



Prep Gun Pump Station



Manual

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

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INTRODUCTION

This Owner's 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

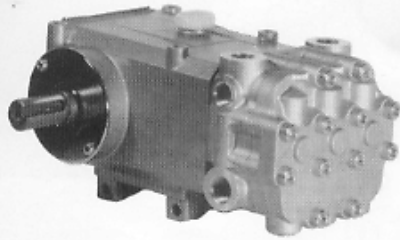
TELEPHONE: 800-327-8723 FAX: 800-495-4049

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



Product Specifications

- Aluminum pump/motor/tank frame.
- Plastic liquid storage tank with lid.
- Model 530 Hydrominder with mounting bracket.
- K-508 Arimitsu pump with pulsation dampener and unloader assembled.
- 7.5HP, 3-phase, 208V/230V/460V, 60Hz electric motor.
- Pulleys/Sheaves, drive belts and belt safety cover.
- Two 24 inch long spray wands with non-weep trigger guns, spray nozzles and nozzle protectors.
- Two 15 ft. long 3/8" high pressure hose assemblies with 3/8" male NPT fittings each end.
- Pump inlet hose assembled from storage tank.
- Pump bypass hose assembled to storage tank.
- Each wand sized, when new, to deliver 3.5GPM @1000PSI.



Model 508 offers performance and durability required in such applications as: *Car Wash Prep, Reverse Osmosis, and Multi-Gun Cleaning,*

Manufactured by Arimitsu Industry Co, Ltd., of Osaka, Japan, a leading supplier of Industrial plunger pumps and systems used by Industrial leaders throughout the World.

Specifications

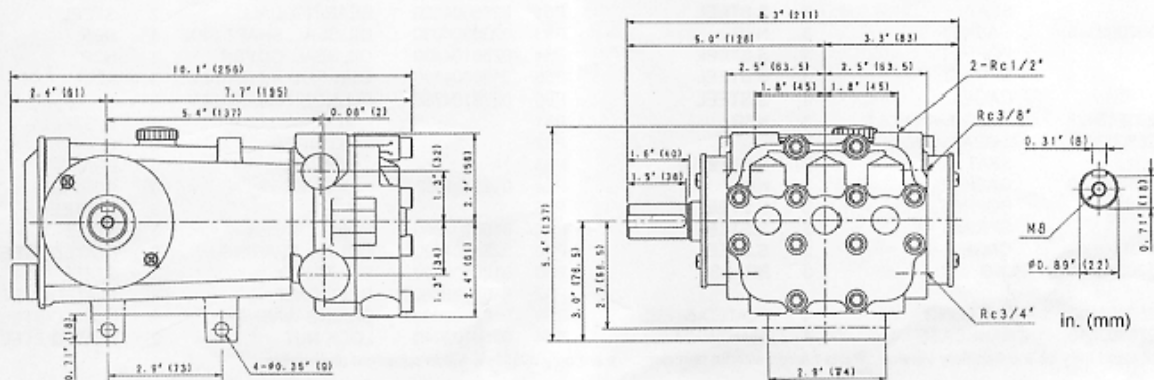
Max. Flow (GPM)	12.0	Inlet Ports (NPT)	3/4" (2)
Max. Pressure (PSI)	1200	Outlet Ports (NPT)	3/8" (2), 1/2" (2)
Max. RPM	1450	Shaft Diameter (mm)	22
Max. HP	8.5	Shaft Location	Left or Right
Max. Inlet Pressure (PSI)	70	Weight (lbs.)	20.5
Max. Fluid Temperature	175 °F	Dimensions	10.1 (L) x 8.3 (W) x 5.4 (H)
Bore (mm)	25		
Stroke (mm)	22		
Crankcase Capacity (oz)	18		

Pump life may be decreased by operating at more than one maximum rating, simultaneously. Please consult Arimitsu of N.A. for guidance when operating near any maximum ratings.

Model 508 Performance Chart

RPM	400 PSI		600 PSI		800 PSI		1000 PSI		1200 PSI	
	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP
600	5.0	1.3	5.0	2.0	5.0	2.7	5.0	3.3	5.0	4.0
900	7.5	2.0	7.5	3.0	7.5	4.0	7.5	5.0	7.5	6.0
1000	8.3	2.2	8.3	3.3	8.3	4.4	8.3	5.5	8.3	6.6
1100	9.1	2.4	9.1	3.7	9.1	4.9	9.1	6.1	9.1	7.3
1250	10.4	2.8	10.4	4.2	10.4	5.5	10.4	6.9	10.4	8.3
1450	12.0	3.2	12.0	4.8	12.0	6.4	12.0	8.0	12.0	9.6*

* For intermittent duty only. Not recommended for continuous operation above 8.5 HP.



