

Launchers  
Satellites  
Transversal competencies



Sylphaero is a startup working on electrothermal propulsion for high speed vehicles, using thermal plasmas generated with electric arcs. The main goal is to offer an alternative to other electric airbreathing propulsion systems such as electromagnetic motors, to reach higher speeds and power levels.

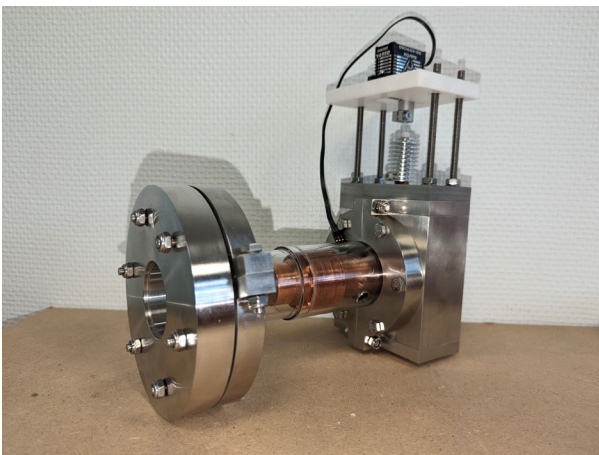
This technology, quite close to arcjets, can be used within any atmosphere. It can also be derived into gas heaters used to reproduce the conditions of atmospheric reentry.

## COMPETENCIES & CAPABILITIES

Sylphaero currently offers an expertise in:

- Thermal plasmas
- Plasma chemistry
- Electric arcs
- Propulsion
- Energy management and power electronics

We have the capabilities to rapidly design and produce plasma torches.



# SYLPHAERO

## PRODUCTS & SERVICES

Sylphaero currently offers R&D and prototyping services related to its competencies, in particular electric arcs, thermal plasmas and electric propulsion. Electric propulsion includes turbojets, ramjets, scramjets, shcramjets, arcjets, Lorentz Force Accelerators.

Any application that requires to generate hot or ionized gases is also within our scope, such as plasma wind tunnels.

## MAJOR SPACE PROJECTS & REFERENCES

Sylphaero is currently under contract with the CNES to study the feasibility of thermal plasma propulsion for launchers, boosters and SSTOs.

Sylphaero is also under contract with an undisclosed defense company to conduct the conceptual design of a thermal plasma propulsion system for supersonic and hypersonic vehicles.

## POINT OF CONTACT

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**TURNOVER** 0.07 M€

**WORK FORCE** 6 employees

**SPACE TURNOVER** 0.06 M€

**SPACE WORK FORCE** 5 employees