



Quote

The Automation Group, Inc.

www.tag-inc.us

CCB #172838

Phone: 541-359-3755

Quote #211118G

Nov. 18, 2022

Steven Haney
City of Sweet Home

RE: Sweet Home WTP - Raw Water Control Valve Replacement

Project Scope:

TAG is providing a Quote to Supply and install a manual bypass valve with associated piping and an electric valve including a pressure relief in place of the existing AUMA Valve. TAG will replace the existing Micro 1100 PLC with a 1400 w/analog and program it to control the valve. The piping structure will be side to side vs stacking as shown on figure 3 of the technical Memorandum.

Materials:

- 8" Electric Valve with Manual Override and local controls
- 12" Manual Valve with Handwheel
- Pressure relief
- Associated piping for above side by side application
- Micro 1400 w/Analog control
- Conduit and wire for valve power
- Conduit and wire for control from PLC

Tasks:

- Installation of above Materials
- PLC Programming for Auto/Manual Control of Valve
- Manufacturer valve setup and startup
- System Startup

Valve Specs with lead times to choose from:

Limitorque

8" Pratt AWWA Butterfly Valve, 125# Flanged, DI Body, DI Disc, 316 SS Stem, EPDM Seat, 8 Mils Epoxy Coating.
Limitorque Electric Actuator, Weatherproof Enclosure, Modulating Service, 480 VAC Main Power, 24 VDC Control Power, Manual Override, Local Controls, CS Bracket and Coupling.

Delivery: 40-42 Weeks

12" Pratt AWWA Butterfly Valve, 125# Flanged, DI Body, DI Disc, 316 SS Stem, EPDM Seat, 8 Mils Epoxy Coating, Gear Operated W/ Handwheel.

Delivery: 3-4 Weeks



Rotork

8" Pratt AWWA Butterfly Valve, 2FII Class 150B, 125# FLG x FLG, DI Body, DI Disc with 316 SS Edge, EPDM Seat, 316 SS Shaft, Nylatron Bearings, 8 Mils Epoxy Coating, Import Materials. Rotork IQT500 mk3 Intelligent Actuator, with:

- Watertight Enclosure,
- FA10 Output Flange,
- 480V 3Ø 60 Hz Power Supply,
- 24 VDC Indication Power,
- Isolating Control,
- 60 starts/stops per hour,
- CPT/Folomatic Communication Card,
- 4-20mA for Indication and Control,
- 369 ft-lbs Available Torque,
- 15-60 Second Stroke Time,
- Adaption & Machining,
- 1 day Startup & Commissioning,
- Wiring Diagram 303B0000 (Attached), and
- Remote Control Circuitry Diagram RWS102 (Attached).

Delivery: 22-24 Weeks

12" Pratt AWWA Butterfly Valve, 2FII Class 150B, 125# FLG x FLG, DI Body, DI Disc with 316 SS Edge, EPDM Seat, 316 SS Shaft, Nylatron Bearings, 8 Mils Epoxy Coating, Gear Operated with Handwheel. Import Materials.

Delivery: 22-24 Weeks

Auma

8" Homestead Series 820 Class 150B AWWA Butterfly Valve, ANSI B16.1 Class 125 flanged, ductile iron body, ductile iron disc, bonded and vulcanized Buna body seat, 316SS disc edge, 316SS shaft, Buna packing, fusion bonded epoxy coating and lining,

DEVICE CHARACTERISTICS

AUMA product Quarter-turn electric actuator

Rated output torque [lbs.ft.] 450

Rated output torque [inch.lbs.] 5,400

Rated output torque [Nm] 610

Approximate weight (lbs.) 77



Quote

SERVICE CONDITIONS

Version Weather-proof
Operating mode Modulating duty
Enclosure protection CSA type 6P
Color AUMA silver-grey (similar to RAL 7037)
Ambient temperature -30 °C to +70 °C (-22 °F to +158 °F)
Nameplates English - aluminum (US-AL)
Sealing elements NBR - Nitrile Butadiene Rubber
Corrosion protection KS

ELECTRICAL DATA

Mains voltage 480 Volts AC
Phase 3-Ph
Frequency 60 Hz
Type of duty S4 - 25% intermittent duty
Motor protection (D-1T-O140) 3 thermal switches, 1 N.C. contact per phase wired in series 140°C, class F insulation, tropicalized winding

MOTOR DATA

Motor designation SD0R063-4-0,04
Nominal power (HP) 1/16
Nominal power (kW) 0.04
Nominal speed (RPM) 1680
Nominal current (FLA) 0.5
Current approx. I_{max.} (RTA) 0.5
Starting current (LRA) 1.0
COS 0.48

