

Dampers



Greenheck offers the most UL Certified dampers and the largest selection of AMCA Licensed dampers in the industry. Our state-of-the-art testing facility allows us to regularly test our products to ensure quality performance is maintained. With in-house testing capabilities, we are able to accelerate new product development concepts that meet the challenging demands of the ever changing market place. For highly corrosive applications, Greenheck also offers severe environment dampers manufactured with 316 stainless steel (SE). Dampers are also manufactured with 304 stainless steel (SS).

Air Measuring Products

Air measuring products help buildings meet the minimum outdoor air requirements of ASHRAE Standard 62 or California Title 24 by providing accurate monitoring and control of outside air.

Airflow Measuring Station

Model AMS

The AMS is an accurate airflow measuring station and is furnished with a properly sized pressure transducer that outputs a signal proportional to cfm. The AMS is compatible with a field-supplied controller or a factory-supplied LON controller to indicate airflow volume.



Airflow Measuring Station with Damper - Pressure Differential

Model AMD

The AMD series combines the function of an accurate airflow measuring station and a low-leakage control damper into one compact assembly that both measures and regulates airflow volumes to a target set point. The AMD series is compatible with a field-supplied controller or a factory-supplied analog controller. The four available models are:

- AMD-23 featuring a 3-V blade control damper
- AMD-33 featuring a fabricated airfoil blade control damper
- AMD-42 featuring an extruded airfoil blade control damper
- AMD-42V featuring a vertical extruded airfoil blade control damper



Airflow Measuring Station with Damper - Thermal

Model AMD-xx-TD

The AMD series combines the function of an highly accurate thermal dispersion airflow measuring station and a low-leakage control damper into one compact assembly that both measures and regulates airflow volumes to a target set point. The AMD-xx-TD series is compatible with a field-supplied controller or a factory-supplied analog or BACnet MS/TP controller. The four available models are:

- AMD-23-TD featuring a 3-V blade control damper
- AMD-33-TD featuring a fabricated airfoil blade control damper
- AMD-42-TD featuring an extruded airfoil blade control damper
- AMD-42V-TD featuring a vertical extruded airfoil blade control damper

Catalog: *Air Measuring Damper Products – AMS, AMD and AMD-TD*



Insulated/Thermally Broken Dampers

Model ICD series of dampers were developed for applications where it is necessary to minimize thermal transfer and reduce condensation.

Insulated Control Damper Model ICD

Model ICD-44 features a thermally broken insulated blade. ICD-45 features a thermally broken, insulated frame and blade. The ICD series meet the IECC (International Energy Conservation Code) requirements with a leakage rating of 3 cfm/ft² (5 m³/hr) at 1 in. wg (248 Pa) or less.

Catalog: *Insulated Control Dampers — ICD*



Control Dampers

Control dampers are used in buildings to regulate the flow of air in an HVAC system. Greenheck control dampers are configurable to meet the requirements of most commercial applications. Configurable features include: material type (galvanized steel, stainless steel, and aluminum), blade type (3V, airfoil, and round), and actuator type (two position, three position and modulating). When provided with blade and jamb seals, Greenheck control dampers meet the IECC (International Energy Conservation Code) leakage requirement of 3 cfm/ft² @ 1 in. wg (55 cmh/m²).

3-V Blade Type: Models VCD/SEVCD*

3-V blades are typically used in low to medium pressure and velocity systems. Fabricated blades are reinforced with three longitudinal structurally designed vee's. Available with blade and jamb seals for low leakage applications.

Airfoil Blade Type: Models VCD/SEVCD*

Airfoil blades are typically used in medium to high pressure and velocity systems. Airfoil blades are constructed with structural reinforcement through the entire length of the blade. All models include blade and jamb seals for low leakage and ultra-low leakage applications.

Round Blade Type: Models VCDR/VCDRM

Round blade types are typically used in low to medium pressure and velocity systems. Available with blade and jamb seals for low leakage applications. The VCDR uses a single blade design while the model VCDRM uses a multiblade design.

Face & Bypass Type: Models FBH/FBV

Face and Bypass models consist of two dampers connected allowing one damper to open while the other damper closes. The FBH series is a horizontal assembly (dampers alongside each other). The FBV series is a vertical assembly (dampers stacked on top of each other).

