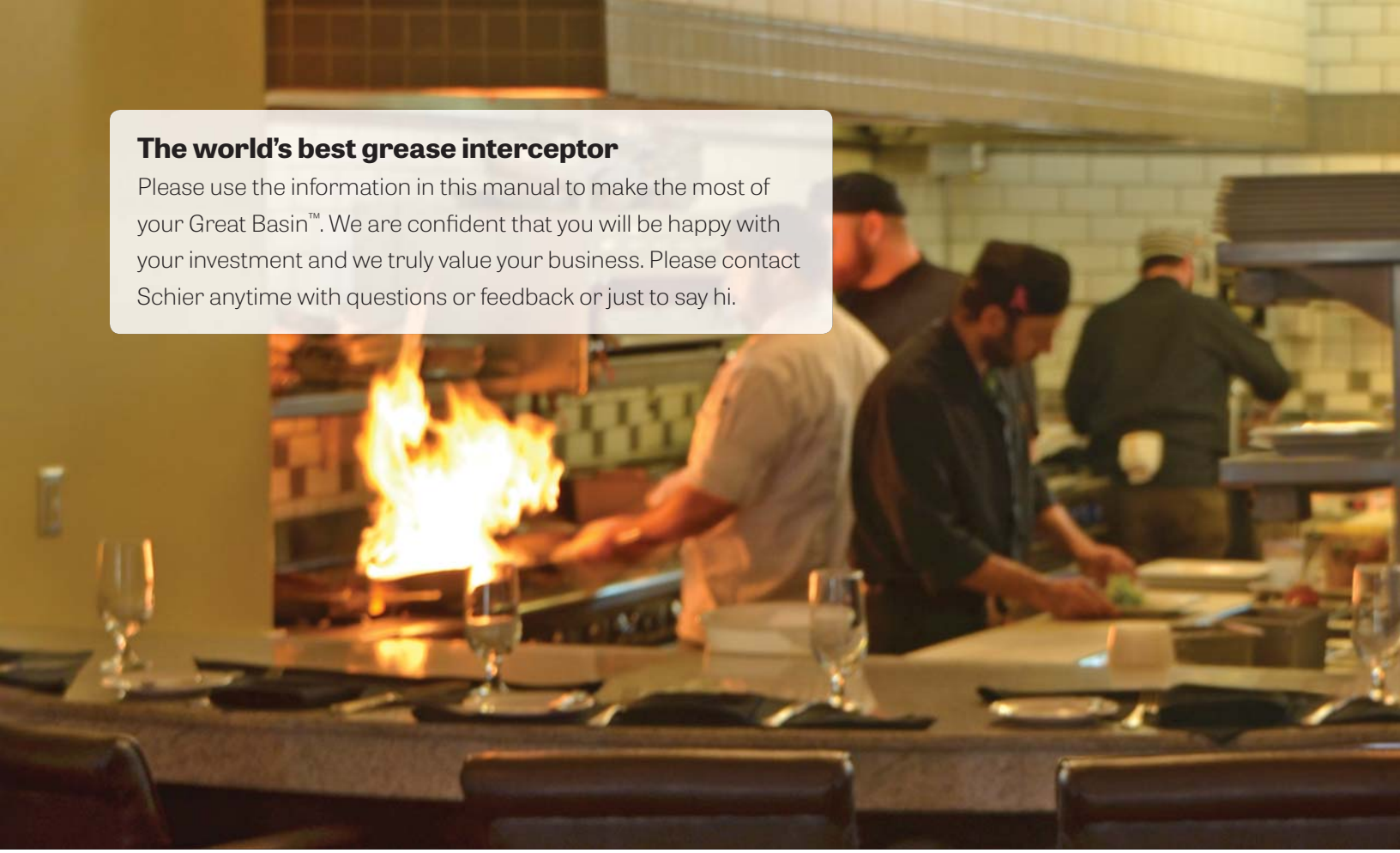
OWNER'S MANUAL

GREAT BASIN™ GREASE INTERCEPTORS

SCHIER
LIFETIME GUARANTEED
GREASE INTERCEPTORS

GBOM-0517



The world's best grease interceptor

Please use the information in this manual to make the most of your Great Basin™. We are confident that you will be happy with your investment and we truly value your business. Please contact Schier anytime with questions or feedback or just to say hi.

