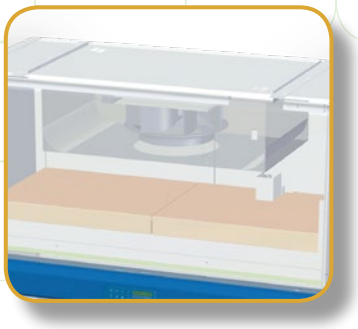
Esco Ascent™ Opti Ductless Fume Hood

Provides Operator and Environment Protection



Sample Port

Centrifugal Fan

- *Permanently lubricated fans are energy efficient with external rotor motor design that reduces operating costs.*
- *Extremely low noise and low vibration level*

Arm Ports

- *Allows easy access to work zone without risking exposure from chemical fumes*

Work Top

- *Spill-retaining work top designed with a recessed central area contains accidental liquid spills*

Industry Exclusive Baffle Design

- *Integrating our experience with conventional fume hoods, Esco engineers designed a unique baffle for Ascent™ Opti Ductless Fume Hoods to improve containment and ensure the efficient removal of chemical fumes from the work zone*

Ascent™ Opti Ductless Fume Hood, Model SPD-4A_ Shown with optional MBC-4A0 (mobile cart)

	Chemical Fume Containment	Filter Efficiency	Electrical Safety
Standards Compliance	ANSI / ASHRAE 110-1995, USA BS 7258, UK EN14175.3, Europe	BS 7989 - 2001, UK AFNOR NF X 15-211, France	UL-C-61010A-1, USA CAN/CSA-22.2, No.61010-1 EN-61010-1, Europe IEC61010-1, Worldwide

Sentinel™ Silver Microprocessor Control, Alarm System

- *Advanced microprocessor control supervises operation of all hood functions. Temperature-compensated air velocity sensor monitors airflow*
- *24-hour clock and blower run hour meter are standard*

Nanocarb™ Activated Carbon Filters

- *Optimized retention capacity*
- *Diffusion Technology to ensure even filter loading*
- *Efficient perimeter clamping ensures no leakage as well as allows for easy filter change procedure*

Sash Window

- *Double hinged sash mechanism allows higher sash opening for effortless cabinet loading*

