



### Exclusive PICT\* Technology Controls the liquids condensed from the aftercoolers of compressors.

High BTU (heavy) gases collected by the vapor recovery process have a dew point temperature higher than the interstage aftercooler temperature on air-cooled compressors. These overcooled hydrocarbon gases condense in the compressor interstage scrubbers and can trigger out-of-control recycles or require bullet tanks for collection of volatile liquids. Condensed liquids can also contaminate the lube oil in the compressor—resulting in inevitable mechanical failure.

**Engineered Concepts Process Interstage Controlled Temperature (PICT\*)** gives you the ability to regulate your compressor's interstage temperatures. By controlling these temperatures, you can make sure your compressor is operating above the dew point of the vapors and prevent liquids forming. Since the vapors are kept above their dew point, they are sent into the pipeline. There are two varieties of PICT technology the PICT-V and the PICT-L.

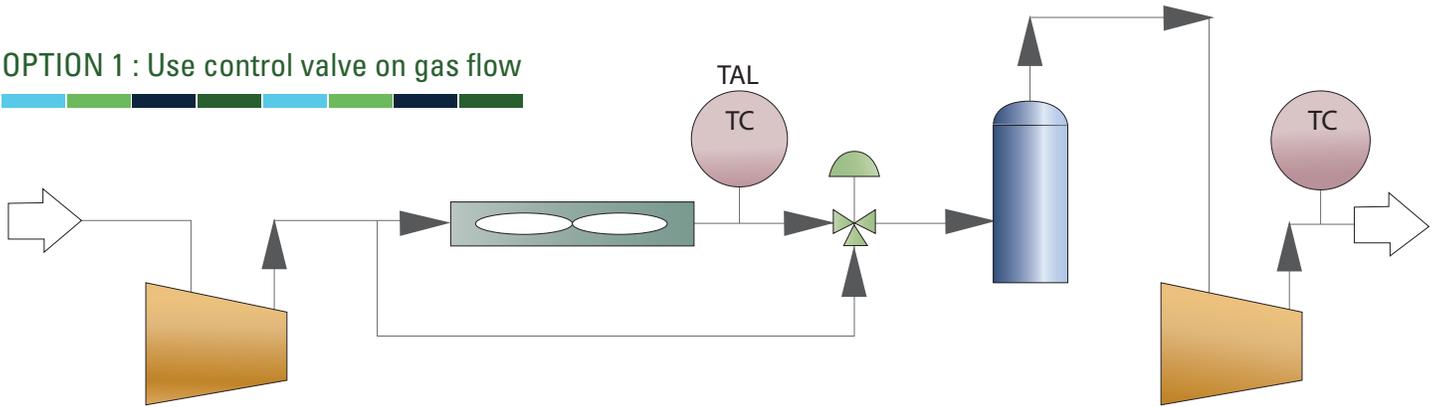
The PICT-V process utilizes unique temperature regulating valves to control recycles caused by the overcooling of the compressed gases (condensation) during cold weather operation. These valves work best in geographic regions that do not experience harsh extended cold weather. The PICT-V regulates the gas flow through the aftercooler to control the interstage temperatures. The temperature setting is determined by the vapor dew point and potential hydrate conditions.

**PICT technology controls compressor interstage temperatures to prevent liquids from forming.**

The PICT-L is a self contained closed system that circulates coolant much like an engine cooling system to control interstage temperatures. Because the PICT-L does not use an air-cooled exchanger to cool the compressed gases, the PICT-L can be used in all weather conditions.

During cold weather, the PICT-V and L maintain the optimum interstage temperature to keep condensed liquids in check. With interstage temperatures controlled, a PICT equipped compressor is unaffected by cold weather and rich gas compositions.

## OPTION 1 : Use control valve on gas flow



Which PICT is employed depends upon each application's environment, production content and other factors.

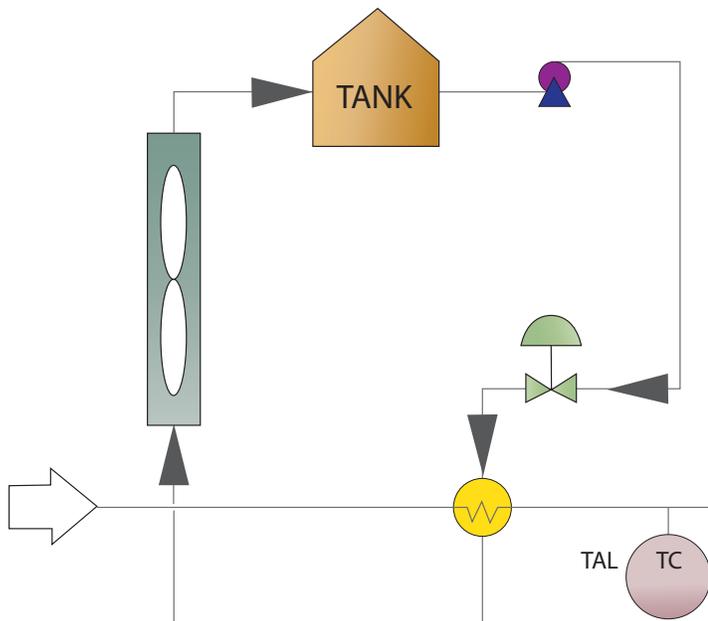
In moderate climates such as those in the Southern and Coastal regions of the United States where winters are mild and temperatures occasionally fall below freezing, the PICT-V valves can be installed on compressors that use standard interstage air coolers. Regions that experience extended or severe cold temperatures (harsh winters) are better served by the PICT-L.

PICT-V and L easily install in the inlet piping of the interstage suction scrubber. In the event of an operating irregularity, the PICT-V valves are designed to fail in a position that allows the same flow through the cooler and piping as the originally designed compressor.

The PICT-L utilizes a tube-in-shell liquid heat exchanger to cool the hot discharge gases to the required temperature. An air cooler cools the liquid. PICT-L is equipped with a 100% back up for critical components to ensure continuous on-line service.

Both the PICT-V and L can be retrofit into existing air-cooled compressors. The number of systems depends on your gas composition and operating conditions, but generally only the second stage of the compressor is affected. Interstage temperatures are maintained through the use of a PLC that continuously operates the valves position to maintain preset (above dew point) temperatures.

*\*The PICT process, is patent pending.*



## OPTION 2 : Use liquid to cool & control gas temp

