



N NAUTICAL
SUPPLIES

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Servicing the Maritime Industry since 1978 | Nautical Supplies are a member of the AMI Group of Companies

TO OUR CUSTOMERS, TRADING PARTNERS AND FRIENDS:

Tucked under “Raritan” in our logo, we share the overall driving strategy we follow as a company; “The Most Dependable Name on the Water”. Raritan has followed that objective for the over sixty years we have been in business. The effect of such a guideline is that Raritan Employees’ average length of service is twenty years of service to the company, and to our customers.

One emphasis is listening to praise, suggestions, complaints and problems. Customer feedback is saved in a database and reviewed on a regular basis to identify both challenges and successes. Where the source of the information is known, the source is sometimes contacted for further information. The end result of the effort is a better product for our customers, and an ongoing set of changes resulting in a continuous improvement process.

In addition to making and tracking changes, a number of products have information and repair video clips on YouTube. These clips provide help in product installation, product use and product repair. While customers can still call our customer service line, they can go straight to the YouTube video for help and information. The Customer Service Telephone Queue had an answer rate of 97% in the month of July 2021, so we really are willing and able to talk with customers and answer questions.

In spite of the Covid-19 pandemic, and disruptive supply chain issues, Raritan has continued to operate and serve customer needs; we appreciate your patience with us and with the circumstances.

Best wishes, for an improving business and recreational environment, and an enjoyable boating season.



Arthur J Bretnall Jr.
President

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PH SUPERFLUSH

Mounting base allows for easy retrofit of competitive models. Cleaner more sleek design allows for easier cleaning around the toilet. Configuration still allows for the addition of an electric gearbox for those wishing to upgrade to electric activation. This unit still boasts the most reliable and powerful manual toilet pump in the world. The name may have changed to PH Superflush but the pump portion is still the same PHIPUMP just mounted on a different base.

- Upgrading to PH SuperFlush is fast and easy! Mounting base configuration matches the bolt pattern used on most competitive toilets.
- Clear the bowl with less strokes! Our robust double-action piston pump is 66% larger than competitive models making its use quick, easy and efficient.
- Trouble free operation! Proprietary full size 1½" joker valve is specially designed to maintain pump performance.



Additional benefits include:

- Effortless Pumping! Powerful telescopic lever style handle makes pumping a breeze, even in the most challenging plumbing installations.
- Superior strength! Our engineered polymer pump construction is the strongest on the market.
- Slow close seats! Prevents annoying seat slamming and includes a unique feature that locks the seat in place while boat is rocking.

All units have a dry flush option and may be mounted above or below the waterline.

Reversible pump mounting available for left hand operation. Available in both Marine and Household bowl sizes.

Prefer to use your old bowl and seat?
Retrofits are available.

Most items are in stock and available to ship within 24 hours.

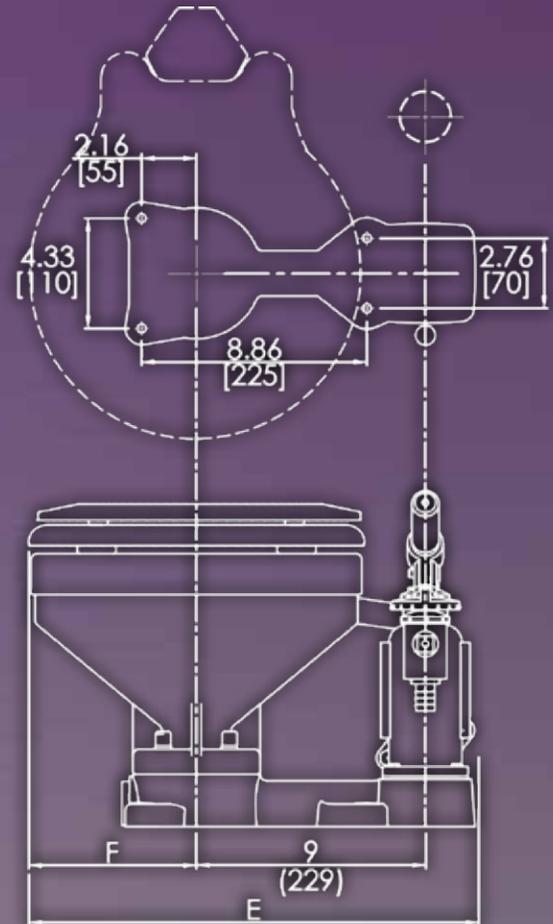
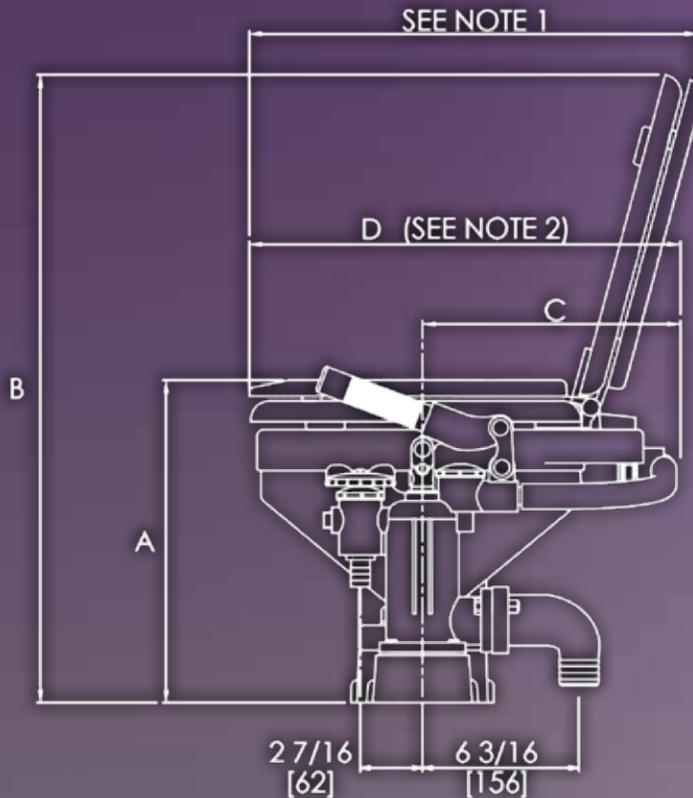
Slow close seat design



Seat locks in place while boat is rocking.

No more slamming seats!

DRAWINGS:



BOWL TYPE	A	B	C	D	E	F
MARINE	13 (330)	24 3/4 (629)	10 3/8 (264)	17 1/4 (438)	17 3/4 (451)	6 1/2 (165)
HOUSEHOLD	13 1/8 (334)	27 7/8 (708)	11 1/2 (292)	20 (508)	18 1/4 (464)	7 (179)

INCHES (MM)

NOTE:

1. THE SEAT WILL OPEN WITHIN THE DEPTH OF THE BOWL (D). HOWEVER, IT MAY BE DESIRABLE TO INCREASE THIS ANGLE BY ALLOWING MORE ROOM AT THE BACK OF THE BOWL FOR THE SEAT TO OPEN.
2. MARINE STYLE BOWL, D DIMENSION IS 17 3/8 [442MM] WITH HANDLE EXTENDED.
3. DIMENSIONS ARE FOR REFERENCE AS VITREOUS CHINA DIMENSIONS MAY VARY +/- 5%.

PLUMBING:

Maximum Lift	4' (1.2m)
Max Discharge Loop Height	15' (4.6m)
Inlet Port Size	3/4"
Discharge Port Size	1 1/2"

ORDERING INFO:

- P101 = Marine size bowl and slow close seat
P102 = Household size bowl and slow close seat
P103 = Lower base assembly, pump and base ONLY

FRESH HEAD

With a diaphragm type pump and telescopic handle, flushing is extremely easy. Owners choose how much water to use. A lever allows water into the bowl to pre wet it for a better flush. A built-in freshwater backflow prevention includes a vacuum break. A lock-out feature stops backflow coming in through the discharge when not in use.

TIRED OF ROTTEN EGG SMELL OR USING YOUR SHOWER HEAD TO FLUSH THE TOILET?

- *The first manual marine toilet to utilize pressurized fresh water – eliminates calcium deposits in discharge hose*
- *Footprint is a direct replacement for competitive models*
- *No Thru Hulls necessary when installed with a holding tank*
- *Low water use toilet*
- *Available as left hand side pump*
- *PHII toilets can be retrofitted by purchasing Conversion Kit #2500RFK*



Slow close seat design



Seat locks in place while boat is rocking.

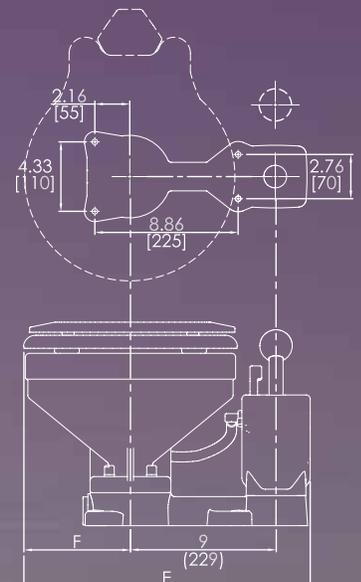
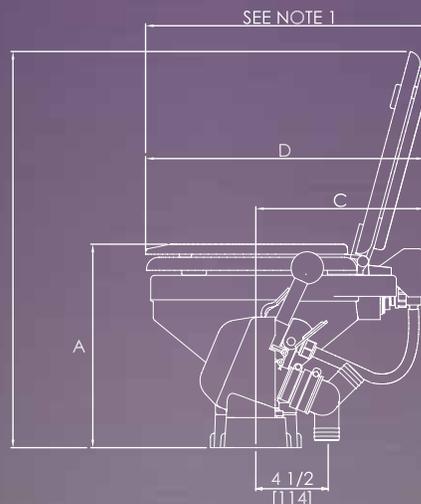
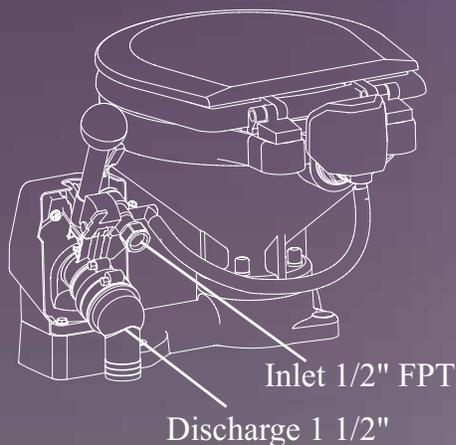
No more slamming seats!

