

# KELLEY PRODUCTS

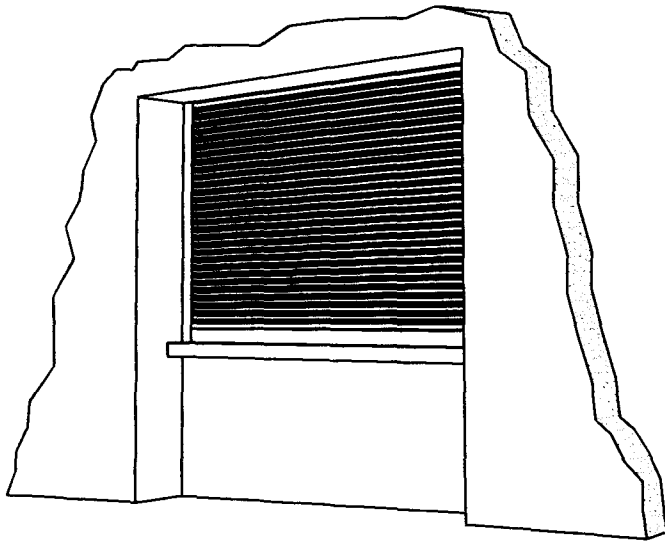
## Counter Fire Shutter

Project: \_\_\_\_\_


Item #: \_\_\_\_\_

Model: K-CFS-\_\_\_\_feet\_\_\_\_inches

Approved: \_\_\_\_\_ Date: \_\_\_\_\_



### Approval/Standard Compliance

- UL-10(b) approval
- Factory Mutual Approval Standard 4100 (1990)
- Designed to comply with governing standard for installation defined in NFPA 80 (1990).
- New York Dept. of Buildings MEA 83-87
- ULC-S104 approval
- ANSI A2.2
- ASTM E152
- NFPA 252
- Three hour labels are available on Kelley doors up to 144 square feet (maximum 12'-0" width or height). Over 144 square feet, certificate of inspection for oversize doors provided 

### Features and Benefits


- Kelley counter fire shutters are compact and pleasing in appearance, while permitting frequent opening/closing as well as providing optimal fire protection. For openings up to 192 square feet.
- Unique features include:
  - 3 hour UL label for Class A openings
  - Automatic closure in case of fire, but operable for daily use
  - Governor-controlled, safe closing speed (over 8' wide or 5' high)
  - Trimline curtain design in galvanized or stainless steel
  - Sealed box-type guides, upward expandable, for neat, snug fit
  - Tubular bottom bar with side bolt lock
  - Mounted against face-of-wall or between-jambs for push-up or awning crank operation.

### Accessories and Options

- S/S bottom bar
- S/S vertical guides
- Crank operation (Some sizes)
- Manual operation
- Motor operation (Some sizes)
- Cylinder locks
- Padlock capability (lock not included)
- Non-labeled aluminum construction

Model No. Charts  
Anodized Aluminum Counter Shutters

	Face of Wall Mount	Between Door Jambs
<input type="checkbox"/> Manual	CSF1AA	CSB1AA
<input type="checkbox"/> Crank	CSF3AA	CSB3AA
<input type="checkbox"/> Motor	CSF8AA	CSB8AA

KELLEY  PRODUCTS  
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Issue Date 02/97 Pg. FS-1

## Suggested Specifications for Fire Shutters

Note to specifiers: Words in parenthesis indicate frequently specified and highly recommended options.

The rolling counter fire shutters will be Kelley Model \_\_\_\_\_, 3 hour UL-labeled for Class A openings.

Curtains will be composed of #17 flat slats rolled from minimum 22 gauge (prime painted galvanized steel) (stainless steel) per ASTM standards. Each slat will be fitted with endlocks to hold curtain in alignment and impede air infiltration around curtain and guides. Bottom bar will be fitted of tubular type (primed steel) (stainless steel), fitted with slide bolt locks.

Guides will have (primed rectangular steel) (stainless steel) formed shapes and will be designed for upward expansion to insure close fit on counter top or floor.

Brackets will be of precision formed plate, with permanently sealed ball bearings, designed to enclose ends of coil and provide support for counterbalance pipe at each end.

Counterbalance: Curtain will be coiled on a pipe of sufficient size to carry door load with deflection not to exceed .03 inches per foot of door span and to be evenly balanced by helical springs, oil-tempered torsion type designed with a 25% safety factor. Cast iron barrel plugs will be used to anchor springs to tension shaft and pipe.

Hood will be minimum 24 gauge (prime painted galvanized steel) (stainless steel) sheet metal, flanged at top for attachment to header and flanged at bottom to provide longitudinal stiffness. Hood will enclose curtain coil and counterbalance mechanism. All hoods will be furnished with flame baffle controlled by fusible link, and designed to close against coiled in the event of fire to reduce flame and smoke spread.

Finish: Curtain, hood, bottom bar and guides to be (prime painted steel) (stainless steel, No. 4 finish). Parts not galvanized, except shaft and bearings, will be given a shop coat of paint.

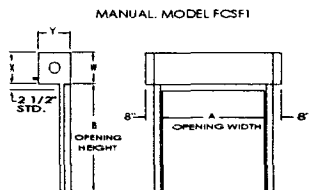
Operation: Doors will be operated by means of (manual push up) (awning crank) (motor operation).

Automatic Closing Device will be thermally actuated by means of a fusible link rated at 160 degrees F. Governor will be furnished as standard on shutters over 8'0" wide or 5'0" high, to regulate the rate of descent of door. It will be the escapement type which is inoperative during normal operation, but which will so retard the speed during automatic operation to under 2' per second.

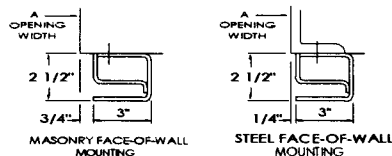
Locking will be slide-bolt locks suitable for padlocks by others (will be by cylinder lock).

Label: All shutters, when opening size permits, to bear the required label of the Underwriters' Laboratories and Factory Mutual. Shutters over 144 square foot and over 12'0" in width will receive a Certificate of Inspection for oversize doors. Fire shutters will be manufactured in strict accordance with the requirements of Underwriters Laboratories'-listed procedures or Factory Mutual-approval procedures, standard 4100 (1990), and will bear their label.

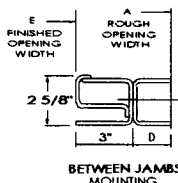
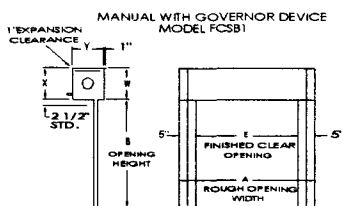
### Face-of-Wall Mounting



### Common Guide Mounting Details



### Between Jamb Mounting



Operation	D
Manual	2" both ends
Crank	4" crank end 2" opp. crank end

### Model No. Charts Galvanized Fire Shutters

	Face of Wall Mount	Between Jamb Mount
<input type="checkbox"/> Manual	FCSF1PS	FCSB1PS
<input type="checkbox"/> Crank	FCSF3PS	FCSB3PS
<input type="checkbox"/> Motor	FCSF7PS	FCSB7PS

### Stainless Steel Fire Shutters

	Face of Wall Mount	Between Jamb Mount
<input type="checkbox"/> Manual	FCSF1SS	FCSB1SS
<input type="checkbox"/> Crank	FCSF3SS	FCSB3SS
<input type="checkbox"/> Motor	FCSF7SS	FCSB7SS

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