

**ME
SERIES**

Cutaway Butterfly Valve – ME27

Bringing Precision Flow Control to the Classroom

The Armfield ME27 Cutaway Butterfly Valve is an engaging teaching tool that showcases the internal mechanics and precise flow control capabilities of a butterfly valve.

Fully functional, it allows students to operate the valve and observe how its design manages fluid flow. The cutaway structure provides a clear view of critical components in action, offering an enhanced understanding of throttling, sealing, and the principles of fluid dynamics in engineering systems.



Instructional capabilities

The DN50 Butterfly Valve is specifically designed for student learning, enabling both visual understanding and practical experience:

- ▶ **Hands-On Operation:** Students can manually operate the valve, using the locking lever to open and close the valve, observing the disc's movement inside the body.
- ▶ **Visual Learning:** The clear operating mechanism demonstrates how fluid flow is controlled, providing a deeper understanding of valve dynamics.
- ▶ **Skill Development:** Ideal for vocational training, students can practice installation, maintenance, and troubleshooting techniques in a controlled setting.

Operating Principle of a Butterfly Valve

The butterfly valve operates using a rotating disc to regulate fluid flow:

- ▶ **Open Position:** The disc rotates parallel to the flow, allowing unimpeded fluid passage.
- ▶ **Closed Position:** The disc turns perpendicular to the flow, creating a seal against the EPDM liner to prevent fluid movement.
- ▶ **Intermediate Positions:** The locking lever allows precise positioning of the disc for throttling applications, enabling partial flow control.

Key advantages include low-pressure drop, compact design, and rapid actuation, making it highly efficient for quick shutoff or flow regulation.

Applications

Butterfly valves are widely used in various industries for their reliability, cost-effectiveness, and ease of operation:

- ▶ **Water Treatment Plants:** Used for regulating water flow in pipelines and reservoirs.
- ▶ **HVAC Systems:** Control airflow in ventilation systems for heating and cooling applications.
- ▶ **Chemical Processing:** Suitable for handling non-corrosive chemicals and fluids.
- ▶ **Food and Beverage:** Ensures hygienic and efficient fluid transfer in processing systems.
- ▶ **Power Generation:** Integral to boiler feedwater systems and cooling towers.

Technical specifications

Valve Size	DN50 2"
Body material	Epoxy-coated ductile iron
Disk material	Stainless steel
Operation	Locking lever mechanism
Pressure Rating	PN16
Temperature Range	-10°C to 120°C

Overall dimensions

Length	0.172m
Width	0.185m
Height	0.244m

Packed and crated shipping specifications

Volume	TBC m ³
Gross Weight	TBC kg

Ordering codes

- ▶ ME27

Armfield standard warranty applies with this product

Issue: 1

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Applications

ME IP