



Side-to-Side Mitter



Owner's Manual

Sonny's Enterprises, Inc.
5605 Hiatus Road
Tamarac, Florida 33321
16v1



Equipment Program - Manuals Side-to-Side Mitter SFM S-S Series

Table of Contents

WARNING *SAFETY REQUIREMENTS* WARNING	3
INTRODUCTION	5
Product Specifications	6
INSTALLATION	8
Utilities Requirements	8
Sonny's Direct Drive Rotation	11
Equipment Installation	15
Mitter Frame Installation	15
Adjustments and Testing	17
GENERAL OPERATION	18
PREVENTIVE MAINTENANCE	19
WARRANTY	20
CUSTOMER SERVICE	21



Equipment Program - Manuals Side-to-Side Mitter SFM S-S Series

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.



Equipment Program - Manuals Side-to-Side Mitter SFM S-S Series

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.



Equipment Program - Manuals Side-to-Side Mitter SFM S-S Series

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 of 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 !!!!





Equipment Program - Manuals Side-to-Side Mitter SFM S-S Series

Product Specifications

- 4 inch square aluminum frame and support legs. Also available in stainless steel.
- 2HP, 3-phase electric drive motor.
- 60:1 direct drive ratio speed reducer.
- Non-grease basket bearings.
- Overhead clearance for vehicles up to 90 inches high.
- Depending on model, 133 or 142 inches unobstructed overhead tunnel clearance required.
- Depending on model, 48 or 72 inches tunnel length required.
- 152 inches tunnel width required.
- 1/2 inch city pressure water solution inlet.



Equipment Program - Manuals

Side-to-Side Mitter

SFM S-S Series

For Parts/Accessories Information Please Reference our Catalog or Website.



Problem:

You need to clean hard to reach flat surfaces and angles as well as thoroughly buff premium waxes and sealants for a shine that customer can see when paying for these extra services.

Solved:

SONNY'S Side-to-Side Mitters deliver unparalleled motion and cleaning in two configurations. The SFM807 mounts material perpendicular to the vehicle for a gentle slide and twist motion that eliminates slapping for drive through customers. The SFM805 half-moon basket increases cloth movement for broader cleaning. Both deliver an increased shine your customers will notice.



- Durable QuadX aluminum frame
- Reliable greaseless UHMW bearings
- Includes water manifold
- 1-1/2HP 3-Phase 208-460V wash-down duty TEFC electric motor
- Direct-drive HERA gear box 40:1 (807) 60:1 (805)
- Shown with optional powder coating

Specifications

	Common Specifications	
	Inches	Metric
Footprint Width	144in	3.65m
Height	142in	3.60m
Vehicle Clearance	90in	2.28m
Water Inlet	3/4in	19mm
Electric Option	1-1/2HP 3-Phase 208-460V wash-down duty TEFC	
Hydraulic Option	6GPM Per Motor	

	SFM807 Standard Frame Combo				SFM805/807 Narrow Frame Combo			
	Standard Frame		With 50in bottom Exit Side Brush		Narrow Frame		With 50in bottom Exit Side Brush	
	Inches	Metric	Inches	Metric	Inches	Metric	Inches	Metric
Footprint Length	80in	2.03m	137in	3.47m	54in	1.37m	110in	2.79m



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 3/4 inch city water line @60PSI (nominal) with manual shut-off valve to be connected to the chemical distribution system for the Mitter.

Electrical

- The Customer's Electrician is to provide and install 3-phase power (208V OR 230V OR 460V) to the 2HP electric motor at the top center of the Mitter frame through a properly sized 3 pole circuit breaker and motor starter with 3 thermal overloads.

BE CERTAIN THE 2HP ELECTRIC MOTOR IS PROPERLY WIRED FOR THE SUPPLY VOLTAGE !

- The Customer's Electrician is to provide and install single phase power from the Customer supplied Start-Stop system to the Mitter motor starter coil and soap solution solenoid valve and injection system.

Technical Disclaimer

- Although building codes have been considered in developing all drawings, verification of site-specific conditions and compliance with federal, state and local building codes is the exclusive responsibility of the customer and/or architect and engineer.

