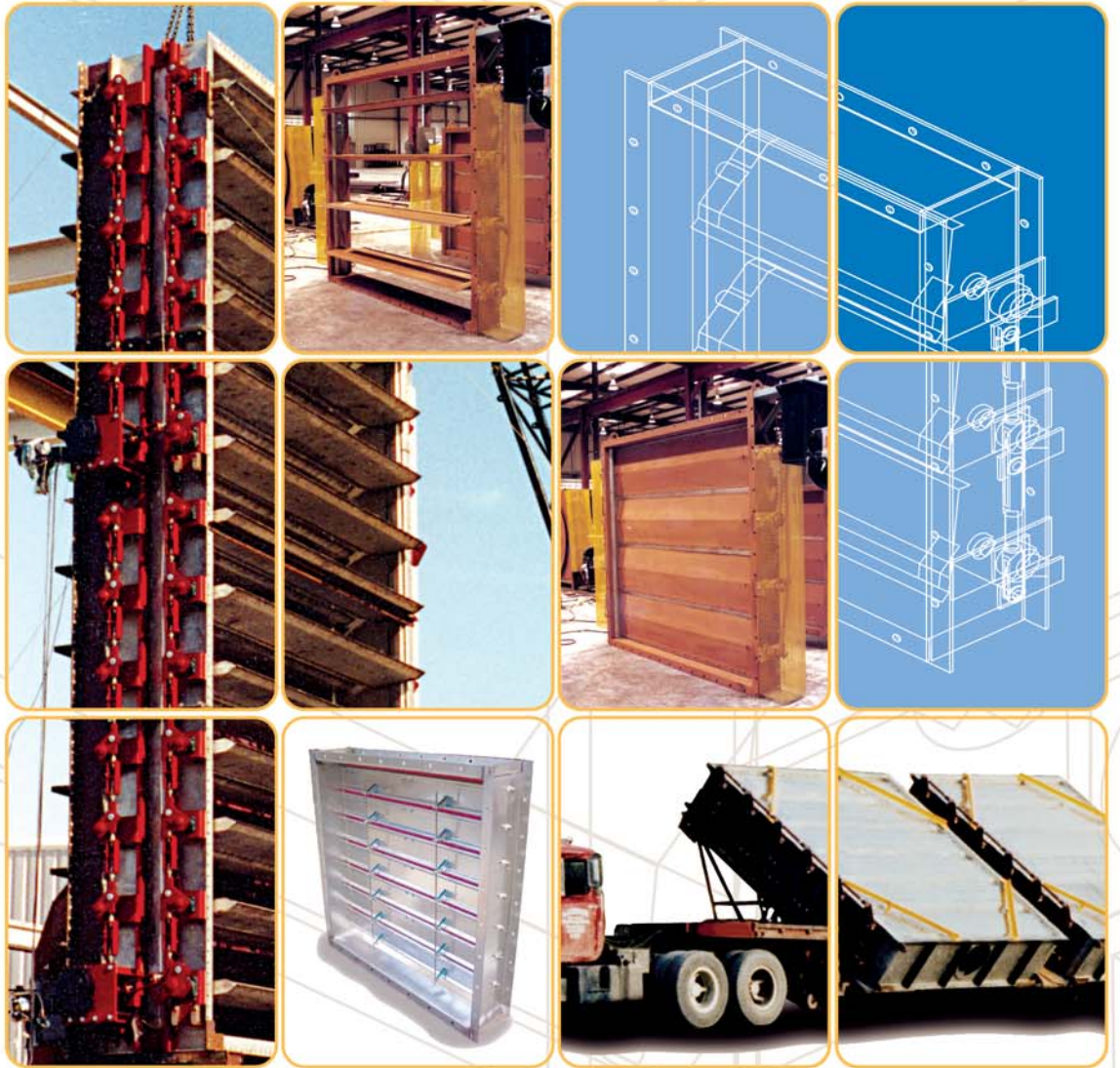


FIELD-PROVEN / PEAK PERFORMANCE

WARRIOR SERIES

LOUVER DAMPERS

Flextech



WE MANUFACTURE EXCELLENCE

LOUVER DAMPERS

Precision Flow Control, Man-Safe Isolation in hostile environments

Flextech Warrior Series provide reliable modulation and isolation in many applications with our complete line of multi-blade louver dampers. All designs are heavy-duty, have multiple blades of an airfoil or monocoque profile, outboard bearings and individual packing glands to achieve zero leakage around the shafts. Our designs offer quick response and fast operating cycles.

