

Waters Edge

Marina and Harbour Systems

Environmental concerns of government agencies and boat owners have pushed marina owners into providing wastewater pump-out facilities that are safe and easy to use.

Vacuum pump-out systems have been used at marinas around the world for over thirty years and Flovac has been at the forefront of their development.

Vacuum systems can handle either small or luxury boats, larger commercial vessels or ferries.

An easy coupling attached to a flexible hose can be attached to the vessels sewage holding tank. The manual or automatic on/off switch can also be timer controlled, coin or card operated or remotely electrically controlled.

Pressure on marina operators is increasing, from customers looking for better facilities, and people looking for a cleaner environment, especially with a number of people starting to live on their houseboats at the marina. The majority of marinas offer at the very least fresh water, electricity, wireless access and fuel. In spite of increasing awareness, very few offer a sanitary pump out system which would provide a solution to contamination risks.

Flovac systems are easy to install and are easily incorporated into handling flows from buildings in the marina precinct whether they are commercial areas, including restaurants or even hotels, appartments and houses.

Vacuum systems are often chosen because they will not leak sewage into the water, nor will it allow noxious odours to disturb local residents or tourists.



Marina Suction Systems



Wastewater Collection for Canal Developments



Vacuum Toilet Systems for Boats

Flovac Marina Systems



America's Cup Marina, Barcelona, Spain



Award Winning, Marina Hindmarsh, South Australia



Flisvos Marina, Greece



Barrack Street Marina, Perth, Western Australia

There are three key components to the vacuum system

- The Vacuum Pump Station
- The collection chamber and valve
- The vacuum pipework.

Usually only one vacuum pump station is required which can be placed well away from the commercial area and closest to the discharge point. The station can be located underground or in its own building. It contains vacuum pumps, discharge pumps, a control panel and collection tank.

The collection chamber and valve is located to take wastewater flow from either the boat or house. The pit is sized to incorporate emergency storage and can be pneumatically or electronically controlled.

Pipework can be laid in either shallow trenches on the land or hidden under walkways on the marina itself. Flexible hose can be used as well as either PE or PVC pipe. One main benefit of a vacuum system is that if any break in the pipe were to occur, due to the negative pressure in the pipe, no sewage would leak out of the system.

The whole system can be monitored by the Flovac Monitoring System from the pump station, to every single collection point.