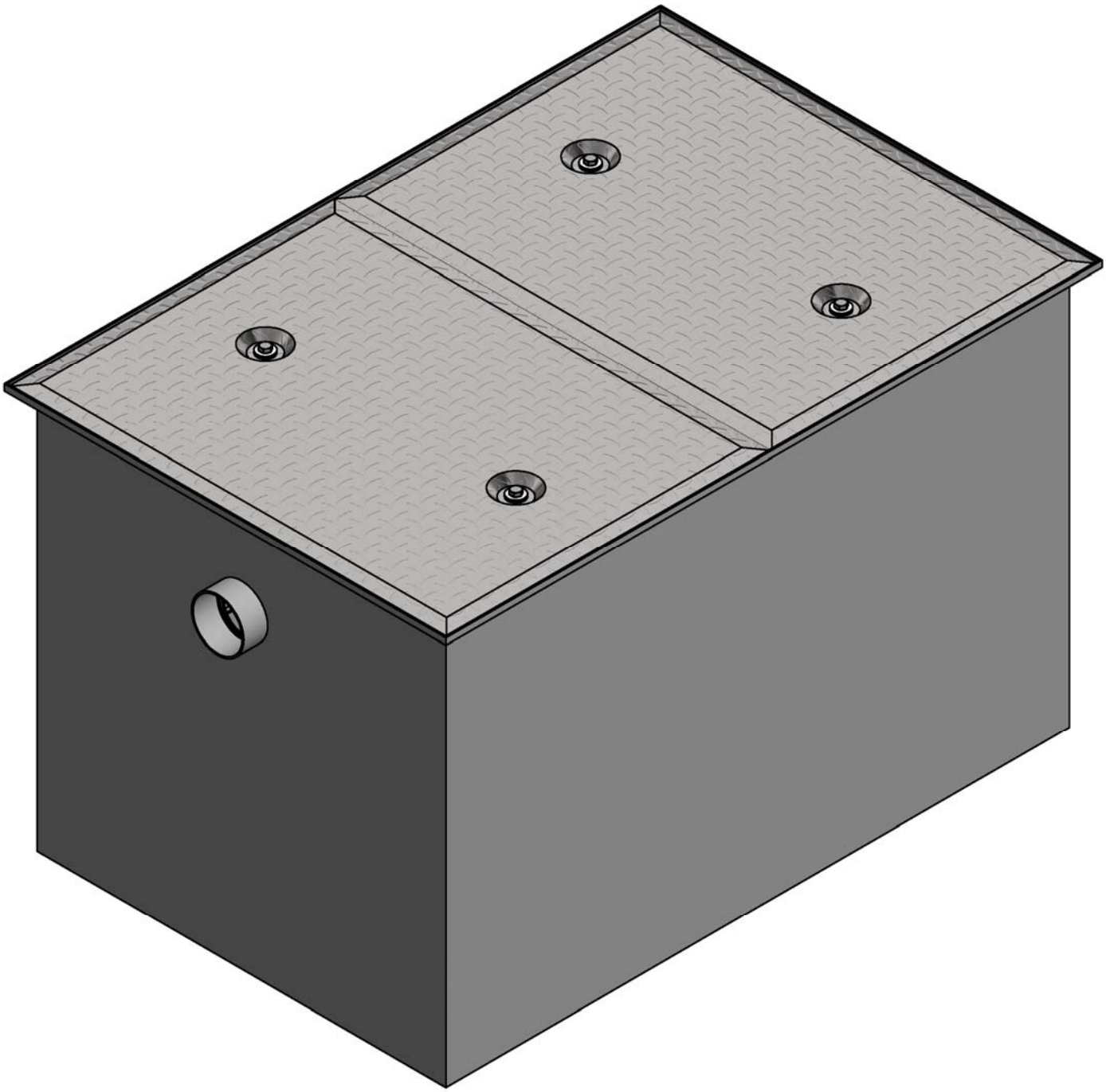
OIM

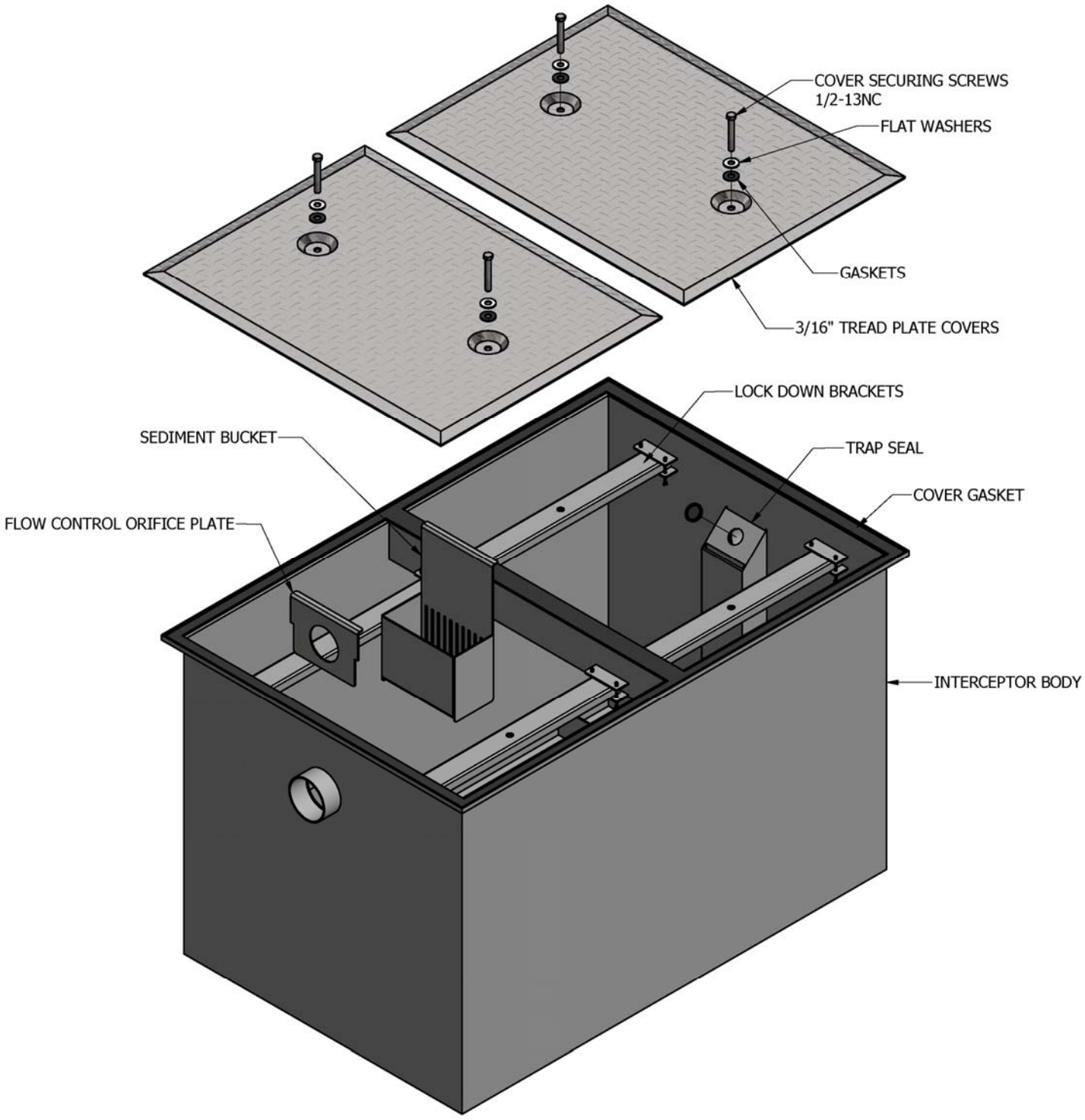
Installation, Operation and Maintenance

5200 Series Interceptors



5200 Series Grease Interceptors

Maintenance



1. Remove covers—hex head screws, washers and gaskets. Quantity will vary depending on interceptor size.
2. Manually skim grease from inside interceptor body. Dispose of grease in an acceptable manner.
3. Remove sediment bucket (if so equipped) and dispose of debris.
4. Remove orifice plate and clean.
5. Inspect cover gaskets and other components—reinstall all components and re-install covers.

