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(First Edition)

American Water Works Association
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AWWA Standard

High-Performance Waterworks Butterfly Valves—3 In. (75 mm) Through 60 In. (1,500 mm)

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Contents

All AWWA standards follow the general format indicated subsequently. Some variations from this format may be found in a particular standard.

Foreword

This foreword is for information only and is not a part of ANSI/AWWA C519.*

I. Introduction.

I.A. *Background*. Butterfly valves are generally used for pipelines carrying liquids and gases. Manufacturers of steel butterfly valves developed tight-closing, polymeric-seated and metal-seated valve options for cooling water systems and power stations and other industrial applications.

Since the 1990s, high-performance butterfly valves have gained increased acceptance for use in water treatment plants, water reuse, and water supply and distribution lines because they (1) provide higher pressure and fluid velocity ratings than rubber-seated butterfly valves; (2) provide tight shutoff; (3) are relatively easy to operate, even with large pressure differentials across the valves; and (4) require relatively little space for installation.

I.B. *History*. The need for standardization of high-performance butterfly valves for waterworks service was recognized by AWWA in 2010.

The 2018 standard was written to describe the then-available types of standard high-performance butterfly valves that had been in successful operation for at least ten years. The standard established three pressure classifications, three fluid velocity classifications, standards for materials, laying lengths, minimum body and disc designs, and actuator requirements for high-performance butterfly valves.

Generally, modern high-performance butterfly-valve designs for water service include cast or welded body construction in 150 psi (1,034 kPa), 275 psi (1,896 kPa), and 500 psi (3,447 kPa) pressure ratings; flanged, lugged-wafer, and wafer bodies; seats in valve bodies or on the valve discs; and operating conditions (limited by the materials, design shutoff pressure, and velocities of water flow) that may produce torques considered maximum for the shaft size used.

This edition of ANSI/AWWA C519 was approved by the AWWA Board of Directors on June 9, 2018.

I.C. *Acceptance*. In May 1985, the US Environmental Protection Agency (USEPA) entered into a cooperative agreement with a consortium led by NSF International (NSF) to develop voluntary third-party consensus standards and a certification program for direct and indirect drinking water additives. Other members of

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