

## Mechanical Rotating Solutions installs Pump Flotation Device for Mpumalanga Coal Mine

**Mechanical Rotating Solutions (MRS) has added Pump Flotation Devices (PFD) to their product offering in yet another move to offer a total turnkey solution to their clients.**

According to Franscois Steenkamp, CEO of MRS, the inclusion of Pump Flotation Devices is a natural extension of the company's existing pumps, engineered coatings and mechanical seals offering and embodies its basic operating model.

“Pump Flotation Devices suspend and prevent the pump from burrowing into the bottom of the dam, tank or open pit during pumping operations thus eliminating situations where a pump could be damaged or lost if this happened. Since the pump is not in direct contact with the sediment or matter at the bottom of the pumping operation pump life is drastically improved whilst wear is significantly reduced. These modular floatation devices can cater for any weight requirements, enabling a pump set or submersible pump to be floated on water.”

The PFD recently installed in September by MRS for a coal operation in Mpumalanga consists of blocks that are held together with plastic locking pins, which are easily assembled on site. Galvanized handrails attached to the sides provides a safety barrier as required by the mine. “Due to the modularity and small footprint of our floatation system the PFD was installed and assembled onsite by only three people. The finished unit was then fitted with a Chempump vertical spindle pump pumping water with a high acid value at a 30m head and a distance of 1200m back to the plant.” Says Steenkamp.



*The MRS installed pump floatation device ready to be fitted with a vertical spindle pump*

Vertical spindle or cantilever pumps are specialized centrifugal pumps utilizing a cantilever design in which only the impeller and casing are submerged in the tank or sump. Cantilever pumps contain all joints, supports, and bearings at one end, allowing the other end to be inserted into the abrasive media without it interfering with the connections. Thus, the impeller is "cantilevered" from the motor instead of being supported by lower bearings. While most cantilever pumps are mounted vertically some are designed horizontally based on the placement needs of the application.



*As opposed to a submersible pump where the whole assembly is immersed into the fluid, with a vertical cantilever pump the electric motor is placed above the fluid and is connected via a long vertical shaft to the pump impellers which are immersed into the fluid.*

**Management / Sales**

Franscois Steenkamp

012 809 3935 / 082 574 2515

franscois@mrssa.co.za

www.mrssa.co.za