

HEAVY DUTY BUBBLE TIGHT INDUSTRIAL ROUND DAMPER - HTR-BT

APPLICATION

Safe-Air Dowco bubble-tight isolation damper model HTR-BT is designed for industrial applications in which extreme low leakage is required. Typical installations include industrial process exhaust systems, animal disease laboratories, pharmaceutical facilities, nuclear power plants, DOE facilities, military facilities and biotech labs. Each damper model HTR-BT is factory tested prior to shipment for leakage performance in accordance with AMCA-500-D up to 10 in. w.g.

STANDARD CONSTRUCTION

FRAME

316-grade stainless steel channel, dimensions vary according to size, see chart below

BLADES

316-grade stainless steel, with chemical & radiation resistant seals, dimensions vary according to size, see chart below

BLADE AXLES & BEARINGS

AXLE – Continuous steel shaft

BEARING – Press fit with packing gland

MAXIMUM VELOCITY & STATIC PRESSURE

6000 FPM @ 10" H₂O

MIN. & MAX. TEMPERATURE

-40°F to 250°F

MAXIMUM SIZE

24" Diameter

MINIMUM SIZE

6" Diameter

FINISH

Mill

ACTUATOR

Manual

OPTIONAL CONSTRUCTION

SPECIFIED MATERIAL – Available in 304 SS (OPT)

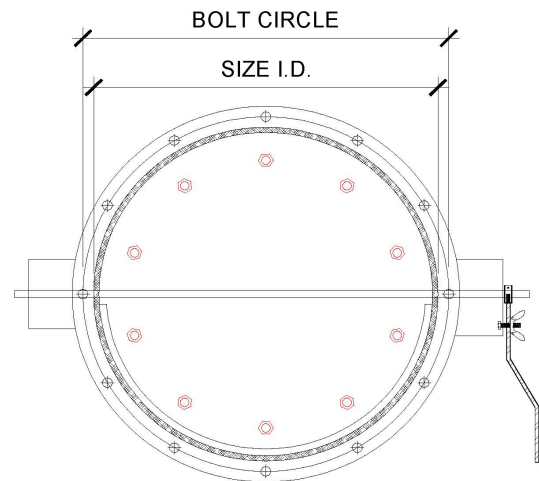
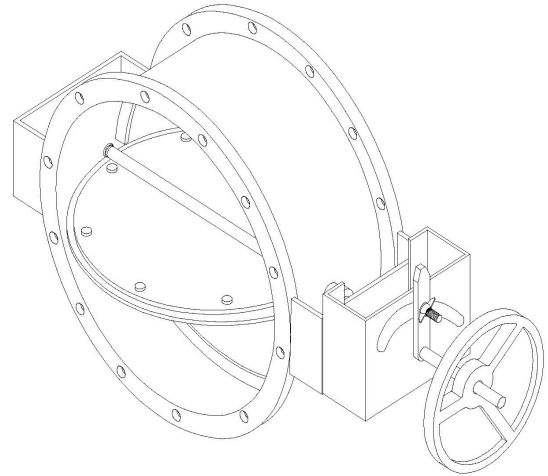
BOLT HOLES – Based on standard bolt circles available

ACTUATORS – Hand-Wheel or Motorized

BEARING – 2-Bolt flange bearing.

SPECIAL PURPOSE CONSTRUCTION

For higher temperatures, velocities, and pressure (up to 30 in. wg) contact factory.



| Size ID | FRAME DEPTH & WEB THICKNESS | FLANGE | BLADE THICKNESS | AXLE DIAMETER | MAXIMUM STATIC PRESSURE | MAXIMUM VELOCITY |
|-------------|-----------------------------|-----------------|-----------------|---------------|-------------------------|------------------|
| 6" to 9" | 6" x 1/4" Thk. | 1-1/4" x 0-1/2" | 1/4" | 1/2" | 10" w g | 6000 fpm |
| >9" to 14" | 9" x 1/4" Thk. | 1-1/4" x 0-1/2" | 1/4" | 1/2" | 10" w g | 6000 fpm |
| >14" to 24" | 9" x 1/4" Thk. | 1-1/4" x 0-1/2" | 1/4" | 3/4" | 10" w g | 6000 fpm |

| | | | | | |
|---------|-------|--------------------|---|----------|--|
| DATE | | ARCHITECT/ENGINEER | | CUSTOMER | |
| PROJECT | | | | | |
| QTY | WIDTH | HEIGHT | DESCRIPTION | | |
| | | | | | |
| | | | | | |
| | | | <p>SAFE-AIR DOWCO PRODUCTS GROUP Certifies that the HTR-BT Dampers shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publications 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance and ratings and airleakage</p> | | |

