

# 2026 FORMULA 1 TECHNICAL REGULATIONS

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## Convention:

Black text: 2026 F1 Technical Regulations as approved by the WMSC on 16/08/22, 03/03/23, 20/06/23, 25/10/23, 06/12/23, 29/03/24, and 11/06/24.

Blue text: New articles added at this issue (Chassis). Approved by WMSC on 21/06/24.

Green Text: Comments – not regulatory.

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## ARTICLE 1: GENERAL PRINCIPLES

### 1.1 Formula One World Championship

- 1.1.1 The FIA will organise the FIA Formula One World Championship (the "Championship") which is the property of the FIA and comprises two titles of World Champion, one for drivers and one for constructors. It consists of the Formula One Grand Prix races which are included in the Formula One calendar and in respect of which the ASNs and organisers have signed organisation agreements with the FIA. All the participating parties (FIA, ASNs, organisers, Competitors, Power Unit (PU) Manufacturers, Suppliers and circuits) undertake to apply as well as observe the rules governing the Championship and, where applicable, must hold FIA Super Licences which are issued to drivers, competitors, officials, organisers and circuits, or register in accordance with the provision of the Regulations.
- 1.1.2 The Championship and each of its Competitions are governed by the FIA in accordance with the Regulations, as defined below.

### 1.2 Regulatory Framework

- 1.2.1 The regulations applicable to the Championship are the International Sporting Code (the "Code"), the Formula One Technical Regulations (the "Technical Regulations"), the Formula One Sporting Regulations (the "Sporting Regulations"), and the Formula One Financial Regulations (the "Financial Regulations"), as amended from time to time, together referred to as the "Regulations".
- 1.2.2 Subject to Article 1.2.3, these Regulations are issued by the FIA and apply to the whole calendar year referred to in the title and to the Championship taking place within that calendar year. Any changes made by the FIA for safety reasons may come into effect without notice or delay.
- 1.2.3 These Technical Regulations regard the FIA Formula One World Championship starting from 2026, and additionally outline various requirements that the PU Manufacturers and their Suppliers must satisfy in the period 2022–2025 in order to be able to homologate a Power Unit for the 2026 FIA Formula One World Championship.

### 1.3 Interpretation of and amendments to these Technical Regulations

- 1.3.1 The definitive text of the Technical Regulations shall be the English version which will be used should any dispute arise as to their interpretation.
- 1.3.2 Headings in this document are for ease of reference only and do not affect the meaning of the Technical Regulations.
- 1.3.3 Unless stated otherwise, references to "Articles" herein are to articles of these Technical Regulations.
- 1.3.4 In the sense of the Regulations, terms referring to natural persons are applicable to any gender.
- 1.3.5 Any terms not defined in these Technical Regulations have the meaning given to them in the "FIA 2022 Formula 1 Technical Regulations – Issue 12" (the "2022 Technical Regulations"). In the event that ascribing the meaning of a defined term in the 2022 Technical Regulations to an undefined term in these Technical Regulations results in a significant impact to the design of the 2026 Power Unit, PU Manufacturers bound by these Technical Regulations may ask the FIA for guidance and the FIA will then issue guidance on the meaning of the relevant term. Such guidance will be communicated by the FIA to all PU Manufacturers.
- 1.3.6 Any amendments to these Technical Regulations that do not relate specifically to the Power Unit or that relate to matters of form rather than substance (such as re-numbering, reference corrections, etc.) will not be subject to the approval of the PU Manufacturers. Any amendments to these Technical Regulations that relate to substantive matters concerning

the Power Unit will be subject to the prior approval of the PU Manufacturers in accordance with the 2026 F1 PU Governance Agreement, as referenced in Article 1.1 of Appendix 5.

#### **1.4 Dangerous construction**

The stewards may prohibit the participation of a vehicle whose construction is deemed to be dangerous. Should the relevant information become apparent during a session, such a decision may apply with immediate effect.

#### **1.5 Compliance with the regulations**

Formula 1 Cars must comply with these regulations in their entirety at all times during a Competition.

Should a Competitor or PU Manufacturer introduce a new design or system or feel that any aspect of these regulations is unclear, clarification may be sought from the FIA Formula One Technical Department. If clarification relates to any new design or system, correspondence must include:

- a. A full description of the design or system.
- b. Drawings or schematics where appropriate.
- c. The Competitor or PU Manufacturer's opinion concerning the immediate implications on other parts of the car of any proposed new design.
- d. The Competitor or PU Manufacturer's opinion concerning any possible long-term consequences or new developments which may come from using any such new designs or systems.
- e. The precise way or ways in which the Competitor or PU Manufacturer feels the new design or system will enhance the performance of the car.

#### **1.6 New systems or technologies**

Any new system, procedure or technology not specifically covered by these Technical Regulations, but which is deemed permissible by the FIA, will only be admitted until the end of the Championship during which it is introduced. Following this the Formula One Commission will be asked to review the technology concerned and, if they consider (in their sole discretion) that such new system, procedure, or technology adds no value to Formula One in general, it may be specifically prohibited by the FIA.

#### **1.7 Duty of Competitor and PU Manufacturer**

It is the duty of each Competitor to satisfy the FIA and the stewards that its Formula 1 Car complies with these regulations in their entirety at all times during a Competition. With regard to PUs used on a Formula 1 Car, this duty and responsibility also extends to the PU Manufacturer.

The design of the car, its components and systems shall, with the exception of safety features, demonstrate their compliance with these regulations by means of physical inspection of hardware or materials. Unless explicitly requested by an Article, no mechanical design may rely upon software inspection as a means of assessing compliance.

Due to their nature, the compliance of electronic systems may be assessed by means of inspection of hardware, software, and data.

CAD models may be requested by the FIA in order to check compliance with the Regulations. Such models should be supplied in a format and by a method specified by the FIA. In such cases, scanning technology will be used by the FIA to check that the physical car is the same as the inspected CAD models.



Each Competitor and each PU Manufacturer must ensure that all relevant personnel (whether employee, consultant, contractor, secondee or any other type of permanent or temporary personnel) associated with its participation in the Championship are appropriately informed with respect to the ways in which their areas of responsibility may impact the compliance of the Competitor and/or PU Manufacturer (as applicable) with the Regulations.

Each Competitor and each PU Manufacturer must ensure that the FIA ethics and compliance hotline with respect to the Regulations is clearly communicated to all relevant personnel.

## ARTICLE 2: DEFINITIONS and FUNDAMENTAL DIMENSIONS

### 2.1 Formula One Car

An automobile (the car) designed solely for speed races on circuits or closed courses that is propelled by its own means, moving by constantly taking real support on the ground, of which the propulsion and steering are under the direct control of a driver aboard the vehicle. It runs on four non-aligned complete wheels, with wheel centres that are arranged symmetrically about the plane  $Y=0$ , when in the straight-ahead position, to form the front and rear axles.

