ESCO

LIFESCIENCES

Frontier®

High Performance Fume Hood

Laminar Topography and Perfect Protection Perimeter

Frontier® **ACELA**™
High Performance Fume Hood

The Esco Frontier® Acela™ Fume Hood is a high performance, low flow fume hood engineered for safety, performance and energy efficiency, all combined in one multi-featured product. Its ability to operate at a reduced face velocity of 60 fpm (0.3 m/s) allows for an exhaust volume reductions of up to 58% as compared to a conventional fume hood. This directly translates to more savings for your company.
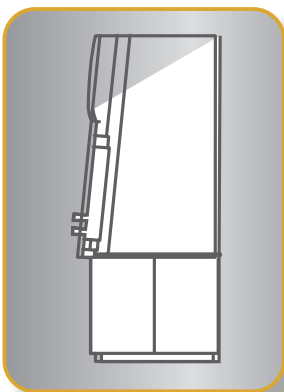
Perfect Pitch Profile
- 5° Face Pitch ergonomically allows users to work further into the hood without strain.
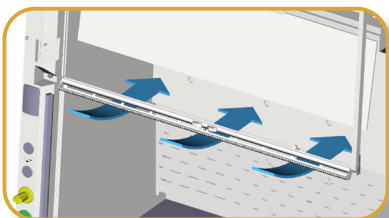- Ergonomic design is anthropometrically proven.

High Sight Line
- High sight line of 1803 mm (71.0") for enhanced visibility.
-

Acela™ Shaping Vanes
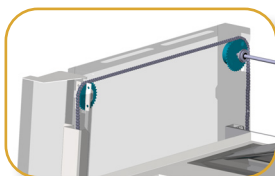- Improves containment by increasing airflow "sweep" at the critical area.

Ergonomic Sash Handle
- Gently directs air into the hood without sacrificing visibility.

	Chemical Fume Containment	Electrical Safety	Fire, Electrical, and Mechanical Safety
Standards Compliance	ANSI/ASHRAE 110-2016, USA EN 14175, Europe	EN-61010-1, Europe IEC-61010-1, Worldwide	UL-1805, USA

Chain and Sprocket Sash Support System

- The unique design provides a robust stream of bypass air into the hood cavity.
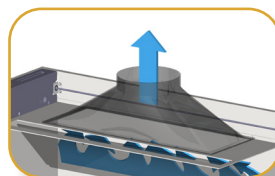
Tempered Fiber Glass Exhaust Collar

- Enhances airflow uniformity.

Functionally Robust Bypass

- The unique design provides a robust stream of bypass air into the hood cavity.

Hot Zone Baffles

- The unique Hot Zone Baffle design draws most contaminants back in single pass displacement of the air. Thermal heat relief is quickly achieved.

Aerodynamic Foil Entry

- Provides maximum airflow "sweep" on the critical boundary layer.

- Helps reduce turbulence and eliminate backflow.

Tri-wall Construction Coated with Isocide™

- Built for maximum robustness and for long term chemical abrasion and weathering resistance.
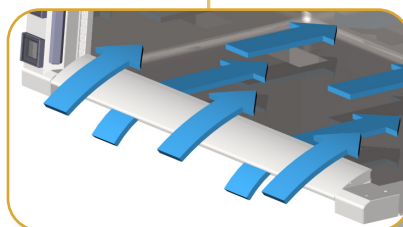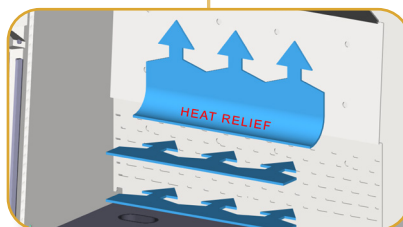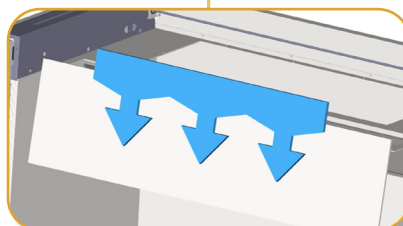
The Frontier® Acela™ is Safety Certified and Tested

American Standard ASHRAE 110-2016

- The ASHRAE 110-2016 is a comprehensive method for evaluating the operator safety of fume hood by determining quantitatively and repeatedly how well the fume hood contains vapors released in the work zone.
- First published in 1985 and extensively revised in 2016, this standard employs a set of rigorous tests to evaluate hood performance such as airflow visualization, face velocity measurements and tracer gas containment.
- The Frontier® Acela™ fume hood was independently tested and certified by Exposure Control Technologies, Inc. to the American Standard ASHRAE 110.
- Hoods are ASHRAE tested on the production line in a sampling basis (industry exclusive).

ASHRAE 110-2016 Certificate
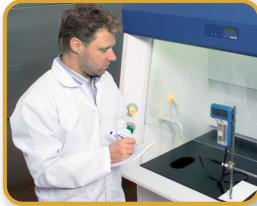
Face velocity measurement test

Smoke pattern test

Tracer gas containment test

Additional Safety Features

- Sash stop limits sash movement beyond 457 mm (18.0"), 'encouraging' user to work at safe positions.
- Esco's Creep Down Mechanism will automatically lower the sash to its safe level (unless held in place) when sash is raised above 457 mm (18.0"). This enables the sash to be raised temporarily to the full open position for set up of equipment and apparatus inside the hood while enforcing regular operation of the hood with a lowered sash.
- Has Key Lock feature which permits the laboratory manager or safety officer to restrict operation of the hood at sash openings above 457 mm (18.0").
- The key can also be used to lock down the sash in its fully closed position to restrict access in case of faulty fume hood, facility shut down or simply to restrict access to equipment setup inside the hood.
- LED light casing is designed to be released upward or away from the operator in case of explosion, thereby, maximizing user's safety.

