

HIRING CHEMICAL DOSING EQUIPMENT COULD BENEFIT YOUR BOTTOM LINE



Precise, consistent and controllable chemical dosing is a critical element of water and wastewater

treatment, and it is often combined, along with other equipment, as part of the overall wastewater plant investment. Here, Kevin Wheeler, Managing Director of WES Group, explains how hiring, as opposed to investing, in dosing equipment might prove more operationally and financially beneficial.

Water and wastewater system operators depend on chemical dosing equipment to maintain the quality of production output and ensure compliance with environmental and safety standards. While most plant operators are likely to make significant investments in this equipment, is that capital purchase always justifiable? There is, of course, the option to hire – and there are strong cases for this on both capex and opex fronts. Let's take opex first.

Even well maintained equipment can occasionally break down or fail in service. Hiring allows the early resumption of process operations, and gives staff more time to locate the problem, find a supplier and install replacement parts. Similarly, when the time comes for planned maintenance interventions or upgrades, a hired dosing system will avoid unscheduled downtime and ensure continuity of operations.

When testing and evaluating new processes, plant operators will be encouraged to explore new treatment strategies to ensure the safety and environmental integrity of these processes. But what works in the lab doesn't always deliver in the field. Hiring a system for tests and field trials avoids money wasted on ineffective or inappropriate equipment. And in the event of

short term changes in demand or treatment requirements, the hiring option offers greater process flexibility, enabling a rapid and cost-effective adaptation of site capabilities.

Moreover, hired dosing equipment is engineered and tested by the provider, so is supplied ready to install; suppliers can also manage installation, commissioning and maintenance, to provide significant benefits where in-house capabilities are unavailable or overstretched.

On the capex front, some businesses face severe constraints on capital investment. Hiring a dosing system can significantly reduce the capital expenditure required when building or upgrading a process or effluent treatment system.

THE HIRE OPTION: WHAT TO LOOK FOR

While the short, medium or long-term hire of dosing equipment can be the optimum solution for many applications, the benefits of hire will only be realised if your chosen hiring provider has the appropriate equipment, capabilities and support infrastructure in place, and if they can bring those elements together into an offering that fully meets your operational needs and opex budgets.

Site- and process- specific chemical storage and dosing requirements can vary by several orders of magnitude, so your provider must have dosing system solutions to meet the full range of applications. This might be anything from compact, integrated systems that can be carried to site, to high-capacity, containerised systems that can be filled by drum, IBC or tanker. These systems must be designed to integrate seamlessly into your existing operating procedures and supply chain.

Equipment intended for hire applications must be suitable for a wide spectrum of potential customer requirements. This kind of versatility needs to be engineered-in from the start. Check the quality of the hire fleet – does it include high specification pumps, valves and pipework that are fully compatible with the majority of chemical products used by industry? Will the pumps meet critical flow and pressure specifications? Does the hire equipment feature easy-to use integrated control systems that allow timings and dosage parameters to be easily set and adjusted? These are just some of the considerations that you must take into account before appointing a hire partner.

Hire equipment must be ready on time and often at short notice, especially in time-critical breakdown situations. This requires a provider with a large, readily available fleet of equipment

and the right logistics capabilities to deliver that equipment fast. Does your equipment hire team understand that getting processes up and running is your number one priority? Seek out a hire partner that can get equipment mobilised on a same-day basis and be in a fully working condition at your site within hours or days – not weeks.

Hire equipment must be easy to move, fast to install and straightforward to commission, so mind. Palletised or containerised systems simplify logistics, while robust, weatherproof enclosures maximise location flexibility. Does your hire company supply components that are pre-integrated and pre-tested, such as large tanks delivered with appropriate bunds and with filling equipment and safety systems already in place?

There's nothing worse than receiving your hired equipment and finding that there is incompatibility between yours and the hirer's equipment connections. The first duty of a responsible hire organisation is to ensure that this never happens. Check to see that your provider offers a broad range of pipework and connectors to make on-site integration simple and straightforward, whether the system needs to link to existing dosing lines or come complete with its own. Moreover, establish whether or not the controls are designed to operate independently or will need to link to existing sensors as well as the on- or off-site control systems.

Dosing equipment design, installation and maintenance is a specialised activity and hire customers should expect a comprehensive range of engineering and technical services from their providers to ensure they get all the support they need to select, install and manage their system. For example, does your provider offer equipment packages built to meet your technical specifications, or are they able to make recommendations based on a site survey?

The operators of water and wastewater treatment systems may opt to hire dosing equipment for many different applications and many different reasons. To meet their requirements, the equipment provider must be flexible and responsive, able to meet the lead times and hire periods the customer needs. Dosing equipment design, installation and maintenance is a specialised activity, so it is important that the hire company is also able to offer their customers a comprehensive range of engineering and technical services to ensure they get all the support they need to select, install and manage the right system for their needs. ●