

# DC3.1 Air Blast Door

The first explosion-proof door  
produced and certified in Poland

# DONIMET

Part of ASSA ABLOY

**IRBS** 

INNOVATIVE  
SOLUTIONS FOR  
THE WOODWORK  
INDUSTRY 2023



Explosion resistance



Burglary resistance



Resistance  
to hazardous substances



Resistance  
to pressure build-up



Impulse resistance



Resistance  
to wind load



Waterproofness



High coefficient  
of air permeability





# Donimet

## Polish manufacturer of specialized doors



### About Company

Donimet is a production company founded in 1988, in which from the beginning of its activity emphasis was placed on high quality of production and professional customer service, thanks to which the company gained a reputation and recognition on the market.

Our offer includes products with high safety and usability parameters, meeting the requirements of European standards and industry requirements, confirmed by authorized research institutes, such as: Institute of Precision Mechanics, Building Technology Institute and Maritime Advanced research Centre. Donimet products play a very important role in utility facilities, ensuring the protection of the facility and the safety of its users. Since 2020, Donimet has been part of the ASSA ABLOY group, a leader in the access control market in the world.

### Benefits of working with us

- Production located in Poland
- Support of a large ASSA ABLOY group - security of cooperation and supply chain
- Many years of experience and expert technical knowledge
- Support in Polish and English
- Certification by accredited research institutes
- A wide range of doors in various security classes

### How does the process of order implementation look like?



Order Lead-time: up to 8 weeks

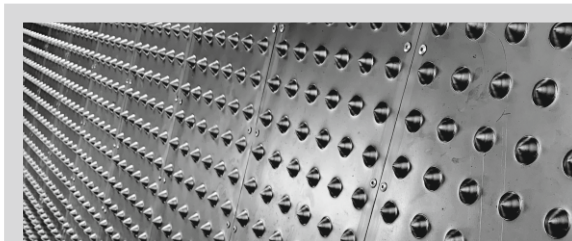
# Air Blast Door DC3.1 AB

## Basic information

Donimet **explosion-proof doors (Air Blast doors)** were created in response to the current situation in the world, constantly growing threats. This is the first solution of this type produced and certified in Poland.

The materials used as well as the construction of the leaves and the frame prevent the door from being **torn out or opened in the second phase of an explosion** as a result of the huge negative pressure generated.

The durability of our product has been confirmed by independent tests carried out by the **Institute of Precision Mechanics**, certification of explosion-proof doors according to the **PN-EN 13123-2:2004** standard.



### Unique solution

The **EXR2** class door is covered with a conical anti-explosion armour on the entire surface from the side exposed to explosion.

### Application



- **military, government, diplomatic, police facilities**, all other facilities exposed to the risk of being attacked with explosives,
- **laboratories** in which research posing a risk of explosion is conducted,
- **industrial facilities**, in particular petrochemical facilities, power facilities - nuclear power and others where there is a risk of explosion,
- **explosion hazard zones** with the risk of an explosive atmosphere (gases, dusts).

### Surface finish

- powder coated in a colour from the RAL palette
- covered with HDF panel
- covered with veneered plywood board with natural veneer
- covered with oak wood

It is not possible to make the door in a glazed version.



# Air Blast Door DC3.1 AB I

Explosion-proof door in EXR1 class according to PN-EN 13123-2:2004

## DC3.1 AB I DC3.1/2 AB I

They are produced in any order dimensions. The door leaves are made of two 2.0 mm thick galvanized steel sheets, shaped by cold bending.

The structure is reinforced inside with appropriate steel profiles, and the space between the profiles is filled with mineral wool. The door leaves on all four edges have rebates with a gasket and they are hung on four  $\varnothing 22$  hinges with bearings, on a frame made of a cold-formed C-profile with a gasket rebate.

The door frames are equipped with a 20 mm high threshold. The hinge side is protected by three anti-burglary locks. The DC3.1 AB I door can be used as external and internal doors, opening to the outside and inside of the room. The door is explosion-proof only on the hinge side.



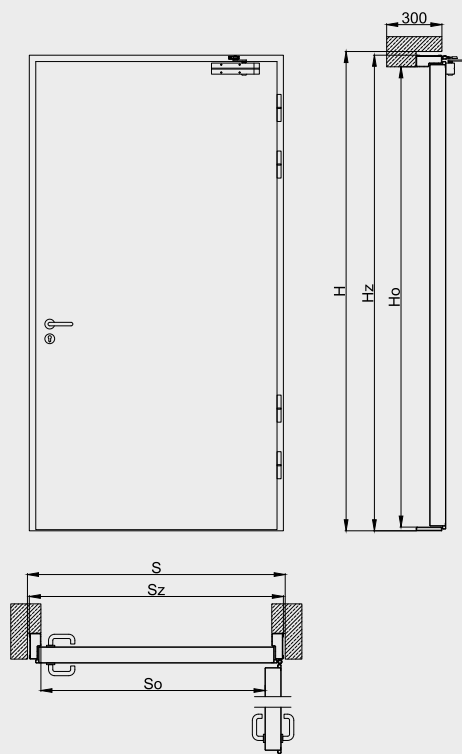
## Parameters confirmed by a certificate