Catalog: *HVAC Control & Balancing Dampers — VCD, MBD and RBD*



Access Doors

Access doors are designed for use in low to medium pressure duct systems. They provide a durable, practical, and inexpensive means of gaining access to damper components inside the ductwork.

Hinged Style: Model HAD

Cam Style: Model CAD

Round Style: Model RAD

Pressure Relief: Models PRAD/VRAD



* SE in model name denotes 316 stainless steel.
**SS in model name denotes 304 stainless steel.

Balancing

Models MBD/MBDR

Models MBD and MBDR are designed to regulate the flow of air in an HVAC system. Round and rectangular single-blade, and multiblade construction models are available. Models are standard with a locking manual quadrant. An optional standoff bracket is available for installations using insulated duct.

Catalog: HVAC Control & Balancing Dampers — VCD, MBD and RBD



Models RBD/RBDR

Models RBD & RBDR series offer the same function as MBD/MBDR series plus the added benefit of remote damper control at the diffuser or wall plate. These remote balancing dampers are ideal for applications where it is difficult to get access to manually adjust the dampers and balance airflow. The “EZ Balance” remote control operates the damper motor by connecting to the wall, ceiling, or diffuser mounted RJ11 connector.

Catalog: HVAC Control & Balancing Dampers — VCD, MBD and RBD



Backdraft and Pressure Relief Dampers

Backdraft dampers are designed to allow airflow in one direction and prevent reverse airflow. A variety of mounting orientations, airflow directions, operation types, and performance ratings are available.

Backdraft

Models WD/ES/EM/HB/HBR/WDR/SSWDR**

Exhaust Backdraft Damper models are designed to allow exhaust airflow but prevent airflow in the reverse direction and are typically used with a fan or power roof exhauster. Available in vertical or horizontal mount.

Intake Backdraft Damper models are designed to allow supply airflow into a building but prevent airflow in the reverse direction and are typically used with a fan or gravity intake ventilator. Available in vertical or horizontal mount.



Barometric Relief

Models BR/SEBR*

Barometric relief backdraft dampers have an adjustable start-open pressure for low velocity systems. Typically used for gravity hood ventilation, ductwork outlets, and room or stairwell pressurization.

Pressure Relief

Model HPR

Pressure relief backdraft dampers have an adjustable start-open pressure, which is capable of maintaining pressure at various airflow and closes upon a decrease in differential pressure. Pressure relief dampers are typically used in industrial systems to relieve unexpected overpressure, additional air to a direct gas-fired burner or fume exhaust.

Catalog: Backdraft and Pressure Relief Dampers



* SE in model name denotes 316 stainless steel.

**SS in model name denotes 304 stainless steel.

Fire Dampers

Fire dampers are required by building codes to maintain the fire resistance ratings of walls, partitions, and floors which are penetrated by air ducts or transfer openings. Fire dampers are UL 555 Classified with a fire resistance ratings of 1½ or 3 hour.

Dynamic Rated

Models DFD/SEDFD*/DFDR/SEDFDR*/ODFD/SSDFD**/SSDFDR**

Dynamic rated fire dampers are designed to close under airflow and in HVAC systems that are operational in the event of a fire emergency. Fire dampers can be mounted either vertically or horizontally with airflow in either direction.

Catalog: *Life Safety Dampers*



Static Rated

Models FD/OFD/FDR/SSFD**/SSFDR**

Static rated fire dampers are designed for use in HVAC systems that are automatically shutdown in the event of a fire emergency. Static fire dampers are not designed to close against airflow.

Catalog: *Life Safety Dampers*



Ceiling Radiation Dampers

Ceiling radiation dampers are designed and tested to protect penetrations through the ceiling membrane of fire resistive floor ceiling and/or ceiling assemblies.

Ceiling Radiation – Model CRD

Model CRD is a UL 555C Classified ceiling radiation damper that is used for protection of ceiling openings in fire rated floor/ceiling assemblies with fire resistance ratings of 3 hours or less. In addition, Greenheck CRDs are Warnock Hersey Listed for application in gypsum board ceilings or ceiling grid systems with fire resistance ratings of up to 3 hours. Models are available in round or rectangular shapes with butterfly type blades or a curtain blade.



