

**M22**

# Sizing Water Service Lines and Meters

**Third Edition**



American Water Works  
Association

# Awwa M22 Water Service Manual

**Peter W. Mayer, American Water  
Works Association**

## **Awwa M22 Water Service Manual:**

*M22 - Sizing Water Service Lines and Meters* Peter W. Mayer, American Water Works Association, 2023-08 This manual provides guidance on sizing water meters and service lines to meet the objectives of water utilities and their customers. The information in this manual can be used to estimate customer demand and maximum expected flow at a site and this can be used to appropriately size a new service line and meter. This manual includes a useful field method called demand profiling that can be used to evaluate actual customer use patterns and help optimize meter size selection. **An Introduction to Water Distribution Systems Operation and Maintenance** J. Paul Guyer, P.E., R.A., 2018-02-02 Introductory technical guidance for civil and mechanical engineers and water system managers interested in operation and maintenance of water distribution systems. Here is what is discussed: 1 OVERVIEW 2 REFERENCES 3 DISTRIBUTION 4 STORAGE 5 VALVES AND HYDRANTS 6 APPLICABLE PUBLICATIONS. *Sizing Water Service Lines and Meters, Third Edition (M22)* American Water Works Association, 2014-12-01 This third edition of M22 contains information needed to estimate customer demand and maximum expected flow that can be used to size new service lines and meters. This edition expands the ways to approach the sizing of water service lines and meters and offers improved methods for the sizing of dedicated irrigation meters. M22 includes a useful field method called demand profiling that can be used to evaluate actual customer use patterns and help optimize meter size selection. The data presented in M22 were obtained from field measurements, utility surveys, technical publications and hydraulic design calculations. This manual emphasizes that utilities having more information about a specific sizing situation will result in the best sizing decision from the tap to the meter. This information has been condensed into a simplified format to assist readers in addressing most common service conditions. The methods contained in this manual are appropriate for water utility managers, engineers, planners, technicians, field operations personnel and consultants involved with designing and constructing projects requiring water service.

**An Introduction to Groundwater Sources Operation and Maintenance** J. Paul Guyer, P.E., R.A., 2017-12-08 Introductory technical guidance for civil engineers and other professional engineers and facility managers interested in operation and maintenance of groundwater supply sources. Here is what is discussed: 1 OVERVIEW 2 REFERENCES 3 WATER SUPPLY HYDROLOGY 4 WATER USE 5 GROUNDWATER SUPPLIES 6 SURFACE WATER SUPPLIES 7 WATER QUALITY 8 APPLICABLE DOCUMENTS. *An Introduction to Engineering of Water Supply Systems* J. Paul Guyer, P.E., R.A., 2021-04-23 Introductory technical guidance for civil engineers, mechanical engineers, environmental engineers and construction managers interested in planning, design, construction and operation of water supply systems. Here is what is discussed: 1 DOMESTIC WATER DISTRIBUTION 2 DOMESTIC WATER TREATMENT 3 PUMPING STATIONS FOR WATER SUPPLY SYSTEMS 4 TREATED WATER STORAGE 5 WATER DESALINATION 6 WATER DISTRIBUTION IN COLD REGIONS 7 WATER DISTRIBUTION SYSTEM APPURTENANCES 8 WATER SAMPLING AND TESTING 9 WATER SUPPLY SOURCES 10 WATER SUPPLY SYSTEMS OPERATION AND

MAINTENANCE 11 TREATMENT AND STORAGE IN COLD REGIONS 12 PUMPS OPERATION AND MAINTENANCE **An**

**Introduction to Water Supply Systems** J. Paul Guyer, P.E., R.A., 2017-12-28 Introductory technical guidance for civil and environmental engineers and other professional engineers and construction managers interested in design and construction of water supply systems This is what is discussed 1 DOMESTIC WATER DISTRIBUTION 2 DOMESTIC WATER TREATMENT 3 PUMPING STATIONS FOR WATER SUPPLY SYSTEMS 4 TREATED WATER STORAGE 5 WATER DESALINATION 6 WATER DISTRIBUTION IN COLD REGIONS 7 WATER DISTRIBUTION SYSTEM APPURTENANCES 8 WATER SAMPLING AND TESTING 9 WATER SUPPLY SOURCES 10 WATER SUPPLY SYSTEMS OPERATION AND MAINTENANCE 11 TREATMENT AND STORAGE IN COLD REGIONS 12 PUMPS OPERATION AND MAINTENANCE

**An Introduction to Domestic**

**Water Treatment** J. Paul Guyer, P.E., R.A., 2018-01-31 Introductory technical guidance for civil and environmental engineers interested in domestic water treatment Here is what is discussed 1 OVERVIEW 2 REFERENCES 3 TREATING WATER AT THE SOURCE 4 UNIT TREATMENT PROCESSES 5 TASTE AND ODOR CONTROL 6 CONTROLLING ORGANIC CHEMICALS 7 TREATMENT PLANT INSTRUMENTATION AND CONTROL 8 CHEMICALS AND CHEMICAL APPLICATION 9 WATER TREATMENT PLANT RESIDUES 10 DESALINATION 11 WATER SAMPLING AND ANALYSIS 12 APPLICABLE

