



SAF-T-TUB™ JUMP TANK

MODEL 01052539

S/N 3661

INSTALLATION, OPERATION AND MAINTENANCE MANUAL

**0199901
Revision A
08/15/2021**



**SAF-T-TUB™ JUMP TANK
MODEL: 01052539**

PRODUCT DESCRIPTION

SAF-T-TUB™ Jump Tank system is designed to provide emergency treatment of personnel exposed to pyrophoric oxidizing agents or in situations when high heat irritants of thick density are involved. The heated re-circulating water bath with its ergonomic design allows for immediate extinguishing and preliminary decontamination in the 165 gallons of potable water, which can be treated with Encon Safety Products Hydrosep® QT water preservative.

SAF-T-TUB™ FEATURES

- ◆ 165 gallon capacity
- ◆ 79" x 30" x 38" full immersion depth
- ◆ Heated to maintain 85°F maximum
- ◆ Re-circulating to provide even temperature throughout
- ◆ Level indication and heater control
- ◆ Ergonomic design
- ◆ Fire retardant FRP/Gelcoat® design
- ◆ Drain valve
- ◆ Isolated utility tank
- ◆ 1.5 KH immersion heater
- ◆ Operation indicator lights: Power, Heater, Pump & Water Level
- ◆ Two thermostats

- ◆ Double wall insulated annular space

Gelcoat® is a registered trademark of Fibre de Verre Gar Fiberglass

SPECIFICATIONS

VOLUME	165 Gallon potable water capacity
WATER TEMPERATURE	Maintains 70-85°F through use of a 1.5 KW two thermostats and level switch control circuit
ELECTRICAL REQUIREMENT	13.1 amp, 120 volt circuit GFCI 30mA EPD type circuit protector is required (by others)
ELECTRICAL CLASSIFICATION	NEMA 4, and Class 1 Div. 2 Group D models are available
WEIGHT	175 lbs. tare 1545 lbs. full
DIMENSIONS	Overall: 78" (L) x 35" (D) x 40" (W) Inside Tank: 71 1/2" (L) x 28-3/4" (D) x 27" (W)
CONSTRUCTION	Double wall insulated fire retardant FRP, R-6 insulation factor
CONTROLS	Dual thermostat: Close 70°F; Open at 85°F Water level control protection of the immersion heater and recirculating pump
INDICATOR LIGHTS	Power On: GREEN ; Heater On: RED ; Pump On: ORANGE
PUMP	100 GPH Submersible

GENERAL INFORMATION

1. SAF-T-TUB™ should be installed in the facility near the point of potential contact, away from the irritant chemical potential spray area.
2. Placement of SAF-T-TUB™ should be in an area where the path of travel is free of obstructions that may inhibit the immediate use of the SAF-T-TUB™ and the area should be well lit.
3. SAF-T-TUB™ should be available for immediate use, and should be installed, inspected, and maintained in accordance with the manufacturer's instructions.
4. Consideration should be given to the proper disposal of waste flushing fluid.
5. This product should not be used as a substitute for proper emergency decontamination equipment.

TRAINING

All employees who might be exposed to hazardous material shall be instructed in the location and proper use of the equipment.

CAUTION CAUTION CAUTION
Water may cause slip hazard in indoor installations
and freezing slip hazards in outdoor installations.

INSTALLATION INSTRUCTIONS

CAUTION CAUTION CAUTION
Foundation or floor should be capable of supporting 1800 lbs. minimum.
Do not connect power to unit until installation is completed.

1. Place unit at the appropriate site and ensure tank is clean prior to filling.
2. Water in the tank must be protected against bacteria, fungi, algae, staphylococcus and acanthamoeba growth. Encon Safety Products' Hydrosep® QT water preservative provides this protection.
3. Fill tank to the appropriate Fill Line with potable water and Hydrosep® QT water preservative. Add 3 quarts of Hydrosep® QT water preservative to potable water in tank. Follow instructions on Hydrosep® QT container.
4. Connect appropriate power supply: Hot to TB1 and Neutral to TB2 (see Junction Box Detail drawing attached).
5. It is recommended, as an industry standard practice, that a fused disconnect switch or circuit breaker be installed at the power source (supplied and installed by others).
6. Before leaving unit to run unattended, ensure the unit is being controlled properly and no visible leaks are present. POWER ON and PUMP ON indicator lights should be illuminated. NOTE: If water temperature is below 70°F, the HEATER ON indicator light should be illuminated. See Junction Box Detail drawing attached.

OPERATION & MAINTENANCE

WARNING WARNING WARNING
PROPER PERSONAL CARE SHOULD BE TAKEN TO AVOID BURNS AND ELECTRIC SHOCK.
DISCONNECT POWER SOURCE FROM UNIT BEFORE ATTEMPTING MAINTENANCE.
ALLOW IMMERSION HEATER TO COOL BEFORE PERFORMING MAINTENANCE.

