



RAZOR[®]

TOUCH-FREE
VEHICLE WASH SYSTEMS

WASHWORLD[®]

www.washworldinc.com | 920.338.9278 | 888.315.7253

TRUSTWORTHINESS

VISION:

Creating global partner success through world class wash experiences.



WHY
CHOOSE



Washworld has consistently been on the cutting edge of car wash technology. We are continually striving to provide innovations that improve the efficiency and quality of our wash systems while keeping them simple to operate and maintain. Our designs and features create a unique and memorable experience that keeps your customers coming back! As a company of car wash owners ourselves, Washworld is well versed in the daily operations of running a car wash business. This is the inspiration for all our technologies. What does this mean for you? Washworld will provide the most user friendly, technologically advanced and consistently reliable in-bay automatic car wash systems available.

RELATIONSHIPS

WASHWORLD EXPERIENCE

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WHAT MAKES

RAZOR

different



Washworld's best selling Razor® has earned the reputation of a proven system for its quality, dependability, safety, speed and longevity. With an emphasis on simplicity of use, reduced maintenance, and stainless steel throughout, Razor is built to last.

LONGEVITY / ROI

STAINLESS STEEL

Without a doubt, the most durable material for use in a car wash. When other manufacturers are using cheaper, less durable materials in their machines, Washworld refuses to compromise on quality and uses stainless steel throughout the Razor wash system.

ADVANCED DRIVE MOTION TECHNOLOGY

Razor's belt drive utilizes multiple variable frequency drive technology with a clean and simple design. Radial motion provides a smooth, precise application of all solutions and water. What does this mean for you? No wasted water or chemicals, fewer moving components, less weight, reduced maintenance and most of all a quicker return on investment!

REDUCED MAINTENANCE

All Washworld systems are designed with a focus on reduced maintenance costs. Sealed gearboxes eliminate the need for oil changes. Reduced weight and less motion equal less wear and tear. High quality, premium components and materials withstand the harsh wash bay conditions resulting in a longer life.



ENERGY CHAIN

Razor's innovative cable carrier protects moving cables and hoses from abrasion and entanglement. The energy chain also provides a controlled bend radius of cables and hoses to prevent pinching or kinking. The non-metallic construction ensures quiet performance, longer cable life and extended supply line life.



Your customers will appreciate the wide open feel of the wash bay. Razor's VS2® is a safe, simple and reliable vehicle positioning system which provides your customers with a friendly, open wash bay without guide rails, floor treadles or T-bars. To increase customer comfort, Razor utilizes a bay guide reflector system to outline vehicle travel, day or night. Razor's VS2 provides exceptional cleaning by consistently measuring front, rear and both sides of vehicles to maintain the optimum distance between the arch and the vehicle for most effective cleaning. Smooth radial wash motion ensures complete vehicle coverage.



RAZOR® STANDARD FEATURES



This stainless steel, angled flood style pods and an overhead 6 nozzle stainless steel manifold delivery system applies up to 8 different applications to the entire vehicle (top, sides, front and rear). Each product can be applied to the vehicle in a single pass. Anything that can be put through the arch can be put through the Flex Pass®. Applications can be programmed from front to rear or rear to front, minimizing machine movement. Speeds are adjustable individually in both directions. Since the arch does not rotate around the car, it results in a substantial savings in time as well as reduced product costs.

SPRAY ARCH

CUTTING EDGE SPRAY ARCH COVER

The vibrant blue, rotationally molded polyethylene arch cover catches the eye of the customer while 7 top and 14 side nozzles provide excellent coverage that they will appreciate. Protective polyethylene cross-link face foam gives added protection.

VISORCLEAN

Stainless steel VeeJet nozzles are strategically placed on the angled side manifold of the spray arch to clean even the hardest of places...under the rear window visor!



Washworld's patented Virtual Attendant® technology enables the Razor to maneuver around obstacles such as wide mirrors, rear mounted bike racks and extended trailer hitches which often render other washes inoperable. Virtual Attendant automatically compensates for the obstacle, thereby allowing the wash to be completed. This means no down time, no attendant and no more trips to the site to reset the wash! Best of all...it is standard on every Razor wash!



Waterproof hand held RF remote control for manual movement and machine functions



With Razor's standard Washview® HMI On-Site, a color touch screen gives you complete access to Razor, including programming, maintenance, diagnostics and wash counts. No on-site PC or laptop is needed to configure your wash. Razor also features a comprehensive integrated notification system which can monitor auto cashiers, doors, fluid levels and more. In addition, the Wash Package Storage capability allows for 4 groups of 4 wash packages.

RAZOR® STANDARD FEATURES

ww exclusive ARCH FLEX

For even more savings in time and product costs, integrate Arch Flex into your wash program. Arch Flex utilizes the spray arch to apply the chosen application to the front of the vehicle, switches on the fly to Flex Pass® application pods to cover the sides and top surface of the vehicle, then reverts to the spray arch for application to the rear of the vehicle. This application reduces carriage movement and application time by 50%. Arch Flex can be utilized on any low-pressure or high-pressure application that can be applied using the spray arch or Flex Pass and can start from the entrance or exit for flexibility and time savings.

Bug A'Salt

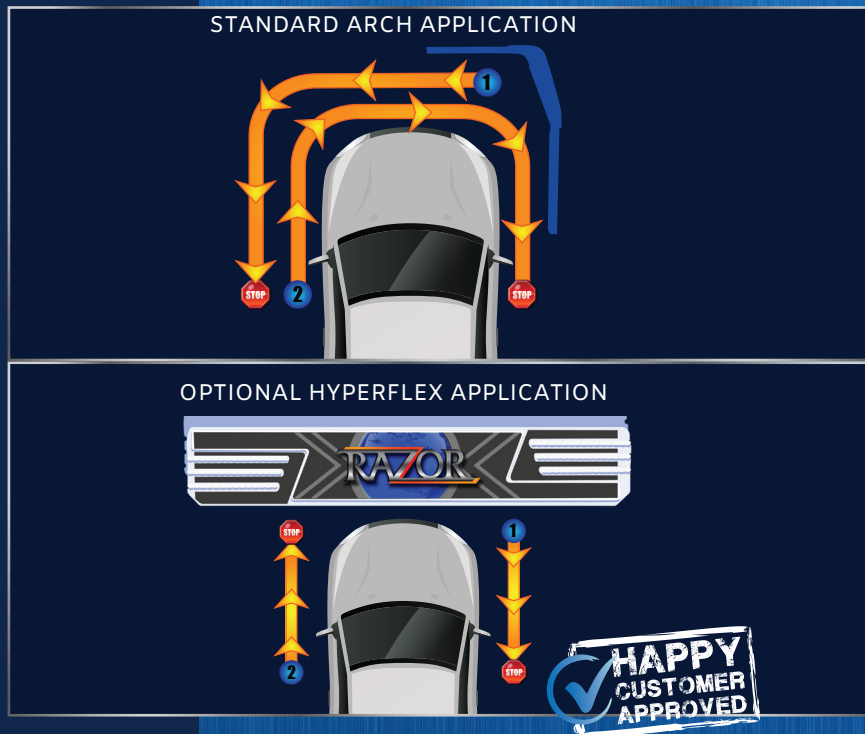
Washworld is launching an all-out war on bugs and salt residue with our extra step vehicle preparation Bug A'Salt™. This unique concentrated attack targets bugs and salt film on the front bumper/grill and windshield/mirrors leaving vehicles cleaner and your customers happier.

STANDARD ARCH APPLICATION

A specific bug/salt formulated product is applied through the spray arch utilizing a low-pressure injector. Spray arch movement applies the product from the passenger side mirror to the driver side mirror and back for a double application providing extensive dwell time for superior results.

OPTIONAL HYPERFLEX™ APPLICATION

A specific bug/salt formulated product is applied through HyperFlex utilizing a low-pressure injector. The HyperFlex overhead manifold and side application pods apply product from the front bumper/grill to windshield/mirrors and back for a double application providing extensive dwell time for superior results. This application reduces carriage movement and application time by 50%.



VALUE ADDED

EYE CATCHING LED'S

For can't miss customer attraction, brilliant blue LEDs illuminate Razor's high gloss composite wash carriage cover.

BUY-UP OPTION

Four customizable buy-up options allow your Auto Cashier to up-sell for you which renders greater wash package flexibility!

VOICE PROMPTS

Your customers will never need to guess what to do next with Razor's voice prompts. Audible instructions and information are linked to Razor's instructional signage. Standard on Razor, the voice prompt is in English, however is customizable for other languages, dialects or custom voice messages.

