



IS 15558:2005 Instantaneous Domestic Water Heater for Use with Liquefied Petroleum Gas

Instantaneous Domestic Water Heaters are devices designed to provide hot water on demand without the need for storage tanks, making them energy-efficient and space-saving solutions for domestic use. These water heaters operate by heating water instantly as it passes through the unit, typically using Liquefied Petroleum Gas (LPG) as the fuel source. The water heaters are widely used in households for applications like bathing, washing, and cooking, providing a steady supply of hot water without the need for pre-heating.

The Indian Standard IS 15558:2005 specifies the requirements for the design, construction, performance, and safety of instantaneous domestic water heaters that are powered by LPG. The standard aims to ensure that these devices operate safely, efficiently, and reliably under typical domestic conditions.

The electric instantaneous water heater must be designed to provide hot water on demand, without requiring a storage tank, and ensure consistent temperature control through components like a combustion chamber, heat exchanger, burner assembly, and temperature control mechanism. It should be built with durable, corrosion-resistant materials to ensure long-term performance. Safety features such as flame failure devices, overheat protection, pressure relief valves, and gas leak detection systems are essential to prevent hazards like gas leakage, overheating, or excessive pressure buildup. The heater must deliver reliable performance with consistent water flow and temperature, while maintaining high thermal efficiency to minimize energy consumption. All components must withstand high temperatures and be made of materials that ensure durability. The unit must include clear labeling, including the manufacturer's details, technical specifications, and safety warnings, along with installation and maintenance instructions. The water heater should pass rigorous testing for gas combustion efficiency, pressure resistance, thermal output, and safety device functionality, ensuring it operates safely and effectively under normal conditions.

IS 15558:2005 provides a comprehensive framework for ensuring that instantaneous domestic water heaters for use with LPG meet the required safety, performance, and efficiency standards. This standard helps manufacturers produce high-quality, reliable water heaters while offering consumers safe and efficient solutions for heating water. Regular updates to the standard reflect advancements in technology, material science, and safety practices, ensuring the continued relevance of the standard to modern domestic needs.