

Frontier[®] JUNIOR[™]

General Purpose Laboratory Fume Hoods



Esco Frontier[®] Junior[™] Laboratory Fume Hood,
Model EFB-4A_

Introduction

The Esco Frontier[®] Junior[™] Fume Hood combines innovative features such as a revolutionary baffle design for improved fume containment and an 8° sloped sash for a higher degree of forward movement.

This general purpose fume hood is supplied with no work top for easy adaptability to any work surface and user convenience.

Superstructure

- Combined single and double wall construction allows service fixtures to be remotely controlled and electrical outlets to be mounted out of the work zone for easy reach and quick access.
- Internal liner is constructed of electrogalvanized steel with Isocide[™] powder coating for long-term chemical abrasion and weathering resistance.
- Electrogalvanized steel airfoil safely ventilates fumes generated towards the front of the hood for superior operator protection.
- Has a vertical-rising sash constructed of tempered laminated glass with fail-safe counterbalanced mechanism.
- Standard fixtures included: 1 remote-controlled gas fixture and 1 swan-neck faucet.
- Two (2) electrical outlets are provided with every hood (total rating: 5 A)

Aesthetics and Ergonomics Design

- Perfect Pitch Profile - The gentle pitch of the hood enhances visibility and enables users to work further into the hood without strain.

- 8° sloped front of the sash allows users to work closely to the hood with minimal glare and reflections.
- Complementary color scheme of neutral white with blue accent blends the hood with any casework, metal or wood.
- Energy-efficient hood lighting through a pre-wired, electronic ballast. Typical light intensity on work surface is 894 lux in zero ambient condition.
- Color temperature is tuned to provide a gentle, and comfortable work environment for the user.

Serviceability

- Shipped unassembled to save freight costs and for convenience.
- Simple assembly procedure means quicker utilization upon delivery.

Safety Certified and Tested

All Esco fume hoods are manufactured for the most demanding laboratory applications.

- Independently tested and certified by Invent, UK to meet the requirements of the ANSI/ASHRAE 110-1995 Standard.
- Hoods are ASHRAE tested on the production line on a sampling basis (industry exclusive).
- Sash is clearly labeled with all operating instructions and illustrations.

Guide to Models, Frontier® Junior™ Fume Hoods

E F B - A

External Width	Code	Internal Depth	Code	Electrical Code	Code
1220 mm (48.0")	4	600 mm (23.6")	A	220-240 VAC, 50-60 Hz, 1Ø	8
1500 mm (59.0")	5			110-120 VAC, 50-60 Hz, 1Ø	9
1800 mm (70.9")	6				

General Specifications, Frontier® Junior™ Fume Hoods

Model	220-240 VAC, 50/60 Hz, 1Ø	EFB-4A8 2090313	EFB-5A8 2090260	EFB-6A8 2090261
	110-120 VAC, 50/60 Hz, 1Ø	EFB-4A9 2090085	EFB-5A9 2090089	EFB-6A9 2090092
Nominal size	1.2 meter (4')		1.5 meter (5')	
External Dimensions (W x D x H)	1200 x 795 x 1461 mm (47.2" x 31.3" x 57.5")		1500 x 795 x 1461 mm (59.1" x 31.3" x 57.5")	
Internal Work Area, Dimensions (W x D x H)	1050 x 600 x 1228 mm (41.3" x 23.6" x 48.3")		1350 x 600 x 1228 mm (53.1" x 23.6" x 48.3")	
Exhaust Volume / Static Pressure Required Face Velocity of 0.5 m/s (100 fpm) at Full Open Sash	1040 cmh at 61 Pa (612 cfm at 0.25" WG)		1337 cmh at 75 Pa (787 cfm at 0.30" WG)	
Exhaust Outlet External Diameter	260 mm (10.2")			
Number of Exhaust Outlet	1			
Light Intensity at Work Surface	894 lux (83.1 foot-candles)		1115 lux (103.6 foot-candles)	
Construction	Main Body	EG steel with aluminum and oven-baked epoxy-polyester hybrid Isocide™ powder coating		
	Internal Liner			
	Worktop	No worktop provided		
Sash Specification	Sash Material	Tempered Laminated and Framed Sash Glass		
	Sash Configuration	Vertical		
	Sloping	8° slope		
	Maximum Sash Opening	550 mm (21.7")		
Power Consumption	25 W (Fluorescent light only)			
Electrical*	Cabinet Full Load Amps (FLA)	7 A		
	Cabinet BTU/Hr**	205	341	
Controller	Rocker Switches			
Net Weight***	143 Kg (315.3 lbs)	167 Kg (368.2 lbs)	196 Kg (432.1 lbs)	
Shipping Weight***	207 Kg (456.4 lbs)	238 Kg (524.7 lbs)	272 Kg (599.7 lbs)	
Shipping Dimensions, Maximum*** (W x D x H)	1300 x 950 x 1900 mm (51.2" x 37.4" x 74.8")	1600 x 950 x 1900 mm (63.0" x 37.4" x 74.8")	1950 x 950 x 1900 mm (76.8" x 37.4" x 74.8")	

