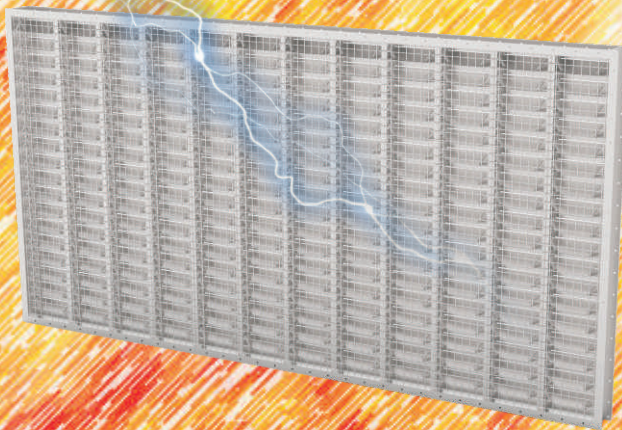


## FC-BRV-21 High-performance Blast Dampers

*Lightening Speed in Closing Enabled by Unique Shaft-linkage-free Design*

Approx. 100% faster in closing than alternatives in the market



Standing peak pressure reflected up to 5 bar while assuring the top protection

**PATENTED**

Block approx. 100% blast impulse loaded

Double-acting function optional

Auto-reset after blast

Customized large damper covering the whole wall for energy saving

FC-BRV-21 high-performance blast dampers are developed for those applications where high air-flow-rate and perfect blast protection are required. It achieves unprecedented fast closing aiming the best protection by minimizing Rotational-Inertia blades thanks to Shaft-linkage-free design. It could stand blast overpressure reflected up to 5 bar and could maintain high-performance protection after multiple blast impacts.

FC-BRV-21 high-performance blast dampers could serve a wide range of applications, including OGP, energy, civil defense, and other applications where blast-resistant protection is required.

# FC-BRV-21 High-performance Blast Dampers

## [ Product features ]

- **Lightening speed in closing bringing perfect protection**  
Thanks to its innovative Shaft-linkage-free design, it can respond extremely fast to various blast waves and close the air passage with duration of only one half of average closing time of other alternatives in the market.
- **High-performance of blast resistance**  
The optimized blast resistant structure design enables it to withstand the blast peak pressure up to 5 bar reflected while assuring the perfect blast protection.
- **Automatic reset**  
It's able to retrieve ventilation function automatically after the blast.
- **Double-acting function available**  
This product line offers double-acting option for special applications such as protection for nuclear power plants.
- **Customized large damper covering the whole wall for energy saving**  
Thanks to its modular design, a damper now could be as large as a whole wall to achieve high-air-volume at low-pressure-drop for energy saving.

## [ Part Number ]

ATO PN: FCBRV21-[A]-[B]-[C]-[D]-[E]

A	B	C	D	E
Type	Installation	Material of damper	Width (mm)	Height (mm)
SA- Standard DA- Double Acting	OW - On the wall IW - In the wall D - Duct connected	1 - Stainless Steel 316 2 - Stainless Steel 304 3 - Hot galvanized steel 4 - Coated steel	0300	0300
			0500	0500
			0700	0700
			0900	0900
			1000	1000
			1200	1200
			1500	1500
.....	.....			

For other sizes, please contact FUCARE.

