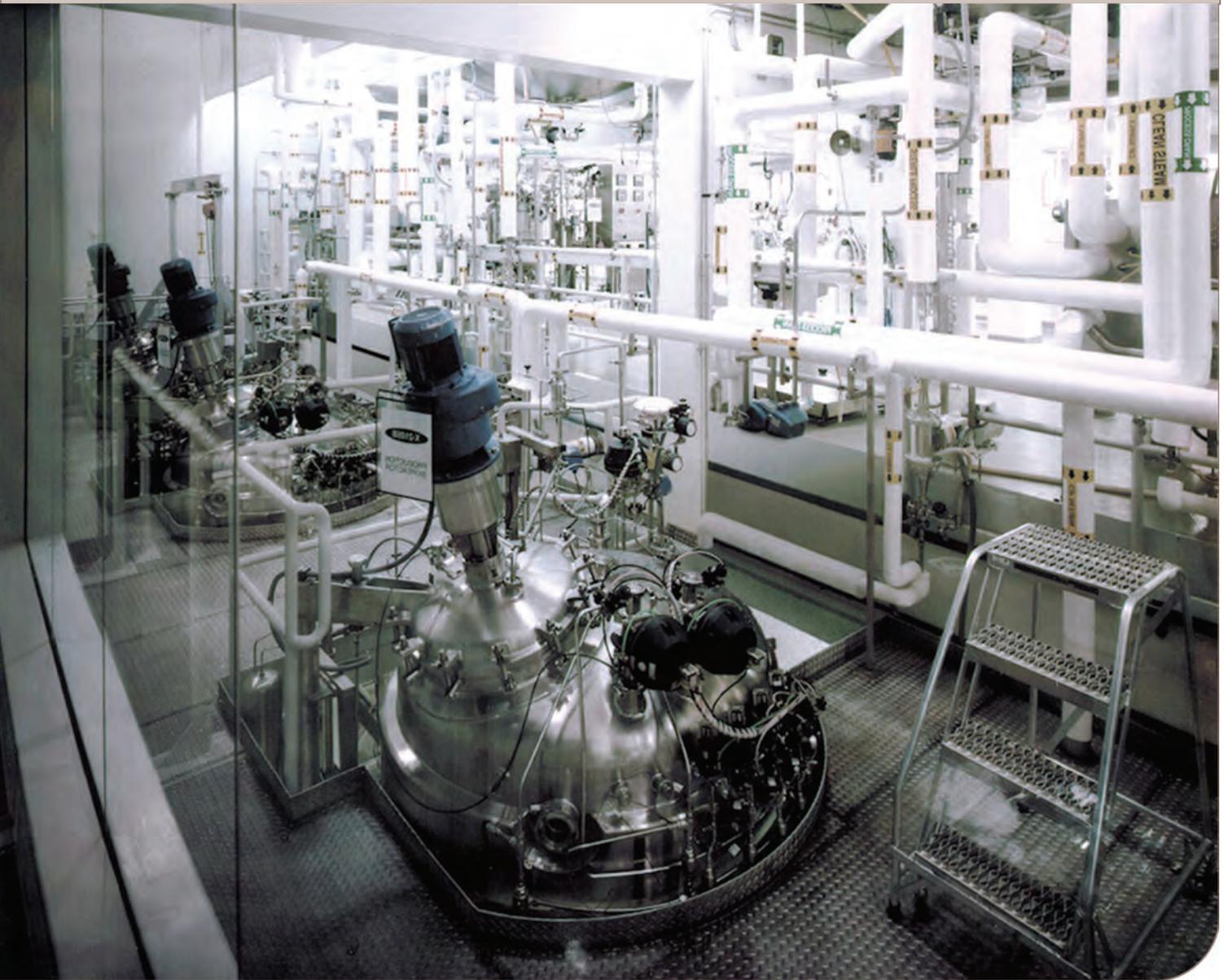




# Portable CIP systems for hygienic applications

Complete mobile systems for Clean-in-Place with rotary jetheads



**GAMAJET**

# Hygienic standard systems

Your plant infrastructure doesn't need a complete overhaul to optimize your tank and tote cleaning-in-place (CIP) process. Our mobile CIP systems are made-to-order for your plant's operating parameters, delivering the required pressure and flow for a faster, better clean.



