



6L Diaphragm Activated

Type D- JSD6DH

Install outdoors only - must be installed
with a weather box (cover)



Read these instructions carefully before operating the gas geyser and familiarize yourself with the appliance before connecting it to the gas cylinder. **Keep these instructions for future reference.**

This appliance is manufactured to operate on LPG only. Do not tamper or modify the appliance.

Important

If you smell gas

1. Turn off the gas supply at the bottle
2. Extinguish all naked flames
3. Do not operate any electrical appliances
4. Ventilate the area
5. Check for leaks as described in this manual
6. If gas smell persists, contact your dealer or gas supplier immediately

Burn-back

In the event of a burn-back, where the flame burns back to the jet, immediately turn the gas supply off at the gas cylinder. After ensuring the flame is extinguished, wait for 1 minute and then reignite the appliance as per normal. Should the appliance burn back again, close the gas cylinder and call a registered LPG installer.

Do not use the appliance again until the installer has confirmed that it is safe to do so.

Gas-pressure regulator

This appliance requires an operating pressure of 2,8 kpa. Only install a LPG regulator that complies with the SANS 1237 requirements.

Guarantee

After installation, please register your product on the Dewhot website (www.gasgeysers.co.za/product-registration) You will need your invoice and Certificate of Compliance (COC) to complete the registration.



Only a registered gas installer can install your gas geyser and must comply to SANS 10087-1

User

This appliance may only be installed by a registered LPG installer.

Registered installers are issued with a card that displays their registration number.

Insist on seeing this card and make a note of their registration number.

When they have finished their installation make sure the installer performs an operational and safety briefing.

Before you sign off the installation, make sure you also receive your COC

Installer

This appliance may only be installed by a LPG Installer registered with the South African Qualification and Certification Committee (SAQCC). The appliance must be installed in accordance with the requirements of SANS 10087-1 for use with LPG and or any fire department regulations and/or local bylaws applicable to the area.

If in doubt, check with the relevant authority before continuing with the installation. Once an installation is complete you are required to brief, in full, the operational and safety functions of the unit