Dimensions

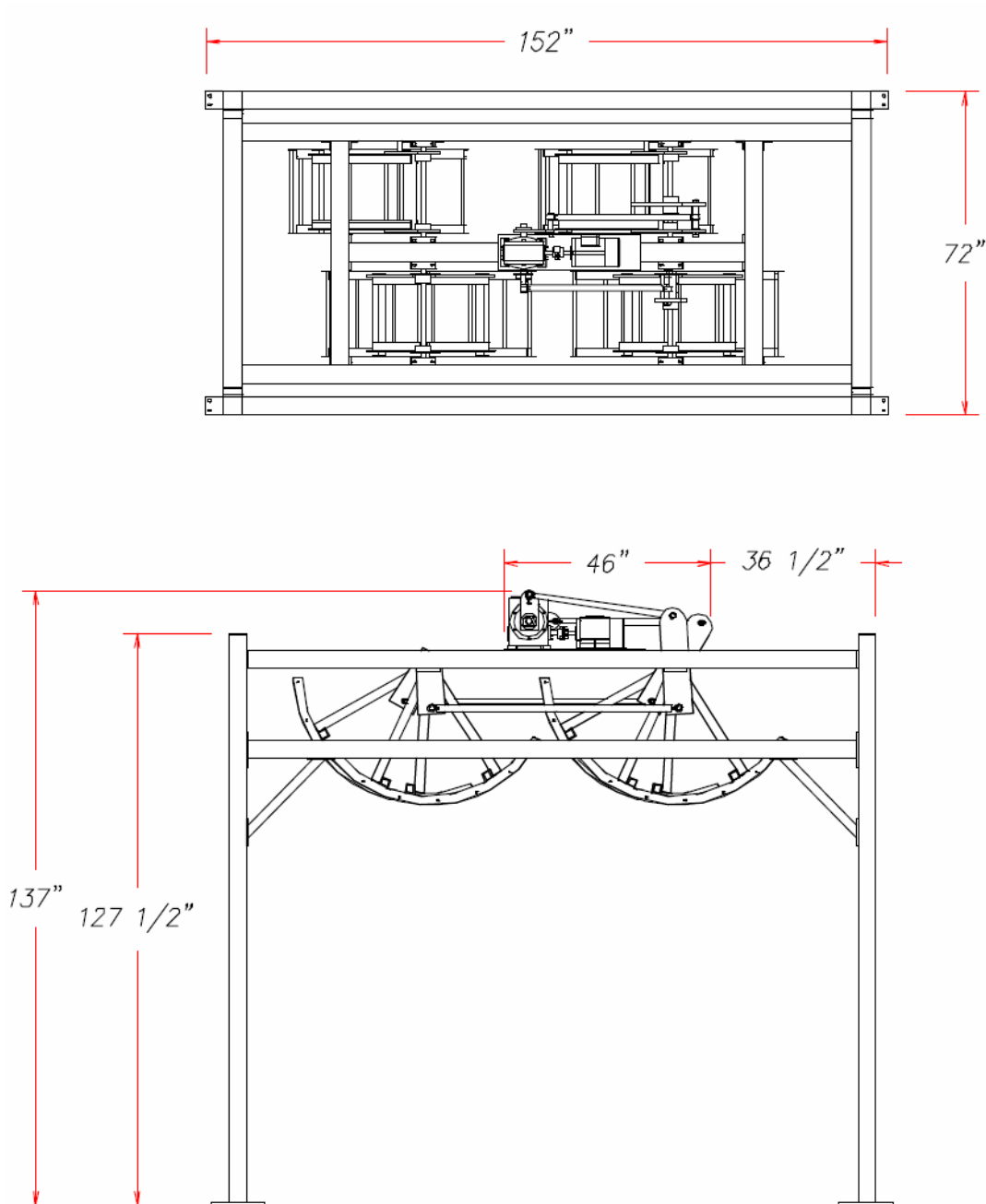


Figure #1

