

TABLE OF CONTENTS

- Pictorial Index
- Product Recommendations
- Grease Interceptors
 - Design & Operation
 - Material & Characteristics
 - Sizing
 - Pipe Connection
 - Commonly Specified Options
 - Installation Considerations
 - Maintenance & Cleaning
 - Typical Installations
- Oil Interceptors
 - Design & Operation
 - Material & Characteristics
 - Sizing
 - Pipe Connection
 - Commonly Specified Options
 - Installation Considerations
 - Maintenance & Cleaning
 - Typical Installations
- Sediment Interceptors
 - Design & Operation
 - Material & Characteristics
 - Sizing
 - Pipe Connection
 - Installation Considerations
 - Maintenance & Cleaning
 - Typical Installations



PICTORIAL INDEX



WD SERIES
PDI Certified Grease Interceptor



WD-LA SERIES
Semi-Automatic Low Rough-In Grease Interceptor



SI-742
Sediment Interceptor



SI-762
Bottom Access Hair, Plaster & Sediment Interceptor



WD-L SERIES
PDI Certified Low Rough-In Grease Interceptor



GI-K SERIES
Large Capacity Grease Interceptor



SI-740-L
Large Capacity Sediment Interceptor



LI SERIES
Lint Interceptor



WD-A SERIES
Semi-Automatic Grease Interceptor



OI SERIES
Oil Interceptor



SI-750
Hair Interceptor

Photo not available at this time

SA
Sediment Interceptor



WD-AH SERIES
Semi-Automatic Grease Interceptor w/Housing



OI-K SERIES
Large Capacity Oil Interceptor



SI-750-TO
Chrome Plated Top Outlet Hair Interceptor

PRODUCT RECOMMENDATIONS

Application	Product
Art Rooms, Dental Labs, Metal Recovery	SI-742, SI-742-L, SI-762
Commercial Laundry, Washing Machines	LI-800
Cooking, Prep Sinks, Dishwasher	WD Series, GI-K Series
Elevator Pits & Oil Spill Areas	OI Series, OI-K Series
Hair Wash Sinks	SI-750, SI-750-TO
Pot, Pan, Scullery Sinks	WD Series, GI-K Series
Sand & Sediment	SA Series, See Also FD-410 Catch Basin
Vehicle & Maintenance Areas	OI Series, OI-K Series

GREASE INTERCEPTORS

Design & Operation

Watts Grease Interceptors are designed to remove grease and similar substances from waste water. Interceptors prevent greasy substances from entering plumbing systems, septic fields, and waste water treatment facilities, where they are difficult to process, and can create environmental problems. Commonly specified in restaurant kitchens and food handling or processing areas, properly specified and maintained interceptors keep drainage systems free of problematic grease accumulations.

Grease interceptors will separate all lighter-than-water substances, collecting them inside the interceptor, above the static water line. Design criteria is determined by plumbing code, typically following guidelines set forth by The Plumbing & Drainage Institute (PDI), which tests and rates interceptors. The accepted industry and PDI Standard (PDI-G101) is for interceptors to maintain 90% separation efficiency, up to the rated grease retention capacity (in lbs.). The interception process is accomplished using the principle of attraction of like substances. A flow restrictor on the inlet side slows incoming effluent, re-directing it through baffling inside the interceptor. Slowing and baffling processes allow lighter-than-water substances (grease) to accumulate above the static water line. The remaining water, free of grease, is forced through the trap leg on the outlet side of the interceptor, and into the waste water drainage system.

Material & Characteristics

Epoxy Coated Steel - Interceptor body standard 11 ga. CR steel, with oven cured, acid resistant baked gray epoxy coating, inside and out. Lid is epoxy coated 1/4" skid-proof checker plate steel, gasketed, and secured with Allen head center bolt(s). All stainless steel construction may be specified for high sanitary applications.

Flow Restrictor - WD Series Interceptors are supplied with an external cast iron flow restrictor. All other interceptor models are designed with a built-in stainless steel flow restrictor plate, located just inside the inlet.

