

The ASSA ABLOY Group is the global leader in access solutions. Every day we help people feel safe, secure and experience a more open world.

ASSA ABLOY eBook

Multi-Solution Openings: Blast and Hurricane Resistant

About This eBook...

This eBook is intended to provide an overview of the new Multi-Solution Blast and Hurricane Resistant Openings available from ASSA ABLOY

Doors: CECO DOOR & CURRIES Multi-Solution Opening

Locking Hardware: CORBIN RUSSWIN BL6600 Series and SARGENT BL7300 Series

Door Accessories: MARKAR, McKINNEY, NORTON, PEMKO, RIXSON, ROCKWOOD, SECURITRON and ASSA ABLOY ACCENTRA

To advance to the next slide, click the Green Arrow at the bottom right of the page.

To advance to a different section, click on the desired box at the bottom of the page.



What is a Multi-Solution Opening?

Common Applications

Testing and Performance

Door and Frame Construction

Multi-Point Lock

Hinges

Accessories

Value Proposition

Tools & Resources



What are Multi-Solution Blast and Hurricane Resistant Openings?

- Multi-Solution Blast and Hurricane Openings are designed to provide extra protection against explosions and hurricane force winds.
- These openings typically meet U.S. government / military safety and security objectives for blast resistance and protects against extreme wind events in the High Velocity Hurricane Zone (HVHZ) and other hurricane prone areas.



What is a Multi-Solution Opening?

Common Applications

Testing and Performance

Door and Frame Construction

Multi-Point Lock

Hinges

Accessories

Value Proposition

Tools & Resources



Common Applications

▪ Critical Infrastructure

Energy

- Oil, Gas
- Nuclear
- Electricity



Food and Water

- Food Processing
- Water Filtration
- Waste Water



Critical Facilities

- Chemical Plants
- Pharma
- Data Centers



Transportation

- Pipelines
- Rail
- Aviation



▪ Government / Military

Government

- Embassies
- Courthouses
- Police Stations



Military

- Base Guard Booths
- Barracks
- High Security Structures



▪ Hurricane Environments

Hurricane Prone Areas

- Florida
- Gulf of Mexico Area
- Atlantic Coastline



What is a Multi-Solution Opening?

Common Applications

Testing and Performance

Door and Frame Construction

Multi-Point Lock

Hinges

Accessories

Value Proposition

Tools & Resources



Test Methods and Standards

- Meets UFC 4-010-01 Unified Facilities Criteria - DoD Minimum Anti-terrorism standards
- Meets ASTM 2927-12 Response Categories 1 (**no damage**) and 2 (**damage but operable**)
- Certified by Underwriters Laboratories (UL) for hurricane resistance test standards including: ANSI A250.13, ASTM E330, ASTM E1886, ASTM E1996, TAS-201, TAS-202, TAS-203 – Large missile impact
- ANSI/BHMA A156.37 Grade 1 certified



Shock Tube - ASTM F292712, Standard Test Method for Door Systems Subject to Air blast Loadings

What is a Multi-Solution Opening?

Common Applications

Testing and Performance

Door and Frame Construction

Multi-Point Lock

Hinges

Accessories

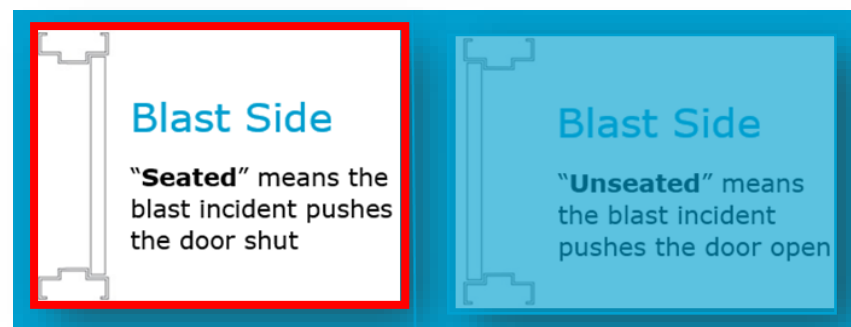
Value Proposition

Tools & Resources



Blast Resistant Product Details

Type	Brand/Model	Sizes Available
<p>Blast/Hurricane multi-point lock (CVR) and door openings</p> <p>Seated Only*</p>	<p>Corbin Russwin BL6600 Series</p> <p>SARGENT BL7300 Series</p> <p>Ceco Door Multi-Solution Opening</p> <p>Curries Multi-Solution Opening</p>	<p>Single Opening: 2'8" x 6'8" Min. 4'0" x 8'0" Max.</p> <p>Pair Opening: 5'4" x 6'8" Min. 8'0" x 8'0" Max.</p>



*Seated condition: The blast incident pushes the door shut against the stops of the frame.