## [ Product specifications and Certifications ]

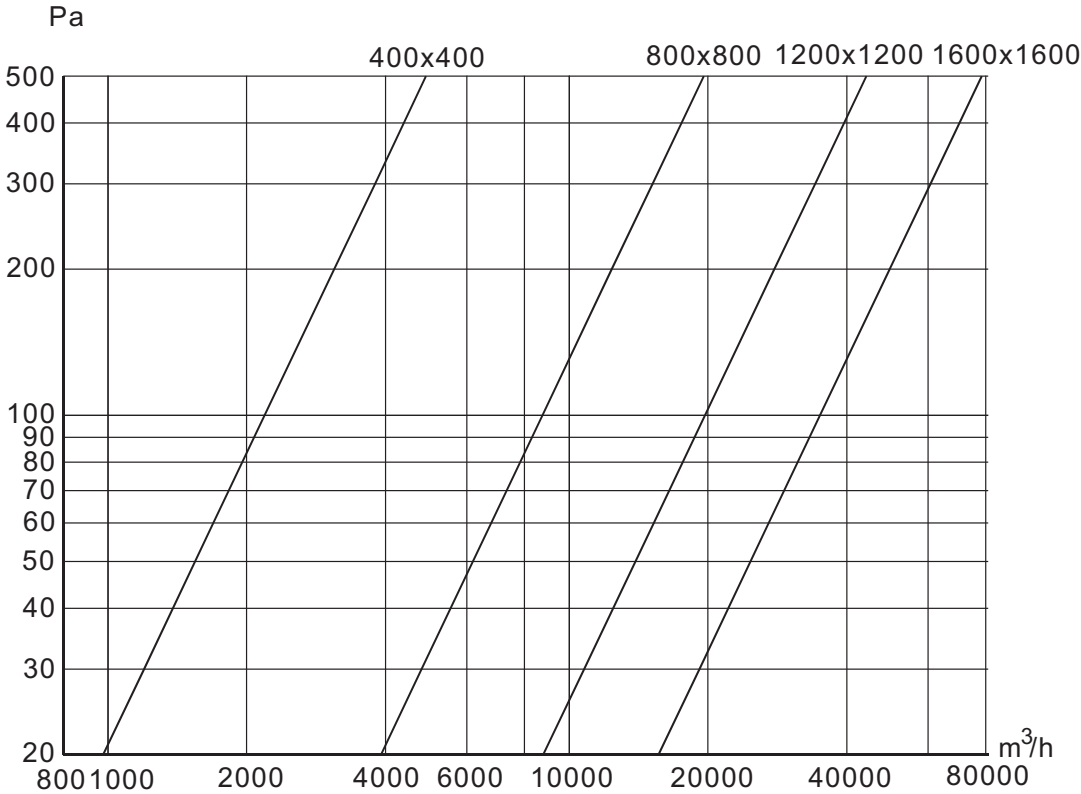
<b>Maximum Peak pressure</b>	5 bar reflected (Customization for higher Pressure available upon request)
<b>Closing time</b>	≤8ms (At 0.75 bar reflected) ≤5ms (At 2 bar reflected) ≤3ms (At 5 bar reflected)
<b>Operating temperature</b>	-40°C to 300°C
<b>Block of blast impulse</b>	≥99.3% by shock tube test
<b>ATEX Certification</b>	Based on EN1127-1:2019 and EN ISO 80079-36:2016, under ATEX directive 2014/34EU, (Gas), Zone 1 &2, IIC, T6...T2.. (Dust), Zone 21 &22, IIIC, T70 °C-285°C



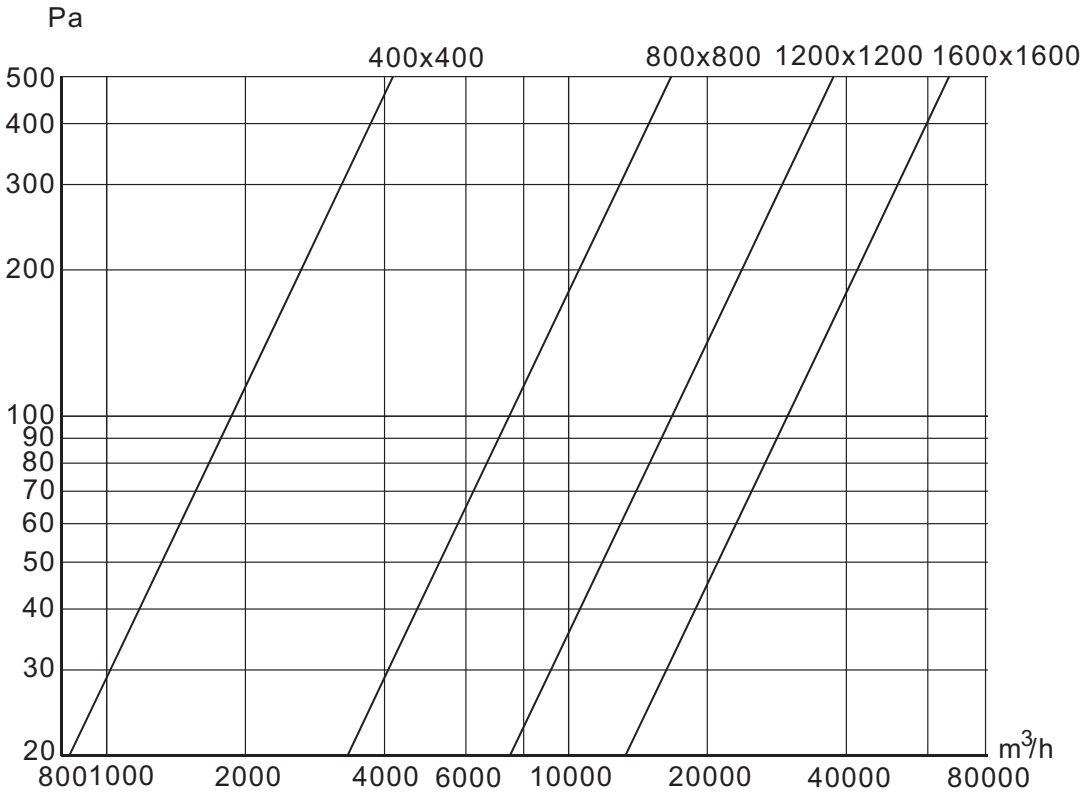
# FC-BRV-21 High-performance Blast Dampers

