



Applicator Arches

Foaming & Non-Foaming



Owner's Manual

Sonny's Enterprises LLC
5605 Hiatus Road
Tamarac, Florida 33321



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Owner's Manual Applicator Arches Foaming & Non-Foaming

WARNING *SAFETY REQUIREMENTS* WARNING

1. All employees must be thoroughly trained in safe operation and standard maintenance practices. All employees must review this entire manual monthly.
2. Do not enter the wash tunnel when the equipment is operating. Death or dismemberment may occur.
3. Do not wear loose fitting clothing or jewelry around moving equipment. Do not allow any part of your body or other objects (including ladders, hoses, or tools) to come in contact with moving equipment. Entanglement may result causing death or dismemberment.
4. Do not leave a ladder or any other items such as wash down hoses or tools in the wash tunnel while equipment is running. Vehicle damage and injury, including death, can occur.
5. Always exercise caution when walking (never run) through the wash tunnel as there may be slippery conditions. Be careful so you do not bump into or trip over equipment.
6. Only those employees specifically instructed and trained by the location management are permitted to enter the wash tunnel to perform inspections or maintenance. At least two qualified maintenance people must be present when performing equipment repairs or preventive maintenance.
7. Do not perform any maintenance or work on equipment unless you first perform Lock-Out Safety Precautions. All electrically powered equipment must have manually operated disconnects capable of being locked in the "OFF" position. Equipment that has been "locked out" for any reason must be restarted only by the person who performed the "lock out" operation.
8. When working on any equipment that is higher than your shoulders, always use a fiberglass ladder that is in good condition.
9. Do not attempt to repair or adjust any pressurized liquid or pneumatic part, hose, pipe or fitting while that equipment is in operation.
10. Electrical connections and repairs must be performed by a Licensed Electrician Only.
11. Emergency "STOP" buttons must be well marked and their location and proper use reviewed with all personnel. Any activated "STOP" button must be reset only by the person who activated it. Clear the wash tunnel of any people, ladders, hoses, tools, and other loose items before restarting the equipment. An audible device must sound to warn people that the equipment is starting.
12. Do not operate any piece of equipment that requires safety covers with those covers removed or improperly installed. Do not operate any piece of equipment if any component of that piece is suspected to be defective or malfunctioning.



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13. Store all cleaning and washing solutions and oils in a well-ventilated area. Clean up fluid spills immediately to prevent hazardous safety conditions. Be certain to follow all safety procedures on MSDS Sheets for each chemical product used.
14. All hydraulic and electric systems in the wash tunnel equipped with a torque relief or overload should be checked and set at the minimum amount that will allow for proper functionality under normal washing conditions.
15. No unauthorized people should ever be permitted in the wash tunnel or near the equipment at any time.

* * *

!! CAUTION !!

When a piece of equipment must be in operation during inspection or maintenance, one qualified technician must stay at the power disconnect switch while another qualified technician performs the inspection or maintenance.



Owner's Manual
Applicator Arches
Foaming & Non-Foaming

INTRODUCTION

This Manual contains information that is vital to the successful installation, operation and maintenance of your SONNY'S vehicle washing equipment.

Please read, and understand, the full contents of this manual before installation and operation of the equipment. Keep this booklet in a location where it may be used for ongoing reference.

Should you have any questions on the operation or servicing of this equipment please contact

TECHNICAL SERVICES DEPT.

SONNY'S ENTERPRISES, INC.

5605 Hiatus Road

TAMARAC, FLORIDA 33321

TELEPHONE: 800-327-8723 FAX: 800-495-4049

THANK YOU FOR YOUR CONFIDENCE IN SONNY'S !!!!!!



Optional Related Equipment

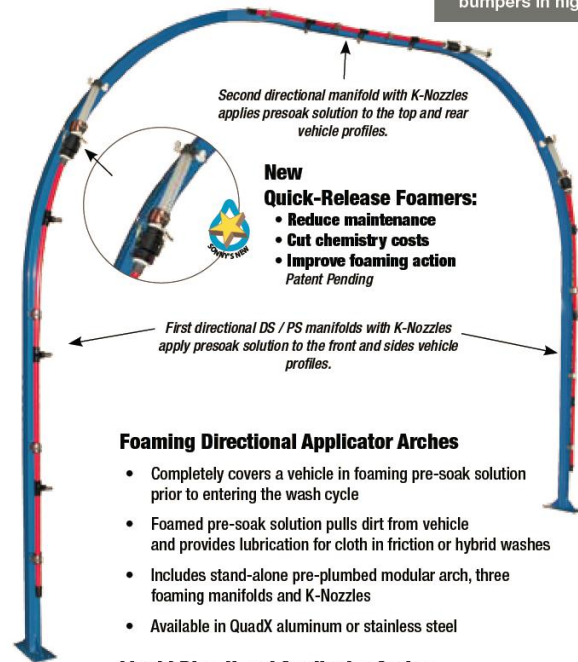
SONNY'S Pre-soak Applicator



Problem

Apply a precise amount of cleaning solution - evenly - in a simple way within minimal tunnel space.

Solved SONNY'S Pre-soak Applicator Arches cover the front and sides before switching to cover the back just prior to exiting with no pivot points and less solution waste. Optional floor-mounted bumper applicators are available for both the front and rear bumpers in high volume systems.



Second directional manifold with K-Nozzles applies presoak solution to the top and rear vehicle profiles.

New Quick-Release Foamers:

- Reduce maintenance
- Cut chemistry costs
- Improve foaming action

Patent Pending

First directional DS / PS manifolds with K-Nozzles apply presoak solution to the front and sides vehicle profiles.

Foaming Directional Applicator Arches

- Completely covers a vehicle in foaming pre-soak solution prior to entering the wash cycle
- Foamed pre-soak solution pulls dirt from vehicle and provides lubrication for cloth in friction or hybrid washes
- Includes stand-alone pre-plumbed modular arch, three foaming manifolds and K-Nozzles
- Available in QuadX aluminum or stainless steel

Liquid Directional Applicator Arches

- Completely covers a vehicle in liquid pre-soak solution prior to entering the wash cycle
- Ideal applicator arch to achieve maximum pre-soak solution coverage for better system performance in touch-free washing



Protect & beautify your equipment with optional powder coating. Call for pricing.



New, patent pending Quick-Release Foamers reduce maintenance, cut chemistry costs, and improve foaming action



K-nozzles are used on foaming arches for a more accurate application.



Owner's Manual Applicator Arches Foaming & Non-Foaming

Ordering Information

Free Standing Applicator Arches & Arch Attachments

* Applicator pump sold separately - see below.

System	Delivery	Direction	Item#	Description	Price	* Applicator Pump
Square Arch	Liquid Detergents	Single Direction	20006530	Applicator Arch, 1 Pipe	\$1,158.00	1 or 2
Square Arch	Liquid Detergents	Dual Direction	20006531	Applicator Arch, 2 Pipe	1,556.00	5 or 6
Manifold Only	Foamed Detergents	Dual Direction	20006214	Foaming, Pre-Soak Attach, K-Nozzles	1,360.00	7 or 8
Square Arch	Foamed Detergents	Dual Direction	20006346	Foaming, Pre-Soak Arch K-Nozzles	1,960.00	7 or 8
Round Arch	Foamed Detergents	Dual Direction	20006267	Round Pre-Soak Arch K-Nozzles Blue	2,236.00	7 or 8
Round Arch	Foamed Detergents	Dual Direction	20006313	Round Pre-Soak Arch K-Nozzles Red	2,236.00	7 or 8
Round Arch	Foamed Detergents	Dual Direction	20006168	Round Pre-Soak Arch K-Nozzles Yellow	2,236.00	7 or 8



Floor Mounted Bumper Applicators

SONNY'S floor-mounted foaming dual direction applicator, combined with the dual applicator arch, delivers complete detergent coverage, bumper to bumper. Recommended for full coverage at high conveyor speeds. **Manifold:** 304 SS, 3/8 NPT.

Arch Specifications

	Inches	Metric
Footprint Length	10in	254 mm
Footprint Width	144in	3.65 m
Unit Height	97in	2.46 m
Vehicle Clearance	90in	2.28 m
Water	1/2in	13 mm
Piping Schedule 80 PVC	1/2in	19 mm
Electrical / Air	24/110/220 Volt / 40PSI	

Floor Mounted Bumper Applicators

* Applicator pump sold separately - see below.

System	Delivery		Item #	Description	Price	* Applicator Pump
Floor Manifold	Liquid Detergents	Single Direction	20002791	Applicator, Above Ground Manifold	\$305.00	1 or 2
Floor Manifold	Foamed Detergents	Single Direction	20002930	Applicator, Floor 1 Foaming Manifold	360.00	3 or 4
Floor Manifold	Liquid Detergents	Dual Direction	20002967	Applicator, Floor 2 Manifold	455.00	5 or 6
Floor Manifold	Foamed Detergents	Dual Direction	20002966	Applicator, Floor 2 Foaming Manifold	483.00	7 or 8

Applicator Pump Stations

System	* Pumps (Qty) Type	Tanks	Seal	Activation	Regulator	Hydrominder	Description	Price
	1 (1) Flojet G57	(1) 3-Gal	Santoprene	Sol-24V	Non-Foam	(1) CH515	G57 PS ASSY 1 PUMP 1 TANK 24V	\$610.00
	2 (1) Flojet G57	(1) 3-Gal	Santoprene	Sol-110V	Non-Foam	(1) CH515	G57 PS Assy 1 Pump 1 Tank 110V	610.00
	3 (1) Flojet G57	(1) 3-Gal	Santoprene	Sol-24V	Foaming	(1) CH515	G57 PS FMR Assy 1 Pump 1 Tank 24V	635.00
	4 (1) Flojet G57	(1) 3-Gal	Santoprene	Sol-110V	Foaming	(1) CH515	G57 PS FMR Assy 1 Pump 1 Tank 110V	635.00
	5 (2) Flojet G57	(1) 6-Gal	Santoprene	Sol-24V	Non-Foam	(1) CH515	G57 PS ASSY 2 PUMP 1 TANK 24V	899.00
	6 (2) Flojet G57	(1) 6-Gal	Santoprene	Sol-110V	Non-Foam	(1) CH515	G57 PS Assy 2 Pump 1 Tank 110V	899.00
	7 (2) Flojet G57	(1) 6-Gal	Santoprene	Sol-24V	Foaming	(1) CH530	G57 PS FMR Assy 2 Pump 1 Tank 24V	1,060.00
	8 (2) Flojet G57	(1) 6-Gal	Santoprene	Sol-110V	Foaming	(1) CH530	G57 PS FMR Assy 2 Pump 1 Tank 110V	1,060.00

