

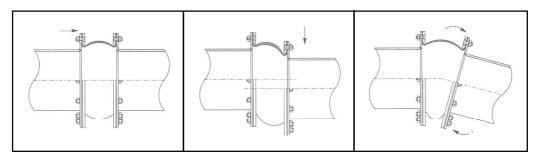




# **PURPOSE & APPLICATION**

Expansion joints are important components in industrial plants. They are installed as flexible connections in pipe and duct systems to compensate for vibrations, thermal expansion, installation misalignments and torsion.

Fabric expansion joints are very flexible and accommodate movements in the duct systems in several directions and combinations.



Fabric expansion joints are used in:

- Coal, gas and oil -fired power stations
- Gas turbine and combined cycle plants
- Chemical and Petro-chemical industries
- Refinery
- Offshore

- Cement works
- Smelting works
- Pulp & Paper industries
- Any other plants where thermal expansion occurs.

### **DESIGN SPECIFICATION**

The individual expansion joint is designed on the basis of :

- Movement in the duct system (axial, lateral, angular, torsion)
- Design and operating temperature of the plant
- Design and operating pressure of the plant
- Composition of the flue gas
- Special requirements with regard to installation
- Gas velocity
- Dust content, fly ash, etc.

Each individual material layer of the expansion joint fulfills a specific requirement, determined by the joint's location in the duct system of the individual plant.

Within the temperature range of  $-65^{\circ}$  C to +  $1400^{\circ}$  C, the individual types of expansion joints are custom-made to suit the required application, with regard to :

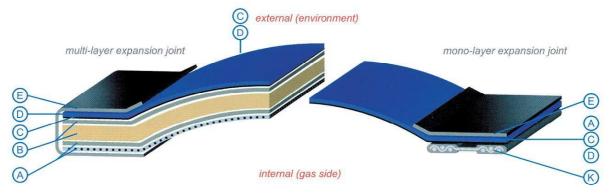
- Choice of materials and composition
- Fastening or tightening method
- Steel parts and steel quality
- Insulation (bolster)
- Mechanical protection against abrasion (sleeve arrangement)
- Fabric expansion joint alone or pre-assembled on steel parts

Tozen have defined a number of standard types of expansion joints, which suit 85% of all applications, i.e. standard types that can be used for certain temperatures, media, or familiar operating conditions, with only very few adjustments. The standard types can be manufactured to order in all the necessary shapes and forms according to customer drawing, e.g. round, rectangular, oval, conical or combinations.









- A Containing layers
- B Thermal damping layer
- C Chemical resistance layer and outer-cover
- D Chemical resistance layer and outer-cover
- E Closing layer and edge reinforcement
- K Flanging area sealing gasket (gas/tight)

# VARIOUS SHAPES OF FABRIC EXPANSION JOINT For any other shapes, please consult us.

### **SERVICE**

Our products are designed to ensure easy assembly on the building site. We do, however, provide excellent Customer Service thanks to Tozen installation engineers specialized team, capable of working alongside and supporting the customer during the various phases of the assembly of an expansion joint.

Training courses on the installation and splicing of our expansion joints are also provided.



"It is absolutely essential to have the right joint in the right place, but it must, of course, be installed correctly!"

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