

Improved Polymer Activation Technology Reduces Polymer Consumption by over 25%

Lafayette, CO
Lafayette Water Reclamation Facility
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Background:

The Lafayette, Colorado Water Reclamation Facility processes 18,000 gallons per day of anaerobically digested sludge. Two Stranco M series liquid polymer blending systems are used to meter, activate, blend and feed polymer solution to the thickening and dewatering centrifuges.

Problem:

The plant was experiencing check valve plugging problems with the Stranco diaphragm metering pumps. In addition, the frequent maintenance of the pumps had created a potential hazard from polymer spills.

Trial Results:

The VeloBlend series VM-P, utilizing a progressive cavity pump, resolved the plant's pumping problems. In addition, compared to the existing Stranco M series mechanical mixer, the VeloBlend hybrid, hydro-mechanical polymer activation technology reduced polymer consumption by over 25% (from 1.2 GPH to 0.89 GPH), increased cake dryness by 3% (from 18% to 18.7%), and improved centrate quality (from 0.14 to 0.12 TSS).

Based on the reduced polymer consumption alone, the plant estimates a savings of \$13,000 per year by replacing the Stranco M series with the VeloBlend technology.

The VeloBlend Technology:

The VeloBlend hybrid technology is the result of twenty years of research and experience, gained through thousands of installations around the world. The unit provides the proven reliability of non-mechanical blending, with the control and versatility of variable intensity, hydro-mechanical blending – independent of plant water pressure.



VeloBlend VM-P Series Trialed



Existing Stranco M Series

For more information contact VeloDyne at 303-530-3298.



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