Serviceability

- Removable baffles to allow easy cleaning inside the hood.
- Internal access panels on side walls facilitate access to plumbing connections for service, especially when hoods are installed next to each other.
- Removable front panel facilitates easy access to lighting and other electrical components mounted above the hood work chamber.
- Chain and sprocket sash system requires minimal service.

Warranty

The Frontier® Acela™ High Performance Fume Hood is warranted for 1 year excluding consumable parts and accessories. Contact your local sales representative for specific warranty details.
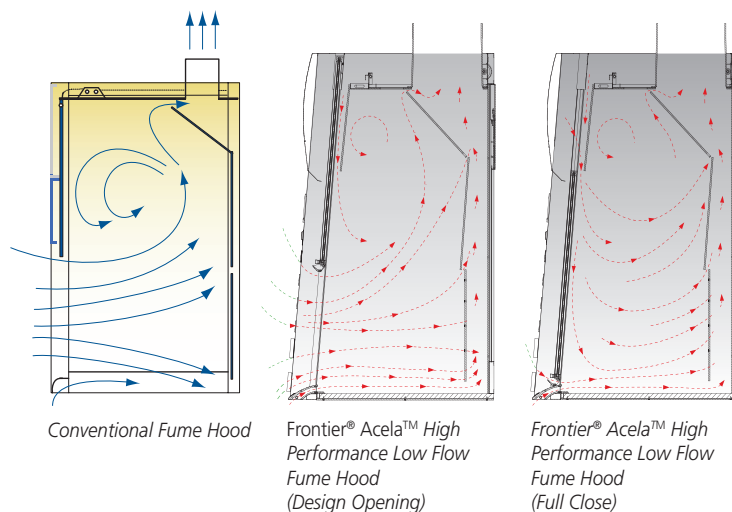
Computational Fluid Dynamics

Computational Fluid Dynamics (CFD) modelling is employed in the development of Esco clean air and containment devices. Laminar Topography™ on Frontier® Acela™ Fume Hoods was developed with computational fluid dynamics modelling in the Esco Research and Development Center. The main thrusts of the project were improved airflow uniformity, enhanced safety, reduction in noise levels, and energy consumption.

First, engineering teams conceptualized possible designs, and, instead of building physical models, utilized CFD to simulate airflow patterns, pressurizations and visualize possible areas of turbulence. This allowed a large number of iterations of the airfoil, sash handle, baffle, bypass and exhaust collar to be evaluated. Finally, physical prototypes were constructed, tested, and the best design combination selected for production.

CFD has allowed us to effectively reduce the vortex in conventional fume hood designs to the minimum, resulting in a safe yet energy-saving fume hood design.

Conventional Fume Hood

Frontier® Acela™ High Performance Low Flow Fume Hood (Design Opening)

Frontier® Acela™ High Performance Low Flow Fume Hood (Full Close)

Conventional Fume Hoods are Energy Spenders

The cost of running a full blown fume food in a laboratory is certainly not a joke. More so if you maintain more than two of this equipment in the lab. Fume hoods, which are essential in keeping the safety of personnel inside the laboratory, are highly energy-intensive with each one consuming more energy than three homes in an average U.S. environment. Depending on climate and system design, estimated energy costs for fume hoods range up to US$9000 annually, based on face velocities of 0.5 m/s (100 fpm) at full sash open position for a 1.8 m (72") hood .

Variable Air Volume (VAV) is one of the various approaches presently employed to reduce hood energy consumption. The table below compares conventional hoods, VAV hoods, and the Esco Frontier® Acela™ High Performance Low Flow Hood.

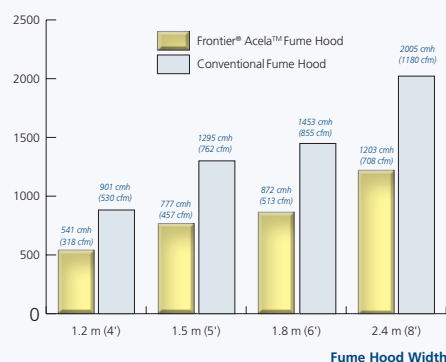|	Conventional Fume Hood	Variable Air Volume (VAV) Fume Hood	High Performance Low Flow Fume Hood
Working Principle	0.5 m/s (100 fpm) at full open sash position	0.5 m/s (100 fpm) at all sash positions with sophisticated control system	0.3 m/s (60 fpm) at 457 mm (18") sash opening using advanced aerodynamic designs
Initial Cost	Low	High	Medium
Running Cost	Very High	Medium (VAV Maintenance)	Low
Ease of Installation, Commissioning and Maintenance	Easy	Difficult	Easy

Energy use and savings potential for laboratory fume hoods, Evan Mills, Dale Sartor; Energy, 2003

Green Product

Compared with conventional hoods, Esco Frontier® Acela™ operates safely at 0.3 m/s (60 fpm) at 457 mm (18.0") or full open sash position while maintaining excellent ASHRAE and EN containment. Exhaust volume reductions of up to 58% may be achieved without compromising safety. **This translates into an annual operating cost savings of up to US$5600.** Unlike VAV systems the Esco Frontier® Acela™ is easy and inexpensive to install, commission and maintain.

