

Solutions for a Competitive Edge

Industrial Cleaners Eye Ethanol Business

How fast is the ethanol business growing? Ethanol capacity is slated to more than double, and this represents a terrific opportunity for industrial cleaners.

The United States already has 114 ethanol plants capable of producing 5.6 billion gallons of ethanol per year. Another 80 new plants and expansions will soon add 6.4 billion gallons of capacity.

Most existing ethanol plants produce 30 million to 50 million gallons. The business is centered in Iowa, with more plants in Minnesota, Wisconsin, South Dakota, Illinois, Kansas, and Nebraska.

The new ethanol plants will be larger, ranging from 50 million to 100 million gallons and above. In addition to the region surrounding Iowa, new plants will spring up in Indiana, Ohio, Texas, and Oregon.

Nearly all these plants use corn for fuel, converting it into an alcohol that is readily blended into conventional gasoline.

Growing Demand

Two factors are behind the rush into ethanol. The first has to do with energy independence. The United States currently imports more than half its oil from the Middle East. Replacing imports with domestic fuels makes good sense.

Equally important, ethanol is becoming an important component of oxygenated gasoline mixtures. Oxygenated gasoline is used in major cities during the winter to reduce auto emissions that form smog. Most refineries preferred another oxygenate, MTBE, but it is being phased out because it contaminates ground water.

Ethanol will replace MTBE in most oxygenated gasoline. It also goes into E-10, a blend of unleaded gasoline with 10 percent ethanol. In 2005, producers converted 14 percent of the nation's corn crop to ethanol, up from 12 percent in 2004.

While ethanol provides less energy (and less miles per gallon) than gasoline, it reduces energy dependence and pollution. Rising demand also

keeps corn prices firm and farmers prosperous. This makes continued growth a good bet for the future.

Cleaning

Ethanol production starts by grinding corn, adding water, and converting starches to sugars. Sugars are then converted by microbes into alcohol, a process similar to making beer, and purified for blending.

Ethanol plants have lots in common with refineries, chemical plants, distilleries, and other processing plants. There are plenty of heat exchangers, boilers, concentrators, pipes, and ducts.

With some subcontracting and small jobs under its belt, A-Tech Sewer Cleaning in Watertown, SD, is getting into the ethanol plant cleaning business. Ethanol plants remind A-Tech President Darrin LaQua of distilleries. "Corn produces different products and byproducts with different consistencies, but in the end, you're still jetting lines," he says.

Still, risk of explosions and ductwork issues make ethanol plants challenging, says Marty Morgan. Morgan is operations supervisor for Seneca Waste Solutions of Des Moines, one of Iowa's largest ethanol plant cleaners.

"Ethanol and some process chemicals used in these plants are explosive, so you can't use anything that could create a spark, not even a cell phone," he says. "When we need to communicate, we use intrinsically safe radios."

Syrup poses problems all its own. "Ethanol plants use a lot of air to move material through the



INSIDE THIS ISSUE

Industrial Cleaners Eye Ethanol Business..... 1

Insurance: More than an Afterthought..... 2

Smaller Vector HXX Prodigy Simplifies Nondestructive Digging Choices..... 3

Preparation Keeps Safety First..... 4

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continued on page 3

Insurance: More than an Afterthought

Many business owners give insurance little more thought than signing up for telephone service or utilities.

Then something happens. Your garage burns down. Your rig knocks out a customer's facility for a week. An injured third party sues for negligence.

Suddenly, your policy's fine print spells the difference between staying in business or losing everything you spent years building.

Paul Wittig, Federal Signal's corporate risk director, has several suggestions for buying insurance – or reassessing the policies you already have.

Get the right broker. “The first question you should ask is, ‘Who is your broker,’” says Wittig. “Is it someone who handles home and auto insurance, or is in an expert in small business coverage? While many personal insurance agents also write business coverage, not all of them are experts at it.”

A small business specialist can help you identify business exposures and risks. “You want someone who comes in, kicks the tires of your business, looks at your profitability, your equipment, and your operation, and says you need this package policy with these five endorsements,” Wittig explains.