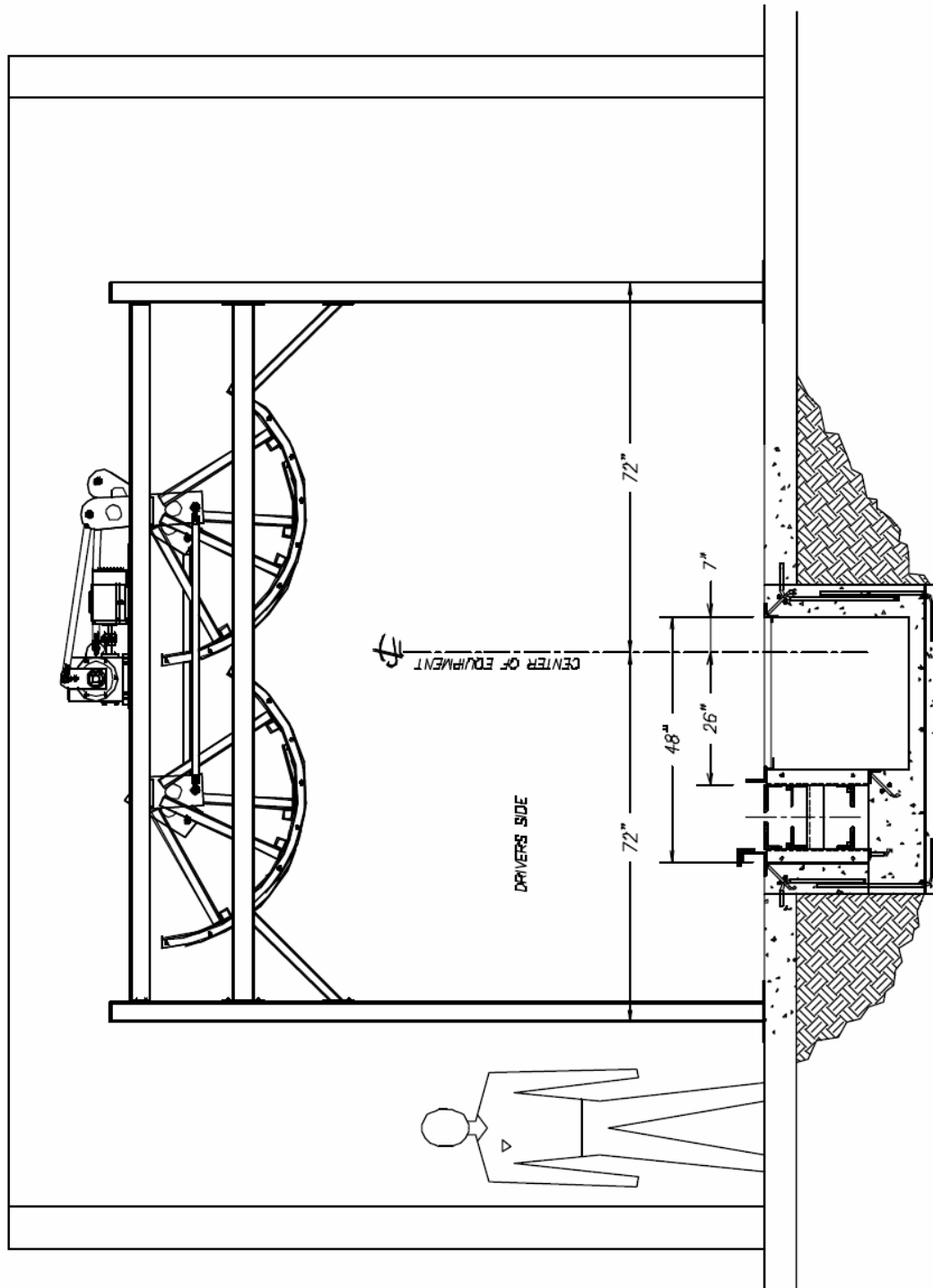
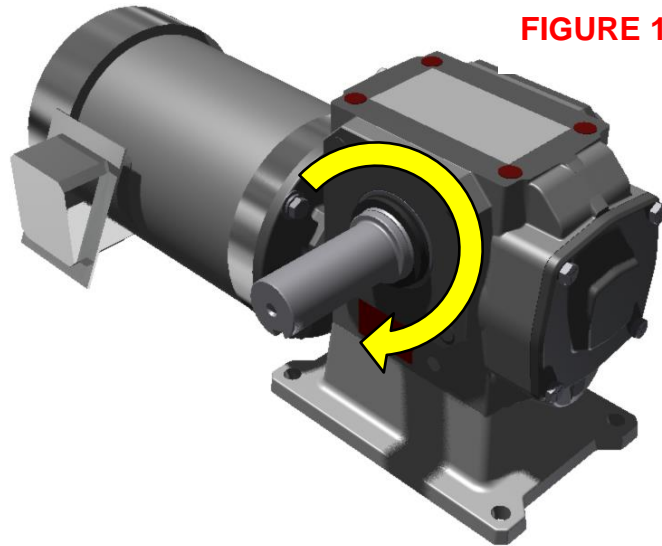


