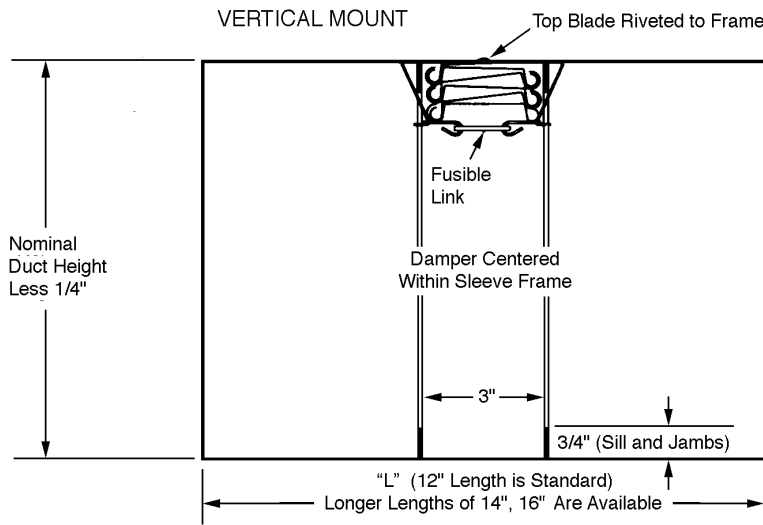



FIRE/SEAL® UL-CLASSIFIED 1 1/2-HR. STATIC RATED FIRE DAMPER WITH INTEGRAL SLEEVE FRAME

**MODEL 117X
"A" STYLE**
Vertical & Horizontal

NO ADDITIONAL SLEEVE REQUIRED, PROVIDED DUCT THICKNESS IS 20 GA. OR LESS, AND U.L.-APPROVED BREAKAWAY DUCT-TO-SLEEVE CONNECTION JOINTS ARE USED, PER UL-555.

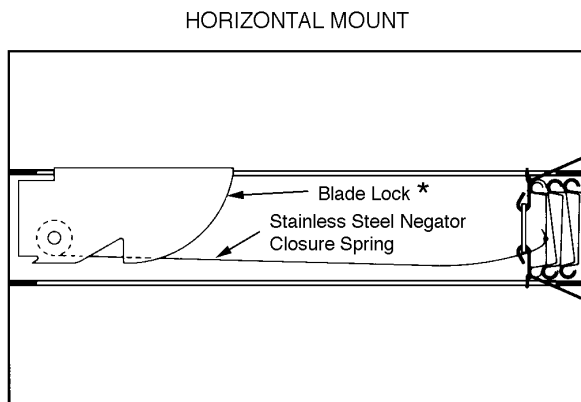
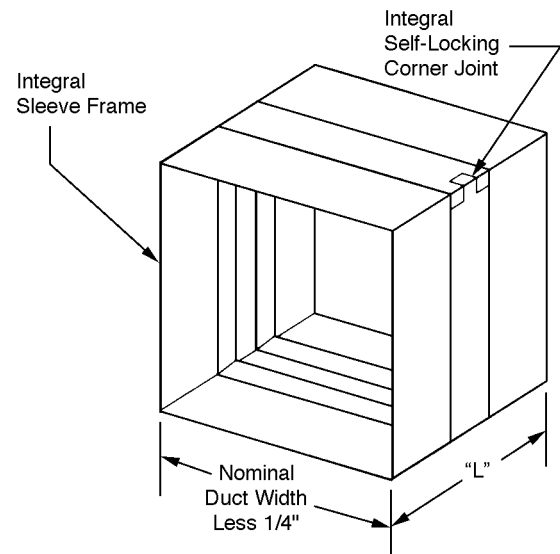
Classified by Underwriters Laboratories as a 1 1/2-hour fire protection rated Fire Damper, in accordance with Standards UL-555 and NFPA-90A, for the protection of openings in fire partitions having a fire resistance rating of less than 3 hours.



UNDERWRITERS LABORATORIES INC.
 **CLASSIFIED**
 FIRE DAMPERS
 FIRE RESISTANCE RATING **1 1/2 HR.**
 SEE U.L. CLASSIFIED BUILDING MATERIALS INDEX

Arrow United Industries

**California State Fire Marshal
Listing No. 3225-1328:100**



(*) Damper is to be installed with blade lock points facing DOWNWARD and with access from above.

DIMENSIONAL DATA:

- MINIMUM SIZE: 4" W x 4" H.
- MAXIMUM SIZE - VERTICAL:
Single Panel: 60" W x 60" H (Duct). Multiple Panel: Not Available.
- MAXIMUM SIZE - HORIZONTAL:
Single Panel: 48" W x 48" H. Multiple Panel: Not Available.

NOTE: Dampers should be ordered by nominal duct size.

STANDARD MATERIALS & CONSTRUCTION:

- SLEEVE FRAME: One-piece rollformed 20-GA galvanized steel.
- BLADES: 22-GA galvanized steel curtain-type.
- FUSIBLE LINK: UL-listed 165°F; replaceable. (Optional 212°F available at no additional charge.)
- CLOSURE SPRINGS (Horizontal Models): Heat-treated Type 301 stainless steel constant force coiled negator type.

