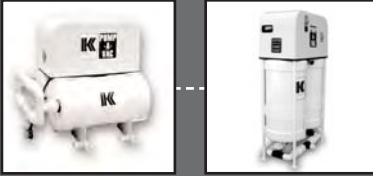


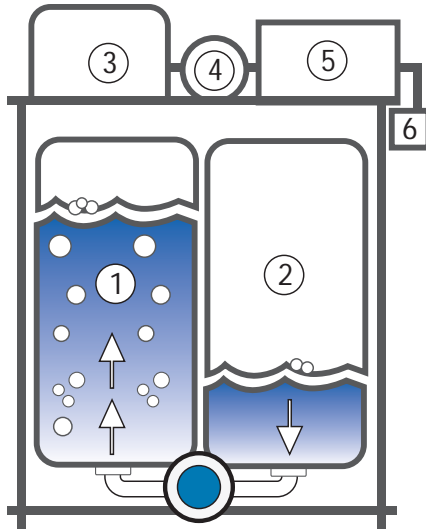


**VACUUM PUMPS**

**MODELS 1000V / 1000H / 1000SS**



**HOW DOES IT WORK?**



**Keco's** unique two-tank design provides constant vacuum with no interruption of service. As tank #1 fills, tank #2 discharges contents into the sewer/septic system. Tank #1 continues to pull vacuum and fill until it reaches capacity. Once the tank has reached capacity, the level sensory system transmits a signal to reverse the motor. Once the motor reverses, tank #1 begins to empty and tank #2 begins to fill. **Keco's** vacuum system allows marinas to install multiple remote pumping centers and allows for future expansion.

**KEY**

1. TANK #1 2. TANK #2 3. MOTOR 4. PUMP 5. CONTROL BOX 6. ELECTRIC BOX

**COMPARE IT TO OTHERS**

**Keco** has raised the standard in vacuum systems. Our engineers have combined the newest technologies to create the most reliable vacuum system available. Unlike other vacuum units, **Keco's** vacuum system eliminates the timely discharge cycle required with single tank designs. **Keco** system insures that the fluid entering the tanks never comes in contact with the pump. Non-corrosive tanks and a modular design ensure that the 1000 Series vacuum pump is the most reliable part of your facility.

**OTHER VACUUM PUMPS**

- timely discharge cycle
- electro-mechanical controls
- vents to atmosphere
- circuit boards
- corrosive metal tanks
- optional biodegradable lubricant
- limited capacity dependant on tank size

**KECO VACUUM PUMP**

- continuous vacuum
- non-corrosive/non-metallic tanks
- attractive fiberglass enclosure
- 20-100 G.P.M. flows
- 3 pump & motor options
- biodegradable non-toxic lubricant
- no vent - no odor
- clean & quiet operation

**KECO®**  
pump and equipment



### VACUUM PUMPS

### UNLIMITED possibilities for *YOUR* MARINA

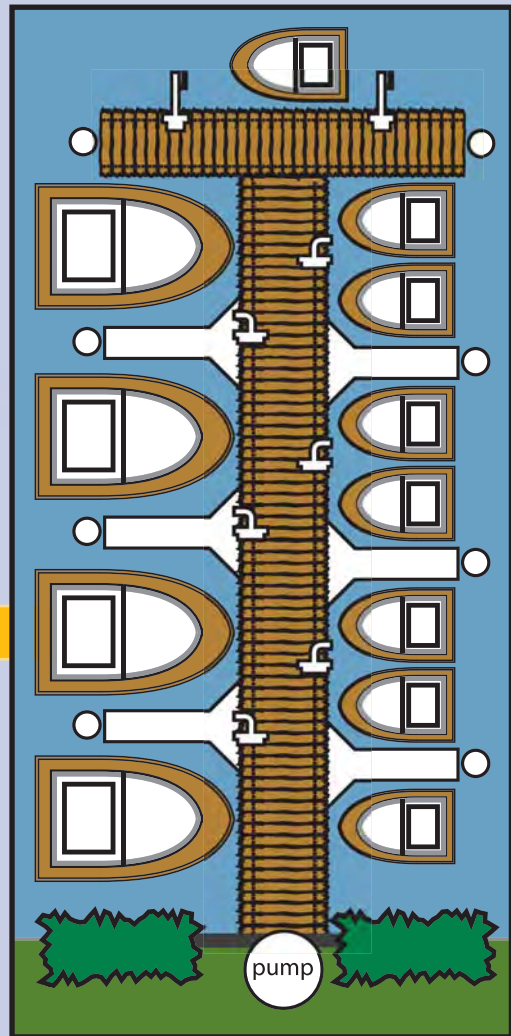


Hydrants and Remote Pumping Centers (RPC) are key elements in a well-designed sanitation system. Hydrants and RPC's allow one pump to provide vacuum to multiple receptacles throughout your facility. **Keco's** "High/Low" vacuum technology eliminates the need for costly wiring back to the pump. Once your facility is properly equipped with pumpout receptacles, the system keeps constant vacuum on all of the plumbed lines. The High/Low system automatically senses a decrease in vacuum when a pumpout begins. **Keco's** High/Low system automatically activates the pump and ensures a fast, easy pumpout experience to all boaters. Our knowledgeable staff will help determine the most effective locations and proper equipment needed to create your central vacuum system.

