NYC Environmental Protection

Vincent Sapienza, P.E.
Commissioner

James Lauria, P.E.
Portfolio Manager
Bureau of Engineering
Design & Construction
lauriaj@dep.nyc.gov

96-05 Horace Harding
Expressway
Corona, NY 11368
Tel. (718) 595-6216
Cell. (917) 208-5312
Fax. (718) 595-5997

July 6, 2018

Timothy P. Burns, P.E.
NYS AIS Coordinator
NYS Environmental Facilities Corporation

Re: WP-164 North River WWTP
Contract Registration No. 20171426056
Contract NR-38, Cogeneration and Electrification
SRF Project No. C2-5234-28-00
AIS Availability Waiver Request for:
Stainless Steel Seamless Tubing and Three Way Control Valve

Dear Mr. Burns:

Under the Contract NR-38 with New York City Department of Environmental Protection (NYCDEP) for the Cogeneration and Electrification program at the North River Wastewater Treatment Plant, Yonkers Contracting Yonkers Contracting Company, Inc. (YCC) is required to furnish and install approximately 8,800 linear feet of **1-1/4" Stainless Steel 316 Seamless Tubing** for the four (4) Hydraulic Power Units (HPU) systems in accordance with Contract Detailed Specification 15052G Contract Drawings M21-1006 thru 1009, M22-1006 thru 1008, M23-1001,1002, and M24-1001,1002. The HPU's will control the influent wastewater isolation gates valves and cone check valves for the Main Sewage Pumps, which are critical to plant operation and meeting the State mandated wastewater treatment permit limits.

YCC is also required to furnish and install One (1) **-10" Three Way Control Valve** for the Mesophilic Hot Water System in accordance with Contract Detailed Specification 15111G and as shown in the Contract Drawing M22-1009.

The Contract includes the New York State Environmental Facilities Corporation contract packet with the American Iron and Steel Requirement for this CWSRF project, which include tubing as well as valves. The AIS requirements section also allows for the submission of a waiver request if:

"Iron and steel products are not produced in the US in sufficient and reasonably available quantities and of a satisfactory quality;"

The following information is provided to the EFC in requesting AIS Waiver for the following items:

- **Seamless Tubing Type 316L Stainless Steel 1-1/4" dia. x 0.120" wall thickness**
- **One (1) -10" Three Way Control Valve**

Seamless Tubing Type 316L Stainless Steel 1-1/4" dia.

The contractor has sought the procurement of the Seamless Stainless Steel tubing, and have found that while the majority of the manufacturing and fabrication can be done

in the US, the melting is not, and the raw material from which the tubing is drawn is not reasonably available from a domestic source, as indicated in the letter from YCC dated April 25, 2018 and the attached backup letters from Swagelok, Sandvik, Components & Control Precision Castparts Corp., and Ryan Herco Flow Solutions. The only supplier (U.S. Metals) who stated they can provide the SS tubing melted domestically has failed to produce a quote, specify a timeframe for fabrication /delivery or produce any associated AIS certifications. In addition, U.S. Metals stated they could only supply the material in 8-10 ft sections. Installing the tubing in 8-10 ft sections would require a higher number of additional connections and, as such, would increases the number of possible failure points in the tubing runs, which is not acceptable per the design requirements for this critical component of the system. The approximate cost of this material is [redacted].

The procurement and installation of the Stainless Steel Seamless Tubing from the Hydraulic Power Units to the isolation gate valves and cone check valves is required for the operation of the six Main Sewage Pumps. This work is critical to the project schedule, especially to achieve the first project milestone – startup of Main Sewage Pump #6. Per project Schedule update #3, the associated hydraulic tubing tie in was to start on October 2, 2018. Prior to this, the installation of this stainless steel seamless tubing would require approximately 2 months. Considering the lead time for fabrication of 2-3 months, the release of the stainless steel seamless tubing for fabrication is already 2 months behind schedule, and any additional timeframe will continue negatively affecting the project schedule.

10" Three Way Control Valve

The contractor has sought the procurement of the valve, and has found that due to the configuration of the piping and design requirements, the valve acceptable per the design requirements is manufactured by AMOT and Valvitalia, but both are not AIS compliant. Please see the attached letter from the local representative of AMOT, Thermal Products Inc., as well as the letter from Valvitalia, which indicate that the valves are manufactured in the United Kingdom and Italy, respectively. For reference, also attached are the valve specifications supplemented by the related RFI 15, RFI47, and RFI 60, where Contractor communicated that the other two named vendors (Nor'East and Dezurik) no longer manufacture this type and size valve. These, collectively, define the design requirements for the valve. The approximate cost of this valve is $[redacted].

The procurement and installation of the Three-Way 10" Temperature Control Valve is required for the proper operation of the Mesophilic Hot Water System which is part of the project's scope. The three-way valve is required for the recovery of heat for use in the delicate digestion sludge process and for the rejection of heat from the cogeneration engines to ensure proper and long-term operation. Per the Project Schedule Update #3, the installation of the valve is to commence on December 21, 2018. Due to the 4 months' timeframe required for fabrication, this equipment needs to be released mid-August 2018, at the very latest. We would prefer to release this equipment even sooner so as to recover the schedule. There is no positive float available in the schedule for this activity.

As such, we request the waiver be considered and granted.

Please review and advise if you have any questions or comments, or submit this request for the waiver to EPA.

Sincerely,

pp. T. [signature]

James Lauria, P.E.
Portfolio Manager

Attachment

(For Stainless Steel Seamless Tubing)

- Letter from Yonkers Contracting Company, Inc. dated April 25, 2018
- Relevant Contract Drawings
- Relevant Contract specifications
- Letters from Manufacturers re: availability
- Excerpts from Project Schedule update #3

(For Three Way Control Valve)

- Letter from Yonkers Contracting Company, Inc. dated May 1, 2018
- Detailed Specifications 15111G
- Contract Drawing M22-1009
- Letter from Thermal Products re: AMOT valve availability
- Letter from Valvitalia re: valve availability
- Excerpts from Project Schedule update #3
- Associated RFIs – RFI 15, RFI 47, RFI 60

c. Frank Giardina, DEP BEDC
Domenick Loschiavo, P.E., Black & Veatch
James Buchok, AECOM
John Clifford, AECOM
Peter Marzziotti, P.E., AECOM

Yonkers Contracting Company, Inc.

Building Quality for Over 70 Years

969 Midland Avenue Yonkers, NY 10704
***Tel** 914.965.1500 Fax 914.378.8885*

April 25, 2018
No. NR-AECOM-005

Peter Marzziotti, P.E.
AECOM Power and Industrial
125 Broad St.
New York, NY 10004

Re: New York City Department of Environmental Protection (NYC DEP)
WP-164, North River WWTP Cogeneration and Electrification
Contract NR-38
1-1/4" Stainless Steel 316 Seamless Tubing for the HPU System - AIS Waiver Request

Dear Mr. Peter Marzziotti,

Yonkers Contracting Company, Inc. (YCC) the General Contractor for the NYC DEP Contract NR-38 - North River Wastewater Treatment Plant Cogeneration and Electrification is formally requesting an AIS Waiver for the following item:

- 1-1/4" Stainless Steel 316 Seamless Tubing for the HPU system – 8800 LF

Market research and documentation provided by specialty material suppliers indicate that while the manufacturing and fabrication is done in the US, the melt or hollow tubes from which the tubing is drawn, is not available from a US/Domestic source. Find attached letters and documentation from three different vendors and their suppliers, Swagelok (Sandvik and Greenville Tube Corp), Components and Controls (Rath Gibson), and Ryan Herco Flow Solutions (Greenville Tube Corp).

The estimated cost of this material according to preliminary quotations is from $[redacted]. Please note the cost of this material is volatile and subject to rapid increase. From December 2017 the pricing has increased approximately 30%. Please expedite the review of this waiver request to minimize cost impact.

The tubing material (as per attached contract drawings and specification excerpts) will be required in July 2018 for the installation of four (4) Hydraulic Power Units. Two (2) of these units are required in order to start Main Sewage Pump #6, which is the first project milestone.

Should you have any questions, please contact me at (646) 374-0133 Ext. 201 or at jmerolla@yonkerscontractingco.com.

Sincerely,
Yonkers Contracting Company, Inc.

John Merolla, P.E.
Project Executive

F. Where flanges are shown, specified or required for connection of stainless steel pipe and fittings to pipe equipment, forged stainless steel weld-neck flanges conforming to ANSI 150 pound or 300 pound standards for nominal pipe sizes larger than twelve (12) inches.

G. Where flanges are shown or required for connection of 42-inch and larger stainless steel piping, flanges shall meet the requirements of ANSI/AWWA C207, except that the materials for the flanges shall be the same material as the host pipe.

1. Flanges, flanged fittings and flanged joints shall conform to the applicable provisions specified herein for steel flanges, flanged fittings and flanged joints, except that steel bolting shall be stainless.

H. Fittings:

1. For nominal pipe sizes 2 inches and smaller shall be of the socket-welding type conforming to the dimensional requirements of ASME B16.11, Class 3000. Fittings shall conform to the materials and alloy requirements of ASTM A403/A403M.

2. For nominal pipe sizes 2-1/2 through 12 inches shall be the butt-welding type conforming to the dimensional requirements of ASME B16.9. Fittings shall conform to the materials and alloy requirements of ASTM A403/A403M.

3. For nominal pipe sizes 42 inches and larger, shall have fitting dimensions conforming to ANSI/AWWA C208.

4. Filler material for welding stainless steel and alloys, P-Number 8 base materials shall be in accordance with the following:

a. Material Type/Grade 304 shall use Type 308 filler material

b. Material Type/Grade 304L shall use Type 308L filler material

c. Material Type/Grade 316 shall use Type 316 filler material

d. Material Type/Grade 316L shall use Type 316L filler material

I. All stainless steel pipe and fittings shall be precleaned, pickled and passivated after fabrication in accordance with Article 2.14.

2.13 STAINLESS STEEL TUBING AND FITTINGS

A. Type 316L stainless steel, seamless tubing shall be in accordance with ASTM A269.

B. Minimum Wall Thickness:

1. Tubing shall be as follows:

	General Service		Hydraulic Power Unit System(s)	
Tubing Outside Diameter (Inches)	Working Pressure (psig)	Wall Thickness (Inches)	Working Pressure @ 100 °F (psig)	Wall Thickness (Inches)
1/4	3000	0.035	5100	0.035
3/8	2500	0.035	3300	0.035
1/2	2500	0.049	5100	0.065
5/8	2500	0.049	4000	0.065
3/4	2500	0.065	3300	0.065
1	2000	0.065	3100	0.083
1 1/4	3600	0.120	3600	0.120
1 1/2	3400	0.134	3400	0.134
2	3600	0.188	3600	0.188

C. Provide Type 316 stainless steel, flareless tube fittings in conformity with ASTM A276.

D. Dielectric insulating joints or fittings shall be provided at connections between exterior piping and interior piping.

E. All stainless steel tubing shall be precleaned, pickled and passivated after fabrication in accordance with the applicable sections of ASTM A380.

2.14 SHOP CLEANING AND PICKLING OF STAINLESS STEEL PIPING AND WELDS

A. All stainless steel piping shall be thoroughly cleaned and pickled at the mill in accordance with ASTM A380.

B. Pickling shall produce a modest etch and shall remove all embedded iron and heat tint. After fabrication, pickled surfaces shall be subjected to a 24 hour water test or a ferroxyl test to detect the presence of residual embedded iron. All pickled surfaces damaged during fabrication including welded areas shall either be mechanically cleaned or repickled or passivated in accordance with ASTM A380. Materials that have been contaminated with steel alloys or free iron shall not be used until all contamination is removed. When cleaning to remove steel or iron contamination is required, it shall be performed in accordance with ASTM A380, Code D requirements. All stainless steel surfaces shall be adequately protected during fabrication, shipping, handling, and installation to prevent contamination

Swagelok

Value beyond the expected℠

RS Crum & Company, Inc.
1181 Globe Avenue
Mountainside, NJ 07092 USA
Phone 908-232-4444 Fax 908-232-6291

4/20/2018

Dear Yonkers Contracting,

"The tubing requested, Stainless Steel - 1 ¼" by .120 wall thickness, will not qualify under the AIS specification. The tubing is drawn in the USA but the raw material is melted in Sweden, UK, France, Germany or Spain mostly. ***No one*** *in the USA melts stainless steel that is then formed into hollows for tube production. All of the hollows used in the production of tubing are produced in Europe and shipped to the US or to Canada. Based upon all of this, we cannot certify the tubing to the AIS specification."*

Mark C. Bossart
Technical Service Representative
Distributed Products

All the best,

Swagelok

Steve Valahovic
Business Development Manager
917.209.8406 cell
908.232.4444 office
908.232.6291 fax

Swagelok Metropolitan NY|NJ
1181 Globe Avenue
Mountainside, NJ 07092

SANDVIK

Swagelok Company

29495 Solon Road

Solon, OH 44139

Attn: Mark C. Bossart

Dear Mark,

I hereby confirm that Sandvik does not currently certify our seamless stainless tubing produced in the US or Canadian facility to the American Iron and Steel Requirements, Sec. 436.