NOTES:

1. To provide easy access inside the instrumentation compartment, remove cover by removing four screws using Phillips #2 screwdriver and remove junction box by removing four bolts using a crescent wrench. Carefully lift junction box and place to one side.
2. Tank should be drained prior to removing components from the instrumentation compartment.
1. Tank should be drained, cleaned and refilled with potable water and Hydrosep® QT water preservative every 60 days minimum and not to exceed 180 days. More often if conditions warrants.
2. Re-fill tank to the appropriate Fill Line with potable water and Hydrosep® QT water preservative. Add 3 quarts of Hydrosep® QT water preservative to potable water in tank. Follow instructions on Hydrosep® QT container.
3. While cleaning tank, inspect float switch and remove immersion heater to ensure components are free of sludge, slime, oxide built-up and dirt built-up. Clean as required using instructions below.

OPERATION & MAINTENANCE – continue on next page

OPERATION & MAINTENANCE - Continued

Float Switch:

- a) Float switch is located inside the instrumentation compartment. See Notes 1 & 2 above.
- b) Locate 'C' clip at bottom of float switch and remove. Place 'C' clip to one side.
- c) Remove foam float and clean as required.
- d) After cleaning, replace foam float, ensuring plastic ring is orientated downward.
- e) Replace 'C' clip.

Immersion Heater:

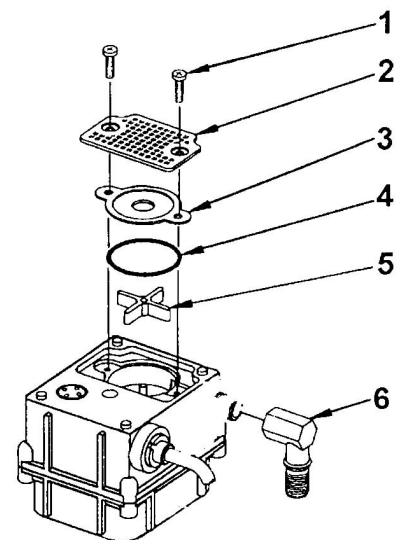
Tank **must** be drained before attempting the removal of the immersion heater.

- a) Unscrew lid from unilet housing and disconnect #8R and 2W3 wiring.
 - b) Detach immersion heater by disconnecting the flexible conduit fitting using crescent wrench. Rotate counter clockwise by hand and pull heater out.
 - c) Clean inside unilet housing with steel wool (or equal) and thoroughly blow clean with dry, oil-free air.
 - d) Clean heating element as required.
 - e) Re-connect wires in the unilet housing, ensuring that connections are tight.
 - f) Securely replace housing lid to unilet housing and immersion heater in unit prior to refilling.
 - g) After refilling, check immersion heater for leakage at the screw plug. Tightening should stop any leaks. If leaks persist, use a thread sealant.
4. Pump impeller cavity should be cleaned every four months. More often if conditions warrants.

Pump:

- a) Disconnect 11R and 2W5 wiring and ground wire located in junction box.
 - b) Pump is located inside the instrumentation compartment. See Notes 1 & 2 on previous page.
 - c) Locate pump clamp and remove clamp using a flat head screwdriver.
 - d) Remove pump from instrumentation compartment and disassemble for cleaning. Refer to **Figure 1**.
 - e) Remove the screen intake (2) and volute plate (3).
 - f) Carefully remove the o-ring (4). Caution should be taken to avoid damage to o-ring.
 - g) Lightly clean any corrosion or debris, which may clog the impeller (5).
 - h) Use a brush and penetrating oil and lightly scrape to remove encrusted material.
 - i) Turn the impeller by hand to make sure it turns freely.
 - j) Prior to replacing the parts to the pump, set pump down so the pump and impeller are not touching anything. Plug pump into CFCI circuit to ensure the impeller turns.
 - k) Unplug pump and install parts in reversed order in which they were removed.
 - l) Reinstall pump to unit and re-connect wiring in junction box.
 - m) Refill tank.
5. Immersion heater and pump should always be completely covered by liquid to avoid damage to equipment and property, and injury to personnel.
6. Terminal connections should be inspected periodically to ensure they are tight and free of oxide build-up and dust.
7. Thermostats are located in the instrumentation compartment. See Notes 1 & 2 on previous page. If replacement is required, remove thermostat from the PVC connection using a crescent wrench.

