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## **Coming Clean about Car Wash Equipment and Best Practices**

Selecting the Right Dispenser for Car Wash Applications

Based in Cincinnati, Ohio and with offices and support teams around the globe, Hydro Systems is a world leader in delivering chemical dispensing and dosing solutions including equipment, software and services. With strategic partnerships, innovative solutions and more than 50 years of experience, Hydro Systems is committed to enriching the lives of its customers by creating a cleaner, more sustainable world. Its products serve numerous dosing and dispensing applications within commercial cleaning, laundry, warewash, food service, industrial, irrigation, horticulture, animal health, and other industries. Hydro Systems helps its customers ensure dosing is always accurate, safe and cost effective, so that its customers can clean with confidence.

For more information, visit [www.hydrosystemsco.com](http://www.hydrosystemsco.com) or contact **800.543.7184**.

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## I. THE DRIVE TO SUCCEED

### An Action Plan for Car Wash Owners

On a warm summer day, some car owners unravel the hose, grab a sponge and fill a bucket with soap and water to wash their cars. Others may stop by a nearby car wash drive raising funds for a worthy cause. But most seek out a professional car wash to get the job done. Over the years, consumer preference shifted to having cars professionally washed rather than taking on this task themselves. The International Carwash Association (ICA) found that in 1996, nearly half (47.6%) of consumers preferred washing their own vehicles at home.<sup>1</sup> In 2019, just 22.5% of consumers said they wash their car at home most of the time.<sup>2</sup>

As a result, the car wash market has grown into an industry worth \$11 billion and employing nearly 200,000 people.<sup>3</sup> Even better, the industry is expected to experience growth through 2025.<sup>4</sup> ICA reports there are 80,000-90,000 car washes across the United States and Canada.<sup>5</sup> Even amid the challenges presented by the COVID-19 pandemic, many car washes maintained business and saw opportunities for growth. Some operations added interior anti-viral and anti-bacterial sanitizing treatments as well as no-contact car washes to their offerings to give drivers greater peace of mind during unprecedented times.<sup>6</sup> These innovations showcase that the industry can overcome even the biggest obstacles.

In addition to enhancing offerings for automatic car washes, car wash operators saw potential for expanding self-service car washes. Consumers often take advantage of self-service car washes that enable them to clean their car themselves while still using the best chemistry and equipment. A recent report showed that self-service car washes make up 32% of all car washes.<sup>7</sup> In 2018, self-service car washes were credited with the second-largest market share in the car wash industry and projected to continue growing steadily.<sup>8</sup>

Regardless of type, car wash operations need to run like clockwork to uphold cleanliness, a positive customer experience and of course, profitability. There are many moving parts to manage in order to keep a car wash operation running successfully, but many of these parts exist behind the scenes. Chemical dispensers, as well as the actual chemical used to wash cars, has a large impact on a business's reputation.

Low-quality chemicals can leave behind residue or buildup or simply not wash a car effectively, leaving the customer unhappy and unlikely to return. Chemical dispensers are instrumental to achieving the



clean car look and smell that drivers want after visiting a professional or self-service car wash. Yet dispensers that require maintenance or replacement, or those not equipped to handle today's modern chemicals, can drastically impact the result of the wash.

Car wash operators who stay up to date on the latest trends and equipment offerings are better positioned to win and retain business in an increasingly competitive market. In this white paper, we'll discuss industry developments and changes, what to look for in a chemical dispenser and more to keep your car wash business running smoothly.



## II. HOW THE INDUSTRY HANDLES HYPER CONCENTRATES

### New Dilution Requirements Arise

Over the years, many car wash chemical providers have transitioned to using ultra-concentrate chemicals. These are also known as hyper or super concentrates.

Ultra concentrates work best at very lean dilutions. This precision enables car wash operators to clean cars more effectively and affordably by using less chemical and achieving better results. The benefits of hyper concentrates include:

- **Reduced environmental impact** – By removing the water, concentrated chemicals become a lightweight, easy-to-ship product. This limits the number of shipping trucks, trains and planes, which has a positive impact on greenhouse gas emissions. Concentrated chemicals also use less packaging material, reducing waste that would otherwise end up in landfills.

- **Cost savings for everyone** – The use of concentrated chemicals offers savings for chemical providers who ship these solutions and car wash owners who use them on a daily basis. By diluting the chemical with water on site, car wash owners can reduce expenses and store chemical for longer. In especially competitive markets, car wash owners may be able to pass some of the savings on to customers to win new business. Regardless of the approach operators take, using more affordable chemicals supports the bottom line.
- **Easier to store and handle** – Because ultra-concentrate packages are more compact, they can fit into small storage areas. Real estate is increasingly costly, and operators don't have the liberty to have large storage closets when these areas don't directly generate income. Lighter packaging also ensures that employees don't have to strain to transport chemicals. This limits the risk of workplace injuries that can result in time away from work, reduced productivity, worker's compensation claims, fines from regulating bodies and more.
- **More accurate dispensing** – One of the best things about ultra concentrates is that they deliver more consistent results. Operators can trust that cars will emerge clean with each and every wash. Some ultra-concentrate packaging is even designed to make sure that all of the product is dispensed. Offering a better clean and eliminating wasted product drives continued cost savings for operators.

