

STAINLESS STEEL AXIAL-FLOW AERIAL FIREFIGHTING PUMP

SNORKEL S1 OWNERS MANUAL



Carry Pumps | 1360 Prospect Ave | Caro, MI 48723
(800) 492-2779 | www.carrypumps.com | sales@carrypumps.com



SNORKEL S1 PUMP GENERAL INFORMATION

Carry Pumps Snorkel S1 axial-flow pumps are designed for increased speed and efficiency in aerial firefighting efforts by allowing the helicopter to quickly refill its onboard water storage tank from a water source located on the ground.

HOW IT WORKS

The hose and pump are lowered from the helicopter down into the water source, and water is quickly pumped from the source on the ground into the helicopter's onboard storage tank. Fire retardant is then mixed with the water in the tank, and the helicopter returns to the location of the fire to dump the mixture on the fire.

Since the cycle time to refill the water tank is shorter than fixed-wing delivery systems, a helicopter equipped with a Snorkel S1 pump is able to battle the fire more quickly and efficiently.



OVERVIEW

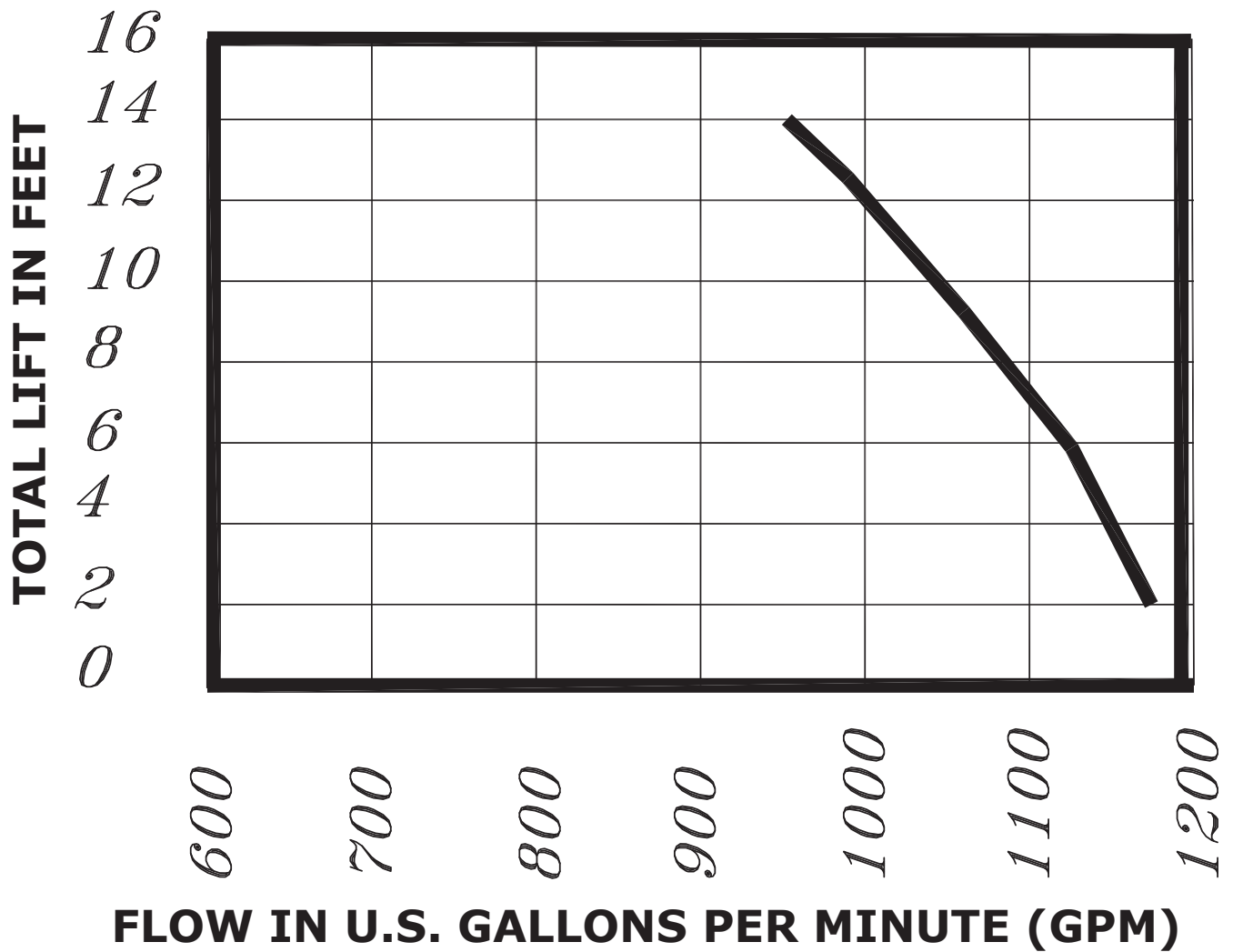
- 7.5HP/208V/3PH Motor
- Lightweight Aluminum Housing
- All Stainless Steel Screen Basket for Durability
- Rated for 1,000 Gallons per Minute at 12' of Lift



