Internal Strainer (IS) System Operation

- Wiper Blade Assembly
- Timer / Motor / Electrical Enclosure
- Skimming Wheel Assembly
- Grease Skimmed Off Top and Emptied Through Outlet Sump Pipe
- Internal Gas Trap
- **INLET**
- **OUTLET**
- Effluent Flow
- Clean Water Flow
- Internal Solids Strainer Basket
- Grease Floats to the Surface
- Heating Element
- Outlet Baffle

Clean Water Flows Under Baffle and Exits Outlet Pipe
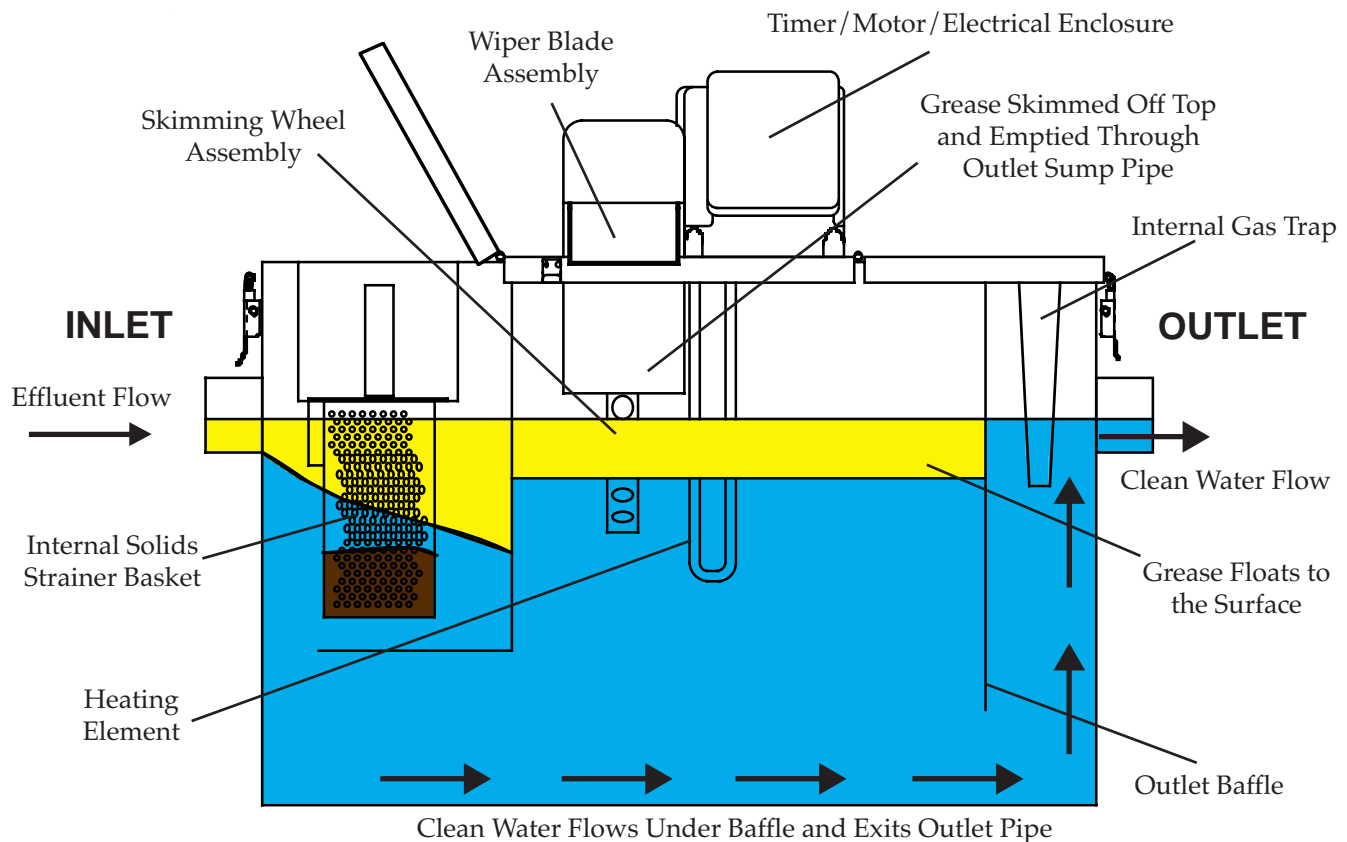
During system operation, **Big Dipper IS** systems utilize two processes. The first is the **separation process**, where free-floating grease and oils separate from the kitchen flow. This occurs continuously as drainwater passes through the system. The second is the **self-cleaning process**, which is controlled automatically by a timer. This timer operates the system's motor/skimming wheel assembly at a preset time to assure the most efficient operation.

The Separation Process

As drainwater containing free-floating grease and oils enters the **Big Dipper** system, the lighter fats and oils immediately separate, rise to the top and remain trapped in the retention area of the tank. The heavier clean water portion of the flow is allowed to exit under the outlet baffle and is discharged into the drain lines. The internal solids strainer basket collects food scraps and other incidental solids that may be present in the drainwater. The top lid has a special hinged section over the internal strainer basket that allows easy access for removal and emptying.

The Self-Cleaning Process

At a preset time of day, determined by the timer settings, the self-cleaning process is started. An internal heater maintains the unit temperature at 115-130°F (46-54°C). This ensures that all fats and oils are liquefied before being removed from the retention area of the tank.

When the timer reaches an "on" position, the motor that rotates the skimming wheel activates. This wheel is made of a special type of material which causes grease and oils to adhere to it. A wiper blade assembly that fits over the wheel removes the grease and oils from the wheel and transfers them to the outlet sump pipe. The skimmed grease and oils flow through this pipe to the outside of the system and is collected in the collection container supplied with the system.