

### 3 HOW TO TEST FOR INTERNAL PIPE LEAKS

- Ensure that the reasons for a high water consumption is not pipes leaks, pressure release valve, dripping taps or running toilets.
- Close all the internal taps, including the stopcock at the toilet cistern.
- The small wheel on the water meter must not turn.
- Take the meter reading.
- Wait 2 hours and take the meter reading again.
- Subtract the meter readings from each other.
- You have an internal leak if result is above 0.
- Call plumber to repair internal pipe leak.



#### REMEMBER:

**THE COUNCILS RESPONSIBILITY STOPS AT THE WATER METER!**

#### REPORT –

no water supply; water pipes burst; leaking meters; and blocked street sewers

to **012 358 2111/9999 or 080 1111 556 (toll-free)**

**Industrial effluent enquiries: 012 358 9067/9078/9999**

**Pollution spill response service: 012 358 9067/9078/9999**

#### DID YOU KNOW!...

- A leaking toilet can waste up to 16 000 litres of water in one year!
- A tap left running can waste up to 17 litres of water per minute!
- The bathroom uses around 49% of all water used inside the home
- An eight minute shower using a regular shower head uses around 120 litres of water. A water efficient shower head uses less than 72 litres.
  - A dripping tap can waste as much as 24 000 litres of water in one year.
  - A water efficient tap with an aerator or flow restrictor use 50% less water than standard taps.

#### HOW CAN I KEEP MY WATER BILLS LOW

- Each consumer has full control over his/her account.
- Conserve water to reduce your monthly account.
- Check water meter readings regularly.
- Don't let a tap drip or the toilet leak.
- Make sure external leaks are repaired immediately

#### WATER FACTS

- A 5 minute shower uses 30 litres of water.
- A bath uses 90 litres of water.
- Flushing a toilet uses 9 litres of water.
- Washing dishes in a dishwasher uses 40 litres of water.
- Washing the car with a bucket uses 10 litres of water.
- A sprinkler uses 540 litres of water per hour.
- Cleaning your teeth with the tap running uses 6 litres of water.
- Washing your hands and / or face uses 4 litres of water.
- A paddling pool holds 400 litres of water.
- Filling a kettle uses 2.5 litres of water.
- Using a hose without a trigger nozzle uses 500 litres of water per hour.



# High Water Consumption

**THE THREE MAIN CAUSES OF HIGH WATER CONSUMPTION ARE**

- 1 A DRIPPING TAP
- 2 A RUNNING TOILET
- 3 PIPE LEAKS

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## HOW TO FIX A DRIPPING TAP

### YOU NEED

Washer, adjustable spanner, screw driver, pliers & small spanner for jumper nut.

### HOW TO FIX A DRIPPING TAP

- Close off the water supply at the water meter, open the tap fully and allow the water to run out completely.
- Unscrew the tap cover, where provided.
- Basic taps
  - Star Head Part screw on side of star head
  - Plastic Head Part screw hidden under black plastic cap on tap
  - Brass Garden Tap no screw complete head comes off
- Lift the head part of the tap away from the body.
- Use pliers to hold washer plate while unscrewing the washer retaining the nut.
- Remove the old washer and fit a new similar one.
- Secure the washer with the washer retaining nut.
- Re-assemble the tap and close fully.
- Turn on the water supply.
- Turn the tap on and off to check that it does not drip.
- If the tap leaks on top of the shaft at the handle piece, tighten the gland nut just a little bit. Make sure you don't tighten the gland nut too tight or it would struggle to open and close.
- Do not close the tap too tightly since new washers are softer than old ones and may easily get damaged.
- Ensure that the correct size of washer is used.



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## HOW TO FIX TOILETS CISTERNS

### a. Causes of leaks

Slow or no flushing action – handle must be held until the flushing or the toilet is completed or handle must be adjusted upwards.



There are two places to look for leaks from your toilet cistern either the silent trickle into the toilet bowl or a leaky overflow pipe which is dripping outside.

