

A close-up photograph of a Tacmina industrial pump. The pump is constructed from polished stainless steel and has a white-painted cast iron base. The brand name 'TACMINA' is embossed on the side of the base. Various ports, valves, and a pressure gauge are visible on top of the unit.

# TACMINA

## BETTER PROCESS, BETTER PRODUCT

### MICROBREWERY IMPROVES THEIR HONEY-HANDLING PROCESS

#### PROBLEM

There are many viscous, sticky, gooey, and otherwise difficult to handle ingredients used in the brewing process, and honey can be one of the most difficult to work with.

This new and rapidly growing Midwest micro-brewery utilizes honey as the brewing sugar source for several of its specialty and seasonal beer recipes. Due to the varied usage requirements, there was no dedicated feeding process for getting honey from the floor into the brew vats. When a batch called for it, an employee would use a honey auger to fill a bucket, climb to the access port on the vat, and dump it in, repeating the process until the necessary amount had been added. The process was laborious, messy, inefficient, and while there was no sanitary issues with manually adding the honey at that stage of the process, it was unpleasant work that tied up employee time hauling honey buckets around the brewery floor, as dosing quantities were measured in number of 55 gallon drums.

Various pumping solutions were considered, but they failed to address the pumping of highly viscous (~10,000 cps at 70F) fluid to an elevation of 10 feet at sufficient flow, the ability to deal with dry running for a time if a drum was emptied and not immediately changed, and be easy to clean.

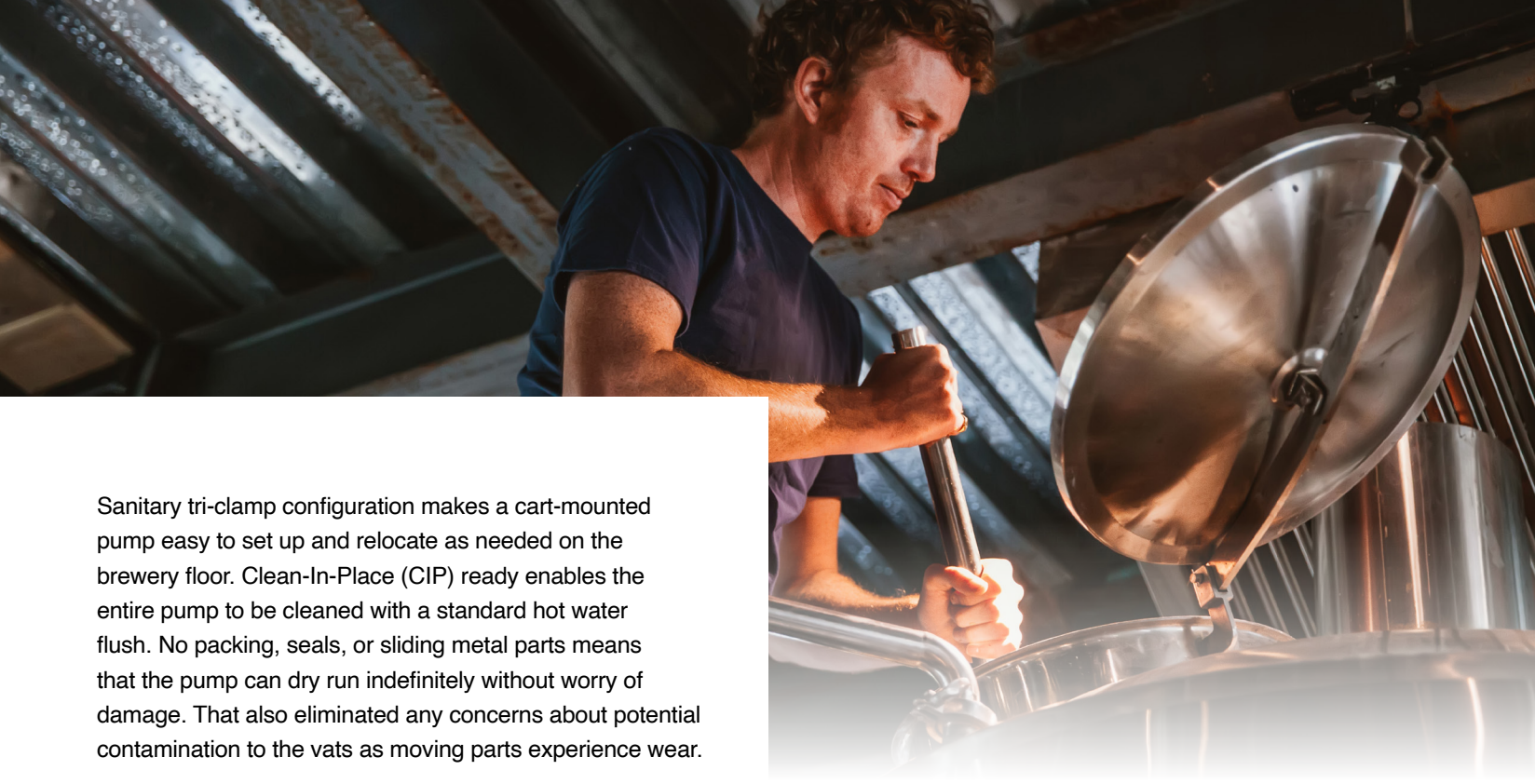
#### KEY ISSUES

- ▶ The brewery was not able to afford an automated solution, so the pump had to be able to be left unattended for various periods, even if the honey supply ran out
- ▶ The brewery did not want to further increase maintenance duties with a pump that would have to be disassembled and rebuilt for full cleaning

#### SOLUTION

With decades of experience in working with moving highly viscous liquids in a sanitary environment, Tacmina representatives recommended the APLS Sanitary Smoothflow pump for the brewery's needs.

- ▶ Tacmina Smoothflow pumps can run dry indefinitely
- ▶ Smoothflow pumps are Clean In Place (CIP) ready
- ▶ Low number of consumable parts, long working life, and easy access meant minimum maintenance time would be required
- ▶ Workers only had to attend the pump to change feed hose from empty drum to fresh supply
- ▶ The Tacmina Smoothflow pump can be used for a range of ingredients used in brewing such as fruit pulps, flavorings, syrups, and any material that is high viscosity or delicate to handle



Sanitary tri-clamp configuration makes a cart-mounted pump easy to set up and relocate as needed on the brewery floor. Clean-In-Place (CIP) ready enables the entire pump to be cleaned with a standard hot water flush. No packing, seals, or sliding metal parts means that the pump can dry run indefinitely without worry of damage. That also eliminated any concerns about potential contamination to the vats as moving parts experience wear.

During tests at the brewery, the Tacmina Smoothflow APLS-10 was able to push more than two gallons per minute of consistent honey flow even at cool ambient temperatures. Workers who had previously spent a significant portion of their working time emptying drums one bucket at a time were able to focus their attention elsewhere, only needing to return to the pump to change the feed hose to a fresh drum when the previous one was emptied. Ingredient utilization and process efficiency were improved, and cleanup was also simple, as hot water flush followed by sanitizer solution circulation left the equipment clean and ready for the next task.

- ▶ Fruit pulps, purees, and flavorings
- ▶ Syrups
- ▶ Honey
- ▶ Molasses
- ▶ Other high viscosity ingredients
- ▶ Delicate ingredients which might be damaged or experience alteration of flavor via harsh handling

## *Smoothflow* Pump **APL**



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Leading the way in precision pumps

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