

## *UFV-100 Underwater Filter Vacuum*

Tri Nuclear has developed a compact stand-alone Underwater Filter Vacuum which is ideal for use on special projects or in confined areas where space is at a premium.

Tri Nuclear's Underwater Filter Vacuums can be operated for long durations practically unattended without the need for maintenance or element change out, all while controlling water clarity and reducing dose rates.

Because the portable Underwater Filter Vacuum is submerged, it needs no external shielding, or hoses running in or out of the pool that may cause rippling, poor visibility or personnel exposure/contamination.

Tri Nuclear's Underwater Filter Vacuums operate under negative pressure which allows the pump to be gravity seated and does not require any special tooling to install or remove the pump underwater.

### **Features:**

- Rapid system deployment via camlock hose connections, twist lock electrical connections, and Phase Reversing control boxes
- All stainless steel construction
- Underwater service requiring no additional shielding
- Tooling for rapid underwater remote filter change out

### **Specifications:**

- |                            |                 |
|----------------------------|-----------------|
| • System Flow Rate:        | 100 GPM         |
| • No of Filters:           | 1 Cartridge     |
| • Hoses:                   | 1 Suction       |
| • Footprint:               | 14 in. x 24 in. |
| • Height:                  | 55 in.          |
| • Pump Weight:             | 45 lbs.         |
| • Housing Empty with Pump: | 120 lbs.        |
| • Housing Full with Pump:  | 260 lbs.        |



