CRYOMIN TECHNOLOGY

CRYOGENIC CO_2 RECOVERY FROM NATURAL GAS WITH RPB

Co-developed with PETRONAS | **No Chemical Reagent**

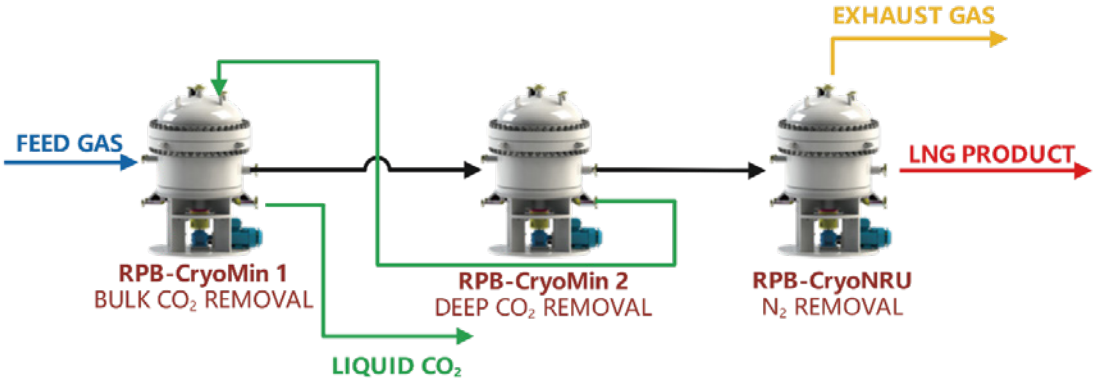
Deploy on LNG Floater | **Separation + Liquefaction**

SUMMARY

SFCL has partnered with PETRONAS to co-develop a cryogenic distillation process using Rotating Packed Bed (RPB) technology for CO_2 and N_2 removal from natural gas. Designed for offshore platforms, especially those far from shore, the compact system integrates three RPB units to achieve on-site CO_2 and N_2 separation and natural gas liquefaction without the need for solvents or onshore processing.

PETRONAS

HOW IT WORKS



FEATURES

- CO_2 Removal from Natural Gas
  (CO_2 inlet: 20-70 vol%, CO_2 outlet: <50 ppmv)
- N_2 Removal from Natural Gas
  (N_2 inlet: 10-15 vol%, N_2 outlet: <1 vol%)
- Natural Gas Liquefaction (LNG Production)

TECHNICAL ADVANTAGES

- No chemical reagent consumption
- Integrated separation and liquefaction——reduces liquefaction costs
- Compact, modular design——ideal for offshore deployment
- Motion-insensitie——stable performance under vibration

COLLABORATION WITH PETRONAS

- Since 2017, we have manufactured more than 7 RPBs and successfuly collaborated with PETRONAS to advance this technology from TRL 3 to TRL 6, progressing through lab-scale, pilot-scale, and demonstration phases.