- PROJECT:**
- LOCATION:**
- ARCHITECT:**
- ENGINEER:**
- CONTRACTOR:**
- PO NUMBER:**
- DATE:**



Arrow United Industries
 A Division of Mestek, Inc.
 314 Riverside Drive • Wyalusing, PA 18853
 Ph: (570)-746-1888 Fax: (570)-746-9286
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MEMBER OF AMCA

*Additional information
on reverse side.*

ARROW UNITED INDUSTRIES SUBMITTAL DATA

FIRE/SEAL® UL-CLASSIFIED 1 1/2-HR. STATIC RATED FIRE DAMPER WITH INTEGRAL SLEEVE FRAME

**MODEL 117X
"A" STYLE**

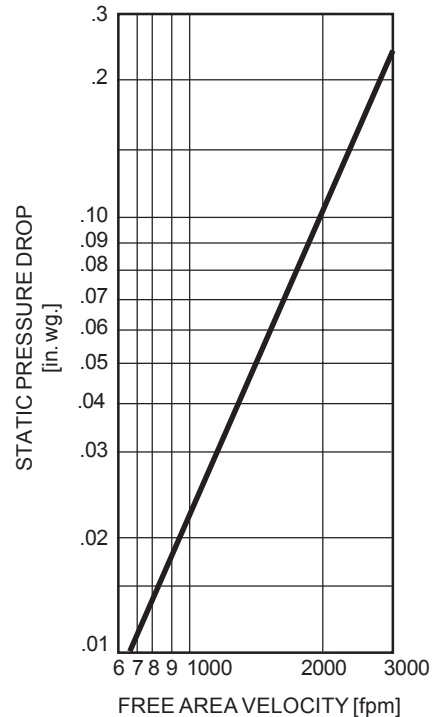
FREE AREA [sq. ft.]
Duct Width (in.)

	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	
Duct Height (in.)	4	.03	.09	.1	.2	.3	.3	.4	.4	.5	.6	.6	.7	.7	.8	.9
8	.1	.2	.4	.6	.7	.9	1.0	1.2	1.4	1.5	1.7	1.8	2.0	2.2	2.3	
12	.2	.4	.7	.9	1.2	1.5	1.8	2.0	2.3	2.6	2.8	3.1	3.4	3.6	3.9	
16	.2	.6	.9	1.3	1.7	2.0	2.4	2.8	3.1	3.5	3.9	4.2	4.6	5.0	5.3	
20	.3	.7	1.2	1.7	2.1	2.6	3.1	3.5	4.0	4.5	5.0	5.4	5.9	6.4	6.8	
24	.4	.9	1.4	2.0	2.6	3.2	3.7	4.3	4.9	5.4	6.0	6.6	7.1	7.7	8.3	
28	.4	1.0	1.7	2.4	3.0	3.7	4.4	5.0	5.7	6.4	7.0	7.7	8.4	9.0	9.7	
32	.5	1.2	2.0	2.7	3.5	4.3	5.1	5.8	6.6	7.4	8.2	9.0	9.7	10.5	11.3	
36	.5	1.3	2.2	3.1	4.0	4.8	5.7	6.6	7.4	8.4	9.2	10.1	11.0	11.8	12.7	
40	.6	1.5	2.5	3.5	4.4	5.4	6.4	7.4	8.4	9.3	10.3	11.3	12.3	13.2	14.2	
44	.6	1.7	2.7	3.8	4.9	6.0	7.0	8.1	9.2	10.3	11.4	12.4	13.5	14.6	15.7	
48	.7	1.8	3.0	4.2	5.4	6.6	7.7	8.9	10.1	11.3	12.5	13.7	14.8	16.0	17.2	
52	.8	2.0	3.3	4.5	5.8	7.1	8.4	9.7	11.0	12.2	13.5	14.8	16.1	17.4	18.7	
56	.8	2.1	3.5	4.9	6.2	7.6	9.0	10.4	11.7	13.1	14.5	15.9	17.2	18.6	20.1	
60	.9	2.3	3.8	5.3	6.8	8.2	9.7	11.2	12.7	14.2	15.7	17.2	18.6	20.1	21.6	

$$\text{FREE AREA VELOCITY [fpm]} = \frac{\text{FLOW [cfm]}}{\text{FREE AREA [sq. ft.]}}$$

AVAILABLE OPTIONS:

1. Sleeve frame length ("L" dimension) of 14" and 16".
2. 212°F fusible link.
3. Electro Thermal Link [ETL®].
4. SPDT "closed damper" position indicator switch.
5. Transitions and Collars for round or oval ductwork for Low Pressure HVAC Systems - See Submittal Data Sheet SD-T.
6. Transitions and Collars and Sealant/Caulking for rectangular, round, or oval ductwork for High Pressure HVAC Systems ("C" Style Damper) - See Submittal Data Sheet SD-117XC.



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