

-- USER INSTRUCTIONS --

Do's

- Read the instruction manual and thoroughly follow each step.
- Make sure there is proper ventilation at the installation site.
- Make safety checks for any leakage through gas water hose joints after installation.
- Ensure the usage of appropriate and clean gas (LPG/NG).
- Check for damages on the gas supply hose. Damaged and cracked hoses should be replaced.
- Keep the surface of your gas water heater clean.
- It is important to replace batteries every 3 months.
- Ensure battery manufacturing date is not older than 6 months.
- For troubleshooting, contact authorized Racold service personnel only.

Don'ts

- Don't install the gas water heater in a sealed room or where adequate ventilation isn't available.
- It is dangerous to touch the outer body during or immediately after use.
- Don't hang towels or clothes near the exhaust hose.
- Never leave the water heater unattended for long when in use.
- Don't connect the hot water heater supply to multiple outlets at the same time.

ATTENTION :

Always use genuine Racold spare parts and connecting pipes.

Instruction Manual

6L ECO

6L ODS ECO

6L ODS ECO +



Eco




ODS Eco



ODS Eco +

Ariston Group India Private Limited

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 Email: customer.care@racold.com

Dear Customer,

Thank you for choosing a world-class product from Ariston Group India Private Limited. Your choice for nothing but the best is reflected by your trust placed in Ariston.

Racold is registered trademark of Ariston Spa, Italy.

Ariston Group India Private Limited is a fully owned subsidiary of Ariston Spa, Italy and part of the Ariston Group the leaders in water heater.

Today Ariston Group India Private Limited is the largest provider of water heating solutions in India, catering to all sectors water heating namely" Electrical, Gas, Solar and Heat Pump water heaters"

The Racold range of products from Ariston Group India Private Limited have changed the industry standards by setting new benchmarks in quality, aesthetics and performance.

Our many firsts in India include :

- Water heater with rust proof polypropylene body.
- Stainless steel inner container with multi-function safety valve for high Pressure operation without additional pressure reducing valve.
- PUF insulation for maximum energy saving.
- Energy labeling for any domestic electrical appliances.
- Only water heater with quality and performance certification as per IEC/EN and Indian standards (ISI mark).
- **Won Highest Number of National Energy Conservation Award from BEE (Bureau of Energy Efficiency) For electric storage water heaters.**

Retain this manual safely and in case you need any assistance you may get in touch with any of our customer care centres, the details of which are enclosed.

Kindly follow the instructions given in this manual and enjoy years of trouble free performance.

ARISTON GROUP INDIA PRIVATE LIMITED

REBORN EVERYDAY WITH HOT WATER

Electric | Solar | Gas | Heat Pump



www.racold.com



Please complete the following details:

Product: GAS WATER HEATER

Model No: _____

Serial No: _____

Purchaser's Name & Address: _____

Dealer's Name & Address : _____

Dealer's Signature : _____

Cash Memo No: _____

Date of Purchase: _____

This Racold Instantaneous Gas Water Heater comes with warranty for a period of two years from the date of purchase against electrical circuit is there in GWH or mechanical failure caused through defective material and workmanship. In the event of failure covered by this warranty, the appliance must be returned to the dealer or to us, freight paid, with this card for examination, and will be replaced, or repaired at our option. Forwarding expenses will have to be paid by the customer. No further liability for consequential loss or damage is accepted or implied. We will not be responsible for any human injury property damages & consequential damages caused due to improper use. All disputes will be subject to pune jurisdiction only.

Following things shall not be covered under warranty :

- 1) Any plumbing related problems, not related to product.
- 2) Any defects arising due to wrong and/or non recommended installation procedure.
- 3) Any human injury, property damages and consequential damages caused due to improper use.