Grease Interceptor Sizing – PDI (Plumbing & Drainage Institute) Method

Sizing & Rating

Flow Rate (GPM)	4	7	10	15	20	25	35	50
Capacity (LBS)	8	14	20	30	40	50	70	100

Procedure

The following example shows the steps for properly sizing a grease interceptor to suit requirements of specific fixtures.

Step	Formula	Example
1	Determine cubic content of fixture by multiplying length x width x depth	Sink 36” x 24” x 14” deep 36x24x14 = 12,096 cubic in.
2	Determine capacity in gallons. 1 Gal = 231 cubic inches.	Contents in Gallons: 12,096 ÷ 231 = 52.36 Gal
3	Determine actual drainage load. Fixtures are normally filled to 75% of capacity plus the items being washed displace about 25% of the fixture content, thus Actual Drainage Load = 75% of the fixture capacity	Actual Drainage Load 52.36 Gal x 0.75 = 39.3 GPM
4	Determine flow rate and drainage period. Standard practice dictates a one minute drainage period. Where conditions permit, a two minute period is acceptable. Drainage period is the actual time required to completely drain the fixture. Flow Rate = Actual Drainage Load ÷ Drainage Period.	Calculate the flow rate for a one minute period: 39.3 ÷ 1 = 39.3 GPM For a two minute period: 39.3 ÷ 2 = 19.65 GPM
5	Select interceptor from the Sizing & Rating Table (above) which corresponds to the calculated flow rate. When the flow rate falls between two sizes, use the larger size.	For a one minute period: 50 GPM Interceptor Required For a two minute period: 20 GPM Interceptor Required

Alternate Sizing Method (Based on Drainage Fixture-Units)

Fixture Outlet (Trap Size)	Drainage Fixture Unit Value	GPM Equivalent	PDI Interceptor Size
1-1/4”	1	7.5	10
1-1/2”	2	15	15
2”	3	22	25
2”	4	30	35
3”	5	37.5	50
4”	6	45	50

OPERATION, INSTALLATION AND MAINTENANCE INSTRUCTIONS

5200 SERIES INTERCEPTORS

FEATURES

Wade 5200 series interceptors are equipped with a tread plate cover secured with hex head machine screws. A soft elastomeric gasket is attached to the body of the interceptor to prevent odor from escaping. An air relief is provided to eliminate siphonage and each unit is sized to insure it will perform to its rated capacity. All of Wade's grease, oil and solids interceptors are manufactured with 10 gage hot rolled steel that is welded together and coated with an hybrid Armor Coat finish. The cover sealing gasket is manufactured with low durometer closed-cell neoprene with self-adhesive backing. The gasket is custom fitted to the interceptor body top rim ledge where it is an integral part of the body. Because of the gasket's thickness and density, it provides an ideal sealing environment for the lid. All of Wade interceptors are supplied with the same gasket. All grease interceptors are supplied with a baffle system engineered to improve the grease/oil separation process. The baffle system is strategically located to direct inflow for maximum efficiency of the interceptor. Flow entering the interceptor is directed to the bottom by the baffle to avoid any disturbance of the previously accumulated surface layer of grease / oil in the device. The baffle also serves to reduce the velocity and surge of inflow, providing sufficient retention time for effective separation of the grease. The grease rises to the surface for manual or draw-off removal and the baffle is easy to remove for cleaning. The waste water is now relieved of over 90% of the fats, oils and greases and continues to flow through the interceptor into the drainage system. Many Wade grease interceptors bear the PDI (Plumbing and Drainage Institute) seal. This seal on Wade grease interceptors proves that the designs and ratings marked on the interceptor have met or surpassed all standards established by PDI. All of Wade PDI approved grease interceptors are supplied with external, vented flow control fittings to ensure maximum performance.

OPERATION

Waste water draining to the interceptor passes through the inlet at a controlled rate. As water enters the interceptor, the baffle arrangement reduces turbulence to allow efficient separation. The grease, as separation occurs, floats to the top and is accumulated. The waste water, relieved of contaminates, continues to flow through the trap and into the drainage system.

