Worley Comprimo C3 — Complete Carbon Capture

Technology suite for pre-treatment, carbon capture plant, reclaiming and CO_2 conditioning.

BENEFITS

- Global technology provider with a large portfolio of gas treatment, carbon capture and sulphur recovery technologies
- 15+ global carbon capture projects and studies over the past 3 years
- More than 1,200 successfully delivered projects worldwide
- Custom-tailored, robust solutions that address both technical applicability and cost-effectiveness
- Significant knowledge of plant operations in gas processing plants and other industries
- Collaboration with the global Worley organization and Worley Consulting

TECHNOLOGY SELECTION

We enable our customers to study, implement and benefit from the best-suited carbon capture technology for their specific operating conditions.

Several technologies are known to the market or emerging nowadays, with options ranging from **physical absorption** to **chemical absorption**, **membranes**, **solid sorbents**, and **cryogenic/cold separation**.

These can be applied at different stages of the process, via **post-combustion** or **pre-combustion**. With an array of benefits but also challenges behind each option, the technical applicability and cost-effectiveness of these solutions is directly dependent on certain factors.

The **main driver of economics in carbon capture is the feed gas CO_2 partial pressure** (total pressure x CO_2 concentration). Together with the level and the nature of impurities in the gas, these factors determine the best suited technology, as well as CAPEX and OPEX.

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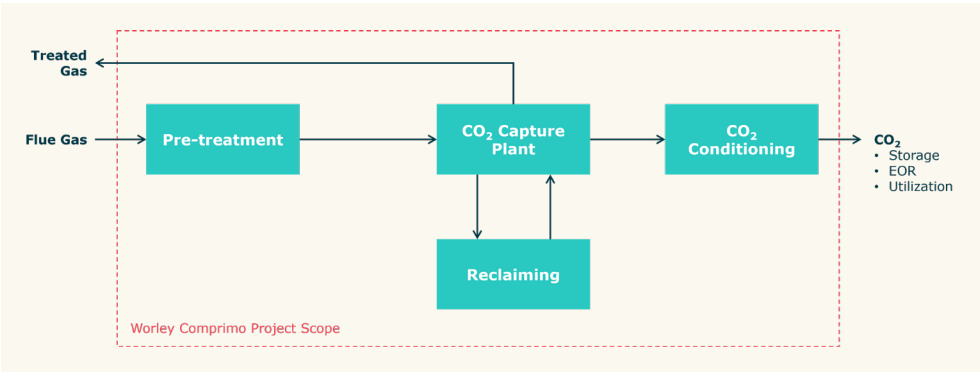
STANDARD OF EXCELLENCE IN NATURAL GAS PLANT APPLICATIONS

Our background in gas treating technology enables us to help our customers study and implement CO_2 capture in new builds or existing plant configurations. We support in understanding if it more economical and technically possible to capture carbon:

- Right after the Acid Gas Removal Unit (AGRU),
- Downstream the Acid Gas Enrichment Unit (AGEU),
- Downstream the Tail Gas Treating Unit (TGTU), or
- Downstream the Incinerator,
- … with which technology,
- … tailored to which other required process steps,
- … and meeting which required CO_2 specification.

Each potential CO_2 capture location and method has its own benefits and drawbacks. A decision in an upstream unit will affect the performance and/or design of new or revamped units downstream. Furthermore, it is critical for the SRU performance to maintain the right balance between H_2S and CO_2 concentration in the feed gas. As no one single solution can suit the wide variety of existing plant configurations, a comprehensive analysis of options and their implications on the entire unit is key.



We help our customers evaluate technologies and study the integration of carbon capture within their SRUs, and we provide the basic design and engineering packages.

YOUR EMISSIONS REDUCTION, OUR PRIORITY

We are a global provider of gas treating and sulphur recovery technology focused on reducing emissions, increasing site reliability, and improving plant economics. For over 60 years, our technology portfolio has been at the forefront of refinery and gas treatment processes, featuring in more than 1,200 designed and licensed units worldwide. Our background in gas treatment processes enables us to study and implement CO_2 capture in either new builds or existing plant configurations.

Selecting the right carbon capture technology for each specific application is often not straightforward. These decisions rely on carefully analyzing operating conditions and CAPEX and OPEX requirements. And this is exactly how Worley Comprimo adds value. We have the knowledge, experience, and capabilities to support customers in various industries to assess the optimal carbon capture technology solution for their particular case, and we provide a design and license.

Find out more

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