

# Good Vibrations

## pro



WE PUT TECHNOLOGY IN MOTION™

September 2008

## A Low Salt Recipe

by Henry Stachura & Jon Ansley

Located in New York state there is a salt evaporation refinery where wells extend into the earth's crust more than a half mile (0,8 km) to tap a sprawling deposit of underground salt. Fifteen to twenty individual layers of salt varying in thickness from two feet (61 cm) to a hundred and fifty feet (46 m) lie under this plant. The total thickness of salt formed by all layers varies from 350 ft (107 m) to 450 ft (137 m).

Sweco was asked to visit this plant to look into upgrading their salt screen system. Their goal was to replace old rectangular vibrating screens with newer, more compact machines with an easy screen change capability. Tests were done in the Sweco Lab to determine throughput rates. Lab tests were completed and the results showed that one Sweco Scalper should be able to handle the required capacity.



Even though Sweco offers more evolved quick screen changing mechanisms, the customer chose to equip the separator with three EZ-change lifting brackets with a manual spring activation. This configuration was felt to be immune from attack by the chloride and was considered to be the simplest mechanical mechanism for quick screen removal. Their material will attack anodized aluminum so our Non-Vibrating QuickChange™ hand crank device was excluded from consideration. Note: There are other QCNV applications with salt where bellows boots are installed on the hydraulic cylinders for protection from the environment, and the hand crank shaft is not considered a major salt attack point.

The customer purchased two of these machines and has been using them very successfully since their installation. In addition to the quick change screen feature, the footprint of this machine is approximately one-third that of the antiquated rectangular machine, and there is noticeably less transmitted vibration into the platform.

Before our installation, this company purchased a competitor's quick-change machine which has essentially fallen apart. Its lifting mechanism cracking problems and its mechanical weakness led this customer to come back to Sweco. Since the initial installation, this company has purchased an EZ change and they are looking at other places in the plant to install Sweco separators.





Florence, KY  
Macon, GA  
Tulsa, OK  
USA

Tlalnepantla  
Mexico



Edinburgh  
Scotland

Nivelles  
Belgium



Barcelona  
Spain

# INFINITE APPLICATIONS, DEFINITE SOLUTIONS™



## Optimize with Sweco Instrumentation Packages

Sweco offers various instrumentation packages that optimize the performance of your Sweco vibratory separators, grinding mills, and finishing mills. Whether you're concerned about your equipment producing the appropriate motion, your screens breaking or your motors failing, there is a Sweco instrumentation device that will help to lessen your worries.

The Sweco SentryScan™ Performance Monitoring System detects when a tear in screen mesh has occurred and alerts you of this potential for compromised screening performance with either a local audible alarm or a signal to your plant process control system. This retrofit accessory improves your screening performance and guards against costs associated with reprocessing or downgrading of off-spec product; contamination or overloading of downstream equipment; and customer complaints and product recalls.

The Sweco SentryScan uses integrated microwave technology to directly monitor the condition of your separator's most critical component: the screen itself. It can be configured to monitor one or more screens on a Sweco separator. Because the SentryScan operates continuously, screen failures can be detected more quickly and more reliably than with manual methods.

Sweco's Motion Analysis System allows you to perfect the motion of your separator for your specific process and maintain that motion throughout the life of the machine. It also allows you to produce the same efficient motion on all machines in your plant or standardize the success of one plant with other plant locations.

The Motion Analyzer can be used on any vibratory motion machine including Vibro-Energy Round Separators, Full-Flow Rectangular Separators, Grinding Mills and Finishing Mills. It shows all the parameters necessary to completely describe the vibratory motion of your Sweco equipment

including: Horizontal Displacement, Vertical Displacement, Acceleration, G-Force, Phase Angle, Motor Speed, and more.

The Sweco Vibration Sensor helps you avoid unexpected and undetected separator shutdowns and prevent costly reprocessing. This Sensor constantly monitors the motion of your Sweco Separator and triggers an alarm if it stops functioning due to motion generator failure. In some cases, it can alert you of feed rate upsets, erratic product discharge, broken springs or loose anchor bolts and clamp bands. Additionally, the optional Display Unit provides a local digital readout of separator G-force.

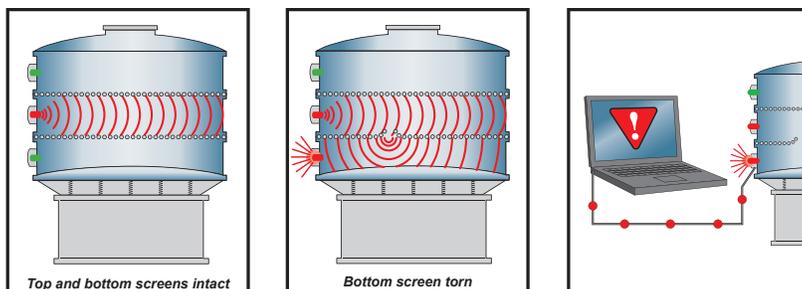
Sweco's Bearing Temperature Sensor enables operators to continually monitor the upper bearing temperature in Sweco motion generators. Since significant increases in bearing temperature can indicate impending failure, the Bearing Temperature Sensor helps to prevent unexpected failures, material backups, downtime and emergency maintenance.

