The Basics of Plumbing for Property and Facility Managers.
The Basics of Plumbing...

Plumbing is comprised of the pipes and fixtures (such as faucets) that make up the distribution system for water, and the removal system for waterborne waste. Facilities such as sewers and water mains are not considered to be plumbing, but instead only those systems which are part of a building are called plumbing.

The pipes in plumbing can be made of copper, stainless steel, brass, or (increasingly common) plastic. The flow of water through these pipes is controlled by valves, that bend around corners through the use of a joint called an elbow. The end-use of plumbing comes at the fixtures, such as faucets and toilets, although some fixtures recycle water back into the building's plumbing, such as hot water heating systems or chiller systems.

Plumbing works because water is kept under pressure within the pipes. If a water main connection runs into the basement of a building, the water still flows on the upper floors because of the pressure. Not so many years ago, this pressure was created by the force of gravity. If you have been to cities such as New York, you undoubtedly remember seeing the large water holding tanks on the roofs of buildings where the force of gravity keeps the water flowing into and throughout the building. In more modern buildings, this is done with powerful water pumps.

The Plumbing Systems...

When you take a close look at the plumbing system inside of a building you'll find three inter-connected systems. These are: The water supply lines. The waste water drain lines and the vents. The waste water drain lines and the vent pipes are dependant on each other and together they are known as the “DMV system.”

The job of the water supply lines is to carry the water from the main line provided by the municipality or utility company to other supply pipes inside the building to the various sinks, toilets, water heaters and appliances. The water gets to its destination from the pressure that is maintained in the water supply line provided by the municipality - and this pressure is created by a water pumping station or a water tower owned by the municipality or utility.

In the case of a water tower the pressure for the water is provided by the fall using the force of gravity. In the case of pumping stations, the pressure is caused by a push from the ground. The rest of the work is done by displacement.

As the water is guided through the pipes, it does not have an option other than follow the length of the pipe. So, when the water valve is turned on, the pressure allows the water to flow outward. When you turn the water valve off the flow is blocked.

The waste drains are designed to guide the waste waters into the septic tank or the sewer, which is located out of the building. Sink and tub drains flow because of gravity whereas toilets operate both on gravity and pressure. For example, in the case where you have a bathroom in a basement, an electrical pump might be needed to push the waste into the pipes.

Vents are needed to release the toxic gasses which form in the drains. When the pipes do not contain water, the residual water and waste changes into a gas. The toxic gas makes its way out of the S or P shaped pipe bends (sometimes referred to as a P trap) to the vents commonly seen on the roofs of a building.

Gravity plays a key part in your plumbing system. Draining and flushing rely on gravity to ensure that the water flows where it needs to go. Water naturally flows to the lowest level, so gravity keeps the water flowing down the drain, down the toilet, and down the pipes.

Now that you have a basic understanding of plumbing you can help prevent problems. Keep your drains flowing freely by making sure you never put anything down the drain that is not supposed to be there. If your drains stop draining, the flow of water pulled by gravity has hit an obstacle. This means you have a clog and should make immediate repairs.
Things to Watch for…

When you notice that a sink is draining slowly or you have toilets that overflowing quite often, you obviously know you have a plumbing problem. Yet what you don’t know is exactly how big the problem could be. It could be a simple clog in your sink drain or the pipes beneath your toilet. Or it could be much worse. Determining the exact cause of the problem is essential. The longer you wait, the more damage can be done.

Is it the Main Line or the Pipes in Your Business?

If your drains are extremely slow and no amount of drain cleaner speeds them up, you could have a main line issue. If your toilet keeps overflowing and plunging doesn’t do the trick, the main line could be the culprit.

The best way to determine if your main line is causing your plumbing problems is to have a professional plumber from Benson Systems evaluate the situation. The plumbers at Benson Systems can come to your business and assess the problems you are having.

Tree roots cause many main line clogs. Either the roots break through the pipes and cause a clog or the roots wrap around and crush the pipes.

Your plumbers at Benson Systems will find the source of the clog and can help you fix the problem. If tree roots have invaded your main line, usually a sewer snake will break through the roots and allow water to flow freely again. If the pipe has been crushed, the line will have to be replaced. Either way, your professional plumbers at Benson Systems will be able to fix the main line and have your plumbing draining smoothly.

Video Drain Inspections…

When you have a plumbing problem, it can be difficult to determine exactly where the problem is located. You may have a backed up sink. But the sink isn’t the issue. It may be the pipe just pass the drain, or it may be a larger problem located in the main outside of your building. How do you tell?

