Universal 310mm Chord High Downforce Carbon Rear Wing

The data given below was produced by Easy CFD_G software, all other widths have been calculated only using the wing width approximation formula. The wing profile was designed to give a range of downforce levels from moderate to reasonably high, depending on the deployed angle of attack and chosen span, with very good efficiency in terms of downforce to drag ratio.

Calculated forces at different spans and angles, taking into account efficiencies at different spans
Air speed 44.7m/s (100mph) freestream.

*** Data marked in red show that the wing has either stalled or was close to stalling and has been omitted from the graphs ***

	1000mm Wingspan				1245mm Wingspan			
AoA	**Downforce (N)**	**Drag (N)**	**L/D**	**BHP Absorbed**	**Downforce (N)**	**Drag (N)**	**L/D**	**BHP Absorbed**
4	473	39	12.1	2.3	589	49	11.5	2.9
8	613	43	14.3	2.6	763	54	8.9	3.2
12	712	62	11.5	3.7	886	77	7.6	4.6
14	763	73	10.5	4.4	950	91	7.0	5.4
16	802	82	9.8	4.9	998	102	6.5	6.1
18	828	95	8.7	5.7	1031	118	6.1	7.0
	1400mm Wingspan				**1700mm Wingspan**			
AoA	**Downforce (N)**	**Drag (N)**	**L/D**	**BHP Absorbed**	**Downforce (N)**	**Drag (N)**	**L/D**	**BHP Absorbed**
4	662	55	11.5	3.3	804	66	11.5	4.0
8	858	60	8.9	3.6	1042	73	8.9	4.4
12	997	87	7.6	5.2	1210	105	7.6	6.3
14	1068	102	7.0	6.1	1297	124	7.0	7.4
16	1123	115	6.5	6.8	1363	139	6.5	8.3
18	1159	133	6.1	7.9	1408	162	6.1	9.6

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Essex, CO1 2HG, UK
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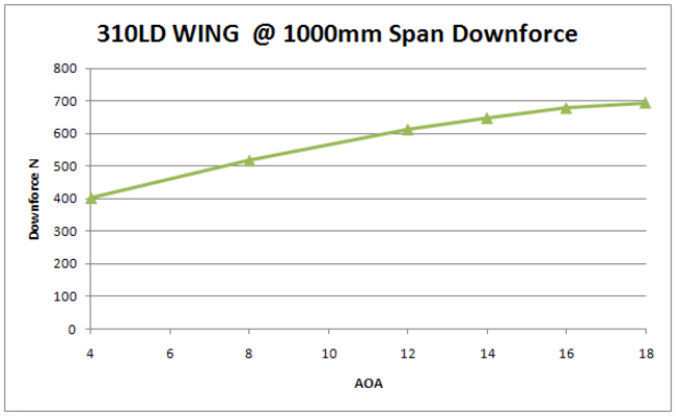

