

About us

We're fortyfour — two founders (26 and 28), building something we believe can genuinely move the needle for the climate and for future industrial systems. We're an early-stage startup designing next-generation Direct Air Capture (DAC) tech from scratch, built specifically for utilization instead of storage.

Our core idea is to capture CO₂ from ambient air using advanced liquid solvents, in a way that makes it cheap, simple, and flexible enough for intermittent use. This unlocks a way to use past emissions as the resource that fuels food production, materials, and industrial processes. A truly circular carbon economy.

We're zero bureaucracy. We move fast, build things, break things, learn, iterate, and go again. We value motivation over logos, ownership over titles, and culture over credentials. If you want to work in a place where you can make fast decisions, you'll like it here.

Our entry market is greenhouse horticulture, which urgently needs a fossil-free CO₂ solution due to rising fossil CO₂ prices, regulatory pressure, and chaotic supply chains. We intend to be the ones who bring them a solution to overcome the hustle.

About the role and your challenge ahead.

This is a first-hire engineering role in the truest sense. You'll join at the point where things get real. Our biggest prototype unit is built, components have been independently tested, and now we enter the "let's make this thing run, learn everything we can, improve it, and deploy the next version" phase.

Your mission:

- Commission our first pilot plant and take it from "built" to "operational, reliable, and understood".
- Develop the playbook for operating the system — because you'll be the one that will best know how to run it, break it, fix it, optimize it, and make it better.
- Drive the second iteration of the hardware, leading toward our industrial deployment planned for next year.
- Push energy consumption down even further — this is one of the hardest and most important parts of the tech.
- Identify upgrades needed for food-grade CO₂, forming the basis of future commercial units.

- Work hands-on with hardware, sensors, process control, solvents, heat/mass transfer, and more.
- Shape our engineering culture from day zero — what we build, how we build, and how we iterate.

If you like working in simulation tools only, this is not for you.

If you love getting your hands dirty, debugging messy real-world processes, and seeing your work come to life in hardware — drop us a message, nothing fancy, we'll love to have a talk. English is the main language.

This role is for you if...

You:

- Are located in (or willing to relocate to) Switzerland — initially Central Switzerland.
- Want a big challenge. Like, truly big.
- Can handle pressure, ambiguity, and fast learning cycles.
- Prefer action over long discussions.
- Like to build before there are processes, rules, or comfort zones.
- Are okay with some chaos — in early-stage hardware startups, chaos is a feature.
- Have a mindset that goes beyond the classic corporate work schedule.
- Take full ownership of projects — not because you're told to, but because you care.
- Believe applied research is a verb.
- And most importantly: you genuinely want to make a positive impact on the climate and the planet.

What you bring

This isn't a checklist but a picture of the type of profile we think will thrive.

Technical background

- Degree in Chemical Engineering, Process Engineering, Energy/Environmental Engineering, or similar.

- Strong understanding of sorption technologies, absorption processes, and gas-liquid systems.
- Knowledge of organic chemistry and/or solvent systems is a plus.
- You enjoy both experimentation and structured analysis.

Bonus points (not required)

- Solid understanding of measurement techniques, best practices, and safety for absorption or carbon capture processes.
- You speak Dutch or French fluently.
- Previous experience in the field.

What we offer

100% FTE position with a fair base pay and an equity package, a steep learning curve, a work environment full of motivation and curiosity, and possibility to shape the culture of the company. All the lawful benefits in Switzerland, like 25 paid holidays, and the like.

How to apply

Send us your CV, no need for a formal cover letter, just drop us an email with your motivation to contact@fortyfour.earth with the subject FIRST HIRE. LinkedIn works as well.