



Designation: D3370 – 18

Standard Practices for Sampling Water from Flowing Process Streams¹

This standard is issued under the fixed designation D3370; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope

1.1 These practices cover the equipment and methods for sampling water from closed conduits such as process streams at power stations for chemical, physical, microbiological, and radiological analyses. It does not cover specialized equipment required for and unique to a specific test or method of analysis. The following are included:

	Sections
Practice A—Grab Samples	9 – 17
Practice B—Composite Samples	18 – 23
Practice C—On-Line Sampling	24 – 29

1.2 For information on specialized sampling equipment, tests or methods of analysis, reference should be made to Volumes 11.01 and 11.02 of the *Annual Book of ASTM Standards*, relating to water.

1.3 The values stated in SI units are to be regarded as standard. The values given in parentheses are mathematical conversions to inch-pound units that are provided for information only and are not considered standard.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.* For specific hazards statements, see 8.3 and 13.4.

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

¹ These practices are under the jurisdiction of ASTM Committee D19 on Water and are the direct responsibility of Subcommittee D19.03 on Sampling Water and Water-Formed Deposits, Analysis of Water for Power Generation and Process Use, On-Line Water Analysis, and Surveillance of Water

Current edition approved Dec. 15, 2018. Published January 2019. Originally approved in 1974. Last previous edition approved in 2010 as D3370 – 10. DOI: 10.1520/D3370-18.

2. Referenced Documents

2.1 ASTM Standards:²

- A106/A106M Specification for Seamless Carbon Steel Pipe for High-Temperature Service
- A179/A179M Specification for Seamless Cold-Drawn Low-Carbon Steel Heat-Exchanger and Condenser Tubes
- A269 Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service
- A335/A335M Specification for Seamless Ferritic Alloy-Steel Pipe for High-Temperature Service
- D1066 Practice for Sampling Steam
- D1129 Terminology Relating to Water
- D1193 Specification for Reagent Water
- D3648 Practices for the Measurement of Radioactivity
- D3694 Practices for Preparation of Sample Containers and for Preservation of Organic Constituents
- D3856 Guide for Management Systems in Laboratories Engaged in Analysis of Water
- D4453 Practice for Handling of High Purity Water Samples
- D4840 Guide for Sample Chain-of-Custody Procedures
- D4841 Practice for Estimation of Holding Time for Water Samples Containing Organic and Inorganic Constituents
- D5540 Practice for Flow Control and Temperature Control for On-Line Water Sampling and Analysis

3. Terminology

3.1 Definitions:

3.1.1 For definitions of terms used in this standard, refer to Terminology D1129.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *back-pressure regulator; n*—a device designed to maintain a constant pressure upstream of itself (variable or fixed back pressure regulators are available) to maintain constant flow in analyzers in on-line sampling.

3.2.1.1 *Discussion*—Contemporary designs of back-pressure regulators provide excellent sensitivity to pressure

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.