

Current 409 Valor Hardtop Cross-section

Cross-section tested at 70 mph (31.2928 m/s) in COMSOL at three different angles of attack.

Angle of Attack, α (degrees)	0°	2.5°	5°
Lift (N/m)	1131.9	2237.8	3241.5
Drag (N/m)	32.498	49.169	142.84

NACA 6409 Airfoil, 25% thickness cross-section

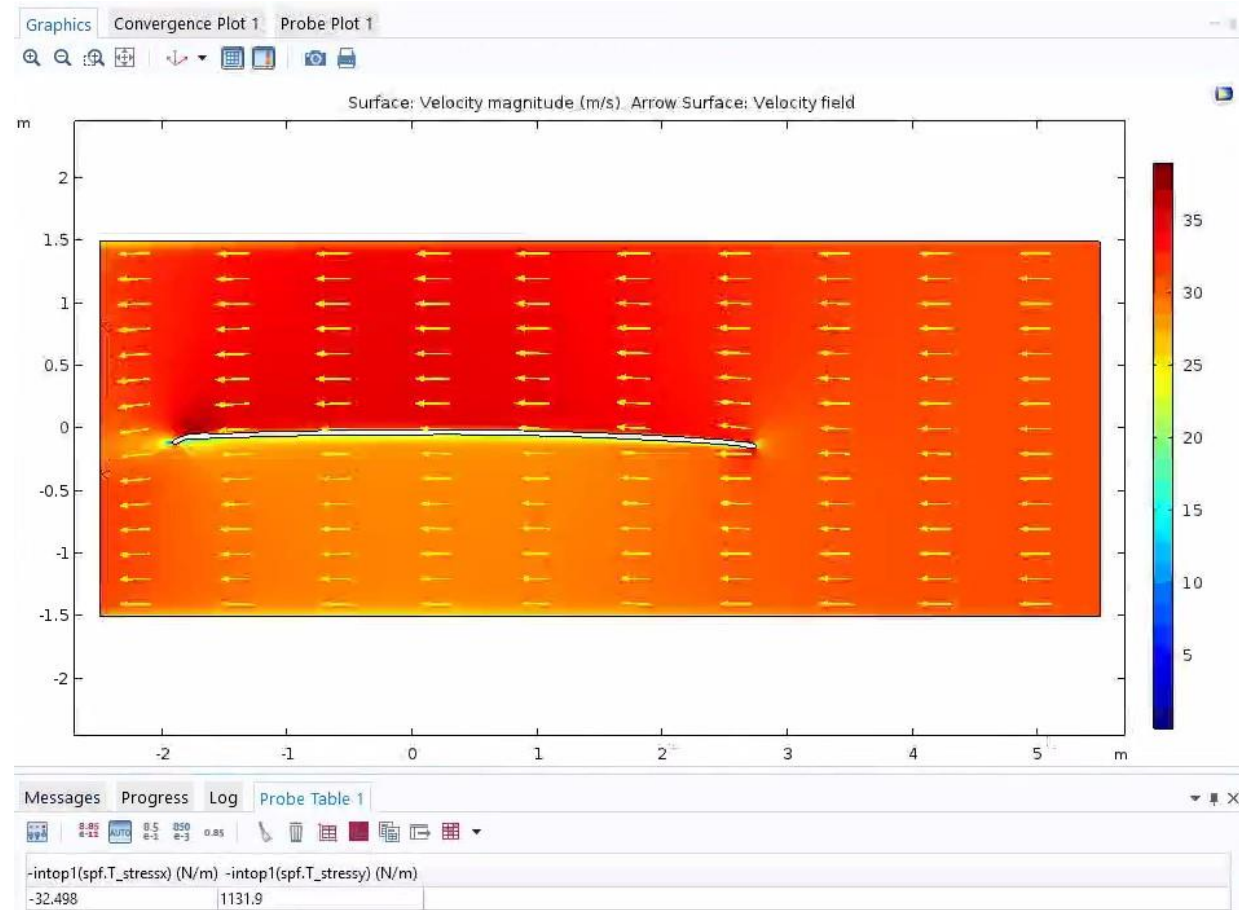
Cross-section tested at 70 mph (31.2928 m/s) in COMSOL at three different angles of attack.

