Esco Labculture® Lead-Shielded

Class II Type A2

Biosafety Cabinet



Main Features



Esco Labculture Lead-Shielded Class II with the standard horizontal sliding lead glass

The Esco Labculture® Lead-Shielded Class II biosafety cabinet is designed for radiopharmaceutical industry usage and protects the operator during work involving radioisotopes.

SUPERIOR PROTECTION FOR RADIOISOTOPE LABORATORIES

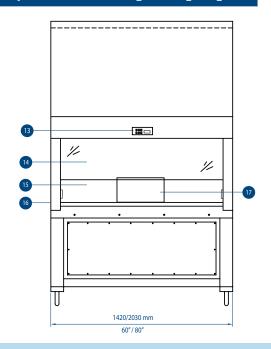
The operator is protected from radiation by the lead-shielded sides, lead shielded work zone bottom and front sliding sash. Horizontal sliding lead glass piece provides additional protection to the operator during work involving radioisotopes.

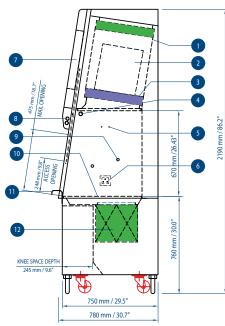
The air enters the cabinet through the front air grille, and travels through the KI-impregnated carbon filter on which radioactive iodine is adsorbed. Air then travels to the blower plenum where it is filtered by high-efficiency ULPA filters before being exhausted.

★ Class II Product / Operator / Environment

Protection

- **Extra Safety:** Cabinet air is filtered via 2 exhaust filters. This feature allows for filter-changing without prior decontamination of the cabinet.
- ★ **Lead-Shielded Protection:** 3mm lead shielding on cabinet sides, work zone bottom
- **★** Radiation proof glass with lead equivalence of 3mm.
- **★ Horizontal sliding lead glass piece** for additional operator protection.
- ★ KI (potassium iodide) impregnated carbon filter for iodine adsorption
- **★ ULPA Filters** with typical efficiency at >99.999% at 0.12µm provide ISO Class 3 cleanliness within work zone.
- ★ Isocide™ antimicrobial coated structure eliminates 99.9% of bacterial presence on external surfaces within 24 hours.
- **★ Ergonomic sloped front** eliminates glare off the front window, and ensures operator comfort during extended usage
- ★ Microprocessor-based control and alarm system
- **Extremely low noise level** for quiet working environment
- **Additional options:**
 - Lead-shielded back panel
 - Increased thickness of lead shielding (standard is 3mm)





- 1. Exhaust ULPA Filter 2. Blower 3. Downflow ULPA Filter 4. Standard UV Light Retrofit™ Kit Provision
- **5.** Standard IV-Bar Retrofit™ Kit Provision **6.** Electrical Outlet Retrofit™ Kit Provision (Two Single Outlets in Workzone)
 - 7. Electrical and Electronics Panel 8. Fluorescent Light 9. Plugged Service Fixture Provisions (2 on each side)
 - 10. Stainless Steel Multi-piece Work Tray 11. Stainless Steel Armrest 12. KI-Impregnated Carbon Filter
 - 13. Esco Sentinel™ Microprocessor Control System 14. Lead-Shielded Glass Sliding Sash Window
 - 15. Stainless Steel Back Wall 16. Lead-Shielded Side Walls 17. Horizontal Lead-Glass Sliding Door

General Specifications		LS2-4AX	LS2-6AX
External Dimensions (L x W x H)		1420 x 780 x 2190 mm / 55.9" x 30.7" x 86.2"	2030 x 780 x 2190 mm / 79.9" x 30.7" x 86.2"
Internal Work Zone (L x W x H)		1260 x 603 x 670 mm / 49.6" x 21.3" x 26.4"	1870 x 603 x 670 mm / 73.6" x 21.3" x 26.4"
Standards Compliance		Designed to comply and exceed the requirements of: DIN12980: Laboratory Equipment Cytostatic Workbenches: Requirements, Testing EN12469: Performance Criteria for Microbiological Safety Cabinets Air cleanliness: ISO 14644.1 Class 3, IEST-G-CC1001, IEST-G-CC1002 and other equivalent requirements Filter performance: IEST-RP-CC034.1, IEST-RP-CC007.1, IEST-RP-CC001.3 and EN1822 Electrical safety: IEC 61010-1 / EN 61010-1 / UL 61010A-1 / CSA C22.2 No. 1010.1-92	
Average Airflow	Inflow	Initial setpoint: 0.45 m/s or 90 fpm (audible / visual alarm will activate at 0.40 m/s or 80fpm)	
Velocities	Downflow	Initial setpoint range: 0.30 m/s or 60 fpm	
Airflow Volumes At Initial Airflow Velocity	Inflow	460 cmh / 270 cfm	680 cmh / 400 cfm
	Downflow (65%)	780 - 910 cmh / 460 - 535 cfm	1160 - 1350 cmh / 680 - 794 cfm
Setpoints	Exhaust (35%)	460 cmh / 270 cfm	680 cmh / 400 cfm
Cleanliness Within Working Area		ISO14644.1 Class 3, US Federal Standard 209E Class 1 / M1.5, AS1386 Class 1.5, JIS B9920 Class 3, BS5295 Class C, Class M10,000 as per KS27030.1 and equivalent classes of VDI2083 and AFNOR X44101	
Exhaust Carbon Filter		KI (potassium iodide) impregnated carbon filter (installed directly below the work surface).	
Downflow ULPA Filter Type		ULPA filter with integral metal guards and filter frame gaskets; fully compliant with EN 1822 and IEST-RP-CC001.3 requirements. Typical efficiency: 99.9997% at MPPS; 99.9998% at 0.3 and 0.12μm	
Exhaust ULPA Filter Type		ULPA filter with integral metal guards and filter frame gaskets; fully compliant with EN 1822 and IEST-RP-CC001.3 requirements. Typical efficiency: 99.9997% at MPPS; 99.9998% at 0.3 and 0.12µm	
Noise Level	According to EN12469	<61 dBA	<65 dBA
The above measurement		s were taken at initial blower speed setting (figures subject to acoustic properties of test environment)	
Light Intensity		>1000 Lux / >93 foot candles (measured at work surface level (zero background) as per NSF49 test grid) 510 mm / 20" (does not include the 110 mm / 4.3" front air grille)	
Maximum Usable Workzone Depth Maximum Usable Work Area (excludes front air grille)		0.64 sqm / 6.89 sqf	0.95 sqm / 10.22 sqf
Knee Space Depth		245 mm / 9.6"	
Main Body Construction		1.5mmt / 0.06" / 16 gauge electro-galvanised steel with white oven-baked epoxy anti-microbial Isocide™ powder-coated finish. 3mm / 0.12" lead shielding on cabinet side walls and work zone bottom	
Maximum	220-240VAC / Cabinet	675W / 4A	765W / 4A
Power	50Hz 1Ph Outlet	1000VA / 5A	1000VA / 5A
Consumption /	110-130VAC / Cabinet	835W / 11.5A	1045W / 11.5A
Current	60Hz 1Ph Outlet	500VA / 5A	500VA / 5A

Your Local Distributor:



Esco Biotechnology Equipment Division
21 Changi South Street 1, Singapore 486777
Tel: +65 6543 0833 • Fax: +65 6542 6920
Email: biotech@escoglobal.com • Website: biotech.escoglobal.com