

Over and Above Estimate

Region: 5

Location: MD021

CSS #: 7844

Maximo Work Order No.: 6838

Date Issued: 11/29/18

Original Description: Replace back up heating and cooling motor pump and install glycol

Repair Needed:

S&S hereby proposes to furnish the labor and materials necessary to complete the following:

- supply 55-gallon containers to hold 500 gallons of used glycol and place on site location with customers approval
- turn off pumps and drain glycol into provided drums
- isolate lock and tag out electrical power to condemned pump and remove power wires from pump junction box
- begin venting top floor FCUs and as we drain system and switch 55-gallon containers as they fill
- empty system completely and dismantle condemned pump assembly, including control check valve
- S&S will schedule waste company to remove/dispose of old glycol
- S&S order new replacement glycol
- rig new pump assembly into work area and place
- wire new pump
- install new butterfly valve on discharge side above control check
- fit all pipe pump, and control check valve into place to include new thermometers and pressure gauges
- fill system with new 30% glycol while venting until full making sure all FCUs are depleted of any and all air bubbles
- confirm there are no leaks and that all FCUs are heating at 100%
- energize pump, confirm rotation, operation, and amps
- energize boiler system then log pressures and temperatures
- insulate all new piping and #2 pump box
- clean all debris from work area after project completion

Non Pre-Priced Estimate:

Quantity	Line Item Number	Description	Labor Hours	Unit	Labor	Materials	Equipment	Total
1	NA	Diagnostic Labor:						
1	N/A	Labor Total: \$19,450.00 (3) HVAC Technicians / 46 hours each / \$100.00 per hour = \$13,800.00 (1) General Maintenance Technician / 46 hours / \$75.00 per hour = \$3,450.00 (1) Rig Technician / 21 hours / \$75.00 per hour = \$1,575.00 S&S Hauling/ truck, trailer, driver / \$125.00 per hour / 5 hours = \$625.00	18		\$19,450.00			\$19,450.00
1	N/A	Pressure Test Gauge / PN:C055058 / QTY 2: \$242.34 Tax: \$14.78 Ship: \$4.00 Thermometer / PN: FNWSDTHN / QTY 2: \$292.89 Tax: \$12.44 Ship: \$4.00 Plastic Drums / 55 gallon / QTY 10 = \$918.00 Tax: \$39.00 Ship: \$75.00 Glycol / 55PG35/ QTY 10 = \$7,200.90 Tax: \$328.62 Ship: \$300.00 Glycol Disposal Fee = \$2,014.74 Tax: \$95.94 Grundfos Pump /PN: 98878004 / QTY 1 = \$4,415.69 Tax: \$210.27 *4 week lead time						

	Control Check Valve / PN: M721P / QTY 1 = \$1,317.20 Tax: \$62.72 Ship: \$100.00 *7-10 day lead time Copper Tubing / PN: KHARDP10 / QTY 1 = \$400.41 4" Fitting / PN: CSCP / QTY 1 = \$133.59 2" Fitting / PN: CSCK / QTY 1 = \$10.75 Butterfly Valve Set: PN: NLD20003P / QTY 1 = \$206.88 Butterfly Valve Set (cont.) PN: FNWLBBZIP / QTY 1 = \$14.92 Tax: \$47.35 Insulation: \$500.00 Solder Fee: \$200.00 Materials Total Project Total: \$37,365.66						
					\$17,915.66		17,915.66

Note: RS Means (Pre-Priced) not used in compiling this estimate.

Note: Subcontractor quote attached.

Estimate Summary:

Labor Hours	Labor Cost	Material Cost	Diagnostic Labor	Total Cost	CE Factor	Total Estimate
118	\$19,450.00	\$17,915.66	\$0.00	\$37,365.66	102%	\$38,112.97

Note: