



# RULMECCA Motorized Pulleys

## Solve Salty Problems at Cargill Deicing, Avery Island, LA

The deep salt mine, now owned and operated by Cargill Deicing, has battled the effects of corrosion and abrasion at the Avery Island, Louisiana facility since the mine shaft was first sunk into the huge salt dome in 1862.



*One of two barge loader conveyors now driven by Rulmecca Motorized Pulley at Cargill Deicing salt mine and barge loading terminal in Avery Island, Louisiana*

Operations and maintenance personnel use stainless steel, special paint, and wooden structures to combat corrosion due to salt accumulation in the humid Louisiana marshlands. However, it was not until Everett McBride first tried Rulmecca Motorized Pulleys in the barge loading system in 2004 that the company began seriously converting their exposed conveyor drive systems to internally-powered conveyor drive pulleys. Now the mine enjoys higher



*Original exposed motor, gearbox, chain/sprocket assembly*

system reliability and lower maintenance expense because the Rulmecca Pulleys enclose all drive components within an oil filled hermetically-sealed pulley shell. Rather than struggling to protect moving components, Cargill "hides" them out of harm's way.

Cargill has standardized on two Rulmecca Motorized Pulley models (i.e. 500M & 630H) to limit the number of spares protecting the system. This is possible because only two belt widths are used in the entire barge loading



*Mine elevator and wooden conveyor gallery system. The two models are: 500M at 20 HP and 480 fpm with 31.5" face width and 630H at 60 HP and 600 fpm with 37.4" face width.*

Initially developed in 1953 for coal and stone conveyors, Rulmecca Motorized Pulleys have been modified to include special features for harsh operating environments such as salt, phosphate, and iron mines as well as ocean/river terminals and power plants.



*Note pillow block corrosion and plugged motor cooling fins above conveyor discharge chute before conversion to Motorized Pulley*

# RULMECA Motorized Pulleys Solve Salty Problems at Cargill Deicing, Avery Island, LA (cont.)

Cargill Deicing operations and maintenance personnel have been very satisfied with the Rulmeca Motorized Pulleys' performance and are pleased that formerly exposed drive components are now out of sight and out of mind.

From Avery Island to Seward, Alaska conveyor operators are discovering that Rulmeca Motorized Pulleys improve system reliability while decreasing maintenance expense.



*Rulmeca 60 HP Motorized Pulley eliminated all exposed components*



*Note compactness of 60 HP internally-powered hermetically sealed Rulmeca Motorized Pulley drive.*

Special features incorporated into the Cargill Motorized Pulleys include inorganic zinc rich primer, 12 mils of Carboline Carbomastic CM15FC paint, regreasable labyrinth seals, and stainless steel shafts. The paint system protects steel and cast iron surfaces while the labyrinth seals provide a grease barrier to protect all double lip shaft seals. In addition, Class H motors and synthetic oil protect the drive system from the heat of the Louisiana marshland climate.



*Rulmeca special paint & regreasable labyrinth seals*



*Motorized Pulley encloses drivetrain within pulley shell.*

The Cargill Deicing salt mine in Avery Island is one of the latest of a growing number of conveyor operators who have discovered the benefits of using an internally-powered and hermetically sealed conveyor drive system.



*Salt cannot penetrate oil-filled pulley shell.*

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