

CASE STUDY

Juice Processing Facility

Florida

A juice processing facility in Florida faced wastewater challenges as high BOD concentrations exceeded the capacity of its existing onsite pretreatment system. To manage the excess, a portion of the wastewater had to be trucked offsite for disposal, driving up operational costs significantly.



Problem:

With untreated BOD levels reaching up to 10,000 mg/L and high variability in the waste stream, the facility sought a straightforward, operator friendly solution to expand its pretreatment capacity and reduce reliance on costly offsite disposal.



Solution:

The facility implemented an onsite pilot using AST's Recirculating PolyGeyser® technology to evaluate its effectiveness in handling their high-strength wastewater. The system was designed to provide a reliable and easy-to-operate solution with the goal of reducing untreated BOD concentrations to below 750 mg/L, while demonstrating a scalable approach to increasing onsite pretreatment capacity.



Results:

AST's pilot demonstrated that the Recirculating PolyGeyser® technology could reliably and significantly lower BOD concentrations in the facility's wastewater, achieving an average reduction of 88%. Based on these results, the facility is moving forward with the installation of two RCPG-500 treatment modules, which will eliminate the need for costly wastewater trucking and disposal.



RCPG TREATMENT OF JUICE PROCESSING WASTEWATER

Constituent	Influent (mg/L)	Effluent (mg/L)	% Removal
COD (n=66)	6428 +/- 1406	2966 +/- 1309	53%
BOD (n=21)	5650 +/- 1886	683 +/- 397	88%

BOD INFLUENT VS. EFFLUENT