What is a Multi-Solution Opening?

Common Applications

Testing and Performance

Door and Frame Construction

Multi-Point Lock

Hinges

Accessories

Value Proposition

Tools & Resources



Performance and Door Construction –

Ceco Door Multi-Solution Opening / Curries Multi-Solution Opening



Single – Fire rated up to and including 3hours by UL

- Category 1 Blast up to 6.16 psi / Hurricane 150 psf and 50 fps (12 Gauge door)
- Category 2 Blast up to 9.74 psi / Hurricane 150 psf and 50 fps (14 Gauge door)

Pair – Fire rated up to and including 3hours by UL

- Category 2 Blast up to 6.84 psi / Hurricane 150 psf and 50 fps (14 Gauge doors)

Door Construction

- 1- 3/4" thick door
- 18 Gauge steel stiffeners with fiberglass core
- Welded edge seams
- 14 Gauge end channels
- 18 Gauge welded top cap

What is a Multi-Solution Opening?

Common Applications

Testing and Performance

Door and Frame Construction

Multi-Point Lock

Hinges

Accessories

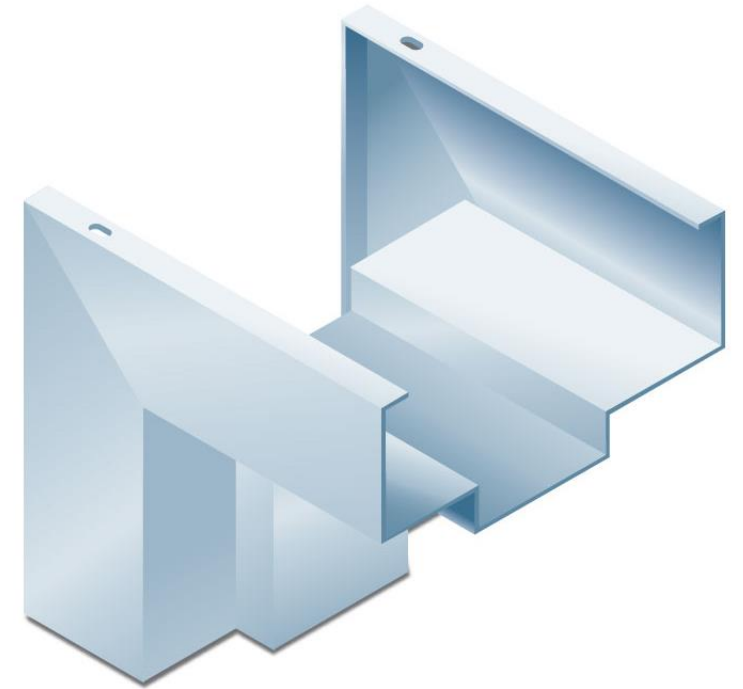
Value Proposition

Tools & Resources



Frame Construction and Anchoring

- 12 Gauge (Category 1) to 14 Gauge (Category 2) galvanized steel frames
- 5-3/4"– 14" jamb depths
- Welded corners
- 4" face head available
- Fire rated up to 3 hours by Underwriters Laboratories
- Anchoring options include: existing opening, masonry wire, and masonry T anchors
- Frames can also be used in pour in place walls and can be welded to the building structure
- Frames are not required to be grouted when using existing wall jamb anchors



What is a Multi-Solution Opening?

