



# **STATIC CURTAIN TYPE FIRE DAMPER** **3 HR. LABEL • VERTICAL OR HORIZONTAL** **FOR USE IN STATIC SYSTEMS** **MODELS: 0510V AND 0510H (TYPE A)**



## **QUALIFICATIONS:**

- **UL 555 & CAN/ULC-S112 CLASSIFIED FIRE DAMPER. 3 hr. label (File # R9492).**
- **Meets all the requirements of UL and NFPA 80, 90A and 101 for fire dampers in static HVAC systems, as well as IBC and NBC (Canada) Building Code requirements.**
- **City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.**
- **California State Fire Marshal: Fire Damper Listing No. 3225-0935:0100.**

Model 0510 curtain fire damper is UL approved for use where local building codes require the protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of up to 4 hours. The 0510 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.

## **STANDARD CONSTRUCTION:**

- Frame:** 4 1/4" (108) wide, 22 ga. (0.85) roll-formed G60 galvanized steel.
- Blades:** Curtain type interlocking blades, 22 ga. (0.85) roll-formed G60 galvanized steel.
- Fusible Link:** 165°F (74°C) standard. UL Listed. 212°F (100°C) available.
- Blade Closure:** Vertical mount model; gravity. Horizontal mount models are equipped with stainless steel closure springs and galvanized steel locking ramps.

## **Sizes (Duct W x H):**

| Minimum                | Maximum                    |                          |                               |                           |
|------------------------|----------------------------|--------------------------|-------------------------------|---------------------------|
|                        | Single Section             |                          | Multiple Section              |                           |
| Vertical/Horizontal    | Vertical                   | Horizontal               | Vertical                      | Horizontal                |
| 4" x 4"<br>(102 x 102) | 48" x 48"<br>(1219 x 1219) | 36" x 36"<br>(914 x 914) | ① 108" x 72"<br>(2743 x 1829) | 72" x 36"<br>(1829 x 914) |

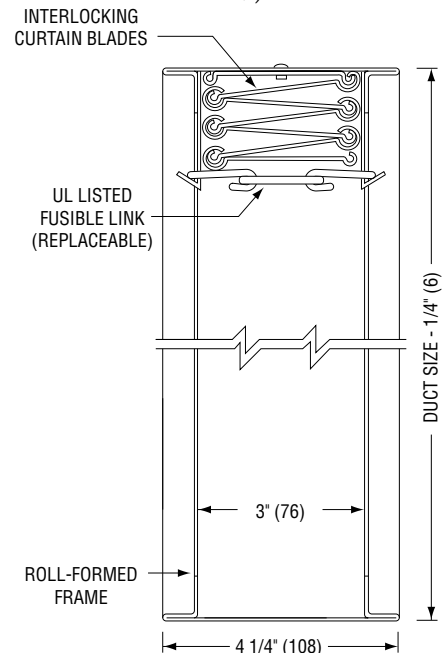
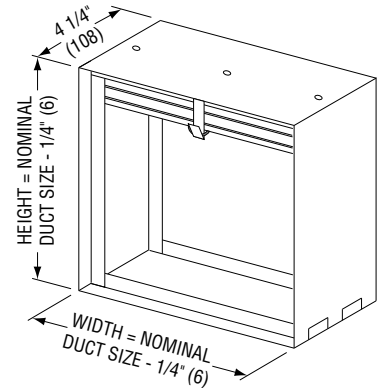
① Maximum individual sections not to exceed 36" x 36" (914 x 914).

## **OPTIONS:**

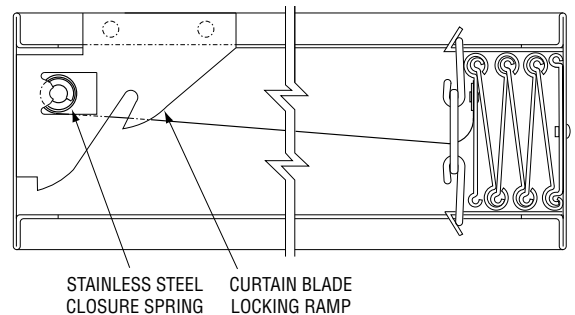
- ☐ Non-standard temperature fusible link. Specify \_\_\_\_\_.
- ☐ **PT Pull Tab Release.** Permits simple reset of horizontal damper when access door is located below damper. (See dwg. ACC-PTR for details).
- ☐ **Factory Sleeve.** Available in 10 (3.5) through 22 ga. (0.85) galvanized steel and in lengths required for application. Specify: \_\_\_\_\_ length. \_\_\_\_\_ ga.

## **NOTES:**

- Units are manufactured 1/4" (6) under nominal duct size.



**MODEL 0510V – VERTICAL MOUNT**



**MODEL 0510H – HORIZONTAL MOUNT**

For installation instructions, see IOM-FDINST.

Dimensions are in inches (mm).

## **SCHEDULE TYPE:**

## **PROJECT:**

## **ENGINEER:**

## **CONTRACTOR:**

## **DATE**

## **B SERIES**

## **SUPERSEDES**

## **DRAWING NO.**

4 - 28 - 14

FD

10 - 6 - 06

0500-1

**QUALIFICATIONS:**

- **UL 555 & CAN/ULC-S112 CLASSIFIED FIRE DAMPER. 3 hr. label (File # R9492).**
- **Meets all the requirements of UL and NFPA 80, 90A and 101 for fire dampers in static HVAC systems, as well as IBC and NBC (Canada) Building Code requirements.**
- **City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.**
- **California State Fire Marshal: Fire Damper Listing No. 3225-0935:0100.**

Model 0520 curtain fire damper is UL approved for use where local building codes require the protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of up to 4 hours. The 0520 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.

Type B fire dampers place the curtain blade pack out of the airstream for higher free area and reduced pressure drop.

**STANDARD CONSTRUCTION:**

- Frame:** 4 1/4" (108) wide, 22 ga. (0.85) roll-formed G60 galvanized steel.
- Blades:** Curtain type interlocking blades, 22 ga. (0.85) roll-formed G60 galvanized steel.
- Enclosure:** 22 ga. (0.85) galvanized steel.
- Fusible Link:** 165°F (74°C) standard. UL Listed. 212°F (100°C) available.
- Blade Closure:** Vertical mount model; gravity.  
Horizontal mount models are equipped with stainless steel closure springs and galvanized steel locking ramps.

**Sizes (Duct W x H):**

| Minimum               |                        | Maximum                    |                          |                               |                                                      |
|-----------------------|------------------------|----------------------------|--------------------------|-------------------------------|------------------------------------------------------|
| Single Section        |                        | Single Section             |                          | Multiple Section              |                                                      |
| Vertical              | Horizontal             | Vertical                   | Horizontal               | Vertical                      | Horizontal                                           |
| 4" x 3"<br>(102 x 76) | 4" x 4"<br>(102 x 102) | 48" x 43"<br>(1219 x 1092) | 36" x 32"<br>(914 x 813) | ① 108" x 68"<br>(2743 x 1727) | 72" x 32" or 64" x 36"<br>(1829 x 813 or 1626 x 914) |

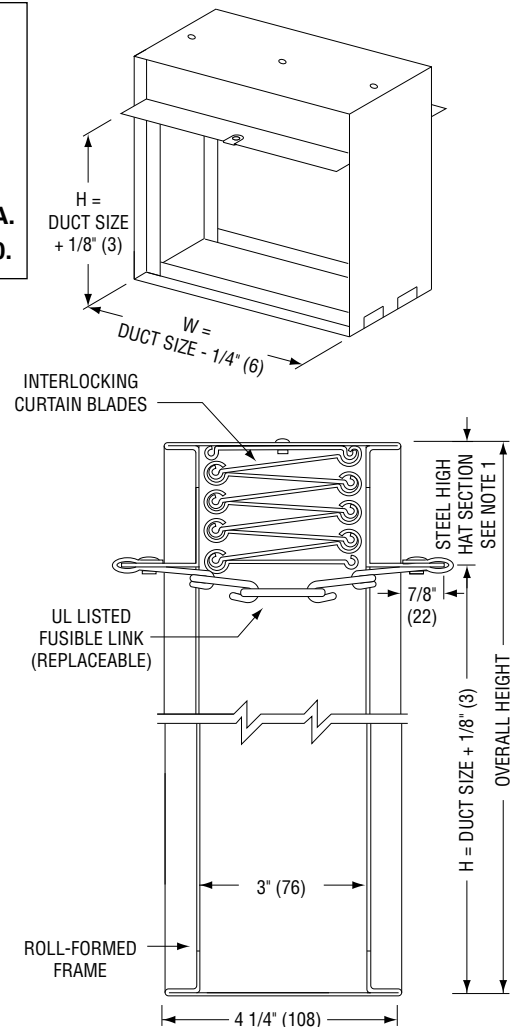
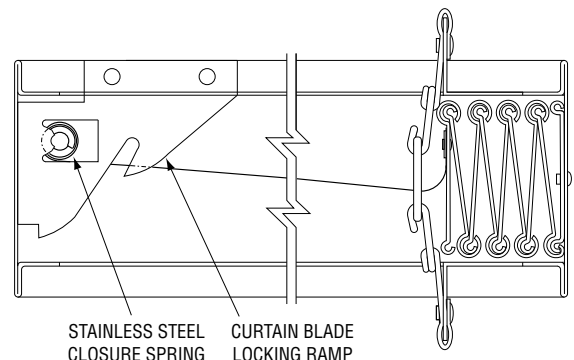
① Maximum individual sections not to exceed 36" x 36" (914 x 914).

**OPTIONS:**

- ☐ Non-standard temperature fusible link. Specify \_\_\_\_\_.
- ☐ **PT Pull Tab Release.** Permits simple reset of horizontal damper when access door is located below damper. (See dwg. ACC-PTR for details).
- ☐ **Factory Sleeve.** Available in 10 (3.5) through 22 ga. (0.85) galvanized steel and in lengths required for application. Specify: \_\_\_\_\_ length. \_\_\_\_\_ ga.

**NOTES:**

- See sizing chart for relationship of duct size and damper size. Refer to drawings SC1 and SC2.


**MODEL 0520V – VERTICAL MOUNT**

**MODEL 0520H – HORIZONTAL MOUNT**

For installation instructions, see IOM-FDINST.

Dimensions are in inches (mm).

**SCHEDULE TYPE:**
**PROJECT:**
**ENGINEER:**
**CONTRACTOR:**
**DATE**
**B SERIES**
**SUPERSEDES**
**DRAWING NO.**

4 - 28 - 14

FD

10 - 6 - 06

0500-2

**QUALIFICATIONS:**

- **UL 555 & CAN/ULC-S112 CLASSIFIED FIRE DAMPER.**  
3 hr. label (File # R9492).
- **Meets all the requirements of UL and NFPA 80, 90A and 101 for fire dampers in static HVAC systems, as well as IBC and NBC (Canada) Building Code requirements.**
- **City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.**
- **California State Fire Marshal: Fire Damper Listing No. 3225-0935:0100.**

Model 0530 curtain fire damper is UL approved for use where local building codes require the protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of up to 4 hours. The 0530 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.

Type CR round & CO oval fire dampers use transition collars to place the curtain blade pack and damper frame out of the airstream, providing 100% free area.

