

# Autoclaves (Vertical Type)

Microprocessor control with reliable safety functions guarantees optimum sterilization temperature.



## ST-65G

**Standard accessories** • Baskets (2ea), Heater cover, Exhaust tank, Drain bucket

**Optional accessories** • Pressure sensor, Recorder  
see page 11

### Performance

- Microprocessor controller and temperature calibration function allows for high precision temperature control.
  - Sterilization temperature at 110 to 123°C
  - Melting\* temperature at 60 to 100°C
  - \* Liquefaction of coagulated agar media.
- Automatic sterilization system for unattended operation.
  - Heating > Check safe > Sterilization > Sterilization safe > Exhausting > End

- Convenient operation modes for various uses.
  - Standard modes and program modes are listed in detail as below tables.
- Temperature calibration function.

| Standard modes        | Temp. (°C) | Time (min.) |
|-----------------------|------------|-------------|
| Decontamination       | 121        | 35          |
| Solids sterilization  | 121        | 20          |
| Liquids sterilization | 121        | 15          |
| Melting               | 100        | 30          |

| Program modes        | Temp. (°C) | Time (min.) |
|----------------------|------------|-------------|
| Sterilization 1      | 110 to 123 | 1 to 999    |
| Sterilization 2      | 110 to 123 | 1 to 999    |
| Liquid sterilization | 110 to 123 | 1 to 999    |
| Melting              | 60 to 100  | 1 to 999    |



## Convenience

- Conveniently monitored by an independent control display, sterilization process display, and pressure gauge.
- VFD for visualization of temp, pressure (optional), timer, warning alert checks.
- LED lamps for sterilization process check.
- Easy pressure check with the standard gauge attached to the front.
- Vertical type autoclaves which allow for top loading are suitable for high volume sterilization.
- Baskets are stackable two high or even more levels, which secure inside the chamber space requirements.
- Low-maintenance
  - The chamber is constructed of stainless steel which is superiorly resistant to corrosion.
  - Easy to replace silicone gasket.
- Convenient documentation with the optional data recorder.
  - Dot type recorder(6 point) allows for precise documentation.

## Safety

- Mechanical safety devices
  - Over current protection.
  - Over temperature protection by automatic power cutoff.
  - Over pressure protection by automatic and manual safety valve.
- Safety warning systems
  - Over temperature warning.
  - Low temperature warning.
  - Low water level warning.
  - Low heat warning if the temperature does not reach the sterilization or melting temperature.
  - Sterilization fail warning if the operation is unexpectedly stopped during sterilization process.
- Slide opening door with plastic cover of low thermal conductivity prevents burns from the contact.

| Model                                      |  | ST-50G  | ST-65G                       | ST-85G                        |
|--|--|---|------------------------------|-------------------------------|
| Control                                    |  | Microprocessor PID control  |                              |                               |
| Chamber volume (L / cu ft)                 |  | 50 / 1.8  | 65 / 2.3                     | 85 / 3.0                      |
| Temperature <sup>1)</sup>                  | Sterilization temp. (°C / °F)                  | 110 to 123 / 198 to 221.4   |                              |                               |
|  | Melting temp. (°C / °F)                        | 60 to 100 / 108 to 180  |                              |                               |
| Pressure                                   | Sterilization at 121 °C (kg/cm <sup>2</sup> )  | 1.1 to 1.2  |                              |                               |
|  | Gauge range in analog (Mpa)                    | - 0.1 to 0.6  |                              |                               |
| Safety                                     |  | Over temperature protector / Pressure safety valve / Over current protector<br>Warning alert (over temp. / low temp. / low heat / sterilization fail / low water level) |                              |                               |
| Timer                                      |  | 0 to 999 min.   |                              |                               |
| Dimension                                  | No. of baskets (standard / max.)               | 2 / 2   | 2 / 2                        | 2 / 2                         |
|  | Load per baskets (Kg / lbs)                    | 10 / 22.0   |                              |                               |
|  | Basket (ØxH) (mm / inch)                       | 380x180 / 14.9x7.1  | 380x230 / 14.9x9.1           | 380x330 / 14.9x13.0           |
|  | Interior (WxDxH) (mm / inch)                   | 400x458 / 15.7x18.0   | 400x558 / 15.7x21.9          | 400x758 / 15.7x29.8           |
|  | Exterior (WxDxH) (mm / inch)                   | 624x672x870 / 24.6x26.5x34.2  | 624x672x971 / 24.6x26.5x38.2 | 624x672x1083 / 24.6x26.5x42.6 |
|  | Exterior with exhaust tank (WxDxH) (mm / inch) | 722x672x870 / 28.4x26.5x34.2  | 722x672x971 / 28.4x26.5x38.2 | 722x672x1083 / 28.4x26.5x42.6 |
| Net weight (Kg / lbs)                      |  | 94.5 / 208.3  | 99.5 / 219.4                 | 104 / 229.3                   |
| Electrical requirements (230V, 50 / 60 Hz) |  | 14.3A   |                              | 14.3A                         |
| Cat. No.                                   |  | <b>AAHL1015K</b>  | <b>AAHL1025K</b>             | <b>AAHL1035K</b>              |

1) Technical data according to EN 554 / BS EN 285:1997.

\* Permissible environmental conditions: temperature (5-40 °C) and relative humidity (10-80%).

\* FDA establishment registered company. FDA listed products.

| Max. Loading Capacity of Erlenmeyer Flask |                     |                     |                     |
|---|---------------------|---------------------|---------------------|
| Capacity ml, (O.D.xH, mm)                 | ST-50G (ea x floor) | ST-65G (ea x floor) | ST-85G (ea x floor) |
| 250 (82x132)                              | 14x3                | 14x4                | 14x5                |
| 500 (101x176)                             | 14x3                | 8x3                 | 8x4                 |
| 1000 (129x216)                            | 5x2                 | 5x2                 | 5x3                 |
| 2000 (160x268)                            | 3x1                 | 3x2                 | 3x2                 |

| Max. Loading Capacity of Media Bottle |                     |                     |                     |
|---------------------------------------|---------------------|---------------------|---------------------|
| Capacity ml, (O.D.xH, mm)             | ST-50G (ea x floor) | ST-65G (ea x floor) | ST-85G (ea x floor) |
| 250 (70x143)                          | 20x3                | 20x3                | 20x5                |
| 500 (86x181)                          | 14x2                | 14x3                | 14x4                |
| 1000 (101x230)                        | 8x1                 | 8x2                 | 8x3                 |
| 2000 (136x265)                        | 5x1                 | 5x1                 | 5x2                 |

## Accessories & Options

| Cat. No.        | Description   | Suitable for |
|-----------------|---|--------------|
| <b>AAAL1501</b> | Recorder set;<br>Recorder (dot type, 6 point) & Temp. sensor (double) | All models   |
| <b>AAAL1511</b> | Pressure sensor (0~3.5 bar)   | All models   |

| Cat. No.        | Description                          | Suitable for |
|-----------------|--------------------------------------|--------------|
| <b>ATC0002</b>  | Basket (stainless steel, Ø380x180mm) | ST-50G       |
| <b>ATC0003</b>  | Basket (stainless steel, Ø380x230mm) | ST-65G       |
| <b>ATC0004</b>  | Basket (stainless steel, Ø380x330mm) | ST-85G       |
| <b>AAAL1521</b> | Exhaust Tank                         | All models   |
| <b>ATC0091</b>  | Drain Bucket (490x291x107mm)         | All models   |