3.8 Expansion Joints

- **Applicability**
  Expansion joints should be installed at all locations as specified by the designer. Note however that expansion joints in the Firestone EPDM systems are easy to install. Expansion joints have an extreme durability due to the high elasticity of the EPDM membrane, its high resistance to tear and long life performance when exposed to intense sunlight and external weather conditions, provided the detail is installed in accordance with the following instructions.

- **Installation Instructions**
  In ballasted systems, the insulation boards may bridge the expansion joint since both the loose laid insulation boards and the EPDM membrane can easily accommodate the building movements. The joint shall be covered with a galvanized sheet metal (min. thickness 1.0 mm) fastened at one side. In all other systems, the EPDM membrane should be mechanically attached at both sides of the expansion joint using Firestone batten strips and appropriate fasteners, 300 mm on centre. Do not cross the joint with a batten strip. Ensure enough excess of EPDM membrane to accommodate building movement. A compressible tube supports the membrane. The diameter of the insulation tube must exceed the deck or insulation opening by minimum 50 mm.

  Flash both batten strips with a non-reinforced EPDM cover piece using standard seaming techniques. All seams crossing the expansion joint need to be flashed in with a QuickSeam patch. Flat expansion joints can be installed as illustrated below. Refer to the detail drawings at the end of this document for additional information with regard to other types of expansion joints.

*Flat expansion joints*

**Ballasted/Inverted systems**

**Adhered / R.M.A. / M.A.S. / B.I.S. systems**

![Fig. 3.8.1](image1.png)  
![Fig. 3.8.2](image2.png)
Expansion joint at junction between roof deck and vertical wall.

Seams in the EPDM cover piece should be flashed in with a strip of Quick Seam Form Flash as illustrated below.