

New Ventilation System Captures Waste Heat

Thanks to this new heat exchanging ventilation system, you can now ventilate your shop or other farm building without losing as much heat.

The “Keep The Heat” heat exchange system was on display at the recent Iowa Power Farm Show. Instead of exhausting inside heated air out of the building, like conventional exhaust systems, it uses a double fan system and plastic tubing to capture heat before it leaves the building. The system has been used mostly by industrial and commercial facilities such as welding shops, machine fabrication shops, and municipal garages, but the company says it has a place in farm shops, too.

The system uses a turbine fan to force fresh air into a system of corrugated tubing encased inside a 20-ft. ventilation duct. A big double tube system mounts outside the building. Fresh air from the outside enters in through the top tube and is forced into the corrugated tubing, and then into the building interior through pvc tubing. A second fan pulls exhaust air through the bottom tube and out of the building.

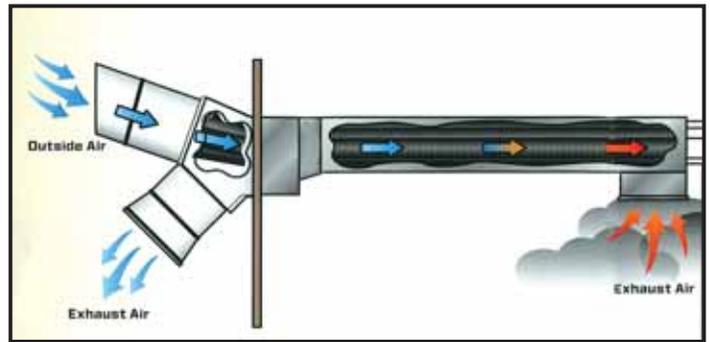
“The exhaust fan draws the contaminated air across the corrugated tubing and then

blows it outside the building. At the same time it warms the fresh air flowing through the tubing and into the building. That’s why we call it an air-to-air heat exchanger,” says owner Kevin Stibal.

“It does a great job of removing welding smoke, diesel fumes, carbon monoxide, and so forth. However, most of our farm customers use it in shops that have partitioned wash bays, which they use to clean semi trucks and trailers. Using pressurized hot water to clean the trucks creates a lot of humidity that can cause machinery to rust. Also, the humid air costs more to heat than dry air. If they open up the doors to get rid of the humidity, they lose a lot of heat. Our air-to-air heat exchanger gets rid of the humidity without getting rid of the heat.”

The Keep The Heat air-to-air heat exchanger sells for \$6,800 plus shipping. “The system includes everything you need except for the wall-mounted pvc tubing,” says Stibal.

Contact: FARM SHOW Followup, Kevin Stibal, 205 North McKenzie Lane, North Liberty, Iowa 52317 (ph 319 358-7794; kevin@keeptheheat.com; www.keeptheheat.com).



Heat exchanging ventilation system uses a double fan system and plastic tubing to capture heat before it leaves the building.



A turbine fan forces fresh air into a system of corrugated tubing encased inside a 20-ft. ventilation duct.



Intelligent Engine Tuner Boosts Diesel Horsepower

“We can really help farmers gain more power from their equipment while saving fuel when they install Intelligent Fuel Technology from Steinbauer,” says Bryan Haugen, who along with two partners operates under the company name Trackfarmer.com.

Haugen says Steinbauer is an easy-to-install electronic booster that can increase horsepower output by 20 percent or more on diesel engines built after 1995. “Basically the product is a plug and play system that monitors the engine under load and electronically optimizes the fuel injection system. When more power is needed, it opens the injectors longer so more fuel goes in. We have customers who are using them on 500 hp. tractors and dropping fuel consumption by 4 or 5

gal. per hour.”

Haugen says a Steinbauer system doesn’t require re-programming of an engine’s ECU and that it doesn’t leave an electronic imprint in an engine’s data log.

“We’ve had excellent response to Steinbauer systems on tractors, combines, sprayers and even diesel trucks,” Haugen says. “The product allows precise fuel control throughout the full rpm range of the engine and adds pulse width to the injection signal when more fuel is needed. It doesn’t change engine timing and doesn’t interfere with common rail pressure or the factory ECU.”

Contact: Bryan Haugen (ph 320 533-0190), Nick Harker (ph 574 870-4437), or Larry Roed (ph 218 431-1454) www.trackfarmer.com.

Homemade “Slip Clutch” Keeps Lawn Mower Going

Ordinarily when you’re mowing your lawn and the blade hits a solid object such as a rock, the blade will stop instantly, most likely ruining the blade and bending the crankshaft. Then you either have to buy a new mower or pay a pretty penny to have yours fixed.

Roy Dillahunt came up with a preventive solution by making a slip clutch for the blade out of “compressible” washers.

“The idea is that if the blade hits something and suddenly stops, the crankshaft will slip a little and won’t get bent,” says Dillahunt. “I’ve used a product called Bakelite for the washers, which is a plastic made from synthetic components. Bakelite can be hard to find but I think

other kinds of compressed material, such as 1/8-in. thick wall paneling, would also work.”

He removes the hold-down nut, metal washer, and blade from the crankshaft. Then, using one of the washers as a pattern, he makes 2 washers out of the Bakelite. “After installing the washers on top of each other, I replace the nut on the bolt.

“If the mower blades accidentally strike a hard object, the crankshaft will slip a quarter or half turn or even a full turn to keep the crankshaft from bending.”

Contact: FARM SHOW Followup, Roy A. Dillahunt, P.O. Box 367, Pullman, Wash. 99163 (ph 509 432-1030).

Soap Jug “Concrete Mixer”

FARM SHOW reader Damian Lakatos recently sent photos of what he calls a one-time use “messy jug”. It’s just a big liquid laundry detergent jug with one side cut out and the handle still attached.

“It comes in handy for quick, messy jobs when you need to mix something in small amounts,” says Lakatos. “It works great for mixing up a batch of concrete or mortar, as I can hold onto the handle while stirring the mixture.

“I came up with the idea when I had to pour a cement slab for my generator to set on. Once I was done, I just threw away the jug. No messing cleanup afterwards.”

Contact: FARM SHOW Followup, Damian Lakatos, Johnstown, Penn. (ph 814 915-0473; damian@floodcity.net).



Big laundry detergent jug has one side cut out. Lakatos holds onto jug handle while stirring the concrete.

System Keeps Track Of Fuel Usage

Farmers can now manage remote fuel tanks with a Petro Vend 100 (PV100) Fuel Control System. Designed for quick and easy installation, the PV100 gives you the ability to restrict fuel to authorized users. The system controls up to 4 hoses for mechanical pumps and requires a pin number to access fuel.

The PV100 records the exact amount of fuel dispensed by each user.

“The PV100 system is a cost-effective way to secure fuel tanks and keep track of all fuel usage,” says Bobby Hayes, domestic sales manager for Dover Fueling Solutions. “It reduces bookkeeping expenses and helps manage costs without extra manpower.”

The Petro-Vend system can be customized to existing tanks or easily adapted to new tanks as user needs expand. Contact Dover Fueling Systems to locate a sales distributor and get pricing information.

Contact: FARM SHOW Followup, OPW FMS, 6900 Santa Fe Drive, Hodgkins, Ill. 60525 (ph 708 485-4200; www.opwglobal.com/products/us/fuel-management-systems)



Petro-Vend Fuel Control System records the exact amount of fuel dispensed by each user.