# HEADHUNTER SYSTEMS











































# ROYAL FLUSH BRAVO









RFMB-0\* White

RFMB-3\* Bone

RFMB-5\* Sand

RFMB-9\* Black



- •5 year warranty
- •No complicated mechanical equipment in the discharge plumbing
- •Tri-Flush technology with adjustable settings
- •Flushes rags, quarters, and panty hose
- •Intuitive touch activated switch
- •Labor and space saving installation



All Royal Flush Toilets are built around a simple, no nonsense, water jet macerator. Reliability proven over three decades in a variety of Royal Flush models is demonstrated at trade shows by repeatedly flushing rags and quarters while spectators stare in disbelief.

All Royal Flush Toilets operate on the following principle. Pressurized water is accelerated through a jet to macerate and discharge the waste over a vented loop. There are no complicated mechanical sewage pumps to maintain in the toilet.

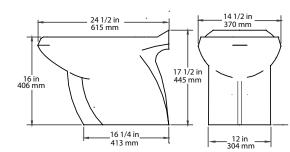
During operation pressurized water supplied by a shared water pressure system is controlled by the inlet valves to flush the toilet. The Royal Flush Bravo, Espresso and Aero integrate the proven and reliable water jet technology of the original Royal Flush combined with a modern valve and electronic control arrangement. The Multitouch system includes a timer module which controls the operation of two slow-close, water-hammer free solenoid valves located within the toilet. The timer module coordinates 3 different types of flushes into a single button. A single push of the switch on the toilet delivers a normal flush of 3 liters, two pushes and you'll get a low water flush (pee flush) and with 3 pushes you'll get an Ultra-Low Volume flush and no water in the bowl at the conclusion, this can be useful for service or rough seas. This new arrangement makes for an easier installation, reduced noise when flushing, and better overall performance. With water consumption of less than 1 gallon per flush, it strikes a balance between water conservation and effective odor control.

Each Royal Flush includes a slow-close seat, vitreous china bowl, user switch, programmable timer module, mounting hardware, plumbing kits, and of course our unequaled 5 year warranty. Every toilet is manufactured and fully operational tested to provide years of trouble-free service.

The Royal Flush Bravo has the smallest footprint with the largest seating area available in any toilet making it the designers choice. Easy on the eyes, simple to install and innovative reliable technology make the new Royal Flush Bravo and Espresso an ideal choice for today's modern vessel.

Inlet = 1 inch - 26mm Outlet = 1-1/2 inch I.D./50mm O.D. pipe, or 1-7/8 inch/48mm hose

\*Note: please specify "C" or "G" at end of part number for Chrome or Gold trim





The Royal Flush Espresso is functionally identical to the Bravo. The one-piece Espresso sleek design represents the addition of an elegantly styled bowl in a household size model. Ideal for yachts in the 65' and under class, as well as tight quarters on any vessel. Available in White, Bone, Sand, or Black. Each toilet has a 5 year warranty and all colors match Kohler fixtures.

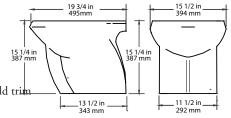
Commercial models available.

Inlet = 1 inch - 26mm

Outlet = 1-1/2 inch - 38mm pipe or 1-7/8 inch - 48mm hose

RFME-0*	Espresso White
RFME-3*	Espresso Bone
RFME-5*	Espresso Sand
RFME-9*	Espresso Black

<sup>\*</sup>Note: please specify "C" or "G" at end of part number for Chrome or Gold triangle





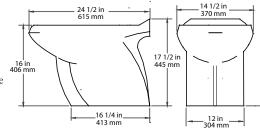
Our Royal Flush Bravo and Espresso are designed to fit aftermarket specialty bidet seats.



The Royal Flush Bidet adds a touch of European elegance to your bathroom. Designed from the stylish lines of Headhunter's Bravo and Espresso toilets, our bidet will show your subtle sophistication, while providing unique and simple functionality. The Royal Flush Bidet is available in the same fine porcelain and designer color selection as our toilets, with a choice of gold-plated or chrome-plated solid brass faucet's. All colors match Kohler fixtures.

Bravo Bidet	
BDB-0*	White Bidet
BDB-3*	Bone Bidet
BDB-5*	Sand Bidet
BDB-9*	Black Bidet

<sup>\*</sup>Note: please specify "C" or "G" at end of part number for Chrome or Gold trim

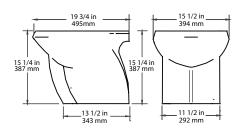




Espresso Bidet

BDE-0\* White Bidet BDE-3\* Bone Bidet BDE-5\* Sand Bidet BDE-9\* Black Bidet

\*Note: please specify "C" or "G" at end of part number for Chrome or Gold trim



# ROYAL FLUSH AERO









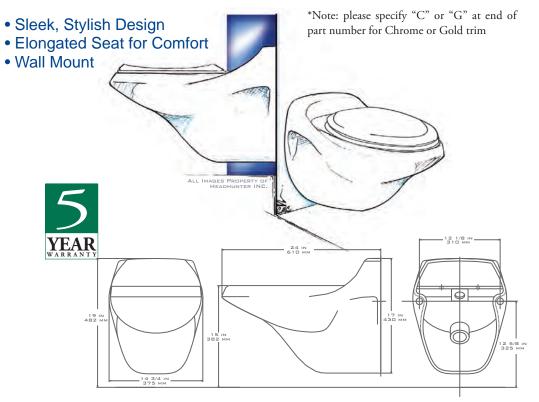


# Customer Satisfaction

Today's luxury yachts demand only the best in quality and reliability, which is why Headhunter's Royal Flush has become the industry standard. Many loyal customers have either specified Royal Flush as an upgrade when making their investment in a luxury yacht, or breathed a sigh of satisfaction when told by the builder that "Royal Flush is standard equipment." Headhunter nurtures this fierce customer loyalty with innovative products and excellent customer service. In fact, Headhunter is the only marine toilet manufacturer with its own field service team to provide O.E.M. technical support as well as retrofit installations.

# THE WALL MOUNTED ROYAL FLUSH AERO

Designed specifically for luxury accommodations, the wall mounted Royal Flush Aero combines an elegant looking, comfortable, elongated toilet with patented and proven Headhunter technology. The result: a reliable toilet that matches the tasteful décor of any vessel. The Aero's unique and carefully considered design yields a comfortable elongated seat in the same space that competitors deliver small round bowls. Like all of Headhunter's Royal Flush toilets, the Aero is available in four designer colors; white, black, bone and sand, matching Kohler fixtures. Installation is easier and operation is quieter as there's no vacuum nor macerator pumps.



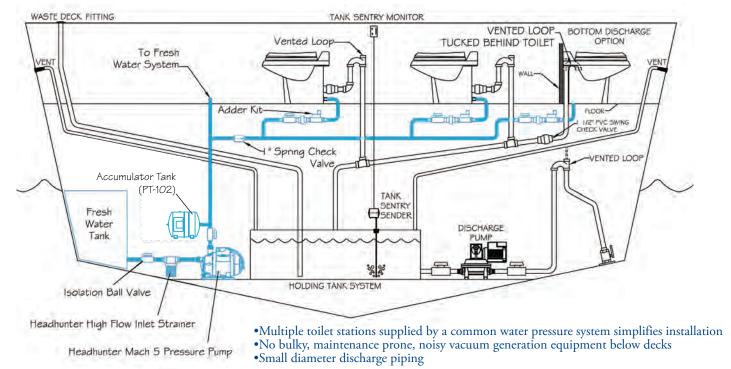
# THE WALL MOUNTED ROYAL FLUSH AERO BIDET

Install an Aero Bidet to compliment your Royal Flush Aero toilet. With the same elegant styling, it's the perfect accessory for any luxury bathroom. The Aero bidet has the same dimensions as the Aero toilet and installation is a breeze with one our behind-the-wall mounting brackets. Designed to fit standard single penetration bidet fixtures, the Aero bidet is offered in the same four colors as all other Headhunter sanitary ware.

RFA-BDT-0\* White RFA-BDT-3\* Bone RFA-BDT-5\* Sand RFA-BDT-9\* Black



# COMMERCIAL & MILITARY APPLICATIONS



A Royal Flush Central System is configured by supplying two or more Royal Flush stations with pressurized water from a central source. The water supply to each toilet in the system is controlled at the toilet, but a dedicated Adder Kit (shown below consisting of an isolation ball valve, a nipple, and a inline inlet strainer) is highly recommended.