PLUMBING :

Rinse water for Inlet : 1/2" FPT
 Maximum pressure 150 PSI (10 bar)
 Minimum pressure 5 PSI (0.33 bar)
 3GPM (11.3 L/min)
 Discharge: 1 1/2" Hose
 Maximum height 15 feet (4.5 meter)

Average Water consumption per use:
 1 pint (.47L) for liquid, 3/4 G (2.8L) for solid use
 Shipping weights:
 Model 25M00 - 22 Lbs (10 Kg)
 Model 25H00 - 26.5 Lbs (12 Kg)

DRAWINGS:



BOWL TYPE	A	B	C	D	E	F
MARINE	13 (330)	24 3/4 (629)	10 3/8 (264)	17 1/4 (438)	17 3/4 (451)	6 1/2 (165)
HOUSEHOLD	13 1/8 (334)	27 7/8 (708)	11 1/2 (292)	20 (508)	18 1/4 (464)	7 (179)

INCHES
(MM)

NOTE:

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2. DIMENSIONS ARE FOR REFERENCE AS VITREOUS CHINA. DIMENSIONS MAY VARY +/- 5%.

ORDERING:

25M00 - Fresh Head with Marine Size bowl
 25H00 - Fresh Head with Household Size bowl
 2500RFK - Fresh Head Conversion kit, Use existing bowl *Conversion includes base and pump*

PH POWERFLUSH

The only marine toilet that can switch between switch operation or manual pumping. If there is ever a concern you may not have enough power to flush electrically this is the toilet to get. The electric operation is not a macerator. The electric in this toilet simply does the pumping work for you. If you lose power it has the ability to allow the user to disconnect a bolt, slide the handle in and flush the toilet manually.

- PH PowerFlush electric model can be switched to manual superflush within minutes.
- Upgrading to PH SuperFlush and PowerFlush is fast and easy! Mounting base configuration matches the bolt pattern used on most competitive toilets.
- Clear the bowl with less strokes! Our robust double-action piston pump is 66% larger than competitive models making its use quick, easy and efficient.
- Trouble free operation! Proprietary full size 1½" joker valve is specially designed to maintain pump performance.
- Available for 12V or 24V DC operation.

Additional benefits include:

- Effortless Pumping! Powerful telescopic lever style handle makes pumping a breeze, even in the most challenging plumbing installations.
- Superior Strength! Our engineered polymer pump construction is the strongest on the market.
- Slow Close Seats! Prevents annoying seat slamming and includes a unique feature that locks the seat in place while boat is rocking.

All units have a dry flush option and may be mounted above or below the waterline. Reversible pump mounting available for left hand operation. Available in both Marine and Household bowl sizes.

Prefer to use your old bowl and seat? Retrofits are available - see next page for part number details.

Most items are in stock and available to ship within 24 hours.



PH POWERFLUSH



Slow Close Seat Design
No more slamming seats!

ELECTRICAL SPECIFICATIONS

Electrical

Nominal Voltage (Volts DC)	12V	24V
Amperage Draw @ Nominal Voltage	15	8
Circuit Breaker/Fuse Size (Amps)	20	15

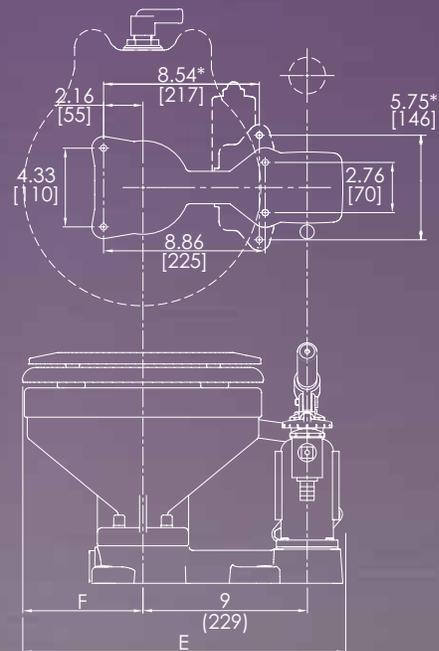
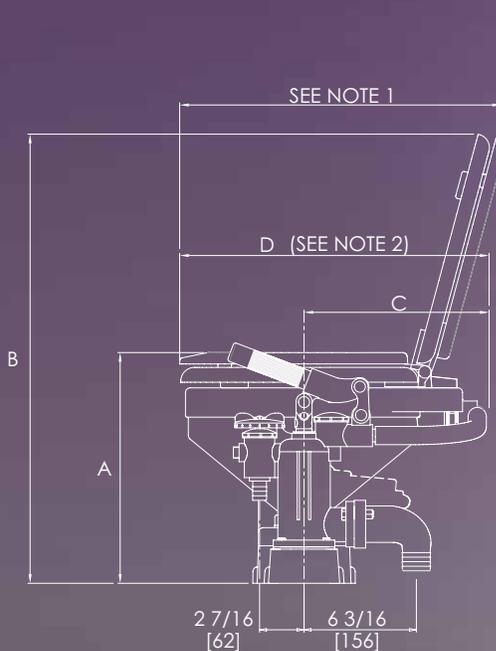
Wire Sizes

NOTE: Recommended conductor sizes based on 105C rated insulation.

Refer to ABYC Standards for other insulation ratings.

UNIT'S VOLTAGE	Distance from source to unit and back to source [feet (m)]						
	10' (3.1)	15' (4.6)	20' (6.1)	25' (7.2)	30' (9.2)	40' (12.2)	50' (15.2)
	Minimum recommended conductor wire AWG (mm²) for 3% voltage drop						
12	12 (6.0)	10 (6.0)	10 (10.0)	8 (16.0)	8 (16.0)	6 (16.0)	6 (25.0)
24	16 (1.5)	16 (2.5)	14 (4.0)	12 (4.0)	12 (6.0)	10 (6.0)	10 (10.0)

DRAWING:



BOWL TYPE	A	B	C	D	E	F
MARINE	13 (330)	24 3/4 (629)	10 3/8 (264)	17 1/4 (438)	17 3/4 (451)	6 1/2 (165)
HOUSEHOLD	13 1/8 (334)	27 7/8 (708)	11 1/2 (292)	20 (508)	18 1/4 (464)	7 (179)

INCHES
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2. MARINE STYLE BOWL, D DIMENSION IS 17 3/8 [442MM] WITH HANDLE EXTENDED.
3. DIMENSIONS ARE FOR REFERENCE AS VITREOUS CHINA DIMENSIONS MAY VARY +/- 5%.

*: ELECTRIC FLUSH OPTION

ORDERING INFORMATION:

- P101E12 - Marine size bowl 12V operation
- P102E12 - Household size bowl 12V operation
- P104E12 - Conversion to Electric for older style PHII
- P105E12 - Conversion to Electric for PH Superflush

NOTE: if 24V operation is needed simply substitute 24 for the 12 above.

MARINE **Elegance**™

Marine Elegance bowls are available in four models: standard angled, standard straight, tall angled and tall straight. Each model is available in Bone or White.

Smooth lines and a small footprint with the power of Vortex-Vac technology make this an ideal choice for most recreational boats on the market today.

The first toilet in its class to offer:

- *Quiet operation*
- *Unmatched rinsing capabilities*
- *Low water consumption*
- *Built in shredder reduces clogs*
- *Can pump 10 ft vertically, or 100 ft horizontally*

Our full size vitreous china bowl offers:

- *One piece construction*
- *Full size toilet seat*
- *Compact installation*
- *Unique mounting system, simple installation, easy cleaning*
- *Reduced weight while adding additional support where needed*

The Raritan Smart Toilet Control offers:

- *Fully programmable, easy to use control*
- *Attractive wall mount design*
- *Flush using no water, little water, or timed flush*
- *Optional lock out feature when tank is full*
- *Optional tank full sensor - see page 31*



Slow close seat design



Seat locks in place while boat is rocking.

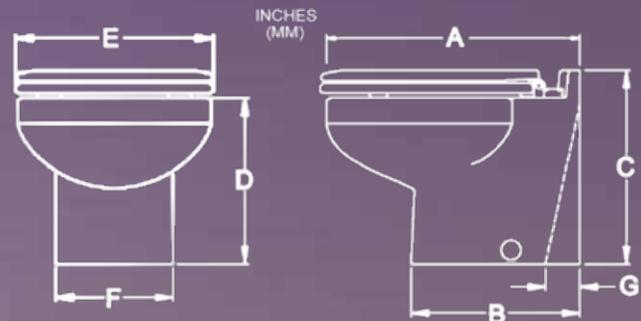
No more slamming seats!

PLUMBING:

	Pump Model	Pressurized Water Model
Maximum Lift (suction)	4' (122 cm)	
Max Discharge Loop Height	10' (3.0 m)	10' (3.0 m)
Minimum Pressure/Flow (inlet water)		3.5 gpm (13.2L) @ 10 psi (.69 bar)
Maximum Pressure (inlet water)		150 psi (10.3 bar)
Inlet Port Size	3/4"	1/2"
Discharge Port Size	1" or 1 1/2"	1" or 1 1/2"

DRAWINGS:

BOWL TYPE	A	B	C	D	E	F	G
ME ANGLED BACK	18 3/8 (467)	12 1/4 (311)	14 (355)	12 (305)	14 (355)	8 1/2 (216)	2 1/8 (54)
ME STRAIGHT BACK	18 3/8 (467)	12 1/4 (311)	14 (355)	12 (305)	14 (355)	8 1/2 (216)	NA
ME - TALL ANGLED BACK	18 3/8 (467)	12 1/4 (311)	17 (432)	15 (380)	14 (355)	8 1/2 (216)	2 1/8 (54)
ME - TALL STRAIGHT BACK	18 3/8 (467)	12 1/4 (311)	17 (432)	15 (380)	14 (355)	8 1/2 (216)	NA



ORDERING:

Sample Part Number #220HF012 = NOTE: Marine Elegance standard with angled back and pressurized fresh water in 12V with Smart Toilet Control For bidet option, contact Raritan.

