TECHNICAL NOTE QC

Faster Yeast & Mould Enumeration

Early contamination warning within 2 days, while the standard day-5 endpoint read is preserved

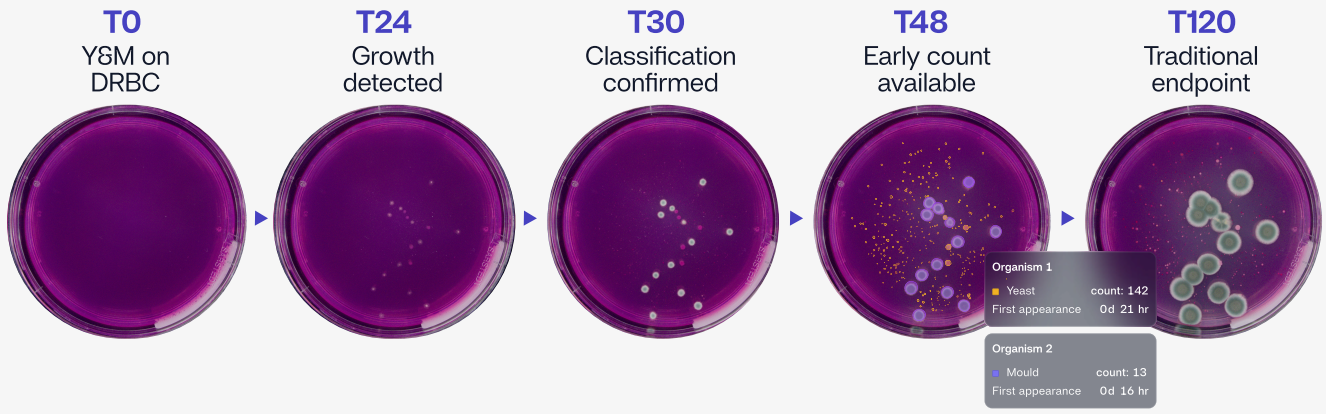
METHOD
ISO 21527 / DRBC . DG18

PLATFORM
RESHAPE SMART INCUBATOR

APPLICABILITY
FOOD & BEVERAGE, PHARMA, COSMETICS

100% method compliance

- Same ISO 21527-1 method
- Same medium (DRBC/ DG18)
- Constant incubation (25°C)
- Earlier visibility. Same final result.
- Full traceability



The Challenge

Yeast and mould enumeration is the bottleneck in finished-product QC. ISO 21527 prescribes incubation at 25°C with reads at day 5 — and slow-growing moulds are routinely held to 7 days. Between those fixed reads, nothing is recorded.

- Contamination is invisible until the next scheduled manual read — up to 5 days after plating
- Product held on release cannot be acted on sooner, even if plates are already signaling growth
- Manual reads at fixed endpoints only — no continuous record, no early alert
- Yeast vs mould differential is error-prone by eye at a single endpoint read

The Reshape Approach

Reshape runs the same ISO 21527 method — DRBC or DG18, 25°C, standard petri plates, day-5 endpoint — but adds continuous imaging throughout incubation. The final enumeration is still delivered at day 5. The difference is what happens in between.

- **Continuous imaging –** automated monitoring without manual reads or plate handling
- **Early contamination detection –** growth flagged in 1.5–3 days, enabling earlier investigation and response
- **AI-powered enumeration –** automated yeast and mould differentiation and counting at the endpoint
- **Complete audit trail –** time-stamped image history and counts for stronger documentation and traceability

TIME-TO-DETECTION DATA (ANONYMIZED CUSTOMER CASE STUDY)

Reshape analysed finished-product QC plates to quantify how early colony growth becomes detectable relative to the standard endpoint. For each plate, a rolling growth-rate curve identified when the count had stabilised (growth rate below 5%, count at or greater than 90% of maximum).
This stabilisation point — from which a reliable early warning could be issued — preceded the standard endpoint by (refer table):

Organism	Mean early detection	Typical detection window
Yeast	80h before endpoint	1.5-2 days
Mould	28h before endpoint	2-3 days