SAP are automatic pressure control autoclaves. Its advantage lies in its product line diversity and flexible options to make the right match and perfect fit for your organization.







#### Features

#### **SAP Series**

- Independent steam generator
- Cycle progress indicator light
- Easily accessible emergency stop button
- Special liquid program
- Emergency button
- Cylindrical chamber volume: 100, 143, 196, 350 (L)
- Square Chamber volume: 110, 260, 454, 680, 848 (L)

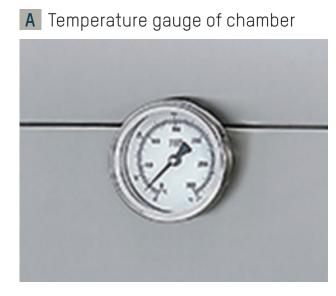


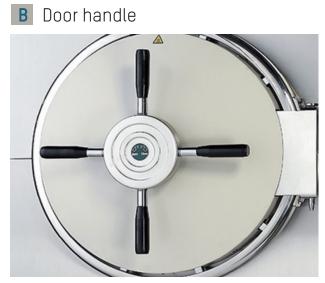




#### SAP Series External View : Loading door

#### SAP





**C** It can change into square door.





Α



SAP Series External View : Unloading door

#### SAP SERIES WITH DOUBLE DOOR- SAP-400D/450D /500D /600D SAP-S0110D/S0260D/S0454D/S0680D/S0848D

- A Door handle
- **B** It can change into square door.



