

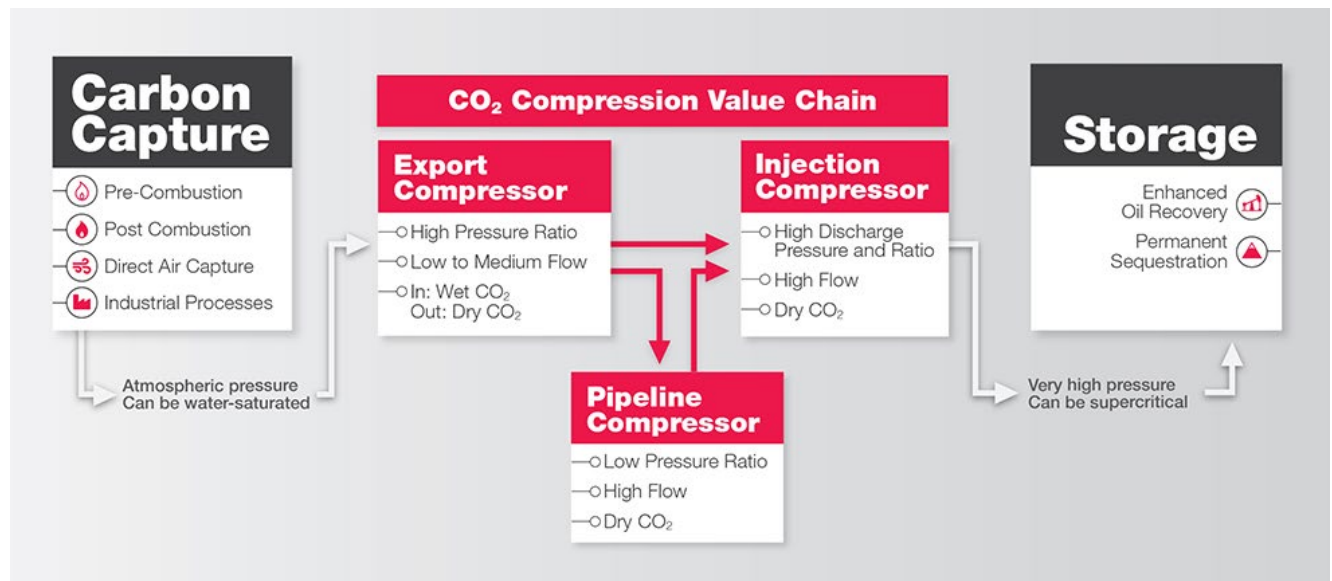
CO₂Phase Hybrid Compressor Pump Solution

Carbon's Potential

Carbon dioxide (CO₂) is an important heat-trapping gas--or greenhouse gas--that comes from the extraction and burning of fossil fuels such as coal, oil, and natural gas, from wildfires, and from natural processes like volcanic eruptions. Captured CO₂ has long been injected into depleted oil fields to enhance oil recovery. It has also been pumped into greenhouses to boost plant growth. But today, many companies and researchers are developing new uses and products for captured CO₂, such as varieties of concrete, chemicals and fuels.

In order to mitigate carbon emissions, carbon capture and storage (CCS) technology is being implemented around the world. CCS is the separation and capture of CO₂ from industrial processes followed by the transportation and safe, permanent storage in deep underground geologic formations. CCS is a viable management option for anthropogenic CO₂ because numerous studies have shown that it can account for up to 55 percent of the emissions mitigation needed to stabilize and ultimately reduce concentrations of CO₂ in the atmosphere.

CO₂ is used worldwide in many industries today. This includes transportation, power generation, oil & gas processing, fertilizer production, oil recovery, the food & beverage industry, and in various industrial applications.



Elliott's Solution

Elliott has combined their equipment, proven expertise, and extensive experience in CO₂ compression and pump technology to develop the CO₂Phase Hybrid Compressor Pump Solution, a solution that addresses the handling of high pressure CO₂. This pump design is equipped to handle any project and/or equipment related to CO₂ compression needs from atmospheric pressure to typical piping pressure of around 2200 PSI.

While each package configuration may vary slightly based on a customer's specific conditions or needs, a typical CO₂Phase compressor package would include the compressor, pump, motor(s), gear, lube system, and buffer or seal system. Configurations are available for a double ISO-cooled compressor with a pump and two motors.