Exhaust Volume (cmh)

- Frontier® Acela™ Fume Hood
- Conventional Fume Hood

541 cmh (318 cfm)
901 cmh (530 cfm)
777 cmh (457 cfm)
1295 cmh (762 cfm)
872 cmh (513 cfm)
1453 cmh (855 cfm)
1203 cmh (708 cfm)
2005 cmh (1180 cfm)

Fume Hood Width

Fume Hood Width	Exhaust Volume		% Reduction in Exhaust Volume
	Frontier® Acela™ 0.3 m/s (60 fpm) at 457 mm (18")	Conventional Fume Hood 0.5 m/s (100 fpm) at 457 mm (18")	
1.2 m (4')	541 cmh (318 cfm)	901 cmh (530 cfm)	60%
1.5 m (5')	777 cmh (457 cfm)	1295 cmh (762 cfm)	60%
1.8 m (6')	872 cmh (513 cfm)	1453 cmh (855 cfm)	60%
2.4 m (8')	1203 cmh (708 cfm)	2005 cmh (1180 cfm)	60%

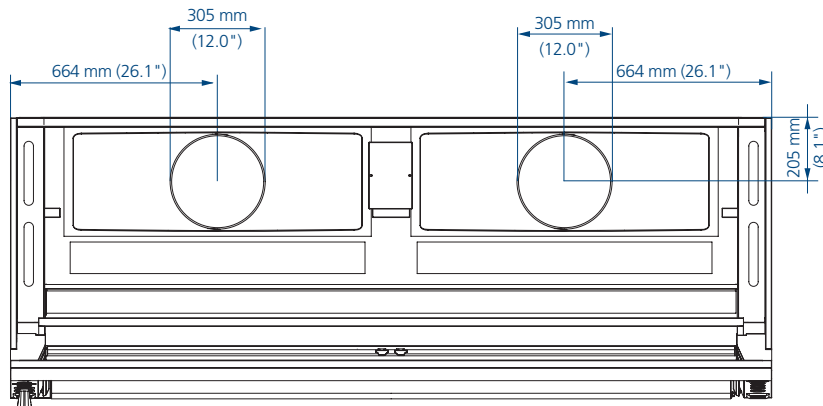## Model EFA, Frontier® Acela™ Fume Hood Engineering Drawing
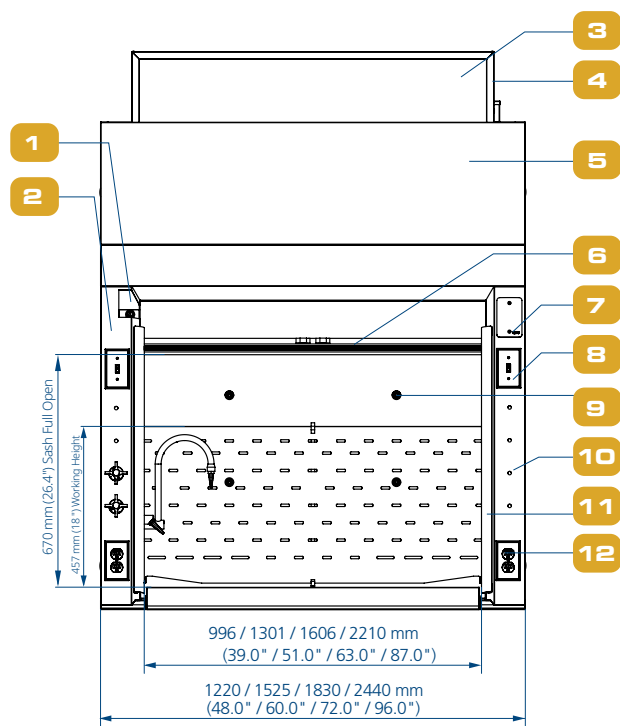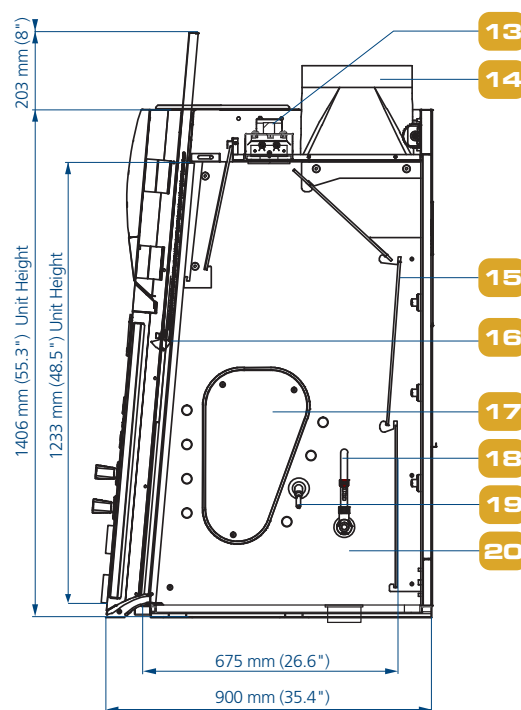
Top View
(For Nominal Widths: 4, 5 and 6 feet)

305 mm (12.0")
24.0" / 30.0" / 36.0"
610 mm / 763 mm / 915 mm
224.5 mm (8.8")
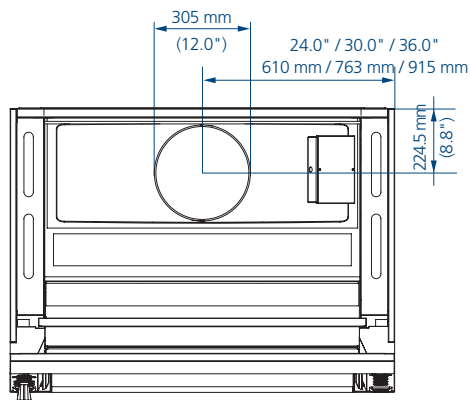
Top View
(For Nominal Width of 8 feet)

