SA HIPPO GOES BIG AT THE 2018 SASSDA AWARDS

Introduction

In view of the success of the HIPPO Slurry pump and pumping systems range HAZLETON PUMPS[®] has entered into six of the categories for 2018 SASSDA awards; namely:

• Category 1 - Sub Category: **Environmental** an entry was submitted in the for the design, development and manufacture of the HIPPO Series Pumping System; the HIPPO Solid Separation System as well as the HIPPO Dam De-silting System, all of which was specifically designed to pump acidic mine water containing solids either in the mine de-watering and/or treatment processes.

• In Category 2 - Sub Category: **Engineering** – an entry was submitted for the HIPPO Medium//High Voltage; High Head; High Volume Flameproof Submersible Slurry Pump, which is regarded as the World's safest Flameproof Submersible Pump.

• In Category 3 - Sub Category: **Duplex Stainless Steel**; an entry was submitted for the use of Duplex Stainless Steel to decrease pumping cost in the mining industry; as well as

• Category 3 - Sub Category: **Product Development** for the design, development and manufacture of the HIPPO Slurry pump range and pumping systems.

• In Category 4 - Sub Category: **Business Excellence** for exception growth in the company.

• In Category 4 - Sub Category: **Export** for exception growth in the exports to various international destinations, but specifically to the USA and Canada.

• <u>Company Background</u>

In 1979 Thys Wehmeyer founded a family owned and managed company, ELECTRO-MECH, to repair household appliances and electrical contracting work and in 1985 borehole pumps and borehole drilling was added to the mix.

When the decline in the economy made borehole drilling no longer viable the focus shifted to repairing electrical motors and submersible pumps for the mining industry. It was realised that there was a requirement for reliable slurry submersible pumps for the harsh South African mining industry and after research locally and internationally an American company named Barrett, Haentjens & Co situated in a town named Hazleton in Pennsylvania was contacted. A licence agreement was negotiated leading to formation of HAZLETON PUMPS (SA) in 1988.

The submersible pumps manufactured under the licence agreement were designed to operate at 60Hz power and since South Africa operates at 50Hz supply it is not appropriate for South African conditions. Barrett, Haentjens & Co was approached to re-design the pump range to operate at 50Hz which they declined, but permission was negotiated for HAZLETON PUMPS® re-design the pumps to operate at 50Hz for South African conditions.

In 1990 the above led to the design and development of the slurry submersible pump range suited specifically for the 50Hz South African conditions being branded as the **HIPPO** Slurry Submersible Pump[®] Range. When evaluating the design criteria for the HIPPO Slurry Submersible Pump[®] Range HAZLETON PUMPS[®] established that most of the liquids to be pumped were acidic as well containing solids. This was one of the main causes for premature pump failure, with most pumps failing within 6 months after installation due to a combination of corrosion and erosion of the pump components.

• <u>HAZLETON PUMPS® joins SASSDA.</u>

In order to identify which material(s) of construction would be most suitable to enable the range of HIPPO Slurry Submersible Pumps[®] to pump acidic liquids containing solids. HAZLETON PUMPS[®] became a member of SASSDA in (date). After consultation with SASSDA and members companies the decision was taken to use a Duplex Stainless Steel as a material of construction.

• <u>Award winning Product Development.</u>

The innovative use of stainless-steel is illustrated by the design and development of products to become a leader in the field of slurry submersible pumps manufactured from Duplex Stainless-Steel Castings. Through customized engineering and advanced technology, HAZLETON PUMPS[®] designed, developed and manufactured of this HIPPO submersible pump range[®] to accommodate a wide variety of applications and specific duties the following have been achieved and the innovations were recognized by having various awards bestowed on the company:

• In 1993 the Flame Proof Submersible Slurry Pump range, was specially designed and manufactured to IEC 60079-1 to be use underground in a methane gas environment, pumping acidic liquids containing solids.

• In 1994 the Duplex Stainless-Steel Vertical Spindle Slurry Pump was specifically designed and manufactured to pump the contaminated tailings dam water back to the processing plant to be recovered and re-used.

• In 2000 the world's largest Nickel Alloy Vertical Spindle Slurry Pump manufactured in South Africa, was designed to pump phosphate acidic slurries.

