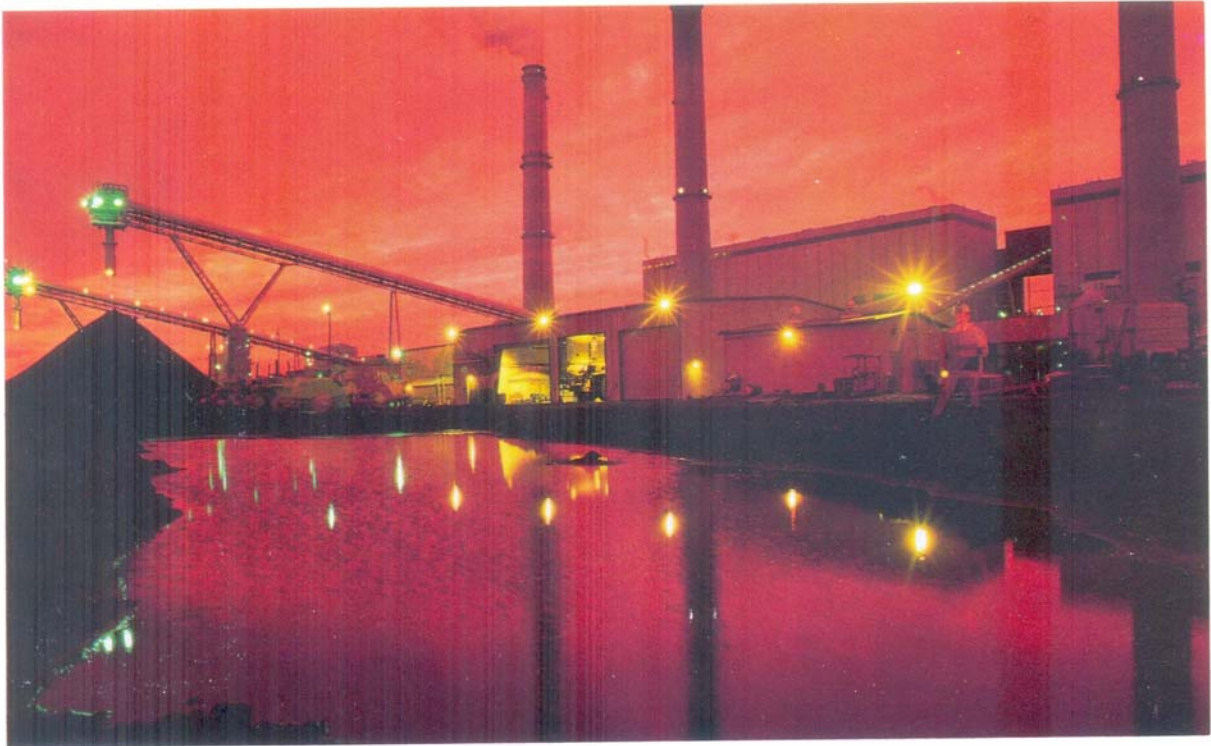




Bachmann Industries India Limited



## Fabric Expansion Joints

**METRO-FLEX**

**WAHLCO, INC.**



# BACHMANN

## EXPANSION JOINTS



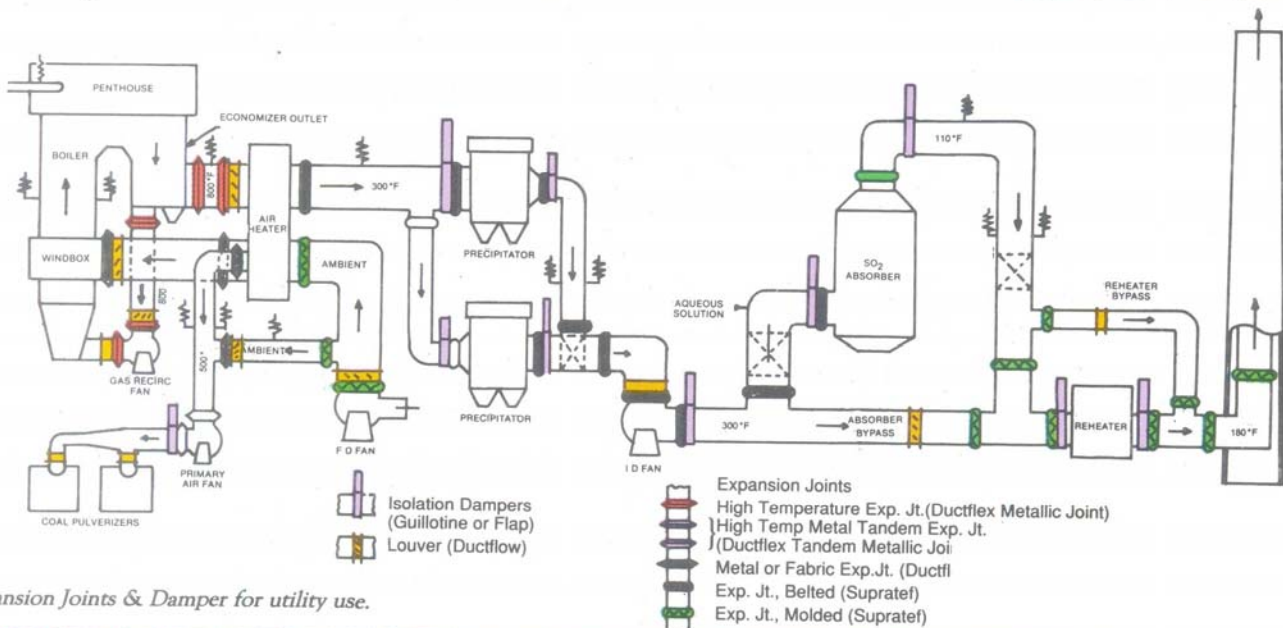
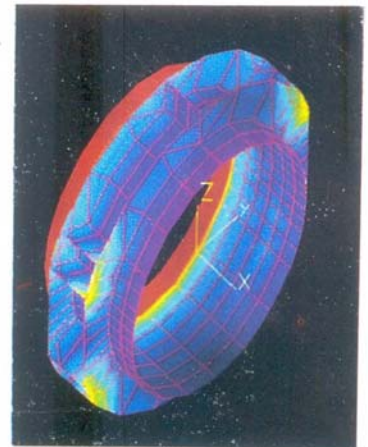
**F**ounded in the Eighty's BACHMANN INDUSTRIES INDIA LIMITED in full technical and financial collaboration with BACHMANN INDUSTRIES INC. U.S.A., very quickly developed reputation for high quality customised Expansion Joints, Dampers, Gates and Gas Flow Diverters.

BACHMANN is now a part of the World wide WAHLCO Group which also includes METRO-FLEX, TEDDINGTON BELLOWS, WAHLCO INC. and FLOWRITE.

With over 50,000 Square Ft. of modern fully equipped manufacturing facilities, we produce some of the most technically advance equipments for Power Plant, Steel Mills, Cement Plants, Pulp and Paper Mills, Petro Chemical Plants and Chemical Plants

Bachmann's Expertise in Expansion Joints comes from years in research & development using modern computer modelling techniques & finite element analysis.

BACHMANN provides complete solutions from design, to in-house manufacturing and testing under one roof, fully backed by the world-reputed BACHMANN name.



Expansion Joints & Damper for utility use.



## THE BACHMANN advantage:-

### CHANNEL CLAMPING

As a standard option, inverted channels are employed for clamping the belt to the frame. The formed channel offers rigid edges and semi-flexible center web giving increased clamping strength around joint periphery.

**THE RESULT**—Three times the sealing effect of conventional flat bar clamping.

—Sharp edges, metal distortions, edge mismatch: common problems which would destroy the relatively fragile fabric element are almost entirely eliminated.

**SUPRATEF**—The world's foremost expansion joint fabric provided exclusively by BACHMANN.

High temperature belts are designed around the BACHMANN Patented reinforced fluoropolymer product-SUPRATEF. This heavy duty Teflon based material developed specifically for this application has been tested and proven to have several key advantages.