INSTALLATION

Install the interceptor as close as practical to the fixture(s) being served. Avoid installations where long runs of pipe (exceeding 25') are necessary to reach the interceptor. This precaution will preclude the possibility of grease becoming congealed in the pipe before it reaches the interceptor.

The unit may be placed on the floor, partially recessed in the floor, recessed with the top flush with the floor or encased below the floor in an appropriate housing to accommodate piping and structural considerations. Whatever the installation method, anticipate sufficient clearance to remove the cover and baffle for cleaning. Verify that no obstructions will be placed over the interceptor after installation. A minimum clearance equal the overall height of the interceptor (excluding any extension) is recommended.

Do not install the grease interceptor in a waste line from a garbage grinder. Garbage grinder waste must bypass the interceptor because the rapid accumulation of solid matter will significantly reduce the rated efficiency of the interceptor. In an application where solids will be present, a solids interceptor should be used.

Placement of a grease interceptor in a high traffic area is an important concern. If the unit is to be installed flush with the floor, it is necessary to load rate the interceptor cover. The standard Wade interceptor is designed for pedestrian and light traffic only. If heavy loads are anticipated, the interceptor must be specified with an appropriate reinforced cover.

An extension is frequently used to increase the rough-in dimension from the inlet/outlet centerline to the finished floor. The extension anchor flange is not adequate to support the entire interceptor. For installations at flush-with-floor level, the interceptor chamber must rest on solid ground or a concrete pad. For upper floor installations, (suspended above the lower floor ceiling), the interceptor must be independently supported on hangers suitable to carry the entire weight.

A single interceptor serving multiple fixtures is recommended only where the fixtures are located close together. In these installations, each fixture should be individually trapped and vented.

OPERATION, INSTALLATION AND MAINTENANCE INSTRUCTIONS

5200 SERIES INTERCEPTORS

FLOW CONTROL

The interceptor is designed to achieve a predetermined optimum flow rate, thus eliminating turbulence and to regulate surges in the drainage line. An integral flow control baffle is provided on the inlet to regulate flow. This orifice plate must be in place to insure the specified flow rate is maintained.

VENTING

Grease interceptors must have a vented waste, sized in accordance with code requirements for venting traps, to retain a water seal and to prevent siphoning.

EXTENSIONS

Extensions should be specified on grease and oil interceptors when the interceptor is buried into the ground, vertical adjustment of the interceptor is necessary to meet the drainage piping, and/or floor level access is required. Extension heights range from four inches to any maximum practical for serviceability. Extensions in excess of 20" are not recommended. One must consider the slope of the drainage piping from the fixtures to the inlet of the interceptor. Typically, one should allow a slope of ¼" per foot in the drainage pipe. Therefore, there will be many installations, especially with large interceptors, where the sloped drainage pipe ends up below the inlet connection. An extension is added to the top of the interceptor so that the inlet can be lowered to meet the incoming drainage pipe and the lid of the interceptor can be extended to floor level. Wade offers four different kinds of extensions: integral, fixed bolt on, adjustable bolt on and cover shrouds. An integral extension is specified by expanding the "H" dimension on the interceptor. The "H" dimension is from the middle of the inlet and outlet to the top of the interceptor. One would specify a "H" dimension to meet the job requirements and the interceptor will be manufactured to that specification. The extension is incorporated into the production of the interceptor to produce a seamless, integral interceptor. A second method of providing an extension is a bolt on design. In this example, a top is manufactured out of the same material as the body. The extension is secured to the body by means of "C lock" devices bearing against its base flange, compressing the sealing gasket to complete the union. The regular lid is bolted to the extension top in the same manner as it would be to the body of a standard interceptor.

CLEANING

All grease interceptors must be cleaned regularly. The frequency of grease removal is dependent upon the capacity of the interceptor and the quantity of grease in the waste water. Grease removal intervals may therefore vary from once a week to once in several weeks. When the grease removal interval has been determined for a specific installation, regular cleaning at that interval is necessary to maintain the rated efficiency of the interceptor. After the accumulated grease and waste material has been removed, the interceptor should be thoroughly checked to make certain that inlet, outlet and air relief ports are clear of obstructions.