Angle of Attack, α (degrees)	0°	2.5°	5°
Lift (N/m)	646.66	1893.9	3129.3
Drag (N/m)	12.826	51.620	194.58

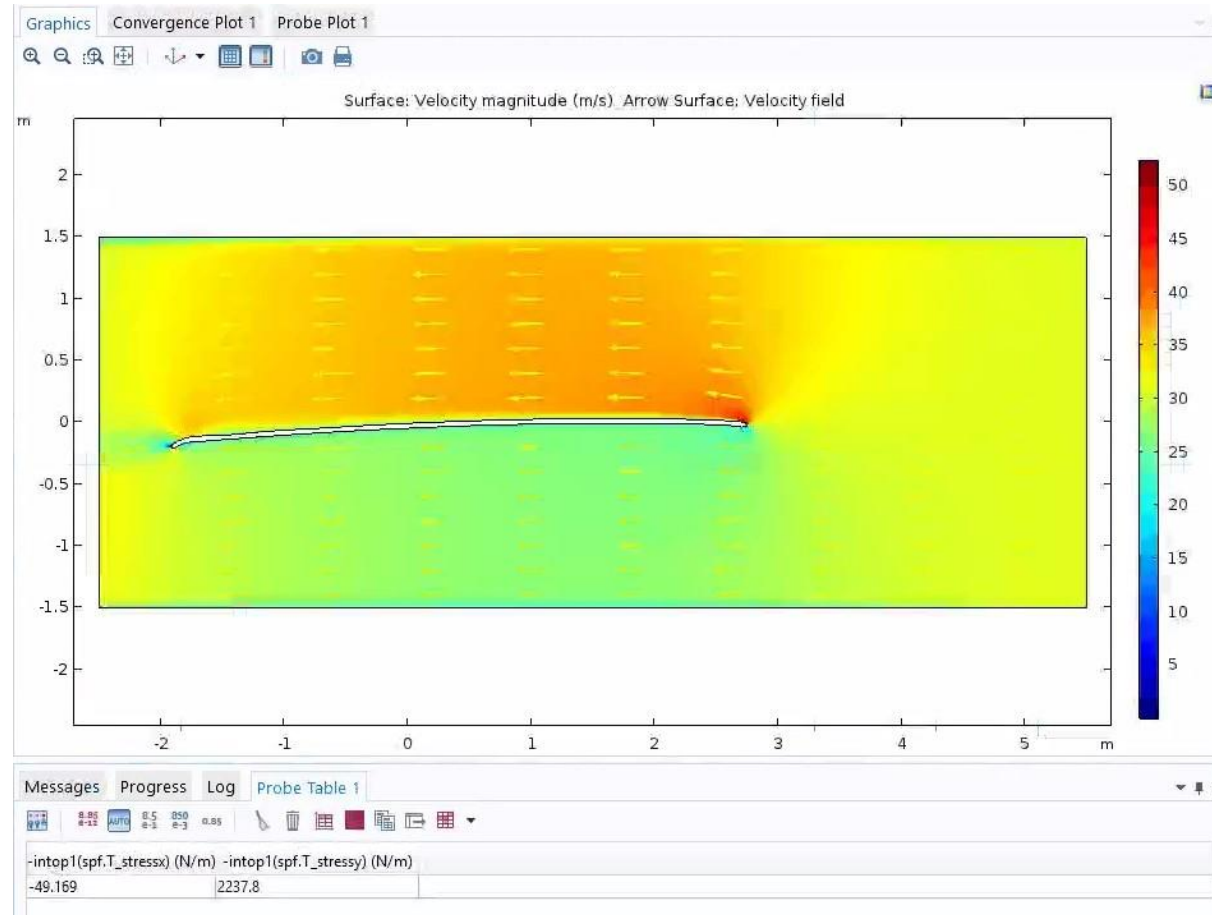
At all angles of attack, the current hard top cross-section generates more lift than a NACA 6409 airfoil at 25% thickness.

