

# ***ARROWCLEAN***

*Setting the Standard in Automated Fleet Wash Systems*



Comprehensive System Review



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The ARROWCLEAN system is a proud product of Red Arrow Manufacturing.

With over 25 years of experience manufacturing and servicing automated fleet washing systems you can trust that every ARROWCLEAN system will provide a clean vehicle wash after wash, year after year.

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Dear Potential Customer,

First, I'd like to start off by saying that after 35+ years in the industry, I can confidently declare that not all automated wash systems are created equal. The same applies to wash system manufacturers.

I designed the ARROWCLEAN system back in 1994 with the goal of providing a truly high quality, low maintenance, automated wash system that provided a superior clean for any vehicle. Since then we have utilized new technologies to make the ARROWCLEAN system easier to use, require less maintenance, and outperform its competitors.

We manufacture, install, and service every ARROWCLEAN system within our territory. *But why does that matter to you?* It means that you can count on Red Arrow's exemplary service throughout the entire lifespan of the system. Too many times I have seen customers stuck with an inoperable wash system and an unresponsive manufacturer. We pride ourselves on our dedication to our customers and go above and beyond to meet their needs.

Secondly, we are a family owned and operated small business. That means we care about YOUR satisfaction a little more (okay, a lot more) than the 'big guys'. We will ensure that your system is always running at peak efficiency and if any issues arise, I will always be a phone call away.

Last but not least, we work with you and your organization during the planning process to design an ARROWCLEAN system that fits your needs. We value the partnership with our customers above all else.

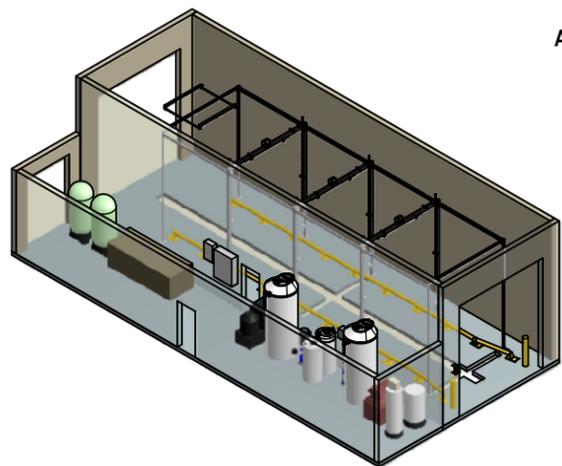
Following this letter is a comprehensive review of our system. I am confident that the system described herein will serve you well for many years, enhance the image of your fleet, simplify your operations, and ultimately reduce your overall fleet washing costs.

If you have any questions, comments, or concerns about our ARROWCLEAN system or Red Arrow Manufacturing, please don't hesitate to contact me. I look forward to your feedback.

Thank You,

Kelly Perkins  
President  
Red Arrow Manufacturing  
(303) 375-0908 x104  
kelly.perkins@redarrowmfg.com

Introducing the touch-less, fully automated, drive through, ARROWCLEAN Wash System. Every ARROWCLEAN system is designed to deliver a thoroughly clean vehicle in just 1-2 minutes. We also utilize a two-step process that effectively releases tough road film and grime from the surface of the vehicle. We incorporate smart technology to maximize cleaning power and minimize maintenance.



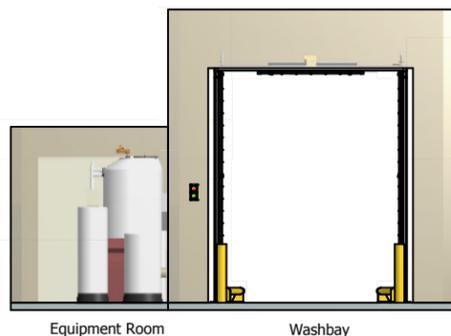
**ARROWCLEAN 3A-50-B**  
Automated Drive Through Vehicle Wash

- Thorough Effective Cleaning
- Touchless 2-Step Process
- Safe Reliable Operation
- Fast Throughput
- Flexible Configuration
- High-Performance Chemistry
- Programmable Automatic Control

- Without Modification System Cleans ...**
- Tractors and Trailers
  - Tanker Exteriors
  - Bobtails and Box Vans
  - Garbage Trucks
  - School and Transit Buses
  - Pickup and Flatbed Trucks
  - Police Cars and Limousines

Typical Dimensions (Shown)

Washbay Length: 60' - 100'	(60')
Washbay Width: 10' - 20'	(18')
Washbay Height: 16' - 20'	(20')
Equip Room Length: 40' - 100'	(60')
Equip Room Width: 8' - 15'	(10')
Equip Room Height: 12' - 15'	(12')



- Additional Facility Considerations**
- Trench Drains (washbay)
  - Floor Drains (equip room)
  - HVAC
  - Lighting
  - Overhead Doors
  - Buried Tankage
  - Aprons
  - Operator Kiosk
  - Security



**Versatility in Fleetwashing**

The ARROWCLEAN system effectively washes all vehicle types including: tractor-trailers, buses, garbage trucks, to everyday cars and trucks. The versatility of the ARROWCLEAN system makes it the superior choice for fleets consisting of multiple vehicle types or one vehicle type.