Sincerely,

Kathleen Duddek
Key Account Sales Manager
Instrumentation/Hydraulic Tubing
Sandvik Materials Technology
April 23, 2018

From: Marc Dinnerman [mailto:marcdinnerman@yahoo.com]
Sent: Friday, April 20, 2018 11:56 AM
To: David Ceron <dceron@yonkerscontractingco.com>
Subject: request to quote tubing NYC DEP NR-38 NORTH RIVER WWTP-SS MATERIAL

Dear David
for your review
CCI QUOTE # 0418-065-D

order would be non returnable and non cancelable

ITEM # 1
8800 FEET
1.250 O.D X .120 WALL X 316/316L SEAMLESS TUBING
BRIGHT SOLUTION ANNEALED
A269/A213/SA213
OD TOL +/_ .005 WALL
OFFERING DFAR COMPLIANT MATERIAL
COUNTRY OF MELT SWEDEN
COUNTRY OF ORIGIN USA
COUNTRY OF MFG USA
NOTE: 450 PIECES AT 20 FT 0 INCHES CUT TOLERANCE + 1/8- 0
MTR REPORTS PROVIDED AT NO CHARGE

fob plant in ARKANSAS
terms to be discussed
delivery 5-6 weeks
quote valid 30 days

best regards

Marc Dinnerman
COMPONENTS & CONTROLS, INC.
PO BOX 437
CARLSTADT, NJ 07072
201-438-9190 FAX 201-438-3356
CELL No. 551-206-5277
www.componentsandcontrols.com
Note: Material selection, pressure and temperature compatibility is the sole responsibility of the purchaser. Non-standard and/or non-inventory items are non-cancellable and non-returnable once ordered. Any changes in quoted quantity may impact this quotation. If this is for export, an export form must be completed in the event of an order.

RathGibson, LLC
2505 FOSTER AVENUE, JANESVILLE, WISCONSIN 53545 U.S.A.
PHONE (608) 754-2222 FAX (608)-754-0889

A family of PCC Companies

GREENVILLE TUBE COMPANY
A PCC Company

April 19, 2018

Components & Controls
Marc Dinnerman

Dear Marc,

In regards to your recent request, our quote number 3876672, Greenville Tube Co. is not AIS certified.

If I can be of further assistance, please feel free to contact me.

Sincerely,

Tammy Brotheridge

Tammy Brotheridge, International/Domestic Inside Sales | Greenville Tube, a Division of Precision Castparts Corp
☎ Office: 866-345-7487 | Fax: 608.754.0889 | ✉ E-Mail: **tammybrotheridge@rathgibson.com**

-----Original Message-----
From: JTrincheria@rhfs.com [mailto:JTrincheria@rhfs.com]
Sent: Friday, April 13, 2018 1:38 PM
To: David Ceron <dceron@yonkerscontractingco.com>
Cc: JMatonis@rhfs.com
Subject: RE: AIS Tubing Spec

I keep coming back to the same thing from all the vendors and manufacturers. No seamless tube will fall under AIS guidelines because none of it is melted in the US. See below...Which basically is the same thing we just quoted you.

I just spoke with the seamless division of Rath Gibson at Greenville Tube in Arkansas. He states the same thing that everyone is saying. You cannot have a seamless product with material that is melted in the USA...All seamless material is melted outside the US...hence no AIS.

It calls for material to be USA melt and mfg. No one melts seamless raw material in the US so it will not be available, however, the end user can get a waiver when there's lack of USA produced material.

If they are willing to get a waiver we can quote domestic manufacture and melt from an approved country like Sweden. Will this be acceptable?

ASTM A511, A269, A213 / ASME SA213 (except dimensions) TP316/TP316L Seamless, Domestic, Bright Annealed, 20ft lengths Made in USA, Raw material will likely be Sweden

John D. Trincheria
Inside Contractor Sales
Ryan Herco Flow Solutions
908-534-6111 Ext. 3712 Phone
908-534-5287 Fax
jtrincheria@rhfs.com

John Matonis
District Sales Manager

Ryan Herco Flow Solutions
50 Tannery Road, Building 3
Branchburg, New Jersey 08876
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Mobile: 908.672.5948
jmatonis@rhfs.com
Sales/Service: 800.407.3726 - www.rhfs.com

April 20, 2018

John Matonis

Ryan Herco Flow Solutions

Subject: AIS Compliance North River NR-38 Hydraulic Tubing for HPU systems

As discussed, Greenville Tube Corp. cannot comply to AIS specifications as all of our raw materials are melted and produced outside of the U.S.A. All austenitic alloys (300 series) in seamless are melted in either Western Europe or various Asian countries, therefore not AIS compliant.

Please feel free to contact me with any questions,

Rick Bresnan

Director of Sales Greenville Tube

608-322-4882

Yonkers Contracting Company, Inc.

Building Quality for Over 70 Years

969 Midland Avenue Yonkers, NY 10704
***Tel** 914.965.1500 Fax 914.378.8885*

May 1, 2018
No. NR-AECOM-006

Peter Marzziotti, P.E.
AECOM Power and Industrial
125 Broad St.
New York, NY 10004

Re: New York City Department of Environmental Protection (NYC DEP)
WP-164, North River WWTP Cogeneration and Electrification
Contract NR-38
10" Three Way Control Valve - AIS Waiver Request

Dear Mr. Peter Marzziotti,

Yonkers Contracting Company, Inc. (YCC) the General Contractor for the NYC DEP Contract NR-38 - North River Wastewater Treatment Plant Cogeneration and Electrification is formally requesting an AIS Waiver for the following item:

- One (1) - 10" Three Way Control Valve

As per the attached drawings and specifications, and RFI's 15, 47 and 60 (attached), due to the configuration of the piping and requirements from the engineer, the only acceptable valve is manufactured by AMOT, which is not AIS compliant. Please see attached letter from the local representative, Thermal Products Inc. which indicates that the valves are manufactured in the United Kingdom.

[redacted]

The latest schedule indicates valve installation commencing December 21, 2018. The valve requires 4 months for fabrication, and therefore must be released into fabrication no later than August 21, 2018. The specified valve has already been approved by the designer.

Should you have any questions, please contact me at (646) 374-0133 Ext. 201 or at jmerolla@yonkerscontractingco.com.

Sincerely,
Yonkers Contracting Company, Inc.

John Merolla, P.E.
Project Executive

3. Aurora

V. V-Notch Ball Valves:

1. Fisher
2. Emerson
3. Mascot

W. Gas Safety Shutoff valves

1. Maxon Corporation
2. Honeywell

X. Two-Way Temperature Control Globe Valves – Modulating Application

1. Valvitalia
2. Amot
3. Dezurik
4. Nor'East

Y. Three-way Temperature Control Valve

1. Amot
2. Valvitalia
3. Nor'East
4. Dezurik

Z. Globe Valves

1. American R/D
2. Mueller Water Co.
3. Amot
4. Valvitalia
5. Nor'East
6. Dezurik

AA. Backflow Preventers:

1. Watts Regulator Company.
2. Wilkins.

BB. Motor-Operators (Open/Close and Modulating):

1. Limitorque.
2. Rotork.

2.29 THREE-WAY TEMPRATURE CONTROL VALVE

A. General:

1. Design Temperature and Pressure Ratings:
   a. Temperature Range: 14 to 428 degrees F.
   b. Rated Working Pressure: Class 150
2. Cv Values:
   a. Valve Size: ~~12”~~ Changed to 10" via RFI-060
   b. Full Open Cv: 1730
3. Type: Electric operated, three-way diverting globe control valve
4. Fail-safe position: Actuator stem retracts.

B. Materials of Construction:

1. Body/Bonnet: Cast steel ASTM A216 WCC
2. Valve bonnet: ASTM A216 WCC/A 105
3. Rotor: Bronze
4. Rotor Shaft: Stainless Steel
5. Boltings: Nut-A184 Gr 2H; Stud-A193 Gr B7
6. Seat: Stainless steel 410-2
7. Plug: Stainless steel DIN 1.4008
8. Guide Bushings: Stainless steel W-Nr 1.4112
9. Packing: Viton rubber, PTFE or high-temperature packing
10. Body gaskets: Graphite seal on metal core
11. Insulating section: ASTM A216 WWC/A 105
12. Intermediate piece: ASTM A216 WCC/A 105
13. Leakage Class: IV

C. Actuators:

1. Actuators shall be the means to operate the valve via the valve operating mechanism. The actuator shall be sized, installed and tested by the valve manufacturer.
2. Actuators shall be mounted to the valve operating mechanism. The actuators shall be removable for inspection, repair, and replacement without dismantling either the valve operating mechanism or the valve body.

3. Actuators shall be quarter turn electric with a linear output providing modulating thrust.

4. Special features:

   a. Rugged, compact and light weight

   b. Powerful thrust at high response speed

   c. Low friction

   d. No special tools required to change the bench range or to reverse the actuator action

   e. Permissible operating temperatures from -31 to 300 degree F.

   f. Operated by hand in case of an emergency or power outage.

   g. Provides network system connectivity, position controls and display.

   h. Actuator speed. 1.5 mm/sec

5. Direction of action: Actuator motor drives a gearbox connected to the rotor shaft and turns the valve rotor clockwise or counter-clockwise, a maximum of 90 degrees. At the end of the travel, limit switches isolate the electrical supply to the motor when the valve rotor has reached either end of rotation.

6. Globe valve shall be provided with an electrical modulating actuator, Amot G Series, Rotork model IQML10 or approved equal. The actuator shall be designed for minimum 1200 starts per hour and 50% duty cycled based on a modulating torque of 50% of rated torque.

7. Provide actuator, PID controller and temperature sensor as part of the valve package. Provide additional accessories and parts for approved equal products at no additional costs to the authority.

8. Actuator operating power supply shall be 460V/3ph with 4-20A control signal.

9. Actuator shall be provided with a controller located in close proximity as per manufacturer recommendations.

10. Control wiring and power supply connections from and to the actuator and PID controller shall be provided.

11. Travel: Up to 160 mm (6.3in)

D. Three-way temperature control valves shall be Valvitalia TRV model 3 or equal from Amot GEF Series, Dezurik, Nor'East or approved equal

2.30 GLOBE VALVES

A. General:

THERMAL PRODUCTS INC.
Engineered Solutions To Industrial Applications

April 26, 2018

Yonkers Contracting Company
725 West 135th St.
New York, NY 10031

Subject: American Iron and Steel Waiver for Project NR-38, NYCDEP North River WWTP Cogeneration and Electrification

The 3-Way Control Valve being used on the Mesophilic Hot Water system is an Amot Control Temperature Control Valve Model 10GEFDFBA13-AHR. This Ductile Iron valve does NOT comply with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs. The reason for this is the valve is manufactured at Amot Control's United Kingdom facility and not in the United States.

Regards

Mark Nystoriak

Mark Nystoriak
Application Engineer

Corporate Office: 964A Route 146, Clifton Park, NY 12065, Phone: (518) 877-0231 Fax: (518) 877-3329
New England Office: (978) 567-7951
Mid-Atlantic Office: (610)-214-2129
Southeast Office: (770)-878-4840
Website: www.thermalproducts.com / Email: sales@thermalproducts.com

From: Benedetto Marchisio
To: David Ceron
Cc: Office USA; Dario Torluccio; Diego Poletti
Subject: RE: NYC DEP NR-38 - 3 Way Temperature Control Valve
Date: Wednesday, September 27, 2017 12:17:19 PM

Dear David,
Unfortunately the person who was working on your bid is now on medical leave and this slowed down the process of preparing your bid. At this point, I think that your quote will be ready early next week. Thanks for your patience.

With respect to the AIS requirements, we have to admit that we are not familiar with them. Our understanding is that they require valves to be made in the USA or a waiver has to be requested to the EPA. Please be informed that our control valves are made in Italy using components coming from all over the world. My understanding is that the waiver should not be requested by the manufacturer but by government entity/project that is purchasing the valve. Can you please confirm that our interpretation is correct and that you will be still able to use our valves?

Thanks.
Best,
Ben

Benedetto Marchisio
Country Manager Americas
Valvitalia S.p.a.

Ph.+1 713 877 1414 | Fax.+1 713 877 1484 | Mob.+1 713 397 7141
benedetto.marchisio@valvitalia.com | www.valvitalia.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Tuesday, September 26, 2017 3:54 PM
To: Benedetto Marchisio <benedetto.marchisio@valvitalia.com>
Cc: Office USA <office.usa@valvitalia.com>; Dario Torluccio <dario.torluccio@valvitalia.com>
Subject: RE: NYC DEP NR-38 - 3 Way Temperature Control Valve

Benedetto,

I just wanted to check with you on the status of the quote for the 2 & 3 way globe valves.

Also please let me know if it would be an issue for you to meet the AIS Requirements of this project.

