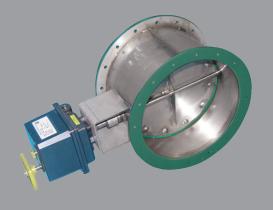
CamContain BTFB Dampers

Bubble-Tight Flat Blade Isolation Dampers



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Isolation dampers are designed to isolate the filter housing during the filter service. Isolating the housing protects service personnel during filter changing.



Optional electric actuator with manual hand wheel override. Manual actuators are standard. A wide variety of electric or pneumatic actuators are available. Camfil CamContain BTFB Round Isolation Dampers¹ create a barrier between hazardous contaminants and the filter change out components typical to a containment system.

Every CamContain Isolation Damper:

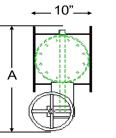
- Is functionally an ISOLATION damper as defined by ASME AG-1 Section DA-1320.
- Is manufactured in 7-gauge and 11-gauge 304L stainless steel materials. 316L stainless steel construction is a standard option.
- Is continuously welded at the pressure boundary.
- Is available in a wide variety of sizes, from 10" to 48" in 2" increments.
- Manual actuators are standard and factory installed. Optional pneumatic or electric actuators are available. Contact factory for assistance.
- Includes pre-drilled bolt holes in out-turned flanges for connection to matching housing or duct work.
- May be mounted in parallel.

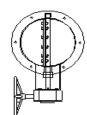
Typical applications include hospital infectious isolation suites, pharmaceutical facilities, research and biotechnology laboratories, nuclear processing facilities, and various manufacturing operations.

All CamContain Isolation Dampers are manufactured to industry standards and leak tested to bubble-tight integrity.

Custom designs are available to meet any individual containment requirement.

 1 Bubble-tight dampers are qualified to Frame Leakage Class A and Seal Leakage Class 0 per Section DA, Article 5000 of ASME AG-1.







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Isolation dampers create a positive shut-off and isolate hazardous contaminants when incorporated in a CamContain filtration system. During filter change, dampers are closed to ensure the safety of filter service personnel.

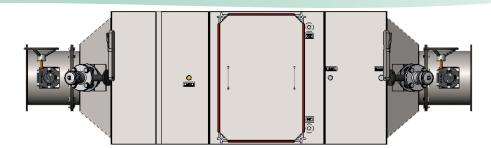
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Isolation dampers are also used where system decontamination is part of the filter change procedure.

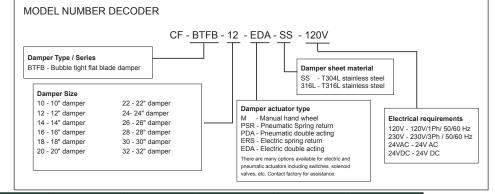
Typically, the dampers are closed, after which a decontamination agent is introduced to the internal components of the isolated housing, killing biohazard components.

Injection ports are required on the containment housing for this process.

The BTFB isolation damper is bubble tight at 10" w.g. (Frame Leakage Class A and Seat Leakage Class 0 per Section DA, Article 5000 of ASME AG-1). Every damper is factory tested per this Code.



Typically dampers are installed upstream and downstream of the air filters that need to be serviced.



| Flange Inside Diameter (inches) | Flange Outside Diameter (inches) | Bolt Circle | # of Bolt Holes | Bolt Hole Diameter (inches) | Dimension A | Weight (Ibs) |
|--|---|--|--|--|---|---|
| 10 | 13 | 11 ½ | 12 | 7/16 | 21 | 50 |
| 12 | 15 | 13 ½ | 12 | | 23 | 60 |
| 14 | 17 | 15 ½ | 16 | | 25 | 70 |
| 16 | 19 | 17 ½ | 16 | | 27 | 80 |
| 18 | 21 | 19 ½ | 16 | | 29 | 90 |
| 20 | 23 | 21 ½ | 20 | | 31 | 100 |
| 22 | 25 | 23 1⁄2 | 20 | | 32 | 115 |
| 24 | 27 | 25 ½ | 24 | | 34 | 130 |
| 26 | 29 | 27 1⁄2 | 24 | | 36 | 140 |
| 28 | 31 | 29 1⁄2 | 28 | | 39 | 155 |
| 30 | 33 | 31 ½ | 28 | | 41 | 170 |
| 32 | 35 | 33 1/2 | 28 | | 43 | 190 |
| | Inside Diameter (inches) 10 12 14 16 18 20 22 24 26 28 30 | Inside Diameter (inches) Outside Diameter (inches) 10 13 12 15 14 17 16 19 18 21 20 23 22 25 24 27 26 29 28 31 30 33 | Inside Diameter (inches) Outside Diameter (inches) Bolt Circle 10 13 11 ½ 12 15 13 ½ 14 17 15 ½ 16 19 17 ½ 18 21 19 ½ 20 23 21 ½ 22 25 23 ½ 24 27 25 ½ 26 29 27 ½ 28 31 29 ½ 30 33 31 ½ | Inside Diameter (inches) Outside Diameter (inches) Bolt Circle # of Bolt Holes 10 13 11 ½ 12 12 15 13 ½ 12 14 17 15 ½ 16 16 19 17 ½ 16 18 21 19 ½ 16 20 23 21 ½ 20 22 25 23 ½ 20 24 27 25 ½ 24 26 29 27 ½ 24 28 31 29 ½ 28 30 33 31 ½ 28 | Inside Diameter (inches)Outside Diameter (inches)Bolt Circle# of Bolt HolesBot Hole Diameter (inches)101311 ½12121513 ½12141715 ½16161917 ½16182119 ½16202321 ½20242725 ½24262927 ½24283129 ½28303331 ½28 | Inside Diameter (inches) Outside Diameter (inches) Bolt Circle # of Bolt Holes Bot Hole Diameter (inches) Dimension A 10 13 11 ½ 12 21 12 15 13 ½ 12 23 14 17 15 ½ 16 25 16 19 17 ½ 16 27 20 23 21 ½ 20 31 22 25 23 ½ 20 31 24 27 25 ½ 24 34 26 29 27 ½ 24 36 28 31 29 ½ 28 39 39 30 33 31 ½ 28 41 |

For assistance specific to this product, please contact Camfil's Washington, NC facility at Sales-WA@camfil.com or telephone at (877) 658-6588.

For detailed specifications or drawing, please consult your local Camfil Distributor or Representative, <u>CamContain BTFB Isolation Dampers</u> or visit www.camfil.us.

Camfil has a policy of uninterrupted research, development and product improvement. We reserve the right to change designs and specifications without notice.



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