

ISOLATION AND CONTROL DAMPER

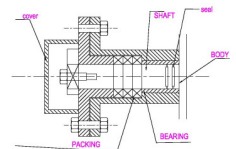
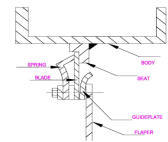
GANDHI ENGINEERING CO An ISO 9001-2008 company manufacture high sealing Efficiency Dampers (Sealing Exceed 99.99%) In Circular, Rectangular & Multilovers Guillotine, divertor etc .Various Blade opening types like Parallel Blade, Opposed blade, Butterfly valve type, single blade, wing blade, Poppet type & Slide gate type, Dampers are available to suite various service application. Materials of construction for Dampers Are varying from carbon steel to stainless steels in various grades, High Ni alloys etc

Applicable Design & test standard:

- 1] ASME AG1: Component Design for Air & Gas cleaning system for ventilation System.
- 2] ANSI N509 Nuclear Air Cleaning component.
- 3] AMCA 500: Testing of lovers & dampers.
- 4] ANSI 510: Testing of Nuclear Air cleaning system.
- 5] ASTM: standard for material specification.
- 6] ASME SEC IX: Welding Qualification & Procedures.
- 7] ASME SEC V: Non destructive testing.

CONSTRUCTION FOR ROTARY DAMPER:

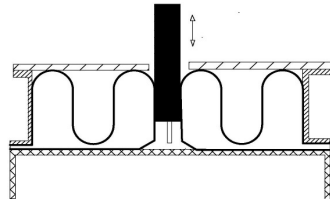
- 1] **BODY** Fabricated from Heavy duty rolled metal, confirming to ASME Design Welding & testing code. For Higher Temperature Refractory are lined inside the body.
- 2] **Blade:** Heavy metal plate with strengthening ribs & centre rotating shaft With concentric or eccentric or edge mounted design. Seals are clamped on Periphery of blade. Blade is light weight & has no deformation under pressure.
- 3] **Seals:** Various Seat option available like clear seal, solid seat, Taper seat etc
FLEXIBLE SEAT: Solid Stainless steel seat are welded to body. Blade seal Spring Loaded metal seal clamped with blade with metal back up. Seals Have live loading with seat. Change in pressure Differential or Temperature Will not affect seal load. For higher temperature & for long life Spring can be Supplied in Nickel alloys like inconel.
- 4] **Bearings:** For temperature up to 90°C externally flanged mounted sintered Bronze Bush bearings are provided. For more than 90°C Temperature External Ball Bearings are provided. For higher temperature services bearings are Mounted with spacer to keep a distance from damper body with provision to Compensate thermal Expansion. For Vertical shaft Drive, Thrust bearings are Provided to take axial load.
- 5] **DRIVE:** Dampers are available with following drive arrangement.
 - 1] Manual: leaver operation in small size dampers. Worm Gear drives for medium & big size damper.
 - 2] Electric Actuated: Standard rotary Electric actuator can be supplied with Damper. It can be provided with manual override & remote indicator.
 - 3] Pneumatic actuated: Standard Pneumatic Actuator with Heavy duty Linkages, Manual Drive option & limit switch for remote indication can be provided with Damper.



CONSTRUCTION OF GUILLOTINE DAMPER:

- 1) **BODY:** Fabricated body available in open & enclosed construction. Heavy Duty blade & housing will provide resistance to thermal stress corrosion Fatigue & distortion.
- 2) **SEAL:** Corrugated flexible SS seat will provide 100% gas shutoff. Seal system Ensure a reliable & smooth operation of guillotine blade throughout the stroke.
- 3) **Drive:** Rack & pinion, motorised, jackscrew, Pneumatic or hydraulic actuators Provided.

Our Design is competitive in terms of cost but superior in terms of reliability.



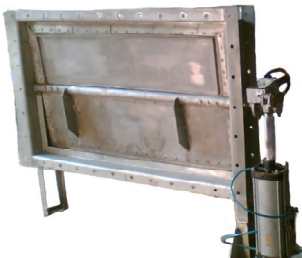
TESTING OF DAMPER: Dampers are tested As per AMCA500 for efficiency Test or soap bubble test for class II/ClassIII leakages as per ANSI510 specification.

Application: Dampers are used for following application:

- (1) Flow control (2) Pressure control (3) Balancing flow/Pressure
- (4) Shutoff (5) Isolation (6) Back draft Prevention (7) Pressure Relief

Applicable Industries:

Nuclear Power Plant, Petrochemical, Chemical, Cement, Steel plant
Refineries Fertiliser Energy conservation



MANUFACTURED BY:



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