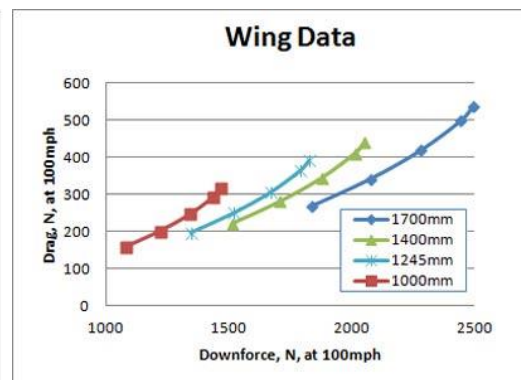
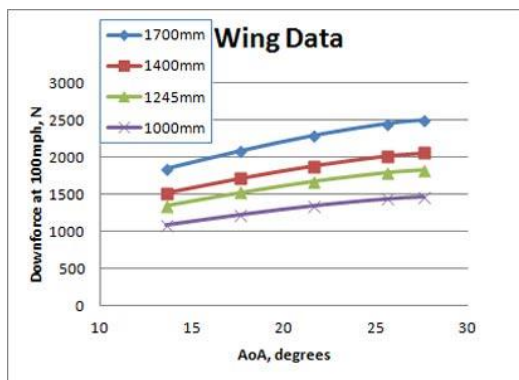


UNIVERSAL DUAL-ELEMENT 300MM + 150MM CHORD CARBON REAR WING

The 1700mm data given was produced by Ansys CFD-Flo software, all other widths have been calculated only using the wing width approximation formula found in our FAQ document. 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.

*** 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
13.6	1082	158	6.9	9.4	1347	197	6.9	11.7
27.6	1221	201	6.1	11.9	1520	250	6.1	14.9
21.6	1343	246	5.5	14.7	1672	307	5.5	18.3
25.6	1438	293	4.9	17.5	1791	365	4.9	21.7
27.6	1467	315	4.7	18.7	1826	392	4.7	23.3
29.6	1047	314	3.3	18.7	1303	391	3.3	23.3
	1400mm Wingspan				1700mm Wingspan			
AoA	Downforce (N)	Drag (N)	L/D	BHP Absorbed	Downforce (N)	Drag (N)	L/D	BHP Absorbed
13.6	1515	221	6.9	13.2	1839	268	6.9	16.0
17.6	1709	281	6.1	16.7	2076	341	6.1	20.3
21.6	1881	345	5.5	20.6	2284	419	5.5	25.0
25.6	2014	410	4.9	24.4	2445	498	4.9	29.7
27.6	2054	440	4.7	26.2	2497	535	4.7	31.9
29.6	1466	439	3.3	26.2	1780	534	3.3	31.8



To Scale a Force to a Different Speed:

We will use the Notched end plate design figure at 100MPH from above. Then scale it to 150MPH.

New Force (N) = Original Force (N) x (New Speed² (MPH) ÷ Data Speed² (MPH))

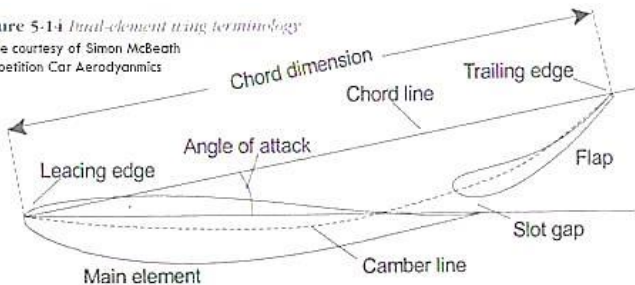
New Force = 937.2 x ((150 x 150) ÷ (100 x 100))

New Force = 937.2 x 2.25

New Force = 2108.7

Figure 5-14 Dual-element wing terminology

Image courtesy of Simon McBeath
Competition Car Aerodynamics



ORDERING INFORMATION

The wings feature internal longitudinal stringers and end spars with 6x M5 threaded inserts for mounting between supports or for affixing end plates. The wing comes supplied with support tabs, 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.

Tested with flap nose to trailing edge main plane overlap 20mm and slot height 12.5mm. This relationship can be changed upon request for packaging or performance as you require.