

FILTAQUIP SUPERSIZED

with the Matec Magnum 2 m x 2 m 220 plate filterpress series

40 year old turnkey filtration and dewatering systems specialist Filtaquip has established itself as one of the leading suppliers of filterpresses for the coal industry in South Africa. This can be attributed to the company's focus on delivering simple equipment which is easy to operate and maintain with exceptional productivity and low cost of maintenance – benefits which the mining sector has prioritised in a market environment driven by the need to reduce costs to maintain profitability, writes **LAURA CORNISH**.

Equipment benefits secure major new contract

In July this year Filtaquip secured a new contract to supply four Matec Magnum filterpresses for one of South Africa's largest coal producers (Filtaquip is the sole distributor of the Italy-based Matec filterpresses and dewatering equipment in Africa). Thanks to its full turnkey offering, Filtaquip will also operate and maintain the machines after installation and commissioning is completed.

Magnum filterpresses require a lower number of units, with a smaller footprint, in comparison to smaller units offered by other equipment manufacturers requiring a much larger footprint with associated support systems. This feature reduces capital costs substantially with a further saving on maintenance related costs, which translates into a more profitable option for any mining operation.

With a throughput capacity of between 80 and 90 m³/hr of solid fines (each), these

filterpresses are amongst the largest size offered within the Filtaquip product range portfolio. They will be 30 m in length, and will each comprise of 2m x 2m size plates with 220 plates installed per filter press. Matec will oversee the design and manufacture of the machines and will deliver them directly to site due to their size. Assembly will commence on site at Emalahleni.

"The use of high pressure technology is another unique feature of the Magnum filterpresses, which ensures that hard-to-filter ultra-fine materials are dehydrated efficiently. We are the only company that can deliver a 21 feed bar pressure, which results in cake residual moistures as low as 17%," says Ray Naidoo, Filtaquip sales and marketing director.

"Further to this, we can achieve these low moisture levels without the use of membrane plates, which are expensive and prone to failure. Our recess plates by comparison are robust and very cost effective. These product features all

contribute towards low capital costs and equipment simplicity which supports our belief that 'less is more.'"

Naidoo reiterates that the fully automated filterpresses' simplicity, ease of operation and reduced footprint were some of the main contributors which led to the contract award. "We also believe we won the contract because our equipment offers numerous advantages and benefits, many of which exceed what our competitors can deliver," he highlights.

An installation footprint in excess of 100 filterpresses in South Africa alone across most of the country's major coal and mining operations, as well as precious metals refineries, provides Filtaquip with the track record to substantiate its capabilities, which also includes "excellent" after-sales service.

The four filterpresses are scheduled to be installed and operating in June 2018, as per the client's scheduled timeframe. "We are however aiming to exceed our client's





Filtaquip's 100% fully mobile units are each capable of processing up to 50 m³/hr of solids



Filtaquip's filterpresses are installed across most major coal mines in South Africa

expectations with regard to delivery and installation," Naidoo notes.

Discussing further equipment benefits, the director notes that because of the filterpresses' simple design and construction (which is always tailor-made to suit customers' specific requirements), they are easy to service – which contributes to a 98 – 100% operational availability.

Filtaquip specialises in a maintain and operate model that is managed on a rand per ton treated basis, which reduces the clients' exposure to plant downtime and cost of plant maintenance. This creates a sustainable environment for the client to operate in without any unexpected or unforeseen costs related to Filtaquip's equipment.

Large-scale mobile filterpresses extend service offering

Mobile equipment is growing in popularity in the mining sector as companies look

to exploit smaller deposits over a shorter period of time across widespread areas. As a result of this increase in demand, Filtaquip has introduced Matec's Cube mobile filterpress into its product range.

"We can now offer 100% fully mobile units which are each capable of processing up to 50 m³/hr of solids – a capacity which is unheard of in our local industry from a mobile unit." With no civil foundations or electrical cabling required to install the unit, it can be commissioned and operational within just 48 hours. "Importantly, our mobile filterpresses offer the same benefits and advantages as our fixed units."

The Cube can be operated jointly with a number of mobile units to deliver higher throughputs if the desired capacity is greater than 50 m³/hr solids. It is ideal for mining operations in African countries due to its mobile capabilities and rapid installation.

Filtaquip also rents its filterpresses, which further caters to the smaller, more agile segment of the market.

Growth aspirations in the pipeline

Filtaquip MD Kobus Boshoff is confident that the company will continue to secure new contracts for the supply, operation and maintenance of its filterpresses – "particularly from the coal sector which is somewhat more buoyant than other commodities thanks to South Africa's high demand for coal-generated energy. We in fact are confident of securing new orders before the end of 2017."

The company is also growing its footprint beyond local borders and has filterpresses operating in Zambia, DRC, Ghana and Zimbabwe, with units installed as far afield as Russia.

The MD also highlights the company's proficiency to innovate and problem-solve and acknowledges that this capability has further cemented Filtaquip's position within the coal sector. "We were for example able to modify an operating filterpress to accommodate acidic slurry in just two weeks and help the mine avoid significant operational difficulties," Boshoff reveals. "We have undeniably developed a reputation for providing assistance when a filterpress problem arises on site which needs urgent attention to minimise operational downtime." **MRA**

BEYOND FILTERPRESSES

Filtaquip's product portfolio extends well beyond filterpresses. Its electro-winning division manufactures electro-winning tankhouse equipment that assists in converting base metals (specifically copper, cobalt, zinc and nickel) to final refined product. Its client base for this market is fairly extensive and includes major copper, cobalt, zinc and nickel refineries.

Further to this the company produces its own filter cloths, and also manufactures thickeners and flocculant plants – completing its all-encompassing range of dewatering solutions. Thickeners are available in two types – vertical high aspect ratio paste thickeners as well as pan type high rate rake thickeners.

Manufactured from stainless steel, Filtaquip's flocculant dosing plants have been designed specifically to improve overall plant performance, while reducing specific flocculant consumption to a bare minimum, with minimum maintenance required.

"We also import filter plates from Germany which are well suited to the platinum industry where we also have numerous filterpresses installed and operating," Naidoo points out.



Filtaquip specialises in the design and manufacture of thickeners

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