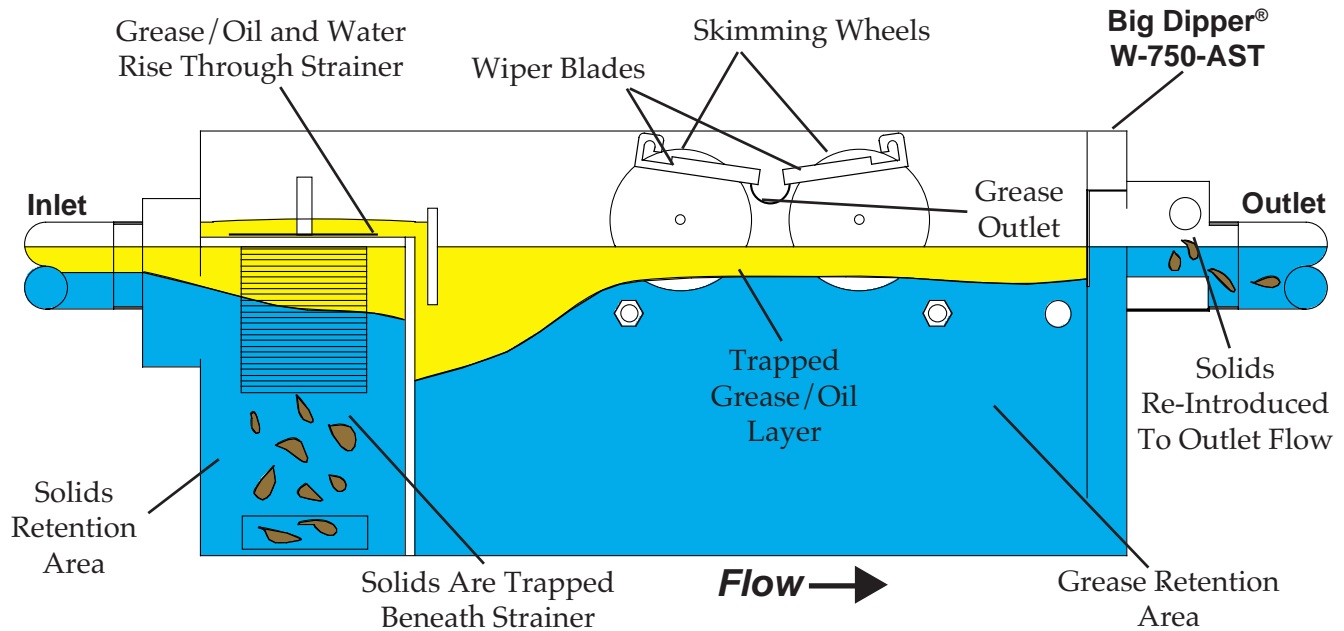


## Automatic Solids Transfer (AST) System Operation



**Big Dipper AST** systems automatically separate and remove grease, fat, and oil from drainwater flow. A patented technological breakthrough allows food solids and other debris found in the entering water to be separated from the grease and pumped out of the solids retention area to the drain. The entire process is controlled automatically by a timer. The operation of the Big Dipper AST can be broken into two components.

### The Separation Process

As drainwater containing free-floating grease and oils enters the Big Dipper, the lighter fats and oils immediately separate, pass through the solids strainers to the top of the tank, and are trapped in the grease retention area. Heavier clean water exits under the outlet baffle. Any food solids or debris contained in the drain water entering the Big Dipper are separated by the strainers and held in the solids retention area.

### The Self-Cleaning Process

Incidental solids and trapped grease are automatically removed from the Big Dipper. An internal timer periodically activates the solids transfer pump, which whisks the trapped solids out of the solids retention area and discharges them to the outlet of the Big Dipper to join the cleaned water exiting the system.

Another independent timer is set to activate the grease removal process. When the timer reaches the "on" position, the electric heating element is activated and heats the system to 115-130° F. This ensures that all fats and oils are liquefied before they are automatically removed from the tank.

Simultaneously, the motor which rotates the skimming wheel is activated. Grease and oil adhere to the sides of the specially designed skimming wheel. A wiper blade assembly, which fits over the wheel, removes the grease and oil from the wheel. The skimmed fats/oils are discharged via the sump pipe to the collection container supplied with the system.