GREASE INTERCEPTORS

Sizing

Grease interceptors are sized according to the rate of incoming flow, in gallons per minute (GPM). Associated with the incoming flow rate is an interceptor's capacity. The rated capacity, in lbs., is listed at twice the flow rate, in GPM. For example, a 10 GPM interceptor has a rated capacity of 20 lbs.

General Procedure:

To Determine the Flow Rate of Each Sink:

1. Calculate the capacity of the sink in cubic inches:

$$\text{____ (LENGTH) x ____ (WIDTH) x ____ (DEPTH) = ____ CU.IN.}$$

2. Convert the capacity from cubic inches to gallons per minute (GPM): $\text{____ CU.IN.} \div 231 = \text{____ GPM.}$

3. Adjust for displacement: $\text{____ GPM} \times 0.75 = \text{____ GPM.}$

4. **Result is the flow rate required to drain the sink in one minute.***

**Note: If drain down time is not critical, an interceptor with a lesser flow rate, up to half the calculated flow rate may be specified.*

Example:

Three compartment pot sink, each compartment 12" x 12" x 15"

1. $12" \times 12" \times 15" = 2160 \text{ cu. in.} \times 3 \text{ comp.} = 6480 \text{ cu. in.}$
2. $6480 \text{ cu. in.} \div 231 = 28 \text{ GPM.}$
3. $28 \text{ GPM} \times 0.75 = 21 \text{ GPM.}$

A 20 GPM interceptor would permit the sink to drain in slightly more than one minute.

*Discharge from spray hoods is determined by the flow rate of the hood.

*It is not recommended to pass commercial dishwashers through an interceptor.

Sizing For Multiple Fixtures:

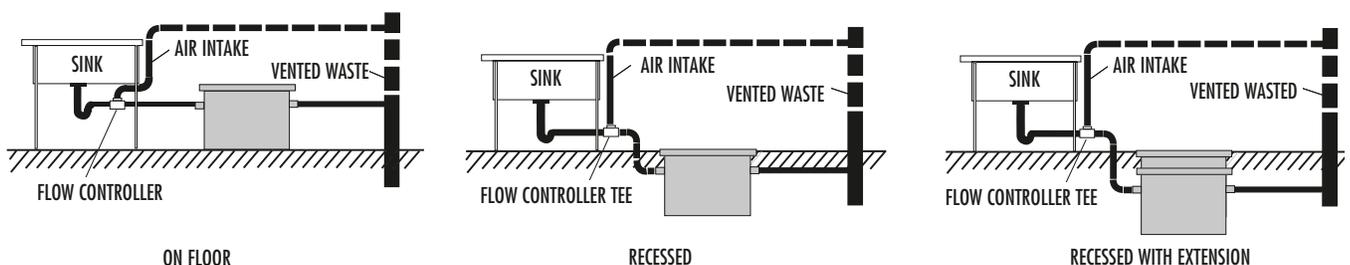
1. Determine the flow rate for each fixture to be serviced by the interceptor.
2. Add together 100% of the largest flow rate, 50% of the second largest, and 25% of all others.
3. **Result is the recommended flow rate of the interceptor.**

Example:

1. Fixture A: 35 GPM Flow Rate
 Fixture B: 26 GPM Flow Rate
 Fixture C: 18 GPM Flow Rate
 Fixture D: 12 GPM Flow Rate
2. $35 \text{ GPM (A)} \times 100\% = 35 \text{ GPM}$
 $26 \text{ GPM (B)} \times 50\% = 13 \text{ GPM}$
 $30 \text{ GPM (C + D)} \times 25\% = 7.5 \text{ GPM}$
Total Flow Rate = 55.5 GPM

A 50 GPM interceptor is recommended for this installation.

Typical Configurations



GREASE INTERCEPTORS**Pipe Connection**

No Hub (Standard) - Butt connection using no hub or neoprene coupling, suitable for cast iron, plastic, and most other piping applications.

Threaded (T) - Female IPS threaded connections.