Sincerely,

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification
WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

Yonkers Contracting Company

969 Midland Ave | Yonkers NY 10704
T 914.965.1500 Ext 715
F 914.378.8880
dceron@yonkerscontractingco.com

Yonkers Contracting Celebrates 70th Anniversary with New Website Launch-
www.yonkerscontractingco.com

RFI 15

Request for Information (RFI) - 15

Project:	NR-38 - North River WWTP Cogeneration and Electrification	Project Number:	
Process Document:	RFI - 15	Overall Due Date:	
Current Workflow Step:	Finish	Step Due Date:	
Subject:	Globe Valves		
Status:	Approved		

Initiated on Behalf Of:		Project Commitment:	
		Date Requested By:	**10.10.2017**

RFI Details

Critical?:	**Yes**
Problem/Description/Question:	**Refer to Specification Section 15111G - Valves 4" and larger. This section lists the following valves with the following manufacturers:** **2.01.X. Two-Way Temperature Control Globe Valves - Modulating Application:** **1. Valvitalia** **2. Amot** **3. Dezurik** **4. Nor'East** **2.01.Y. Three-Way Temperature Control Valves:** **1. Amot** **2. Valvitalia** **3. Nor'East** **4. Dezurik** **2.01.Z. Globe Valves:** **1. American R/D** **2. Mueller Water Co.**

	3. Amot **4. Valvitalia** **5. Nor'East** **6. Dezurik** **After reaching out to the headquarters and/or local representatives of each of the manufacturers listed above we received the following responses:** **Valvitalia** **o No local representative** **o Valves are fabricated in Italy and shipped directly** **o Not AIS compliant** **Amot** **o Local representative is Thermal Products Inc.** **o They mentioned they cannot meet all the requirements. Some of the reasons are:** **- Battery backup for the actuator** **- 425F operating temperatures** **- Carbon steel in the large sizes** **- Class IV leakage** **- AWWA** **Dezurik** **o Local representative is Tek-Sales** **o Stopped fabricating these valves a long time ago** **o The company was Nor'East and was sold** **Nor'East (Allagash)** **o Local representative is Raritan Valve & Automation** **o They do not make the specified valves. They are not able to quote.** **American R/D** **o Spoke directly with fabricator** **o They stopped fabricating these valves in the 70s** **Mueller Water Co.** **o Spoke directly with fabricator** **o The do not offer Globe Valves** **Provide manufacturers that comply with project requirements.**
Spec Section & Paragraph:	**15111G (2.01.X, 2.01.Y, 2.01.Z)**
Drawing Reference:	**N/A**

Code Reference/Other Reference:	
Suggested Solution:	**Provide manufacturers that comply with project requirements.**
Potential Cost Impact:	**No**
Potential Schedule Impact:	**No**

Originated From

Non-Conformance Report:	

RFI Response

Response:	**The following clarification is provided in reference to Detailed Specification 15111G.** **Articles 2.01 X. and 2.28 - Delete the word "Globe" from the heading.** **Article 2.28 A. 1. a - The temperature range should be: 14 to 212 degrees Fahrenheit.** **Article 2.28 A. 3. - Delete and replace the word "globe" with "control"** **Article 2.28 C. 5. - Delete the word first word "Globe" and replace with "Control."** **Article 2.29 A. 1. a - The temperature range should be: 14 to 212 degrees Fahrenheit.** **Article 2.29 A. 3. - Please delete the word "globe."** **Article 2.29 C. 6. - Delete the word first word "Globe" and replace with "Control."** **Article 3.04 Valve Schedule - For Valves 1650DV, 1650EV and 1650FV, Revise the Type to "Two-Way Control"** **Manufacturers that can provide two way control valves, three way control valves, and globe valves that meet the contract requirements are as follows:** **Article 2.01 X. - Two way Control Valve - Modulating Application** **1. Mascot** **2. DeZurik - DeZurik Model RCV-Rotary Control Valve with Carbon steel body meets the specification requirement, They even comply with ANSI/FCI 70-2 - Control Valve Seat Leakage Classification - Class IV - metal to metal with a metal seat. Most of the material of construction for this valve are rated for high temperature.** **Article 2.01 Y. - Three-Way Temperature Control Valve** **1. Mascot** **2. Amot - Amot GEF and GPD Series fabricated of stainless steel or Ductile iron for sizes up to 16" is available and can meet the design specification with**

	temperature up to 212 deg F. They can meet the leakage classification for stainless steel and nitrile (rubber) and or Ductile iron with Viton. **Article 2.01 Z. - Globe Valve** **1. Mascot** **2. Powell Valves** **3. William Valve Corporation** **The following bullets provide further clarification:** **1. No Battery backup is specified in Specification 15111G.** **2. Temperature range is as revised above.** **3. Carbon steel flanges are available in accordance with ANSI B16.5.** **4. Class IV leakage classification - Both two way and three way control valves with the type of seat material can meet the class IV leakage classification in accordance with ANSI/FCI 70-2.** **5. AWWA-Testing shall be in accordance with API 598.**

Comments

Khalil Rouchdy, Yonkers Contracting, 10.03.2017 8:54 AM

A document was attached

Files Attached: RFI-015 Final.pdf

Attached Documents

File Name	Attached By	Date Attached	Step
RFI-015 Final.pdf	Rouchdy, Khalil (Yonkers Contracting)	10.03.2017	RE Review

CONSTRUCTION MANAGEMENT SERVICES
REQUEST FOR INFORMATION

Project:			
Contract:		**DEP AM:**	
Contract No:		**CM:**	
Contractor:		**EOR:**	

FOR CONTRACTOR

RFI NUMBER:	
RFI TITLE:	

PROBLEM DESCRIPTION:

Attachments:		

REFERENCES

Specification:	
Drawing:	
Code/Other:	

APPROVAL FOR RELEASE

Initiated by:		**Signature**	**Date**
Date Required by:		Khalil Rouchdy	

ENGINEER RESPONSE

PROBLEM SOLUTION:

Attachments:		

Check one that applies:	
No Cost Impact to Contract	
Credit is due back to the City	
Payment is Due to the Contractor	
To Be Determined	

Answered by:		**CM Approval:**	
Date:		**Date :**	

RFI 015 – Globe Valves
Additional Comment Sheet.

Refer to Specification Section 15111G - Valves 4" and larger. This section lists the following valves with the following manufacturers:

2.01.X. Two-Way Temperature Control Globe Valves – Modulating Application:
1. Valvitalia
2. Amot
3. Dezurik
4. Nor'East

2.01.Y. Three-Way Temperature Control Valves:
1. Amot
2. Valvitalia
3. Nor'East
4. Dezurik

2.01.Z. Globe Valves:
1. American R/D
2. Mueller Water Co.
3. Amot
4. Valvitalia
5. Nor'East
6. Dezurik

After reaching out to the headquarters and/or local representatives of each of the manufacturers listed above we received the following responses:

- Valvitalia
  - No local representative
  - Valves are fabricated in Italy and shipped directly
  - Not AIS compliant

- Amot
  - Local representative is Thermal Products Inc.
  - They mentioned they cannot meet all the requirements. Some of the reasons are:
    - Battery backup for the actuator
    - 425F operating temperatures
    - Carbon steel in the large sizes
    - Class IV leakage
    - AWWA

- Dezurik
  - Local representative is Tek-Sales
  - Stopped fabricating these valves a long time ago
  - The company was Nor'East and was sold

- Nor'East (Allagash)
    - Local representative is Raritan Valve & Automation
    - They do not make the specified valves. They are not able to quote.

- American R/D
    - Spoke directly with fabricator
    - They stopped fabricating these valves in the 70s

- Mueller Water Co.
    - Spoke directly with fabricator
    - The do not offer Globe Valves

Provide manufacturers that comply with project requirements.

RFI 47

Request for Information (RFI) - 47

Project:	NR-38 - North River WWTP Cogeneration and Electrification	Project Number:	
Process Document:	RFI - 47	Overall Due Date:	
Current Workflow Step:	Finish	Step Due Date:	
Subject:	Three Way Temperature Control Valve Design		
Status:	Approved		

Initiated on Behalf Of:		Project Commitment:	
		Date Requested By:	**11.27.2017**

RFI Details

Critical?:	**Yes**
Problem/Description/Question:	**the Manufacturer specified on the response to RFI-015 cannot meet the contract design requirments. The issues are:** **1) Mascot Valves** **- Their valve does not have the inlet & outlet connections on the same plane. See their data sheet in the attachment labeled "RFI-046".** **- Their valve will require pipe re-design** **2) Amot valves** **- Their valve actuator does not comply with the fail-safe requirement listed in paragraph 2.29.A.4. See local representative (Thermal Products, Inc) email attached labeled "RFI-046".**
Spec Section & Paragraph:	**15111 - 2.29**
Drawing Reference:	**M22-1009**

Code Reference/Other Reference:	**RFI-015**
Suggested Solution:	**Please Advise**
Potential Cost Impact:	**Yes**
Potential Schedule Impact:	**Yes**

Originated From

Non-Conformance Report:	

RFI Response

Response:	**The requirement stipulated in Article 2.29 A. 4. shall be eliminated because the failsafe requirements pertain to pneumatic actuators. The3-way temperature control valves shall have electric actuators. Thus, Amot valves shall be acceptable.**

Comments

Khalil Rouchdy, Yonkers Contracting, 11.20.2017 8:22 AM

clarification: For mascot valves refer to RFI-047 attachment 1 For Amot Valves refer to RFI-047 attachment 2

Khalil Rouchdy, Yonkers Contracting, 11.20.2017 8:20 AM

A document was attached.

Files Attached: RFI-047.pdf

Khalil Rouchdy, Yonkers Contracting, 11.20.2017 8:09 AM

Correction: refer to attachment RFI-047 not RFI-046

Attached Documents

File Name	Attached By	Date Attached	Step
RFI-047.pdf	Rouchdy, Khalil (Yonkers Contracting)	11.20.2017	RE Review

CONSTRUCTION MANAGEMENT SERVICES
REQUEST FOR INFORMATION

Project:			
Contract:		**DEP AM:**	
Contract No:		**CM:**	
Contractor:		**EOR:**	

FOR CONTRACTOR

RFI NUMBER:	
RFI TITLE:	

PROBLEM DESCRIPTION:

Attachments:		

REFERENCES

Specification:	
Drawing:	
Code/Other:	

APPROVAL FOR RELEASE

Initiated by:		**Signature**	**Date**
Date Required by:		Khalil Rouchdy	

ENGINEER RESPONSE

PROBLEM SOLUTION:

Attachments:		

Check one that applies:	
No Cost Impact to Contract	
Credit is due back to the City	
Payment is Due to the Contractor	
To Be Determined	

Answered by:		**CM Approval:**	
Date:		**Date :**	

Customer Name: M/s.Yonkers Contracting Company,Inc. Quote/Rev: 170778-EXP-R1
Tag Number: Disk ID: Hitesh Prajapati
Project: Through E-Mail,Date:18.09.2017 Record #: 4999

		Model:	GFlo, Globe, 3-Way Converging
Size/Trim:	12" / 9.50 CV: 1470.0		
Body Material:	CS (ASTM A216 Gr WCB)	Pressure Class:	150#
End Connection:	Flanged ANSI B16.5 RF	Face To Face:	ISA
Flange Facing:	125-250 Ra (Std)		
Trim Char.:	Linear	Gaskets:	Teflon
Trim Type:	Unbalanced	Packing:	TFE V-Ring (std)
Seat Ring:	316 SS	Packing Style:	Single
Plug:	316 SS	Lower Guide:	G.L. Teflon
Seat Retainer:	316 SS	Upper Guide:	G.L. Teflon
Seat Material:	Metal (Class IV)		
Bonnet:	Standard	Actuator Type:	Spring Cylinder (A sL)
		Air Action:	Open
Clamps,gld flg:	Hdware SS/CS Bolts	Flow Direction:	Over
Body Bolting:	Standard	Actuator Size:	200 sq in
		Spring Size:	Standard
Positioner:	Mascot-Electro Pneumatic	Spring Action:	Close
		Tubing/Fitting:	1/2" Stainless
		Air Supply:	60.0 (psig)
		Signal:	4-20 ma/ Throttling
		Pipe (in/out):	12"/12"
		Schedule(up/dn):	40 /40
Air Set:	Filter Regulator with Gauge - 1/2" NPT W/Gauge		

	Case 1	Case 2	Case 3		
Temperature (F):				Fluid:	WATER
Upstream (psia):				Sp. gravity @ FlwT:	1.06
Downstream (psia):					
Liq flw(Gal/minute):					
Pressure drop:				(Max shutoff drop:	125.0)
Choke drop:					
Valve vel. (fps):					
Pipe vel. (fps):					
Valve Required Cv:				(Max CV is	1470.0)
est. Percent open:					
Total Noise (dBA):					

Client		M/s.Yonkers Contracting Company,Inc.		
P O No.		17-0257-29, DT: 18.10.2017		
Order Acknowledge No.		E17-216		
Valve Sr. No.		EXP-17180663		
Quantity		01 No.		
Prepared By	Hitesh	Checked By	VJP	Client Approval

F/MKT: 12 GFlo Rev. 02

From: Amy Sommerville | Thermal Products
To: David Ceron; Kevin Sommerville | Thermal Products
Cc: Kevin Sommerville | Thermal Products
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)
Date: Wednesday, October 11, 2017 12:17:03 PM
Attachments: image006.png
image008.png
image009.png

Hi David,

I've heard back from the factory with regards to your answered questions. Unfortunately, Amot's electric actuator will not meet the "failsafe" requirement listed on 2.29-A-4. They can offer a pneumatic actuator in its place with a pneumatic to electric converter if that's a possibility. If the electric fail-safe actuator is a must, we are unable to meet your requirements.

Regards,

Amy Sommerville

964A Route 146, Clifton Park, NY 12065.
Office: 518-877-0231 Fax: 518-877-3329
amy@thermalproducts.com www.thermalproducts.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Monday, October 9, 2017 10:11 AM
To: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>
Cc: Amy Sommerville | Thermal Products <Amy@thermalproducts.com>
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Kevin,

Find attached the response on your comments from the engineer. Also find attached the formal response to RFI 015.

Advise what would will be able to price and when will we be able to receive the pricing.

Sincerely,

David Ceron

MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification
WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

Yonkers Contracting Company

969 Midland Ave | Yonkers NY 10704
T 914.965.1500 Ext 715
F 914.378.8880
dceron@yonkerscontractingco.com

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From: Kamlesh Shah [mailto:kshah@savinengineers.com]
Sent: Monday, October 09, 2017 10:05 AM
To: David Ceron <dceron@yonkerscontractingco.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

David

See my response in Red

2.29 – A -2: The Cv that they require is lower than what our 12G has (3405). We may be able to offer a smaller valve (8G – Cv: 1513 or 10G- Cv:2364), but would like to know the media, flow and connections (if the main port is the middle port or one of the side ports). The medium is water (treated). The flow is 1980 gpm and connection is flanged. The main port is in the middle where the discharge of the pump is connected and the flows to the side port.
2.29 – A – 4: Fail safe: No. Actuator will hold the same position, not fail safe option. The spec says "Actuator Stem Retracts" which means that if power is disconnected the actuator is expected to return to its original position.
2.29 – B – 1; We can't offer carbon steel in the 12G. They have valves listed on their brochure that is made of carbon steel and nitrile. We can offer ductile iron with 150# flanges, or explore different sizes. We can offer nitrile if needed. Ductile iron with #150 flange is acceptable.
2.29 – C – 6: -31 – 300F. The actuator can't handle this high temperature The temperature range provided is the one that is permissible. If they are within the range then we should be ok. Also as per the RFI response, the temperature range is 212F
2.29 – C – 8 : Actuator requested is a 460V, we can't comply. It will be 120V or 240V, single phase. 240 V, single phase is acceptable.
2.29 – C – 10: AMOT will not provide the connections between PID and actuator – I would think this is the coordination between the contractor and manufacturer which needs to be hashed out.

