METER SIZING WORKSHEET

(Residential & Non-Residential)

PRINT

RESET FORM

DATE:

STEP 1: Select what Class and Type of Service

CLASS OF SERVICE: ☐ Residential ☐ Multi-Family ☐ Commercial ☐ Other

TYPE OF SERVICE: ☐ Domestic ☐ Irrigation

STEP 2: Complete Project and Applicant Information

PROJECT NAME:

PROJECT ADDRESS:

LEGAL DESCRIPTION:

APPLICANT CONTACT NAME:

TITLE: PHONE NUMBER:

*STEP 3: Complete Information Below **ONLY** if requesting Multi-Individual Meter Request*

** Note it will need an approval signature from the Utilities Director **

NUMBER OF WATER METER: METER TYPE: -

MAILING ADDRESS:

CITY: STATE: ZIP CODE:

The applicant is responsible for determining the required domestic, mechanical, fire flows and the proper sizing of the meter. Applicant will certify that the given information is correct.

FORM CONTINUED

STEP 4: For Lines 1 -19, Enter the number of fixtures in Column B

Line No.	Fixture	COLUMN A Fixture Value @ 60 PSI		COLUMN B No. of Fixtures		COLUMN C Total Fixture Value
1	Bathtub	8	x		=	
2	Bedpan Washers	10	x		=	
3	Bidet	2	x		=	
4	Dental Unit	2	x		=	
5	Drinking Fountain - Public	2	x		=	
6	Kitchen Sink	2.2	x		=	
7	Lavatory Sink	1.5	x		=	
8	Showerhead (Shower Only)	2.5	x		=	
9	Service Sink	4	x		=	
10	Toilet . . . . . Flush Type	35	x		=	
11	. . . . . Tank Valve	4	x		=	
12	Urinal . . . . . Pedestrian Flush Valve	35	x		=	
13	. . . . . Wall Flush Valve	6	x		=	
14	Wash Sink (Each Set of Faucets)	4	x		=	
15	Dishwasher	2	x		=	
16	Washing Machine	6	x		=	
17	Hose Connections (50 ft Wash Down). . . . . 1/2 in.	5	x		=	
18	. . .. . . 5/8 in.	9	x		=	
19	. . . . . 3/4 in.	12	x		=	

STEP 4: Add Column C values for Lines 1-19

20 Combined Fixture Value Total _____ total

*STEP 5: Given the Combined Fixture Value (Line 20) and project type, enter Peak Demand from **Table 1***

21 Customer Peak Demand (from **Table 1**) _____ gpm

*STEP 6: Enter the expected Working Pressure at the FH or meter connection on Line 22 and use **Table 2** to determine the Pressure Adjustment Factor*

22 Working Pressure at the Fire Hydrant or at the Meter Connection _____ psi

23 Pressure Factor (from **Table 2**) - pf

STEP 7: Calculate Peak Demand by multiplying Pressure Adjustment Factor (Line 23) by Customer Peak Demand (Line 21)

24 Total Fixed Demand _____ gpm

*STEP 8: Given Total Fixed Demand (Line 24), use **Table 3** to determine Meter Size*

25 **Meter Size for Project** - **in.**

** Utilities Director's Signature it is only required on Multi-Individual Meter Request*

Applicant Signature: _____ **Date:** _____

Utilities Director Signature: _____ **Date:** _____

The applicant is responsible for determining the required domestic, mechanical, fire flows and the proper sizing of the meter. Applicant will certify that the given information is correct.

FORM CONTINUED

TABLE 1:

Water Flow Demand Per Fixture Value

Type 1 = Hotels, Shopping Centers, Restaurants, Schools, Public Buildings, Hospitals - Domestic Only (no irrigation)

Type 2 = Apartments, Houses, Motels, Trailer Parks - Domestic Only (no irrigation)

Type 3 = Residential Suburb - Domestic Use

Combined Fixture Value	Peak Demand [gpm]		
	Type 1	Type 2	Type 3
50	43.5	20.5	
100	49.5	23.5	
150	55.0	26.5	
200	60.5	29.5	
250	65.5	32.5	
300	70.5	35.5	
350	75.5	38.5	
400	80.0	41.0	
450	84.5	44.0	
500	88.5	46.5	
550	92.5	49.0	
600	96.0	51.0	
650	99.5	52.5	
700	103.5	54.5	
750	106.5	55.5	
800	109.8	57.0	
850	112.5	58.0	
900	115.5	59.0	
950	118.0	59.5	
1,000	120.5	60.0	
1,050	123.5	61.0	
1,100	125.5	62.0	
1,150	127.5	63.0	
1,200	129.8	64.0	
1,250	132.0	65.0	
1,300	134.0	66.0	
1,500	137.5	66.3	
2,000	146.3	70.0	
2,500	152.5	73.8	
3,000	156.3	77.5	
3,500	160.0	80.0	
4,000	162.5	83.8	
4,500	166.3	86.3	
5,000	170.0	90.0	225.0
5,500	172.5	93.8	236.3
6,000	176.3	97.5	247.5
6,500	180.0	100.0	257.5
7,000	183.8	103.8	268.8
7,500	186.3	107.5	278.8
8,000	190.0	110.0	290.0
8,500	192.5	113.8	300.0
9,000	196.3	116.3	312.5
9,500	200.0	120.0	322.5
10,000	202.5	122.5	333.8
10,500	206.3	127.5	345.0
11,000	208.8	128.8	355.0
11,500	212.5	133.8	366.3
12,000	215.0	137.5	376.3
12,500	220.0	140.0	388.8
13,000	222.5	142.5	400.0

TABLE 2:

Pressure Adjustment Factor

Working Pressure at Meter Discharge [psi]	Pressure Adjustment Factor
35	0.74
40	0.80
50	0.90
60	1.00
70	1.09
80	1.17
90	1.25
100	1.34

TABLE 3: METERS

NEPTUNE T-10

Maximum Continuous Operation [gpm]	Operating Range (100% (+ -) 1.5% [gpm]	Meter Size
24	.75 - 30	3/4"
40	1 - 50	1"

NEPTUNE MACH-10

Maximum Continuous Operation [gpm]	Operating Range (100% (+ -) 1.5% [gpm]	Meter Size
100	.8 - 125	1 1/2"
128	1.25 - 160	2"

SENSUS OMNI C-2

Maximum Continuous Operation [gpm]	Operating Range (100% (+ -) 1.5% [gpm]	Meter Size
160	.5 - 200	1 1/2"
160	.5 - 200	2"
400	1 - 500	3"
800	1.5 - 1000	4"
1600	3 - 2000	6"

MASTER METER OCTAVE

Maximum Continuous Operation [gpm]	Operating Range (100% (+ -) 1.5% [gpm]	Meter Size
200	.5 - 250	2"
350	1 - 500	3"
700	1 1/2 - 1000	4"
1150	3 - 1600	6"

Resources:
AWWA Manual M22, 2 nd Edition
Master Meter, Chapt. 2 Technical Guide, Ver. 01.19
Sensus, Data Sheet - Floating Tech WDS-10017-05 (2019)
Neptune Technology Group, Operation Manual, (2018)

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