1. STRUCTURE AND NAMES OF PARTS

6 Litres per Minute - Natural Flue

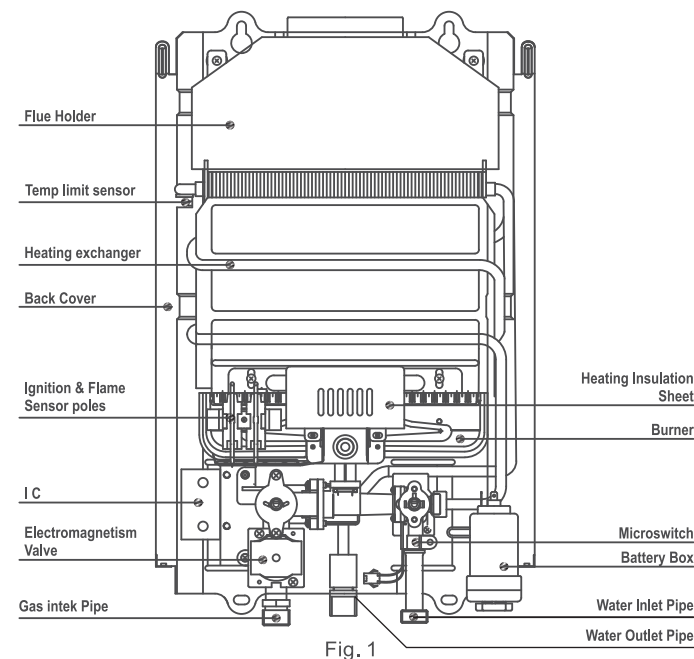


Fig. 1

Note : Specifications subject to change without notice.

2. FEATURES

1. Fully Automatic

This water heater is equipped with a continuous-impulse ignition device which ensures that the water heater starts operation once you open the hot water tap and it stops functioning the moment the water tap is closed.

2. Easy Adjustment

This water heater is equipped with a gas adjustment device as well as water adjustment device. These ensure a better control over the flow of water and gas to give an optimum output.

3. Filter device

The pipes of the water heater can get blocked due to dirt etc. The filter device, provided in the water heater, blocks the dirt and prevents clogging / blockage.

4. Least Emission (Highly reduced emission)

'CO' concentration is 1/30th of the permissible limits. Direct ignition is used, avoiding the blocking of the pilot light, and so failure of ignition and insufficient burning of gas is avoided.

5. Flame Failure Device

Incase the flame is extinguished during operation, the gas supply will turn off automatically and there will not be any combustion.

6. Safety Thermostat

To avoid over heating, the gas supply is automatically cut off after the water reaches a very high temperature.

7. Water Stability Device

Unstable water pressure from outside won't affect the use of the heater.

8. 20 Minute Timer

When heating continues for 20 minutes, the water heater stops automatically. Accident resulting from prolong running if the heater is improperly installed or improperly used will be prevented.

9. Child Lock

This ensures safety to children / old age people by preventing ignition if operated.

10. Temperature Indication (Optional)

7 Segment LED Display readily indicates outlet water temperature.

11. ODS

The ODS sensor can sense Oxygen density of air around the Gas water heater. Once the Oxygen density is lower than the required standard for human safety, ODS sensor cut off the gas and burning fire. (Available in Eco ODS & Eco ODS+ models only)

3. OPERATION

1. Make Sure

1. That there is no leakage in the gas and the water pipes.

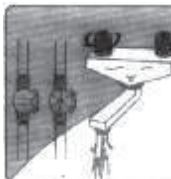
Ensure a proper installation in accordance with the instruction manual.



2. That the batteries are placed in the battery box, as shown in the corresponding diagram.



3. That the water flow is smooth and that there is no undesirable sound in the water heater. Close the gas valve and open the inlet and the outlet valve.