# HEADHUNTER ADDER KITS

AKM-1000 Isolation Ball Valve with Inline Strainer
All adder kits are supplied with 1" FPT connections. Order one adder kit for each toilet station.

# ROYAL FLUSH COMMERCIAL & MILITARY STATIONS BRAVO & ESPRESSO STATIONS

The Royal Flush line of marine toilets are ideal for commercial and military applications because of their optimum water consumption effective odor control and simple installation. Utilizing pressurized water, jet maceration and small diameter discharge piping, the Royal Flush alternative saves weight, reduces installation labor, maintenance costs, and increases crew comfort.

- •Small diameter discharge piping
- •Reliable jet macerator operation
- •Lightweight alternative to bulky vacuum collection systems
- •Available in patented non-electric HydroVac systems
- •Low volume flush reduces MSD size



CRFMB-0-\*\* Commercial Bravo Station
CRFME-0-\*\* Commercial Espresso Station
Commercial Bravo model featured in photo \*\* Switch and seat options

RFB-M Military Bravo

Ask for more information on our commercial and militaty solutions



# WATER PRESSURE SYSTEMS



WATER PRESSURE SYSTEM

# Break the sound barrier

The Mach 5 water pressure system from Headhunter represents a quantum leap in pump technology with many advanced features and improvements over conventional water pressure pumps. Integrated flow



and pressure sensors provide instant dry run protection. The Mach 5 incorporates a state-of-theart multistage impeller system

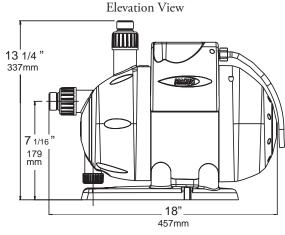
driven by a super-efficient water-cooled motor to generate up to 20 gallons per minute, instantaneously, on demand, and in virtual silence. An easy to read control panel on top of the pump provides visual indication of alarm status, as well as reset capability.



# SPECIFICATIONS

Liquid Temp. 32°F To 104°F
Ambient Temp. 32°F To 122°F
Max Pressure 67 PSI (4.5bar)
Max Flow 20 GPM (76 lpm)
Suction/Discharge 1" MPT (1"GAS)
Noise Level <54 dB(A)
Weight 23lbs (10.4kg)

# End View 8 5/8" 219mm



Note: Not recommended for salt water

### LISTING/CERTIFICATIONS

The Mach 5 has been tested and certified to surpass all requirements of Underwriters Laboratories UL 778 specifications for Motor Operated Pumps. The Mach 5 is CE approved.





Listing #01C0

		Disch			ge Press. P	Max Shut	
Model	Voltage	Amps	30 (2)	40 (2.7)	50 (3.4)	Off PSI (bar)	
			Flow	lpm)	151 (641)		
M5-115	115V/60hz	9	16 (60)	12 (46)	8 (31)	67 (4.5)	
M5-230/60	230V/60hz	4	16 (60)	12 (46)	8 (31)	67 (4.5)	
M5-230/50	230V/50hz	4	16 (60)	12 (46)	8 (31)	67 (4.5)	

# Feel the Force

Taking a great shower is one of life's simple pleasures. The performance and stamina of a Mach 5 Water Pressure System turns ordinary showers into a truly invigorating experience.



# WATER PRESSURE SYSTEMS



The Stingray Saltwater Pressure System is designed specifically for continuous duty in the harsh marine environment, and is the perfect solution for saltwater toilet flushing, live bait wells, aquaculture, and anywhere else high flow/ pressure salt or fresh water is needed. Featuring an innovative multi-stage impeller system driven by a quiet TEFC motor, the Stingray is able to deliver over 20 GPM and up to 67 psi. The preinstalled Remora pump control turns the pump on when system pressure drops to 40 psi, and off when the pump reaches a no flow condition, allowing the Stingray to operate with or without a pressure accumulator tank as well as providing dry-run protection. An easy to view control panel with L.E.D. diagnostics and dry run visual alarm makes troubleshooting and system monitoring a breeze.

Remora pump control with LED status display and dry run protection



Self priming multistage design

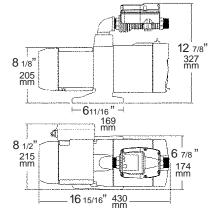
### **SPECIFICATIONS**

Liquid Temp. Ambient Temp. Max Pressure Max Flow Suction/Discharge Weight

32°F (0°c)-104°F (40°c) 32°F (0°c)-122°F (50°c) 67 PSI (4.5 bar) 20 GPM (76 lpm) 1" FPT/1"MPT (1"GAS) 24lbs (10.9 kg)

"The Stingray Saltwater Pressure System is an awesome solution for our deck washdown, and live baitwell needs. We especially like the simple no accumulator tank installation and amazing pressure it delivers!"

Paul Mann Mann Custom Boats Manns Harbor, N.C.



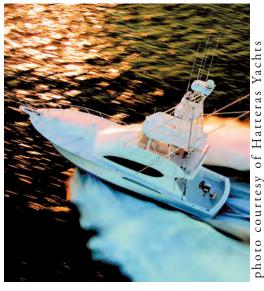
### LISTING/CERTIFICATIONS

The Stingray has been tested and certified to surpass all requirements of Underwriters Laboratories UL 778 specifications for Motor Operated Pumps. The Stingray is CE approved.





	Model			Discharge Press. PSI (bar)			
		Voltage	Amps	30 (2)	40 (2.7)	50 (3.4)	Max Shut Off PSI (bar)
				Flow	151 (041)		
	SR-115	115V/60hz	9	16 (60)	12 (46)	8 (31)	67 (4.5)
	SR-230/60	230V/60hz	4	16 (60)	12 (46)	8 (31)	67 (4.5)
	SR-230/50	230V/50hz	4	16 (60)	12 (46)	8 (31)	67 (4.5)



### INTEGRATED CERAMIC PRESSURE TRANSDUCER:

Monitors system pressure and controls the speed of the X Caliber. High linearity, accuracy, and excellent chemical resistance are hallmarks of the ceramic pressure sensor technology found exclusively in the X Caliber.

### BRUSHLESS WATER COOLED MOTOR:

Brushless motor technology is quieter and more reliable than standard DC motor technology. Silence and efficiency of the motor is further enhanced by an advanced water cooling system.

WHISPER QUIET MULTISTAGE IMPELLERS
Deliver smooth pulsation free water pressure in virtual silence.

CORROSION PROOF UL94HB GLASS REINFORCED POLYPROPYLENE CONSTRUCTION: This specially formulated composite polymer is designed to withstand the harsh marine environment.

Part #	Description
XR-124	X-Caliber 12-24 VDC Freshwater Pressure System
XRS-124	X-Caliber 12-24 VDC Saltwater Pressure System

Blast into the future with the advanced technology of the new X-Caliber DC water pressure system. The stealthy X-Caliber delivers high performance water pressure that will invigorate showers, and dramatically improve overall water pressure system capability.

### CONTROL PANEL



Program power and pressure settings via the integrated control panel. Four colored LED's display current settings and alarm conditions.

# ADVANCED FEATURES

Adjustable cut in pressure• Operates on 12 or 24VDC• Under voltage protection• Anti-flooding protection•

Variable Speed•

- Adjustable power setting
  Over voltage protection
- Over current protectionDry run protection
- •Rotating bracket

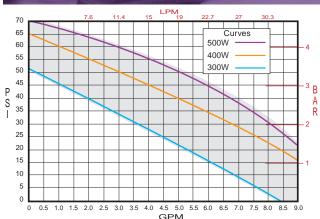
INNOVATIVE ROTATING BRACKET

# 16 DIFFERENT BRACKET POSITIONS

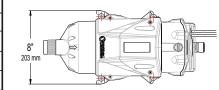
### **SPECIFICATIONS**

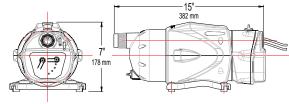
Liquid Temp. Ambient Temp. Max Pressure Max Flow Suction/Discharge Weight 32°F (0°c)-104°F (40°c) 32°F (0°c)-122°F (50°c) 67 PSI (4.5 bar) 10 GPM (38 lpm) 3/4" FPT (Optional metric adapter) 16lbs (7.2 kg)

# PREFORMANCE CURVE



Power	Voltage/Amps				
Setting	12 VDC	24 VDC			
300W	25 A	12.5 A			
400W	34 A	17 A			
500W	42 A	21 A			