Model	Bowl Height	Bowl Type	Color	Bowl Size	Water Source	Voltage	Control
2 - Elegance	2 - Standard	0 - Angled	White (STD)	H - Household	F - Pressurized Fresh Water	012 - 12V	Smart Switch (STD)
		1 - Straight	A - Bone		R - Remote Intake Pump	024 - 24V	01 - Multifunction
	3 - Tall				S - SeaFresh	012T - 120/240V	02 - Push Button

ELECTRICAL:

	Pump Model	Pressurized Water Model
Amps Draw (12V/24V)	28/15	18/10
Circuit Breaker Size Amps (12V/24V)	30/20	25/15



MARINE **Elegance**[™] COMFORT HEIGHT

Marine Elegance bowls are now available as the new Comfort Height Elongated Bowl in White. Smooth lines and a handle on the side helping guests feel more at ease when using a marine toilet. The power of Vortex-Vac technology make this an ideal choice for most recreational boats on the market today.

The first toilet in its class to offer:

- *Quiet operation*
- *Unmatched rinsing capabilities*
- *Low water consumption*
- *Built in shredder reduces clogs*
- *Can pump 10 ft vertically, or 100 ft horizontally*

Our full size vitreous china bowl offers:

- *One piece construction*
- *Full size toilet seat*
- *Compact installation*
- *Unique mounting system, simple installation, easy cleaning*
- *Reduced weight while adding additional support where needed*

The Raritan Smart Toilet Control offers:

- *Fully programmable, easy to use control*
- *Attractive wall mount design*
- *Flush using no water, little water, or timed flush*



Slow close seat design



Seat locks in place while boat is rocking.

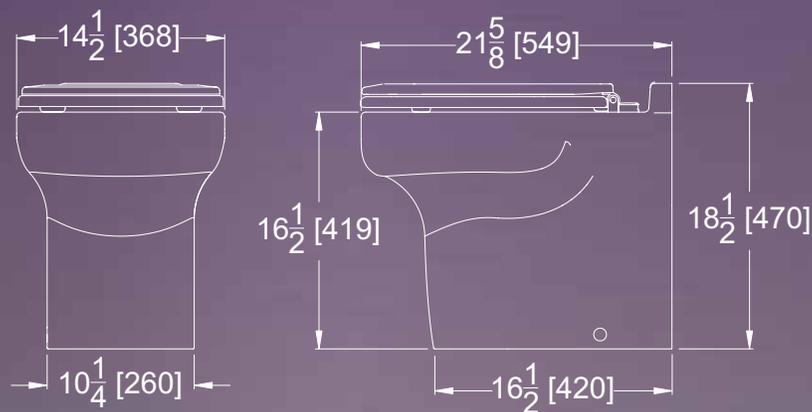
No more slamming seats!



PLUMBING:

	Pump Model	Pressurized Water Model
Maximum Lift (suction)	4' (122 cm)	
Max Discharge Loop Height	10' (3.0 m)	10' (3.0 m)
Minimum Pressure/Flow (inlet water)		3.5 gpm (13.2L) @ 10 psi (.69 bar)
Maximum Pressure (inlet water)		150 psi (10.3 bar)
Inlet Port Size	3/4"	1/2"
Discharge Port Size	1" or 1 1/2"	1" or 1 1/2"

DRAWINGS:



INCH
[MM]

ORDERING:

Sample Part Number #241EF012 NOTE: Marine Elegance Comfort Height in elongated bowl.

Model	Bowl Height	Bowl Type	Color	Bowl Size	Water Source	Voltage	Control
2 - Elegance	4 - Comfort Height	1 - Straight	White (STD)	E - Elongated	F - Solenoid on Board Fresh Water	012 - 12V	Smart Toilet Control
					R - Remote Pump to Bring in Water	024 - 24V	01 - Multifunction Flush Panel
					S - SeaFresh Combines Solenoid and Remote in 1 unit for Easy Switching During Use	012T - 120/240V	02 - Momentary Flush Switch
							03 - Timed Handle Operation
							06 - Bluetooth Wireless Remote

ELECTRICAL:

	Pump Model	Pressurized Water Model
Amps Draw (12V/24V)	28/15	18/10
Circuit Breaker Size Amps (12V/24V)	30/20	25/15

Atlantes FreedomTM with Vortex-Vac

Vortex-Vac technology creates vacuum internally so no remote vacuum pump required.

Excellent performance even in commercial applications. Powerful vacuum without remote pumps. Models with the handle on the side help to put guests at ease when using a marine toilet.

The Atlantes Freedom toilet features:

- *Powerful vacuum without remote pumps*
- *Less water consumption with new fully programmable control*
- *Solid one piece porcelain bowl in traditional and elongated*
- *Easily installs above or below waterline on any vessel*
- *Sturdy stainless steel handle*
- *Designed for commercial and recreational vessel applications*
- *Sea/Fresh model available, allows user to easily choose onboard or outside water*
- *01 Models have a four function wall mounted switch including water saver, dry flush and normal flush*
- *02 Models have momentary handle operation, no timer, offering flush and dry flush options*
- *03 Models have flush handle with timed operation*



Slow close seat design

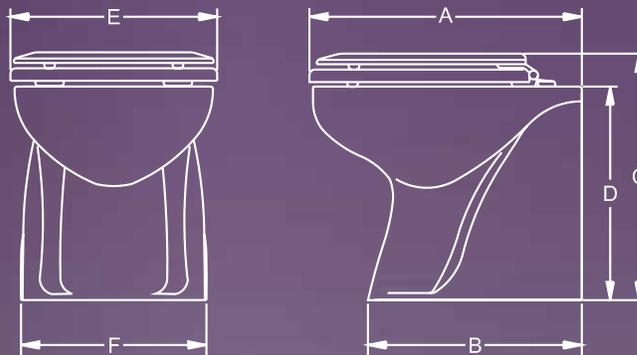


Seat locks in place while boat is rocking.

No more slamming seats!

DRAWINGS:

BOWL TYPE	inch (mm)					
	A	B	C	D	E	F
STANDARD	19 1/4 (489)	15 (381)	17 (432)	15 (381)	14 3/8 (365)	14 (355)
ELONGATED	21 1/2 (545)	18 1/4 (465)	17 (432)	15 (381)	14 1/8 (359)	14 (355)



PLUMBING:

	Pump Model	Pressurized Water Model
Maximum Lift (suction)	4' (122 cm)	
Max Discharge Loop Height	10' (3.0 m)	10' (3.0 m)
Minimum Pressure/Flow (inlet water)		3.5 gpm (13.2L) @ 10 psi (.69 bar)
Maximum Pressure (inlet water)		150 psi (10.3 bar)
Inlet Port Size	3/4"	1/2"
Discharge Port Size	1" or 1 1/2"	1" or 1 1/2"

ORDERING INFO:

Sample Part Number # AVHWF01201= Household, white, Freshwater, thru floor, 12V, Smart Toilet Control

Model	Bowl	Color	Flush Water	Voltage	Control
AV Atlantes Freedom with Vortex Vac	H - Household	W - White	F - Freshwater Solenoid	012 - 12 V DC	01 - Smart Toilet Control (STC)
	L - Elongated	A - Almond	R - Remote Intake Pump	024 - 24 V DC	02 - Handle - Momentary
			S - Sea/Fresh	012T - 120/240 AC	03 - Handle - Timed (STC)
					04 - MultiFunction Momentary
					05 - Flush Sense
					06 - Bluetooth Control

ELECTRICAL:

Units Voltage	Intake Pump Models Amp. Draw	Freshwater Solenoid Model Amp. Draw
12 VDC	20	11
24 VDC	10	5.5

SeaEra™ 160 Series Integral Intake

- *Dual shafted motor separates intake and discharge functions providing a clean, reliable flush*
- *Self priming raw water intake pump can run dry without damage. No rubber impeller to burn out.*
- *Bowl can be rotated 90 degrees making it ideal for areas with limited space*
- *Low water usage - as little as 1 quart per flush*
- *Stainless steel macerating blade*
- *Full size joker valve reduces clogs*
- *Heavy duty momentary push button switch included*
- *90 degree and straight discharge fitting included*
- *Available in marine and household bowl sizes*
- *Two year warranty*



Bowl turned 90 degrees

Slow close seat design



*Seat locks in place
while boat is rocking.*

No more slamming seats!

SeaEra™ Conversion Kit

- *An economical way to replace your electric or manual toilet*
- *Save the toilet bowl and seat - just replace the lower base*
- *Three basic models (all include heavy duty push button)*
- *Pressurized freshwater includes solenoid valve and vacuum breaker*
- *Intake pumps can be run dry without damage*



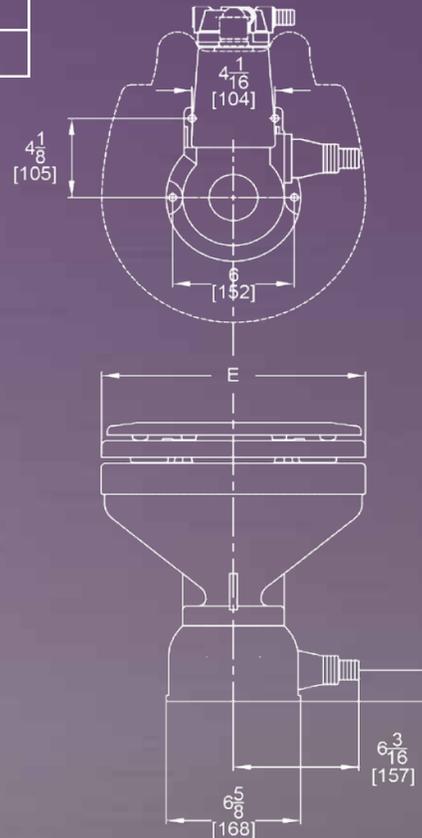
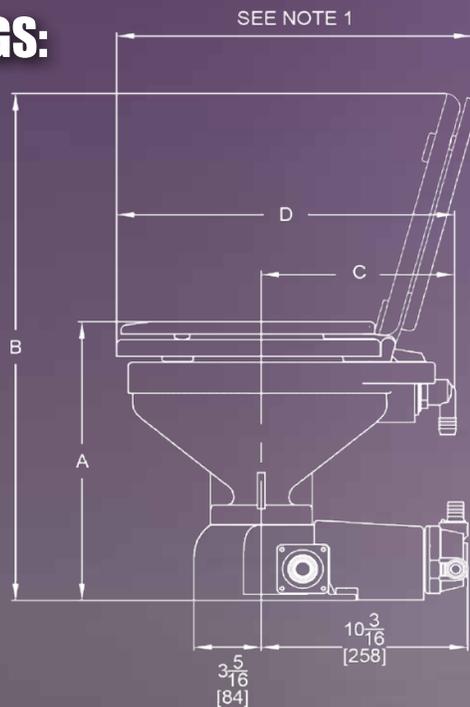
PLUMBING:

