

SUDE

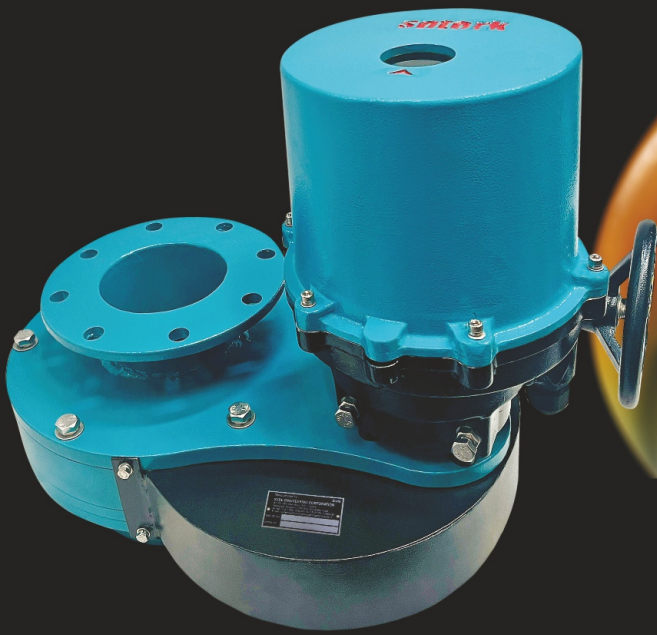
An ISO 9001:2015 Certified Company

Complete Solution in
Valve Automation

SU1518 Series Iris Valve



*Precision Flow Control for
Bulk Material Handling*



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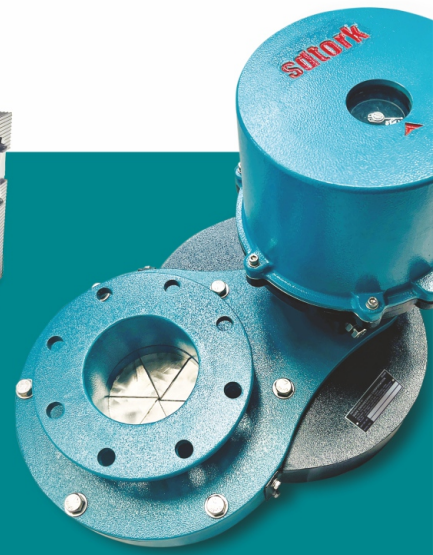
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| Courteously | Attentively | Respectably | Effectively |

Sude Engineering Pvt. Ltd.

SUDE SU1518 Series Iris Valve

Precision Flow Control for Bulk Material Handling



Product Overview

The SU1518 Series Iris Valve is a high-performance valve designed for precise control of fluids, slurries, and gases. Its unique design, reminiscent of the iris of a camera or human eye, allows for smooth and adjustable flow regulation. This valve excels in applications requiring fine flow control and efficient operation within compact spaces, offering superior precision and a lower pressure drop compared to traditional valves like globe and gate valves.

Construction and Working Principle

Body Structure : Circular design mimicking the human eye's iris.

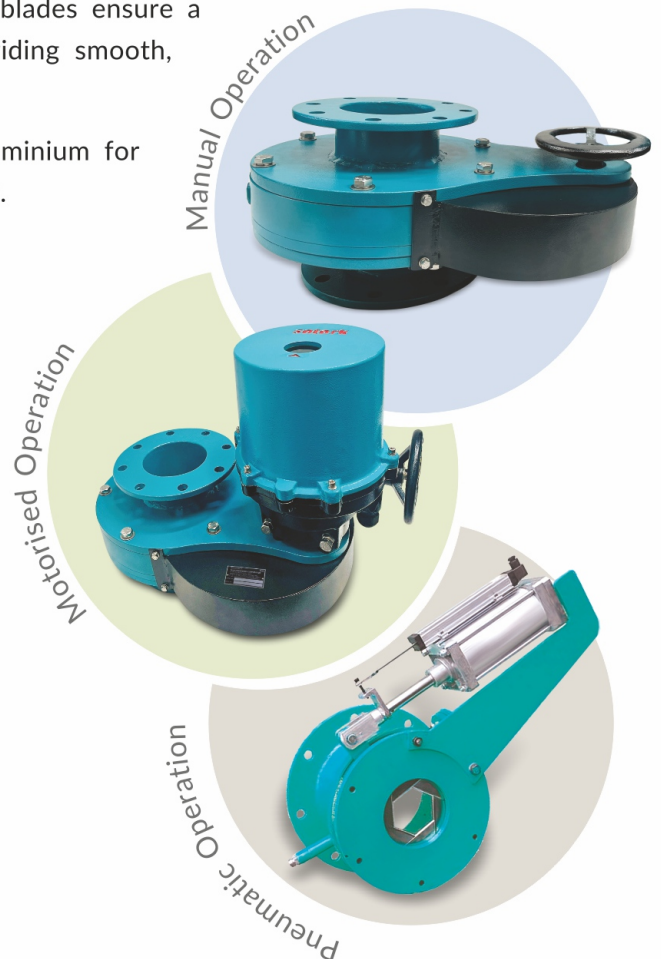
Mechanism : Composed of the valve body, iris mechanism, operating mechanism, segments, and gaskets.

