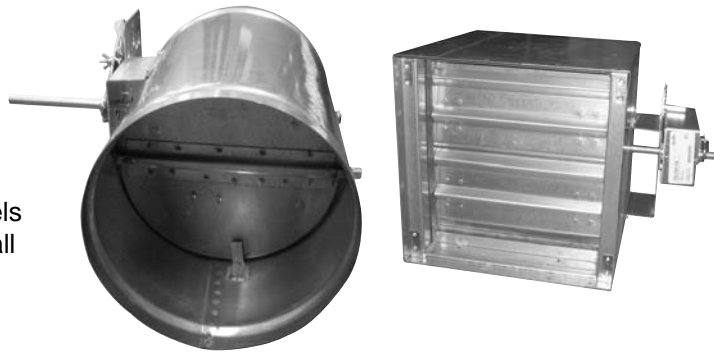


**CHOOSE CARNES FIRE DAMPERS  
FOR ALL OF YOUR UL  
DAMPER APPLICATIONS**

UL 555 Listing -  
1-1/2 and 3 hours

ULC S112 Listing -  
1-1/2 and 3 hours

All Fire Damper models  
meet or comply with all  
major building codes,  
including IBC/ICC  
International Code.



**Type A Fire Dampers**

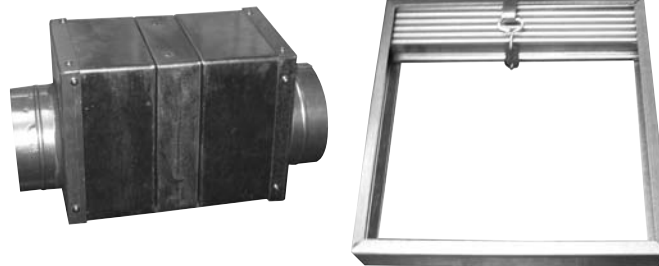
*(EA and EH Series)*

- Curtain Blade
- Crimped (3V) Blade
- Airfoil Blade
- Slimline
- True Round
- Static or Dynamic

**Type B Fire Dampers**

*(EB and EK Series)*

- Curtain Blade
- Slimline
- Static or Dynamic



**Type C Fire Dampers**

*(EC and EJ Series)*

- Curtain Blade
- Static or Dynamic



***When Fire Safety Matters,  
You Can Count On Carnes.***

## Carnes Fire Damper Selection Guide

### ▼ Type A:

Carnes Model	Description of Damper
EAAA	Type A curtain fire damper, for static systems, integral sleeve, curtain blade, 1.5 and 3 hr. ratings
EABA	Type A curtain fire damper, for static systems, no sleeve, curtain blade, 1.5 and 3 hr. ratings
EACA	Type A slimline curtain fire damper, for static systems, no sleeve, curtain blade, 1.5 and 3 hr. ratings
EADA	Type A ultra slimline curtain fire damper, for static systems, no sleeve, curtain blade, 1.5 and 3 hr. ratings
EAEA	Type A curtain fire damper, for static systems, sidewall grille mount, sleeved, curtain blade, 1.5 and 3 hr. ratings
Eafa	Type A curtain fire damper, for static systems, floor/ceiling mount, sleeved, curtain blade, 1.5 and 3 hr. ratings
EAGA	Type A curtain fire damper, for static systems, outside wall/partition mount, sleeved, curtain blade, 1.5 and 3 hr. ratings
EAHA	Type A fire damper, for static systems, single crimped (3V) blade, sleeved, curtain blade, 1.5 hr. only rating
EAIA	Type A fire damper, for static systems, multi blade crimped (3V) blade, no sleeve, 1.5 and 3 hr. ratings
EAJA	Type A fire damper, for static systems, multi blade, airfoil blade, no sleeve, 1.5 and 3 hr. ratings
EAKA	Type A curtain fire damper, for static systems, medium pressure, caulked, 5" sleeve, curtain blade, 1.5 and 3 hr. ratings
EALA	Type A curtain fire damper, for static systems, high pressure, fully welded, 5" sleeve, curtain blade, 1.5 and 3 hr. ratings
EARA	Type A fire damper, for static systems, true round, single blade, sleeved, 1.5 hr. only rating
EHAA	Type A curtain fire damper, for dynamic systems, integral sleeve, curtain blade, 1.5 and 3 hr. ratings
EHBA	Type A curtain fire damper, for dynamic systems, no sleeve, curtain blade, 1.5 and 3 hr. ratings
EHCA	Type A slimline curtain fire damper, for dynamic systems, no sleeve, curtain blade, 1.5 and 3 hr. ratings
EHEA	Type A curtain fire damper, for dynamic systems, sidewall grille mount, sleeved, curtain blade, 1.5 and 3 hr. ratings
EHFA	Type A curtain fire damper, for dynamic systems, floor/ceiling mount, sleeved, curtain blade, 1.5 and 3 hr. ratings
EHGA	Type A curtain fire damper, for dynamic systems, outside wall/partition mount, sleeved, curtain blade, 1.5 and 3 hr. ratings
EHIA	Type A fire damper, for dynamic systems, multi blade crimped (3V) blade, no sleeve, 1.5 and 3 hr. ratings
EHJA	Type A fire damper, for dynamic systems, multi blade, airfoil blade, no sleeve, 1.5 and 3 hr. ratings
EHRA	Type A fire damper, for dynamic systems, true round, single blade, sleeved, 1.5 hr. only rating

