



# AUTOCLAVE

Model: - FIDELS 300/500/700

## FEATURES

### SAVING THE SPACE

The main body is very compact owing to the design which provides thorough installation space saving. In addition, installation space at the side of the main body which is required for models employing a slide-open lid, which is not necessary at SX autoclaves top-open lid. Even when several SX autoclaves are installed side-by side, the necessary installation space is minimized.

### STERILIZING COURSE

The optimal sterilizing course can be selected from among five courses, such as the liquid sterilizing course in addition to that for normal sterilization.

1. **Liquid sterilizing course** - This is most appropriate course setting for prevention of sudden sample boiling.
2. **Sterilizing course** - Course for normal sterilization.
3. **Heating-warming course** - Extremely convenient for dissolving culture media and warming.
4. **Sterilizing-warming course** - Prevents culture media from coagulating after sterilization.
5. **Memory recall** - Preferred operating conditions can be recalled up easily.

### COOLING FAN FEATURE

A rapid air-cooling function (vessel-cooling fan) permitting reduction of chamber cool down time is provided as a standard feature. This is most appropriate for lowering the temperature rapidly on completion of the cycle. The time required for lower the temperature is much reduced by employment of the cooling fan in comparison with natural cooling.



## DISPLAY

The LED display shows working status for easy monitoring. The process being performed is indicated by an LED indication lamp blinking in red.

## TEMPERATURE

Variable temperature setting such as to 100 °C as well as to 121 °C has been made possible. The temperature can be set within the range from 45 °C to 135 °C in steps of one degree (heating mode up to 104 °C).



## AUTO- VARIABLE EXHUST SPEED

A function allowing the exhaust valve to open automatically after completion of sterilization is provided. The exhaust speed can be set to one of six levels (set to variable for liquid sterilization).

## PRESSURE

When the balance between the temperature and pressure deviates during sterilization, ne exhausting is carried out automatically in order to adjust the best chamber condition.

## LARGE INDICATION

An easily viewable large indication “Operated” is provided at the upper section of the operating panel. Depending on the pressure status (normal pressure/pressure is applied), the displayed color changes.

## LID INTERLOCK

A safety device (lid interlock mechanism) for locking the lid during operation is provided. A high level of safety is assured to prevent unanticipated accidents.

## TIMER FUNCTION

The operation starting time can be preset easily. By presetting the start of operation, otherwise wasted periods at night or early morning, can be used effectively

## WATER LEVEL

A safety device (water level detector) for preventing dry heating is provided. The device is designed to detect the water level through the micro electrolytes of the sterilizing water.

## FEATURE

- Fine pressure adjustment function
- Ion detector for water level detection
- Microprocessor for controlling temperature
- Standard equipped cooling fan (2 fans)
- Variable exhaust speed (6 levels)
- Operation start timer
- Built-in exhaust bottle (polypropylene)
- Compact design
- Low working table
- Flat internal surface of the chamber
- Top-open lid
- Foot pedal to open lid
- Intuitive display with work monitor
- Operation indication lamp
- Liquid sterilizing course selectable

## FUNCTIONS

- Liquid sterilizing
- Heating
- Warming
- Last-run memory
- Lid opening/closing detection mechanism
- Exhaust bottle detection mechanism

## OPTION

**External sensor for the articles to be sterilized:** - Sensor for directly detecting the temperature of articles to be sterilized. More reliable sterilization monitor can be carried out.

**Data output:** - The temperature data, pressure data, etc. can be exported. The temperature can be recorded when the external recorder is connected.

**External sensor and recorder:** - A temperature sensor and recorder independent of the autoclaves. The chamber temperature can be recorded.

**Printer:** - Operating parameters, chamber temperature, chamber pressure, temperature for articles to be sterilized, and sterilization cycle process can be printed.

## SPECIFICATION

| Model                       | FIDELS 300                    | FIDELS 500 | FIDELS 700 |
|-----------------------------|-------------------------------|------------|------------|
| Operating temperature range | 105~140°C (0.019MPa~0.212MPa) |            |            |
| Sterilizing                 |                               |            |            |
| Heating                     | 45~105°C (0~0.015MPa)         |            |            |
| Warming                     | 45~100°C                      |            |            |
| Maximum operating pressure  | 0.263MPa                      |            | 0.25MPa    |
| Temperature                 | Digital                       |            |            |

|                                      |  |  |  |
|--------------------------------------|--|--|--|
| Display                              |  |  |  |
| Pressure gauge Display               | Analog   |  |  |
| Display range                        | 0~0.4MPa   |  |  |
| Heat source                          | 1.5 kW electric heater   | 2.0 kW electric heater                       | 3.0kW electric heater                        |
| Safety device                        | • Water level sensor • Current leakage breaker • Lid interlock • Over-heat prevention<br>• Over-pressure prevention • Open temperature sensor detection • Safety valve   |  |  |
| Time Display                         | Digital  |  |  |
| Setting range                        | 0:01~9:59/1~99 hours/1~999 minutes/0:01~9:59, 10~99 hours (selectable)   |  |  |
| Sterilizing                          |  |  |  |
| Heating                              |  |  |  |
| Warming                              | 1~99 hours   |  |  |
| Chamber dimensions                   | φ325×553mm   | φ325×733mm                                   | φ370×774mm                                   |
| Effective diameter × Effective depth | φ315×458mm   | φ315×638mm                                   | φ360×675mm                                   |
| Chamber capacity                     | Internal volume of the chamber: 44 L   | Internal volume of the chamber: 58 L         | Internal volume of the chamber: 80 L         |
| Chamber material                     | SUS304   |  |  |
| Dimensions (mm)                      | 410W、477D、790H (With projection: 574 D)  | 410W、477D、970H (With projection: 574 D)      | 470W、528D、1003H (With projection: 625 D)     |
| Weight                               | 50kg   | 60kg   | 75kg   |
| Rated voltage                        | 120V AC  |  | —  |
|                                      | 230V AC  |  | —  |
| Power input                          | 13A/120V   | 17A/120V                                     | —  |
|                                      | 7A/230V  | 9A/230V                                      | 16A/230V                                     |
| Required power supply                | Single-phase 120 V AC (50/60 Hz) 15 A or more  | Single-phase 120 V AC (50/60 Hz) 20A or mor  | —  |
|                                      | Single-phase 230 V AC (50/60 Hz) 10 A or more  | Single-phase 230 V AC (50/60 Hz) 15A or more | Single-phase 230 V AC (50/60 Hz) 15A or more |
| Power consumption (caloric power)    | 1.5kW (1290kcal/h)   | 2kW (1720kcal/h)                             | 3kW (2580kcal/h)                             |
| Environmental Conditions             | When operating the autoclave, observe the environmental conditions given below.<br>Ambient temperature: 10 to 35°C<br>Atmospheric pressure: 860 to 1060hPa<br>Relative humidity: 30 to 85%<br>Maximum gradient: 2° |  |  |
| Accessories                          | Stainless basket (φ300 x181 mm) 1  | Stainless baskets (φ300 x 181 mm) 2          | Stainless baskets (φ345×181mm) 2             |
|                                      | Chamber bottom plate 1, Caster stoppers 4, Operation manual 1, Clear folder (for storing the operation manual) 1, Screw (for attaching the clear folder) 1, Digital Warranty Information 1, Inspection sheet 1     |  |  |



# FIDELS SCIENCE

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