# WATER PRESSURE SYSTEMS

- Quiet Operation
- •Composite Construction
- Compact Package
- •1" NPT Inlet / Discharge = Single Pump
- •1-1/4" NPT Inlet / Discharge = Twin Bracket
- •Maximum Working Pressure 87 PSI
- •Maximum Temperature 180° F
- •Maximum Flow 33 GPM
- •Efficient Multistage Design
- •Integrated Expansion Tank

Part #			Amps				
Aqua-Box Super Silent Constant Pressure System							
AQX-230	220-23	0V AC 1 Phase, 50/60	hz	9			
*Single Pump							
Part #		Description					
AQX-TWIN	Mounting Bracket for 2 AQX Pumps						
Electric Powe	er Supply						
Voltage		220/240 VAC					
Frequency		50/60 Hz					
Maximum Cu	irrent	11 Amp					
Maximum Po	wer	1550 W					



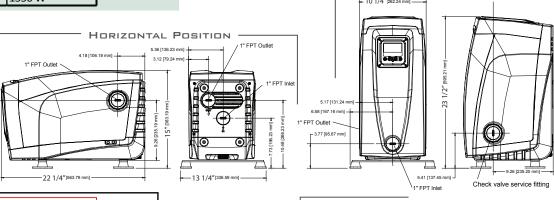
Multistage Pressure Pump Super Silent Constant Pressure System

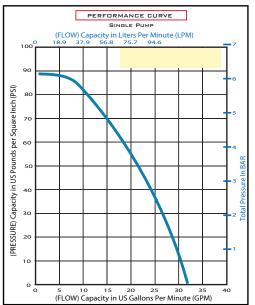


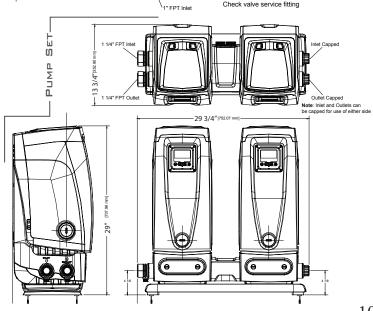


Aqua-Box Pump Set: 2x AQX-230 and an AQX-TWIN bracket

VERTICAL POSITION



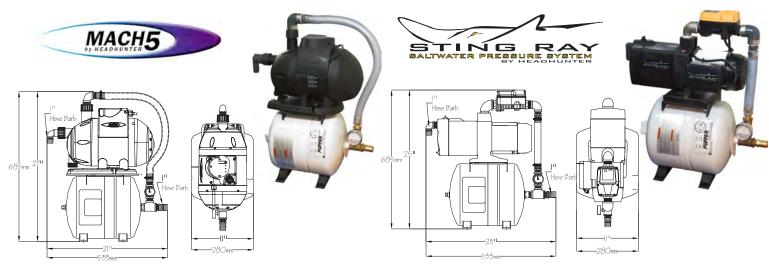




# WATER PRESSURE SYSTEMS

# Turbo-paQ — Pressure sets

Headhunter TurbopaQ pressure set provides an innovative pre-engineered solution for fresh and salt water pressure systems. The TurbopaQ reduces installation time and the overall footprint by combining the accumulator tank and pressure pump into one stand alone unit. All TurbopaQ pressure sets include 0-100 PSI oil filled pressure gauge, an inlet strainer, and 2ft and 3ft sections of Headhunter Banzai hose.

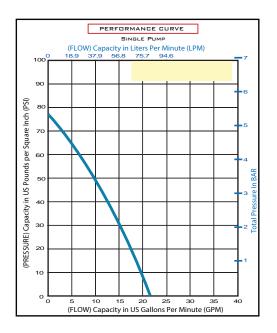


# 

# Multistage Pressure Pump Super Silent Constant Pressure System

- Quiet Operation
- •Composite Construction
- •Compact Package
- •Cutout Pressure Control
- •1" NPT Inlet / Discharge
- •Maximum Working Pressure 70 PSI (4.8 bar)
- •Maximum Temperature 104° F (40° C)
- •Maximum Flow 21 GPM (79 Lpm)
- •Efficient Multistage Design
- •Integrated Expansion Tank

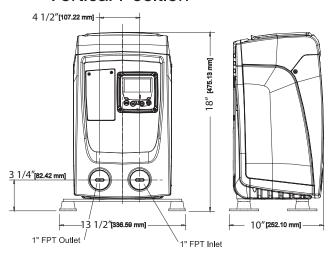
VOLTAGE	AMPS				
Aqua-Box Mini Super Silent Constant Pressure System					
115 VAC 1PH 50/60HZ	7				
230 VAC 1PH 50/60HZ	4				
	er Silent Constant Pressure S 115 VAC 1PH 50/60HZ				



Electric Power Supply				
Voltage	115/220/240 VAC			
Frequency	50/60 Hz			
Maximum Current	9 Amp			
Maximum Power	840 W			



# Vertical Position



# WATER PRESSURE ACCESSORIES

IS-1000L

IS-1000S IS-750

# INLET STRAINERS

Pump inlet strainers are an important component in a well designed water pressure system, since they protect the pump and ship systems from potentially fatal debris. Both the Headhunter IS-1000L and IS-1000S are perfect solutions for an inlet strainer since they have the unique combination of a fine mesh, with hi-flow characteristics, which provide maximum protection with minimum flow restrictions.

The IS -1000L is constructed of white glass reinforced polypropylene with molded-in 1" FPT brass inlet and discharge fittings. Also included but not shown is a white powder coated mounting bracket.

IS-1000L 1" Female NPT High Flow Composite Strainer 5"L x 4"W x 6-7/8"H

127mm L x 102mmW x 175mm H

IS-1000LB 1" Female BSP High Flow Composite Strainer 5"L x 4"W x 6-7/8"H

ISB-1000L Replacement Strainer Basket

IS-1000S is a all nylon compact solution for areas where space is limited.

IS-1000S 1" Female NPT Compact High Flow Inlet Strainer 4"L x 3"W x 5-3/4"H

IS-750 3/4" Female NPT Compact High Flow Inlet Strainer 4"L x 3"W x 5-3/4"H

101mm L x 76mmW x 146mm H

ISB-750/1000S Replacement Strainer Basket



PGH-100

# STAINLESS STEEL PRESSURE GAUGES

Headhunter glycerin filled stainless steel pressure gauges provide reliable and accurate pressure monitoring. A quality gauge is important for proper installation and trouble shooting of all water pressure systems. Available in vertical and horizontal mount with 1/4" MPT connection.

PGV-100 0-100 PSI Liquid Filled Pressure Gauge (vert. mt) MPT Bottom Conn. PGH-100 0-100 PSI Liquid Filled Pressure Gauge (horz. mt) MPT Back Conn.

# HIGH FLOW WATER FILTERS



High Flow Water Filters keep your fresh water free of odors and contaminants. These filters are designed to handle the delivery capacities of our Headhunter water pressure systems. They are available in 304 or 316 stainless steel construction with either flanged or NPT pipe connections. The supplied unique high-performance extruded carbon cartridges are optimized for applications where they replace both the sediment and activated carbon filters. The cartridges also insure that there won't be any carbon particulates in the water system as is common with granular activated carbon filters.

HFF-1\* 6 GPM High Flow Charcoal Water Filter 4-1/8"D x 13-3/4"H
HFF-4\* 8 GPM High Flow Charcoal Water Filter 10-1/2"D x 20"H
HFF-7\* 20 GPM High Flow Charcoal Water Filter 12-1/2"D x 20"H

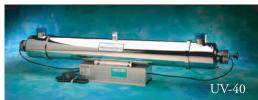
HFF-SCB10 10" High Flow CarbonBlock Filter Cartridge

\* Specify 304L or 316L Stainless Steel at the end of part number when ordering

Consult Headhunter for higher flow rates

# **ULTRAVIOLET STERILIZERS**

These high quality Ultraviolet Sterilizers offer a simple approach to disinfection of potable water on board. They feature 316 stainless steel construction and come in a variety of sizes to match the delivery capacity of your Headhunter water pressure system. All sterilizers also incorporate a wiper mechanism to clean the quartz sleeve without interrupting operation. The easy change bulb system enables effortless lamp replacement without shut-down of water pressure or drainage of tank.



 UV-6
 6 GPM UV Water Sterilizer
 25-3/8"L x 5-1/2"W x 8-1/4"H
 14 lbs.

 UV-12
 12 GPM UV Water Sterilizer
 39-1/2"L x 5-1/2"W x 9-1/2"H
 30 lbs.

 UV-20
 20 GPM UV Water Sterilizer
 52-1/2"L x 5-1/2"W x 9-1/2"H
 36 lbs.