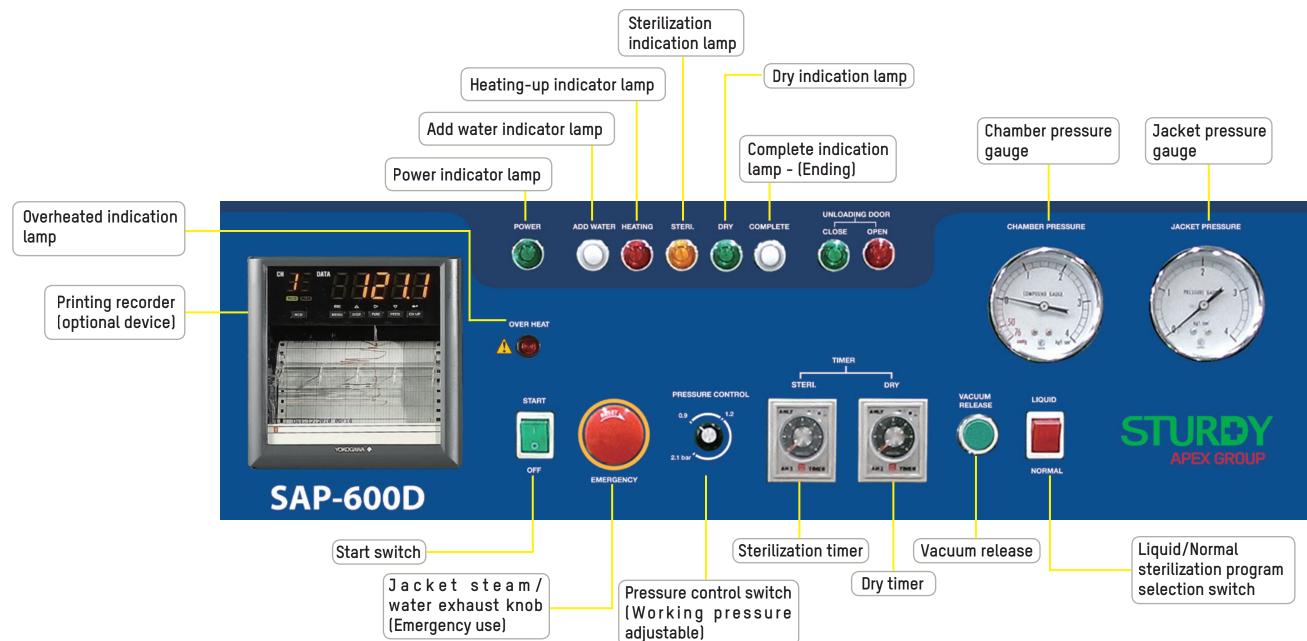


Reliable Sterilization Partner



STURDY APEX GROUP

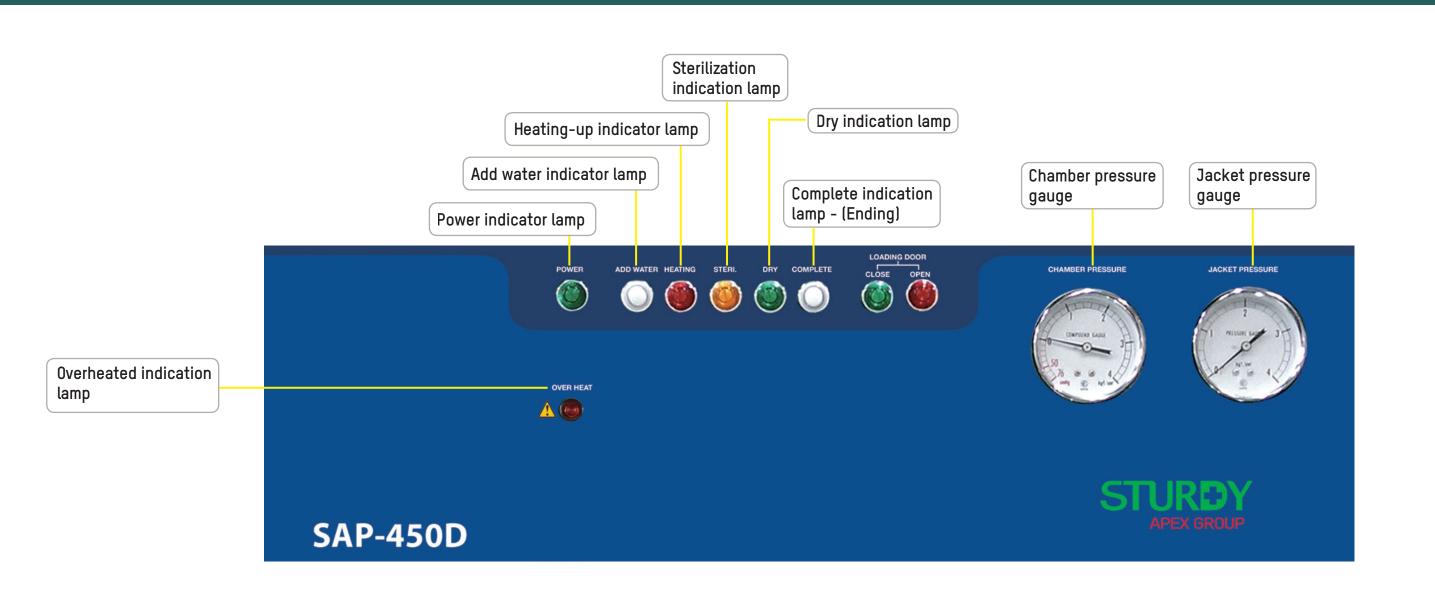
SAP Series Control Panel : Loading door







SAP Series Control Panel : Unloading door







#### Certifications

Sturdy is manufactured in compliance with the following directives and standards:

#### ■ 93/42/EEC

- Class IIB (European Directive for Medical Devices)
- 2014/68/EU (Pressure Equipment Directive)
- EN 285 (Large Steam Sterilizers),
- EN 13060 (Small Steam Sterilizers)
- EN 61010-1/-2-040 (Safety Requirements for Electrical Equipment for Measurement
- Control And Laboratory Use Part 1 and Part 2)
- EN 61326-1 (Electrical Equipment for Measurement
- Control And Laboratory Use EMC Requirements Part 1: General Requirements)
- ISO 13485 (Quality Management/Certification)