Figure #2

Sonny's Direct Drive Rotation



OPPOSITE SIDE

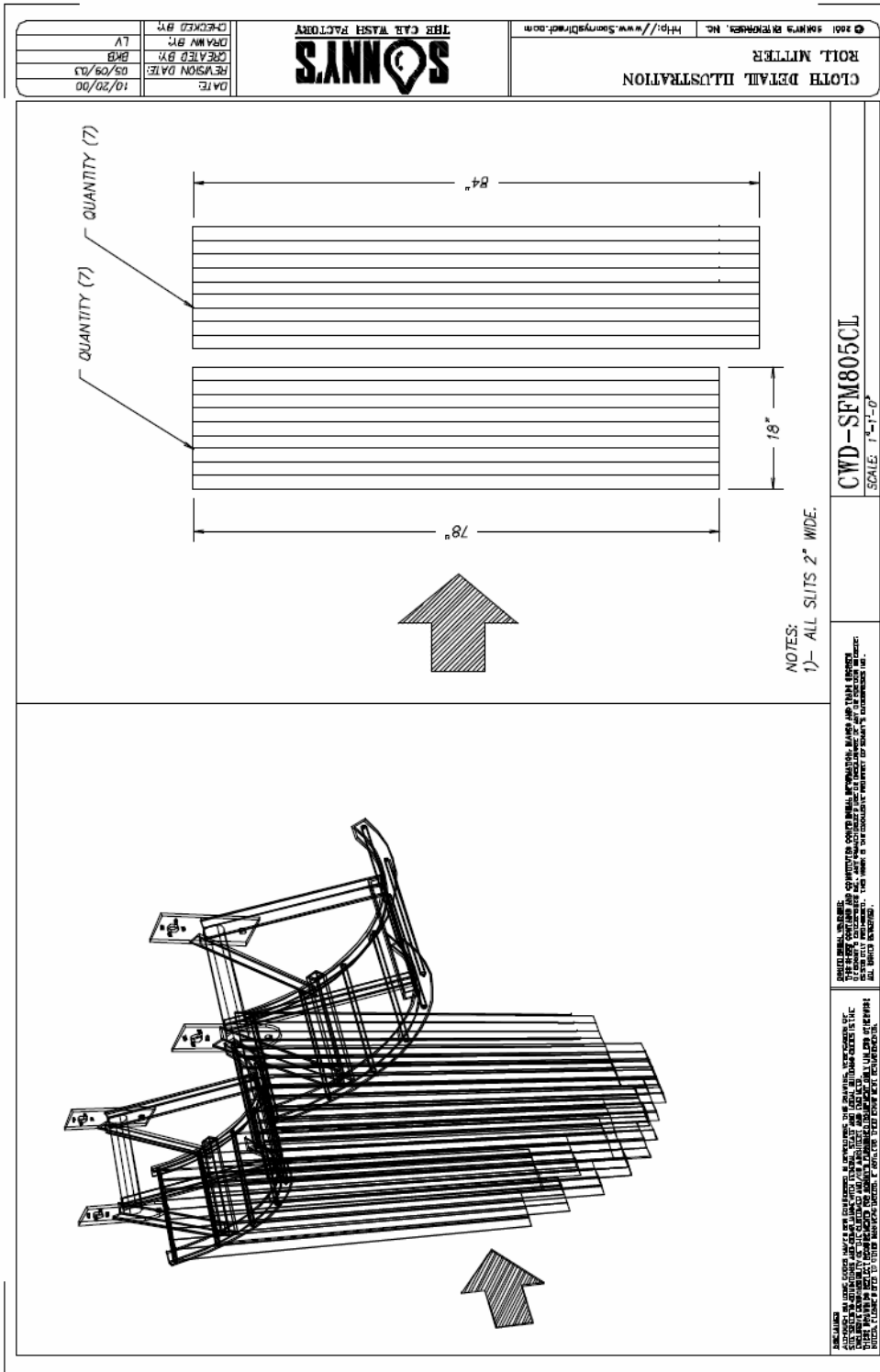
NOTE: Set output shaft rotation as shown in figure 1.