Small contractors often do best with local brokers who work with several insurance companies and are familiar with industrial vehicle operation. True specialists often advertise in trade directories published by groups like the WaterJet Technology Association or National Truck Equipment Association (NTEA), which offers insurance to its members.

“A good broker will come back with several policies and help you compare them,” says Wittig. “He or she may be able to negotiate better coverage, or fight for you if there is an issue with a claim.”

Know the basics. Three basic policies – workers' compensation, property, and liability – cover most business needs.

Workers' compensation covers an injured worker's medical expenses and lost income. Most states require coverage of at least \$500,000 per worker per incident. As long as they are covered, injured workers cannot sue for additional compensation unless they show that you willfully and unlawfully disregarded worker safety. Show you take safety seriously by having a formal safety program and complying with equipment operating manual safety requirements.

Property insurance covers property you own or lease. It ensures that if anything happens to your trucks, equipment, or inventory, you can keep running. If you lease a building, check the landlord's policy to see what it covers and see if you need to fill in any gaps. And make sure you

have any property insurance required by your bank or lender.

General liability insurance covers accidents where an injured party can point to your negligence, such as damage to a customer's facility or a fall on your premises. Automobile insurance covers driving accidents.

Check your options. There are hundreds of endorsements you could add to your policies. Common endorsements include business interruption (recovers lost income), rentals (to replace damaged equipment), and towing coverage. Your customers might want you to add a “named insured” or “additional insured” endorsement, so they can deal directly with your insurance carrier if there is an accident on their property.

“You really want an expert who understands your business risks and can recommend the endorsements you really need,” says Wittig. “Then you can look at the tradeoffs in terms of coverage, deductibles, and rates.”

Consider a package. A package combines all three basic coverages and amendments into a single policy. Packages make sense for several reasons, Wittig explains. First, they may cost less. Second, their policies are designed to work together with no gaps or overlaps.

Third, and perhaps most important, a package policy gives you better access to coverage. “Buying all your coverage from a single insurance company makes it easier to get the coverage you really need,” says Wittig. “It's also easier to add amendments later if you're dealing with only one company.”

“The whole goal of insurance,” he concludes, “is to protect yourself against a catastrophic event. You don't want to have to give an injured party the keys to your company.”

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Smaller Vactor HXX Prodigy Simplifies Nondestructive Digging Choices

Nondestructive digging – using water or air to excavate utility pipes and cables without damage – is a fast-growing market. You'll face some tough choices if you want to expand your excavating business: Can you line up enough work to justify a full-sized hydroexcavator? Do pull-behind systems provide enough power and productivity? Should you invest in an air- or a water-based system?

Vactor's new HXX Prodigy™ vacuum excavator makes those decisions easier. The Prodigy was designed from the ground up for companies just getting into nondestructive digging, and for those whose businesses have outgrown pull-behind trailers.

"It bridges the price and performance gap between those less-capable pull-behinds and full-sized hydroexcavators, and provides both air and hydroexcavation capabilities," says product manager Deepesh Nayanar.

Limitations

Many companies find pull-behinds and small truck-mounted systems a relatively inexpensive way to get into nondestructive digging. Yet the limitations of these systems eat into productivity.

Vacuum strength is one critical area. Even the largest trailers cap out at about 1,000 cubic feet per minute, about one-third the air flow of the HXX Prodigy. The smaller units also use 3-inch or 4-inch hoses that are prone to clogging, while the Prodigy uses a standard 6-inch vacuum hose.

"Pull-behinds are primarily either air excavators or hydroexcavators, though some may have secondary air or water systems. Only the Prodigy was designed for full-time water or air excavation," says Nayanar.

"The Prodigy uses high-pressure air to pulverize the soil, vacuum it up, and then use it for backfill when done. If you cannot dig through the soil with air, it is easy to switch to high-pressure water to cut through tougher soils, heavy clays, and frozen ground. Its flexibility lets contractors bid on a wider range of jobs," says Nayanar.