At $\alpha = 0^\circ$, the NACA 6409 @ 25% thickness generates lower drag than the current hardtop. At all other angles of attack, the current hardtop generates less drag than the NACA 6409 at 25% thickness.

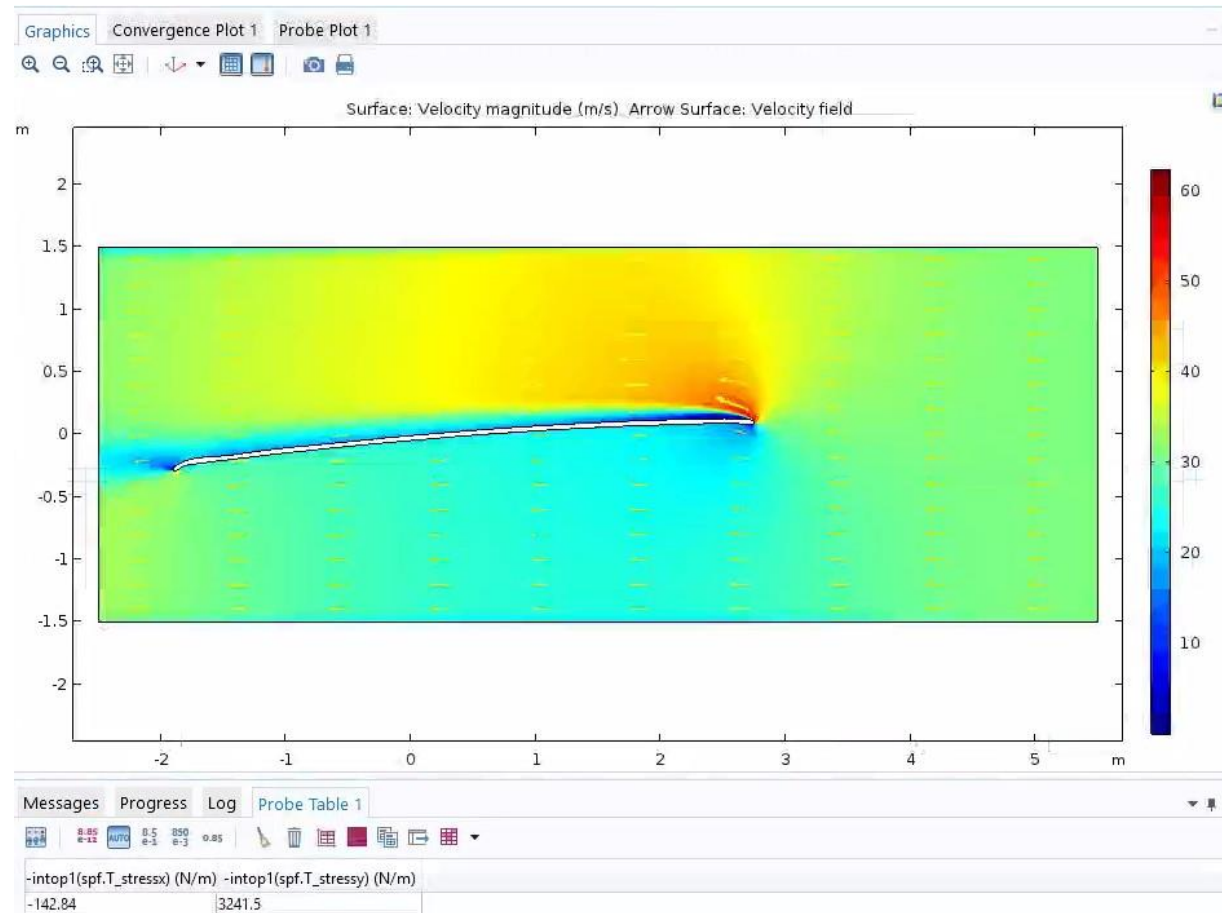
Current Hardtop Cross-Section @ $\alpha = 0^\circ$