### SAP Series Specifications

| SPEC/Model NO.           | SAP-400       | SAP-450       | SAP-500       | SAP-600       | SAP-S0110         | SAP-S0260        | SAP-S0454        | SAP-S0680        | SAP-S0848        |
|--------------------------|---------------|---------------|---------------|---------------|-------------------|------------------|------------------|------------------|------------------|
| Chamber Capacity (L)     | 100           | 143           | 196           | 350           | 110               | 260              | 454              | 680              | 848              |
| Chamber Size             |               |               | F00 y 1000    | 610 y 1000    |                   | F10 y F10 y 1000 | 610 y 610 y 1000 |                  |                  |
| Diam x Depth (mm)        | 400 x 800     | 450 x 900     | 500 x 1000    | 610 x 1200    | 410 x 410 x 660   | 510 x 510 x 1000 | 610 x 610 x 1220 | 610 x 915 x 1220 | 610 x 915 x 1520 |
| Overall Dimensions       |               |               |               |               |                   |                  |                  |                  |                  |
| W x H x D (mm)           | 800x1800x1150 | 800x1800x1250 | 800x1800x1350 | 900x1800x1550 | 950x1800x1350     | 950x1800x1450    | 1050x1800x1650   | 1740x2060x1960   | 1740x2100x2300   |
| Voltage (V)              |               |               |               | 230           | )/380(Mono/Tri ph | ase)             |                  |                  |                  |
| Heater (KW)              |               | 7             | 9             | 12            | 9                 | 12               | 15 x 2           | 15 x 2           | 16 x 2           |
| Water Fill *             |               | Piped         |               |               |                   |                  |                  |                  |                  |
| Chamber Type             |               | Cylin         | drical        |               | Square            |                  |                  |                  |                  |
| Pressure Option (bar)    | 0.9-2.1       |               |               |               |                   |                  |                  |                  |                  |
| Selectable Sterilization |               |               |               |               |                   |                  |                  |                  |                  |
| Timer                    |               | 0-60 min.     |               |               |                   |                  |                  |                  |                  |
| Selectable Dry Timer     |               |               |               |               | 0-60 min.         |                  |                  |                  |                  |
| Digital Printer          |               |               |               |               | N/A               |                  |                  |                  |                  |
| 6-Point Temp             |               |               |               |               |                   |                  |                  |                  |                  |
| Sensor Recorder          |               | 0             |               |               |                   |                  |                  |                  |                  |
| 1-Point Temp             |               | 0             |               |               |                   |                  |                  |                  |                  |
| Sensor Recorder          |               |               |               |               | 0                 |                  |                  |                  |                  |
| Liquid                   |               |               |               |               | S                 |                  |                  |                  |                  |

\* "Piped" - uses local water plumbing with auto-fill.





### SAP Series (With Double Door) Specifications

| SPEC/Model NO.           | SAP-400D      | SAP-450D      | SAP-500D      | SAP-600D      | SAP-S0110D        | SAP-S0260D       | SAP-S0454D       | SAP-S0680D       | SAP-S0848D       |  |
|--------------------------|---------------|---------------|---------------|---------------|-------------------|------------------|------------------|------------------|------------------|--|
| Chamber Capacity (L)     | 100           | 143           | 196           | 350           | 110               | 260              | 454              | 680              | 848              |  |
| Chamber Size             |               |               | E00 y 1000    | 610 x 1200    |                   | E10 y E10 y 1000 | 610 x 610 x 1220 | C10 y 01E y 1220 | 610 y 015 y 1520 |  |
| Diam x Depth (mm)        | 400 x 800     | 450 x 900     | 500 x 1000    | 010 X 1200    | 410 x 410 x 660   | 510 x 510 x 1000 | 010 X 010 X 1220 | 610 x 915 x 1220 | 610 x 915 x 1520 |  |
| Overall Dimensions       |               |               |               |               |                   |                  |                  |                  |                  |  |
| W x H x D (mm)           | 800x1700x1200 | 800x1700x1300 | 800x1700x1350 | 900x1800x1540 | 850x1710x1110     | 1025x1795x1480   | 1170x1850x1800   | 1740x2073x1810   | 1740x2073x2130   |  |
| Voltage (V)              |               |               |               | 230           | )/380(Mono/Tri ph | ase)             |                  |                  |                  |  |
| Heater (KW)              | -             | 7 9 12        |               |               |                   | 12               | 15 x 2           | 15 x 2           | 16 x 2           |  |
| Water Fill *             |               | Piped         |               |               |                   |                  |                  |                  |                  |  |
| Chamber Type             |               | Cylin         | drical        |               | Square            |                  |                  |                  |                  |  |
| Pressure Option (bar)    |               | 0.9-2.1       |               |               |                   |                  |                  |                  |                  |  |
| Selectable Sterilization |               | 0.60 min      |               |               |                   |                  |                  |                  |                  |  |
| Timer                    |               | 0-60 min.     |               |               |                   |                  |                  |                  |                  |  |
| Selectable Dry Timer     |               |               |               |               | 0-60 min.         |                  |                  |                  |                  |  |
| Digital Printer          |               |               |               |               | N/A               |                  |                  |                  |                  |  |
| 6-Point Temp             |               |               |               |               |                   |                  |                  |                  |                  |  |
| Sensor Recorder          |               | 0             |               |               |                   |                  |                  |                  |                  |  |
| 1-Point Temp             |               | 0             |               |               |                   |                  |                  |                  |                  |  |
| Sensor Recorder          |               |               |               |               | U                 |                  |                  |                  |                  |  |
| Liquid                   |               |               |               |               | S                 |                  |                  |                  |                  |  |

\* "Piped" - uses local water plumbing with auto-fill.





