

Procedures to correct for effective web area in way of openings

CSR Tank procedure

2.5 Geometrical Properties of Primary Support Members

2.5.1 Effective shear area of primary support members

2.5.1.1 For calculation of the shear area of primary support members the web height, h_w , is to be taken as the moulded height of the primary support member.

2.5.1.2 For single and double skin primary support members, the effective net web area, $A_{w-net50}$, is to be taken as:

$$A_{w-net50} = 0.01 h_n t_{w-net50} \quad \text{cm}^2$$

Where:

h_n for a single skin primary support member, see Figure 4.2.16, the effective web height, in mm, is to be taken as the lesser of:

- (a) h_w
- (b) $h_{n3} + h_{n4}$
- (c) $h_{n1} + h_{n2} + h_{n4}$

for a double skin primary support member, the same principle is to be adopted in determining the effective web height.

h_w web height of primary support member, in mm

$h_{n1}, h_{n2},$ as shown in Figure 4.2.16

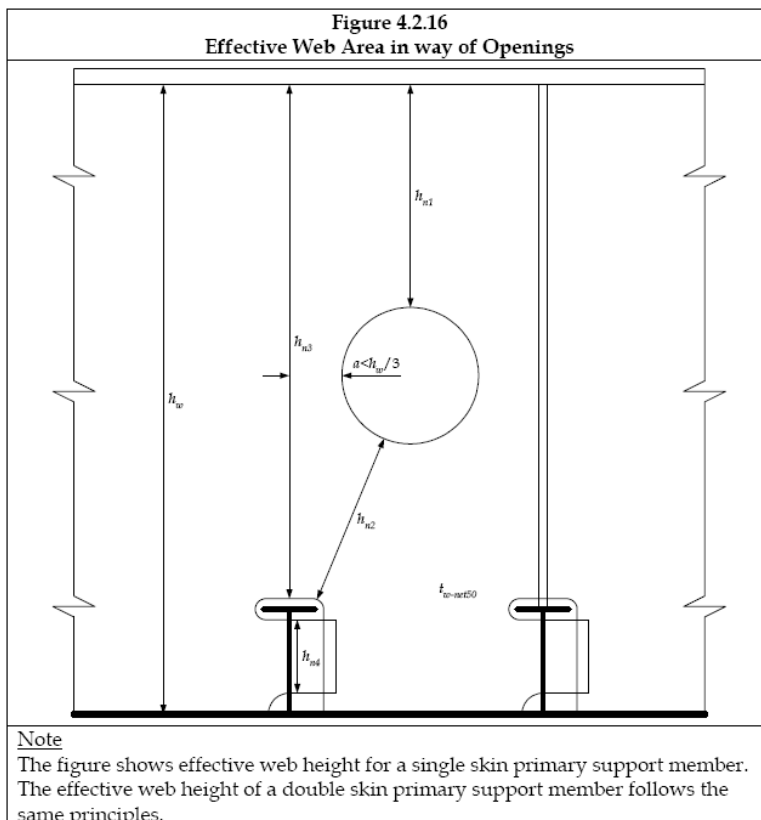
h_{n3}, h_{n4}

$t_{w-net50}$ net web thickness

$$= t_{w-grs} - 0.5 t_{corr} \quad \text{mm}$$

t_{w-grs} gross web thickness, in mm

t_{corr} corrosion addition, as given in Section 6/3.2, in mm



“Vertical method”

Shear area is adjusted based on the ratio $h_w/(h_{n1}+h_{n2})$ measured vertically.