**STANDARD CONSTRUCTION:**

- Frame:** 4 1/4" (108) wide, 22 ga. (0.85) roll-formed G60 galvanized steel.
- Blades:** Curtain type interlocking blades, 22 ga. (0.85) roll-formed G60 galvanized steel.
- Fusible Link:** 165°F (74°C) standard. UL Listed.  
212°F (100°C) available.
- Blade Closure:** Vertical mount model; gravity.  
Horizontal mount models are equipped with stainless steel closure springs and galvanized steel locking ramps.

**SIZES (DUCT W X H):**

| Model Type | Minimum            |                     | Maximum                 |                       |                            |                        |
|------------|--------------------|---------------------|-------------------------|-----------------------|----------------------------|------------------------|
|            | Single Section     |                     | Single Section          |                       | Multiple Section           |                        |
|            | Vertical           | Horizontal          | Vertical                | Horizontal            | Vertical                   | Horizontal             |
| Round CR   | 3" (76) dia.       | 4" (102) dia.       | 42" (1067) dia.         | 31" (767) dia.        | 66" (1676) dia.            | 34" (864) dia.         |
| Oval CO    | 4" x 3" (102 x 76) | 5" x 4" (127 x 102) | 46" x 42" (1168 x 1067) | 34" x 31" (864 x 787) | ① 106" x 66" (2692 x 1676) | 70" x 31" (1778 x 787) |

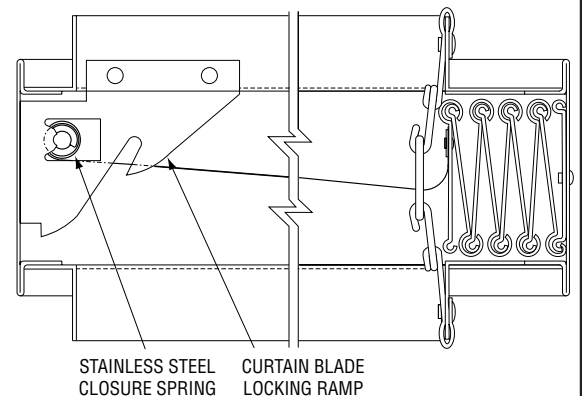
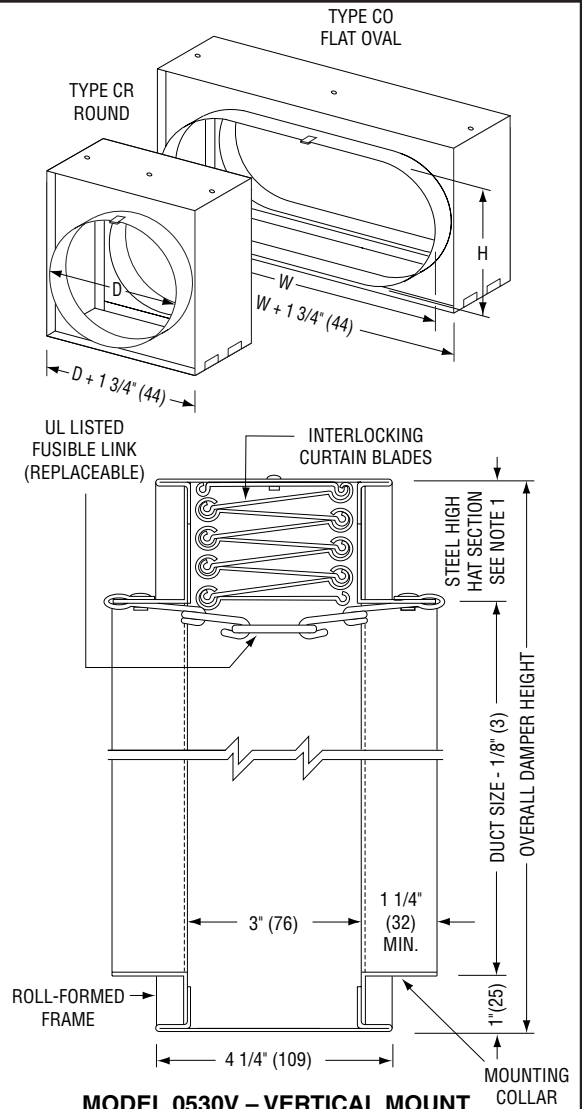
① Maximum individual sections not to exceed 36" x 36" (914 x 914).

**OPTIONS:**

- ☐ Non-standard temperature fusible link. Specify \_\_\_\_\_.
- ☐ **LP** Unsealed. Suitable for low pressure systems.
- ☐ **HP** Sealed. Suitable for medium/high pressure systems. Externally caulked.
- ☐ **Factory Sleeve.** Available in 10 (3.5) through 22 ga. (0.85) galvanized steel and in lengths required for application.  
Specify: \_\_\_\_\_ length. \_\_\_\_\_ ga.

**NOTES:**

1. See sizing chart for relationship of duct size and damper size.  
Refer to drawings SC1 and SC2.



**MODEL 0530H – HORIZONTAL MOUNT**

For installation instructions, see IOM-FDINST.  
Dimensions are in inches (mm).

**SCHEDULE TYPE:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

**DATE**

**B SERIES**

**SUPERSEDES**

**DRAWING NO.**

1 - 8 - 26

FD

4 - 28 - 14

0500-3



**STATIC CURTAIN TYPE FIRE DAMPER**  
**3 HR. LABEL • VERTICAL OR HORIZONTAL**  
**FOR USE IN STATIC SYSTEMS**  
**MODELS: 0530V AND 0530H (TYPE CSR)**



**QUALIFICATIONS:**

- **UL 555 & CAN/ULC-S112 CLASSIFIED FIRE DAMPER. 3 hr. label (File # R9492).**
- **Meets all the requirements of UL and NFPA 80, 90A and 101 for fire dampers in static HVAC systems, as well as IBC and NBC (Canada) Building Code requirements.**
- **City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.**
- **California State Fire Marshal: Fire Damper Listing No. 3225-0935:0100.**

Model 0530 curtain fire damper is UL approved for use where local building codes require the protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of up to 4 hours. The 0530 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. Type CSR square or rectangular fire dampers use transition collars to place the curtain blade pack and damper frame out of the airstream, providing 100% free area.

**STANDARD CONSTRUCTION:**

- Frame:** 4 1/4" (108) wide, 22 ga. (0.85) roll-formed G60 galvanized steel.
- Blades:** Curtain type interlocking blades, 22 ga. (0.85) roll-formed G60 galvanized steel.
- Fusible Link:** 165°F (74°C) standard. UL Listed.  
212°F (100°C) available.
- Blade Closure:** Vertical mount model; gravity.  
Horizontal mount models are equipped with stainless steel closure springs and galvanized steel locking ramps.

**Sizes (W x H):**

| Minimum              |                        | Maximum                    |                          |                               |                           |
|----------------------|------------------------|----------------------------|--------------------------|-------------------------------|---------------------------|
| Single Section       |                        | Single Section             |                          | Multiple Section              |                           |
| Vertical             | Horizontal             | Vertical                   | Horizontal               | Vertical                      | Horizontal                |
| 3" x 3"<br>(76 x 76) | 4" x 4"<br>(102 x 102) | 46" x 42"<br>(1168 x 1067) | 34" x 31"<br>(864 x 787) | ① 106" x 66"<br>(2692 x 1676) | 70" x 31"<br>(1778 x 787) |

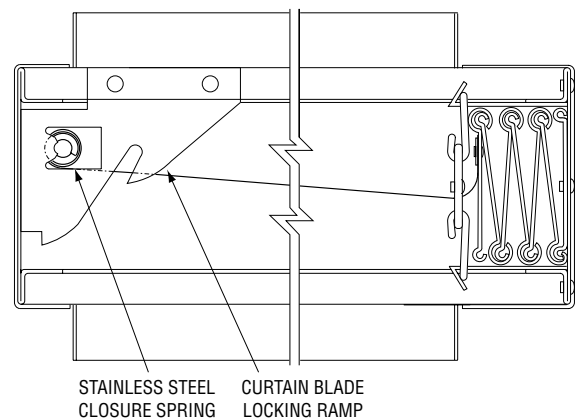
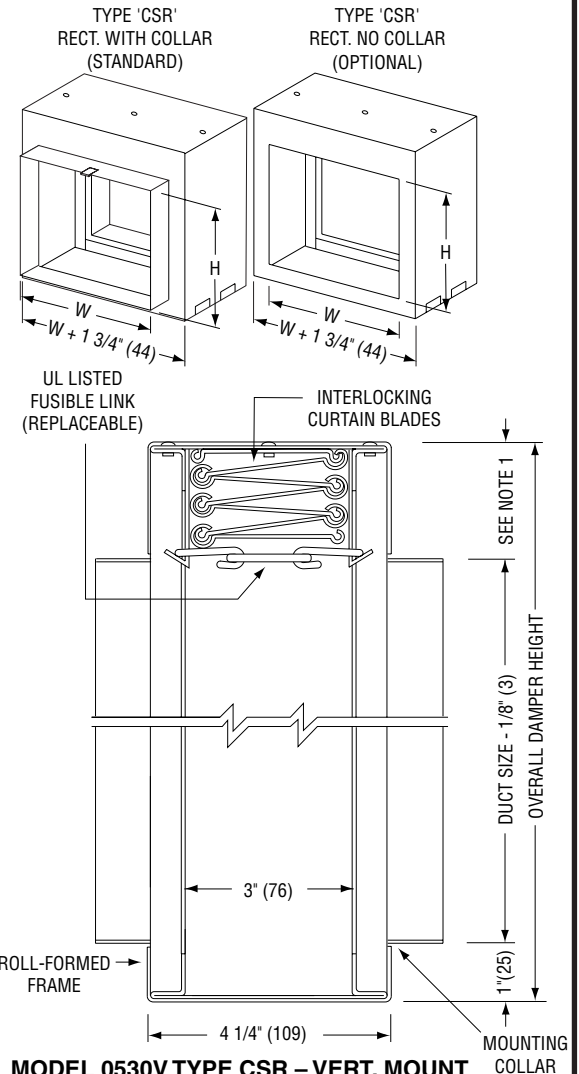
① Maximum individual sections not to exceed 36" x 36" (914 x 914).

**OPTIONS:**

- ☐ Non-standard temperature fusible link. Specify \_\_\_\_\_.
- ☐ **LP** Unsealed. Suitable for low pressure systems.
- ☐ **HP** Sealed. Suitable for medium/high pressure systems. Externally caulked.
- ☐ **Factory Sleeve.** Available in 10 (3.5) through 22 ga. (0.85) galvanized steel and in lengths required for application.  
Specify: \_\_\_\_\_ length. \_\_\_\_\_ ga.

**NOTES:**

1. See sizing chart for relationship of duct size and damper size.  
Refer to drawings SC1 and SC2.



**SCHEDULE TYPE:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

For installation instructions, see IOM-FDINST.

Dimensions are in inches (mm)

| DATE       | B SERIES | SUPERSEDES  | DRAWING NO. |
|------------|----------|-------------|-------------|
| 1 - 8 - 26 | FD       | 4 - 28 - 14 | 0500-4      |



# **STAINLESS STEEL CURTAIN TYPE FIRE DAMPER** **3 HR. LABEL • VERTICAL OR HORIZONTAL** **FOR USE IN STATIC SYSTEMS** **MODEL: 0510SS (TYPE A)**



## **QUALIFICATIONS:**

- **UL 555 & CAN/ULC-S112 CLASSIFIED FIRE DAMPER. 3 hr. label (File # R9492).**
- **Meets all the requirements of UL and NFPA 80, 90A and 101 for fire dampers in static HVAC systems, as well as IBC and NBC (Canada) Building Code requirements.**
- **City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.**
- **California State Fire Marshal: Fire Damper Listing No. 3225-0935:0100.**

Model 0510SS stainless steel curtain fire damper is UL approved for use where local building codes require the protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of up to 4 hours. The 0510SS 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.

