

F1 rule changes aiming for safety, sustainability

The FIA has focused on improving safety and the use of resources in the latest regulations, with mandatory crash tests for all vehicles that take to the track and the banning of last season's off-throttle blown diffuser which used exhaust gases to improve downforce, at the cost of fuel efficiency

Nose: Maximum height lowered to improve safety in event of impact with another car

Safety: New cars must pass crash tests prior to any on-track tests

Exhausts:

Clamp down on aerodynamic use of exhaust gases by restricting size and position of tailpipe

Cylindrical, rear-facing with vertical cut-off

75mm

Tailpipe exit zone – exhaust plume should not interact with bodywork

Red Bull RB7 (2011)

Gears: First gear must be used up to 100km/h

Testing: Three-day mid-season test allowed – to be held at Mugello in May

Race suspension: Maximum race time limited to 4 hours

Tyres: Driver can use all allocated tyres on first day of practice

Wheel guns: Powered by air or nitrogen. Helium – whose lower density allows faster rotation for wheel change as quick as 2.3 seconds – banned due to cost, sustainability

Defending racing line: Drivers may not return to racing line if they have moved off to defend position

- 1 Lead driver: Wide approach to curve for fastest arc
- 2 Following driver: Attempts to take corner on inside
- 3 Leader moves off race line to defend position
- 4 Leader must not return to racing line unless leaving car's width to edge of track

RACING LINE

Fastest route through a corner

Turn in
Full throttle

Trail braking – apply brakes late and into early phase of corner

Gear change

Allows late braking, earlier acceleration and maximises use of straights following corner. Position of apex in each corner differs, and also depends on grip and driving technique

Geometric apex of corner

Racing apex

Exit: Acceleration begins as soon as braking stops