

UL-CLASSIFIED  
**CEILING DAMPER**

For 2-Hr. Designs

**MODEL 293**

RECTANGULAR  
FOUR-BLADE/INSULATED

**MATERIALS AND CONSTRUCTION**

- FRAME:** One-Piece, roll-formed 22-Ga. galvanized steel. ( $2^{21}/_{32}$ " standard depth).
- BLADES:** 22-Ga. galvanized steel.
- INSULATION:**  $1/2$ " thick gypsum.
- FUSIBLE LINK:** 165°F Standard (212°F Optional).
- SPRING:** Extension type.
- FINISH:** Mill.
- OPTIONAL THERMAL BLANKET** for lay-in diffuser/grille installations:  $1/4$ " thick ceramic fiber, (8 lbs./cu. ft. density).

UNDERWRITERS LABORATORIES INC.®  
CLASSIFIED



**CEILING DAMPERS**  
FIRE RESISTANCE CLASSIFICATION  
DESIGN NO'S. — SEE PRODUCT CATEGORY  
IN UL FIRE RESISTANCE DIRECTORY

abi air balance  
A Mestek Company

**California State Fire Marshal Listing No.:**  
**3225-1328:105**

**1-hr. Combustible Ceiling Assemblies**  
**1-hr. & 2-hr. Non-Combustible Ceiling Assemblies**

**DIMENSIONAL DATA**

**Maximum Size:** 576 Sq. in.

**Width:**  $3^{3}/_{4}$ " Minimum; 24" Maximum

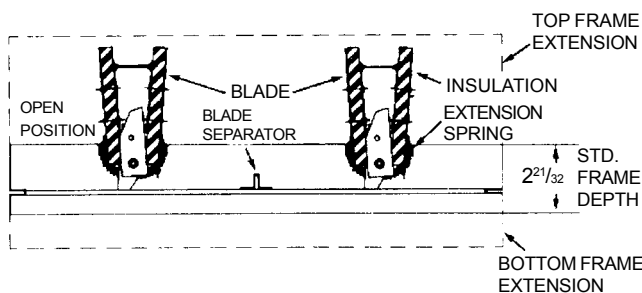
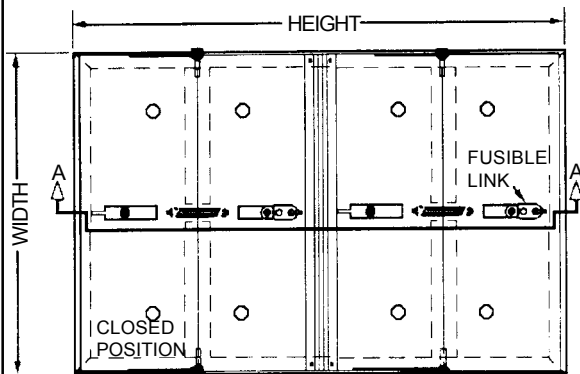
**Height:**  $18^{3}/_{4}$ " Minimum; 24" Maximum

The smaller dimension is *always* the *width*, and is *parallel* to the *blades*.

**OPTIONAL FRAME EXTENSIONS**

To facilitate various installations, a damper frame extension can be provided for the top of the frame, the bottom of the frame, or both the top and bottom of the frame, and, depending on the *HEIGHT* of the damper, will result in the following *total frame depths*:

	Heights: 18 <sup>3</sup> / <sub>4</sub> "-20"	Heights: 20 <sup>1</sup> / <sub>2</sub> "-24"
Top Extension:	9 <sup>1</sup> / <sub>4</sub> "	9 <sup>1</sup> / <sub>4</sub> "
Bottom Extension:	6 <sup>1</sup> / <sub>8</sub> "	6 <sup>1</sup> / <sub>8</sub> "
Top and Bottom Extension:	9 <sup>1</sup> / <sub>4</sub> "	10 <sup>3</sup> / <sub>4</sub> "



**CEILING DAMPERS - FUNCTION AND APPLICATION**

This ceiling damper is used to provide the required fire and heat radiation protection of HVAC penetrations of Floor-Ceiling and Roof-Ceiling Assemblies having a Restrained or Unrestrained Assembly Fire Resistance Rating of 2 hours or less, in accordance with UL-263. Standard Fire Dampers (1<sup>1</sup>/<sub>2</sub>-hr. & 3-hr.) do not provide the necessary heat radiation protection. Ceiling Dampers are also called Ceiling Fire Dampers, Radiation Dampers, and Radiation Shields. See Air Balance's UL-approved Installation Instructions for various installation requirements and procedures. Approved Ceiling Designs are illustrated by Design Number in UL's Fire Resistance Directory.

**PROJECT:**  
**LOCATION:**  
**ARCHITECT:**  
**ENGINEER:**

**CONTRACTOR:**  
**PO NUMBER:**  
**DATE:**

abi air balance  
A Mestek Company  
7435 Industrial Rd. • Florence, KY 41042

IN THE INTEREST OF PRODUCT DEVELOPMENT, AIR BALANCE RESERVES THE RIGHT TO MAKE CHANGES WITHOUT NOTICE.