Every ARROWCLEAN system consists of at least 3 wash arches that perform a 2 step cleaning process.

- Arch 1:**  
Sprays a pre-soak detergent solution that penetrates tough dirt and grime
  - Arch 2:**  
Sprays an alkaline detergent solution that lifts tough dirt and grime
  - Arch 3:**  
Provides a final 360° rinse
- Additional Arch Options:**
- Undercarriage Wash - Any Arch (Highly recommended)
  - High Pressure De-Muck Arch
  - Extra Rinse Arch
  - Blower Arch for Air Drying

*Additional arches are recommended on a situational basis depending on types of washing desired, budget, and availability of space.*



**Custom Built to Fit Your Needs**

Customer satisfaction is our number one priority. That's why we work with you throughout the planning process to customize an ARROWCLEAN system that best fits your washing needs.

Customization Options (page 7-8)

Automated Wash Reporting	Water Reclamation System
Touch-Screen Start Up Authorization	Undercarriage Wash and/or Rinse
Blower Arch for Air Drying Vehicles	Expanding Wash Manifolds
Pace Light System	(For wider vehicles such as snow plows)



The typical ARROWCLEAN drive-through vehicle wash system consists of two high pressure chemical spray arches and a high-pressure/high-volume rinse arch, wheel spinners at each arch, an oscillating underspray manifold, Master Control panel, and appropriate controls and sensors.



### Oscillating Manifolds

A key and unique feature to every ARROWCLEAN wash system. Each wash manifold at each arch oscillates during wash to increase penetration of soils and road film. Side and underspray wash manifolds oscillate off of washdown duty drive motors and are based on wash pacing.

- On vehicle approach each arch manifold is positioned pointing toward the front of the vehicle.
- As the vehicle passes through the arch, manifolds oscillate back and forth
- Then as the vehicle leaves the arch, manifolds are positioned pointing toward the back of the vehicle.

These simple mechanical functions are designed to achieve a more thorough clean as well as full wash and rinse coverage on the hard to reach fronts and backs and between cab and box.

### Underspray Manifold

The typical ARROWCLEAN system includes one underspray manifold on the #3 rinse arch. The manifold is high pressure and oscillates to clean the underbelly of the vehicle as well as fronts and backs.

### Traffic Control System

An illuminated traffic control light is mounted at the entrance to the wash bay to indicate system status: Stop, Enter, or Wait-System Refilling. An additional traffic control light is mounted at the exit of the bay as a continuation of pace lighting that signals the driver when to maintain speed and when the wash cycle has ended.

### Wheel Wash Spinners

To facilitate greater cleaning power for the wheels and fuel tanks, additional dedicated wheel wash spinners are incorporated on each side of the #1, #2, and #3 arch.



### Precision Chemical Metering

Wash chemicals are proportioned by highly accurate metering pumps that inject concentrated product directly into the wash pumps. Metering can be adjusted for varying seasons and wash needs. The chemical metering pumps are housed in a single enclosure with hinged door and locking latch.

### Water Softener

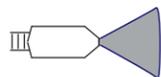
Every ARROWCLEAN system is installed with a 300K grain metered water softener complete with brine tank. Soft water is critical for maximum cleaning performance and efficiency.

### High Efficiency Water Heater

Warm water allows the chemicals in the two-step process to provide maximum cleaning performance and efficiency. We use a 98% efficient water heater system connected to a water storage tank to ensure an on-demand supply of warm water.

The following additions are recommended on an as needed basis.  
Options may not be available in all scenarios.

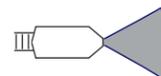
### Touch-Screen Kiosk Outside of Bay



A weatherproof touch screen can be placed at the entrance of the wash bay outside of the overhead doors. The touch screen allows data entry, driver authorization, wash cycle start up, and can be used to notify users when the system is locked due to freezing temperatures. Kiosk necessary for wash reporting.

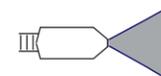


### Automated Wash Reporting



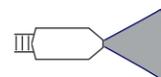
With a Touch-Screen Kiosk our system is capable of creating wash reports with multiple data points. Reports can include time of day wash cycle was performed, length of wash cycle, vehicle number, driver number, fuel statistics, and more! Wash reports are automatic and can be sent as often as once per week. Great for wash oversight and management.

### Water Reclamation System



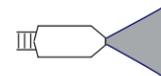
Reclaim and reuse up to 50% of the water used per wash. A reclaim system is the solution if water conservation and sustainability is a priority.

### Blower Arch for Air Drying Vehicles



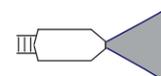
Air dryers located at the exit of the bay help reduce water run-off. Dryers are recommended for use with reclaim systems.