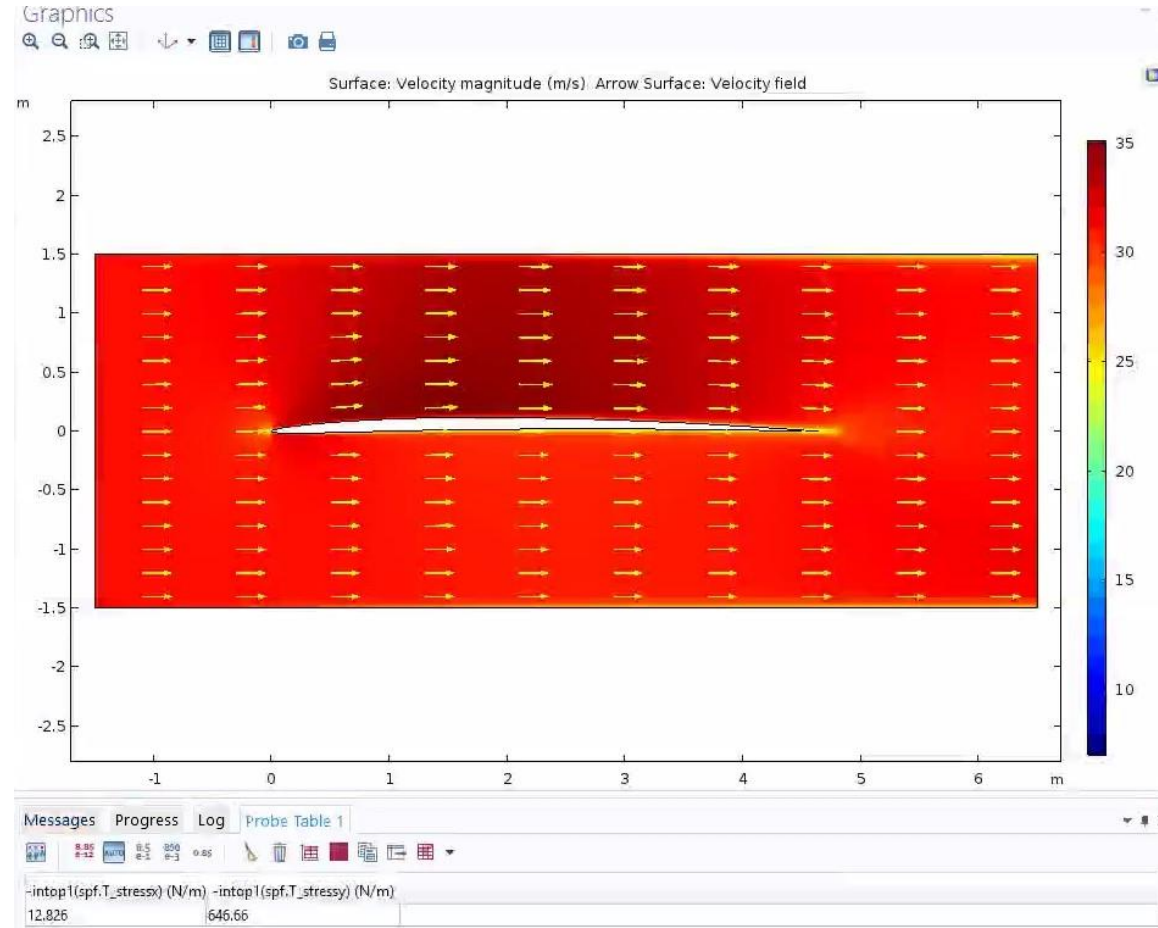
Current Hardtop Cross-Section @ $\alpha = 2.5^\circ$



