

Sputum Booth

Essential for Infection Prevention
During Sputum Collection



Introduction

Esco Sputum Booth (ESB) is designed for use in hospitals, labs, and medical research facilities. It controls exposure risk to harmful aerosols/airborne diseases by providing containment using air flow to capture and exhaust out aerosols from sputum during expectoration, handling, or processing. We provide both operator/patient and environmental protection.

Key Features

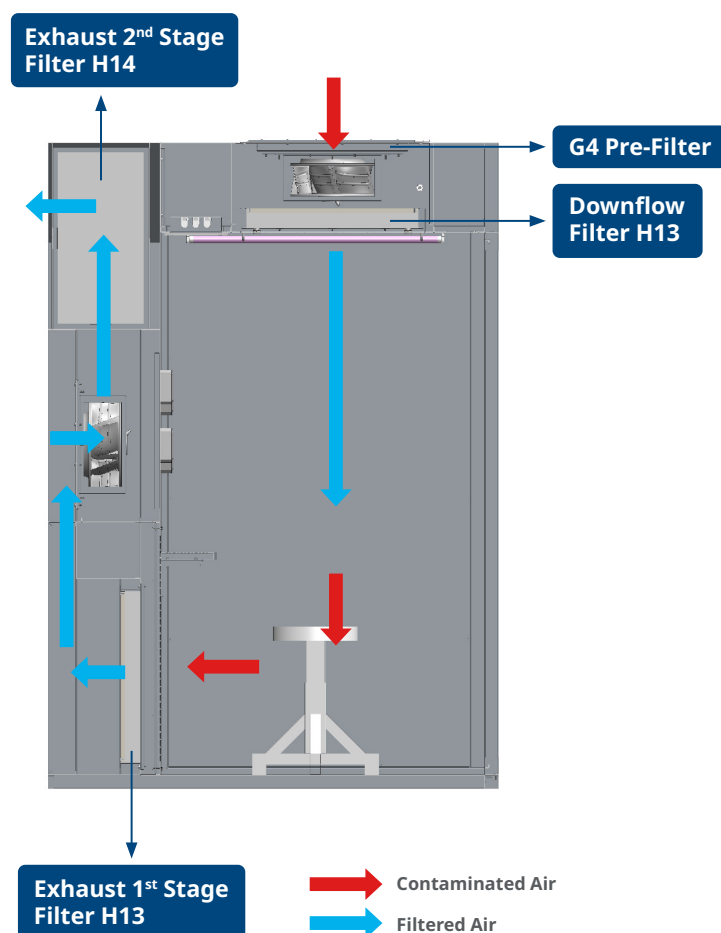
- ISO Class 7 air cleanliness as per ISO 14644-1
- Negative pressure keeps aerosol contained in booth: Supplies 100% HEPA filtered / fresh air to the downflow plenum. Typical airflow is 85% total volume as downflow, 15% inflow and 100% exhausted
- UV lamp operates on programmable timer embedded in the Sentinel™ Microprocessor System
- Emergency stop, intercom for easy communication between operator and patient, LED lamp, On/Off switch included.
- Material of construction:
 - SS304 grade
 - SS316L grade
 - Electrogalvanized steel coated with ISOCIDE™
- Reinforced SS304 or SS316L finish sheet metal floor
- SS316L or electrogalvanized steel coated with ISOCIDE™ door with tempered glass transparent windows.
- Detachable wall mounted stainless steel perforated work bench
- Adjustable and moveable stainless steel chair
- Concealed leveling feet
- Wheelchair accessible chamber

Filter Package

- Pre-Filter: A disposable G4 pre-filter with 90% efficiency
- Downflow Filter (Main Supply Filter): HEPA (H13) filter
- Exhaust 1st Stage: HEPA (H13) filter
- Exhaust 2nd Stage: HEPA (H14) filter on Esco Fan Filter Unit provides 99.995% at 0.3 microns at MPPS (Most Penetrating Particle Size)

Filtration System

- Room air is taken from the top of the booth through a disposable pre-filter, air is forced evenly across the HEPA filter resulting in a clean downward airflow.
- Purified air travels downward within the interior in a vertical, downward stream with a velocity of $0.16 \pm 20\%$ m/s and leaves the 2-stage exhaust filter into the room close to the left-front side wall.
- Supply and exhaust fan / filter systems will be individually designed for each location.