The louver damper is capable of providing accurate and repeatable flow control for all applications. The sealing efficiency of Single Louver Dampers will vary from 90% to 99.5%. 100% isolation can be achieved with the Double Louver Damper equipped with Seal Air Purge.

Single Louver Dampers

Single louver dampers provide a combination of isolation and flow control. The assembly consists of a single row of blades externally linked in a parallel or opposed configuration depending upon the desired flow pattern. The parallel arrangement is often used on fan inlets to optimize fan performance. The opposed arrangement is used where a more linear flow is desired - such as fan outlets.

Double Louver Dampers

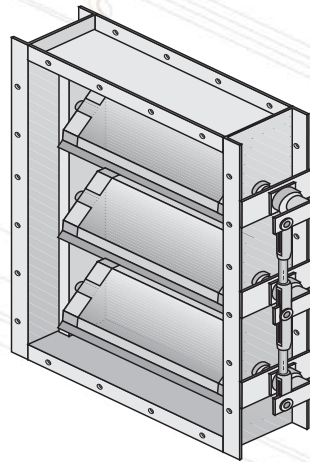
Double louver dampers provide 'Man-Safe' isolation by incorporating two rows of blades equipped with flexible metal seals and a seal air system. When both rows of blades are closed, the seal air fan is energized, pressurizing the space between the blade rows to a pressure typically 3" W.G. above the duct operating pressure. This creates a pressure barrier prohibiting gas leakage across a damper assembly.

The double louver damper can be supplied with one row of blades operating in the parallel and the other in the opposed configuration - allowing modulation as well as isolation in a single unit.

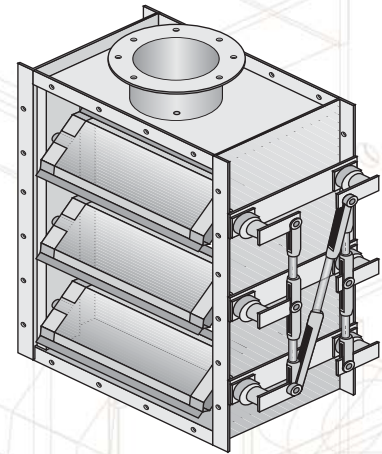
Advantages - Flextech Louver Dampers

- Good modulation and control characteristics
- Fast operating speeds
- Little or no outside space requirements for support structure
- All seals are internal to the duct, no leakage to the ambient side
- Lower cost

Single Louver Damper



Double Louver Damper



Parallel



Opposed



Parallel / Parallel



Parallel / Opposed

Man-Safe Design Seal Air System for "Man Safe" Applications



MAN-SAFE DESIGN AVAILABLE

The louver damper is capable of providing accurate and repeatable flow control for all applications. 100% isolation can be achieved with the Double Louver Damper equipped with Seal Air Purge. The sealing efficiency of Single Louver Dampers will vary from 90% to 99.5%.



LOUVER DAMPER APPLICATIONS INCLUDE:

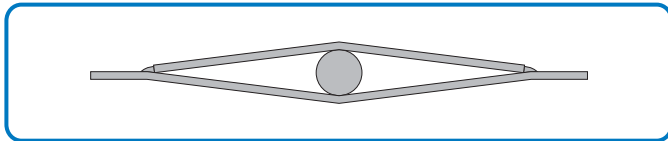
– scrubber systems – stack isolation – control air systems – balancing systems – incinerators – baghouse

Blade Types

Flextech Industries offers two basic blade types for its louver dampers:

Airfoil Blade

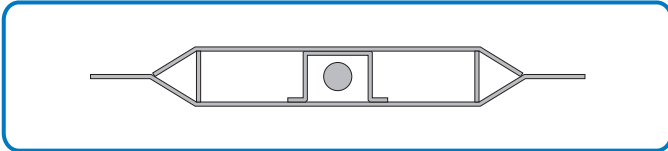
Recommended for modulation or isolation of clean to moderately dirty gas applications. The blade is constructed of two plates formed around a center



shaft. Our rugged design resists both bending and torsional twisting of the blade. It will also reduce vibration and fluttering while minimizing pressure loss. This configuration is used in moderate pressure and temperature environments where flow velocity does not exceed 4000 - 5000 feet-per-minute.