Table of Contents

Why Grease Interceptors Are Necessary

Grease interceptors, sometimes called grease traps or grease pits, are required in most food service establishments. The primary function is to separate and store the fats, oils and grease that are washed down the drain during food prep and dishwashing. Without grease interceptors, fats, oils and grease will build up on the walls of drainage piping, ultimately causing a blockage. This can lead to an immediate back-up in your kitchen, or worse, the city's wastewater collection system. When a blockage happens in the city's system, it can lead to a Sanitary Sewer Overflow (SSO), which results in raw sewage flooding out of manhole covers spreading dangerous bacteria into streets and walkways. SSOs are a leading cause of fresh water contamination and can be deadly for fish, plankton and other aquatic life. By properly maintaining your Great Basin™, you are doing your part to protect the environment.

Inside of pipe showing effects of a grease interceptor that has not been properly maintained

Inside of pipe with a grease interceptor that has been properly maintained

Routine Maintenance Procedure

1. Remove cover(s).
2. Remove all contents of the grease interceptor including grease, sediment and wastewater. For most thorough cleaning contact a professional pumper contractor.
3. Run sinks to fill unit(s) with cold water.
4. Inspect cover gasket for wear and tear. Replace cover(s)
5. Dispose of grease per local code.

NOTE: It is not necessary to remove the diffusers during routine maintenance unless there is a backup or drain lines require jetting. To remove the inlet and outlet diffusers:

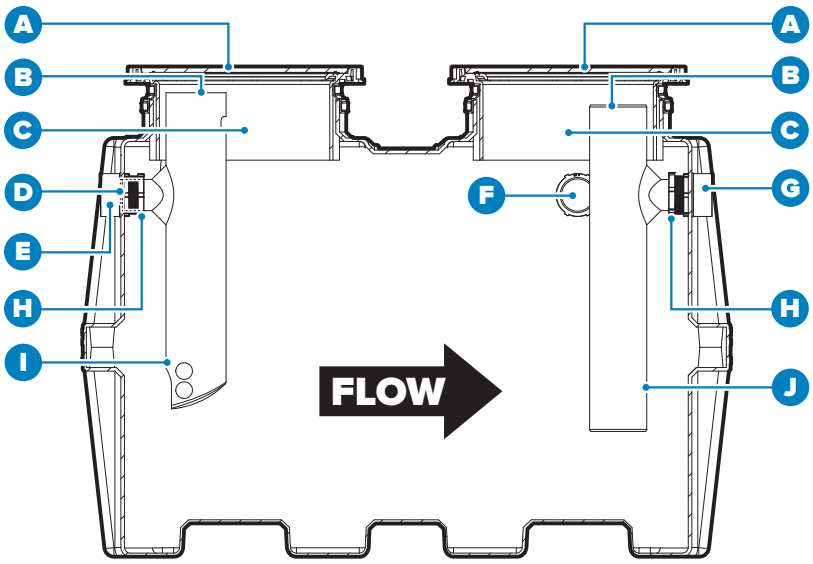
Models GB-15, GB-20, GB-25, GB-35, GB-50, GB-75 and GB-250 — hand loosen the green locking collars.
Models GB1, GB2 and GB3 — pull diffusers straight up out of saddle adapters. If installed on grade underneath a sink. interceptor may need to be disconnected from inlet and outlet drain lines and pulled out to remove diffusers.

With diffusers removed, clean the drain lines, diffusers and air relief thoroughly of all debris as needed.

Routine Maintenance Clearance Heights:

model(s)	GB1, GB2, GB3	GB-15, GB-20, GB-25	GB-35, GB-50	GB-75,GB-250
minimum clearance height (inches)	5.5	8	12	16

Grease Interceptor Anatomy (Model GB-250 Shown)



- A Cover
- B Air Relief/Visual Access
- C Adapter
- D Built-in Flow Control Plate
- E Inlet Connection
- F Optional Outlet Connection
- G Outlet Connection
- H Locking Collar
- I Inlet Diffuser
- J Outlet Diffuser

Calculating Pump-Out Frequency

All grease interceptors have a maximum grease holding capacity. Once that maximum capacity is exceeded, fats, oils and grease (FOG) will bypass to the collection system, creating the potential for blockages. It's critical to determine an accurate pump-out schedule that ensures the interceptor gets pumped out only as often as necessary, but before it reaches its maximum rated capacity. Your Great Basin™ grease interceptor should have been sized according to the Grease Production Sizing™ (GPS) and assigned a pump-out schedule prior to installation. If it wasn't, or if circumstances have changed, use the following formula to get your pump-out schedule back on track.