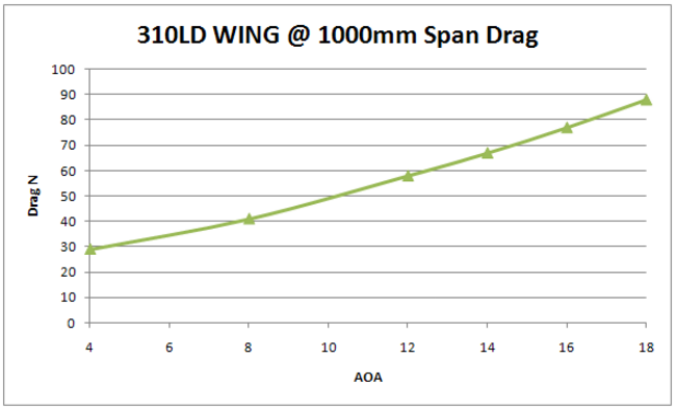

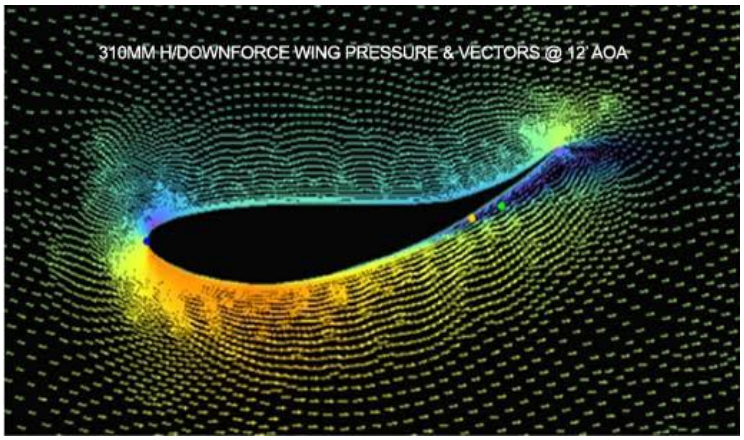

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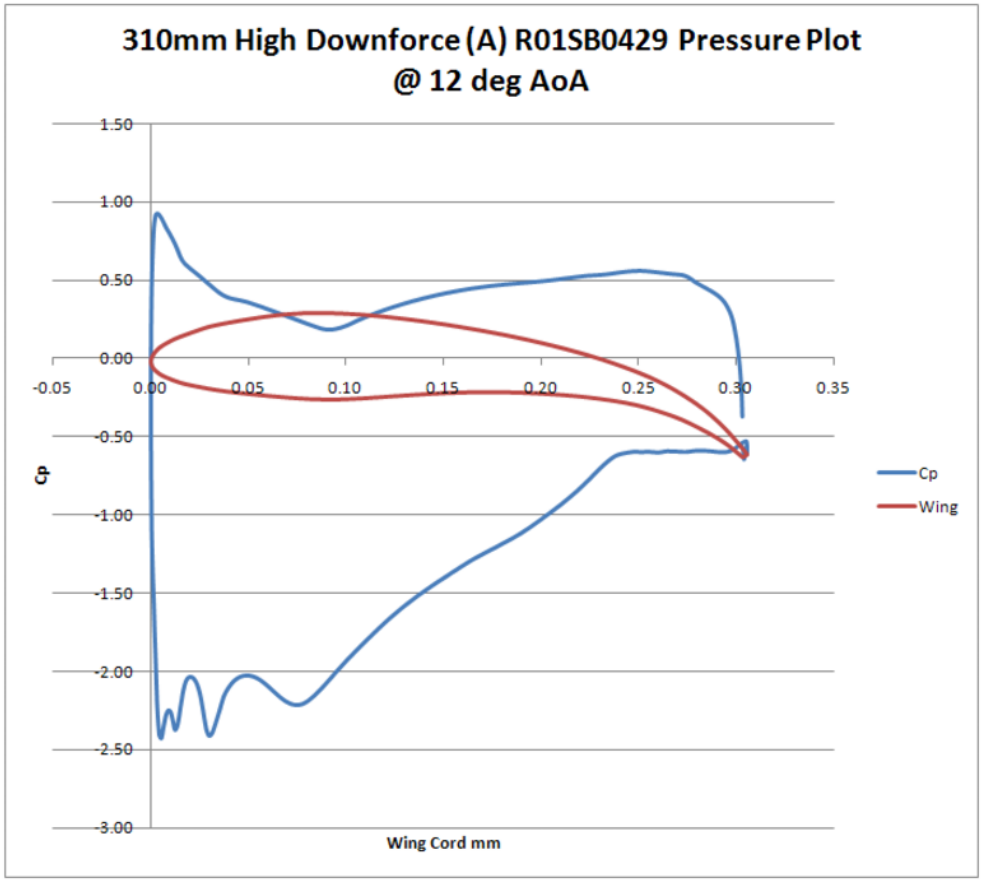

310mm High Downforce Wing cross section drawing
Top and Bottom T mount brackets shown