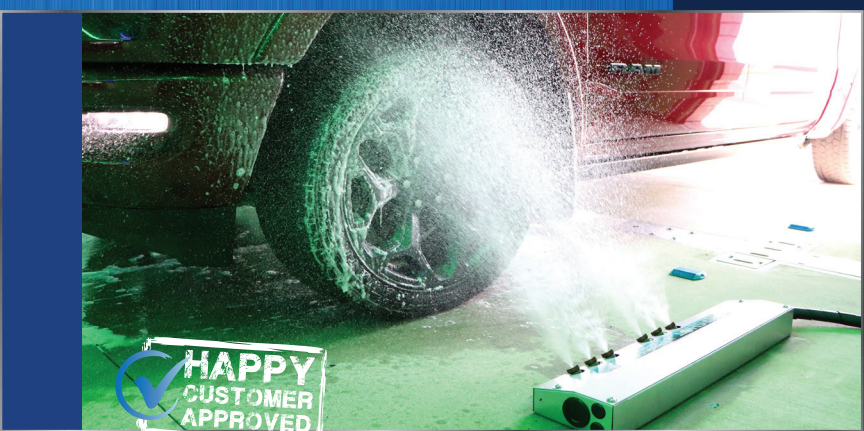


RAZOR® OPTIONAL FEATURES



POWER TOWER WHEEL CLEANER

Effective wheel cleaning that will keep your customers coming back! The 40" high tower features 4 zero degree rotating turbo nozzles, providing intense cleaning as well as great customer appeal. Power Tower Wheel Cleaner® manifolds are fabricated completely from stainless steel wrapped in a vibrant blue, rotationally molded polyethylene cover and is available with or without eye-catching blue LEDs. Not only is the Power Tower Wheel Cleaner effective for wheel cleaning, but it is great for removing mud, snow and ice from rocker panels and running boards!



BIG SHOT CHEMICAL TIRE APPLICATION

Big Shot™ chemical tire applicator is constructed from stainless steel and specifically designed to target your tires/wheels for impeccable results. Pre-charged solution and air manifolds are photo eye activated and software controlled with customizable settings. Big Shot's strategic placement after the undercarriage provides maximum dwell time for optimal performance. Two separate manifolds with 3 nozzles on each (driver and passenger side) provide complete coverage. Each set of application nozzles can deliver a different tire/wheel cleaning product (high pH and low pH) or a dual application of the same product. No matter what size tires, Big Shot has it covered!



UNDERCARRIAGE & ROCKER PANEL BLASTER

The undercarriage and rocker panel blaster is specially designed to thoroughly attack any dirt, debris and snow on the lower portion of your vehicle. The undercarriage and rocker panel blaster consists of 11 stainless steel nozzles; 3 on the undercarriage and 4 on each rocker panel blaster.



TRI-COLOR FOAM

There is simply no better Tri-Color Foam application available! Washworld's Tri-Color Foam features completely adjustable nozzles for coverage the way you want it, where you want it.

TRI-COLOR FOAM FREEZE PROTECTION

Finally, a cost-effective means of protecting your Tri-Color Foam system utilizing heat and weep or heat and blow down capabilities to prevent freezing without the typical extreme water usage of other systems.

RAZOR® OPTIONAL FEATURES

SPECTRARAY+™

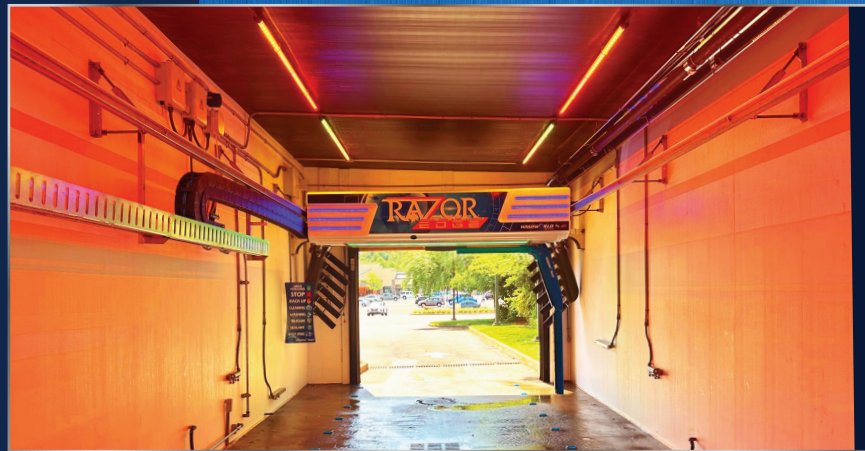
SpectraRay+™ works in conjunction with SpectraRay™ to take the spectacular LED light show to the next level!

SpectraRay+ includes an adjustable stainless steel wall or pedestal mounted system, bringing the intense light show to eye level. The colors can sequence through flashing colors for an intense experience, switch to a steady color at any point to coincide with your wash package and even coordinate with your in-bay instruction sign. When paired together, SpectraRay+ and SpectraRay synchronize to flood the wash bay with red, magenta, blue and green creating an ultimate light show that customers won't forget!



G&G INDUSTRIAL LIGHTING

Make your wash unforgettable! G&G ColorWash® integrates with your Washworld equipment to create dynamic light shows that highlight every stage of the wash process. It can be programmed with SpectraRay and SpectraRay+ to coincide with your wash packages and in-bay signage. The plug-and-play system makes installation and maintenance quick and easy. From eye-catching holiday shows to nighttime curb appeal, ColorWash combined with SpectraRay and SpectraRay+ turns your site into a revenue-generating spectacle—keeping members hooked and new customers rolling in!



FOAM 'n FLOW

More show, more shine, more revenue with Washworld's Foam 'n Flow® application system! It produces high end results for extra profit generation. Complete with full, dramatic product enhancing LED backlighting, Foam 'n Flow can be used to make an impressive foaming sheet with most Carnauba, hot wax, polish and conditioning products on the market.



Washview® MOBILE

Washworld's optional Washview® Mobile provides virtually the same technologies as Washview® On-Site (standard), however it allows you to access and control Razor from anywhere in the world via a high-speed Internet connection. Washview Mobile uses a standard web browser on your smart phone or tablet to give you mirror image access of your HMI. It even gives you the ability to receive text or email notifications to keep you fully informed!



RAZOR

ENHANCED • DESIGN • GLOBAL • EXPERIENCE

EDGE

ENHANCED DESIGN GLOBAL EXPERIENCE.

Meet the perfect combination of speed and user experience in car wash technology. Razor® with EDGE package comes equipped with all our reliable Razor components and also includes an intense customer experience featuring HyperFlex™ and SpectraRay™.

*HyperFlex and SpectraRay are available as individual options on a standard Razor, Razor Double Barrel and Razor HyperForce.

*EDGE package is available on Razor, Razor Double Barrel and Razor HyperForce.



SPECTRARAY™

A spectacular array of over 4,500 LEDs fill the wash bay with SpectraRay! The red, magenta, blue and green LEDs are fully programmable to add splashes of various colors during any or all of the product applications to accentuate the entire wash process. The colors can sequence through flashing colors for an intense experience, switch to a steady color at any point to coincide with your wash package and even coordinate with your in-bay instruction sign. Even when idle, SpectraRay can sequence through color to draw attention to the wash bay with an eye-catching light show making it unique and memorable. Transform your car washing experience in a big way by bathing your wash bay in red, magenta, blue and green!

HYPER FLEX™

HyperFlex™ heightens the dynamic customer experience of Razor EDGE. HyperFlex consists of an overhead rain manifold and side mounted angled flood style pods that can be used in conjunction with Razor standard Flex Pass® to simultaneously apply multiple products dramatically reducing wash time. HyperFlex has the ability to apply 4 low-pressure applications plus a spot free rinse. Programming HyperFlex with SpectraRay creates a blanket of color for the ultimate experience!

RAZOR®

DOUBLE BARREL

Razor Double Barrel is specifically designed with two spray arch manifolds, one high pressure and one low pressure, intensely maximizing the wash experience. Double Barrel's power blasts away pesky bugs and dirt utilizing zero degree rotating turbo nozzles while providing a safe, consistently reliable car wash upholding the highest standards in quality, dependability, speed and longevity.

*Razor Double Barrel comes equipped with all Razor standard features.

DOUBLE BARREL SPRAY ARCH

The vibrant blue, rotationally molded polyethylene arch cover catches the eye of the customer while protective cross-link face foam gives added protection. For added convenience, a high-pressure gauge has been mounted onto the spray arch for monitoring nozzle pressure.

Double Barrel encompasses two spray arch manifolds to give an intense cleaning that is sure to get customers talking. The stainless steel low-pressure manifold includes 8 top and 14 side VeeJet nozzles, while the stainless steel high-pressure manifold includes 8 top and 14 side zero degree rotating turbo nozzles.

The Double Barrel arch face cover incorporates dual cross-linked polyethylene for nozzle protection. The face cover can easily be replaced or removed for direct access to both the VeeJet and stainless steel zero degree rotating turbo nozzles.



ROBUST SPRAYING POWER

The Double Barrel carriage height has been raised by 4" to accommodate the zero degree rotating turbo nozzles to maintain a 7' vehicle clearance. The side arch has been extended out by 12" to maintain the optimal cleaning distance.

Customers will appreciate the robust sound of Double Barrel's intense spraying power as it blasts away bugs and dirt.



