ❖ Support bents and towers
- ❖ State-of-the-art belt cleaning devices



Model 0624-FSW-Z-90 infeed section with Cam-Lock doors



Horizontal discharge section with radius-curve roller assembly



45-degree deflection module with Holddown Wheels

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LAYOUT FLEXIBILITY

The primary advantage of the BWSI Series 600-FSW is, of course, the flexibility offered in new plant or retrofit construction.

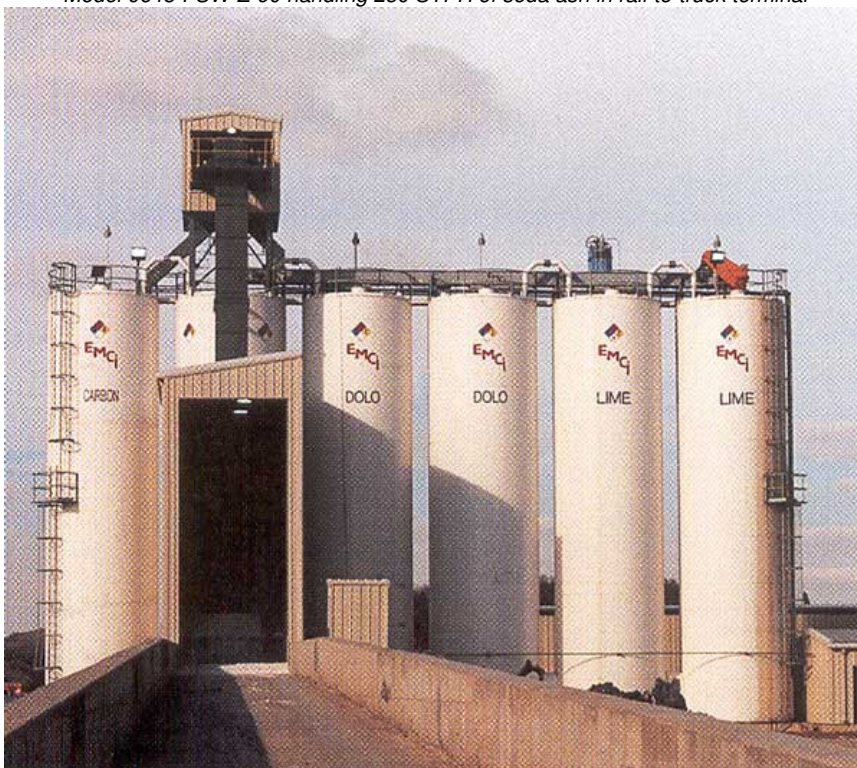
Traditional inclined belt conveyors are limited to gentle angles to prevent rollback of product. While all bulk materials vary in the maximum angle of incline possible, a standard rule of thumb is to assume an angle no greater than 15 degrees from the horizontal. In other words, an inclined belt rising 100 ft. to the top of a silo would need to be 386 ft. long!

The high incline possibilities of the BWSI 600-FSW dramatically changes this geometry. Steep incline angles – including 90° vertical installations – return the control of the plant site to the engineers and architects.

In fact, the layout advantages of the 90° vertical installation far outweigh the 45° or 60° limitations of the early years of the FSW's history. The vertical casing is entirely hollow – like an industrial bucket elevator – and therefore maintenance access, stairways, ladders, and, most importantly, costly support structures are not required.