Commonly Specified Options

Sediment Bucket (-B) - Epoxy coated steel, located inside interceptor on inlet side. Collects large food or other particles. To the extent possible, sediment should be strained or collected at the fixture, prior to the grease interceptor. Sediment entering the waste line is likely to clog the interceptor's flow restrictor, slowing drainage, and causing back-up difficulties.

Extension (-E) - Increases invert dimension to accommodate below grade piping.

Heavy Duty Traffic Cover (-HD) - Rated 10,000 lbs. maximum safe live load.

Flange & Clamp Device (-FC) - Secures floor membrane or liner, generally specified for above grade installations.

Flow through an interceptor is regulated by the flow restrictor. Increasing connection sizes has no beneficial effect on flow, and larger piping can normally be accommodated with reducing bushings or couplings.

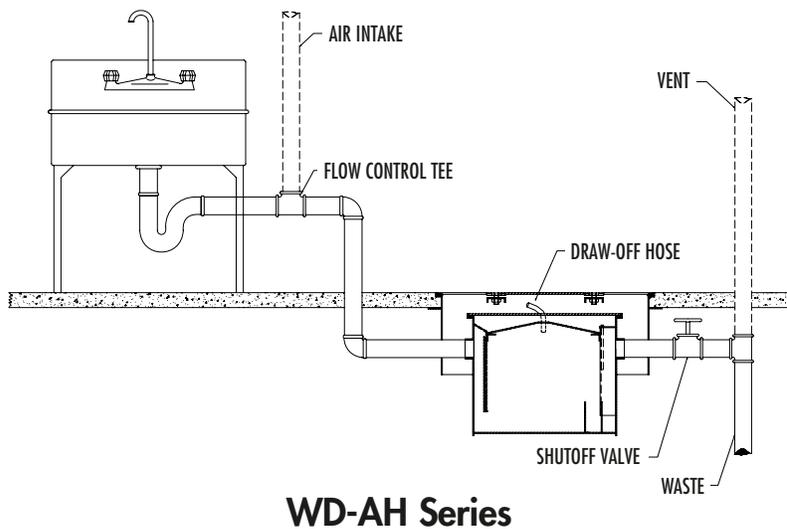
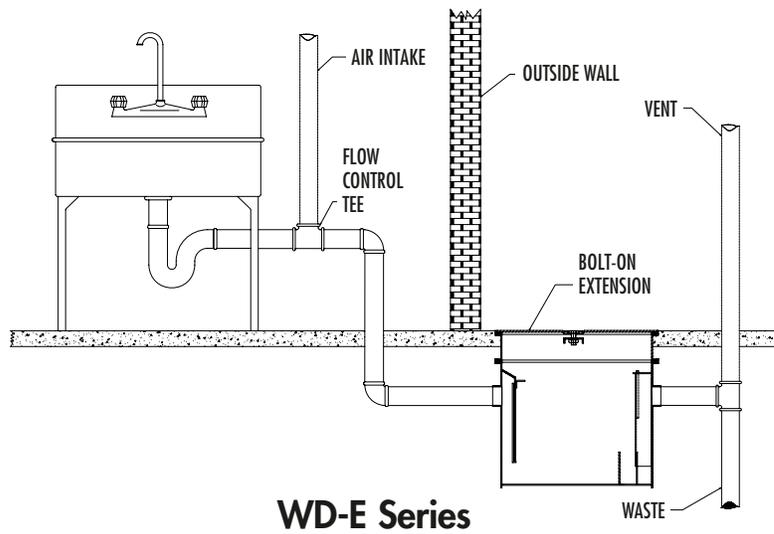
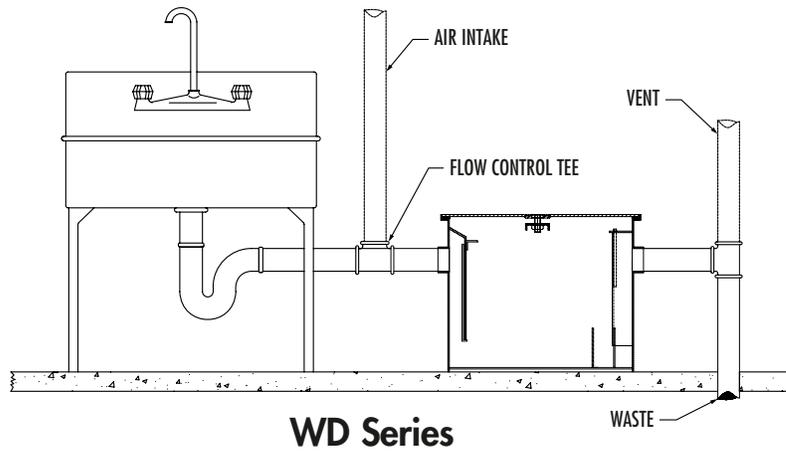
Installation Considerations