The Prodigy also features an above-deck compressor system that does not need a holding tank to build pressure, so it is ready to go to work within seconds.

The Prodigy has several other labor-saving features not found on trailers. The HXX Prodigy comes standard with a 6-cubic-yard tank, and the optional two-axle unit has a 9-cubic-yard tank. Contractors can also add a 16.5-foot, 320-degree-rotation boom so workers remain fresh instead of fading after carrying hoses on their shoulders all day.



Performance

"More power, larger hoses that resist clogging, larger tanks, and booms that keep workers productive – we give contractors significantly more production without having to go to a really big machine," says Nayanar.

Big hydroexcavators still have their place. Big jobs and deep digs need their extra power and capacity. Yet Prodigy shares many features with Vactor's top-of-the-line HXX Hydroexcavator.

Both units feature variable-pressure triplex pumps. Prodigy's 600-gallon tank lasts 3.5 hours between water refills. The system generates 1,500 to 2,500 psi of water pressure at up to 20 gallons/minute. Optional 400,000 BTU or 900,000 BTU on-board water heaters speed cutting through frozen ground or heavy clay.

Vactor's new HXX Prodigy was designed to give contractors a real high-performance option where they didn't have one before "Unlike trailer units, it has the power and productivity features you need to build a real nondestructive excavation business," says Nayanar.

"When it comes to nondestructive digging jobs like slot-trenching, potholing, water valve box repair, and utility line locating, HXX Prodigy offers more performance and flexibility than any trailer unit on the market," says Nayanar.

"Yet it costs significantly less than the larger HXX Hydroexcavator. And because it's a Vactor, you can count on its reliability day after day."

“Vactor’s new HXX Prodigy was designed to give contractors a real high-performance option where they didn’t have one before.”

Industrial Cleaners Eye Ethanol Business – continued

plant,” Morgan explains. “When they move corn syrup, there’s always some carryover that stays inside the ductwork. When it gets heated up, it bakes onto the ducts. It also bakes onto the induced draft (ID) fans used to supply air to the system.” Morgan’s crews spend a lot of time blasting syrup off ducts. A single fan can take 8 to 12 hours to clean.

LaQua says it’s a tough business. “These plants deal in large volumes and tight margins, so they’re always watching every penny coming in and out of the plant,” he says. “But we see all the new plants going up, and we know there’s going to be a future in it.”

Preparation Keeps Safety First

Travis Sweeden knows the score about safety.

As a Guzzler-Vactor trainer, Sweeden knows that contractors sometimes get into a bind. "Your customer needs a truck on the job, your regular operator calls in sick, and you've got to do whatever it takes to get the job done."

Some companies might risk using a new or untrained operator. Yet with a little preparation, contractors can avoid this risky choice. Here are some suggestions:

Train more people. "When you buy new equipment or hold formal training classes, train as many people as possible," says Sweeden. "Don't just train your crew, train a backup crew. The more backups you have, the safer you'll operate."

Watch the video. Each new Guzzler and Vactor comes with a safety and maintenance video. There are more copies if needed. "If you're having a slow period or a monthly safety meeting, just pop in the video as a refresher for the backup crew," Sweeden says.

Check it off. Vactor and

Guzzler manuals have a pre-job checklist that covers routine safety and maintenance. They include everything from hydraulic oil level to testing the vacuum relief. "Using a checklist is a good way to make sure nothing slips through on the morning walk-around," says Sweeden.

Take a moment. After setting up a job, spend a few minutes making sure your crew is on the same page. "It's always safest when everyone knows what's going on around them," says Sweeden.

Book a session. "We do training for older as well as new Guzzler and Vactor HXX models," says Sweeden. "We hold sessions at your site or at our Streator, IL, factory." Sessions combine classroom and hands-on work covering safety, maintenance, operation, and cleanup.

For more information, contact Travis Sweeden at 815-822-2636 or Craig Warrick at 815-822-2637.

The latest Vactor/Guzzler safety manual can be downloaded at www.vactor.com/service.



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