# Frontier® ACELA XP

## High Performance Explosion Proof Fume Hood

### Introduction

The Frontier Acela® XP Series Fume Hood is an explosion proof fume hood designed and fitted with ATEX / IECex Zone 1 rated electrical components. It provides the highest level of chemical containment and almost no possibility of sparks in the workzone.*

Suitable for applications or rooms which have presence of highly flammable or explosive gases and vapours especially in the Oil & Gas industry

### Structure

- Tri-wall construction for maximum robustness
- Robust chain and sprocket sash support system
- Can be customised to fit any models of furnaces

### Ergonomics

- 5° Angled Front or the Perfect Pitch Profile™ allows users to lean forward and also minimizes glare and reflections. The gentle pitch of the hood profile enhances visibility and maximizes operator comfort.

### Safety

- Compliant to both ASHRAE110 and EN14175 standards for fume hood safety
- Perforated lower baffle improves overall containment of the fume hood
- Aerodynamic designs of the airfoil, shaping vanes and sash handle guards the entire perimeter of the sash opening ensuring airflow turbulence is minimized
- Sash stop limits sash movement beyond 457mm (18"), encouraging users to work at safe positions
- Esco's sash Creep-Down mechanism automatically lowers the sash to a safe position whenever it is temporarily raised above the sash height limit of 457mm (18")
- Sash is made from 6mm tempered safety glass

### Energy Efficiency

- Operates safely at face velocities as low as 0.3 m/s (60 fpm)
- Exhaust volume reductions of up to 58% can be achieved without compromising safety.

### Serviceability

- Removable baffle design allows for periodic cleaning of hood's rear wall. This helps eliminate potential clogs in this area that can reduce containment
- Internal access panels on the side walls facilitate access to plumbing connections

### Standard Explosion Proof Accessories

- Explosion Proof Light Fixture
- Explosion Proof Electrical Socket Outlet
- Explosion Proof ON-OFF Light Switch
- Explosion Proof Junction Box

### Optional Accessories

- Remote control fixtures for water and special gases
- Large sinks
- Support stand
- Base storage cabinet
- Airflow monitor alarm can be added as a customization

### Warranty

- Contact your local sales representative or visit https://www.escolifesciences.com/services/product-appendix for specific warranty details.

*Disclaimer: The Frontier Acela® XP Fume Hood not designed or independently tested to comply to any Explosion Proof Rating Standards such as ATEX/IECex at system level. If required, the user is responsible for certification of the fume hood according to the ATEX/IECex rating.*

**ESCO** LIFESCIENCES

| Ordering Code | Description | |
|---|---|---|
| EXP-001 | **Explosion Proof Light Box**<br>• 1 piece for 4/5 ft, 2 pieces for 6/8 ft | |
| EXP-002 | **Electrical Socket Outlet**<br>• 1 on left side post and 1 on right side post: total of 2 pcs EO | |
| EXP-003 | **Installation ON-OFF Light Switch - 8040**<br>• Available as 2 pole OFF switch or changeover switch<br>• Enclosure made of optical fiber reinforced polyester resin<br>• Degree of protection IP66 according to IEC/EN 60529<br>• Clear position indicator 0/1 or ON/OFF<br>• Only 1 per fume hood | |
| EXP-004 | **Explosion Proof Junction Box**<br>• Only 1 per fume hood | |

## Guide to Models

### E F A - 4 U  D  R  V  W  8 - X P

| External WidthCode | | Internal Depth Code | | Internal Liner Code | | Sash Type Code | | Color Code | | Electrical Code | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1220 mm (48.0") | **4U** | | **D** | Esco Resinate™ | **R** | Vertical | **V** | Esco | **W** | 230 V, AC, 50 / 60Hz | **8** |
| 1525 mm (60.0") | **5U** | 900 mm (35.4") | | | | Combination | **C** | | | 110-120 V, AC, 50 / 60Hz | **9** |
| 1830 mm (72.0") | **6U** | | | | | | | | | | |
| 2440 mm (96.0") | **8U** | | | | | | | | | | |

## General Specifications, Frontier Acela® XP Series Fume Hood

| Model | | EFA-4UDR_W-_-XP | EFA-5UDR_W-_-XP | EFA-6UDR_W-_-XP | EFA-8UDR_W-_-XP |
|---|---|---|---|---|---|
| Nominal Size | | 1.2 meters (4') | 1.5 meters (5') | 1.8 meters (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 406 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 1609 mm (48.0" x 35.4" x 63.3") | 1525 x 900 x 1609 mm (60.0" x 35.4" x 63.3") | 1830 x 900 x 1609 mm (72.0" x 35.4" x 63.3") | 2440 x 900 x 1609 mm (96.1" x 35.4" x 63.3") |
| Internal Work Area (W x D x H) | | 996 x 675x 1230 mm (39.2" x 26.6"x 48.4") | 1301 x 675x 1230 mm (51.2" x 26.6"x 48.4") | 1606 x 675x 1230 mm (63.2" x 26.6"x 48.4") | 2216 x 675x 1230 mm (87" x 26.6"x 48.4") |
| Maximum Sash Opening | | 670 mm (26.4") | | | |
| **Face Velocity** | **Sash Opening** | | | | |
| 0.3 m/s (60 fpm) | | 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 (513 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") | 721 cmh 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) | | 901 cmh at 31.8 Pa (530 cfm at 0.13" WG) | 1177 cmh at 34.7 Pa (692.8 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) | | 899 cmh at 22.1Pa (526 cfm at 0.09" WG) | 1175 cmh at 28.7 Pa (691 cfm at 0.12" WG) | 1450 cmh at 36.1 Pa (848 cfm at 0.15" WG) | 1819 cmh at 27.3 Pa (1070 cfm at 0.11" WG) |
| 0.4 m/s (80 fpm) | 670 mm (26.4") | 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) | | 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 | | 305 mm (12.0") | | | |
| Number of Exhaust Collars | | 1 | | 2 | |

\* *When sash is in full open position, total height of fume hood is 1731 mm (68.2"). Please ensure sufficient ceiling height clearance is available.*