



AGRANA Sugar Plant, Tulln, Austria: Inline °Brix Measurement of Sugar Juice

Relevant for Sugar Industry



→ L-Sonic 5100, Version SST in action

Inline process sensors you can rely on:
°Brix measurement of sugar juice with
L-Sonic 5100 from Anton Paar.

The sweetness of life

Sugar is a part of our daily lives and is globally processed and consumed in considerable quantities. Today, most sugar is produced from sugar beet or sugar cane, depending on the geographical location. Sugar plays a very important role within the global economy, with demand expected to increase further in the coming decades. Anton Paar is contributing to the success of many global sugar producers with its process sensor portfolio and inline measurement solutions.

Two global players – one success story

The AGRANA Group is an Austrian sugar, starch and ethanol fuel producer, as well as a major player in fruit preparation, and is listed on the Vienna stock exchange. The company's success story began in 1988 as a holding for the Austrian sugar and starch industry. Today, the AGRANA Group has multiple sugar, starch, fruit and ethanol production facilities around the globe with pure sugar production facilities in Austria, Hungary, the Czech Republic, Slovakia, Romania and Bosnia-Herzegovina. The popular sugar from AGRANA, known as "Wiener Zucker" in Austria, is processed at these production sites from locally harvested sugar beet and imported sugar cane.



→ Agrana sugar plant, Tulln (© AGRANA)

“Thanks to the seamless 24/7 production monitoring of the L-Sonic 5100 sound velocity sensors from Anton Paar, sugar is produced during the whole campaign according to the highest AGRANA quality standards.”

**Thomas Wallner,
Workshop and Inline
Process
Instrumentation
Manager at AGRANA
plant Tulln, Austria**

Our success story begins at the AGRANA production facility in Tulln, Lower Austria. The sugar plant was founded in 1937 and is now AGRANA's main sugar production and storage site in the country. Equipped with the second largest sugar silo in Europe, high-quality sugar products are refined from locally harvested sugar beet.

As a global player, it is crucial to deliver the highest sugar quality. By using inline sound velocity sensors from Anton Paar, two global players ensure that only the finest sugar from the production plant in Tulln reach supermarket shelves all over Europe. “Thanks to the seamless 24/7 production monitoring of the L-Sonic 5100 sound velocity sensors from Anton Paar, sugar is produced during the whole campaign according to the highest AGRANA quality standards,” says Thomas Wallner, Workshop and Inline Process Instrumentation Manager.

Sugar beet processing: Know-how and experience are crucial

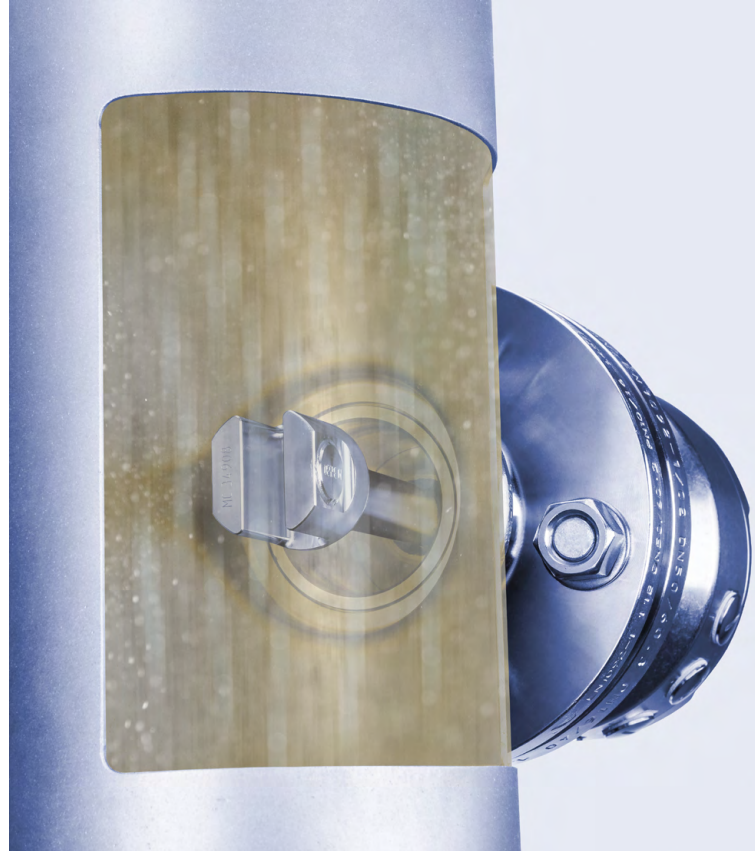
Sugar beet processing requires know-how and experienced employees. The sugar beet itself needs to be handled gently and sensitively. During the sugar beet campaign, it is important that the harvested beets are processed as quickly as possible, as the longer they are left in storage, the more they decompose. Both the alkalinity and the sugar content degrade quickly, meaning that the entire plant in Tulln needs to run smoothly and efficiently.

When it came to choosing an instrument for inline °Brix measurement of sugar juice, Anton Paar's L-Sonic 5100 was the obvious candidate for Thomas Wallner. “The L-Sonic 5100 inline sensors from Anton Paar make a significant contribution to ensure that we can complete a successful sugar beet campaign.” The installation of the sensors was straightforward. One of the advantages of the L-Sonic 5100 is its simple and cost-efficient integration into the existing plant infrastructure. The instrument is intuitive to use and makes it accessible even without prior training.

In addition, the L-Sonic 5100 sound velocity sensors showed immediately the expected °Brix concentration. Since installation, all sensors have been running on-spot and provide reliable inline measurement values. “The L-Sonic 5100 helps us to reduce time-consuming laboratory measurements, because we know that we can trust the online values even more,” says Mr. Wallner.

Anton Paar has installed four inline sound velocity process instruments at the AGRANA plant in Tulln for inline °Brix measurement. They have also successfully replaced competitor instruments based on microwave technology:

- 1 pc. L-Sonic 5100, Version SST
(thin juice box to evaporator)
- 2 pcs. L-Sonic 5100, Version SST
(evaporators)
- 1 pc. L-Sonic 5100, Version SST
(evaporator to thick juice filtration)

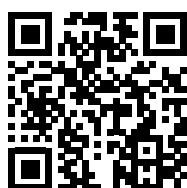


→ L-Sonic 5100, Version SST installed in the production pipeline

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Thomas Wallner,
Workshop and Inline Process Instrumentation Manager
at the AGRANA plant, Tulln, Austria

FIND OUT MORE



[www.anton-paar.com/
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Instrument: L-Sonic 5100, Version SST

Measured parameters: °Brix

Samples: sugar juice

Accuracy: better than ± 0.1 %

Sample throughput: 24/7