

## Money-Saving Repairs & Maintenance Shortcuts



Not much bigger than an old-time radio, all the Multiplaz 3500 welder needs is 110 or 220-volt current, water and alcohol.

### First-Of-Its-Kind Welder Uses Water And Alcohol, Not Gas

By Jim Ruen, Contributing Editor

MIG, TIG and stick welders are all good ways to work with steel but once you try the new Multiplaz 3500, you might never go back to them. Not much larger than an old-time radio, all it needs is 110 or 220v current, water and alcohol. It can weld, solder, braze, and harden steel, aluminum, copper, cast iron, bronze and other metals. It'll also cut any metal, including high-alloy and stainless steel, as well as ceramic tiles, quartz glass, bricks, and concrete.

"There's nothing it can't do that other welders can," says Patricia Lewis-Hansen, Multiplaz. "It comes with two torches, one for cutting and the other for welding. It can cut 3/16-in. steel on 20-amp, 110v current and 3/8-in. steel on 220v current. On 220v current, the welding torch can do gas welding, brazing and soldering on mode 1 and TIG, MIG and stick welding on mode 2. If you don't have 220v outlets, an optional cable combines the current from two 110v outlets. It also works with any portable generator 4,000 watts or higher."

No helmet is needed with the Multiplaz, though sunscreen and goggles are recommended. The only consumables required are water and alcohol, which are mixed in specific ratios for specific uses. For example, a 50:50 ratio is recommended for welding steel. A full day of welding uses only two cups of alcohol.

"The manual is like a cookbook," says Lewis-Hansen. Instead of buying gas, you mix alcohol and water, load it into the torch and start welding."

The Multiplaz has been marketed in Europe for the past 9 years and just recently became available in North America. Lewis-Hansen reports the first-of-its-kind welder is being distributed to the construction industry by Whitecap Industries and to the retail market

by multiple major retailers, including Tractor Supply Company, starting later this year. However, the company is still looking for qualified resellers.

Originally developed by a Russian physicist for use on orbiting spacecraft, the Multiplaz creates its own vapor from the carbon in the alcohol interacting with the electric arc. Because it doesn't use inert gases, it can be used in unventilated areas. It can even be used in the dark because the tip illuminates the work area.

"Plumbers love it because they don't have to purge the lines. They simply shut the water off and work," says Lewis-Hansen. "If low heat is needed, they can switch the welding torch to Mode 1 and turn the current up or down as they need more or less heat. For high heat, switch to Mode 2 and turn up the power. At 14,400 degrees focused in a tight beam, it's the hottest welder on the market."

Multiplaz users report it can replace welders, gas torches, plasma cutters, nibble shears, scissors, electric jigsaws and more. The unit, which sells for \$2,000, comes in its own carry pouch the size of a large gym bag.

"Don't let its size fool you," says Lewis-Hansen. "It's a very capable machine. If you look at the cost alone and not the value, you might say it was expensive. Those who have looked at the alternatives for what it can do tell us it's worth every penny."

An instructional DVD has been developed for customers. For a look at what the Multiplaz can do, check out the video at FARMSHOW.com.

Contact: FARM SHOW Followup, Multiplaz, LLC, 1625 17th St., Suite 5, Santa Monica, Calif. 90404 (ph 310 314-5551; toll free 855 314-5551; [www.multiplaz.com](http://www.multiplaz.com)).



Welder comes with 2 torches; one for cutting and the other for welding.

### Uses Expanding For Power Boost Chips

By Lorn Manthey, Contributing Editor

"Horsepower-boosting engine chips used to be a novelty for high performance tuning," says Chris Nielsen of Farmington, Minn. "But in recent years the technology has made big advances and now just about anyone can use them to gain extra horsepower."

Nielsen used to overhaul and rebuild tractor-pulling engines, so he's no stranger to ways of ramping up horsepower. He says that today's chips make it easy to get 10 to 20 percent more power without modifying fuel injectors or tearing an engine apart to rebuild it. Here is a recap of the latest new chips on the market:

**Illinois Dyno Center** is a 10-year-old company that specializes in high performance parts, installation, dyno-tuning and complete "turn-key" performance packages. IDC has diesel tuning kits for pickup trucks, semi tractors, agricultural tractors, combines, sprayers and choppers. Kits are specific to engine size, horsepower and serial number. The company's website allows selection by products, by equipment or vehicle brand and model number or by engine size. Prices range from under \$500 to more than \$900 for larger engines. IDC says its products will increase fuel economy, produce more horsepower, and clean up exhaust. Some chips will allow power boost increases of 15 to 45 percent.

