

skytree®









ACHU 02680 [6]

MAX. GROSS 30.000 kg
79.366 lb
TARE WEIGHT 8.600 kg
18.690 lb
VOLUME 19.650 L

CO₂

CO₂

TIR

ASC0 CARBON DIOXIDE LTD

22
2187







A photograph of two astronauts in white space suits working on the exterior of the International Space Station. They are positioned on a large, dark, rectangular solar panel array. The station's complex structure, including various modules and equipment, is visible in the background. The Earth's surface, with its blue oceans and white clouds, is seen from a high altitude, providing a dramatic backdrop for the scene.

“Turning CO₂, the world’s biggest waste-stream,
into a profitable and sustainable resource.”





Capture

Concentrate

Release



CO2 Air Capture and Re-Use

- Sustainable
- Location independence
- Supplier & Time independence
- Clean CO₂ & air-mix
- Automation, Lifetime & Safety
- Utilisation of waste heat & existing infrastructure
- Cost savings

Aquaria



Water Treatment



Beverage Carbonisation



CO2 Conversion

PERSONAL

INDUSTRIAL

CO₂ re-use

Plug & play convenience

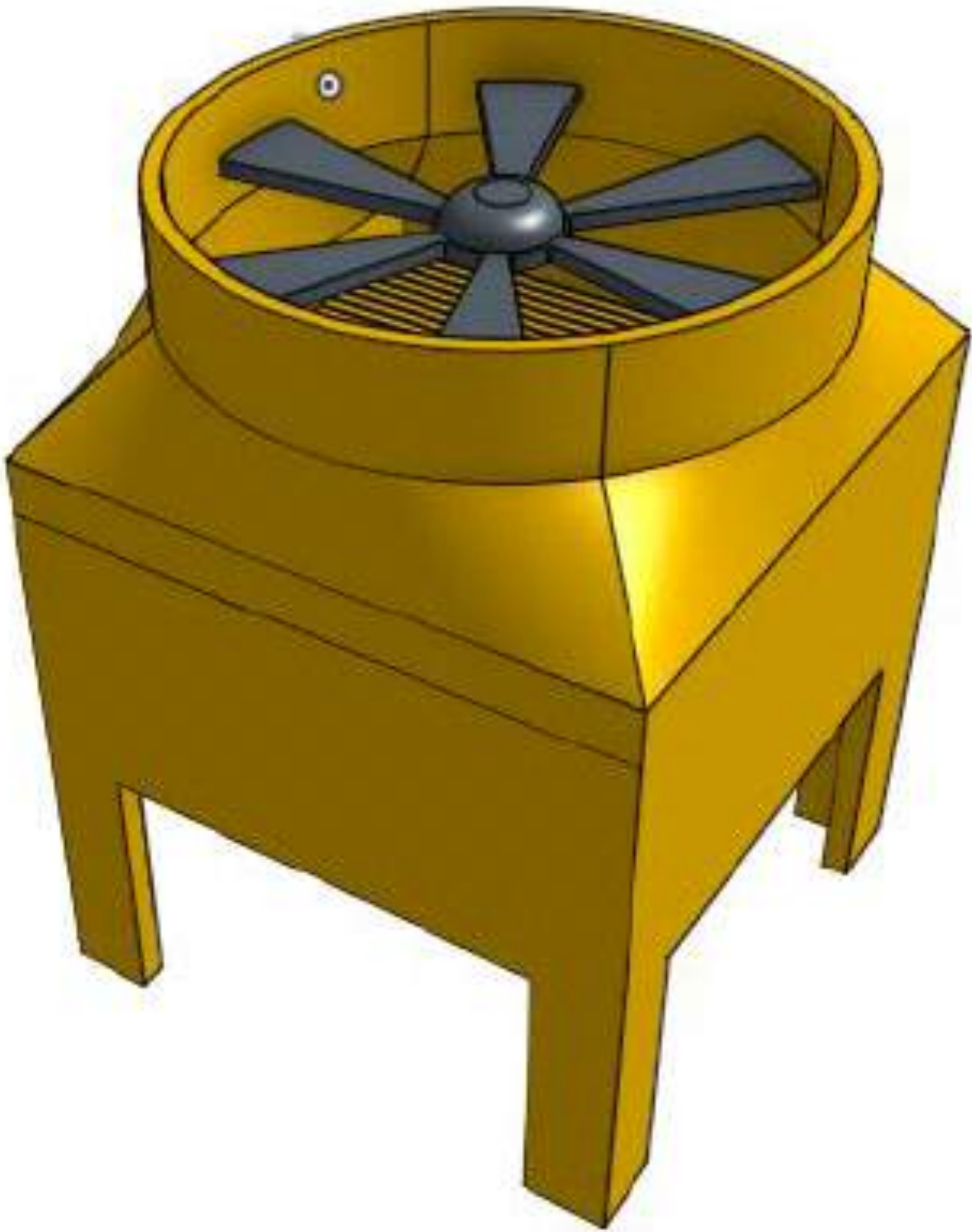
Supplier & Location
independence

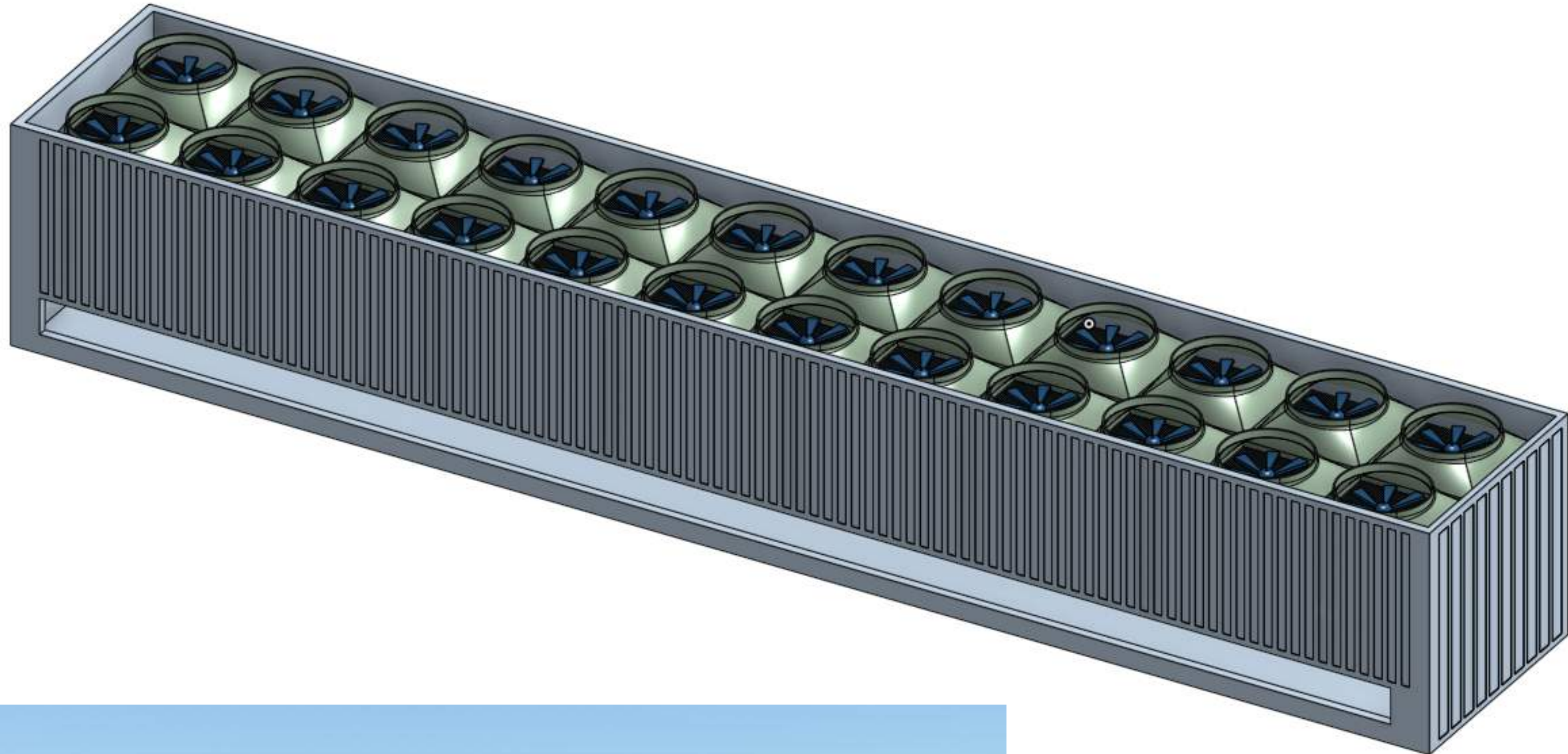
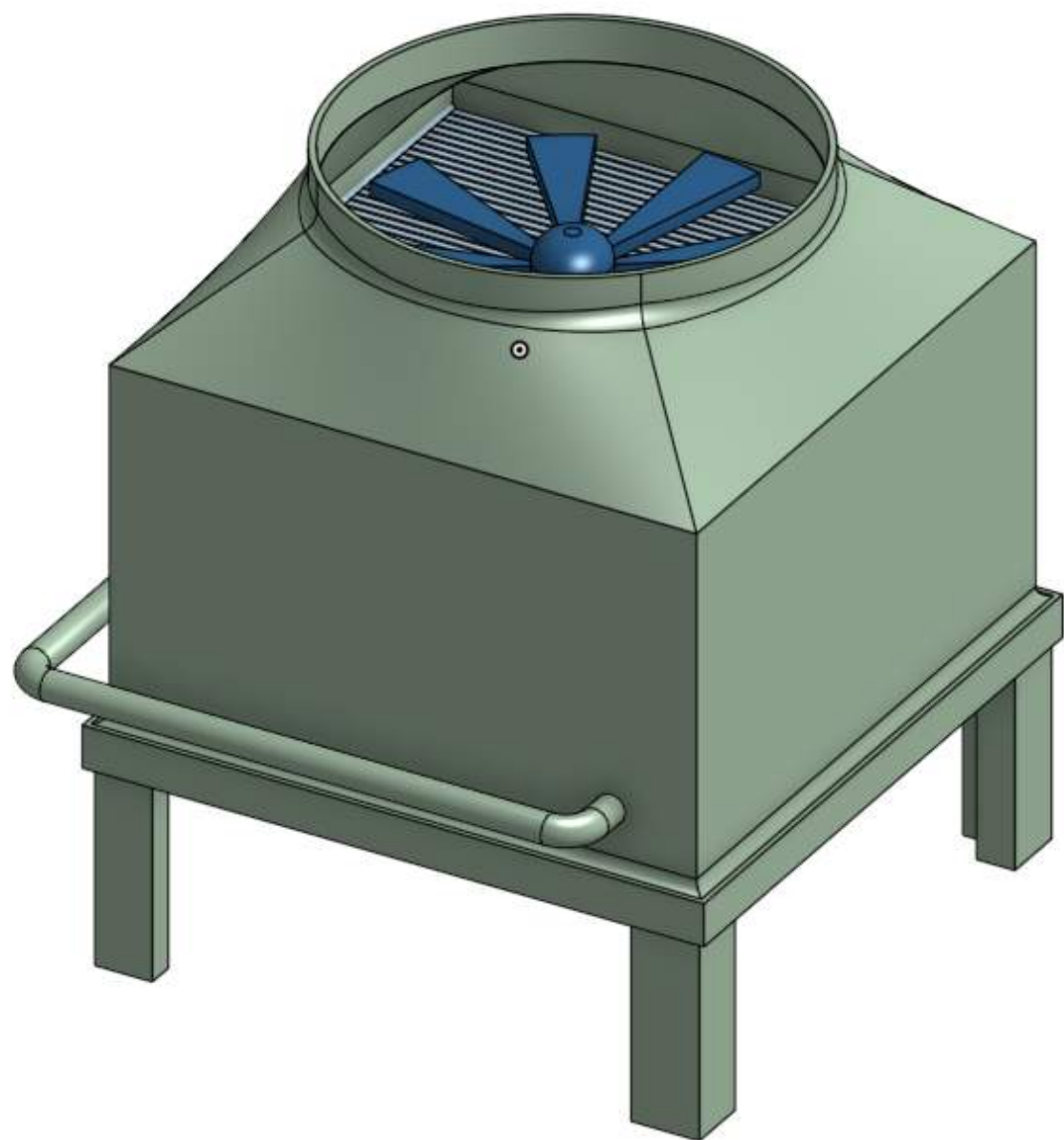
Cost savings

