



THE
SPRAY NOZZLE
PEOPLE

Case Study

BREWING: *Cleaning Mash Tuns*



THE SITUATION

Seeds, skins, pulp, stems, and grains in a recirculated water system can cause blockage in many tank washing nozzle designs, inhibiting their ability to work correctly. Cleaning tanks and maintaining a sanitary environment is essential to success in food processing and beverage industries. Problems within these systems lead to loss of time, money, and resources.

A large beer producer was having continual problems with clogging spray balls in their lauter / mash tuns. The spent grain and husks were finding their way into the recirculated cleaning fluids and plugging the small holes in the spray balls resulting in ineffective cleaning. Rotary spray balls also clogged or jammed and stopped spinning for similar reasons.

THE CHALLENGES

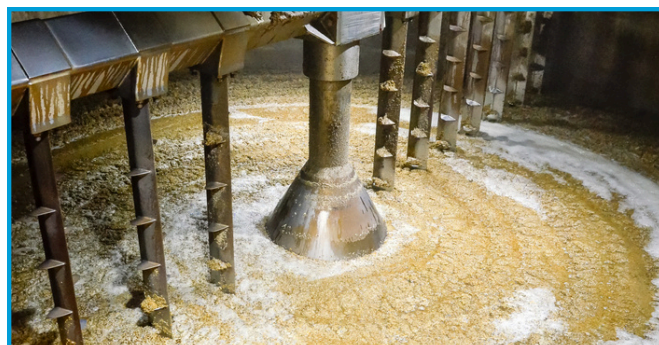
- Small holes and moving parts in most tank wash nozzle heads lead to clogging
- Nozzle blockages lead to unclean tanks, potentially ruining end products
- Nozzle blockages lead to costly maintenance downtime
- High water consumption from extra wash cycles and the inability to use recycled water effectively further escalates costs

THE SOLUTION

SNP proposed the use of the HydroClaw®. Designed and manufactured by BETE Fog Nozzle, the HydroClaw® is a unique 360° clog-resistant tank cleaning head.

The HydroClaw® was initially tested on one of the six problem tanks at the site and they worked well. After a one month of testing no clogging issues occurred. As a result the HydroClaw® was rolled out to the other tanks.

As well as the solving of the clogging issues the customer also marked an improvement in cleaning times. The HydroClaw® had a more powerful cleaning action than the traditional spray balls and so, as a bonus, the cleaning times were also reduced.





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THE PRODUCT

The HydroClaw® is the world's first 360° clog resistant tank cleaning head. It was originally developed by BETE to solve clogging problems in the wine industry where grape pips and skin often cause similar issues to those being experienced in this case.

The HydroClaw's patent pending design gives 3-5 times the free passage of conventional spray balls up to a massive 7.6 mm. This means that most contaminating particles can flow through the tank cleaning head without causing any clogging.



TECHNICAL SPECIFICATION

- Suitable for cleaning tanks and vessels up to Ø 3 m
- Very large free passage (6.4 - 7.6 mm)
- Optimum cleaning performance at 2 bar
- Recommended installation 0.6 - 1.0m vertically below top of tank
- Flow rates: 119-442 l/min

BENEFITS OF THE HYDROCLAW®

- Clog resistance and low maintenance = reduced downtime and more economical water usage
- 316L stainless steel construction means it is perfect for clean-in-place (CIP) and food grade applications
- Delivers complete 360° coverage
- No moving parts
- Self-draining
- Compact design

CONCLUSION

The HydroClaw® was explicitly designed to offer a tank washing innovation for wineries – allowing grape seeds and skins to pass through the nozzle. This design feature makes it the perfect nozzle for the brewing industry and for other food processing applications where seeds, pips and skins might cause clogging such as juice production, jam making and tomato processing.

TO DISCUSS YOUR TANK WASH PROJECT, CONTACT OUR TEAM TODAY!