



SUMMARY

The CATACARB® process offers an efficient, reliable, and environmentally responsible method for capturing CO₂ without modification to upstream technologies. Over six decades CATACARB® has focused exclusively on Hot Potassium Carbonate (HPC) CO₂ capture while optimising the process through experience and data amassed from 35,000,000 plant operating hours. CATACARB® technology can be licensed directly to clients or through select partnerships. The CATACARB® process includes optimal HPC design, performance additives when desired, and ongoing support. CATACARB® can design both Basic HPC utilising stainless steel construction, as well as Enhanced HPC with proprietary performance additives. Advantages of performance additives include corrosion protection allowing carbon steel construction, significant improvement of efficiency for CO₂ removal, and reduced construction footprint. These qualities lower both CAPEX and OPEX. The large number of existing custom-designed CATACARB® plants to date, along with ongoing support, troubleshooting, and data collection, allows CATACARB® to optimise designs and day-to-day performance for clients.

BENEFITS

- CATACARB® prioritises health and environment. The HPC solution is non-volatile and the process forms no carcinogens. There is no solvent in the high purity captured CO₂.
- CATACARB® HPC with performance additives inhibits corrosion enabling carbon steel construction. The additives increase CO₂ removal efficiency 30-40% more than Basic HPC and do not degrade, thereby minimising solution makeup and decreasing OPEX. These qualities also allow a smaller footprint and lower CAPEX.
- Low energy requirements for solvent regeneration and reduced steam demand compared to other technologies allows for an electricity focus when needed. CATACARB® is a fully closed system capable of heat recovery for district heating.
- CATACARB® has vast experience and leverages data from ongoing support to over 150 clients in 34 countries totalling 35,000,000 plant operating hours.

KEY PROJECTS

Stockholm Exergi's (SE) biomass-powered CHP plant Värtaverket in Stockholm Sweden licensed CATACARB® HPC technology. CATACARB® provided Enhanced HPC design for post-combustion CO₂ capture at 800 kta. CATACARB® is working closely with Saipem (SE's chosen provider for detailed engineering).

Karbon Korea's 100% electric Demonstration Unit was built in 2023 capturing 1.5 tons per day of CO₂ with post-combustion capture rate of 90-96% at multiple sites in South Korea. HPC technology, design, and support provided by CATACARB®.

Gulf Coast Growth Ventures has one of the world's largest EO plants in Gregory Texas and relies on CATACARB® HPC capturing 260 kta at a 90% CO₂ capture rate.

The Pemex ammonia plant in Cosoleacaque Mexico entrusts CATACARB® HPC to capture 1250 kta at a 99.6% CO₂ capture rate.

KEY DATA

TRL	9	Capture Rate Range (tpd)	1 to 10,000+	Capture Efficiency (%)	90-95
Source CO ₂ Purity Range	>8%vol	System Energy (GJ/tCO ₂)	0.7 - 1.8	Specific Regen. Energy (GJ/tCO ₂)	~
Number of Commercial Plants	201	Number of Pilot Plants	1 Flue Gas	Modular (Y/N)	Optional
Target Industries	Power (WtE, Biomass, CHP), Steel, Cement, Pulp & Paper, Refining & Petrochemical, Gas Processing				