Grease Capacity (See Below) ÷ (Meals Per Day ✖ Grease Production Values (see A B C D E F below)) = **Pumpout Frequency in Days**

model	GB1		GB2		GB3		GB-15	GB-20	GB-25	GB-35	GB-50	GB-75	GB-250
flow rate (GPM)	20	25	35	50	50	75	15	20	25	35	50	75	100
grease capacity (lbs.)	**70**	**64.9**	**130.5**	**127.6**	**272.7**	**175.6**	**74**	**109**	**75**	**142**	**249**	**616**	**1,076**

Foodservice Establishment (FSE) Grease Production Values

category	grease production values	description / examples
low	A 0.005 lbs / meal (no flatware)	serves food prepared offsite or food that requires minimal preparation and/or warming; sandwich shop, convenience store (no kitchen), hotel breakfast bar, frozen yogurt, coffee shop, take & bake pizza, bar (limited food service), cafeteria (no prep), grocery meat department, sushi (no grill)
	B 0.0065 lbs / meal (with flatware)	
medium	C 0.025 lbs / meal (no flatware)	serves foods from a limited menu and/or with a limited amount of onsite preparation; pizza, ice cream parlor, fast food hamburger (pre-cooked), caterer, Greek, Japanese, Vietnamese (Pho), grocery store (no fryer), cafeteria (limited prep), low category restaurants w/ fryer
	D 0.0325 lbs / meal(with flatware)	
high	E 0.035 lbs / meal (no flatware)	serves a full menu of food prepared onsite; American traditional, hamburger (with grill), BBQ, Mexican, Italian, steak/seafood house, hibachi, buffet, fast food fried chicken, bakery/donut shop (w/fryer), Chinese, Indian, grocery store (w/ fryer), cafeteria (full prep), medium category restaurants w/ fryer
	F 0.0455 lbs / meal (with flatware)	

Please note that GPS may not satisfy local jurisdictional requirements for installation approval and should always be verified prior to selection. The easiest way to verify sizing for any project is to use our Grease Monkey™ sizing tool (schierproducts.com/pages/sizing) and select the "pre-approve" option. When scheduling pump-outs, Schier recommends a pumping frequency between 30 and 90 days. Your calculations should be updated if number of meals per day, operating days per week or the menu types (more greasy or less greasy) change.

Core Samples

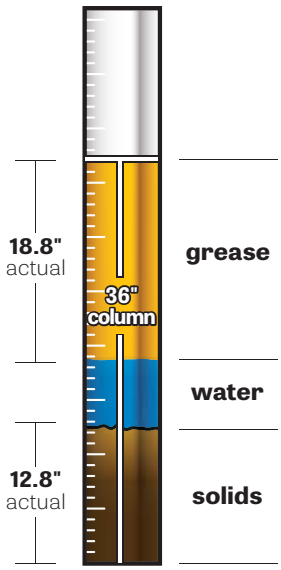
If you prefer not to rely solely on the GPSM to dictate pre-scheduled monthly pump-outs, you can take a more commanding role in dictating pump-out frequency with some simple tools and regular inspections. To do this you will need a core sampler. Popular brand names include DipStick Pro and Sludge Judge .

Once you have your core sampler, it can be outfitted with some simple labeling (via high adhesive tape or permanent marker) to indicate your pump-out levels (see below).

NOTE: Series Installations

When installed in series, initially the first unit will fill up with grease while passing some grease to subsequent unit(s). As the grease layer in the first unit grows, more grease will pass to subsequent units. When it reaches maximum capacity, the first unit will pass all grease to subsequent unit(s). Core samples should be taken from the final tank in the series and pump-out scheduling should be conducted when it is near full capacity.

GB-250 Core Sample at Full Capacity



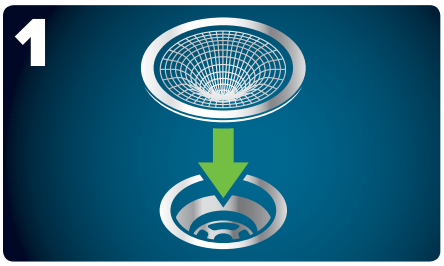
Core Sample Measurements at Full Capacity*

model	flow rate (GPM)	total liquid height (inches)	maximum grease height (inches)	maximum grease % of volume	maximum solids height (inches)
GB1	20	5.25	5	95%	0.75
	25	5.25	4.6	88%	0.75
GB2	35	7	6.25	89%	0.75
	50	7	6.1	87%	0.75
GB3	50	13.75	12.8	93%	0.75
	75	13.75	8.25	60%	0.75
GB-15	15	9	5	63%	2
GB-20	20	10	6.6	68%	2
GB-25	25	10	4.4	47%	2
GB-35	35	14	6.2	56%	2.6
GB-50	50	16	9.1	66%	3.3
GB-75	75	24	16.6	68%	1.5
GB-250	100	36	18.8	54%	12.8

