

# Raising the bar

To help mines reduce costly downtime in 2017, South African based, African-focused Filtaquip has vowed that it will be more committed to raising awareness about key aspects in high pressure slurry pumps for abrasive and corrosive slurry applications. African Mining Brief gathers from the company's technical team.

Filtaquip is concerned about the persistence, if not increase, in cases of high pressure slurry pump failure in the African mining sector, at a time when, oddly, the market is awash with many supposedly "failsafe" products. The company has noticed that the root of the problem is lack or little awareness amongst customers about specific products which can handle their respective abrasive and corrosive slurry applications effectively.

"In pursuit of cutting costs, unwittingly, some mining companies are overlooking the quality of products. The pumps purchased do not deliver as expected, as in most cases, they turn out to be incorrectly sized and its material of construction is not selected to suit the abrasive slurry," Filtaquip's Sales and Marketing Director, Ray Naidoo, tells *African Mining Brief* in an interview at the company's head office in Johannesburg.

"It is unfortunate that mines should be bearing the costs and effects of the downtime of their heavy duty pump systems, as their operations are overburdened by effects of low commodity prices," he adds.

## Committed to change

Filtaquip is committed to seeing a change in the way mines purchase their high pressure slurry pumps. To this end, it will intensify its ongoing awareness initiative, says Naidoo.

Filtaquip believes it is important for mines to make informed purchasing decisions to get quality. "At the outset, it is important to be



*Filtaquip has got a wide range of heavy duty high pressure slurry pump models*

aware of features of pumps that are highly recommended for abrasive and corrosive slurry applications in mines," Naidoo explains.

## Contemporary requirements

Filtaquip's Filter Press Pumps are engineered to meet the contemporary requirements of features of high pressure slurry pumps, which, Naidoo says, include performance, convenience, durability, and low operating (maintenance) costs.

Firstly, in terms of performance, the side suction feature on the horizontal design allows for a very low NPSH (Net Positive Suction Head), as well as a low pressure seal water. The seal in this design only sees the feed pressure of the feed slurry instead of the high pressure from the discharge of the pumps. This allows simple mechanical seal flushing systems to be used. The flush system is sealed so no water or sludge will leak during the flush cycle.

Another key aspect about the pumps' performance is discharge pressure. The pumps have wide discharge pressures which range from 6 to 22 bar, for abrasive and corrosive slurries. It is generally recommended that pumps operating above 10 bar, for de-watering applications, should be utilised as the higher pressure reduces moisture.

Secondly, as one pump has two stages or more, eliminating the need for pump trains, two separate pumps are not needed where one would suffice. This results in ease of installation.

Thirdly, durability is another critical aspect. Filtaquip's pumps are manufactured from hard alloy metal which is specifically developed for handling abrasive slurries. In addition, the company supplies pumps for acidic slurries with wetted parts manufactured from 316 stainless steel.

Last but certainly not least, on the account of their durability, the Filtaquip's pumps have comparatively lower maintenance costs.

## Each mine is unique

The company regards every enquiry from a client as unique, explains Naidoo. "As mines are distinct, so are their demands. So, when an organisation approaches us, the first step

is to characterise the chemical nature of the slurry, as low pH would require a different material of construction. We proceed to select a pump based on the type of equipment the slurry will be transferred to. Since our pumps are manufactured from hard alloy components abrasive slurries are not a problem."

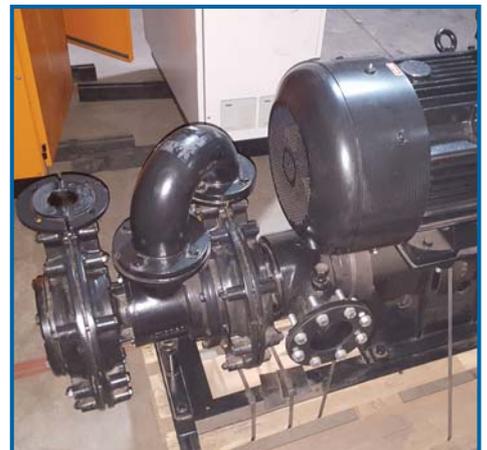
## Turnkey packages

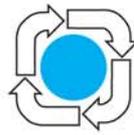
To cater for various product applications in mining, Filtaquip has got a wide range of heavy duty high pressure slurry pump models. Its product range includes the following (with scope of widening) - Single-body Centrifugal Pumps, Double-body Centrifugal Pumps, Triple-body Centrifugal, Submersible Pumps and Vertical Pumps.

Filtaquip provides turnkey solutions to clients, with all components and equipment, starting with the basic concept proposal, right through design, manufacture, project management and final installation, commissioning and hand over.

Naidoo concludes: "Let me remind the mines that we do not only supply high pressure slurry pumps. In fact, Filtaquip is the leading provider of filtration technology to the global market. We supply specialised equipment for the electrowinning and dewatering industries, which includes but is not restricted to conventional rake thickeners, vertical paste thickeners, flocculant plants and specialised slurry pumps, in addition to electrowinning equipment."

In 2017, Filtaquip is looking forward to adding value in the operations of mining companies and help them navigate the current slump in commodity prices.





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**Double Mechanical Seals**



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- \* Materials of construction to suit abrasive and corrosive conditions
- \* Side suction design lowers NPSH requirements
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