

Robustness and Sealing.
A design philosophy that
sustains quality.

What an incubator needs, in order to nurture cell,
is a continuously secure environment.
The foundation of that environment lies in
robustness and airtight sealing.

ASTEC eliminates unnecessary gaps to reduce
gas consumption, achieving a structure that is
thin, yet strong through rib processing.
Advanced simulations further enable highly
precise designs to be realized in a short
timeframe.

Products born from this process ensure stable
humidity control and reduce the risk of
contamination, promising unwavering quality that
passes the strictest inspection standards.

This robustness and sealing serve as a quiet
strength that supports the skills of embryologists.

With that strength, ASTEC delivers a reliable
environment that supports the potential of cell and
connects it to the future.

SCA/SMA series | Specification

CO₂ Incubator / 30L

	SCA-30DRS
External Dimensions (WxDxH)	W415 x D486 x H546 (mm)
Chamber Dimensions (WxDxH)	W310 x D295 x H330 (mm)
Chamber capacity	30L
Shelves	W252 x D297 x H8(mm) Standard 2 shelves / Max 3 shelves
Temp. Range	Ambient+5°C ~ 50.0°C
Temp. accuracy	±0.1°C
Temp. Uniformity	±0.3°C
Dry heat Sterilization	60°C to 140°C
Dry heat Sterilization time	0.5 ~ 10 hours
CO ₂ Sensor	Infra Red
CO ₂ range	0 ~ 20%
CO ₂ accuracy	±0.1°C
O ₂	N/A
O ₂ range	N/A
O ₂ accuracy	N/A
Humidity	95%±0.4°CRH by Natural evaporation
Weight	36kg
Power	AC100/115/230V 50/60Hz

CO₂ Incubator / 80L

	SCA-80DRS	SCA-80D
CO ₂ Sensor	Infra-Red	T/C
Ex Dimensions (WxDxH)	533 x 506 x 760 (mm) / 20.0 x 19.9 x 29.9 (Inches)	533 x 506 x 760 (mm) / 20.0 x 19.9 x 29.9 (Inches)
Int. Dimensions (WxDxH)	418 x 377 x 510 (mm) / 16.4 x 14.8 x 20.0 (Inches)	418 x 377 x 510 (mm) / 16.4 x 14.8 x 20.0 (Inches)
Shelves	4 shelves (Standard) / Max 13 shelves	4 shelves (Standard) / Max 13 shelves
Shelf material	Stainless Steel	Stainless Steel
Access port	Standard / upper right side in the back	Standard / upper right side in the back
Temp. Range	5°C above ambient to 50°C	5°C above ambient to 50°C
Temp. Uniformity	±0.3°C	±0.3°C
Dry Sterilization	60°C to 140°C	N/A
CO ₂ range	0%~20.0%	0%~20.0%
CO ₂ accuracy	±0.1%	±0.1%
Humidity	95%±3% by natural evaporation	95%±3% by natural evaporation
Weight	63kg	63kg
Power	AC100V / 110-120V / 220-240V	AC100V / 110-120V / 220-240V

CO₂ Incubator / 165L

	SCA-165DRS	SCA-165D
CO ₂ Sensor	Infra-Red	T/C
Ex Dimensions (WxDxH)	625 x 635 x 915 (mm) / 24.6 x 25.0 x 36.0 (Inches)	625 x 635 x 915 (mm) / 24.6 x 25.0 x 36.0 (Inches)
Int. Dimensions (WxDxH)	510 x 500 x 640 (mm) / 20.0 x 19.6 x 25.2 (Inches)	510 x 500 x 640 (mm) / 20.0 x 19.6 x 25.2 (Inches)
Shelves	4 shelves (Standard) / Max 19 shelves	4 shelves (Standard) / Max 19 shelves
Shelf material	Stainless Steel	Stainless Steel
Access port	Standard / upper right side in the back	Standard / upper right side in the back
Temp. Range	5°C above ambient to 50°C	5°C above ambient to 50°C
Temp. Uniformity	±0.3°C	±0.3°C
Dry Sterilization	60°C to 140°C	N/A
CO ₂ range	0%~20.0%	0%~20.0%
CO ₂ accuracy	±0.1%	±0.1%
Humidity	95%±3% by natural evaporation	95%±3% by natural evaporation
Weight	85kg	80kg
Power	AC100V / 110-120V / 220-240V	AC100V / 110-120V / 220-240V