### 2.2 Competition

As defined in Article 2.2 of the Sporting Regulations

### 2.3 Component classification categories

The terms LTC, SSC, TRC, DSC, OSC, LPUC, SSPUC, DSPUC and OSPUC, defined in Articles 17 and 18 and used throughout the Regulations, refer to the classification of the car's components in terms of their Design, Intellectual Property, Manufacture and Supply.

### 2.4 Power unit

As defined in Article 5.1.2

### 2.5 Power train

As defined in Article 5.1.1

### 2.6 Coordinate systems and conventions

#### 2.6.1 Car Coordinate System

A right-handed Cartesian (X, Y, Z) coordinate system will be used in these regulations, defined in the following way:

- a. The X axis is the longitudinal direction of the car and increases rearwards.
- b. The Y axis is the transverse direction of the car and increases to the (driver's) right-hand side.
- c. The Z axis is the vertical direction and increases upwards.

#### 2.6.2 Further conventions

- a. If no units are specified, it is implicit the unit will be in millimetres
- b. Unless otherwise specified, the positive side of the Y axis is used in the various articles and it is implicit that a symmetrical rule applies for the other side of the car.
- c. The terms "inboard" or "outboard", when used in reference to the Y coordinate, respectively refer to closer to or further away from the plane  $Y=0$ .
- d. A suffix may be used for local coordinates in specific rules, (e.g.  $X_w$ ,  $Y_w$ ,  $Z_w$ ), where these local axes are defined within a specific Article for local use.
- e. Planes will be referred to as the axis to which they are normal to (e.g. X-plane or  $X_A=300$  plane).

- f. A wheel is defined to be in the straight-ahead position when its rotational axis lies in an X-Plane.
- g. Unless otherwise specified any measurements and references will be with the wheels in the straight-ahead position.
- h. Unless otherwise specified, when a viewing direction is stated, “front” and “rear” are parallel to the X axis, “side” is parallel to the Y axis (in the direction towards the plane  $Y=0$ ) and “above”, “below” and “plan” are parallel to the Z axis.
- i. Unless otherwise specified, directions of angles, slopes and incidences are taken in context of the right-handed Cartesian coordinate system defined in 2.6.1. For example, a positive slope within a Y-Plane would be characterised by positively increasing X and Z components.

### 2.6.3 Wheel coordinate system

A local Cartesian ( $X_w$ ,  $Y_w$ ,  $Z_w$ ) coordinate system will be used for each wheel, defined in the following way:

- a. The origin of the wheel coordinate system is the intersection of the rotational axis of the wheel and the inboard plane of the wheel rim.
- b. The  $X_w$  axis lies in the inboard plane of the wheel rim and increases in the rearward direction. With the wheel in the straight-ahead position and the car at its legality ride height, the  $X_w$  axis is parallel to the car’s X-Axis.
- c. The  $Y_w$  axis is coincident with the wheel’s axis of rotation and increases towards the plane  $Y=0$ . Referring to this axis, the terms “inboard” or “outboard” respectively refer to closer to or further away from the plane  $Y=0$ .
- d. The  $Z_w$  axis lies in the inboard plane of the wheel rim and increases upwards.
- e. Once the wheel coordinate system is defined as above, then it maintains a fixed orientation relative to the suspension upright at all other suspension articulations.

## 2.7 Principal planes

- a. The **Plane  $Z=0$**  is defined as a horizontal plane sitting at the bottom of the sprung part of the car, with the exception of the plank assembly defined in Article 3.6.
- b. The **Plane  $Y=0$**  is defined as the plane of symmetry of the car.
- c. The **Plane  $X_A=0$**  is defined as the X-Plane that lies on the forward limit of the Survival Cell.
- d. The **Plane  $X_C=0$**  is defined as an X-Plane at the rear of the cockpit.
- e. The planes  **$X_F=0$**  and  **$X_R=0$**  are defined as a X-Planes which respectively pass through the origin of the two front or two rear wheels coordinate systems, as defined in Article 2.9.3, with the wheels in the straight-ahead position and the car at the Legality Ride Height.
- f. The plane  **$X_{DIF}=0$**  is defined as the X-Plane containing the axis of rotation of the final drive as defined in Article 9.7.1.
- g. The plane  **$X_{PU}=0$**  is defined as the X-Plane which passes through the mounting face of the connections between the **ICE** and the **Survival Cell**, as defined in Article 5.6.17.
- h. The plane  **$X_{FIS}=0$**  is defined as the X-plane passing through the forward most point of the Front Impact Structure.

## 2.8 Fundamental Dimensions

### 2.8.1 Width

With the exception of the tyres and the wheel rims defined in Article 10.7.2, no part of the car may lie more than 950mm from the plane  $Y=0$  at Legality Ride Height.

#### **2.8.2 Wheelbase**

The distance between the planes  $X_F=0$  and  $X_R=0$  must be less than or equal to 3400mm at Legality Ride Height.

#### **2.8.3 Front Wheel Position**

The plane  $X_F=0$  must lie between  $X_A = 0$  and  $X_A = 150$  inclusive.

#### **2.8.4 Cockpit Position**

The distance between  $X_A=0$  and  $X_C=0$  must be greater than or equal to 1830mm and less than or equal to 2030mm.

#### **2.8.5 Rear Bulkhead Position**

The distance between  $X_C=0$  and  $X_{PU}=0$  must be greater than or equal to 360mm

### **2.9 Reference Volumes and Surfaces**

“Reference Volumes” and “Reference Surfaces” and their position in space are defined in Appendix 1 using the car’s coordinate system, and are used throughout the Technical Regulations for geometrical constraints. For convenience, Reference Volumes are preceded by the prefix “**RV-**” and Reference Surfaces by the prefix “**RS-**”.

### **2.10 Precision of Numerical Values**

Any numerical values specified in these Regulations as limits (maxima or minima), will be considered to be the limits regardless of the decimals quoted.

## ARTICLE 3: AERODYNAMIC COMPONENTS

### 3.1 Definitions

#### 3.1.1 Aerodynamic Components or Bodywork

Aerodynamic Components or Bodywork are parts of the car in contact with the External Air Stream.

- a. The following components are Bodywork:
  - i. all components described in Article 3.
  - ii. inlet or outlet cooling ducts, up to the component they provide cooling for.
  - iii. inlet ducts for the power unit (air boxes) up to the air filter.
  - iv. primary heat exchangers, as defined in Article 7.4.1 (b).
- b. The following components are not Bodywork:
  - i. cameras and camera housings, as defined in Article 8.17.
  - ii. rear view mirrors as defined in Article 14.2.
  - iii. the ERS status light.
  - iv. parts associated with the mechanical functioning of the power train, transmission of power to the wheels, and the steering system, provided none are designed to achieve an aerodynamic effect.
  - v. wheel rims and tyres.
  - vi. brake disc assemblies, callipers, and pads.

#### 3.1.2 Frame of Reference

A Frame of Reference is a coordinate system, geometry, component, or group of components to which stated Bodywork must remain immobile.