Contact: FARM SHOW Followup, Illinois Dyno Center (ph 309 523-9200; [www.illinoisdynocenter.org](http://www.illinoisdynocenter.org)).

**Schlagel Manufacturing** of Torrington, Wyo., began making tillage equipment in 1994 and quickly expanded into a wide range of other farm machinery, including power chips for Deere diesels. They sell chips that plug directly into the wiring harness of the fuel injection pump and boost horsepower by 10 to 30 percent. Chips are available for 8000 and 9000 Deere series tractors, 9000 to newer Deere combines, sprayers, windrowers and forage harvesters that have 6.8, 7.6, 8.1 and 9.0-liter engines. The chips sell for \$440.

Contact: FARM SHOW Followup, Schlagel Manufacturing (ph 888 889-1504; [www.schlagel.net](http://www.schlagel.net)).

**Superchips, Inc.** is a Florida company that started selling performance chips in 1983 for tuning automotive engines with fuel injection systems. Over the years, its products have evolved into chips for high

performance racing, diesel trucks and farm equipment engines. The newest product from Superchips is a wireless-controlled, tablet computer-based tuning device called Vivid. It has a 4.3-in. high resolution touch screen with touch-sensitive icons that allow engine monitoring and tuning. The device connects to the diagnostic port of your vehicle, tractor or combine. The Vivid goes way beyond engine tuning because of its Android technology. Hundreds of downloadable apps let you store and play music, upload photos, access the internet, GPS, and many other functions. The engine tuning capabilities will improve mileage, increase horsepower and diagnose regular engine functions. Prices for Superchips products range from \$100 for basic products to several hundred dollars for models that are "feature loaded".

Contact: FARM SHOW Followup, Superchips, Inc. (ph 800 227-2447; [www.superchips.com](http://www.superchips.com)).

**TS Diesel Performance** offers chips for diesel pickups, semi tractors, combines, agricultural tractors, cotton pickers, choppers, farm sprayers and a wide range of construction equipment. TS Chips can be installed in 30 min. and the company says they will provide up to 15 percent fuel savings with up to 30 percent more horsepower, as well as increased torque and lower exhaust gas temperature. Horsepower and torque gain is adjustable on the go. The TS website matches its products to the brand and model of the machine or equipment and cross-references them by engine type. Prices are typically in the \$500 to \$600 range and the manufacturer sells the chips direct.

Contact: FARM SHOW Followup, TS Diesel Performance (ph 877 696-4370; [www.tsdiezelperformance.com](http://www.tsdiezelperformance.com)).

### Easy Way To Rewire For Deere 40/50 Series Starters

If you have starter problems with a 2940 Deere tractor or other 40 and 50 series tractors, Don Stewart has a suggestion. He rewrites the starter circuit with low cost auto parts.

"Deere 40 and 50 series tractors from the 1970's can develop corrosion in the instrument panel that drains energy to the starter solenoid," explains Stewart. "You turn the key, and the starter just clicks. It doesn't engage. There isn't enough power getting through to the solenoid."

Initially Stewart ordered a kit from Deere for close to \$70. After looking it over, he realized he could use an off-road light relay kit with a 30-amp fuse. They commonly cost \$5 or less at auto parts stores.

Installing it was easy. He wired it between the safety start switch and the solenoid. He then brought a fresh 12V power cable to the relay from the battery.

"It only takes a few amps to kick the light relay in, and then the power can flow from the

battery to the solenoid," he says. "The clean power to the solenoid engages the starter."

Stewart warns against bypassing the key and safety start switch altogether as he hears some have done. "You don't want to hit the starter and have the tractor start moving," he notes. "The light relay kit gives you clean power, but retains the safety feature."

Finding a lower cost way to fix his equipment is just good business to Stewart. He rebuilds hydraulic cylinders with common O-rings and other parts purchased from a local supply house. He admits it can be challenging to get the right part.

"Sometimes it's worth it to buy one kit from the dealer, just to get the comparable numbers for parts," says Stewart. "Then you can go to an industrial supplier for additional replacements."

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