DISPOSITION OF INTERCEPTED MATERIALS

Grease and other waste matter that has been removed from the interceptor should not be introduced into any drain, sewer, or natural body of water. This waste matter should be placed in proper containers for disposal. Where recovery of grease is desired, it can be handled in a manner suitable to the authorities.

INTERCEPTOR PERFORMANCE

Factors Affecting Grease interceptor Performance

Velocity of incoming water

A higher velocity of water will contribute to turbulence and slow the grease separation process, thereby reducing efficiency. Installation of additional flow control devices at all the sources of flow may be required.

Grease to Water Ratio

Higher ratios of grease particles to the water will the lower the efficiency of the interceptor – If high ratios of water to grease are anticipated, increase the size of the interceptor one or two units.

Detergents in the System

Degreasing agents or grease cutting detergents will break down the liquid grease into minute particles that can cause slower separation time, thus allowing these particles to pass through the interceptor. Increasing the size of the interceptor will allow longer retention rates and improve the efficiency.

OPERATION, INSTALLATION AND MAINTENANCE INSTRUCTIONS

5200 SERIES INTERCEPTORS

Dishwashers

A separate grease interceptor is recommended for each commercial dishwasher. The size of the interceptor is determined by the GPM discharge rate of the dishwasher as specified by the manufacturer.

Floor Drains

Many local plumbing inspectors require that grease laden wastewater flowing into floor drains must flow through a grease interceptor before draining into the sanitary sewer system. In these instances, the flow control fitting must be installed underground, before the inlet to the interceptor, to moderate the flow from the floor drains and to ensure maximum performance. Consideration should be given to providing access to the flow control fitting in these installations for proper cleaning and maintenance.