HEAVY DUTY PUMP STATION

*Heavy Duty Pump Station for Razor and Razor Double Barrel

RAZOR RAZOR®

DOUBLE
BARREL



STANDARD FEATURES

- Space saving design, simple installation, easy to maintain
- Heavy duty powder coated frame utilizes proven protective primer
- CAT 3535 Pump with deluxe oil change kit allows easy access for service
- Electronic air regulator - allows for each foaming application to have it's own pre-set air pressure
- 3 Separate pre-soak applications
- 2 High pressure sealant / drying agent applications
- 1 Low pressure drying agent / protectant application
- One piece rotationally molded corrosion proof MDPE tank
- Programmable dual low pressure inlet (hot and cold incoming)
- Resource conservation system lowers water consumption
- Direct feed solutions system provides more control and reduces chemical costs significantly
- Stainless steel chemical manifold
- Stainless steel / composite direct feed chemical delivery system
- Flex Pass® application system

OPTIONAL FEATURES

- Tri-Color Foam application system
- Foam 'n Flow® application system
- HyperFlex™ application system
- Spot free re-pressurization system
- Reclaim system adapter kit
- High capacity 12kw electric water heater
- Instantaneous natural gas water heater
- Cold climate package - heat and weep
- Cold climate package - heat and air blow down
- Cold climate package - weep only
- Cold climate package - heat only
- Sound reduction kit

IN - BAY EQUIPMENT PACKAGE

*In-Bay Pump Station for Razor and Razor Double Barrel



For locations without an equipment room, the In-Bay Equipment Package comes with the Pump Station that offers the same cutting-edge technology incorporated in a space saving design to be located directly in your wash bay. Featuring a one piece heavy duty frame, stainless steel bulk head manifold for incoming and outgoing supply lines. Removable noncorrosive ABS panels for the front, back, sides and top keep direct water spray and debris out. It includes an easy access port for maintenance without removing the panels. The standard UCC is replaced with a stainless steel cabinet and a hinged water resistant, clear polycarbonate HMI cover. The In-Bay Equipment Package is designed for long life in even the harshest of conditions.

STANDARD FEATURES

- Simple to install, space saving design: 37"H x 96"L x 26"D
- Deluxe cover package with enclosed base protects equipment and looks great in your bay
- Removable panels allow for complete access and easy maintenance
- Heavy duty powder coated frame utilizes proven protective primer
- CAT 3535 pump with deluxe oil change kit allows easy access for service
- Electronic air regulator - allows for each foaming application to have it's own pre-set air pressure
- 3 Separate pre-soak applications
- 2 High pressure sealant / drying agent applications
- 1 Low pressure drying agent / protectant application
- One piece rotationally molded corrosion proof MDPE tank
- Programmable dual low pressure inlet (hot and cold incoming)
- Stainless steel top feed and discharge manifold
- Resource conservation system lowers water consumption
- Direct feed solutions system provides more control and reduces chemical costs significantly
- Stainless steel chemical manifold
- Stainless steel / composite direct feed chemical delivery system
- Flex Pass® application system

OPTIONAL FEATURES

- Tri-Color Foam application system
- Foam 'n Flow® application system
- HyperFlex™ application system
- Built in spot free re-pressurization system
- Reclaim system adapter kit
- Built in high capacity 12kw electric water heater
- Cold climate package - heat and weep
- Cold climate package - heat and air blow down
- Cold climate package - weep only
- Cold climate package - heat only



HYPER FORCE

RAZOR

Washworld's Razor HyperForce is engineered with dual high pressure spray arch manifolds that have specific alternating VeeJet nozzle placement for complete coverage. HyperForce includes the enhanced Flex Pass Ultra feature designed to extend the range of product applications allowing complete coverage of both high and low-profile vehicles. The HyperForce pump station includes a 40HP high efficiency motor driving a CAT 3545HS making it capable of 1500 psi @ 36 GPM. These features provide the ultimate cleaning and customer experience that will set you apart from the competition.



ALTERNATING NOZZLE
PLACEMENT

SPRAY ARCH

Razor HyperForce dual high pressure spray arch manifolds consist of 25 VeeJet nozzles (7 on the top manifolds, 6 on the angled side manifolds, 12 on the lower side manifolds) with alternating nozzle placement for complete coverage and superior cleaning.

The vibrant blue, rotationally molded polyethylene arch cover catches the eye of the customer. The arch face cover incorporates dual cross-linked polyethylene for nozzle protection. The face cover can easily be replaced or removed for direct access to the VeeJet nozzles.



VISORCLEAN

Stainless steel VeeJet nozzles are strategically placed on the angled side manifolds of the spray arch to clean even the hardest places...under the rear window visor!



CAT 3545HS

The CAT 3545HS is capable of 1500 psi @ 36 GPM...that's an increase of 300 psi with the same water usage as the Razor CAT 3535 pump! The 40 HP premium high efficiency ODP motor provides elevated cleaning pressure and performance.

RAZOR® HYPERFORCE STANDARD FEATURES



High performance arc shaped stainless steel manifolds with 6 stainless steel VeeJet nozzles per side and an overhead 6 nozzle stainless steel manifold delivery system applies up to 8 different applications to the entire vehicle (top, sides, front and rear). Flex Pass® Ultra is designed to extend the range of product applications allowing complete coverage of both high and low-profile vehicles...Flex Pass Ultra has you covered! Each product can be applied to the vehicle in a single pass. Anything that can be put through the arch can be put through the Flex Pass Ultra. Applications can be programmed from front to rear or rear to front, minimizing machine movement. Speeds are adjustable individually in both directions. Since the arch does not rotate around the car, it results in substantial savings in time as well as reduced product costs.



ARCH FLEX

For even more savings in time and product costs, integrate Arch Flex into your wash program. Arch Flex utilizes the spray arch to apply the chosen application to the front of the vehicle, switches on the fly to Flex Pass® Ultra to cover the sides and top surface of the vehicle, then reverts to the spray arch for application to the rear of the vehicle. This application reduces carriage movement and application time by 50%. Arch Flex can be utilized on any low-pressure or high-pressure application that can be applied using the spray arch or Flex Pass Ultra and can start from the entrance or exit for flexibility and time savings.



HYPERFORCE HEAVY DUTY PUMP STATION

HYPER FORCE

RAZOR



Washworld's HyperForce Pump Station has the same overall footprint as the Razor Pump Station and features a poly tank with electronic fill valve and capacitive level sensor, programmable dual low-pressure inlet (hot and cold incoming), direct feed solutions system with electronic air regulator, CAT 3545HS pump complete with remote oil drain kit, leveling feet, easy tilt wiring access panel and easy access to all serviceable components. The CAT 3545HS is capable of 1500 psi with the same water usage as the Razor CAT 3535 pump.

STANDARD FEATURES

- Space saving design, simple installation, easy to maintain
- Heavy duty powder coated frame utilizes proven protective primer
- CAT 3545HS Pump with deluxe oil change kit allows easy access for service
- Electronic air regulator - allows for each foaming application to have it's own pre-set air pressure
- 3 Separate pre-soak applications
- 2 High pressure sealant / drying agent applications
- 1 Low pressure drying agent / protectant application
- One piece rotationally molded corrosion proof MDPE tank
- Programmable dual low pressure inlet (hot and cold incoming)
- Resource conservation system lowers water consumption
- Direct feed solutions system provides more control and reduces chemical costs significantly
- Stainless steel chemical manifold
- Stainless steel / composite direct feed chemical delivery system
- Flex Pass® Ultra application system



OPTIONAL FEATURES

- Tri-Color Foam application system
- Foam 'n Flow® application system
- HyperFlex™ application system
- Spot free re-pressurization system
- Reclaim system adapter kit
- High capacity 12kw electric water heater
- Instantaneous natural gas water heater
- Cold climate package - heat and weep
- Cold climate package - heat and air blow down
- Cold climate package - weep only
- Cold climate package - heat only
- Sound reduction kit

RAZOR® FEATURES - QUICK LIST



STANDARD FEATURES

IN-BAY WALL MOUNT SYSTEM - STAINLESS STEEL

- Stainless steel travel rails (27' 4" overall length)
- Stainless steel wall mounting hardware
- Floor mounted blue reflectors for visual guidance
- Wash bay stop / backup loading eye wall mounting kit - Standard bays

OVERHEAD CARRIAGE AND TROLLEY FRAME - LASER CUT STAINLESS STEEL

- Variable frequency controlled belt drive carriage and trolley movement
- Stainless steel contouring spray arch with variable frequency control
- VS²® (Vehicle Sizing System)
- Virtual Attendant® - Maneuvers around wide mirrors and trailer hitches
- Visorclean - Nozzles strategically placed to clean under rear visor
- Spray arch cover - Rotationally molded polyethylene composite material
- Replaceable nozzle protector - Cross linked polyethylene foam
- Stainless steel carriage, totally enclosed climate proof motors and gearboxes with precise movement and minimal rolling resistance
- Energy chain - No festoon, overhead cross brace or overhead swivel
- Flex Pass® carriage manifold
- Triple pass technology for optimal front and rear cleaning
- Bug A'Salt™ technology for additional seasonal cleaning
- Arch mirror detailing - Arch will turn to clean and rinse side mirrors
- Attention grabbing blue LEDs highlighting the entrance cover