**THE RESULT**—Continuous operation at substantially higher temperatures than elastomers and coated products.

—Very high tensile strength gives the capability to withstand system loads for heavy duty operation and long life.

—Resistance from attach for a much wider range of chemicals.

—Light weight, easily field-spliced and repaired.

**BACHMANN DOME SEAL**—The unique cavity insulation (bolster).

The cavity insulation is a high quality long fiber, needled fiberglass (DS-FG), or ceramic (DS-CR) blanket wrapped in a stainless steel wire mesh. The complete assembly is secured to the frame by means of a sophisticated pin and washer retainer system.

**THE RESULT**—The dome seal acts as an effective barrier to dust infiltration and as a thermal protection to the belt.

—The mesh is of a special design being capable of two plane motion, hence ensuring free movement of the insulation while maintaining its integrity.

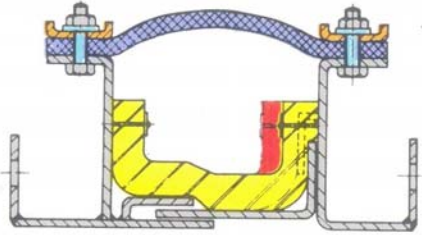
—Needled blanket and wire mesh wrap ensure that the insulation is not gradually picked away by the duct gases forming "insulation holes" —a problem common to loose wool type insulation.

—Further, the retaining system maintains the dome seal profile during the frames relative movements preventing damage to the flexible element due to formation of "hot spots".



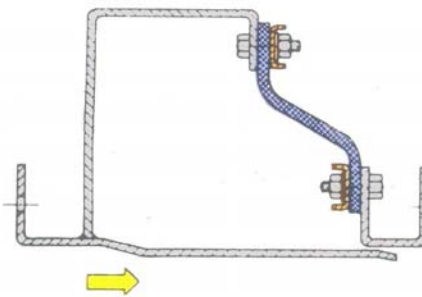
### Style "A"

- Flat belt type mounted directly on rugged angle flanges
- For low to medium dust content
- Semi-air foil type single liner for protection from abrasion
- Single integral liner eliminates welded joint in contact with gas stream.



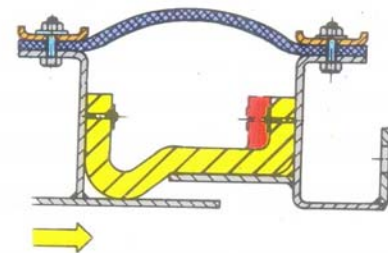
### Style "C"

- Floating captive liner and dome seal prevent fly-ash infiltration
- Suitable for heavy dust loading applications
- Large movement capability in both axial and lateral directions
- Optional 3-point stainless steel lip seals for enhanced sealing



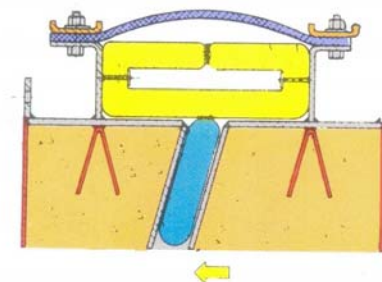
### Style "D"

- Unique BACHMANN patented design
- Very large axial movement capability in a short face to face distance.
- Dome Seal and tip seals arrangement for demanding application.



### Style "F"

- Flanges for easy installation and removal
- Overlapping telescopic liners and projected fabric mounting
- Wide range of fabrics and hardware available
- Large movement capability



### Style "I"

- Refractory lining for very high temperature operation
- Liner gap provides for movements
- Stepped construction and ceramic blankets for sealing gap
- Fully cavity dome seal design for secondary protection
- Optional overlapping liners and stainless steel lip seals for very heavy dust loading.

**NOTE:** Arrangements illustrated above are only some of the typical designs. Contact BACHMANN with full details for the right design for your application.

## ELASTOFLEX fabric expansion joints

The BACHMANN Elastoflex range of fabric expansion joints is employed in low to medium temperature service. The flexible elements is manufactured of plies of various elastomers and reinforcing substrates. Depending upon the service application, specially compounded elastomers of NR, Nitrile, Chlorobutyl, and EPDM rubbers are selected. High quality fabric reinforcements such as nylon and polyester, etc., yield the desired mechanical properties necessary to withstand the system loading.

