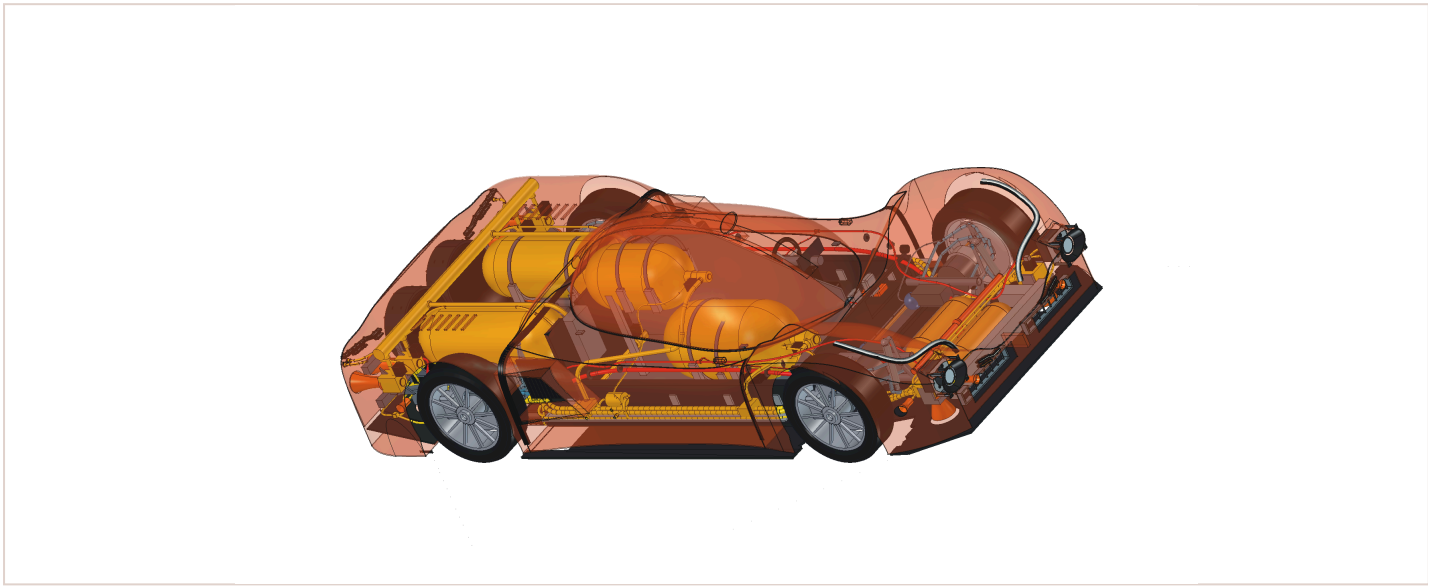
Evidence report · IMPULSE R06

An experimental AWD/RWD chassis with fan downforce and a gas circuit. R06 packages two landing vessels inside the existing body.



FreeCAD capture · orange AWD R06 copy

31.29 L	2.80 kg	0 s · 0 m
Internal landing vessel volume	Nitrogen above the conditional 25 MPa floor	Both variants with stock delivery

Manoeuvre on hold
The landing collector outlets are blanked. Both variants remain on the ground in the stock HP-B calculation.

Target trajectory

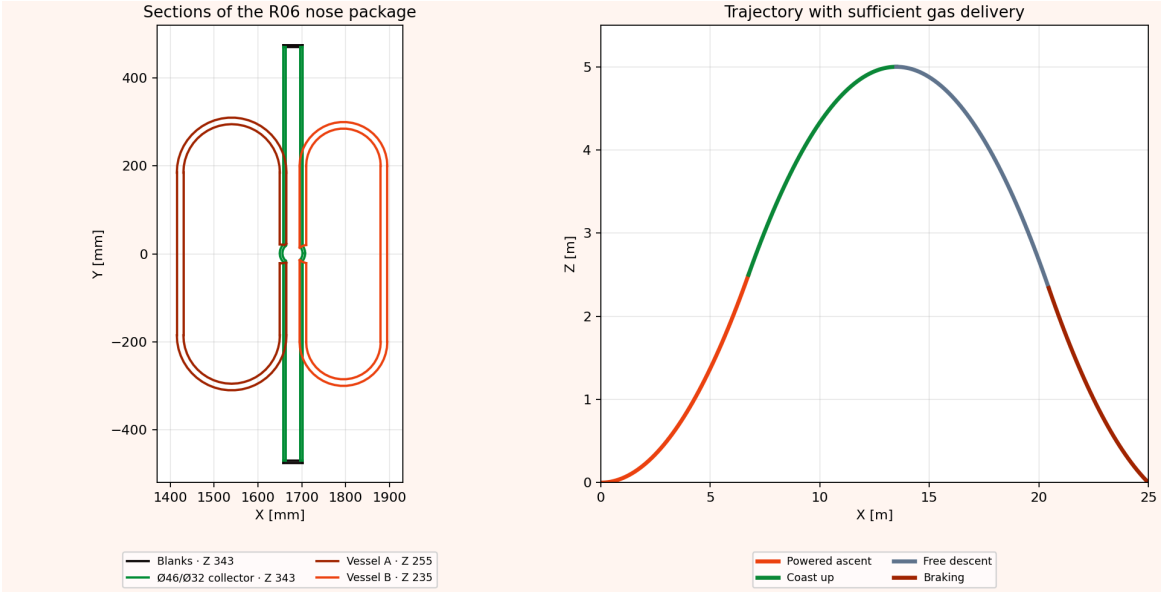
5 m up · 25 m forward · up to 2.5 m/s. Calculated duration is 2.65 s at a specified 34.01 km/h at lift-off. The model tracks centre-of-mass motion. The target trajectory assumes the required nitrogen delivery.

Drive	Model mass, kg	Imposed 5 m touchdown, m/s	Peak thrust, kN[1]	Landing reserve, kg[1]
AWD	2327.05	7.02	45.6	35.6–40.8
RWD	2227.58	6.88	43.7	34.1–39.1

[1] Target profile at twice the current weight in thrust. Landing reserve includes 15%.

Packaging and gas delivery

The exterior matches R05. 672 front tyre positions were checked. The smallest clearance to nearby fixed parts is 4.22 mm. Reopening was verified in separate FreeCAD processes.



Residual pressure limits

Drive	Inventory ceiling, MPa	Throughput floor, MPa	Touchdown flow, kg/s
AWD	5.20	13.46	63.94
RWD	5.88	12.68	61.20

Even with the stock 280 L pooled with the new vessels, the throughput floor exceeds the inventory ceiling. This check uses Cd = 1 and F/ṁ = 690 m/s.

Sources

The engineering AWD/RWD R06 models are the evidence source. Checksums, telemetry and verification records are included in the showcase folder.

data/r06_results.json · evidence/native_saved.json · evidence/pressure_tradeoff.json