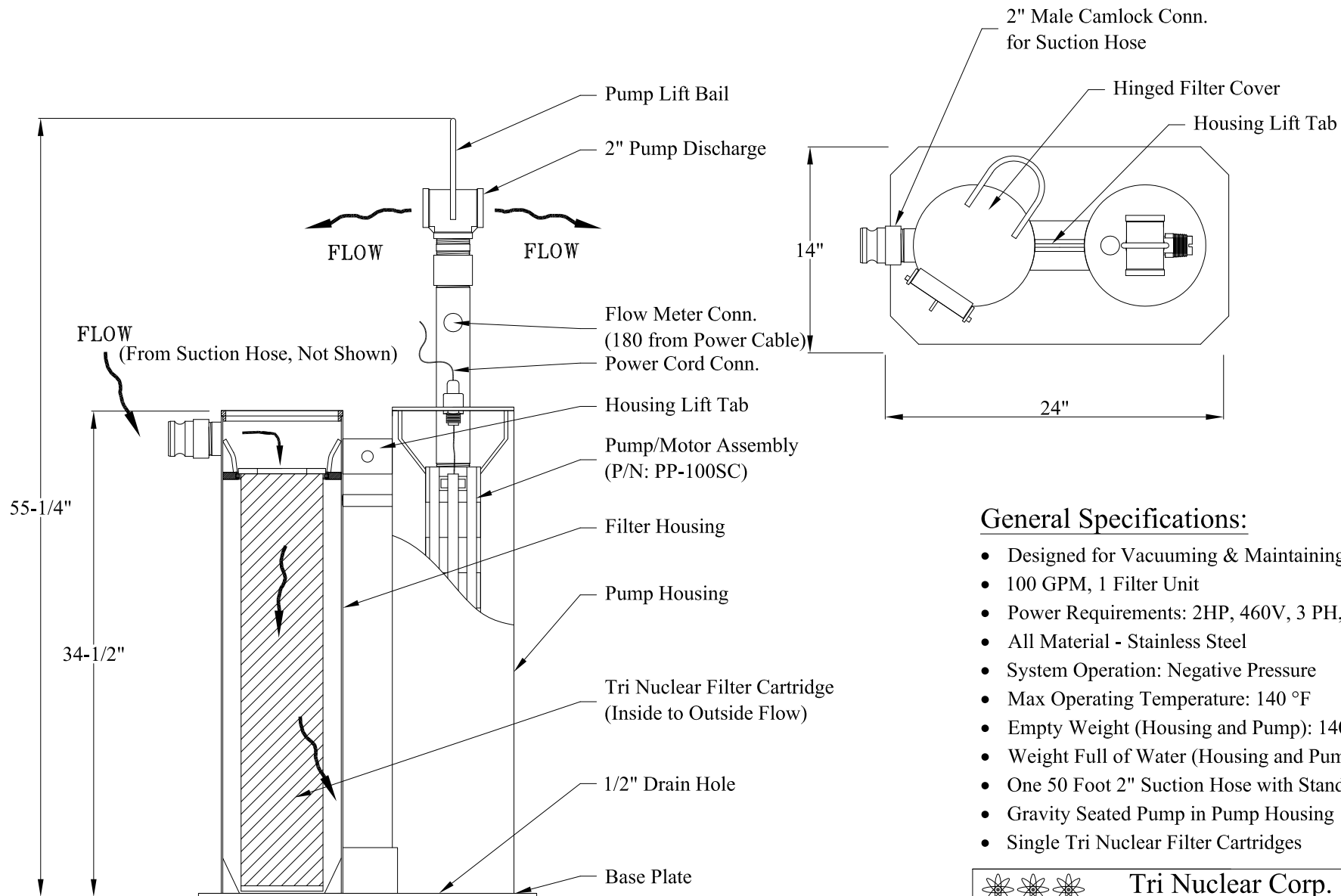
**UFV-100 Housing and Pump**

### **Filter Cartridge Design:**

Tri Nuclear's Filter Cartridges have pleated media construction. This provides a large filter area and long run times. The filters are designed for inside to outside flow which means that solids are trapped in the element and won't flake or slough off during change out.



### **"Operating" vs. "Complete" System**

Each of the UF/UFV systems is sold in both the "Operating" and "Complete" system kits. The "Operating" system comes with only the basic components required to operate the system. The "Complete" system comes with the basic components and all accessory tooling.



### General Specifications:

- Designed for Vacuuming & Maintaining Water Clarity
- 100 GPM, 1 Filter Unit
- Power Requirements: 2HP, 460V, 3 PH, 60 Hz, 4.4A
- All Material - Stainless Steel
- System Operation: Negative Pressure
- Max Operating Temperature: 140 °F
- Empty Weight (Housing and Pump): 140 lb.
- Weight Full of Water (Housing and Pump): 280 lb.
- One 50 Foot 2" Suction Hose with Standoff
- Gravity Seated Pump in Pump Housing
- Single Tri Nuclear Filter Cartridges

<div>  <div> <b>Tri Nuclear Corp.</b>  P.O. Box 1130, Ballston Lake, NY 12019 </div>  </div>			
<div> <b>Underwater Filter Vacuum Unit</b>  <b>UFV-100</b> </div>			
Model No. <b>UFV-100</b>	Rev. Date <b>Rick Russell</b> 08/25/17	<b>Brochure</b>	
Dwg. <b>TNC-001-02</b>	Apv'd Date <b>James L. Warden</b> 08/30/17		
		Rev. <b>D</b>	Page <b>1</b> of <b>4</b>

# UFV-100OP "UFV-100 OPERATING SYSTEM"

SP-1x2  
Pool Pole

SP-1x3  
Pool Pole

SP-1x5  
Pool Pole

SP-1 Pool Pole  
Qty: 4

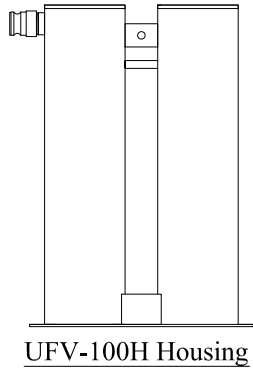
UT-9 Rope Filter Lift Tool  
Qty: 2

UT-7 Vacuum Nozzle

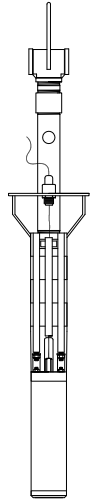
UT-6SP Hose to Pole Clamp

UT-3/6 Filter Storage Rack

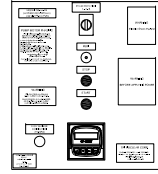
UT-5SP Vacuum Cleaner Head



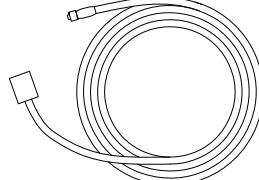
UFV-100H Housing



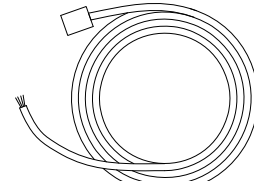
PP-100SC Pump



CB-100-FM  
Phase Reversing Control Box  
with Integral Flow Meter



PSC-100P Power Cord  
with Twistlock Plug

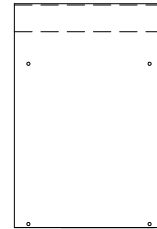


PC-50 Drop Cable  
with Twistlock Plug

PP-100SC Pump



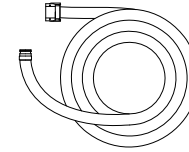
FM-SRD Flow Sensor



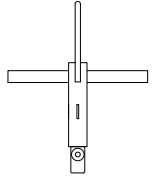
UT-10C Mounting Panel



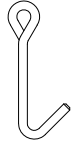
UT-11 Suction Hose Standoff



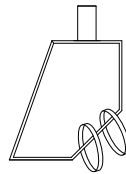
PH-2x50 Suction Hose



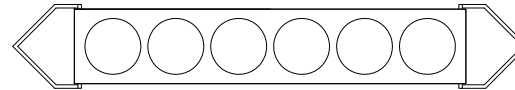
UT-1SPT "T" Handle



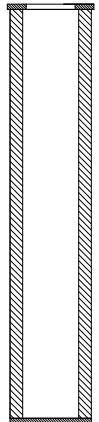
UT-14 Pump Lift Hook



BC-1 Bouyancy Float  
Qty: 5



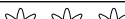

UT-3H Hanging Filter Storage Rack



VCPH-\*PE Filter Cartridge  
NOTE: Not supplied with system.

