

Profile Industries

Company redesigns rotary spiral separators to improve ease of use, yields



Rotary spiral separators were installed in August at the Hurt Seed plant in Halls, TN. The machines are designed to be cost effective and efficient to operate after being re-engineered last year. (Hurt Seed photos)



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Key Personnel

- Steve DeJong, President
- Chad Culbertson, Production Manager

Company Profile

- Manufacturer of standard and customized spiral separators for agricultural and industrial applications.
- Static and motorized spiral separators.
- Testing lab to determine sizer specifications and validate performance.
- Manufacturing also includes UV light sterilization equipment and material handling equipment.
- Established 1994, family owned.

Ray Hurt sees the re-engineered Profile Industries rotary spiral separators as one of the most beneficial pieces of equipment ever installed at the Hurt Seed Company (731-836-7574) plant in Halls, TN.

Hurt, who is a fifth-generation owner of the business that was founded in 1932, says the separators have been able to limit seed yield loss since being installed in August. Hurt Seed processes wheat and soybean seeds.

“It’s a vital piece of what we do,” Hurt says. “I wish we had the separators two or three years ago. We would have saved bins full of seed.”

Before installing the separators, Hurt says he worried about losing too much soybean seed and would not put seed through the old separators.

Hurt has been pleased with the results after running over 200,000 of soybean

seed through the cleaning system in its first couple months of use.

Added Benefits

Profile Industries President Steve DeJong says the Rogers, MN-based company sold its first rotary spiral separator five years ago, providing an alternative to static, or non-rotary, separators.

After selling the rotary separators to customers around the world, DeJong says seed company owners suggested improvements in how the machines were designed.

So, he says Profile began re-engineering the separators.

DeJong says several features were added when the revamped rotary separators were introduced last year.

They included 100% galvanized steel construction, flat pack design for freight savings, and steeper floors to avoid plugging.

Originally, Profile rotary separators were designed with one core.

Now, DeJong says the separators such as what were installed at Hurt Seed have four cores, which increases capacity.



Each of the re-engineered Profile Industries spiral separators contain four cores to provide increased capacity.

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*Ray Hurt
Owner, Hurt Seed Company
Halls, TN*

DeJong says soybeans can be abrasive, so the new system is designed to reduce the wear and tear on parts the beans touch.

The result of the changes, DeJong says, is increased quality of seed and a decreased loss of good seed after going through the machine.

Ease of Operation

The rotary separators are designed to be easier for operators to use, and because they can re-set faster than static spirals, he says, that reduces labor and saves time.

DeJong adds that re-setting of the spirals between seed lots was simplified and adjustments can now be made during the sorting process.

Hurt notes the improved ease of operating the separators, which includes the ability to adjust the speed of rotation.

“It has met and exceeded my expectations,” says Hurt, who processes about 2.5 million units of soybean seeds per year.

“We can turn the dial and within seconds make a change that used to take hours and maybe more if it

wasn’t done quite right. Now we can have the whole system adjusted within five minutes.”

Quick Shipping and Assembly

The separators can be packed and shipped within two days of ordering, DeJong says. The ability to have the separators in stock and ready to ship quickly often helps seed companies, he says.

In many cases, DeJong says seed companies are placing orders for quick shipping because they have found weed seeds and other debris in their good product.

He adds they need a solution to get back up and running as quickly as possible.

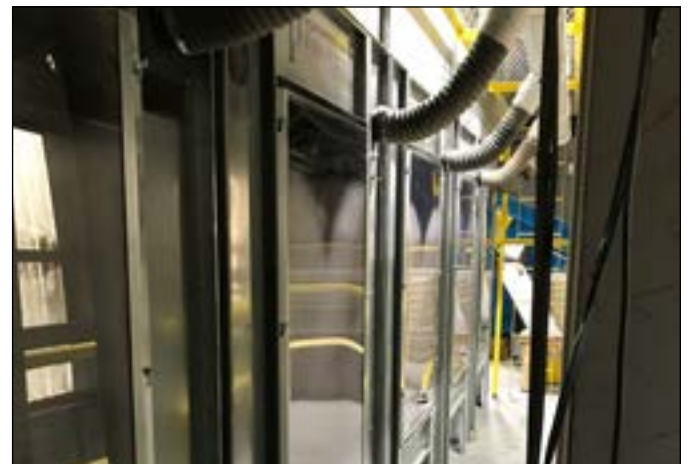
“We get them out of a jam,” DeJong says.

Five separators were installed on the third floor of the Hurt Seed plant.

Hurt says that could have posed a problem, but Profile worked with Hurt Seed to ship the machines disassembled for installation after being brought to the space on the third floor.

Hurt says the plant, which was built in 1997, wasn’t configured to have the space for the equipment anywhere else, so having it fit on the third floor space was especially important.

Chris Lusvardi, editor



Above, the top of the Profile Industries rotary spiral separators at the Hurt Seed plant in Halls, TN. Five machines with a leveling hopper were installed at the plant in August.

Middle, the rotary separators have been re-engineered with wider windows for easier access and steeper floors to avoid plugging.

Bottom, the back of the machines. The separators are designed to control feed more uniformly than in the past. (Hurt Seed Company photos)