

Gary L. Gockel
Christopher High School
Main Pool VFD replacement
September 20, 2019

Mr. Dan McAuliffe
Gilroy Unified School District
Maintenance & Operations Manager
220 Swanston Ln. Gilroy, CA 95020

Dear Mr. McAuliffe,

The VFD at the Christopher High School main pool is needing replacement. The VFD intermittently shuts the main pool pump down resulting in NO heating and NO chemical sanitizers being added. The cause of the problem seems to be inherent to this device as another VFD used on the recreation pool doesn't have this issue.

I am providing information and pricing for two different units for your consideration.

1. The existing unit is an Emotron 25 HP, 460 volts, 3 phase. The cost for the same replacement unit is below.
2. For the last several years, I have been using the Danfoss unit for commercial swimming pool energy efficiency. I also increase the HP capacity as the bigger units seems to handle the motor loads and facility power fluctuations better. I am recommending the Danfoss unit as the replacement.

Scope of Work:

1. Remove and replace VFD with selected unit.
2. Reconfigure Aquatic Energy Management interface to new VFD.
3. Commission VFD to motor parameters.
4. Test and operate unit to ensure proper operation.

Costs	Danfoss 30 HP	Emotron 25 HP
Replacement VFD	\$4,940	\$6,970
Travel cost/Fuel 2 trips: Initial & Replacement	\$232	\$232
Travel labor	\$630	\$630
Overnight accommodations - Initial Troubleshooting	\$150	\$150
Overnight accommodations - VFD replacement	\$150	\$150
VFD equipment removal/install	\$420	\$420
VFD low voltage control re-wiring and commission	\$630	\$630
VFD high voltage re-wiring	\$420	\$420
Trouble-shooting of problem - Initial visit	\$840	\$840
Total estimate for project	\$8,412	\$10,442

Payment terms:

- No deposits or advance payment.
- Total due upon completion of installation and demonstration of completeness.
- Normal district terms.

Contractors are required by law to be licensed and regulated by the Contractors' State License Board, which has jurisdiction to investigation complaints' against contractors if a complaint is filed within four years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, PO Box 26000, Sacramento, CA. 95826

Conditions & Disclosure:

1. Estimate includes material and labor for installation of supplied materials as noted above.
2. Estimated pricing is good for 30 days.
3. All work is above grade.
4. the above conditions exist or occur that would prevent a standard cord replacement.
5. Environmental Health Department fees, application and approval are included if required.

Time frame:

1. The estimated time for the change out is one day,
2. The pool will be down during this time.
3. The lead time is about 2-3 weeks for either model of drive.
4. Specific installation time is to be mutually agreeable.

Please feel free to contact me if any questions.

Gary Gockel

707-529-9432

422 Larkfield Center #259

Santa Rosa, CA. 95403

Certified Aquatic Energy Auditor

Certified Pool Operator (CPO)

Aquatic Facility Operator (AFO)

C-53 & C-61/D-35 License #785971

40 years of industry experience

Member: SPPA, AOAP, PHTA, BAPPOA

Over 2,400,000 kWh saved each year

Approved: _____

Date: _____



22 KW / 30 HP, 380 - 480 VAC, Three phase, IP55 / Type 12

No Mains Option, Graphical Loc. Cont. Panel, RFI Class A2 (C3),
Not coated PCB, No A Option, No B Option,
No C1 option, No D option, Standard Cable Entries, No adaptation, No brake chopper,
Frame Size: B2

FC-202P22KT4E55H2XGXXXXSXXXXAXBXCXXXXDX