The central role of pumping equipment manufacturers

Following Water Week from 16-20 March, Hugo du Plessis of KSB Pumps and Valves highlights the importance of our water infrastructure and the significant role manufacturers can play if included in the full circle of developing, engineering, operating and maintaining it.

Equipment manufacturers in the water industry should play a central role in developing solutions to the country's growing potable and wastewater challenges.

Hugo du Plessis, market area manager for KSB Pumps and Valves, says manufacturers of pumps, valves and related equipment are most important when systems are being designed or upgraded, as they know their products' capabilities better than anyone else. Therefore, manufacturers should be included at every stage of a project to ensure that the work is carried out within the equipment's capabilities.

Furthermore, global companies like KSB have a wealth of institutional knowledge and technical expertise that they can lend to consulting engineers, municipalities and waterboards to determine the best solutions for a region's challenges.

"In South Africa, our water boards manage decades-old infrastructure. Their challenges include leaks and the maintenance of equipment such as pumps and valves. During Water Week from 16-20 March, we decided to make our services available to help water boards run more efficiently and to identify how best to address issues such as skills shortages and staff training," says Du Plessis.

It is clear, he continues, that our water delivery infrastructure needs an overhaul, with ageing pump stations, rising demand, and water treatment costs that cannot be billed due to leaks or other losses. This makes delivering a reliable water supply a daily challenge for municipalities and water utilities. Ensuring that water reaches households, businesses and even livestock requires technical expertise and partnerships with original equipment manufacturers (OEMs).

"Our operations combine local manufacturing with global engineering knowledge, and our engineers can support municipalities directly, evaluating systems and optimising pump performance for bulk water transfer, treatment works and reticulation networks. Working closely with OEMs also ensures local authorities have rapid service response and on-the-ground technical support once projects have been completed. "The pump stations operate 24/7 under heavy demand. Having trained engineers who understand the full system helps utilities maintain supply," Du Plessis adds.

He explains that KSB is currently helping many of the country's utilities and municipalities to map and measure water supply, assess pump performance and plan remedial action where necessary to ensure systems are operating at full capacity. Advanced tools, including smart meters and data-driven pump monitoring for system optimisation and preventative maintenance, are also being used to enable water boards to identify problem areas and adjust operations before minor issues escalate into major failures.

KSB staff are currently working with several progressive municipalities on maintenance programmes and refurbishment projects to ensure that pumps operate efficiently and safely over the expected decades-long operation of such systems. It also provides training and educational presentations to the next generation of engineers, helping them understand the full water cycle from river to tap and back to treatment so that they can manage infrastructure sustainably.

"We engage directly with water boards and consultants to offer solutions that will last 20-30 years, where we assist with planning and executing systems that can withstand daily demand and ever-growing communities," he concludes.

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The Jericho Pump Station in Mpumalanga, built in South Africa in 1967 and still in operation, reliably delivers water to communities and industry.

Left: ***KSB ETAnorm irrigation pumpsets, if well maintained, will still be operating after 20 years of irrigating crops.*** *Right:* ***A critical water pump station in Freestate, where two FBL 500-400 Double Suction Split Casing Pumps have been in operation since 1967. They were built in South Africa and regularly maintained.***