SOLUTION DELIVERY SYSTEM - POWDER COATED CARBON STEEL PUMP STATION

- Cat 3535 Pump / 25 HP premium high efficiency ODP motor
- Variable flow and pressure with water conservation system
- High flow multiple stage solution delivery pump system
- Composite direct injection / No drift chemical metering system
- Electronic air regulator - Allows for each foaming application to have its own pre-set air pressure
- 3 separate pre-soak applications
- 2 high pressure sealant / Drying agent applications
- 1 low pressure drying agent / Protectant application
- Dual inlet low pressure source selection (hot and cold)

ULTIMATE CONTROL CABINET

- Electrical control panel 208VAC (soft start and stop variable frequency motor controls on carriage, trolley and arch)
- Washview® HMI On-Site control interface - Complete on-site programming and diagnostic capability
- Wash activation buy-up compatibility
- Comprehensive integrated notification system
- In-bay voice module to communicate Razor actions to customer
- Waterproof hand held RF remote control for manual movement and machine function
- Auto home feature



PACKAGE FEATURES

Razor® with EDGE package comes equipped with all of the standard Razor features as well as the following:

- HyperFlex™ - 2 product applications applied at the same time when paired with Flex Pass
- SpectraRay™ - 4,528 LEDs (red, magenta, blue and green) - Light show during the wash process or while idle



STANDARD FEATURES

Razor® Double Barrel comes equipped with all of the standard Razor features as well as the following:

- Stainless steel low pressure manifold with 22 VeeJet nozzles
- Stainless steel high pressure manifold with 22 zero degree rotating turbo nozzles
- Arch mounted high pressure gauge



STANDARD FEATURES

Razor® HyperForce comes equipped with all of the standard Razor features as well as the following:

- Dual high pressure spray arch manifolds with 25 VeeJet nozzles
- Flex Pass® Ultra - High performance arc shaped stainless steel side manifolds and overhead stainless steel manifold delivery system
- Heavy Duty Pump Station - CAT 3545HS pump capable of 1500 psi



OPTIONAL FEATURES

RAZOR® SYSTEM OPTIONS

- Razor On-Board Dryer system options
 - 30 HP (4 - 7.5 HP motors)
 - 30 HP (3 - 10 HP motors)
 - 40 HP (4 - 10 HP motors)
 - 45 HP (3 - 15 HP motors)
 - 60 HP (4 - 15 HP motors)
- In-bay horizontal pump station with composite covers and in-bay stainless steel ultimate control cabinet
- UCC power conversion kit (converts standard UCC for use with 240 VAC 3 phase 60 Hz incoming power supply)
- Pump station noise reduction kit
- Free standing frame (stainless steel or powder coated)
- Wash bay stop / backup loading eye pedestal mounting kit - Free standing frame or non-standard bays
- E-chain supply passenger side / right side while entering the bay
- E-chain supply driver side / left side while entering the bay

WASH OPTIONS

- Tri-Color Foam application system
- Tri-Color Foam application system with cold climate protection
- Foam 'n Flow® application system
- HyperFlex™ - 2 product applications applied at the same time when paired with Flex Pass®
- HyperFlex™ blow down
- SpectraRay™ - 4,528 LEDs (red, magenta, blue and green) - Light show during the wash process or while idle
- SpectraRay+™ - 5,568 LEDs (red, magenta, blue and green) - Mounting options: wall, pedestal mount or OBD free standing frame
- Medium pressure R.O. pump (13 GPM @ 110 psi) includes wall mount bracket and motor starter
- Spot free R.O. reject water reclaim system
- Reclaim system adapter kit
- Cold climate package - Heat and weep
- Cold climate package - Heat and air blow down
- Cold climate package - Weep only
- Cold climate package - Heat only
- Primary HS / Washview® MOBILE - High speed DSL or cable Internet connection capability - Internet access without a static IP address
- Secondary HS / Washview® MOBILE - Additional high speed DSL or cable Internet connection at same location for multi-bay sites
- Water heater, on demand, direct vent, tank-less, natural gas or propane
- Water heater, 12kw high capacity electric, stainless steel tank
- Undercarriage and Rocker Panel Blaster - 11 stainless steel nozzles; 3 on the undercarriage and 4 on each rocker panel blaster
- Power Tower Wheel Cleaner® - 4 rotating nozzles per tower - Available with or without blue LEDs
- Big Shot™ - Chemical tire application
- Custom voice option for in-bay voice module
- Through wall stainless steel bulkhead manifold - For electrical and plumbing from mechanical room to wash bay
- Premium door controls - Includes eyes
- Ultimate door controls - Includes eyes

RAZOR® SPECS

WALL MOUNT WASH BAY DIMENSIONS*

	OPTIONS	PREFERRED	*MINIMUM	MAXIMUM
RAZOR & HYPERFORCE HEIGHT	13' 4" - 16' 0" (4064 - 4877mm) Bay Widths 16' 0" - 18' 0" (4877 - 5486mm) Bay Widths	12' (3658mm) 12' (3658mm)	10' 8" (3251mm) 11' 4" (3454mm)	N/A
DOUBLE BARREL HEIGHT	14' 0" - 16' 9" (4267 - 5105 mm) Bay Widths 16' 9" - 18' 0" (5105 - 5486 mm) Bay widths	12' 4" (3759 mm)	11' 0" (3353 mm) 11' 8" (3356 mm)	N/A
RAZOR WIDTH	27' 4" Rails (8331mm) (Standard) 30' 4" Rails (9246mm) (OBD) 25' 4" Rails (7722mm) (Optional)	15' (4572mm)	13' 4" (4064mm)	18' (5486mm)
DOUBLE BARREL & HYPERFORCE WIDTH	27' 4" Rails (8331 mm) (standard) 30' 4" Rails (9246 mm) (OBD) 25' 4" Rails (7722 mm) (optional)	15' (4572mm)	14' (4267mm)	18' (5486mm)
RAZOR, DOUBLE BARREL & HYPERFORCE LENGTH	25' 4" Rails (7722mm) (Optional) 27' 4" Rails (8331mm) No Dryer	28' (8534mm) 30' (9144mm)	25' 8" (7823mm) 27' 8" (8432mm)	N/A
	27' 4" Rails (8331mm) Razor and Dryer w/Covers	42' (12802mm)	31' 4" (9550mm)	N/A
	30' 4" Rails w/On-Board Dryer (9246mm)	42' (12802mm)	31' 4" (9550mm)	N/A

*NOTE: Minimum dimensions are from nearest inside obstructions entrance to exit, and bay floor to ceiling, e.g. door tracks, counterweights, etc. Add in additional length for these items.

FREE STANDING FRAME DIMENSIONS*

	OPTIONS	PREFERRED	*MINIMUM	MAXIMUM
RAZOR & HYPERFORCE HEIGHT	27' 4" Rails (8331mm) (Standard) 30' 4" Rails (9246mm) (OBD) 25' 4" Rails (7722mm) (Optional)	12' (3658mm)	10' 9" (3277mm)	N/A
DOUBLE BARREL HEIGHT	27' 4" Rails (8331mm) (Standard) 30' 4" Rails (9246mm) (OBD) 25' 4" Rails (7722mm) (Optional)	12' 4" (3759 mm)	11' 1" (3378mm)	N/A
RAZOR, DOUBLE BARREL & HYPERFORCE WIDTH	27' 4" Rails (8331mm) (Standard) 30' 4" Rails (9246mm) (OBD) 25' 4" Rails (7722mm) (Optional)	14' 0" (4267mm)	13' 8" (4166mm)	N/A
RAZOR, DOUBLE BARREL & HYPERFORCE LENGTH	25' 4" Rails (7722mm) (Optional) 27' 4" Rails (8331mm) No Dryer	28' (8534mm) 30' (9144mm)	25' 8" (7823mm) 27' 8" (8432mm)	N/A
	27' 4" Rails (8331mm) Razor and Dryer w/Covers	42' (12802mm)	31' 4" (9550mm)	N/A
	30' 4" Rails w/On-Board Dryer (9246mm)	42' (12802mm)	31' 4" (9550mm)	N/A

*NOTE: Minimum dimensions are from nearest inside obstructions entrance to exit, and bay floor to ceiling, e.g. door tracks, counterweights, etc. Add in additional length for these items.

