

SimpleCFD & DynamiX CFD

Industry-Driven CFD, at a Fraction of the Cost of Commercial Software

Overview

Commercial CFD software is built to cover nearly every industry and physics regime on a single platform. That breadth comes at a steep price — high upfront licensing, costly annual renewals, expensive HPC tokens, and a long training curve before an engineer can use it productively.

SimpleCFD and DynamiX CFD are built differently: each is engineered around the flow problems our clients actually need solved, using a validated, industry-tested solver core. That focus lets us offer the same engineering-grade accuracy at a very competitive price.

DynamiX CFD (launching soon) is our actively developed platform — new industries, physics, and features are being added on an ongoing basis, so clients get a continuously improving tool without ever paying commercial-software renewal pricing.

What's Covered

What's Covered	SimpleCFD	DynamiX CFD	Typical Commercial CFD Software
Purchase Cost	Very low, one-time license / yearly subscription available	Very low, one-time license / yearly subscription available / Cloud Compute Available	High upfront license, typically renewed annually
Ongoing / Renewal Cost	Renewal only for subscription plan	Only if chosen subscription plan; optional low-cost subscription only if cloud compute is used	High recurring annual maintenance and renewal fees
HPC / Parallel Compute	No HPC/parallel-compute cost — full multi-core solving included at no extra charge	No HPC/parallel-compute cost — full multi-core solving included at no extra charge	HPC access bundled into expensive licensing tiers or sold as costly separate tokens
Applications Covered	Valves, nozzles & orifices, piping networks, and HVAC ductwork — steady and transient flow, pressure drop, flow coefficient (Cv/Kv), and force on internal components	Aerospace, automotive, and general industrial flow studies: HVAC and building airflow, valves and flow-control components, buoyancy/thermal-driven flow, multiphase flow, agitator and stirred-tank mixing, and more industries being added continuously	Broad multi-industry coverage: aerospace, automotive, combustion, multiphase, acoustics, and more
Flow Conditions	Steady-state and transient (time-varying) incompressible flow	Full range including compressible, multiphase, and mixing flow	Full range including compressible, multiphase, and reacting flow
Turbulence Modeling	Industry-standard model (k-omega SST), validated against real test cases	Large library of turbulence models for specialized use cases	Large library of turbulence models for specialized use cases
Meshing	Automated hex-dominant / polyhedral mesh generated for your geometry — no manual meshing required	Automated hex-dominant / polyhedral mesh with adaptive refinement, tuned per case	Mesh strategy typically requires manual setup and dedicated CFD-specialist tuning

What's Covered	SimpleCFD	DynamiX CFD	Typical Commercial CFD Software
Result Visualization	Full 3D visualization — contour plots, vector plots, flow paths, and automatic comparison charts across multiple design variants	Full 3D visualization — contour plots, vector plots, flow paths, and automatic comparison charts across multiple design variants	Comprehensive visualization suite with a steep learning curve
Design / Parametric Studies	Included at no extra cost — automatically run and compare multiple design variants (e.g., different valve positions) in one workflow	Included at no extra cost — automatically run and compare multiple design variants (e.g., different valve positions) in one workflow	Usually sold as a separate, additional paid module
Setup Time & Training	Minutes — minimal-input workflow, no CFD specialist required	Guided, low-effort workflow — built for engineers, not CFD experts	Days to weeks of training; typically requires a dedicated CFD specialist
Customization for Your Needs	Configured to your exact equipment and operating range at purchase	Actively updated — new industries, physics, and features are being added on an ongoing basis based on client needs	Customization possible but requires scripting expertise and added vendor cost
Feature Rollout	Stable, focused tool for its intended use	In active development — new capabilities released regularly, at no extra cost to existing customers	New features tied to the vendor's global release cycle, often years apart

Why It's the Better Value

For the applications they're built for, SimpleCFD and DynamiX CFD deliver validated, engineering-grade results at a fraction of the total cost of ownership of commercial CFD software. There is no HPC or parallel-compute cost at all — every license runs on the full core count of the machine it's installed on, so multi-core solving is included by default, not sold as a separate token or bundled into a pricier tier. That, combined with no expensive annual renewals and no lengthy training investment, means the total cost stays low well beyond the purchase price. Automated meshing and guided workflows mean engineers get accurate results in minutes, not days, and without a dedicated CFD specialist. DynamiX CFD is actively growing, with new features and industry coverage added regularly at no extra cost to existing customers — giving clients a platform that keeps pace with their needs, matches commercial-grade capability, and does it without the commercial-software price tag or the commercial-software compute bill.