

Easy-To-Install DIY Wall Heating Kits

Installing radiant heating within the walls of a home during construction or remodeling can increase comfort, reduce moisture problems caused by high humidity, and lower heating bills. Do-it-yourself kits come with all the required parts.

Robert Starr, Radiantec owner, says up to 50 percent or more of material and installation costs can be saved when work is done using a DIY kit. Additionally, an expensive boiler isn't needed for any of their systems. A regular domestic water heater will do the job.

"We assess a customer's needs, design the most cost-effective and energy-efficient system, then ship all the necessary components, including an easy-to-understand manual," says Don Vance, Radiantec design engineer. "Kits are preassembled and pretested. All our tubing, pumps, gauges, and manifolds are ready to install using only basic tools."

Control manifolds are easily positioned near the water heater using supplied bell hangers.

Pex tubing installation is simple as foam insulation sheets are placed between studs with the reflective side facing the heated area. The tubing is then looped within the cavity of the wall space through holes drilled in the studs.

Preformed aluminum fins are wrapped around the tubes with some of the fin in contact with the stud and some contacting the air. It's recommended that about half of the heating tubes are covered with the fins.

Once all the wall space has been filled, the



PEX tubing is looped through holes drilled in wall studs.

tubing can be routed back and connected to the manifold with compression fittings.

Radiantec recommends pressure testing of the tubing using the supplied testing kit as they stress the time to find potential issues is before you put in the plates, barriers, insulation and sheetrock. Any air compressor will work to complete the test.

Vance says if a customer experiences problems before, during or after a job is completed, Radiantec is always available with experienced free advice and technical services.

Prices vary based on the heat source and area to be covered. Contact Radiantec direct for more information.

Contact: FARM SHOW Followup, Radiantec, P.O. Box 1111, Lyndonville, Vt. 05851 (ph 800-451-7593; info@radiantec.com; www.radiantec.com).



Boehringer Ingelheim's research has shown the system can detect coughing up to 5 days earlier than by humans alone.

Sound Sensor Detects Swine Disease

When pigs cough, SoundTalks listens and alerts swine barn operators. The sound analytics system uses a Wi-Fi mesh network of six microphones per monitor to provide 24/7 respiratory disease detection. SoundTalks sensors also monitor temperature and humidity.

SoundTalks from Boehringer Ingelheim uses artificial intelligence analysis of more than 350 years (equivalent) of sound recorded in swine barns. The resulting algorithm has been validated in swine barns around the world.

The system has a high sensitivity for detecting early symptoms. Since it's recording 24 hrs. a day, it can register the intensity of coughing during the resting phase when producers aren't present.

Designed for plug-and-play in a harsh environment, it's easy to install and maintain.

The system alerts operators with a traffic light system of red/yellow/green LEDs within the barn, as well as by app on a smartphone.

Users note that SoundTalks has indicated disease outbreaks previously undetected. Boehringer Ingelheim's research has shown the system can detect coughing up to 5 days earlier than by humans alone. This allows earlier treatment and potentially less use of medication with better outcomes.

SoundTalks is currently in use in at least 15 countries on four continents, including the U.S. and Canada. Pricing is available from Boehringer Ingelheim sales representatives.

Contact: FARM SHOW Followup, Boehringer Ingelheim Animal Health USA, 3239 Satellite Blvd. NW, Duluth, Ga. 30096 (ph 800-325-9167; www.bi-animalhealth.com/swine/ihm/soundtalks).



If the tank goes dry for some reason, the accelerometer sensor sends a message when the Water Rat tilts 30 degrees through a SIM card. It also sends two messages daily that all is well.

Simple Water Tank Level Monitor

A few Nebraska ranchers are using an Australian water tank monitor they discovered at last year's Husker Harvest Days. Like Nick Seymour, the Australian inventor, the ranchers know through cellphone alerts that their cattle always have water.

Seymour developed the "Water Rat" with one priority in mind - keep it simple. And it is. Move a magnet on the outside to turn on the enclosed switch of the completely sealed device and throw it in a water tank. Ballast keeps the bobber-like unit upright when floating in water. If the tank goes dry for some reason, the accelerometer sensor sends a cell message when the Water Rat tilts 30 degrees. It also sends two messages daily that all is well.

"If you have a deeper body of water, you can tie it to a tether at the distance you want it to alert you," Seymour adds.

He initially created it to help his father operate a cattle ranch in Australia. There are other monitoring options for big holding

tanks, but solar pumps can quit, and lines that fill the water troughs can get plugged or break. The Water Rat has GPS and can be moved to different tanks whenever the cattle are moved. Seymour notes that cattle are initially curious about the device and lick and push it, but they can't really damage it. The Li-Soc12 battery inside lasts 1 to 2 years.

The Water Rat costs about \$400 USD, and each device requires an annual cellular subscription (\$100). Seymour is setting up a dealer network in North America that'll be available through his website.

"People like the Water Rat because they can go away from the farm and have no worries about their cattle having water," Seymour says, and it saves time and energy by eliminating the need to check water tanks every day.

Contact: FARM SHOW Followup, Farmo, Suite 16 / 7-9 Leeds St., Footscray Victoria 3011 (ph 03 9854 6432; help@farmo.com.au; www.farmo.com.au).



Shoulder Shot launcher uses compressed air to shoot a safety line as high as 250 ft.

Shoulder Shot Shoots Safety Ropes

The Shoulder Shot from DTX Tooling is a fast and accurate tool for securing safety ropes, whether up a tree, over a roof, or climbing a tower. Unlike conventional launchers, no black powder is needed.

"We were making and marketing pneumatically powered bait cannons for surf fishing when black powder power was banned due to wildfire danger," recalls Malcolm Dooley, DTX Tooling. "We were contacted by several major utilities asking if we could make a safety rope launcher. We developed the Shoulder Shot, and the business took off overnight."

"The arbor industry is probably our largest customer base," says Dooley. "However, we also sell Shoulder Shots to rescue departments, the U.S. Navy and Coast Guard, as well as to a variety of customers in Canada and Europe."

Rooftop solar panel installers are a growing market for the Shoulder Shot, as are homeowners wanting to climb onto their roofs safely. "There's no better way to safely access a roof than bolting something to it," says Dooley. "Simply site over the roof, tie

the rope to an anchor on the other side, and connect the rope to your safety harness."

The Arborist Shoulder Shot shoots a 12-oz. bag up to a 250 ft. vertical distance with high accuracy. A lightweight throwline is attached to the bag. Once it reaches its targeted position, it's attached to a heavier safety rope, which is then pulled into place.

The more powerful Compact Cannon and Cannon Launcher can reach even greater distances, both vertical and linear.

All three units have a spring-loaded safety on the valve release to prevent accidental misfires. Recharging the air chamber on the Shoulder Shot can be done with a handheld air pump or a portable CO2 tank. The larger units come with a DC-powered compressor for recharging.

DTX sells the line launchers through distributors. Prices vary. Forestry Suppliers sells the Arborist Shoulder Shot Tree Toppler for \$212.95.

Contact: FARM SHOW Followup, Malcolm Dooley, DTX Tooling (ph 512-939-4299; Malcolm@DTXTooling.com; www.dtxtooling.com).