305 mm (12.0")
664 mm (26.1")
305 mm (12.0")
664 mm (26.1")
205 mm (8.1")

Front View

3
4
1
2
5
6
7
8
9
10
11
12

670 mm (26.4") Sash Full Open
457 mm (18.") Working Height

996 / 1301 / 1606 / 2210 mm
(39.0" / 51.0" / 63.0" / 87.0")
1220 / 1525 / 1830 / 2440 mm
(48.0" / 60.0" / 72.0" / 96.0")

Side View

203 mm (8")
13
14
15
16
17
18
19
20

1406 mm (55.3") Unit Height
1233 mm (48.5") Unit Height

675 mm (26.6")
900 mm (35.4")

1. Sash KeyLock
2. Provision for Additional Outlets
3. Sash Glass (Vertical or Combination Sash)
4. Sash Frame
5. Front Panel
6. Sash Stopper
7. Provision for Airflow Alarm
8. Light and Fan Switches
9. Provision for Distilation Grid
10. Provision for Additional Service Fixtures
11. Side Vane

12. Electrical Outlets
13. LED Lamp
14. Exhaust Collar
15. Baffle
16. Sash Handle
17. Side Access to Service Fixture
18. Service Fixture, Cold Water
19. Service Fixture, Gas
20. Internal Liner
(Esco Resinate or Esco Resinate Plus)

Fume Hood Installation Requirements

- Proper location (refer to Esco recommendations)
- Exhaust system capable of delivering airflow and pressure drop requirements
  - Exhaust ductwork and connection accessories
  - Exhaust blower (or building exhaust system)
  - Contractor (if applicable)
  - Means of adjusting exhaust flow (damper or frequency inverter)
- Sufficient laboratory supply air
- Base cabinet or other means of support
- One set of filler panels for each continuous row of hoods
- Plumbing and electrical hook-up
- Unless otherwise specified, items and services specified above are not provided by Esco

Guide to Models, Frontier® Acela™ Fume Hood

E F A - ___ - D U ___ W - 9

External Width	Code	External Depth	Code	Internal Liner	Code	Sash Type	Code	Color	Code	Electrical	Code
1220 mm (48.0")	4U	900 mm (35.4")	D	Esco Resinate Plus™	U	Vertical	V	Esco White	W	110-120 VAC, 50/60 Hz	9
1525 mm (60.0")	5U					Combination*	C				
1830 mm (72.0")	6U										
2440 mm (96.0")	8U										

*Combination Sash is not available for 8 feet models.

General Specifications, Frontier® Acela™ Fume Hood

Model		110-120 VAC, 50/60 Hz, 1ø	EFA-4UDUVW-9 (2090199) / EFA-4UDUCW-9 (2090224)	EFA-5UDUVW-9 (2090256) / EFA-5UDUCW-9 (2090253)	EFA-6UDUVW-9 (2090257) / EFA-6UDUCW-9 (2090254)	EFA-8UDUVW-9 (2090258)
Nominal Size			1.2 meter (4')	1.5 meter (5')	1.8 meter (6')	2.4 meters (8')
External Dimensions (W x D x H)	Fume Hood unit only		1220 x 900 x 1406 mm (48.0" x 35.4"x 55.4")	1525 x 900 x 1406 mm (60.0" x 35.4"x 55.4")	1830 x 900 x 1406 mm (72.0" x 35.4"x 55.4")	2440 x 900 x 1406 mm (96.1" x 35.4"x 55.4")
	With Exhaust Collar		1220 x 900 x 1521 mm (48.0" x 35.4"x 59.9")	1525 x 900 x 1521 mm (60.0" x 35.4"x 59.9")	1830 x 900 x 1521 mm (72.0" x 35.4"x 59.9")	2440 x 900 x 1521 mm (96.1" x 35.4"x 59.9")
	With Fully-opened Sash		1220 x 900 x 1603 mm (48.0" x 35.4"x 63.1")	1525 x 900 x 1603mm (60.0" x 35.4"x 63.1")	1830 x 900 x 1603 mm (72.0" x 35.4"x 63.1")	2440 x 900 x 1603 mm (96.1" x 35.4"x 63.1")
