



**SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
PUBLIC WORKS DEPARTMENT**
10005 East Osborn Road, Scottsdale, Arizona 85256-9722
PHONE: (480) 362-5600



HYDROMECHANICAL GREASE INTERCEPTOR SIZING WORKSHEET

Hydromechanical Grease Interceptor Requirements:

- * Precast concrete grease interceptors are not acceptable, shall be constructed of plastic, fiberglass or polyethylene.
- * Shall be no smaller than a 50-gallons per minute and a 100-punds grease capacity.
- * Shall be sized to be pumped no less than 30 days.
- * No larger than a three-compartment container rated at 1500-gallons capacity.

Customer/Contractor Information:

Date:		Plan Check No.:	
Customer Information/Company Name:		Contact Person:	
		Contact Number:	
Service Address:	HGI Location:		

Step #1: Calculate the DFUs:

Table 8-1: DFU Calculations By Fixtures Counts

Plumbing Fixture	Quantity Plumbing Fixture	Fixture Drain Size (inches)	DFU Per Plumbing Fixture	Total DFU Plumbing Fixture
3 Compartment Sink	1	2	9	9
2 Compartment Sink	1	2	6	6
Pre-Rinse Sink	1	2	3	3
Prep-Sink	0	2	3	0
Hand Sink	2	1.5	2	4
Mop Sink	1	2	3	3
Floor Sink	5	2	4	20
Floor Sink		3	6	0
Floor Sink		4	8	0
Floor Drain	0	2	2	0
Trench Drain (2 DFUs / lineal foot)	0	lineal foot	2	0
Running Water Dipper Well (Bulk Ice Cream Service)		1	1	0
Dishwashers	Use floor sink criteria (2", 3" or 4" FS)			2
Total DFU From Fixtures Count:				47

Step #2: Determine the Flow Rate in gallons per minutes (gpm):				
Use Table 9-2 to determine the flow rate (gpm) by using the total DFUs or Table 9-3 by using diameter of GI inlet pipe size (inches)				Flow Rate (gpm): 100
Table 9-2: HGI Flow Rate (gpm) Sizing Chart by Fixtures Count DFUs		Table 9-3: HGI Flow Rate (gpm) Sizing Chart by Diameter of the Inlet Pipe Size (inches)		
Total DFUs	HGI Flow Rate (gpm)	Diameter of Inlet Pipe Size (inches)	Maximum Full Pipe Flow (gpm)	1-Minutes / 2-Minutes Drainage Period (gpm)
20	50	2	20	20 / 10
35	75	3	60	75 / 35
172	100	4	125	150 / 75
216	150	6	375	400 / 200
342	200			
Step #3: Calculate the Number of Meals Per Day by Number of Seats:				
Enter total number of seats at the facility.		Total # of Seats:		50
Number of seats multiplied by 4 (average table turns per day). Formula: (# of seats * 4, table turns / day).		Total # Meals (per day):		200
Step #4: Determine the Grease Production Values:				
Use Table 9-4 to determine the grease production value for the facility.		Facility Grease Production Value:		0.0455
Values (pounds per meal)		Category		
0.0065	Low	Serves food prepared offsite or food that required minimal preparation and/or warming.		
0.0325	Medium	Serves food from a limited menu and/or with a limited amount of onsite preparations.		
0.0455	High	Serves a full menu of food prepared onsite, full services and with a fryer.		
Step #5: Calculate the Total Grease Production (pounds per day):				
# of meals multiplied by grease production value. Formula: (# of meals * GPV-0.0065, 0.0325, 0.0455).		Total Grease Production (pounds/day):		9.1
Step #6: Calculate the Pumping Frequency (days):				
HGI grease capacity (pounds) divided by the Grease production (pounds/day). Formula: (HGI grease capacity, pounds / grease production, pounds/day).		Pumping Frequency (days):		95

Hydromechanical Grease Interceptor Information:

Enter HGI information – round up to the next larger size and the minimum size HGI allowed is 50-gallons per minute and a 100-pounds grease capacity.

Manufacture / Model	Capacity (gallons)	Flow Rate (gpm)	Grease Capacity (pounds)	Plumping Frequency (days)
Schier / GB-75	125	75	861	95

SRPMIC PLAN REVIEW**Plan Submittals Shall Include:**

Any food establishment, commercial kitchen, commercial, industrial, agricultural and managed property that will or may require a pretreatment device is required to submit design documents for plan review. This applies for all new installations, renovations and upgrades to existing systems.

In general, submittal of design documents shall include:

1. The plumbing floor plans and schematic plans for the grease waste lines to pretreatment devices.
2. The plans should also show that all Grease Bearing Fixtures (GBF) are routed to appropriately sized grease interceptor(s) and a plumbing fixtures schedule.
3. Show all GBF on the plans that are within the facility, including floor sinks, floor drains, mop sinks, trough sinks, trough drains, pre-wash sinks, prep sinks, pot sinks, dishwashers, etc.
4. The name of the manufacturer, the model number and size of the pretreatment device.
5. The grease interceptor sizing worksheets:
 - Gravity Grease Interceptor – [7.WR.PT_02R1_GGI Sizing Worksheet-Final](#).
 - Hydromechanical Grease Interceptor – [7.WR.PT_03R1_HGI Sizing Worksheet-Final](#).
 - Oil/Sand/Water Interceptor – [7.WR.PT_04R1_OSW Sizing Worksheet-Final](#).

Design Criteria for Pretreatment Devices:

1. GGI shall be no smaller than a two-compartment container rated at 500-gallons capacity and no larger than a three-compartment container rated at 2500-gallons capacity.
2. GGI greater than 2500-gallons shall require engineering design.
3. HGI shall be rated no smaller than 50-gallons per minute and a 100-pounds grease capacity and no larger than a three-compartment container rated at 1500-gallons capacity.
4. Oil/Sand/Water Interceptor shall be rated no smaller than a 50-gallons volume capacity.
5. The grease interceptor must be an approved model from Salt River Pima-Maricopa Indian Community, Public Works Department.
6. Precast concrete or metal grease interceptors are not acceptable. Grease interceptors shall be constructed of plastic, fiberglass, polyethylene or SRPMIC approved.
7. Grease interceptors shall have a grease efficiency removal rate of 95 percent or greater.
8. SRPMIC reserves the right to accept or decline any make, model or size of grease interceptor.