RAZOR MINIMUM UTILITY REQUIREMENTS

Water:25 GPM @ 35 psi (94.6 l/m @ 2.4 bars) minimum at pump station
Air:100 psi @ 11 SCFM (6.89 bars @ 311 l/m) includes optional Tri-Color Foam
Electrical: 208/230 VAC, 3 PH, 60 Hz (Five wire, three phase with neutral and ground)

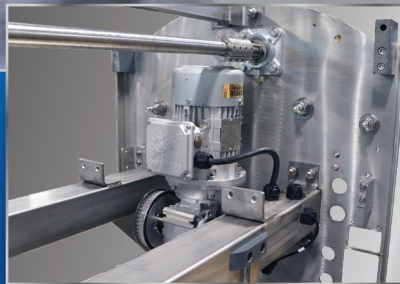
VOLTAGE	UCC CABINET	RAZOR PUMP STATION	HYPERFORCE PUMP STATION	OPTIONAL COLD CLIMATE PACKAGE	ADD FOR EACH DRYER MOTOR	
208	23 Amps	73 Amps	108.3 Amps	14 Amps	10 HP 27 Amps	15HP 40 Amps
230	20 Amps	62 Amps	98 Amps	12 Amps	10 HP 24 Amps	15HP 35 Amps
380/415 (50HZ)	17 Amps	38 Amps	53 Amps	10 Amps	10 HP 15 Amps	15HP 22 Amps
460	N/A	31 Amps	49 Amps	N/A	10 HP 12 Amps	15HP 17 Amps
575	N/A	24.5 Amps	39.2 Amps	N/A	10 HP 9.12 Amps	15HP 13.6Amps

Note: Specifications Subject to Change Without Notice. The decibel level of the dryer (measured at 1.6 meters from the floor and 1 meter from the surface) is 94dB. The decibel level of the pump station (measured at 1.6 meters from the floor and 1 meter from the surface) is 94dB. Decibel levels are impacted by surrounding materials and conditions and will vary.

RAZOR® XR-7 STANDARD FEATURES

WHAT MAKES RAZOR XR-7 *different*

Washworld's Razor® XR-7 has all the best of what makes Razor unique, but at a lower price point. Razor XR-7 keeps costs down while maintaining the highest standards of quality. For longevity, stainless steel is an important part of Razor XR-7. With a wide range of options available, Razor XR-7 is the complete package!



LONGEVITY / ROI

STAINLESS STEEL

Without a doubt, the most durable material for use in a car wash. When other manufacturers are using cheaper, less durable materials in their machines, Washworld refuses to compromise on quality and uses stainless steel throughout the Razor XR-7 wash system.

ADVANCED DRIVE MOTION TECHNOLOGY

Razor XR-7's belt drive utilizes multiple variable frequency drive technology with a clean and simple design. Radial motion provides a smooth, precise application of all solutions and water. What does this mean for you? No wasted water or chemicals, fewer moving components, less weight, reduced maintenance and most of all a quicker return on investment!

REDUCED MAINTENANCE

All Washworld systems are designed with a focus on reduced maintenance costs. Sealed gearboxes eliminate the need for oil changes. Reduced weight and less motion equal less wear and tear. High quality, premium components and materials withstand the harsh wash bay conditions resulting in a longer life.

ENERGY CHAIN

Razor XR-7's innovative cable carrier protects moving cables and hoses from abrasion and entanglement. The energy chain also provides a controlled bend radius of cables and hoses to prevent pinching or kinking. The non-metallic construction ensures quiet performance, longer cable life and extended supply line life.



RAZOR® XR-7 STANDARD FEATURES



Your customers will appreciate the wide open feel of the wash bay. Razor XR-7's VS² is a safe, simple and reliable vehicle positioning system which provides your customers with a friendly, open wash bay without guide rails, floor treadles or T-bars. To increase customer comfort, Razor XR-7 utilizes a bay guide reflector system to outline vehicle travel, day or night. Razor XR-7's VS² provides exceptional cleaning by consistently measuring front, rear and both sides of vehicles to maintain the optimum distance between the arch and the vehicle for most effective cleaning. Smooth radial wash motion ensures complete vehicle coverage.



SPRAY ARCH

CUTTING EDGE SPRAY ARCH COVER

The vibrant blue, rotationally molded polyethylene arch cover catches the eye of the customer while 7 top and 14 side nozzles provide excellent coverage that they will appreciate. Protective polyethylene cross-link face foam gives added protection.

VISORCLEAN

Stainless steel VeeJet nozzles are strategically placed on the angled side manifold of the spray arch to clean even the hardest of places...under the rear window visor!



Washworld's patented Virtual Attendant® technology enables the Razor XR-7 to maneuver around obstacles such as wide mirrors, rear mounted bike racks and extended trailer hitches which often render other washes inoperable. Virtual Attendant automatically compensates for the obstacle, thereby allowing the wash to be completed. This means no down time, no attendant and no more trips to the site to reset the wash! Best of all...it is standard on every Razor XR-7 wash!

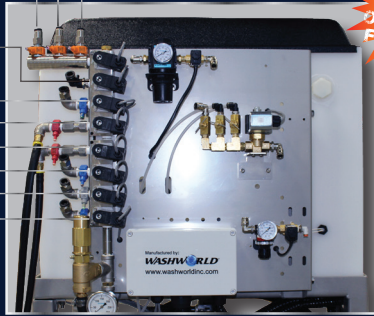


With Razor XR-7's standard Washview® HMI On-Site, a color touch screen gives you complete access to Razor XR-7, including programming, maintenance, diagnostics and wash counts. No on-site PC or laptop is needed to configure your wash. Razor XR-7 also features a comprehensive integrated notification system which can monitor auto cashiers, doors, fluid levels and more. In addition, the Wash Package Storage capability allows for 4 groups of 4 wash packages.



RAZOR® XR-7 OPTIONAL FEATURES

- Tri-Color Foam
- Tri-Color Foam Weep Water (ESD with cold climate)
- Low Pressure #3
- HP Drying Agent / Sealant
- HP Drying Agent / Sealant
- Low Pressure #1
- Low Pressure Foam Polish
- Low Pressure #2



ESD EXTENDED SOLUTION DELIVERY

ESD provides the optional extra services your customers will rave about and be an easy up-sell option to increase your revenue stream. ESD includes an additional single low pressure and single high-pressure application and Tri-Color Foam. Adding Washworld's ESD option to your Razor XR-7 is an easy decision to make!

TRI-COLOR FOAM

There is simply no better Tri-Color Foam application available! Washworld's optional ESD/Tri-Color Foam feature includes an additional single HP and LP application, features completely adjustable nozzles for coverage the way you want it, where you want it.

TRI-COLOR FOAM FREEZE PROTECTION

Finally, a cost-effective means of protecting your Tri-Color Foam system utilizing heat and weep or heat and blow down capabilities to prevent freezing without the typical extreme water usage of other systems.

UNDERCARRIAGE & ROCKER PANEL BLASTER

The undercarriage and rocker panel blaster is specially designed to thoroughly attack any dirt, debris and snow on the lower portion of your vehicle. The undercarriage and rocker panel blaster consists of 11 stainless steel nozzles; 3 on the undercarriage and 4 on each rocker panel blaster.

POWER TOWER WHEEL CLEANER

Effective wheel cleaning that will keep your customers coming back! The 40" high tower features 4 zero degree rotating turbo nozzles, providing intense cleaning as well as great customer appeal. Power Tower Wheel Cleaner® manifolds are fabricated completely from stainless steel wrapped in a vibrant blue, rotationally molded polyethylene cover and is available with or without eye-catching blue LEDs. Not only is the Power Tower Wheel Cleaner effective for wheel cleaning, but it is great for removing mud, snow and ice from rocker panels and running boards!



RAZOR® XR-7 OPTIONAL FEATURES

SPECTRARAY+™

SpectraRay+™ floods the wash bay with red, magenta, blue and green creating an ultimate light show that customers won't forget! It includes an adjustable stainless steel wall or pedestal mounted system and can be programmed to sequence through flashing colors for an intense experience or switch to a steady color at any point to coincide with your wash package. Even when idle, SpectraRay+ can sequence through color to draw attention to the wash bay with an eye-catching light show making it unique and memorable.



G&G INDUSTRIAL LIGHTING

Make your wash unforgettable! G&G ColorWash® integrates with your Washworld equipment to create dynamic light shows that highlight every stage of the wash process. It can be programmed with SpectraRay and SpectraRay+ to coincide with your wash packages and in-bay signage. The plug-and-play system makes installation and maintenance quick and easy. From eye-catching holiday shows to nighttime curb appeal, ColorWash combined with SpectraRay and SpectraRay+ turns your site into a revenue-generating spectacle—keeping members hooked and new customers rolling in!



WASHVIEW MOBILE

Washworld's optional Washview® Mobile provides virtually the same technologies as Washview On-Site (standard), however it allows you to access and control Razor XR-7 from anywhere in the world via a high-speed Internet connection. Washview Mobile uses a standard web browser on your smart phone or tablet to give you mirror image access of your HMI. It even gives you the ability to receive text or email notifications to keep you fully informed!

