



# How future-proof is your pressure boosting pumping systems?

## What should you look out for when investing in a pressure boosting system?

When it comes to maintaining a building's water systems, facility managers are often the first to hear about issues related to water pressure - from showers and taps not performing as expected in rented spaces to problems in commercial units such as restaurants, hotels, schools and healthcare facilities that rely on water to keep their operations running.

When a property suffers from low water pressure, installing a pressure boosting system can offer a cost-effective solution. A pressure boosting system is defined as a system that increases the pressure of a fluid at a set flow rate. Pressure boosters for water typically increase pressure from a positive (gauge) pressure to a higher level. They can be equipped with a simple on/off control, pressure-based control such as a differential pressure switch, or an advanced electronic control such as a smart starter variable frequency drive (VFD).

After deciding to purchase a pressure boosting system, it is important to find the right system for the application and determine the property's basic requirements for the pressure boosting system. At the most basic level, pressure boosting systems are selected based on flow demands and budget. Yet these variables are only one part of the equation. Facility managers also need to think about scalability, flexibility and long- and short-term maintenance. If you're looking into the merits of a pressure-boosting system, ask yourself these questions:

### Is the system scalable?

Imagine that the owner of a building rents rooms to a clothing shop. After a few years, the owner of the boutique moves out and a restaurant moves in. Two years later, a laundromat wants to use the space. A scalable booster system can meet these different requirements without costly upgrades. Booster pumps can also be expanded seamlessly after the initial installation.

### Is the system flexible?

In the previous example, different tenants had different needs. But what happens when a tenant's demand varies throughout the day and week? How does the booster system react if a laundromat has 50 machines, on average 10 machines are in operation on a weekday, but all 50 machines are in operation on weekends? Is the maximum demand of 50 m<sup>3</sup>/h or the average demand of 1 m<sup>3</sup>/h taken as a basis? The right pressure boosting system can help to do both.

An electronic controller / variable frequency drive (VFD) can maximize usage of a system's pumps at different times. As water demand increases, the system instantly accelerates the motor to the proper speed ensuring the water pressure stays constant from fixture to fixture.

When it comes to booster pumps, variable speed is the best solution and allows you to operate across an entire performance area, hitting the exact duty point you want to meet. The performance of the system isn't limited to one single curve that constrains you. Instead, a pump-dedicated VFD allows for a range of possibilities. They also contribute significantly to energy savings.

### Is the system easy to set up & operate?

When selecting a pressure boosting system, the criteria of ease of installation and "plug-and-play" capabilities is often overlooked. Yet it is hugely important that installers are able to set up the systems and determine the amount of water required to boost pressure to the desired constant pressure. The systems should be pre-installed so that they only need to make the conventional connections to the pipework.

Booster pumps supplied as part of a complete package are often designed for ease of installation, operation and durability. PLC interfaces are optional with these packages.

Pre-configured frequency converters matched to the pump significantly reduce the complexity of the system. Also look for units that are wet-run tested and pre-configured before

delivery so that only the desired pressure needs to be set. Look for systems where the settings can be easily made via the menu or an app.

### Is the system easy to maintain?

Service is also a decisive factor in the purchase decision. The less you have to service a system, the better it works for the end user. This is especially important in applications where a constant water supply is crucial, e.g. in a hospital or other relevant business.

Is the system easily accessible for maintenance? If annual or semi-annual electrical inspections are required, a system with quick couplings can ensure that maintenance can be carried out without time-consuming interruptions to service.

Another crucial aspect that overrides both reliability and maintenance is durability. You should ensure that your booster system can withstand the environment in which it will be used.

### What else is important?

When you equip a building with a system, you also have to consider the space it occupies. Will the system be placed in a production hall or in a small maintenance room? Keep this in mind because the size can vary from 100 square metre booster systems to compact installations on the wall or ceiling.

There are many other factors to consider when operating a system. Does the system run hot or loud? Look for systems that take up little space and operate quietly. Self-sufficient systems are usually ideal and are easy to install without spending a lot of time setting up.

***Invest today in a system  
that will meet the requirements of tomorrow!***

Pressure boosting systems can bring great benefits to a variety of facilities. But not all booster systems are the same. Some offer low upfront costs but are impractical in the long run - too noisy, too big, too complicated and too difficult to repair or operate. By asking yourself the right questions up front, you can avoid these problems and choose the best booster system for years to come.



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## Important purchase criteria for boosting pumping systems:

*Is the boosting system scalable to expand the quantity of booster pumps after their initial installation?*

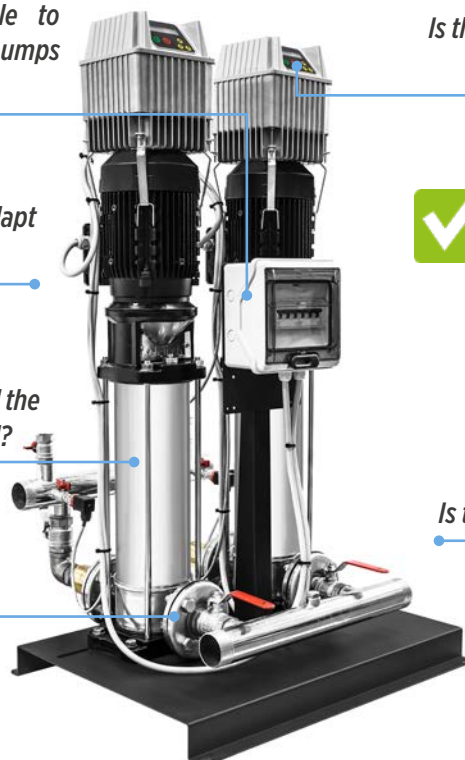


*Is the system flexible to adapt to daily varying needs?*

*Can the boosting system withstand the environment where it's being used?*



*The system should be preassembled.*



*Is the system equipped with a variable frequency converter to hit the ideal duty point?*



*Make sure the boosting systems has been tested hydraulically and electrically.*



*Is the boosting system easy to use?  
Is there a service provided by the manufacturer?*