### BASIC CISTERNS BETA VALVE'S

Water running into the toilet pan slowly and continuously.

### BRASS DROPPING PAN

If the beta valve washer is leaking unhook the wire connection, the pin handle. Once the pin is completely out unscrew the kick nut-plate at the bottom of the pin. Replace the old washer the same way as the old one and replace the lock nut plate and tighten. Hook the wire connector to the handle.

### PLASTIC BETA VALVE

Unhook the handle from the arm by taking out the split pin. Now the arm can also be removed from the mechanism. Take the whole mechanism at the bottom and turn in anti clockwise. It unhooks from the 3 pins at the bottom and can be taken out. Now simply stretch the beta-valve rubber out of its slot and gently stretch the new one over. Replace the mechanism with the pins in the gaps and turn it clockwise until it stops. Replace the arm and the split pin into the handle.

### HOW TO DETECT A LEAK

Some toilet leaks make a running sound. Others are silent leaks. To detect a silent leak, put some drops of food colouring into your toilet cistern. Wait thirty minutes. You have a leak when there is colouring in the bowl. Replace the washer. Many toilet leaks can be fixed with simple tools.

### b. How to detect a leak:

Some toilets leaks make a running sound that can easily be heard or can be so small/silent that it may be leaking and you may not even detect the leak. You don't need to have a plumber check it. Simply drop about 8 drops of food colouring into the toilet cistern. Wait thirty minutes. If the water in the toilet bowl is the colour of your food dye you the cistern is leaking. Many toilets can be repaired with simple tools.

### c. How to repair the different leaks:

*Water flowing from the overflow pipe in the toilet pan:*

**Cause:** The float/ball or inlet valve is not shutting off correctly.

If your float/ball valve is old, the best advice is to replace it with a modern diaphragm valve. These are quite inexpensive and normally available from plumbing suppliers.

### Adjusting the float/ball valve

The water level in a cistern tank is controlled by adjusting the float/ball on the float valve assembly. The lower the float when the valve is closed the less water is allowed in the cistern. The water level should be approximately 25mm below the overflow outlet.

This can be adjusted in a number of ways depending on the type of float valve present.

If the float arm involves a 90° kink at the end, and the float/ball is attached with a thumb screw to the arm, the height of the float can be adjusted by loosening the thumb screw and lowering/raising the float on the arm. If the float/ball is attached directly a solid metal rod, the float can be lowered/raised by bending the arm down or up

### Repairing the inlet valve

Isolate the cistern in the plumbing system, or if there is no isolating valve turn off the mains water supply

Depending on the particular model you may have to remove a few tiny screws in the top of the valve or unscrew the large retaining cap on the valve, located inside the cistern at the end of the float arm. The retaining nut will be in front of or behind the valve. If the retaining nut is at the front then you will see the diaphragm assembly immediately behind the cap. The retaining nut is at the rear then slide out the cartridge assembly to locate the washer/diaphragm behind it. Once the cap is removed, check the washer/diaphragm for abnormal wear or cracks. Before installing a new washer/diaphragm and assembling the valve, clean all the parts in cold water to remove any scale Reassemble the valve and reconnect the water supply.

*Water running into the toilet pan continuously but not from overflow pipe :*

**Cause:** Beat valve is not sealing properly

### Replacing the beta valve

Disconnect the flush arm from the valve mechanism inside the cistern. Using a wrench, unscrew the large nut holding the flush pipe onto the base of the cistern. Move the flush pipe slightly to one side, place a bucket underneath and unscrew the retaining nut which holds the siphon to the base of the cistern. Lift the siphon assembly out of the cistern and take the diaphragm/ beta valve off of the metal plate. Replace the worn diaphragm/beta valve with an identical sized new one. Reassemble the flushing mechanism and attach the flush pipe. Turn on the water supply and watch closely for leaks as the cistern fills