



IN THE LOOP

Esco Airflow Cabinet Selection Guide

ESCO
SCIENTIFIC

Application	Classification and Feature	Protection Against					Model	Image	Description
		A Allergen	B Biohazard	C Chemical Vapor	D Drugs (Hazardous)	E Environmental Contaminants			
A Animal Handling Animal procedure, Anesthesia, Cage transfer, Bedding disposal, Necropsy. Can accommodate trace amount of non-corrosive, non-flammable chemicals with exhaust collar, heating is NOT allowed.	1	Single-Sided Animal Procedure, Class II A2 Biosafety	✓	✓	Add Exhaust Collar	Add Exhaust Collar	✓	VA2 G4	If using Isoflurane gas, add exhaust collar and gas scavenger unit. Use SLC stand to move under 80" doors. Necropsy variant with sink is available.
	2	Double-Sided Animal Transfer	✓				✓	VDA	Comes with auto-lift to slide under 80" doors at min height. Quietest dual-sided animal workstation in the market. ELISA-tested allergen containment.
	3	Bedding Disposal	✓				✓	VBD	Comes with removable 40 gal waste disposal bin and auto-lift to slide under 80" doors at min height. ELISA-tested allergen containment.
B Biological Samples Handling COVID-19, Gene and Cell therapy, Mammalian cell culture, Cancer and Pharma research Can accommodate trace amount of non-corrosive, non-flammable chemicals with exhaust collar, heating is NOT allowed.	1	Compact-sized, Class II A2		✓	Add Exhaust Collar	Add Exhaust Collar	✓	AC2-NS G4	Energy and space-efficient. Lowest BSC in the market at 55" height. Add exhaust collar when working with naturally evaporating chemicals.
	2	Full-sized, Class II A2		✓	Add Exhaust Collar	Add Exhaust Collar	✓	LA2 G4	Ultimate safety and comfort. Add exhaust collar when working with naturally evaporating chemicals.
	3	Machine Enclosure, Class II A2		✓	Add Exhaust Collar	Add Exhaust Collar	✓	AC2 - Large	25" usable depth and 36" interior height. Add exhaust collar for naturally evaporating chemicals. Use folding window for > 20" larger front opening.
	4	Room-sized Enclosure, Class II A2		✓	Add Exhaust Collar	Add Exhaust Collar	✓	BioBooth	58" W x 34" D x 62" H workzone. Customizable to larger size. Add exhaust collar when working with naturally evaporating chemicals.
	5	Total Exhaust, for Continuous Chemical Injection, Class II B2		✓	✓		✓	LB2 G4	Has built-in exhaust collar. Can be used for small amount of non-corrosive, flammable chemicals because vapor won't touch internal fan.
C Chemical Handling (Ducted) General chemistry, Acid digestion chemistry, Radioisotope chemistry Can accommodate wide-range of chemicals that include corrosive and flammable chemicals, heating is allowed.	1	General Purpose Fume Hood			✓			EFA	Fiberglass-Reinforced Plastic Interior and Epoxy Resin Table. Suitable for a wide range of chemicals in larger amounts.
	2	Acid Digestion Fume Hood			✓			EFQ	Polypropylene or u-PVC liner and work zone, ideal for acid digestion and handling wide range of chemicals in large volumes.
	3	Radioisotope Fume Hood			✓			EFI	Stainless Steel 304 or 316 interior and table. Can be customized to accommodate lead-shields for radioisotope handling.



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C Chemical Handling (Ductless) General chemistry, Portable chemical hood, Clean room chemical hood For limited-range of chemicals per selected carbon filter, heating is NOT allowed.	1 Single-Layer Carbon Filter (Limited range of chemicals)			✓			ADC-B		Choose 1 from 8 different types of carbon filter. Suitable only for limited range of chemicals per selected carbon filter.
	2 Double-Layer Carbon Filter (Wide range of chemicals)			✓			ADC-C		Choose 2 from 8 different types of carbon filter. Suitable only for limited range of chemicals per selected carbon filter.
	3 Single-Layer Carbon + HEPA Filter (Chemical vapor and particulates)			✓			ADC-E		Choose 1 from 8 carbon filters. Limited range of chemicals per selected filter. Suitable for clean room, as HEPA filter captures the carbon particles.
C Compounding Pharmacy Chemo drugs compounding, Epidural anesthetic injection Can accommodate trace amount of non-corrosive, non-flammable chemicals with exhaust collar, heating is NOT allowed.	1 Non-Hazardous, Sterile, USP <797>					✓	LHG, LHS		LHG: Glass side walls, to put camera outside the cabinet LHS: Stainless steel side walls, easier to clean Use STC stand with casters
	2 Hazardous, Non-Sterile				✓		PW1, ADC-F		PW1: single HEPA + collar ADC-F: double HEPA
	3 Hazardous, Sterile, USP <800>		✓	Add Exhaust Collar	Add Exhaust Collar	✓	AC2-NS G4		Add exhaust collar to comply with USP <800>. Only for naturally evaporating chemicals. Short 55" height for cleanrooms & mobile labs.
D DNA Amplification COVID-19 (Master Mix Preparation), Reverse Transcript Using PCR method	1 PCR Cabinet					✓	PCR		Comes with UV lamp, foldable front cover, blower, and HEPA filter. Has lower airflow at 60 fpm instead of 90 fpm for Laminar Flow Cabinets.
E Electronics / Plant Tissue Culture Electronics assembly, Plant tissue culture and research, Optic lens inspection. Provides product protection, no operator protection	1 Small Electronics, Plant Tissue Culture: use Horizontal Laminar Flow Cabinet					✓	LHG, LHS		LHG: Glass side walls, to put camera outside the cabinet LHS: Stainless steel side walls, easier to clean Use STC stand with casters
	2 Larger Electronics, Agar Plate Preparation: use Vertical Laminar Flow Cabinet					✓	LVG, LVS		LVG: Glass side walls, more comfortable from claustrophobia LVS: Stainless steel side walls, easier to clean, better for ESD Add Ion Bar for ESD application
	3 Optics Inspection: use Vertical Laminar Flow Cabinet with Black Interior					✓	LVS - Black		Black interior walls and work surface for optical instrument inspection.



Esco Micro Pte Ltd
 19 Changi South Street 1 Singapore 486779
 escolifesciences.com