CLASS IV refers to metal to metal contact. We do not have contact between the rotor and

the housing, therefore the leakage expected will be higher than the allowed by CLASS IV. We can determine how much (empirically), but will require to know operation pressures on the lines, media, etc. The media is water and the operating pressure is 55psig. Please let me know what is the leakage rate and based on their calculation, what is the leakage classification they can meet?

Kamlesh Shah, PE

Savin Engineers, P.C. | MEP Division | Senior Engineer

1160 US Highway 22, Suite 102, Bridgewater, NJ 08807

Office: 908.725.2805 x107 | Fax: 908.725.2815 | Email: kshah@savinengineers.com

www.savinengineers.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Friday, October 6, 2017 1:33 PM
To: Kamlesh Shah <kshah@savinengineers.com>
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Kamlesh,

Take a look at the comments from the Amot Valve representative.

David Ceron

MEP Engineer

NYC DEP NR-38 – North River WWTP Cogeneration and Electrification

WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

Yonkers Contracting Company

969 Midland Ave | Yonkers NY 10704

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F 914.378.8880

dceron@yonkerscontractingco.com

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From: Kevin Sommerville | Thermal Products [mailto:Kevin@thermalproducts.com]
Sent: Friday, October 06, 2017 1:16 PM
To: David Ceron <dceron@yonkerscontractingco.com>
Cc: Amy Sommerville | Thermal Products <Amy@thermalproducts.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

David, After briefly looking at the supplied spec sheet, there are several items that stand out to us. The below are deviations we would need to make to the requirements. Please look them over. I am worried a few (such as the CV) may be deal breakers. If you can accept these we can proceed with a more detailed look at the requirements and attempt to quote.

2.29 – A -2: The Cv that they require is lower than what our 12G has (3405). We may be able to offer a smaller valve (8G – Cv: 1513 or 10G- Cv:2364), but would like to know the media, flow and connections (if the main port is the middle port or one of the side ports).
2.29 – A – 4: Fail safe: No. Actuator will hold the same position, not fail safe option.
2.29 – B – 1; We can't offer carbon steel in the 12G. We can offer ductile iron with 150# flanges, or explore different sizes. We can offer nitrile if needed.
2.29 – C – 6: -31 – 300F. The actuator can't handle this high temperature
2.29 – C – 8 : Actuator requested is a 460V, we can't comply. It will be 120V or 240V, single phase.
2.29 – C – 10: AMOT will not provide the connections between PID and actuator

CLASS IV refers to metal to metal contact. We do not have contact between the rotor and the housing, therefore the leakage expected will be higher than the allowed by CLASS IV. We can determine how much (empirically), but will require to know operation pressures on the lines, media, etc.

Follow us on https://twitter.com/TPIExchangers

Regards,

Kevin Sommerville

964A Route 146, Clifton Park, NY 12065.
Office: 518-877-0231 Fax: 518-877-3329
Mobile: 518-366-0771
kevin@thermalproducts.com www.thermalproducts.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Thursday, October 05, 2017 9:34 AM
To: Kevin Sommerville | Thermal Products
Cc: Amy Sommerville | Thermal Products
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Kevin,

Find the conformed specifications previously sent attached. For the record, it seems that you were working on the wrong set of specifications and you mentioned to the engineer that we sent you the wrong specifications, please review this in detail to eliminate further misunderstandings.

Also find below the comments from the engineer about the valve required for the project.

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification
WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

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T 914.965.1500 Ext 715
F 914.378.8880
dceron@yonkerscontractingco.com

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From: Kamlesh Shah [mailto:kshah@savinengineers.com]
Sent: Thursday, October 05, 2017 9:26 AM
To: David Ceron <dceron@yonkerscontractingco.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

David

I just spoke to Kevin and he said that the requirement that was given to him by the contractor is the reason the factory cannot meet and provide a quote. He said that you send him the revised confirmed spec with the following clarification and he will take a look at it. I gave him a clarification as follows

1. Battery backup for the actuator – No battery backup is called out in specification 15111G
2. 425F operating temperatures – The temperature range is revised – 14 to 212 deg F
3. Carbon steel in the large sizes – Their GEF model does offer Carbon steel with Nitrile seal option for 12 inches
4. Class IV leakage – this is the minimum classification that they should be able to meet. If not then Amot should tell us what is the classification they can meet as per ANSI/FCI 70-2
5. AWWA – The table calls for AWWA, but should actually be ANSI B16.5 for Pipe flanges rated for Class 150 and Class 300.

Send him the revised specification along with the clarification as stated above. I am responding to the RFI on similar grounds.

Thanks

Kamlesh Shah, PE

Savin Engineers, P.C. | MEP Division | Senior Engineer

1160 US Highway 22, Suite 102, Bridgewater, NJ 08807

Office: 908.725.2805 x107 | Fax: 908.725.2815 | Email: kshah@savinengineers.com

www.savinengineers.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Thursday, October 5, 2017 9:10 AM
To: Kamlesh Shah <kshah@savinengineers.com>
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Kamlesh,

Perhaps you may want to talk to them directly. See their response below.

David Ceron

MEP Engineer

NYC DEP NR-38 – North River WWTP Cogeneration and Electrification

WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

Yonkers Contracting Company

969 Midland Ave | Yonkers NY 10704

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F 914.378.8880

dceron@yonkerscontractingco.com

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From: Kevin Sommerville | Thermal Products [mailto:Kevin@thermalproducts.com]
Sent: Thursday, October 05, 2017 9:08 AM
To: David Ceron <dceron@yonkerscontractingco.com>
Cc: Amy Sommerville | Thermal Products <Amy@thermalproducts.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

We cannot meet the specs below as disused in previous emails.

Sorry, we can't provide a valve that can meet all the requirements. Among some of those:

1. Battery backup for the actuator
2. 425F operating temperatures
3. Carbon steel in the large sizes
4. Class IV leakage
5. AWWA

We need to decline this request, my apologies.

Follow us on https://twitter.com/TPIExchangers

Regards,

Kevin Sommerville

964A Route 146, Clifton Park, NY 12065.
Office: 518-877-0231 Fax: 518-877-3329
Mobile: 518-366-0771
kevin@thermalproducts.com www.thermalproducts.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Thursday, October 05, 2017 8:59 AM
To: Kevin Sommerville | Thermal Products
Cc: Amy Sommerville | Thermal Products
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Kevin,

Please review the email below. Savin Engineers is under the impression that you can quote the GG Series Valve for the 3-way control valve.

Let me know how would this valve compare to the specs. Also provide pricing.

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification

RFI 60

Request for Information (RFI) - 60

Project:	NR-38 - North River WWTP Cogeneration and Electrification	Project Number:	
Process Document:	RFI - 60	Overall Due Date:	
Current Workflow Step:	Finish	Step Due Date:	
Subject:	Three-Way Control Valve Selection		
Status:	Approved		

Initiated on Behalf Of:		Project Commitment:	
		Date Requested By:	**12.19.2017**

RFI Details

Critical?:	**Yes**
Problem/Description/Question:	**The response to RFI 47 limited the choice for Three-Way Valve manufacturers to one, AMOT valves. The issue is that AMOT has not being able to provide a valve that meets all the project requirements. The EOR and Thermal Products, the AMOT valves local representative, have exchanged several emails trying to clarify the project requirements and the valve capabilities, see NR-38 RFI-060 - Attachment 1. Attachment 1 shows an email dated 12/11/17 that provides two documents named "10733.docx" & "datasheet_gef_gpd_temp_control_valve_0615_rev5.pdf" labeled NR-38 RFI-060 Attachments 2 & 3 respectively.** **We want to make sure that we can procure this valve. Please review this information and confirm whether we can procure this valve or not. If we can proceed provide a revised layout showing the pipe reductions required to connect the valve. If we cannot please provide a solution.**

Spec Section & Paragraph:	**15111G-2.29**
Drawing Reference:	**M22-1009**
Code Reference/Other Reference:	**Valve ID 1650AV, RFI-015, RFI-047**
Suggested Solution:	**Please Advise**
Potential Cost Impact:	**Yes**
Potential Schedule Impact:	**Yes**

Originated From

Non-Conformance Report:	

RFI Response

Response:	**The EOR notes no exceptions with the valve size of 10-inch with electric actuator by AMOT as recommended by the Contractor. The 3-way valve shall be Model 10GEFSJA013 and 150# flange rating. It shall be noted that the response to this RFI does not relieve the Contractor from providing a formal submittal for this valve.** **Contractor shall provide three 10x12 reducers and field modify existing piping to install the 10-inch 3-way valve and reducers. See attached sketch for the proposed pipe layout modification on Contract drawing No. M22-1009.** **It is the EOR's opinion that this directive has no impact to the cost or schedule of the project.**

Comments

Jose Medina-Pardo, Black & Veatch New York, LLP, 12.29.2017 9:25 AM

A document was attached.

Files Attached: 20171229 - RFI-60 EOR Response Attachment.pdf

Attached Documents

File Name	Attached By	Date Attached	Step
RFI-060.pdf	Rouchdy, Khalil (Yonkers	12.12.2017	Start

	Contracting)		
20171229 - RFI-60 EOR Response Attachment.pdf	Medina-Pardo, Jose (Black & Veatch New York, LLP)	12.29.2017	Design Engineer Review

CONSTRUCTION MANAGEMENT SERVICES
REQUEST FOR INFORMATION

Project:			
Contract:		**DEP AM:**	
Contract No:		**CM:**	
Contractor:		**EOR:**	

FOR CONTRACTOR

RFI NUMBER:	
RFI TITLE:	

PROBLEM DESCRIPTION:

Attachments:		

REFERENCES

Specification:	
Drawing:	
Code/Other:	

APPROVAL FOR RELEASE

Initiated by:		**Signature**	**Date**
Date Required by:		Khalil Rouchdy	

ENGINEER RESPONSE

PROBLEM SOLUTION:

Attachments:		

Check one that applies:	
No Cost Impact to Contract	
Credit is due back to the City	
Payment is Due to the Contractor	
To Be Determined	

Answered by:		**CM Approval:**	
Date:		**Date :**	

From:	Amy Sommerville | Thermal Products
To:	David Ceron
Cc:	Kevin Sommerville | Thermal Products
Subject:	Yonkers Contracting Co. RE: NYC DEP NR-38: thermal system valve option (RFI-15)/Thermal Products Quote #107033
Date:	Monday, December 11, 2017 3:50:16 PM
Attachments:	image002.png image008.png image009.png datasheet_gef_gpd_temp_control_valve_0615_rev5.pdf 107033.docx

Good Afternoon David,
Please see attached quote and data sheets. Please note that this valve does not meet all of the specifications outlined in your paperwork and we would need to have a conference call with you and the factory before placing order to make sure everything is understood.

Regards,

Amy Sommerville

964A Route 146, Clifton Park, NY 12065.
Office: 518-877-0231 Fax: 518-877-3329
amy@thermalproducts.com www.thermalproducts.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Thursday, December 7, 2017 3:15 PM
To: Amy Sommerville | Thermal Products <Amy@thermalproducts.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

Thank you.

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification

Yonkers Contracting Company

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F 914.378.8880
dceron@yonkerscontractingco.com

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From: Amy Sommerville | Thermal Products [mailto:Amy@thermalproducts.com]
Sent: Thursday, December 07, 2017 3:03 PM
To: David Ceron <dceron@yonkerscontractingco.com>
Cc: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>; Mark Nystoriak | Thermal Products <Mark@thermalproducts.com>; William Szpynda <wszpynda@yonkerscontractingco.com>; Wojciech Ostrowski <wostrowski@yonkerscontractingco.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

David,
The recommendation is for a 10" GEF valve. This will meet your flow requirements and will provide the 180 deg rotor. We will work on a quote.

Regards,

Amy Sommerville

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Engineered Solutions To Industrial Applications

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Office: 518-877-0231 Fax: 518-877-3329
amy@thermalproducts.com www.thermalproducts.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Monday, December 4, 2017 4:42 PM
To: Amy Sommerville | Thermal Products <Amy@thermalproducts.com>
Cc: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>; Mark Nystoriak | Thermal Products <Mark@thermalproducts.com>; William Szpynda <wszpynda@yonkerscontractingco.com>; Wojciech Ostrowski <wostrowski@yonkerscontractingco.com>
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Amy,

Please provide an answer to the question below.

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification

Yonkers Contracting Company

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T 914.965.1500 Ext 715
F 914.378.8880
dceron@yonkerscontractingco.com

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From: Kamlesh Shah [mailto:kshah@savinengineers.com]
Sent: Monday, December 04, 2017 3:54 PM
To: David Ceron <dceron@yonkerscontractingco.com>; Medina Pardo, Jose <MedinaPardoJ@bv.com>
Cc: Amil Middelmann (MiddelmannAH@BV.com) <MiddelmannAH@BV.com>; William Szpynda <wszpynda@yonkerscontractingco.com>; Wojciech Ostrowski <wostrowski@yonkerscontractingco.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

David

Port 2 is the main port where the pup discharge flows. If we cannot use a 12" GEF electric valve based on the port orientation then what valve size is suggested by Amot?

