

April 6th, 2021



Rochelle Municipal Utilities
Attn: Andrew Cunningham

Service Division
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Subject: Decanter Allen Bradley Control Upgrade for G3-95 (SN: 5025828, 5025829)
Quote: QUHHG2021053

Dear Mr. Cunningham:

Please find the following proposal Allen Bradley control upgrade for your existing Alfa Laval decanter system.

Scope of Supply

Allen Bradley new control components

To be installed in existing Operator / Starter Panel (drawing no: 8733377 / 8733378)

- All new Hardware, shipped to site
- PanelView PLUS-7, 10.4" *
- CompactLogix PLC 5370 L3 Controllers **
- Ethernet I/O Adapter Module 1734-AENTR,
- 1734-Point I/O Modules
- 2pt High Speed Counter module
- 2pt RTD Input module
- 4pt Analog Input module
- 10-31 VDC Digital Input 8pts modules,
- 10-31 VDC Digital Output 8pts modules,
- IFM vibration converter modules,
- New ACS880 VFDs for main drive (75HP), back drive (15HP) ***
- New ACS880 VFDs door kits and ethernet communication cards
- Remove B&R remote I/Os bank and incorporate to existing CompactLogix I/Os
- Re-use all others existing components, except components listed above

* Existing TA150 HMI and CP1484-1 CPU are discontinued

** Existing PLC 1769-L32E will be discontinued by end of 2020.

*** Existing ACS800-U1 drives are being phased out by ABB since 2018.

1 day Site Visit to Survey existing control system and field interface requirements

Engineering/Documentation

Redlined submittal Drawings based on redesign
PLC reprogramming, to be installed on CompactLogix Processor
HMI Standard Screen reprogramming, to be installed in new PanelView PLUS-7
Redlined as-built drawings sent to site for installation

Commissioning Services – Automation Engineer (1)

Alfa Laval will provide onsite decanter commissioning automation support after the panels have been completely installed and wired at your facility. Two trips – Up to total 10 days of support are expected, which includes travel time (to and from the site) and onsite time working with the equipment. Price includes travel expenses. Support personnel work 8 hour weekday; no overtime or weekend support included. Additional days will be billed at \$2,500 per 8-hr day.

Onsite electrical panel retrofit work (1)

Alfa Laval will provide onsite electrical panel retrofit work after centrifuges are shut down and powered off. Two trips – Up to total 6 days of support are expected, which includes travel time (to and from the site) and onsite time working with the equipment. Price includes travel expenses. Support personnel work 8 hour weekday; no overtime or weekend support included. Additional days will be billed at \$1,500 per 8-hr day.

Total Price for Two G3-95 control upgrade with startup: \$ 88,670.00

Exclusions and Recommendations

- Modifications or upgrades previously performed by others would not be in our documentation and not taken into consideration. Such changes, if they exist, could result in additional scope and cost

Optional additions

Option 1: Connected Services: Remote Support & Monitoring \$ 1,500 / year

Free for the first 6 months after successful startup. Contact Alfa Laval experts for process or maintenance advice, support on troubleshooting activities and for better preparing our next service activities. In addition, Remote Support and Monitoring allows you to remotely monitor and analyze your decanter technical running data. This is achieved through a web-based portal.

- Easy to use, no special software required, only a simple account to our Alfa Laval Internet of Things web-based portal (ALIoT).
- Assure that your decanter is running and performing as expected.
- Create your own alarms and notifications can be sent by e-mail or SMS/text message.
- Allow our experts access to real-time and historical machine operating data, identify the problem more quickly and accurately when you call for support.

Refer Appendix A for further details.

Option 2: Connected Services: ConditionAlert™ \$ 9,750 / year

Alfa Laval Condition Monitoring solution. ConditionAlert is a maintenance decision support system. Alfa Laval will send you an event report within one week of a bearing damage being detected, the report includes recommended corrective actions to prevent the bearing damage turning into a bearing failure.

The main and conveyor bearings are monitored by ConditionAlert continuously and 24/7 real time. When differential speed is less than 6rpm, the accuracy of monitoring the conveyor bearings is proportionally reduced.

As we further develop this system, in addition to the bearings other decanter components will be monitored too. The system will also be able to make sharp predictions about the remaining lifetime of monitored components. Some of these upgrades will be delivered seamlessly to the decanter user via a SW update. Other upgrades may require some additional HW or sensors to be installed in the decanter.

Refer Appendix B for further details.

Terms of Payment (Subject to Credit Approval):

- Forty (40) percent on acceptance of the order
- Fifty (50) percent on shipment of hardware components
- Ten (10) percent on completion of startup, not to exceed 60 days from delivery
- All invoices will be net thirty (30) days.

Delivery Schedule

- Delivery for hardware and software is estimated to be 10 -12 weeks from date of receipt of purchase order.

Delivery Terms

- Shipping term is Free Carrier (FCA) from Alfa Laval US facility.
- Any applicable State and Local Taxes are not included in this quotation.
- Alfa Laval can arrange freight, duty, brokerage, for each site, paid by customer additional on pre-paid/add basis to final invoice.

Validity

- Pricing and delivery terms are only valid within ninety (90) days from the date set forth above.

Terms & Conditions

- Alfa Laval Terms & Conditions of Sale apply. See attached.

Sincerely,

Herbert Huong

ALFA LAVAL INC

Herbert Huong

Business Development Automation & Connectivity

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