 UV-40
 40 GPM UV Water Sterilizer
 52-1/8"L x 5-1/2"W x 11-1/2"H
 49 lbs.

 UV-83
 83 GPM UV Water Sterilizer
 52-1/8"L x 17-1/4"W x 11-1/2"H 116 lbs.

# WATER PRESSURE SYSTEMS

# POLYPROPYLENE LINED STEEL PRESSURE ACCUMULATOR TANKS





This compact 4.4-gallon pressure tank is designed for operation in seawater or freshwater. It's constructed from deep drawn steel with a polypropylene liner, seamless butyl diaphragm and brass threaded connection. The exterior is undercoated with a crack-proof zinc based barrier coating that is top coated with white enamel. Available pump bracket that matches X-caliber mounting pattern. 11" D x 11 1/2"H x 15"L Inlet 3/4" male NPT

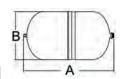
 Polypropylene liner forms non-metallic water reservoir
 Corrosion resistant brass male threaded connection •Heavy-duty seamless butyl diaphragm flexes, never stretches or creases •Meets FDA requirements for potable water supply •Crack proof, impermeable, self-repairing zinc based corrosion barrier with white enamel topcoat protects the exterior.

		Drawdown in gallons (liters)			Dimensions in inches (mm)			Total	Inlet	Dry
	Model	@ 20-40 psi (2.0-3.4 bar)	@ 30-50 psi (2.0-3.4 bar)	@ 40-60 psi (2.7-4 bar)	Length A	Diameter		Volume in Gal. (ltr)		Weight lbs (kg)
[]	PT-102	1.6(6)	1.4(5.2)	1.2(4.5)	15(381)	11(279)	11(279)	4.4(16.7)	3/4	9(4.1)
[]	PT-102BK	1.6(6)	1.4(5.2)	1.2(4.5)	15(381)	11(279)	11 3/4(298)	4.4(16.7)	3/4	9(4.1)





Also available from Headhunter, Well-X-Trol pressure accumulator tanks. They are easy to install, hand can be installed either vertically or horizontally. Models are also available with pump brackets and mounting feet.





	Drawdown in	gallons (liters)	Total	Dimensi	Inlet	Dry		
Model	@ 30-50 psi (2.0-3.4 bar)	@ 40-60 psi (2.7-4 bar)	Volume in Gal. (ltr)	Length A	Diameter	Height B	Fitting (MPT)	Weight lbs (kg)
WX-101	.6 (2.2)	.5 (1.5)	2 (7.6)	12 5/8 (321)	8 (203)	8 (203)	3/4"	5 (2.26)
WX-200-PS	4.3 (16)	3.8 (14.4)	14 (53)	16 (406)	15 3/8 (391)	16 (406)	1"	29 (13.4)
ST-25*	3.5 (13)	2.7 (10)	10 (39)		15 3/8 (391)	19 1/4	1"	23 (10.4)

\*Note: ST-25 suitable for saltwater use.

\*PT-102BK includes bracket

# FIBERGLASS PRESSURE ACCUMULATOR TANKS



Specify Headhunter pressure accumulator tanks for fresh or saltwater pressure systems to store pressurized water. They eliminate water hammer and reduce pump cycling. These accumulator tanks are also used in our Royal Flush Central Systems for storing pressurized water for toilet flushing. These tanks lead the field with a unique composite construction. Two miles of epoxy-coated fiberglass filament are wound around a high-density polyethylene liner, providing light weight, corrosion-resistant strength.

- •Lightweight design-weighs half as much •Will not rust-no metallic components as conventional steel tanks
- •Zero maintenance-unlike steel tanks, no need to paint
- •5 year warranty
- •Replaceable inner liner
- •ANSI/NSF STB61 certified



	Drawdown in	gallons (liters)	Dimensions in	inches (mm)	System	Dry	
Model	@ 30-50 psi (2.0-3.4 bar)	@ 40-60 psi (2.7-4 bar)	Height Diamete r		connection (PVC)	Weight lbs (kg)	
AVF-4	4.3 (17)	3.7 (14)	26 1/2 (673)	16 (406)	1" MPT	15 (6.8)	
AVF-6	5.9 (23)	5.1 (20)	32 1/4 (820)	16 (406)	1" MPT	19 (8.6)	
AVF-9	8.9 (34)	7.7 (30)	44 (1118)	16 (406)	1" MPT	24 (11)	
AVF-12	12.1 (46)	10.5 (40)	56 3/4 (1442)	16 (406)	1" MPT	30 (13.6)	
AVF-18	18 (69)	16 (62)	42 1/4 (1073)	24 (610)	1 1/4" MPT	50 (22.7)	
AVF-26	26 (100)	23 (88)	55 1/2 (1410)	24 1/4 (616)	1 1/4" MPT	58 (26.3)	
AVF-36	36 (139)	31 (120)	74 1/4 (1892)	24 1/2 (622)	1 1/4" MPT	112 (50.8)	



# WATER & WASTE HOSES

# BANZAPIPELINE

# POTABLE WATER SUCTION/PRESSURE HOSE



### APPLICATIONS

- Water Pump Suction and Pressure Distribution
- Freshwater Tank Vents
- Reverse Osmosis Low Pressure Supply

### **FEATURES**

- Exceeds the specification of NSF 61 drinking water system components
- Steel helix reinforcement prevents collapsing and kinking
- Polyesterbraid reinforcement enables high working pressure
- One hose suitable for both suction and pressure applications
- Clear see through construction provides visual flow indication

No.	I.D.	Working Pressure	Bending Radius	Coil Length
BPH-750	¾" (19mm)	225psi (15 Bar)	2" (50mm)	100 ft. (30.5mt)
BPH-100	1" (25mm)	225psi (15 Bar)	3" (75mm)	100 ft. (30.5mt)

Banzai Pipeline is the only fresh water hose that combines three unique properties. A steel helix for collapsing resistance is combined with a hi-tensile woven polyester braid between two layers of clear PVC. The result is an engineered drinking water approved hose that's perfect for high pressure distribution and suction side applications. Banzai Pipeline features superior strength and non-collapsible flexibility not found in conventional water hoses. The clear see through construction provides visual flow indication which helps in the installation and maintenance of water pressure systems. Temp. Range 30 - 145 F (0 - 63 degree C)





### APPLICATIONS

- Black Water Discharge & Transfer Toilet Pressure Supply Holding Tank Vents Freshwater Tank Vents Freshwater Suction and Pressure Distribution Gray Water Drains
- Gray Water Tank Vents

### **FEATURES**

- Super Flexible Construction
- Superior Odor Impermeability.
- Exceeds the specification of NSF 61 drinking water system components
- Max Temperature: 200F (94C). Will not degrade in high temperature engine room environments.
- EPDM Shell: Provides superior Ozone resistant external liner
- BUTYL Shell: Provides a smooth anti-microbial food grade inner liner.

Headhunter Great White™ Super Premium Water/Sanitation Hose is an engineered hose developed especially for the rigors of the harsh marine environment. A specially formulated liner constructed of anti-microbial food quality butyl polymer provides an impermeable odor barrier. A double steel wire helix and high tensile fabric reinforcement provide extreme flexibility for ease of installation and a snow white EPDM abrasion resistant jacket provide superior Ozone resistance not found in conventional sanitation hoses.

No.	I.D.	Working Pressure	Bending Radius	Coil Length
GWH-750	¾" (19mm)	100psi (7 Bar)	2" (50mm)	100 ft. (30.48mt)
GWH-1000	1" (25mm)	100psi (7 Bar)	3" (75mm)	100 ft. (30.48mt)
GWH-1500	1½"(38mm)	100psi (7 Bar)	3 1/2" (90mm)	50 ft. (15.24mt)
GWH-1780	17/8"(48mm)	100psi (7 Bar)	5 1/4" (134mm)	50 ft. (15.24mt)
GWH-2000	2"(51mm)	100psi (7 Bar)	6" (153mm)	50 ft. (15.24mt)

# WASTE WATER SYSTEMS



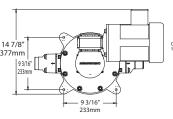


# Solids Handling Diaphragm Pump

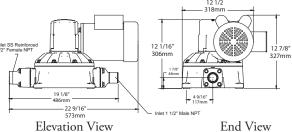
- •Self-priming to 10 Ft
- •1-1/2" Male NPT Inlet 1-1/2" Female NPT Discharge
- •Dry Run Capability
- •Reinforced Polypropylene Construction
- Neoprene Diaphragms and Valves
- •316 Stainless Steel Shaft and Hardware
- Washdown Duty Motors

PART#	VOLTAGE	AMPS	Breaker Size
TORTUGA PUM	1P 1/2 HP Self Priming Diaphram Pur	np	
TOR-12	12VDC	24	45
TOR-24	24VDC	12	25
TOR-1P60	115/230 VAC 1ph 60hz	8.8/4.4	15/10
TOR-1P50	220VAC 1ph 50hz	3.2	5
TOR-3P60	208-230/440 VAC 3ph 60hz	2.0/1.0	5
TOR-3P50	220/380/440 VAC 3ph 50hz	2.0/1.0	5

The Tortuga is an aggressive solids handling diaphragm pump constructed of a lightweight corrosion proof glass reinforced polypropylene. This pump is ideal for sewage, gray water, fish box and bilge applications where reliability is a premium. Its' solids handling and self-priming properties make it ideal for transferring waste from holding tanks into sewage treatment systems or overboard. All pumps are equipped with 1-1/2 inch NPT fittings for fast, easy installation.