#### 3.1.3 External Air Stream

External Air Stream is the flow of air around the car that has a primary impact on its aerodynamic performance.

#### 3.1.4 Component Bodywork

Unless otherwise stated, all individual Bodywork Components described in Articles 3.5 to 3.11, and in Article 3.14, prior to any Trim and Combination operations, must:

- a. be single volumes that are simply connected.  

A simply connected volume is a volume where any closed curve lying on the surface can be continuously contracted to a single point without leaving the surface.
- b. in any X, Y and Z plane, only contain a single section.

#### 3.1.5 Aerodynamic Surfaces

Aerodynamic Surfaces are Bodywork surfaces which remain in contact with the External Air Stream after any Trim and Combination operations have been performed, after any Fillets and Edge Radii have been applied and after any Final Assembly described in Articles 3.12 and 3.15.

#### 3.1.6 Trim and Combination

A Trim and Combination operation can only be performed once all sub-components are fully defined. The only regions of a volume that can be removed as part of a trimming process are those that are internal to the body they are trimmed by. Once components are trimmed and

combined, the resultant volume must maintain both continuity and tangency in any X, Y, or Z plane, at the boundaries between the adjacent sections of the component parts. Unless otherwise stated:

- a. The elective trimming of volumes beyond or outside of any overlap is not permitted.
- b. Trim and Combination operations must result in a single volume.

#### **3.1.7 Concave and Convex Curvature**

When references are made to the curvature of Aerodynamic Surfaces, without specifying a plane of intersection, the local curvature at any point is defined as the curvature of the intersection of the surface with a plane passing through a line normal to the surface at that point. Both convex and concave radius of curvature are defined as the minimum radius, in each respective direction, that is obtained when the intersecting plane rotates 180 degrees around the normal line.

#### **3.1.8 Normal to an Aerodynamic Surface or curve**

The normal at any point on an Aerodynamic Surface is a vector perpendicular to that point on the surface, pointing toward the local External Air Stream. For a curve, the normal at any point is considered the same as that of the surface containing the curve.

#### **3.1.9 Tangency Continuity**

Tangency Continuity at a point on a curve or surface is achieved if the tangent value is continuous. At intersections between two curves or surfaces, Tangency Continuity requires that the curves or surfaces be tangent and have coinciding normals.

If two adjacent surfaces are not tangent continuous but can become so by applying an edge radius of up to 1mm along their boundary, they will be considered tangent continuous at this boundary, provided such an edge radius is permitted under the relevant Articles.

Unless otherwise stated, the Aerodynamic Surfaces of all Bodywork and sub-bodywork components described in Articles 3.5 to 3.11 must maintain tangency continuity

#### **3.1.10 Curvature Continuity**

Curvature Continuity between two curves, at a given point of a curve, between two surfaces or within a surface is satisfied if the value of the curvature is continuous and in the same direction.

#### **3.1.11 Open and Closed Sections**

A section through Bodywork, from a plane of intersection, is considered closed if it forms a complete boundary on its own; otherwise, it is considered open.

#### **3.1.12 Fillet and Edge Radius**

A Fillet Radius is formed by rounding an internal corner (included angle less than 180 degrees) with a concave surface by only adding material, whilst an Edge Radius is created by smoothing an external corner (included angle greater than 180 degrees) with a convex surface by only removing material.

In both instances, the resulting surface must consist of arcs that adhere to specified radius limits, connect two fully defined surfaces tangentially without inflection, and align perpendicularly to their intersection. Unless otherwise stated, both Fillet and Edge Radii may vary in size along the boundary perimeter, but these changes must be continuous.

If a discontinuity in tangency exists at the trailing edge where a Fillet Radius has joined parts, a closed aerodynamic fairing may be added immediately behind the trailing edge. This fairing must not exceed the combined cross-section of the preceding Fillet Radius/Radii and any adjacent trailing edge, and must fit within a sphere of diameter three times the maximum trailing edge Fillet Radius.

#### **3.1.13 Aerodynamic Seal**

An Aerodynamic Seal reduces the air flow rate between two regions of differing pressures to the minimum feasible magnitude.

#### **3.1.14 Gurney**

A Gurney is a component that, where permitted, may be attached to the trailing edge of a profile to adjust its aerodynamic performance. In any plane perpendicular to the trailing edge, a Gurney must comprise of a flat section, up to 1mm thick, of a height specified in the relevant regulation, and include a bonding flange on the wing's surface. This flange may extend no more than 20mm in length and 1mm in thickness. No part of the Gurney shall extend beyond a line perpendicular to the surface at the profile's trailing edge.

### **3.2 General Principles**

#### **3.2.1 Objective of Article 3**

A primary objective of Article 3 is to promote close racing by minimising the aerodynamic performance loss when one car follows another. To assess this objective, Competitors may be asked to provide relevant information to the FIA upon request.

The Intellectual Property of this information remains with the Competitor, will be protected, and will not be disclosed to any third parties.

#### **3.2.2 Aerodynamic Influence**

Except for the driver-adjustable bodywork specified in Articles 3.10.9 and 3.11.6, and minimal parts related to their operation, as well as flexible seals allowed by Articles 3.14 and 3.17.7, all aerodynamic components or Bodywork must be rigidly fixed and immobile relative to their defined Frame of Reference defined in Article 3.4. These components must also provide a uniform, solid, hard, continuous, and impervious surface at all times.

Any device or structure designed to bridge the gap between the sprung part of the car and the ground is strictly prohibited.

Apart from necessary parts for the adjustments described in Articles 3.10.9 and 3.11.6, and incidental movements from the steering system, any car system, device, or procedure that alters the aerodynamic characteristics of the car through driver movement is forbidden.

Furthermore, the aerodynamic effect of any component not classified as Bodywork must be incidental to its primary function. Designs intended to enhance any such aerodynamic effects are prohibited.

#### **3.2.3 Symmetry**

All bodywork must be nominally symmetrical with respect to  $Y=0$ . Therefore, unless otherwise specified, any regulation in Article 3 concerning one side of the car will be assumed to be valid for the other side of the car including references to the maximum number of components allowed per side.

Minimal exceptions to the requirement of symmetry of this Article will be accepted for the installation of nonsymmetrical mechanical components, for asymmetrical cooling requirements or for asymmetrical angle adjustment of the FW Flap defined in Article 3.10.9.

Bodywork on the unsprung mass must respect this Article when the suspension position of each wheel is virtually reorientated so that its wheel coordinate system axes (described in Article 2.6.3) are parallel to their respective axis of the car coordinate system (described in Article 2.6.1).

#### **3.2.4 Section and Article Titles**

Section and Article titles within Article 3 have no regulatory value.

#### **3.2.5 Pressure Tappings**

Pressure measuring apertures are permitted on the car, provided they:

- a. have an internal diameter of no more than 2mm.
- b. are flush with the underlying geometry.
- c. are only connected to pressure sensors or are completely blanked.