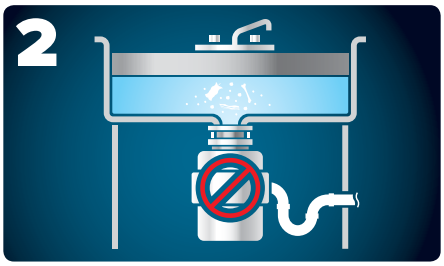
* Please note that as the grease layer inside of a grease interceptor accumulates it displaces the water below it downward. Much like an iceberg this grease layer will partially float above the static water line while the majority of it rests below it. As a result, the static water line of grease interceptor when at total grease capacity is slightly greater than the standard published static water line.

Kitchen Best Management Practices

The following kitchen best management practices (BMPs) will help reduce the cost to clean and maintain your grease interceptor and keep your facility in good standing with local pretreatment authorities.



Use debris screens in all floor and sink drains. Regularly empty screens into trash.

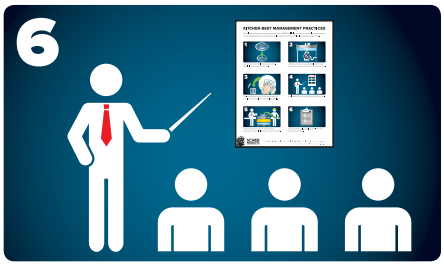


Minimize use of food waste disposals to improve interceptor storage and reduce maintenance costs.

Dry-wipe food waste from dishes before washing and clean grease spills with disposable materials.

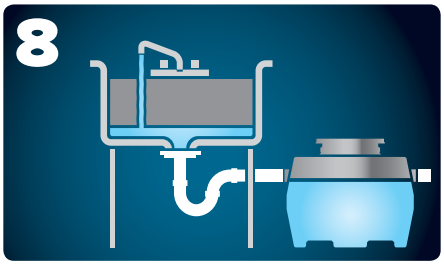
NEVER pour oil, fry oil, or melted lard or butter down drain line. Dispose these oils in appropriate container.

NEVER put chemicals for reducing grease into the drain system. The temporarily dissolved grease will bypass the interceptor and harden in downstream piping.



Implement BMP training program for kitchen staff.

Observe pumper contractor work to ensure interceptor is fully pumped out, properly cleaned and in good condition.



Make sure to run sinks to refill unit with cold water after pump-out.

Keep maintenance log detailing pump-outs, repairs and condition of interceptor.

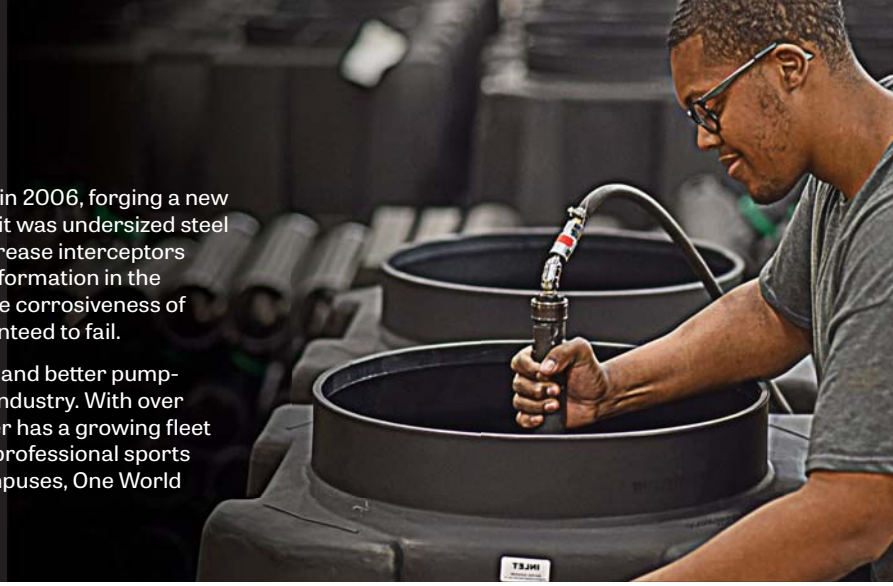
Maintenance Log

Date	Action (Inspection/ pump-out)	Grease Level (inches)	Solids Level (inches)	Notes