SONNY'S Halo Rinse Arches

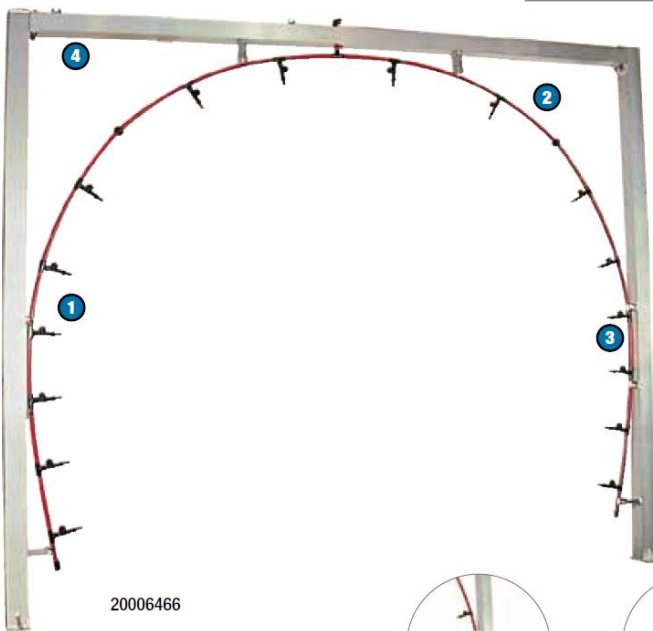


Problem

You need to remove all detergent from the vehicle to improve drying performance and reduce spotting.

Solved

SONNY'S Halo Rinse Arch features a circular design that points all nozzles to the center of the vehicle for even, total coverage. For rinsing or applying detergents and sealers, or when used in conjunction with the optional booster pump and fresh water, the Halo Rinse Arch completely removes all detergent at conveyor speeds approaching 200 cars per hour. It comes pre-plumbed with durable, attractive PVC piping—all held in place by non-corrosive clamps. The Halo Rinse Arch's manifold features PVDF nozzles for complete vehicle coverage.

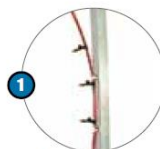


Features

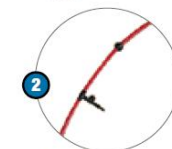
- HALO arches are available with individual 60in support legs — ideal for low pressure detergent and sealer application
- HALO arches are available with a full arch — ideal for high-pressure rinse applications requiring greater stability
- Manifold constructed of durable attractive PVC Schedule 80 Pipe
- Features 16 plastic foam jet nozzles with individual check valves for complete coverage and accurate solution control
- 4in x 4in QuadX aluminum frame



Protect & beautify your equipment with optional powder coating. Call for pricing.



1 Non-corrosive clamping system.



2 Durable, attractive PVC Schedule 80 manifold.



3 Plastic foam jet nozzles (#10004261) with individual check valves.



4 4in x 4in QuadX structural frame with Lifetime Warranty.



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Ordering Information

System	Applications	Item #	Description	Price
Halo Manifold with 60in QuadX aluminum support legs	<ul style="list-style-type: none"> Detergent Application Sealer Wax Application Pre-Rinse 	20006387	Halo Arch, 2 Short Legs, Single	\$933.00
		20006444	Halo Arch, 2 Short Legs, Dual	1,293.00
Halo Manifold with Full QuadX aluminum arch	<ul style="list-style-type: none"> Detergent Application Sealer Wax Application Pre-Rinse 	20006466	Halo Arch, Full Halo, 1 Pipe	1,421.00
		20006447	Halo Arch, Full Halo, 2 Pipes	1,780.00
		20003100	Halo Manifold, Only Complete	624.00

Specifications for Halo Rinse Arches

	Inches	Metric
Footprint Length	10in	254mm
Footprint Width	144in	3.658m
Manifold Width	72in	1.829m
Unit Height	120in	3.048m
Vehicle Clearance	90in	2.286m
Water Inlet	1/2in	19mm

Related Support Equipment

Halo Pressure Booster with Berkeley® Vertical Multi-Stage Pump

For pressure boosting and spot-free delivery

- Maximum output 30GPM
- Maximum pressure 205PSI
- Maximum temp 70°F
- 7.5HP, 3-phase, ODP (Open Drip Proof)
- 208/230/460 V 60HZ
- 1 1/4in NPT
- VDF Required



Item #	Description	Price
20003524	Pump Station, Berkeley 7 1/2HP Tank/Stand	\$3,895.00

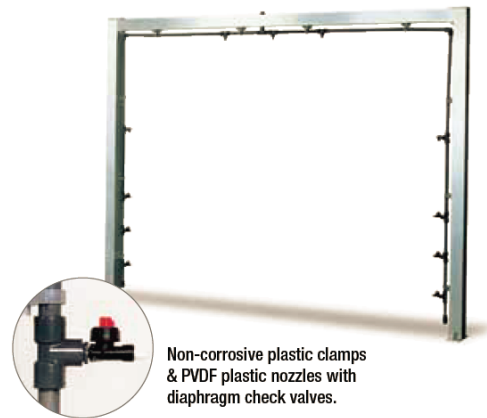
SONNY'S Undercarriage Manifold



- Floor-mounted spray manifold (1 1/2inH x 3inW x 36inL) complete with 12 PVDF (10001229) nozzles
- 1/2 NPT water feed • Stainless steel for maximum durability
- Rinses road film from the undercarriage of a vehicle

Item #	Description	Price
20002890	Under Carriage Wash No Solenoid	\$393.00
10006168	Dema, 414P3 Val Sol 1/2in N/C JB24V	52.32
10006169	Dema, 414P6 Val Sol 1/2in N/C JB120V	52.32

SONNY'S Rinse and Sealer Arches



Non-corrosive plastic clamps & PVDF plastic nozzles with diaphragm check valves.

Rinse and Sealer arches are designed for ease of maintenance, total vehicle coverage and customer eye appeal.

- Long-lasting PVC Schedule 80 piping
- Drain plugs on each manifold
- Plastic & stainless clamps for piping
- Rinse Arch** – (11) Nozzles: (3) # 10001220 on top, (4) # 10001217 on each side with 3/4in PVC feed
- Wax Arch** – (9) nozzles: (3) #10001248 on top (3) #10001258 on each side with 1/2in PVC feed
- 4in x 4in QuadX aluminum frame

Arch	Item #	Description	Price
Rinse	20006417	Rinse Arch, Single Length, 24V	\$1,174.00
Rinse	20006386	Rinse Arch, Single Length, 110V	1,174.00
Rinse	20006465	Rinse Arch, with 2 Manifolds	1,612.00
Wax	20006445	Arch, Sealer Wax Alum 24V Sol	1,174.00
Wax	20006418	Arch, Sealer Wax Alum 110V Sol	1,174.00

SONNY'S Rain Finishing Systems



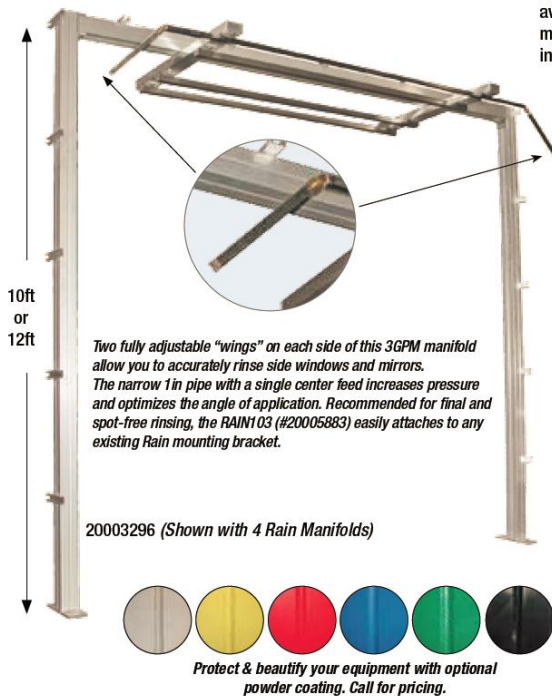
Problem

You need an affordable way to improve vehicle rinsing, waxing, and drying.

Solved

The Rain Arch eliminates fan nozzle mist in the drying area. It completely rinses the hood, trunk, grooves, and sides. Its gravity-fed impact promotes beading and water break, which improves the drying process. The system includes a rain manifold that can be connected from either end for easier installation. Rain manifolds are available in a variety of flow rates and hole patterns specific to rinsing, waxing, spot-free or drying agent applications. Each manifold can be attached to an existing arch or to the ceiling with an optional mounting kit.

Flexible mounting! Mount up to 4 manifolds to one of our RAINMA (#20003296) arches available in 10ft or 12ft clearance, or directly to the ceiling with our RAINCM (#20002892) mounting kit. SONNY'S free-standing all-in-one single Rain arches, make ordering and installation a breeze.



