

SOLAR® CATCH₄ METHANE ABATEMENT TECHNOLOGY

Solar Turbines has developed Solar® CATCH₄ Methane Abatement Technology, an emissions reduction solution to help customers achieve lower methane targets. This solution is designed to mitigate the atmospheric release of fugitive methane from the dry gas seal primary vent from Solar's centrifugal gas compressors and to provide an alternate method for handling the methane when station or unit depressurization is required for scheduled maintenance or non-emergency shutdowns. Solar CATCH₄ does not alter compressor operation or decrease the safety, reliability, availability or efficiency of the equipment.

Key Benefits

- Reduction of compressor related CH₄ emissions
- Easy integration and maintenance
- Reliable equipment fully supported by Solar field service, training and service parts

Features

- Uses Turbotronic™ control system from Solar Turbines
- Single system per compressor body; multi-body and/or multi-unit can be evaluated upon request
- A single system can support multiple turbomachinery compressors

The **dry seal recompression system** uses a motor-driven reciprocating compressor to boost the gas pressure for reinjection to a location where it is best utilized and managed, typically the station suction or discharge header. Two recompression system sizes are offered based on process compressor size. The three-module system is depicted in Figure 1.

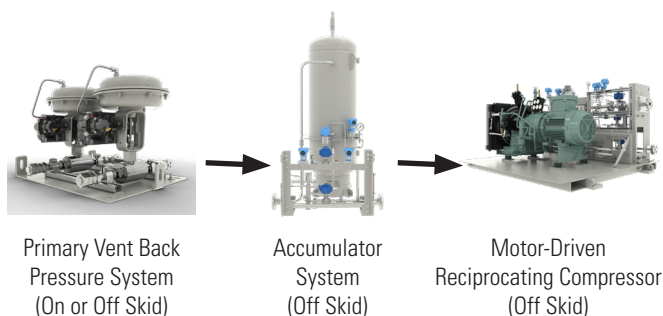


Figure 1: Dry Seal Recompression System

The **process vent recompression system** captures gas between the compressor suction and discharge valves using a recovery and reconditioning system. The gas is fed into a recompression system to boost the pressure for reinjection into a location upstream or downstream of the process pipe. The system is operational when the customer wants to depressurize the process compressor during a non-emergency shutdown. Two recompression system sizes are offered based on depressurization times. The two-module system is depicted in Figure 2.

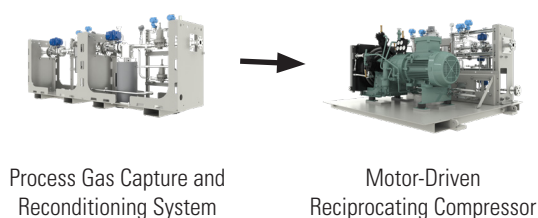
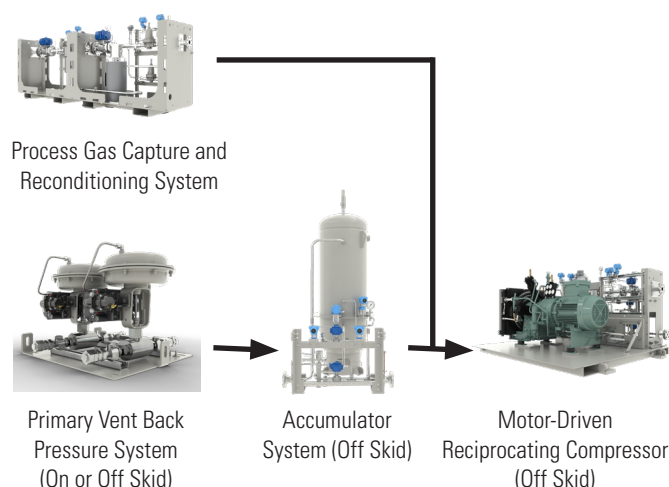


Figure 2: Process Vent Recompression System

The **process and dry seal recompression system** is a combination of the two systems using only one reciprocating compressor package. This is a four-module system as depicted in Figure 3. Two recompression system sizes are offered based on process gas compressor size.



**Figure 3: Process and Dry Seal
Recompression System**

The modular design of these systems allows for simple integration into turbine and electric motor drive packages with dry seal equipped centrifugal compressors. Solar designs and installs the standard systems per package configuration, flow and operating conditions, working directly with customers to identify the best location to reinject the captured methane emissions.

Additional Information:

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