

Automatic Door System Besam ADS Blast

ASSA ABLOY

ASSA ABLOY Entrance Systems

The global leader in
door opening solutions



Tested and reliable blast protection for a wide range of automated entrances

The Besam ADS Blast Protection automatic entrance system creates a spacious and attractive entrance which combines the benefits of proven blast protection with the convenience and safety of a sliding door. Protecting life and property does not mean compromising appearance.

In line with global demands for construction products to provide protection from blast hazard, ASSA ABLOY Entrance Systems has developed and tested a blast protection entrance solution which sets new standards for performance and scope.

The main advantages of the unique Besam ADS Blast are:

- A range of blast categories
- Variety of design choices and options
- Robust design optimises operational reliability
- Purpose designed door leaf & side screen system
- High performance tested swing door solution
- Standardised door rail and stile sight lines
- Shared aesthetic possible for mixed entrance systems on a single façade

Tested to the most demanding requirements

- All product development and testing is carried out to exceed the most demanding standards.
- Includes a number of features to ensure life and property is adequately protected.

Large High Performance Entrances

- Combining custom built, robust and versatile Besam automatic door operators with a high performance cleated and tie rod door system.
- Unique design extends maximum opening widths and heights beyond the capacity of any other comparable system.
- Besam door operators manage the increased door weights associated with blast performance glazing, without hampering speed or reliability.

Design Choice

- Offers options for bi-parting and single sliding doors, side screens and pocket screens.
- Options for high performance swing doors.
- Integrates seamlessly into a certified blast protection curtain wall system.

Aesthetics

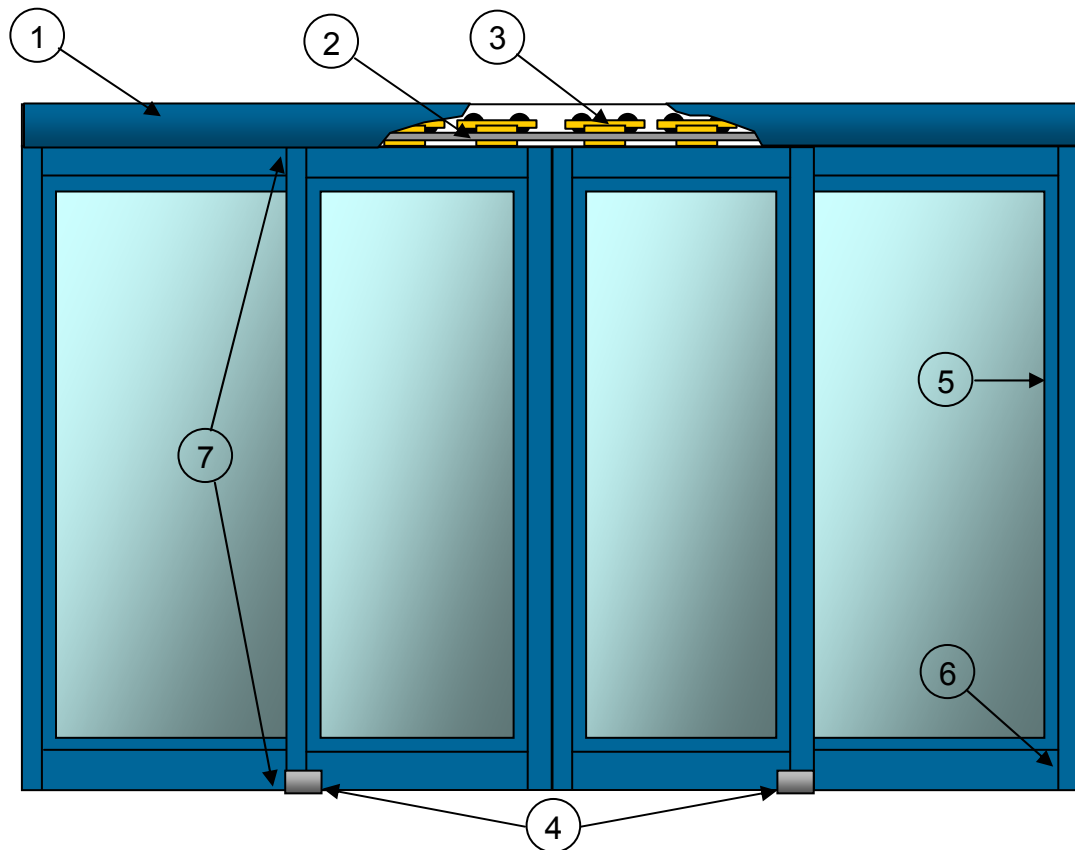
- The mechanism which restrains door leaves under blast load is cleverly concealed under a standard operator cover, offering attractive, clean aesthetics.
- Each glazed side screen features concealed fixings.

