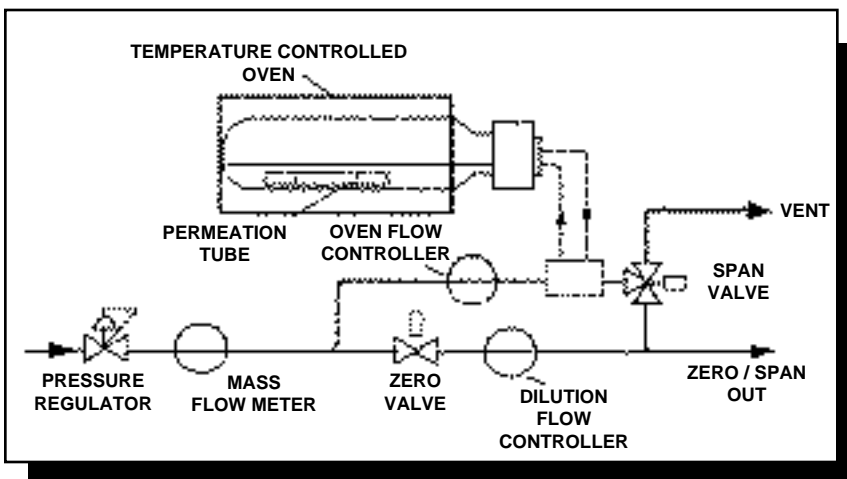


SPAN PAC™ H₂O Standards Generator

DESCRIPTION

The **Span Pac™ H₂O Generator** is specifically designed to calibrate sensitive moisture analyzers. It uses a Trace Source™ Permeation Tube to generate low concentration (10 ppm to 100 ppb) moisture standards. The **Span Pac™ H₂O Generator** holds the Trace Source™ Permeation Tube at a constant temperature and introduces a controlled flow of dilution gas over the tube. A small, accurate, constant flow of H₂O vapor permeates from the tube and mixes with the dry dilution gas to form the ppm or ppb moisture standard. The moisture standard then flows through the generator output to a monitor or probe.

The **Span Pac™ H₂O Generator** has a purgeable cabinet and VCR input and output fittings to prevent atmospheric contamination and insure the integrity of the system. All of the stainless steel tubing in the instrument is electropolished and passivated to minimize adsorption. The Trace Source™ EL Permeation Tubes for ppb moisture will last two to five years.



Flow Diagram SPAN PAC™ H₂O

In a typical flow diagram of a **Span Pac™ H₂O Generator**, the dry dilution gas enters the zero/span flow path, and is held at a constant pressure to maintain stable adsorption levels. The dilution flow passes through the mass flowmeter and divides into two streams, the Oven Flow stream and the Main Dilution stream. The Oven Flow stream flows over the permeation tube at 200 cc/min.; mixes with the moisture emitted by the tube; then, flows back into the Main Dilution stream. The Oven Flow stream flows constantly to keep the emitted moisture purged from the permeation chamber. The Main Dilution stream, typically a much higher volume (up to 5 l/min.), can be switched off to save dry gas usage.

APPLICATIONS

- Calibrate sensitive moisture monitors (100 ppb).
- Verify moisture sensors and probes.
- Calibrate product quality control monitors.
- Calibrate on-line process monitors.

FEATURES

- ❖ The **Span Pac™ H₂O** can be remotely or manually operated.
- ❖ The high thermal mass oven keeps the permeation tube at a constant temperature.
- ❖ The oven temperature is factory set to NIST specification.
- ❖ All **Span Pac™ H₂O Systems** can use disposable, LFH, or ULED type Trace Source™ Permeation Tubes.
- ❖ The electropolished, stainless steel tubing reduces moisture adsorption within the system.
- ❖ Special vacuum fittings on the input and output ports prevent atmospheric contamination of the system.
- ❖ The calibration sample is available at any pressure up to 40 psig for calibration of monitors requiring pressurized sample.
- ❖ A mass flowmeter measures the dilution flow to ± 1% of full scale.
- ❖ The direct dilution flow readout and accessible dilution flow adjust on the back panel make dilution flow adjustment easy.
- ❖ Laboratory and process models have cabinets that are purged with dry, inert gas to insure the integrity of the system.

SPECIFICATIONS: LABORATORY MODELS

Span Pac™ H₂O 61 - a single oven unit with one concentration range.

Span Pac™ H₂O 261 - a two oven unit with two separate concentration ranges available simultaneously. One is usually set at high ranges such as 10 ppm and one set at lower levels such as 100 ppb.

Oven Capacity: up to six 1/4" dia. x 5" long disposable permeation tubes or one refillable permeation tube

Flow Range: 0.25 to 5 liters per minute

Dimensions: 20" wide x 10" high x 19" deep

Weight: 35 lbs.

SPECIFICATIONS: PROCESS MODELS

All of the laboratory models are available in NEMA 4 process configurations. These units meet Class 1, Group C, D, Div. 2 requirements.

Span Pac™ H₂O 61 I - a single oven unit with one concentration range.

Span Pac™ H₂O 261 I - a two oven unit with two separate concentration ranges.

Oven capacity, flow range, and accuracy are the same as the laboratory models.

Dimensions: 20" wide x 20" high x 9 1/4" deep

Weight: 50 lbs.