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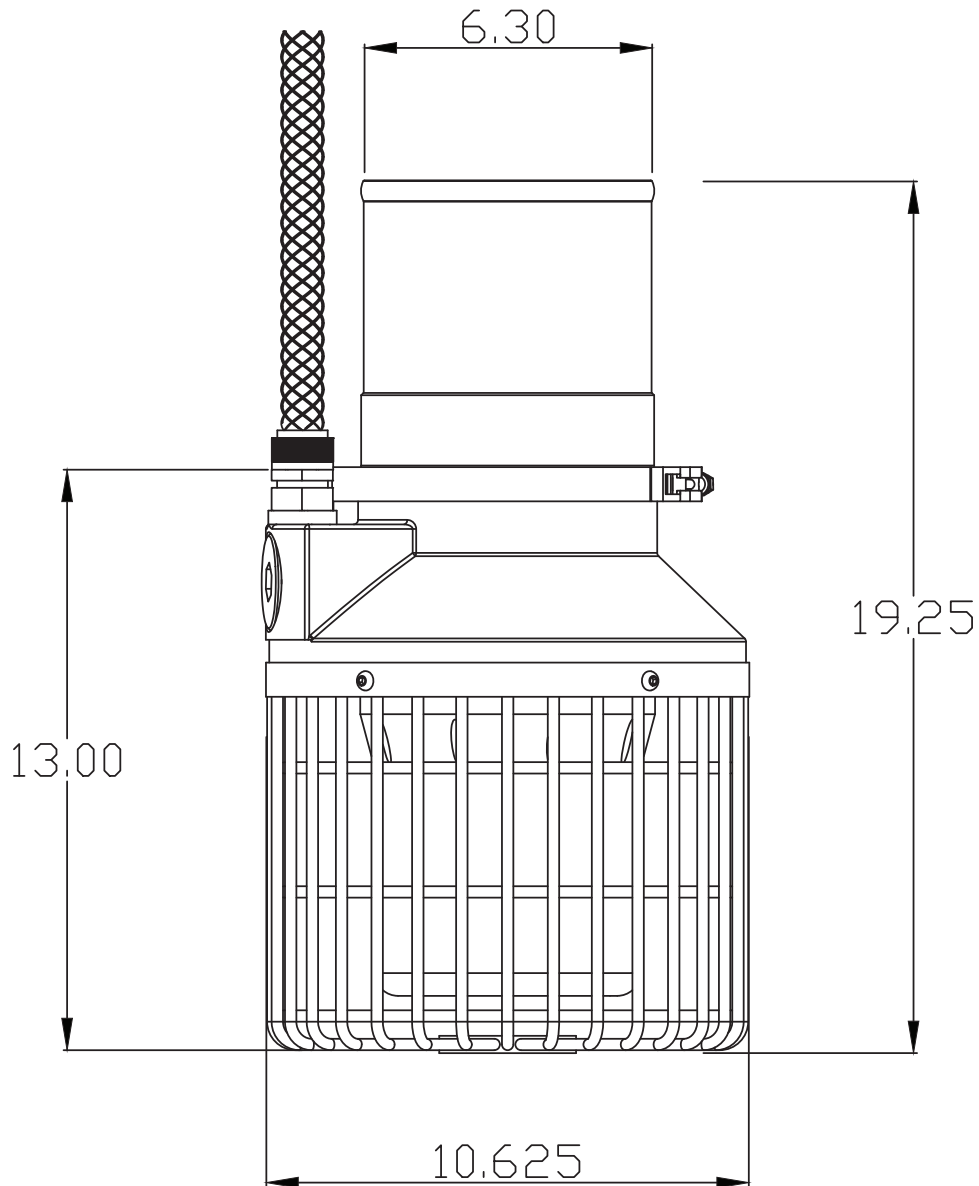


