

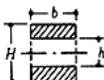


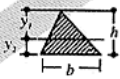
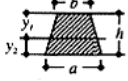
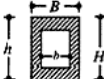

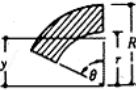



GEOMETRICAL PROPERTIES OF SECTIONS

Section	Centroid axis from edge: y cm	Moment of inertia: J cm ⁴	Section modulus: Z cm ³
	$\frac{h}{2}$	$\frac{bh^3}{12}$	$\frac{bh^2}{6}$
	$\frac{h}{\sqrt{2}}$	$\frac{h^4}{12}$	$\frac{\sqrt{2}h^3}{12}$
	$\frac{H}{2}$	$\frac{b}{12} (H^3 - h^3)$	$\frac{b}{6H} (H^3 - h^3)$
	$\frac{D}{2}$	$\frac{\pi D^4}{64}$	$\frac{\pi D^3}{32}$
	0.924 R	0.6381 R ⁴	0.6906 R ³
	$y_1 = \frac{2h}{3}$ $y_2 = \frac{h}{3}$	$\frac{bh^3}{36}$	$Z_1 = \frac{bh^2}{24}$ $Z_2 = \frac{bh^2}{12}$
	$y_1 = \frac{1}{3} \frac{2a+b}{a+b} h$	$\frac{a^2+4ab+b^2}{36(a+b)} h^3$	$Z_1 = \frac{a^2+4ab+b^2}{12(2a+b)} h^2$
	$\frac{H}{2}$	$\frac{BH^3 - bh^3}{12}$	$\frac{BH^3 - bh^3}{6H}$
	$R = \frac{D}{2}$	$\frac{\pi}{4} (R^4 - r^4)$	$\frac{\pi}{4} \frac{R^4 - r^4}{R}$ Around Upper Section
	$\frac{2(R^3 - r^3)}{3(R^2 - r^2)} \frac{\sin\theta}{\theta}$	$\frac{R^4 - r^4}{8} (\theta + \sin\theta \cdot \cos\theta)$ $\frac{-2(R^3 - r^3)^2}{9(R^2 - r^2)^2} \frac{\sin^2\theta}{\theta}$	Around Upper Section $Z = \frac{J}{R - y}$ Around Lower Section $Z = \frac{J}{y - r \cos\theta}$
	0.9903 t	0.6364 t ⁴	Around Upper Section 0.6303 t ³