SHEL◉LAB®

SCO Water Jacketed Series

SHEL LAB CO$_2$ Incubators

SHEL LAB®

Ideal for Clinical, Analytical, and General Laboratory Applications

SCO water jacketed CO_2 incubators provide the uniform temperatures and highly stable CO_2 environments necessary to prevent shocks to cell samples.

Features and Benefits

Copper gas plumbing, a high-heat auto decontamination cycle, and a glass viewing door enhance the SCO water jacket CO_2 incubators with extensive protection against microbiological contamination.

SCO2W

- Infrared (IR) sensor for quick recovery of CO_2 levels after door openings.

- USB data logging capabilities.

1. Advanced PID temperature control system for sensitive response.

2. Independent over temperature set point and operational control override for additional safety.

3. Side-mounted access port, 1.75" diameter (4.45cm) for independent cables, sensors, and instrumentation.

4. Stainless steel interior construction for long life operation, easy cleaning.

5. Heated Copper CO_2 inlet to promote temperature uniformity and reduce the risks of contamination and condensation.

6. Autoclavable shelving system.

7. Unique water jacketed design provides excellent temperature uniformity of +/-0.2°C at 37°C.

8. Patented copper cage HEPA filter for reduced risk of contamination (Not included in the SCO6WE).

9. Heated door to ensure superior temperature uniformity.

10. Sealed inner glass door allows for viewing without disturbing the critical growth atmosphere and allows for improved gas utilization and condensate reduction.

- Safety certified CAN/CSA, UL, EN, IEC 61010, and compliant with CE.

Made in the USA

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Contamination Control

Extensive use of copper in the CO_2 sample port, humidity reservoir, heated CO_2 feed line, and housing of the patented HEPA filtration system adds reassurance that foreign microbes will not affect test results. Cleanup is a breeze with the all stainless steel chamber, coved corners, and autoclavable door gasket. Optional copper shelves are available for even more contamination control.

Applications:

- Cell Culture
- Microbiology
- Plant Cell Culture
- Stem Cells
- Tissue Culture
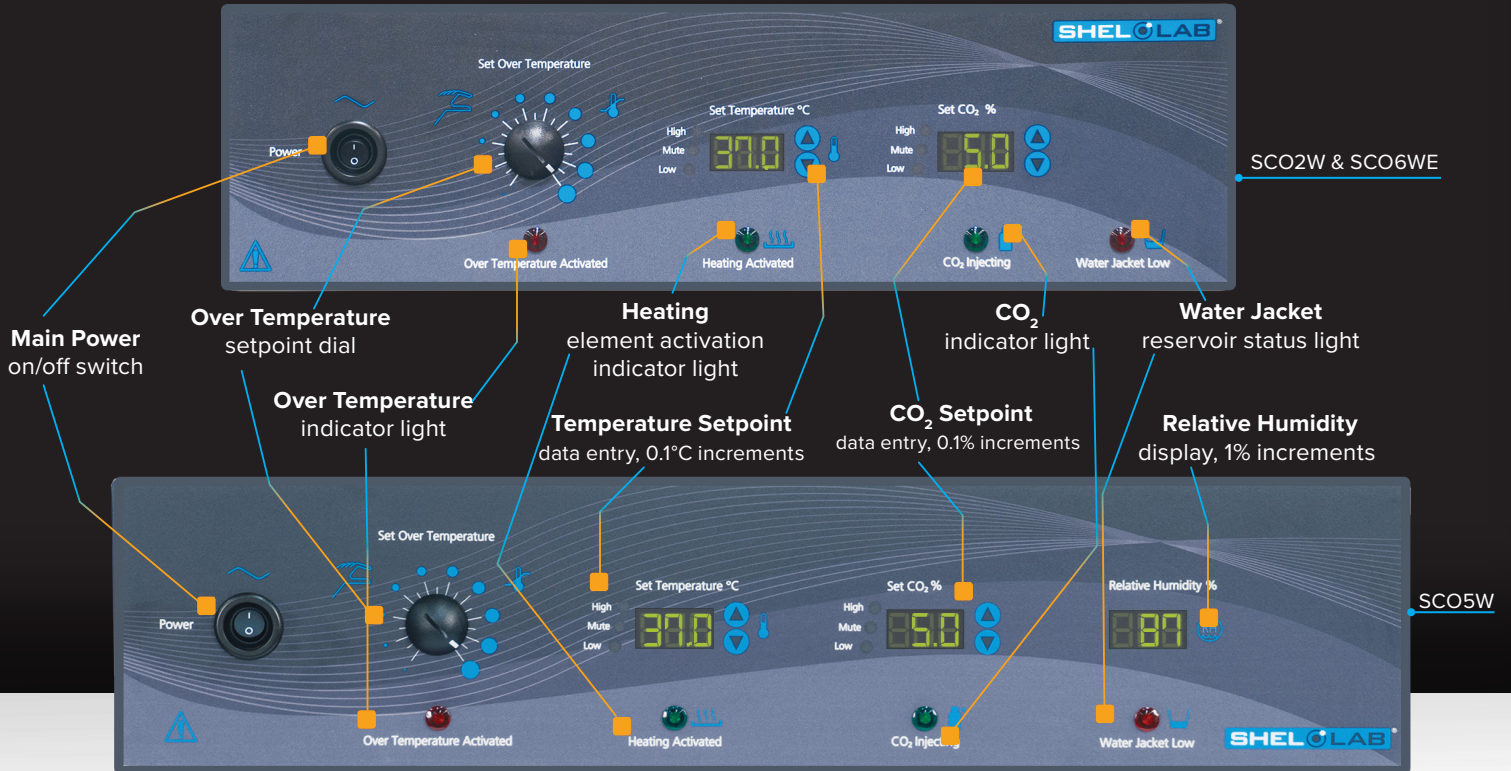- Food Analysis

