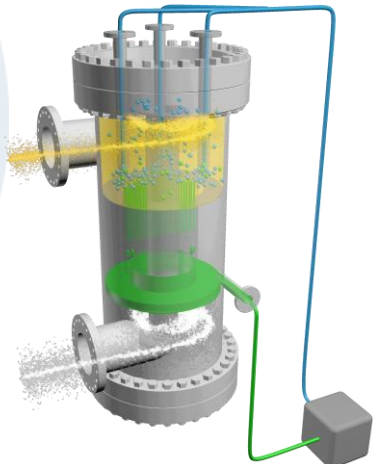
POINT SOURCE CAPTURE SOLUTIONS

Separator

Absorber



SDS SEPARATION

Stripper

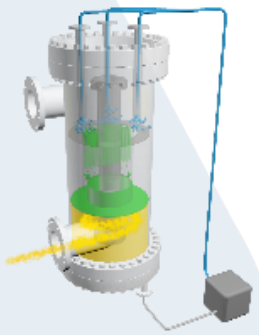
Quencher

SMALL FOOTPRINT · MASSIVE PERFORMANCE

SDS Separation offers high performance, easy to install emission reduction equipment with low TCO and low footprint

Single Technology Platform

Scrubber



Stripper

Separator

Washer

Key value drivers

- **Proprietary Technology:** Patented rotating core consisting of co-axial channels
- **Compact:** High specific area results in 5-10x smaller units vs. conventionals
- **High efficiency:** Centrifugal force and controlled gas-liquid flows results in highly efficient scrubbing & stripping
- **Wide operating window:** Applicable in the widest range of gas pressure, gas temperatures and gas flows

Energy transition markets

Examples of SDS Applications

Carbon Capture
(Emissions capture from flue gases)
→ CO_2 **Scrubber** & **Stripper**

Washing & Scrubbing
(Production and emissions capture)
→ **Washing of** SO_2, NO_x, Methanol, H_2S etc.
→ Ammonia tail gas **scrubber**

Hydrogen purification
(Production plants)
→ Condensate **separator** in fuel cells
→ **Separator** for green ammonia synth