Please advise

Kamlesh Shah, PE
Savin Engineers, P.C. | MEP Division | Senior Engineer
1160 US Highway 22, Suite 102, Bridgewater, NJ 08807
Office: 908.725.2805 x107 | Fax: 908.725.2815 | Email: kshah@savinengineers.com

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From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Monday, December 4, 2017 10:35 AM
To: Medina Pardo, Jose <MedinaPardoJ@bv.com>
Cc: Amil Middelmann (MiddelmannAH@BV.com) <MiddelmannAH@BV.com>; Kamlesh Shah <kshah@savinengineers.com>; William Szpynda <wszpynda@yonkerscontractingco.com>; Wojciech Ostrowski <wostrowski@yonkerscontractingco.com>
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Jose,

Would you please be able to provide further clarification on the selection and requirements for these 3-Way valve?

Thank you,

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification

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From: Amy Sommerville | Thermal Products [mailto:Amy@thermalproducts.com]
Sent: Monday, December 04, 2017 10:06 AM
To: David Ceron <dceron@yonkerscontractingco.com>
Cc: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>; William Szpynda <wszpynda@yonkerscontractingco.com>; Wojciech Ostrowski <wostrowski@yonkerscontractingco.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

Hi David,
Please see response below from engineering re: the valve:

The actuator will turn 90 degree, but the rotor can be 90 deg or 180 deg.

The 180deg rotor is used when the main port is port 2.

If their main port is port 2, then we will need to offer a smaller valve.

Please confirm which port is the main port.

Please advise which port will be used as the main port.

Regards,

Amy Sommerville

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amy@thermalproducts.com www.thermalproducts.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Thursday, November 30, 2017 4:13 PM
To: Amy Sommerville | Thermal Products <Amy@thermalproducts.com>
Cc: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>; William Szpynda <wszpynda@yonkerscontractingco.com>; Wojciech Ostrowski <wostrowski@yonkerscontractingco.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

Amy,

Per the contract documents please, maintain the 12” with the 90° rotor.

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification

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From: Amy Sommerville | Thermal Products [mailto:Amy@thermalproducts.com]
Sent: Thursday, November 30, 2017 4:09 PM
To: David Ceron <dceron@yonkerscontractingco.com>
Cc: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>; William Szpynda <wszpynda@yonkerscontractingco.com>; Wojciech Ostrowski <wostrowski@yonkerscontractingco.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

Hi David,
Thank you for the responses, but we still need to know if you'd like us to proceed with a 12" valve with a 90° rotor or the 10" valve with the 180° rotor? I don't see that clearly defined on the response. We will need that information before we can work up a quote. Please advise. Thanks.

Regards,

Amy Sommerville

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Office: 518-877-0231 Fax: 518-877-3329
amy@thermalproducts.com www.thermalproducts.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Thursday, November 30, 2017 3:57 PM
To: Amy Sommerville | Thermal Products <Amy@thermalproducts.com>
Cc: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>; William Szpynda <wszpynda@yonkerscontractingco.com>; Wojciech Ostrowski <wostrowski@yonkerscontractingco.com>
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Amy,

Please find attached the comments made on the factory's Deviation List. Please proceed with pricing ASAP.

Thank you,

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification

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From: Medina Pardo, Jose [mailto:MedinaPardoJ@bv.com]
Sent: Thursday, November 30, 2017 3:49 PM
To: David Ceron <dceron@yonkerscontractingco.com>
Cc: Middelmann, Amiel H <MiddelmannAH@bv.com>; William Szpynda <wszpynda@yonkerscontractingco.com>; Wojciech Ostrowski <wostrowski@yonkerscontractingco.com>; Shah Kamlesh (kshah@savinengineers.com) <kshah@savinengineers.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

David,

Please see attached comments.

--
José

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Thursday, November 30, 2017 1:54 PM
To: Medina Pardo, Jose
Cc: Middelmann, Amiel H; William Szpynda; Wojciech Ostrowski
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Jose,

Good afternoon. Would you please be able to provide your input on the requested deviation made by the only qualified 3-way control valve manufacturer for valve 1650AV?

This design questions are being generated after the responses provided in RFIs 15 & 47.

Thank you,

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification

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From: Amy Sommerville | Thermal Products [mailto:Amy@thermalproducts.com]
Sent: Thursday, November 30, 2017 11:49 AM
To: David Ceron <dceron@yonkerscontractingco.com>; Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>
Cc: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

Good Morning David,
The factory received word today that they're vendor no longer makes the 12" valve with a 180° Rotor. They can offer a 12" Valve with 90° Rotor or a 10" Valve with a 180° Rotor. Please see the attached pressure drop charts and Excel spreadsheet Deviation List. Our apologies for this deviation. Please advise if either of these options are acceptable and if so, please advise which way you'd like to proceed.

Regards,

Amy Sommerville

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amy@thermalproducts.com www.thermalproducts.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Monday, November 27, 2017 10:45 AM
To: Amy Sommerville | Thermal Products <Amy@thermalproducts.com>; Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>
Cc: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

Amy,

Thank you for the response.

David Ceron

MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification
WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

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From: Amy Sommerville | Thermal Products [mailto:Amy@thermalproducts.com]
Sent: Monday, November 27, 2017 10:36 AM
To: David Ceron <dceron@yonkerscontractingco.com>; Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>
Cc: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

Good Morning David,
I have looked over your documentation and am working with the factory to provide a quote.

Regards,

Amy Sommerville

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amy@thermalproducts.com www.thermalproducts.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Monday, November 27, 2017 8:27 AM
To: Amy Sommerville | Thermal Products <Amy@thermalproducts.com>; Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>
Cc: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

Amy,

There was an RFI submitted related to the AMOT 3-Way Control Valve. With this clarification waives the requirement of the failsafe. Please provide pricing for this valve. We need to proceed as soon as possible.

Thank you,

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification
WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

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From: Amy Sommerville | Thermal Products [mailto:Amy@thermalproducts.com]
Sent: Wednesday, October 11, 2017 12:15 PM
To: David Ceron <dceron@yonkerscontractingco.com>; Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>
Cc: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

Hi David,

I've heard back from the factory with regards to your answered questions. Unfortunately, Amot's electric actuator will not meet the "failsafe" requirement listed on 2.29-A-4. They can offer a pneumatic actuator in its place with a pneumatic to electric converter if that's a possibility. If the electric fail-safe actuator is a must, we are unable to meet your requirements.

Regards,

Amy Sommerville

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Engineered Solutions To Industrial Applications

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Office: 518-877-0231 Fax: 518-877-3329
amy@thermalproducts.com www.thermalproducts.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Monday, October 9, 2017 10:11 AM
To: Kevin Sommerville | Thermal Products <Kevin@thermalproducts.com>
Cc: Amy Sommerville | Thermal Products <Amy@thermalproducts.com>
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Kevin,

Find attached the response on your comments from the engineer. Also find attached the formal response to RFI 015.

Advise what would will be able to price and when will we be able to receive the pricing.

Sincerely,

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification
WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

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dceron@yonkerscontractingco.com

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From: Kamlesh Shah [mailto:kshah@savinengineers.com]
Sent: Monday, October 09, 2017 10:05 AM
To: David Ceron <dceron@yonkerscontractingco.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

David

See my response in Red

2.29 – A -2: The Cv that they require is lower than what our 12G has (3405). We may be able

to offer a smaller valve (8G – Cv: 1513 or 10G- Cv:2364), but would like to know the media, flow and connections (if the main port is the middle port or one of the side ports). The medium is water (treated). The flow is 1980 gpm and connection is flanged. The main port is in the middle where the discharge of the pump is connected and the flows to the side port.
2.29 – A – 4: Fail safe: No. Actuator will hold the same position, not fail safe option. The spec says "Actuator Stem Retracts" which means that if power is disconnected the actuator is expected to return to its original position.
2.29 – B – 1; We can't offer carbon steel in the 12G. They have valves listed on their brochure that is made of carbon steel and nitrile. We can offer ductile iron with 150# flanges, or explore different sizes. We can offer nitrile if needed. Ductile iron with #150 flange is acceptable.
2.29 – C – 6: -31 – 300F. The actuator can't handle this high temperature The temperature range provided is the one that is permissible. If they are within the range then we should be ok. Also as per the RFI response, the temperature range is 212F
2.29 – C – 8 : Actuator requested is a 460V, we can't comply. It will be 120V or 240V, single phase. 240 V, single phase is acceptable.
2.29 – C – 10: AMOT will not provide the connections between PID and actuator – I would think this is the coordination between the contractor and manufacturer which needs to be hashed out.

CLASS IV refers to metal to metal contact. We do not have contact between the rotor and the housing, therefore the leakage expected will be higher than the allowed by CLASS IV. We can determine how much (empirically), but will require to know operation pressures on the lines, media, etc. The media is water and the operating pressure is 55psig. Please let me know what is the leakage rate and based on their calculation, what is the leakage classification they can meet?

Kamlesh Shah, PE

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From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Friday, October 6, 2017 1:33 PM
To: Kamlesh Shah <kshah@savinengineers.com>
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Kamlesh,

Take a look at the comments from the Amot Valve representative.

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification
WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

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From: Kevin Sommerville | Thermal Products [mailto:Kevin@thermalproducts.com]
Sent: Friday, October 06, 2017 1:16 PM
To: David Ceron <dceron@yonkerscontractingco.com>
Cc: Amy Sommerville | Thermal Products <Amy@thermalproducts.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

David, After briefly looking at the supplied spec sheet, there are several items that stand out to us. The below are deviations we would need to make to the requirements. Please look them over. I am worried a few (such as the CV) may be deal breakers. If you can accept these we can proceed with a more detailed look at the requirements and attempt to quote.

> 2.29 – A -2: The Cv that they require is lower than what our 12G has (3405). We may be able to offer a smaller valve (8G – Cv: 1513 or 10G- Cv:2364), but would like to know the media, flow and connections (if the main port is the middle port or one of the side ports).
> 2.29 – A – 4: Fail safe: No. Actuator will hold the same position, not fail safe option.
> 2.29 – B – 1; We can't offer carbon steel in the 12G. We can offer ductile iron with 150# flanges, or explore different sizes. We can offer nitrile if needed.
> 2.29 – C – 6: -31 – 300F. The actuator can't handle this high temperature
> 2.29 – C – 8 : Actuator requested is a 460V, we can't comply. It will be 120V or 240V, single phase.
> 2.29 – C – 10: AMOT will not provide the connections between PID and actuator
>
> CLASS IV refers to metal to metal contact. We do not have contact between the rotor and the housing, therefore the leakage expected will be higher than the allowed by CLASS IV. We can determine how much (empirically), but will require to know operation pressures on the lines, media, etc.

Follow us on https://twitter.com/TPIExchangers

Regards,

Kevin Sommerville

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Mobile: 518-366-0771
kevin@thermalproducts.com www.thermalproducts.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Thursday, October 05, 2017 9:34 AM
To: Kevin Sommerville | Thermal Products
Cc: Amy Sommerville | Thermal Products
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Kevin,

Find the conformed specifications previously sent attached. For the record, it seems that you were working on the wrong set of specifications and you mentioned to the engineer that we sent you the wrong specifications, please review this in detail to eliminate further misunderstandings.

Also find below the comments from the engineer about the valve required for the project.

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification
WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

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From: Kamlesh Shah [mailto:kshah@savinengineers.com]
Sent: Thursday, October 05, 2017 9:26 AM
To: David Ceron <dceron@yonkerscontractingco.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

David

I just spoke to Kevin and he said that the requirement that was given to him by the contractor is the reason the factory cannot meet and provide a quote. He said that you send him the revised confirmed spec with the following clarification and he will take a look at it. I gave him a clarification as follows

1. Battery backup for the actuator – No battery backup is called out in specification 15111G
2. 425F operating temperatures – The temperature range is revised – 14 to 212 deg F
3. Carbon steel in the large sizes – Their GEF model does offer Carbon steel with Nitrile seal option for 12 inches
4. Class IV leakage – this is the minimum classification that they should be able to meet. If not then Amot should tell us what is the classification they can meet as per ANSI/FCI 70-2
5. AWWA – The table calls for AWWA, but should actually be ANSI B16.5 for Pipe flanges rated for Class 150 and Class 300.

Send him the revised specification along with the clarification as stated above. I am responding to the RFI on similar grounds.

Thanks

Kamlesh Shah, PE

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Office: 908.725.2805 x107 | Fax: 908.725.2815 | Email: kshah@savinengineers.com

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From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Thursday, October 5, 2017 9:10 AM
To: Kamlesh Shah <kshah@savinengineers.com>
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Kamlesh,

Perhaps you may want to talk to them directly. See their response below.

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification
WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

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From: Kevin Sommerville | Thermal Products [mailto:Kevin@thermalproducts.com]
Sent: Thursday, October 05, 2017 9:08 AM
To: David Ceron <dceron@yonkerscontractingco.com>
Cc: Amy Sommerville | Thermal Products <Amy@thermalproducts.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

We cannot meet the specs below as disused in previous emails.

Sorry, we can't provide a valve that can meet all the requirements. Among some of those:

1. Battery backup for the actuator
2. 425F operating temperatures
3. Carbon steel in the large sizes
4. Class IV leakage
5. AWWA

We need to decline this request, my apologies.

Follow us on https://twitter.com/TPIExchangers

Regards,

Kevin Sommerville

THERMAL PRODUCTS INC.
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Mobile: 518-366-0771
kevin@thermalproducts.com www.thermalproducts.com

From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Thursday, October 05, 2017 8:59 AM
To: Kevin Sommerville | Thermal Products
Cc: Amy Sommerville | Thermal Products
Subject: FW: NYC DEP NR-38: thermal system valve option (RFI-15)

Kevin,

Please review the email below. Savin Engineers is under the impression that you can quote the GG Series Valve for the 3-way control valve.