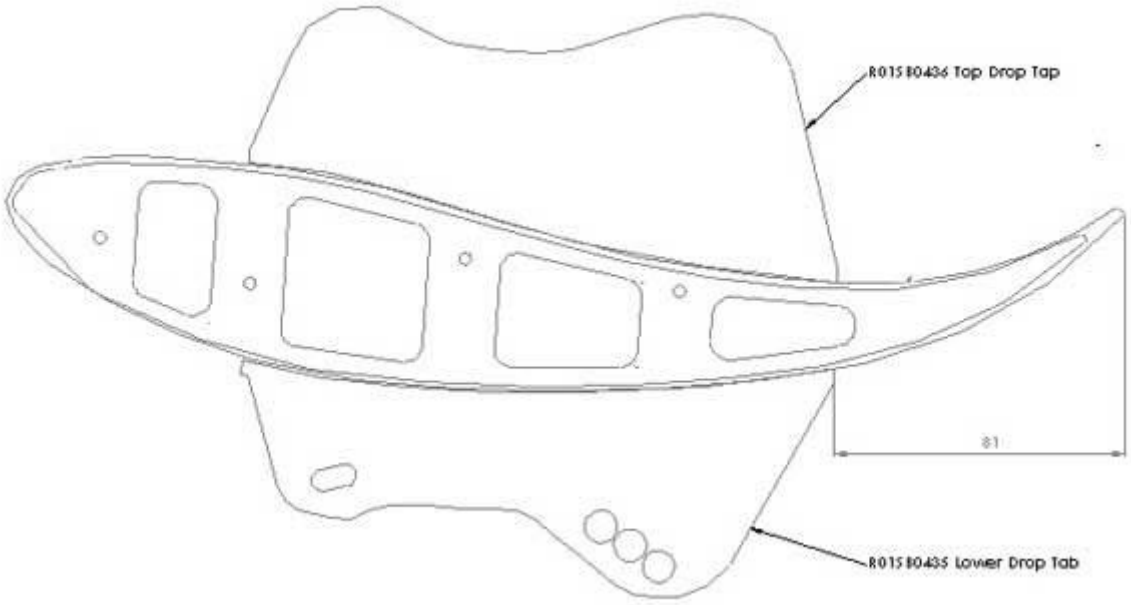

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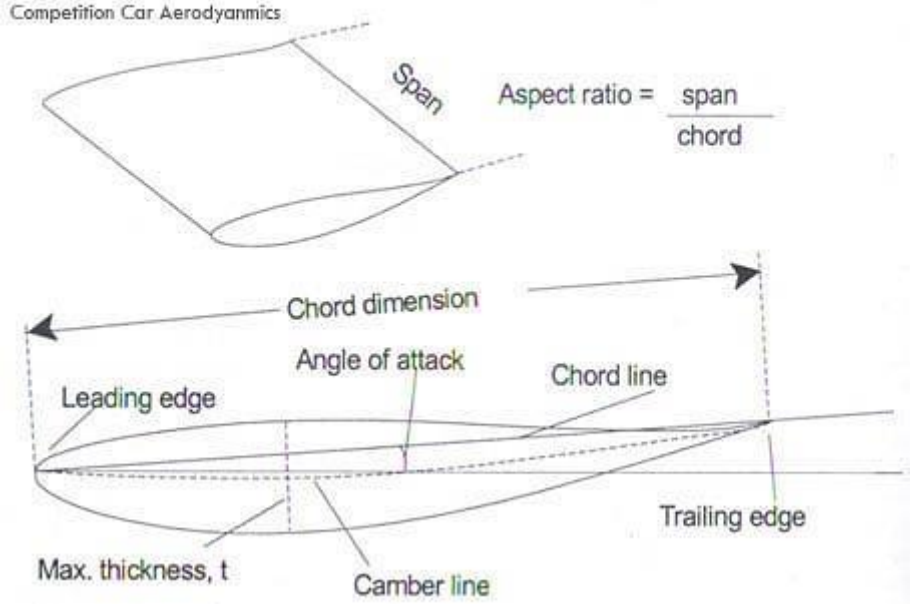
Figure 5-1 *Wing terminology.*

Image courtesy of Simon McBeath
Competition Car Aerodyanmics



ORDERING INFORMATION

These autoclaved carbon fibre wings feature internal longitudinal stringers and alloy end spars with 4x M4 threaded inserts for mounting between supports or for affixing end plates. The wing comes supplied with support tabs (top or bottom mounted please specify), rivets and adhesive for post or pillar mounting. Alternatively the end plates can be removed & the wing mounted between wing uprights.

Also specify any special end-mount fixing details when ordering.

You may also like to order the optional 5mm or 10mm high gurney flaps. These can improve the lift / drag performance and reduce the onset of stall at higher angles of attack. These can be bonded on with adhesive or in some cases a high strength double-sided tape with suitable surface preparation. These can be purchased at a later date if required. Replacement end plates are also available separately.