



Introduction to ACT Enhanced Filter Units

Air Cleaning Technologies, Inc. (ACT) is a leader in the design and fabrication of collective protection air filtration systems, Custom Air handling Units, and Enhanced Filtration Units for protection against Chemical, Biological, and Radiological (CBR) contaminants. ACT can provide assessment, design, manufacturing, installation, and final acceptance testing for projects requiring high level expertise in the removal and containment of deadly CBR agents.

While there have been filtration products and systems developed in the past to protect against the accidental release of Toxic Industrial Chemicals and Materials (TIC/TIM), today's threats exceed the capability of most commercial filtration products. ACT utilizes current US Military filtration technologies to protect against both accidental and intentional Terrorist release of CBR agents.

Building ventilation systems are susceptible to Toxic agent release both from within the building (through return air ducts) and from outside the building (through outside air intakes).

ACT designs and manufactures CBR filtration and air handling systems that can create "Safe Havens" within a building or protect entire facilities.

ACT has completed dozens of CBR projects for:

- US Army Corp of Engineers
- US Air Force
- US Army
- US Federal government
- Commercial clients
- Residential clients

Most of our projects are sensitive in nature and subject to "For Official Use Only" (FOUO) regulations.

A sampling of our Federal portfolio is as follows.

- Site 8 Inner Towers-Sensitive DHS project that included the fabrication and installation of four 7200 CFM custom field built air handling units with CBR filtration.
- Site 12-Sensitive DHS project that included the fabrication and installation of one 50,000 CFM custom field built air handler with CBR filtration.
- Site 6- Sensitive DHS project that included the fabrication and installation of three 12,000 CFM custom field built air handlers with CBR filtration.
- Site 4- Sensitive DHS project that included the fabrication and installation of four 8,400 CFM CBR custom field built air handlers with CBR filtration.
- Site 7A- Sensitive DHS project that included the fabrication and installation of one 25,000 CFM custom field built air handlers with CBR filtration
- Site 7- Sensitive DHS project that included the fabrication and installation of four 15,000 CFM custom field built air handlers with CBR filtration
- Site 3- Sensitive DHS project that included the fabrication and installation of two 20,000 CFM custom field built air handlers with CBR filtration
- Site 5- Sensitive DHS project that included the fabrication and installation of one 30,000 CFM custom field built air handler with CBR filtration

ACT has an internal CAD department and equipment selection specialists as well as an assembly department that can rebuild existing air handlers or furnish and install new field built air handlers.

ACT Enhanced Filter Units are typically built with the following construction standards.

- L/240 deflection @ 1.5 X design pressure or 12" wg. (Whichever is greater)
- .5% casing leakage @ 1.5 X design static pressure or 12" wg. (Whichever is greater)
- 4" thick casing.
- 16 g. galvanized steel exterior panels.
- Seam welded 16 g. stainless steel interior liners.
- Seam welded 14 g. stainless steel pressure boundaries.
- Seam welded 3/16" thick stainless steel tread plate floors.
- Sloped section floors with dedicated drains.
- Seam welded stainless steel double wall insulated primary condensate pans.
- Class IV plenum fans.
- Multi Cell Radial Flow CBR filter tubes with integral air flow stations.
- Internal florescent lighting.
- Pre piped service vestibules.
- Factory installed controls.
- Many other construction and component options are available including fan arrays, conventional redundant belt drive fans, dehumidification & heat recovery wheels, UV lighting, factory installed controls, seam welded wash down construction and more.

Site 9 roof top EFU



Multi cell radial flow tubes with front loading HEPA and integral air flow station



Rear loading M-98 carbon adsorbers



Service vestibules