#### SAP Series Specifications

| SPEC/Model NO.         | SAP-400 | SAP-450 | SAP-500 | SAP-600 | SAP-S0110 | SAP-S0260 | SA |
|------------------------|---------|---------|---------|---------|-----------|-----------|----|
| Temperature Indicator  |         |         |         |         | Gauge     |           |    |
| Pressure Indicator *2  |         |         |         |         | Gauge     |           |    |
| Progress Indicator     |         |         |         |         | 0         |           |    |
| (bar or lights)        |         |         |         |         | S         |           |    |
| Power Indicator        |         |         |         |         | S         |           |    |
| Pressure Auto Lock     |         |         |         |         | 0         |           |    |
| Reset                  |         |         |         |         | S         |           |    |
| Standby * <sup>3</sup> |         |         |         |         | N/A       |           |    |
| Program Selector       |         |         |         |         | S         |           |    |
| Pre-Vacuum             |         |         |         |         | N/A       |           |    |
| Post Dry Vacuum        |         |         |         |         | 0         |           |    |
| Water Pump             |         |         |         |         | 0         |           |    |
|                        |         |         |         |         |           |           |    |

Note: "S" - Standard configuration. "0" - Optional configuration.

\*<sup>2</sup> "Gauge" - Includes both Jacket and Chamber pressure gauges.

\*<sup>3</sup> "Standby" - Allows the Big Autoclave to maintain jacket temperatures betweeen sterilization sessions.

Other notes:

- Standard Chamber / Jacket / Door / Housing are made of Stainless Steel#304. #316 Stainless steel optionally avaiable for Chamber / Jacket / Door.

- Heater material is Stainless Steel #316.
- Standard Accessories: Tray\*1, Glass Viewer Tube \* 2
- Optional Accessories: Trolley / Plate Set / Basket
- Sturdy also offers customized sizes up to 2000 L.

|          |           |           | B |
|----------|-----------|-----------|---|
|          |           |           |   |
|          |           |           | _ |
| AP-S0454 | SAP-S0680 | SAP-S0848 |   |
|          |           |           |   |
|          |           |           |   |
|          |           |           |   |
|          |           |           |   |
|          |           |           |   |
|          |           |           |   |
|          |           |           |   |
|          |           |           | _ |



SAP Series (With Double Door) Specifications

| SPEC/Model NO.                        | SAP-400D | SAP-450D | SAP-500D | SAP-600D | SAP-S0110D | SAP-S0260D | SAF |
|---------------------------------------|----------|----------|----------|----------|------------|------------|-----|
| Temperature Indicator                 |          |          |          |          | Gauge      |            |     |
| Pressure Indicator *2                 |          |          |          |          | Gauge      |            |     |
| Progress Indicator<br>(bar or lights) |          |          |          |          | S          |            |     |
| Power Indicator                       |          |          |          |          | S          |            |     |
| Pressure Auto Lock                    |          |          |          |          | 0          |            |     |
| Reset                                 |          |          |          |          | S          |            |     |
| Standby * <sup>3</sup>                |          |          |          |          | N/A        |            |     |
| Program Selector                      |          |          |          |          | S          |            |     |
| Pre-Vacuum                            |          |          |          |          | N/A        |            |     |
| Post Dry Vacuum                       |          |          |          |          | 0          |            |     |
| Water Pump                            |          |          |          |          | 0          |            |     |

Note: "S" - Standard configuration. "0" - Optional configuration.

\*<sup>2</sup> "Gauge" - Includes both Jacket and Chamber pressure gauges.

\*<sup>3</sup> "Standby" - Allows the Big Autoclave to maintain jacket temperatures betweeen sterilization sessions.

Other notes:

- Standard Chamber / Jacket / Door / Housing are made of Stainless Steel#304. #316 Stainless steel optionally avaiable for Chamber / Jacket / Door.

