




MEMORANDUM

DATE: February 14, 2020

TO: New Area Development

FROM: 
Timothy Thomure, P.E., Director
City of Tucson Water Department

SUBJECT: Water Meter Sizing Guidelines, Effective March 2, 2020

Water meters shall be sized in accordance with the maximum design capacity shown in the table below. Maximum design capacity is established as the safe maximum operating capacity (SMOC) for Type I meters representing residential and commercial applications where low flow accuracy is of particular concern as referenced in American Water Works Association (AWWA) standard for Cold Water Meters – Electromagnetic and Ultrasonic Type, for Revenue Application C715. Maximum IPC Fixture Unit counts were interpolated using the 2018 International Plumbing Code, and are included below for reference only through the 4-inch meter size. The determining factor for meter sizing shall be the required design capacity. Use of the design capacity and fixture unit counts to determine water meter size shall be at the discretion of Tucson Water technical staff.

Meter Size (inches)	Maximum IPC Fixture Units ^{1,2}	Maximum Meter Design Capacity (gpm)
5/8-inch ³	20	20
3/4-inch	53	30
1-inch	130	50
1-1/2-inch	380	100
2-inch	700	160
3-inch	2400	350
4-inch	5000	600
6-inch ⁴		1350
8-inch ^{4,5}		1600

Notes:

1. Fixture unit limits were interpolated from Table E103.3(3) of the 2018 International Plumbing Code (IPC) and assume the use of flush tanks. For flushometer valves, consult referenced table.
2. Use of an accepted engineering practice other than the IPC to determine the maximum design capacity shall only be accepted following approval by City of Tucson Development Services.
3. The 5/8-inch meters used by Tucson Water are actually 5/8-inch by 3/4-inch meters, which include a 5/8-inch flow tube and sensing unit and 3/4-inch connections to the distribution system and service pipelines.
4. Tucson Water may opt to install Turbine-Class II type meters for customers with relatively uniform high water flow demands for irrigation. The use of Turbine Class II type meters will be strictly at the discretion of Tucson Water.
5. For meter sizes larger than 8-inch, consult Tucson Water New Services.