Model 0648-FSW-Z-90 handling 250 STPH of soda ash in rail-to-truck terminal



Model 0642-FSW-Z-90 vertical belt at steel mill truck unloading station

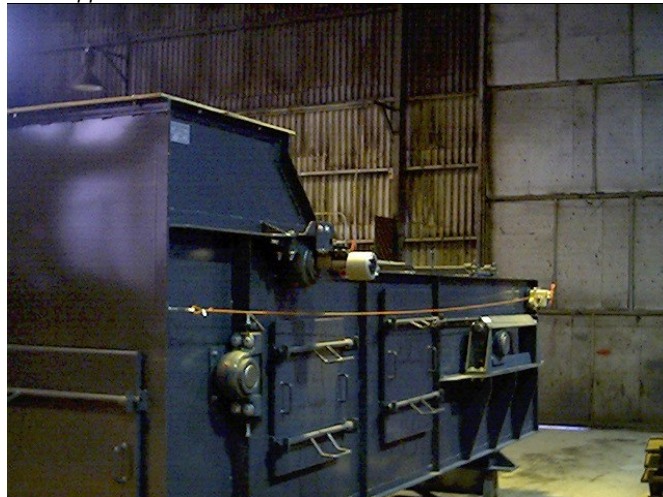
THE SINCLAIR ADVANTAGE

What sets the BWSI Series-600 FSW apart from the competition?

- ❖ Engineering expertise based on hundreds of successful applications
- ❖ Heavy-duty seal welded conveyor enclosures
- ❖ SQA CamLock™ quick-access doors to provide operator access for maintenance and cleanout
- ❖ Jackscrew adjustment of all shaft bearing blocks for alignment and tracking
- ❖ Field-Service Technical Assistance for initial alignment and belt tracking
- ❖ Cross-Rigid conveyor belting to resist side-to-side flexing while allowing operation around standard diameter pulleys
- ❖ Cleats are hot molded to the base belt between the walls for steep angle material handling
- ❖ Recessed sidewalls for clearance and belt support through the bend sections
- ❖ Two corrugated sidewalls are bonded to the base belt and impregnated with micro fibers to maximize resistance to tears and cuts



Upper horizontal radius curve module with CamLock doors



Lower horizontal deflection module with inlet and mechanical take-up



Lower horizontal casing with (2) inlets and Dribble-Drag™ clean-up conveyor

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SPECIALTY APPLICATIONS

SINCLAIR can furnish the Series 600-FSW to meet the strictest requirements for your process.

Design and construction modifications include:

- ❖ Stainless steel product contact surfaces (T304 or T316 as required)
- ❖ High temperature designs with thermal expansion inlets and high temperature belting
- ❖ Purged shaft seals and outboard bearings
- ❖ Teflon®, silicone, or Fiber Frax™ gaskets and seals
- ❖ White FDA/USDA nitrile conveyor belts with stainless steel mechanical lacing
- ❖ SINCLAIR SQA CamLock™ quick access doors for maintenance, inspection, and cleanout
- ❖ Electrical and instrumentation packages to meet hazardous area classifications

Contact **SINCLAIR** or your local representative for engineering and design assistance with your next High Incline application.

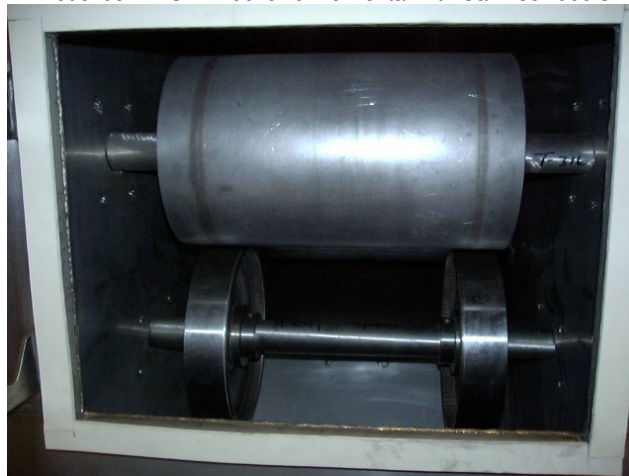
Represented by



Model 0624-FSW-Z-90 upper horizontal with washout gate valve



Model 0624-FSW-Z-90 lower horizontal with CamLock doors



Upper deflection terminal interior view, with bend pulley and deflection wheels