

Guidelines for Large Water Meter Standard Arrangement Drawings

On 1 July 2019 we introduced new designs for large water meter assemblies. The following information will help consultants select the right meter for the job.

The metering arrangements are intended to ensure:

- Water meters are sized correctly for the development in question.
- All potable water entering the premises is being metered.
- Water meters are accessible for maintenance and meter reading activities for the life of the meter. As such all new meters will be mounted above ground or against a wall, such as in a basement. Buried meters or meters in external pits are no longer accepted.

Basic rules to simplify the drawings:

1. Domestic water must be measured with a correctly sized Urban Utilities approved mechanical water meter.
2. Fire water systems will be measured with an Urban Utilities approved ultrasonic meter.

Are there any exceptions?

In rare circumstances, we will consider a combined fire and domestic water meter, measured with an ultrasonic meter. In these cases, the hydraulic consultant must be able to satisfactorily prove that the volume of domestic water flow is sufficient to justify a combined fire/domestic meter.

General guidance

- a. Domestic and fire water services are to be separately metered.
- b. It is the hydraulic consultant's responsibility to ensure domestic water meters are correctly sized per the sizing guides outlined on standard drawings QUU-WAT-003/QUU-WAT-004. Domestic meter sizing guides shown on QUU-WAT-003/QUU-WAT-004 are for reference only. Correct meter sizing is the responsibility of the hydraulic consultant engineer.
- c. Firefighting water infrastructure meters are to be sized by the hydraulic consultant engineer to suit the firefighting requirements of each development. Oversizing is not permitted.
- d. Combined fire/domestic water meter arrangements (QUU-WAT-007/QUU-WAT-008) are not Urban Utilities preference, however will be considered by exception if the proposed solution meets the requirements laid out in these guidelines.
- e. DN50 and larger meters installed above ground must be located within the private property at the front of the building and close to the front boundary, as per the SEQ Water and Sewerage Design and Construction Code. Urban Utilities' requirement extends for DN32 meters to be installed in the same location, as directed by these guidelines.

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- f. Sourcing of domestic water meters:
- For DN32 and smaller water meter assemblies, contact your local plumbing supplier for Urban Utilities' approved meters.
 - DN50 water meter assemblies may be sourced from Urban Utilities or contact your local plumbing supplier for Urban Utilities' approved meters.
 - DN80 and larger water meter assemblies shall be sourced from Urban Utilities only.

Typical application and usage of water meter arrangements

1. Domestic Service

Drawing number	Applies to	Installation
QUU-WAT-003	Domestic Water	Mounted above ground
QUU-WAT-004	Domestic Water	Mounted on wall/basement

Drawing QUU-WAT-003 (or QUU-WAT-004 for basement/wall mounted arrangement) shows a typical domestic-only water connection for sizes greater than the standard Urban Utilities domestic connection (i.e. sizes of 32mm and above). This arrangement can be used on its own where firefighting provision is not required. Where there are firefighting requirements, this drawing must be used in conjunction with Drawing QUU-WAT-005 or QUU-WAT-006.

NOTE:

- The meter shall be an approved mechanical meter or flow meter as approved in the [SEQ Accepted Civil IPAM List](#).
- The meter shall be protected with a strainer/dirt box and a non-return/check valve both upstream of the meter.
- The meter shall have isolation valves upstream and downstream of the meter to permit efficient isolation for maintenance activities on the meter.
- A Tee and Testing Port shall be provided immediately downstream of the meter to facilitate maintenance activities.

2. Combined Fire and Domestic Assemblies (metered separately)

This arrangement is most common in developments of high density such as apartment buildings etc.

Drawing number	Applies to	Installation
QUU-WAT-005	Separate Domestic and Fire Water	Mounted above ground
QUU-WAT-006	Separate Domestic and Fire Water	Mounted on wall/basement

Drawing QUU-WAT-005 (or QUU-WAT-006 for wall mounted arrangement) is used where there is a requirement for the supply of domestic and firefighting water infrastructure to the development. Typically, a development will have a single connection point to the Urban Utilities water mains. Within private property and close to the front boundary, the water connection coming from the Urban Utilities mains will be split to permit the domestic water to be metered (as per Drawings QUU-WAT-003 / 004) and the firefighting water pipework to be metered.

NOTE:

- The domestic and the firefighting feeds shall be sized as per the hydraulic consultant's recommendations.
- Several different sizing scenarios are listed covering most water usage scenarios.
- Various combinations of domestic and firefighting meter sizes are permitted, as per the drawings.
- Isolation valves must be provided to permit efficient isolation of the meters for maintenance activities on the meter. Refer to the drawings for more information on required fittings.

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Continued - Combined Fire and Domestic Assemblies**3. Fire Only or Townhouse Style Community Title Scheme**

Drawing number	Applies to	Installation
QUU-WAT-007	Dedicated Fire Water	Mounted above ground
QUU-WAT-008	Dedicated Fire Water	Mounted on wall / basement

Drawing QUU-WAT-007 (or QUU-WAT-008 for wall mounted arrangement) is used where there is a requirement for the supply of dedicated firefighting water infrastructure to a development. Where the development has two separate feeds coming from the QUU water main, one can be dedicated to domestic water (sized according to drawings QUU-WAT-003/004), and the other can be dedicated to the firefighting water infrastructure (QUU-WAT-007/008).

Drawing QUU-WAT-007/008 can also be used in approved instances where there is a requirement to supply both domestic and firefighting services in a single combined supply. These scenarios may include:

- a. New townhouse development, where the developer must install a new water ring main from the Urban Utilities main, into and around the townhouse development. In this instance, a single ultrasonic meter can be used at the Urban Utilities property boundary to measure all the water usage entering the site (with sub-meters at each individual lot within the development).
- b. Where the hydraulic consultant can show that the volume of domestic water usage will be sufficiently large (as per the guidelines shown in the table on QUU-WAT-007/008) to justify a combined fire / domestic water infrastructure system.

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