

Installation of Electric Thermal Storage Type water Heater for Domestic Purpose

Introduction

Electric thermal storage type water heater is a common type of water heater being used in Hong Kong. This type of water heater allows water to be heated up and stored in the heater. As soon as the hot water is drawn off, the heater is immediately refilled with cold water that will then be heated to the pre-determined temperature for ready use.

The heating process is controlled by electrical devices such as thermostat and thermal cut-out to prevent the temperature of the hot water from rising to 100°C for steam to be generated. Should the electrical control devices malfunction, excessive steam may accumulate in the heater and pose a risk of explosion. It is therefore necessary that the heater be properly equipped to release steam as and when required.

Vented Heaters

An effective way to stop steam from accumulating in a thermal storage type water heater is to install an open vent such that any steam generated in the heater as a result of malfunctioning of the electrical control devices can be released from the heater via the vent pipe. This type of vented system however requires that the water supplying the heater must be provided from a storage cistern and the vent pipe shall rise without obstruction until it discharges the steam to the atmosphere above the storage cistern at a sufficient height to prevent a constant outflow of hot water therefrom.

Notes on the Installation of Unvented Heaters

Before installing unvented electric thermal storage type water heaters, consumers should apply to the Water Authority for approval. The application should include plumbing arrangement of the installation together with the details of the water heaters.

Unvented storage type water heaters shall comply with the Electrical Products (Safety) Regulation (Cap. 406 sub. leg.). Notwithstanding the above, the installation of any water heaters shall be carried out by a licensed plumber for plumbing works and a registered electrical worker for Grade R electrical work.

A Directory of licensed plumbers is available at “Plumbing and Engineering” tab in our website <http://www.wsd.gov.hk/en/html/aboutus/new.htm>. As for the list of registered electrical workers, please refer to the Electrical and Mechanical Services

Department website <http://www.emsd.gov.hk/emsd/eng/welcome/Index.shtml>.

The safe functioning of an unvented water heater relies much on the correct installation of the safety devices and their proper maintenance. Do not attempt to modify or tamper with the safety devices of the unvented water heater. Engage qualified plumbers or electrical workers to conduct maintenance checks at least once a year.

Water Supplies Department

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