### TECHNICAL DATA

### COMPARISON OF DOWNFORCE VS DRAG BETWEEN WING TYPES

All data shown is based on a wing length of 1000mm and test speed 100mph. Generally lift over drag improves as span increases, but a good endownforce and drag can be obtained by multiplying the 1 metre data show below by the span of interest in metres

To convert drag into BHP absorbed use the following formula, Bhp absorbed =  $(2 \times Drag (N) \times Speed (m/s)) \div 1500$  Conversion for Mph to m/s 1 mph = 0.447 m/s



110MM CHORD



150MM CHORD

| AOA | Downforce (N) | Drag (N) | L/D | BHP Absorbed | Downforce (N) | Drag (N) | L/D | BHP Absorbed |
|-----|---------------|----------|-----|--------------|---------------|----------|-----|--------------|
| 5   | 174           | 19       | 9.5 | 1.1          | 205           | 26       | 7.9 | 1.5          |
| 10  | 224           | 28       | 8.0 | 1.7          | 281           | 38       | 7.4 | 2.3          |
| 15  | 269           | 40       | 6.7 | 2.4          | 344           | 77       | 6.4 | 3.2          |
| 20  | 295           | 52       | 5.7 | 3.1          | 386           | 102      | 5.4 | 4.3          |



225MM CHORD



300MM CHORD

| AOA      | Downforce (N) | Drag (N) | L/D | BHP Absorbed | Downforce (N) | Drag (N) | L/D | BHP Absorbed |
|----------|---------------|----------|-----|--------------|---------------|----------|-----|--------------|
| 4        | 399           | 59       | 6.7 | 3.5          | 437           | 51       | 8.6 | 3.0          |
| 8        | 437           | 73       | 6.0 | 4.4          | 526           | 71       | 7.4 | 4.2          |
| 12       | 530           | 95       | 5.6 | 5.7          | 609           | 94       | 6.5 | 5.6          |
| 16 VERIE | 572           | 115      | 5.0 | 6.9          | 681           | 121      | 5.6 | 7.2          |
|          |               |          | d   |              |               |          |     |              |



225MM CHORD WITH 150MM FLAP

| AOA | Downforce (N) | Drag (N) | L/D | BHP Absorbed | Downforce (N) | Drag (N) | L/D | BHP Absorbed |
|-----|---------------|----------|-----|--------------|---------------|----------|-----|--------------|
| 16  | 809           | 184      | 4.4 | 11.0         | 878           | 200      | 4.4 | 11.9         |
| 18  | 850           | 201      | 4.2 | 12.0         | 920           | 220      | 4.2 | 13.1         |
| 20  | 894           | 221      | 4.1 | 13.2         | 966           | 242      | 4.0 | 14.4         |
| 22  | 930           | 240      | 3.9 | 14.3         | 1013          | 264      | 3.8 | 15.7         |



300MM CHORD WITH 110MM FLAP



300MM CHORD WITH 150MM FLAP

| AOA | Downforce (N) | Drag (N) | L/D | BHP Absorbed | AOA  | Downforce (N) | Drag (N) | L/D | BHP Absorbed |
|-----|---------------|----------|-----|--------------|------|---------------|----------|-----|--------------|
| 12  | 828           | 142      | 5.8 | 8.5          | 9.5  | 831           | 145      | 5.7 | 8.7          |
| 14  | 885           | 164      | 5.4 | 9.8          | 13.5 | 908           | 179      | 5.1 | 10.7         |
| 16  | 936           | 178      | 5.3 | 10.6         | 17.5 | 1019          | 223      | 4.6 | 13.3         |
| 18  | 979           | 203      | 4.8 | 12.1         | 21.5 | 1139          | 273      | 4.2 | 16.3         |

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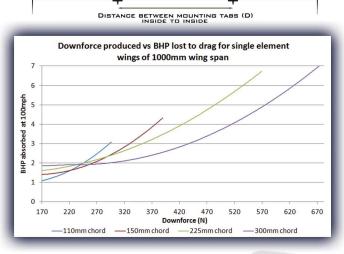
### ERIE **AERODYNAMICS**