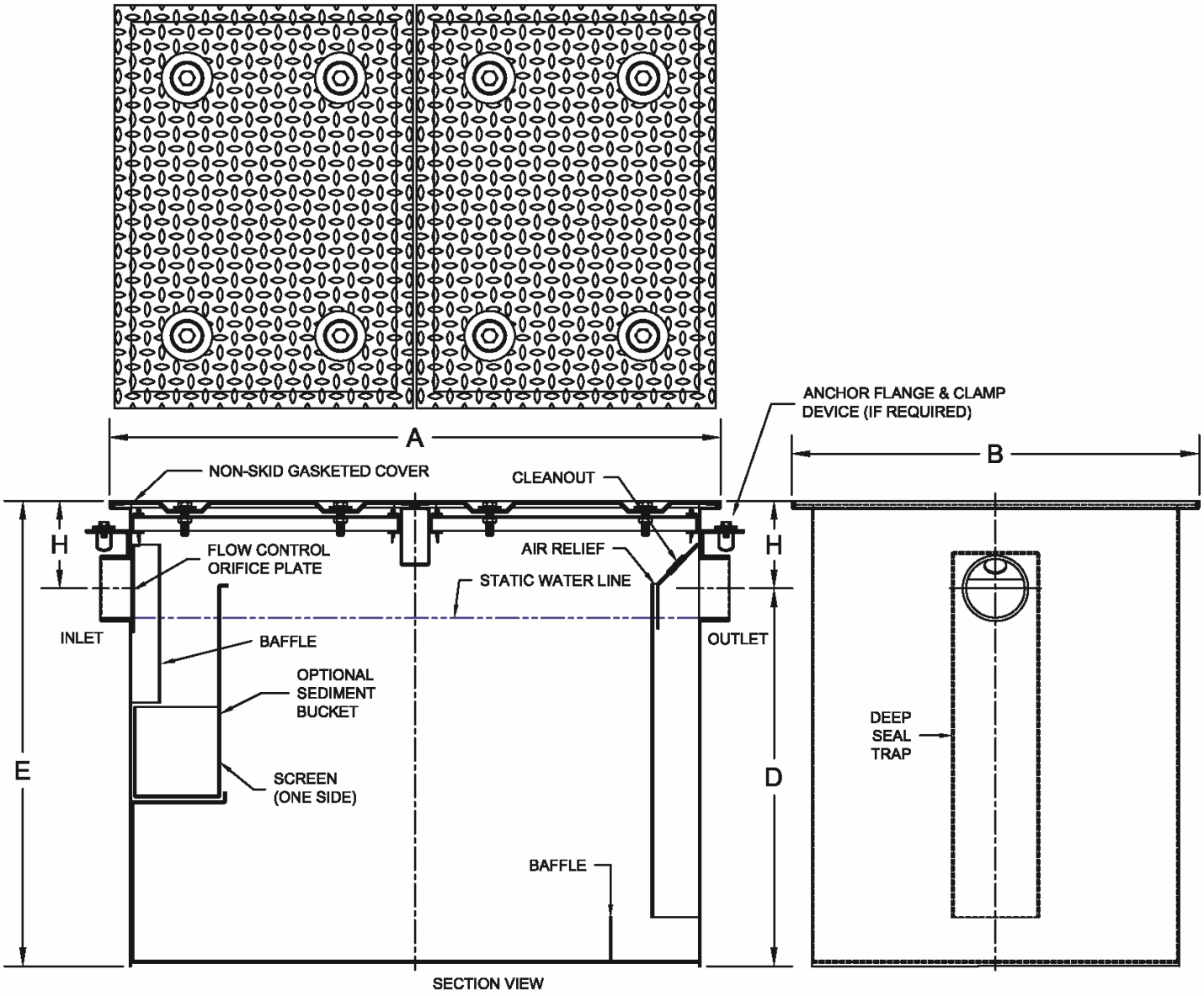
Solids interceptors

The interception and retention of solids cannot be overlooked. Materials such as lint, hair, grindings, ceramic waste, plaster, dental wastes, aquarium and other small gravel, jewels and precious metals are a few solids that should pass through a solids interceptor before entering the waste drain line. Deleterious solids should be intercepted to prevent clogging of the drainage lines and valuable materials require interception for retrieval. Wade manufactures a complete line of solids interceptors designed to handle any waterborne solids. Most often these interceptors replace the standard traps of the fixtures they serve. The solids interceptor with a low inlet and high outlet becomes the fixture trap. Solids interceptors are manufactured with easily removable strainers or sediment baskets that serve to retain the intercepted solids while allowing water to flow through. It is good engineering practice to specify a solids interceptor immediately before a grease interceptor so that all debris and solid wastes are caught in the solids interceptor before they enter the grease interceptor. This will ensure that the grease interceptor is not filled as quickly with solid wastes that will only impair its efficiency. In addition, most foul odors from grease interceptors are from rotting solids, not from the grease itself. Proper separation of these solids will reduce the odor problem typically experienced with grease interceptors filled with rotting solids.

5200 Large Capacity Grease Interceptor

Regularly Furnished: Fabricated A.R.C. steel grease interceptor with removable baffles, & gasketed cover.