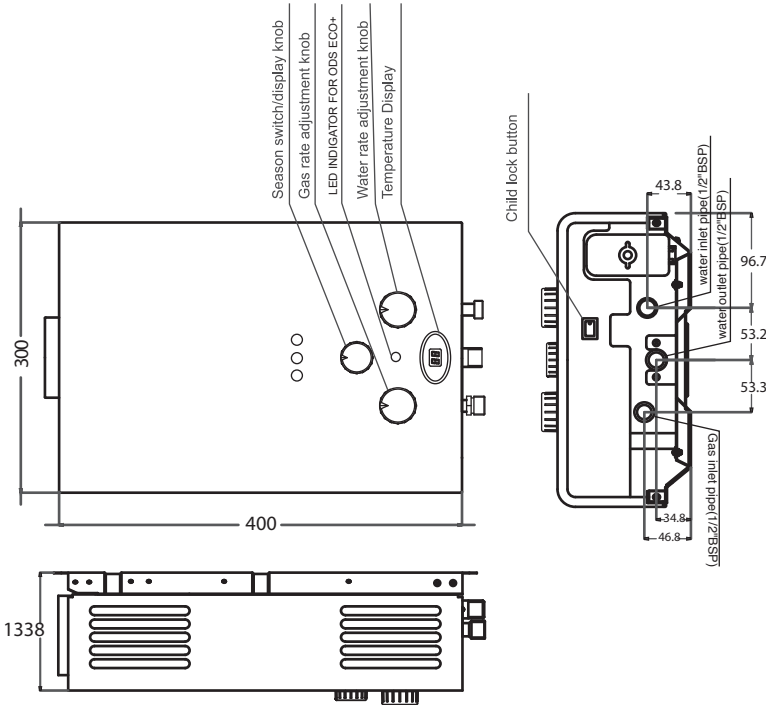


9. SPECIFICATION TABLE

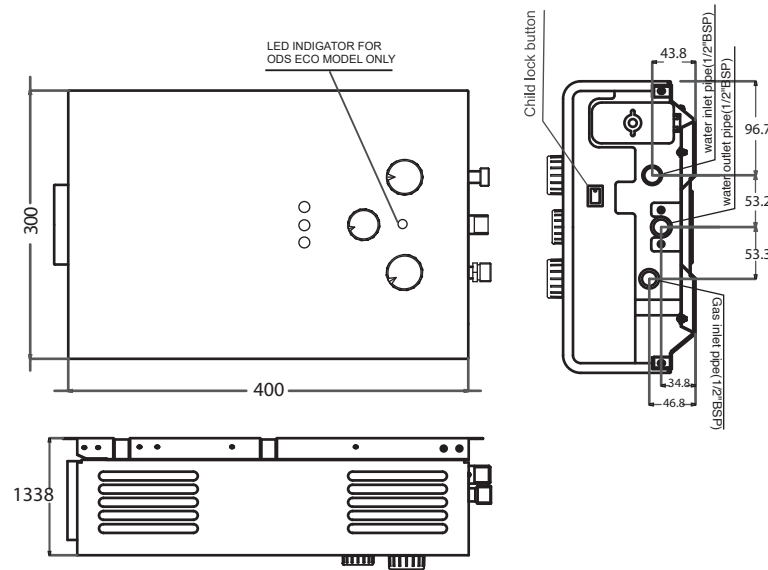
#	Gas Instantaneous Water Heater				
Model	6L ECO LPG	6L ECO NG	6L ODS ECO LPG	6L ODS ECO NG	6L ODS ECO+ LPG
Flue Type	Natural flue				
Gas Type	LPG	NG	LPG	NG	LPG
Heat Input (kW)	12				
Capacity (L / min)	6.0				
Rated gas Pressure (kN/m ²)	2.94	2.0	2.94	2.0	2.94
Efficiency	> = 80%				
Operating Water Pressure (bar)	Up to 8 bar				
Ignition Mode	Direct Ignition - ionization flame control				
Minimum starting water pressure (bar)	0.07 bar				
Rated voltage (V) (one battery)	DC 3V (2 batteries required)				
End Connection Size	Water Inlet- G 1/2" Water Outlet pipe- G 1/2" Gas pipe- G 1/2"				
Net weight	5.3 kg				
Overall size (mm). (L x B x D)	440 x 300 x 133 mm				

8. EXTERNAL DIMENSION

ODS Eco+



Eco & ODS Eco



3. OPERATION

2. Start

- Open the gas valve.
- Open the water inlet valve.
- Check the water temperature at the water outlet.

Please Ensure

- That the hot water flow is not too less, otherwise the main burner will not function or may switch off during operation.
- When you use the water heater for the first time or after a long time, the burners in the water heater may not function immediately. This may happen due to the air trapped in the gas pipes. Please repeat the operation of opening and closing the water outlet. Smooth functioning of water heater will resume.

