Golfweek's SuperNEWS
The Cutting Edge

FocusOn ▸ Bunker Maintenance & Drainage

Motorized sand cleaners make cleaning bunkers like a . . .

. . . day at the beach

COURTESY OF H.S. BARBER & SONS

The Barber Sand Man 850 lifts and sifts contaminants from bunker sand.

By Peter L. McCormick

Contamination of bunker sand with rocks and pebbles is a maintenance concern certain to elicit comment from your golfing clientele.

Whether migrated up from the subsurface of the bunker cavity or introduced via surface water runoff, sand contamination is best avoided in from the outset by proper grading and the installation of appropriate liners or sealers. But once the sand is contaminated, what is there to do short of expensive and labor-intensive replacement?

Removal of the rocks and pebbles is the only other option. Historically, that process also has been very labor intensive, involving shoveling sand through makeshift screens, sieves or manual removal with screen-bottomed shovels or screen-equipped rakes. However, several mechanized products on the market have reduced the labor required to keep bunker sand clean and free of objectionable aggregates.

The Nolte BC1000 Sandcleaner is a walk-behind unit that has been on the market for a while. Powered by a 5.5 hp Honda gasoline engine, the BC1000 has a large front-drive drum that propels the unit while lifting sand and debris into a shaker screen located directly behind. Clean sand falls through the screen back into the bunker, while contaminants migrate rearward into a collection tray for disposal.

Three different sieve sizes (4, 6, and 12 mm) are supplied, and working width is 29 inches. A smoothing brush follows the entire process to leave a groomed surface except for the footprints of the operator.

The Nolte BC1000 is imported by Pifer Inc. of Holly, Mich., and retails in the $11,000-$12,000 range. Many golf course contractors and supply houses offer rental units on a daily or weekly basis.

The Barber Sand Man 850 offers a similar operation process as the Nolte BC1000, but with rear-drive wheels instead of a front-drive drum. Manufactured by H. S. Barber & Sons Inc. of Naugatuck, Conn., which also makes the Barber Surf Rake beach cleaner, the Barber Sand Man also is a walk-behind unit powered by a 5.5 hp Honda engine. High-flotation bar-tread tires, individual wheel brakes, a differential lock and 4-inch ground clearance enable tight turning and sufficient traction to climb into and out of bunkers. The rubber tires also make transport over turf easier and less damaging than a drum-powered unit, according to Chris Kelly of Barber and Sons.

COURTESY OF Z SCREEN

The Sand Storm from Z Screen is a double-decker vibrating screen unit.

The sand cleaning system lifts and elevates sand onto a sifting screen. Clean sand falls through while contaminants migrate back into the collection hopper. Three interchangeable screens (three-sixteenths, three-eighths and nine-sixteenths of an inch) can be selected depending on sand moisture content, amount of debris and operating speed desired.

The 20-liter collector pan can be emptied into two onboard storage hoppers for a total capacity of 54 liters (approximately 14 gallons). Operating width is 33 inches.

Mark Semm, superintendent at Spanish Oaks Golf Club near Austin, Texas, invested approximately $10,000 in a Barber Sand Man 850 to clean the bunker sand as part of a renovation project.

"There's not a lot of topsoil to start with in this area, so many of the bunkers here are carved out of straight limestone," Semm said. "Liners were not installed during construction, and there has been a lot of rock migration into the sand. Faced with an overall course renovation, we decided to Band-Aid the bunkers by cleaning them rather than rebuilding them completely or replacing the sand."

> **"We can get it into 90 percent of our bunkers . . . and you can really turn it on a dime."**
>
> ***– Mark Semm, superintendent at Spanish Oaks Golf Club in Austin, Texas, on the Barber Sand Man 850***

The size of the Sand Man, about 34 inches wide and 8 feet long, caused some concerns about maneuverability for Semm. Although those concerns quickly were put to rest, using the machine can be a bit tricky at the outset.

"The maneuverability is actually quite good," Semm said. "We can get it into 90 percent of our bunkers – all except the pot bunkers, of course – and you can really turn it on a dime. We have three operators trained on it, because it does take some getting used to. After one try myself and making a mess, they wouldn't let me operate it any more."

Semm is pleased with the performance of the product and with his decision to utilize it to clean the existing sand rather than remove and replace.

"It's amazing what the Sand Man does to loosen and condition the sand in addition to removing objectionable stone and rock," he said. "It has been great for us. We have actually integrated it into our regular maintenance program to clean and groom the bunker sand. We try to get it out once a month."

Another product specifically designed to help remove bunker contaminants efficiently is the Sand Storm from Z Screen of Phoenix, which retails for $7,395 plus shipping. A tow-behind, double-decker vibrating screening unit, the Sand Storm is towed directly into the bunker and powered from the 12-volt battery of the towing vehicle. According to Craig Zeller of Z Screen, most users push the existing sand into a pile and hand shovel the sand onto the 5-foot by 5-foot Sand Storm screen to protect liner materials or prevent further contamination from substrate materials.

Initially introduced as a single-deck unit, the now-standard double-deck configuration works much better with wet sand, Zeller said.

"The top deck assembly breaks up the wet sand and starts the cleaning process with a coarse screen," Zeller said. "The sand then falls through to the lower deck with a finer screen for final cleaning and sizing." Both decks are slanted to the rear so debris works its way back and drops off into a collection hopper."

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