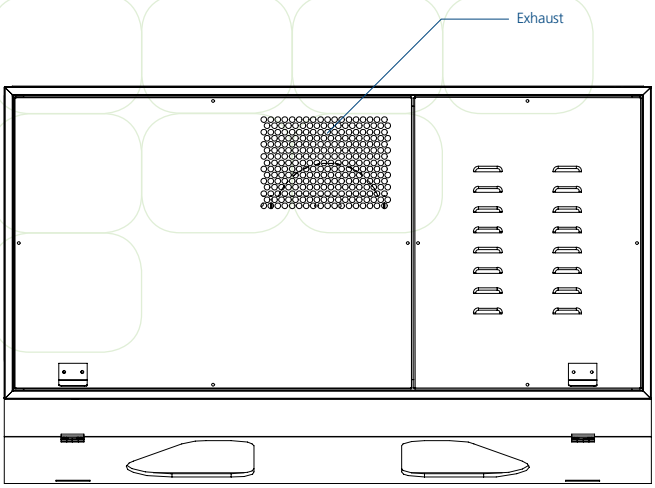
Mobile Cart

- *Provides easy relocation*
- *Has fold-able trays for storage*

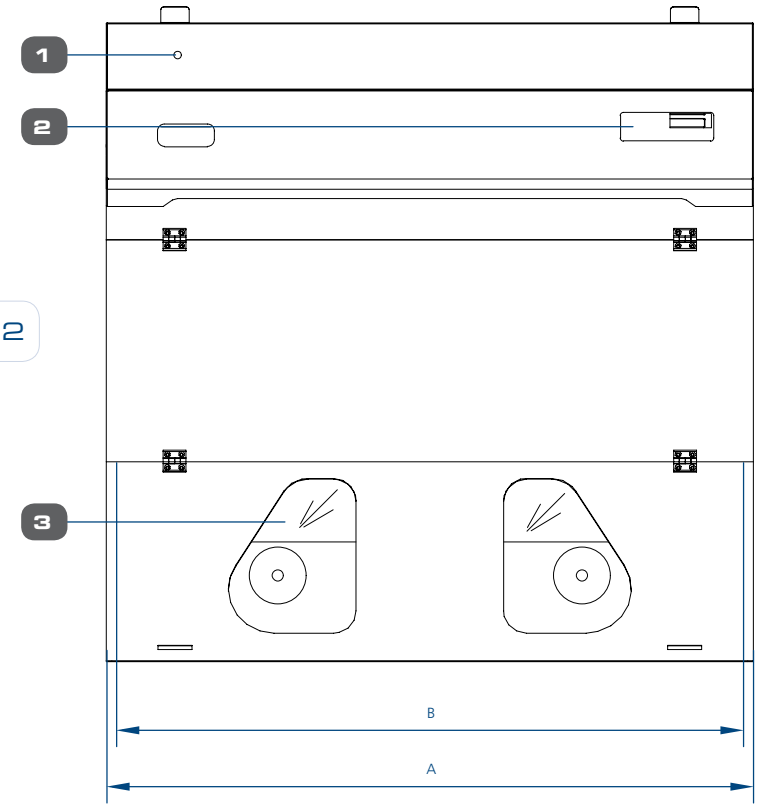
Esco Ascent Ductless fume hood is certified to ASHRAE 110-1995 for fume containment at 0.5 m/s

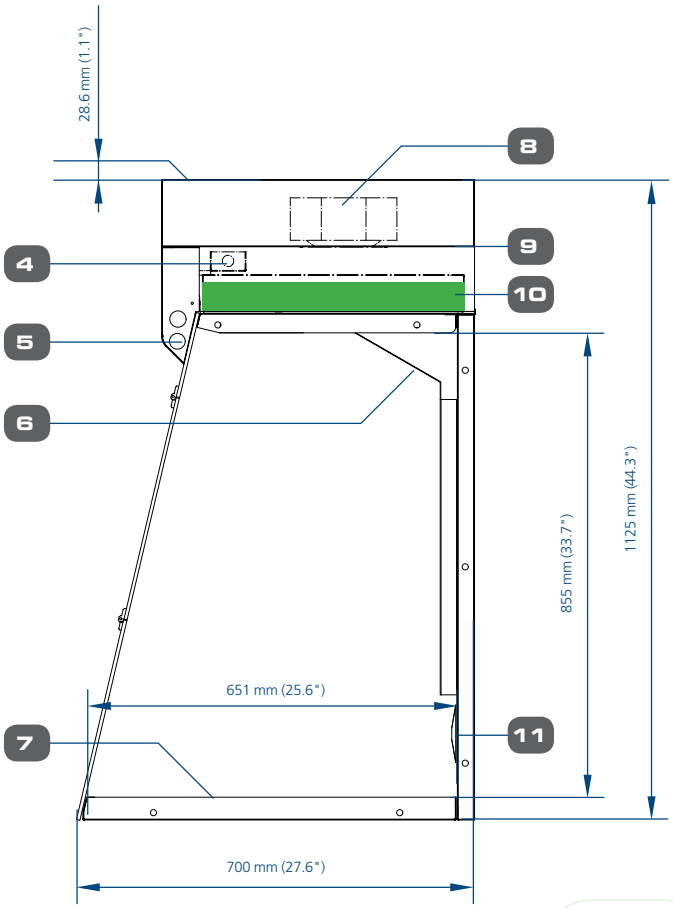
Ascent™ Opti Line-up	
Ascent™ Opti (SPD-_A)	Standard ductless fume hood
Ascent™ Opti (SPD-_B)	Ductless fume hood with transparent back wall ideal for classrooms and educational demonstrations
Powdermax®	Ductless fume hood with HEPA filter for powder weighing applications
ForMax	Ductless fume hood specialized as a formalin dispensing unit
RotaMax	Ductless fume hood designed to accommodate rotary evaporators
TitraMax	Ductless fume hood constructed for titration applications

Model SPD, Ascent™ Opti Ductless Fume Hood Engineering Drawing (0.9 to 1.2 m / 3 ft to 4 ft width models)



	A	B
SPD-3__	840 mm (33.1")	820 mm (32.3")
SPD-4__	1140 mm (44.9")	1116 mm (43.9")





1. *Sample Port*
2. *Esco Sentinel™ Silver Microprocessor Control System*
3. *Transparent Back Wall (SPD-_B_ models only)*
4. *Airflow Sensor*
5. *Fluorescent Lamp*
6. *Baffle*
7. *Stainless Steel Worktop*
8. *Fan*
9. *Electrical Panel*
10. *Activated Carbon Filter*
11. *Pass-through ports for electrical or service connections*