3. Temperature Regulation

The temperature at the water outlet can be regulated using the water adjustment knob. Clock-wise rotation of this knob will ensure a reduction in the water flow and a rise in the temperature, while an anti-clockwise rotation will lead to increased water flow and a reduced temperature at the water outlet.

4. Gas regulation

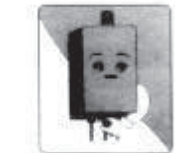
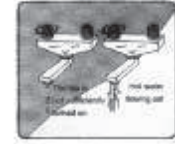
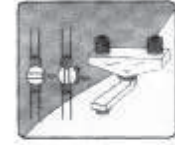
When the flow at the water outlet remains same, clock-wise rotation of the flame control knob will raise the temperature of water.

5. Switching off the water-heater

The water heater can be switched off by simply closing the water tap. Opening the tap again would restart the water heater.

Please Ensure

- When you restart the water heater, check the temperature of water at the water outlet to avoid extreme temperature.
- Gas valve should be closed when the water heater is not in use.



4. PRECAUTIONS

- It is recommended to install the product outside the bathroom in open area.
- If installed in closed bathroom, please ensure proper ventilation while as water heater is in use. Please keep windows open or Switch On the Exhaust Fan. This will avoid insufficient Oxygen or too much smoke indoors
- When in operation, please check for :
 - a) Gas smell
 - b) Abnormal burning noise
 - c) Water leakage
 - d) Yellow flame or black smoke
 - e) Flame lift
 - f) Back flame (probably with unusual noise)

If any of these is encountered, please close the gas valve and the water inlet valve immediately and call our Customer Assistance Centre.

- Please do not touch the indicate flue pipe and the parts near it during or shortly after operation as these will be very hot.

- If the water heater stops working, please close the gas valve immediately.

- Avoid using the water heater during extremely windy conditions to avoid problems in the flue discharge.

- Do not stack inflammable or explosive material like kerosene etc. near the water heater

- Avoid operating the gas water heater at very high water temperature. This may cause excess steam which may damage the water heater.

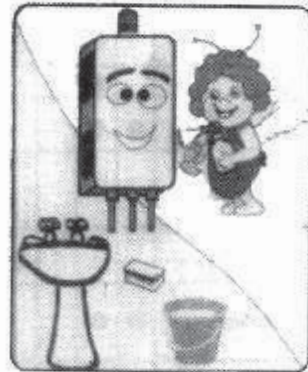


7. COMMON FAULTS AND HANDLING METHODS

Fault	Cause									Handling methods
	Extinguish while using	Not burning after hot water valve is turned on	Abnormal ignition during running	Yellow flame smoke	Abnormal flame during running	Abnormal sound when burning	Water isn't hot at high position	Water is too hot at low position	Extinguish at low position	
Gas master valve isn't turned on		●								Turn on gas master valve fully or change new gas
Gas valve is semi open	●		●				●			Turn on gas master valve fully
Air in gas pipe		●								Turn on hot water valve intermittently until fire burns.
Improper gas pressure	High		●			●				Contact with maintenance worker to check gas supply and pressure
	Low	●								
Cold water inlet master valve isn't turned on		●								Turn on master valve of water inlet fully
Freezing		●								Use it after ice is dissolved
Insufficient cold water inlet pressure	●	●						●		Turn on cold water valve again
Wrong water temperature regulation							●	●		Rotate regulating knobs of water temperature and gas volume properly
Insufficient fresh air supply				●						Improve ventilation at once to make fresh air available
Safety device works	●	●								Start water heater again. If it still refuses to work, contact with service workers of our company
Fault of electric control system	●	●								Please contact with service workers of our company
Burner blocking				●	●	●				Please contact with service workers of our company
Heat exchanger blocking	●			●	●					Please contact with service workers of our company
Fault of water regulating device							●	●	●	Please contact with service workers of our company
Ignition distance modification		●								Adjust ignition distance
Overpressure of water inlet							●			Adjust water inlet valve

