

# A FIELD TEST

## CAMEL MINING DESERT FOX

By Kevin Hoagland

### DESERT FOX OFFERS CLEVER DESIGN, YET SIMPLE BEAUTY

*Camel spiral panner lives up to its reputation for fine gold recovery*

Desert Fox Spiral Panner

It's interesting how every now and then I come across a piece of equipment that I've taken for granted for so long I forget others are just becoming aware of it or have no knowledge of it at all.

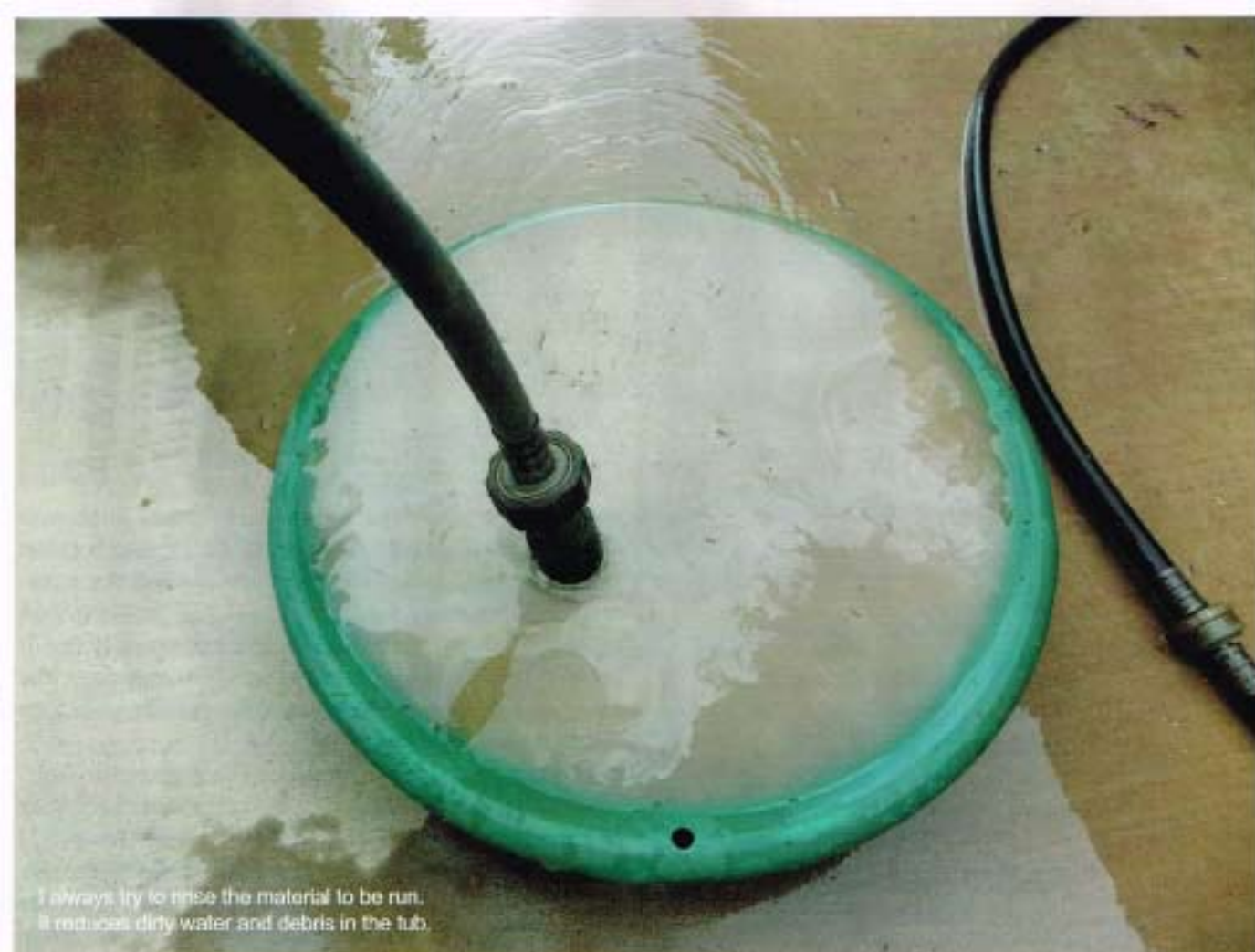
I've owned a Camel Desert Fox spiral wheel unit since the early 1990s, so when I was asked to review and test one, it was easy to say yes to visiting an old friend. What I didn't expect were the innovations that have improved the Desert Fox over the years.