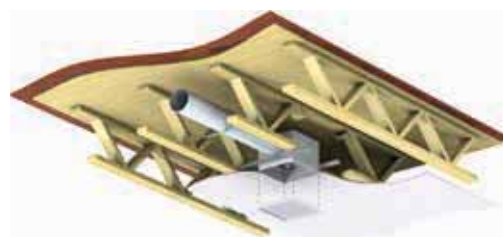
Model CRD-1WJ

The CRD-1WJ is a UL 555C Classified ceiling radiation damper for installation in wood joist ceiling construction and approved for use in 17 ceiling designs as detailed in the UL Fire Resistance Directory. The CRD-1WJ provides the ceiling radiation damper installed in an insulated steel enclosure with C, O or R inlet shapes to connect to ductwork. The damper is positioned in the enclosure to accommodate 1½ in. (38mm) grille depth.



Model CRD-1WT

The CRD-1WT is a UL 555C Classified ceiling radiation damper for installation in wood truss ceiling construction. This model is approved for ceiling designs M-508 and P-554 as detailed in the UL Fire Resistance Directory. The CRD-1WT provides the ceiling radiation damper with a flange attached around the perimeter of the damper. The damper is positioned either flush with the ceiling or above the ceiling for grille installation.



Model CRD-501

The CRD-501 is a round ceiling radiation damper with low leakage. This model is UL 555C and UL 555S Classified. The CRD-501 has been qualified to 3000 ft./min (15 m/s) and 4 in. wg (1,000 Pa) for operational closure in emergency smoke control situations for use in HVAC system.

Catalog: *Life Safety Dampers*



Smoke Dampers

Smoke dampers are designed to be used in conjunction with barriers within a building to control the spread of smoke in the event of a fire. Greenheck smoke dampers have been certified to UL 555S for use in systems up to 4000 ft./min or 8 in. wg. All models are rated for airflow and leakage in either direction.

Smoke – Models SMD/SMDR/SESMD*/SESMDR*/SSSMD**/SSSMDR**

Smoke damper models are available in leakage class I, II, or III. Smoke dampers can be constructed of galvanized steel, 304SS, or 316SS and are available with a variety of actuators to meet the requirements of any application.



Industrial Smoke – Model HSD

Industrial smoke damper models are available in leakage class I. Industrial smoke damper can be constructed of galvanized steel, 304SS, or 316SS with a flanged frame. A variety of actuators are available to meet the requirements of any application.

Catalog: *Life Safety Dampers*

Catalog: *Heavy Duty/Industrial Dampers*



Combination Fire Smoke Dampers

Combination fire smoke dampers perform the function of both a fire damper and a smoke damper. Combination fire smoke dampers are UL 555 and UL 555S Classified with fire resistance for 1½ or 3 hours. Models are rated for use in systems up to 4000 ft./min or 8 in. wg. Greenheck combination fire smoke dampers are rated for airflow and leakage in either direction. Combination fire smoke dampers are available in galvanized steel, 304SS, 316SS and are operated with electric or pneumatic actuators.

Traditional Fire Smoke – Models FSD/FSDR/SEFSD*/SEFSDR*/SSFSD**/SSFSDR**

Combination fire smoke dampers are Classified to UL 555 and UL 555S and must be mounted within the plane of the wall or floor.



Corridor Fire Smoke – Model CFSD

Corridor fire smoke dampers have a one hour fire resistance rating and UL 555S Leakage Rating. The dampers can be installed horizontally behind grilles and diffusers in corridor penetrations



* SE in model name denotes 316 stainless steel.
 **SS in model name denotes 304 stainless steel.

Out-Of-Wall Fire Smoke – Model OFSD

OFSD dampers are Classified to UL 555 and UL 555S and can be installed outside of the plane of the wall or floor. The entire installation can be done from the grille side of the opening.



Grille Access Out-Of-Wall Fire Smoke Model GFSD

GFSD dampers are Classified to UL 555 and UL 555S and can be installed outside of the plane of the wall or floor. This allows the actuator to be mounted internally with convenient access to the damper, actuator, and heat responsive device through the grille. A separate compartment houses the actuator allowing for a shallow operating depth.