• In 2001 the world's largest Vertical Spindle Froth Slurry Pump was specifically designed, developed and manufactured to be used in phosphate mine and to operate under temperatures ranging from -40° C to 30° c.



The HIPPO Vertical Spindle Slurry Pump manufactured from Duplex Stainless-Steel

In 2002 HAZLETON PUMPS[®] was awarded as the Technology Top 100 (TT 100) in the SME (Gauteng) Category for the above-mentioned innovations and designs as well as in 2003 as the winner of the dti Business Awards for excelling in the category: Manufacturing Excellence.

• In 2005 the Largest HIPPO Medium/High Voltage; High Volume Slurry Submersible Pump[®] in the world was designed, developed and manufactured from Duplex Stainless-Steel. This range of pumps was also successfully exported to Canada to operate under temperatures ranging from -40^OC to 30^OC.

• In 2005 the Range of Duplex Stainless-Steel HIPPO Submersible Slurry Pumps was specifically designed and manufactured to pump abrasive and corrosive liquids

In 2005 HAZLETON PUMPS[®] was awarded two awards from the Design Institute of South Africa (DISA) for the HIPPO Vertical Spindle Froth Pump and for the HIPPO Slurry Pump Range[®]. The Technology Top 100 (TT100) awarded the company with the Minister's Awards in the SMME division for innovation.

In 2006 the company was also the Winner of an award from Design Institute of South Africa (DISA) for the HIPPO Submersible Slurry Pump[®]. The National Science and Technology Forum (NSTF) awarded HAZLETON PUMPS [®]as the SMME of the Year

• In 2008 the HIPPO Medium/High Voltage; High Volume Duplex Stainless Steel Slurry Submersible Pump[®] being was designed, developed and manufactured for the pumping of corrosive liquids containing solids.

In 2008 the Company won the Southern African Stainless-Steel Development Association (SASSDA) award for the Innovation of the Year as well as the TT 100 Awards in the category Innovation of the Year, and HAZLETON PUMPS[®] was honoured for the innovations and designs as mentioned above with several awards, as follows:

In 2009 with TT 100 as The Minister's Award at the in the category: Sustainability.

In 2011 with the TT 100 Award for Excellence in Management of Research and again in 2012/2013 as the winner at the TT 100 Awards with the Minister's Award in the category Science and Technology.

• In 2014 the HIPPO High/Medium Voltage; High Head Flameproof Slurry Submersible Pump Range[®] to be used in underground mining where flooding might occur in the presence of methane gas. This submersible pump was the first pump of this kind in the world manufactured utilizing a high voltage power supply and a single stage design to comply with IEC 60097/1: 2005 Standards. This pump range is manufactured from specific materials i.e. Duplex Stainless-Steel, which enables the pumping of acidic liquids containing solids.

• In 2015 at the South African Premier Business (SAPBA) Awards the Company was the winner in both the categories: SMME of the Year, and Manufacturer of the Year for innovative manufacturing.

Also, in 2015 HAZLETON PUMPS[®] was the winner in two categories at the Engineering Federation of South Africa (SEIFSA) Awards when the Company of the Year and the Customer Service Company of the Year awards were bestowed on the company for innovation.

• In 2016 the High Head Series submersible p u m p i n g system[®] as well as the Solid Separation system[®] was designed and developed.

During 2016 HAZLETON PUMPS[®] was honoured with several awards; being the winner of the Southern African Stainless-Steel Development Association (SASSDA) Award in the Section: Manufacturing and Innovation, and the Southern African Development Community (SADC) Quality Awards which bestowed the honour of the winner of the Southern African SMME Company of the Year on the Company, and Product of the Year categories.



The HIPPO Med/High Voltage; High Head High Volume Flameproof Submersible Slurry Pump

In 2016, the South African Flameproof Association (SAFA) also bestowed the award for Engineering Excellence on HAZLETON PUMPS[®] for the design, development and manufacture for the world's first Medium/High Voltage Flameproof Submersible Slurry Pump range which is still a world leader today.

In 2017 the company was again declared the winner of two innovation awards from the Engineering Federation of South Africa (SEIFSA) Awards as the Company of the Year as well as the Customer Service Company of the Year categories