Operation : Radial movement of iris blades adjusts the central opening's diameter, allowing finetuned flow regulation. Overlapping blades ensure a tight seal when fully closed, minimizing leakage and providing smooth, gradual flow control.

Frame Materials : Graded cast iron, stainless steel, or aluminium for durability and suitability across various industrial applications.

Technical Specifications :

- ◆ **Sizes :** 1 inch (25 mm) to over 36 inches (900 mm)
- ◆ **Pressure Ratings :**
 - Low : up to 10 psi
 - Medium : up to 150 psi
 - High : up to 600 psi or more
- ◆ **Temperature Ratings :**
 - Standard : 40°F to 180°F (4°C to 80°C)
 - High : Up to 428°F (220°C)
- ◆ **Sealing Type :** Metal to metal
- ◆ **End Connections :** Flange ends / Wafer ends
- ◆ **Flow Direction :** Bidirectional
- ◆ **Installation Position :** Both horizontal and vertical
- ◆ **Control Types :** ON/OFF, Throttling, Regulating



Detailed Valve Specifications :

- ◆ **Type of Valve** : Iris valve (center opening control valve)
- ◆ **Overall Structure** : Circular
- ◆ **Size Range** : 1 inch to 36 inches
- ◆ **Body Materials** : Aluminium, stainless steel (304, 316), graded cast iron, carbon steel, exotic alloys
- ◆ **Segment/Disc Materials** : Same as body or high strength materials
- ◆ **Operating Mechanisms** :
 - ◆ **Manual** : Handwheel or hand lever
 - ◆ **Pneumatic** : Compressed air with solenoids or electropneumatic positioners
 - ◆ **Electric/Motorized** : SDTORK brand actuators, PLC integration

Applications of Iris Valves :

SU-1518 Series Iris Valves are versatile and widely used across various industries for controlling the flow of bulk materials :

- ◆ **Process Control** : Provide precise control over the flow of process fluids to enhance efficiency and product quality (chemical processing, pharmaceuticals).
- ◆ **Food and beverage industry** : essential for ensuring precise control, maintaining hygiene, and enhancing the efficiency of production processes (Beverage Production, Food Processing, Cleaning Systems).
- ◆ **Instrumentation** : Provide fine control for accurate measurements and adjustments in experiments and equipment (scientific instruments, laboratory equipment).
- ◆ **Air Handling (HVAC systems)** : Control airflow with precision to ensure efficient and effective climate control.
- ◆ **Environmental Control** : Regulate and manage the flow of gases or fluids in environmental systems to maintain regulatory compliance and operational efficiency (Pollution control, waste treatment).
- ◆ **Aerospace** : Control fluids and gases in propulsion systems, fuel systems, and other critical aerospace applications (Aircraft and spacecraft systems).
- ◆ **Medical Equipment** : Manage the flow of gases and fluids in medical devices such as ventilators and infusion pumps with high accuracy (Diagnostic and therapeutic devices).
- ◆ **Automotive** : Regulate airflow and fluid flow in engines and exhaust systems to optimize performance and emissions (Engine management, emission control systems).
- ◆ **Water Treatment** : Control the flow of water in treatment facilities and distribution networks to ensure efficient operation and compliance with quality standards (Water purification, distribution systems).
- ◆ **Agricultural Equipment** : essential for managing the flow of fluids and air with precision, contributing to improved efficiency and effectiveness of farming operations (Irrigation Systems, Fertilizer and Pesticide Equipment, Seed Planters and Harvesters).





Why Choose SUDE SU1518 Series Iris Valves ?

- ◆ **Precision Control** : Smooth adjustment and gradual flow regulation.
- ◆ **Compact Design** : Space efficient for limited spaces.
- ◆ **Uniform Flow Distribution** : Consistent flow with reduced turbulence.
- ◆ **Effective Sealing** : Minimizes leakage.
- ◆ **Ease of Use** : Simple operation, cleaning, and maintenance.
- ◆ **Durability** : High strength materials for harsh environments.
- ◆ **Versatility** : Adaptable to various industries and material types.
- ◆ **Hygienic and Clean** : Meets strict hygiene standards for food and pharmaceutical applications.
- ◆ **Reduced Mechanical Wear** : Enhances valve life and system reliability.
- ◆ **Low Maintenance** : Robust construction for minimal upkeep.
- ◆ **Safety** : Minimizes dust generation, reducing explosion risks.

Customization Options

SUDE offers tailored solutions based on specific industry needs, including :

- ◆ Custom materials
- ◆ Surface finishes
- ◆ Size adjustments
- ◆ Quickrelease systems
- ◆ Actuation methods
- ◆ Specialized seals

For further information or to discuss specific requirements, please contact our sales team.

SUDE
An ISO 9001:2015 Certified Company

Innovating Precision in Flow Control Solutions

Your Success is Our Commitment



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