Anton Paar

Ölgerðin Egill Skallagrímsson:
Fast, Reliable Oxygen Measurement with TPO 5000

TPO 5000 and CarboQC

→ Karen Ýr Jóelsdóttir, Quality Manager at Ölgerðin, explains the challenges of frequent changeovers during production.

Ölgerðin, one of Iceland's largest beverage producers, relies on Anton Paar instruments and service to maintain efficiency, accuracy, and uninterrupted operations across its diverse product lines.

Founded in 1913 in Iceland, Ölgerðin Egill Skallagrímsson has grown from producing a single popular malt beverage into one of the country's largest food and beverage production companies. In a place where beer was illegal until 1989, today the company produces Iceland's longest running brew, while also managing a diverse portfolio that includes sodas, juices, and contract manufacturing for global brands such as Carlsberg and PepsiCo.

Short runs, high demands

In contrast to larger beverage producers abroad – in the US, for example – Iceland's small market requires Ölgerðin to manage frequent changeovers during production.

"The changeover rate is very fast," explains Karen Ýr Jóelsdóttir, Quality Manager at Ölgerðin.

"We have lots that run for maybe two or three hours, and that complicates things – especially in beer production."

Each switch means rinsing, cleaning, and checking oxygen levels, which in the case of beer, are critical to ensuring quality and shelf life.

For smaller producers especially, this costs precious time.

→ Sturlaugur Jón Björnsson, Head Brewmaster at Ölgerðin, and Quality Manager Karen Ýr Jóelsdóttir switched from manual TPO calculation to Anton Paar's TPO 5000 total package oxygen meter.

“That’s the biggest challenge,” says Sturlaugur Jón Björnsson, Head Brewmaster at Ölgerðin, “trying to do everything as efficiently as possible with the least loss in product possible.”

Precise measurement with TPO 5000
To manage multiple changeovers without compromising quality, Ölgerðin invested in Anton Paar’s TPO 5000 total package oxygen meter.

The TPO 5000 selectively measures the total amount of oxygen in beverages directly from the can or bottle – a gamechanger for daily operations.

“Before, we were manually calculating TPO based on DO, which often led to errors,” says Karen.

Manual methods, from weighing to shaking to recording multiple measurements, also took time – anywhere up to 15 minutes.

With the TPO, however, precise measurement is delivered in just five minutes. “You place the can in the right spot, and the instrument does it for you,” says Karen.

Ölgerðin uses the TPO 5000 at the start and then again early in each production run to ensure everything is in spec.

If there’s any variation or a tank switch, the instrument quickly verifies performance without major disruption.

But beyond day-to-day production, the TPO has proven to be a valuable quality troubleshooting method. By taking samples from each filler head, the Ölgerðin team can identify issues such as valves producing higher-than-expected oxygen readings, at a fraction of the time it would take to check all of the heads manually.

“It’s a very good diagnostic tool,” says Sturlaugur.

→ Ölgerðin's production floor

"Anton Paar has gone above and beyond in supporting us with our instruments."

Karen Ýr Jóelsdóttir, Quality Manager, Ölgerðin Egill Skallagrímsson

Complementing the TPO 5000 on Ölgerðin's production floor is the CarboQC, which measures dissolved CO_2. Using the two instruments together enables operators to precisely measure both oxygen and dissolved CO_2 values from the same run, while also saving precious time and labor.

"The operators are happy and so is the planning team," says Karen. "It's a win-win."

Support you can count on

Ölgerðin decided to purchase the TPO 5000 after a two-week demonstration, facilitated by Anton Paar's local representative in Iceland.

"He loaned us a device, and we really liked it," says Karen.

But Anton Paar's service and support have played a big role in keeping it that way.

"Anton Paar has gone above and beyond in supporting us with our instruments," Karen explains. "Whether it's a quick phone consultation or an on-site meeting, their service is always prompt, professional, and of the highest quality."

"Annual maintenance is usually scheduled within two weeks after a request, and urgent service needs are often addressed the same day or by the following day," she says.

"That level of responsiveness ensures we don't lose time, and it's a testament to their customer-first approach."

TPO 5000

	Trace Range	Wide Range
Measuring range oxygen in the gas phase	0 hPa to 45 hPa	0 hPa to 1000 hPa
Measuring range dissolved oxygen	0 ppm to 2 ppm	0 ppm to 45 ppm
Repeatability s.d.	±8 ppb or ±6 %, whichever is the greater	±25 ppb or ±6 %, whichever is the greater

CarboQC

Measuring range dissolved CO_2	0 g/L to 12 g/L (0 vol. to 6 vol.) at 30 °C (86 °F) 0 g/L to 20 g/L (0 vol. to 10 vol.) < 15 °C (59 °F)
Repeatability s.d.	0.01 g/L (0.005 vol.)

Power features: Guided workflows, automatic cleaning, Anton Paar Connect ,FillingCheck™, System Check