## NOTE:

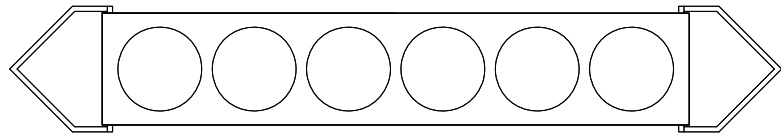
All Items Shown come with the UFV-100 "Complete System"  
in listed quantity except as noted.

			<b>Tri Nuclear Corp.</b> P.O. Box 1130, Ballston Lake, NY 12019								
<b>UFV-100 System</b> <b>Part Identification</b>											
Model No.		UFV-100		Dwg.		TNC-001-02		Rev. D		Page 2 of 4	

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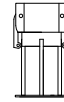
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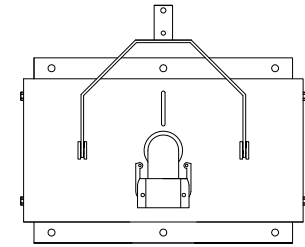


**UT-3H Hanging Filter Storage Rack**  
Holds (6) Tri Nuclear Filter Cartridges  
Dimensions: 42" x 8" x 4" (LWH)  
Weight: 13.5#

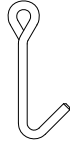
**Swing Lift Bail**



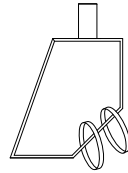
**UT-11 Suction Hose Standoff**  
Attaches to 2" Suction Hose (Typically PH-2x50)  
Dimensions: 3" Dia x 8" Lg.  
Weight: 2#



**UT-5SP Vacuum Cleaner Head**  
Attaches to 2" Suction Hose (Typically PH-2x50)  
Dimensions: 20" x 10" x 8"  
Weight: 18.5#  
Polypro Camlock Fitting



**UT-14 Pump Lift Hook**  
Dimensions: 4-1/2" x 5/8" x 8"  
Weight: 1#



**UT-6SP Hose to Pole Clamp**  
Dimensions: 13-3/4" x 8" x 2"  
Weight: 2#



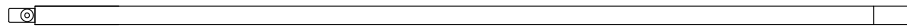
**UT-9 Rope Filter Lift Tool**  
Dimensions: 5" Dia x 24-3/4" Lg.  
Weight: 4.5#



**SP-1x2 Pool Pole**  
Dimensions: 1" Dia x 2' Lg.  
Weight: 2.5#



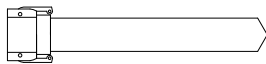
**SP-1x3 Pool Pole**  
Dimensions: 1" Dia x 3' Lg.  
Weight: 3#



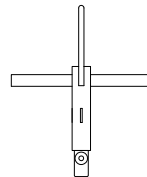
**SP-1x5 Pool Pole**  
Dimensions: 1" Dia x 5' Lg.  
Weight: 5#



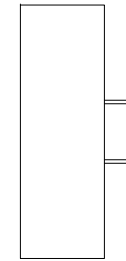
**SP-1 Pool Pole**  
Dimensions: 1" Dia x 10' Lg.  
Weight: 9#



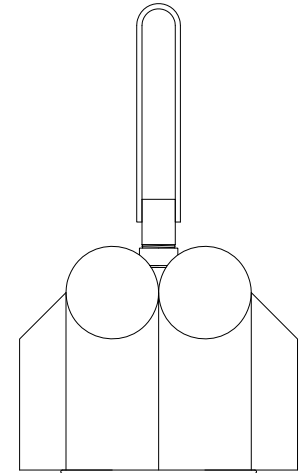
**UT-7 Vacuum Nozzle**  
Attaches to 2" Suction Hose (Typically PH-2x50)  
Dimensions: 2" Dia x 18" Lg.  
Weight: 4#