Optional Related Equipment

Item #	Description	Available Voltages*	Frame Construction	Included Guns	Price
HPG100K508	Pressure Gun Unit with Belt Drive Arimitsu K508 Pump and 7 1/2HP Motor	190V/ 208V -230V/ 380V/ 460V	Aluminum	(2) MVC920 With Insulator, Nozzle, Nozzle Protector and 20ft wire braid hose	\$3435.00
HPG100K508D	Pressure Gun Unit with Belt Drive Dual Arimitsu K508 Pumps and 7 1/2HP Motors	190V/ 208V -230V/ 380V/ 460V	Aluminum	(4) MVC920 With Insulator, Nozzle, Nozzle Protector and 20ft wire braid hose	6410.00
HPG1007CP	Pressure Gun Unit with Belt Drive CAT 7CP Pump and 7 1/2HP Motor	190V/ 208V -230V/ 380V/ 460V	Aluminum	(2) MVC920 With Insulator, Nozzle, Nozzle Protector and 20ft wire braid hose	4585.00
HPG1007CPD	Pressure Gun Unit with Belt Drive Dual CAT® 7CP Pumps and 7 1/2HP Motors	190V/ 208V -230V/ 380V/ 460V	Aluminum	(4) MVC920 With Insulator, Nozzle, Nozzle Protector and 20ft wire braid hose	8700.00
HPG100-D10	Pressure Gun Unit with Belt Drive Wanner D10 Belt Drive Pump and 7 1/2HP Motor	190V/ 208V -230V/ 380V/ 460V	Aluminum	(2) MVC920 With Insulator, Nozzle, Nozzle Protector and 20' wire braid hose	4245.00
HPG100PSW	Prep Gun, Automatic Control Unit Complete	Senses trigger activation and automatically turns Prep Gun Unit on. Adjustable from 10 seconds to 3 minutes.			310.00

*Specify voltage when ordering



Don't see the exact item you need in our catalog? Chances are SONNY'S manufactures it, we just don't inventory it for same day shipping. Tell us what you need and in a few days we'll have it manufactured and ready to ship – "semi" custom means we've already designed it so you get SONNY'S famous value pricing on exactly what you want.

Specifications

	Inches	Metric
Length	35in	889mm
Width	23in	584mm
Height - top of tank	41in	1,041mm
Height - top of hydro	52in	1,321mm
Water	3/4in	19mm
Electrical	208V -230V/ 460V 3 Phase 7.5HP	

Quick Replacement Reference



Item #	Description	Price
MV920C	Spray Gun Assembly, No Weep Complete	\$26.87
MV920WC	Spray Gun Assembly, Weep Complete	27.78
MV20B17	Wand, 17in w/ Molded Insulator	6.09
MV20B24	Wand, 24in w/ Molded Insulator	7.25
MV78	Nozzle Protector, 1/4in x 1/4in	1.99
1/4MEG2507	Nozzle, Spray Sys MEG 1/4in M 2507	3.39
YU2121	Unloader, 21GPM 2175PSI Yellow	99.50
CH530	Hydrominder, Med Volume w/ Siphon	143.26

Related Items

Wheel Applicator System Manually-Activated

For applying wheel cleaning solution manually.

- (1) Wall-mounted G-57V Viton pump unit with Model CH515 Hydrominder and R141010 6-gal tank
- (2) MS25018 applicator wands for manual application



Item #	Description	Price
MAG200	Mag Wheel App, 2 Wands G57 Viton CH515	\$480.00

Prep Unit Wand Holders

- Safely stores wands when not in use
- Solid aluminum construction
- UHMW collars prevent nozzles damage
- Prevents tripping accidents



Item #	Description	Price
WAN01	Prep Unit Wand Holder, Single, Aluminum	\$65.00
WAN02	Prep Unit Wand Holder, Double, Aluminum	72.00
WAN03	Prep Unit Wand Holder, Triple, Aluminum	85.00