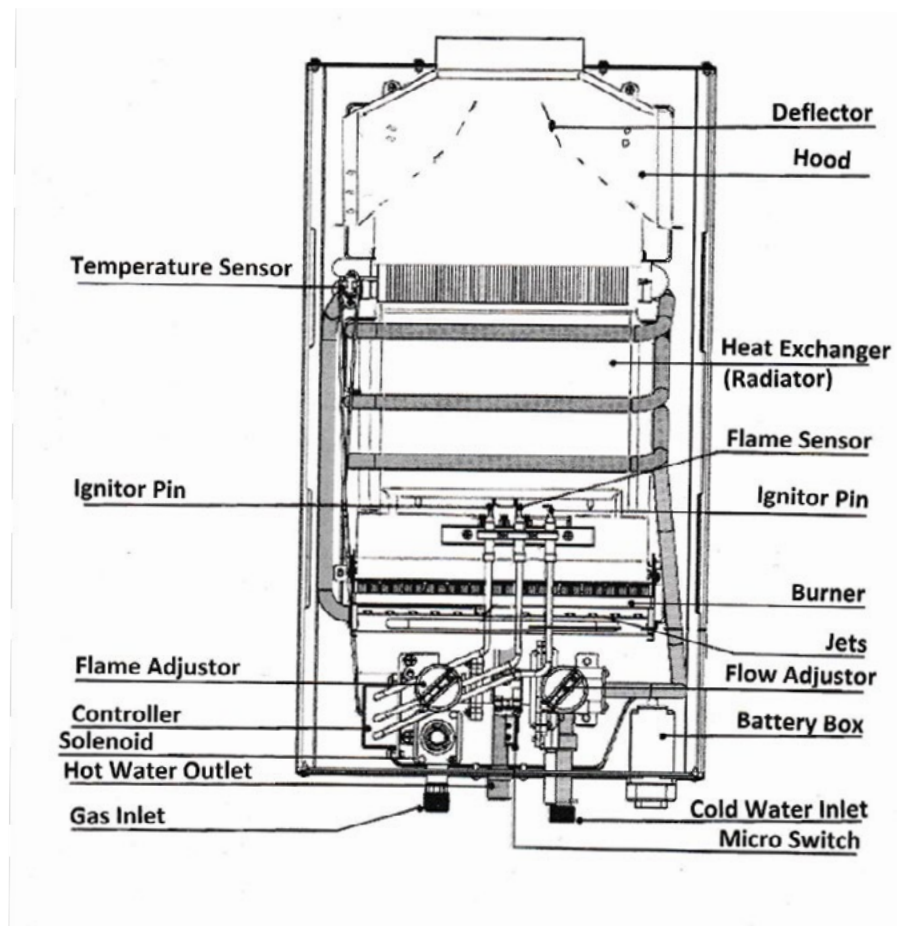


Technical parameters

Description	Diaphragm Activated
Model no	JSD6DH
Model	Type D
Gas type	LPG
Max gas pressure	2.8 kPa
Min-Max Water output	3L- 6L/ min
Water Pressure	50-500 kPa
Rated input (KW)	12 Kw
Max Gas consumption	0.96 kg/ hour
Unit Size	295 x 505 X 160
Unit Weight	4.6 Kg
Packaged size	355 x 565 x 185
Packaged weight	6 Kg



Parts Diagram





Functions & Features

SINGLE USE

Single use means only use one tap at a time, even when there are multiple taps installed. The temperature is manually adjusted through summer and winter.

EASY TO ADJUST

Use water flow and gas flow to adjust the temperature. See 'how to set my temperature'. You can also restrict water flow at the tap to increase temperature.

20 MINUTE SAFETY CUT-OFF

The gas geysers will automatically cut off after 20 minutes of continuous usage. Turn the tap off and on to restart the geysers.

75 DEGREE CUT OFF

The temperature sensor will automatically cut off the gas geysers if the temperature is exceeded.

SIMPLE TO USE

Set showering temperature to a comfortable setting and shower with the hot water tap only. Restrict water flow at the tap to achieve higher temperatures on kitchen sinks.

MIXER COMPATIBLE

With balanced water pressure enjoy the simplicity of a mixer tap when showering

FLAME OUT SENSOR

Automatic cut off the gas supply should the flame unexpectedly extinguish or the sensor no longer detects a flame.

PRESSURE RELIEF PROTECTION

The appliance will protect itself if the water supply is over 10 Bar (this should be manually set to lower pressures).

FOR OUTDOOR INSTALLATION ONLY

This geysers should only be installed outdoors with a protective weather box.

WATER-CONTROLLED AUTOMATIC IGNITION

The geysers will automatically ignite the burner when detecting water flow.



Appliance Safety instructions

PROPER VENTILATION

To avoid the risk of fire, explosion, or asphyxiation never operate the gas geyser unless it is installed properly and has adequate air supply.

FLAMMABLE MATERIALS

DO NOT handle, use or store combustible materials near to the gas geyser.

WEATHER BOX AND FLUE

For outdoor installation only, this geyser should be installed with a weather box. Never install this gas geyser indoors. Where applicable this appliance should be fitted with a secondary flue.

WATER TEMPERATURE SETTING

Safety and energy savings need to be considered when setting the water temperature. Water temperatures above 52°C can cause severe burns.

Refer to page 14/15

1. Households with small children, disabled or elderly people need to set the temperature to 49°C or lower
2. Maximum water temperature occurs when the burner is on. To see the water temperature look at the front panel of the gas geyser.
4. The gas geyser can heat water to extreme temperatures, always ensure you have tested the water temperature with your hand before bathing or showering.

