Case Study

Quality Machine & Manufacturing

Setting a new standard of performance for fish cleaning stations

Quality Machine & Manufacturing (QM&M) engineers and manufactures fish cleaning stations for federal, state, county, and city parks and recreational facilities across the U.S. These stations enable fishermen to fillet their catch right away, disposing of the heads, skins, and bones on-site. The waste is then sent to a wastewater treatment plant or used as fertilizer or chum.

For many years, fish cleaning stations, including QM&M's Piranha model, featured restaurant-capacity garbage disposals. These disposals are fraught with challenges. First and foremost, they cannot handle tougher, larger fish like catfish and salmon. They jam frequently, requiring maintenance from park staff, who are not always available to service the stations. Additionally, the disposals are noisy, messy, and use a lot of water.

Marquita Utter, inside sales and marketing coordinator at QM&M, explained, "About 10 years ago, we discontinued the Piranha because it was too high-maintenance. We introduced the Barracuda Fish Cleaning Station, which features a JWC dual-shafted grinder. It has since become the new industry standard."

Upgrading to industrial grinding capabilities

Through an original equipment manufacturer (OEM) agreement with JWC, QM&M incorporates a custom grinder into each Barracuda station. The JWC grinder, painted Barracuda blue, features a modified cutter stack that can effectively handle all types of fish waste.

"Originally, we started with a thick cutter stack," stated Utter. "But it wouldn't catch the fish once it was fed into the system, and thus, didn't grind the fish heads well enough. So, we switched to a thin cutter. This worked better, but we still had a few issues."

Problem

Along with being noisy and inefficient, many fish cleaning stations cannot process certain fish and are expensive to maintain

Solution

Using dual-shafted industrial grinders from JWC Environmental (JWC) to build a better station

Five-horsepower JWC grinders come standard with a thick cutter stack, and two-horsepower grinders feature thin cutter stacks. These cutters work well for most applications; however, QM&M required some modification.

QM&M worked with the JWC engineering team to find the ideal cutter stack configuration. "They created a combination cutter stack," said Utter. "It has thick cutters in the middle to pull the fish in, and the thin cutters on the outsides grind the fish into finer waste that can go down the sewer It works wonderfully. And it should be perfect for installations on the coast, where the fish are really big and tough."

Efficiently tackling every challenge

With the JWC grinder at its heart, the Barracuda station can handle just about anything fishermen can throw at it. "We've seen it easily grind up catfish that are probably three feet long with heads that are five inches wide," stated Utter.

JWC Environmental
A Sulzer Brand

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Marquita Utter, Quality Machine & Manufacturing (QM&M)

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The Barracuda can also grind up the occasional fish hook; it does not clog like garbage disposals. “We’ve had people get knives or something stuck in them,” explained Utter. “And yeah, they have to dig the knife out. But for the most part, if there is a jam, they can run the grinder in reverse to free the clog, and then they’re off and running again.”

For QM&M, fish may only be the start. Utter explained, “One customer requested we run a trial on ducks. We set up a temporary, in-house station to grind waste from a duck hunt. And it worked great. We haven’t sold anything yet for that application, but it means the station has potential for locations that offer small game and bird hunting.”

Casting wider interest

The Barracuda station is quieter, safer, and more efficient than traditional fish cleaning stations, and the JWC grinder plays a substantial role in these improvements. With the Barracuda, QM&M can offer customers a nearly maintenance-free solution, which has broadened their reach and opened up new markets.

“We can market that we last longer and have less downtime,” explained Utter. “Really, customers only need to change their cutters once they start to dull. I can’t definitively answer how long the cutters will last because it depends on what gets put into the grinder and how often it’s used. However, I can share that for some customers, we’ve had to change the cutters every 2 to 3 years, and then we have stations that have been operational for 10 years, and we’ve changed the cutters once.”

To help reduce downtime even more, QM&M has an exchange program. They will refurbish a grinder and send it to a customer. In return, that customer sends them the old grinder to be refurbished for the next customer. “This way, customers literally only have an hour or two of downtime when they’re swapping out their grinder,” said Utter.

Delivering a positive return on investment

Fish cleaning stations are a free amenity to people who use the parks and recreational facilities. Governments and agencies running these facilities lack the financial or staffing resources to deal with extensive maintenance and upkeep.

That’s why the Barracuda station with the JWC grinder provides such a solid investment. “I have customers that would tell you that purchasing a Barracuda is the best thing they’ve ever done,” Utter stated. “There’s less odor because you don’t need garbage cans that must be dumped every few hours. They don’t have to worry about clean-up or frequent clogging. Since the stations are food-grade, they aren’t cheap. But when customers put them in, they last.”

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