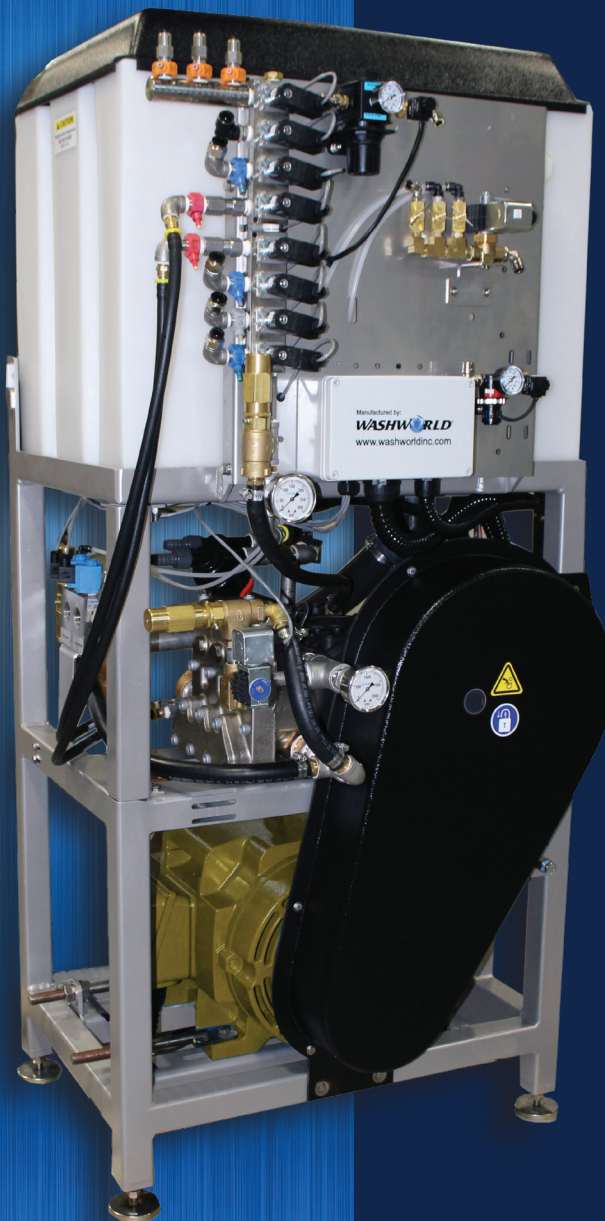


VOICE PROMPTS

Your customers will never need to guess what to do next with Razor XR-7's optional voice prompts. Audible instructions and information are linked to the instructional signage. The voice prompts come standard in English, however, is customizable for other languages, dialects or custom voice messages.



RAZOR XR-7



STANDARD FEATURES

- Space saving design, simple installation, easy to maintain
- Heavy duty powder coated frame utilizes proven protective primer
- General Pump - Emperor HTCK40
- Two pre-soaks, additional single low pressure, single high pressure applications available
- One piece rotationally molded corrosion proof MDPE tank
- Resource conservation system lowers water consumption
- Direct feed solutions system provides more control
- Stainless steel chemical manifold
- Stainless steel / composite direct feed chemical delivery system
- 25 HP premium high efficiency ODP motor

OPTIONAL FEATURES

- Cat 3535 pump option (replaces General Pump - Emperor HTCK40)
- ESD - Extended Solution Delivery option includes: Tri-Color Foam, (1) additional low pressure, (1) additional high pressure for sealant / drying agent applications
- Cold climate package - heat and weep
- Cold climate package - heat and air blow down
- Cold climate package - weep only
- Cold climate package - heat only
- Dual inlet low pressure source selection valve and control hot and cold
- Spot free re-pressurization system
- Reclaim system adapter kit
- Dual port injector system
- Sound reduction kit

IN - BAY EQUIPMENT PACKAGE



For locations without an equipment room, the In-Bay Equipment Package comes with the Pump Station that offers the same cutting-edge technology incorporated in a space saving design to be located directly in your wash bay. Featuring a one piece heavy duty frame, stainless steel bulk head manifold for incoming and outgoing supply lines. Removable noncorrosive ABS panels for the front, back, sides and top keep direct water spray and debris out. It includes an easy access port for maintenance without removing the panels. The standard UCC is replaced with a stainless steel cabinet and a hinged water resistant, clear polycarbonate HMI cover. The In-Bay Equipment Package is designed for long life in even the harshest of conditions.



STANDARD FEATURES

- Simple to install, space saving design: 37"H x 96"L x 26"D
- Deluxe cover package with enclosed base protects equipment and looks great in your bay
- Removable panels allow for complete access and easy maintenance
- Heavy duty powder coated frame utilizes proven protective primer
- General Pump - Emperor HTCK40
- Two pre-soaks, additional single low pressure, single high pressure applications available
- One piece rotationally molded corrosion proof MDPE tank
- Stainless steel top feed and discharge manifold
- Resource conservation system lowers water consumption
- Direct feed solutions system provides more control
- Stainless steel chemical manifold
- Stainless steel / composite direct feed chemical delivery system

OPTIONAL FEATURES

- Cat 3535 pump option (replaces General Pump - Emperor HTCK40)
- ESD - Extended Solution Delivery option includes: Tri-Color Foam, (1) additional low pressure, (1) additional high pressure for sealant / drying agent applications
- Cold climate package - heat and weep
- Cold climate package - heat and air blow down
- Cold climate package - weep only
- Cold climate package - heat only
- Dual inlet low pressure source selection valve and control hot and cold
- Built in spot free re-pressurization system
- Reclaim system adapter kit
- Built in high capacity 12kw electric water heater

RAZOR® XR - 7 STANDARD FEATURES - QUICK LIST

IN-BAY WALL MOUNT SYSTEM - STAINLESS STEEL

- Stainless steel travel rails (27' 4" overall length)
- Stainless steel wall mounting hardware
- Floor mounted blue reflectors for visual guidance
- Wash bay stop / backup loading eye wall mounting kit - Standard bays

OVERHEAD CARRIAGE AND TROLLEY FRAME - LASER CUT END PLATES

- Variable frequency controlled belt drive carriage and trolley movement
- Stainless steel contouring spray arch with variable frequency control
- VS2® (Vehicle Sizing System)
- Virtual Attendant® - Maneuvers around wide mirrors and trailer hitches
- Visorclean - Nozzles strategically placed to clean under rear visor
- Spray arch cover - Rotationally molded polyethylene composite material
- Replaceable nozzle protector - Cross linked polyethylene foam
- Stainless steel carriage, totally enclosed climate proof motors and gearboxes with precise movement and minimal rolling resistance
- Energy chain - No festoon, overhead cross brace or overhead swivel
- Triple pass technology for optimal front and rear cleaning

SOLUTION DELIVERY SYSTEM - POWDER COATED CARBON STEEL PUMP STATION

- General Pump - Emperor HTCK40 / 25 HP premium high efficiency motor
- High flow multiple stage solution delivery pump system
- Composite direct injection / no drift chemical metering system
- 2 Separate pre-soak application systems
- 1 High pressure sealant / drying agent application
- 1 Low pressure drying agent / protectant application
- Variable flow and pressure with water conservation system

ULTIMATE CONTROL CABINET

- Electrical control panel 208VAC (soft start and stop variable frequency motor controls on carriage, trolley and arch)
- Washview® HMI On-Site control interface - Complete on-site programming and diagnostic capability
- Wash activation buy-up compatibility
- Comprehensive integrated notification system
- Auto home feature



RAZOR® XR-7 SYSTEM OPTIONS

- Razor XR-7 On-Board Dryer system options
 - 30 HP (4 - 7.5 HP motors)
 - 30 HP (3 - 10 HP motors)
 - 40 HP (4 - 10 HP motors)
 - 45 HP (3 - 15 HP motors)
 - 60 HP (4 - 15 HP motors)
- In-bay horizontal pump station with composite covers and stainless steel in-bay ultimate control cabinet option
- UCC power conversion kit (converts standard UCC for use with 240 VAC 3 phase 60 Hz incoming power supply)
- Pump station sound reduction kit
- Free standing frame (stainless steel or powder coated)
- Wash bay stop / backup loading eye pedestal mounting kit - Free standing frame or non-standard bays
- E-chain supply passenger side / right side while entering the bay
- E-chain supply driver side / left side while entering the bay

WASH OPTIONS

- Cat 3535 pump option (replaces General Pump - Emperor HTCK40)
- ESD - Extended Solution Delivery option without cold climate protection - Includes: Tri-Color Foam, (1) additional low pressure, (1) additional high pressure for sealant/drying agent applications
- ESD - Extended Solution Delivery option with cold climate protection - Includes: Tri-Color Foam with cold climate protection, (1) additional low pressure, (1) additional high pressure for sealant/drying agent applications
- Dual inlet low pressure source selection valve control hot and cold
- Medium pressure R.O. pump (13 GPM @ 110 psi) - Includes wall mount bracket and motor starter
- Cold climate package - Heat for VS²® sensors, carriage and rail travel surfaces, belt drive system, weep for arch
- Primary HS / Washview® MOBILE - High speed DSL or cable Internet connection capability - Internet access without a static IP address
- Secondary HS / Washview® MOBILE - Additional high speed DSL or cable Internet connection at same location for multi-bay sites
- Reclaim adapter (plumbing inlet and controls for external reclaim system)
- Water heater, on demand, direct vent, tank-less, natural gas or propane
- Water heater, 12kw high capacity electric, stainless steel tank
- Undercarriage and Rocker Panel Blaster; 11 stainless steel nozzles; 3 on the undercarriage and 4 on each rocker panel blaster
- Undercarriage cold climate - Includes control valves and wiring on pump station
- Power Tower Wheel Cleaner® - 4 rotating nozzles per tower - Available with or without blue LEDs
- Through wall stainless steel bulkhead manifold - For electrical and plumbing from mechanical room to wash bay
- Premium door controls - Includes eyes
- Ultimate door controls - Includes eyes
- SpectraRay+™ - 5,568 LEDs (red, magenta, blue and green) Mounting options: wall, pedestal mount or OBD free standing frame
- Voice prompts