Equipment Program - Manuals

Side-to-Side Mitter

SFM S-S Series



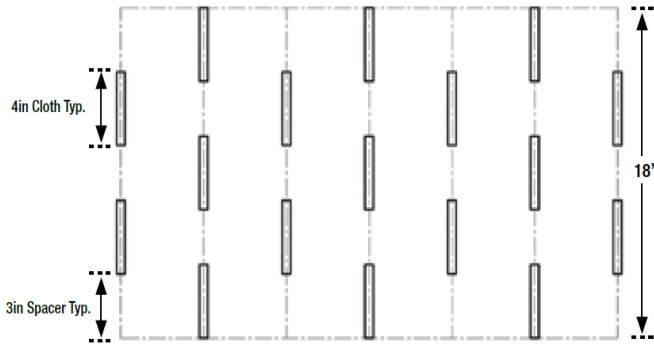


Equipment Program - Manuals

Side-to-Side Mitter

SFM S-S Series

Sonny's MicroClean

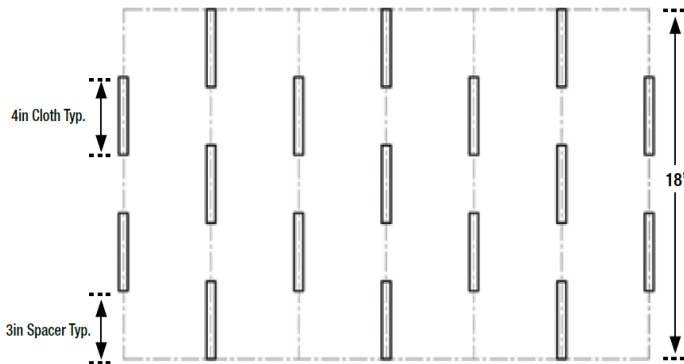


SONNY'S SFM804MC MicroClean

- Looped
- Side-to-side
- Rounded baskets

Pieces	Description
(68)	4in x 77in looped strips of Microclean
(72)	3in x 1in diameter Schedule 80 spacers

Item #	Description	Price
20003443	Microclean, SFM804, Complete Set, Black	\$2,084.16
20003444	Microclean, SFM804, Complete Set, Blue	2,084.16
20003445	Microclean, SFM804, Complete Set, Red	2,084.16
20000453	Spacer, 3 x 1 SCH 80 PVC for Micro Clean	0.50



SONNY'S SFM805MC MicroClean

- Looped
- Side-to-side
- Rounded baskets

Pieces	Description
(34)	4in x 77in looped strips of MicroClean
(40)	3in x 1in diameter Schedule 80 spacers

Item #	Description	Price
20003308	Microclean, SFM805, Complete Set, Black	\$1,042.08
20003309	Microclean, SFM805, Complete Set, Blue	1,042.08
20003302	Microclean, SFM805, Complete Set, Red	1,042.08
20000453	Spacer, 3 x 1 SCH 80 PVC for Micro Clean	0.50

