## Fluvanna County Virignia



P.O. Box 540 Palmyra, VA 22963 (434) 591-1910

## Motor Sizing Form

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Customer Name:  Customer Address:  Building Address:		Type of Occupancy:					
			GPIN Number:				
		Phone:					
Deve	elopment Name:			_	Email:		
Item No.	Domestic	Demand Fixture	Fixture Value	No. of Ex. Fixtures	No. of Proposed Fixtures	Fixture Value	
		Fix	kture Value x (#	# Existing +	# Proposed) = Fix	xture Value	
1	Bathtub		8			0	
2	Dental Unit		2			0	
3	Dishwasher		2			0	
4	Drinking Fountain		2			0	
5	Hose Connection/S	,	5			0	
6	Hose Connection/S		9			0	
7	Hose Connection/S	pogot (3/4")	12			0	
8	Kitchen Sink		2			0	
9	Lavatory/Faucet		2			0	
10	Shower Head		3			0	
11	Toilet/Water Closet - flush valve		10			0	
12	Toilet/Water Closet - tank type		4			0	
13	Urinal - flush valve		5			0	
14	Utility Sink/Service	Sink	4			0	
15	Washing Machine		6			0	
16	Other:					0	
17	Other:					0	
18	Other:					0	
				Combined	Fixture Value Total:	0	
Domestic Plus Fixed Demands							
iixed Flow:							
ixed Flow:							
ixed F	low:						
Sum of Fixed Flows (A):							
Equivalent Fixed Flow for Fixture Count (B):							
					Total Flow (A+B):	0	
				Peguire	d Water Meter Size:		
				Nequire	u Water Meter Size.		
I certify that the information on this form is true and correct to the best of my knowledge:							
Signature: Date:							

## **Meter Sizing Form Instructions**

- 1. Determine the domestic fixture count for the facility utilizing the following procedure:
  - a. Determine the number and type of water fixtures and list on the Meter Sizing Form. For those water utilizing fixtures which are not included on the form, include water use in gallons per minute at 35 psi pressure.
  - b. For each type of fixture, multiply the fixture value times the number of fixtures to obtain the Total Fixture Value for each type of fixture. Add the totals for each type of fixture and place the total in the space provided near the bottom of the form.
  - c. Fixture counts for items not listed on the Meter Sizing Form shall be added by the person completing the form. These counts must be substantiated with data furnished by the owner and/or agent.
  - d. If fixed demands (i.e. irrigation systems, process water, etc.) are not present, utilize the following table to size the water meter. If fixed demands are present, go to 2. below.

Meter Size	<u>Fixture Count Value</u>		
5/8 inch	0-50		
1 inch	51-100		
1-1/2 inch	101-650		
2 inch	651-3,500		

Meters 3 inches and larger shall be sized by a professional engineer. Meter sizing shall be in accordance with the requirements AWWA M22 utilizing fixture counts in the Meter Sizing Form found later in this section. If utilizing AWWA M22 gives a meter size smaller than 3 inches, the meter size shall be 3 inches.

- 2. If fixed demands are present (i.e. irrigation systems, process water, etc.) continue as outlined below.
  - a. Provide information on fixed demands in the appropriate location on the Meter Sizing Form and documentation of fixed demands as appropriate. Flows should be in gallons per minute (gpm). The sum of all fixed flows should be entered in the field labeled Sum of Fixed Flows (A) on the Meter Sizing Form.
  - b. Convert the Combined Fixture Value Total calculated in 1. above to a flow, in gallons per minute (gpm), using the appropriate figure from Chapter 4 of the AWWA M22 Manual and enter this flow in the field labeled Equivalent Fixed Flow for Fixture Count (B) on the Meter Sizing Form. The lower curve on the figures in AWWA M22 may only be utilized for apartment buildings, condominiums, and trailer parks.
  - c. Add the Sum of Fixed Flows (A) to the Equivalent Fixed Flow for Fixture Count (B) and place this sum in the field labeled Total Flow (A + B) on the Meter Sizing Form.
  - d. Based on Total Flow (A + B) or the Sum of Fixed Flows (A) calculated select the appropriate size meter from the chart below. The criteria that results in the largest meter shall be utilized. In no case shall the meter size be less than that required by 1.d. above based on the domestic fixture count alone.

Meter Size	Total Flow (A+B)	Sum of Fixed Flows (A)
5/8 inch	0-20	0-15
1 inch	21-50	16-38
1-1/2 inch	51-100	39-75
2 inch	101-160	76-120
3 inch	161-320	121-240

3. Complete meter sizing forms should be included with plans for review and approval.

Meter Sizing Form ENGR-0006