### Portable CIP systems for industrial applications

Complete mobile systems for Cleaning-in-Place with rotary jet heads







# 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.



## Econ S

Our small-sized vertical multistage pump powers:

- One Alfa Laval GJ 9 at 15-25 gpm and 180-200 PSI
- Two Alfa Laval GJ 9s at 15 gpm/ea and 180-200 PSI
- One Alfa Laval GJ PF at 30 gpm and 160-180 PSI

#### Pump operating conditions:

- 12-30+ gpm at 170-200 PSI
- Three phase 230/460 Volt
- TEFC standard
- 3500 RPM
- 3 and 5 HP based upon flow rate
- 1¼" ANSI flange 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:

- 46" L x 25" W x 36" H
- Non-marring 6" locking casters

#### Supply hose:

- ¾" diameter x 50' L Goodyear Verizon rated for 300 psi and 190° F
- S/S MNPT 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.

### Econ L

Our large-sized vertical multistage pump powers:

- One Alfa Laval GJ PF at 30-60 gpm and 200-220 PSI
- Two Alfa Laval GJ PFs at 30 gpm/ea and 180-800 PSI
- One Alfa Laval GJ 8 at 60 gpm and 180-800 PSI



#### Pump operating conditions:

- 30-60+ gpm at 170-220 PSI
- Three phase 230/460 Volt
- TEFC standard
- 3500 RPM
- 10 HP
- 2" ANSI flange connections

#### Control panel:

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

#### Custom stainless steel platform truck:

- 46" L x 25" W x 36" H
- Non-marring 6" locking casters

#### Supply hose:

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

### Econ SD

Our small-sized vertical multistage pump, including an integrated dosing pump, powers:

- One Alfa Laval GJ 9 at 180-200 PSI with dosing option
- Two Alfa Laval GJ 9s at 15 gpm/ea and 180 PSI
- One Alfa Laval GJ PF at 30 gpm and 180 PSI

#### Pump operating conditions:

- 12-30+ gpm at 170-200 PSI
- Three phase 230/460 Volt,
- TEFC standard
- 3500 RPM
- 3 and 5 HP
- 11/4" ANSI flange connections

#### Dosing pump:

- Up to 50 gph (3-5% dosing rate based on total system flow)
- PVC construction with Viton Elastomers
  Standard
- +/- 0.1% adjustable accuracy
- Three phase 230/460 volt, TEFC, 3500 RPM, ¼" HP
- 1/2" NPT connections
- Back pressure, pressure relief and degassing valves included

### **Control panel:**

- On/off feature with timer ranging from three seconds to 100 hours
- Separate timers control total run time, dosing pump start/stop
- Dual wiring for three phase 230v or 460v
- Includes 25' cord; plug not included

#### Custom stainless steel platform truck:

- 46" L x 25" W x 36" H
- Non-marring 6" locking casters

#### Supply hose:

- ¾" diameter x 50' L chemical hose rated for 240 psi and 190° F
- Polyethylene tube construction with EPDM cover, S/S MNPT E/E



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.

### Econ LD

Our large-sized vertical multistage pump, including an integrated dosing pump, powers:

- One Alfa Laval GJ PF at 30 gpm and 200-220 PSI
- Two Alfa Laval GJ PFs at 30 gpm/ea and 180-200 PSI
- One Alfa Laval GJ 8 at 60 gpm at 180-200 PSI

#### Pump operating conditions:

- 30-60+ gph at 170-220 PSI
- Three phase 230/460 Volt,
- TEFC standrad
- 3500 RPM
- 10 HP
- 1¼" ANSI flange connections

#### Dosing pump:

- Up to 147 gph (3-5% dosing rate based on total system flow)
- PVC construction with Viton Elastomers Standard
- +/- 0.1% adjustable accuracy
- Three phase 230/460 Volt, TEFC, 3500 RPM, ¼" HP
- 1/2" NPT connections
- Back pressure, pressure relief and degassing valves included

#### **Control panel:**

- On/off feature with timer ranging from three seconds to 100 hours
- Separate timers control total run time, dosing pump start/stop with same range
- Dual wiring for three phase 230v or 460v
- Includes 25' cord; plug not included

#### Custom stainless steel platform truck

- 46" L x 25" W x 36" H
- Non-marring 6" locking casters

#### Supply hose

- 1½" diameter x 25' L chemical hose rated for 240 psi and 190° F
- Polyethylene tube construction with EPDM cover, MNPT E/E



### Case story

#### **Problem:**

A chemical processing company was using the same tanks to manufacture different types of products, resulting in several cleaning issues. The company originally tried using static spray balls to clean, but they weren't effective enough to pass the required sanitation tests. They would then fill the tanks with chemicals and agitate for hours to achieve sufficient sanitation. This process was taking so long that the production line could not meet the input requirements for the packaging line, which resulted in idled capacity.

#### Solution:

The company elected to run a trial using a rotary jet head from Alfa Laval Gamajet. Using an Alfa Laval GJ 9, the tanks were cleaned more thoroughly and in significantly less time. However, the company's existing installed CIP system would require significant renovation to provide the pressure and flow required to power the rotary jet head and properly clean the tanks. Although the labor and materials savings could have justified the cost of renovating the CIP system, it was determined that a portable system could achieve the solution at a much lower installed cost. The team at Alfa Laval Gamajet designed and built a portable CIP system that met all the quality, operational, safety and budgetary requirements.

#### **Results:**

Their new rotary jet head cleaning device allows for only water to be used as the cleaning fluid and enables the plant to reduce the cleaning time from 8 hours down to one hour—an 87.5% reduction in time spent cleaning! An added benefit was the cost savings in chemical usage exceeding \$1,500 per week.



#### 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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