Internal Dimensions (W x D x H)			996 x 675 x 1230 mm (39.2" x 26.6"x 48.4")	1301 x 675 x 1230 mm (51.2" x 26.6"x 48.4")	1606 x 675 x 1230 mm (63.2" x 26.6"x 48.4")	2210 x 675 x 1230 mm (87.0" x 26.6"x 48.4")
Exhaust Volume/ Static Pressure Required	Face Velocity	Sash Opening				
	0.3 m/s (60 fpm)	457 mm (18.0")	541 cmh at 14.3 Pa (316 cfm at 0.06" WG)	777 cmh at 14.6 Pa (457 cfm at 0.06" WG)	872 cmh at 19.9 Pa (510 cfm at 0.08" WG)	1203 cmh at 14.2 Pa (708 cfm at 0.06" WG)
	0.4 m/s (80 fpm)	457 mm (18.0")	721cmh at 19.7 Pa (424 cfm at 0.08" WG)	942 cmh at 23.7 Pa (554 cfm at 0.10" WG)	1163 cmh at 28.8 Pa (684 cfm at 0.12" WG)	1604 cmh at 26.4 Pa (944 cfm at 0.11" WG)
	0.5 m/s (100 fpm)	457 mm (18.0")	901 cmh at 31.8 Pa (530 cfm at 0.13" WG)	1177 cmh at 34.7 Pa (693 cfm at 0.14" WG)	1453 cmh at 41.8 Pa (855 cfm at 0.17" WG)	2005 cmh at 32.3 Pa (1180 cfm at 0.13" WG)
	0.3 m/s (60 fpm)	Full	899 cmh at 22.1 Pa (526 cfm at 0.09" WG)	1175 cmh at 28.7 Pa (691 cfm at 0.12" WG)	1450 cmh at 36.1Pa (848 cfm at 0.15" WG)	1819 cmh at 27.3 Pa (1070 cfm at 0.11" WG)
	0.4 m/s (80 fpm)	Full	1199 cmh at 36.7 Pa (701 cfm at 0.15" WG)	1556 cmh at 49.3 Pa (922 cfm at 0.20" WG)	1933 cmh at 61.4 Pa (1138 cfm at 0.25" WG)	2668 cmh at 48.3 Pa (1570 cfm at 0.19" WG)
	0.5 m/s (100 fpm)	Full	1499 cmh at 66.6 Pa (877 cfm at 0.27" WG)	1958 cmh at 76.6 Pa (1152 cfm at 0.31" WG)	2197 cmh at 94.7 Pa (1285 cfm at 0.38" WG)	3335 cmh at 74.3 Pa (1962 cfm at 0.30" WG)
Exhaust Outlet Diameter and Material			305 mm (12.0"), Fiberglass			
Number of Exhaust Collar			1			2
LED Lighting System	Description		Pre-wired hood lighting with electronic ballast for energy efficiency and instant start			
	Lamp Intensity		930 lux (86.3 foot-candles)	915 lux (85 foot-candles)	886 lux (82.3 foot-candles)	931 lux (86.5 foot-candles)
Controller			Rocker Switches (default). Option to upgrade to Sentinel™ XL Microprocessor Controller			
Construction	Main Body		Electrogalvanized steel with Epoxy-polyester hybrid Isocide™ powder coating			
	Internal Liner (default)		Esco Resinate™ Plus/Haysite (Fiberglass Reinforced Plastic)			
	Worktop		Epoxy Resin			
Sash Specifications	Sash Material		Laminated-Tempered Glass (6 mm) and Framed Safety Glass			
	Sash Configuration		Vertical or Combination			Vertical
	Sloping		5⁰ Sloped			
	Work Opening		460 mm (18")			
	Maximum Sash Opening		670 mm (26.4")			
Electrical	Cabinet Full Load Amps (FLA)		32 A			
	Cabinet Nominal Power		100 W (lighting only)			
Shipping Weight*			260 Kg (573 lbs)	310 Kg (683 lbs)	360 Kg (794 lbs)	470 Kg (1036 lbs)
Shipping Dimension, Maximum (W x D x H)*			1300 x 950 x 1900 mm (51.2" x 37.4"x 74.8")	1650 x 950 x 1900 mm (65.0" x 37.4"x 74.8")	1950 x 950 x 1900 mm (76.8" x 37.4"x 74.8")	2500 x 950 x 1900 mm (98.4" x 37.4"x 74.8")