	Pump Model
Maximum Lift (suction)	4' (122 cm)
Max Discharge Loop Height	9' (274 cm) Vert./ 50' (15.2 m) Horiz.
Minimum Pressure/Flow (pressurized water)	
Inlet Port Size	3/4"
Discharge Port Size	1" or 1 1/2" Straight 1 1/2" 90°

ELECTRICAL:

Amps Draw (12/24V)	23/12.5
Circuit Breaker Size Amps (12/24/32 V)	25/15/15
Integral Model Amps (12/24/32 V)	18/10/7.5

DRAWINGS:



BOWL TYPE	A	B	C	D	E
MARINE	14 1/2 (368)	26 1/2 (673)	10 3/8 (264)	17 1/4 (438)	13 (330)
HOUSEHOLD	14 7/8 (378)	29 5/8 (752)	11 1/2 (292)	20 (508)	14 3/8 (365)

INCHES
(MM)

NOTE:
1. THE SEAT WILL OPEN WITHIN THE DEPTH OF THE BOWL (D), HOWEVER, IT MAY BE DESIRABLE TO INCREASE THIS ANGLE BY ALLOWING MORE ROOM AT THE BACK OF THE BOWL FOR THE SEAT TO OPEN.
2. DIMENSIONS ARE FOR REFERENCE AS VITREOUS CHINA DIMENSIONS MAY VARY +/- 5%.

ORDERING INFO:

Sample Part Number # 160MF012 = Marine size white bowl, pressurized fresh water, 12V, STC Control

Model	Bowl	Intake Water	Discharge Fitting	Voltage
160 Sea Era	L - Lower Base Conversion	I - Integral Intake Pump	0 - Straight and 90° both included	12 - 12 V DC
	M - Marine Bowl			24 - 24 V DC
	H - Household Bowl			12T - 120/240 AC

SEA ERA QC

162 Series Remote and Freshwater Models

The incredibly durable SeaEra has been reconfigured to allow for separate control of intake and discharge giving the user more flexibility. The SeaEra QC means you can choose from any of our Quality Controls for operation. The QC model is available in a remote pump configuration or a Fresh water configuration or for the ultimate in flexibility the QC is also available in the SeaFresh model.

Freshwater Solenoid Model (162MF* or 162HF*)

- *Less maintenance & odors than raw water models*
- *Connects to vessel's existing pressurized system*
- *Built in water valve and vacuum breaker allows for easy installation*

Fresh Water Model



Remote Seawater Pump Model (162MR* or 162HR*)

- *Self priming diaphragm pump can run dry without damage. No rubber impeller to burn out.*
- *Remote seawater pumps allow for easy access and a more flexible installation.*

Remote Raw Water Model



Remote Pump

Both Models:

- Designed for quiet operation
- Slow close seat eliminates annoying slamming
- Low water usage - as little as 2 pints per flush
- Bowl can be rotated 90 degrees making it ideal for areas with limited space
- Stainless steel macerator blade
- Full size joker valve reduces clogs
- 90 degree and straight discharge fitting included
- Available in marine and household bowl sizes
- Available with Smart Toilet Control - Maximizes flush efficiency with low water consumption and noise levels
- Easily adapts to our SeaFresh model allowing the user to select between raw or freshwater
- Two year warranty

Slow close seat design



Seat locks in place while boat is rocking.

No more slamming seats!

ELECTRICAL:

Amps Draw (12/24V)	23/12.5	13/7.5
Circuit Breaker Size Amps (12/24V)	25/15	25/15

PLUMBING :

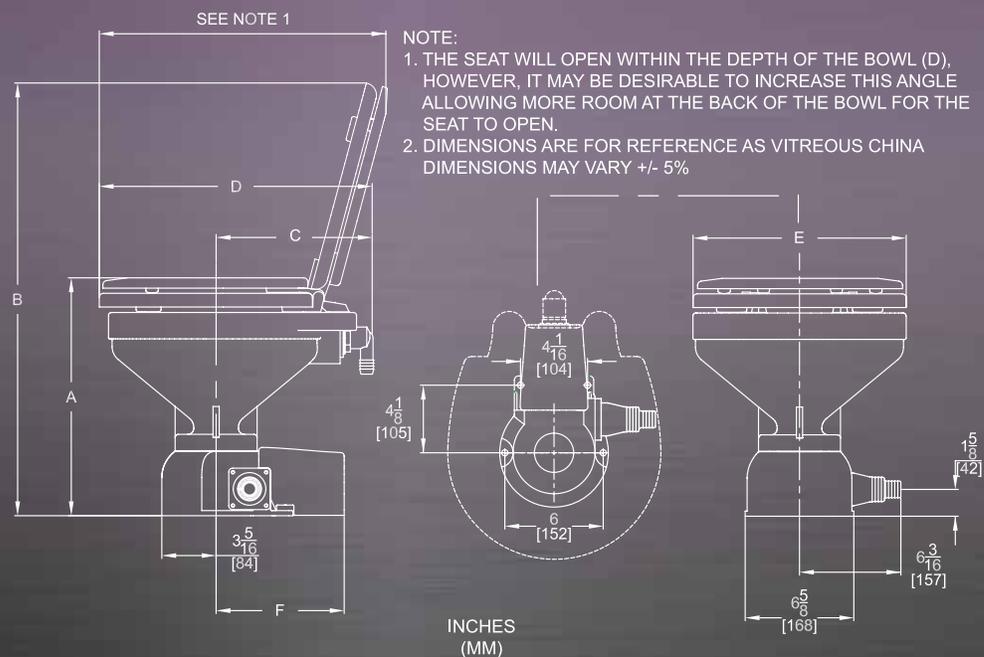
	Pump Model	Pressurized Water Model
Maximum Lift (suction)	4' (122 cm)	
Max Discharge Loop Height	9' (274 cm) Vertical / 50' (15.2 m) Horizontal	9' (274 cm) Vertical/ 50' (15.2 m) Horizontal
Minimum Pressure/Flow (pressurized water)		3.5 gpm @ 10 psi
Inlet Port Size	3/4"	1/2"
Discharge Port Size	1" or 1 1/2" Straight 1 1/2" 90°	1" or 1 1/2" Straight 1 1/2" 90 Degree

ORDERING INFO:

Sample Part Number # 162MF012 = Marine size white bowl, pressurized fresh water, 12V, STC Control

Model	Bowl	Intake Water	Discharge Fitting	Voltage	Control
162 Sea Era	L - Lower Base Conversion	F - Pressurized Fresh Water	0 - Straight and 90° both included	12 - 12 V DC	None - Smart Toilet Control (STC)
	M - Marine Bowl	R - Remote Raw Water Pump		24 - 24 V DC	01 - Multifunction Momentary Control
	H - Household Bowl	S - Sea Fresh		12T - 120/240 AC	02 - Push Button Control

DRAWINGS:



BOWL TYPE	A	B	C	D	E
MARINE	14 1/2 (368)	26 1/2 (673)	10 3/8 (264)	17 1/4 (438)	13 (330)
HOUSEHOLD	14 7/8 (378)	29 5/8 (752)	11 1/2 (292)	20 (508)	14 3/8 (365)

INTAKE	F
PRESSURIZED FRESH WATER	8 7/8 (225)
REMOTE PUMP	7 13/16 (199)

Raritan offers a variety of controls for most of its electrical toilets. The following controls can be used on the following models: Atlantes Freedom with Vortex-Vac, Marine Elegance and SeaEra QC.

SMART TOILET CONTROL BLUETOOTH:

This control allows the user to mount the control panel without wires attached. Industrial grade batteries are included for the control to work on Bluetooth. App on phone allows adjustment of timing and some troubleshooting features as well. Allows the user ultimate flexibility with two levels of timed flush or independent control of intake and discharge.

Part# STCBL



SMART TOILET CONTROL:

Smart Toilet Control is a controller for flushing toilet to optimize water use without compromising the quality of flush. Control consists of a controller and panel.

Flush Control is designed to start a flushing cycle if NORMAL FLUSH or WATER SAVER buttons are pressed. WATER ONLY button brings inlet water to the bowl when pressed and EMPTY ONLY button evacuates the bowl. Flush timing is preset from the factory for Sequential Flushing. Flush settings are fully programmable.

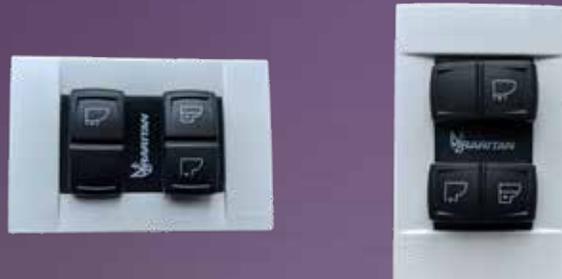
Part # STC



MULTIFUNCTION FLUSH PANEL:

Rather than a timed flush, this toilet control offers momentary options to Flush, Fill and Empty the bowl. Press and hold the FILL button to wet or add water to the bowl or EMPTY to dry flush. Press and hold the FLUSH button to activate the fill and empty functions at the same time. This control also enables the user to rotate the switches should vertical position be preferred.

Part # 221600



MOMENTARY FLUSH SWITCH : (NOTE: This control replaces the Raritan Push Button switch and can be used on all electric toilets. It comes standard with the SeaEra Integral 160 series and PH PowerFlush). Pressing the switch will run both the intake and the discharge.

Part # PRS



SEAFRESH SELECTOR:

This control is used on all SeaFresh models to allow the user to switch between onboard pressurized fresh water or outside raw water depending on water supplies. Also very useful if you simply want to flush the system with Fresh Water before leaving the boat to help prevent the dreaded rotten egg smell associated with using raw water in the toilet.