## **STANDARD CONSTRUCTION:**

- Frame:** 4 7/8" (124) wide, 22 ga. (0.79) roll-formed Type 304 stainless steel.
- Blades:** Curtain type interlocking blades, 22 ga. (0.79) roll-formed Type 304 stainless steel.
- Fusible Link:** 165°F (74°C) standard. UL Listed.  
212°F (100°C) available.
- Blade Closure:** Vertical mount: gravity.  
Horizontal mount models are equipped with stainless steel closure springs and stainless steel locking ramps.

## **Sizes (Duct W x H):**

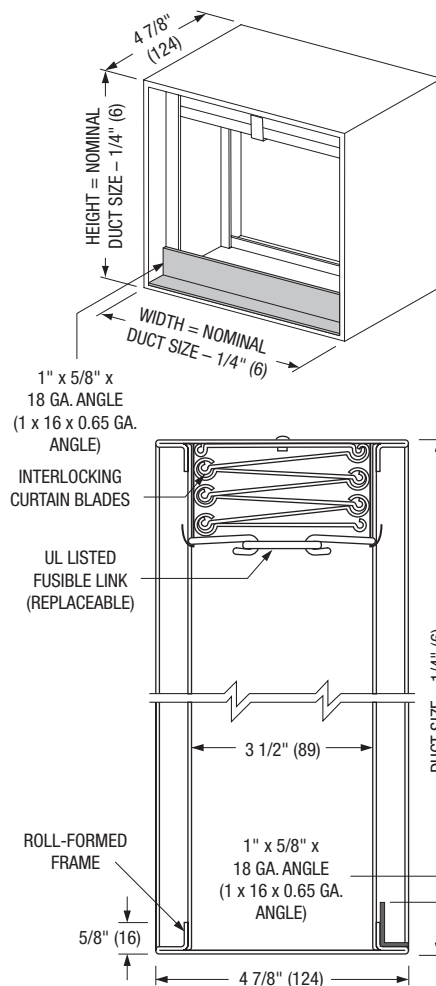
| Minimum                | Maximum                  |                            |                            |                            |
|------------------------|--------------------------|----------------------------|----------------------------|----------------------------|
| Single Section         | Single Section           |                            | Multiple Section           |                            |
| Vertical/Horizontal    | Vertical                 | Horizontal                 | Vertical                   | Horizontal                 |
| 4" x 4"<br>(102 x 102) | 24" x 24"<br>(610 x 610) | 48" x 48"<br>(1219 x 1219) | 48" x 48"<br>(1219 x 1219) | 72" x 72"<br>(1829 x 1829) |

## **OPTIONS:**

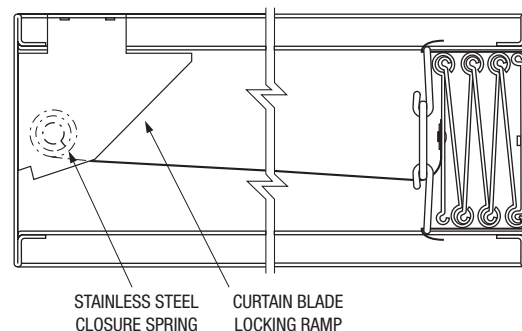
- ☐ 316 Type 316 stainless steel frame and blades.
- ☐ Non-standard temperature fusible link. Specify \_\_\_\_\_.
- ☐ Factory Sleeve. Available in 10 (3.5) through 18 ga. (1.27) stainless steel and in lengths required for application (up to 30" [762]).  
Specify: \_\_\_\_\_ length. \_\_\_\_\_ ga.

## **NOTES:**

1. Units are manufactured 1/4" (6) under nominal duct size.



**VERTICAL MOUNT**



**HORIZONTAL MOUNT**

## **SCHEDULE TYPE:**

## **PROJECT:**

## **ENGINEER:**

## **CONTRACTOR:**

For installation instructions, see IOM-FDINST.  
Dimensions are in inches (mm).

| DATE         | B SERIES | SUPERSEDES | DRAWING NO. |
|--------------|----------|------------|-------------|
| 10 - 22 - 18 | FD       | NEW        | 0500SS-1    |



**STAINLESS STEEL STATIC CURTAIN TYPE  
FIRE DAMPER**  
3 HR. LABEL • VERTICAL OR HORIZONTAL  
FOR USE IN STATIC SYSTEMS  
MODELS: 0520SS (TYPE B)



**QUALIFICATIONS:**

- **UL 555 & CAN/ULC-S112 CLASSIFIED DYNAMIC FIRE DAMPER.**  
3 hr. label (File # R9492).
- **Meets all the requirements of UL and NFPA 80, 90A and 101 for fire dampers in static HVAC systems, as well as IBC and NBC (Canada) Building Code requirements.**
- **City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.**
- **California State Fire Marshal: Fire Damper Listing No. 3225-0935:0100.**

Model 0520SS stainless steel curtain fire damper is UL approved for use where local building codes require the protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of up to 4 hours. The 0520SS is classified for use in static "fans off" systems where the HVAC system is automatically shut down in the event of a fire alarm.

Type B fire dampers place the curtain blade pack out of the airstream for higher free area and reduced pressure drop.

**STANDARD CONSTRUCTION:**

- Frame:** 4 7/8" (124) wide, 22 ga. (0.79) roll-formed Type 304 stainless steel.
- Blades:** Curtain type interlocking blades, 22 ga. (0.79) roll-formed Type 304 stainless steel.
- Enclosure:** 22 ga. (0.79) stainless steel.
- Fusible Link:** 165°F (74°C) standard. UL Listed. 212°F (100°C) available. ETL available.
- Blade Closure:** Vertical mount model: gravity.  
Horizontal mount models are equipped with stainless steel closure springs and stainless steel locking ramps.

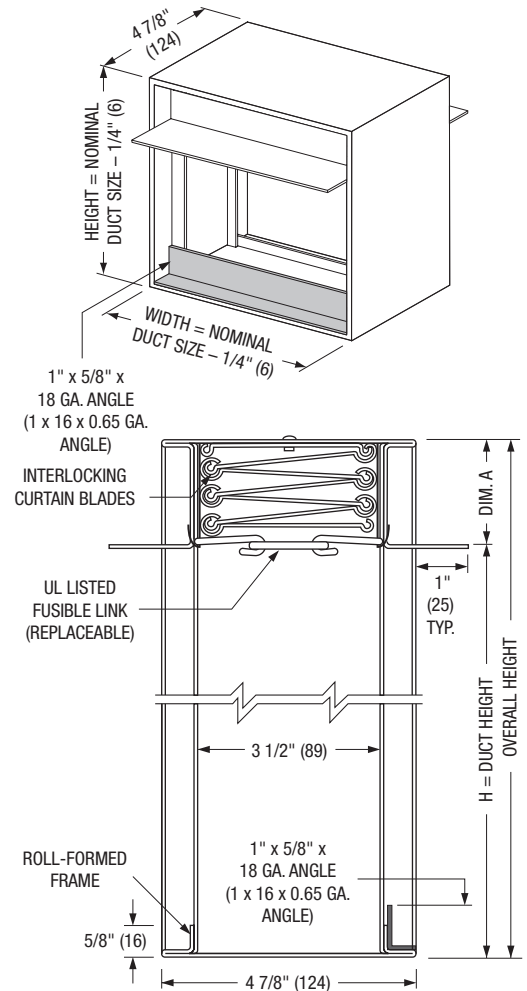
**Sizes (Duct W x H):**

| Minimum                | Maximum                  |                            |                            |                            |
|------------------------|--------------------------|----------------------------|----------------------------|----------------------------|
|                        | Single Section           | Multiple Section           |                            |                            |
| Single Section         | Single Section           | Multiple Section           |                            |                            |
| Vertical/Horizontal    | Vertical                 | Horizontal                 | Vertical                   | Horizontal                 |
| 4" x 4"<br>(102 x 102) | 24" x 21"<br>(610 x 533) | 48" x 43"<br>(1219 x 1092) | 48" x 43"<br>(1219 x 1092) | 72" x 68"<br>(1829 x 1727) |

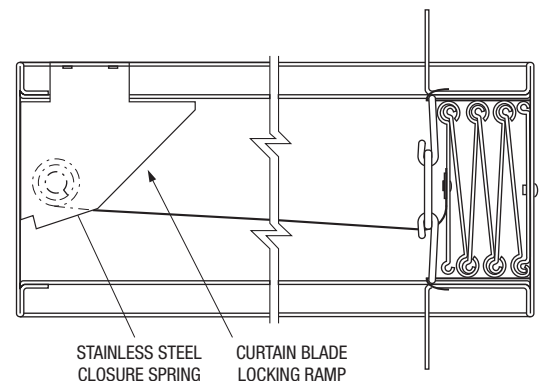
**OPTIONS:**

- ☐ 316 Type 316 stainless steel frame and blades.
- ☐ Non-standard temperature fusible link. Specify \_\_\_\_\_.
- ☐ Factory Sleeve. Available in 10 (3.5) through 18 ga. (1.27) stainless steel and in lengths required for application.  
Specify: \_\_\_\_\_ length. \_\_\_\_\_ ga.

| Duct Height H                                   | Dim. A   |
|-------------------------------------------------|----------|
| 4" thru 15" (102 thru 381)                      | 2" (51)  |
| 16" thru 27" (406 thru 686)                     | 3" (76)  |
| 28" thru 39" (711 thru 991)                     | 4" (102) |
| 40" thru 55" (1016 thru 1397)                   | 5" (127) |
| 40" thru 43" (1016 thru 1092 – Horizontal only) |          |



**VERTICAL MOUNT**



**HORIZONTAL MOUNT**

**SCHEDULE TYPE:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

For installation instructions, see IOM-FDINST.  
Dimensions are in inches (mm).

| DATE         | B SERIES | SUPERSEDES | DRAWING NO. |
|--------------|----------|------------|-------------|
| 10 - 22 - 18 | FD       | NEW        | 0500SS-2    |





**STAINLESS STEEL STATIC CURTAIN TYPE  
FIRE DAMPER  
3 HR. LABEL • VERTICAL OR HORIZONTAL  
FOR USE IN STATIC SYSTEMS  
MODELS: 0530SS (TYPES CR & CO)**



**QUALIFICATIONS:**

- **UL 555 & CAN/ULC-S112 CLASSIFIED DYNAMIC FIRE DAMPER.** 3 hr. label (File # R9492).
- **Meets all the requirements of UL and NFPA 80, 90A and 101 for fire dampers in static HVAC systems, as well as IBC and NBC (Canada) Building Code requirements.**
- **City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.**
- **California State Fire Marshal: Fire Damper Listing No. 3225-0935:0100.**

Model 0530SS stainless steel curtain fire damper is UL approved for use where local building codes require the protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of up to 4 hours. The 0530SS 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.

Type CR round & CO oval fire dampers use transition collars to place the curtain blade pack and damper frame out of the airstream, providing 100% free area.