### 3.3 Legality Checking

#### 3.3.1 Digital legality checking

Assessment of compliance with Article 3 will be carried out digitally using CAD models provided by the teams. In these models:

- a. Components may only be designed to the edge of a Reference Volume, or with a precise geometrical feature, or to the limit of a geometrical criterion (save for the normal round-off discrepancies of the CAD system), when the regulations specifically require an aspect of the bodywork to be designed to this limit, or it can be demonstrated that the design does not rely on lying exactly on this limit to conform to the regulations, such that it is possible for the physical bodywork to comply.
- b. Components that must follow a precise shape, surface or plane must be designed without any tolerance, save for the normal round-off discrepancies of the CAD system.
- c. Bodywork required to be visible from a prescribed direction may include surfaces parallel to that direction, provided it can be shown that such parallel surfaces could instead be drawn at an infinitesimally small included angle and still comply with all relevant Articles.

#### 3.3.2 Physical legality checking

Cars may be measured during a Competition in order to check their conformance to the CAD models discussed in Article 3.2.4 and/or to ensure they remain inside the Reference Volumes.

- a. Unless otherwise stated, a tolerance of  $\pm 3\text{mm}$  will be accepted for manufacturing purposes only with respect to the CAD surfaces. Where measured surfaces lie outside of this tolerance but remain within the Reference Volumes, a Competitor may be required to provide additional information (e.g. revised CAD geometry) to demonstrate compliance with the regulations. Any discrepancies contrived to create a special aerodynamic effect or surface finish are not permitted.
- b. Irrespective of a), geometrical discrepancies at the limits of the Reference Volumes must be such that the measured component remains inside the Reference Volume.
- c. A positional tolerance of  $\pm 2\text{mm}$  will be accepted for the Front Wing Bodywork, Rear Wing Bodywork, Exhaust Tailpipe, and Tail. This will be assessed by realigning each of the groups of Reference Volumes and Reference Surfaces that define the assemblies, by up to 2mm, from their original position, to best fit the measured geometry.
- d. Irrespective of b), and except for regions within the four holes defined in Article 3.6, a tolerance of  $Z = \pm 2\text{mm}$  will be accepted for parts of the car lying on the  $Z=0$  plane, within  $-375 \leq Y \leq 375$  and ahead of  $X_R=0$ .
- e. Minimal discrepancies from the CAD surfaces will also be accepted in the following cases:
  - i. Minimal repairs carried out on aerodynamic components and approved by the FIA.
  - ii. Tape, provided it does not achieve an aerodynamic effect otherwise not permitted by Article 3.
  - iii. Junctions between bodywork panels.
  - iv. Local bodywork fixing details.

#### 3.3.3 Datum Points



All cars must be equipped with optical target mountings in the following locations:

- a. One on the forward part of the top of the survival cell.
- b. Two positioned symmetrically about  $Y = 0$  on the top of the survival cell close to  $X_C = -875$ .
- c. Two positioned symmetrically about  $Y = 0$  on the side of the survival cell close to  $X_C = -875$ .
- d. Two positioned symmetrically about  $Y = 0$  on the side of the survival cell close to the rear mounts of the secondary roll structure.
- e. Two positioned symmetrically about  $Y = 0$ , within an axis-aligned cuboid with an interior diagonal defined by points  $[X_C = 0, 175, 970]$  and  $[X_C = 150, -175, 870]$ .
- f. One probed point on the RIS or gearbox case.

In all cases, a file containing the coordinates of the required datum points must be supplied for each survival cell.

Full details of the requirements are given in the Appendix the Technical and Sporting Regulations.

#### 3.3.4 Supports for Scrutineering

All cars must be equipped with 3 pads that will be used to support the car during scrutineering. The pads must be rigidly mounted to the Survival Cell, ICE or Gearbox Case as appropriate. The pads must be on the plane  $Z=0$  and will be used to define this plane when inspecting the underside of the car. Pads must be in the following locations:

- a. Two positioned symmetrically about  $Y=0$ , between  $X_C = -600$  and  $X_C = -700$  and 150mm from  $Y=0$ .
- b. One on  $Y = 0$  between  $X_{PU} = 380$  and  $X_{PU} = 580$ .

Details of the requirements are given in the Appendix the Technical and Sporting Regulations.

### 3.4 Component Definition

The permitted bodywork and relevant Frame of Reference, as defined in Article 3.1.2, and used to establish compliance with Article 3.2.2, for each group is defined in the following Articles.

#### 3.4.1 Bodywork part of the sprung mass of the car

The only permissible sprung mass Bodywork is defined under Articles 3.5 to 3.11 and Articles 3.1.1 (a) (ii) to (iv). The Frame of Reference for all sprung mass Bodywork is the coordinate system defined in Article 2.6.1.

Any Bodywork subject to Final Assembly as per Article 3.12 must first be classified under one of the groups specified in Articles 3.5 to 3.11.

Compliance of each Bodywork group with Article 3 will be assessed independently and before any Trim and Combination operations and Fillet application described in Article 3.12.

Furthermore, the use of components not defined as Bodywork to achieve compliance with the Bodywork regulations is not permitted. The FIA may request to inspect any removed geometry post-assembly.

After final assembly, modifications are allowed to the following:

- a. Internal Ducts.
- b. Non-Aerodynamic Surfaces provided any modification does not result in the surfaces becoming Aerodynamic.

#### 3.4.2 Wheel Bodywork

The only permissible Wheel Bodywork is defined in Article 3.14. The Frame of Reference for all parts classified as Wheel Bodywork is the corresponding upright structure and coordinate system detailed in Article 2.6.3.

### 3.4.3 Suspension Fairings

The only permissible Suspension Fairings are defined in Article 3.17. In order to assess compliance with Article 3.2.2, the Frame of Reference of any Suspension Fairing is the structural suspension member that it is attached to.

## 3.5 Floor Bodywork

### 3.5.1 Floor Body

**Floor Body** bodywork must:

- a. fully lie within **RV-FLOOR-BODY**.
- b. when viewed from below, fully obscure:
  - i. **RS-FLOOR-BODY**.
  - ii. **RV-PU-ICE**
  - iii. **RV-DIFF**.
- c. if visible from below, lie exactly on:
  - i. **RV-FLOOR-BODY** if directly below **RS-FLOOR-REF**.
  - ii. **RS-FLOOR-STEP**.
- d. have up to two sections in any Z-Plane.
- e. be fully visible from either above or below.

### 3.5.2 Floor Foot

**Floor Foot** bodywork must:

- a. fully lie within **RV-FLOOR-FOOT**.
- b. when viewed from above, fully obscure **RS-FLOOR-FOOT**.
- c. have up to two sections in any Z-Plane.

### 3.5.3 Main Floor

**Main Floor** results from the Trim and Combination of the following components:

- a. **Floor Body**.
- b. **Floor Foot**.

A Fillet Radius, no greater than 30 mm, may be applied along the intersection between the remaining component parts.