TIME/TEMPERATURE EXPOSURE RESULTING IN BURNS

Hot water can create severe burns, we should rarely exceed the temperatures below

49°C	More than 5 minutes
52°C	1.5 to 2 minutes
55°C	+/- 30 seconds
57°C	+/- 10 seconds
60°C	less than 5 seconds
63°C	less than 3 seconds
66°C	+/- 1.5 to 2 seconds
69°C	+/- 1 second



NATURAL AND LP GAS

Both LP and natural gas are odoured to help detect leaks.

Appliances using LP gas are different from natural gas models. A natural gas geyser can not function safely on LP gas and vice versa.

Do not try to convert the gas geyser from a natural gas to a LP gas appliance and vice versa. This should only be done by the manufacturer. This could damage the appliance, cause injuries or fires. Never connect the gas geyser to a fuel type that is not in accordance with the appliance's data table.

WHEN DETECTING A LEAK ON YOUR INSTALLATION

LP gas is twice as heavy as air and may accumulate in low lying areas and cavities.

Before opening the hot water tap to test your gas geyser have your installer check all gas fittings and connections with soapy water. Bubbles indicate a leak.

1. Turn off the gas cylinder immediately.
2. Do not ignite any appliance.
3. Do not touch any electrical switch.
4. Evacuate the house immediately with your family and pets.

5. Leave the doors open for ventilation and contact the gas supplier, registered LP Gas Installer or Fire Department.
6. Stay away from the house (or building) until the service call has been made, the leak is fixed and the space has been declared as safe.
7. Ask the installer to show you where the gas shut-off valve is and how to use it.
8. Turn off the manual shut-off valve if the gas geyser has been subjected to overheating, fire, flood, physical damage or if the gas supply fails to shut off.

Gas detectors are highly recommended and they must be installed in accordance to the detector manufacturer's regulations.

GAS SUPPLY

1. The gas type should match the specification table. This is a low pressure gas appliance and the appropriate regulator should be used.
2. Ensure there is sufficient gas pressure (2,8kPa) for the gas supply.
3. The gas line should be equipped with a shut off valve.
4. At least a soapy solution must be used to check all connections and fittings for gas leaks.
5. The COC should be issued and signed after the installation has been inspected.



Installation instructions

MOUNTING THE GAS GEYSER

Install the appliance in a place that allows for easy access for future servicing and replacing batteries.

Use at least 6mm concrete plugs and screws to mount the gas geyser to the wall. In the case of dry walling use dry wall anchors. Do not permanently mount the gas geyser, it should be easily removable for servicing and repairs.

WATER SUPPLY

This appliance must only be used with the following water supply requirements:

1. Clean, potable water free of corrosive chemicals, sand, dirt, or other contaminants.
2. With inlet water temperatures above 0°C, but not exceeding 45°C
3. Free of lime and scale deposits
4. DO NOT reverse the hot and cold water connections, this will not allow the gas geyser to function.

GAS GEYSER LOCATION

1. Protected from freezing temperatures
2. Clear 800mm of space from combustible surfaces.
3. Sufficiently ventilated.
4. Free of corrosive elements and flammable vapours.
5. Have sufficient space to service the appliance.
6. It should be securely mounted to the wall.
7. Installed at least 1400mm off the ground.



WATER SUPPLY CONNECTIONS

Plumbing should be carried out by a qualified plumber. Use approved plumbing materials only. The diameter of the pipe lines should be a minimum of 1/2" copper or pex piping.

Always ensure water pressure between the cold and hot water are balanced by using a 400-600kpa PRV.

To conserve energy and to prevent freezing, insulate both the cold and the hot water supply lines. DO NOT cover the drain valves.

WATER FLOW GUIDELINES

When in doubt perform a bucket test on the hot tap.

Operation of the gas geyser requires a minimum water flow rate of half its size in Litres/min. Eg. A 12L requires at least 6L/min to function optimally.

1. For long pipe runs 25-30m or more water pressure can drop and additional water pressure may be required.
2. It is not recommended to use this gas geyser for gravity fed water.