- a.) Interceptors should be located as near as possible to the fixture(s) being served. Long piping runs between a fixture and the interceptor will accumulate grease, causing drainage and clogging problems.
- b.) Watts Drainage Grease Interceptors may be either floor mounted, under or beside the sink, or recessed, to allow passage of foot traffic, or connect to floor drain discharge.
- c.) Interceptors may be installed outside, but all piping must be below the frost line (see Extensions).
- d.) WD Series Interceptors are supplied with an external flow restrictor, which must be installed between the last fixture serviced, and the inlet of the interceptor.
- e.) Venting is recommended on both the inlet and outlet side of the interceptor, or as governed by local code. Units supplied with external flow restrictors are vented on the inlet side, from the top of the restrictor tee.

Maintenance & Cleaning

Manual operation grease interceptors are cleaned by opening the cover, and removing grease accumulated at the top of the interceptor. Accumulated grease may be removed manually, or pumped out, generally by an outside service. Cleaning frequency is dependent upon the interceptor's capacity, and the amount of incoming grease. The amount of accumulated grease must be kept below the rated capacity to maintain separation efficiency.

TYPICAL GREASE INTERCEPTOR INSTALLATIONS



OIL INTERCEPTORS**Design & Operation**

Watts Drainage Oil Interceptors are designed to separate oily waste from interior drainage systems, or exterior run-off areas. Commonly specified in service stations and other vehicle maintenance or parking areas, oil interceptors prevent environmentally damaging and potentially dangerous oily substances from entering septic fields, run-off areas, and waste water treatment facilities.

Similar to grease interceptors in operation, oil interceptors accumulate lighter-than-water oily waste above the static water line inside the interceptor. Oil is automatically drained from the interceptor through a draw-off valve, and directed to an approved holding tank (by others), for storage and eventual removal.

Material & Characteristics

Epoxy Coated Steel - Interceptor body standard 11 ga. CR steel, with oven cured, acid resistant baked gray epoxy coating, inside and out. Lid is epoxy coated 1/4" skid-proof checker plate steel, gasketed, and secured with Allen head center bolt(s). All stainless steel construction may be specified for non-standard applications.

Flow Restrictor - Oil interceptors are supplied with a built-in stainless steel flow restrictor plate, just inside the inlet.

Sizing

Oil Interceptors are sized according to the rate of incoming flow, in gallons per minute (GPM).

For indoor applications, flow rate can be calculated by adding the maximum discharge rates of all potential water sources. For example, a standard 3/4" hose connection will discharge approx. 10 GPM. A service garage with three hose connections would have a maximum potential flow rate of 10 GPM x 3, or 30 GPM.

For outdoor applications involving rainwater run-off, flow rate should be derived from local rainfall tables, and the slope characteristics of the area to be drained.

Pipe Connection

No Hub (Standard) - Butt connection using no hub or neoprene coupling, suitable for cast iron, plastic, and most other piping applications.

Threaded (T) - Female IPS threaded connections.