Module Performance:

System integrated into geothermal well water supply

Sorbent Bed Size	1m x 1m x 0.5m
Volume of Sorbent	330 L
Air Processing	1.3 m³/s
Desorption Cycle Energy	12.1 kWh
Max Desorption Power	9.3 kW
Cycle Time	8 hours
CO ₂ per Cycle	7.3 kg
Modules For 70 kg/ha/hr	2600





Small

Medium

Large




Grams



Kilograms



(Kilo) Tons


REUSE 
REDUCE



270ppm

350ppm

400ppm



“The good news is, we have everything we need now to respond to the challenge of global warming. We have all the technologies we need, more are being developed.... But we should not wait, we cannot wait, we must not wait.”

- Al Gore



"THERE IS NO PLANET B."

- *Virgin Earth Challenge*



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STINGRAY

“Introducing the world’s
first commercially available
CO₂ capturing device.”



EHEIM



CO2 Facts:

- Current CO2 amount in the atmosphere: 3.000 billion tons
- Additional CO2 emissions per year: + 34 billion tons
- CO2 emissions per person in the Netherlands per year: 10.000 kilograms
- CO2 Demand: 50-350 million tons (current), 5.000 million (potential)
- CO2 on-take of a tree: 21,7 kg per year
- Trees on earth: 3.000 billion



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CO₂ solutions for
space for everyday



AIR PURIFICATION



WATER TREATMENT



Small Applications

- Personal Aquaria \$177.600.000 (3-5%)
- Home Beverage Carbonation \$600.000.000 (20-50%)
- Kitchen Greenhouses \$33.750.000 (5-8%)
- Air Conditioners \$97.700.000.000 (8-10%)

Medium Applications

- pH Balancer for pools and ships \$960.000.000 (2-4%)
- Smart Greenhouses \$1.200.000.000 (12-14%)

Large Applications

- Liquid CO2 (commodity) \$650.000.000 (3-5%)
- Bio-Plastics \$15.900.000.000 (10-15%)
- CO2 in chemical sector \$35.000.000.000 (3-5%)
- CO2 in Fuel sector

Direct Air Capture industry overview

	INFINITREE	GLOBAL THERMOSTAT	CARBON ENGINEERING	CLIMEWORKS	SKYTREE
Founded	2004	2006	2009	2009	2010
Based	New York	San Francisco	Calgary	Zurich	Amsterdam
Commercial Status	Working on pilots	Pilot Oct 2010 Commercial demo 2013	Pilot 2013-15 Commercial plant by 2017	Demonstrator Commercial plant 2015	First company with a commercial product on the market (2016)
Funded by	Comer Foundation ARCH Ventures	Edgar Bronfman	Bill Gates Murray Edwards	Zurich Kantonalbank Venture Kick de Vigier Stiftung Climate-KIC	Startupbootcamp ESA Incubator Climate-KIC
Technology	Quaternary amine wafer/ membrane	Ceramic amine coating	Chemical (NaOH)	Primary amine wafers	Primary amine beads
Affiliations	Columbia University	Columbia University SRI International	University of Calgary	ETH Zurich	European Space Agency