

Coriolis Mass Flow Meter - S450, S800, S1000, S1250



- Continuous mass flow rate measurement based on the Coriolis principle
- Non-sensitive measuring principle
- Rapid metered value recording and high control quality
- Compact construction
- Inexpensive, simple integration
- Dustproof housing
- Flow rate of as much as 1250 m³/h

Application

The Coriolis Mass Flow Meter - S is a closed measuring system for the continuous recording of delivery volume and feed rate. The Coriolis Mass Flow Meter - S measuring devices are suitable for:

- measuring throughput and consumption
- the balancing of moderate- to well-flowing bulk goods.

The measuring devices can also be used as feed systems if connected to an adjustable prefeeder (e. g. valve, roller or screw).

The Coriolis Mass Flow Meter - S series offers solutions for many applications:

- Coriolis Mass Flow Meter - R
Gravity-driven feeding in processes

Structure

A Coriolis Mass Flow Meter - S consists of:

- Dust-proof housing of coated mild steel
- Measuring wheel with guide blades
- Exterior weighing module
- Cable box
- AC geared motor (three-phase current)

The flanged inlet connections for mounting on the on-site inlet is designed with a Jacob pipe connection, smooth pipe end and flexible connection.

The outlet cone is equipped with a flexible connection for attachment to the on-site feed line.

This unit makes it possible to easily take on jobs at bulk material temperatures up to 100 °C. This unit is engineered with a special toothed belt for high temperatures up to 130 °C.

Function

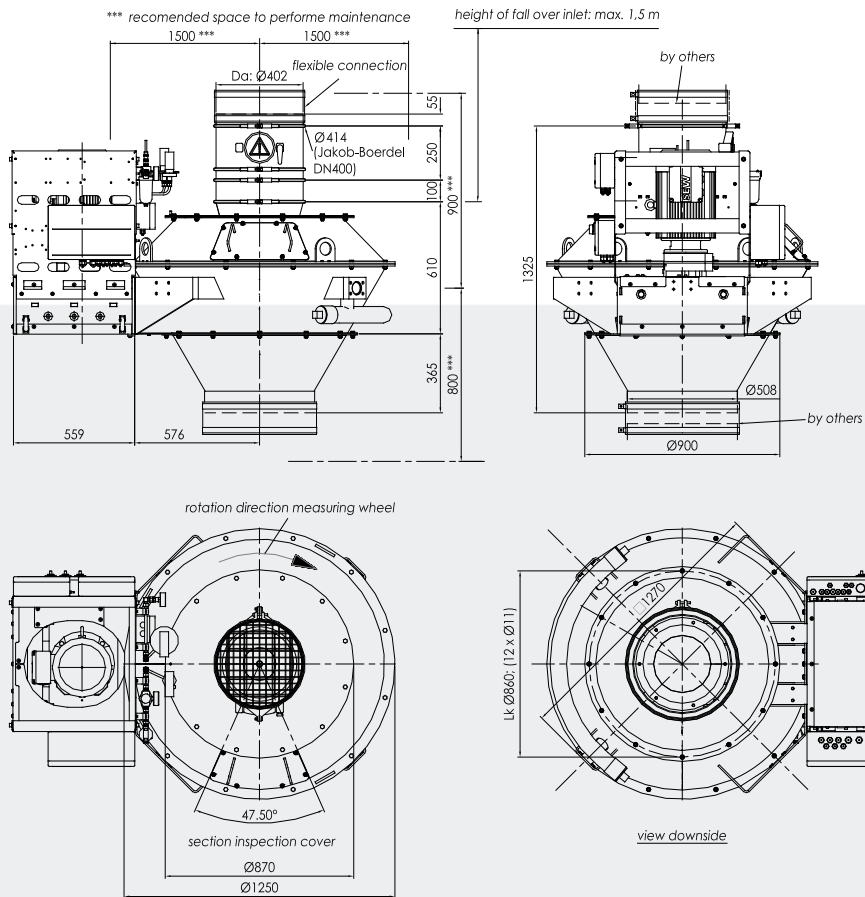
Coriolis Mass Flow Meter - S measuring devices use the Coriolis force measurement principle to determine mass flow rate. The flow of bulk material to be measured impinges on a measuring wheel within the device rotating at a constant rotational speed. The bulk material is collected by the blades of the measuring wheel and is accelerated to its circumferential speed.