6. MAINTENANCE

- For any maintenance requirement, call our Customer Assistance Centre. Do not attempt any repairs on your own.
- If the water heater is not going to be used for a long time, please close the gas and water inlet valve.
- Please close the gas and water inlet valve and let the water heater cool down, before the maintenance operation begins.
- A maintenance check once in a month is recommended for the following :
 1. The water filter should be cleaned.
 2. You can clean the dirt on the cover using wet rag.
 3. Check periodically the gas connections and the valves to avoid leakage. Use soap water instead of flame to detect leakage.
- It is suggested that the user entrusts our after sale service center to carry out thorough maintenance once a year, so as to ensure good operation of the water heater.



5. INSTALLATION

1. General Instructions

- Before installation, the user must get approval from the local gas authority.
- The installation must be done in accordance with the design approved by the local gas authority.
- Please start using the gas water heater only after the installation is approved by the local gas authority.



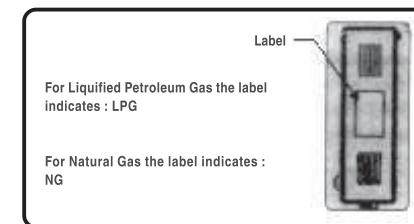
Please Ensure

- That the installation is done only by the authorised person.
- The guarantee will be null and void if installation is not done by company authorised service personnel.



2. Ensure before installation

- Please ensure that the gas supplied is the same as the gas indicated on the label.



3. Installation methods :

(a) Shown as in Fig. 2 (a) determine the position of holes, then drill 2 holes 6 mm & press in the expansion screws (If installation size is changed, take actual object as standard.)

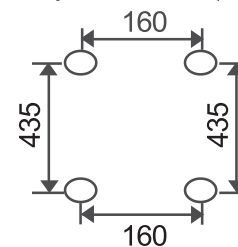


Fig. 2 (a)

(b) Hang water heater, rotate expansion screw and nut tightly. Fix the water heater. (Refer to Fig. 2(b))

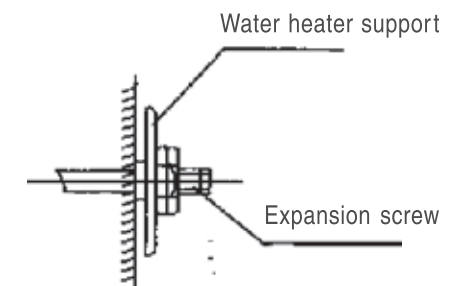
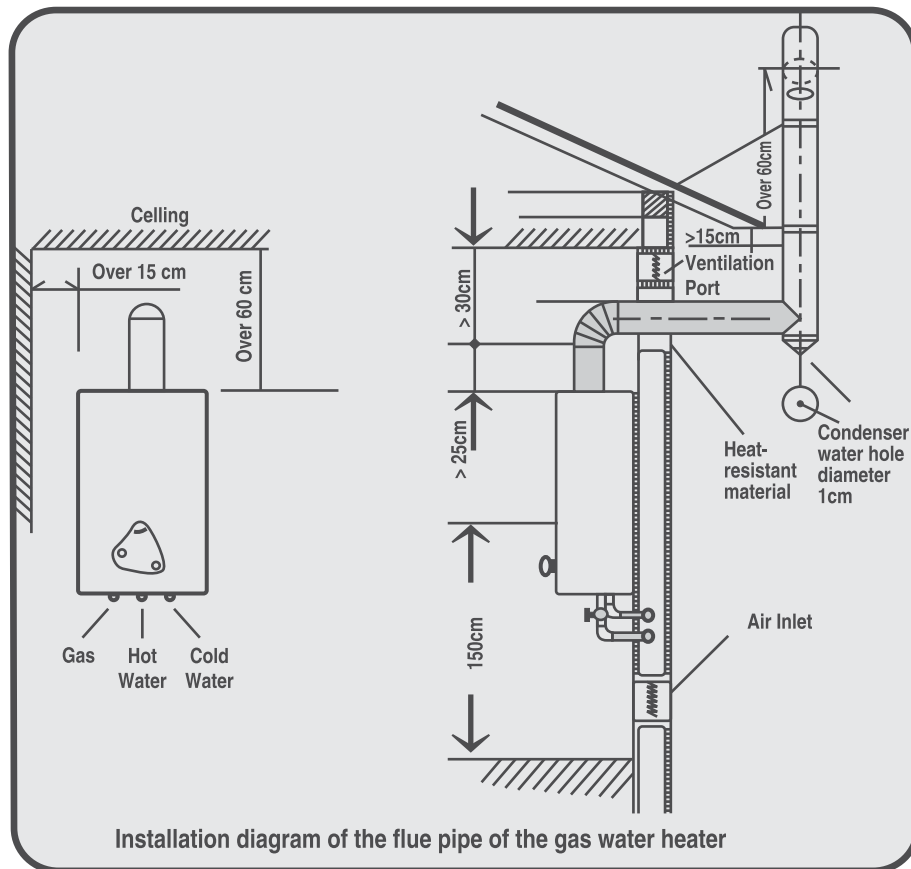