Raritan was the first company to develop a flow through system to treat sewage even prior to any legal requirements!

A flow through system is a tank directly connected to the toilet that treats waste each time the toilet is flushed. The advantage of Raritan flow through systems is that you are never holding raw sewage and only a limited amount of treated sewage is discharged each time. Large discharges of raw sewage, which includes full holding tanks containing chemicals used to control odor, can be dangerous to the environment. Raritan's first flow through system was simply a bottle of household bleach that was injected into the treatment tank each time the toilet was flushed killing all fecal coliform.

Raritan far exceeds the Federal standard for waste discharge to help preserve our waters. New advancements in flow through systems work differently but both Type I devices produced by Raritan far exceed the federal standard for discharge which is currently set at fecal coliform levels of less than 1000 per 100ml. Swimming beaches close when coliform levels exceed 200 per 100ml and shellfish beds close when coliform levels exceed 14 per 100 ml.



Both the Purasan and Electroscan discharge at levels lower than 10 per 100ml!

PurasanEX™

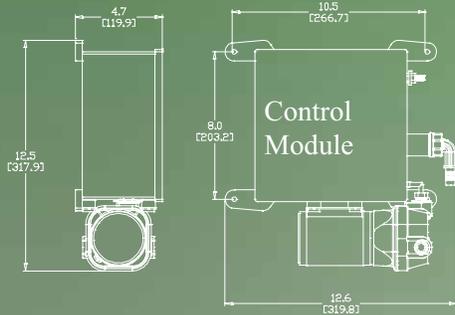
Improved design for all toilets and salt, fresh, or brackish water. Onboard sewage treatment device legal for use in any area not considered a Federal NDZ. Neutralizes waste, making it sanitary and safe for boaters and marine life.

Benefits

- New Control indicates when tablets are empty
- Dispenser can be mounted at any height
- Solution drains with air pump, lengthening tablet life
- No metering valve to control water, now fully programmable
- New tablet packaging eliminates hazmat fees



DRAWINGS:

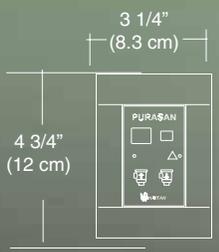


CONVERSIONS

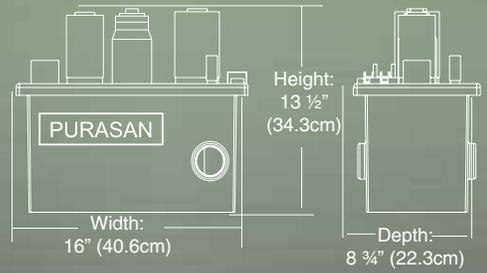
Wire - AWG to mm ²								
AWG	16	14	12	10	8	6	4	2
mm ²	1.5	2.5	4.0	6.0	10.0	16.0	25.0	35.0

Feet to Meters							
Feet	10	15	20	25	30	40	50
Meter	3.1	4.6	6.1	7.6	9.2	12.2	15.2

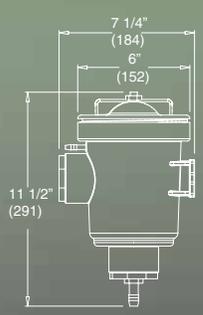
SWITCH PANEL DIMENSIONS



TREATMENT UNIT DIMENSIONS



TABLET DISPENSER DIMENSIONS



PLUMBING:

Inlet / Outlet	1 1/2" / 1 1/2"
Maximum Flush Volume	1 1/2 gallons (5.7 L)

ELECTRICAL:

Amps Draw (12/24V)	10/8
Circuit Breaker Size Amps (12/24 V)	20/15

ORDERING INFO:

MODEL	DESCRIPTION
PST12EX	PurasanEX, 12V, Type I MSD
PST24EX	PurasanEX, 24V, Type I MSD
41-135A	Replacement Purasan Tablets

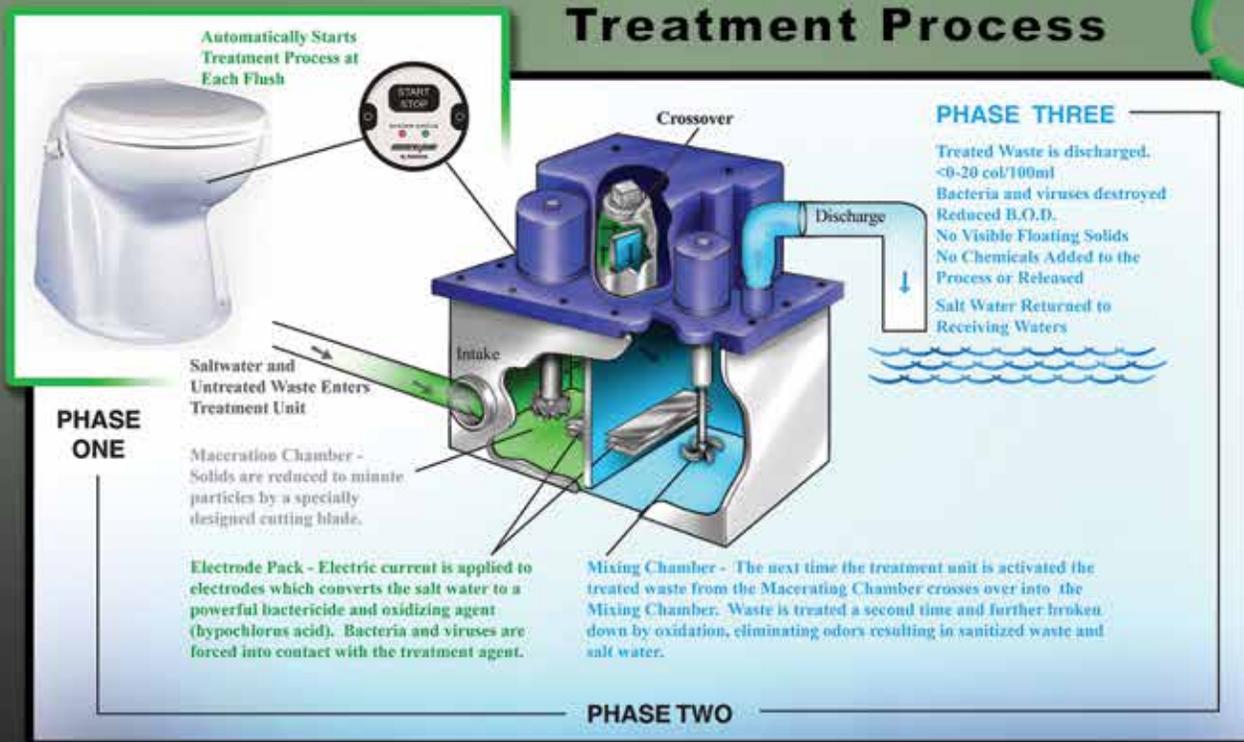
Available in 12 or 24 V DC.



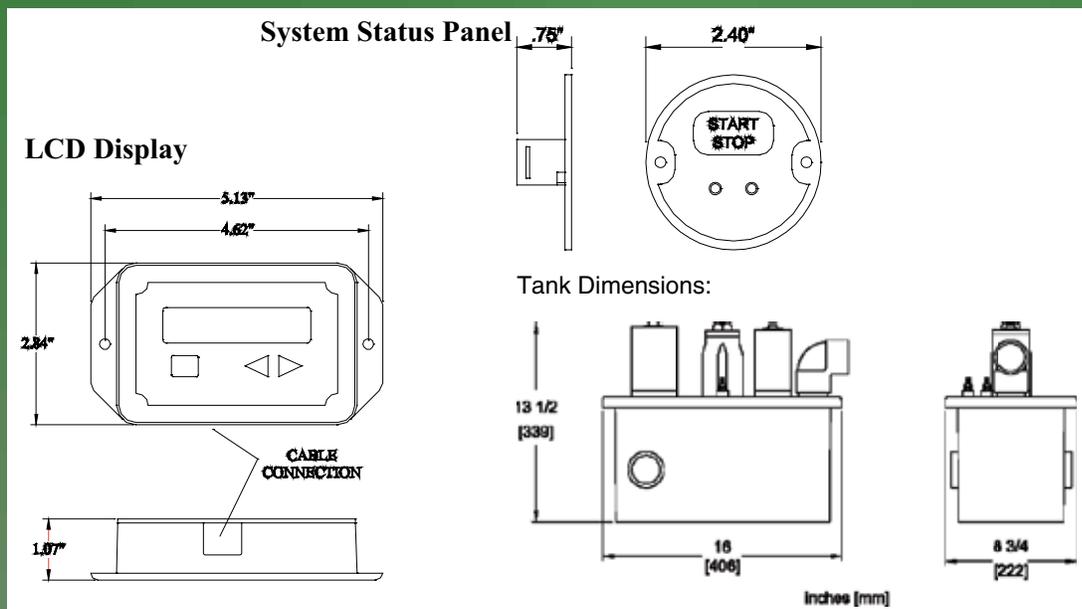
- The most popular USCG certified Type I MSD
- Power requirements have been reduced by 36 % - each cycle uses only 1.2 amp hours of power
- Generates its own natural disinfectant from salt water
- Coated electrodes use salt water to kill bacteria & viruses without using harmful chemicals
- Records each treatment cycle and stores key information in non-volatile memory that can be summarized on the LCD display or downloaded to PC
- Single button operation is possible
- Can be used with both manual and electric toilets
- Requires sea water salinity or salt feed tank
- Available in 12 or 24 VDC
- Sensor for manual toilet available for auto start part# 31-605



Treatment Process



DRAWINGS:



PLUMBING:

Inlet / Outlet	1 1/2" / 1 1/2"
Maximum Flush Volume	1 1/2 gallon (5.71)
Minimum Water Temp	50° F (10° C)

Sea water salinity or salt feed system needed.