SCO6WE

Stacking Rack Option
The SCO5W and SCO6WE require stacking rack for stacking. Optional caster platform also allow for mobility, safety, and convenience.

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Control, Feedback, and Monitoring

The advanced PID (proportional, integral, derivative) controller commands proportional power to the heating elements and CO_2 injection frequency to provide the most accurate and responsive control. Each controller is matched to the incubator chamber volume to assure faster response to setpoint without overshoot, and quicker recovery following door openings. Indicator lights are included for visual status feedback on critical functions.

Integrated Control Panel

All controls are centrally located on the main panel including manual power, independent over temperature control, digital temperature/CO_2 adjustments, and indicator lights for all functions.

SCO2W & SCO6WE

SCO5W

Main Power on/off switch

Over Temperature setpoint dial

Over Temperature indicator light

Heating element activation indicator light

Temperature Setpoint data entry, 0.1°C increments

CO₂ indicator light

CO₂ Setpoint data entry, 0.1% increments

Water Jacket reservoir status light

Relative Humidity display, 1% increments

SCO CO$_2$ Incubators Water Jacketed Series Specification Chart

	SCO2W	SCO5W	SCO6WE
Interior Volume, Nominal	1.5 cu.ft. (42 liters)	5 cu.ft. (142 liters)	6 cu.ft. (171 liters)
Interior Dimensions W x H x D	15.7" x 10.2" x 15.7" 40.0 x 26.0 x 40.0cm	19.3" x 19.8" x 23.0" 48.9 x 50.0 x 58.0cm	20.3" x 25.3" x 19.8" 51.3 x 50.0 x 60.0cm
Exterior Dimensions W x H x D	21.0" x 27.0" x 22.5" 53.4 x 68.6 x 57.2cm	26.0" x 40.3" x 25.5" 66.0 x 102.2 x 64.8cm	26.0" x 40.3" x 26.3 " 66.0 x 102.2 x 66.7cm
Interior Construction	300 series stainless steel	300 series stainless steel	300 series stainless steel
Exterior Construction	20 gauge steel, powder coated	20 gauge steel, powder coated	20 gauge steel, powder coated
Shelves (See Accessories)*	3 standard, 8 total	3 standard, 16 total	3 standard, 16 total
Maximum Weight Per Shelf*	35 lbs/15.8kg	35 lbs/15.8kg	35 lbs/15.8kg
Permitted Total Load	100 lbs/45.3kg	200 lbs/90.7kg	200 lbs/90.7kg

*Extra standard and copper shelves available. See Accessories.