Features

- Stainless steel manifolds and clamps
- Laser drilled hole patterns
- Manifold can be fed from both ends



System	Item #	Description	Price
RAINMA	20003296	Rain Multi Arch, Holds 4 Manifold, 10ft	\$1,293.00
RAINMA12	20003330	Rain Multi Arch, Holds 4 Manifold 12ft	1,421.00
RAINCM	20002892	Bracket, for Rain Manifold Ceiling Mount	393.00

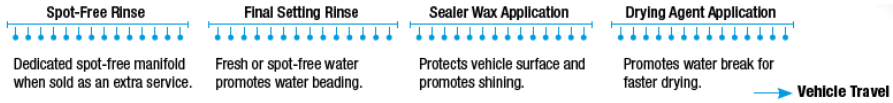
Specifications for RAINMA

	Inches	Metric
Footprint Length	45in	1.143m
Footprint Width	144in	3.658m
Manifold Width	72in	1.829m
Height RAINMA #20003296	129in	3.277m
Height RAINMA12 #20003330	146in	3.796m
Vehicle Clearance	90in	2.286m
Water Inlet	1/2in	19mm



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SONNY'S Finishing Process



Ordering Information

Rain System	Applications	Item #	Mounting	Price
RAIN100 - 8 GPM	<ul style="list-style-type: none"> Pre-Rinse Final Setting Full Rinse Spot-Free Rinse 	RAIN100A	2in Rain Manifold only. Easily attaches to an existing arch.	\$350.00
		RAIN100	2in Rain Manifold with QuadX Aluminum mounting arch.	1040.00
		RAIN100M	2in Rain Manifold with QuadX Aluminum arch and mirror rinse.	1095.00
		RAIN100AS24	2in Rain Manifold with 24V Solenoid. Attaches to an existing arch.	395.00
		RAIN100AS110	2in Rain Manifold with 110V Solenoid. Attaches to an existing arch.	395.00
RAIN101 - 4 GPM	<ul style="list-style-type: none"> Drying Agent Application Sealer Wax Application Final Setting Full Rinse Spot-Free Rinse 	RAIN101A	2in Rain Manifold only. Easily attaches to an existing arch.	350.00
		RAIN101	2in Rain Manifold with QuadX Aluminum arch.	1040.00
		RAIN101M	2in Rain Manifold with QuadX Aluminum arch and mirror rinse.	1095.00
RAIN102 - 2GPM	<ul style="list-style-type: none"> Drying Agent Application Sealer Wax Application Final Setting Full Rinse Spot-Free Rinse 	RAIN102A	2in Rain Manifold only. Easily attaches to an existing arch.	350.00
RAIN102		2in Rain Manifold with mounting arch.	1040.00	
RAIN103 - 3GPM		RAIN103A	1in v Manifold only. Adjustable wings cover side windows and mirrors.	399.00

Specifications

	Inches	Metric
Tunnel Length	10in	254mm
Arch Width	144in	3.658m
Manifold Width	72in	1.829m
Unit Height	109in	2.796m
Vehicle Clearance	92in	2.337m
Water Inlet	1/2in	19mm

Related Support Equipment



DOSCSD25RE15002



C204B

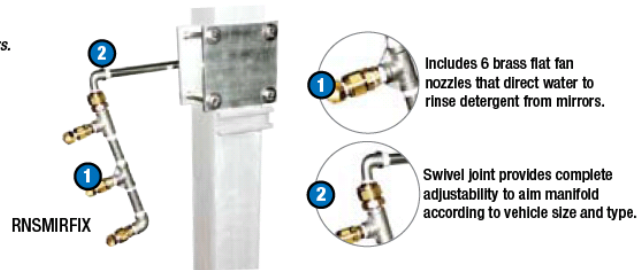
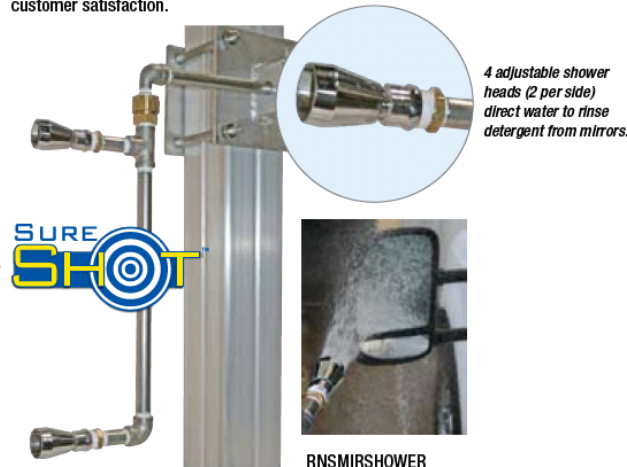


G57CS6GAL

Item #	Description	Price
RAINCM	Rain Arch Ceiling Mount Only, Holds 4	\$350.00
RAINMA	10ft (3.048m) Arch - holds up to 4 rain mnflds.	1150.00
RAINMA12	12ft (3.658m) Arch - holds up to 4 rain mnflds.	1265.00
G57CS6GAL	G57 P/S Santoprene 6gal No Sol	350.00
DOSCSD25RE15001	Dosatron, Single 1500:1 Non-Foam Panel	870.00
DOSCSD25RE15002	Dosatron, Dual 1500:1 Non-Foam Panel	1700.00
C204B	Injector, B Series 1/2in FPT	47.41

SONNY'S Sure Shot Mirror Rinse

Completely remove detergent residue resulting in better drying, foam free mirrors, and increased customer satisfaction.



Item #	Description	Price
RNSMIRFIX	Mirror Rinse Manifold Fixed Set of 2	\$575.00
RNSMIRSHOWER	Sure Shot, Head Mirror Rinse Mfld Set/2	555.00



Problem You need to add a high-end total body protectant service to increase revenue and customer satisfaction at your wash.

Solved

Total Body Protectant is the fastest growing extra service on the market today. Our foam generators, in combination with K-nozzle applicators, apply most brands of total body protectant consistently and accurately.



20006254
Shown is standard color yellow with optional double-sided Rain-X sign.

The RAIN-X trademark is not owned by Sonny's and is being displayed solely for advertising purposes. The RAIN-X trademark may only be used with the express written permission of Ecolab Inc.



Additional Signs Available



K-nozzle accurately applies most brands of total body protectant.



Foam generators deliver consistent performance with minimal maintenance.



Optional LED multi-colored light kits available to promote the service.

Features

- Introduce the fastest growing extra service on the market today at your wash with SONNY'S affordable Total Body Protectant Arch
- Compatible with most total body protectant products and a must-have for total customer satisfaction and added revenues
- Attractive, rounded arch includes K-nozzle applicator manifold
- Available with optional lighting kits to promote service
- Manifold constructed of durable and attractive PVC Schedule 80 Pipe
- Specify anodized or optional powder coated color when ordering

Ordering Information

Item #	Description	Price
20000288	Total Body Protectant, Manifold Only	\$1,065.00
20006394	T B P Arch Round No Powder Coat	1,736.00
20006334	TBP Round Arch, Blue Powder Coat	1,967.00
20006297	TBP Round Arch, Green Powder Coat	1,967.00
20006384	TBP Round Arch, Red Powder Coat	1,967.00
20006254	TBP Round Arch, Yellow Powder Coat	1,967.00



20006334
(shown with optional blue powder coating)

Specifications For Arches

	Inches	Metric
Footprint Length	10in	254mm
Footprint Width	144in	3.65m
Unit Height	97in	2.46m
Vehicle Clearance	90in	2.28m
Water	1/2in	13 mm
Piping Schedule 80 PVC	1/2in	19 mm
Electrical	24/120 Volt	
Air	40PSI	



Protect & beautify your equipment with optional powder coating. Call for pricing.

Total Body Protectant (TBP) Arch

- Foaming K-nozzle applicator works with most brands of total body protectant available
- Long-lasting PVC Schedule 80 piping
- Attractive rolled QuadX aluminum arch for stability and durability
- Specify optional powder coated color when ordering

Applicator Pumps



20006126

Item #	Description	Price
Custom Configured	G57 PS FMR Assy 2 Pump 1 Tank 24V	\$1,060.00
	G57 PS FMR Assy 2 Pump 1 Tank 110V	1,060.00
20006126	Dosatron, Single 500:1 Foaming Panel	1,148.00

Lighting Kits

Color	Item #	Description	Price
Blue	10008385	Lighting, Blue Upgrade for TBP 24V	\$335.75
Red	10008386	Lighting, Red Upgrade for TBP 24V	335.75
Yellow	10008393	Lighting, Yellow Upgrade for TBP 24V	335.75

For additional tunnel signage see our signs section on page 695



SONNY'S TotalShine™ Application System



See how easy it is to adapt SONNY'S TotalShine™ to your tunnel system!
Our CAD Designers are available to adapt Lava to your wash today!

Our clients asked us for a drive-through pay-wax service that would boost average ticket prices. SONNY'S TotalShine™ is a 5-step online system that leverages today's state-of-the-art chemistry, application technology, and wash materials to deliver a distinct and spectacular show to the customer. With a brilliant shine and incredible customer satisfaction, operators are using the system to achieve higher average tickets than ever before.

Totalshine System™



STEP 1
Total Bath Grand Arch

*Concentrated
Foam Detergent*



STEP 2
Total Shine Applicator

*Neutralizing
Foam Detergent*



STEP 3
Total Seal Arch

*Total Body
Protectant*



STEP 4
Total Rinse Arch

*Cold Water
Rinse & Cure*



STEP 5
Buff-n-Dry™
Buff & Dry For
Maximum Shine

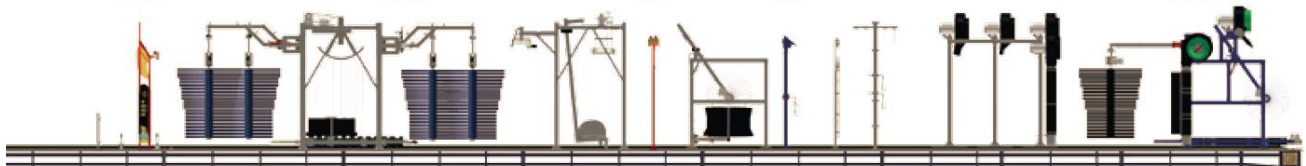
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2

3

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5





INSTALLATION

Utilities Requirements

Utilities interconnection and the materials required for interconnection to Sonny's equipment are the responsibility of the customer!

Perform all trades work to all applicable local and national codes!

Water

- The Customer's Plumber is to provide and install a ½" city water line @60PSI (nominal) to the solenoid valve on the chemical distribution system.
- Additionally, the customer's plumber is to install the Sonny's supplied liquid solenoid valve and any specified solution injector valve, at the arch inlet pipe fitting. For the ease of maintenance the customer's plumber should provide and install a ball type shut-off valve upstream of the liquid solenoid valve.