Technical Options

Internal Height	non-standard (2000 - 2400mm)
Clear Walkthrough width	single door 1200mm (Max)
Clear Walkthrough width	bi-parting pair 2400mm (Max)
Side Screens	option
Pocket Screens	option
Powder Coated Finish	RAL colours
Blast Categories	EXV 45 EXV 25 EXV 19 SB4

Material & Standard Equipment

- Standard Besam UniSlide extruded aluminium cover (1)
- Lateral carriage restraint mechanism (2)
- Three enhanced double carriage wheel assemblies and anti riser plates per leaf (3)
- Brushed stainless steel floor guide bracket and door leaf heel restraint (4)
- High performance framing, prefabricated from aluminium extrusions
- Flat glass 15.02mm clear pvb laminated; 4 / 1.52 / 4 / 1.52 / 4
- Glazing rebate 45mm deep with "32mm edge bite" (5)
- All door leaf and side screen corner joints with cleats and tie rods (6)
- Concealed fixing of side screen elements (7)



Door leaf restraint

With a design brief to produce a high performance entrance solution that maintains the excellent aesthetics of the standard range of ADS products, Besam's ground breaking ADS Blast Protection system exceeds this demand through the novel application of a lateral carriage restraint mechanism, that is concealed beneath the standard UniSlide cover with it's distinctive profile.

Designed to absorb the energy of the blast shock wave, in much the same way as the crumple zone in modern cars, the lateral carriage restraint is one of three key components that enables the system to achieve the best hazard rating of any comparable system on the market.

Each door leaf is fitted with three enhanced carriage wheel assemblies that include heavy duty anti riser plates.

At floor level, a brushed stainless steel floor guide bracket and door heel restraint ensures the door leaf remains engaged with the door guide under blast load. The door guide track is concealed in the door leaf bottom rail, as in the standard ADS systems, thereby allowing a clear and level threshold.

UniSlide functionality

Featuring the proven robust UniSlide automatic operator, Besam's ADS Blast Protection system provides all the functionality and performance of the standard range.

Framing system

Developed from an existing high performance commercial door system, ADS Blast Protection door leaves and side screens provide the best hazard rating of any comparable system available.

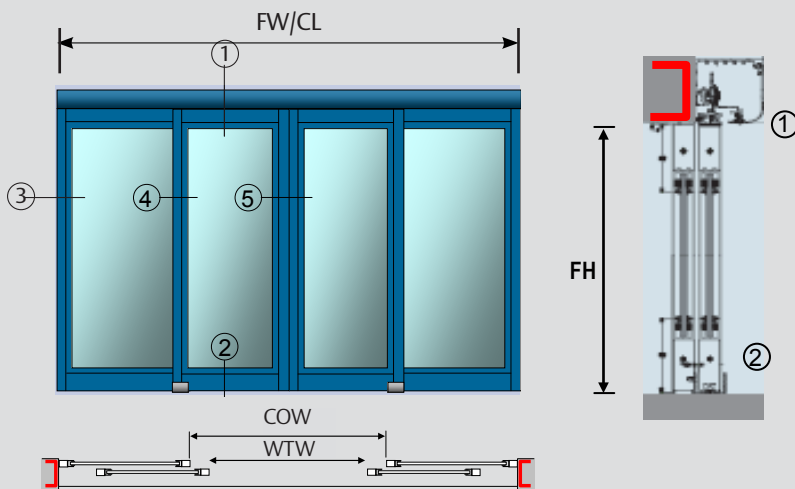
A purpose designed glass carrier profile provides 32mm of "edge bite" for the glazing and reinforces the overall door construction. The minimum glazing specification to achieve the blast protection is 15.02mm clear five ply laminate single glazing. However, the glass carrier is designed to also accommodate suitable double glazed units.

All corner joints are made with concealed cleats and tie rods, with the effect that in blast testing all joints remained securely connected to each other.

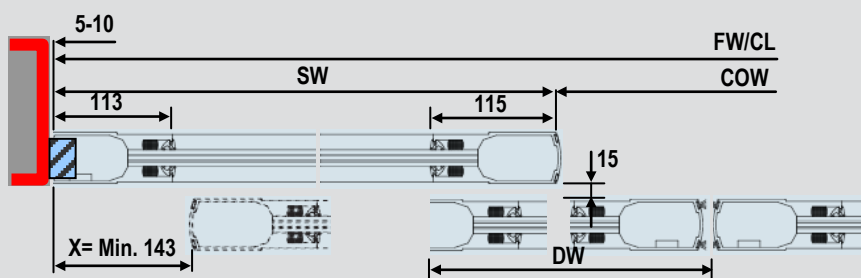
The side screens are mounted over heavy duty perimeter rails and secured in place with concealed fixings.

