

Grease Interceptors Sizing

WADE

Sizing Method

Sizing of Grease Interceptors is based on the volume of waste water in gpm (gallons per minute) that can be discharged from kitchen fixtures and equipment to be served. Selection of Grease Interceptors depends on the type desired and the interceptor's rated capacity in gpm.

The National Plumbing Code and others list drainage fixture-unit values of various plumbing fixtures. For fixtures not listed, these codes show drainage fixture-unit values based on drain outlet or trap size. Fixture-unit values are converted to gpm discharge rates on the basis of one fixture-unit equaling 7.5 gpm discharge from the fixture. This information is shown in the "Sizing Table."

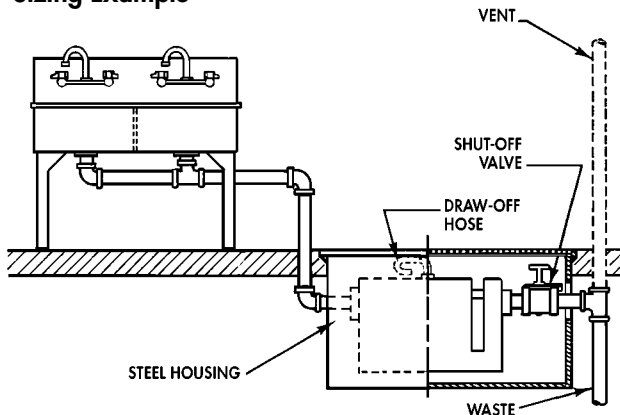
After the gpm rate of discharge has been determined for the fixtures, refer to the "Grease Interceptor Selection Table" for the Grease Interceptor required.

For unusual installations requiring special attention, contact your Wade representative.

Sizing Table

Fixture Outlet Or Trap Size (inches)	Drainage Fixture-Unit Value	GPM Equivalent
1 1/4	1	7.5
1 1/2	2	15.0
2	3	22.5
2 1/2	4	30.0
3	5	37.5
4	6	45.0

Sizing Example



Sizing Procedure

The double compartment sink shown in the sizing example is equipped with two two-in. drain outlets. The "Sizing Table" on this page indicates that each two-in. drain outlet can produce a 22.5 gpm discharge. Thus a total discharge rate of 45 gpm is the sizing requirement.

Alternate Sizing Method

Steps	Formula	Example
1	Determine cubic content of fixture by multiplying length x width x depth.	A sink 48" long by 24" wide by 12" deep. Cubic content 48 x 24 x 12 = 13,824 cubic inches.
2	Determine capacity in gallons. 1 gal. = 231 cubic inches.	Contents in gallons $\frac{13,824}{231} = 59.8$ gallons
3	Determine actual drainage load. The fixture is normally filled to about 75% of capacity with water. The items being washed displace about 25% of the fixture content, thus actual drainage load = 75% of fixture capacity.	Actual drainage load $.75 \times 59.8 = 44.9$ gallons
4	Determine flow rate and drainage period. In general, good practices dictate a one (1) minute drainage period; however, where conditions permit, a two (2) minute drainage period is acceptable. Drainage period is the actual time required to completely drain the fixture.	Calculate flow rate for one minute period $\frac{44.9}{1} = 44.9$ GPM Flow Rate Two-minute period $\frac{44.9}{2} = 22.5$ GPM Flow Rate Flow rate = $\frac{\text{Actual Drainage Load}}{\text{Drainage Period}}$
5	Select Interceptor which corresponds to the flow rate calculated. Note: Select next larger size when flow rate falls between two sizes listed.	For one-minute period - 44.9 GPM requires size "50". For two-minute period - 22.5 GPM requires size "25".

Selection Chart

Fixture Compartment Size (Inches)	Number of Compartments	Capacity (Gallons)	Recommended PDI Size Grease Inceptor	
			One-Minute Drainage Period	Two-Minute Drainage Period
18x12x6	1	4.2	7	4
16x14x8	1	5.8	7	4
20x18x8	1	9.4	10	7
18x16x8	2	15.0	15	10
20x18x8	2	18.7	20	10
30x20x8	1	15.5	20	10
24x20x12	1	18.7	20	10
22x20x8	2	23.0	25	15
22x20x12	2	34.0	35	20
24x24x12	2	44.9	50	25