SNORKEL S1 PUMP
7.5HP with NO. 3 IMPELLER
PERFORMANCE CURVES





SNORKEL S1 PUMP DIMENSIONS



PUMP WEIGHT WITH 30 FOOT LEAD = 60 LBS

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SNORKEL S1 PUMP

SPECIFICATIONS

MOTOR	7.5 Horsepower 208V/3 Phase 400 Hz 3800 RPM
PUMP SHELL	Aluminum Investment Casting CNC Precision Machined Includes Electrical Junction Box and Impeller Bowl
MOTOR BUCKET	Precision CNC Machined Includes Bucket & Top Plate Modular for Moisture Protection and Ease of Repair
DIFFUSER	Aluminum Investment Casting CNC Precision Machined Flared 6 inch end for discharge hose attachment
IMPELLER	304 Stainless Steel Investment Casting CNC Precision Machined Dynamically Balanced
FASTENERS	304 Stainless Steel Socket and Button Head Screws
STRAINER SCREEN	Reinforced basket 1/2" 304 Stainless Steel Rods Corrosion Resistant and Durable for Rugged Use
MOTOR LEAD	10/4 AWG SEOOW Wire
LIFT	Axial-Flow
FLOW	1000 Gallons per Minute at 12 Feet of Lift
DUTY CYCLE	2 Minutes "ON" with 5 Minutes "OFF"
TEMPERATURE RANGE	Maximum Temperature +70° C Minimum Temperature -30° C
PUMP WEIGHT	60 lbs (includes motor and 30 ft. motor lead)