**STANDARD CONSTRUCTION:**

- Frame:** 4 7/8" (124) wide, 22 ga. (0.79) roll-formed Type 304 stainless steel.
- Blades:** Curtain type interlocking blades, 22 ga. (0.79) roll-formed Type 304 stainless steel.
- Enclosure:** 22 ga. (0.79) stainless steel.
- Fusible Link:** 165°F (74°C) standard. UL Listed.  
212°F (100°C) available. ETL available.
- Blade Closure:** Vertical mount model: gravity.  
Horizontal mount models are equipped with stainless steel closure springs and stainless steel locking ramps.

**Sizes (Duct W x H):**

| Model Type | Minimum             |  | Maximum               |                         |                         |                         |
|------------|---------------------|--|-----------------------|-------------------------|-------------------------|-------------------------|
|            | Single Section      |  | Single Section        |                         | Multiple Section        |                         |
|            | Vertical/Horizontal |  | Vertical              | Horizontal              | Vertical                | Horizontal              |
| Round CR   | 4" (102) dia.       |  | 20" (508) dia.        | 42" (1067) dia.         | 42" (1067) dia.         | 68" (1727) dia.         |
| Oval CO    | 4" x 4" (102 x 102) |  | 22" x 20" (559 x 508) | 46" x 42" (1167 x 1067) | 46" x 42" (1167 x 1067) | 70" x 68" (1778 x 1727) |

**OPTIONS:**

- ☐ **316** Type 316 stainless steel frame and blades.
- ☐ Non-standard temperature fusible link. Specify \_\_\_\_\_.
- ☐ **Factory Sleeve.** Available in 10 (3.5) through 18 ga. (1.27) stainless steel and in lengths required for application. Specify: \_\_\_\_\_ length. \_\_\_\_\_ ga.
- ☐ **LP** Unsealed. Suitable for low pressure systems. Tack welded.
- ☐ **HP** Sealed. Suitable for medium/high pressure systems. Externally caulked.

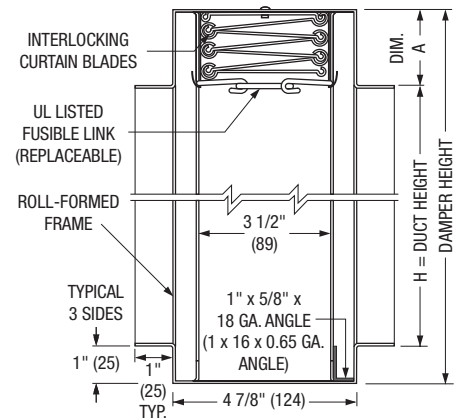
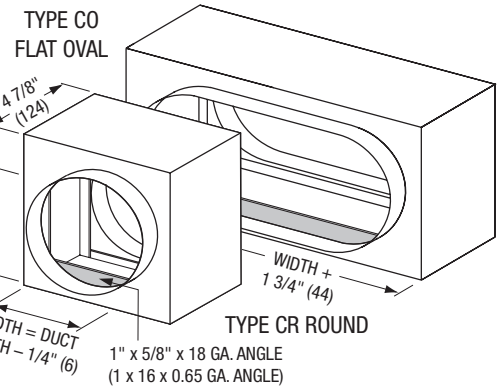
| Duct Height H                                   | Dim. A   |
|-------------------------------------------------|----------|
| 4" thru 15" (102 thru 381)                      | 2" (51)  |
| 16" thru 27" (406 thru 686)                     | 3" (76)  |
| 28" thru 39" (711 thru 991)                     | 4" (102) |
| 40" thru 55" (1016 thru 1397)                   | 5" (127) |
| 40" thru 43" (1016 thru 1092 – Horizontal only) |          |

**SCHEDULE TYPE:**

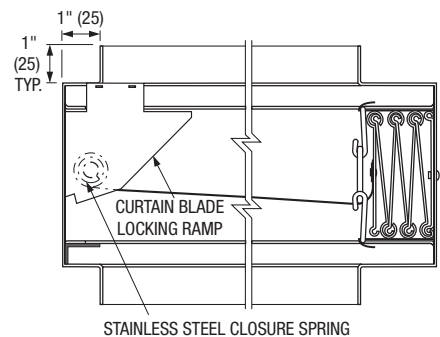
**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**



**VERTICAL MOUNT**



**HORIZONTAL MOUNT**

For installation instructions, see IOM-FDINST.  
Dimensions are in inches (mm).

| DATE        | B SERIES | SUPERSEDES   | DRAWING NO. |
|-------------|----------|--------------|-------------|
| 11 - 8 - 26 | FD       | 11 - 14 - 18 | 0500SS-3    |



**STAINLESS STEEL STATIC CURTAIN TYPE  
FIRE DAMPER  
3 HR. LABEL • VERTICAL OR HORIZONTAL  
FOR USE IN STATIC SYSTEMS  
MODELS: 0530SS (TYPE CSR)**



**QUALIFICATIONS:**

- **UL 555 & CAN/ULC-S112 CLASSIFIED DYNAMIC FIRE DAMPER. 3 hr. label (File # R9492).**
- **Meets all the requirements of UL and NFPA 80, 90A and 101 for fire dampers in static HVAC systems, as well as IBC and NBC (Canada) Building Code requirements.**
- **City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.**
- **California State Fire Marshal: Fire Damper Listing No. 3225-0935:0100.**

Model 0530SS stainless steel curtain fire damper is UL approved for use where local building codes require the protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of up to 4 hours. The 0530SS 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.

Type CSR square or rectangular fire dampers use full enclosure and transition collars to place the custom blade pack and frame out of the airstream, providing 100% free area.

**STANDARD CONSTRUCTION:**

- Frame:** 4 7/8" (124) wide, 22 ga. (0.79) roll-formed Type 304 stainless steel.
- Blades:** Curtain type interlocking blades, 22 ga. (0.79) roll-formed Type 304 stainless steel.
- Enclosure:** 22 ga. (0.79) stainless steel.
- Fusible Link:** 165°F (74°C) standard. UL Listed. 212°F (100°C) available. ETL available.
- Blade Closure:** Vertical mount model: gravity.  
Horizontal mount models are equipped with stainless steel closure springs and stainless steel locking ramps.

**Sizes (Duct W x H):**

| Model Type             | Single Section      | Single Section        |                         | Multiple Section        |                         |
|------------------------|---------------------|-----------------------|-------------------------|-------------------------|-------------------------|
|                        | Minimum             | Maximum               |                         | Maximum                 |                         |
|                        | Vertical/Horizontal | Vertical              | Horizontal              | Vertical                | Horizontal              |
| Square/Rectangular CSR | 4" x 4" (102 x 102) | 22" x 20" (559 x 508) | 46" x 42" (1168 x 1067) | 46" x 42" (1168 x 1067) | 70" x 68" (1778 x 1727) |

**OPTIONS:**

- ☐ **316** Type 316 stainless steel frame and blades.
- ☐ **Non-standard temperature fusible link.** Specify \_\_\_\_\_.
- ☐ **Factory Sleeve.** Available in 10 (3.5) through 18 ga. (1.27) stainless steel and in lengths required for application. Specify: \_\_\_\_\_ length. \_\_\_\_\_ ga.
- ☐ **LP Unsealed.** Suitable for low pressure systems. Tack welded.
- ☐ **HP Sealed.** Suitable for medium/high pressure systems. Externally caulked.

| Duct Height H                                   | Dim. A   |
|-------------------------------------------------|----------|
| 4" thru 15" (102 thru 381)                      | 2" (51)  |
| 16" thru 27" (406 thru 686)                     | 3" (76)  |
| 28" thru 39" (711 thru 991)                     | 4" (102) |
| 40" thru 55" (1016 thru 1397)                   | 5" (127) |
| 40" thru 43" (1016 thru 1092 - Horizontal only) |          |

**SCHEDULE TYPE:**

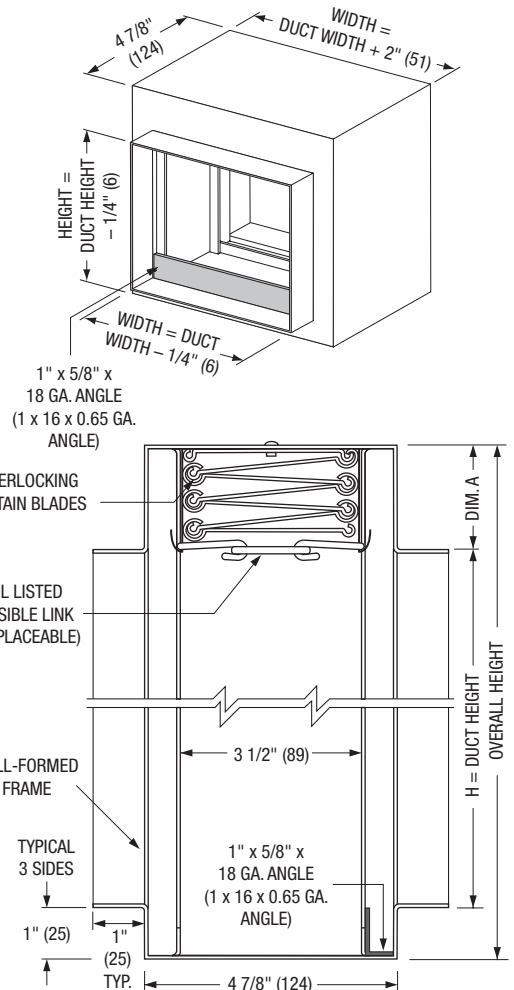
**PROJECT:**

**ENGINEER:**

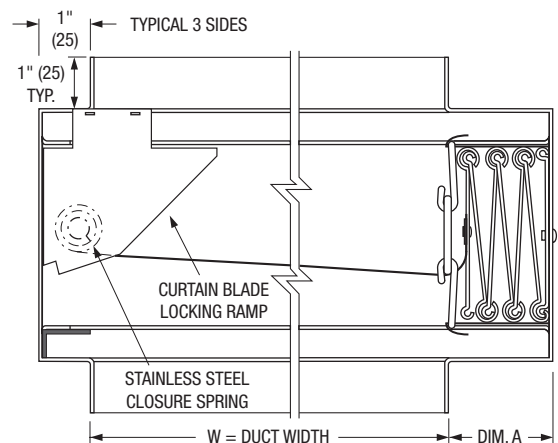
**CONTRACTOR:**

For installation instructions, see IOM-FDINST.  
Dimensions are in inches (mm).

| DATE       | B SERIES | SUPERSEDES   | DRAWING NO. |
|------------|----------|--------------|-------------|
| 1 - 8 - 26 | FD       | 11 - 14 - 18 | 0500SS-4    |