Once fully defined, **Main Floor** must:

- c. be a single, simply connected volume, with no overlapping regions.

**Main Floor** Aerodynamic Surfaces must:

- d. contain no radius of curvature less than 25mm, except for regions of convex curvature:
  - i. within 5mm of the boundary of **Main Floor**, when viewed from below.
  - ii. visible from above, and within 10mm of the load application points defined in Article 3.18.7.

### 3.5.4 Floor Board

**Floor Board** bodywork must:

- a. fully lie within **RV-FLOOR-BOARD**.
- b. have up to two sections in any Z-Plane.

Assessing each section independently, in any Z Plane, a line tangent to any part of the section visible from outboard, when measured against a Y-Plane with a positive slope pointing towards  $Y = 0$ , must:

- c. subtend an angle of at least 10 degrees, except for regions within 100mm of the forwardmost point of the section.

In any Z-Plane, within 100mm of the rearmost point of the rearmost section:

- d. a line tangent to any part of the section visible from outboard, when measured against a Y-Plane with a positive slope pointing towards  $Y = 0$ , must subtend an angle more than 20 degrees.
- e. no part of the section visible from inboard may be more than 10mm distant from the section visible from outboard.

**Floor Board** Aerodynamic Surfaces must:

- f. in any Z-Plane, assessing each section independently, contain no concave radius of curvature less than 1000mm visible from outboard.
- g. contain no radius of curvature less than 25mm, except for regions of convex curvature:
  - i. within 5mm of the boundary of **Floor Board**, when viewed from the side.

### 3.5.5 Floor Bib

**Floor Bib** bodywork must:

- a. fully lie within **RV-FLOOR-BIB**.
- b. be fully visible from either above or below.

**Floor Bib** Aerodynamic Surfaces must:

- c. have no concave radius of curvature:
  - i. visible from below.
  - ii. less than 15mm, if visible from above.
- d. have no convex radius of curvature less than 15mm, except for regions:
  - i. below  $Z = 5$ , within 5mm of the boundary **Floor Bib**.

### 3.5.6 Floor Bodywork Assembly

**Floor Bodywork** results from the Trim and Combination of the following components:

- a. **Main Floor.**
- b. **Floor Board.**
- c. **Floor Bib.**

Before trimming, any **Floor Board** remaining below **Main Floor** must be discarded.

A Fillet Radius, no greater than 25mm, may be applied along the intersections between the remaining component parts.

Once fully defined, **Floor Bodywork** must:

- d. be a single, simply connected volume, with no overlapping regions.
- e. when viewed from the side, fully obscure **RS-FLOOR-BOARD**.

Furthermore:

- f. in the Fillet that joins **Floor Bib** to **Main Floor**, flexibility is permitted to allow compliance of the Front Floor Structure when the front of the car meets the ground.

### 3.5.7 Floor Auxiliary Components

Once **Floor Bodywork** has been fully defined, the following may be fitted:

- a. Up to two Floor Stays, which must:
  - i. have an inboard attachment location that lies between  $X_{DIF} = 150$  and  $X_{DIF} = 325$  or ahead of  $X_R$ .
  - ii. be fixed on their inboard end to either the Rear Impact Structure or the entirely sprung part of the car.
  - iii. be fixed on their outboard end to **Floor Bodywork**.
  - iv. have a circular cross section with a diameter no more than 5mm, except for minimal details at the inboard and outboard attachment points, or for adjustment purposes.
  - v. be designed to only take load in tension.

### 3.5.8 Floor Bodywork Group

Once the components defined in Articles 3.5.1 to 3.5.7 have been constructed in accordance with these provisions, including any sub-assembly operations, the resulting union is defined as **Floor Bodywork**.

## 3.6 Plank

Below the central surfaces of the Floor Body, the plank assembly must be fitted: consisting of the plank, the skids, and the mountings. The requirements of this Article must be satisfied when considering both sides of the car.

The following provisions apply to the plank assembly:

- a. The upper surface of the plank assembly must lie at  $Z = 0$ , so that no air can pass between it and the Floor Body or Bib lower surfaces.
- b. The plank assembly must be symmetrically arranged about  $Y = 0$ .
- c. The forward edge of the plank assembly must lie at  $X_F = 430$
- d. The rearmost edge of the plank assembly must lie at  $X_R = -600$ .
- e. The thickness of the plank assembly measured normal to the lower surface must be  $10\text{mm} \pm 0.2\text{mm}$  and must be uniform when new. A minimum thickness of 9mm will be accepted due to wear, and conformity to this provision will be checked at the peripheries of the designated holes.
- f. The plank assembly must have four precisely placed holes the positions of which are given by **RV-PLANK**. To establish the conformity of the plank assembly after use, its thickness will only be measured at these holes, regardless of whether plank or skid material is present.

Four additional 10mm diameter holes are permitted provided their sole purpose is to allow access to the bolts which secure the Accident Data Recorder to the survival cell.

The following provisions apply to the plank:

- g. The geometry of the plank must conform to **RV-PLANK** with a general manufacturing tolerance of  $\pm 0.5\text{mm}$  and a tolerance on thickness given in (e) above.

- h. The material of the plank is free, but it must be homogeneous with a specific gravity between 1.3 and 1.45, or if pocketed be made from a bonded assembly the upper 0.5mm of which must have a specific gravity of between 1.3 and 1.65 and the remainder, excluding pockets, be made from a homogeneous material with a specific gravity of between 1.3 and 1.45.
- i. The plank may comprise no more than three pieces, the forward one of which may not be any less than 900mm in length.
- j. In the areas between  $X_F = 630$  and  $X_C = -800$  and behind  $X_C = -400$ , pocketing of the lower 9.5mm of the plank from above is permitted. The pocket depth may not reduce the remaining plank material thickness to less than 2mm from either the lowest surface below the reference plane when new or the lower surface of any recesses necessary to fit the skids permitted by items k) to r) of this Article. Furthermore, the periphery of any pocket, in any horizontal plane parallel to the reference plane, must be not less than 10mm from either the edges of the plank or any holes or recesses in the plank. In vertical cross section the internal pocket fillet radii must be at least 3mm and in horizontal cross section 10mm. Pockets may only be filled with a material having a specific gravity of less than 0.25.

The following provisions apply to the skids. The lower surface of the plank may be fitted with flush mounted metal skids which:

- k. May only be fitted in place of plank material.
- l. Have a total area no greater than 24000mm<sup>2</sup> when viewed from below.
- m. Are no greater than 4000mm<sup>2</sup> in area individually when viewed from below.
- n. Are fitted in order that their entire lower surfaces are visible from below.
- o. Must have a minimum cross-sectional thickness of 15mm across its external boundaries in plan view.

The minimum wall thickness between an internal fixing hole and the external boundaries of the skid must be no less than 7.5mm.