### Expanding Wash Manifolds



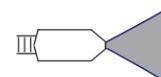
It's no secret that plow trucks are difficult to wash. Our expanding wash manifolds pivot from the standard 12 feet to 14 feet in order to fit wider vehicles for a wash cycle. Wash manifolds sit at the normal width of 12 feet then expand when the corresponding wash cycle is selected.

### Extra Wands in Bay



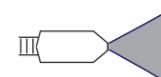
A pressure washer could be a useful addition in your wash bay. Hand-held wands are great for steam cleaning engines, trailer wash outs, extra detailing, and any general washing needs that cannot be fulfilled by the ARROWCLEAN system.

### Extra Underwash Manifold(s)

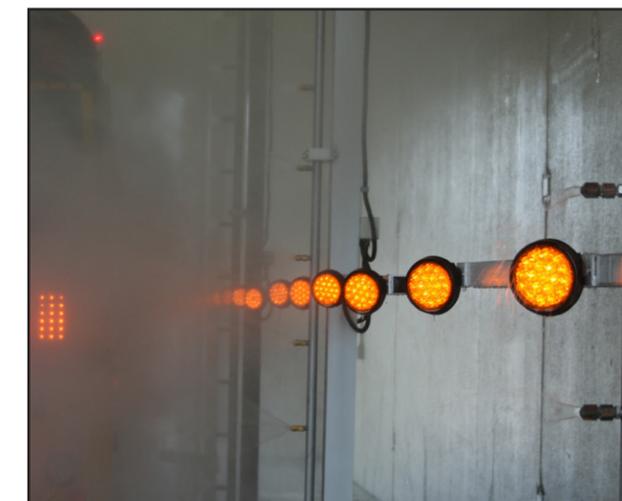
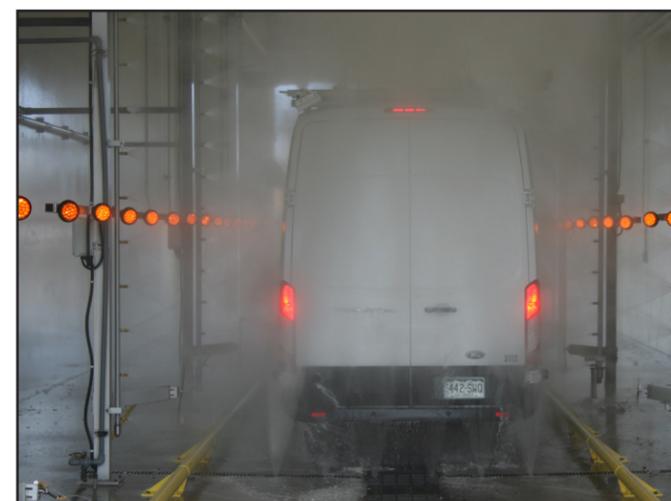


A simple addition that acts as another soldier in the war vs. Magnesium Chloride. Also helps vehicle corrosion thus saving you money on parts and labor. Underwash manifolds can be added to the #1 and #2 arches.

### Pace Light System



LED lighting helps drivers maintain correct speed through wash system to ensure wash consistency. Lights flash in a runway style to help the driver maintain the correct speed. It is important that the correct pace is maintained to ensure wash consistency. Valuable for systems with numerous operators/drivers.



To request further technical information and specifications please call Red Arrow Mfg. at (303) 375-0908

## CREATE A CLEANING **SOAPER-POWER**



With high quality chemical solutions from Red Arrow your automated wash system will become a cleaning powerhouse. There is a reason that our customer retention rate is so high- we make the most effective soaps in the industry. Organizations that pair Red Arrow Chemical and the ARROWCLEAN system have some of the cleanest fleets on the road.

See what some of our customers are saying:

"We have been using an ARROWCLEAN wash system and Red Arrow soap to wash our trucks for over 12 years. Our trucks always look great, our drivers are happy, and other drivers want to drive for us. Kelly and his crew really know what they are doing and their products are the best in the business."

-Tony Taddonio, Owner, Mile Hi Foods

"...After 20 years of personally experiencing the benefits of these products, we have great confidence in delivering them to our clients, and they agree that Red Arrow products not only meet their particular cleaning demands but far exceed their expectations."

-Todd Farenholtz, Owner, Innovative Equipment

## About Us



Red Arrow Manufacturing is a family owned and operated small business that specializes in fleet cleaning solutions. We have been serving our customers across the Front Range and beyond for over 25 years. In that time we have developed steady relationships with our customers by providing the most effective chemical and automated systems in the industry, friendly sales and support, and expert service.

We have a long and proud history of providing the highest quality vehicle wash systems available. We blend our own line of high performance cleaning agents, provide all the necessary service and support, and maintain a close working relationship with our customers to ensure that every ARROWCLEAN system is always operating at peak efficiency.

If you would like to know more about us and what we do, don't hesitate to contact us.



Specialists in  
Fleet Cleaning Solutions  
And Equipment

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