**VERTICAL MOUNT**



**HORIZONTAL MOUNT**

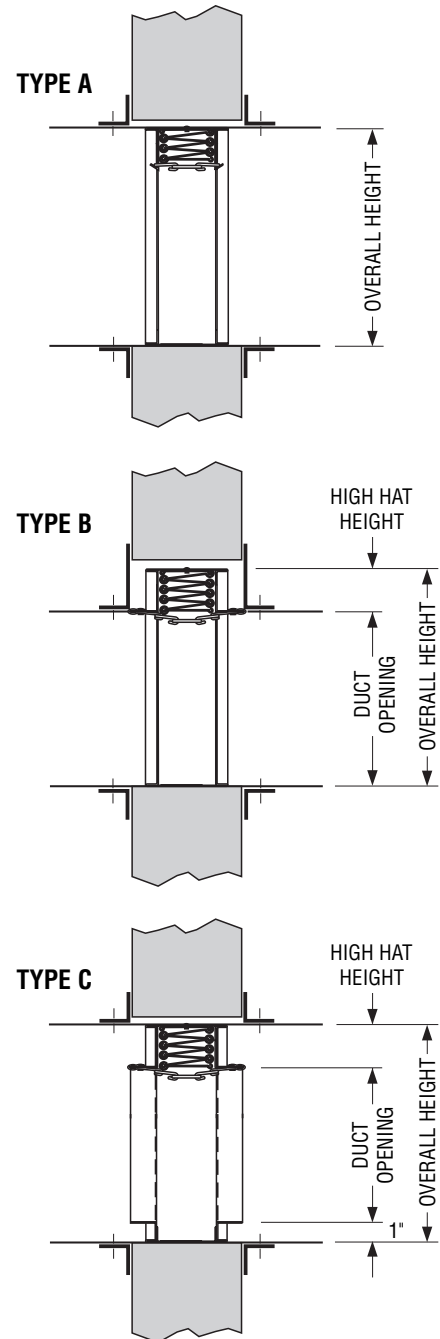




# **FIRE DAMPER SIZING CHART • IMPERIAL** **STANDARD FRAME (4 1/4" WIDE)** **MODEL SERIES 0100, 0500**

| DUCT<br>OPENING HEIGHT<br>(inches) | TYPE "A"<br>OVERALL HEIGHT<br>(inches) | TYPE "B"<br>OVERALL HEIGHT<br>(inches)                                                                                                 | TYPE "C"<br>OVERALL HEIGHT<br>(inches) |
|------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| 4                                  | 3 3/4                                  | 6 1/8                                                                                                                                  | 5 3/4                                  |
| 5                                  | 4 3/4                                  | 7 1/8                                                                                                                                  | 6 3/4                                  |
| 6                                  | 5 3/4                                  | 8 1/8                                                                                                                                  | 8 3/4                                  |
| 7                                  | 6 3/4                                  | 9 1/8                                                                                                                                  | 9 3/4                                  |
| 8                                  | 7 3/4                                  | 10 1/8                                                                                                                                 | 10 3/4                                 |
| 9                                  | 8 3/4                                  | 11 1/8                                                                                                                                 | 11 3/4                                 |
| 10                                 | 9 3/4                                  | 12 1/8                                                                                                                                 | 12 3/4                                 |
| 11                                 | 10 3/4                                 | 13 1/8                                                                                                                                 | 13 3/4                                 |
| 12                                 | 11 3/4                                 | 14 1/8                                                                                                                                 | 14 3/4                                 |
| 13                                 | 12 3/4                                 | 15 1/8                                                                                                                                 | 15 3/4                                 |
| 14                                 | 13 3/4                                 | 16 1/8                                                                                                                                 | 16 3/4                                 |
| 15                                 | 14 3/4                                 | 17 1/8                                                                                                                                 | 17 3/4                                 |
| 16                                 | 15 3/4                                 | 18 1/8                                                                                                                                 | 18 3/4                                 |
| 17                                 | 16 3/4                                 | 19 1/8                                                                                                                                 | 19 3/4                                 |
| 18                                 | 17 3/4                                 | 21 1/8                                                                                                                                 | 21 3/4                                 |
| 19                                 | 18 3/4                                 | 22 1/8                                                                                                                                 | 22 3/4                                 |
| 20                                 | 19 3/4                                 | 23 1/8                                                                                                                                 | 23 3/4                                 |
| 21                                 | 20 3/4                                 | 24 1/8                                                                                                                                 | 24 3/4                                 |
| 22                                 | 21 3/4                                 | 25 1/8                                                                                                                                 | 25 3/4                                 |
| 23                                 | 22 3/4                                 | 26 1/8                                                                                                                                 | 26 3/4                                 |
| 24                                 | 23 3/4                                 | 27 1/8                                                                                                                                 | 27 3/4                                 |
| 25                                 | 24 3/4                                 | 28 1/8                                                                                                                                 | 28 3/4                                 |
| 26                                 | 25 3/4                                 | 29 1/8                                                                                                                                 | 29 3/4                                 |
| 27                                 | 26 3/4                                 | 30 1/8                                                                                                                                 | 30 3/4                                 |
| 28                                 | 27 3/4                                 | 32 1/8                                                                                                                                 | 32 3/4                                 |
| 29                                 | 28 3/4                                 | 33 1/8                                                                                                                                 | 33 3/4                                 |
| 30                                 | 29 3/4                                 | 34 1/8                                                                                                                                 | 34 3/4                                 |
| 31                                 | 30 3/4                                 | 35 1/8                                                                                                                                 | 35 3/4                                 |
| 32                                 | 31 3/4                                 | 36 1/8                                                                                                                                 | 36 3/4                                 |
| 33                                 | 32 3/4                                 | 37 1/8                                                                                                                                 | 37 3/4                                 |
| 34                                 | 33 3/4                                 | 38 1/8                                                                                                                                 | 38 3/4                                 |
| 35                                 | 34 3/4                                 | 39 1/8                                                                                                                                 | 39 3/4                                 |
| 36                                 | 35 3/4                                 | 40 1/8                                                                                                                                 | 40 3/4                                 |
| 37                                 | 36 3/4                                 | 42 1/8                                                                                                                                 | 42 3/4                                 |
| 38                                 | 37 3/4                                 | 43 1/8                                                                                                                                 | 43 3/4                                 |
| 39                                 | 38 3/4                                 | 44 1/8                                                                                                                                 | 44 3/4                                 |
| 40                                 | 39 3/4                                 | 45 1/8                                                                                                                                 | 45 3/4                                 |
| 41                                 | 40 3/4                                 | 46 1/8                                                                                                                                 | 46 3/4                                 |
| 42                                 | 41 3/4                                 | 47 1/8                                                                                                                                 | 47 3/4                                 |
| 43                                 | 42 3/4                                 | 48 1/8                                                                                                                                 | 48 3/4                                 |
| 44                                 | 43 3/4                                 | 49 1/8                                                                                                                                 | 49 3/4                                 |
| 45                                 | 44 3/4                                 | 50 1/8                                                                                                                                 | 50 3/4                                 |
| 46                                 | 45 3/4                                 | 52 1/8                                                                                                                                 | 52 3/4                                 |
| 47                                 | 46 3/4                                 | 53 1/8                                                                                                                                 | 53 3/4                                 |
| 48                                 | 47 3/4                                 | 54 1/8                                                                                                                                 | 54 3/4                                 |
| 49                                 | 48 3/4                                 | 55 1/8                                                                                                                                 | 55 3/4                                 |
| 50                                 | 49 3/4                                 | 56 1/8                                                                                                                                 | 56 3/4                                 |
| 51                                 | 50 3/4                                 | 57 1/8                                                                                                                                 | 57 3/4                                 |
| 52                                 | 51 3/4                                 | 58 1/8                                                                                                                                 | 58 3/4                                 |
| 53                                 | 52 3/4                                 | 59 1/8                                                                                                                                 | 59 3/4                                 |
| 54                                 | 53 3/4                                 | 60 1/8                                                                                                                                 |                                        |
| 55                                 | 54 3/4                                 | <b>DAMPER WIDTH OVERALL</b><br>Type "A" = Duct Opening - 1/4".<br>Type "B" = Duct Opening - 1/4".<br>Type "C" = Duct Opening + 1 3/4". |                                        |
| 56                                 | 55 3/4                                 |                                                                                                                                        |                                        |
| 57                                 | 56 3/4                                 |                                                                                                                                        |                                        |
| 58                                 | 57 3/4                                 |                                                                                                                                        |                                        |
| 59                                 | 58 3/4                                 |                                                                                                                                        |                                        |
| 60                                 | 59 3/4                                 |                                                                                                                                        |                                        |

**Important Note:** Type "B" and "C" overall height dimensions only apply to sizes that are single section high. For overall height dimensions for sizes that are multi-section in height, please contact factory. Refer to individual model submittal drawings for maximum single section heights.



Dimensions are in inches (mm).

