

## **Application Manual**

## **Wet Gas**

Wet Gas is any gas or gas mixture in which one or more of the constituents is at or very close to it's saturated vapor pressure. The constituent may or may not be water vapor. A valid gas analysis is required to verify gas properties.

Special attention must be paid to the gas separation and piping upstream of the compressor. They must be designed such that no free liquids are permitted to enter the compressor or accumulate in the piping or bottles, causing "slugs" of liquid to carry over.

Consideration should be taken for two-phase flow between the gas cooler and the stage inlet separator, if liquids are dropping out between stages. Gas flow rate between stages will also be lowered by the gas equivalent amount of liquids dropping out due to interstage cooling.

When gas condensates are to be avoided, it is appropriate to raise the interstage temperature to create a separation between the interstage temperature and the dew point of the gas. A 20 to 30 F (10 to 15 C) separation is recommended.

Wet gas will tend to dilute the cylinder lube oil. See Cylinder and Packing Lubrication Requirements--6 in the Ariel <u>Packager Standards</u> for guidelines regarding cylinder and packing lubrication in wet gas service.