## [ Air flow vs Pressure drop ]

i. FC-BRV-21-SA



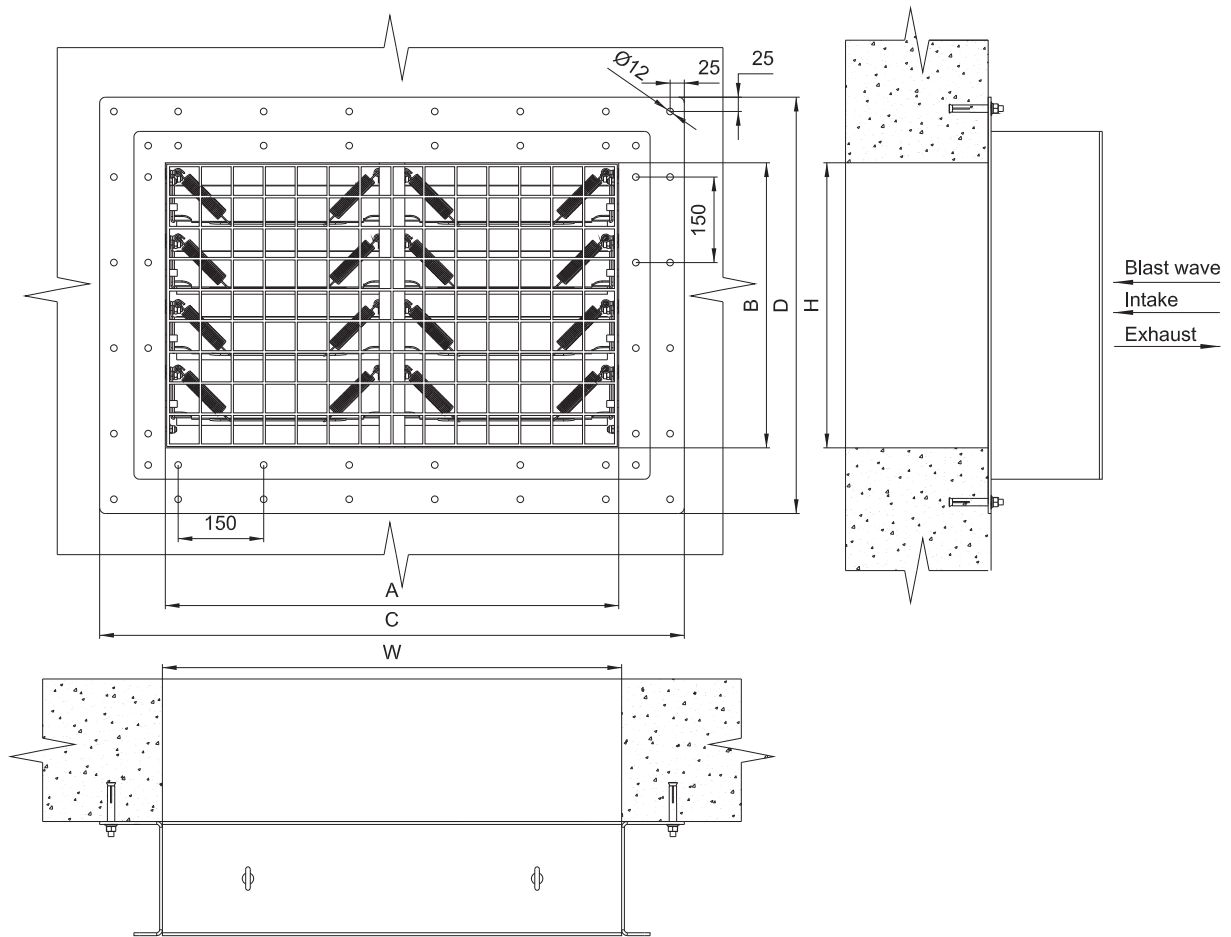
ii. FC-BRV-21-DA



# FC-BRV-21 High-performance Blast Dampers

## [ Installation types and sizes ]

i. Mounted on the wall surface (FC-BRV-21-OW)



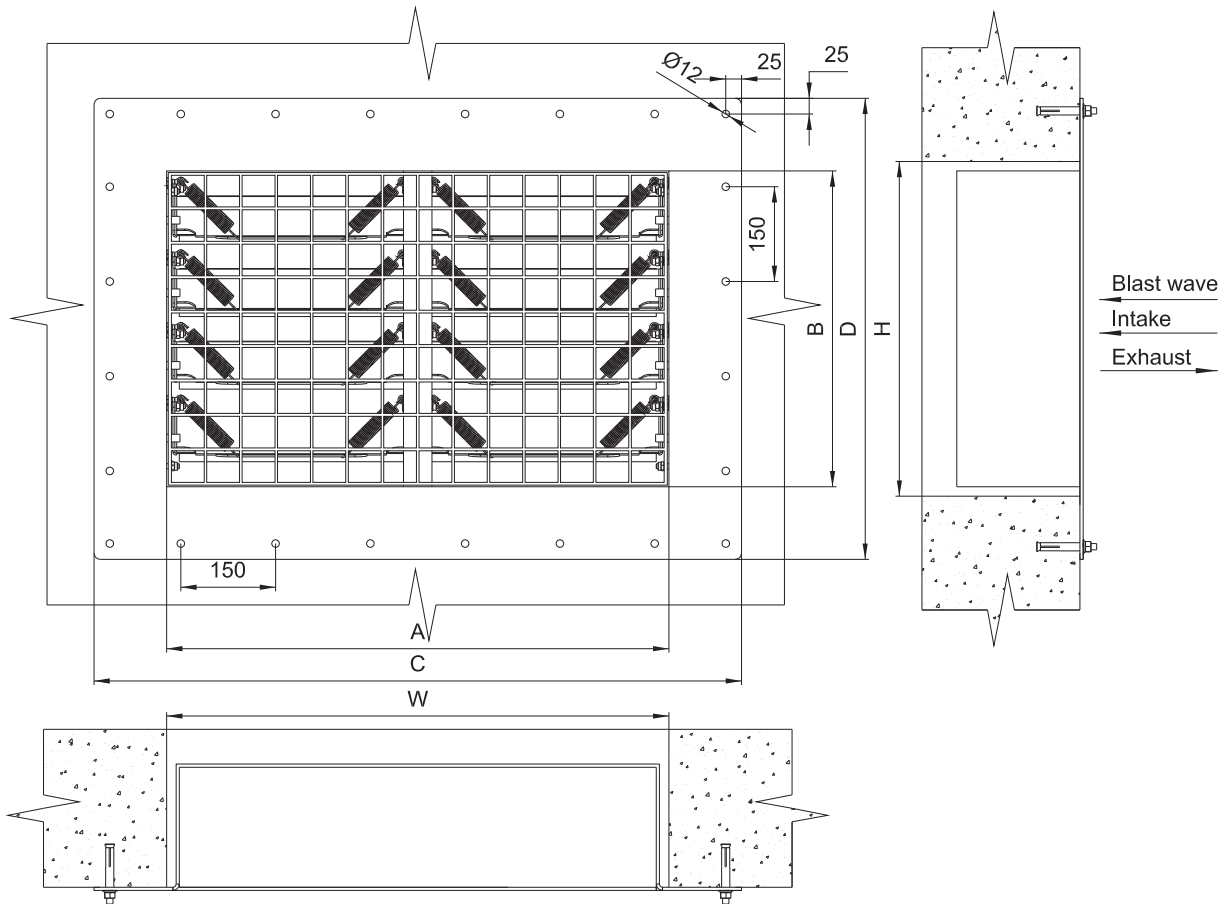
Model	A (mm)	B (mm)	C (mm)	D (mm)	W (mm)	H (mm)
FC-BRV-21-OW-300X300	300	300	530	530	300	300
FC-BRV-21-OW-500X500	500	500	730	730	500	500
FC-BRV-21-OW-700X700	700	700	930	930	700	700
FC-BRV-21-OW-900X900	900	900	1130	1130	900	900
FC-BRV-21-OW-1000X1000	1000	1000	1230	1230	1000	1000
FC-BRV-21-OW-1200X1200	1200	1200	1430	1430	1200	1200
FC-BRV-21-OW-1500X1500	1500	1500	1730	1730	1500	1500