**SCHEDULE TYPE:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

**DATE**

**B SERIES**

**SUPERSEDES**

**DRAWING NO.**

1 - 24 - 06

FD

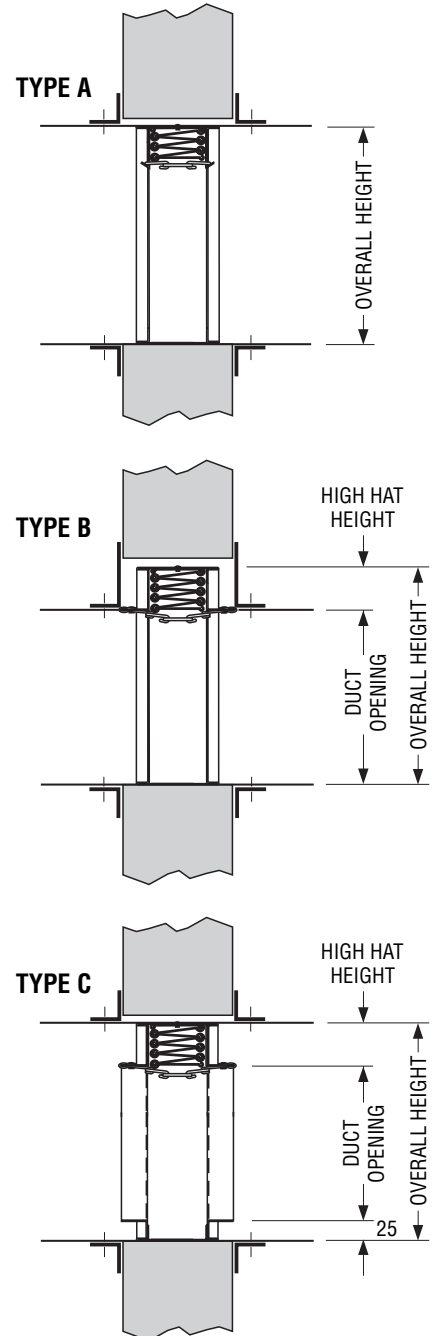
2 - 25 - 02R

SC1

# FIRE DAMPER SIZING CHART • METRIC STANDARD FRAME (108 MM WIDE) MODEL SERIES 0100, 0500

| DUCT<br>OPENING HEIGHT<br>(mm) | TYPE "A"<br>OVERALL HEIGHT<br>(mm) | TYPE "B"<br>OVERALL HEIGHT<br>(mm)                                                                                           | TYPE "C"<br>OVERALL HEIGHT<br>(mm) |
|--------------------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| 102                            | 95                                 | 156                                                                                                                          | 146                                |
| 127                            | 121                                | 181                                                                                                                          | 171                                |
| 152                            | 146                                | 206                                                                                                                          | 222                                |
| 178                            | 171                                | 232                                                                                                                          | 248                                |
| 203                            | 197                                | 257                                                                                                                          | 273                                |
| 229                            | 222                                | 283                                                                                                                          | 298                                |
| 254                            | 248                                | 308                                                                                                                          | 324                                |
| 279                            | 273                                | 333                                                                                                                          | 349                                |
| 305                            | 298                                | 359                                                                                                                          | 375                                |
| 330                            | 324                                | 384                                                                                                                          | 400                                |
| 356                            | 349                                | 410                                                                                                                          | 425                                |
| 381                            | 375                                | 435                                                                                                                          | 451                                |
| 406                            | 400                                | 460                                                                                                                          | 476                                |
| 432                            | 425                                | 486                                                                                                                          | 502                                |
| 457                            | 451                                | 537                                                                                                                          | 552                                |
| 483                            | 476                                | 562                                                                                                                          | 578                                |
| 508                            | 502                                | 587                                                                                                                          | 603                                |
| 534                            | 527                                | 613                                                                                                                          | 629                                |
| 559                            | 552                                | 638                                                                                                                          | 654                                |
| 584                            | 578                                | 664                                                                                                                          | 679                                |
| 610                            | 603                                | 689                                                                                                                          | 705                                |
| 635                            | 629                                | 714                                                                                                                          | 730                                |
| 661                            | 654                                | 740                                                                                                                          | 756                                |
| 656                            | 679                                | 765                                                                                                                          | 781                                |
| 711                            | 705                                | 816                                                                                                                          | 832                                |
| 737                            | 730                                | 841                                                                                                                          | 857                                |
| 762                            | 756                                | 867                                                                                                                          | 883                                |
| 787                            | 781                                | 892                                                                                                                          | 908                                |
| 813                            | 806                                | 918                                                                                                                          | 933                                |
| 838                            | 832                                | 943                                                                                                                          | 959                                |
| 864                            | 857                                | 968                                                                                                                          | 984                                |
| 889                            | 883                                | 994                                                                                                                          | 1010                               |
| 914                            | 908                                | 1019                                                                                                                         | 1035                               |
| 940                            | 933                                | 1070                                                                                                                         | 1086                               |
| 965                            | 959                                | 1095                                                                                                                         | 1111                               |
| 991                            | 984                                | 1121                                                                                                                         | 1137                               |
| 1016                           | 1010                               | 1146                                                                                                                         | 1162                               |
| 1041                           | 1035                               | 1172                                                                                                                         | 1187                               |
| 1067                           | 1060                               | 1197                                                                                                                         | 1213                               |
| 1092                           | 1086                               | 1222                                                                                                                         | 1238                               |
| 1117                           | 1111                               | 1248                                                                                                                         | 1264                               |
| 1143                           | 1137                               | 1273                                                                                                                         | 1289                               |
| 1168                           | 1162                               | 1324                                                                                                                         | 1340                               |
| 1194                           | 1187                               | 1349                                                                                                                         | 1365                               |
| 1219                           | 1213                               | 1375                                                                                                                         | 1391                               |
| 1245                           | 1238                               | 1400                                                                                                                         | 1416                               |
| 1270                           | 1264                               | 1426                                                                                                                         | 1441                               |
| 1296                           | 1289                               | 1451                                                                                                                         | 1467                               |
| 1321                           | 1314                               | 1476                                                                                                                         | 1492                               |
| 1346                           | 1340                               | 1502                                                                                                                         | 1518                               |
| 1372                           | 1365                               | 1527                                                                                                                         |                                    |
| 1397                           | 1391                               | <b>DAMPER WIDTH OVERALL</b><br>Type "A" = Duct Opening - 6.<br>Type "B" = Duct Opening - 6.<br>Type "C" = Duct Opening + 44. |                                    |
| 1423                           | 1416                               |                                                                                                                              |                                    |
| 1448                           | 1441                               |                                                                                                                              |                                    |
| 1473                           | 1467                               |                                                                                                                              |                                    |
| 1499                           | 1492                               |                                                                                                                              |                                    |
| 1524                           | 1518                               |                                                                                                                              |                                    |

**Important Note:** Type "B" and "C" overall height dimensions only apply to sizes that are single section high. For overall height dimensions for sizes that are multi-section in height, please contact factory. Refer to individual model submittal drawings for maximum single section heights.



Dimensions are in inches (mm).

**SCHEDULE TYPE:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

**DATE**

**B SERIES**

**SUPERSEDES**

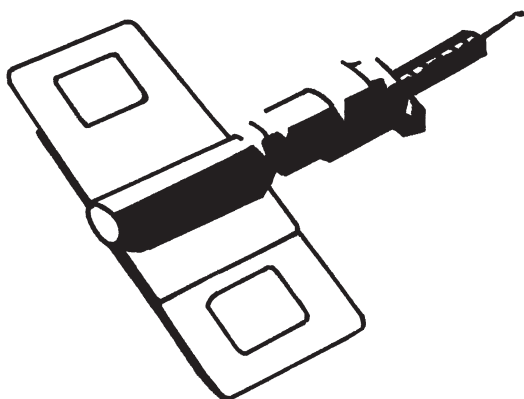
**DRAWING NO.**

1 - 24 - 06

FD

2 - 25 - 02R

SC2



## ETL®

### WHAT IT IS – WHAT IT DOES

The Electro Thermal Link (ETL®) is a multi purpose, dual responsive fusible link which reacts (melts) when subjected to;

1. Local heat (165°F (74°C)) exactly the same as an ordinary link.
2. External electrical impulse of low power and short duration.

It is specifically designed to substitute for ordinary links and/or actuators in existing and new installations of Fire Dampers, Fire Doors, Fire Extinguishers, Fire and Smoke Roof Hatches, Sprinklers, Smoke Towers, and chemical or gas Automatic Release Systems.

The substitution should be made in every installation of the above devices where it is desirable to improve life safety by making those devices responsive to -

**SMOKE** in the early form of invisible products of combustion through ionization detectors, or  
**FIRE** at an earlier stage than ordinary links thru the use of rate of rise or maximum temperature devices.

The ETL's electro-response is the unique feature. It is not smoke responsive of itself, but its power requirement is so low that it can be released with an electrical impulse from any smoke detector's power source. It is compatible with every smoke detector on the market in the United States today.

The operating range is 6 to 30 volts AC or DC, less than 0.2 ampere of trip current required, and 1/2 millisecond (.0005 second) response at 24 v. The electrical response is a trigger for the chemical heating of the center element which is a self-contained exothermic reactor, yielding no noise, smoke, or gas - just quick heat to open the link in seven seconds.

The ETL's thermal response is identical to that of ordinary fusible links of identical temperature (165°F (74°C)) and strength (40#) rating.

In its capacity of converting a FIRE safety device into a FIRE/SMOKE safety device the ETL can be substituted for both an ordinary link and motor, or link and electromagnetic operator with advantages of simplicity, economy, operational reliability and wide acceptability. With its dual responsiveness the ETL can be substituted for two other devices at a savings in first cost as well as operating cost and maintenance. The ETL is a Space Age Device built to zero defect standards and to last at least fifty years and then still react properly – only on fire or smoke emergency. It is totally independent of power failures since it draws power from the detector standby source if needed. The ETL is listed by Underwriter's Laboratories, Inc. as a Fusible Link.

With the ongoing development of dynamic smoke control systems and building code changes in recent years, application and use of this product should be governed by acceptance of the local authority having jurisdiction.

**SCHEDULE TYPE:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

Dimensions are in inches (mm).

**DATE**

**B SERIES**

**SUPERSEDES**

**DRAWING NO.**

31 - 7 - 00R

ACC

1 - 98R/0100-6

ACC.ETL

**DESCRIPTION:**

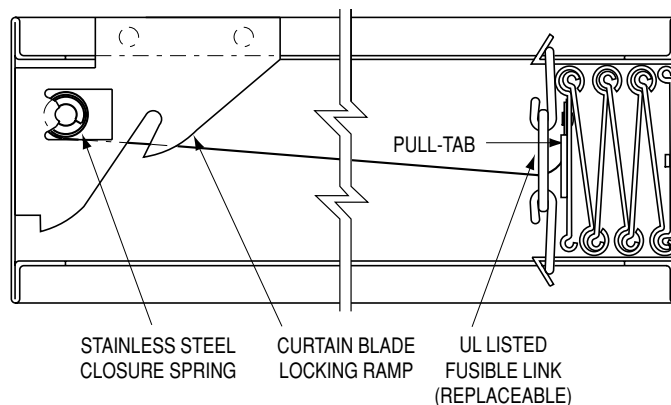
1. Pull ring: 1 1/4 (32) diameter nickel plated steel.
2. Attachment strap: 22 ga. galvanized or stainless steel.

Horizontal curtain type fire dampers for use in static systems and all dynamic dampers utilize stainless steel springs and locking ramps to draw the curtain closed in the event of a fire or upon manual release.

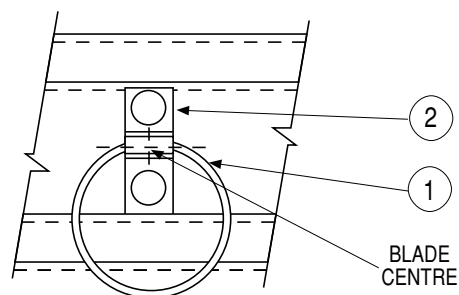
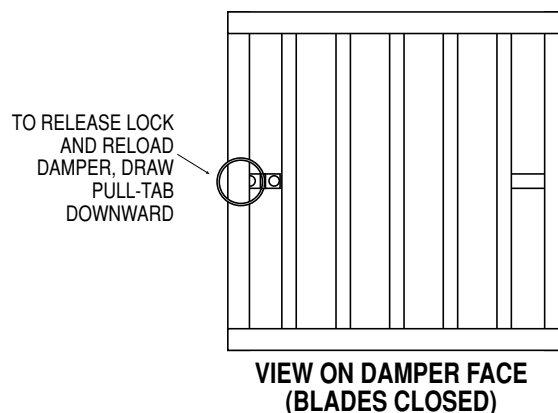
Horizontally installed dampers are designed and tested to be mounted with the locking ramps on the top side. When periodic testing (as well as maintenance and inspection) is required, access doors should be located above the damper, so that the damper blade pack can be "pushed down" and released off the locking ramp for reset.

When access from above is not possible or convenient, the Pull-Tab release option permits simple resetting from beneath the damper.

**TOP OF UNIT (Horizontal Installation)**



**TYPE "A" MODEL 0110H (TYPE "B" SIMILAR).**



**DETAIL OF PULL-TAB**

**SCHEDULE TYPE:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

Dimensions are in inches (mm).

| DATE        | B SERIES | SUPERSEDES   | DRAWING NO. |
|-------------|----------|--------------|-------------|
| 3- 10 - 00R | ACC-PTR  | 7-90/0100-16 | ACC-PTR     |

## "QUICK-SET" RETAINING ANGLES FOR ALL SLEEVED FIRE AND COMBINATION FIRE/SMOKE DAMPERS MODELS: QS1 AND QS2

**"QUICK-SET" RETAINING ANGLES BOTH SIMPLIFY AND SPEED INSTALLATION,  
SAVING BOTH TIME AND MONEY.**

### BENEFITS:

- One piece angles are fastened together in the corners. Only two sets of angles to handle per damper (rather than four separate angles per side).
- Angles are shipped with damper - no sorting or matching.
- Provided with pre-drilled fastening holes on 2" (51) centers to ensure correct angle/sleeve attachment.
- Factory fabricated by Nailor to suit the individual fire damper.
- Reduced cost when compared to conventional retaining angles.
- Dampers can ship directly to the job site complete with all necessary installation sheet metal hardware (saves on double handling at contractor's shop).
- Help ensure a correct installation as per U.L. approved installation instructions.