OIL INTERCEPTORS

Commonly Specified Options

Sediment Bucket (-B) - Epoxy coated steel, located inside interceptor on inlet side. Collects sediment or other particles. To the extent possible, sediment should be collected with a catch basin (see Watts FD-410), prior to the oil interceptor. Sediment entering the interceptor may clog the flow restrictor, slowing drainage, and causing back-up difficulties.

Extension (-E) - Increases invert dimension to accommodate below grade piping.

Heavy Duty Traffic Cover (-HD) - Rated 10,000 lbs. maximum safe live load.

Flange & Clamp Device (-FC) - Secures floor membrane or liner, generally specified for above grade installations.

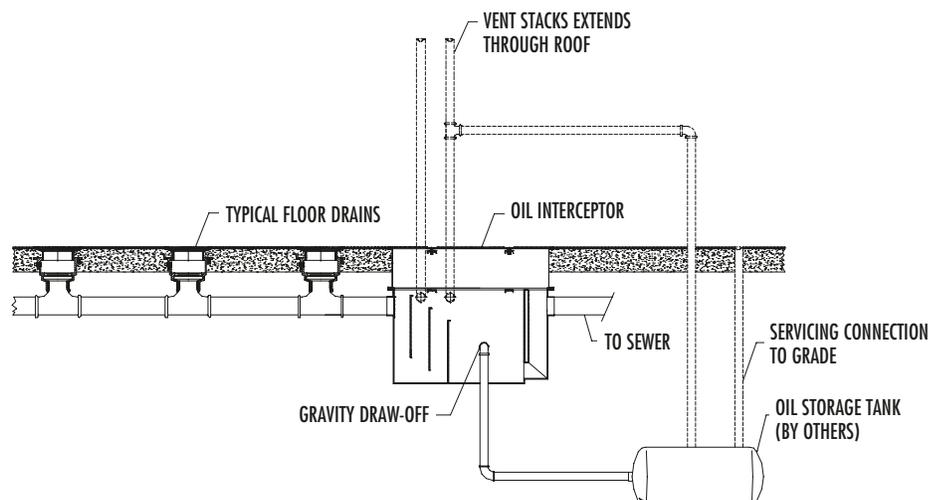
Inlet & Outlet Other Than Standard Size (-O) - Flow through an interceptor is regulated by the flow restrictor. Increasing connection sizes has no beneficial effect on flow, and larger piping can normally be accommodated with reducing bushings or couplings.