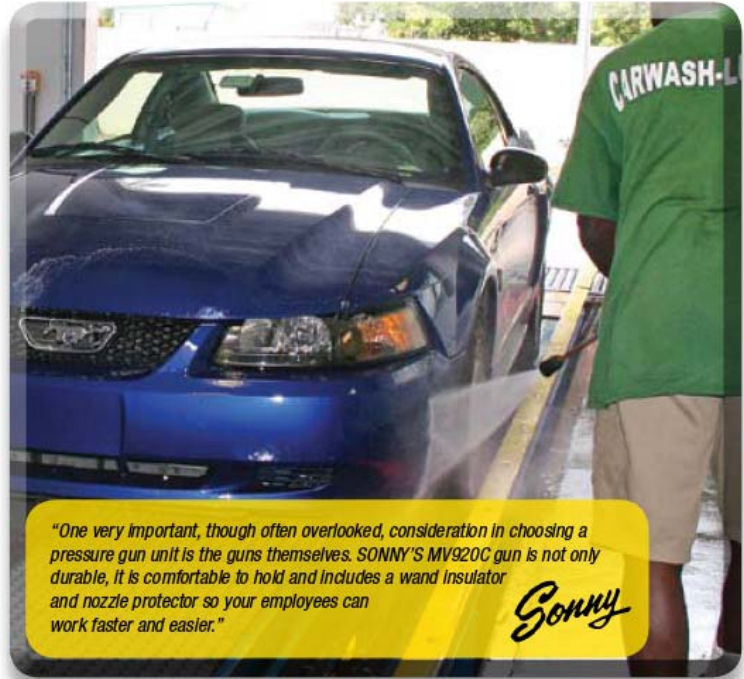
SONNY'S
 Pressure Gun Units



You need a powerful prep station to quickly process cars, accurately proportion detergent to eliminate expensive wastage – and it has to be reliable, affordable, and easy to maintain.



SONNY'S Pressure Gun unit does everything you need – simply, reliably, and affordably. Featuring a 7.5HP motor with belt-driven pump, it delivers 10GPM @ 1000PSI to handle all prepping demands.



Unit includes 2 of SONNY'S exclusive MV920C Guns with insulator and nozzle protector, each with 20ft of wire braid hose.



Features

- Includes (2) pressure guns, each with its own insulated lance with nozzle & nozzle protector
- Includes 20ft of 3/8in wire braid hose for each of the (2) included pressure guns
- Unit has its own Poly Reservoir with lid, filled by a #530 Hydrominder - allows optional proportioning of cleaning solution into reservoir
- Available with CAT 7CP, Arimitsu K508, or Wanner D10 pump



#530 Hydrominder to fill tank.



Pump is gravity-fed from tank.



Includes pulsation dampener & regulator unloader.

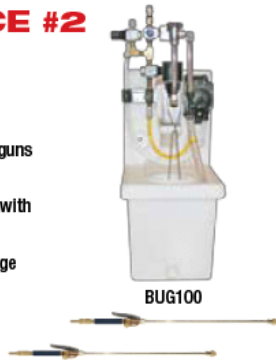


Reservoir tank mounted to unit.

Manual Bug 100 **CHOICE #2** Gun Applicator System

Speeds vehicle prepping and controls chemical usage.

- Includes (2) MS25018 brass applicator guns with Viton trigger valves
- Powered by a G-57 Flojet pump station with 6-gallon mixing tank
- Includes air regulator and pressure gauge
- Hydrominder 515 proportioner for precise chemical usage



Online Bug 200 **CHOICE #3** Foaming Floor Applicator System

Eliminates the need for manual application of bug solution on the front of vehicles.

- Includes 2-nozzle foaming floor applicator
- Powered by a G-57 Flojet foaming pump station with 6-gallon mixing tank
- Includes air regulator and pressure gauge
- Hydrominder 515 proportioner for precise chemical usage
- Available with optional loop detection system and/or floor activation switch



CHOICE #4

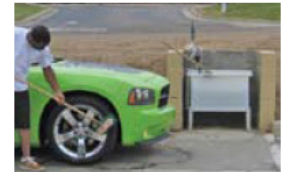
SONNY'S Free Hand Prep Station

Provides customers the ability to self-prepare their own car while maintaining control of detergent consumption

- Hydrominder 511 proportioner for precise chemical usage
- Three self-cleaning buckets (see picture)
- Main tank has a bulkhead plug at the bottom for easy cleaning



3 self-cleaning buckets, drain debris to the bottom of main tank, providing clean solution for every customer.



