

Centrifuge Gets Used Oil Clean

Don't burn or throw out dirty oil when you can clean it and use it to safely run diesel motors. You can clean a gallon of old oil at a time or clean old oil continuously 24/7 with centrifuges from US Filtermaxx.

"We've powered our shops for 18 months straight burning used oil in our diesel generator," says Steve Chastain, US Filtermaxx. "We have 4,000 hrs. run time without a problem."

Chastain first got involved with waste oil about 10 years ago when his house was without power for a week. "To save money we started blending used motor oil with diesel, but realized it needed to be clean."

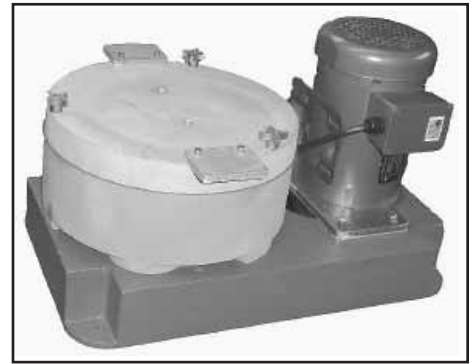
The answer was a centrifuge. He tried different commercial products before deciding to build his own. "I feel we have them perfected now with a very high gravity force and cleaning to submicron particles," says Chastain. "We build them like a tank, heavy and nearly indestructible. The motors are designed to run at only 1,800 rpm's for longer life."

His centrifuge can clean from 10 to 40 gal. per hour, depending on the weight of the fluid and how dirty it is.

While the basic centrifuge bowl is the same in the US Filtermaxx models, with a capacity of slightly less than a gallon, the drive units vary. The speeds and resulting G-force changes from one model to another. The company offers 2,400G, 3,000G and variable speed 10,000G models.

Chastain is offering the 3,000G centrifuge with a 1 1/2 hp motor for \$1,500. Prices go up with the complexity and G rating of the system. A 6,000G with variable speed programmable controller and in-line oil heater is priced at \$3,339. Options include pumps, heaters and more. Automatic controllers allow the units to cycle and drain sludge, cleaning up to 1,000 gal. per day.

The centrifuges are designed to fit over a 55-gal. drum or can be placed inline between dirty oil tanks and clean storage tanks in an automated system. Systems vary depending



Centrifuge cleans dirty oil so you can use it to safely run diesel engines. It can clean from 10 to 40 gal. per hour.

on the need.

Chastain suggests blending cleaned oil and gas 80:20. Diesel fuel can be blended at 80:20 to 50:50 rates.

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Reader Inquiry No. 77

"No Clog" Easy-Clean Drop Nozzle Filters

The only thing better than an easy-to-clean drop nozzle filter is one that is almost impossible to clog. That's what Gerald Beer, American Agriculture Products, came up with on his farm near Guymon, Okla.

"When I switched from flood irrigation to center pivots, I got an education in cleaning sprinkler nozzles," says Beer. "It takes time to walk the length of a sprinkler to clean filters. If you don't keep them clean, a drop nozzle can clog up, and before you know it, the crop is stressed or dying. It's not a job I enjoy doing, so I started working on an alternative."

What Beer came up with was a filter to fit between the hose and the regulator on drop nozzles. The hard plastic screen has 540 5/64-in. holes in it.

"The popular #9 Nelson nozzle orifice for drop tube nozzles is also 5/64-in.," notes Beer. "You could plug up all but one hole in the filter and still have enough water flowing through to maintain your water pattern in the field."

Beer estimates his filters will only need to be flushed clean once a year on most irrigation systems. Even in cases where water carries heavy loads of sand and sediment and more frequent flushing is needed, it's easy to do.

"Just push up the small release valve on the side of the filter," says Beer. "The water pressure will quickly flush out the sediment."



Filter fits between the hose and the regulator on center pivot drop nozzles (left). To flush out sediment you just push up a small release valve on side of filter.



Beer is confident his filter will last a lifetime. The UV protected plastic filters have been tested at pressures as high as 150 psi. Made in Dallas, Texas, the filter uses the same hard black plastic as is used for drop nozzle regulators.

"I have regulators that have been in place for 20 to 25 years," says Beer. "I expect the filters to last at least as long."

While regulators and hoses can suffer winter damage if left undrained, that's not a problem when Beer's filters are installed. An unexpected benefit of the release valve is its auto-drain feature.

"We didn't know it when we designed it, but when the water pressure shuts off, the valve releases on its own," relates Beer.

"The hose and filter drain out completely, and water is sucked back up out of the regulator."

Beer's American Agriculture Products is selling filters for \$20 each in boxes of 50. Currently he is selling them direct with a flat shipping rate of \$25 per box. Filters can be ordered by phone or via the company website.

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