*Fume hood unit only. Excludes base cabinet / optional stand.

Accessories and Other Options	Model Code	Item Code	Description
Exhaust System Exhaust blower, blower mounting, speed control, and damper	Plastec P30-6 FH Exhaust Blower	NA	PLASTEC 30, Model P30-6/3/60, 0.75 Hp, 208-230/460 V, Requires 3-Phase Power Input, 1140 RPM, 50/60 Hz, TEFC Motor for non-flammable application. Requires MB35SS stand or WH3 or RU30 cover to mount the blower to the roof, and either damper or VFD speed control to adjust exhaust flow.
	MB35SS	NA	Stainless steel stand for Plastec motor. Includes mounting holes to the motor. Excludes Weather Cover.
	WH3 Weather Cover: A2/FH	NA	Polypropylene Weather Hood Size 3 / H550. Also function as motor mount. Max temp 140 F.
	RU30 Weather Cover: All	NA	Roof Unit Kit for PLASTEC 30 Series Blowers, Including Curb Cap/Base, Weather Hood and Exhaust Guard with Bird Screen.
	VFD1013230, 1HP Controller	NA	Unidrive M100, Model 02200042A Variable Frequency Drive for 1.0 Hp, 230/1~ or 230/3~ Input, 230/3~ Output, 4.2A Maximum Continuous Output for Normal Duty.
	DAMPER 12	5170105	Manual Damper for Fume Hoods, 12" Dia. x 10" Height
Exhaust Filtration Carbon filter for fumes, HEPA filter for particulates, and BIBO	EXH-CARBON	NA	Exhaust Carbon Filter Module
	EXH-HEPA	NA	Exhaust HEPA Filter Module
	BIBO-FILTER	NA	Bag In Bag Out (BIBO) Filter Module for Fume Hoods
Sensors & Electronics Monitors the airflow and sash positioning	SXL-EFA	5070084	Sentinel XL Airflow Monitor. Real-time digital display of face velocity with audio and visual alarms. Requires field calibration. Factory installed.
	VAV-TSI-FHC50	NA	VAV Controller and Sash Sensor, with 4-20 mA input from sensor and 4-20 mA output to blower
	VAV-SASH-AUTO	NA	Automatic Sash Positioning System
Distillation Grid Monitors the airflow and sash positioning	DG-4US	5170135	Distillation Grid Kit for EFA-4, Stainless Steel 304
	DG-5US	5170136	Distillation Grid Kit for EFA-5, Stainless Steel 304
	DG-6US	5170137	Distillation Grid Kit for EFA-6, Stainless Steel 304
	DG-8US	5170138	Distillation Grid Kit for EFA-8, Stainless Steel 304
Service Fixtures Monitors the airflow and sash positioning	SFA-EDI	NA	Deionized Water Service Fixture, Marquest, with PVDF / non-metal inner part, Gooseneck Deck Mount, Factory Installed, Plumb to Below Table, Direct Valve.
	SFA-CW-WS	NA	City / Cold Water Service Fixture, Water Saver, Wall Mounted, Factory Installed, Plumb to Top, Remote Valve, CW White Letter Over Green Background
	SFA-AIR-WS	NA	Compressed Air Service Fixture, Water Saver, Wall Mounted, Factory Installed, Plumb to Top, Remote Valve, AIR Black Letter Over Orange Background
	SFA-VAC-WS	NA	Vacuum Service Fixture, Water Saver, Wall Mounted, Factory Installed, Plumb to Top, Remote Valve, CW Black Letter Over Yellow Background
	SFA-GAS-WS	NA	City / Cold Water Service Fixture, Water Saver, Wall Mounted, Factory Installed, Plumb to Top, Remote Valve, CW White Letter Over Green Background, indicate if your State Code Prohibits Copper Tubing for Natural Gas
Drip Cup and Sink To dispose liquid. Connect to drain system. Drip Cup can use Esco or Justrite base cabinet. Sink must use Esco base cabinet	SPP-DC	5170271	Oval Polypropylene Drip-Cup. Installed on the back of work table. Works with Esco or Justrite base cabinet.
	MS-313 SINK	5170338	Small Polypropylene Sink (346 x 346 x 213 mm = 13.6 x 13.6 x 8.4 in). Requires Esco base cabinet underneath it.
	MS-808 SINK	5170363	Large Polypropylene Sink (560 x 355 x 242 mm = 22 x 14 x 9.5 in). Requires Esco base cabinet underneath it.
Esco Base Cabinet Suitable for general storage, but not for corrosive nor flammable chemicals. Has cutout on top, allowing MS-313 or MS-808 sink to protrude down into the base cabinet. Requires Filler Panel for Esco Base Cabinet (FP-EBA). Optionally vented by ventilation kit for EBA base cabinet (VK-EBA)	EBA-2UDG-0	2090161	Esco Base Cabinet, for General Storage, 2ft Width
	EBA-3UDG-0	NA	Esco Base Cabinet, for General Storage, 3ft Width
	EBA-4UDG-0	2090153	Esco Base Cabinet, for General Storage, 4ft Width
	EBA-5UDG-0	2090158	Esco Base Cabinet, for General Storage, 5ft Width
	EBA-6UDG-0	2090161	Esco Base Cabinet, for General Storage, 6ft Width
	EBA-8UDG-0	2090163	Esco Base Cabinet, for General Storage, 8ft Width
Justrite Base Cabinet Suitable for corrosive or flammable chemicals. Has solid top, preventing MS-313 or MS-808 sink to protrude down into the base cabinet, so use only SPP-DC, that protrudes behind it. Requires Filler Panel for Justrite Base Cabinet (FP-JUSTRITE). Requires ventilation kit for Justrite base cabinet (VK-Justrite). Has Snow White color that's slightly different than Esco fume hood color. May require separate shipping rate.	Just-Rite 882437S	NA	Just-Rite Base Cabinet for Flammable, 2ft Width, with Lock and Key, Self-Closing, Snow White color
	Just-Rite 8825272S	NA	Just-Rite Base Cabinet for Corrosive, 2ft Width, with Lock and Key, Self-Closing, Snow White color
	Just-Rite 883027S	NA	Just-Rite Base Cabinet for Flammable, 2.5ft Width, with Lock and Key, Self-Closing, Snow White color
	Just-Rite 8831272S	NA	Just-Rite Base Cabinet for Corrosive, 2.5ft Width, with Lock and Key, Self-Closing, Snow White color
	Just-Rite 883627S	NA	Just-Rite Base Cabinet for Flammable, 3ft Width, with Lock and Key, Self-Closing, Snow White color
	Just-Rite 893005S	NA	Just-Rite Base Cabinet for Corrosive, 3ft Width, with Lock and Key, Self-Closing, Snow White color
	Just-Rite 884827S	NA	Just-Rite Base Cabinet for Flammable, 4ft Width, with Lock and Key, Self-Closing, Snow White color
	Just-Rite 8849272S	NA	Just-Rite Base Cabinet for Corrosive, 4ft Width, with Lock and Key, Self-Closing, Snow White color