Plan View



End View

### PERFORMANCE

Delivery (Flow): 10 GPM (38 lpm) Max Suction lift: 10 ft. (3 m) Max Discharge (Head): 15 ft. (4.6 m) 43 lbs (19.5 kg)





diaphragm pump

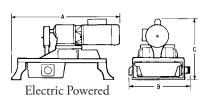
- Quiet diaphragm operation
- •Able to pass large solids
- •Can run dry without damage
- •12 foot suction lift capability
- •2" inlet and discharge standard
- •10 foot discharge head
- •TEFC Motor

These pumps are the ultimate sewage handling pumps. They get the tough jobs done quickly, quietly, and reliably. Ideal for holding tank discharge applications, transfer systems, and for batching sewage into our Tidal Wave Type II MSD's. These pumps are an engineer's dream with their rugged construction and non-clogging flow-thru design. They make a great emergency bilge pump and are also ideal for industrial applications such as ground water remediation, abrasive fluid transfers, and dewatering.

### SPECIFICATIONS

Electric motor (12/24V DC, 115 / 208 - 230V AC), or air powered. Other electric motor voltages available, just ask. Standard bronze construction.

Model	Flow Rate GPM (lpm)	Voltage	Amps	Discharge Size	Construction
Electric Powered					
120ELB20AC200	20 (76)	115/208-230V AC	7.4/3.8	2"	Bronze/Hypalon
120ELB2012200	20 (76)	12VDC	50	2"	Bronze/Hypalon
120ELB2024200	20 (76)	24VDC	25	2"	Bronze/Hypalon
Repair Kit					
114N117120		Bone Dry Hypalon Repair	Kit*		
	*Re	pair Kits consist of a replacement diapl	hragm,two v	alve assemblies,	and two sealing washers.



A.Length 30-3/4" (78.1 cm) 17" (43.2 cm) B.Width 16-1/2" (41.9 cm) C.Height D.Weight 112 lbs (51 kg)

# WASTE WATER SYSTEMS





- •Passes solids up to 1-1/4" diameter
- •Composite pump body & impeller, 316 SS pump shaft & seal
- •2" FPT connections

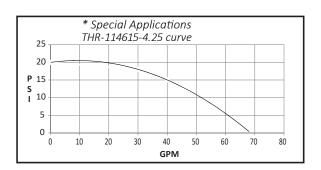
stainless steel reinforced Suction & Discharge

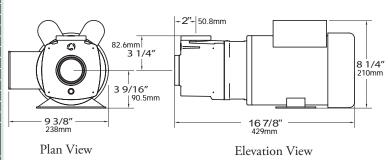
- •Max discharge of 30' (9m)
- •Max flow of 60 GPM (227 lpm)
- Requires flooded suction
- •40 lbs (18 kg)
- •TEFC Washdown motor standard- other IP-56 and explosion proof options available.

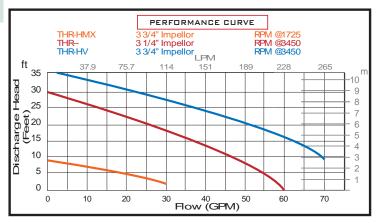
THR - Thresher Discharge Pumps are perfect for applications involving holding tanks, gray water tanks, or discharge from sewage treatment systems, the Thresher is designed to thrash through wastewater. The marine composite pump body and impeller slurries waste, passes large solids, and runs dry without damage. The 316 stainless steel shaft and mechanical seal provides years of dry, trouble free service.

THR-HMX – Thresher Pumps are used in all TidalWave HMX Sewage Treatment Systems to provide continuous sewage circulation and maceration.

PART#	DESCRIPTION	VOLTAGE	AMPS	RPM	Impellor
THRESHER VORTEX SEWAGE	DISCHARGE PUMPS				
THR-1P60	3/4 HP PUMP	115/230 VAC 1ph 60hz	10/5.2-5	3450	3 1/4"
THR-1P50	3/4 HP PUMP	220VAC 1ph 50hz	5.6	2850	3 1/4"
THR-3P50	3/4 HP PUMP	220/380VAC 3ph 50hz	3/1.75	2850	3 1/4"
THR-3P60	3/4 HP PUMP	230/460VAC 3ph 60hz	2.5-2.4/1.2	3450	3 1/4"
THR-12	3/4 HP PUMP	12VDC -Special Order	58	3000	3 1/4"
THR-24	3/4 HP PUMP	24VDC -Special Order	30	3000	3 1/4"
THR-CIRC-1P60	1 HP PUMP	115/230 VAC 1ph 60hz	12/6.2-6	3450	3 1/4"
THRESHER HMX VORTEX SEW	/AGE PUMPS				
THR-HMX-1P60	1 HP PUMP	115/230 VAC 1PH 60hz	12.8/6.4	1725	3 3/4"
THR-HMX-1P50-3.25	1 HP PUMP	220VAC 1ph 50hz	13.2/6.6	2850	3 1/4"
THR-HMX-3P50-3.25	1 HP PUMP	220/380VAC 3ph 50hz	4.2/2.4	2850	3 1/4"
THR-HMX-3P50-3.25-IP56*	3/4 HP PUMP	190/380VAC 3ph 50hz	2.4/1.2	2850	3 1/4"
THR-HMX-3P60	1 HP PUMP	208-230/460VAC 3ph 60hz	3.8-3.6/1.9	1725	3 3/4"
THR-HMX-HV-3P60	3 HP PUMP	208-230/460VAC 3ph 60hz	8.1-7.6/3.8	3450	3 3/4"
HIGH VOLUME THRESHER VO	ORTEX SEWAGE PUMPS				
THR-HV-1P60	2 HP PUMP	115/230 VAC 1PH 60hz	20/11.4-10	3450	3 3/4"
THR-HV-3P60	2 HP PUMP	230/460VAC 3ph 60hz	5.7-5.4/2.7	3450	3 3/4"
THR-3P50-3.75-IP56-SS*	1 1/2 HP PUMP	190/380VAC 3ph 50hz	5.8/2.9	2900	3 3/4"
HV STAINLESS STEEL IMPELLO	OR THRESHER VORTEX SEWA	AGE PUMPS* 41	L/4" SS Impe	llor	
THR-114615-4.25	3 HP PUMP	230/460VAC 3ph 60hz	8.4-7.6/3.8	3450	4 1/4" SS
CIRC = Circulation	HV = High Volume	Note: H	V motor len	ths may	y vary







# WASTE WATER SYSTEMS

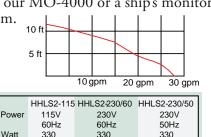
### LIFT STATIONS

Lift stations available in custom sizes, are constructed of steel or 5083 aluminum. All types of options available, from submersible pumps that are platform-mounted and attached to the lid for easy removal to skid mounted corrosion proof poly tanks, and explosion proof pumps. All have a ceramic coating inside and out for long life. Programmable control box permits monitoring of fluid level.

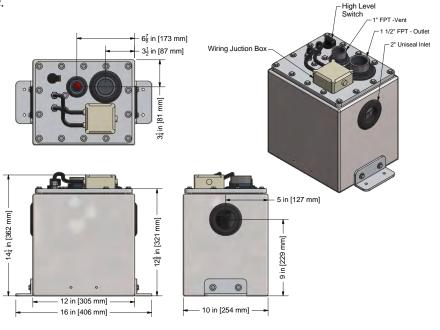
Call Headhunter for your particular application.

