

Coriolis Meter/Controller gets smaller in size but bigger in ability

Despite a space envelope of just 64x32x144mm the mini Cori-Flow from Bronkhorst UK Ltd packs a real punch with regards to specification and additional benefits. The Coriolis range offers flow rate metering and control from 40 mg/hour through to over 1000 kg/hour with exceptional zero stability, high accuracy, a multitude of analogue, digital and bus protocol communications, temperature output, density output, adaptive learning technology including over-run compensation, mass and volumetric output, fast and ultra-fast response, small internal volume and a host of integration possibilities for compact system design. No wonder, therefore, that Bronkhorst is seeing phenomenal success across metering, dosing and filling applications within the chemical, semicon, pharmaceutical, food, beverage, fragrance and flavour markets.



With particular attention on dosing and filling, Bronkhorst CORI-FILL technology ensures a modern alternative to traditional gravimetric or weighing scale methods. As a result, processing times are shorter, product quality is both improved and made more consistent, with an added benefit that the ambient atmosphere for employees is vastly improved with the potential elimination of volatiles and odour concentrates.

The conventional gravimetric method achieves the dosage of mass/volume through the use of a conveyor system, a series of shut-off valves and a weighing scale located under the open-top vessel. Upon receiving the correct dosage, the weighing scale sends a signal to the PLC thereby allowing the vessel to be manoeuvred to beneath the next valve nozzle in a series of actions, one following on from the other. This is a time-consuming process, with all compounds dosed one by one and with a zeroing procedure required prior to each new addition.

In contrast, the advanced CORI-FILL technology with integrated batch counters and the facility to directly operate shut-off valves is capable of dosing the precise amount of compound into an enclosed-top collecting vessel with just a brief reset command to start the next

batch. The Coriolis direct mass measurement method eliminates volumetric variation caused by changing temperatures, viscosities and densities of the ingredients, leading to accurate, repeatable quantities batch after batch. As a result, the CORI-FLOW method is faster, more compact and accurate than weighing scales with more consistent product results due in no small measure to less evaporation of volatile fluids.

Moreover, it is possible to dose a number of fluid additives simultaneously, using multiple CORI-FILL instruments, leading to shorter production times, with no intermediate zeroing procedures. The amounts to be dosed can be easily preset by programming the onboard batch counters, via a fieldbus connection. The working atmosphere is also improved, as there is no dosing of additive into open storage vessels, of the kind needed for weighing scales. Thanks to a small footprint, the CORI-FLOW or mini CORI-FLOW instrument is able to be mounted extremely close to the shut-off valve, proportional control valve or even a pump, thereby minimising pipe-work volumes, decreasing residence time and resulting in very fast response times and reducing the risk of gas enclosure in tubing, potentially causing delay effects. This also produces a highly compact dosing solution.

Bronkhorst Coriolis instruments are available as individual components or as pre-tested assemblies with "plug-and-play" benefits from Bronkhorst UK Ltd, 1 Kings Court, Willie Snaithe Road, Newmarket, CB8 7TG. **Tel 01223 833222**
www.bronkhorst.co.uk

CORI-FILL® Technology

Replaces weighing scales (gravimetric principle)

NEW!

Enq 100

- ◆ Very fast dosing time: from ca. 300 msec, from 40 ug per „shot“
- ◆ Fill speed from 0,2 ml/h up to 600 l/h
- ◆ Compact assembly, low dead volume
- ◆ High accuracy due to Coriolis technique
- ◆ Mass and volumetric dosage possible
- ◆ Automatic overrun correction
- ◆ Time reduction due to simultaneous dosing of compounds
- ◆ Continuous density measurement with gas bubble and empty tube recognition

Innovation - Experience - Excellence

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