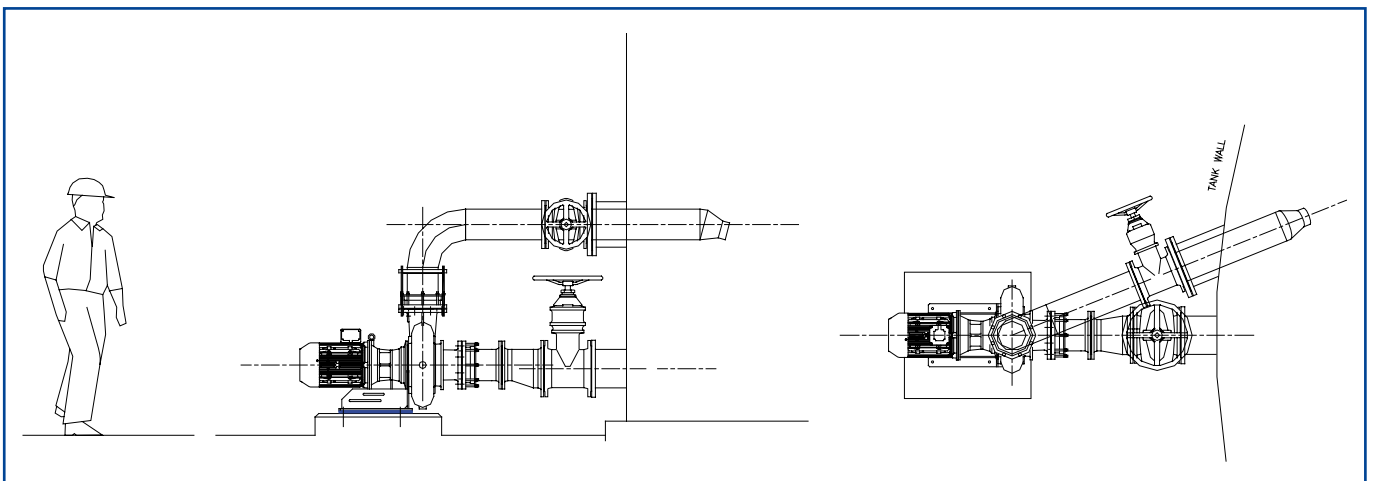




Hidrostal pump mixing system is a practical alternative to conventional submersible and gas mixers. Our mixing system uses the Hidrostal screw centrifugal pump to draw sludge from the source and returns it through a nozzle or nozzles, sized and positioned to provide optimum mixing energy and circulation of the tank contents. This system has distinct advantages over conventional mixing systems that include:-

- Simple maintenance as all the equipment is mounted external to the sludge tank
- There is no need for entry to the tank as nozzles are withdrawable
- By using the Hidrostal pump for the motive, thicker sludges can be mixed and because of its non clog characteristics, ragging up of plant is not an issue.
- The mixing pump can also be used for emptying and transfer of the tank contents
- The pump is mounted at ground level removing the requirement for high level lifting equipment and access platforms etc. minimising the health and safety aspects such as those involved with working at heights

#### Typical arrangement for a single pump tank mixing system



Twin Nozzle Systems Mixing Sludge stored in a 3,200m<sup>3</sup> Storage Tank



Hoogeindsestraat 5  
 NL - 5447 PD Rijkevoort  
 Nederland  
 T : +31 (0) 485 - 371318  
 F : +31 (0) 485 - 371918  
 info@pompentechniek.nl  
 www.pompentechniek.nl



**Motive pump**

The Hidrostat pump to provide the motive is selected from our dry well end suction pump range which has the screw centrifugal impeller fitted enabling the pumps to handle liquors that are solids laden or viscous in nature.



**Pump Materials of Construction**

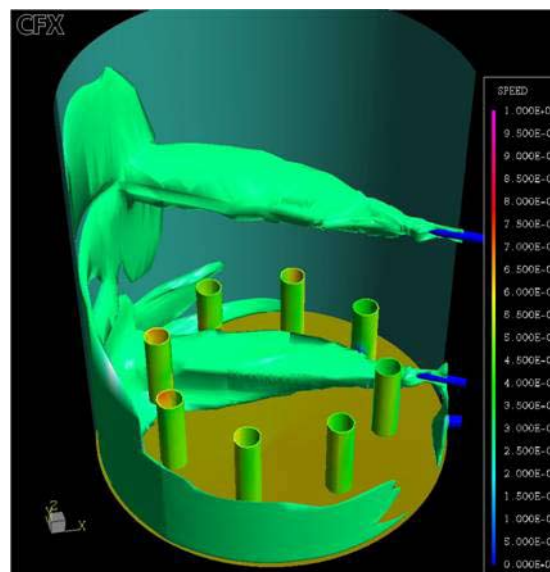
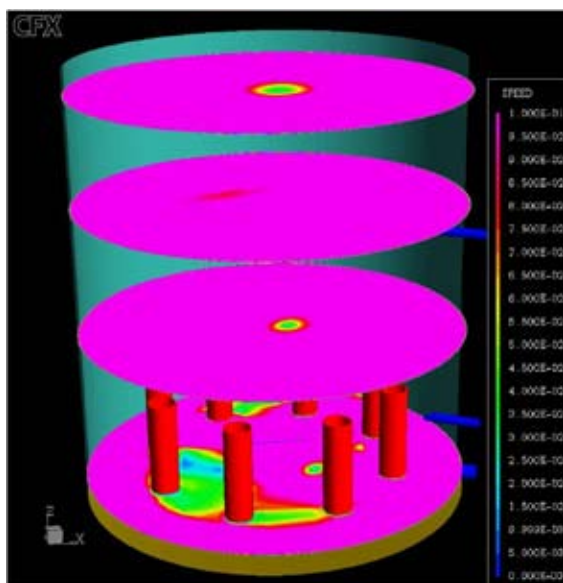
For aerator applications we normally include for our code 2 or 3 or 5 material combination i.e.

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 chemicals	Stainless steel	Stainless steel	Stainless steel

**Impeller / liner clearance adjustment**

All our pumps have the facility to adjust impeller and liner clearance. However there is an optional feature available which allows impeller and liner clearance to be modified using a simple external jacking screw arrangement. This enables quick and easy adjustment on site without the need to disassemble any of the pump parts, which reduces whole life costs by ensuring that the user can easily maintain pump efficiency to optimise energy costs.

**Computational Fluid Dynamics [CFD]**



Advice and recommendations based on Computational Fluid Dynamics [CFD] analysis is available if required.

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

- Nature of sludge to be mixed including dry solids content
- Liquid temperature
- Tank dimensions , construction type and depth of liquid
- Is standby required ?

#### Digester Mixing



Digester Volume - 2,293m<sup>3</sup>