GAS SUPPLY LEAK TESTING

1. The gas geyser and its gas connections must be tested for leaks at the normal operating pressures before using it.
2. Turn on the gas shut-off valve(s)
3. Use the soapy water solution to test for leaks at all connections and fittings. Bubbles indicate a gas leak that must be fixed.
4. Once the appliance is operating, the factory connections also need to be tested for leaks.



WARNING

Never use an open flame to test for gas leaks as this could result in property damage, personal injury and or death.

IMPORTANT TIPS

If the water flow is too slow, the gas geysers will not ignite. Keep the shower head/outlets clean from debris that reduces flow rate.

To keep the water pressure balanced add a 400-600kpa pressure regulating valve on the cold water supply for municipal water feeds. Install a shutoff valve near the inlet of the gas geysers for service and draining purposes.

Installation of demountables is recommended on the hot and cold water lines, so that the gas geysers may easily be disconnected for servicing.

Install a non-return on the outlet of the gas geysers to prevent water hammer.

Do not solder the HOT or COLD water connections near to the gas geysers. If solder connections are to be used, solder the fitting to the adapter before fitting the adapter to the water connections on the geysers. Any heat applied to the water supply fittings will permanently damage the internal components of the gas geysers.

Hot water outlet connections between the gas geysers and the usage points should be as short as possible.

Increasing the water flow will decrease the temperature.

Decreasing the water flow will increase the temperature.

DO NOT use lead or polycop pipe.

To save energy and reduce heat loss we recommend insulating the water piping.

NOTE The flow rate of hot water may vary when more than two taps or fixtures are being used at the same time.



Installation safety instructions

1. Never open your gas cylinder valve more than 1 full turn.
2. Inspect the gas pipes and flexible hoses regularly. If you find joints that are not tightly secured or if there are cracks, you should stop using the appliance and your installer should perform the necessary maintenance.
3. Turn off the gas shut-off valve if your gas geyser has been subjected to over heating, fire, flood, physical damage or if the gas supply fails to shut off.
4. Do not allow combustible materials such as newspaper, rags or mops to accumulate near the appliance.
5. Do not store or use petrol or other flammable vapours and liquids, such as adhesives or paint thinners, in the vicinity of this or any other gas appliance. If such flammables must be used, open doors and windows for ventilation.
6. Appliances in the vicinity should be shut off to avoid vapours igniting from the gas burner. Flammable vapours can be drawn by air currents from surrounding areas to the inlet of gas geyser.

FREEZING TEMPERATURES - ADJUSTING THE PRESSURE RELIEF VALVE

When you have done a new installation and have connected the water, then you can use a small or medium flat screw driver to UNSCREW the grubscrew in the hollow centre of the over-pressurisation valve until the water drips out.

Then screw it BACK IN 1 full turn. This will mean that the pressure relief valve is set to the your specific water pressure supply and in the event of the water in the pipes freezing the valve will push out a small amount of water and allow the water to freeze in the geyser without causing damage. This will not protect against extreme freezing where water freezes in the pipes quickly.

For further protection please enquire about our Preventative Anti-Freeze Valve.