SAFE-AIR
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DEPENDABLE PRODUCTS SINCE 1955

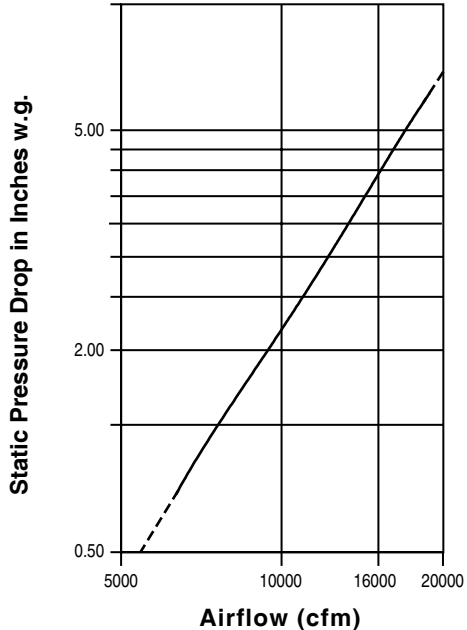
SAFE-AIR/DOWCO

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All tests performed at an independent laboratory and based on AMCA standards for air performance.

AIR PERFORMANCE



Pressure drop data was conducted on test sample of 24" dia. in accordance with AMCA Standards 500-D using Figure 5.4. All data has been corrected to represent standard air at a density of 0.075 lb/ft³ (1.2 kg/m³)

HTR-BT

The HTR-BT, bubble-tight damper has been engineered to withstand and comply with the most rigorous standards of the industrial nuclear industry.

The HTR-BT design has been engineered in accordance to meet specifications for furnishing and installation on schedules such as heavy duty industrial grade bubble-tight dampers. Making this damper accessible for common bubble-tight applications such as but not limited to, Medical Facilities, Food Processing, Laboratories, Clean Rooms, Nuclear Power Plans, Military Facilities, Federal Facilities, Biotech Labs & Microelectronic Manufacturing, to name just a few.

- HTR-BT is manufactured of 316 stainless steel, 304 stainless steel and Galv. Steel also available.
- Available in a wide variety of sizes, from 6" to 24".
- Manual or electric actuators are available.
- Includes pre-drilled bolt holes in flange.

Dampers are bubble-tight up to 10" W.G. (2.5 kPa) differential pressure. The air leakage is based on operation between 32°F - 120°F (0°C - 49°C).

TORQUE REQUIREMENTS

| Damper Diameter | Torque (in - lbs) |
|-----------------|-------------------|
| 24" | 962 |

STANDARD BOLT HOLE PATTERN FOR HEAVY DUTY ROUND DAMPERS

| Order Size (Inches) | Flange (F) | Holes Size (Diameter) | Number of Holes | Bolt Circle Factor |
|---------------------|------------|-----------------------|-----------------|--------------------|
| 6 | 1-1/4" | 9/32" | 6 | 1-5/16" |
| 7 | 1-1/4" | 3/8" | 6 | 1-1/2" |
| 8 | 1-1/4" | 3/8" | 6 | 1-9/16" |
| 9 | 1-1/4" | 7/16" | 6 | 1-5/8" |
| 10 | 1-1/4" | 7/16" | 6 | 1-13/16" |
| 11 | 1-1/4" | 7/16" | 6 | 1-3/4" |
| 12 to 18 | 1-1/2" | 7/16" | 8 | 1-3/4" |
| 19 to 22 | 1-1/2" | 7/16" | 12 | 1-3/4" |
| 23 to 24 | 1-1/2" | 7/16" | 12 | 1-7/8" |

- Actual I. D. Size = Order Size + 1/8".
- Actual O. D. Size = Actual I. D. Size + (F x 2).
- Bolt Circles = Order Size + Bolt Circle Factor.

Bolt holes start perpendicular to blade axles (12 o'clock).