Contents

Product Overview C4
Curtain Fire Damper Basics C9
Selection Procedure For Dynamic Fire Dampers C10
U.L. Minimum/Maximum Sizes C11
Dynamic Fire Dampers
  FDD Series - 1 1/2 Hour - Standard 4 1/4" (108) Frame C12
  FDD Series - 1 1/2 Hour - Integral Sleeve C14
Static Fire Dampers
  FD Series - 1 1/2 Hour - Standard 4 1/4" (108) Frame C16
  FD Series - 1 1/2 Hour - Integral Sleeve C18
  FDT Series - 1 1/2 Hour - Thinline 2" (51) Frame C20
Sizing Charts
  For Standard 4 1/4" (108) Frame Fire Dampers C22
  For Thinline 2" (51) Frame Fire Dampers C23
Options & Variables for Curtain Fire Dampers
  Options/Variables Model Codes C24
  How to Order Curtain Fire Dampers C24
  Sleeve Options C25
  Retaining Angles C26
  Sealing Options for Type C Dampers C27
  Closure Devices C27
  Closure Temperatures C29
  Pull-Tab Release C29
  Microswitch Status Indicators C29
Ceiling Damper Basics C30
Ceiling Dampers
  Model CRD2 - Square/Rectangular - Butterfly Type C31
  Model CRD3 - Round C31
  Model CRDC - Square/Rectangular - Low Profile C34
Thermal Blankets
  Model CRDB - For Round and Square Neck Diffusers C36
Wood Truss Ceiling Dampers
  Model CRD5 - Grille Mount - Side Inlet - Steel Plenum C37
  Model CRD5D - Ducted - Side Inlet - Steel Plenum C37
  Model CRD6 - Grille Mount - Side Inlet C39
  Model CRD6D - Ducted - Side Inlet C39
  Model CRD7 - Register Box - Side Inlet C41
  Model CRD8 - Register Box - Side Inlet - Insulated C41
  Model CRD9 - Register Box - 45° Inlet C41
  Model CRD10 - Register Box - Top Inlet C41
  Model CRD11 - Register Box - Top Inlet - Insulated C41
Contents

Access Doors

Standard Performance
ADR Series - Square/Rectangular - Removable Door C45
ADH Series - Square/Rectangular - Hinged Door C45

Ultra-Low Leakage
ADFO Series - Oval Door - Style M1 Double Flange C47
ADFO Series - Oval Door - Style M2 Knock-Over Tabs C47

Utility Doors
ADFR - Fire Rated Access Door C52
ADU - Universal Access Door C53

Standard Performance Control Damper
Model CDR - Round - Low Leakage C55
GENERAL PRODUCT OVERVIEW

Curtain Type Fire Dampers - 1 1/2 Hour Rated

Manufactured Air Products' fire dampers are an intrinsic part of HVAC systems in commercial and industrial buildings. MAP's commitment to quality construction and product development has helped limit property damage and make buildings safer for occupants all over the world by restricting the passage of flame. Building codes require fire dampers to maintain the fire resistance ratings of walls, partitions and floors which have been penetrated by ducts or other similar openings.

**DYNAMIC**

The MAP FDD Series dynamic curtain fire dampers are UL approved for use where building codes require protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of 2 hours or less. Classified for use in dynamic systems where the HVAC system remains operative in the event of a fire, the FDD Series features stainless steel closure springs for assured damper closure under airflow.

- **Models FDDAV** and FDDAH
- **Models FDDBV** and FDDBH
- **Models FDDCV** and FDDCH
- **Sleeved Models**
  - Add Suffix '-12'
  - Add Suffix '-14'
  - Add Suffix '-16'

- **Model FDDAV**
- **Model FDDAH**

**STATIC**

The MAP FD Series curtain fire dampers, for use in static “fans off” systems where the HVAC system shuts down in the event of a fire, are UL approved to provide protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of 2 hours or less. The FD Series features corrosion resistant steel frame and blades for performance that lasts, and a choice of transition styles to suit duct size. Model Series FD is also offered with an integral sleeve to make jobsite installation fast and easy.

- **Models FDAV** and FDAH
- **Models FDBV** and FDBH
- **Models FDCV** and FDCCH
- **Sleeved Models**
  - Add Suffix '-12'
  - Add Suffix '-14'
  - Add Suffix '-16'

**STATIC  • Thinline Frame**

Thinline curtain fire dampers are UL approved for use where building codes require the protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of 2 hours or less. The FDT Series is classified for use only in static “fans off” systems where the HVAC system is automatically shut down in the event of a fire alarm. The FDT Series Thinline dampers are only 2” (51) deep making them ideal for installation in narrow fire rated partitions, transfer duct openings, behind grilles or in any other application where space is limited.

- **Model FDTAV** and FDTAH
- **Model FDTBV** and FDTBH
- **Model FDTCV** and FDTCH
Ceiling Radiation Dampers

Manufactured Air Products is committed to the development of life safety products such as the CRD Series Ceiling Dampers. This commitment has helped foster industry standards, as well as provide worry free fire protection solutions that benefit today’s building designers, owners and occupants. Approved for use in lieu of hinged door type dampers in UL floor/ceiling or roof/ceiling assemblies, the Manufactured Air Products’ CRD Series provides a fire and heat barrier that has been tested and qualified to the most exacting standards.

For Square, Rectangular or Round Duct
MAP ceiling dampers, or ceiling radiation dampers as they are commonly called, are designed to function as a fire and heat barrier in air duct openings penetrating fire resistive membrane ceilings. Model CRD2 is for use in square or rectangular applications and Model CRD3 is for use in round applications, in lieu of hinged door type dampers in any UL floor/ceiling or roof/ceiling assembly with up to a 3 hour fire resistance rating where air ducts are allowed.