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SCO Water Jacketed Series CO₂ Incubators Selection Chart

Order Model Number, Voltage Specific	SCO2W		SCO5W		SCO6WE	
	SCO2W	SCO2W-2	SCO5W	SC05W-2	SCO6WE	SCO6WE-2
Electrical, 50/60Hz, AC, 1Ø						
Voltage	110V-120V	220V-240V	110V-120V	220V-240V	110V-120V	220V-240V
Full Load Amps	5.0	3.5	5.0	3.5	5.0	3.5
Nominal Power (watts @37°C)	340	300	420	400	420	400
Recommended Breaker, Amps	15	15	15	15	15	15
Plug Supplied	NEMA5-15P	EU1-16P	NEMA5-15P	EU1-16P	NEMA5-15P	EU1-16P
CO_2 Range	1-20%	1-20%	1-20%	1-20%	1-20%	1-20%
Recovery CO_2 at 5%*	< 5 min.	< 5 min.	< 5 min.	< 5 min.	< 5 min.	< 5 min.
Sensor Type	Infrared	Infrared	Infrared	Infrared	Infrared	Infrared
Humidity Range Passive (Ambient 95%)	✓	✓	✓	✓	✓	✓
Humidity Display	-	-	✓	✓	-	-
Temperature Uniformity						
At 37°C	± 0.2°C	± 0.2°C	± 0.2°C	± 0.2°C	± 0.2°C	± 0.2°C
Temperature Range Recovery 37°C*						
Recovery to 37°C after 30 sec. Door Opening	8.0 min.	8.0 min.	5.0 min.	5.0 min.	4.0 min.	4.0 min.

*To 98% of set value.

SCO2W   SCO5W   SCO6WE

DIN 12880 Compliance

SCO Water Jacketed Series CO₂ Incubators are designed to meet or exceed the performance criteria established through DIN 12880:2007:05 and ASTM E1292-94 (Reapproved 2006.).

Note: DIN 12880 is an international standard for measuring the performance of electrical laboratory ovens and incubators based on Deutsches Institut Fur Normung E.V. (German National Standard), 05/01/2007.

Patented Copper Coated HEPA Filter

This specialized filter included in the SCO2W and SCO5W units features a "bacteriostatic" copper cage to trap particulate matter and reduce the potential for chamber contamination. This filter removes 99.97% of all airborne microbes

Site Preparation and Installation Guides

	SCO2W	SCO5W	SCO6WE
Door Swing Clearance (Nominal)	19" (48.3cm)	24" (61.0cm)	24" (61.0cm)
Wall Clearance, Sides	4.0" (10.0cm)	4.0" (10.0cm)	4.0" (10.0cm)
Wall Clearance, Roof	2.0" (5.0cm)	2.0" (5.0cm)	2.0" (5.0cm)
Access Port (Inner Diameter)	1.75" (4.45cm)	1.75" (4.45cm)	1.75" (4.45cm)
Unit Weight Empty	136 lbs (61.7kg)	254 lbs (115.2kg)	260 lbs (117.9kg)
Shipping Weight	179 lbs (81.2kg)	299 lbs (135.6kg)	305 lbs (138.4kg)

Options and Accessories

	SCO2W	SCO5W	SCO6WE
CO_2 Cylinder Regulator, Dual Stage	9740558	9740558	9740558
4-20 mA outputs for CO_2	915-950-0001	915-950-0001	915-950-0001
Caster Platform	N/A	9000538	9000538
Cooling Coils	N/A	915-980-0001	915-980-0001
Tri-Glass Door	N/A	915-952-0003	915-952-0003
Stacking Rack	N/A	9751223	9751223
Copper Shelf Kit: Includes 3 Shelves; 6 Shelf Slides	9750584	9750582	9750582
Extra Shelf, Copper, Max Weight 35 lbs (15.8kg)	5820506	5820504	5820504
Extra Slide, Copper	5820507	5820505	5820505
Extra Stainless Steel Shelf and Slide Kit, Max. Weight 35 lbs(15.8kg)	9751234	9751235	9751235

Options must be specified when ordering. Contact SHEL LAB for additional information.

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