### HHLS2

Automatic sewage transfer system comprising small polyethylene tank; composite sewage pump; vertical sump switch to automate the operation; gasketed P.V.C access hatch with SS fasteners. System also includes a secondary, pneumatically operated high level switch with normally open and normally closed connections to interface with our MO-4000 or a ship's monitoring system.



1.4



### **OZONE GENERATOR**

2.8

amp

Our ozone generators create powerful and reactive oxidizers on-site, neutralizing odors and killing bacteria and mold. The ozone oxidizes organics and suspended solids, causing easier solids separation, and clearer effluent.

The OZ-1 and OZ-2 help to efficiently manage shipboard wastewater systems by diffusing the O3 in liquid and releasing the residual through the tank's vent system. The Ozone does two things when diffused in shipboard wastewater systems. It causes solids to separate from the liquid and reduces foul odors that may be generated in these tanks. When ozone is used in conjunction with chlorine in the chlorine contact chamber of the sewage treatment system, it helps oxidize the Total Suspended Solids (TSS) portion of the waste effluent, which results precipitation (separation of those solids from the water) and a reduction of combined chlorines. The result is a clearer effluent. The ozone that is released at the surface in the contact chamber is passed through the vent system connected to the treatment system helping to eliminate any unpleasant odor that could develop in the vent piping due to the moist warm conditions that exist in these pipes.





OZ-1 Provides an air Flow of 8 ft /hr with a Max Production of 8 Grams O3 daily. 15-1/2" (394mm) L x 9-1/8" (232mm)W x 3-5/8" (92mm) H

OZ-1(115) OZ-1(230) OZ-1(230/50) OZ-1DIFF 115 VOLT, 60HZ Ozone Generator Kit 230 VOLT, 60HZ Ozone Generator Kit 230 VOLT, 50HZ Ozone Generator Kit Diffuser Stone for In-tank Installation



OZ-2 Provides an air flow of 20 ft /hr with a Max Production of 24 Grams O3 daily. 20-1/16" (511mm) L x 8-1/2" (216mm)W x 9-1/4" (235mm) H

OZ-2(115) OZ-2 OZ-2DIFF 115 VOLT, 60HZ Ozone Generator Kit Universal Voltage range 210 to 280 VAC @ 50/60 Hz Ozone Generator Kit Diffuser Stone for In-tank Installation



# WASTE WATER ACCESSORIES



### THREE WAY VALVE

This heavy duty valve is constructed of schedule 80 CPVC. It accepts 1-1/2" or 2" PVC pipe, or 1-7/8", and 1-1/2" hose (fittings included). Valve is full flow with no restrictive bends or constrictions. Handle may be locked or removed to meet U.S Coast Guard requirements for securing the system. Includes removable mounting feet shown. 6-1/2" (165mm) L x 7-1/8" (181mm)W x 6-1/2" (165mm) H

TW-1515 Headhunter Universal Three Way Valve w/Mounting Hardware



### SWING CHECK VALVES

Headhunter clear PVC swing check valves are handy installation accessories for piping They are perfect for improving efficiency in sewage diaphragm pumps and preventing back flow. The transparency of the material also helps in troubleshooting and visual inspection. Installation is a breeze with standard PVC cleaner and glue.

SCV-1000C 1" Clear Swing Check Valve SCV-1250C 1-1/4" Clear Swing Check Valve SCV-1500C 1-1/2" Clear Swing Check Valve SCV-2000C 2" Clear Swing Check Valve



### POLYETHYLENE TANKS

Headhunter has over one hundred polyethylene holding tanks, water tanks, and chemical storage tanks from 3 to 175 gallons available for rapid delivery. All fittings are installed per your specifications. We also carry a large selection of non-rectangular tanks. Sizes up to 12,000 gallons available by special order.

Call Headhunter to request our polyethylene tank catalog or visit our website for an quick and easy download.



### 2" BASKET STRAINER

Headhunter offers a 2in basket strainer to prevent inorganic trash from entering the treatment system. The clear body and easy to use top makes trash removal quick and efficient.

- CLEAR EASTAR (PETG) CONSTRUCTION 2" SOCKET AND FPT HUBS PROVIDED
- PVC CONECTIONS AND HUBS
- STAINLESS STEEL BASKET WITH 3/8" **PERFORATIONS**

TW-HMX-BS 2" Clear Basket Strainer 13-1/2" (343mm)D (Largest Diameter) x 15-1/2" (394mm) H



### THE GREASE GROUPER

the ultimate grease extractor

The galley of today's luxury and commercial vessel creates just as much kitchen waste as a busy restaurant. The overboard discharge of food and grease is regulated and described by the IMO in Annex V of Marpol, and by the USCG in 33 CFR 151 regulations. The discharge of food and grease into a ships tank may clog the ship's piping and the accumulated material in a ship's tank will cause significant odor problems. The Grease Grouper eliminates this headache by recovering all food scraps and nearly 100% of the grease, oils, and fats from the galley wastewater. It prevents costly drain clogging, and protects on board sewage treatment systems and holding tanks. . The Grease Grouper ensures compliance by trapping food wastes & grease before discharge; it also keeps food wastes out of your tanks for effective odor control. Compact and easy to install. The Grease Grouper is the perfect solution. It's operation is programmable and available in 115 VAC, 230 VAC/50 Hz, and 230VAC/60 Hz.

- Rugged 304 SS construction
- •Reliable programmable operation
- •Reduces onboard maintenance of grey water collection systems

Model	GPM (lps)	Inlet/Outlet
GG20	20 (1.26)	2" (50mm)
GG25	25 (1.58)	2" (50mm)
GG35	35 (1.89)	2" (50mm)



# marine hypochlorinator

- Self cleaning
- Safe to operate
- Low maintenance
- No extra chemicals or metering pumps required.
- Coated Titanium electrodes ensure maximum productivity

The AUTO CLOR is a rugged electrolytic chlorine generator system, specifically engineered for marine and offshore applications. Pulsed water flow yields controlled concentrations of chlorine-equivalent sodium hypochlorite produced through the decomposition of salt water in the electrolytic cell. The AUTO CLOR is primarily used to generate disinfectant for MSDs, and STPs. The proprietary design of the AUTO CLOR III and IV features microprocessor controlled operation of the key components with polarity reversing power supply in a compact package.

# Auto Clor III

Dry weight: 22 lbs. Operation Weight: 26 Lbs.

1 Amp @ 120VAC 50/60hz Input Power: 0.5Amp @ 208-240VAC 50/60hz

0.5 lbs. per day maximum Chlorine Production: Minimum Salinity: 3 ppt 50 F (10 C) Minimum Temperature:

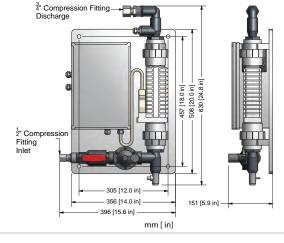
# Auto Clor IV

Dry weight: 24 lbs. Operation Weight: 28 Lbs.

Input Power: 3 Amp @ 120VAC 50/60hz 1.5Amp @ 208-240VAC 50/60hz

Chlorine Production: 3 lbs. per day maximum Minimum Salinity:

Minimum Temperature: 50 F (10 C)







Cleaning toilets is a Breeze with this new biologically active formula. Breeze contains special enzymes and microorganisms in a super effective mixture engineered to give toilets, sinks, and showers a fresh gleam, clean smell and brilliant shine. Put Breeze's unique mix of waste-degrading bacteria and cleaning agents to work on all your bathroom surfaces and improve the performance of your biological sewage treatment at the same time. Available in one quart bottle, twelve bottles per case.





### WAKE UP THE POWER OF NATURE!

Reveille contains over 3/4 million microorganisms per ounce. Scientifically designed to digest wastes, clear drains, and eliminate offensive odors. Optimizing the performance of your sanitary system has never been easier. Simply pour Reveille into drains, shower sumps, toilets, and holding tanks. No mess, no fuss. Available in 22 ounce bottle, twelve bottles per case.





Finally, a wastewater disinfectant that is safe and easy to prepare. Disinfection is a necessary step in all wastewater

treatment systems. When dropped in a tank of water, this tablet fizzes to dissolve and mix itself, thus creating a safe, non-caustic, and non-irritating disinfectant solution. This solution is injected into the final stage of our Marine Sanitation Device. These tablets are compact, release no odor while in storage and are safe for air transport. This sanitizer is the product of choice for killing those nasty fecal coliform and other pathogenic bacteria, viruses, and offensive odors. One jug with 100 tablets will last for over one year when used with our 50 gal/day sewage treatment system.