ACTUATOR FEATURES

SQ model SQR 10.2
Valve coupling Unbored valve shaft coupling
Swing angle Setting range 75 - 105 degrees
Set to degrees 92
Operation time 35 seconds for 90°
Valve attachment FA10, US flange with female pilot
Coupling type steel
Mechanical position indicator (11.2) self-adjusting continuous indication, with symbols OPEN and CLOSED
Torque switches (0-M) torque sensing via MWG
Limit switches (0-M) limit sensing via MWG
Position transm. (30.5) MWG absolute encoder for AC 01.2
Heater (22.5) 24 V in combination with controls: 5 W
Motor heater (0) without
Torque switching Setting range 225-450 lbs.ft.
Set to close lbs.ft. 262
Set to open lbs.ft. 262
Handwheel 7.9" (200mm)
Close direction RH - clockwise
Limit switching (240) SQ with MWG
Lubricant F15 Shell ALVANIA 1029



Quote

Electrical connection (S0-000) actuator plug for mounting AM/SEM/AC

ACTUATOR CONTROLS

AUMATIC version AC 01.2

Feedback E2 MWG magnetic limit/ torque sensor (non-intrusive setting)

Max. motor power (B00.01) Contactors for power class A1

Motor protection (C00.01) thermal switch, automatic reset

Interface (D00.01) Parallel I/O Interface

Positioner (F10.01) Positioner

Input signals (R00.02) MODE, CLOSE, OPEN, STOP, EMERGENCY •

Control voltage (E00.01) 24 V DC

Electronics supply (A10.01) 24 V DC internal •

Output aux. voltage (A30.01) 24 V DC - 100mA (internally powered)

Output contacts (H00.03) 6 output contacts: 6 NO/NC without common 250V AC/5A •

Output signals (S00.01) default setting: K1=Fault, K2=End pos. CLOSED, K3=End pos. OPEN, K4=Selector sw.

REMOTE, K5=Torque fault CLOSE, K6=Torque fault OPEN

Local controls (L00.01) selector switch LOCAL-OFF-REMOTE with padlock; push buttons OPEN-STOP-CLOSE-RESET;

large graphical LCD with a resolution of 200 x 100 pixels

Activ. Bluetooth (L90.01) Switched on

Indication lights (L10.02) 1 CLOSED:green, 2 TRQ-CL:blue, 3 TH:yellow, 4 TRQ-OP:violet, 5 OPEN:red,

BLUETOOTH:blue (with numbers) •

Face plate (EN-ES-FR) English-Spanish-French •

Tolerance mains voltage (A40.01) +/- 10%

Electrical connection (SB-080) plug/socket 100mm, 2 x ¾" NPT; 1 x 1 ¼" NPT •

Heater (Q00.01) heater 24 V, internal supply •

Analog input 1 (P20.02) setpoint: 4-20mA

Analog output 1 (P00.02) Position feedback: 4-20mA

Analog output 2 (P10.02) Torque feedback: 4-20mA

Blinker version (N00.02) lights illuminated in mid travel (electronic)

Display language English

Switch off in CLOSE (042.01) Limit

Switch off in OPEN (043.01) Limit

Self retaining LOCAL (033.03) In direction OPEN and CLOSE

Self retaining REMOTE (052.00) OFF

Safety mode (153.01) OFF

Emergency function (140.01) OFF

Torque by-pass Function not active

Mounting position Position A

Mounting pos. local controls Position A-1, selector switch at 6 o'clock in relation to base of controls (standard for SA/SQ)

Electrical connection mounting position Position A

OPTIONAL EXTRAS

Double sealed at customer connection XK Yes

Delivery: 16-18 Weeks



Quote

Clarification/Exclusions:

- Bonds, Permits, City - County
- Bypass Pumping
- Painting
- Engineering
- Seismic Calcs
- Site Concrete / PCC Patching
- Construction Fencing or Temporary Facilities
- Handling of contaminated materials
- TAG's Labor Pricing is not affected by the National Supply Chain Shortages, but due to Vendors rapidly increasing material prices, we may need to reprice some materials at time of order.
- Lead Times for specific materials are very unpredictable at this time and cannot be verified until orders are placed. We are also seeing some items slipping from the predicted delivery dates after order by a few weeks and also seeing some items showing up early. TAG will track progress on orders and provide updates.
- Payments with Credit Cards will have additional charges added to the price below based on the current % rate of the processor.

Pricing: Add the top line item to the Valve Option selected for a Grand Total. Valve and actuator information is attached in separate zipped files for review.

I&C and Valve Installation.....\$111,969.00

Valve Options 1-3 (Choose one and add to above for Total)

Option 1 – Limitorque.....\$17,990.00

Option 2 – Rotork.....\$24,956.00

Option 3 – Auma\$17,412.00

Thank you,

Gary Jenks

Gary Jenks

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TAG standard terms apply