

Frontier® JUNIOR™



Esco Frontier Junior™ Laboratory Fume Hood,
Model EFB-4A...

Laboratory Fume Hoods

Introduction

The Esco Frontier Junior Fume Hood combines innovative features such as a revolutionary baffle design and an 8° sloped front, maximizing operator safety and offering improved ergonomics.

Superstructure

- Combined single wall / double wall construction allows service fixture remote controls and electrical outlets to be mounted out of the work zone within easy reach.
- Internal liner is constructed of electrogalvanized steel with a corrosion and abrasion resistant oven-baked epoxy-polyester hybrid Isocide™ antimicrobial powder-coated finish.
- Corrosion-resistant epoxy powder coated electrogalvanized steel airfoil safely ventilates fumes generated towards the front of the hood for superior operator protection.
- Revolutionary baffle design optimizes airflow & improves containment within the work zone.
- Standard vertical rising fail safe counterbalanced sash constructed of tempered safety glass maximizes operator safety. The safety mechanism causes the sash to tilt and lock if a cable snaps.
- 1 remote-control gas fixture and 1 remote-control water fixture are provided with every hood.
- 2 electrical outlets are provided with every hood (total rating 5A).

Worktop and Base Cabinet options are not available for Frontier Junior Fume Hood

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.

- The angled front is also an aesthetic feature that positions your laboratory for the 21st century.
- Complementary color scheme of neutral white with blue accents blends the hood with any casework, metal or wood.
- Hood lighting is pre-wired. Lighting is electronically ballasted, energy efficient, instant start. Typical light intensity on work surface is >780 lux (>72 foot candles) in zero ambient conditions.
- Color temperature is tuned to provide a gentle, bright (but not harsh) and comfortable work environment for the user.

Serviceability

- Supplied with no work top for easy adaptability to any work surface.
- Esco Frontier Junior Fume Hoods ship unassembled to save freight costs, and for convenience during transport especially

when the fume hood needs to be installed in a laboratory with a narrow door or hallway.

- 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 requirement 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.



Service fixture outlet is mounted on the cabinet.

General Specifications, Frontier Junior Fume Hoods

Model	EFB-4A	EFB-5A	EFB-6A	
Nominal size	1.2 meters (4')	1.5 meters (5')	1.8 meters (6')	
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 59.0" x 31.3" x 57.5"	1800 x 795 x 1461 mm 70.9" 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"	1650 x 600 x 1228 mm 70.0" x 23.6" x 48.3"	
Maximum Sash Opening	560 mm (22")			
Exhaust Volume / Static Pressure Required Face Velocity of 0.5m/s (100fpm) at Full Open Sash	1058 cmh @ 61 Pa 623 cfm @ 0.25" WG	1361 cmh @ 75 Pa 801 cfm @ 0.30" WG	1663 cmh @ 88 Pa 979 cfm @ 0.35" WG	
Exhaust Outlet External Diameter	260 mm (10.2")			
Number of Exhaust Outlets	1	1	1	
Light Intensity at Work Surface	> 780 Lux (> 72 foot candles)			
Construction	Main Body	Oven-baked epoxy-polyester powder-coated EG steel		
Power Consumption	25W (Fluorescent light only)			
Electrical*	220-240V, AC, 50/60 Hz, 1Ø	EFB-4A8	EFB-5A8	EFB-6A8
	Cabinet Full Load Amps (FLA)	10 A	10 A	10 A
	Cabinet BTU**	205	341	341
	110-120V, AC, 50/60 Hz, 1Ø	EFB-4A9	EFB-5A9	EFB-6A9
	Cabinet Full Load Amps (FLA)	10 A	10 A	10 A
	Cabinet BTU**	205	341	341
Controller	Rocker Switches			
Net Weight	143 kg (315 lbs)	167 kg (368 lbs)	196 kg (432 lbs)	
Shipping Weight	207 kg (456 lbs)	238 kg (525 lbs)	272 kg (599 lbs)	
Shipping Dimensions, Maximum (W x D x H)	1680 x 1300 x 700 mm 66.1" x 51.2" x 27.6"	1680 x 1300 x 700 mm 66.1" x 51.2" x 27.6"	1950 x 1300 x 700 mm 76.8" x 51.2" x 27.6"	

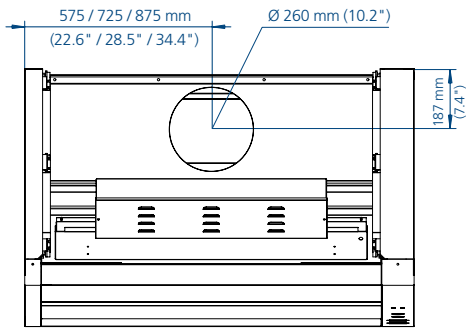
* The maximum rating of all the electrical outlets combined is 5 Amp. Please contact Esco if you need electrical outlets with higher capacity.