Let me know how would this valve compare to the specs. Also provide pricing.

David Ceron
MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification
WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

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From: Kamlesh Shah [mailto:kshah@savinengineers.com]
Sent: Thursday, October 05, 2017 7:23 AM
To: David Ceron <dceron@yonkerscontractingco.com>; Medina Pardo, Jose <MedinaPardoJ@bv.com>
Cc: Middelmann, Amiel H <MiddelmannAH@bv.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

David

It was a pleasure speaking to you. As per our discussion I will provide you with an official response to the RFI.

Dezurik only makes the two-way control valve and have the material of construction that can meet

the spec. Their valve style is called RCV- Rotary Control Valve.

Amot only makes the three way valve and their model is the GG series. It seems that they have the Carbon steel or ductile iron body.

You can follow-up with these manufacturer and find out why they cannot quote.

All of what I wrote about will be responded via the RFI response process with any change markup to the specification.

Thanks

Kamlesh Shah, PE

Savin Engineers, P.C. | MEP Division | Senior Engineer

1160 US Highway 22, Suite 102, Bridgewater, NJ 08807

Office: 908.725.2805 x107 | Fax: 908.725.2815 | Email: kshah@savinengineers.com

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From: David Ceron [mailto:dceron@yonkerscontractingco.com]
Sent: Wednesday, October 4, 2017 2:56 PM
To: Kamlesh Shah <kshah@savinengineers.com>; Medina Pardo, Jose <MedinaPardoJ@bv.com>
Cc: Middelmann, Amiel H <MiddelmannAH@bv.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

Kamlesh,

It was nice talking with you about this matter. As I mentioned here is the contact information for the Mascot Valves representative that I have been dealing with. Garry Salisbury, 713 299 7984, gsalisbury@mascotvalves.us.

They are the specified manufacturer for the V-notch Ball Valves but they are also offering the 3-Way, 2-Way and standard Globe valves. Check with them about the AIS Compliance, specifications and performance requirements and the type of Actuators they are proposing to use. Note that for the Pneumatic actuators they are using are their own. Mascot actuators are not specified under spec section 15111G-2.01.CC or DD.

Please do not forget to send us the specific model for the DeZurik & Amot valves that meet the specifications requirements.

Sincerely,

David Ceron

MEP Engineer
NYC DEP NR-38 – North River WWTP Cogeneration and Electrification
WC DPW 12-539 – Peekskill WWTP Digester Rehabilitation

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From: Kamlesh Shah [mailto:kshah@savinengineers.com]
Sent: Wednesday, October 04, 2017 11:40 AM
To: Medina Pardo, Jose <MedinaPardoJ@bv.com>
Cc: David Ceron <dceron@yonkerscontractingco.com>; Middelmann, Amiel H <MiddelmannAH@bv.com>
Subject: RE: NYC DEP NR-38: thermal system valve option (RFI-15)

Jose

Thank you .. I will call him this afternoon to discuss it.

Kamlesh Shah, PE
Savin Engineers, P.C. | MEP Division | Senior Engineer
1160 US Highway 22, Suite 102, Bridgewater, NJ 08807
Office: 908.725.2805 x107 | Fax: 908.725.2815 | Email: kshah@savinengineers.com

Savin Engineers, P.C.
www.savinengineers.com

From: Medina Pardo, Jose [mailto:MedinaPardoJ@bv.com]
Sent: Wednesday, October 4, 2017 11:36 AM
To: Kamlesh Shah <kshah@savinengineers.com>
Cc: David Ceron <dceron@yonkerscontractingco.com>; Middelmann, Amiel H <MiddelmannAH@bv.com>
Subject: NYC DEP NR-38: thermal system valve option (RFI-15)

Kamlesh,

David Ceron (copied) from Yonkers Contracting Company reached out to me to discuss some findings on the valves for thermal systems.

He mentioned he found a manufacturer that seems to meet all spec requirements for the globe

valves, two-way and three-way temperature control valves.

Please reach out to David directly. Here is his phone number: (914) 965-1500, extension 715.

Thanks.

JOSÉ F MEDINA PARDO | Mechanical Engineer, Water
Black & Veatch **|** 489 Fifth Avenue, 14th Floor, New York, NY 10017
+1 646-846-0696 **p** | +1 212-973-1343 **f** | MedinaPardoJ@bv.com
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PROPOSAL


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Cooling Towers


Air-Cooled Heat Exchangers

www.thermalproducts.com

Date:	December 11, 2017
Proposal #:	107033
Customer Ref:	NYC DEP NR-38
Phone:	914-965-1500 x715
Fax:	914-378-8880
E-mail:	dceron@yonkerscontractingco.com
CC:	Kevin Sommerville

Yonkers Contracting Co
Attn: David Ceron

We are pleased to quote you the following per your specifications:

(1)**Amot Controls Model Number 10 GEFDFA013-AHR Temperature Control Valve**
10" Electric Actuator, Ductile Iron, Flange 125lb, 200/240V Electric Actuator,
Port 1 to 3 CCW, Class 150 Flange

Price:	
Shipping:	14-15 weeks after receipt of order
Freight:	Not included
Terms:	Credit card or Net 30 days pending approval
F.O.B.:	Houston, TX

Comments/Exceptions:

1.Please note valve does not 100% meet specifications. Conference call with factory will be needed prior to order.

Quotation is subject to our standard Terms & Conditions of Sale, available upon request. Pricing valid for 30 days from date of quote. If you have any questions, please feel free to contact us.

If you have any questions or would like to discuss your application please feel free to contact your sales representative, Kevin Sommerville at 518-366-0771 or you can email him at kevin@thermalproducts.com

Regards
Amy Sommerville
E-mail – amy@thermalproducts.com

Corporate Office
964A Route 146
Clifton Park, NY 12065
sales@thermalproducts.com
T: (518) 877.0231

New England Office
T: (978) 567.7951
F: (978) 567.0817

Southeast Office
T: (770) 878.4840
F: (518) 877.3329

3-Way Temperature Control Valve

Model G, Versions GEF, GPD and Accessories

- Charge air cooling
- Secondary cooling systems
- Fuel and lube oil preheating
- Co-generation
- Engine jacket water

GPD Valve

GEF Valve

- Waste heat boilers
- Product coolers
- Product heaters
- Product condensers

- Ease of integration - valve size matches pipe size, resulting in reduced installation time and installation costs
-
  to suit installation
- Low pressure drop - compared to other valve types
- Small physical size
- Hand wheel allows manual adjustment of valve

  up and maintenance

Contents

3-Way Temperature Control Valve - Models GEF and GPD

Overview

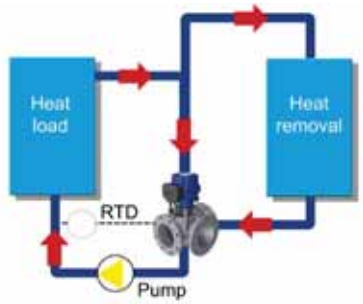
AMOT G valves are 3-way control valves consisting of a heavy duty rotary valve and either a quarter turn electric or pneumatic The high of accuracy and repeatability for accurate temperature control and are equally accurate wide flow

The heavy duty rotor design provides tight temperature control without high maintenance requirements. The system three ations: electric; pneumatic; electro-pneumatic, flexibility requirements. Designed for high vibration service, the AMOT G valves qualified Lloyd' Requirements shipboard V directly to reciprocating machinery, such as diesel engines, without The heavy duty actuators are specially reinforced to provide

The standard valves are suitable for a variety fluids such w , water/glycol, w , hydr body materials are available for services involving synthetic oils, deioniz w

Applications

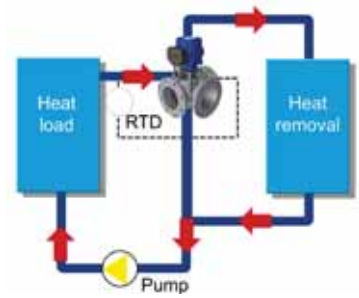
Mixing Applications



Lubricating oil temperature control is normally

the the heat The temperature is normally measured as close as the

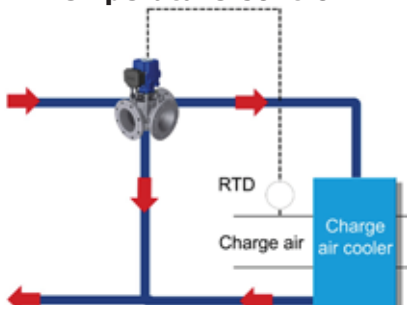
Diverting Applications



Jacket water cooling in diverting applications regulates the outlet coolant water temperature The either sends water to a cooler or bypass loop, accurately the

The temperature is normally measured at the the heat

Charge Air Temperature Control



The intercooler is used to cool high temperature charger

In this the G V the flow of cooling water through an intercooler, increasing efficiency, enhancing helping y' requirements.

System Types

Electric Valve

GEF Valve

For the electric valve, the actuator of the G valve assembly uses an electric motor which rotates in either direction in response to the ON-OFF The connected to the rotor shaft and turns the valve rotor clockwise or counter-clockwise, a maximum 90 A the el, switches are incorporated to isolate the electrical supply to the motor when the valve rotor has reached either the A feedback standard and provides position indication to the system.

The electric actuator is a rugged, compact and lightweight quarter turn actuator having enclosure IP65.

The actuator is powered by an electric motor worm-type The worm fluid It with standard, without power

A thermal erheating. Limit switches at each end of stroke disconnect power when strok reached. These

Electric System

Temperature Probe 8060

PID Controller 8071/2D, IP67

GEF Valve

The electric valve system incorporates the use of an electrically actuated three-way control valve with The 8071D PID Controller can be either panel or wall mounted 16 The system with type 8060 16

The electric G Valve system is simple to install with standard four core cable, and provides more accurate measurement and control than typical pneumatically systems.

System Types continued

Pneumatic Valve

GPD Valve

The pneumatic valve uses a spring return pneumatic actuator and positioner to control the rotation of the valve in response to an input signal from a pneumatic or electro-pneumatic system. The system sends a pneumatic signal ranging from 3 to 15 psi to the actuator to correctly position the valve at the The control system usually consists of a P+I pneumatic controller, sensor and the necessary air supply equipment (regulators, w

The pneumatic actuator is a rugged, quarter turn, double piston actuator operating on a scotch yoke

The with allowing necessary It with

Pneumatic System

SG80 T
Controller and Sensor

GPD Valve

The pneumatic valve system incorporates a pneumatically actuated three-way control valve with controller and integral temperature sensor, the SG80, which w the SG80, 18. The pneumatic G valve system is ideal when there is a lack of electricity or when a fail-safe system is

Electro-Pneumatic System

Temperature Probe 8060

Temperature Controller 8071D

Electro-Pneumatic Converter 8064A

GPD Valve

The electro-pneumatic valve system combines both electric and pneumatic technology, consisting of a pneumatically actuated three-way control valve with an electro-pneumatic converter, type 8064A. 17

The probe sends a resistance signal to the , which 4 20mA I/P that this

The electro-pneumatic system combines the features and functionality of the AMOT electronic system with the pneumatically

Overview of Valve Body

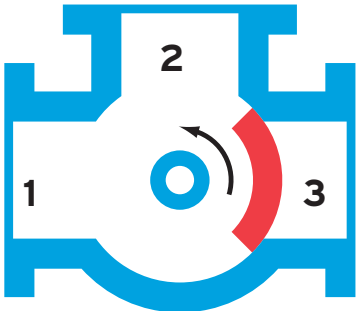
Valve Body

Key features and benefits

- Lightweight and compact
- Configurable ports - allowing flexibility on installation
- Low pressure drop - enables savings on either valve or pump size
- High accuracy providing better temperature control

	3000m³/hr	(13,200
Sizes:	50mm 400mm	(2” 16”)
Body	Cast (BS: 1452 250)	fresh w ,
	Bronz (BS: 1400 LG2)	w , shock resistance, magnetic permeability
	(BS: 3100 A1)	high strength high ratings
	Ductile (BS: 2789 SNG 420/12)	High
	(BS: 3100 316C16F)	Corrosiv
Rotor	Bronze or stainless steel	
Rotor shaft:	Stainless steel	
Shaft	Viton rubber (GEF)	Nitrile or Viton (GPD)
	Most DIN, ANSI and JIS standards	
Maximum valve	Cast iron, bronz	10 (145
	Steel and stainless steel	16 bar (232 psi)
Maximum of fluid:	100⁰C Refer to AMOT for higher temperature requirements	(212⁰F)

Specification: modes of oper



The unique the AMOT G flexibility by allowing you to select the valve port positions most ideally suited to meet y requirements. There two types ation:

1. 90 that allows either 1 3 the
2. 180 that requires 2 the

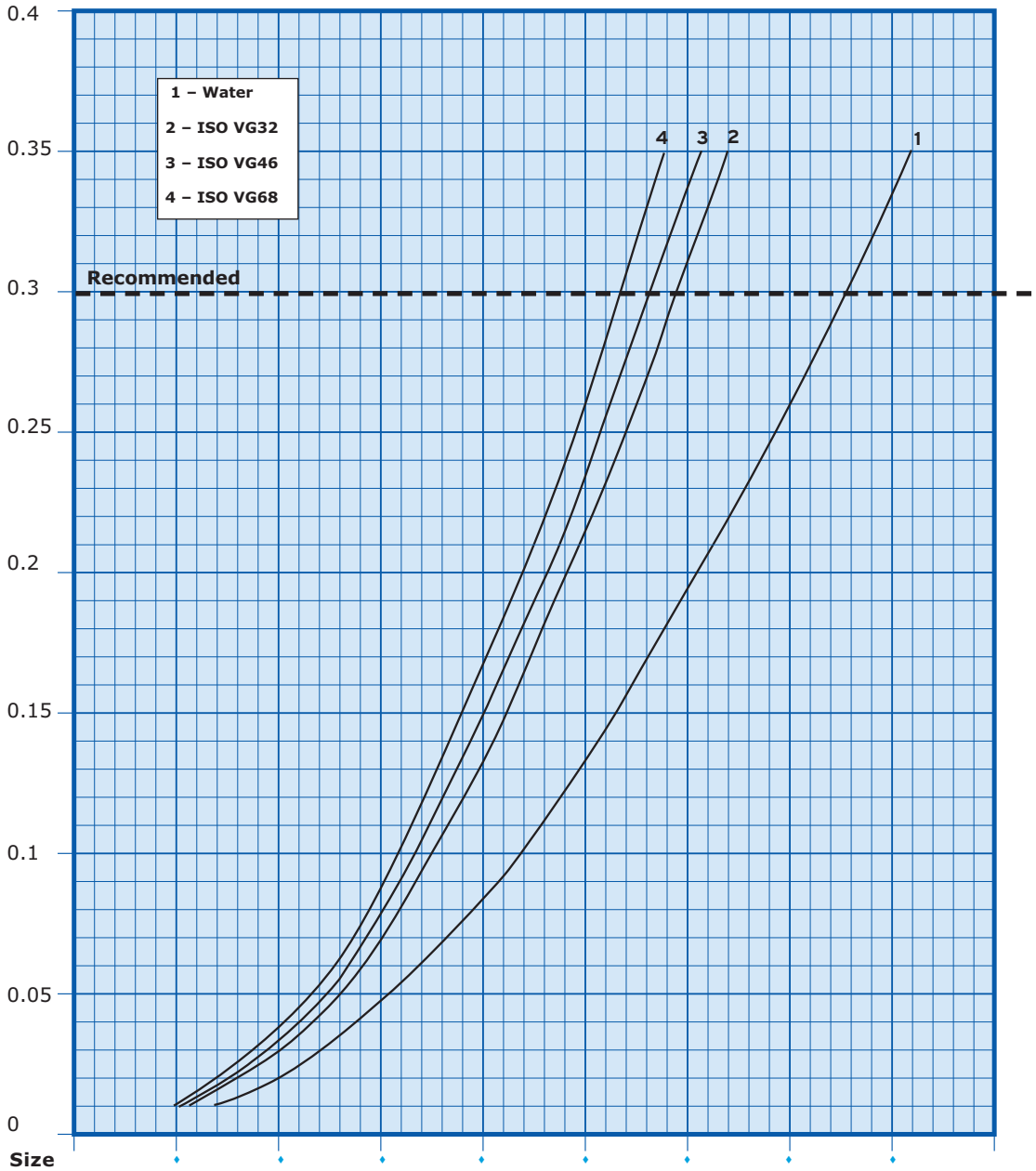
Arrow indicates valve movement with increasing temperature or mA, as viewed

	Electric actuator (basic actuator codes A & B)		Pneumatic actuator direct acting			Pneumatic actuator reverse acting		
	Cold position	Hot position	3 PSI (cold)	15 PSI (hot)	No signal	15 PSI (cold)	3 PSI (hot)	No signal
Mode 32								
Mode 21								
Mode 12								
Mode 23								
Mode 13								
Mode 31								

Note: 13 31 12” (DN300), 14” (DN350) 16” (DN400)

Valve Sizing (Metric units)

Valve selection curves for valves with 90° with 180° multiply y 2.

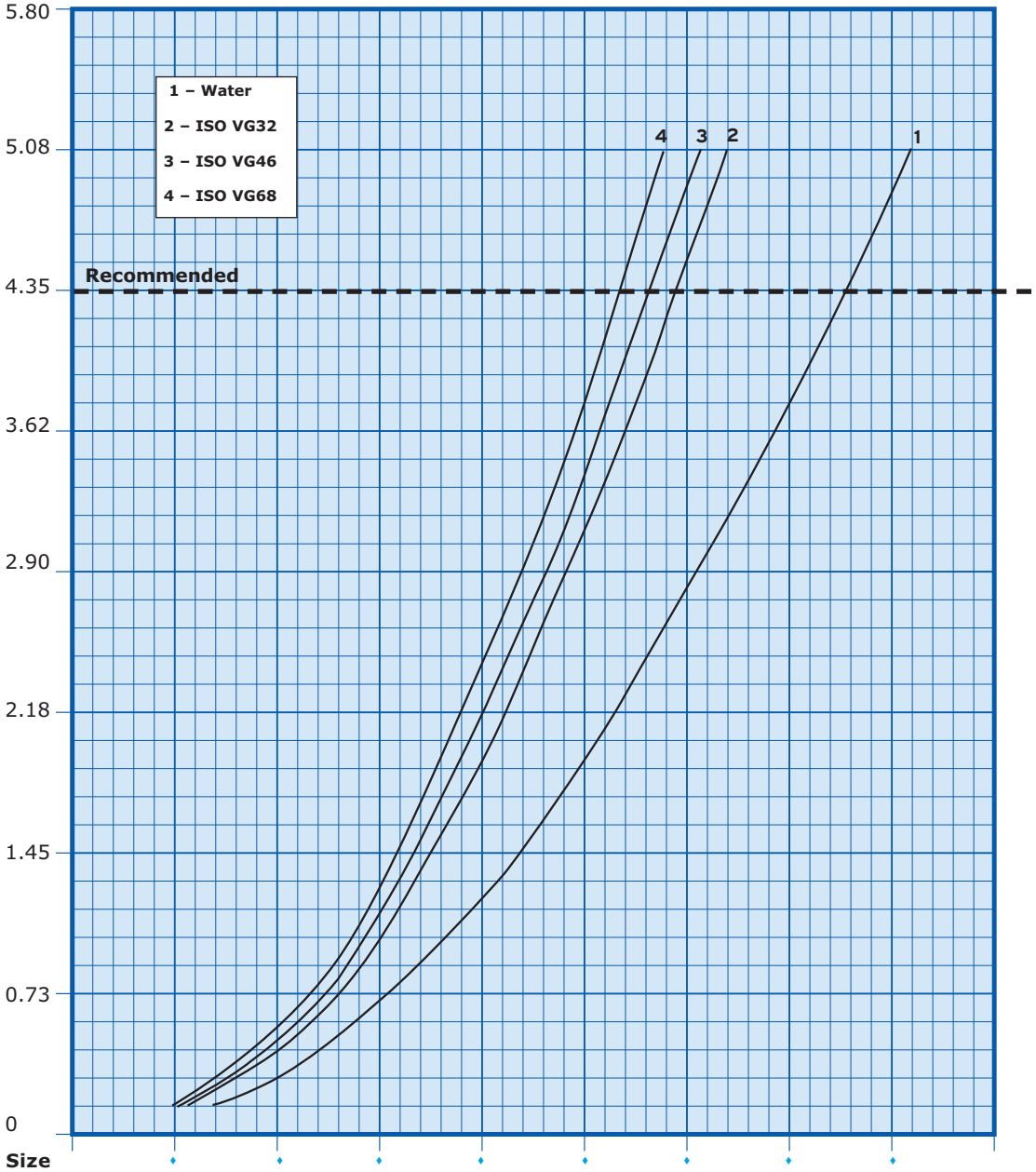


Size								
2G (50)	7	14	20	26	33	39	46	52
3G (80)	19	35	51	67	83	99	115	131
4G (100)	29	54	79	104	129	154	179	204
6G (150)		122	178	235	291	347	403	459
8G (200)	118	218	318	418	517	617	717	817
10G (250)	184	340	496	652	808	964	1120	1276
12G (300)	266	491	715	940	1164	1389	1613	1838
14G (350)	361	667	973	1279	1585	1890	2196	2502
16G (400)	472	871	1270	1670	2069	2468	2868	3267

^{3}/hr

Valve Sizing (English units)

Valve selection curves for valves with 90° with 180° multiply y 2.



US gallons/min

Size								
2G (50)	31	62	88	114	145	172	203	229
3G (80)	84	154	225	295	365	436	506	577
4G (100)	128	238	348	458	568	678	788	898
6G (150)	291	537	784	1035	1281	1528	1774	2021
8G (200)	520	960	1400	1840	2276	2717	3157	3597
10G (250)	810	1497	2184	2871	3558	4244	4931	5618
12G (300)	1171	2162	3148	4139	5125	6116	7102	8092
14G (350)	1589	2937	4284	5631	6979	8321	9669	11016
16G (400)	2077	3832	5588	7348	9104	10859	12619	14375

Valve Sizing

Viscosity Correction

the aph below:

100 0.68

0.68 flow flow Cv)

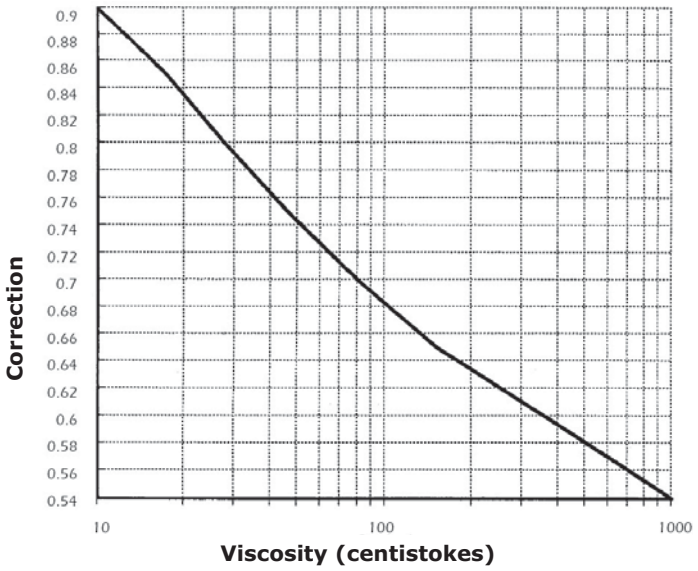
Some approximate viscosities (cSt) of AE 40°C (110°F) shown below, based on leading oil manufacturers published

the fluids than w , the following calculated:

Viscosity: the viscosity the fluid which the The viscosity normally centistok Where ISO used, the grade number is also the viscosity eg ISO VG46 46 centistok 40°C (104°F).

Viscosity correction: By the aph below, the flow established. The the aph should then by the flow which can then be used in the standard valve sizing

Viscosity Correction Curve (Fv)



Some approximate viscosities (cSt) of SAE oils at 40°C (104°F) shown below, manufacturers' published

SAE Oil Viscosities

Oil	**cSt**
SAE 5W	6.8
SAE 10W	32
SAE 20	46
SAE 20W	68
SAE 30	100
AE 40	150
SAE 50	220

Gear	
Oil	**cSt**
AE 75W	22
AE 80W	46
AE 85W	100
SAE 90	150
AE 140	460

Valve Sizing

Valve Sizing Calculations

Valve Flowrate

the below Cv:

Valve Type size (DN)	2G 50	3G 80	4G 100	6G 150	8G 200	10G 250	12G 300	14G 350	16G 400
Kv	82	207	323	729	1296	2025	2918	3972	5187
Cv	96	242	378	851	1513	2364	3405	4635	6053

Pressure Drop

The G valve is designed to produce minimal The when determining the size of an AMOT G valve is a between 0.01 0.3 (0.15 4.5 **Note**: Cv 90° only

the flow It the flow hour ³/h) w 16º with the 1 Cv the It the flow Gallons w 60º fahrenheit with the 1 0.865 Cv / Cv 1.156

The the is:

$$\sqrt{\frac{SG}{Dp}}$$

Flow ³/h)
Dp = Pressure drop (bar)
SG vity fluid
V flow

The the Cv is:

$$Cv \sqrt{\frac{SG}{Dp}}$$

Flow gallons/min)
Dp = Pressure drop (psi)
SG vity fluid
Cv V flow

There are two other ways that this formula can be used to the flow ³/h bar:

$$\sqrt{\frac{Dp}{SG}} \qquad Dp = \left[\frac{\ }{\ }\right]^2 SG$$

There are two other ways that this formula can be used to the flow gallons/minute PSI:

$$Cv\sqrt{\frac{Dp}{SG}} \qquad Dp = \left[\frac{\ }{Cv}\right]^2 SG$$

Valve Bypass Flowrates

The AMOT G V tight shutoff When used in a reasonably balanced pressure system there will be some small amounts of leakage between The leakage will vary with the pressure difference between these Consult AMOT further information if the application is sensitive to leakage rates or if high pressure differences are likely

Vibration

Exceeds the requirements of Lloyd's Register Type Appro ystem, Test Specification Number 1, 2002, Vibration Test 2.