With the use of these state of the art instrumentation devices you can improve the performance of your equipment and prevent costly shutdowns. Contact a Sweco professional today to learn more about how Authentic Sweco Instrumentation can optimize your equipment and make your process more efficient.



**Motion Analysis System**

### SentryScan™ Performance Monitoring System





Berra  
Italy



Mumbai  
India



Shanghai  
China

Singapore



Victoria  
Australia

## SOLUTIONS THAT MAKE SEPARATION SIMPLE™



### FEATURE PRODUCT

#### *Feed-Vac™ Separator System*

No one has more separation experience and solutions than Sweco, and we prove this once again with the new Feed-Vac Vibro-Energy Separator System. This system combines the functions of conveying, storage, feeding and screening of dry materials into one complete unit.

The Feed-Vac Vibro-Energy Separator System is made up of

three components. First, at its core, is the Sweco Vibro-Energy Round Separator, which is able to size your product into two to five fractions. Second, is the Sweco Accu-Feed System, a conical storage bin with an adjustable feed controller, eliminating the need for a separate feeder and hopper. Finally, the third component is an adaptable vacuum conveying system capable of transporting most dry powder or granule products to the Accu-Feed and separator.

Each component of this system

can be designed for sanitary processing to meet your needs. Additionally, all sizes of Sweco Vibro-Energy Round Separators can be used; various conveyer sizes are available; and the feeder can be customized for your specific requirements.

If you want to substantially increase productivity and see a significant savings in capital, space and energy, contact a Sweco professional to learn more about this latest innovation from Sweco, global leaders in screening technology.



VACUUM CONVEYING SYSTEM CONVEYS DRY POWDER OR GRANULATED PRODUCTS THROUGH A DEDICATED PIPE SYSTEM

SWECO ACCU-FEED SYSTEM STORES, ELIMINATES FEED SURGES, AND CONTROLS FEED VOLUME TO OPTIMIZE YOUR SEPARATOR'S EFFICIENCY

QUALITY VIBRO-ENERGY ROUND SEPARATOR CUSTOMIZED AND SIZED TO YOUR SPECIFIC APPLICATION

\* All components can be designed for sanitary processing



## DID YOU KNOW?

*Available Now: [sweco.com](http://sweco.com) in Russian (Русский)*

Now even more Sweco customers around the world can learn about our products in their own native language. In order to increase our support to the Russian market, the Sweco website has been translated into Russian. With the addition of Russian, [sweco.com](http://sweco.com) is now available in six languages: English, French, German, Spanish, Chinese and Russian. A seventh language, Italian, will be coming soon!

Here are a few facts about the Russian language that you might find interesting:

- ▣ Russian belongs to the family of Indo-European languages.
- ▣ Russian uses a modified version of the Cyrillic alphabet which consists of 33 letters.
- ▣ The Cyrillic alphabet is the 3rd official alphabet of the European Union.
- ▣ There are approximately 250 million speakers of Russian around the world.
- ▣ Russian is one of 6 official languages of the United Nations.
- ▣ Most handwritten Russian is done in cursive, and in Russian schools children are taught cursive by the first grade.

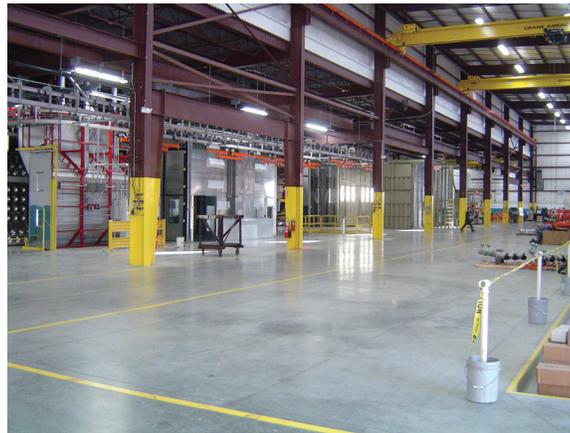


## CHECK OUT OUR ...

### *New Expansion*

Just two years ago Sweco expanded our Florence headquarters with 15,500 square feet of office space. This year, we have expanded once again. This time, the expansion was not in the office, but rather in the plant.

The new 30,000 square foot expansion will house both oilfield and industrial equipment production. GyaMax and Rectangular Shaker assemblies as well as major oilfield project assemblies such as Maersk will be in the new building. It will also include Centrifuge assembly, Choke and Console production and CD1400s, Type II Pumps and 100HP Vacuums. Additionally, it will contain a new blast and paint booth.



## Sweco On The Road

Interested in seeing our equipment first hand? Here's where we'll be for the remainder of 2008.

MINExpo (Las Vegas, Nevada)  
Dates: September 22-24, 2008

Powtech (Nürnberg, Germany)  
Dates: September 30 - October 2, 2008

Pack Expo/Process Expo (Chicago, Illinois)  
Dates: November 9-13, 2008



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