# PRODUCT SPECIFICATION GUIDE

## MODEL: COMBINATION STORM / FEMA LOUVER / BLAST DAMPER

# DIVISION 08 – OPENINGS (PREVIOUSLY DIVISION 10 & 15)

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Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) Format.

The section must be carefully reviewed and edited by the Engineer to meet the requirements of the project and local building code. Coordinate with other specification sections and the drawings.

Delete all "Specifier Notes" when editing this section.

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**SECTION 089000**

**COMBINATION STORM / FEMA LOUVER / BLAST DAMPER**

1. **GENERAL**
	* + 1. **SECTION INCLUDES**

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Specifier Notes: This section covers United Enertech Blast Damper model ICBL-20WR. Consult factory representative for assistance in editing this section for specific applications.

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* + - 1. **RELATED SECTIONS**
				1. Section 033000 – Cast-in-Place Concrete
				2. Section 042000 – Unit Masonry.
				3. Section 051000 – Structural Metal Framing.
				4. Section 061000 – Rough Carpentry.
				5. Section 074200 – Metal Wall Panels.
				6. Section 076000 – Flashing and Sheet Metal.
				7. Section 079000 – Joint Protection.
				8. Section 089500 – Vents.
				9. Section 099113 – Exterior Painting.
			2. **REFERENCES**
				1. FEMA 361 – Design and Construction Guidance for Community Safe Rooms.
				2. FEMA 320 – Safe Room Construction Guidelines.
				3. ICC 500 – Standard for the Design and Construction of Storm Shelters.
				4. AMCA 500-L – Laboratory Methods of Testing Louvers for Rating.
				5. AMCA 511 – Certified Ratings Program for Air Control Devices.
				6. ASCE 7 – Minimum Design Loads for Buildings and Other Structures.
				7. ASTM D822 – Standard Practice for Filtered Open-Flame Carbon-Arc Exposure of Paint and Related Coatings.
				8. ASTM D4214 – Standard Test Method for Evaluating the Degree of Chalking of Exterior Paint Films.
				9. ASTM D2244 – Standard Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
			3. **SUBMITTALS**
				1. Comply with requirements of Section 013300 - Submittal Procedures.
				2. Product Data: Submit manufacturer's product data.

Printed catalog pages showing specified model, AMCA Certified Ratings, Miami-Dade County NOA Numbers and Florida Building Code Approval Number.

* + - * 1. Shop Drawings: Submit shop drawings indicating materials, construction, dimensions, accessories, and installation details.
				2. Samples: Submit color chip sample for units with factory-applied paint.
			1. **QUALITY ASSURANCE**
				1. Louver / Damper shall be warranted against manufacturing defects for a period of 5 years. (1 year finish warranty)
				2. Louver / Damper shall be licensed to bear the AMCA Certified Ratings label for Water and Air Performance.
				3. Louver / Damper shall be tested in accordance with ICC-500.
				4. Louver / Damper shall be designed for blast conditions by method of analytical calculations or blast testing.
			2. **DELIVERY, STORAGE, AND HANDLING**
				1. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly indicating manufacturer, material, and location of installation.
				2. Storage: Store materials in a dry area indoor and protected from damage and in accordance with manufacturer’s instructions.
				3. Handling: Protect materials and finishes during handling and installation to prevent damage.
				4. Store and dispose of solvent-based materials, and material used with solvent based materials, in accordance with requirements of local authorities having jurisdiction.
			3. **PROJECT CONDITIONS**
				1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by the manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer’s absolute limits.
				2. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.
1. **PRODUCTS**
	* + 1. **MANUFACTURER**
				1. United Enertech, 3005 South Hickory Street, Chattanooga, TN 37421, Phone: 423.698.7715 [www.unitedenertech.com](http://www.unitedenertech.com)
			2. **Combination Storm / FEMA Louver / Blast Damper**
				1. Model: ICBL-20-WR
				2. Construction:

Material: Mill finish 10 ga carbon steel.

Frame: 10” deep 10 ga. Carbon steel

Blades: 10 ga carbon steel double skin airfoil (ASTM A-653).

* + - * 1. Performance Data:

Based on testing 48 inch x 48 inch (1219mm x 1219mm) size unit in accordance with AMCA 500L.

Free Area: 27% nominal

Free area size: 4.36 ft²

Maximum Recommended Air Flow thru Free Area: 1090 fpm

Air Flow: 4,752 cfm

Maximum Pressure Drop: 0.11 in. wg.

Water penetration: Maximum of .01 ounces per square foot (3.1 g/m²) of free area at an air flow of 1090 fpm ( free area velocity when tested for 15 minutes.

AMCA Seal: Product must be licensed to bear the AMCA Certified Ratings Seal for Water and Air Performance.

* + - * 1. Design Load:

Seismic Performance: Louvers, including attachments to other construction, shall withstand seismic effects determined by ASCE-7.

* + - 1. **ACCESSORIES**
				1. FEMA 361 Screen (exterior and interior)
* 4” x 1” Carbon Steel Grid
* 18ga x ½” expanded steel (interior)
	+ - 1. **FINISHES**
				1. Finish louvers after assembly as follows:
	+ Zinc Rich Primer (Powder Coat)
1. **EXECUTION**
	* + 1. **EXAMINATION**
				1. Examine substrates and openings for compliance with requirements for installation tolerances and other conditions affecting performance.
				2. Proceed with installation only after unsatisfactory conditions have been corrected.
			2. **PREPARATION**
				1. Clean Opening thoroughly prior to installation.
				2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
			3. **INSTALLATION**
				1. Install louvers at locations as indicated on the drawings and in accordance with manufacturer’s instructions.
				2. Install louvers plumb, level, in plane of wall, and in alignment with adjacent work.
				3. Install joint sealants as specified in Section 079000.
			4. **ADJUSTING AND CLEANING**
				1. Clean exposed surfaces of louvers with water and mild soap or detergent not harmful to finish taking care to remove fingerprints and soil. Thoroughly rinse surfaces and dry. Do not let soil accumulate during construction period.
				2. Touch-up, repair, or replace louvers damaged during installation and construction so that no evidence remains of the corrective work.

**END OF SECTION**