# Sani

Our sanitary centrifugal pump powers:

- One Alfa Laval GJ A6 or TJ20G at 15 gpm and 90-110 PSI
- Two Alfa Laval GJ A6's or TJ20G's at 15 gpm/ea and 90-110 PSI
- One Alfa Laval GJ PF FT at 30+ gpm and 90-110 PSI

## **Sanitary centrifugal pump operating conditions:**

- 15-60+ gpm at 90-110 PSI
- Three phase 230/460 Volt
- TEFC standard
- 3500 RPM
- Triclamp connections

## **Control panel:**

- On/off feature with a timer ranging from three seconds to 100 hours Dual wiring for three phase 230v or 460v
- Includes 25' cord; plug not provided

## **Custom stainless steel platform truck:**

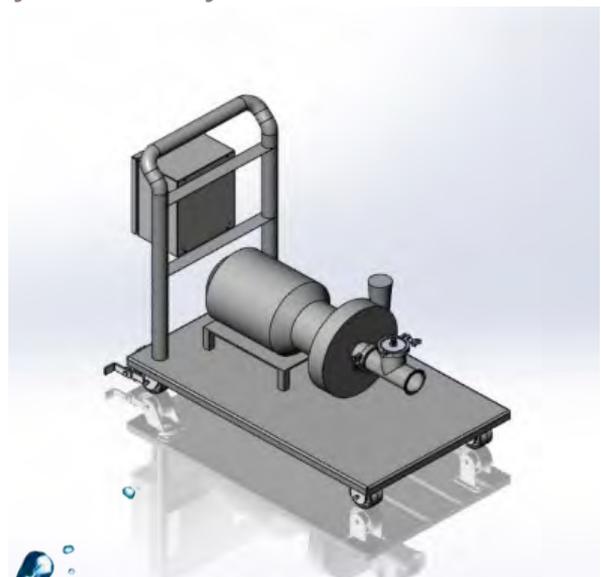
- 48" L x 25" W x 37" H
- Non-marring 6" locking casters

## **Supply hose:**

- 1" diameter x 25' long food grade hose rated for 150 psi and 190° F S/S TC E/E

*If your existing plant infrastructure isn't capable of supplying the necessary conditions to power a rotary jet head for tank cleaning, our portable pump on a cart is the solution.*

*All we need to know to create a portable CIP skid at an economical price is the flow rate and electrical power of your facility.*



# Sani D



Our sanitary centrifugal pump powers:

- One Alfa Laval A6 at 15 gpm and 90-110 PSI
- Two Alfa Laval GJ A6's at 30 gpm/ea and 90-110 PSI
- One Alfa Laval GJ PF FT at 30+ gpm and 90-110 PSI
- One Alfa Laval A8 at 60+ gpm and 90-110 PSI

## Centrifugal pump operating conditions:

- 15-80+ gpm at 90-100 PSI
- Three phase 230/460 Volt
- TEFC standard
- 3500 RPM
- 7.5 - 15 HP
- Triclamp connections

## Dosing pump

- Up to 147 GPH Flow Rate (3 – 5% dosing rate based upon total flow of system)
- PVC Construction with Viton Elastomers Standard
- +/- 1% Adjustable Accuracy
- 3 Phase 230/460V, TEFC, 3500 RPM, ¼ HP
- 1" NPT Connections
- Back Pressure, Pressure Relief and Degassing Valves included

## Control panel:

- On/off feature with timer ranging from three seconds to 100 hours
- Dual wiring for three phase 230v or 460v
- Separate timers to control total run time and Dosing Pump Start and Stop with above range
- Includes 25' cord; plug not included