CONTACT INFORMATION

Grease Permit #

Pumper Contractor
Sewer and Drain Contractor
Local Authority Having Jurisdiction



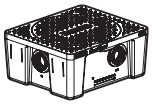
History

The very first Great Basin™ grease interceptor was installed in 2006, forging a new category in the world of grease interceptors. Prior to 2006, it was undersized steel grease traps inside of the building and oversized concrete grease interceptors outside of the building. These products offered little-to-no information in the way of performance. Worse, due to inferior materials and the corrosiveness of commercial kitchen wastewater, all of these units are guaranteed to fail.

The Great Basin™ was designed to offer better performance and better pump-out information along with the only lifetime warranty in the industry. With over 70,000 installations from San Francisco to Singapore, Schier has a growing fleet of corporate account specifications, installations at over 15 professional sports stadiums, thousands of restaurants, schools, corporate campuses, One World Trade Center and (we've been told) the White House.

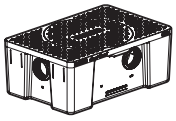
Great Basin™ Series Specifications

For buried models look under the lid to find your product ID label



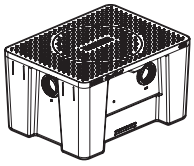
GB1

Flow Rate / Grease Capacity:
20 GPM (1.3 L/s) / 70 lbs. (31.8 kg)
25 GPM (1.6 L/s) / 64.9 lbs. (29.4 kg)
Liquid Capacity: 10 gal. (37.9 L)



GB2

Flow Rate / Grease Capacity:
35 GPM (2.2 L/s) / 130.5 lbs. (59.2 kg)
50 GPM (3.2 L/s) / 127.6 lbs. (57.9 kg)
Liquid Capacity: 20 gal. (75.7 L)



GB3

Flow Rate / Grease Capacity:
50 GPM (3.2 L/s) / 272.7 lbs. (123.7 kg)
75 GPM (4.7 L/s) / 175.6 lbs. (79.7 kg)
Liquid Capacity: 40 gal. (151.4 L)

GB-15

Flow Rate / Grease Capacity:
15 GPM (0.9 L/s) / 74 lbs. (33.6 kg)
Liquid Capacity: 16 gal. (60.5 L)

GB-20

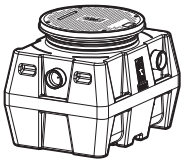
Flow Rate / Grease Capacity:
20 GPM (1.3 L/s) / 109 lbs. (49.4 kg)
Liquid Capacity: 22 gal. (83 L)

GB-25

Flow Rate / Grease Capacity:
25 GPM (1.6 L/s) / 75 lbs. (34.0 kg)
Liquid Capacity: 22 gal. (83 L)

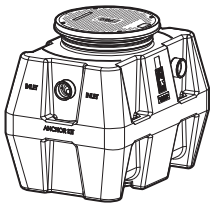
GB-35

Flow Rate / Grease Capacity:
35 GPM (2.2 L/s) / 142 lbs. (64.4 kg)
Liquid Capacity: 35 gal. (132.3 L)



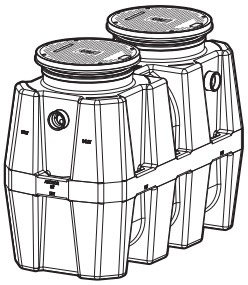
GB-50

Flow Rate / Grease Capacity:
50 GPM (3.2 L/s) / 249 lbs. (112.9 kg)
Liquid Capacity: 52 gal. (196.5 L)



GB-75

Flow Rate / Grease Capacity:
75 GPM (4.7 L/s) / 616 lbs. (279.4 kg)
Liquid Capacity: 125 gal. (472.5 L)



GB-250

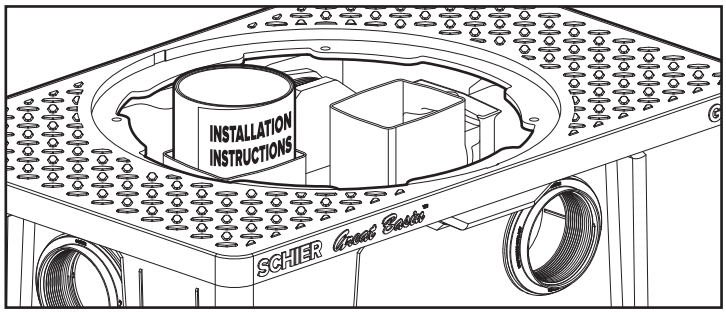
Flow Rate / Grease Capacity:
100 GPM (6.3 L/s) / 1,076 lbs. (488.1 kg)
Liquid Capacity: 275 gal. (1,041 L)