Model CRD2 See Page C31
Model CRD3 See Page C31

Low Profile For Square or Rectangular Duct
Model CRDC ceiling radiation damper, which functions as a fire and heat barrier in air duct openings that penetrate fire resistive membrane ceilings, is for use in lieu of hinged door type dampers in any UL floor/ceiling assembly with up to a 3 hour fire resistance rating where air ducts are permitted. Model CRDC features a specially designed ‘pull across’ insulated curtain that provides a low overall profile, making it ideal for use in applications where the available duct drop height for installation is limited. The compact curtain design also maximizes free area in the open position.

Model CRDC See Page C34

Thermal Insulating Blanket
MAP Model CRDB Thermal Blankets are designed to insulate the exposed back pan area of a steel ceiling diffuser that may be used in UL Classified floor/ceiling or roof/ceiling assemblies with up to a 3 hour rating. The insulation protects the floor/roof structure above from the intense heat that radiates through the diffuser pan during fire conditions. A thermal blanket is used in conjunction with a ceiling radiation damper that protects the neck opening of the diffuser, to provide complete protection of the opening in the ceiling membrane.

Model CRDB See Page C36
MAP Models CRD5 and CRD6 Ceiling Radiation Dampers have been designed and tested for simple installation in specific UL design wood truss ceiling assemblies. They are UL Classified for use in 1 hour rated UL floor/ceiling design numbers L550, L562, L574 and L579, and roof/ceiling design numbers P531, P538 and P545. Model Series CRD5 features a factory sheet metal plenum with side duct connection collars. Model Series CRD6 is designed for side duct connection collars (fiberglass ductboard plenum by others).

For Wood Truss Ceiling Assemblies

Model CRD5 See Page C37
Model CRD5D See Page C37
Model CRD6 See Page C39
Model CRD6D See Page C39

Register Box For Wood Truss Ceiling Assemblies

Models CRD7 thru CRD11 register boxes with integral ceiling dampers have been specifically designed and tested to provide protection and simple installation in specific UL design wood truss ceiling assemblies. Model CRD7 features a side inlet. Model CRD8 features a side inlet and is insulated. Model CRD9 is insulated with a 45° inlet. Model CRD10 features a top inlet. Model CRD11 is insulated with a top inlet.

Model CRD7 See Page C41
Model CRD8 See Page C41
Model CRD9 See Page C41
Model CRD10 See Page C41
Model CRD11 See Page C41
Access Doors

Fire dampers need inspecting and testing, coils need cleaning and controls need adjusting. The Manufactured Air Products' range of duct access doors has been designed to allow easy and convenient access to such equipment within HVAC ductwork, while providing a secure, positive seal when closed. The economical ADR and ADH models afford quality double skin construction that meets SMACNA requirements, with quick simple installation. The ultra-low leakage ADFO Flat Oval Series provides premium quality that optimizes access area and installs firmly. All models are available in a wide variety of sizes to suit each specific application.

Square or Rectangular Access Doors
These economical quality access doors meet SMACNA requirements and provide quick, simple installation wherever duct access is required. Available in 20 sizes to meet all access requirements. Camlock operation for positive seal and easy opening.
Model ADR - Removable Door  See Page C45
Model ADH - Hinged Door  See Page C45

Flat Oval Access Doors
The MAP ADFO Series Flat Oval duct access doors were developed to provide a premium quality, ultra-low leakage door with optimum ergonomics in mind. The unique oval shape was designed after careful study of the needs of site engineering and maintenance personnel. Each door allows a different degree of access, enabling the most appropriate unit to be specified, depending on duct size and likely maintenance requirements. The ADFO Series is available in two frame styles for use with steel duct: a double flange screwhole mounting type (M1) or a knock-over tab type (M2). Both styles come with a cut-out template which makes the oval shape openings extra easy to cut.
Model ADFO - M1 - Screwhole Mounting  Page C47
Model ADFO - M2 - Knock-over Tabs  Page C47

Fire Rated Access Doors
Model ADFR fire-rated access door is for use whenever it is necessary to provide service access to utilities located within fire separations such as corridor walls, stairwells and ceilings. The 2" (51) thick insulation which acts as a heat barrier, is also ideal for reducing sound transmission through access opening. The flush key operated latch provides convenient and secure opening and closing.
Model ADFR  See Page C52

Universal Access Doors
Model ADU is a universal access door designed to provide convenient access to utilities contained within walls or ceilings. This versatile access door installs flush in drywall, masonry block or tile, and plaster walls and ceilings with a clean unobtrusive finish. This model is offered in an array of standard sizes, with special sizes available upon request.
Model ADU  See Page C53
Round Control Dampers

With today's stringent design criteria for energy efficient 'green' building technology and indoor air quality, individual product engineering, testing and quality of workmanship are more important than ever before. At Manufactured Air Products, our commitment to quality in manufacturing has resulted in a premium control damper product at a reasonable cost. Our standard performance control damper meets the requirements of the majority of low to medium velocity and commercial HVAC systems.

Round Duct • Low Leakage Control Damper

The MAP Model CDR is a low leakage, butterfly damper which has been designed for all types of round ductwork applications and is suitable for use in the majority of low to medium pressure and velocity commercial HVAC systems. The design features a sturdy beaded casing for superior rigidity, and a laminated blade double bolted to axle and drive shaft for maximum strength. The CDR installs easily in round spiral ductwork. The damper may be used for two position or modulating control using a variety of electric or pneumatic actuators or may also be used as a manual balancing damper when used with the optional hand locking quadrant and positive shut-off is required.

Model CDR See Page C55