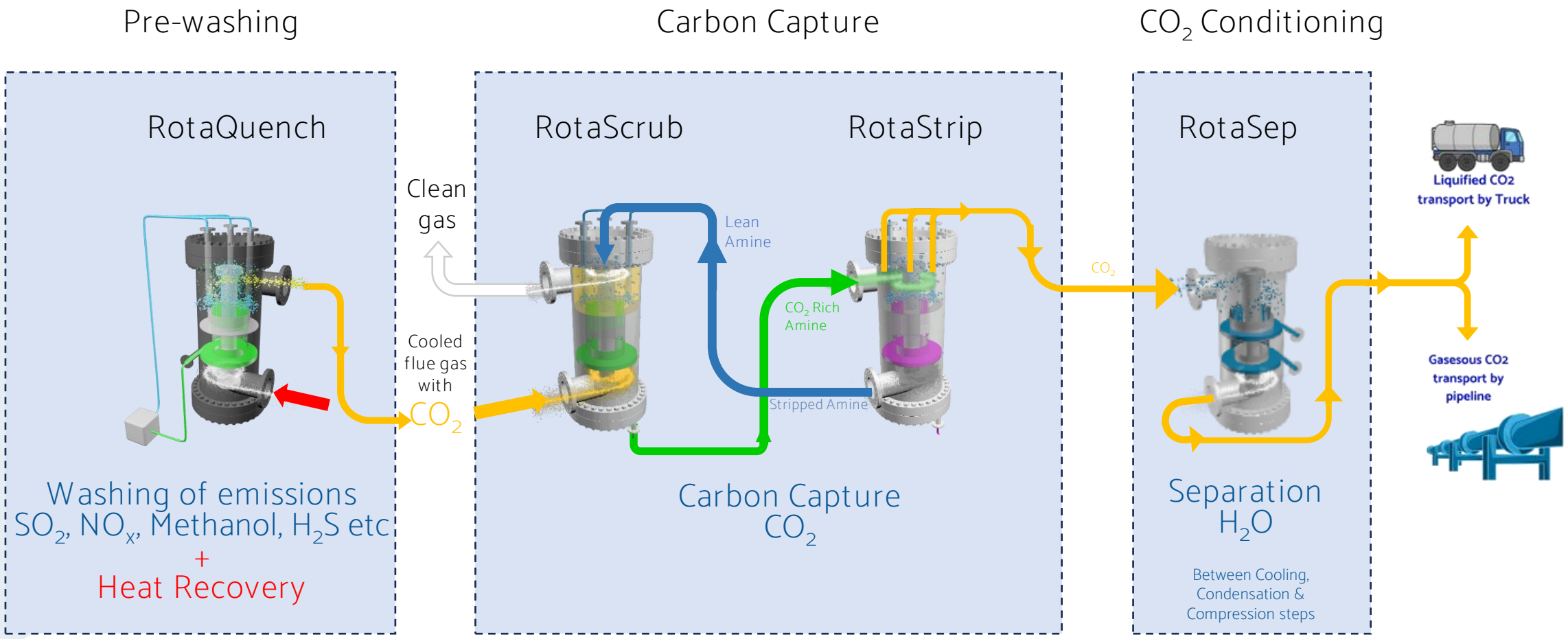
Legacy market

Natural Gas (On/Offshore, Processors, Distributors, Storage)

SDS Applications

- Condensate **Separator**
- Pipeline **Separator**

SDS applications in the Carbon Capture chain

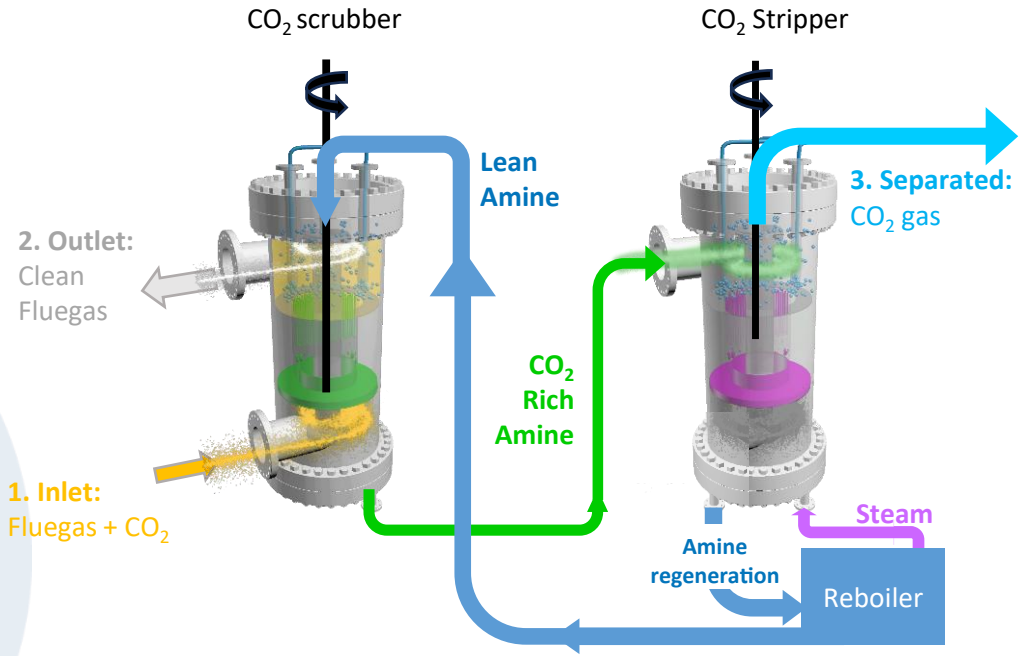


Our Point Source Carbon Capture solution for <100kT emitters

A rotating cylinder with co-axial channels leading to superior economics vs. conventional packed beds

2-5 m high

(vs. 35-40m for conventional)



- Perfectly controlled counter-current flow pattern with low rotation
- 10x higher mass transfer coefficient
- 10x higher specific area between gas and absorbent

Superior performance

- **10 times smaller** size vs conventional packed bed scrubbers
- No amine overdose needed, **20-40% less scrubbing** liquid use
- Opportunity to apply **higher viscous** Amines with highest CO2 loading capacity at lowest market price.

