

CASESTUDY



Sugar Producer Increases Production and Profits with SEW Drive Solutions

Challenge

Rio Grande Valley Sugar Growers, Inc., a raw sugar producer located in Santa Rosa, Texas, processes sugar cane 24 hours a day for seven months each year.

Initially, the sugar cane is shredded, and then processed through seven subsequent mills to extract the total sugar content. The first mill, identified as Mill #1, extracts approximately 70 percent of the sugar while the last six mills extract the remaining sugar.

As the workhorse in the system, the company wanted to increase overall production by increasing production at Mill #1. Plant engineers would accomplish this by installing two new heavy duty pressure feed rolls at Mill #1, and drive them independently with planetary gear reducers and variable speed control to increase the capacity and sugar extraction. Traditionally, hydraulic drives have been used for this application, but the company did not want to deal with the maintenance

problems associated with hydraulics. The plant engineers preferred planetary gear reducers because of their compactness and superior torque transmitting ability.

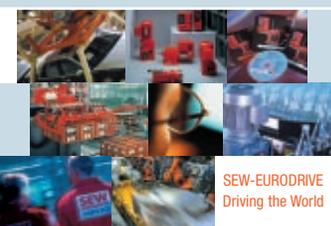
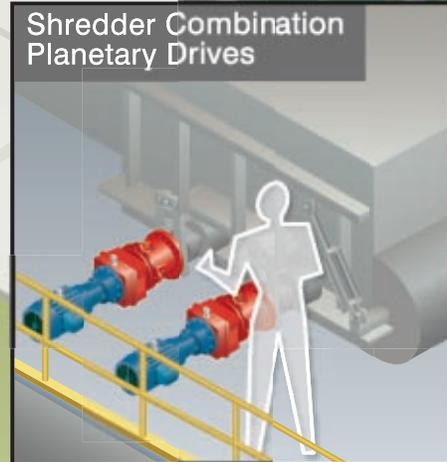
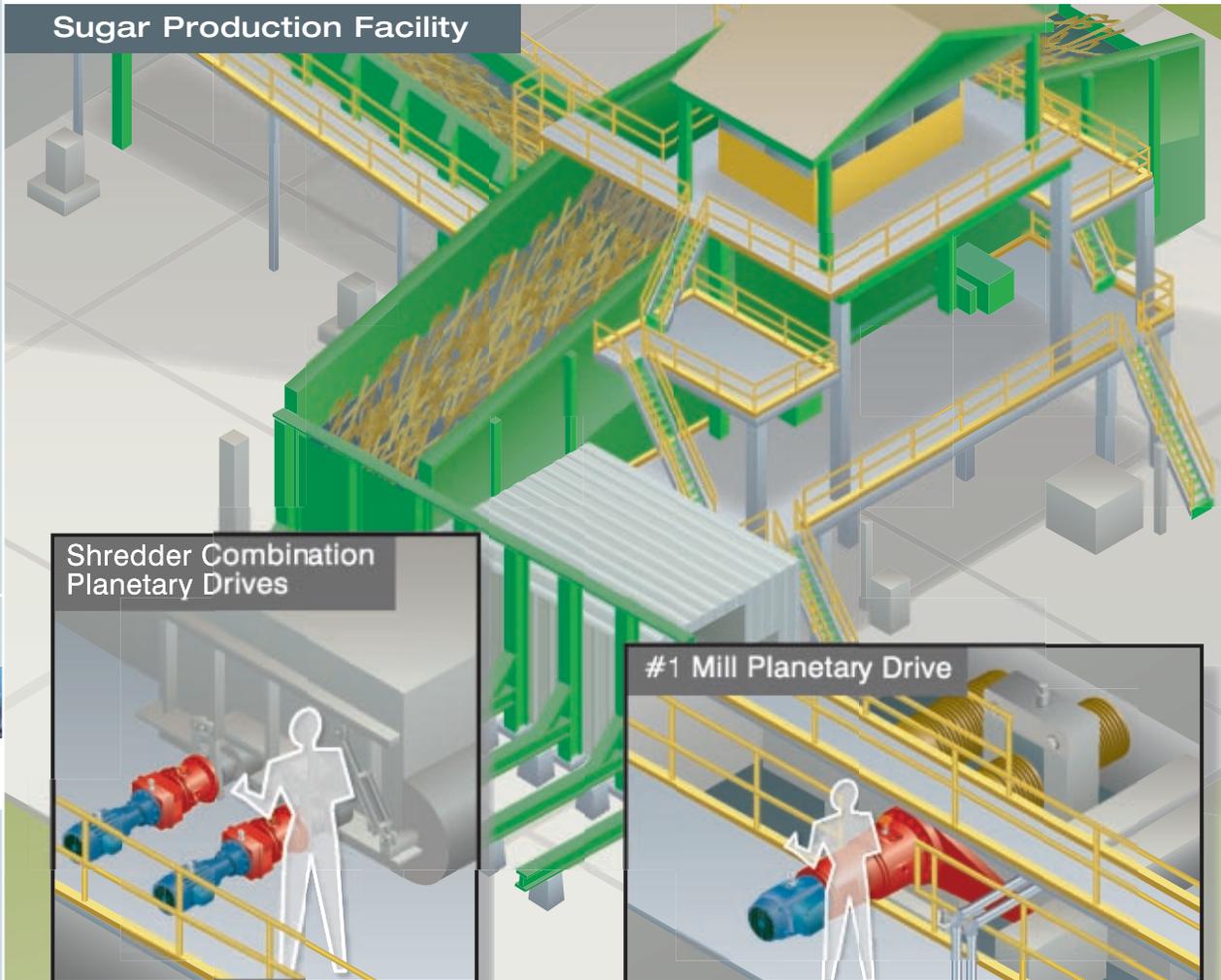
Solution