Ordering Information

Item #	Description	Applicator	Included Pump Station	Included Activation	Optional Activation	Price
BUG300RNDBLUE	Bug 300 Round Arch - Blue	Arch - (6) Cone Jet Nozzles	Graco D52966CS	Loop Detector	Foot Switch	\$2500.00
BUG300	Bug 300 QuadX Square Arch	Arch - (6) Cone Jet Nozzles	Graco D52966CS	Loop Detector	Foot Switch	2295.00
BUG100	Bug 100 Hand System	(2) hand wands	Flojet G-57	Wand Trigger	---	435.00
BUG200	Bug 200 Floor Applicator	Floor - (2) K-nozzle	Flojet G-57 Foaming	---	Loop / Foot Switch	745.00
FREEHAND	Free Hand Prep Station	Brush and sponge <i>(not included)</i>	---	---	---	1030.00

Quick Replacement Reference

	Item #	Description	Price
BUG100	TP2505	Spray Tip, Flat Brass 2505	\$2.06
	AB6590VIKIT	Repair Kit, Viton for 6466VI & 6590VI	5.00
	CP1325	Spray Tip, Retainer Brass	0.66
BUG200	1/4KPVC15	K-Nozzle, Flood Jet PVC Size 15	11.35
	CH515	Hydrominder, Low Vol High Concentration	108.02
	SA401P24	Valve, Norm Closed 24V 1/4in FPT	34.36
	SA401P110	Valve, Norm Closed 110V 1/4in FPT	34.36
BUG300	90A2FP6.5	Nozzle, PVDF 1/4in 1.3GPM 40PSI	3.32
	36275-1/4	Ball Fitting, Adjust 1/4in M x 1/4in F	9.27
	N402CPV01	Diaphragm Check Valve, 7lb Blue Cap	3.15
	CH530	Hydrominder, Med Volume w/ Siphon	143.26



SPDT Wet Environment Foot Switch

- Contact Form SPDT, current rating 3 Amps, AC Voltage 125/250 Volts
- Cord set 8 Feet 18/3 gauge
- NEMA rating 1, 4X, 6P



Item #	Description	Price
5KX08	Foot Switch, 125 AC V 8ft 18/3 Gauge	\$84.85

SAFETY REQUIREMENTS

1. Only those employees specifically instructed by the location manager will be permitted to enter the wash tunnel to perform inspections or maintenance.
2. Do not enter the wash tunnel when the equipment is operating.
3. Always exercise caution when walking through the wash area, may be slippery conditions.
4. Be cautious when walking through the tunnel to avoid running into or tripping over equipment.
5. Do not ever run through the wash area.
6. Do not perform any work on equipment unless you performed Lock-Out Safety Precautions.
7. When maintenance requires that a piece of equipment be in operation, one qualified maintenance person must stay at the power disconnect switch while that equipment is operating.
8. 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 can only be restarted by the person who performed the "lock out" operation.
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. Any "Stop" switch activated must be reset only by the person who initiated the operation.
11. Electrical connections and repairs are to be performed by a Licensed Electrician only.
12. Store all cleaning and washing solutions and oils in a well ventilated area.
13. Clean up fluid spills immediately to prevent hazardous safety conditions.
14. Be certain to follow all safety procedures on MSDS Sheets for each chemical product used.
15. All new employees must be thoroughly trained in safe operating and maintenance practices.
16. All employees must attend periodically scheduled safety procedure sessions.
17. Do not operate any piece of equipment that requires safety covers with those covers removed or improperly installed.
18. Do not allow any part of your body or other object to come in contact with moving machinery.
19. Do not wear loose fitting clothing or jewelry around moving machinery.
20. At least two qualified maintenance people must be present when performing equipment repairs or preventative maintenance.
21. When working on any equipment that is higher than a person's shoulders always use a fiberglass ladder that is in good condition.

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 pressure to the inlet fitting on the Hydrominder mounted to the pump station.
- The Customer's Plumber is to provide and install a high pressure pipe tee at the pump discharge port with two 3/8 inch NPT swivel fittings for wand connection.

Electric

- The Customer's Electrician is to provide and install and interconnect a 3-pole circuit breaker and motor starter with 3 thermal overloads to the 7.5HP motor and connect for 208V OR 230V OR 460V.
- The Customer's Electrician is to provide, install and interconnect pump Start-Stop stations as required by the Customer.

