



CASE STUDY - TRIDENT KDS SEPARATOR

Trident Thickener/Dewaterer Equipment at Flagstaff, AZ, Wastewater Plant

Problem: One of the centrifuges thickening Waste Activated Sludge (WAS) at Wildcat Hill WWTP at Flagstaff, AZ is old and needs a costly repair. The plan for next budget (months away) is to replace it. But, should the remaining centrifuge fail, it would require emergency funding. Centrifuges are expensive to buy and run. "I was aware of a unique Trident KDS Thickener/Dewaterer technology that had the potential to replace the centrifuge," says Wildcat's Operations Supervisor, Troy Dagenhart. "The KDS potentially required 94% less power and 50% less maintenance, so we scheduled a demonstration."

Solution: The KDS Thickener uses an innovative low-speed grid and rotor technology which, because of the slow mechanicals, has exceptionally low energy and low maintenance specs. The correct sized KDS could use the existing concrete pad and requires minor plumbing changes.

Result: The WAS material tested was 7000mg/l TSS (0.7% solids) fed to the KDS at a volume of 20gpm, which is about 25% of the total plant volume. The KDS performed quickly. Using Wildcat's existing polymer dosing, the WAS thickened to 6.5% solids. The centrate was reduced to 13.3mg/l TSS. "That's probably the lowest centrate number I've ever seen," says Dagenhart, "It was really clear." The system ran quietly with no vibration. Estimated annual power costs for a KDS spec'd for 200gpm, double the plant's present capacity is reduced to \$3,200 for the KDS vs. \$56,000 for a centrifuge. Those kinds of benefits play well in any jurisdiction.

Contact Trident

604-330-2500 | 1-800-799-3740

info@tridentprocesses.com

www.tridentprocesses.com

446 Harrison Street 81 D, Sumas, WA 98295 USA

#101 - 2238 Queen Street Abbotsford, BC V2T 0B7 Canada