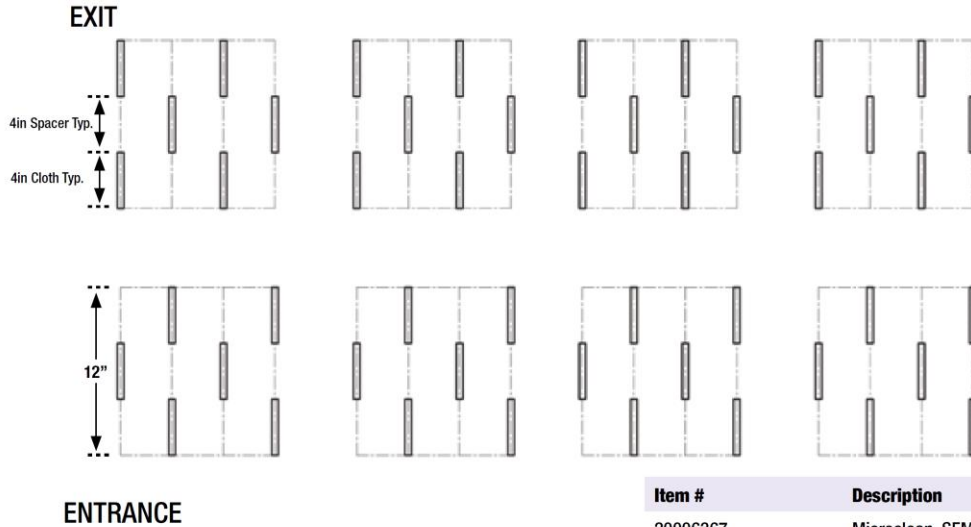


Equipment Program - Manuals

Side-to-Side Mitter

SFM S-S Series

Sonny's MicroClean



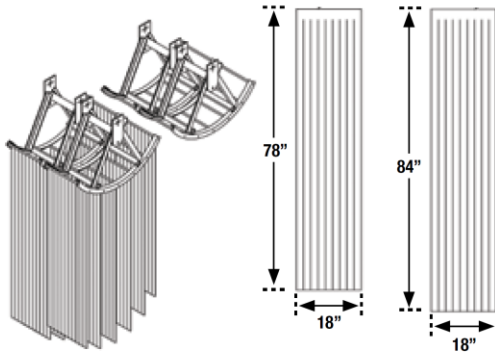
SONNY'S SFM801MC MicroClean

- Looped
- Side-to-side
- Flat 1ft wide baskets

Pieces	Description
(48)	4in x 77in looped strips of MicroClean
(50)	4in x 1in diameter Schedule 80 spacers

Item #	Description	Price
20006367	Microclean, SFM801, Complete Set, Black	\$1,469.76
20003385	Microclean, SFM801, Complete Set, Blue	1,469.76
20003386	Microclean, SFM801, Complete Set, Red	1,469.70
20000456	Spacer, 4 x 1 SCH 80 PVC for Micro Clea	0.50

Sonny's Permacolor



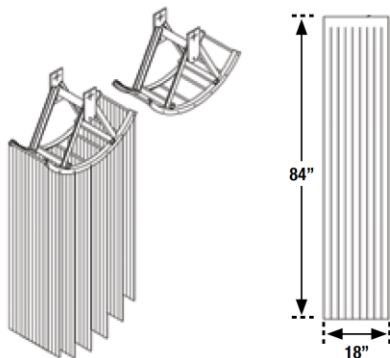
SONNY'S Half-Moon SFM804 Mitter



- Looped
- Side-to-side
- (4) 18in round baskets

Pieces	Size	Header	Finish	Slit	Placement
(14)	18in x 81in	12in	78in	2in	Entrance baskets
(14)	18in x 87in	12in	84in	2in	Exit baskets

Item #	Description	Price
20003235	Cloth, SFM804, 4 Basket Complete Set	\$648.90



SONNY'S Half-Moon SFM805 Mitter



- Looped
- Side-to-side
- (2) 18in round baskets

Pieces	Size	Header	Finish	Slit
(14)	18in x 87in	12in	84in	2in

Item #	Description	Price
20003005	Cloth, SFM805 2 Basket Complete Set	\$328.02



Equipment Program - Manuals

Side-to-Side Mitter

SFM S-S Series

Equipment Installation

Mitter Frame Installation

Tools

1. Safety Glasses
2. Tape Measure
3. ½" Drive Ratchet Set
4. Standard Combo Wrenches
5. Impact Wrench
6. 1" Hammer Drill
7. Sledge Hammer

Work Force

Two (2) persons

Consumables

1. Anti-Seize Compound
2. Marine Grease

Time (assuming no problems)

