

Blackbox

The black box for your plant.

Blackbox records everything, continuously, and lets you rewind time to understand what happened, when and why. A software module that installs on Cyberstone devices and turns every machine into a continuous recorder of its own state – just like an aircraft's black box. Nothing is discarded: every available data point is captured, stored and made available at any time.

HOW IT WORKS

It captures everything, raw. You decide later what to look at.

Blackbox takes a **complete snapshot of the plant** several times per second: no event, however fast, escapes recording. The snapshots are stored and ordered in time, building a continuous, detailed timeline.

When you need to read the data, a **reading key** supplied with the plant translates the raw information into clear values: temperatures, states, counters, alarms and any quantity the machine produces. The data you'll need tomorrow has already been recorded today – even the data you hadn't planned to analyse.

WHAT IT'S FOR

Possibilities traditional systems simply don't offer

Understand failures

When something goes wrong, rewind the timeline to the exact instant of the problem and see what the plant was doing. No more guesswork.

Traceability and control

You always have documented proof of how the plant worked at a given moment: useful for audits, quality and compliance.

Predictive maintenance

By analysing historical trends you recognise the signals that precede a failure and act before it happens, reducing downtime.

Analysis and optimisation

Charts, reports and analysis can be generated at any time, even on the past, to improve performance and efficiency.

Blackbox

A complete historical memory of your plant, always available.

WHAT MAKES BLACKBOX DIFFERENT

Records everything, works locally, loses nothing

Records everything, not just a few values

Traditional systems read a few dozen pre-defined values: if tomorrow you need one that wasn't planned, it's gone forever. Blackbox captures the entire state of the plant.

Your data stays at home

All information is stored locally on the device: a choice made for those with privacy and security needs. Data leaves only if you decide so.

It manages itself

When storage nears its limit, Blackbox keeps the most recent data and frees space from the oldest, always keeping the maximum possible history, with no manual work.

Runs at the edge, on the device

It works right on the machine, without depending on the internet or the cloud. The plant keeps recording even when offline or isolated from the network.

Automatic backup, no loss

When the device is connected, data is duplicated to a second archive, local or remote. After a long disconnection, everything is realigned as soon as the machine comes back online.

A module, on your device

Blackbox is an add-on software module: anyone with a Cyberstone device can activate it to enrich the machine with recording, historisation and analysis.

See everything. Before it happens.