Arch inlet pipe size by arch Style and Model number:

- Model #APP100P2, Dual Applicator Arch, 1/2 inch FPT inlet
 - Model #APAP3FOAM Foaming Applicator
 - Model #FMR100, Single Foam Arch, 3/4 inch FPT inlet
 - Model #FLD100, Flood Arch, 3/4 inch inlet
 - Model #SLR100, Sealer Wax Arch, 1/2 inch FPT inlet
 - Model #RNS100, Rinse Arch, 3/4 inch FPT inlet
 - Model #RAIN100 or 101, 102 "Rain" Arch , dual ½ inch FPT inlets through a ¾ inch solenoid valve
 - Model # HAL101, 201, 102, 202 Halo Arch
 - Model # APATBP100 Total Body Protectant
- The Customer's Plumber is to provide materials and install 3/8 inch diameter interconnecting plumbing (including a ball valve for air shut-off) from the Customer's air compressor to the SONNY'S supplied air regulator and air solenoid valve.

Compressed Air

- The customer's plumber is to provide materials and install a ½" diameter compressed air line from the customer's air compressor to the air solenoid valve on the air inlet fitting of the arch.



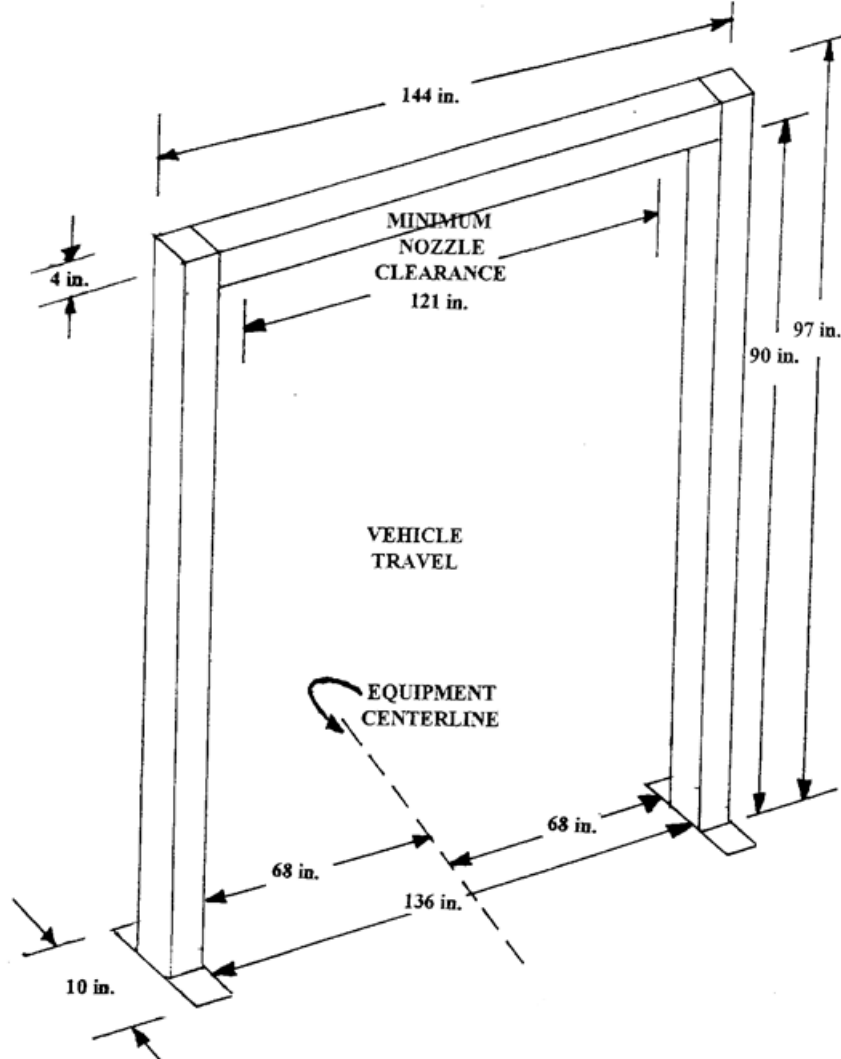
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Electrical

- The Customer's Electrician is to provide and install single phase power from the (24 or 110 VAC as determined at time of order) from the Customer's Controller system to the liquid solenoid valve for the brush spray bars and, if required, the motor starter coil for the hydraulic power pack feeding the two brushes and any pump motor for the chemical distribution system.