RAZOR® XR-7 SPECS

RAZOR XR-7 WALL MOUNT WASH BAY DIMENSIONS*

	OPTIONS	PREFERRED	*MINIMUM	MAXIMUM
HEIGHT	13' 4" - 14' 0" (4064 - 4267 mm) Bay widths 14' 0" - 16' 0" (4267 - 4877 mm) Bay widths 16' 0" - 18' 0" (4877 - 5486 mm) Bay widths	12' (3658mm) 12' (3658mm) 12' (3658mm)	10' 4" (3150mm) 10' 8" (3251mm) 11' 4" (3454mm)	N/A
WIDTH	27' 4" Rails (8331mm) (Standard) 30' 4" Rails (9246mm) (OBD) 25' 4" Rails (7722mm) (Optional)	15' (4572mm)	13' 4" (4064mm)	18' (5486mm)
LENGTH	25' 4" Rails (7722mm) (Optional) 27' 4" Rails (8331mm) No Dryer	28' (8534mm) 30' (9144mm)	25' 8" (7823mm) 27' 8" (8432mm)	N/A
LENGTH	27' 4" Rails (8331mm) Razor XR-7 and Dryer w/Covers	42' (12802mm)	31' 4" (9550mm)	N/A
LENGTH	30' 4" Rails w/On-Board Dryer (9246mm)	42' (12802mm)	31' 4" (9550mm)	N/A

*NOTE: Minimum dimensions are from nearest inside obstructions entrance to exit, and bay floor to ceiling, e.g. door tracks, counterweights, etc. Add in additional length for these items.

RAZOR XR-7 FREE STANDING FRAME DIMENSIONS*

	OPTIONS	PREFERRED	*MINIMUM	MAXIMUM
HEIGHT	27' 4" Rails (8331mm) (Standard) 30' 4" Rails (9246mm) (OBD) 25' 4" Rails (7722mm) (Optional)	12' (3658mm)	10' 9" (3277mm)	N/A
WIDTH	27' 4" Rails (8331mm) (Standard) 30' 4" Rails (9246mm) (OBD) 25' 4" Rails (7722mm) (Optional)	14' 0" (4267mm)	13' 8" (4166mm)	N/A
LENGTH	25' 4" Rails (7722mm) (Optional) 27' 4" Rails (8331mm) No Dryer	28' (8534mm) 30' (9144mm)	25' 8" (7823mm) 27' 8" (8432mm)	N/A
LENGTH	27' 4" Rails (8331mm) Razor XR-7 and Dryer w/Covers	42' (12802mm)	31' 4" (9550mm)	N/A
LENGTH	30' 4" Rails w/On-Board Dryer (9246mm)	42' (12802mm)	31' 4" (9550mm)	N/A

*NOTE: Minimum dimensions are from nearest inside obstructions entrance to exit, and bay floor to ceiling, e.g. door tracks, counterweights, etc. Add in additional length for these items.

RAZOR XR-7 MINIMUM UTILITY REQUIREMENTS

Water:25 GPM @ 35 psi (94.6 l/m @ 2.4 bars) minimum at pump station
Air:100 psi @ 11 SCFM (6.89 bars @ 311 l/m) includes optional Tri-Color Foam
Electrical: 208/230 VAC, 3 PH, 60 Hz (Five wire, three phase with neutral and ground)

VOLTAGE	UCC CABINET	RAZOR PUMP STATION	OPTIONAL COLD CLIMATE PACKAGE	EACH DRYER MOTOR	
208	23 Amps	73 Amps	14 Amps	10 HP 27 Amps	15HP 40 Amps
230	20 Amps	62 Amps	12 Amps	10 HP 24 Amps	15HP 35 Amps
380/415 (50HZ)	17 Amps	38 Amps	10 Amps	10 HP 15 Amps	15HP 22 Amps
460	N/A	31 Amps	N/A	10 HP 12 Amps	15HP 17 Amps
575	N/A	24.5 Amps	N/A	10 HP 9.12 Amps	15HP 13.6 Amps

Note: Specifications Subject to Change Without Notice. The decibel level of the dryer (measured at 1.6 meters from the floor and 1 meter from the surface) is 94dB. The decibel level of the pump station (measured at 1.6 meters from the floor and 1 meter from the surface) is 94dB. Decibel levels are impacted by surrounding materials and conditions and will vary.

ON-BOARD VEHICLE DRYING SYSTEM

Washworld On-Board Vehicle Drying Systems provide controlled and consistent drying which results in greater customer satisfaction. The On-Board System moves together with the wash carriage while the customer's vehicle remains stationary for consistent drying. Where wash bay space is limited or for noise abatement, the On-Board Drying System is the answer!

STANDARD FEATURES

RAZOR^{HR-7}

RAZOR

RAZOR
DOUBLE
BARREL

HYPER
FORCE
RAZOR

- Consistent, controlled touch-free drying
- Stainless steel On-Board Dryer frame
- Producers are constructed from stainless steel, composites and aluminum with welded impellers
- Stainless steel inlet / outlet screens
- 3 or 4 producer configuration
- Energy efficient, space saving design
- Premium dryer image package - front and rear covers
- Totally enclosed fan cooled industrial 7.5 HP, 10 HP, or 15 HP motors
- Pre-wired and assembled energy chain for power supply
- On-Board drying process can initiate in either the front or rear of vehicle and can be programmed to run multiple drying passes
- On-Board Dryer can be programmed to continue operation in a fixed position as the vehicle exits for additional drying
- cETLus listed, CE compliant

RAZOR

RAZOR
DOUBLE
BARREL

HYPER
FORCE
RAZOR

ADDITIONAL STANDARD FEATURES

- Euro channel bottom cover design prevents dripping on vehicle
- Quick release makes servicing fast and simple
- Completely enclosed design significantly reduces noise

OPTIONAL FEATURES

- Available in 5 different configurations:
 - 30 HP (4 - 7.5 HP motors)
 - 30 HP (3 - 10 HP motors)
 - 40 HP (4 - 10 HP motors)
 - 45 HP (3 - 15 HP motors)
 - 60 HP (4 - 15 HP motors)
- Dryer motor starter panel with stagger start controls
- VFD - Variable frequency drive motor starter control center
- Custom graphics available
- Available in international voltages, including 380-415/50 Hz & 575/60 Hz
- On-Board Dryer center producer shut off kit - When passing over the bed of a pickup truck, the center producers can shut off to not affect the contents of the truck bed. Once the truck bed is cleared, the center producers re-engage to complete the drying process.

HIGH VELOCITY OSCILLATING NOZZLE

- Performance enhancing
- Available on single and dual nozzle dryer producers
- Pneumatic cylinder controlled, no in-bay wiring, fewer moving parts
- Stainless steel diverter gate (dual gate on a single producer, quad gate on a dual producer)
- Airflow channeled in a 50 degree sweeping motion



HIGH VELOCITY® VEHICLE DRYING SYSTEM

The Washworld High Velocity® Free Standing and Wall Mount Vehicle Drying Systems incorporate proven energy efficient air producer designs. All of that power wrapped in our optional dryer image package make your wash stand out from your competitors... and keep your customers coming back for more!



STANDARD FEATURES

- Safe touch-free drying
- All aluminum, stainless steel and HDPE construction with welded impellers
- Stainless steel inlet / outlet screens
- Noncorroding HDPE producer housings
- Completely adjustable producer housings for enhanced drying coverage
- Stainless steel mounting hardware
- Energy efficient industrial 7.5 HP, 10 HP, or 15 HP TEFC motors



*Shown with blue LED dryer cover lighting and LED wash instruction signage

OPTIONAL FEATURES

- Aluminum cross beam and brackets for interior wall mount
- Powder coated aluminum frame for exterior (building face) wall mount or for interior / exterior (free standing) floor mount
- Energy conserving dryer shut-off kit
- Center producer shut off kit - When passing over the bed of a pickup truck contents of the truck bed aren't affected by the center dryers
- Dryer image package (front / rear covers)
- Custom graphics
- Blue LED dryer cover lighting
- Dryer cover with LED wash instruction signage
- LumenDry™
- LED countdown timer with stand or wall mount
- Dryer motor starter panel with stagger start controls
- VFD - Variable frequency drive motor starter control center
- Available in international voltages, including 380-415/50 Hz & 575/60 Hz
- Sound reduction package
- Elephant trunks
- Air knives
- Producer swivel plates



HIGH VELOCITY OSCILLATING NOZZLE

- Performance enhancing
- Available on single and dual nozzle dryer producers
- Pneumatic cylinder controlled, no in-bay wiring, fewer moving parts
- Stainless steel diverter gate (dual gate on a single producer, quad gate on a dual producer)
- Airflow channeled in a 50 degree sweeping motion

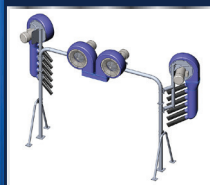
Numerous dryer configurations available. Contact Washworld today for more information!