Effersan 100 100 Tablet Container





# Put a predator in your tank

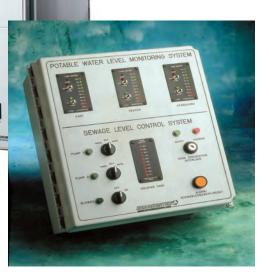
An all-natural specialized blend of bacterial cultures and nutrients specifically selected for their ability to degrade typical marine and institutional sewage. This synergistic mix of facultative bacteria (both aerobic & anaerobic bacteria) generates a variety of enzymes to help break down starch, fat, oil, grease, protein, and cellulose found in the waste stream. Reduce odors and solids, and improving biological activity in your sewage treatment system the natural way. For peak treatment system performance flush four one ounce bags / 50 gallons of treatment capacity at startup, and add one additional pouch every two weeks. Available in a 20-count plastic container.

Piranha 20 20 pack bottle

# CUSTOM CONTROL PANELS

Headhunter's Industrial Control Panel Department builds custom control panel designs. Many OEM's take advantage of our capabilities to simplify their installations by combining our Tank Sentry fluid level controls with PLC's, motor controllers, and motor starters, in various enclosures. All industrial control panels include detailed AutoCAD documentation of wiring and control logic. Panels can be listed in compliance with UL 508A: Standard for Industrial Control Panels, NFPA 70: National Electric Code, NFPA 496: Standard for Purged and Pressurized Enclosures for Electrical Equipment, CSA C22.2 No 14-95: Industrial Control Equipment as an open or enclosed industrial control panel.





•PLC logic controller integration

TREATMENT SYSTEM CONTROL PANEL

- •Built in motor controllers and motor starters
- •Custom engraving and panel colors
- •True plug and play integration



Custom combined Tidal Wave/Gray Water System



Typical interior layout of a custom Headhunter control panel showing shipboard safe nonexposed connection and tidy integration of all electrical components.



Headhunter's experienced state of the Art control panel department thoroughly test and document every control panel prior to delivery.



Our programmable fluid level monitors provide reliable and accurate Tank level indication. There are no moving parts to foul, or electrical components inside the tank. Unaffected by floating solids or stray current, Tank Sentry is the ideal solution for the toughest of fluid level monitoring assignments. All Tank Sentrys operate on 12 to 32 volt DC power. With a few simple adjustments they are capable of monitoring tanks from 6 inches to 6 feet deep, right out of the box. All models have 10% incremental LED displays.

All units include a monitor panel, 30 feet per tank of shielded 18/3 wire, 1 SYM-2Q sensor module per tank, 10 feet of urethane tubing per tank, 1 TPA-1250 1-1/4" tank penetration assembly per tank, and 3 heat shrink wire connectors. Installation accessories such as extra wire, mounting flanges, and pump relays are sold separately.

# •No electrical or moving parts in contact with fluid

•Simple calibration for tanks from 6"(152mm) - 108"(2.7m)

•Programmable alarms with mute switch

•Programmable pump controls

•Constant precise tank status information

•Models for sewage, water, diesel, and other fluids

•Easily combined with onboard computer systems

## **SPECIFICATIONS**

Input DC Voltage Signal Current

Tank Fitting Required

Remote Alarm Pump Control Approvals 10V - 60V 0.95-6.80 VDC 500mA Per Tank

1-1/4" FPT Or SAE-Flange Switch Capabilities

3 Amps DC,  $R_{on}$ <300 $\Omega$ ,  $t_s$ >250ms 3 Amps DC,  $R_{on}$ <300 $\Omega$ ,  $t_s$ >250ms UL Listed





### WTS-1500B

Ideal for holding and grey water tanks. Set the level to initiate and terminate the pumpout with simple to operate slide switches. Pump controller operates D.C. relays for switching AC or DC pumps (order relays separately). Also features high level audible and visible alarm.

Panel dimensions 6-1/8"(156mm) x 4-5/8"(118mm)

### TS-1501B

This model engages relay at low level, and disengages at high level to provide a programmable "pump up" control, and low level alarms. Used to fill day tank from main tank

Panel dimensions 6-1/8"(156mm) x 4-5/8"(118mm)

### TS-2000B

Features both high and low level audible and visual alarms with remote alarm capability. Ideal for diesel tanks where fill without spill is desired.

Panel dimensions

6-1/8"(156mm) x 4-5/8"(118mm)



Slide switches make programming alarm and pump controls a breeze.

Model	High Level	Level	Low Level	Pump	Remote Alarm
Model	Alarm	Indication	Alarm	Control	Capability
WTS-1500B	<b>✓</b>	<b>\</b>		<b>/</b>	<b>~</b>
TS-1501B		<b>~</b>	<b>✓</b>	<b>/</b>	<b>~</b>
TS-2000B	<b>~</b>	<b>~</b>	<b>✓</b>		<b>✓</b>
WTS 1100B	<b>~</b>	<b>/</b>			<b>✓</b>
TS-2500B		<b>✓</b>	<b>✓</b>		<b>✓</b>
TS-3000 Series (3001B-3005B)		<b>✓</b>			





# WTS-1100B

Designed for precise monitoring of tanks where high level visual and audible alarms are required. Ideal for holding tanks. Features dry closure for remote alarm or "do not flush" lights.

Panel dimensions 2-3/8" x 3-7/8" 60mm x 98mm



### TS-2500B

Designed for precise monitoring of tanks where low level visible and audible alarms are required. Ideal for diesel or water tanks. Features dry closure for remote alarm or dry tank shutdown of freshwater pump.

Panel dimensions 2-3/8" x 3-7/8" 60mm x 98mm

# MULTI-TANK MONITORING TANK SENTRY 3000 SERIES

Developed to monitor multiple tanks on a single compact panel, the 3000 series provides tank level indication for up to five tanks. These tanks can contain different fluids. Use the 3000 series in conjunction with other Tank Sentrys as repeaters that provide tank information in different locations. The last number of the part number designates the number of tanks on the system.











- •Delivers visual information at a glance
- •Continuous, simultaneous display of up to 5 tanks
- Compact display
- •Can be combined with other Tank Sentrys to provide dual monitoring stations

Complete*	Panel only**	Panel Size (in)	Panel Size (mm)
TS-3001B	MO-3001	2-1/8 x 4-1/8	54 x 105
TS-3002B	MO-3002	2-1/8 x 4-1/8	54 x 105
TS-3003B	MO-3003	2-7/8 x 4-1/8	73 x 105
TS-3004B	MO-3004	3-1/2 x 4-1/8	89 x 105
TS-3005B	MO-3005	4-3/16 x 4-1/8	106 x 105
TS-3006B	MO-3006	4-1/8 x 4-1/8	106 x 105

\*Complete kit includes 1 monitoring panel, 30 feet per tank of shielded 18/3 wire, 1 SYM sensor module per tank, 10 feet of urethane tubing per tank, 1 TPA-1250 1-1/4" MPT tank penetration assembly per tank and 3 heat shrink wire connectors. \*\*MO-300x is a monitoring panel only. Combine this with another Tank Sentry to provide multiple monitoring stations.



# Quality Manufacturing

Headhunters own skilled technicians test each Tank Sentry system as many as seven different times during their assembly including a 6 hour "burn in" and an 8 hour computer monitored cycle test. All Headhunter electronic products are then protected from the harsh marine environment by our unique UL listed epoxy encapsulation process.



### TOUCH SCREEN PLC MONITORING AND CONTROL

The TS Touch Screen Tank Sentry PLC is our most advanced and accurate fluid level monitoring system available. The PLC based system sports a stylish touch screen interface that is packed with smart features such as digital network communication, calibration memory back up, tank labeling, true volumetric fluid level and colored bar graph indication, programmable alarms, and pump / equipment control. Standard MODBUS interface over Ethernet connection makes integration with third party computer monitoring systems simple and painless.





5 in Screen

Optional 10 in Screen

- Touch Screen Interface
- Complete system control at your fingertips
- Digital output of tank and pump status
- Multiple tank monitoring and arrangements
- Multiple pump and equipment control
- Easily customized
- Land Ethernet connection
- Non-linear tank calibration
- Non-glare Screens



# FLUID LEVEL SENSOR

The Headhunter SYM-U s are tank level sensors that measure the hydrostatic head pressure of a column of fluid in a tank vented to atmosphere and convert the pressure into an analog signal voltage output. The SYM-U 's are designed to be used with Headhunter Tank Sentry Panel models WTS-1500B, TS-1501B, TS-2500B, WTS-1100B, TS-2000B, and the TS-3000 Series (1-6) as well as PLC and computer monitoring systems.