### SINGLE ELEMENT UNIVERSAL WINGS

For CFD data including wind tunel test results for our wings please visit www.reverie.ltd.uk/techdata.php WING SPAN (UP TO 1800MM)

When ordering please specify, wing span, required distance between drop tabs (D) or end mount

1 1720mm curved radius available up to 1800mm wide, with 110, 150 or 225mm chord length, end or drop tab mounted 1 225mm chord with drop tabs R01SB0162 225mm chord end mounted R01SB0357 150mm chord with drop tabs R01SB0200 110mm chord with drop tabs 2 225mm chord drop end1220mm wide R01SB0310





High downforce 300mm chord up to 1700mm wide available with or without end plates and drop mounting tabs

3 300mm with end plates and mounting tabs R01SB0347 300mm no end plates or mounting tabs

Straight wing drop or end mounted 110, 150 or 225mm chord available up to 1800mm wide R01SB0358

225mm chord for end mounts 225mm chord with drop tab mounts 150mm chord 110mm chord

R01SB0163 R01SB0201 R01SB0207



300mm High DOWNFORCE WING ON LOTUS 2-ELEVEN



### WING ACCESSORIES







Wing mount tab mounts, available for Universal 200mm alloy top mount 110/150mm chord, top adjustable wing mounts for flat surfaces

mount 300mm chord rear wings 5 Tabs for 300mm chord rear wings R01SB0267

mount 225mm chord and base

Tabs for 150mm chord front wings Tabs for 225mm chord front wings R01SB0326 R01SB0363 R01SB0264



### Rear wing gurney flaps for straight or curved wings

90° R01SU0149 Straight 10 x 5mm Straight 10 x 10mm R01SU0150 Straight 15 x 5mm Straight 15 x 10mm R01SU0086 R01SU0087 110° 110° Curved 10 x 5mm Curved 10 x 10mm R01SU0151 R01SU0152



wing end plates bespoke end plate service available please enquire when ordering

> 300mm R01SB0268 225mm R01SB0257



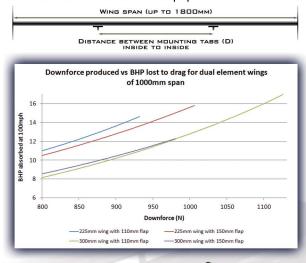
## REVERIE

### DUAL ELEMENT UNIVERSAL WINGS

For CFD data including wind tunel test results for our wings please visit www.reverie.ltd.uk/techdata.php

When ordering please specify wing span, required distance between drop tabs  $(\mathsf{D})$  or end mount.







225mm chord main wing with either 110mm or 150mm adjustable flap. Produces 1858N of downforce at 100mph when angle of attack is 22° with span of 1800mm. Maximum span 1800mm

225mm chord main with 110mm flap 2 225mm chord main with 150mm flap R01SB0211 R01SB0209



300mm chord main wing with either 110mm or 150mm adjustable flap. Produces 1936N of downforce at 100mph when angle of attack is 21.5° with span of 1700mm. Maximum span 1700mm

3 300mm chord main wing with 110mm flap 300mm chord main wing with 150mm flap

R01SB0273 R01SB0272

### REAR WING ACCESSORIES



Wing drop tab mounts, for 300mm chord rear wings R01SB0267



Universal 200mm alloy adjustable wing mounts for flat surfaces R01SB0264



### Rear wing gurney flaps for straight or curved wings

| Straight | 10 x | 5mm  | 90°  | R01SU0149 |
|----------|------|------|------|-----------|
| Straight | 10 x | 10mm | 90°  | R01SU0150 |
| Straight | 15 x | 5mm  | 110° | R01SU0086 |
| Straight | 15 x | 10mm | 110° | R01SU0087 |
| Curved   | 10 x | 5mm  | 90°  | R01SU0151 |
| Curved   | 10 x | 10mm | 90°  | R01SU0152 |