Installation Considerations

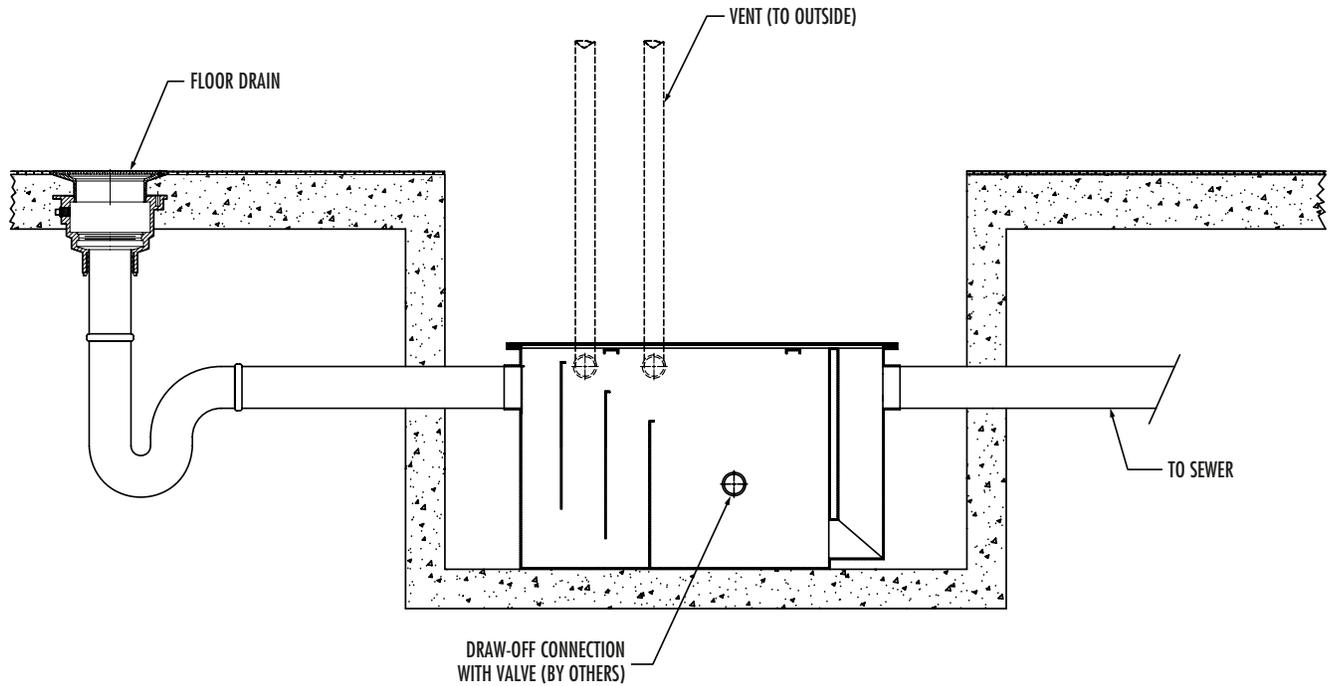
- Watts Drainage Oil Interceptors are commonly recessed, to connect to floor drain discharge, and allow passage of foot traffic.
- Provisions must be made to connect the oil interceptor draw-off to an approved underground oil storage tank (by others). Where conditions permit, a manual draw-off valve (by others) may be installed. A manual valve is generally accessed inside a pit, which houses the oil interceptor.
- Interceptors may be installed outside, but all piping must be below the frost line (see Extensions).
- Vent lines should be attached to dual no hub vent connections on the side of the interceptor. The lines must be terminated outside the building, 12" apart in elevation, to allow circulation, and vent heavier-than-air fumes that may accumulate inside the interceptor. The inlet side piping should also be vented through the roof, or as governed by local code.