Frequency	Displacement	Acceleration	Lloyd's
5 - 25 Hz	+/- 1.6mm		+/- 1.6mm
25 - 100 Hz		+/-5.0g (49 m/s^2)	+/- 4.0g (39 m/s^2)
100 - 300 Hz		+/- 1.0G (9.81 m/s^2) 90 minute	No requirement

Weight

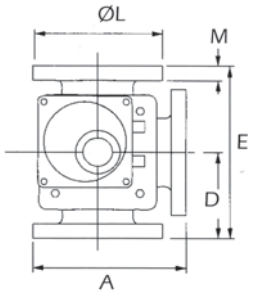
Approximate weight of pneumatic valve Kg (lbs)

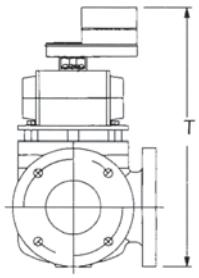
Material	2GPD	3GPD	4GPD	6GPD	8GPD	10GPD	12GPD	14GPD	16GPD
Cast Iron	19 (43)	29 (65)	34 (75)	82 (184)	142 (319)	183 (411)	289 (649)	429 (964)	583 (1310)
Bronze	21 (47)	32 (72)	41 (90)	96 (216)	160 (360)	205 (460)	313 (703)	479 (1076)	679 (1525)

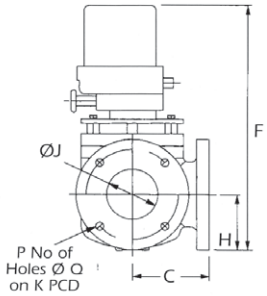
Approximate weight of electric valve Kg (lbs)

Material	2GEF	3GEF	4GEF	6GEF	8GEF	10GEF	12GEF	14GEF	16GEF
Cast Iron	22 (49)	32 (72)	47 (103)	86 (193)	146 (328)	187 (420)	295 (663)	435 (977)	575 (1292)
Bronze	24 (54)	35 (79)	54 (119)	100 (225)	164 (368)	209 (470)	319 (717)	485 (1089)	671 (1507)

Valve dimensions







Valve size nominal bore mm (inches)

Dimension/Connection		2G	3G	4G	6G	8G	10G	12G	14G	16G
A		197.5 (7.776)	240 (9.449)	260 (10.236)	327 (12.874)	395 (15.551)	469 (18.465)	574 (22.598)	624 (24.567)	706 (27.795)
C		115 (4.528)	140 (5.512)	150 (5.906)	185 (7.284)	225 (8.858)	260 (10.236)	300 (11.811)	340 (13.386)	385 (15.158)
D		115 (4.528)	140 (5.512)	150 (5.906)	185 (7.284)	225 (8.858)	260 (10.236)	300 (11.811)	340 (13.386)	385 (15.158)
E		230 (9.055)	280 (11.024)	300 (11.811)	370 (14.567)	450 (17.717)	520 (20.472)	600 (23.622)	680 (26.772)	770 (30.315)
F		386 (15.2)	421 (16.57)	477 (18.78)	567 (22.32)	676 (26.61)	783 (30.82)	902 (35.51)	1017 (40.04)	1093 (43.03)
H		82.5 (3.248)	100 (3.937)	126 (4.961)	142 (5.590)	170 (6.692)	252 (9.921)	297 (11.693)	339 (13.347)	378 (14.882)
ØJ		50 (1.969)	80 (3.150)	100 (3.937)	150 (5.906)	200 (7.874)	250 (9.843)	300 (11.811)	350 (13.780)	400 (15.748)
	PN 6	110 (4.3)	150 (5.9)	170 (6.7)	225 (8.8)	280 (11)	335 (13)	395 (15.5)	445 (17.5)	495 (19.4)
	PN 10	125 (4.912)	160 (6.299)	180 (7.087)	240 (9.449)	295 (11.614)	350 (13.714)	400 (15.748)	460 (18.110)	515 (20.276)
	PN 16	125 (4.921)	160 (6.299)	180 (7.087)	240 (9.449)	295 (11.614)	355 (13.967)	410 (16.142)	470 (18.504)	525 (20.670)
	ASA 125 Ib	120.6 (4.748)	152.4 (6.000)	190.5 (7.500)	241.3 (9.500)	298.5 (11.750)	361.95 (14.250)	431.8 (17.00)	467.3 (18.750)	539.75 (21.250)
	JIS 5K	—	—	165 (6.5)	230 (9)	280 (11)	—	390 (15.3)	—	—
	JIS 10K	—	—	175 (6.9)	240 (9.4)	290 (11.4)	—	—	—	—
ØL		165 (6.496)	200 (7.878)	220 (8.661)	285 (11.220)	340 (13.386)	405 (15.945)	460 (18.110)	520 (20.472)	580 (22.835)
M		20 (0.787)	22 (0.866)	24 (0.945)	27 (1.062)	28 (1.102)	28 (1.102)	28 (1.102)	30 (1.181)	32 (1.260)
P	PN 6	4	4	4	8	8	12	12	12	16
	PN 10	4	8	8	8	8	12	12	16	16
	PN 16	4	8	8	8	12	12	12	16	16
	ASA 125 Ib	4	4	8	8	8	12	12	12	16
	JIS 5K	—	—	8	8	8	—	12	—	—
	JIS 10K	—	—	8	8	8	—	—	—	—
	PN 6	14 (0.5)	19 (0.7)	19 (0.7)	19 (0.7)	19 (0.7)	18 (0.7)	22 (0.9)	22 (0.9)	22 (0.9)
	PN 10	18 (0.709)	18 (0.709)	18 (0.709)	23 (0.905)	23 (0.905)	22 (0.866)	22 (0.866)	22 (0.866)	26 (1.024)
	PN 16	18 (0.709)	18 (0.709)	18 (0.709)	23 (0.905)	23 (0.905)	26 (1.024)	26 (1.024)	26 (1.024)	30 (1.181)
	ASA 125 Ib	19 (0.748)	19 (0.748)	19 (0.748)	23 (0.905)	23 (0.905)	25.4 (1.000)	25.4 (1.000)	28.6 (1.125)	28.6 (1.125)
	JIS 5K	—	—	19 (0.7)	19 (0.7)	23 (0.9)	—	23 (0.9)	—	—
	JIS 10K	—	—	19 (0.7)	23 (0.9)	23 (0.9)	—	—	—	—
T		410 (16.4)	445 (17.5)	501 (19.7)	627 (24.7)	696 (27.4)	803 (31.6)	945 (37.2)	1060 (41.7)	1138 (44.80)

How to Order (Electric actuated valve)

the below the unique y GEF V

Please char each Each char with
that y will when

Valve size	Code	✔
2 inch (DN50)	2	
3 inch (DN80)	3	
4 inch (DN100)	4	
6 inch (DN150)	6	
8 inch (DN200)	8	
10 inch (DN250)	10	
12 inch (DN300)	12	
14 inch (DN350)	14	
16 inch (DN400)	16	

Type	Code	✔
Electric actuation	GEF	✔

Body	Code	✔
Cast iron and Viton	C*	
Bronze and Viton	B	
Ductile iron and Viton	D	
12” (DN300), 14” (DN350) 16” (DN400) Viton	S	
12” (DN300), 14” (DN350), 16” (DN400) Viton	R	

Connections	Code	✔
Flanged PN6	A	
Flanged PN10	B	
Flanged PN16	C	
Flanged ANSI 125lb	F	
Flanged ANSI 150lb	J	
JIS 10k	L	
JIS 5k	M	

* AMOT reserves the right to subsitute a ductile iron product in place of cast iron to meet customer delivery requirements.

Basic		Code	✔
200/240V	GEF only	A	
110/120V	GEF only	B	

Actuator	Code	✔
Standard – For detailed information see separate datasheet 05VA	0	
5K	1	
4-20mA with retransmit	A	
4-20mA with retransmit	B	
4-20mA with (4mA (GEF)	C	
4-20mA with error output (12mA ref) (GEF)	D	
As A’	E	
As ‘B’	F	
As ‘C’	G	
As ‘D’	H	
Switched live control with position retransmit (4mA ACW)	J	
As ‘J’ (4mA CW)		

Mode of (movement 7)	Rotor	Code	✔
Anti clockwise port 3 to port 2	Standard 90⁰	32	
Anti clockwise port 2 to port 1	Standard 90⁰	21	
Clockwise port 1 to port 2	Standard 90⁰	12	
Clockwise port 2 to port 3	Standard 90⁰	23	
Anti clockwise port 1 to port 3	180⁰ (2”, 3”, 4”, 6”, 8” 10” only)	13	
Clockwise port 3 to port 1	180⁰ (2”, 3”, 4”, 6”, 8” 10” only)	31	

How to Order (Pneumatic actuated valve)

the below the unique y GPD V

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Valve size	Code	✔
2 inch (DN50)	2	
3 inch (DN80)	3	
4 inch (DN100)	4	
6 inch (DN150)	6	
8 inch (DN200)	8	
10 inch (DN250)	10	
12 inch (DN300)	12	
14 inch (DN350)	14	
16 inch (DN400)	16	

Type	Code	✔
Pneumatic actuation	GPD	✔

Body /	Code	✔
Bronze and Nitrile	B	
Cast iron and Nitrile	C*	
Ductile iron and Nitrile	D	
Cast steel and Nitrile	S	
Stainless steel and Nitrile	R	
Bronze and Viton	E	
Cast iron and Viton	F*	
Ductile iron and Viton	G	
Cast steel and Viton	H	
Stainless steel and Viton	J	

	Code	✔
Flanged PN6	A	
Flanged PN10	B	
Flanged PN16	C	
Flanged ANSI 125lb	F	
Flanged ANSI 150lb	J	
JIS 10k	L	
JIS 5k	M	

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Actuator	Actuator	Code	✔
0.21 1.03 Bar (3 15 psi) Command signal	BSP	B	
	NPT	F	
0.21 1.03 Bar (3 15 psi) Command signal with manual override	BSP	C	
	NPT	G	
Pneumatic 4 20mA Command signal with manual override	Contact AMOT		
Pneumatic 4 20mA Command signal			

Type	Code	✔
Pneumatic actuation	0	✔

Valve	Required	Code	✔
Anticlockwise Port 3 to Port 2 90°	Direct	E	
	Reverse	N	
Anticlockwise Port 2 to Port 1 90°	Direct	F	
	Reverse	P	
Clockwise Port 1 to Port 2 90°	Direct	G	
	Reverse	R	
Clockwise Port 2 to Port 3 90°	Direct	H	
	Reverse	S	
Anticlockwise Port 1 to Port 3 180° (2”, 3”, 4”, 6”, 8” 10” only)	Direct	L	
	Reverse	M	
Clockwise Port 3 to Port 1 180° (2”, 3”, 4”, 6”, 8” 10” only)	Direct	J	
	Reverse		

Accessories

PID Valve Controllers 8071/8072D and Solid State Relays 47581L001

PID Controller 8072D

Solid State Relay 47581L001

PID Controller 8071D

Key features and benefits

- Fully programmable PID-based control - allows easy system configur
- ersal inputs; RTD's, thermocouple, or standard 4-20mA signal giv system design flexibility
- Can be operated in manual mode - easy maintenance and set up

For further information and how to order these products see Datasheet_8071_2_D_47851.pdf

3-Wire PT100 Temperature Sensor - 8060

Temperature Sensor 8060

Key features and benefits

- 3 wire RTDs - accurate temperature measurement
- Excellent long term stability
- Good linearity
- Can use standard 3-core cable

For further information and how to order this product see Datasheet_8060_temp_sensor.pdf

Accessories

Solid State Relay Module - 8073C

Relay Module

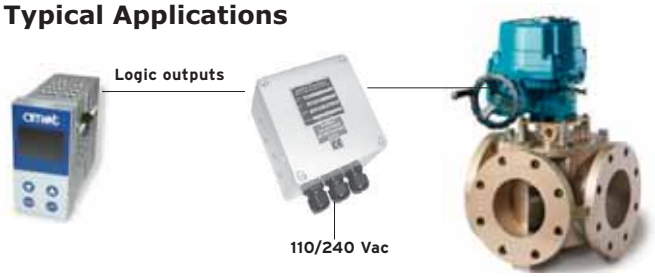
8073C

Key features and benefits

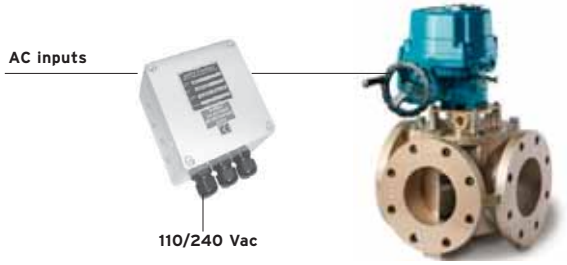
- IP67 enclosure
- Alternative to using two SSRs type 47581L001
- Good linearity
- Can use standard 3-core cable

The 8073C y two ys with IP67 The 8073C with the 8071D controller logic outputs to drive voltages for the electrically G include: zero-crossing switching, relay and logic level inputs IP67

Typical Applications



Interface 8071D



Interface AC

For further information and how to order this product see Datasheet_8073C_SSR.pdf

Electro-Pneumatic Converter - 8064A

Typical Application

Electro-Pneumatic Converter - 8064A

Temperature Probe 8060 | Temperature Controller 8071D | Electro-Pneumatic Converter 8064A | G Valve

Key features and benefits

- High vibration resistance - Lloyds 4G
- Suitable for longer pipe runs
- Fully adjustable for optimised system operation
- ATEX hazardous area certification

For further information and how to order this product see Datasheet_8064A_C_elect_pneu_converter.pdf

Accessories

Electro-Pneumatic Converter - 8064C

Typical Application

Electro-Pneumatic Converter - 8064C

Key benefits - 8064C

- Accepts high supply pressure - avoids use of additional regulator
- Factory set for ease of installation
- Low cost alternative to 8064A
- ATEX hazardous area certification

Electro-pneumatic system

Temperature probe 8060 | Temperature controller 8071D | Electro-pneumatic converter 8064C | G valve

For further information and how to order this product see Datasheet_8064A_C_elect_pneu_converter.pdf

Pneumatic Indicator Controller - SG80

Indicator Controller SG80

Key features and benefits

- Complete stand alone controller, no other control components required - reduced system cost
- Easily removable components - low maintenance
- Good dynamic response - gives optimum engine performance
- Compatible with every type of pneumatic e - flexible

Typical Application

SG80 T Controller and Sensor | G Valve

For further information and how to order this product see Datasheet_SG80_Pneu_Ind_Controller.pdf

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