Catalog: *Life Safety Dampers*



Marine Dampers

Marine dampers are United States Coast Guard Class A-60 division approved. The marine dampers were tested at Underwriters Laboratories (UL) in accordance with International Maritime Organization's (IMO) Fire Test Procedure code. Fire and combination fire smoke dampers can be used in marine and offshore ventilation systems.

Models IMO/SSIMO**

Models IMO and SSIMO are Classified to United States Coast Guard Class A-60, United States/European Union MRA Listed (shipswheel) and American Bureau of Shipping (ABS) Approval Design Assessment (ADA).

Catalog: *Marine Products — Dampers, Louvers and Fans*



Bubble-Tight Dampers

A bubble-tight damper is a heavy-duty round damper designed for isolation applications to meet the requirement for zero leakage. Every bubble-tight damper is factory leakage tested to ensure a bubble-tight seal up to 30 in. wg. Galvanized, 304 or 316 stainless steel. These models are recommended for two position shutoff applications.

Model HBTR

Model HBTR-151 is rated for pressures up to 10 in. wg (2,490 Pa)

Model HBTR-451/551 is rated for pressures up to 30 in. wg (7,470 Pa)

Catalog: *Bubble-Tight Dampers*

Catalog: *Heavy-Duty/Industrial Dampers*



* SE in model name denotes 316 stainless steel.

**SS in model name denotes 304 stainless steel.

Blast Dampers

A blast damper is a heavy duty damper designed to protect against blasts and rapid pressure changes. A blast damper remains open under normal operating conditions to allow normal airflow.

Model HBS

Model HBS-330/430 will close in the same direction as normal flow.
Model HBS-331/431 will close in the opposite direction as normal flow.

Catalog: *Heavy-Duty/Industrial Dampers*



Industrial Control Dampers

Heavy duty flanged style frame dampers with various blade styles and pressure classes. Designed to control airflow and provide shut off in HVAC or industrial process control systems.

Models HCD/SEHCD*: Rectangular

Models HCD/SEHCD are rectangular dampers available with pressure and velocity capabilities up to 45 in. wg (11,161 Pa) and 6000 ft./min (30 m/s).

Model HCDR: Round

Model HCDR is a true round industrial damper available for pressure and velocity capacities up to 20 in. wg (4,960 Pa) and 6500 ft./min (33 m/s).

Catalog: *Heavy-Duty/Industrial Dampers*



Tornado Dampers

A tornado damper is a heavy duty damper designed to protect against tornadoes and rapid pressure changes. A blast damper remains open under normal operating conditions to allow normal airflow.

Models HTOD

Model HTOD-330 will close in the same direction as normal flow.
Model HTOD-331 will close in the opposite direction as normal flow.

Catalog: *Heavy-Duty/Industrial Dampers*



Tunnel Transit Dampers

Road and underground metro tunnels are some of the most difficult environments in the world. Dampers in subway tunnels and transit systems serve three primary functions, depending on design of the ventilation system: Pressure equalization, portal intake and exhaust, and emergency fire/smoke control. Tunnel transit dampers are designed to meet NFPA-130 and NFPA-502, and have been tested at 482°F (250°C) for 1 or 2 hours. These dampers have also been leakage tested in accordance with AMCA 500-D. Galvanized, 304 or 316 stainless steel. The HTD series are certified to UL 555S.

Models HTD

Model HTD-630 features a fabricated airfoil blade. Model HTD-630 is available for pressure and leakage capabilities up to 24 in. wg (5,952 Pa) and 8 cfm/ft² (14 m³/hr) at 4 in. wg (992 Pa).

Model HTD-636 features a fire rated airfoil blade. This model has been tested in accordance to BS476 for 2 hours. Model HTD-636 is available for pressure and leakage capabilities up to 24 in. wg (5,952 Pa) and 8 cfm/ft² (14 m³/hr) at 4 in. wg (992 Pa).

Model HTD-640 features an extruded airfoil blade and is available for pressure and leakage capacities up to 12 in. wg (2,976 Pa) and 8 cfm/ft² (14 m³/hr) at 4 in. wg (992 Pa).

Catalog: *Tunnel Transit Dampers — HTD*

Catalog: *Heavy-Duty/Industrial Dampers*



* SE in model name denotes 316 stainless steel.

**SS in model name denotes 304 stainless steel.