Innovative CNG







Who are we?

SARUS designs and produce innovative CNG compressors in France.

Our **patented technology** makes possible the **recovery of gas expansion** at the pressure reducing station in order to **produce CNG for free**.



CNG Production on station without electrical consumption



Pressure reducing stations is the interface between gas transport network (national grid) and local distribution network (urban area, business district).

CNG production, made simple.

Free piston expander get started when upstream gas feeds the inlet admission. The procedure take less than a second and does not require any external control.



No motor

The free piston expander feeds the CNG compressor thanks to the energy recovery on pressure reducing station only.

No shaft

The self oscillation axial motion is driven only by the pressure difference at the inlet and outlet of the machine.

No oil lubrication

Thanks to a solid lubrication approach, developed with a national laboratory on tribology, we managed to avoid any oil injection in the machine.

No external cooling

Our internal heat exchanger dissipates CNG heat to the gas at the admission inlet.

Plug-and-play approach and external connections

CNG compressor requires only gas connection to the inlet (**gas transport network**), the outlet (**distribution network**) and to the CNG tank.

Working on a high pressure basis at high frequency rate leads to an extremely compact design.



Reduced vibration level

CNG compressor is mounted on a weighted frame with vibrations pads. This reduces greatly vibrations and noise generated.

Gas pulsation filtering

Harmonic filters are integrated to the compressor casing, reducing pressure pulsation to the lowest level.

Reduced footprint

Global footprint is only 150 x 85 cm and does not require any external components (air chiller, lubrication station, power cabinet).

Skid delivery

Internal piping, connections and components are fully mounted in our workshop.



Compressor profile

CNG compressor power is related to the pressure reducing station profile.

Depending on the pressure difference and the flowrate available at the station, power ranges from 30 kW to 80 kW.

CNG flowrate also depends on gas condition at the transport network.



Use case comparison

CNG tank filling profiles on demand, according to your specifications.

Our achievements







POC CNG TRL6 being tested at the Research and Initiative Center for Energy (RICE)

They trust us

