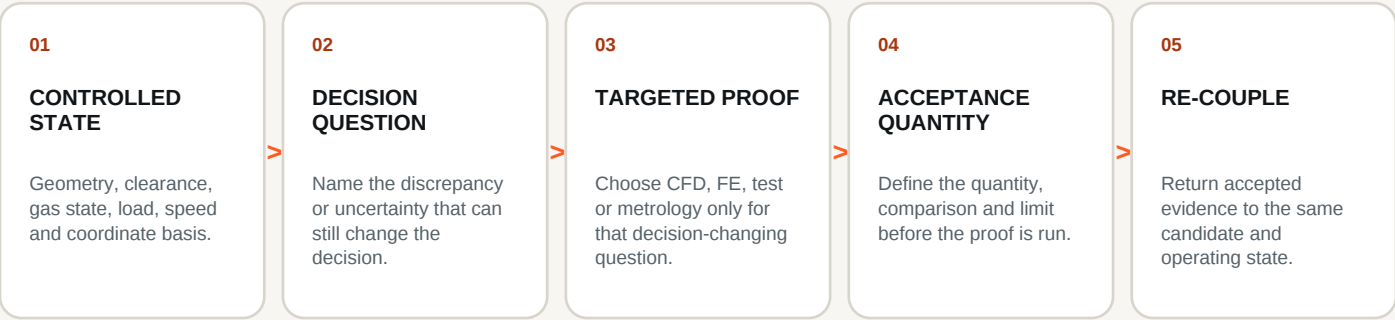


From Operating State to Acceptance Evidence.

A vendor-neutral proof-planning map for gas-static precision-spindle decisions.



● EVIDENCE ROUTE PLANNER

Question family	When it matters	Proof route	Closure basis
Gas-film / bearing	Pressure, flow, force closure or local gas-film behaviour can change the candidate.	Targeted CFD / solver-native profiles	Named quantity + state match
Rotor system	Mode family, response, stability or support-state consequence governs the architecture.	Rotor model / response study	Operating-state margin
Structural / thermal	Deflection, stress, interface or thermal state can change geometry or clearance.	Targeted FE / thermal model	Decision-critical displacement / stress / temperature
Manufacturing / tolerance	Clearance, form, alignment or tolerance stack can overturn the nominal result.	Tolerance analysis / metrology	Controlled geometry / tolerance basis
Prototype / acceptance	A release claim depends on measured machine behaviour.	Test / acceptance programme	Pre-defined acceptance evidence

Do not ask a solver to define the acceptance logic after the run.

The proof is useful only when state identity, quantity and authority are fixed before interpretation.

01

STATE IDENTITY

Candidate ID, geometry revision, clearance, gas state, load, speed and coordinates.

02

OPEN QUESTION

One explicit discrepancy or uncertainty that can still change the engineering decision.

03

TARGET PROOF

The smallest CFD, FE, test or metrology task able to resolve that question.

04

ACCEPTANCE QUANTITY

What will be compared, where it is extracted, the units and the acceptance rule.

05

PROVENANCE

Solver/test source, model scope, assumptions, mesh or setup basis and data lineage.

06

RE-COUPLING RULE

How accepted differences return to the same bearing-shaft candidate and next decision.

● NOT CLOSURE EVIDENCE

- An attractive contour image without a controlled state identity.
- One FE mode or one operating point promoted to a complete duty-envelope claim.
- A test result that cannot be traced back to the same candidate / operating state.
- Solver convergence alone, without the decision quantity and closure rule.
- Undocumented parameter tuning used to obtain the expected result.
- A historical case deviation promoted into a universal accuracy statement.

CLOSURE RULE

Evidence closes a question only when the controlled state, acceptance quantity and authority are explicit.

If any of those changes, the result must be re-coupled and re-qualified before the next decision.