The majority of installing contractors view fire damper installation as a costly time consuming and troublesome procedure. Eight conventional angles must be custom fabricated for each damper either in a sheet metal shop or at the job site and sized to suit each individual damper. Invariably, they are mislaid or lost and must be matched to each factory supplied damper.

The Nailor "Quick-Set" solution solves the majority of problems. They are pre-formed to fit and ship with the individual damper for ultimate convenience. "Quick-Set" angles are supplied with correctly spaced pre-drilled screw-holes to ensure a quick, easy and accurate installation for all integral sleeve Nailor fire and combination fire/smoke dampers - no measuring required.

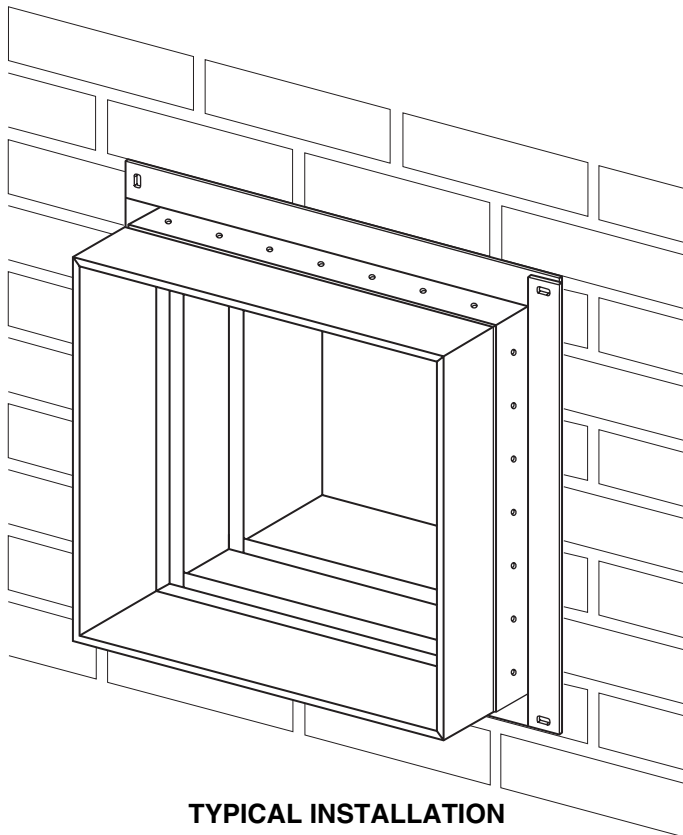
"Quick-Set" retaining angles provide the "complete" installation package. Simple, fast, convenient.

### MODELS:

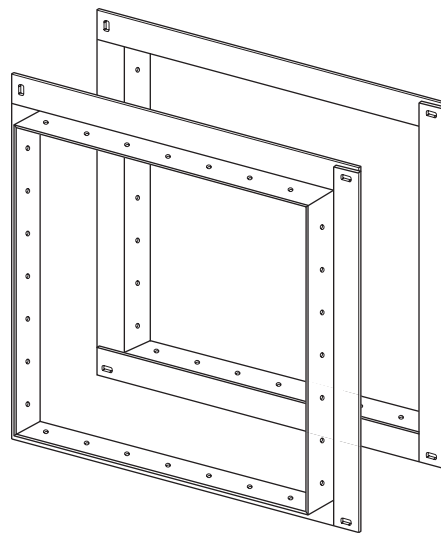
Nailor "Quick-Set" retaining angles are an accessory option for all dampers ordered with factory sleeves.

**QS2:** Two sides (pair). For standard installations where angles are installed on both sides of the fire partition.

**QS1:** One side (single set). For use in single side retaining angle installations and with grille mount and "out of wall" damper models.



**TYPICAL INSTALLATION**



**TYPICAL PAIR OF PRE-ASSEMBLED  
QUICK-SET' RETAINING ANGLES**



Refer to the UL or ULC  
Classification marking  
the product.

**SCHEDULE TYPE:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

Page 1 of 2  
Dimensions are in inches (mm).

**DATE**

**B SERIES**

**SUPERSEDES**

**DRAWING NO.**

2 - 26 - 09

FD-ACC

6 - 5 - 03

QSRA

# "QUICK-SET" RETAINING ANGLES

FOR ALL SLEEVED FIRE AND  
COMBINATION FIRE/SMOKE DAMPERS  
MODELS: QS1 AND QS2

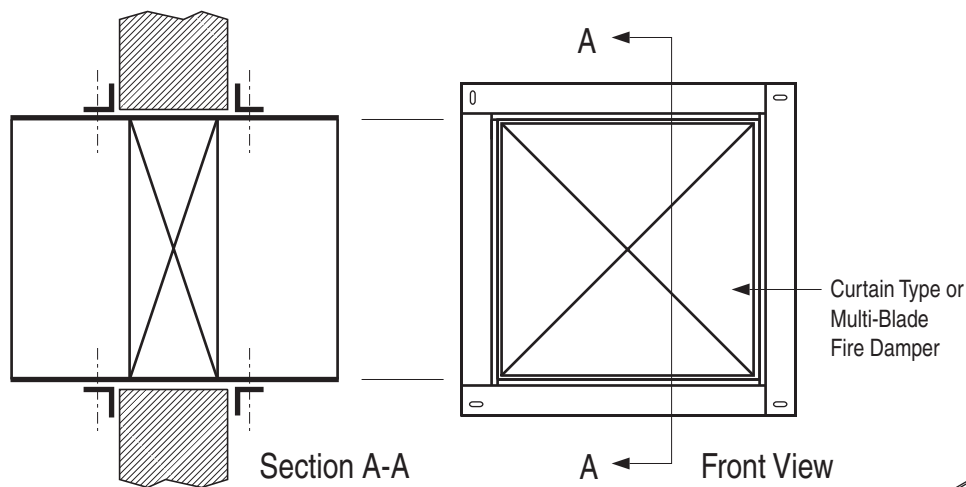


FIGURE 1. TYPICAL TWO SIDED INSTALLATION.

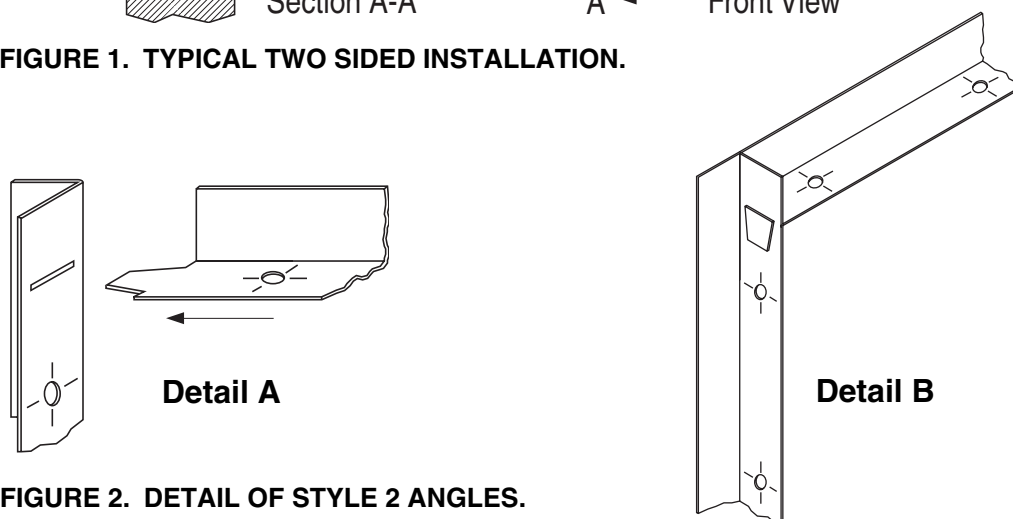


FIGURE 2. DETAIL OF STYLE 2 ANGLES.

## APPLICATION:

The Nailor Quick-Set Retaining Angle System may be used in lieu of conventional retaining angles on all Nailor Fire and Combination Fire/Smoke Dampers.

Quick-Set angles are supplied in one of two styles, dependent upon fire resistance label, damper size and installation method.

**Style 1:** 1 1/2" x 1 1/2" x 20 ga. (38 x 38 x 1.0) Four sides are connected together with rivets in three corners.

Standard for the majority of applications with the following limitations:

- 1 1/2 hour label fire dampers.
- Maximum Size: 36" x 36" (914 x 914)
- Two sided installation only

**Style 2:** 1 1/2" x 1 1/2" x 16 ga. (38 x 38 x 1.6) Slot and tab design. The retaining angle assembly for each side has four angles, each with a tab end and a slot end (Detail A).

The tabs are to be inserted into the slots and knocked down either before or after fastening to the sleeve (Detail B).

- 1 1/2 or 3 hour label fire dampers
- Maximum Size: 90" x 48" (2286 x 1219) or 48" x 90" (1219 x 2286)
- Single side (1 1/2 hour only. Refer to Single Side Retaining Angles Supplementary Installation Instructions for size limitations) or two sided installation

## Refer to the Following Installation Instructions:

|                                                |            |
|------------------------------------------------|------------|
| Quick-Set Retaining Angles                     | FDQSRA     |
| Curtain Type Fire Dampers (D)0100 & (D)0500    | FDINST     |
| Curtain Type Fire Dampers 0200 & 0500 Thinline | FDTINST    |
| Multi-Blade Fire Dampers 1200 & 1250           | MBFDINST   |
| Combination Fire/Smoke Dampers 1220            | 1220INST   |
| Combination Fire/Smoke Dampers 1270            | 1270INST   |
| Single Side Retaining Angles                   | FDSSRAINST |

SCHEDULE TYPE:

PROJECT:

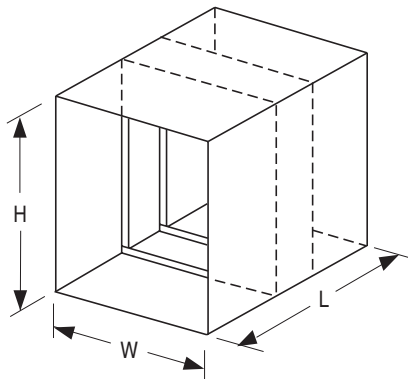
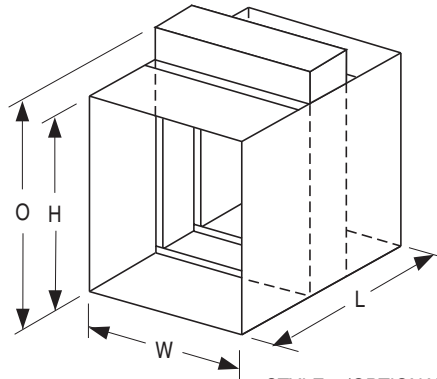
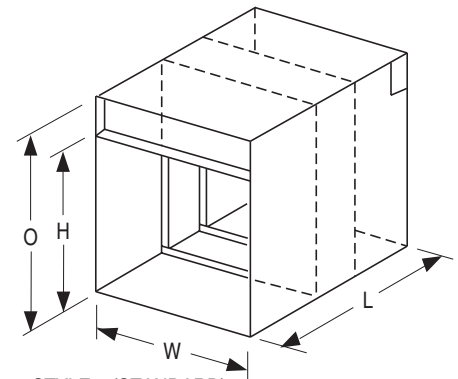
ENGINEER:

CONTRACTOR:

Page 2 of 2  
Dimensions are in inches (mm).

| DATE        | B SERIES | SUPERSEDES | DRAWING NO. |
|-------------|----------|------------|-------------|
| 2 - 26 - 09 | FD-ACC   | 5 - 5 - 03 | QSRA        |




**TYPE 'A'**
**BLADES AND FRAME IN AIRSTREAM**

**STYLE 1 (OPTIONAL)**

**STYLE 2 (STANDARD)**
**TYPE 'B' BLADES OUT OF AIRSTREAM**
**NOTES:**
**1. Dimensional Data.**

W = Nominal duct width

H = Nominal duct height

L = Sleeve length

O = Overall damper height

For 'O' dimension and relationship to duct height, refer to dwgs. SC1/SC2 (standard frame) or SC3/SC4 (thinline frame) depending on damper model.