**UT-1SPT "T" Handle**  
Dimensions: 10" x 10" x 1"  
Weight: 2#

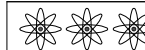


**BC-1 Bouyancy Float**  
Dimensions: 6" Dia x 12" Lg.  
Weight: 8.5#



**UT-3/6 Filter Storage Rack**  
Holds (6) Tri Nuclear Filter Cartridges  
Dimensions: 20" Dia x 33" High  
Weight: 50#

• All Material - Stainless Steel



**Tri Nuclear Corp.**  
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**UFV-100**  
**Accessory Tooling**

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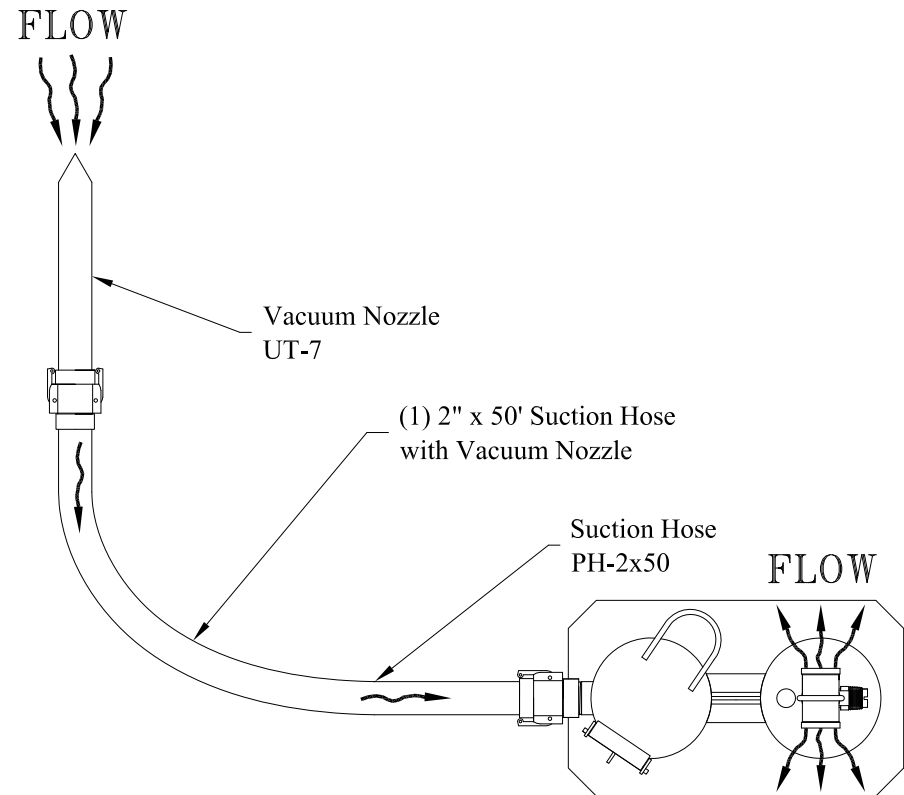
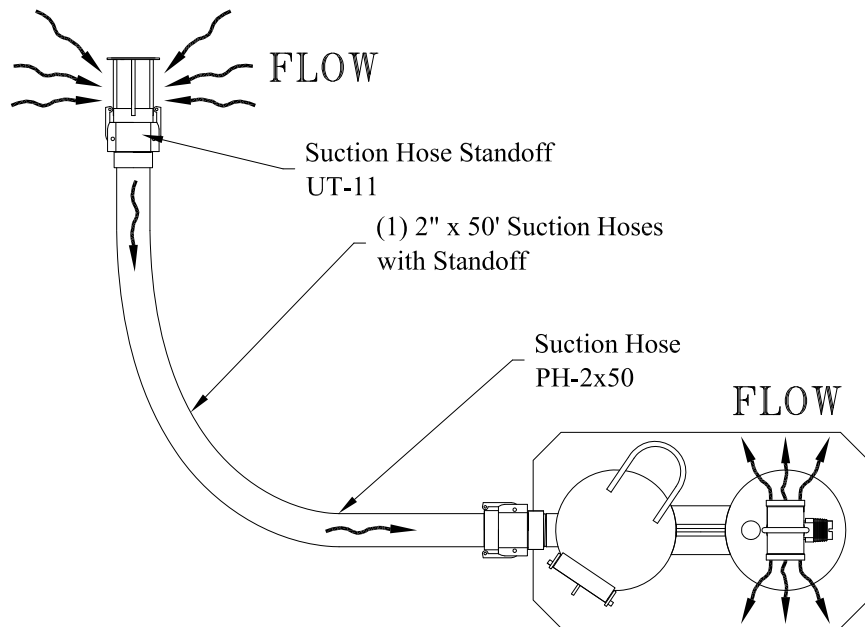
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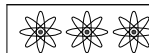
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## WATER CLARITY OPERATIONS

## VACUUMING OPERATIONS



\* NOTE: UFV-100 Must be run with Suction Hose attached.



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**UFV-100 System**  
**Modes of Operation**

Model No. UFV-100

Dwg. TNC-001-02

Rev. D

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