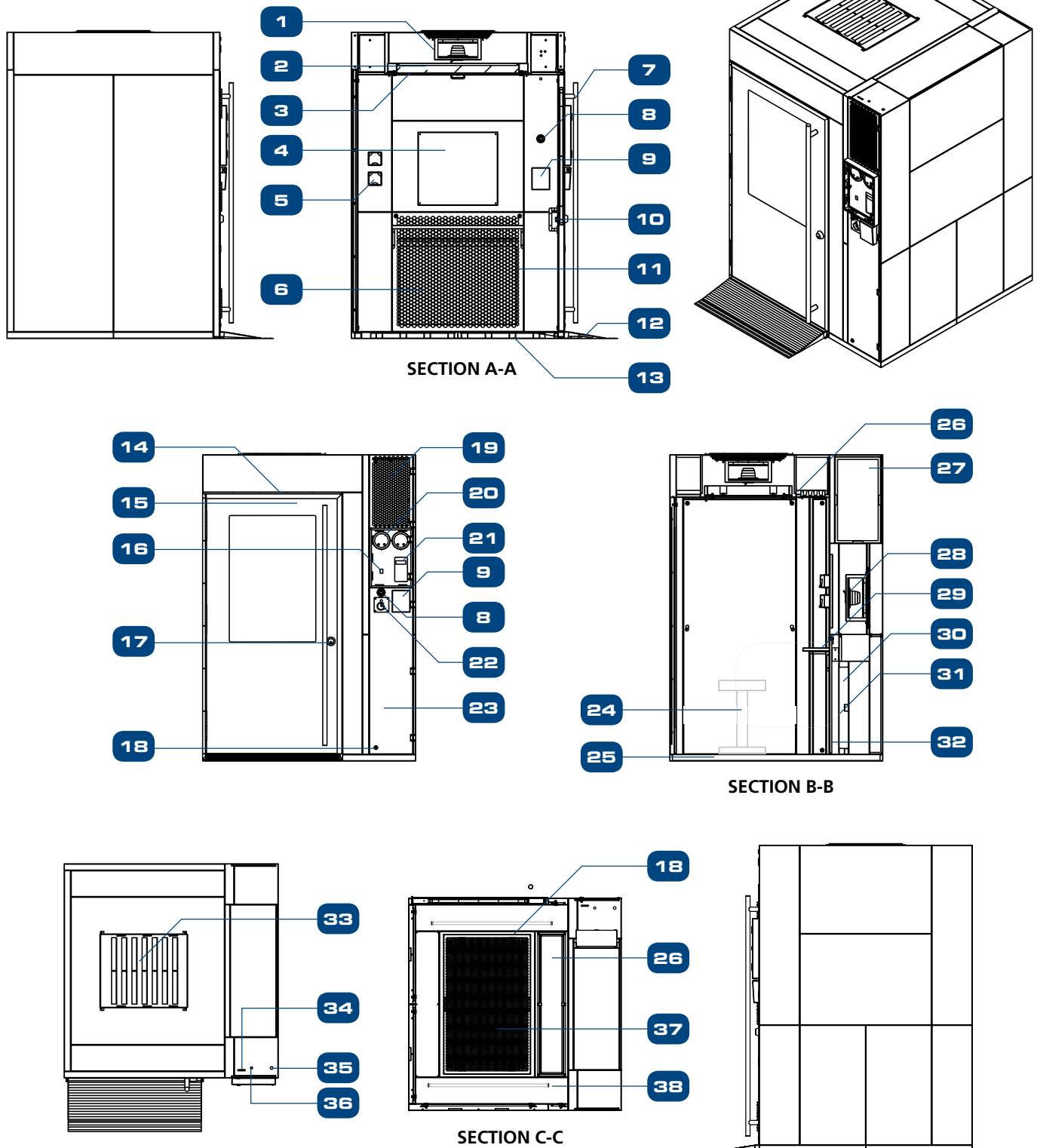


Guide to Models

SB - S 115 150 193 - 1 - C

Product Code	-	Material of Construction	Internal Dimensions			-	Electrical Requirement	-	Customization
			Width (cm)	Depth (cm)	Height (cm)				
Sputum Booth		S - Stainless Steel 304	115	150	193		1 - 220-240V, 50Hz, 1Ph		C - Customization No Customization
		B - Stainless Steel 316L	*	*	*		2 - 110-120V, 50Hz, 1Ph		
		A - EG Steel with ISOCIDE™ powder coating					3 - 220-240V, 60Hz, 1Ph		

Engineering Drawing



- | | | | |
|----------------------------------|--|--------------------------------------|--------------------------|
| 1. ebm-papst® Blower | 11. HEPA Filter Access Change | 21. Sentinel Control | 31. Filter Clamp |
| 2. H13 Gel Seal Downflow Filter | 12. SS Ramp | 22. Handicap Symbol | 32. Perforated Grill |
| 3. Blower & Filter Access | 13. Hollow Section Base | 23. Electrical Panel | 33. Pre-filter |
| 4. Blower Access | 14. Concealed Door Closer | 24. SS Adjustable & Moveable Chair | 34. BMS Relay Signal |
| 5. 13A-Gang Outlet | 15. View Panel w/ Tempered Clear Glass | 25. SS Flooring | 35. Power Cord |
| 6. Return Grill | 16. Unit On/Off Switch | 26. LED Lamp | 36. PMP Port Atmosphere. |
| 7. SS Door Outside Longer Handle | 17. SS Door Lock & Key | 27. H14 Exhaust Filter | 37. Downflow Diffuser |
| 8. Emergency Stop | 18. Cam Latch | 28. ebm-papst® Blower | 38. UV Lamp |