OPTIONAL AUTOMATIC PUMP SHUTOFF ASSEMBLY

- The Customer's Plumber is to install the 3/8 inch poly line supplied by SONNY'S to a city water connection with nominal 60PSI pressure.
- The Customer's Electrician is to provide and install the interconnection of single phase power between the supplied flow switch and timer and the Customer supplied motor starter coil.

Equipment Installation

HP Pump Station Installation

Tools

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

Consumables

1. Stainless Shims
2. Teflon Tape
3. Teflon Paste

Manpower

Two (2) men

Time (assuming no problems)

1.00 - 2.00 hours

Installation Steps

1. Determine where the Pump Stations are to be installed. It should be in an area not subjected to direct water spray or freezing.
2. Sweep any debris from where the pack will sit.
3. Bring the Pump Stations into the building set it in place.
4. Lag the Pump Stations down, shim as needed.
5. Connect water feed line to liquid storage tank float valve inlet port with a ball valve shut-off and minimum 18" long flexible hose.

Note: Be certain that all pipe and fittings used are capable of safely handling the maximum operating pressure of the pump.

6. Connect line from the discharge side of the pump to the plumbing for 2 prep guns to be operated by this pump.
7. If the automatic shut-off assembly is being used, connect the flow switch from the discharge port of the pump to the two spray wands and connect the tubing supplied from a city water supply line to the "Pilot" port on the flow switch.
8. Have a electrician connect the flow switch cable and timer assembly to the pump motor starter.

Adjustments and Testing

BEFORE START-UP

1. Check pump and motor mounting hardware for tightness.
2. Check that belt safety cover is on and secured.
3. Check for proper level on pump oil dipstick.
4. Is the liquid storage tank filled?
5. Are all shut-off valves open?

INITIAL START-UP

1. With the pump motor power ON listen for erratic noise and look for inconsistent discharge flow.
2. Adjust the regulator/unloader to the desired operating and bypass pressures (not to exceed 1000 psi).
3. If the pump fails to prime itself perform the following:
 - a. Turn the pump motor power OFF.
 - b. Remove the drain plug directly below the pump liquid suction line.
 - c. Restart the pump motor and operate it until fluid runs from the open drain plug port.
 - d. Turn the pump motor power OFF and reinstall the drain plug.

GENERAL OPERATION

PREP GUN OPERATION

Starting and stopping of the electric motor is controlled by the motor starter coil for the prep gun pump station.

The water pressure of the pump may be changed by the regulator/unloader on the discharge of the pump.

With the optional automatic flow switch shut-off assembly the pump will shut off when the spray guns are not in use and turn on when they are used.

PREVENTIVE MAINTENANCE

DAILY

1. Opening Checks
 - a. Check for leaks around hoses and fittings, repair any high pressure water leaks immediately.
 - b. Check for sufficient chemical supply for the day's use.
2. Operational Checks
 - a. Perform general examination of operation, listening for any unusual noises.

WEEKLY

1. Check pump oil level, refill with 10W30 Weight Mobil 1 Synthetic.
2. Inspect wand spray nozzles for excessive wear.

MONTHLY

1. Check the drive belts for wear and abrasions, always replace as a set.
2. Clean sediment and dirt from the liquid storage tank.
3. Inspect all hardware and fittings for tightness.
4. Clean the entire assembly thoroughly.

SEMI-ANNUALLY (Or every 500 operating hours)

1. Drain and refill the pump with new 10W30 Weight Mobil 1 Synthetic.

PARTS LIST



Pump

CP Series Cat Pumps features a "press-in" style seal case for ease of servicing



Item #	Description	Price
7CP6170	Pump, Plunger 11GPM 2000PSI	CALL
30613	Mount Assy, Rail 7CP,18,19PFR Cat Pumps	CALL



Replacement Motor for Prep Gun Unit – 7 1/2 HP

- 7.5 HP / 208V / 230V / 460V
- 184T frame / 1 1/8in shaft



Item #	Description	Price
ST7518E	Motor, Sterling 7 1/2HP 1800RPM 213T	\$475.20
STMM213T	Motor Base, 213T Series F	37.80
3X560	Sheave, 2 Groove for D10 Motor	67.45
3X580	Bushing, H x 1 3/8in Taper	9.00
B45	Belt, V 47in	12.19



