



Standards in the Food Industry (1/2) : The ISO* 7218

ISO 7218: Good Practice for Microbiological Analysis

ISO 7218 is an ISO standard **specific to the food sector**. It specifies general requirements and provides technical recommendations for microbiological examinations of foodstuffs and animal feed. It offers laboratories a comprehensive framework for conducting microbiological examinations, **covering all aspects from the preparation and handling of samples to the application of specific microbiological methods** (such as the Spiral technique).

Which of Interscience automates are concerned by this standard?

Given that this standard provides specifications from sample preparation to result analysis, **all Interscience automates are affected by this standard** (FlexiPump, BagMixer, DiluFlow, easySpiral, Scan Manual, Scan Auto, ScanStation).

* ISO : International Organization for Standardization



ISO is the international standardization body responsible for defining common industry standards.

What are the novelties of the 7218? What points impact us?

A new version of ISO 7218 has been released, ISO 7218:2024, replacing ISO 7218:2007. Here are the changes that concern us:

- **Update on Spiral plating mode:** Spiral plating mode is now considered a **plating technique in the same way as surface plating is**. This change in status is accompanied by a simplification of the procedures for integrating the Spiral plating technique. From now on, it will be **aligned with other plating techniques**, requiring **verification of its applicability according to the standard of the criteria in question**. This potentially opens its use for the enumeration of other quality indicators such as Lactic Flora, *Staphylococcus* spp., and others. This new version guides users on the rules for interpreting the Spiral technique, detailing general and specific cases to provide a result as close as possible to the criteria that the laboratory must meet. This detailed text **facilitates the implementation of this plating technique in the laboratory**. It also includes guidance on choosing the diluent (saline solution, NaCl at 0.9%), the disinfectant (70% ethanol or bleach with a chlorine active percentage specified by the manufacturer). It also now includes the possibility of automatically diluting the sample before plating on the same automate.
- **Precautions against cross-contamination with sample separation:** Laboratories are strongly encouraged to **separate sample preparation flows** based on their nature and potential contaminations. This separation can be done in **time** or **space**, with dedicated facilities and equipment for each type of product. Examples: Separate the analysis of powdered products, separate the analyses of "sterile" or "semi-sterile" products, separate the analysis of pathogens, etc. This might push the reorganization of some laboratories and drive them to equip themselves to separate analyses.
- **Preparation time from dilution of the mother solution to plating on Petri dishes:** In the previous version, operators had up to 45 minutes between the preparation of the mother suspension and plating. Now, **the recommended handling time is about 20 minutes** with a maximum of 45 minutes. Depending on the number of samples, automation might be necessary to follow these recommendations.