

PROJECT: Agua y Drenaje de Monterrey/ MEXICO

Project objective

Due to limited supply sources into the municipality of Monterrey (cancellation of a water-supply reinforcement project), the need for reducing the water-losses due to leakages and breaks has gotten a priority. It was therefore decided to investigate the effectiveness of using high-end pressure-management solutions. As part of this effort, the Dorot HyMod, flow-modulated pressure reducing valves have been installed in 3 zones.

The challenge

Reducing pressure in a stable manner with pressure set-value modulated following flow changes, so that the target-point pressure will remain at a stable and fixed set-value regardless of flow variation. Since power is scarce and the decision is to avoid using electronics and use equipment that is as similar as possible to the standard PRV with no need for additional hardware or software, the decision was to use a hydro-mechanical solution.

The solution

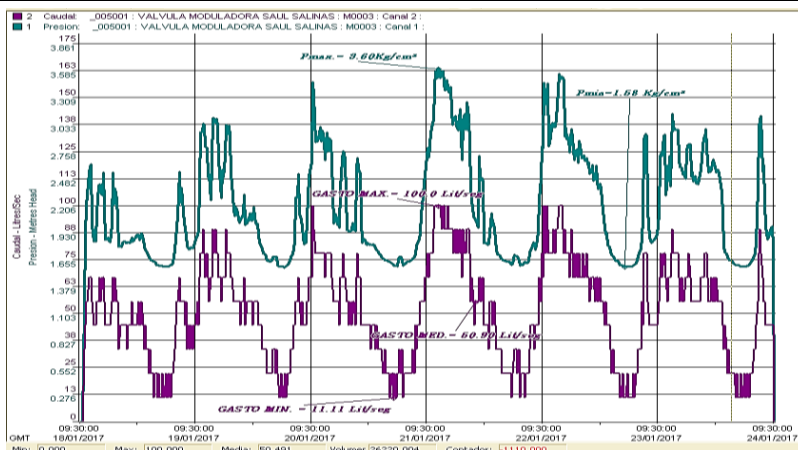
Three 12" / 300mm valves, model 30-12-PRM (HyMod) were assembled locally and installed and commissioned by the Dorot subsidiary in Mexico and operated by 'Agua y Drenaje de Monterrey'. Due to the space limitation, sluice gate-valves were used instead of standard gate-valves as part of the HyMod trim.



Results

The below results are of one of the systems that is installed in an underground valve-chamber in the main street of Av. Raul Salina. The valve was installed in mid-January 2016 and was set to regulate to a min. pressure of 1.5 bar and a maximal pressure (at maximal demand-flow) or 3.2 bar.

- ✓ The flow changes are from 11 to 100 lit/sec
- ✓ The valve achieved **saving of 25%** in the input volume into the zone since its installation. (Per the calculation of the engineers of 'Agua y Drenaje de Monterrey')



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