- Belts are designed for heavy duty operation, capable of withstanding sustained abrasion, such as in cement plants, coal mills, etc.
- Multiple reinforcements result in very high strength and pressure capability ( $\approx$ 2000 mm wg is standard).
- Specialised products such as Viton, Fluorel, and silicone coated compounds coupled with heavy duty reinforcement fabrics such as Kevlar and fiberglass are available for more demanding conditions.

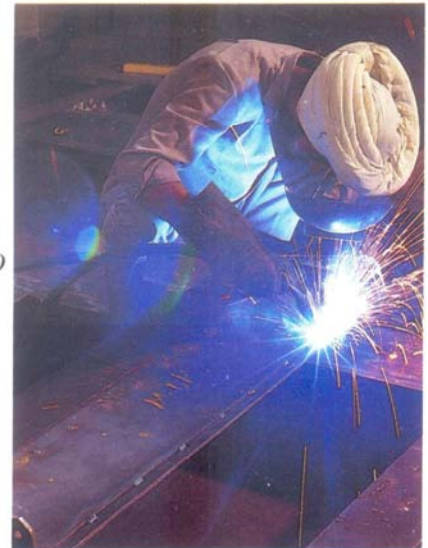
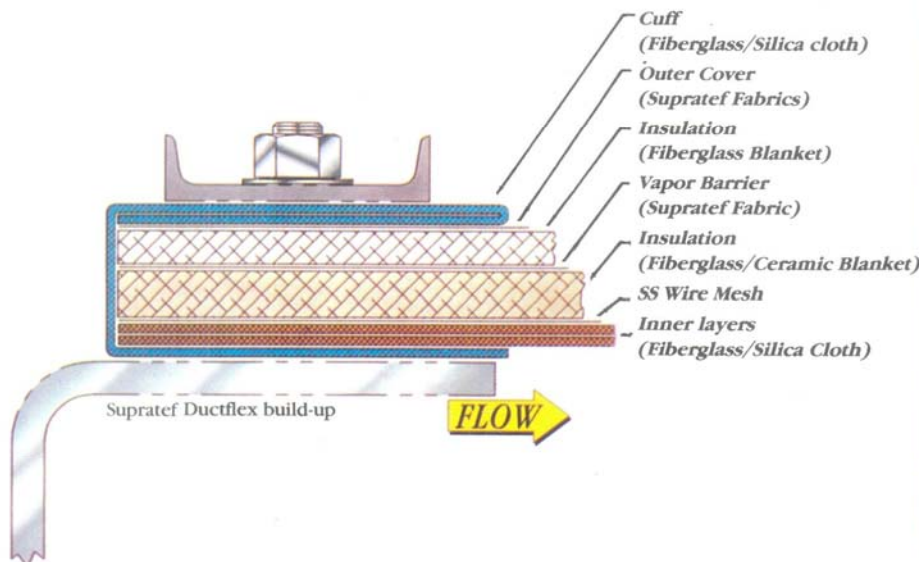
Belt Type	Max. Temp.
EF-T1	80°C
EF-T2	120°C
EF-T3	160°C

## DUCTFLEX fabric expansion joints

Ductflex multi-layered fabric belts are used for high temperature applications usually along with a cavity insulation (BACHMANN Dome Seal) A very wide range of fabric materials employed in a variety of combinations provide effective designs for almost every duct application encountered.

- All composite belt fabrics are completely asbestos free.
- Ductflex flexible element is selected for the full design temperature condition without considering the gradient produced by the insulation, liners, fabric mounting flanges, etc.
- Belt fabrics are selected not only for their temperature capability but also mechanical strength, abrasion and chemical resistance, elasticity and thermal durability.
- A very large client list worldwide with applications in every industry, attests to their high quality and reliability.

Belt Type	Max. Temp.
DF-65	360°C
DF-85	450°C
DF-100	540°C
SD-120	650°C
DF-150	820°C



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