



Concrete Interceptors

The environment inside a grease interceptor is extremely harsh and acidic. Conditions are perfect for the corrosion of concrete and metal rebar. In spite of this, the industry has yet to actively embrace alternatives. However, more municipal authorities are taking notice, and with increasing frequency, they are taking action against concrete interceptors through tougher regulations.



As a result, more and more businesses are switching to Proceptor™ grease interceptors, which are corrosion-proof and have superior service life.

Q: How effective is a concrete grease interceptor?

Studies show that concrete interceptors can quickly leak, corrode, or crack which compromises their performance and leads to non-compliance with effluent regulations. Food service businesses using concrete interceptors may unknowingly be paying utility surcharges for over-strength wastewater effluent. Worst case, they may be faced with costly replacement expenses after just a few short years in operation.

Q: What causes corrosion?

Bacterial activity inside the interceptor, cooking oil, animal and vegetable fats, rotting food, salt water, bleach, cleaning solutions and other products of food service facilities are the main causes of corrosion in concrete interceptors.

Q: What do the concrete associations have to say?

A study by the Portland Cement Association found that concrete, even when coated, can quickly succumb to corrosion (*Effects of Substances on Concrete and Guide to Protective Treatments*, the Portland Cement Association).

Q: But my concrete interceptor is coated. Isn't it safe?

Unfortunately not. As the Portland Cement Association study points out, coating does not solve the problem. The coating is rarely uniform and scrapes or minor cracks will quickly compromise the coating and start a cycle that quickly leads to seepage and full-scale corrosion.

Q: My grease interceptor is made from reinforced concrete – surely it won't crack?

The fact is all concrete cracks over time – just look at our driveways and roads. Steel reinforcing bars help to prevent cracks, but won't totally eliminate them. As concrete cracks, grease and wastewater can seep into the surrounding ground, contaminating it. Alternatively, ground water may infiltrate into the interceptor, pushing grease and solids into the sanitary sewer system. This scenario is highly unlikely with Proceptor™ interceptors, as they are engineered and built to last against structural failure, and are guaranteed for decades.

Q: What about leaks?

Many municipalities have recently made regulatory changes requiring that grease interceptors be water tested for leaks before installation takes place. In the earliest stages of adoption, imagine how surprised they were to find out that most concrete interceptors leak from day one.



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Q: When does the corrosion start, and how long before it impacts my effluent?

Deterioration starts on day one and accelerates in the second and third year. Replacement of a concrete unit may be required after several years to ensure local regulatory and effluent compliance.

Q: What will corrosion do to my interceptor?

Corrosion will significantly reduce the useful life of an interceptor. Baffles collapse, rebars become exposed, inlet and outlet piping becomes loose or falls off, and the bottom can rot out. Once the corrosion starts, the problems start. These include non-compliance, costly backups, clogged sewer pipes and lift stations and, ultimately, sanitary sewer overflows (SSOs).

Q: What about pests?

The distinctive stench of rotting grease and solids in a concrete interceptor attracts rodents, flies and other disease-carrying pests. And because concrete interceptors are difficult to clean out, the problem of odor from residual bacteria and grease is tough to control.

Q: Can't I just clean it out?

That won't stop the problem. Concrete is porous, and once the surface has been penetrated, the cycle of corrosion can't be reversed. FOG (fats, oil, and grease) and food solids become trapped in the corners and deep in the walls and bottom of the unit even after vigorous cleanout. Proceptor™ interceptors are non-porous, with no "corners" and therefore not susceptible to this cycle.

Q: Can a concrete interceptor meet municipal regulations?

In some cases, but not all. More and more municipalities are banning the installation of modified septic tanks or concrete interceptors. This regulatory trend is expected to continue.

Q: So what's the alternative?

The best alternative is to purchase a grease interceptor made of non-corroding fiberglass. If possible, choose an interceptor with an elliptical or rounded shape for optimal separation, easier cleaning, and less overall maintenance.

Q: But isn't concrete cheaper?

The purchase cost of a Proceptor™ interceptor is comparable to an epoxy-coated concrete separator. Given the propensity of concrete to corrode, the long-term costs of a fiberglass separator are much lower, given its longer service life.

Q: What should I do if my concrete interceptor has corroded?

If you have already been cited, or if you notice a persistent rotten egg smell or obvious corrosion, you will likely have to replace your interceptor. Municipal regulations vary, but many set 100 ppm FOG as a maximum effluent. With regulation and enforcement getting stricter, now is the time to switch to a more effective and long-lasting fiberglass FOG interceptor.



Exposed re-bar (left and middle) on a 5-year-old concrete interceptor and interior collapse (right) in a 6-year old concrete interceptor.