Fig. 2 (b)

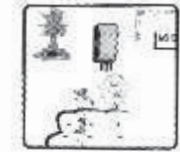
5. INSTALLATION

4. Installation of the flue pipe

The water heater must have its flue pipe. The outlet of the flue pipe must be located **outside the room**. The installation method is shown in the following diagram.



- The water heater should not be installed in a room with corrosive media.
- The water heater should not be installed in a place where inflammable or explosive material is stored.



Important

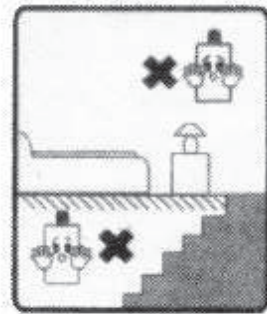
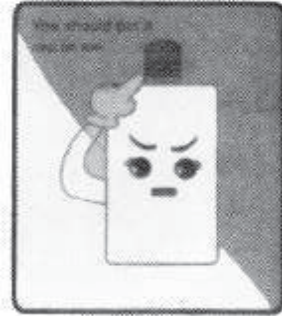
- If the water heater is being installed on a wall made of inflammable material, it should be insulated effectively. The insulation plate should be bigger than the cover of the water heater by at least 100 mm on each side.
- If gas water heater is being installed in a room adjacent to the bedroom, there should be a door between the two rooms.
- The gas water heater should be installed in a place which is easy to access for maintenance and easy to operate. Please allow enough space around the gas water heater.
- The suggested location of the inspection window is at the eye level.
- Do not install the water heater near electrical sockets/connection, wires and other electrical appliances. The net horizontal distance between the water heater and other electrical appliance should be a minimum of 300mm.
- The net horizontal distance between the water heater and the gas meter or the gas stove should be a minimum of 300 mm.
- Do not install the water heater above the gas stove or other heat sources.
- Do not heat anything on the flue pipe.
- Do not install the water heater inside or under the cupboard, near the curtain or furniture.



5. INSTALLATION

Please Ensure

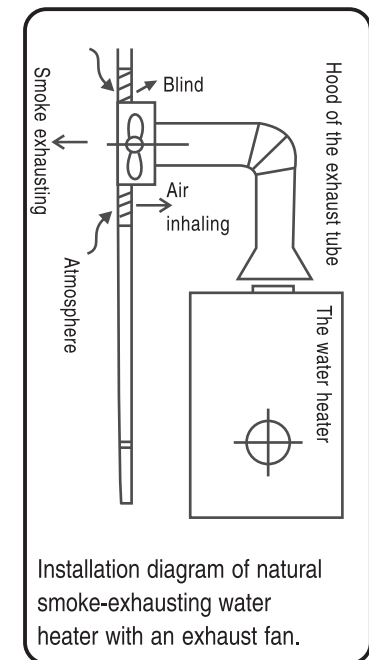
- It is recommended that a flue pipe is installed on the flue stub to discharge the smoke outside.
- That the water heater is not installed in the bedroom, cellar etc.
- That the water heater (except the balanced flue type) is not installed in the bathroom.



