

Free Standing Vessel - Steel (Concept 1E):

1. Design Basis: API 620, 10th Ed, ADD 1, 2004.
Design and Construction of Large, Welded,
Low-Pressure Storage Tanks
2. Steel: Wall ASTM A516, Bottom ASTM A283, A285,
or A36
3. Butt welds from both sides, vertical and
circumferential joints
4. Thickness based on 100% efficiency of vertical
joints and complete radiographic inspection.
Circumferential joints may be spot radiographed

Free Standing Vessel - Steel (Concept 1F):

1. Design Basis: API 620, 10th Ed, ADD 1, 2004.
Design and Construction of Large, Welded,
Low-Pressure Storage Tanks
2. Joint efficiency of 85% requires spot radiographic
inspection

Free Standing Vessel - Steel (Concept 1G):

1. Design Basis: ASME Boiler and Pressure Vessel
Code Section VIII Division 2
2. Steel ASTM A517 High Alloy Quenched and
Tempered, Bottom steel same as 1E
3. Note 3 same as 1E
4. Welding in accordance with ASME Boiler and
Pressure Vessel Code, Section IX, Table
QW/QD-422 and the applicable welding procedure
specification

