

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

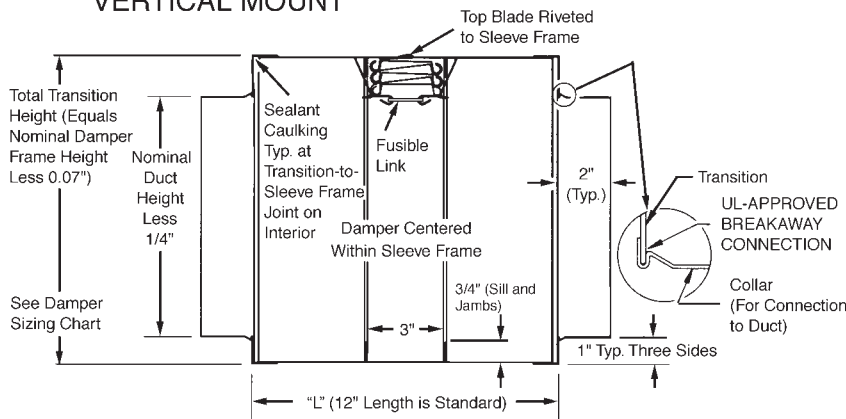
**MODEL 117X
"C" STYLE**
Vertical & Horizontal

RECTANGULAR, ROUND & OVAL

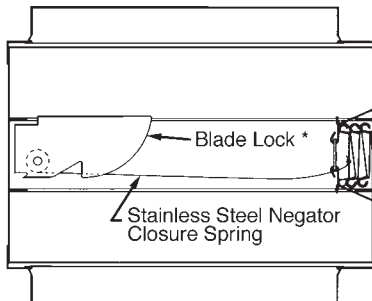
DESIGNED FOR HIGH PRESSURE HVAC SYSTEMS, AND PROVIDES 100% FREE AREA. PRESSURE TESTED PER AMCA STANDARD 500 TO 6 in. wg. LEAKAGE PERFORMANCE OF TRANSITIONED INTEGRAL SLEEVE FRAME WITH TAPE & SEALANT CAULKING IS EQUAL TO THAT OF A WELDED SEAM "C"-TYPE HOUSING.

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.

VERTICAL MOUNT



HORIZONTAL MOUNT



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

STANDARD MATERIALS & CONSTRUCTION:

SLEEVE FRAME: One-piece rollformed 20-GA galvanized steel.

BLADES: 22-GA galvanized steel curtain-type.

TRANSITIONS ["CAPS"]: 20-GA galvanized steel, riveted to sleeve frame.

DUCT CONNECTION COLLARS: 22-GA galvanized steel, crimped to transitions.

SEALANT CAULKING: UL-listed high-temperature type.

TAPE: UL-listed high-temperature pressure-sensitive foil 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.

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. 3225-206:014**

IMPORTANT

FOR ROUND DUCT DIAMETERS UP TO 36", AND FOR OVAL DUCT SIZES UP TO 58" X 30"H, ARROW'S 22-GA DUCT CONNECTION COLLAR (CRIMPED TO THE DAMPER TRANSITION) CONSTITUTES A U.L. APPROVED DUCT-TO-SLEEVE "BREAKAWAY" CONNECTION, THUS ALLOWING A RIGID CONNECTION JOINT TO BE UTILIZED BETWEEN THE DAMPER'S DUCT CONNECTION COLLAR AND THE ROUND OR OVAL DUCTWORK.

DIMENSIONAL DATA:

MINIMUM SIZE: 4" W x 4" H (Duct), 6"W x 7"H (Sleeve Frame).

MAXIMUM SIZE - VERTICAL:

Single Panel: 58" W x 54" H (Duct), 60"W x 60"H (Sleeve Frame).
Multiple Panel: Not Available.

MAXIMUM SIZE - HORIZONTAL:

Single Panel: 46" W x 42"H (Duct), 48"W x 48"H (Sleeve Frame).

Multiple Panel: Not Available.

NOTE: Dampers should be ordered by nominal duct size.

