

# “Smart” Tankless Water Heaters

Early model tankless water heaters failed to impress most U.S. consumers. But the latest new “smart” tankless water heaters appear to be changing all that.

“The older ones were more like a barbecue grill where the water ran on top of it,” says Gene Sola, owner of EZ Tankless, based in Fowler, Ind. “Newer models are more like a fuel-injected car. Units are computerized so they are smarter.”

There’s no pilot light, they self ignite, and the flame adjusts according to water volume. Models in the \$500 range can supply enough hot water for two showers running all day long.

In addition to the natural or LP gas supply, they only require 2 amps at 120V AC to run the exhaust fan and computer. Installation is easy, too, with a dual-chamber 4-in. forced air intake and exhaust pipe.

EZ Tankless also has battery-ignited outdoor models (pictured) starting at \$165 for camping, hunting cabins, or other remote areas without electricity.

To ensure the tank’s life of 20 years or more, Sola recommends filtering the water going into it. His website includes detailed information and videos of how to filter water, as well as how to install and maintain the tankless system.



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Reader Inquiry No. 85

## He Drills Cover Crops While Combining

By Jim Ruen, Contributing Editor

Max Pitt gets seed-to-soil contact planting cover crops with drill units mounted on a 9600 Deere combine. The Graceland University agricultural professor is on his second-generation prototype. It has worked well enough to apply for a patent on what he calls his Drill Combine.

The goal is a cost effective method of planting cover crops. His concept is an alternative to broadcasting from a combine, or making a separate pass with a tractor and drill requiring time and fuel.

“I figured we could use the combine to carry drill components and get better seed-to-soil contact,” explains Pitt. “I hoped we could get a better stand with less seed.”

Last November Pitt drilled rye at 30 and 50 lbs. per acre rates using single coulters. “Five months later we had between 600,000 and 800,000 plants per acre,” reports Pitt. “This fall we are testing 25 and 30-lb. rates of rye and also seeding about 6 acres to pennycress seed at about a 5 lbs. per acre rate.”

Pitt’s first Drill Combine used a Montag Mfg. seed tank and metering system. Its 30-cu. ft. tank was sufficient for about 50 acres drilling at this year’s lower rye rates. The tank mounts on the front axle.

He had toolbars fabricated by local welder/fabricator Steve Rollins. He used 4-in. square, 1/4-in. steel tubing for a 15-ft. bar mounted to the rear axle. It carries 12 single disc coulters on 15-in. spacing.

Six-ft. toolbars were mounted to each end of the 30-ft. soybean header. They carry 6 coulters each.

“Steve used steel pipe for the front toolbars that rotate inside sleeves attached to the header,” says Pitt. “This required a modified coulters mount, but it allowed me to raise and lower the drill units separate from the soybean header. This would be important if harvesting in wet conditions.”

Each pair of coulters was fed by a 1 1/2-in.



A 15-ft. toolbar with single disc coulters mounts on combine’s rear axle, with 6-ft. toolbars mounted to each end of the 30-ft. soybean header.

flexible tube carrying seed from the Montag unit. The coulters loosened the soil and mixed the seed with it.

“I used old Deere drill openers, because they were the lowest cost coulters I could find,” says Pitt. “They created enough disruption in the soil that the seeds blowing in created seed-to-soil contact, with the residue spreader creating a degree of mulch over them.”

On his latest Drill Combine prototype, Pitt went with double disc coulters from Sunco Farm Equipment. He expected and has seen a much-improved seedbed.

“I’ve been very pleased with how they work,” he says. “You don’t want to drill too deeply, but better on the soil than on top of a leaf or other residue, as with simple broadcast systems.”

Pitt stayed with the Montag system. He notes that Montag has a long history of precision metering and placement of fertilizer.

Another change made this year was to adapt the Drill Combine to corn harvest. Instead of a dual rear/front system, Pitt is using 18 coulters on the rear toolbar to match



A 30 cu. ft. Montag seed tank mounts above the header on the right side.

his 8-row harvest swath. He lengthened the toolbar by adding 3-ft. hinged wings to each end. He moved 2 sets of double disc coulters from the front toolbar to the back and added 2 more. This covers the 8 rows with one coulters to either side of them. With the 4 sets of coulters on the soybean header, he still covers its 30-ft. width.

Pitt notes that his experimental units would not have been possible without the support of the Iowa Dept. of Ag, Montag Equipment, and Sunco Farm Equipment.

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