

OPERATION OF GREASE INTERCEPTORS

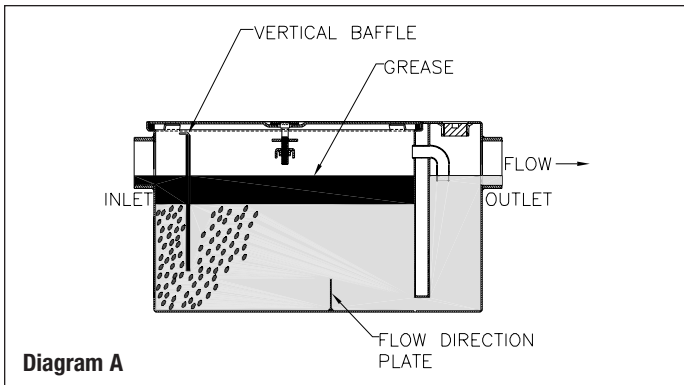
Four factors are critical to the proper operation of a grease interceptor: Design, Sizing, Proper Installation, and Maintenance.

DESIGN

What makes Zurn interceptors most efficient are superior design characteristics (Diagram A).

Standard Zurn units are provided with a high inlet which allows all flow to empty into the interceptor. This keeps inlet lines from becoming clogged with grease buildup, which occurs with low inlet units and with large concrete separators buried outside. Because the static water level is maintained at the bottom of the outlet, any piping into the interceptor below this elevation will remain filled with water.

The Zurn solid vertical baffle plate immediately diffuses flow and channels the incoming fluids directly to the bottom of the separation chamber. A flow directing plate on the outlet side of the vertical baffle enhances flow in an upward direction and traps solids that may inadvertently enter the interceptor. This provides the maximum amount of time possible for separation to occur. Grease being approximately 90% of the weight of water, separates and floats to the top of the water under these conditions. The calming effect on the flow and the extended time sequence in the chamber allows for more efficient separation (Diagram A).



Zurn interceptors have an unobstructed separation chamber permitting the entire baffle to be lifted upward and removed. This provides for fast, easy cleaning which minimizes the amount of time the lid is off and the contents are exposed to the environment.

Odor from accumulated grease in an interceptor may pass back through the piping system and through the drain opening. An additional trap should be considered between the fixture and interceptor. Consult local codes.

Zurn interceptors are manufactured standard with a removable cleanout plug on the outlet side of the separation chamber, past the integral trap seal. This allows for quick, easy access to the outlet drainage pipe, should an obstruction or blockage occur downstream of the interceptor.

All Zurn Interceptors are 100% steel construction, coated with a white acid resisting epoxy (A.R.C.). Zurn Series Interceptors with flow rates from 4 to 50 GPM are certified by the Plumbing and Drainage Institute (PDI). Zurn Grease Interceptors with flow rates from 20 to 50 GPM are listed by the International Association of Plumbing and Mechanical Officials (IAPMO).

SIZING

The Plumbing and Drainage Institute (PDI) as well as some national and local codes have recognized different ways of sizing grease interceptors. It is advisable to check with local authorities for sizing requirements in your particular locality.

The following pages outline the most widely used sizing methods along with some common variables which, if present, could adversely affect the operation of your grease interceptor. If any of the following variables are present, added care should be taken to select the proper size interceptor with appropriate options to compensate for each irregularity.

VARIABLES AFFECTING GREASE INTERCEPTOR PERFORMANCE

Velocity of Incoming Water

A higher velocity of water will contribute to a more turbulent mixture. This will slow the grease separation process, thereby reducing efficiency.

Recommended Solution – Install additional flow control fittings at all sources of flow.

Ratio of Grease to the Water

The higher the ratio of grease particles to the water, the lower the efficiency of the interceptor.

Recommended Solution – Increase the size of the interceptor.

Specific Gravity (Weight) of the Filtrates

Grease has a lower specific gravity than water and will rise to the surface quickly. Grease-laden food particles having a higher specific gravity than water will linger and accumulate at the bottom, eventually passing out of the interceptor.

Recommended Solution – Install a solids interceptor at the source of solid particles, prior to the grease interceptor.

Possible Presence of Detergents in the System

Grease-cutting detergents will break the liquid grease into minute particles that can cause these liquids to pass through the interceptor.

Recommended Solution – Increase the size of the interceptor.

Percentage of Maximum Flow Capacity

If the maximum recommended flow is exceeded, the efficiency of the interceptor will decrease considerably.

Recommended Solution – Install additional flow control fittings at all sources of flow.

Location of Grease Interceptor

The interceptor should be located as close as possible to the source of grease. Waste pipes leading to the grease interceptor may become clogged if liquid cools prior to entering the grease interceptor.