

Process and BEE Performer in one



Philip Hoff.

Process equipment specialist MIP Process Technologies offers the mixing and minerals market an extensive range of process equipment as well as an international brand of mixers.

TOP BEE PERFORMER

The Codes of Good Practices under the Broad-Based Black Economic Empowerment Act of 2003 (B-BBEE Act) called for action from SA businesses. "There is potential for all local companies to benefit from BEE, provided we embrace the opportunities for growth imbedded therein," says Philip Hoff, MD of MIP Process Technologies.

"It is a business imperative and we will not only be judged by our financial success, but also how we bridged the gap between the past and a united country," continues Hoff.

MIP Process is the only process equipment company in SA accredited with Level 2 status. This allows customers to claim up to 125% of their spend with MIP against their own B-BBEE spend. "Considering that Level 1 is the ultimate achievement, MIP is at the forefront," he adds.

According to Hoff, MIP Process employs more black engineers than any other process equipment company.

However, being at the forefront with BEE requirements does not equate to a "single recipe for success".

When commodity prices are on an upward path, mining companies focus on maximising throughput. During this time, operating costs can increase, and, in a bear market, costs spiral out of control.



Mixer gearbox stockholding.

"MIP's philosophy is to focus on innovations within the sectors we operate, and this allows us to provide cost-effective solutions with minimised operating costs," says Hoff.

Some of MIP's enterprise innovations include:

THICKENING INNOVATION

MIP has developed a system that is fitted onto thickener overflow launders and negates the use of a clarifier step. This can be supplied as part of a new thickener or retrofitted onto existing thickeners.

Typical results show a reduction in the suspended solids of the overflow of mineral processing thickeners, from typically 200 parts per million (ppm) to as low as 50ppm.

REDUCING FLOCCULANT CONSUMPTION

MIP uses an online flocculant control analyser to monitor flocculant consumption on thickener plants. The settling rate of a flocculated sample is determined and compared to the set point. If any adjustment is required, it is actioned, ensuring optimal flocculant usage. Payback for the system is weeks!!

MIXERS REDUCES ENERGY COSTS

"The cost of energy has become prohibitive, and the pressure to save operating costs in all areas of operation throughout industry has become imperative," says Irfan Rehman, process engineer at Chemineer.

MIP has the distribution rights in Africa for all UK-based Chemineer's mixing products.

Traditionally, submersible mixers are used in anoxic zone mixing applications in the water industry.

At a large water company in the UK, the Chemineer top entry design of SC-3 impellers provided a better flow pattern and increased flow velocities on the base of the tank with substantially less power.

The Chemineer design was 1.44W/m³ compared to the submersible mixer requirement of 10.2W/m³. This has resulted in energy savings in excess of R200 000 per annum. This, coupled with savings on maintenance costs, provides customers with an innovative and cost-effective solution.

TECHNOLOGICAL ADVANCEMENT

Two-dimensional computational fluid mixing (CFM) simulations for rectangular or cylindrical mixing tanks as well as static mixers can be produced in less than ten minutes. This technology enables clients to peruse flow patterns of their agitator application prior to purchase and minimises potential mistakes.

"We compete with large international companies. One of the aspects that differentiate us is our "out of the box" thinking and new developments. Our philosophy is not to patent every new idea, but to continue to innovate. By the time the competitors have copied us, we have already implemented a better, more innovative, product," says Hoff.

Hoff concludes: "As the saying goes; 'If you standing still, you are moving backwards'. MIP is not resting on its laurels and plans are far advanced to expand its product range and to open additional offices around the globe." ■

MIP PRODUCTS STABLE:

MIP thickeners and clarifiers

MIP's range of thickeners includes conventional thickeners, high-rate and high-density thickeners. "We have the expertise and capability to provide thickeners with in excess of 100m diameter," says MIP process engineer, Nthabeleng Mphahlele. "For units in excess of 45m diameter, we generally recommend a centre column design, as it is the most cost-effective."

MIP attrition scrubbers

The MIP attrition scrubber uses multiple blades as opposed to a dual blade system to create more attritioning zones within the unit. Typical applications include lime-slaking plants and removal of impurities in the glass industry.

MIP linear screens

These screens have proven themselves in the removal of fibres from a process stream.

MIP flocculants plants

MIP's off-the-shelf flocculant plants are in use at water treatment plants, filtration applications, wastewater streams and clarification processes.

Chemineer agitators

MIP supplies and distributes the Chemineer range of agitators on the African continent. Chemineer provides a complete solution to mixing, from small portables to fermenters in excess of 2000kW. The range includes Chemineer agitators, Prochem side entry mixers and Greerco high shear mixers. "A substantial stockholding supports this product range," says MIP sales manager, Sergio Martin.

Reagent make-up plant

The MIP reagent plant caters for a variety of chemicals from Xanthate to Frothers.

Process engineer Irfan Rehman with static mixer.

