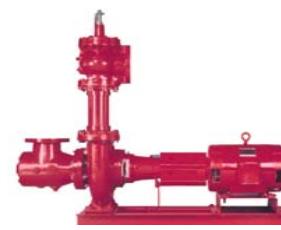




**CASE STUDY**  
**TAHOE TRUCKEE UNIFIED SCHOOL DISTRICT**  
**INSTALLATION DATE 10.31.2012**



VS



**STRATOS D 3x3-40**

**BELL & GOSSETT 1510**



The Wilo Stratos D 3x3-40 replaces two B&G 7.5 HP 1510 pumps. The left picture shows the #1 B&G pump, which will be removed, and in the background the newly installed Stratos D where the #2 B&G use to be. The middle and right pictures show the new install of the Stratos D. The Stratos D is a twin pump system with a dual volute-single flange powered by 2x (2hp) 240V 1Ø motors. The ECM motor/pump design considerably reduces space requirements, material and labor cost for owners, contractors, plumbers and electricians. The Stratos D will stage/rotate every 24 hours and optimize the impeller speed according to load. There is no need for external controls, the pump, motor and computer are self contained and ready to run right out of the box.

Description	Average watts/hr	Service Hours Annual	Total Annual kilowatt hr	\$/Kwh	Annual Cost	Annual Savings	Installation Cost Labor+Mat	TDPUD Incentive 33%	Total Install Cost	ROI Years
<b>BELL&amp; GOSSETT (OLD PUMP) 7.5 HP SINGLE SPEED CIRCULATOR</b>	4606	5760	26,531	0.13	\$3,449					
<b>WILO STRATOS D 3x3-40 2x 2 HP VARIABLE SPEED CIRCULATOR</b>	1122	5760	6,463	0.13	\$840	\$2,609	\$9,000	\$2,970	\$6,030	2.31

The ECM motor/pump system achieves maximum energy savings when all system bypasses are shut off or blocked. The smart controls know when demand for zones has increased or decreased and adjusts output accordingly. This system is supplying 8 air handlers in 8 zones. When the energy audit was done for this study two of the air handler's bypasses had not been blocked and the external off switch was not installed. When the final two bypasses are blocked and the external off switch is in place this system will realize an even higher energy savings. The current system configuration will achieve a 76% energy cost savings annually (\$2609). The expected annual savings will be over 80% when the final adjustments have been made.