ORDERING INFO:

MODEL	DESCRIPTION
EST12	Electro Scan, Type I MSD, 12V
ESTDC	Electro Scan Dual Control
31-3005	Four Gallon Salt Feed Unit Complete
32-3005	Four Gallon Salt Feed Tank w/pump, 12V
32-700RFK	Upgrade from Lectra/San to Electro Scan 12V

ELECTRICAL:

Amps Draw (12/24VDC)	37/27
Circuit Breaker Size Amps (12/24/32 V)	60/50

ManaGerm™

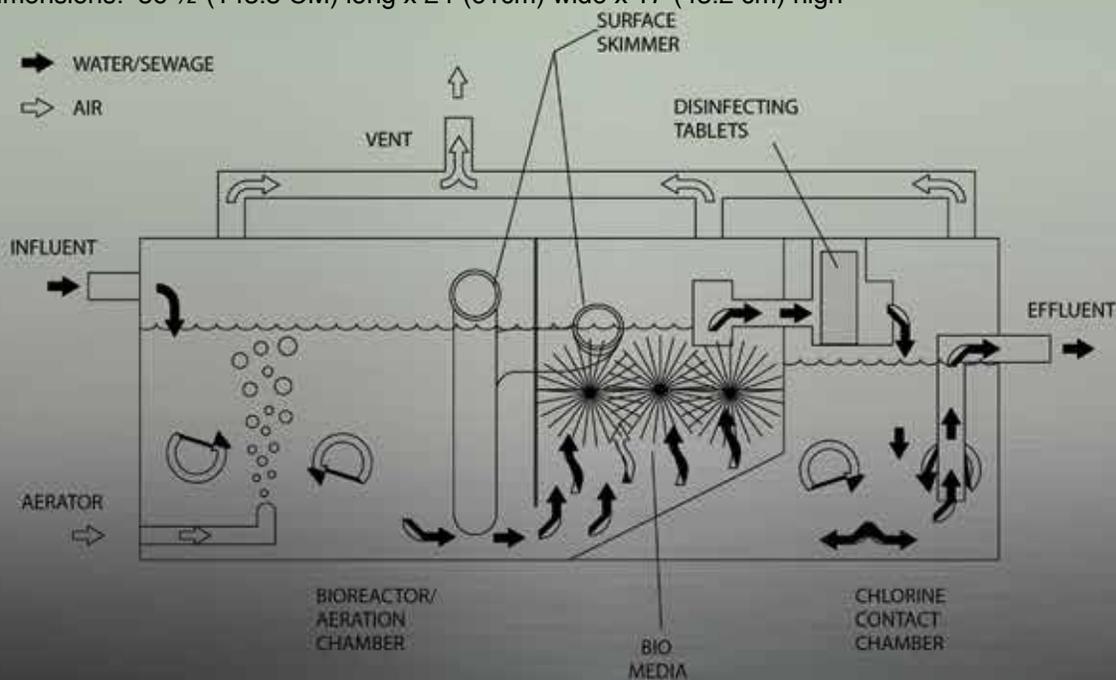
Complete onboard biological waste treatment system for up to 12 persons per day. Treats sewage biologically using air, water, and natural occurring bacteria. The Managerm was designed for houseboats, tugs and other inner harbor vessels. It is not designed for ocean going vessels or offshore service vessels.



- USCG Certified Type II Marine Sanitation Device
- Tank made of lightweight corrosion resistant polyethylene
- Easy installation - simple maintenance
- No moving parts in contact with sewage
- Quiet, durable 120V AC aeration pump included
- Uses very little electricity
- Operates with fresh, brackish and salt water
- For use on inspected and uninspected vessels
- Includes Bio-Starter, 10 lbs of tablets and five fittings
- Available with pump up kit for below water line installation

MODEL	DESCRIPTION
6400121	Managem 120V AC Approximate Shipping weight: 172lbs (45 kg)
6400121B	Managem for below water line Installation
6400122	Managem 240V AC

Dimensions: 56 ½"(143.5 CM) long x 24"(61cm) wide x 17"(43.2 cm) high



Hold n' Treat System

- A complete onboard waste management system
- Utilizes our best Type I & Type III MSD
- Satisfies legal requirements in all U.S. waters
- Complete "drop in place" system
- Ultimate flexibility with deck pump-out or treated sewage
- Operates with fresh, brackish and salt water
- Salt feed system required with Electroscan model when not using salt water to flush
- For use on inspected and uninspected vessels
- Available in 12 and 24 VDC Model



Hold N' Treat Controls are available separately to add to an existing holding tank and/or Type I MSD for ultimate flexibility.

Improved pressure sensor for determining tank level

MODEL	DESCRIPTION
21SR1512	Hold N' Treat system complete with Electroscan
21SRP1512	Hold N' Treat system complete with Purasan 12V

Semi-Custom Holding Tanks and Water Tanks

- The finest quality holding tanks
- Over 300 tanks to choose from, simply add the fittings you want, where you want them
- Our tanks are made of cross-linked polyethylene with 3/8" walls for increased protection from odor permeation
- Call Raritan Technical Service in NJ for assistance with your tank



Saniflex Hose

The most flexible marine grade hose on the market. Odor Free and the lowest permeation level of any rubber or PVC hose.

- Flexible radius for tight bending and easy installation
- Reinforced double steel wire Helix with high strength synthetic textile yarn
- Cover is abrasion, ozone, seawater resistant rubber
- Smooth inside wall surface allows for a greater fit and seal during installation
- 10 year warranty against odor permeation



PART #	DESCRIPTION (AVAILABLE IN 50' OR 100' ROLLS)
SFH	Saniflex Hose 1 1/2" Diameter (sold by the foot)
SFH1	Saniflex Hose 1" Diameter (sold by the foot)

MACERATOR PUMP

FEATURES OF THE RARITAN MACERATOR THAT SEPARATE IT FROM THE COMPETITION!

Optional Waste Valve Assembly isolates the waste matter from the pump during maintenance. This new feature allows you to remove the pump without disconnecting plumbing.

- All stainless steel bolts to avoid corrosion problems
- Spring loaded Viton shaft seal is used to prevent premature leaks
- Our proprietary rubber impeller compound allows longer dry running time
- Macerator pump housing can be rotated in increments of 90 degrees to allow for left, right, or top discharge
- Same footprint as most competitive models



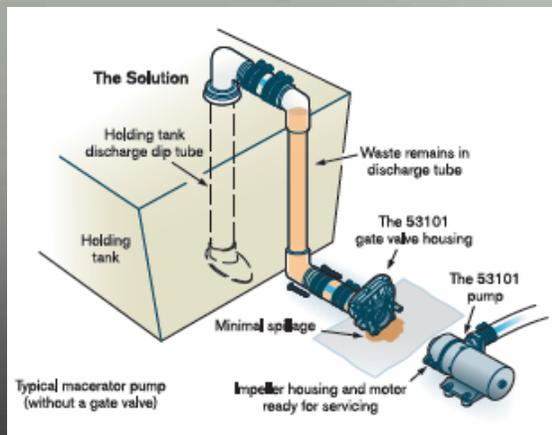
ALSO AVAILABLE SMART MACERATOR CONTROL



MONITORS MOTOR AND PUMP TO PREVENT DRY RUN AND OVERLOAD

SMC control has following features:

- Control will automatically shut down pump if unit does not prime or runs dry.
- SMC control can be reset by turning off and on switch. Power need not be turned off.
- If power is not turned off to the control, control will jog macerator pump for few milliseconds every seven days to prevent binding of impeller.
- If pump draws more than 20 amps, control will shut down pump.



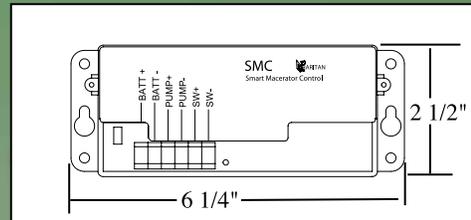
SPECIFICATIONS:

Pump::	Self priming Flexible rubber impeller with Stainless steel wear plate
Impeller:	Raritan Nitrile compound with wax
Blade:	Stainless steel double cut
Seal:	Viton Lip with 316 SS spring & case
Motor:	Permanent magnet type, fully enclosed, stainless steel shaft, thermal protection for overload, Powder coated housing with sealed ball bearing
Ports:	Inlet: 1-1/2" hose barb & 1-1/2" NPT Male Outlet: 3/4" MNPT
Lead wires:	14 GA, Red and black
Fuse:	See wire size chart
Duty Cycle:	Intermittent duty only
Dimensions:	See drawing
Weight:	5 lbs.
Approvals:	Ignition protected, ISO 8846, CE compliant available

HEAD VS FLOW RATES				
Head Ft [m]	Flow gpm[lpm]	Max DC Amps		
		12V	24V	
0 [0]	11[42]	10.9	5.4	
5 [1.5]	10.1[38]	11.1	5.6	
10 [3]	9[34]	11.4	5.8	
15 [4.6]	7.7[29]	11.8	5.9	
20 [6.1]	6.4 [24]	12.3	6.2	

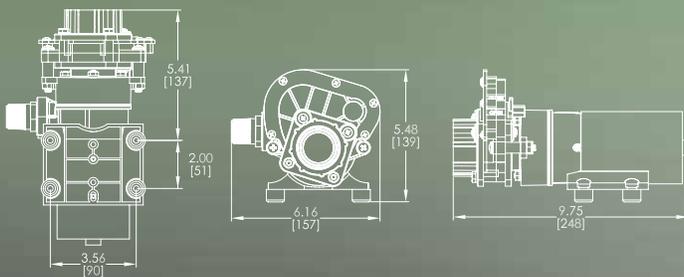
Maximum Operating Head = 30 feet

Smart Macerator control (optional)

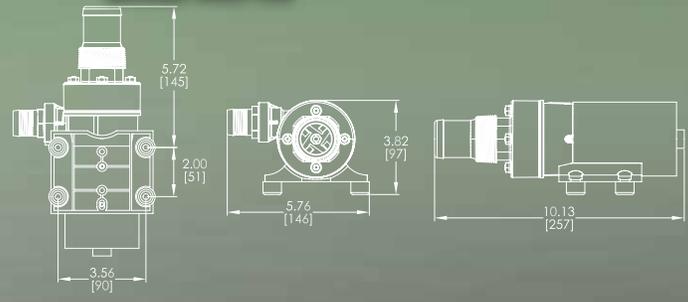


DRAWINGS:

Model #53101



Model #53100



ORDERING:

Sample part # 5310112 = Raritan macerator with wastewater valve in 12V DC.

Model	Discharge Adapter	Voltage
53 Raritan Macerator	100 Barb Fitting	12 12 V DC
	101 Wastewater Valve	24 24 V DC

Rudder Master

Make life easier with our economical steering aid and rudder positioning device. Each unit comes with all necessary components needed, along with calibration box and sending unit.