Operating instructions

1. Open the battery box underneath the geyser and insert two D cell batteries, paying attention to polarity.
2. Open the cold water valve that has been installed on the cold water inlet pipe or turn on the main water supply. Open the hot water tap which your new geyser now feeds. You should hear the water flowing through the geyser, if the batteries are installed correctly you will hear the geyser start to ignite if the gas does not come through it will turn itself off – this is one cycle. To initiate another cycle turn the tap off and then back on again.
3. You can now open the gas cylinder (DO NOT open the valve more than one full turn) and any gas shut off valves installed on the gas line. There may be an air lock inside the gas line especially for gas piping which is longer than three to five meters. To get rid of this airlock you will have to run the geyser through multiple cycles until the gas reaches the burners, it will then ignite. Should this not work after three cycles bleed the gas through the gas inlet demountable, ensure the geyser is off during this phase.
4. You can adjust the temperature of your new gas geyser by using the gas and water control knobs on the front panel. (Also see page 14 and 15)
5. Turn the right hand control knob all the way to the right and turn the left hand control knob all the way to the left.
6. If the temperature is below 40 degrees, turn the left hand gas knob clockwise to increase the temperature.
7. If the temperature is above 45 degrees, turn right hand water flow knob anti-clockwise to decrease temperature.
8. Use this principle to adjust your gas geyser settings between summer and winter.
9. Try setting your gas geyser between 40-45 degrees Celsius depending on your preference. You should not need to add “much” cold water if any at all. This way you are maximizing your efficiency by not using more gas than you need to by overheating the water. For longer runs in water pipe you may need to make this temperature slightly higher.
10. For kitchen sinks try reducing the water flow at the kitchen tap to achieve higher temperatures for dishes.
11. Never install this gas geyser indoors.



Operating warnings

- Only install this gas geyser outside.
- If you find a gas leak, turn off the gas valve immediately. If the room smells of gas, turn off the gas water heater by turning off the tap and do not touch any electrical appliances or switches or turn on any hot or cold water taps. Call your installer immediately to determine the fault.
- When leaving the premises for extended periods, turn off your gas supply and turn off the gas geyser in the event of a hot water leakage the geyser will not turn on.
- The body of the gas geyser can get hot during operation, do not touch any part of the gas geyser, except for the gas and water control knobs.
- Do not put any foreign objects in the exhaust port, air inlet or on top of the gas geyser to avoid incomplete combustion which results in poisoning.
- Should you notice a yellow flame which indicates abnormal combustion you should close the gas valve right away and then contact the installer.
- Before outdoor temperatures reach below zero degrees make sure the remaining water is emptied out of the gas geyser to avoid it freezing (Set your OPV refer to page 13).
- Never open a gas cylinder valve more than one full turn. This allows easily closing it during an emergency. This applies to all gas cylinders and gas appliances. The pressure inside a gas cylinder is significantly higher than a gas appliance will require therefore the cylinder valve does not need to be opened more than one turn.



SETTING YOUR GAS GEYSER TO THE CORRECT TEMPERATURE

The gas geyser should be set to such a temperature that you should not have to add too much cold water. If you set the temperature too high and have to cool it down using the cold water, you may be wasting gas. Try set the geyser so that you have to open the hot water tap only.

Start by setting the geyser to 42°C for pipe runs shorter than 3m. If your pipe runs are from 3-5m try setting the geyser at 43°C and for pipe runs longer than 5m try setting the geyser at 45°C. If you find these temperatures are not satisfactory then increase the temperature by 1-2°C at time until you feel the water is hot enough.

The hottest water temperature will be from the hot water tap closest to the gas geyser.

Always remember to test the water temperature with your hand before use and remember that hotter water settings increase the risk of injury.

The gas geyser is fitted with a device that will shut off the gas supply to the burner if the appliance exceeds normal operating temperatures at about 75 °C

The appliance won't operate with a water flow of less than half its maximum rated capacity. Eg. an 8L will not operate optimally with less than 4L/min. If this occurs, increase the water flow.

A GUIDE LINE OF SHOWERING TEMPERATURES

Body temperature: 35-37 °C

Summer time comfortable showering temperatures: 35-38°C

Warm shower in winter: 39°C

Hot showering temperature in winter 42°C (most preferred showering temperature)

Very hot showering temperature in winter: 44°C

For a bath temperature in winter: 48-50°C

Bare in mind a geyser showing 40°C will not be the same temperature at the shower head as it loses heat travelling through the pipes, the further the run in pipes the more heat will be lost. Bare in mind the slower flow rates lose more heat to the pipes as the water spends more time travelling to the shower than higher flow rates.