For other sizes, please contact FUCARE.



# FC-BRV-21 High-performance Blast Dampers

ii . Mounted in the wall(FC-BRV-21-IW)

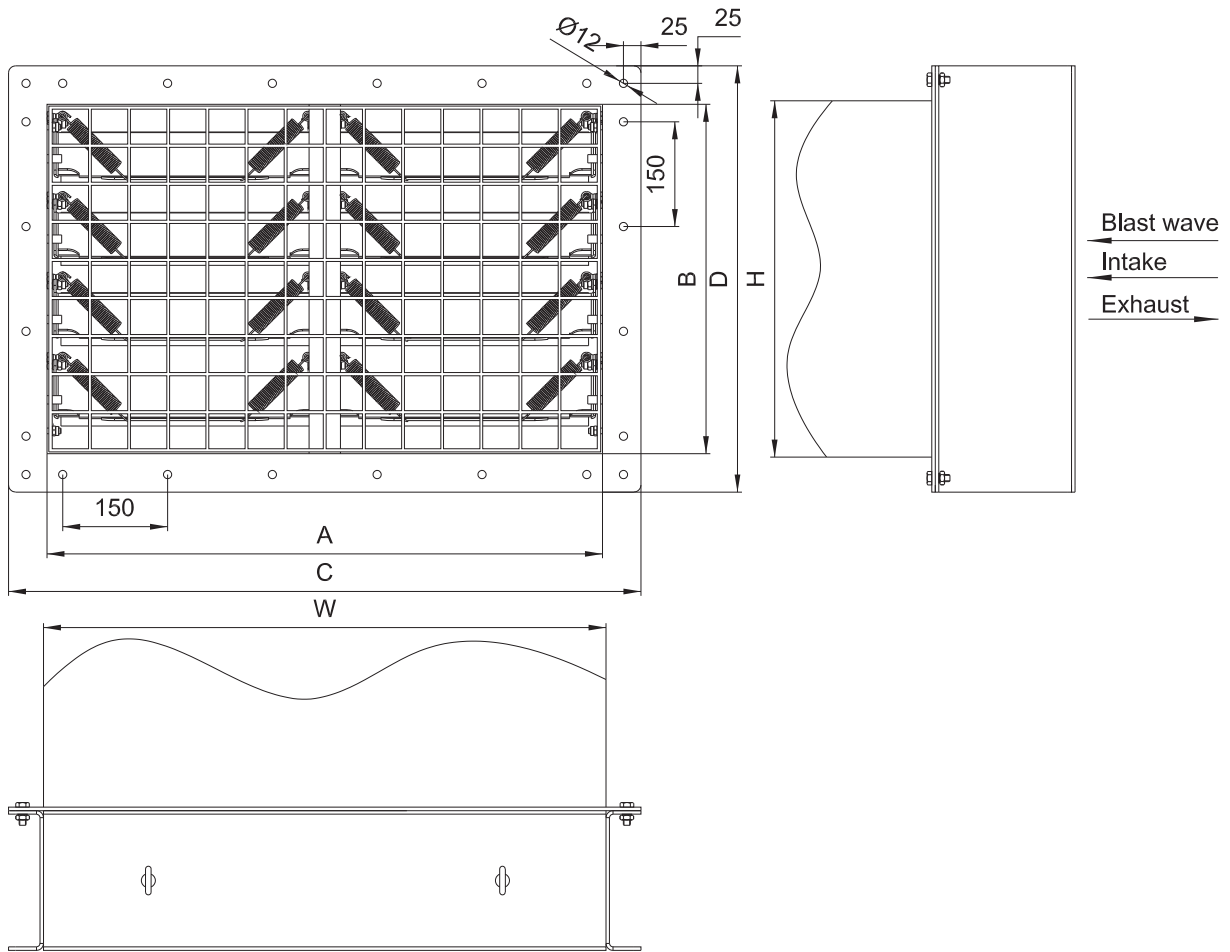


Model	A (mm)	B (mm)	C (mm)	D (mm)	W (mm)	H (mm)
FC-BRV-21-IW-300X300	300	300	570	570	340	340
FC-BRV-21-IW-500X500	500	500	770	770	540	540
FC-BRV-21-IW-700X700	700	700	970	970	740	740
FC-BRV-21-IW-900X900	900	900	1170	1170	940	940
FC-BRV-21-IW-1000X1000	1000	1000	1270	1270	1040	1040
FC-BRV-21-IW-1200X1200	1200	1200	1470	1470	1240	1240
FC-BRV-21-IW-1500X1500	1500	1500	1770	1770	1540	1540

For other sizes, please contact FUCARE.

# FC-BRV-21 High-performance Blast Dampers

## iii. Duct connected (FC-BRV-21-D)

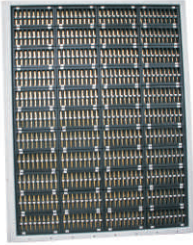


Model	A (mm)	B (mm)	C (mm)	D (mm)	W (mm)	H (mm)
FC-BRV-21-D-300X300	300	300	410	410	300	300
FC-BRV-21-D-500X500	500	500	610	610	500	500
FC-BRV-21-D-700X700	700	700	810	810	700	700
FC-BRV-21-D-900X900	900	900	1010	1010	900	900
FC-BRV-21-D-1000X1000	1000	1000	1110	1110	1000	1000
FC-BRV-21-D-1200X1200	1200	1200	1310	1310	1200	1200
FC-BRV-21-D-1500X1500	1500	1500	1610	1610	1500	1500

For other sizes, please contact FUCARE.

# FC-BRV-21 High-performance Blast Dampers

[ Blast valve and Blast Damper Selections as Follows ]



**FC-RBV-11**  
High-performance  
Blast Valves



**FC-RBV-31**  
High-performance  
Blast Valves



**FC-BRV-21**  
High-performance  
Blast Dampers



**FC-BRV-02**  
Rapid  
Blast Dampers

Product Features	FC-RBV-11 High-performance Blast Valve	FC-RBV-31 High-performance Blast Valve	FC-BRV-21 High-performance Blast Damper	FC-BRV-02 Rapid Blast Damper
Peak pressure by long Duration $\geq 20$ bar reflected		●		
Peak pressure by long Duration $\geq 10$ bar reflected	●			
Peak pressure by long Duration $\geq 5$ bar reflected			●	
Peak pressure by long Duration $\geq 2$ bar reflected				●
Protection against long duration blast wave	●	●	●	●
Protection against short duration blast wave	●	●		
Double-acting	●	●	●	
Auto-reset	●	●	●	●
Manual-reset				●
Mech indicator			●	●
Low flow resistance			●	●
ATEX certified	●		●	●
10-year warranty	●	●		
3-year warranty			●	●

# FC-BRV-21 High-performance Blast Dampers

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# FuCare

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