



US Army Corps
of Engineers®

Hardened Compression Frame Systems

BBROWS, BBERGS, BBERGS-H, and BBERDS



ERDC
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Building Strong®

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Features

- No anchoring required
- Fits various wall thicknesses
- Designed to DOS/Overseas Buildings Operations (OBO) blast requirements
- NIJ Level IV glazing & forced entry resistant doors
- BBROWS allows egress and return fire capability post-attack.
- Quick facility upgrades with increased levels of protection.



Product Description

Hardened Compression Frame systems are a suite of blast, ballistic, and forced entry resistant window and door products. Each system features compression-type frames for simplified installation into new or existing facilities.

BBROWS	Blast and Ballistic Resistant Operable Window System
BBERGS	Blast, Ballistic and Entry Resistant Glazing System
BBERGS-H	Blast, Ballistic, and Entry Resistant Glazing System – Heavy
BBERDS	Blast, Ballistic and Entry Resistant Door System



The U.S. Army Engineer Research and Development Center (ERDC) solves the nation's toughest engineering and environmental challenges. ERDC develops innovative solutions in civil and military engineering, geospatial sciences, water resources, and environmental sciences for the Army, DOD, civilian agencies, and our Nation's public good. Find out more on our website: www.erdcd.usace.army.mil. Approved for public release; distribution is unlimited. October 2021.



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Performance

Protects against NIJ Level IV ballistics (armor-piercing rifle), vehicular bomb sized attacks, and forced entry threats.

Adaptable to a range of wall thicknesses

System Information

System		Dimensions	Blast Protection Level
BBROWS		<u>Rough Opening:</u> 60" x 51.5" <u>Overall:</u> 5'-5" x 4-9" x 10"	3X DOS/OBO Design Impulse
BBERGS-H		<u>Rough Opening:</u> 76.5" x 64.5" <u>Overall:</u> 6-9" x 6'-0" x 9.5"	3X DOS/OBO Design Impulse
BBERGS		<u>Rough Opening:</u> 76" x 64" <u>Overall:</u> 6'-9" x 6'-1" x 9.5"	1.5X DOS/OBO Design Impulse
BBERDS		<u>Rough Opening:</u> 107" x 62" <u>Overall:</u> 9'-2" x 5'-8" x 8.5"	1.5X DOS/OBO Design Impulse

Technical POCs

Mr. John Judson, 601-634-2164, John.S.Judson@usace.army.mil

Mr. David Senior, 601-634-4041, David.V.Senior@usace.army.mil

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