

LCDesign® Carbon Capture Technology

- Delta CleanTech has designed a Pre-/Post-combustion CO₂ capture technology known as LCDesign®
- Proven to be a cost-effective CO₂ capture solution for CO₂ enhanced heavy oil production, coal and gas power generation, and industrial food grade CO₂ markets
- LCDesign® is based on chemically reactive solvents, which is a proven & leading industrial technology, DeltaSolv®
- Delta Reclaimer® can be integrated with the LCDesign® system or with other carbon capture systems.



DELTA LCDesign® Technology ISO-Verified



DELTA CleanTech is recognized as a leading provider of technology for Pre-/Post- Combustion Carbon Capture from industrial sources, enabling significant and economical reduction of greenhouse gas emissions since 2004. Delta's goal is to deliver practical solutions to reduce greenhouse gas emissions and help solve the challenges of energy security.

Delta has developed its own proprietary second-generation Low-Cost Design Carbon Capture System, LCDesign®.

The collective experiences from over 100 Carbon Capture Projects worldwide provides Delta a distinct advantage.

Delta has successfully designed carbon capture plants with capacity from 1 to 7,000 metric tonnes of CO₂ per day.

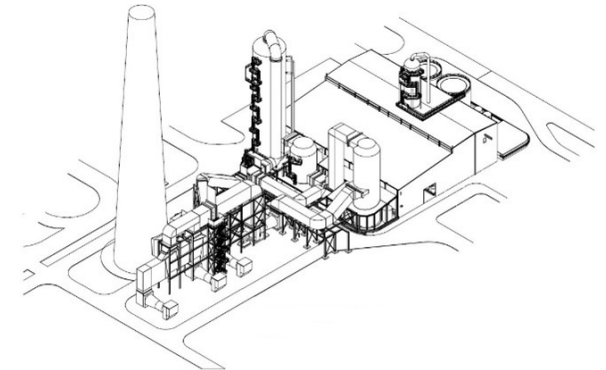
Delta Team are professionally trained and skilled carbon capture designers with experience in plant construction, commissioning, operating, and troubleshooting.

Delta's Vision Statement

Delta strives to be the Gas and Chemical Clean Technology of choice for The World's CO₂ Capture, Natural Gas Processing, Petro-Chemical Refining, Cement and Fertilizer Manufacturing Industries, and much more.



LOW-COST DESIGN (LCDESIGN®) CARBON CAPTURE TECHNOLOGY



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Flue Gas Pre-Treatment unit in Ferrybridge
Carbon Capture Plant, UK

Version (June 2023)

deltacleantech.com

Delta LCDesign® Carbon Capture Technology

The LCDesign® system has significant benefits such as:

Simplicity: simplified configuration

Scalability: Scaled from 1-7,000 Tonnes per day

Performability: Capture CO₂ at any recovery ratio (up to 99%)

Availability: DeltaSolv® solvents are commercially available with no royalty fees

Flexibility: LCDesign® can be operated in a wide range of gas loads (30-120%)

Maturity: Technology readiness Level (TRL) is 9 and is commercially available.

LCDesign® CO₂ Capture System

- Use LCDesign® to significantly reduce:
 - CAPEX & OPEX (CO₂ Cost)
 - Emissions, Effluent & Waste
 - Chemical/Water Consumption
 - Plant Size
 - Labor Requirement
- Uses a modular design approach to design, fabricate and deliver
- LCDesign® can be used with generic solvents and DeltaSolv® solvents which are based on proven chemical and additives, available in the market

Highlights

- 1 Delta LCDesign® provides significant reduction in the amount of equipment size and energy required for solvent regeneration
- 2 Delta LCDesign® is a reliable and advanced, yet simple, CO₂ capture process configuration
- 3 Delta LCDesign® reduces emissions to minimum with DeltaWash™ technology
- 4 Delta LCDesign® can be fitted with any existing Pre-/ Post- Combustion process
- 5 Delta LCDesign® can capture CO₂ from any gas stream at wide CO₂ content (2.5-70 Vol)



ACCTC Carbon Capture Unit with LCDesign (R) in Alberta, Canada



Ferrybridge Carbon Capture Pilot Plant based on Delta Technology, UK



ASCO Carbon Capture Plant, Switzerland