### DC3.1 AB I / DC3.1/2 AB I

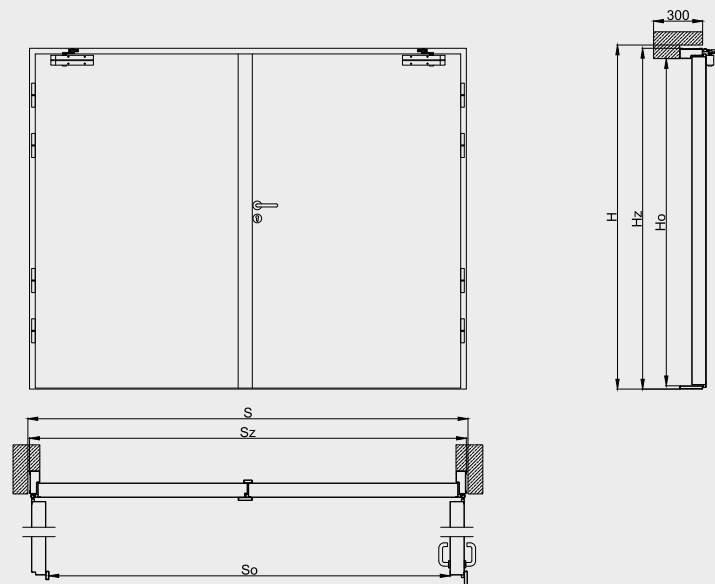
Property	Classification / Value	Classification standard
Explosion resistance	class EXR1 3kg TNT at 5m	PN-EN 13123-2:2004
Resistance to pressure build-up Pso	0,75bar / 75kPa	
Impulse resistance Iso	1,05bar/ms / 105kPa/ms	
Resistance to wind load	class 5C	PN-EN 12210:2001
Waterproofness	class 3A	PN-EN 12208:2001
Air permeability	class 4	PN-EN 12207:2015-06
Mechanical strength	class 4	PN-EN 1192: 2001
Burglary resistance	class RC4 class C	PN-EN 1627:2012 PN-B-92270:1990
Hazardous substances	PZH (Polish Hygiene Centre) Certificate	PN-EN14351-1+A1:2010

*Certificate issued by the Institute of Precision Mechanics No. P41/143/2022 (8590)*

**DC 3.1 AB I**  
**single leaf**

Drawing		
	Name DC 3.1 AIR BLAST AB-I	
Frame	C-section recommended	
	Width	Height
Opening in a wall S/H [mm]	$W=Sz+20$	$H=Hz+20$
External dimension Sz/Hz [mm]	$Sz=So+170$	$Hz=Ho+85$
Clearance of passage So/Ho [mm]	So	Ho

**DC 3.1/2 AB I**  
**double leaf**

Drawing		
	Name DC 3.1/2 AIR BLAST AB-I	
Frame	C-section dedicated	
	Width	Height
Opening in a wall S/H [mm]	$W=Sz+20$	$H=Hz+20$
External dimension Sz/Hz [mm]	$Sz=So+220$	$Hz=Ho+85$
Clearance of passage So/Ho [mm]	So	Ho



## Air Blast Door DC3.1 AB II

Explosion-proof door in EXR2 class according to PN-EN 13123-2:2004

### DC3.1 AB II DC3.1/2 AB II

They are produced in any order dimensions. The door leaves are made of two 2.0 mm thick galvanized steel sheets, shaped by cold bending.

The structure is reinforced inside with appropriate steel profiles, and the space between the profiles is filled with mineral wool. The door leaves on all four edges have rebates with a gasket and they are hung on four  $\varnothing 22$  hinges with bearings, on a frame made of a cold-formed C-shaped or angular profile with a gasket rebate.

The door frames are equipped with a 20 mm high threshold. The hinge side is protected by three anti-burglary locks. Door DC3. AB II can be used as external and internal doors that open to the outside and inside of the room. The door is explosion-proof only on the hinge side.



### Parameters confirmed by a certificate

#### DC 3.1 AB II / DC3.1/2 AB II

Property	Classification / Value	Norma klasyfikacyjna
Rxplosion resistance	class EXR2 3kg TNT at 3 M.	PN-EN 13123-2:2004
Resistance to pressure build-up Pso	2,30bar / 230kPa	
Impulse resistance Iso	1,65bar/ms / 165kPa/ms	
Resistance to wind load	class 5C	PN-EN 12210:2001
Waterproofness	class 3A	PN-EN 12208:2001
Air permeability	class 4	PN-EN 12207:2015-06
Mechanical strength	class 4	PN-EN 1192: 2001
Burglary resistance	class RC4 class C	PN-EN 1627:2012 PN-B-92270:1990
Hazardous substances	PZH (Polish Hygiene Centre) Certificate	PN-EN14351-1+A1:2010

*Certificate issued by the Institute of Precision Mechanics No. P41/144/2022 (8591)*



DC 3.1 AB II  
single leaf

Drawing		
Name	DC 3.1 AIR BLAST AB-II	
Frame	C-section dedicated	
	Width	Height
Opening in a wall S/H [mm]	$W=S_z+20$	$H=H_z+20$
External dimension Sz/Hz [mm]	$S_z=S_o+170$	$H_z=H_o+85$
Clearance of passage So/Ho [mm]	So	Ho

DC 3.1/2 AB II  
double leaf

Drawing		
Name	DC 3.1/2 AIR BLAST AB-II	
Frame	C-section dedicated	
	Width	Height
Opening in a wall S/H [mm]	$W=S_z+20$	$H=H_z+20$
External dimension Sz/Hz [mm]	$S_z=S_o+220$	$H_z=H_o+85$
Clearance of passage So/Ho [mm]	So	Ho

# DONIMET



## Contact the expert

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