There are numerous types of solutions used within car washes. From acidic chemicals with low pH to neutral solutions to alkaline chemicals with high pH, each kind can be used in a super-concentrate form. This includes products like sealer, protectant, drying agent, detergent and conditioner.

While these chemicals are beneficial in many ways, car wash operations must have the proper dispensing equipment on hand to effectively dilute and dispense the products onto vehicles. Most low-pressure venturi float valve equipment on the market is unable to reach these leaner dilutions. And when equipment is not functioning at peak performance, it can impact wash results, customer satisfaction and profitability.

Additionally, different types of ultra concentrates have varying dilution ratios depending on their application. This requires dispensing equipment to have the capabilities to achieve these specific ratios. Installing and maintaining reliable dispensing equipment is crucial for addressing these nuances.



## III. WEIGHING YOUR WASHING OPTIONS

### Features to Look for in Dispensers

While some car wash operators may prioritize location and friendly customer service above all else, it's important to consider the smaller details that make a big impact on each customer's experience to encourage repeat business and positive word of mouth. Reliable and accurate dispensing equipment is as necessary as brushes, water and cleaning chemical in a car wash.

With numerous products on the market, car wash operators can benefit from weighing their options and identifying the latest and greatest equipment. System manufacturers, chemical companies and operators should confirm the following when recommending and installing dispensers:

#### DILUTION CAPABILITIES

- **Precision** enables dispensers to deliver cleanliness with quality results each and every time. Check your car wash dispenser's dilution range. Some can manage dilutions down to 2500:1. If cars do not emerge consistently clean, this could be a sign that your dispenser is not precise enough to meet the demands of your operation.
- **Design** impacts how well a dispenser dilutes chemicals, and whether frequent clogs occur. Look for dispensers that incorporate ultra-lean dilution (ULD) technology. This will help avoid the issue of clogged tips, as using tips with small diameters for leaner dilutions often results in clogs. ULD technology eliminates this problem entirely because it is used in place of educator tips. The ULD design allows foreign debris to pass through more easily due to ULD technology featuring larger through hole diameters.

Clogged tips often go undetected for extended periods of time unless car wash operators regularly check their chemical dilutions. This can lead to underperformance, meaning that less chemical is delivered to cars, resulting in a subpar wash and increased costs due to rewash.

Another key element to keep an eye out for is an E-Gap design. This particular design feature means that a separate siphon breaker is not needed. This greatly reduces the acquisition cost of the equipment.

- **Water pressure** can also impact dilution results. Ideally, dispensers should have built-in technology to decrease the risk of poor dilution performance when fluctuations in inlet water pressure occur. Water pressure can range depending on the location of the car wash as well as the nearest water supply. Sudden changes in water pressure cannot always be avoided, so it's important that dispensing equipment responds well to these situations and keeps chemicals flowing.

## CHEMICAL COMPATIBILITY

- **Range** is another key component to consider when choosing a dispenser. Not all dispensers are compatible with low and high pH ratios. Over time, regular use of chemical that's incompatible with a dispenser can quickly decrease its lifespan and lead to frequent maintenance or premature replacement. Confirm with the manufacturer that the equipment has been thoroughly tested with ultra-concentrate chemicals and is designed to be used with these products on a long-term basis.
- **Resistance** to certain chemicals can make a big difference when it comes to maintenance. A dispenser with greater chemical resistance will not need to be replaced as often and can reduce operational expenses related to equipment acquisition and installation.

## MAINTENANCE REQUIREMENTS

- **Downtime** isn't a word car wash operators want to hear. When equipment is not functioning as intended and requires maintenance or replacement, it impacts the number of vehicles a car wash can service. If a customer encounters long wait times for a car wash, they can simply turn around and find another car wash nearby. When maintenance is completed in-house, these fixes also pull employees away from their primary tasks.
- **Simple yet effective** dispensers reduce the risk of downtime. Some dispensers on the market may require frequent maintenance, which increases the cost of equipment over its lifetime. Look for an easy-to-install and maintain dispenser, as well as a manufacturer that prioritizes customer service.
- **Chemical dilution cycles** range from dispenser to dispenser. Confirm with the equipment manufacturer how many chemical dilution cycles the equipment can complete before requiring repair or replacement with new components. Lab testing as well as extensive, successful field use can demonstrate the anticipated lifespan of a dispenser and give owners greater confidence in its long-term capabilities.



## IV. ON THE ROAD TO A STRONGER BOTTOM LINE

### Improving Your Operation with the Proper Equipment

Like all other industries, the car wash market will continue to pave a path to adapt to the new normal. No longer is cleanliness just a nice thing to have, it is essential. Now more than ever, consumers care not just about the look and feel of a clean car, but the importance of keeping the areas they use most safe.

Even before COVID-19 hit, 59% of Americans said that washing their car is an important part of routine maintenance.<sup>9</sup> With 47% of consumers washing their car every few months and 28% washing their car several times a month, car wash operators have the opportunity to secure repeat business if they approach business in the right way.<sup>10</sup>

To ensure customers return and spread the word about your car wash among their friends, family and colleagues, take a close look behind the curtain to identify any areas for improvement. An effective and reliable dispenser paired with the right chemicals is a combination every car wash needs to achieve success.

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For more information about dispensing equipment for car wash operations, visit [hydro-systems.com](https://www.hydro-systems.com) or contact **800.543.7184**.

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