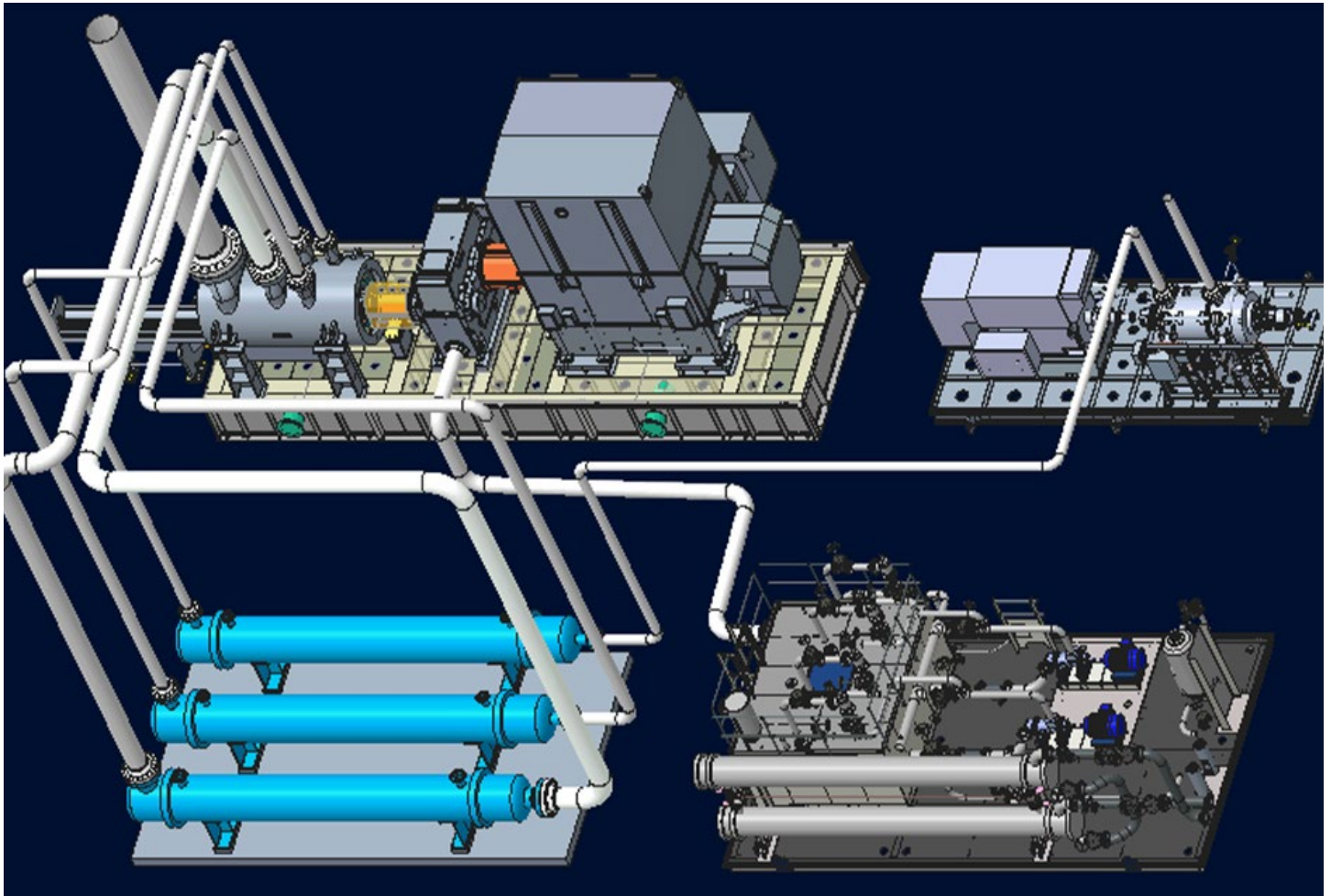
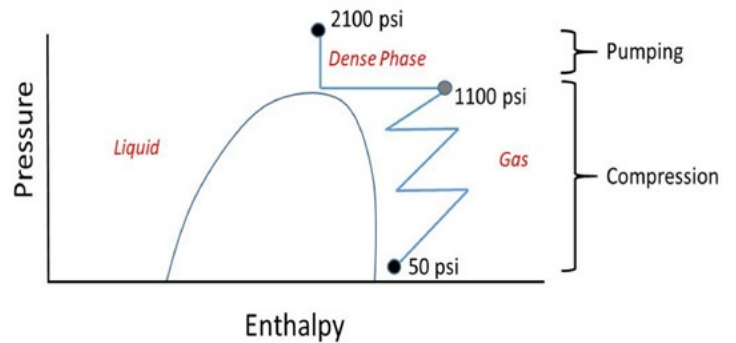
This proven, "ready now" technology is ideal for CO₂ pipelines or CO₂ sequestration. The technology allows for compression of CO₂ from near atmospheric pressure to supercritical pressures followed by efficiently pumping the CO₂ to the final required pressure.

The Advantages

- This is a proven, “ready now” CO₂ solution
- The solution is engineered for the specific application, optimizing equipment and costs
- The capacity of the CO₂ compression system can be adjusted, offering a wide operating range or turndown capability
- Using both compressor and pump technology, a highly efficient CO₂ compression system can be offered, minimizing operating costs

Please reach out to your Elliott representative or send an inquiry to info@elliott-turbo.com for more information.

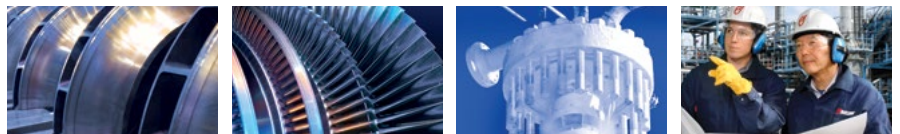
Typical compression path of the CO₂Phase solution.



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