Project		Engineer		Mechanical	



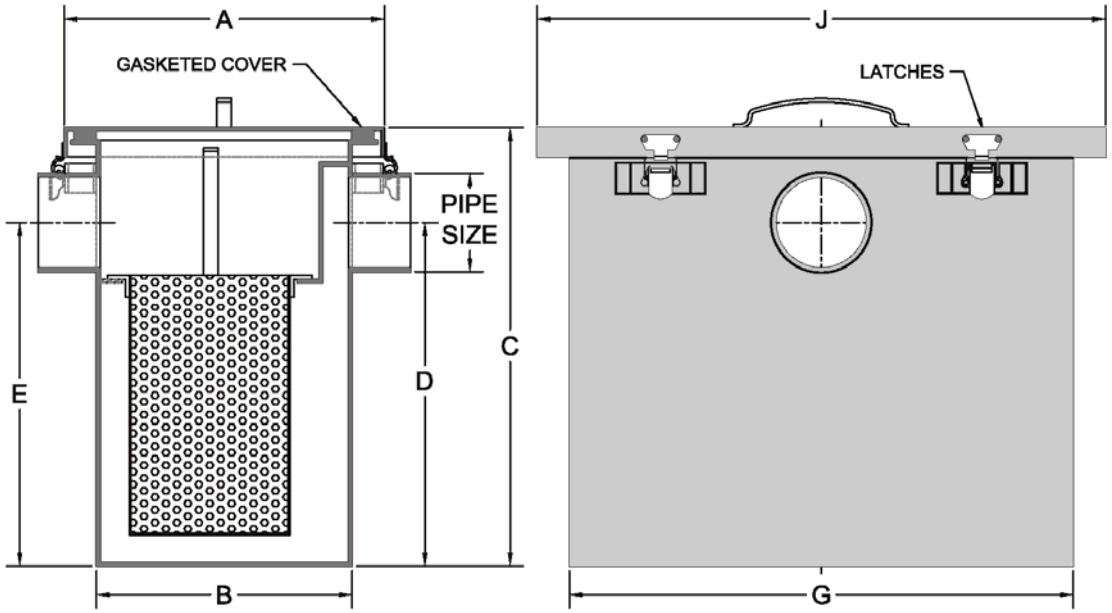
•	Size GPM	Pipe Size	Capacity		Dimensions (Inches)					No. of Lids
			Lbs.	Gallons	A	B	D	E	H	
	75	4”	150	106	42	28	26	32	6	2
	100	4”	200	193	55	37	26	34	8	2
	125	4”	250	227	58	38	28	36	8	3
	150	4”	300	265	61	39	30	38	8	3
	200	4”	400	396	70	44	34	44	10	6
	250	4”	500	501	75	46	38	48	10	6
	300	4”	600	580	77	49	40	52	12	6
	400	6”	800	805	84	56	44	58	14	6
	500	6”	1000	1172	92	61	54	68	14	6

**Dimensions vary from illustration*

Suffix Options		
Suffix	**Description**	**•**
-18	Heavy Duty Cover *	
-24	Anchor Flange*	
-26	Anchor Flange w/ Clamp Device *	
-FH	Housing w/ Adjustable Cradle *	
-FHT	Full Housing w/ Adjustable Housing *	
-T	Cover Recessed for Tile (Specify Thickness) *	
-XT	Fixed Extension (Specify Height) *	
Outlet Variations		
-NH	No-Hub	
-IPS	Female Threaded	

5760 Solids Interceptor

Project		Engineer		Mechanical	



Size (GPM)	Pipe Size	A	B	C	D/E	D/E	J	Capacity
4	2	11	8-3/4	10-1/2	7	10-1/4	12-1/2	0.12
7	2	11	8-3/4	13	9-1/2	10-1/4	12-1/2	0.17
10	2	11	8-3/4	13	9-1/2	12-1/4	14-1/2	0.23
15	2	11	8-3/4	13	9-1/2	14-1/4	16-1/2	0.38
20	3	11	8-3/4	13	9-1/2	16	18-1/4	0.30
25	3	11	8-3/4	18	13-1/2	17-1/4	19-1/2	0.53
35	4	11	8-3/4	22	17-1/2	17-1/4	19-1/2	0.57
50	4	11	8-3/4	22	17-1/2	21-1/4	23-1/2	0.88
75	4	11	8-3/4	30	17-3/4	27-1/4	29-1/2	0.95
100	4	20-1/4	18	30	17-3/4	27-1/4	29-1/2	2.96
150	4	20-1/4	18	40	22-1/2	33-1/4	35-1/2	5.70
200	6	22-/4	20	50	29	33-1/4	35-1/2	5.85

Regularly Furnished: Fabricated A.R.C. steel solids interceptor with removable perforated stainless steel sediment basket & gasketed cover with lift handle.

Size GPM	Regularly Furnished	-304 All Stainless Steel
4		
7		
10		
15		
20		
25		
35		
50		
75		
100		
150		
200		

Suffix Options		
Suffix	**Description**	**•**
-27	Replacement Bucket	
-123	Stainless Steel Mesh Lined Bucket	
-175	Custom Bucket Liner	
-XT	Bolted Cover w/ Fixed Extension (Specify Height)	
Outlet Variations		
-NH	No-Hub	
-IPS	Female Threaded	

** Dimensions vary from illustration*