

BENCHMARKING

Top 5 Germany



- Small front end plates with gurney along top and bottom.
- Wing lets along the side means more downforce
- Large end plates (bad in yaw)
- Radiator at the back



- Double element down the middle, double along wheels
- Triple along side
- Looks to be 50-60mm ground clearance
- A arm from nose to wing
- 4arms holding wing up
- Gurney on rear endplates

GFR



- Roll hoop goes to top of wing



- Looks like Double element rear with a wing underneath it all
- Very small side end plates, they cover the bottom (maybe creating a larger low pressure region) and let air flow over the top



- One large diffuser with a single channel
- Looks like 2 sets of rear wings



- Triple element between tire and chassis, double in front of tire
- Large inlet side pods and small outlet
- Wing lets down side
- Triple element on rear wing
- Swan neck from roll hoop to rear wing

Stuttgart U



- Gurney on end plates
- Guide wire to edge of wing
- Swan neck that has material taken out to make light
- 50mm ground clearance
- Side wings go above tire
- High nose



- Makes it look like the 2nd and 3rd element are different chord lengths
- Small diffuser
- Exit of side pod is small
- Unsprung wings
- Driver is very low



- Wings follow the shape of the chassis
- Mounts underneath the front nose
- Side pod inlet in between the tire



- No gurney
- Multiple bolt holes for adjustability
- Small rear end plates

Graz UAS



- Triple element between tire and chassis
- Small double element in front of tire (maybe angled in?)
- In wash end plates into side pod?
- Double element back



- Structural end plates
- No diffuser
- Side pod on one side only



- Front wings angled in
- Guide wire on wings
- Small wings in wash air onto tire/into side pod
- Plates between middle section extend to tip of main wing



- Fan blowing rear wing
- Side pod fan angled up – maybe blow rear wing as well



- Side pod end is very small



- End plates inbetween the tire and chassis go very high
- Side pod has diffuser with strakes underneath it
- Swan neck mounting
- Beam wing
- Inlet of side pod is angled down



Triple element between tire and chassis covering the side pod
Double element rear wing



Inlet to side pod is so small



Wing is attached to chassis by spacer (in white)
They have brake ducts



Coburg
UAS

Unsprung front wings

Top 5 UK



Double front
Triple rear
Winged side pods
Very large end plates



Small diffuser
Gurney on end plates
Wing on diffuser



Side pod wings flick air up onto the rear wing
Front wing stays to chassis



UAS
Zwickau

Double front wing
Triple rear wing



Triple element and double at front
Guide wire holding it up
Triple element back
End plates wash out

University
of Bath



3D front wing
 Side pods are fkn small
 3D back wing



Channel diffuser



Rear mounting system has triangulated frame



Technische
Universität
München

Triple element rear wing
Triple front
Winged side pods
End plates on front wing are very large



Small side pods with wings on them
Swan neck mounting system with cross bars

Oxford
Brookes
University



Triple element rear with wing on top
Funky end plates

Design



3 wings on side pod



Wings are bent up

Norwegian
University
of Science
and
Technolog
y



Double element front
Triple element back
Solid mounts to chassis



Side pods with wings
Small front end plates
Gurney on end plates



Karlsruhe
Institute of
Technology (KIT)

Triple element front wing
Side pods with wings
Low triple element and high double element
Front main has a complex shape



Triple element is just above the driver
Left side pod has wing
End plates are flat with interesting shape
Large mounting plates on from wing