- p. Must have an upper surface no more than 3mm below the reference plane.
- q. Must be designed such that they are secured to the car using the fasteners described in items t) to w) of this Article and that, when viewed from below, no part of the skid is more than 50mm from the centre line of a fastener which passes through that skid.
- r. Must be made from Titanium alloy (according to AMS4928 or AMS4911 in annealed condition). Furthermore, they may only be machined from solid and no processes (such as forging, rolling, welding, heat treatment or coating) may be carried out either before or after machining.
- s. If positioned entirely inboard of  $Y = 120$  and between  $X_F = 425$  and  $X_F = 625$ , must be fastened directly to the Front Floor Structure with zero degrees of freedom:

The following provisions apply to the plank and skid mountings. The plank and skids must be fixed to the car using fasteners which:

- t. Are no smaller than M6 and are made from grade 12.9 or 10.9 steel.
- u. If used to attach a skid to the car, must employ at least 1 fastener per 1,000mm<sup>2</sup> of skid area.
- v. If used to attach a skid to the car, the team must be able to show by calculation that the shanks of the fasteners (which may be no less than 6mm diameter) are the weakest point in the attachment of the skids to the car.
- w. May use a load spreading washer if required.

The total area of the fasteners and any load spreading washers employed with them when viewed from below must be less than 7,500mm<sup>2</sup>. The area of any single fastener plus its load-spreading washer may not exceed 500mm<sup>2</sup>.

No part of any fastener or load-spreading washer may be more than 8mm below the reference plane. For the avoidance of doubt, the skids referred to in items k) to s) of this Article will not be treated as load spreading washers.

### 3.7 Front Bodywork

#### 3.7.1 Nose

**Nose** bodywork must:

- a. fully lie within **RV-NOSE**.
- b. when viewed from above, fully obscure **RS-NOSE**.

**Nose** Aerodynamic Surfaces must:

- a. in any X-Plane:
    - i. contain no concave radius of curvature.
- Furthermore, between  $X_F = -950$  and  $X_A = 0$ , the part of this section, which is visible from above, must:
- ii. be tangent to the Z-Axis at its outermost extremity.
  - iii. have no radius of curvature less than 45mm at  $X_A = 0$ .
  - iv. have no radius of curvature less than 20mm forward of  $X_A = 0$ .

The following will be exempt from the above:

- b. Cameras in Position 2.
- c. Mounting brackets defined in Article 8.17.7.

#### 3.7.2 Forward Chassis

**Forward Chassis** bodywork must:

- a. fully lie within **RV-CH-FRONT**.
- b. completely enclose **RV-CH-FRONT-MIN**.
- c. have up to two sections in any Z-Plane.

**Forward Chassis** Aerodynamic Surfaces must:

- d. in any X-Plane contain:
  - i. no convex radius less than 45mm.
  - ii. no concave radius less than 500mm.

#### 3.7.3 Mid Chassis

**Mid Chassis** bodywork must:

- a. fully lie within **RV-CH-MID**.
- b. prior to the definition of Apertures in Article 3.16, only contain apertures within **RV-STRAP**.

**Mid Chassis** Aerodynamic Surfaces must:

- c. contain no radius of curvature less than 25mm,  
except for regions within:
  - i. 20mm of bodywork bonded to the **Secondary Roll Structure** as defined in Article 12.4.2.
  - ii. 10mm of the apertures **3.16.9** and **3.16.10**.

- iii. RV-STRAP.

#### 3.7.4 Mirror

**Mirror Body** bodywork must:

- a. fully lie within **RV-MIRROR-BODY**.

**Mirror Inner Stay** bodywork must:

- b. fully lie within **RV-MIRROR-ISTAY**.
- c. intersect Mirror Body and Mid Chassis.

**Mirror Rear Stay** bodywork must:

- d. fully lie within **RV-MIRROR-RSTAY**.
- e. intersect **Mirror Body** and **Sidepod**.
- f. in any X-Plane, measure less than:
  - i. 50mm in Z.
  - ii. 10mm in Y.

**Mirror** results from the Trim and Combination of the following components:

- g. Mirror Body.
- h. Mirror Inner Stay.
- i. Mirror Rear Stay.

A Fillet Radius, no greater than 10mm, may be applied along the intersections between the remaining component parts.

Once fully defined, **Mirror** must:

- j. be a single volume with no overlapping regions.

#### 3.7.5 Driver Cooling

**Driver Cooling** bodywork must:

- a. fully lie within **RV-DRI-COOL**.
- b. be fully visible from either above or below.

**Driver Cooling** Aerodynamic Surfaces must:

- c. contain no radius of curvature less than 10mm.

#### 3.7.6 Front Bodywork Assembly

**Front Bodywork** results from the Trim and Combination of the following components:

- a. **Nose**.
- b. **Forward Chassis**.
- c. **Mid Chassis**.
- d. **Mirror**.
- e. **Driver Cooling**, if present.

A Fillet Radius, no greater than 10mm, may be applied along the intersections between the remaining component parts.

Once fully defined, **Front Bodywork Assembly** must:

- f. be a single volume, with have no overlapping regions.

#### 3.7.7 Front Bodywork Group

Once the components defined in Articles 3.7.1 to 3.7.6 have been constructed in accordance with these provisions, including any sub-assembly operations, the resulting union is defined as **Front Bodywork**.

### 3.8 Rear Bodywork

#### 3.8.1 Sidepod

**Sidepod** bodywork must:

- a. fully lie within **RV-SIDEPOD**.
- b. in its entirety, lie more than 50mm from **Floor Board**.

**Sidepod** Aerodynamic Surfaces must:

- c. contain no radius of curvature less than:
  - i. 50mm in a convex direction.
  - ii. 100mm in a concave direction.except for:
  - iii. convex regions within 25mm of the aperture 3.16.8.

#### 3.8.2 Engine Cover

**Engine Cover** bodywork must:

- a. fully lie within **RV-EC**.
- b. have up to two sections in any Z-Plane.
- c. when viewed from the side fully obscure **RS-EC**.

**Engine Cover** Aerodynamic Surfaces must:

- d. in any X-Plane outboard of  $Y = 5$  contain:
  - i. no convex radius of curvature less than 75mm.
  - ii. no concave radius of curvature less 50mm.except for regions:
  - iii. within **RV-STRAP**.
  - iv. within 20mm of the **Secondary Roll Structure**, defined in Article 12.4.2, and the lower **Side Impact Structure**, defined in Article 13.5.1, where the radius of curvature must not be less than 10mm.
  - v. inboard of  $Y = 25$ , where the radius of curvature must not be less than 25mm.
- e. contain no surfaces parallel to an X-Plane ahead of  $X_R = 55$ .

Furthermore:

- f. rearward of  $X_R = -300$  and below  $Z = 350$ , the X component of any normal to the surface visible from the side must not be negative.

#### 3.8.3 Rear Bodywork Assembly

**Rear Bodywork** results from the Trim and Combination of the following components:

- a. **Sidepod**.
- b. **Engine Cover**.