Common Applications

Testing and Performance

Door and Frame Construction

Multi-Point Lock

Hinges

Accessories

Value Proposition

Tools & Resources



Multi-Point Lock Features –

Corbin Russwin BL6600 Series/ SARGENT BL7300 Series

- Single Min: 2'8" x 6'8", Max: 4'0" x 8'0"
 - Blast up to 6.16 psi Category I / Hurricane 150 psf and 50 fps
 - Blast up to 9.74 psi Category II / Hurricane 150 psf and 50 fps
- Pair Min: 5'4" x 6'8" , Max: 8'0" x 8'0"
 - Blast up to 6.84 psi Category II / Hurricane 150 psf and 50 fps
 - With Corbin Russwin 988CR and SARGENT 988 surface bolts
- Utilizes a mortise lock engineered to provide a full range of mechanical and electromechanical functions and options
- Fire rated up to three hours
- Three latch points project automatically; Fourth latch point with a single motion
- Concealed vertical rods for additional security allows device to operate as standard mortise lock with a single latch point
- Available with Muséo and Studio Collection levers and optional MicroShield® antimicrobial coating
- 3/8" door undercut



What is a Multi-Solution
Opening?

Common
Applications

Testing and
Performance

Door and Frame
Construction

Multi-Point Lock

Hinges

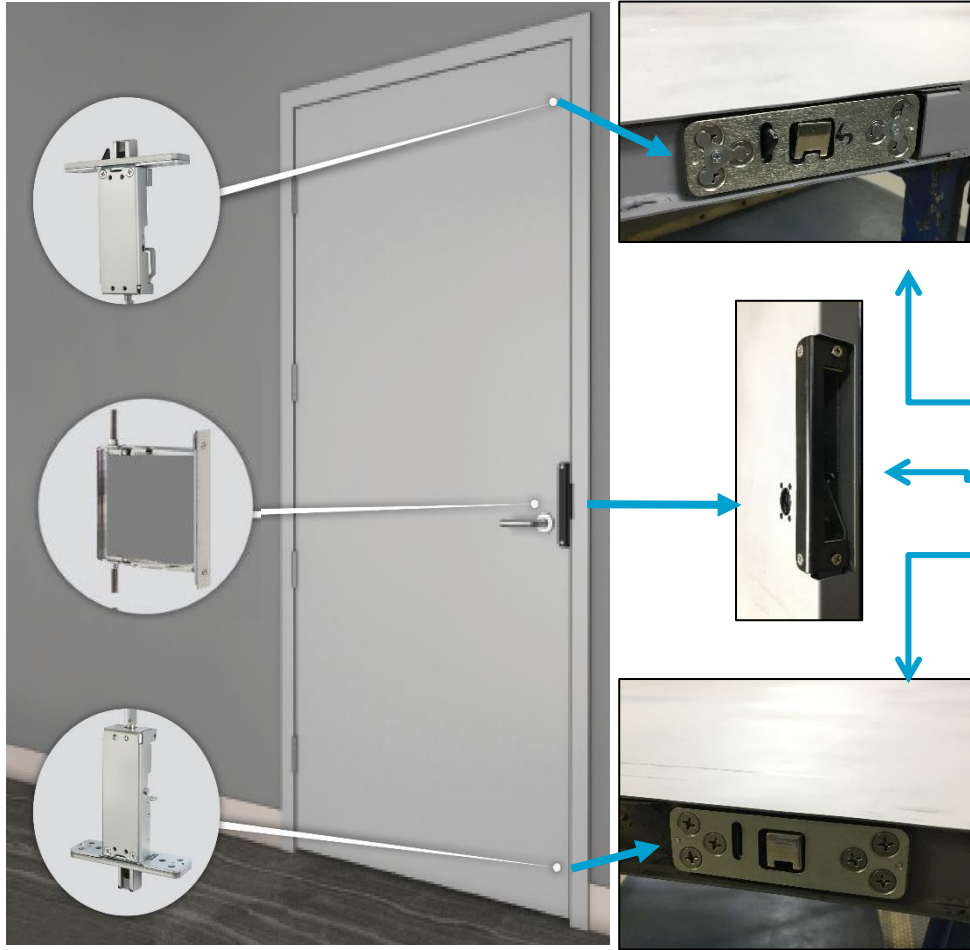
Accessories

Value Proposition

Tools & Resources



Multi-Point Lock Factory Installed Concealed Vertical Rod Assembly



- Doors and frames are ordered through the door brands specialty team and hardware is ordered through the hardware brands as usual
- Concealed vertical rods, top and bottom bolts, and mortise lockbody cassette must be factory installed in a CECO or CURRIES Multi-Solution Opening door
- Top rod latch assembly
- Mortise lock body cassette
- Bottom rod latch assembly
- All other hardware components are shipped directly from SARGENT or CORBIN RUSSWIN and must be installed by a factory trained installer
- **IMPORTANT: DO NOT REMOVE ANY HARDWARE BLOCKING OR FILLER PLATES FROM DOOR OR FRAME UNTIL MORTISE LOCK IS READY TO BE INSTALLED**

What is a Multi-Solution Opening?

