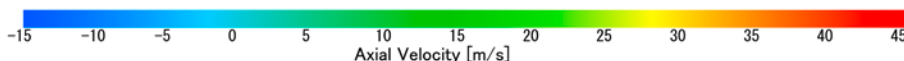
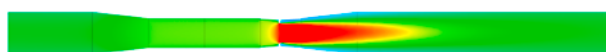
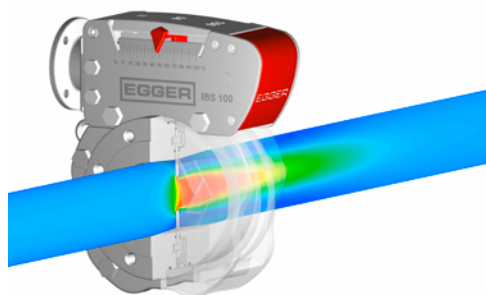
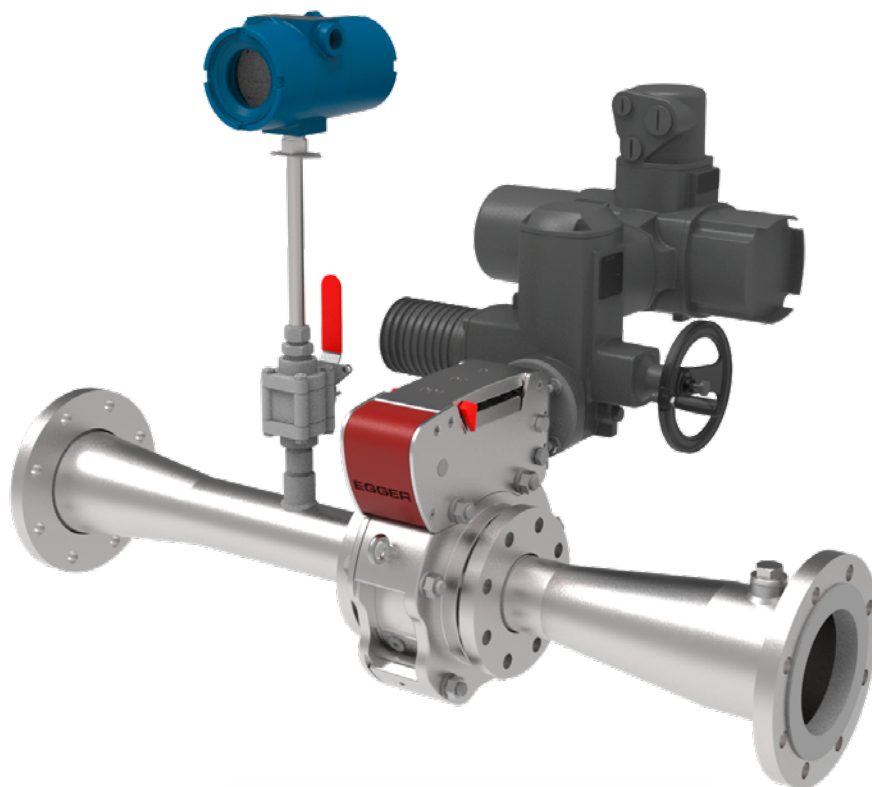


Iris[®] Measurement and Control system MRS

For economical and low-noise control and measurement of liquids and gases. The high-precision and fast-response mass flow measurement with sensor in the centre of the flow axis guarantees precise and reproducible measured values without correction. Retractable segments in the housing allow free flow when the valve is fully open, ensuring low pressure losses and high energy-saving potential.



CFD flow profile of an Iris[®] diaphragm control valve and its measuring section

Advantages

Autarkic flow measurement

The high-precision thermal mass flow measurement from Kurz with measured value display works independently of the valve position. No need for hardware or software to correct measured values.

Optimised flow profile

Both the measuring section and the Iris[®] diaphragm control valve are flow-optimised. The centred flow guidance and slim extensions ensure an optimum pressure increase without turbulence.

Low pressure losses

The short measuring section with centric mass flow reduces wall friction and minimises permanent pressure losses.

Aerobic and anaerobic alternation

For systems with denitrification and nitrification zones in alternating operation, a decompression option is available. This simplifies maintenance of the air diffusers.

Control accuracy

The fast response time mass flow measurement of 0.18 s and its measuring accuracy ensure a precise and stable control circuit.

Control actuator

The Auma standard rotary actuator with opening and closing times adapted to Iris[®] diaphragm control valves is designed for a control drive with high switching cycles and can be used without a frequency converter.

Maintenance-free

The self-lubricating spindle nut allows maintenance-free and economical operation.

Applications

Iris® diaphragm control valves are characterized by a flow path, which is always centred. The passage can be continuously adjusted, similar to a camera aperture. Thus, constant flow rates may be regulated in any position. The ideal control characteristic according to DIN EN 60534 and its low-pressure losses make the Iris® diaphragm control valve a reference to an energy-saving valve in many industries. Here is a small selection of typical applications.

Aeration in a wastewater treatment plant

Used to regulate the aeration, this valve has been proven thousands of times at wastewater treatment plants. Due to the enormous energy saving, Iris® diaphragm control valves recover cost rapidly in wastewater treatment plants. In combination with a thermal mass flow meter, cascade regulation with slave loop according to ATV can be assured.



Liquids and gases in chemistry and industry

Thanks to the centred casing parts, the Iris® valve is also suitable for higher system and differential pressures. The diaphragm control valve is prepared for monitoring systems and can be monitored for leakage as well as be pressurized.



Iris® Measuring and Control system with Auma actuator

MRS 300/150/300

North Toronto wastewater treatment plant, Ontario, Canada.



Iris® Measuring and Control system with Rotork actuator

MRS 250/200/250

The pipeline and other critical components are encased for climatic reasons. Seattle Brightwater wastewater treatment plant, King County, WA, United States.



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