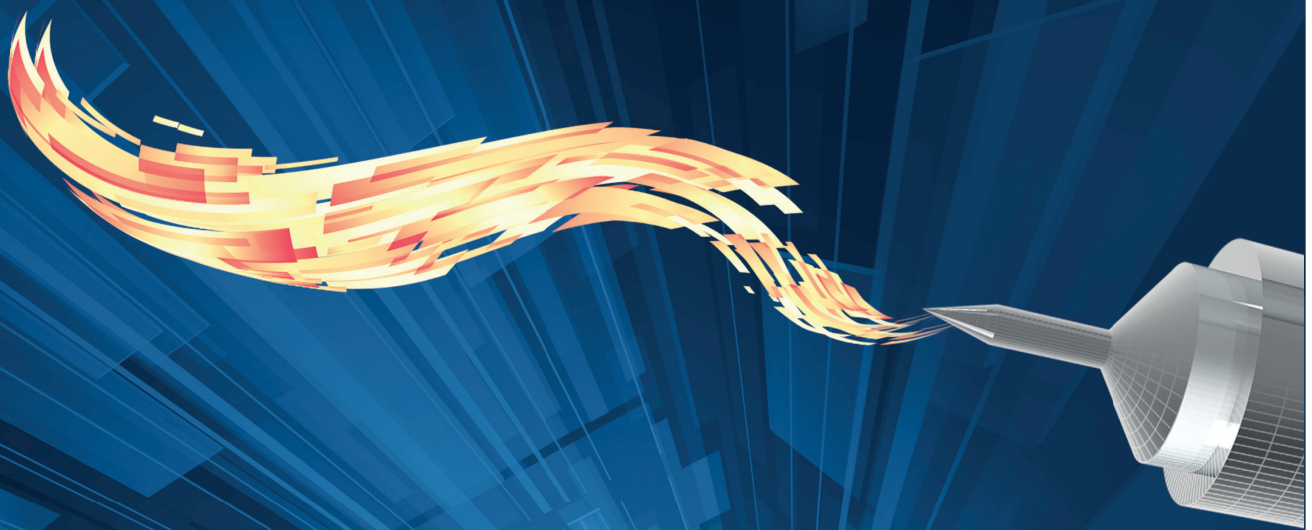# tecnosoft
WE DELIVER DATA

FOOD & BEVERAGE

Process Monitoring Solutions Sterilization, Pasteurization, Cooking, Chilling

IDEAS IN ITALY

" WE DELIVER DATA "

Tecnosoft, founded in 1989, is an Italian company of research and development of technical-scientific software, data acquisition systems and solutions for many and diverse sectors including pharmaceutical, medical, healthcare and food.

30 years of experience have helped us to develop a vast knowledge of the problems related to process control aspects during the design of data collection and analysis solutions in various fields and food is the first sector in which we began to propose the Tecnosoft brand systems.

In all these years, Tecnosoft has developed important skills to understand the needs of the customer and transfer them to the project specifications and to the development of the system, keeping up-to-date on the new technologies available and providing cutting-edge solutions.

Don't think of Tecnosoft as a simple hardware manufacturer but as a data provider: users, operators, aiming to obtain reliable and accurate data, the data carrier itself is a means to achieve another goal. We aim to deliver your data, those you need to collect to make all the important decisions regarding your products, your decisions, your strategy, your business.

That's why we develop solutions instead of producing loggers: a solution is dedicated to a specific application, includes different devices and holds the best technology that meets your requirements, particularly in the pharmaceutical, medical and healthcare sectors. The needs of each user are different and for this it is necessary to be able to quickly understand these needs and implement them in the systems.

Thanks to our flexibility and constant updating we can quickly understand these needs and translate them into new systems or continuous updates of existing solutions, together with the possibility of customizations for different users.

Our sales and technical team is able to guide the customer in choosing the right solution for each application, as well as providing a complete service such as short and long-term rentals and after-sales service.

Since 2002 Tecnosoft has implemented a certified quality system based on ISO 9001: 2000, passing through 9001: 2008 and finally updated to ISO 9001: 2015.

ISO **9001:2015**

CERTIQUALITY

CERTIFIED QUALITY
MANAGEMENT SYSTEM

YEARS OF
INNOVATION
1989-2019

Application fields
for process monitoring

The wide range of Tecnosoft temperature and pressure data loggers is suitable for many applications thanks to their design, stainless steel housing, IP68 protection degree.

Monitoring Fields

Pasteurization Processes
Sterilization Processes
Autoclave Monitoring
Retort Monitoring
Fresh Filled Pasta Monitoring
Pasta Drying Processes

Cooking
Bakerying
Cooling
Ovens
Smoke Houses

Compliance & Standards

Tecnosoft systems are compliant with the relevant standards and guidelines:

UNI EN 285	Sterilization - Steam sterilizers - Large sterilizers
HACCP	Hazard analysis and critical control points
FDA 21 CFR Part 11	US FDA regulations
BRC	British Retail Consortium regulations

Temperature, Pressure, Humidity: the data loggers

All loggers are supplied with a calibration certificate traceable to a national standard and have a user-replaceable battery.