A side-by-side product comparison came to mind — an old versus new if you will, but then I dropped the idea. It's not about comparing the past with the present. But, if you do have an older PVC frame model of the Desert Fox, then keep reading. The first major difference I noticed was the double-walled spiral wheel. Having a more rigid wheel assembly is a major plus when using these types of systems, not only for more precise setup and gold recovery, but because it will offer more years of trouble-free use.

Unpacking the container was simple, and for those of us that spend little time looking at the way something comes out of a container, the folks at Camel have included a photo in the manual to show you how to repack the unit to be travel-ready in just a few seconds. This is a great addition since just one wrong part here or there will







I always try to rinse the material to be run.  
It reduces dirty water and debris in the tub.

cause you to sit and stare at the container trying to figure out how it all fit together in the first place.

The Desert Fox still ships in a familiar Action Packer case that is the storage, transport and water container unit all in one to provide excellent protection for the Fox while giving you a true compact recirculating unit that can easily be transported on the front of a quad or in the back of a side-by-side.

#### Assembly is easy

In the container, you will find:

- A-frame with variable speed drive motor connected as one unit.
- 7 lead 12.5-inch double wall spiral recovery wheel
- Adjustable water spray bar
- Tailings catch tray
- 12-volt 750 GPH pump and flow hose from pump to spray bar
- Instructions, recovery cup, nylon stocking for the pump and a small sealed bag of flow sand, black sand and gold. (Look very closely to see the three to four specks of gold. These specks of gold are what has made Camel Mining famous since the 1960s.)

After removing the components of the Desert Fox

out of the container, setup takes just a few moments. The wheel frame is a single-point A-frame that sits perfectly in place in the container and allows you a stable, easy-to-set-up base for the spiral unit. The A-frame construction also allows the unit to be set up directly in a stream or pool. This feature is advantageous if you're prospecting and performing your final recovery in an area near water because there is no need to carry water to the field.

The unique feature of the Camel Desert Fox is that it's self-contained, and has been since Day One. Setup is fast and convenient. Just open the lid, remove the unit parts, stand the A-Frame in the container, lift the drive unit to a beginning angle, slide the double-wall wheel into the slot on the drive motor, attach the spray bar, fill with water, hook up to a 12-volt power supply, and after a couple of fine tuning adjustments, the Desert Fox is ready to start running concentrates. Total time from cased to running is about two minutes.

The A-frame mounted drive motor allows you to easily make small adjustments to the angle of the wheel. The ease-of-use factor can become critical when running materials that require more precision. Water flow is controlled by a single-point knob on the spray bar assembly, and the speed control is located on the back of the





unit. These three adjustments are all that are needed to ensure an efficient recovery. Of course, as with any new unit and especially one made of plastic, you will need to spend some time cleaning it with a good quality non-citrus-scented dish washing soap. (Citrus-based soaps derive the scent from citrus oils, exactly what we are trying to remove.) To remove all of the manufacturing oils when testing the Desert Fox, I repeatedly used hot, soapy water and a non-abrasive pad to remove all of the mold-release agents from the plastic parts.