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

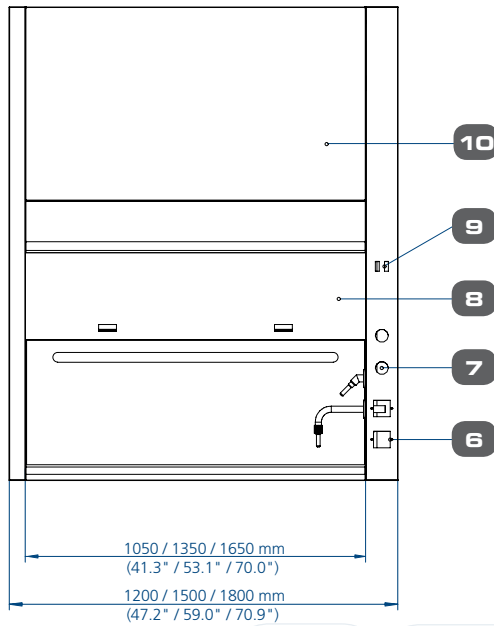
Model EFB Frontier Junior Fume Hood Technical Specifications

Top View (for EFB-4, EFB-5, EFB-6)

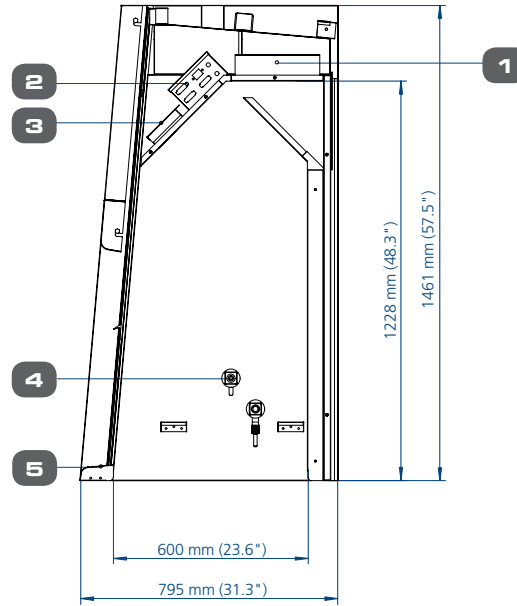


- | | |
|----------------------------------|-----------------------------------|
| 1. Exhaust collar | 6. Electrical outlet |
| 2. Electrical panel | 7. Remote control service fixture |
| 3. Fluorescent lamp | 8. Sash window |
| 4. Panel-mounted service fixture | 9. Rocker switches |
| 5. Airfoil | 10. Front panel |