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SNORKEL S1 PUMP PARTS LIST

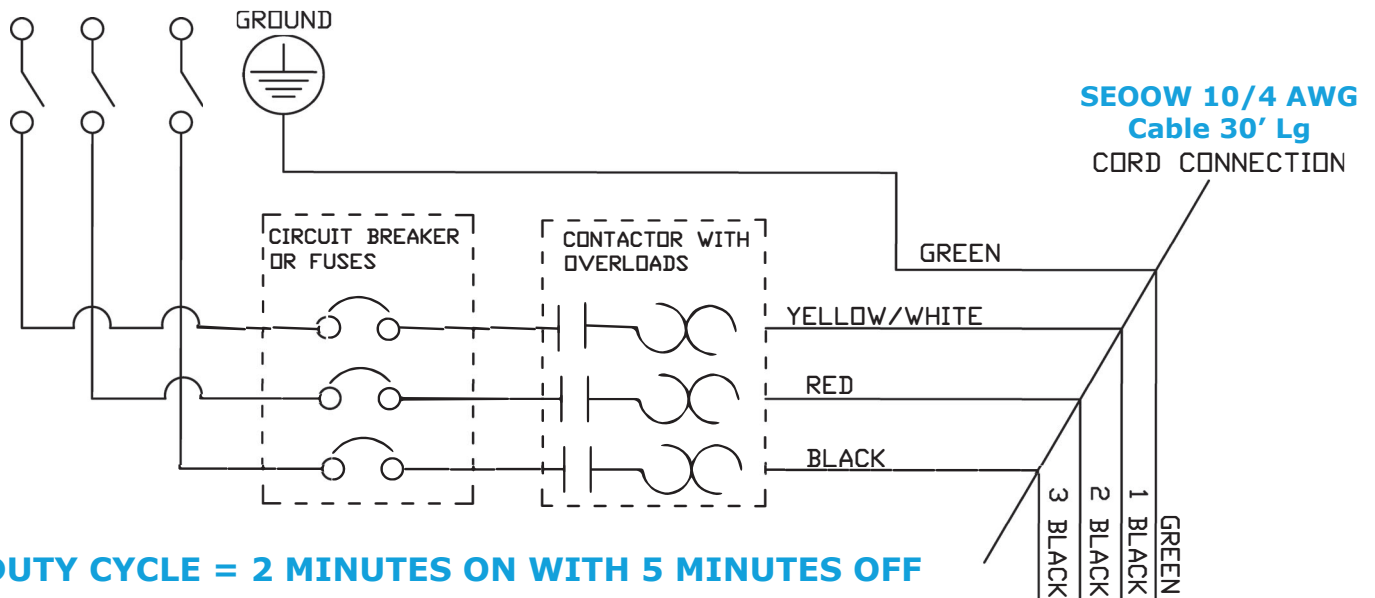
MODEL #S1-6075-323-1A

ITEM NO.	PART NO.	DESCRIPTION	QTY	
1	S1-60105-A	Snorkel Pump Discharge (Recuperator)	1	✓
2	S1-60200	Snorkel Pump V-Clamp	1	✓
3	OR-165BN70	O-Ring #165 (6.487" ID)	1	✓
4	WOO5542MSS	3/4" Cord Connector (with Strain Relief)	1	✓
5	S1-60100-A	Snorkel Pump Crown Housing	1	✓
	OR-144BN70	O-Ring #144 (2.487" ID)	1	✓
6	S1-60230	1/8" SS Hex Drive Plug	1	✓
7	S1-60275	Hollow Hex Plug	1	✓
8	110066	10/4 Round Jacketed Cable 30 ft	35	✓
9	60103	6" No. 3 Impeller	1	✓
	50201-304	5/16" - 18 x 3/4" 304 SS Bolt	1	✓
	50202-304	5/16" 304 SS Lock Washer	1	✓
10	S1-60310	O-Ring #160 (5.237" ID)	1	✓
11	S1-60110-ASSEMBLY	Motor - 7.5HP	1	✓
	155-274-101	6" Motor Sand Slinger	1	✓
	S1-60250	8-32 X 3/4" Socket Cap Screw	2	✓
	S1-60345	Cord Cover / Grommet Cap	1	✓
	S1-60340	4-Wire Nylon Cord Grip	1	✓
	S1-60230	1/8" SS Hex Drive Plug	1	✓
10	S1-60310	O-Ring #160 (5.237" ID)	1	✓
	S1-60225	8-32 x 1/2" Flat Head Screw	9	✓
	S1-C11139	Snorkel Lip Seal	2	✓
	S1-60113A	Motor Cap / Adapter Plate	1	✓
	S1-60300	Snorkel Pump Motor Gasket	1	✓
	S1-60310	O-Ring #160 (5.237" ID)	1	✓
	S1-FAFN206PP	Single Row Bearing for Top of Shaft	1	✓
	S1-60110	Motor (Stator and Rotor)	1	✓
	S1-5204CZZ	Bearing for Bottom of Shaft	1	✓
	S1-60111-A	Snorkel Pump Motor Bucket	1	✓
	SUPPLIES	100% MINERAL OIL	6oz	✓
12	S1-60250	8-32 x 3/4" Socket Cap Screw	9	✓
13	S1-60255	1/4" - 20 x 1/2" Button Head Screw	5	✓
14	S1-60112-X	Snorkel Pump Screen w/ Special Reinforcements	1	✓



SNORKEL S1 PUMP MOTOR WIRING DIAGRAM

208V/3PH 400Hz
POWER SUPPLY



DUTY CYCLE = 2 MINUTES ON WITH 5 MINUTES OFF

CAUTION

Motor must be phased to ensure proper rotation

3 Phase pumps are capable of running in both forward and reverse, so the pump can pump water in both directions.

MOTOR
7.5HP
208V/3PH
3800 RPM
400 Hz

**** ENSURE PROPER ROTATION ****

If rotation is in the wrong direction, swap any 2 of the Red, Black, or Yellow/White Wires to reverse direction.

MAX AMPS
32.7

TERMS, PAYMENT & INVOICING

Standard payment terms are NET 30 days from the date of invoice for approved accounts. Customers who do not have an approved account must prepay prior to order being shipped. Retaining a percentage of the contract sale amount is prohibited without prior, written agreement. Payment must be made in U.S. Funds. An invoice will be rendered as of the date product is ready for shipment. A service fee of 1-1/2% per month on all invoices over 30 days past due will be imposed. In the event of any default by the Purchaser, Carry Pumps, Inc. shall have the right to repossess the product as well as all other rights afforded to a conditional seller under the provisions of the Uniform Conditional Sales Act and any other applicable laws.

STANDARD WARRANTY AND CONDITIONS OF SALE

LIMITED WARRANTY: CARRY PUMPS, INC. warrants the product sold by it to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase.

WARRANTY DISCLAIMER: This warranty does not apply to pumps sold without compatible Carry electrical controls, horizontal pumps, and/or if the product is used in saltwater, aquaculture (fish farming), water feature applications, continuous-duty use (24/7 operation), or to pumps that have been subject to misuse (including use in a manner inconsistent with the design of the pump), abuse, neglect, accident or improper installation or maintenance, or to pumps that have been altered or repaired by anyone other than CARRY PUMPS, INC. The warranties in this agreement are in lieu of all other warranties, express or implied, including without limitation, any warranties of merchantability or fitness for a particular purpose, said warranties being expressly disclaimed.