General Specifications, Ascent™ Opti Ductless Fume Hood

Model	220-240 VAC, 50 Hz	**SPD-3A1 - 2040099**	**SPD-3B1 - 2040102**	**SPD-4A1 - 2040105**	**SPD-4B1 - 2040108**
	110-120 VAC, 60 Hz	**SPD-3A2 - 2040100**	**SPD-3B2 - 2040103**	**SPD-4A2 - 2040106**	**SPD-4B2 - 2040109**
	220-240 VAC, 60 Hz	**SPD-3A3 - 2040101**	**SPD-3B3 - 2040104**	**SPD-4A3 - 2040107**	**SPD-4B3 - 2040110**
Nominal Size		0.9 meter (3')		1.2 meter (4')	
External Dimensions (W x D x H)		840 x 700 x 1125 mm (33.1" x 27.6" x 44.3")		1140 x 700 x 1125 mm (44.9" x 27.6" x 44.3")	
Internal Work Area (W x D x H)		820 x 651 x 855 mm (32.3" x 25.6" x 33.7")		1116 x 651 x 855 mm (43.9 x 25.6" x 33.7")	
Standard Filtration Elements	Pre-filter	Disposable, non washable polyester fiber, 85% arrestance, EU3 rated			
	Main filter*	Activated Carbon with Granular Media bed (8 different filter types available , codes A-H)			
Total Weight of Carbon Filter		15.4 Kg (34.0 lbs)		2 x 9.1 Kg each (2 x 20.1 lbs each)	
Control System		Esco Sentinel™ Silver Microprocessor Controller			
Airflow alarm		✓			
Inflow Air Velocity		Initial set point: 0.5 m/s (100 fpm)			
Sound Emission		<58 dBA at initial blower speed setting measured at typical operator work position			
Fluorescent Light Intensity		>350 lux (>28 foot-candles) at work surface level			
Hood Construction	Main Body	1.2 mm (0.05") 18 gauge electro-galvanized steel with white oven-baked epoxy-polyester Isocide™ antimicrobial powder coated finish			
	Front Window	6 mm acrylic			
	Back Walls	1.2 mm (0.05") 18 gauge electrogalvanized steel with white oven-baked epoxy-polyester Isocide™ antimicrobial powder coated finish	6 mm (0.2") Acrylic	1.2 mm (0.05") 18 gauge electrogalvanized steel with white oven-baked epoxy-polyester Isocide™ antimicrobial powder coated finish	6 mm (0.2") Acrylic
	Side Walls	9.5 mm (0.37") Acrylic			
	Work Top	1.5 mm (0.06") 16 gauge stainless steel type 304, with 4B finish			
Sash	Sloped Front	13°			
	Sash type	Hinged			
Electrical	220-240 VAC, 50 Hz, 1Φ	SPD-3A1 / SPD-3B1		SPD-4A1 / SPD-4B1	
	Cabinet Full Load Amps (FLA)	0.5 A		0.6 A	
	Cabinet Nominal Power	60 W		88 W	
	Cabinet BTU/Hr	205		300	
	110-120 VAC, 60 Hz,1Φ	SPD-3A2 / SPD-3B2		SPD-4A2 / SPD-4B2	
	Cabinet Full Load Amps (FLA)	0.5 A		0.6 A	
	Cabinet Nominal Power	80 W		93 W	
	Cabinet BTU/Hr	273		317	
	220-240 VAC, 60 Hz, 1Φ	SPD-3A3 / SPD-3B3		SPD-4A3 / SPD-4B3	
	Cabinet Full Load Amps (FLA)	0.5 A		0.6 A	
	Cabinet Nominal Power	80 W		93 W	
	Cabinet BTU/Hr	273		317	
Net Weight**		86 kg (181 lbs)		105 Kg (231 lbs)	
Shipping Weight**		134 Kg (295 lbs)		160 Kg (353 lbs)	
Shipping Dimensions, Maximum (W x D x H)**		1050 X 1100 x 570 mm (41.3" x 43.3" x 22.4")		1300 x 1100 x 590 mm (51.2" x 43.3" x 23.2")	
Shipping Volume, Maximum**		1.5 m³ (53.0 cu.ft.)		1.9 m³ (67.1 cu.ft.)	

**Hood model order codes do not include filters. Order filters separately. When specified at time of order, filters will be factory installed.*
***Hood only, excludes optional stand.*