Standard Arch
3 Producers



Standard Arch
4 Producers



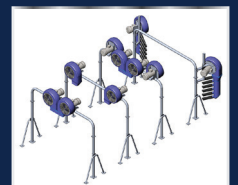
Standard Arch 4
Producers, Dual Nozzle,
E-Trunks w/ Brackets



Standard Arch
5 Producers,
E-Trunks w/ Brackets



Interior or Exterior
Wall Mount



Progressive
Drying System

OPTIONAL DRYER SYSTEM FEATURE

LumenDry™

Elevate your customer's car wash dryer experience with LumenDry™! When the High Velocity® dryer is activated, radiant red LEDs engulf the drying area of the wash bay and blanket the vehicle as it passes through the dryer signifying the warmth of the drying process. The extra pizzazz emanating from LumenDry is sure to be a memorable experience! LumenDry, available on Washworld High Velocity® Free Standing and Wall Mount Vehicle Drying Systems, contains one LED assembly for each producer housing and four LED assemblies for each set of elephant trunks and air knives.





12V SIGNS

Washworld's 12V LED signs are fabricated from stainless steel with adjustable mounting brackets. The stop / drive forward sign is available with or without wash progress, which informs the customer of the estimated remaining wash time.

Easily inform your customers whether your car wash is open or closed. The open/closed status changes automatically based on the wash ready/out of service signal from the car wash equipment.

The blue 8 panel and 10 panel LED signs are available with a protectant panel, Tri-Color Foam panel or can be fully customized to match your site's branding. The LEDs can be located on either the left or right side of the panel to accommodate your wash bay needs.

24V SIGNS

Washworld's 24V signs have a fully LED back-lit silver face with a white fiberglass housing. The 8 panel LED signs are available with or without the Tri-Color Foam panel.

COUNTDOWN TIMERS

Washworld's 24V countdown timers clearly inform the customer of the remaining dryer time. They are available as wall mounted or pedestal mounted. The countdown timers can be fabricated from stainless steel or a white fiberglass housing with a 2 digit LED display. Customizable options available upon request.

CLEARANCE SIGNS

Keep your customers informed of maximum overhead clearance when entering your car wash. Washworld's composite clearance signs are available non-lit or back lit with energy efficient LEDs. The sign face is customizable to compliment the site's branding. The HDPE color comes standard in blue, but is available in custom color options: red, yellow, green, gray and black. Clearance signs have additional mounting options that include hanging or ground mounted to fit the site's needs. The ground mounted option is powder coated white for durability and includes a breakaway feature.

WATER TREATMENT

STANDARD FEATURES

- Systems from 60,000 to 600,000 grain capacity (twin alternating)
- Twin alternating systems provide continuous soft water 24/7
- Simple, fully programmable controller maximizes efficiency and reduces operating costs
- Clack valves
- Noryl® composite valve body eliminates corrosion
- Professional series resin tanks
- PVC hub and lateral distribution system
- Brine tanks sized to match system requirements
- Retains custom program settings in the event of power interruption
- Electronic control interlock for multiple tank synchronization
- Incoming operating water - pressures from 30 - 100 psi
- Incoming operating water temperatures from 35°F-100°F
- Space saving footprint
- cETLus listed, CE compliant

OPTIONAL FEATURES

- Iron filtration
- Custom, tri-plex or over-sized systems to meet your specific site needs

WATER SOFTENERS



Washworld's Water Wise Reverse Osmosis (R.O.) system is fully tested and manufactured for maximum efficiency. The unit features an activated carbon pre-filter tank with programmable automatic backwashing and thin-film, high-efficiency membrane in stainless steel housings. The system also includes continuous electronic totally dissolved solids monitoring and can be floor standing or wall mounted. Available in sizes of 2,400 GPD, 4,800 GPD, 7,200 GPD, and 9,600 GPD and typically available for shipment within a week!

STANDARD FEATURES

- 2400, 4800, 7200 or 9600 GPD (gallons per day) systems (Based on 77°F incoming water supply)
- Stainless steel membrane housing
- Stainless steel frame
- All units are floor or wall mountable
- Activated carbon pre-filter tank with programmable automatic backwashing
- 4"x 40" thin film high efficiency membranes
- Large diameter, easy to read inlet, pump and membrane pressure gauges
- Permeate (product) and concentrate (reject) flow meters
- Pre-plumbed water test port
- Automatic inlet water shut-off valve
- Easily replaceable 2.5" x 20" cartridge style pre-filters on all systems
- VROC digital R.O. control
- Audible and visual alerts/alarms
- Continuous electronic TDS (total dissolved solids) monitoring with audible alarm with adjustable setting
- Automatic membrane flushing
- Low pressure automatic restart
- cETLus listed, CE compliant

OPTIONAL FEATURES

- Water storage tanks (UV rated)
- Re-pressurization pumps with mounting brackets



CUSTOMER SERVICE

Washworld takes our commitment to customer satisfaction very seriously and do our utmost to help car wash owners around the world run successful businesses. We offer expertise to every car wash owner from initial business planning, site selection, equipment layout, renovations and upgrades to 24/7 technical support and advice after the sale. Our service priority means no customer is ever just a number.



FREE ONLINE TECHNICAL TRAINING

The Washworld Customer Care Program leads the industry in customer service. Washworld takes that commitment to customer satisfaction very seriously by offering Free Online Technical Training to improve operator proficiency. The training is presented by several Washworld technicians and engineers who have years of experience with Washworld equipment as well as the car wash industry as a whole. Some of the items covered in this comprehensive course include wash components and their function, system installation, quick reference start up, routine maintenance, Washview® programming and troubleshooting.



TECHNICAL SUPPORT

Washworld is known for our world class customer service. With over 100 Distributors worldwide and a Technical Support Department, we can assist operators day or night, 24/7. Utilizing Washworld's exclusive Washview® Remote, you and our technical professionals are able to track your wash site performance from anywhere in the world often preventing the need for an on-site service call. Best of all, there is never a charge for Washworld technical support after the sale. At Washworld, we stand behind our vehicle wash systems and strive to provide the assistance you, our customer, need so that you're never alone. This is yet another example of our motto, "Our World Revolves Around Your World" in action.



REPLACEMENT PARTS

Keeping your vehicle wash system running is our priority. Pictorial parts books are available online for easy identification of components and part numbers. Need help? With over 100 Distributors worldwide, contact your local Washworld Distributor or Washworld's 24/7 technical support team for assistance!

*Washworld backs our equipment with a written warranty,
which sets the bar in the car wash industry. Don't take our
word for it, ask any Washworld customer!*

WASHWORLD EQUIPMENT LIMITED WARRANTY

Washworld Inc., a Wisconsin Corporation ("Washworld") warrants to the original purchaser of Washworld car wash equipment that the equipment will be free from defects in materials and workmanship for a period of 400 days from date of shipment, with the exception of the Cat Pump which is warranted for two (2) years. Claims under this warranty must be asserted in writing to Washworld within 10 days of discovery or before the end of the applicable warranty, whichever occurs first, and must follow the Washworld "RMA" (Returned Materials Authorization) process.

Any component or part alleged to be defective in materials or workmanship shall, at the option of Washworld, be returned with shipping cost prepaid. If upon examination such component or part is found to be defective in workmanship or materials, Washworld, at its option, will either repair or replace such component or part and ship such repaired or replaced component or part via standard ground. Expedited shipping costs (if requested) shall be the responsibility of purchaser. The cost of such replacement or repair (less any labor charges) shall be the exclusive remedy for any breach of any warranty and Washworld shall not be liable to any person for consequential damages for injury or commercial loss resulting from any breach of any warranty. This warranty does not cover any labor installation cost, either with respect to the original equipment or with respect to the repaired or replaced component or part which is found to be defective in workmanship or materials. Washworld does not warrant loss of income, or consequential damages, should there be any, during the time repairs are being made.

This warranty does not apply to damage resulting from components or parts that have been misused, altered, neglected, or not installed, adjusted, maintained, or used in accordance with applicable codes and ordinances and in accordance with Washworld's or manufacturer's recommendations. This warranty does not apply to damage resulting from improper operation or abuse, exceeding the rated capacities of the unit, running foreign particles or non-related solutions through pumps or valves, using acidic solutions, improper installation or maintenance, operational neglect, neglect of manufacturer's recommended maintenance, use of water containing solids in excess of twenty microns in diameter or 2000 PPM, damage caused by customer, unjustifiable nuisance calls or acts of God.

This warranty is in lieu of all other warranties, express or implied, and there are no warranties against infringement, of merchantability, of fitness for a particular purpose, or arising from course of dealing or usage of trade. Washworld shall not be liable for direct, indirect, incidental, special or consequential damages under any circumstances, including but not limited to: damage or loss resulting from inability to use the products, increased operating costs, or loss of sales, lost profits, punitive damages, or any other damages. Compliance with any laws or regulations relating to the sale, location, use or operation of the equipment, or its use in conjunction with other equipment shall be the sole responsibility of the purchaser. The rights and obligations of the parties shall be governed by the laws of the State of Wisconsin.

Washworld reserves the right to change or modify this Limited Warranty at any time without notice.



WASHWORLD

2222 American Blvd.
De Pere, WI 54115

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