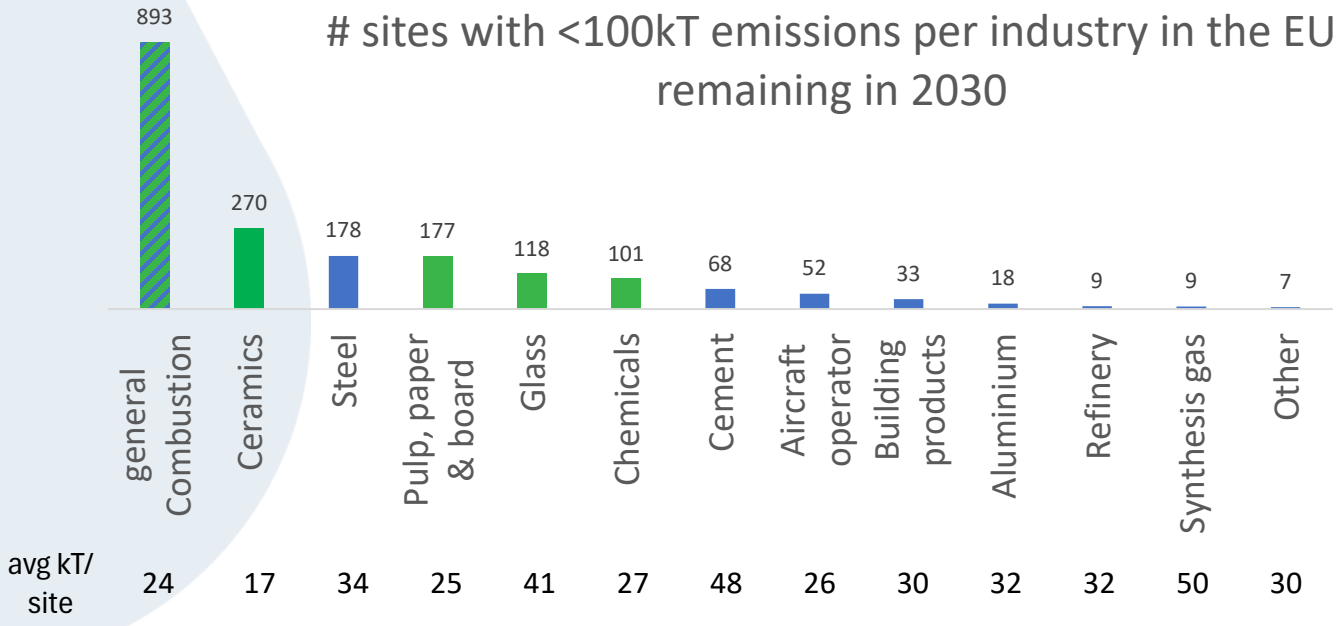
Superior economics

20-25% lower Capex **20-30% lower OPEX**

Economical Business Case
Point Source Capture for smaller emittors <100kT

SDS offers a solution to turn hard-to-abate emissions for mid-scale industry into an opportunity

- In 2030 still >2,200 sites emit 55 Mt CO_2/ yr in EU + UK.
- Because many emissions are unavoidable in production or electrification isn't an option



Our CC solution is economical

- For Flue gas with CO_2 concentrations > 3% CO_2
- Emitters with smaller volumes as of 8 kT/year
- Sites not connected to a CO_2 pipeline and thus require liquefaction and truck transport
- Sites with Remaining process emissions, even if electrified, e.g. ceramics, glass, chemicals, asphalt, concrete, cement
- Hard to abate industries where the heat requirements prevent electrification

Source: EU and UK emission authority 2023 data
Sites & total emissions in 2030 reduced from 2023 anticipating decrease of smokestacks due to electrification (avg. 40%) and efficiency gains (avg. 10%)

CO_2 absorber and stripper are commercially available from 2026 and scalable for flue gas flows between 1,000 and 60,000 m3/hr.

Carbon Capture Unit capacities and dimensions

Based on 10% CO_2 flue gas at 40°C en 95% CO_2 absorption efficiency

CO2 capture (kTon/yr)	Gas flow (Am3/h)	Carbon Capture Skid size		Commercial Availability
		Height (m)	Footprint (m)	
8	4.000	2.5	3 x 2	1H 2026
30	16.000	3.1	5 x 3,5	2H 2026
65	36.000	4	8 x 4,5	1H 2027
100	60.000	5	12 x 6	2H 2027

Typical range for

Food processing, Ceramic industry, Packaging factories, Paper factories