- Constant monitoring of rudder angle from 0 to 45 degrees
- Repeater units are available for multiple station readouts
- Protects your boat at docking and close maneuvering

MK2 and MK3 Models

- Spray proof (IP64)



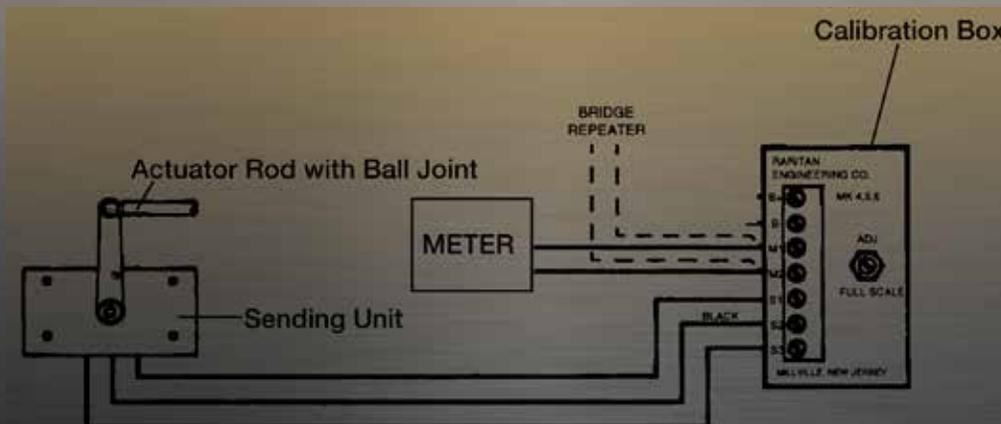
MK5 and MK6 Models

- Easy to read panoramic meter



NOTE WHEN ORDERING:

We ship units with 30 ft. (9.1m) of wire. Any model can be ordered with longer wire, just ask. MK2 and MK3 units are the only units designed as true spray proof (IP64) meters. You will need to place meters away from wash down areas and protect against the elements.



Full Tank Sensors for Smart Toilet Control

Raritan's Full Holding Tank Sensors are designed to prevent accidental overfilling of on-board waste holding tanks. These sensors will illuminate the Holding Tank Full LED on all Smart Toilet Controls manufactured after April 2013. When the holding tank nears 90% capacity, the Holding Tank Full light will illuminate and disable both the NORMAL and WATER SAVER buttons. The WATER ONLY and EMPTY buttons will continue to operate allowing toilet use until the holding tank is pumped out.

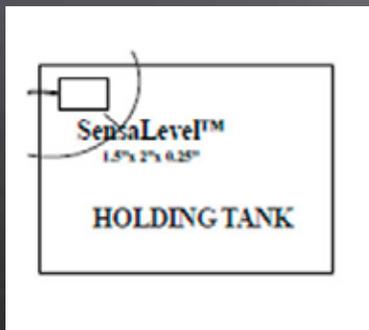
Note: Red indicator light on Smart Toilet Control will light up when tanks reach 90% full.



PART # STCFL



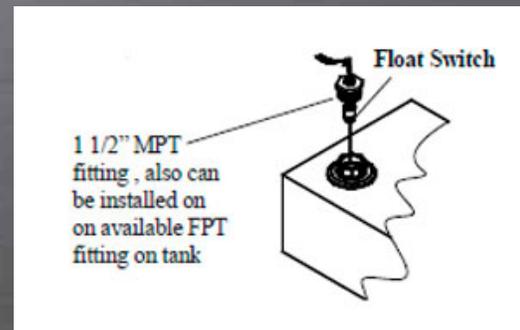
SENSALEVEL SENSOR:
FOR USE IN NON-METALLIC
WASTE TANKS UP TO 3/8"



PART # STCTSA



FLOAT SWITCH SENSOR:
FOR USE IN ANY WASTE TANK



TANKSENSE

The finest holding tank monitor. Available with easy-to-read tank level indicators. Monitors up to four tanks from one convenient location.

Setting the new standard for tank monitoring systems. An easy to install, maintenance free, and ultra-reliable monitoring system for up to 4 tanks with the panel and up to 8 tanks with the app. Gauge the level of all your tanks either using the premium wall panel or wirelessly using the Raritan App.

Ease of Installation

- *The submersible set-and-forget sensor is dropped into the top or side of the tank – no externally mounted sensors or adhesives needed*
- *Low profile wall indicator has a smooth surface, eliminating protruding switches*
- *Minimal wiring simplifies installation and wire management*

Ease of Use

- *Reliable electronic design perfected for any marine environment*
- *Compatible with any polyethylene, fiberglass, or metal tank*
- *Can be used to monitor sewage, grey water, fresh water, diesel and gasoline*
- *Integrated Blocked Vent Detector technology streamlines odor control and tank diagnosis*
- *Seamless connection to the Raritan App, allowing you to monitor tank capacity from anywhere on your vessel*
- *Get an exact percentage read out for each tanks capacity while using the Raritan App*
- *Low power consumption*
- *Available in 12 or 24V DC installations*

SUBMERSIBLE SENSOR

Length: 4 1/8" (105mm)
Diameter: 1" (25mm)



CONTROL PANEL

Width: 4 3/4" (121mm)
Height: 3 1/4" (82mm)



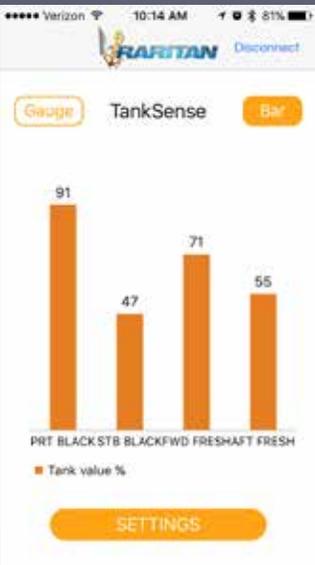
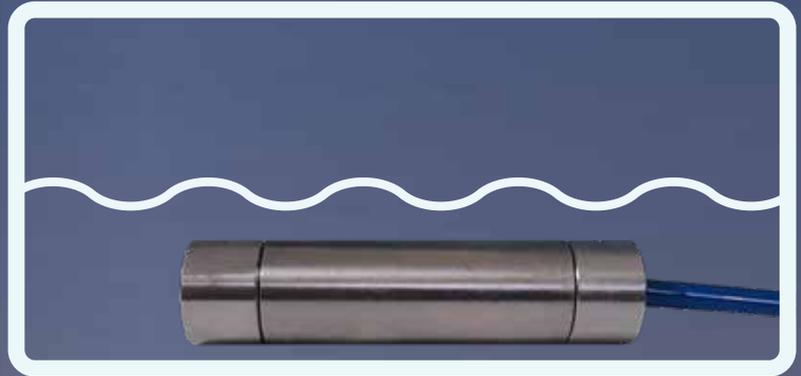
PART #
15600
15610
15620

DESCRIPTION
Complete TankSense System
TankSense Sensor
TankSense Wall Panel

Note: Compatible with any tank up to 40" (102cm) high

Complete TankSense System includes one Wall Panel controller, one Wall Panel face plate, one Sensor, and hardware for installation of both the Wall Panel and Sensor.

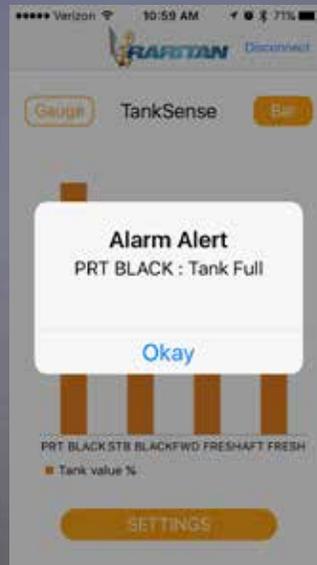
TankSense allows you to read the capacity of your vessels tanks in two ways. One is through the control panel, which can be used as a primary control, or used temporarily as a way to calibrate the sensor to your tank. The other read out is done wirelessly through the Raritan App. This alerts you to any blocked vents, full tanks, empty tanks, and gives you an exact percentage readout of tank capacity.



BAR GAUGE



RADIAL GAUGE



CAPACITY ALERT



Icerette

AUTOMATIC ICE CUBE MAKER

THE ONLY MARINE ICE MAKER SPECIFICALLY DESIGNED AND BUILT FOR THE RIGORS OF THE MARINE ENVIRONMENT.

FEATURES INCLUDE:

- *Improved controls for more efficient operation.*
- *Cabinet and door built to last in harsh marine environments.*
- *Removable ice bucket.*
- *Corrosion resistant marine grade hardware, fittings and fasteners.*
- *Positive catch door latch keeps door closed. This allows maximum ice production, while keeping harmful bacteria and molds out.*
- *Built in door prop lets you manual defrost or air dry your unit when power is off.*
- *Produces up to 21 lbs of ice every day using only 2-3/4 gallons of water. Stores up to 11 lbs of crescent ice (1/2" W x 3/4" H x 2-1/2" L).*
- *Backed by Raritan's One Year Limited Warranty and legendary technical support team.*
- *All units meet CE, 115V units UL and cUL listed.*

EASY INSTALLATION:

- *No drain required makes it easy and inexpensive to install.*
- *Only requires a 1/4" outside diameter water line.*
- *Does not require additional hinge clearance for door swing.*
- *Includes flange.*
- *No additional side space required for ventilation.*
- *230 volt model available.*



SPECIFICATIONS:

Water Pressure Operating Range 20-120

All ventilation from front, limited vent in back of unit. No additional clearance required around the sides.

