Blast-Resistant Window Systems
by Wojan in collaboration with Physical Security

Designed to meet Department of Defense (DoD) Unified Facilities Criteria (UFC) at conventional standoff

- Aluminum windows for punched openings: Single-Hung, Fixed, Project-out Awning or Casement
- Meets Anti-Terrorism Force Protection (ATFP) UFC 4-010-01 and 02 at Charge Weight I & II at conventional construction standoff distances

Cost and Design Advantages
- Fully factory assembled windows, shop glazed, no field glass installation, and minimal lead times
- Comparatively easy and cost-effective to install
- DEFCON systems utilize a receptor system to establish exact engagement of the window
- Minimal anchorage required, similar to commercial window installation
- No embeds required in precast
- One of the strongest warranty bundles in the industry (see supporting documents for details)

Expert Resources Available
- Engineering and technical support for identification of anchorage substrates, variations in sizes and anchor conditions
- Certified installers
- Blast test certifications / complete calculations by Professional Engineer
- Shop Drawings (elevation / sections)

Projects / Accomplishments (partial list)
- AMC/USACA HQ - Redstone Arsenal
- Anacostia Federal Building - Bolling AFB
- Battalion Headquarters - Ft. Benning
- D.O.T.S. Facility - Ft. Benning
- Defense Info Sys Agency HQ - Ft. Meade
- Washington D.C. Naval Yard
- Quantico Marine Corps Base
- 101st Airborne GTF Complex - Ft. Campbell
- COF Barracks - Pearson, GA
- Training Brigade Complex - Ft. Benning
- UEPH Barracks - Ft. Benning

Made in the U.S.A.

Proud Member
AAMA Ratings: Air / Water / Structural / Thermal

- **System Depth:** 3¼”
- Provides protection as mandated by Anti-Terrorism Force Protection (ATFP) criteria for Explosive Weight I & II at conventional construction standoff distances
- Meets UFC 4-010-01 and 02 w/change 1, Jan 22, 2007

### U-Value comparisons
- example data represents three typical glass package options
(see our website for the latest updates).
- With optional high-performance glass package.
- Air-filled IGU with Low-E over clear glass, ½” aluminum box spacer.
- Air-filled IGU with clear over clear glass, ½” aluminum box spacer.

### Metric U-Value conversion
- coefficient = US value x 5.678263
- R-Value = 1 / U-Value

### Protection Levels and Attributes

**DoD / UFC**

<table>
<thead>
<tr>
<th>LEVEL OF PROTECTION</th>
<th>GLAZING HAZARD RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>No Hazard</td>
</tr>
<tr>
<td>Medium</td>
<td>Minimal</td>
</tr>
<tr>
<td>Low</td>
<td>Very Low (VLH)</td>
</tr>
<tr>
<td>Very Low</td>
<td>Low (LH)</td>
</tr>
<tr>
<td>Below Anti-Terrorism (AT) Standards</td>
<td>High (HH)</td>
</tr>
</tbody>
</table>

**All DEFCON Blast-Resistant Window models qualify for Medium Level of Protection and Minimal Glazing Hazard Rating**

*as tested

**Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>Window Type</th>
<th>AMMA Rating *</th>
<th>Test Size (W x H)</th>
<th>Air Infiltration (cfm/sq ft)</th>
<th>Water Resistance (psf)</th>
<th>Deflection (psf)</th>
<th>Structural (psf)</th>
<th>U-Value ▼</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFCON I</td>
<td>Single-Hung</td>
<td>CW50</td>
<td>52” x 81”</td>
<td>.20</td>
<td>7.5</td>
<td>50</td>
<td>75</td>
<td>.43 ♣ or .48 ♦ or .61 ■</td>
</tr>
<tr>
<td>DEFCON II</td>
<td>Fixed</td>
<td>AW70</td>
<td>60” x 100”</td>
<td>.03</td>
<td>12</td>
<td>70</td>
<td>105</td>
<td>.35 ♣ or .41 ♦ or .55 ■</td>
</tr>
<tr>
<td>DEFCON III</td>
<td>Project-out Awning</td>
<td>AW70</td>
<td>60” x 36”</td>
<td>.02</td>
<td>12</td>
<td>70</td>
<td>105</td>
<td>.51 ♣ or .56 ♦ or .66 ■</td>
</tr>
<tr>
<td>DEFCON V</td>
<td>Project-out Casement</td>
<td>HC65</td>
<td>36” x 60”</td>
<td>.01</td>
<td>12</td>
<td>65</td>
<td>97.5</td>
<td></td>
</tr>
</tbody>
</table>

**U-Value comparisons**
- example data represents four typical glass package options
(see our website for the latest updates).
- With optional high-performance “plus” glass package.
- Air-filled IGU with Low-E over clear glass, ¾” aluminum box spacer.
- Air-filled IGU with clear over clear glass, ¾” aluminum box spacer.

**Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>Window Type</th>
<th>AMMA Rating *</th>
<th>Test Size (W x H)</th>
<th>Air Infiltration (cfm/sq ft)</th>
<th>Water Resistance (psf)</th>
<th>Deflection (psf)</th>
<th>Structural (psf)</th>
<th>U-Value ▼</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFCON II</td>
<td>Fixed</td>
<td>AW70</td>
<td>60” x 100”</td>
<td>.03</td>
<td>12</td>
<td>70</td>
<td>105</td>
<td>.35 ♣ or .41 ♦ or .55 ■</td>
</tr>
<tr>
<td>DEFCON III</td>
<td>Project-out Awning</td>
<td>AW70</td>
<td>60” x 36”</td>
<td>.02</td>
<td>12</td>
<td>70</td>
<td>105</td>
<td>.51 ♣ or .56 ♦ or .66 ■</td>
</tr>
<tr>
<td>DEFCON V</td>
<td>Project-out Casement</td>
<td>HC65</td>
<td>36” x 60”</td>
<td>.01</td>
<td>12</td>
<td>65</td>
<td>97.5</td>
<td></td>
</tr>
</tbody>
</table>

* The ’05 fenestration standard utilized five performance classes - R, LC, C, HC and AW.
NAFS-08 utilizes four such classes - R, LC, CW and AW.