

## SIZING – PDI METHOD

**Table A1.2 – Sizing and Rating**

PDI Size Symbol		4	7	10	15	20	25	35	50
Flow Rate	GPM	4	7	10	15	20	25	35	50
	L/s	0.25	0.44	0.63	0.95	0.95	1.26	1.58	3.16
Grease Capacity	Lbs.	8	14	20	30	40	50	70	100
	Kg	3.6	6.4	9.1	13.6	18.2	22.7	31.8	45.4

### A1.3 Sizing Procedure

Table A1.3 is provided to show the standard formula in steps for sizing grease interceptors to suit requirements of specific fixtures. An example of this sizing formula is included to illustrate the steps.

**Table A1.3 – Procedure For Sizing Grease Interceptor**

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 $48 \times 24 \times 12 = 13,824$ cubic inches.
2	Determine capacity in gallons. 1 Gal. = 231 cubic inches.	Contents in gallons: $13,824/231 = 59.8$ 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 $0.75 \times 59.8 = 44.9$ gallons
4	Determine flow rate and drainage period. In general, good practices dictate a one minute drainage period; however, where conditions permit, a two minute drainage period is acceptable. Drainage period is the actual time required to completely drain the fixture. Flow rate = Actual Drainage Load/Drainage Period	Calculate flow rate for one minute period: $44.9/1 = 44.9$ GPM Flow Rate  Calculate flow rate for two minute period: $44.9/2 = 22.5$ GPM Flow Rate
5	Select interceptor. From Table A1.2, select interceptor which corresponds to the flow rate calculated. <i>Note:</i> Select next larger size when flow rate falls between two sizes listed.	For one minute period: 44.9 GPM requires PDI size "50" For two minute period: 22.5 GPM requires PDI size "25"

### A1.4 Selection

Table A1.4 is included as a selection chart for standard PDI Certified grease interceptors applicable to various size fixtures commonly used in domestic, commercial, and institutional installations. The selections listed are based on the sizing formula covered in Table A1.3.

### A1.5 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. Select proper interceptor of equivalent or next higher rate from Table A1.2.

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### A1.6

#### Multiple Fixtures

Where multiple fixtures are serviced by a single interceptor, calculate the total capacity of all fixtures, establish the maximum number of fixtures that may be drained simultaneously, and apply factor to the total capacity to determine maximum simultaneous capacity. Then proceed with sizing and selection of interceptor using sizing formula Table A1.3.

**Table A1.4 – Selection Chart** (Metric Equivalents Omitted for Simplicity)

Fixture Compartment Size (Inches)	Number of Compartments	Drainage Load (Gallons)	Recommended PDI Size Grease Interceptor	
			One-minute Drainage Period	Two-minute Drainage Period
18 x 12 x 6	1	4.2	7	4
16 x 14 x 8	1	5.8	7	4
20 x 18 x 8	1	9.4	10	7
18 x 16 x 8	2	15.0	15	10
20 x 18 x 8	2	18.7	20	10
30 x 20 x 8	1	15.5	20	10
24 x 20 x 12	1	18.7	20	10
22 x 20 x 8	2	23.0	25	15
22 x 20 x 12	2	34.0	35	20
24 x 24 x 12	2	44.9	50	25

### A1.7

#### Alternate Sizing Method Based on Drainage Fixture-Units

Most plumbing codes list drainage Fixture-Unit values for plumbing fixtures and for fixtures not listed. These values are given for drain outlet or trap size. Fixture-unit values are converted to discharge rates on the basis of one fixture-unit equaling 7.5 GPM. See Table A1.7 for recommended PDI size grease interceptor based on drainage fixture-unit sizing method.

**Table A1.7**

Fixture Outlet or Trap Size (Inches)	Drainage Fixture-Unit Value	GPM Equivalent	PDI Size Grease Interceptor
1-1/4	1	7.5	10
1-1/2	2	15.0	15
2	3	22.0	25
2-1/2	4	30.0	35
3	5	37.5	50
4	6	45.0	50