



CARBON CAPTURE, UTILISATION AND STORAGE (CCUS)

CCUS Carbon Capture Utilisation Storage







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Asco Filtri, a mott company, is a market leader in process purification and filtration that designs, manufactures and services highly engineered products for the most severe applications, with the aim to deliver great solutions that tackle the most demanding engineering challenges. The Paris Agreement's temperature goals require global CO2 emissions to halve by 2030 and reach net zero by 2050. Scientists concur that without CCUS, the world will most likely fail to meet the goals of the Paris Agreement. **Capturing carbon emissions** before they enter the atmosphere is especially **vital for greening hard-to-abate sectors**, where energy efficiency and switching to renewables won't be enough.

Curing egent for

Curing agent for concrete, carbonates, and structural materials



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Enhancing Oil Recovery by injection of CO₂ Food and beverage by injection of CO₂

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POTENTIAL APPLICATIONS OF CO2

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Feedstock to produce synthetic fuel, i.e gasoline, diesel, gas or even kerosene, by thermochemical process reaction between CO₂ and H₂ Potential uses of CO₂ in the production of chemical products such as poly-carboxylates, poly-carbonates, and poly-acrylates by polymerization process

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CARBON CAPTURE (TYPICAL PROCESS) LIQUID/GAS COALESCER ACTIVATED CARBON FILTER ABSOLUTE SEPARATOR PARTICULATE FILTER LIOUID / LIOUID 3 2 4 5 6 PREFILTER 7) MEMBRANE COALESCER ABSORPTION UNIT MEMBRANE UNIT ADSORPTION UNIT SOUR GAS SWEET GAS ↑ 1 2 1 1 2 CONTACTOR 2 **FLASH TANK** 3 3 3 5 2 COMPRESSOR COMPRESSOR 3 3 **FLASH GAS** COLD CO₂ RICH FLUE GAS 1st OFFGAS 4 ΔIR COOLER ADSORBENT BEDS (7) 1st Stage 2ND OFFGAS adsorbs CO₂ release CO2 at low at raised REGENERATOR temperature temperature AIR REBOILER COOLER 7 2nd Stage CO₂ LEAN EXHAUST FLUE GAS CO2 RICH GAS 6 REFLUX 2 CO_2 CO_2 CO_2 **CO2 PURIFICATION** 1 3 2 **DRYING UNIT** AIR COOLER 3 SCRUBBER (2) COMPRESSOR PUMP **DRYING UNIT**

WHERE WE ARE





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