- Heater material is Stainless Steel #316.
- Standard Accessories: Tray\*1, Glass Viewer Tube \* 2
- Optional Accessories: Trolley / Plate Set / Basket
- Sturdy also offers customized sizes up to 2000 L.

| AP-S0454D | SAP-S0680D | SAP-S0848D |   |
|-----------|------------|------------|---|
|           |            |            |   |
|           |            |            |   |
|           |            |            |   |
|           |            |            |   |
|           |            |            |   |
|           |            |            |   |
|           |            |            | _ |



# **SAT Series**

#### Comparison Table - Floor Stand Series Feature Comparison

| Model NO.<br>Specification      | HP                  | SAT         | SAP  | Pointer-Auto          | Pointer-Manual              |  |
|---------------------------------|---------------------|-------------|--|-----------------------|-----------------------------|--|
| Control System                  | Digital Temp. PL    | C Control   | Mechanical Pressure Control<br>Optional: (T) for Digital Temp. Control | Mechanical P          | Mechanical Pressure Control |  |
| Program for selection           |                     | Yes         |  | ٨                     |                             |  |
| Wrapped/Unwrapped/Liquid        |                     | 165         |  | N/                    |                             |  |
| Air Removal                     | Vacuum P            | ump         |  | Gravity               |                             |  |
| Pre-Vacuum Function             | Yes                 |             |  | N/A                   |                             |  |
| Post(Dry)-Vacuum Function       | Yes                 |             | Optional (V)   |                       | N/A                         |  |
| Dry function                    |                     |             | Yes (Auto)   |                       |                             |  |
| Printer & USB storage           | Yes                 | N/A         |  |                       |                             |  |
| 1-point temp. recorder          | N/A                 | Yes         | Optional (X)   | N/A                   |                             |  |
| 6-point temp. recorder          | N/A                 |             | Optional (Y)   | N/A                   |                             |  |
| Double Door                     |                     | Optional (E | )]   | N/A                   |                             |  |
| Fill water system*              |                     | Auto        |  | Manual                | Manual                      |  |
| (Water pressure 2 bar required) |                     | Auto        | )  | Optional (B) for auto | Manual                      |  |
| Chamber/Jacket                  |                     |             | Causa  |                       |                             |  |
| Pressure display                | Gauge / LCD Display |             | Gauge  |                       |                             |  |
| Stand-by Switch                 | Yes                 |             |  | N/A                   |                             |  |
| Emergency/Reset Switch          |                     | Yes         |  |                       |                             |  |
| Add-Water Pump                  |                     | Optiona     | al (W)   | Optional (BW)         | N/A                         |  |
| Water level Protection          |                     |             | Yes  | Yes Optional (L)      |                             |  |
| Pressure door auto-lock         | Yes                 |             | Optional (K)   |                       |                             |  |

Option Codes (e.g. Optional (V)) listed in the table above are only reference codes used by other documentation.





# **SAT Series**

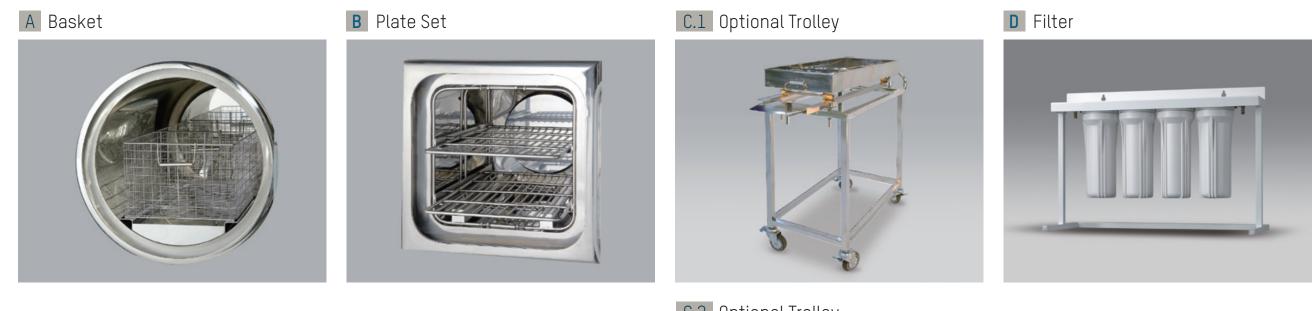
**Optional Codes** 

Option Codes (e.g. Optional (V)) listed in the table above are only reference codes used by other documentation. B: AUTO-ADD WATER PLUMBING (WATER PRESSURE OF 2 BARS REQUIRED) D: DOUBLE DOOR DEVICE K: PRESSURE DOOR AUTO-LOCK DEVICE L: WATER LEVEL CONTROLLER (LOW WATER INDICATOR) T: DIGITAL DISPLAYED TEMP. CONTROLLER V: DRY VACUUM PUMP W: ADD WATER PUMP X: 1-POINT TEMP. RECORDER Y: 6-POINT TEMP. RECORDER





#### Accessories



C.2 Optional Trolley