A moment of torque is required for acceleration that corresponds exactly to the feed rate. The moment of torque is measured with a measuring module located directly beneath the drive motor and is converted into an electrical signal.

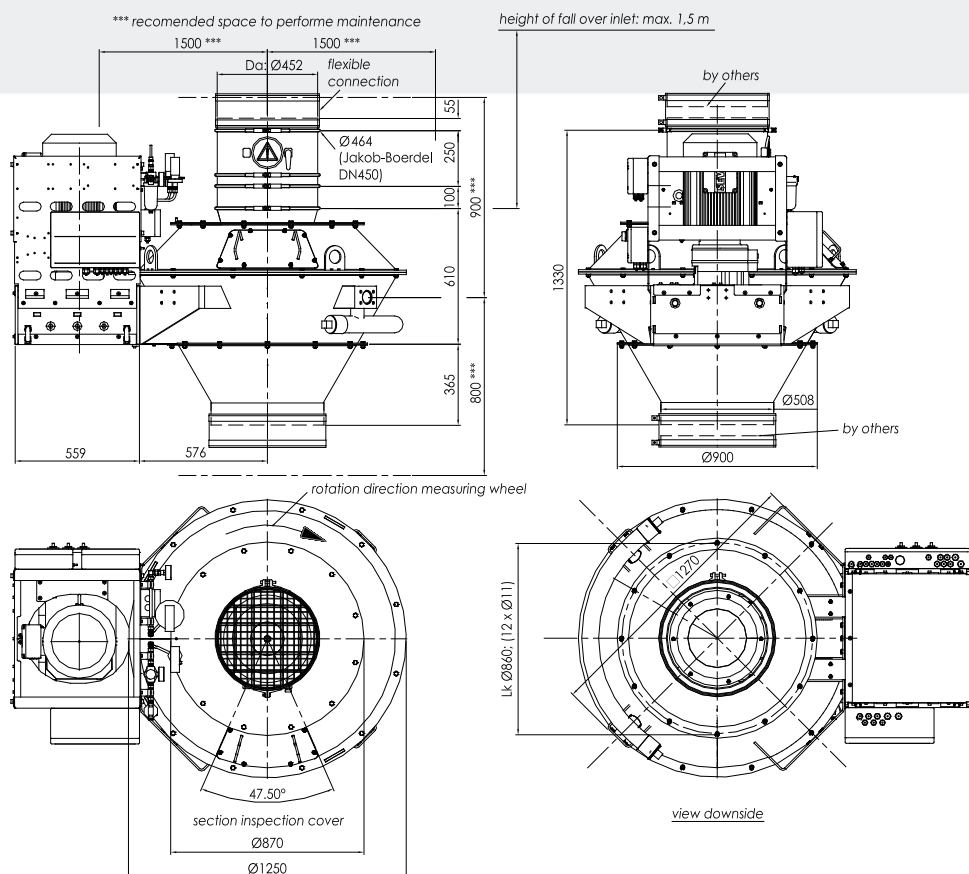
The measurement is performed independently of the mechanical characteristics of the bulk material, such as grain spectrum, flow behavior, and moistness.

Bulk material friction on the measuring wheel and alterations in the speed of the bulk material flow in the measuring device have no effect on the measuring signal.

