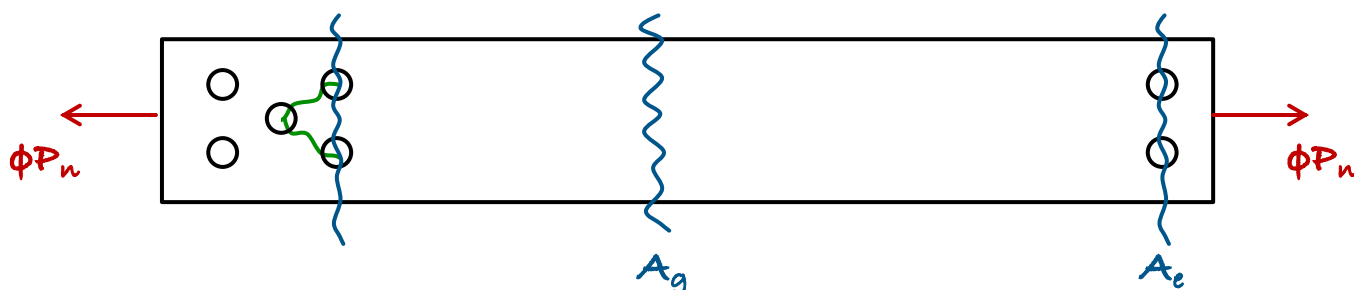
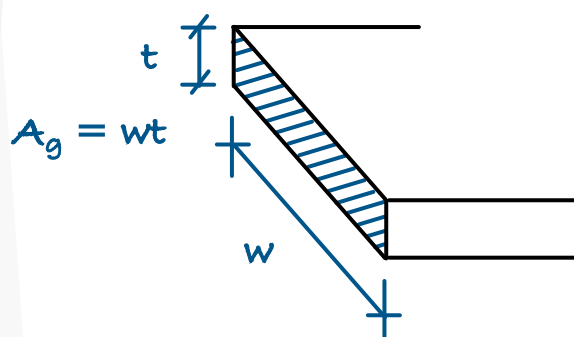


DESIGN OF MEMBERS FOR TENSION

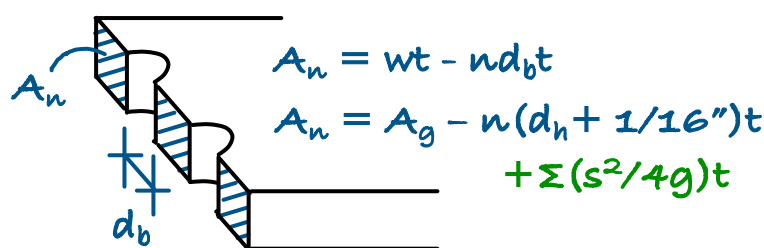
[AISC CH. D]



Gross Section [AISC Ch. B4.3a]



Net Section [AISC Ch. B4.3b]



Yielding [AISC Ch. D2]

$$P_u \leq \phi_t P_n$$

$$P_n = F_y A_g \quad \phi_t = 0.90 \text{ (LRFD)}$$

[AISC Eqn. D2-1]

$$P_u \leq \phi_t F_y A_g$$

Fracture / Rupture [AISC Ch. D2, D3]

$$P_u \leq \phi_t P_n$$

$$P_n = F_u A_e \quad \phi_t = 0.75 \text{ (LRFD)}$$

[AISC Eqn. D2-2]

$$P_u \leq \phi_t F_u A_e$$

$$A_e = A_n U$$

[AISC Eqn. D3-1]

$U = 1.0$ for plate to plate connections (Case 1)

[AISC Table D3.1]



UNIVERSITY
PROGRAMS