

SUMMARY
THIN AIRFOIL THEORY

PARAMETER	SYMMETRIC AIRFOIL	CAMBERED AIRFOIL
LIFT COEFFICIENT, C_L	$2\pi\alpha$	$2\pi \left[\alpha + \frac{1}{\pi} \int_0^\pi \left(\frac{dy}{dx} \right)_\theta^{MCL} (\cos\theta - 1) d\theta \right]$
C_L SLOPE VS. α	2π	2π
CENTER OF PRESSURE, x_{cp}	$c/4$	$c/4 - \frac{\pi c}{4} \frac{A_2 - A_1}{C_L}$
C_{mLE}	$-\frac{\pi\alpha}{2} = -\frac{C_L}{4}$	$-C_L/4 + \frac{1}{4}\pi(A_2 - A_1)$
x_{ac}	$c/4$	$c/4$
C_{mac}	0	$\frac{1}{2} \int_0^{\pi/2} \left(\frac{dy}{dx} \right)_\theta^{MCL} (\cos 2\theta - \cos\theta) d\theta$
ANGLE OF ZERO LIFT, α_0	0	$-\frac{1}{\pi} \int_0^\pi \left(\frac{dy}{dx} \right)_\theta^{MCL} (\cos\theta - 1) d\theta$

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