5. INSTALLATION

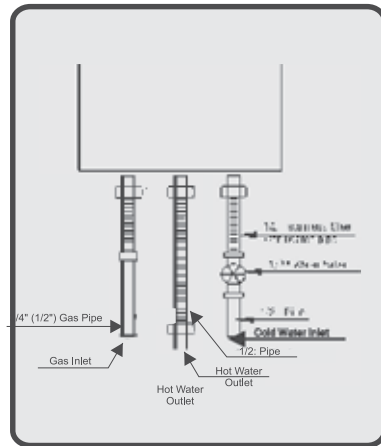
Attention :

- The flue pipe shall be made of metal. The connection part between the tube and the chimney of the water heater shall be sound without any leakages.
- At the outlet of the exhaust hole, there shall be a hood against wind, rain and snow.
- A moveable cover of any kind shall not be installed at the outlet and the outlet of the exhaust hole shall not be led into the public passage of a highrise.
- The transverse chimney shall have a slant of 1° towards the water heater. And the total length of the transverse chimney shall be less than 3 mtrs.
- For two-storey and one-storey houses, the exhaust tube can protrude outside the roof. The protruded part shall be more than 0.6m in height. For high rise and building of medium height, the exhaust tube can protrude to the open corridor or balcony. The perpendicular section of the exhaust tube shall be no less than 0.6m in length and shall be covered with a hood at the outlet. Or an exhaust fan can be fitted on the exhaust tube as shown in the diagram. In such case it is necessary to start the exhaust fan first before using the water heater and that a blind type air-inlet fan should be fitted for exhaustion (see figure).
- The diameter of the exhaust tube shall be larger than the diameter of the chimney opening. In northern regions of India, the exhaust tube shall be wrapped by thermal insulation material.

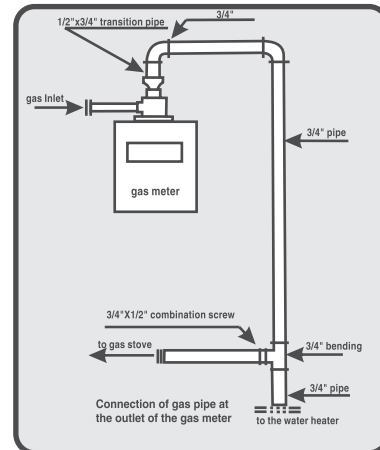


5. Connection of tubes

- The installation of tubes must be done by qualified installation personnel. (as per the diagram.)

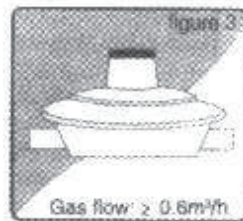


- Installation of pipes must be done by qualified installation personnel. (shown in the diagram.)



Please Ensure

- The tubes should be metal/ metal flexible/ forced flexible tube (with metal net or fibre net)
- The gas pipe should be special flexible pipe. (length \leq 1.5m.)
- While connecting the flexible pipe ensure that there is a special clamp to tighten it.
- Avoid excess tightening etc. during installation.
- Check for leakage after installation is over.
- Check for the leakage with soap water. Do not use flame to check the leakage.
- Use only reliable LPG pressure regulator for the LPG water heater.



5. INSTALLATION

6. Location of Installation

- The gas water heater should be installed in well-ventilated locations. such as :
 1. Kitchen (having an exhaust fan)
 2. Well-ventilated corridors.



Please Ensure

- To install the water heater, height between floor and ceiling should be more than 2.5 m.
- If installed inside the room, an air in-take place must be set with the section bigger than that of the flue pipe. It takes air directly from the outside. The air in-take opening should be at least 0.02m^2 or leave a 30mm aperture between the door and the floor.
- Exhaust fan must be installed to release smoke / unburnt gas if any, outside the room.
- The air intake place of the exhaust fan should be placed at least 30 cm above the water heater.
- Preferably install a gas leakage alarm and shut-off device, with a horizontal distance to the water heater less than 4m and with a distance to the floor less than 30 cm.