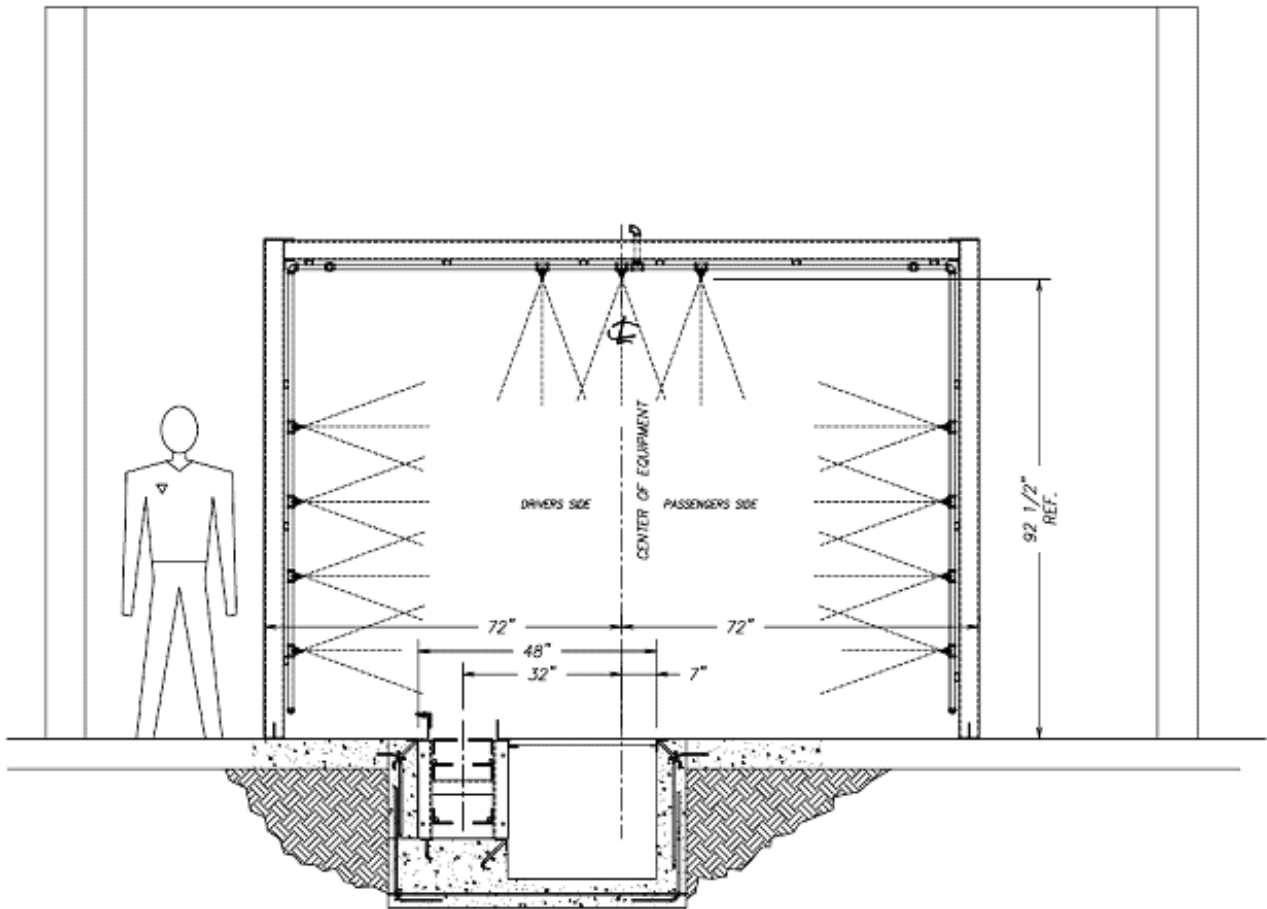
Dimensions

TYPICAL SINGLE ARCH INSTALLATION



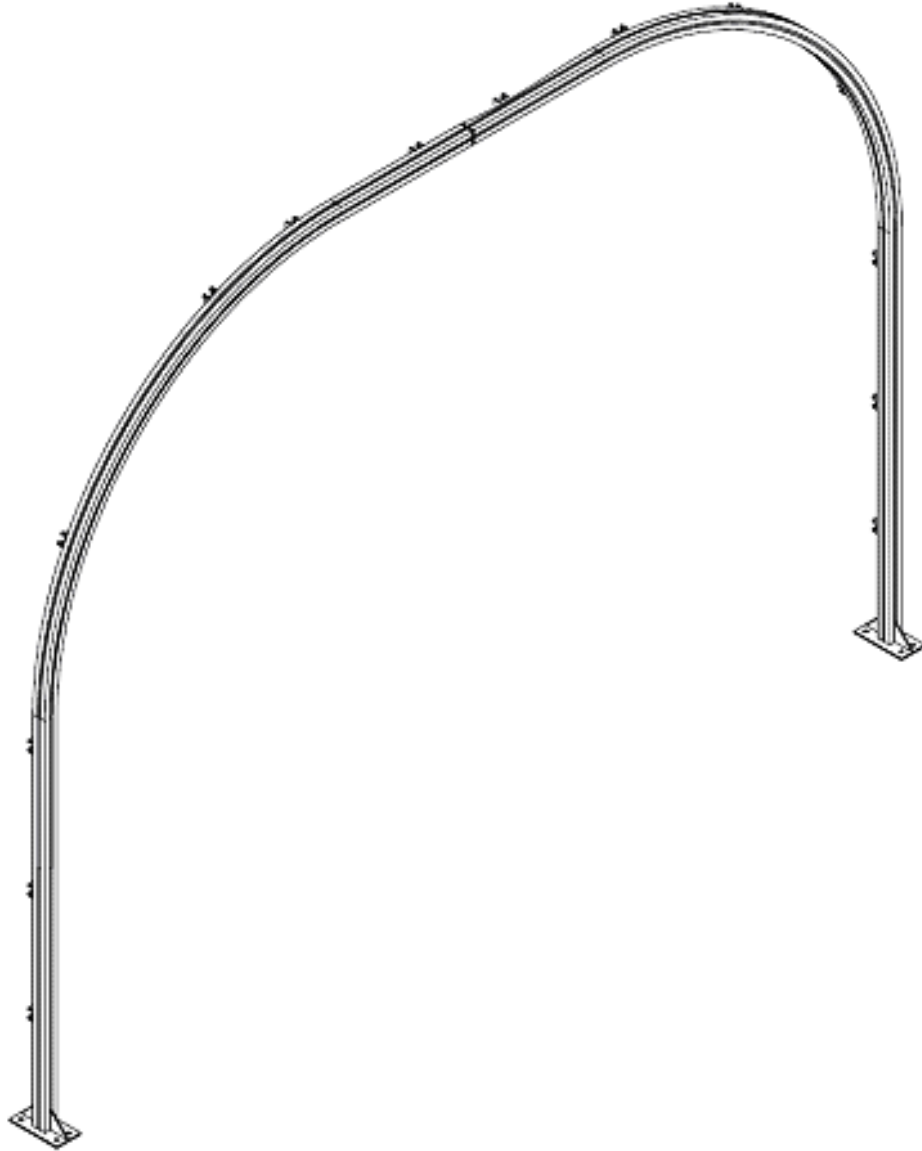


Owner's Manual Applicator Arches Foaming & Non-Foaming



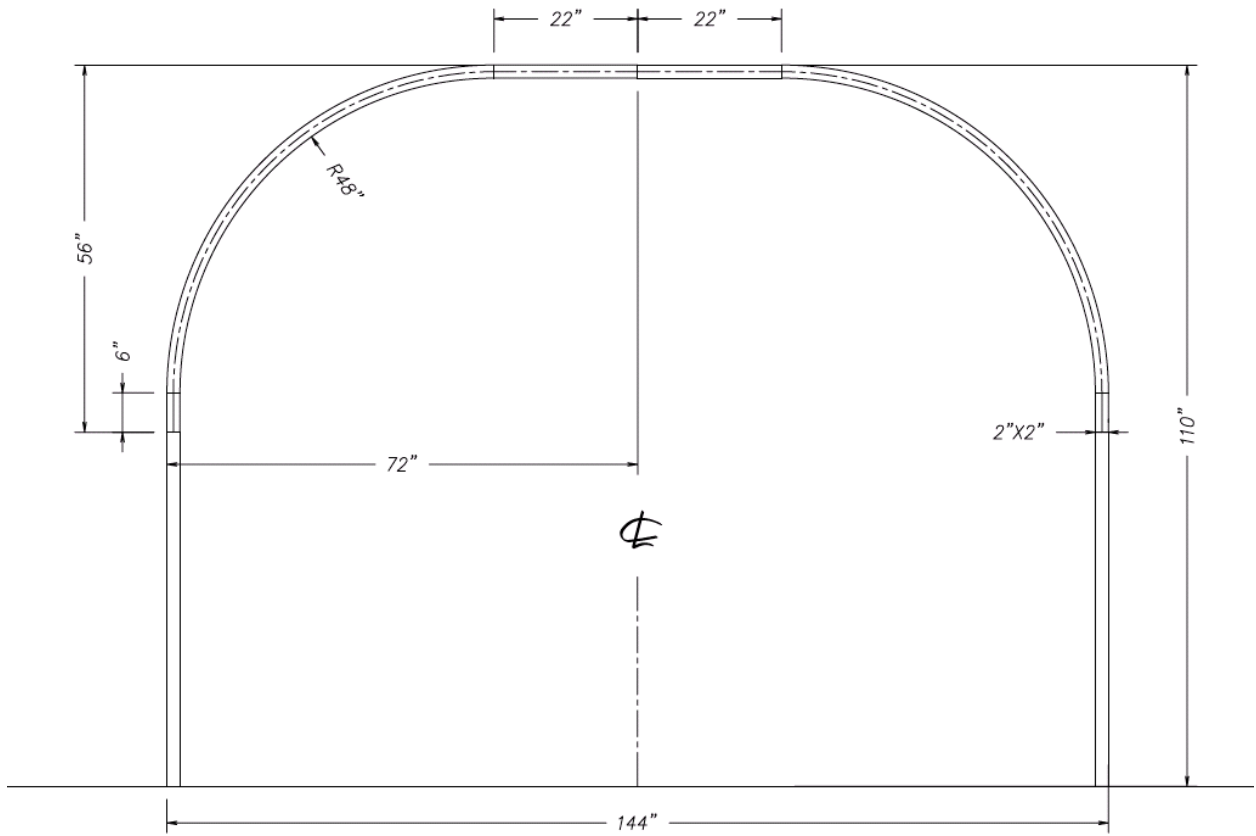


Owner's Manual Applicator Arches Foaming & Non-Foaming





Owner's Manual Applicator Arches Foaming & Non-Foaming





Equipment Installation

Applicator Arches

Tools

1. Safety Glasses
2. 1/2" Drive Ratchet Set
3. Standard Combo Wrenches
4. Impact Wrench Set
5. 4' Level
6. 3 lb. Sledgehammer
7. 1" Hammer Drill
8. Pry Bar
9. Tape Measure
10. Permanent Marker

Consumables

1. PTFE Paste
2. PTFE Tape

Work Force

One (1) person

Time (assuming no problems)

2.00 - 3.00 hours

Installation Steps

1. Determine where the arch is to be installed. Refer to tunnel layout diagram.
2. Sweep any debris from where the arch will stand.
3. Place the arch mounting posts on the passenger and driver sides according to the dimensions on the tunnel layout diagram. DO NOT permanently anchor the base plates.

Note: Before lagging the frame into position have a second person double check all measurements against your tunnel equipment layout drawings to ensure all measurements were performed correctly.

4. Run and connect 1/2 inch poly tubing from the chemical distribution system to the 1/2 inch female thread inlet fitting on each frame.
5. Check that the side legs are vertically plum, and the top cross beam is level.
6. Shim the mounting pads as necessary to achieve level and plumb conditions.
7. Anchor the mounting pads to the concrete floor with the wedge anchors provided.



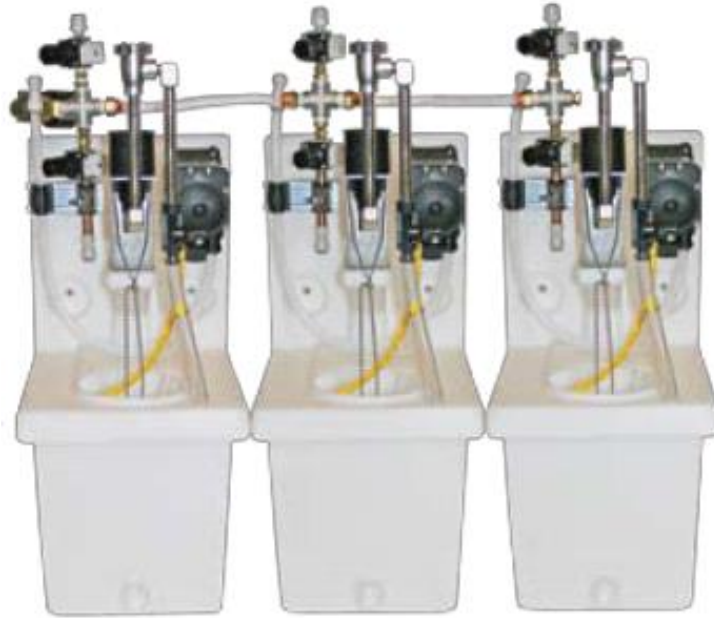
Adjustments and Testing

Adjustments

1. Adjustments to the application sequence, timing, and duration of all chemical applications can be regulated by the tunnel controller.
2. Adjustments to the dilution ratio of chemical to water can be changed by increasing or decreasing the size of the metering tips and/or hydrominders/eductors.
3. The volume of the diluted product can be regulated by the air pressure to the air-driven pump. The standard setting is 40PSI, higher air pressure will provide a higher volume to the application.
4. Further adjustment to the volume of the diluted product can be done using a ball valve.
5. Foam consistency can be adjusted by the air regulator at the pump station used for air to the application. The standard is 20PSI, fine air/foam adjustment can be accomplished out at the application using a needle valve.



Owner's Manual Applicator Arches Foaming & Non-Foaming



G-57 Triple Foam Station



Owner's Manual Applicator Arches Foaming & Non-Foaming

GENERAL OPERATION

The Customer's equipment Programmer provides pre-selected and timed power to the coil of the liquid solenoid valve for each arch style listed and the coil of the air solenoid valve.

Optimum arch operation can be achieved by allowing the arch to begin spraying solution when the approaching vehicle is approximately one foot away from the spray nozzles. Shut-off of sprayed solution should occur when the rear bumper of the vehicle has just passed the spray nozzles.



PREVENTIVE MAINTENANCE

DAILY

Operational Checks

1. Check for leaks around hoses and fittings. Repair any serious leaks immediately.
2. Perform general examination of operation, listening for any unusual noises.
3. Check spray pattern from nozzles, clean any dirty nozzles.

WEEKLY

Check all nozzles for wear and replace if necessary.

MONTHLY

Check all hardware and fittings for tightness and clean thoroughly.

ANNUALLY

Replace all nozzles to prevent excessive chemical usage and uneven application.

PARTS LIST



FloJet Pump **FLOJET**

- Max flow rate – 7GPM
- Max 100PSI working pressure
- Air inlet / outlet – 1/4in



10004207



10002967

Specify Santoprene or Viton Seals when ordering.

Item #	Description	Price
10006971	Flojet, G57 Pump Santo Push Lock 5GPM	\$89.90
10007373	Flojet, G57 Pump Viton Push Lock 5GPM	124.95
10004207	Flojet, 20381-063 Push-in-Tube 1/2 Viton	15.41
10002967	Flojet, 1510-000 1/4in Brass Air Inlet	5.82



10002620

Brass Needle and Check Valves

Arrow engraved on check valve indicates air flow.



10002964

Item #	Description	Price
10002620	Needle Valve, 1/4in MPT x 1/4in MPT	\$5.55
10002964	Check Valve, Brass 1/4in MPT x 1/4in MPT	5.93



Foam Generating Pads

- Plastic scrubby netting pads 3-per pack
- Great for creating foam

Item #	Description	Price
20000482	Scrubby Pads, 3-Pack Plastic	\$0.99



Right to Left Air Flow

10004089

Mini Regulator & Mini Filter Regulator



Item #	Description	SCFM	Price
10004090*	Reg w/Gauge R-L 1/4 FPT SCFM 28 AR20KRZ	35	\$13.99
10004089*	Reg w/Gauge L-R 1/4 FPT SCFM 11 AR20K	35	13.99

*Specify air flow direction when ordering mini regulator.