### REMOTE PUMPING CENTER



Remote Pumping Centers (RPC) are available for marinas desiring a centralized pump. RPC's hold up to 70' of suction hose while taking up minimal dock space. RPC's are strategically located throughout a marina allowing easy pumpout access to all boaters. Reinforced fiberglass or triple coated steel construction offer an attractive and functional pumpout location. The RPC can be outfitted with fresh water receptacles and a variety of user controls. Different user controls allow marinas to manage their vacuum system effectively.



### HYDRANTS



Hydrants are a discrete and cost-effective way to provide vacuum throughout your marina. Hydrants allow vessels to pumpout their holding tanks, without leaving their slip. Several styles of hydrants are available to best suit your marina layout. Back-flow prevention and quick connect fittings offer clean, convenient, and simple discharge receptacles.

## SUCTION & DISCHARGE RANGE

The 1000 Series is available in both Horizontal and Vertical configurations to best fit your mounting requirements. The **Keco** 1000 Series is available with a variety of activation controls, pump and motor options.



### SUCTION SIDE

LIFT	HORIZONTAL DISTANCE
28'	0'
27'	300'
23.5'	600'
22'	900'
18'	1200'
16'	1500'
13'	1800'
11'	2100'
7.5'	2400'
5'	2700'
2.5'	3000'

### DISCHARGE SIDE

HEAD	HORIZONTAL DISTANCE
23'	0'
20'	300'
18'	600'
17'	900'
13'	1200'
12'	1500'
8'	1800'
7'	2100'
3'	2400'
2.5'	2600'

## MOTOR & PUMP OPTIONS

VERTICAL / HORIZONTAL	3/4 HP- SMALL PUMP	1.5 HP- LARGE PUMP	5 HP- X LARGE PUMP
gallons per minute	40	65	100
vacuum rating	25 Hg	28 Hg	29Hg
110 volt, 50/60 Hz, 1ø	available	available	not available
220 volt, 50/60 Hz, 1 or 3 ø	available	available	available



<b>Specification</b>	<b>Model 1000 S/S</b>
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**Design Considerations**

- Vacuum / Pressure pump shall be designed for viscous material handling, sanitary waste, and solids of 2" spherical diameter.
- Constant vacuum – Twin Tank design – no discharge cycle.
- Modular components and quick connects for simplified servicing
- Stainless Steel (316L) tanks and non-corrosive clear valves
- Biodegradable, Non-Toxic Pump Lubrication with injector pump
- Control box components are housed in a factory sealed enclosure.
- Variable Frequency Drive (VFD)
- Programmable Logic Controller
- Control Cycle Operation
- Self-compensating tank level switches. Maintenance free
- 208-240 Volt 1PH 50/60Hz input

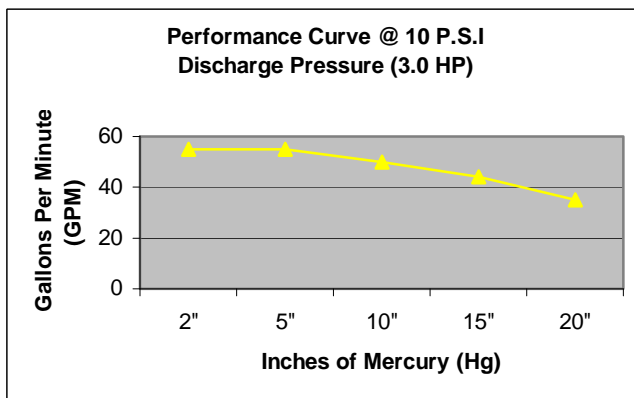
HP	GPM	Hg	PSI
1 ½ - 3	35	26	13

**Materials**

The pump shall include but not be limited to the following components

- 316L Stainless Steel structural supporting frame and tanks
- Motor plate shall be structural steel all non stainless steel surfaces shall be sandblasted (SP10), zinc, epoxy and urethane coated.
- Fiberglass enclosure to cover electro-mechanical controls.
- Manifold assembly shall be schedule 80 PVC unions, elbows, tees, and clear union check valves
- Positive displacement, oil protected rotary vane vacuum/pressure pump
- 1 ½ -3HP HP TEFC electric motor.
- Polycarbonate shatterproof oil reservoir with quick connect injector pump and motor
- Factory sealed modular control panel with quick connect electrical connectors, hour meter, key switch and indicator lights.
- Non-corrosive tank level switches 24V non-mechanical self-compensating maintenance free with indicator light and quick connect

**Capacity & Dimensions**



Vertical dimensions (standard)  
21" x 40" x 70" (L x W x H)

Weight 300 lbs (empty) 540 lbs (full)

The compatibility and/or application information is presented as a guide only. Other system factors may effect this information. Proper installation and selection of equipment, components, operation and maintenance are not the responsibility of KECO.