WARRANTY AMENDMENTS: Prior or subsequent courses of dealing, trade usage and verbal agreements not reduced to a writing signed by CARRY PUMPS, INC., to the extent they differ from, modify, add to or detract from this warranty shall not be binding upon CARRY PUMPS, INC.. There are no agreements, promises or understandings, either verbal or written, that are not fully expressed in this warranty. No statements, recommendations or assistance by either party have been relied upon by either party nor shall they be relied upon and shall not constitute a waiver by either party of any of the provisions hereof. This warranty may be amended or altered only if agreed to in writing signed by CARRY PUMPS, INC.

LIMITED REMEDY: CARRY PUMPS, INC. and Purchaser agree the repair or replacement of the pump at issue is a commercially reasonable allocation of risk and, therefore, Purchaser agrees that its sole and exclusive remedy against CARRY PUMPS, INC. shall be limited to the repair or replacement of the pump at issue. This exclusive remedy shall not be deemed to have failed of its essential purpose so long as CARRY PUMPS, INC. is willing and able to repair or replace the pump at issue. In the event CARRY PUMPS, INC. is unable to repair or replace the pump at issue in a manner acceptable to purchaser, or in the event it shall be determined by a court having jurisdiction thereof that any provisions of this warranty are unconscionable or fail in its essential purpose, then the maximum liability of CARRY PUMPS, INC. shall be that as set forth in the paragraph next following entitled "Limitation on Liability".

LIMITATION ON LIABILITY: CARRY PUMPS, INC. shall not be liable for any loss, damage or injury resulting from delay in delivery or installation of the pump or for any failure to perform which is due to circumstances beyond its control. CARRY PUMPS, INC. and Purchaser agree it is a commercially reasonable allocation of risk that the maximum liability, if any, of CARRY PUMPS, INC. for all damages, including without limitation contract damages and damages for injuries to persons or property, whether arising from CARRY PUMPS, INC.' breach of this agreement, breach of warranty, negligence, strict liability or other tort, is limited to an amount not to exceed the purchase price of the pump at issue in the dispute and said liability is so limited. In no event shall CARRY PUMPS, INC. be liable to Purchaser for any incidental, consequential or special damages, including without limitation, lost revenues and profits, even if it has been advised of the possibility of such damages.

WARRANTY CLAIM PROCEDURE: This warranty is valid only if the following conditions are complied with by the Purchaser: Purchaser shall notify CARRY PUMPS, INC. in writing of the defect in the pump at issue within 30 days of discovery of the defect. The notice shall include with it copies of the proof of purchase and the return receipt signed by a representative of CARRY PUMPS, INC. as provided above. In the event repair or replacement of the pump at issue is approved by CARRY PUMPS, INC., Purchaser shall, upon written notice by CARRY PUMPS, INC. of the approval, return the pump to CARRY PUMPS, INC., freight pre-paid. CARRY PUMPS, INC. will return the repaired or replaced pump to Purchaser, freight prepaid. The repair or replacement of the pump shall not extend the duration of the one-year warranty term.

GOVERNING LAW: This warranty shall be governed and controlled by and enforced in accordance with the laws of the State of Michigan, U.S.A., in all respects.

FORUM: The parties agree they are of equal bargaining power and irrevocably submit to the jurisdiction and venue of the Circuit Court for the County of Tuscola, State of Michigan, or if original jurisdiction can be established, the United States District Court for the Eastern District of Michigan, Northern Division, with respect to any performance or breach of this agreement. The parties hereby stipulate that the venues referenced in this agreement are convenient to each of them.

RETURNS: Authorization and shipping instructions for the return of any product must first be obtained by the Purchaser from CARRY PUMPS, INC. or shipment will be refused. Only unused standard product or materials of current design by CARRY PUMPS, INC. purchased within a will be considered for return. Products are not eligible for return more than 6 months after the initial ship date of the product. Custom products cannot be returned for credit. If the returned product is in sellable condition, a credit memorandum will be issued for the original purchase price, less a minimum restocking charge of 20%. If there are any shipping charges that were paid by Carry Pumps, Inc., the amount of those shipping charges will also be deducted from the credit amount.

GENERAL: These terms and conditions shall constitute a part of any contract which may be entered into and shall not be altered, modified, or added to unless specifically and expressly agreed to in writing by CARRY PUMPS, INC. All oral agreements and representations of CARRY PUMPS, INC. or its representative to the Purchaser shall be embodied in any written contract of which CARRY PUMPS, INC. is a part.

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