Common Applications

Testing and Performance

Door and Frame Construction

Multi-Point Lock

Hinges

Accessories

Value Proposition

Tools & Resources



Hinges

Product Type	Manufacturer	Model/Series
Hinges	MARKAR*	FM300 Continuous Hinge FM300WT Wide Throw Continuous Hinge HM304 Continuous Hinge - Outswing Only HG305 Continuous Hinge HG305WT10 Wide Throw Continuous Hinge
	MCKINNEY	Model SP3786 Butt Hinges (4-1/2"x4-1/2", 4-1/2"x5", 4-1/2"x6", 4-1/2"x7", 4-1/2"x8", 5"x4-1/2", 5"x5", 5"x6", 5"x7", & 5"x8" with or without NRP or QC option) Model SP3386 Butt Hinges (4-1/2"x4-1/2", 4-1/2"x5", 4-1/2"x6", 4-1/2"x7", 4-1/2"x8", 5"x4-1/2", 5"x5", 5"x6", 5"x7", & 5"x8" with or without NRP or QC option)



What is a Multi-Solution Opening?

Common Applications

Testing and Performance

Door and Frame Construction

Multi-Point Lock

Hinges

Accessories

Value Proposition

Tools & Resources



Accessories

Product Type	Manufacturer	Model/Series
Door closer	SARGENT	281 Series – Thru-bolt mounting of body to door only
	CORBIN RUSSWIN	DC8000 Series – Thru-bolt mounting of body to door only
	NORTON	7500 Series – Thru-bolt mounting of body to door only
	ASSA ABLOY ACCENTRA	4400 Series – Thru-bolt mounting of body to door only
Perimeter seals	PEMKO	Model S773 Perimeter Seal Model 305 Perimeter Seal Model 346 Rain Drip – Threat side mounting only Model 345 Door Bottom Sweep – Threat side mounting only
Thresholds	PEMKO	2715 threshold



Accessories

Product Type	Manufacturer	Model/Series
Electronic Transfer	SECURITRON	CEPT
Door Position Switches	SECURITRON	DPS-M - 3/4" or 1" diameter hole in edge or top of door and frame (not bearing the UL Mark)
Door Holders	RIXSON	980M - Electromechanical Thru-bolt mounting only
		990M - Electromechanical Thru-bolt mounting only
		991M - Electromechanical Thru-bolt mounting only
		996M - Electromechanical Thru-bolt mounting only
		997M - Electromechanical Thru-bolt mounting only
		998/998M - Electromechanical Thru-bolt mounting only
Door Holders	SARGENT	999M - Electromechanical Thru-bolt mounting only
		1560 - Electromechanical Thru-bolt mounting only
		1561 - Electromechanical Thru-bolt mounting only
Door Holders	ROCKWOOD	1562 - Electromechanical Thru-bolt mounting only
		491S - Mechanical
Door Holders	ROCKWOOD	494S - Mechanical
Door Stop/Holder	RIXSON	9 Series - Mechanical
Protection	ROCKWOOD	K1050 Kick Plate (For fire rated assemblies, must be screw applied)



Value Proposition

Benefits

- Multi-Solution Openings
 - Provides extra protection against explosions and hurricane force winds
 - Meets U.S. government / military safety and security objectives for blast resistance and protects against extreme wind events in the High Velocity Hurricane Zone (HVHZ)
- Multi-Point Hardware
 - Innovative designs ensures rod engagement during installation
 - Multiple functions available including classroom, electrified and access control applications
 - Factory installed concealed vertical rod assembly in CECO Door or CURRIES doors for trouble free operation
 - Sectional trim with wide variety of decorative levers, rose and trim combinations
 - 4 latch points provides maximum protection

What is a Multi-Solution Opening?