## Custom stainless steel platform truck:

- 48" L x 32" W x 41" H
- Non-marring 6" locking casters

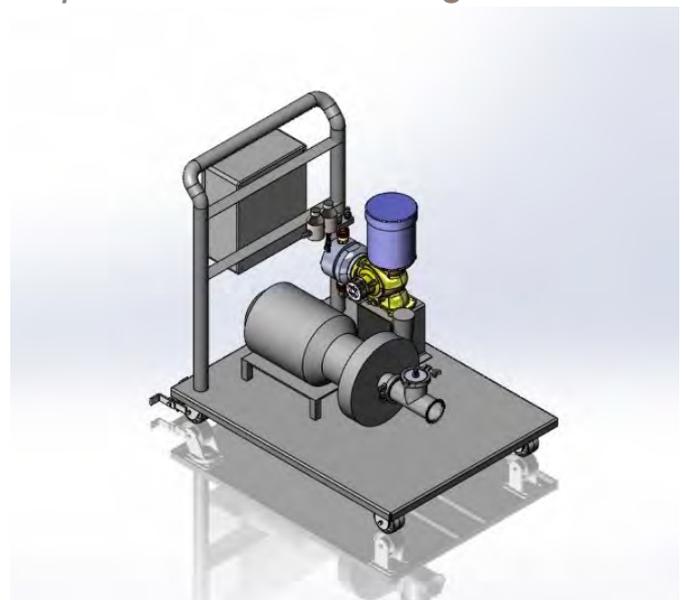
## Supply hose:

- 1½" diameter x 25' L Goodyear Verizon rated for 300 psi and 190° F S/S TC E/E

**All necessary flanges and hardware**

*Our portable systems with chemical dosing on a cart features adjustable timers in the control panel. This controls main pump and dosing pump run time, allowing for adjustable times for a pre-rinse, chemical dosing wash and a post rinse.*

*All that is needed is the proper flow rate, dosing chemical and power source to create your portable CIP cleaning cart.*



# Case story



## Reduced Chemical Usage and Time Spent Cleaning at a Personal Care Plant

A Personal Care Facility located in Memphis, Tennessee utilized a series of 8 storage tanks and process vessels, each with center agitators. The company manufactures a variety of water resistant lotions and experienced severe difficulties in cleaning the tanks between each batch. Their cleaning method included a pre-rinse with DI water, followed by a boiling out process that utilized 864,560 kg of ethanol per year. This is an excessive amount of a very costly solution to ensure effectiveness.

The company purchased an Alfa Laval mobile CIP system with rotary impingement. The process included two Alfa Laval GJ9 rotary jethead tank cleaning devices. The machines were strategically placed at the top of the tank through a 3" triclover inlet, around the agitators to ensure no areas were missed. The blades were not agitated during the cleaning, except for a mid-cycle "jog" to ensure a few potential shadow areas were sufficiently cleaned. The machines were configured to operate at 180 psi and 22 gallons per minute, per device. Based on the residue, this configuration offered the most efficient cleaning for the residue, resulting in 10-15 lbs. of force at the furthest distance, the bottom corners of the tank. The machines ran for a 15-minute open cycle pre-rinse to remove the bulk of the residue. Afterward, a 35 minute re-circulated wash with a 1% caustic concentrate was run, allowing for the rotary jethead machines to make 3 complete 360-degree indexing patterns (meaning every part of the tank was hit three times). This was followed by an un-circulated 10-minute final rinse with the ethanol solution.

## RESULTS

The total cleaning time took 1 hour per tank, an 88% reduction in time. Ethanol usage was reduced by 53%; resulting in a \$457,833.00 savings and revenue recovered (based off of a \$4,700 per hour tank revenue) amounting to \$9.97 million. Additional savings in energy and labor were also experienced but not documented.



### Alfa Laval in brief

Alfa Laval is a leading global provider of specialized products and engineered solutions.

Our equipment, systems and services are dedicated to helping customers optimize the performance of their processes. Time and time again.

We help our customers to heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuff, starch, pharmaceuticals and more.

Our worldwide organization works closely with customers in almost 100 countries to help them achieve their goals.

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