How to set the water temperature

To set the temperature on your diaphragm activated gas geyser start by turning the right hand control knob all the way to the right and turn the left hand control knob all the way to the left. This is called the 10 o'clock - 2 o'clock principle. The gas control knob points towards 10 o'clock and the water control knob points towards 12 o'clock.

1. If the temperature is below 40 degrees, turn the left hand gas knob clockwise to increase the temperature.
2. If the temperature is above 45 degrees, turn right hand water flow knob anti-clockwise to decrease temperature.
3. Use this principle to adjust your gas geyser settings between summer and winter.
4. Try setting your gas geyser between 40-45 degrees Celsius depending on your preference. You should not need to add "much" cold water if any at all. This way you are maximizing your efficiency by not using more gas than you need to by overheating the water. For longer runs in water pipe you may need to make this temperature slightly higher.

Principles of water flow and gas flow in a gas geyser:

By increasing the water flow you are decreasing the temperature

By decreasing the water flow you are increasing the temperature

Higher gas flow will increase the temperature

Lower gas flow will decrease the temperature

Never fully decrease the water flow and fully increase the gas flow, this will result in extreme temperatures that could severely burn you. In this case the gas control knob and the water control knob would both point towards 2 o'clock.



Maintenance and cleaning

GENERAL MAINTENANCE

If your gas technician maintains your gas geyser you should not have any issues with it for years.

We recommend that you periodically check the burner flame picture for a yellow flame.

This needs to be done by a certified installer.

1. Inspect the area around the gas geyser to ensure that its in a safe operating environment.
2. Make sure that the appliance has not been damaged. If there are traces of damage or denting contact your supplier to check that the appliance is still functioning properly.
3. Check for any abnormal sounds while operating your appliance. A light humming sound is normal from time to time.
Check for gas/ water leaks.
4. The cold water supply filters should be cleaned once a year.
5. Perform regular maintenance on the geyser to prevent carbon monoxide dangers, excessive hot water temperatures or other potentially hazardous conditions.

DO NOT

1. Continue to use the gas geyser if you feel that there is something wrong with it.
2. Allow children to operate or handle the appliance.
3. After you have checked, maintained and/ or cleaned the appliance, make sure that it is working properly by turning on the hot water tap.

COASTAL CORROSIVE ENVIROMENTS

For geysers installed near the coast, get your gas installer to remove the cover and spray electrical contact cleaner on all the electronic contacts, after the electrical spray has dried up you can spray clear tectile or any other kind of electrical sealant to seal the joins and prevent corrosion from entering the electronics. This is highly advised and can be performed at any location inland or coastal. Do not perform this step if the geyser is on. Or ask your nearest Dewhot supplier to tectile the complete unit before purchasing, this can be done for a fee.



GENERAL CLEANING

1. DO NOT store household items near or on top of the appliance
2. Inlet water filters should be cleaned on a regular basis.
3. DO NOT scrub the appliance with a brush.
4. Use only water, any chemicals can damage the surface of the appliance.
5. DO NOT remove any labels, including the rating table when cleaning or servicing.
6. DO NOT splash water on the appliance when cleaning.

CLEANING THE WATER FILTER

- Turn the appliance off
- Turn the water supply to the appliance off.
Unscrew the water fitting and pull the filter out.
- Remove particles - use a soft brush and rinse it with running water.
- Put the filter back and screw it in
- Turn on the second the cold water supply.

CAUTION

Cleaning of the main burner should always be performed by Registered LPG Installer.

A compressor can be used to clean the burner.

BURNER INSPECTION

Visually check the main burners 3-4 times a year.

Use the sight glass or look underneath to check the flame picture, the flame should be a clean blue flame only.

If a yellow flame occurs, the gas geyser should be shut down and you should call a qualified installer to assess the appliance.

Check to make sure that the air supply and the vent terminal have not been blocked or contain debris.

VACATION AND EXTENDED SHUT-DOWN

If the gas geyser is left for an extended period of time, the power and gas to the appliance should be turned off.

