

Head Insulation, Securement and Cover Fabrication

Head insulation on large diameter vessels must follow the curvature of the vessel head as opposed to the head treatment illustrated on *Plate 4-120*. Securement of the insulation material can follow the applications illustrated on *Plate 4-610* for bottom heads, or it can be secured with a floating ring of cable as illustrated here. Weatherproofing of the head can be a fabricated protective jacket, or layers of reinforced mastic. Rigid blocks or board are recommended on flat vessel heads where foot traffic is likely.

Detail **A** — Floating ring of bands and cable

Detail **B** — Floating ring of bands and cable (Detail)

Detail **C** — Fabrication of metal head insulation cover

Detail **D** — Insulation of flat vessel head with I-beams and walkway

Materials: Cable, bands, jacketing, mechanical fasteners, insulation, mastic and reinforcing mesh.

1. Vessel wall.
2. Insulation.
3. Floating ring of cable.
4. Bands.
5. Shell insulation.
6. Insulation support ring (not required for horizontal vessels).
7. Expansion joint between support ring and shell insulation packed with insulation.
8. Jacketing cut in gores, to overlap and conform to the surface of the head insulation.
9. Band at base of head insulation cover.
10. Mechanical fasteners.
11. Heavy density insulation for walkway.
12. Reinforced mastic over flashing.
13. Caulking and flashing as required; installed to insure water runoff away from insulation system.
14. Banding to secure rim angle.
15. Metal I-beams used to stiffen structure (by others).