PROJECT:

LOCATION:

ARCHITECT:

ENGINEER:

CONTRACTOR:

PO NUMBER:

DATE:

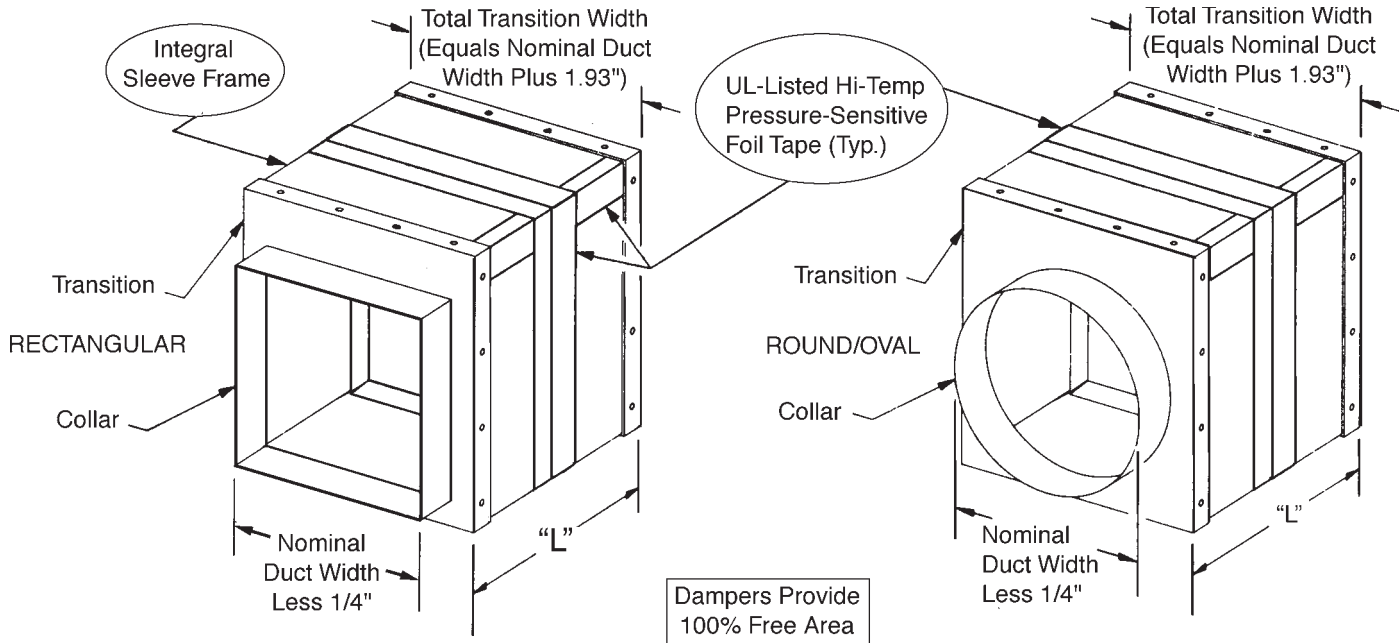
Additional information on reverse side.



ARROW UNITED INDUSTRIES SUBMITTAL DATA

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**MODEL 117X
"C" STYLE**



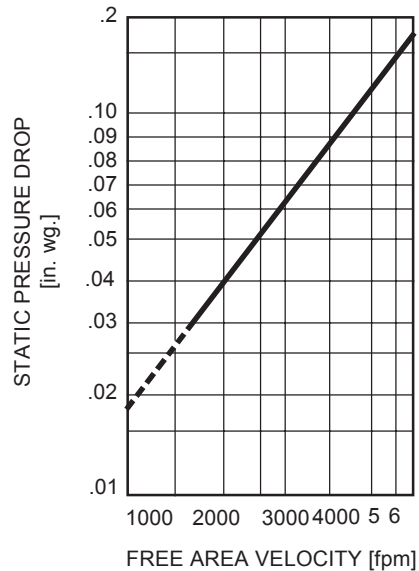
With 100% Free Area, Pressure Drop is determined by FACE Area Velocity (in lieu of Free Area Velocity).

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

DAMPER SIZING CHART

WIDTH: Add 2" to Nominal Duct Width

HEIGHT:	IF NOMINAL DUCT HEIGHT IS:	INCHES TO ADD FOR NOMINAL DAMPER FRAME HEIGHT:
	4" THRU 18"	3"
	19" THRU 28"	4"
	29" THRU 40"	5"
	41" THRU 42"	6"
Vertical Only	43" THRU 54"	6"



AVAILABLE OPTIONS:

1. Sleeve frame length ("L" dimension) of 14" or 16"
2. 212°F fusible link.
3. Electro Thermal Link [ETL®].
4. SPDT "closed damper" position indicator switch.

IN THE INTEREST OF PRODUCT DEVELOPMENT, ARROW UNITED RESERVES THE RIGHT TO MAKE CHANGES WITHOUT NOTICE.



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