Build Your Own Automated Pellet Stove

Carl Dobrovolny sells parts to make your own pellet stove or to upgrade an existing stove to totally automatic operation. Parts include a Cycle Timer/Auger Control, Auger/Motor Assembly, and a Feed Chute.

"I've been playing around with pellet stoves since I built my first one in 1998," says Dobrovolny. "I decided to make the parts available so people can build their own."

A machinist with an engineering degree, Dobrovolny works on computer controls for a living. The first controller he installed in a pellet stove cost $500. The new controller he developed sells for just $129.99.

The CT1000 Timer/Auger Control uses industrial components and is thermostatically controlled. It's simple and easy to install, like a light switch.

"It allows you to control the amount of fuel plus the burn time," he says. "Many controllers on the market have a high, medium or low setting or just 1 to 5 settings to indicate the on and off intervals for the auger."

He points out that variability in quality and type of pellets affects efficiency and output with those standard settings. With his, the controller adjusts time and feed rate to optimize burn conditions.

Dobrovolny says there's nothing on the market like his AU-90 Auger/Motor Assembly, which has the ability to move up to 14 lbs. of pellets an hour, or 115,000 btu's. It has a standard flange mounting with a standard bolt pattern.

"You can make your own hopper and stand and attach it," says Dobrovolny.

Dobrovolny also makes a Feed Chute to work with the auger. "It also has a standard bolt pattern for mounting to a burner," he says. "If using with a burner, the Feed Chute mounts on the inside of the stove."

The auger/motor assembly is priced at $159.99 plus shipping and handling. The Feed Chute is priced at $19.99 plus shipping and handling.

Future plans include a new burner design for pellet stoves to be introduced this coming spring. Dobrovolny says it will burn up to 115,000 btu's efficiently.

"Most commercial pellet burners burn in the 30,000 to 40,000 btu range," he says. "That means my auger can't be used at its full output, and the control has to throttle it back. With my new burner design, the auger will be able to work at 100 percent capacity. It will be fun to get all the components together."

All three products are relatively new to the market and are still in experimental status. As a result, Dobrovolny direct markets them in the continental U.S. only. He hopes to introduce them to Canada in the near future.

Contact: FARM SHOW Followup, Bad Apple Automation, LLC, E3397 E. Harris Rd., La Valle, Wis. 53941 (sales@badappleautomation.com; www.badappleautomation.com).

Carl Dobrovolny sells parts to make your own pellet stove or to upgrade an existing stove to totally automatic operation. Parts include this Cycle Timer/Auger Control.

Mechanical Horse And Calf Help Train For Rodeo

A mechanical cutting horse and calf lets rodeo competitors train without tiring a horse or having to keep livestock. It also makes a fantastic attraction at fairs or horse events.

Lannie Ashley, a former rodeo cowboy, designed the system to simulate the cutting experience. Riders set the speed for their skill level and use leg pressure to move the horse along a 60-ft. track. The calf moves parallel with the horse.

"There are sensors on it so you can ride it like a real cutting horse," Ashley says, adding that his experience gives him an edge on creating a realistic mechanical horse.

He built his first mechanical calf about 15 years ago. It includes variable speed for a rider to practice with a cutting horse. It helped serious professionals train their horses without the expense of keeping cows.

In 2009, he introduced a prototype of the horse and refined it a couple of years ago when he paired it with the calf so the horse and calf run alongside each other on the training track.

It's perfect for serious competitors, says the Marshall, Texas entrepreneur.

"Cutting horses tire in 2 1/2 minutes so it's difficult to get enough practice," he says. With his mechanical setup and longer practice sessions, a cutter can get good in a few weeks.

Pricing starts at $20,000.

Contact: FARM SHOW Followup, Lannie Ashley, 1012 Stonewall Dr., Marshall, Texas 75672 (ph 903 926-7712; www.lannieashley.com).

Mechanical cutting horse and calf run alongside each other on a 60-ft. long track. It lets rodeo competitors train without tiring a horse or having to keep livestock.

Where To Buy All-Crop Combine Parts

If you need parts for an Allis Chalmers All-Crop combine, or if you want to buy or sell one, Tom Yasnowski can help. He runs a unique online business specializing in the beloved pull-types that were made from the 1930's through the 1960's. More All-Crops were sold during that time period than any other make of combine. Yasnowski's goal is to keep machines going.

"If I hear about a machine for sale or see a listing on one of the machinery websites, I pass it along to people who have contacted me looking for one," says Yasnowski. "There is no referral fee. I figure if they buy it, they'll need a part eventually."

Yasnowski says prices vary around the country. An All-Crop in the Midwest in good shape usually sells for under $1,000. Prices are higher on the East and West Coasts.

His referrals have helped build the business each year since he started in 2003, though it remains a sideline. It grew out of his own need for parts for an All-Crop he bought to use on his own hobby farm.

"I wanted to raise some wheat, and everyone told me the All-Crop was the best small combine," he says. "I couldn't find anyone offering parts, so I had to find them for myself. I decided to set up the site and started with three parts. I did $3,000 in business that year."

Since then Yasnowski has added hundreds of parts, some no longer available from either the OEM or aftermarket suppliers. He estimates his full parts list at around 300, including nearly 40 that he has had fabricated.

"Each year the parts list grows, and the number of parts I have fabricated grows," he says. "They include gaskets, seals and brass bushings."

Some parts are expensive to make, like the 15 5/8-in. sheave on the back side of the combine. It frequently gets banged up and needs to be replaced. The sheave is available stock, but not the hub. Yasnowski has hubs custom-milled to fit the sheaves.

One little part had a big cost. The grain elevator cup that carries grain into the tank was impossible to find.

"There was nothing on the market that small," says Yasnowski. "I probably spent $2,000 in tooling costs alone. Then in order to get a reasonable price per piece, I had to order a large lot. It may take me 10 years to sell them all."

In addition to parts, Yasnowski has started refurbishing All-Crop combines. After completing one and nearly completing a second, he's not sure there's a strong enough market.

"To completely refurbish a combine takes so much time that it's cost prohibitive for most people," says Yasnowski

The fact is, the old combines keep working. Yasnowski has more than 700 customers, from small hobby farmers to specialty crop producers, large farmers and the international corporation ADM. He has shipped parts to every continent but Asia.

One reason for the demand is All-Crops are still well regarded for their ability to thresh out a wide range of grains, beans and seeds. In fact, they are known to do a better job than modern combines, just not as fast. Large farmers tell him they park their big combines and get out the All-Crop to harvest clover and other small seeds.

Contact: FARM SHOW Followup, KAS, LLC, 314 Oak St., Sharpsville, Penn. 16150 (ph 724 383-4290 evenings only; www.allcropharvester.com).

Tom Yasnowski runs an online business specializing in pull-type combines that were made from the 1930's through the 1960's.