Solenoid Valves

1/4in used on application tanks and foaming panels.



Item #	Description	Price
10005518	Dema, 401P3 Val Sol 1/4in N/C JB24V	\$33.70
10005519	Dema, 401P6 Val Sol 1/4in N/C JB120V	33.70



Hydrominders 511 / 515 / 530

Used on application tanks.



Item #	Description	Price
10007334	Hydro, 511 L Vol. 4.5GPM w/Siphon Brkr	\$120.20
10007528	Hydro, 515 L Vol. 1.5GPM w/Siphon Brkr	144.51
10007769	Hydro, 530 M Vol. 9GPM w/Siphon Brkr	202.94



20002729



20002014



1/2in FNPT

20003750



20001556



10001544

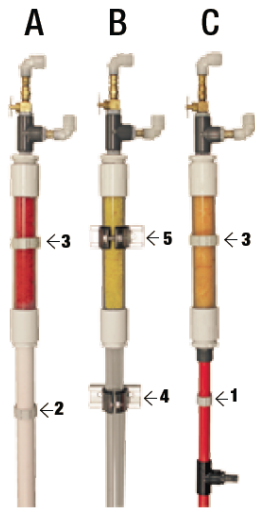


10002451



10003508

Item #	Description	Price
20002729	FMRSH Head Complete (1) No Bracket	\$260.00
20002014	Shower Foamer Tee, 3/8in Tube Fittings	69.66
20003750	Shower Head, 27 Hole Tri Foam 1/2 FPT	48.26
20001556	Shower Head Chamber PVC 1/2in FPT	45.16
10001544	Nipple, Brass Hex 1/2in MPT x 1/2in MPT	2.18
10002451	Ball Fitting, Brass 1/2 MPT x 1/2 FPT	42.82
10003508	Zsi, Cush-A-Clamp 022NS026 1 3/8in ID SS	8.47



Foamer Tubes Complete

- A.** For: Wrap Arounds
- B.** For: Triple Foam Arches
- C.** For: Pre-soak Applicator Arches

Clie Clamps

Item #	Description	Price
1	10000895 Clamp, CLIC #20	\$0.69
2	10006578 Clamp, CLIC #32	1.48
3	10005988 Clamp, CLIC #40	1.99
	10007472 Strut, Catcher Only for Clie Clamp	1.50

Cush-A-Clamp

Item #	Description	Price
4	10003508 Zsi, Cush-A-Clamp 022NS026 1 3/8in ID SS	\$8.47
5	10003689 Zsi, Cush-A-Clamp 026NS030 1 5/8in ID SS	9.16

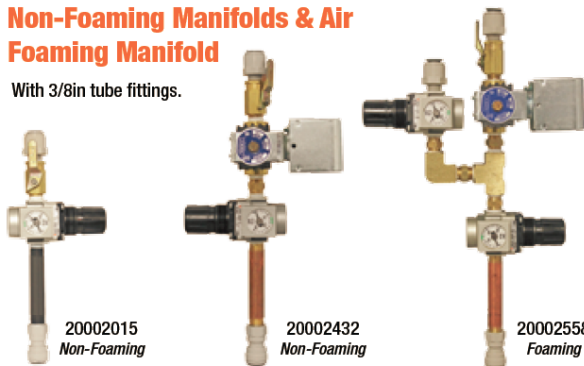
Foamer Tubes Complete

Item #	Description	Price
A	20002290 Foamer Tube Complete PVC White	\$156.00
B	20002429 Foamer Tube Complete PVC Clear	156.00
C	20002724 Foamer Tube Complete Red w/K Nozzle Side	260.00
C	20002723 Foamer Tube Complete Red w/K Nozzle Top	260.00

For complete information on all clamp options, go to the Hose and Clamps section of the catalog.

Non-Foaming Manifolds & Air Foaming Manifold

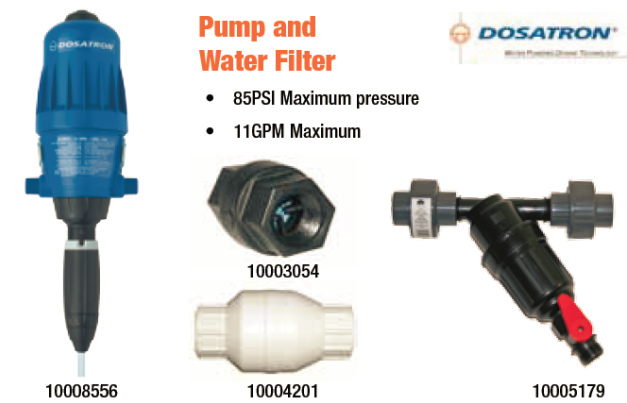
With 3/8in tube fittings.



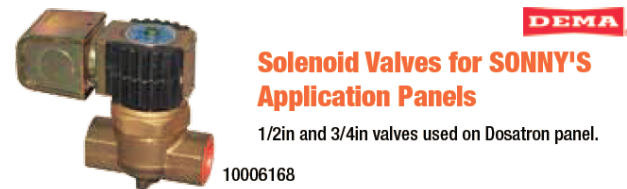
Item #	Description	Price
20002015	Manifold, Air w/Out Sol Non-Foaming	\$55.79
20002432	Manifold, Air w/Solenoid NonFoaming 24V	114.44
20002486	Manifold, Air w/Solenoid NonFoaming 110V	114.44
20002558	Manifold, Air w/Solenoid Foaming 24V	151.19
20002606	Manifold, Air w/Solenoid Foaming 110V	151.19
10002562	Zsi, Cush-A-Clamp 010NS014 5/8in ID SS	4.60



Item #	Description	Price
20007275	Foamer Tee, 3/8in Tube Fittings	\$70.00
20010618	Foam Chamber, 1/2in FPT x 1/2in FPT	46.00
20001355	Foam Chamber, 1/2in FPT x 1 1/4in Socket	46.00
10001118	Sink Strainer, FMR1000	1.03



Item #	Description	Price
10008556	Dosatron, 14GPM D14MZ2-D 500:1-50:1	\$358.80
10003054	Check Valve, Poly 3/4in FPT	6.30
10004201	Dosatron, CV-34 Check Valve 3/4in	15.65
10005179	Dosatron, AFK5AP11KIT-A 200Mesh Strainer	28.91



Item #	Description	Price
10006168	Dema, 414P3 Val Sol 1/2in N/C JB24V	\$52.32
10006169	Dema, 414P6 Val Sol 1/2in N/C JB120V	52.32
10006648	Dema, 416P3 Val Sol 3/4in N/C JB24V	72.03
10006647	Dema, 416P6 Val Sol 3/4in N/C JB120V	72.03



1/4in Veerspray Nozzles

- Most popular selling nozzle for lower pressure car wash applications
- Chemically resistant polyvinylidene fluoride (PVDF) polymer
- Pressure up to 500PSI
- Available spray angles ranging from 0, 15, 25, 40, 65, 80, 95, 110
- One-piece male 1/4in
- Hex body prevents distortion of the orifice and provides quick and easy installation



1/4in MPT PVDF Nozzles 0°

Item #	Description	GPM@ 40PSI	Cross Reference	Price
10001231	Nozzle, PVDF 1/4 x 0deg #03 Red	0.30	0003	\$1.54
10001237	Nozzle, PVDF 1/4 x 0deg #04 Light Blue	0.40	0004	1.54
10001232	Nozzle, PVDF 1/4 x 0deg #05 Yellow	0.50	0005	1.54

1/4in MPT PVDF Nozzles 15°

10001222	Nozzle, PVDF 1/4 x 15deg #02 Orange	0.20	1502	\$1.54
10001238	Nozzle, PVDF 1/4 x 15deg #03 Red	0.30	1503	1.54
10001219	Nozzle, PVDF 1/4 x 15deg #04 Light Blue	0.40	1504	1.54
10001234	Nozzle, PVDF 1/4 x 15deg #05 Yellow	0.50	1505	1.54
10001256	Nozzle, PVDF 1/4 x 15deg #06 Lime Green	0.60	1506	1.54
10001247	Nozzle, PVDF 1/4 x 15deg #08 Moss Green	0.80	1508	1.54
10001254	Nozzle, PVDF 1/4 x 15deg #10 Blue	1.00	1510	1.54
10001216	Nozzle, PVDF 1/4 x 15deg #15 Green	1.50	1515	1.54
10001208	Nozzle, PVDF 1/4 x 15deg #20 Olive Green	2.00	1520	1.54
10001236	Nozzle, PVDF 1/4 x 15deg #30 Red	3.00	1530	1.54

1/4in MPT PVDF Nozzles 25°

10001227	Nozzle, PVDF 1/4 x 25deg #01 Pink	0.10	2501	\$1.54
10001228	Nozzle, PVDF 1/4 x 25deg #02 Orange	0.20	2502	1.54
10001239	Nozzle, PVDF 1/4 x 25deg #03 Red	0.30	2503	1.54
10001240	Nozzle, PVDF 1/4 x 25deg #04 Light Blue	0.40	2504	1.54
10001257	Nozzle, PVDF 1/4 x 25deg #05 Yellow	0.50	2505	1.54
10001205	Nozzle, PVDF 1/4 x 25deg #06 Lime Green	0.60	2506	1.54
10001260	Nozzle, PVDF 1/4 x 25deg #08 Moss Green	0.80	2508	1.54
10001214	Nozzle, PVDF 1/4 x 25deg #10 Blue	1.00	2510	1.54
10001218	Nozzle, PVDF 1/4 x 25deg #15 Green	1.50	2515	1.54
10001210	Nozzle, PVDF 1/4 x 25deg #20 Olive Green	2.00	2520	1.54
10001252	Nozzle, PVDF 1/4 x 25deg #30 Red	3.00	2530	1.54