FIGURE 1



SPARE PARTS LIST

P/N 00013087	Side Tank Cover	P/N 00013587A	Thermostat Assy., 60-80 deg. F (2-TAS)
P/N 00014670	Float Switch	P/N 00013588A	Thermostat Assy., 70-90 deg. F (1-TAS)
P/N 50005521SP1	Submersible Pump	P/N 00014592	Heater Contactor, 120V
P/N 50005521SP5	PVC 1" Adapter	P/N 00013393	Relay, 3 amp
P/N 55002289SP1	Immersion Heater	P/N 01110802	Hydrosep® QT water preservative (12/case)

TROUBLESHOOTING

SYMPTOM	PROBLEM	SOLUTION
Heater and Pump not working	<ol style="list-style-type: none"> 1) No power to the unit. 2) Float 1-FS not working. 3) Float switch device stuck in down position. 4) Float switch is defective. 5) Foam float is in the wrong orientation. 	<ol style="list-style-type: none"> 1) Check the following: <ol style="list-style-type: none"> a) Main power source and correct voltage is applied. b) Disconnect switch is in the "ON" position and fuses are not blown. c) Inspect terminals TB1 and TB2. Electrical termination should be tight, free of oxide build-up, and wiring is per wiring diagram. d) Relay 1-CR using a voltmeter at Terminal 5 to TB2. Replace relay, if not energized. 2) Check water level in tank. 3) Clean float switch device. See Operation & Maintenance section for instructions. 4) Check by moving float full stroke to see if power is restored to components. Remove and replace float switch, if defective. 5) Turn foam float around; must be orientated downward. NOTE: Long term cleaning and main-tenance schedules must be performed. See Operation & Maintenance section.
Pump working; Heater not working	<ol style="list-style-type: none"> 1) Thermostat assembly (1-TAS or 2-TAS) is defective. 2) Heater contactor 1-CON is defective. 3) Heater coil 1-HTR is defective. 	<ol style="list-style-type: none"> 1) Check water temperature is below 70°F. 1-TAS shuts off heater when water temperature is over 85°F. Remove and replace defective thermostat. 2) 1-CON must be energized. Check using voltmeter at Terminals 3 & 5. Replace contactor, if not energized. 3) Check heater terminals. Electrical terminals should be tight, free of oxide build-up. 1-HTR must be energized. Check using voltmeter at TB5 to 2W3. Replace heater, if all terminals are confirmed and not energized.
Pump not working; Heater working	<ol style="list-style-type: none"> 1) Pump is defective. 2) Pump impeller is jammed. 3) Pump is damaged. 	<ol style="list-style-type: none"> 1) 1-MTR must be energized. Check using voltmeter at TB6 to 2W5. Replace pump, if not energized. 2) Clean pump. See Operation & Maintenance section for instructions. 3) Remove and replace pump. NOTE: Long term cleaning and maintenance schedules must be performed. See Operation & Maintenance section.
Pump volume low	Pump impeller is dirty.	<p>Clean pump. See Operation & Maintenance section for instructions.</p> <p>NOTE: Long term cleaning and maintenance schedules must be performed. See Operation & Maintenance section.</p>
Tank Dirty	Proper maintenance schedule not performed.	<p>Drain and clean tank. See Operation & Maintenance section for instructions.</p> <p>NOTE: Recommended cleaning and maintenance schedule of tank is every 60 days minimum and not to exceed 180 days. More often if conditions warrants.</p>
Contactor chatter Relay chatter	Defective contactor or relay.	Replace contactor or relay.

INSPECTION / TEST REPORT

PROPOSITION 65

WARNING: This product can expose you to BPA, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

WARRANTY STATEMENT

ENCON HEREBY DISCLAIMS ALL WARRANTIES EXPRESSED OR IMPLIED INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT OF THIRD-PARTY RIGHTS, EXCEPT AS HEREINAFTER PROVIDED.

Encon Safety Products warrants that for one year from the date of purchase of any Encon products, the product will be free of defects in materials and workmanship if properly used and cared for or cleaned under normal conditions in accordance with Encon's use and care instructions and properly installed, if applicable, in accordance with Encon's installation instructions. With respect to the product, Encon's only obligation and purchaser's exclusive remedy under this warranty is to repair or replace such product; provided that:

1. Encon is notified of the defect within one year of shipment, and
2. the product is determined by Encon to be defective.

Encon requires proof of original ownership as proof of warranty coverage, and Encon must receive any claim under this Limited Warranty within one year of purchase of the product.

NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, ENCON SHALL NOT BE LIABLE FOR LOSS, DAMAGE, OR EXPENSE ARISING DIRECTLY OR INDIRECTLY AS A CONSEQUENCE OF USE OF THE EQUIPMENT WITH OTHER PRODUCTS OR FROM ANY OTHER CAUSE, INCLUDING ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR EXEMPLARY DAMAGES, EXCEPT FOR ENCON'S OBLIGATION TO REPAIR OR REPLACE DEFECTIVE PRODUCTS AS EXPRESSLY PROVIDED IN THIS STATEMENT.

Replacement parts purchased from Encon are warranted for one year following the shipment of such replacement part, or until the expiration of the warranty period for the product, whichever is less. No warranty is given in connection with products that are altered without Encon's expressed written consent. The same warranty limitations and the obligations of Encon as set out herein above shall apply to replacement parts.

Encon's total liability arising out of this warranty (including, but not limited to, warranty claims) regardless of forum and regardless of whether such action or claim is based on tort, contract or otherwise will not exceed the total purchase price of the product.



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DRAWINGS