SPECIAL PRECAUTIONS

For All Schier Grease Interceptor Installations

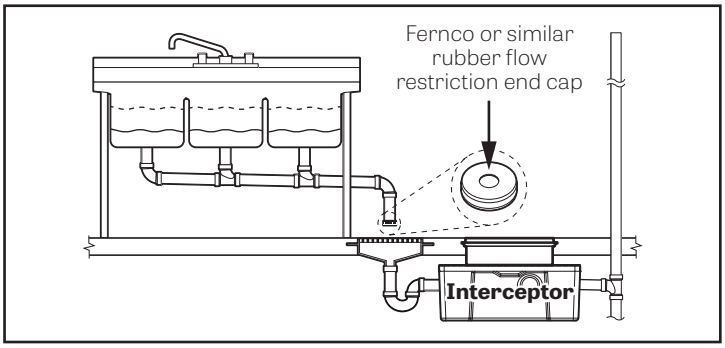
Installation Instructions

Installation instructions and additional components are located inside the interceptor. Read all instructions prior to installation. This interceptor is intended to be installed by a licensed plumber in conformance with all local codes.



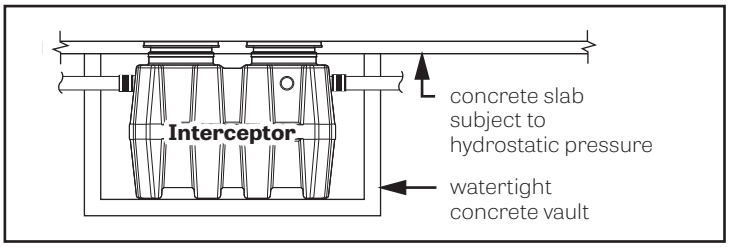
When Installing Interceptor Inside

If your dishwashing sink(s) discharges into a floor drain/sink (drain), you must regulate the flow into the drain to avoid an overflow of water onto the kitchen floor. This can be done by installing a valve or flow restriction cap on the sink piping that discharges into the drain. See drawing below for guidance. For detailed guidance on indirect connections, go to: http://webtools.schierproducts.com/Technical_Data/Indirect_Connections.pdf



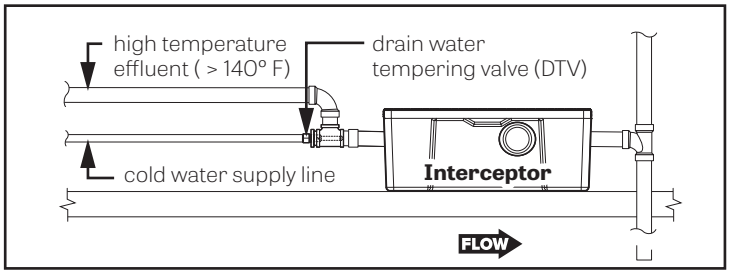
Hydrostatic Slabs (or Pressure Slabs)

When installed under a hydrostatic slab (slab designed to withstand upward lift, usually caused by hydrostatic pressure) interceptor must be enclosed in a watertight concrete vault. Failure to follow this guidance voids your warranty.



High Temperature Kitchen Water

If water is entering the interceptor at excessive temperature (over 140° F), a drain water tempering valve (DTV) must be installed. Most state and local plumbing codes prohibit water above 140° F being discharged into the sanitary sewer. Water above 140° F will weaken or deform PVC Schedule 40 pipe, poly drainage fixtures like interceptors and erode the coating of cast iron (leading to eventual failure). Failure to follow this guidance voids your warranty.



High Water Table Installations

Interceptors and risers are not designed to withstand water table height in excess of the top of the unit when buried (see figure). If it is possible for this to occur, install the interceptor and risers in a water-tight concrete vault or backfill with concrete or flowable fill (wet concrete and flowable backfill should be poured in stages to avoid crushing the interceptor). At risk areas include but are not limited to tidal surge areas, floodplains and areas that receive storm water. Failure to follow this guidance voids your warranty.

Models GB-50, GB-75, and GB-250 that are direct buried in high water table scenarios must be installed with model AK1 anchor kit or warranty is void.