1/4in MPT PVDF Nozzles 40°

Item #	Description	GPM@ 40PSI	Cross Reference	Price
10001224	Nozzle, PVDF 1/4 x 40deg #01 Pink	0.10	4001	\$1.54
10001229	Nozzle, PVDF 1/4 x 40deg #02 Orange	0.20	4002	1.54
10001241	Nozzle, PVDF 1/4 x 40deg #03 Red	0.30	4003	1.54
10001242	Nozzle, PVDF 1/4 x 40deg #04 Light Blue	0.40	4004	1.54
10001259	Nozzle, PVDF 1/4 x 40deg #05 Yellow	0.50	4005	1.54
10001250	Nozzle, PVDF 1/4 x 40deg #06 Lime Green	0.60	4006	1.54
10001249	Nozzle, PVDF 1/4 x 40deg #08 Moss Green	0.80	4008	1.54
10001215	Nozzle, PVDF 1/4 x 40deg #10 Blue	1.00	4010	1.54
10001221	Nozzle, PVDF 1/4 x 40deg #15 Green	1.50	4015	1.54
10001253	Nozzle, PVDF 1/4 x 40deg #20 Olive Green	2.00	4020	1.54
10001243	Nozzle, PVDF 1/4 x 40deg #30 Red	3.00	4030	1.54

1/4in MPT PVDF Nozzles 65°

10001230	Nozzle, PVDF 1/4 x 65deg #01 Pink	0.10	6501	\$1.54
10001223	Nozzle, PVDF 1/4 x 65deg #02 Orange	0.20	6502	1.54
10001244	Nozzle, PVDF 1/4 x 65deg #03 Red	0.30	6503	1.54
10001245	Nozzle, PVDF 1/4 x 65deg #04 Light Blue	0.40	6504	1.54
10001204	Nozzle, PVDF 1/4 x 65deg #05 Yellow	0.50	6505	1.54
10001258	Nozzle, PVDF 1/4 x 65deg #06 Lime Green	0.60	6506	1.54
10001207	Nozzle, PVDF 1/4 x 65deg #08 Moss Green	0.80	6508	1.54
10001217	Nozzle, PVDF 1/4 x 65deg #10 Blue	1.00	6510	1.54
10001209	Nozzle, PVDF 1/4 x 65deg #15 Green	1.50	6515	1.54
10001212	Nozzle, PVDF 1/4 x 65deg #20 Olive Green	2.00	6520	1.54
10001246	Nozzle, PVDF 1/4 x 65deg #30 Red	3.00	6530	1.54

1/4in MPT PVDF Nozzles 80°

10001226	Nozzle, PVDF 1/4 x 80deg #01 Pink	0.10	8001	\$1.54
10001225	Nozzle, PVDF 1/4 x 80deg #02 Orange	0.20	8002	1.54
10001233	Nozzle, PVDF 1/4 x 80deg #03 Red	0.30	8003	1.54
10001235	Nozzle, PVDF 1/4 x 80deg #04 Light Blue	0.40	8004	1.54
10001206	Nozzle, PVDF 1/4 x 80deg #05 Yellow	0.50	8005	1.54
10001248	Nozzle, PVDF 1/4 x 80deg #06 Lime Green	0.60	8006	1.54
10001255	Nozzle, PVDF 1/4 x 80deg #08 Moss Green	0.80	8008	1.54
10001220	Nozzle, PVDF 1/4 x 80deg #10 Blue	1.00	8010	1.54
10001211	Nozzle, PVDF 1/4 x 80deg #15 Green	1.50	8015	1.54
10001213	Nozzle, PVDF 1/4 x 80deg #20 Olive Green	2.00	8020	1.54
10001251	Nozzle, PVDF 1/4 x 80deg #30 Red	3.00	8030	1.54

1/4in MPT PVDF Nozzles 110°

10001269	Nozzle, PVDF 1/4 x 110deg #03 Red	0.30	-	\$1.54
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Owner's Manual Applicator Arches Foaming & Non-Foaming

Diaphragm Check Valve Male x Female

- Nylon body
- 1/4in MPT inlet
- 1/4in FPT outlet
- Maximum operating pressure 300PSI
- Anti-drip valve (8PSI)



Item #	Description	Price
10002870	Hypro 402CPV01 CHK 1/4 FPTx1/4 MPT 8PSI	\$5.28
40001572	Hypro 4200-0004E Diaphragm Black EPDM	0.30

Adapter for Retro Fitting

- Nylon body
- Allows for 1/4in NPT connections
- Maximum operating pressure 300PSI
- Can be used with all quick attach spray caps
- Allows for fast nozzle changes



Item #	Description	Price
10001329	Hypro 4200-0019 1/4 FPT x Quick Attach	\$0.92

Deflectip™ Wide-Angle Flat Nozzles

- Large orifice produces coarser droplets
- Pressure from 10PSI to 60PSI
- Large circular orifice reduces the chances of blocking
- Wide spray angles for close-up coverage
- Precision-molded in tough and durable polyacetal
- Ideal for low pressure pre-soak and final rinse applications



Item #	Description	Tip Size	GPM@ 40PSI	Price
10000811	Nozzle, Deflectip 0.5 Orange 0.10GPM	0.5	0.10	\$0.85
10000812	Nozzle, Deflectip 0.75 Green 0.10GPM	0.75	0.10	0.85
10000852	Nozzle, Deflectip 1.5 Blue 0.30GPM	1.5	0.30	0.85
10000813	Nozzle, Deflectip 10 Black 2.00GPM	10	2.00	0.85
10000814	Nozzle, Deflectip 15 Pink 3.00GPM	15	3.00	0.85

Diaphragm Check Valve & Quick Attach Adapter

Adapter

- For use with all 1/4 MPT nozzles
- "Quick Attach" feature

Check Valve

- 1/4in MPT inlet
- Standard 8PSI diaphragm check valve
- "Quick Attach" feature



Item #	Description	Price
10002241	Hypro 402275N Check Val 8lb 1/4 MPTxQuic	\$3.80
10001303	Hypro 402910 Quick Adapter Cap 1/4 FPT	1.40
10000400	Hypro 402200-040 Cap Gasket for Check	0.40

110° Air Foaming Nozzles

- Quick attachment feature
- Use nozzle body with diaphragm check valve (10002241)
- Venturi enhances foaming



Item #	Description	Tip Size	GPM@ 40PSI	Price
10003533	Nozzle, Air Foaming Size 04 110deg	04	0.4	\$11.58
10003534	Nozzle, Air Foaming Size 06 110deg	06	0.6	11.58
10003531	Nozzle, Air Foaming Size 10 110deg	10	1.0	11.58



80° Air Foaming Nozzles

- Quick attachment feature
- Use nozzle body with diaphragm check valve (10002241)
- Venturi enhances foaming

Item #	Description	Tip Size	GPM@ 40PSI	Price
10003535	Nozzle, Air Foaming Size 04 80deg	04	0.4	\$11.58
10003537	Nozzle, Air Foaming Size 06 80deg	06	0.6	11.58
10003532	Nozzle, Air Foaming Size 08 80deg	08	0.8	11.58
10003536	Nozzle, Air Foaming Size 10 80deg	10	1.0	11.58
10000771	Hypro CAP04-03 Universal Cap Blue w/Gask	-	-	0.60
10000642	Hypro CAP00-02 Fan Tip Yellow Cap w/Gask	-	-	0.47



Adjustable Plastic Ball Fittings



- Adjustable ball-type nozzle has a threaded pipe connection and permits quick, convenient positioning of the spray tip for accurate spray alignment and reduced overspraying
- Hand-tightened retaining cap holds the tip in position, even when the nozzle is jarred or vibrated
- 125PSI maximum

(1) MPT x (2) FPT

Item #	Description	Price
10003132	Ball Fitting, Plastic 1/4 MPT x 1/4 FPT	\$6.54
10003133	Ball Fitting, Plastic 3/8 MPT x 1/4 FPT	6.54
10003130	Ball Fitting, Plastic 3/8 MPT x 3/8 FPT	6.54
10003129	Ball Fitting, Plastic 1/2 MPT x 1/2 FPT	6.54



Adjustable Brass Ball Fittings



- Ball fitting features a lock ring that holds the nozzle in position when jarred or subjected to vibration. The fitting has a relatively small diameter for applications requiring a compact size
- Nozzle removal for cleaning and readjustment is quick and simple
- 300PSI maximum

(1) MPT x (2) FPT

Item #	Description	Price
10003208	Ball Fitting, Brass 1/8 MPT x 1/8 FPT	\$6.90
10003560	Ball Fitting, Brass 1/4 MPT x 1/4 FPT	9.65
10004384	Ball Fitting, Brass 3/8 MPT x 3/8 FPT	17.20
10002451	Ball Fitting, Brass 1/2 MPT x 1/2 FPT	42.82



Flood Jet PVC K-Nozzles



- 1/4in NPT PVC
- Uniform spray of medium size drops
- Deflection angle 75°
- Maximum 60PSI

Item #	Description	GPM@ 40PSI	Price
10003851	K-Nozzle, Flood Jet PVC Size 2	0.2	\$11.30
10003814	K-Nozzle, Flood Jet PVC Size 2.5	0.25	11.30
10003850	K-Nozzle, Flood Jet PVC Size 3	0.3	11.30
10003847	K-Nozzle, Flood Jet PVC Size 5	0.5	11.30
10003849	K-Nozzle, Flood Jet PVC Size 10	1.0	11.30
10003848	K-Nozzle, Flood Jet PVC Size 15	1.5	11.30

Viton Diaphragm Check Valve



- Nylon 1/4in MPT inlet connection x 1/4in FPT
- Check valve opens at 10PSI
- 300PSI maximum & 2GPM
- Eliminates the pressure drop associated with ball-type check valves



10002315

Item #	Description	Price
10002315	Check Valve 8360-1/4-NY-BL 7lb Blue Cap	\$6.25
10000854	Diaphragm Viton CP21953VI for 7lb Bl Cap	0.70

Viton Diaphragm Check Valve



- Nylon 1/4in MPT inlet connection x 1/4in FPT
- Check valve opens at 20PSI
- 300PSI maximum & 2GPM
- Eliminates the pressure drop associated with ball-type check valves



Item #	Description	Price
10002314	Check Valve 8360-1/4-NY-B 20lb Black Cap	\$3.15