Once fully defined, **Rear Bodywork Assembly** must:

- c. be a single, simply connected volume, with no overlapping regions.



### 3.8.4 Rear Bodywork Group

Once the components defined in Articles 3.8.1 to 3.8.3 have been constructed in accordance with these provisions, including any subassembly operations, the resulting union is defined as **Rear Bodywork**.

## 3.9 Tail and Exhaust Tailpipe

### 3.9.1 Tail

**Tail** bodywork must:

- a. fully lie within **RV-TAIL**.
- b. when viewed from below, be fully obscured by **Floor Body** forward of  $X_R = 125$ .

### 3.9.2 Exhaust Tailpipe

**Exhaust Tailpipe** bodywork must:

- a. fully lie within **RV-TAILPIPE**.
- b. have a wall thickness of between 0.5mm and 1.2mm.
- c. have an exit whose entire circumference lies:
  - i. between  $X_R = 245$  and  $X_R = 250$ .
  - ii. above  $Z = 350$ .
- d. have a circular internal cross-section of a constant diameter between 100mm and 130mm.
- e. remain unobstructed internally and in full compliance with the provisions of this Article after **Final Assembly** of all Bodywork groups.

When considering both sides of the car, over its last 150mm it must:

- f. comprise of a single tailpipe and a support which must fully lie within an individual instance of **RV-TAILPIPE-BRACKET**.

**RV-TAILPIPE-BRACKET** may have a free orientation in space but must intersect both **Exhaust Tailpipe** and **Tail**.
- g. have an internal surface which:
  - i. is a right circular cylinder.
  - ii. has an axis that lies on  $Y = 0$ .
  - iii. has an axis that forms an angle between  $\pm 0.5^\circ$  to the X-Axis.

## 3.10 Front Wing (FW)

### 3.10.1 Front Wing Profiles

**Front Wing Profiles** bodywork must:

- a. fully lie within **RV-FW-PROFILES**.
- b. comprise of three, non-intersecting, simply connected volumes.
- c. have up to three sections in any X, Y or Z-Plane.
- d. when viewed from above, fully obscure **RS-FW-PROFILES**.

In any Y Plane:

- e. the distance between adjacent sections must lie between 5mm and 15mm at their closest position.

- f. the rearmost point of every section must be visible when viewed from below.
- g. except for the rearmost section, the rearmost point of every section must not be visible when viewed from above.
- h. assessing each section independently, within 40mm of the rearmost point of each section:
  - i. a line tangent to any part of the section visible from below must have a positive slope. The slope of this line will be considered in the Y-Plane.
  - ii. no part of the section visible from above may be more than 10mm distant from the section visible from below, if outboard of Y=400, or 15mm if inboard of Y = 400.

**Front Wing Profiles** Aerodynamic Surfaces must:

- i. in any Y-Plane contain:
  - i. no concave radius of curvature visible from below.
  - ii. no concave radius of curvature less than 50mm visible from above.
- j. when measured against a vertical plane normal to **RS-FW-SECTION**, contain no normal to any point on the surface that subtends an angle greater than 25°.

Furthermore:

- k. The rearward most point of every individual Y-section, when projected in Z on to the reference plane, must produce a single tangent continuous curve with no radius of curvature less than 200mm.
- l. Once the **Front Wing Profiles** are fully defined Gurneys up to 10mm in height may be fitted to the trailing edge of the upper surface of the rearmost section. These Gurneys are considered to be part of the Front Wing Profiles and must satisfy the provisions of this Article except for sections (h) and (i) and, for the inner extremity of the innermost Gurney and outer extremity of the outermost Gurney, section (j).

### 3.10.2 Front Wing Endplate Body

**Front Wing Endplate Body** bodywork must:

- a. fully lie within **RV-FWEP-BODY**.
- b. have up to two sections in any Y-Plane.

**Front Wing Endplate Body** Aerodynamic Surfaces must:

- c. contain no radius of curvature less than 5mm.
- d. contain no concave radius of curvature less than 100mm.

### 3.10.3 Front Wing Outboard Footplate

**Front Wing Outboard Footplate** bodywork must:

- a. fully lie within **RV-FWEP-OFP**.
- b. below Z = 75, have up to two sections in any Z-Plane.

**Front Wing Outboard Footplate** Aerodynamic Surfaces must:

- c. contain no radius of curvature less than 5mm.
- d. contain no concave radius of curvature less than 50mm if visible from below.
- e. outboard of Y = 825mm, contain no concave radius of curvature visible from the side or above.

### 3.10.4 Front Wing Inboard Footplate

**Front Wing Inboard Footplate** bodywork must:

- a. fully lie within **RV-FWEP-IFP**.

### 3.10.5 Front Wing Endplate Fence

**Front Wing Endplate Fence** bodywork must:

- a. fully lie within **RV-FWEP-FENCE**.

**Front Wing Endplate Fence** Aerodynamic Surfaces must:

- b. contain no concave radius of curvature less than 250mm.

### 3.10.6 Front Wing Endplate

**Front Wing Endplate** results from the Trim and Combination of the following components:

- a. **Front Wing Endplate Body.**
- b. **Front Wing Outboard Footplate.**
- c. **Front Wing Inboard Footplate.**
- d. **Front Wing Endplate Fence.**

Before trimming, any **Front Wing Endplate Body** remaining below **Front Wing Inboard Footplate** and any **Front Wing Endplate Fence** remaining below **Front Wing Outboard Footplate** must be discarded.

A Fillet Radius, no greater than 10mm, may be applied along the intersections between the remaining component parts.

Once fully defined, **Front Wing Endplate** must:

- e. be a single, simply connected volume, with no overlapping regions.
- f. be no less than 10mm thick if visible from the side.
- g. when viewed from above, fully obscure **RS-FWEP-TOP**:
- h. when viewed parallel to the Y-Axis from inboard, fully obscure **RS-FWEP-SIDE**.

### 3.10.7 Front Wing Pylon

**Front Wing Pylon** bodywork must:

- a. fully lie within **RV-FW-PYLON**.
- b. in any Z plane:
  - i. have a total area no greater than 4000 mm<sup>2</sup>.
  - ii. measure less than 20mm in the Y direction.

### 3.10.8 Front Wing Assembly

**Front Wing Assembly** results from the Trim and Combination of the following components:

- a. **Front Wing Profiles.**
- b. **Front Wing Endplate.**
- c. **Front Wing Pylon.**

Before trimming is applied, any **Front Wing Profiles** remaining outboard of **Front Wing Endplate** and any **Front Wing Pylon** remaining below **Front Wing Profiles** must be discarded.

A Fillet Radius, no greater than 10mm, may be applied along the intersections between the remaining component parts.

Once fully defined, **Front Wing Assembly** must:

- a. be a single volume, with no overlapping regions.
- b. when viewed from below, fully obscure **Front Wing Pylon**.

