

by Mary McCaig

Premium Products

Washington Rock drives for success in the high-margin golf sand market and hits the green.

It's a common sight to see a concrete or an asphalt plant on the site of a sand and gravel pit, either as part of the operation or in partnership with the produc-

er onsite. But when Harry W. Hart, owner of Washington Rock in Orting, Washington — along with co-owners Pat Hughes and Harry Corliss — discovered that the company had a sand

deposit of the right grain size to create golf course sand, the partners purchased a washing and classifying system to create better specification mixes, as well as a set of mixing hoppers and an additional screen to add peat moss to the sand mix.

With this setup, Washington Rock is able to meet the rigorous specifications set forth by the U.S. Golf Association (USGA) for golf course sand — and command a premium price for a premium product throughout the state of Washington.

Washington Rock operates two separate sites: a crushed stone operation and a sand and gravel pit, which are located about three miles apart in the Puget Sound area of Washington.

In mid-2003, Hart says he realized that a 60-foot lens of sand located in one bank on his sand and gravel property could be mined for golf course sand. "I actually thought it was a mountain of junk," he admits, "but someone saw the grain size and pointed out that it could be screened for golf course sand."

Washington Rock mined the sand and attempted to dry screen the product, beginning in early 2004. But the

Although Washington Rock produces other products such as athletic field sands, asphalt blending sand, C33 Class I and Class II concrete sand, and C897 sand for bagging, the USGA sand is much more profitable.





Orting, Washington-based Washington Rock meets the rigorous specifications of the USGA in order to produce a high-margin golf sand.

company experienced problems meeting USGA specifications with the product.

“Before we put in the washing and classifying plant, we had started selling sand to local (golf) courses,” says Heather Bateman, golf course sand sales representative for Washington Rock. “But in order to create USGA specification golf course sand that we could sell to the really high-end golf courses in Washington state, we realized we had to install washing and classifying equipment.”

Hart explains, “It was a matter of creating sufficient quantity of the material, while still maintaining spec for USGA sand.”

An above-par plant

In January 2005, Washington Rock installed a system that included a 6- by 20-foot, three-deck wet screen manufactured by Cedarapids, a Cedar Rapids, Iowa-based Terex company, along with a 10- by 40-foot classifying tank and PLC operating system, a 54-inch sand screw, a 44-inch sand screw and a 36-inch sand screw, all manufactured by Eagle Iron Works of Des Moines, Iowa. In order to create the 90/10 sand-with-peat-moss mix for golf course greens,

Washington Rock also has rented two mixing hoppers and an additional 4- by 8-foot screen to mix the sand with the sphagnum peat moss.

The company’s new equipment went online April 15, 2005. USGA products Washington Rock creates include the 90/10 mix for new greens construction, sand for fairway construction, greens top dressing, and fairway top dressing. The company also markets sand trap sand, which is a silicate sand obtained from an outside source. In addition, the grain size from this deposit is also the right size for concrete aggregate and bagging sand.

“The learning curve has been large,” Hart says, “but the USGA provides clear written specifications for each sand type. And every 500 yards we produce, we send a sample of our USGA sand products to one of the three USGA-certified testing labs in the United States — Turf Diagnostics in Lynnwood, Kansas — to make sure we’re maintaining spec.”

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— Harry Heart

“The biggest problem we had with the dry screening process was that we couldn’t provide the 1-mm sand we needed for top dressing,” Bateman says. “We needed the washing plant to provide clean 1 mm sand. And the toler-

ances are so crucial to maintain spec with this sand that without the classifying tank, we would never get it right.”

The sand must contain No. 35 to No. 60 screen as its main grain size, with more than 60 percent retained on two screens. It also must contain 25 percent retained of clean No. 100, and less than 5 percent retained of No. 270. Hart says his company’s golf course spec sand operation averages 100 tons per hour with the Eagle Iron Works equipment and has reached capacities as high as 140 tons per hour.

Maintaining consistency

In its first year marketing sand to golf courses, using only a dry screening process, Washington Rock was able to sell to one golf course customer. In 2004, the company found several additional local golf courses as customers. But Bateman says that since the washing and classifying equipment went online in April this year, the market region has grown to include most of Washington

State, and the need for a dedicated salesperson became apparent. Bateman fills that role for the company.

“We have two other main competitors who aggressively go after golf course customers like we do,” Bateman

Golf course sand accounts for 10 percent of the operation’s production, but is by far its most profitable product.

When the producer had difficulties meeting specifications with dry screening, it installed a three-deck wet screen, a classifying tank, and three sand screws to tighten production capabilities.

says. “We’ve discovered our edge is that — in addition to our ability to provide them with a clean and consistent spec product — we are out in the field every day talking to the golf course superintendents and the green keepers. We treat them like kings. We attend their monthly events, and we donate to their causes and to the area associations. We make sure we tend to their every need, and it pays off. Golf courses like to work with one source, and we’ve learned how to give them what they want.”

Bateman says that Washington Rock also advertises in monthly and quarterly turf management publications in the Washington and Oregon regions. “When the washing plant went online, we held an open house with a barbecue in May this year,” she adds. “We invited all of our contractor customers in addition to all of the golf course superintendents we had been calling on. Eastern and Western Washington has been our market this year, and we hope to be competitive with our golf course sand in Northern Oregon, too. Our sand prices are reasonable, but trucking rates to get it to Oregon are less competitive, so we’re trying to find a way to be competitive in that region.”

Bateman says for the fall 2005 sanding season, Washington Rock more than doubled its business compared to fall 2004. Spring, summer, and fall are regular sand ordering times for golf courses, and the gold course spec sand has become a steady source of income Washington Rock can count on.

“It’s a niche market, but there is not a lot of competition,” Hart says. “The golf course spec sand accounts for about 10 percent of our total product line, but we make a lot more money per ton with this material than we do with our other sand products.” According to the USGA, spec golf course sand for greens can command prices of any-



Table 1 Particle size distribution of USGA root zone mix.

Name	Particle Diameter	Recommendation (by weight)
Fine gravel Very coarse sand	2.0-3.4 mm 1.0-2.0 mm	Not more than 10 percent of the total particles in this range, including a maximum of 3 percent fine gravel (preferably none)
Coarse sand Medium sand	0.5-1.0 mm 0.25-0.50 mm	Minimum of 60 percent of the particles must fall in this range
Fine sand	0.15-0.25 mm	Not more than 20 percent of the particles may fall within this range
Very fine sand	0.05-0.15 mm	Not more than 5 percent
Silt	0.002-0.05 mm	Not more than 5 percent
Clay	less than 0.002 mm	Not more than 3 percent
Total fines	Very fine sand	Less than or equal to 10 percent plus silt plus clay



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where from \$15 to \$45 per ton, with an average of about \$20 per ton.

The washing and classifying plant also makes various athletic field sands, asphalt blending sand, C33 Class I and Class II concrete sand, and C897 sand for bagging. Washington Rock has a customer with a bagging plant and is considering putting its own bagging plant onsite for this product. Other product lines offered by the company include pea gravel, No. 4 and No. 8 round stone, 7/8-inch concrete stone, and 1-1/2 inch-drain rock. "We also have a couple of varieties of stream bed gravel with 1-1/2 inch-plus round rock — and we even sell 3- to 4-foot boulders," Hart says.

When it comes to his USGA spec sand niche product, Hart is pleased with his investment: "My mountain of junk turned out to be a huge plus for this operation." **AM**

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