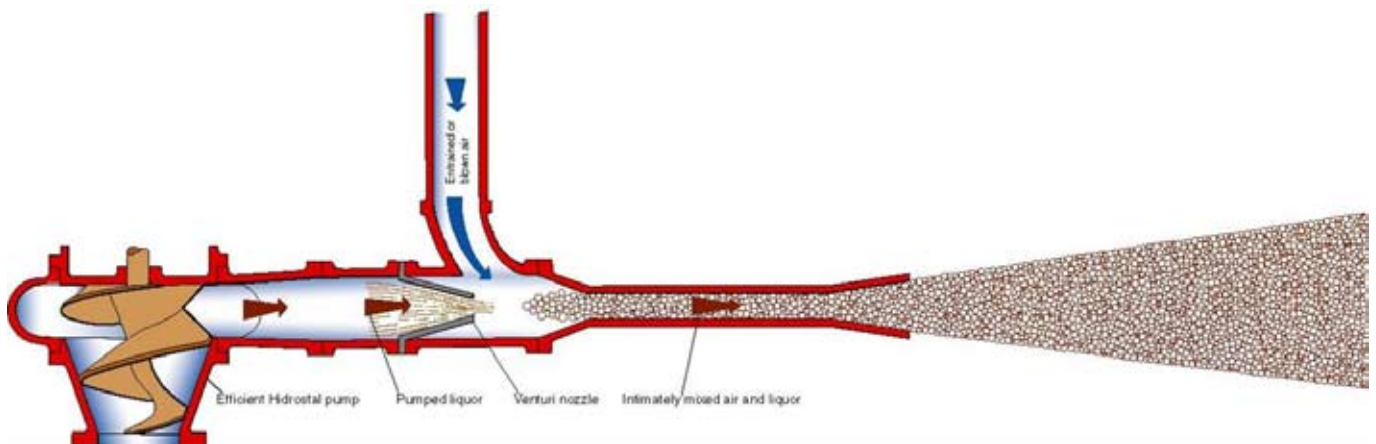




## AERATORS

Hidrostal can supply Venturi Aerators either as submersible units (permanently installed or floating type) and also dry well out of tank type units. All our aerators incorporate the Hidrostal screw centrifugal pump to provide the main liquor motive. Our aerators provide a highly efficient method to:

- Provide oxygen for biological treatment of polluted effluents
- Rejuvenate oxygen depleted water
- Mixing of tanks and lagoons
- Reduce odours



### Self entraining type

Aerators work on the principal of a high velocity jet creating a partial vacuum in a chamber which causes air to be drawn down a pipe and dragged into a barrel where it mixes with the motive liquid.

The aerator discharges a mist of fine air bubbles into the liquid so that oxygen contained in the air can be transferred to oxygen depleted liquids.

### Mounting options



Guide rail mounted in oxidation ditch



Pole mounted (multi directional)



Externally mounted self entraining



Floating type



### Blower assisted type

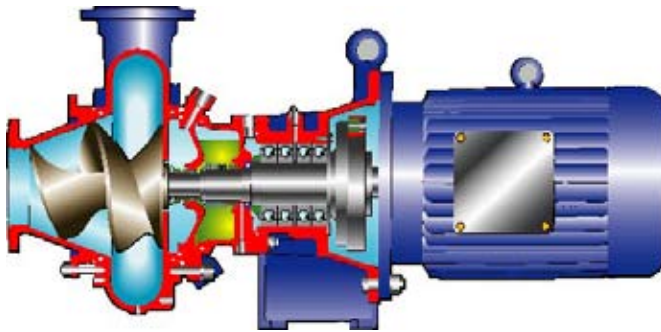
Blower assisted aerators are used on applications where high volumes of air are required to meet larger oxygen transfer requirements or where the liquor depth is too great for self entrainment.



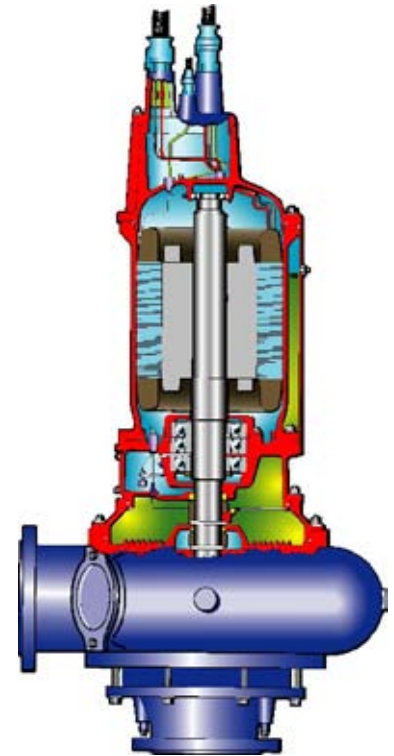
Externally mounted blower assisted

### Motive pump

The Hidrostal pump to provide the motive is selected from our range of submersible/immersion pumps or dry well end suction pumps to suit the application. All the pumps have the screw centrifugal impeller fitted enabling the pumps to handle liquors that are solids laden or viscous in nature. [See sections 4 & 5]



Dry well end suction pump



Submersible /Immersion pump

### Pump Materials of Construction

For aerator applications we normally include for our code 2 or 3 or 5 material combination i.e.

Designation	Features	Volute	Liner	Impeller
Code 2	Hardened liner to improve wear resistance	Cast iron	Chrome iron	Nodular iron
Code 3	Hardened liner and impeller to further improve wear resistance for particularly gritty liquors	Cast iron	Chrome iron	Molybdenum steel
Code 5	Stainless steel volute, liner and impeller to improve corrosion resistance to certain chemicals	Stainless steel	Stainless steel	Stainless steel

**Information required from client in order for our proposals team to size and select the most cost effective and efficient aerator solution :-**

- Nature of liquid to be treated
- Tank dimensions and depth of liquid
- Is Standby required ?
- Preferred mounting option i.e. submersible inside tank, out of tank, floating etc.
- Kg of Oxygen to be transferred per hour
- Background Oxygen level in mg/l
- Liquid temperature
- Reason for aeration i.e. BOD reduction, odour control etc.
- Are Alpha and Beta values known for the liquid to be treated ?