Tri Gas Incubator / 30L

	SMA-30DRS
External Dimensions (WxDxH)	W415 x D486 x H546 (mm)
Chamber Dimensions (WxDxH)	W310 x D295 x H330 (mm)
Chamber capacity	30L
Shelves	W252 x D297 x H8(mm) Standard 2 shelves / Max 3 shelves
Temp. Range	Ambient+5°C ~ 50.0°C
Temp. accuracy	±0.1°C
Temp. Uniformity	±0.3°C
Dry heat Sterilization	60°C to 140°C
Dry heat Sterilization time	0.5 ~ 10 hours
CO ₂ Sensor	Infra Red
CO ₂ range	0 ~ 20%
CO ₂ accuracy	±0.1°C
O ₂	Galvanic battery
O ₂ range	2% ~ 89%
O ₂ accuracy	±0.5°C
Humidity	95%±0.4°CRH by Natural evaporation
Weight	36kg
Power	AC100/115/230V 50/60Hz

Tri Gas Incubator / 80L

	SMA-80DRS
CO ₂ Sensor	Infra-Red
O ₂ Sensor	Galvanic battery sensor
Ex Dimensions (WxDxH)	533 x 506 x 760 (mm) / 20.0 x 19.9 x 29.9 (Inches)
Int. Dimensions (WxDxH)	418 x 377 x 510 (mm) / 16.4 x 14.8 x 20.0 (Inches)
Shelves	4 shelves (Standard) / Max 13 shelves
Shelf material	Stainless Steel
Access port	Standard / upper right side in the back
Temp. Range	5°C above ambient to 50°C
Temp. Uniformity	±0.3°C
Dry Sterilization	60°C to 140°C
CO ₂ range	0%~20.0%
CO ₂ accuracy	±0.1%
O ₂ range	2.0%~80.0%
O ₂ accuracy	±0.5%
Humidity	95%±3% by natural evaporation
Weight	63kg
Power	AC100V / 110-120V / 220-240V

Tri Gas Incubator / 165L

	SMA-165DRS
CO ₂ Sensor	Infra-Red
O ₂ Sensor	Galvanic battery sensor
Ex Dimensions (WxDxH)	625 x 635 x 915 (mm) / 24.6 x 25.0 x 36.0 (Inches)
Int. Dimensions (WxDxH)	510 x 500 x 640 (mm) / 20.0 x 19.6 x 25.2 (Inches)
Shelves	4 shelves (Standard) / Max 19 shelves
Shelf material	Stainless Steel
Access port	Standard / upper right side in the back
Temp. Range	5°C above ambient to 50°C
Temp. Uniformity	±0.3°C
Dry Sterilization	60°C to 140°C
CO ₂ range	0%~20.0%
CO ₂ accuracy	±0.1%
O ₂ range	2.0%~80.0%
O ₂ accuracy	±0.5%
Humidity	95%±3% by natural evaporation
Weight	85kg
Power	AC100V / 110-120V / 220-240V

Direct Heat Incubator

SCA/SMA

series



01 Culture Stability

Blocking Outside Air, Protecting the Environment

The small-door structure minimizes outside air inflow, suppressing fluctuations in temperature, humidity, and gas concentrations (CO₂/O₂). Sensors maintain accuracy through automatic calibration every 7–10 days, ensuring a consistently stable environment. In addition, a monitoring port allows gas levels inside the chamber to be measured without opening the outer door, reducing stress on cells and embryos.

High operational efficiency

small door / multi-level door

Visibility and accuracy

easy-to-read display, automatic sensor calibration

Environmental gas monitoring port

gas measurement from outside



02 Cleanliness & Sterilization Capability

Maintaining Cleanliness, Ensuring Sterilization

Constructed with highly corrosion-resistant 304 stainless steel (polished finish), the interior components can be easily removed without tools, making cleaning simple and efficient. The chamber is designed with rounded corners to prevent residue buildup. Furthermore, dry-heat sterilization is possible without removing the glass inner door, enhancing workflow efficiency while minimizing the risk of contamination.



Cleanliness and easy maintenance

304 stainless steel, tool-free removable parts

High operational efficiency

rounded chamber interior

Dry heat sterilization

sterilization possible without removing the inner door



03 User-Driven Features & Flexibility

Ease of Use Inspired by the Voices from the Field

Incorporating feedback from research settings, this design integrates functions that enable flexible operation. The rear access port allows the use of shakers and mixers inside the chamber. Multiple units can be stacked to save space, while the optional dedicated cart makes relocation and layout changes simple. Additionally, inner doors can be selected according to application—either full-glass or stainless-steel with glass—providing specifications that reflect real-world laboratory needs and delivering clear differentiation.

OPTION

We offer small glass door options to meet your specific needs.

Available with a full glass inner main door or stainless steel, with multiple levels featuring Three Separated Access Windows or Glass Multi-Small Windows. The inner chamber corners are ergonomically rounded to make setup and cleaning a speedy process. The version with Glass Multi-Small Windows are designed to allow for smooth and easy insertion of a humidification tray at the very bottom.

