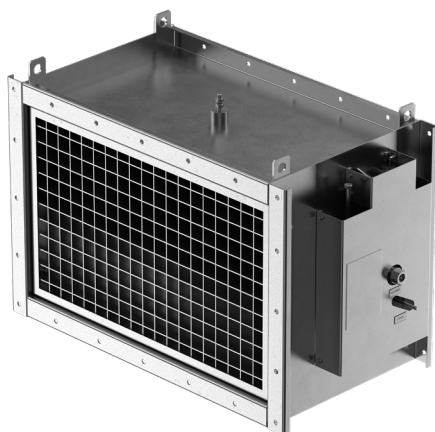


BLD-02 BLAST DAMPER

For heavy industry ventilation systems



OVERVIEW

The BLD-02 Blast Damper is designed to provide reliable isolation and protection in ventilation systems exposed to explosion overpressure events. Its parallel blade, multi blade design and exceptionally robust construction enable it to withstand blast pressures of up to 0.45 barg, helping to protect downstream equipment and maintain system integrity in demanding industrial environments.

Engineered for high performance applications within hazardous and safety critical facilities, the BLD-02 combines robust mechanical design with proven operational reliability. The damper is suitable for use in a wide range of industrial ventilation systems where blast resistance, durability, and dependable performance are essential.

KEY FEATURES

Casing

The blast damper casing is formed from 3.0 mm thick sheet steel into a rigid channel section to ensure proper alignment of blades and shafts. The BLD-02 is available as a single unit, maximum size 1500mm x 1500mm, or as a multiple unit assembly. The insertion length is 500mm. Where circular dampers are required, additional spigot adaptors are used.

Blades

The blades are a formed single skin of 3.0 mm sheet steel and operate with a parallel linkage. Lips formed at the leading and trailing edges strengthen the blades and additionally provide protection from direct weather/storm impingement. In the closed position the blades 'lipped edges' clip together and engage with the top and bottom duct stops to form a seal.

MATERIALS

PART	MATERIAL	FINISHING
Case	Stainless steel 1.4307 (304L)	-
	Stainless steel 1.4404 (316L)	-
Blades	Stainless steel 1.4307 (304L)	-
	Stainless steel 1.4404 (316L)	-
Shafts	Stainless steel 1.4307 (304L)	-
	Stainless steel 1.4404 (316L)	-
Bearings	Super Duplex Stainless Steel "ZERON"	-

TECHNICAL SPECIFICATION

- Independently performance tested by Aberystwyth University
- Damper certified to 04ATEX9322 for ATEX Group II Category 2 G/D use by SIRA
- SIL 2 rated in accordance with IEC 61508-2:2010
- Blade angle normal open position is 45 degrees
- BLD-01 will withstand an explosion blast force of 0.45 barg
- Designed to deflect blast ways, and protect personnel and equipment
- Effective even with ultra-low level blast pressures
- Manual reset blast damper (reset tool provided)

OPERATION

The BLD 02 operates as a passive blast protection device, automatically closing in response to explosion overpressure. The blades are held in the open position by an adjustable blast catch and cam-and-roller mechanism, allowing the release pressure to be configured for specific requirements.

Upon exposure to the predetermined blast pressure, the mechanism releases and the blades close automatically in response to the blast force, isolating the duct and protecting downstream systems. The damper remains closed until manually reset.

INSTALLATION

Dampers are typically provided with integral drilled flanges that allow for bolting to ductwork, structural divisions, wall sleeves and similar. Flanges and drillings can be to Halton standard or customer specification.

Installation and maintenance instructions are provided with each damper delivery.