2.00 – 4.00 hours

Installation Steps

1. Determine where the Mitter is to be installed (See Figure #2 in the Dimensions Section and the tunnel layout drawings for your location).
2. Sweep any debris from where the Mitter will stand.
3. Check all hardware and place a small amount of Anti-Seize Compound on each bolt.
4. Place the assembled frame side legs, cross beams and gussets in the area where the unit will be permanently located, with the electric motor toward the passenger side of the tunnel.
5. Match the stamped numbers at the ends of the frame, legs, and cross beams to each other.
6. With the interconnection hardware provided by SONNY'S (boxed and attached to the assembly frame) join the legs, cross beams and gussets to the frame "finger tight".
7. Place and anchor the unit per the dimensions shown in Figures #1 and 2. Be certain that the entrance and exit cross beams are level (shim mounting feet, if necessary) and that each of the 4 vertical legs are plumb.
8. Check that all matching stamped numbers are correct and tighten all interconnecting hardware. Note the Driver's Side Section has a bolt for a stop on the tire brush frame.



Equipment Program - Manuals Side-to-Side Mitter SFM S-S Series

9. Level and square the frame with the centerline of the equipment (See Figures #1 and 2 in the Dimensions Section and the tunnel layout drawings for your location).

Note: Before lagging the Mitter legs in place, loosen the tire brush support bracket. This will allow you to move it later.

10. Place an anchor bolt in each corner. Tighten all hardware.
11. Check for proper oil level in the speed reducer and make sure a breather plug is inserted at the highest port on the speed reducer.
12. Run and connect the chemical lines from the Chemical Distribution Manifold to the chemical line on the Mitter frame for the application nozzles.
13. Install cloth on the baskets.



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Adjustments and Testing

Testing the Direction of Motor Rotation

Check for proper oil level in the speed reducer and make sure a breather plug is inserted at the highest port on the speed reducer.



Equipment Program - Manuals Side-to-Side Mitter SFM S-S Series

GENERAL OPERATION

Mitter Operation

The Mitter drive assembly (electric motor and speed reducer) that causes the vehicle cleaning curtains to move back and forth with vehicle travel is started and stopped by a remote Customer supplied Controller system. This drive actuation system should also control soap solution delivery to the Mitter spray bar.



Equipment Program - Manuals

Side-to-Side Mitter

SFM S-S Series

PREVENTIVE MAINTENANCE

DAILY

1. Check all chemical lines and fittings for leaks. Repair, or replace, as needed.
2. Check for proper operation, listening for any unusual noises from the equipment.
3. Inspect Mitter cloth for cuts, grease, or oil. Remove and repair, or replace, any cloth panel if any of these conditions are found.
4. Check for proper chemical solution delivery.
5. Check for any oil leaks around the gear reducer, and repair if needed.

WEEKLY

1. Check the gear reducer oil level and fill as necessary.
2. Grease the rod end on both ends of the drive arms.

FOR THE FIRST MONTH OF OPERATION CHECK ALL HARDWARE AND FITTINGS FOR TIGHTNESS EACH WEEK. PERFORM THIS INSPECTION TO THE SCHEDULE SHOWN BELOW AFTER THE FIRST MONTH OF OPERATION.

MONTHLY

1. Inspecting all hardware and fittings for tightness.
2. Inspect all plastic bearings for wear. Invert worn bearings for short term operation. Order new bearings if center hole is "egg shaped".
3. Inspect soap solution spray nozzles for wear. Replace as necessary.
4. Thoroughly clean the equipment and framework.

ANNUALLY

1. Drain, flush clean, and refill oil in the speed reducer with:
 - a. SAE 90 gear oil for ambient temperatures of 15 degrees Fahrenheit through 50 degrees Fahrenheit.
 - b. SAE 140 gear oil for ambient temperatures of 50 degrees Fahrenheit through 120 degrees Fahrenheit.

DO NOT OVERFILL !! Remove the speed reducer case plug just above the output shafts and fill to that level.



Equipment Program - Manuals Side-to-Side Mitter SFM S-S Series

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 cloth shipped with new SONNY'S equipment is warranted for a period of one (1) year or 80,000, 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 or chemicals that react violently with: water, organic acids (e.g. acetic acid), inorganic acids (e.g. hydrofluoric acid), oxidizing agents (e.g. peroxides), and metals (e.g. aluminum). Chemicals corrosive to: aluminum alloys, carbon steel, and other metals. 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.



Equipment Program - Manuals Side-to-Side Mitter SFM S-S Series

CUSTOMER SERVICE

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

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

You can also 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

