

Requirements Table from Specifications

Req-ID	Requirement	Trace-
1	All aerodynamic components or bodywork influencing the car's aerodynamic performance must be rigidly secured and immobile with respect to their frame of reference defined in Article 3.3.	
3.2.2		
2	All aerodynamic components or bodywork influencing the car's aerodynamic performance must produce a uniform, solid, hard, continuous, impervious surface under all circumstances.	
3.2.2		
3	Any device or construction that is designed to bridge the gap between the sprung part of the car and the ground is prohibited under all circumstances.	
3.2.2		
4	With the exception of the parts necessary for the adjustment described in Article 3.10.10, or any incidental movement due to the steering system, any car system, device or procedure which uses driver movement as a means of altering the aerodynamic characteristics of the car is prohibited.	
3.2.2		
5	The Aerodynamic influence of any component of the car not considered to be bodywork must be incidental to its main function. Any design which aims to maximise such an	

aerodynamic influence is prohibited.

3.2.2

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All bodywork must be nominally symmetrical with respect to $Y=0$.

3.2.3

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Any regulation in Article 3 concerning one side of the car will be assumed to be valid for the other side of the car and references to maximum permissible numbers of components in Article 3 will also refer to the one side of the car.

3.2.3

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Minimal exceptions to the requirement of symmetry of this Article will be accepted for the installation of non-symmetrical mechanical components of the car, for asymmetrical cooling requirements or for asymmetrical angle adjustment of the front flap defined in Article 3.9.7.

3.2.3

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Bodywork on the unsprung mass must respect this Article when the suspension position of each wheel is virtually re-orientated so that its wheel coordinate system axes (described in Article 2.11.3) are parallel to their respective axis of the car coordinate system (described in Article 2.11.1).

3.2.3

10	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.
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3.2.4	
11	Components which 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.

3.2.4	
12	Unless otherwise specified, a tolerance of $\pm 3\text{mm}$ will be accepted for manufacturing purposes only with respect to the CAD surfaces.

3.2.5	
13	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.

3.2.5	
14	Any discrepancies contrived to create a special aerodynamic

effect or surface finish will not be permitted.

3.2.5

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Irrespective of a), geometrical discrepancies at the limits of the Reference Volumes must be such that the measured component remains inside the Reference Volume.

3.2.5

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A positional tolerance of $\pm 2\text{mm}$ will be accepted for the Front Wing Bodywork, Rear Wing Bodywork, Exhaust Tailpipe, Floor Bodywork behind $X_R = 0$, and Tail.

3.2.5

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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.

3.2.5

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Irrespective of b), a tolerance of $Z = \pm 2\text{mm}$ will be accepted for parts of the car lying on the $Z = 0$ plane, with $-375 \leq Y \leq 375$ and ahead of $X_R = 0$.

3.2.5

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Minimal discrepancies from the CAD surfaces will also be accepted in the following cases: Minimal repairs carried out on aerodynamic components and approved by the FIA.

3.2.5	
20	Minimal discrepancies from the CAD surfaces will also be accepted in the following cases: Tape, provided it does not achieve an aerodynamic effect otherwise not permitted by Article 3.

3.2.5	
21	Minimal discrepancies from the CAD surfaces will also be accepted in the following cases: Junctions between bodywork panels.

3.2.5	
22	Minimal discrepancies from the CAD surfaces will also be accepted in the following cases: Local bodywork fixing details.

3.2.5	
23	All cars must be equipped with mountings for optical targets that enable the car's datum to be determined for scrutineering in the following locations: One on the forward part of the top of the survival cell.

3.2.6	
24	All cars must be equipped with mountings for optical targets that enable the car's datum to be determined for scrutineering in the following locations: Two positioned symmetrically about $Y=0$ on the top of the survival cell close to $X_B = 0$.

3.2.6	
25	All cars must be equipped with mountings for optical targets that enable the car's datum to be determined for scrutineering in the following locations: Two positioned symmetrically about $Y=0$ on the side of the survival cell close to $X B =0$.

3.2.6	
26	All cars must be equipped with mountings for optical targets that enable the car's datum to be determined for scrutineering in the following locations: Two positioned symmetrically about $Y=0$ on the side of the survival cell close to the rear mounts of the secondary roll structure.

3.2.6	
27	All cars must be equipped with mountings for optical targets that enable the car's datum to be determined for scrutineering in the following locations: Two positioned symmetrically about $Y=0$ within an axis-aligned cuboid with an interior diagonal defined by points $[X C =0, 175, 970]$ and $[X C =150, -175, 870]$.

3.2.6	
28	All cars must be equipped with mountings for optical targets that enable the car's datum to be determined for scrutineering in the following locations: One probed point on the RIS or gearbox case.

3.2.6	
29	In all cases, a file with required datum points must be supplied

for each survival cell.

3.2.6

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For deflection testing, all cars must be provided with a means of mounting a reference artefact to the RIS.

3.2.6

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This mounting may be temporary, but must be rigid with respect to the underlying car structure.

3.2.6

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

3.2.6

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Section titles and Article titles within this article have no regulatory value.

3.2.7

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Static pressure tappings are permitted in surfaces, provided that they; Have an internal diameter of no more than 2mm.

3.2.8

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Static pressure tappings are permitted in surfaces, provided that they; They are flush with the underlying geometry.

3.2.8

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Static pressure tappings are permitted in surfaces, provided that they; Are only connected to pressure sensors, or are blanked, without leakage.

3.2.8