Product Brief

# Process Gas Sample System

## Introduction

The increased production of natural gas from unconventional sources, such as shale gas formations and deep-water offshore platforms, has created a need for more sampling points closer to the wellhead and gathering sites. Large quantities of free liquids are often continuously present at these sample points – hydrocarbons, water, corrosion inhibitors, methanol, and scavengers for example. This poses a challenge for traditional sampling equipment that was designed for transmission quality gas with a minimal amount of liquid entrained in the gas.

When sampling from a two-phase source is unavoidable, the 133 Preconditioning System can reliably extract a gas sample from a source containing an excessive amount of liquid. The Genie® 133 Preconditioning System incorporates the essential elements of Genie® Membrane Separator and a Genie® Heated Regulator into a single, probe mounted sample handling component that can easily fit in a Kozy® Insulator or a small rigid enclosure.

Although the gas exiting this system is liquid free and at low pressure, heat trace tubing may be required depending on the dew point temperature of the gas. It is also recommended that a Genie® Membrane Separator™ with Liquid Block™ be installed as close to the analyzer as possible in case of heat trace failure or major process upsets.

## ACES Component Breakdown

### *Genie® Probes*

The 133 Preconditioning System can be used in association with either the Genie Direct Drive 760 or the Genie General Purpose GPHV probe. The 760 can be easily inserted into and retracted from a pressurized source through a full port valve up to 48". The GPHV is a fixed, thick walled probe that is machined from a single piece of stainless steel and has a high natural resonant frequency that allows it to withstand gases flowing at high velocities. Both probes are non-membrane tipped probes which allow for liquids to drain back into the source after separation by our Genie Membrane Technology™ at the probe outlet.

### *Genie® Supreme 133 Membrane Separator™*

This functions by separating entrained liquids on the upstream side of the media so that they can gravity drain down through the probe and back into the source. The Genie® Membrane Separator™ protects the entire sample handling system and the analyzer from liquid distortion and damage. Yet offers an improved housing design for safe and easy maintenance, especially in heated, densely populated cabinets.

*Should you need assistance in selecting the appropriate components for your application, please consult the factory.*

### *Genie® Heated Pressure Regulators*

Connecting either of our analytical regulators will prevent condensation of the sample gas due to Joule Thomson (JT) cooling during pressure reduction process of high dew point gases or due to low operating temperatures.

*Insulated Enclosure* This insulated sample system case allows the sample pressure and enclosure temperature to be monitored at a quick glance, without having to remove the enclosure. For complete access to system components, one or both sides can be completely removed. Additionally, the entire system is mounted to the enclosure coupling, NOT the probe like other systems on the market. Insert and retract your sample probe freely by completely removing the enclosure while keeping all other components, such as filters, external regulators, gauges, and tubing, undisturbed. This patented technology is the first of its kind saving maintenance time and eliminating field frustrations.

### *THE A+ SYSTEM OF COMPONENTS*

- Genie® Probes: Model 760 or GPHV
- Genie® Supreme 133 Membrane Separator™
- Genie® Heated Regulators: Model GHR or JTR-H

A+

DASTEC
Representantes / Distribuidores Exclusivos
Argentina
Tel: (+54 11) 5352 2500
Email: info@dastecsrl.com.ar
Web: www.dastecsrl.com.ar