

Introduction to Metal Seated Sluice Valves

<u>Metal Seated Sluice Valve</u> use a metal gate to control fluid flow. Their key feature is tight shutoff, achieved through metal-to-metal sealing. They are crucial in wastewater treatment, power plants, and various industrial processes.

Working Principle

Perpendicular Movement

The gate moves perpendicularly to the flow path. This design ensures efficient flow control.

Tight Sealing

Sealing occurs as the gate presses firmly against the valve seat. This creates a secure, leak-proof closure.



Manual or Automated

Operation can be manual, via a handwheel, or automated using an actuator. This provides operational flexibility.



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Key Components

Body

Gate/Wedge

Seat

- Cast iron
- Carbon steel
- Stainless steel

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- Bronze

- Integral part
- Replaceable

Stem

- Connects to gate
- Transmits motion



Advantages - Part 1



Tight Shutoff

Metal seats ensure minimal leakage. This provides superior isolation.



Abrasion Resistance

service life.



They are suitable for hightemperature applications. Their robust design endures extreme conditions.

These valves handle abrasive media effectively. This extends their

Advantages - Part 2

High Pressure

They operate reliably under high-pressure conditions. Their robust construction ensures safety.

Durability

These values offer a long service life with minimal maintenance. This reduces operational downtime.

Cost-Effective

They provide excellent value for their performance and longevity. This minimizes total ownership cost.



Common Applications

Wastewater Treatment

Used for influent and effluent control.

Chemical Processing

Handles corrosive fluid safely.



Power Generation

Essential in cooling water systems.

Pulp & Paper

Manages stock control and slurry handling.

Maintenance Requirements



Check for wear and corrosion.

Lubrication

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Lubricate stem and actuator per schedule.

Seat Cleaning

Remove debris to maintain tight seal.

Preventative Care

Extend valve lifespan.





Conclusion

Robust and Reliable

Metal seated sluice valves are built for demanding environments. They offer dependable performance.

Ensuring Longevity

Proper maintenance ensures their longevity and optimal performance. This guarantees long-term value.

Key Features

Excellent shutoff, durability, and versatile applications define them. They are a superior choice.