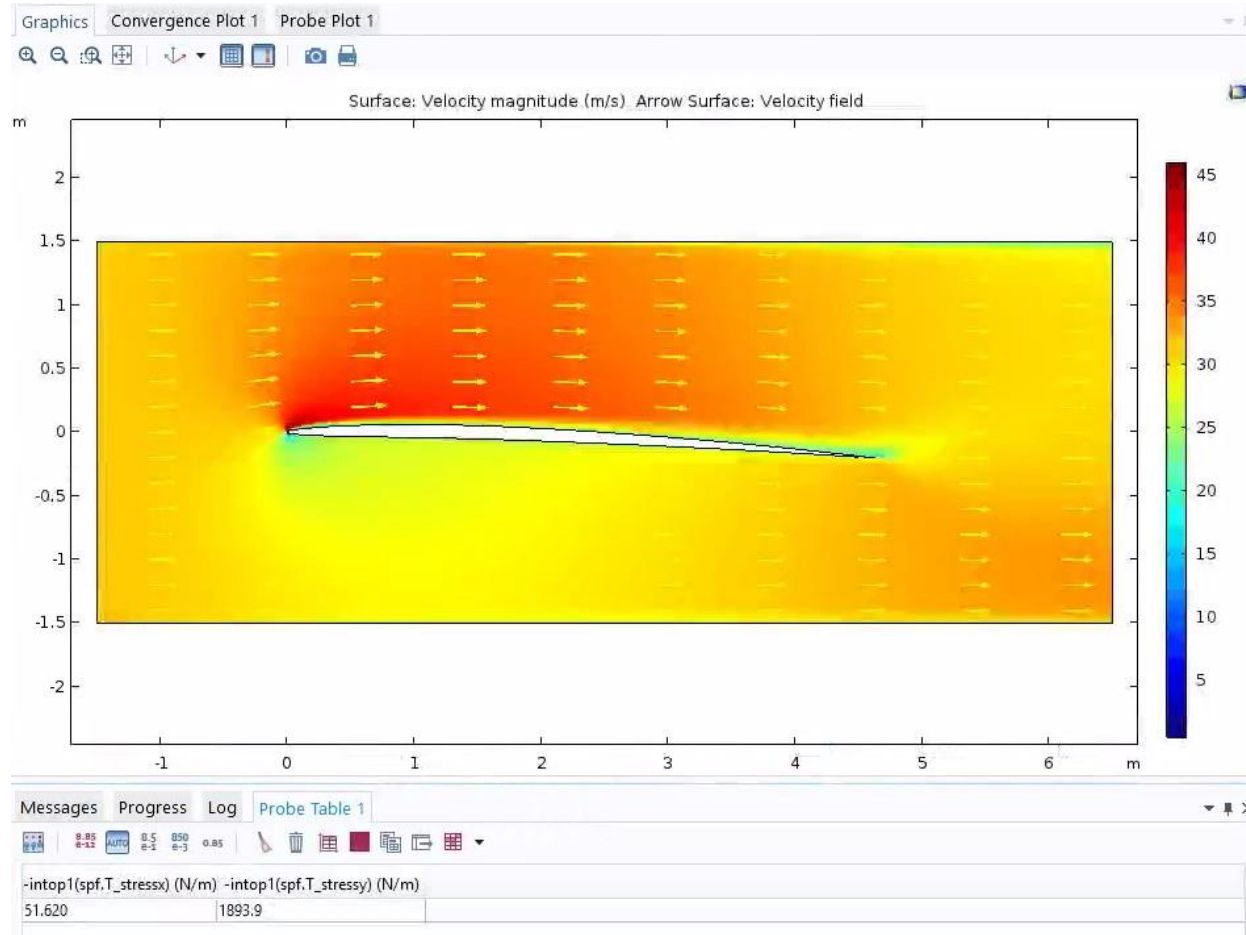
Current Hardtop Cross-Section @ $\alpha = 5^\circ$



NACA 6409 25% Thickness C.S. @ $\alpha = 0^\circ$



NACA 6409 25% Thickness C.S. @ $\alpha = 2.5^\circ$



NACA 6409 25% Thickness C.S. @ $\alpha = 5^\circ$

