Water Tractors

The Egyptian port of Alexandria has placed orders for a total of four new additional port tugs, equipped with Voith Schneider Propellers (VSPs), with two Egyptian shipyards. These will complement the Port Authority's existing fleet of nine Voith Water Tractors (VWTs).

Two VWTs with a bollard pull of 40t are equipped with two VSP 26R5/195-2 each. The vessels, with a length of 29m and a beam of 9.5m, reach speeds of 13 knots. The remaining two VWTs have a bollard pull of 50t. These are propelled by two VSP 28R5/210-2, ensuring safe and reliable manoeuvring in port. With a length of 35m and a beam of 11.5m, they are also designed for a speed of 13 knots.

VWTs have been deployed in the port since 1989. The first of the new VSPs were shipped to Egypt at the end of 2015, well in time for the new port tugs to be launched by the end of 2016.

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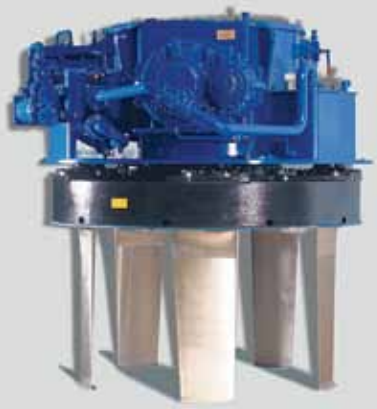
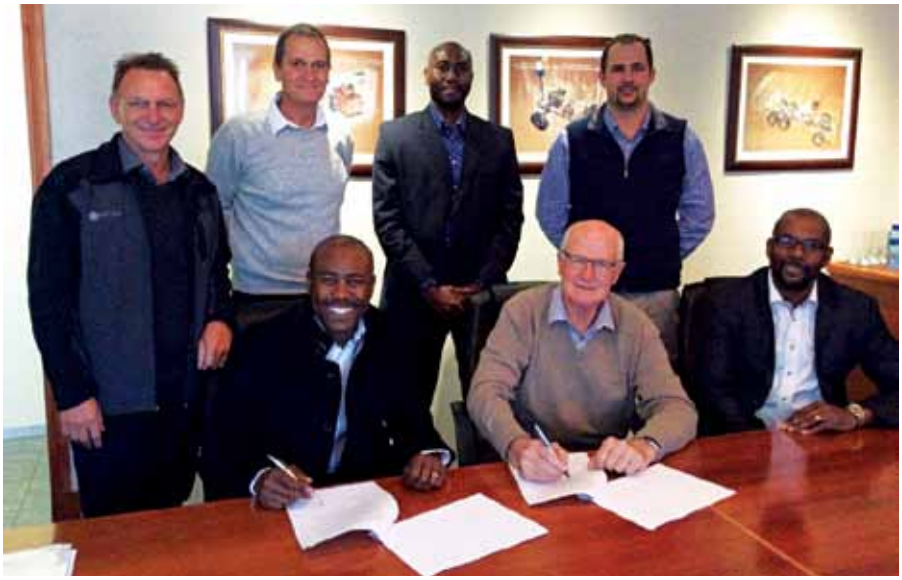


BBBEE Start-up Agreement



Pictured at the enterprise development agreement signing are (back): Ralph Palphramand, Hytec Regional Manager; Mike Harrison, Hytec General Manager; Vusi Mashele, BNP Financial Manager; Frikkie de Klerk, Hytec Branch Manager, Witbank. (Front): Patrick Mgidi, BNP Technical Manager; John Wingrove, Hytec CEO; and Piet Makama, BNP Managing Director.

Hytec has entered into an enterprise development agreement with a Level I Broad-Based Black Economic Empowerment (BBBEE) company, BNP Industrial Solutions (BNP), effective November 2015. BNP was established by managing director, Piet Makama, and partners, Patrick Mgidi and Vusi Mashele.

This agreement will provide access to the Hytec Group's entire hydraulic and pneumatic range and enable BNP to expand its hydraulics products distribution in Mpumalanga to the power generation and mining sectors.

Hytec will provide BNP Industrial Solutions with the skills, product training and technical support from both its Witbank Branch and technical department in Spartan, to enable BNP to grow into a significant player in the hydraulics market within the Mpumalanga region.

"We would like to see BNP grow into a substantial and sustainable partner," says Hytec regional manager, Ralph Palphramand. "This initiative will create employment within the region, while simultaneously building additional channels for our products."

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Custom-designed Evaporator

MechCaL has teamed up with I-CAT to develop a custom designed evaporator using one of MechCaL's patented fan designs to create a high energy efficient unit with the first completed units destined for Douglas Colliery.

The two companies have entered into a MOA with I-CAT being designated as the sole distributor. Six evaporator/fan units were produced at MechCaL's manufacturing facility in Pretoria during October 2015 and final assembly of the units with the intelligent weather control system was undertaken by I-CAT at their facilities.

The I-CAT I-VAP 500 was originally developed following the identification of a need for an effective and environmentally-safe evaporation system that can be applied in reducing excess wastewater at mines. After thorough research and development undertaken in conjunction with the environmental department at I-CAT, a prototype of the I-VAP 500 was designed and built for trial use.

The I-VAP 500 is capable of handling 500 cubic metres of water per twelve-hour day. The evaporation rate is measured as between 60% – 65% depending on ambient weather conditions. In order to ensure that the unit is light, durable and mobile as well as being resistant to rust, it must be constructed from composite materials.

The high energy efficiency unit will have an inlet cone and nozzle configuration that is made from composite materials. The nozzle itself is designed using CFD coding to assist in an optimum flow pattern and droplet throw distance. The MechCaL manufactured I-VAP 500 will also incorporate the company's patented nose and tail cones and Stator design that improves air flow by reducing turbulence and assisting in laminar flow being achieved.

The units are designed to be 'fit-for-purpose' with an emphasis on energy, evaporative efficiency and noise reduction. Working within harsh environments, the I-VAP 500 will ultimately manage excess water through evaporation but will also be adaptable for use in dust suppression as well as potential fire fighting applications by changing the water nozzle and pump configuration.

MechCal, www.mechcal.co.za
I-CAT, www.i-cat.co.za