	SterilDisk	S-Micro	S-Micro L	S-Micro XL	S-Radio	PressureDisk	RHTemp L	RHTemp XL
⬍	17,4 mm	14 mm	39 mm	64 mm	76 mm	43.22 mm	46 mm	71 mm
∅	36,5 mm	17 mm	17 mm	17 mm	30 mm	35 mm	18 mm	18 mm
Probe	No probe Rigid Flexible	Rigid	Rigid	Rigid	Rigid	Rigid radial	–	–
Battery Life	🔋	🔋	🔋	🔋	🔋	🔋	🔋	🔋

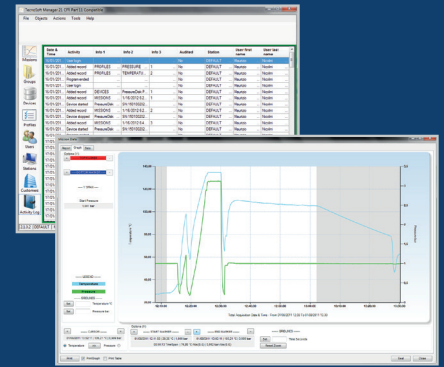|	SterilDisk	S-Micro	S-Micro L / XL	S-Radio	PressureDisk	RHTem 125 L/XL
Range	-20°C ÷ +140°C	Logger: 0°C ÷ +140°C Probe: 0°C ÷ +220°C	Logger: -40°C ÷ +140°C Probe: -40°C ÷ +220°C	-40°C ÷ +140°C	T: -40°C ÷ +140°C P: 0 bar ÷ 5 bar absolute	T: -40°C ÷ +125°C H: 0% ÷ 100% RH (not condensing)
Accuracy	± 0,2°C	± 0,1°C	± 0,1°C	± 0,1°C	T: ± 0,1°C P: ± 15 mbar	T: ± 0,2 °C (0 °C ÷ +60 °C) / ± 0,5 °C (-20 °C ÷ +125 °C) H: ± 1,8% RH (0% ÷ 85%) / ± 3% RH (85% ÷ 100%) @ 23°C
Risolution	0,01°C	0,01°C	0,01°C	0,01°C	0,02°C	T: 0,015 °C H: 0,02%

TS Manager
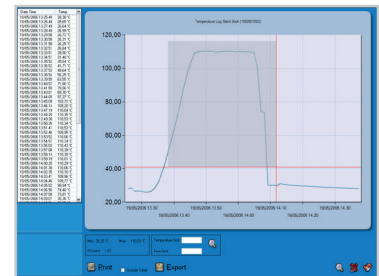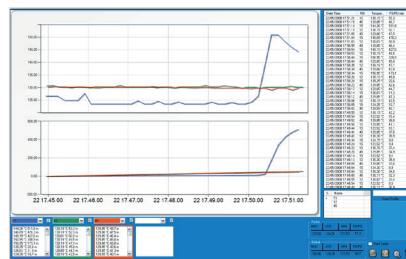## Validation software for autoclaves, compatible with **FDA regulation 21 CFR Part 11**

TS Manager is an advanced validation software developed following the guidelines of **21 CFR part 11 and GAMP**.

The software enables the user to collect, display and analyze validation data from all Tecnosoft devices for high temperatures, pressure and humidity and meets all the requirements necessary for validating autoclaves and processes in the food industry.

The intuitive interface of the software puts in your hands a powerful tool but at the same time very simple to use. Create your user database and the tools to be validated, create profiles of the validation processes to be analyzed, start your data loggers and then download and check all the data collected.

SPD

Data logger management software for high temperatures. It is simple to use, intuitive and flexible. The software can be downloaded from the Tecnosoft website and is included in the price of the reading bases.

Software Features

- Data management: Missions sorted by starting date and logger serial number
- Data display: Graph (with zoom) and table (exportable into Excel), markers for process start and end, printed report of all the data, Multigraph
- Customizable parameters: Acquisition step, mission duration, notes, Z and reference temperature value for lethality calculation (F0, PU, A0 etc.)

