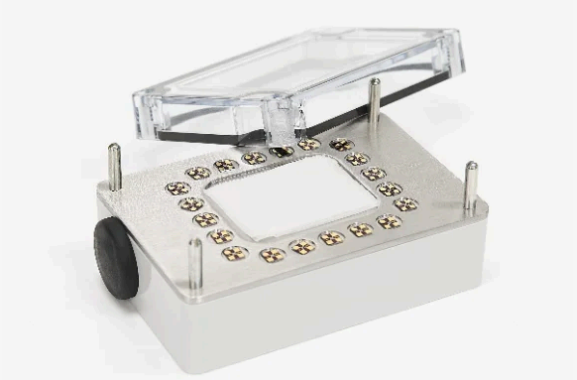
EMILIE™ · ACCESSORY

Drop Casting Accessory



A humidity-controlled station that confines an evaporating droplet to the EMILIE sampling and sensing chip's perforated center. This allows the sample to dry at the center of the sensing area for quantitative analysis.

CAPACITY	DROPLET VOLUME	DRY TIME, 500 nL	BENEFIT
20 chips	500–1000 nL	≈ 30 min	Micropipette dispensing

FEATURES

- Restricts evaporation of the aqueous sample to the perforated membrane area, so no analyte dries outside the sensing aera. Key for quantitative work.
- Processes up to 20 EMILIE™ chips simultaneously.
- Silica-gel desiccant in the bottom compartment plus lint-free wipes create the humidity gradient.
- Developed for aqueous samples.
- Eliminates the need for expensive nanoliter droplet dispensing systems.

TABLE 1 SPECIFICATIONS

Capacity	Up to 20 chips simultaneously
Recommended droplet	500 – 1000 nL
Dry time — 500 nL DI water	≈ 30 min
Dry time — 1 µL DI water	≈ 60 min
Desiccant	Silica gel; bright orange when dry, replace when saturated as indicated by the color change to blue
Sample type	Aqueous samples

HOW IT WORKS

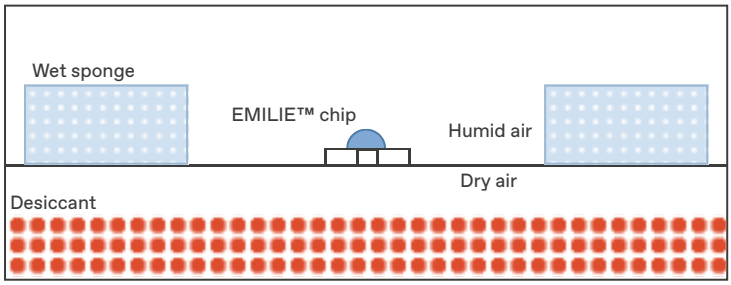


Figure 1: The chip sits at the interface between a humid atmosphere above and a dry one below, so evaporation is driven downwards through the perforated membrane.



Figure 2: Without the accessory the drop dries over a larger area of the chip; with it, the analyte is fully contained within the perforated area.