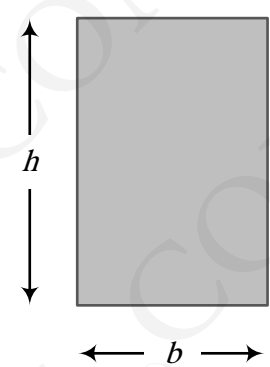
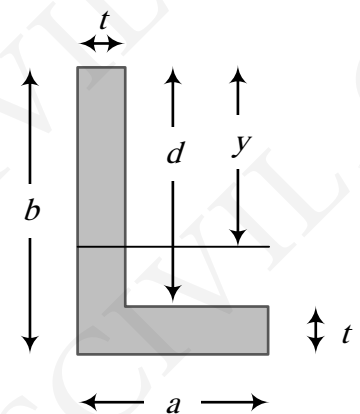
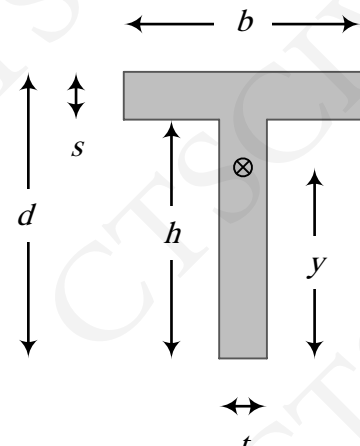
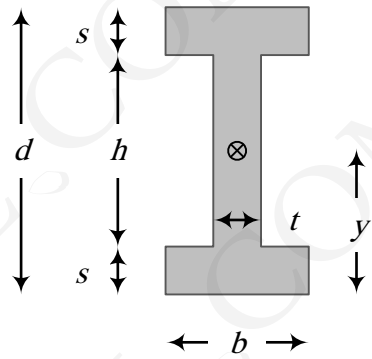


## Geometric Properties for Selects Beam Cross-Sections

Section	Area	Centroid	Moment of Inertia
	$A = bh$	$y = \frac{h}{2}$	$I = \frac{bh^3}{12}$
	$A = t(a + b - t)$	$y = \frac{t(2d + a) + d^2}{2(d + a)}$	$I = \frac{1}{3} [ty^3 + a(b - y)^3 - (a - t)(b - y - t)^3]$
	$A = bs + ht$	$y = d - \frac{d^2t + s^2(b - t)}{2(bs + ht)}$	$I = \frac{1}{3} [ty^3 + b(d - y)^3 - (b - t)(d - y - s)^3]$

### Geometric Properties for Selects Beam Cross-Sections

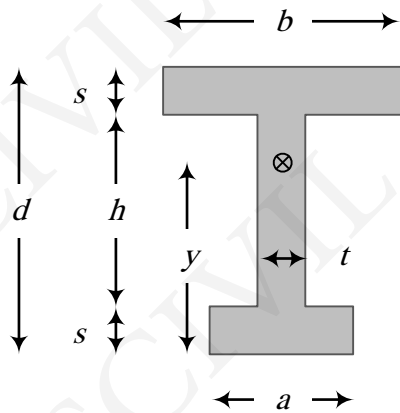
Section	Area	Centroid	Moment of Inertia
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$$A = bd - h(b - t)$$

$$y = \frac{d}{2}$$

$$I = \frac{bd^3 - h^3(b - t)}{12}$$



$$A = bs + ht + as$$

$$y = d - \frac{1}{2A} [td^2 + s^2(b - t) + s(a - t)(2d - s)]$$

$$I = \frac{1}{3} [b(d - y)^3 + ay^3 - (b - t)(d - y - s)^3] - \frac{1}{3} [(a - t)(y - s)^3]$$