Configuration and options

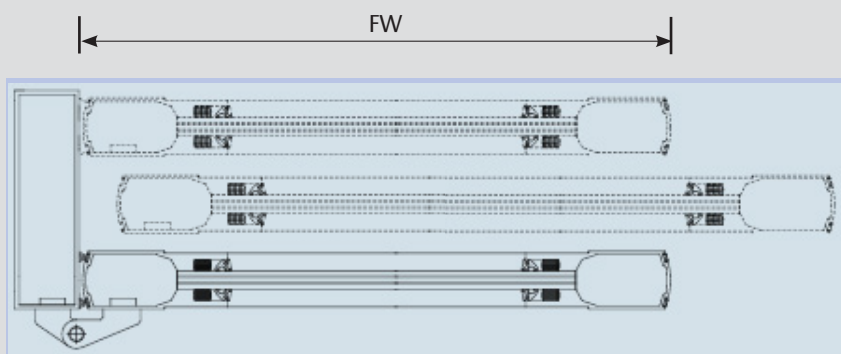
ADS BP 2+2 Bi-parting with side screens wall mounted



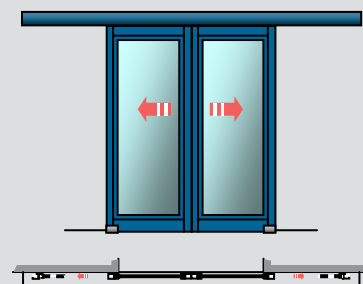
FW = Frame Width
 FH = Frame Height
 OH = Overlight height
 CL = Cover length
 COW = Clear opening width
 WTW = Walk through width
 COH = Clear opening height
 DW = Door leaf width
 DH = Door leaf height
 SW = Side screen width
 X = Safety distance



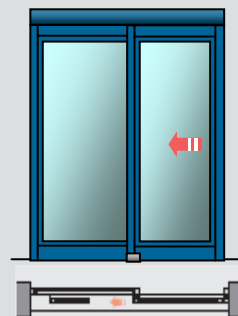
NOTE:
 Secure structural steel fixing base (indicated in red) required by others for all perimeter junctions



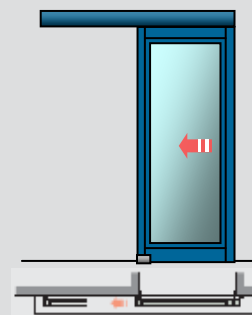
Bi-parting without side screens



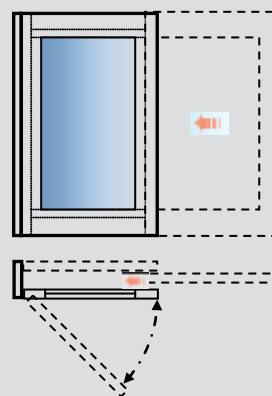
Single sliding with side screen (left opening shown)



Single sliding without side screen (left opening shown)



Hinged Pocket Screen



Blast Test Performance Data:

Peak Reflective Pressure
 Peak Reflective Impulse

Test Readings
 99 kPa
 414 kPa.msecs

ISO EXV 25 Pass
 80 kPa
 380 kPa.msecs

Test requirement:

Car Bomb - 100 kg TNT at 23.5m standoff

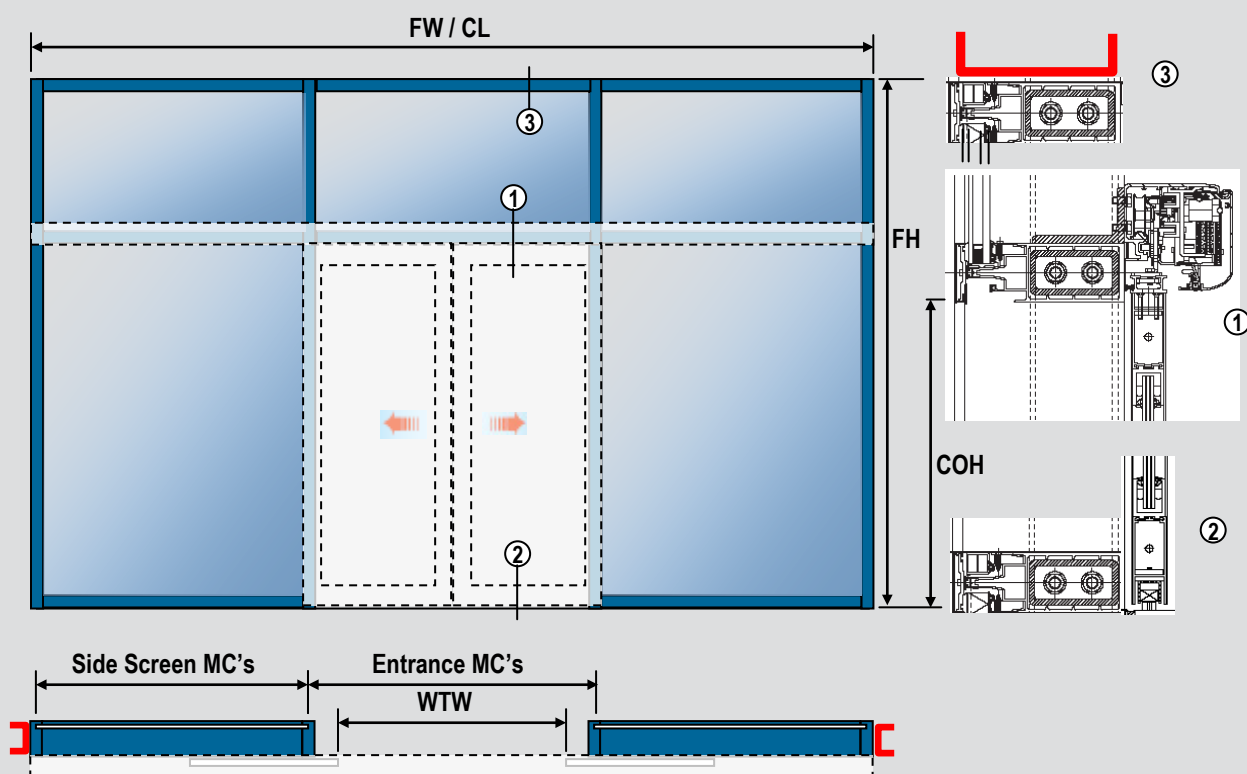
Result:

Pass. ISO EXV 25 Hazard Rating B
 (Full test data and results for all other categories, available on request)

Maximum Dimensions:

		FW	FH	CL	COW	COH
ADS BP 1	Single Sliding	1340	2400	2745	1200	2400
ADS BP 2	Bi-parting	2680	2400	5360	2400	2400
ADS BP 1+1	Single Sliding with side screens	2793	2400	2855	1200	2400
ADS BP 2+2	Bi-parting with side screens	5590	2400	5590	2400	2400
ADS BP PS	Hinged Pocket Screen	1381	2384	--	--	--

ADS BP Curtain Wall 2+2 Bi-parting with side screens and over light



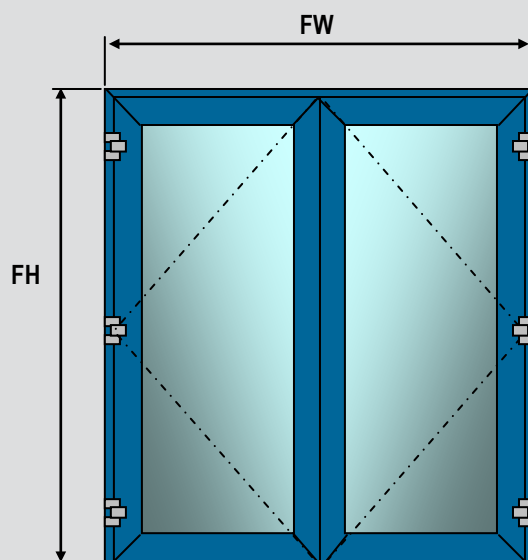
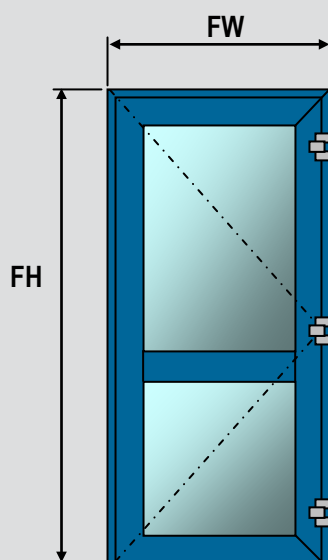
NOTE:

Secure structural steel fixing base (indicated in red) required by others for all perimeter junctions

ADS BP Curtain Wall Maximum Dimensions:

		FW	FH	CL	WTW	COH
ADS BP CW 1+1	Single Sliding with one side screen and two over lights	3300	3500	3300	1200	2400
ADS BP CW 2+2	Bi-parting with two side screens and three over lights	6410	3500	6410	2400	2400

MC's: Side Screen Mullion Centres – 1800 Entrance Mullion Centres - 2745



ADS BP Swing Door Maximum Dimensions:

ADS BP SW1	Single Swing door with door frame
ADS BP SW2	Pair Swing doors with door frame

FW	FH	EXV 25 Tested Automation
1120	2400	Single SW200i heavy duty swing operator
2170	2400	Pair SW200i heavy duty swing operators