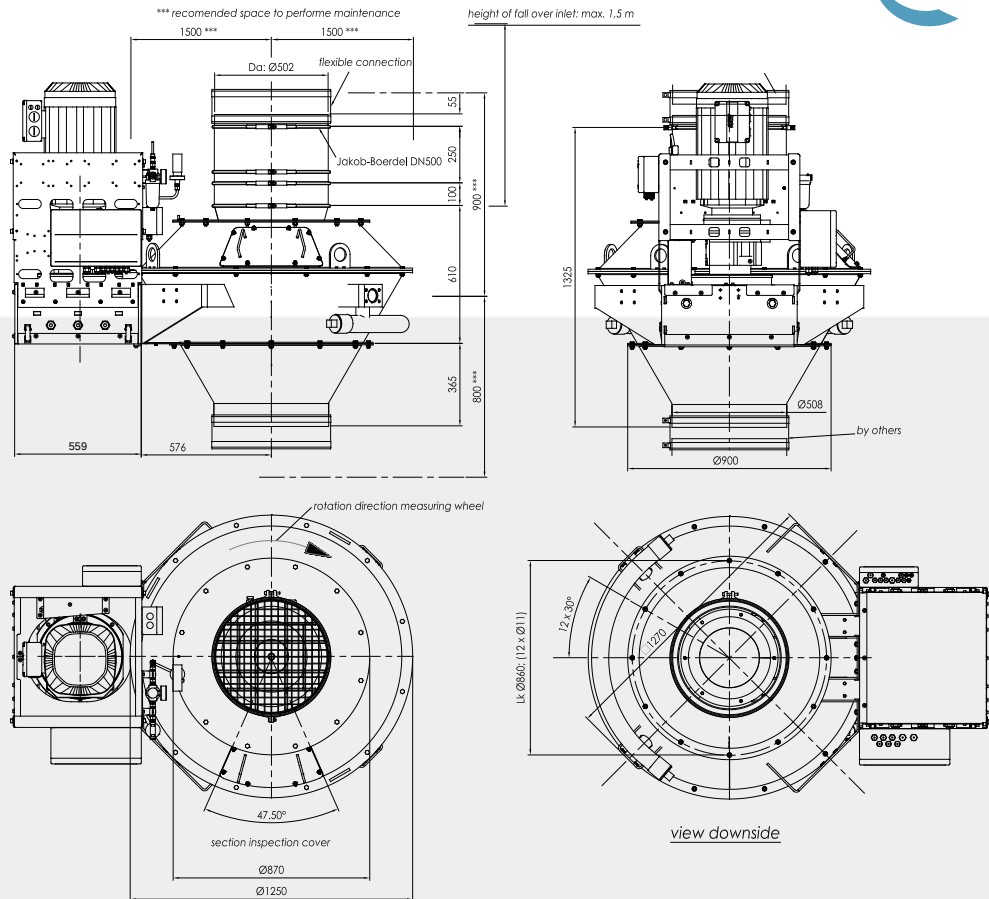
Coriolis Mass Flow Meter - S450



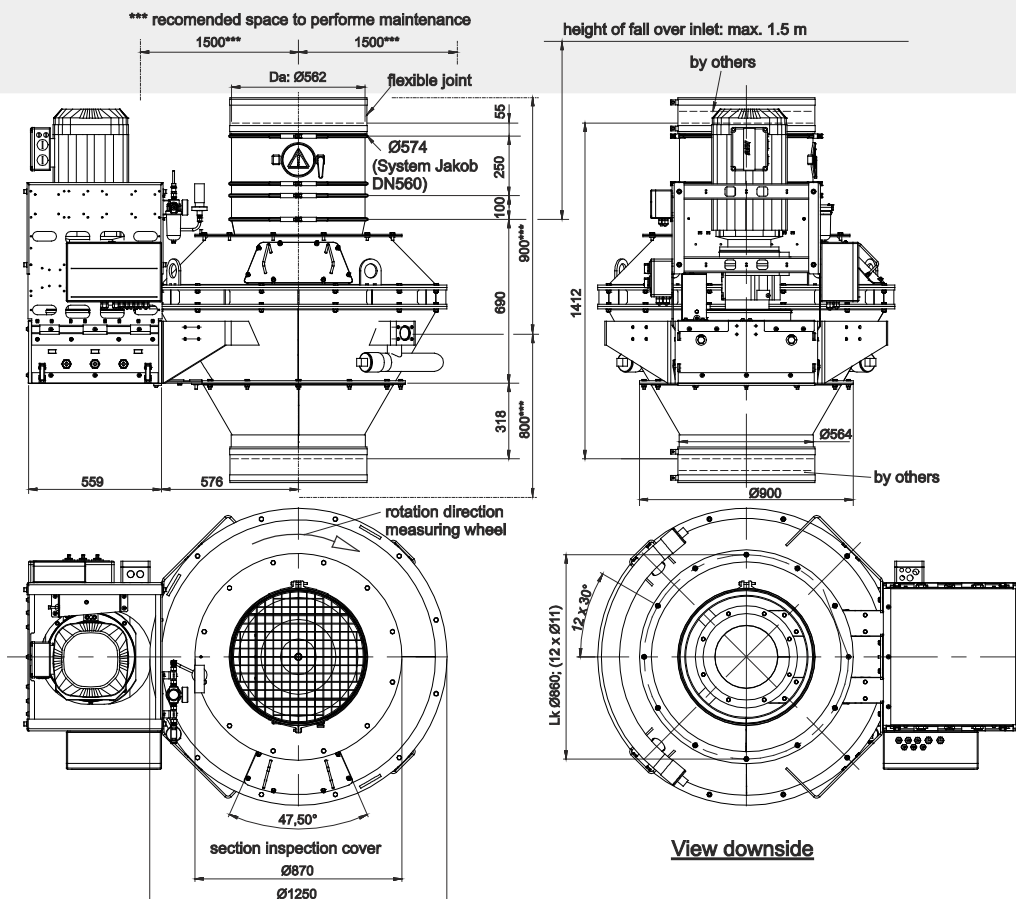
Coriolis Mass Flow Meter - S800



Coriolis Mass Flow Meter - S1000



Coriolis Mass Flow Meter - S1250



Coriolis Mass Flow Meter - S

Series	S450	S800	S1000	S1250
Feed rate	40 t/h ... 400 t/h	60 t/h ... 600 t/h	75 t/h ... 750 t/h	90 t/h ... 900 t/h
Max. throughput volume	450 m³/h	800 m³/h	1000 m³/h	1250 m³/h
Accuracy to actual value (depending on the system configuration)	150 t/h ... 400 t/h ±1.0 %	200 t/h ... 600 t/h ±1.0 %	200 t/h ... 750 t/h ±1.0 %	200 t/h ... 900 t/h ±1.0 %
Accuracy to nominal value (depending on the system configuration)	40 t/h ... 150 t/h ±1.0 %	60 t/h ... 200 t/h ±1.0 %	75 t/h ... 200 t/h ±1.0 %	90 t/h ... 200 t/h ±1.0 %
Adjustment range	1 : 5			
Operating pressure	-25 mbar ... + 25 mbar			
Inlet dimensions (JACOB-pipe connection flange)	Ø402 mm (nominal width 400)	Ø452 mm (nominal width 450)	Ø502 mm (nominal width 500)	Ø562 mm (nominal width 560)
Outlet connection dimensions	Ø508 mm			Ø564 mm
Weight	950 kg	1025 kg	1050 kg	1100 kg
Permissible ambient temperature	-30 °C ... +50 °C			
Max. bulk material temperature standard	+100 °C			
Max. bulk material temperature with a special toothed belt	+130 °C			
Bulk density	min. density 0.3 t/m³			
Max. grain size (without/with screen)	30/25 mm	25/25 mm		30/30 mm
Moisture	max. 1 %			
Flow properties	free flowing to slightly sluggish, also flushing, non-sticky			
Material properties of components that come into contact with bulk	Housing: coated mild steel Measuring wheel: 1.4404/AISI 316 LN/1.4571			