Cone Spray Nozzles



- Wide angle full spray nozzles with round impact area & spray angles of 120° to 125°
- Uniform spray distribution, unique vane design & exacting internal proportions
- Engineered to assure accurate & consistent performance
- Excellent in rinse & wax arch applications

Item #	Description	GPM@ 10PSI	Price
10004516	Nozzle, Cone Full Spray SS 1/4in 1.0GPM	1.0	\$18.53
10004517	Nozzle, Cone Full Spray SS 1/4in 1.4GPM	1.4	18.53

T-Jet Body & Tee Jet Adapter



Tee jet adapter allows the use of a standard 1/4in MPT nozzle



10000876

10001175

Standard 1/4in MPT nozzle

Item #	Description	Price
10000876	SSC, CP8028-NYB Male 1/4 Nozzle Body	\$0.80
10001175	SSC, 4676-NYB-1/4 Female Adapter Nylon	1.25



Owner's Manual Applicator Arches Foaming & Non-Foaming

Nozzle Chart Selection

Most low pressure nozzles used in the car wash industry are based on **40PSI** (average city water pressure) or **1000PSI** (commonly used for high pressure applications). The GPM output will be determined by the nozzle size at your specific PSI. (i.e. A No. 4 Nozzle at 1000PSI, will give you an output of 2.00 GPM)

Nozzle #	Orifice Diameter	40 PSI	100 PSI	250 PSI	500 PSI	600 PSI	700 PSI	800 PSI	1000 PSI	1200 PSI	1500 PSI	2000 PSI	2500 PSI	3000 PSI	3500 PSI	4000 PSI	5000 PSI
01	.029	0.1	0.158	0.25	0.35	0.38	0.42	0.45	0.49	0.55	0.61	0.7	0.79	0.86	0.93	1	1.11
015	.036	0.15	0.24	0.37	0.53	0.58	0.62	0.67	0.75	0.82	0.92	1.06	1.18	1.3	1.4	1.5	1.67
02	.034	0.20	0.32	0.50	0.71	0.77	0.84	0.89	1.00	1.10	1.22	1.41	1.58	1.73	1.87	2.00	2.24
025	.039	0.25	0.40	0.63	0.88	0.97	1.05	1.12	1.25	1.37	1.53	1.77	1.98	2.17	2.34	2.50	2.80
03	.043	0.30	0.47	0.75	1.06	1.16	1.25	1.34	1.50	1.64	1.84	2.12	2.37	2.60	2.81	3.00	3.35
035	.048	0.35	0.55	0.88	1.24	1.36	1.46	1.57	1.75	1.92	2.14	2.47	2.77	3.03	3.27	3.50	3.91
04	.052	0.40	0.63	1.00	1.41	1.55	1.67	1.79	2.00	2.19	2.45	2.83	3.16	3.46	3.74	4.00	4.47
045	.055	0.45	0.71	1.13	1.59	1.74	1.88	2.01	2.25	2.46	2.76	3.18	3.56	3.90	4.21	4.50	5.03
05	.057	0.50	0.79	1.25	1.77	1.94	2.09	2.24	2.50	2.74	3.06	3.54	3.95	4.33	4.68	5.00	5.59
055	.060	0.55	0.87	1.38	1.94	2.13	2.30	2.46	2.75	3.01	3.37	3.89	4.35	4.76	5.14	5.50	6.15
06	.062	0.60	0.95	1.50	2.12	2.32	2.51	2.68	3.00	3.29	3.67	4.24	4.74	5.20	5.61	6.00	6.71
065	.064	0.65	1.03	1.63	2.30	2.52	2.72	2.91	3.25	3.56	3.98	4.60	5.14	5.63	6.08	6.50	7.27
07	.067	0.70	1.11	1.75	2.47	2.71	2.93	3.13	3.50	3.83	4.29	4.95	5.53	6.06	6.55	7.00	7.83
075	.070	0.75	1.19	1.88	2.65	2.90	3.14	3.35	3.75	4.11	4.59	5.30	5.93	6.50	7.02	7.50	8.39
08	.072	0.80	1.26	2.00	2.83	3.10	3.35	3.58	4.00	4.38	4.90	5.66	6.32	6.93	7.48	8.00	8.94
085	.074	0.85	1.34	2.13	3.01	3.29	3.56	3.80	4.25	4.66	5.21	6.01	6.72	7.36	7.95	8.50	9.50
09	.076	0.90	1.42	2.25	3.18	3.49	3.76	4.02	4.50	4.93	5.51	6.36	7.12	7.79	8.42	9.00	10.06
095	.078	0.95	1.50	2.38	3.36	3.68	3.97	4.25	4.75	5.20	5.82	6.72	7.51	8.23	8.89	9.50	10.62
10	.080	1.00	1.58	2.50	3.54	3.87	4.18	4.47	5.00	5.48	6.12	7.07	7.91	8.66	9.35	10.00	11.18
11	.083	1.10	1.74	2.75	3.89	4.26	4.60	4.92	5.50	6.02	6.74	7.78	8.70	9.53	10.29	11.00	12.30
12	.087	1.20	1.90	3.00	4.24	4.65	5.02	5.37	6.00	6.57	7.35	8.49	9.49	10.39	11.22	12.00	13.42
125	.089	1.25	1.98	3.13	4.42	4.84	5.23	5.59	6.25	6.85	7.65	8.84	9.88	10.83	11.69	12.50	13.98
13	.091	1.30	2.06	3.25	4.60	5.03	5.44	5.81	6.50	7.12	7.96	9.19	10.28	11.26	12.16	13.00	14.53
14	.093	1.40	2.21	3.50	4.95	5.42	5.86	6.26	7.00	7.67	8.57	9.90	11.07	12.12	13.10	14.00	15.65
15	.096	1.50	2.37	3.75	5.30	5.81	6.27	6.71	7.50	8.22	9.19	10.61	11.86	12.99	14.03	15.00	16.77
20	.109	2.00	3.16	5.00	7.07	7.75	8.37	8.94	10.00	10.95	12.25	14.14	15.81	17.32	18.71	20.00	22.36
25	.125	2.50	3.95	6.25	8.84	9.68	10.46	11.18	12.50	13.69	15.31	17.68	19.76	21.65	23.29	25.00	27.95
30	.141	3.00	4.74	7.50	10.61	11.62	12.55	13.42	15.00	16.43	18.37	21.12	23.72	25.98	28.06	30.00	33.54
40	.156	4.00	6.32	10.00	14.14	15.49	16.73	17.89	20.00	21.91	24.49	28.28	31.62	34.64	37.42	40.00	44.72
50	.172	5.00	7.91	12.50	17.68	19.36	20.92	22.36	25.00	27.39	30.62	35.36	39.53	43.30	46.77	50.00	55.90
60	.188	6.00	9.49	15.00	21.21	23.24	25.10	26.83	30.00	32.86	36.74	42.43	47.53	51.96	56.12	60.00	67.08



WARRANTY

SONNY'S ENTERPRISES, INC. FACTORY LIMITED LIFETIME WARRANTY

Equipment manufactured by SONNY'S ENTERPRISES, INC. is warranted to be free from defect in material and workmanship. Welded metal framework and other non-moving, non-wearable fabricated metal components manufactured by SONNY'S are warranted for the life of the equipment to the original purchaser. Fabricated metal wearable surface and moving components manufactured by SONNY'S are warranted for a period of one (1) year to the original purchaser of the equipment.

All components assembled to SONNY'S equipment that are manufactured by others are warranted by the appropriate manufacturer and subject to that manufacturer's limited warranty. Contact SONNY'S for the specific information on other component manufacturer's warranty terms. All new PermaColor™ cloth shipped with new SONNY'S equipment is warranted for a period of one (1) year, or 100,000 Car Washes, whichever occurs first. All new MicroClean™ Wash Material shipped with new SONNY'S equipment is warranted for a period of one (1) year, or 60,000 Car Washes, whichever occurs first.

This warranty is not assignable or transferable. The warranty period begins the first day following installation or 30 days from the original invoice date, whichever occurs first. The Seller's liability shall be limited to repair or replacement of materials found to be defective within the warranty period. In the event of repair or replacement this limited warranty is noncumulative. The Purchaser must supply the Seller with immediate written notice when any defects are found. The Seller shall have the option of requiring the return of defective material to establish the Purchaser's claim. Neither labor nor transportation charges are included in this warranty. Transportation damage claims are to be submitted to the carrier of the damaged materials.

This warranty is based upon the Purchaser's reasonable care and maintenance of the warranted equipment. It does not apply to any equipment which has been subject to misuse, including neglect, accident, or exposure to harsh chemicals, including but not limited to Hydrofluoric Acid • Ammonium Bi-fluoride • Bromic Acid • Muriatic Acid • Sulfonic Acid • Phosphoric Acid • Hydrogen Cyanide • Hydrochloric Acid • Chlorinated Solvents. Nor does it apply to any equipment which has been repaired or altered by anyone not so authorized by SONNY'S. Further, the equipment must be properly installed with proper accuracy of all specified plumbing, electrical, and mechanical requirements. This warranty does not apply to normal wear and tear or routine maintenance components.

EXCEPT AS EXPRESSLY STATED HEREIN, SONNY'S SHALL NOT BE LIABLE FOR DAMAGES OF ANY KIND IN CONNECTION WITH THE PURCHASE, MAINTENANCE, OR USE OF THIS EQUIPMENT INCLUDING LOSS OF PROFITS AND ALL CLAIMS FOR CONSEQUENTIAL DAMAGES. THE LIMITED WARRANTY EXPRESSED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED. SONNY'S NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION HERewith.



Owner's Manual Applicator Arches Foaming & Non-Foaming

CUSTOMER SERVICE

Please contact SONNY'S Equipment Department for installation and/or operational questions regarding this piece of equipment.

Please refer to the Parts list in this manual or our Parts Catalog and contact SONNY'S Customer Service Order Entry Department for any replacement parts for this piece of equipment.

For Equipment Repairs please visit the web at www.sonnysdirect.com.

DEPARTMENT

Toll Free Main Line
Equipment Department

PHONE NUMBERS

800-327-8723
954-720-4100

FAX NUMBERS

800-495-4049
954-720-9292

Or you can email Sales at sales@sonnysdirect.com

Thank you for being a SONNY'S car wash equipment owner!

From all of us here at