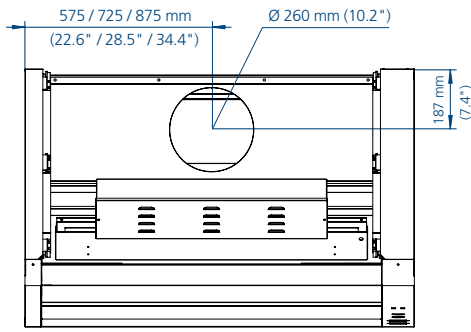
*The maximum rating of all the electrical outlets combined is 5 Amperes. Please contact Esco if you need electrical outlets with higher capacity.
Note: EFB only shipped unassembled, minimum order quantity is 2 units per size, units can be double / triple stacked on a pallet.

** Cabinet BTU = Cabinet nominal power x 3.41214

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

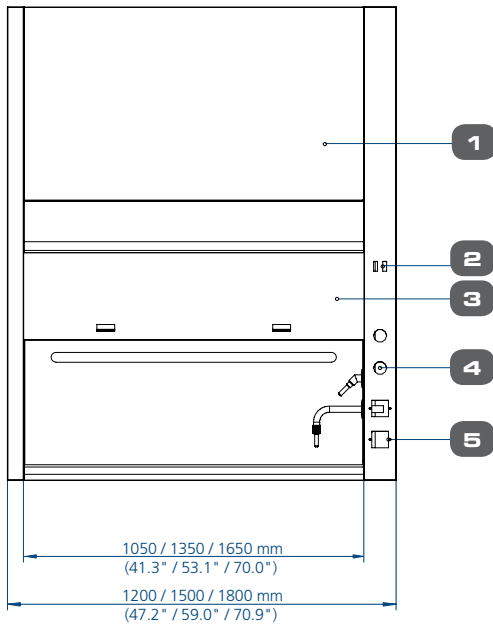
Model EFB Frontier® Junior™ Fume Hood Engineering Drawing