The gas geyser and piping should be drained if they could be subjected to freezing temperatures over this period. After a long shut-down period, the gas geyser needs to be serviced and checked.



Symptoms and faults

Symptom	FAULT & SOLUTION
The LCD stays on after the water turns off	<p>The micro-switch holder return-spring is broken or stuck.</p> <p>Change the micro-switch holder</p>
The geyser is not igniting at all when the water is turned on	<p>Check for flat batteries</p> <p>Check the micro-switch is being activated</p> <p>By-pass the on-off switch</p> <p>Corrosion on the batteries or battery box</p> <p>Check for blockages in the tap outlets, gas geyser inlet or pump inlet/outlet. Doing a bucket test will help solve this problem. After the bucket test make sure there is adequate flow rate.</p> <p>Check the diaphragm for holes or damage</p> <p>If none of the above resolves the issue you may need to replace the control box</p>
The geyser ignites and provides you with hot water but slowly goes cooler and cooler until the water is cold	<p>Gas levels may be low</p> <p>The regulator may be faulty</p>
Only 35-38 degrees reached on the LCD screen	<p>The water flow may be too high</p> <p>The regulator may be undersupplying gas, Check the gas inlet pressure is operating at 2,8 kPa while the appliance is running</p> <p>The burners and jets may need to be cleaned</p>



Symptom

FAULT & SOLUTION

The geyser ignites and burns but dies after a couple of minutes

Make sure the batteries are not flat (even flat batteries will measure 1.5V on a multimeter, rather replace with new batteries)

If the geyser is reaching temperatures higher than 75°C, it may be cutting out the water temperature sensor, this is normal. Refer to setting the geyser correctly.

The geyser ignites and burns for 10 seconds only and then goes off

The flame out sensor may be faulty

If the geyser continues to ignite while the flame is on replace the control box

The geyser is dripping water from the over pressurization valve

This is normal during freezing temperatures.

If it is not freezing then turn the OVP screw inwards until the water stops dripping then turn it 1 full revolution more

The geyser ignites and you can hear the flame come on but dies immediately after less than 1 second or so

Flat batteries

The solenoid may be faulty

Check the 75deg temperture sensor for continuity



Symptom

FAULT

The geysers tries to ignite but the flame does not come on

There may be no gas to the geysers

Flat batteries

Faulty regulator

The temperature sensor may be faulty

There is a bright yellow flame on the burners and you can see black soot building up around the top of the geysers

The burner has been blocked causing incomplete combustion seen as a yellow flame. Clean out the burners and jets and all black soot with a degreaser.

DO NOT continue to use this gas geysers.



Different types of gas geysers

TYPE A

Type A gas geysers are geysers that do not require a flue (a flue helps to transport the products of combustion to the outside atmosphere). The reason they do not require a flue is because their consumption rating is below a certain threshold which also allows them to be used indoors.

TYPE B

Type B gas geysers are geysers that always require a flue. They can be installed indoors provided that they are done so with a flue. We can remember Type B by associating the 'B' with 'Bedroom' which is indoors. These geysers may also be installed outdoors.

TYPE C

Type C gas geysers are designed to be installed indoors, these geysers require no ventilation because both the intake of air and the outlet of burnt air come to and from the outside of the building. This means they are room sealed and use no oxygen from the room which they are installed.

TYPE D

Type D gas geysers are strictly outdoor gas geysers and under no circumstance can be installed indoors. Not all type D gas geysers require a flue. We can remember Type D by associating it with 'Donkey'. Donkeys inherently live outdoors but more aligned with the old donkey water heaters which were steel water tanks installed over a fire outdoors.



DEWHOT

COMMITMENT TO QUALITY



Register your product

warrantyportal.dewhot.com

Track your product journey by registering your profile and products on our portal. This will also give you the ability to log faults, view terms & procedures or talk to a technician.

The Dewhot Difference
We care, we share, we evolve

