

I was at a bar with a Russian friend the other day. He ordered us some premium vodka, and it was so smooth that I almost forgot how alcoholic it was! This got me thinking about how the vodka I drank in college wasn't good vodka. My friends and I (and much of the student body) would buy one of many different brands of what was all essentially the same rotgut. For about ten dollars, we could purchase 1.75 liters of this clear, syrupy liquid in a plastic bottle. I know it was distilled, at least a few times. However, when you drank it, although you couldn't see them, you could feel on your tongue little bits of—something—floating around in there. Maybe that's why it tasted so bad.

Brand Consistency for Vodka Distilleries

Not all vodka comes in plastic handles, and even if it does, quality control is an essential element of the production process. After repeated distillation, manufacturers subject their batches to a battery of QC tests designed to ensure color clarity, transparency, and the flavor is consistent with their brand. Only after passing this regimen is the vodka bottled and shipped to distributors.

The reason for this is obvious: brand consistency. A major selling point for middle and top-shelf vodka companies is their comparative quality and distinctive flavor, or lack thereof. Should they ship out batches of off-color vodka, customers are likely to choose a different option off the shelf. These customers will also remember the decision and will be more likely to choose another brand in the future. That holds true even if the batch in front of them is the color it's supposed to be.

Customers won't notice haze or strange flavors until after they've bought the bottle, or received a drink at the bar. However, they'll remember the experience and will be more likely to choose a different brand the next time they're looking for a drink. Quality control then is not only important for the immediate batch, but to safeguard the reputation of every other future batch as well.



Makers of high-quality vodka rely on instrumental color quality control to differentiate their products. Image Credit: Flickr User [James Hubley](#) (CC BY 2.0)

Instrumental Color and Haze Measurement Ensures Vodka Quality Control

With their brand's reputation at stake, vodka producers rely on transmission spectrophotometers and haze measurement instruments to ensure that their liquor is the right color and completely transparent. These instruments measure color and haze, respectively, using similar methods. They pass a controlled beam of light through a transparent liquid and record any changes in the light as it hits a detector on the other side. Quality control technicians place the sample into the instrument, take the measurement, and observe the result displayed on the instrument's screen. It is a straightforward method for determining if the sample color (or lack thereof) is within acceptable tolerances.



Quality and luxury are top selling points of high-quality vodkas. Image Credit: Flickr User [AnestesiA](#) [Vodka](#) (CC BY 2.0)

Benefits and Drawbacks of Color and Haze Measurement Instruments

Due to their improved reliability and precision over human observers, color and haze measurement instruments have become the industry standard for quality control of transparent liquids. However, that's not to say these instruments don't have drawbacks.

For one, their large size crowds up benchtop space in small laboratories, which is especially onerous for small to mid-size craft distilleries. Also, they often require a connection to a nearby PC to store saved color standards, display results or transfer data to a company server. Other aspects are outdated as well, such as the need to calibrate the instrument daily with a set of colored disks.

Recognizing the need for improvement, at HunterLab, [we've designed Vista](#), a single instrument capable of measuring both transmission color and haze simultaneously. Not only does it replace two instruments with one, it's also significantly smaller than either earlier machine. Despite its small size, its modern processor is capable of storing saved standards and transmitting data without the need for a PC. Also, its large touchscreen display makes reading measurement data fast and simple. It doesn't need colored disks, either—it can calibrate automatically at the touch of a button.

To read more about how Vista can improve your distillery's quality control processes, [contact us today](#) to speak with one of our friendly, knowledgeable sales professionals.