| 9. Intercom | 19. Exhaust Grill | 29. Perforated Table | |
| 10. SS Door Inside Handle | 20. Pressure Gauge | 30. H13 Gel Seal Return Grill Filter | |

GENERAL SPECIFICATION		
Model		SB-S115150193-1-C
Internal Dimension (W × D × H)		1150 × 1500 × 1930 mm
External Dimension (W × D × H)		1600 × 2000 × 2300 mm
Filter		G4 Pre-Filter, H13 Downflow HEPA Filter, H13 Return Grill HEPA Filter, H14 Exhaust HEPA Filter
Cabinet Construction	Main Body	Stainless Steel Grade 304/ SS316L / Electrogalvanized steel coated with ISOCIDE™ powder coating Sheetmetal
	Floor	Stainless Steel Grade 304/ SS316L
	Door	Stainless Steel Grade 316L / Electrogalvanized steel coated with ISOCIDE™ powder coating Sheetmetal
CMH		350 m³/hr (100% Exhausted)
Est. Power Consumption		350 W, 10A (Full Load Amps)
Min. Light Intensity		≥ 500 Lux
Min. UV Intensity		≥40 µW/cm²
Noise Level		≤75 dB
SB with MOC of SS304 Standard Dimension		
Est. Gross Shipping Weight		Pallet 1: 499 kg
		Pallet 2: 753 kg
SB with MOC of EG Standard Dimension		
Est. Gross Shipping Weight		Pallet 1: 430 kg
		Pallet 2: 555 kg
SB with MOC of SS304 and EG Standard Dimension		
Est. Shipping Dimension		Pallet 1: 2050 × 850 × 1540 mm
		Pallet 2: 2400 × 1150 × 1860 mm
Inclusive		With 2 electrical outlets
		3 x BMS relay signal for airflow, downflow DP filter, exhaust DP filter

ESCO
LIFESCIENCES

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