

Introduction to Toilets Training Flyer

A customer comes in and says “I need a toilet.” You reply “Do you know which kind?” They say “No”. Where do you go from here? What questions can you ask to get the customer exactly what they want? This flyer will serve to detail the terms and types of toilets, also referred to as water closets. In our industry it is important we all have a working knowledge of this topic.

How Toilets Flush:

The majority of residential toilets are **gravity-fed** operated, meaning that they rely primarily on the force of gravity to remove the waste. When the toilet handle is pushed, the flush valve inside the toilet tank opens and releases water into the bowl. This fills the **trapway** (also called the siphon outlet) with water and creates a siphon that pulls the waste out of the bowl, through the trapway. From there, it’s out to your sewer or septic system.

In toilets like these, the trapway fills with water during the flush and initiates a siphon effect that **"pulls"** material out of the bowl. At the same time, the water entering the bowl from the tank **"pushes"** material out of the bowl. This simultaneous pushing and pulling evacuates the bowl during flush.

There are also power assisted models where a motor pushes the water into the bowl from the tank and “washdown” models where all water enters through the rim of the bowl.



Some things to consider when choosing a toilet:

There are many factors to consider when choosing a toilet. Below is a brief overview of some of them.

- What are the Gallons per Flush?
- What are the Grams per Flush?
- What is the Water Spot Size?
- Is it Round front or Elongated?
- What Height is it?
- What is the Flush Valve Size?
- Is it a fully glazed trapway?
- What size is the rough in?

Gallons per Flush

Toilets account for more than 27% of water use in the average American home. Fortunately, your household can significantly curb its toilet water usage by installing more efficient toilets. Older toilets may be 3 gallon per flush (GPF) but Federal standards now mandate no more than 1.6GPF can be used.

There are high efficiency toilets that use 1.28GPF. These toilets are estimated to save users around \$2,200 in water costs over the life of the toilet. These toilets are stamped with/marketed with the WaterSense logo. From the EPA site: “Nationally, if all old, inefficient toilets in the United States were replaced with WaterSense labeled models, we could save **520 billion gallons of water per year.**”



Toilets can also be **“dual flush”**. In this case the toilet doesn’t have a standard handle but two push buttons at the top of the tank. One is for a full flush for bulk waste removal and the other is for a partial flush for liquids only removal.



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MAP Test & Grams per Flush

MAP, or Maximum Performance, is an organization that tests thousands of toilets for flushing capacity. One of the main features their report lists is the **Grams per Flush**. This is the grams of waste a toilet can flush in a single flush. Ranging from 250 to the 1000, the higher the grams per flush rating the more waste the toilet can remove. It is important to take this into consideration when choosing a toilet. "Will the toilet be used often?" If so, you may want to opt for a higher grams per flush toilet. Typically 800 grams per flush or better are considered good flushers.



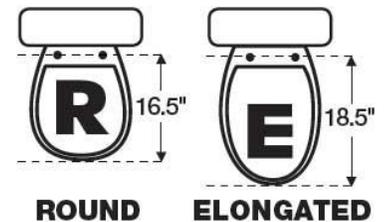
Water Spot Size of a Toilet

Outside of powerful flushing, cleanliness of a toilet is another important factor for a toilet to have (basically how well the toilet bowl stays free of waste). One of the things that help a toilet stay clean is a large water spot. The **water spot** of a toilet is the surface area of the water in the bowl when the toilet is not flushing. A large water spot reduces marking in the bowl. These can be found on the spec-sheets of the toilet. 10 inch would be considered a good sized water spot. A Kohler Wellworth is 10-1/2" (267 mm) x 7-3/4".

Also, the power of the flush is a factor for bowl cleanliness here as well. The more force the water coming from the rim has the better it will remove waste. There can also be special glazing and other features to help. Also, although not popular in the US washdown toilets have exceling cleaning capacity because all the water is ran down the bowl.

Round Front v. Elongated

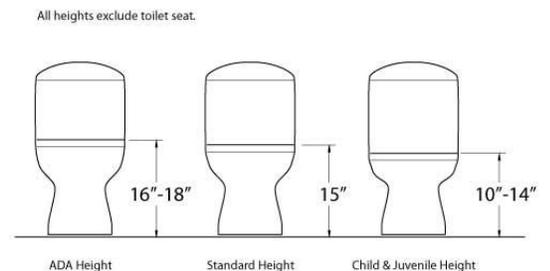
Bowls can be either round front or elongated. Elongated bowls are typically thought of as more comfortable but in cases there is limited space a round front may need to be use.



Standard v. ADA "Comfort" Height

Toilet height is also important to discuss when helping a customer choose a toilet. ADA compliant toilets can range in height and are referred to by different names by different vendors. "Comfort Height", "Right Height", etc. ADA stands for Americans with Disabilities Act. These toilets are considered to be more comfortable and easier to stand from.

The chart to the right shows typical heights for each.



Flushvalve Size

Another feature that helps improve the flushing capacity of a toilet is the flushvalve size. This has been relatively standardized to 3 inches but larger sizes are available. There are also different types of flushvalves used.

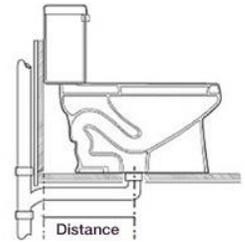
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Fully Glazed Trapway

One feature that helps maintain consistent flushing power over time is a “Fully Glazed Trapway”. The inside of a toilet bowl is glazed in order to seal it and help with waste removal. Some toilets do not glaze all the way through the trapway. This can cause a less smooth exit and a buildup of waste overtime.

Toilet Bowl Rough-In Size

A toilet rough-in size is the distance from the finished wall surface to the center of the toilet mounting flange. This is standardized to 12 inches but can also be 10 inches or 14 inches. It is important this number is accurate when ordering a toilet for a customer.



Slow close seats & Newer Features

Much of this flyer has been on features that make the toilet better for a home owner. Although it isn't technically part of the toilet a slow close toilet seat is a nice addition to bring up with customers when talking toilets. This is a seat that will not slam shut. Other newer features being incorporated into the toilet is touchless flush and overflow monitoring.

Back to the Start

In the beginning of the flyer a conversation started between you and a customer. Below is a list of some example questions you could now use to further the discussion and hone in on what the customer needs.

- Is it a toilet frequently used?
- Are you looking for comfort?
- Are you looking for power?
- Are looking for quietness, by a bedroom or something?
- Will kids frequently be using it?
- Are you looking for efficiency?
- What size space are you dealing with?
- Do you know the rough in size?
- Is aging in place applicable? (ADA)
- What is the rough-in size?

Next Steps and a Couple Questions

The first next step is to learn more. Below is a link to a video on how the Kohler Cimaron works:

<https://www.youtube.com/watch?v=l-gmtoM58VE>

TRUE or FALSE: Standard rough-in size is 12"

TRUE or FALSE: An 8"x8" water spot would be considered a good size water spot