Maintenance & Cleaning

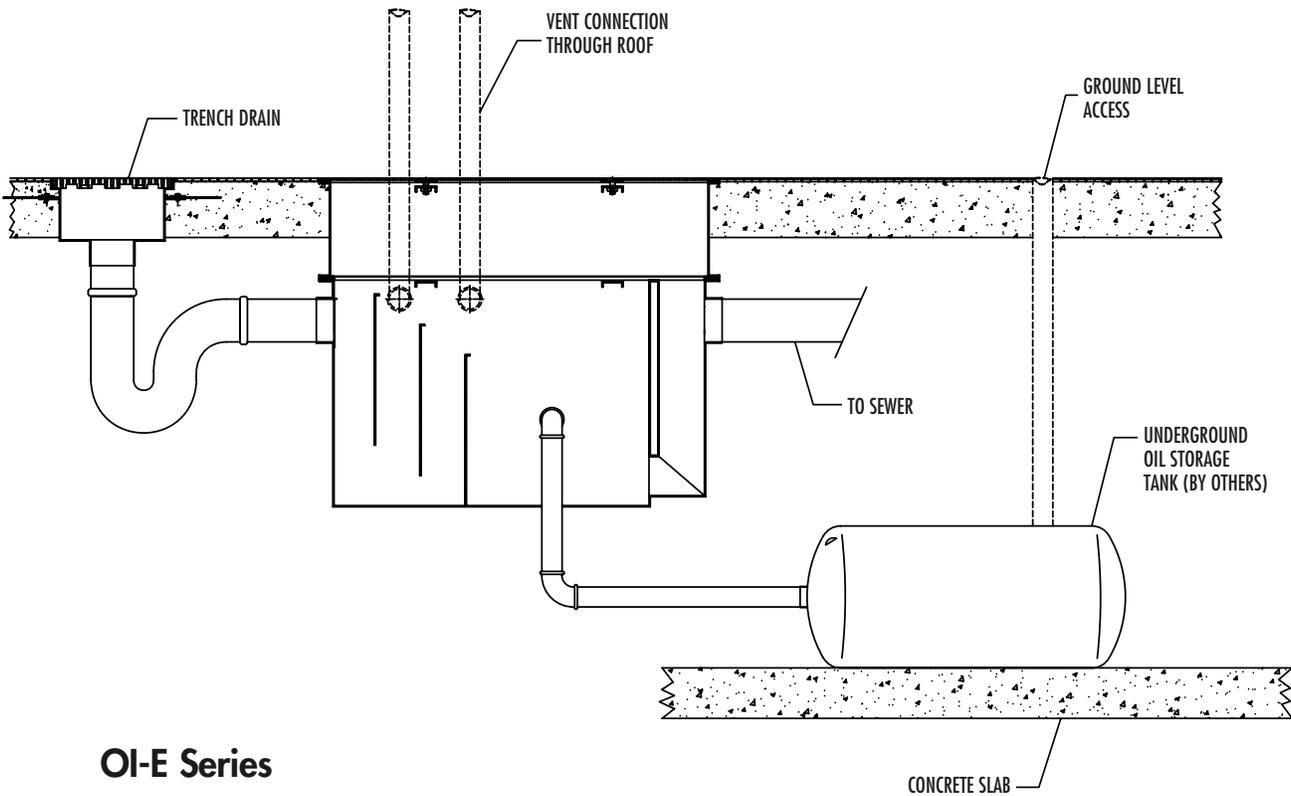
Oil interceptors are not designed to store oil. Oil should be drained into an approved storage tank, which should be pumped as required. If a manual valve is used, oil should be drawn off on a regular basis, dependent upon the amount of incoming effluent. The interceptor lid should be removed periodically, and a visual inspection made, for sludge or other accumulations.



TYPICAL OIL INTERCEPTOR INSTALLATIONS



OI Series



OI-E Series

SEDIMENT INTERCEPTORS**Design & Operation**

Watts Sediment Interceptors are designed to separate heavier-than-water sediments or floating debris, such as hair or lint, from plumbing waste systems. Sediment interceptors trap debris with a combination of screening, and gravity separation for heavier-than-water sediments. Debris is accumulated inside the interceptor, where it is stored until removal.

Material & Characteristics

Epoxy Coated Cast Iron - Industrial grade cast iron, finished with Watts standard gray acid resistant epoxy coating.

Epoxy Coated Steel - Standard 11 ga. CR steel, with oven cured, acid resistant baked gray epoxy coating.

Stainless Steel - 14 gauge, in accordance with ASTM A-351-Grade CF8 (type 304) Standard Specification. Highly durable and resistant to corrosion.

Sizing

Sediment interceptors are sized according to rate of flow, or anticipated amount of debris. See specification pages for specific flow rates and sizing.

Pipe Connection

No Hub (Standard) - Butt connection using no hub or neoprene coupling, suitable for cast iron, plastic, and most other piping applications.

Threaded (T) - Female IPS threaded connections.

Installation Considerations

- a.) Sediment interceptors should be located as near as possible to the source of the debris. Long piping runs prior to the interceptor will accumulate debris, causing drainage and clogging problems.
- b.) Small capacity sediment interceptors are generally mounted under or beside the sink. Larger capacity interceptors may be floor mounted, or recessed, to allow the passage of foot traffic, or connect to floor drain or other discharge lines.
- c.) Interceptors may be installed outside, but all piping must be below the frost line (see Extensions).
- d.) Venting of sediment interceptors is generally not required, however installers should reference local codes prior to installation.

Maintenance & Cleaning

Sediment interceptors must be routinely inspected and cleaned, in order to prevent clogging, and maintain operating efficiency. Maintenance frequency is primarily dependent upon the specific application, and amount of incoming debris.

INTERCEPTORS

TYPICAL SEDIMENT INTERCEPTOR INSTALLATIONS