### Operation

Spiral units work in what new prospectors might call reverse stratification. In a standard gold pan, filling the pan with material and water, specific gravity separates the gold from the concentrates with the heavies sinking to the bottom while the lighter material rises to the top. In a spiral pan, this process is reversed. By using speed, water and the angle of the spiral wheel, the lighter materials stay in the bottom of the wheel, while the heavier black sand and gold is brought up the leads. When set correctly, the sands drop off at the last moment and only gold is moved through the center of the unit and recovered in the cup. This process takes little time and practice to master. It's well worth the effort to learn how to operate the Desert Fox properly for successful gold recovery.

Camel Mining, for as long as I can remember, has



supplied a very small package of blond, black sands with a few pieces of fine gold in a small package to help the user understand how to tune the spiral wheel for maximum gold recovery. I suggest that if you decide to purchase the Desert Fox that you become completely familiar with this "tune-up kit" and learn how to recover the small specks of supplied gold before working your own material.

Once you are able to recover all of the supplied gold, it's time to run your own dirt. I recommend classifying to a minimum of 1/4-inch to 1/8-inch mesh. However, I will classify material smaller if needed, based on the size of gold in my concentrates. If most of my gold passes through a 20-mesh classifier, then 20 is my classification point. I have classified to 40 and 60 prior to using my Desert Fox and have had great success in recovery.

Once classified and prepared to run, feed the material slowly into the bottom of the wheel. I've found it best to use a tablespoon when setting up on new material to feed. After all necessary adjustments are made, then increase the feed rate.

Starting with water first, find the lowest water pressure that will clean the light material from the leads as it climbs up the pan, adjust the angle and speed as needed so the heavy sands drop off at the right spot and you're ready to start processing your concentrates. After completing the basic setup, I adjusted the speed to keep the unit tuned in to variations in the types of material I ran. There are two models of the Desert Fox — one with and one without the variable-speed motor. The price difference is slight, and after using the variable speed model, I highly recommend this option.

It's worth noting here that over the years, a lot of prospectors have used automatic feeders for their final recovery equipment and Camel Mining products are no exception. But, you have to remember that a feeder is not a guaranteed replacement for hand feeding this or any other unit. I'm not one to recommend an automatic feeder system that you walk away from with the expectation



of maximum first-run recovery. There are too many variables. A keen eye and proper feed rate of material (with or without a feeder) is the key to excellent first-pass recovery.

### Conclusion

The Desert Fox is a straight-forward and simple spiral wheel system that recovers gold efficiently, just as it has for decades. It is compact and ideal for carrying into the field. Recovery is exceptional, and the learning curve is short. The Desert Fox is priced in a range that makes it hard to pass up as a final recovery system. It's not at the lowest level in the price scale, but certainly nowhere near the top of the tier either.

If I did not already have a Desert Fox, this new unit would be going into the gear box or on the cleanup table where my current one has lived for a few years. I will, however, be purchasing a new wheel assembly to retrofit mine to the new double-wall wheel.

Who knows? In 20 more years, I might be doing a follow-up review on the latest Camel Mining Spiral Panner and comparing the next generation of upgraded components although it's hard to imagine what could be done to improve on an already great working machine.

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## The Desert Fox

- Camel Mining Desert Fox (with variable speed motor)
- Action Packer Storage unit 20"X16"X12" (container size)
- Height: 20 inches
- Width: 14.5 inches
- Length: 20 inches
- Weight: 10 pounds
- Wheel diameter: 12.5 inches
- Power required: 12VDC 5AH
- Water required: 3-4 gallons
- Pump capacity: 450 GPH
- Price as reviewed \$359 MSRP with variable speed motor
- Standard non-variable speed unit \$339



**Top of Page:** First pass with too much speed and not enough water allowed more waste than I wanted.

**Above:** Rerun of material this time slowing wheel speed and proper water flow returned a perfectly clean pan of gold.

**Right:** Reversed stratification means lights to the bottom, and heavies and gold to the top.

**OPPOSITE PAGE: Left:** Wires, water lines have been installed, and the unit is ready to set into the water.

**Right:** Protecting a pump from debris is important to lengthen its life. Desert Fox comes complete with a stocking hose just for this reason.