Monocoque Blade

Recommended for modulation and isolation in high pressure and temperature, dirty or corrosive applications. The blade is constructed of two skins and



an internal stiffener and is rigidly assembled using welded construction. For severe operating conditions, alternate blade design and construction is available.

- Relatively high strength-to-weight ratio maximizes stability, and minimizes profile depth and pressure drop
- Efficient use of materials makes this design effective in applications requiring stainless steel or other alloys
- Corrosion-resistant stub shafts welded to internal structure at each end of the blade, forming a secure connection
- Capable of isolating extremely high temperatures without being damaged

Common Louver Damper Materials

FRAME AND BLADE MATERIALS:

- ASTM A36 Carbon Steel
- ASTM A242/588 COR-TEN Steel
- 310 Stainless Steel
- 221 Stainless Steel
- 330 Stainless Steel
- HR120
- Hastelloy™ C276

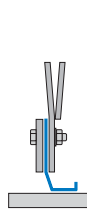
Other materials available

SEAL MATERIALS:

- 304 and 304L Stainless Steel
- 316 and 316L Stainless Steel
- 310 Stainless Steel
- 221 Stainless Steel
- 330 Stainless Steel
- HR120
- Hastelloy™ C276

Seals

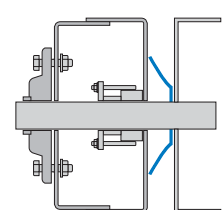
Depending on degree of isolation desired, the damper can be equipped with an assortment of flexible seals. A full set of seals consists of blade-to-blade, blade-to-frame, and blade-to-side frame (design of shaft seal may vary).



Blade-to-Frame



Blade-to-Blade



Blade-to-Side Frame

Linkages

Fixed linkages are standard, however, adjustable linkages are available. The design is heavy-duty, low cost, and ideal for both modulation and isolation.

Louver Damper Actuator Systems

Flextech louver dampers are supplied with a range of actuator and control systems, including Manual, Pneumatic, Hydraulic, Electric.



Manual Actuator



Electric Actuator



Hydraulic Actuator



Pneumatic Actuator



WE MANUFACTURE EXCELLENCE

Damper Inquiries: Clinton, Missouri, 64735. Toll Free 1.877.838.3539
In Canada call 1.800.830.3539



WE MANUFACTURE EXCELLENCE

FLEXTECH INDUSTRIES' PRODUCT LINE INCLUDES:

- metal bellows expansion joints
- fabric, rubber & teflon expansion joints
- flexible hose products
- piping accessories



www.flextech-ind.com

Damper Inquiries: USA Office / Plant

948 East Nusbaum Place, Clinton, Missouri, USA, 64735

Telephone: 660.885.8899
Facsimile: 660.885.6852
Toll Free Sales: 1.877.838.3539
Email: us.sales@flextech-ind.com

Canada Office / BC Plant

17675 - 66th Ave., Unit 1, Surrey, British Columbia, Canada, V3S 7X1

Telephone: 604.576.3100
Facsimile: 604.576.3101
Toll Free Sales: 1.800.830.3539
Email: sales@flextech-ind.com

Alberta Office / Plant

8904 - 18th Street, Edmonton, Alberta, Canada, T6P 1K6

Telephone: 780.464.7588
Facsimile: 780.464.7515
Toll Free Sales: 1.877.353.9832
Email: ab.sales@flextech-ind.com



www.flextech-ind.com

DAMPER REPAIR AND REFURBISHMENT SERVICE

When regular inspection detects parts that need replacement contact Flextech Industries for damper refurbishment and parts maintenance service, including - controls, hose, fittings, bearings, packing and actuators. Ask us about any installed damper. Contact Flextech to discuss a site inspection or fax drawings, attention, "refurbishment" to: 660.885.6852



Ask for on-site demonstration.

We will bring a full-size Guillotine damper to your facility and demonstrate our patented Bellowseal® design - the tightest seal in the industry. Call **1.877.838.3539**

