

CDRI95 HIGH TEMPERATURE LOW LEAK DAMPER

Ruskin damper Model CDRI95 provides accurate airflow and isolation at extreme elevated temperatures. Designed for round duct work capable of 20" w.g. Ruskin blade seal design will withstand limited excursions temperatures of 1200°F, and can be easily removed for normal maintenance. Consult Ruskin for actual design temperature.

STANDARD CONSTRUCTION

FRAME

One piece Carbon Steel Channel. (3/16 - 1/4)

BLADE

One piece Carbon Steel. (3/8 thick min-thru 3/4 thick.)

AXLE

Stub (min. 1" O.D. through 2 1/2" O.D.) axle size may vary with system conditions.

CONTROL SHAFT

6" (152) extended axle.

BEARINGS

Grease lubricated ball bearings with high temperature grease and adjustable shaft packing mounted outboard of frame. Combination good to 500°F. Consult Ruskin if temperatures exceed 500°F.

BLADE SEALS

Adjustable blade seal design with ceramic tadpole enclosed in high temperature material.

FINISH

High temperature aluminum paint.

MINIMUM SIZE

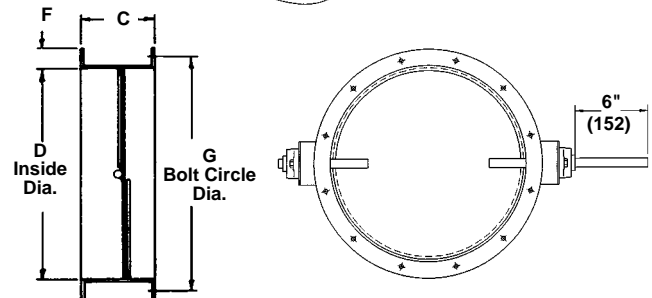
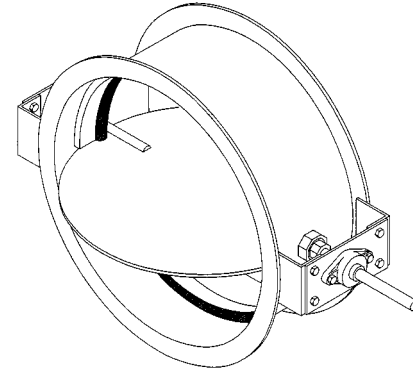
12" (305) diameter.

MAXIMUM TEMPERATURE

Damper design for excursions to 1200°F with normal operating temperature of 500°F.

Consult Ruskin if normal operating temperature exceeds 750°F.

Dimensions in parenthesis () indicate millimeters.



Illustrated with Optional Bolt Holes.

†H = Number of Holes (Even Number Only)

†M = Diameter of Hole

†S = Holes Straddle Axle (Illustrated)

†T = Holes Parallel with Axle Q (Not Illustrated)

VARIATIONS

Variations to the CDRI95 basic design are available at additional cost and include:

- Manual, electric, or pneumatic actuators
- Higher temperatures
- Special finishes
- Special materials and heavier construction
- Bolt holes in one or both flanges
- Axle variations

| D - Inside Diameter | | Frame | | Blade Thickness | Axle Diameter |
|---------------------|------------|----------------|-------------|-----------------|---------------|
| Above | Through | Flange (F) | Web (C) | | |
| 14" (356) | 24" (610) | 1 1/2" x 3/16" | 9" x 3/16" | 3/8" | 1" |
| 24" (610) | 36" (914) | 2" x 1/4" | 12" x 1/4" | 1/2" | 1 1/2" |
| 36" (914) | 44" (1118) | 2 1/2" x 1/4" | 12" x 5/16" | 5/8" | 2" |
| 44" (1118) | 60" (1524) | 2 1/2" x 1/4" | 12" x 5/16" | 3/4" | 2 1/2" |

| QTY. | †DIMENSIONS | | | | HOLE ORIENTATION | VARIATIONS |
|------------|-------------|---|----------|---|------------------|------------|
| | D-DIA. | G | H | M | S or T | |
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| | | | | | | |
| JOB | | | LOCATION | | | |
| CONTRACTOR | | | | | | |

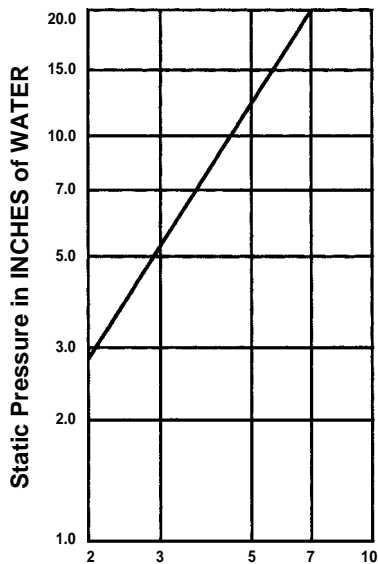
SUGGESTED SPECIFICATION

Furnish and install, at locations shown on plans or in accordance with schedules, high temperature industrial grade round control damper. Damper frame and flange shall be of integral construction as standard. Damper blade design to withstand system pressure of 20" w.g. at elevated temperature. Blade thickness shall be designed to maintain deflection of L/360. Damper blade shall pivot on stainless steel stub axles welded permanently on blade center. Axles shall be supported on both ends by a sealed relubricable ball bearings mounted outboard of the damper frame and complete with adjustable axle shaft seals mounted directly to damper frame. Mechanically fastened axle to blades or bearings with integral shaft

seals are not acceptable. Blade edge seal shall be comprised of a ceramic fibrous material sewn and encased in a woven high temperature sleeve. Blade seal will be serviceable and removable without damper replacement or damper removal from the system. Blade seal material will be capable of exposure to 1200 degrees Fahrenheit. Maximum leakage through a 44" diameter unit shall not exceed 7 CFM/sq. ft. @20" w.g. Submittal shall include published performance data on a complete range of damper sizes developed from testing in accordance with AMCA Standard 500 in an AMCA registered laboratory. Damper shall be Ruskin Model CDRI95.

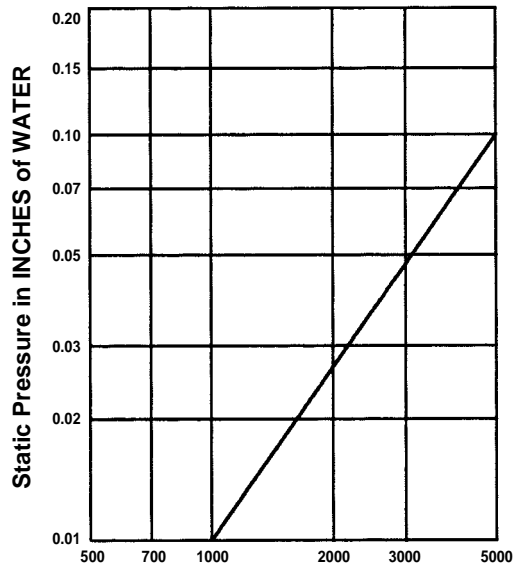
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AIR LEAKAGE – DAMPER CLOSED (44" dia.)



Air Leakage in CFM/sq. ft. through FACE AREA.
Tested per AMCA Std. 500, Fig. 5.5, plenum mounted.

PRESSURE DROP – DAMPER OPEN (44" dia.)



Air velocity in FEET per minute through FACE AREA.
Tested per AMCA Std. 500, Fig. 5.3, ductwork upstream and downstream.

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