Common Applications

Testing and Performance

Door and Frame Construction

Multi-Point Lock

Hinges

Accessories

Value Proposition

Tools & Resources



Tools

- Frequently Asked Questions

[CECO DOOR](#) [CORBIN RUSSWIN](#)

[CURRIES](#) [SARGENT](#)

- Catalogs/Technical Resources

[CECO DOOR](#) [CORBIN RUSSWIN](#)

[CURRIES](#) [SARGENT](#)

- Promotional Materials

[CECO DOOR](#) [CORBIN RUSSWIN](#)

[CURRIES](#) [SARGENT](#)

[ASSA ABLOY](#)

What is a Multi-Solution
Opening?

Common
Applications

Testing and
Performance

Door and Frame
Construction

Multi-Point Lock

Hinges

Accessories

Value Proposition

Tools & Resources



Resources

Door Hardware

- Mia Merrel, Director Product Management
- Phone: 203.498.5668
- Email: mia.merrel@assaabloy.com

Orders

- Corbin Russwin- orders.corbinrusswin@assaabloy.com
- SARGENT- orders.sargent@assaabloy.com

Doors and Frames

- Marc Stroot, Manager Specialty & Integrated Solutions
- Phone: 218.828.6256 ext. 3294
- Email: marc.stroot@assaabloy.com

Quotes

- Ceco - Specialtypricing.ceco@assaabloy.com
- Curries - Specialtypricing.curries@assaabloy.com

Orders

- Ceco - Specialtyorders.ceco@assaabloy.com
- Curries - Specialtyorders.curries@assaabloy.com

What is a Multi-Solution
Opening?

Common
Applications

Testing and
Performance

Door and Frame
Construction

Multi-Point Lock

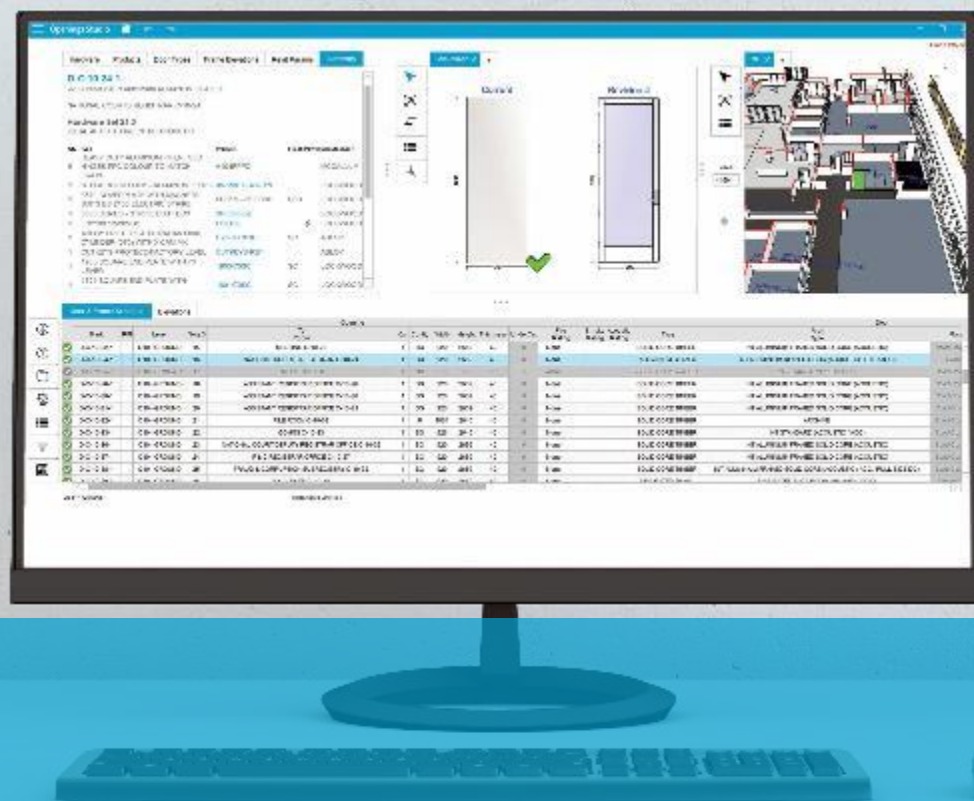
Hinges

Accessories

Value Proposition

Tools & Resources





Thank you
assaabloydss.com