

## Process Analytics in Breweries

### Dencytee®



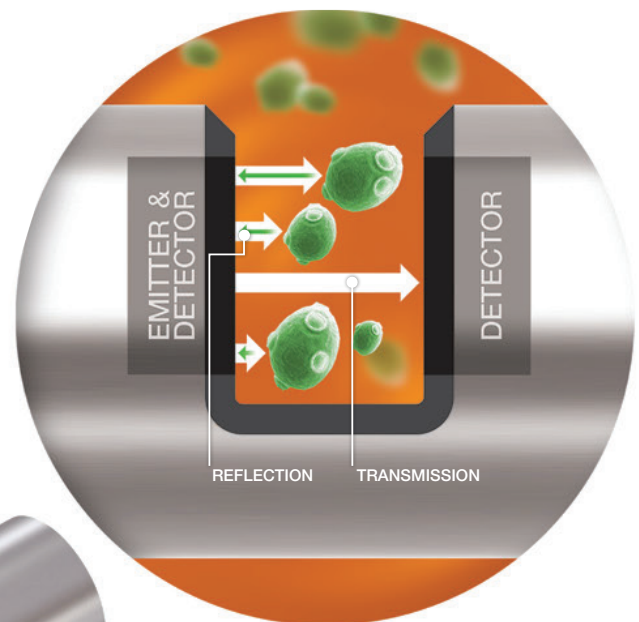
### TOTAL CELL DENSITY (TCD)

The Dencytee Arc® sensor performs on-line measurement of Total Cell Density in solution. The sensor is designed to measure the turbidity of the cell suspension. The measurement is made at NIR (near-infrared) wavelengths so it is insensitive to changes in media color. All particles and molecules that scatter light at 860 nm will be detected, including living and dead cells as well as cell debris. This measurement is effective after inoculation when cells are expanding quickly but concentrations are low, making capacitance-based readings less reliable.

- Simple On-Line Measurement of Cell Growth
- Reliable Values During the Growth Phase
- Improved Linearity at High Concentrations
- Early Detection of Process Deviations

#### HOW IT WORKS

The Dencytee Arc sensor measures over a 5 mm sensing gap. A light source is on one side with one detector, while a second detector is on the other side of the gap. Depending on the cell concentration, the light is reflected by the cells or finds its way past the cells. Dencytee Arc combines the signal transmission at the front detector and reflection at the back detector into a single measurement value of the on-line total cell density.



To be able to measure low and high cell density at a high quality signal the sensor is able to measure the reflected light of the cells as well. This is especially beneficial at high cell densities.



Gusmer Enterprises is the N. American Representative for Hamilton. [GusmerEnterprises.com](http://GusmerEnterprises.com) | [sales@gusmerenterprises.com](mailto:sales@gusmerenterprises.com) | 866.213.1131