PUBLICATIONS **An Introduction to Water System Pumps and Drivers** J. Paul Guyer, P.E., R.A., 2018-01-22

Introductory technical guidance for mechanical and civil engineers interested in pumps and motors for water systems Here is what is discussed 1 OVERVIEW 2 REFERENCES 3 PUMPS 4 ACCESSORIES 5 APPLICABLE PUBLICATIONS **An**

**Introduction to Domestic Water Treatment for Professional Engineers** J. Paul Guyer, P.E., R.A., 2022-04-11

Introductory technical guidance for civil engineers environmental engineers and other professional engineers and construction managers interested in design and construction of domestic water treatment plants Here is what is discussed 1 OVERVIEW 2 REFERENCES 3 TREATING WATER AT THE SOURCE 4 UNIT TREATMENT PROCESSES 5 TASTE AND ODOR CONTROL 6 CONTROLLING ORGANIC CHEMICALS 7 TREATMENT PLANT INSTRUMENTATION AND CONTROL 8 CHEMICALS AND CHEMICAL APPLICATION 9 WATER TREATMENT PLANT RESIDUES 10 DESALINATION 11 WATER SAMPLING AND ANALYSIS 12 APPLICABLE PUBLICATIONS

**System Development Charges for Water, Wastewater, and Stormwater Facilities** Arthur C. Nelson, 2018-02-06 This book presents a comprehensive method by which to determine the proportionate share of the costs and revenues generated by the development of new water wastewater and stormwater facilities It presents a rational legally defensible approach to assessing charges based on the use of new and existing facilities to support new system development Written by a consultant who has helped hundreds of communities deal with how to pay for growth the book is designed for all communities presently engaged in calculating and administering charges for new development as well as those planning for future growth *On-site Generation of Hypochlorite* American Water Works Association, 2015 As more water systems turn to safer alternatives to chlorine gas the generation of hypochlorite on site has

become increasingly common M65 On Site Generation of Hypochlorite presents the principles of on site generation OSG the differences between low strength and high strength OSG systems and the subsequent impact each of these systems has on design construction and maintenance for water and wastewater utilities M65 provides operators and engineering staff with a basic understanding of how to design and install both low and high strength OSG systems how they work and how they compare with other popular forms of chlorine currently on the market A cost analysis and an examination of how OSG affects disinfection by product formation are also included This manual should help operators planners management and engineers improve their decision making processes about OSG systems using a holistic risk management approach that considers not only triple bottom line approaches but also the specific regional situation when choosing a chlorination system Need it now Learn about AWWA's digital downloads

**M22 - Sizing Water Service Lines and Meters** Peter W. Mayer,American Water Works Association,2023 This manual provides guidance on sizing water meters and service lines to meet the objectives of water utilities and their customers The information in this manual can be used to estimate customer demand and maximum expected flow at a site and this can be used to appropriately size a new service line and meter This manual

includes a useful field method called demand profiling that can be used to evaluate actual customer use patterns and help optimize meter size selection

**Public Works Manual** ,1998    **Public Works Manual and Catalog File** ,1977    *The Complete Irrigation Workbook* Larry Keesen,1995

**Water Distribution Operator Training Handbook** ,2005 AWWA's most popular handbook for distribution operators this handbook provides a complete introduction to water distribution system operation and equipment

*Sizing Water Service Lines and Meters* American Water Works Association,2004 This utility operations manual will guide the utility in choosing the best sizes for customer water meters and service lines

Historically water utilities sized customer service connections and meters based upon the peak flow rates that the meter was expected to encounter Since peak flows occur only rarely meters sized in this way record the lower average daily flow in the low end of their design range

**Water-resources Engineering** David A. Chin,2006 This in depth review of water resources engineering essentials focuses on both fundamentals and design applications Emphasis on fundamentals encourages readers understanding of basic equations in water resources engineering and the background that is necessary to develop innovative solutions to complex problems Comprehensive design applications illustrate the practical application of the basic equations of water resources engineering Full coverage of hydraulics hydrology and water resources planning and management is provided Hydraulics is separated into closed conduit flow and open channel flow and hydrology is separated into surface water hydrology and ground water hydrology For professionals looking for a reference book on water resources engineering

**Water Transmission and Distribution** American Water Works Association,1996 This book contains information on water distribution system design materials equipment pumps and public realtions

[Distribution of Water Use at Representative Fixed Army Installations](#)

John T. Bandy,Richard J. Scholze,1983

## **Awwa M22 Water Service Manual** Book Review: Unveiling the Magic of Language

In a digital era where connections and knowledge reign supreme, the enchanting power of language has been more apparent than ever. Its ability to stir emotions, provoke thought, and instigate transformation is truly remarkable. This extraordinary book, aptly titled "**Awwa M22 Water Service Manual**," compiled by a highly acclaimed author, immerses readers in a captivating exploration of the significance of language and its profound affect on our existence. Throughout this critique, we shall delve into the book's central themes, evaluate its unique writing style, and assess its overall influence on its readership.

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