### ▼ Type B:

Carnes Model	Description of Damper
EBAA	Type B curtain fire damper, for static systems, integral sleeve, curtain blade, 1.5 and 3 hr. ratings
EBBA	Type B curtain fire damper, for static systems, no sleeve, curtain blade, 1.5 and 3 hr. ratings
EBCA	Type B slimline curtain fire damper, for static systems, no sleeve, curtain blade, 1.5 and 3 hr. ratings
EKAA	Type B curtain fire damper, for dynamic systems, integral sleeve, curtain blade, 1.5 and 3 hr. ratings
EKBA	Type B curtain fire damper, for dynamic systems, no sleeve, curtain blade, 1.5 and 3 hr. ratings
EKCA	Type B slimline curtain fire damper, for dynamic systems, no sleeve, curtain blade, 1.5 and 3 hr. ratings

### ▼ Type C:

Carnes Model	Description of Damper
ECAA	Type C curtain fire damper, for static systems, integral sleeve, curtain blade, 1.5 and 3 hr. ratings
ECBA	Type C curtain fire damper, for static systems, no sleeve, curtain blade, 1.5 and 3 hr. ratings
EJAA	Type C curtain fire damper, for dynamic systems, integral sleeve, curtain blade, 1.5 and 3 hr. ratings
EJBA	Type C curtain fire damper, for dynamic systems, no sleeve, curtain blade, 1.5 and 3 hr. ratings

**Note:** Many damper models are available with an optional sleeve. See individual model specifications for details.

### Selecting a Fire Damper

Fire dampers are used to prevent the transmission of flames through air ducts and in air transfer openings in walls and partitions. Fire damper construction is available in Type A, Type B and Type C, as well as for use in static systems or dynamic systems.

### Type A, Type B and Type C Dampers:

Fire dampers are constructed to meet the UL555 test as to minimum construction gauge and edge seals and are manufactured in three types (Type A, Type B and Type C).

The Type A fire damper is constructed with the damper framed the same size as the duct size and includes the blade stack and edge seals within the air stream. The Type A fire damper has the highest air pressure drop. Typical installation is in a low pressure (less than 3" w.c.) system.

The Type B fire damper has the blade stack out of the airstream, but the receiving channel is within the airstream. Air pressure drop is substantially reduced. The Type B fire damper is generally used where the duct height is 12" or less, or where air speed velocities are fast enough.

The Type C fire damper has a 100% free area through the damper for a minimal pressure drop, and can be used in a low, medium or high pressure application.

### Fire Dampers for Static Systems and Dynamic Systems:

Fire dampers for use in static systems are used in duct systems or penetrations where there is little to no air-flow when the damper closes. Fire dampers for use in dynamic systems are required if the HVAC system will be operating with the fans on during a fire incident. Dynamic system dampers are expected to be able to close against the air velocity and pressure produced by the system fan.

In most cases, static system dampers rely on gravity to pull the curtain/blade closed, and dynamic system dampers utilize springs to pull the curtain closed. Both static and dynamic fire dampers carry an hourly fire resistance rating (1-1/2 or 3 hours). Dynamic system dampers are also provided with an airflow rating, indicating the maximum velocity and static pressure that the damper is designed for<sup>1</sup>.

1. Information provided per UL Marking and Application Guide: Dampers for Fire Barrier and Smoke Applications & Ceiling Dampers, April 2003.

## Fire Damper Model Breakdown