- Customizable Graphs : two or more missions can be displayed on a single graph by comparison
- Calculated parameters: Lethality (F0, PU, A0 etc.)
- Alarms: Local (acoustic and/or visual) on PC (for S-Radio only)
- Languages: English, Italian, German, French, Spanish, Japanese

Reporting & Data Analysis

SPD is simple to use, intuitive, flexible and full of options. Allows you to start the devices by setting acquisition rate, start delay, mission duration and notes. The data download is equally simple and fast and both the graph and the table are displayed. The **Multi-Graph** function is available to display more curves on the same graph. On the graph it is also possible to set vertical **markers** to highlight an area by recalculating the **lethality value** (F0, PU, A0 etc.) only on that portion. The lethality (F0, PU, A0 etc.) of the process is calculated to assess the **level of sterilization and pasteurization**. It is possible to customize the parameters, such as Z and the reference temperature, to calculate the lethality

depending on the process. The software also allows you to **print reports** complete with graph, table, mission data, instrument serial number used and any notes added by the operator. The battery status of the device used is also shown. SPD also supports **S-Radio wireless data loggers**. Through the USB Radio Receiver you can **receive data in real time**, see them in sequence, assign an alarm profile (on the temperature and lethality values to be reached) for each sensor and select up to 4 sensors (interchangeable at any time) of which display the graph of temperature and progressive lethality. Through the USB radio receiver you will be able to receive data in real time from your process.

Fittings & Accessories

DiskInterface HS

Computer USB reading base for downloading data and programming all models of high temperature & pressure data loggers.

DiskInterface HS Mini

Computer USB reading base for downloading data and programming for high temperature data loggers as SterilDisk, P-Micro, S-Micro.

Universal multibay

Multiple reading base allows to connect up to 5 data loggers to be programmed and downloaded simultaneously. Supports all models of high temperature, pressure and humidity loggers.

USB Radio Receiver

Radio Receiver for wireless datalogger, S-Radio connected to the PC via USB cable.

4-20 mA Receiver

4-20 mA Radio receiver for S-Radio connectedable to the machinery's PLC.

Autoclave Special Antenna

A special antenna to be inserted directly into the autoclave for optimal signal receiving. This antenna can be connected to any radio receiver instead of the standard antenna.

Heat Protections

Heat protections for applications above 140ºC, available for **S-Micro & S-Micro XL** models.

The heat protection extends the operating temperature range of the data logger, allowing it to be exposed to higher temperatures up to 220ºC for a certain time.

Accessories and Fastening systems

The success of the pasteurization and sterilization process is verified when the sensor is correctly positioned in the heart of the product. It is also very important that the sensors are positioned correctly in the point hot / cold depending on the process.
Tecnosoft has several fixing systems available to position the logger and to insert the sensors in any variety of food packaging.

Fastening system to fix the data logger probes to the closed packages

Applicable to cans, jars, cans, metal lids, bottle caps or any other container. It allows to insert the probes with the possibility to adjust the depth inside the containers to reach the heart of the product. With a single logger you can monitor different types of products and packages by adjusting the depth of the probe.

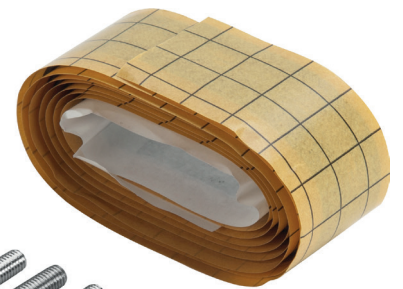### The complete fastening kit includes:

- Riveting tool
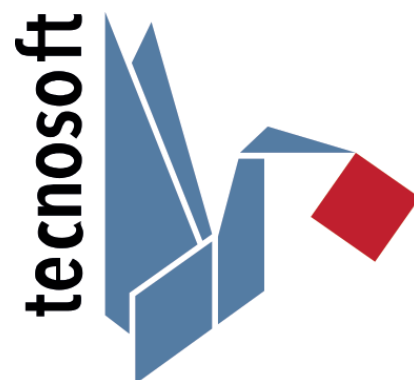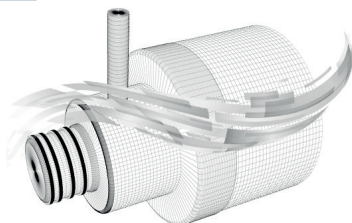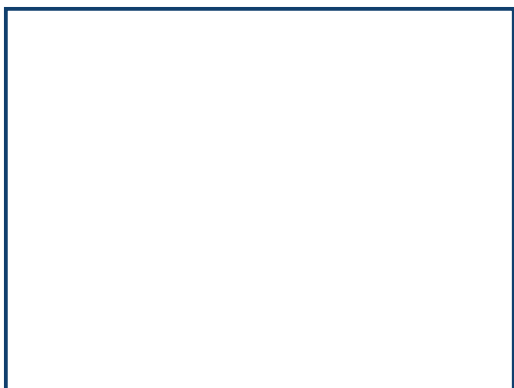- 20 M5 rivets
- 20 M8 rivets
- Locking bolt

Fixing Base

Internal fixing system for jars, jars, bottles, flasks and other types of packaging. Ideal for positioning the loggers inside the packages with different sets of spacers.

The kit consists of 10, 20, 30 and 40 mm long spacers and 1 meter of high temperature adhesive rubber. The two bases are screwed onto the threaded spacer and the rubber is applied to both, to fix the logger to a base and the other base to the wall, the bottom or the cap of the package. The adhesive rubber is easily removable, resistant to high temperatures and can also be used to fix the device directly to the package.

For Information Contact

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