To accomplish the desired production increase, each new feed roll would require a 250 HP input motor, an approximate drive ratio of 250:1, and a service factor of at least 2.0 to produce a minimum of 3,401,918 torque lbs. SEW's John Hill suggested a P3091 gear reducer providing 3,997,394 in torque lbs., but due to SEW's excellent pricing offer, the customer chose a larger P3101 reducer with a capability of 4,356,820 torque lbs. and an overall service factor of 2.56.

"The customer also chose SEW combination planetary drives for the shredder feed rolls operation to improve control and performance," says Hill.

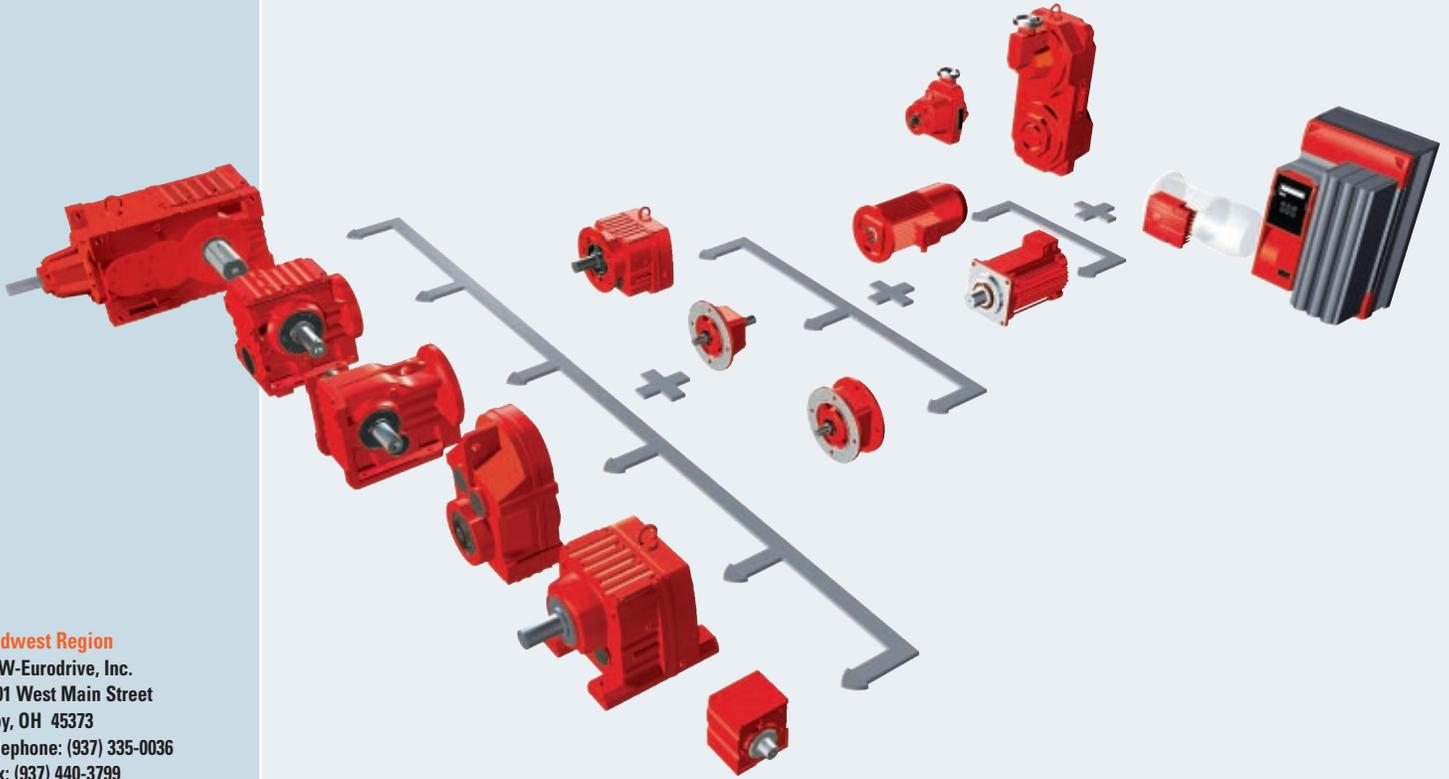
See back page for Results >>

Sugar Production Facility



SEW-EURODRIVE
Driving the World

CASE STUDY



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Results

Hill said, "The Quattro gear reducers have worked perfectly for almost 4 processing seasons. The customer estimates the units in this application have increased yearly production by approximately \$300,000 a year."

Mark Nittler of Rio Grande says, "We were really pleased with the responsiveness of SEW to our drive requirements. SEW has also responded very quickly to any questions or concerns that we have had."



SEW-Eurodrive combination planetary gear units are designed with the motor mounted integrally to the input of the planetary gear unit – no traditional couplings or adapter flanges are required. Both inline co-axial and right angle configurations are available.

SEW EURODRIVE