### 3.10.9 Front Wing Rotation System

Except for the forwardmost volume, the **Front Wing Profiles**, including any fitted gurney and portions of **Front Wing Auxiliary Components** that are attached to these volumes, may be rotated about a fixed axis whilst the car is in motion. Bodywork that can rotate in such way is defined as **FW Flap**.

Furthermore:

- a. no part of **FW Flap** may lie outboard of  $Y = 580$ .
- b. the axis of rotation of **FW Flap** must:
  - i. be aligned with a Y-Axis.
  - ii. at  $Y = 580$ , lie within the volume of **FW Flap** and within 20mm of the forwardmost point of **FW Flap**.
- c. there must be no relative movement between the constituent parts of the **FW Flap**.
- d. any rotation must maintain:
  - i. the geometric relationship between the rearmost two volumes as defined in Article 3.10.1.
  - ii. compliance with all bodywork regulations except for Article 3.10.1 (a), (e), and (h) (i).
- e. the design is such that failure of the system will result in **FW Flap** returning to its normal high incidence position.
- f. any rotation may only be commanded by direct driver input and controlled using the control electronics specified in Article 8.3.
- g. the adjustment permitted under this Article is only allowed when the car is stationary or when specifically permitted by Article x.x of the Sporting Regulations.
- h. at any Y-Plane, the distance between adjacent volumes at their closest position must lie between xx mm and xx mm.

### 3.10.10 Front Wing Auxiliary Components

The following **Front Wing Auxiliary Components** are permitted on each side of the car:

- a. **Front Wing Flap Hangers**
  - i. fully lie within a freely positioned Reference Volume.
  - ii. when projected in X onto an X-Plane, have a projected area less than 500mm<sup>2</sup>.
  - iii. be rigidly fixed to respective profiles.
  - iv. have a minimum distance from other Flap Hangers and the Front Wing Adjuster Plate of 125mm.
- b. **Front Wing Adjuster Plate**
  - i. fully lie within a Reference Volume fixed to car centreline.
  - ii. be rigidly fixed to the rearmost two profiles and intersect the FW Flap rotation axis.
- c. **Front Wing Separators**
  - i. fully lie within a Reference Volume.
  - ii. positioned at  $Y = 0$  and arranged symmetrically about the car centre plane, lying in their entirety between  $Y = \pm 570$  and  $Y = \pm 590$ .
  - iii. designed and arranged such that the relationship between the single volumes can only change whilst the car is in motion in accordance to Article 3.10.9.

- iv. aligned to provide a bearing across at least 40mm<sup>2</sup> when the distance between adjacent volumes is at its closest position.
- d. **Front Wing Fishplates**
  - i. minimal exceptions to Article 3.10.1 provided they fully lie within  $Y = \pm 577$  and  $Y = \pm 583$ .
  - ii. be minimally sized to allow 20mm of overlap between adjustable and non-adjustable parts over complete rotation range.
- e. A fairing that contains a single tyre temperature sensor. The entire fairing and sensor must:
  - i. fully lie within a freely positioned instance of **RV-FW-SENSOR**.
  - ii. intersect either **Front Wing Profiles** or **Front Wing Endplate**.

Furthermore, once all **Front Wing Auxiliary Components** have been defined:

- f. A Fillet Radius no greater than 4mm will be permitted where they intersect **Front Wing Assembly**.
- g. They must be arranged such that they are not visible from both the side and below with **Front Wing Assembly** in place.

### 3.10.11 Front Wing Bodywork Group

Once the components defined in Articles 3.10.1 to 3.10.10 have been constructed in accordance with these provisions, including any subassembly operations, the resulting union is defined as **Front Wing Bodywork**.

## 3.11 Rear Wing (RW)

### 3.11.1 Rear Wing Profiles

**Rear Wing Profiles** bodywork must:

- a. fully lie within **RV-RW-PROFILES**.
- b. comprise of three, non-intersecting, simply connected volumes.
- c. have up to three sections in any X, Y or Z-Plane.

In any Y Plane:

- d. the distance between adjacent sections must lie between 10mm and 15mm at their closest position.
- e. assessing each section independently, within 40mm of the rearmost point of each section, a line tangent to any part of the section visible from below must not subtend an angle greater than the stated value, when measured against the X-axis, with positive angles pointing in the positive X and Z directions.
  - i. Forwardmost volume: 10 degrees.
  - ii. Intermediate volume: 40 degrees.
  - iii. Rearmost volume: 65 degrees.

**Rear Wing Profiles** Aerodynamic Surfaces must:

- f. in any Y-Plane, contain:
  - i. no concave radius of curvature visible from below.
  - ii. no concave radius of curvature less than 100mm.
- g. when measured against a Y-Plane, contain no normal to any point on the surface that subtends an angle greater than 20°.

Compliance with (e), (f) and (g) is not required within 5mm of **Additional Rotation Bodywork** defined in Article 3.11.7 (d).

#### 3.11.2 Rear Wing Endplate Body

**Rear Wing Endplate Body** bodywork must:

- a. fully lie within **RV–RWE–BODY**.
- b. have up to two sections in any Y–Plane
- c. when viewed from the side, fully obscure **RS–RWE**.

**Rear Wing Endplate Body** Aerodynamic Surfaces must:

- d. contain no concave radius of curvature less than 100mm.

#### 3.11.3 Rear Wing Brace

**Rear Wing Brace** bodywork must:

- a. fully lie within **RV–RW–BRACE**.

In any Y Plane:

- b. have at least one axis of symmetry.

**Rear Wing Brace** Aerodynamic Surfaces must:

- c. contain no concave radius of curvature less than 100mm.

#### 3.11.4 Rear Wing Pylon

**Rear Wing Pylon** bodywork must:

- a. fully lie within **RV–RW–PYLON**.
- b. when viewed from above, rearwards of  $X_R = 250$ , be fully obscured by **Rear Wing Profiles**.
- c. in any Z plane:
  - i. have a total area no greater than 5000 mm<sup>2</sup>, except for regions within 30mm of **Exhaust Tailpipe**.
  - ii. measure less than 25mm in the Y direction, except for regions inside of **RV–TAIL–EXH**.

#### 3.11.5 Rear Wing Assembly

**Rear Wing Assembly** results from the Trim and Combination of the following components:

- a. **Rear Wing Profiles**.
- b. **Rear Wing Endplate Body**.
- c. **Rear Wing Brace**.
- d. **Rear Wing Pylon**.

Before trimming is applied, any **Rear Wing Profiles** and **Rear Wing Brace** remaining outboard of **Rear Wing Endplate Body** must be discarded.

A Fillet Radius, no greater than 10mm, may be applied along the intersections between the remaining component parts.

Once fully defined, **Rear Wing Assembly** must:

- e. be a single volume, with no overlapping regions.

#### 3.11.6 Rear Wing Rotation System

Except for the forwardmost volume, the **Rear Wing Profiles**, including any fitted gurney and portions of **Rear Wing Auxiliary Components** that are attached to these volumes, may be