Leveling Feet Stand Tubular frame stand without storage cabinet. With leveling feet for uneven floor.	ASL-4B0	5130088	Support Stand with Leveling Feet (Height 34") for EFA-4
	ASL-5B0	5130089	Support Stand with Leveling Feet (Height 34") for EFA-5
	ASL-6B0	5130090	Support Stand with Leveling Feet (Height 34") for EFA-6
	ASL-8B0	5130091	Support Stand with Leveling Feet (Height 34") for EFA-8
Vent Kit Connects the base cabinet to the bottom of fume hood to exhaust hazardous fumes.	VK-EBA	5170022	Vent Kit L-shaped pipe for EBA base cabinet, 1 for each Base Cabinet, Field Installed, Optional for EBA
	VK-JUSTRITE	5170932	Vent Kit, Justrite for 4 ft fume hood
		5170933	Vent Kit, Justrite for 5 ft fume hood
		5170934	Vent Kit, Justrite for 6 ft fume hood
		5170935	Vent Kit, Justrite for 8 ft fume hood
Filler Panel Covers the unsightly between the back of base cabinet to the wall.	FP-EBAD	5170023	Filler Panel Kit for EBA Base Cabinet, Set of 2 (Left and Right), Field Installed
	FP-Justrite	5170937	Filler Panel Kit, Justrite for 5 ft fume hood, Set of 2, Field Installed
		5170938	Filler Panel Kit, Justrite for 6 ft fume hood, Set of 2, Field Installed
		5170939	Filler Panel Kit, Justrite for 8 ft fume hood, Set of 2, Field Installed
Explosion Proof Kit Upgrades the the standard fume hood to explosion proof fume hood. All 4 parts (Light, Outlet, Switch, Junction) must be ordered together. Special AFA airflow sensor is required instead of Sentinel™ XL	EXP-001-LIGHT	NA	Explosion Proof Lighting 9E (1 piece for 4/5 ft, 2 pieces for 6/8 ft)
	EXP-002-OUTLET	NA	Explosion Proof Electrical Outlet 8346 (1 on left side post and 1 on right side post: total of 2 pcs EO)
	EXP-003-SWITCH	NA	Explosion Proof ON-OFF Switch 8030 (Only 1 per fume hood)
	EXP-004-JUNCTION	NA	Explosion Proof Junction Box and Cable Gland (Only 1 per fume hood)
	AFA1000-FLP	NA	Airflow Sensor
EBA-FLA Designed with precision and engineered for optimal safety, Esco base cabinet offers a state-of-the-art solution to meet the stringent requirements of chemical storage. Enhance your safety protocols, reduce risks, and improve operational efficiency with our premium cabinet. Your safety is at the forefront of our priorities, especially when dealing with hazardous materials.	EBA-2FLA-0 (RIGHT)	2090811	FLAMMABLE BASE STORAGE CABINET, 2 FT, RIGHT OPENING
	EBA-2FLA-0 (LEFT)	2090820	FLAMMABLE BASE STORAGE CABINET, 2 FT, LEFT OPENING
	EBA-2.5FLA-0	2090812	FLAMMABLE BASE STORAGE CABINET, 2.5 FT
	EBA-3FLA-0	2090798	FLAMMABLE BASE STORAGE CABINET, 3 FT
	EBA-4FLA-0	2090805	FLAMMABLE BASE STORAGE CABINET, 4 FT
	EBA-5FLA-0	2090815	2 PCS. OF 2.5 FT FLAMMABLE BASE STORAGE CABINET FOR 5 FT FUME HOODS
	EBA-6FLA-0	2090807	2 PCS. OF 3 FT FLAMMABLE BASE STORAGE CABINET FOR 6 FT FUME HOODS
	EBA-8FLA-0	2090816	2 PCS. OF 4 FT FLAMMABLE BASE STORAGE CABINET FOR 8 FT FUME HOODS
EBA-COR Designed with precision and engineered for optimal safety, Esco base cabinet offers a state-of-the-art solution to meet the stringent requirements of chemical storage. Enhance your safety protocols, reduce risks, and improve operational efficiency with our premium cabinet. Your safety is at the forefront of our priorities, especially when dealing with hazardous materials.	EBA-2COR-0 (RIGHT)	2090813	CORROSIVE BASE STORAGE CABINET, 2 FT, RIGHT OPENING
	EBA-2COR-0 (LEFT)	2090821	CORROSIVE BASE STORAGE CABINET, 2 FT, LEFT OPENING
	EBA-2.5COR-0	2090814	CORROSIVE BASE STORAGE CABINET, 2.5 FT
	EBA-3COR-0	2090799	CORROSIVE BASE STORAGE CABINET, 3 FT
	EBA-4COR-0	2090806	CORROSIVE BASE STORAGE CABINET, 4 FT
	EBA-5COR-0	2090817	2 PCS. OF 2.5 FT CORROSIVE BASE STORAGE CABINET FOR 5 FT FUME HOODS
	EBA-6COR-0	2090808	2 PCS. OF 3 FT CORROSIVE BASE STORAGE CABINET FOR 6 FT FUME HOODS
	EBA-8COR-0	2090818	2 PCS. OF 4 FT CORROSIVE BASE STORAGE CABINET FOR 8 FT FUME HOODS
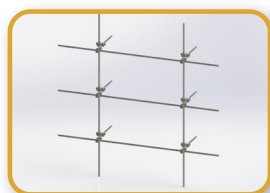
DG-_US

SXL-EFA

SPP-DC

SFA-

VK-EBA

Justrite flammable storage cabinet
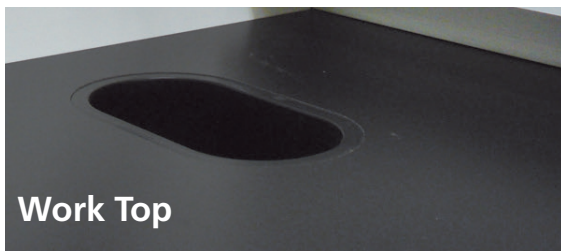

Justrite corrosive storage cabinet

FP-EBA

EBA-COR

EBA-FLA

Work Top

WT – **4U** **D** **E** – **0**

External Width
4U : 993 mm (39")
5U : 1298 mm (51")
6U : 1603 mm (63")
8U : 2213 mm (87")

External Depth
D : 748 mm (29")

Material
E:Epoxy Resin

Drip-Cup Cut-Out Position

0 :
1 :
2 :
3 :
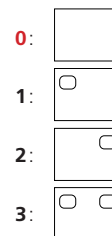
Item Codes for the Work Surface Selection		
Nominal Sizes	**Drip Cup Position**	**Types**
		Epoxy
4 Feet	0	WT-4UDE-0 (5120002)
	1	WT-4UDE-1 (5120003)
	2	WT-4UDE-2 (5120004)
	3	WT-4UDE-3 (5120005)
5 Feet	0	WT-5UDE-0 (5120011)
	1	WT-5UDE-1 (5120012)
	2	WT-5UDE-2 (5120013)
	3	WT-5UDE-3 (5120014)