A video drain inspection can help you discover where the problem is quickly and efficiently. A video drain inspection consists of a Benson Systems professional plumber sending a small camera down your drain. The camera will follow the path of the pipes until it reaches the source of the problem. For instance, the camera may discover a large tree root blocking the flow of wastewater.

If commercial buildings video drain inspections may be the perfect way to monitor your current buildings needs, and assess potential threats before they happen. Especially if you have experienced a number of backups in the past few months, an inspection can help you rest easier, knowing you won’t come in to work only to find a room full of water.

How Do We Know So Much?

We have a combined experience of more than 120 years in dealing with plumbing issues of all types. We can surely help you. Call us at the number below and be sure to check our website or Facebook for available deals this month.

Other Services We Can Provide for You…

Benson Systems has been serving property and facility managers across Arizona and New Mexico since 1986. We have an A+ rating with the Better Business Bureau.

We have many different divisions to assist commercial and residential property managers and facility managers including: HVAC, Plumbing, Electrical, Fire Alarm, Fire Sprinklers, Security, IT and Computer Repair, Audio and Visual, Emergency Restoration from Water, Fire and Storms, Contents Cleaning and Electronics Restoration.

Fire Alarm Systems
Fire Sprinkler Installation and Repair
Fire Extinguisher Sales and Service
NFPA Required Testing and Inspections
Backflow Prevention Systems Installed and Serviced
Local Monitoring of All Systems

Security Solutions Both Commercial & Residential
iPhone and Android Connectivity for All Security Solutions
CCTV - Security Cameras Installed and Serviced
Card Access Control Systems - Hosted and Legacy
Commercial Security Systems
Residential Security Systems
Integrated Security Solutions
Automatic Gate Control
Local Monitoring of All Systems

Electronics Restoration
Complete Packout Service
Restoration of Electronics Damaged by Fire & Water
Data Recovery
Storage Service
Re-Installation Service

Building Energy Management Systems
Automated Lighting and HVAC Control
Audio and Visual Systems
Home Energy Management Systems
Central Vacuum Installation and Repair

Commercial & Residential HVAC Installation & Service & Maintenance
Emergency Service
Complete Installation of New Systems
HVAC Filter Replacement
We Service Carrier | Trane | All Brands

Computer Repair, New Computer Purchases & IT Support
New Computer & Laptop Purchases
Dell | HP | Microsoft | Custom Built Computers
Computer Repair & Upgrades
Outsource Your IT Services to Us
Virus Removal
Software Installation
Data Backup Storage
Electronics Restoration
VoIP Phone Systems & Service
Server Design and Deployment

Benson Systems Headquarters & Corporate Office
2065 W Obispo Ave, Suite 101
Gilbert, AZ 85233
480-892-8688
480-892-8688 (Fax)
www.bensonsys.com
C-12 ROC166983  K-11 ROC275362
L-67 ROC166884   K-11 ROC147120
K-16 ROC213233

Benson Systems Albuquerque Branch Office
6701 Edith Blvd. NE, Suite F
Albuquerque, NM 87113
505-916-3001
505-344-1585 (Fax)
www.bensonsys-nm.com

CONTACT US

Plumbing Repair & Maintenance
Commercial Plumbing Service
Residential Plumbing Service
Leaky Faucets | Disposals | Water Heaters
Backflow Devices Repaired & Replaced
Drains Opened
Toilets Cleared & Replaced
Pipes & Sewer Systems Repaired
Central Vacuum Tubing & Outlet Repair

Building and Home Automation Systems
Commercial & Residential HVAC Installation
Commercial Electrical Installation & Repair
Residential Electrical Installation & Repair
Emergency Electrical Repair
Electrical System Troubleshooting
Parking Lot Lighting Repair & Scheduled Maintenance
New Electrical Panels Installed
New Outlets Installed
Ceiling Fans Installed

Electrical Repair & Installation
Commercial Electrical Installation & Repair
Residential Electrical Installation & Repair
Emergency Electrical Repair
Electrical System Troubleshooting
Parking Lot Lighting Repair & Scheduled Maintenance
New Electrical Panels Installed
New Outlets Installed
Ceiling Fans Installed

Air Conditioning & Heating System Repair & Installation
Commercial & Residential HVAC Installation
Service & Maintenance
Emergency Service
Complete Installation of New Systems
HVAC Filter Replacement
We Service Carrier | Trane | All Brands

Follow Us