Pulsation Dampner

- Rechargeable
- Precharged to 600
- 10 GPM, 1/2in Bottom Mount Port

Ground Shipping ONLY



Item #	Description	Price
6028	Dampner, Pulsation 1/2in NPT Cat Pump	\$123.75



Nozzle

- Stainless steel
- 1/4in NPT



Item #	Description	Angle	GPM@ 100PSI	Price
1/4MEG2507	Nozzle, Spray Sys MEG 1/4in M 2507	25°	3.5	\$3.39



Pump Set

Includes: Mounting Rails, 22mm Bushing, 8in X 7in, Sheave, 9.7in - 2 - Groove



Item #	Description	Price
K508LSET97	Pump Set, 10GPM 1000PSI Left	\$704.67
K508L	Pump Only, 10GPM 1000PSI Left	543.53



Hydrominder

For parts Breakdown. See Detergent Section



Item #	Description	Price
CH530	Hydrominder, Med Volume w/ Siphon	\$143.26



Unloader

- Dimensions – 6.4in x 2.7in x 1.5in
- Brass body / Stainless Steel internal parts / Buna-N "O" rings
- Port size – 1/2in
- Max. temp – 200° F



Item #	Description	Price
YU2121	Unloader, 21GPM 2175PSI Yellow	\$99.50
YKITU2121	Unloader Repair Kit, YU2121 & YU2140	13.90



BV150PVC



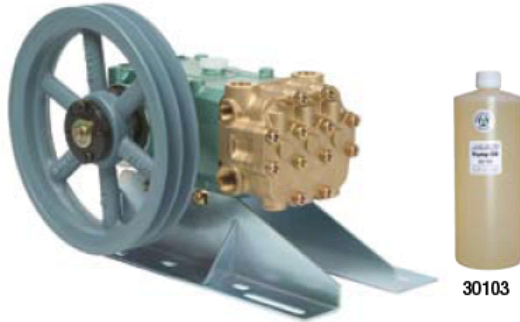
BULK112DT



3.5 ft of Clear PVC hose required.

Tank Accessories

Item #	Description	Price
BV150PVC	Valve, PVC Ball 1 1/2in FPT	\$16.00
BULK112DT	Bulkhead Fitting, 1 1/2in F NPT	4.99
HFG47	Tubing, PVC Clear 3 1/2in ID x 4.0 OD	15.95



Left Hand Shaft Shown



Model 508

Dual Gun Prep Favorite

Item #	Description	Price
K508R	Pump, 10GPM 1000PSI 1200RPM Right	\$543.53
K508L	Pump Only, 10GPM 1000PSI Left	543.53
K508RSET97	Pump Set, 10GPM 1000PSI Right *	704.67
K508LSET97	Pump Set, 10GPM 1000PSI Left *	704.67
K020RAILS	Mounting Rails, Arimitsu K508 (Pair)	54.15
K508KITA	Seal Kit, Arimitsu Pump 508	87.00
K508KITB1	Valve Kit, Inlet 508 Arimitsu Pump	135.00
K508KITB2	Outlet Valve Kit, Arimitsu 508 Pump	105.00
30103	Pump Oil, 32oz ISO100 Arimitsu	13.20

*Complete w/mounting rails & pulley. Used on Arimitsu prep gun unit.

Flow GPM	Pressure PSI	RPM	Max. HP	Max. Inlet Pressure PSI	Max. Fluid Temperature	Inlet Ports	Outlet Ports	Shaft Diameter	Shaft Location	Weight lbs.	Dimensions in Inches
10	1000	1200	7.5	70	175°F	3/4in (2)	3/8in (2), 1/2in (2)	22mm	Left or Right	20.5	10 L x 8.3 W x 5.4 H



Model 3612

Automatic Special, Stainless Steel Head & Valves.

Directly replaces 3535 & 3531; use existing rails, pulley, bushing & plumbing



Dual Shaft Pump Shown



Item #	Description	Price
K3612	Pump Only, 36GPM 1200PSI Dual Shaft	\$3851.25
K3612KITA	Seal Kit, for 3612 Pump	183.60
K3612KITB	Valve Kit, for 3612 Pump	468.00
30129	Oil, 32oz For 3612 Pump SD220	14.40

Flow GPM	Pressure PSI	RPM	Max. HP	Max. Inlet Pressure PSI	Max. Fluid Temperature	Inlet Ports	Outlet Ports	Shaft Diameter	Shaft Location	Weight lbs.	Dimensions in Inches
36	1200	800	30	70	160°F	1 1/2in (2)	1in (2)	35mm	Both sides	125	22.4 L x 18.3 W x 10.3 H

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/manuals.

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

