

KBR's Innovation & Process Intensification for Carbon Capture

BENEFITS



ECONOMICS

Reduced CAPEX and OPEX costs



SCALABILITY

The small modular design means facilities can be scaled up while keeping a small physical footprint compared to other technologies



KBR SOLUTIONS

Compression, transfer, storage, and utilization options along with blue hydrogen and blue ammonia



PARTNER

Hindustan Petroleum Corporation Limited

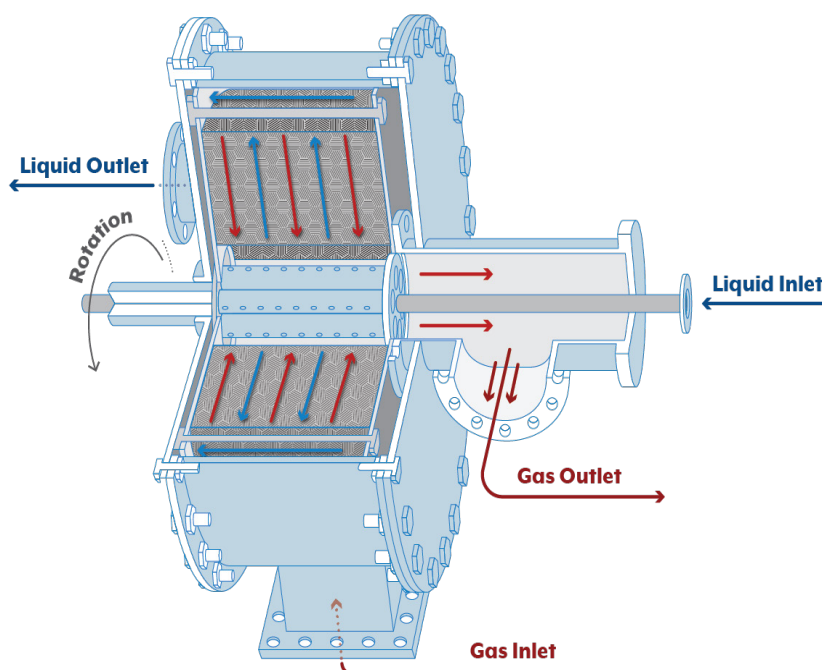
KBR's new process intensification technology is an advanced technology solution for post-combustion CO₂ capture utilizing a rotating packed bed (RPB) and advanced solvent technology.

ABOUT THE TECHNOLOGY

The rotating packed bed (RPB) contains a disk of metal packing. The packing rotates creating a centrifugal force, which significantly improves the mass transfer between CO₂ gas and liquid solvent which provides an improved removal of CO₂ from industrial processes.

The improved performance is a result of applying centrifugal forces to the solvent that far exceed the conventional gravity systems.

HOW DOES THIS WORK?



- Rotating disk with packed bed material
- Solvent flows from center of disk radially towards the outer edge
- Incoming gas from inlet flows in opposite direction contacting the solvent
- Improved absorption of CO₂ into the solvent for removal

Carbon Capture

ADVANTAGES

OPEX
reduction

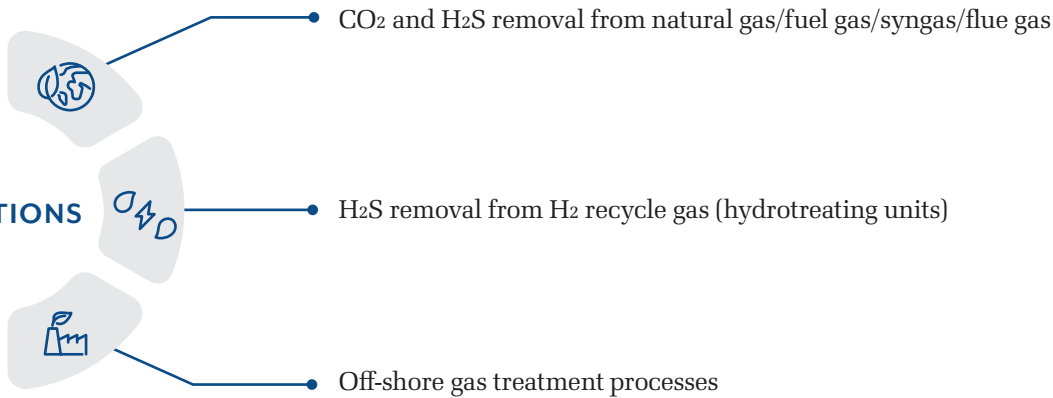
CAPEX
reduction

Plot space **reduction**:
40X smaller
equipment size

High efficiency
CO₂ absorption

Advanced
solvents

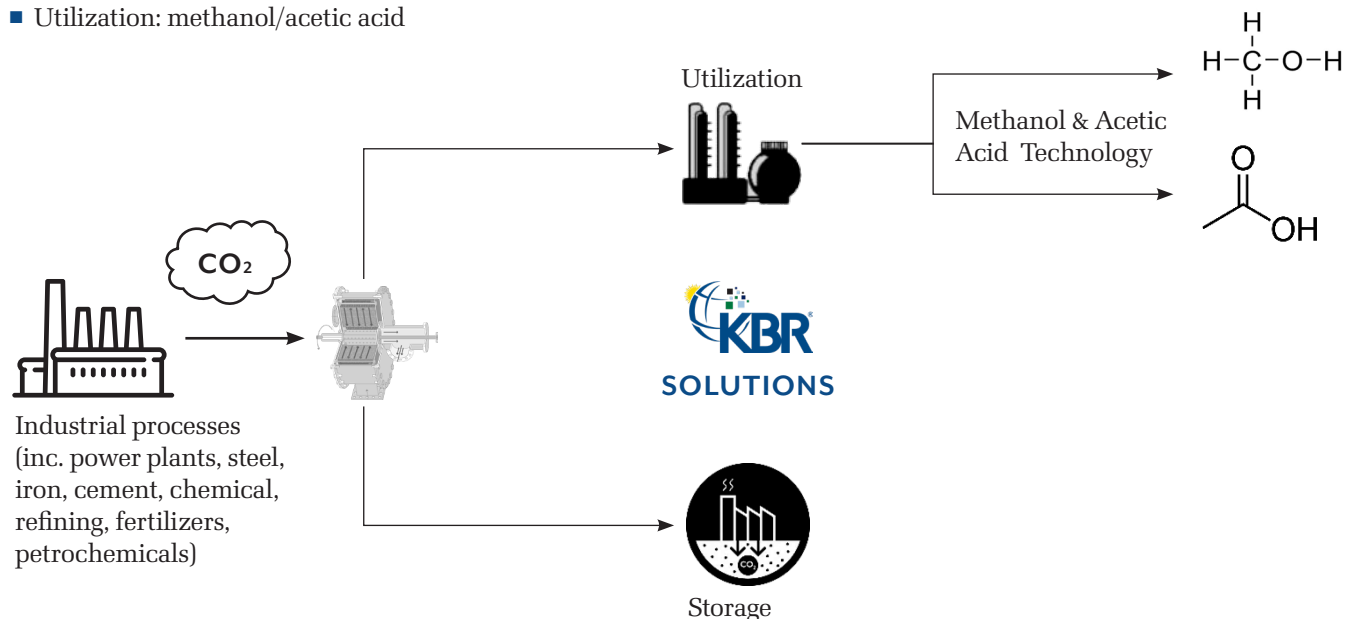
APPLICATIONS



SOLUTIONS

KBR provides the solutions for your CO₂ needs

- Storage
- Utilization: methanol/acetic acid



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technology@kbr.com