Type CR duct collars are furnished 1/8" (3) undersize for duct dimensions up to 36" dia. (914) and 1/4" (6) undersize on larger sizes.

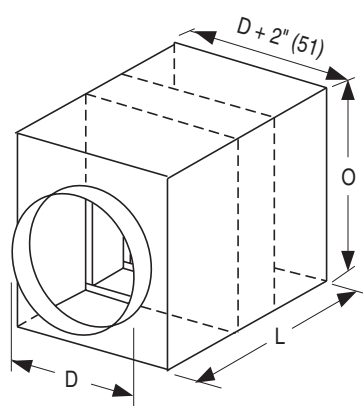
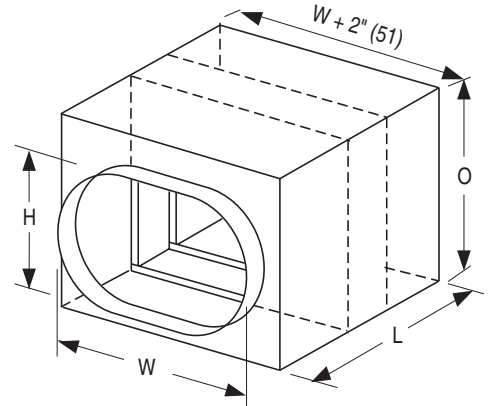
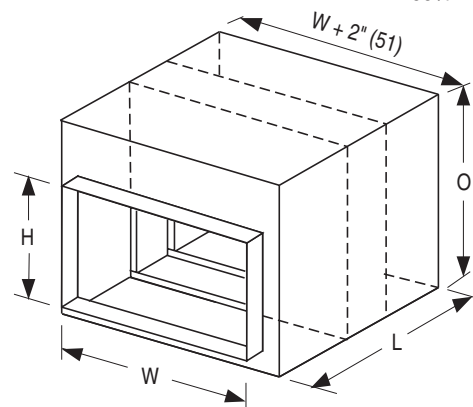
Type CO and CSR duct collars are furnished 1/8" (3) undersize for duct dimensions up to 36" x 24" (914 x 610) and 1/4" (6) undersize on larger sizes. Collars are 1 1/4" (32) minimum length.

**2. Sleeves are available in lengths up to 36" (914) and in 10 through 22 gauge (3.51 through 0.85) galvanized steel as required for application.**

Standard sleeve is 12" (305) long x 20 gauge (1.01).

Sleeve gauge must conform to SMACNA Duct Construction Standards and shall not be less than the gauge of the duct to which it is attached for sleeves exposed to the airstream.

**3. See individual models for minimum and maximum size limitations.**
**4. Dampers are centered in sleeve unless specified otherwise.**
**5. Multiple section damper assemblies are shipped knocked down for field assembly.**
**Type CR, CO and CSR Option:**
☐ LP Unsealed. Suitable for low pressure systems.

☐ HP Sealed. Suitable for medium/high pressure systems. Externally caulked.

**TYPE 'CR'**  
**ROUND TRANSITION COLLARS/DUCT.**  
**100% FREE AREA.**

**TYPE 'CO'**  
**FLAT OVAL TRANSITION COLLARS/DUCT.**  
**100% FREE AREA.**

**TYPE 'CSR'**  
**RECTANGULAR TRANSITION COLLARS/DUCT. 100% FREE AREA.**
**SCHEDULE TYPE:**
**PROJECT:**
**ENGINEER:**
**CONTRACTOR:**

Dimensions are in inches (mm)

**DATE**
**B SERIES**
**SUPERSEDES**
**DRAWING NO.**

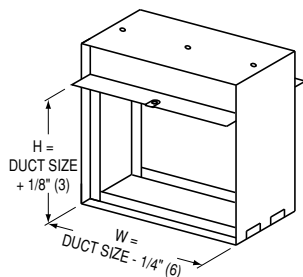
12 - 30 - 25

FD

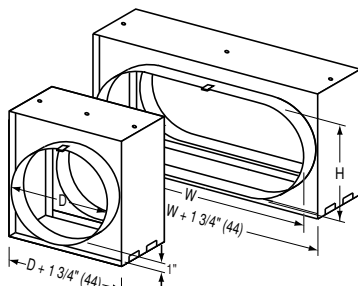
25 - 10 - 00R

STD-SL

## DIMENSIONAL DATA:

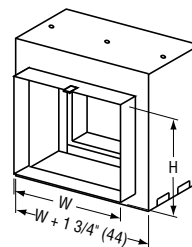


**MODEL 0520:  
TYPE B**

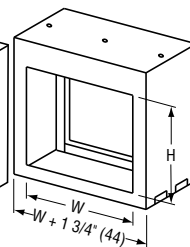


**MODEL 0530:  
TYPE CR**

**MODEL 0530:  
TYPE CO**



**MODEL 0530:  
TYPE CSR  
WITH COLLAR  
(STANDARD)**



**MODEL 0530:  
TYPE CSR  
WITHOUT COLLAR**

For overall damper dimensions see sizing chart on page D53.

## PERFORMANCE DATA:

### MODELS: 0510V, 0520V, 0530V - 3 HOUR LABEL

Curtain type fire dampers impose minimal resistance to air flow in the system. The following charts indicate both free area for the different damper types and static pressure losses for various velocities.

#### Type A Damper Free Area – sq. ft.

|                            |            | Duct Width in inches (mm) |           |           |           |           |           |            |            |            |            |
|----------------------------|------------|---------------------------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|
|                            |            | 6" (152)                  | 12" (305) | 18" (457) | 24" (610) | 30" (762) | 36" (914) | 42" (1067) | 48" (1219) | 54" (1372) | 60" (1524) |
| Duct Height in inches (mm) | 6" (152)   | .14                       | .33       | .52       | .70       | .89       | 1.1       | 1.3        | 1.5        | 1.7        | 1.8        |
|                            | 12" (305)  | .31                       | .72       | 1.1       | 1.5       | 1.9       | 2.4       | 2.8        | 3.2        | 3.6        | 4.0        |
|                            | 18" (457)  | .48                       | 1.1       | 1.7       | 2.4       | 3.0       | 3.7       | 4.3        | 4.9        | 5.6        | 6.2        |
|                            | 24" (610)  | .65                       | 1.5       | 2.4       | 3.2       | 4.1       | 5.0       | 5.8        | 6.7        | 7.5        | 8.4        |
|                            | 30" (762)  | .82                       | 1.9       | 3.0       | 4.1       | 5.2       | 6.3       | 7.3        | 8.4        | 9.5        | 10.6       |
|                            | 36" (914)  | .99                       | 2.3       | 3.6       | 4.9       | 6.3       | 7.6       | 8.9        | 10.2       | 11.5       | 12.8       |
|                            | 42" (1067) | 1.2                       | 2.7       | 4.2       | 5.8       | 7.3       | 8.8       | 10.4       | 11.9       | 13.4       | 15.0       |
|                            | 48" (1219) | 1.3                       | 3.1       | 4.9       | 6.6       | 8.4       | 10.2      | 11.9       | 13.7       | 15.5       | 17.2       |
|                            | 54" (1372) | 1.5                       | 3.5       | 5.5       | 7.5       | 9.5       | 11.5      | 13.5       | 15.5       | 17.5       | 19.4       |
|                            | 60" (1524) | 1.7                       | 3.9       | 6.1       | 8.3       | 10.6      | 12.8      | 15.0       | 17.2       | 19.4       | 21.7       |

#### Type B Damper Free Area – sq. ft.

|                            |            | Duct Width in inches (mm) |           |           |           |           |           |            |            |            |            |
|----------------------------|------------|---------------------------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|
|                            |            | 6" (152)                  | 12" (305) | 18" (457) | 24" (610) | 30" (762) | 36" (914) | 42" (1067) | 48" (1219) | 54" (1372) | 60" (1524) |
| Duct Height in inches (mm) | 6" (152)   | .17                       | .39       | .62       | .84       | 1.1       | 1.3       | 1.5        | 1.7        | 2.0        | 2.2        |
|                            | 12" (305)  | .36                       | .83       | 1.3       | 1.8       | 2.3       | 2.7       | 3.2        | 3.7        | 4.1        | 4.6        |
|                            | 18" (457)  | .54                       | 1.3       | 2.0       | 2.7       | 3.4       | 4.2       | 4.9        | 5.6        | 6.3        | 7.1        |
|                            | 24" (610)  | .73                       | 1.7       | 2.7       | 3.7       | 4.6       | 5.6       | 6.6        | 7.5        | 8.5        | 9.5        |
|                            | 30" (762)  | .92                       | 2.1       | 3.4       | 4.6       | 5.8       | 7.0       | 8.3        | 9.5        | 10.7       | 11.9       |
|                            | 36" (914)  | 1.1                       | 2.6       | 4.1       | 5.5       | 7.0       | 8.5       | 9.9        | 11.4       | 12.9       | 14.4       |
|                            | 42" (1067) | 1.3                       | 3.0       | 4.7       | 6.5       | 8.2       | 9.9       | 11.6       | 13.4       | 15.1       | 16.8       |
|                            | 48" (1219) | 1.5                       | 3.5       | 5.4       | 7.4       | 9.4       | 11.4      | 13.3       | 15.3       | 17.3       | 19.2       |
|                            | 54" (1372) | 1.7                       | 3.9       | 6.1       | 8.3       | 10.6      | 12.8      | 15.0       | 17.2       | 19.5       | 21.7       |

Type C Dampers have Free Area equal to Nominal Duct Area.

To calculate Free Area of round duct:  $\text{Diameter}^2 \times .00545 = \text{Free Area (sq ft.)}$

To determine pressure drop across open damper, calculate **free area velocity** as shown, find velocity on curve and read across for s.p. differential.

$$\text{Free Area Velocity (fpm)} = \frac{\text{cfm}}{\text{Free Area}}$$

Example:

1 – 36" x 24" Damper required for 8,500 cfm. (Type A)

$$\text{FAV} = \frac{8500}{5 \text{ sq. ft.}} = 1700 \text{ fpm}$$

1700 fpm located on the 'A' curve shows a pressure drop of .07 in. wg.

cfm = cubic feet per minute

fpm = feet per minute velocity

S.P. = static pressure in inches water gauge

FAV = Free Area Velocity

Imperial System Shown

To convert to SI (metric) system:

Multiply cfm by .4719 for liters per second

Multiply fpm by .00508 for meters per second

Multiply in. wg. by .2486 for kilopascals

Multiply sq. ft. by .0929 for square meters.

#### Pressure Drop

