

## What Lies Beneath

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### Best practices in commercial plumbing

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Although plumbing is one of the most expensive repair trades in our business, it is an asset that is often overlooked by restaurant operators. It's one if those "out of sight, out of mind" necessities that can leave a business in a revenue-crippling situation without forewarning. With water and sewer costs climbing throughout the country, it's imperative to know the importance of constant plumbing care.

The expenses surrounding emergency plumbing repairs, as well as lost sales due to closure, labor reimbursements, inventory loss and disgruntled customers, will add up faster than one might think. The everlasting effect of one of these events could be detrimental to the business, but still our plumbing systems are often disregarded. This sleeping giant requires frequent care, and there are many methods a restaurateur can perform to prevent catastrophes.

Just like Starling's law of the cardiovascular system that "input equals output," plumbing systems have similar loops. Any water that enters into a space must exit the space, whether in some sort of container or via drainage systems.

In the end, all factors that could possibly influence this cyclical system will also play into the efficiency of the design. Below are five explanations to help simplify the system and provide a better understanding of how important it is to care for your plumbing and to enforce best practices within your organization.

#### Supply

Incoming water rests until you open a faucet. Within that tap, there are many small components that will inevitably wear down over time by opening and closing the faucet. Once these components finally give way to system variables and the constant water pressure behind them, a leak develops. This small issue is often overlooked but can end up costing hundreds in repair costs and even thousands in utility costs due to wasted water.

Luckily, a preventive practice can help you combat these leaks. Become familiar with your faucets. Learn how they work. Manual water faucets are easily repaired with brass seats and a series of O-rings that come at a small cost to the operator to replace. Have your local plumber show you how to make these minor repairs.

#### Isolation Valves

Faucets, supply branches, mechanical equipment, kitchen equipment and filtration systems all require isolation valves to shut off the incoming water in the event of service or maintenance. I cannot stress enough how important these are in any supply loop. Isolation valves are often overlooked, and service providers will need to shut off the valve at the main incoming line. This could potentially cause restaurant closure until a repair is carried out. To avoid this problem, ensure there are shut-off valves for each device.

#### Drainage and Waste

On the other end of the system, we have drainage and waste. Most commercial settings require daily, weekly and monthly cleaning regimens. Restaurant personnel will often use an ample amount of water, soaps, disinfectants and scrubbing chemicals, which releases all debris and oils that have gathered throughout the day. These oils can cool and coagulate in drainage systems, causing inevitable backups.

Other components, such as preparation sinks and floor sinks, see a widespread collection of abuse. Whether it is rice and beans (which expand when wet) or acidic soda syrups, many things can very easily eat away the lower section of plumbing lines—some quicker than others, depending on slope and materials used. Creating a nightly regimen of rinsing out soda drains with plain warm water can save you tens of thousands of dollars down the road. In addition, ensure all floor drain covers are in place and secure.

#### Fats, Oils and Grease (FOG)

The end goal of restaurant drainage systems is to minimize FOG and organic material going down the drains. However, we all know that pure water isn't always going to be a reality. Therefore, we do our best to capture FOG and organic materials before going down the drains.

Employ preventive measures to avoid drainage catastrophes. Many supply companies provide simple screens and drain net devices that prevent food from going down drains. In addition, there is a human factor involved that means cleaning these screens one to four times daily. Certain preparation items that are collected can often be composted. This simple regimen is not only good for your drainage but good for the planet. Again, ensure all drain covers are in place and secure.

#### Backflow Prevention

Most municipalities require reduced pressure and backflow devices near a supply line that could possibly be compromised. However, inline and end cap properties often run into problems with drainage backups due to issues farther down the main waste lines. Check valves, clack valves, non-return valves and one-way valves all normally allow waste to flow through them in only one direction. They are usually two-port devices, meaning they have two openings in the body: one for liquid waste to enter and the other for liquid waste to leave.

Anyone working in restaurant facilities has dealt with the "whose fault was it?" in regard to plumbing backups, but installing a check valve could help to mitigate future issues and identify where any problems began.

These are just a few of the prevention tactics that might help you avoid costly repairs and keep utility costs low. It's always a good idea to continually revisit the maintenance plan of your plumbing systems. Educate your staff, and keep a sharp eye on your plumbing system to ensure all is in good health.

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