

CO₂ CAPTURE SYSTEM

CHEMICAL ABSORPTION WITH RPB (AMINE-BASED SOLVENTS)

<2.1 GJ/t CO₂ captured

Modular SKID Design

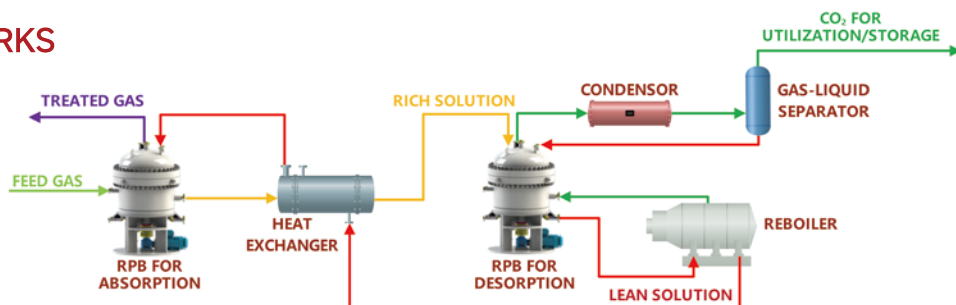
90% Smaller, 50% Lighter

Works Offshore & Marine

SUMMARY

SFCL's modular RPB Carbon Capture System revolutionizes chemical absorption-based CO₂ capture with a compact, high efficiency design. By replacing conventional towers with Rotating Packed Beds (RPBs), it is compatible with MEA, MDEA, phase-change solvents, SFCL's proprietary formulations, or client-specified solvents.

HOW IT WORKS



APPLICATIONS

- CO₂ capture from flue gas emissions
- CO₂ capture from chemical process gas streams
- CO₂ capture from ship-based emission sources (Onboard Carbon Capture System, OCCS)
- CO₂ capture and separation on offshore platforms

MODULAR SKID DESIGN



TECHNICAL ADVANTAGES

- Wide inlet flowrate range: 100-250,000 Nm³/h
- Broad CO₂ concentration handling: 4-25 vol%
- High capture efficiency: >90%
- Low energy consumption: <2.1 GJ/t CO₂
- 90% smaller and 50% lighter than conventional systems

TRACK RECORD

- We have successfully supplied over 20 Rotating Packed Beds (RPBs) for CO₂ absorption and desorption systems in industrial and pilot-scale applications. Our clients include ExxonMobil, CNPC, SINOPEC, CNOOC, and more.