Adjustable rubber leveling feet

Water supply inlet size 1/4" OD and requires 3/4" space behind the unit for clearance

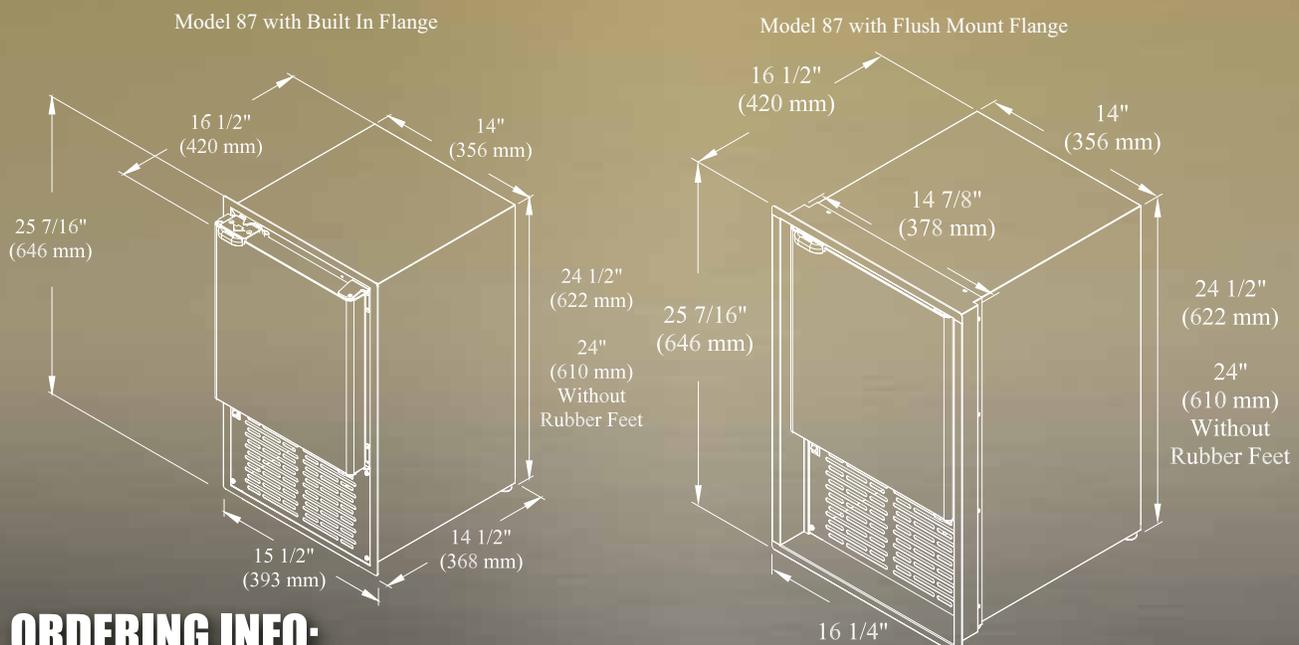
Water supply inlet located in lower right of rear opposite of the power cord

Net Weight 51 lbs / 23 kg

ELECTRICAL:

Electrical Requirements	115V/60Hz with USA plug	230V/50Hz with euro plug
Volt Range	104V~127V	220V~240V
Maximum Amp Fuse	15 amps	10 amps

DRAWINGS:



ORDERING INFO:

Sample part # 87B515-1 = Model 87 with built in flange 115V AC

Model	Flange Style	Voltage
87 Raritan Icer-Ette	B515 Built-In Flange	-1 115 V DC
	E515 Flush Mount Flange	-2 220 V AC

1700 Series Water Heater

World-renowned water heater specially designed for the marine environment. Provides the comfort and convenience of reliable hot water.

- *Solid foam insulation means the water stays hot longer than with traditional fiberglass insulation*
- *Proven long-life design*
- *Withstands the rigors of the marine environment*
- *Glass-lined tank is has longer life than a stainless steel tank*
- *Attractive polymer jacket resists corrosion from dampness*
- *Ignition-protected, adjustable thermostat*
- *Environmentally friendly CFC-free foam insulation*
- *Replaceable magnesium anode to protect tank and neutralize acids in the water*
- *The tank is covered by a 5 year Limited Warranty*
- *Each unit is assembled by hand, individually tested*
- *Available in 6, 12 and 20 gallon models – with or without engine heat exchangers*
- *Available for 120V AC or 240V AC*
- *Each heater protected by a Magnesium Anode that must be changed*



ELECTRICAL:

Recovery Rate 13 gallons per hour

Amps: 10(120V AC), 5(240V AC) or 18(240V AC) for Model 17200203

Thermostat: Adjustable, factory set to 120°

PLUMBING:

Tank rated at 150psi

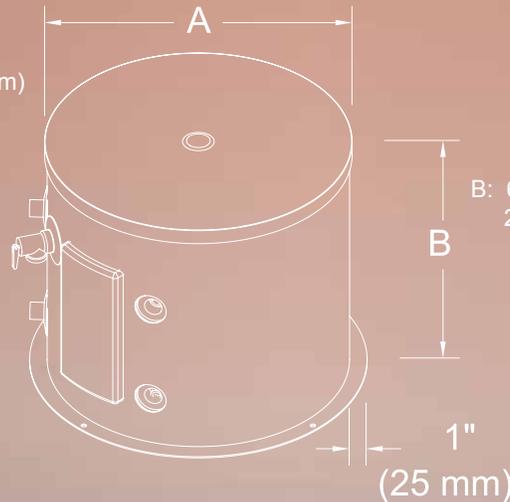
Maximum pressure with 75psi temperature and pressure relief valve

100psi temperature and pressure relief valve available as option.

Anode: Magnesium - integral with hot water outlet

DRAWINGS:

A: 6 gallon - 14 1/2" (36.9cm)
12 & 20 gallon - 18 3/4" (47.6cm)



B: 6 & 12 gallon - 16 1/4" (41.3cm)
20 gallon - 24 1/4" (61.6cm)

ORDERING INFO:

Sample part # 17120101 - Water Heater, 12 Gallon, No Heat Exchanger, 115V, GAZ Fittings

6 gallon Anode: 1790610

12/20 Gallon Anode: 1790010

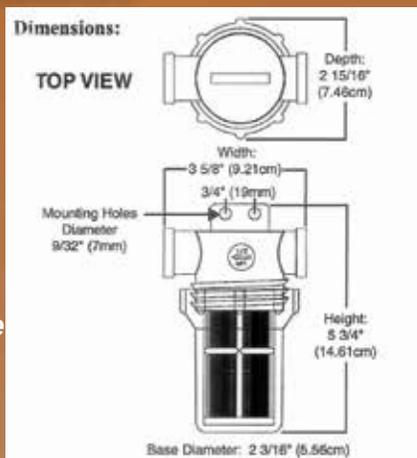
Model	Operation	Exchanger	Voltage	Fittings
17 Water Heater	06 6 Gallon	0 No Heat Exchanger	1 115V	Standard NPT Fittings
	12 12 Gallon	1 Heat Exchanger	2 220V	01 GAZ Fittings
	20 20 Gallon			02 Metric Fittings

In-Line Raw Water Strainer

An inexpensive way to protect your equipment from debris, and toilet odors caused by marine life.

- Easy to install and maintain
- Convenient 1/2" female NPT connections
- 20 mesh plastic removable filter for easy cleaning
- Reduces toilet odors & maintenance

PART#	DESCRIPTION
163000	In-Line Strainer
163010	Strainer Filter
163020	Strainer Gasket



Raw Water Strainer

This is an inexpensive way to protect your engine, generators, AC units, and other components that require outside water. Each unit is individually pressure tested and designed with High Impact clear housing and lid.

- Easy to install and maintain
- Clear housing lets you see debris without opening strainer
- 16 mesh removable high capacity filter

PART#	DESCRIPTION	Max. Working Pressure:
RWS	Raw Water Strainer	5 psi (34.5 kPa)
RWS5B	Basket	
RWS5	O-Ring	

Dimensions:
9 3/4" (24.8cm) high and 7 1/4" (18.4cm) wide (mounting bracket to discharge fitting)



In-Line Fresh Water Strainer

An inexpensive way to protect your equipment from debris, and toilet odors caused by marine life.

- Easy to install and maintain
- Convenient 1/2" female NPT connections
- 50 mesh plastic removable filter for easy cleaning
- Reduces toilet odors & maintenance



PART#	DESCRIPTION
190601	In-Line Fresh Water Strainer

Raritan Organics

All natural products to help preserve and protect the marine environment



K.O. KILLS ODORS!

K.O. is a holding tank treatment specially formulated for today's marine market. Unlike chemical products, K.O.'s bioactive formula breaks down and neutralizes odor-causing waste materials instantly. Eliminates holding tank odors at their source. K.O. works when nothing else will!

- Odor-killing bacteria digests liquids, solid waste and paper
- Does not require adding "tissue digesters" or other "boosters" to be effective
- A small amount of K.O. can easily keep a boat odor-free between pump outs
- A safe, non-chemical and non-polluting product

PART #
1PKO32
1PKOGAL

DESCRIPTION
K.O. Kills Odors! Bioactive treatment 32 oz. (.65 liters)
K.O. Kills Odors! Bioactive treatment 1 gal. (3.79 liters)

C.P. CLEANS POTTIES!

C.P. eliminates the worst raw odors from the intake line without brushing. The only toilet bowl cleaner Raritan recommends for Raritan toilets. C.P. is the only bowl cleaner that can be combined with K.O.

- The first bowl cleaner to combine a specialized strain of bacteria with 100% biodegradable cleaning agents
- Specially designed to make the bowl shine like never before and keep the entire system odor-free
- A safe, non-chemical, non-polluting product destroys odors on contact
- Can also be used to clean sinks, showers and basins

PART #
1PCP32

DESCRIPTION
C.P. Cleans Potties! Bioenzymatic 32oz. (.65 liters)



K.O.2 KNOCK OUT ODORS KIT

Specifically designed to release bio-enzymes with each flush to eliminate odor causing bacteria from outside water sources. Kit treats the entire system from incoming water to the holding tank in eliminating odors.

- No more rotten egg smell
- Non toxic
- Non polluting
- Eliminates odors at their source

PART #
KO2

DESCRIPTION
Kills Odor Kit



Raritan Non-Organics

C.H. CLEANS HOSES!

C.H. is specifically designed to remove uric scale from black water system from the toilet to the tank without having to remove hoses!

- Eliminates clogs which can cause poor flushing performance
- Non-toxic, biodegradable and safe to use with all materials commonly found in black water systems
- Safe and effective replacement to the muriatic acid treatments recommended in Lectra/San and Electroscan waste treatment systems

PART #
1PCHQT
1PCHGAL

DESCRIPTION
Cleans hoses and MSDs 32oz.
Cleans hoses and MSDs 1gal.



The Most Dependable Name on the Water.

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