Accuracy

The accuracy given is valid for the following conditions:

- The device has been installed and calibrated as per our instructions for installation and calibration

As a result of the Coriolis principle, the accuracy is not influenced by variable material properties (flow properties, moisture, temperature changes ≤10 K, grain size).

Additional requirements

If you should have additional requirements, such as:

- greater feed rate range
 - direct feeding in pneumatic feed lines
 - use as a feed system
- Please contact us directly.

Order info

In addition to the order number, we require the following order information in order to guarantee that the order is processed smoothly and quickly:

Material data

Bulk density[t/m³]

Bulk material

Bulk material temperature[°C]

Flow rate range

From[t/h]

to[t/h]

Variants

Coriolis Mass Flow Meter - S450 Coriolis mass flow meter for 40 t/h ... 400 t/h with 50/60 Hz drive

Coriolis Mass Flow Meter - S800 Coriolis mass flow meter for 60 t/h ... 600 t/h with 50/60 Hz drive

Coriolis Mass Flow Meter - S1000 Coriolis mass flow meter for 75 t/h ... 750 t/h with 50/60 Hz drive

Coriolis Mass Flow Meter - S1250 Coriolis mass flow meter for 90 t/h ... 900 t/h with 50/60 Hz drive

Options

Prefeeder for Coriolis Mass Flow Meter - S

Measuring wheel with non-stick coating

Measuring wheel with wear protection

A special toothed belt for high bulk material temperatures

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