

# Toilet Repair-Replacing Wax Ring

## Signs of Leaking Seal

Dampness or water around the base of a toilet in the bathroom, and/or water leaking through or staining the ceiling below is usually a sign that you have a leaking wax seal between the toilet and the drain. But before you condemn the wax ring, make sure the water is not coming from some other source. There may be a leaking connection under the tank. Condensation on the tank may be dripping and collecting around the base of the bowl. I recently heard of a problem that sounded like a leaking wax seal, but turned out to be a pin-hole in the drain pipe below the toilet.



In any case, moisture around the base of a toilet is a problem that should not be ignored. It will usually not go away by itself, and over time it can cause significant damage to the subflooring around a toilet and the ceiling below.

## Recognize Your Limitations

Replacing a wax ring is not technically difficult, but the job is awkward, can be messy, and the toilet is heavy. It is not a job for a person with a bad back.

Some professional plumbers wouldn't think of doing this job without the help of a Toilet Truck. Sounds like a toy, but it's really a special frame designed to do the heavy lifting that installing or moving a toilet requires.

Go to the AquaOne Toilet definitions document and take a close look at the connection where the toilet sits on the floor. The parts are inexpensive, but it's labor intensive. This is usually one of those cut and dried plumbing jobs that permits you to do a telephone price comparison among your local plumbers by asking what is the cost to replace a wax ring?

Space around a toilet can often be very restricted with very little room to maneuver or see what you are doing. Separating the tank and bowl will help to ease the strain of lifting and carrying the toilet, but this can be more difficult than it first appears. Bolts are often rusty and will strip or break with little effort

## Don't Delay

If you or your plumber run into rotten sub-flooring, damaged soil pipe or flange, you've got a bigger project, and it will complicate replacing the wax ring. Don't delay this replacement; replacing the sub flooring is expensive. If the pipe or flange is damaged, there are special replacement toilet flanges just for this situation.

## Check Local Plumbing Code

Before you decide to do this yourself, you should check your local plumbing codes. There are some areas that require that only a licensed plumber do this work. That said, if you're going to do this yourself, try to enlist the help of a friend or spouse. Start by buying a new wax ring -- whether you are installing a toilet for the first time or reinstalling after repairs, ALWAYS use a new wax-ring.



New Wax Ring

There are two types: one has a plastic horn and the other type is just a wax ring. These rings are incredibly sticky, be prepared to wash up as soon as you handle the ring and before you touch anything else. Some professional plumbers do not like the type with the horn, because the horn will sometimes get caught on a toilet auger. We've heard the type with the horn has solved



problems with leaks that were difficult to identify. In fact, there are times when it is necessary to use both a plain ring and a ring with the horn.

## Buy All New Parts

**You should also plan on replacing all the parts that you loosen or remove. So when shopping for a new wax ring, also buy a new water supply line and a new set of mounting bolts. The newer style flexible supply line that comes with both end nuts in place. Altogether these parts will cost under \$10. If you separate the tank and bowl, you should also buy new bolts, a new gasket and washers to re-connect the tank and bowl.**

## Protect any floor covering around the toilet,...

either remove it or cover with old towels. Especially if you have marble, granite or fine tiles; **the bottom of the toilet is hard ceramic and will put deep scratches and even gouges into your fine flooring.** You will get water on the floor...count on it. If you have to turn the water supply off at the main house shutoff, fill two buckets with water. One bucket of cold water to use to drain the bowl (see below) and the other with hot water to clean the floor under the toilet and the bottom of the toilet. Finally fill your sink with warm water to wash up after handling the wax-ring and wear gloves.



Start by turning the water supply off. Disconnect the supply line to the tank (covered under the lessons on replacing refill valves). Flush the toilet, hold the handle down to allow as much water as possible to drain from the tank. Dump the bucket of cold water into the toilet bowl all at one time. This will leave you with just a little water in the bottom of the bowl; sponge it up.

Next you have to decide whether or not to separate the tank from the bowl. A professional plumber will probably work with the two pieces together, but it's tricky and awkward. There are usually two or three bolts holding the tank and bowl together. Look at the diagram on the Toilet Definitions pages to get an idea of how the two pieces fit together. If you decide to separate the tank and bowl, use penetrating lubricant (LPS-1 or WD-40) on the nuts under the tank. Hold a large screwdriver on the head of the bolt inside the tank while you turn the nut under the tank with an adjustable wrench. This may not always be necessary, but it may prevent you from shearing the bolt and having a totally different problem on your hands.

Pry up the caps that cover the bolts that hold the toilet to the floor and remove the bolts. Use a penetrating lubricant on the bolts; as a last resort, you may have to use a hack saw to cut the bolts off. Do not try to break off. There is a flange under the toilet that will break before the bolts do!



## Remove Caulking or Sealer

If there is a caulk seal between the bowl and floor, you'll need to cut through it around the entire base of the bowl. Once the nuts are loose, rock the bowl from side to side to break it free from the old wax ring. Lift the toilet up and off the bolts. Turn it on its side on top of a sheet of plastic (lawn/leaf bag) and examine the old ring; you can sometimes see where and why the ring leaked. While you prepare the toilet for reinstallation, stuff an old towel into the drain opening to prevent sewer gases from entering the bathroom.



Clean off the old wax from the base of the bowl and from the flange; clean the floor and the base of the toilet thoroughly; alcohol or mineral spirits work pretty well. You may need to gently scrap the larger deposits off the floor. To make a good seal, both the flange and the bowl should be clean. Press the new wax ring evenly over the hole in the base of the toilet or over the hole in the flange on the floor. Insert the new mounting bolts into the slots in the flange and turn 1/4 turn.



### Putting the Toilet Back in Place

The next step is the tricky part. You have to lower the bowl down over the bolts evenly so that the toilet remains level. It helps to have someone on the floor beside the toilet to guide you down over the bolts, because it's hard to see what you are doing.

Here is a suggestion for making this job much easier. Stand a plastic soda straw over each bolt then lower the toilet over the straws. The straws act as guides and help prevent damage to the wax ring.

Tighten the nuts to the bolts by hand; slowly and evenly, then use a wrench until the bowl is snug to the floor. Be careful not to over tighten....you can crack the toilet. In a few days, check the nuts and make sure they are snug. Reattach the tank (if you removed it) and water supply. A toilet bowl must not rock, if you are unable to steady the bowl, use shims to fill any gap you have. There are shims made just for this purpose.

### Wax Free Bowl Gasket



There is an alternative to the typical wax-ring that can solve many stubborn problems...such as a change in floor level after a new floor is installed. Easy to install, a wax-free bowl gasket is a re-useable replacement for the wax ring normally used for connecting a toilet to the drain pipe. It will seal to a flange that is below the floor level, and can accommodate fixture and structure movement.



**W**hile you are at it, don't forget to install a Toilet Guardian to alert you to potential money wasting water leaks as well as eliminate the water loss is there is. The Toilet Guardian is also great if you just want to prevent bowl overflows caused by kids, seniors, disabled persons or blocked drains. Remember, no water lost when your protected by the Toilet Guardian.



**Eco-Smart Water Valve Saves Money, Water and Eliminates Overflows**

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