



Tank measures 5 by 5 by 4 ft. and holds two mini-bulk bags or pro-boxes. A 3-in. dia. vacuum hose is used to move seed.

Insulation Blower Powers Seed Handling System

Putting together a pneumatic bulk seed transfer system without an airlock proved to be a little more involved than Jim Hefner anticipated, but the Lima, Ohio farmer persevered.

“My idea was that if you could put seed into a pressurized tank, you wouldn’t need to have an air lock,” he says.

With that in mind, he welded together an airtight tank that measures 5 by 5 by 4 ft. He used 12 and 14 gauge sheet metal for the sides and reinforced the corners with 4 by 4 by 1/4-in. angle iron. He made a 2-ft. square lid and put rubber weather-stripping seals around the opening to prevent air leakage.

The tank, which holds two mini-bulk bags or pro-boxes (about 100 units of seed), sits on a frame made of channel iron. “The channel iron makes pockets, so we can pick it up with our forklift,” he explains. He transports the tank on a flatbed trailer.

Also mounted on the frame with the tank is a blower salvaged from an insulation blowing machine. The blower is powered by a new horizontal shaft Briggs & Stratton 5 hp gasoline engine. Rather than a belt drive, he used a Lovejoy coupler to attach the blower shaft directly to the engine shaft.

He uses 3-in. vacuum hose to move seed.

To make the system work, he decided he had to put some air back into the tank through the top. He installed a pop-off valve to keep pressure in the tank from rising above 5 psi.

“We added a T and a throttling valve in the line just below the tank and, using a small hose, put one to two lbs. of pressure in through the top of the tank. That gets the seed flowing,” he explains. Seed drops out of the tank into the 3-in. dia. hose below. Just 2 to 3 lbs. of pressure, in high volume will pump 4 to 5 bags of seed per minute.

He’s found that with his system, he doesn’t need a cyclone at the end of the hose as some commercial systems have. “We decided to try it without one at first and it worked fine,



Blower is powered by a 5 hp horizontal shaft gas engine.

so we felt there was no need to add that weight to the end of the hose,” he says. “You need to keep the end of the hose at or below the surface of the seed box because seed comes out with some speed.”

While it saved him a lot of time and effort at planting time last year, Hefner thinks the design could be improved.

“If I did it again I’d make the tank cylindrical rather than like a cube with square corners. This one begins to bulge a little when we turn on the air. A round tank will empty out a lot easier, too,” he says.

Hefner says he might make a multi-compartment tank, too, so he could have more than one variety of seed available in the field.

He’d also like a remote switch on the operator end of the hose, so he wouldn’t need a second person to turn it on and off. “Right now, it’s still a two-man operation,” he admits.

“And the next one will probably have its own running gear, so we wouldn’t have to set it on and off the trailer,” he says.

Hefner says his actual out-of-pocket was under \$500 for the seed handling system.

Contact: FARM SHOW Followup, Jim Hefner, 7375 Harding Hwy., Lima, Ohio 45801 (ph 419 225-9743; fax 419-222-7117).



Imported mini-trucks are equipped with 4-cylinder diesel engines. Eight different models are available, with prices starting at \$7,500.

Imported “Mini Trucks” An Alternative To Bigger ATV’s

On display at the recent Sunbelt Expo near Moultrie, Ga., was a line of imported mini-trucks equipped with 4-cylinder diesel engines. The King Agro Mini-Vehicles are available in eight different models with payload capacities ranging from 2,200 lbs. to 6,600 lbs. The trucks are assembled in Asia.

King Agro representative Nathan Gallatin says the trucks are a good alternative to Deere Gators and Kawasaki Mules because they have a much higher carrying capacity.

“Overseas these trucks are used as basic transportation, but here, because of strict Department of Transportation standards regarding air bags and impact beams, they’re

for off-road use only,” says Gallatin. “They offer superior style, comfort, reliability, and affordability and can be driven either short or long distances. The trucks hold two to five passengers depending on the model. We provide a full parts warranty for one year or 10,000 miles. A good supply of parts is available for immediate shipment.”

The trucks start at \$7,500.

Contact: FARM SHOW Followup, Nathan Gallatin, King Mfg. Group, 16580 NW 10th Ave., Miami, Fla. 33169 (ph 800 832-5464 or 305 625-4500; fax 305 621-7200; E-mail: nathan@kingintl.com; Website: www.kingminitruck.com).



Tow-behind bale accumulator hitches to baler and lets you group bales in threes. It automatically unloads bales out the back.

Round Bale Accumulator Saves Loading Time

This new tow-behind round bale accumulator hitches to the baler and fills up with a load of round bales, then automatically unloads the bales out the back.

It lets you group bales in threes, which reduces time spent retrieving bales from the field.

The machine is equipped with a stationary deck that tilts backward and has a loading arm on front and an unloading gate on back. Both the loading arm and unloading gate operate off tractor hydraulics.

As the baler’s tailgate opens, the loading arm automatically drops down to the ground. The baler then ejects the bale onto the loading arm, which lifts it onto the deck. The bale

rolls by gravity to the back of the machine. The procedure is repeated for the next two bales. To unload bales, the unloading gate is lowered to the ground and the bales roll off.

The accumulator is designed to fit only Deere balers at the present time. However, the company says it’s working on models to work with other brands.

Sells for less than \$6,000. A two-bale model is also available. It sells for less than \$5,700.

Contact: FARM SHOW Followup, Kelley Mfg. Co., 80 Vernon Drive, P.O. Drawer 1467, Tifton, Ga. 31793 (ph 800 444-5449 or 229 382-9393; fax 229 382-5259; E-mail: info@kelleymfg.com).

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