Item Codes for the Work Surface Selection		
Nominal Sizes	**Drip Cup Position**	**Types**
		Epoxy
6 Feet	0	WT-6UDE-0 (5120020)
	1	WT-6UDE-1 (5120021)
	2	WT-6UDE-2 (5120022)
	3	WT-6UDE-3 (5120023)
8 Feet	0	WT-8UDE-0 (5120028)
	1	WT-8UDE-1 (5120281)
	2	WT-8UDE-2 (5120030)
	3	WT-8UDE-3 (5120031)

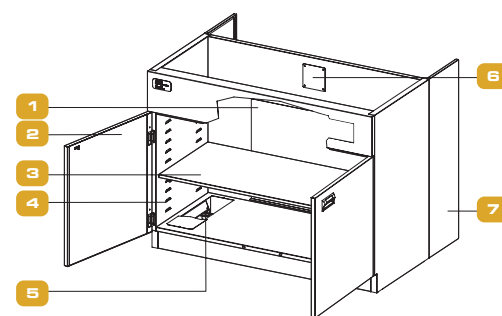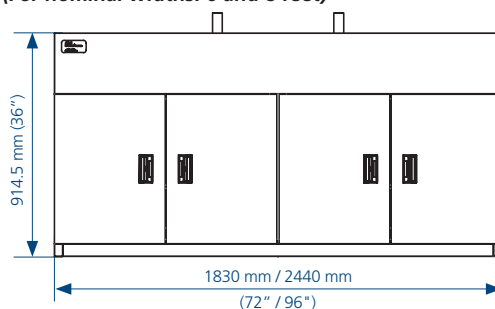## Model EBA, Frontier® Acela™ Base Cabinet Engineering Drawing

Front View
EBA-4UDG-0 / EBA-5UDG-0
(For nominal widths: 4 and 5 feet)

914.5 mm (36")

1220 mm / 1525 mm
(44" / 60")
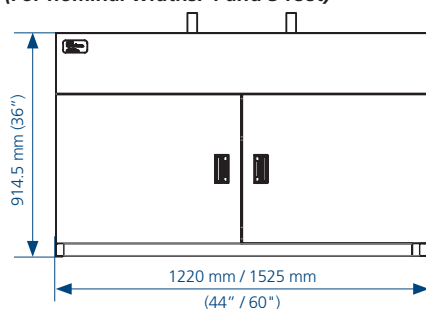
Front View
EBA-6UDG-0 / EBA-8UDG-0
(For nominal widths: 6 and 8 feet)

914.5 mm (36")

1830 mm / 2440 mm
(72" / 96")

1. Rear access panel
2. Soft close door
3. Adjustable shelf
4. Adjustable shelf slot
5. Base cabinet height leveler
6. Ventilation provision
7. Base cabinet filler panel (optional)

Safety Certified and Tested
• Built and tested according to SEFA-8 recommended practices.

Superstructure
• Fabricated of electro-galvanized steel (zinc coated to prevent rusting even if the powder coat is abraded, and phosphated for better adhesion of the powder coating)
• Epoxy-polyester hybrid Isocide™ antimicrobial powder coating provides long term chemical, abrasion and weathering resistance.
• Ships unassembled, assembles rapidly on site

Aesthetics and Ergonomics Design
• Concealed door hinges
• Soft-close insulated doors
• Adjustable shelf allows user to select optimum heights for upper and lower storage compartments

Serviceability
• Convenient access to levelers from inside base cabinet
• Removable rear access panel facilitates installation and maintenance of plumbing and drainage systems

Options and Accesories
• Ventilation Kit
  VK-EBA
  - Ventilates base cabinet utilizing the hood exhaust system
  - Field-installed
  VK-Justrite
  - Ventilates the Justrite cabinet utilizing the hood's exhaust system
• Filler Panel
  FP-EBAD
  - One set of filler panels required per continuous row of hoods
  - Field-installed
  FP-Justrite
  - One set of filler panels required per continuous row of hoods
  - Field-installed

Esco Resinate Plus™

SEFA-8 Test on Frontier® Acela™ Base Cabinet (EBA)		
No.	Type of Test	Test Result
1	Cabinet load test	PASS
2	Cabinet concentrated load test	PASS
3	Cabinet torsion	PASS
4	Cabinet submersion test	PASS
5	Door hinge test	PASS
6	Door impact test	PASS
7	Door cycle test	PASS
8	Chemical spot test	PASS
9	Hot water test	PASS
10	Impact test	PASS
11	Paint adhesion on steel	PASS
12	Paint hardness on steel	PASS

Convenient Serviceability

Door Hinge Test

Cabinet Load Test

The cabinet load test will challenge the structural integrity and load bearing capability of the cabinet construction. The cabinet top is loaded with 2000 pounds (907.184 Kg) solid steel bars.

Esco Resinate Plus™ liner is offer excellent chemical and physical resistance against harsh environments particularly against highly corrosive acids.

- Fiber Glass Reinforced Plastic
- UL1805 Compliant
- Smooth, attractive, easy-to-clean finish

Explosion Proof Fume Hood Upgrades

Ordering Code	Description	
EXP-011	**Explosion Proof Light Box** • 1 piece for 4, 5, 6 ft, 2 pieces for 8 ft	
EXP-012	**Electrical Socket Outlet** • 1 on left side post and 1 on right side post: total of 2 pcs EO	
EXP-013	**Installation ON-OFF Light Switch** • Only 1 per fume hood	
EXP-014	**Explosion Proof Junction Box** • Only 1 per fume hood	

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