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BY SARAH COLLINS
Staff Reporter

If you've moved a couch, you can understand Koval's cold sweat.

That moment when the sofa is squeezed into the door frame, seemingly never to move another inch. Imagine that, but with a 5,000-liter, two-story-tall custom copper still.

"That killed us," says Robert Birnecker, who co-owns Ravenswood craft spirits distiller Koval with his wife, Sonat. The still now sits just a stiff breeze from skimming the roof of Koval's new distilling warehouse — leased a year ago to fit the massive new still.

Not being able to fit it would have been quite a shame. The still, full of tweaks suggested by Robert, is the first of its kind. "There's not a single still anywhere in the world that is more technologically advanced than this still," Sonat says.

Looking like something straight out of a steampunk fantasy, the still is littered with sensors that send a constant stream of information to iPads and cellphones, letting Koval's distillers know when temperatures fluctuate. Mash can be preheated with the touch of a button, getting the grains ready to go by the time the Birneckers reach the factory. Small improvements to the still's hardware results in a purer distillate and more precise measurements that help Koval separate out the best part of the liquor, called the heart, from the heads and tails. "It's come a long way," Robert says.

It has, and so has Koval. The still is like a symbol of the tremendous speed with which Koval's whiskeys, vodkas, brandies and liqueurs have taken off. Five years ago the distillery started out with a 300-liter still. Then another. Then a 2,000-liter still. And now the current 5,000-liter giant.

The duo are considering moving from the year-old warehouse to find a space big enough to house a



Sonat and Robert Birnecker and their new high-tech still at Koval.
PHOTO BY HEATH SHARP

Still growing

Koval's big new still isn't just a sign of the distiller's growth — it's a sign of what's coming for the craft spirits industry

second 5,000-liter still. "Every still we've changed something a little bit," says Mark DeSimone, Koval's COO. "Just little things — always to make it faster and more efficient. ... We have stuff to do."

Koval is not the only distillery that will benefit from the technologies packed into the new still. The Birneckers are the stateside and English-speaking representatives of Kothe, the German still-maker responsible for the copper behemoth eating up their warehouse space. With that job, the couple's workshops and their craft-distilling consulting business, Sonat estimates that the pair have advised one-third of the craft distillers that have opened in the U.S. and Canada in the past five years.

So when Robert starts making changes to how Koval's still works, the tech tends to trickle down. "They

come and they see it and they're like 'Oh my god, I want that!'" Sonat says. "Some of the changes that we made with the last [still] are now standard. ... It's made a huge difference in what people are able to do."

Sonat estimates that a still the size of the new one could cost a distiller a quarter-million dollars and up. Not an investment many start-up distilleries are capable of making. Still, Kothe has sold four of the new 5,000-liter model, disseminating Koval's changes to other craft distillers.

Bill Welter snapped up one of the new stills for his Journeyman Distillery in southwest Michigan. With his distillery at maximum production, Welter hopes to have the same model as Koval in place by spring. He's mostly focused on the artisanal side of distilling, but admits some of the new features will be

useful to his more technologically savvy staff. "There are some bells and whistles on the new still that might be able to save us a few dollars on labor costs," he says. "If you can use automation to your advantage, you can get some other things done while the still's running."

By easing the process and speeding them up — Robert and DeSimone are preparing to test a new method that enables them to run spirits through the still's two towers at the same time — the duo hope to give all craft distillers an edge. "It's been really exciting to bring more craft companies a level of technology that's really competitive with big companies," Sonat says.

Because some distillers may cling to Old World methods, the automation and monitoring systems still require plenty of hand testing and lever turning. "[Robert] doesn't

like to compromise on the craft side of things or artisanal side of things, but he also sees no reason why you can't incorporate as much technology as you can to improve the products," Sonat says.

When asked if he's worried about giving away his competitive advantage, Robert is quick to say no. "It's like Formula One racing. You can have the exact same equipment and one's still faster than the other."

Sonat is a little more business-minded: "He has to start getting patents."

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Apple announced the new thinner, faster iPad Air along with a retina iPad mini. They'll both be ready for holiday gift-giving, natch. Tech columnist Andy Ihnatko has all the details at chicagogrid.com.