

## INTRODUCTION

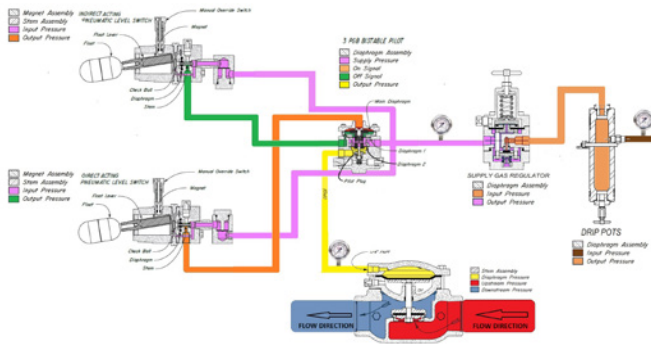
A producer in Potrero del Llano field in Poza Rica, México, needed to replace the obsolete 12PL Pilot on some of their production separators.

## PROBLEM

Their vertical separators didn't have any 2" FNPT or ANSI connections available, which were required to install a float level controller. There was also no possibility of making any modifications to existing vessels to allow for this.

## APPLICATION DETAILS

- Production Type: Oil Facility
- Oil Volume: 50-500 BPD
- Water Volume: 10-50 BPD
- Gas Volume: 1 mmscf/d
- Solids in Fluid: Very Low
- Corrosiveness: Low
- H2S: Less than 10 PPM
- Upstream Pressure: 35 PSIG
- Downstream Pressure: Atmospheric (Discharge to storage tank)
- Vessel Type: Vertical 2-Phase Separator



## SOLUTION

The operator worked with technicians at Flow Control Measurement, Kimray's authorized distributor in Mexico, to trial a solution called Gap Control.

To incorporate this, they installed 2 pneumatic level switches—one direct and one indirect—operated with a 3 PGB Bistable pilot to operate the existing 4" low pressure control valve.

Both pneumatic switches were installed together with 2 external float cages using 1" pipe tubing and connected to existing 1" connections on the vessel.

In order to provide better control on the pneumatic system, a drip pot and supply gas regulator were installed with pressure gauges on the line to monitor the pressure between the pilot and control valve.

An initial trial was performed with a vertical separator running for 4-8 hours every 2-3 days.

**Date of installation:** November 30, 2023

## RESULTS

After three months of operation, the system was working without any problems or troubleshooting needing to be performed.

Due to the success of this solution, a second trial was initiated with a vertical separator operating 24/7 and is experiencing the same positive results after one month of operation.

The producer was pleased to find a solution for their existing problem and especially pleased that they could continue using Kimray equipment, as they had built a lot of trust in the brand.