

The Grease Trap

A grease trap is most commonly a two-chambered tank positioned along the wastewater drain pipe. Illustrations are provided on the centre pages of this booklet for reference. Wastewater slows down as it moves through the compartments of the trap, allowing time for less dense material to separate and rise to the liquid surface. Liquid and solid grease as well as light waste particles will be held in the trap while the wastewater below passes out.

The minimum requirements for grease trap design are:

- 1) **Provide sufficient capacity to slow down the passing wastewater, giving greasy waste the opportunity to separate out.** A grease trap should be able to hold all the kitchen wastewater entering it during times of maximum water use for a period of 20 minutes. A grease trap connected to a single sink should not be smaller than 250 litre (55 gallons) capacity. A larger grease trap is used if more than one fixture is connected. Check the size of an existing grease trap or determine the approximate size of a new grease trap by following the instructions given on Page 3.
- 2) **The length of the trap should be equal to between 1.3 and 2.0 times the total depth.** Note that usually the grease trap contents occupy 2/3 of the total depth; the top 1/3 of the trap is head space. Do not include wall and cover thickness in the length and depth measurements if the grease trap is built of concrete.
- 3) **The surface area of the trap (the length times the width in square millimeters) should be equal to between 1000 and 2000 times the total depth measured in millimeters.** Again, do not include wall and cover thickness in measuring a concrete trap.
- 4) **Prevent waste water entering the grease trap from mixing up the top greasy waste layer.** A baffle should be present at the trap inlet (see centre pages) to slow down the incoming wastewater and keep it separate from the top waste layer. The inlet pipe should end in a 90° downwards bend so that incoming wastewater enters the trap at least 100 mm below the water surface. The inlet pipe SHOULD NOT terminate above the liquid surface such that wastewater drops into the trap.
- 5) **Allow access to the trap for maintenance so that all covers can be lifted and accumulated material removed from both the top and bottom of the trap.** Except for very large grease traps, the total depth of liquid should never exceed 1200 mm. A sampling hole with appropriate cover must also be provided if the opening for maintenance access does not also give access to the grease trap outlet.
- 6) **Provide necessary safety features.** All grease traps must be vented. Under-floor grease traps and grease traps with over 1000 litre capacity must be provided with a prominent sign to show location, to indicate both total and liquid depth, and the maximum allowable thickness of the greasy waste layer (30%). Warning signs and safety barriers are to be deployed whenever these traps are opened.