

**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" H<sub>2</sub>O

**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)

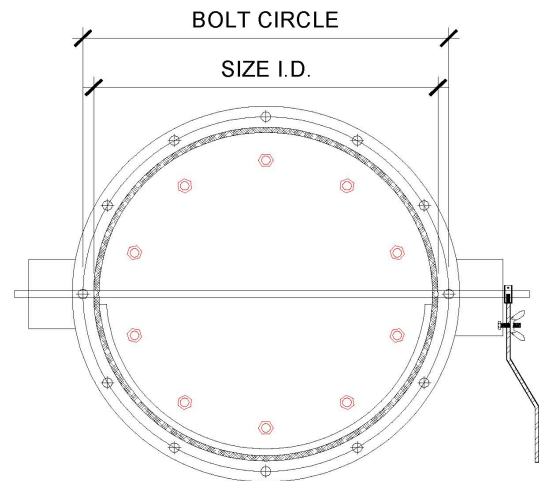
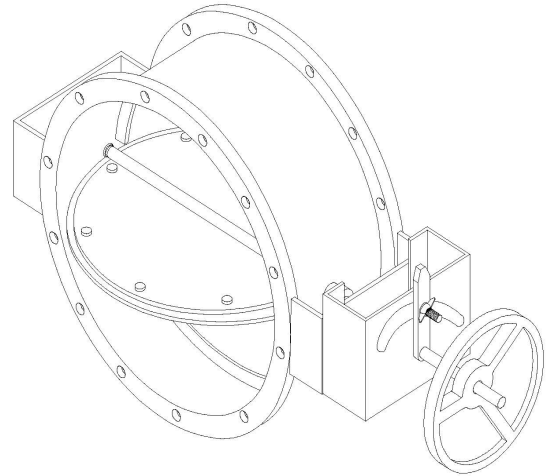
**BOLT HOLES** – Based on standard bolt circles available

**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>		



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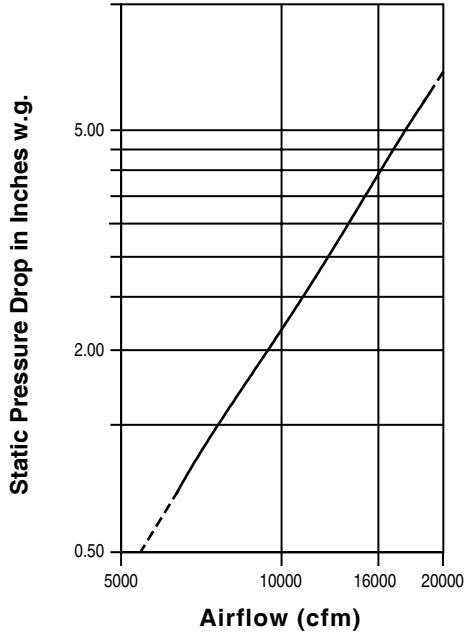
**SAFE-AIR/DOWCO**

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# HEAVY DUTY BUBBLE TIGHT INDUSTRIAL ROUND DAMPER - HTR-BT

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/ft<sup>3</sup> (1.2 kg/m<sup>3</sup>)

## 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).