

# Winner

## Cornell Pump Company

Cutter Pump reduces ragging and fouling of impellers.

By Gary Lloyd



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**PUMPS & SYSTEMS**

The *Pumps & Systems* fourth annual Product Innovation of the Year award was fiercely contested this year. The contest examined products entered into the marketplace between Sept. 1, 2011 and Aug. 31, 2012. *Pumps & Systems*' expert Editorial Advisory Board and editors selected the winners.



The Cornell Pump Cutter Pump team: James Garvin, design engineer; John Adams, project engineer; and Steve Schoenbrun, vice president of engineering

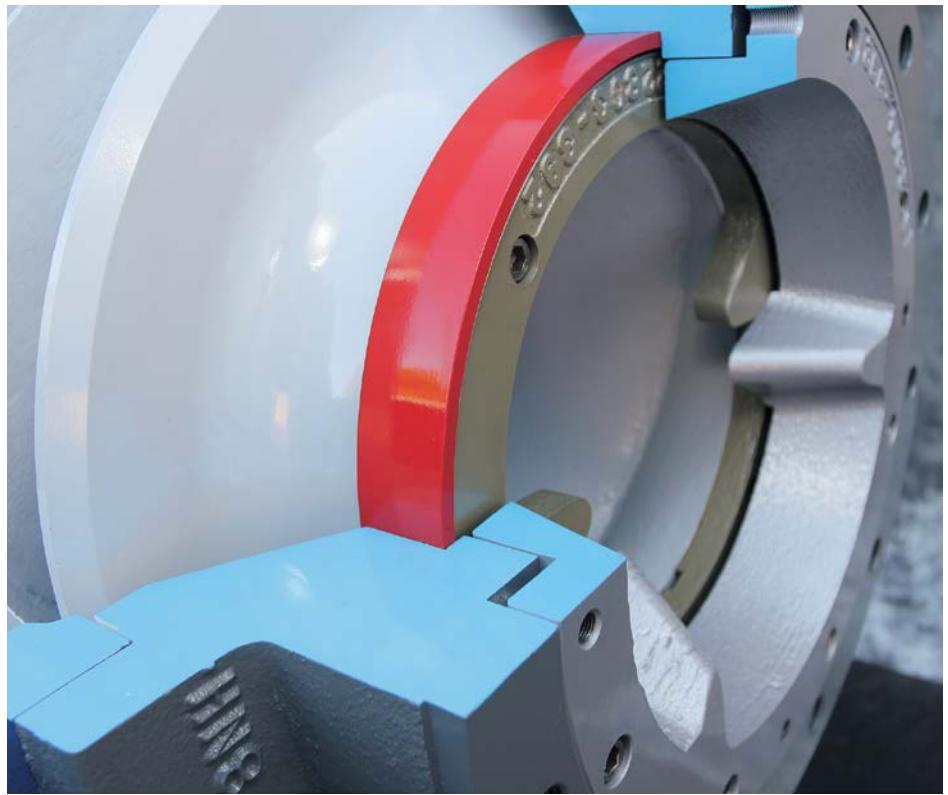
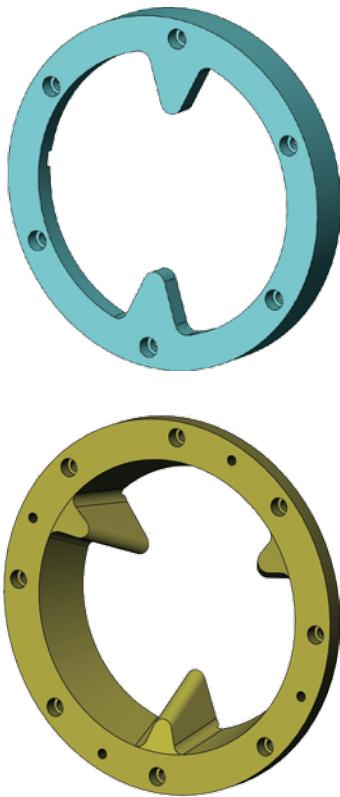


This year's winner is Cornell Pump Company. Cornell's Cutter Pump is primarily used in municipal wastewater and manure lagoon pumping.

In municipal applications, the pump reduces the ragging and fouling of impellers caused by flushable materials in the water stream. It handles clumps of weeds and other solids that can clog manure pumping operations.

QuantumFlo's iQFlo technology finished in second place and seepex, Inc.'s Smart Conveying Technology took third.

Products from Fluke Corporation; Frontline Industries, Inc.; Independent Electric Machinery Company; and Orion Engineered Seals received honorable mentions. Congratulations to our winner, finalists and honorable mentions!



Introduced in September 2011, the Cornell Pump Company's Cutter Pump uses a stationary and rotating element to reduce masses of solids to a size that will pass through the pump. Most cutter models have efficiencies that are reduced less than 4 percent from standard Cornell efficiencies for enclosed, solids handling impellers.

This minor reduction is offset by a dramatic increase in uptime. The resulting increase in pump station efficiency can save tens of thousands of dollars per year. Designed to break up clogs and prevent ragging, the cutter pump consumes minimal energy.

The cutters are hardened for long life and shaped to minimize flow restrictions.

A Southern California water district reports savings of more than \$30,000 per pump in maintenance service calls—funds they can use on system upgrades rather than dealing with clogging on a weekly basis.

The cutter pump features a minimum bearing life of 50,000 hours and a two-year warranty. With the cutter pump, installations have dropped from an average of clogging three times a week to less than once a month. Most installations save thousands of dollars annually in staff time. Some examples of cost savings users have seen with the cutter pump include:

- Average time per event: Six hours (two maintenance personnel for three hours)
- Cost per man hour: \$50 •
- Total direct cost per event: \$300 •
- Events per week: Two •
- Total annual direct expense: \$31,200 •
- Total lost man hours that could be used maintaining other items: 624 hours annually

For more information, contact the Cornell Pump Company at 503-653-0330 or [www.cornellpumpsupply.com](http://www.cornellpumpsupply.com).



*Gary Lloyd is the associate editor for **Pumps & Systems** and **Upstream Pumping Solutions**.*