\* SYM-U is a direct replacment for all previous SYM models

# SYM·U





4 9/16" (115 mm)

RESET SWITCH
LED

1 7/8" (48 mm)

FULL SET
EMPTY SET

### Specifications:

Input voltage: 10-36VDC Max Current: 600 mA

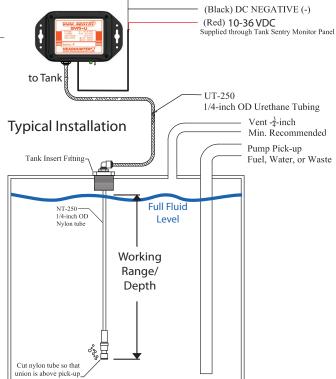
Max Temp: F= 160 deg (C= 71 deg) Enclosure Rating: NEMA 4X and IP66

SYM-U

P range: 5 - 132 inches of H20 V out: .3 to 4.7 VDC Burst Pressure: 100 PSI

The Headhunter SYM-U is a tank level sensor that determines the fluid level by measuring the hydrostatic pressure of a column of fluid in a tank vented to atmosphere and converting the pressure into an analog signal voltage output.. The SYM-U is designed to be used with Headhunter Tank Sentry Panel models WTS-1500B, TS-1501B, TS-2500B, WTS-1100B, TS-2000B, and the TS-3000 Series (1-6) as well as PLC, computer monitoring systems and the next generation Tank Sentry.

(White) .3 to 4.7 VDC



Add suffix from the table right to the end of SYM-U Kit model number to specify Tank Penetration Assembly desired.

Construction	SAE Flange	1-1/4" MPT
Stainless Steel	FLGS	SST
Bronze	FLGB	BRS
Aluminum	FLGA	N/A
PVC	N/A	Standard



 Provides reliable high level indication •Ideal for holding tanks Can be used as secondary remote alarm •Simple to install •Operates on 12V, 24V, or 32V DC •No moving parts •UL listed for water-based fluids Ignition protected

# TS-4000 TANK SENTRY ALARM SYSTEMS

The TS-4000 is as simple as it gets for reliable single-point level indication, and as with all of our Tank Sentry series, no mechanical or electrical components contact the fluid being monitored. When liquid rises above a preset level in the tank being monitored, an innovative, pressure-activated switch signals both a visual alarm (a brilliant red blinking LED), and a piercing high-decibel audible alarm.

The TS-4000 also features a unique On-Off-Mute toggle switch with a built-in bi-color LED indicator. When the switch is in its central, "off" position, the LED is unlit. When the system is switched "on", the LED is green, and when the system is on but the audible alarm is muted ("mute"), the LED is yellow.

# REMOTE ALARM OPTIONS

The monitor panel (MO-4000) can be purchased separately and used as a remote alarm for high or low level indication, in conjunction with one of our existing line of Tank Sentry products. For example, Tank Sentry model WTS-1100B could be used to monitor a holding tank, and the MO-4000 (B or W) could be installed in a location where continuous monitoring of the holding tank is not required, but high level notification is desired.

# SPECIFICATIONS

Dimensions Voltage Amps Temperature Range TPA-4125 Switch Contacts TPA-4125 Material

Panel Material Polyurethane

Deadband Range

3"(76mm) H x 2"(51mm) W x 1.35"(35mm) D Operates on 12V, 24V, or 32V DC

.780 Amps Max @12V DC 40° F-150° F (4° C-66° C)

Features NO and NC, .125A@125V AC SCH. 80 PVC, Polyurethane, Polysulfone

Anodized/Powder Coated Aluminum,

2" (51mm) Water

# Each complete TS-4000 system consists of:

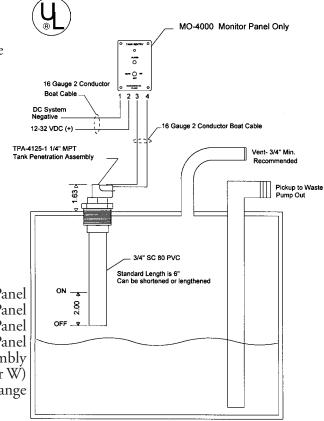
1x MO-4000 (B or W)

1x TPA-4125

4x Stainless Steel Black Oxide Mounting Screws 2x 16-Gauge Female Quick-Connect Wire Connectors

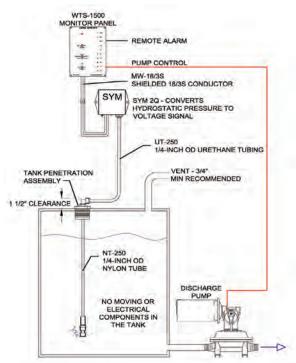
30ft Of 16-Gauge, Two-Conductor Marine Cable

TS-4000B Complete High-Level Alarm System w/Black Panel TS-4000W Complete High-Level Alarm System w/White Panel MO-4000B Remote Alarm Panel Only w/Black Panel MO-4000W Remote Alarm Panel Only w/White Panel TPA-4125 1-1/4" MPT Tank Penetration Assembly TS-ENC2X3 Enclosure Box For Bulkhead Mount Of MO-4000 (B or W) 1-1/4" PVC Tank Flange FLG-1250

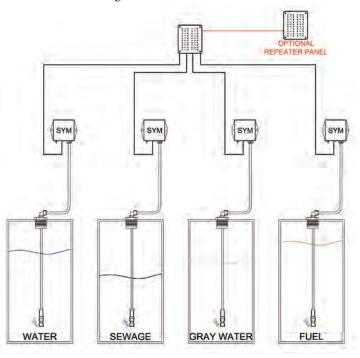


# TANK SENTRY INSTALLATION DIAGRAMS

**Figure 1** illustrates a typical installation of a single Tank Sentry such as WTS 1500B with optional remote alarm and pump control.



**Figure 2** illustrates a typical installation of a TS-3004. This might include two fuel tanks, one water tank and one holding tank.



commercial

# TANK PENETRATION

assemblies

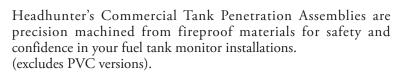


1-1/4" MPT plug mounts available in PVC, 316 stainless steel, and bronze.



SAE flange mounts are available in aluminum, 316 stainless steel, and brass for all models except 4000 Series.

Fireproof Swagelock® tubing is standard with all commercial Tank Penetration Assemblies. End connectors are brass or 316 stainless steel, depending on the tank penetration fitting selected.



Each unit uses fireproof hose and heavy-duty bronze or stainless steel fittings from Swagelock®, and each has passed Underwriters Laboratories test for flame resistance in non-integral marine fuel tanks.

Add suffix from the table below to the end of Tank Sentry model number to specify Tank Penetration Assembly desired.

Construction	SAE Flange	1-1/4" MPT
Stainless Steel	FLGS	SST
Bronze	FLGB	BRS
Aluminum	FLGA	N/A
PVC	N/A	Standard



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# NOTES





Before, during, and after the sale, customers are continuously reassured by the product knowledge of our international sales team.



Headhunter personnel work on-site with leading O.E.M. builders reviewing installation details and exchanging new ideas.

# Headhunter offers a range of Sewage Treatment Systems check out our brochure for more info





# **HEADHUNTER INC. QUALITY POLICY**

The team at Headhunter is dedicated to providing creative high quality products, solutions and service to our customers. We strive to exceed customer expectations and continuously work to improve our quality management system.

nga. ISO 9001

ISO 9001 Certified

I would like to take this opportunity to express my extreme satisfaction in the workmanship of your technicians, Gary and Craig, during the installation of our treatment system on our Feadship. I will recommend their services to other Captains and Engineers I am associated with.

Steve Bertrand Chief Engineer Emerald K

I just want to let you know that with each boat M&A has written the specification for, we specified as much of your equipment as possible. Our Trawler built at Newcastle marine has your equipment on board. Your toilet system and MSD unit are far superior to vacuum systems used by others, and much less complicated to engineer, and install and maintain. Not to mention your staff is always very helpful and has CAD files available when we need them.

Drew B. Hains Naval Architect/Marine Engineer Murray and Associates, Inc. Fort Lauderdale, Florida

All 10 of our Royal Flush units are still working fine after a year and a half with very few problems. I want to commend your company for supplying such a well designed piece of equipment.

Lon Munsey M/Y Askari St. John, US Virgin Is. 00830

I wish to thank you guys for being such an exceptional, highly motivated, and responsive organization.

Donald McCann University of Delaware

We will highly recommend your product and look forward to installing this system on all our other vessels.

Wayne R. Hasson Aggressors International Cayman Islands