Front View



Side View



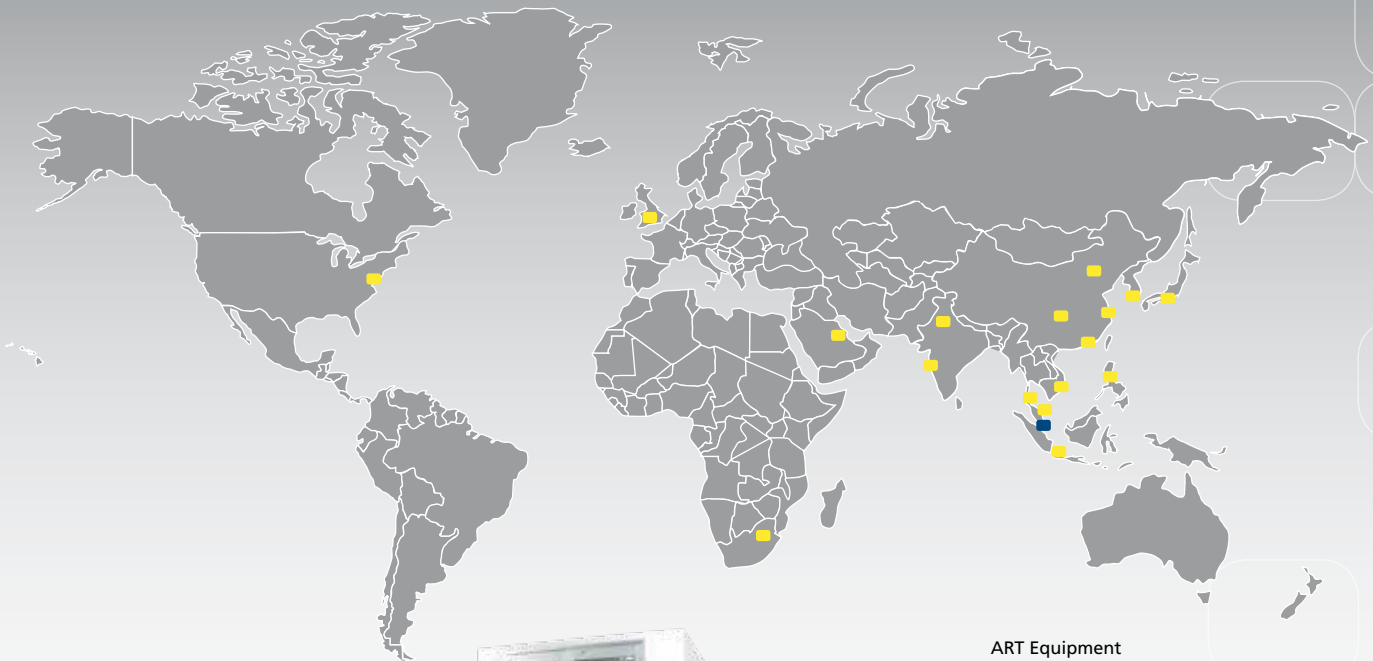
Remote control service fixture is mounted on the cabinet.



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)
 - Contactor (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



- ART Equipment
- Biological Safety Cabinets
- CO₂ Incubators
- Compounding Pharmacy Equipment
- Containment / Pharma Products
- Ductless Fume Hoods
- Freeze Dryer
- Lab Animal Research Products
- Laboratory Fume Hoods
- Laboratory Ovens and Incubators
- Laminar Flow Clean Benches
- PCR Cabinets
- PCR Thermal Cyclers
- Powder Weighing Balance Enclosures
- Ultra-low Freezers

The Esco Group of Companies is a global life sciences tools provider with sales in over 100 countries. The group is active in lab equipment, pharma equipment and medical devices. Manufacturing facilities are located in Asia and Europe. R&D is conducted worldwide spanning the US, Europe and Asia. Sales, service and marketing subsidiaries are located in 12 major markets including the US, UK, Singapore, Japan, China and India. Regional distribution centers are located in the US, UK, and Singapore.

Life Science • Chemical Research • Assisted Reproductive Technology (ART) • Pharmaceutical Equipment • General Equipment

ESCO

WORLD CLASS. WORLDWIDE.

Esco Technologies, Inc. • 2940 Turnpike Drive, Units 15-16 • Hatboro, PA 19040, USA
 Toll-Free USA and Canada 877-479-3726 • Tel 215-441-9661 • Fax 215-441-9660
 us.escoGLOBAL.com • usa@escoGLOBAL.com

Esco Micro Pte. Ltd. • 21 Changi South Street 1 • Singapore 486 777
 Tel +65 6542 0833 • Fax +65 6542 6920 • mail@escoGLOBAL.com
 www.escoGLOBAL.com

Esco Global Offices | Beijing, China | Chengdu, China | Kuala Lumpur, Malaysia | Manama, Bahrain | Guangzhou, China | Hanoi, Vietnam | Melaka, Malaysia | Mumbai, India | Philadelphia, PA, USA | Salisbury, UK | Shanghai, China | Seoul, Korea | Delhi, India | Osaka, Japan | Manila, Philippines | Midrand, South Africa | Jakarta, Indonesia | Singapore



9010077 - Framewood, FER, Solihull, A.A., C.C., 03/13
 Esco can accept no responsibility for possible errors in catalogues, brochures and other printed materials. Esco reserves the right to alter its product and specifications without notice. All trademarks and logos in this material are the property of Esco and the respective companies.