Top View

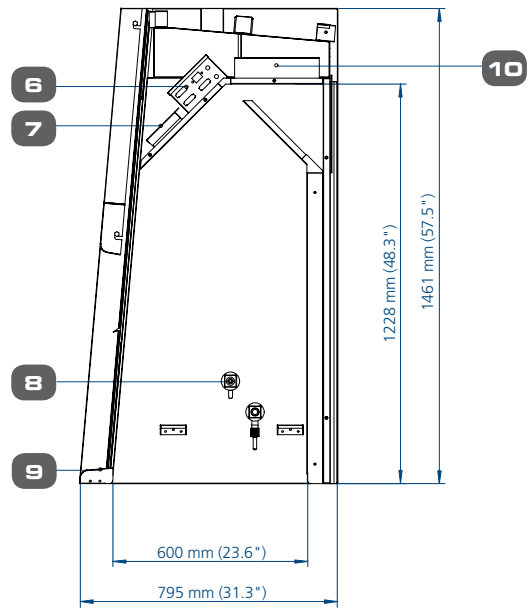


- 1. Front Panel
- 2. Rocker Switches
- 3. Sash Window
- 4. Remote Control Service Fixture
- 5. Electrical Outlet
- 6. Electrical Panel
- 7. Fluorescent Lamp
- 8. Panel-mounted Service Fixture
- 9. Airfoil
- 10. Exhaust Collar

Front View



Side View



Remote control service fixture is mounted on the cabinet.

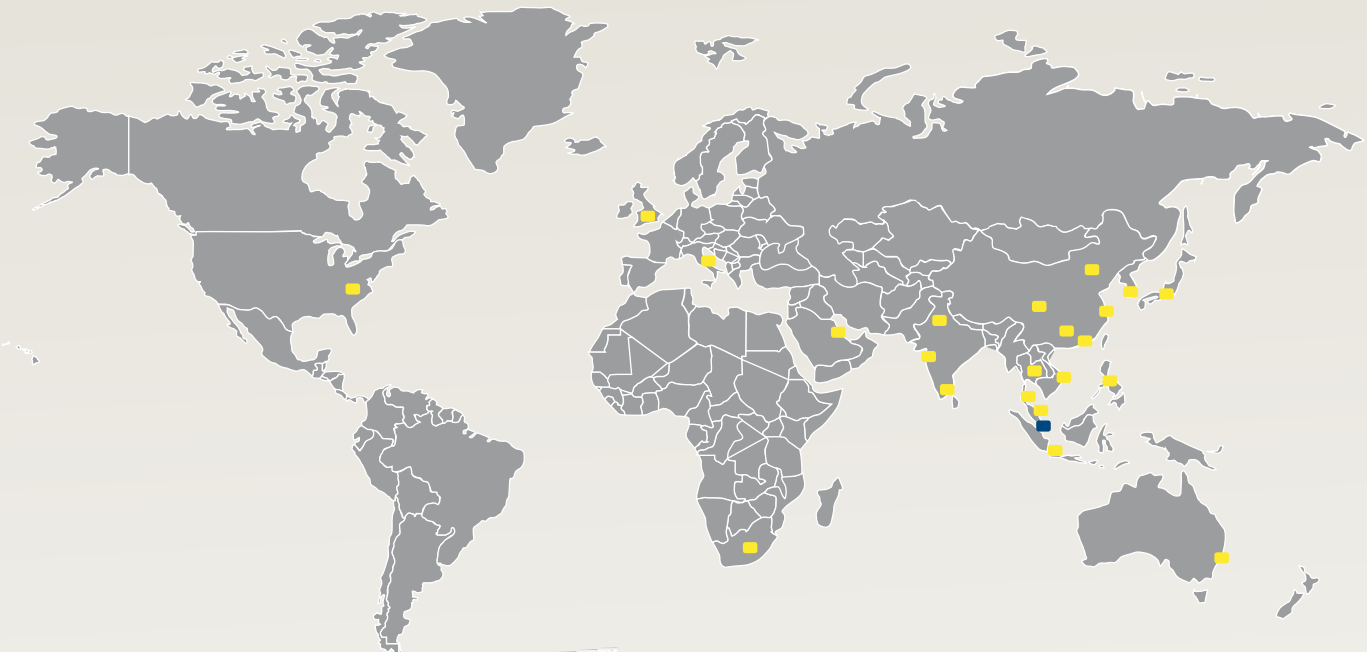


Rocker Switches

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
- Plumbing and electrical hook-up
- Unless otherwise specified, items and services specified above are not provided by Esco

ESCO GLOBAL NETWORK



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